



**State of Vermont**  
**Policy, Planning & Intermodal Development Division**  
**Policy, Planning and Research Bureau**  
**Development Review & Permitting Services Section**

*Agency of Transportation*

One National Life Drive [phone] 802-828-2653  
 Montpelier, VT 05633-5001 [fax] 802-828-2456  
 Vtrans.vermont.gov [ttd] 800-253-0191

**! LETTER OF INTENT !**  
**THIS IS NOT A PERMIT**

June 28, 2017

Michael Lacroix  
 PO Box 156  
 West Chesterfield, NH 03446-0156

Subject: Brattleboro, US5, L.S. 261+36 ~ 265+58 LT  
Great River Terrace

Dear Mr. Lacroix:

Your highway permit application to reconstruct a shared access at L.S. 264+00 LT (MM 5.00) to serve a multi-unit housing development and an existing restaurant, construct an 8" municipal water main from L.S. 261+00 LT to L.S. 264+00 LT, construct a 5-ft wide concrete sidewalk connecting a private bus shelter located outside the highway right-of-way to the US5 highway paved shoulder, install a foundation drain outlet at L.S. 264+70 LT and remove stone retaining walls and perform associated grading within the above-referenced area has been reviewed and found to meet the requirements for work within the highway right-of-way.

Title 19 VSA § 1111 requires that we ensure compliance with all local ordinances and regulations relating to highways. **Your highway permit application will be processed after you provide us with copies of your Act 250 approval, including all conditions.**

When issued, the permit will contain, but will not be limited to, the attached Special Conditions.

This commitment is valid for two years from the date of this letter. Should your other permits require a longer time period, please contact us relative to an extension of time.

This Letter of Intent addresses only access to, work within, and drainage affecting the State highway. It does not address other possible transportation issues, such as access to town highways, use of private roads, and use of railroad crossings. If relevant to the proposed development, such issues must be addressed separately.

If you have any further questions about this matter, please call me at (802) 828-2473.

Sincerely,

Theresa Gilman  
 Permitting Services Supervisor  
 Permitting Services Section

Attachment

Reviewed by: Craig S. Keller Date: 6/28/17  
 Craig S. Keller, P.E., Chief of Permitting Services

cc: Stephanie Gile, District Environmental Coordinator #2 (via E-mail)  
 Windham Regional Commission  
 Peter Paggi, Windham & Windsor Housing Trust, Inc  
 Town of Brattleboro  
 Ham Hodgman, Stevens & Associates Engineering

### SPECIAL CONDITIONS

This permit is granted subject to the restrictions and conditions on the back of the permit, with particular attention given to the Special Conditions listed below. This permit pertains only to the authority exercised by the Vermont Agency of Transportation (Agency) under Vermont Statutes Annotated, Title 19, Section 1111, and does not relieve the Permit Holder from the requirements of otherwise applicable statutes, rules, regulations or ordinances (e.g., Act 250, zoning, etc.). The Permit Holder shall observe and comply with all Federal and State laws and local bylaws, ordinances, and regulations in any manner affecting the conduct of the work and the action or operation of those engaged in the work, including all orders or decrees as exist at present and those which may be enacted later by bodies or tribunals having jurisdiction or authority over the work, and the Permit Holder shall defend, indemnify, and save harmless the State and all its officers, agents, and employees against any claim or liability arising from or based on the violation of any such law, bylaws, ordinances, regulations, order, or decree, whether by the Permit Holder in person, by an employee of the Permit Holder, by a person or entity hired by the Permit Holder, or by a Subcontractor or supplier.

The Permit Holder shall accomplish all work under this permit in accordance with Detail C and the profile and notes of Standard Drawing B-71 (copy attached) and the attached plans dated May 19, 2017 and last revised June 28, 2017. **Any revisions to these plans prior to or during construction shall be submitted and approved by the Agency prior to construction within the State highway right-of-way.**

**A preconstruction meeting to discuss work to be completed must be held prior to the Permit Holder's employees or contractor beginning work. The Permit Holder is required to notify the District Transportation Administrator five (5) working days in advance of such meeting.**

**Please note that the Vermont Agency of Transportation is not a member of Dig Safe.** The Permit Holder shall also contact Steve Guyette (802) 343-2188. Mr. Guyette will need to locate and mark all existing buried utility facilities owned by the Agency near the location of the proposed work.

Roadway shoulder areas must be maintained free of unnecessary obstructions, including parked vehicles, at all times while work is being performed under this permit.

All grading within the State Highway right-of-way associated with the proposed construction shall be subject to inspection and approval by the District Transportation Administrator or his or her staff. The Permit Holder shall be responsible for ensuring that all grading work in or on the State Highway right-of-way complies with applicable statutes, rules, regulations or ordinances.

In areas to be grass covered, the Permit Holder shall restore turf by preparing the area and applying the necessary topsoil, limestone, fertilizer, seed, and mulch, all to the satisfaction of the District Transportation Administrator. The Permit Holder shall be responsible for ensuring that all turf restoration work in or on the State Highway right-of-way is in compliance with applicable statutes, rules, regulations or ordinances.

In the event that area lighting proves to be a hazard to the traveling public, the Permit Holder will be ordered to remove or modify it at his or her expense to the satisfaction of the District Transportation Administrator.

The Permit Holder (Town of Bennington) shall be the owner of the 8" water main constructed within the State highway right-of-way.

The Permit Holder (Lacroix / Windham & Windsor Housing Trust, Inc. and/or their assignee or heirs) shall be responsible for all maintenance associated with the connecting 5-ft wide concrete sidewalk (walkway) from the bus shelter, located outside the State right-of-way, to the US5 paved highway shoulder. This shall include but not be limited to snow and ice removal and/or repair of concrete panels and other incidental items.

Trench excavation material shall not be stockpiled on the highway shoulders. Methods shall be used that will minimize tracking of material onto the State highways. If tracking does occur, it will be immediately cleaned up so that traveling conditions and safety of the highway users is not compromised.

The Permit Holder shall replace any disturbed State property bounds. These bounds must be reset by a land surveyor licensed in the State of Vermont.

All hydrant assemblies shall be located outside of the highway safety clear zone unless otherwise approved by the Agency.

**Upon completion of the work, the Permit Holder shall be responsible to schedule and hold a final inspection. The Permit Holder is required to notify the District Transportation Administrator five (5) working days in advance of such inspection.**

**The Permit Holder shall provide VTrans Permitting Services Section with a copy of as-built drawings, identifying the new water main location and depth no later than 90 days following the completion of the utility installation, including any additional information regarding the location of the existing underground facilities owned by the Permit Holder and any underground facilities marked by DigSafe or independent utility owners, regardless of utility ownership, encountered during new utility installation.**

**This permit does not become effective until the Permit Holder records, in the office of the appropriate municipal clerk, the attached "Notice of Permit Action".**

The access must be constructed in such a manner as to prevent water from flowing onto the State Highway. If the access is not constructed satisfactorily, the District Transportation Administrator can order reconstruction of the access at the Permit Holder's expense.

This access will serve as a shared access to the multi-unit housing and the lot currently serving an existing restaurant and shall be the only access to the multi-unit housing development properties and to any future subdivisions of these properties unless approved otherwise by the Agency. The Permit Holder is required to allow a connection and to grant an associated right to pass between the access and adjoining properties (in the future) that will result in a combination of accesses to serve more than one property or lot. By issuance of this permit, the Agency revokes all previous permits for access to this property.

In the event traffic from this project increases to the point where traffic signals, additional lanes for turning or any other modifications are necessary, the Permit Holder shall bear the expense of such improvements or facilities. The Agency may require the Permit Holder to update or provide a traffic study to determine if additional modifications are necessary.

The Permit Holder (Lacroix / Windham & Windsor Housing Trust, Inc. and/or their assignee or heirs) is responsible for access maintenance (beyond the edge of paved shoulder). "Access maintenance" will include, but not be limited to, the surface of the access, the replacement and maintenance of the culvert, as necessary, the trimming of vegetation, and the removal of snow banks to provide corner sight distance.

In conformance with Vermont Statutes Annotated, Title 19, Section 1111(f), the Agency may eliminate this access in the future where development has burdened the highway system to such an extent that a frontage road or other access improvements (which may serve more than one property or lot) must be constructed to alleviate this burden. The Permit Holder shall bear the expense of the frontage road or other access improvements. The Agency shall determine the need of a frontage road or other improvements based upon and justified by standard Agency procedures.

The Permit Holder shall pave the access (drive) from the edge of paved shoulder to the State Highway right-of-way.

In the event of the Permit Holder's failure to complete all the work, approved under this permit, by the "work completion date," the Agency, in addition to any other enforcement powers that may be provided for by law, may suspend this permit until compliance is obtained. If there is continued use or activity after suspension, the Agency may physically close the driveway or access point if, in the Agency's opinion, safety of highways users is or may be affected.

Should any portion of the utility facility installed within the State Highway right-of-way require relocation due to future highway improvements, the Permit Holder shall bear all expenses, and all necessary adjustments shall be completed in a timely manner.

The Permit Holder must backfill all open trenches or pits at the end of each day. With permission from the District Transportation Administrator, trenches or pits may be left open for short periods of time if properly protected. In no case shall trenches or pits be left open over a weekend. The Permit Holder shall be responsible for ensuring that all trench or pit work in or on the State Highway right-of-way is in compliance with applicable statutes, rules, regulations or ordinances.

The Permit Holder must install temporary pavement prior to weekend shutdown after completion of backfilling where an open cut excavation has been made through a roadway subject to vehicular traffic or where construction for any roadway widening for turn lanes has been brought to grade. The temporary pavement shall consist of, at least, 2 inches of compacted bituminous concrete. Temporary pavement shall be properly maintained and shall be replaced with permanent pavement prior to completion of the project or suspension of work for the winter season. *(This is a contingency condition should pavement be disturbed to a level which the District Transportation deems this work be completed.)*

Where a trench is excavated within the roadbed, all backfill material within 24 inches of the bottom of pavement shall be new material from a source approved by the District Transportation Administrator. The Permit Holder shall place all backfill material in six inch layers and compacted to not less than 95% of the material's maximum dry density as determined by AASHTO (American Association of State Highway and Transportation Officials) Standard Method of Test, T-99, Method C, using air or mechanical tampers. *(This is a contingency condition should pavement be disturbed to a level which the District Transportation deems this work be completed.)*

The Permit Holder shall promptly and unconditionally pay for full repair and restoration of any and all damages to existing underground utility facilities (meaning any underground pipe, conduit, wire or cable, including appurtenances) that have been brought about by the execution of the permitted work. The Permit Holder also is required to pay for any costs to repair the highway following and resulting from any repairs to existing utilities occurring as a result of the work covered by this permit. Except with the specific, written permission of the Engineer, the Permit Holder or his or her contractor shall expose all underground facilities to verify their location and depth, at each location where the authorized boring or drilling work crosses a facility; and at reasonable intervals when closely paralleling a facility. Whenever possible, existing facilities should be crossed at a perpendicular angle. The Permit Holder shall be responsible for obtaining the modification of this permit, if necessary, for any additional survey work before initiating boring or drilling operations under the permit. The Agency will treat the Permit Holder's failure to fully, promptly, and conscientiously comply with all of conditions of this paragraph, including but not limited to the obligation to pay for repairs, as grounds for the Agency to refuse to grant any further requests by the Permit Holder for any other permits for subsurface work unless the Permit Holder furnishes irrevocable financial security, in a type and an amount deemed sufficient by the Agency in its sole discretion, prior to such future subsurface work.

The Permit Holder shall install Agency approved Delineator Posts at the designated locations to clearly and quickly identify manholes, pipelines, valves, underground utilities, etc.

The Permit Holder shall install flexible fiberglass reinforced composite identification Marker Posts at the designated locations to clearly and quickly identify underground utilities. Marker Posts shall be American Public Works Association (APWA) color coded with post decals that identify the utility line.

This permit approves the connection of the Permit Holder's foundation drain discharge pipe to the Agency's State Highway right-of-way. The Permit Holder's outfall is located at L.S. 264+70 LT. If at any time in the future the Agency needs the pipe relocated and/or moved from the State right-of-way the Permit Holder shall adjust the location at their expense. The Agency shall not be responsible for maintenance or repair of damage to the outfall pipe.

This permit only authorizes the Permit Holder's foundation drain discharge from the defined location approved by the Agency and specified in the Permit Holder's application. The Permit Holder shall not connect (or allow the connection of) non-stormwater drainage systems, such as floor drains, to the stormwater management system that discharges to the Agency's stormwater management system.

The Permit Holder shall erect and maintain all necessary site erosion prevention and sediment control measures to maintain compliance with Vermont Water Quality Standards within the State Highway right-of-way. All exposed earth areas having erosion potential must be temporarily or permanently stabilized within seven (7) days of disturbance or as necessary to prevent sediment from entering the Agency's State Highway stormwater management system. Slopes steeper than 1:3 shall make use of appropriate erosion matting.

By acceptance of this permit, the Permit Holder agrees to defend, hold harmless and indemnify the Agency, the State of Vermont, and their officers and employees from and against all claims arising out of connections of the Permit Holder's stormwater management system to the Agency's State Highway stormwater management system.

This permit authorizes only the discharge of stormwater runoff to the Agency's stormwater management system with the following exemptions unless otherwise approved by the Agency or specified in this permit:

- water line flushing or other potable water sources,
- landscape irrigation or lawn watering,
- rising ground water,
- ground water infiltration to storm drains,
- air conditioning condensation,
- fire fighting activities.

The Permit Holder shall notify the Agency of any planned development or facility expansions or changes that may result in new or increased stormwater discharges. The Agency may require the Permit Holder to submit additional information on the proposed changes. The Agency may amend this permit and authorization to discharge, by requiring that the Permit Holder add to, modify, or replace the US5 stormwater management system, or may require the Permit Holder to seek a discharge point other than the State Highway right-of-way and the Agency's stormwater management system.

The Permit Holder shall verify the appropriate safety measures needed, prior to construction, so proper devices and/or personnel are available when and as needed. Traffic control devices, shall be in conformance with the MUTCD (Manual on Uniform Traffic Control Devices), Agency standards and any additional traffic control deemed necessary by the District Transportation Administrator. The Permit Holder's failure to utilize proper measures shall be considered sufficient grounds for the District Transportation Administrator to order cessation of the work immediately.

The Permit Holder will perform construction in such a way as to minimize conflicts with normal highway traffic. When two-way traffic cannot be maintained, the Permit Holder shall provide a sign package that conforms to the MUTCD (Manual on Uniform Traffic Control Devices) or Agency standards, as well as trained Flaggers. The District Transportation Administrator may require a similar sign package with trained Flaggers whenever it is deemed necessary for the protection of the traveling public. In addition, the District Transportation Administrator may require the presence of Uniform Traffic Officers (UTOs); moreover, the presence of UTOs shall not excuse the Permit Holder from its obligation to provide the sign package and Flaggers.

Two-way traffic shall be maintained at all times unless permission is granted from the District Transportation Administrator. Whenever two-way, one-lane controlled traffic is authorized to be maintained by the Applicant's Contractor, **the traveling public shall not be delayed more than 10 minutes.**

**When traffic control becomes so complex that the traffic control cannot be accomplished using Agency standards or the referenced traffic control plan, the Permit Holder may be required to submit a new or revised traffic control plan to address the traffic control issues. The revised plan shall be prepared and implemented to the satisfaction of the District Transportation Administrator or VTrans Work Zone Engineer.**

When traffic control becomes so complex that the traffic control cannot be accomplished using Agency standards, the Permit Holder must submit a traffic control plan to the Agency's Permitting Services office for Agency approval prior to beginning work.

The Permit Holder shall ensure that all workers exposed to the risks of moving highway traffic and/or construction equipment wear high-visibility safety apparel meeting the requirements of ISEA (International Safety Equipment Association) "American National Standards for High-Visibility Safety Apparel," and labeled as ANSI (American National Standards Institute) 107-2004, or latest revisions, for Performance Class 2 or 3 requirements. A competent person - one designated by the Permit Holder's Contractor to be responsible for worker safety within the activity area of the State highway right-of-way -shall select the appropriate class of garment. The Engineer may suspend this permit until compliance is obtained.

As the utility operation moves, flagger signs shall be moved accordingly. At no time should the flagger symbol sign be more than 1,000 feet from the flagger station. Flagger signs shall be covered or turned away from traffic when flagging operations cease for longer than 15 minutes.

**Independence; Liability:** The Permit Holder will act in an independent capacity and not as officers or employees of the State.

The Permit Holder shall defend the State and its officers and employees against all claims or suits arising in whole or in part from any act or omission of the Permit Holder or of any agent of the Permit Holder. The State shall notify the Permit Holder in the event of any such claim or suit, and the Permit Holder shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit.

After a final judgment or settlement, the Permit Holder may request recoupment of specific defense costs and may file suit in the Washington Superior Court requesting recoupment. The Permit Holder shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Permit Holder.

The Permit Holder shall indemnify the State and its officers and employees in the event that the State, its officers or employees become legally obligated to pay any damages or losses arising from any act or omission of the Permit Holder.

**Insurance:** Before beginning any work under this Permit the Permit Holder must provide certificates of insurance to show that the following minimum coverages are in effect. It is the responsibility of the Permit Holder to maintain current certificates of insurance on file with the State for the duration of work under the Permit. No warranty is made that the coverages and limits listed herein are adequate to cover and protect the interests of the Permit Holder for the Permit Holder's operations. These are solely minimums that have been established to protect the interests of the State.

Workers' Compensation: With respect to all operations performed under the Permit, the Permit Holder shall carry workers' compensation insurance in accordance with the laws of the State of Vermont.

General Liability and Property Damage: With respect to all operations performed under the Permit, the Permit Holder shall carry general liability insurance having all major divisions of coverage including, but not limited to:

- Premises - Operations
- Products and Completed Operations
- Personal Injury Liability
- Contractual Liability

The policy shall be on an occurrence form and limits shall not be less than:

\$2,000,000 Per Occurrence  
\$2,000,000 General Aggregate  
\$2,000,000 Products/Completed Operations Aggregate  
\$ 50,000 Fire/Legal Liability

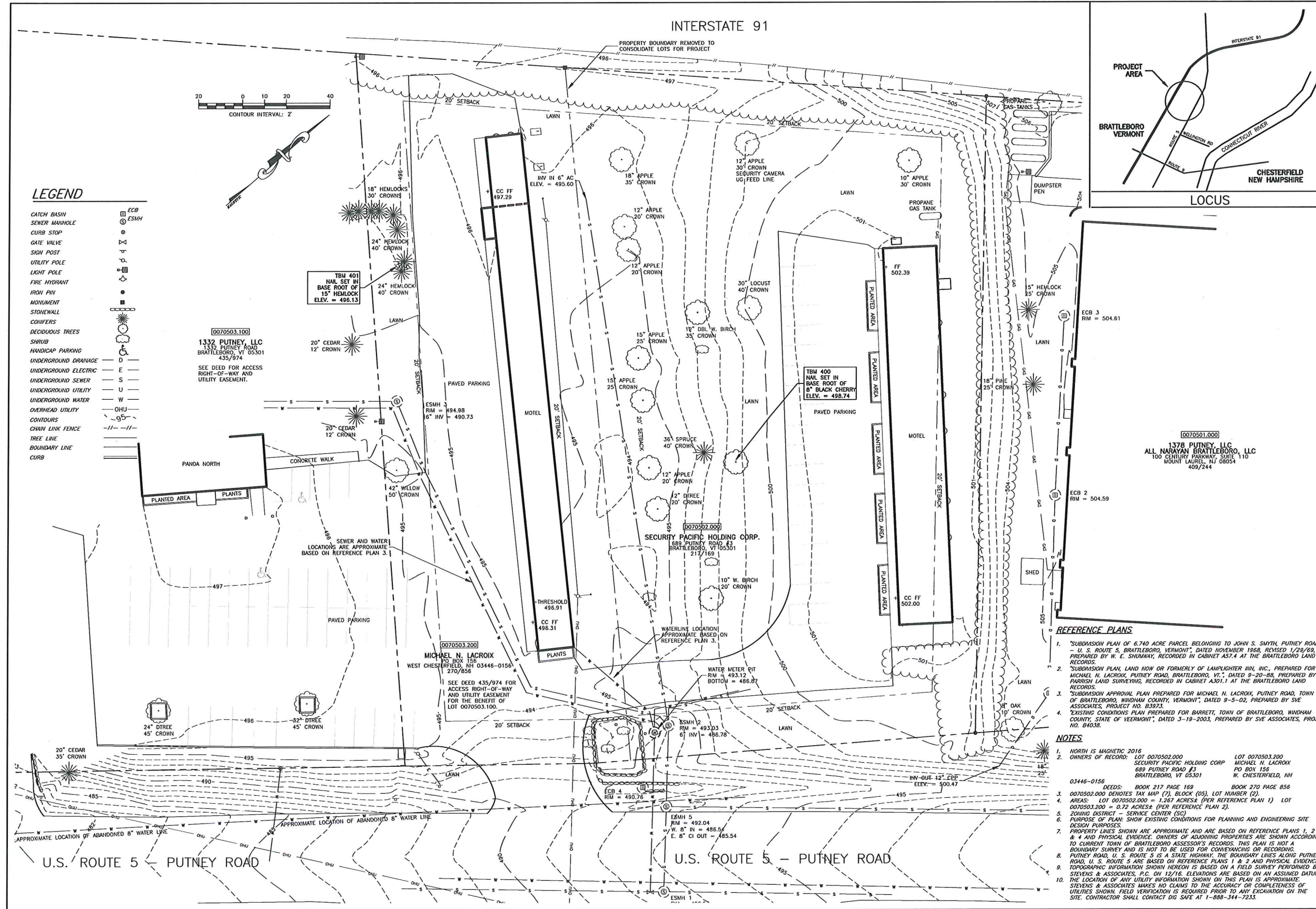
Permit Holder shall name the State of Vermont and its officers and employees as additional insureds for liability arising out of this Permit.

Automotive Liability: The Permit Holder shall carry automotive liability insurance covering all motor vehicles, including hired and non-owned coverage, used in connection with the Permit. Limits of coverage shall not be less than: \$1,000,000 combined single limit.

Permit Holder shall name the State of Vermont and its officers and employees as additional insureds for liability arising out of this Permit.

DRAFT

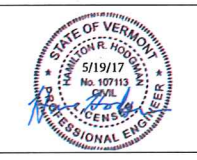




**STEVENS & ASSOCIATES, P.C.**  
 SMART DESIGN FOR LIVABLE COMMUNITIES

**S & A**

ARCHITECTS | ENGINEERS  
 LANDSCAPE ARCHITECTS  
 95 MAIN ST. | P.O. BOX 1586  
 BRATTLEBORO, VT 05302  
 PH: 802-257-9329 | F: 802-258-3892  
 WWW.STEVENS-ASSOC.COM



PURPOSE OF DRAWING:  
 BID SET FOR CONSTRUCTION  
 MAY 10, 2017

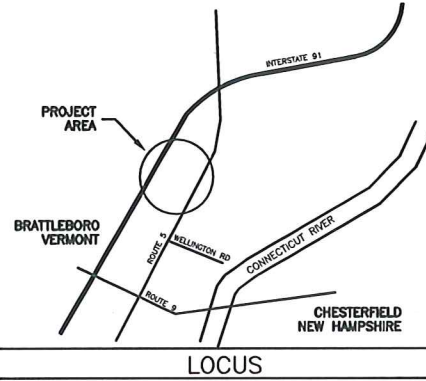
**GREAT RIVER TERRACE**  
 1336 PUTNEY ROAD  
 BRATTLEBORO, VERMONT

PREPARED FOR:  
**GREAT RIVER TERRACE PARTNERSHIP**  
 68 BIRGE STREET  
 BRATTLEBORO, VT 05301

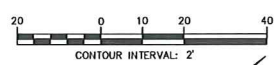
DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_

**EXISTING CONDITIONS PLAN**

DES. BY	DPE
DWN. BY	BOS
CHKD. BY	AS SHOWN
SCALE	1/19/17
DATE	16-040
PROJECT NUM:	
DWG. NO.	<b>C-1</b>
CIVIL SHEET	1 OF 9
PROJ SHEET	2 OF 66



- LEGEND**
- CATCH BASIN
  - SEWER MANHOLE
  - CURB STOP
  - GATE VALVE
  - SIGN POST
  - UTILITY POLE
  - LIGHT POLE
  - FIRE HYDRANT
  - IRON PIN
  - MONUMENT
  - STONEWALL
  - CONIFERS
  - DECIDUOUS TREES
  - SHRUB
  - HANDICAP PARKING
  - UNDERGROUND DRAINAGE
  - UNDERGROUND ELECTRIC
  - UNDERGROUND SEWER
  - UNDERGROUND UTILITY
  - UNDERGROUND WATER
  - OVERHEAD UTILITY
  - CONTOURS
  - CHAIN LINK FENCE
  - TREE LINE
  - BOUNDARY LINE
  - CURB



0070503.100  
**1332 PUTNEY, LLC**  
 1332 PUTNEY ROAD  
 BRATTLEBORO, VT 05301  
 435/974

SEE DEED FOR ACCESS  
 RIGHT-OF-WAY AND  
 UTILITY EASEMENT.

0070503.200  
**MICHAEL N. LACROIX**  
 PO BOX 156  
 WEST CHESTERFIELD, NH 03446-0156  
 270/856

SEE DEED 435/974 FOR  
 ACCESS RIGHT-OF-WAY  
 AND UTILITY EASEMENT  
 FOR THE BENEFIT OF  
 LOT 0070503.100.

0070501.000  
**1378 PUTNEY, LLC**  
 ALL NARAYAN BRATTLEBORO, LLC  
 100 CENTURY PARKWAY, SUITE 110  
 MOUNT LAUREL, NJ 08054  
 409/244

**REFERENCE PLANS**

- "SUBDIVISION PLAN OF 6.740 ACRE PARCEL BELONGING TO JOHN S. SMYTH, PUTNEY ROAD - U. S. ROUTE 5, BRATTLEBORO, VERMONT, DATED NOVEMBER 1968, REVISED 1/29/69, PREPARED BY W. E. SHUMWAY, RECORDED IN CABINET A57.4 AT THE BRATTLEBORO LAND RECORDS.
- "SUBDIVISION PLAN, LAND NOW OR FORMERLY OF LAUMPLIGHTER HILL, INC., PREPARED FOR MICHAEL N. LACROIX, PUTNEY ROAD, BRATTLEBORO, VT., DATED 9-20-88, PREPARED BY PARISH LAND SURVEYING, RECORDED IN CABINET A301.1 AT THE BRATTLEBORO LAND RECORDS.
- "SUBDIVISION APPROVAL PLAN PREPARED FOR MICHAEL N. LACROIX, PUTNEY ROAD, TOWN OF BRATTLEBORO, WINDHAM COUNTY, VERMONT, DATED 9-5-02, PREPARED BY SVE ASSOCIATES, PROJECT NO. 83973.
- "EXISTING CONDITIONS PLAN PREPARED FOR BARRETT, TOWN OF BRATTLEBORO, WINDHAM COUNTY, STATE OF VERMONT, DATED 3-19-2003, PREPARED BY SVE ASSOCIATES, PROJ. NO. 84038.

**NOTES**

- NORTH IS MAGNETIC 2016
- OWNERS OF RECORD: LOT 0070502.000 SECURITY PACIFIC HOLDING CORP 689 PUTNEY ROAD #3 BRATTLEBORO, VT 05301; LOT 0070503.200 MICHAEL N. LACROIX PO BOX 156 WEST CHESTERFIELD, NH 03446-0156
- DEEDS: BOOK 217 PAGE 169; BOOK 270 PAGE 856
- 0070502.000 DENOTES TAX MAP (2), BLOCK (05), LOT NUMBER (2).
- AREAS: LOT 0070502.000 = 1.267 ACRES± (PER REFERENCE PLAN 1) LOT 0070503.200 = 0.72 ACRES± (PER REFERENCE PLAN 2).
- ZONING DISTRICT - SERVICE CENTER (SC)
- PURPOSE OF PLAN SHOW EXISTING CONDITIONS FOR PLANNING AND ENGINEERING SITE DESIGN PURPOSES.
- PROPERTY LINES SHOWN ARE APPROXIMATE AND ARE BASED ON REFERENCE PLANS 1 & 2 & 4 AND PHYSICAL EVIDENCE. OWNERS OF ADJACENT PROPERTIES ARE SHOWN ACCORDING TO CURRENT TOWN OF BRATTLEBORO ASSESSOR'S RECORDS. THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT TO BE USED FOR CONVEYANCING OR RECORDING.
- PUTNEY ROAD, U. S. ROUTE 5 IS A STATE HIGHWAY. THE BOUNDARY LINES ALONG PUTNEY ROAD, U. S. ROUTE 5 ARE BASED ON REFERENCE PLANS 1 & 2 AND PHYSICAL EVIDENCE.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY STEVENS & ASSOCIATES, P.C. ON 12/16. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.
- THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. STEVENS & ASSOCIATES MAKES NO CLAIMS TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. FIELD VERIFICATION IS REQUIRED PRIOR TO ANY EXCAVATION ON THE SITE. CONTRACTOR SHALL CONTACT DIG SAFE AT 1-888-344-7233.



**GREAT RIVER TERRACE**

1336 PUTNEY ROAD  
BRATTLEBORO, VERMONT

PREPARED FOR:  
**GREAT RIVER TERRACE, LIMITED PARTNERSHIP**  
68 BIRGE STREET  
BRATTLEBORO, VT 05301

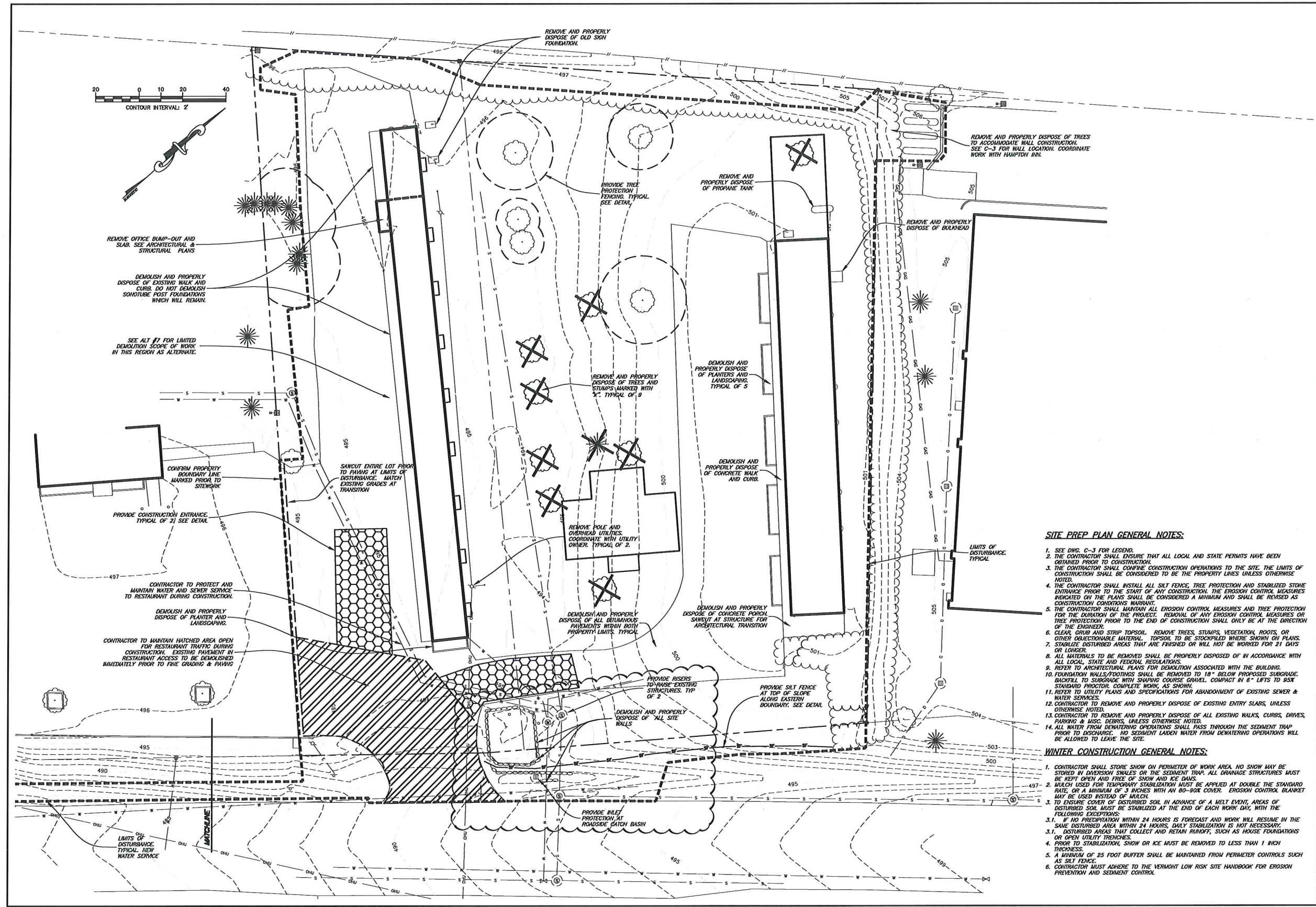
DATE: 6/28/2017  
REVISION: DEMO RETAINING WALL

**SITE PREP NORTH**

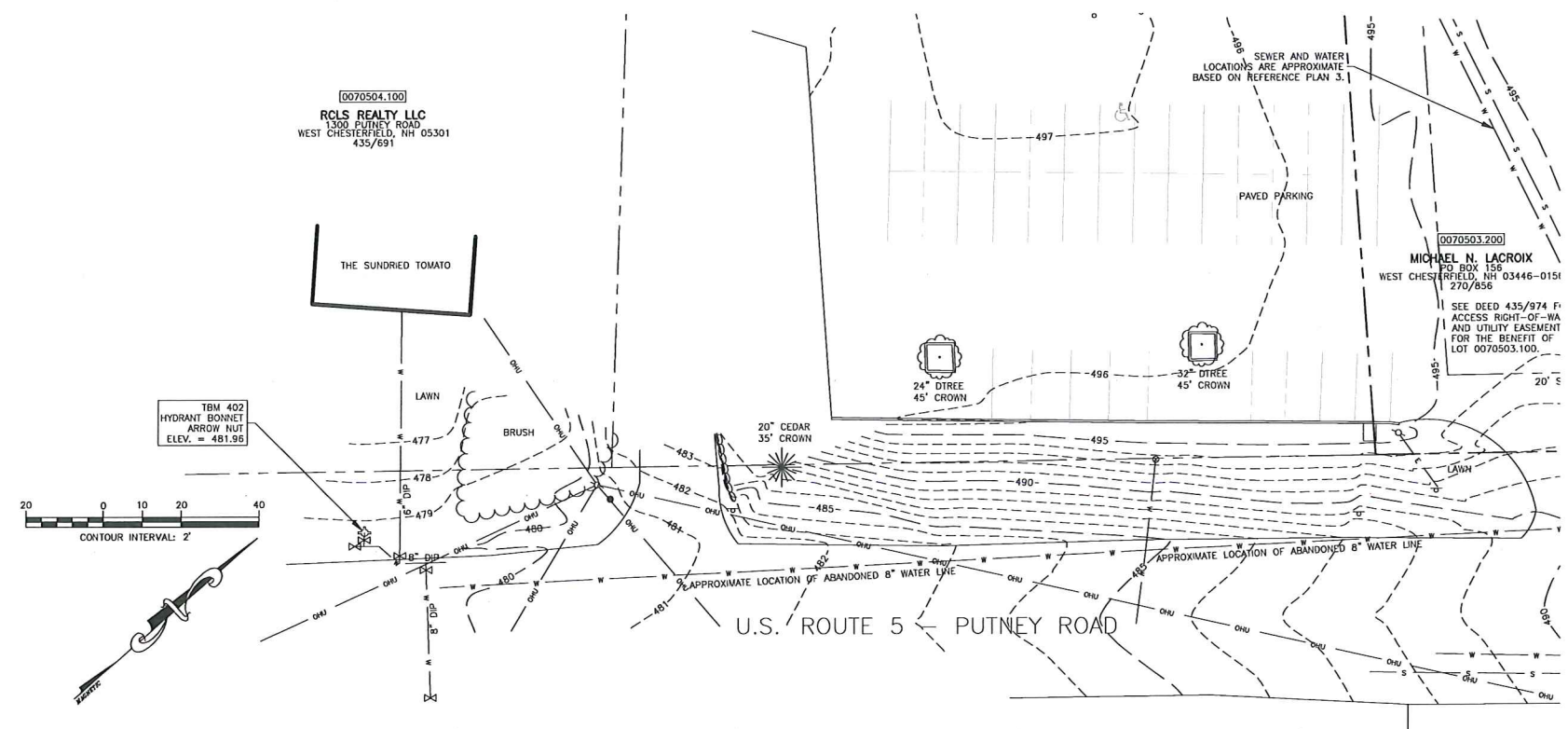
DES. BY	HRH
OWN. BY	HRH
CHKD. BY	BDS
SCALE	AS SHOWN
DATE	05/19/17
PROJECT NUM:	16-040

**C-2A**

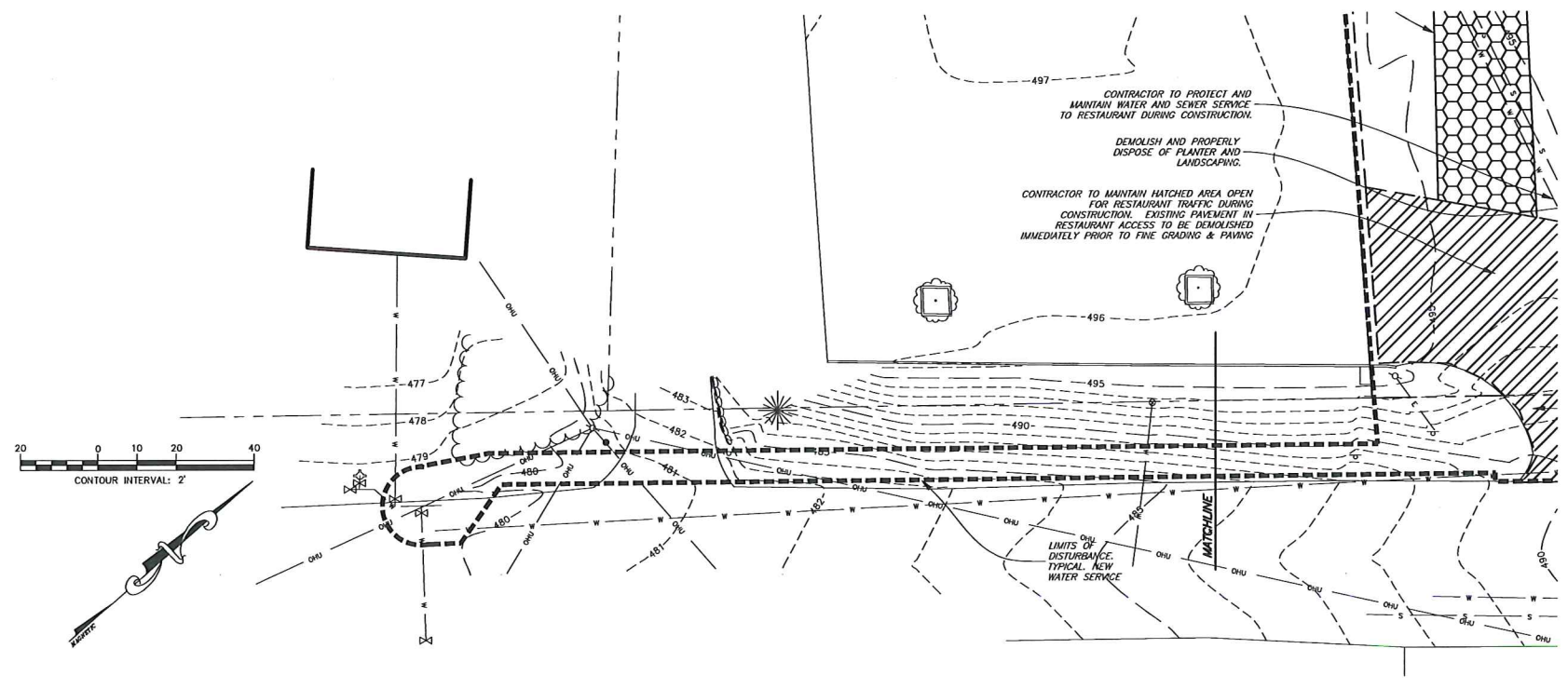
CML SHEET 2 OF 9  
PROJ SHEET 3 OF 66



- SITE PREP PLAN GENERAL NOTES:**
- SEE DWG. C-3 FOR LEGEND.
  - THE CONTRACTOR SHALL ENSURE THAT ALL LOCAL AND STATE PERMITS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
  - THE CONTRACTOR SHALL CONFINED CONSTRUCTION OPERATIONS TO THE SITE. THE LIMITS OF CONSTRUCTION SHALL BE CONSIDERED TO BE THE PROPERTY LINES UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL INSTALL ALL SILT FENCE, TREE PROTECTION AND STABILIZED STONE ENTRANCE PRIOR TO THE START OF ANY CONSTRUCTION. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS SHALL BE CONSIDERED A MINIMUM AND SHALL BE REVISED AS CONSTRUCTION CONDITIONS WARRANT.
  - THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AND TREE PROTECTION FOR THE DURATION OF THE PROJECT. REMOVAL OF ANY EROSION CONTROL MEASURES OR TREE PROTECTION PRIOR TO THE END OF CONSTRUCTION SHALL ONLY BE AT THE DIRECTION OF THE ENGINEER.
  - CLEAR GRUB AND STRIP TOPSOIL. REMOVE TREES, STUMPS, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL. TOPSOIL TO BE STOCKPILED WHERE SHOWN ON PLANS. STABILIZE DISTURBED AREAS THAT ARE FINISHED OR WILL NOT BE WORKED FOR 21 DAYS OR LONGER.
  - ALL MATERIALS TO BE REMOVED SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
  - REFER TO ARCHITECTURAL PLANS FOR DEMOLITION ASSOCIATED WITH THE BUILDING.
  - FOUNDATION WALLS/FOOTINGS SHALL BE REMOVED TO 18" BELOW PROPOSED SUBGRADE. BACKFILL TO SUBGRADE WITH SHARP CORNER GRAVEL. COMPACT IN 6" LIFTS TO 90% STANDARD PROCTOR. COMPLETE WORK, AS SHOWN.
  - REFER TO UTILITY PLANS AND SPECIFICATIONS FOR ABANDONMENT OF EXISTING SEWER & WATER SERVICES.
  - CONTRACTOR TO REMOVE AND PROPERLY DISPOSE OF EXISTING ENTRY SLABS, UNLESS OTHERWISE NOTED.
  - CONTRACTOR TO REMOVE AND PROPERLY DISPOSE OF ALL EXISTING WALKS, CURBS, DRIVES, PAVING & MISC. DEBRIS, UNLESS OTHERWISE NOTED.
  - ALL WATER FROM DEWATERING OPERATIONS SHALL PASS THROUGH THE SEDIMENT TRAP PRIOR TO DISCHARGE. NO SEDIMENT LADEN WATER FROM DEWATERING OPERATIONS WILL BE ALLOWED TO LEAVE THE SITE.
- WINTER CONSTRUCTION GENERAL NOTES:**
- CONTRACTOR SHALL STORE SNOW ON PERIMETER OF WORK AREA. NO SNOW MAY BE STORED IN DIVERSION SWALES OR THE SEDIMENT TRAP. ALL DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
  - MULCH USED FOR TEMPORARY STABILIZATION MUST BE APPLIED AT DOUBLE THE STANDARD RATE, OR A MINIMUM OF 3 INCHES WITH AN 80-90% COVER. EROSION CONTROL BLANKET MAY BE USED INSTEAD OF MULCH.
  - IF NO PRECIPITATION WITHIN 24 HOURS IS FORECAST AND WORK WILL RESUME IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
  - DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS HOUSE FOUNDATIONS OR OPEN UTILITY TRENCHES.
  - PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 1 INCH THICKNESS.
  - A MINIMUM OF 25 FOOT BUFFER SHALL BE MAINTAINED FROM PERIMETER CONTROLS SUCH AS SILT FENCE.
  - CONTRACTOR MUST ADHERE TO THE VERMONT LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL.



**EXISTING CONDITIONS PLAN GENERAL NOTES:**  
 1. REFER TO DWG. C-1 FOR NOTES.  
 2. SEE DWG. C-3 FOR LEGEND.



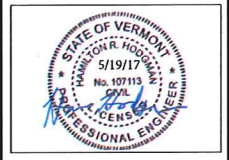
**SITE PREP PLAN GENERAL NOTES:**  
 1. REFER TO DWG. C-2A FOR NOTES.  
 2. SEE DWG. C-3 FOR LEGEND.

**WINTER CONSTRUCTION GENERAL NOTES:**  
 1. REFER TO DWG C-2A FOR NOTES

**STEVENS & ASSOCIATES, P.C.**  
 SMART DESIGN FOR LIVABLE COMMUNITIES

**S&A**

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PURPOSE OF DRAWING:  
 BID SET FOR CONSTRUCTION  
 MAY 19, 2017

**GREAT RIVER TERRACE**  
 1336 PUTNEY ROAD  
 BRATTLEBORO, VERMONT

PREPARED FOR:  
**GREAT RIVER TERRACE PARTNERSHIP**  
 68 BIRGE STREET  
 BRATTLEBORO, VT 05301

DATE:	
REVISION:	

**SITE PREP SOUTH**

DES. BY	HRH
DWN. BY	HRH
CHKD. BY	BDS
SCALE	AS SHOWN
DATE	05/19/17
PROJECT NUM:	16-040
DWG. NO.	<b>C-2B</b>
CIVIL SHEET 3 OF 9	
PROJ SHEET 4 OF 66	

**GREAT RIVER TERRACE**  
 1336 PUTNEY ROAD  
 BRATTLEBORO, VERMONT

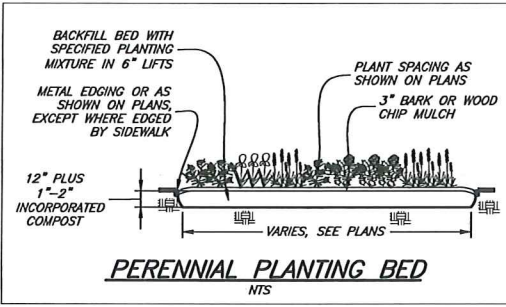
PREPARED FOR:  
**GREAT RIVER TERRACE, LIMITED PARTNERSHIP**  
 68 BIRGE STREET  
 BRATTLEBORO, VT 05301

DATE: 5/17/17  
 REVISION: ACT 250 REVISIONS

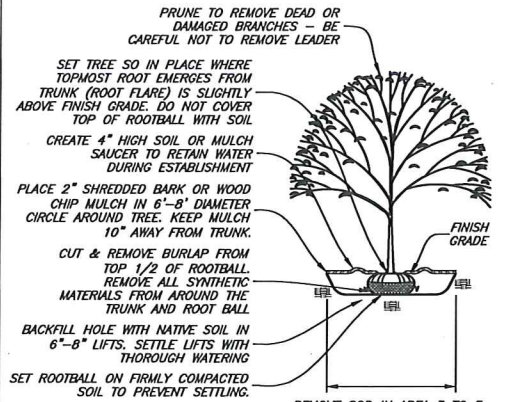
6/28/2017  
 REVISION: VIBRANS EDITS FOR BUS STOP, WATER LINE, AND REMOVAL OF SITE WALL

**LAYOUT AND LANDSCAPING PLAN**

DES. BY: RKS/TJ/HRH  
 DWN. BY: HRH/TJ  
 CHKD. BY: BOS  
 SCALE: AS SHOWN  
 DATE: 05/19/17  
 PROJECT NUM: 16-040  
 DWG. NO: **C-3**  
 CIVIL SHEET 4 OF 9  
 PROJ SHEET 5 OF 66

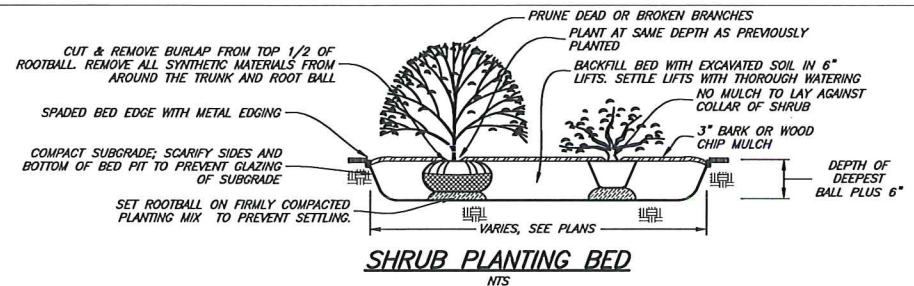


**PERENNIAL PLANTING BED**  
 NTS



**TYPICAL TREE PLANTING**  
 NTS

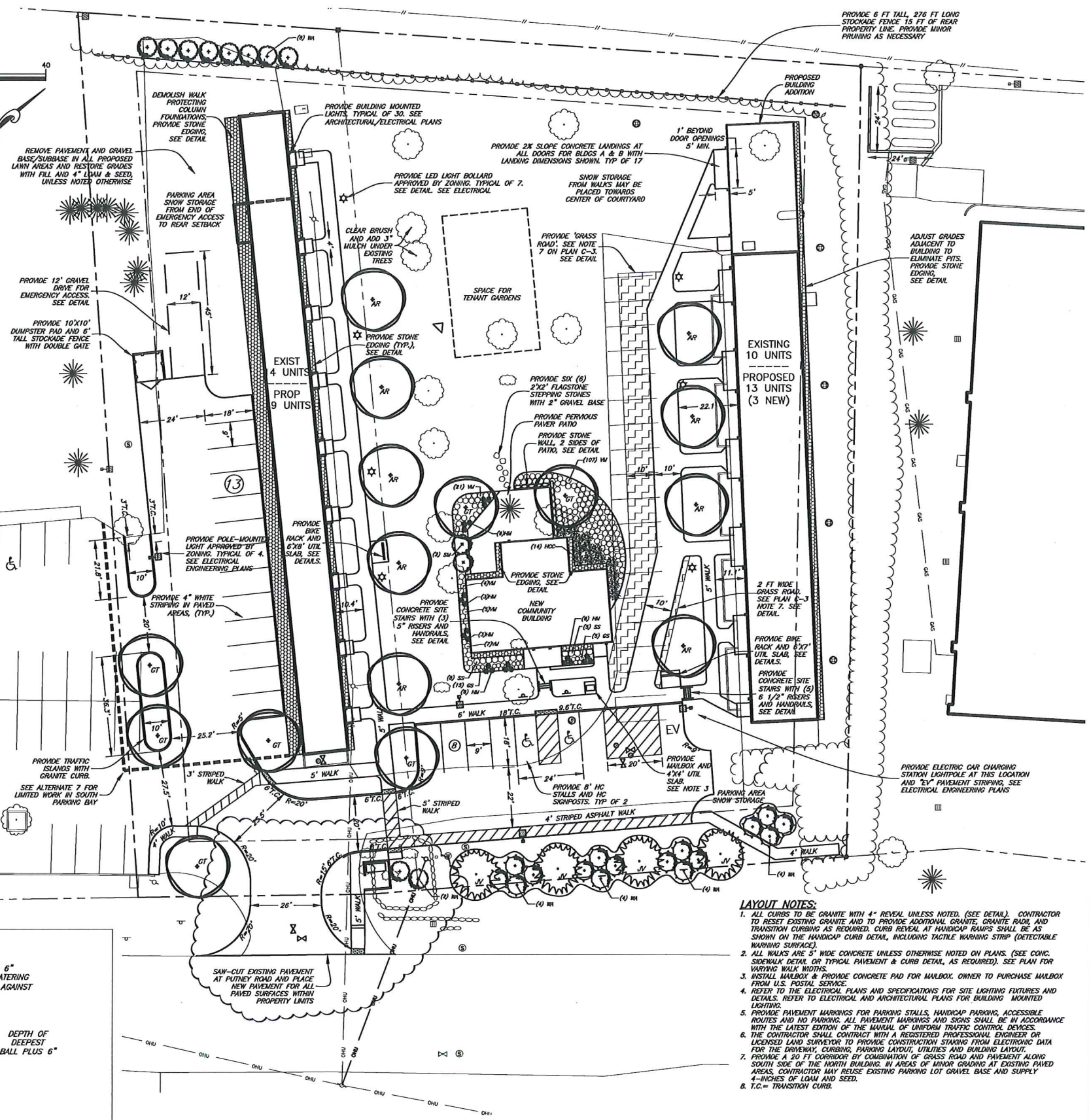
COMMON NAME	SCIENTIFIC NAME	SIZE	COMMENTS
<b>TREES</b>			
(C1) SHADBLASTER HONEYLOCUST	<i>Gleditsia 'Shadblaster'</i>	2" to 2-1/2" OAL	B&B
(C2) EASTERN RED CEDAR	<i>Juniperus virginiana</i>	2" to 2-1/2" OAL	B&B
(C3) RED MAPLE	<i>Acer rubrum 'Autumn Flame'</i>	2" to 2-1/2" OAL	B&B
<b>SHRUBS</b>			
(S1) WOODBURN ARBORESCENS	<i>Thuja occidentalis 'Woodburn Global'</i>	3" TO 4"	7 O.C.
(S2) DWARF KOREAN LILAC	<i>Syringa meyeri 'Palibin'</i>	3" TO 4"	
<b>GRASSES</b>			
(G1) LITTLE BLUESTEM	<i>Setochyrium asperatum 'The Blues'</i>	1 GAL.	3' O.C.
<b>HERBACEOUS PERENNIALS</b>			
(P1) BRIGHT SUNSET DAYLILY	<i>Hemerocallis 'Bright Sunset'</i>	1 GAL.	2' O.C.
(P2) PERIWINKLE	<i>Vinca minor</i>	1 GAL.	2' O.C.
(P3) MAX FRIED BLOODY CRANESBILL	<i>Geranium sanguineum 'Max Frei'</i>	1 GAL.	1.5' O.C.
(P4) HOSTA LAKESIDE CHA CHA	<i>Hosta 'LakeSide Cha Cha'</i>	1 GAL.	4' O.C.



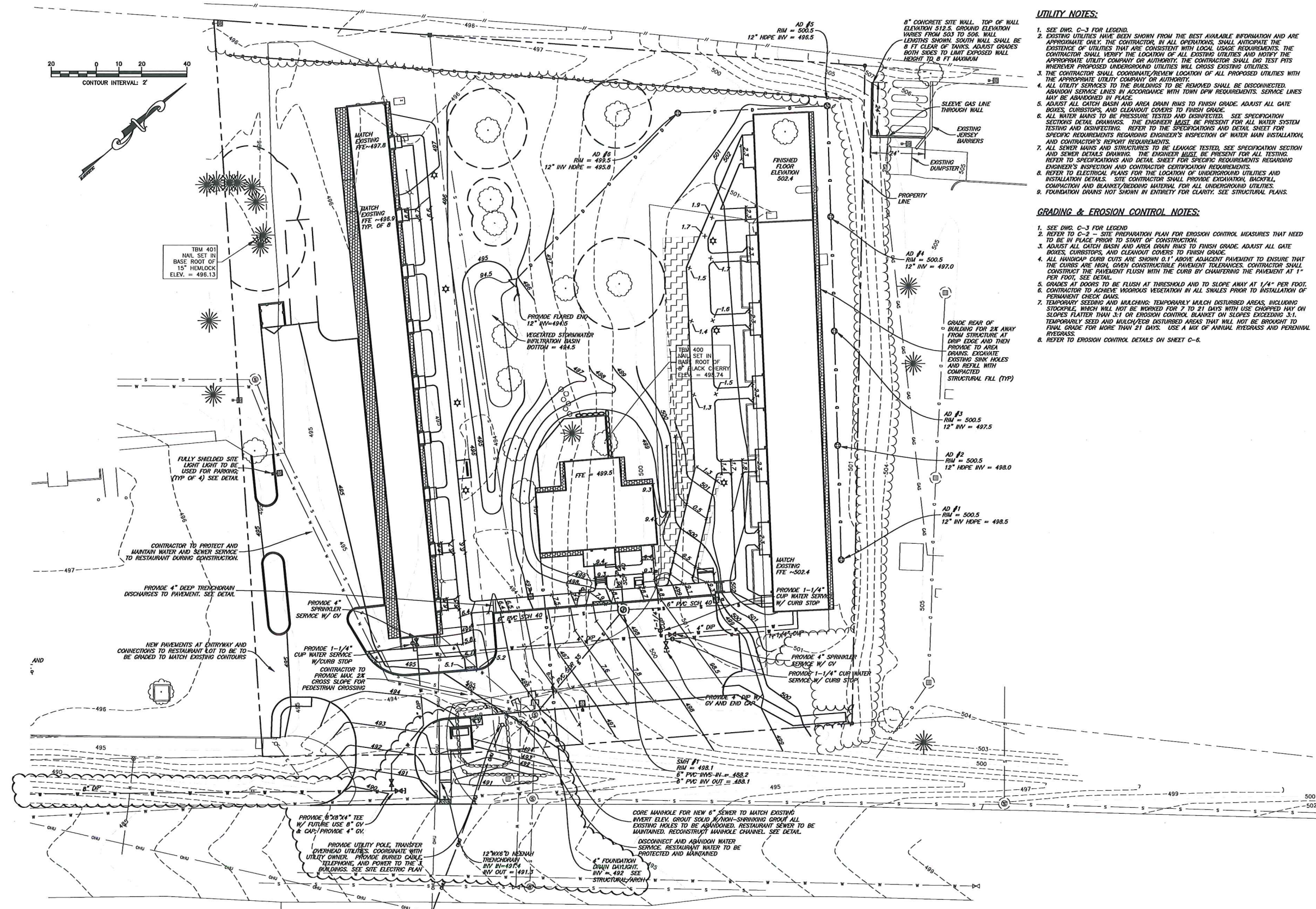
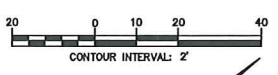
**SHRUB PLANTING BED**  
 NTS

**LEGEND**

EXISTING	PROPOSED
ECB	CB
EDMH	DMH
ESMH	SMH
EAD	AD
DRAIN MANHOLE	
SEWER MANHOLE	
AREA DRAIN	
CURB STOP	
GATE VALVE	
SIGN POST	
UTILITY POLE	
LIGHT POLE	
BOLLARD LIGHT	
FIRE HYDRANT	
IRON PIN	
MONUMENT	
WATER METER PIT	
HEADWALL	
STONEMARK	
RP RAP	
SILT FENCE	
CONFERS	
DECIDUOUS TREES	
SHRUB	
PROPANE TANK	
HANDICAP PARKING	
UNDERGROUND DRAINAGE	
UNDERGROUND SEWER	
UNDERGROUND UTILITY	
UNDERGROUND WATER	
OVERHEAD UTILITY	
CONTOURS	
SURFACE WATER FLOW	
STOCKADE FENCE	
CHAIN LINK FENCE	
TREE LINE	
BOUNDARY LINE	
CURB	



- LAYOUT NOTES:**
- ALL CURBS TO BE GRANITE WITH 4" REVEAL UNLESS NOTED. (SEE DETAIL). CONTRACTOR TO RESET EXISTING GRANITE AND TO PROVIDE ADDITIONAL GRANITE, GRANITE RAIL, AND TRANSITION CURBING AS REQUIRED. CURB REVEAL AT HANDICAP RAMPS SHALL BE AS SHOWN ON THE HANDICAP CURB DETAIL, INCLUDING TACTILE WARNING STRIP (DETECTABLE WARNING SURFACE).
  - ALL WALKS ARE 5' WIDE CONCRETE UNLESS OTHERWISE NOTED ON PLANS. (SEE CONC. SIDEWALK DETAIL OR TYPICAL PAVEMENT & CURB DETAIL, AS REQUIRED). SEE PLAN FOR VARYING WALK WIDTHS.
  - INSTALL MAILBOX & PROVIDE CONCRETE PAD FOR MAILBOX. OWNER TO PURCHASE MAILBOX FROM U.S. POSTAL SERVICE.
  - REFER TO THE ELECTRICAL PLANS AND SPECIFICATIONS FOR SITE LIGHTING FIXTURES AND DETAILS. REFER TO ELECTRICAL AND ARCHITECTURAL PLANS FOR BUILDING MOUNTED LIGHTING.
  - PROVIDE PAVEMENT MARKINGS FOR PARKING STALLS, HANDICAP PARKING, ACCESSIBLE ROUTES AND NO PARKING. ALL PAVEMENT MARKINGS AND SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  - THE CONTRACTOR SHALL CONTRACT WITH A REGISTERED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR TO PROVIDE CONSTRUCTION STAKING FROM ELECTRONIC DATA FROM THE DRAINAGE SERVICE, PARKING LAYOUT, UTILITIES AND BUILDING LAYOUT.
  - PROVIDE A 20 FT CORRIDOR BY COMBINATION OF GRASS ROAD AND PAVEMENT ALONG SOUTH SIDE OF THE NORTH BUILDING. IN AREAS OF MINOR GRADING AT EXISTING PAVED AREAS, CONTRACTOR MAY REUSE EXISTING PARKING LOT GRAVEL BASE AND SUPPLY 4-INCHES OF LDM AND SEED.
  - T.C. = TRANSITION CURB.



**UTILITY NOTES:**

1. SEE DWG. C-3 FOR LEGEND.
2. EXISTING UTILITIES HAVE BEEN SHOWN FROM THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE ONLY. THE CONTRACTOR, IN ALL OPERATIONS, SHALL ANTICIPATE THE EXISTENCE OF UTILITIES THAT ARE CONSISTENT WITH LOCAL USAGE REQUIREMENTS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY COMPANY OR AUTHORITY. THE CONTRACTOR SHALL DIG TEST PITS WHEREVER PROPOSED UNDERGROUND UTILITIES WILL CROSS EXISTING UTILITIES.
3. THE CONTRACTOR SHALL COORDINATE/REVIEW LOCATION OF ALL PROPOSED UTILITIES WITH THE APPROPRIATE UTILITY COMPANY OR AUTHORITY.
4. ALL UTILITY SERVICES TO THE BUILDINGS TO BE REMOVED SHALL BE DISCONNECTED. ABANDON SERVICE LINES IN ACCORDANCE WITH TOWN DPW REQUIREMENTS. SERVICE LINES MAY BE ABANDONED IN PLACE.
5. ADJUST ALL CATCH BASIN AND AREA DRAIN RISERS TO FINISH GRADE. ADJUST ALL GATE BOXES, CURBSTOPS, AND CLEANOUT COVERS TO FINISH GRADE.
6. ALL WATER MAINS TO BE PRESSURE TESTED AND DISINFECTED. SEE SPECIFICATION SECTIONS DETAIL DRAWINGS. THE ENGINEER MUST BE PRESENT FOR ALL WATER SYSTEM TESTING AND DISINFECTING. REFER TO THE SPECIFICATIONS AND DETAIL SHEET FOR SPECIFIC REQUIREMENTS REGARDING ENGINEER'S INSPECTION OF WATER MAIN INSTALLATION, AND CONTRACTOR'S REPORT REQUIREMENTS.
7. ALL SEWER MAINS AND STRUCTURES TO BE LEAKAGE TESTED. SEE SPECIFICATION SECTION AND SEWER DETAILS DRAWING. THE ENGINEER MUST BE PRESENT FOR ALL TESTING. REFER TO SPECIFICATIONS AND DETAIL SHEET FOR SPECIFIC REQUIREMENTS REGARDING ENGINEER'S INSPECTION AND CONTRACTOR CERTIFICATION REQUIREMENTS.
8. REFER TO ELECTRICAL PLANS FOR THE LOCATION OF UNDERGROUND UTILITIES AND INSTALLATION DETAILS. SITE CONTRACTOR SHALL PROVIDE EXCAVATION, BACKFILL, COMPACTION AND BLANKET/BEDDING MATERIAL FOR ALL UNDERGROUND UTILITIES.
9. FOUNDATION DRAINS NOT SHOWN IN ENTIRETY FOR CLARITY. SEE STRUCTURAL PLANS.

**GRADING & EROSION CONTROL NOTES:**

1. SEE DWG. C-3 FOR LEGEND.
2. REFER TO C-2 - SITE PREPARATION PLAN FOR EROSION CONTROL MEASURES THAT NEED TO BE IN PLACE PRIOR TO START OF CONSTRUCTION.
3. ADJUST ALL CATCH BASIN AND AREA DRAIN RISERS TO FINISH GRADE. ADJUST ALL GATE BOXES, CURBSTOPS, AND CLEANOUT COVERS TO FINISH GRADE.
4. ALL HANDLAP CURB CUTS ARE SHOWN 0.1' ABOVE ADJACENT PAVEMENT TO ENSURE THAT THE CURBS ARE HIGH, GIVEN CONSTRUCTIBLE PAVEMENT TOLERANCES. CONTRACTOR SHALL CONSTRUCT THE PAVEMENT FLUSH WITH THE CURB BY CHAMFERING THE PAVEMENT AT 1" PER FOOT. SEE DETAIL.
5. GRADES AT DOORS TO BE FLUSH AT THRESHOLD AND TO SLOPE AWAY AT 1/4" PER FOOT.
6. CONTRACTOR TO ACHIEVE WOODED VEGETATION IN ALL SWALES PRIOR TO INSTALLATION OF PERMANENT CHECK DAMS.
7. TEMPORARY SEEDING AND MULCHING: TEMPORARILY MULCH DISTURBED AREAS, INCLUDING STOCKPILE, WHICH WILL NOT BE WORKED FOR 7 TO 21 DAYS WITH USE CHOPPED HAY ON SLOPES FLATTER THAN 3:1 OR EROSION CONTROL BLANKET ON SLOPES EXCEEDING 3:1. TEMPORARILY SEED AND MULCH/ECB DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR MORE THAN 21 DAYS. USE A MIX OF ANNUAL RYEGRASS AND PERENNIAL RYEGRASS.
8. REFER TO EROSION CONTROL DETAILS ON SHEET C-6.

**STEVENS & ASSOCIATES, P.C.**  
SMART DESIGN FOR LIVABLE COMMUNITIES

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 WWW.STEVENS-ASSOC.COM

**GREAT RIVER  
 TERRACE**  
 1336 PUTNEY ROAD  
 BRATTLEBORO, VERMONT

PREPARED FOR:  
**GREAT RIVER  
 TERRACE, LIMITED  
 PARTNERSHIP**  
 68 BIRGE STREET  
 BRATTLEBORO, VT 05301

DATE:	5/26/17
REVISION:	WATER SERVICE STOPS REPOSITIONED. WATER MAIN LENGTH REDUCED
	5/17/17
	ACT 250 REVISIONS
	6/28/2017
	REVISION: VITRANS EDITS FOR BUS STOP; WATER LINE; AND REMOVAL OF SITE WALL

**GRADING &  
 UTILITY PLAN  
 NORTH**

DES. BY	RKS/HRH
DWN. BY	HRH/JM
CHKD. BY	BDS
SCALE	AS SHOWN
DATE	05/19/17
PROJECT NUM:	18-040
DWG. NO.	<b>C-4A</b>
CIVIL SHEET	5 OF 9
PROJ. SHEET	6 OF 66



PURPOSE OF DIVISION:  
FOR PERMIT REVISION  
FOR CONSTRUCTION  
MAY 28, 2017

**GREAT RIVER  
TERRACE**

1336 PUTNEY ROAD  
BRATTLEBORO, VERMONT

PREPARED FOR:  
**GREAT RIVER  
TERRACE, LIMITED  
PARTNERSHIP**  
68 BIRGE STREET  
BRATTLEBORO, VT 05301

DATE: 5/26/17  
REVISION: WATER SERVICE STOPS  
REPOSITIONED, WATER  
MAIN LENGTH REDUCED

5/17/17  
ACT 250 REVISIONS

6/28/2017  
REVISION: VTRANS EDITS FOR BUS  
STOP, WATER LINE; AND REMOVAL  
OF SITE WALL

**GRADING &  
UTILITY PLAN  
SOUTH**

DES. BY RKS/HRH

DWN. BY HRH/JM

CHKD. BY BOS

SCALE AS SHOWN

DATE 05/19/17

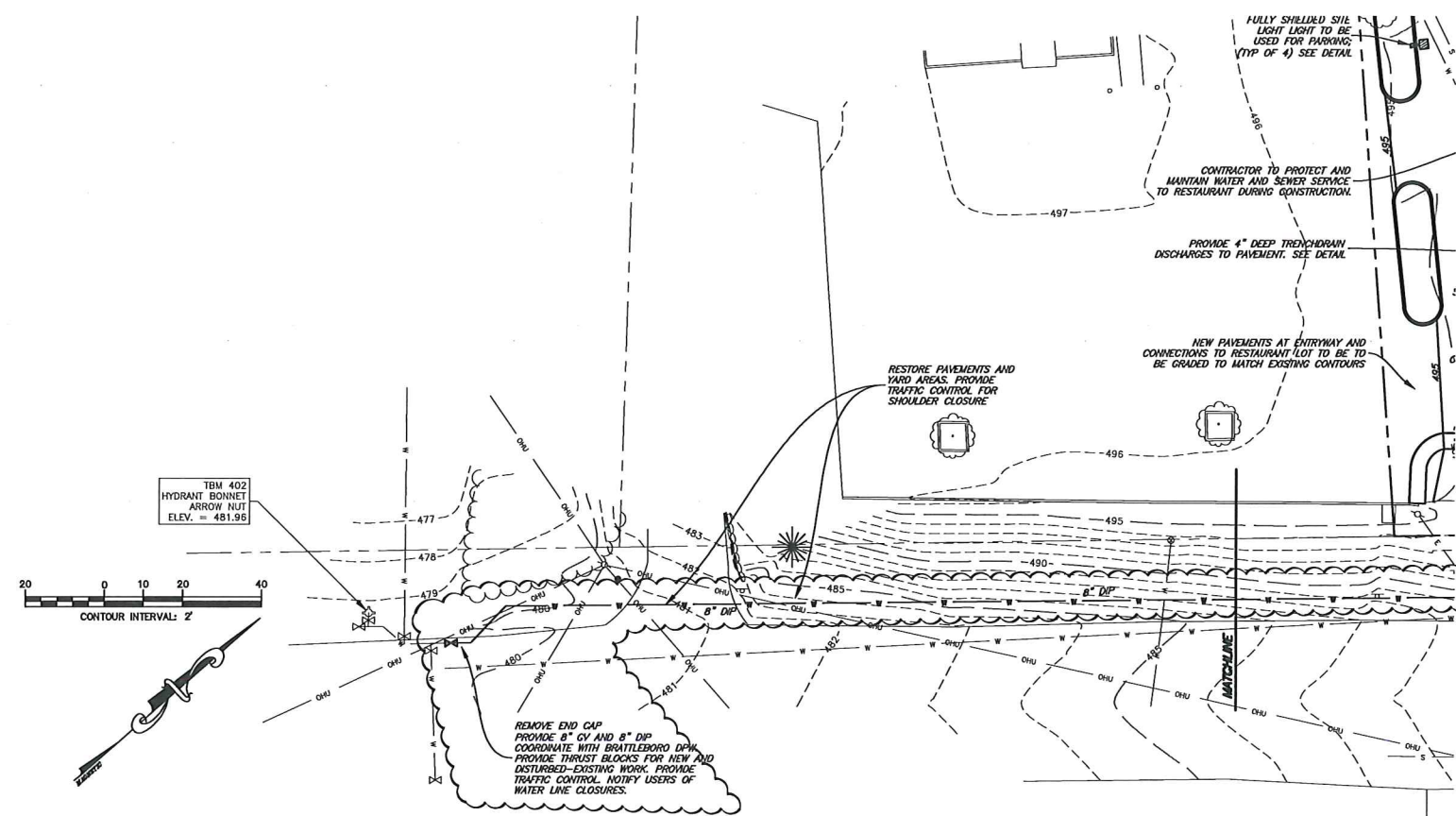
PROJECT NUM: 16-040

DWG. NO.

**C-4B**

CIVIL SHEET 6 OF 9

PROJ SHEET 7 OF 66



**UTILITY NOTES:**

1. SEE DWG. C-4A FOR NOTES.
2. SEE DWG. C-3 FOR LEGEND.

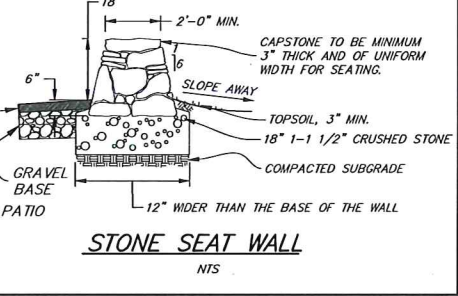
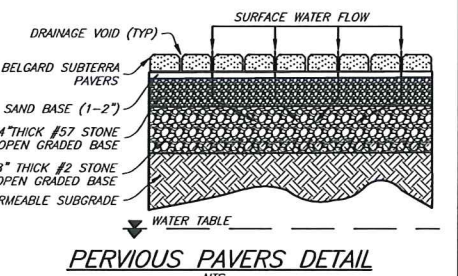
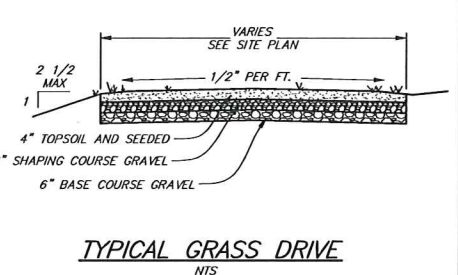
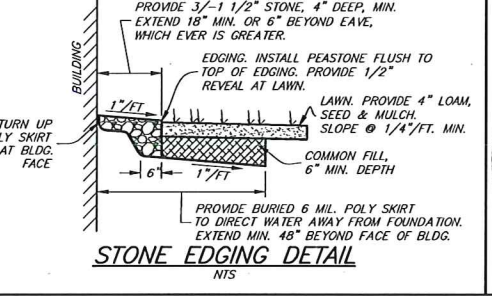
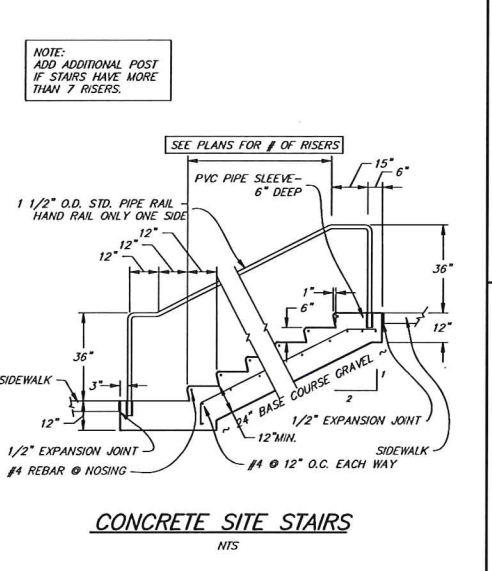
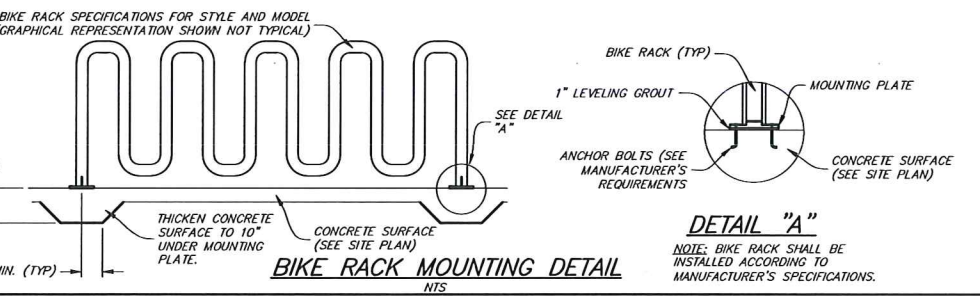
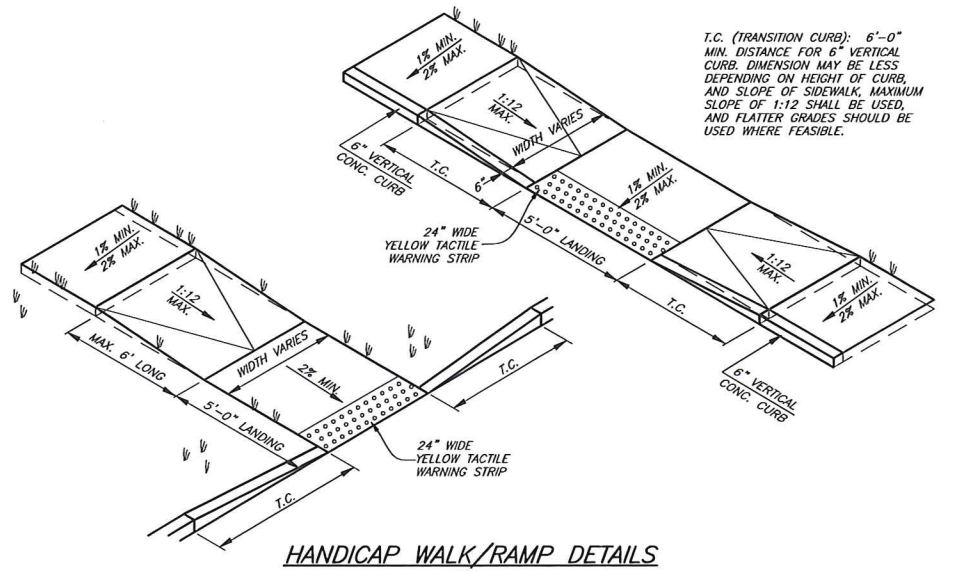
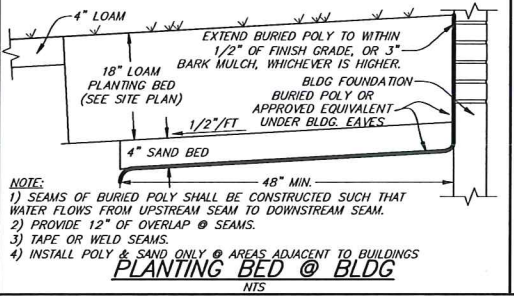
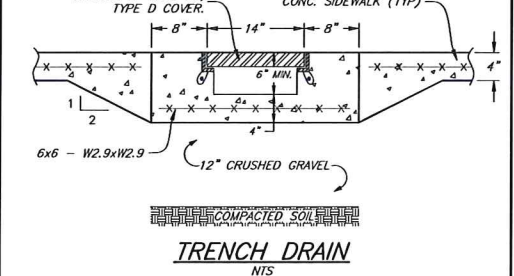
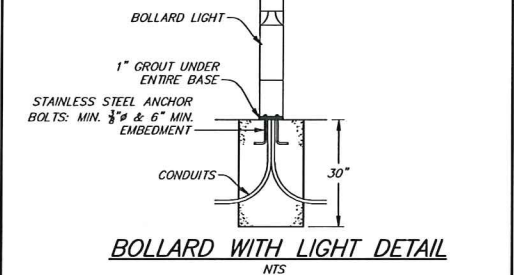
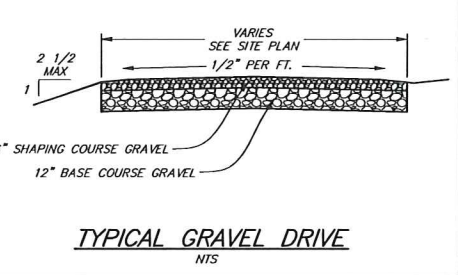
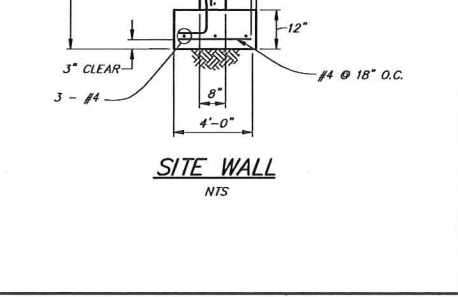
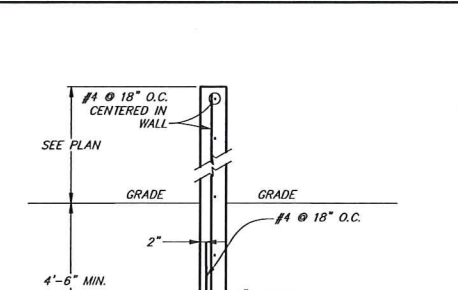
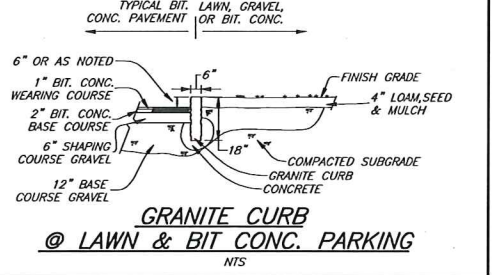
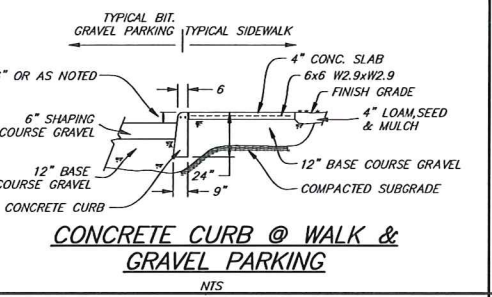
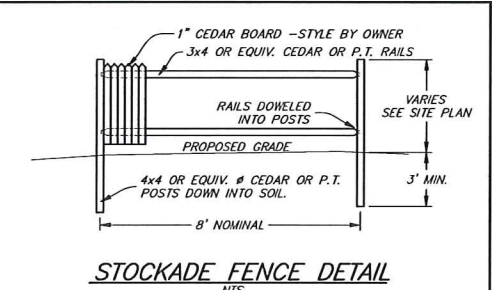
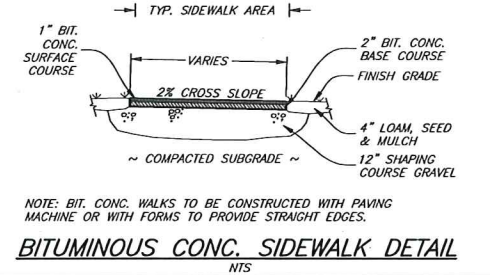
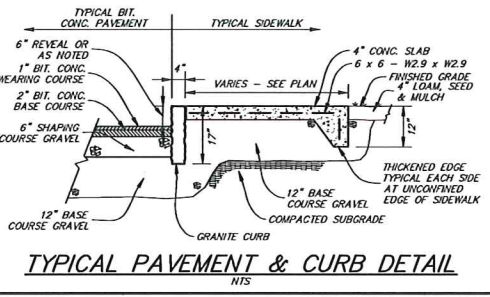
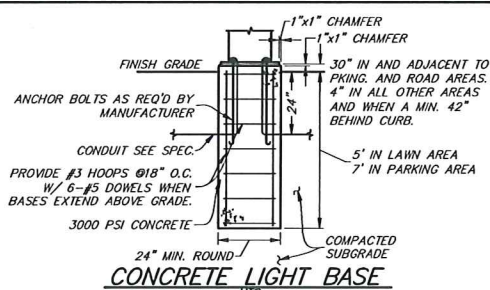
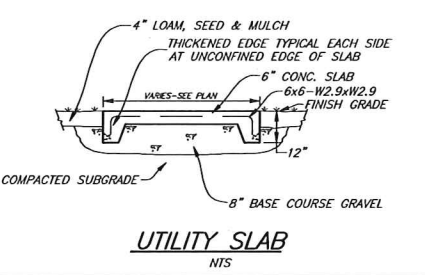
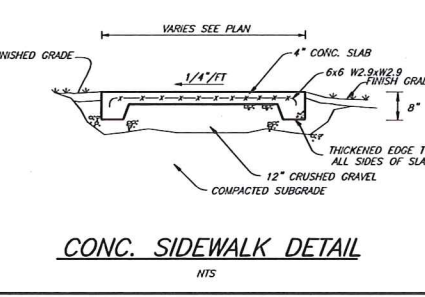
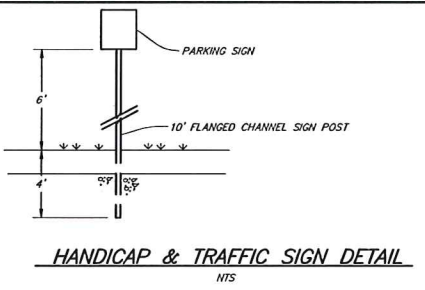
**GRADING & EROSION CONTROL NOTES:**

1. SEE DWG. C-4A FOR NOTES.
2. SEE DWG. C-3 FOR LEGEND.

**SITE CONCRETE GENERAL NOTES:**

- ALL FOOTINGS SHALL BE CARRIED DOWN TO FIRM UNDISTURBED BEARING SOIL, IRRESPECTIVE OF ANY GRADES OR DIMENSIONS GIVEN ON THE PLANS. SOIL-BEARING CAPACITY ASSUMED TO BE 2 TONS PER SQUARE FOOT MINIMUM.
- NO FOOTING SHALL BE PLACED ON FROZEN SOIL. EXTERIOR FOOTINGS SHALL NOT BE LESS THAN 4'-6" BELOW FINISH GRADE, EXCEPT WHERE FOUNDED ON LEDGE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL CONDUIT, SLOTS, PIPE SLEEVES, ANCHOR BOLTS, ETC., AS REQUIRED FOR THE TRADES BEFORE CONCRETE IS POURED.
- ALL SLABS POURED ON GROUND SHALL BE REINFORCED WITH WELDED WIRE MESH 6x6 W2.9xW2.9 MINIMUM UNLESS SHOWN OTHERWISE. MESH TO BE LAPPED MINIMUM 8" ON SIDES AND 6" ON ENDS. NO ROLLS, SHEET FABRIC ONLY.
- ALL CONCRETE WALLS, FOOTINGS, SLABS ON GROUND AND FRAMED SLABS TO BE Fc=4000 PSI @ 28 DAYS AND AIR-ENTRAINED.
- THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND DIMENSIONS AND SHALL STAKE OUT THE WORK PRIOR TO CONSTRUCTION. CONTRACTOR TO VERIFY DEPTH TO LEDGE FOR FTG ELEVATION PRIOR TO REINFORCEMENT FABRICATION.
- PROTECT IN-PLACE FOUNDATIONS AND SLABS FROM FROST PENETRATION UNTIL THE PROJECT IS COMPLETED.
- REINFORCEMENT SHALL BE ASTM A615 GRADE 60 (YIELD STRESS 60,000 PSI).
- INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ARCHITECT OF COMPLETION 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF THE REINFORCEMENT.
- CLEAR CONCRETE PROTECTION SHALL BE 3" ON FTGS AND WALLS POURED AGAINST EARTH OR WATER AND 2" WHEN POURED AGAINST FORMS AND WEATHER. REINFORCEMENT IN OPPOSITE SIDE FROM EARTH (INSIDE) SHALL BE 1-1/2" MINIMUM. OTHER CLEARANCES TO MEET JOB CONDITIONS.
- PROVIDE BAR SUPPORTS, SPACERS AND ACCESSORIES RECOMMENDED BY THE ACI DETAILING MANUAL. ALL DETAILING NOT COVERED BY THESE DRAWINGS OR THESE NOTES SHALL BE IN ACCORDANCE WITH THIS SAME MANUAL.
- ALL CONTINUOUS REINFORCING BARS SHALL BE LAPPED 30 DIAMETERS AT SPLICES AND AT CORNERS UNLESS OTHERWISE SHOWN. TERMINATE CONTINUOUS BARS AT NON-CONTINUOUS ENDS WITH STANDARD HOOKS. LAP CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND BOTTOM BARS AT SUPPORTS AS REQUIRED.
- PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS.
- EXPOSED FACES OF ALL SITE CONCRETE TO BE "SMOOTH FORMED" AND "SMOOTH RUBBED" FINISHED UNLESS OTHERWISE SHOWN.
- CONTRACTOR SHALL SUBMIT CHECKED SHOP DRAWINGS AND PLACING PLANS IN TRIPLICATE FOR ALL REINFORCEMENT TO THE ARCHITECT BEFORE FABRICATION.
- CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL OR VERTICAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED. CONSTRUCTION JOINTS SHALL BE 10' APART AND KEVED. CONTROL JOINTS SHALL BE A MAX. OF 30' APART.
- ALL SPECIFICATIONS NOT COVERED BY THESE DRAWINGS OR NOTES SHALL BE IN ACCORDANCE WITH ACI 301-89, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
- CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PREVENT FLOTATION OF STRUCTURES DURING CONSTRUCTION, AND SHALL MAINTAIN EXCAVATIONS SUFFICIENTLY FREE OF WATER BY PUMPING DRY TO ALLOW PLACING AND CURING CONCRETE.
- CONTROL SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SO THAT FOUNDATION WORK IS DONE ON DRY AND UNDISTURBED SUBGRADE MATERIAL.
- TRIM AND FINISH BOTTOM OF EXCAVATION WITH HAND SHOVEL.
- BACKFILL AND COMPACT UNDER STRUCTURAL ELEMENTS IN 8" LIFTS.
- MIX AND PLACE CONCRETE ONLY WHEN TESTING AGENCY TECHNICIANS IS PRESENT.
- DO NOT TACK WELD REINFORCEMENT.
- CONCRETE FINISHES:

- TOP OF WALLS - STEEL TROWEL
- VERTICAL SURFACES - BURLAP RUBBED
- WALKING SURFACES - BROOM



**STEVENS & ASSOCIATES, P.C.**  
SMART DESIGN FOR LIVABLE COMMUNITIES

**S&A**

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PURPOSE OF DRAWING:  
BID SET FOR CONSTRUCTION  
MAY 18, 2017

**GREAT RIVER TERRACE**  
1336 PUTNEY ROAD  
BRATTLEBORO, VERMONT

PREPARED FOR:  
**GREAT RIVER TERRACE, LIMITED PARTNERSHIP**  
68 BIRGE STREET  
BRATTLEBORO, VT 05301

DATE: REVISION:


**GENERAL SITE & CONCRETE DETAILS**

DES. BY: JFM  
DWN. BY: JFM  
CHKD. BY: HRH  
SCALE: AS SHOWN  
DATE: 05/19/17  
PROJECT NUM: 16-040  
DWG. NO: **C-5**  
CIVIL SHEET 7 OF 9  
PROJ SHEET 8 OF 66

**GENERAL NOTES:**

- EXISTING UTILITIES HAVE BEEN SHOWN FROM THE BEST AVAILABLE DATA AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL ANTICIPATE THE EXISTENCE OF UTILITIES THAT ARE NORMALLY LOCATED IN THE PUBLIC RIGHT-OF-WAY, BUT NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY COMPANY OR AUTHORITY. CONTRACTOR SHALL DIG TEST PITS WHEREVER PROPOSED UNDERGROUND UTILITIES CROSS EXISTING UTILITIES.
- EXISTING FENCES, POLES, SIGNS, MAILBOXES, CURBS, SHRUBS, PLANTS AND OTHER SITE FEATURES SHALL BE REMOVED AND REPLACED OR REMOVED AND RESTORED IN KIND BY THE CONTRACTOR AS REQUIRED DURING THE CONSTRUCTION WORK. ALL YARD WORK SHALL BE COORDINATED WITH SITE WORK PROVIDED FOR IN CONTRACT DOCUMENTS.
- CONTRACTOR TO COORDINATE REVIEW LOCATION OF ALL PROPOSED UTILITIES WITH THE APPROPRIATE UTILITY COMPANY OR AUTHORITY.
- MAINTAIN SERVICE OF ALL UTILITIES DURING CONSTRUCTION. WHERE NECESSARY TO TEMPORARILY INTERRUPT SERVICE, NOTIFY THE UTILITY TO TEMPORARILY INTERRUPT SERVICE, AND NOTIFY THE UTILITY AND ALL AFFECTED PERSONS PRIOR TO INTERRUPTION.
- MAINTAIN THROUGH TRAFFIC IN PUBLIC WAYS AT ALL TIMES.
- DO NOT OBSTRUCT ACCESS TO PRIVATE DRIVEWAYS.
- PROVIDE ALL BARRICADES, FENCES, WARNING LIGHTS, SIGNS AND UNIFORMED TRAFFIC CONTROL PERSONNEL NECESSARY TO PROTECT THE PUBLIC DURING CONSTRUCTION.
- THE CONTRACTOR SHALL CONFINE CONSTRUCTION OPERATIONS AND ACTIVITIES TO THE SITE AS SHOWN ON THE DRAWINGS. STORAGE AND PROTECTION OF MATERIALS AND STRUCTURES OFF THE SITE WILL BE BY OTHER ARRANGEMENTS OF THE CONTRACTOR.
- ELEVATIONS SHOWN ARE BASED ON ASSUMED DATUM, UNLESS OTHERWISE NOTED.
- EXAMINE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR VERIFICATION OF LOCATIONS AND DIMENSIONS OF PROJECT REQUIREMENTS NOT SHOWN ON THE SITE DRAWINGS.
- CONTRACTOR TO ENSURE THAT ALL LOCAL PERMITS, STATE PERMITS AND CONSTRUCTION EASEMENTS FROM NEIGHBORING PROPERTY OWNERS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND DIMENSIONS AND SHALL STAKE OUT THE WORK PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER TO REVIEW GRADES PRIOR TO REPLACEMENT OF GRAVEL & PAVEMENT.
- PROVIDE TEMPORARY OR PERMANENT SUPPORTS, WHETHER SHORING, SHEETING OR BRACING SO THAT NO HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OCCURS TO EXISTING STRUCTURES, STREETS OR UTILITIES ADJACENT TO THE PROJECT SITE.
- PROVIDE HAY BALE DIKES, SILT FENCES AND OTHER EROSION CONTROL AS REQUIRED TO CONTROL EROSION AND DUST.
- THE CONTRACTOR SHALL BE RESPONSIBLE IN DETERMINING ANNUAL AND SEASONAL VARIATIONS IN GROUND WATER LEVEL WHICH MAY EFFECT THE WORK. GROUND WATER SHALL UNDER NO CONDITIONS CONSTITUTE GROUNDS FOR REVISION IN CONTRACT PRICE OR COMPLETION DATE.
- FABRICATION AND CERTAIN PORTIONS OF THE WORK SHALL NOT BE STARTED UNTIL CHECKED SHOP DRAWINGS COVERING THE WORK HAVE BEEN SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE ENGINEER.

**MAINTENANCE OF EROSION CONTROL STRUCTURES:**

- SILT FENCES ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS. WHEN SEDIMENT ACCUMULATION REACHES A DEPTH OF 12" BEHIND THE SILT FENCE, THE SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF. OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO REMOVAL.
- STONE CHECK DAMS SHALL BE REPLACED WHEN THEY BECOME CLOGGED WITH SOIL PARTICLES OR AS DIRECTED BY THE ENGINEER. CLEAN SILT AND SOIL FROM UPSTREAM FACE OF STONE CHECK DAMS WHEN ACCUMULATION IS NOTICEABLE.
- KEEP ALL DRAINAGE ENTRANCES FREE OF DEBRIS DURING CONSTRUCTION. SWEEP ROADS AS REQUIRED OR DIRECTED BY THE ENGINEER.
- CLEAN SEDIMENT TRAPS AND TEMPORARY DIVERSION DITCHES WHEN THEY BECOME FULL TO 50% OF THEIR ORIGINAL VOLUME OR AS DIRECTED BY THE ENGINEER.
- REINFORCE NETTING, MATTING, AND BLANKETS WITH ADDITIONAL STAPLES IF THEY HAVE MOVED. REPAIR DAMAGE CAUSED BY WATER EROSION OR WIND AT THE END OF EACH DAY.
- REPAIR AND REPLACE STONE INLET PROTECTION WHEN STONES BECOME CLOGGED WITH SEDIMENT.
- REPAIR ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION ACTIVITIES AT OR BEFORE THE END OF EACH WORKING DAY. DAMAGE TO ANY EROSION CONTROL MEASURE AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED IMMEDIATELY.

**Maintenance Chart**  
Erosion Control Devices

Control Device*	Action	Frequency		
		Weekly	Storm Event	When Necessary
Vegetation	Visual inspection	▲	▲	▲
Drystacks	Visual inspection	▲	▲	▲
Mating, Lining and/or Barbed	Visual inspection	▲	▲	▲
Channel Protection	Visual inspection	▲	▲	▲
Sediment Trap	Visual inspection	▲	▲	▲
Silt Fence	Visual inspection	▲	▲	▲
Stone Check Dam	Visual inspection	▲	▲	▲
Mud Protection	Visual inspection	▲	▲	▲
Diversion Swales	Visual inspection	▲	▲	▲
Slope Drains	Visual inspection	▲	▲	▲
Curb & Outer Containment	Visual inspection	▲	▲	▲

\* Control devices as shown on plans are to be considered a minimum and may be supplemented by request of engineer.  
▲ Regular or storm event maintenance as soon as possible but no later than 24 hours after any storm event that generates runoff from the site.

**RECORDKEEPING:**

- ON-SITE PLAN COORDINATOR RESPONSIBILITIES: THE CONTRACTOR SHALL DESIGNATE AN ON-SITE PLAN COORDINATOR WHO SHALL KEEP A WRITTEN RECORD OF INSPECTIONS AND ANY WATER QUALITY MONITORING DATA AND SHALL NOTE ALL PROBLEM AREAS AND THE MEASURES TAKEN TO CORRECT THOSE PROBLEMS AND PREVENT FUTURE PROBLEMS. THE RECORDS SHALL REFLECT THE STATUS OF THE PROJECT IN TERMS OF CONSISTENCY WITH THE PLANNED CONSTRUCTION SEQUENCE, WHAT AREAS ARE DISTURBED AT THE TIME OF THE INSPECTION, AND WHAT AREAS HAVE BEEN TEMPORARILY OR PERMANENTLY STABILIZED SINCE THE LAST INSPECTION RECORD. EACH INSPECTION RECORD SHALL BE SIGNED BY THE ON-SITE PLAN COORDINATOR.
- PROFESSIONAL ENGINEER OR CERTIFIED PROFESSIONAL IN EROSION & SEDIMENT CONTROL RESPONSIBILITIES: WHERE INSPECTIONS ARE ALSO BEING MADE BY A REGISTERED PROFESSIONAL, INSPECTION REPORTS SHALL BE SUBMITTED TO THE ON-SITE PLAN COORDINATOR TO BE INCORPORATED INTO THE ON-SITE PLAN COORDINATOR'S RECORD.
- OWNER/PERMITEE RESPONSIBILITIES: THE INSPECTION RECORDS SHALL BE KEPT ON-SITE AND SHALL BE MADE AVAILABLE TO THE STATE OR THE STATE'S REPRESENTATIVES UPON REQUEST. THE PERMITEE SHALL RETAIN A COPY OF THE PLAN AND ANY RECORDS REQUIRED BY THIS PERMIT FOR A MINIMUM OF 3 YEARS FOLLOWING THE COMPLETION OF THE CONSTRUCTION ACTIVITIES.

ON-SITE COORDINATOR: \_\_\_\_\_ PHONE: \_\_\_\_\_

**MATERIALS:**

- SILT FENCE: SILT FENCE SHALL BE MARI-F WITH PREFABRICATED 36-INCH POSTS OR APPROVED EQUIVALENT. IT SHALL BE INSTALLED IN ACCORDANCE WITH THE PLAN DETAILS.
- BIPRAP: SEE SPECIFICATIONS & DETAILS.
- MULCH: MULCH SHALL BE DRY MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE OF NOXIOUS WEEDS OR WOODY STEMS. NO SALT HAY SHALL BE USED.
- MULCH NETTING: NETTING USED TO HOLD MULCH IN PLACE SHALL BE AN APPROVED PAPER, TWINE, PLASTIC OR PLASTIC AND WOOD FIBER NETTING.
- EROSION CONTROL MATTING (BLANKET): MATTING SHALL BE INSTALLED ON ANY SLOPES STEEPER THAN 3:1 TO 1:1. MATTING SHALL NORTH AMERICAN GREEN STS OR APPROVED EQUIVALENT.
- FERTILIZER: SEE SPECIFICATIONS.
- LIME: SEE SPECIFICATIONS.
- TEMPORARY SEED MIXTURE (OR EROSION CONTROL SEED MIXTURE): SEE SPECIFICATIONS.
- PERMANENT SEED MIXTURE: SEE SPECIFICATIONS.

**WINTER EROSION CONTROL:**

- ALL EROSION CONTROL FEATURES SUCH AS SILT FENCE AND STONE CHECK DAMS MUST BE IN PLACE PRIOR TO GROUND FREEZING.
- ALL DISTURBED AREAS OF THE SITE SHALL BE SEEDED AND MULCHED FROM SEPTEMBER 15 TO MAY 1 REGARDLESS OF WHETHER FINISHED GRADING HAS BEEN COMPLETED. WORK MAY CONTINUE THROUGH THIS PERIOD WITH WRITTEN PERMISSION FROM THE ENGINEER AND PROVIDED THE FOLLOWING WINTER EROSION CONTROLS ARE IMPLEMENTED:
  - WINTER RYE SEEDS SHALL BE SUBSTITUTED FOR ANY OTHER TEMPORARY ANNUAL GRASS SEEDS.
  - ALL EXPOSED EARTH SHALL BE MULCHED WITH 4 INCHES OF HAY OR STRAW. SLOPES GREATER THAN 3:1 SHALL BE COVERED WITH STAKED EROSION CONTROL MAT (NORTH AMERICAN GREEN STS OR APPROVED EQUIVALENT).
  - EARTHWORK SHALL ONLY TAKE PLACE DURING SUITABLE CONDITIONS, I.E. THERE SHALL BE NO EARTHWORK DURING MODERATE OR HEAVY RAINS, WET SNOW, OR THAWS.
  - PROVIDE 30' OF STABILIZED ACCESS AROUND BUILDINGS BY INSTALLING A 6" LAYER OF 4" DIA. OR SMALLER STONE.

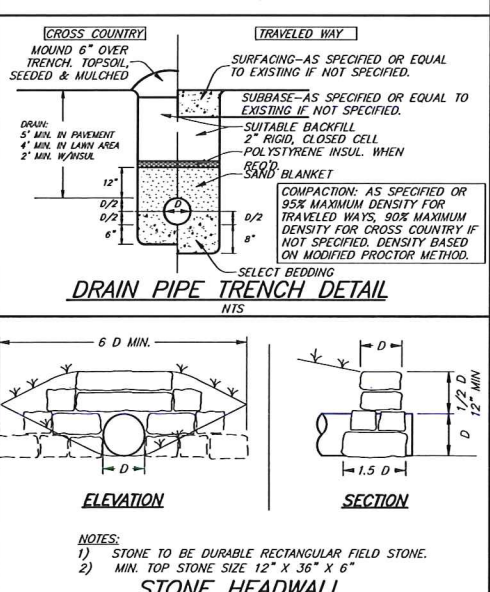
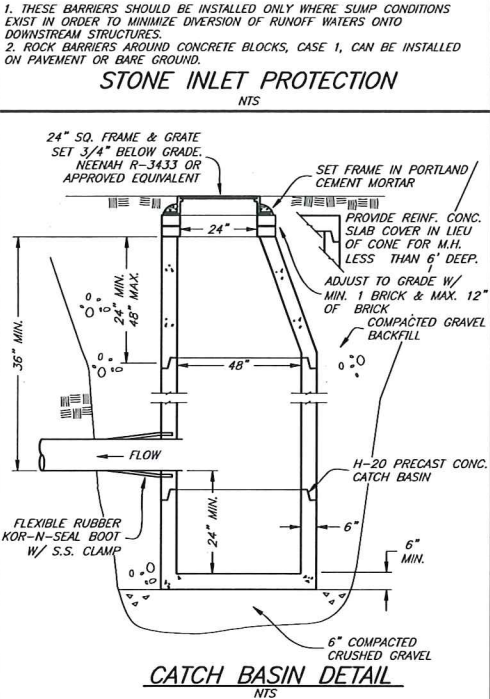
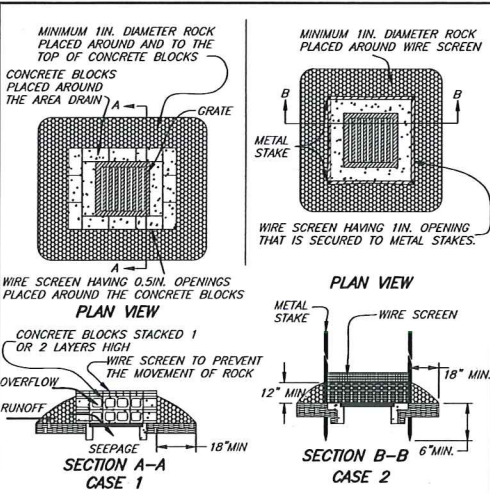
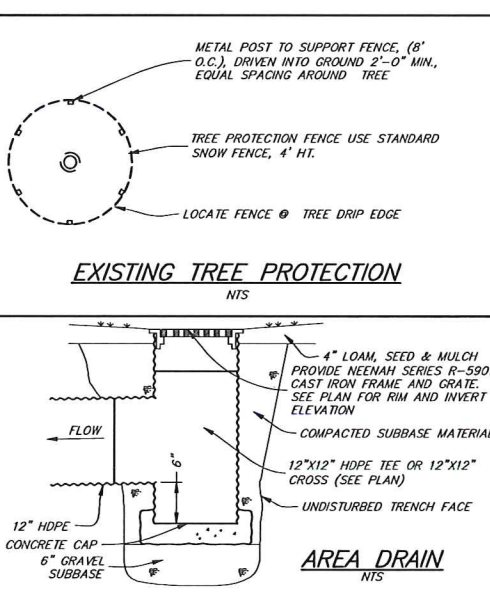
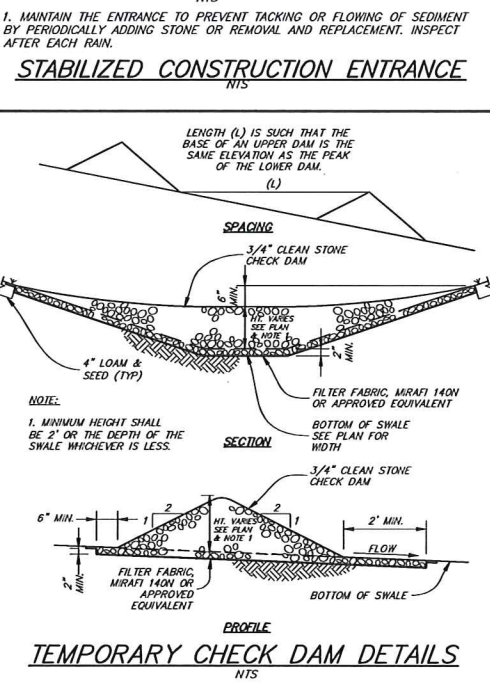
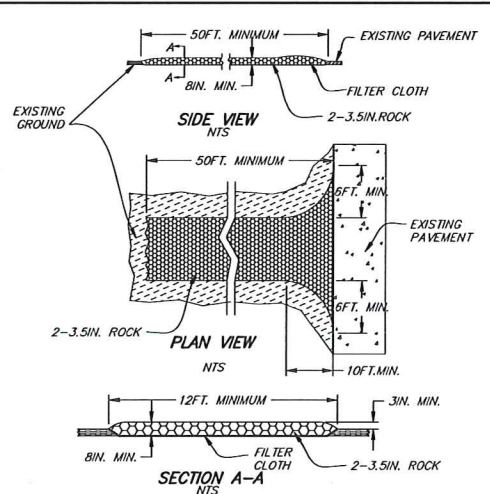
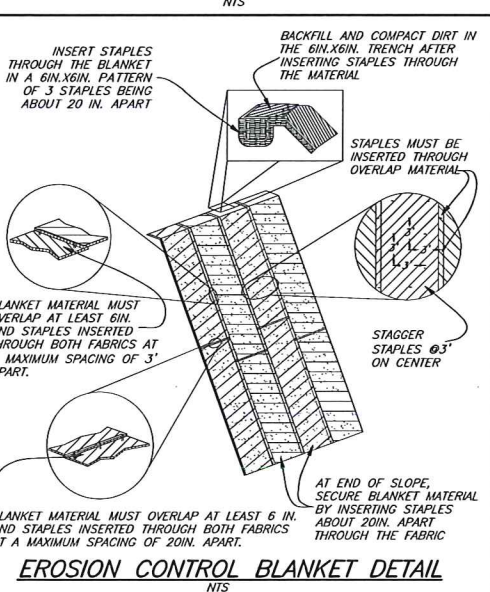
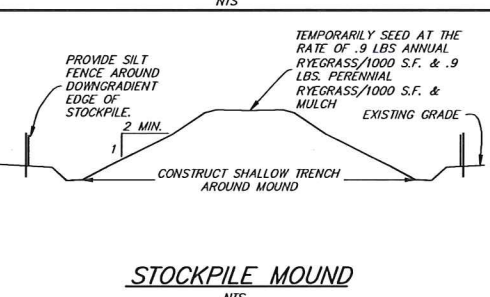
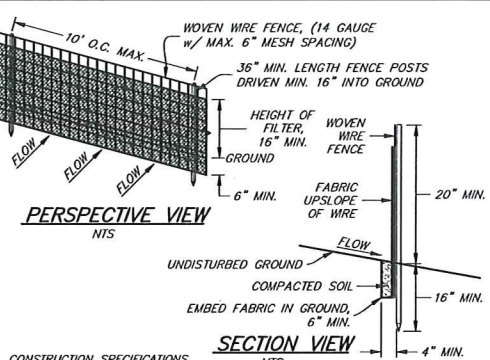
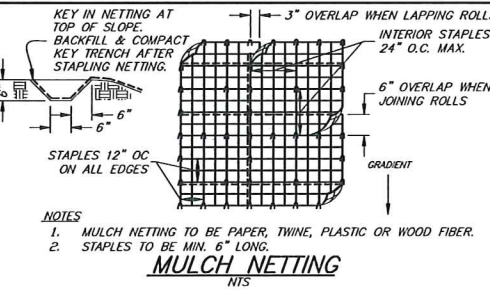
**Winter Maintenance Schedule**

Erosion Control Devices	Action	Frequency	Before/After Predicted Thaw or Rainy Period	When Necessary
Control Device*	Action	Weekly	Before/After Predicted Thaw or Rainy Period	When Necessary
Drystacks	Visual inspection - verify and before/after thaw and rainy periods. Replace mulch on areas where original mulch has been lost.	▲	▲	▲
Mating, Lining and/or Barbed	Visual inspection - Add staples if material has moved. Repair water erosion/damage. Add staples if material has moved. Repair water erosion/damage.	▲	▲	▲
Channel Protection	Visual inspection - Add staples if material has moved. Repair water erosion/damage.	▲	▲	▲
Sediment Trap	Visual inspection - Remove silt and soil before predicted thaw and rainy periods when accumulation is 50% of capacity.	▲	▲	▲
Silt Fence	Visual inspection - Remove any silt and soil before predicted thaw and rainy periods when it has reached 1/2 the height of fence or when height of sediment is equal to the height of the fence.	▲	▲	▲
Stone Check Dam	Visual inspection - Remove silt and soil before predicted thaw and rainy periods when it has reached 1/2 the height of stone or when height of sediment is equal to the height of the stone.	▲	▲	▲
Mud Protection	Visual inspection - Repair and replace rock. Remove sediment. Remove rock.	▲	▲	▲
Diversion Swales	Visual inspection - Repair and replace slope drain. Repair traps. Repair breached section of swales/ditches.	▲	▲	▲
Slope Drains	Visual inspection - Repair and replace slope drain. Repair traps. Repair breached section of swales/ditches.	▲	▲	▲
Curb & Outer Containment	Visual inspection - Repair and replace bags. Remove sediment.	▲	▲	▲

\* Control devices as shown on plans are to be considered a minimum and may be supplemented by request of engineer.  
▲ Regular or storm event maintenance as soon as possible but no later than 24 hours after any storm event that generates runoff from the site.

**EROSION CONTROL GENERAL NOTES:**

- GENERAL: TEMPORARY EROSION CONTROL SHALL BE ACCOMPLISHED THROUGH THE USE OF SILT FENCES, HAY OR STRAW MULCH, CHECK STRUCTURES, INLET PROTECTION, SEDIMENT TRAPS, TEMPORARY AND PERMANENT SEEDING AND DIVERSION DITCHES. THE EROSION CONTROL SPECIFIED AND DETAILED ON THE PLANS SHALL BE CONSIDERED THE MINIMUM REQUIRED AND IS TO BE USED AS A GUIDELINE ONLY. ADDITIONAL MEASURES MAY BE DICTATED BY FIELD CONDITIONS. PROVIDE ADDITIONAL EROSION CONTROL AS REQUIRED BY THE TOWN, STATE, OR THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DURING CONSTRUCTION & UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- ALL EROSION CONTROL PROCEDURES SHALL CONFORM TO APPLICABLE SECTIONS OF THE "EROSION AND SEDIMENT CONTROL DESIGN HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE AND/OR THE "VERMONT HANDBOOK FOR SOIL EROSION AND SEDIMENT CONTROL".
- THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED FOR THE SHORTEST PRACTICAL PERIOD AT ANY GIVEN TIME DURING THE DEVELOPMENT. EXPOSED AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 48 HOURS OF FINISH GRADING.
- SILT DEPOSITED ON SITE SHALL BE COLLECTED AND REMOVED.
- THE CONTRACTOR IS RESPONSIBLE FOR WATER CONTROL DURING ALL PHASES OF CONSTRUCTION. NO WORK SHALL BE PERMITTED IN FLOWING WATER. DIVERSION SHALL BE ACCOMPLISHED BY THE USE OF SAND BAGS, BERMS, TEMPORARY CULVERTS OR BY PUMPING. ALL DIVERTED WATER SHALL BE DISCHARGED TO DIRT BAGS, STONE FILL OR OTHER SUITABLE ENERGY DISSIPATER SURROUNDED BY SILT FENCE AND HAY BALE DIKES.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- SEE SITE PREPARATION PLANS FOR CONSTRUCTION SEQUENCE.



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STATE OF VERMONT  
5/19/17  
No. 107113  
Professional Engineer

PURPOSE OF DRAWING:  
BID SET FOR CONSTRUCTION  
MAY 19, 2017

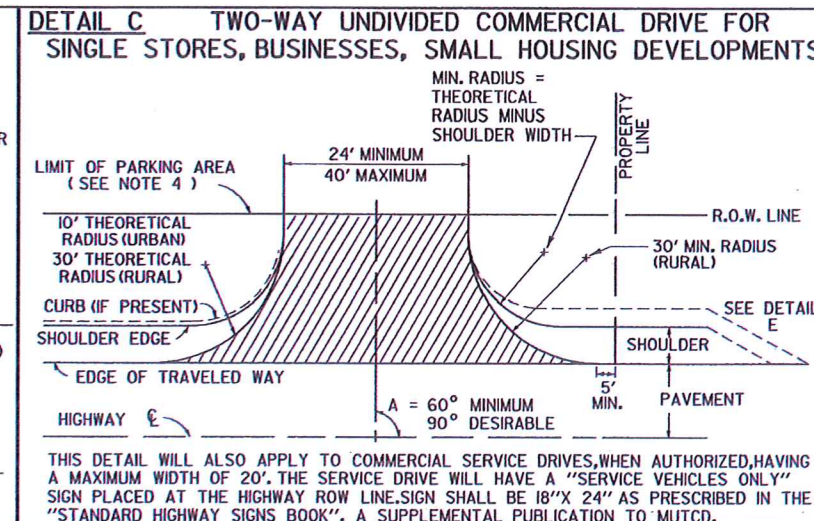
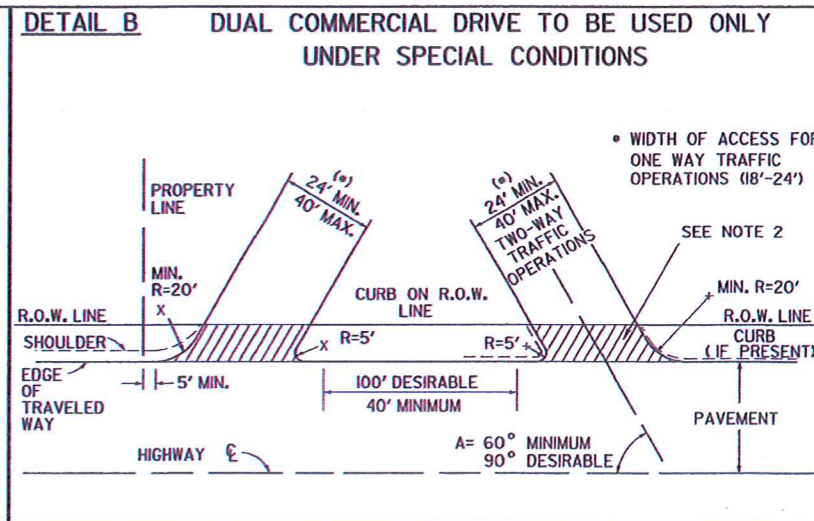
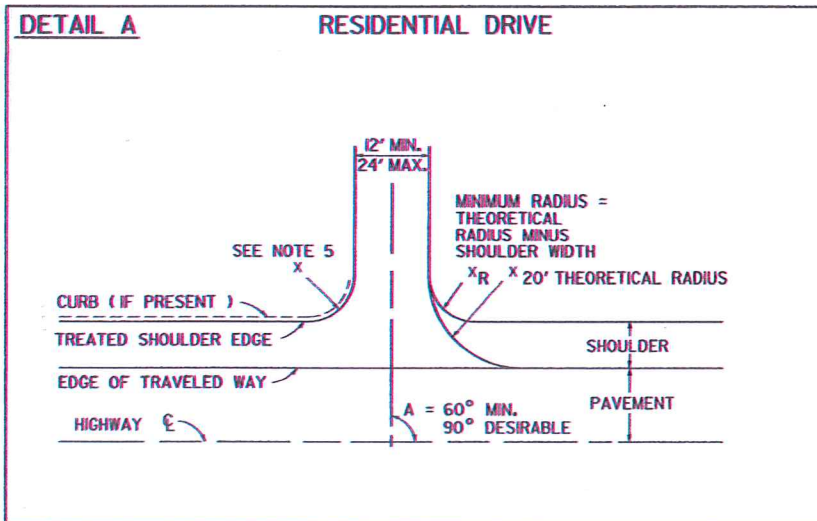
**GREAT RIVER TERRACE**  
1336 PUTNEY ROAD  
BRATTLEBORO, VERMONT  
PREPARED FOR:  
**GREAT RIVER TERRACE, LIMITED PARTNERSHIP**  
68 BIRGE STREET  
BRATTLEBORO, VT 05301

DATE: REVISION:  
DES. BY: JFM  
DWN. BY: JFM  
CHKD. BY: HRH  
SCALE: AS SHOWN  
DATE: 05/19/17  
PROJECT NUM: 16-040  
DWG. NO. C-6

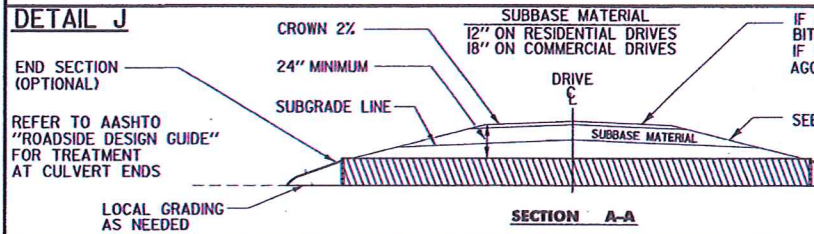
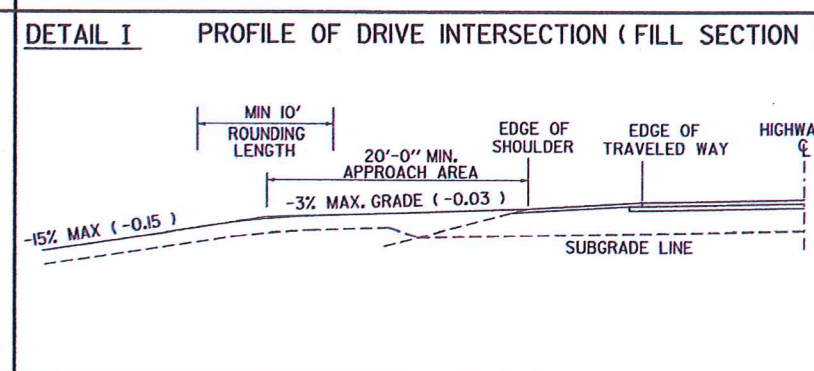
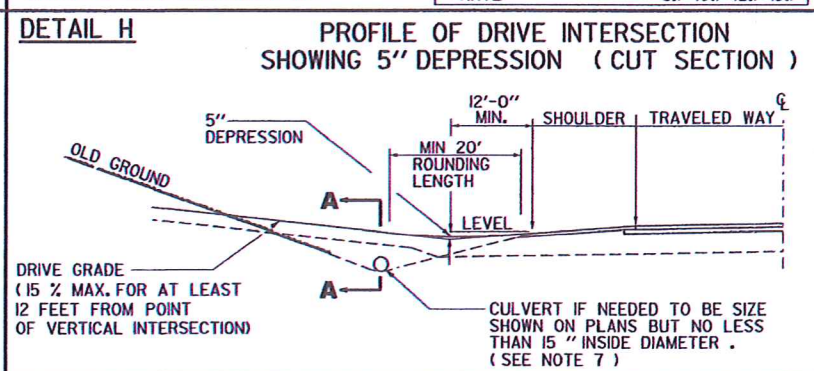
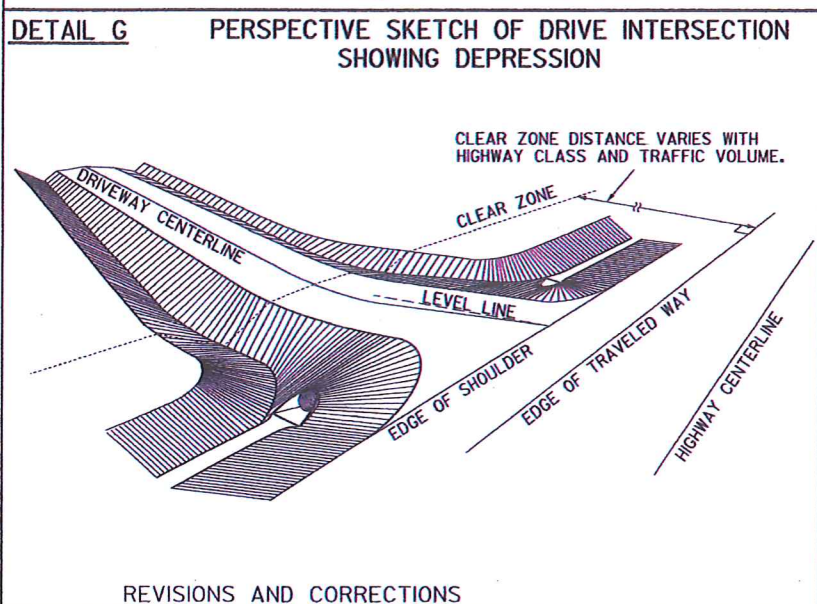
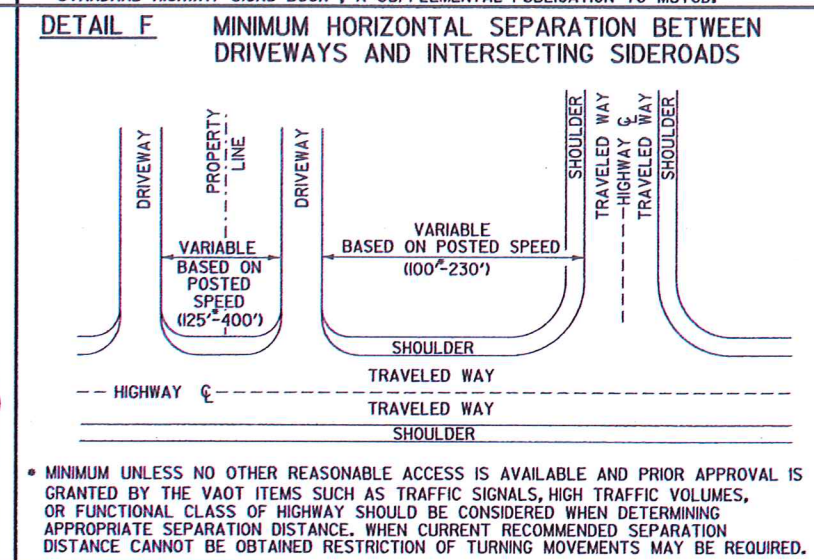
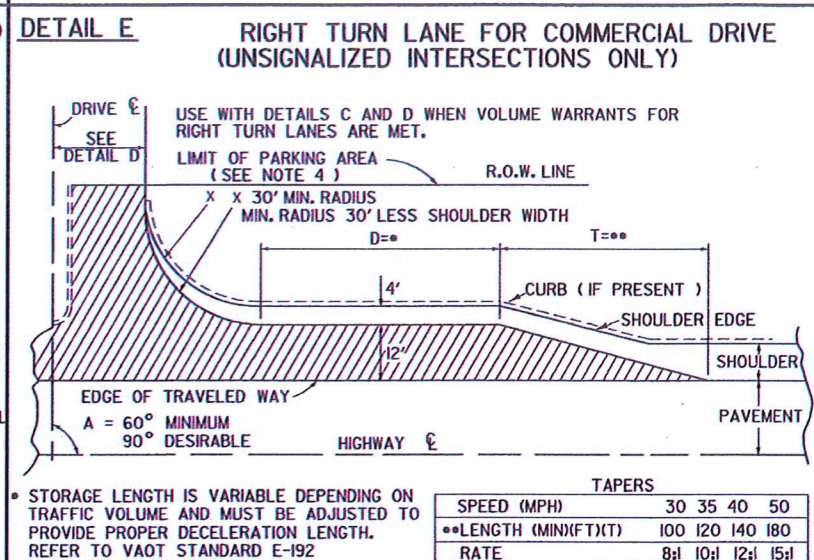
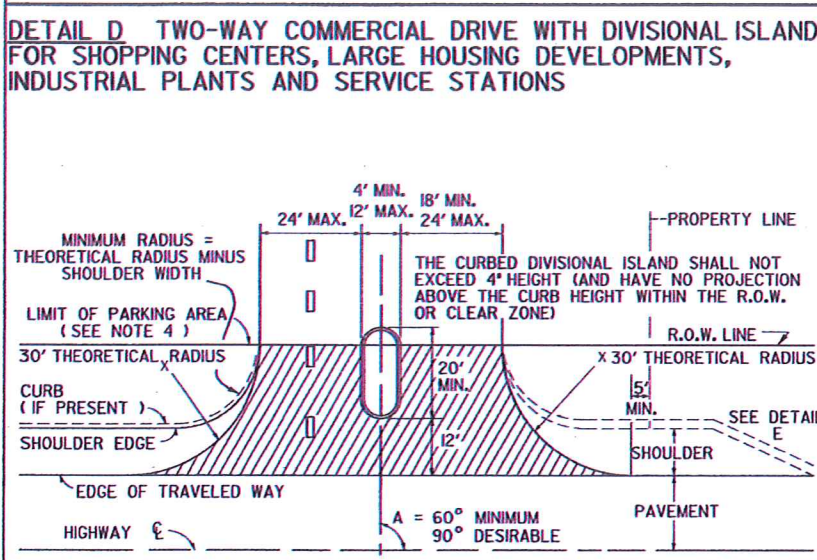
**DRAINAGE & EROSION CONTROL DETAILS**  
DES. BY: JFM  
DWN. BY: JFM  
CHKD. BY: HRH  
SCALE: AS SHOWN  
DATE: 05/19/17  
PROJECT NUM: 16-040  
DWG. NO. C-6  
CIVIL SHEET 8 OF 9  
PROJ SHEET 9 OF 66







- NOTES:
- THIS SHEET IS INTENDED FOR USE BY DESIGNERS ON HIGHWAY PROJECTS AND IN CONJUNCTION WITH A PERMIT FOR WORK WITHIN HIGHWAY RIGHTS OF WAY (FORM TA 210). ALL CONSTRUCTION REQUIRED BY THE PERMIT AND INDICATED ON THIS SHEET SHALL BE THE RESPONSIBILITY OF THE APPLICANT AND IS SUBJECT TO THE APPROVAL OF THE VT. AGENCY OF TRANSPORTATION. WHEN USED WITH THE PLANS FOR A HIGHWAY CONSTRUCTION PROJECT, THIS SHEET IS INTENDED TO BE A GUIDE FOR THE DESIGNER CONCERNING DRIVE WIDTHS, HORIZONTAL, VERTICAL AND GEOMETRIC CHARACTERISTICS.
  - ALL COMMERCIAL DRIVES SHALL BE PAVED FROM THE EDGE OF THE TRAVELED WAY TO THE HIGHWAY RIGHT-OF-WAY, TO THE FARTHEST POINT OF CURVATURE ON THE DRIVEWAY EDGE OR AS DIRECTED BY THE DISTRICT TRANSPORTATION ADMINISTRATOR. THIS PAVING IS INDICATED IN DETAILS (B THRU E) BY HATCHING.
  - DEPTH OF SUBBASE AND PAVEMENT TO BE THE SAME AS HIGHWAY OR AS SHOWN IN DETAIL J WITHIN THE LIMITS OF THE HIGHWAY RIGHT-OF-WAY.
  - VEHICULAR ACCESS FROM PARKING AREAS TO THE RIGHT-OF-WAY AT OTHER THAN APPROVED ACCESS POINTS WILL BE PREVENTED BY THE CONSTRUCTION OF CURBING OR OTHER SUITABLE PHYSICAL BARRIER.
  - IF CURB IS PRESENT, SEE APPROPRIATE CURB DETAIL STANDARD OR MATCH TOWN/CITY STANDARD CURB TREATMENT.
  - WHERE TRAFFIC VOLUME FOR A PROJECT IS SUBSTANTIAL THE AGENCY MAY REQUIRE SPECIAL LANES FOR TURNING, SIGNALS OR OTHER MODIFICATIONS. BASED ON TRAFFIC STUDIES THE AGENCY WILL DETERMINE SPECIFIC TREATMENT TO BE USED. ON DEVELOPER PROJECTS THE AGENCY WILL WORK WITH THE APPLICANT TO IMPLEMENT CHANGES TO THE STATE HIGHWAY.
  - CIRCULAR DRAINAGE CULVERTS UNDER DRIVES SHALL HAVE A MINIMUM INSIDE DIAMETER (I.D.) OF 15". PIPE ARCHES USED UNDER DRIVES SHALL HAVE A MINIMUM INSIDE CROSS-SECTIONAL AREA EQUIVALENT TO THAT PROVIDED BY A 15" CIRCULAR PIPE.
  - THE OFFSET BETWEEN THE PROPERTY LINE AND THE EDGE OF THE DRIVEWAY MAY BE GOVERNED BY LOCAL ZONING LAWS. DRIVEWAY WIDTH RESTRICTIONS SHOWN PERTAIN ONLY TO THE AREA WITHIN THE HIGHWAY R.O.W. OR THE END OF THE TURNING RADIUS WHICHEVER IS GREATEST.
  - DRIVEWAY GRADES STEEPER THAN THOSE SHOWN MAY BE ALLOWED AS LONG AS A 20' APPROACH AREA IS ACHIEVED FOR THE VEHICLE TO PAUSE BEFORE ENTERING THE HIGHWAY. (WHERE CURB & SIDEWALKS EXIST, SEE STANDARDS C-2A & C-2B)
  - INTERSECTION SIGHT DISTANCES, EQUAL TO OR GREATER THAN THOSE SHOWN BELOW, SHOULD BE PROVIDED IN BOTH DIRECTIONS FOR ALL DRIVES ENTERING ON PUBLIC HIGHWAYS, UNLESS OTHERWISE APPROVED BY THE AGENCY OF TRANSPORTATION. INTERSECTION SIGHT DISTANCE IS MEASURED FROM A POINT ON THE DRIVE AT LEAST 15 FEET FROM THE EDGE OF TRAVELED WAY OF THE ADJACENT ROADWAY AND MEASURED FROM A HEIGHT OF EYE OF 3.5 FEET ON THE DRIVE TO A HEIGHT OF 3.5 FEET ON THE ROADWAY.



### SIGHT DISTANCE CHART

POSTED SPEED OR DESIGN SPEED (M.P.H.)	MINIMUM STOPPING SIGHT DISTANCE (FT)	MINIMUM INTERSECTION SIGHT DISTANCE • (FT)
25	155	280
30	200	335
35	250	390
40	305	445
45	360	500
50	425	555
55	495	610
60	570	665
65	645	720

THE ABOVE VALUES ARE TAKEN FROM THE 2004 AASHTO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS & STREETS."

NOTE: ADVANCE WARNING SIGNS WILL BE REQUIRED IF OBTAINABLE INTERSECTION SIGHT DISTANCES ARE BELOW MINIMUM STOPPING SIGHT DISTANCES.

THE CHART IS ENTERED TO SELECT DESIGN VALUES BASED ON THE POSTED SPEED LIMIT IN MPH. VALUES FOR DESIGN ARE CALCULATED BASED ON THE DESIGN SPEED IN MPH.

• ASSUMES A GAP OF 7.5 SECONDS IN THE TRAFFIC STREAM ON THE HIGHWAY MAINLINE BASED ON THE HIGHWAY DESIGN SPEED IN MPH. THIS ALLOWS A STOPPED PASSENGER VEHICLE TO ENTER THE MAINLINE FROM THE DRIVE WITHOUT UNDULY INTERFERING WITH THE HIGHWAY OPERATIONS.

- ### REVISIONS AND CORRECTIONS
- DEC. 11, 1992 - THIS STANDARD SUPERCEDES B-71(7/23/80R), B-71A (3/12/90), AND B-13 (12/14/71).
  - JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.
  - MAR. 10, 1995 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.
  - NOV. 16, 2000 - CHANGES MADE TO CONFORM WITH LANGUAGE AND DIMENSIONS IN ACCESS MANAGEMENT PROGRAM GUIDELINES.
  - FEB 1, 2004 - CHANGES MADE TO SIGHT DISTANCE CHART TO CONFORM WITH NEWEST AASHTO CRITERIA.
  - JULY 8, 2005 - CHANGE MADE TO OBJECT HEIGHT TO CONFORM WITH NEWEST AASHTO CRITERIA

APPROVED

*Richard F. Farnham*  
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*Michael...*  
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# STANDARDS FOR RESIDENTIAL AND COMMERCIAL DRIVES

