

Town of Norwich, Vermont



CHARTERED 1761

Dave Ormiston
Interim Town Manager

June 16, 2016

Ms. Mary Andes
Special Project Analyst
Division of Emergency Management and Homeland Security
Department of Public Safety
45 State Drive
Waterbury, VT 05671-1300

Re: Alternate Project: Addition to Existing Public Works Building - \$432,968

Dear Ms. Andes:

The Town of Norwich Selectboard, after denial of a permit to restore the damaged Pool Dam received on October 20, 2015, has decided to pursue three Alternate Projects for use of the FEMA funds. The Selectboard has carefully reviewed the attached request for an Alternate Project and on June 8, 2016 unanimously voted to support the submission of a request that the project be funded as an Alternate Project.

If you have questions or need additional information please contact the Interim Town Manager Dave Ormiston.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Cook".

Linda Cook, Chair
Norwich Selectboard

/ndk

**Request for Alternate Project
Town of Norwich**

6-16-16

FEMA Declaration PA01VT4022	PW 02334(0)	Date June 16, 2016
FIPS 027-52900-00	Category G Recreational or Other	
Applicant Town of Norwich	County Windsor	Damaged Facility Recreation Pool Dam

Alternate Project: Addition to Existing Public Works Building

Location: 26 New Boston Road

N 43° 44' 01.60" W 72° 19' 51.3

Estimated cost of this project is; \$432,968

The Town of Norwich (Town) has determined that the public interest would not be best served by restoring the Norwich Pool Dam because restoring the damaged facility would require a permit from the Agency of Natural Resources (ANR) and after expected delays from the ANR the needed permit was denied on October 20, 2015.

Proposed Project

A request for proposals is attached that details the scope of the proposed project. This project is a 40' x 100' addition to the existing 100' x 40' public works building that was built in 1972. The project includes the following elements.

- Install insulation and a new membrane roof over the leaking roof of the existing building.
- Make structural improvements to the exiting building as recommended by a structural engineer.
- Construct a new well to replace the existing well that has a capacity of less than 1 gpm.
- Connect to current, but unused, septic system to replace the current dry well.
- Construct a 100' x 40' addition, which meets current codes, to the existing building in the paved area to the NE of the current building.
- Construct an office, break room and bathroom for employees.

A request for bids for the project was issued and bids were received on January 6, 2016. The following is a summary of the bids received.

PW Addition	
Bidder	Proposal
Wright	412,968
Spates	457,868
T-N	526,035

The bid from Wright Construction Company was determined to be compliant with the bid specifications and they will be awarded the contract if the Alternate Project is approved. The bid price was increased by \$20,000 for materials testing and an approximately 5% contingency because it is an addition to an existing building and there may be unanticipated costs.

The project is estimated to take 5 months to complete once the Notice-to-Proceed is given. Assuming a August 1, 2016 NTP the project will be complete by January 15, 2016.

Approvals

- A permit has been obtained for the construction of the well.
- A permit has been obtained for the already constructed, but unused, septic system.
- Building permits will be applied for once a Design/Build contract has been awarded.
- Zoning permits will be applied for once a Design/Build contract has been awarded.
- An Act 250 permit is not required.
- No other permits are required.

EHP Compliance

- The proposed project is EHP compliant. There will be no construction work or disturbance of land outside of the existing developed area.
- The site is outside of the Special Flood Hazard Area, the Vermont River Corridor Zone, and any wetland or wetland buffer area. See attached VT ANR map.
- The existing steel building to be added on to is 44 years old, is not an historic building, or in an historic district. There are no adjacent historic properties.
- The project has been reviewed and approved by the Division for Historic Preservation.

Attachments

- A. Alternate and Improved Project Request Checklist
- B. Special Consideration Questions
- C. Existing condition site survey
- D. Vicinity Map
- E. Aerial map with location of proposed addition
- F. Proposed floor plan
- G. Request for Bids (RFB) for the proposed project.
- H. Bid from low bidder and schedule
- I. Color pictures of the site
- J. ANR Resource Map
- K. VT DHP Email
- L. DEC Well and Wastewater Permits

The Town confirms by signature below that: 1) approval is based on the information provided with this request; 2) any changed conditions are to be immediately brought to the attention of the Public Assistance Officer; and, 3) approved alternate projects remain subject to all previous requirements for accountability, completion, and closure.



David Ormiston, Authorized Representative
Interim Town Manager

**Alternate & Improved Project Request Checklist
DR 4022 VT
Public Works Building Addition**

Project type: **X Alternate Project** 0 Improved Project Disaster Number:

PROJECT CONSTRUCTION DATA:

Applicant Name: **Town of Norwich**

Proposed Project Address: **26 New Boston Road in Norwich, Vermont**

Proposed Project Latitude/Longitude: **N 43° 44' 01.60" W 72° 19' 51.3**

0 List Referenced Project Worksheets and Attach Copies: **PW 02334(0)**

0 Vicinity map showing proposed location, disturbed areas, waterways, and wetlands.

See Attachment "C"

0 Map showing existing footprint and proposed footprint.

See Attachment "C"

0 Special Considerations 9-Question Form as it pertains to the proposed project.

See Attachment "B"

0 New Scope of Work for the proposed project

See Attachment "G"

0 Anticipated start date and completion date of proposed project (regulatory timeframes apply).

Anticipated start date: June 1, 2016 Completion date: November 15, 2016

0 Estimated cost to complete the proposed project along with any specifications, contracts, etc.

\$432,968 See Bid Document at Attachment "H" and last paragraph of Page 1

0 Disposition of original facility (if applicable). **N/A**

0 Explanation of general disturbing activities (digging, structure removal, site work, access roads, etc.)

Limited to immediate area building addition footprint. See Attachment "G"

SUPPORTING DOCUMENTATION: (if required)

0 Copy of requesting documentation from the applicant. **See Request for Alternate Project,**

0 Copies of all available Federal and State environmental and regulatory permits and approvals and any other relevant documentation (i.e. environmental site assessments, surveys, or reports). **See Attachment "L"**

0 Copies of documentation or correspondence with the State Historical Preservation Office.

See Attachment "K"

0 Copies of insurance settlements, statement of loss, insurance adjuster estimate of losses, etc.

N/A

0 Alternate Projects Only: Identification of the source of funding when the cost estimate for the alternate project is greater than the eligible alternate project funding. **Town Funds**

**Public Works Addition
Special Consideration Questions**

1. Does the damaged facility or item of work have insurance coverage and/or is it an insurable risk (e.g., buildings, equipment, vehicles, etc.)?

Yes **No** Unsure Comments:

2. Is the damaged facility located within a floodplain or coastal high hazard area and/or does it have an impact on a floodplain or wetland?

Yes **No** Unsure Comments: New Project – No, Original Structure - Yes

3. Is the damaged facility or item of work located within or adjacent to a Coastal Barrier Resource System Unit or an Otherwise Protected Area?

Yes **No** Unsure Comments:

4. Will the proposed facility repairs/reconstruction change the pre-disaster conditions (e.g., footprint, material, location, capacity, use, or function)?

Yes **No** Unsure Comments:

5. Does the applicant have a hazard mitigation proposal or would the applicant like technical assistance for a hazard mitigation proposal?

Yes **No** Unsure Comments:

6. Is the damaged facility on the National Register of Historic Places or the state historic listing? Is it older than 50 years? Are there more, similar buildings near the site?

Yes **No** Unsure Comments:

7. Are there any pristine or undisturbed areas on, or near, the project site? Are there large tracts of forestland?

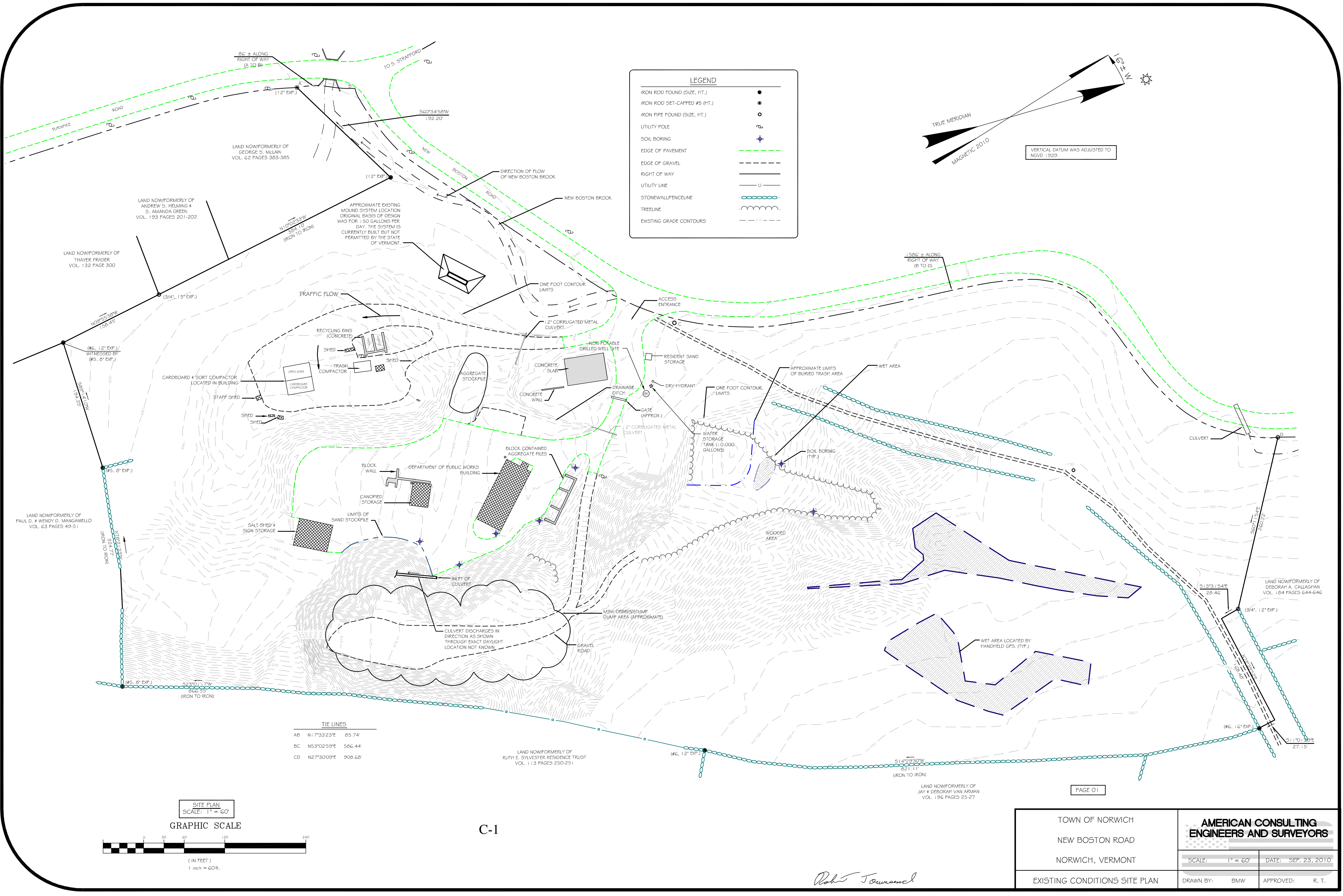
Yes **No** Unsure Comments:

8. Are there any hazardous materials at or adjacent to the damaged facility and/or item of work?

Yes **No** Unsure Comments:

9. Are there any other environmental or controversial issues associated with the damaged facility and/or item of work?

Yes **No** Unsure Comments:



LEGEND

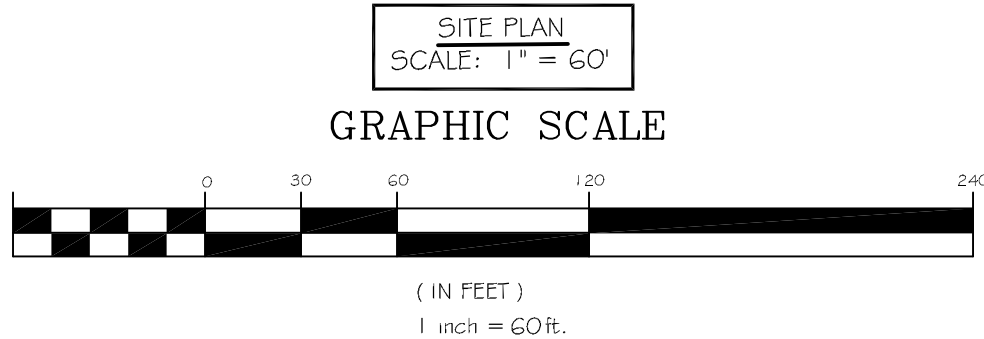
- IRON ROD FOUND (SIZE, HT.)
- IRON ROD SET-CAPPED #5 (HT.)
- IRON PIPE FOUND (SIZE, HT.)
- UTILITY POLE
- SOIL BORING
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- RIGHT OF WAY
- UTILITY LINE
- STONEWALL/FENCELINE
- TREELINE
- EXISTING GRADE CONTOURS

TRUE MERIDIAN
MAGNETIC 2010

VERTICAL DATUM WAS ADJUSTED TO NGVD 1929.

TIE LINES

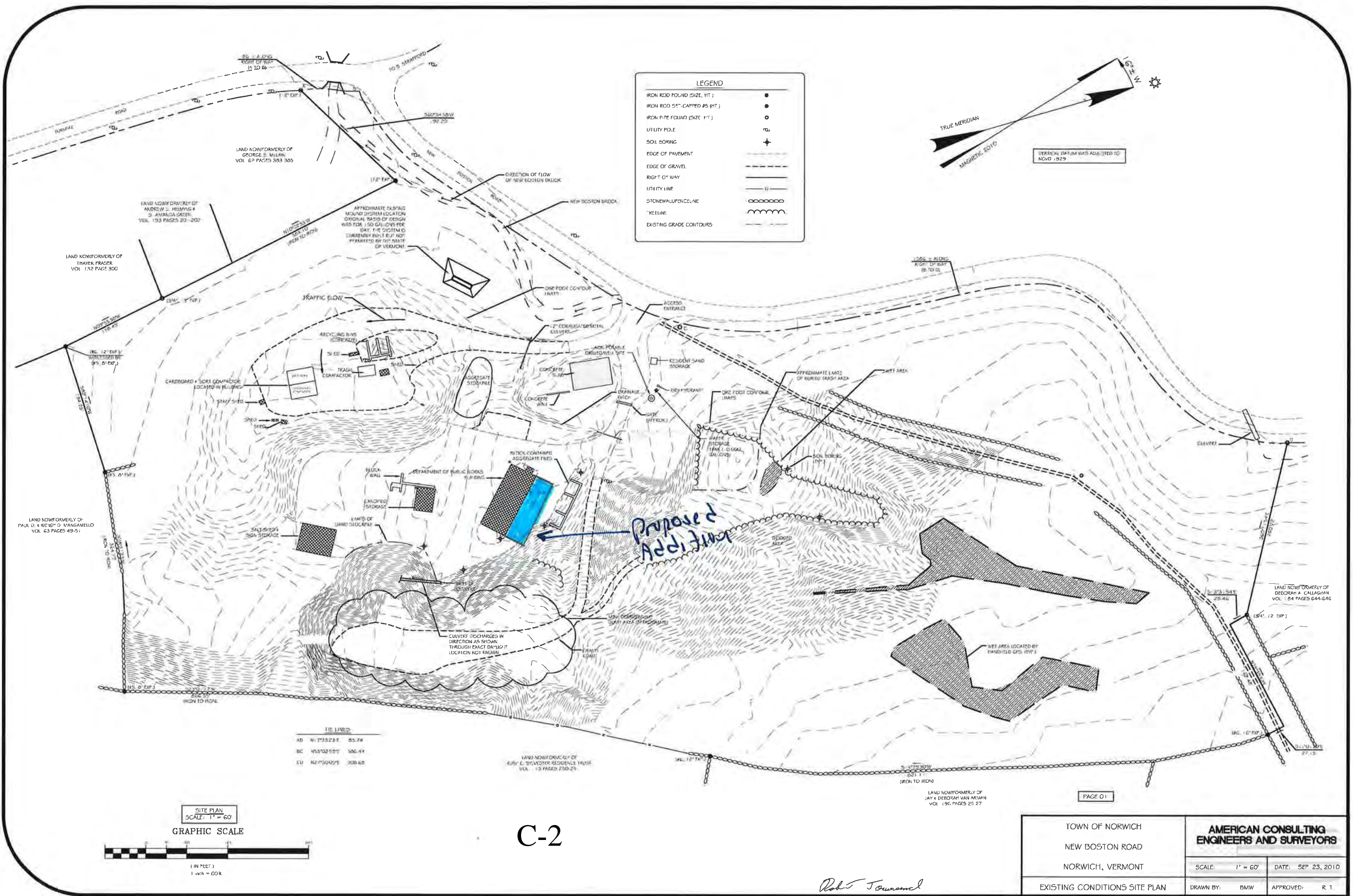
AB	N17°33'23"E	85.74'
BC	N53°02'59"E	586.44'
CD	N27°30'09"E	908.68'

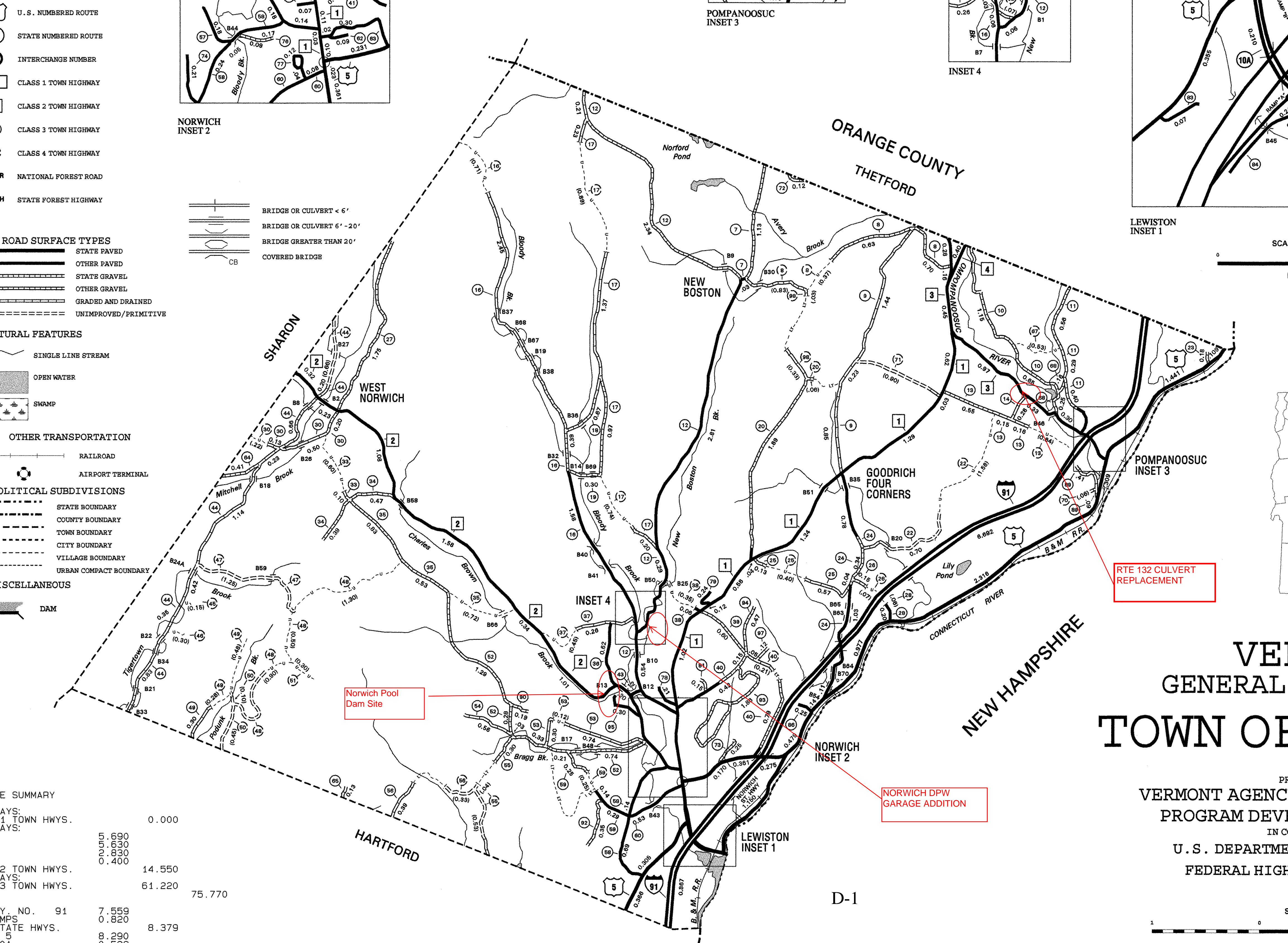


C-1

Rob Tournemel

TOWN OF NORWICH NEW BOSTON ROAD NORWICH, VERMONT	AMERICAN CONSULTING ENGINEERS AND SURVEYORS	
	SCALE: 1" = 60'	DATE: SEP. 23, 2010
	DRAWN BY: BMW	APPROVED: R. T.





- U.S. NUMBERED ROUTE
- STATE NUMBERED ROUTE
- INTERCHANGE NUMBER
- CLASS 1 TOWN HIGHWAY
- CLASS 2 TOWN HIGHWAY
- CLASS 3 TOWN HIGHWAY
- CLASS 4 TOWN HIGHWAY
- NATIONAL FOREST ROAD
- STATE FOREST HIGHWAY

NORWICH
INSET 2

POMPAHOOSUC
INSET 3

INSET 4

LEWISTON
INSET 1

- ROAD SURFACE TYPES
- STATE PAVED
 - OTHER PAVED
 - STATE GRAVEL
 - OTHER GRAVEL
 - GRADED AND DRAINED
 - UNIMPROVED/PRIMITIVE

- BRIDGE OR CULVERT < 6'
- BRIDGE OR CULVERT 6' - 20'
- BRIDGE GREATER THAN 20'
- COVERED BRIDGE

- NATURAL FEATURES
- SINGLE LINE STREAM
 - OPEN WATER
 - SWAMP

- OTHER TRANSPORTATION
- RAILROAD
 - AIRPORT TERMINAL

- POLITICAL SUBDIVISIONS
- STATE BOUNDARY
 - COUNTY BOUNDARY
 - TOWN BOUNDARY
 - CITY BOUNDARY
 - VILLAGE BOUNDARY
 - URBAN COMPACT BOUNDARY

- SCENARIOS
- DAM

Summary

1 TOWN HWYS.	0.000
2 TOWN HWYS.	14.550
3 TOWN HWYS.	61.220
4 TOWN HWYS.	75.770

Y. NO. 91

STATE HWYS.	7.559
5	0.820
6	8.379

VERMONT GENERAL TOWN OF

VERMONT AGENCY PROGRAM DEVELOPMENT IN COOPERATION WITH THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION



LEGEND

☐ Town Boundary



1: 1,579

January 8, 2016



80.0 0 40.00 80.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

© Vermont Agency of Natural Resources

1" = 132 Ft.

1cm = 16 Meters

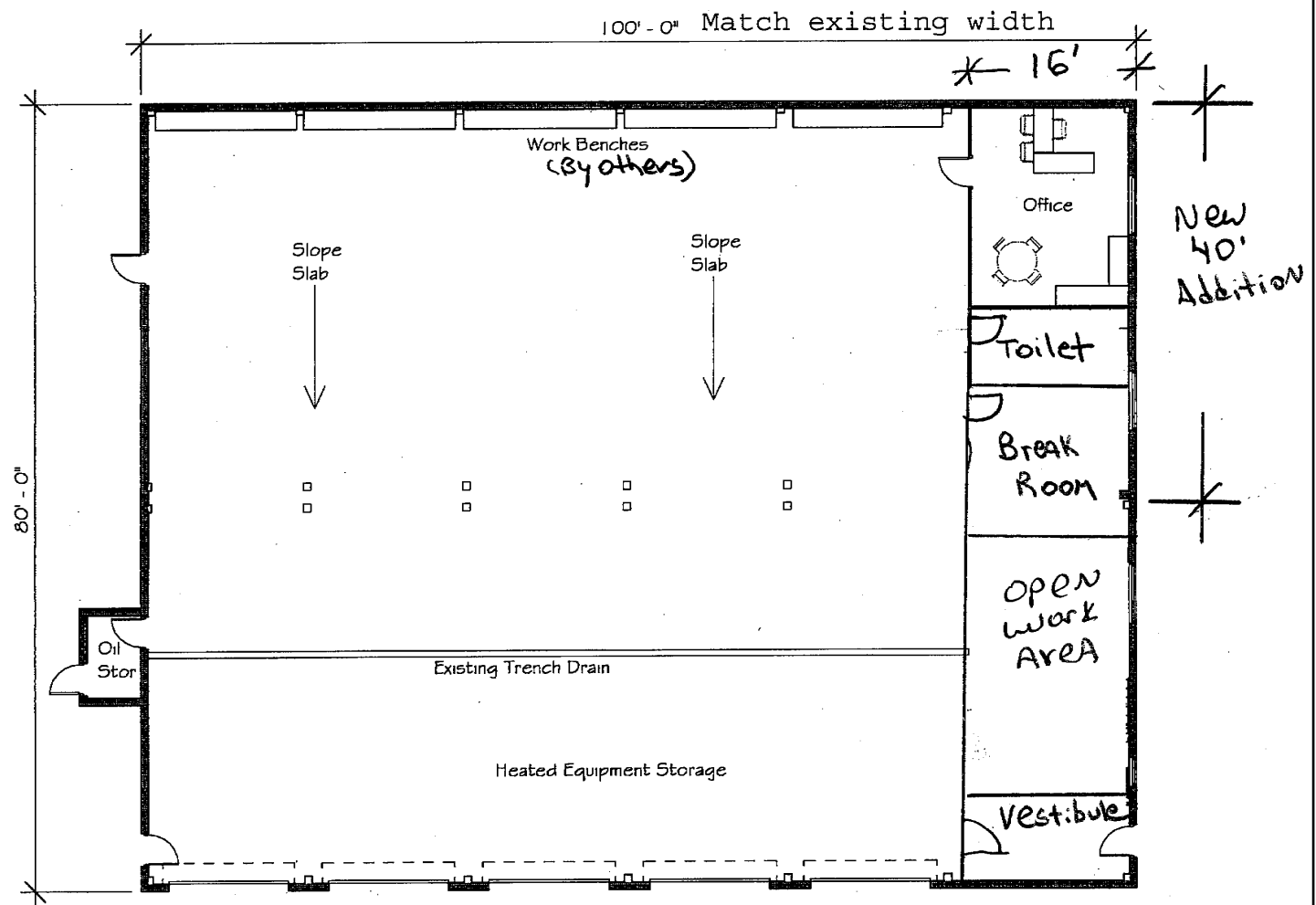
THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

NOTES

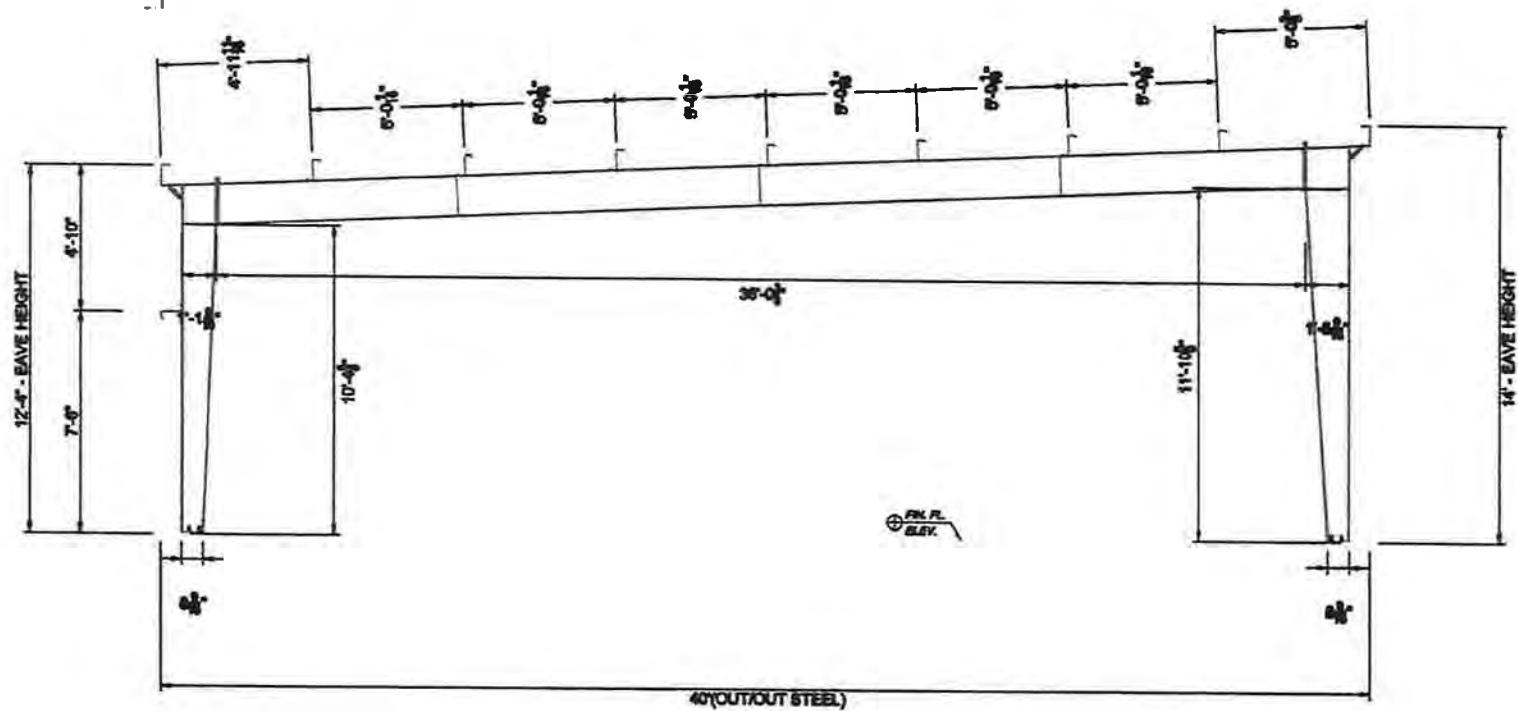
Map created using ANR's Natural Resources Atlas

E-1



Town of Norwich
 Proposed Addition to existing Town Garage
 Not to Scale
 Jan. 6, 2016

NOT FOR CONSTRUCTION



This drawing is not for construction. This drawing is intended to depict general building information and is solely for presentation purposes. If in error of presentation, items depicted may be different from actual design and final drawings. In the event of conflict between this drawing and the purchase order, the purchase order shall prevail.

SECTION DIMENSIONS ARE BASED ON THE SHOWN BUILDING FOOTING. THEY DO NOT INCLUDE LAYOUT FROM ANY BUILDING OPTION OR ANY OTHER MATERIAL.

FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO FIELD CONDITIONS AND LAYOUT. VERTICAL CLEARANCES SHOWN ARE FROM FINISHED FLOOR REFERENCE ELEVATION.

SIZE - 1/4" = 1'-0" SECTION, 1/8" = 1'-0" PLAN

MANUFACTURER RESERVES THE RIGHT TO CHANGE THE FRAME, SECTION, IF SECTION INFORMATION, I.E. CLEARANCES, DIM. PLATE/ANCHOR ROD SECTION IS TO BE USED FOR CONSTRUCTION. MANUFACTURER MUST BE ADVISED PRIOR TO ACCEPTANCE OF ORDER.

CONTACT SUELLS ENGINEERS FOR REVIEW BEFORE USING THIS INFORMATION FOR CONSTRUCTION.

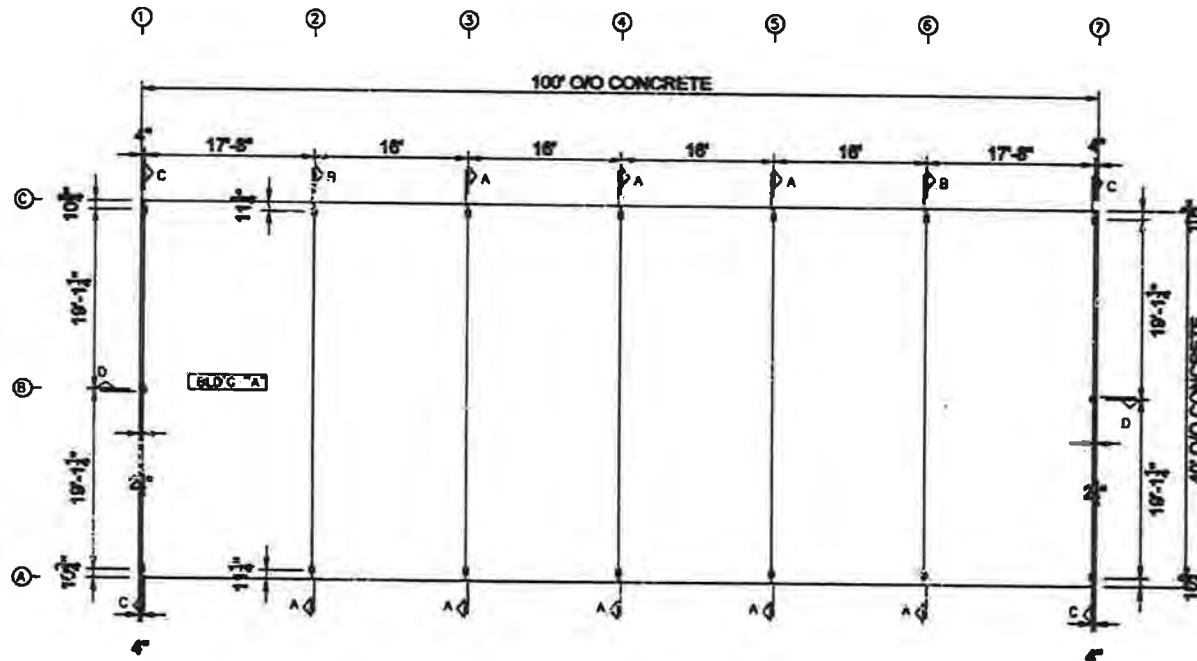
IT IS THE BUYER'S RESPONSIBILITY TO COMMUNICATE TO MANUFACTURER THE NEED TO HOLD TO ANY PRELIMINARY SECTION INFORMATION PROVIDED BY MANUFACTURER. MANUFACTURER WILL NOT BE LIABLE FOR ANY ERRORS IN FINAL SECTION IF THE BUYER DOES NOT COMMUNICATE TO MANUFACTURER.

ENGINEERING CERTIFICATION OF MANUFACTURER SUPPLIED BY MANUFACTURER WILL BE PROVIDED BY SUELLS AND ASSIGNED BY LICENSED ENGINEER IN FINAL SECTION PROVIDED.

<p>These Building Sections are prepared by SUELLS ENGINEERS, INC. for the purpose of providing information to the purchaser. They are not to be used for construction without the approval of SUELLS ENGINEERS, INC. and the purchaser.</p>	
<p>Project Name: Norwich Public Works</p>	<p>Client: City of Norwich</p>
<p>Location: 2000 Main St, Norwich, CT 06258</p>	<p>County: Windham</p>
<p>Project No: 11-0000</p>	<p>Sheet No: 11-0000</p>
<p>Scale: 1/4" = 1'-0"</p>	<p>Section: 1/8" = 1'-0"</p>
<p>Drawn By: SUELLS ENGINEERS, INC.</p>	<p>Checked By: SUELLS ENGINEERS, INC.</p>
<p>Approved By: SUELLS ENGINEERS, INC.</p>	<p>Noted By: SUELLS ENGINEERS, INC.</p>
<p>MBMA</p>	<p>The original of this document is the property of SUELLS ENGINEERS, INC. and is loaned to the purchaser for the purpose of providing information. It is not to be used for construction without the approval of SUELLS ENGINEERS, INC. and the purchaser.</p>

NOT FOR CONSTRUCTION

ACCESSORY SCHEDULE		
Mark	Description	Qty



This drawing is not for construction. This drawing is intended to depict general building information and is solely for information purposes. For clarity of presentation, items depicted may be different from actual design and first drawings. In the event of conflict between this drawing and the purchase order, the purchase order shall prevail.

ANCHOR ROD PLAN - (A) Norwich Public Works

SECTION SHOWN ARE BASED ON THE SPEC BUILDING (FLOOR, ROOF) AND DO NOT INCLUDE LAMIN FROM ANY BUILDING SYSTEM OR ANY OTHER MATERIAL.

FOUNDATION MUST BE BEARING AND LEVEL. ALL ANCHOR RODS MUST BE FREE IN SIZE, LOCATION, AND PROJECTION. ANCHOR ROD PROJECTIONS MUST BE HELD TO NOT EXCEED CLEAR OF FINISHED CONCRETE.

CONCRETE CERTIFICATION OF MATERIALS SUPPLIED BY MANUFACTURER WILL BE PROVIDED BY GEA AND SUBMITTER OF ALL DIMENSIONS SHOWN ON FINAL CONSTRUCTION DRAWING.

THIS DRAWING IS FOR ANCHOR ROD PLACEMENT ONLY AND IS NOT A SUBSTITUTE FOR FOUNDATION DESIGN.

CONTRACT SHALL BE REVIEWED BEFORE USING THIS INFORMATION FOR CONSTRUCTION.

MANUFACTURER ACCEPTS THE RESPONSIBILITY TO OBTAIN THE FINAL DESIGN OF FOUNDATION SYSTEM OR CLEARANCE OF PLATE/ANCHOR ROD SYSTEM IS TO BE USED FOR CONSTRUCTION. MANUFACTURER MUST BE NOTIFIED PRIOR TO ACCEPTANCE OF ORDER.

ELZ-BLAWENSTON/16

IT IS THE MANUFACTURER'S RESPONSIBILITY TO COMMUNICATE TO MANUFACTURER THE NEED TO HOLD TO ANY PRODUCTION SCHED INFORMATION PROVIDED BY MANUFACTURER. MANUFACTURER WILL NOT BE LIABLE FOR ANY CHANGES IN FINAL DESIGN IF THE BUILDING DOES NOT COMMUNICATE TO MANUFACTURER.

F-3

<p>Use of this drawing is limited to the project and location shown. It is not to be used for any other project or location without the written consent of the engineer.</p>	
<p>Project Name: _____</p> <p>Client: _____</p> <p>Address: _____</p> <p>City: _____</p> <p>State: _____</p> <p>Zip: _____</p>	<p>Project No: _____</p> <p>Sheet No: _____</p> <p>Scale: _____</p> <p>Drawn By: _____</p> <p>Checked By: _____</p> <p>Engineer: _____</p>
<p>MBMA</p> <p>The engineer shall not accept liability for an error in the calculation for the material shown herein. The engineer's responsibility is limited to the project shown and the information provided by the client. The engineer shall not be responsible for any errors or omissions in the drawing or for any damage or loss resulting from the use of this drawing.</p>	

Request for Proposals (RFP)
Design/Build Construction Services
Public Works Facility
Town of Norwich, Vermont

1. PURPOSE

1.1 The Town of Norwich (Town) is seeking Design/Build proposals for the construction of an addition to the existing Public Works facility.

1.2 The building is located at 26 New Boston Road in Norwich, Vermont.

1.3 A survey of the site is attached.

2. DESIGN/BUILD SERVICES

2.1 The proposed project includes the construction of a 40' x 100' pre-engineered steel building addition to the existing building as detailed in the attached outline specification.

2.2 The proposals shall include the costs of all components of a complete building addition including, but not limited to, site work, connections to the existing building, foundations, floors, walls, roof, electrical, plumbing and all other necessary work for a complete and functional building.

3. CODES AND STANDARDS

3.1 At a minimum the following codes, standards or regulations shall be used for this project:

3.1.1 Applicable OSHA Regulations.

3.1.2 Vermont Fire & Building Safety Code.

3.1.3 2015 Vermont Commercial Building Energy Standards

3.1.4 Vermont Agency of Natural Resources Rules.

4. INSURANCE REQUIREMENTS

4.1 All contractors and subcontractors are required to maintain insurance coverage and list the Town as an additional insured in accordance with the minimum amounts listed below. Prior to the start of any work, the Town shall be furnished with an insurance certificate as proof that coverage is in place.

- a) General Liability \$2,000,000 per occurrence
- b) Property Damage \$2,000,000 per occurrence
- c) Personal Injury \$2,000,000 per occurrence
- d) Automotive Liability \$1,000,000 per occurrence
- e) Worker's Compensation (Statutory Requirement)

5. PREPROPOSAL MEETING

A preproposal meeting will be held on December 29, 2015 at 1000 hours at the Public Works facility located at 26 New Boston Road, Norwich, VT. The conference is intended to clarify the proposal requirements and provide an opportunity for questions and answers. If necessary, an addendum to this Request for Proposals will be issued

following the preproposal conference. All questions related to this Request for Proposals and addenda, if needed, shall be in writing and addressed to the Town Manager.

6. PROPOSALS

6.1 All proposals shall include the following:

6.1.1 Guaranteed Maximum Cost.

6.1.2 Detailed cost breakdown.

6.1.3 Project schedule.

6.1.4 Plan view of proposed layout.

6.1.5 Proposed materials.

6.1.6 Examples of similar projects.

6.1.7 Contact names and telephone numbers of previous clients.

6.1.8 Name and resume of Project Manager.

6.2 The Town of Norwich has the right to reject any or all proposals if doing so is in the best interest of the Town.

6.3 All questions on this RFP should be directed to the Town Manager Neil Fulton at:

6.3.1 Email: nfulton@norwich.vt.us.

6.3.2 Phone 802-649-1419 X102.

6.4 Proposals as a PDF attachment to an email will be accepted.

6.5 Interested firms shall submit their proposal no later than 1200 hours on January 6, 2016 to:

Neil R. Fulton
Town Manager
Town of Norwich
300 Main Street
Post Office Box 376
Norwich, VT 05055

**Outline Specification
for
Public Works Building Addition
Town of Norwich, Vermont**

1. Addition to the Existing Building

1.1 Meet the applicable building and energy codes.

1.2 Include all permit fees.

1.3 Add a 40' x 100' addition to the back of the existing building. The new roof at the point it attaches to the existing building shall be located at least 2' below the existing roof.

1.4 Install a membrane roof with insulation over the roof of the existing building.

1.5 An engineering report and clarifications (copies attached) of the existing building stated that:

The lateral load resisting elements (braces, moment frames, etc) of the existing building were not visible in the sidewalls and the back wall during the site visit. The only wall where evidence of a lateral load resisting system was noted was the in the front wall, where a moment frame was located in one of the overhead door bays. Code requirements for existing buildings specify that if the loads to the lateral resisting systems of existing buildings increase by more than 10%, the entire lateral system must be upgraded to current code requirements. For this building, we have determined that a net dead load increase of 1.5 PSF is allowable without a full analysis/upgrade of the lateral load resisting systems.

1.5.1 At some time in the past an X brace(s) that was the lateral resisting system was removed from the rear wall of the existing building. Provide a lateral resisting system in the existing rear wall similar to the moment frame at the front of the building, or equivalent, to provide unobstructed access to the addition.

1.6 Add a new insulated overhead door that matches the existing doors in the right bay when facing the front of the building.

1.7 Interior Offices.

1.7.1 Construct interior office, break room and restroom at left rear corner of addition.

1.7.2 The office/break room, restroom area shall have typical interior finishes including commercial grade vinyl floor tiles and base. The interior room walls shall be framed with wooden or metal studs with 5/8" fire code drywall, taped and painted.

1.7.3 The maximum width of the interior offices shall be the truss spacing, estimated at 16'. The maximum depth of the interior offices shall be the depth of the addition. The stairs shall be included within these dimensions.

1.7.4 The desired sizes of the rooms are as follows:

- 200 sq. ft. office with interior and exterior door.
- 250 sq. ft. break/locker room.
- 100 sq. ft. restroom with toilet, urinal and slop sink.

1.7.5 Include a mezzanine over the office area with a stair and live floor load of 150 lb. per sq. ft. plus the load of the solar hot water tank described in another portion of the specification.

1.8 The demolition of the existing restroom, storage and mezzanine will be done by the OWNER.

1.9 Electrical

1.9.1 Connect to the existing panel.

1.9.2 Provide outlets as required by the NEC.

1.9.3 Extend the current fire alarm system to the addition.

1.9.4 Lighting

1.9.4.1 High efficiency T5 fixtures or LEDs.

1.10 Heating

1.10.1 Addition to be heated by ventilated propane radiant tube heaters similar to those in the existing building.

1.10.2 Office, restroom and break room heated by propane forced hot air heat. A setback thermostat shall be located in the office.

1.11 Plumbing

1.11.1 Construct new well to be located next to the underground tank with the dry hydrant. See the attached permit and proposal. Owner to excavate ditch for piping, backfill and patch paving. (See attached.)

1.11.2 Move the existing solar hot water tank, system and solar panels from the existing building to the new addition mezzanine over the new office and break room.

1.11.3 Septic - Connect to the existing mound system manhole. Owner to excavate ditch for piping, backfill and patch paving.

1.12 Ventilation

1.12.1 Move existing exhaust fan in existing rear wall to new rear wall.

1.13 Building Finishes

1.13.1 The garage area shall be exposed structural members.

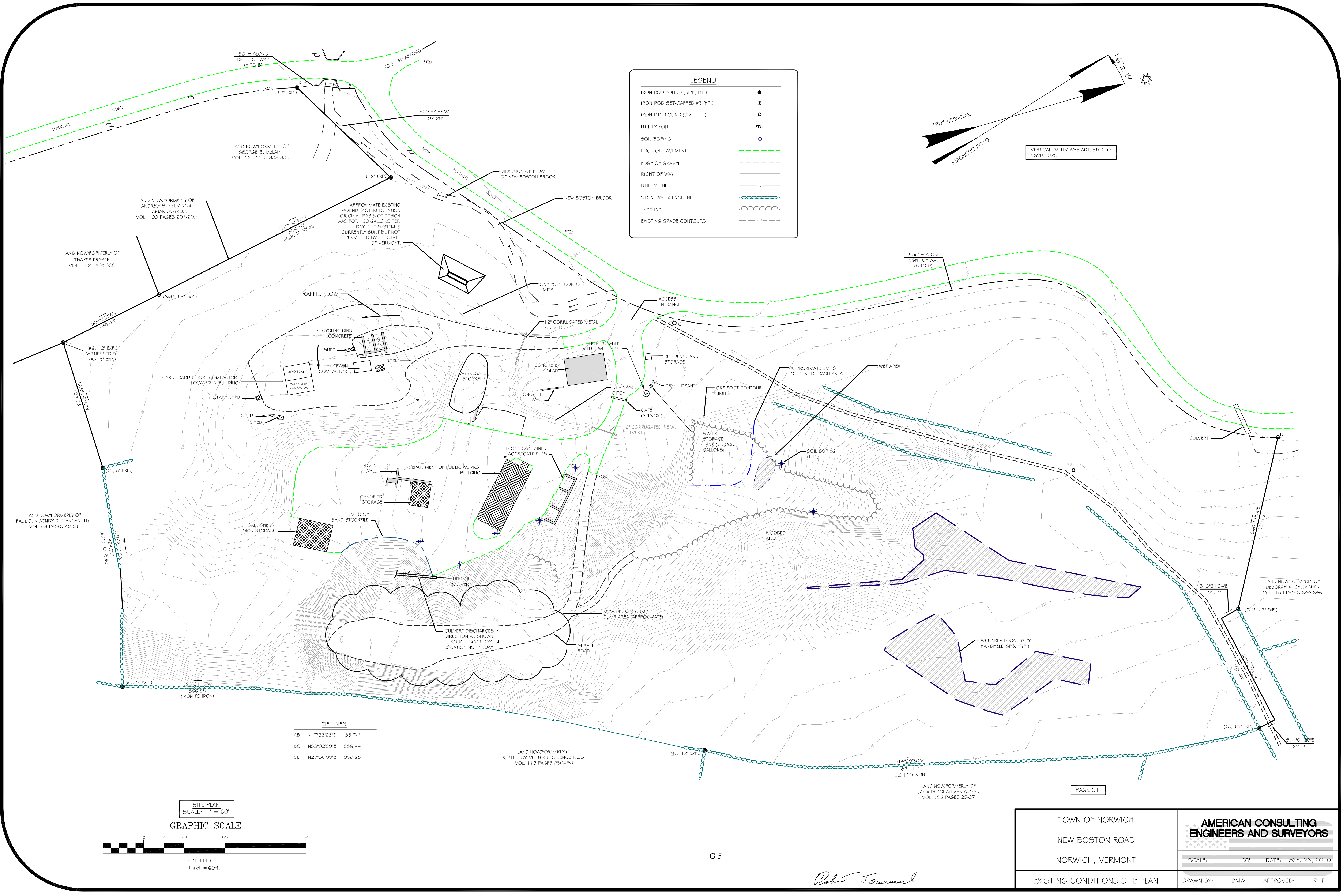
1.13.2 The owner will be responsible for sealing the new concrete floor.

1.14 Windows

1.14.1 All windows shall be dual pane.

1.14.2 The bottom of the windows in new back wall shall be a minimum of 7' from floor to allow use of the wall space.

1.14.3 Windows in office and break room to be typical heights.



LEGEND

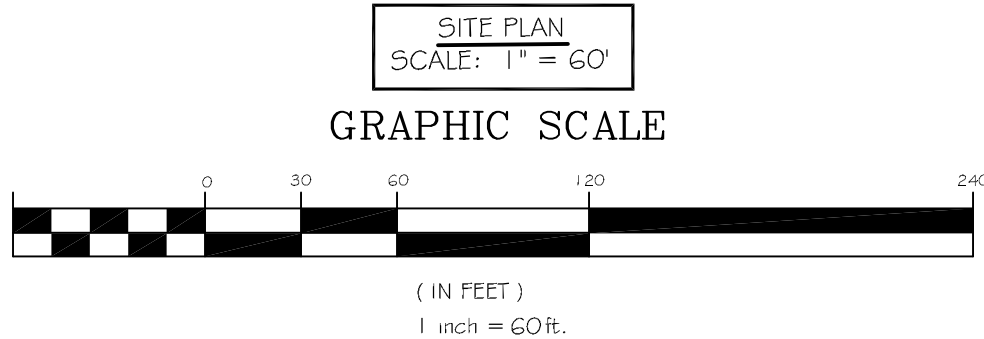
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- UTILITY POLE
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TRUE MERIDIAN
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PAGE 01

TOWN OF NORWICH	AMERICAN CONSULTING ENGINEERS AND SURVEYORS	
NEW BOSTON ROAD		
NORWICH, VERMONT	SCALE: 1" = 60'	DATE: SEP. 23, 2010
EXISTING CONDITIONS SITE PLAN	DRAWN BY: BMW	APPROVED: R. T.

G-5

Rob Tournemel

WRAGG BROTHERS OF VT., INC.

WELL DRILLING & PUMP SERVICE

"Have a Modern and Up-to-Date Water System"
Complete Pump & Tank Installation

P.O. BOX 110, ROUTE 5 • ASCUTNEY, VERMONT 05030 • 802-674-5890 • 800-255-5890 • FAX 802-674-2958

CONTRACT

This **AGREEMENT** made on 12-21-15 between **WRAGG BROTHERS WELL DRILLING OF VERMONT INC.**
and Town of Norwich PO Box 376 Norwich VT 05055

TELEPHONE #: 802-649-2209

FAX #: _____

Drilling will be charged at \$ 16.00 per foot.

Hydrofracking \$ 2200.00

(If Necessary)

Casing will be charged at \$ 16.00 per foot.

Mudding Charge \$ 500.00

(If Necessary)

Drive shoe will be charged at \$ _____

Grouting \$ 500.00

ESTIMATE

Drilling, Ft. 500'

Cost \$ 8000.00

Casing, Ft. 100'

Cost \$ 1600.00

Drive Shoe _____

Cost \$ 300.00

Pump and Tank Installation Size CONSTRUCT PRESSURE Cost \$ 6000.00
(Including all necessary material & up to 75 feet of offset lines)

Total \$ 19,100.00

~~~~~  
**The balance for completed work is due upon receipt of invoice.** A finance charge of 2% per month will be assessed on all past due balances. Customer agrees that all collection cost and attorney fees will be the responsibility of the **CUSTOMER**. A \$25.00 fee will be charged for returned checks. All products and services remain the property of **WRAGG BROTHERS OF VT, INC.** until paid in full. If pump installation is not completed within 1 year additional cost can be incurred. **PRICES SUBJECT TO CHANGE AFTER 30 DAYS.** **Wrapp Brothers retains the right to enter the property to retrieve any and all products not paid for in full. ALL APPLICABLE STATE TAXES WILL BE ADDED AT THE TIME OF BILLING.**

**CUSTOMER** is responsible for any required permits. **CUSTOMER** shall inform **CONTRACTOR** of any designated well locations in state or local plans. **The CONTRACTOR will assist but will not be held responsible for the well location. The CUSTOMER may order drilling stopped at any depth. CONTRACTOR agrees to drill to the normal limits of the CONTRACTOR'S equipment.**

**Additional charges may be incurred.** Extra fees, such as, wiring or plumbing inside of building, trench from well to building, hydrofracturing, excavation work, equipment extraction or installing run off for an overflowing well etc.. **PROPERTY OWNER** will not hold **CONTRACTOR** responsible for any damages to property due to heavy equipment and debris from drilling operation will be removed by and at the expense of the **CUSTOMER**.

Water well drilling is exploratory. Therefore, **CONTRACTOR is not responsible for water QUALITY or QUANTITY or for NATURALLY OCCURRING FAULTS IN BEDROCK.**

~~~~~  
Job location: Dose NOT Include Hook up for fire dept to be on the
South side \$25,000.00 Lot # _____ Tax Map # _____

SALESMAN Dry

HOME OWNER/AUTHORIZED AGENT _____

(I fully understand all the information contained in this contract

NH LIC. #173 / VT LIC. #162

FAX: 802-674-2958

www.wrappwelldrilling.com

wrappbros@comcast.net

Richard S. DeWolfe, PE
President

Christopher J. Temple, PE
Vice President



Nathan M Phillips, PE
David L. Frothingham, PE
Zarabeth M. Duell, PE
John J. Svagzdys, PE
Richard W. McLain, PE
Alicia A. Feiler, PE
Nicole D. Crum, PE

November 11, 2014

Neil Fulton, Town Manager
Town of Norwich, VT
P.O. Box 376
Norwich, VT 05055

Subject: **DPW Building Analysis**
New Boston Road, Norwich, VT

Dear Neil:

As requested, on October 14, 2014, I visited the above referenced site to review the existing roof structure in order to determine the existing load capacity and the structural acceptability of adding new insulated roof panels.

Our analysis and review of the building are based upon the requirements of the 2012 Vermont Fire and Building Safety Code which incorporates the 2012 International Building Code. According to the Vermont Fire Building and Safety Code, the on ground snow load for Norwich, Vermont is 50 pounds per square foot (psf). In our analysis we factored the snow loads to account for exposure, thermal, and importance factors. For computation of importance factors, the building was assigned to Risk Category II as defined in the IBC. These factors produced a design flat roof snow load of 35 psf, however, the State of Vermont requires that all roofs be designed for a minimum snow load of 40 psf. Therefore, we have used the code required 40 psf for roof analysis. The code also requires that gable roofs be analyzed for unbalanced snow load conditions.

The existing DPW building is an approximately 40'-0" wide x 98'-0" long single story steel framed building. The roof is framed with 8" deep, 14 gage zee purlins spaced at 3'-10"+/- on center. The zee purlins are supported by custom fabricated tapered steel plate girders at 16'-0" on center. The tapered steel beams are supported by W8x13 steel columns. The roof deck, roof deck attachment, and composition of the roofing were not visible due to the existing continuous batt insulation.

In the southern-most bay, a wood framed storage mezzanine has been constructed within the steel framed building. A painted sign on the outside face of the interior mezzanine indicates "THE LIVE LOAD CAPACITY OF THIS MEZZANINE IS 55 PSF."

The existing light gage zee purlins are adequate for the typical existing dead loads and code required balanced and unbalanced snow loads. The existing purlins would be adequate for a small increase in dead load due to the addition of new lightweight

Surveying

Permitting

Site Design

Subdivisions

Timber Design

Expert Testimony

Site Development

Act 250 Permitting

Forensic Engineering

Environmental Permitting

Transportation Engineering

Structural Inspection Services

Commercial Building Design

Construction Oversight

Building Assessment

Pedestrian Bridges

Stream Alterations

Sewer Design

Water Supply

Storm Water

Hydrology

Grading

317 River Street
P. O. Box 1576
Montpelier, VT
05601-1576
phone: 802.223.4727
fax: 802.223.4740
www.dirtsteel.com

insulated roof panels.

The tapered steel roof beams and the rolled wide flange columns are adequate for the typical existing dead loads and code required balanced and unbalanced snow loads. The existing tapered steel beams would be slightly over-stressed, but within commonly accepted structural engineering limits, for a small increase in dead load due to the addition of new lightweight insulated roof panels.

Based on our calculations, the existing roof purlins and adjacent roof beams are not adequate to support the additional wind and snow drift loads created by the roof mounted solar panels.

For approximately 2/3 of it's length, the existing storage mezzanine is framed with 2x12 wooden floor joists at 16" o.c. These joists would be slightly over-stressed, but within commonly accepted structural engineering limits, for the posted live load of 55 psf. Based on the observations made during our site visit, it appears that, at the inner end of the joists, this portion of the existing mezzanine is hung from the light gauge roof purlins with wooden 2x4 "hangers" at each purlin. Each vertical "hanger" is attached to each purlin with (2)- $\frac{1}{2}$ " diameter carriage bolts. The attachment of the hanger to the mezzanine floor structure was not visible. There are numerous structural issues with this method of support. Based on our calculations, the (2)- $\frac{1}{2}$ " diameter carriage bolts attaching the 2x4 hangers to the purlins are adequate for a uniform mezzanine live load of 14.5 psf. Therefore, the bolts would be over-stressed by 165% +/- with the currently posted 55 PSF live load. Second, the existing roof purlins when supporting the hung loads are over-stressed by 11% +/- . Third, the existing tapered steel beam nearest the end of the mezzanine (located approximately 2'-0" from the end of the mezzanine), is already slightly over-stressed due to dead loads and snow loads and would be over-stressed by 26% +/- with the currently posted live load of 55 PSF.

The portion of the mezzanine which is not hung from the roof structure supports mechanical equipment associated with the roof mounted solar hot water system. This equipment includes a 4'-0" deep, 7'-2 $\frac{1}{2}$ " diameter water storage tank. The existing floor framing in this area is 2x6 @ 2'-0" o.c. floor joists spanning approximately 7'-0. Based on our calculations, these members are over-stressed by 200%+. In places, the floor joists are face nailed to face mounted ledgers which do not appear to have the necessary connection strength to resist the 250 +/- PSF load potentially created by a full 4'-0" deep water tank.

The lateral load resisting elements (braces, moment frames, etc) of the existing building were not visible in the sidewalls and the back wall during the site visit. The only wall where evidence of a lateral load resisting system was noted was the in the front wall, where a moment frame was located in one of the overhead door bays. Code requirements for existing buildings specify that if the loads to the lateral resisting systems of existing buildings increase by more than 10%, the entire lateral system must be upgraded to current code requirements. For this building, we have determined that a net dead load increase of 1.5 PSF is allowable without a full analysis/upgrade of the lateral load resisting systems.

On November 7, 2014, I received an email from you indicating that you have determined there is a 4.5" x 12" glulam beam that supports the inside edge of the mezzanine. You also indicated that this glulam beam is supported at both ends by 4.5" x 12" glulam columns that extend down to the concrete floor. We have analyzed this beam, assuming it is made of very high grade material, and have

Page 3 of 3
Neil Fulton
November 11, 2014

determined that it does not have adequate strength or stiffness to support the mezzanine with the currently posted live load.

Based on our calculations, neither the glulam beam, or the hanger system from the roof, are adequate to support the mezzanine for the posted live load by themselves. It is likely that the two systems work together to support a load greater than the calculated capacity of either system acting independently. However, it is difficult to predict the amount of load sharing between systems due to variations in materials and workmanship which can have a large effect on the relative stiffness of each system, which directly affects the amount of load sharing.

Our recommendations are the following:

- reinforce the roof structure in the area of the solar panels to resist the code required snow drift loads and wind loads
- re-support the main area of the mezzanine so that the mezzanine is not hung from the roof structure. This would typically involve either adding new columns below the existing beam, adding a new beam below the existing beam, or removing and replacing the current beam with a new beam of adequate strength and stiffness.
- re-frame the remainder of the mezzanine, where the mechanical equipment is located, to eliminate ledger connections, provide new deeper members, and provide joist hangers
- additional onsite investigation, including removal of existing finishes as necessary, to determine if structurally reliable lateral load resisting elements exist in the sidewalls and back walls, and if these elements do not exist, to determine acceptable locations and methods to add these elements to the existing structure.
- if a new shed roof addition is added to the back of the structure, we recommend that the new roof be located at least 2'-0" below the existing eave. This will limit the amount of additional snow that the existing roof must support in an unbalanced snow load condition.

Please let me know if you have any questions regarding this report or my findings.

Sincerely,


Nathan Phillips, P.E.



Neil Fulton

From: Nathan Phillips <Nathan.Phillips@dirtsteel.com>
Sent: Thursday, September 24, 2015 11:16 AM
To: Neil Fulton
Cc: Chris Temple
Subject: RE: Norwich, VT DPW Building Analysis

Neil,

As noted in our November 11, 2014 report, the maximum additional dead load that can be added with the existing roof in place is 1.5 PSF. Removal of the existing metal roofing and fiberglass insulation batts typically would remove a minimum of approximately 1.0 PSF. The total available capacity would then be approximately 2.5 PSF.

Based on the weight limits above, our structural comments regarding your proposed reroofing options are as follows:

NEW MEMBRANE OVER EXISTING ROOF

A new single ply membrane roof that is adhered or mechanically fastened to the existing roof typically would not exceed the 1.5 PSF permissible additional weight and would be structurally acceptable.

REMOVING THE EXISTING ROOF AND INSTALLING INSULATED ROOF PANELS

As noted above, the available load capacity with the existing roof removed is approximately 2.5 PSF. This capacity would typically allow a 3" or 4" insulated panel to be installed and be structurally acceptable. The panel selected would need to be capable of bracing the top flange of the light gage Z purlins.

INSTALLING A NEW METAL ROOF OVER THE EXISTING ROOF

The installation of a new metal roof over the existing roof typically would not add more than the permissible 1.5 PSF and would be structurally acceptable.

However, the change from a heated space to an unheated space would increase the code required snow loads by an additional 2.0 PSF and therefore would not be structurally acceptable. The only way this could be accommodated is if the building use also changed from being normally occupied to being essentially a storage facility that is not normally used in the winter months. If this was the case, the snow load increase due to being unheated would be offset by a snow load decrease allowed the change in use.

We want to reiterate the other important issues addressed in our November 11th report. These issues include significant existing structural deficiencies related to the support of the roof mounted solar array, the support of the storage mezzanine, the support of the solar water storage tank, and others as noted in the report. Page 3 of our earlier report contains a list of recommendations that should be addressed as part of this re-roofing project.

Please call or email if you would our assistance developing structural documents addressing our recommendations or have any other questions.

Sorry it took a while to get back to you!

Nathan Phillips, P.E.
DeWolfe Engineering Associates, Inc.
81 River Street

G-10

Montpelier, VT 05602

802-223-4727, Ext. 304
802-613-3005 Direct Line

From: Neil Fulton [<mailto:NFulton@norwich.vt.us>]
Sent: Tuesday, September 08, 2015 10:47 AM
To: Nathan Phillips <Nathan.Phillips@dirtsteel.com>
Subject: RE: Norwich, VT DPW Building Analysis

Hi Nathan,

I am getting budget estimates for work on the public works building. Your report includes the following statement:

“The existing light gage zee purlins are adequate for the typical existing dead loads and code required balanced and unbalanced snow loads. The existing purlins would be adequate for a small increase in dead load due to the addition of new lightweight insulated roof panels.”

We are considering one of the following:

- A new membrane roof over the existing roof.
- Removing the existing roof and installing insulated roof panels
- Installing a new metal roof over the existing roof. This would be a single layer and the building would not be heated.

Your thoughts and what is the maximum additional load with the existing roof and the maximum load if we removed the existing roof?

Thanks,

Neil

From: Nathan Phillips [<mailto:Nathan.Phillips@dirtsteel.com>]
Sent: Wednesday, November 12, 2014 9:38 AM
To: Neil Fulton
Cc: Chris Temple
Subject: Norwich, VT DPW Building Analysis

Neil,

Attached is our final report for the analysis of the DPW building.

Please call or email if you have any questions.

I apologize for this being late – we are very busy at this time.

Thank you,

Nathan Phillips, P.E.
DeWolfe Engineering Associates, Inc.
81 River Street

G-11

Montpelier, VT 05602

802-223-4727, Ext. 304



31 Station Road
Mt. Holly, Vermont 05758
802.259.2094 phone
802.259.2689 fax
www.wrightconstruction.com

RFP Response: Design/Build Construction Services
Public Works Facility
Town of Norwich, VT
WCC Job #: 2015-131
January 6, 2016
REVISED January 13, 2016

The following is a description, by construction division, for design completion and construction of a new 4,000 S.F building addition. Our proposal is based on the RFP by Town of Norwich, Vermont, dated December 21, 2015 along with the description below.

Design completion/ DFS Permitting/General Conditions: WCC will provide Professional Liability Insurance and design services to complete the design for the town garage addition, to include structural design for the building foundation, mechanical and electrical stamped drawings (civil engineering by the Town of Norwich under separate contract). We expect to attend up to three meetings to complete the design. When design is complete we will prepare and submit permit application with fee to the Division of Fire & Safety.

Once the project is ready to move forward to construction we will provide all services related to the general conditions to include on and off site management, storage trailers, jobsite office and communication means, prepare and process submittals, conduct progress meetings, et al. We are prepared to offer Performance & Payment bonds upon Owner's request, cost for these are not currently carried in this proposal but could be added upon request.

\$43,775.00

Sitework/Site Utilities: We will layout site for new building addition as well as implement erosion control. Excavating/backfill for new 40'x100' SF building addition. Slab preparation will consist of 6" stone base and 6 mil poly. Excavation/backfill for sewer line for new bathroom in the foot print of the building. Excavation/backfill and pavement patching for sewer line from building to septic tank will be by the town. Wright Construction Company will provide 4" PVC pipe, labor & miscellaneous fittings. Rough/final grade, seed and mulch disturbed areas. We have included a \$3,500 allowance for the retaining wall and a \$25,000 allowance for new water well including water line to building and controls (by WRAGG Brothers of VT). Excavation/backfill any water line work by the Town of Norwich. All pavement patching to be by Owner.

\$70,825.00

Concrete: Will consist of stamped Engineered drawings for 40'x100' frost wall addition with pads and piers for metal building. 12" tall x 20" wide continuous footings with 5'x5' pads at column location, 8" thick x 5'0" tall walls and reinforced 6" concrete slab. Frost walls will receive 2" rigid insulation on outside of wall with metal flashing protection..

\$49,170.00

Demolition: Remove and dispose of framing/siding in 16' bays to allow trucks to pass through. Remove siding as required for new addition. Saw-cut and remove 1' tall concrete curb located at the 5 bays (approximately 80LF concrete curb will be cut down 6" lower to accept new slab addition). New slab will be pinned to existing slab.

\$7,632.00

Framing: Construct 2x6 wall partitions 8' tall for new bathroom, office & breakroom. Walls and ceilings to have fiberglass insulation. Ceiling will be framed with TSI 230's joist 16" O.C. with 3/4" plywood floor and temporary handrail for future mezzanine. Existing mezzanine to be removed and disposed of by Town of Norwich. Wright Construction Company will construct new 12'x40' mezzanine including 2x6 partitions, TJI 230's joist 16" O.C. with 3/4" plywood floor and 1/2" plywood on walls. New 2x12 stair tread, stringers and wood handrail. Both the mezzanine and office areas to be 12' wide.

\$17,939.00



Insulation: To be metal building insulation per energy code standards.

\$13,415.00

Membrane Roofing: Install new rigid insulation over the existing metal roof into the roof ribs, approximately R-5.7, to the height of the highest rib. Over the infill insulation mechanically fasten a new 1 ½" R-8.55 Firestone isocyanurate insulation. The total R-value of 14.25. The edges will be built up with wood blocking to the height of the new insulation. The edges will then receive new custom factory baked on Kynar finished metal edge flashings. Over the insulation fully adhere a new Firestone .060 EPDM rubber roofing membrane. All present protrusions will be flashed as per firestone specifications.

\$29,649.00

Doors/Windows: We have included an \$800 material allowance for exterior door, frame and hardware for office exterior door. We have included a \$2,400 material allowance for doors, frames and hardware for 3 interior doors (bathroom, office & breakroom). We have also included an \$800 material allowance for (2) new windows located in office area.

\$8,271.00

Metal Building: Our proposal is for a single slope, pre-engineered, free standing, 40'x100' metal building addition. (Please see attached drawings). Siding and roofing will be exposed fastener. Our metal building budget includes a \$3,500 allowance for any additional bracing that may be needed to be installed in the existing building for bracing when the exterior wall is removed. This includes required engineer fees.

\$64,486.00

Finishes: Office, break room and bathroom will receive (1) layer of drywall with a level 4 finish, (1) coat of primer and (2) coats of finish paint, VCT flooring and 4" vinyl base.

\$9,261.00

Toilet & Bath Accessories: The new bathroom will receive (1) 36" grab bar, (1) 42" grab bar, mirror, toilet tissue dispenser, paper towel dispenser and soap dispenser.

\$276.00

Mechanical/ Plumbing: Consists of roughing and installing of (1) water closet, urinal, 1 lavatory, 1 shower, janitors sink, moving the existing solar hot water panels and tank with piping to the new building, 2 propane fired low intensity radiant heaters in bays, 1 propane fired furnace for office, breakroom, bathroom & mezzanine, ductwork for the furnace, indoor propane piping, toilet exhaust fan with ductwork, wall mounted exhaust fan for the new addition, carbon monoxide monitoring for the new addition, moving the existing sidewall fan, mechanical insulation, temperature controls and commissioning.

\$59,535.00

Electrical: (25) T5 HO fixtures in garage and mezzanine, layout similar to existing, (6) 2x4 3-lamp T8 troffers in office and break areas and (3) exterior LED fixtures, locations TBD. The existing panel has only 2 usable spaces, therefore a 100-amp sub panel will be located in the addition on the same wall by office area. Relocated equipment as described in outline will be reconnected. Relocation of 3, 200 amp outlets used for the welder is included. Adequate outlets will be provided in garage and office areas. There is currently no provision for specialty outlets such as welders, phone lines will be extended to new office. The existing fire alarm panel is outdated, parts are no longer readily available for it. This proposal replaces the existing panel with a new Notifier addressable panel and existing devices with addressable devices. The new panel includes a dialer. The existing horn/strobe will be re-fed by new panel. The addition will be added to the new panel. All current monitoring services will be programmed into new panel.

\$38,735.00

Proposal Amount: \$412,968.00

CONSTRUCTION PROFESSIONALS
SERVING SOUTHERN VERMONT AND NEW HAMPSHIRE
SINCE 1982

31 STATION ROAD • MT. HOLLY, VERMONT 05758 • (802) 259-2094 • FAX (802) 259-2689

Exclusions: Builders Risk Insurance, tax, asbestos testing and abatement, boulder and ledge removal, testing, civil design, trench drain, ACT250 permit, local building permit, winter conditions, relocating Owners items, air piping, surveying, storm drainage, sprinkler, utility company fees, overhead doors, propane tank, outdoor propane piping, water heater, hosebibbs, compressed air piping, well tank, CO monitoring for the existing building, any additional requirements that Division of Fire Safety may have with their plan review. We assume the native soil has adequate bearing capacity.

*Any excluded item can be added upon request

*Soil compaction and concrete testing to be paid for by Owner. Wright Construction will coordinate.

Alternates: The following items can be added to our base bid at the costs indicated.

1. Add air conditioning to areas fed by ductwork including office, breakroom and bathroom. Add: \$5,850
2. Add Payment & Performance Bonds. Add: \$4,130
3. Add pressure tank for well. Add: \$1,225
4. Add fiberglass batt insulation to walls and ceiling of office, breakroom and bathroom. Add: \$1,200
5. Add civil engineering as required, including site plan. The Town is responsible for all plans and permits required for Waste Water and well drilling. Add: \$5,750

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RFP Response: Design/Build Construction Services
Public Works Facility
Town of Norwich, VT
WCC Job #: 2015-131
January 6, 2016

Schedule

Norwich Public Works Facility
Wright Construction Co., Inc. - Project Schedule

ID	Task Mode	Task Name	Duration	Start	Finish	January	February	March	April	May	June	July
1		Sign Contract	2 days	Mon 1/18/16	Tue 1/19/16	1/10/16	1/11/16					
2		Complete Design/Permitting	53 days	Wed 1/20/16	Fri 4/1/16							
3		Excavate for Foundation	5 days	Mon 4/4/16	Fri 4/8/16							
4		Demo - Ongoing	15 days	Mon 4/4/16	Fri 4/22/16							
5		Drill Well	3 days	Mon 4/11/16	Wed 4/13/16							
6		Concrete	15 days	Mon 4/11/16	Fri 4/29/16							
7		Backfill	2 days	Mon 5/2/16	Tue 5/3/16							
8		Erect Building	10 days	Wed 5/4/16	Tue 5/17/16							
9		Roof	5 days	Wed 5/18/16	Tue 5/24/16							
10		Siding	5 days	Wed 5/25/16	Tue 5/31/16							
11		Interior Walls and Mezzanine	5 days	Wed 6/1/16	Tue 6/7/16							
12		Electrical/Mechanical Rough	10 days	Wed 6/1/16	Tue 6/14/16							
13		Drywall/Painting	10 days	Wed 6/15/16	Tue 6/28/16							
14		Electrical/Mechanical Finishes	5 days	Wed 6/22/16	Tue 6/28/16							
15		Site Finishes	2 days	Wed 6/8/16	Thu 6/9/16							



H-1


































1: 1,579

December 23, 2015



LEGEND

-  DFIRM Floodways
-  Special Flood Hazard Areas (A Counties)
 -  AE (1-percent annual chance flood)
 -  A (1-percent annual chance floodpl.)
 -  AO (1-percent annual chance zone feet)
 -  0.2-percent annual chance flood ha
-  River Corridors (Jan 2, 2015)
-  Small Streams - 50ft Setback
- Habitat Blocks**
 -  10 - Higher Priority
 -  9
 -  8
 -  7
 -  6
 -  5
 -  4
 -  3
 -  2
 -  1 - Lower Priority
 -  0
-  Waterbody
-  Stream
-  Parcels (where available)
-  Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas

J-1

80.0 0 40.00 80.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

© Vermont Agency of Natural Resources

1" = 132 Ft.

1cm = 16 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

Phil Dechert

From: Duggan, James <James.Duggan@vermont.gov>
Sent: Tuesday, January 12, 2016 4:20 PM
To: Phil Dechert
Cc: ACCD - Project Review
Subject: RE: Norwich HP review for 3 Alternative Projects

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Phil,

Our team had a chance to review the materials and here is the summary at present.

1. We have no concerns with the box culvert project as it will occur in the previously disturbed area and the structure is not considered historic.
2. We have no concerns for the addition at the highway garage - existing developed area and not archaeologically sensitive - also not a historic building
3. We do have some concerns related to the Dam removal and will need a formal submittal of required information to provide comments. (**see below)
 - a. There is considerable ground disturbance planned along the streambank and therefore an Archaeological Resource Assessment (ARA) will be needed, at minimum, to identify the potential for archaeological sensitivity. We would anticipate that due to previous ground disturbance an ARA will likely clear the area of potential effect for sensitivity, but we will need the potential for this to be reviewed to ensure additional testing is not required.
 - b. The dam itself was potentially historic, but has been compromised so there is a question with its integrity. We do not have issues with the proposed demolition, but the removal and loss of the dam could be considered a direct, adverse effect. Due to the compromised integrity, we suggest that if a few photographs of existing conditions and a few photographs showing the dam prior to TS Irene are included in the above-mentioned ARA would be sufficient mitigation to resolve any potential adverse effect created by demolition.

** The materials you have provided are sufficient for the required items needed for project review submittal, however, to formally initiate the review we would need you to complete a Project Review Cover Form found here:

<http://accd.vermont.gov/sites/accd/files/Documents/strongcommunities/historic/ProjectReviewCoverForm2.pdf>

We will need to review the ARA before we can provide formal comments VTDEMHS.

A list of consultants who could complete the ARA can be found here:

http://accd.vermont.gov/sites/accd/files/Documents/strongcommunities/historic/Environmental_Project_Review_Consultants.pdf

I hope this will give you enough information for your meeting tonight, feel free to call me with any additional questions or to talk about next steps.

Best
Jamie



James P. Duggan | Senior Historic Preservation Review Coordinator

Division for Historic Preservation

Department of Housing & Community Development

1 National Life Dr, Davis Bldg, 6th Floor | Montpelier, VT 05620-0501

802-477-2288 direct | accd.vermont.gov/strong_communities/preservation

PLEASE NOTE: The suffix on all state email has changed; all emails now end in vermont.gov.

My email address is james.duggan@vermont.gov



From: Phil Dechert [mailto:PDechert@norwich.vt.us]

Sent: Friday, January 08, 2016 3:40 PM

To: Duggan, James <James.Duggan@vermont.gov>

Subject: Norwich HP review for 3 Alternative Projects

Jamie,

I was unable to go to my meeting in Montpelier today, so I have created a Dropbox folder with the DRAFT application materials for the three Alternative Projects Norwich is submitting to DEMHS. DEMHS is looking for some letter or document from your office to comply with the EHP review.

<https://www.dropbox.com/sh/j2jd5souxh23lbl/AAApNaXt6jMW7xQVIOBZT8YOa?dl=0>

The projects:

Restoration of the Norwich Pool Dam Area – This is cleanup, and removal of debris from the former pool area behind a dam that was taken out by TS Irene. The Dam and pool were created in 1944. There is some restoration to the stream bed as outlined in the Stream Alteration Permit. There is no construction but there may be some limited bank restoration.

Addition to highway garage at the Public works facility – 40' x 70' Addition to an existing steel building (1972) in a paved area adjacent to the existing building. Excavation will be for footings and frost walls under a slab. Prior to 1972 there was a Quonset Hut building for highway trucks in the same general area. That building is gone but the slab is still there.

There is a new 200' communication tower about 800' north of the building. Lyssa Papasian did a Section 106 review for CPG application which I have included in the Dropbox folder.

Replace a box culvert on Route 132 – Remove and replace a structurally deficient box culvert. The details are in the Stream Alteration permit in the file.

I would appreciate any status report by early next week. We have a Selectboard meeting on Wednesday.

Thanks,
Phil

Phil Dechert
Director of Planning & Zoning
Town of Norwich
PO Box 376
Norwich VT 05055
802 649-1419 Ext. 4

Please note that any response or reply to this electronic message may be subject to disclosure as a public record under the Vermont Public Records Act.



State of Vermont

WASTEWATER SYSTEM & POTABLE WATER SUPPLY PERMIT

WW-3-0594-1
(PIN#NS01-0009)

LAWS/REGULATIONS INVOLVED:

Environmental Protection Rules
Chapter 1 and Chapter 21, Appendix A, Part 11

LANDOWNER: Town of Norwich
ADDRESS: PO Box 376
Norwich VT 05055

This project consisting of the drilling of a water supply for non-potable use only, located at the existing town garage off New Boston Road in Norwich, Vermont is hereby approved under the requirements of the regulations named above subject to the following conditions:

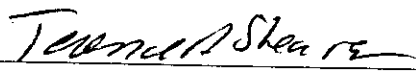
1. The project shall be completed as shown on one sheet of plans prepared by Robert A. Townsend, P.E., titled:
A. "Site Plan," dated 5/2/03
which have been stamped APPROVED by the Wastewater Management Division. No changes shall be made to the approved plan without prior written approval from the Wastewater Management Division.
2. At no time shall there be a cross connection between the existing potable water supply and the proposed non-potable water supply. All non-potable spigots and hose bibs shall be labeled "NON-POTABLE". Any & all interior non-potable water lines shall be color coded according to the National Plumbing Code.
3. This project has been reviewed and is approved for the existing public building. Construction of additional buildings, including public buildings, duplexes, additional single family residences, and condominium units is not allowed without prior review and approval by the Division of Wastewater Management. Such approval will not be granted unless the proposal conforms to the applicable laws and regulations.
4. No alteration to the existing building(s) which would change or affect the water supply system or the wastewater disposal system shall be allowed without prior review and approval from the Division of Wastewater Management.
5. The conditions of this permit shall run with the land and will be binding upon and enforceable against the permittee and all assigns and successors in interest. The permittee shall be responsible for recording this permit and the NOTICE OF PERMIT RECORDING in the Norwich Land Records within thirty (30) days of receipt of this permit and prior to the conveyance of any lot subject to the jurisdiction of this permit.
6. Each prospective purchaser of any portion of the approved project shall be shown a copy of the approved plot plan and the permit before any written contract of sale is entered into.

WASTEWATER SYSTEM & POTABLE WATER SUPPLY PERMIT #WW-3-0594-1
TOWN OF NORWICH
PAGE TWO

7. This permit does not relieve you, as applicant, from obtaining all applicable approvals that may be required from the Act 250 District Environmental Commission, the Department of Labor and Industry, the Department of Health, the State Wetlands Program and other State Agencies or the Town prior to construction.
8. In the event of a transfer of ownership (partial or whole) of this project, the transferee shall become permittee and subject to compliance with the terms and conditions of this permit.
9. By acceptance of this permit the permittee agrees to allow representatives of the State of Vermont access to the property covered by the permit, at reasonable times, for the purpose of ascertaining compliance with Vermont environmental and health statutes and regulations and with the permit.
10. No changes shall be made to the existing potable water supply and distribution system unless prior written approval is obtained from the Wastewater Management Division.
11. No changes shall be made to the existing wastewater disposal system unless prior written approval is obtained from the Wastewater Management Division.
12. The Division's issuance of this Permit relies upon the data, designs, judgment and other information supplied by the applicant, his or her professional consultants and other experts who have participated in preparation of the application. The Division makes no assurance that the approved system(s) will meet performance objectives of the applicant and no warranties or guarantees are given or implied.
13. This permit shall in no way relieve you of the obligations of Title 10 Chapter 48, Subchapter 4, for the protection of groundwater.

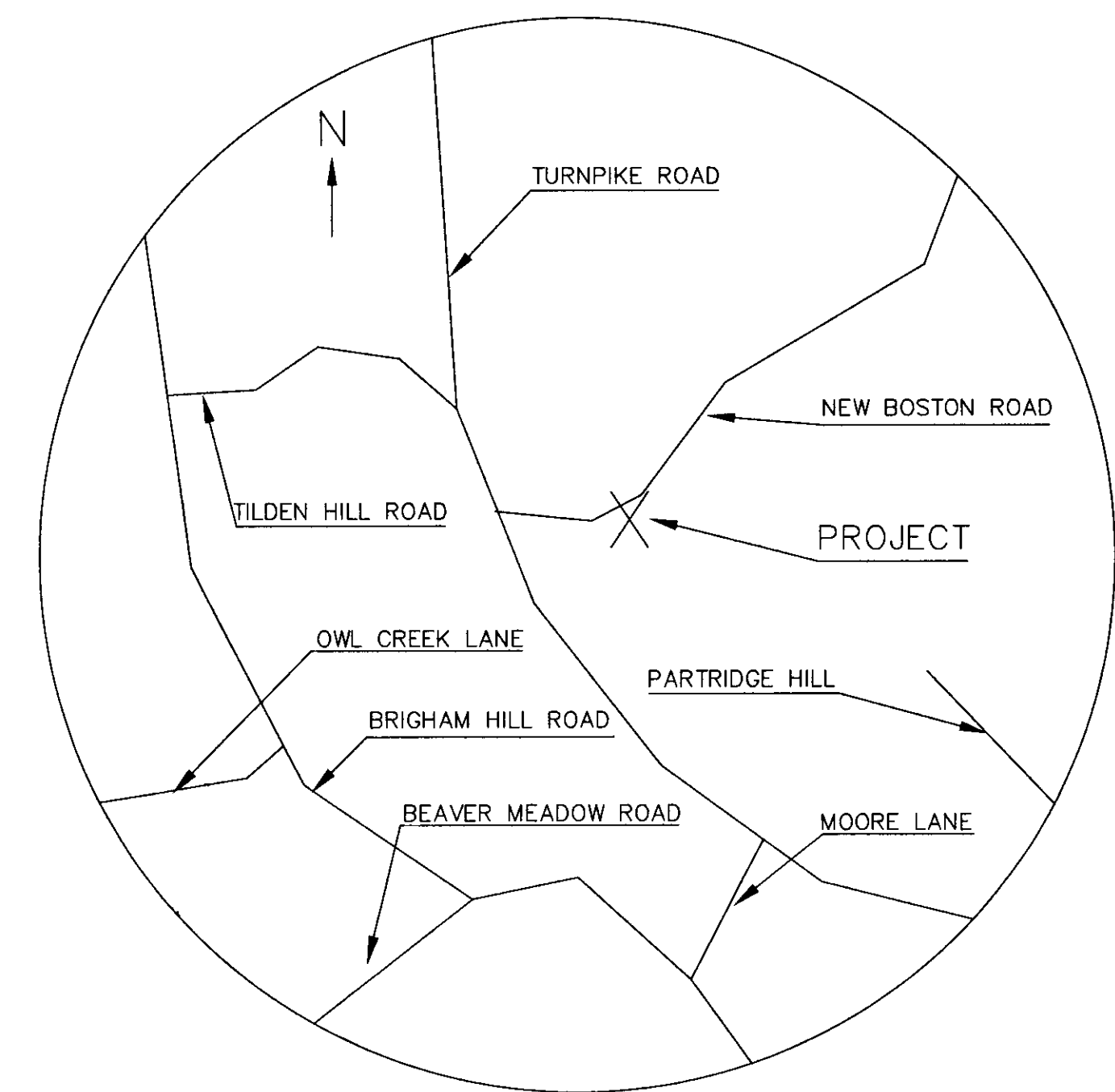
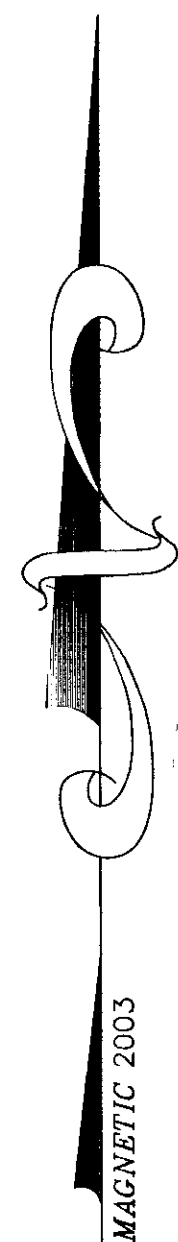
JEFFREY WENNBERG, COMMISSIONER
DEPARTMENT OF ENVIRONMENTAL
CONSERVATION

DATE: July 1, 2003

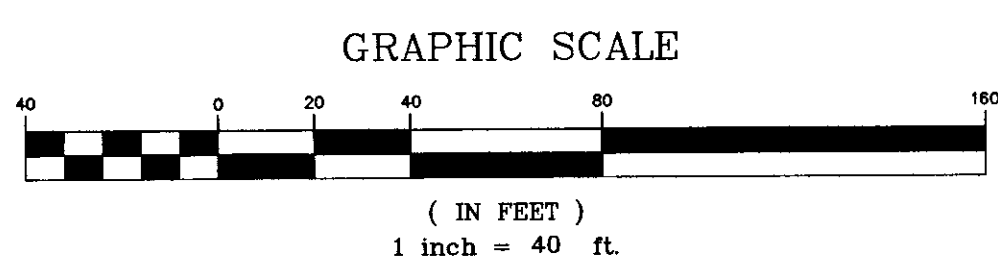
BY 
TERENCE P. SHEARER
ASSISTANT REGIONAL ENGINEER

/ts

Copies: Norwich Town Planning & Board of Selectmen
Rob Townsend, P.E.
Department of Labor & Industry
Roger Thompson, Jr., Regional Office Programs Manager

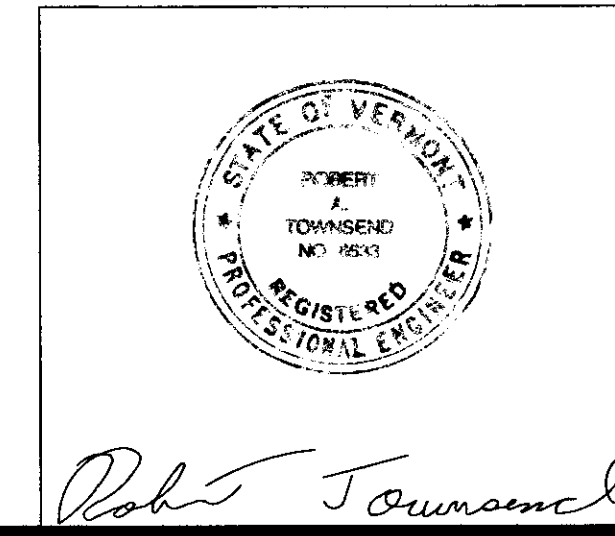


LOCATION MAP
(NOT TO SCALE)



LEGEND	
EXISTING HYDRANT	
PROPOSED WELL	
UTILITY POLE	
GATE	
EDGE OF TRAVEL	
DITCH LINE	
UTILITY LINE	

APPROVED
Department of
Environmental Conservation
Approved By: *Thomas R. [Signature]*
Permit #: *W-2-0594-1*
DATE: *7-1-03*
Chris [Signature]



NORWICH TOWN GARAGE NEW BOSTON ROAD NORWICH, VT SITE PLAN	AMERICAN CONSULTING ENGINEERS AND SURVEYORS	
	SCALE: AS SHOWN	DATE: MAY 2, 2003
	DRAWN BY: LGB	APPROVED: R. T.

WASTEWATER SYSTEM AND POTABLE WATER SUPPLY PERMIT**LAWS/REGULATIONS INVOLVED**

10 V.S.A. Chapter 64, Potable Water Supply and Wastewater System Permit
Wastewater System and Potable Water Supply Rules, Effective September 29, 2007
Chapter 21, Water Supply Rules, Effective December 1, 2010

**Landowner(s): Town of Norwich
c/o Phil Dechert
P.O. Box 376
Norwich VT 05055**

**Permit Number: WW-3-0594-2
PIN:**

This permit affects property identified as Town Tax Parcel ID # Norwich: 10-190.100 referenced in a deed recorded in Book 29 Page(s) 31 of the Land Records in Norwich, Vermont.

This project consisting of the construction of a building addition and the replacement of a failed wastewater disposal system, with no increase in design flow, for the existing property located on 26 New Boston Road in Norwich, Vermont, is hereby approved under the requirements of the regulations named above subject to the following conditions.

1. GENERAL

- 1.1 The project shall be completed as shown on the plans and/or documents prepared by Christopher Holzwarth, LD with the stamped plans listed as follows:

Sheet Number	Title	Plan Date	Plan Revision Date
C1	Overall Sketch Plan	1/06/2016	/ /
C2	Site Plan	1/06/2016	/ /
D1	Details	1/06/2016	/ /
D2	Details	1/06/2016	/ /

- 1.2 This permit does not relieve the landowner from obtaining all other approvals and permits PRIOR to construction including, but not limited to, those that may be required from the Act 250 Environmental Commission; the Drinking Water and Groundwater Protection Division; the Watershed Management Division; the Division of Fire Safety; the Vermont Department of Health; the Family Services Division; or other State departments and local officials.
- 1.3 The conditions of this permit shall run with the land and will be binding upon and enforceable against the landowner and all assigns and successors in interest. The landowner shall record and index this permit in the Norwich Land Records within thirty, (30) days of issuance of this permit and prior to the conveyance of any lot subject to the jurisdiction of this permit.
- 1.4 The landowner shall record and index all required installation certifications and other documents that are required to be filed under these Rules or under a specific permit condition in the Norwich Land Records and ensure that copies of all certifications are sent to the Secretary.
- 1.5 No permit issued by the Secretary shall be valid for a substantially completed wastewater system until the Secretary receives a signed and dated certification from a qualified Vermont Licensed Designer (or where allowed, the installer) that states:



“I hereby certify that, in the exercise of my reasonable professional judgment, the installation-related information submitted is true and correct and the wastewater system were installed in accordance with the permitted design and all the permit conditions, were inspected, were properly tested, and have successfully met those performance tests”,

or which otherwise satisfies the requirements of §1-308 and §1-911 of the referenced rules.

- 1.6 This project is approved with the existing ten (10) employee town highway garage. **No alterations to the existing building other than those indicated in this permit that would change or affect the water supply or wastewater disposal shall be allowed without prior approval by the Drinking Water and Groundwater Protection Division.** Construction of additional nonexempt buildings including commercial and residential buildings is not allowed without prior permitting by the Drinking Water and Groundwater Protection Division and such permit may not be granted unless the proposal conforms to the applicable laws and regulations.
- 1.7 Each purchaser of any portion of the project shall be shown a copy of the Wastewater System and Potable Water Supply Permit and the stamped plan(s), if applicable, prior to conveyance of any portion of the project to that purchaser.
- 1.8 By acceptance of this permit, the landowner agrees to allow representatives of the State of Vermont access to the property covered by the permit, at reasonable times, for the purpose of ascertaining compliance with the Vermont environmental and health statutes and regulations, and permit conditions.
- 1.9 Any person aggrieved by this permit may appeal to the Environmental Court within 30 days of the date of issuance of this permit in accordance with 10 V.S.A. Chapter 220 and the Vermont Rules of Environmental Court Proceedings.
- 1.10 All conditions set forth in **WW-3-0594-1** shall remain in effect except as amended or modified herein.

2. WATER SUPPLY

- 2.1 This project is approved for the existing connection to a potable water supply using a shallow well or spring for a maximum of **150 gallons** of water per day. No changes shall be made to the existing water system unless prior approval is obtained from the Drinking Water and Groundwater Protection Division. No other means of obtaining potable water shall be allowed without prior review and approval by the Drinking Water and Groundwater Protection Division unless otherwise exempt. The landowner shall operate the potable water supply in a manner that keeps the supply free from contamination. The landowner shall immediately notify the Division if the water supply system fails to function properly and becomes a “failed supply”.

3. WASTEWATER DISPOSAL

- 3.1 This project is approved for the disposal of wastewater in accordance with the design depicted on the stamped plan(s) for a maximum of **150 gallons** of wastewater per day. The system(s) shall be operated at all times in a manner that will not permit the discharge of effluent onto the surface of the ground or into the waters of the State. Should the system fail and not qualify for the minor repair or replacement exemption, the current landowner shall engage a qualified Vermont Licensed Designer to evaluate the cause of the failure and to submit an application to this office and receive written approval prior to correcting the failure.
- 3.2 The components of the sanitary wastewater system herein approved shall be routinely and reliably inspected during construction by a Vermont Licensed Designer (or where allowed, the installer) who shall, upon completion and prior to occupancy of the associated building, report in writing to the Drinking Water and Groundwater Protection Division that the installation was accomplished in accordance with the referenced plans and permit conditions, as specifically directed in Condition #1.5 herein.
- 3.3 The corners of the proposed primary or replacement wastewater disposal area(s) shall be accurately staked out and flagged prior to construction with the flagging/staking being maintained until construction is complete.
- 3.4 The wastewater system for this project is approved for domestic type wastewater only except as allowed for water treatment discharges. No discharge of other type process wastewater is permitted unless prior written approval is obtained from the Drinking Water and Groundwater Protection Division.
- 3.5 No buildings, roads, water lines, earthwork, re-grading, excavation or other construction that might interfere with the installation or operation of the wastewater disposal systems are allowed on or near the site-specific wastewater disposal system or replacement area depicted on the stamped plans. All isolation distances that are set forth in the Wastewater System and Potable Water Supply Rules shall be adhered to and will be incorporated into the construction and installation of the wastewater disposal field.

Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

By 

Dated February 2, 2016

Terence Shearer, Regional Engineer
Springfield Regional Office
Drinking Water and Groundwater Protection Division

cc Norwich Planning Commission
Christopher Holzwarth, LD