

**BECKLEY SANITARY BOARD
RALEIGH COUNTY, WEST VIRGINIA**

**CITY AVENUE AND PIKEVEIW DRIVE SANITARY SEWER AND STORMWATER
EMERGENCY REHABILITATION PROJECT**

ADDENDUM #2

JANUARY 17, 2022

THRASHER PROJECT #020-10093

TO WHOM IT MAY CONCERN:

A Pre-Bid Conference was held on Wednesday, January 5, 2022 on the above-referenced project, a copy of the sign in sheet is included in this Addendum. 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.**

B. SPECIFICATIONS

- Davis Bacon Specifications Section 22. DB1, DB2, DB3, DB4, DB5, DB6, DB7 have been replaced and Davis Bacon language has been struck through. **DAVIS BACON WAGE RATES DO NOT APPLY.**
- C-800, page 28 has been replaced and Davis Bacon language has been struck through. **DAVIS BACON WAGE RATES DO NOT APPLY.**
- Bid Form C-410 has been replaced.

C. DRAWINGS

The following drawing sheets have been revised:

- Index – Added sheet E-1 and DET-8
- Sheet 4 –
 - Changed 12” HDPE to 12” DIP and adjusted quantities

- Added Concrete Flared End Wingwall with Removable Trash Rack
- Lengthened Rip Rap
- Added Notes
- Sheet 5 – Same changes as made to Sheet 4
- Sheet 6 – Same changes as made to Sheet 4
- Sheet 8 – Deleted OPTI Control Panel Detail
 - Added Note for Electrical Panel Canopy
- DET-1 – Added “City Streets Trench Repair” Detail

The following drawing sheets have been added:

- E-1 – Added Sheet – Electrical Panel Canopy
- DET-8 – Added Sheet Showing
 - “Concrete Flared End Wingwall with Removable Trash Rack” Detail

D. QUESTIONS AND RESPONSES

N/A

E. CLARIFICATIONS

1. Bid Item #: 46 has been added for City Streets Trench Repair, as well as a detail update on sheet DET-1.
2. Bid Item #: 47 has been added for Concrete Flared End Wingwall with Removable Trash Rack, as well as detail update on sheet DET-8.
3. Quantity revisions have been made on the Bid Form for the following items:
 - Bid Item #: 19
 - Bid Item #: 45
4. Davis Bacon Specifications DO NOT APPLY and have been struck through.

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., L.P.T., on Friday, January 21, 2022 at Beckley Sanitary Board, Raleigh County, West Virginia. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.

ANTHONY BROWN, P.E.
Project Engineer



Davis Bacon Contract Requirements

3. ~~Contract and Subcontract provisions.~~

~~(a) The Recipient shall insure that the **subrecipient(s)** shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses:~~

~~(1) Minimum wages.~~

~~(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.~~

~~Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis Bacon poster (WH 1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.~~

~~**Subrecipients** may obtain wage determinations from the U.S. Department of Labor's web site, www.wdol.gov.~~

~~(ii)(A) The **subrecipient(s)**, on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The EPA award official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:~~

~~(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and~~

~~(2) The classification is utilized in the area by the construction industry; and~~

~~(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.~~

~~(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the **subrecipient(s)** agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the **subrecipient(s)** to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the State award official or will notify the State award official within the 30 day period that additional time is necessary.~~

~~(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the **subrecipient(s)** do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the questions, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30 day period that additional time is necessary.~~

~~(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.~~

~~(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.~~

~~(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.~~

~~(2) Withholding. The **subrecipient(s)**, shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally assisted contract subject to Davis Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the~~

contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the **subrecipient**, that is, the entity that receives the sub grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the **subrecipient** shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH 347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the **subrecipient** (s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the **subrecipient** (s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

~~(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;~~

~~(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;~~

~~(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.~~

~~(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH 347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.~~

~~(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.~~

~~(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.~~

~~(4) Apprentices and trainees—~~

~~(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid~~

at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

~~(8) Compliance with Davis Bacon and Related Act requirements. All rulings and interpretations of the Davis Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.~~

~~(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and **Subrecipient(s)**, State, EPA, the U.S. Department of Labor, or the employees or their representatives.~~

~~(10) Certification of eligibility.~~

~~(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis Bacon Act or 29 CFR 5.12(a)(1).~~

~~(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis Bacon Act or 29 CFR 5.12(a)(1).~~

~~(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.~~

~~4. Contract Provision for Contracts in Excess of \$100,000.~~

~~(a) Contract Work Hours and Safety Standards Act. The **subrecipient** shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFF 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.~~

~~(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.~~

~~(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.~~

~~(3) Withholding for unpaid wages and liquidated damages. The **subrecipient**, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or~~

~~subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.~~

~~(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.~~

~~(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in [29 CFR 5.1](#), the **Subrecipient** shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the **Subrecipient** shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.~~

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ARTICLE 18—MISCELLANEOUS

18.08 *Assignment of Contract*

SC-18.08 Add the following new paragraph immediately after Paragraph 18.08.A:

- B. The contract dated **[date]** between Owner as “buyer” and **[identify seller]** as “seller” for procurement of goods and special services (“procurement contract”) **[is hereby] [will be]** assigned to Contractor by Owner, and Contractor **[accepts] [will accept]** such assignment. A form documenting the assignment is attached as an exhibit to this Contract.
1. This assignment will occur on the **[Effective Date of the Contract]**, and will relieve the Owner as “buyer” from all further obligations and liabilities under the procurement contract.
 2. Upon assignment, the “seller” will be a Subcontractor or Supplier of the Contractor, and Contractor will be responsible for seller’s performance, acts, and omissions, as set forth in Paragraph 7.07 of the General Conditions just as Contractor is responsible for all other Subcontractors and Suppliers.
 3. Notwithstanding this assignment, all performance guarantees and warranties required by the procurement contract will continue to run for the benefit of the Owner and, in addition, for the benefit of the Contractor.
 4. Except as noted in the procurement contract, all rights, duties and obligations of Engineer to “buyer” and “seller” under the procurement contract will cease **[upon the assignment to Contractor]**.

SC-18.11 – Add new paragraph immediately after Paragraph 18.10:

18.11 *Tribal Sovereignty*

- A. No provision of this Agreement will be construed by any of the signatories as abridging or debilitating any sovereign powers of the *[insert name of Tribe]* Tribe; affecting the trust-beneficiary relationship between the Secretary of the Interior, Tribe, and Indian landowner(s); or interfering with the government-to-government relationship between the United States and the Tribe.

SC-18.12 - Add new paragraph immediately after Paragraph 18.11:

18.12 *Contractor Qualifications*

- A. To demonstrate qualifications to perform the Work, the apparent successful Bidder must be prepared to submit within five (5) days of Owner's request written evidence of previous experience and evidence of authority to conduct business in the jurisdiction where the Project is located. Each Bid must contain evidence of Bidder's qualification to do business in West Virginia.

SC-18.13 – Add new paragraph immediately after Paragraph 18.12:

18.13 *Labor Standards and Wage Rates*

- ~~A. Contractors are required to comply with all laws pertaining to prevailing wage rates for the federal wage rates issued in accordance with the Davis Bacon Act.~~

BID FORM FOR CONSTRUCTION CONTRACT

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

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

*Beckley Sanitary Board
301 South Heber Street
Beckley, WV 25801*

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

ARTICLE 2—ATTACHMENTS TO THIS BID

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

A. Bid Opening Requirements

Note: Bid Opening Requirements (BOR-9) includes the American Iron and Steel Certification which needs to be filled out and signed by the Contractor.

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

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 City Avenue and Pikeview Drive Sanitary Sewer and Stormwater Emergency Rehabilitation. ~~The Project "Sequence of Construction" has been detailed in the Drawings and Specification Division 1, Project Summary, Section 044000.~~ **The Bidder shall coordinate with the Owner and Engineer on a "Sequence of Construction"**. The Bidder agrees to perform all the Work proposed for the total of the following Bid prices.

3.01 *Lump Sum Bids*

- A. Bidder will complete the Work in accordance with the Contract Documents for the lump sum (stipulated) price(s), together with any Unit Prices indicated in Paragraph 3.02 and shown in the bid schedule.
- B. Lump Sum Bids may be one of the following:
 - 1. Lump Sum Price (Single Lump Sum)
 - 2. Lump Sum Price (Base Bid and Alternates)
 - 3. Lump Sum Price (Sectional Lump Sum Bids)
- C. All specified cash allowance(s) are included in the price(s) set forth in the bid schedule, and have been computed in accordance with Paragraph 13.02 of the General Conditions.
- D. All specified contingency allowances are included in the price(s) set forth in the bid schedule, and have been computed in accordance with Paragraph 13.02 of the General Conditions.

3.02 *Unit Price Bids*

- A. Bidder will perform the following Work at the indicated unit prices as shown in the Bid Schedule.
- B. 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 Work will be based on actual quantities, determined as provided in the Contract Documents.

3.03 *Total Bid Price (Lump Sum and Unit Prices)*

BID SCHEDULE

**PROPOSED
 CITY AVENUE AND PIKEVIEW DRIVE SANITARY SEWER AND STORMWATER EMERGENCY REHABILITATION
 PROJECT
 FOR THE**

**BECKLEY SANITARY BOARD
 RALEIGH COUNTY, WEST VIRGINIA**

NOTE: Bid 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 (Maximum 5% of total bid)			
2	1	LS	Pre-Construction Video of Project Area			
3	1	LS	Erosion & Sediment Control (Maximum 3% of total bid)			
4	320	LF	12" PVC SDR-35 Gravity Sewer Line (0-6') (Owner to Supply 12" PVC Pipe)			

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
5	550	LF	12" PVC SDR-35 Gravity Sewer Line (6-9') (Owner to Supply 12" PVC Pipe)			
6	275	LF	12" PVC SDR-35 Gravity Sewer Line (9-12') (Owner to Supply 12" PVC Pipe)			
7	40	LF	12" PVC SDR-35 Gravity Sewer Line (12-15') (Owner to Supply 12" PVC Pipe)			
8	275	LF	8" PVC SDR-35 Gravity Sewer Line (0-6') (Owner to Supply 8" PVC Pipe)			
9	210	LF	8" PVC SDR-35 Gravity Sewer Line (6-9') (Owner to Supply 8" PVC Pipe)			
10	111	LF	8" PVC SDR-35 Gravity Sewer Line (9-12') (Owner to Supply 8" PVC Pipe)			
11	30	LF	8" PVC SDR-35 Gravity Sewer Line (12-15') (Owner to Supply 8" PVC Pipe)			

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
12	35	LF	6" PVC SDR-35 Gravity Sewer Line (0-6') (Owner to Supply 6" PVC Pipe)			
13	80	LF	6" PVC SDR-35 Gravity Sewer Line (6-9') (Owner to Supply 6" PVC Pipe)			
14	20	LF	12" HDPE Storm Pipe (0-6') (Owner to Supply 12" HPDE Pipe)			
15	20	LF	15" HDPE Storm Pipe (0-6') (Owner to Supply 15" HPDE Pipe)			
16	360	LF	24" HDPE Storm Pipe (0-6') (Owner to Supply 24" HPDE Pipe)			
17	80	LF	24" HDPE Storm Pipe (6-9') (Owner to Supply 24" HPDE Pipe)			
18	60	LF	24" HDPE Storm Pipe (9-12') (Owner to Supply 24" HPDE Pipe)			

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
19	120	LF	12" Class 50 Ductile Iron Sewer Line (0'-6') (Owner to Supply 12" DIP)			
20	7	EA	Install new 48" Diameter Manhole Base, Cone Top, Watertight Casting and Lid (Owner to Supply Manhole Structure and Frame & Cover)			
21	8	EA	Remove and Replace 48" Diameter Manhole Base, Cone Top, Watertight Casting and Lid (Owner to Supply Manhole Structure and Frame & Cover)			
22	31	VF	48" Diameter Manhole Riser Pipe (Owner to Supply Manhole Structure Riser Pipe)			
23	210	LF	16" Steel Casing (Bore & Jack) (Owner to Supply 16" Steel Casing)			
24	60	LF	16" Steel Casing (Open Cut) (Owner to Supply 16" Steel Casing)			
25	210	LF	4" PVC SDR 35 Service Lateral Pipe (Owner to Supply 4" PVC SDR Pipe)			

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
26	20	EA	4" Gravity Terminal Line Cleanout & Customer Reconnect (Owner to Supply 4" Cleanout Assembly)			
27	2	EA	6" Gravity Terminal Line Cleanout w/Frame & Cover (Owner to Supply 6" Cleanout Assembly)			
28	1	EA	8" Gravity Terminal Line Cleanout w/Frame & Cover (Owner to Supply 8" Cleanout Assembly)			
29	15	EA	Connection of Proposed Gravity Sewer Line to Existing Manhole			
30	50	CY	Unclassified Excavation			
31	20	EA	12" x 4" PVC Wye Service Connection (Owner to Supply 12" x 4" Cleanout Assembly)			
32	12	EA	8" x 4" PVC Wye Service Connection (Owner to Supply 8" x 4" Cleanout Assembly)			

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
33	3	EA	8" x 6" PVC Wye Service Connection (Owner to Supply 8" x 6" Cleanout Assembly)			
34	2600	LF	Reclamation of Disturbed Area (Seeding and Mulching)			
35	100	LF	Gravel Driveway/Road Repair			
36	700	LF	WVDOH Type "B" Trench Repair with Pavement			
37	1	LS	Adaptive Control System & Installation Including Electrical Power Drop, Pole, and System Controls, Control Panel			
38	1	LS	8ft High Chain Link Fence with 12ft Wide Double Swing Gate, 4ft Pedestrian Gate, and Access Road			
39	350	SY	Drainage Ditch Slope Protection			

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
40	1	EA	36" Concrete Headwall Structure			
41	1	EA	72" Drop Inlet w/ Fiberglass Grate (Owner to Supply Drop Inlet)			
42	1	EA	48" Drop Inlet w/ Type I Grate (Owner to Supply Drop Inlet)			
43	5	EA	48" Drop Inlets – Remove and Replace (Owner to Supply Drop Inlet) w/ Type 1 Grate			
44	4	EA	Demolish and backfill 4 existing manholes			
45	394	LF	12" Rip Rap			
46	124	LF	City Streets Trench Repair			

Item #	Qty.	UNIT	DESCRIPTION	UNIT PRICE	UNIT PRICE WRITTEN IN WORDS	TOTAL PRICE
47	1	LS	Concrete Fared End Wingwall with Removable Trash Rack			

TOTAL BID: _____
(Words)

_____ (\$ _____)
(Words) (Figures)

(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.

3.04 *Method of Award*

Method of Award = Lowest Qualified Bidder (Regular)

If at the time this contract is to be awarded, the lowest total bid submitted by a qualified, responsive, 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 exceeds such amount, the owner may reject all bids.

~~ARTICLE 4 – BASIS OF BID – COST PLUS FEE~~

~~4.01 The Contract Price will be the Cost of the Work, determined as provided in Paragraph 13.01 of the General Conditions, together with the following fee, and subject to the Guaranteed Maximum Price:~~

~~4.02 Contractor’s Fee~~

~~A. Contractor’s fee will be [number] percent of the Cost of the Work. No fee will be payable on the basis of costs itemized as excluded in Paragraph 13.01.C of the General Conditions.~~

~~1. The maximum amount payable by Owner as a percentage fee (Guaranteed Maximum Fee) will not exceed \$[insert cap amount], subject to increases or decreases for changes in the Work.~~

~~B. Contractor’s fee will be determined by applying the following percentages to the various portions of the Cost of the Work as defined in Article 13 of the General Conditions. No fee will be payable on the basis of costs itemized as excluded in Paragraph 13.01.C of the General Conditions:~~

Costs	Percent
Payroll costs (See Paragraph 13.01.B.1, General Conditions)	
Materials and Installed Equipment cost (GC 13.01.B.2)	
Amounts to be paid to Subcontractors (GC 13.01.B.3)	
Amount to be paid to special consultants (GC 13.01.B.4)	
Other costs (GC 13.01.B.5)	

~~1. The maximum amount payable by Owner as a percentage fee (Guaranteed Maximum Fee) will not exceed \$[insert cap amount], subject to increases or decreases for changes in the Work.~~

~~C. Contractor’s fee will be the fixed sum of \$[number].~~

4.03 *Guaranteed Maximum Price*

A. ~~The Guaranteed Maximum Price to Owner of the Cost of the Work including Contractor's Fee will not exceed \$[Bidder fill in GMP].~~

Deleted

~~ARTICLE 5 — PRICE PLUS TIME BID~~

5.01 *Price Plus Time Contract Award (Stipulated Price Contract)*

A. ~~The Bidder to which an award of the Contract will be made will be determined in part on the basis of the Total Bid Price and the total number of calendar days to substantially complete the Work, in accordance with the following:~~

	Description		Amount
A	1. Total Bid Price		\$(number)
	2. Total number of calendar days to substantially complete the Work	{number} days	
	3. Liquidated Damages Rate (from Agreement)	\$(number)/day	
B	4. Adjustment Amount (2 x 3)		\$(number)
A+B	5. Amount for Comparison of Bids		\$(number)

B. ~~The purpose of the process in the table above is only to calculate the lowest price plus time (A+B) bid amount for bid comparison purposes. The price for completion of the Work (the Contract Price) is the Total Bid Price.~~

C. ~~Bonds required under Paragraph 6.01 of the General Conditions will be based on the Contract Price.~~

5.02 *Price Plus Time Contract Award (Cost Plus Fee with Guaranteed Maximum Price Contract)*

A. ~~The Bidder to which an award of Contract will be made will be determined in part on the basis of the Guaranteed Maximum Price and the total number of calendar days to substantially complete the Work, in accordance with the following:~~

	Description		Amount
A	1. Guaranteed Maximum Price		\$(number)
	2. Total number of calendar days to substantially complete the Work	{number} days	
	3. Liquidated Damages Rate (from Agreement)	\$(number)/day	
B	4. Adjustment Amount (2 x 3)		\$(number)
A+B	5. Amount for Comparison of Bids		\$(number)

B. ~~The purpose of the process in the table above is only to calculate the lowest price plus time (A+B) bid amount for bid comparison purposes. The price for completion of the Work (the Contract Price) is based on the cost of the Work, plus a fee, subject to a guaranteed maximum price, as set forth in the Agreement.~~

C. ~~Bonds required under Paragraph 6.01 of the General Conditions will be based on the Contract Price.~~

Deleted

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 agrees that the Work will be substantially complete on or before [Bidder inserts date], and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before [Bidder inserts date].~~

Deleted

6.03 ~~Bidder agrees that the Work will be substantially complete within [Bidder inserts number] calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within [Bidder inserts number] calendar days after the date when the Contract Times commence to run.~~

Deleted

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

ARTICLE 7—BIDDER’S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

7.01 *Bid Acceptance Period*

A. 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.

7.02 *Instructions to Bidders*

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

7.03 *Receipt of Addenda*

A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 8—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

8.01 *Bidder’s Representations*

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

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work, **including all American Iron and Steel requirements.**

4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

8.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.

- b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
- c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
- d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

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

Attest: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

Address for giving notices:

Bidder's Contact:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Phone: _____

Email: _____

Address: _____

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

WVDOH GENERAL NOTES

ALL CONSTRUCTION ON THE DIVISION OF HIGHWAYS RIGHT OF WAY WILL CONFORM TO THE FOLLOWING:
THE FOLLOWING NOTES APPLY TO ALL PROJECT PLAN SHEETS

- NOTIFICATION OF PROPOSED EXCAVATION, DEMOLITION OR ANY OTHER EARTH DISTURBING ACTIVITIES ARE REQUIRED TO BE PLACED TO MISS UTILITY OF WEST VIRGINIA (1-800-245-4848) NOT LESS THAN FORTY EIGHT (48) BUSINESS HOURS BEFORE ANY SUCH WORK IS TO BEGIN.
- BEDDING SHALL BE PLACED ON ASPHALT SURFACE TO PROTECT THE PAVEMENT WHEN A TRENCHER OR TRACKED VEHICLE IS USED.
- THE WEST VIRGINIA DIVISION OF HIGHWAYS PUBLICATIONS "STANDARD SPECIFICATIONS ROADS AND BRIDGES" AND "ACCOMMODATIONS OF UTILITIES ON HIGHWAY RIGHT OF WAY" LATEST EDITION ARE PART OF THE PROJECT SPECIFICATIONS AND WILL BE ADHERED TO BY THE CONTRACTOR.
- ALL DAMAGE TO ROAD SURFACE SHALL BE REPAIRED ACCORDING TO THE WEST VIRGINIA DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS AND DETAILS.
- ALL EXISTING DUMP ROCK OR RIP RAP DITCHES DISTURBED BY THE SEWER & STORM LINE CONTRACTOR SHALL BE RESTORED WITH THE SAME SIZE, GRADE AND QUALITY OF ROCK AFTER THE WATER LINE HAS BEEN INSTALLED. NEW DUMP ROCK (RIP RAP) IS TO BE PLACED IN ALL LOCATIONS WHERE THE DITCH LINE GRADE IS GREATER THAN 5% AND THERE IS NO EXISTING RIP RAP.
- TRAFFIC CONTROL SHALL CONFORM TO THE W.V.D.O.H. PUBLICATION "TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE" OPERATION LATEST EDITION.
- ALL BACKFILL MATERIAL AND COMPACTION REQUIREMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THE ACCOMMODATION OF UTILITIES ON HIGHWAY RIGHT OF WAY ADJUSTMENT AND RELOCATION OF UTILITY FACILITIES ON HIGHWAY PROJECTS AND SUBJECT TO W.V.D.O.H. APPROVAL. EVIDENCE OF PROPER COMPACTION BY TESTING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TESTING SHALL BE ONE (1) PER DAY OR EVERY 500 LINEAL FEET OR AS DETERMINED BY THE DISTRICT MANAGER (ENGINEER) OR HIS AUTHORIZED REPRESENTATIVE.
- SEWER & STORM LINES OR OTHER LINES SHALL BE PLACED EITHER AROUND, UNDER OR OVER DRAINAGE CULVERTS AS SHOWN ON PLANS
- AGGREGATE SHOULDER STONE IS TO BE PLACED ON THE SHOULDER AT A THICKNESS EQUAL TO 6" OR ITS ORIGINAL THICKNESS WHICHEVER IS GREATER. PAVED SHOULDERS WILL BE PAVED.
- MAGNETIC MARKING TAPE SHALL BE INSTALLED AT A DEPTH OF 12" TO 18" BELOW THE SURFACE AND DIRECTLY ABOVE ALL LINES OR PIPE.
- REPAIR TO DRIVEWAYS ON W.V.D.O.H. RIGHT OF WAYS SHALL CONFORM TO THE APPROPRIATE W.V.D.O.H. TYPICAL REPAIR DETAIL.
- CLEANUP WILL BE ACCOMPLISHED DAILY. RIGHT OF WAYS SHALL CONFORM TO THE APPROPRIATE W.V.D.O.H. REPAIR. ALL CULVERTS AND DRAINAGE DITCHES SHALL BE OPEN AND MAINTAINED DURING CONSTRUCTION. SHOULDERS WILL BE RESTORED AND STABILIZED WITH STONE DAILY WITH APPROPRIATE STONE AT THE DISCRETION OF W.V.D.O.H.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITHIN SEVEN DAYS OF COMPLETION OF BACK FILL OPERATION.
- NO EXCESS EXCAVATION MATERIAL SHALL BE WASTED ON W.V.D.O.H. RIGHT OF WAYS WITHOUT THE AGREEMENT OF THE W.V.D.O.H.
- THE W.V.D.O.H. RESERVES THE RIGHT TO RELOCATE SEWER & STORM LINES, FIRE HYDRANTS, AND VALVES AS DEEMED NECESSARY.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING UTILITY COMPANIES, PRIOR TO CONSTRUCTION TO OBTAIN UTILITY LOCATIONS AND PERFORMING EXPLORATORY WORK TO DETERMINE SUBSURFACE MATERIALS AND STRUCTURES THAT MAY AFFECT ITS WORK.
- PRIOR TO THE START OF ANY WORK WITHIN STATE HIGHWAY RIGHT-OF-WAY, THE CONTRACTOR SHALL GIVE THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION 48 HOURS NOTICE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY OFFSITE DISPOSAL REQUIRED. DISPOSAL SHALL BE TO AN ACCEPTABLE LEGAL SITE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL AT DISPOSAL SITES.
- ALL ELEVATION GRADES AND DISTANCES SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE PRIOR TO CONSTRUCTION
- ALL CONSTRUCTION SHALL MAINTAIN 5' FROM EDGE OF PAVEMENT OR BOTTOM OF DITCH UNLESS NO OTHER PRACTICAL MEANS OF CONSTRUCTION EXISTS.
- PERFORM ACCEPTABLE REPAIR OF ANY AND ALL SUB-BASE FAILURES THAT ARE CAUSED BY THE CONTRACTOR'S OPERATION ON A DAILY BASIS.
- PERFORM TOTAL REPAIR AND/OR REPLACEMENT OF ANY DAMAGED ASPHALT SURFACE AS DETERMINED BY THE W.V.D.O.H REPRESENTATIVE.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL MAKE A COMPLETE VIDEO SHOWING THE ROAD SURFACE OF THE ENTIRE PROJECT OF ROADS TO BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT AND PRESENT IT TO UTILITY SUPERVISOR W.V.D.O.H.
- REMOVE DITCH-LINE OBSTACLES AND/OR RECONSTRUCTION OF THE DITCH-LINE.
- IN THE CASE OF MANHOLES OR VALVES IF AT ALL POSSIBLE BE PLACED OUTSIDE THE ROADWAY, SHOULDER, OR DITCH LINE IF PLACED IN THE SHOULDER THERE IS TO BE A MINIMUM OF 6 INCHES OF COVER IN THE DITCH LINE THERE IS TO BE 12 INCHES OF COVER BETWEEN THE MANHOLE AND THE INVERT OF THE OF THE DITCH.
- ANY MANHOLES OR VALVES OR VALVE BOXES PLACED IN THE ROADWAY WILL BE ON THE SAME PLANE AS THE ROADWAY AND SET FLUSH WITH ROADWAY.
- ANY ROADS REQUIRING AN H.L.B.C. OVERLAY, FULL WIDTH OR PARTIAL, SHALL HAVE SHOULDER STONE FROM AN APPROVED SOURCE PLACED AS PER W.V.D.O.H. SPECIFICATIONS.
- THE DEPARTMENT OF HIGHWAYS REQUIRES THERE BE NO WORK WITHIN THE DEPARTMENT'S RIGHT-OF-WAY DURING SNOW AND ICE REMOVAL. THERE MAY BE EXCEPTIONS FOR EMERGENCY AND CASE BY CASE SITUATIONS WITH NOTIFICATION TO THE DEPARTMENT.

GENERAL NOTES

- EXISTING UTILITIES
A.) EXISTING UTILITIES SHOWN ON PLANS WHERE EVIDENCE HAS BEEN FOUND OR PROVIDED BY LOCAL UTILITIES. EXACT DEPTH AND LOCATION OF UTILITY LINES NOT KNOWN. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CROSSING BY CONTACTING MISS UTILITY AT 811 OR (1-800-245-4848) AND LOCAL UTILITY COMPANIES AS LISTED AND/OR NOT LISTED ON THIS SHEET.
B.) CONTRACTOR TO LOCATE WATER AND UTILITY SERVICES BEFORE BORING AND JACKING.
- RIGHT-OF-WAYS
A.) PRIVATE PROPERTY - TEMPORARY CONSTRUCTION EASEMENTS TO BE 20' (10' EITHER SIDE OF CENTERLINE) PERMANENT RIGHT-OF-WAY TO BE 10' (5' EITHER SIDE OF CENTERLINE).
B.) D.O.H. ROADWAYS - CONSTRUCTION RIGHT-OF-WAY TO BE HELD TO THE DEPARTMENT OF HIGHWAYS RIGHT-OF-WAY AND STILL MAINTAIN A SAFE TRAFFIC FLOW, UNLESS OTHERWISE SHOWN.
C.) PROPERTY LINES SHOWN ON PLANS ARE APPROXIMATE LOCATION AND INFORMATION SHOWN WAS TAKEN FROM TAX MAPS.
- WATER AND SEWER SEPARATION
A.) HORIZONTAL SEPARATION 10' MIN.
B.) VERTICAL SEPARATION 18" MIN.
- IN THE EVENT OF AN ERROR WITH THE PLANS SEEMS APPARENT, THE MATTER SHALL BE TAKEN UP WITH THE ENGINEER FOR CAREFUL REVIEW BEFORE PROCEEDING WITH CONSTRUCTION.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE STANDARDS AND SPECIFICATIONS PROVIDED IN A SEPARATE BOUND VOLUME.
- CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE TYPES AND O.D. PRIOR TO CONNECTION.
- ANY ROAD WAYS NOT SCHEDULED FOR REPAIRS AS SHOWN ON BID SCHEDULE AND ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- ALL BIDDERS ARE REQUIRED TO HAVE A WEST VIRGINIA CONTRACTOR'S LICENSE PER SECTION 21-11-11 OF THE WEST VIRGINIA CODE.
- CONTRACTOR SHALL SUBMIT A PLAN OF THE CONSTRUCTION SEQUENCE TO BECKLEY SANITARY BOARD FOR APPROVAL PRIOR TO CONSTRUCTION.
- DELIVERY OF OWNER FURNISHED/CONTRACTOR INSTALLED PRODUCTS FROM THE MANUFACTURER/SUPPLIER SHALL BE ARRANGED BY THE OWNER AND SAID PRODUCT(S) SHALL BE STORED BY OWNER AT THE STAGING AREA DESIGNATED AT 316 NEW RIVER DRIVE, BECKLEY WEST VIRGINIA (STAGING AREA).
- CONTRACTOR SHALL TAKE OWNERSHIP OF ANY OWNER FURNISHED/CONTRACTOR INSTALLED PRODUCTS UPON HANDLING, MOVING, TRANSPORTING, OR COLLECTING OF PRODUCT(S) AT THE STAGING AREA. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER OF ANY DAMAGED OR DEFECTIVE PRODUCT(S) AT THE STAGING AREA PRIOR TO HANDLING, MOVING, TRANSPORTING, OR COLLECTING OF THE PRODUCT(S). CONTRACTOR WILL BE RESPONSIBLE FOR REPLACEMENT OF ANY DAMAGED OR DEFECTIVE PRODUCT(S) ONCE THE CONTRACTOR HANDLES, MOVES, TRANSPORTS OR COLLECTS THE PRODUCT(S).
- STORAGE AND HANDLING OF OWNER FURNISHED/CONTRACTOR INSTALLED PRODUCT(S) SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SPECIFICATION AND THE SPECIFICATION FOR THE PARTICULAR PRODUCT.

EROSION & SEDIMENT CONTROL NOTES

- ALL EROSION AND SEDIMENT MEASURES TO BE IN ACCORDANCE WITH WEST VIRGINIA ONLINE BMP MANUAL FOR STANDARD GUIDELINES AND SPECIFICATIONS AVAILABLE AT: [HTTP://WWW.DEP.WV.GOV/WVE/PROGRAMS/STORMWATER/CSW/PAGES/ESC_BMP.ASPX](http://www.dep.wv.gov/wve/PROGRAMS/STORMWATER/CSW/PAGES/ESC_BMP.ASPX)
- EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN SHOWN ON PLANS AND DETAILED IN SPECIFICATIONS.
- DISTURBED AREA TO BE STABILIZED WITH TEMPORARY AND FINAL SEEDING AS DESCRIBED IN SPECIFICATIONS. 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 DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE FOURTH 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 RESEED IMMEDIATELY, OR A SOON AS WEATHER CONDITIONS ALLOW. INSPECTION FREQUENCY 4 DAYS & WITHIN 24 HOURS OF PRECIPITATION EVENT 0.25" OR GREATER.
- TEMPORARY CONSTRUCTION RIGHT OF WAY LINE REPRESENTS LIMITS OF DISTURBANCE. WHERE PLANS DEPICT SEWER ALIGNMENT AS A SINGLE LINE, THE LOD IS ASSUMED TO BE 10-FEET WIDE. STORMWATER INLETS & DRAINS MUST BE PROTECTED WITH APPROPRIATE BMP'S.
- IN AREAS WHERE STORMWATER DRAINAGE WILL NOT FLOW INTO DESIGNATED ROAD SIDE DITCH, PERIMETER BMP'S MUST BE INSTALLED DOWN SLOPE OF DISTURBANCE.
- ALL BORE PITS OUTSIDE OF CONCRETE OR ASPHALT SURFACES SHALL HAVE BELTED SILT RETENTION FENCE. REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEETS.

LEGEND

	EXISTING SIGN
	EXISTING TELEPHONE/ELECTRIC POLE
	EXISTING GUARDRAIL
	EXISTING FIRE HYDRANT
	EXISTING WATER METER WITH EXISTING SERVICE LINE
	EXISTING SEPTIC TANK
	EXISTING GRAVITY SEWER
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING FENCE
	EXISTING STREAM/DITCHES/PONDS
	EXISTING STORM DRAIN
	EXISTING CATCH BASIN
	EXISTING TREE LINE
	EXISTING CONTOUR
	RESIDENCE TO RECEIVE NEW WATER SERVICE
	EXISTING PAVED/CONCRETE ROAD AND DRIVEWAYS
	EXISTING GRAVEL ROAD
	EXISTING SPOT ELEVATION
	EXISTING BASEMENT FINISHED FLOOR ELEVATION
	EXISTING GRAVITY MANHOLE
	EXISTING ROAD RIGHT OF WAY
	EXISTING PROPERTY LINE
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC CONDUIT
	PARCEL NUMBER
	EXISTING DROP INLET
	PROPOSED WATER LINE
	PROPOSED WATER METER WITH NEW SERVICE LINE
	PROPOSED AIR RELEASE VALVE
	PROPOSED FIRE HYDRANT
	PROPOSED POST FLUSHING HYDRANT
	PROPOSED BORE PIT
	PROPOSED HIGH PRESSURE METER SERVICE
	PROPOSED LOW PRESSURE METER SERVICE
	PROPOSED CASINGS
	PROPOSED PERMANENT RIGHT OF WAY
	PROPOSED TEMPORARY CONSTRUCTION EASEMENT/LOD
	PROPOSED BELTED SILT RETENTION FENCE
	PROPOSED EROSION CONTROL MATTING
	PROPOSED USER NUMBER
	PROPOSED FENCE
	PROPOSED GRAVITY SEWER
	PROPOSED 4" SERVICE LATERAL
	PROPOSED GRAVITY MANHOLE
	PROPOSED GRAVITY CLEANOUT
	PROPOSED FORCEMAIN AIR/VAC RELEASE VALVE
	PROPOSED FORCEMAIN PRESSURE INLINE CLEANOUT
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED OVERHEAD ELECTRIC
	PROPOSED SPOT ELEVATION
	PROPOSED DROP INLET

UTILITY AGENCIES SERVING PROJECT AREA

TELEPHONE FRONTIER COMMUNICATIONS 304-250-1686	WATER WV AMERICAN WATER 1-883-685-3660	MISS UTILITY 811 or 1-800-245-4848
ELECTRIC AMERICAN ELECTRIC POWER 4600 ROBERT C. BYRD DR. BECKLEY, WV 25801 1-800-956-4237	GAS: MOUNTAINEER GAS 1-800-834-2070	SEWER BECKLEY SANITARY BOARD 304-256-1760

**WEST VIRGINIA DIVISION
OF HIGHWAYS**
DISTRICT TEN
270 HARDWOOD LN.
PRINCETON, WV 24740
304-487-5228

**RESPONSE TEAMS
NATIONAL RESPONSE CENTER FOR
REPORTING
CHEMICAL OR OIL SPILLS**
1-800-424-8802
**STATE EMERGENCY SPILL
NOTIFICATION**
1-800-642-3074
**AMBULANCE, FIRE, LAW
ENFORCEMENT**
911

SHEET INDEX

COVER	COVER SHEET
INDEX	INDEX SHEET
1	EXISTING SANITARY SEWER- PLAN AND PROFILE
2	PROPOSED SANITARY SEWER- PLAN AND PROFILE
3	PROPOSED SANITARY SEWER- PLAN AND PROFILE
4	PROPOSED STORM SEWER- PLAN AND PROFILE
5	PROPOSED SANITARY & STORM SEWER PLAN
6	PROPOSED SANITARY & STORM SEWER PLAN
7	PROPOSED SANITARY SEWER-PLAN AND PROFILE
8	OPTI DETAILS
E-1	ELECTRICAL DETAILS
DET-1	STANDARD DETAILS
DET-2	STANDARD DETAILS
DET-3	STANDARD DETAILS
DET-4	STANDARD DETAILS
DET-5	STANDARD DETAILS
DET-6	STANDARD DETAILS
DET-7	STANDARD DETAILS
DET-8	STANDARD DETAILS
ES-1	EROSION AND SEDIMENT CONTROL DETAILS
ES-2	EROSION AND SEDIMENT CONTROL DETAILS
ES-3	EROSION AND SEDIMENT CONTROL NOTES
ES-4	EROSION AND SEDIMENT CONTROL NOTES

ADDENDUM #2

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101-020-10093	

**BECKLEY SANITARY BOARD
CITY AVENUE AND PIKEVIEW DRIVE
SANITARY SEWER AND
STORMWATER EMERGENCY REHABILITATION
INDEX**

SHEET No.

1

USER: joseph_boggs

LAYOUT: INDEX

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CAD FILE: R:\020\020-10093\00-BSE-CITY AVE SEWER Emergency Work At Central Ave\INDEX.dwg

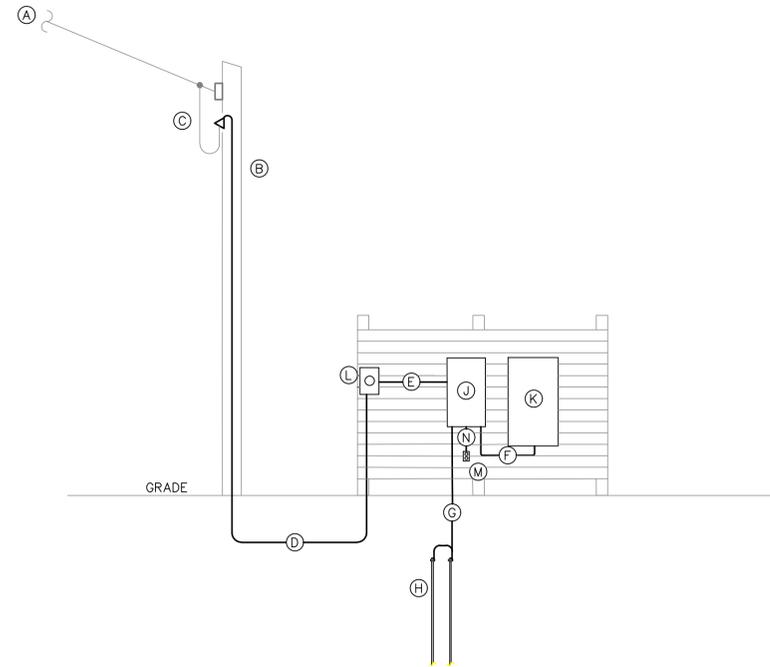
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Panel: P																	
NEMA-1		NEMA-3R		X		NEMA-4X Stainless Steel											
Location:		240/120 Volts,		1 Phase,		3 Wire											
Main Lug Only				X		Main Breaker											
Bus Rating:		Amps				Main Breaker: 100 Amps											
Minimum Interrupting Capacity:						22,000 Amps Sym.											
Flush Mount		X				Surface Mount											
Provide if checked:		X				Isolated Ground Bus											
		X				Equipment Ground Bus											
						Gutter Taps											
						Through-Feed Lugs											
Serving	Load (Watts)	Cond. Size	Wire Size	C/B Trip	Cir. No.	Key Notes	A	C	Key Notes	Cir. No.	C/B Trip Amps	Wire Size	Cond. Size	Load (Watts)	Serving		
OPTI CONTROL PANEL- CNTRL POWER	1800	1"	#12	1P/20	1		X			2	1P/20	#12	3/4"	360	RECEPTACLE		
					3			X		4							
					5		X			6							
					7			X		8							
					9		X			10							
					11			X		12							
Total Load-Odd Circuit (Watts)	1800	1. All wire size: #12 AWG minimum except as noted.										360	Total Load-Even Circuit (Watts)				
Total Load-Panel (Watts)	2160	2. All conduit size: 3/4 inch minimum except as noted.										9.0	Total Connected Full Load Amps				
		3. Ground fault interrupting circuit breaker.										11.3	Total Derated Connected Full Load Amps				
		4. Spare circuit breaker.															
		5. Space only.															
		6. Shunt-trip circuit breaker.															
		7. Arc-fault circuit breaker.															
		8. Solenoid operated circuit breaker.															
		9. Breaker lock-on clip.															
		10. Tamper-resistant outlets															

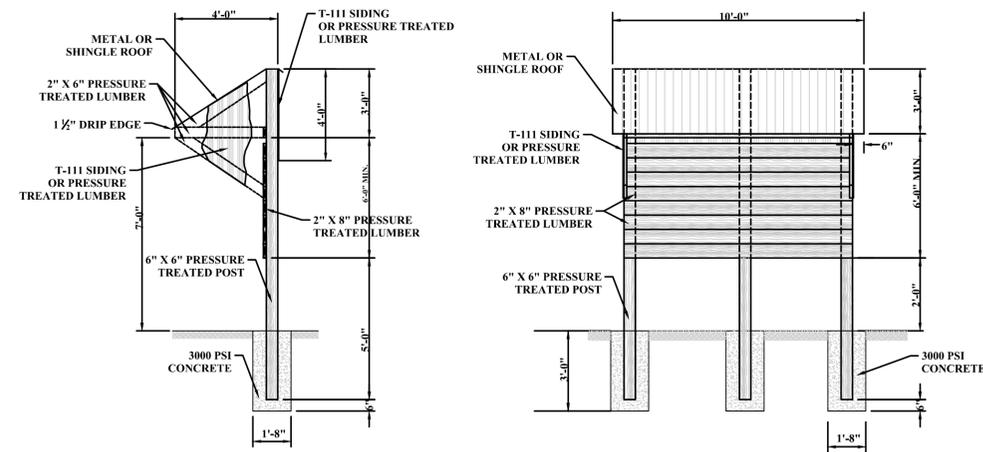
POWER SOURCE TO OPTI CONTROL PANEL 2



RISER KEY NOTES:

- (A) 120/240V, 1Ø, SERVICE BY POWER CO.
- (B) EXISTING POWER COMPANY POWER POLE.
- (C) 1½" WEATHER HEAD WITH DRIP LOOP.
- (D) 1½" CONDUIT WITH 3-#1 CABLES.
- (E) 1½" CONDUIT WITH 3-#1 CABLES AND 1-#6 GROUND.
- (F) 1" CONDUIT WITH 2-#12 WIRES AND 1-#12 GROUND.
- (G) #4 BARE, SOLID COPPER GROUND WIRE.
- (H) 2 GROUND RODS AND CLAMPS PER POWER COMPANY SPECIFICATIONS.
- (J) 120/240V, 100A, NEMA 4X SS PANEL "P".
- (K) OPTI CONTROL PANEL.
- (L) 120/240V, 100A, METER.
- (M) GFCI WEATHERPROOF OUTLET.
- (N) 3/4" CONDUIT WITH 2-#12 WIRES AND 1-#12 GROUND

ELECTRICAL PANEL DIAGRAM 2



TYPICAL ELECTRICAL PANEL CANOPY DETAIL 2

NO.	BY	DATE	DESCRIPTION
1	JWB	1/13/22	ADDENDUM #2

ADDENDUM #2

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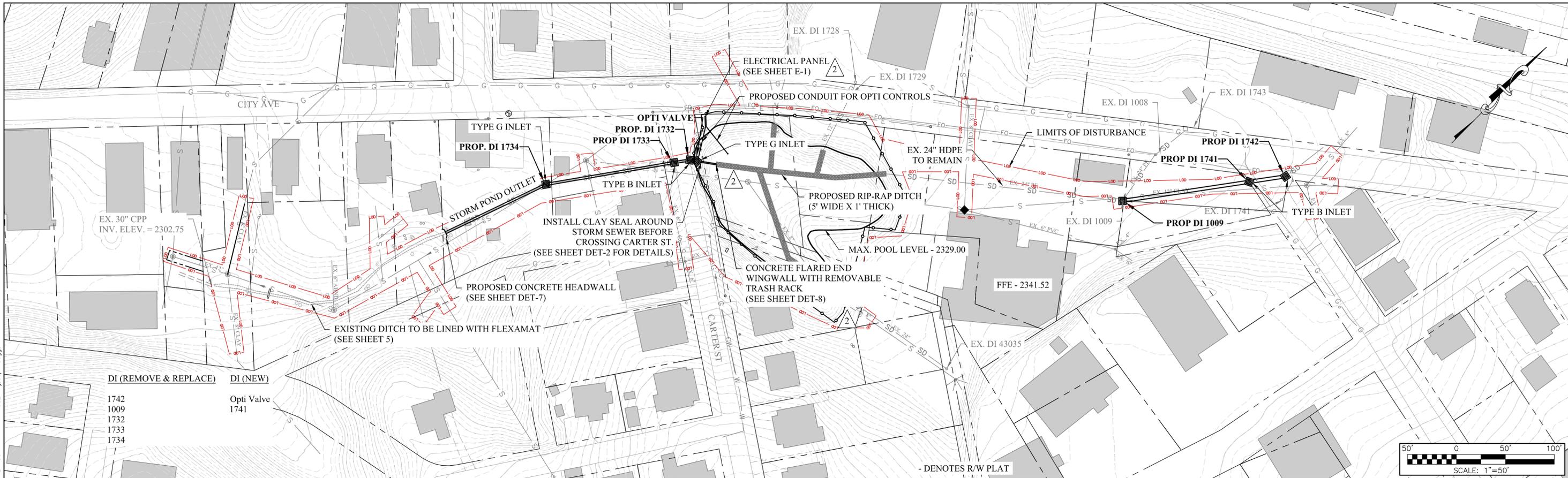
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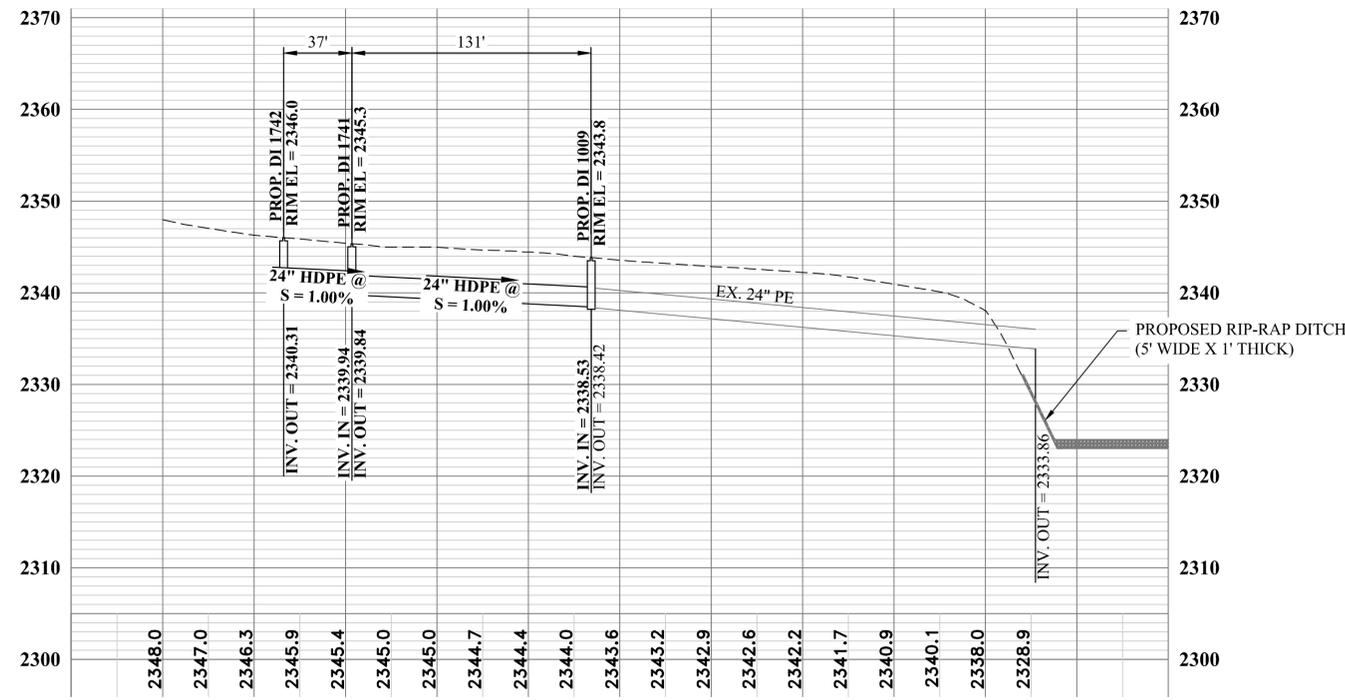
BECKLEY SANITARY BOARD
 CITY AVENUE AND PIKEVIEW DRIVE
 SANITARY SEWER AND
 STORMWATER EMERGENCY REHABILITATION
 ELECTRICAL DETAILS

SHEET No.	E-1
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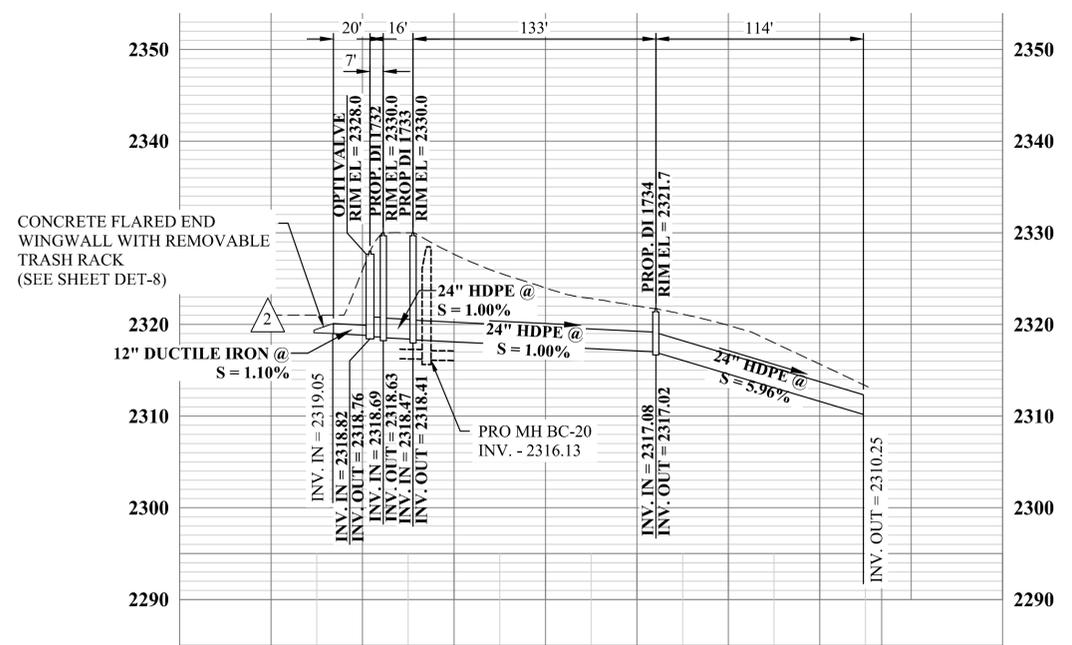


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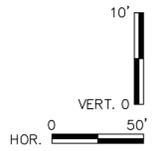
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STORM SEWER 01



STORM POND OUTLET



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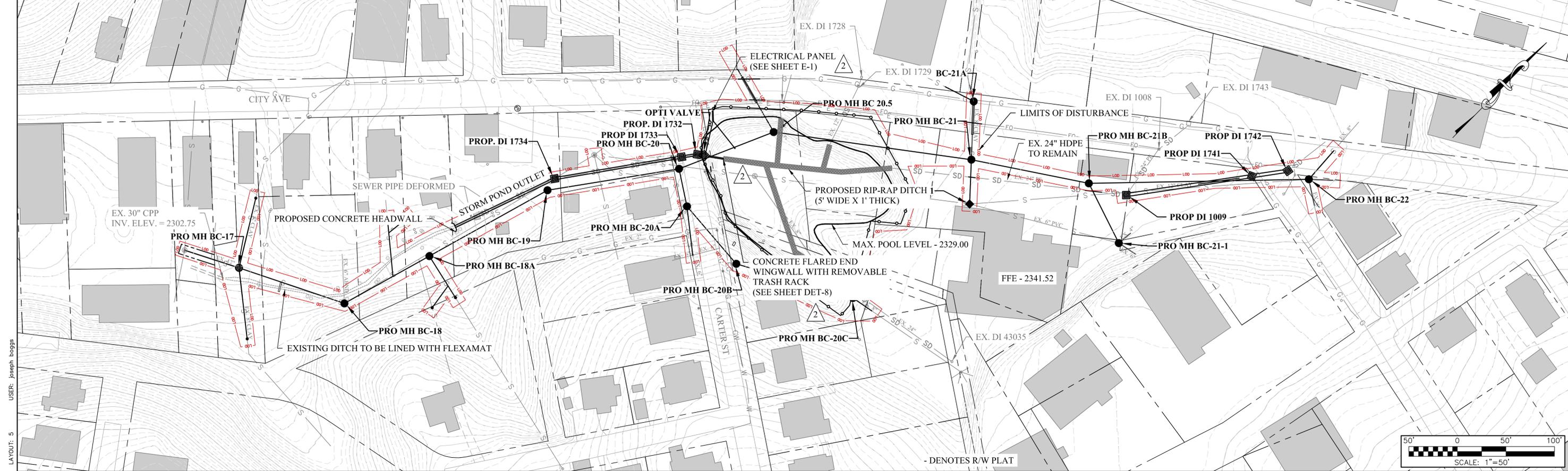
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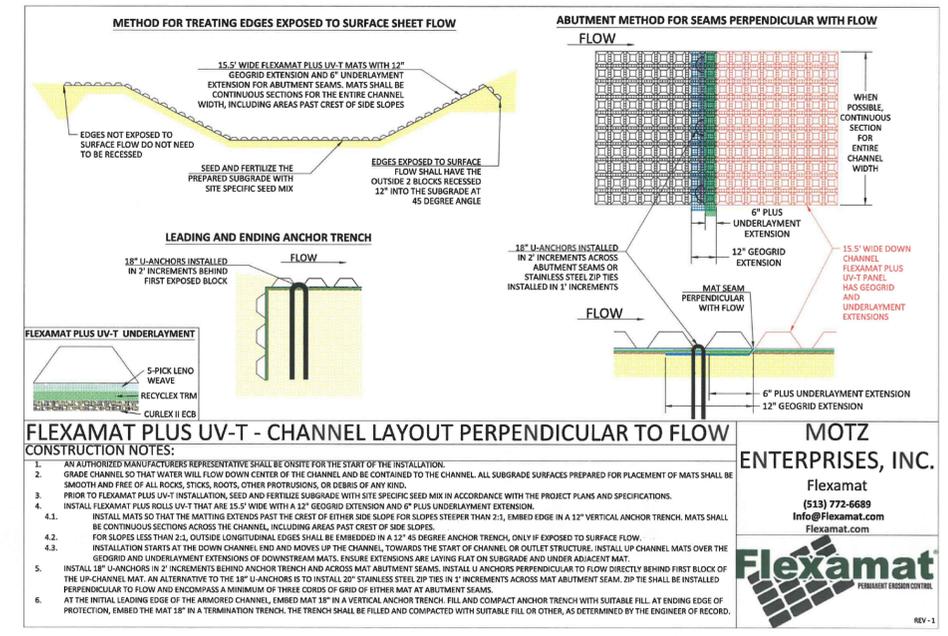
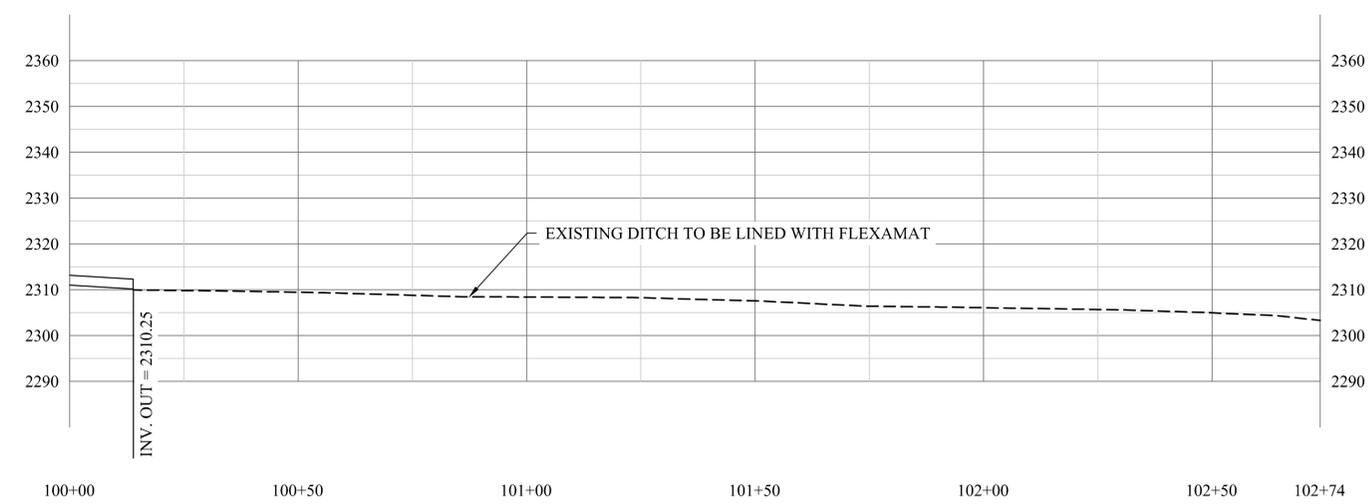
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CONTRACT No.	1
PROJECT No.	101-020-10093

BECKLEY SANITARY BOARD
 CITY AVENUE AND PIKEVIEW DRIVE
 SANITARY SEWER AND
 STORMWATER EMERGENCY REHABILITATION
 PROPOSED STORM SEWER
 PLAN AND PROFILE

SHEET No.
4



Outlet Ditch PROFILE



FLEXAMAT INSTALLATION DETAIL

USER: joseph boggs
 LAYOUT: 5
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ADDENDUM #2

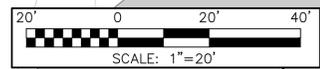
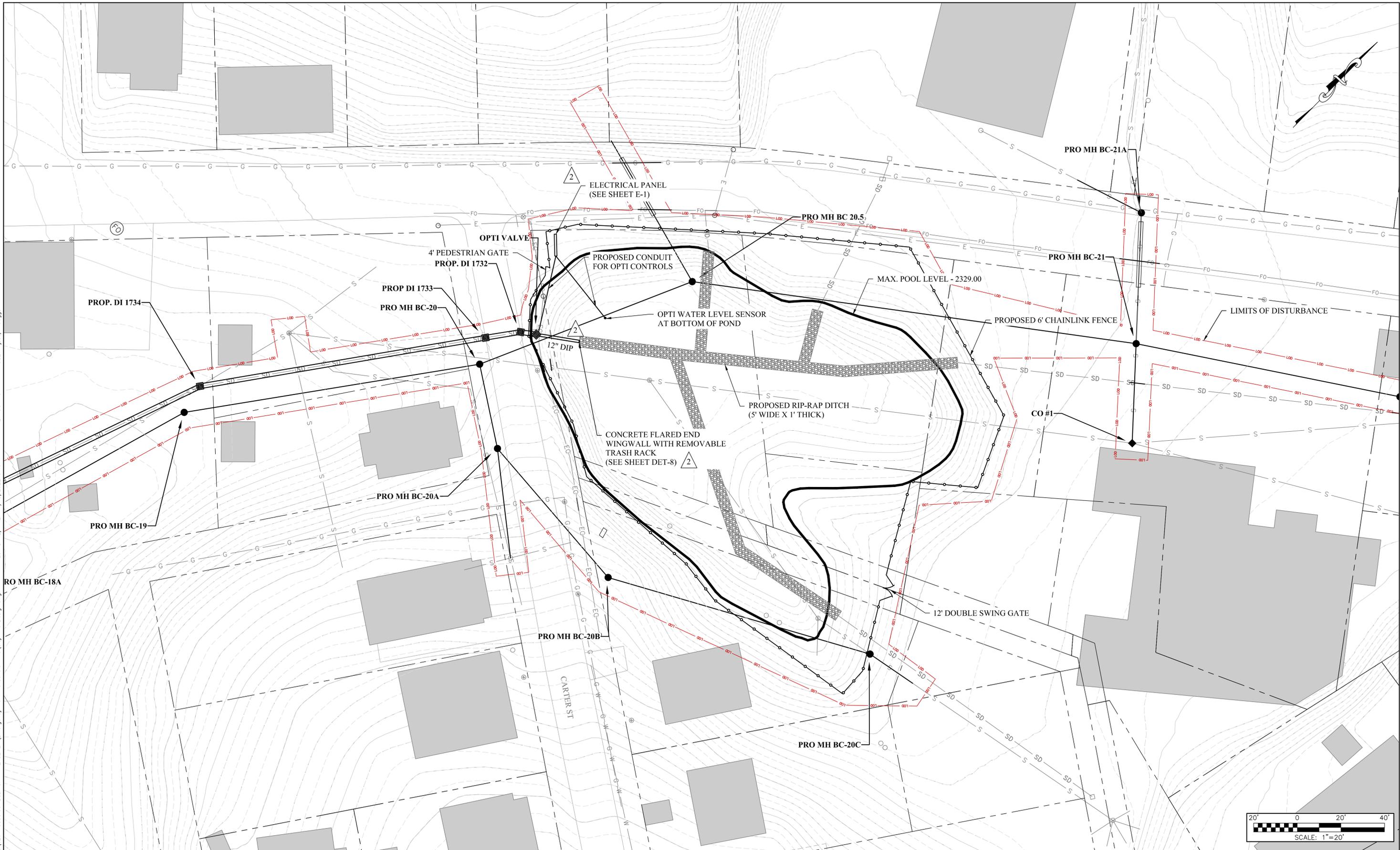
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PROJECT No.	101-020-10093

BECKLEY SANITARY BOARD
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 SANITARY SEWER AND
 STORMWATER EMERGENCY REHABILITATION
 PROPOSED SANITARY & STORM SEWER PLAN

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 LAYOUT: 6
 PLOT DATE/TIME: 1/13/2022 3:19 PM
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PROJECT No.	101-020-10093

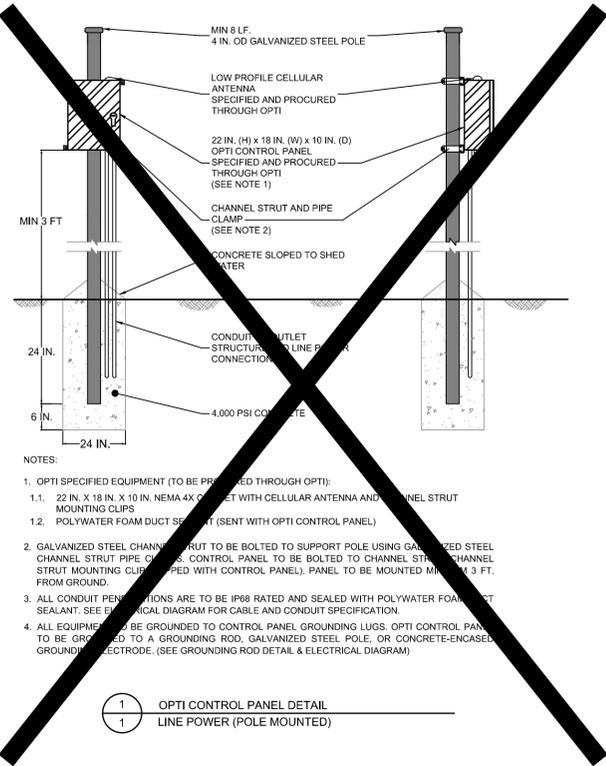
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SANITARY SEWER AND
STORMWATER EMERGENCY REHABILITATION
PROPOSED SANITARY & STORM SEWER PLAN

SHEET No.	6
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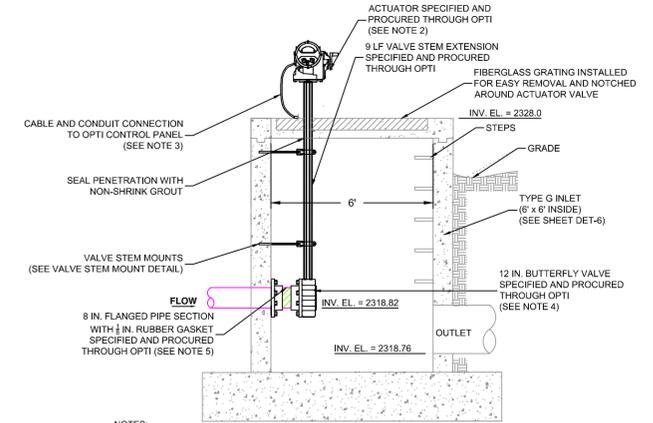
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 USER: joseph_boggs

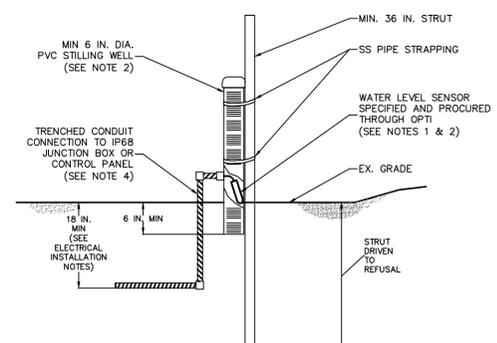


SEE SHEET E-1 FOR ELECTRICAL PANEL CANOPY DETAIL



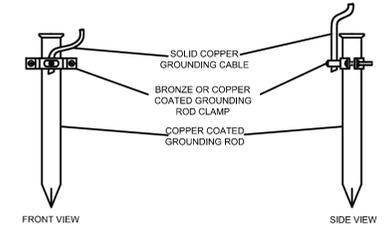
- NOTES:
- OPTI SPECIFIED EQUIPMENT (TO BE PROCURED THROUGH OPTI):
 - ACTUATOR, BUTTERFLY VALVE, AND VALVE STEM EXTENSION (DELIVERED PRE-ASSEMBLED ON PALLET)
 - FLANGED PIPE SECTION AND RUBBER GASKET
 - POLYWATER FOAM DUCT SEALANT (SENT WITH OPTI CONTROL PANEL)
 - ALL OTHER EQUIPMENT TO BE PROCURED BY INSTALLATION CONTRACTOR.
 - ACTUATOR TO BE ORIENTED WITH WHEEL FACING AWAY FROM WALL. VALVES SHALL REST ON ONE OF THE FOLLOWING: POURED CONCRETE PAD (4000 PSI), APPROVED CONCRETE BLOCKS, OR APPROVED STRUCTURE FIT TO BEAR 600LB LOAD.
 - IP88 CORD GRIP REQUIRED FOR CONNECTION BETWEEN WIRE AND CONTROL PANEL. ALL CONDUIT CONNECTIONS TO BE IP88 RATED AND SEALED WITH POLYWATER FOAM DUCT SEALANT; CONDUIT TO BE SIZED BY CONTRACTOR. ACTUATOR CONDUIT PORT IS 3/4 IN. INTERNAL THREADED, DOWNSIZE CONDUIT IF NEEDED. CONDUIT ALONG WALL TO BE SECURED WITH #304 SS CLIPS (3" SPACING MAXIMUM).
 - FLANGE TO VALVE CONNECTION: 12 X 78 - 9 UNC FLANGE CONNECTOR BOLTS SHALL BE TIGHTENED TO 238 - 354 LB-FT TORQUE. ALL HARDWARE TO BE #304 SS.
 - FLANGE TO WALL CONNECTION: BOLT CAVITIES TO BE CLEANED OF DEBRIS USING AUTO CLEANING DRILL BIT OR COMPRESSED AIR PRIOR TO ANCHORING. BOLT CAVITIES TO BE FILLED WITH INJECTABLE ADHESIVE ANCHOR (MILTI HIT SERIES EPOXY #2123401 OR EQUIVALENT). BOLTS TO BE EMBEDDED TO MINIMUM DEPTH SPECIFIED BY MANUFACTURER, 1 IN. CLEARANCE FROM REBAR.
 - TRASH RACK SPECIFIED BY THE ENGINEER OF RECORD (OR OTHERS) TO BE PROCURED BY CONTRACTOR. TRASH RACKS ARE REQUIRED PRIOR TO OPERATION OF THE OPTI ACTUATED VALVE AND SOFTWARE.

ACTUATED VALVE DETAIL
WALL ABOVE OUTLET STRUCTURE



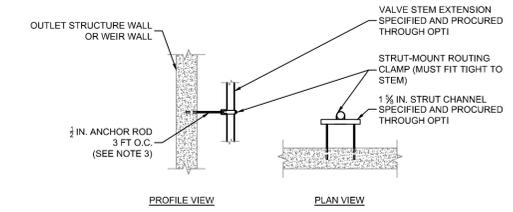
- NOTES:
- OPTI SPECIFIED EQUIPMENT (TO BE PROCURED THROUGH OPTI):
 - WATER LEVEL SENSOR
 - POLYWATER FOAM DUCT SEALANT (SENT WITH OPTI CONTROL PANEL)
 - ALL OTHER EQUIPMENT TO BE PROCURED BY INSTALLATION CONTRACTOR.
 - WATER LEVEL SENSOR TO REST WITHIN PVC STILLING WELL. SENSOR TO REST AT BOTTOM OF FACILITY OR AT SPECIFIED MINIMUM ELEVATION. STILLING WELL MADE FROM SLOTTED PVC SCREEN. ALTERNATIVE WELL BY OPTI APPROVAL. SCREENING MUST CONTINUE ABOVE GROUND.
 - OPTI-SPECIFIED JUNCTION BOX REQUIRED IF CABLE LENGTH EXCEEDS 100 FT. JUNCTION BOX LOCATION TO BE SPECIFIED BY OPTI. BOTTOM OF JUNCTION BOX TO BE MOUNTED AT LEAST 4 IN. ABOVE OVERFLOW ELEVATION.
 - PENETRATIONS INTO ALL EQUIPMENT AND CONNECTIONS WITHIN JUNCTION BOXES SHALL BE IP88 RATED AND SEALED WITH POLYWATER FOAM DUCT SEALANT. SEE ELECTRICAL DIAGRAM FOR CABLE AND CONDUIT SPECIFICATION.
 - PRESSURE REFERENCE DEVICE TO BE LOCATED IN OPTI CONTROL PANEL. DO NOT SPLICE WATER LEVEL SENSOR CABLE.
 - MINIMUM 1 FOOT SPARE CABLE TO BE NEATLY COILED IN CONTROL PANEL FOR FUTURE MAINTENANCE OR SYSTEM MODIFICATIONS.

WATER LEVEL SENSOR DETAIL
STRUT-MOUNTED WATER LEVEL SENSOR



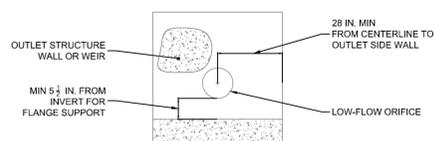
- NOTES:
- GROUNDING ROD TO BE MINIMUM COPPER COATED, 8 FT LENGTH, 1/2" DIAMETER
 - GROUNDING ROD CLAMP TO BE BRONZE OR COPPER COATED AND SIZED FOR GROUNDING CABLE
 - GROUNDING CONDUCTOR TO BE SOLID COPPER, 12 AWG TO 2 AWG, AND SECURELY LANDED AT GROUNDING ROD CLAMP AND CONTROL PANEL GROUNDING LUG
 - ALL PENETRATIONS IN CONTROL PANEL TO BE IP88 RATED
 - MAXIMUM 6 IN OF GROUNDING ROD EXPOSED ABOVE GROUND

GROUNDING ROD DETAIL
GENERIC

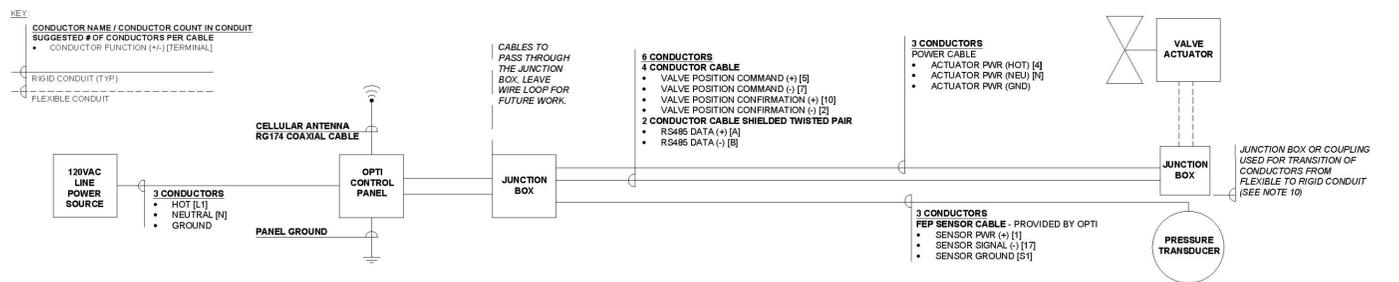


- NOTES:
- OPTI SPECIFIED EQUIPMENT (TO BE PROCURED THROUGH OPTI):
 - VALVE STEM EXTENSION (DELIVERED WITH VALVE)
 - 12" x 1 1/2" IN. STRUT CHANNEL
 - 1/2" x 1/2" IN. ANCHOR RODS (2 PER STRUT)
 - STRUT-MOUNT ROUTING CLAMPS (2 PER STRUT)
 - ALL BRACKET MATERIALS MUST BE #304 STAINLESS STEEL.
 - MINIMUM SPACING: 1 VALVE STEM MOUNT FOR STEM LENGTH BELOW 3 FEET. ADD VALVE STEM MOUNTS PER ADDITIONAL 3 FEET OF STEM LENGTH.
 - 1/2 IN. ANCHOR ROD TO BE SET USING INJECTABLE ADHESIVE ANCHOR WITH AUTO CLEANING DRILL BIT OR CLEAN HOLE THOROUGHLY WITH COMPRESSED AIR. USE QUIKRETE HIGH STRENGTH ANCHORING EPOXY (PRODUCT #6603-31) OR EQUIVALENT. ROD SET IN CONCRETE MIN 3 IN.

VALVE STEM MOUNT DETAIL
WALL MOUNTED



ORIFICE CLEARANCE DETAIL
GENERIC



120VAC WIRING GUIDE - V 2.0.4

CONTROL PANEL TERMINAL	EXTERNAL DEVICE TERMINAL	WIRE COLOR/CABLE LOCATION	PURPOSE	PROCURED BY
LINE POWER CONNECTION				
L1			120VAC HOT, LINE POWER	
N			NEUTRAL, LINE POWER	
GROUNDING NUT			GROUND, LINE POWER	
ACTUATOR - ROTORK IQT SERIES 393M2000				
4	2	3 CONDUCTOR CABLE	120VAC HOT, ACTUATOR POWER	INSTALLER
N	3	3 CONDUCTOR CABLE	NEUTRAL, ACTUATOR POWER	INSTALLER
GROUND LUG		3 CONDUCTOR CABLE	GROUND, ACTUATOR POWER	INSTALLER
5	28	4 CONDUCTOR CABLE	VALVE POSITION COMMAND SIGNAL (+)	INSTALLER
7	27	4 CONDUCTOR CABLE	VALVE POSITION COMMAND SIGNAL (-)	INSTALLER
10	22	4 CONDUCTOR CABLE	VALVE POSITION CONFIRMATION SIGNAL (+)	INSTALLER
2	23	4 CONDUCTOR CABLE	VALVE POSITION CONFIRMATION SIGNAL (-)	INSTALLER
A+	32	2 CONDUCTOR CABLE, SHIELDED TWISTED PAIR	RS485 DATA (+)	INSTALLER
B-	28	2 CONDUCTOR CABLE, SHIELDED TWISTED PAIR	RS485 DATA (-)	INSTALLER
PRESSURE TRANSDUCER (4-20mA) - PMC VL2000 SERIES				
1		RED (+), PMC	PRESSURE TRANSDUCER, POWER	OPTI
17		BLACK (-), PMC	PRESSURE TRANSDUCER, SIGNAL	OPTI
S1		GREEN (GND), PMC	PRESSURE TRANSDUCER, GROUNDING	OPTI

ACTUATOR POWER CABLE AWG SPECIFICATIONS

ROTORK IQT500	
WIRE GAUGE	MAX. LENGTH (FT)
8	2581
10	1623
12	1021
14	642
16	404
18	254

- ELECTRICAL INSTALLATION NOTES
- DETERMINE IF THERE ARE UNDERGROUND UTILITIES IN THE WORK AREA PRIOR TO EXCAVATION. BY CALLING DIG SAFE AT LEAST 48 HOURS PRIOR TO STARTING WORK, CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES CAUSED BY TRENCHING OR EXCAVATION.
 - INSTALLATION OF THE CONTROL PANEL AND ASSOCIATED COMPONENTS (E.G., CABLING, CONDUIT, SENSORS) MUST BE PERFORMED BY A LICENSED ELECTRICIAN. ELECTRICIAN SHALL BE RESPONSIBLE FOR ENSURING THAT THE CONTROL PANEL AND ASSOCIATED COMPONENTS ARE PROPERLY CONNECTED TO THE LINE POWER SOURCE AND THAT CONDUIT AND CABLING IS SIZED AND INSTALLED PER THE NEC.
 - ALL CONDUCTORS SHALL BE IDENTIFIED AT EACH END (LABELLED OR COLOR CODED) AND THE IDENTIFIED CONDUCTORS DOCUMENTED IN THE SITE LAYOUT MAP.
 - PENETRATIONS INTO CONTROL PANEL AND JUNCTION BOXES MUST BE IP88 RATED (NO WATER SHALL PENETRATE ANY SEALS). SUBSURFACE TERMINATIONS SHALL BE SEALED WITH POLYWATER CLOSED-CELL FOAM DUCT SEALANT (PROCURED THROUGH OPTI WITH CONTROL PANEL).
 - ALL CABLE SPLICES MUST BE MADE WITHIN JUNCTION BOXES AND SHALL BE LIQUID TIGHT, SOLDERED, AND COVERED WITH DUAL WALL HEAT SHRINK WIRE NUTS MAY NOT BE USED FOR ANY CONNECTIONS.
 - REFERENCE "ACTUATOR POWER CABLE AWG SPECIFICATIONS" TABLE FOR THE CORRECT CONDUCTOR GAUGE FOR ACTUATOR POWER CONNECTIONS. ALL OTHER CONDUCTORS MUST BE AT LEAST 16AWG.
 - ALL BURIED CONDUIT RUNS SHALL BE RIGID SCH 40 PVC CONDUIT. ALL EXPOSED CONDUIT SHALL BE RIGID SCH 40 PVC OR FLEXIBLE TYPE-IA PVC. BURIED RIGID SCHEDULE 40 CONDUIT SHALL BE INSTALLED WITH A MINIMUM COVER OF AT LEAST 18" IN ACCORDANCE WITH TABLE 300.5 OF THE NEC.
 - CONDUIT SHALL BE SIZED PER THE NEC TO HAVE AN ADEQUATE CROSS-SECTIONAL AREA FOR INSTALLED CABLES. REFERENCE OPTI PROVIDED TABLE FOR MINIMUM CONDUIT SIZE. ACTUATOR HAS 1/2" PORTS FOR CONDUIT. USE REDUCING FITTING IF NEEDED.
 - LEAVE A MINIMUM OF 1 FOOT SPARE CABLING NEATLY COILED IN CONTROL PANEL FOR FUTURE MAINTENANCE OR SYSTEM MODIFICATIONS.
 - LEAVE A MINIMUM 3 FEET LOOP OF FLEXIBLE CONDUIT IN OUTLET STRUCTURE FOR EASE OF FUTURE MAINTENANCE. FLEXIBLE CONDUIT SHALL RUN FROM ACTUATOR TO JUNCTION BOX LOCATED IN OUTLET STRUCTURE. RIGID CONDUIT SHALL RUN FROM JUNCTION BOX TO OPTI CONTROL PANEL.
 - ALL SUBMERGED/SATURATED METAL HARDWARE SHALL BE STAINLESS STEEL. GALVANIZED STEEL MAY BE USED ABOVEGROUND OR IN DRY LOCATIONS.
 - PRESSURE REFERENCE DEVICE (COMPONENT OF LEVEL SENSOR AT CABLE TERMINATION) TO BE LOCATED IN OPTI CONTROL PANEL.
 - CONNECT ALL EQUIPMENT GROUNDING CONDUCTORS TO THE OPTI CONTROL PANEL GROUNDING LUGS. GROUND THE OPTI CONTROL PANEL TO A GROUNDING ROD, GALVANIZED STEEL POLE, OR A CONCRETE-ENCASED GROUNDING ELECTRODE.
 - AFTER INSTALLATION, COMPLETE CONTRACTOR INSTALLATION CHECKLIST PROVIDED BY OPTI AND PROVIDE PHOTOS OF ALL INSTALLED EQUIPMENT. SEND SIGNED CHECKLIST AND PHOTOS TO OPTI.
 - OPTI WILL INSPECT INSTALLED COMPONENTS PRIOR TO ENERGIZING THE SYSTEM. FINAL COMPLETION SHALL BE REACHED WHEN: (1) CONSTRUCTION OF THE SYSTEM PER THE PLANS IS COMPLETE, (2) THE ENGINEER OF RECORD HAS COMPLETED FINAL INSPECTION OF WORK AND ALL NOTED DEFICIENCIES HAVE BEEN CORRECTED TO THE SATISFACTION OF THE ENGINEER OF RECORD, OPTI, AND THE SITE OWNER, AND (3) AN AS-BUILT SKETCH HAS BEEN PROVIDED OF ALL INSTALLED COMPONENTS IF FINAL INSTALL LOCATIONS HAVE VARIED FROM PLANS.
 - INDOOR INSTALLATIONS OR INSTALLATIONS WITH POOR CELLULAR RECEPTION REQUIRE AN OUTDOOR WALL-MOUNTED ANTENNA. IF NEEDED, CONTACT OPTI FOR CHANGES TO EQUIPMENT ORDER.

1 WIRING DIAGRAM
GENERIC

NO.	BY	DATE	DESCRIPTION
1	JWB	1/13/22	ADDENDUM #2

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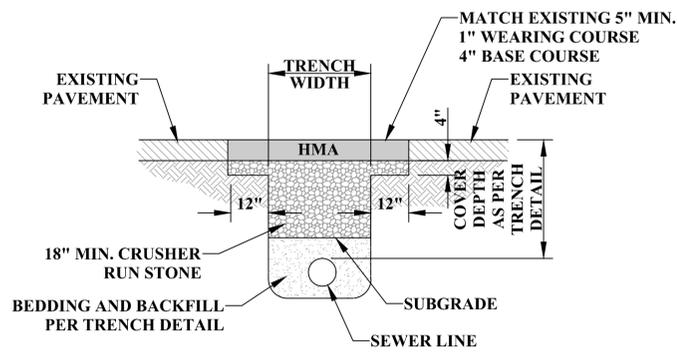
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PHASE No.	1
CONTRACT No.	1
PROJECT No.	101-020-10093

BECKLEY SANITARY BOARD
CITY AVENUE AND PIKEVIEW DRIVE
SANITARY SEWER AND
STORMWATER EMERGENCY REHABILITATION
OPTI DETAILS

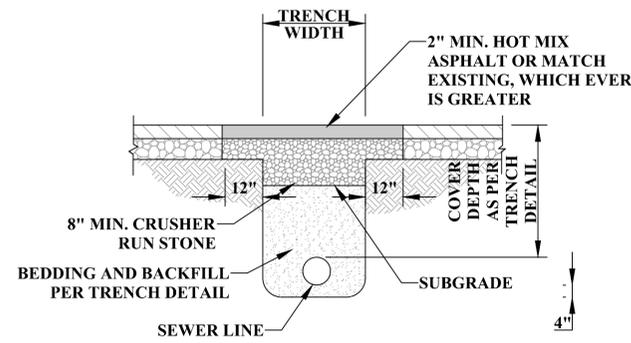
**ACCOMMODATION OF UTILITIES ON
WV DIVISION OF HIGHWAYS
RIGHTS OF WAY JUNE 2007**



WVDOT TYPE "B" TRENCH REPAIR
NOT TO SCALE

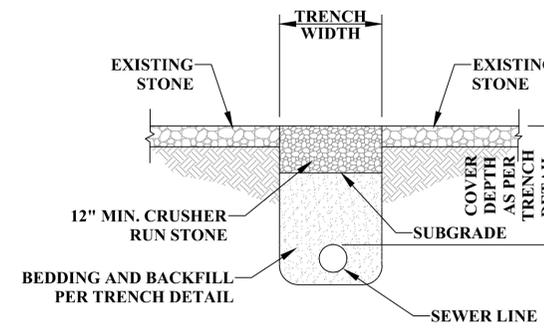
PRESENT AVERAGE DAILY TRAFFIC UNDER 2000
UNLESS HEAVY TRUCK TRAFFIC,
DEFINED AS 20 TANDEM-AXLE
TRUCKS PER DAY, IS EVIDENT

**STREET, ROAD, AND DRIVEWAY REPAIR NOT IN
WVDOT RIGHTS OF WAY**



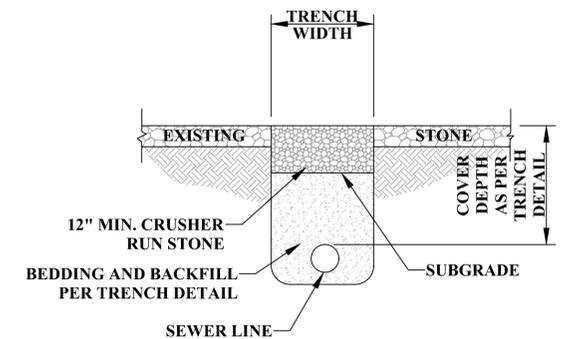
ASPHALT PAVEMENT REPAIR
NOT TO SCALE

**ACCOMMODATION OF UTILITIES ON
WV DIVISION OF HIGHWAYS
RIGHTS OF WAY JUNE 2007**

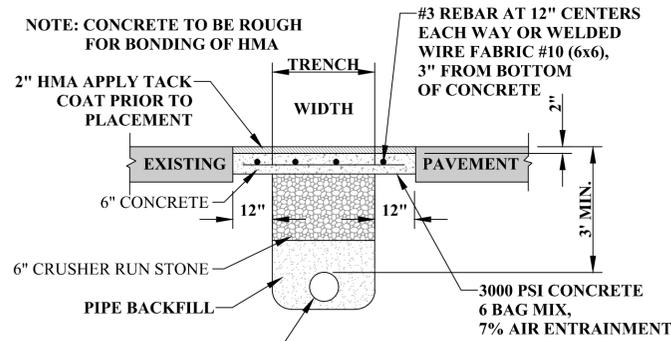


WVDOT TYPE "C" TRENCH REPAIR
NOT TO SCALE

**STREET, ROAD, AND DRIVEWAY REPAIR NOT IN
WVDOT RIGHTS OF WAY**



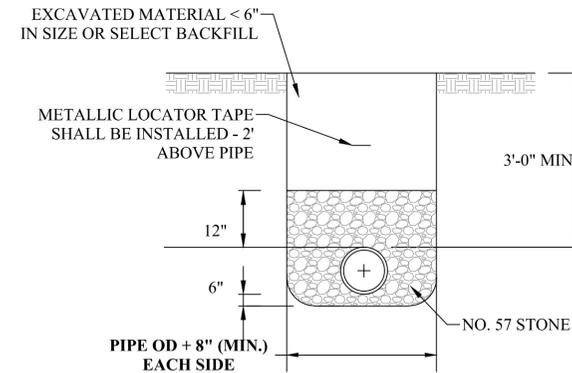
STONE ROADWAY REPAIR
NOT TO SCALE



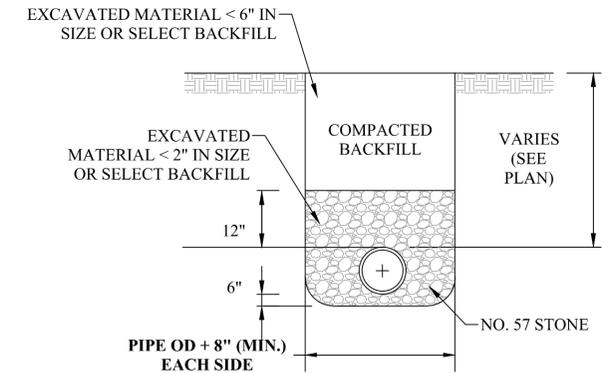
CITY STREETS TRENCH REPAIR
NOT TO SCALE

MIX PAVEMENT
PRESENT AVERAGE DAILY TRAFFIC OVER
2000 OR LOWER-VOLUME ROADS WITH
HEAVY TRUCK TRAFFIC (20 PER DAY)

NOTES: 1) WHERE TYPE "A" TRENCHES ARE WIDER THAN 7' IN EXISTING BITUMINOUS PAVEMENT, CONCRETE MAY BE DELETED IF EXISTING HMA THICKNESS AND 18" STONE ARE RESTORED.
2) TRAFFIC IS TO BE MAINTAINED AT ALL TIMES BY THE USE OF APPROPRIATE TRAFFIC CONTROL DEVICES. USE OF METAL PLATES, HAVING SUFFICIENT RIGIDITY TO SPAN TYPE "A" TRENCH, IS REQUIRED TO PREVENT WHEEL LOADS FROM BEING TRANSMITTED TO THE CONCRETE FLOWABLE FILL. THE PLATES ARE TO BE SECURELY ANCHORED TO PREVENT MOVEMENT CAUSED BY TRAFFIC. THE PLATES ARE TO BE LEFT IN PLACE UNTIL THE CONTROLLED LOW STRENGTH MATERIAL HAS ATTAINED 50% OF IT'S COMPRESSIVE STRENGTH.



**TYPICAL SEWER PIPE
TRENCH DETAIL**
NOT TO SCALE



**TYPICAL CULVERT PIPE
TRENCH DETAIL**
NOT TO SCALE

USER: joseph boggs LAYOUT: DET-1 PLOT DATE/TIME: 1/13/2022 3:26 PM CAD FILE: R:\020\020-10093-00-B5B-CITY AVE SEWER\Emergency Work At Central Ave\DETAILS.dwg

NO.	BY	DATE	DESCRIPTION
1	JWB	1/13/22	ADDENDUM #2

ADDENDUM #2

SCALE:	
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APPROVED:	DATE:
SURVEY DATE:	
SURVEY BY:	
FIELD BOOK No.:	

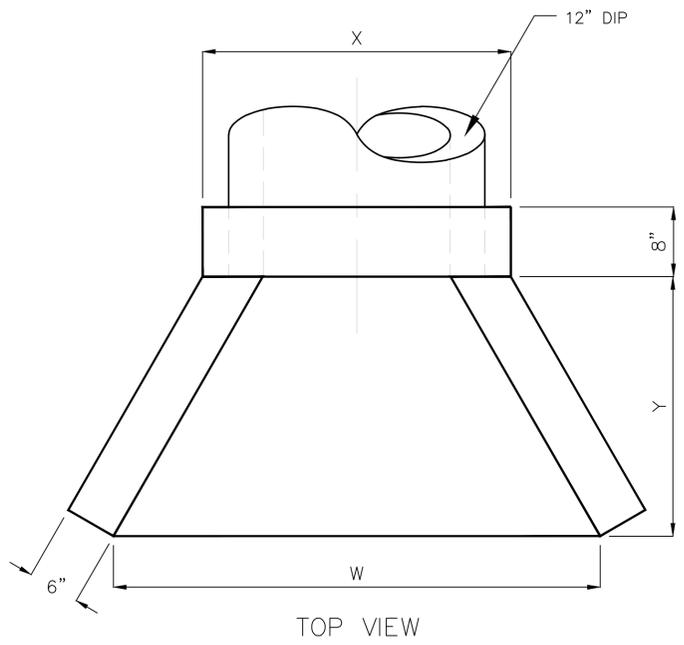
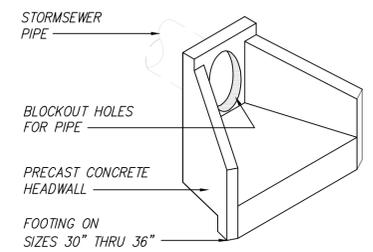
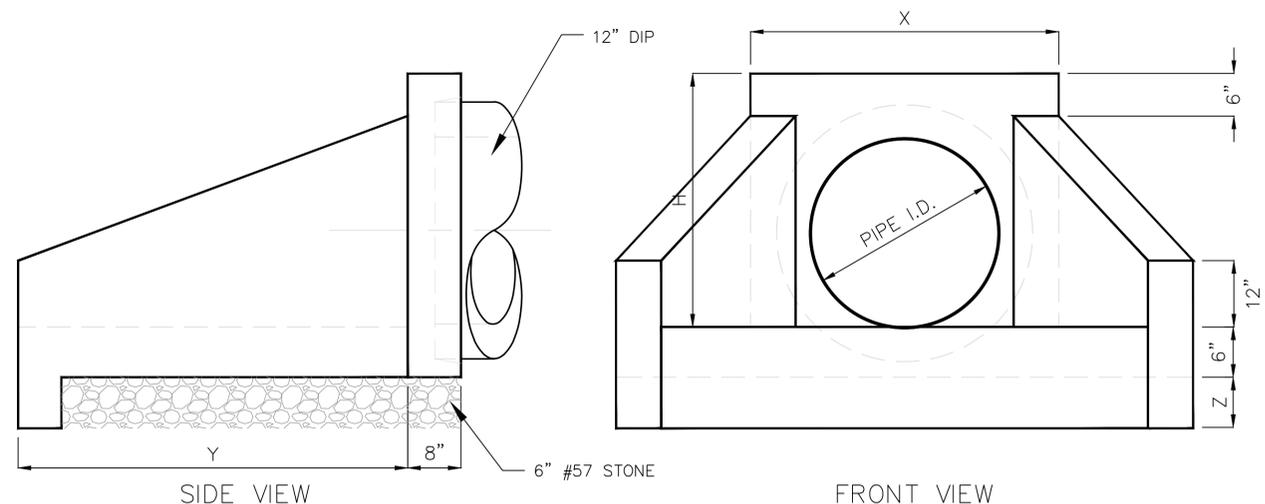
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STANDARD DETAILS

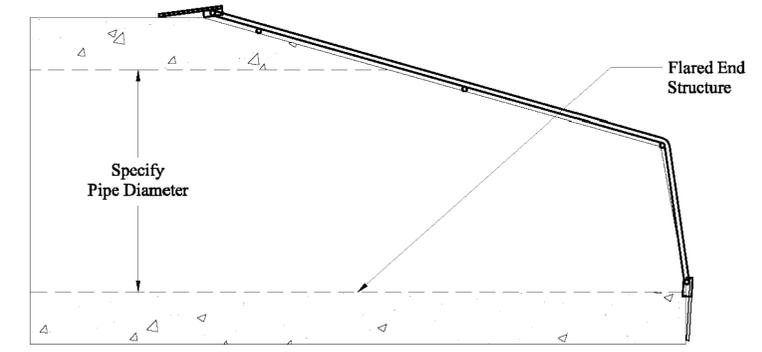
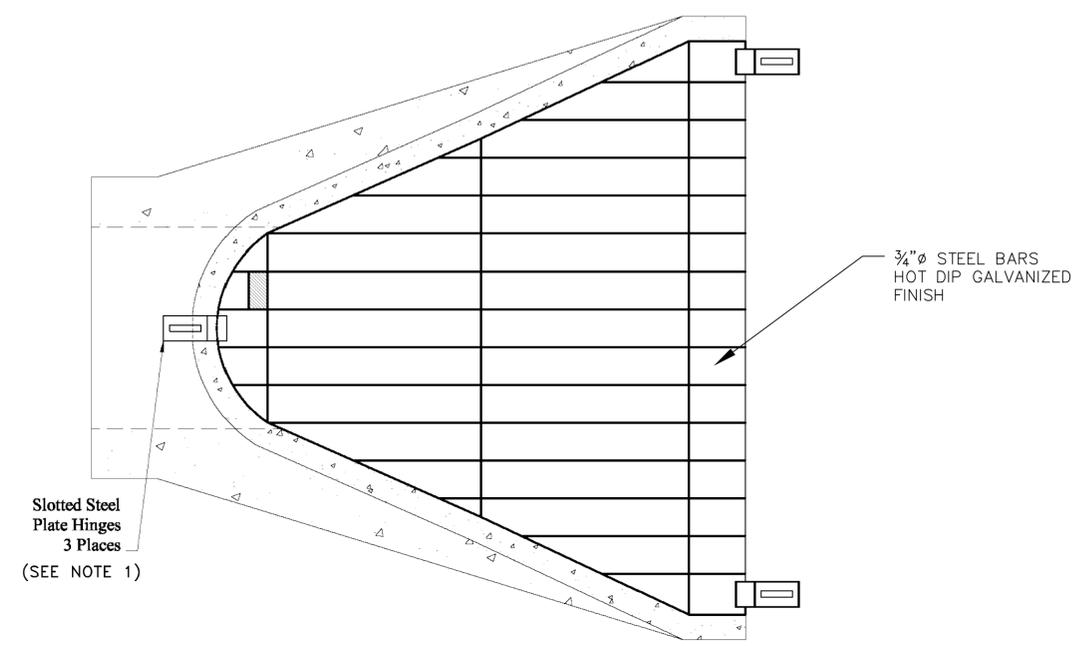
SHEET No.
DET-1

USER: joseph boggs
 LAYOUT: DET-8
 PLOT DATE/TIME: 1/13/2022 3:25 PM
 CAD FILE: R:\020\020-10093.00-B5B-CITY AVE SEWER\Emergency Work At Central Ave\DETAILS.dwg



MODEL	PIPE DIA	DIMENSIONS					WEIGHT (LBS)
		H	W	X	Y	Z	
HW-12	12"	2'-6"	4'-3"	3'-0"	2'-0"	N/A	2,700
HW-15	15"	2'-6"	4'-3"	3'-0"	2'-0"	N/A	2,700
HW-18	18"	2'-6"	4'-3"	3'-0"	2'-0"	N/A	2,600
HW-21	21"	3'-0"	5'-10"	3'-2"	3'-0"	N/A	4,300
HW-24	24"	3'-0"	5'-10"	3'-2"	3'-0"	N/A	4,200
HW-30	30"	3'-6"	7'-6"	4'-1"	4'-0"	9"	6,200
HW-36	36"	4'-1"	9'-3"	4'-8"	5'-0"	9"	8,100
HW-42	42"	4'-11"	12'-6"	5'-10"	6'-0"	12"	11,000
HW-48	48"	4'-11"	12'-6"	5'-10"	6'-0"	12"	11,000

**CONCRETE FLARED END WINGWALL
 WITH REMOVABLE TRASH RACK**
 NOT TO SCALE



- NOTES:
- USE 1/2" Ø SS ANCHOR BOLTS WITH ANCHOR-IT-EPOXY

TYPICAL TRASH RACK
 NOT TO SCALE

SPECIFICATIONS

CONCRETE: CLASS II CONCRETE WITH OF DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION INCLUDING WALLS AND FLOOR.

REINFORCEMENT: GRADE 60 REINFORCED. NO. 4 STEEL REBAR TO CONFORM TO ASTM A615 ON REQUIRED CENTERS OR EQUAL. BAR BENDING AND PLACEMENT SHALL WITH THE LATEST ACI STANDARDS.

ADDENDUM #2

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 STANDARD DETAILS**

SHEET No.
DET-8

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