

Request for Proposals General Contractor

Library Addition and Restoration for the Town of Johnson, Library Building

Addendum 1 11/19/25

Response Deadline:

-Deadline for responses is required before 4:00pm on 11/28/25

Changes to Response Format:

-Responses will have to include the itemized cost and timeline for the floor construction of the addition. The floor must be constructed ASAP to accommodate backfilling. The itemization is required if the contractor is going to start work in the spring, in which case the cost must include capping the floor. If the contractor is going to frame and maintain the floor system throughout the winter, no capping is required.

-The floor system consists of:

-Posts, Beams, TGI Joists, Blocking, All layers of plywood, sill plate, and fasteners to the foundations.

-USE THE RESPONSE FORM ATTACHED TO ADDENDUM 1 BELOW

Questions, responses attached below:

1. What is the responsibility of the contractor for backfilling the foundation?
2. What is the required timeline of construction, sunset dates, and the timeline for framing in the wood floor system?
3. What is the expectation of the contractor for the chimney?
4. Will the Contractor be required to cap the foundation?
5. What is the expectation of the contractor for the location of the previously removed chimney?
6. Will there be power available?
7. Who is the point of contact?
8. Will the building have to be sprinkled?
9. Is the floor system engineered?
10. When does the floor system have to be installed by?
11. Is paving the parking lot part of this bid?
12. What will the waterline material be?
13. Is this a Build America by America (BABA) project?

Attendance to the 11/14/25 Mandatory Site Visit

Steve Davis, D Tatro Construction
Pat Kelly, Three Mountain Roofing
Brian Norfolk, Bread Loaf
Dave Pratt, Millbrook
Stephen Morrell, Opus Corp
Brian Raulinitis, Back Forty Builders
Dale Tatro, D Tatro Construction
Jonathan Baptista, CE Painting and Carpentry
Thomas Galinat, Town Administrator
Adrienne Parker, Selectboard
Peter Hammond, Selectboard
Paul Trudel, Architect
Kelly Vandorn, Library
Eric Shultz, Library

Responses:

Questions, responses attached below:

1. What is the responsibility of the contractor for backfilling the foundation?
-The contractor will have to finish grade, topsoil where needed, and seed/mulch per civil drawings. The building will be rough graded with a 3:1 slope away from the foundation by another contract.

2. What is the required timeline of construction, sunset dates, and the timeline for framing in the wood floor system?
-The construction has to be completed by 10/1/26. The grant funding the addition sunsets (ends) on 12/31/26. The addition must be complete by 10/1/26, there is more flexibility on the old section. The wood floor system must be installed asap. Preferably before 12/15 to allow for backfilling of the foundation.

3. What is the expectation of the contractor for the chimney?
-The contractor will have to inspect the current condition. The fireplace flue will have to be lined per MEP specifications. The above grade portion will wood framed per Architectural specifications.

4. Will the Contractor be required to cap the foundation?
-The contractor will have to either cap the foundation after the wood floor is installed or the contractor will have to maintain the floor system throughout winter, so that any portion of the floor system is not damaged or defective.

5. What is the expectation of the contractor for the location of the previously removed chimney?
-The contractor is expected to work with a mason to repair any cracks within the brick. The location where the chimney came off will need to be watertight and free from loose debris.

6. Will there be power available?
-Conduits have been run to the cabinet. It will be the contractors responsibility to install temporary power and a meter. The contractor will have to install the permanent meter and electrical connections per MEP and Civil specifications.

7. Who is the point of contact?
-The point of contact will be Paul Trudel, Architect and Peter Hammond, Town.

8. Will the building have to be sprinkled?
-No.

9. Is the floor system engineered?

-The floor system was designed by RK Miles.

10. When does the floor system have to be installed by?

-12/15/25 or soon after.

11. Is paving the parking lot part of this bid?

-Paving is the responsibility of the contractor.

12. What will the waterline material be?

-The waterline is being installed per a different contract. The contractor will be responsible for taking over plumbing per MEP specifications from the terminus inside the old section of the building.

13. Is this a Build America by America (BABA) project?

-No. This is an ARPA project with strict ARPA timelines.

14. Has any hazardous materials testing been done?

-No.

15. Can you send out the Civil Plans again ASAP? The majority of the notes on C-4 and C-5 are illegible.

-The updated Civil Plans are attached to this addendum.

16. Can you supply a descriptive scope of work to the restoration of the interior of the Historic Library?

-Wall repair, paint. Electric and fixtures. Refinished floors. Plumbing and fixtures. Art room, 2 bathrooms, vestibule removal, and fireplace insert.

17. Plans indicate spray foam installed behind the wainscotting in the existing library, is there any insulation being added behind the plaster?

-The old part of the building has been fully insulated already. The only areas in need of new insulation is where the sprayfoam insulation was removed to expose the anchor bolts. The cold air return duct work in the old section will require insulation (blown in) to be relocated and the duct work reinsulated after installation.

18. Can you supply a list of existing items that are to be reinstalled?

-Wainscotting. Light fixtures in the old section. The historic building is to be drywalled first then wainscotting applied over the drywall.

19. To what extent will the addition foundations be completed prior to our work, will the concrete stairs be poured? Stairs at existing building? Slabs on Main Entry stairs/porch?

-The contractor will be responsible for the slab on the porch and entry, the structural fill will be prepped prior. The stairs will be not be prepped and the contractor will have to install footers, walls, and steps for both sets of stairs.

20. Shearwall anchor locations/sizes are not clear.
-There are 4 locations per structural specifications.

21. Are there any additional mechanicals, vents, or penetrations planned that aren't shown on the drawings?
-No.

22. What drip edge color would you like us to include in the proposal for both the existing roof replacement and the new addition?
- Slate Grey to match the shingles, which are to match existing slate shingles.

23. Can you please confirm whether the Town of Johnson will be providing a tax-exempt certificate for material purchases for this project?
-A form S-3 will be provided upon request. Please contact Rosemary Audibert at raudibert@townofjohnson.com with copy to Paul and Peter listed in the RFP.

24. I do not see the S2 or C3 fixtures on the lighting schedule. Can you get clarification on that?
-Please price out as S1 and C2 respectively. The final fixtures are to be determined and a change order can be provided in the event of an increase.

25. Were you able to take any pictures of the existing building you can share?
-We do not have any pictures available at this time.

26. Were the conduits roughed in already. Can you let me know what has or has not been done?
-The conduits for electrical will enter in side penetrations in the addition under the mechanical room. Water will be run into the historic part of the building.

27. Is NM cable acceptable inside the walls and ceilings?
-All wiring must be completed per MEP specifications.

28. For the existing lights in the existing library, the lighting schematic shows them being dimmed manually. Is there existing wiring 0-10v to accomplish this or is the intent to rewire all the existing fixtures with new wiring plan only shows us bringing a new feed to re-energize them and rehanging existing fixtures?
-The existing building is to be wired per MEP specifications.

29.) I found a verbiage about supplying a complete fire alarm system per code but the plans show no fire alarm devices or panels/locations please advise if a fire alarm system is required and if so is there a design in place or do we need to get it designed ourselves?
-This is being verified and a second addendum will be provided.

CALENDAR OF EVENTS / RFP TIMELINE

Listed below are the important dates and times by which the actions noted must be completed. All dates are subject to change by the TOWN OF JOHNSON. If the TOWN OF JOHNSON finds it necessary to change any of these dates or times prior to the due date, the change will be accomplished by addendum.

ACTION Issue RFP	COMPLETION DATE
	11/7/202
Last Day for Questions	11/17/2025 at 4:00pm
Addendums Posted (If Necessary)	11/20/2025
Submission Deadline	11/28/2025 4:00pm
Mandatory Site Visit	11/14/2025 10:00am
Vendor Presentations	As requested by vendor, not required
Private Opening and Review	11/28/2025 4:00pm
Public Review and Award	12/1/2025 6:30pm
TO BE CONSIDERED: PROJECT MUST BE COMPLETED BY 10/1/2026	TO BE CONSIDERED: PROJECT MUST BE COMPLETED BY 10/1/2026

Request for Proposals General Contractor

Library Addition and Restoration for the Town of Johnson, Library Building

townofjohnson.com

The Town of Johnson requests proposals from qualified Concrete Contractors to construct a new foundation under the relocated Johnson Public Library.

Background:

The Johnson Public Library has been relocated to 73 School Street in Johnson, Vermont. The building is sitting on a new foundation. The Building is ready for interior restoration from flood damage. The building is also ready to receive its new addition. The foundation has been poured and is ready to accept the framing of the new addition.

The Building:

Johnson Public Library
73 School Street
Johnson, Vermont, 05656

The building is roughly 40' x 45'. The addition is approximately 40' x 60'. Please refer to the attached bid specifications for construction.

Contractors submitting a proposal will be expected to be able to:

- Provide a bid to construct the Library Addition and Restoration as specified.
- Provide the bid response sheet.
- Work with the Architect and Engineers to ensure the buildings are completed to specification.
- Provide examples of Contracting for other municipalities or government buildings.
- Clean up daily and after construction and ensure a safe construction zone throughout the construction.
- Work with Town staff and representatives to address any concerns that may arise.
- Attend the Site Visit on **5/5/25 at 4:00pm**
73 School Street, Johnson, Vermont 05656
- Maintain General Liability Insurance, and sign the Town of Johnson's Non-Employee Work Agreement

This request for proposal includes the following work; to be considered, your bid must contain all work included in this bid and drawing specifications provided.

General Contractors will:

- Be responsible for the Project Management, day-to-day construction, and coordination of the entire project.
- Complete both sections of the building in accordance with the specifications provided.
- Frame and finish the addition to the Library.
- Restore the interior of the Historic Library.
- Repoint any cracks in the exterior masonry of the Historic Library
- Extend the chimney and liner and enclose in wood with siding per specification.
- Install all plumbing, electrical, and mechanical per specification.
- Provide any temporary heat required for the construction phase.
- Track all expenses separately between the Historic Building and the Addition.
- Backfill the foundation with a 3:1 grade, approximately 4500 yds. Material to be provided by TOJ.
- Install sidewalks, parking lot, driveway, drainage, stairways and handrails to specifications.
- Work with the Library Trustees and Director to incorporate volunteer efforts for cost reduction and community building opportunities.
- Work with the Library Subcommittee, through the Architect, to consider options for cost reduction throughout the project.
- Complete the entire building, historic and addition, all sitework, and entries for public opening upon completion.
- Will be responsible for all subcontractors while on TOJ property and their work.
- **COMPLETE THE TOTAL PROJECT BY 10/1/2026, DUE TO FUNDING THERE WILL BE NO EXCEPTIONS. ANY SHORTFALL IN TIMING WILL PLACE ALL FINACIAL RESPONSIBILITY RESULTING FROM THE SHORTFALL IN TIMING ON THE CONTRACTOR. This project is grant funded with strict timelines dictating the schedule.**

Any contractor who submits a proposal must be willing and able to fulfill the assigned requirements of this contract and shall follow all Town of Johnson standards for equal-opportunity employment and non-discrimination practices.

Site Visit, Mandatory:

- **11/14/25 at 10:00am 73 School Street, Johnson, Vermont 05656**

Proposal Submittal

If the submitting contractor has not already been employed by the Town of Johnson, the proposal must include a minimum of three professional references or examples of similar work in picture or narrative form.

Please direct any questions regarding proposal submission to the Lead Architect, Paul Trudel, at prt4543@aol.com with CC to Peter Hammond at phammond@townofjohnson.com or 802-888-1275

Completed proposals must be received no later than 11/28/25 at 4pm and delivered by email to:

Paul Trudel
Prt4543@aol.com

AND

Peter Hammond
phammond@townofjohnson.com

Responses must be marked "Library General Contractor"

NOTE: The Town reserves the right to reject any and all proposals. Proposals received after this deadline may be refused and deemed ineligible for consideration.

Selection of Contractor

The Town of Johnson reserves the right to accept a proposal and enter into an agreement as a result of the initial proposals received, or alternatively, it may elect to conduct negotiations with those Bidders as determined by the Town, to be within an acceptable competitive range, or alternatively, to negotiate separately with any Bidders when it is determined to be in the best interest of the Town. In addition, the Town may request that Bidders provide a best and final offer. The Town may negotiate any proposal or best and final offer at any time after the deadline for the submission of proposals.

Proposal Requirements and Examination of Work to be Performed

The contractor is required to thoroughly examine the request for proposal requirements and the work contemplated, and it will be assumed that the contractor has investigated and is satisfied as to the requirements. It is mutually agreed that submission of a request for proposal shall be considered evidence that the contractor has made such examination.

Confidentiality:

Please be advised that all notifications, releases, and addendums associated with this RFP will be posted on-line at townofjohnson.com and copies provided at the Town Clerk's Office where the original solicitation resides. The Town may not attempt to contact consultants with updated information. It is the responsibility of each consultant to provide an email contact and to periodically check their email and the town website for notifications, releases and addendums associated with the RFP. The Town encourages proposals from economically disadvantaged businesses enterprises and consultants shall comply with all federal funding requirements. The Town reserves the right to reject any and all submittals and to make a consultant selection based on the needs and requirements of the Town and may select the consultant that it feels will provide the best value to the Town.

Response Form

COST PROPOSAL RFP Response (Library Addition and Site Work, Historic Renovation)

Addition and Sitework:

1, a, Addition	\$ _____(USD)
1, b, Sidewalks, Stairs, Parking lot, Sitework, Grading of Both Sections	\$ _____
Total for Addition/Sitework	\$ _____

Historic Restoration:

2, a, Interior Restoration, 2 Bathrooms, Artroom with Cabinets, Walls, Refinishing Floors, 2 Closets, All Plumbing, Electrical/Mechanical in Historic Section, Chimney Extension, Gas Insert with Liner, Fire Door, Exterior Door.	\$ _____
2, b, Exterior Masonry Repair	\$ _____
Total	\$ _____

Floor system, completed by 12/15/2025:

2, Posts, Beams, TGI Joists, Blocking, Plywood, Plates, Fasteners, and Cap	\$ _____
--	----------

Total	\$ _____
Total Project	\$ _____

Written out Total cost proposal:

_____ Dollars

Recommendations to reduce costs from Contractor, not required for response, please attach a written explanation.

3, a, Concrete Stairs vs Granite	\$ Reduced _____
3, b, Alternative Siding	\$ Reduced _____
3, c, Alternative Trim	\$ Reduced _____
3, d, Building without Cupola	\$ Reduced _____
3, e, Alternative Entry	\$ Reduced _____

Name of Bidding Contractor: _____

Representative: _____

Email: _____

Phone: _____

Signature: _____ Date: _____

PLAN REFERENCES:

- 1) TOPOGRAPHIC, PARCEL, AND ORTHOGRAPHIC INFORMATION TAKEN ELECTRONICALLY FROM THE VERMONT CENTER FOR GEOGRAPHIC INFORMATION ON 10-11-24.
2) PARCEL AND SITE INFORMATION PROVIDED ELECTRONICALLY FROM DAY LAND SURVEYING, PLLC ON 12-30-24 & 01-22-24.
3) 100-YEAR FLOOD PLAIN TAKEN FROM THE ANR ATLAS AND BASED ON 1987 FEMA FIRM
4) SCHOOL STREET WATER MAIN INFORMATION BASED ON RECORD DRAWINGS PROVIDED BY THE VILLAGE OF JOHNSON, ENTITLED "VILLAGE OF JOHNSON, WATER SYSTEM IMPROVEMENTS, CONTRACT NO 1C", DATED 8/5/08 AND PREPARED BY OTTER CREEK ENGINEERING, INC.
5) AS BUILT RELOCATED LIBRARY FOUNDATION PROVIDED ELECTRONICALLY FROM DAY LAND SURVEYING, PLLC ON 07-03-25.

NOTES:

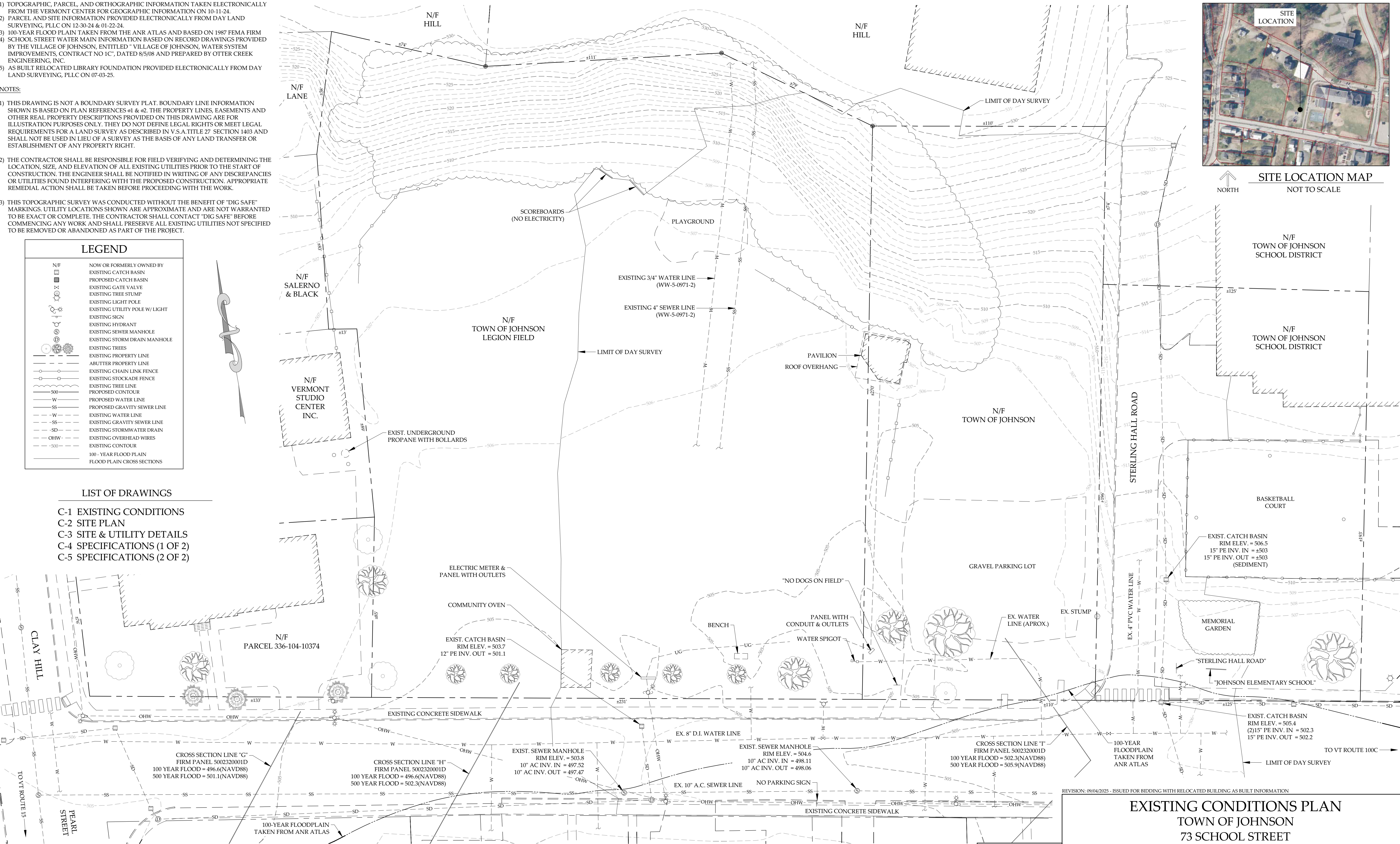
- 1) THIS DRAWING IS NOT A BOUNDARY SURVEY PLAT. BOUNDARY LINE INFORMATION SHOWN IS BASED ON PLAN REFERENCES #1 & #2. THE PROPERTY LINES, EASEMENTS AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED ON THIS DRAWING ARE FOR ILLUSTRATION PURPOSES ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN V.S.A. TITLE 27 SECTION 1403 AND SHALL NOT BE USED IN LIEU OF A SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.
2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES OR UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION. APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK.
3) THIS TOPOGRAPHIC SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF "DIG SAFE" MARKINGS. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ARE NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT "DIG SAFE" BEFORE COMMENCING ANY WORK AND SHALL PRESERVE ALL EXISTING UTILITIES NOT SPECIFIED TO BE REMOVED OR ABANDONED AS PART OF THE PROJECT.

LEGEND

N/F	NOW OR FORMERLY OWNED BY
[Symbol]	EXISTING CATCH BASIN
[Symbol]	PROPOSED CATCH BASIN
[Symbol]	EXISTING GATE VALVE
[Symbol]	EXISTING TREE STUMP
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING UTILITY POLE W/ LIGHT
[Symbol]	EXISTING SIGN
[Symbol]	EXISTING HYDRANT
[Symbol]	EXISTING SEWER MANHOLE
[Symbol]	EXISTING STORM DRAIN MANHOLE
[Symbol]	EXISTING TREES
[Symbol]	EXISTING PROPERTY LINE
[Symbol]	ABUTTER PROPERTY LINE
[Symbol]	EXISTING CHAIN LINK FENCE
[Symbol]	EXISTING STOCKADE FENCE
[Symbol]	EXISTING TREE LINE
[Symbol]	PROPOSED CONTOUR
[Symbol]	PROPOSED WATER LINE
[Symbol]	PROPOSED GRAVITY SEWER LINE
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING GRAVITY SEWER LINE
[Symbol]	EXISTING STORMWATER DRAIN
[Symbol]	EXISTING OVERHEAD WIRES
[Symbol]	EXISTING CONTOUR
[Symbol]	100 - YEAR FLOOD PLAIN
[Symbol]	FLOOD PLAIN CROSS SECTIONS

LIST OF DRAWINGS

- C-1 EXISTING CONDITIONS
C-2 SITE PLAN
C-3 SITE & UTILITY DETAILS
C-4 SPECIFICATIONS (1 OF 2)
C-5 SPECIFICATIONS (2 OF 2)



SITE LOCATION MAP
NOT TO SCALE

EXISTING CONDITIONS PLAN

SCALE: 1" = 20'



REVISION: 09/04/2025 - ISSUED FOR BIDDING WITH RELOCATED BUILDING AS BUILT INFORMATION

EXISTING CONDITIONS PLAN
TOWN OF JOHNSON
73 SCHOOL STREET
JOHNSON, VERMONT

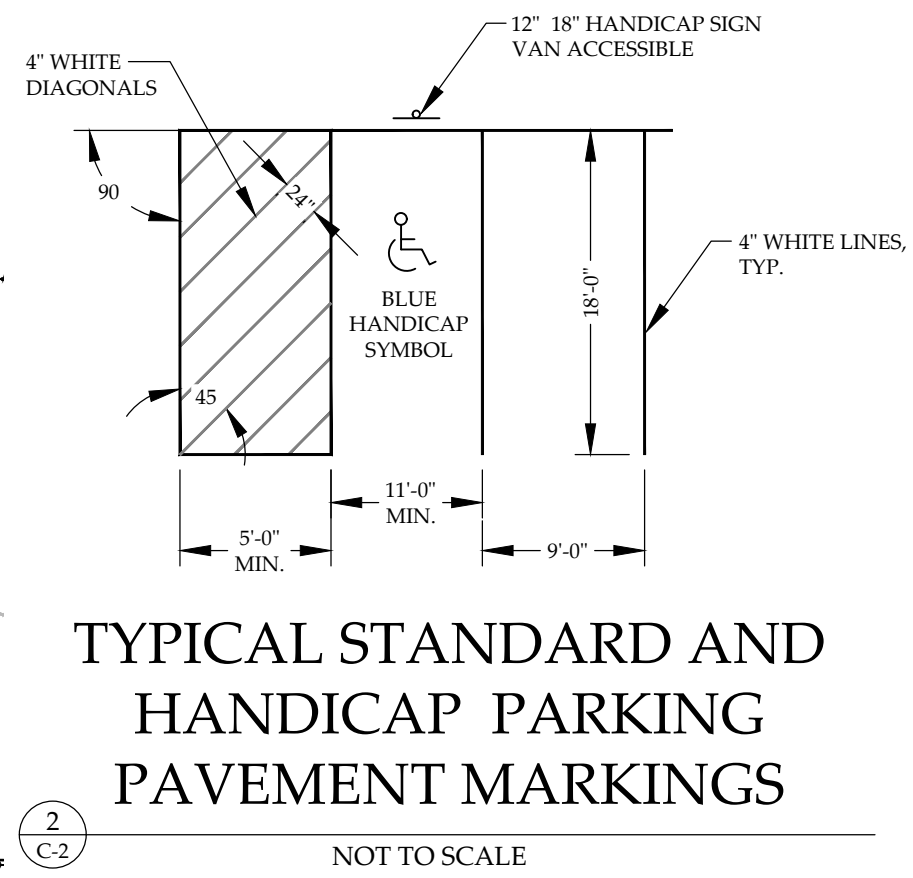
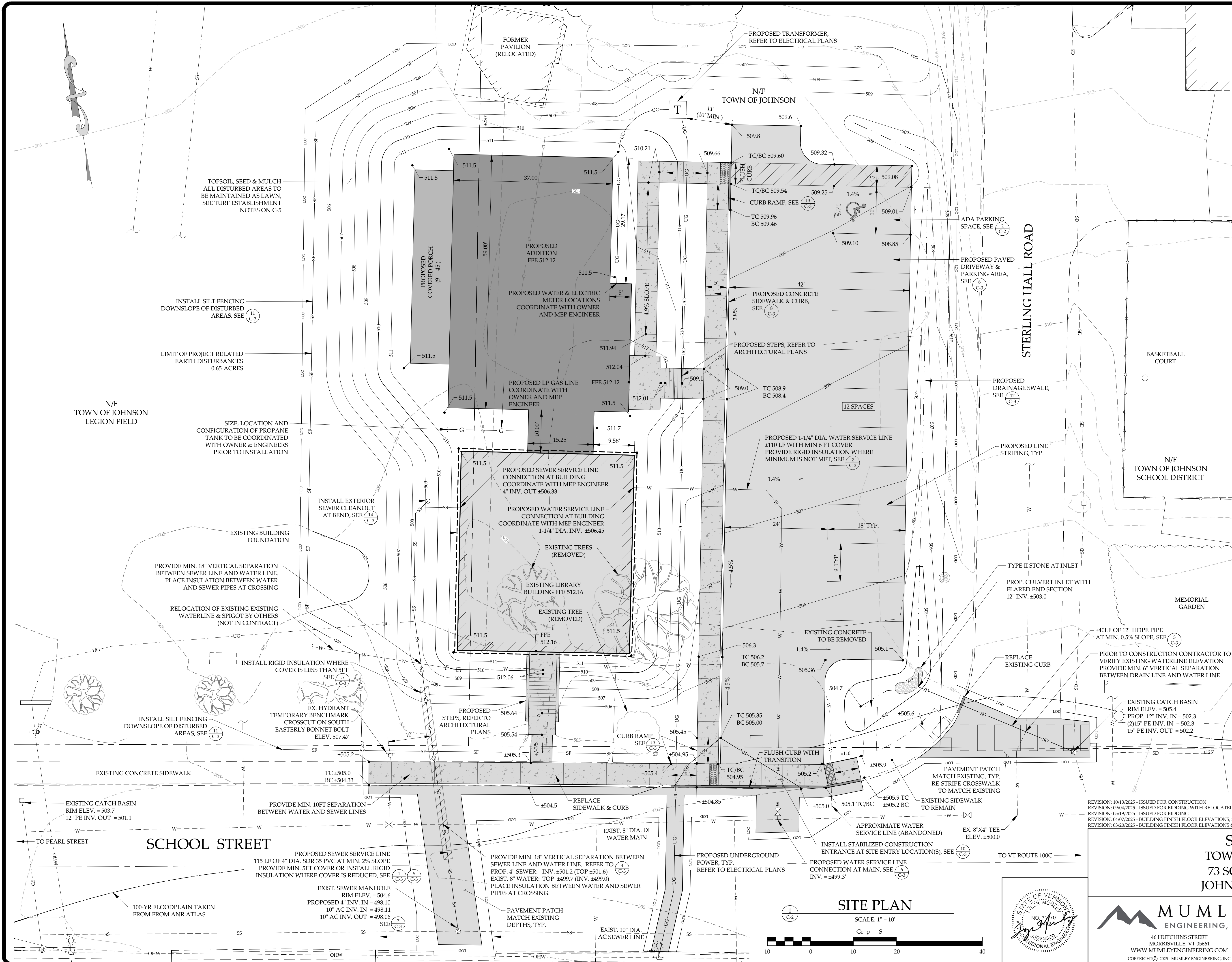
MUMLEY
ENGINEERING, INC.
46 HUTCHINS STREET
MORRISVILLE, VT 05661
WWW.MUMLEYENGINEERING.COM
COPYRIGHT © 2025 - MUMLEY ENGINEERING, INC.

PROJECT NO.24128
DRAWN BYWEH
CHECKED BYTRM
SCALE1" = 20'
DATE03/12/25

SHEET NO.

C-1

1 OF 5 SHEETS



PURPOSE OF PLAN:
RELOCATE EXISTING LIBRARY STRUCTURE AND
CONSTRUCT ADDITION WITH NEW MUNICIPAL
WATER AND SEWER SERVICE LINE CONNECTIONS

OWNER OF RECORD:
TOWN OF JOHNSON

VT ANR WATER / WASTEWATER DESIGN FLOW BASIS:

LIBRARY EMPLOYEES	2	15 GPD
LIBRARY VISITORS	50	4 GPD
COMMUNITY ROOM	30	30 GPD
TOTAL PROPOSED FLOWS		470 GPD

ZONING SUMMARY:
VILLAGE GENERAL ZONING DISTRICT
LOT SIZE (NO MINIMUM)
LOT COVERAGE (NO MAXIMUM)
BUILD TO LINE - PRINCIPAL 0 FT (MIN) - 4 FT (MAX)
BUILD TO LINE - SECONDARY 0 FT (MIN) - 12 FT (MAX)
PARKING - 1 SPACE / 700 SF OF OCCUPIED SPACE
4,300-SF BUILDING - 7 SPACES REQUIRED
12 SPACES PROVIDED

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD
VERIFYING AND DETERMINING THE LOCATION, SIZE,
AND ELEVATION OF ALL EXISTING UTILITIES PRIOR
TO THE START OF CONSTRUCTION.

NOTIFY ENGINEER OF ANY DISCREPANCIES

COORDINATE MUNICIPAL CONNECTIONS WITH THE
VILLAGE WATER/SEWER DEPARTMENT.

THE CONTRACTOR SHALL IMPLEMENT EROSION
PREVENTION AND SEDIMENT CONTROL MEASURES IN
CONFORMANCE WITH "THE VERMONT STANDARDS
AND SPECIFICATIONS FOR EROSION PREVENTION &
SEDIMENT CONTROL", DATED JUNE 2025.

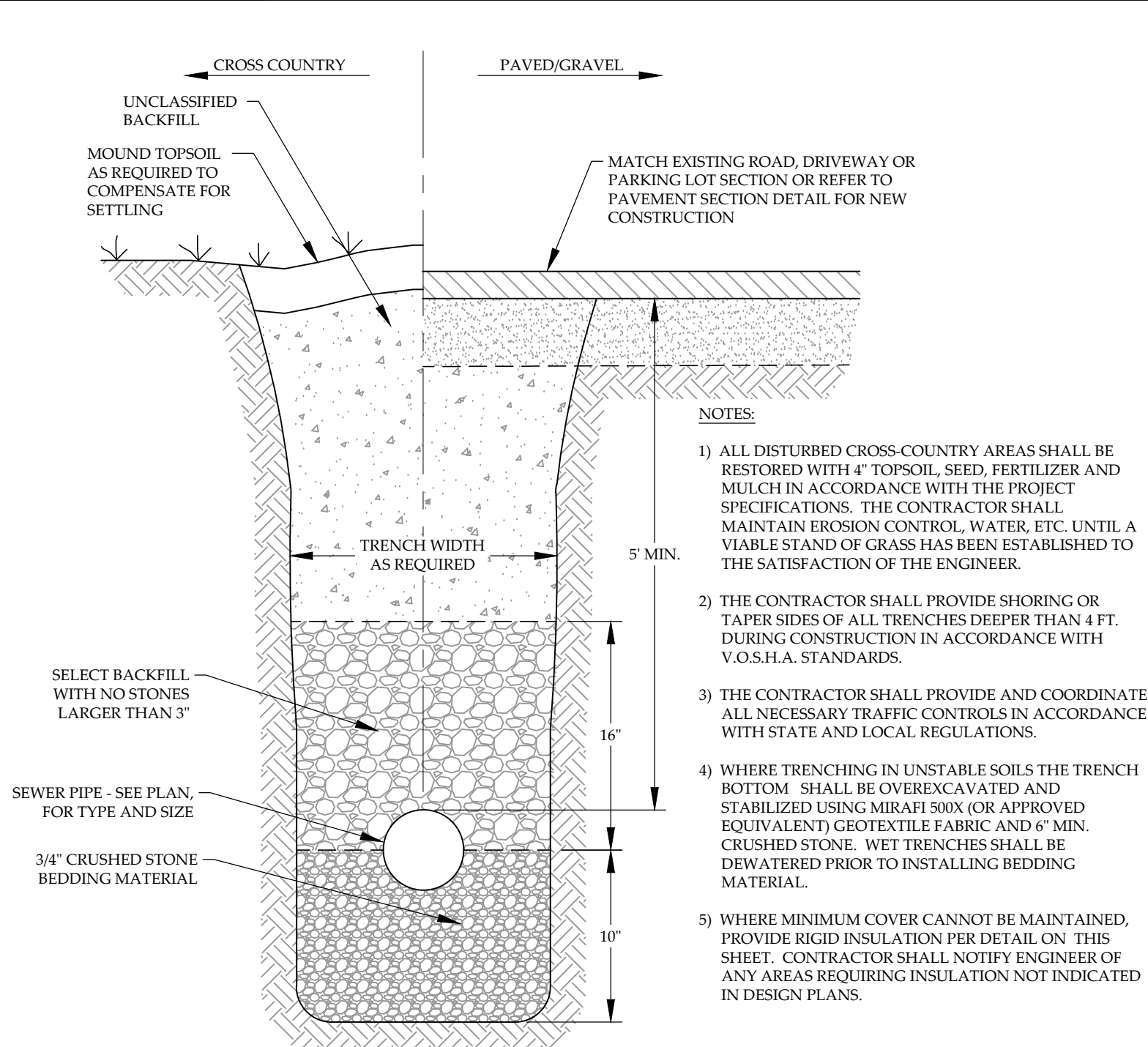
REVISION: 10/13/2025 - ISSUED FOR CONSTRUCTION
REVISION: 09/04/2025 - ISSUED FOR BIDDING WITH RELOCATED BUILDING AS BUILT INFORMATION
REVISION: 05/19/2025 - ISSUED FOR BIDDING
REVISION: 04/07/2025 - BUILDING FINISH FLOOR ELEVATIONS, SITE LAYOUT & GRADING, SEWER DESIGN
REVISION: 03/20/2025 - BUILDING FINISH FLOOR ELEVATIONS & SITE GRADING

SITE PLAN
TOWN OF JOHNSON
73 SCHOOL STREET
JOHNSON, VERMONT

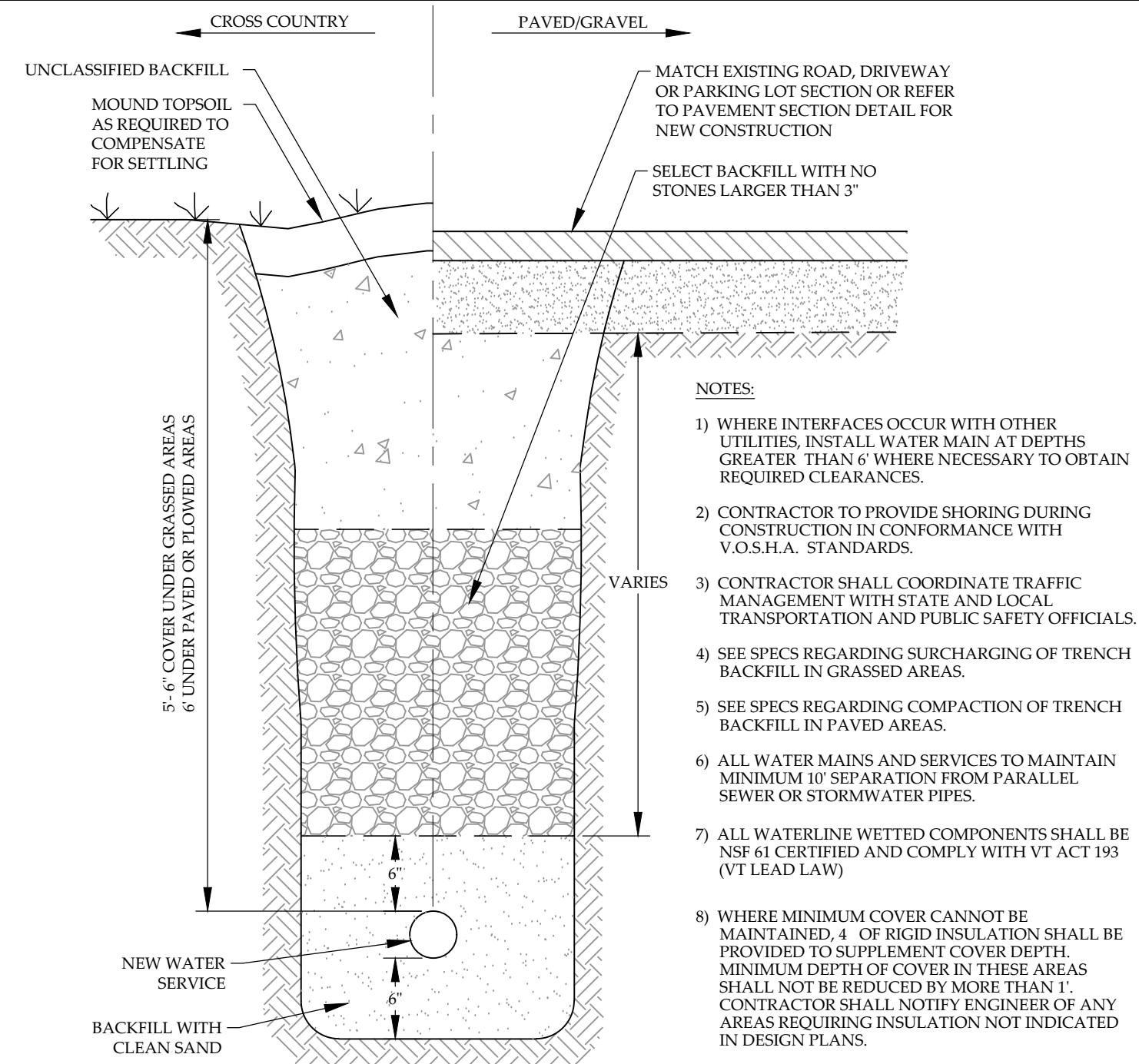
MUMLEY
ENGINEERING, INC.
46 HUTCHINS STREET
MORRISVILLE, VT 05661
WWW.MUMLEYENGINEERING.COM
COPYRIGHT © 2025 - MUMLEY ENGINEERING, INC.

PROJECT NO.24128
DRAWN BYWEH
CHECKED BYTRM
SCALE1" = 10'
DATE03/12/25

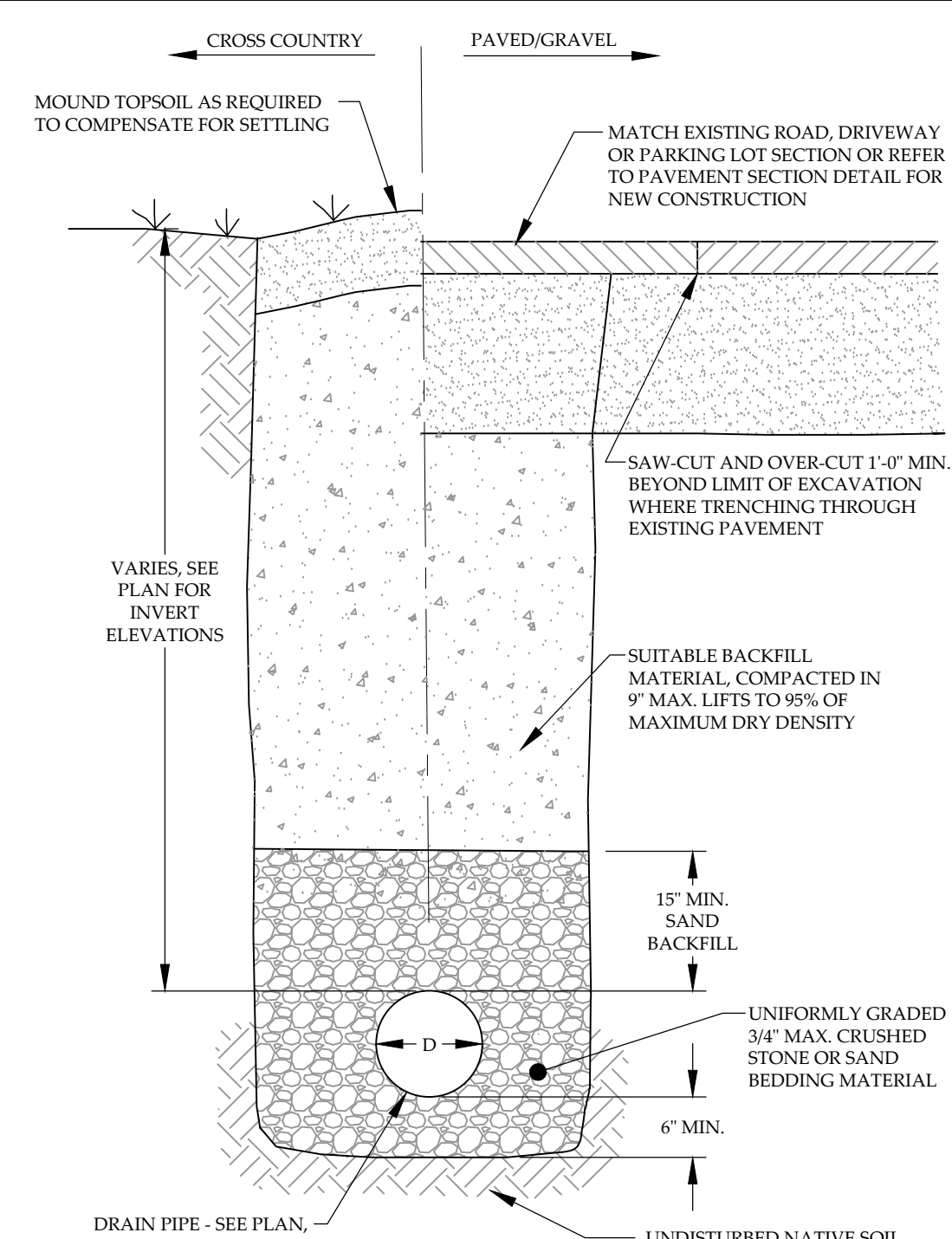
SHEET NO.
C-2
2 OF 5 SHEETS



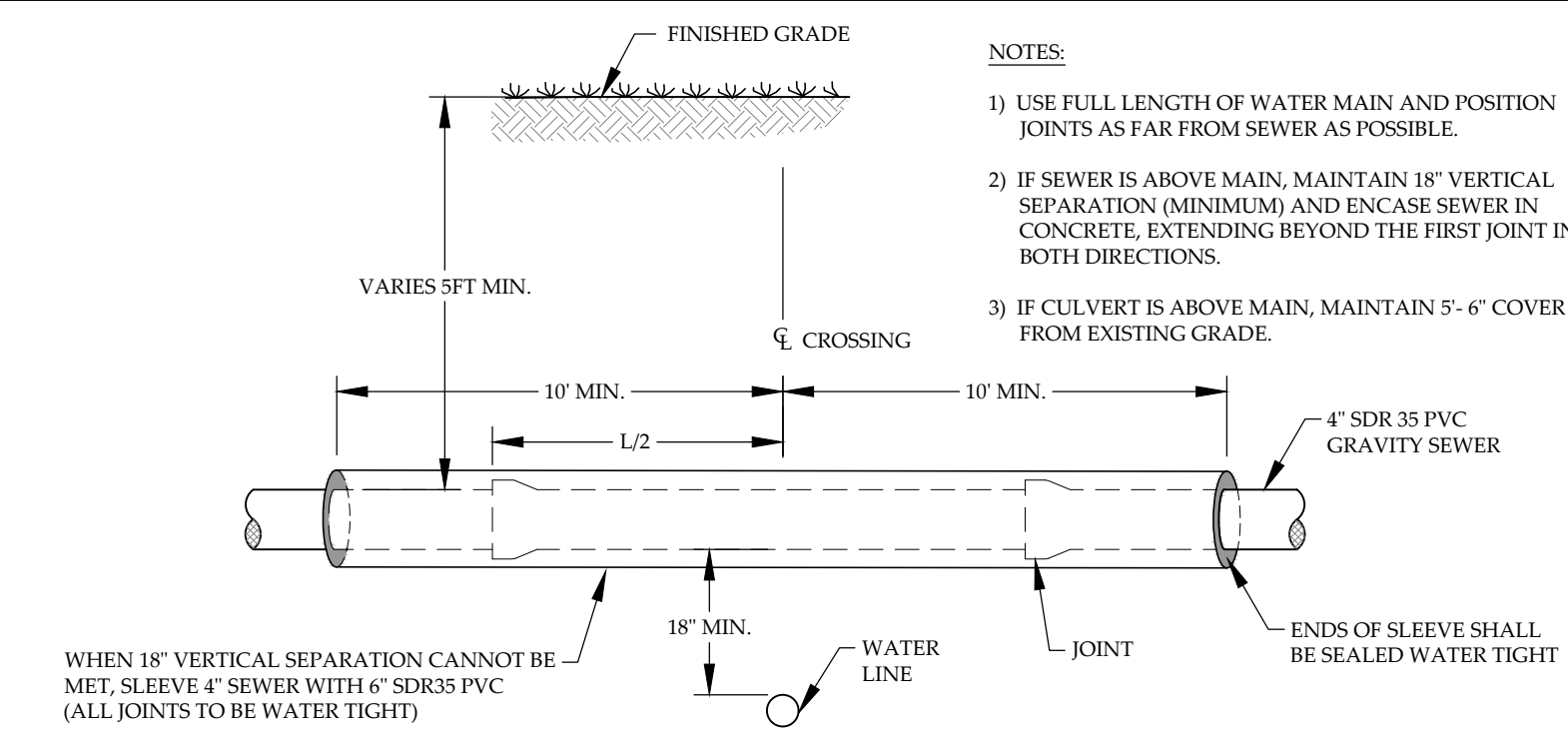
1
C-3
TYPICAL SANITARY SEWER TRENCH
NOT TO SCALE



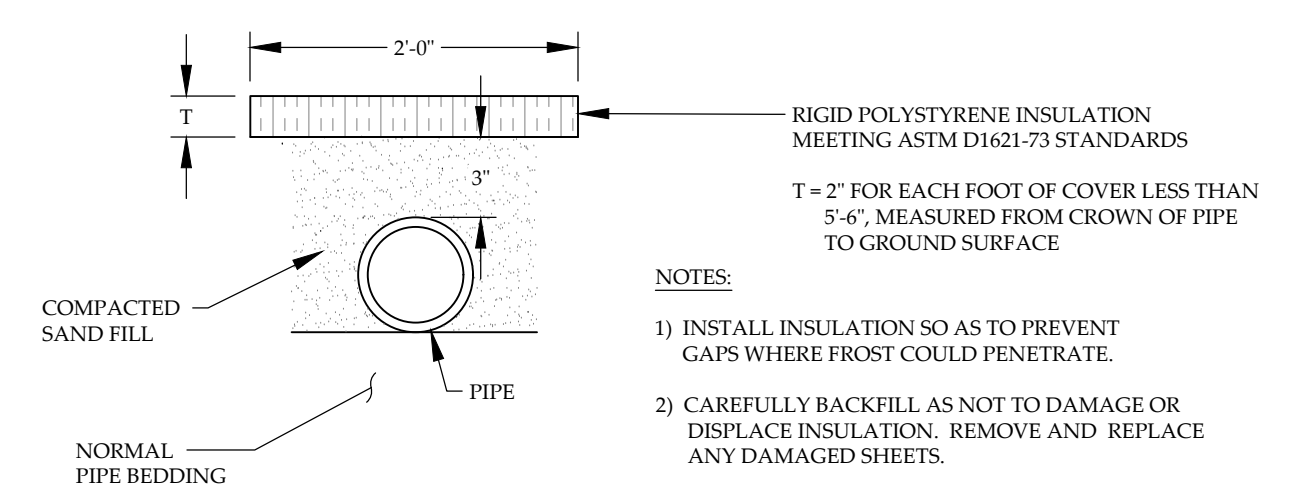
2
C-3
TYPICAL WATER LINE TRENCH
NOT TO SCALE



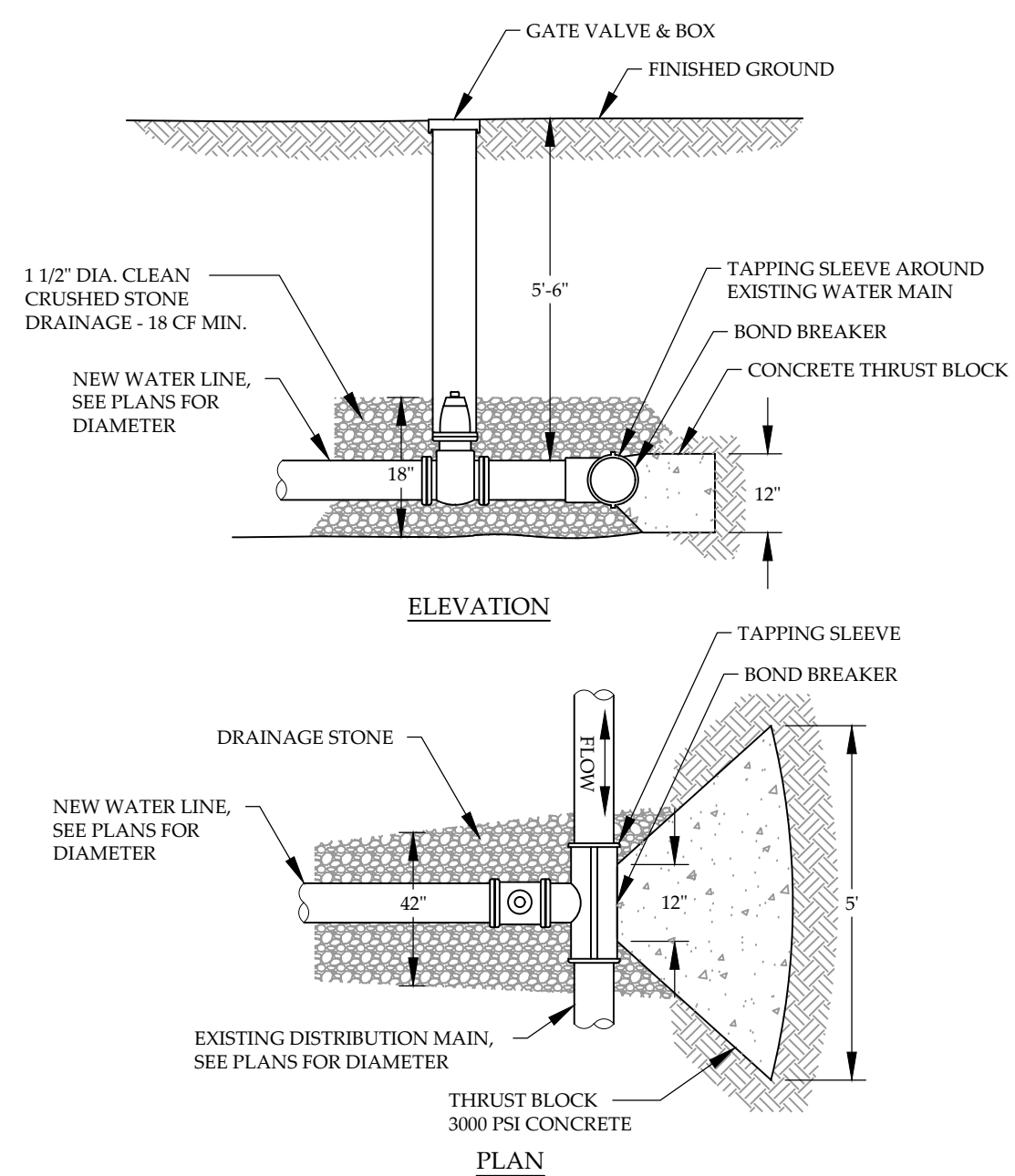
3
C-3
TYPICAL STORM DRAIN TRENCH
NOT TO SCALE



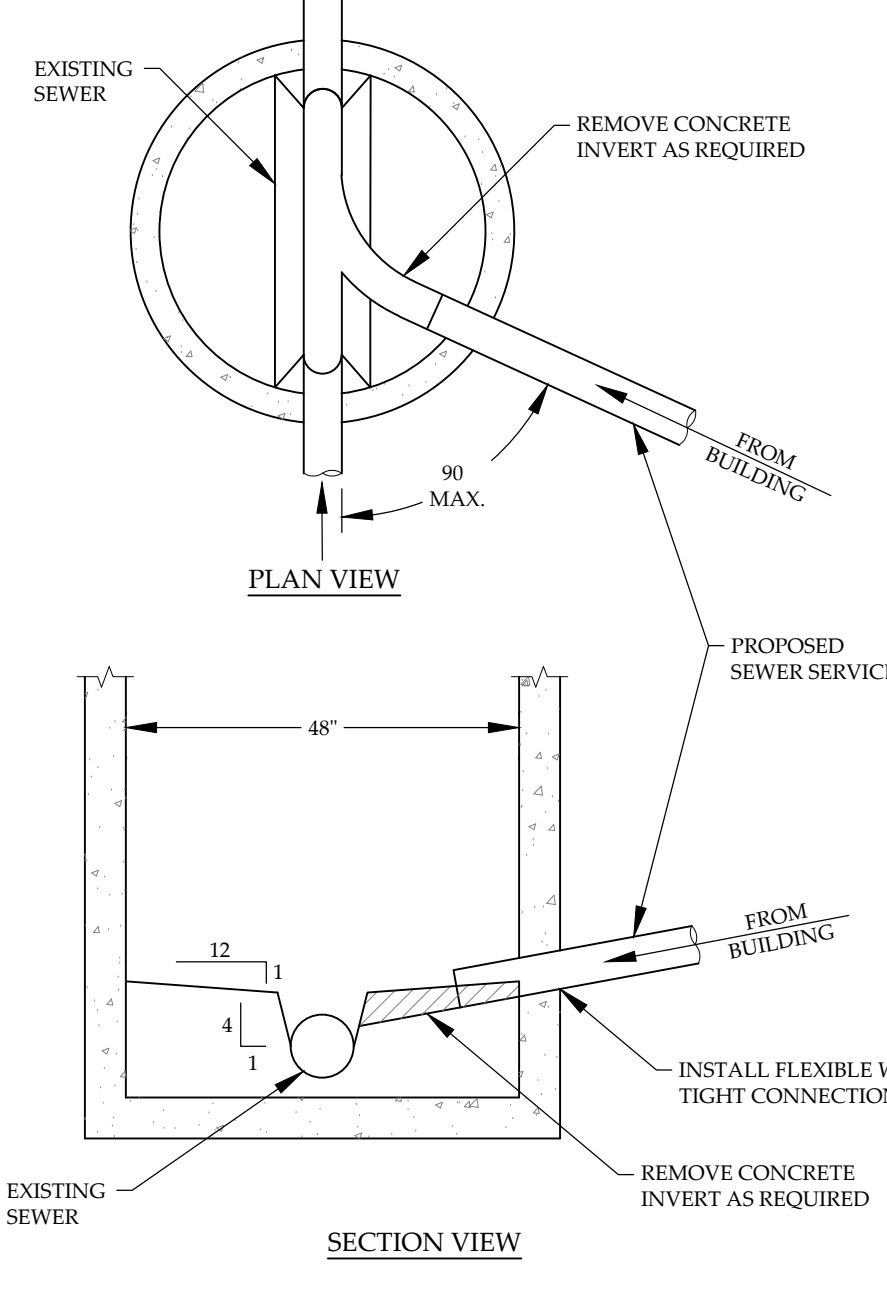
4
C-3
WATER/SEWER DRAIN CROSSING
NOT TO SCALE



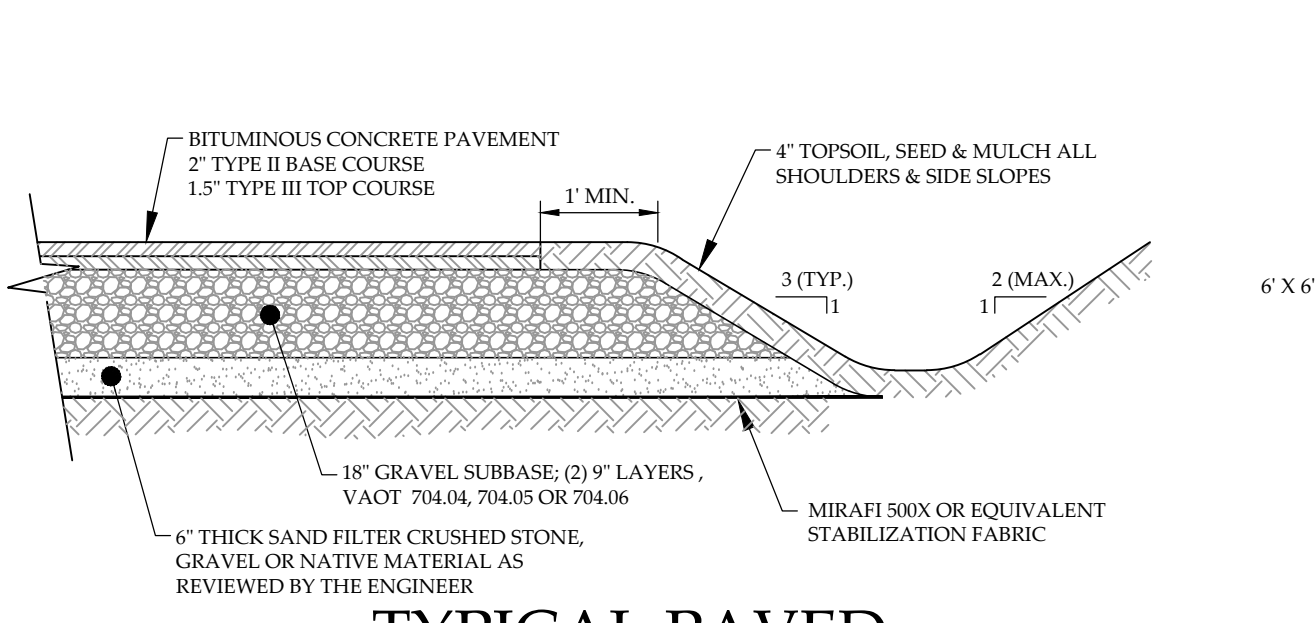
5
C-3
WATER/SEWER INSULATION DETAIL
NOT TO SCALE



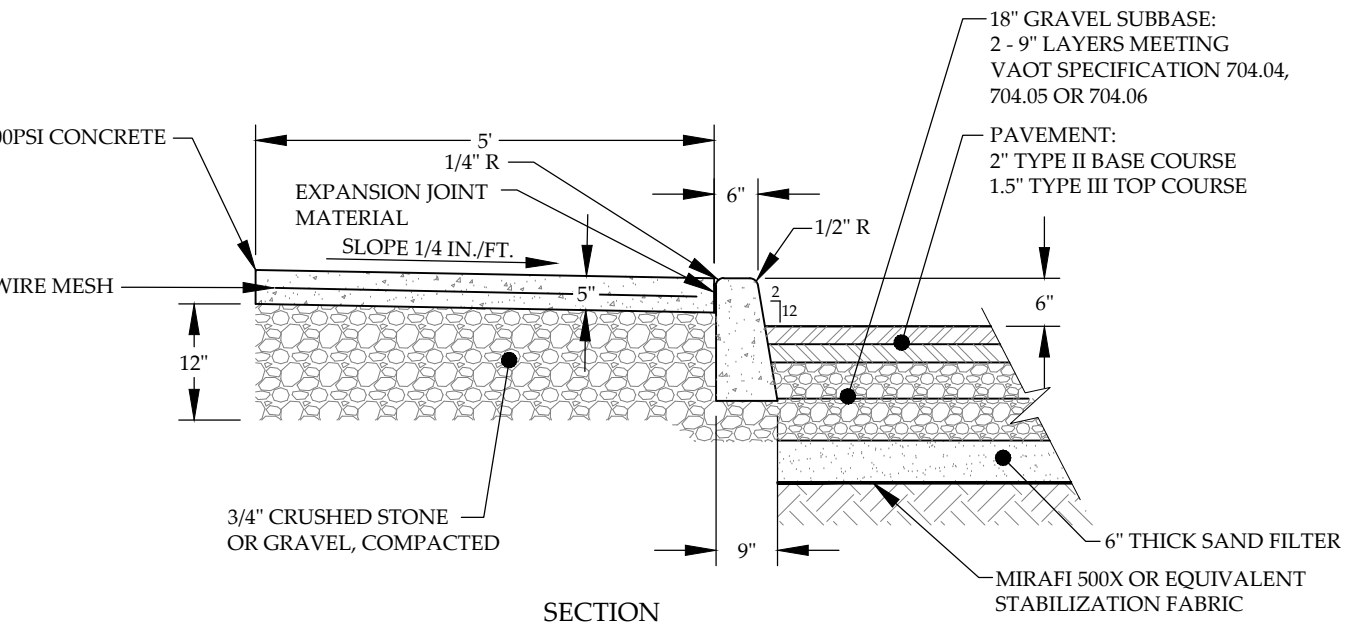
6
C-3
TYPICAL TAPPING SLEEVE & GATE VALVE CONNECTION
NOT TO SCALE



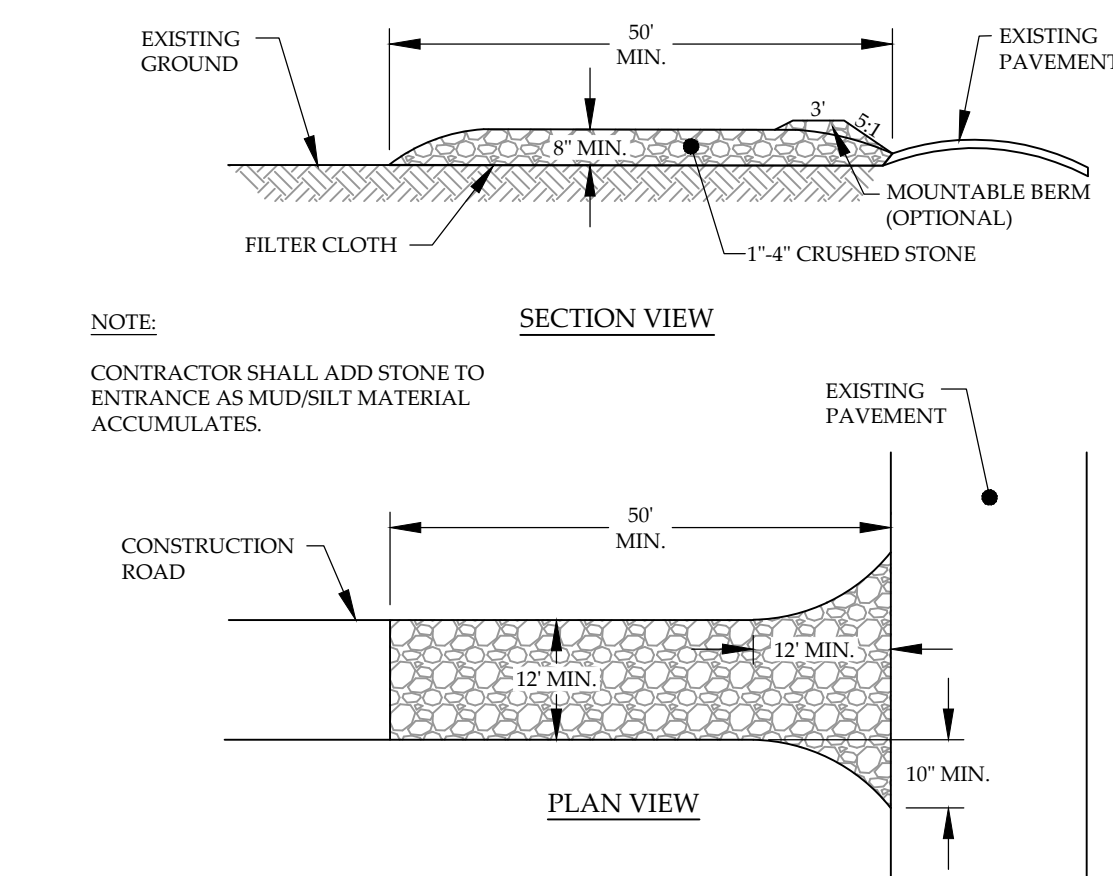
7
C-3
TYPICAL SEWER CONNECTION AT EXISTING MANHOLE
NOT TO SCALE



8
C-3
TYPICAL PAVED DRIVEWAY/PARKING SECTION
NOT TO SCALE

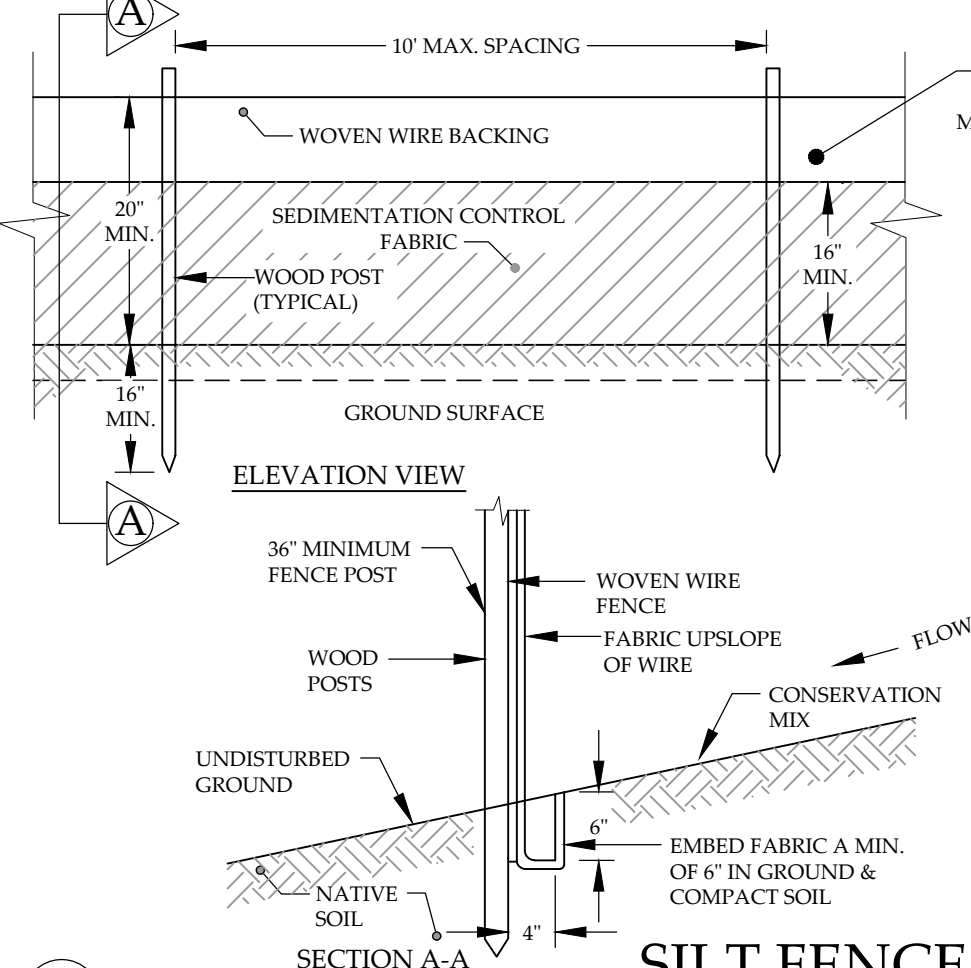


9
C-3
CONCRETE SIDEWALK & CURB DETAIL
NOT TO SCALE



10
C-3
STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

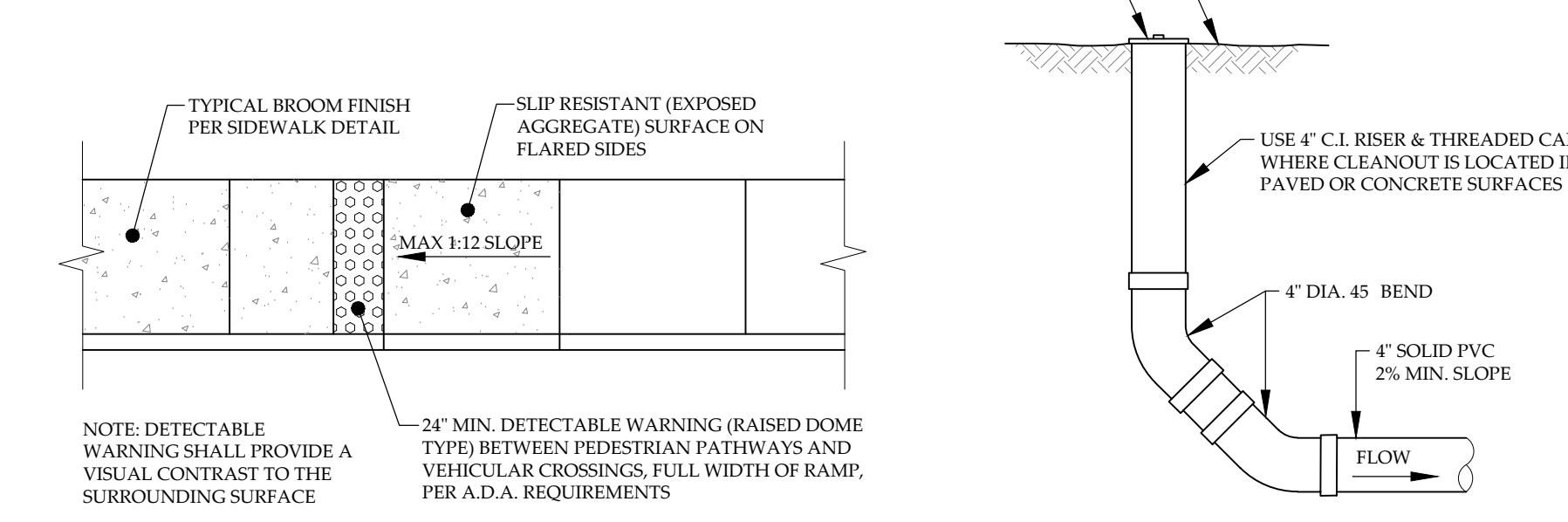
- NOTES:**
- 1) SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
 - 2) MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 - 3) WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - 4) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.
 - 5) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR CONSTRUCTION ENTRANCES OF THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL, PREPARED BY THE STATE OF VERMONT DEPT. OF ENVIRONMENTAL CONSERVATION, DATED 2022.



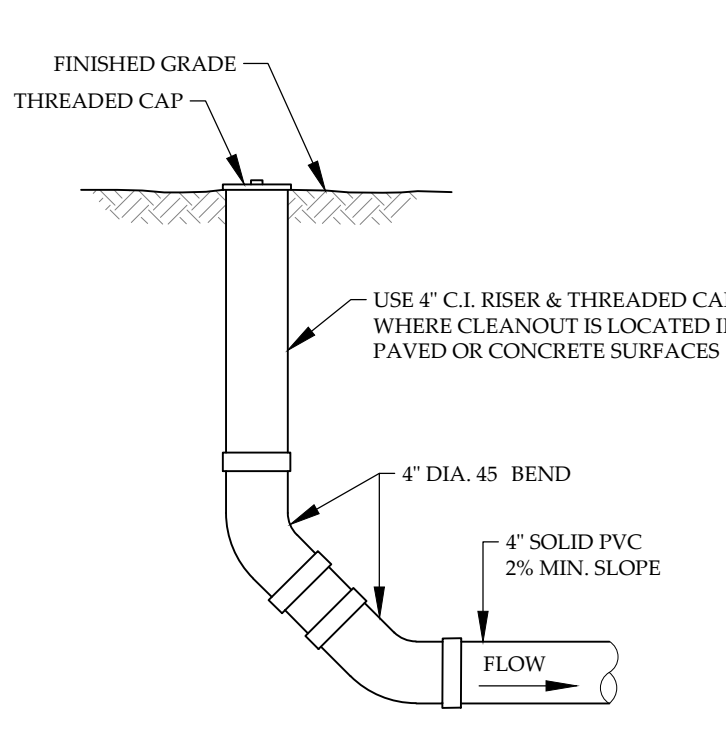
11
C-3
SILT FENCE DETAIL
NOT TO SCALE

- SILT FENCING SPECIFICATION:**
1. SILT FENCING WILL BE APPLIED TO THE SITE SO THAT THERE WILL BE 100 FEET OF FENCING FOR EVERY 1/4 ACRE OF DISTURBED UPGRADIENT AREA.
 2. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES, OF THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL, PREPARED BY THE STATE OF VERMONT DEPT. OF ENVIRONMENTAL CONSERVATION, DATED 2020.
 3. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. WIRE FENCE REINFORCEMENT REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
 4. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTRIX, MIRAFI 100X, STABILINKA T40N, OR APPROVED EQUIVALENT.
 6. PREFABRICATED UNITS SHALL BE GEOTAR, ENVIROFENCE, OF APPROVED EQUIVALENT.
 7. THE FABRIC SHALL NOT EXTEND MORE THAN 30" ABOVE THE ORIGINAL GROUND SURFACE AND WILL EXTEND TO A MINIMUM OF 12" INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED INTO EXISTING TREES.
 8. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 9. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 10. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 11. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
 12. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

12
C-3
TYPICAL GRASS SWALE
NOT TO SCALE



13
C-3
A.D.A. CURB RAMP DETAIL
NOT TO SCALE



14
C-3
SEWER CLEANOUT
NOT TO SCALE

REVISION: 10/13/2025 - ISSUED FOR CONSTRUCTION

SITE DETAILS
TOWN OF JOHNSON
73 SCHOOL STREET
JOHNSON, VERMONT

MUMLEY
ENGINEERING, INC.
46 HUTCHINS STREET
MORRISVILLE, VT 05661
WWW.MUMLEYENGINEERING.COM
COPYRIGHT © 2025 - MUMLEY ENGINEERING, INC.

PROJECT NO.24128
DRAWN BY.WEH
CHECKED BY.TRM
SCALE.AS NOTED
DATE.03/12/25

SHEET NO.
C-3
3 OF 5 SHEETS

GENERAL REQUIREMENTS

1. GENERAL
- THESE CONSTRUCTION SPECIFICATIONS SET FORTH THE MINIMUM REQUIREMENTS FOR INSTALLATION OF THE PRACTICES SHOWN ON THE DRAWINGS. THE PRACTICE SHALL BE CONSTRUCTED TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS USING THE CONSTRUCTION SPECIFICATIONS THAT WERE SPECIALLY DEVELOPED FOR THIS PRACTICE.
2. SUMMARY OF WORK
- THIS PROJECT INVOLVES A BUILDING ADDITION AND ASSOCIATED SITE IMPROVEMENTS AT 73 SCHOOL STREET IN THE VILLAGE OF JOHNSON. THE WORK WILL INCLUDE, BUT IS NOT LIMITED TO:
- A. SITE PREPARATION
 - B. EROSION PREVENTION & SEDIMENT CONTROL
 - C. EXCAVATION
 - D. WATER SERVICE LINES
 - E. SEWER SERVICE LINES
 - F. UNDERGROUND UTILITY LINES
 - G. CONCRETE SIDEWALKS & CURBING
 - F. PARKING LOT PAVING & STRIPING
 - G. FINISH GRADING
 - H. TOPSOIL SEED & MULCH
3. RESPONSIBILITIES
- OWNER:
- THE OWNER IS THE PERSON WHO IS THE OFFICIAL SPOKESMAN FOR THE PROJECT. HE/SHE ENTERS INTO ALL CONTRACTUAL AGREEMENTS, ENSURES CONSTRUCTION IS IN ACCORDANCE TO THE REQUIREMENTS AS SET FORTH IN THE PLANS, OBTAINS ALL PERMITS NECESSARY FOR CONSTRUCTION AND IS FINANCIALLY RESPONSIBLE FOR THE PROJECT.
- CONTRACTOR:
- THE CONTRACTOR IS THE INDIVIDUAL WHO IS IN AGREEMENT WITH THE OWNER FOR INSTALLATION OF THE IMPROVEMENTS AS SET FORTH IN CONTRACT DOCUMENTS FOR THE PROJECT. THE DESIGNATED CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE WORK OF ANY SUBCONTRACTORS. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO ANY EXCAVATION ACTIVITIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR CONTACTING BOTH THE OWNER AND ENGINEER IMMEDIATELY WHEN UNFORESEEN CONDITIONS ARISE. ANY REQUIRED EARTHFILL OR OTHER TESTING REQUIRING AN OUTSIDE LABORATORY CONTRACTOR SHALL BE ARRANGED BY THE CONTRACTOR AT THE SPECIFIED TIME INTERVALS.
4. CONSTRUCTIONS PLANS
- SPECIFICATIONS: THE CONSTRUCTION SPECIFICATIONS DESCRIBE QUALITY OF WORK WHICH IS TO BE PERFORMED. THE SPECIFICATIONS MAY ALSO REFERENCE A COMMERCIAL STANDARD SUCH AS THE AMERICAN SOCIETY FOR TESTING AND MATERIALS, ASTM, WHICH IS IDENTIFIABLE FOR ALL PRODUCTS OR PROCEDURES WHERE REFERENCED. THESE COMMERCIAL SPECIFICATIONS ARE COMMONLY RECOGNIZED WITHIN THE INDUSTRY. IF A CONFLICT ARISES BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE SPECIFICATION GOVERNS THE WORK OR PRODUCT.
- DRAWINGS: THE DRAWINGS ARE A VISUAL REPRESENTATION OF THE PROJECT WHICH SHOW THE LOCATION AND DESCRIBE THE WORK TO BE PERFORMED. THE DRAWINGS INCLUDE PLAN VIEWS, SECTIONS, PROFILE DETAILS AND NOTES WHICH ARE NECESSARY TO SUPPLEMENT THE CONSTRUCTION SPECIFICATIONS FOR A SITE-SPECIFIC INSTALLATION.
5. PERMITS
- THE WORK IS TO BE PERFORMED IN CONFORMANCE WITH ALL REQUIRED PERMITS AND ASSOCIATED GENERAL CONDITIONS AND/OR CONDITIONS OF APPROVAL:
- VERMONT ANR WATER & WASTEWATER PERMIT WW-5-9813
6. PUBLIC AND PRIVATE UTILITIES
- PRIOR TO THE START OF CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT DIG SAFE AND COORDINATE WITH THE VILLAGE OF JOHNSON PUBLIC WORKS DEPARTMENT.
7. SUBMITTALS AND SUBSTITUTIONS
- SUBMITTALS: THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUBMITTALS (E.G., SHOP DRAWINGS, SAMPLES) REQUIRED BY THE CONTRACT DOCUMENTS AND REVISING THEM TO ENSURE COMPLIANCE. THE CONTRACTOR MUST CAREFULLY REVIEW AND VERIFY THAT EACH ITEM CONFORMS TO THE SPECIFIED REQUIREMENTS BEFORE SUBMITTING IT, CERTIFYING THIS REVIEW WITH THEIR SIGNATURE.
- SUBSTITUTIONS: SUBSTITUTIONS OF MATERIALS, EQUIPMENT, OR METHODS ARE NOT ALLOWED UNLESS SPECIFICALLY REVIEWED BY THE ENGINEER. IF THE CONTRACT SPECIFIES "OR EQUAL," THE CONTRACTOR CANNOT ASSUME APPROVAL WITHOUT WRITTEN CONFIRMATION FROM THE ENGINEER.
- SUBMISSION PROCESS:
- SHOP DRAWINGS MUST BE ACCURATE, TO SCALE AND SUBMITTED ELECTRONICALLY TO THE ENGINEER. MANUFACTURER'S LITERATURE MUST BE CLEARLY MARKED TO INDICATE RELEVANT DATA. SUBMITTALS MUST BE NUMBERED CONSECUTIVELY, AND RE-SUBMITTALS MUST REFERENCE THE ORIGINAL SUBMITTAL NUMBER. AN ACCURATE AND UP TO DATE SUBMITTAL LOG MUST BE MAINTAINED BY THE CONTRACTOR AND BE AVAILABLE FOR REVIEW UPON REQUEST. SUBMITTALS SHOULD BE MADE IN GROUPS WITH ALL ASSOCIATED ITEMS TO PREVENT DELAYS. SUBMITTALS MUST BE MADE WELL IN ADVANCE OF FABRICATION OR INSTALLATION DATES TO ALLOW FOR REVIEW. ALLOW AT LEAST 10 WORKING DAYS FOR THE ENGINEER'S REVIEW.
- IF THE CONTRACTOR CONSIDERS ANY REQUIRED REVISION TO BE A CHANGE, HE OR SHE SHALL SO NOTIFY THE ENGINEER. MAKE ONLY THOSE REVISIONS DIRECTED BY THE ENGINEER. REVIEW BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS WHICH MAY EXIST IN THE SUBMITTED DATA.
8. TEMPORARY FACILITIES
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING:
- A. SANITARY FACILITIES
 - B. BARRIERS TO PREVENT UNAUTHORIZED ENTRY TO CONSTRUCTION AREAS AND TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM DAMAGE FROM CONSTRUCTION OPERATIONS
 - C. BARRICADES AS REQUIRED BY THE VILLAGE OF JOHNSON FOR SEPARATING THE WORK AREA TO AREAS ACCESSIBLE BY THE PUBLIC
 - D. REFUSE COLLECTION AND REMOVAL AS REQUIRED TO MAINTAIN THE WORK SITE IN A CLEAN AND ORDERLY CONDITION, FREE OF WASTE MATERIALS, DEBRIS AND RUBBISH.
- E. PRE-CONSTRUCTION MEETING
- THE CONTRACTOR, IN COORDINATION WITH THE ENGINEER, SHALL SCHEDULE AN IN PERSON PRE-CONSTRUCTION MEETING WITH ATTENDANCE BY THE OWNER, ARCHITECT, ENGINEER AND REPRESENTATIVE OF THE VILLAGE OF JOHNSON. THE PURPOSE OF THE MEETING IS TO REVIEW THE PROJECT SCHEDULE, PLAN SPECIFICATIONS AND OTHER DETAILS OF THE PROJECT. THE MEETING SHALL BE SCHEDULED AT LEAST 2 WEEKS PRIOR TO THE START OF CONSTRUCTION.
- F. SUBSTANTIAL COMPLETION
- THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER 1-WEEK PRIOR TO SUBSTANTIAL COMPLETION TO SCHEDULE AN ON-SITE MEETING WITH THE OWNER, ARCHITECT AND ENGINEER.
- G. THE CONTRACTOR SHALL PROVIDE RED LINE AS-BUILT DRAWINGS WITHIN 2-WEEKS OF SUBSTANTIAL COMPLETION. AS-BUILT DRAWINGS ARE TO INCLUDE A CONTRACTORS CERTIFICATION OF INSTALLATION THAT ALL WORK HAS BEEN COMPLETED IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
- H. BASIS OF ACCEPTANCE
- THE ACCEPTANCE OF THE INSTALLATION WILL BE BY INSPECTION AND REVIEW FOR CONFORMANCE WITH THE SITE-SPECIFIC DRAWINGS AND CONSTRUCTION SPECIFICATIONS.

02100 EXCAVATION AND BACKFILL

THIS SECTION SHALL APPLY TO ITEMS INCLUDED IN THE CIVIL SITE PLANS AND SHALL NOT SUPPLEMENT OR REPLACE SPECIFICATIONS RELATED TO GEOTECHNICAL WORK, STRUCTURAL WORK, OR OTHER VARIOUS TYPES OF WORK FOR THE PROJECT NOT OTHERWISE DEFINED SPECIFICALLY IN THE CIVIL SITE PLANS.

PERFORM SELECT DEMOLITION AND CLEARING AS SHOWN. REMOVE TREES, BRUSH, STUMPS, PAVEMENT DEBRIS AND ORGANIC MATTER IN THE AREA OF THE SITE IMPROVEMENTS AND BUILDING CONSTRUCTION FROM THE PROJECT SITE. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR OFF-SITE DISPOSAL IN A LEGAL MANNER. PROTECT TREES AND SHRUBS TO BE RELOCATED OR TO REMAIN.

PERFORM EARTHWORK TO EXCAVATE AND FILL FOR SUBGRADE IN THE AREA OF THE PROPOSED SITE IMPROVEMENTS.

COMPLETE ALL ROUGH GRADING AS SHOWN ON THE DRAWINGS. ROUGH GRADES SHALL BE THE FINISH GRADES SHOWN LESS THE THICKNESS OF FINISH SURFACE COURSE MATERIALS AND UNDERLYING PROCESSED GRANULAR BASE COURSE MATERIALS.

EXCAVATE AND BACKFILL FOR FOOTINGS, FOUNDATIONS, CONCRETE SLABS AND MISCELLANEOUS STRUCTURES.

EXCAVATE AND BACKFILL TRENCHES FOR NEW UTILITIES BOTH INTERIOR AND EXTERIOR. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL EXCAVATION AND BACKFILL. SEE PLUMBING DRAWINGS FOR PLUMBING EXCAVATION AND BACKFILL. REFER TO STRUCTURAL DRAWINGS FOR INFORMATION ON EXCAVATION AND FILL OF STRUCTURAL MEMBERS.

EXCAVATE AND BACKFILL FOR MISCELLANEOUS SITE CONCRETE SUCH AS LIGHT AND FLAGSTONE BASES, BOLLARDS, TRANSFORMERS, ETC. FURNISH AND INSTALL GRAVEL BASE AND/OR PROCESS STONE BASE FOR ALL ASPHALT PAVING AND ALL CONCRETE SLABS ON GRADE. THIS INCLUDES CONCRETE EXTERIOR SITE SLABS AND INTERIOR CONCRETE SLABS.

PROVIDE SURVEY CONTROL FOR EARTH WORK AND UTILITIES. PROVIDE DRAINAGE AND DETERMINING TO KEEP CONSTRUCTION AREAS AND EXCAVATIONS FREE OF WATER FROM ANY SOURCE WITHOUT DISTURBANCE TO THE FOUNDATION SOIL STRATA. FURNISH AND INSTALL ALL SHEETING AND SHORING REQUIRED FOR EXCAVATIONS TO MAINTAIN SAFE WORKING CONDITIONS AND TO COMPLY WITH ALL MUNICIPAL, STATE AND FEDERAL REGULATIONS. COORDINATE WITH THE OWNER AND TESTING LABORATORY TO ENSURE THAT THE TESTING, AS REQUIRED IN THIS SECTION, IS BEING PERFORMED. PROVIDE AND MAINTAIN SEDIMENTATION, EROSION AND DUST CONTROL MEASURES. REMOVE UPON COMPLETION OF THE PROJECT, UNLESS DIRECTED BY THE ENGINEER TO REMAIN IN PLACE. PLACE TOPSOIL, SEED AND RESTORE ALL DISTURBED AREAS WHERE NOT PAVED.

THE CONTRACTOR MUST CAREFULLY EXAMINE THE SITE AND DETERMINE FOR HIMSELF/HERSELF ALL CONDITIONS AFFECTING THE WORK UNDER THIS SECTION. THE CONTRACTOR SHALL FIELD VERIFY EXISTING TOPOGRAPHY PRIOR TO START OF WORK AND SHALL NOTIFY THE ENGINEERING IN WRITING OF DISCREPANCIES. FAILURE TO NOTIFY THE ENGINEER OF SPECIFIC DEFICIENCIES PRIOR TO START OF WORK SHALL CONSTITUTE ACCEPTANCE OF THE SITE.

CAREFULLY MAINTAIN ALL BENCH MARKS, MONUMENTS AND REFERENCE POINTS. HOWEVER, IF THEY ARE DISTURBED OR DESTROYED, THEY SHALL BE REPLACED BY THE SURVEYOR AT THIS CONTRACTOR'S EXPENSE.

GRANULAR FILL: FOR USE AS STRUCTURAL FILL UNDER SITE STRUCTURES, FOUNDATION BACKFILL, ASPHALT PAVEMENT, SUBBASE AND TRENCH BACKFILL. SHALL CONSIST OF HARD DURABLE SAND AND GRAVEL, BE FREE FROM ICE AND SNOW, CINDERS, ALKALI SALT, PETROLEUM PRODUCTS, ROOTS, SODS, RUBBISH AND OTHER DELETERIOUS OR ORGANIC MATTER. EXCAVATED MATERIAL FROM ON-SITE SOURCES WHICH MEETS THIS GRADATION MAY BE USED.

US SIEVE NO.	PERCENT PASSING BY WEIGHT
3/4"	100
1 1/2"	55-100
1/4"	25-60
10"	15-45
40"	5-25
100"	0-10
200"	0-5

SAND: SHALL BE CLEAN, FREE OF ALL DELETERIOUS OR ORGANIC MATTER CONFORMING TO ASTM C33 AND THE FOLLOWING GRADATION REQUIREMENTS.

US SIEVE NO.	PERCENT PASSING BY WEIGHT
1/2"	100
4"	95-100
20"	30-90
200"	0-8

PROCESS GRAVEL/CRUSHED AGGREGATE BASE COURSE: FOR USE DIRECTLY UNDER ASPHALT PAVEMENT AND DIRECTLY UNDER INTERIOR AND EXTERIOR CONCRETE SLAB ON GRADE AS A BASE MATERIAL AND FOR USE AS ROADWAY SHOULDER FINISH SURFACE COURSE. THE MATERIAL SHALL CONSIST OF PROCESSED SAND-GRAVEL MIXTURE OR CRUSHED STONE WITH FINES.

US SIEVE NO.	CRUSHED GRAVEL	CRUSHED STONE
1 1/2"	100	100
1"	75-100	---
3/4"	---	---
1/2"	40-75	30-60
4"	30-60	25-55
10"	20-45	15-40
40"	10-30	---
200"	3-10	2-8

CRUSHED STONE: FOR BUILDING PERIMETERS IN DESIGNATED AREAS INSTALL OVER GEOTEXTILE FABRIC DESIGNATED FOR LANDSCAPE PURPOSES WITHIN THIS SPECIFICATION SECTION. STONE SHALL COMPLY WITH THE FOLLOWING ASTM C33, SIZE NO. 2 SPECIFICATIONS.

US SIEVE NO.	PERCENT PASSING BY WEIGHT
2 1/2"	100
2"	90-100
1 1/2"	35-70
1"	0-15
1/2"	0-5

02231 AGGREGATE BASE COURSE

PART 1 - GENERAL

SECTION INCLUDES

AGGREGATE BASE COURSE FOR USE BENEATH PAVED DRIVEWAYS, ROADWAYS, PARKING AREAS, CURBS AND SIDEWALKS.

REFERENCES

STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS, 2024.

ASTM D2922 - TEST METHODS FOR DENSITY OF SOIL AND SOIL-AGGREGATE IN PLACE BY NUCLEAR METHODS (SHALLOW DEPTH).

ASTM D3017 - TEST METHODS FOR MOISTURE CONTENT OF SOIL AND SOIL-AGGREGATE MIXTURES.

SUBMITTALS

SUBMIT TWO (2) SIEVE ANALYSES OF EACH AGGREGATE TO BE USED, TO ENGINEER FOR APPROVAL.

PART 2 - PRODUCTS

FILL MATERIALS

DENSE GRADED CRUSHED STONE: AGGREGATE MEETING 2024 STATE OF VERMONT, AGENCY OF TRANSPORTATION SPECIFICATION 704.06A - DENSE GRADED CRUSHED STONE FOR SUBBASE.

SUBBASE OF GRAVEL: CRUSHED GRAVEL MEETING 2024 AGENCY OF TRANSPORTATION SPECIFICATION 704.05 - CRUSHED GRAVEL FOR SUBBASE.

FINE AGGREGATE (SAND) FILL: SAND MEETING 2024 STATE OF VERMONT, AGENCY OF TRANSPORTATION SPECIFICATION 703.03A - SAND BORROW AND CUSHION.

CRUSHED STONE: FOR PIPE AND STRUCTURE BEDDING WHERE SHOWN OR SPECIFIED

US SIEVE NO.	PERCENT PASSING BY WEIGHT
1"	100
2 1/2"	0-100
3/4"	0-10
8"	0-8

CRUSHED STONE: FOR PIPE BEDDING OR AT PAVEMENT EDGES FOR SNOW DISPOSAL. AREAS STONE SHALL CONFORM TO THE FOLLOWING GRADATION.

US SIEVE NO.	PERCENT PASSING BY WEIGHT
2 1/2"	100
2"	90-100
1 1/2"	30-55
1 1/4"	0-25
1"	0-5

GEOTEXTILE FABRIC

GEOTEXTILE FABRIC FOR REINFORCEMENT AND GROUND STABILIZATION UNDER ROAD SUBBASE SHALL BE MIRAFI 500X OR APPROVED EQUIVALENT WOVEN FABRIC.

GEOTEXTILE FABRIC FOR WRAPPING UNDERDRAINS, USE UNDER RIPRAP OR STONE BLANKETS OR AS A SEPARATION FABRIC UNDER CRUSHED OR PROCESS BASE COURSES WHERE SHOWN IN THE PLANS SHALL BE MIRAFI 140N OR APPROVED EQUIVALENT NON-WOVEN FABRIC.

GEOTEXTILE FABRIC FOR LANDSCAPING PURPOSES SHALL BE MIRASCAPE BY MIRAFI OR APPROVED EQUIVALENT. INSTALL IN FULL WIDTH FILLS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

PLACEMENT: PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 12 IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND NOT MORE THAN 6 IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.

- EACH FILL LAYER SHALL BE SPREAD EVENLY AT RIGHT ANGLES TO PREVIOUS LAYER AND SHALL BE THOROUGHLY BLADE-MIXED DURING SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. WATER OR AERATE IF REQUIRED TO OBTAIN PROPER OPTIMUM MOISTURE CONTENT.
- PLACE BACKFILL MATERIALS EVENLY ADJACENT TO STRUCTURES TO REQUIRED ELEVATIONS. TAKE CARE TO PREVENT WEDGING ACTION OF BACKFILL AGAINST STRUCTURES BY CARRYING MATERIAL UNIFORMLY AROUND STRUCTURE TO APPROXIMATELY THE SAME ELEVATION IN EACH LIFT.
- DO NOT ALLOW HEAVY MACHINERY WITHIN 5 FEET OF STRUCTURE DURING BACKFILLING AND COMPACTING.
- FILL SHALL NOT BE PLACED OVER FROZEN MATERIAL. PLACEMENT OF FILL SHALL BE SUSPENDED DURING UNFAVORABLE WEATHER CONDITIONS AND NOT RESUME UNTIL THE MOISTURE CONTENT OF PREVIOUSLY PLACED MATERIAL IS RESTORED TO THE REQUIRED SPECIFICATIONS.

SOIL COMPACTION

COMPACTION SHALL BE ACCOMPLISHED BY VIBRATORY STEEL DRUM ROLLERS, SHEEP'S FOOT ROLLER, PNEUMATIC-TIRED ROLLER OR OTHER APPROVED EQUIPMENT WELL SUITED FOR THE SOIL BEING COMPACTED. MATERIAL SHALL BE MOISTENED OR AERATED AS NECESSARY TO PROVIDE THE OPTIMUM MOISTURE CONTENT THAT WILL READILY FACILITATE OBTAINING THE SPECIFIED COMPACTION.

DEGREE OF COMPACTION: COMPACT TO THE FOLLOWING MINIMUM DENSITIES:

- UNDER BUILDING, STRUCTURES AND DETENTION POND EMBANKMENT - 95% OF MAX.
- TOP 2 FEET UNDER SUBGRADE, INCLUDING TRENCHES - 95% OF MAX.
- BELOW TOP 2 FEET UNDER SUBGRADE, INCLUDING TRENCHES - 92% OF MAX.
- TRENCHES THROUGH UNPAVED AREAS - 90% OF MAX.
- EMBANKMENTS AND LAWN AREAS - 90% OF MAX.
- PIPE BEDDING - 92% OF MAX.

LABORATORY DENSITY SHALL BE DETERMINED AS FOLLOWS:

- COHESIVE MATERIALS: MODIFIED PROCTOR COMPACTION TEST, ASTM D1557, METHOD C & D.
- COHESIONLESS MATERIAL: ASTM D4253 AND D4254.

FIELD DENSITY TESTS: ASTM D1556 (SAND COVER) OR ASTM D2922 (NUCLEAR METHODS), OR ASTM D2927 (RUBBER BALLOON). HYDRAULIC JETTING OF PILLS WILL NOT BE PERMITTED FOR DENSIFICATION OF COHESIONLESS MATERIAL. WHERE TESTS INDICATE THAT FILL DOES NOT CONFORM TO THE COMPACT DENSITY SPECIFIED, THE FILL AND UNDERLYING SUBGRADE, IF NECESSARY, SHALL BE REMOVED AND REPLACED WITH CONFORMING MATERIALS, AT NO EXPENSE TO THE OWNER.

PROTECTION

MAINTAIN ADEQUATE BARRICADES, GUARDS, WARNING LIGHTS AND OTHER PROTECTION REQUIRED AT HAZARDOUS CREATED BY THIS WORK. PROTECT OVERHEAD AND UNDERGROUND UTILITIES, SIDEWALKS, DRAINS, CURBS, TREES (INCLUDING ROOTS), SHRUBS, GROUND COVER, BENCHMARKS, MONUMENTS, OTHER REFERENCE POINTS, ADJACENT BUILDINGS AND PROPERTY THAT ARE TO REMAIN.

FENCE AND/OR BOX-IN ALL TREES AND PLANT MATERIAL WHICH ARE TO REMAIN BEFORE WORK IS STARTED. DO NOT PERMIT HEAVY EQUIPMENT OR STOCKPILES WITHIN BRANCH SPREAD. REMOVE INTERFERING BRANCHES WITHOUT INJURY TO TRUNKS, COVER SCARS WITH TREE PAINT. USE ALL MEANS NECESSARY TO PROTECT ALL MATERIALS IN THIS SECTION BEFORE, DURING AND AFTER INSTALLATION. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER. CONDUCT SITE CLEARING OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.

DUST CONTROL

USE ALL MEANS NECESSARY TO CONTROL DUST ON OR NEAR THE WORK, IF SUCH DUST IS CAUSED BY THE CONTRACTOR'S OPERATIONS DURING PERFORMANCE OF THE WORK OR IF RESULTING FROM THE CONDITION IN WHICH THE CONTRACTOR LEAVES THE SITE. APPLY CALCIUM CHLORIDE OR WATER FOR DUST CONTROL. SWEEP PUBLIC ROADS AS REQUIRED.

FIELD QUALITY CONTROL

REQUEST INSPECTION PRIOR TO PLACING AGGREGATE COVER OVER PIPE.

SECTION 02400 STORM DRAINAGE SYSTEMS

PART 1 - GENERAL

SECTION INCLUDES

SITE SURFACE DRAINAGE. SITE STORM SEWERAGE DRAINAGE PIPING, FITTINGS AND ACCESSORIES AND BEDDING.

SUBMITTALS

AT A MINIMUM, FURNISH SHOP DRAWINGS OR PRODUCT DATA ON THE FOLLOWING ITEMS:

- A. MANHOLES AND STRUCTURES
- B. FRAMES AND GRATES
- C. YARD DRAINS
- D. PIPE, FITTINGS AND ACCESSORIES
- E. END SECTIONS

RECORD DOCUMENTS

RECORD LOCATION OF PIPE RUNS, CONNECTIONS, MANHOLES, CLEANOUTS AND INVERT ELEVATIONS.

REGULATORY REQUIREMENTS

CONFORM TO APPLICABLE STATE AND LOCAL PERMIT REQUIREMENTS.

PART 2 - PRODUCTS

PIPE MATERIALS

STORM DRAIN: SMOOTH INTERIOR POLYETHYLENE CULVERT PIPE, MEETING ASTM D2321/ASHTO M294 OR APPROVED EQUAL.

SMOOTH WALL POLYVINYL CHLORIDE PLASTIC PIPE, PERFORATED OR NON-PERFORATED, SDR 35 MEETING ANSI/ASTM D3034.

PIPE ACCESSORIES

FITTINGS: SAME MATERIAL AS PIPE MOLDED OR FORMED TO SUIT PIPE SIZE AND END DESIGN, IN REQUIRED TEE, BENDS, ELBOWS, CLEANOUTS, REDUCERS, TRAPS AND OTHER CONFIGURATIONS REQUIRED.

BEDDING MATERIALS

BEDDING: 1/4 INCH DIAMETER CRUSHED STONE.

STRUCTURES

PRECAST CONCRETE MANHOLES AS MANUFACTURED BY CAMP PRECAST OR S. T. GRISWOLD, MINIMUM 4FT INSIDE DIAMETER.

FRAMES, COVERS, AND GRATES AND CURB INLETS SHALL BE HEAVY DUTY, ROADWAY WEIGHT, H-20 LOADING RATED. MANUFACTURER IS THE CONTRACTOR'S OPTION, BUT SHALL CONFORM TO LOCAL CODE REQUIREMENTS. SOLID COVERS SHALL BEAR THE WORD "STORM". GRATES IN PAVED AREAS SHALL BE DUCTILE IRON.

PROVIDE 30-INCH DIAMETER FRAME AND COVER, OR 30 INCH X30 INCH SQUARE FRAME AND GRATE.

ALL JOINTS BETWEEN PRECAST SECTIONS SHALL BE SEALED WITH BUTYL RUBBER GASKETS.

PART 3 - EXECUTION

EXAMINATION

VERIFY THAT TRENCH CUT IS READY TO RECEIVE WORK AND EXCAVATIONS, DIMENSIONS AND ELEVATIONS ARE AS INDICATED ON LAYOUT DRAWINGS.

PREPARATION

HAND TRIM EXCAVATIONS TO REQUIRED ELEVATIONS. CORRECT OVER EXCAVATION WITH COURSE AGGREGATE. REMOVE LARGE STONE OR OTHER HARD MATTER WHICH COULD DAMAGE PIPING OR IMPEDE CONSISTENT BACKFILLING OR COMPACTION.

BEDDING

EXCAVATE PIPE TRENCH IN ACCORDANCE WITH SECTION 02100. HAND TRIM EXCAVATION FOR ACCURATE PLACEMENT OF PIPE TO ELEVATIONS INDICATED. PLACE BEDDING MATERIAL AT TRENCH BOTTOM, LEVEL MATERIALS IN CONTINUOUS LAYER NOT LESS THAN 6 INCHES COMPACTED DEPTH.

INSTALLATION - PIPE

INSTALL PIPE, FITTINGS AND ACCESSORIES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

LAY PIPE TO SLOPE GRADIENTS NOTED ON LAYOUT DRAWINGS; WITH MAXIMUM VARIATION FROM TRUE SLOPE OF 1/8 INCH IN 10 FEET.

INSTALL AGGREGATE AT SIDES.

DO NOT DISPLACE OR DAMAGE PIPE WHEN COMPACTING.

INSTALLATION - STRUCTURES

INSTALL PRECAST STRUCTURES DEAD LEVEL ON SOLID EARTH OR STONE TO GRADES INDICATED ON THE DRAWING.

INSERT PIPES AND CONNECT WITH NEOPRENE PRESS-SEAL BOOT OR EQUIVALENT. SET FRAME AND GRATE TO PROPER GRADE. USE GRADE RINGS TO ADJUST GRADE. SET FRAME TIGHT TO CURBS WHERE APPLICABLE.

FIELD QUALITY CONTROL

REQUEST INSPECTION PRIOR TO PLACING AGGREGATE COVER OVER PIPE.

SECTION 02520 PORTLAND CEMENT CONCRETE (SITE)

PART 1 - GENERAL

SECTION INCLUDES

CONCRETE SIDEWALKS, CURBS, SLABS, HEADWALLS, LIGHT POLE BASES, ETC.

PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

ANCHOR BOLTS.

CONDUIT FOR LIGHTS.

REFERENCES

STATE OF VERMONT, AGENCY OF TRANSPORTATION, STANDARD SPECIFICATIONS, 2024.

ANSI/ASTM A185 - WELDED STEEL WIRE FABRIC FOR CONCRETE REINFORCEMENT.

ANSI/ASTM D1752 - PREFORMED SPONGE RUBBER AND CORK EXPANSION JOINT FILLERS FOR CONCRETE PAVING AND STRUCTURAL CONSTRUCTION.

ASTM A615 - DEFORMED AND PLAIN BILLET-STEEL FOR CONCRETE REINFORCEMENT.

ASTM C33 - CONCRETE AGGREGATE.

ASTM C94 - READY MIX CONCRETE.

ASTM C150 - PORTLAND CEMENT.

ASTM C260 - AIR-ENTRAINING ADMIXTURES FOR CONCRETE.

QUALITY ASSURANCE

PERFORM WORK IN ACCORDANCE WITH VERMONT AGENCY OF TRANSPORTATION SPECIFICATIONS.

ENVIRONMENTAL REQUIREMENTS

DO NOT PLACE CONCRETE WHEN BASE SURFACE TEMPERATURE IS LESS THAN 40 DEGREES F, OR SURFACE IS WET OR FROZEN.

PART 2 - PRODUCTS

FORM MATERIALS

WOOD OR STEEL FORM MATERIAL, PROFILED TO SUIT CONDITIONS.

JOINT FILLER: ANSI/ASTM D1751; 1/2" THICK.

CONCRETE MATERIALS

CONCRETE MATERIALS: PROVIDE IN ACCORDANCE WITH VERMONT AGENCY OF TRANSPORTATION SPECIFICATIONS, SECTION 501, CLASS B.

WATER: POTABLE, NOT DETRIMENTAL TO CONCRETE.

AIR ENTRAINMENT: ASTM C260.

CONCRETE MIX

MIX CONCRETE IN ACCORDANCE WITH ACI 304. DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94.

PROVIDE CONCRETE TO THE FOLLOWING MIX DESIGN:

UNIT	MEASUREMENT
COMPRESSIVE STRENGTH: (8 DAY)	3000 PSI (LIGHT POLE BASES) 4000 PSI (SIDEWALKS, CURBS & SLABS)

AIR ENTRAINED: ALL CONCRETE 4-8%
SLUMP: ASTM C-143

USE ACCELERATING ADMIXTURES IN COLD WEATHER ONLY WHEN APPROVED BY ARCHITECT/ENGINEER. USE OF ADMIXTURES WILL NOT RELAX COLD WEATHER PLACEMENT REQUIREMENTS.

USE CALCIUM CHLORIDE ONLY WHEN APPROVED BY ARCHITECT/ENGINEER.

USE SET RETARDING ADMIXTURES DURING HOT WEATHER ONLY WHEN APPROVED BY ARCHITECT/ENGINEER.

ALL CONCRETE WILL BE OBTAINED FROM S.T. GRISWOLD, UNLESS ANOTHER SOURCE IS APPROVED BY THE ARCHITECT/ENGINEER.

REINFORCING

COMPLY WITH ASTM A-615 GRADE 60 REBAR AND ASTM A-185 FOR WIRE FABRIC.

PART 3 - EXECUTION

EXAMINATION

VERIFY COMPACTED GRANULAR BASE IS ACCEPTABLE AND READY TO SUPPORT CONCRETE AND IMPOSED LOADS.

VERIFY GRADIENTS AND ELEVATIONS OF BASE ARE CORRECT.

SUBBASE

SECTION 02231 - AGGREGATE BASE COURSE FORMS THE BASE CONSTRUCTION FOR WORK OF THIS SECTION.

PREPARATION

MOISTEN BASE TO MINIMIZE ABSORPTION OF WATER FROM FRESH CONCRETE.

NOTIFY ARCHITECT/ENGINEER A MINIMUM OF 24 HOURS PRIOR TO COMMENCEMENT OF CONCRETING OPERATIONS.

FORMING

