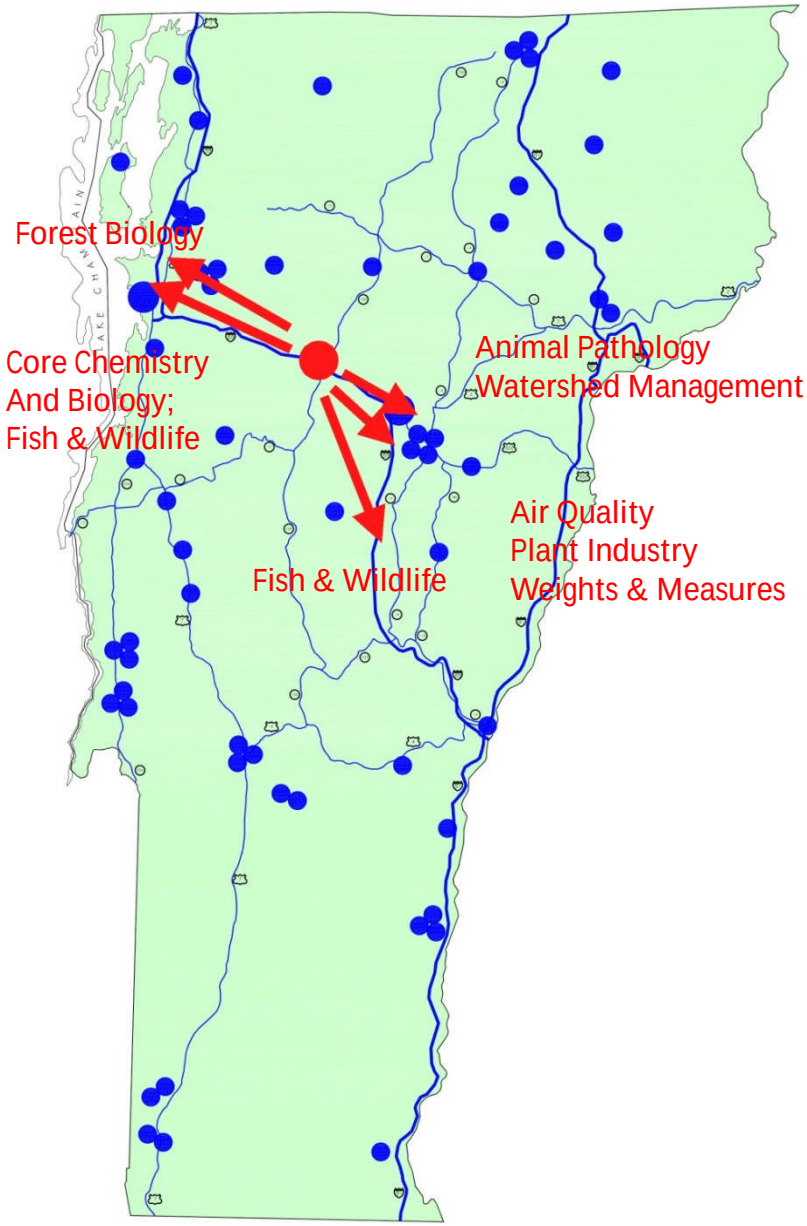
VERMONT AGRICULTURE & ENVIRONMENTAL LABORATORY

LEGISLATIVE PRESENTATIONS

2015 LEGISLATIVE SESSION



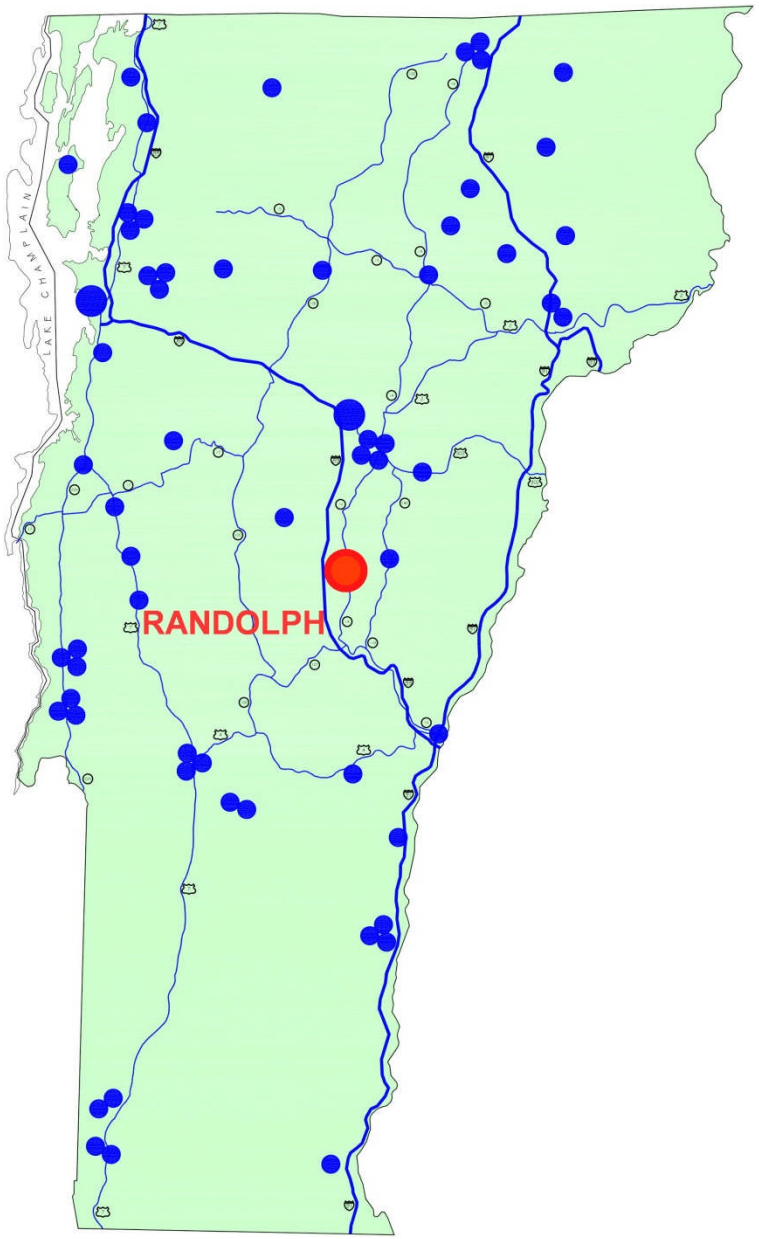
VERMONT AGRICULTURE & ENVIRONMENTAL LABORATORY

Vermont's agriculture and environmental lab was destroyed by TS Irene in 2011. Since then, these vital functions have been located in five different locations. Some services have been discontinued, costing taxpayers and businesses extra.

A snap shot of critical Ag ANR Lab services…

- Water quality analysis: Nutrient pollution, E.coli, organic contaminants, pesticides, metals and emerging contaminants
- Air monitoring: Monitoring Vermont's air quality in support of the National Air Toxics Trends
- Pesticide monitoring: Pesticides in water, soil, food and the environment
- Residue monitoring: Environmental contaminants in soils and other media
- Dairy and other food testing: Monitoring Vermont's milk, meat, and other foods both for Vermonters and for out-of-state commerce
- Animal feed and fertilizer analysis for consumer assurance and environmental safety
- Weights and measures calibration for all Vermont industries, plus expanding services to other states
- Waste water management support
- Insect and Vector management support
- Emerging animal and plant pathogens
- Fish farm monitoring and disease analysis
- Emerging needs for GMO testing
- Emerging need for THC analysis

… for Vermont's health and economy



Why collaboration?

A 2013 feasibility study demonstrated savings if the two Agencies share administration, equipment, staff, and space. These savings mean operational efficiencies for the Agencies as well as a foundation to expand future services.

A new level of collaboration: Location at VTC Campus, Randolph

This location was selected by the Agencies and BGS, and approved by HCIC & SIC in August and the JFC in September. Already many benefits from co-location have been identified:

- VTC students: lab and field internships
- Collaborative courses and guest lectures
- VTC offers state-of-the-art long distance communication facilities, making it possible for Ag and ANR staff to conference remotely
- A central location serves the state and also neighboring states
- Potential to partner with Vermont Law School, Dartmouth's Environmental Science program, Gifford Hospital
- Networking opportunities for UVM's Rubenstein School, ECHO, College of Agriculture, Aiken lab, and engineering school
- Potential relocation of ANR's Mobile Source lab to VTC

Collaboration stops only at the bounds of our imagination.

Concept Phase Statistics

- Approximately 34,000 sf lab
- 2,000 sf wood chip plant
- Total project cost: $25,600,000
- Efficiency goal: 50% less energy usage than code.

This project has undergone unprecedented rigorous programming so that every piece of scientific equipment is known before design begins. Concept phase pricing will be based on floor plans and preliminary specifications, not from typical square footage costs.

As part of life-cycle cost analysis, the design team is comparing many heating/cooling systems, from a baseline of fossil fuel to wood chips, methane and geothermal. The range in projected cost reflects the range in capital costs for the various systems.

Capital Bill Funding Requests

- FY ’16 $ 2,500,000
- FY ’17 $14,048,174
- FY ’18 $ 8,651,826
  - FY ‘18 request to be finalizing of project funding needs, including use of FEMA funds anticipated to be $1,622,059

Funds will support:

- FY ‘16 – completion of design, bidding, and start of permitting.
- FY ‘17 – proceeding to construction with an anticipated start of October 2016
- FY ‘18 – completion of construction, commissioning, and building occupancy anticipated in June 2018

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

Act 51 (2013) Sec. 49. RENEWABLE ENERGY AND ENERGY CONSERVATION POLICY

" The Department of Buildings and General Services shall incorporate the use of renewable energy sources, energy efficiency, and thermal energy conservation in any new building construction or major renovation project in excess of $250,000.00 unless a life cycle cost analysis demonstrates that the investment cannot be recouped or there are limitations on siting."

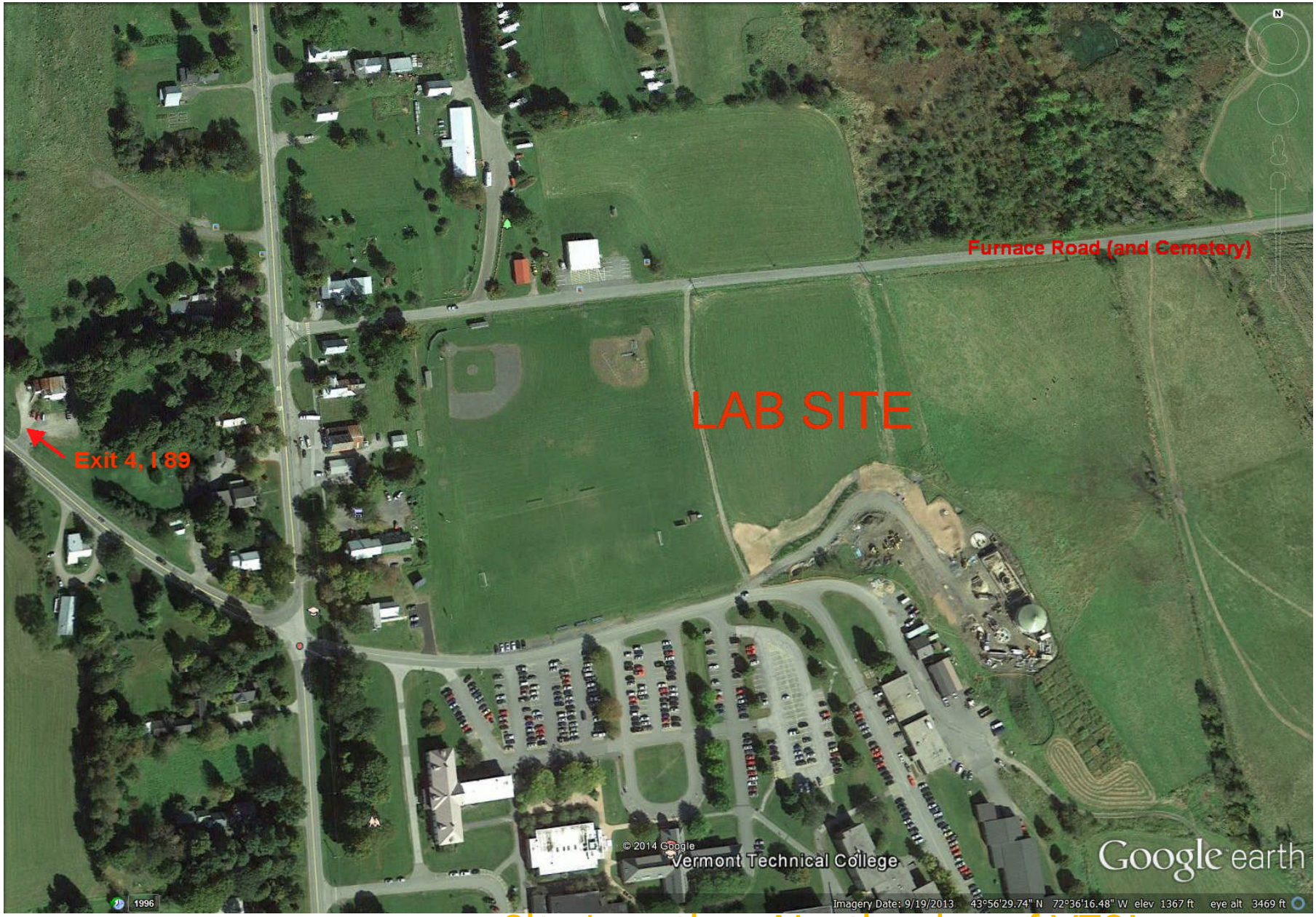
	Pre-Irene	2013 Feasibility Study	Current Design
Space	34,110+ s.f.	35,375 s.f.	34,004 s.f. (includes capacity for emerging testing)
Staffing	27 + 16 part-time	26 + 16 part-time	32 + 21 part-time (includes staff for 10-year plan)

Highlights of the design so far:

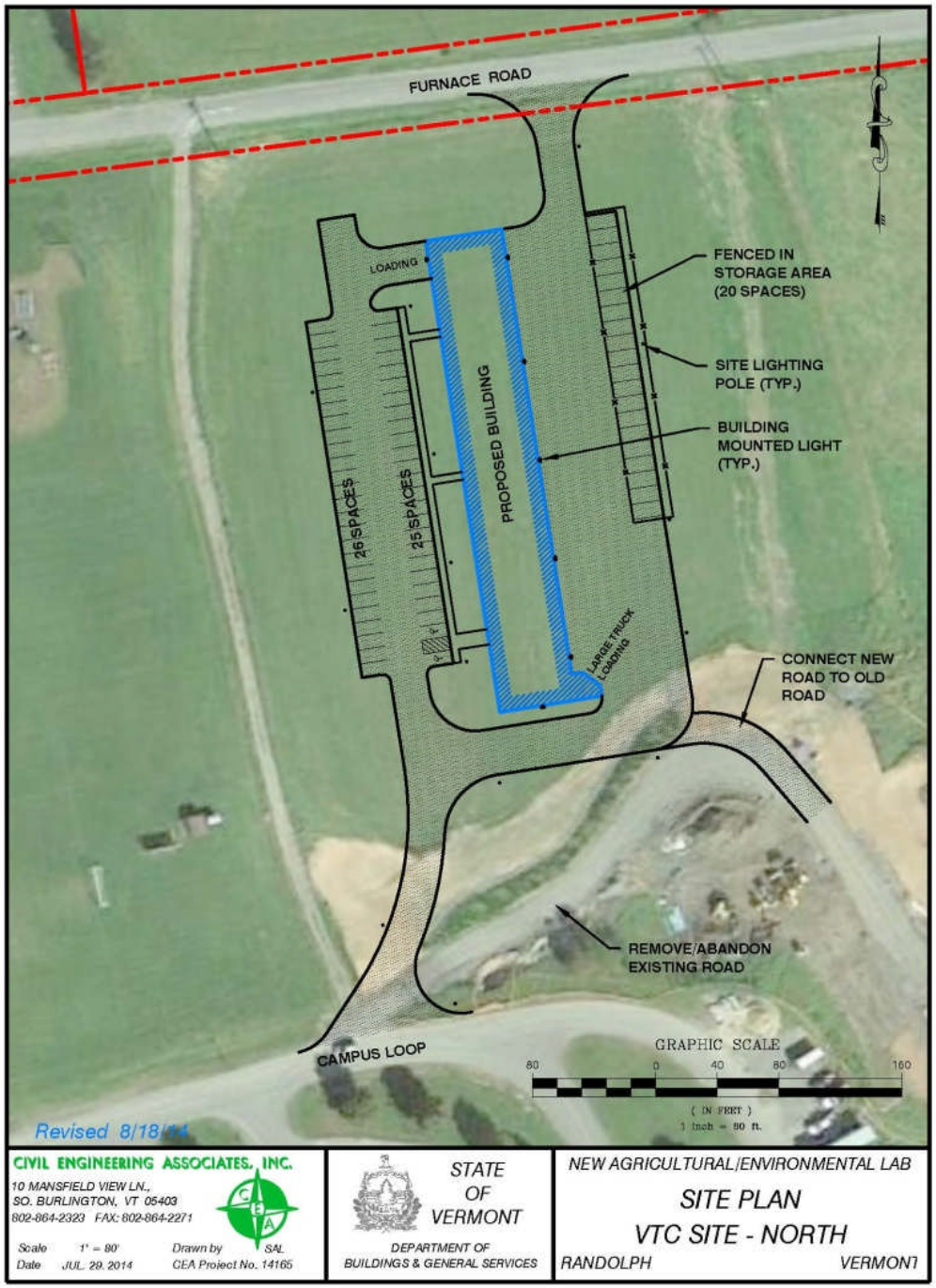
- New programs: Animal pathology, forest pathology, THC testing, GMO testing
- Through rigorous programming, every space and function has already been described. Every piece of equipment is known.
- Circulation space has been minimized. For example, only one staircase is needed for the entire building. Mechanical space may be reduced depending on the HVAC systems chosen.
- The building contains a high percentage of specialty space and construction required for certification to operate.

Concept Package so far:

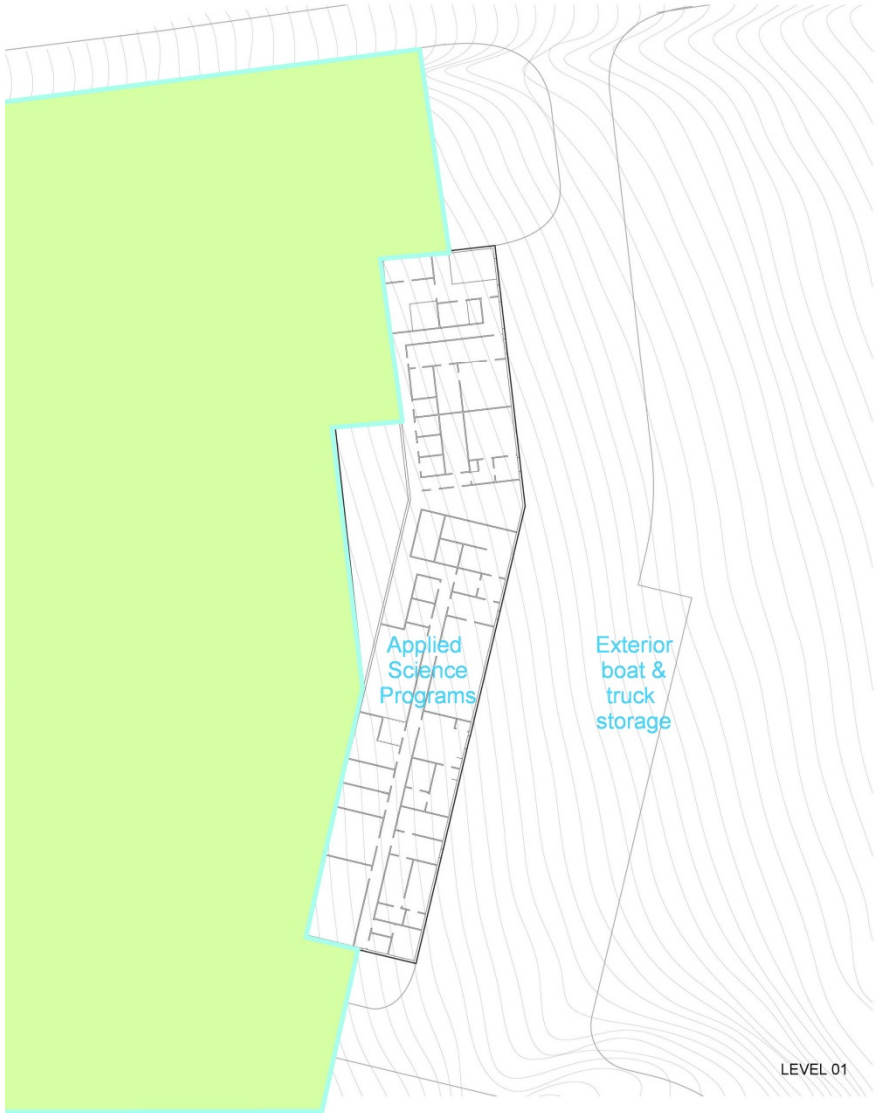
- Basis of Design: documents all background data– building codes, energy efficiency and sustainability goals, lab certifications required, IT guidelines, site design guidelines, etc.
- Room Data Sheets: details such as equipment, temperature, and plumbing for each room
- Space Program: summarizes room sizes for the entire building
- Concept Diagrams: for each section of the building as well as the whole building and site
- Price information: used for the Capital Bill, based on detailed cost estimates, not from typical square footage costs.



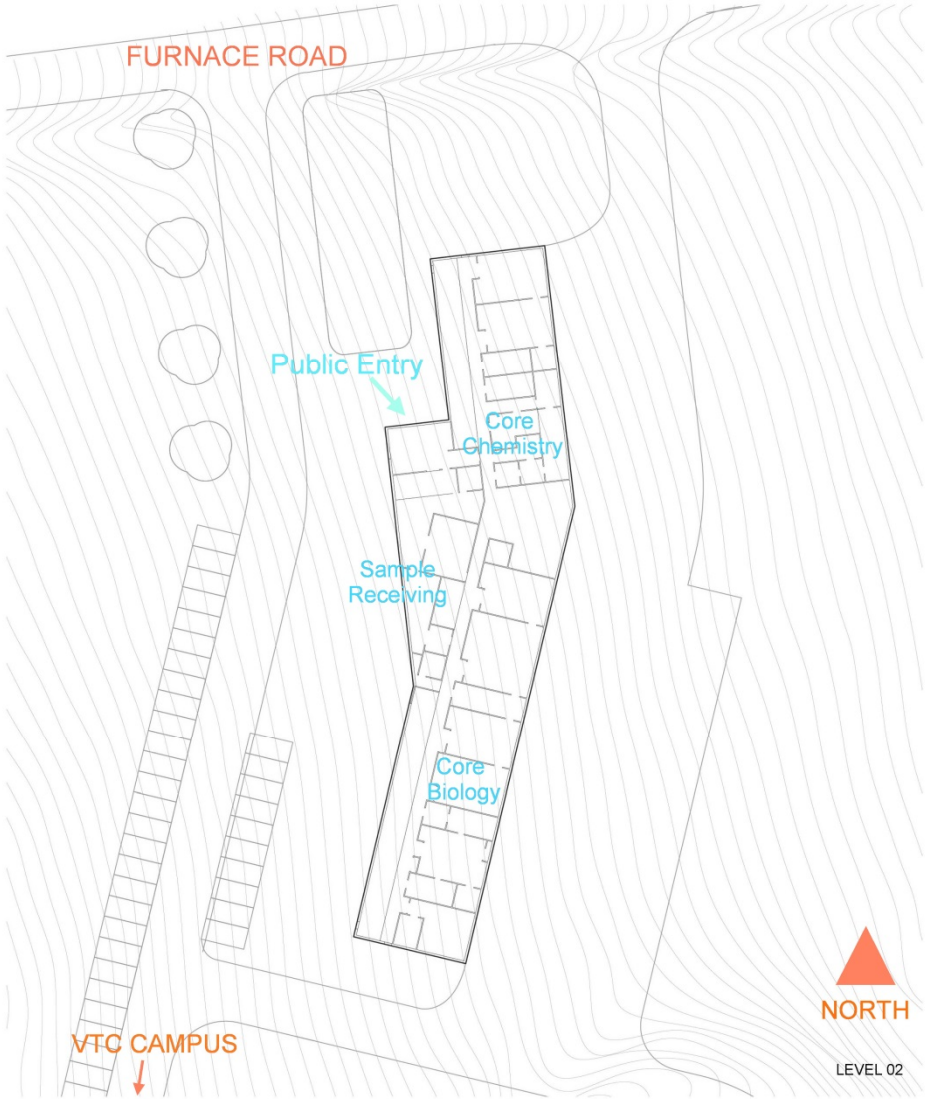
Site Location: North edge of VTC's campus



Project site details

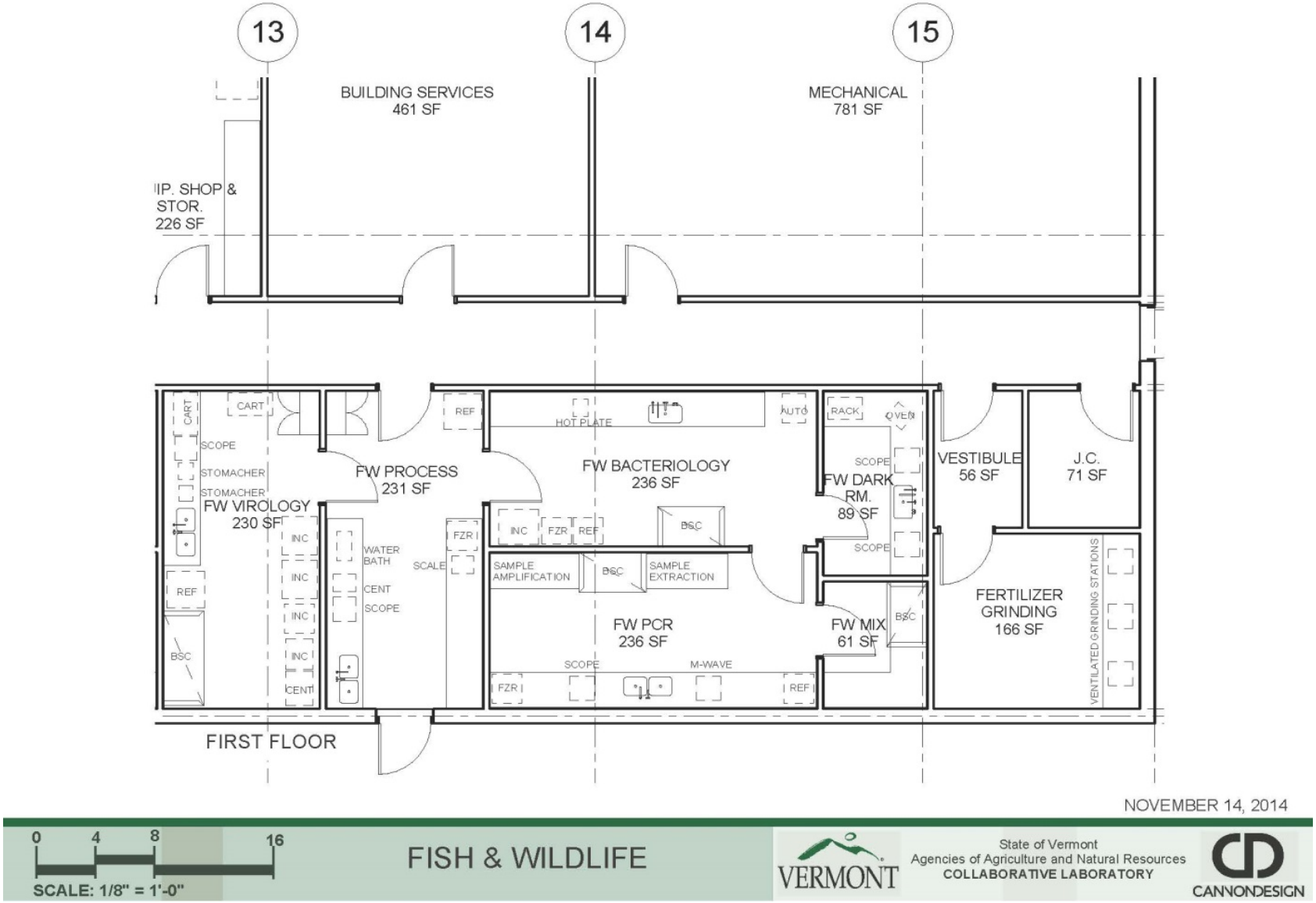


Lower Level

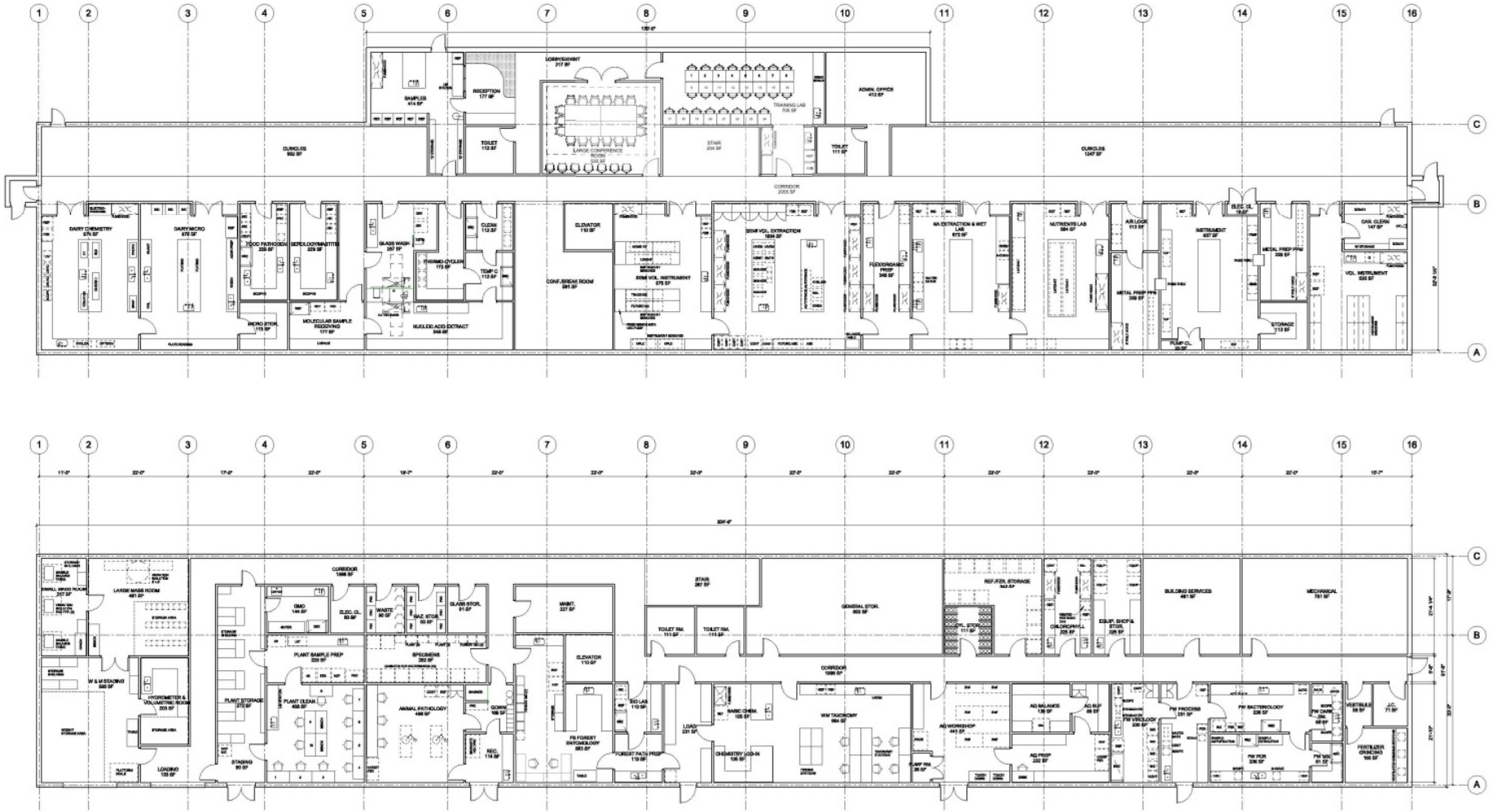


Upper Level

Site Concept

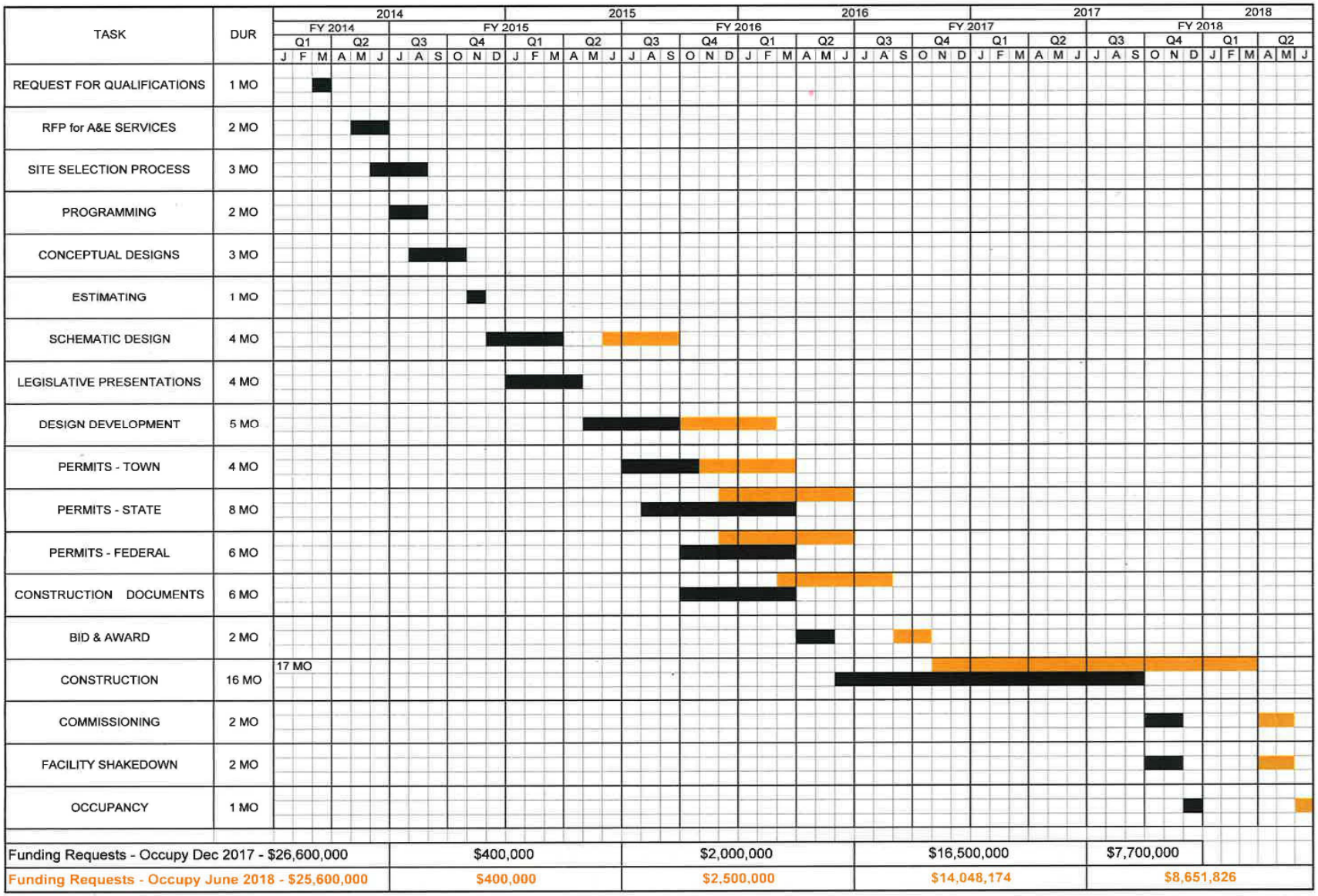


Example of a lab suite with equipment layout



Conceptual floor plans

VERMONT AGRICULTURE ENVIRONMENTAL LABORATORY
PROPOSED PROJECT SCHEDULE w/ FUNDING NEEDS
JANUARY 21, 2015



Delayed construction facilitates three year funding.

(black) mid-2016 start of construction

(orange) late-2016 start of construction

Project Timeline