

Department of Planning and Zoning

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TO: Design Advisory Board
FROM: Scott Gustin
DATE: July 24, 2018
RE: 18-1208CA/MA, 75 Briggs Street

=====
Zone: ELM Ward: 5S
Owner/Applicant: Onion River Cooperative, Inc. / Charest Alpinism, LLC

Request: Construct new health club/climbing center. Includes a new building and related site improvements.

OVERVIEW:

The applicant is seeking approval to construct a new health club/climbing center and related site improvements at 75 Briggs Street. This parcel is presently vacant with one remaining building left over from the former railroad use of the property. This proposal is a comprehensive redevelopment of the site involving the new 13,450 sf building, retention of the existing 4,000 sf building, and new parking, landscaping, and stormwater management features. The climbing center is categorized as a health club in the Comprehensive Development Ordinance and is a conditional use in the E-LM zone. As the project entails a development footprint of > 40,000 sf, major impact review is also triggered.

This project was reviewed by the Technical Review Committee on February 8, 2018. Sketch plan review with the Conservation Board occurred April 2, 2018, with the Design Advisory Board on April 10, 2018, and with the Development Review Board on May 1, 2018.

The Conservation Board reviewed this application on July 2, 2018 and recommended approval as proposed.

ARTICLE 6: DEVELOPMENT REVIEW STANDARDS

Part 1, Land Division Design Standards

Not applicable.

Part 2, Site Plan Design Standards

Sec. 6.2.2, Review Standards

(a) Protection of important natural features

The property does not contain any important natural features as identified in the Open Space Protection Plan or as outlined in Sec. 4.5.4, *Natural Resource Protection Overlay Districts*. In fact, the property is nearly devoid of any green space at all. It is a vacant former railroad property. The proposed construction will have no impact on Burlington's diversity of important natural features.

(b) Topographical alterations

The existing property is essentially flat and will remain so. Proposed grading will direct stormwater runoff into newly proposed stormwater management measures. In an effort to retain as much soil onsite as possible (rather than landfill it), a berm will be created at the north end of the property.

(c) Protection of important public views

There are no significant public views from or through the subject property. The proposed construction will not adversely impact any identified public view corridor.

(d) Protection of important cultural resources

The property has no known archaeological significance. It contains no archaeological site points, nor is it located within an archaeologically sensitive area.

(e) Supporting the use of alternative energy

See Sec. 6.3.2 (f).

(f) Brownfield sites

The Vermont DEC Hazardous Site List specifically lists this property as a contaminated site. The applicants are working on a corrective action plan (CAP) with VT DEC to address onsite contaminants. This CAP was addressed with the Conservation Board. Essentially, the contaminated soils will be capped onsite. Soils that cannot be retained onsite will be disposed of in a landfill.

(g) Provide for nature's events

Presently, there are no stormwater management features onsite. The proposed project design includes four bioretention areas. These areas will collect stormwater runoff from the parking area and building rooftop and will attenuate flows prior to discharge to the city's combined sewer system. The contaminated soils onsite prevent utilizing infiltration, but post-development peak flows will be significantly reduced for the one year design storm.

The main building entry will be sheltered. There is sufficient room onsite for snow storage during the winter months.

(h) Building location and orientation

The proposed building will be set close to the street, reflecting similar front yard setbacks at neighboring properties. As required, the new building presents an entryway facing Briggs Street.

(i) Vehicular access

The property will be served by two driveways. The southern driveway will seemingly serve to access the existing outbuilding. The northern driveway will act as the primary vehicular access into the site for visitors. Sight triangles are clear for both driveways.

(j) Pedestrian access

Pedestrian access to the property will be afforded by way of new onsite walkways. The site plan also notes a future new sidewalk within the Briggs Street right-of-way to be constructed by the city. Confirmation from the Department of Public Works has been sought and is pending. The site plan also depicts a new crosswalk across Briggs Street. DPW review and approval will be required

for this feature. As required, pedestrian walkways are provided through the parking areas for access into the new building.

(k) Accessibility for the handicapped

Handicap parking spaces are depicted near the south-facing building entrance. Entries into the building appear to be at-grade. It is the applicant's responsibility to comply with all applicable ADA requirements.

(l) Parking and circulation

Parking is set to the side and rear of the new building. Given the lengthwise orientation of the property along Briggs Street, the side parking lot also has frontage along the street. Screening of the parking is minimal along that section of parking between the two driveways. The placement of a bioswale in this location limits appropriate species that could be used for improved screening; however, there are some types of shrubs (like red osier dogwood) that could be effective in this wet location. Alternatively, parking could be reconfigured to allow additional space for more typical tree or shrub varieties, or structural screening like a fence could be installed.

Parking spaces and circulation isles appear to be dimensionally compliant. Most parking spaces are 9' X 18', and circulation isles are 24' wide allowing for 10' wide travel lanes and compliant back-up space. The 18' parking space depth is acceptable given that all of the spaces are peripheral. Parking spaces along the rear of the property are a full 20' deep.

Curbing is evident along much of the parking lot's edge. There is no curbing along the western edge where stormwater runoff will sheetflow into the linear bioretention area. As recommended by this criterion, the parking area is divided into smaller components with peripheral landscaping to delineate the boundaries of the parking and circulation areas.

This criterion establishes a target of 30% shading of the parking area with new shade trees. At least 1 shade tree for every 5 parking spaces is required. The new parking lot contains 65 parking spaces and requires 13 shade trees. As proposed, 16 new trees will be planted within or around the parking lot (not counting those trees along the northern edges – they will provide minimal, if any, shade for the parking lot). Of the 16 new trees, 12 are acceptable shade trees. The birch trees are unlikely to achieve a mature canopy of 25' diameter. The birch trees are correctly not included in the shading study. This count is 1 shy of the required 13 acceptable shade trees. The shading plan demonstrates 38% shading. Whether this percentage includes the shade from trees that will not actually provide parking lot shade needs to be clarified. The shade study depicts shade from trees beyond the parking lot. These cannot be counted in the shading percentage for the parking lot.

Bike racks are depicted on the site plan. They are appropriately located near the building's southern entry.

(m) Landscaping, fences, and retaining walls

The project plans include a landscaping plan that encompasses a variety of plantings. As noted above, shade trees will be planted in and around the parking lot. Additional plantings will accent the building and site features. As previously noted, additional screening of the parking between the two driveways is needed. Additional landscaping may be used to address this need.

There are presently no street trees along this portion of Briggs Street. The applicant is advised to consult with the city arborist as to the need to provide any in association with this development.

(n) Public plazas and open space

No public plazas or open space are included in this proposal.

(o) Outdoor lighting

New outdoor lighting is included in the application and will include illumination of the parking area, walkways, and building entries. Fixture cut sheets and a photometric plan have been provided. Acceptable cutoff LED fixtures are proposed. Pole lamps illuminating the parking area are acceptable at 16' tall. Acceptable illumination levels are depicted for the parking lot and roof deck. While illumination levels are depicted for the building entries and walkways, the summary table does not indicate average, maximum, and minimum illumination levels for these features. This information is needed in order to determine compliance with the applicable lighting standards of Sec. 5.5.2. Building entries are limited to 5.0 footcandle average, and walkways are limited to 0.5 footcandle average with no point to exceed 2.0 footcandles.

(p) Integrate infrastructure into the design

The site plans depict a trash/recycling/compost area behind the building to be screened with 6' tall slatted wooden fencing. No electrical transformer box is evident on the site plans. It must be depicted and located behind the building or screened. All new utility lines must be buried.

Part 3, Architectural Design Standards

Sec. 6.3.2, Review Standards

(a) Relate development to its environment

1. Massing, Height, and Scale

The proposed building contains 13,450 sf GFA with a 9,000 sf footprint. The massing of the structure is broken into distinct building components as required by this criterion. Varying roof forms and materials reinforce the perception of separate building components. Its height, as measured to the midpoint of the sloped roof, is within the 45' height limit in the ELM zone. Overall building scale fits within the context of the built environment. The newly constructed City Market next door is ~ 30,000 sf, while the remaining building on the subject site is 4,000 sf. Significantly larger commercial buildings exist to the north, while significantly smaller residential structures are to the east.

2. Roofs and Rooflines

As noted above, the proposed building incorporates multiple roof lines. The primary roof structure is a simple sloped shed roof. Other roof sections are flat or nearly so. These roof forms are common in the ELM zone. Part of the roof area will be activated with programmatic uses.

3. Building Openings

The primary building entrance is sheltered and oriented towards Briggs Street. It is also accessible from the parking area to the south. This primary entrance clearly reads as such. The fenestration is consistent with the angular, boxy appearance of the building. The function of the building's interior as a climbing center limits the placement and extent of fenestration. With that said, additional fenestration has been incorporated into the building's design since sketch plan review and is placed proportionately throughout.

(b) Protection of important architectural resources

This new construction will not affect existing historic buildings in the area. No building demolition is included in this application.

(c) Protection of important public views

See 6.2.2 (c) above.

(d) Provide an active and inviting street edge

The building is set close to the street and presents a clearly defined sheltered entrance easily accessible from the newly constructed sidewalk. The outdoor patio area and adjacent walkways further improve the perceived sense of invitation into the building. Ample street level glazing affords visual access into the building by patrons and passersby.

(e) Quality of materials

The building will be clad in metal siding. Texture and finish will vary to limit the monotony of a singular siding type. Aluminum frame windows will be installed throughout. Wooden accents will be incorporated into the entry canopy. The proposed materials are of acceptable quality and durability for this new construction.

(f) Reduce energy utilization

Inclusion of rooftop solar is being considered but not yet confirmed. Installation is encouraged. The new building must comply with the current energy efficiency requirements of the city and state.

(g) Make advertising features complimentary to the site

Exterior signs are depicted on the elevation plans. Sign location and area appear to be acceptable. Exterior signage is handled by way of separate zoning permit in any event.

(h) Integrate infrastructure into the building design

Mechanical equipment screening and ventilation have been incorporated into the building design. No exposed equipment is evident in the project design.

(i) Make spaces safe and secure

Entryways will be illuminated. Egress and fire safety standards will apply as administered through the offices of the fire marshal and of the building inspector.

RECOMMENDED MOTION:

Forward to the Development Review Board with the following conditions:

1. Responsibility for construction of the future sidewalk along the property's Briggs Street frontage shall be decided upon by the Department of Public Works.
2. Additional screening of the parking between the two driveways shall be provided.
3. The shading plan shall be clarified to include just acceptable shade trees that will provide shade to the parking areas.
4. The applicant shall consult with the city arborist as to the need for street trees along the property's Briggs Street frontage.

5. The photometric plan shall be revised to include the maximum, minimum, and average illumination levels for the walkways and building entries, subject to the applicable standards in Sec. 5.5.2.
6. Location of electrical transformer box(es) shall be depicted and located behind the building or sufficiently screened. All utility lines shall be buried.
7. Installation of rooftop solar is encouraged.

Petra Cliffs Climbing Center & Mountaineering School
105 Briggs Street
Burlington, VT 05401



June 25, 2018

City of Burlington: Department of Planning and Zoning
149 Church Street, City Hall
Burlington, VT 05401

Dear City of Burlington,

On January 29, 2018, Charest Alpinism LLC dba Petra Cliffs signed a Purchase & Sale Agreement with City Market to purchase the 1.67 acre lot at 75 Briggs Street, with plans to develop a modern climbing and community center that is compatible with the City of Burlington, with the South End neighborhoods, and with its neighbor, City Market.

Petra Cliffs Climbing Center & Mountaineering School has been a fixture in the Burlington community since its opening in 2000. Andrea and Steve Charest have managed the business since its beginning and purchased it in April of 2012.

Popularity and demand have caused a growth opportunity for Petra Cliffs, and a move to 75 Briggs St. will serve the market well. A move to this new location enables us to produce a more modern climbing facility, growing from our 6,000 square foot building with 26 foot tall ceilings, to 13,470 square feet GFA with climbing walls up to 51 feet high, and a 1500 sq ft active rooftop. The climbing facility will feature bouldering, top roping and national-level lead climbing areas, a fitness/alpine training center, yoga studio, on-site, drop-in child care and conference space. The facility will keep design elements from the existing location to maintain a warm, friendly, local atmosphere, while elements like a rooftop deck for social events will bring a new dimension for guests.

Part of what makes Petra Cliffs unique is its inclusivity and strong culture. Maintaining these qualities are of the highest importance as we grow. We are a recreation and education center for people of all ages and abilities, without discrimination. Staying in the neighborhood in which we planted our roots is very important to us. Our neighbors have a peaceful relationship with Petra Cliffs, and a move down the street will maintain compatibility in the neighborhood and will preserve- and improve- the character of Briggs Street.

The following pages describe the physical aspects and programming goals for the project.

We appreciate the opportunity to discuss our project with the Development Review Board.

Sincerely,

Stephen & Andrea Charest
Owners, Petra Cliffs
andrea@petracliffs.com
steve@petracliffs.com

Goals for Features of the Physical Location at 75 Briggs Street



Exterior

- 13,470 sq ft GFA (9,395 sq ft footprint) building on the North end of the lot
- 66 parking spaces and natural traffic flow pattern to facilitate child/camper drop-off and pick-up
- Stormwater management area
- Welcoming front entrance with bike parking, tables for gathering
- Landscaping, raised bed gardens
- Active Rooftop: deck & conference room, multi-use event space

Interior

- Climate controlled, sprinkler system, accessible
- Renewable energy options (exploring solar with Burlington Electric Dept)
- Natural light from windows and skylights
- Air filtration incorporated into climbing structures
- Lobby with community space, lounge area, waiver station, local art gallery
- Small retail space for climbing goods, Petra Cliffs merchandise, energy bars and drinks
- 19,000 square feet of indoor climbing (measured via linear wall surface): 25% lead, 30% lead/top rope, 30% bouldering, 15% instruction/beginner area; max height 51'
- Climber gear storage areas (cubbies) and seating for rest/observation/film viewing
- Climbing hold storage with large hold washing station, ladder and lift storage
- Training space with Moon Board, hang boards and campus ladders
- Indoor ropes course with adaptive-accessible elements
- Instruction space with rappel access and multi-pitch climbing transitions
- Autobelays
- Onsite drop-off child care for patrons (caregiver must stay on-site)
- Climate-controlled studio space for yoga
- Modern training facility with free weights and exercise machines, crossfit-style gym
- Community conference space/classroom/Mountaineering School trip planning space
- Birthday Party area; upper-level with views of Lake Champlain
- Locker room facilities with bathroom and showers
- Staff office/locker room/break room
- Administrative office
- Mountaineering School gear storage



Petra Cliffs Program Goals

- Continued, Increased & New Community Events
- Continued partnerships with Howard Center, Vermont Adaptive and other community organizations
- Climbing Competitions
- Reel Rock Film Tour
- Talks, Guest Presenters, Films
- Local Artist Gallery
- South End Art Hop
- CRAG-VT Fundraising Events / Everest Challenge Fundraiser
- Over the Edge Sponsorship to benefit the Flynn Center

Indoor Programming

- Youth Climbing
 - Pro Team, Competition Team, Recreational Team
 - Mini Monkeys
 - Itsy Bitsy Spiders
- Birthday Parties
- Adult Programming
 - Private Lessons, Climbing Clinics
 - Free Member Clinics
- Adaptive Programming
 - Dedicated space for adaptive programs
 - Accessible ropes course elements

Summer Camp

- Continue classic SumMAT (Summer Mountain Adventure Training) & School Vacation Camps
- Work with Fresh Air Fund, Howard Center, The North Face Explore Fund Grant and more organizations to offer scholarships for families in need
- Indoor half day camp option
- Partner camps with City Market ("Climbing & Cooking," "Ropes & Roots")
- Partner camps with more local organizations

Membership

- Continue classic SumMAT (Summer Mountain Adventure Training) & School Vacation Camps
- Work with Fresh Air Fund, Howard Center, The North Face Explore Fund Grant and more organizations to offer scholarships for families in need
- Indoor half day camp option
- Partner camps with City Market ("Climbing & Cooking," "Ropes & Roots")
- Partner camps with more local organizations

Mountaineering School

- Increased educational programs with use of classroom space: Navigation, Avalanche Awareness
- Expanded programming and destinations
- Continue managing Smuggs Ice Bash, Vermont's Ice Climbing Festival, increase participation

Petra Cliffs Climbing Center & Mountaineering School
105 Briggs Street, Burlington VT 05401 | www.petracliffs.com | 802-65-PETRA



June 25, 2018

Scott Gustin, AICP, CFM
Department of Planning & Zoning
City Hall
Burlington, Vermont 05401

RE: COA Level II, Major Impact & Conditional Use Application
Petra Cliffs – 75 Briggs Street

Dear Scott:

We are writing on behalf of Andrea & Steve Charest of Petra Cliffs to request review for the proposed development of 75 Briggs Street. This application involves Lot 2 of the City Market South End subdivision. This 1.67 acre parcel is the remaining undeveloped land located to the south of the recently constructed City Market at the corner of Briggs Street and Flynn Avenue.

Petra Cliffs is currently located just south of the proposed site at 105 Briggs Street. This application involves the development of 75 Briggs Street into a new larger, modern climbing and community center. The enclosed narrative, prepared by the applicant, provides a detailed description of the proposed programming and building.

The project is located in the Enterprise – Light Manufacturing (E-LM) zoning district. The project is also located in the shared use parking district and the design review overlay. Per Article 13 (Definitions), the climbing center is classified as a health club use, which is a conditional use in the E-LM zoning district. Daycare (<20 children) will be an accessory use - provided only for patrons of the climbing center and other activities (parents must remain onsite).

A multi level 13,000 square foot facility (9,600 square foot footprint) is proposed for the new climbing center. The proposed building height will comply with the 45 feet maximum, as defined for sloping roofs in Article 5. An existing 4,000 square foot single story metal building is located along the southerly boundary of the project parcel. This existing building will be retained, for use as storage and other activities related to the climbing center.

Prior environmental site assessments have identified soil contamination on the site resulting from the prior industrial and commercial land uses. The applicant has been working with KAS Consulting on environmental remediation and a corrective action plan (CAP). This process is well underway, and the parcel has been accepted into the VT DEC Brownfields Reuse and Environmental Liability Limitation (BRELLA) program.

On March 15 the applicant presented the proposed project to the monthly meeting of the Ward 5 Neighborhood Planning Assembly (NPA). A copy of the meeting agenda and minutes were previously provided via email.

The hours of operation of the existing facility are: Monday - Friday: 10 am - 10 pm / Saturday: 10 am - 8 pm / Sunday: 10 am - 6 pm. Hours of operation may be expanded in the morning to accommodate the additional activities that will be offered in the new facility.

Ten full time equivalent employees are anticipated. A summary of the employees, participants, and daycare children are included with the water and sewer allocation letter from the Department of Public Works.

Construction is anticipated to begin winter 2018/19, with building construction and sitework expected to last about 12 months.

The following information is enclosed for your review:

- Zoning Permit Application
- \$10,340.11 application fee
COA ($\$110 + \$3,232,292 \times \$2/\$1,000$) + CU/MI ($\$210 + \$3,232,292 \times \$1.10/\$1,000$)
- List of abutting landowners
- Project narrative
- Building plan sheets A0, A2.1, A2.2, A2.3, A2.4 & A3 by Studio b Architecture
- Layout & Materials Plan, Planting Plan, Photometric Plan, and Shade Study by Wagner-Hodgson
- Civil plans sheets C1-C8
- Light fixture cut sheets
- Stormwater narrative & attachments
- Erosion Prevention & Sediment Control Plan form
- City sewer & water capacity allocation
- Major Impact Review Standards

Please contact our office with any questions. We look forward to receiving your comments and discussing this application with Boards.

Sincerely,



Andrew Rowe P.E.

c: Andrea & Steve Charest

Petra Cliffs
75 Briggs Street
June 25, 2018

Major Impact Review Standards

1. Not result in undue water, air or noise pollution;
No processing or manufacturing processes are proposed. The proposed stormwater management system will provide improved treatment and detention of runoff, compared to existing conditions. Since nearly all activities will occur inside the building (or on the rooftop), the project will not be a significant source of noise.
2. Have sufficient water available for its needs;
See water allocation letter from the DPW. Only domestic water demands are proposed.
3. Not unreasonably burden the city's present or future water supply or distribution system;
See water allocation letter from the DPW. The project area is currently served by the municipal water system. The project will install a new hydrant on Briggs Street in the same general location as that proposed with the Champlain Parkway's proposed reconstruction of Briggs Street.
4. Not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result;
The proposed stormwater management system will reduce the peak rate of runoff from the project parcel, reducing the potential for erosion downstream. The project will reduce the impervious cover on the parcel, increasing green space. A variety of erosion prevention and sediment control measures will be implemented during construction (see EPSC Plan). At the completion of construction all areas on the site will be stabilized with pavement, concrete, grass, or mulched landscaped areas.
5. Not cause unreasonable congestion or unsafe conditions on highways, streets, waterways, railways, bikeways, pedestrian pathways or other means of transportation, existing or proposed;
The project will connect to the existing sidewalk at City Market, linking the parcel to the existing sidewalk network. Bike racks will be provided, encouraging patrons to use non-motorized means of transportation. The traffic impact assessment provides additional information on the proposed trip generation and effects on existing and proposed adjacent intersections.
6. Not cause an unreasonable burden on the city's ability to provide educational services;
Not applicable – this commercial project will not generate any new students.
7. Not place an unreasonable burden on the city's ability to provide municipal services;
The project is located in the Enterprise-Light Manufacturing zoning district. Municipal services are currently available in the project vicinity. The current Petra Cliffs facility does not place an unreasonable demand upon municipal services. Although the new facility will be larger, the demand for municipal services is not expected to increase substantially.

8. Not have an undue adverse effect on rare, irreplaceable or significant natural areas, historic or archaeological sites, nor on the scenic or natural beauty of the area or any part of the city;

The project parcel has been used for a variety of commercial and industrial uses, most recently as an intermodal transfer facility. All buildings were removed from the site prior to the recent construction of the City Market on the adjacent lot. The site is mostly impervious surface, with only a few clumps of trees in isolated patches along Briggs Street. There are no natural areas on the site, and the site appears as a vacant, barren lot. The existing building is a single story steel frame building with metal siding, without historic significance.

9. Not have an undue adverse effect on the city's present or future growth patterns nor on the city's fiscal ability to accommodate such growth, nor on the city's investment in public services and facilities;

The project is located in the Enterprise-Light Manufacturing zoning district. The purpose of this district is the manufacturing, processing, or assembling of goods, merchandise, or equipment without potential conflicts from interspersed residential uses. Other accessory commercial uses are allowed to support a wide range of services and employment opportunities. This district is intended to ensure that sufficient land area is appropriately designated within the city to provide an adequate and diversified economic base that will facilitate high-density job creation and retention. This district is primarily intended to provide for industrial uses suitable for location in areas of proximity to residential development. The proposed health club use is a conditional use in this district.

The project is located across Briggs Street from the right of way for the Champlain Parkway. The project will not place an unreasonable demand upon municipal services, or existing and proposed facilities.

10. Be in substantial conformance with the city's municipal development plan and all incorporated plans;

The project involves redevelopment of a brownfield site for the expansion of an existing successful, compatible use within the enterprise district. This project will allow an existing nearby use to expand their facility and services offered, continuing to serve the residents of Burlington and the region.

11. Not have an undue adverse impact on the present or projected housing needs of the city in terms of amount, type, affordability and location; and/or

The project is located in the Enterprise-Light Manufacturing zoning district. Residential uses are not permitted in this zoning district. The project will not adversely impact the existing neighborhood to the east of Briggs Street and the right of way for the Champlain Parkway.

12. Not have an undue adverse impact on the present or projected park and recreation needs of the city.

The project is not located adjacent to any park or recreational facilities. The project provides indoor recreational facilities (classified as a health club use) for the residents of Burlington and the region.

Petra Cliffs
75 Briggs Street
June 25, 2018

Conditional Use Review Standards

1. Existing or planned public utilities, facilities or services are capable of supporting the proposed use in addition to the existing uses in the area;

The project is located across Briggs Street from the right of way for the Champlain Parkway. The project will not place an unreasonable demand upon municipal services, or existing and proposed facilities.

2. The character of the area affected as defined by the purpose or purposes of the zoning district(s) within which the project is located, and specifically stated policies and standards of the municipal development plan;

The project is located in the Enterprise-Light Manufacturing zoning district. The purpose of this district is the manufacturing, processing, or assembling of goods, merchandise, or equipment without potential conflicts from interspersed residential uses. Other accessory commercial uses are allowed to support a wide range of services and employment opportunities. This district is intended to ensure that sufficient land area is appropriately designated within the city to provide an adequate and diversified economic base that will facilitate high-density job creation and retention. This district is primarily intended to provide for industrial uses suitable for location in areas of proximity to residential development. The proposed health club use is a conditional use in this district.

3. The proposed use will not have nuisance impacts from noise, odor, dust, heat, and vibrations greater than typically generated by other permitted uses in the same zoning district;

The project is located in the Enterprise-Light Manufacturing zoning district. No manufacturing or processing is proposed. Indoor recreational (classified as a health club use) activities are proposed, which will not create noise, or odors, heat, dust or vibrations. Only noise associated with vehicles entering/ exiting the site will result.

4. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity; level of service and other performance measures; access to arterial roadways; connectivity; transit availability; parking and access; impacts on pedestrian, bicycle and transit circulation; safety for all modes; and adequate transportation demand management strategies; and,

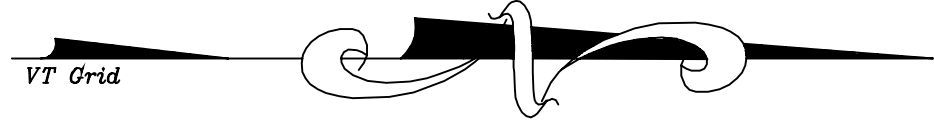
See attached traffic impact assessment.

5. The utilization of renewable energy resources; and,

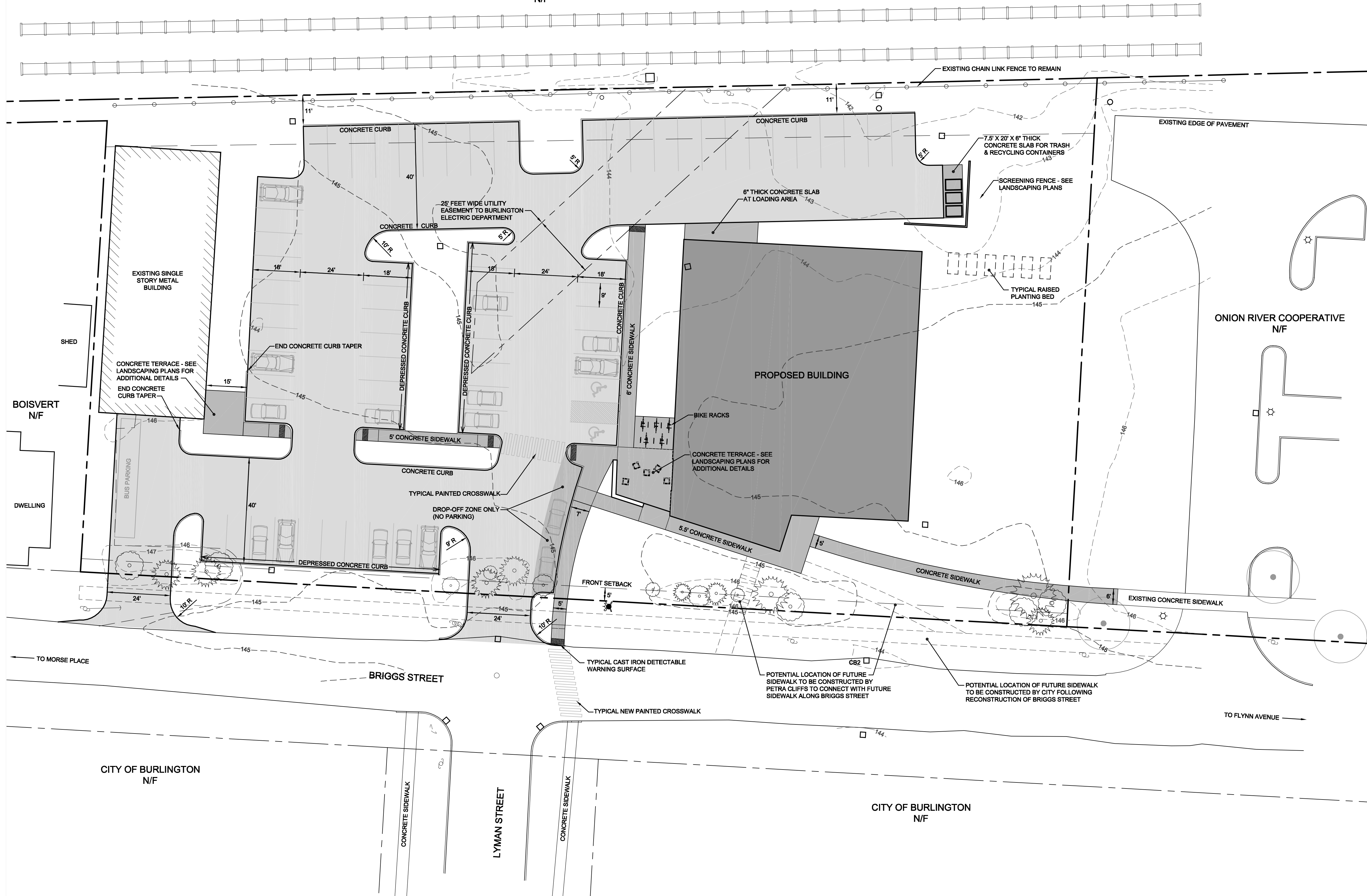
The project will not restrict the use of renewable energy resources in the project area, or on the project parcel. Rooftop solar opportunities are being evaluated by the applicant.

6. Any standards or factors set forth in existing City bylaws and city and state ordinances;

The project conforms with the Comprehensive Development Ordinance and the Municipal Development Plan. The project involves redevelopment of a brownfield site, returning a contaminated site to an active economic role in a designated enterprise zone of the City.



STATE OF VERMONT LANDOWNER
VERMONT RAILWAY LESSEE
N/F



LOCATION MAP
N.T.S.

LEGEND

- EXISTING PROJECT BOUNDARY
- ABUTTING PROPERTY LINE
- BUILDING SETBACK
- EXISTING WATER LINE
- EXISTING STORM & CATCHBASIN
- EXISTING COMBINED SEWER & MANHOLE
- EXISTING UTILITY POLE AND OVERHEAD WIRE
- EXISTING TREES

PROJECT STATISTICS:

ZONING DISTRICT: ENTERPRISE-LIGHT MANUFACTURING (E-LM)

ZONING OVERLAY: DESIGN REVIEW OVERLAY DISTRICT
SHARED USE PARKING DISTRICT

DIMENSIONAL STANDARDS:

MAXIMUM INTENSITY = 2.0 FLOOR AREA RATIO
MAXIMUM BUILDING HEIGHT = 45 FEET
MAXIMUM LOT COVERAGE = 80%

MINIMUM BUILDING SETBACKS
FRONT = 5 FEET
SIDE = 0 FEET (NON-RESIDENTIAL DISTRICT ABUTTING)
REAR = VARIES (10% OF LOT DEPTH)

PER SECTION 5.2.5(4):
PARKING AREAS AND DRIVEWAYS MAY PROJECT INTO
REQUIRED SIDE AND REAR YARD SETBACKS PROVIDED
THEY ARE NO LESS THAN 5 FEET FROM THE SIDE OR
REAR PROPERTY LINE.

OFF-STREET PARKING STANDARDS:

MINIMUM OFF-STREET PARKING REQUIREMENTS:
HEALTH CLUB USE
3 SPACES / 1000 SF GFA (NEIGHBORHOOD DISTRICT)
2 SPACES / 1000 SF GFA (SHARED USE DISTRICTS)

THE MAXIMUM NUMBER OF PARKING SPACES IN ALL PARKING DISTRICTS
SHALL NOT BE MORE THAN 125% OF THE MINIMUM NUMBER OF SPACES
REQUIRED FOR THE NEIGHBORHOOD PARKING DISTRICT FOR AN GIVEN USE

MAXIMUM PARKING ALLOWED = 64 SPACES
(3 SPACES/1000 SF GFA X (13,000 SF + 4,000 SF) X 125%)

PROPOSED PARKING = 65 SPACES
64 SPACES + 1 APV PARKING SPACES = 65 SPACES

BICYCLE PARKING STANDARDS:

SHORT TERM BICYCLE SPACES REQUIRED = 6% OF OCCUPANCY
LONG TERM BICYCLE SPACES REQUIRED = 1 SPACE
(1 SPACE PER 10 EMPLOYEES)

LOT COVERAGE		
	BUILDING	TOTAL
EXISTING	4,046 SF 5.5%	68,491 SF 93.4%
PROPOSED	13,650 SF 18.6%	43,416 SF 59.2%
TOTAL LOT AREA = 73,348 SF (1.68 ACRE)		

SHEET INDEX

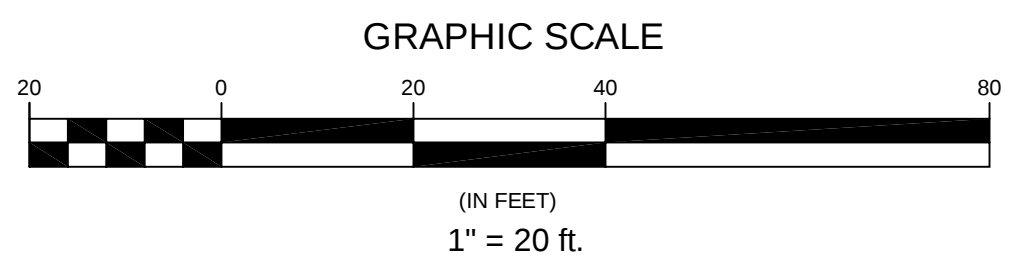
- SHEET C1 SITE PLAN
- SHEET C2 UTILITY & GRADING PLAN
- SHEET C3 EROSION PREVENTION & SEDIMENT CONTROL PLAN
- SHEET C4 EXISTING CONDITIONS & DEMOLITION PLAN
- SHEET C5 SITEWORK & WATER DETAILS & SPECIFICATIONS
- SHEET C6 WATER DETAILS & SPECIFICATIONS
- SHEET C7 STORM, SEWER, & EPSC DETAILS & SPECIFICATIONS
- SHEET C8 STORMWATER DETAILS & SPECIFICATIONS

APPLICANT

PETRA CLIFFS
CHAREST ALPINISM, LLC
105 BRIGGS STREET
BURLINGTON, VT 05401

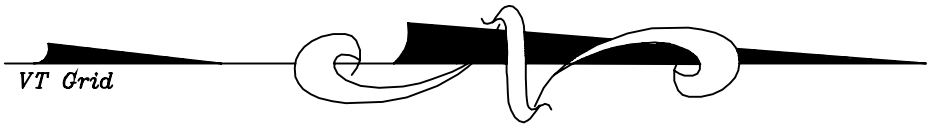
LANDOWNER

ONION RIVER COOPERATIVE, INC.
82 SOUTH WINOOSKI AVENUE
BURLINGTON, VT 05401



Date	Revision	By
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☐ Sketch/Concept	☐ Act 250 Review	
☐ Preliminary	☐ Construction	
☒ Final Local Review	☐ Record Drawing	
PETRA CLIFFS		Project No. 17023
75 BRIGGS STREET BURLINGTON, VT 05401		Survey L&D
SITE PLAN		Design ABR
		Drawn L&D
		Checked DJG
		Date 06-21-18
		Scale AS NOTED
		Sheet num C1

Lamoureux & Dickinson
Consulting Engineers, Inc.
14 Morse Drive, Essex, VT 05452
802-878-4450
www.LDengineering.com



STATE OF VERMONT LANDOWNER
VERMONT RAILWAY LESSEE
N/F



THE CONTRACTOR SHALL
NOTIFY DIG SAFE@ AT 811
PRIOR TO ANY EXCAVATION.

LEGEND

	EXISTING PROJECT BOUNDARY
	ABUTTING PROPERTY LINE
	BUILDING SETBACK
	EXISTING WATER LINE
	EXISTING STORM & CATCHBASIN
	EXISTING COMBINED SEWER & MANHOLE
	EXISTING UTILITY POLE AND OVERHEAD WIRE
	PROPOSED FINISH GRADE CONTOUR
	PROPOSED WATER LINE, GATE VALVE & HYDRANT
	PROPOSED STORM PIPE AND CATCHBASIN
	PROPOSED SEWER PIPE AND CLEANOUT
	PROPOSED UNDERDRAIN AND CLEANOUT
	PROPOSED ELECTRIC CONDUIT(S)
	PROPOSED POLE MOUNTED LIGHT
	EXISTING TREES

NOTES:

- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS AND THE LOCATION AND ELEVATION OF ALL ENTRANCES AND UTILITY SERVICES WITH THE ARCHITECTURAL & MECHANICAL PLANS.
- SEE ARCHITECTURAL PLANS FOR BUILDING CONSTRUCTION DETAILS, INCLUDING WALKWAY AND PAVEMENT FROST HEAVE PREVENTION MEASURES AT BUILDING ENTRANCES.
- SEE OTHER SHEETS OF THESE PLANS FOR ADDITIONAL SITE IMPROVEMENTS, DETAILS AND SPECIFICATIONS. SEE PLANS BY OTHERS FOR RAILING, STEPS, RETAINING WALL, LIGHTING, AND CONCRETE PATIOWALK DETAILS.
- ALL WORK WITHIN THE CITY RIGHT OF WAY AND WORK ON THE EXISTING WATER AND SEWER SERVICES SHALL BE COORDINATED WITH THE CITY PUBLIC WORKS DEPARTMENT.
- AT THE END OF ALL NEW SIDEWALKS AND RAMPS, CAST IRON DETECTABLE WARNING PLATES SHALL BE INSTALLED THE FULL WIDTH OF THE SIDEWALK.
- SEE LIGHTING PLAN (BY OTHERS) FOR LIGHT FIXTURE AND POLE DESIGN DETAILS. SEE ELECTRICAL DESIGN PLAN (BY OTHERS) FOR ELECTRICAL DISTRIBUTION AND CONDUIT REQUIREMENTS FOR NEW LIGHTING.
- PIPE SLOPES ARE IN FEET PER FEET UNLESS OTHERWISE NOTED.

CONSTRUCTION NOTES:

- UNLESS OTHERWISE NOTED, A MINIMUM 5 FT BY 5 FT LANDING AREA SHALL BE PROVIDED AT EACH BUILDING ENTRY WITH A MAXIMUM SLOPE OF 1:50.
- A MINIMUM 5 FT BY 5 FT LANDING AREA SHALL BE PROVIDED AT EACH TURN AND AT THE BOTTOM OF EACH SIDEWALK RAMP. THE CROSS SLOPE OF THE LANDING AREA SHALL HAVE A MAXIMUM SLOPE OF 1:50.
- THE PREFERRED MAXIMUM SLOPE OF ALL NEW WALKS IS 5% (1:20). THE MAXIMUM CROSS SLOPE OF NEW WALKS SHALL BE 1:50. THE MAXIMUM SLOPE OF ANY NEW WALK OR RAMP SHALL BE 1:12 (8%). EXCEPT FOR CURB RAMPS, WHERE RAMPS EXCEED 5% WITH A RISE GREATER THAN 6", A COMPLIANT HANDRAIL IS REQUIRED ALONG THE RAMP.
- ALL TRANSITIONS BETWEEN EXISTING PAVEMENT OR CONCRETE AND NEW WALKS SHALL BE SMOOTH. IN NO CASE SHALL THERE BE A TRANSITION WITH A VERTICAL EDGE GREATER THAN 1/4".
- ALL GRASS AND LANDSCAPED AREAS ADJACENT TO THE NEW WALKS AND BUILDINGS SHALL BE GRADED TO MAINTAIN POSITIVE DRAINAGE AWAY FROM THE BUILDING OR WALK. LOW AREAS SHALL BE FILLED WITH TOPSOIL, SEEDED AND MULCHED AS REQUIRED.
- SEE OTHER SHEETS OF THESE PLANS FOR ADDITIONAL SITE IMPROVEMENTS, DETAILS AND SPECIFICATIONS.

COMBINED SEWER DATA

EXIST. MH MY3.42
RIM = 144.66
NEW 6" IN = 136.9
12" CLAY OUT = 136.6

STORM DATA

EXIST. CB 1
RIM = 144.32
10" PVC OUT = 141.23
RESET EXIST. FRAME & GRATE

EXIST. CB 2
RIM = 143.76
15" OUT = 141.4

EXIST. STMH 3
RIM = 143.87
24" OUT = 135.87

EXIST. CB 4
EXIST RIM = 140.43
NEW RIM = 143.00
24" IN = 134.67 (N)
15" CMP IN = 129.7 (S)
TO BE REMOVED
15" IN = 138.0 (E)
TO BE REMOVED
NEW 18" IN = 138.0
OUT = 129.9

EXIST. CB 5
RIM = 143.16
8" OUT = 141.6
STRUCTURE TO BE REMOVED

NEW CB6
RIM = 146.30
10" PVC OUT = 141.13
15" OUT = 141.08

NEW CB7
RIM = 143.25
6" UD IN = 139.17
15" IN = 140.33
15" OUT = 139.10

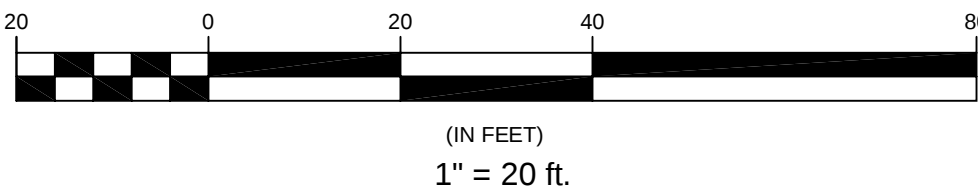
NEW STMH8
RIM = 145.50
15" IN = 138.95 (N)
15" IN = 139.10 (S)
18" OUT = 138.30

NEW CB9
RIM = 144.5
6" UD IN = 141.17
12" OUT = 141.10

NEW CB10
RIM = 145.5
6" UD IN = 141.67
12" OUT = 141.60

NEW CB11
RIM = 144.75
6" UD IN = 141.17
12" IN = 140.25
12" IN = 140.25
15" OUT = 140.20

GRAPHIC SCALE



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UTILITY & GRADING PLAN		Design ABR
		Drawn L&D
		Checked DJG
		Date 06-21-18
		Scale AS NOTED
		Sheet number
		C2

STANDARD EPSC PLAN REQUIREMENTS

THIS SECTION CONTAINS THE MINIMUM REQUIRED ELEMENTS FOR THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN. THESE ELEMENTS ARE IN ADDITION TO THE SITE SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL PRACTICES SHOWN ON THE PLANS

EROSION PREVENTION

1. THROUGHOUT CONSTRUCTION, THE AREA OF SOIL DISTURBANCE SHALL BE LIMITED TO THOSE AREA(S) THAT CAN BE ACTIVELY WORKED AND MANAGED WITH THE FORCES AVAILABLE. AREAS THAT ARE NOT ACTIVELY BEING WORKED FOR A PERIOD OF 5 DAYS OR MORE, SHALL BE TEMPORARILY STABILIZED.

2. THE MAXIMUM AREA OF SOIL DISTURBANCE AT ANY ONE TIME ON THE ENTIRE PROJECT PARCEL SHALL BE 1.0 ACRE.

3. SEDIMENT BASINS, SEDIMENT TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

4. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.

5. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

6. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND THE RECEIVING CHANNEL.

7. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
A. NO MORE THAN 200 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

8. ALL SEDIMENT REMOVED FROM SEDIMENT CONTROL PRACTICES AS A PART OF MAINTENANCE SHALL BE DISPOSED OF IN AN AREA THAT IS:
A. LESS THAN 5% IN SLOPE
B. AT LEAST 100 FT. FROM ANY DOWNSLOPE WATER BODY OR CONVEYANCE TO A WATER BODY (INCLUDING STORM DRAIN INLET OR DITCH)
C. VEGETATED.
PERMANENT STABILIZATION OF SEDIMENT SHALL BE IMMEDIATELY IMPLEMENTED FOLLOWING DISPOSAL.

9. FOR ANY AREA TO BE STABILIZED FOR WINTER BY VEGETATIVE COVER, SEEDING MUST BE COMPLETED NO LATER THAN SEPTEMBER 15.

10. ANY AREA TO BE STABILIZED FOR WINTER THAT DOES NOT HAVE ESTABLISHED VEGETATION BY OCTOBER 15 MUST BE STABILIZED BY ANCHORED MULCH AT THE WINTER APPLICATION RATE OF 4 TONS PER ACRE, OR OTHER APPROVED STABILIZATION MEASURES (E.G. ROLLED EROSION CONTROL PRODUCT). DORMANT SEEDING (E.G. WITH WINTER TIE) IS RECOMMENDED.

11. DISTURBED AREAS BORDERING AND DRAINING TO THE STREET MUST HAVE AN APPROPRIATE SEDIMENT BARRIER SPANNING THE EDGE OF THE DISTURBANCE TO PREVENT WASHING OF SEDIMENT ONTO SIDEWALKS OR STREETS AND GUTTERS.

12. HAY MULCH SHALL BE APPLIED AT A MINIMUM RATE OF 2 TONS PER ACRE. HAY MULCH APPLICATION DURING WINTER CONSTRUCTION SHALL BE AT A RATE OF 4 TONS PER ACRE. WHERE SUBJECT TO BLOWING, MULCH SHALL SECURED IN PLACE BY TRACKING WITH EQUIPMENT (WITH TRACK RUNNING PARALLEL TO SLOPE), A TACKIFIER, NETTING, OR COVERED/REPLACED WITH PROPERLY ANCHORED EROSION MATTING.

13. PLACEMENT OF SEED AND MULCH SHALL OCCUR WITHIN 48 HOURS OF PLACEMENT OF TOPSOIL AND COMPLETION OF FINAL GRADING (NOT WITHSTANDING STABILIZATION REQUIREMENTS ELSEWHERE IN THIS PLAN).

14. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED.

STABILIZATION

15. ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY OR PERMANENT STABILIZATION WITHIN 14 CALENDAR DAYS. AFTER THIS TIME, ANY DISTURBANCE IN THE AREA MUST BE STABILIZED AT THE END OF EACH WORK DAY.

THE FOLLOWING EXCEPTIONS APPLY:
A. STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS.
B. STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E. NO OUTLET) WITH A DEPTH OF 2 FEET OR GREATER (E.G. BUILDING FOUNDATION EXCAVATION, UTILITY TRENCHES).

16. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. EXCEPT AS NOTED BELOW, ALL SITES SHALL BE SEEDED AND STABILIZED WITH EROSION CONTROL MATERIALS, SUCH AS MULCH OR ROLLED EROSION CONTROL PRODUCTS, INCLUDING AREAS WHERE CONSTRUCTION HAS BEEN SUSPENDED OR SECTIONS COMPLETED.
A. ON THE CUT SIDE OF STREETS/DRIVES, DITCHES SHALL BE STABILIZED IMMEDIATELY WITH ROCK RIP-RAP OR OTHER NON-ERODIBLE LINERS (E.G. RECP), OR WHERE APPROPRIATE, VEGETATIVE MEASURES SUCH AS SOD.
B. FOR ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, STREET IMPROVEMENTS AND AREAS WITHIN 50 FT. OF A BUILDING UNDER CONSTRUCTION, A DOWNSLOPE PERIMETER SEDIMENT CONTROL SYSTEM CONSISTING, FOR EXAMPLE, OF SILT FENCE, SHALL BE INSTALLED AND MAINTAINED TO CONTAIN SOIL. EXPOSED DISTURBED AREAS ADJACENT TO A CONVEYANCE THAT PROVIDES RAPID OFFSITE DISCHARGE OF SEDIMENT, SUCH AS A CUT SLOPE AT AN ENTRANCE, SHALL BE COVERED WITH PLASTIC OR GEOTEXTILE TO PREVENT SOIL LOSS UNTIL IT CAN BE STABILIZED. STABILIZED CONSTRUCTION ENTRANCES WILL BE MAINTAINED TO CONTROL VEHICLE TRACKING MATERIAL OFF SITE.
C. TEMPORARY SEDIMENT TRAPPING DEVICES SHALL NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONTRIBUTING DRAINAGE AREAS. SIMILARLY, STABILIZATION SHALL BE ESTABLISHED PRIOR TO CONVERTING SEDIMENT TRAPS/BASINS INTO PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT PRACTICES.
D. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
E. ALL SLOPES STEEPER THAN 3:1 (H:V), OR 33.3%, AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS SHALL, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES (RECP). AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM SHALL NOT BE DISTURBED.

WINTER CONSTRUCTION REQUIREMENTS

THE FOLLOWING REQUIREMENTS APPLY DURING THE WINTER CONSTRUCTION PERIOD, WHICH IS FROM OCTOBER 15 TO APRIL 15.

17. ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY OR PERMANENT STABILIZATION AT THE END OF EACH WORK DAY.

THE FOLLOWING EXCEPTIONS APPLY:
A. STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS.
B. STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E. NO OUTLET) WITH A DEPTH OF 2 FEET OR GREATER (E.G. BUILDING FOUNDATION EXCAVATION, UTILITY TRENCHES).

18. STABILIZED ACCESS POINTS SHALL BE ENLARGED TO PROVIDE FOR SNOW STOCKPILING WHILE STILL MAINTAINING EFFECTIVE SEDIMENT CONTROL. PACKED SNOW AND ICE MAY NEED TO BE REMOVED AND ADDITIONAL STONE PLACED TO MAINTAIN THE LOOSE STONE SURFACE AT STABILIZED CONSTRUCTION EXITS.

19. THE LIMITS OF DISTURBANCE MAY NEED TO BE REPLACED OR DRAWN IN TO REFLECT THE BOUNDARY OF WINTER WORK. THE LIMITS OF DISTURBANCE SHALL BE DRAWN IN TO EXCLUDE ALL AREAS TEMPORARILY STABILIZED FOR THE WINTER, AND AREAS WHERE DISTURBANCE DURING THE WINTER IS NOT PLANNED.

20. BASED UPON THE WINTER ACTIVITIES PROPOSED, THE ON-SITE PLAN COORDINATOR SHALL DEVELOP A SNOW MANAGEMENT PLAN THAT SHALL INCLUDE AT A MINIMUM:
A. ADEQUATE SIZE FOR SNOW STORAGE AREAS
B. SNOW STORAGE AREAS LOCATED DOWN GRADIENT OF AREAS OF PLANNED DISTURBANCE
C. CONTROL OF SNOWMELT RUNOFF
D. PROHIBITING STORAGE OF SNOW IN STORMWATER TREATMENT STRUCTURES
E. A MINIMUM 25 FOOT BUFFER BETWEEN PERIMETER CONTROLS (SUCH AS SILT FENCE) TO ALLOW FOR SNOW CLEARING AND MAINTENANCE.

21. SILT FENCE SHALL BE REINFORCED OR REPLACED WITH PERIMETER DIKES, SWALES, OR OTHER PRACTICES RESISTANT TO THE FORCES OF SNOW LOADS.

22. THE ONSITE PLAN COORDINATOR INSPECTIONS SHALL INCLUDE MAINTENANCE OF DRAINAGE STRUCTURES TO INSURE THAT THEY ARE OPEN AND FREE OF SNOW AND ICE DAMS.

23. SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE SHALL BE INSTALLED AHEAD OF GROUND FREEZING. IF PRACTICES MUST BE INSTALLED OR MAINTAINED AFTER GROUND FREEZING, NO FROZEN MATERIAL SHALL BE USED IN THE CONSTRUCTION OF BERMS OR DIKES, OR INSTALLATION OF SILT FENCE.

INSPECTION & MONITORING

24. THE ONSITE COORDINATOR IS _____ TO BE DETERMINED

25. THE PERIMETER OF THE SITE AND ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT THE END OF EACH WORKDAY. IF SEDIMENT HAS TRAVELLED BEYOND THE SITE BOUNDARY, IT SHALL BE SWEEPED UP OR OTHERWISE REMOVED AND DEPOSITED ONSITE IN AN UPGRADIENT AREA AT THE END OF EACH WORK DAY.

THE ON-SITE COORDINATOR SHALL INSPECT, AND DOCUMENT IN WRITING, THE STATUS OF CONSTRUCTION ON THE PROJECT SITE AND EROSION AND SEDIMENT CONTROL STRUCTURES AND MEASURES AT THE END OF EACH WORK DAY. INSPECTIONS SHALL ALSO BE CONDUCTED PRIOR TO PREDICTED STORM EVENTS, AND AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER ANY STORM EVENT WHICH GENERATES A DISCHARGE OF STORMWATER FROM THE CONSTRUCTION SITE.

26. THE OWNER, THE SITE CONTRACTOR / PRINCIPAL OPERATOR, AND THEIR REPRESENTATIVES SHALL ABIDE BY THE BEST MANAGEMENT PRACTICES PRESENTED ON THESE PLANS, REQUIRED BY THE PERMIT CONDITIONS, AND PRESENTED IN THE VT DEC LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL.

27. DURING EACH INSPECTION, THE ONSITE COORDINATOR SHALL VISUALLY MONITOR AND RECORD THE TURBIDITY OF ALL STORMWATER RUNOFF FROM THE CONSTRUCTION SITE IN ACCORDANCE WITH THE SAMPLING & TESTING REQUIREMENTS AND PROTOCOL OF THE VERMONT GENERAL PERMIT.

28. INSPECTION FREQUENCY MAY BE REDUCED TO NOT LESS THAN ONE PER WEEK IF THE ENTIRE SITE IS TEMPORARILY STABILIZED AND ALL CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED. INSPECTIONS SHALL RESUME PRIOR TO RESUMING CONSTRUCTION ACTIVITY IN ACCORDANCE WITH THE REQUIREMENTS LISTED ABOVE.

29. IN ADVANCE OF A PREDICTED RAINFALL OR SNOWMELT EVENT, ALL MANAGEMENT PRACTICES APPROPRIATE TO CURRENT AREAS OF DISTURBANCE MUST BE CHECKED AND REPAIRED AS NECESSARY TO ENSURE PROPER OPERATING CONDITION. IF NECESSARY TO PREVENT SEDIMENT DISCHARGE FROM THE CONSTRUCTION SITE, THIS WILL INCLUDE THE TEMPORARY STABILIZATION OF ALL DISTURBED SOILS ON THE SITE IN ADVANCE OF THE ANTICIPATED RUNOFF PERIOD.

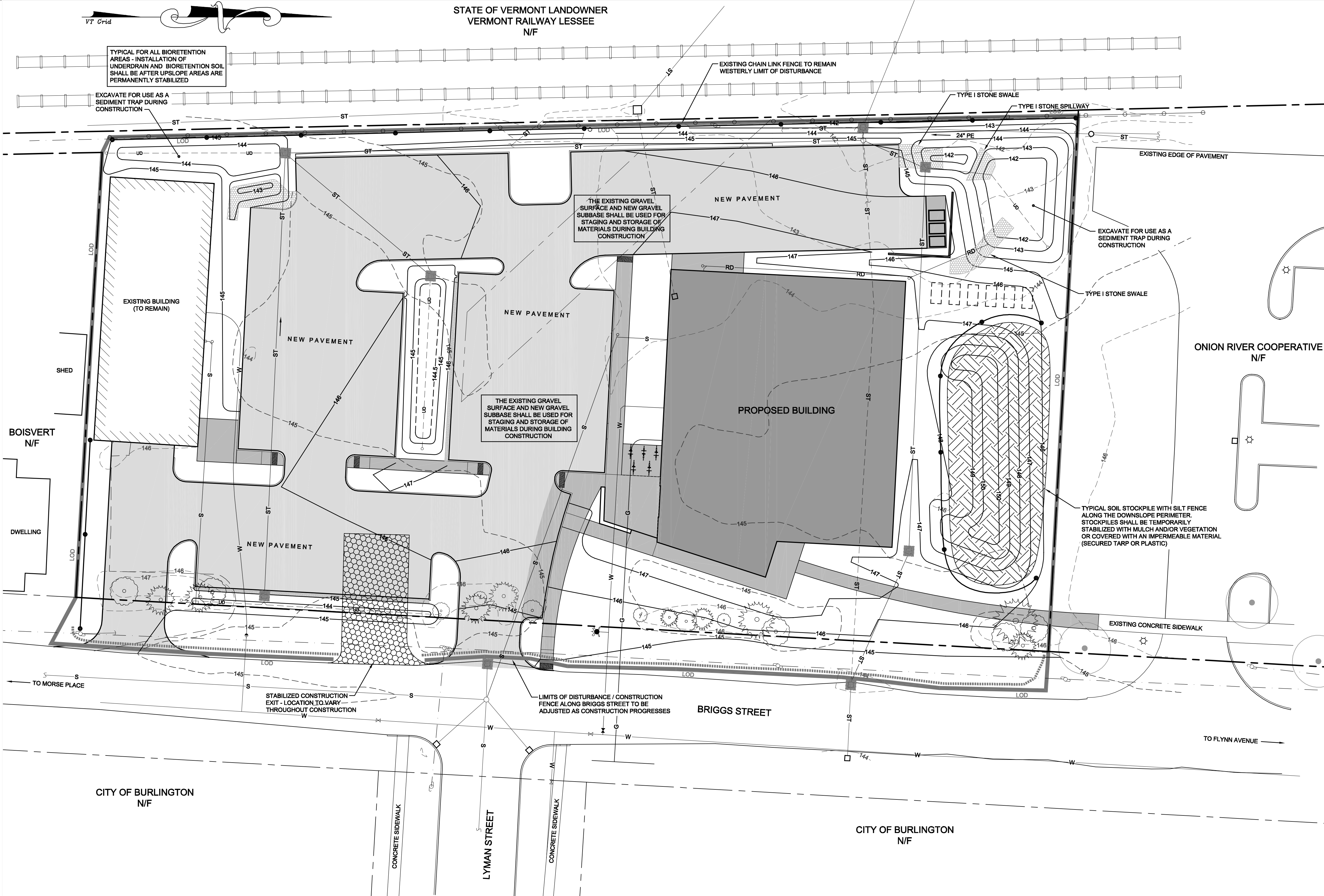
PUBLIC NOTICE AND DPW COORDINATION

30. A COPY OF THE CITY EPSC PLAN APPROVAL, THE STATE DISCHARGE PERMIT AND THE AUTHORIZATION TO DISCHARGE, A BRIEF DESCRIPTION OF THE PROJECT, AND THE LOCATION WHERE THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN IS AVAILABLE SHALL BE POSTED AT A LOCATION ON THE PROJECT SITE THAT IS VISIBLE TO THE PUBLIC.

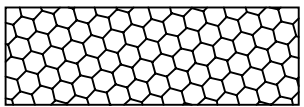
31. THE LANDOWNER OR SITE CONTRACTOR SHALL CONTACT THE CITY STORMWATER ADMINISTRATOR AT 540-1748 OR GJOHNSON@BURLINGTONVT.GOV AT LEAST 24 HOURS PRIOR TO ANY EARTH DISTURBANCE, AND SHALL PROVIDE THE NAME AND CONTACT INFORMATION FOR THE ONSITE PLAN COORDINATOR.

32. THE ONSITE PLAN COORDINATOR SHALL NOTIFY THE CITY STORMWATER ADMINISTRATOR PRIOR TO OCTOBER 15 IF THE SITE WILL NOT BE STABILIZED BY NOVEMBER 1 OR ADDITIONAL WORK IS PROPOSED DURING THE WINTER CONSTRUCTION PERIOD.

33. THE LANDOWNER OR ONSITE PLAN COORDINATOR SHALL CONTACT THE CITY STORMWATER ADMINISTRATOR TO SCHEDULE A STABILIZATION INSPECTION WHEN SITE WORK IS FINISHED AND STABILIZATION MEASURES HAVE BEEN INSTALLED.



LEGEND



STABILIZED CONSTRUCTION EXIT



CONSTRUCTION FENCE / LIMIT OF DISTURBANCE



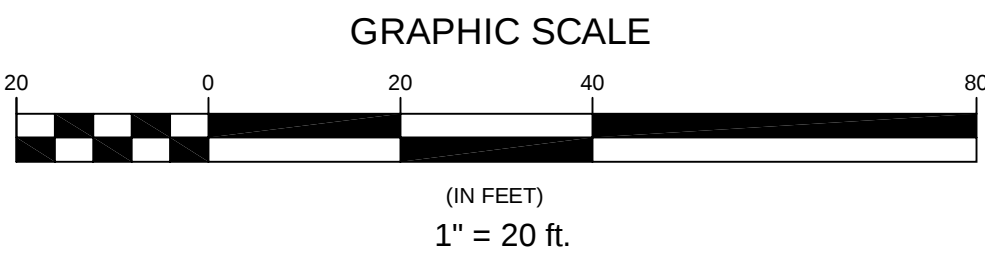
TEMPORARY SILT FENCE



EROSION LOG (MIN 9'x2')



INLET PROTECTION



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PETRA CLIFFS		
75 BRIGGS STREET BURLINGTON, VT 05401		
EROSION PREVENTION & SEDIMENT CONTOL PLAN		
Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDEngineering.com		
Project No. 17023 Survey L&D Design ABR Drawn L&D Checked DJG Date 06-21-18 Scale AS NOTED Sheet number		
C3		



THE CONTRACTOR SHALL
NOTIFY DIG SAFE® AT 811
PRIOR TO ANY EXCAVATION.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL COORDINATE THE REMOVAL OF THE EXISTING SURFACES, STRUCTURES, AND UTILITIES WITH THE OWNER, UTILITY COMPANIES, AND THE CITY OF BURLINGTON.
2. THE RELOCATION AND/OR TERMINATION OF EXISTING UTILITIES SHALL BE COMPLETED IN COORDINATION WITH THE UTILITY COMPANY AND OWNER, WITH WORK IN ACCORDANCE WITH THE UTILITY COMPANY'S SPECIFICATIONS FOR CONSTRUCTION.
3. EXISTING FOUNDATIONS AND STRUCTURES, NOT SHOWN ON THIS PLAN, MAY EXIST BELOW GRADE ON THE SITE. IF ENCOUNTERED, THEY SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND STRUCTURAL ENGINEER. AT A MINIMUM, EXISTING FOUNDATIONS AND STRUCTURES SHALL BE REMOVED TO A DEPTH OF AT LEAST 2 FEET BELOW THE BOTTOM OF THE SUBGRADE OR ANY TRENCH BEDDING.
3. WHERE REQUIRED, EXISTING UTILITY SERVICE AND ACCESS SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND PROVISION OF TEMPORARY UTILITY SERVICES AND ACCESS AS REQUIRED. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
4. EXISTING STRUCTURES, PAVEMENT, SURFACES, AND UTILITIES SHALL BE REMOVED WHERE INDICATED ON THE PLANS, AND AS NECESSARY TO CONSTRUCT AND COMPLETE THE IMPROVEMENTS SHOWN ON THE PLANS. THE EXCAVATION, REMOVAL, AND DISPOSAL OF MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE LAWS, RULES, REGULATIONS, AND PROTOCOLS. THE WORK SHALL INCLUDE THE EXCAVATION, DISPOSAL, BORROW, AND PLACEMENT OF SUITABLE MATERIAL IN CONFORMANCE WITH THE LINES, GRADES, AND TYPICALS SHOWN ON THE PLANS.

UTILITY CONSTRUCTION NOTES:

1. THE LOCATIONS AND PIPE MATERIAL OF THE WATER AND SEWER SERVICES AND MAINS ARE BASED UPON RECORD INFORMATION PROVIDED BY THE PUBLIC WORKS DEPARTMENT AND FIELD OBSERVATIONS. THE ACTUAL LOCATION OF THE EXISTING MAINS AND SERVICES MAY VARY FROM THAT SHOWN ON THIS PLAN.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PERFORM EXPLORATORY TEST PITS TO VERIFY THE HORIZONTAL LOCATION AND AND ELEVATION OF THE WATER AND SEWER SERVICES TO THE EXISTING BUILDING. TIES FOR, AND THE ELEVATION OF, EACH SERVICE SHALL BE REPORTED TO THE ENGINEER.
3. ALL UTILITY WORK SHALL BE PERFORMED IN A MANNER THAT MINIMIZES INTERRUPTIONS IN SERVICE TO OTHER ADJACENT USERS.
4. WHERE TEMPORARY INTERRUPTIONS IN UTILITY SERVICES ARE REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS AND SHALL PROVIDE WRITTEN NOTICE TO AFFECTED USERS IN ACCORDANCE WITH THE DEPARTMENT REQUIREMENTS.

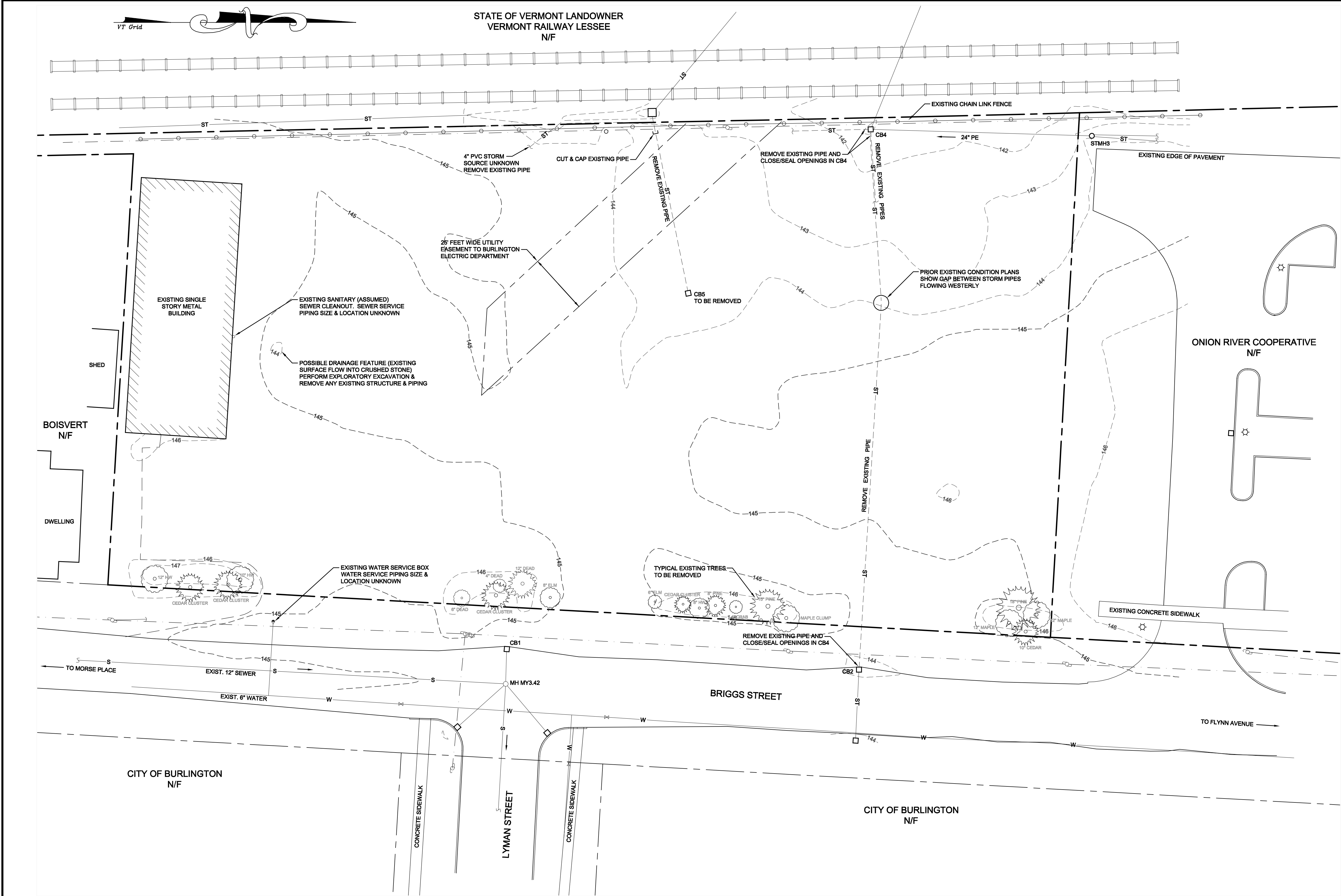
CITY RIGHT OF WAY REQUIREMENTS:

1. AUTHORIZATION FROM THE DEPARTMENT OF PUBLIC WORKS SHALL BE OBTAINED PRIOR TO PERFORMING ANY WORK WITHIN THE CITY'S RIGHT OF WAY.
2. THE SITE CONTRACTOR SHALL IMPLEMENT TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEPARTMENT OF PUBLIC WORKS AND THE MUTCD. WORK SHALL CONFORM WITH THE VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE 'STANDARDS' OF THE VTRANS CONSTRUCTION STANDARDS.
3. ALL WORK AND DISTURBANCE WITHIN THE CITY RIGHT OF WAY SHALL BE LIMITED TO THAT SPECIFIC AREA APPROVED. WORK SHALL NOT EXTEND BEYOND THE APPROVED LIMITS OF DISTURBANCE.
4. NO VEHICLE PARKING OR STORAGE OF MATERIALS SHALL BE ALLOWED WITHIN THE CITY RIGHT OF WAY, INCLUDING GREEN STRIPS, EXCEPT WHERE APPROVED BY THE CITY.

CORRECTIVE ACTION PLAN

SEE THE CORRECTIVE ACTION PLAN BY KAS CONSULTING FOR SOIL MANAGEMENT REQUIREMENTS PRIOR TO, AND THROUGHOUT CONSTRUCTION.

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☐ Sketch/Concept	☐ Act 250 Review	
☐ Preliminary	☐ Construction	
☒ Final Local Review	☐ Record Drawing	
PETRA CLIFFS		Project No. 17023
75 BRIGGS STREET BURLINGTON, VT 05401		Survey L&D
EXISTING CONDITIONS & DEMOLITION PLAN		Design ABR
		Drawn L&D
		Checked DJG
		Date 06-21-18
		Scale AS NOTED
		Sheet number
Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDengineering.com		C4



COMBINED SEWER DATA

EXIST. MH MY3.42
RIM = 144.66
12" CLAY OUT = 136.6

STORM DATA

EXIST. CB 1
RIM = 144.32
10" PVC OUT = 141.23

EXIST. CB 2
RIM = 143.76
15" OUT = 141.4

EXIST. STMH 3
RIM = 143.87
24" OUT = 135.87

EXIST. CB 4
RIM = 140.43
24" IN = 134.67 (N)
15" CMP IN = 129.7 (S)
15" IN = 138.0 (E)
OUT = 129.9

EXIST. CB 5
RIM = 143.16
8" OUT = 141.6
STRUCTURE TO BE REMOVED

LEGEND

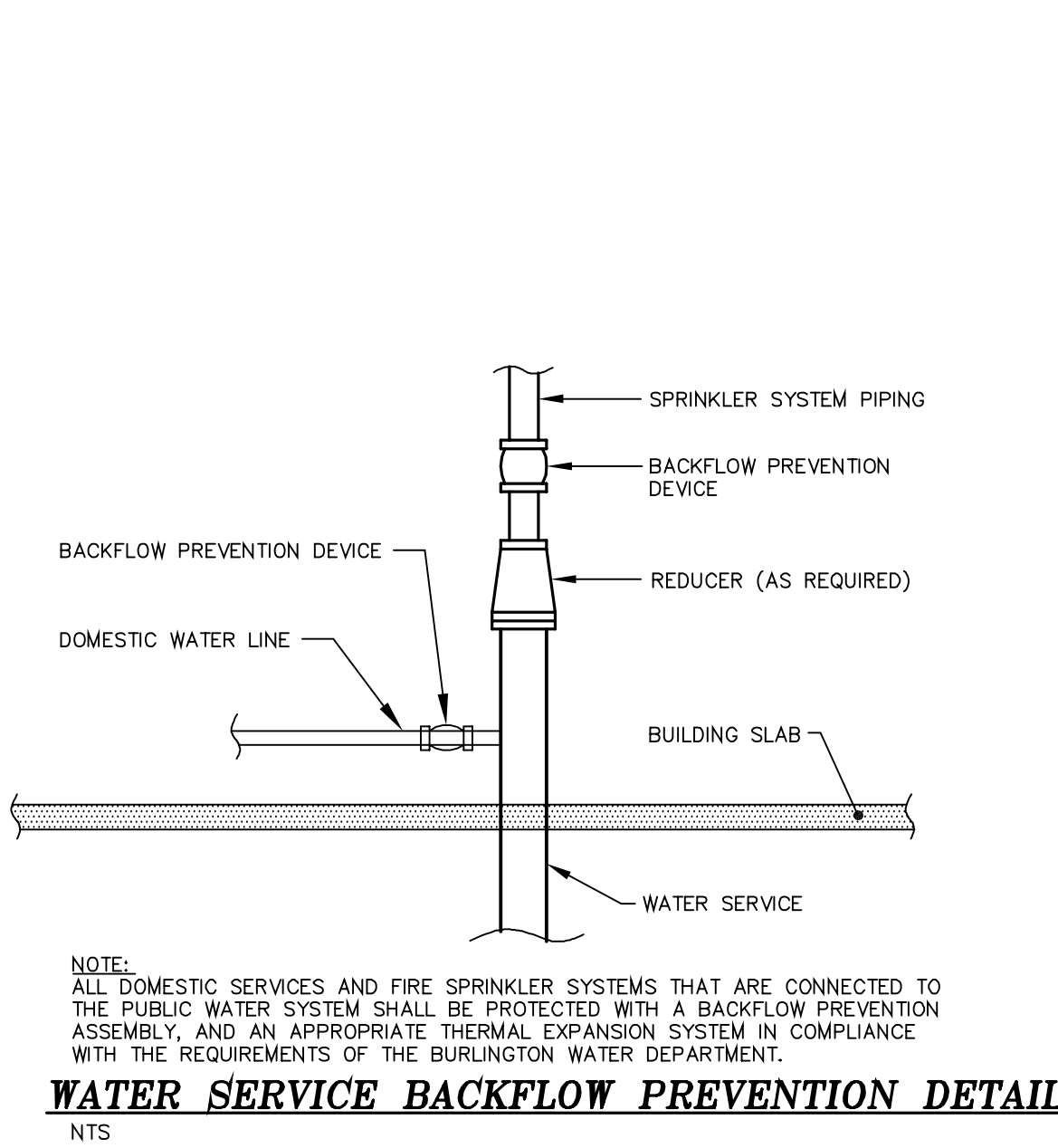
	EXISTING PROJECT BOUNDARY
	ABUTTING PROPERTY LINE
	BUILDING SETBACK
	EXISTING WATER LINE
	EXISTING STORM & CATCHBASIN
	EXISTING COMBINED SEWER & MANHOLE
	EXISTING UTILITY POLE AND OVERHEAD WIRE
	EXISTING TREES

GRAPHIC SCALE



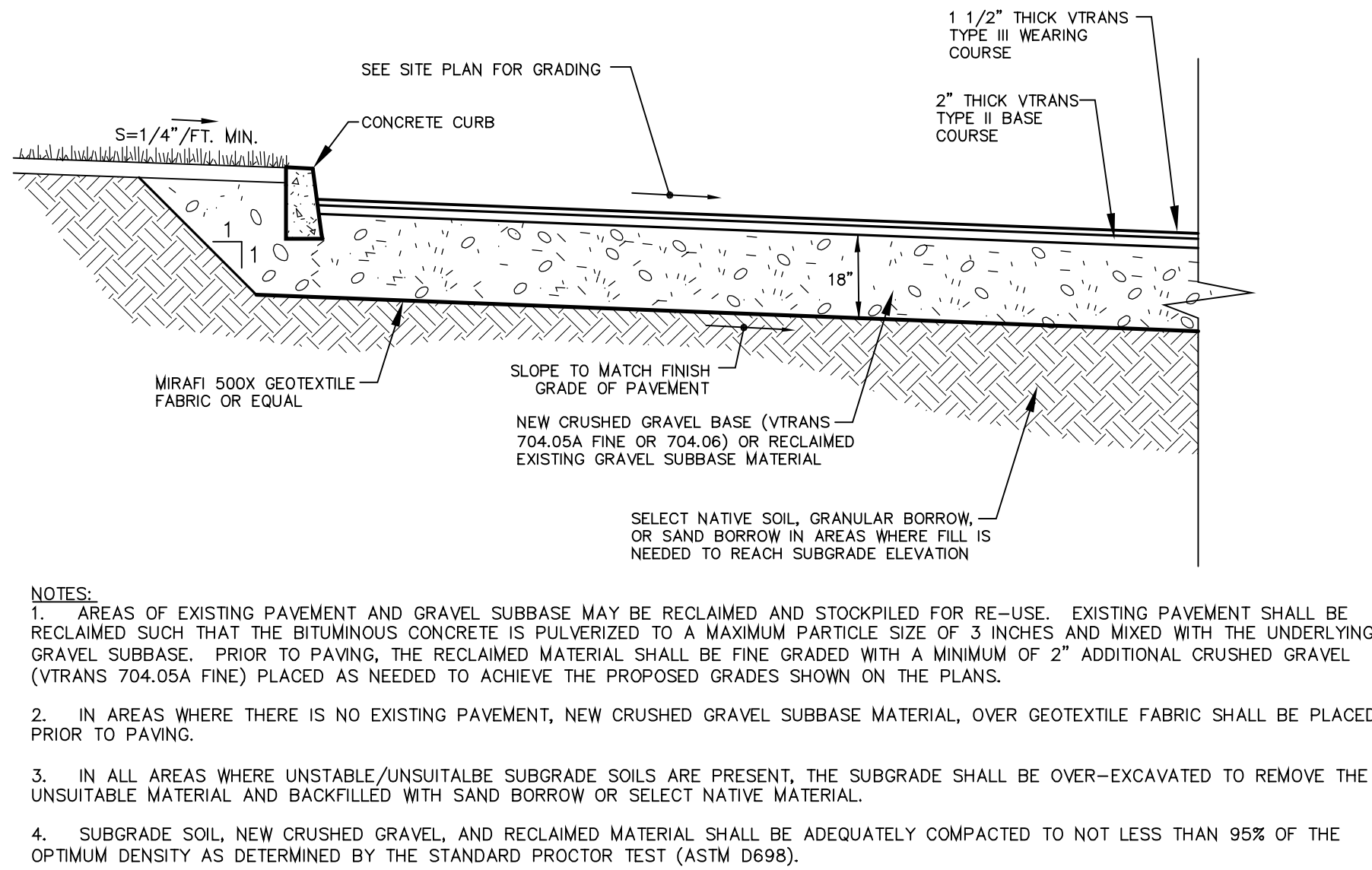
(IN FEET)

1" = 20 ft.

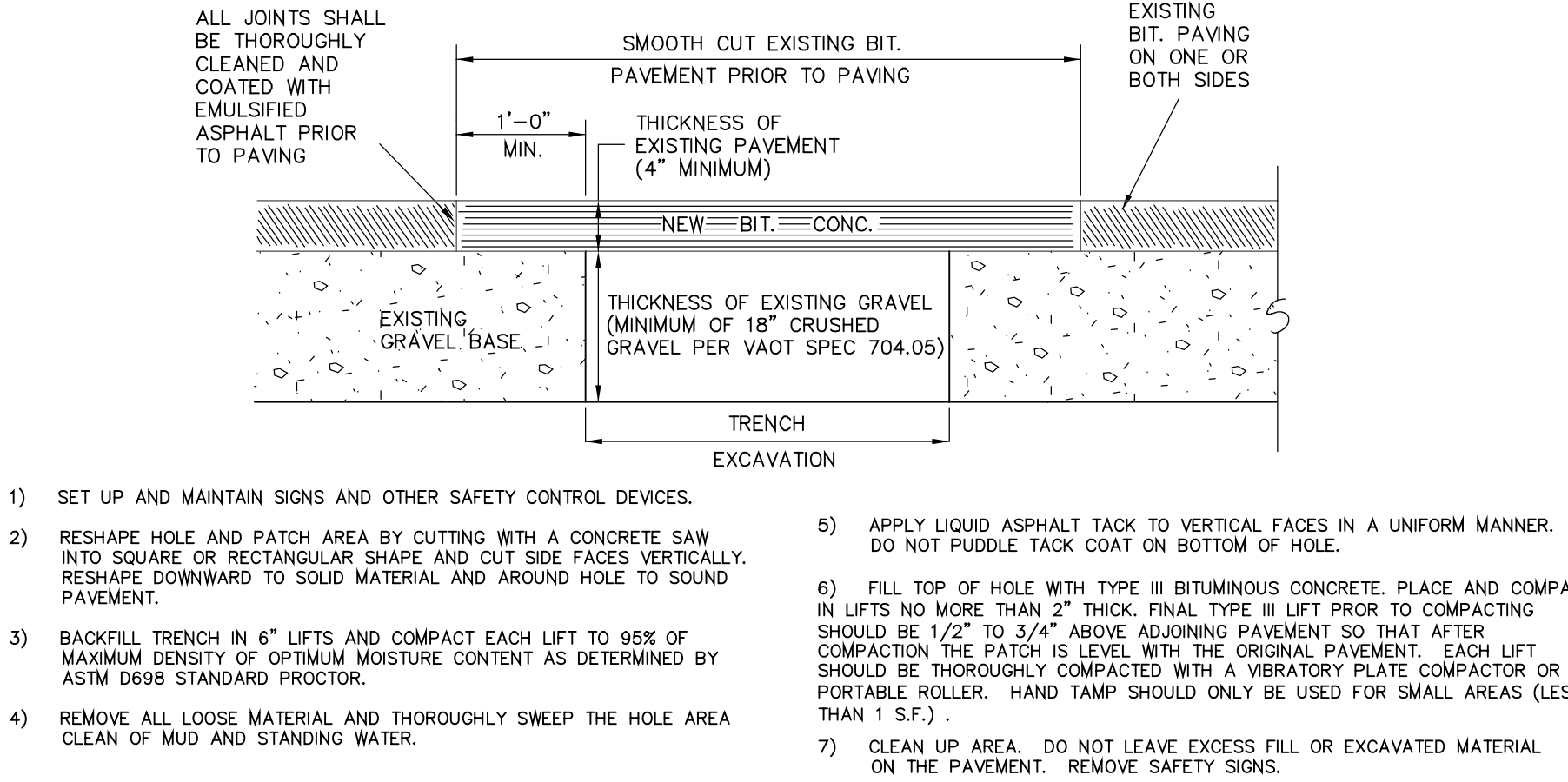


WATER SERVICE BACKFLOW PREVENTION DETAIL
NTS

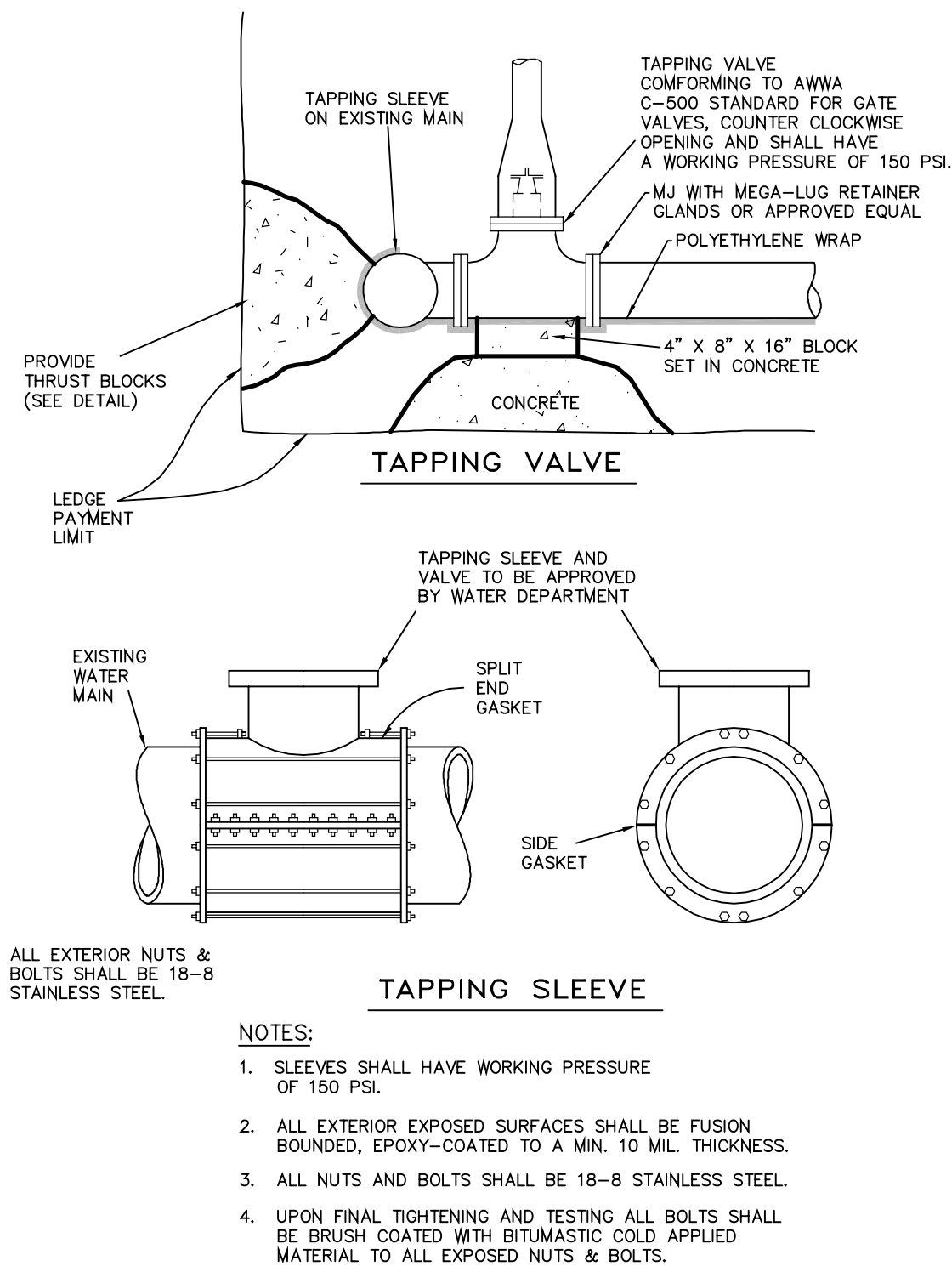
SEE SHEET D6 AND THE CITY OF BURLINGTON
WATER DEPARTMENT STANDARDS FOR
ADDITIONAL DETIALS AND SPECIFICATIONS



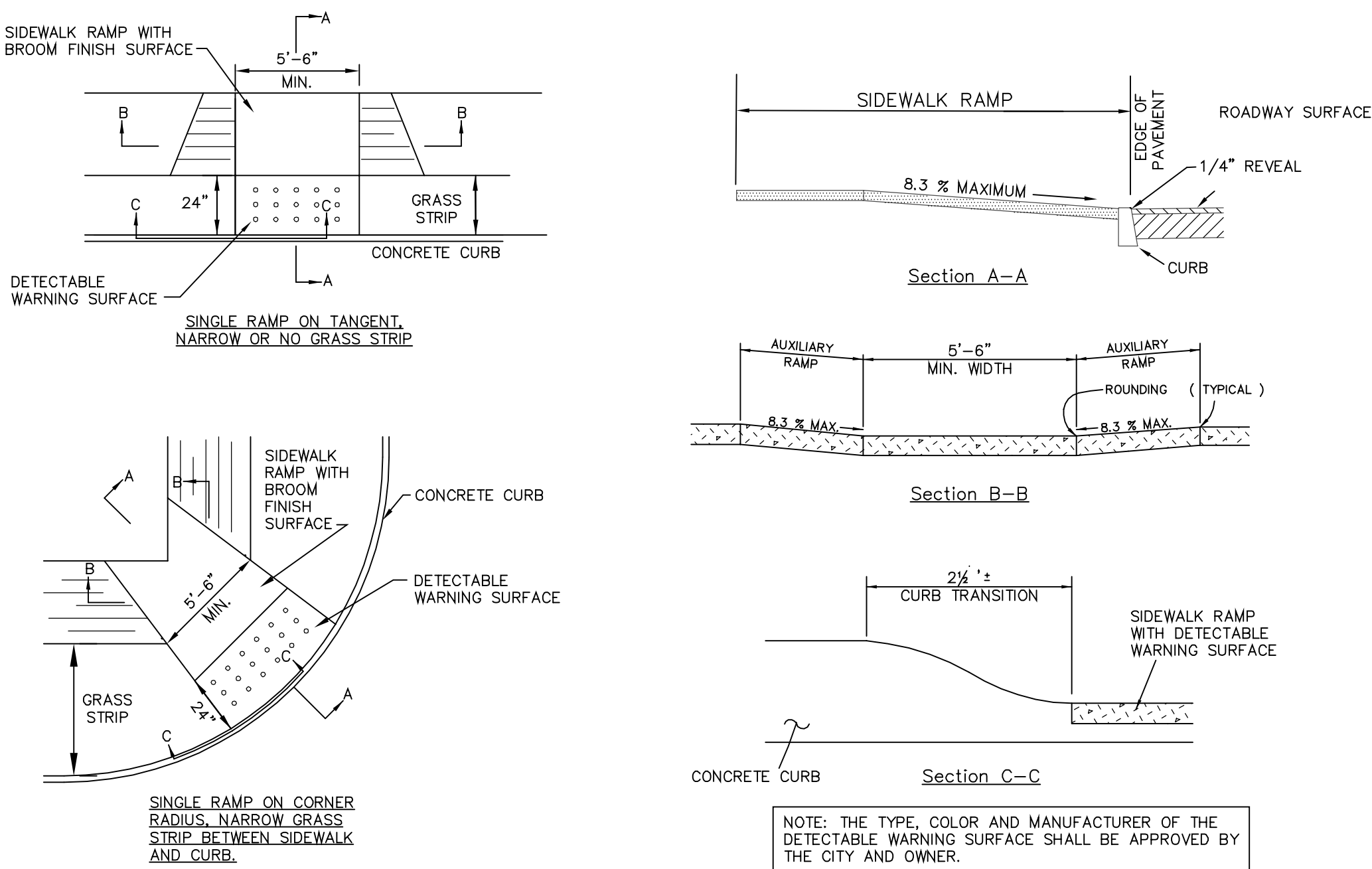
TYPICAL NEW DRIVE & PARKING CROSS SECTION
NTS



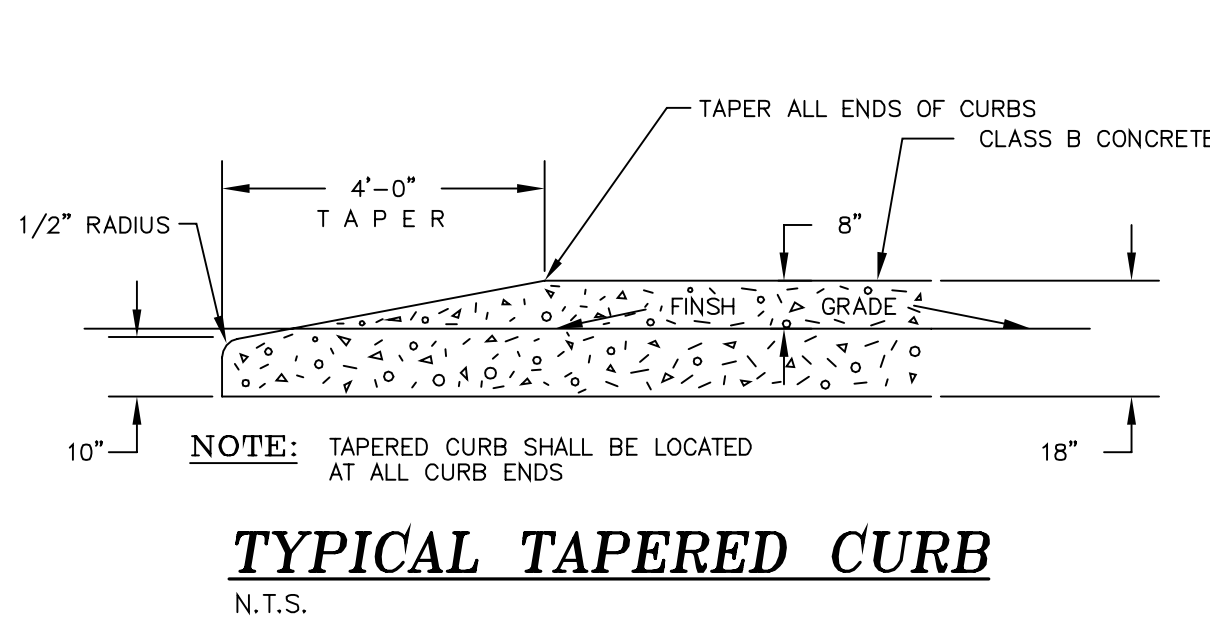
REPLACEMENT of EXISTING BITUMINOUS PAVEMENT
N.T.S.



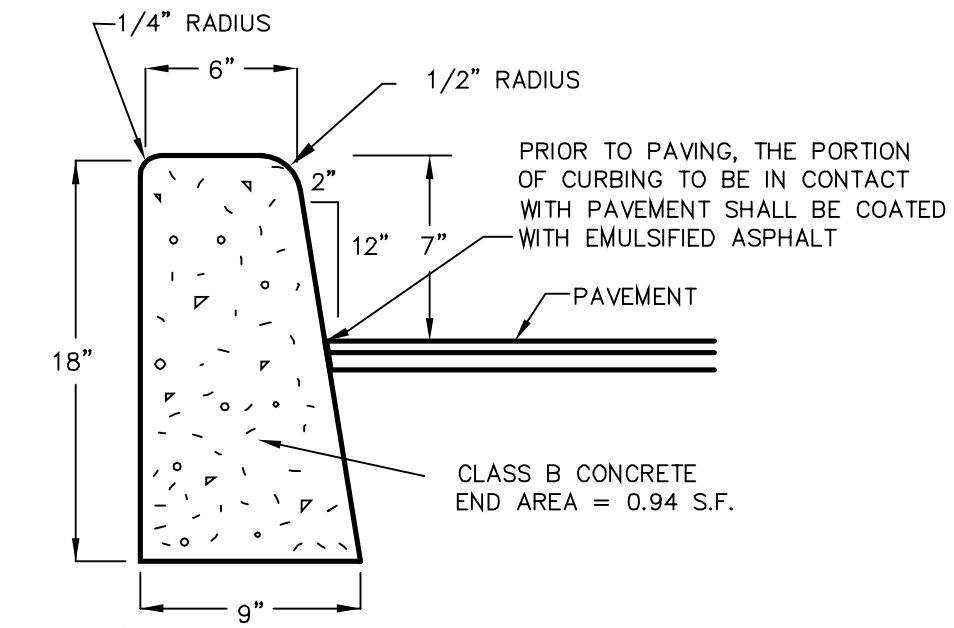
TAPPING VALVE and SLEEVE DETAIL
NTS



SIDEWALK RAMPS
NTS

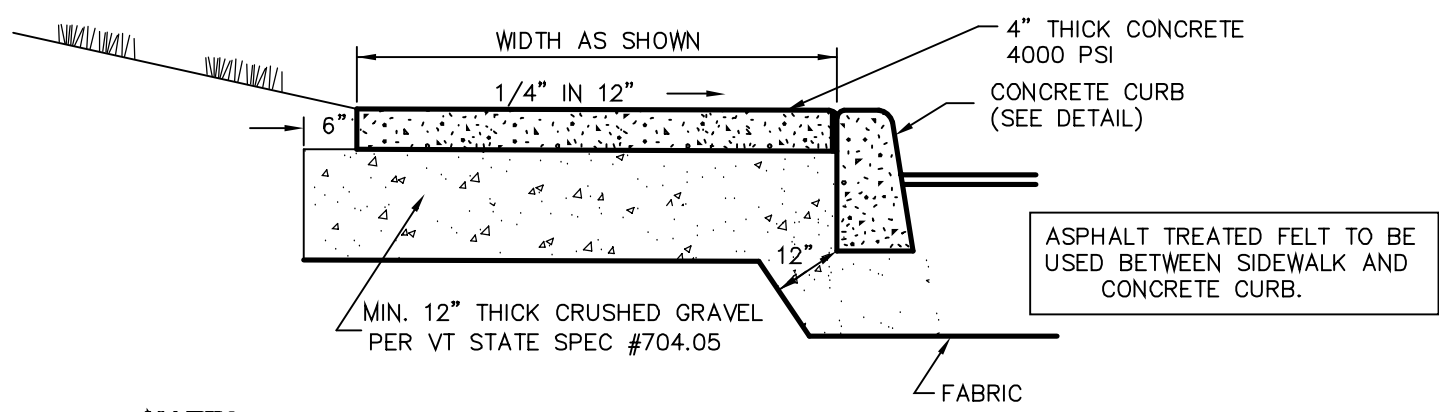


TYPICAL TAPERED CURB
N.T.S.



- NOTES:
- 1) CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS.
 - 2) CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (1/2" SPONGE RUBBER OR CORK.)
 - 3) ALL CONCRETE SHALL BE AIR ENTRAINED NOT LESS THAN 5% AND NOT MORE THAN 7%

CONCRETE CURB
N.T.S.

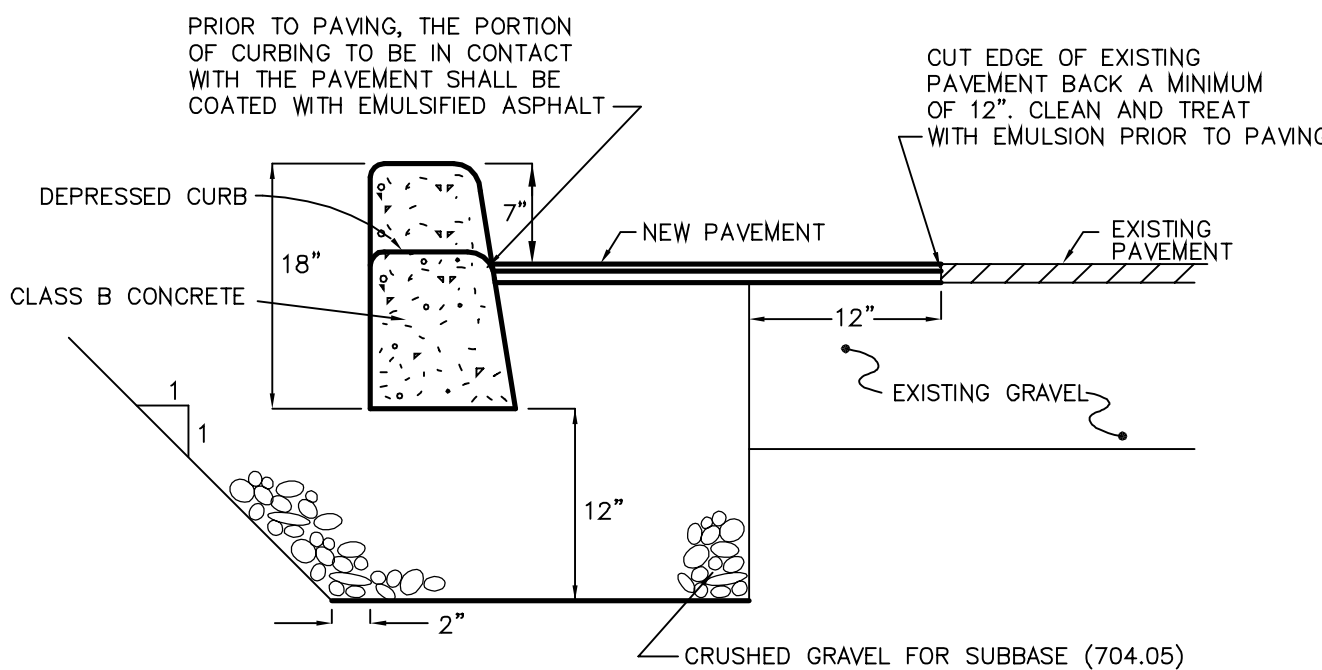


- NOTES:
1. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4,000 PSI AT 28 DAYS, AIR ENTRAINED WITH AN ADMIXTURE PRODUCING AN AIR CONTENT OF BETWEEN 5% AND 7% BY VOLUME.
 2. HALF INCH (1/2") TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT INTERVALS NOT EXCEEDING TWENTY FEET (20'). SIDEWALKS SHALL BE SCORED TO A DEPTH OF ONE INCH (1") EVERY FIVE (5') FEET. CURB AND SIDEWALK SECTIONS SHALL BE SEPARATED BY ASPHALT TREATED FELT.
 3. AFTER THE INITIAL CURING PERIOD IS OVER (APPROXIMATELY 28 DAYS), ALL EXPOSED SURFACES SHALL RECEIVE TWO COATS OF ANTI-SPALLING COMPOUND.
 4. SEE ARCHITECTUAL PLANS AND DETAILS AT BUILDING ENTRANCE LOCATIONS FOR ADDITIONAL SIDEWALK FOUNDATION AND SUPPORT DETAILS.

CONCRETE SIDEWALK DETAIL
N.T.S.

GENERAL CONSTRUCTION SPECIFICATIONS

1. ALL WORK AND MATERIALS SHALL BE APPROVED BY THE OWNER OR ENGINEER AND IN ACCORDANCE WITH THE LATEST VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CITY OF BURLINGTON PUBLIC WORKS REQUIREMENTS, AND THESE PLANS.
2. THE CONTRACTOR SHALL CONTACT ALL UTILITIES BEFORE EXCAVATION TO VERIFY THE LOCATION OF ANY UNDERGROUND LINES. THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIGSAFE PRIOR TO ANY EXCAVATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING VEGETATION, PAVEMENT AND STRUCTURES NECESSARY TO CONSTRUCT THIS PROJECT UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL REMOVE ALL EXCESS OR UNSTABLE MATERIAL, DEBRIS AND TRASH FROM THE SITE UPON COMPLETION OF CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OR HER OWN EXPENSE FOR ENSURING THAT THE DUST CREATED AS A RESULT OF CONSTRUCTION DOES NOT CREATE A NUISANCE OR A SAFETY HAZARD. WHERE AND WHEN DEEMED NECESSARY BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO WET SECTIONS OF THE CONSTRUCTION AREA WITH WATER, APPLY CALCIUM CHLORIDE OR SWEEP ASPHALT ROADS WITH A POWER BROOM AS DUST CONTROL.
5. ANY SURFACES, LINES, OR STRUCTURES WHICH HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THE CONDITION AT LEAST EQUAL TO THAT IN WHICH THEY WERE FOUND IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS.
6. THE WORK SHOWN ON THESE PLANS SHALL BE INSPECTED BY LAMOUREUX & DICKINSON CONSULTING ENGINEERS, INC., ESSEX JUNCTION, VERMONT, TO ENSURE COMPLIANCE WITH THE PLANS AND REQUIREMENTS. LAMOUREUX & DICKINSON WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT MAY ARISE FROM THE FAILURE OF THE CONTRACTOR TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THAT THE PLANS CONVEY, AND FROM FAILURE TO HAVE BEEN NOTIFIED TO INSPECT THE WORKS AND TESTS IN PROGRESS.
7. FOR ANY WORK WITHIN A HIGHWAY OR STREET RIGHT-OF-WAY, A MINIMUM OF ONE-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. CONTINUOUS TWO-WAY TRAFFIC WILL BE REQUIRED AT NIGHT, DURING PEAK-HOURS, AND WHENEVER POSSIBLE DURING ACTUAL CONSTRUCTION ACTIVITIES. UNIFORMED TRAFFIC CONTROL OFFICERS SHALL DIRECT TRAFFIC DURING PEAK HOURS WHEN THERE IS ONE-WAY TRAFFIC OR WHEN DEEMED NECESSARY BY THE CITY.
8. TEMPORARY CONSTRUCTION SIGNS AND TRAFFIC CONTROL SIGNS SHALL BE ERRECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, VTRANS E-STANDARDS AND CITY REQUIREMENTS.
9. TO ASSURE COMPLIANCE WITH THE PLAN(S), THE CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS IN ADVANCE OF STARTING ANY WORK, CUTTING THE PAVEMENT, BEGINNING THE INSTALLATION OF ANY UTILITIES, TESTING THE UTILITIES, BRINGING IN ANY NEW GRAVEL FOR THE NEW BASE, PAVING, AND FINAL INSPECTION. PRIOR TO BEGINNING CONSTRUCTION ALL MATERIALS SHALL BE APPROVED BY THE ENGINEER.
10. AT COMPLETION OF GRADING, SLOPES, DITCHES, AND ALL DISTURBED AREAS SHALL BE SMOOTH AND FREE OF POCKETS WITH SUFFICIENT SLOPE TO ENSURE DRAINAGE.
11. UTILITY INFORMATION SHOWN HEREON WAS OBTAINED FROM BEST AVAILABLE SOURCES AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. CONTRACTOR SHALL VERIFY EXACT LOCATION OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, SHOWN OR NOT SHOWN HEREON. CONTRACTOR SHALL VERIFY NEW TAP LOCATIONS AND SHALL CONNECT ALL UTILITIES TO NEAREST SOURCE THROUGH COORDINATION WITH THE UTILITY COMPANY AND OWNER.
12. SEE OTHER DETAIL SHEETS OF THESE PLANS FOR ADDITIONAL DETAILS, REQUIREMENTS AND SPECIFICATIONS.



- NOTES:
1. THE NEW PAVEMENT DEPTH SHALL MATCH THE EXISTING PAVEMENT DEPTH AT A MINIMUM, 4" OF TYPE III PAVEMENT SHALL BE PLACED IN 2 LIFTS.

CONCRETE CURB AND PAVEMENT REPLACEMENT

NTS

Date	Revision	By
These plans shall only be used for the purpose shown below:		
☐ Sketch/Concept	☐ Act 250 Review	
☐ Preliminary	☐ Construction	
☒ Final Local Review	☐ Record Drawing	
PETRA CLIFFS		Project No. 17023
75 BRIGGS STREET BURLINGTON, VT 05401		Survey L&D
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SITWORK & WATER DETAILS & SPECIFICATIONS		Drawn L&D
		Checked DJG
		Date 06-21-18
		Scale AS NOTED
		Sheet number
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before construction of any utilities or improvements, the Contractor shall notify the Department of Public Works (DPW), IN WRITING, of intent to proceed.

1. All water mains, fittings, appurtenances and other materials, and construction shall conform to all applicable AWWA, State and City codes, standards and regulations. In the case of conflict between these construction specifications and any other applicable regulations, the decision of the Vermont Department of Health or VTDEC Water Supply shall be binding.

2. All water mains, fittings, appurtenances shall be installed in a workmanlike manner. Installation shall be under the general inspection of the Public Works Department. If the Contractor is to install any water line, the Contractor, they shall notify the Public Works Department at least two (2) days in advance of his intention to proceed.

3. Connection to an existing water main shall be done under the supervision of, and with the approval of, the Public Works Department. The Contractor shall be responsible for securing all necessary permits and permission to make the connection and to coordinate all parties involved in the process. The Public Works Department shall be notified AT LEAST twenty-four (24) hours in advance of the intended connection time.

4. An inspector, employed by the Public Works Department, shall be notified at least 24 hours in advance of all water line installations. This inspector shall be on the premises for all water line installations.

5. As-Builts prepared by the Contractor are required by the Public Works Department at the time of the completion of the water system. All water mains shall have horizontal and vertical distances as detailed on this drawing.

6. All public and private water mains 1) 4" or greater shall be C-900 pipe per note 21 below) 2) less than 4" in diameter shall be ULTRA-HIGH WEIGHT, 35 MILYTHYLENE TUBING DESIGNED FOR A WORKING PRESSURE OF 200 PSI (AWWA C-900, 12" and 18" diameters) or 3) 4" and 6" in diameter shall be ductile iron, (AWWA C-110), cement-lined. For water lines less than 4 inches in diameter, fittings (other than valves) shall MEET MANUFACTURER'S RECOMMENDATIONS AND MEET VERMONT ACT 193 REQUIREMENTS FOR LEAD CONTENT.

7. All buried valves shall conform to AWWA C-502 or C-509, and be resilient wedge or gate valves. 12" and 18" in diameter shall be resilient wedge or butterfly valves for larger sizes. All gate valves shall open right (clockwise) and shall have adjustable iron valve boxes extending to the finished grade (see Typical Details).

8. All water lines, before being put into service, shall be disinfected in accordance with the latest edition of AWWA C-502, 3-way post type breakaway, Kennedy K81-1 with two (2) 2-1/2" hose nozzles and one (1) 1-1/2" steamer nozzle. Nozzle threads shall be Roxbury double-start hydrants shall be provided with a 6.5" bury (riser). In all cases, it is the Contractor's responsibility to check with the Public Works Department to determine the location of all hydrants. All hydrants shall be installed. All hydrants shall be set back a minimum of three (3) feet from paved surfaces. In addition, wherever a traffic hazard appears to exist (in the opinion of the Public Works Department), the hydrant shall be protected by a concrete curb and post.

9. Curb boxes shall be Buffalo type with telescoping top and bolt-on caps. All water lines and appurtenances shall be pressure and leak-tested, before being placed into service, in accordance to AWWA Standard C-600. The test pressure shall be 200 psi (+/- 5psi), measured at or near the high end of the line. The test shall be conducted and the test shall be run for two (2) hours. The Public Works Department shall be given at least twenty-four (24) hours notice before the test is to be conducted, and DPW personnel shall witness the test. Allowable leakage shall be computed by the following formula: $Q = 150 \times \sqrt{P} \times D^2$ where Q = leakage in gpm, P = nominal pipe diameter, P=average test pressure (psi gauge). The person(s) conducting the test(s) shall, IN WRITING, certify the results to the Public Works Department.

10. All water lines, before being put into service, shall be disinfected in accordance with the latest edition of AWWA C-651, or as directed by the Public Works Department. Contractor shall install 1" diameter tap in water line for chlorine injection. Tap shall be located as approved by the Public Works Department. The person(s) responsible for disinfection shall certify, in writing, to the Public Works Department that the disinfection procedure was followed and the required minimum results were obtained. Contractor shall be responsible for all sampling and analysis costs. TAP USED FOR CHLORINATION SHALL BE Labeled AS A "UGED PRIOR TO BACKFILL"

11. Water mains, hydrants and curb stops shall be inside city right-of-way.

12. No valves, hydrants, curb stops, etc. shall be operated without prior approval by the Public Works Department.

13. All taps larger than 1" require the use of bronze saddles. SADDLES ARE REQUIRED FOR ALL TAPS LARGER THAN 1".

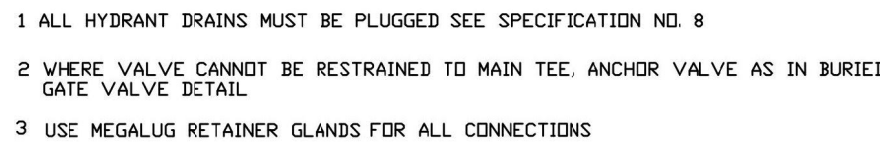
14. All brass unions and adapters shall be low-lead by Cambridge.

15. All corporations and curb stops shall be Cambridge with nitrile gaskets.

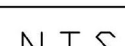
16. 1. Water mains 4" and larger shall be AWWA C900 PVC pipe with a pressure class of 305 psi (R14). Mains 2" or less shall conform to AWWA C901 and be 12" and 18" in diameter. All water mains shall be installed with a pipe (INCLUDING SERVICES) will require a 12 AWG high strength copper clad steel tracer wire with blue insulation fastened directly to the top of pipe with wire tie wraps or electrical tape. This tracer wire shall be a continuous run (no splices) between valves with ends for attaching a locating signal at each valve. All valves shall be located within 500' of each other. If less than 500' no valve boxes are located within 500' of each other, a magnetized tracer box is required. Waterproof splices shall be allowed in valve boxes as per the detail on this sheet. Tracer wire, tracer boxes and wire nuts shall be installed in accordance with the specifications and approved materials. In addition, detectable metallic underground tapping location of buried water line below shall be manufactured by Trumbull Industries or approved equal and buried approx. 2' below finished grade.



- * SUITABLE MATERIAL SHALL CONTAIN NO STONES GREATER THAN 4" IN DIAMETER, NO FREEN LUMPS, AND ONLY MINOR AMOUNTS OF CLAY OR ORGANIC MATERIAL. ALL MATERIAL TO BE PLACED IN MAXIMUM OF 12" LIFTS AND COMPACTED BEFORE PLACING NEXT LIFT.
- * TYPE I MATERIAL SHALL BE EITHER GRAVEL OR EXCAVATED MATERIAL CONTAINING NO STONES GREATER THAN 1 1/2" IN DIAMETER, NO FREEN MATERIAL, NO CLAY, AND NO ORGANIC MATERIAL.
- * TYPE II MATERIAL SHALL BE CLEAN, HARD, CRUSHED OR NATURAL STONE WITH A GRADATION BY WEIGHT OF 100% PASSING A 1 1/2" SQUARE OPENING, NOT MORE THAN 25% PASSING A 3/4" SQUARE OPENING, AND NOT MORE THAN 5% PASSING A 1/2" SQUARE OPENING.
- * TYPE III MATERIAL SHALL BE CLEAN, HARD, CRUSHED STONE FREE FROM COATINGS AND THOROUGHLY WASHED WITH A GRADATION BY WEIGHT OF 100% PASSING A 1" SQUARE OPENING AND 0 TO 35% PASSING A 3/4" SQUARE OPENING.

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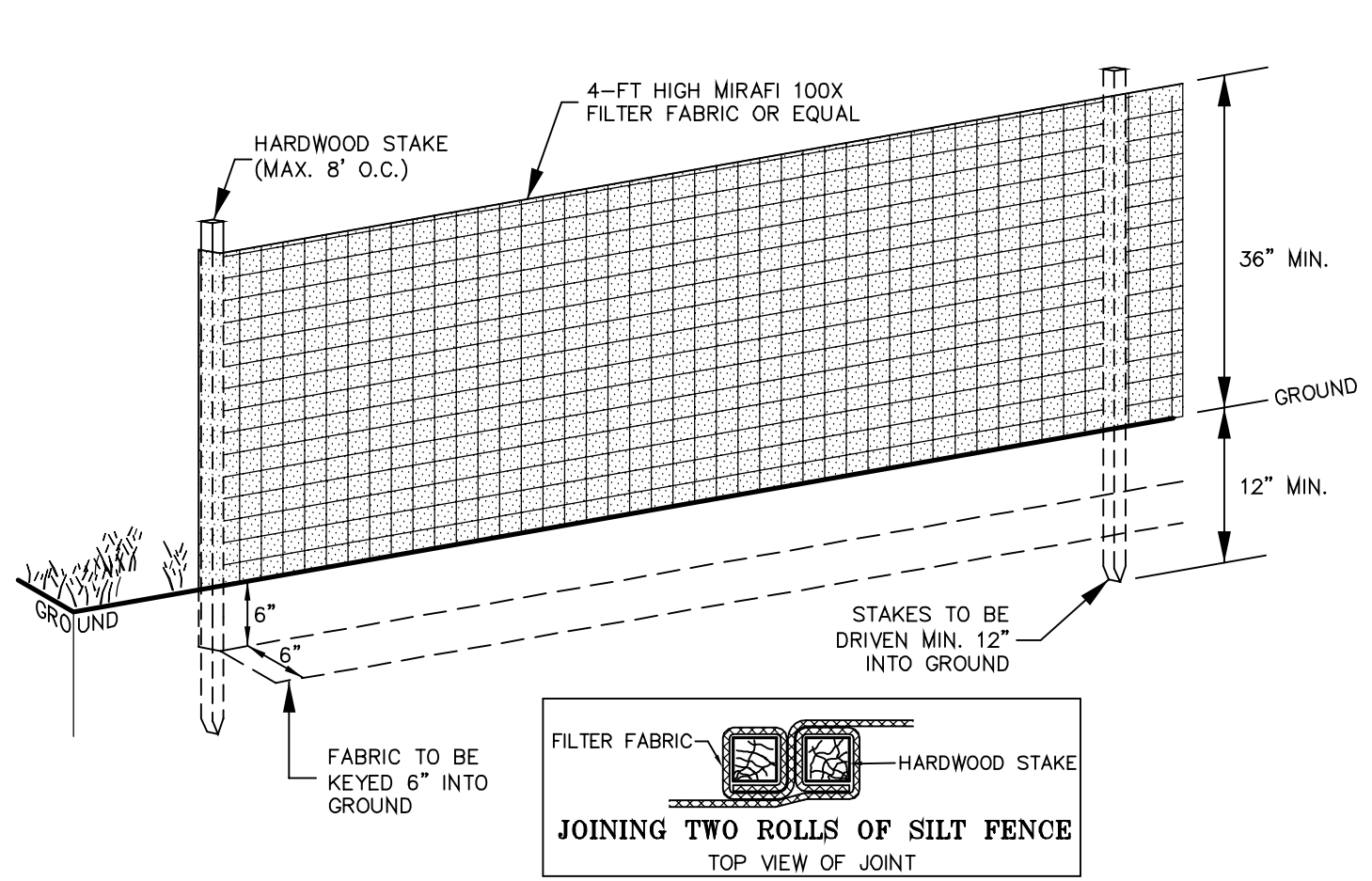
N.T.S.



						DESIGNED: MSL	DRAWING NO. C6
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						CHECKED: SR	
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REV. NO.	DATE	DESCRIPTION	DRAWN	CHECKED		CITY OF BURLINGTON, VT	DATE: 3/20/17

SANITARY & STORM SPECIFICATIONS

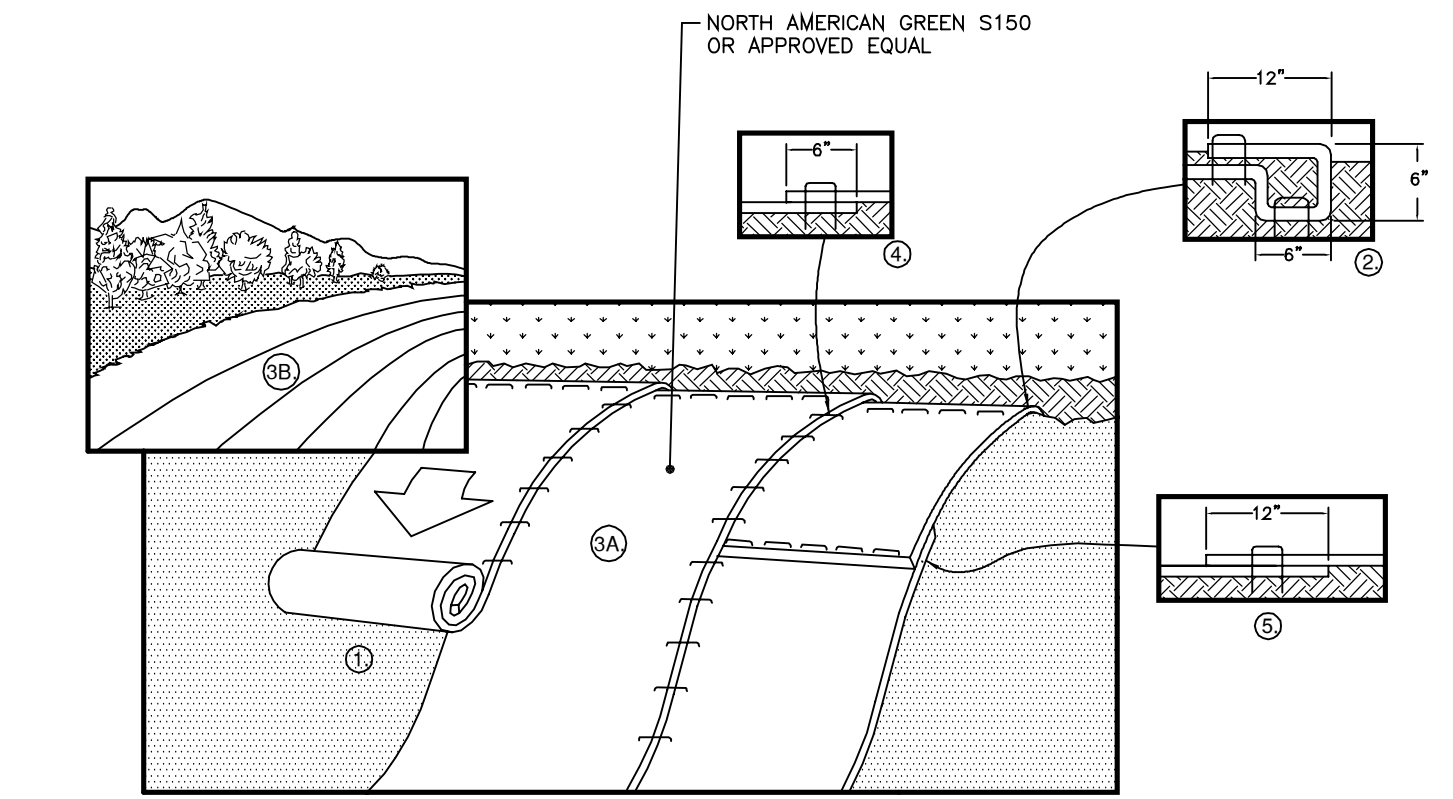
1. THE HORIZONTAL AND VERTICAL SEPARATION FOR SEWER AND WATER LINES SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST EDITION OF THE "TEN STATE STANDARDS - RECOMMENDED STANDARDS FOR WATER WORKS".
2. SANITARY AND STORM SEWER PIPES SHALL BE OF THE SIZE AND TYPE INDICATED ON THE PLANS. PVC PIPE SHALL BE SDR35 CONFORMING TO ASTM D-3034, ASTM D-3212, AND ASTM F-477. CORRUGATED POLYETHYLENE PIPE SHALL CONFORM TO AASHTO M294-90, TYPE S. PERFORATED UNDERDRAIN PIPE SHALL BE PVC SDR35 CONFORMING TO AASHTO M278-87 OR CORRUGATED POLYETHYLENE PIPE WITH SMOOTH INTERIOR WALL CONFORMING TO AASHTO M252-90.
3. ALL GRAVITY SANITARY SEWER PIPE SHALL BE PVC SDR 35 CONFORMING TO ASTM D-3034, ASTM D-3212, AND ASTM F-477. FORCEMAIN SEWER PIPE SHALL BE PVC SDR26.
4. ALL TRENCH FILL SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED TO 95% OF MAXIMUM DENSITY OF OPTIMUM MOISTURE AS DETERMINED BY ASTM D968 STANDARD PROCTOR.
5. ALL NEW GRAVITY SANITARY SEWER MAINS SHALL BE LEAK TESTED BY A LOW PRESSURE AIR TEST AND DEFLECTION TESTED. THE LOW PRESSURE AIR TEST WILL BE USED TO SIMULATE INFILTRATION OR EXFILTRATION INTO OR OUT OF ALL GRAVITY SANITARY SEWERS. ALL TESTING WILL BE CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER. AIR TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM C828-80. THE MINIMUM ALLOWED TIME FOR A PRESSURE DROP FROM 3.5 PSI TO 2.5 PSI SHALL BE 1.2 MINUTES PER 100 FEET OF 8" SEWER. ALL TESTS SHALL BE A MINIMUM OF 3 MINUTES. AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS, THE DEFLECTION TEST SHALL BE PERFORMED. NO PIPE SHALL EXCEED A DEFLECTION OF FIVE PERCENT (5%). IF THE DEFLECTION TEST IN RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. ALL MANHOLE AND PIPELINE MATERIALS, METHODS AND TESTING SHALL BE IN ACCORDANCE WITH TOWN STANDARDS, STATE STANDARDS AND WITH THESE PLANS. ALL TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.
6. ALL SANITARY SEWER MANHOLES SHALL BE TESTED PRIOR TO CONSTRUCTION OF THE INVERT BY THE VACUUM TEST METHOD. THE MINIMUM ALLOWED TIME FOR A VACUUM DROP FROM 10" OF MERCURY TO 9" OF MERCURY SHALL BE 2 MINUTES.
7. ANY SURFACES, LINES, OR STRUCTURES WHICH HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO A CONDITION AT LEAST EQUAL TO THAT IN WHICH THEY WERE FOUND IMMEDIATELY PRIOR TO THE BEGINNING OF CONSTRUCTION.
8. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION OF THE INDIVIDUAL SERVICES WITH THE OWNER AT THE TIME OF CONSTRUCTION.
9. ALL MANHOLES AND PIPELINE MATERIALS, METHODS, AND TESTING SHALL BE IN ACCORDANCE WITH THESE PLANS AND ANY APPLICABLE CITY OR STATE STANDARDS.



- NOTES:
- 1) USE ONLY MANUAL METHODS OF INSTALLATION AND CLEANING WITHIN WETLAND AND BUFFER ZONE.
- 2) PRIOR TO BEGINNING OF CONSTRUCTION OR EARTHMOVING, THE CONTRACTOR SHALL INSTALL A CONTINUOUS SILT FENCE AT THE LIMIT OF DISTURBANCE SHOWN ON THE SITE PLAN.
- 3) FROZEN MATERIAL SHALL NOT BE USED TO KEY IN THE BOTTOM OF THE SILT FENCE. IF NECESSARY, GRANULAR BORROW SHALL BE USED BY THE CONTRACTOR TO KEY IN THE SILT FENCE RATHER THAN FROZEN NATIVE MATERIAL.
- 4) THE CONTRACTOR SHALL INSTALL SILT FENCE AROUND THE PERIMETER OF TOPSOIL STOCKPILES AND AT OTHER LOCATIONS AS NEEDED.

TEMPORARY SILT FENCE

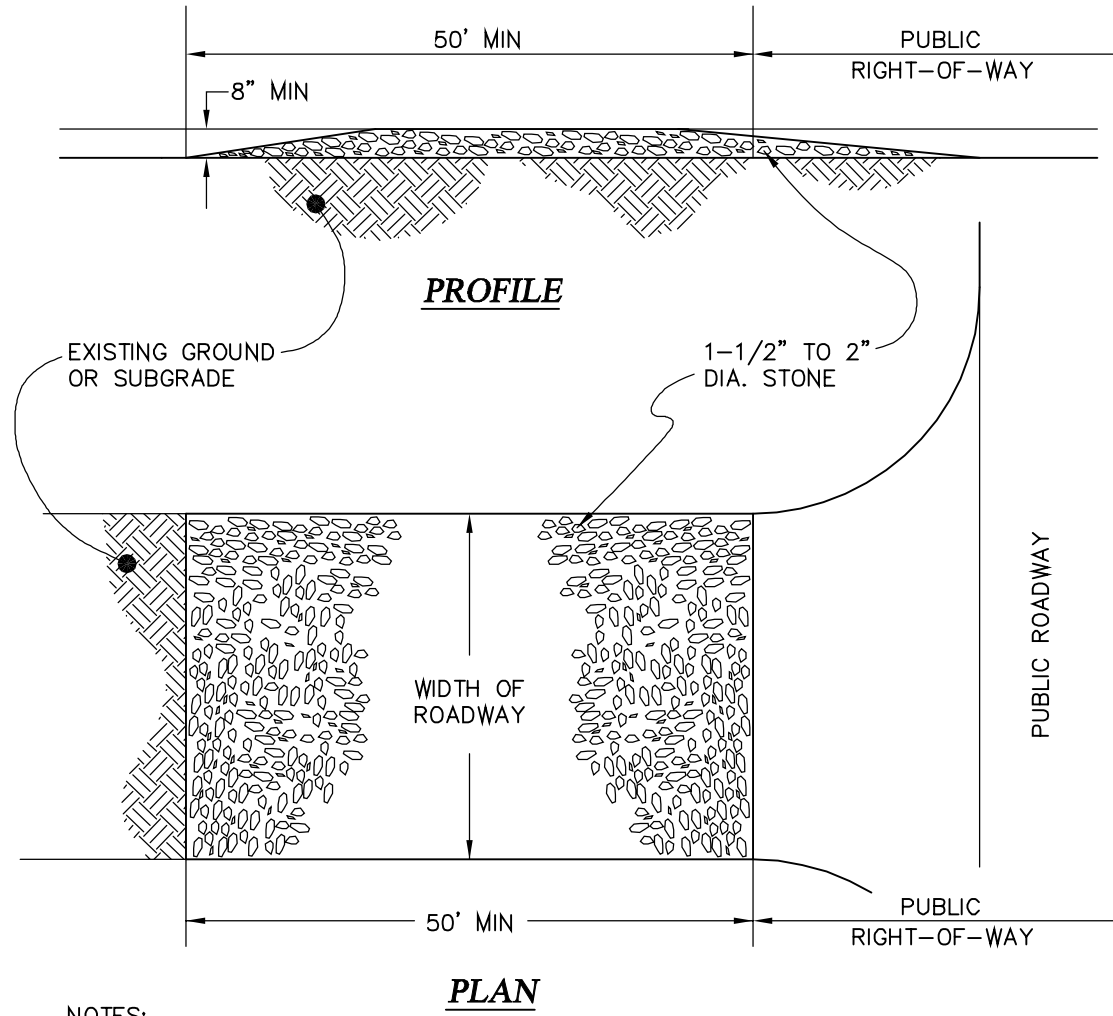
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1. EROSION MATTING WILL BE USED ON SLOPES STEEPER THAN 3H:1V OR AS SHOWN ON THE PLANS.
2. PREPARE SOIL BEFORE INSTALLING MATTING, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. SOIL SURFACE SHALL BE GRADED SMOOTH WITHOUT ROOTS, STONES OR OTHER PROTRUSIONS THAT WILL PREVENT THE MATTING FROM BEING APPLIED IN FULL CONTACT WITH THE SOIL SURFACE.
3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE MATTING IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF MATTING EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE MATTING WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF MATTING BACK OVER SEED AND COMPACTED SOIL. SECURE MATTING OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" PART ACROSS THE WIDTH OF THE MATTING.
4. ROLL THE MATTING (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. INSURE THAT THE APPROPRIATE SIDE OF THE MATTING IS AGAINST THE SOIL SURFACE. ALL MATTING MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE MANUFACTURER'S STAPLE PATTERN GUIDE FOR THE PARTICULAR PRODUCT AND APPLICATION. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE MATTING.
5. THE EDGES OF PARALLEL MATTING MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP DEPENDING ON MATTING TYPE.
6. CONSECUTIVE MATTING SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE - WITH THE UPPER MATTING PLACED OVER THE TOP OF THE LOWER MATTING) WITH AN APPROXIMATE 12" OVERLAP, STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE MATTING WIDTH.

EROSION MATTING FOR SLOPES

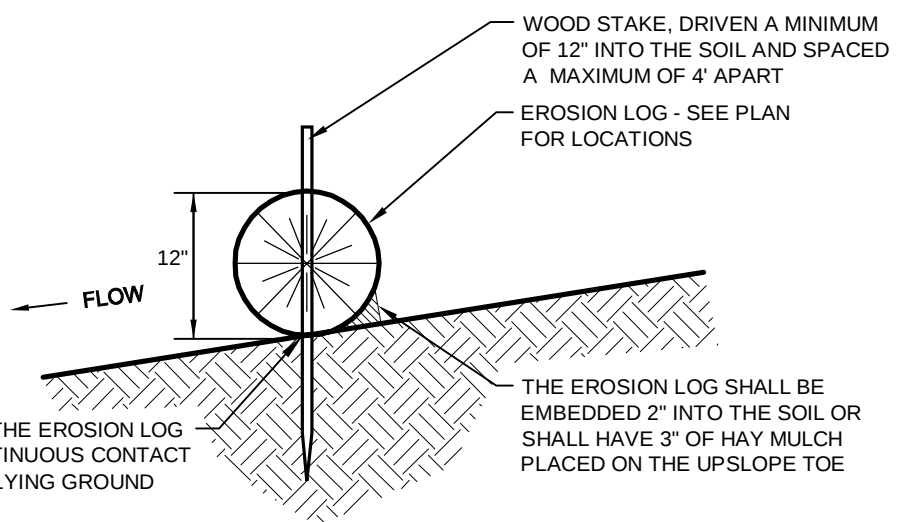
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- NOTES:
1. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT TRACKED, SPILLED, OR WASHED ONTO PAVED STREETS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
2. THE USE OF CALCIUM CHLORIDE OR WATER MAY BE NECESSARY TO CONTROL DUST DURING CONSTRUCTION.
3. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION EXIT AND PUBLIC RIGHT-OF-WAY.

STABILIZED CONSTRUCTION EXIT

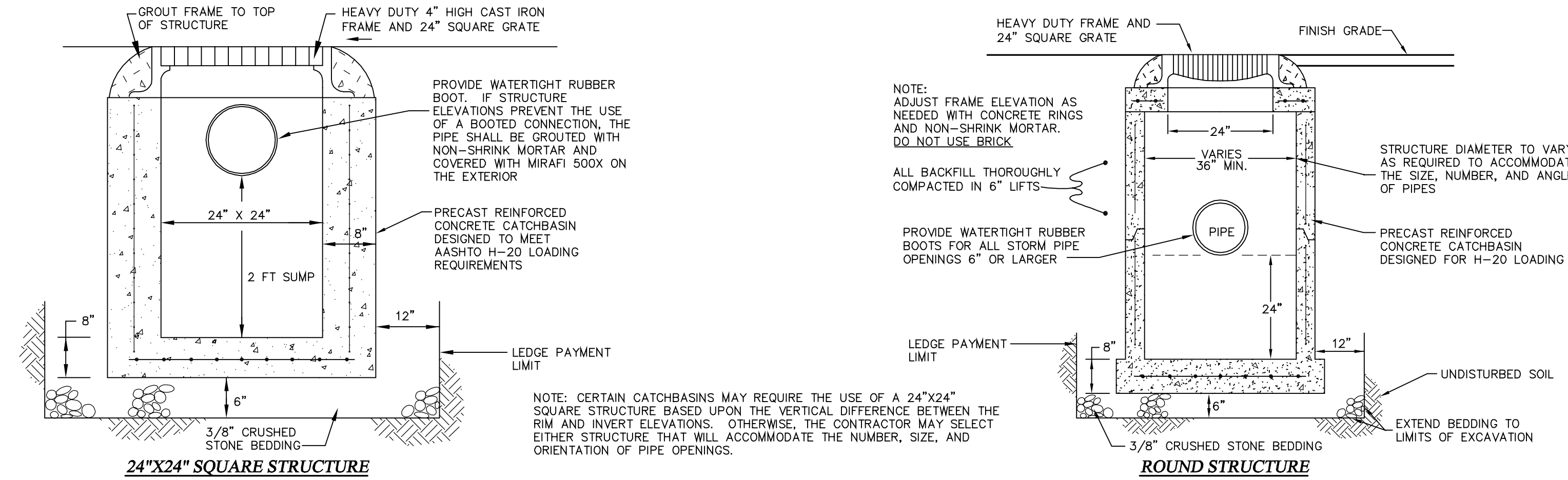
NTS



- NOTES:
1. TIGHTLY ABUT THE ENDS OF THE EROSION LOGS - NO GAPS.
2. INSTALL EROSION LOGS PARALLEL TO CONTOURS AS SHOWN ON THE PLANS.

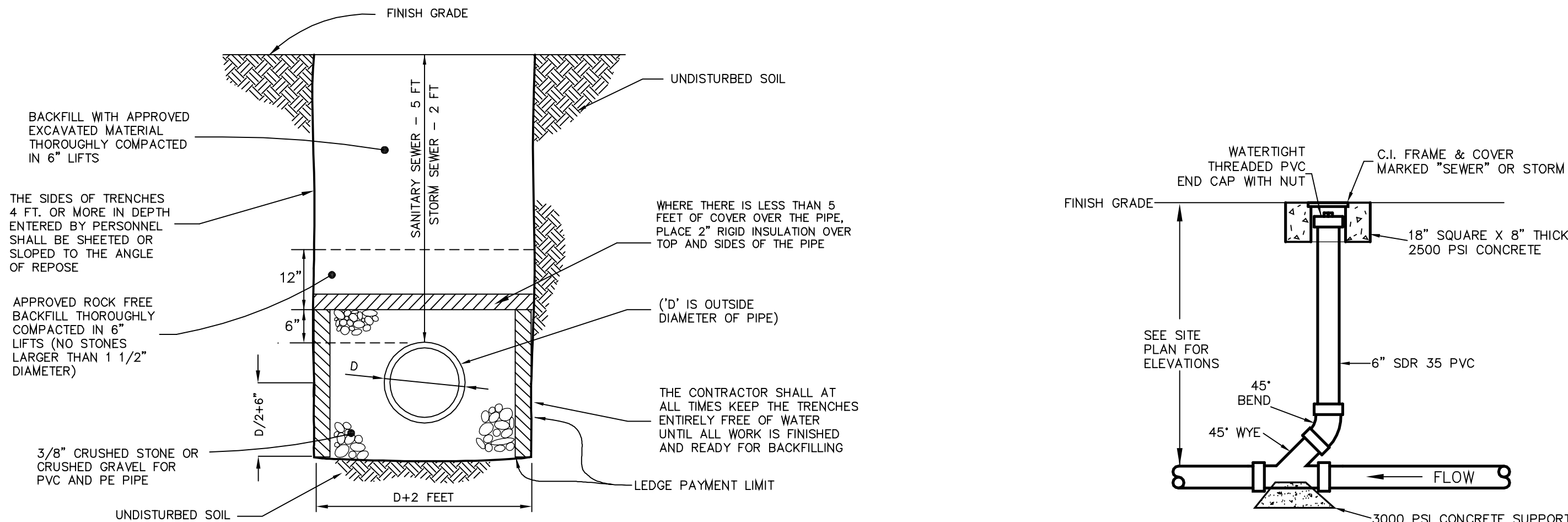
EROSION LOG SECTION

NTS



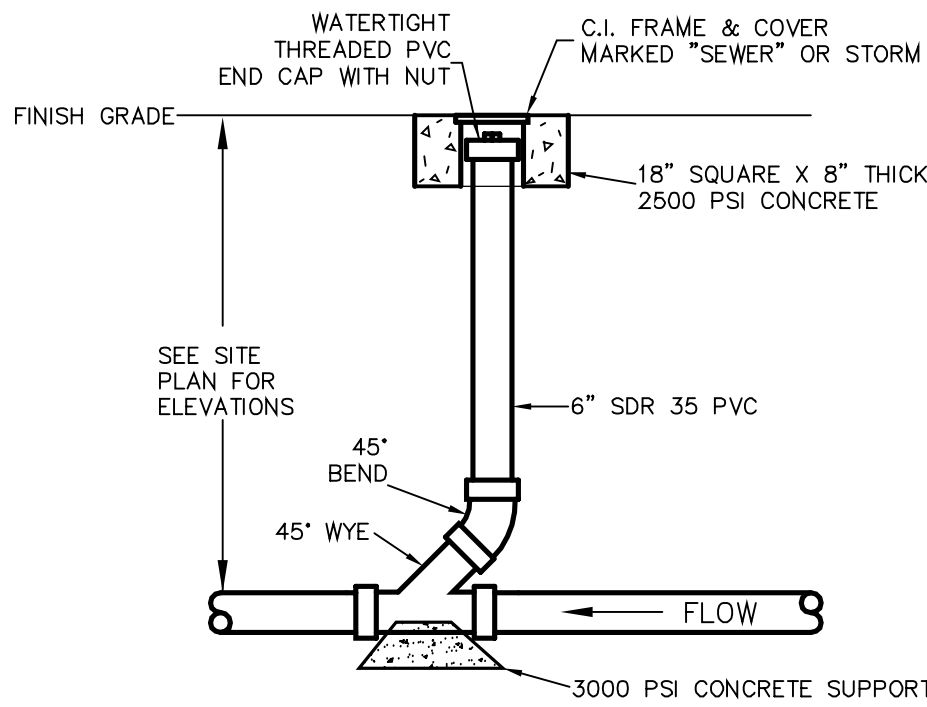
TYPICAL PRECAST CONCRETE CATCHBASIN

NTS



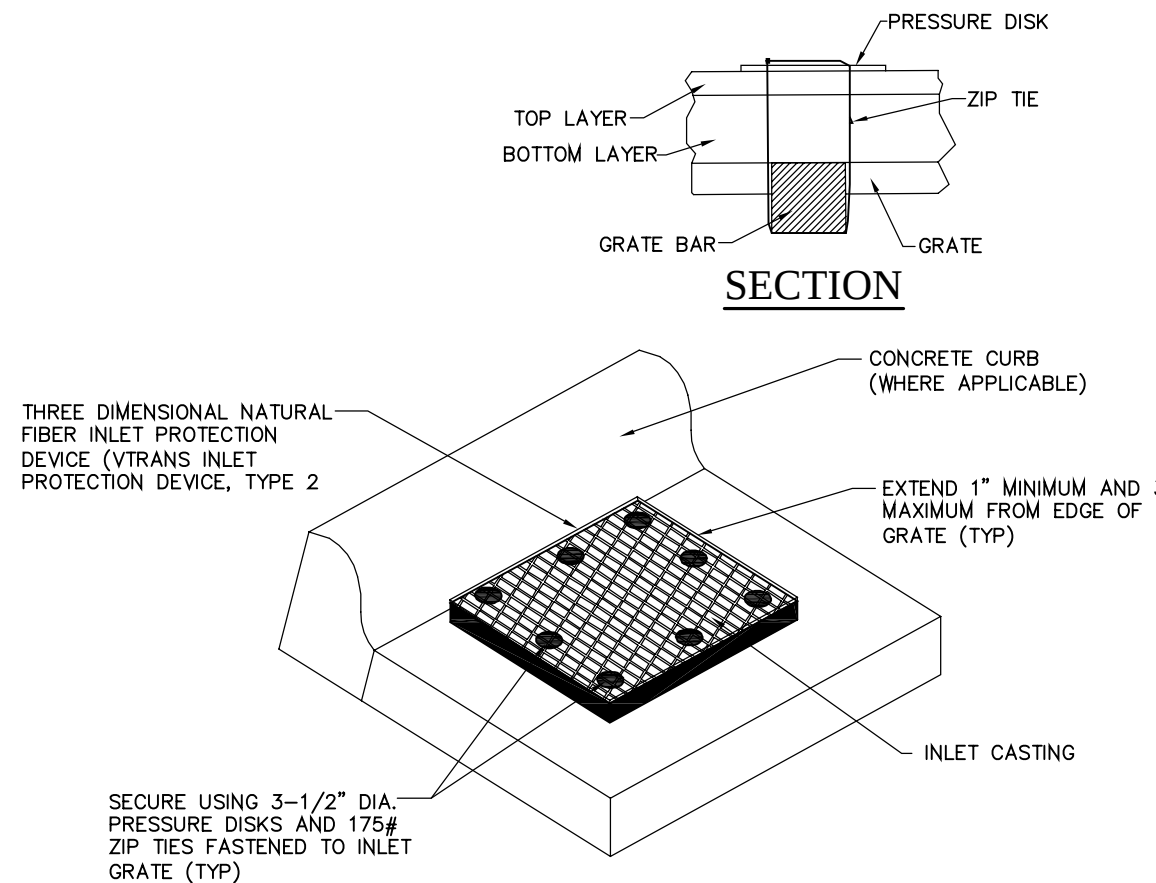
TYPICAL SANITARY SEWER & STORM TRENCH

NTS



TYPICAL CLEANOUT

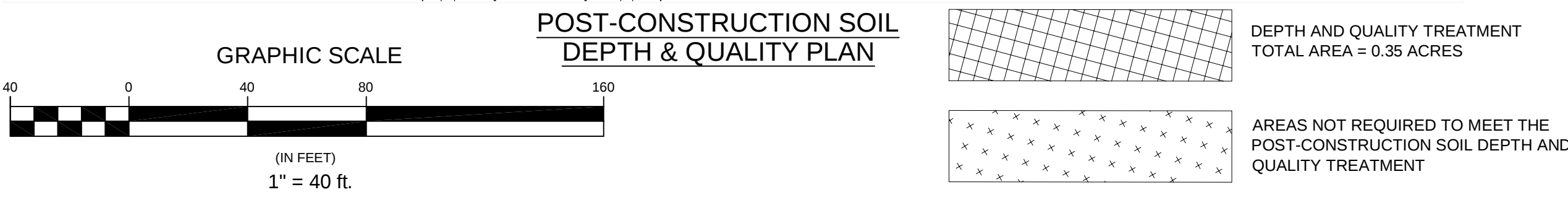
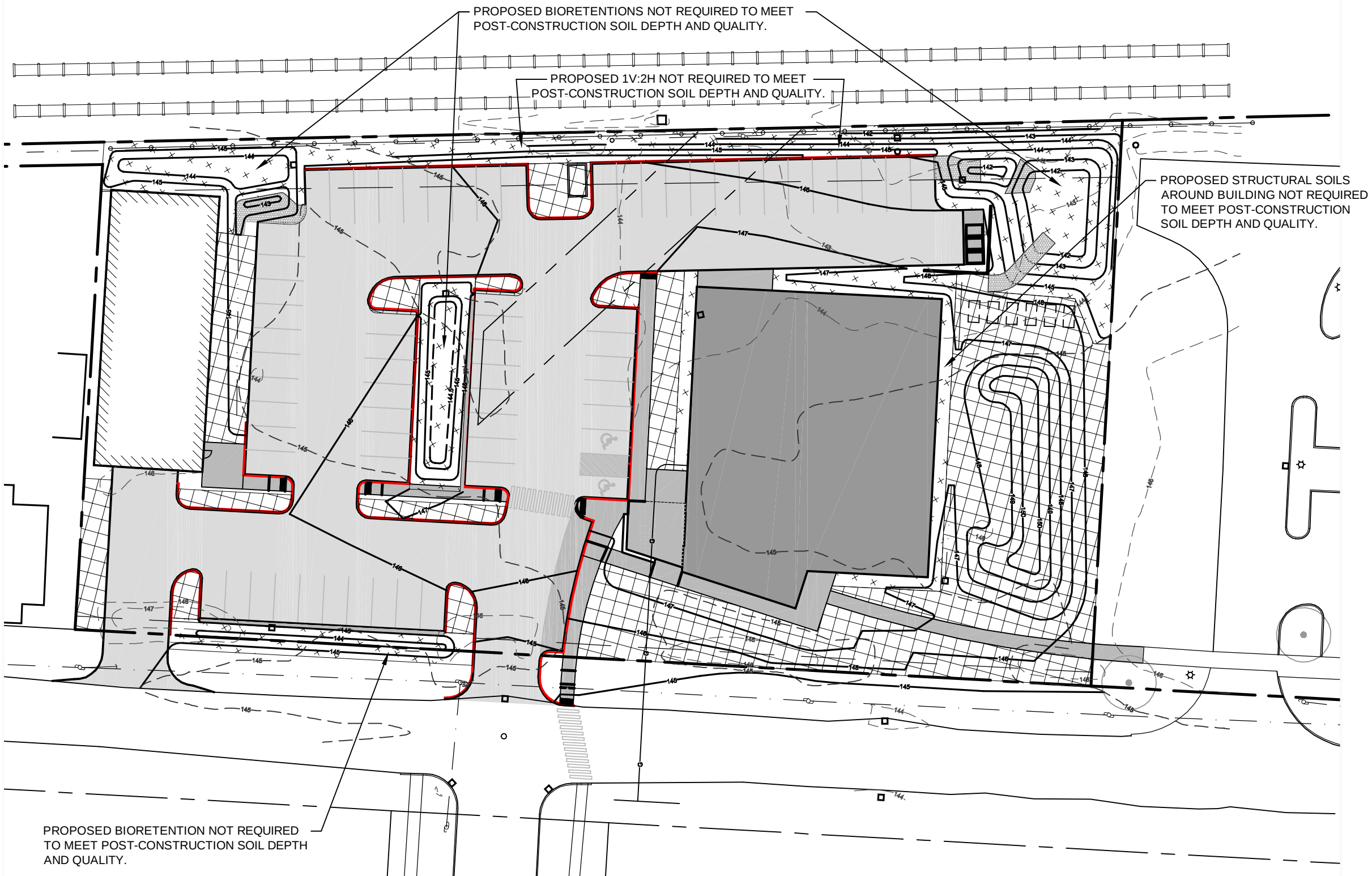
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FLAT TYPE INLET PROTECTION

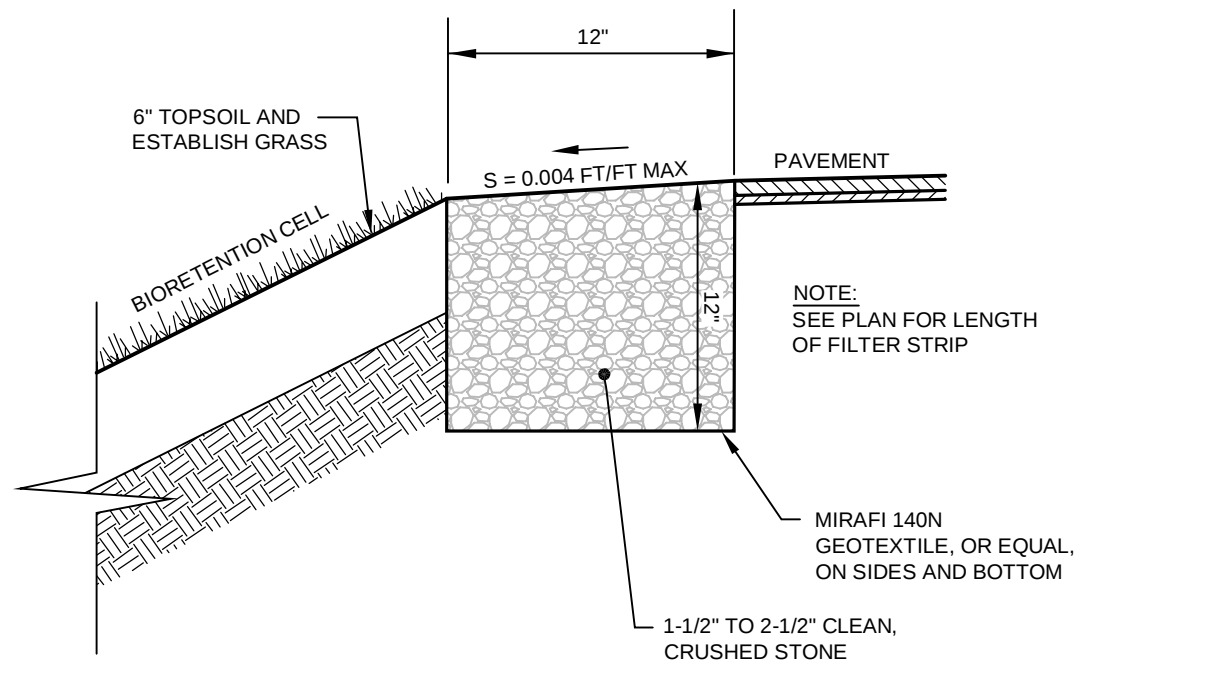
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Date	Revision	By
These plans shall only be used for the purpose shown below:		
☐ Sketch/Concept	☐ Act 250 Review	
☐ Preliminary	☐ Construction	
☒ Final Local Review	☐ Record Drawing	
PETRA CLIFFS		Project No. 17023
75 BRIGGS STREET BURLINGTON, VT 05401		Survey L&D
STORMWATER & EPSC DETAILS		Design ABR
		Drawn L&D
		Checked DJG
		Date 06-21-18
		Scale AS NOTED
		Sheet number
		C7

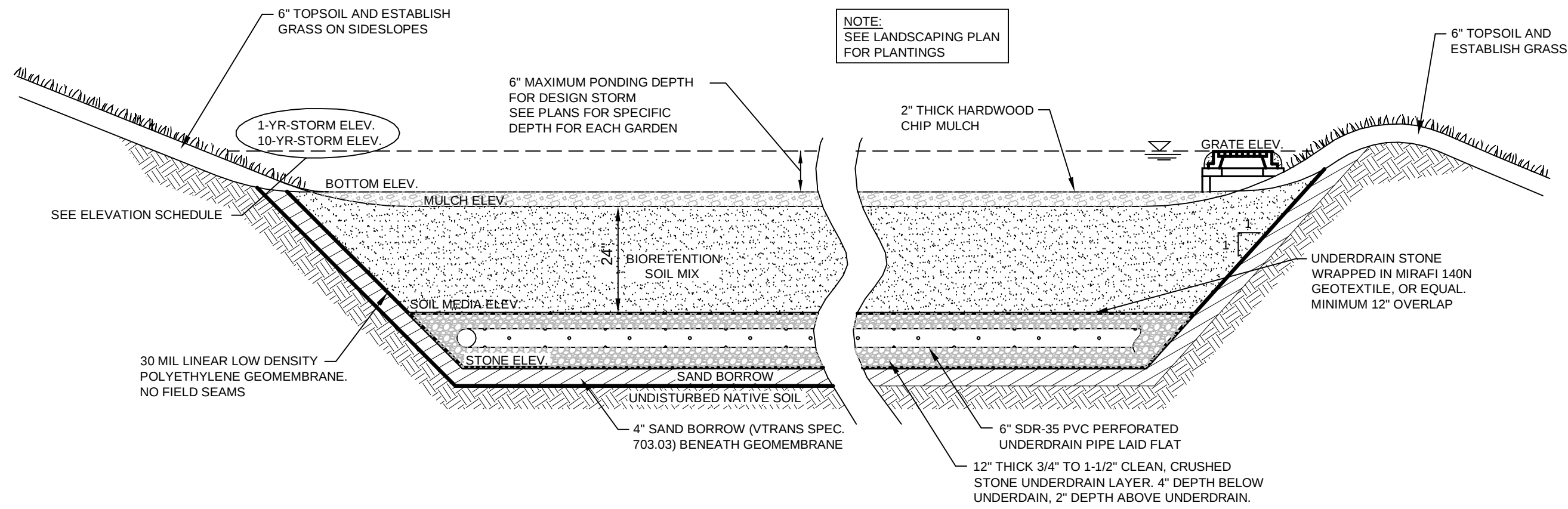


POST-CONSTRUCTION SOIL DEPTH & QUALITY TREATMENT NOTES

- POST-CONSTRUCTION SOIL DEPTH AND QUALITY TREATMENT SHALL CONFORM TO SECTION 3 OF THE "2017 VERMONT STORMWATER MANAGEMENT MANUAL RULE AND DESIGN GUIDANCE". AT A MINIMUM, ALL AREAS IDENTIFIED ON THIS PLAN ARE SUBJECT TO THESE RULES AND THE OUTLINED TREATMENT AS INDICATED BELOW. ANY ADDITIONAL AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING THE COMPACTION OF SOIL DUE TO THE TRACKING OF HEAVY EQUIPMENT, ARE ALSO SUBJECT TO THE STANDARDS.
- TOPSOIL SHALL CONTAIN A MINIMUM OF 4% DRY WEIGHT ORGANIC MATTER, AND SHALL BE PLACED A MINIMUM OF 4" OF DEPTH AS INDICATED ON THE PLANS.
- THE COMPOST USED TO MEET ORGANIC REQUIREMENTS SHALL CONSIST OF THE FOLLOWING:
 - A CARBON TO NITROGEN RATIO BELOW 25:1.
 - COMPOST SHALL MEET THE DEFINITION OF "COMPOST" IN THE AGENCY'S SOLID WASTE MANAGEMENT RULES OR THE CONTAINMENT STANDARDS IN THE VERMONT SOLID WASTE MANAGEMENT RULES §6-1104(g)(6-7), §6-1105(e)(8-9), AND §6-1106(e)(7-9).
 - A MAXIMUM OF 35% OF THE TOTAL SOIL VOLUME MAY CONTAIN EXCEPTIONAL QUALITY BIOSOLIDS AMENDMENTS, AND SHALL BE WELL MIXED.
- THE SOIL QUALITY REQUIREMENTS SHALL BE MET BY USING THE FOLLOWING METHOD:
 - IMPORT TOPSOIL MIX, OR OTHER MATERIALS FOR MIXING, INCLUDING COMPOST, OF SUFFICIENT ORGANIC CONTENT AND DPETH.
 - SCARIFY OR TILL SUBGRADE TO A DEPTH OF 4 INCHES. EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION.
 - PLACE 4 INCHES OF IMPORTED TOPSOIL MIX ON SURFACE. THE IMPORTED TOPSOIL MIX SHALL CONTAIN 4% ORGANIC MATTER. SOILS USED IN THE MIX SHALL BE SAND OR SANDY LOAM AS DEFINED BY THE USDA.
 - RAKE BEDS TO SMOOTH AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER; AND WATER OR ROLL TO COMPACT SOIL IN TURF AREAS TO 85% OF MAXIMUM DRY DENSITY.
- SOIL DEPTH SHALL BE ESTABLISHED AT THE END OF CONSTRUCTION AND ALL AREAS IDENTIFIED SHALL BE PROTECTED FROM COMPACTION.
- TEST HOLES SHALL BE PERFORMED BY THE CONTRACTOR BY USING A SHOVEL DRIVEN SOLELY BY THE CONTRACTORS WEIGHT. THE TEST HOLES SHALL BE 8" IN DEPTH AND USED BY THE CONTRACTOR FOR SELF VERIFICATION THAT ALL REQUIREMENTS OF THE POST-CONSTRUCTION SOIL DEPTH AND QUALITY PLAN HAVE BEEN MET.
- TEST HOLES SHALL BE PERFORMED IN LOCATIONS NOTED ON THIS PLAN OR AS SELECTED BY THE CONTRACTOR. TEST HOLES SHALL BE SPACED AT A MINIMUM OF 50' APART. THE CONTRACTOR SHALL PROVIDE NINE (9) TEST HOLES PER ACRE OF IDENTIFIED AREA SUBJECT TO THE POST-CONSTRUCTION SOIL DEPTH AND QUALITY TREATMENT.
- A DENSE AND VIGOROUS VEGETATIVE COVER SHALL BE ESTABLISHED OVER ALL TURF AREAS. SEE LANDSCAPING PLAN FOR ADDITIONAL NOTES, PLANTING SCHEDULE AND SEEDING SPECIFICATIONS.



PRE-TREATMENT FILTER STRIP
NTS



BIORETENTION SECTION
NTS

BIORETENTION - EROSION PREVENTION AND SEDIMENT CONTROL SEQUENCING

- INSTALL SILT FENCE AND/OR OTHER APPROPRIATE TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM ENTERING THE BIORETENTION DURING CONSTRUCTION.
- RUNOFF SHALL NOT BE DIRECTED INTO THE BIORETENTION FACILITY UNTIL:
 - ALL UPGRADIENT CONTRIBUTING AREAS HAVE BEEN PERMANENTLY STABILIZED.
 - THE BIORETENTION FACILITY IS COMPLETE AND ALL AREAS SUBJECT TO RUNOFF HAVE BEEN PERMANENTLY STABILIZED.
- REMOVE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL DEVICES AFTER THE BIORETENTION IS PLACED ONLINE AND IS RECEIVING RUNOFF.
- IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BIORETENTION, THE SEDIMENT AND ALL CONTAMINATED MATERIAL (SUCH AS MULCH OR SOIL MIX) SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

BIORETENTION - GENERAL CONSTRUCTION SPECIFICATIONS

- THE BIORETENTION SHALL BE EXCAVATED TO THE DIMENSIONS, SIDE SLOPES, AND ELEVATIONS SHOWN ON THE DRAWINGS. THE METHOD OF EXCAVATION SHALL MINIMIZE THE COMPACTION OF THE SUBGRADE SOIL WITHIN THE FOOTPRINT OF THE BIORETENTION AREA.
- THE BIORETENTION SOIL MIXTURE SHALL BE PLACED AND GRADED USING LOW GROUND CONTACT PRESSURE EQUIPMENT. TO THE EXTENT POSSIBLE, WORK SHALL BE PERFORMED BY EQUIPMENT OPERATING ON THE ADJACENT SLOPES.
- ALL WORK RELATED TO PLACEMENT OF MULCH AND PLANT INSTALLATION SHALL BE ACCOMPLISHED WITH METHODS AND EQUIPMENT THAT DO NOT RESULT IN FURTHER COMPACTION OF THE BIORETENTION SOIL MIX.

BIORETENTION - MATERIAL SPECIFICATIONS:

HARDWOOD CHIP MULCH
MULCH SHALL CONSIST OF RAW WOOD MATERIAL FROM ONLY HARDWOOD TIMBER AND SHALL BE A PRODUCT OF A MECHANICAL CHIPPER, HAMMERMILL, OR TUB GRINDER. MULCH CONSISTING OF SOFTWOOD TIMBER, MANUFACTURED BOARDS, AND/OR CHEMICALLY TREATED WOOD IS UNACCEPTABLE. THE MATERIAL SHALL BE UNIFORM IN COLOR AND SUBSTANTIALLY FREE OF MOLD, DIRT, SAWDUST, WEEDS, SEED AND FOREIGN MATERIAL. THE MATERIAL SHALL BE AGED A MINIMUM OF 12 MONTHS, BUT SHALL NOT BE IN AN ADVANCED STATE OF DECOMPOSITION.

THE MULCH MATERIAL, WHEN DRIED, SHALL ALL PASS A FOUR (4) INCH SCREEN AND NOT MORE THAN 20 PERCENT BY MASS SHALL PASS A ONE TENTH (0.1) INCH SCREEN. GRASS CLIPPINGS ARE UNSUITABLE FOR MULCH.

BIORETENTION SOIL MIX
THE BIORETENTION SOIL SHALL CONSIST OF USDA SAND TO LOAMY SAND CLASSIFICATION, OR A WELL BLENDED, HOMOGENOUS MIXTURE OF THE FOLLOWING COMPONENTS:

SAND	85-98%
SILT	9-12%
CLAY	0-2%
*ORGANICS	3-5%

*ORGANICS SHOULD CONSIST OF COMPOST THAT MEETS THE DEFINITION OF "COMPOST" IN THE AGENCY'S SOLID WASTE MANAGEMENT RULES OR THE CONTAINMENT STANDARDS IN THE VERMONT SOLID WASTE MANAGEMENT RULES §6-1104(g)(6-7), §6-1105(e)(8-9), AND §6-1106(e)(7-9).

THE BIORETENTION SOIL MIX SHALL BE FREE OF STONES, STUMPS, OR ROOTS LARGER THAN TWO (2) INCHES IN ANY DIMENSION. THE SOIL MIX SHALL BE FREE OF NOXIOUS WEEDS

EACH BIORETENTION SOIL MIX MATERIAL COMPONENT SHALL HAVE THE FOLLOWING PROPERTIES:

TOPSOIL: SANDY LOAM OR LOAMY SAND TEXTURE PER USDA TEXTURAL TRIANGLE, HAVING LESS THAN 5% CLAY CONTENT.

COMPOST: SHALL BE FREE OF WEED SEEDS AND COMPLY WITH EPA REQUIREMENTS FOR COMPOST. THE COMPOST SHALL HAVE A LOOSE AND GRANULAR TEXTURE. THE COMPOST SHALL POSSESS NO OBJECTIONABLE ODORS AND SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT WAS DERIVED.

BIORETENTION MONITORING AND MANAGEMENT				
WHAT TO LOOK FOR	PROBLEMS	YES/NO	POSSIBLE CAUSES	ACTIONS
AESTHETICS	ARE WEEDS PRESENT?	YES	YOUNG PLANTS HAVE NOT YET COVERED THE GROUND.	REMOVE WEEDS. IRRIGATE IF NECESSARY TO INCREASE VIGOR OF DESIRED SPECIES. REPLACE ANY PLANTS THAT ARE MISSING BECAUSE OF MORTALITY. APPLY A THIN LAYER OF WOOD CHIP MULCH OVER ANY BARE SOIL.
		NO	THERE ARE NEARBY SOURCES OF WEED SEEDS.	REMOVE SEED SOURCES.
	IS THE PLANTING ATTRACTIVE?	YES		CHECK AGAIN NEXT TIME.
		NO	THE MIX OF SPECIES HAS DEVIATED FROM ORIGINAL DESIGN.	CHECK AGAIN NEXT TIME.
LOSS OF SPECIES DIVERSITY	HAS MORTALITY CAUSED THE DISAPPEARANCE OF SPECIES?	YES	THE ADAPTATIONS OF THE PLANT SPECIES DO NOT MATCH THE HYDROLOGY.	CONTACT DESIGNER TO ASSESS HYDROLOGY AND SUITABILITY OF SPECIES. INSTALL RECOMMENDED SPECIES TO FILL GAPS.
		NO		CHECK AGAIN NEXT TIME.
	DO PLANTS EXHIBIT LOW VIGOR?	YES	THE SOIL HAS INADEQUATE NUTRIENTS.	COLLECT AND SUBMIT SOIL SAMPLES FOR ANALYSIS. CORRECT NUTRIENT DEFICIENCIES OR IMBALANCES. BECAUSE RAIN GARDEN PLANTS DO NOT HAVE HIGH NUTRIENT REQUIREMENTS, BE CONSERVATIVE WITH FERTILIZER APPLICATION.
		NO	SOIL pH IS OUT OF THE ACCEPTABLE RANGE.	COLLECT AND SUBMIT SOIL SAMPLES FOR ANALYSIS. CORRECT pH LEVEL USING SULFUR OR GROUND LIMESTONE, AS PRESCRIBED.
HEALTH OF PLANTS	PLANTS ARE NOT ADAPTED TO THE HYDROLOGY OF THE RAIN GARDEN.	YES	PLANTS ARE NOT ADAPTED TO THE HYDROLOGY OF THE RAIN GARDEN.	CONTACT DESIGNER TO ASSESS HYDROLOGY AND MAKE RECOMMENDATIONS FOR MORE SUITABLE SPECIES. INSTALL RECOMMENDED SPECIES.
		NO	SUBSTANCES TOXIC TO PLANTS HAVE ENTERED THE RAIN GARDEN.	CONTACT DESIGNER TO ASSESS PLANT AND SOIL SYMPTOMS AND DEVELOP STRATEGY FOR ADDRESSING TOXINS.
	ARE PLANTS OVERLY VIGOROUS OR FALLING OVER?	YES	THE SOIL HAS EXCESSIVE NUTRIENTS.	FERTILIZER SHOULD NEVER BE APPLIED TO A RAIN GARDEN UNLESS THE NEED IS DEMONSTRATED. CHECK THE CONTRIBUTING WATERSHED FOR SOURCES OF EXCESS NUTRIENTS AND REMOVE IF POSSIBLE. ASSESS SPECIES SUITABILITY IN LIGHT OF HIGH NUTRIENT LEVELS.
		NO		CHECK AGAIN NEXT TIME.
BIORETENTION FUNCTION	ARE ONE OR MORE SPECIES ENCRANCHING ON OTHERS?	YES	CONDITIONS ARE IDEAL FOR THE OVERLY VIGOROUS SPECIES.	IN EARLY SUMMER, CUT STEMS OF THE OVERLY VIGOROUS PLANTS TO THE GROUND WHERE THEY ENCRANCH ON NEARBY SPECIES. CONTINUED ISSUES MAY REQUIRE THAT THE EXCESS PLANT CROWNS BE DUG OUT.
		NO	SPECIES THAT ARE BEING CROWDED OUT ARE NOT WELL SUITED TO THE SOIL OR HYDROLOGY.	CONTACT THE DESIGNER TO ASSESS THE SUITABILITY OF THE LOW-VIGOR SPECIES AND MAKE RECOMMENDATIONS.
	IS STANDING WATER ABSORBED WITHIN 48 HOURS AFTER A RAIN EVENT?	YES	INLET IS BLOCKED.	CHECK AGAIN NEXT TIME.
		NO	OUTLET DRAIN IS BLOCKED.	CLEAR OR UNLOC DRAIN.
ACCUMULATION OF PLANT DEBRIS	IS BIORETENTION RARELY INUNDATED OR INUNDATED FOR ONLY SHORT PERIODS OF TIME?	YES	SOIL IS NOT PERMEABLE ENOUGH.	CONTACT DESIGNER TO ASSESS INFILTRATION RATE AND DEVELOP STRATEGY TO IMPROVE IT.
		NO	EXCESSIVE WATER IS BEING DIRECTED INTO RAIN GARDEN.	CONTACT DESIGNER TO INVESTIGATE WATER FLOW AND DEVELOP PLAN TO MODIFY INLET IF NECESSARY.
	IS BIORETENTION RARELY INUNDATED OR INUNDATED FOR ONLY SHORT PERIODS OF TIME?	YES	INLET IS BLOCKED.	CLEAN DEBRIS FROM INLET.
		NO	ADEQUATE WATER IS NOT FLOWING TOWARDS INLET.	MODIFY THE INLET OR FLOW PATHS OVER CONTRIBUTING IMPERVIOUS SURFACES.
IS EROSION, SEDIMENTATION, OR BARE SOIL PRESENT?	IS EROSION, SEDIMENTATION, OR BARE SOIL PRESENT?	YES	OUTLET STRUCTURE IS LEAKING BELOW THE RIM.	REPAIR THE OUTLET STRUCTURE.
		NO		CHECK AGAIN NEXT TIME.
	DOES BIORETENTION VEGETATION ATTRACT BIRDS AND POLLINATORS?	YES	GAPS BETWEEN PLANTS ARE NOT STABILIZED BY ROOTS.	CONTACT DESIGNER TO EVALUATE WHETHER MORE OR ALTERNATIVE SPECIES ARE NECESSARY TO STABILIZE SOIL. INSTALL ADDITIONAL PLANTINGS.
		NO	OTHER INFLOW(S) OF WATER BESIDES THE PLANNED ONE EXPOSES SOIL TO EROSION.	BLOCK THE EXTRA INFLOW OR ARMOR THE ROUTE OF INFLOW WITH STONES TO KEEP SOIL IN PLACE.
IS THERE A SUBSTANTIAL AMOUNT OF DEAD STEMS PRESENT?	IS THERE A SUBSTANTIAL AMOUNT OF DEAD STEMS PRESENT?	YES	SEDIMENT IS BEING CARRIED WITH RUN-OFF INTO THE RAIN GARDEN.	STABILIZE OR REMOVE SEDIMENT SOURCE. DETERMINE THE CAUSE AND PREVENT IT FROM HAPPENING. REPLACE ANY MISSING PLANTS AS SOON AS POSSIBLE. MULCH WITH A THIN LAYER OF WOOD CHIPS.
		NO		CHECK AGAIN NEXT TIME.
	IS THERE A SUBSTANTIAL AMOUNT OF DEAD STEMS PRESENT?	YES	NOT ENOUGH OF THE RIGHT KINDS OF PLANTS ARE PRESENT.	CONTACT DESIGNER TO INVENTORY SPECIES AND MAKE RECOMMENDATION FOR SUPPLEMENTING WITH ONES THAT ARE MORE BENEFICIAL. INSTALL NEW PLANTS.
		NO	FLOWERS ARE NOT BLOOMING AT THE PROPER TIME TO BENEFIT DESIRED SPECIES.	ADD MORE FUNCTIONAL SPECIES.
IS THERE A SUBSTANTIAL AMOUNT OF DEAD STEMS PRESENT?	IS THERE A SUBSTANTIAL AMOUNT OF DEAD STEMS PRESENT?	YES	THE END OF THE GROWING SEASON RESULTS IN DEAD HERBACEOUS STEMS.	LEAVE STEMS STANDING OVER THE WINTER TO PROVIDE SEEDS AND COVER FOR BIRDS. PROTECTION FOR SOIL. CUT DEAD STEMS TO 6 - 12" ABOVE THE SOIL IN LATE APRIL. REMOVE STEMS FROM RAIN GARDEN.
		NO	SHRUB STEMS LOSE VIGOR WITH AGE.	AFTER SHRUBS HAVE REACHED MATURITY, REJUVENATE BY PERIODICALLY PRUNING AWAY LESS VIGOROUS STEMS, CLEARLY CUTTING AT GROUND LEVEL. RETAIN ADEQUATE TOP GROWTH TO SUPPORT ROOTS.
	IS THERE A SUBSTANTIAL AMOUNT OF DEAD STEMS PRESENT?	YES		CHECK AGAIN NEXT TIME.
		NO		CHECK AGAIN NEXT TIME.

Date	Revision	By
These plans shall only be used for the purpose shown below:		
☐ Sketch/Concept	☐ Act 250 Review	
☐ Preliminary	☐ Construction	
☒ Final Local Review	☐ Record Drawing	
PETRA CLIFFS		Project No. 17023
75 BRIGGS STREET BURLINGTON, VT 05401		Survey L&D
		Design ABR
		Drawn L&D
STORMWATER DETAILS		Checked DJG
		Date 06-21-18
Lamoureux & Dickinson Consulting Engineers, Inc. 14 Morse Drive, Essex, VT 05452 802-878-4450 www.LDengineering.com		Scale AS NOTED
		Sheet number C8

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NO.	DESCRIPTION	DATE
I	PLANTING PLAN REVISION	07.02.2018

PETRA CLIFFS

75 BRIGGS STREET,
BURLINGTON, VERMONT

PLANTING PLAN

JOB NO. 807
SCALE: 1/16"=1'-0"
DRAWN BY: AH
DATE: 06.20.2018

L200

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PLANT SCHEDULE

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
-----	------	-----------------	-------------	------	---------

DECIDUOUS & EVERGREEN TREES

AF	8	Acer freemanii 'Autumn Blaze'	FREEMAN MAPLE	2.5"-3" Cal.	SEE PLAN
BN1	3	Betula Nigra 'Heritage'	HERITAGE RIVER BIRCH	2"-2.5" Cal.	SEE PLAN
BN2	2	Betula Nigra 'Heritage' (Multi-stem)	HERITAGE RIVER BIRCH	10'-12' Ht.	SEE PLAN
GT	7	Gleditsia tricanthus 'Shademaster'	HONEY LOCUST	2.5"-3" Cal.	SEE PLAN
QB1	3	Quercus bicolor	SWAMP WHITE OAK	2.5"-3" Cal.	SEE PLAN
TO	10	Thuja occidentalis 'Pyramidalis'	EASTERN ARBORVITAE	8'-10' Ht.	SEE PLAN
UA	3	Ulmus americana 'Princeton'	AMERICAN ELM	2.5"-3" Cal.	SEE PLAN

SHRUBS

AG	7	Amelanchier grandiflora 'Autumn Brilliance'	SERVICEBERRY (Multi-stem)	#3	SEE PLAN
CS	16	Cornus stolonifera 'Pucker Up!'	DWARF RED-TWIG DOGWOOD	#3	3' O.C.
HV	3	Hamamelis vernalis	VERNAL WITCHHAZEL	#3	3' O.C.
IVB	7	Ilex verticillata 'Berry Poppins'	DWARF WINTERBERRY (female)	#3	3' O.C.
IVM	2	Ilex verticillata 'Mr. Poppins'	DWARF WINTERBERRY (male)	#3	3' O.C.
PO	11	Physocarpus opulifolius 'Ruby Spice'	NINEBARK	#3	4' O.C.

ORNAMENTAL GRASSES & PERENNIALS

CA	48	Calamagrostis x acutiflora 'Karl Foerster'	FEATHER REED GRASS	#1	24" O.C.
HH	35	Hemerocallis 'Hyperion'	DAYLILY	#1	18" O.C.
NF	11	Nepeta faassenii Blue Wonder'	CATMINT	#1	18" O.C.
PA	21	Perovskia atriplicifolia	RUSSIAN SAGE	#1	18" O.C.
PV	80	Panicum variegatum 'Shenandoah'	SWITCHGRASS	#1	24" O.C.

* NO MOW SEED MIX - RED FESCUE - 14,895 SF

BIORETENTION BASINS & BIOSWALES

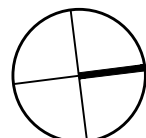
AT	X	Asclepias tuberosa	BUTTERFLY WEED	PLUGS	12" O.C.
CP	X	Carex pennsylvanica	PENNSYLVANIA SEDGE	PLUGS	8" O.C.
CV	X	Carex vulpinoidea	FOX SEDGE	PLUGS	12" O.C.
EP	X	Eupatorium dubium 'Phantom'	DWARF JOE PYE WEED	PLUGS	12" O.C.
OS	X	Onoclea sensibilis	SENSITIVE FERN	PLUGS	12" O.C.
IV	X	Iris versicolor	NORTHERN BLUE FLAG	PLUGS	12" O.C.
JE	X	Juncus effusus	SOFT RUSH	PLUGS	12" O.C.
RF	X	Rudbeckia fulgida sullivantii 'Goldstrum'	BLACK-EYED SUSAN	PLUGS	12" O.C.

* WET MEADOW SEED MIX - TO BE DETERMINED - 5,650 SF

PLANTING NOTES

- All plant material in the plant schedule shall be nursery grown in accordance with ANSI in accordance with Z.60.1 Standards for measurement of nursery stock.
- All plants shall be guaranteed by the Contractor for a period of one year from date of receipt of Provisional Acceptance of the completed installation by the Owner.
- Replacement plantings will be required prior to Final Acceptance for any plants which are missing, not true to specifications, have died or are unhealthy or uncharacteristic of the species (due to excessive pruning, dieback or other reasons).
- All plant materials shall be selected and tagged at the nursery by Landscape Architect.
- The Landscape Architect's approval is required for any plant material substitutions.
- The Contractor is responsible for immediately notifying the Landscape Architect if any plant quantity discrepancies exist between the planting plan and the plant list.
- All shrubs and trees will be sprayed with the anti-desiccant "Wilt-Pruf" (or approved equal) prior to the first Winter (no later than November 30).
- The Landscape Contractor shall have the General Contractor locate all underground utilities in areas to be landscaped prior to commencing any excavation. Adjustments to tree locations will be allowed where utility conflicts are clearly a problem and with prior site approval by Landscape Architect.
- All plant bed, shrub and tree location shall be staked in the field by Contractor for Landscape Architects approval prior to installation.
- Adjustments to plant beds shall be approved by Landscape Architect.
- General Contractor is responsible for all erosion control measures during construction.
- All disturbed areas are to be topsoiled and seeded or sodded, as indicated in the planting plan.
- Mulch shall consist of double-shredded hardwood mulch or approved equal and Contractor is responsible for providing samples of mulch to Landscape Architect. Mulch plant materials as shown on plan and details.
- It is the intent of this contract to avoid any disturbance to existing trees or shrubs on site other than those specifically designated for transplant or removal.

- Liquidated damages for trees damaged by construction operation shall be \$500 per caliper inch. Shrubs shall be \$100 each.
- During construction, and until the end of warranty period, existing trees that are showing signs of stress as determined by the Landscape Architect are to be deep root fertilized, two injections per caliper inch per tree at 18" - 24" depth with Peter's 20/20/20 fertilizer or Landscape Architect approved equal.
- Contractor is responsible for verifying and confirming all plant counts as supplied by the Landscape Architect with field conditions as constructed. Any discrepancies shall be reported to Landscape Architect for approval and direction.
- Tree transplanting shall be performed by a suitable hydraulic tree spade, sized as necessary to perform the work.
- Prior to commencement of any construction, all existing trees to remain shall receive tree protection fence at outer edge of dripline whenever possible.



SCALE OF FEET

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NO.	DESCRIPTION	DATE
I	SHADE STUDY REVISION	07.02.2018

PETRA CLIFFS

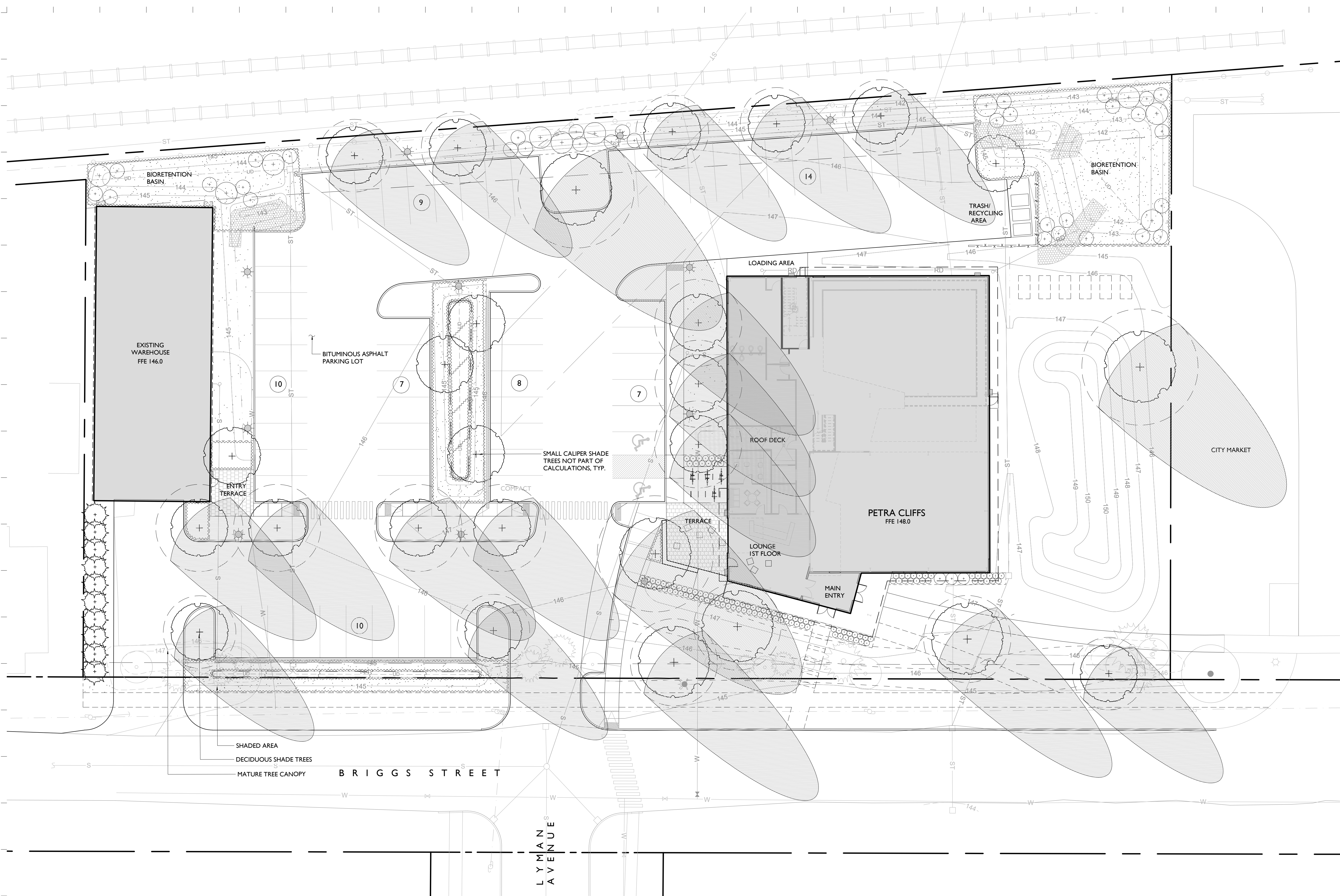
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SHADE STUDY 3PM FALL EQUINOX

JOB NO. 807
SCALE: 1"=16'
DRAWN BY: AH
DATE: 06.20.2018

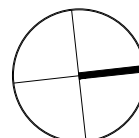
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PARKING LOT AREA - 27,150 SF

SHADED AREA FROM MATURE
TREE CANOPY - 10,331 SF (38%)



16 0 16 32
SCALE OF FEET

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PERMITTING ONLY

NO.	DESCRIPTION	DATE
1	REVISED PHOTOMETRIC PLAN	07.10.2018

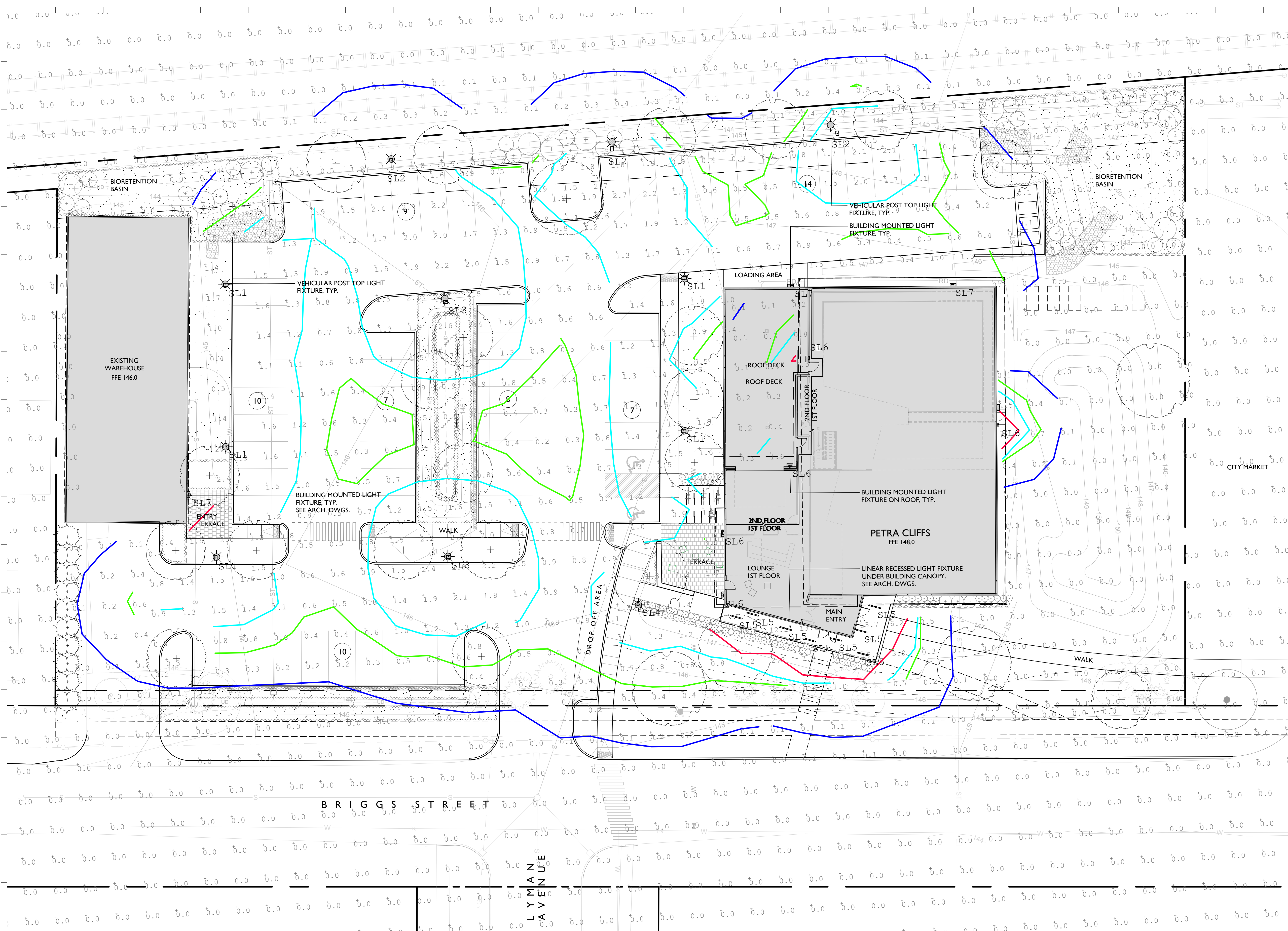
PETRA CLIFFS
75 BRIGGS STREET,
BURLINGTON, VERMONT

PHOTOMETRIC PLAN

JOB NO. 807
SCALE: 1/16"=1'-0"
DRAWN BY: AH
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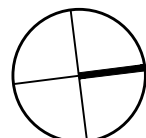
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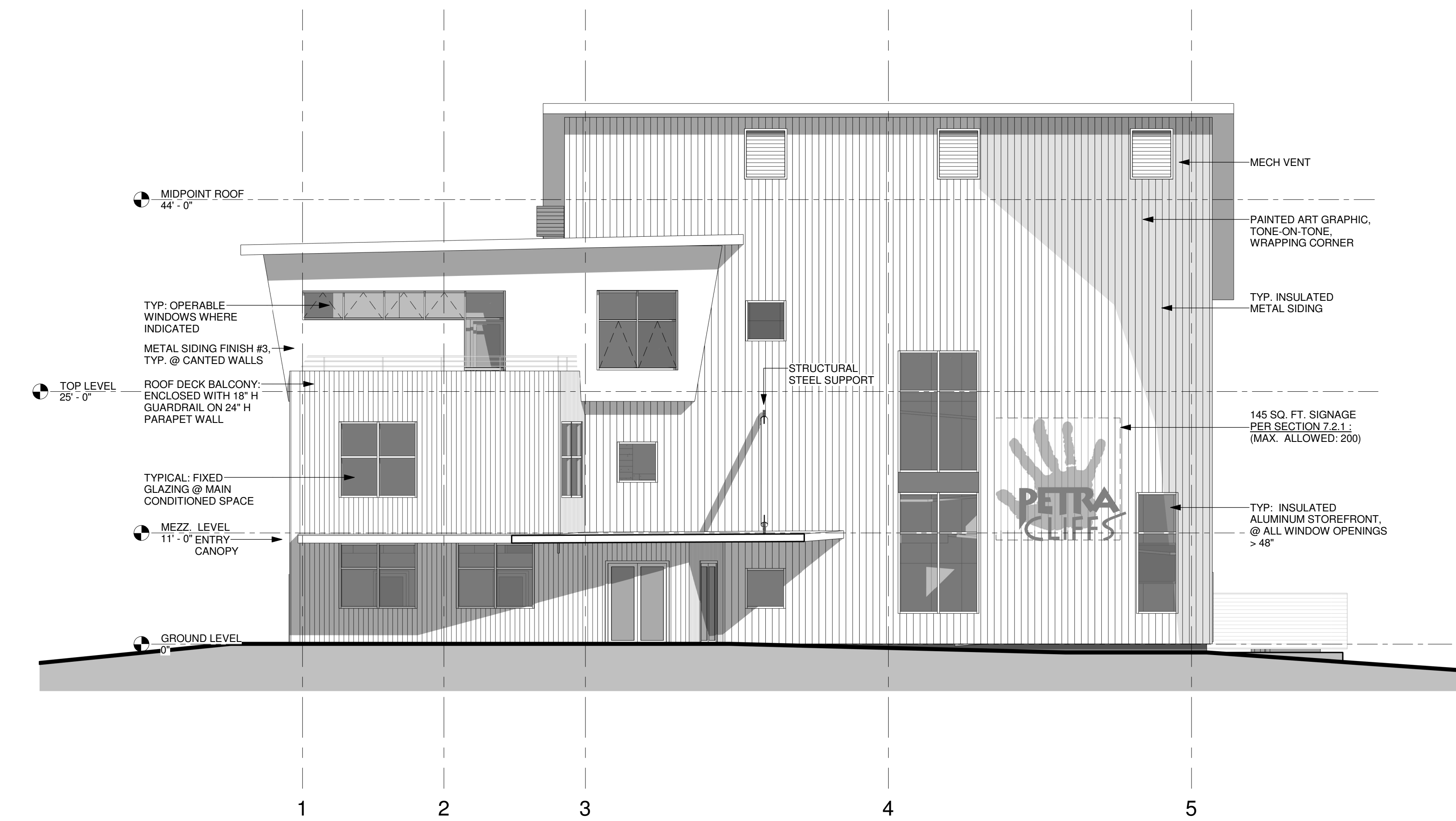
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Luminaire Schedule						
Qty	Label	Arrangement	Lum. Lumens	Lum. Watts	LLF	BUG Rating
5	SL1	SINGLE	3622	38.75	0.850	B1-U0-G1
3	SL2	SINGLE	3645	38.75	0.850	B1-U0-G1
2	SL3	BACK-BACK	3678	38.75	0.850	B2-U0-G1
1	SL4	SINGLE	3678	38.75	0.850	B2-U0-G1
8	SL5	SINGLE	2052	20.51	0.850	B1-U0-G0
3	SL7	SINGLE	1813	26	0.850	B1-U0-G1
5	SL6	SINGLE	1225	20	0.850	B1-U0-G1
Description						
SELUX U4-R3-X-5G700-30-XX-UNV, TYPE 3, MOUNTED @ 16' AFG						
SELUX U4-R2-X-5G700-30-XX-UNV, TYPE 2, MOUNTED @ 16' AFG						
SELUX U4-R5R-X-5G700-30-XX-UNV, TWIN TYPE SR, MOUNTED @ 16' AFG						
SELUX U4-R5S-X-5G700-30-XX-UNV, TYPE 5S, MOUNTED @ 16' AFG						
SELUX L125-1B20-40-MI-X-04-XX-UNV, MOUNTED IN CANOPY						
FC LIGHTING FCC1020, 3K, WFL OPTIC, 1800 LUMENS, MOUNTED @ 7' AFG						
FC LIGHTING FCW1020, 3K, WFL OPTIC, 1200 LUMENS, MOUNTED @ 7' AFG						

Calculation Summary						
Label	Grid Height (ft)	Avg	Max	Min	Avg/Min	Max/Min
AREA BEYOND PROPERTY BOUNDARY	0	0.00	0.5	0.0	N.A.	N.A.
PARKING AREA	0	1.04	2.9	0.2	5.20	14.50
PROPERTY LESS PARKING AREA	0	0.78	15.8	0.0	N.A.	N.A.
ROOF PATIO	0	0.57	3.5	0.1	5.70	35.00





1 BRIGGS STREET ELEVATION
1/8" = 1'-0"

PETRA CLIFFS CLIMBING CENTER
75 BRIGGS STREET
BURLINGTON, VERMONT

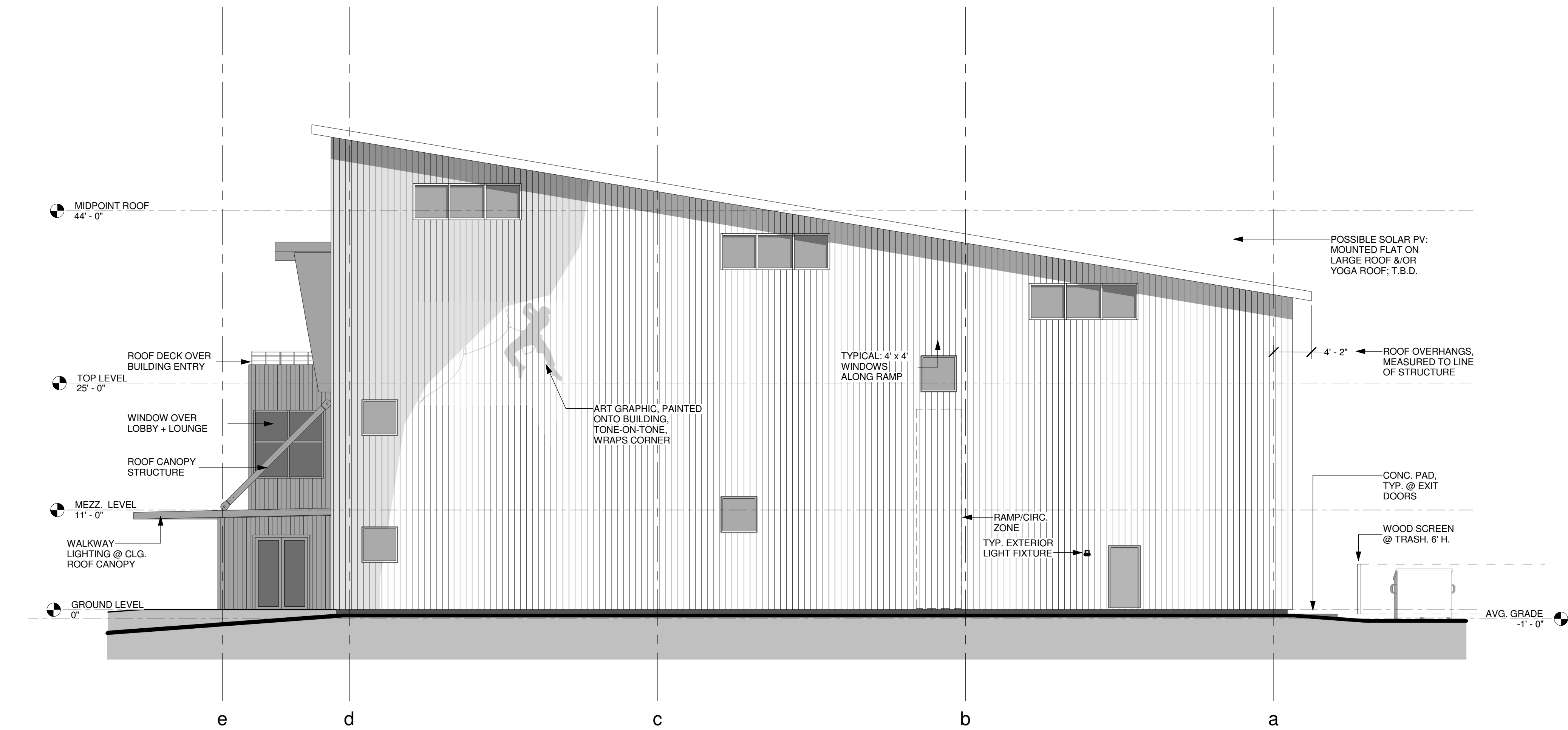
CLIENT:
CHAREST ALPINISM LLC
DESIGN PHASE:
**PERMIT
DRAWINGS**

EAST
BUILDING
ELEVATION

SCALE: 1/8" = 1'-0"

A2.1

DATE: JULY 11, 2018
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① NORTH FACING ELEVATION
1/8" = 1'-0"

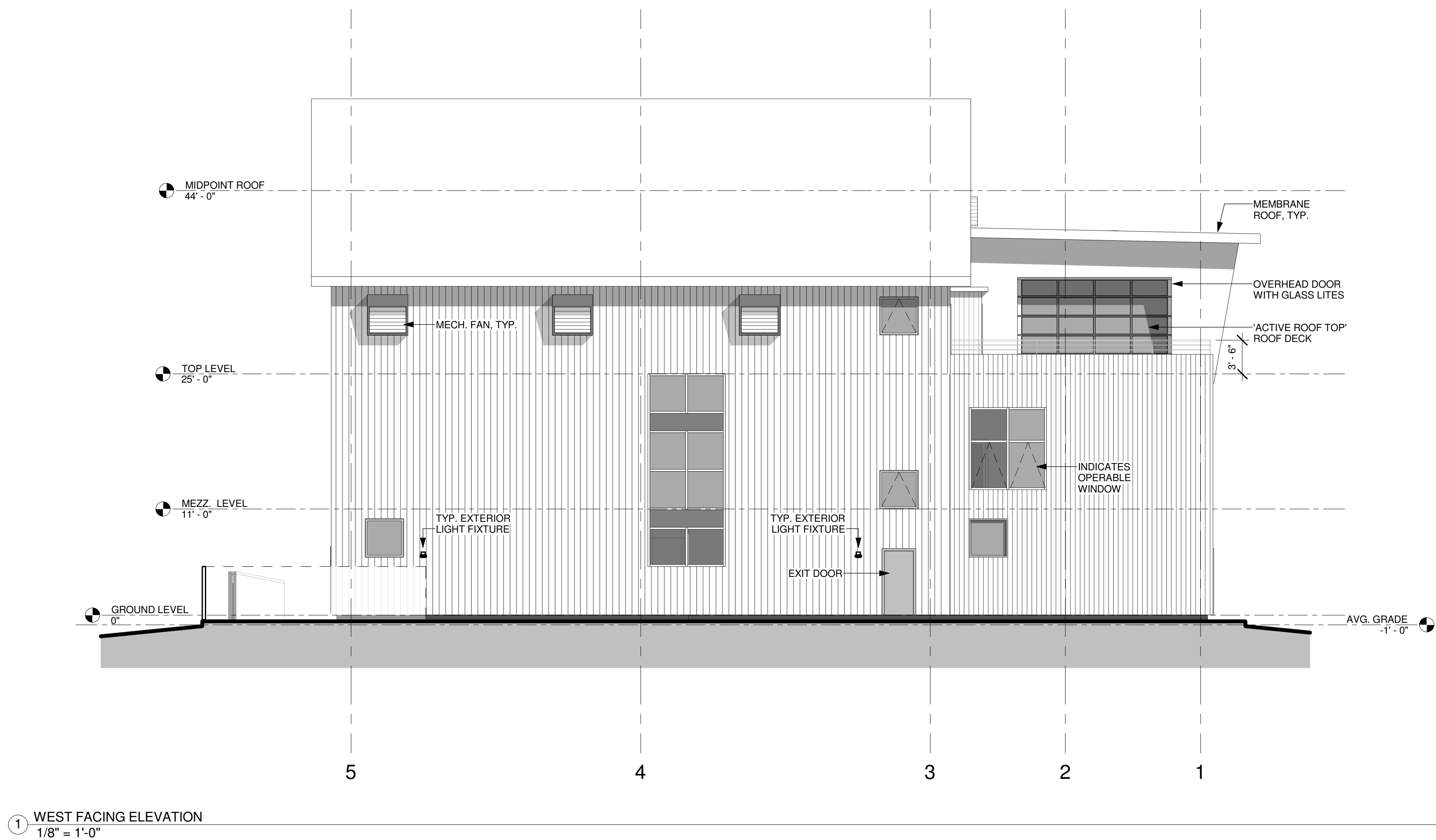
PETRA CLIFFS CLIMBING CENTER
75 BRIGGS STREET
BURLINGTON, VERMONT

CLIENT:
CHAREST ALPINISM LLC
DESIGN PHASE:
**PERMIT
DRAWINGS**

NORTH
BUILDING
ELEVATION
SCALE: 1/8" = 1'-0"

A2.2

DATE: JULY 11, 2018
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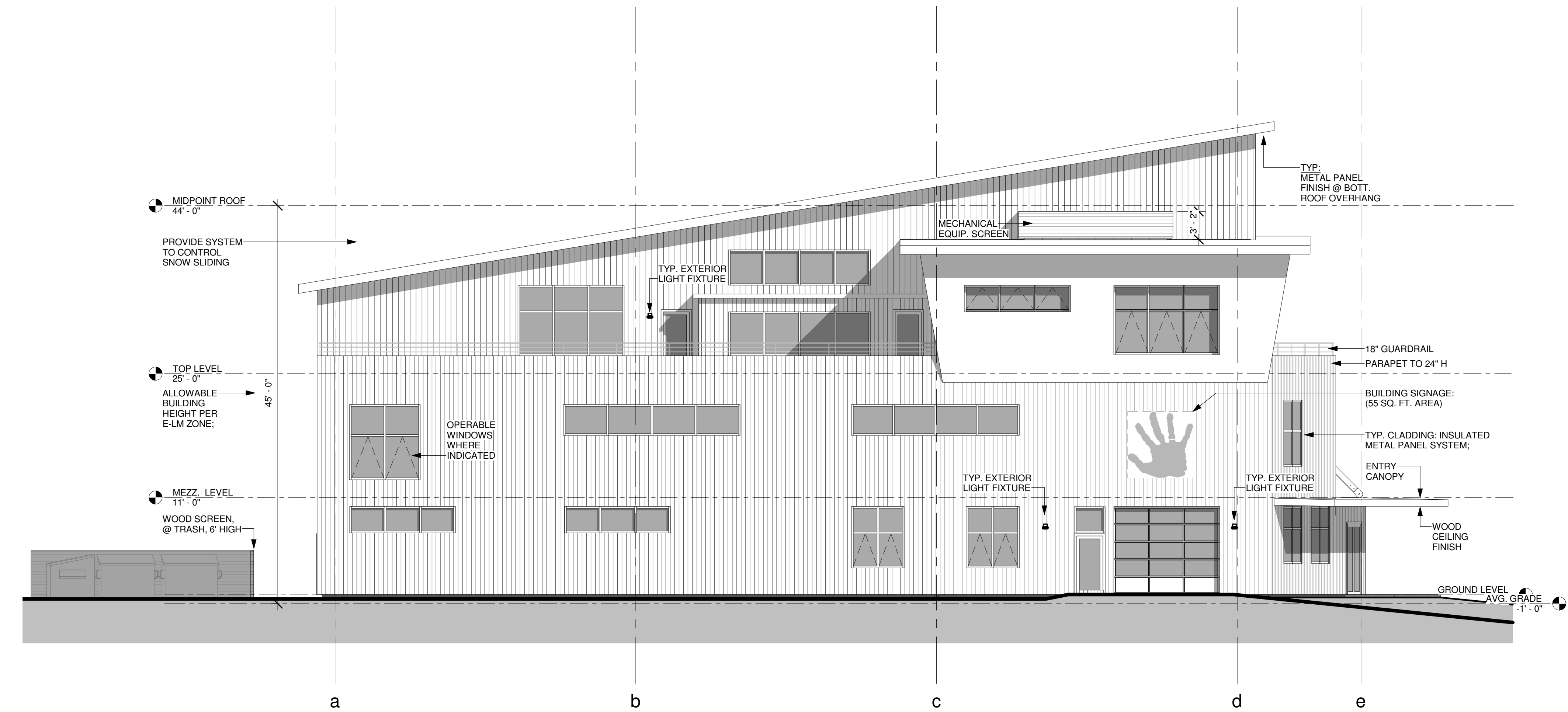
PETRA C CLIFFS CLIMBING CENTER
75 BRIGGS STREET
BURLINGTON, VERMONT

CLIENT:
CHAREST ALPINISM LLC
DESIGN PHASE:
**PERMIT
DRAWINGS**

WEST
BUILDING
ELEVATION
SCALE: 1/8" = 1'-0"

A2.3

DATE: JULY 11, 2018
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① SOUTH FACING ELEVATION
1/8" = 1'-0"

PETRA C CLIFFS CLIMBING CENTER
75 BRIGGS STREET
BURLINGTON, VERMONT

CLIENT:
CHAREST ALPINISM LLC
DESIGN PHASE:
**PERMIT
DRAWINGS**

SOUTH
BUILDING
ELEVATION
SCALE: 1/8" = 1'-0"

A2.4

DATE: JULY 11, 2018
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Burlington Design Advisory Board

149 Church Street, City Hall

Burlington, VT 05401

www.burlingtonvt.gov/PZ/DAB

Phone: (802) 865-7188

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Matthew Bushey
Leo Sprinzen
Ron Wanamaker
Steven Offenhartz
Tom Cullins
Philip Hammerslough, Alt.
Phil Wagner, Alt.



DESIGN ADVISORY BOARD Tuesday July 24th , 2018 at 3:00 PM Conference Room 12, City Hall, Burlington, VT

Agenda

Session I – 3:00 PM – 3:30 PM

18-1208CA/MA; 75 Briggs St (ELM, 5S) Onion River Cooperative / Charest Alpinism
Construct a new health club/climbing center including a new building & site improvements

Session II – 3:30 PM – 4:00 PM

Draft Bylaws (tentative)

The programs and services of the City of Burlington are accessible to people with disabilities.

Individuals who require special arrangements to participate are encouraged to contact the Department of Planning & Zoning at least 72 hours in advance so that proper accommodations can be arranged. For information call 865-7188 (TTY users: 865-7142).

CITY OF BURLINGTON DESIGN ADVISORY BOARD

Rules of Procedure and Conflict of Interest Policy

Section I: Authority and Purpose.

The Design Advisory Board of the City of Burlington hereby adopts the following rules of procedure (hereinafter referred to as “Rules”) in accordance with 24 V.S.A. § 4464(d), 1 V.S.A. Chapter 5 Subchapter 2 (Common Law, General Rights, Public Information), and Section 2.5.1 of the Burlington Comprehensive Development Ordinance.

Legal Requirements

The DAB is required to adopt rules of procedure and rules of ethics with respect to conflicts of interest to guide its official conduct under Sec. 2.4.3 Rules of Procedure of the *Burlington Comprehensive Development Ordinance* and 24 VSA §4464 (d), and must conduct its proceedings in accordance with Vermont’s Open Meeting Law.

The Role of the Chair

Much like the moderator at town meeting, the job of the chairperson is to effectively manage participation by the participants. Most importantly, the chair’s role is to make an effort that those who have a right to participate realize that right, and to allow for those in attendance to be heard. However, it is important to remember that the chair is more than a neutral facilitator. The chair of a small advisory board, such as a local zoning board, has the right to vote, the right to make and second motions, and the right to question participants, just as any other member of the board.

Finally, while many boards elect the most senior member as chair, the most important attributes for a chairperson are the ability to facilitate a meeting or hearing and knowledge of the Design Review, planning and zoning process. These attributes may or may not be linked to the length of one’s tenure on the board. Moreover, a long-serving member may be more effective as a regular member where he or she can focus on analyzing the matter at hand instead of running the meeting.

Section II: Policy.

These Rules are adopted to ensure consistent and fair treatment of applicants, interested persons, and participants, orderly and efficient public proceedings, and compliance with state and federal law. These Rules shall also ensure that no board member will gain a personal or financial advantage from his or her service on the DAB, so that the public trust in municipal government will be preserved. Anything not explicitly conveyed in these bylaws shall be governed by Robert’s Rules of Order.

Section III: Definitions.

- A. “DAB” means the Design Advisory Board.
- B. “Board member” means a regular or alternate member of the DAB.
- C. “Conflict of interest” means any one of the following:
 - 1. A direct personal interest of a board member, his or her spouse, household member, child, stepchild, parent, grandparent, grandchild, sibling, aunt or uncle, brother or sister in law, business associate, employer or employee, an individual with a close personal relationship to a board member in the outcome of a cause, proceeding, application or any other matter pending before the DAB.
 - 2. A direct or indirect financial interest of a board member, his or her spouse, household member, child, stepchild, parent, grandparent, grandchild, sibling, aunt or uncle, brother or sister in law, business associate, employer or employee, an individual with a close personal relationship to a board member in the outcome of a cause, proceeding, application or any other matter pending before the DAB.
 - 3. A situation where a board member has publicly displayed or expressed a prejudgment of the merits of a particular proceeding before the DAB. This shall not apply to a member’s particular political views or general opinion on a given issue.
 - 4. A situation where a board member has not disclosed ex parte communications with a party in a proceeding before the DAB, pursuant to Section XII of these Rules.
- D. “Ex parte communication” means direct or indirect communication between a member of the DAB and any party, party’s representative, party’s counsel or any person regarding any proposal before the panel that occurs outside of a public proceeding, and concerns the substance or merits of the proceeding.
- E. “Official act or action” means any administrative act performed by any board member relative to decisions.
- F. “Recuse” means to remove oneself from a particular DAB proceeding because of a real or perceived conflict of interest.

Section IV: Appointment and Removal of members

Pursuant to Article 2, Part 5 of the Burlington Comprehensive Development Ordinance, the DAB shall consist of five regular and two alternate members appointed by City Council. Appointment to the DAB shall be for a term of three consecutive years. Members may be appointed to successive terms without limitation. Any member desiring reappointment, or city resident desiring an appointment to the DAB, must apply to the City Clerk’s office and obtain a nomination form from a member of the City Council.

At a meeting in July of each year, the DAB shall hold an organizational meeting and elect by majority vote, a Chair and Vice Chair from its members, and shall also elect a Clerk who may or may not be a DAB member or a municipal employee. One member shall be appointed to the Planning Commission Ordinance Committee. Vacancies in these offices may be filled for the unexpired terms only by majority vote of the DAB.

- A. The Chair shall preside at all meetings and decide all points of order or procedure, The Chair may request the production of material germane to any issue under consideration.
- B. The Vice Chair shall assume the duties of the Chair whenever the Chair is absent, recused or at the Chair's request. In the event that both the Chair and Vice Chair are absent or recused, the remaining longest serving member of the board shall assume the duties of Chair.
- C. It shall be the duty of all members to review the minutes and other official records of DAB meetings and actions, and correct and ratify these when appropriate and necessary.
- D. Planning & Zoning Department staff shall record decisions of all meetings.

Alternate members are appointed to temporarily serve as board members in the event or a recusal or absence of one or more regular members.

- A. Whenever a regular member is recused or is expected to be absent from the DAB, the chairperson of the DAB, or his or her designee, may request that an alternate serve as an active member of the DAB by selecting an individual from the roster.
- B. An alternate member who is called upon to serve shall be required to be a part of the DAB until a final decision is made on any application heard by the DAB while serving as an active member. Participation includes attending meetings and any continuance of a meeting if the application has been tabled or adjourned to another date.

Upon majority vote, the DAB may request that the City Council remove a board member from the DAB. Board members may be removed for cause by the City Council upon written charges and after public hearing. 24 V.S.A. § 4460(c).

Section V: Committees

- A. **Standing Committees.** The Board shall appoint at least one (1) member to the Planning Commission Ordinance Committee.
- B. **Ad hoc Committees and Commission Liaisons:** From time to time ad hoc committees and board liaisons to other ad hoc committees may be established by the DAB for special assignments that do not fall within the general purview of standing committees.

Section VI: Regular and Special Meetings.

Regular meetings shall be held in the City Hall, or other publicly accessible location, as warranted based on the number of projects pending. Meeting length shall be at the discretion of the Chair in concurrence with the majority of members present, but should generally not exceed 2 hours. The Chair may cancel meetings at any time.

- A. Special meetings may be called by the Chair, provided at least 24 hours' notice is given to each member, and the time and place of each special meeting is publicly announced at least 24 hours before the meeting.
- B. A quorum shall consist of three participating members of the board.
- C. Board members may participate by telephone or other communication device as long as the absent member can hear everything that is occurring at the meeting and everyone present at the meeting can hear the board member.
- D. All meetings shall be open to the public.
- E. All business shall be conducted in the same order as it appears on the agenda, except the Chair may alter the order of items to be considered as needed, such as to accommodate a late or missing project applicant.

The Chair shall rule on all questions of order or procedure and shall enforce these rules pursuant to 1 V.S.A. § 312(h)¹

- G. At each meeting, speakers may participate on an agenda item but only when recognized by the Chair. Such comment may be limited to three minutes per speaker, unless the Chair sets a different time limit.

Section VII: Proceedings and Order of Business.

All meetings shall be publicly noticed in accordance with 24 V.S.A. §§ 4464(a) (1), (2), as amended.

The Chair shall conduct the proceeding in substantially the following manner:

- A. Open the proceeding by reading the warning of the proceeding.
- B. Ask all who are interested in an agenda item to identify themselves at the time of proceeding on the item of interest.
- C. Accept written information presented to the DAB, including but not limited to staff recommendations.

E. ¹ At an open meeting, the public shall be given a reasonable opportunity to express its opinion on matters considered by the public body during the meeting as long as order is maintained. Public comment shall be subject to reasonable rules established by the chairperson.

- D. Invite the applicant or applicant's representative to present such application or proposal.
- E. Invite DAB members to ask questions of the applicant, applicant's representative, or of City staff.
- F. Invite the public to present information regarding the application or proposal.
- G. Invite the applicant, applicant's representative, city staff or members of the public to respond to information presented.
- H. Invite DAB members to ask any additional questions or provide comments.
- I. Allow final comments or questions from the applicant or applicant's representative.
- J. The Chair shall either adjourn the proceeding to a time certain, continue the proceeding without a time certain subject to additional public notice being provided as to the time and place of any future proceeding, or close the proceedings.
- K. If the DAB finds it needs more information to render its decision, then the DAB may table and re-open the proceeding at a later scheduled hearing date. Once a decision or recommendation has been rendered, the proceeding is closed and review continues administratively or referred to other advisory committees or the Development Review Board (as appropriate.)
- L. The proceeding for any application shall be deemed to start the first time it appears on the DAB's agenda. In no event shall a proceeding extend for a period of more than six (6) months. If an application lies dormant (no revised plans, information submitted) after six months, the administrative officer may act on the incomplete application.

Section VIII: Site Visits.

Board members are encouraged to visit each site individually, however, no testimony shall be taken and no ex parte communication shall occur. Site visits by a quorum (3 members) of the DAB shall be held pursuant to the following conditions:

- A. If, the Chair determines that a site visit by a quorum of the DAB will be necessary, the site visit shall be scheduled and the date, time and place shall be announced during the meeting.
- B. If necessary, the DAB may recess a hearing and conduct a site visit at a property which is the subject of an application before the DAB.
- C. If necessary, the DAB may adjourn a hearing to a time certain to conduct a site visit at a property which is the subject of an application before the DAB.

- D. The minutes of the proceeding shall reflect that a site visit was held, who was present, and the nature and duration of the site visit.

Section IX: Decisions.

The DRB may make decisions at the close of the proceedings. Members of the DAB who have not heard all testimony and reviewed all evidence submitted for a particular application or proposal shall not participate in the vote.

The following rules shall apply to voting on decisions:

- A. Motions shall be made in the affirmative.
- B. The chair has the same voting rights as other members and can make motions.
- C. A second shall be required for a motion to have the floor.
- D. All members present are expected to vote unless they have recused themselves.
- E. Abstentions are strongly discouraged and shall not count towards either the majority or the minority.
- F. For a motion to succeed, it must receive the concurrence of three participating members of the DAB, regardless of how many members are present. 1 V.S.A. § 172².

Section X: Conflicts of Interest.

- A. **Procedures.** Participation, disclosure of conflicts, and recusal shall be governed by the following procedures:
- 1. **Participation.** A board member shall not participate in any official action where he or she has a conflict of interest in the matter under consideration.
 - 2. **Disclosure.** Board members with a conflict of interest shall state so prior to commencement of the proceeding. (Refer to Section III of these bylaws for details on how to recognize a conflict of interest.)

² Title 1 : General Provisions
Chapter 003 : Construction Of Statutes
Subchapter 003 : Rules Of Construction
(Cite as: 1 V.S.A. § 172)

§ 172. Joint authority

When joint authority is given to three or more, the concurrence of a majority of such number shall be sufficient and shall be required in its exercise.

When recognized by the Chair, any person may request disclosure of potential conflicts of interest. Nonetheless, after disclosing a conflict or perceived conflict, if a member who believes that he or she is able to act fairly, objectively, and in the public interest, shall state on the record the nature of the potential conflict of interest, and the reason(s) why the member believes he or she is able to act in the matter fairly, objectively, and in the public interest.

This statement shall be part of the minutes of the proceeding pertaining to the matter under consideration.

3. **Recusal.** A board member shall recuse him or herself from any matter in which he or she has a conflict of interest, pursuant to the following:

- a. The applicant or any person may request that a member recuse him or herself due to a conflict of interest. Such request shall not constitute a requirement that the member recuse him or herself.
- b. The DAB may, by majority vote, (exclude or recuse) one of its members if there is reasonable public perception that a conflict of interest exists.
- c. A board member who has recused him or herself from a proceeding shall not sit with the DAB or participate in that proceeding as a board member in any capacity.
- d. If a previously unknown conflict is discovered, the DAB may take evidence pertaining to the conflict, and if appropriate, adjourn to address the conflict.
- e. The DAB may adjourn the proceedings to a time certain if, after a recusal, it may not be possible to take action through the concurrence of a majority of the DAB. The DAB may then resume the proceeding with sufficient members present.

B. **Ex Parte Communications.** Ex parte communication is prohibited. Any DAB member who inadvertently conducts ex parte communication must disclose such communication as required below.

1. **Disclosure.** At each hearing, Board members who have received written ex parte communications shall place on the record copies of all written communications received as well as all written responses to those communications. Members shall prepare a memorandum or state the substance of any and all oral communications received, all responses made and the identity of each person making the ex parte communication.

C. **Progressive Consequences for Failure to Follow the Conflict of Interest Procedures.** In cases where the conflict of interest procedures in Section X have not been followed, the DAB

may take progressive action to discipline an offending board member. In the discipline of a member, the DAB shall follow these steps in order:

1. The Chair shall meet informally, in private, with the board member to discuss possible conflict of interest violation.
2. The DAB may meet to discuss the conduct of the board member. The board member may request that this meeting occur in public. If appropriate, the DAB may admonish the offending board member in private.
3. If the DAB decides that further action is warranted, the DAB may admonish the offending board member at an open meeting and reflect this action in the minutes of the meeting. The board member shall be given the opportunity to respond to the admonishment.
4. Upon majority vote, the DAB may request that the offending board member resign from the DRB. The Chair of the DAB shall then notify the City Council of this majority vote.

Section XI: Amendments.

These rules may be amended at any regular or special meeting by a two-third vote of the number of regular board members, provided that each DAB member has been presented a written copy of the proposed amendment at least 24 hours before the meeting at which the vote is taken. Only those amendments which are presented to the members prior to the meeting may be amended at that meeting.

Bylaws of the
Advisory
DESIGN REVIEW BOARD

as adopted October 19, 1993

() Meeting times:

Meetings shall be scheduled on the first and third Tuesday of each month. Attendance of the members will be recorded by staff.

() Attendance rule:

Members unable to attend a meeting shall notify the Planning Office staff no later than the morning of the scheduled meeting.

Absence of any member from more than three (3) consecutive or eight (8) total meetings over a period of one fiscal year will be cause for removal from the board. The chair and/or board shall notify the City Council immediately, requesting the appropriate measures be taken. Members will be advised by staff when two (2) consecutive or a total of four (4) absences have accumulated.

() Annual work plans:

The board and/or the Historic Preservation review committee may convene at the beginning of each fiscal year to set a work plan to be accomplished by the board and/or committee, with the assistance of the planning staff. These work plans shall be reviewed periodically by the board and/or committee. Sub-committees from each group are encouraged to undertake respective tasks.

() Coordination with the *development* planning commission

The board shall schedule during the year, no less than one meeting with the planning commission to review work accomplished during the year, issues that the board or commission may have relating to the City's master plan goals and the status of the advisory role of the Board and improvements to process and communication between the two bodies. It is suggested that this interaction occur at the quarterly scheduled working meeting of the planning commission.

Burlington Design Advisory Board

149 Church Street, City Hall
Burlington, VT 05401

<http://www.burlingtonvt.gov/PZ/Boards/Design-Advisory-Board/>

Telephone: (802) 865-7188
(802) 865-7195 (FAX)

*Matt Bushey, Chair
Leo Sprinzen, Vice Chair
Tom Cullins
Steve Offenhartz
Ron Wanamaker
Philip A. Wagner, Alternate
Phil Hammerslough, Alternate*



Minutes

Burlington Design Advisory Board

Tuesday, July 24, 2018 3:00 p.m.

Conference Room 12, City Hall, 149 Church Street, Burlington, VT

Present: Matt Bushey (Chair), Leo Sprinzen (Vice Chair), Steve Offenhartz, Ron Wanamaker, Phil Hammerslough (alt.), Phil Wagner (alt.)

Absent: Tom Cullins

Staff present: Scott Gustin, Mary O'Neil

Session I – 3:00 PM – 4:00 PM

18-1208CA/MA; 75 Briggs St (ELM, 5S) Onion River Cooperative / Charest Alpinism

Construct a new health club/climbing center including a new building & site improvements

Present from Project Team: Steve & Andrea Charest, Esther Lotz, Susan Coddair, Andy Rowe

Motion by MB:

I move we recommend approval and forward the project to the Development Review Board with the following conditions:

1. Indicate Phase 2 work on the site plan, to be completed at a future date pending the construction of the Champlain Parkway improvements along Briggs Street, to include:
 - a. Additional shade trees planted within the bioswale
 - b. New Walkway connecting the Briggs Street sidewalk to the entry door on the east elevation
2. Add visual interest to the north elevation by exploring the following:
 - a. Develop the proposed green wall / trellis structure on the north elevation
 - b. Expand the graphics on the north wall
 - c. Add a roof canopy/awning over the exterior door
3. Indicate location of electrical transformer or mechanical equipment and method of screening.
4. Solar ready construction, including conduit to the roof, is encouraged.

2nd – SO

Vote 5-0-1 (PW did not vote)

Session II – 4:00 PM – 4:30 PM

Draft Bylaws

The Board reviewed the draft document, made suggestions for preferred language, and agreed to discuss a second draft after review by the City Attorney's office.