



IFB-004-T-2025

VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY

The Virgin Islands Waste Management Authority is hereby soliciting bids for **IFB-004-T-2025 for Veterans Drive Emergency Gravity Line Installation – Cancryn Pump Station Influent**

Interested parties and prospective respondents may request the complete IFB Package for their review from the Authority by submitting a request confirmation email with contact information for the respective company to sdavid@viwma.org and mvante@viwma.org. All questions pertaining to the scope of services to be rendered should be directed to Ms. Sandra David, Director of Procurement and Property, and Michael Vante, Contract and Inventory Manager, on or before **Wednesday, October 20th, 2025**. Responses to questions will be forwarded in the form of an Addendum to those parties who have confirmed interest by formally requesting the bid package.

Virgin Islands Waste Management Authority
Procurement and Property Division
7410 Estate Bovoni, Bay 2
St. Thomas, VI 00802
Tel: (340) 715-9170
Fax: (340) 715-9179
sdavid@viwma.org or mvante@viwma.org

Invitations for Bids will be submitted electronically in PDF Format bearing the respective IFB Number: IFB-004-T-2025 to sdavid@viwma.org and mvante@viwma.org on or before Friday, October 31st, 2025 at 12:00 P.M. Atlantic Standard Time.

The Virgin Islands Waste Management Authority reserves the right to waive any non-substantive informalities, technicalities or irregularities, or reject any or all qualifications and proposals/bids; or to re-advertise for proposals/bids, and to award or refrain from awarding the contract for the work.

Hannibal Ware
Executive Director

It's Our Home! Let's Keep It Clean!

VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY INVITATION FOR BIDS

IFB NUMBER: IFB-004-T-2025

PROJECT NAME: Veterans Drive Emergency Gravity Line Installation – Cancryn Pump Station Influent

DATE: September 25th, 2025

Bids, for the work described herein will be received electronically in PDF format to sdavid@viwma.org and mvante@viwma.org on or before **Friday, October 31st, 2025 at 12:00 P.M.** Atlantic Standard Time. Any bid received after the time and date specified shall not be considered. All questions pertaining to the scope of services to be rendered should be directed to Michael Vante, Contract & Inventory Manager at mvante@viwma.org on or before **Wednesday, October 22nd, 2025**. Responses to questions will be forwarded in the form of an Addendum to those parties who have confirmed interest.

All documents contained in the Contract Document book are made a part of this Invitation and by this reference incorporated herein as fully and effectively as if set forth in detail. The bidder's attention is directed to the fact that all applicable municipal ordinances, and the rules and regulations of all authority having jurisdiction over construction of the project shall apply to Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

The requirements stated (collectively, the “Scope of Work”) are current as of the date hereof, but they may change or be refined in the course of the evaluation of Proposals or otherwise.

Unless otherwise stated, if, and wherever, the Scope of Work states a brand name, a make, the name of a manufacturer, a trade name or a vendor catalogue number; it is for the purpose of establishing a grade or quality of materials, goods or equipment only. It is not intended to rule out the use of other equivalent materials, goods or equipment. If, however, products other than those specified are proposed in any Proposal, the Proposal must explicitly include under the heading “Alternative Solutions” the names of such products and their manufacturers, any trade names and any applicable vendor catalogue numbers, and the VIWMA may request that the Proponent provide specific evidence of equivalency. Evidence of quality in the form of samples may also be requested.

To the extent that the Requirements express estimates of quantities or volumes of goods or services expected to be required by the VIWMA, the VIWMA cannot offer any assurances that such quantities or volumes will in fact be required.

1.0 PROJECT SUMMARY

The Virgin Islands Waste Management Authority (VIWMA) maintains a complex system of equipment and infrastructure that transports wastewater from the wastewater collection system to various wastewater treatment plants for processing to ensure safe effluent discharge into the environment. The collection system consists of both gravity and pressurized pipes of various sizes in addition to multiple pump stations. The purpose of this Invitation for Bids (IFB) is for the repair of a failed forty-two-inch (42-inch) gravity sewer line east of the Cancryn Pump Station Charlotte Amalie St Thomas US Virgin Islands.

2.0 SCOPE OF WORK

This scope covers the material (pipe and fittings), road repair and other miscellaneous work for the installation of approximately 833 linear feet of a new forty-two-inch (42-inch) diameter gravity sewer main, located in St. Thomas, U.S. Virgin Islands. The new sewer line will be connected to the existing Cancryn Sewer Pump Station and is being constructed to replace an existing line that has suffered a structural collapse, caused flow disruption and posed serious environmental and operational risks.

The collapsed line has resulted in restricted sewage flow and increased maintenance challenges for the Virgin Islands Waste Management Authority (VIWMA). This new line will restore proper conveyance capacity, prevent future overflows, and reinforce the long-term reliability of the wastewater collection system.

Due to the depth of the trench—up to **25 feet below surface grade** and the proximity of structures and existing utilities, the work will require careful excavation, **trench shoring, dewatering**, and strict adherence to safety and environmental protocols. The new alignment will shift slightly from the existing in order to move the line away from existing structures. The line will be constructed beneath an existing roadway (Veterans Drive) and the adjacent sidewalk corridor, with surface restoration included as part of the project scope.

This critical infrastructure project aims to re-establish efficient wastewater transport to the Cancryn Pump Station, reduce public health risks, and ensure compliance with regulatory standards.

The wastewater flow that is impacted by the collapsed line is currently being bypassed by VIWMA personnel and equipment. This condition will remain through the construction phase of the project.

Schedule of Quantity

Item Number	Item Description	Total Qty	Units
Section 1 - General			
1.1	Mobilization	1	LS
1.2	Survey Layout & Record Drawings	1	LS
1.3	CCTV Inspection	1	LS
1.4	Temporary Traffic Control	1	LS
1.5	Contractor Quality Control Testing	1	LS
Section 2 - Demolition			
2.1	Saw Cutting Pavement	1700	LF
2.2	Pavement Removal and Disposal	1100	SY
2.3	Curb and Gutter Removal	20	LF
2.4	Sidewalk Removal	10	SY
2.5	42-inch Sewerline Removal	75	LF
2.6	42-inch Sewerline Abandonment	725	LF
2.7	Manhole Removal	1	EA
Section 3 - Utilities			
3.1	Sanitary Sewer Manhole (25+/-) ft	2	EA

3.2	42-inch PVC (25+/-) ft	833	LF
Section 4 - Roadway			
4.1	Curb and Gutter	20	LF
4.2	Concrete Sidewalk	10	SY
4.3	Aggregate Base Course (18-inch thickness)	533	CY
4.4	Asphalt Pavement (6-inch thickness)	360	TON
4.5	Tack Coat	100	GAL
4.6	Thermoplastic Pavement Marking	500	SF
Section 5 - Miscellaneous			
5.1	Dewatering	1	LS

Summary of Requirements

The proposed work consists of furnishing all labor, materials, equipment, and supervision necessary for the installation of approximately 833 linear feet of new 42-inch gravity sewer main in St. Thomas, U.S. Virgin Islands. The new pipeline will be discharged directly into the Cancryn Sewer Pump Station and is intended to increase the system's conveyance capacity and operational reliability.

The project alignment follows an urban corridor with existing roadways and sidewalk infrastructure and requires deep trench excavation to depths of up to 25 feet. Due to the proximity of building foundations and underground utilities, the Contractor shall implement appropriate shoring systems, dewatering, and traffic control measures to ensure public safety and maintain structural integrity during the construction process.

The scope of work includes, but is not limited to:

- Saw cutting and removal of existing pavement and sidewalk
- Trench excavation and shoring
- Removal and disposal of unsuitable material
- Bedding, installation, and jointing of 42-inch gravity sewer pipe
- Connection to the existing Cancryn Pump Station inlet
- Abandonment of the existing line in place
- Backfilling and compaction
- Restoration of disturbed roadway, sidewalk, and surfaces
- Testing, inspection, and commissioning
- Safety Plan to be submitted for VIWMA Approval prior to commencement of work
- Traffic Plan to be submitted with proposal for VIPD Approval prior to commencement of work

All work shall comply with applicable federal, territorial, and local regulations and conform to the project plans, specifications, and permit requirements. The Contractor shall coordinate with the Virgin Islands Department of Public Works (VIDPW), the Waste Management Authority

(VIWMA), and utility providers as needed. Bidder must submit safety and traffic control plan for approval before work can be started.

Work Requirement

The successful bidder shall comply with all USVI Public Works roadway requirements and US Department of Transportation, Federal Highway Administration, Federal Lands Highway, Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FHWA FP-14) requirements. Specific divisions related to the work include but are not limited to the following:

Division #	Item Description Title
106	Acceptance
151	Mobilization, Site Cleanup & Demobilization
152	Construction survey and staking
154	Contractor Testing
155	Construction Schedule
203.04	Saw Cutting Pavement
204.03	Shoring & Bracing
207.06	Pipe Bedding
208.01	Excavation & Trenching
209.06	Dewatering
313.01	Aggregate Base Course (18" thick)
313.04	Compaction (Mechanically)
400	Asphalt Pavement
604.01	Manholes Installation
609	Curb And Gutter Removal
612.04	Pipe Installation (Placement & Jointing)
615	Sidewalks Removal
634.03	Asphalt Pavement Marking
703.03	Granular Backfill

3.0 PRE-BID CONFERENCE & SITE VISIT

The VIWMA will conduct a Pre-Bid Conference in its Board Room located at 7410 Estate Bovoni, Bay 3 U.S. Virgin Islands at **11:00AM** Atlantic Standard Time (AST) on **Monday, October 20th, 2025**. **Following the Pre-Bid Conference, a Site Visit will be conducted at the Cancryn Pump Station.**

It is highly recommended that you thoroughly review the requirements of the IFB prior to the Pre-Bid Conference. All prospective Contractors are urged to attend. Non-attendance on the part of a Contractor shall not relieve the prospective respondent of any responsibility for adherence to any of the provisions of this bid package or any addenda thereto.

4.0 QUALIFICATIONS

The selected Respondent must be able to adequately demonstrate their experience in their bid submittal.

A. Required Minimum Qualifications of Respondent

The following subsections are required minimum qualifications.

1. Respondents shall attach its license to do business or copy of its application for a license. Respondents should give a brief description of their company including brief history, corporate or organization structure, number of years in business. If the Respondent is partnering or subcontracting with any other entity, provide the information described above for each such entity.
2. The Respondent should also be registered with a valid System for Award Management (SAM) number. An award will **not** be made to any firm or individual doing business in the Virgin Islands with the Government of the Virgin Islands until evidence is submitted that said firm or individual has a valid Virgin Islands Business License. Joint Ventures must be licensed as a Joint Venture in the Virgin Islands.
3. Respondents that are corporations, partnerships, or any other legal entity, domestic or foreign, shall be properly registered to do business in the area in which they are incorporated at the time of the submission of their responses to this IFB. Such respondents shall attach a certificate of good standing from the USVI Office of the Lieutenant Governor to their bid submissions.
4. Respondent can comply with the required or proposed delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments.
5. Respondent has a satisfactory performance record.
6. Respondent has a satisfactory record of integrity and business ethics.
7. Respondent has the necessary organization, experience, operational controls, and other necessary technical skills, or the ability to obtain them.
8. Respondent has established prior experience in successfully performing the scope of services requested.
9. Respondent and its employees hold and maintain any and all territorial, federal, state, and local licenses or certifications as required to perform the services requested.
10. Respondent is otherwise qualified and eligible to receive an award under applicable laws and regulations.
11. Respondent can comply with the required or proposed delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments.
12. Respondent has adequate staffing to fulfill the required services throughout the entire contract term.
13. Respondent must not be debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in any federal or local programs in the Territory or any Federal department or agency.

5.0 TERMS

The WMA will contract for a period of One Hundred and Fifty (150) calendar days, subject to WMA's option to extend the term of the contract for similar term subject to satisfactory performance. The WMA reserves the right to modify and/or terminate the contract if the successful organization fails to perform in a manner consistent with the terms of the contract. In addition, the WMA reserves the right to modify and/or terminate the contract if funding becomes unavailable.

6.0 PRICE AND PAYMENT

Respondents must submit **Enclosure Document (F)** Bid Sheet as requested with unit prices for each required item and a resulting total project cost.

Payment for these services will be based on a Unit Rate Fee. The purchase will be funded, in whole or in part, by federal funds – primarily FEMA Prudent Replacement funding. Therefore, funding and payment of the contract will be based on requirements and availability of the federal funding sources utilized by VIWMA. The prime Contractor is responsible to submit all required documentation for payment to VIWMA. The contract also requires compliance with federal terms and conditions for federal grants such as CFR200.

Please note, the information requested in the cost sheet may not necessarily reflect what the structure of the final contract will be.

7.0 DAVIS BACON ACT (DBA 1931)

Contractor shall be responsible for maintaining weekly certified payroll records which must include:

- Any wages paid to employees
- Employee's name
- Last four digits of the employee's Social Security number
- The number of hours worked each day, and number of hours worked for the week
- Employee's hourly rate of pay
- Employee's job classification
- Any fringe benefits paid to employees

During a week of no work, the payroll reporting form must be submitted the usual way with insertion "NO WORK PERFORMED THIS WEEK" and "FINAL" on the last invoice.

The Act requires that contractors pay the prevailing wage, according to their skills, to its workers; failure to comply shall be reason for withheld payments, contract termination, and debarment from future federal contracts for up to three years.

8.0 LIQUIDATED DAMAGES

It shall be agreed by and between the parties that liquidated damages will be assessed in the amount of One Thousand Dollars (\$1,000.00) per day as a result of delays, or failure to complete the service within the specified period of time. Liquidated damages will not be assessed during any delay in performance of the services caused by acts of God, the public enemy, fire, floods, epidemics, quarantine restrictions, supplier's or vendors strikes, freight embargoes, or other cause beyond the Contractor's reasonable control. The Contractor shall make every reasonable effort to mitigate the effects of said causes.

The selected Contractor shall not be assessed with liquidated damages for delay in performance of the service caused by heavy rains, provided, however, that the Contractor notifies and receives approval from the Executive Director or her designee at the time of the incident, to be confirmed later in writing, each and every time that the Contractor desires relief as a result of said rains. The Executive Director's decision as to what constitutes a heavy rain event for this purpose shall be final.

The selected Contractor shall not be assessed with liquidated damages for delay in performance of the services caused by failure of the Authority to provide or perform those items of work required of the Authority under the contract. The Contractor shall have no claim for any additional compensation for any such delay.

9.0 LICENSING REQUIREMENTS

A contract will not be issued, nor a Notice to Proceed given, to any firm or individual doing business in the Virgin Islands to perform work with the VIWMA until documentary evidence is submitted that said firm or individual has a valid Business License to do similar business in the Virgin Islands. If a contractor does not have the Business License prior to proposal submittal, documentation must be submitted with the proposal showing the Vendor has submitted the required documentation to receive the License from VIDLCA.

Submitters must submit a copy of a valid V.I. business license within ten (10) working days after award of the contract. Failure to provide the required documentation within the allotted time frame shall result in vendor disqualification. All Submitters bidding as Joint-Ventures which do business in the Virgin Islands must be licensed as a Joint-Venture in the Virgin Islands.

10.0 USE OF SUBCONTRACTORS

The WMA shall have a single Prime Contractor and that Prime Contractor shall be responsible for all deliverables specified in this IFB. This general requirement notwithstanding, Respondent may enter into subcontractor arrangements. However, Respondent shall acknowledge in its IFB total responsibility for the entire contract. If the Respondent intends to subcontract for portions of the work, the Respondent shall identify in its package any subcontractor relationships and include specific designations of the tasks to be performed by the subcontractor. The documentation required of the prime Contractor is also required for any subcontractor. The Prime Contractor shall be the single point of contact for all subcontract work. Every subcontract shall incorporate and follow the terms of the contract between the Prime Contractor and the WMA.

Unless provided for in the contract with the WMA, the Prime Contractor shall not contract with any other party for any of the services herein contracted without the express prior written approval of the WMA.

11.0 CONTRACTOR'S RESPONSIBILITIES

- Bear all cost related to the preparation and submission of the bid package in response to this IFB solicitation.
- Provide a completed "Base Bid Sheet" with a price guaranteed for 90 days and provide the documentation as specified in this IFB solicitation.
- Be duly licensed in the U.S. Virgin Islands, as a General Contractor and provide proof of a valid business license.
- Pay all taxes and fees as required by the local and federal statutes.

- Obtain and provide a copy of current Liability Insurance to cover any claims and damages occasioned by executing the Scope of Work.
- Provide acceptable workmanship, according to “Industry Standards” in each Trade or Scope of Work.
- Fully guarantee all work under the Contract for a period of (6) months from the date of WMA’S final acceptance of the work/product. Remedy and repair any defects in materials or workmanship, without expense to WMA, no later than thirty (30) days after receipt of a written notice of a defect and provide a warranty on such repairs.

12.0 VIWMA’S RESPONSIBILITIES

- Specifications shall be provided by WMA.
- Provide assistance, as necessary, in obtaining local permits and in dealing with governmental entities.
- Perform daily periodic inspections of construction progress to ensure compliance with the project drawings, specifications and WMA’s policies and procedures.
- WMA’s Construction Manager to hold weekly coordination construction meetings to maintain coordination of the construction work.

13.0 INVITATION FOR BID SCHEDULE

The following dates are proposed by the ODR. The deadlines associated with this IFB are further outlined:

IFB SCHEDULE	DATES	TIMES
IFB Advertisement Date	September 26 th , 2025	12:00PM
Pre-Bid Conference	Monday, October 20 th , 2025	11:00 AM
Final Date to submit written questions	Wednesday, October 22 nd , 2025	12:00 PM
IFB Submittal Deadline	Friday, October 31 st , 2025	12:00 PM

14.0 ISSUING AND PROCURING OFFICE

This IFB is being issued for the VIWMA. All general correspondence and inquiries about the IFB should be submitted via email and sent to:

Michael Vante, Contract & Inventory Manager
 Virgin Islands Waste Management Authority
 Email: mvante@viwma.org
 Mark subject line for email IFB-004-T-2025

From the issue date of this IFB until a determination is made regarding the selection of a Respondent, refer all contacts concerning this RFP to Sandra David, Procurement Director at sdavid@viwma.org or Michael Vante, Contract & Inventory Manager at mvante@viwma.org. Any violation of this condition is cause for the VIWMA to reject a Respondent’s package. The VIWMA will NOT be responsible for any oral information given by any employees.

Failure to ask questions, request changes or submit objections shall constitute the acceptance of all terms, conditions and requirements in this IFB. The issuance of a written addendum by the VIWMA is the only official method by which interpretation, clarification or additional information can be given. If the VIWMA amends this IFB, they will email the addenda to all potential Respondents. The WMA will **not** be held responsible if any potential respondent does not check the website on a regular basis for all addenda. It is

the responsibility of the potential respondents to update all contact information, contact the Procurement/Contract Officer to ensure that they receive all addenda prior to the submittal of the bid package, and/or check VIWMA's website for updates. The bid package will be considered non-responsive if all modifications are not incorporated.

15.0 DELIVERY OF BID PACKAGES

All responses to this IFB are to be submitted via email, in pdf. format no later than **12:00 p.m. AST on Friday, October 31st, 2025**. This procurement is expected to be completed in about 6 (six) months or less. Submittals must be made via email and contain two separate pdf document submissions. The first email must contain the bid package (technical proposal) and the second email must contain a separate detailed pricing submittal (cost proposal). All bid pricing must be valid for 90 days. The VIWMA will **not** consider e-mail submission of a bid received after the bid due date.

Bid Packages must be submitted to:

SEALED BIDS – DO NOT OPEN
Virgin Islands Waste Management Authority

Attention:
Sandra David, Procurement Director
Michael Vante, Contract & Inventory Manager
Procurement Division
IFB-004-T-2025

The email must be clearly marked. Failure to clearly mark each email submission with this information may cause the VIWMA to inadvertently open the bid package before official closing date and time. The WMA will log all received bid packages with the date and time of receipt. Bids received after the official deadline will be considered **LATE** and will **not** be opened or considered.

16.0 FORMAT OF BID PACKAGE

To be considered for award, the bid package shall meet the following requirements. Failure to meet the requirements as outlined will disqualify the respondent.

A. IFB Cover Letter - Complete Enclosure Document A.

B. Commitment Statement Letter – The Commitment Statement letter should be on the company's letterhead with contact information and must be signed by an officer of the organization that is authorized to bind the company contractually to all of the commitments made in its submittal. The letter shall also include a statement of understanding of the work to be done and to certify that the company shall adhere to the all the terms and conditions governing the contract. It shall state that the firm will be solely responsible for all aspects of the engagement including any portion that may be performed by its subcontractors, if any. It should make a positive commitment to perform the work required as specified to industry standards of workmanship and in a professional manner. It should also state that the bid package will remain in effect for a period of 90 days from the submission deadline and thereafter, until the firm withdraws it, or a contract is approved and executed, or the procurement is canceled, whichever occurs first. Respondent shall also confirm that the firm has not engaged in any unethical practices within the past five (5) years.

C. Non-Collusive Affidavit – Complete **Enclosure Document B**. The form must be notarized.

D. Debarment Certification Form – Complete **Enclosure Document C**. The form must be notarized.

E. Contract Document Checklist Form – Complete **Enclosure Document D** and **submit your current Business License**. For this section, Respondent must provide evidence that the company is licensed to provide the requested equipment. The Business License must be relevant to the Scope of Work for this solicitation.

F. Contractor's Qualifications Statement Form – Complete **Enclosure Document E**. For the Reference Section of the form, you must provide three (3) references for the most recent, relevant work comparable to the scope requested in this IFB whom would be willing to discuss your company's competency and performance. If you currently have more than three (3) references, a client listing with contact information should be provided as well.

G. Bid Sheet – Complete **Enclosure Document F**. All bid pricing must be valid for 90 days from the submission deadline and thereafter until the company withdraws it, a contract is approved and executed, or the procurement is canceled, whichever occurs first.

17.0 NOTICE OF FEDERAL GUIDELINES

Because the contract is being funded with federal funds, the contract may be governed by certain federal terms and conditions for federal grants, such as 2 CFR 200 and other applicable OMB circulars. Respondent shall provide a description of experience with such grant requirements and affirmatively represent and certify that the respondent shall adhere to any requirements of applicable federal requirements. **In addition, this IFB is intended to be conducted in accordance to 2 CFR 200 and the resulting contract will contain the required contract provisions. The successful contractor will be required to abide by the federal rules and regulations which govern this construction project.**

18.0 CONFLICT OF INTEREST

A respondent submitting a bid hereby certifies that no officer, agent or employee of VIWMA has a pecuniary interest in this bid or has participated in contract negotiations on behalf of the WMA; that the bid is made in good faith without fraud, collusion, or connection of any kind with any other Bidder for the same request for proposals; the Bidder is competing solely in its own behalf without connection with, or obligation to, any undisclosed person or firm.

19.0 MINORITY & WOMEN-OWNED BUSINESS ENTERPRISE (M/WBE)

Respondents that are not M/WBEs are strongly encouraged to consider partnering, or other joint venture arrangements, with Local certified M/WBE firms to achieve the prescribed goals and to give M/WBE firms the opportunity to participate. Respondents must document good faith efforts to provide meaningful participation by M/WBE firms.

20.0 DBE PROGRAM PROVISIONS

Pursuant to, 40 CFR, Part 33, Subpart C, Disadvantaged Business Enterprise (DBE) respondents that are not DBEs are strongly encouraged to consider partnering, or other joint venture arrangements, with certified DBE firms to achieve the prescribed goals and to give DBE firms the opportunity to participate. Respondents must document good faith efforts to provide meaningful participation by DBE firms. Willful and/or intentional violation of this obligation may result in the imposition of liquidated damages or other

appropriate sanctions, including, without limitation, suspension of any future consideration with VIWMA and monetary payments based on the DBE goal shortfall.

21.0 REQUIRED DOCUMENTS

Respondent shall be required to submit the following documents:

- A. Corporate Documents** – The successful respondent will be required to provide a copy of their Corporate Documents.
 - a. Provide a copy of Corporate Documents
 - i. Corporation
 - 1. Copy of Articles of Incorporation & Bylaws
 - ii. Limited Liability Company
 - 1. Copy of Articles of Organization
 - 2. Copy of Operating Agreement
 - iii. Sole Proprietorship
 - 1. Copy of Trade Name Certificate
- B. Business License**- The successful respondent will be required to provide a copy of their Business License. An award will not be made to any firm or individual doing business in the Virgin Islands to perform work with the Authority until evidence is submitted that the said firm or individual has a valid Business License to do business in the Virgin Islands.
- C. Letter of Good Standing if Corporation or Certificate of Existence if Limited Liability Company (LLC)** - The successful respondent will be required to provide a copy of their Letter of Good Standing or Certificate of Existence. A copy of the receipt that demonstrates evidence of filing the company's Annual Report on June 30th of the current Year from the Office of Lieutenant Governor will be acceptable as well.
- D. Liability Insurance** – The successful respondent will be required to obtain and have in place Liability Insurance in an amount no less than \$1,000,000.00 Dollars. The Insurance policy shall name the WMA as an "Additional Insured". The successful respondent must provide a copy of the Liability Insurance.
- E. Workers' Compensation Insurance** – The successful respondent will be required to obtain and have in place Workers' Compensation Insurance coverage.
- F. Social Security Number (SSN) or Employer Identification Number (EIN)** - The successful respondent will be required to provide an official copy of their SSN or EIN.
- G. CAGE Number**– The successful respondent will be required to submit a Valid CAGE Number that is actively registered on SAM.GOV <https://www.sam.gov/SAM/pages/public/index.jsf>
- H. Bid Bond** – The successful respondent will be required to provide a bid bond.
- I. Performance Bond** - The successful respondent will be required to provide a performance bond.

22.0 BID BOND

Each bid must be accompanied by a bid guarantee payable to the Virgin Islands Waste Management Authority. The bid guarantee shall be in an amount of not less than five percent (5%) of the total bid. The five percent (5%) Bid Bond will only be accepted in the form of a firm commitment, such as a Bid Bond, Postal Money Order, Certified Check, Cashier's Check or Irrevocable Letter of Credit. If Individual Sureties execute the Bid Bond, they shall be two or more responsible persons. A complete Affidavit of Individual Surety shall accompany the bond. Corporations executing the bond must be duly licensed to do business in the Territory of the Virgin Islands.

23.0 PERFORMANCE BOND

A performance bond shall be required upon award of a contract. The enclosed form shall be used for construction work or the furnishing of supplies or services, whenever a performance bond is required. There shall be no deviation from this form except as authorized by the Virgin Islands Waste Management Authority. The surety on the bond may be any corporation authorized under the laws of the Government of the Virgin Islands, any State or possession of the United States, or by the Secretary of the Treasury to act a surety, or two responsible sureties. Where individual sureties are used, this bond must be accompanied by a complete Affidavit of Individual Surety for each individual surety (Standard Form).

The name, including full name, business or residence address of each individual party to the bond shall be inserted in the space provided therefor, and each such party shall sign the bond with his usual signature on the line opposite the scroll seal, and if signed in the United States Virgin Islands, and adhesive seal shall be affixed opposite the signature. If the principals are partners, their individual names shall appear in the space provided therefor, with the recital that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals. If the principal or surety is a corporation, the name of the State in which incorporated shall be inserted in the space provided therefor and said instrument shall be executed and attested under the corporate seal as indicated on the form. If the corporation has no corporate seal the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name.

The official character and authority of the person or persons executing the bond for the principal, if a corporation, shall be certified by the secretary or assistant secretary, according to the form herein provided. In lieu of such certificate there may be attached to the bond copies of so much of the records of the corporation as will show the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies. The date of this bond must not be prior to the date of the instrument in connection with which it is given.

24.0 SELECTION PROCESS

The WMA's Evaluation Committee Panel is responsible for evaluating all respondents' submittals. The Evaluation Committee Panel will consider the following criteria:

- Contractor is duly organized, validly existing, qualified and licensed to conduct business in the U.S. Virgin Islands.
- **Lowest reasonable price and responsive bid package.**

25.0 PREFERRED BIDDERS

All persons seeking preferred bidder's status must submit a preferred bidder's registration form and a federal W-9 form to VIWMA's Procurement & Property Division and comply with the requirements for preferred bidders pursuant to 31 V.I.C. § 236a, as amended.

26.0 RIGHT TO REJECT BID PACKAGES

The WMA reserves the right to reject, without prejudice, any and all bids submitted in response to this solicitation. Further, bids submitted in response to this solicitation become the property of the WMA and the WMA may use any idea or concept in a submitted bid, regardless of whether that bid is selected for award.

27.0 ENCLOSURES

Enclosure Document A- IFB Cover Letter

Enclosure Document B- Non-Collusive Affidavit

Enclosure Document C- Debarment Certification Form

Enclosure Document D- Contract Document Checklist Form

Enclosure Document E- Contractor's Qualification Statement Form

Enclosure Document F- Bid Sheet

28.0 APPENDICES

Appendix 1 – Project Specifications

Appendix 2 – Measurement and Payment

Appendix 3 – Project Map

Appendix 4 – Standard Drawings

Appendix 5 – USVI Public Works 209 Standard

ENCLOSURE DOCUMENT A
VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY
IFB COVER LETTER

RESPONDENT

Name: _____

Address: _____

Tax Identification Number: _____

RESPONDENT'S CONTACT PERSON

Name: _____

Title: _____

Telephone: _____

Email Address: _____

INVITATION FOR BIDS INFORMATION

IFB Number: _____

IFB Project Name: _____

SCHEDULE OF ADDENDA(I) or (We) acknowledge receipt of the Addenda to the IFB Package hereinafter named, for the project(s) included in this IFB and declare that (I) or (We) accept these Addenda and that every change is included in this proposal.

Addendum Number _____ Date _____

Addendum Number _____ Date _____

Addendum Number _____ Date _____

Addendum Number _____ Date _____

Addendum Number _____ Date _____

RESPONDENT'S AUTHORIZED REPRESENTATIVE

Name: _____

Title: _____

Signature: _____ Date: _____

ENCLOSURE DOCUMENT B
VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY
Non-Collusion Affidavit

_____, being first duly sworn, deposes and says that
(1) he/she is [owner, partner, officer, representative, or agent] of: _____
_____, the bidder that has submitted the attached bid;

(2) He/She is duly informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;

(3) Such bid is genuine and is not a collusive or sham bid

(4) Neither the said bidder nor any of its officers, partners, owners, agents, representative, ex-employee or parties in interest, including the affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the contract for which the attached bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached bid or of any other bidder, or to fix any overhead, profit or cost element of the bid price or the bid price of any other bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against The Virgin Islands Waste Management Authority or any person interested in the proposed contract, and

(5) The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Name of Respondent, Name of Corporation, LLC, or Sole Proprietor)

Subscribed and sworn to before me on/in the Island/State of _____, this
_____ day of _____ 2025, by _____ of legal age,
_____ and personally known to me.

(Trade or Corporation)

(Seal)

Notary Public

ENCLOSURE DOCUMENT C
VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY
DEBARMENT CERTIFICATION FORM

**Certification Regarding Debarment, Suspension and
Ineligibility**

(1) The Respondent certifies, by submission of this solicitation, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in any federal or local programs in the Territory or any Federal department or agency.

(2) Signing this Certification without disclosing all pertinent information about a debarment or suspension shall result in rejection of the offer or cancellation of a contract. The VIWMA may also exercise any other remedy available by law.

(3) Where the Respondent is unable to certify any of the statements in this certification, such Respondent shall attach an explanation to this solicitation.

Name of Authorized Representative: _____

Title of Authorized Representative: _____

Signature: _____ Date: _____

Subscribed and sworn to before me on/in the Island/State of _____, this _____ day of _____, 2025, by _____ of _____ legal age, _____ and personally, known to me.

(Trade or Corporation)

(SEAL)

Notary Public

ENCLOSURE DOCUMENT D
VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY
RESPONDENT QUALIFICATIONS STATEMENT

Name of License Holder: _____

Name of Company/DBA (if any): _____

Legal Status (check one): ☐Corporation ☐LLC ☐Sole Proprietorship ☐Partnership

Business Location (Office): _____

Mailing Address: _____

Telephone Number: _____ Fax Number: _____ Email: _____

Website address (if any): _____

Do you have a current USVI Business License? ☐Yes ☐No

Number of Years licensed to conduct business in the USVI: _____

Type of License(s): _____

Number of Design/Builds completed in the last 5 Years _____, Average value of these Contracts \$: _____

Do you have a plan to use Subcontractors? ☐Yes ☐No If yes, company: _____

Have you ever failed to complete a project, been fired, sued by one of your clients and/or found in default of contract terms? ☐Yes ☐No

If yes, explain on another sheet if a Performance Bond or other means were used to resolve the issue and the circumstances and the outcome.

Are there or have there been any Claims, Arbitration, Judgments or Liens against you?

☐Yes ☐No

If yes, explain on another sheet the circumstances and outcome.

List three non-VIWMA references that can be contacted for their input concerning your abilities:

1) Client Name: _____ Contact Number: _____

2) Client Name: _____ Contact Number: _____

3) Client Name: _____ Contact Number: _____

List your current Projects under Contract (Project Title or Clients Name), Value (Contract Value) and Percentage of Completion:

1)Client Name: _____ Value: _____ % _____

2)Client Name: _____ Value: _____ % _____

3)Client Name: _____ Value: _____ % _____

(If you have more contracts, please list on separate sheet)

Respondent shall certify that the above information is true and shall grant permission to VIWMA to contact the above-named person or otherwise verify the information.

ENCLOSURE DOCUMENT E
VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY
CONTRACT DOCUMENT CHECKLIST

Name of Business: _____
Contact Person: _____
Telephone Number: _____
Email Address: _____
EIN Number: _____
CAGE Number: _____

- | | |
|--|----------------------------------|
| <input type="checkbox"/> Current USVI Business License | Expiration Date ____/____/20____ |
| <input type="checkbox"/> Government Insurance Coverage/Workman's Comp. | Expiration Date ____/____/20____ |
| <input type="checkbox"/> Insurance | |
| <input type="checkbox"/> Certificate of General Liability & Endorsement | Expiration Date ____/____/20____ |
| <input type="checkbox"/> Proof of Automobile Insurance | Expiration Date ____/____/20____ |
| <input type="checkbox"/> Certificate of Professional Liability & Endorsement | Expiration Date ____/____/20____ |
| <input type="checkbox"/> Errors & Omissions Insurance | Expiration Date ____/____/20____ |
| <input type="checkbox"/> Malpractice Insurance | Expiration Date ____/____/20____ |

The Insurance Policy shall name the VIWMA as a Certificate Holder and an Additional Insured via an endorsement as followed:

Virgin Island Waste Management Authority
7410 Estate Bovoni, Bay 2
St. Thomas, USVI 00802

Business Formation Documents

For all business entities, please submit a Trade Name Certificate (if applicable) in addition to the following:

- | | |
|--|---|
| <input type="checkbox"/> Corporation | <input type="checkbox"/> Articles of Incorporation & By Laws |
| | <input type="checkbox"/> Certificate of Resolution |
| | <input type="checkbox"/> Certificate of Authority/ Good Standing |
| <input type="checkbox"/> LLC | <input type="checkbox"/> Articles of Organization |
| | <input type="checkbox"/> Certificate of Authority/ Good Standing |
| <input type="checkbox"/> General Partnership | <input type="checkbox"/> Partnership Agreement |
| | <input type="checkbox"/> Certificate of Authority/ Good Standing |
| <input type="checkbox"/> LP, LLP, LLLP | <input type="checkbox"/> Certificate of Ltd. Partnership or Statement of Qualifications |
| | <input type="checkbox"/> Certificate of Authority/ Good Standing |
| <input type="checkbox"/> Sole Proprietorship | <input type="checkbox"/> Tradename Certificate |

ENCLOSURE DOCUMENT F
VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY
BASE BID SHEET – IFB-004-T-2025

Item #	Item Description	Total Quantity	Units	Unit Rate	Cost
Section 1 General					
1.1	Mobilization	1	LS		
1.2	Survey Layout & Record Drawings	1	LS		
1.3	Professional Site Videotaping (Post Construction Inspection)	1	LS		
1.4	Temporary Traffic Control	1	LS		
1.5	Contractor Quality Control Testing	1	LS		
Section 2 - Demolition					
2.1	Saw Cutting Pavement	1700	LF		
2.2	Pavement Removal & Disposal	1100	SY		
2.3	Curb & Gutter Removal	20	LF		
2.4	Sidewalk Removal	10	SY		
2.5	42-Inch Sewerline Removal	75	LF		
2.6	42-Inch Sewerline Abandonment	725	LF		
2.7	Manhole Removal	1	EA		
Section 3 - Utilities					
3.1	Sanitary Sewer Manhole (25+/-) ft Installation	2	EA		
3.2	42-Inch PVC (25+/-) ft	833	LF		
Section 4 – Roadway					
4.1	Curb & Gutter	20	LF		
4.2	Concrete Sidewalk	10	SY		
4.3	Aggregate Base Course (18-Inch Thickness)	533	CY		
4.4	Asphalt Pavement (6-Inch Thickness)	360	TON		
4.5	Tack Coat	100	GAL		
4.6	Thermoplastic Pavement Marking	500	SF		
Section 5 - Miscellaneous					
5.1	Dewatering	1	LS		
TOTAL COST					\$

Appendix 1 - Project Specifications

Veterans Drive Emergency Gravity Line Installation

Cancryn Pump Station Influent

The contractor shall be responsible for providing all permits, materials, equipment, labor and any other work associated with the completion of the work as described in the project scope of work. Any items that are necessary for the completion of the project that are not specifically included in the project Schedule of Values shall be considered incidental to the Mobilization bid item.

The project shall follow United States construction industry standards. All standards utilized shall be the latest published version at the time of project bid proposal submission deadline. Should any standards be found to be in conflict, the more conservative requirement shall dictate.

Applicable standards and/or agencies having jurisdiction include but are not limited to:

- American Association of State Highway Transportation Officials (AASHTO)
- American Concrete Institute (ACI)
- American National Standards Institute (ANSI)
- American Society of Civil Engineers (ASCE)
- American Society for Testing and Materials (ASTM)
- American Water Works Association (AWWA)
- Concrete Reinforcing Steel Institute (CRSI)
- Occupational Safety and Health Administration (OSHA)
- Plastic Pipes Institute (PPI)
- U.S. Army Corp of Engineers, Unified Facilities Guide Specifications (UFGS)
- U.S. Department of Transportation, Federal Highway Administration, Federal Lands Highway, Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FHWA FP-14).
- U.S. Environmental Protection Agency (EPA)
- U.S.V.I. Department of Planning & Natural Resources (DPNR)
- U.S.V.I. Department of Public Works (DPW)
- U.S.V.I. Fire Services
- U.S.V.I. Housing Finance Authority (HFA)
- U.S.V.I. Waste Management Authority (WMA)
- U.S.V.I. Water and Power Authority (WAPA)

Bid Items

1.1 Mobilization

Mobilization shall include all work including but not limited to:

- Moving personnel, equipment, supplies and incidentals to the site;
- Establishing offices, buildings, and other facilities at the site;
- Providing temporary bathroom facilities for project staff;
- Other preparatory work and operations;
- Performance bond, insurance, permits, etc.;
- Other miscellaneous items not included elsewhere in the Schedule of Values necessary to complete the provided scope of work.

1.2 Survey Layout & Record Drawings

The Contractor shall provide survey services overseen by a professional licensed in the USVI that is authorized to conduct and certify professional survey documents. The Survey Layout & Record Drawings item shall include stakeout for horizontal and vertical positions, incremental verification of the same and as-built measurements to include horizontal and vertical positions at a maximum of 60 foot spacing along the alignment.

The surveyor shall provide project control files, raw point data in .csv format, drawings in .dwg format and a professionally stamped .pdf format of as-built drawings. Project control and raw point feature code definitions and attributes shall conform to mapping requirements for GIS mapping import. The surveyor shall be responsible for meeting with WMA project team prior to control setup and data collection activities to ensure compliance.

1.3 CCTV Inspection

CCTV Inspection of the completed work shall be completed by a qualified firm with experience in utility video inspection. The person(s) conducting the work shall have current PACP and MACP certifications. The results of the inspection shall be approved by the Owner prior to the new line being placed into service. Camera utilized must include pan, tilt and zoom capabilities. Contractor to provide all data to owner as part of as-built submittals.

1.4 Temporary Traffic Control

Contractor shall provide Owner a Temporary Traffic Control plan for approval prior to mobilization to site. The plan shall include proposed working hours, detours, signal timing adjustments, flagging operations, signage, traffic control devices, temporary striping and all other aspects of the traffic control plan. The plan shall be prepared and signed by a certified Traffic Control Supervisor or Licensed Engineer. Plan shall be approved by Owner and the Virgin Islands Police Department (VIPD).

Temporary Traffic Control shall include all planning, permitting, coordination, public outreach, physical vehicle signage, labor, flaggers, pilot cars, detour markings and other necessary work associated with diverting vehicular and pedestrian traffic for the safety of the contractor and the public. All activities shall comply with the current version of the Manual on Uniform Traffic Control Devices (MUTCD) at the time of contract award.

Contractor shall keep inspection records and shall submit reports to the Owner monthly with the payment request. Any deficiencies that are discovered during inspection or are brought to the attention of the Contractor by Owner's Representative or authority having jurisdiction shall be immediately corrected. If corrections to the highlighted deficiencies are not started within two (2) business days, liquidated damages may be assessed on the Contractor in the amount of \$500 per calendar day until completed.

1.5 Contractor Quality Control Testing

The Contractor shall hire a third party testing firm to conduct quality control for all backfill and pavement placement. Gradation, density and testing frequency to meet or exceed USVI Public Works standards for roadway work.

Failing tests shall require reworking of material from the last passing test unless otherwise authorized by the Owner's representative. Prior to continuing operations after a failed test, passing test(s) must be provided to the Owner's representative.

All surface concrete on site shall be 4000 psi compressive strength mix at 28 day cure. All structural concrete shall be 5000 psi compressive strength mix at 28 day cure. Concrete gradation, strength and testing frequency to meet or exceed USVI Public Works standards for roadway work.

Testing data shall be submitted to the Owner's representative as completed and shall also be packaged monthly to be submitted as a part of the monthly pay application package.

2.1 Saw Cutting Pavement

Contractor shall provide equipment adequate for cutting the entire depth of the asphalt pavement section and shall sawcut the entire perimeter of a removal section prior to asphalt removal with excavation equipment. The Contractor may at their discretion use a pavement mill for removals. If a milling machine is utilized, the item Saw Cutting Pavement will be paid for the perimeter of the removal section if a vertical edge is achieved to the satisfaction of the Owner's Representative.

All saw cutting equipment utilized on the project shall have a dust collection system. If water is used in the process, the resulting slurry must be collected and disposed of per federal and territorial regulations.

2.2 Pavement Removal and Disposal

Contractor shall remove and dispose of pavement that is required to be removed as a part of the contract in accordance with all applicable federal and territorial regulations. The Contractor may at their discretion use a pavement mill for removals. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

2.3 Curb and Gutter Removal

Contractor shall remove the Curb and Gutter section without damage to surrounding infrastructure. All removals shall be done to the nearest existing joint. Material removed shall become property of the Contractor and shall be disposed of off site in accordance with federal and territorial regulations. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

2.4 Sidewalk Removal

Contractor shall remove existing sidewalk section without damage to surrounding infrastructure. All removals shall be done to the nearest existing joint. Material removed

shall become property of the Contractor and shall be disposed of off site in accordance with federal and territorial regulations. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

2.5 42-inch Sewerline Removal

Contractor shall remove existing 42" Sewerline and dispose of in accordance with federal and territorial regulations. Excavation of the trench shall be incidental to pipe installation item. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

2.6 42-inch Sewerline Abandonment

Contractor shall cap or seal all pipe ends, laterals or pipe breakage locations and abandon existing line in place by filling with cementitious flowable fill material. Flowable fill material shall be incidental to Sewerline Abandonment item up to one hundred and ten percent (110%) of the calculated required pipe volume. Any material requirement in excess of one hundred and ten percent (110%) shall only be installed with prior approval of the Owner. Flowable fill plan shall be submitted by the Contractor and approved by Owner prior to the start of application to ensure minimum remaining voids in the system. Abandonment location shall be surveyed and provided on as-built drawings.

2.7 Manhole Removal

Contractor shall remove existing manhole with minimum damage to surrounding infrastructure. Material removed shall become property of the Contractor and shall be disposed of off site in accordance with federal and territorial regulations. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

3.1 Sanitary Sewer Manhole (25+/-) ft

Contractor shall install new reinforced concrete manholes on the proposed 42-inch PVC Sewerline in locations directed by Owner's Representative. The depth is anticipated to be 25 +/- feet from the ground level to the pipe invert. If depth exceeds 27 feet as described, Owner shall compensate Contractor an amount equal to 4% of the bid item amount for each vertical foot in excess of 27 feet. Contractor shall construct

manhole in accordance with WMA standard drawings. Manholes must include rubberized water stop sealant around all penetrations and be epoxy coated as approved by Owner. Item shall include manhole lid, cone, reinforcement and all other materials, labor and installation for the structure to be completed in place.

3.2 42-inch PVC (25 +/-) ft

Contractor shall install 42-inch PVC pipe as instructed by Owner's representative. Pipe and appenditures shall meet SDR-35 industry standards. Grades shall be calculated along the alignment by Contractor's surveyor to ensure matching of existing grades at both ends of replacement section. Bid item shall include materials, labor, equipment trench excavation, backfill, pipe installation and other work associated with installation. The unit price shall include all required fittings and appenditures required for complete installation. Trench depth is approximate and shall be verified by Contractor. Minor depth fluctuations may be encountered and will not be justification for additional compensation. All fittings must be watertight and meet industry standards.

Utility Bedding Material will be incidental to the item. Contractor shall install $\frac{3}{4}$ inch crushed stone for a minimum of 6" below all installed pipe and backfill pipe with a minimum of 12 inches of cover on the sides and top of installed pipe. Contractor shall take care to ensure that no foreign debris gets in contact with the pipe during installation.

Geotextile Fabric will be incidental to the item. Contractor shall install Geofabric around all sides of Utility Bedding Material that will contact natural backfill materials. All seams must have a minimum of twenty-four inches (24") of overlap with the next section. Geotextile fabric shall meet the following requirements:

Fabric Property	Units	Test Method	Result
Apparent opening size	US Standard Sieve, in	ASTM D4751	40-100
Permittivity, min	Sec-1	ASTM D4491	1
Grab Tensile Strength, min	lb	ASTM D4632	100
Elongation at Failure, min.	%	ASTM D4632	50
Trap Tear Strength, min	lb	ASTM D4533	45
Puncture Strength, min	lb	ASTM D6241	60
Seam Efficiency, min	%	ASTM D4632	90

Trench Shoring and Bracing shall be incidental to the item. Contractor shall provide Owner a Trench Shoring and Bracing plan for approval prior to mobilization to site. The plan shall be reviewed and stamped by a licensed engineer capable of reviewing temporary shoring configurations. Trench Shoring and Bracing shall include all site investigations required to complete the plan. Contractor shall follow all OSHA and other federal and territorial requirements to ensure safety for the workers and the travelling public.

Materials stored for more than thirty (30) days must be protected from UV and environmental damage. All materials shall be secured and insured from vandalism, damage and theft.

4.1 Curb and Gutter

Place Curb and gutter according to standard drawings. Concrete shall be fiber reinforced. Gutter width and flowline grade shall match existing. Install six inches (6") of compacted Aggregate Base Course under the Curb and Gutter footprint. Place one-half inch (1/2") expansion joint at all interfaces between new and existing concrete. Seal expansion joint with silicone joint sealant to be one-quarter inch (1/4") below flush with finished surface and a minimum thickness of one-half inch (1/2"). Seal the entire concrete surface with Owner approved Impervious Curing Compound in accordance with manufacturer's recommendations.

4.2 Concrete Sidewalk

Place Concrete Sidewalk according to standard drawings. Concrete shall be fiber reinforced. Install four inches (4") of compacted Aggregate Base Course under the Concrete Sidewalk footprint. Sidewalk width and grade shall match existing. Place one-half inch (1/2") expansion joint at all interfaces between new and existing concrete. Seal expansion joint with silicone joint sealant to be one-quarter inch (1/4") below flush with finished surface and a minimum thickness of one-half inch (1/2"). Seal the entire concrete surface with Owner approved Impervious Curing Compound in accordance with manufacturer's recommendations.

4.3 Aggregate Base Course (18-inch thickness)

Provide Aggregate Base Course at a minimum of eighteen-inch (18") thickness. Gradation, density and testing frequency to meet or exceed USVI Public Works standards for roadway work.

4.4 Asphalt Pavement (6-inch thickness)

Provide asphalt pavement at an average thickness of six inches (6"). No single lift shall exceed 3" compacted thickness. Apply tack coat to all asphalt surfaces prior to placement. Gradation, density and testing frequency to meet or exceed USVI Public Works standards for roadway work.

Pavement must be placed with plant mix paver that is self-propelled, with a heated, vibratory screed. Surface shall not vary more than 3/16 in from the surface of a 10-foot straightedge between any two contact points. Remove or repair any defective work to the satisfaction of the Owner. Where surface milling is utilized for repair, the height difference between adjacent peaks and valleys of the milled surface shall not exceed 1/8 inch. After milling, treat surface with emulsified asphalt seal coat as approved by the Owner at no cost to the contract.

Contractor must supply Owner's representative with weight tickets for each load at the time of delivery. Scale certification must be provided to the owner prior to the start of pavement operations.

4.5 Tack Coat

Provide emulsified asphalt tack coat to all paved surfaces prior to placing additional asphalt pavement. Place Tack Coat at temperature and rates according to manufacturer's recommendations and industry standards.

4.6 Thermoplastic Pavement Markings

Reset all roadway markings damaged or destroyed during construction activities to the original configuration. Contractor shall minimize impacts to pavement markings and shall replace damaged markings outside of the required trench footprint at the Contractor's expense. Apply in accordance with manufacturer's recommendations and industry standards.

5.1 Dewatering

Contractor shall provide Owner a dewatering plan for approval prior to mobilization to site. Contractor shall obtain all necessary permits and follow all federal and territorial regulations. Dewatering item shall include all work to keep trenches in workable condition throughout the duration of the project. Contractor shall ensure that groundwater does not infiltrate the sanitary sewer collection system during construction and shall protect completed work from damage due to groundwater infiltration.

Appendix 2 - Measurement and Payment Veterans

Drive Emergency Gravity Line Installation Cancryn

Pump Station Influent

Description

All estimated quantities for unit price items stipulated in the contract documents are approximate for use in estimating the contract probable cost. Unless otherwise specified, all items shall include all required labor, materials, equipment, permitting and other work reasonably associated with completion of the item work.

Bid Items

1.1 Mobilization (LS)

Mobilization shall be paid by the LS (lump sum). The payment schedule for Mobilization shall be associated with construction activities only and will be paid as follows.

1. Fifty percent (50%) of the lump sum will be paid when the contractor has mobilized equipment to the site.
2. The remaining fifty percent (50%) will be paid when the project is complete, including demobilization, project clean up and acceptance by the owner.

1.2 Survey Layout & Record Drawings (LS)

Survey Layout & Record Drawings shall be paid by the LS (lump sum) in ten percent (10%) completion increments as delivered to the Owner. The services provided shall be all surveying activities required for the project design, construction and as-built submittals as needed. All surveys provided to the owner shall be stamped by a professional licensed to practice surveying in the USVI. Record drawings shall be delivered in stamped pdf format and autocad dwg digital format. Project control coordinates, scale factors, units, datums and other relevant information shall be provided with the documents.

1.3 CCTV Inspection (LS)

CCTV Inspection shall be paid by the LS (lump sum) in ten percent (10%) completion increments as delivered to the Owner. Work shall be completed by a firm qualified in sanitary sewer video inspection. All data collected shall be provided to the Owner and a detailed report shall be compiled detailing the methods of collection and all deficiencies that were discovered. Camera utilized must include pan, tilt and zoom capabilities.

1.4 Temporary Traffic Control (LS)

Temporary Traffic Control shall be paid by the LS (lump sum). The item shall include all planning, permitting, coordination, public outreach, physical vehicle signage, labor, flaggers, pilot cars, detour markings and other necessary work associated with diverting vehicular and pedestrian traffic for the safety of the contractor and the public. All activities shall comply with the current version of the Manual on Uniform Traffic Control Devices (MUTCD) at the time of contract award. Payment will be made in accordance with the percentage of the project completion based on the total dollar amount of the contract to the nearest one percent (1%).

1.5 Contractor Quality Control Testing (LS)

Contractor Quality Control Testing will be paid by the LS (lump sum). Contractor Testing shall be conducted by subconsultant not associated with the contractor that is currently certified by nationally recognized testing standards. All testing results shall be provided directly by the subconsultant to the owner no less than monthly. Testing frequency shall meet or exceed national standards. Payment will be made in accordance with the percentage of the project completion based on the total dollar amount of the contract to the nearest one percent (1%). All testing for backfill, concrete, asphalt and other requirements must adhere to Public Works Road Excavation Standards and FP-24.

2.1 Saw Cutting Pavement (LF)

Saw Cutting Pavement will be paid by the LF (Linear Foot) as measured in place to the nearest tenth of a foot (0.1 LF). The number of units shall not exceed the bid item quantity without approval by the Engineer.

2.2 Pavement Removal (SY)

Pavement Removal will be paid by the SY (Square Yard) as measured in place to the nearest one tenth of one square yard (0.1 SY). The removed material shall become property of the Contractor and shall be removed off site and disposed of in accordance with applicable regulations.

2.3 Curb and Gutter Removal (LF)

Curb and Gutter Removal will be paid by the LF (Linear Foot) as measured in place to the nearest one tenth of a foot (0.1'). Necessary subgrade removal shall be incidental to the Curb and Gutter Removal item. The number of units shall not exceed the bid item quantity without approval by the Engineer. The removed material shall become property of the Contractor and shall be removed off site and disposed of in accordance with applicable regulations. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

2.4 Sidewalk Removal (SY)

Sidewalk Removal will be paid by the SY (Square Yard) as measured in place to the nearest one tenth of a square yard (0.1 SY). Necessary subgrade removal shall be incidental to the Sidewalk Removal item. The number of units shall not exceed the bid item quantity without approval by the Engineer. The removed material shall become property of the Contractor and shall be removed off site and disposed of in accordance with applicable regulations. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

2.5 42-inch Sewerline Removal (LF)

42-inch Sewerline Removal will be paid by the LF (Linear Foot) as measured in place to the nearest one tenth of a foot (0.1'). The number of units shall not exceed the bid item quantity without approval by the Engineer. The removed material shall become property of the Contractor and shall be removed off site and disposed of in accordance with applicable regulations. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

2.6 42-inch Sewerline Abandonment (LF)

42-inch Sewerline Abandonment will be paid by the LF (Linear Foot) as measured in place to the nearest one tenth of a foot (0.1'). The number of units shall not exceed the bid item quantity without approval by the Engineer.

2.7 Manhole Removal (EA)

Manhole Removal will be paid by the EA (Each) as measured in place. The number of units shall not exceed the bid item quantity without approval by the Engineer. The removed material shall become property of the Contractor and shall be removed off site and disposed of in accordance with applicable regulations. Contractor shall obtain a hauler's permit from WMA and follow permit requirements for disposal of material entering the landfill.

3.1 Sanitary Sewer Manhole (25+/-) ft (EA)

Sanitary Sewer Manhole (25+/-) ft will be paid by the EA (Each) as measured in place. The number of units shall not exceed the bid item quantity without approval by the Engineer.

3.2 42-inch PVC (25 +/-) ft (LF)

42-inch PVC (25+/-) ft will be paid by the LF (Linear Foot) as measured in place to the nearest tenth of a foot (0.1'). The number of units shall not exceed the bid item quantity without approval by the Engineer.

4.1 Curb and Gutter (LF)

Curb and Gutter will be paid by the LF (Linear Foot) as measured in place to the nearest one tenth of a foot (0.1'). The number of units shall not exceed the bid item quantity without approval by the Engineer.

4.2 Concrete Sidewalk (SY)

Concrete Sidewalk will be paid by the SY (Square Yard) as measured in place to the nearest one tenth of a square yard (0.1 SY). The number of units shall not exceed the bid item quantity without approval by the Engineer.

4.3 Aggregate Base Course (18-inch thickness) (CY)

Aggregate Base Course (18-inch thickness) will be paid by the CY (Cubic Yard) to the nearest one tenth of a cubic yard (0.1 CY). Measurement will be square yards in place multiplied by 18 inch depth to calculate total volume.

4.4 Asphalt Pavement (6-inch thickness) (TON)

Asphalt Pavement (6-inch thickness) will be paid by the TON (ton) to the nearest one hundredth of a ton (0.01 TON). Measurement will be by weight tickets delivered to the project minus any estimated waste or rejected quantity.

4.5 Tack Coat (GAL)

Tack Coat will be paid by the GAL (gallons) to the nearest tenth of a gallon (0.1 GAL). Measurement will be by tickets delivered to the project minus any estimated waste or rejected quantity. Quantities of water to dilute the emulsified asphalt for application will not be paid for under the Tack Coat item.

4.6 Thermoplastic Pavement Markings (SF)

Thermoplastic Pavement Markings will be paid by the SF (square foot) to the nearest one tenth of a square foot (0.1 SF) as measured in place.

5.1 Dewatering (LS)

Dewatering will be paid by the LS (lump sum). The Contractor shall submit monthly estimated cost for the dewatering item. No payment shall be made prior to the commencement of pumping operations. At no time shall the bid item percentage paid exceed the overall percentage contract dollar amount completed to date plus thirty percent (30%) unless all underground work is completed.

Appendix 3 – Project Map
Veterans Drive Emergency Gravity Line Installation
Cancryn Pump Station Influent



Yellow Line is approximate existing alignment

Green Line is approximate proposed alignment.

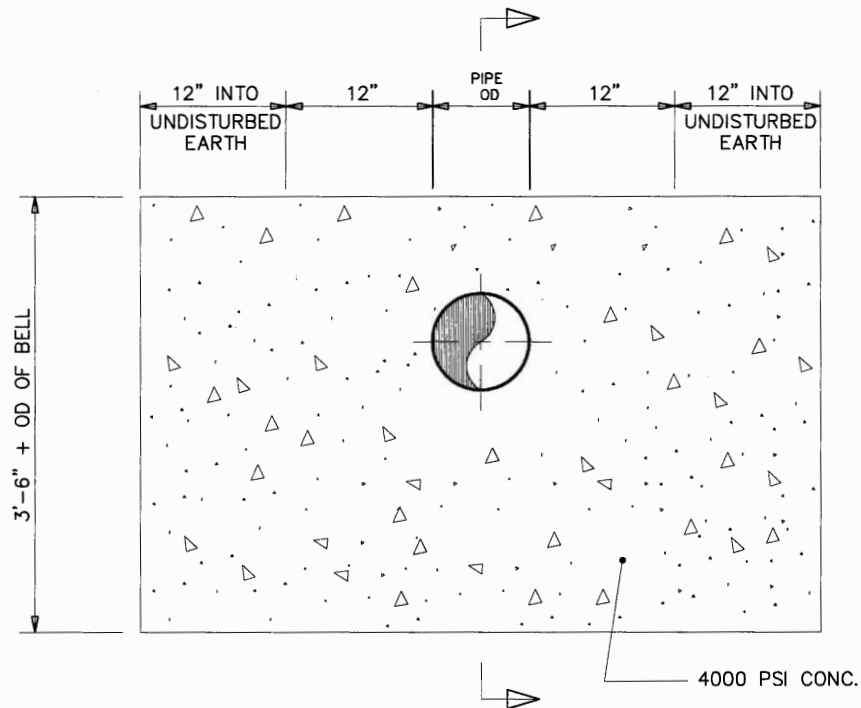
Verify locations and grades with Owner's Representative prior to construction.

Appendix 4 – Standard Drawings

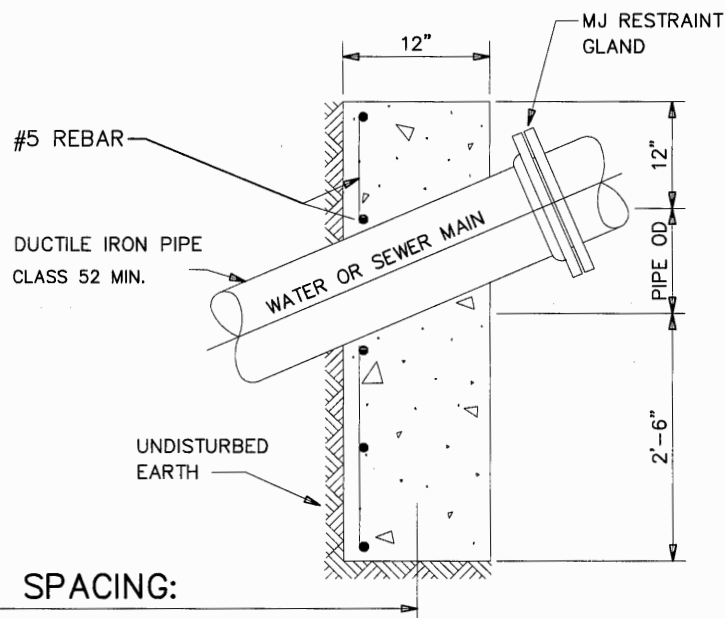
Veterans Drive Emergency Gravity Line Installation

Cancryn Pump Station Influent

TOP



ELEVATION



SECTION

MINIMUM SPACING:

36' ON GRADES 15%–35%
24' ON GRADES 35%–50%
16' ON GRADES OVER 50%

NO SCALE

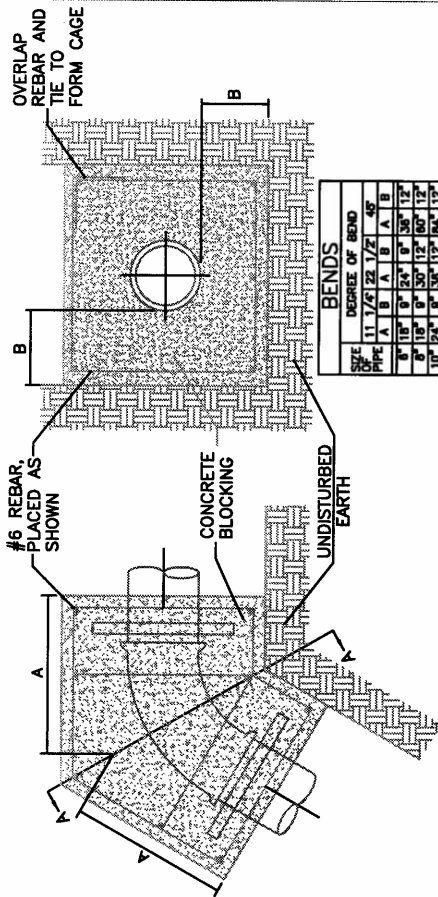
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

KEYBLOCK ANCHORS FOR WATER OR SEWER MAINS ON STEEP SLOPES

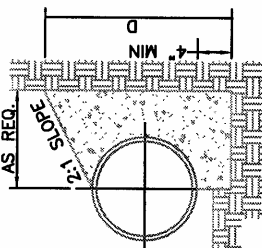
DRAWING NO.

G1.1



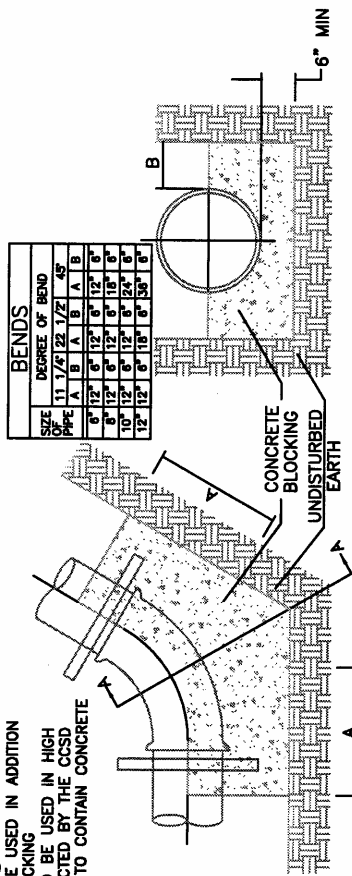
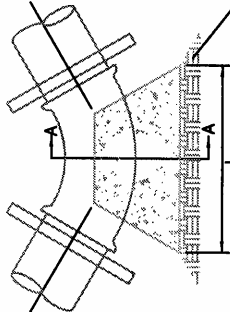
SECTION A TYPICAL TOP VERTICAL BENDS N.T.S.

- BLOCKING NOTES:
1. BLOCKING SHALL BE CLASS "C" CONCRETE
 2. BLOCKING REQUIRED AT ALL BENDS
 3. FACE OF EACH BLOCK MUST BE PERPENDICULAR TO THE LINE OF THRUST
 4. FITTINGS TO BE WRAPPED WITH 4 MIL PLASTIC TO PREVENT CONCRETE CONTACTING BOLTS, GLANDS, AND NUTS
 5. CONCRETE TO BE POURED AGAINST UNDISTURBED EARTH ON THE THRUST SIDE
 6. D.I. RETAINER GLANDS TO BE USED IN ADDITION TO CONCRETE THRUST BLOCKING
 7. 3/4" REINFORCING BARS TO BE USED IN HIGH PRESSURE ZONES AS DIRECTED BY THE CCSD
 8. RUDIMENTARY FORMS USED TO CONTAIN CONCRETE IN THRUST AREA



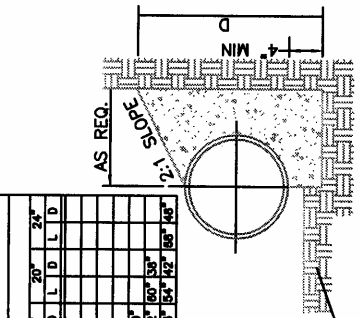
SECTION A TYPICAL BENDS 45° AND UNDER N.T.S.

SIZE OF PIPE	DEGREE OF BEND			
	11 1/4°	22 1/2°	45°	
8"	L	D	L	D
10"	8"	9"	8"	9"
12"	10"	12"	10"	12"
14"	12"	14"	12"	14"
16"	14"	16"	14"	16"
18"	16"	18"	16"	18"
20"	18"	20"	18"	20"
24"	20"	24"	20"	24"

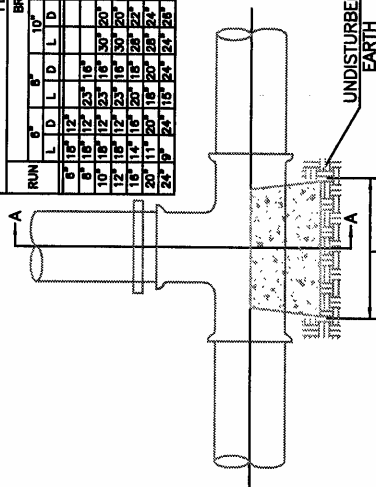


SECTION A TYPICAL BOTTOM VERTICAL BENDS N.T.S.

RUN	TEES							
	BRANCH				TEES			
	8"	10"	12"	18"	20"	24"		
8"	L	D	L	D	L	D	L	D
10"	8"	9"	8"	9"	8"	9"	8"	9"
12"	10"	12"	10"	12"	10"	12"	10"	12"
14"	12"	14"	12"	14"	12"	14"	12"	14"
16"	14"	16"	14"	16"	14"	16"	14"	16"
18"	16"	18"	16"	18"	16"	18"	16"	18"
20"	18"	20"	18"	20"	18"	20"	18"	20"
24"	20"	24"	20"	24"	20"	24"	20"	24"



SECTION A TYPICAL TEES N.T.S.



VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

CONCRETE BLOCKING
FOR PIPE FITTINGS ON
WATER & FORCE MAINS

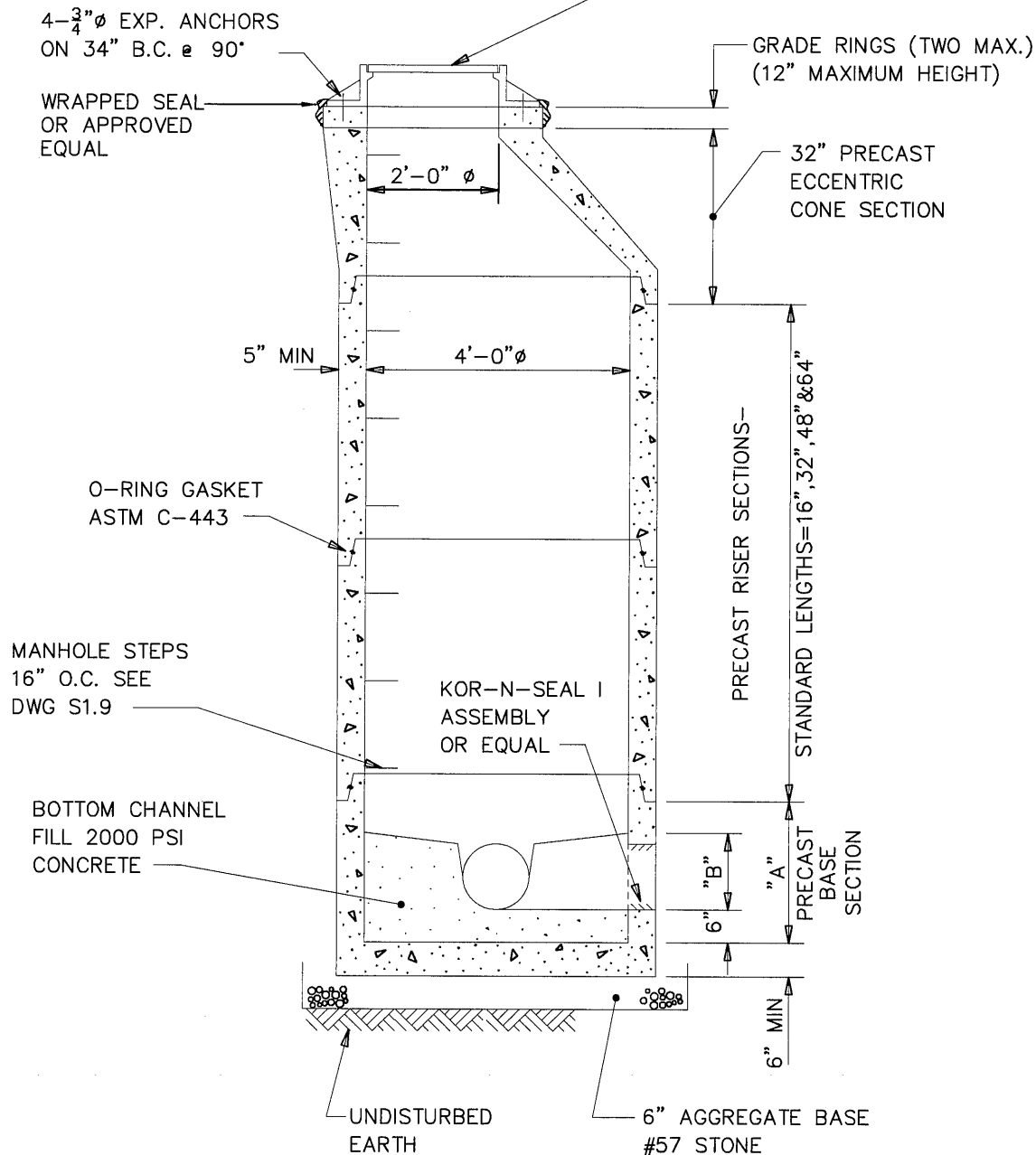
DRAWING NO.

G1.3

APPROVED _____
DATE _____

NOTE:

FLEXIBLE BUTYL RUBBER SEALANT EQUAL TO CONSEAL TYPE CS-302 SHALL BE USED TO: SEAL CASTING TO MANHOLE, TO SEAL ADJUSTING RINGS TOGETHER AND TO RISERS, AND TO SEAL MANHOLE RISER JOINTS. THE SEALANT MUST BE APPLIED TO THE OUTSIDE AND INSIDE HORIZONTAL PORTION OF EACH MANHOLE JOINT.



"A" DIMENSION	SEWER SIZE
24"	8" & 10"
30"	12" & 15"
38"	18"

"B" DIMENSION	SEWER SIZE
PIPE ID + 2"	8", 10" & 12"
1/2 PIPE ID + 2"	15" & LARGER

NO SCALE

VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

STANDARD MANHOLE
FOR SEWERS
8" TO 18"

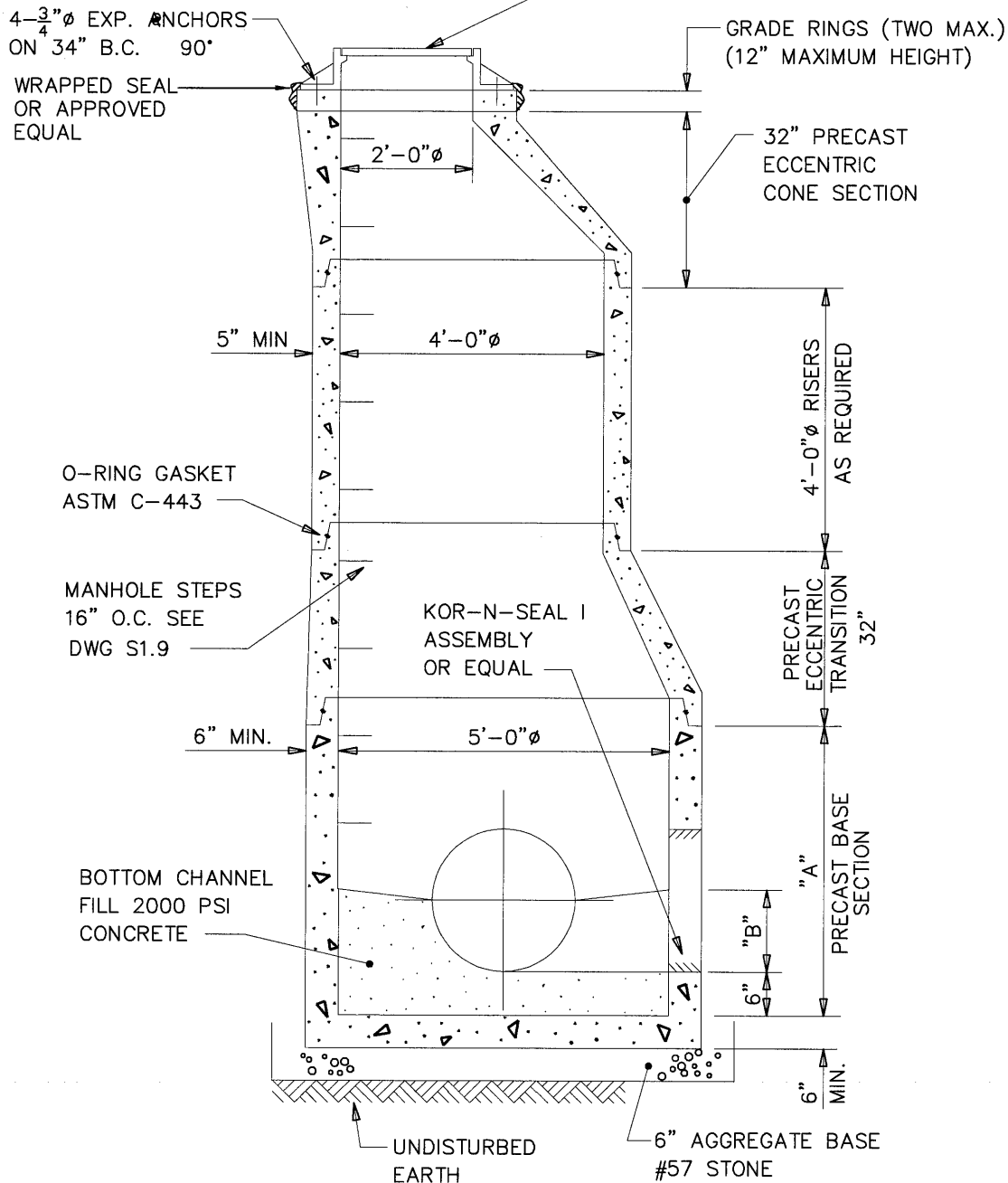
DRAWING NO.

S1.1

APPROVED _____
DATE _____

NOTE:

FLEXIBLE BUTYL RUBBER SEALANT EQUAL TO CONSEAL TYPE CS-302 SHALL BE USED TO: SEAL CASTING TO MANHOLE, SEAL ADJUSTING RINGS TOGETHER AND TO RISERS, AND TO SEAL MANHOLE RISER JOINTS. THE SEALANT MUST BE APPLIED TO THE OUTSIDE AND INSIDE HORIZONTAL PORTION OF EACH MANHOLE JOINT.



"A" DIMENSION	SEWER SIZE
42"	21" - 27"
58"	30" - 36"

"B" DIMENSION	SEWER SIZE
1/2 PIPE ID + 2"	ALL

NO SCALE

VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

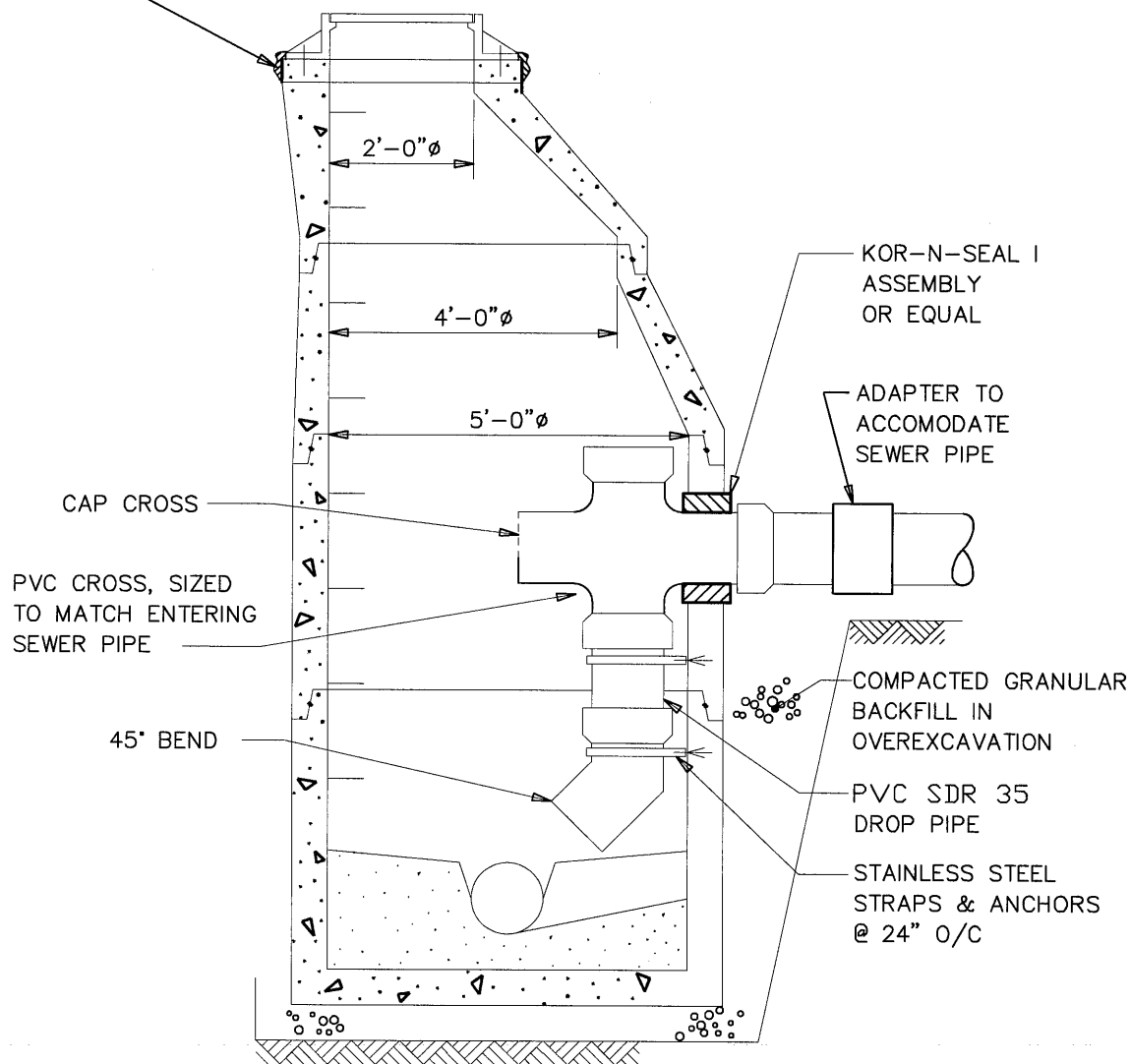
STANDARD MANHOLE
FOR SEWERS
21" TO 36"

DRAWING NO.

S1.2

APPROVED _____
DATE _____

WRAPID SEAL
OR APPROVED
EQUAL



SEWER PIPE SIZE	DROP PIPE SIZE
8"	8"
10"	10"
12"	12"
15" & OVER	12" UNLESS OTHERWISE APPROVED

NOTES:

1. IN LIEU OF THE DROP STRUCTURE SHOWN, A RELINER BRAND INSIDE DROP SYSTEM MAY BE USED.
2. ALL OTHER CHARACTERISTICS ARE SIMILAR TO THE STANDARD MANHOLES. SEE DWGS. S1.1-S1.3.

NO SCALE

VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

INSIDE DROP
MANHOLE

DRAWING NO.

S1.4

2-CONCEALED LIFTHOLES

2" LETTERS
(RAISED)

SANITARY SEWER

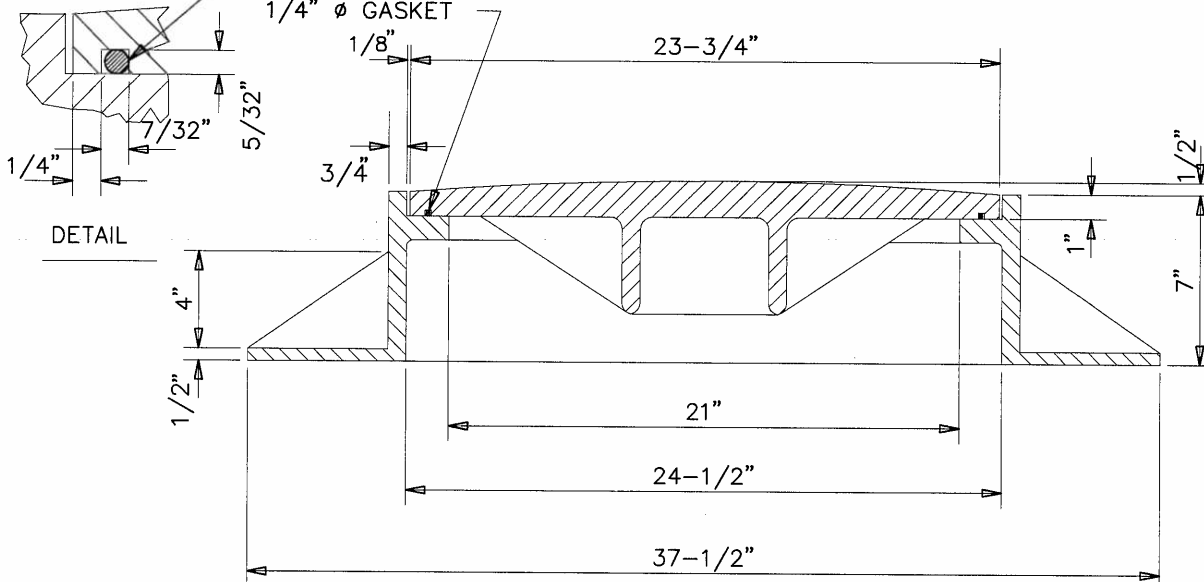
5/8"

4-1" ANCHOR
BOLT HOLES ON
34" B.C. @ 90°

SELF SEALING LID
NEENAH TYPE R1664,
OR EAST JORDAN 2045

MANHOLE FRAME NEENAH
TYPE R1765 OR EAST JORDAN 1670

5/32"X 7/32" MACH.GROOVE
1/4" Ø GASKET



NO SCALE

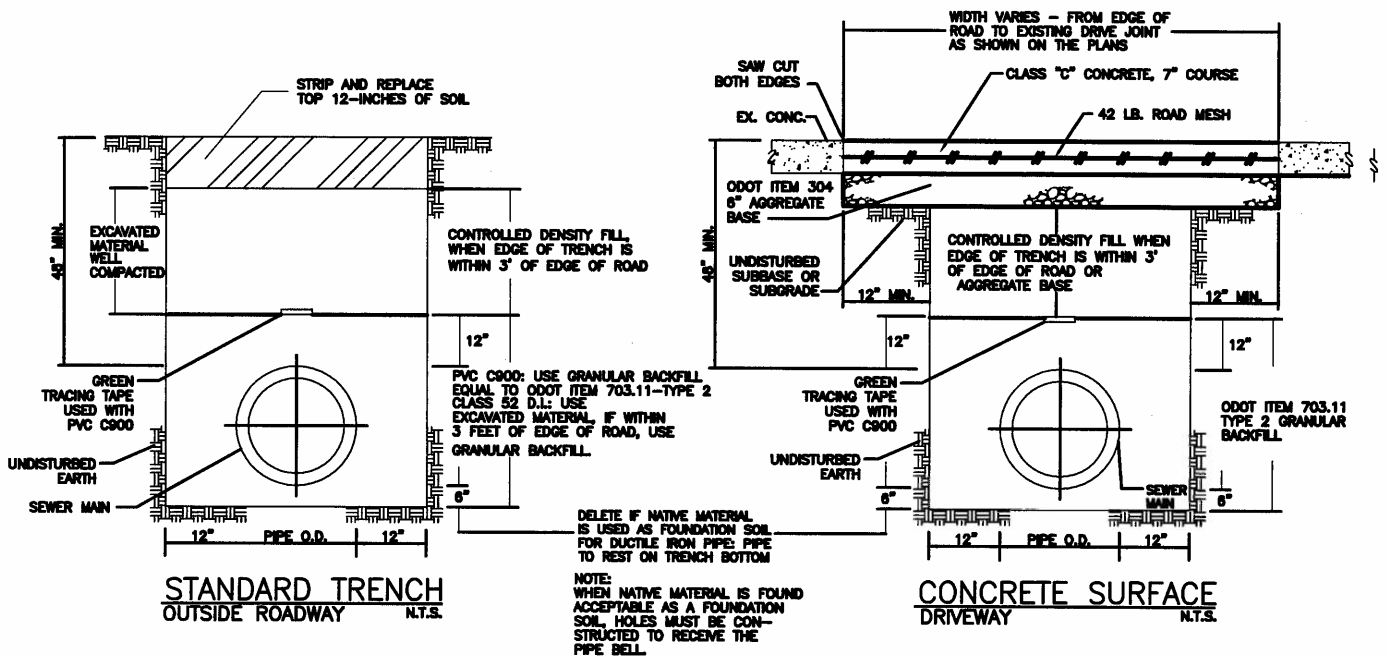
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

MANHOLE FRAME WITH
SELF SEALING LID

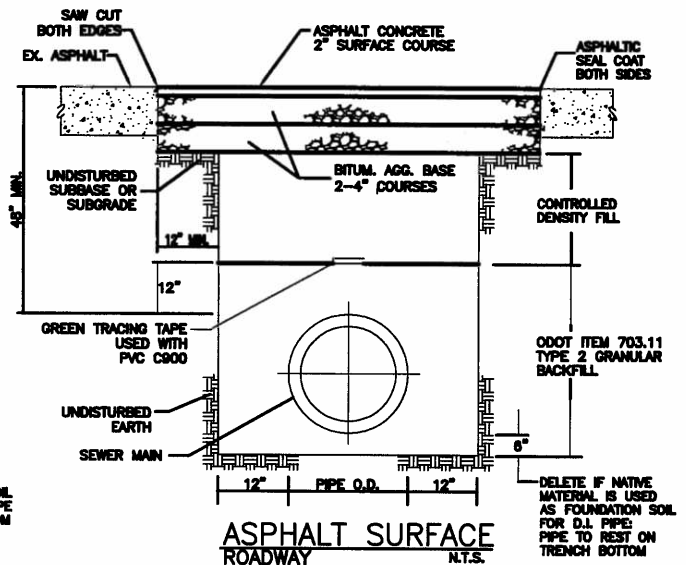
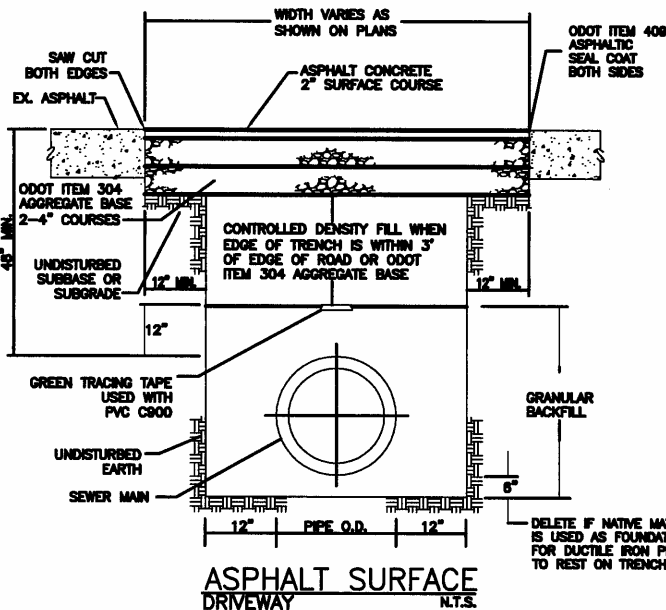
DRAWING NO.

S1.7



NOTE: VERTICAL EDGES OF EXISTING TRENCH TO BE COATED WITH LIQUID ASPHALT PRIOR TO PLACING

NOTE: VERTICAL EDGES OF EXISTING TRENCH TO BE COATED WITH LIQUID ASPHALT PRIOR TO PLACING



NOTES:

- 1."PAVEMENT" AS USED IN THIS DETAIL SHALL ALSO MEAN SIDEWALKS, CURBS, SLABS & OTHER GRADED STRUCTURES.
- 2.ALL BACKFILL & BEDDING IS TO BE COMPACTED AS CALLED FOR IN THE SPECIFICATIONS.
- 3.BEDDING AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR THE SPECIFIC PIPE MATERIAL BEING INSTALLED.
- 4.6' LONG CLAY BULKHEADS TO BE INSTALLED AROUND PIPE EVERY 100'

NO SCALE

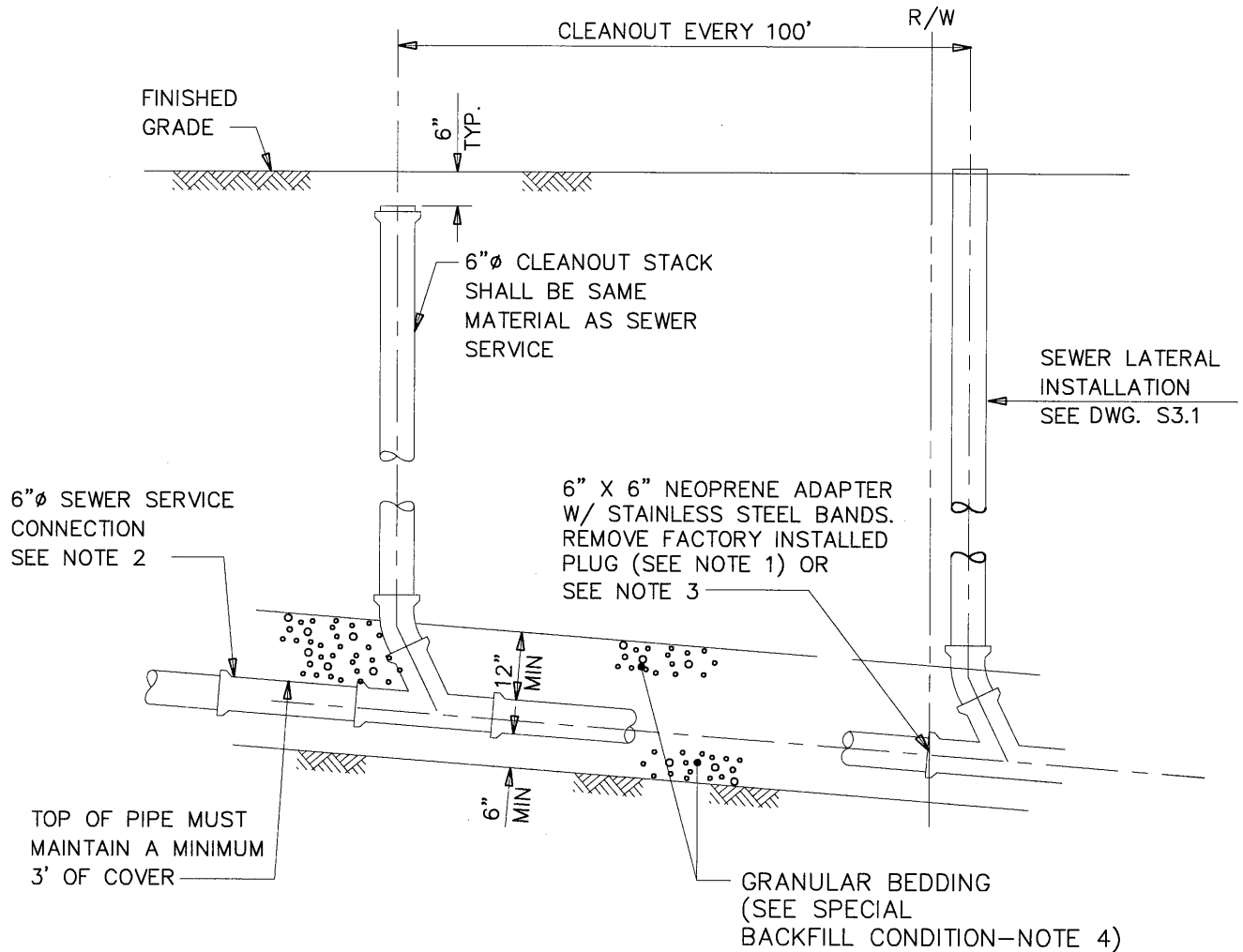
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

SANITARY SEWER
TRENCH SECTIONS

DRAWING NO.

S2.1

APPROVED _____
DATE _____

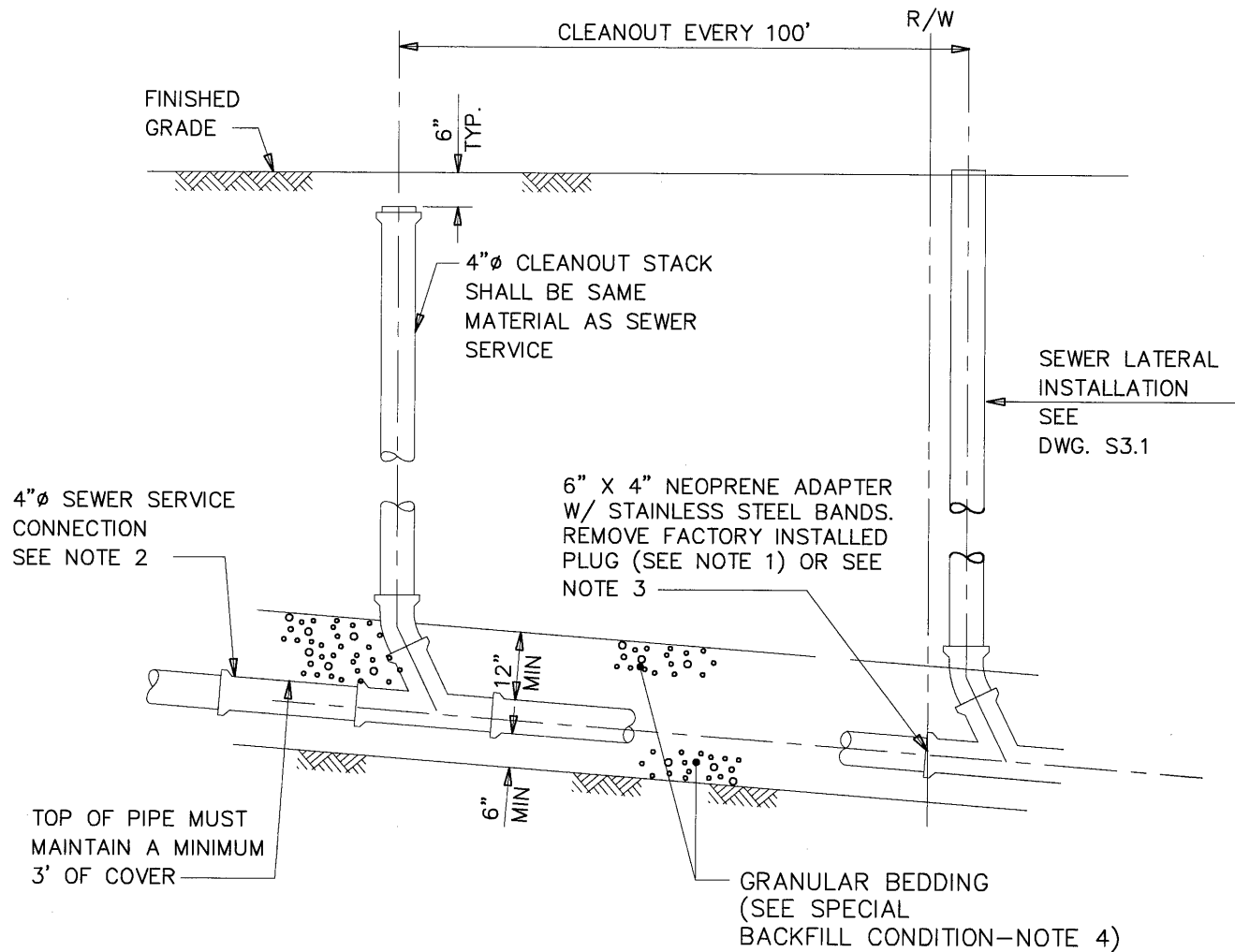


NOTES:

1. SEWER SERVICE CONNECTION TO SEWER LATERAL SHALL BE BY MEANS OF FLEXIBLE PIPE CONNECTORS (SHIELDED COUPLING AND DONUT TYPE) WHEN JOINING PIPES OF DIFFERENT MATERIAL.
2. SEWER SERVICE PIPE MATERIAL SHALL BE ANY OF THE FOLLOWING: PVC SCH-40 SOLID WALL, ASTM-D3034 WITH GLUED JOINTS, PVC SDR 35, OR (WHEN SEWER IS 15' OR DEEPER) PVC SDR 26
3. IN LIEU OF CONNECTING TO THE WYE FITTING AT THE R/W LINE, THE BUILDING SEWER MAY BE CONNECTED DIRECTLY TO THE 6" CLEANOUT PIPE, USING THE APPROPRIATE FITTINGS AS EXPLAINED IN NOTE 1.
4. AT A DISTANCE APPROXIMATELY 20' FROM THE STRUCTURE NATIVE SOIL (IN LIEU OF ODOT 703.11) WILL BE USED AS BACKFILL FOR APPROXIMATELY 4' TO CREATE AN IMPERMEABLE COMPACTED PLUG.

NO SCALE

<p>VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY</p>	<p>COMMERCIAL SEWER SERVICE INSTALLATION</p>	<p>DRAWING NO. S4.1</p>
<p>APPROVED _____ DATE _____</p>		



NOTES:

1. SEWER SERVICE CONNECTION TO SEWER LATERAL SHALL BE BY MEANS OF FLEXIBLE PIPE CONNECTORS (SHIELDED COUPLING AND DONUT TYPE) WHEN JOINING PIPES OF DIFFERENT MATERIAL.
2. SEWER SERVICE PIPE MATERIAL SHALL BE ANY OF THE FOLLOWING: PVC SCH-40 SOLID WALL, ASTM-D3034 WITH GLUED JOINTS, PVC SDR 35, OR (WHEN SEWER IS 15' OR DEEPER) PVC SDR 26
3. IN LIEU OF CONNECTING TO THE WYE FITTING AT THE R/W LINE, THE BUILDING SEWER MAY BE CONNECTED DIRECTLY TO THE 6" CLEANOUT PIPE, USING THE APPROPRIATE FITTINGS AS EXPLAINED IN NOTE 1.
4. AT A DISTANCE APPROXIMATELY 20' FROM THE STRUCTURE NATIVE SOIL WILL BE USED AS BACKFILL FOR APPROXIMATELY 4' TO CREATE AN IMPERMEABLE COMPACTED PLUG.

NO SCALE

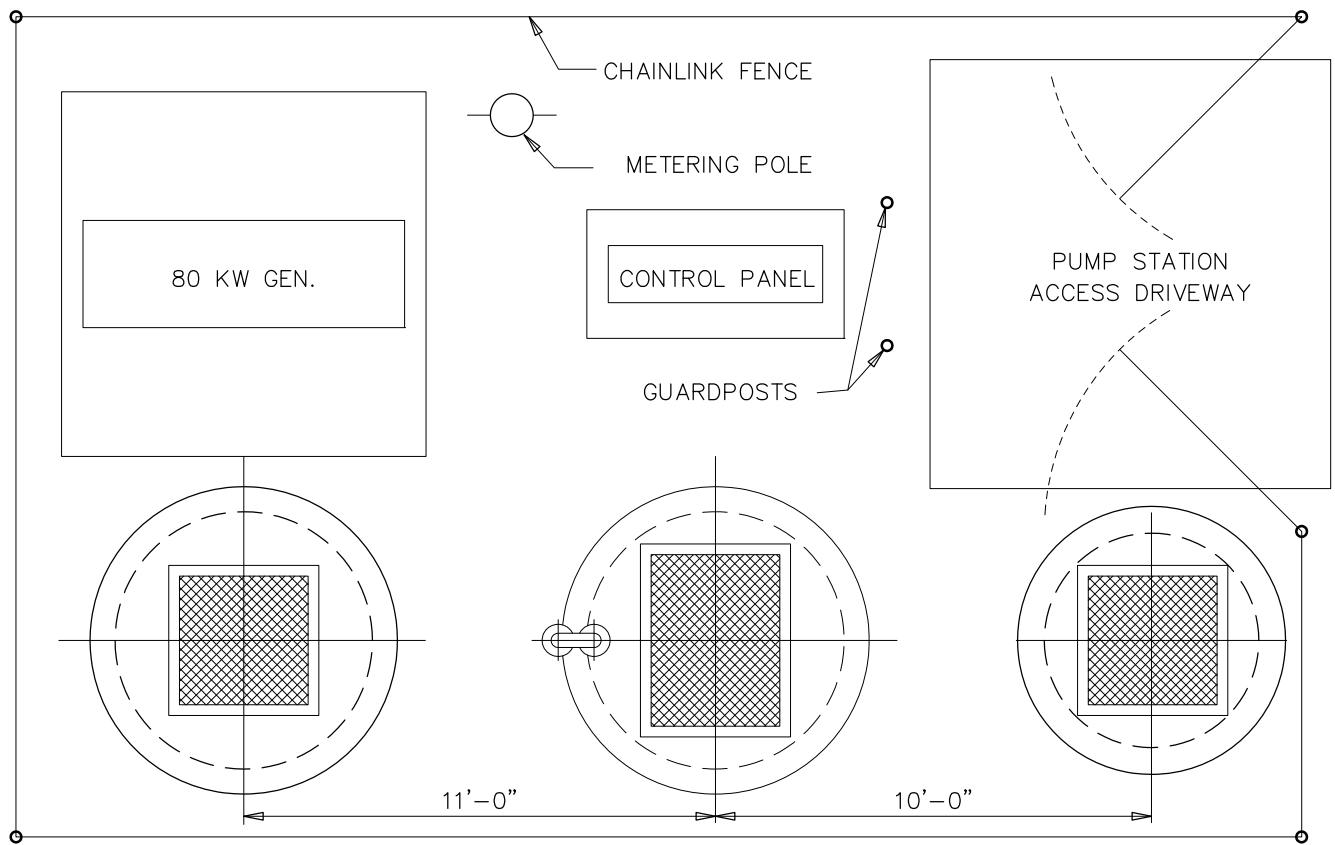
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

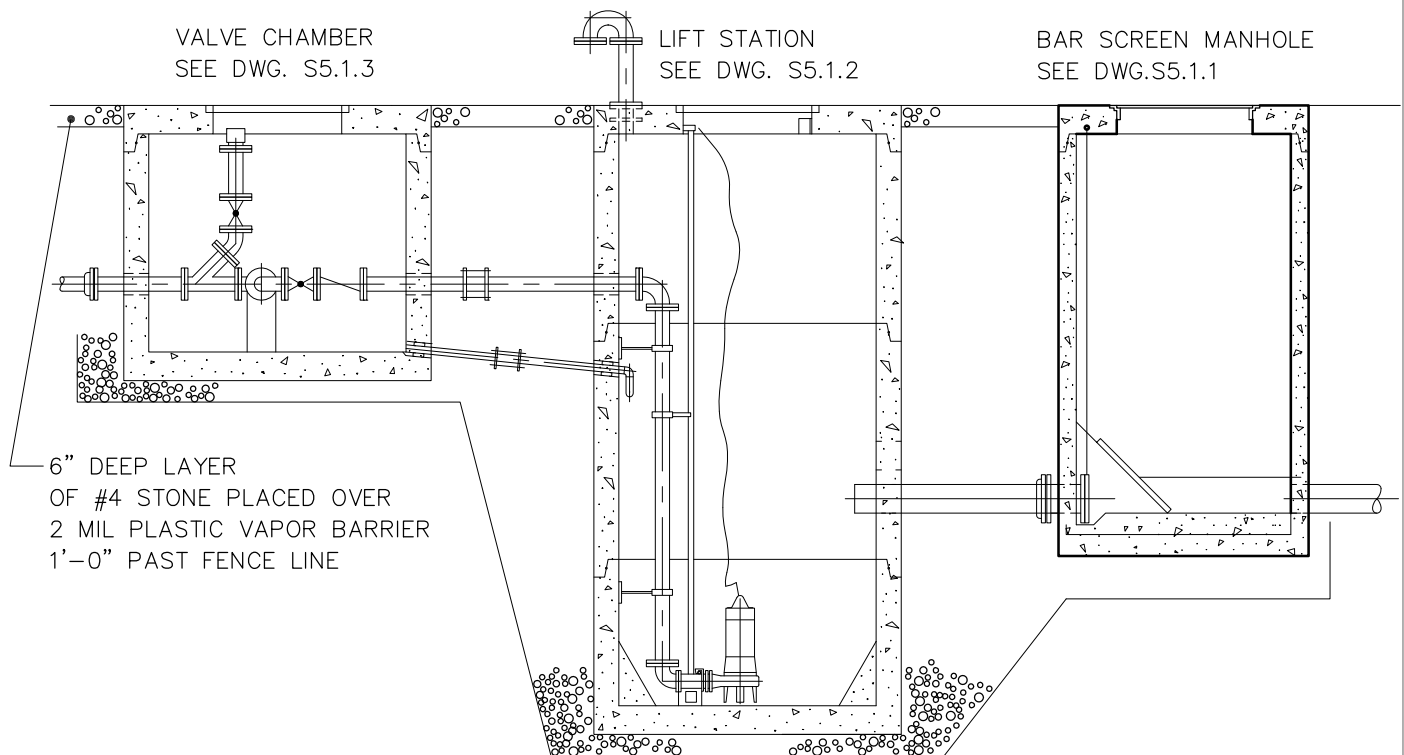
RESIDENTIAL
SEWER SERVICE
INSTALLATION

DRAWING NO.

S4.2



TOP PLAN



SECTION

NO SCALE

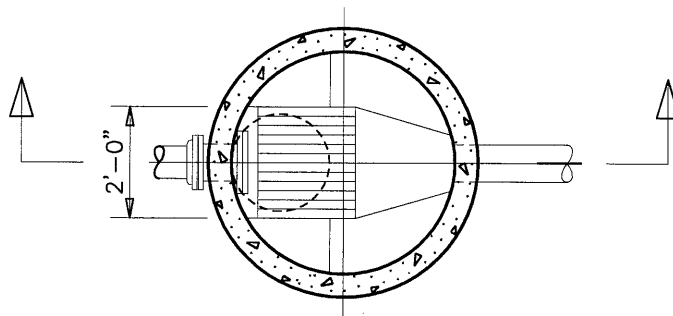
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

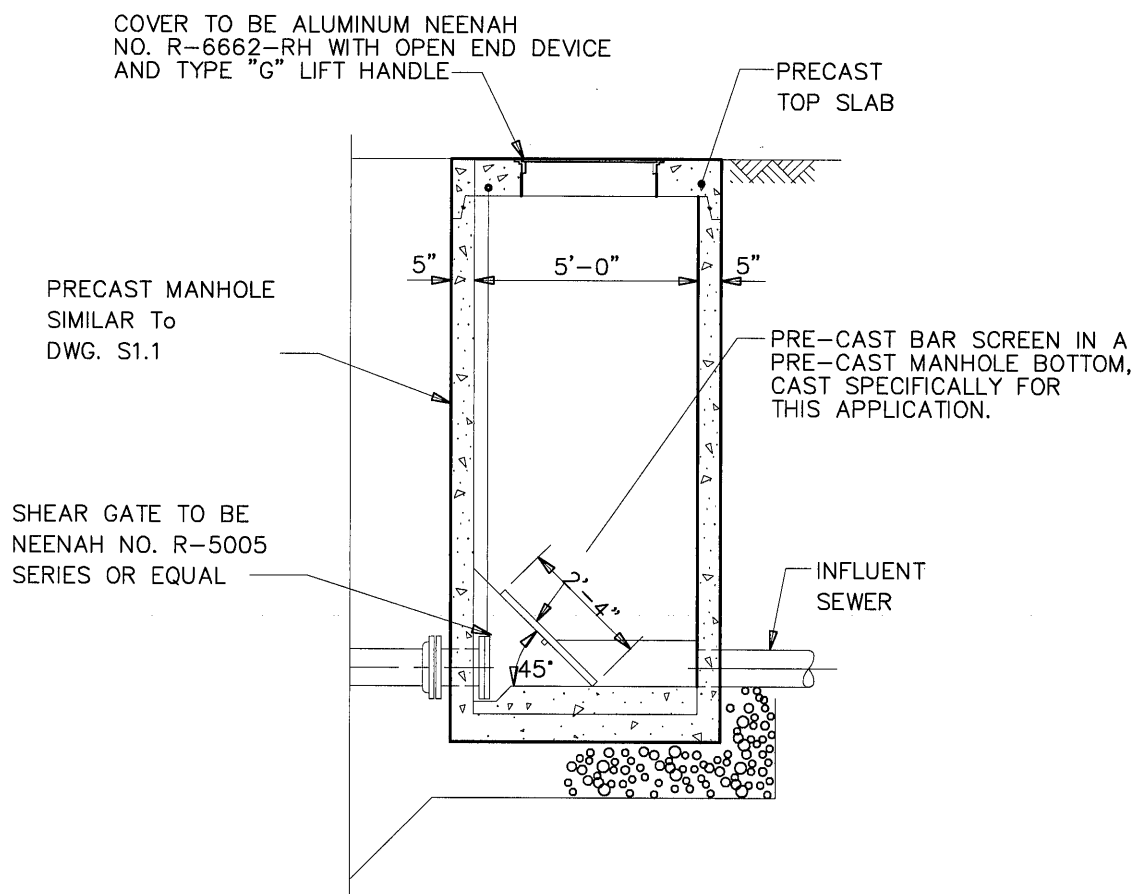
LIFT STATION
LAYOUT

DRAWING NO.

S5.1



PLAN



SECTION

NO SCALE

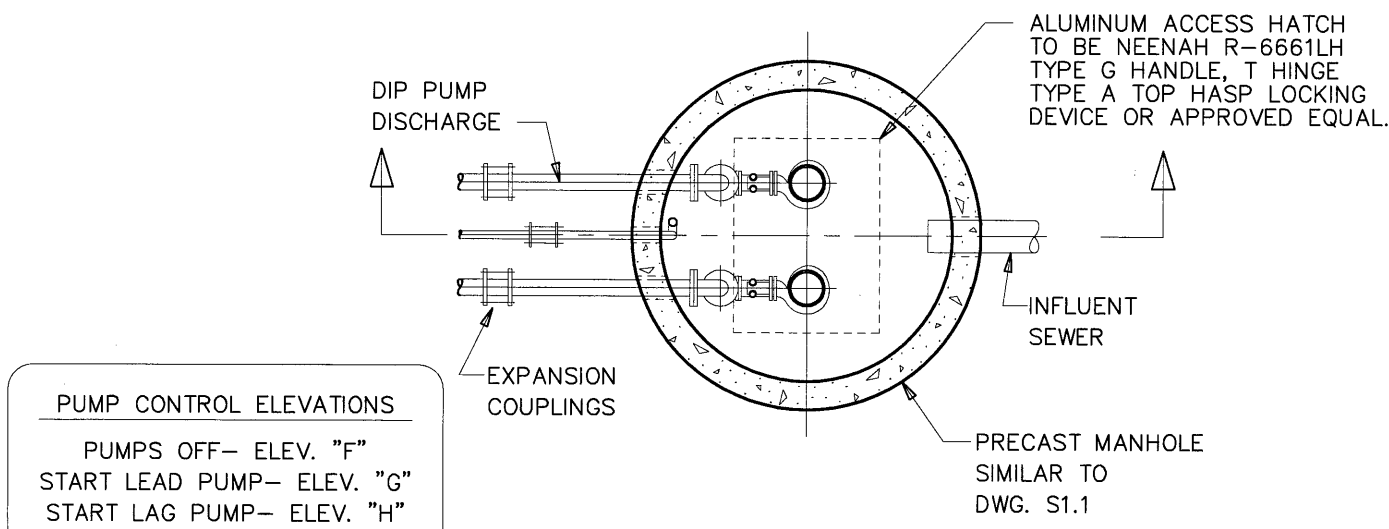
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

BAR SCREEN
MANHOLE
DETAIL

DRAWING NO.

S5.1.1



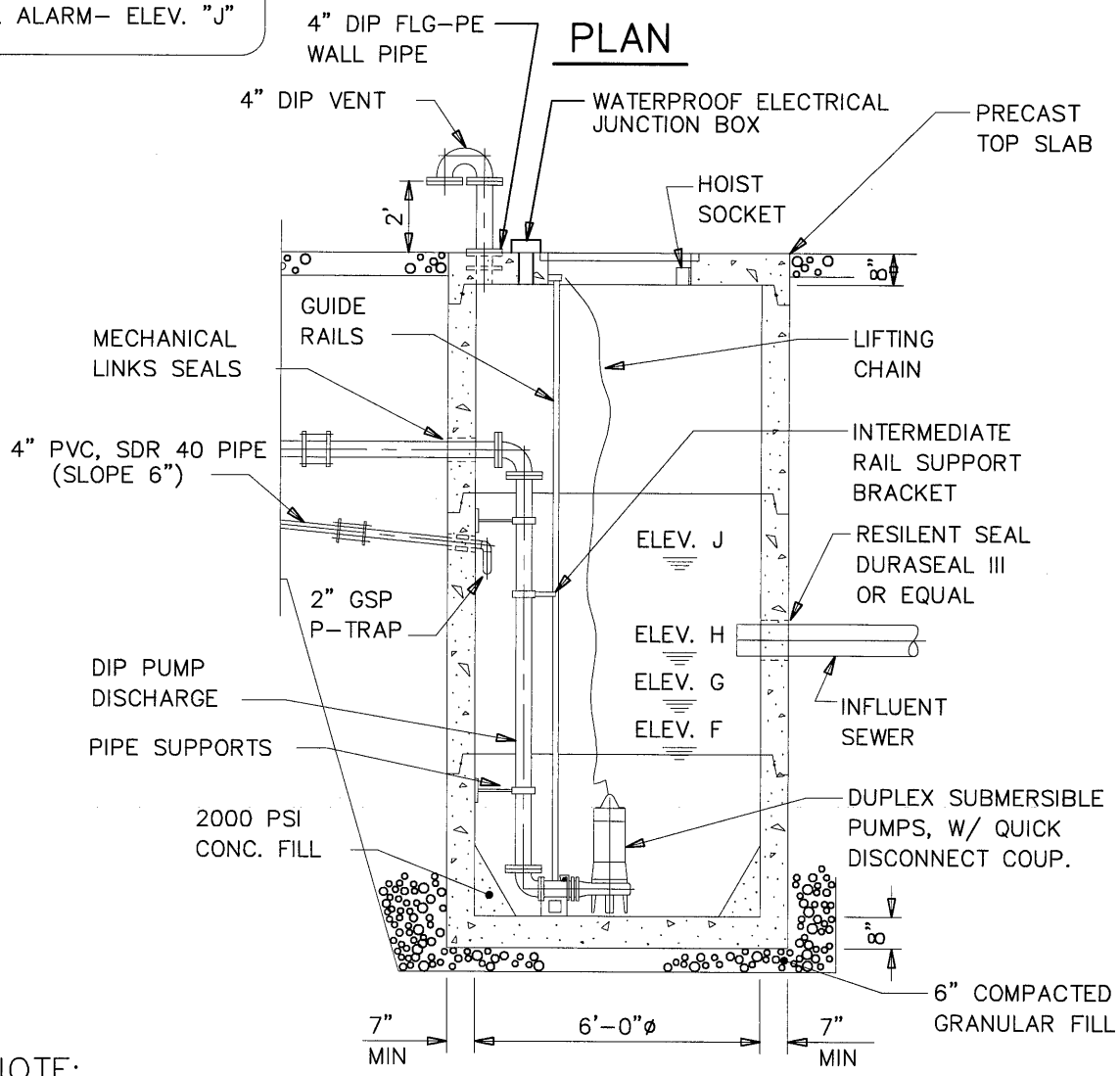
PUMP CONTROL ELEVATIONS

PUMPS OFF- ELEV. "F"

START LEAD PUMP- ELEV. "G"

START LAG PUMP- ELEV. "H"

HIGH LEVEL ALARM- ELEV. "J"



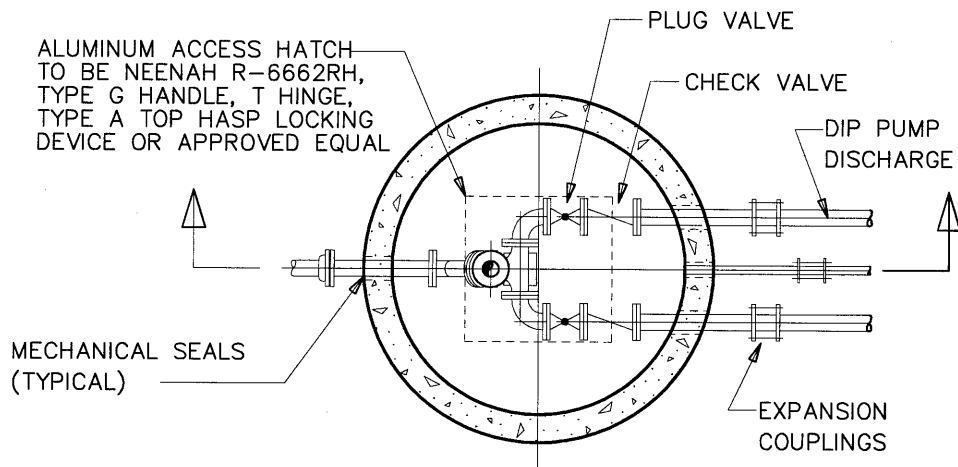
NOTE:

LEVEL CONTROL FLOATS & BRACKET NOT SHOWN.

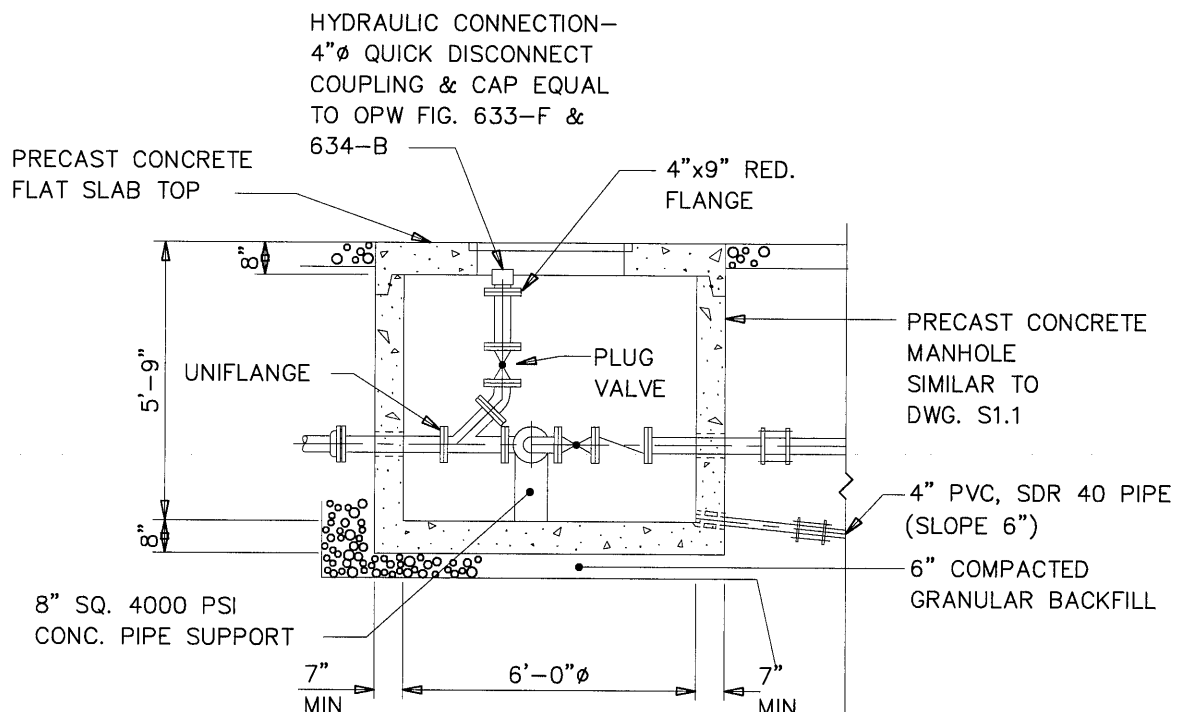
SECTION

NO SCALE

<p>VIRGIN ISLANDS WASTE MANAGEMENT AUTHORITY</p>	<p>LIFT STATION DETAIL</p>	<p>DRAWING NO. S5.1.2</p>
<p>APPROVED _____ DATE _____</p>		



PLAN



SECTION

NO SCALE

VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

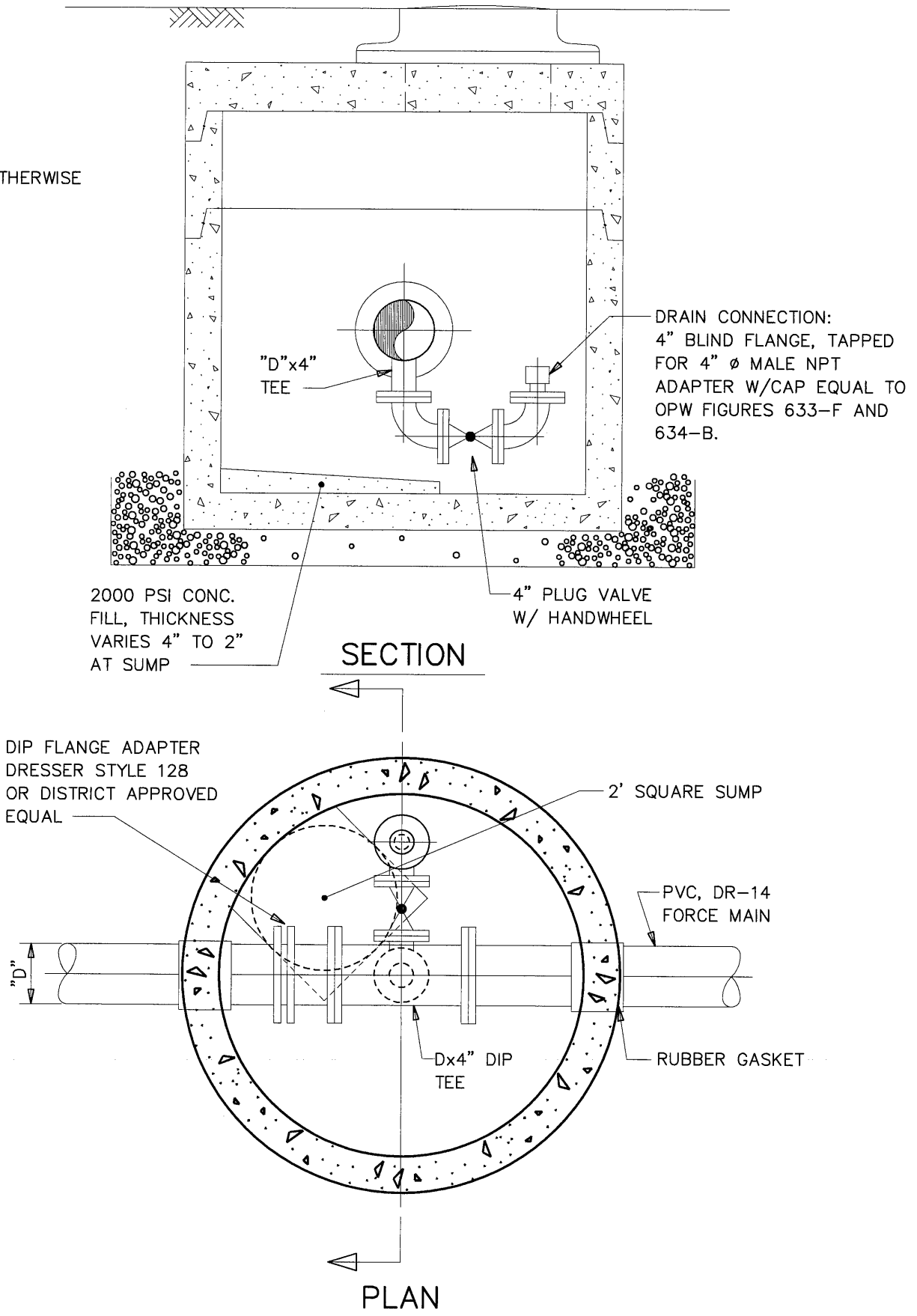
VALVE CHAMBER
DETAIL

DRAWING NO.

S5.1.3

NOTE:

MANHOLE OTHERWISE
SIMILAR TO
DWG. S5.2.1



NO SCALE

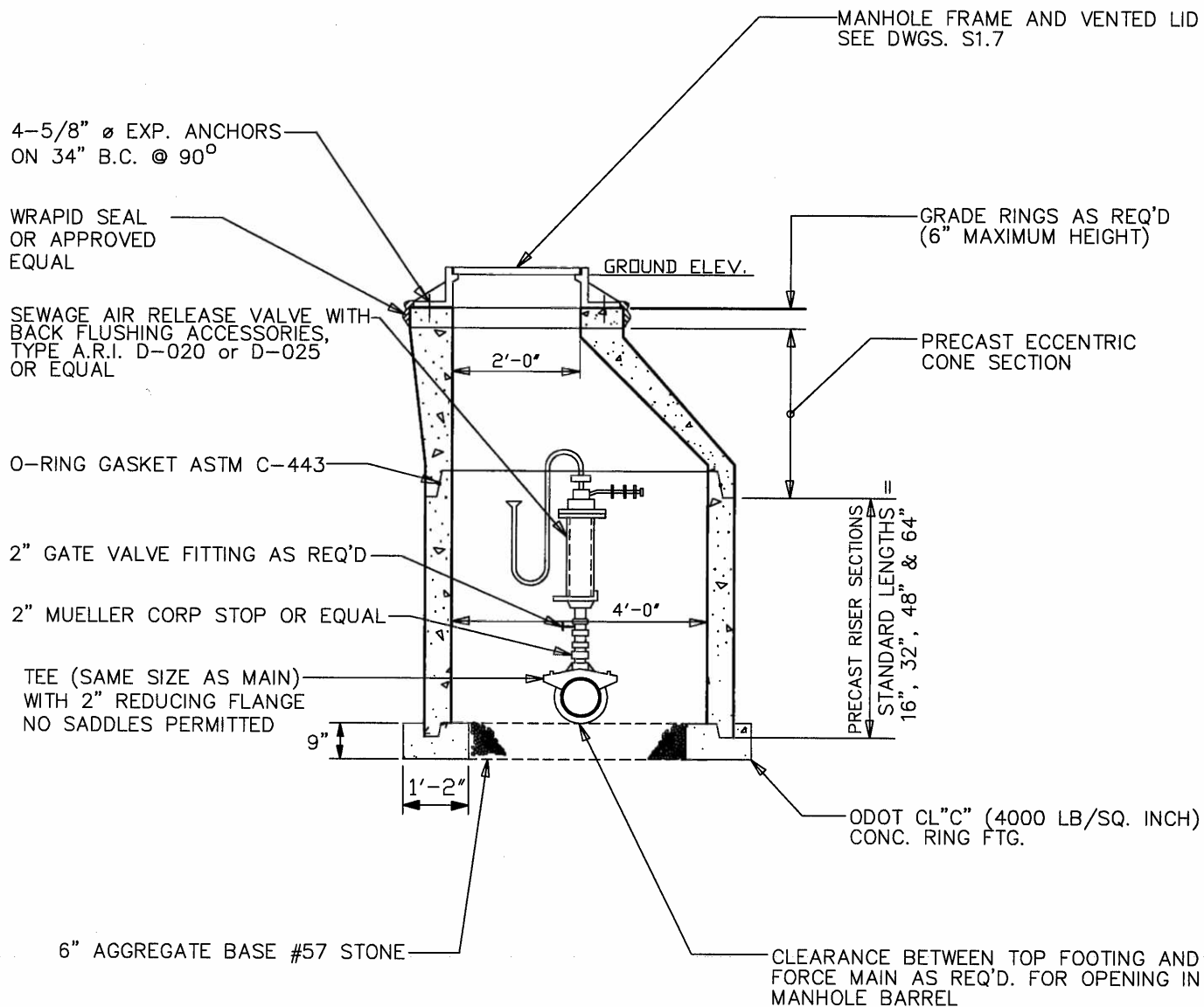
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

STANDARD
FORCE MAIN
LOW POINT MANHOLE

DRAWING NO.

S5.2.2



NOTE:

FLEXIBLE BUTYL RUBBER SEALANT EQUAL TO CONSEAL TYPE CS-302 SHALL BE USED: TO SEAL CASTING TO MANHOLE, TO SEAL ADJUSTING RINGS TOGETHER AND TO RISERS, AND TO SEAL MANHOLE RISER JOINTS.

INSTALL KOR-N-SEAL GASKETS AT MANHOLE INTERFACE WITH PIPE

NO SCALE

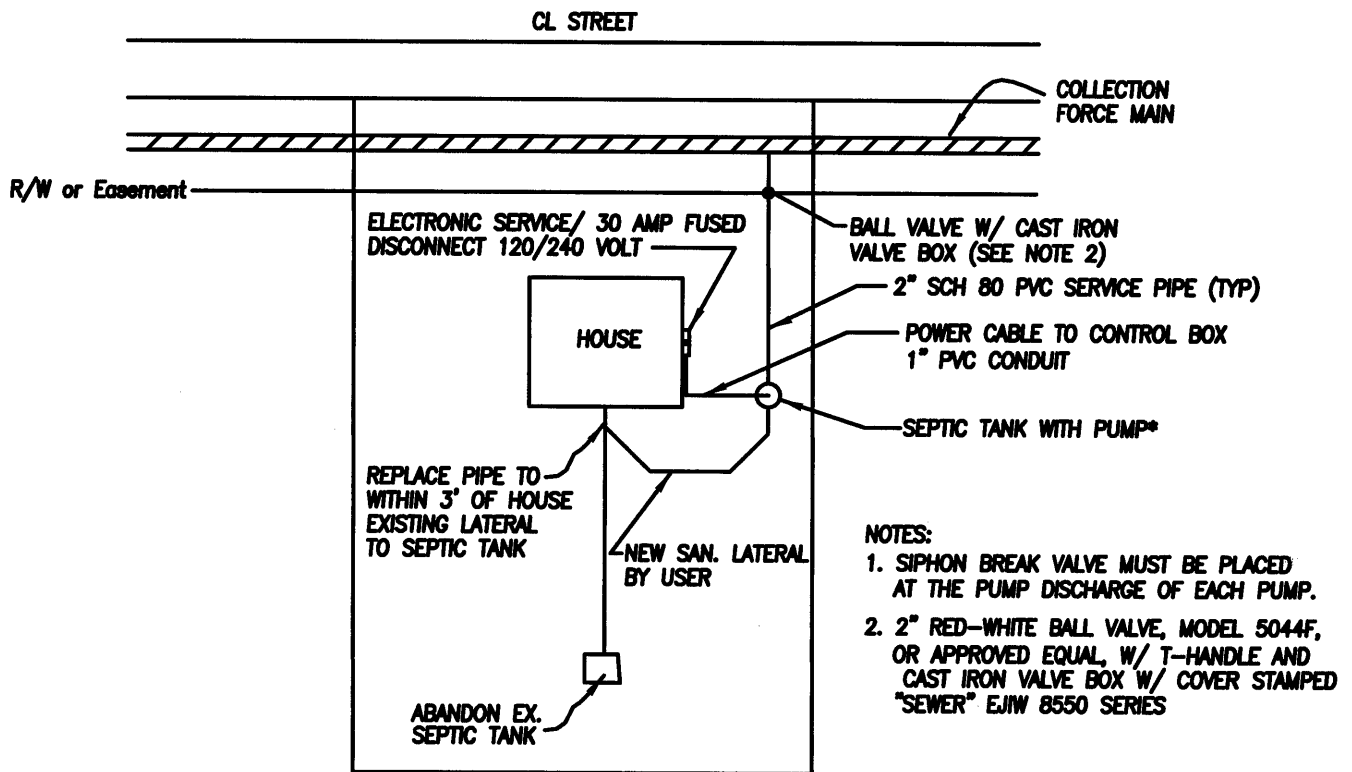
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

AIR RELEASE
VALVE IN
MANHOLE

DRAWING NO.

S5.2.3



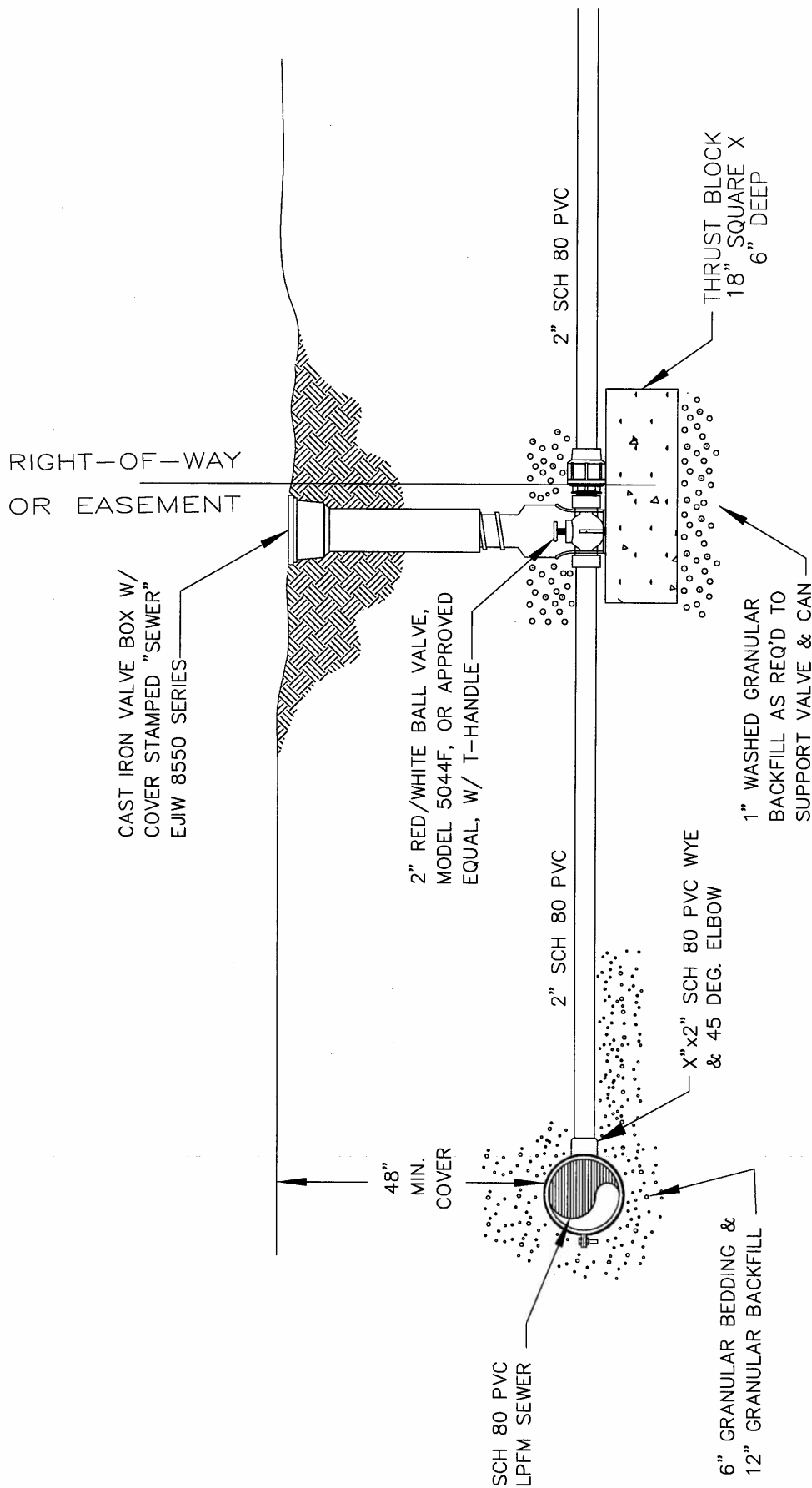
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

TYP. RESIDENTIAL STEP
CONNECTION TO A LOW
PRESSURE FORCE MAIN

DRAWING NO.

S6.2



TYPICAL LATERAL INSTALLATION

N.T.S.

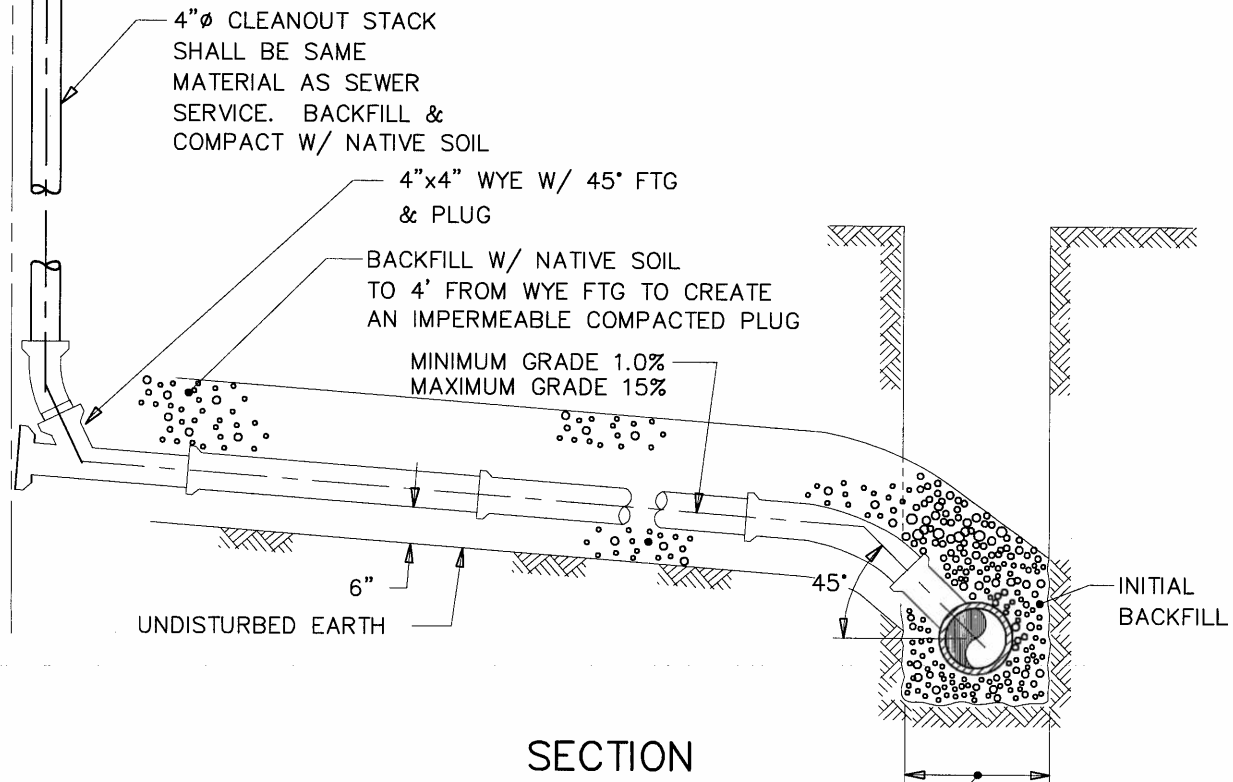
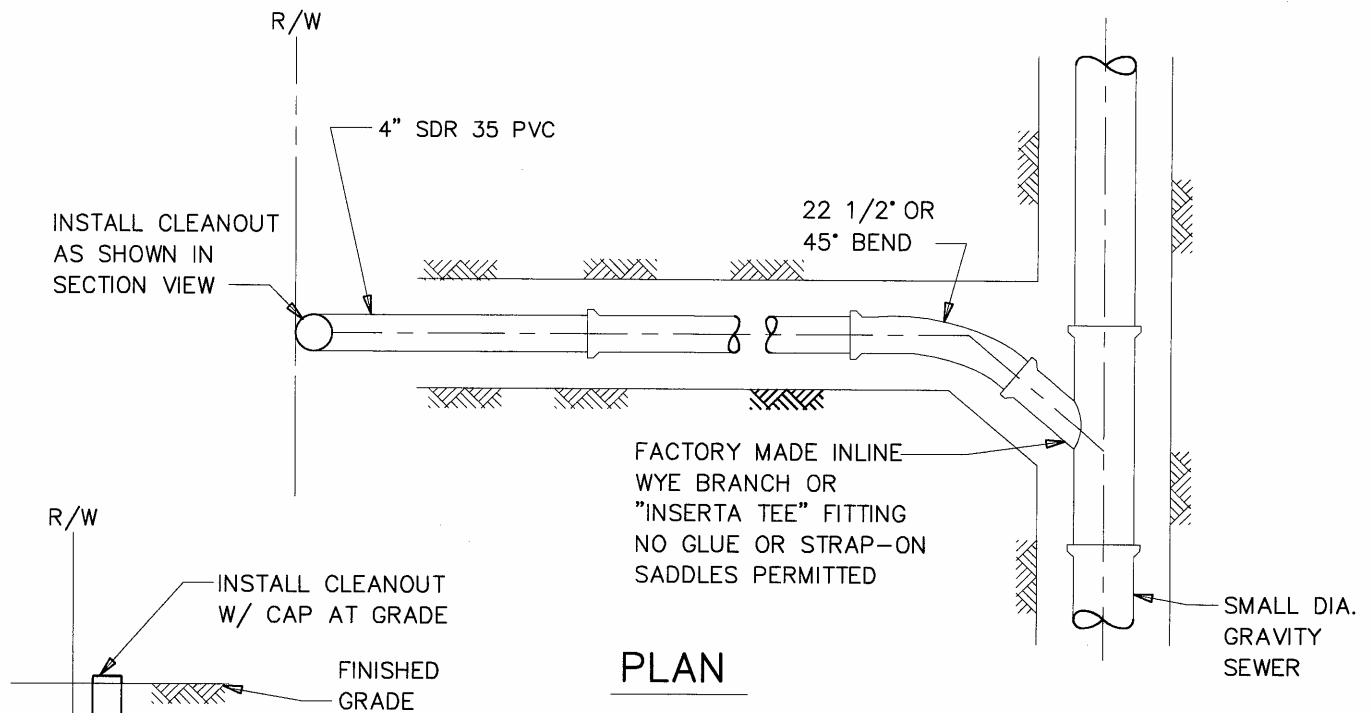
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

LOW PRESSURE FORCE
MAIN (LPFM)
LATERAL INSTALLATION

DRAWING NO.

S6.2.1



NOTE:

- 1.DURING CONSTRUCTION OF THE SEWER MAIN AND LATERALS THE CLEANOUT SHALL BE BURIED APPROXIMATELY 3 FEET WITH A 2" BY 2" POLE SET ON THE BACK SIDE OF THE CLEAN OUT. WHEN THE STUCTURE IS CONNECTED, THE CLEANOUT SHALL BE BROUGHT TO GRADE AS DETAILED.

NO SCALE

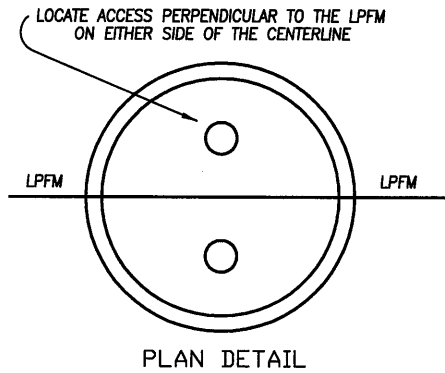
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

SMALL DIAMETER
GRAVITY SEWER
LATERAL INSTALLATION

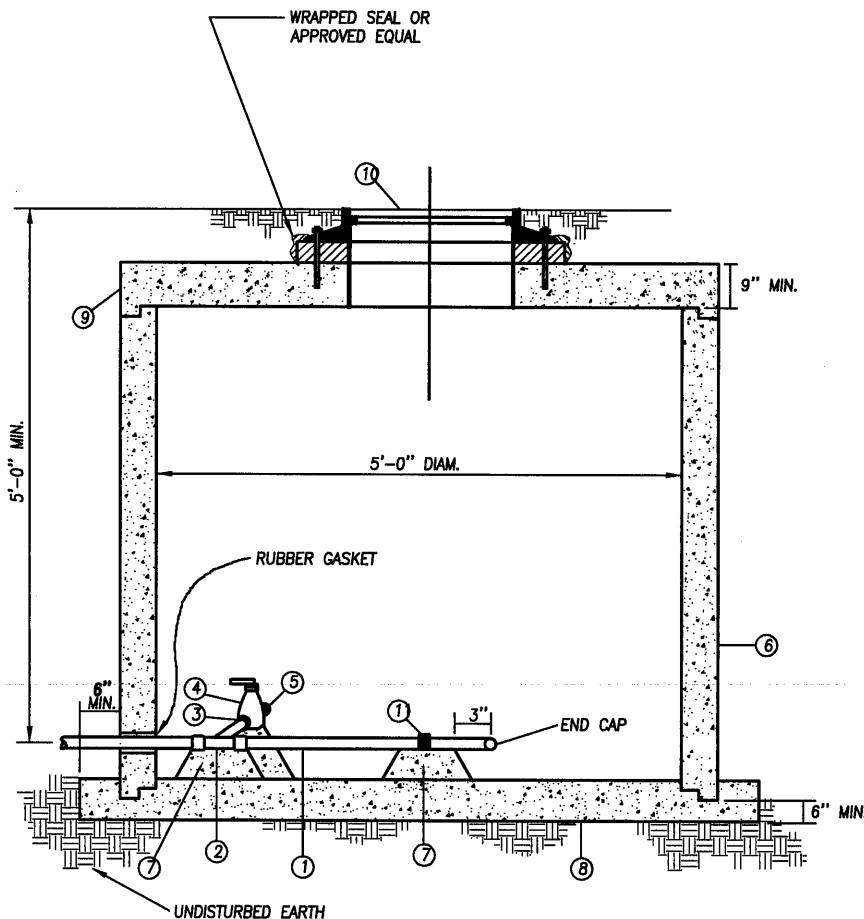
DRAWING NO.

S6.3.1



NOTES: ITEMS WITH DESIGNATIONS ②, ③, ④ AND ⑤ ARE TO BE ROTATED (ABOUT THE 3" WYE) TO A LOCATION WHICH IS LEVEL WITH THE FLOOR SLAB OR UP TO 30" ABOVE LEVEL AND SUPPORTED IN CONCRETE SUCH THAT NEITHER THE CHAMBER WALLS, FLOOR, OR THE CONCRETE SUPPORT RESTRICT CONNECTION TO THE 3" QUICK DISCONNECT FITTING.

MANHOLE ACCESS TO BE LOCATED PERPENDICULAR TO THE LPFM AS SHOWN IN THE PLAN DETAIL.



TERMINAL MANHOLE DESIGNATIONS AND GENERAL NOTES

- ① LOW PRESSURE SEWER SYSTEM
- ② WYE - SIZE OF LPSS MAIN W/ 3" BRANCH
- ③ 3" THREADED ADAPTOR - SEARS OR EQUAL
- ④ 3" BALL VALVE - FULLY PORTED WITH T-HANDLE*
- ⑤ 3" QUICK DISCONNECT FITTING W/ CAP
- ⑥ 5' DIAM. MANHOLE
- ⑦ CONCRETE SUPPORT
- ⑧ CONCRETE BOTTOM (CLASS "C")
- ⑨ PRE-CAST SLAB TOP
- ⑩ WATERTIGHT COVER AND FRAME
ADJUST TO GRADE WITH CONC. MH. ADJUSTMENT
RINGS (NO BRICK), MORTAR (INSIDE) AND BUTYL
MASTIC SEAL (OUTSIDE) TO BE USED BETWEEN
RINGS, MH. TOP AND FRAME.
- ⑪ FASTEN LPFM SECURELY TO BASE AND
SUPPORT USING STAINLESS STEEL HARDWARE.
STRAPS-2" WIDE, 1/4" THICK.
BOLTS-3/8" X 2 1/4" LONG. ANCHORS MAY
BE BULL DOG, RED HEAD, WEDGE IT OR QUICK
BOLT.

*BALL VALVE TO BE RED/WHITE, 600 WOG, 150 WSP,
FIG. #5044F OR EQUAL WITH T-HANDLE.

MANHOLE ACCESS TO BE LOCATED PERPENDICULAR TO
THE LPFM AS SHOWN IN THE PLAN DETAIL.

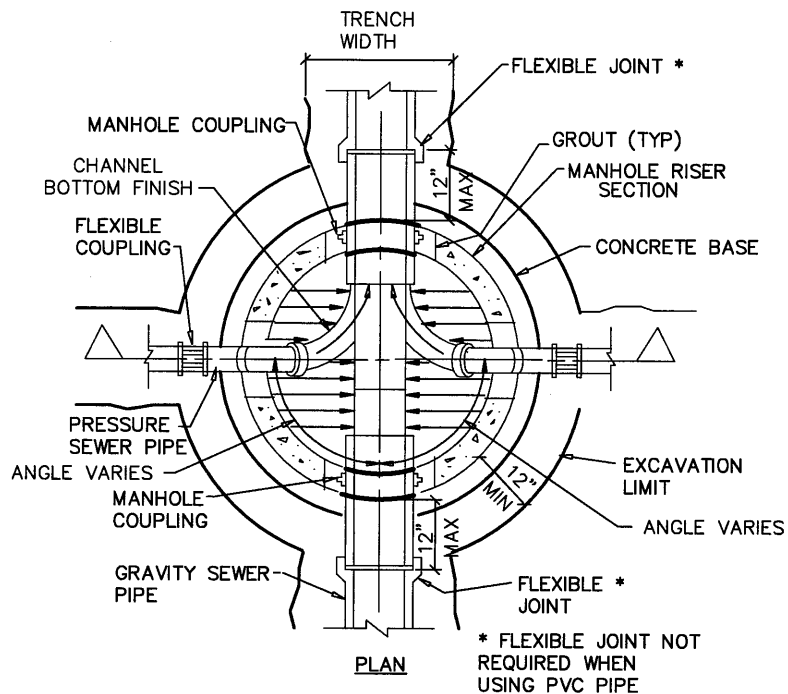
VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

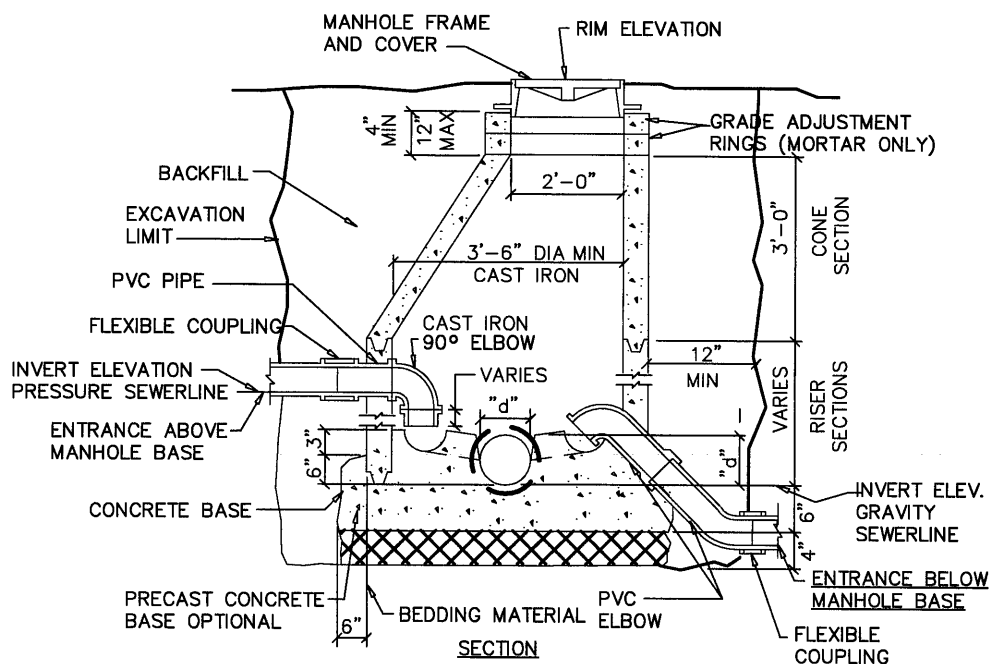
LOW PRESSURE FORCE
MAIN TERMINAL
MANHOLE

DRAWING NO.

S6.6



PRESSURE-GRAVITY MANHOLE
NO SCALE 51-46



PRESSURE-GRAVITY MANHOLE
NO SCALE 51-47

VIRGIN ISLANDS
WASTE MANAGEMENT AUTHORITY

APPROVED _____
DATE _____

**PRESSURE
GRAVITY
MANHOLE**

DRAWING NO.

S7.0

EUV

793 to 9246 Gallons

waste water

ANTI WATER HAMMER

sewage bladder vessel is a hydropneumatic surge vessel designed to rapidly give large flow to the system it protects against transients due to a cut off of the pumping station when the effluent is heavily charged or fibrous.

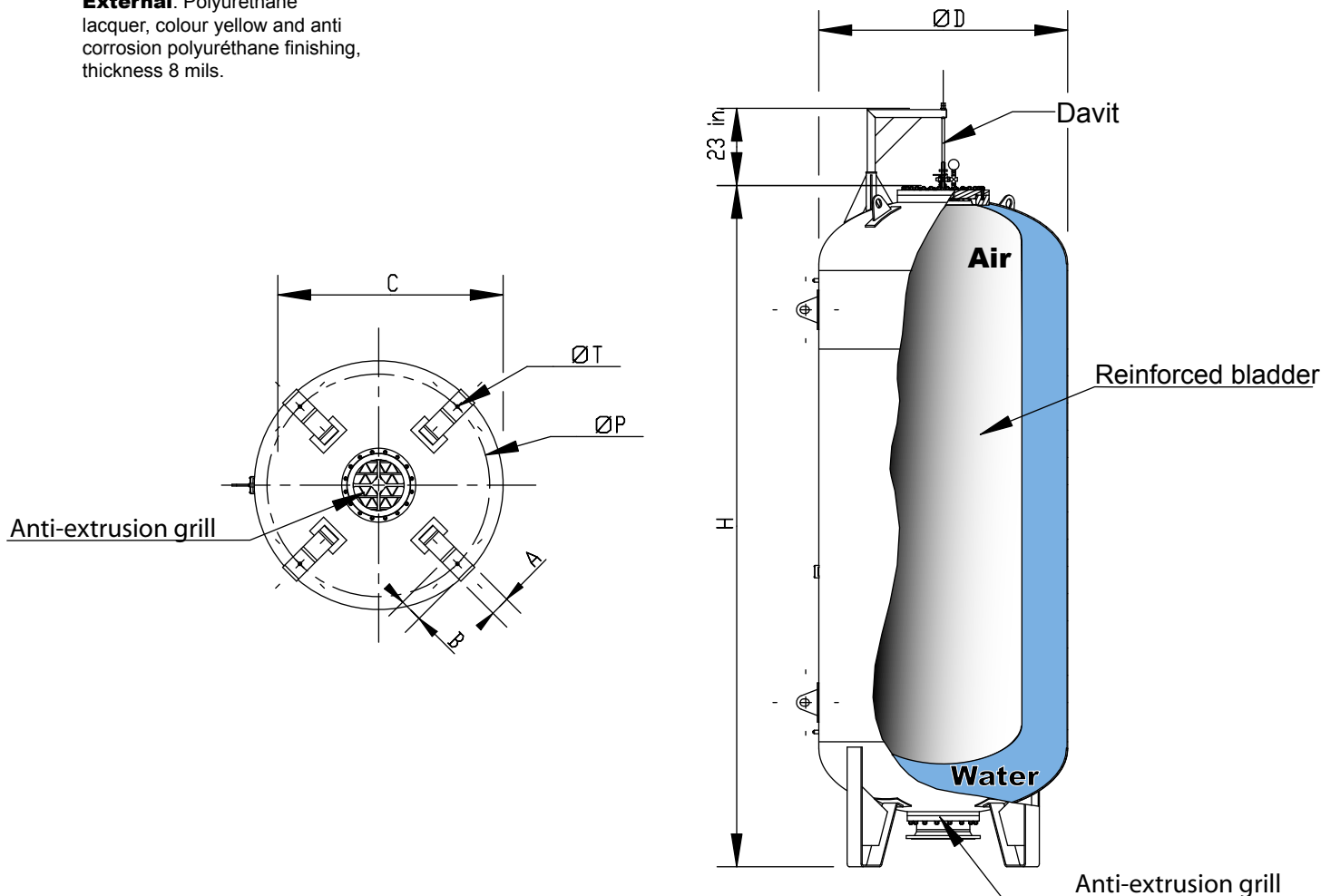
PAINT

Internal. Epoxy paint without solvent, colour white, thickness 16 mills.

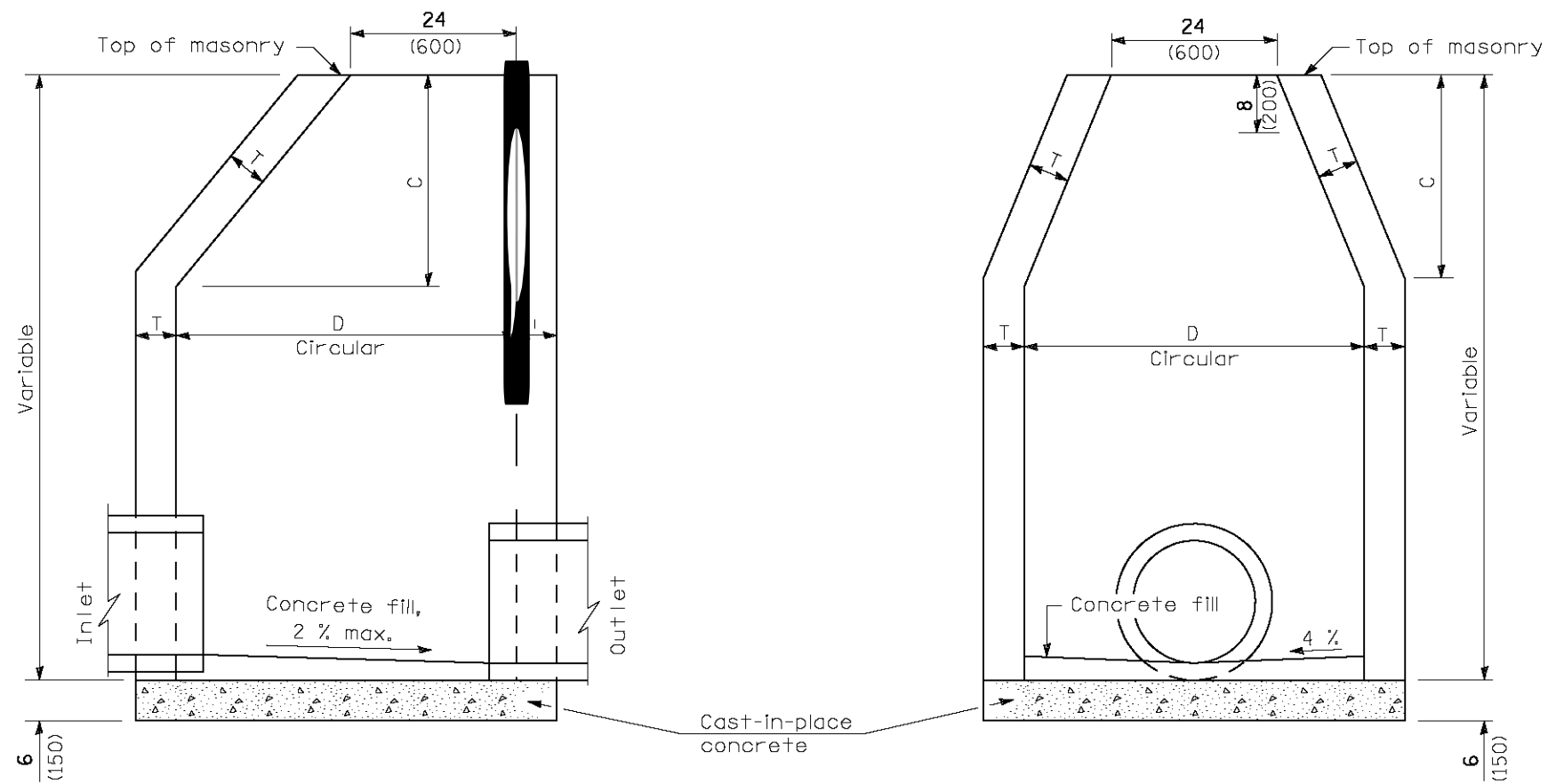
External. Polyurethane lacquer, colour yellow and anti corrosion polyuréthane finishing, thickness 8 mills.

REINFORCED BLADDER

Interchangeable.



Capacity gallon	Diameter D	Height H	P	T	Size A	Size B	Size C	Davit
793	47	150	41	1	6	5	54	No
1057	47	161	41	1	6	5	54	No
1321	59	138	51	1	6	7	66	No
1585	59	169	51	1	6	7	66	No
1849	59	189	51	1	6	7	66	No
2113	59	209	51	1	6	7	66	No
2378	75	177	67	1	6	7	81	Yes
2378	83	138	71	1	6	11	89	Yes
2642	75	193	67	1	6	7	81	Yes
2642	83	150	71	1	6	11	89	Yes
3170	75	220	67	1	6	7	81	Yes
3170	83	173	71	1	6	11	89	Yes
3963	83	209	71	1	6	11	89	Yes
5283	98	197	79	1	20	20	105	Yes
6604	98	236	79	1	20	20	105	Yes
7925	118	213	100	1	20	20	125	Yes
9246	118	240	100	1	20	20	125	Yes

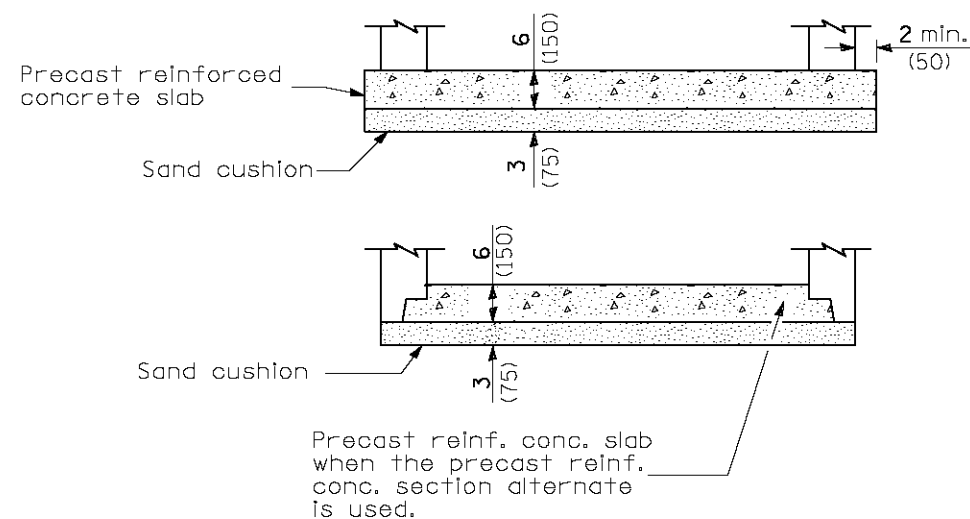


ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC

ALTERNATE MATERIALS FOR WALLS	D	C *	T (min.)
Concrete Masonry Unit	4'-0" (1.2 m)	30 (750)	5 (125)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Brick Masonry	4'-0" (1.2 m)	30 (750)	8 (200)
	5'-0" (1.5 m)	3'-9" (1.15 m)	8 (200)
Precast Reinforced Concrete Section	4'-0" (1.2 m)	30 (750)	4 (100)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Cast-in-place Concrete	4'-0" (1.2 m)	30 (750)	6 (150)
	5'-0" (1.5 m)	3'-9" (1.15 m)	6 (150)

* For precast reinforced concrete sections, dimension "C" may vary from the dimension given to plus 6 (150).



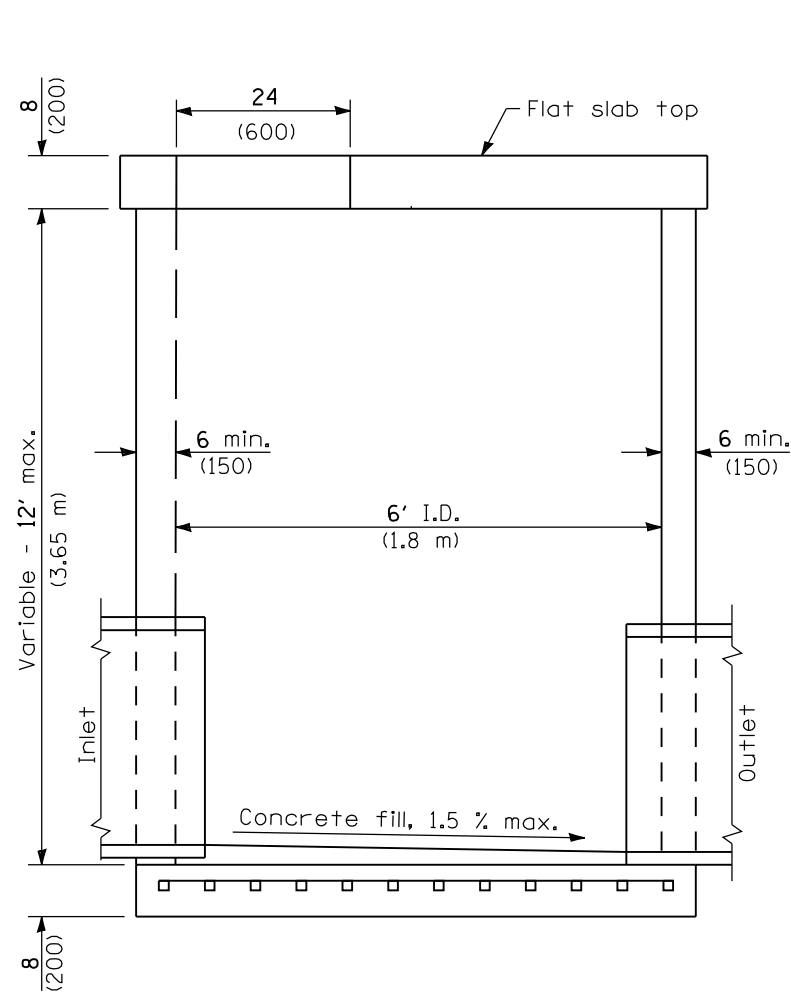
ALTERNATE BOTTOM SLAB

GENERAL NOTES

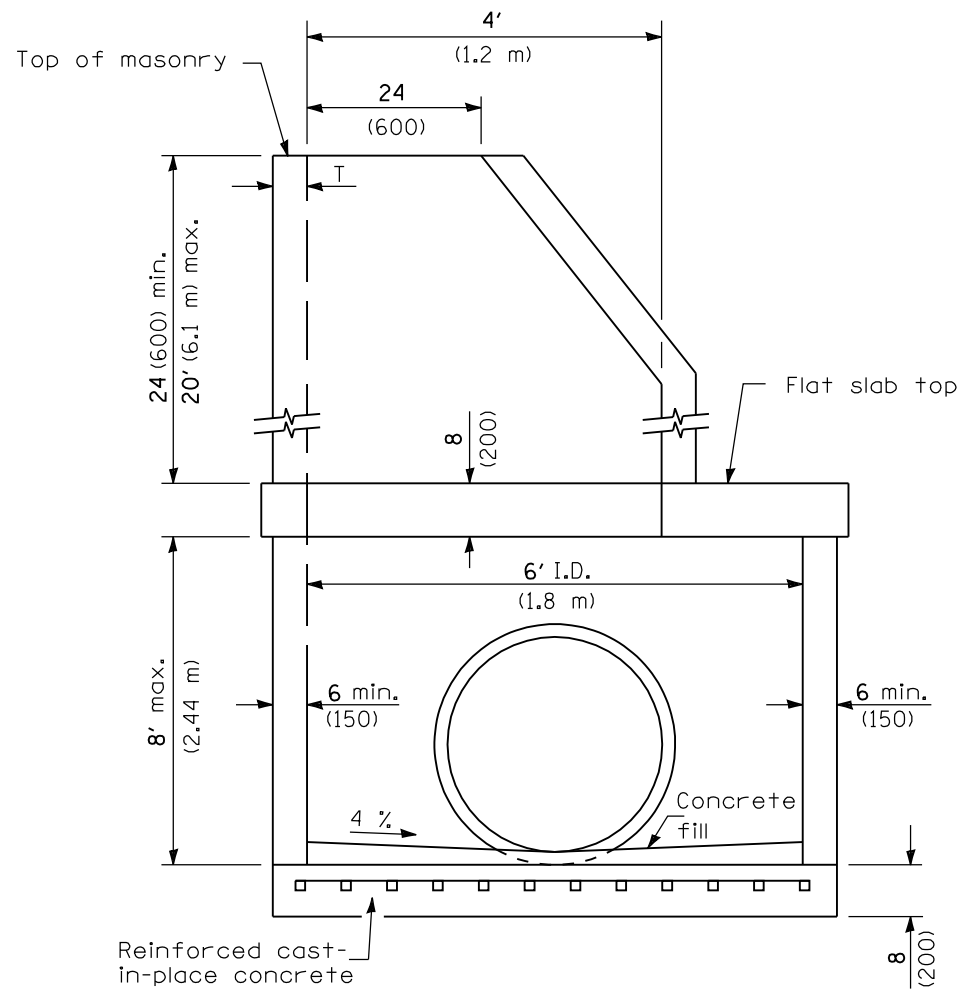
See Standard 602601 for optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in inches (millimeters) unless otherwise shown.

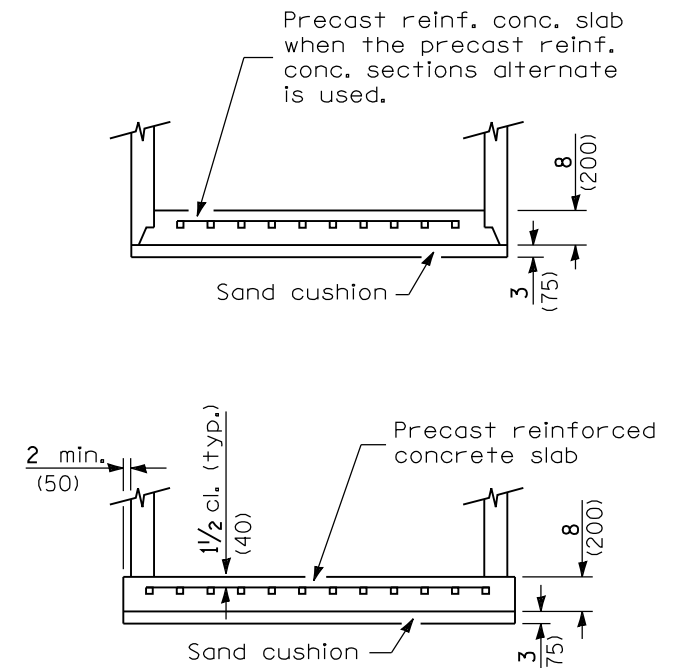
DATE	REVISIONS	MANHOLE TYPE A
		STANDARD 602401-02



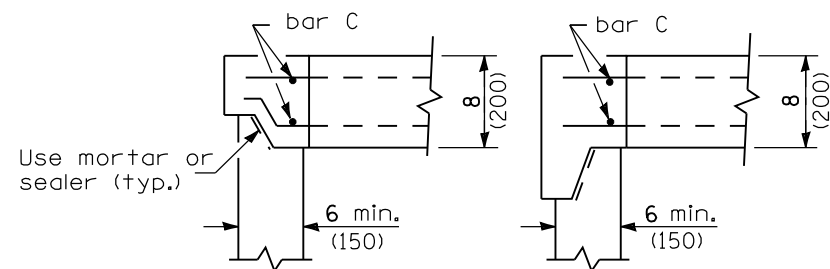
ELEVATION



ELEVATION



ALTERNATE BOTTOM SLABS



ALTERNATE JOINT CONFIGURATIONS

ALTERNATE MATERIALS FOR WALLS	T (min)
Concrete Masonry Units	5 (125)
Precast Reinforced Concrete Sections	4 (100)
Cast-in-Place Concrete	6 (150)

GENERAL NOTES

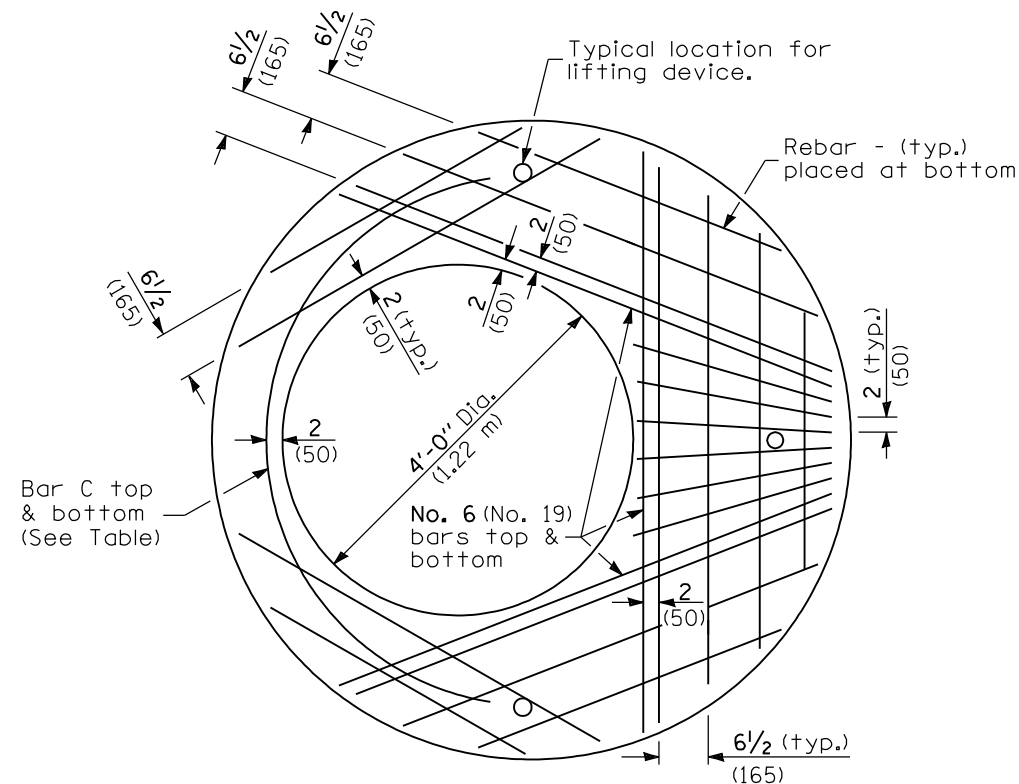
Joint configuration and dimensions of flat slab top shall match and fit the riser joint detail.

Lifting devices shall be approved by the Engineer.

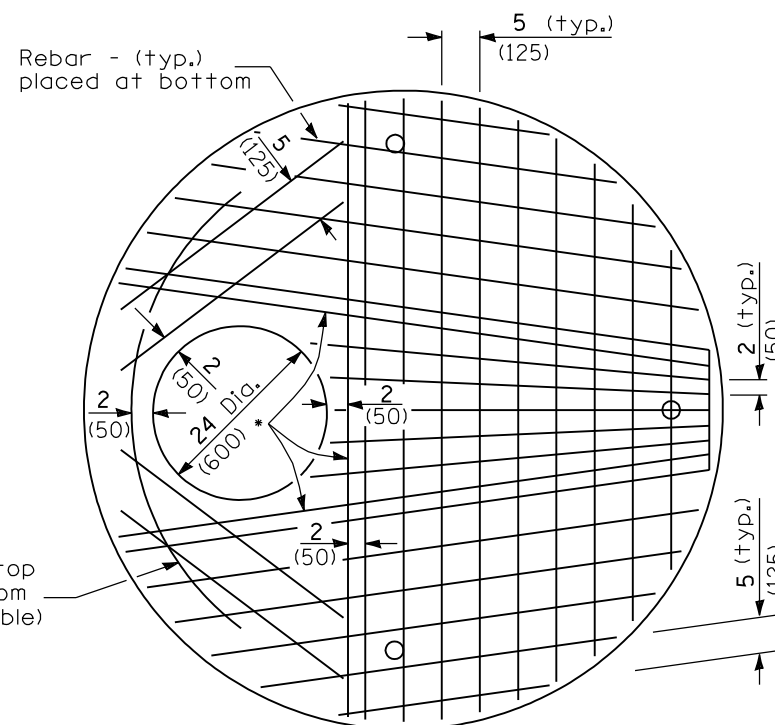
Bottom slabs shall be reinforced with a minimum of 0.46 sq. in./ft. (975 mm²/m) in both directions.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS	MANHOLE TYPE A 6' (1.8 m) DIAMETER <small>(Sheet 1 of 2)</small>
		STANDARD 602406-03

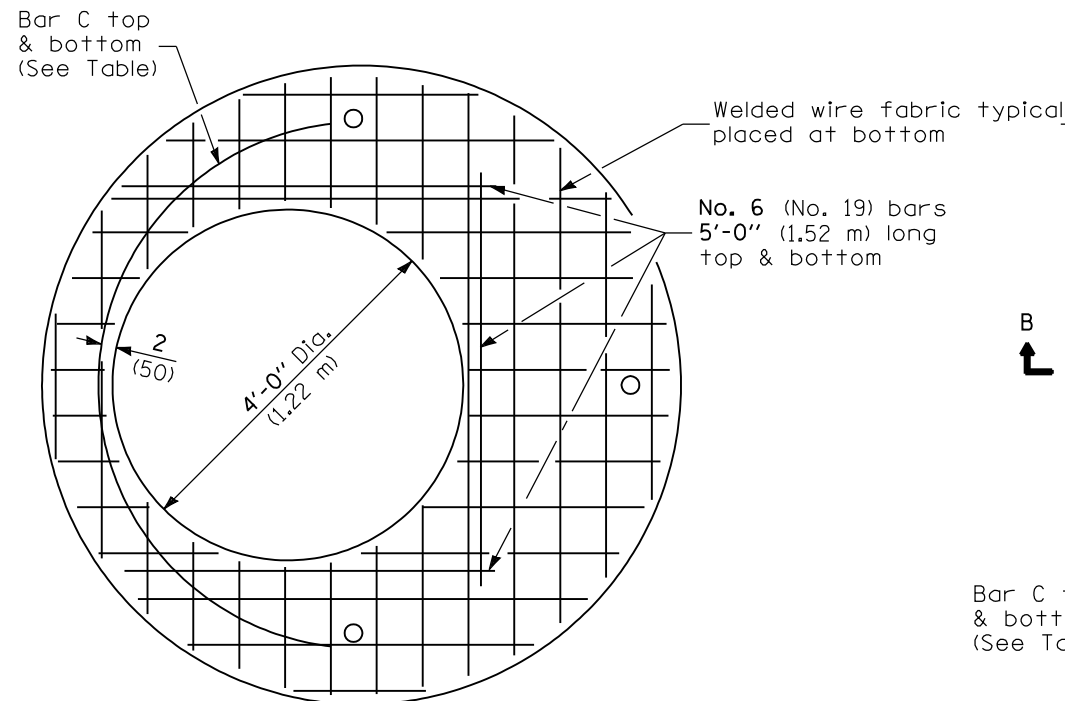


PLAN
Showing Rebar Reinforcement

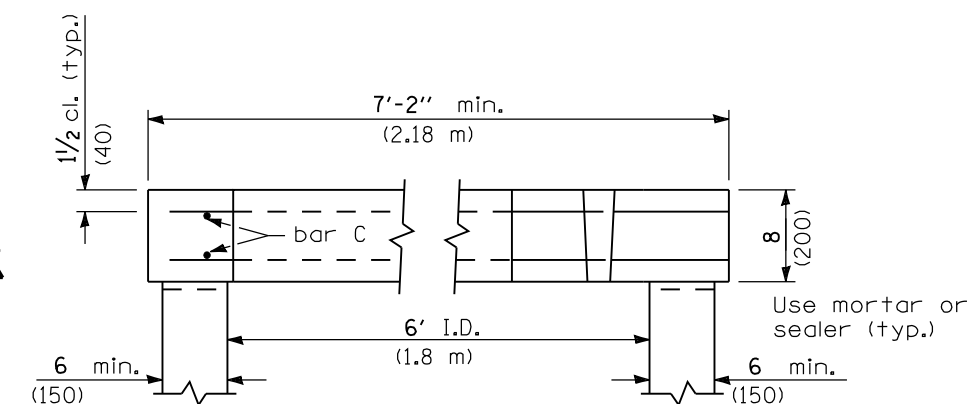
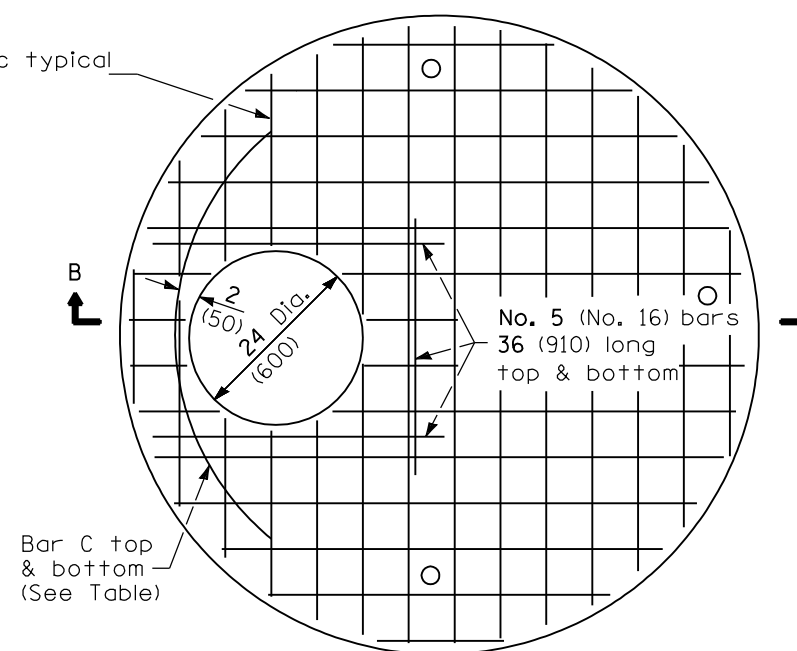


* No. 6 (No. 19) bars
top & bottom

Diameter of opening	Thickness	Reinforcement "As" WWF Each direction	Bar Size	No. 4 (No. 13) Bar C	
				Length	Radius
24 (600)	8 (200)	1.06 sq. in./ft. (2244 sq. mm/m)	No. 6 (No. 19)	6'-0" (1.83 m)	38 (965)
4'-0" (1.2 m)	8 (200)	0.82 sq. in./ft. (1736 sq. mm/m)	No. 6 (No. 19)	9'-0" (2.74 m)	38 (965)



PLAN
Showing Welded Wire Fabric Reinforcement



SECTION B-B

MANHOLE TYPE A
6' (1.8 m) DIAMETER

(Sheet 2 of 2)

STANDARD 602406-03

Appendix 5 – USVI Public Works 209 Standard
Veterans Drive Emergency Gravity Line Installation
Cancryn Pump Station Influent

Section 209. — STRUCTURE EXCAVATION AND BACKFILL

Description

209.01 This work consists of excavating material for the construction of structures, except those specifically designated under Section 208. This work also includes preserving channels, shoring and bracing, sealing foundations, dewatering, preparing foundations, bedding, and backfilling.

Material

209.02 Conform to the following Sections and Subsections:

Backfill material	704.03
Bedding material	704.02
Foundation fill	704.01
Lean concrete backfill	614
Structural concrete, Class S (Seal)	552
Unclassified borrow	704.06

Construction Requirements

209.03 General. Clear the area of vegetation and obstructions according to Sections 201 and 203.

Excavate trenches or foundation pits according to Subsection 208.03. Excavate to foundation grade without disturbing the trench or foundation surface. Foundation grade is the elevation at the bottom of the bedding for installing the structure.

209.04 Channel Preservation. Preserve channels according to Subsection 208.04, except excavate inside separations such as dikes or sandbags.

209.05 Foundation Seal. When foundation seals are necessary, construct a foundation seal according to Subsection 208.06.

209.06 Dewatering. When dewatering is necessary, dewater according to Subsection 208.07.

209.07 Foundation Preparation. Excavate unsuitable material when encountered at foundation grade as directed by the CO.

Where a footing is required to be keyed into undisturbed material, prepare foundation and construct footing according to Subsection 208.08(c).

Backfill and compact with foundation fill according to Subsection 208.08(d).

209.08 Bedding. Place bedding as follows:

(a) **For box culverts and structures other than pipe culverts.** Construct bedding when specified. Place and grade bedding material in compacted layers not exceeding 6 inches (150 millimeters) in depth. Compact each layer according to Subsection 209.10.

(b) For pipe culverts. Level the foundation. Place uncompacted bedding material over the foundation in a layer of uniform thickness. Lay a 4-inch (100-millimeter) thickness of bedding for pipes with diameters of 12 to 54 inches (300 to 1350 millimeters). Lay a 6-inch (150-millimeter) thickness of bedding for pipe with diameters larger than 54 inches (1350 millimeters). Recess the bedding to receive the joints for pipes with belled joints. Place the culvert on the uncompacted bedding layer and backfill according to Subsection 209.09(b).

209.09 Backfill. Backfill as follows:

(a) General. Place backfill layers evenly on all sides of the structure. Extend each layer to the limits of the excavation or natural ground.

Place backfill material in compacted layers not exceeding 6 inches (150 millimeters) in depth.

Do not place backfill material against concrete until 80 percent of the design strength is achieved.

Compact each layer according to Subsection 209.10.

(b) Pipe culverts. Backfill according to one of the following:

(1) Pipe culverts. Place and compact backfill material in evenly balanced layers on each side of the pipe to a height of 12 inches (300 millimeters) above the top of the pipe culvert.

Complete backfilling to the top of the trench. Place and compact backfill material in the trench in layers not exceeding 6 inches (150 millimeters) in depth according to Subsection 209.10.

(2) Pipe culverts with lean concrete backfill. Place and anchor pipe to prevent floating and movement. Backfill using lean concrete according to Section 614.

(c) Structural plate structures. Place and compact backfill material to a height of 12 inches (300 millimeters) above the top of the structural plate structure. When applicable, complete backfilling and compacting according to Subsection 204.10.

(d) Repair existing pavement areas. See Subsection 418.04.

209.10 Compacting. Determine optimum moisture content and maximum dry density according to AASHTO T 99, Method C. Adjust the moisture content of the backfill material to a moisture content suitable for compaction.

Compact material placed in all layers to at least 95 percent of the maximum density. Determine the in-place density and moisture content according to AASHTO T 310 or other approved test procedures.

Do not apply density requirements as measured by AASHTO T 310 to material incapable of being tested or compacted to maximum values determined by AASHTO T 99. For these material, fill the voids around the rock in each layer with earth or other fine material. Compact each layer until there is no visible evidence of further consolidation.

209.11 Acceptance. See Table 209-1 for sampling, testing, and acceptance requirements.

Material for backfill, bedding, and foundation fill will be evaluated under Subsections 106.02 and 106.04, except lean concrete for bedding or backfill will be evaluated according to Section 614.

Structural excavation and backfill work will be evaluated under Subsections 106.02 and 106.04.

Shoring and bracing will be evaluated under Subsections 106.02 and 106.04.

Clearing and removal of obstructions will be evaluated under Sections 201 and 203.

Seal concrete will be evaluated under Section 552.

Measurement and Payment

209.12 Do not measure structure excavation and backfill for payment. See Subsection 109.05.

Measure foundation fill under Section 208.

Do not measure excavation and concrete for cofferdam seals for payment.

Table 209-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Source								
Backfill material ⁽¹⁾ (704.03)	Measured and tested for conformance (106.04 & 105)	Classification	—	AASHTO M 145	1 per soil type	Source of material	Yes	Before using in work
		Gradation	—	AASHTO T 27 & T 11	"	"	"	"
Bedding material ⁽¹⁾ (704.02)	"	"	—	"	"	"	"	"
Foundation fill ⁽¹⁾ (704.01)	"	Classification	—	AASHTO M 145	"	"	"	"
		Gradation	—	AASHTO T 27 & T 11	"	"	"	"
Unclassified borrow ⁽¹⁾ (704.06)	"	Classification	—	AASHTO M 145	"	"	"	"

Table 209-1 (continued)
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Production								
Backfill material (704.03)	Measured and tested for conformance (106.04)	Moisture-density	—	AASHTO T 99, Method C ⁽²⁾	1 per soil type	Source of material	Yes	Before using in work
		Density	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	No	Before placing next layer
Bedding material (704.02)	"	Moisture-density	—	AASHTO T 99, Method C ⁽²⁾	1 per soil type	Source of material	Yes	Before using in work
		Density	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	No	Before placing next layer
Foundation fill (704.01)	"	Moisture-density	—	AASHTO T 99, Method C ⁽²⁾	1 per soil type	Source of material	Yes	Before using in work
		Density	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	No	Before placing next layer
Unclassified borrow (704.06)	"	Moisture-density	—	AASHTO T 99, Method C ⁽²⁾	1 per soil type	Source of material	Yes	Before using in work
		Density	—	AASHTO T 310 or other approved procedures	2 per lift	In-place	No	Before placing next layer

(1) Not required when using Government-provided source.

(2) Minimum of 5 points per proctor.