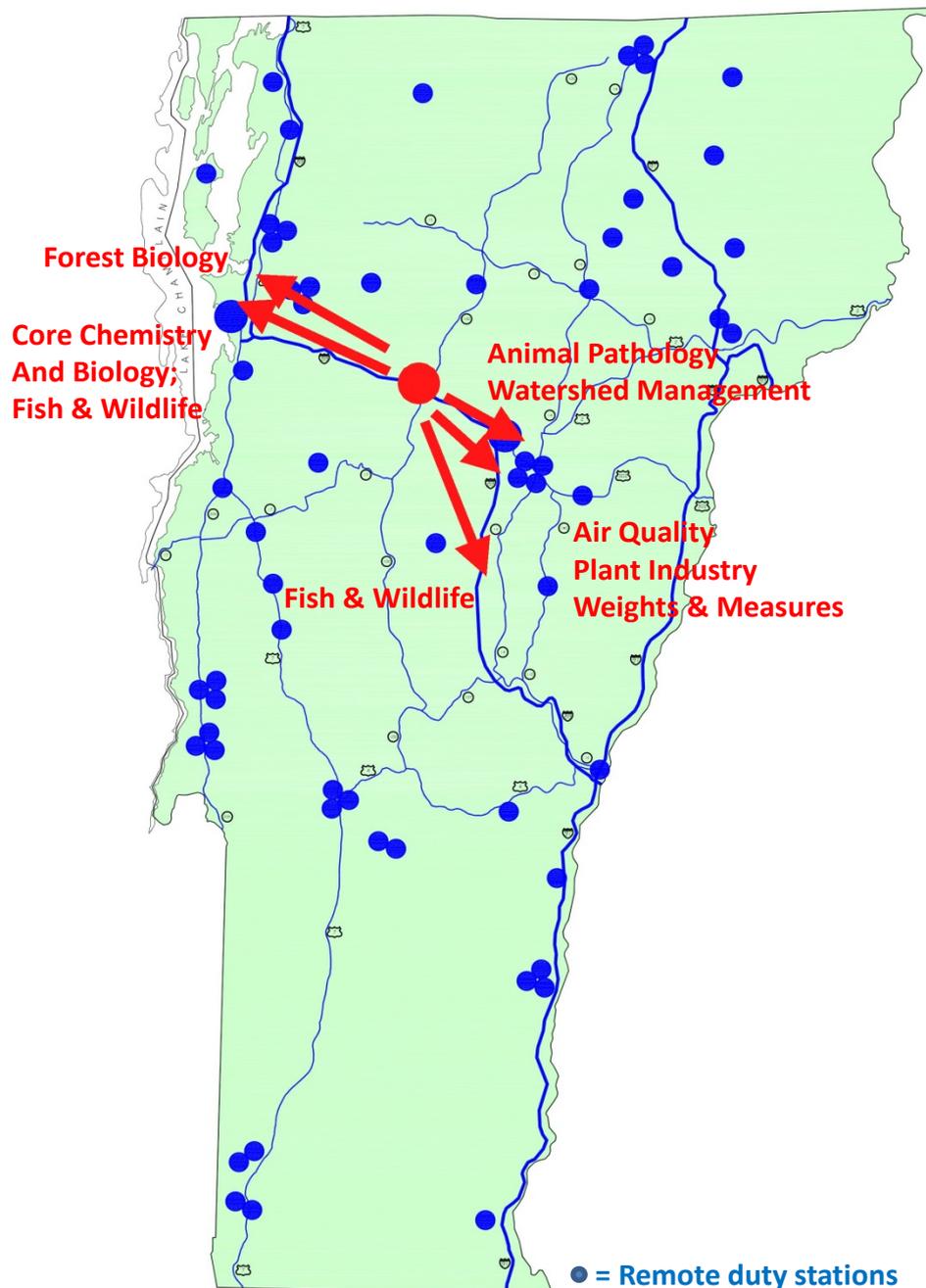




Ag/ANR Lab after TS Irene, August 28, 2011

Agencies of Agriculture & Natural Resources Collaborative Laboratory
Presentation to HCIC and SIC • August 27, 2014



- All programs are now in rented space in five locations.
- UVM lease scheduled to end August 2017
- SLAM feasibility study endorsed a collaborative lab.
- With sustained effort, we can finish construction by the end of 2017

The focus today is site selection.



detailed site
analysis
(testing and
assessments)



12 weeks:
Conceptual Design

detailed program
already developed



+ final adjustments
due to location

= better numbers
Detailed Proposal &
Cost Estimate for
FY 16/17 Capital Bill

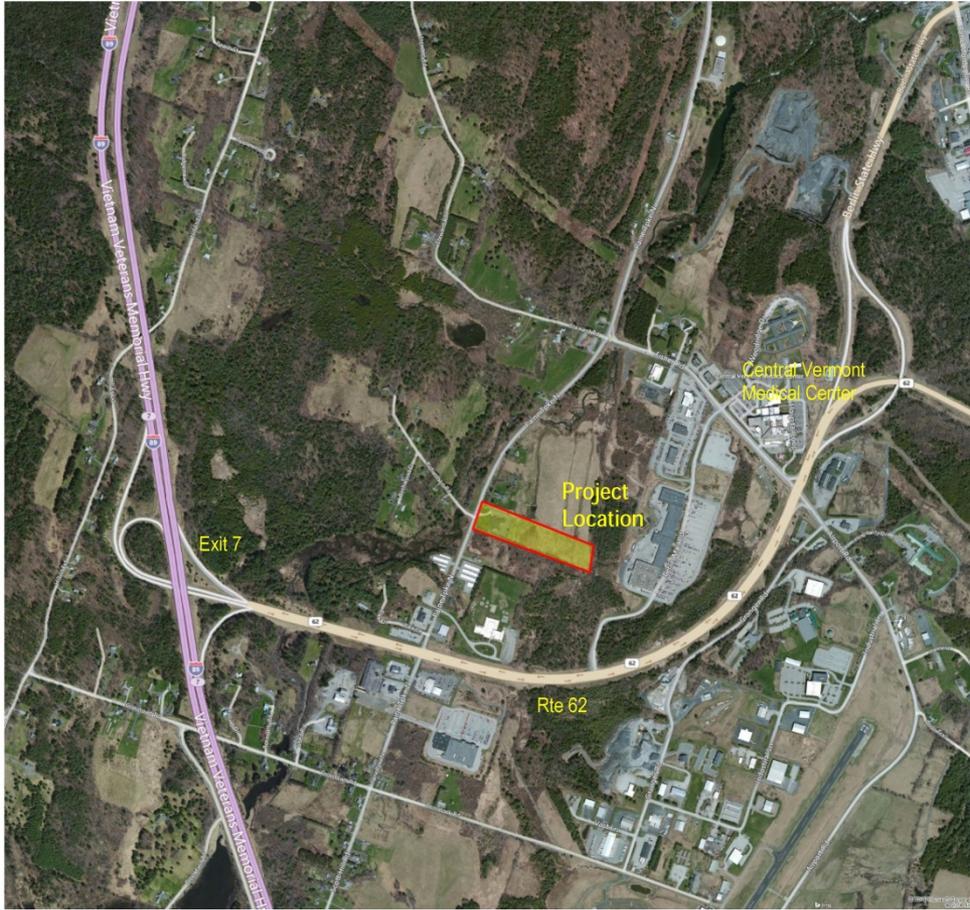
FIRST LOOK: STATE SITES

- Waterbury
- 195 Colchester Ave, Burlington
- Berlin Regional Library
- F & W land, Berlin

SECOND LOOK: REQUEST FOR SITE PROPOSALS

- 11 landowners offered 12 sites between Randolph and Milton
- UVM offered two sites
- VTC offered one site

= 19 SITES



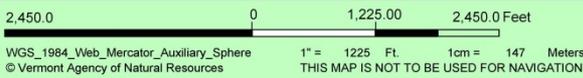
- LEGEND**
- Railroads
 - Designated Downtown Areas
 - Designated Village Areas
 - Town Boundary
 - County Boundary

NOTES

Map created using ANR's Natural Resources Atlas

1: 14,700

July 16, 2014



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Example of PRELIMINARY SITE REVIEW

Example: Berlin Regional Library



LEGEND

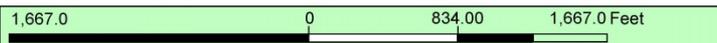
- Rare Threatened Endangered**
- Threatened or Endangered
 - Rare
- Significant Natural Community**
- Natural Communities**
- Acidic Riverside Outcrop
 - Alder Swamp
 - Alluvial Shrub Swamp
 - Alpine Meadow
 - Alpine Peatland
 - Beaver Wetland (Non-NC)
 - Black Spruce Swamp
 - Black Spruce Woodland Bog
 - Boreal Acidic Cliff
 - Boreal Calcareous Cliff
 - Boreal Outcrop
 - Boreal Talus Woodland
 - Buttonbush Swamp
 - Calcareous Red Maple-Tamarack
 - Calcareous Riverside Outcrop
 - Calcareous Riverside Seep
 - Cattail Marsh
 - Cold-Air Talus Woodland
 - Deep Broadleaf Marsh
 - Deep Bulrush Marsh
 - Dry Oak Forest
 - Dry Oak Woodland
 - Dry Oak Woodland

1: 10,000
July 16, 2014



NOTES

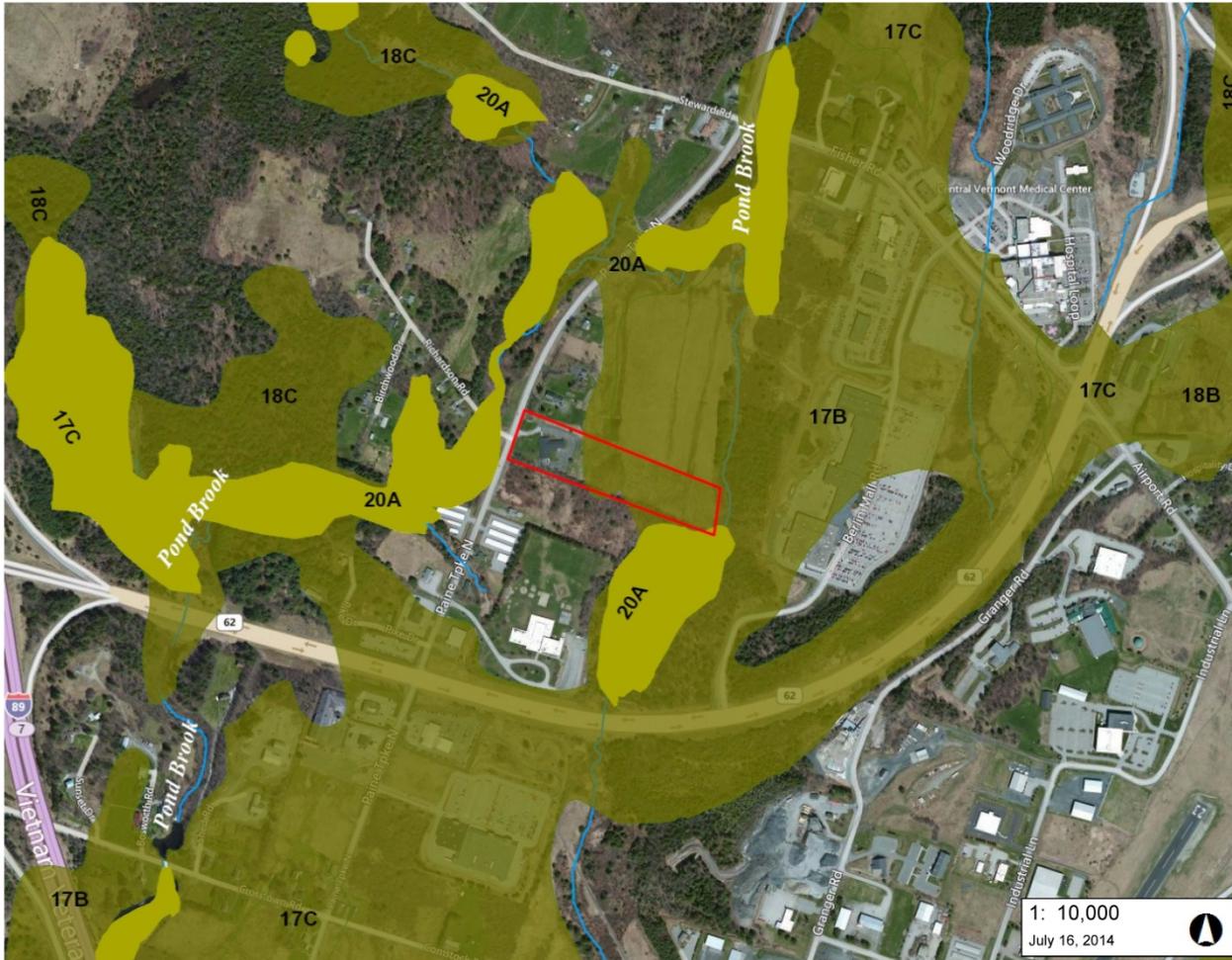
Map created using ANR's Natural Resources Atlas



WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 833 Ft. 1cm = 100 Meters
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Example: Berlin Regional Library



LEGEND

- Wetlands - VSWI
 - Class 1 Wetland (Orange square)
 - Class 2 Wetland (Yellow square)
- Soils - Hydric (Green square)
- Stream (Blue line)

NOTES

Map created using ANR's Natural Resources Atlas

1,667.0 0 834.00 1,667.0 Feet
 WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 833 Ft. 1cm = 100 Meters
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1: 10,000
 July 16, 2014

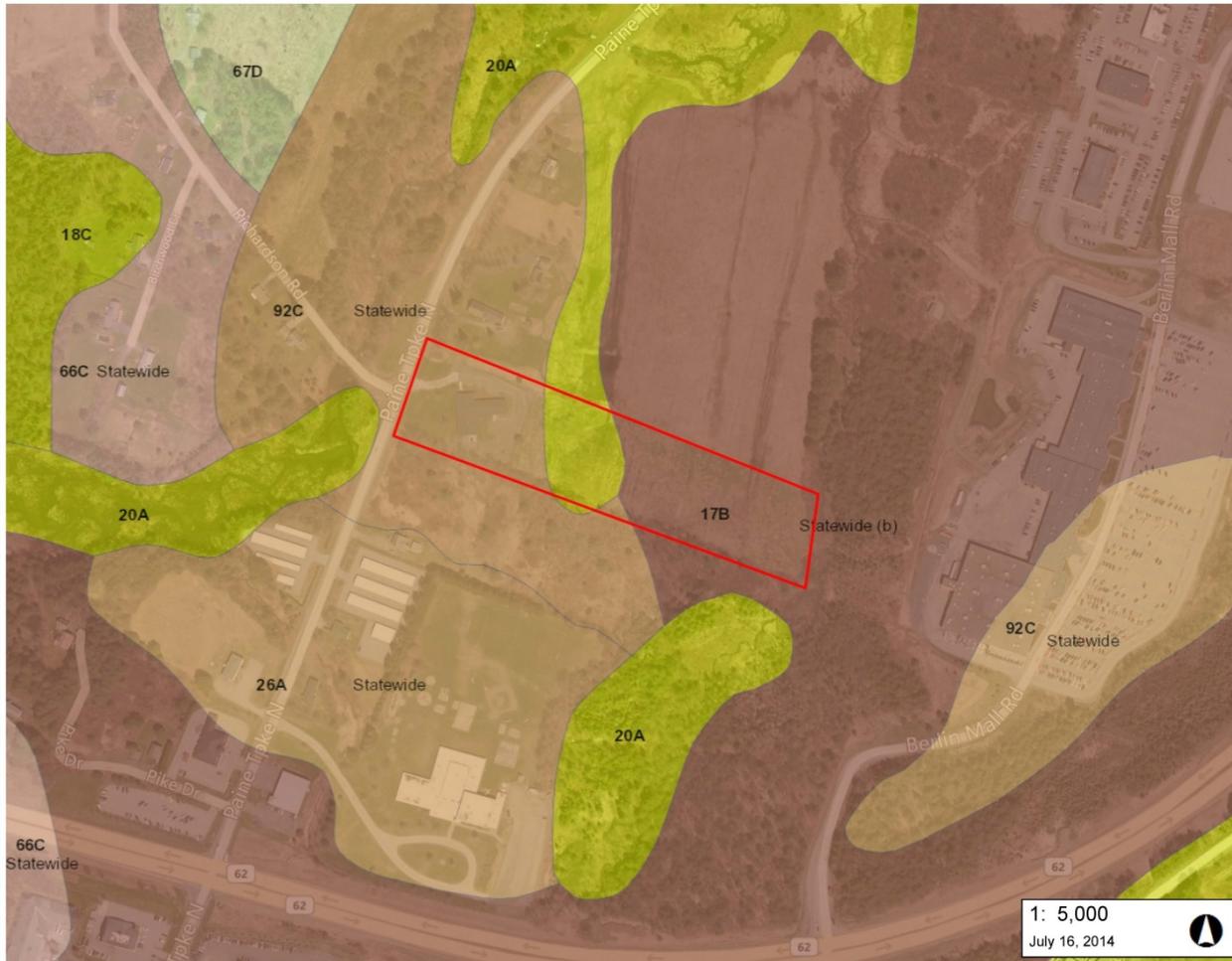
Example: Berlin Regional Library



Area Soils Mapping - Berlin - Regional Library

Vermont Agency of Natural Resources

vermont.gov



LEGEND

Soils - Prime Agricultural

- Local
- Local (b)
- Not rated
- Prime
- Prime (b)
- Prime (f)
- Statewide
- Statewide (a)
- Statewide (b)
- Statewide (c)

Soils

- <all other values>
- Association
- Consociation
- Undifferentiated group
- Complex

1: 5,000
July 16, 2014



833.0 0 416.00 833.0 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 417 Ft. 1cm = 50 Meters

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NOTES

Map created using ANR's Natural Resources Atlas

Example: Berlin Regional Library



Example: Berlin Regional Library



Example: Berlin Regional Library

Permitting Summary

Municipal

Zone: Town Center. Laboratory use is prohibited. There is a precedent established in Berlin to honor Title 24. 15' front yard setback; 10' side and rear yard setback. Building height 45' Lot coverage 75%

State

Wastewater – The project will rely upon the timely construction of the extension of municipal sewer to this portion of the Town of Berlin. This is scheduled to occur in the near future. A modest water and sewer allocation will be required to be acquired from the Town for this project. There are no other known technical issues associated with the acquisition of is permit.

Water Supply – The project may require the acquisition of a Permit to Construct from the Water Supply Division if a hydrant is required on the property. Fire Flow Capacity may become an issue as this is located at the higher portion of the proposed distribution system.

Construction Stormwater – The project may qualify for a Low Risk Authorization under the State Construction Stormwater General Permit.

Operational Stormwater – Coverage under the State Operation Stormwater General Permit will be required as amount of impervious area on the property exceeds the one acre jurisdictional limit. The extent of the mitigation may change as the State is in the process of modifying the Stormwater Rules to require additional on-site retention of storm events.

Wetlands – The project does extend into the wetland buffer thereby requiring the acquisition of a State Wetland Permit.

Stream Alteration – not applicable

Act 250 – Currently the parcel is less than 10 acres and barring any other jurisdictional triggers associated with the creation of residential units or lots within the last 15 years and 5 miles of this site, Act 250 jurisdiction should not attach to this project.

Federal

Corps of Engineers – The project is not proposing any wetland impact, therefore no authorization should be required.

NEPA – Many of the criteria otherwise handled within the Act 250 process will need to be addressed as part of the NEPA review. Items of exposure are archaeological issues (much of the site has been disturbed but sits on fill perhaps encapsulating sensitive items) and traffic impacts.

Example: Berlin Regional Library

SCORING PROCESS

- Members of BGS, AAFM, and ANR
- 8 criteria, weighted equally: 5 points each
 - Ability to accommodate program
 - Physical characteristics
 - Utility service
 - Ease of zoning and permitting
 - Neighborhood/context
 - Construction challenges (demolition, traffic, etc)
 - Benefits to program staff and users
 - Benefits to Agencies and State of Vermont

Acquisition cost was not considered in the scoring.

**VERMONT AGENCIES OF AGRICULTURE & NATURAL RESOURCES LAB FACILITY
FACILITY SITE OPTIONS CRITERIA SCORING SUMMARY**

SITE	VARIATION	CRITERION 1 LOT SIZE	CRITERION 2 PHYSICAL	CRITERION 3 UTILITIES	CRITERION 4 ZONING	CRITERION 5 NEIGHBORHOOD	CRITERION 6 CONSTRUCTION	CRITERION 7 QUALITY	CRITERION 8 BENEFITS	TOTAL
1	Milton	2.8	2.8	3.2	2.8	3.2	3	1.2	1.2	20.2
2	Colchester Severance	4.3	4.2	4.3	3.7	4	4.8	1.7	2.2	29.2
3	Colchester Health Lab	3.5	3.3	4.8	4.5	4.2	4	2.2	3.3	29.8
4	Burlington 195 Colchester	1.2	1.5	4.8	2	2	1	1.5	3.2	17.2
5	So Burl Spear St	3.3	3.5	4.7	3	3.8	3.8	2.3	3.8	28.2
6	So Burl Tech Park	3.5	3.8	4.8	4.3	4.5	3.3	2.2	2.2	28.6
7	So Burl Hinesburg Rd	4	4.3	4.8	4.2	3.5	4.2	1.3	1	27.3
8	Richmond Rte 2	2.3	3	1.5	2.5	2.2	3	1.7	1.3	17.5
9	Richmond Creamery	2.3	3.3	4.3	3.8	2.7	3.5	1.8	2.5	24.2
10	Waterbury	4	3.7	4.3	4	2.8	3.8	4	4	30.6
11	Montpelier Armory	2	2.7	4.5	3.3	3.8	3.5	4	3	26.8
12	Montpelier 2 Rivers Farm	4.2	2.8	4.3	3.3	3.8	2.7	3.7	3	27.8
13	Berlin F&W Land	3.7	2.2	1.2	3.2	2.8	3.5	3.8	2.8	23.2
14	Berlin Route 12	3.8	3.5	1.8	3.2	3.7	3.2	4.3	3.7	27.2
15	Berlin Dog River Rd	4.2	3.8	2	3.8	3.7	3.7	4.3	3.7	29.2
16	Berlin Regional Library	3.3	3.2	4.2	2	3.7	2.7	3.5	3.5	26.1
17	Berlin Back Field	4.5	3.5	4.2	2	4	3.7	3.7	3.7	29.3
18	Randolph VTC Campus	4.5	4.5	4	4.3	4	4.5	3.6	4.6	34
19	Randolph Exit 4	3.6	2.4	2.6	2.8	3.2	3.6	2.8	3	24

TABULATED SCORES FOR EACH SITE

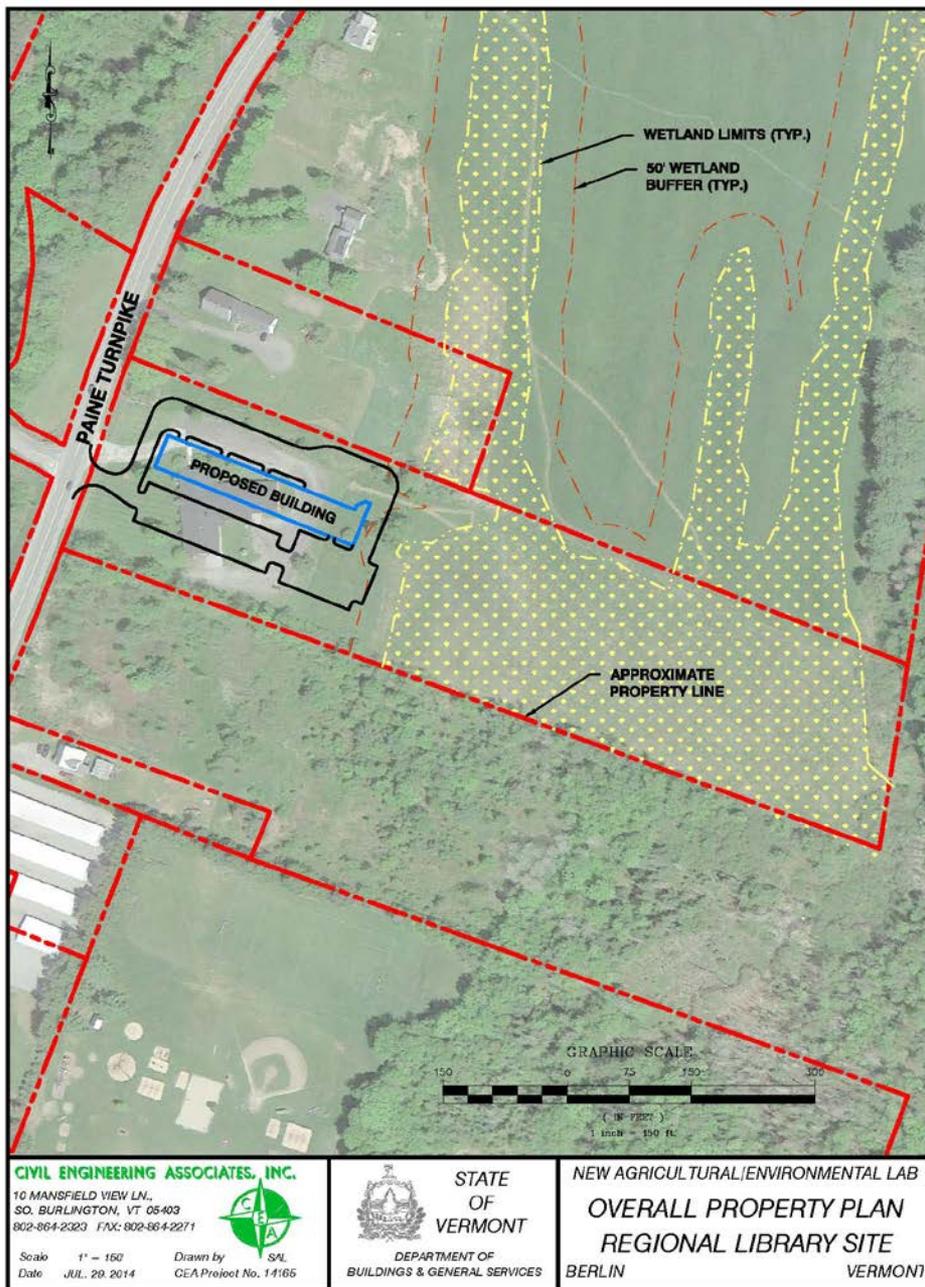
	<u>LOCATION</u>	<u>SCORE</u>	<u>CRITERIA 1-6</u>	<u>CRITERIA 7 & 8</u>	<u>Acquisition Cost</u>	<u>Site Devel. Cost</u>	<u>Peripheral Cost</u>	<u>TOTAL COST</u>
1	Randolph: VTC	34	25.8 (#1)	8.2 (#1)	\$50	\$840,000	\$50,000 (1) (\$ 470,000) (2)	\$370,000
2	Waterbury	30.6	22.6 (#6)	8 (#2 tie)	\$0	\$1,460,000	(\$1,130,000) (2)	\$330,000
3	Colchester: Health Lab	29.8	24.3 (#4)	5.5 (#12)	\$50	\$660,000		\$660,000
for 4	Berlin: Back Lot	29.3	21.9 (#8)	7.4 (#5)	\$1,200,000	\$1,140,000		\$2,340,000
for 4	Berlin: Dog River Rd	29.2	21.2 (#9)	8 (#2 tie)	\$632,500	\$1,450,000		\$2,082,000
for 4	Colchester: Severance Rd	29.2	25.3 (#2)	3.9 (#16)	\$1,260,000	\$550,000		\$1,810,000
7	So Burl: Tech Park	28.6	24.2 (#5)	4.4 (#14)	lease	< \$500,000		n
8	So Burl: Spear St	28.2	22.1 (#7)	6.1 (#10)	\$50	average		\$700,000
9	Mplr: 2 Rivers Farm	27.8	21.1 (#10)	6.7 (#8)	\$245,000	very high		\$1,050,000
10	So Burl: Hinesburg Rd	27.3	25.0 (#3)	2.3 (#19)	\$725,000	average		\$1,400,000
11	Berlin: Rte 12	27.2	19.2 (#13)	8 (#2 tie)	\$400,000	abv. average		\$1,200,000
12	Mplr: Armory	26.8	19.8 (#12)	7 (#6 tie)	lease	abv. average		n
13	Berlin: Regional Library	26.1	19.1 (#14)	7 (#6 tie)	\$0	\$810,000	\$3,700,000 (3)	\$4,510,000
14	Richmond: Creamery	24.2	19.9 (#11)	4.3 (#15)	\$575,000	abv. average		\$1,400,000
15	Randolph: Exit 4	24	18.2 (#15)	5.8 (#11)	\$500-750k	abv. average		\$1,300,000
16	Berlin: F&W Land	23.2	16.6 (#17)	6.6 (#9)	\$0	\$1,720,000	\$170,000 (4)	\$1,720,000
17	Milton	20.2	17.8 (#16)	2.4 (#18)	\$550,000	average		\$1,200,000
18	Richmond: Rte 2	17.5	14.5 (#18)	3 (#17)	\$1,250,000	abv. average		\$2,100,000
19	Burl.: 195 Colchester Ave	17.2	12.5 (#19)	4.7 (#13)	\$0	very high		\$950,000

Notes: (1) replace orchard if south lot is chosen
(2) shared heat plant: equipment savings

(3) replace library structure elsewhere
(4) possible compensation to F&W

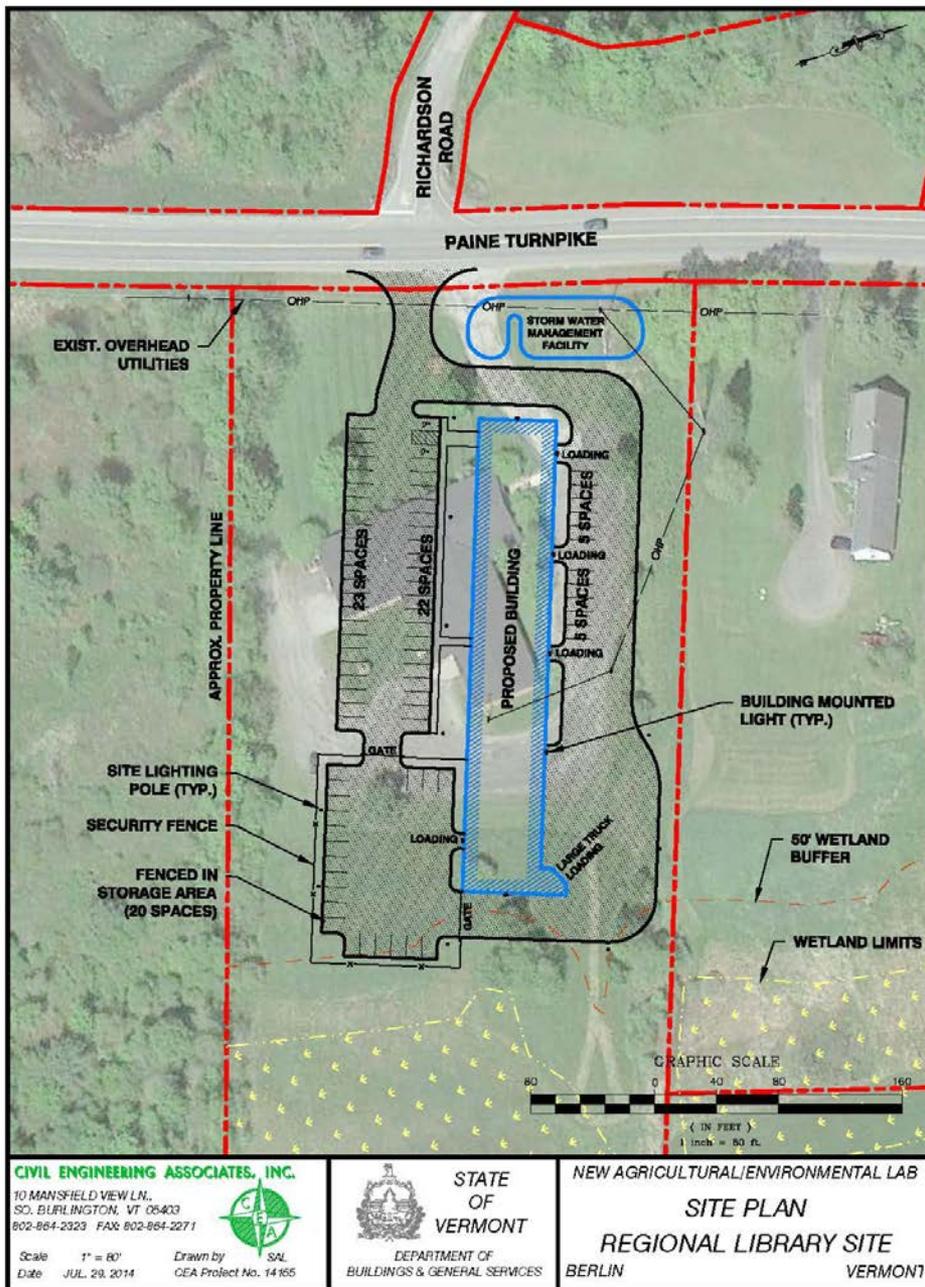
Average: approx \$700,000
Above average: \$800,000 - \$950,000
Very high: \$950,000 - \$1,200,000

Example of SITE ANALYSIS (Site Plan)



Example: Berlin Regional Library

Example of SITE ANALYSIS (Site Plan)



Example: Berlin Regional Library

Example of SITE ANALYSIS (Cost Estimate)

Regional Library Site

Berlin

Summary of Estimate of Probable Site Development Cost
August 8, 2014

Description	Qty	Unit		Unit Cost	=	Cost
Site & Building Demolition	1	LS	x	\$21,000	=	\$21,000
Mass Earthwork	6,667	CY	x	\$15.00	=	\$100,000
Rock Removal	10	CY	x	\$40	=	\$400
Supplemental Foundation Costs	1	LS	x	\$12,000	=	\$12,000
Sewer Disposal	1	LS	x	\$2,800	=	\$2,800
Water Supply	1	LS	x	\$30,400	=	\$30,400
Stormwater Management	1	LS	x	\$56,000	=	\$56,000
Site Development Components	1	LS	x	\$100,200	=	\$100,200
Special Site Conditions	1	LS	x	\$1,000	=	\$1,000
Retaining Walls	1	SF	x	\$4,800	=	\$4,800
Communications Utilities	1	LS	x	\$32,000	=	\$32,000
Pavement Surfaces	50,585	SF	x	\$5.44	=	\$275,334
Wetland Mitigation Measures	1	LS	x	\$2,800	=	\$2,800
Environmental Permitting	1	LS	x	\$1,000	=	<u>\$38,200</u>

Subtotal \$676,934

20% Contingency \$133,066

Total \$810,000

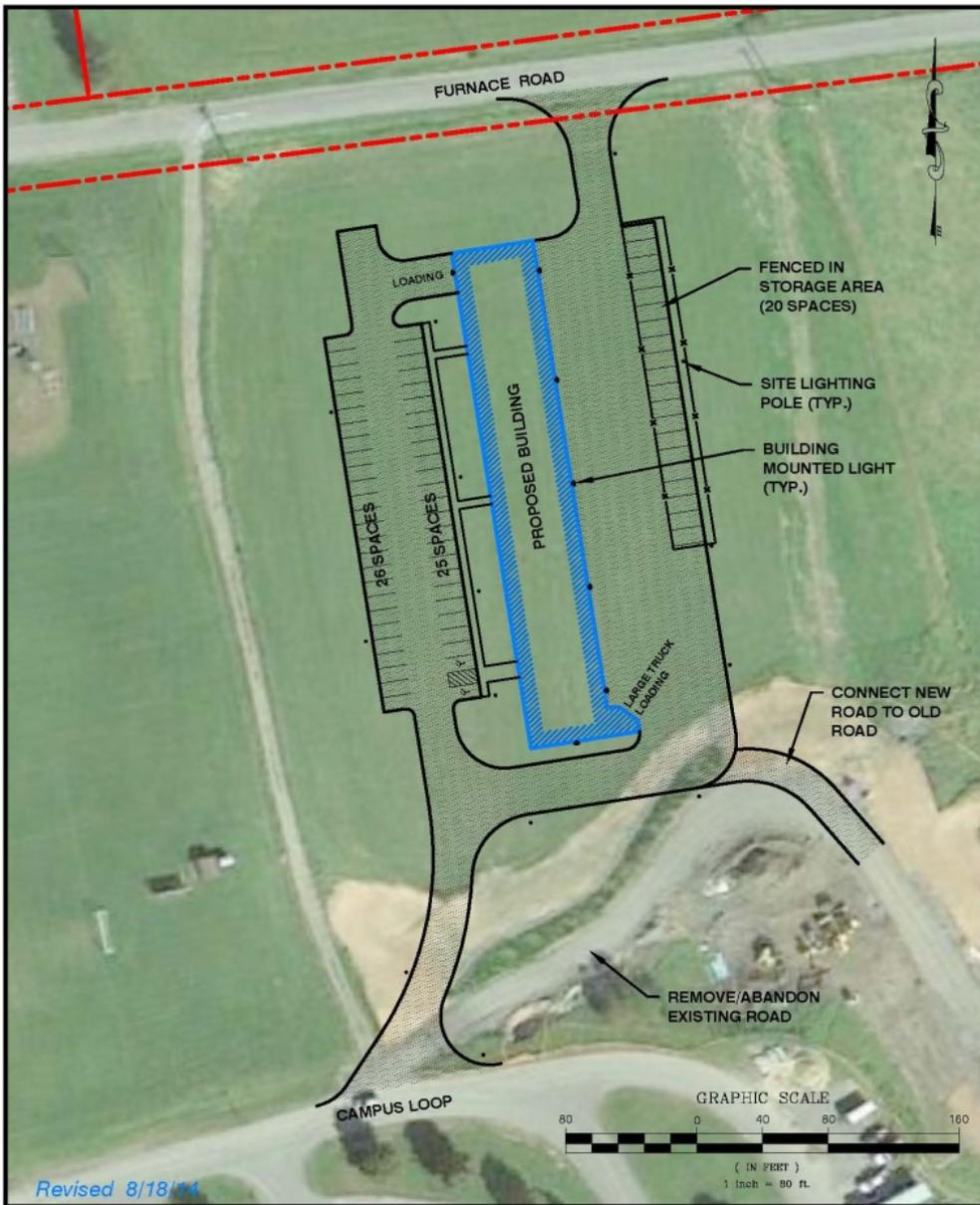


CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

Not included:

Landscaping, foundation work, sidewalks and ramps, signage, solar infrastructure, or solar panels.

Example: Berlin Regional Library



CIVIL ENGINEERING ASSOCIATES, INC.

10 MANSFIELD VIEW LN.,
SO. BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271



Scale 1" = 80'
Date JUL. 29, 2014
Drawn by SAL
CEA Project No. 14185



STATE
OF
VERMONT

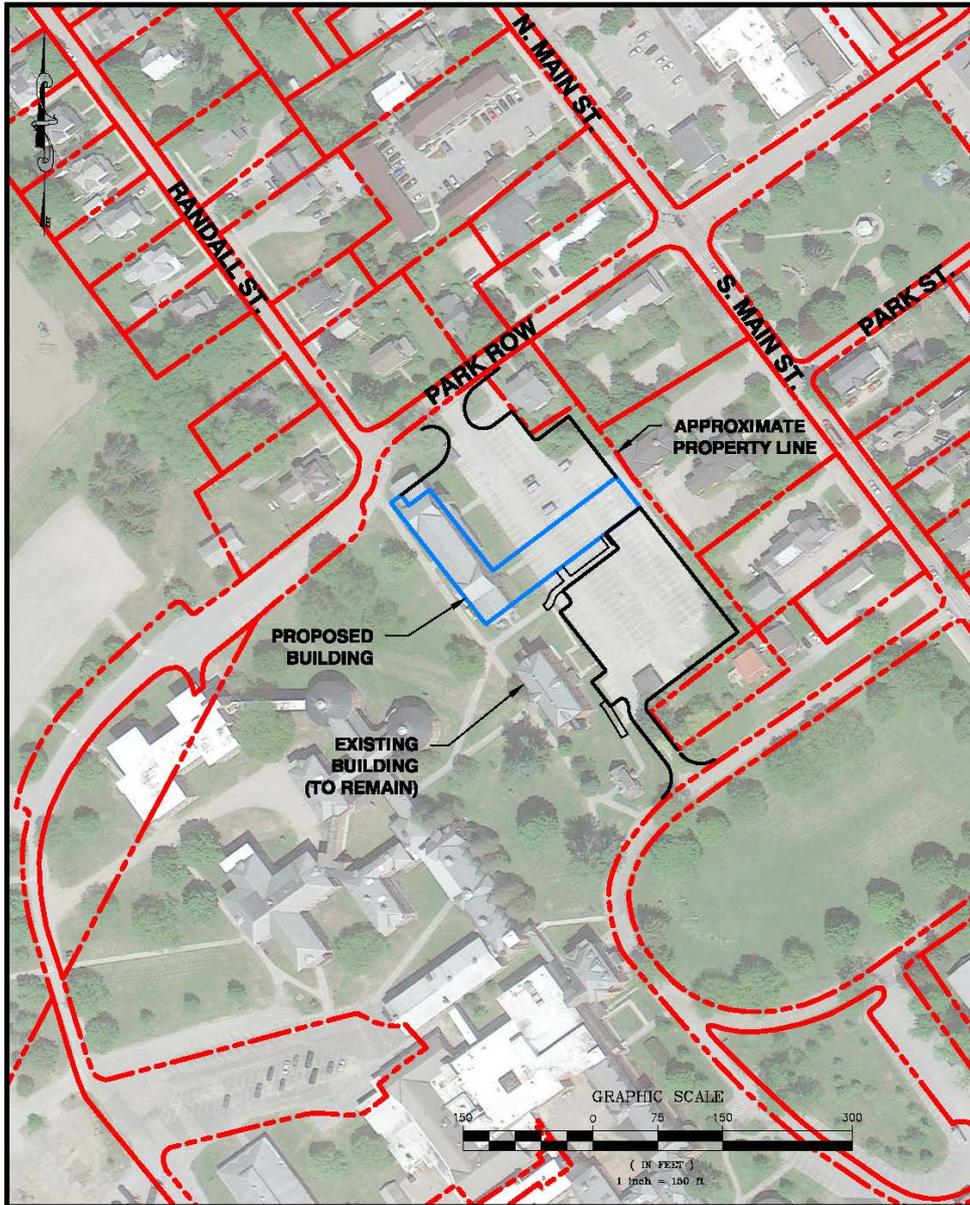
DEPARTMENT OF
BUILDINGS & GENERAL SERVICES

NEW AGRICULTURAL/ENVIRONMENTAL LAB

SITE PLAN
VTC SITE - NORTH

RANDOLPH VERMONT

VTC/RANDOLPH SITE



CIVIL ENGINEERING ASSOCIATES, INC.

10 MANFIELD VIEW LN.,
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802-864-2323 FAX: 802-864-2271



Scale 1" = 150'
Date JUL. 29, 2014

Drawn by SAL
CEA Project No. 14165



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DEPARTMENT OF
BUILDINGS & GENERAL SERVICES

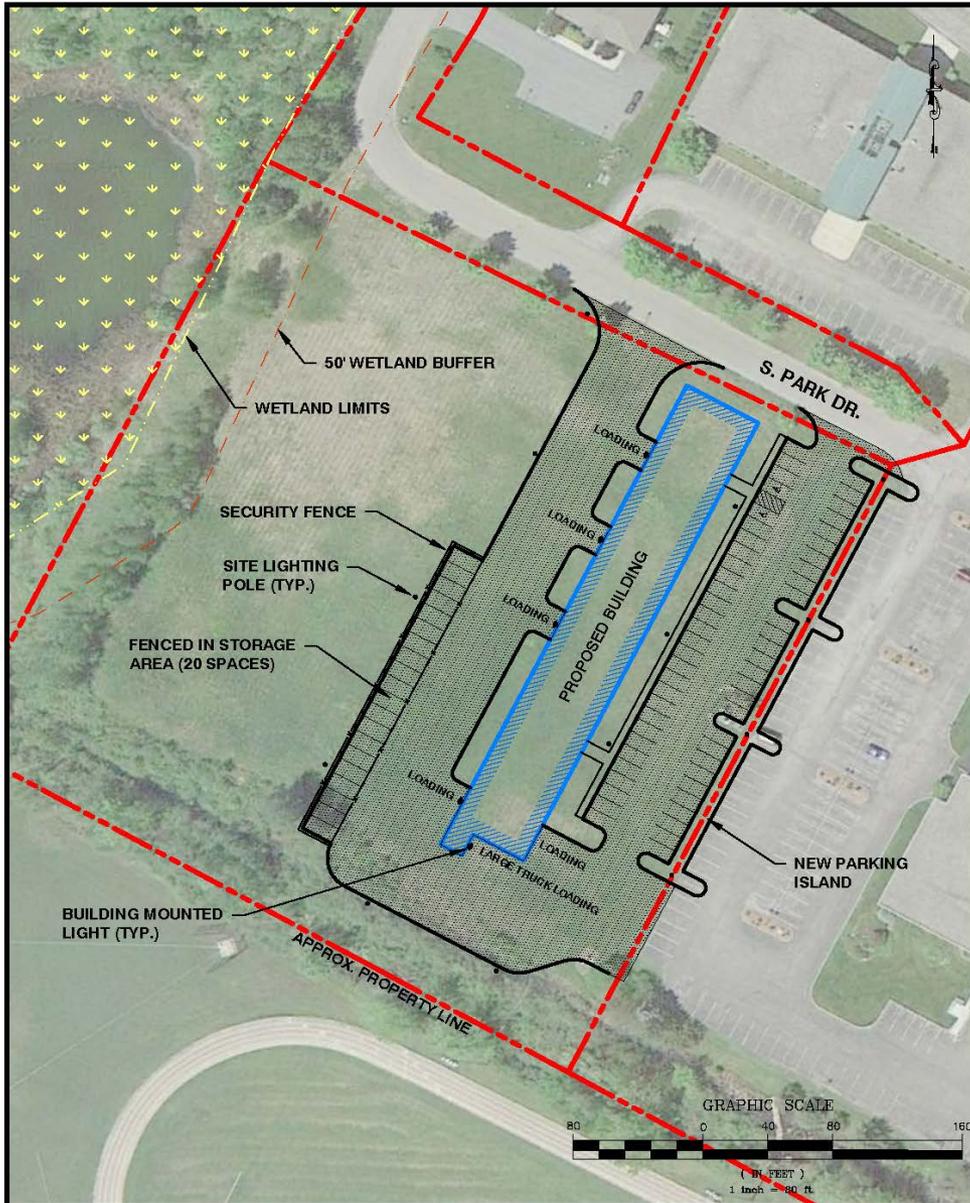
NEW AGRICULTURAL/ENVIRONMENTAL LAB

OVERALL PROPERTY PLAN
WATERBURY SITE

WATERBURY

VERMONT

WATERBURY SITE



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Scale 1" = 80'
Date JUL. 29, 2014

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CEA Project No. 14165



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DEPARTMENT OF
BUILDINGS & GENERAL SERVICES

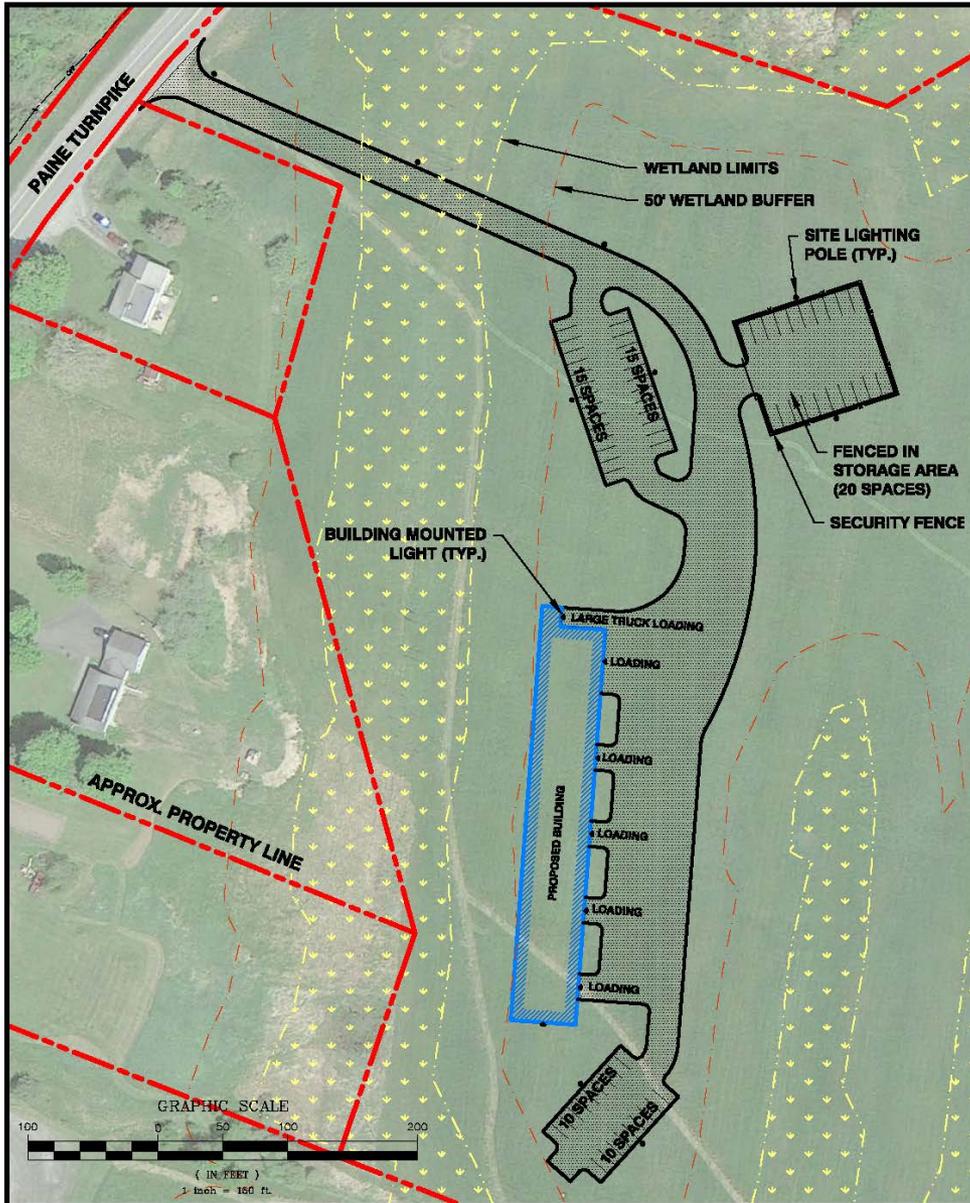
NEW AGRICULTURAL/ENVIRONMENTAL LAB

SITE PLAN
HEALTH LAB SITE

COLCHESTER

VERMONT

UVM/COLCHESTER SITE



CIVIL ENGINEERING ASSOCIATES, INC.

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SO. BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271



Scale 1" = 100'
Date JUL. 29, 2014

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CEA Project No. 14165



STATE
OF
VERMONT

DEPARTMENT OF
BUILDINGS & GENERAL SERVICES

NEW AGRICULTURAL/ENVIRONMENTAL LAB

SITE PLAN
BACK LOT SITE

BERLIN

VERMONT

BERLIN "BACK LOT" SITE

COMPARISON OF THE FINAL FOUR SITES

<u>Criterion</u>	<u>Randolph</u> RANK #1	<u>Waterbury</u> RANK #2	<u>Colchester</u> RANK #3	<u>Berlin</u> RANK #4
Buildability (1-6)	25.8/30 (#1) open land; easy utilities; easy permitting; agreeable neighborhood; good construction site	22.6/30 (#6) tight site; stormwater problems; height could be an issue with neighbors; average site for construction	24.3/30 (#4) tight site; have to screen exterior storage and it may be separated; utilities all available and complex is similar use; permitting easy	21.9/30 (#8) large site but has wetlands; roads and utilities have to be extended; use not permitted; neighborhood in transition; grades & soil small issue
Program & Customer Benefits (Crit. 7)	3.6/5 (#8) 24 miles from Montpelier 62 miles from Health Lab Closer for east, south & SW staff Closer for out-of-state customers Room for boat/trailer storage Ability to expand More central for sample drop off	4.0/5 (tied for #3) 13 miles from Montpelier 29 miles from Health Lab Closer for western staff Room for boat/trailer storage Ability to expand (Wasson?)	2.2/5 (tied for #12) 40 miles from Montpelier next to Health Lab Farther for all users except staff on western edge of state May lose space for boat/trailer storage No room to expand	3.7/5 (tied for #6) 4 miles from Montpelier 42 miles from Health Lab Optimal for users from NE Kingdom Middle for other users Room for boat/trailer storage Ability to expand Central for sample drop-off
SOV Benefits (Crit. 8)	4.6/5 (#1) Tech-oriented interns year-round Strong vet tech program; potential to share classrooms & programs CE tech program-- overlap with Wastewater training? Strong program benefit to VTC. VTC is already used as a meeting point Ag business incubator nearby Can use heat from VTC plant (no cooling) Is it good for the State to have a BSL-2+ lab remote from Burlington?	4.0/5 (#2) Removed from interns Potential to share meeting space with other State buildings Benefit to Village of Waterbury Waterbury is already used as a meeting point. Close to the Forensics lab Shared heating & cooling in Complex Maintenance staff can be shared.	3.3/5 (#8) Year-round interns Pre-vet program at UVM. Would not share meeting space/classrooms. Could share meeting space with Health Lab Benefit to Health Lab and UVM. Next to the Health Lab Has to be stand-alone building Maintenance staff can be shared.	3.7/5 (tied for #4) Removed from interns Potential to share meeting space with other State buildings Negative impact on Berlin town center? Could create campus for heat/cooling. Maintenance staff can be shared.
Overall score	34.0/40 (#1)	30.6/40 (#2)	29.8/40 (#3)	29.3/40 (tied for #4)
Cost	Acquisition: \$1/yr ground lease Site Dev. Costs: \$840,000 \$840,000 Possible equipment savings from sharing heat: \$470,000 (\$370,000 net)	Acquisition: already owned Site Dev. Costs: \$1,460,000 \$1,130,000 Possible equipment savings from sharing heat and cooling: \$1,130,000 (\$ 330,000 net)	Acquisition: \$1/yr ground lease Site Dev. Costs: \$650,000 \$650,000 (\$660,000 net)	Acquisition: \$1,200,000 Site Dev. Costs: \$1,140,000 \$2,340,000 (\$2,340,000 net)
Legend	14.5/30 (#3) = scored points/possible points (rank out of 19 sites)			

PROCESS OF ELIMINATION: BERLIN “BACK LOT”

- **Benefits:**
 - Proximity to Montpelier
 - Room on site for exterior functions and future growth
 - Possibility of sharing heating and cooling, but there is no existing infrastructure.
- **Disadvantages:**
 - **TOTAL COST.** The “Back Lot” site costs about \$2 million more than the other top three sites.
 - **NO ADDITIONAL RESEARCH OR EDUCATIONAL BENEFIT**

Note: There were seven sites in Berlin/Montpelier. All of them had similar high costs due to acquisition or obstacles such as flood plains, steep slopes, or distant utilities.

PROCESS OF ELIMINATION: UVM/HEALTH LAB

- **Benefits:**
 - Proximity to the Health Lab
 - Strong research and educational benefit for lab and UVM
- **Disadvantages:**
 - **LOT SIZE (2 ACRES).** Difficult to accommodate exterior functions. No room for expansion.
 - **DISTANCE FROM AGENCY ADMINISTRATION.**
 - **NO POSSIBILITY OF SHARED HEATING/COOLING.**

Note: The Spear Street site has more space but no room for growth, and it is more difficult for staff and users to access.

PROCESS OF ELIMINATION: WATERBURY

- **Benefits:**
 - Close to other State properties
 - Benefits Village of Waterbury
 - Possibility of sharing heat and cooling
- **Disadvantages:**
 - **SITE DEVELOPMENT COST.** Most expensive to build on due to flood plain and tight urban site.
 - **NO ADDITIONAL RESEARCH OR EDUCATIONAL BENEFIT.**
 - **THE PROPERTY MAY HAVE BETTER USE.**

By building the lab at Randolph and a future building at Waterbury, heating and cooling savings are maximized. The net gain is as much as \$500,000.

RECOMMENDATION: VTC/RANDOLPH

- **Benefits:**
 - One of the least expensive sites to build on
 - Central location for regional services
 - Room on site for exterior functions and future growth
 - Strong research and educational benefit for lab and VTC
- **Disadvantage:**
 - **DISTANCE FROM AGENCY ADMINISTRATION.**

This site makes sense in terms of cost and wider benefits. The Agencies have the opportunity to envision new services and delivery that take advantage of the location.

FINAL SCORES

- **VTC/Randolph** **34.0** **#1**
- **Waterbury** **30.6** **#2**
- **UVM/Health Lab** **29.8** **#3**
- **Berlin** **29.3** **#4**

**The choice is yours on behalf of
the General Assembly.**

ACT 178 of 2014, Sec. 33

a) On or before August 15, 2014, the Department of Buildings and General Services, the Agency of Agriculture, Food and Markets, and the Agency of Natural Resources shall submit a site location proposal for a shared laboratory to the House Committee on Corrections and Institutions and the Senate Committee on Institutions. It is the intent of the General Assembly that when evaluating site locations, preference shall be given to State-owned property.

(b) With approval of the Speaker of the House and the President Pro Tempore, as appropriate, the House Committee on Corrections and Institutions and the Senate Committee on Institutions may meet up to one time when the General Assembly is not in session to evaluate the proposal described in subsection (a) of this section and make a recommendation on the site location to the Joint Fiscal Committee. ...

(c) The Joint Fiscal Committee shall review the recommendation of the Committees described in subsection (b) of this section at its September 2014 meeting. If the Joint Fiscal Committee so determines, it shall approve the proposal as recommended by the Committees.

(d) On or before December 1, 2014, the Department of Buildings and General Services, in consultation with the Agency of Agriculture, Food and Markets and the Agency of Natural Resources, shall develop a detailed proposal on the site location recommended by the Committees if approved by the Joint Fiscal Committee. The proposal shall include programming, size, design, and preliminary cost estimates for a shared laboratory.