

# **TOWN OF SIMSBURY**

**WATER POLLUTION CONTROL  
36 DRAKE HILL ROAD  
SIMSBURY, CT 06070**

## **INVITATION TO BID**

### **FOR**

#### **Grit Washing, Dewatering System WATER POLLUTION CONTROL FACILITY, SIMSBURY**

The Town of Simsbury, Water Pollution Control is soliciting bids for a Grit Separation, Washing, Dewatering System for the Water Pollution Control Facility in the Town of Simsbury. The scope of work is to include furnishing all materials and equipment necessary for the work as specified.

Sealed proposals will be accepted by Amy Meriwether, Director of Finance, 933 Hopmeadow Street (Rt. 10/202), Simsbury, CT until 10:00 a.m., Thursday, July 20, 2023.

Specifications and bidding documents may be obtained electronically via the Town's web site at the following link: [www.simsbury-ct.gov/finance/pages/public-bids-and-rfp](http://www.simsbury-ct.gov/finance/pages/public-bids-and-rfp). Bid documents will not be mailed or faxed.

**STANDARD INSTRUCTIONS TO BIDDERS**  
**Grit Washing, Dewatering System**  
**WATER POLLUTION CONTROL FACILITY, SIMSBURY**

**1. Project Overview:**

The Town of Simsbury is soliciting bids for a Grit Washing, Dewatering System for the Water Pollution Control Facility.

The scope of work for this project includes furnishing all labor, materials and equipment required to provide the equipment to the Town as specified.

**2. Key Event Dates:**

Invitation to Bid Issued	06/13/23
Site Visit- 36 Drake Hill Road, Simsbury, CT.	06/29/23 at 10:00 am
Bid Opening-Public	07/20/23

**3. Bid Submission Instructions:**

- A. One (1) original and one (1) copy of all bids must be submitted in a sealed envelope with the bidder's name on the outside of the envelope and clearly marked "Grit Washing, Dewatering System for Water Pollution Control". If forwarded by mail or courier, the sealed envelope must be addressed to "Amy Meriwether, Director of Finance, 933 Hopmeadow Street (Rt. 10/202), Simsbury, CT 06070". Bids must be at the office of the Director of Finance prior to 10 a.m., Thursday, July 20, 2023. Postmarks are NOT an acceptable waiver of this policy. Once the first bid is opened, all bids are deemed final and no corrections or alterations may be made.
- B. Ditto marks or words such as "SAME" must not be used for the bid to be considered.
- C. All information must be submitted in blue ink or typewritten. Errors, alterations or corrections must be shown on both the original and all required copies and each must be initialed by the person signing the bid.
- D. Bids are considered valid for ninety (90) days after bids are opened. Bidders may not withdraw, cancel or modify their bid during this ninety (90) day period after bids are opened.
- E. An authorized person representing the legal entity of the bidder must sign bids.
- F. The inability to meet any specified requirement(s) must be stated in writing and attached to the bid form, or written on the bid form. If no exceptions are noted, it shall be assumed that the terms of the Invitation to Bid have been accepted.

---

**Grit Washing, Dewatering System**

- G. The Town of Simsbury reserves the right to waive any minor informality in a bid when such a waiver is in the best interest of the Town.

#### **4. Questions:**

Any questions about this project should be directed to: Mr. Anthony Piazza, Superintendent, Water Pollution Control by email at [apiazza@simsbury-ct.gov](mailto:apiazza@simsbury-ct.gov), or by mail Water Pollution Control 36 Drake Hill Road, Simsbury, CT 06070. To receive consideration, such questions must be received at least seven (7) business days before the established date for receipt of bids. No oral interpretations shall be made to any respondent as to the meaning of any of the bid documents. Every request for an interpretation shall be made in writing.

The Town will respond to all appropriate questions received via an addendum available to all prospective bidders. Such addenda will become part of this Invitation to Bid and the resulting contract. At least four (4) days prior to the receipt of bids, the Town will post a copy of any addenda to its website, located at: [www.simsbury-ct.gov/finance/pages/public-bids-and-rfp](http://www.simsbury-ct.gov/finance/pages/public-bids-and-rfp). It shall be the responsibility of each bidder to determine whether addenda have been issued, and if so, to download copies directly from the Town's website.

#### **5. Presumption of Bidder Being Fully Informed:**

At the time the first bid is opened, each bidder is presumed to have read and is thoroughly familiar with all bidding documents as well as all contract documents for this project. Failure or omission of the bidder to receive or examine any documentation or information concerning this bid shall in no way relieve any bidder from obligations with respect to their bid.

#### **6. Site Visit: 36 Drake Hill Road, Simsbury, CT**

Due to site restriction, a site visit will take place on June 29, 2023 at 10:00 am. All bidders are responsible to ensure the equipment will fit into the space available.

#### **7. Interpretation of Acceptable Work:**

The specifications, bidding and contract documents are to be interpreted as meaning those acceptable to the Town of Simsbury. The Town will issue any substantive changes or interpretations in writing as an addendum.

#### **8. Tax Exemptions:**

The bidder shall be aware that the Town of Simsbury is exempt from Federal Excise Taxes and Connecticut Sales and Use Taxes. Appropriate tax exempt forms will be provided to the successful bidder(s) as part of the contract award process.

#### **9. Insurance Requirements:**

The Contractor must carry the following types of insurance under which the Town is named as an additional insured on a primary and non-contributory basis, as follows:

Such insurance must be by insurance companies licensed to write such insurance in Connecticut against the following risks with the following minimum amounts and minimum durations.

A. Workman's Compensation, as required by Connecticut State Statute.

Employer's Liability: at least \$100,000 per employee/ \$1,000,000 per incident, and \$1,000,000 per policy.

Public Liability, Bodily Injury Liability and Property Damage Liability as follows:

Injury or death of one person:	\$2,000,000
Injury to more than one person in a single accident:	\$1,000,000
Property damage in one accident:	\$1,000,000
Property damage in all accidents:	\$1,000,000

B. Automobile (including owned, hired, non-owned) and Truck (Vehicular) Public Liability, Bodily Injury Liability, and Property Damage Liability as follows:

Injury or death of one person:	\$1,000,000
Injury to more than one person in a single accident:	\$1,000,000
Property damage in one accident:	\$1,000,000
Property damage in all accidents:	\$1,000,000

C. Excess Liability Insurance. The CONTRACTOR shall maintain excess liability, which shall be over and above the commercial general liability insurance and business automobile liability insurance requirements, with limits of not less than:

Excess Liability:	\$5,000,000
-------------------	-------------

Insurance under B, and C above must provide for a 30-day notice to the Town of cancellation/or restrictive amendment.

Insurance under B and C above must be for the whole duration of the contract and for at least twenty-four (24) months after acceptance of the project by the Town.

The Town of Simsbury shall be named as additional insured on the general liability, umbrella liability and automobile liability policies. A waiver of subrogation is required in favor of the Town of Simsbury on all insurance policies, including workers' compensation.

Subcontractors must carry A, B and C in at least the same amounts as above for the duration of the project and until acceptance by the Town.

Certificates of insurance must be submitted prior to the signing of the contract and within ten days of notification of award of contract. Should any insurance expire or be terminated during the period in which the same is required by this contract, the Town shall be notified and such expired or terminated

insurance must be replaced with new insurance and a new certificate furnished to the Director of Public Works.

Failure to provide the required insurance and certificates may, at the option of the Town, be held to be a willful and substantial breach of this contract.

NOTE: Coverage under "B" shall include XCU coverage as necessary, Collapse and Underground shall be provided for ALL Contracts. Explosion will be provided if specified, or prior to any blasting being performed under the Contract.

Indemnification: To the fullest extent permitted by law, Contractor shall defend, indemnify and hold harmless the Town of Simsbury from and against all claims, bodily injury and property damage, judgments and expenses, including attorney fees that arise from and are alleged to arise from the performance of this Agreement. This provision shall survive termination of this Agreement.

#### **10. Substitution for Name Brands:**

Should brand name items appear in this bid, the bidder must attach specifications for any substitutions and explain how the substitution compares with the specifications of the named brand. The decision on whether to use the substitution or the named brand rests solely with the Town of Simsbury.

#### **11. Awarding the Bid:**

The Town reserves the right to accept any bid or any part of bids, to reject any, all, or any part of bids, and to waive formalities and informalities in the bidding process. The Town at its discretion will award the bid to the lowest responsible bidder. That bidder is the person or firm who is qualified and competent to do the work, whose past performance is satisfactory to the Town and whose bid documents comply with the procedural requirements stated herein.

#### **13. Rejection and/or Cancellation of Bids:**

The Town reserves the right to reject or cancel any and all bids, or any part of any or all bids, if such action is deemed to be in the best interest of the Town.

**14. Delivery Arrangements:** No loading dock is available. Facility has a forklift to assist in unloading.

**15. Bid Bond:** Not applicable

**16. Performance Bond:** Not applicable

#### **17. W-9 Form**

The successful bidder must provide the Town of Simsbury with a completed W-9 Form prior to commencing work.

#### **18. Submittals:**

The Bidder shall, as soon as practicable, but not exceed fifteen (30) calendar days, after notification of selection of the award of the bid, furnish to the Owner, in writing the following:

- A. Equipment specifications and drawings
- B. Names of the manufacturers, products and suppliers of the principal items of materials proposed for the work
- C. Project work schedule

**19. Agreement Documents:**

The Agreement Documents are defined as:

- The Standard Instructions to Bidders
- The Agreement as executed
- The General Specifications
- Any Addenda, if issued

**END OF STANDARD INSTRUCTION TO BIDDERS**

**BID FORM**  
**Grit Washing, Dewatering System**

Pursuant to and in compliance with the "Invitation to Bid" and Standard Instructions to Bidders relating thereto, the undersigned, having visited the sites and carefully examined all Bidding Documents and complete General Specifications together with all Addenda issued and received prior to the scheduled closing time for receipt of Bids, hereby offers and agrees as follows:

- To provide all labor, materials, and anything else reasonably necessary to complete all work per the attached specifications.
- If awarded this Contract, we will execute a Contract with the Town of Simsbury, Owner of the properties.

In submitting this BID, the BIDDER acknowledges that:

1. Each lump sum price includes all labor, materials, transportation, hauling, overhead, fees and insurances, profit, and all other costs to cover the finished work called for regarding the specified section of Town as stated in the Contract Documents. No additional payment of any kind in the form of a surcharge will be made for work accomplished under the lump sum prices, as bid.
2. No representation of warranty has been made by the OWNER that the estimated quantities used for comparison of BIDS will even approximate the actual quantities required to satisfactorily complete the WORK required under this CONTRACT.
3. Upon receipt of written notice of acceptance of this BID by the OWNER, the BIDDER shall execute the CONTRACT attached to these documents within ten (10) calendar days and other documents as required in these documents.
4. In regard to all conditions affecting the WORK to be done and the labor and materials to be furnished, this BID is based solely on the BIDDER'S investigations and findings and neither the OWNER nor its officers, employees or agents shall be held responsible for the accuracy of, or be bound by any information contained in these Contract Documents.

**Submitted By:** \_\_\_\_\_

*Company*

*Phone*

\_\_\_\_\_  
*Street*

*City*

\_\_\_\_\_  
*Zip*

**Authorized Signature:** \_\_\_\_\_

\_\_\_\_\_  
*Signature*

*Printed Name*

**Grit Washing, Dewatering System**

# BID FORM

## Grit Separation, Washing, Dewatering System

Lump Sum Cost – All Materials      \$ \_\_\_\_\_

**Submitted By:** \_\_\_\_\_

*Company*

*Phone*

\_\_\_\_\_  
*Street*

*City*

\_\_\_\_\_  
*Zip*

**Authorized Signature:** \_\_\_\_\_

*Signature*

*Printed Name*

---

**Grit Washing, Dewatering System**



IF A SOLELY OWNED COMPANY:

Company Name \_\_\_\_\_  
Address \_\_\_\_\_  
Town \_\_\_\_\_  
By \_\_\_\_\_  
(Authorized Signature)  
Title \_\_\_\_\_ Date \_\_\_\_\_

IF A CORPORATION OR LIMITED LIABILITY COMPANY:

A corporation or limited liability company organized under the laws of

\_\_\_\_\_, composed of officers as follows:

_____ President	_____ Secretary
_____ Vice President	_____ Treasurer

IF A PARTNERSHIP:

A partnership doing business under the firm name and style of

\_\_\_\_\_, composed of partners as follows:

_____ Name & Title (if any)	_____ Name & Title (if any)
_____ Name & Title (if any)	_____ Name & Title (if any)

This Bid must bear the written signature of the BIDDER. If the BIDDER is a partnership, the Bid must be signed by a partner. If the BIDDER is a corporation or limited liability company, the Bid must be signed by a duly authorized officer of such corporation or Limited Liability Company.

## BIDDER'S QUALIFICATIONS STATEMENT

The BIDDER shall answer all of the following questions, as part of the Bid, so that the OWNER can judge the BIDDER's ability, experience and facilities for performing the proposed work.

1. Name of BIDDER: \_\_\_\_\_

2. Bidder's Tax Identification Number: \_\_\_\_\_

3. What year was company organized/formed? \_\_\_\_\_

4. How many years has the BIDDER been engaged in business under the present firm or trade name? \_\_\_\_\_

5. What is the general character or type of work you perform? \_\_\_\_\_

\_\_\_\_\_

6. Has a claim ever been brought in court or to arbitration against the BIDDER for failure to complete any contracted work or default on a contract? \_\_\_\_\_

If yes, explain with whom and why: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. For other similar projects you have under contract at the present time: Attach list with description of work; the name of the client/owner with telephone number; and the approximate value of the work to be performed.

NOTE: The BIDDER is required to have completed a minimum of five (5) similar projects as a demonstration of competency and experience for the project proposed herein. Such projects are to be listed below.

8. Attach a list of all projects that your present organization has completed within the past ten years or is presently working on, including name of project, owner and name and telephone number of the owner's representative. Indicate here how many additional pages attached: \_\_\_\_\_ pages.

9. Attach a list of the names, addresses and the background/experience of all principal or key members of the BIDDERS organization, including its officers:

Indicate the number of pages attached: \_\_\_\_\_ pages

**NOTE:** If requested, the BIDDER agrees to furnish the OWNER with a detailed financial statement and other relevant information that may be required by the Town of Simsbury to properly evaluate the qualifications of the BIDDER.

## PROPOSED SUBCONTRACTORS

BIDDER intends to utilize the following subcontractors on this project: If

none, write "None" here: \_\_\_\_\_

NAME AND ADDRESS OF  
SUBCONTRACTOR

DESCRIPTION OF WORK: \_\_\_\_\_

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

## NON-COLLUSION AFFIDAVIT OF BIDDER

State of \_\_\_\_\_, County of \_\_\_\_\_, being first  
duly sworn, disposes and says that:

1. He is the owner, officer, representative or agent of: \_\_\_\_\_ the  
BIDDER that has submitted the attached BID;
2. The attached BID is genuine; it is not a collusive or sham BID.
3. He is fully informed respecting the preparation, and contents of, and knowledgeable of all  
pertinent circumstances respecting the attached BID.
4. Neither BIDDER nor any of its officers, partners, owners, agents, representatives, employees, or parties in  
interest, including this 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  
AGREEMENT for which the attached BID has been submitted or to refrain from bidding in connection  
with any contract, or has in any manner, directly or indirectly, sought by agreement, collusion,  
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 prices or  
the bid price of any other bidder, or to secure through collusion, conspiracy, connivance or  
unlawful agreement any advantage against the Town of Simsbury or any other person interested in the  
proposed AGREEMENT.
5. The price(s) 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; and
6. That no elected or appointed official or other officer or employee of the Town of Simsbury, who is  
directly or indirectly interested in this BID, or in the supplies, materials, equipment, work or labor to  
which it relates, or in any of the profits thereof.

(Signed) \_\_\_\_\_

(Name of Bidder)

Subscribed and sworn to before me this  
\_\_\_\_\_ day of \_\_\_\_\_, 2023

\_\_\_\_\_  
Title

My Commission expires \_\_\_\_\_, 20\_\_

**STATEMENT OF BIDDER  
COMPLIANCE WITH  
EQUAL EMPLOYMENT OPPORTUNITY  
LAW AND REGULATION INCLUDING  
EXECUTIVE ORDER NO. 3**

This statement must be completed by the Bidder and shall accompany his bid for this project.

IT IS HEREBY CERTIFIED THAT:

NAME OF BIDDER: \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

To the extent required by law, the Bidder has complied on past Contracts and will fully comply on this project with all applicable laws and regulation regarding equal employment opportunities for minorities and women, and;

Has \_\_\_\_\_ has not \_\_\_\_\_ previously performed work under the conditions of the Governor's Executive Order No. 3 of the State of Connecticut, or any preceding similar Executive Order with regards to Non-Discrimination.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Subscribed and sworn to before me this  
\_\_\_\_\_ day of \_\_\_\_\_, 2023

\_\_\_\_\_  
Title

My Commission expires \_\_\_\_\_, 20\_\_

**IMPORTANT: THIS STATEMENT MUST BE SUBMITTED WITH BID**

**END OF SECTION**

**SIMSBURY WWTP GRIT WASHER, DEWATERING  
SYSTEM  
PROJECT**

**STANDARD CONTRACT DOCUMENTS FOR  
THE DEPARTMENT OF PUBLIC WORKS**



## ***CONTRACT AGREEMENT***

### ***TOWN OF SIMSBURY WWTP GRIT WASHER, DEWATERING SYSTEM PROJECT***

THIS AGREEMENT, made this \_\_\_\_ day of \_\_\_\_\_ by and between THE TOWN OF SIMSBURY, 933 Hopmeadow Street, Simsbury, Connecticut hereinafter referred to as the OWNER and WINNING BIDDER with an address at ADDRESS OF WINNING BIDDER hereinafter referred to as the CONTRACTOR

#### **WITNESSETH:**

That for and in consideration of the mutual covenants and promises between the parties hereto, it is hereby agreed that:

1. The CONTRACTOR will furnish all of the materials and supplies, equipment, and labor and other services necessary in conformance with these contract documents for the construction and completion of the project described in general as follows: Simsbury WWTP Grit Washer, Dewatering System Project, as defined in the Standard Instruction for Bidders.
  2. COMPLETION OF WORK. The Contractor shall commence the work covered by this contract within ten (10) calendar days after the date of receipt of the Notice to Proceed and shall complete the same within \_\_\_\_\_ calendar days unless the period for completion is extended as provided for in the General Conditions.
  3. CONTRACT SUM. The Owner shall pay the Contractor for the performance of said work the sum of \$\_\_\_\_\_, subject to additions or deductions provided herein in conformity with the bid schedule of prices.
1. The Contract Documents include the following:
    - (a) Notice and Instructions to Bidders dated: \_\_\_\_\_
    - (b) Bidder's Proposal dated: \_\_\_\_\_
    - (c) Notice of Award dated: \_\_\_\_\_
    - (d) Contract
    - (e) General Conditions

(f) Supplemental General Conditions

(g) Plans prepared by: \_\_\_\_\_

(h) Technical Specifications prepared or issued by the Town of Simsbury dated  
\_\_\_\_\_  
\_\_\_\_\_

2. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions and in such amounts as required by the Contract Documents.
3. This Contract shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Contract in duplicate, on the date first above written.

**OWNER:**

Signed, Sealed and  
Delivered in the presence  
of:

\_\_\_\_\_

Town of Simsbury  
BY: Acting Town  
Manager

**CONTRACTOR:**

**BY:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**PROJECT:**  
Grit Washer, Dewatering System

**Information Needed for**  
**Communications on the Project**

Name of Company:

Location of Company Office: Street

City/State Zip

Code

Mailing Address of Company Office (if different than location): Street

City/State Zip

Code

Phone No. of Company's Office (include area code)

Phone No. of Company's Project Office (if applicable)

Company Official Responsible for this Project:

Name

Title

Phone No. ( )

Project Supervisor or Foreman:

Name

Phone No. ( )

Person to be Contacted in Emergencies after Work Hours:

Name \_

Phone No. ( )

Person to be Contacted in Emergencies on Weekends and

Holidays: Name

Phone No. (       )

If any changes to the above information occur during the progress of the work, the Public Works Director shall be immediately notified.

**Town of Simsbury**

**SUPPLEMENTAL CONTRACT SECTION**

**CODE OF ETHICS**

Chapter 13 of the Code of Ordinances, the Simsbury Code of Ethics, is hereby incorporated by reference as if fully set forth, and is made a part of the Contract Documents. All Contractors shall sign the Acknowledgement Form.

## **TOWN OF SIMSBURY**

### **Acknowledgement Form and Charter Section 1103 Code of the Town of Simsbury**

#### **ACKNOWLEDGEMENT FORM**

I have read Section 1103 of the Charter of the Town of Simsbury, the Code of Ethics Ordinance, and the Guidelines issued thereunder. I understand my responsibilities as a Contractor retained by the Town of Simsbury, and I am in compliance with the Charter and the Code of Ethics. I have indicated in the space below any areas of conflict should they arise in matters before our board, commission, agency or department, and I agree to report any future conflicts under the provisions of Section 1103 of the Charter.

Areas of Exception
--------------------

#### **CONFLICTS OF INTEREST SECTION 1103**

**CONFLICTS OF INTEREST.** It is hereby declared to be the policy of the Town that any elected or appointed officer, any member of any board or commission or any employee of the Town who has a financial interest, direct or indirect, in any contract, transaction or decision of any officer or agent of the Town or any board or commission, shall disclose that interest to the Board of Selectmen, which shall record such disclosure upon the official record of its meetings. Such disclosure of a financial interest, direct or indirect, in any contract, transaction or decision of any officer or agent of the town or of any board or commission shall disqualify such elected or appointed official or such member of a board of commission or such town employee from participation in the awarding, assignment or discussion of said contract, transaction or decision. Violation by any such official, board or commission member or employee of the provisions of this section shall be grounds for his/her removal.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (Please Print) Date

\_\_\_\_\_

**CONTRACTOR'S EXEMPT PURCHASE CERTIFICATE**

I hereby certify, under penalties of perjury, that I am engaged in the performance of a construction contract on a project for the following named exempt agency or organization:

**Town of Simsbury**

---

Full Name of Agency of Organization

**933 Hopmeadow Street**

**Simsbury, CT. 06070**

---

Address of Same

That such agency is, to the best of my knowledge and belief, exempt from the Sales and Use Tax because it is a

**Town**

---

(Town, School, Fire or Police Department, Library etc., or  
other branch of State or Federal Government)

in accordance with Regulation No. 16 of Sales and Use Tax.

That this certificate is issued to cover all purchases of materials and supplies, designated by me, for use of the project referred to above.

Permit No. (if any) (signed)

Contractor

Date:

Place:

---

Firm Name

Address:

---

---

## **GENERAL CONDITIONS**

### **1. DEFINITIONS**

- 1.1 Wherever used in the CONTRACT DOCUMENTS, The following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof.
- 1.2 ADDENDA - Written or Graphic Instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications, by additions, deletions, clarifications or corrections.
- 1.3 BID - The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.
- 1.4 BIDDER -Any person, firm, or corporation submitting a BID for the WORK.
- 1.5 BONDS - Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR in accordance with the CONTRACT DOCUMENTS.
- 1.6 CHANGE ORDER - A written order to the CONTRACTOR authorizing an addition, deletion, or revision in the WORK within the general scope of the CONTRACT TIME.
- 1.7 CONTRACT DOCUMENTS - The contract including Advertisement for Bids, information for Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, AND ADDENDA.
- 1.8 CONTRACT PRICE - The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.
- 1.9 CONTRACT TIME - The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.
- 1.10 CONTRACTOR - The person, firm, or corporation with whom the OWNER has executed the Agreement.
- 1.11 DRAWINGS - The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.
- 1.12 ENGINEER - The Director of Public Works for the Town of Simsbury, Connecticut.



- 1.13 FIELD ORDER - A written order affecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.
- 1.14 INSPECTOR - The person appointed by the Town of Simsbury, Conn. to supervise the WORK and shall extend to and include any assistant whom he/she may designate to act in the premises.
- 1.15 NOTICE OF AWARD - The written notice of the acceptance of the Bid from the OWNER to the successful BIDDER.
- 1.16 NOTICE TO PROCEED - Written communication issued by the OWNER to the CONTRACTOR authorizing him/her to proceed with the WORK and establishing the date of commencement of the work.
- 1.17 OWNER - The Town of Simsbury, Connecticut (A Public Body) for whom the WORK is to be performed.
- 1.18 PROJECT - The undertaking to be performed as provided in the CONTRACT DOCUMENTS.
- 1.19 SHOP DRAWINGS - All Drawings, Diagrams, Illustrations, Brochures, Schedules, and other data which are prepared by the CONTRACTOR, A SUBCONTRACTOR, manufacturer SUPPLIER or Distributor which illustrate how specific portions of the WORK shall be fabricated or installed.
- 1.20 SPECIFICATIONS - A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.
- 1.21 SUBCONTRACTOR - An individual firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the work at the site.
- 1.22 SUBSTANTIAL COMPLETION- That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.
- 1.23 SUPPLEMENTAL GENERAL CONDITIONS - Special provisions required by the funding program or Agency (Federal, State, or Local) for participation in the PROJECT and included in the CONTRACT DOCUMENTS. Also such requirements that may be imposed by Applicable State Laws and special characteristics of the PROJECT.
- 1.24 SUPPLIER - Any person or organization who supplies materials or

equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

- 1.25 WORK - All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, all construction tools, machinery, and equipment, and all materials and equipment incorporated or to be incorporated in the PROJECT.
- 1.26 WRITTEN NOTICE - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by Mail to the said party at his/her last given address or delivered in person to said party or his/her authorized representative on the WORK.

## **2. PAYMENT**

- 2.1 On the first of each month, the Contractor may submit an itemized estimate of work completed up to that time, including an estimate of the portion of lump sum items completed.

He/she must, if requested by the Engineer, submit satisfactory evidence that he/she has paid in full for all labor, materials and equipment included in the monthly estimate. The estimates shall be made on forms furnished by the Town and the Contractor shall certify that the estimate is correct and the work performed is in conformity with the plans and specifications. No later than 31 days after submission by the Contractor, and acceptance by the Town, of the estimate, the Town will pay the estimated cost, less five percent (5%) retained by the Town.

After completion of the project and acceptance by the Town, the Contractor shall submit an itemized final estimate. No later than 31 days after acceptance of the final estimate by the Town, the Town shall pay ninety-five (95%) percent of the Contract price. No later than six months after acceptance of the final estimate the Town will pay the five (5%) retained, unless in that time the materials or workmanship in the project shall have been found to be defective.

## **3. PERMITS DURATION**

- 3.1 The Contractor must obtain all necessary permits and pay the fee for them. (Town portion of permit fees are waived. The State of Connecticut portion of building permits will not be waived.)
- 3.2 Should the Town be prevented or enjoined from proceeding with work either before or after the start of construction by reason of any litigation or other reason beyond the control of the Town, the Contractor shall not be entitled to or assert claim for damage by reason of said delay; but time for completion of the work will be extended to such reasonable time as the Owner may determine will compensate for time lost by such

delay with such determination to be set forth in writing.

#### **4. SUPERVISION**

- 4.1 The Town will be represented at all times by the TOWN DIRECTOR OF PUBLIC WORKS or an employee authorized by the TOWN DIRECTOR OF PUBLIC WORKS to represent him/her; and the DIRECTOR OF PUBLIC WORKS or his/her authorized representative shall have sole authority in the interpretation and execution of the contract.
- 4.2 The Contractor must have a competent Field Supervisor on the job during all working hours and notify the Town of his/her name and address in writing, and where he/she may be reached normally after working hours. In the event of the absence of the Field Supervisor, the Contractor must appoint a second in command to take responsible charge of the job. The actual performance of work and superintendence shall be performed by the Contractor but the owner shall, at all times, have access to the premises for the purpose of observing or inspecting the work performed by the Contractor.

#### **5. CHANGES IN WORK**

- 5.1 The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly.

#### **6. INSURANCE REQUIREMENTS**

The Contractor must carry insurance under which the Town is named as an assured, as follows:

Such insurance must be by insurance companies licensed to write such insurance in Connecticut against the following risks with the following minimum amounts and minimum durations.

- D. Workman's Compensation, as required by Connecticut State Statute.  
Employer's Liability: at least \$100,000 per employee/ \$1,000,000 per incident, and \$1,000,000 per policy.
- E. Public Liability, Bodily Injury Liability and Property Damage Liability as follows:
- |  |             |
|--|-------------|
| Injury or death of one person:                       | \$2,000,000 |
| Injury to more than one person in a single accident: | \$1,000,000 |
| Property damage in one accident:                     | \$1,000,000 |
| Property damage in all accidents:                    | \$1,000,000 |
- F. Automobile and Truck (Vehicular) Public Liability, Bodily Injury Liability, and Property Damage Liability as follows:

Injury or death of one person:	\$1,000,000
Injury to more than one person in a single a single accident:	\$1,000,000
Property damage in one accident:	\$1,000,000
Property damage in all accidents:	\$1,000,000

- D. Excess Liability Insurance. The CONTRACTOR shall maintain excess liability, which shall be over and above the commercial general liability insurance and business automobile liability insurance requirements, with limits of not less than:

Excess Liability:	\$5,000,000
-------------------	-------------

Insurance under B, C, and D above must provide for a 30-day notice to the Town of cancellation/or restrictive amendment.

Insurance under B, C, and D above must be for the whole duration of the contract and for at least twenty-four (24) months after acceptance of the project by the Town.

The Town of Simsbury shall be named as additional insured on the general liability, umbrella liability and automobile liability policies. A waiver of subrogation is required in favor of the Town of Simsbury on all insurance policies, including workers' compensation.

Subcontractors must carry A, B and C in at least the same amounts as above for the duration of the project and until acceptance by the Town.

Certificates of insurance must be submitted prior to the signing of the contract and within ten days of notification of award of contract. Should any insurance expire or be terminated during the period in which the same is required by this contract, the Town shall be notified and such expired or terminated insurance must be replaced with new insurance and a new certificate furnished to the Director of Public Works.

Failure to provide the required insurance and certificates may, at the option of the Town, be held to be a willful and substantial breach of this contract.

NOTE: Coverage under "B" shall include XCU coverage as necessary, Collapse and Underground shall be provided for ALL Contracts. Explosion will be provided if specified, or prior to any blasting being performed under the Contract.

Indemnification: To the fullest extent permitted by law, Contractor shall defend, indemnify and hold harmless the Town of Simsbury from and against all claims, bodily injury and property damage, judgments and expenses, including attorney fees that arise from and are alleged to arise from the performance of this Agreement. This provision shall survive termination of this Agreement.

## 7. OWNER'S RIGHT TO DO WORK

If the Contractor fails to prosecute the work properly or fails to perform any provisions of this contract, the Owner, after three days written notice to the

Contractor may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor. Provided, however, that the Public Works Director shall approve both such action and the amount charged to the Contractor.

## **8. ACCEPTANCE OF FINAL PAYMENT AS RELEASE**

The acceptance by the Contractor of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance BOND and Payment BONDS.

## **9. ASSIGNMENT**

Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign, or otherwise dispose of the CONTRACT or any portion thereof, or of his/her right title or interest therein, or his obligations there under, without written consent of the other party.

## **10. DRAWINGS AND SPECIFICATIONS**

- 10.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner ready for use, occupancy, or operation by the OWNER.
- 10.2 In case of conflict between the DRAWINGS AND SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.
- 10.3 Any discrepancies found between the DRAWINGS AND SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his/her discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.
- 10.4 The OWNER will furnish free of charge to the contractor up to three (3) copies of the DRAWINGS and SPECIFICATIONS as necessary for the proper execution of the WORK.

## **11. MATERIALS, WORKMANSHIP, SERVICES, AND FACILITIES**

- 11.1 It is understood that except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, tools, equipment, sanitary conveniences, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.
- 11.2 All materials furnished shall be new and of the best quality customarily used in or furnished for work of the character of that herein proposed. Many features of the proposed work are described in detail herein, but the failure to so describe any part of the proposed work or any details or appurtenance thereof shall not be an exception to the above rule. The absence of requirements in drawings or specifications covering details usually included in first class installations of this kind shall not excuse the contractor for their omission in this work.
- 11.3 All workmanship shall be of the best quality for WORK of the character of that herein proposed. The CONTRACTOR shall employ only competent employees to do the WORK required.
- 11.4 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.
- 11.5 Materials, supplies, or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.
- 11.6 Drinking water furnished for the employees on the job shall comply with O.S.H.A. regulations.

## **12. PROTECTION OF WORK AND PROPERTY**

- 12.1 The CONTRACTOR will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the WORK--he/she will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the site and other persons who may be affected thereby, all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

- 12.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction. He/she will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He/she will notify owners of adjacent utilities when prosecution of the work may affect them. The CONTRACTOR will remedy all damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, and SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or the acts or omissions, of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.
- 12.3 The CONTRACTOR will notify the OWNER at least one week prior to the start of construction.
- 12.4 The CONTRACTOR shall be responsible for verifying the location of any existing utilities. The CONTRACTOR shall notify "Call Before You Dig" at 1-800-922-4455 such that any utility lines can be marked.
- 12.5 In emergencies affecting the safety of persons or the work or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He/she will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

### **13. CHANGES IN CONTRACT PRICE**

The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved
- (b) An agreed lump sum
- (c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the WORK to cover the cost of general overhead and profit.

### **14. TIME FOR COMPLETION**

- 14.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO

PROCEED.

- 14.2 The CONTRACTOR will proceed with the work at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.
- 14.3 If the CONTRACTOR is delayed at any time in the progress of the WORK by changes ordered in the WORK, by labor disputes, fire, unusual delay in transportation, unavoidable casualties, causes beyond the CONTRACTOR'S control, or by any cause which the ENGINEER may determine justifies the delay, then the CONTRACT TIME shall be extended by CHANGE ORDER for such reasonable time as the ENGINEER may determine.

## **15. SUSPENSION OF WORK, TERMINATION AND DELAY**

- 15.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days, or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which work shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.
- 15.2 If the CONTRACTOR is adjudged as bankrupt or insolvent, or if he/she makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he/she files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he/she repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he/she repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials, or equipment or if he/she disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he/she disregards the authority of the ENGINEER, or if he/she otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his/her surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment, and machinery thereon owned by the CONTRACTOR and finish the WORK by whatever method he/she may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished.



If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

- 15.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.
- 15.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.
- 15.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within (30) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK executed to date. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon Ten (10) Days written notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK. In no event shall Contractor be entitled for costs and expenses for work not yet completed.
- 15.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both shall be

made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

## **16. INDEMNIFICATION**

- 16.1 The CONTRACTOR will defend and hold harmless the OWNER and their agents and employees from and against all Claims, Damage, Loss, or Expense including Attorney's fees arising out of or resulting from the performance of the WORK, provided that any such Claims, Damage, Loss or Expense is attributed to Bodily Injury, Sickness, Disease or Death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.
- 16.2 In any and all claims against the OWNER or any of their agents or employees, by any employee of the CONTRACTOR or SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the INDEMNIFICATION OBLIGATION shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under Workmen's Compensation Acts, Disability Benefit Acts or other Employee Benefits Acts.
- 16.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the OWNER or any of its agents or employees arising out of the preparation or approval of MAPS, DRAWINGS, Opinions, Reports, Surveys, CHANGE ORDERS, Designs, or SPECIFICATIONS.

## **17. SEPARATE CONTRACTS**

- 17.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR's WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.
- 17.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other Contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are Parties to such CONTRACTS (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK,

and shall properly connect and coordinate his WORK with theirs.

- 17.3 If the performance of Additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a Claim therefore as provided in Sections 22 and 23.

## **18. SUBCONTRACTING**

- 18.1 The CONTRACTOR may utilize the services of Specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by Specialty CONTRACTORS.
- 18.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(s) in excess of Fifty (50) Percent of the CONTRACT PRICE, without prior written approval of the OWNER.
- 18.3 The CONTRACTOR shall be fully responsible to the OWNER for the Acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by him.
- 18.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS, as applicable to the WORK OF SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise of the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.
- 18.5 Nothing contained in this CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

## **19. GUARANTY**

The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the PROJECT that the completed PROJECT is free from all defects due to faulty materials or WORKMANSHIP and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the PROJECT resulting from such defects. The OWNER will give notice of observed defects with reasonable

promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The PERFORMANCE BOND or a MAINTENANCE BOND shall remain in force at a value of 25% of the completed WORK through the GUARANTEE PERIOD.

## **20. DISPUTE RESOLUTION**

- 20.1 All claims, disputes and other matters in questions arising out of, or relating to, the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by the making and acceptance of Final Payment as provided by Section 16, shall be decided by Arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. This agreement to arbitrate shall be specifically enforceable under the prevailing Connecticut Arbitration law.
- 20.2 Notice of the Demand for Arbitration shall be filed in writing with the Other Party to the CONTRACT DOCUMENTS and with the American Arbitration Association, and a copy shall be filed with the Engineer. T h e Demand for Arbitration shall in no event be made on any claim, dispute, or other matter in question which would be barred by the applicable Statute of Limitations.
- 20.3 The CONTRACTOR will carry on the WORK and maintain the Progress Schedule during any Mediation proceedings, unless otherwise mutually agreed in writing.

## **21. TAXES**

The CONTRACTOR will pay all consumer, use, and other similar taxes required by the Law of the Place where the WORK is performed. This WORK is being performed for a Municipal Government and is exempt from Sales Tax.

## **SUPPLEMENTAL GENERAL CONDITIONS**

1. PA 86-87, AAC Workers' Compensation Insurance Requirements for Contractors on Public Works projects and State licenses, prohibits municipalities from entering into a public works contract with an employer without receiving sufficient evidence from the employer that he has workers' compensation insurance and a statement from the state treasurer that the employer does not owe the Second Injury and Compensation Assurance Fund any money.
2. The Town of Simsbury Public Works Department shall be notified at least five (5) days prior to beginning work.
3. Sales and Use Tax Exempt Purchase Certificate/ The Contractor's attention is called to Regulation 18 as amended promulgated by the Sales and Use Tax Division of the State Tax Department, which provided for the Exemption of the sales and use tax on the purchase of such materials and supplies as are to be physically incorporated in and become a permanent part of the project being performed under this contract. The Contractor or Subcontractor shall furnish his suppliers with a completed certificate, in the prescribed form; a copy of which is attached to these specifications.
4. In accordance with Executive Order 11246, the Contractor is obliged not to discriminate against any employee or applicant for employment because of race, color, creed, or national origin. This obligation not to discriminate in employment includes, but is not limited to, the following: hiring, placement, upgrading, transfer, demotion, recruitment, advertising, solicitation for employment training during employment, rates of pay or other forms of compensation, selection for training including apprenticeship, layoff, or termination.

## SPECIAL PROVISIONS

1. **Cleaning Up:** The Contractor shall at all times keep the site and work free from accumulations of waste material or rubbish caused by his employees or work, or the employees or work of any of his subcontractors.

On completion of the work, the Contractor except as otherwise expressly directed or permitted in writing, shall tear down and remove all temporary structures built by him; shall remove all rubbish and abandoned materials of all kinds from all Contract structures and from any grounds, and shall leave all the grounds which may have been affected by his/her operations in a neat and satisfactory condition. Except as noted, all materials salvaged shall be the property of the Contractor.

2. **Act, Or Failure To Act, On Part Of Engineer Does Not Reduce Liability Of Contractor:** Giving notice or failure to give notice; or acting as authorized in the preceding sections, or failure to so act, on the part of the Engineer; or any question as to the adequacy of the notice by the Engineer, or of his/her acts, as provided in those sections, shall not in any way relieve the Contractor from any part of his responsibility or liability for performing any and all of the acts and assuming any and all of the risks, duties and liabilities which the Contractor is obligated to perform or assume.
3. **Disposal of Surplus Materials:** The Contractor shall be responsible for the removal and satisfactory disposal of all surplus materials unless otherwise specified in the Detail Specifications. Town properties shall not be used for such disposal unless specifically authorized by the Engineer in writing. Property owners adjacent to the work may have indicated to the Town that their land might be available for disposal of surplus fill and this fact may be noted on the Contract Drawings. The Contractor shall, however, make his own arrangements for the use of such private lands and shall, if requested by the Engineer, evidence that such arrangements have been made before such use. Any required local permits shall be the responsibility of the Contractor.
4. **The State of Connecticut, Department of Environmental Protection and other involved State agencies** shall have access and inspection rights to all parts of the work on this project.
5. **Quantities of work** may be increased or decreased by up to 50% with payment to be based on actual quantities of work completed and the bid unit prices.

## **Grit Washing, Dewatering System**

### **PART 1: GENERAL**

#### *1.01 scope*

- A. Bidder shall furnish one (1) grit washer for removing, washing and conveying grit particles. The grit washer shall be manufactured from AISI 304L stainless steel shapes. Fabrication and assembly shall be in conformance with these specifications.
- B. Each grit washing, and dewatering system shall include a grit washer tank, dewatering screw, stirrer, drive motors, gear reducers, support legs, anchor bolts, piping and wiring, controls, and all accessories and appurtenances specified or otherwise required for a complete and properly operating installation.
- C. Bidder shall coordinate all details of the equipment with other related parts of the work. Bidder shall verify that all structures, piping, wiring, and equipment components are compatible. Bidder shall be responsible for all structural and other alterations required to accommodate equipment differing in dimensions or other characteristics.
- D. Power supply for main control panel is 460 V, 60 Hz, 3-phase.

#### **1.02 REFERENCES**

- A. American Society for Testing and Materials (ASTM) Publications:
  - 1. Section A322: Carbon and Alloy Steel Bar Specifications.
  - 2. Section A507-10: Standard Specification for Drawing Alloy Steel, Sheet and Strip, Hot Rolled and Cold Rolled
- B. ISO 281:2007 Calculation Method for Fatigue Life for Roller Bearings.
- C. American Institute of Steel Construction (AISC) Publications
- D. American Welding Society (AWS), European Welding Federation (EWF), and International Institute of Welding (IIW) Publications
- E. American Structures Painting Council (ASPC) Publications
- F. International Organization for Standardization (ISO) Publications.

#### **1.03 SUBMITTALS**

The following information shall be submitted to the WPCA Superintendent. Copies of all materials required to establish compliance with this Section. Submittals shall include the following:

- A. Product Data: Include the following:

1. Descriptive literature, brochures, catalogs, cut-sheets and other detailed descriptive material of the equipment.
2. Motor characteristics and performance information.
3. Gear reducer data including service factor, efficiency, torque rating, and materials.
4. Parts list including a list of recommended spare parts.

B. Shop Drawings: Include the following:

1. Manufacturer's installation drawings.
2. Wiring and schematic diagrams.

C. Operations and maintenance manual

D. Detailed installation instructions, with clear step-by-step points on the correct mechanical and electrical installation procedures.

E. Equipment weights and lifting points.

F. Recommendations for short and long term storage.

G. A copy of the manufacturer's warranty

H. A copy of documents proving certification of the Manufacturer's Quality Management System according to ISO 9001 and Environmental Protection Management System according to ISO 14001.

I. Failure to include all drawings applicable to the equipment specified in this section will result in rejection of the entire submittal with no further review.

#### 1.04 QUALITY ASSURANCE

A. To ensure quality, conformance, reliability, and environmental practices with regard to the manufacturing and production of the machinery described in this section, the equipment manufacturer shall meet the requirements listed in this section.

B. Manufacturer shall have established an ISO 9001 certified quality management system. Manufacturers without an ISO 9001 certified quality management program must provide complete documentation of their existing quality management system with supplemental information clarifying why areas do not meet ISO 9001 standards. Meeting national quality management standards alone shall not be considered an acceptable substitute because ISO standards exceed national quality management standards.

C. Manufacturer shall have established an ISO 14001 certified environmental protection management system. Manufacturers without an ISO 14001 certified environmental protection



management system must provide complete documentation of their existing environmental protection management system with supplemental information clarifying why areas do not meet ISO 14001 standards. Meeting national or local environmental protection management standards alone shall not be considered an acceptable substitute because ISO standards exceed national and local environmental protection management standards.

- D. All stainless steel components and structures shall be submersed in a chemical bath of nitric acid and hydrofluoric acid (pickling bath) to remove any residues that may be present on the material as a result of forming, manufacture, or handling. After removal from the pickling bath, the equipment must be washed with a high-pressure wash of cold water to remove any remaining surface debris and promote the formation of an oxidized passive layer which is critical to the long life of the stainless steel.
- E. No stainless steel components may be fabricated or assembled in a factory where carbon steel products are fabricated, in order to prevent contamination by rust.
- F. Manufacturer shall have a minimum of twenty-five (25) years experience producing grit washers and upon request will submit to the engineer documentation of fifteen (15) installations similar or larger than specified herein, that have been in operation for at least five (5) years.
- G. All welding is performed in accordance with American Welding Society (AWS), European Welding Federation (EWF), International Institute of Welding (IIW), or equivalent.
- H. Manufacturer shall provide grit washer, motors, gear reducers, controls, control panels, and lifting attachments as a complete integrated package to ensure proper coordination, compatibility, and operation of the system.
- I. Manufacturer shall provide services by a factory-trained service technician, specifically trained on the type of equipment specified. Service technician requirements include, but are not limited to the following:
  - 1. Manufacturer shall have a minimum of ten (10) service technicians based in the United States for field service of the equipment. Manufacturer shall have multiple service locations with a minimum of one dedicated service location for both the eastern and western regions of the US.
  - 2. Service technician shall be present during initial energizing of equipment to determine directional testing.
  - 3. Service technician shall inspect and verify location of anchor bolts, placement, leveling, alignment and field erection of equipment, as well as control panel operation and electrical connections.
  - 4. Service technician shall provide classroom and/or field training on the operation and maintenance of the equipment to operator personnel.
  - 5. Manufacturer shall state field service rates for a service technician to owner and contractor. In the event that the field service time required by this section should not be sufficient to properly place the equipment into operation, additional time shall be purchased by contractor without additional cost to owner.

- J. Bidder shall guarantee all equipment against faulty or inadequate design, improper assembly or installation, defective workmanship or materials, and breakage or other failure. Materials shall be suitable for service conditions.
- K. All equipment shall be designed, fabricated, and assembled in accordance with recognized and acceptable engineering and shop practice. Individual parts shall be manufactured to standard sizes and thicknesses so that repair parts can be installed in the field. Like parts of duplicate units shall be interchangeable. Equipment shall not have been in service prior to delivery, except as required by testing.
- L. Each major component of equipment shall have the manufacturer's name, address and product identification on a nameplate securely affixed to the equipment.

#### 1.05 DELIVERY, STORAGE, AND HANDLING OF EQUIPMENT

- A. Equipment shall be shipped and delivered fully assembled, except where partial disassembly is required in order to conform to transportation regulations or for the protection of components during installation.

#### 1.06 SUBMITTAL OF ALTERNATE EQUIPMENT

Manufacturers of alternative equipment shall submit a package to the town at the bid date. Alternative manufacturers shall submit the following information and supporting documentation:

- A. A complete set of drawings, specifications, catalog cut-sheets, and detailed descriptive material. Drawings shall show all relevant details of the unit. This information shall identify all technical and performance requirements stipulated on the drawings and in the specification. If the proposed equipment does not meet these specifications, any deviation from the specification must be expressly noted. All deviations shall be listed on a single document.
- B. Detailed installation drawings illustrating how the proposed grit washer will be installed. The drawings shall include plan, elevation, and sectional views of the installation. Drawings shall include details of the anchor bolt locations.
- C. Structural calculations by a Professional Engineer either confirming the existing structural design is sufficient for the alternate equipment or detailing any changes required for the building design to use the alternate equipment.
- D. Motor characteristics and performance information. Vendor data shall be furnished to confirm the torque and thrust rating of the drives.
- E. Complete reference list of all installations of same and similar equipment including contact names and phone numbers, showing at least 20 municipal installations of the same size as the alternate equipment located in the United States.
- F. Test reports by independent party for a minimum of five (5) installations must be provided proving that the organic content of the washed grit product at these tested installations has been below 5%.
- G. Complete bill of materials for all equipment, showing dimensions and materials of construction of all components.

- H. Certification by the manufacturer that all stainless steel equipment will be manufactured in a stainless steel only factory.
- I. Certification that the entire equipment will be passivated by submersion in an acid bath as specified in chapter 2.03.
- J. A copy of documents proving certification of the Manufacturer's Quality Management System according to ISO 9001. Manufacturers without an ISO 9001 certified quality management program must provide complete documentation of their existing quality management system with supplemental information clarifying why areas do not meet ISO 9001 standards. Meeting national quality management standards alone shall not be considered an acceptable substitute because ISO standards exceed national quality management standards.
- K. A copy of documents proving certification of the Environmental Protection Management System according to ISO 14001. Manufacturers without an ISO 14001 certified environmental protection management system must provide complete documentation of their existing environmental protection management system with supplemental information clarifying why areas do not meet ISO 14001 standards. Meeting national or local environmental protection management standards alone shall not be considered an acceptable substitute because ISO standards exceed national and local environmental protection management standards.
- L. Details of the control and instrumentation system including wiring diagrams. A Professional Engineer shall note any required changes to the project electrical drawings.
- M. Information on equipment field erection requirements including total weight of assembled components and weight of each sub-assembly.
- N. List of recommended spare parts and current cost of each spare part.
- O. A maintenance schedule showing the required maintenance, frequency of maintenance, lubricants and other items required at each regular preventative maintenance period, including all ancillary equipment provided.

## PART 2: PRODUCTS

### 2.01 Acceptable MANUFACTURERS:

- A. HUBER Coanda Grit Washer RoSF4 2 by HUBER Technology, Inc, or Hydro International, Hydro GritCleanse™ Grit Washing / Dewatering Unit
- B. Alternate manufacturer(s), as per chapter 1.06.

### 2.02 PERFORMANCE AND DESIGN REQUIREMENTS:

- |   |            |
|---|------------|
| A. Number of units:                                     | 1          |
| B. Design flow of grit slurry from grit trap per unit:  | 250 gpm    |
| C. Maximum flow of grit slurry from grit trap per unit: | 300 gpm    |
| D. Grit processing capacity per unit:                   | 1.5 ton/hr |

- E. Maximum water content in washed grit product at design flow: 10 %
- F. Maximum volatile solids content in dried grit product at design flow: 5 %
- G. Minimum capture rate of 200 micron quartz sand at design flow: 95 %
- H. Minimum weir length: 19.6 feet
- I. Tank water surface area: 30.5 ft<sup>2</sup>
- J. Weir Overflow rate including wash water less than: 0.031 ft<sup>2</sup>/sec (10.5 m<sup>2</sup>/h)

### 2.03 MATERIALS

- A. Unless otherwise specified in these specifications, the entire equipment shall be manufactured from AISI 304L austenitic stainless steel shapes (rods, angles, and channels), pipes, and sheets. All mechanical parts shall be designed to handle the forces that may be exerted on the unit during fabrication, shipping, erection, and proper operation according to the O&M manual.
- B. The entire equipment shall be manufactured in a stainless steel only factory to prevent contamination of the stainless steel with foreign contaminants.
- C. The equipment, after its fabrication, shall undergo a passivation (pickling) process to ensure maximum resistance to corrosion. All stainless steel components and structures shall be submersed in a chemical bath of nitric acid and hydrofluoric acid to remove any residues that may be present on the material as a result of forming, manufacture, or handling. After removal from the pickling bath, the equipment must be washed with a high-pressure wash of cold water to remove any remaining surface debris and promote the formation of an oxidized passive layer which is critical to the long life of the stainless steel. Submergence insures complete coverage. Spray on chemical treatments and glass bead blasting are specifically not acceptable due to their inability to provide complete and uniform corrosion protection.

### 2.04 GRIT WASHER design:

#### A. GRIT WASHER TANK

1. Water containing grit from a grit chamber shall be introduced through a 6 inch inlet into the vortex chamber, creating a rotating flow pattern, and into the grit washer tank. The maximum allowable influent velocity into the grit washer tank shall be less than 0.5 ft/s. The grit slurry mixture shall be fed directly to the grit washing unit without the need for additional screening via a drum screen, designs requiring a screen to meet the performance requirements shall not be allowed. Designs incorporating a tangential side inlet entry or an inlet entry that does not dissipate velocity shall not be acceptable.
2. The water flow is directed from an axial flow to a radial flow towards the overflow weir that is provided at the circumference of the grit washer tank. This change of the flow direction leads to effective sedimentation of the grit towards the bottom of the grit washer tank. The grit washer tank shall have a minimum of 0.10" wall thickness.

3. The classified water shall pass over the circumferential overflow weir with a length of 19.6-feet and discharge out of a single 8 inch clean water outlet.
4. The inlet connection of the grit washer unit shall be freely rotatable 360 degrees for site adjustment. Designs that incorporate a fixed inlet connection that does not freely rotate shall not be allowed.
5. A 4 inch connection with an automatically operated one quarter-turn ball valve shall be provided for removal of organic material out of the conical section of the tank. The ball valve shall be directly flanged to the conical tank without any adapter or connection pieces to avoid clogging issues. The ball valve shall have a PVC body and ball to prevent binding when in contact with abrasive materials. Metallic ball valves which can bind in highly abrasive applications shall not be acceptable.
6. A 110VAC, single phase, electrically operated AUMA actuator shall be provided to provide automatic control of the ball valve. The AUMA actuator shall only be acceptable for the grit washer unit. The actuator shall be suitable for operation in a Class 1, Division 1 hazardous location. The stirrer shall move organic matter toward this connection.
7. A 110VAC, single phase, pressure probe shall be mounted in the bottom of the grit settling area to monitor the grit level within the tank and to control the operation of the grit stirrer and grit removal screw. The pressure probe shall be suitable for installation in a Class 1, Division 1 hazardous location.
8. Designs incorporating Hydro-cyclones/concentrators or grit classifiers without washing feature shall not be acceptable.

#### B. FLUIDIZED GRIT BED

1. A fluidized grit bed shall be maintained in the bottom portion of the grit washer tank. Within this fluidized bed, the grit is intensively washed and organic material is effectively removed from mineral particles.
2. The grit washer shall be designed for a water supply of 22 gpm with a minimum pressure of 29 psi with a single 1-inch connection point for connecting to the treatment plants final effluent water supply.
3. Wash water shall be introduced into the bottom of the grit washer and dispersed through a perforated diaphragm to generate the fluidized bed in the bottom portion of the grit washer. This wash water shall also effectively flush the organic components out of the fluidized bed towards the overflow weir.
4. Wash water through the perforated plate diaphragm shall be distributed uniformly in order to reduce grit sedimentation on the bottom of the grit tank. The perforated plate neoprene diaphragm shall have a 2mm thickness. A perforated plate design for a true fluidized grit bed and clog free washing system shall be a grit washer design requirement. Designs that exclusively incorporate multiple water or air injection points on the bottom of the grit washer tank as part of the washing feature shall not be acceptable.
5. The wash water manifold will be provided with a variable area flow meter with a transparent PVC casing to allow visual inspection of the internal float for manual

flow rate confirmation. The variable area flow meter shall be factory installed and attached to the grit washer unit before shipment.

6. Wash water control shall be provided via a 1-inch 110V, 60Hz, Class 1, Division 1 solenoid valve and body of valve shall be brass material.

### C. GRIT SCREW

1. Washed grit shall be removed through a central tube at the bottom of the grit washer. The stirrer shall move washed grit to the central tube. The grit to be removed shall drop into an inclined auger. This auger shall dewater and convey the grit above the level of the overflow weir. The washed and dewatered grit is discharged at the upper end of the auger.
2. The auger shall have a discharge height of 96" (2443 mm) above the floor. The inlet hopper tank shall be provided with a 2" diameter drain connection that is provided with a ball valve. The drain connection shall also be provided with a 3/4" flush connection with ball valve.
3. The auger shall have a minimum diameter of 12.75 inches and a minimum 1/4" material thickness. The auger shaft shall have minimum diameter of 4.5-inches and a minimum material thickness of 0.16-inches.
4. The lower grit washer tank shall be bolted flange-connected to the grit discharge trough for easy removal during maintenance. Designs with a welded connection between the screw trough and inlet hopper tank shall not be acceptable as this design is prone to cause clearance issues when pulling screw out from upper trough area for maintenance.
5. The screw conveyor trough shall be made of minimum 10/64 inch (4 mm) thick stainless steel and shall have a minimum trough diameter of 13.8-inches.
6. The screw shall be shafted and shall be made of stainless steel. A shaft-less screw is not acceptable. The lower end of the screw shaft shall be supported by a chilled cast-iron stub bearing with a maintenance-free ceramic sleeve. Wear strips, wear shoes, or liners are not acceptable.
7. The grit screw design shall have screw flights incorporating varying flight pitches of 4.9-inch/5.9-inch/7.8-inch in order to prevent clogging issues within the grit screw. Screws with flight pitches all at the same distance shall not be acceptable.
8. A screw drive shall be provided at the upper end of the auger. The motor shall be continuous duty rated and shall be selected to match the duty of the particular grit conveying screw. The drive unit shall be directly coupled to the grit conveying screw drive shaft.

### D. GRIT STIRRER

1. The center stirrer shaft diameter shall be 2.4 inches mm and shall have a thickness of 0.2 inches. The stirrer arms shall be 1.2 inches in diameter and constructed of 304L stainless steel. The stirrer shall consist of a minimum of 2 arm sections. The stirrer

design shall promote better discharge of organics, grit bed fluidization, and ability to discharge larger stones.

2. Air and or water scouring shall not be acceptable for generating high turbulences in lieu of a slow speed stirrer.

#### E. MOTORS

##### 1. Grit Screw

- a. Maximum Motor Speed: 1760 rpm.
- b. Service Factor: 1.15
- c. Torque must be sufficient to start and operate grit washer without exceeding nameplate ratings for current and power.
- d. Rating: 230/460V, 3-phase, 60 Hz.
- e. Location Rating: Class 1, Division 1
- f. Nominal power screw drive motor: 1.5 hp

##### 2. Grit Stirrer

- a. Maximum Motor Speed: 1760 rpm.
- b. Service Factor: 1.15
- c. Torque must be sufficient to start and operate grit washer without exceeding nameplate ratings for current and power.
- d. Rating: 230/460V, 3-phase, 60 Hz.
- e. Location Rating: Class 1, Division 1
- f. Nominal power stirrer motor: 0.75 hp

#### F. ANCHOR BOLTS

1. Equipment manufacturer shall furnish all anchor bolts of ample size and strength required to securely anchor each item of equipment. Anchor bolts, hex nuts, and washers shall be stainless steel. Anchor bolts shall be wedge or epoxy type.
2. Anchor bolts shall be set by the contractor. Equipment shall be placed on the foundations, leveled, shimmed, bolted down, and grouted with a non-shrinking grout

#### G. CONTROL SYSTEM

1. All controls necessary for the fully automatic operation of the grit washer shall be provided, including a NEMA 4X main control panel, and a NEMA 7 local control station.
2. The electrical control system shall provide for automatic control of the grit washer via a signal from the feed pump control panel.

3. Main control panel shall be suitable for outdoor, wall-mounting. Enclosure shall be NEMA 4X Stainless Steel with continuous hinge and lockable door latch, and shall include the following:
  - a. Door-interlocked and fused disconnect
  - b. 600 VAC terminal block
  - c. NEMA motor starter and Circuit Breaker Branch Circuit Protection for grit screw motor
  - d. NEMA motor starter and Circuit Breaker Branch Circuit Protection for grit stirrer motor
  - e. Panel heater with thermostat (OPTION)
  - f. Control power transformer with 120 VAC transient voltage surge compressor (TVSC) and fused primary and secondary
  - g. Programmable logic controller (PLC), Allen Bradley Compact 5000
  - h. Operator Interface (OIU), Allen Bradley PanelView 800
  - i. Pilot lights for:
    - i. Control power on (white)
    - ii. Grit Screw running (green)
    - iii. Grit Stirrer (green)
    - iv. Organic Valve open (green)
    - v. Grit Screw fault (red)
    - vi. Grit Stirrer fault (red)
    - vii. Organic valve fault (red)
  - a. E-stop push button (red)
  - b. Grit Washer reset push button (black)
  - c. Door mounted elapsed time meters for the following:
    - i. Screw drive
    - ii. Stirrer drive
  - a. Remote dry contact input for the following:
    - i. Machine start
    - ii. Two spare inputs
  - a. Remote dry contact outputs for the following:
    - i. Grit washer running
    - ii. Grit Washer fault
    - iii. Grit Washer E-stop
    - viii. Grit pump running (green)
    - iii. Grit pump fault (red)
    - iv. Three spare outputs
  - a. Flashing alarm light and alarm horn with silencer-reset button
    - i. Plastic Nameplates
4. A local operator station shall be provided, and shall be suitable for wall-mounting. Enclosure shall be NEMA 7 cast Aluminum, and shall include the following:
  - a. Hand-Off-Auto selector switches for the following
    - i. Grit Washer drive
    - ii. Stirrer drive
  - b. Grit Washer forward-off-reverse
    - i. Grit Washer drive



- c. Spray wash pushbuttons (push-to-test)
  - i. Solenoid valve
- d. E-stop pushbutton (red)

## PART 3: SPARE PARTS

### 3.01 SPARE PARTS

- A The following Spare Parts shall be included and supplied by Manufacturer:
  - 1. One (1) perforated diaphragm (membrane)
  - 2. One (1) complete solenoid valve assembly
- B One set of all special tools, if required, shall be included and supplied by the Manufacturer.

## PART 4: EXECUTION

### 4.01 INSTALLATION, START-UP AND OPERATOR TRAINING

- A. Bidder shall verify all dimensions in the field to ensure compliance of equipment dimensions. Contractor shall notify Town of significant deviations.
- B. Installation of the equipment shall be in strict accordance with the contract documents and the manufacturer's instructions and shop drawings. Manufacturer shall supply anchor bolts for the equipment.
- C. After installation, touch-up paint shall be provided to allow for coating of all scratched, abraded and damaged shop painted surfaces. Coating type and color shall match shop painting.
- D. Supplier shall furnish the services of a factory-trained service technician for one (1) trip including a total of two (2) workdays to inspect the installation, observe start up, and provide operator training.
  - 1. The service technician shall make all necessary adjustments and settings to the controls.
  - 2. The service technician shall demonstrate proper and sequential operation of the grit washing system. The grit washing system shall be able to operate fully automatically.

### 4.02 WARRANTY

- A. The manufacturer will warrant against any defects in material or workmanship to the grit washer unit. This warranty will commence upon delivery of the products and will expire on

the earlier to occur of one (1) year from initial operation of the product or 18 months from delivery thereof (the "Warranty Period").

#### 4.03 *Performance AND PERFORMANCE TESTING*

##### A Grit Washer Grit Quality Test:

###### 1. Summary

- a. Manufacturer shall field test installed Grit Washing Equipment to demonstrate compliance with performance requirements specified in section 2.02. The following physical conditions shall be demonstrated by classifier(s):
  - i. Performance test shall be performed for each grit washer installed.
  - ii. Accept pumped design flow, in the case of the grit washer unit this is 250gpm.
  - iii. Produce dry grit with less than 10% moisture content.
  - iv. Have no visible fecal matter (less than or equal to 5% organic content) and be absent of putrescent odor.
  - v. Operate reliably without breakdown or stoppage due to blockage at all design conditions. Grit washer(s) shall have completed 120 hr systems demonstration prior to start of performance test.
  - vi. Require minimal operation and maintenance.
  - vii. Performance data will not be evaluated on a combined average of all units tested. Each unit must meet the design requirements.
- b. Owner shall furnish labor for each sample collection and the manufacturer shall pay cost of laboratory analysis as specified herein, unless otherwise negotiated with owner. Performance analysis will be carried out at laboratory approved by owner.

###### 2. Compliance

- a. If test results demonstrate that equipment does not conform to requirements of specifications concerning organics residual and percent moisture, manufacturer shall have the opportunity to make improvements at no cost to owner.
- b. Manufacturer shall perform a second test. If the second test has not successfully passed the organic and moisture performance parameters as specified, the OWNER will modify the contract cost or reject the grit washing equipment as a whole based first on failure of organic content, if organics content is acceptable then on moisture content as follows:

###### Organics content

- i. 5% or less- 100% payment
- ii. Greater than 5% but less than 7.5% - 75% payment
- iii. Greater than 7.5% but less than 10% - 50% payment

- iv. Greater than 10%, equipment will be rejected and manufacturer shall reimburse owner of all costs for providing and installing grit washing equipment.

Moisture content

- i. 10% or less – 100%
  - ii. Greater than 10%, but less than 20% - 75% payment
  - iii. Greater than 20%, but less than 30% - 50% payment
  - iv. Greater than 30%, equipment will be rejected and manufacturer shall reimburse owner of all costs for providing and installing grit washing equipment.
- c. Owner and/or owners representative shall be present for test.

3. Performance Requirements

- a. Prior to performance test, washer shall have completed 120hr systems demonstration test, and grit shall be produced from grit discharge minimum of one week prior. If grit has not yet discharged from unit(s) within one week of performance test, manufacturer shall supply and fill unit(s) with amount of sand recommended in order to create a base and start producing grit. Unit(s) shall operate for one week following addition of supplemental sand prior to start of performance test.
- b. Manufacturer shall guarantee and demonstrate that the grit washer(s) supplied shall meet the following performance requirements:
  - i. Grit Washer(s) shall be capable of accepting minimum flow of 250gpm from grit storage hopper of grit removal system containing grit, and possibly other settleable solids including vegetable matter, cigarette butts, etc, without plugging problems and loss of performance stipulated herein.
  - ii. Grit discharged to dumpster for disposal shall be clean with solids containing no visible fecal matter, and shall be free of putrescible odors.
  - iii. Organic content of grit discharged from each unit shall be 5% or less. The combined average organic content of all units tested is not acceptable. All vegetable matter within the sample shall remain and be included as part of the test.
  - iv. Moisture content of grit discharged from each unit shall be 10% or less. The combined average moisture content of all units tested is not acceptable. All vegetable matter within the sample shall remain and be included as part of the test.
  - v. Washer shall operate reliably without breakdown or stoppage due to blockage at all design conditions and shall require minimal operation and maintenance.

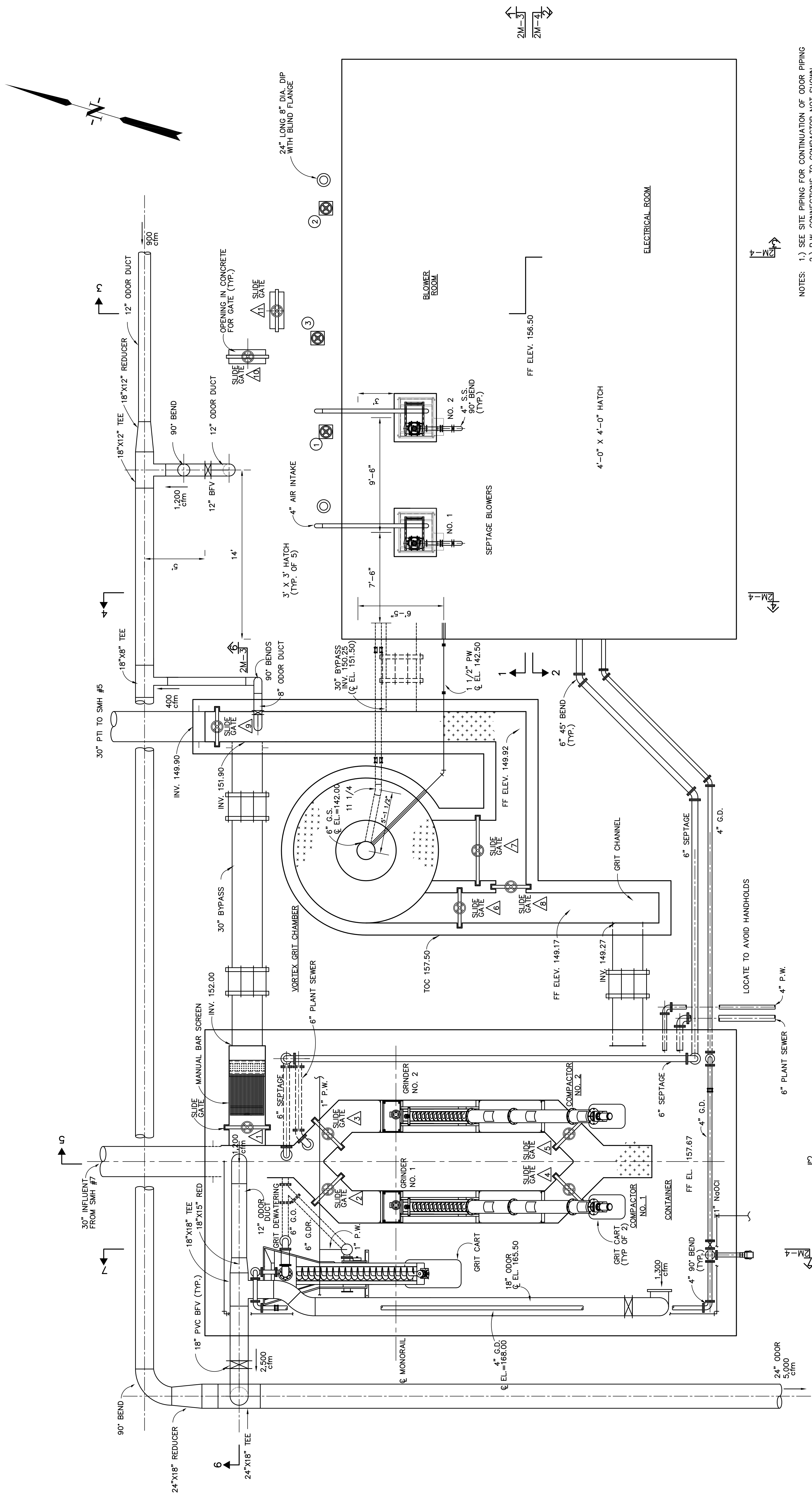
4. Test Procedure

- a. As a requirement of this specification the manufacturer shall demonstrate that the grit washer(s) conform with the performance and operating criteria specified herein and the following tests shall be conducted at site on each operating grit washer unit:
  - i. Bidder shall provide clamp on type flow meter and shall be attached to grit delivery pipe from the grit pump and after calibration, flow readings shall be taken for a minimum three pumping cycles, or over one half hour of continuous run time, to demonstrate the grit classifier is operating at the specified flow.
  - ii. The organic content and moisture tests shall take place over a two week period. Plant staff shall take three (3) random 2-cup samples taken any 3 days within a consecutive two week period for a total of 9 samples. Samples shall be taken immediately upon discharge from each classifier, sealed in a vapor tight container and sent out for testing the same day.
  - iii. The test results and observations shall be submitted for approval and acceptance by OWNER.

End of Section

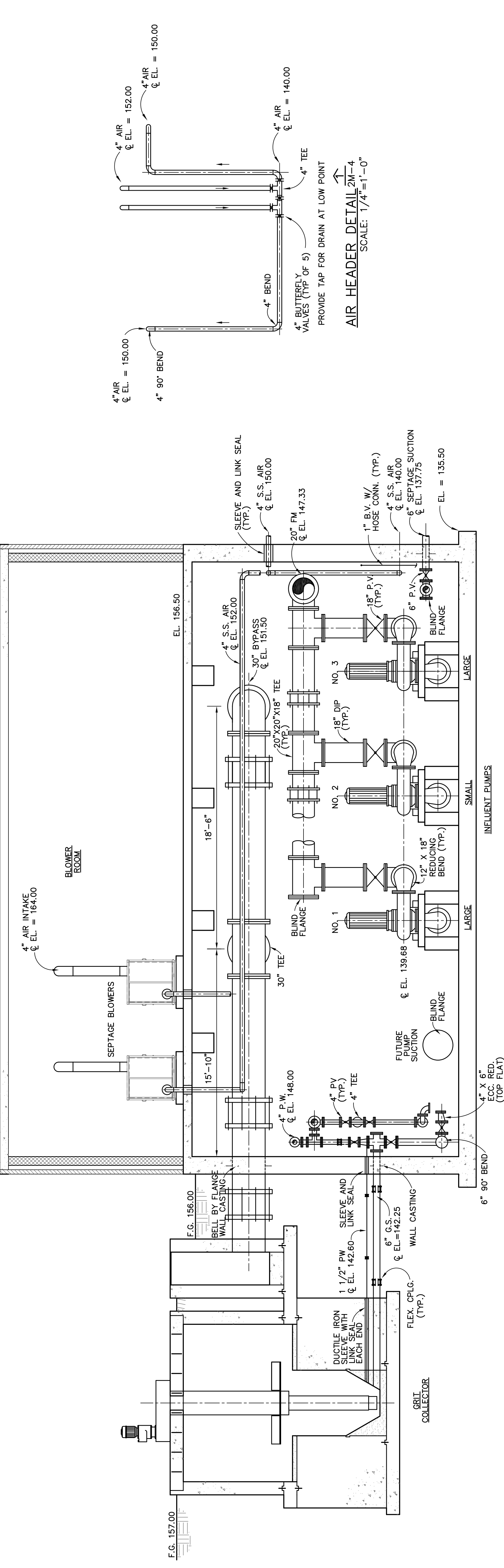
**Attachment A**

**Existing Mechanical layout**

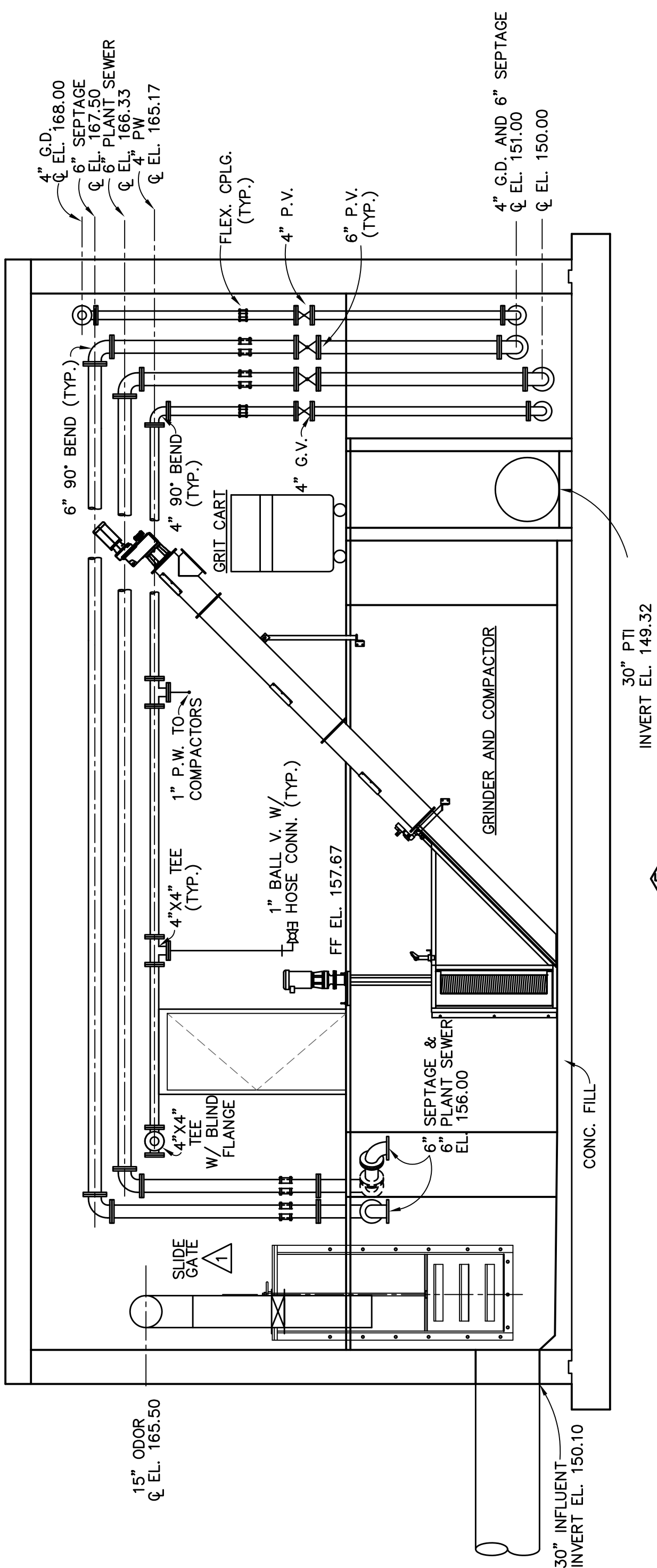


NOTES: 1.) SEE SITE PIPING FOR CONTINUATION OF ODOR PIPING  
2.) P.W. CONNECTIONS TO COMPACTOR NOT SHOWN

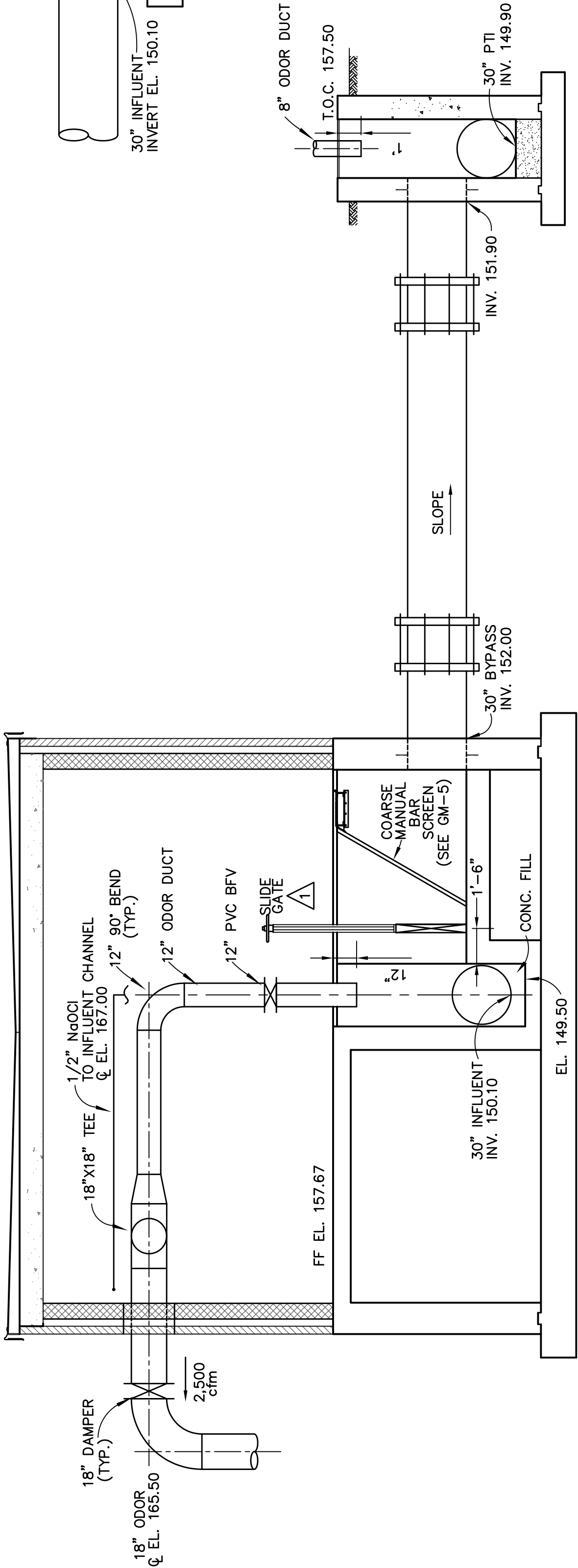
PLAN VIEW  
SCALE: 1/4" = 1'-0"



SECTION 2M-2  
SCALE: 1/4"=1'-0"



SECTION 2M-1  
SCALE: 1/4"=1'-0"



SECTION 2M-2  
SCALE: 1/4"=1'-0"

