

# Appendix A

Living Wage Forms

**CITY OF ANN ARBOR  
LIVING WAGE ORDINANCE**

**RATE EFFECTIVE APRIL 30, 2014 - ENDING APRIL 29, 2015**

**\$12.70** per hour

If the employer provides health  
care benefits\*

**\$14.18** per hour

If the employer does **NOT**  
provide health care benefits\*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

**ENFORCEMENT**

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

\* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

**The Law Requires Employers to Display This Poster Where Employees Can Readily See It.**

**For Additional Information or to File a Complaint Contact  
Mark Berryman at 734/794-6500 or [mberryman@a2gov.org](mailto:mberryman@a2gov.org)**

**CITY OF ANN ARBOR  
LIVING WAGE ORDINANCE  
DECLARATION OF COMPLIANCE**

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that employers providing services to the City or recipients of grants for financial assistance (in amounts greater than \$10,000 in a twelve-month period of time) pay their employees who are working on the City project or grant, a minimum level of compensation known as the **Living Wage**. This wage must be paid to the employees for the length of the contract/project.

*Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from the Ordinance. If this exemption applies to your firm, please check below:*

- \_\_\_\_\_ This **company** is exempt due to the fact that we employ or contract with fewer than 5 individuals.  
\_\_\_\_\_ This **non-profit agency** is exempt due to the fact that we employ or contract with fewer than 10 employees.

The Ordinance requires that all contractors/vendors and/or grantees agree to the following terms:

- a) To pay each of its employees performing work on any covered contract or grant with the City, no less than the living wage, which is defined as \$12.70/hour when health care is provided, or no less than \$14.18/hour for those employers that do *not* provide health care. It is understood that the Living Wage will be adjusted each year on April 30, and covered employers will be required to pay the adjusted amount thereafter. The rates stated above include any adjustment for 2014.
- b) Please check the boxes below which apply to your workforce:
- Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage without health benefits Yes\_\_\_\_\_ No\_\_\_\_\_
- OR**
- Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage with health benefits Yes\_\_\_\_\_ No\_\_\_\_\_
- c) To post a notice approved by the City regarding the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- d) To provide the City payroll records or other documentation as requested; and,
- e) To permit access to work sites to City representatives for the purposes of monitoring compliance, investigating complaints or non-compliance.

The undersigned authorized representative hereby obligates the contractor/vendor or grantee to the above stated conditions under penalty of perjury and violation of the Ordinance.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address, City, State, Zip

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Phone (area code)

\_\_\_\_\_  
Type or Print Name and Title

\_\_\_\_\_  
Email address

\_\_\_\_\_  
Date signed

**Questions about this form? Please contact:**  
Procurement Office City of Ann Arbor  
Phone: 734/794-6500

# Appendix B

Legal Status of Respondent

**ATTACHMENT \_\_**  
**LEGAL STATUS OF PROPOSER**

(The Respondent shall fill out the appropriate form and strike out the other two.)

By signing below the authorized representative of the Respondent hereby certifies that:

The Respondent is:

- A corporation organized and doing business under the laws of the state of \_\_\_\_\_, for whom \_\_\_\_\_ bearing the office title of \_\_\_\_\_, whose signature is affixed to this proposal, is authorized to execute contracts on behalf of respondent.\*

\*If not incorporated in Michigan, please attach the corporation's Certificate of Authority

- A limited liability company doing business under the laws of the state of \_\_\_\_\_, whom \_\_\_\_\_ bearing the title of \_\_\_\_\_ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

- A partnership organized under the laws of the state of \_\_\_\_\_ and filed with the county of \_\_\_\_\_, whose members are (attach list including street and mailing address for each.)

- An individual, whose signature with address, is affixed to this RFP.

Respondent has examined the basic requirements of this RFP and its scope of services, including all Addendum (if applicable) and hereby agrees to offer the services as specified in the RFP.

\_\_\_\_\_  
Signature

Date: \_\_\_\_\_,

(Print) Name \_\_\_\_\_ Title \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Phone \_\_\_\_\_

Fax \_\_\_\_\_

Email \_\_\_\_\_

# Appendix C

Vendor Conflict of Interest Disclosure Form



## Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

**Certification:** I hereby certify that to my knowledge, there is no conflict of interest involving the vendor named below:

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Vendor Name	Vendor Phone Number
Conflict of Interest Disclosure *	
Name of City of Ann Arbor employees, elected officials, or immediate family members with whom there maybe a potential conflict of interest.	<input type="checkbox"/> Relationship to employee _____ <input type="checkbox"/> Interest in vendor's company _____ <input type="checkbox"/> Other _____

\*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that the information provided is true and correct by my signature below:

\_\_\_\_\_  
 Signature of Vendor Authorized Representative                      Date                      Printed Name of Vendor Authorized Representative

**PROCUREMENT USE ONLY**

- Yes, named employee was involved in Bid / Proposal process.
- No, named employee was not involved in procurement process or decision.

# Appendix D

Standard Professional Services Agreement



**PROFESSIONAL SERVICES AGREEMENT BETWEEN**

**AND THE CITY OF ANN ARBOR**

**FOR** \_\_\_\_\_

The City of Ann Arbor, a Michigan municipal corporation, having its offices at 301 E. Huron St. Ann Arbor, Michigan 48103 ("City"), and \_\_\_\_\_

("Contractor") a(n) \_\_\_\_\_  
(State where organized) (Partnership, Sole Proprietorship, or Corporation)

with its address at \_\_\_\_\_  
agree as follows on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

The Contractor agrees to provide services to the City under the following terms and conditions:

**I. DEFINITIONS**

Administering Service Area/Unit means \_\_\_\_\_.

Contract Administrator means \_\_\_\_\_, acting personally or through any assistants authorized by the Administrator/Manager of the Administering Service Area/Unit.

Deliverables means all Plans, Specifications, Reports, Recommendations, and other materials developed for and delivered to City by Contractor under this Agreement

Project means \_\_\_\_\_  
Project name

**II. DURATION**

This Agreement shall become effective on \_\_\_\_\_, 20\_\_\_\_, and shall remain in effect until satisfactory completion of the Services specified below unless terminated as provided for in Article XI.

**III. SERVICES**

A. The Contractor agrees to provide \_\_\_\_\_  
type of service

("Services") in connection with the Project as described in Exhibit A. The City retains the right to make changes to the quantities of service within the general scope of the Agreement at any time by a written order. If the changes add to or deduct from the extent of the services, the contract sum shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement.

- B. Quality of Services under this Agreement shall be of the level of quality performed by persons regularly rendering this type of service. Determination of acceptable quality shall be made solely by the Contract Administrator.
- C. The Contractor shall perform its Services for the Project in compliance with all statutory, regulatory and contractual requirements now or hereafter in effect as may be applicable to the rights and obligations set forth in the Agreement.
- D. The Contractor may rely upon the accuracy of reports and surveys provided to it by the City (if any) except when defects should have been apparent to a reasonably competent professional or when it has actual notice of any defects in the reports and surveys.

#### **IV. INDEPENDENT CONTRACTOR**

The Parties agree that at all times and for all purposes under the terms of this Agreement each Party's relationship to any other Party shall be that of an independent contractor. Each Party will be solely responsible for the acts of its own employees, agents, and servants. No liability, right, or benefit arising out of any employer/employee relationship, either express or implied, shall arise or accrue to any Party as a result of this Agreement.

#### **V. COMPENSATION OF CONTRACTOR**

- A. The Contractor shall be paid in the manner set forth in Exhibit B. Payment shall be made monthly, unless another payment term is specified in Exhibit B, following receipt of invoices submitted by the Contractor, and approved by the Contract Administrator.
- B. The Contractor will be compensated for Services performed in addition to the Services described in Section III, only when the scope of and compensation for those additional Services have received prior written approval of the Contract Administrator.
- C. The Contractor shall keep complete records of work performed (e.g. tasks performed/hours allocated) so that the City may verify invoices submitted by the Contractor. Such records shall be made available to the City upon request and submitted in summary form with each invoice.

#### **VI. INSURANCE/INDEMNIFICATION**

- A. The Contractor shall procure and maintain during the life of this contract such insurance policies, including those set forth in Exhibit C, as will protect itself and the City from all claims for bodily injuries, death or property damage which may arise under this contract; whether the act(s) or omission(s) giving rise to the claim were made by the Contractor, any subcontractor or anyone employed by them directly or indirectly. In the case of all contracts involving on-site work, the

Contractor shall provide to the City, before the commencement of any work under this contract, documentation satisfactory to the City demonstrating it has obtained the policies and endorsements required by Exhibit C.

- B. Any insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the City.
- C. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses, including attorney's fees, resulting or alleged to result, from any acts or omissions by Contractor or its employees and agents occurring in the performance of or breach in this Agreement, except to the extent that any suit, claim, judgment or expense are finally judicially determined to have resulted from the City's negligence or willful misconduct or its failure to comply with any of its material obligations set forth in this Agreement.

## **VII. COMPLIANCE REQUIREMENTS**

- A. Nondiscrimination. The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of MCL 37.2209. The Contractor further agrees to comply with the provisions of Section 9:158 of Chapter 112 of the Ann Arbor City Code and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity.
- B. Living Wage. If the Contractor is a "covered employer" as defined in Chapter 23 of the Ann Arbor City Code, the Contractor agrees to comply with the living wage provisions of Chapter 23 of the Ann Arbor City Code. The Contractor agrees to pay those employees providing Services to the City under this Agreement a "living wage," as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Agreement are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

## **VIII. WARRANTIES BY THE CONTRACTOR**

- A. The Contractor warrants that the quality of its Services under this Agreement shall conform to the level of quality performed by persons regularly rendering this type of service.

- B. The Contractor warrants that it has all the skills, experience, and professional licenses necessary to perform the Services specified in this Agreement.
- C. The Contractor warrants that it has available, or will engage, at its own expense, sufficient trained employees to provide the Services specified in this Agreement.
- D. The Contractor warrants that it is not, and shall not become overdue or in default to the City for any contract, debt, or any other obligation to the City including real and personal property taxes.
- E. The Contractor warrants that its proposal for services was made in good faith, it arrived at the costs of its proposal independently, without consultation, communication or agreement, for the purpose of restricting completion as to any matter relating to such fees with any competitor for these Services; and no attempt has been made or shall be made by the Contractor to induce any other perform or firm to submit or not to submit a proposal for the purpose of restricting competition.

**IX. OBLIGATIONS OF THE CITY**

- A. The City agrees to give the Contractor access to the Project area and other City-owned properties as required to perform the necessary Services under this Agreement.
- B. The City shall notify the Contractor of any defects in the Services of which the Contract Administrator has actual notice.

**X. ASSIGNMENT**

- A. The Contractor shall not subcontract or assign any portion of any right or obligation under this Agreement without prior written consent from the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises and performances, however described, as are required of it under the Agreement unless specifically released from the requirement, in writing, by the City.
- B. The Contractor shall retain the right to pledge payment(s) due and payable under this Agreement to third parties.

**XI. TERMINATION OF AGREEMENT**

- A. If either party is in breach of this Agreement for a period of fifteen (15) days following receipt of notice from the non-breaching party with respect to a breach, the non-breaching party may pursue any remedies available to it against the breaching party under applicable law, including but not limited to, the right to terminate this Agreement without further notice. The waiver of any breach by any party to this Agreement shall not waive any subsequent breach by any party.

- B. The City may terminate this Agreement, on at least thirty (30) days advance notice, for any reason, including convenience, without incurring any penalty, expense or liability to Contractor, except the obligation to pay for Services actually performed under the Agreement before the termination date.
- C. Contractor acknowledges that, if this Agreement extends for several fiscal years, continuation of this Agreement is subject to appropriation of funds for this Project. If funds to enable the City to effect continued payment under this Agreement are not appropriated or otherwise made available, the City shall have the right to terminate this Agreement without penalty at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to Contractor. The Contract Administrator shall give Contractor written notice of such non-appropriation within thirty (30) days after it receives notice of such non-appropriation.
- D. The provisions of Articles VI and VIII shall survive the expiration or earlier termination of this Agreement for any reason. The expiration or termination of this Agreement, for any reason, shall not release either party from any obligation or liability to the other party, including any payment obligation that has already accrued and Contractor's obligation to deliver all Deliverables due as of the date of termination of the Agreement.

## **XII. REMEDIES**

- A. This Agreement does not, and is not intended to, impair, divest, delegate or contravene any constitutional, statutory and/or other legal right, privilege, power, obligation, duty or immunity of the Parties.
- B. All rights and remedies provided in this Agreement are cumulative and not exclusive, and the exercise by either party of any right or remedy does not preclude the exercise of any other rights or remedies that may now or subsequently be available at law, in equity, by statute, in any agreement between the parties or otherwise.
- C. Absent a written waiver, no act, failure, or delay by a Party to pursue or enforce any rights or remedies under this Agreement shall constitute a waiver of those rights with regard to any existing or subsequent breach of this Agreement. No waiver of any term, condition, or provision of this Agreement, whether by conduct or otherwise, in one or more instances, shall be deemed or construed as a continuing waiver of any term, condition, or provision of this Agreement. No waiver by either Party shall subsequently effect its right to require strict performance of this Agreement.

### **XIII. NOTICE**

All notices and submissions required under this Agreement shall be delivered to the respective party in the manner described herein to the address stated in this Agreement or such other address as either party may designate by prior written notice to the other. Notices given under this Agreement shall be in writing and shall be personally delivered, sent by next day express delivery service, certified mail, or first class U.S. mail postage prepaid, and addressed to the person listed below. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; (2) the next business day when notice is sent next day express delivery service or personal delivery; or (3) three days after mailing first class or certified U.S. mail.

If Notice is sent to the CONTRACTOR, it shall be addressed and sent to:

If Notice is sent to the CITY, it shall be addressed and sent to:

City of Ann Arbor

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(insert name of Administering Service Area Administrator)

301 E. Huron St.  
Ann Arbor, Michigan 48103

### **XIV. CHOICE OF LAW AND FORUM**

This Agreement will be governed and controlled in all respects by the laws of the State of Michigan, including interpretation, enforceability, validity and construction, excepting the principles of conflicts of law. The parties submit to the jurisdiction and venue of the Circuit Court for Washtenaw County, State of Michigan, or, if original jurisdiction can be established, the United States District Court for the Eastern District of Michigan, Southern Division, with respect to any action arising, directly or indirectly, out of this Agreement or the performance or breach of this Agreement. The parties stipulate that the venues referenced in this Agreement are convenient and waive any claim of non-convenience.

### **XV. OWNERSHIP OF DOCUMENTS**

Upon completion or termination of this Agreement, all documents (i.e., Deliverables) prepared by or obtained by the Contractor as provided under the terms of this Agreement shall be delivered to and become the property of the City. Original basic survey notes, sketches, charts, drawings, partially completed drawings, computations, quantities and other data shall remain in

the possession of the Contractor as instruments of service unless specifically incorporated in a deliverable, but shall be made available, upon request, to the City without restriction or limitation on their use. The City acknowledges that the documents are prepared only for the Project. Prior to completion of the contracted Services the City shall have a recognized proprietary interest in the work product of the Contractor.

Unless otherwise stated in this Agreement, any intellectual property owned by Contractor prior to the effective date of this Agreement (i.e., Preexisting Information) shall remain the exclusive property of Contractor even if such Preexisting Information is embedded or otherwise incorporated in materials or products first produced as a result of this Agreement or used to develop Deliverables. The City's right under this provision shall not apply to any Preexisting Information or any component thereof regardless of form or media.

#### **XV. CONFLICTS OF INTEREST OR REPRESENTATION**

Contractor certifies it has no financial interest in the Services to be provided under this Agreement other than the compensation specified herein. Contractor further certifies that it presently has no personal or financial interest, and shall not acquire any such interest, direct or indirect, which would conflict in any manner with its performance of the Services under this Agreement.

Contractor agrees to advise the City if Contractor has been or is retained to handle any matter in which its representation is adverse to the City. The City's prospective consent to the Contractor's representation of a client in matters adverse to the City, as identified above, will not apply in any instance where, as the result of Contractor's representation, the Contractor has obtained sensitive, proprietary or otherwise confidential information of a non-public nature that, if known to another client of the Contractor, could be used in any such other matter by the other client to the material disadvantage of the City. Each matter will be reviewed on a case by case basis.

#### **XVII. SEVERABILITY OF PROVISIONS**

Whenever possible, each provision of this Agreement will be interpreted in a manner as to be effective and valid under applicable law. However, if any provision of this Agreement or the application of any provision to any party or circumstance will be prohibited by or invalid under applicable law, that provision will be ineffective to the extent of the prohibition or invalidity without invalidating the remainder of the provisions of this Agreement or the application of the provision to other parties and circumstances.

#### **XVIII. EXTENT OF AGREEMENT**

This Agreement, together with any affixed exhibits, schedules or other documentation, constitutes the entire understanding between the City and the Contractor with respect to the subject matter of the Agreement and it supersedes, unless otherwise incorporated by reference herein, all prior representations, negotiations, agreements or understandings whether written or

oral. Neither party has relied on any prior representations, of any kind or nature, in entering into this Agreement. No terms or conditions of either party's invoice, purchase order or other administrative document shall modify the terms and conditions of this Agreement, regardless of the other party's failure to object to such form. This Agreement shall be binding on and shall inure to the benefit of the parties to this Agreement and their permitted successors and permitted assigns and nothing in this Agreement, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Agreement. This Agreement may only be altered, amended or modified by written amendment signed by the Contractor and the City. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement.

**FOR CONTRACTOR**

By \_\_\_\_\_  
Type Name  
Its

**FOR THE CITY OF ANN ARBOR**

By \_\_\_\_\_  
Christopher Taylor, Mayor  
By \_\_\_\_\_  
Jacqueline Beaudry, City Clerk

**Approved as to substance**

\_\_\_\_\_  
Steven D. Powers, City Administrator  
\_\_\_\_\_  
Type Name  
Service Area Administrator

**Approved as to form and content**

\_\_\_\_\_  
Stephen K. Postema, City Attorney



**EXHIBIT A  
SCOPE OF SERVICES**

**(Insert/Attach Scope of Work & Deliverables Schedule)**

**EXHIBIT B  
COMPENSATION**

General

Contractor shall be paid for those Services performed pursuant to this Agreement inclusive of all reimbursable expenses (if applicable), in accordance with the terms and conditions herein. The Compensation Schedule below/attached states nature and amount of compensation the Contractor may charge the City:

(insert/Attach Negotiated Fee Arrangement)

**EXHIBIT C  
INSURANCE REQUIREMENTS**

Effective the date of this Agreement, and continuing without interruption during the term of this Agreement, Contractor shall provide certificates of insurance to the City on behalf of itself, and when requested any subcontractor(s). The certificates of insurance shall meet the following minimum requirements.

- A. The Contractor shall have insurance that meets the following minimum requirements:
1. Professional Liability Insurance or Errors and Omissions Insurance protecting the Contractor and its employees in an amount not less than \$1,000,000.
  2. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:  
  
Bodily Injury by Accident - \$500,000 each accident  
Bodily Injury by Disease - \$500,000 each employee  
Bodily Injury by Disease - \$500,000 each policy limit
  3. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98 or current equivalent. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements which diminish the City's protections as an additional insured under the policy. Further, the following minimum limits of liability are required:  
  
\$1,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined  
\$2,000,000 Per Job General Aggregate  
\$1,000,000 Personal and Advertising Injury
  4. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements which diminish the City's protections as an additional insured under the policy. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.
  5. Umbrella/Excess Liability Insurance shall be provided to apply in excess of the Commercial General Liability, Employers Liability and the Motor

Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.

- B. Insurance required under A.3 and A.4 above shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City.
- C. Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified. Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the City. If any of the above coverages expire by their terms during the term of this contract, the Contractor shall deliver proof of renewal and/or new policies to the Administering Service Area/Unit at least ten days prior to the expiration date.

# Appendix E

## Existing Footing Drain Disconnection Program Specifications

## SECTION 15010

### FOOTING DRAIN DISCONNECTION

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

- A. Review footing drain configuration with property owner and determine if internal or external disconnection is required.
- B. Prepare materials list for the work to be performed.
- C. Prepare a cost schedule for the work that is included.
- D. Provide submittal package for approval by the FDD Construction Management Team and submit through the FDD Estimate Submittal Website.
- E. Upon approval by the FDD Construction Management Team, furnish all labor, materials, equipment, and incidentals required and install the following items of plumbing complete as shown on the details and specified herein:
  - 1. Floor drain(s) with backwater valve (if required)
  - 2. Laundry and sink backwater valve(s) (if required)
  - 3. Check valve with access pit for stool or dedicated line to a basement bathroom or whole-house backwater valve (if applicable)
  - 4. Footing drain sump (internal or external)
  - 5. Submersible sump pump
  - 6. Interior and exterior sump discharge piping including check valves
  - 7. Tap-in-place connection to the curb drain if stub has not been provided.
- F. Payment can be made for the work performed after receiving final acceptance by the FDD Construction Management Team.

##### 1.02 RELATED WORK

- A. Electrical work, concrete work, tile replacement, and trenching as required shall be provided as described below.
- B. New access doors or panels may be required where access to the sump location will be limited. If the only access to the sump location is from the exterior of the home or through an interior wall, and no other approved access is available, a minimum 16" x 24" access door shall be installed. A larger size may be required if no other access route can be used to transport the sump basin into the space. Access doors may be custom made to match the condition of the home, or may be purchased from an access door supplier. The design and product must be approved by the construction management team and building department prior to installation.

- C. At all properties where floor tile must be removed, the contractor shall follow the removal steps described in *General Information and Methods for the Removal of Asbestos-Containing Floor Tile*, which is included in the FDD contractor prequalification materials.
- D. Contractor shall apply for and pay for the appropriate permits needed to complete this work.

### 1.03 SUBMITTALS

- A. Prior to beginning work in the FDD program, submit to the FDD Construction Management Team a list of materials and equipment, including cut sheets, product data, installation instructions, wiring diagrams, etc. to be furnished and installed as part of a general disconnect and installation job. The FDD Construction Management Team must approve any variations to this general plan as the contractor progresses through subsequent installations.

### 1.04 REFERENCE STANDARDS

- A. City of Ann Arbor rules, regulations, and codes shall be followed during the performance of this work.

## PART 2 PRODUCTS

### 2.01 GENERAL

- A. The use of a manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired. Different equipment may be used with notification and approval by the Project Management team.

### 2.02 ELECTRICAL EQUIPMENT

- A. Electrical panels and components shall be suitable for the environment and electrical classification for the space they are located in.

### 2.03 FLOOR DRAIN WITH ACCESSIBLE BACKWATER VALVE

- A. Furnish and install as shown in Figure 1 for all floor drains located in the basement that are determined to be connected to the sanitary sewer plumbing system.
- B. Units shall be mounted flush with the existing basement floor and connected to the existing basement floor drain plumbing with an appropriate rubber connector. Replacement drains shall be installed if existing drain is damaged either before or during backwater valve installation, and shall be of PVC construction.
- C. Units are to have an accessible, removable top to allow maintenance of the check flap and seal.
- D. Units shall be the following:
  - 1. Canplas Industries Ltd., Part No. 3282
  - 2. Jones Stephens Corp., Part No. B04-300K
  - 3. Or equal

### 2.04 HORIZONTAL BACKWATER VALVE

- A. Furnish and install as shown in Figure 2 for utility tubs and sinks as required.
- B. Unit shall be placed in installations after the existing sink trap and above the basement slab where possible. Unit shall be connected using appropriate removable connectors so that the unit can be removed for maintenance.
- C. Units are to have an accessible, removable top to allow maintenance of the check flap and seal.
- D. Units shall be the following:
  - 1. Canplas Industries Ltd., Part No. 3281
  - 2. Flotec, Model FP212-257
  - 3. Jones Stephens Corp., Part No. B04-200
  - 4. Or equal

#### 2.05 WATER CLOSET CHECK VALVE ASSEMBLY

- A. Furnish and install as shown in Figure 3A where service to other existing facilities such as water closets and showers is required in the basement.
- B. Check valve unit is to consist of a 4" PVC check valve placed on the sanitary drain line from the water closet or shower.
- C. Units are to have an accessible, removable top to allow maintenance of the check flap and seal.
- D. Units shall be placed through a cast-in-place hand-hole or in a fiberglass or plastic vault in the basement floor and shall be connected into the existing plumbing system downstream from existing water closets and showers.
- E. The hand-hole or plastic vault shall have a removable cover that is mounted flush with the basement floor. The units shall be connected into the existing plumbing system using appropriate removable rubber connectors so that the units can be removed for maintenance.
- F. Units shall be the following:
  - 1. 4" backwater valve manufactured by NDS, Model CV04
  - 2. 4" backwater valve supplied through USA Bluebook, Plastic Backwater Valve PVC Body-New Style with Cleanout and 4" Plastic Lid Model #17085.
  - 3. 4" backwater valve manufactured by Canplas Industries Ltd., Part No. 3285
  - 4. 4" backwater valve manufactured by Jones Stephens Corp., Part No. B04-400K
  - 5. Or equal

#### 2.06 WHOLE-HOUSE BACKWATER VALVE ALTERNATIVE

- A. When residence includes a lower level bathroom group, and when Single Backflow Valve Alternative Release has been signed and submitted by property owner, and when approved by the construction manager, installation of a whole-house backwater valve is allowed in place of individual check valves on all lower level sanitary connections.



- B. Furnish and install as shown in Figure 3B, for installations as described above.
- C. Check valve unit is to consist of a 4" PVC check valve placed on the sanitary drain line at a point downstream of all lower-level sanitary connections and upstream of cleanout.
- D. Units are to have an accessible, removable top to allow maintenance of the check flap and seal.
- E. Units shall be placed in a fiberglass or plastic vault in the basement floor or through a cast-in-place hand-hole and shall be connected into the existing plumbing system.
- F. The plastic vault or hand-hole shall have a removable cover that is mounted flush with the basement floor. The units shall be connected into the existing plumbing system using appropriate removable rubber connectors so that the units can be removed for maintenance.
- G. Whole-House Backwater Valve Units shall be the following:
  - 1. 4" backwater valve manufactured by NDS, Model CV04
  - 2. 4" backwater valve supplied through USA Bluebook, Plastic Backwater Valve PVC Body-New Style with Cleanout and 4" Plastic Lid Model #17085.
  - 3. 4" backwater valve manufactured by Canplas Industries Ltd., Part No. 3285
  - 4. 4" backwater valve manufactured by Jones Stephens Corp., Part No. B04-400K
  - 5. Or equal
- H. Where the interior drain plumbing configuration does not allow for installation of an interior whole house backwater valve, an extendable exterior whole-house backwater valve shall be used. Units shall be the following:
  - 1. 4" PVC backwater valve, manufactured by Clean Check, Inc.
  - 2. Or equal

#### 2.07 FOOTING DRAIN SUMP (INTERNAL)

- A. Furnish and install the sump as shown in Figure 5A in a location that will minimize impacts on the use or access to the basement by the homeowner.
- B. Sump shall be installed to accept flow from the basement footing drains and any house exterior stairwell drains. The sump location shall be chosen so that the footing drains flow to the sump in the same configuration as they flowed to the sanitary prior to disconnection. If the sump location is chosen so that the footing drains flow in a new configuration, an Alternative Sump Location Release form must be signed by the property owner.
- C. Where groundwater levels at the sump location prevent installation of the sump, perforations in the bottom or sides of the sump shall be made using a 1/4" diameter or smaller drill bit to equalize the pressure during installation. If perforations are made in any part of the sump, filter fabric shall be used to wrap the exterior of the sump prior to backfill.
- D. All existing footing drain connections to the sanitary sewer shall be appropriately disconnected and plugged as shown in Figure 4. Non-destruct footing drain disconnect alternatives are described in section 2.15.

- E. Sump shall have a cylindrical shape with a minimum diameter of 18” or have a conical shape with minimum outside dimensions of 20” at the top and 14” at the bottom. Either shall have a minimum depth of 30”. Depending on the depth of the footing drains, the contractor must be prepared to also include sump extensions up to a 42” sump depth. If a total sump depth greater than 42” is required, the construction manager should be contacted to document the change. Sump shall have a sealed and gasketed lid that has the ability to be bolted into position. All protrusions through the lid will be air tight through the installation of appropriate rubber grommets.
- F. Gaskets shall be placed at the connection between the footing tile(s) and the sump to prevent any intrusion of pea-gravel/backfill into sump.
- G. After installation of the sump, concrete shall be replaced around the sump in a workmanlike fashion and the existing floor treatment restored. If tile is used, an approximate tile color match shall be made.
- H. Units shall be the following:
  - 1. Munro Model BSB24TS.
  - 2. AK Industries Model AKP50210
  - 3. Or equal

#### 2.08 FOOTING DRAIN SUMP (EXTERNAL)

- A. Furnish and install as shown in Figure 5b in locations outside the home that minimize impacts on the property. The location shall be accessible by the property owner.
- B. Sump shall be installed to accept flows from the exterior basement footing drains and any house exterior stairwell drains.
- C. All existing interior and exterior footing drain connections to the sanitary sewer shall be appropriately disconnected as shown in Figures 4A-4C.
- D. Sump shall be cylindrical in shape with a minimum diameter of 24”. The sump lid should be steel and should be securely bolted down.
- E. The discharge piping shall be configured to have an air gap within the sump as shown in Figure 5B. The piping at the air gap must be able to be disassembled easily so that the vertical piping and sump pump can be lowered and raised for installation and removal. An inline cleanout shall be installed close to the sump on the drainage piping.
- F. The electrical line to the sump shall be enclosed in conduit when underground and an exterior-grade outlet box shall be mounted to the wall of the sump at an elevation at least 12” above the discharge piping air gap. A dedicated circuit breaker shall be provided on the exterior wall of the home near the sump location.
- G. Sump shall include a safety shelf, to be installed 2’ below ground level as shown in Figure 5B. The safety shelf shall include at least one access port large enough to lift out the sump pump using the discharge piping but no larger than half the diameter of the shelf itself. The safety shelf may be constructed from a sump lid with two 12” tall sump extensions installed above the shelf up to ground level.

- H. The excavation for sump shall be over-excavated by 6", with a 6" depth of 21 AA gravel used as a base for the sump. The area around the sump shall be backfilled with native material.
- I. Units shall be the following:

- 1. ADS HDPE Series 35 pipe with end caps
- 2. Or equal

## 2.09 SUBMERSIBLE SUMP PUMP

- A. Furnish and install as shown in either Figure 5a (internal) or 5b (external).
- B. Submersible sump pump shall be provided to discharge flows from the new sump to a discharge point outside of the building. Sump pump shall include all electrical wiring for the unit and discharge piping to the discharge location.
- C. Sump pump shall be of cast iron construction and shall use a float type switch.
- D. Discharge piping shall include a check valve downstream from the sump pump discharge to limit backflow into the sump.
- E. Units shall be capable of pumping at least 30 gallons per minute (GPM) with 15' of discharge head.
- F. Units shall be the following:
  - 1. Flotec Model SC3200A
  - 2. Zoeller Model M-53 or BN-53
  - 3. Hydromatic SW50 or VS50
  - 4. Or equal.
- G. The construction management team may identify certain homes where the peak flows are expected to approach or exceed the capacity of the above pumps. High-capacity pumps, rated to 45 GPM or greater at 15' of discharge head, shall be installed where recommended by the CM team.
- H. High-flow pump units shall be the following:
  - 1. Zoeller Model M-98
  - 2. Flotec Model SC4550A
  - 3. Or equal.

## 2.10 SUMP DISCHARGE PIPING

- A. Furnish and install Sump Discharge Piping from the sump pump to the Drainage Piping.
- B. An air gap shall be provided between the Sump Discharge Piping and the Drainage Piping as shown on Figures 6A-C, and a 2" minimum cleanout shall be installed such that it is accessible and visible at ground surface near the home exit point.

- C. The Sump Discharge Piping shall penetrate the home envelope above ground level and any openings through the home envelope shall be properly sealed with caulk.
- D. Sump Discharge Piping for interior sump installations shall be installed as shown in Figures 6A-C.
- E. Sump Discharge Piping for exterior sump installations shall be installed as shown in Figure 5B.

## 2.11 DRAINAGE PIPING

- A. Furnish and install Drainage Piping that accepts flow from the Sump Discharge Piping and conveys it to one of the following:
  - 1. City installed curb drain (if available).
  - 2. Either open channel or closed conduit storm drainage system.
  - 3. Approved alternative discharge location
- B. Drainage Piping shall be installed using either trenchless or open trench methods. The depth of the discharge point and the surface grade of along the proposed pipe route will determine the method based on the minimum available cover.
- C. Discharge lines installed by means of open trenching shall be 4" diameter HDPE or schedule-40 PVC pipe. Piping shall be installed at a slope of 1" of fall per 10' of run with a minimum cover of 18" throughout the entire length of the run.
- D. Discharge lines installed by trenchless means (mole installations or directional drilling) shall be 2" diameter HDPE or schedule-40 PVC pipe. Piping shall be installed at a slope of 1" of fall per 10' of run with a minimum cover of 24" throughout the entire length of the run.
- E. Working from the starting depth at the discharge point towards the home, the minimum slope (1":10') will be maintained until 30" of cover has been obtained, where at that point, the slope may then be increased to maintain 30" of cover. If for any reason the minimum slope (1":10') conflicts with the maximum cover of 30" due to surface grading, the contractor is responsible to maintain the minimum slope to depths greater than 30".
- F. If the depth of the curb drain or an adversely sloped lawn will result in less than 18" of cover for any section of the discharge line, the contractor should contact the construction management team so all other options for the discharge line and alternative discharge points can be evaluated. Discharge lines that are approved for installation with less than 18" of cover must be inspected with a sewer camera to confirm the pipe sloping.
- G. The contractor is able to install the discharge piping by combining open trenching and mole installations to avoid damage to heavily landscaped areas or to accommodate a homeowner request to minimize lawn damage. In situations where the curb drain is less than 24" deep, the contractor may install 4" pipe from the curb drain at the minimum slope by open trenching until the minimum cover for the trenchless method is met. At this point, a 2" pipe may be installed for the remainder of the discharge line to the home if the minimum depth and slope can be maintained. A 2x4" reducer will be used to connect the 2" and 4" pipes with a cleanout installed on the 4" pipe. Discharge piping cannot decrease in diameter downstream.

- H. Discharge piping shall not be installed under a deck, patio, or other structure, or through a garage, unless no other reasonable option is available. This type of installation must be approved in advance by the construction management team and city building department.
- I. Discharge piping shall not be installed under driveways unless no other reasonable option is available. This type of installation must be approved in advance by the construction management team and city building department and will require 4' of cover below the driveway surface.
- J. Drainage Piping for interior sump installations shall be installed as shown in Figures 6A-C.
- K. Drainage Piping for exterior sump installations shall be installed as shown in Figure 5B.
- L. Connection of the Drainage Piping to the curb drain shall be performed using a previously-placed, thermally-welded saddle or tee as shown in Figures 7A-B. If a saddle or tee has not previously been installed or the location is not feasible for connection of the drainage piping, a tap in place connection to the curb drain shall be used, as described in section 2.14.
- M. Connection to an existing closed conduit storm drain shall be performed by the Water Utilities Department after the contractor has exposed the storm drain.
- N. If the drainage has a surface discharge point, the end of the pipe shall be completed as shown in Figure 8. For Drainage Piping using a surface discharge point, 4" diameter piping shall be used. There shall be a 3-5" drop from the invert of the installed pipe to the surface of the receiving pit. The receiving pit shall be constructed with a minimum 2 cubic feet filled of pea gravel. The end of the pipe shall be covered with ½"-spaced chicken wire (secured with stainless steel hose/band clamp) as an animal guard and shrouded with natural materials such as rocks or plants to provide visual screening.

## 2.12 CONDENSATE PUMP

- A. Furnish and install a condensate pump to re-route flows when a high-efficiency furnace, air conditioner or other acidic-flow condensate line is connected to the footing drain system and when using a gravity discharge to a local sanitary plumbing fixture is not feasible.
- B. Existing connection to footing drains shall be removed and the remaining hole in floor shall be filled in and smoothed over with concrete.
- C. Condensate pump shall collect furnace condensate and pump automatically to a local sanitary plumbing fixture.
- D. Installation shall include discharge line and connections, as well as any electrical wiring or outlet necessary to provide service to the condensate pump.
- E. Condensate pump shall be suitable for handling acidic flows, and shall include a check valve.
- F. Units shall be the following:
  - 1. Little Giant Pump Co., model VCMA-15UL 115V 60HZ 6'
  - 2. Or equal.

## 2.13 DISCHARGE TO INFILTRATION SYSTEM

- A. Furnish and install infiltrator chambers, accessories, and make connections as shown in Figure 9.

- B. The approval to use an infiltration system, along with the number of chambers required, shall be determined in conjunction with the construction manager, using the recommendations in the alternative discharge final report. The typical installation will be made with either one or two chambers.
- C. Chambers shall be approximately 3 feet wide x 8 feet long x 1 foot high. Connectors and end pieces shall be installed per manufacturer instructions. The feed pipe at the connection to the chamber shall be 4" diameter PVC.
- D. Infiltrators are to be a minimum of 15' from the house and 18-48" from finish grade to the top of the chamber. The excavation should be approximately 4' wide, to provide sufficient room to work, while minimizing damage to the yard.
- E. Each section shall be placed on leveled native soil except at the inlet pipe as noted below. After backfilling between and top of the chambers with 1 1/2" – 2" washed crushed stone to the top of the chambers, filter fabric may be placed between the stone and the native soil. A 2-3" layer of stone should be placed in a 1 1/2' radius around the inlet pipe to prevent soil erosion.
- F. 4" diameter or 6" diameter inspection ports with threaded caps are optional and can be extended to the ground surface or buried just below the surface at the discretion of the property owner
- G. The gravity overflow pipe, if available, shall be 4" diameter PVC, and have a minimum slope of 1/2" per 10'. Where a gravity overflow cannot be made due to surface grade, a pop-up emitter may be used in place of the lower inspection port. Pop-up emitter units shall be the following:
  - 1. NDS 10ND-421
  - 2. Or equal
- H. Contactor units shall be the following:
  - 1. Cultec Contactor Model 100
  - 2. Biodiffuser 1100 BD
  - 3. Infiltrator Systems, Standard Chamber
  - 4. Or equal

#### 2.14 TAP-IN-PLACE CONNECTION

- A. Furnish and install as shown in figure 7C where an existing thermally welded saddle has not been provided or the location is not feasible to connect to the curb drain.
- B. The tap-in-place connection requires a 5" diameter hole to be cut into the curb drain.
- C. Tap-in-place connection units must be in the following:
  - 1. Joints Tap-n-tee, P/N S004-5.
  - 2. Or equal.

#### 2.15 NON-DESTRUCT FOOTING DRAIN DISCONNECTION

- A. When the connection from the footing drains to the sanitary sewer cannot be accessed to disconnect the pipe due to an obstruction on the floor or when an exceptional level of finish in the basement would not be restorable, a non-destruct footing drain disconnect alternative may be allowed. Advanced approval from both the construction management team and the building department is needed prior to implementing a non-destruct FDD alternative.
- B. If the sump is not located at the connection location, the property owner will be required to sign an Alternative Sump Location Release form.
- C. Where the footing drains connect to the sanitary sewer through a p-trap with cleanout, the non-destruct disconnect shall be made by installing a 4" rubber plug as far into the trap as possible, then filling behind the plug with a fast-set concrete. This type of disconnect shall only be implemented during dry conditions with no footing drain flow.
- D. Where the footing drains connect to the sanitary sewer through a floor drain, the non-destruct disconnect shall be made by installing a 3" vertical extension from the drain trap up to the floor surface. The bottom of the original drain chamber shall be filled with at least a 2" depth of fast-set hydraulic cement to hold the extension piece in place and create a barrier to flow between the footing drains and the sanitary system. Additional concrete shall be used to fill in the chamber up to the bottom of the footing drain pipes. The footing drain pipes shall be left open to flow through the chamber by installing a 4" tall PVC coupling on the outside of the riser and a donut platform on top of the coupling. Concrete shall then be filled on top of the platform up to the rim of the original drain structure so that the original lid can be re-used.
- E. Non-destruct FDD configurations are shown in Figure 4C.

## PART 3 EXECUTION

### 3.01 INSTALLATION

- A. Acquire all required permits necessary for described work.
- B. Install all the items as called for in the Details.
- C. Perform the installations and complete all work within 90 days of the issuance of the contract.
- D. Coordinate installation with the individual homeowners to gain access to the homes and perform the work called for in this specification and on the drawings and details.
- E. Electrical supply shall be according to the applicable electrical code.
- F. All plumbing shall be installed according to the applicable plumbing code.
- G. After connection of all of the components and prior to placement of the concrete, an inspection by the Building Department must be performed and closed plumbing and electrical permits must be obtained. Provide a minimum of 24-hour notice so that these inspections can be provided in a timely fashion. Copies of these permits shall be provided as documentation with invoice submittal.
- H. After placement of concrete, contractor shall restore the floor to similar to pre-existing conditions. Tile shall be provided in locations where previously tiled. Smooth concrete finishes

shall be provided in locations where new concrete is installed. New floor drains shall have concrete sloped down to the drain in the area concrete was removed.

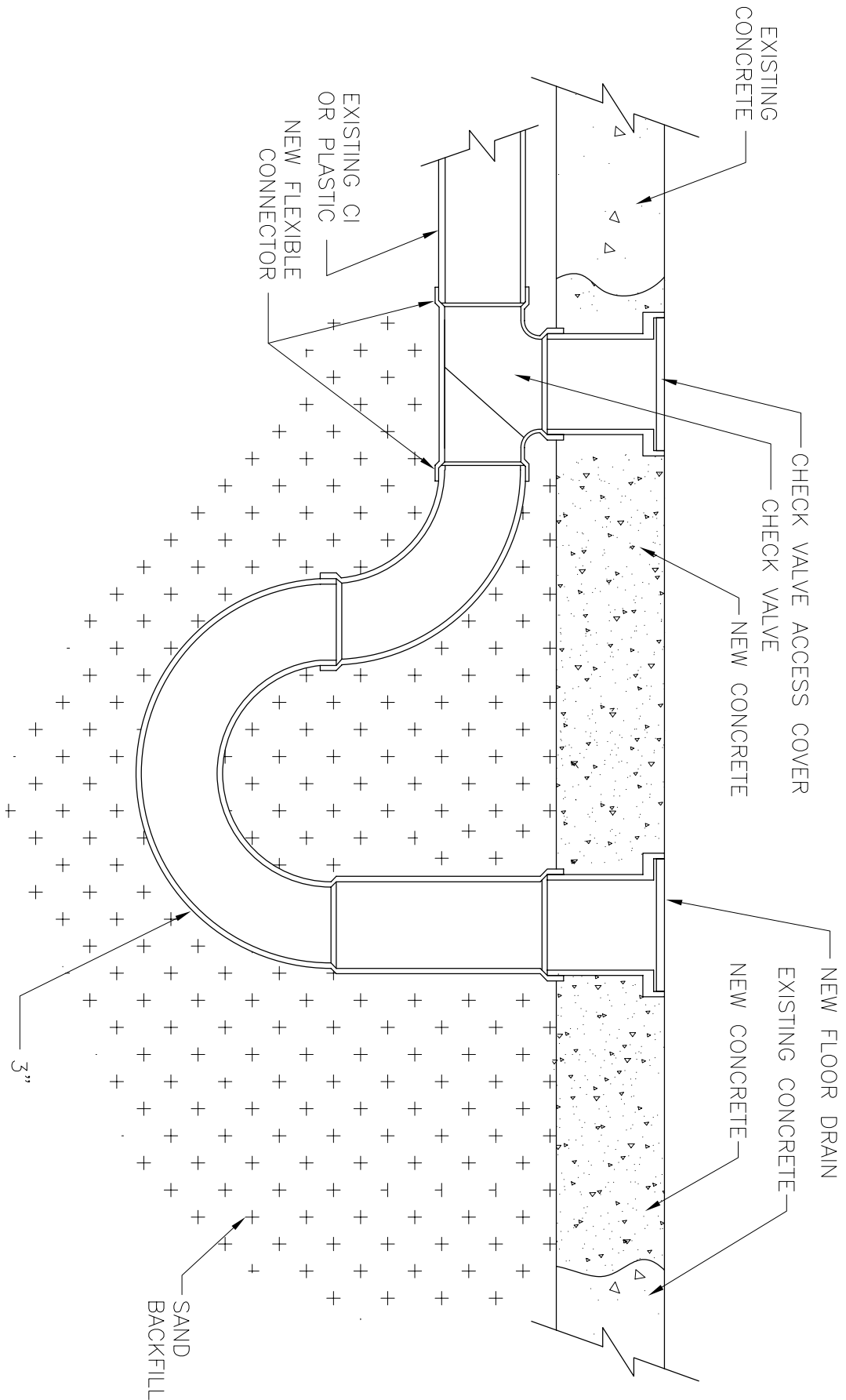
- I. After completion of the exterior work, including discharge piping and sump (if external sump), restore areas to pre-construction grade, provide topsoil, grass seed, and straw and stabilize as needed.

### 3.02 CLEANING

- A. Protection against production and tracking of dust through the home shall be provided. After installation is completed, dust, demolition material, and construction debris shall be properly removed. The associated dirt along the access route shall be appropriately cleaned.

END OF SECTION



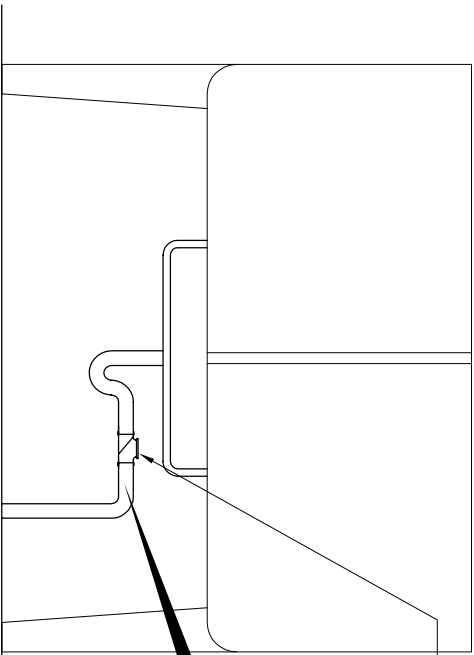


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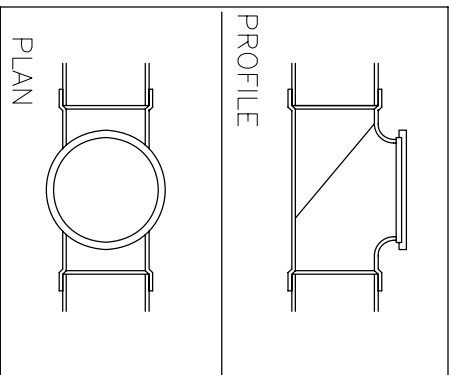
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**Figure 1**  
**INSTALLATION OF FLOOR DRAIN**  
**WITH INLINE CHECK VALVE**

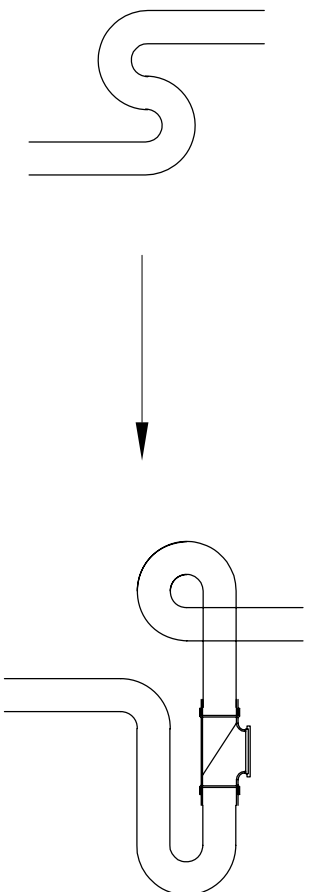


NORMAL  
CHECK VALVE  
CONFIGURATION



NOTE: ATTACH USING  
FLEXIBLE  
CONNECTORS FOR  
EASE IN INSTALLATION  
AND MAINTENANCE

MAY NEED TO REWORK EXISTING PLUMBING  
FOR ADEQUATE INSTALLATION

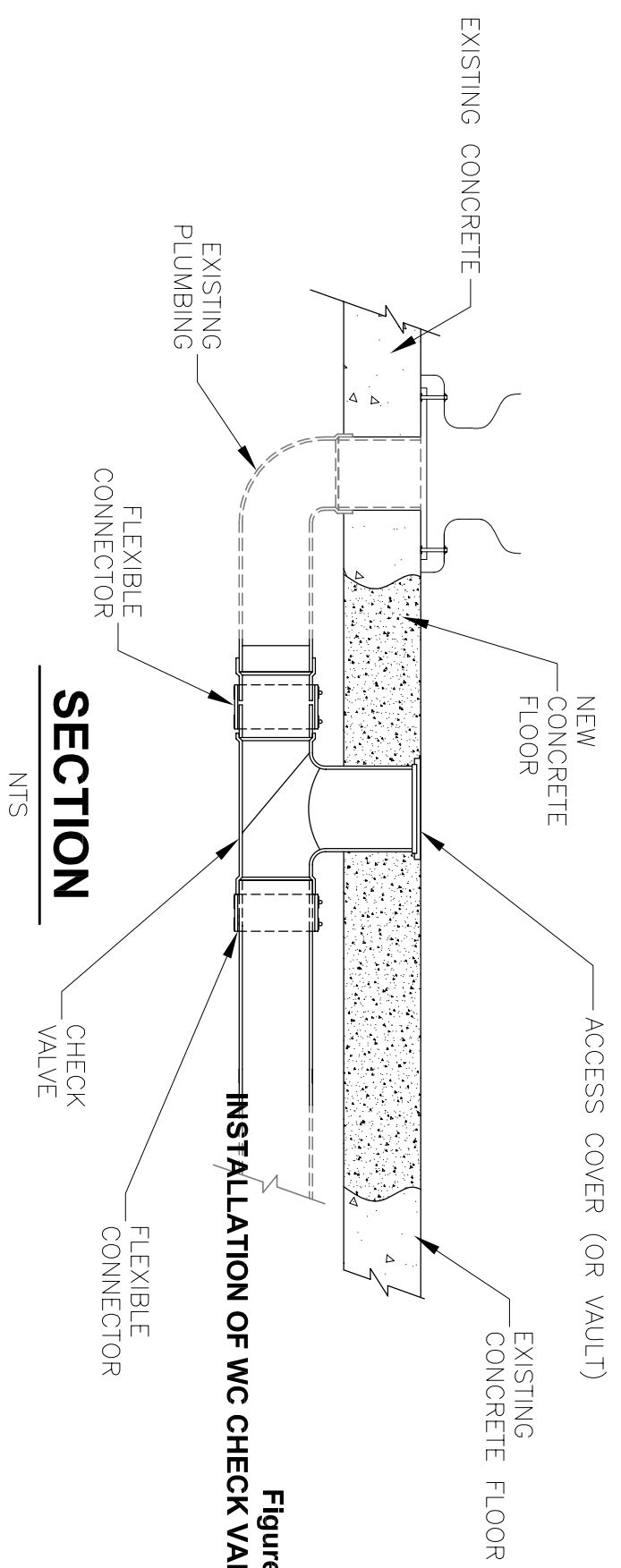
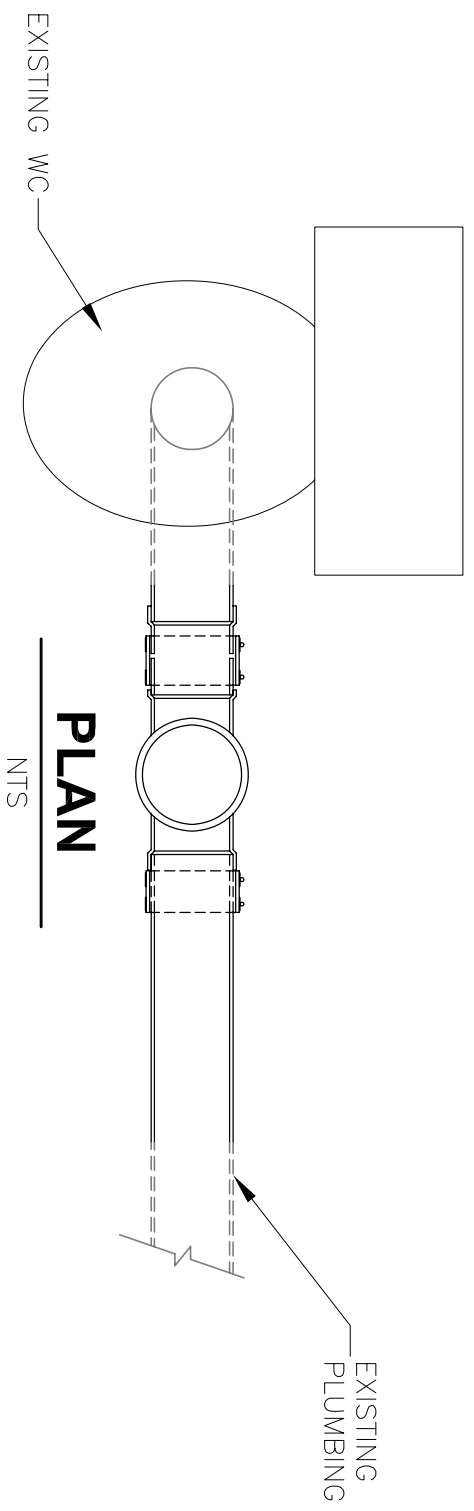


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**Figure 2**  
**INSTALLATION FOR LAUNDRY ROOM CHECK VALVE**  
**(ALSO USE FOR SINK OR WASHER DRAIN INSTALLATION)**



**Figure 3A**  
**INSTALLATION OF WC CHECK VALVE**

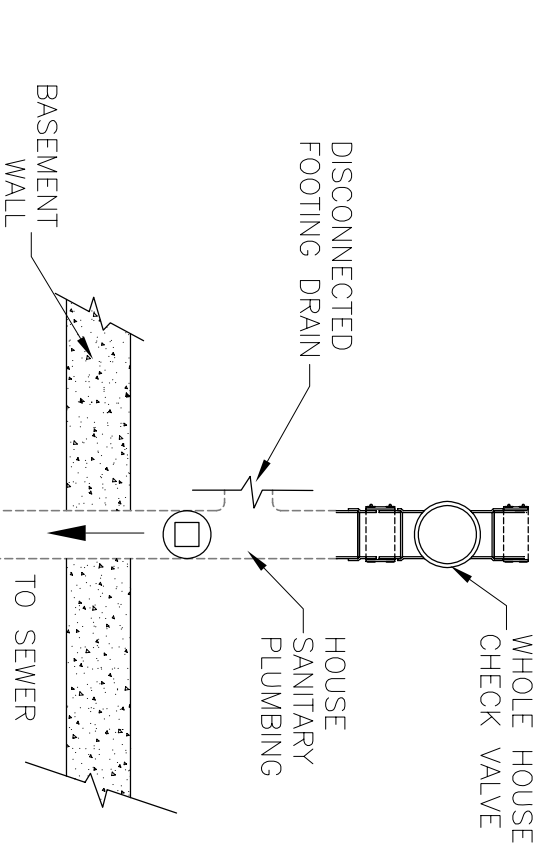


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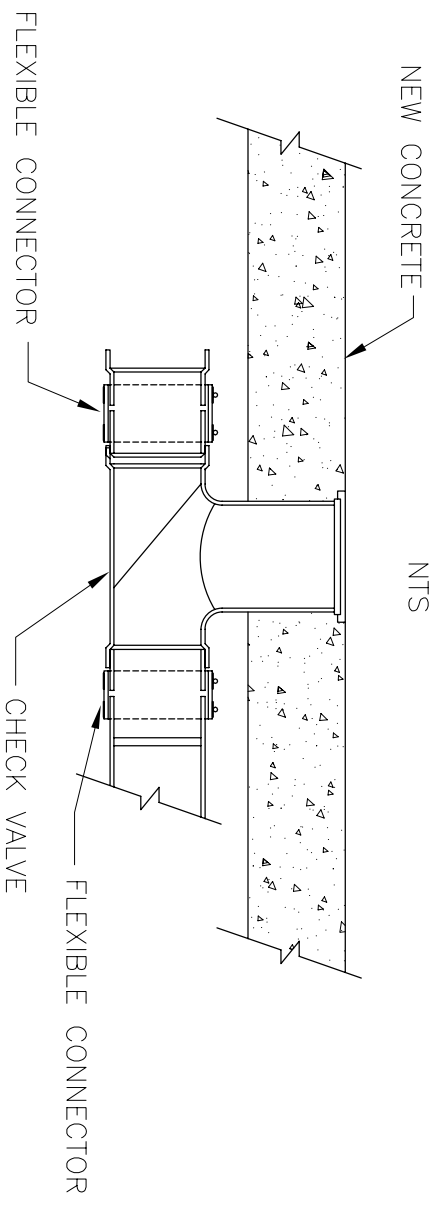
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**Figure 3A**  
**INSTALLATION OF WC CHECK VALVE**



**PLAN**

NTS



**SECTION**

NTS



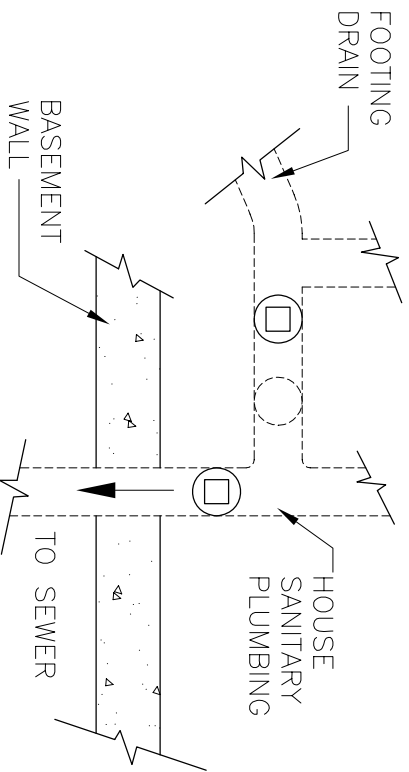
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**Figure 3B**  
**WHOLE HOUSE CHECK VALVE INSTALLATION**

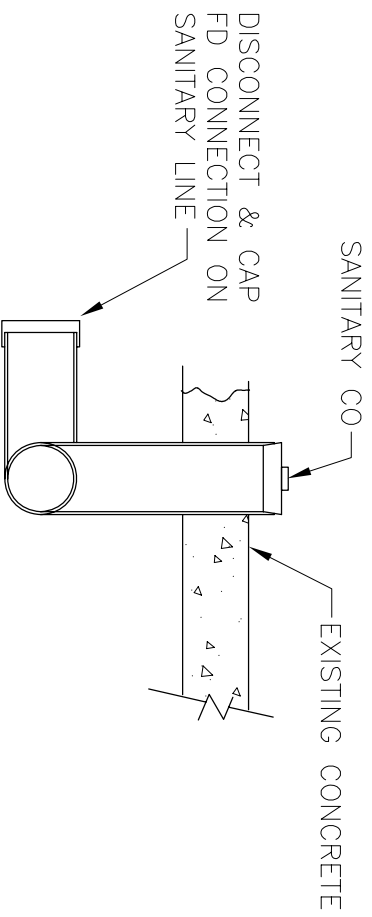
# EXISTING CONDITION



# PLAN

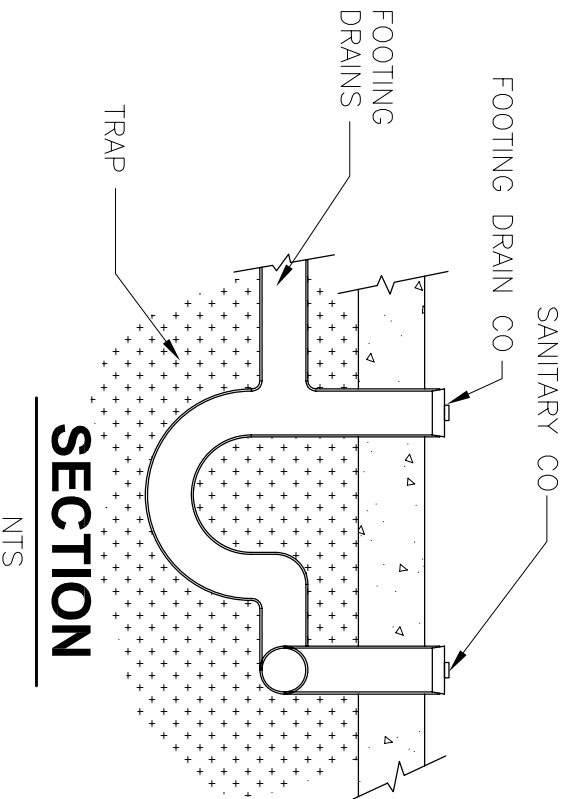
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# DISCONNECTION



# SECTION

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# SECTION

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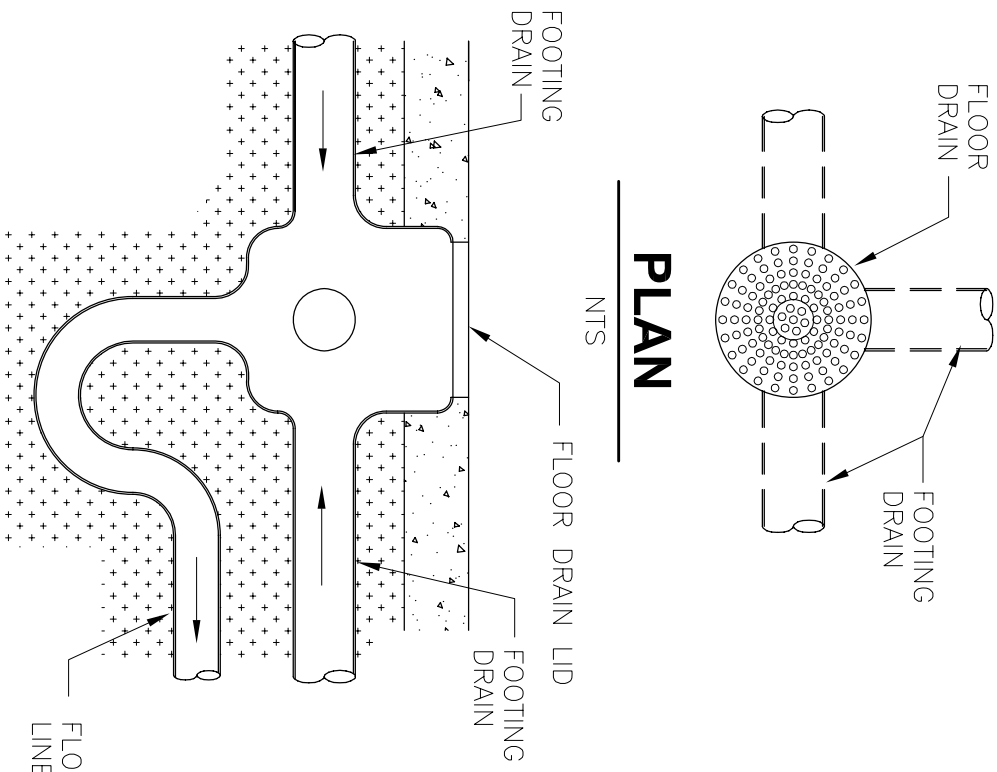
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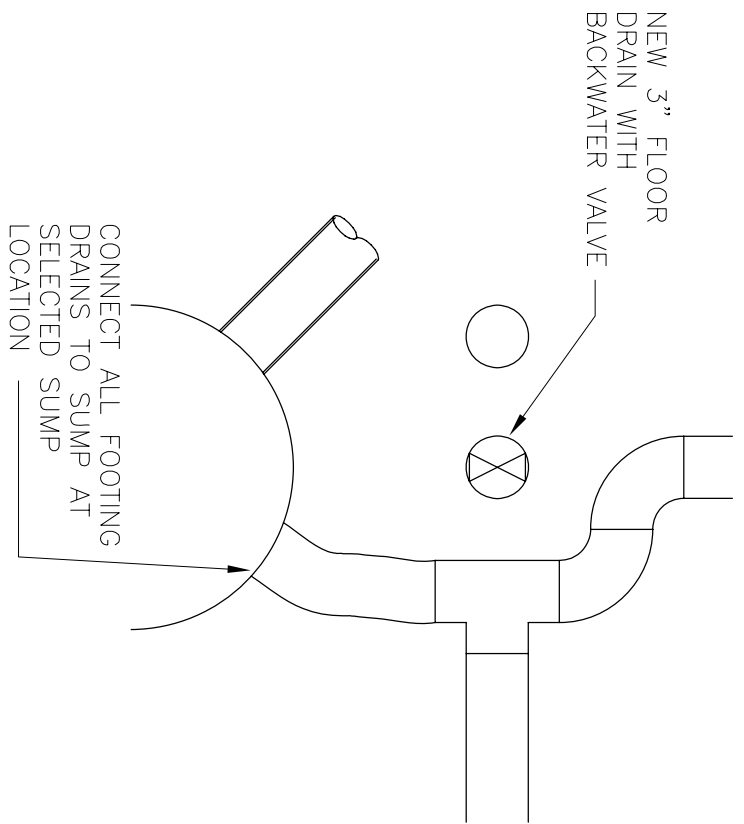
EXISTING TWO CLEANOUT CONDITION & DISCONNECTION

Figure 4A

# EXISTING CONDITION



# DISCONNECTION



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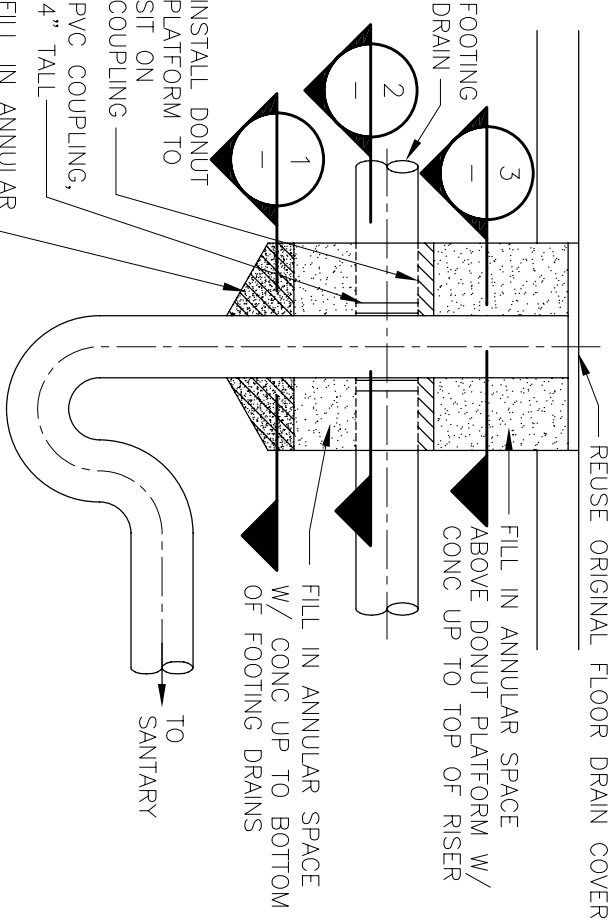
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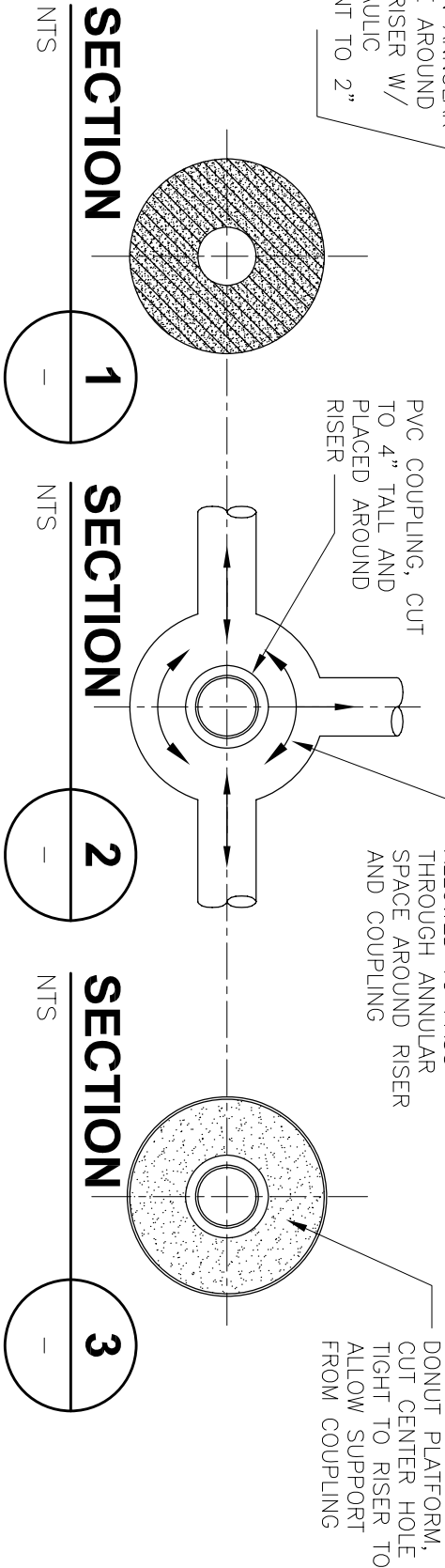
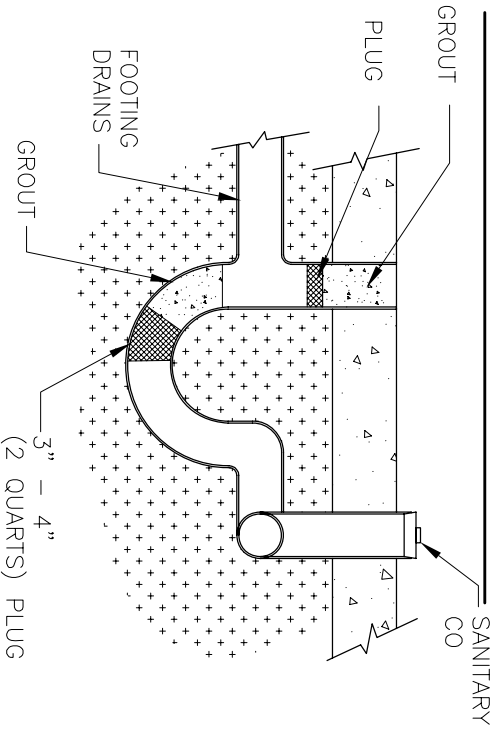
**FOOTING DRAINS CONNECTED AT FLOOR DRAIN CONDITION AND DISCONNECTION**

Figure 4B

# FOOTING DRAINS CONNECTED TO FLOOR DRAIN



# FOOTING DRAINS CONNECTED AT SANITARY CLEANOUT



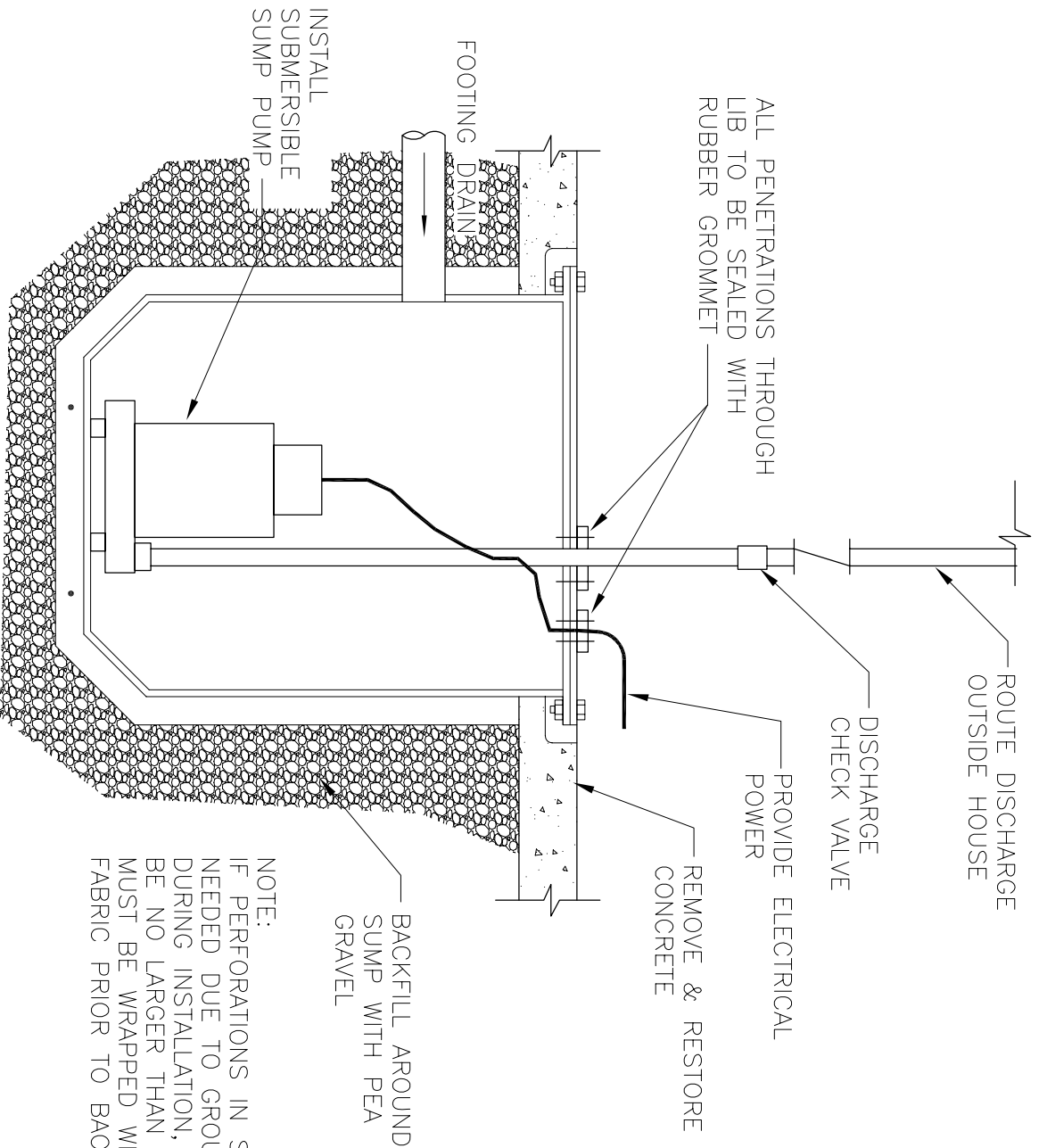
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**NON-DSTRUCT DISCONNECTION ALTERNATIVES  
(REQUIRE CONSTRUCTION MANAGER PRE-APPROVAL)**

Figure 4C



NOTE:  
 IF PERFORATIONS IN SUMP ARE NEEDED DUE TO GROUNDWATER DURING INSTALLATION, HOLES SHALL BE NO LARGER THAN 1/4" AND SUMP MUST BE WRAPPED WITH FILTER FABRIC PRIOR TO BACKFILL.

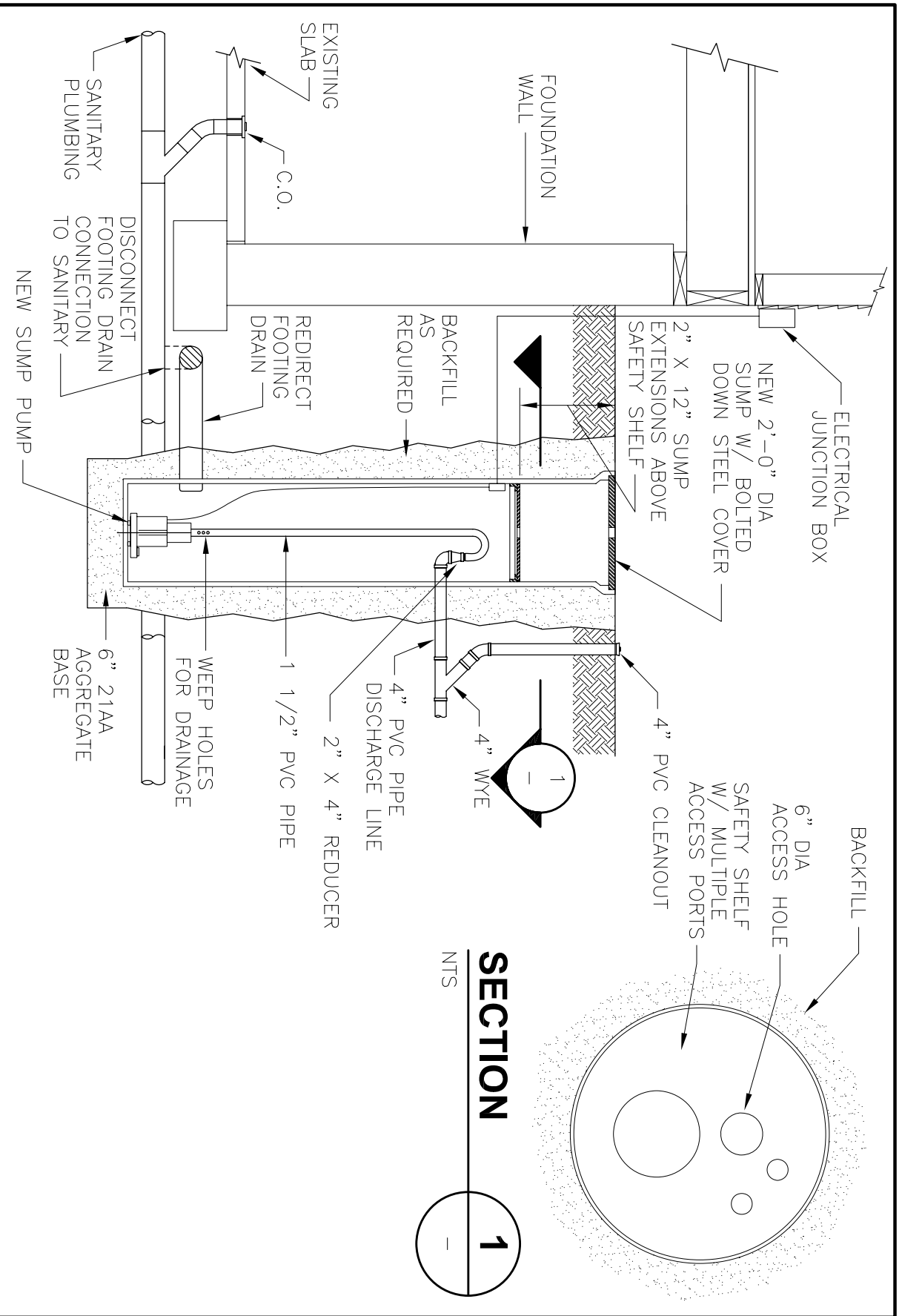
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**Figure 5A**  
**NEW INSTALLATION OF SUMP & SUMP PUMP**





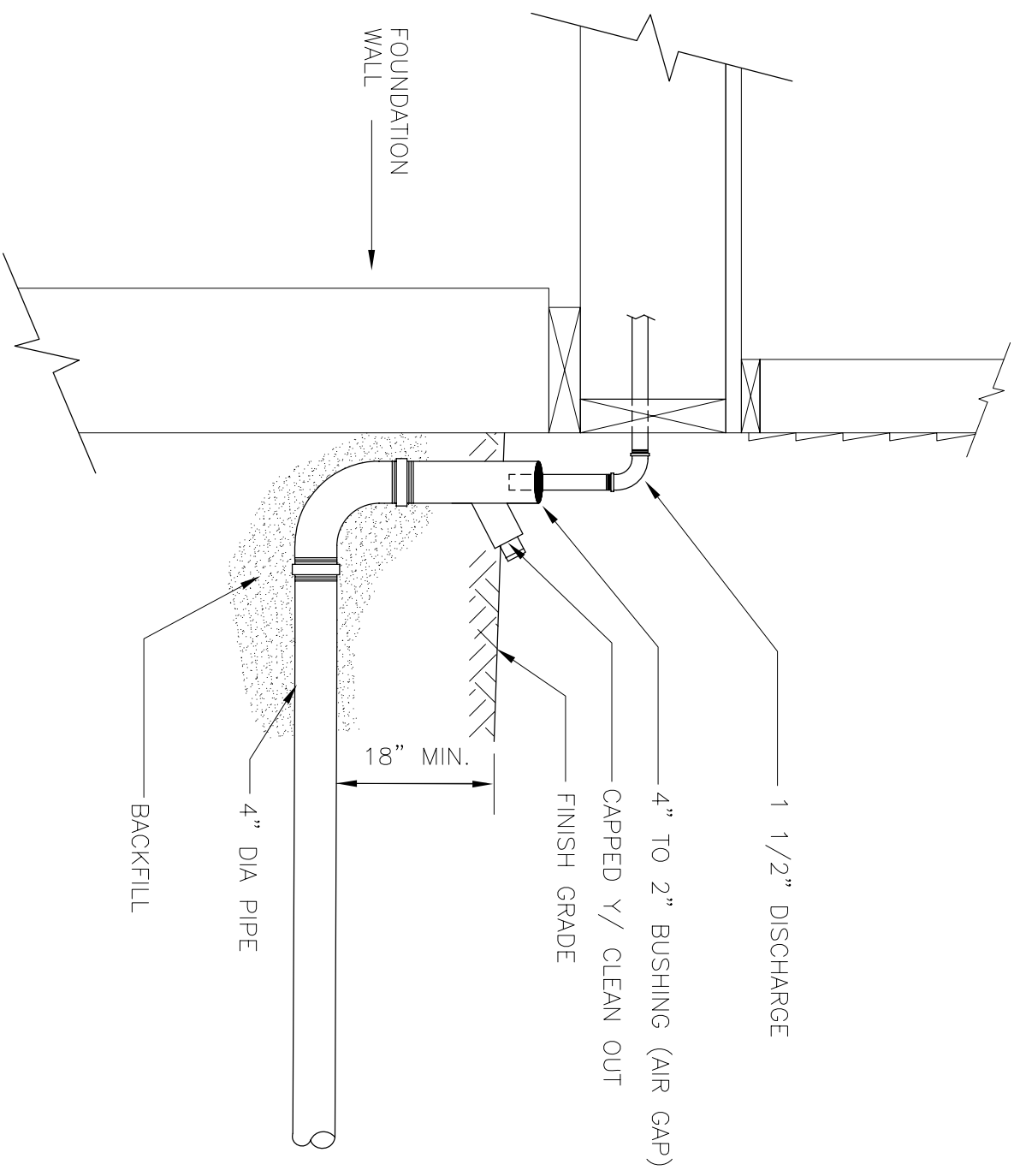
**SECTION 1**  
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**INSTALLATION OF EXTERIOR SUMP AND SUMP PUMP**  
Figure 5B

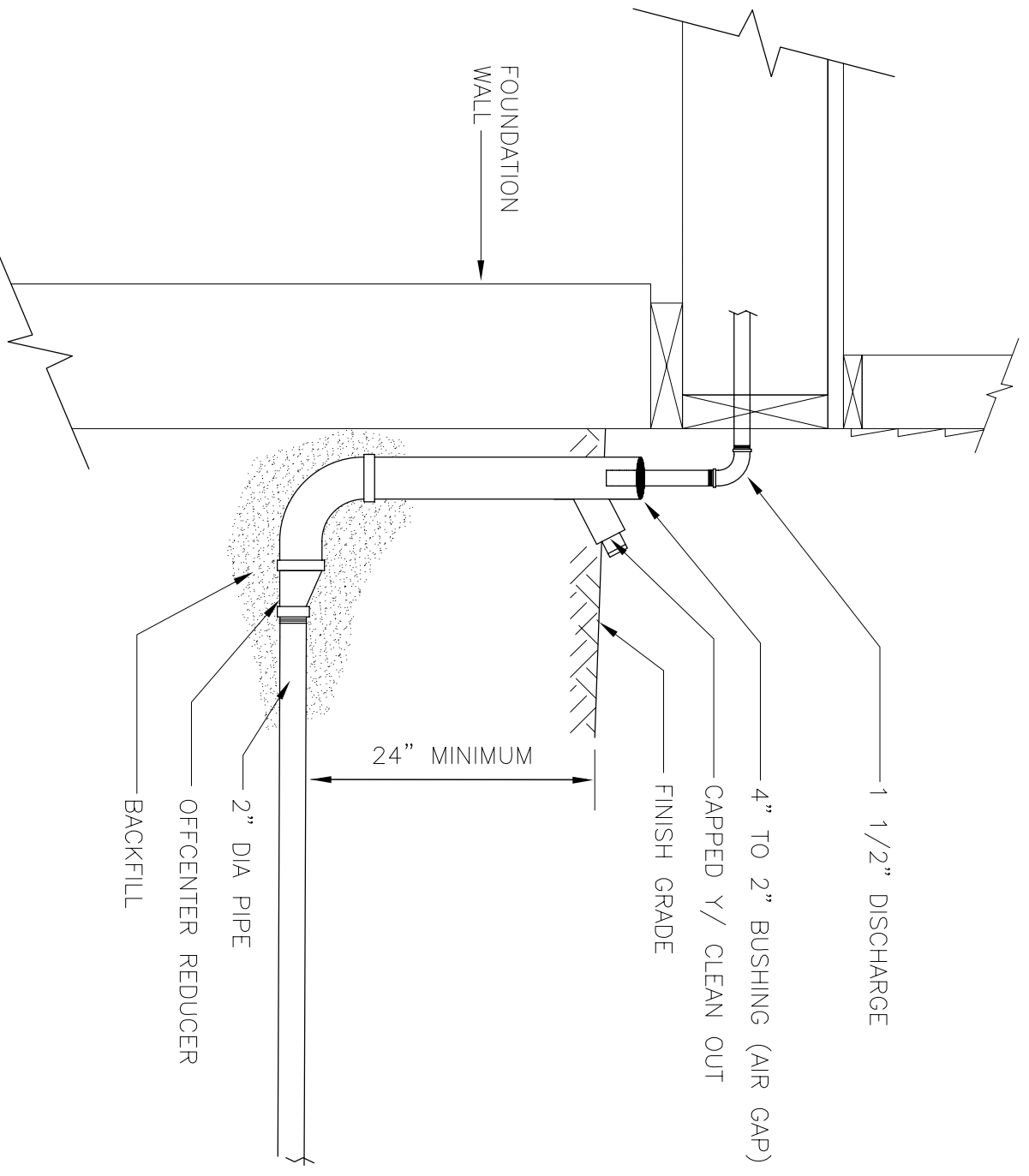


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**INSTALLATION OF EXTERIOR SUMP AND SUMP PUMP**  
 Figure 6A

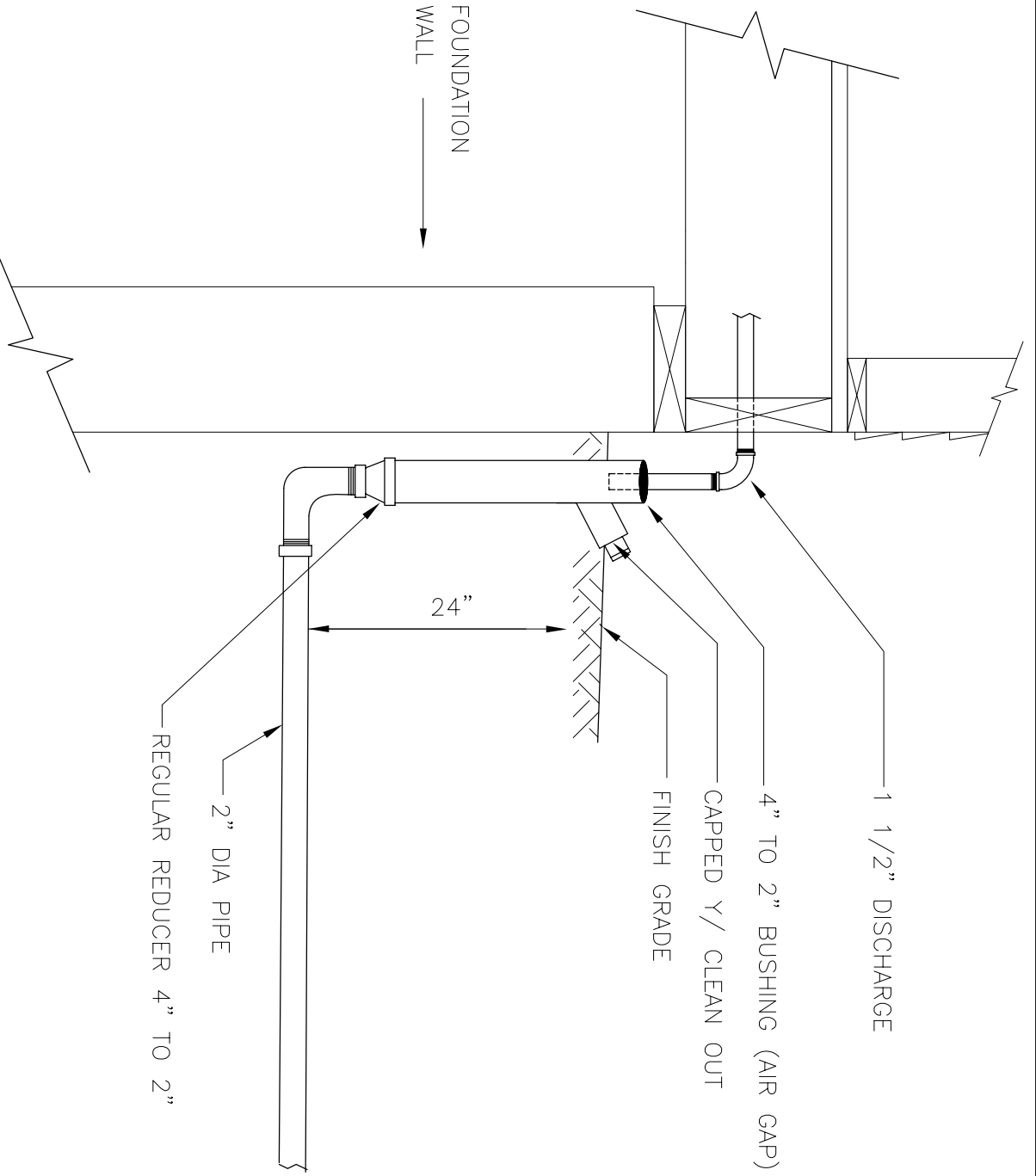


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**Figure 6B**  
**INSTALLATION OF SUMP PUMP DISCHARGE**

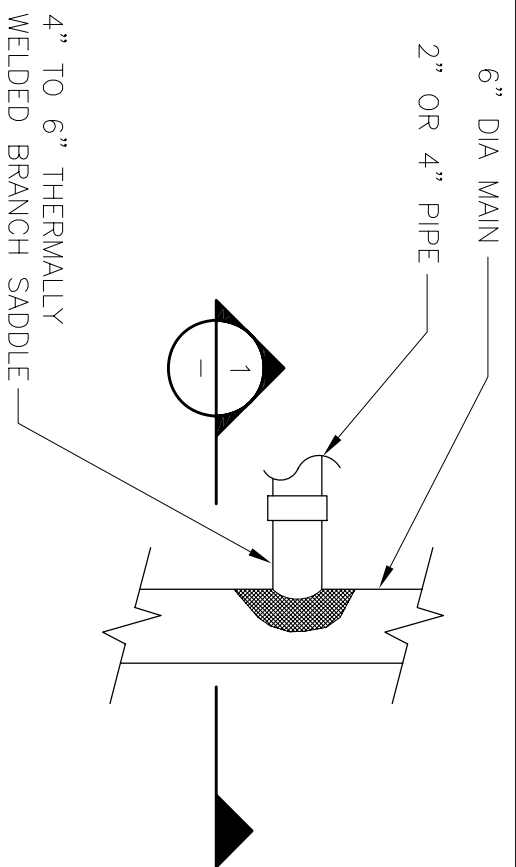


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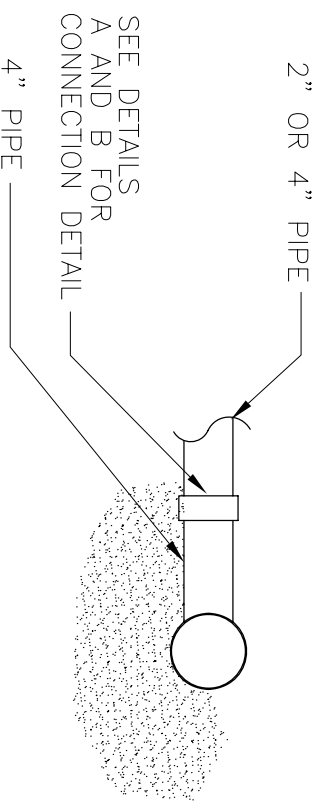
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**Figure 6C**  
**INSTALLATION OF SUMP PUMP DISCHARGE**



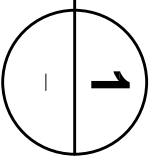
**PLAN**

NTS



**SECTION**

NTS

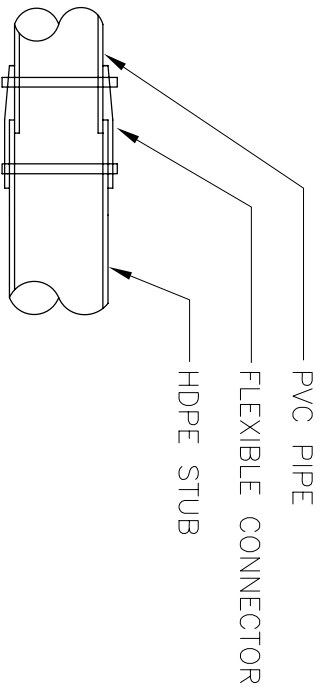


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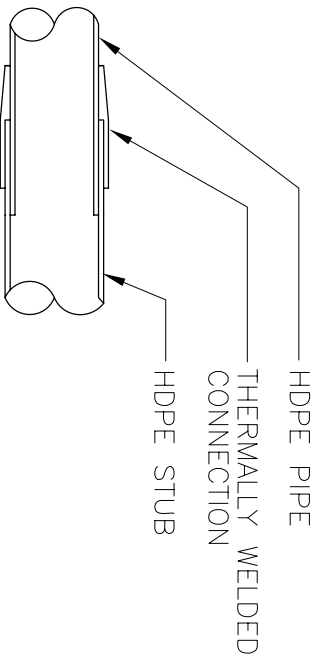
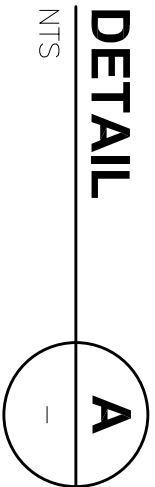
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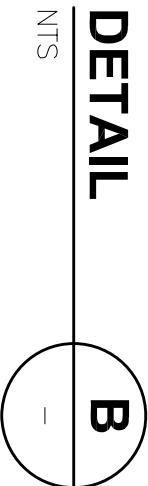
Figure 7A  
DISCHARGE CONNECTION TO CURB DRAIN



NOTE:  
USED WITH PVC DISCHARGE LINE.



NOTE:  
USED WITH HDPE DISCHARGE LINE.



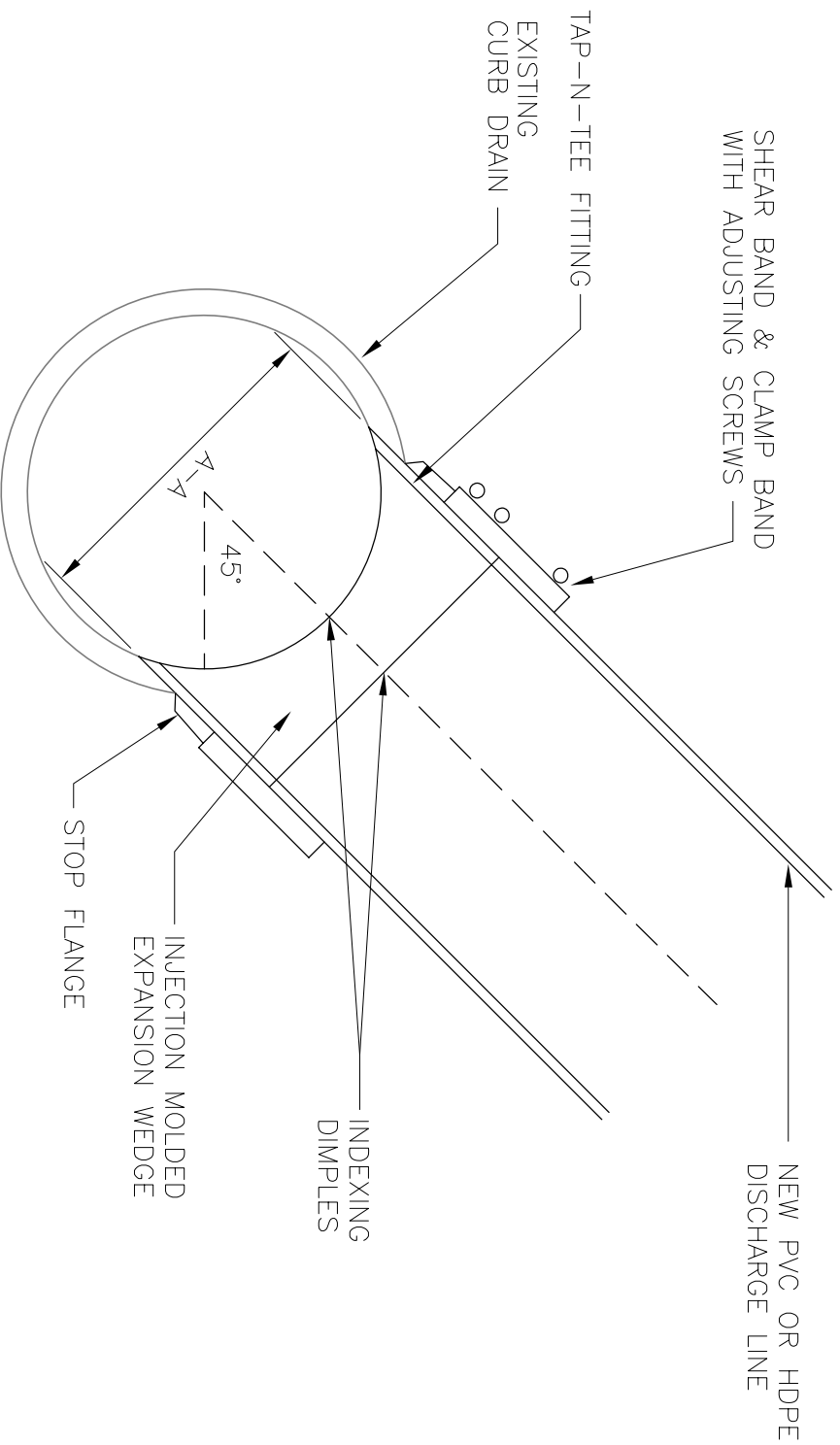
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**Figure 7B**  
**DETAILED CONNECTION TO TEE**

NOTE: SEE MANUFACTURER INFO FOR ADDITIONAL DETAIL



NOTE SECTION A-A: 5" DIAMETER HOLE ON 6" HDPE

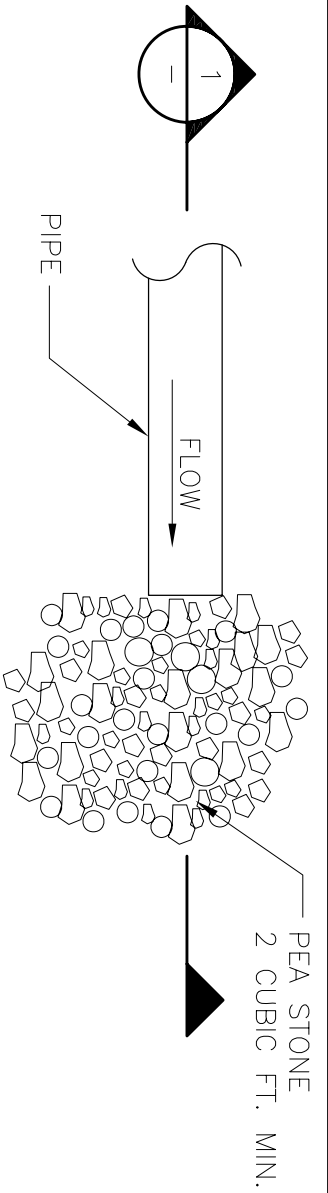


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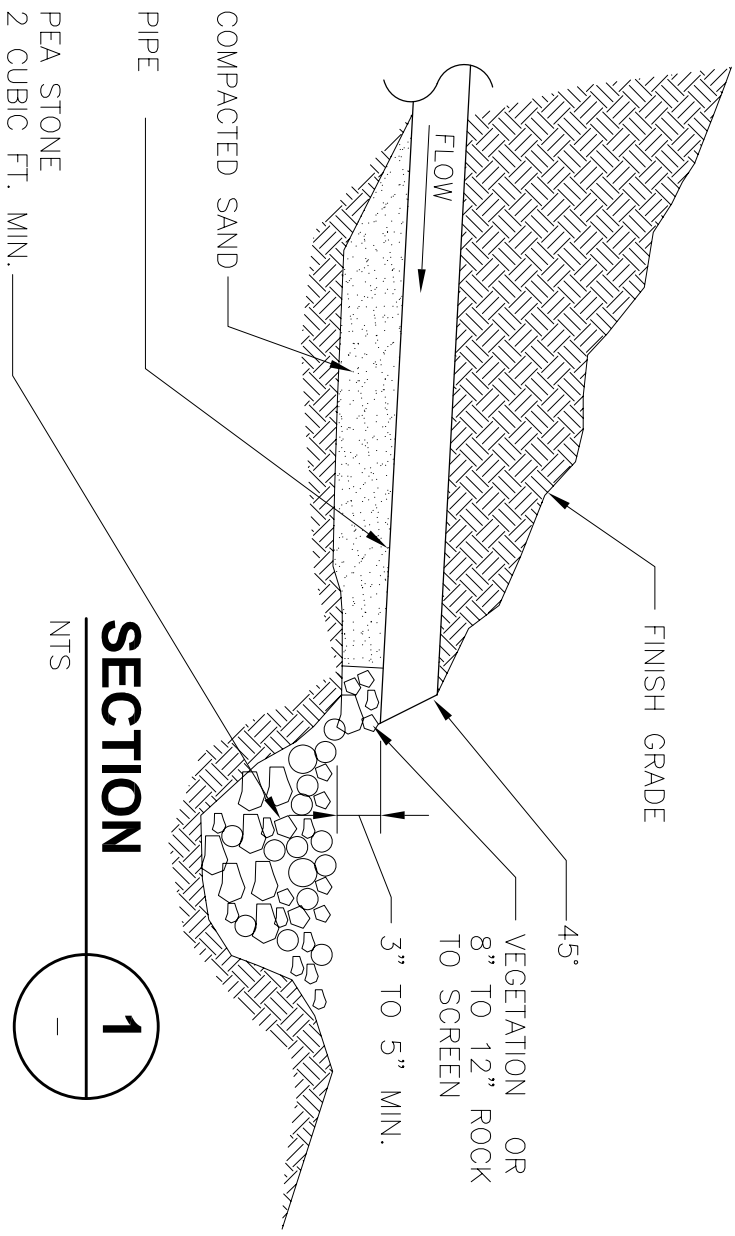
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**Figure 7C**  
**DETAILED CONNECTION USING TAP-N-TEE**



**PLAN**

NTS



**SECTION**

NTS

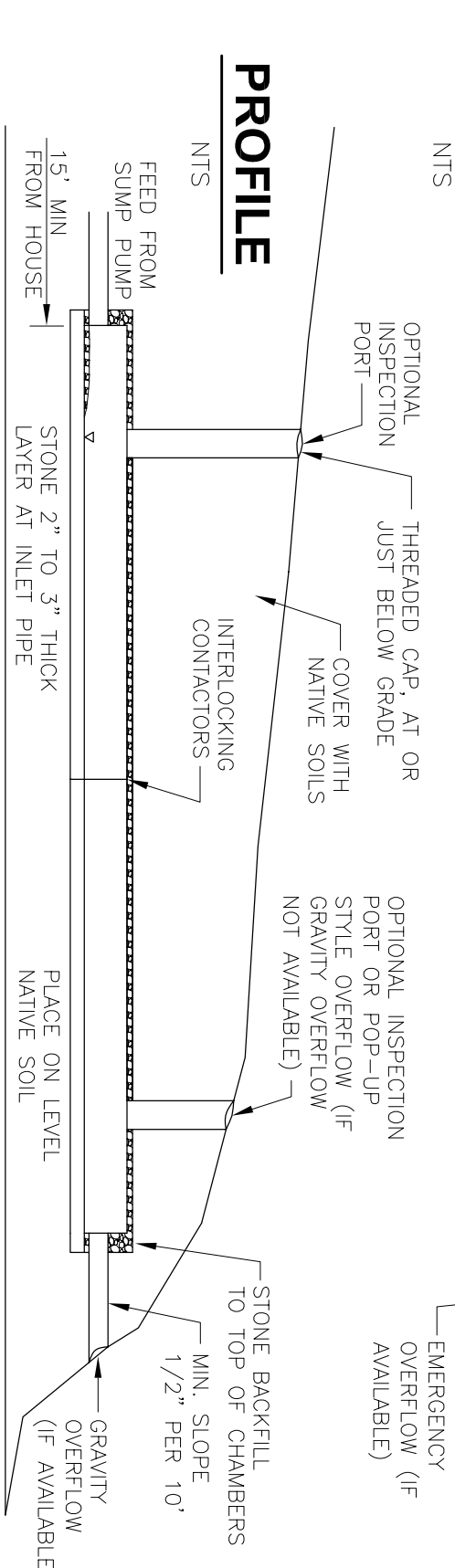
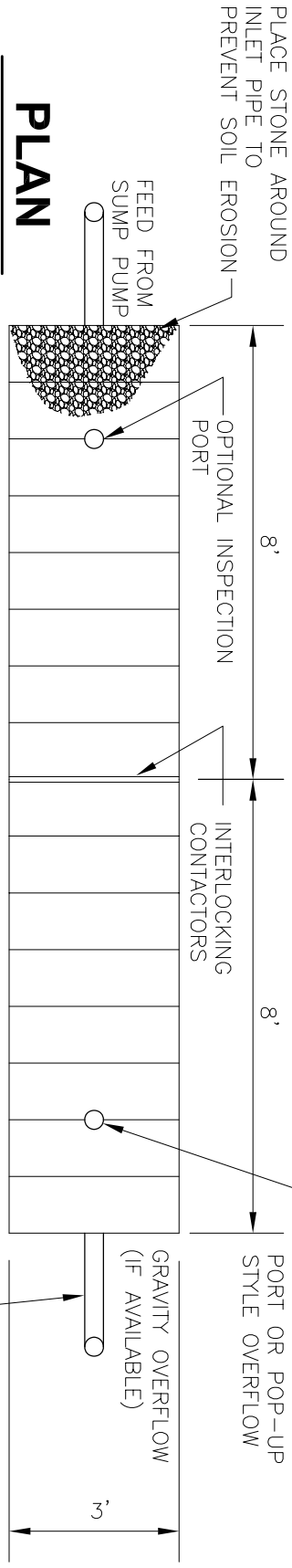
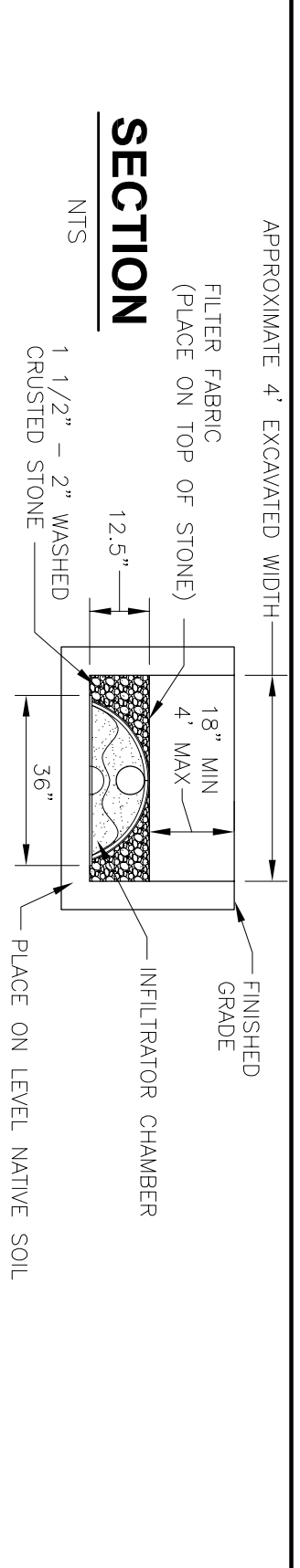
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**Figure 8**  
**SURFACE DISCHARGE CONFIGURATION**





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Figure 9  
INFILTRATOR SYSTEM