

Burlington Design Advisory Board

149 Church Street, City Hall

Burlington, VT 05401

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DESIGN ADVISORY BOARD Tuesday April 10th, 2018 at 3:00 PM Conference Room 12, City Hall, Burlington, VT Agenda

Session I – 3:00 PM – 3:30 PM

18-0793SP; 75 Briggs St (ELM, Ward 5S) Onion River Cooperative Inc

Sketch plan review for a new health club/climbing center. Includes a new building and site improvements.

(Project Manager: Scott Gustin)

Session II – 3:30 PM – 4:00 PM

18-0605CA; 327 South Winooski Ave (RM, Ward 6S) John O'Brien

Enclose back porch.

(Project Manager: Ryan Morrison)

Session II – 4:00 PM – 4:30 PM

18-0834CA/MA; 298 College St (RH, Ward 8E) Greater Burlington YMCA Foundation Inc.

Demolish former Ethan Allen Club; Construct YMCA facility at 298 College Street with Child care, two stories, approximately 50,000SF.

(Project Manager: Mary O'Neil)

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).

Department of Planning and Zoning

149 Church Street, City Hall
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Jay Appleton, Senior GIS/IT Programmer/Analyst
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Layne Darfler, Planning Technician
Anita Wade, Zoning Clerk



MEMORANDUM

To: The Design Advisory Board
From: Mary O'Neil, AICP, Principal Planner
RE: 298 College Street, ZP18-0834 CA/MA
Date: April 10, 2018

File: ZP18-0834CA/MA
Location: 298 College Street (former Ethan Allen Club)
Zone: RH **Ward:** 8E
Parking District: Neighborhood
Date application accepted: March 28, 2018
Additional material submitted: April 2, 2018
Parking District: Neighborhood
Estimated Construction Cost: 15,000,000
Applicant/ Owner: Freeman French Freeman, Inc. / Kyle Dodson for Greater Burlington YMCA
Technical Review: February 11, 2016, December 14, 2017
Request: Redevelopment of the former Ethan Allen Club for the Greater Burlington YMCA;
Two stories, approximately 50,000 sf (26,000 sf footprint.) Request for parking waiver.



Background:

The programs and services of the City of Burlington are accessible to people with disabilities. For accessibility information call 865-7188 (for TTY users 865-7142).

- **Zoning Sketch Plan Review ZP18-0481SP;** Sketch Plan review of proposed redevelopment of the former Ethan Allen Club for the Greater Burlington YMCA; Basement plus two stories, approximately 65,000 sf (22,000 sf footprint.) Request for parking waiver.
- **Non-applicability of Zoning Permit Requirements 17-1224NA;** To utilize existing space at 266 College Street to run a school age summer program for 10-15 age children. June 2017.
- **Zoning Permit 16-0856CU;** establish health club use within a portion of the existing building. No site or exterior building changes proposed. March 2016.
- **Non-Applicability of Zoning Permit Requirements; 16-0825NA;** interior work only to create space for fitness classes. February, 2016.
- **Zoning Permit 15-0853CA;** change of use from temporary homeless shelter to temporary art gallery. March 2015.
- **Zoning Permit 15-0675CU;** seasonal change of use from club to community house / overnight shelter. January 2015.
- **Zoning Permit 11-0604SN;** replacement parallel sign for Ethan Allen Center. February 2011.
- **Zoning Permit 99-576;** installation of a nonilluminated parallel sign for Ethan Allen Club. This is the only sign for the site. June 1999.
- **Zoning Permit 97-299;** installation of a nonilluminated fabric awning over the rear entry of the Ethan Allen Club. Emblem graphic without lettering to be applied to the end elevation of the awning. February 1997.
- **Zoning Permit 97-298;** removal of the existing structural canopy (cars drive under) over the rear entrance to the existing Ethan Allen Club. No change to traffic patterns or façade alterations included in this application. February 1997.
- **Non-Applicability of Zoning Permit Requirements:** Move business operations to vacant space. (Operation of the premises as a membership club for the Knights of Columbus; new business/membership club Ethan Allen Club.) March 1996.
- **Zoning Permit 94-105 / COA 094-023;** construction of an eight car parking lot for existing office building on adjacent lot. (To be accessed by that lot) Existing use of parcel is the Ethan Allen Club. August 1993.
- **Zoning Permit 85-104;** erect 2' x 4' freestanding sign. April 1985.
- **Zoning Permit 80-843;** renovation; move exterior wall in the bar area only eight feet to north. New fireplace, new bar, insulation, electrical work. April 1980.
- **Zoning Permit n.n.;** demolish the existing building and erect a new 72' x 120' two story building to encompass 16,280 sf. March 1972.

Overview: The Greater Burlington YMCA (GBYMCA) proposes demolition of the former Ethan Allen Club and construction of a new Y facility with Child Care, two stories of approximately 50,000 sf. As the development footprint is more than 5,000 s.f. and the gross

floor area exceeds 10,000 s.f., the application is Major Impact. The proposed uses (health club, large daycare) are Conditional Uses in the RH zoning district. The application reflects changes to address and respond to items identified in prior review.

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 existing site has a ring of greenery around the parcel, on the west, north and east. A large canopy tree and a shrub row on the east will be maintained; however other plantings (including the pine on the south lawn) will be removed to accommodate the redevelopment. A robust planting plan has been provided (Plan L100); further reference is made to that document for species and planting location.

(b) Topographical Alterations:

The site has a natural topography with a rising slope to the east (more pronounced at the northwesterly property line) and grade differential reflected in contours (226 on the west to 243 on the east.) The north of the site remains fairly flat, as it is the location of existing parking.

New contour lines are illustrated on Civil Plan C-100, which reflect building development between 238-240FF, with grades moderated at the east parking lot. Retaining walls are included on the northwest, and potentially on the north east corners, depending upon final design.

(c) Protection of Important Public Views:

Distant terminal views of Lake Champlain and the mountains shall remain intact from public thoroughfares.

(d) Protection of Important Cultural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Archeological sites likely to yield information important to the city's or the region's pre-history or history shall be evaluated, documented, and avoided whenever feasible. Where the proposed development involves sites listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8(b).

The Main Street – College Street Historic District, listed on the National Register of Historic Places in 1988 identifies this property as a non-contributing resource due to age. It does, however, relate the importance of the membership clubs in Burlington's history.

The existing Ethan Allen Club replacement building was identified in a 2010 *Survey of Modern Architecture* in Burlington. Constructed in 1972 and designed by noted Vermont architect Julian Goodrich, the building is associated with International Style. The building has not been listed on the state or National Register of Historic Places.

See Section 5.4.8 preamble for further information.

(e) Supporting the Use of Renewable Energy Resources:

The proposed building will not have renewable energy systems at the time of construction; however, the roof will be structured to accommodate future loading with PV panels. The pool is planned to be used as a heat sink to minimize external cooling requirements.

(f) Brownfield Sites:

The property is not listed on the Department of Environmental Conservation's brownfield list.

(g) Provide for nature's events:

Special attention shall be accorded to stormwater runoff so that neighboring properties and/or the public stormwater drainage system are not adversely affected. All development and site disturbance shall follow applicable city and state erosion and stormwater management guidelines in accordance with the requirements of Art 5, Sec 5.5.3.

Design features which address the effects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage from circulation areas shall also be incorporated.

A Stormwater Management Plan and an Erosion Prevention and Sediment Control Plan have been forwarded to the Stormwater engineering team for assessment and review. Their approval will be a condition of any final decision.

Entries on all elevations are sheltered under canopies or similar.

An area for snow storage is not identified. The tight nature of the site redevelopment will likely require snow to be mechanically removed from the site. The applicant shall confirm such plan.

(h) Building Location and Orientation:

The parcel is a through lot, and therefore has two street frontages; Bradley and College. The revised plan presents a building intended to fully address both. Although the College Street front will likely be identified as the main face of the building, the Bradley Street front will be the principal entrance to the parking/dropoff and meets the expectation of a building fully engaged with and relating to its context.



(i) Vehicular Access:

Access is proposed one way (south); from Bradley Street through the site to College Street. Drop off (22 spaces identified as 15 minute) and handicap accessible parking are identified near entrances. Signage will direct motorists to one –way circulation.

(j) Pedestrian Access:

Pedestrian walks on both the north and south of the site will connect to existing public sidewalks. A walkway will continue along the entire easterly building, connecting north to south. Bradley Street is proposed to receive 724 sf of new public sidewalk and curbing to formalize and tie the new work with existing infrastructure. An access apron is included on Civil plans as well. Any work in the ROW will require an agreement and approval of City Council.

(k) Accessibility for the Handicapped:

The building is proposed to have an elevator. Two handicap parking spaces are illustrated on the site plan.

Compliance with ADA standards is under the jurisdiction of the building inspector.

(l) Parking and Circulation:

Vehicular circulation is proposed one way north to south, from Bradley Street to College St.

For the proposed uses (health club and large daycare) 148 parking spaces are required by the Comprehensive Development Ordinance. A 67.6% parking waiver is requested.

- 48 parking spaces are proposed on-site,
- 6 are leased off- site (2 at 265 College Street, 4 at COTS Main Street.)
- 20 secured for employee parking at the Gilbane Lot.

(See March 24, 2018 RSG Memo, *Traffic Management Plan*, p. 9.) A traffic study informs the Parking Management Plan with an analysis of site and facility, trips, alternate modes of transit, demand, congestion, and circulation. That analysis may stumble relative to its asserted shared use, as the 22 parking spaces identified for the daycare use (at 15 minute spaces) is suggested to be counted toward demand for the health club. Unless the 15 min. limitation is intended for peak daycare drop off and pick up periods, it is not plausible that Y members could achieve their health goals with a 15-minute parking space.

That Management Plan concludes in support of a parking waiver.

(m) Landscaping and Fences:

Plan L-100 defines a robustly planned landscaping agenda, including retaining walls on the northwest and potentially the north east corner of the parcel, depending upon design. A 4' high vinyl coated chain link fence is proposed around the outdoor play area on the west. A more attractive, residential style fence is recommended.

Seating is provided at the main (College Street) entrance patio.

(n) Public Plazas and Open Space:

The College Street entrance features a gathering/amenity space with seasonal plantings and large bench seating. Additionally, an accessible area 42' x 42' is provided on the west lawn for children participating in the Y's daycare.

(o) Outdoor Lighting:

Where exterior lighting is proposed the applicant shall meet the lighting performance standards as per Sec 5.5.2.

Application submission materials include specific lighting fixtures and a photometric plan. (See Plan L-200.) The design team notes that Vermont Building Code/NFPA 101 Life Safety requires an identified minimum lighting level along paths for the means of egress from building exits. (1 fc along walking surfaces, no less than 10fc at stairs.) A majority of the walkways on site are portions of the building's life safety exit discharge and are lit to meet these standards using full cut-off dimmable fixtures.

Section 5.5.2 does offer maximum lighting standards: Parking Lots are not to exceed 4 fc. at any point (achieved); and walkways not more than 2 fc. The walkway immediately east of the building has several "hot spots" under the "W" wallpack fixtures. Lowering that illumination would not seem to conflict with NFPA Life Safety standards, and is recommended. Similarly, the "WP" fixtures on the west façade are similarly high, and should be adjusted downward.

(p) Integrate infrastructure into the design:

Exterior storage areas, machinery and equipment installations, service and loading areas, utility meters and structures, mailboxes, and similar accessory structures shall utilize setbacks, plantings, enclosures and other mitigation or screening methods to minimize their auditory and visual impact on the public street and neighboring properties to the extent practicable.

A trash enclosure is located on the east side of the parcel, mid-way between Bradley and College Streets along the circulation drive. This enclosure meets the required minimum setback of 5'. Plans have not, however been provided.

Rooftop equipment will be screened. See attached supplemental information.

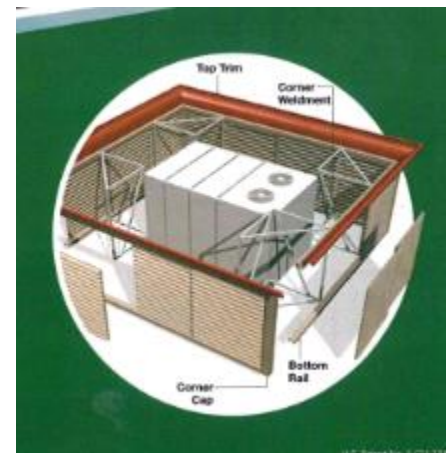
Utility and service enclosures and screening shall be coordinated with the design of the principal building, and should be grouped in a service court away from public view. On-site utilities shall be place underground whenever practicable. Trash and recycling bins and dumpsters shall be located, within preferably, or behind buildings, enclosed on all four (4) sides to prevent blowing trash, and screened from public view.

The design and materials of the trash enclosure has not been defined, and needs to be.

Gas, sewer and water lines are positioned at the southwest corner of the primary façade, as is the fire strobe. The latter may prevent landscaping screening of the former.

Underground electrical via transformer pad is located adjacent to the entrance patio/walkway on the south. If a transformer box is proposed for installation there, its location is unfortunate due to its high visibility and location adjacent to the sidewalk and the vehicular exit path. Preference would be given to relocation in a less visible area or one that can utilize landscaping screening.

Any development involving the installation of machinery or equipment which emits heat, vapor, fumes, vibration, or noise shall minimize, insofar as practicable, any adverse impact on neighboring properties and the environment pursuant to the requirements of Article 5, Part 4 Performance Standards.



The roof plan identifies the location of proposed rooftop mechanicals; all which will be screened via the method identified above.

Part 3: Architectural Design Standards

Sec. 6.3.2 Review Standards

(a) Relate development to its environment:

1. Massing, Height and Scale:

At 31'9", the flat roofed building is consistent in height when viewed along the streetscape. The scale (in breadth) is consistent with the residential condominiums that hug the corner of South Union Street, to the west.



2. Roofs and Rooflines.

A flat roof with skylights is proposed; flat is consistent with the existing building albeit divergent from the neighboring more residential structures. The flat roof allows a desirable building volume without exceeding height limitations for the zoning district.

Rooftop mechanicals will be screened from view from the public street. The roof will be "solar ready" in the future event of installation of that renewable.

3. Building Openings

Principal entrances shall be clearly defined and readily identifiable from a public street whether by a door, a canopy, porch, or other prominent architectural or landscape feature.

Entries are provided on the College Street façade, several on the east toward the parking lot and loading areas, as well as door access to the lawn area and street access north and south on the west elevation. The northerly façade (facing Bradley Street) lacks an entry on the closest plane facing the street. A door is visible at a building step-back mid block, and an entrance

canopy is discernable on the east.



Peoples with physical challenges should be able to use the same entrance as everyone else and shall be provided an “accessible route” to the building.

The building has been designed with grade consideration, door widths, service facilities, circulation throughout the building and from floor to floor, as well as site lighting to be welcoming and accessible to all.

Window patterns shall maintain consistent patterns and proportions appropriate to the use. The window pattern should add variety and interest to the architecture, and be proportioned to appear more vertical than horizontal.

Elevations define building segments, where window arrangements create a rhythm that repeats across the facade. The College Street (primary) façade is largely glazed, with larger windows arranged between structural piers across the 2nd floor. The first floor has windows set in groups of three, with an ornamental window located next to the entry. The north elevation has both single and paired windows, set symmetrically across the façade at the street front.

Fenestration on the east is arranged in regular rhythm, broken by the building divisions and siding alteration. The artful arrangement of windows on the middle/lower level suggest the playfulness of the interior space.

The west elevation is similarly arranged, with window openings primarily on the middle and southerly sections of the façade. The large window glazing of the 2nd floor front has wrapped around to this elevation.

The stacking of windows affirms the verticality of the arrangement.

(b) Protection of Important Architectural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves buildings listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8. The introduction of new buildings to a historic district listed on a state or national register of historic places shall make every effort to be compatible with nearby historic buildings.

See Section 6.2.2 (d), above and Section 5.4.8, below for further discussion.

(c) Protection of Important Public Views:

See Section 6.2.2. (c), above.

(d) Provide an active and inviting street edge:

Plan revisions have given greater emphasis to the Bradley Street frontage, which now addresses the street in a more assertive and prominent way. It fails, however, to provide a visible building entry at the streetfront to engage visitors as is typical of a primary façade.

The College Street façade is broad in its genial welcome to the streetscape; large windows invite, and the entry patio welcomes.

(e) Quality of materials:

All development shall maximize the use of highly durable building materials that extend the life cycle of the building, and reduce maintenance, waste, and environmental impacts. Such materials are particularly important in certain highly trafficked locations such as along major streets, sidewalks, loading areas, and driveways. Efforts to incorporate the use of recycled content materials and building materials and products that are extracted and/or manufactured within the region are highly encouraged.

Materials are varied; fiber cement clapboards, panels and trim are featured, with painted metal fascia, fiberglass windows and thermalframe entries.

The roofing material has not been identified; it is presumed to be membrane.

Those materials identified are observed to be of acceptable durability for new construction.

(f) Reduce energy utilization:

All new construction is required to meet the Guidelines for Energy Efficient construction according to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.

(g) Make advertising features complementary to the site:

Any signage will require a separate sign permit. The application narrative notes that a tentative location for a 20 sf freestanding sign is designated at the College Street side of the building.

[Section 7.2.2, Signs in Residential and RCO Districts limits organizational signs to a total area for any individual use to 20 sq. ft.]

(h) Integrate infrastructure into the building design:

See Section 6.2.2. (p), above.

(i) Make spaces secure and safe:

All development is required to meet applicable building and life safety code as defined by the building inspector and fire marshal.

Sec. 5.4.8 Historic Buildings and Sites

The City seeks to preserve, maintain, and enhance those aspects of the city having historical, architectural, archaeological, and cultural merit. Specifically, these regulations seek to achieve the following goals:

To preserve, maintain and enhance Burlington's historic character, scale, architectural integrity, and cultural resources;

To foster the preservation of Burlington's historic and cultural resources as part of an attractive, vibrant, and livable community in which to live, work and visit;

To promote a sense of community based on understanding the city's historic growth and development, and maintaining the city's sense of place by protecting its historic and cultural resources; and,

To promote the adaptive re-use of historic buildings and sites.

(a) Applicability:

These regulations shall apply to all buildings and sites in the city that are listed, or eligible for listing, on the State or National Register of Historic Places.

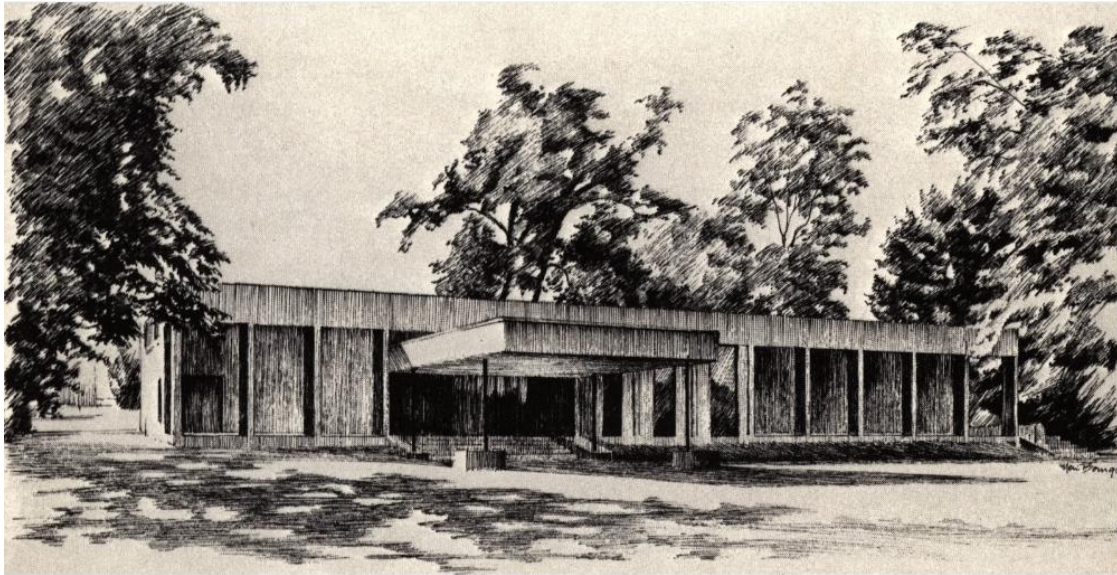
Built in 1972 by noted Burlington architect Julian Goodrich (1922-2010), this building was listed as non-contributing to the **Main Street –College Street Historic District** as ineligible due to age; however, Brian Knight's 2010 *Survey of Modern Architecture* included it as an example of International Style.

As a result of that research, staff consulted with the Vermont Division for Historic Preservation with an inquiry as to eligibility for historic designation. Here is the response from state Architectural Historian Devin Colman:

The building is still only 45 years old, so making a case for eligibility would be a challenge. I consider it to be an example of Formalist architecture as opposed to International Style, with its smooth wall surfaces, projecting roofline and strict symmetry. The brick columns supporting the

projecting roofline on the north and south elevations create an ordered and rhythmic façade, similar to a Classical colonnade. It's an interesting design solution for a building that doesn't really have a front or a back and has to address both College Street and the parking lot, where the primary access is located. Attached is a rendering of the entry, as originally designed.

There aren't a lot of examples of Formalist design in the city; offhand I can think of one other, Votey Hall at UVM (Barr, Linde, Hubbard / 1963).

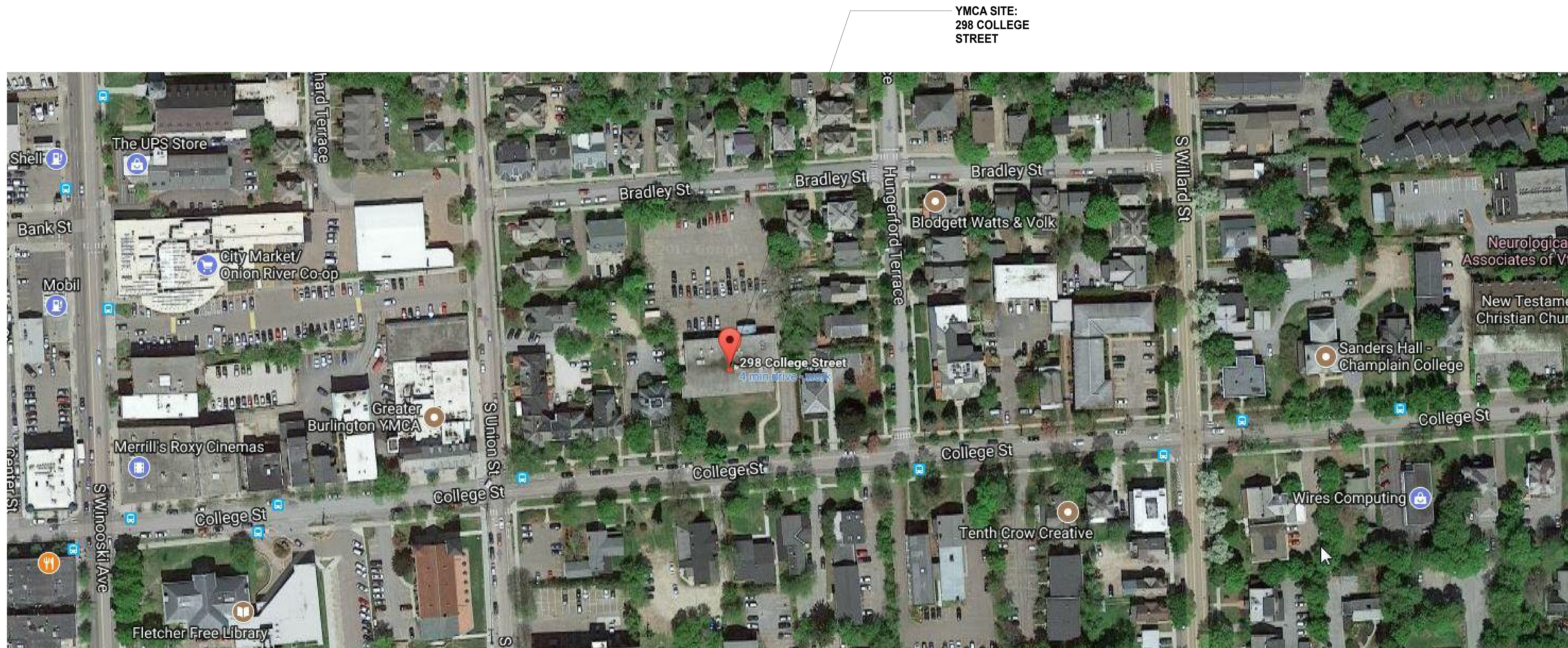


The above opinion, including the building's age (less than 50 years) and challenge to establish eligibility, results in a determination that the standards of this Section do not apply.

Not applicable.

Conditions of approval (recommended):

1. The applicant shall define snow storage or a plan for removal.
2. A more attractive, residential style fence is recommended for the children's play area.
3. The design and materials of the trash enclosure has not been defined, and needs to be.
4. Illumination along walkways shall be adjusted so as to not exceed 2 fc, unless doing so would specifically conflict with NFPA Life Safety Code. A revised photometric shall be provided to demonstrate those changes.
5. Pole lights shall not exceed 25 in height.
6. Written approval of the EPSC/Stormwater plan by the Stormwater Engineering program will be a requirement of any decision.
7. All new construction is required to meet the Guidelines for Energy Efficient construction according to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.
8. Consideration of the Parking Management Plan toward a parking waiver is under the discretionary review of the Development Review Board.
9. Standard Permit Conditions 1-15.



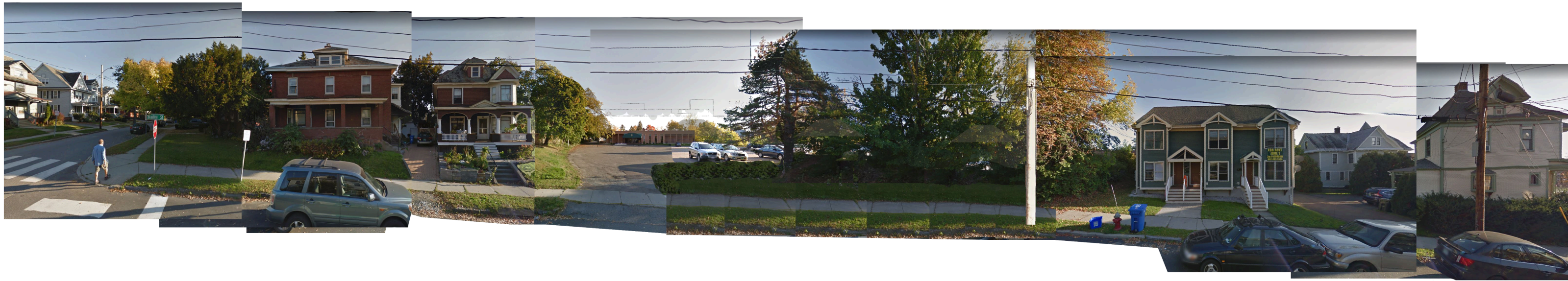
PROJECT LOCATION - AERIAL

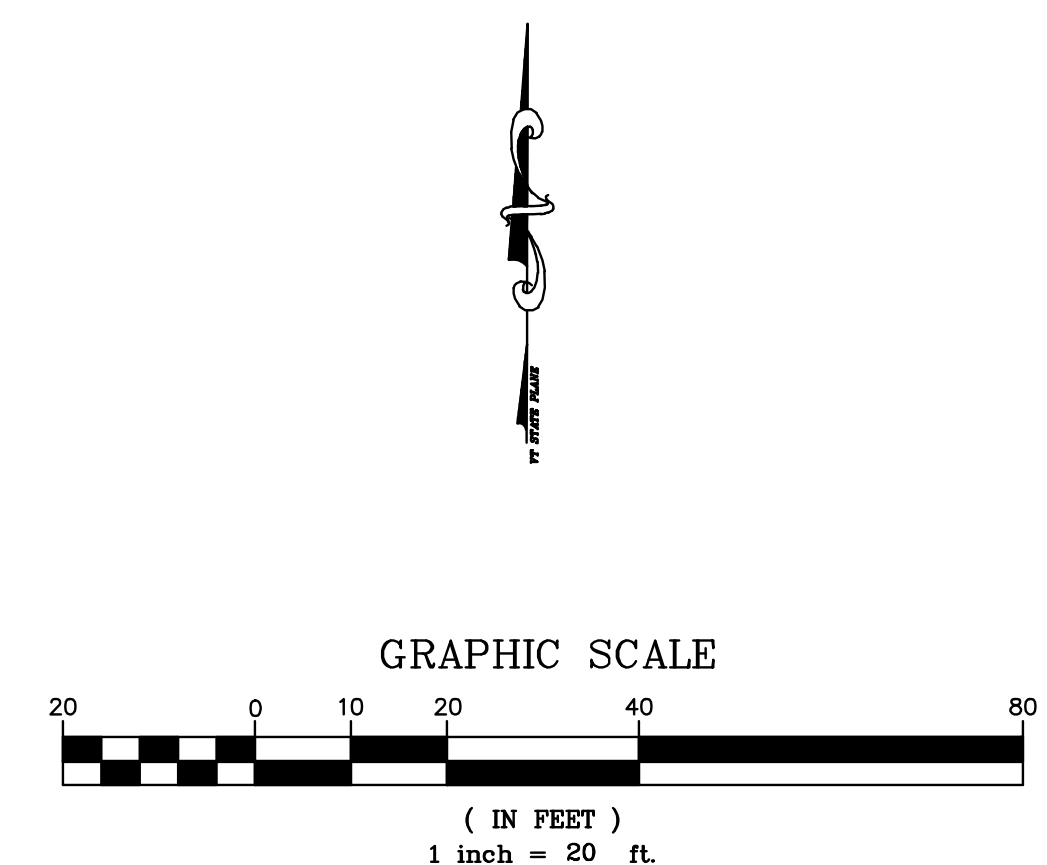
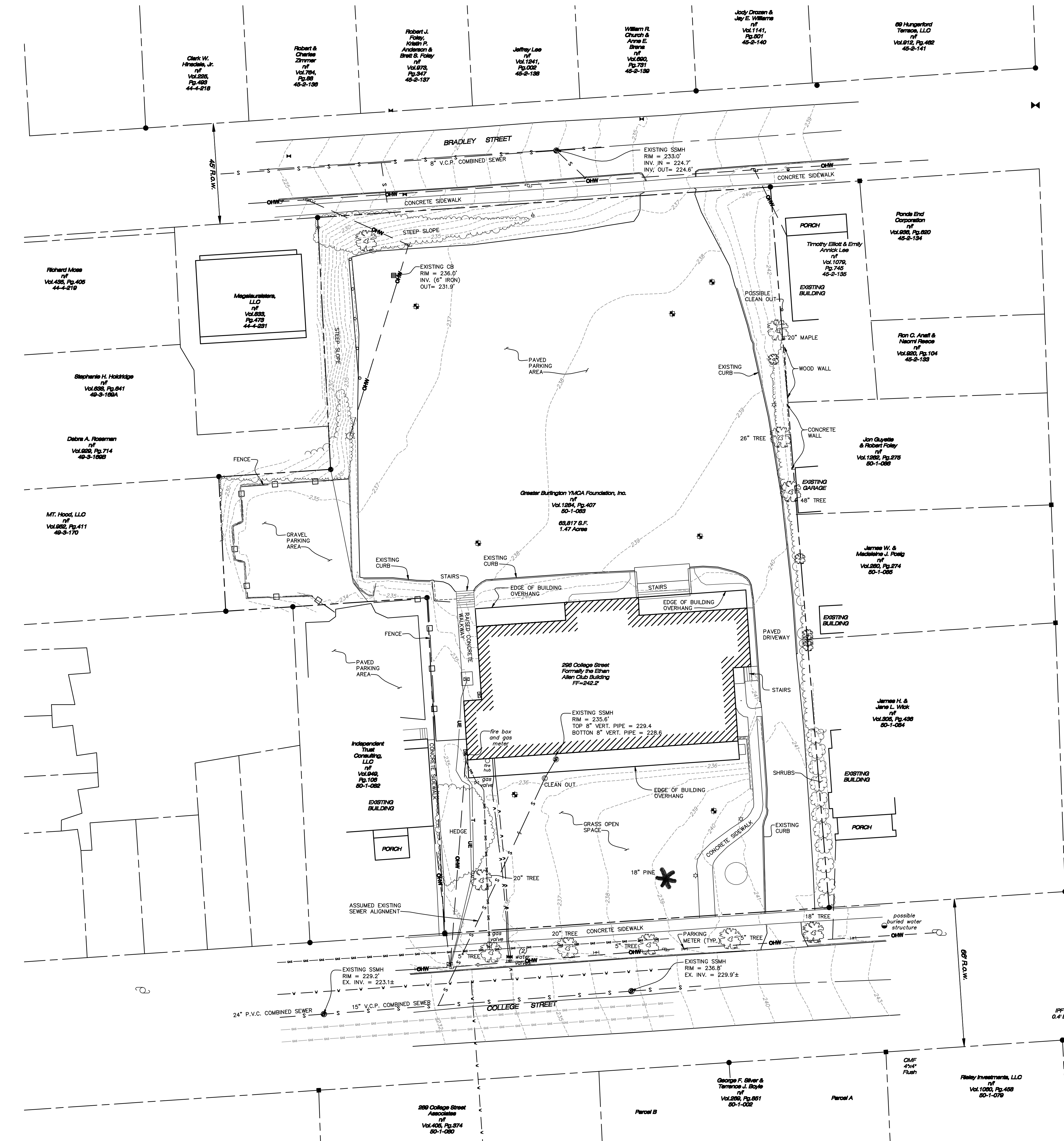
GREATER BURLINGTON YMCA

298 COLLEGE STREET, BURLINGTON, VT

SCHEMATIC DESIGN
PROGRESS PRINT
NOT FOR CONSTRUCTION







LOCATION MAP (FROM USGS) N.T.S.

SURVEY NOTES

1. NORTH ORIENTATION IS VERMONT GRID NORTH. MEASUREMENTS WERE COLLECTED ON AUGUST 09, 2011 USING SURVEY GRADE RTK (REAL TIME KINEMATIC) GPS EQUIPMENT. THE TRANSMITTING BASE STATION USED WAS THE UNIVERSITY OF VERMONT (UVM) CORS (CONTINUOUSLY OPERATING REFERENCE STATION). THE RESULTANT HORIZONTAL DATUM IS NAD 83 (CORS). THE VERTICAL DATUM IS BASED ON NAVD 88 USING THE GEOID MODEL, GDS05.
2. THE EXISTING FEATURES SHOWN HEREON WERE LOCATED DURING FIELD SURVEYS CONDUCTED ON AUGUST 10, 2011. THE SOIL BORINGS, PAINT MARKS BETWEEN THE NORTH SIDE OF COLLEGE STREET AND THE EXISTING BUILDING ON THE PROPERTY AND BUILDINGS ON PROPERTIES OF INDEPENDENT TRUST CONSULTING, LLC, WICK, ELLIOTT & LEE AND MEGALAUS SISTERS, LLC WERE LOCATED IN OCTOBER 2015.
3. THE PREMISES SHOWN AND DESCRIBED HEREON MAYBE SUBJECT TO EXISTING BURIED UTILITIES, EASEMENTS, RIGHTS-OF-WAY, RESTRICTIONS, COVENANTS, PERMITS, REGULATIONS, AND/OR SETBACK LINES. CLEAR EVIDENCE OF STRUCTURES THAT ARE READILY APPARENT FROM A CASUAL ABOVE GROUND VIEW ARE DELINEATED HEREON. NO LAND RECORD RESEARCH HAS BEEN PERFORMED BY THIS OFFICE IN THE ACQUISITION OF THIS TOPOGRAPHY.
4. THIS IS NOT A BOUNDARY SURVEY. ANY PROPERTY LINE INFORMATION SHOWN HEREON IS APPROXIMATE. ANY PROPERTY LINES, EASEMENTS, AND/OR OTHER REAL PROPERTY DESCRIPTIONS SHOWN ON THIS PLAN ARE FOR THE USE OF THE OWNER ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN 26 V.S.A. SECTION 2502(4), AND SHOULD NOT BE USED IN LIEU OF A BOUNDARY AND/OR EASEMENT SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.
5. SURVEY METHODS EMPLOYED MEET OR EXCEED THE MINIMUM PRECISION REQUIREMENTS FOR SUBURBAN SURVEYS AS OUTLINED IN "STANDARDS FOR THE PRACTICE OF LAND SURVEYING" ADOPTED BY THE VERMONT BOARD OF LAND SURVEYORS EFFECTIVE 10/11/99. RANDOM CONTROL POINTS WERE ESTABLISHED USING A TRIMBLE S6 ROBOTIC TOTAL STATION IN CONJUNCTION WITH A TRIMBLE R8 DUAL FREQUENCY GPS RECEIVER. THE MEASUREMENTS AND INFORMATION PRODUCED BY THIS SURVEY AND SHOWN HEREON MAY CONTRAST FROM RECORDED SURVEY INFORMATION DUE TO DIFFERENCES IN ORIENTATION, DECLINATION, OR METHODS OF MEASUREMENT.
6. SUFFICIENT GROUND MEASUREMENTS WERE COLLECTED TO PRODUCE 1-FOOT CONTOUR INTERVALS OF THE EXISTING GROUND SURFACE, AS SHOWN HEREON.
7. ALL BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED ON THESE DRAWINGS IS BASED ON A "BOUNDARY SURVEY FOR LANDS OF CHAMPLAIN COLLEGE INCORPORATED" PLAN BY BUTTON PROFESSIONAL LAND SURVEYORS, P.C. DATED 16 SEPTEMBER 2011.

LEGEND

EXISTING	
CONTOURS	---
EDGE OF PAVEMENT	---
PROPERTY LINE	---
UNDERGROUND ELECTRIC	---
TELECOMMUNICATIONS	---
GRAVITY SEWER	---
GAS LINE	---
GAS LINE (RETIRED)	---
WATER LINE	---
OVERHEAD UTILITY	---
ROCK LINED SWALE	---
GRAVEL ROAD	---
PAVEMENT	---
SIDEWALK/CONCRETE CURB	---
CULVERT	---
TREE LINE	---
UTILITY POLE/GUY	---
LIGHT POST	---
TREE	---
PARKING METER	---
WATER VALVE	---
GAS VALVE	---
WATER SHUT OFF	---
ELECTRIC PEDESTAL	---

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FILENAME: 810150152_CIVILBASE_REV5.DWG

FOR SD REVIEW ONLY
NOT FOR PERMIT OR CONSTRUCTION

freeman | french | freeman

SCOTT MICHAEL MAPES
POST OFFICE BOX 5517
BURLINGTON, VERMONT
802-864-8100

STRUCTURAL ENGINEERING

CONSULTING

kas

Project Name

BURLINGTON VERMONT

Project Number

3/25/20

Scale

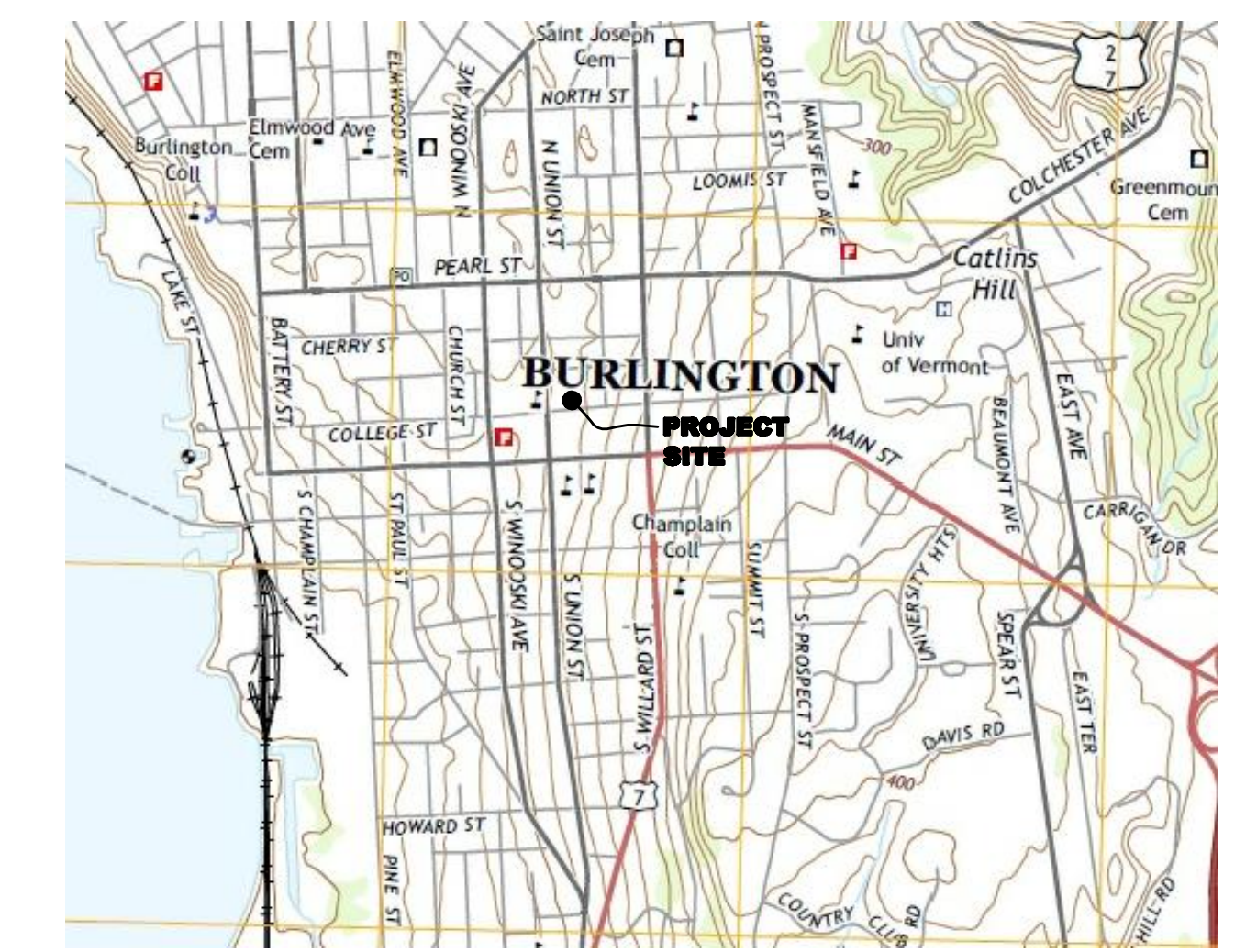
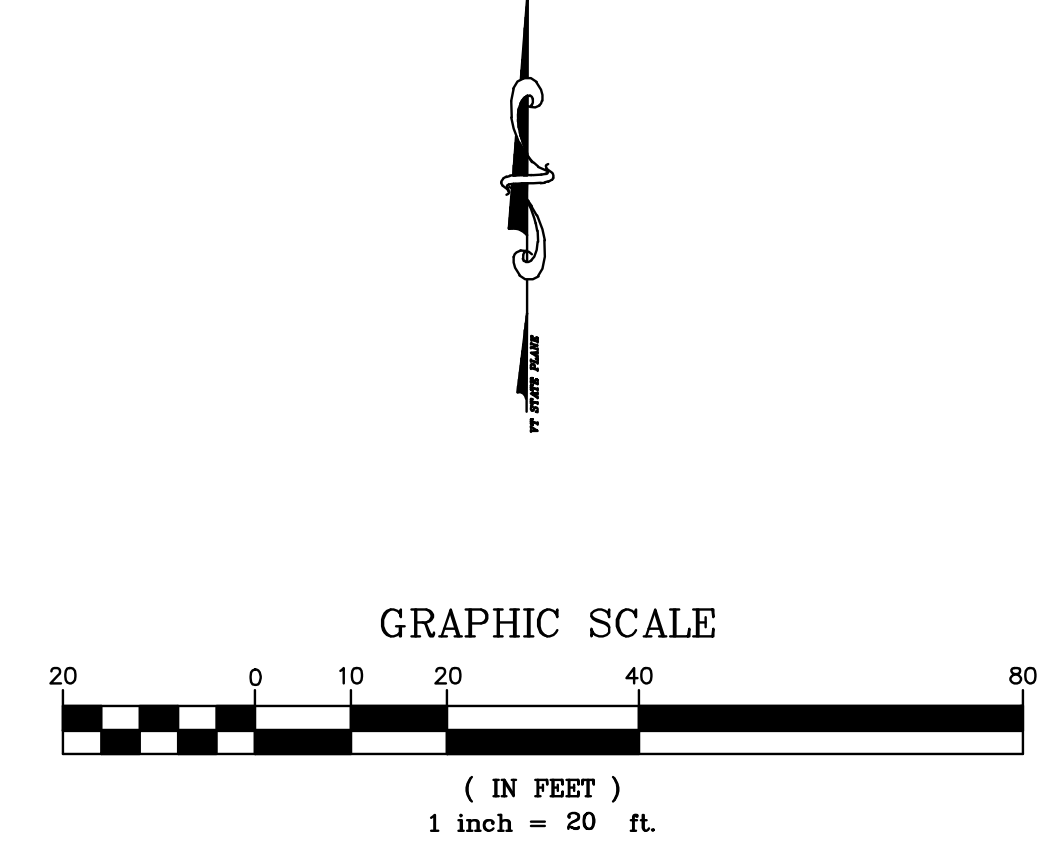
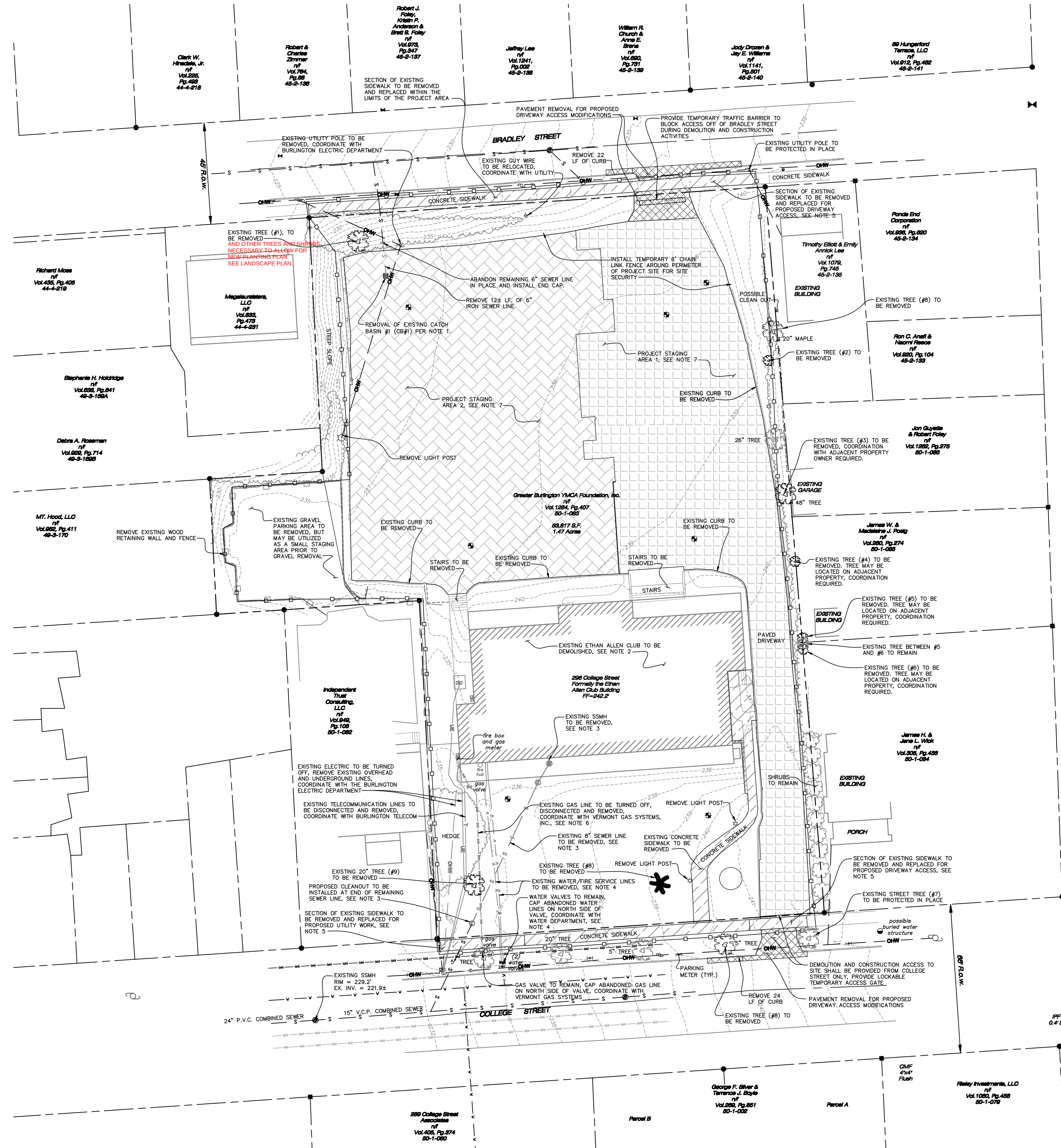
AS SHOWN

Drawn By

Drawn By 1
Drawn By 2
Drawn By 3
Drawn By 4
Drawn By 5
Drawn By 6
Drawn By 7

Site Existing Conditions Plan

C-010



DEMOLITION NOTES

- EXISTING CATCH BASIN #1 MAY BE NEEDED FOR DE-WATERING ACTIVITIES ASSOCIATED WITH CONSTRUCTION OF THE PROPOSED LOWER LEVEL FOUNDATION. THE CATCH BASIN SHALL REMAIN UNTIL REQUIRED FOR REMOVAL TO CONSTRUCT THE PROPOSED CHILD DEVELOPMENT CENTER PORTION OF THE BUILDING.
- THE EXISTING ETHAN ALLEN CLUB BUILDING SHALL BE DEMOLISHED IN ACCORDANCE WITH THE WRITTEN "SITE DEMOLITION PLAN" BY KAS, INC. DATED 2/5/2016.
- THE LOCATION AND DEPTH OF EXISTING SEWER LINE SHALL BE FIELD LOCATED PRIOR TO REMOVAL. IF THE EXISTING LINE IS FOUND TO BE DEEP ENOUGH TO ACCOMMODATE THE PROPOSED SEWER OUTLET, THE EXISTING SEWER LINE SHALL BE SCOPE FOR EVALUATING FEASIBILITY OF REUSE. THE EXISTING SEWER LINE SHALL BE REMOVED UP TO THE APPROXIMATE LOCATION OF THE PROPOSED CLEAN OUT SHOWN ON THIS PLAN. THE PROPOSED CLEAN OUT SHALL BE INSTALLED ONLY IF THE REMAINING SEWER LINE CAN BE SALVAGED AND REUSED. IF NOT, THE REMAINING EXISTING SEWER LINE SHALL BE CAPPED AND ABANDONED AS DIRECTED BY THE CITY WATER RESOURCES DEPARTMENT.
- THE CONTRACTOR SHALL COORDINATE SHUTTING OFF THE WATER WITH THE CITY WATER RESOURCES DEPARTMENT. THE EXISTING WATER VALVES SHALL REMAIN IN PLACE AND THE REMAINING LINE SHALL BE CAPPED UNLESS OTHERWISE DIRECTED BY THE CITY. THE PROPOSED WATER/FIRE SERVICE LINE SIZE HAS YET TO BE DETERMINED. CONSEQUENTLY, THE FEASIBILITY OF REUSING EITHER OR BOTH OF THE EXISTING WATER VALVES IF UNKNOWN. IF A NEW WATER/FIRE SERVICE CONNECTION IS REQUIRED, THIS WORK SHALL BE COORDINATED WITH THE CITY.
- THE EXISTING SIDEWALK WITHIN THE CITY RIGHT OF WAY WILL BE REMOVED AND REPLACED WITHIN THE PROJECT AREA ALONG BOTH BRADLEY STREET AND COLLEGE STREET. A CITY APPROVED PEDESTRIAN DIVERSION PLAN WILL BE NEEDED FOR THE CLOSURE OF THE SIDEWALK.
- EXISTING GAS LINE TO BE TURNED OFF, DISCONNECTED AND REMOVED, COORDINATE WITH VERMONT GAS SYSTEMS. THE EXISTING GAS VALVE SHALL BE PROTECTED IN PLACE FOR POSSIBLE REUSE UNDER PROPOSED CONDITIONS.
- PROJECT STAGING AREA #1 SHALL BE UTILIZED FOR SITE ACCESS, DEMOLITION ACTIVITIES, PROPOSED BUILDING CONSTRUCTION, AND VARIOUS SITE IMPROVEMENTS. PROJECT STAGING AREA #2 SHALL BE UTILIZED FOR DEMOLITION ACTIVITIES AND FOUNDATION CONSTRUCTION ACTIVITIES FOR THE LOWER LEVEL AND POOL. EXISTING PAVEMENT WITHIN BOTH STAGING AREAS SHALL REMAIN IN PLACE UNTIL THE STAGING AREAS ARE NO LONGER NEEDED.
- SEE THE WRITTEN "SITE DEMOLITION PLAN" BY KAS, INC. DATED 2/5/2016 FOR ADDITIONAL INFORMATION REGARDING DEMOLITION ACTIVITIES, PRE-CONSTRUCTION SITE SECURITY, AND PROJECT STAGING.
- ALL APPLICABLE EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO COMMENCING ANY WORK. AN EROSION CONTROL PLAN WILL BE DEVELOPED AS PART OF FUTURE DESIGN ITERATIONS.
- THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233 OR WWW.DIGSAFE.COM) AND THE BURLINGTON DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
- ALL BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED ON THESE DRAWINGS IS BASED ON A "BOUNDARY SURVEY FOR LANDS OF CHAMPLAIN COLLEGE INCORPORATED" PLAN BY BUTTON PROFESSIONAL LAND SURVEYORS, P.C. DATED 16 SEPTEMBER 2011.
- ARCHITECTURAL, MECHANICAL, ELECTRICAL, INTERIOR PLUMBING, STRUCTURAL, AND CIVIL SITE DESIGN AND SERVICES TO BE PROVIDED BY OTHERS.
- REFER TO THE "SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT AND SOIL CHARACTERIZATION" DATED JANUARY 2018 BY KAS INC. FOR INFORMATION SUBSURFACE INVESTIGATION RESULTS OF ONSITE SOILS AND SOIL MANAGEMENT STRATEGIES.

LEGEND

- CONTOURS
- EDGE OF PAVEMENT
- PROPERTY LINE
- UNDERGROUND ELECTRIC
- TELECOMMUNICATIONS
- GRAVITY SEWER
- GAS LINE
- GAS LINE (RETIRED)
- WATER LINE
- OVERHEAD UTILITY
- ROCK LINEN SWALE
- GRAVEL ROAD
- PAVEMENT
- SIDEWALK/CONCRETE
- CURB
- CULVERT
- TREE LINE
- UTILITY POLE/GUY
- LIGHT POST
- TREE
- PARKING METER
- WATER VALVE
- GAS VALVE
- WATER SHUT OFF
- ELECTRIC PEDESTAL
- SITE SECURITY FENCE
- ROW PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- PAVEMENT REMOVAL/STAGING AREA 1
- PAVEMENT REMOVAL/STAGING AREA 2

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SCOTT MICHAEL MAPE
POST OFFICE BOX 5517
BURLINGTON, VERMONT

STRUCTURAL ENGINEERING

CONSULTING

Project Name

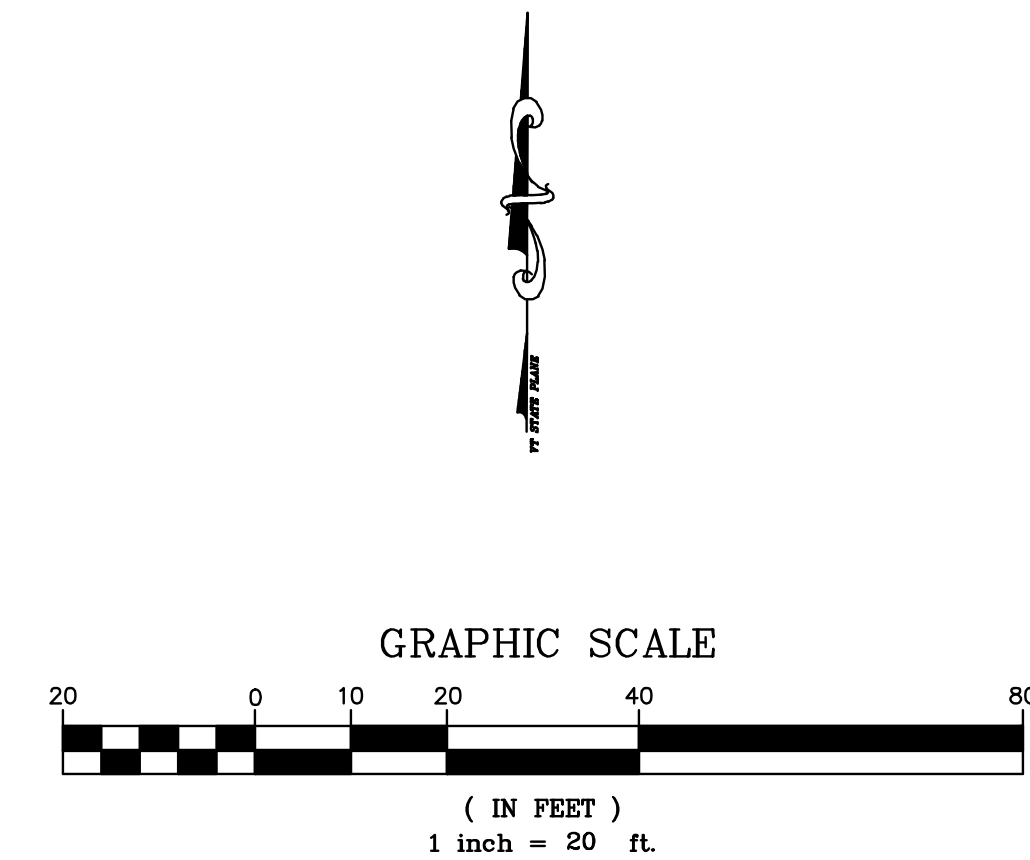
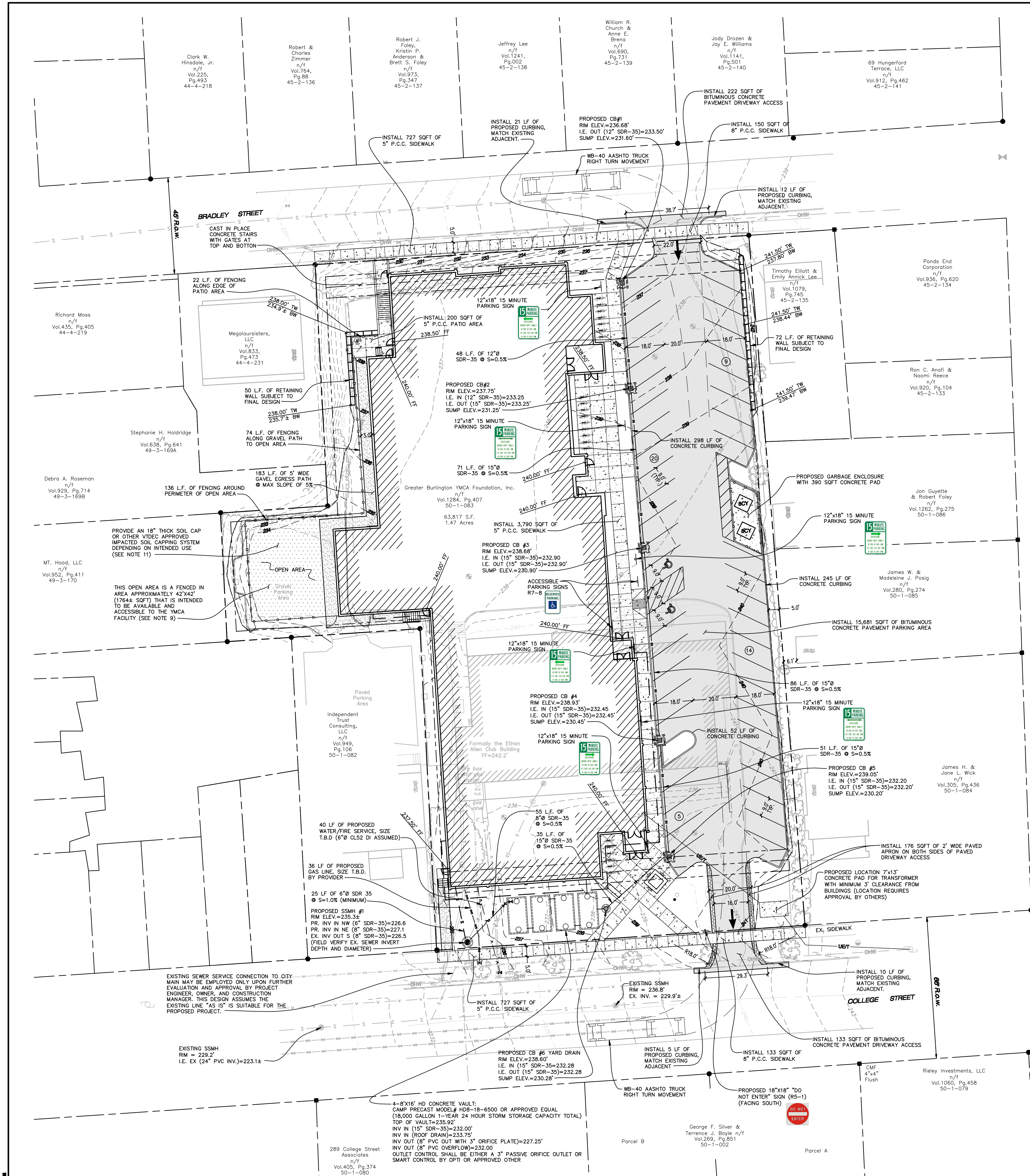
Project Number

3/25/20	Scale
SD	SD

Demolition 1	Demolition 2
Demolition 3	Demolition 4
Demolition 5	Demolition 6
Demolition 7	Demolition 8

SITE DEMOLITION PLAN

CD-100



LOCATION MAP (FROM USGS) N.T.S.

ZONING INFORMATION

OWNER GREATER BURLINGTON YMCA FOUNDATION, INC.

LOT COVERAGE CALCULATION

ZONING DISTRICT: RESIDENTIAL HIGH DENSITY (RH)

ALLOWABLE COVERAGE = 80%

SUBJECT PROPERTY = 1.47 ACRES

COVERAGE	EXISTING	PROPOSED
BUILDING	14.2%	43.7%
TOTAL (INCLUDES SURFACE IMPERVIOUS)	44.9%	78.0%

SETBACKS
FRONT YARD SETBACK (COLLEGE STREET) = 31.0' (AVERAGE OF ADJOINING $\pm$ 5')
FRONT YARD SETBACK (BRADLEY STREET) = 11.0' (AVERAGE OF ADJOINING $\pm$ 5')
WEST SIDE YARD SETBACK = 4.5'
EAST SIDE YARD SETBACK = 5.0'

PARKING REQUIREMENTS
REQUIRED PARKING = 148 SPACES
48 SPACES PROVIDED ONSITE WHICH INCLUDES 2 ADA COMPLIANT AND 22 TEMPORARY (15 MINUTE) DROP OFF SPACES
26 SPACES PROVIDED OFFSITE
PARKING WAIVER REQUESTED 1-(48/148) = 67%

NOTES

- ALL BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED ON THESE DRAWINGS IS BASED ON A "BOUNDARY SURVEY FOR LANDS OF CHAMPLAIN COLLEGE INCORPORATED" PLAN BY BUTTON PROFESSIONAL LAND SURVEYORS, P.C. DATED 16 SEPTEMBER 2011.
- THE PROPOSED YMCA FACILITY AND BUILDING LAYOUT IS BASED UPON THE "BURLINGTON FAMILY YMCA" PLANS BY FFF DATED MARCH 2018.
- ALL DESIGN AND LAYOUTS DEPICTED ON THESE DRAWINGS ARE SUBJECT TO CITY AND STATE APPLICATION PERMIT REVIEW AND THEREFORE SUBJECT TO CHANGE ACCORDINGLY PENDING THOSE REVIEWS.
- ALL PROPOSED UTILITY CONNECTIONS AND EXISTING UTILITY DATA AND INFORMATION IS BASED UPON THE BEST AVAILABLE DATA AND ALL ARE SUBJECT TO FIELD VERIFICATION.
- THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233 OR WWW.DIGSAFE.COM) AND THE BURLINGTON DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION.
- ARCHITECTURAL, MECHANICAL, ELECTRICAL, INTERIOR PLUMBING, STRUCTURAL, BUILDING DEMOLITION, SITE CONTAMINATION AND/OR HAZARDOUS MATERIALS HANDLING DESIGN AND SERVICES TO BE PROVIDED BY OTHERS.
- FOR POST CONSTRUCTION STORMWATER DESIGN, SEE SCOTT MICHAEL MAPES ENVIRONMENTAL ENGINEERING / WATERSHED CONSULTING ASSOCIATES, LLC MEMO DATED MARCH 23, 2018.
- PARKING LOT LAYOUT, SIGNAGE, AND CIRCULATION BASED UPON DATA AND INFORMATION PROVIDED BY RESOURCE SYSTEMS GROUP, INC.
- IF THE OPEN AREA IDENTIFIED ON THIS SITE PLAN IS INTENDED/PROPOSED TO BE USED FOR ANY PARTICULAR PURPOSE, THE YMCA AND/OR ITS DESIGNATED QUALIFIED REPRESENTATIVE, IS RESPONSIBLE FOR ASSURING THE AREA'S FINAL DESIGN AND USE MEET ALL APPLICABLE STANDARDS/REGULATIONS FOR THAT PURPOSE/USE. THE OPEN AREA ON THIS PLAN HAS NOT BEEN DESIGNED FOR ANY PARTICULAR USE BEYOND MAKING IT AVAILABLE AND ACCESSIBLE TO THE YMCA. DEPENDING ON THE DESIRED INTENDED/PROPOSED USE, THE YMCA SHALL UNDERTAKE A COMPLETE AND THOROUGH ASSESSMENT OF THE AREA CONSIDERING BUT NOT LIMITED TO ACCESS, EGRESS, EMERGENCY ACCESS/EGRESS, SURFACE TREATMENT AND SECURITY MEASURES (FENCING, LIGHTING, REMOTE OBSERVATION, ETC.).
- FOR INFORMATION REGARDING BUILDING AND SITE DEMOLITION, REFER TO THE SITE DEMOLITION PLAN DATED 3/23/2018 AND THE CORRESPONDING WRITTEN "SITE DEMOLITION PLAN" DATED 2/5/2016 BOTH BY KAS INC.
- REFER TO THE "SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT AND SOIL CHARACTERIZATION" DATED JANUARY 2018 BY KAS INC. FOR INFORMATION SUBSURFACE INVESTIGATION RESULTS OF ONSITE SOILS AND SOIL MANAGEMENT STRATEGIES.
- FOR ALL LANDSCAPING AND LIGHTING PLANS AND DETAILS, REFER TO SEPARATE PLANS BY PARK ARCHITECTURE.

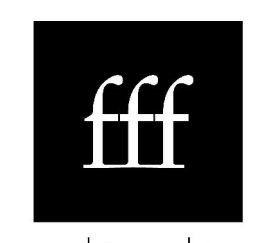
LEGEND

PROPOSED	EXISTING	
---	---	CONTOURS
---	---	EDGE OF PAVEMENT
---	---	PROPERTY LINE
---	---	BUILDING SETBACKS
---	---	GRAVITY SEWER
---	---	GAS LINE
---	---	GAS LINE (RETIRED)
---	---	WATER LINE
---	---	SLOPE CATCH LINE / LIMITS OF DISTURBANCE
---	---	OVERHEAD UTILITY
---	---	ROCK LINED SWALE
---	---	GRAVEL ROAD
---	---	PAVEMENT
---	---	SIDEWALK/CONCRETE
---	---	CURB
---	---	CULVERT
---	---	TREE LINE
---	---	UTILITY POLE
---	---	TREE
---	---	PARKING METER
---	---	GAS VALVE
---	---	WATER SHUT OFF
---	---	ELECTRIC PEDESTAL
---	---	POLE MOUNTED LIGHT
---	---	WALL MOUNTED LIGHT

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FILENAME: 810150152_CIVILBASE_REV7.DWG



Project Name

BURLINGTON VERMONT

Project Number

3/23/18

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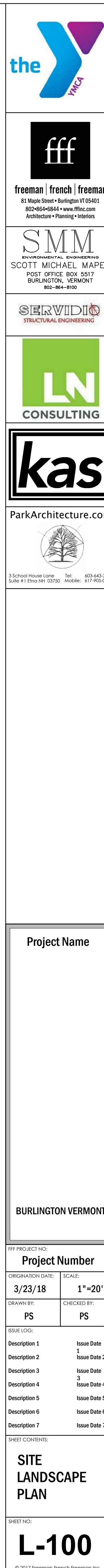
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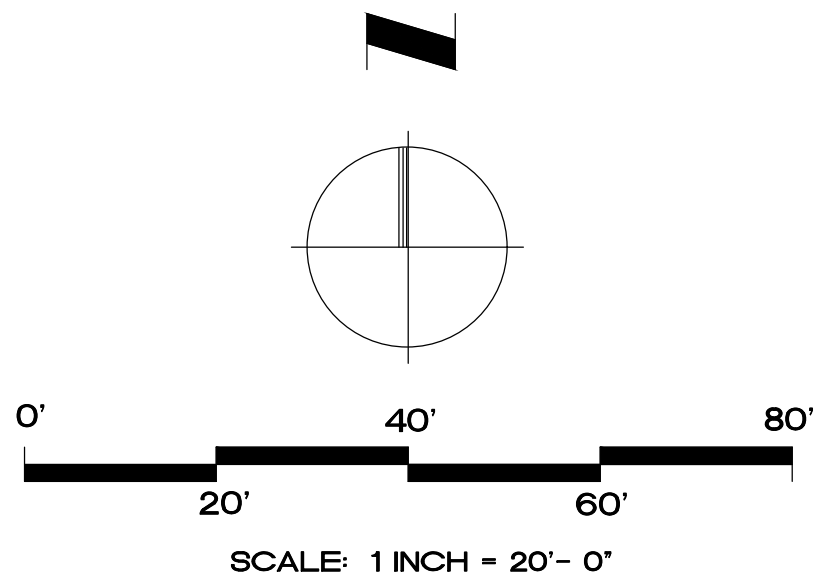
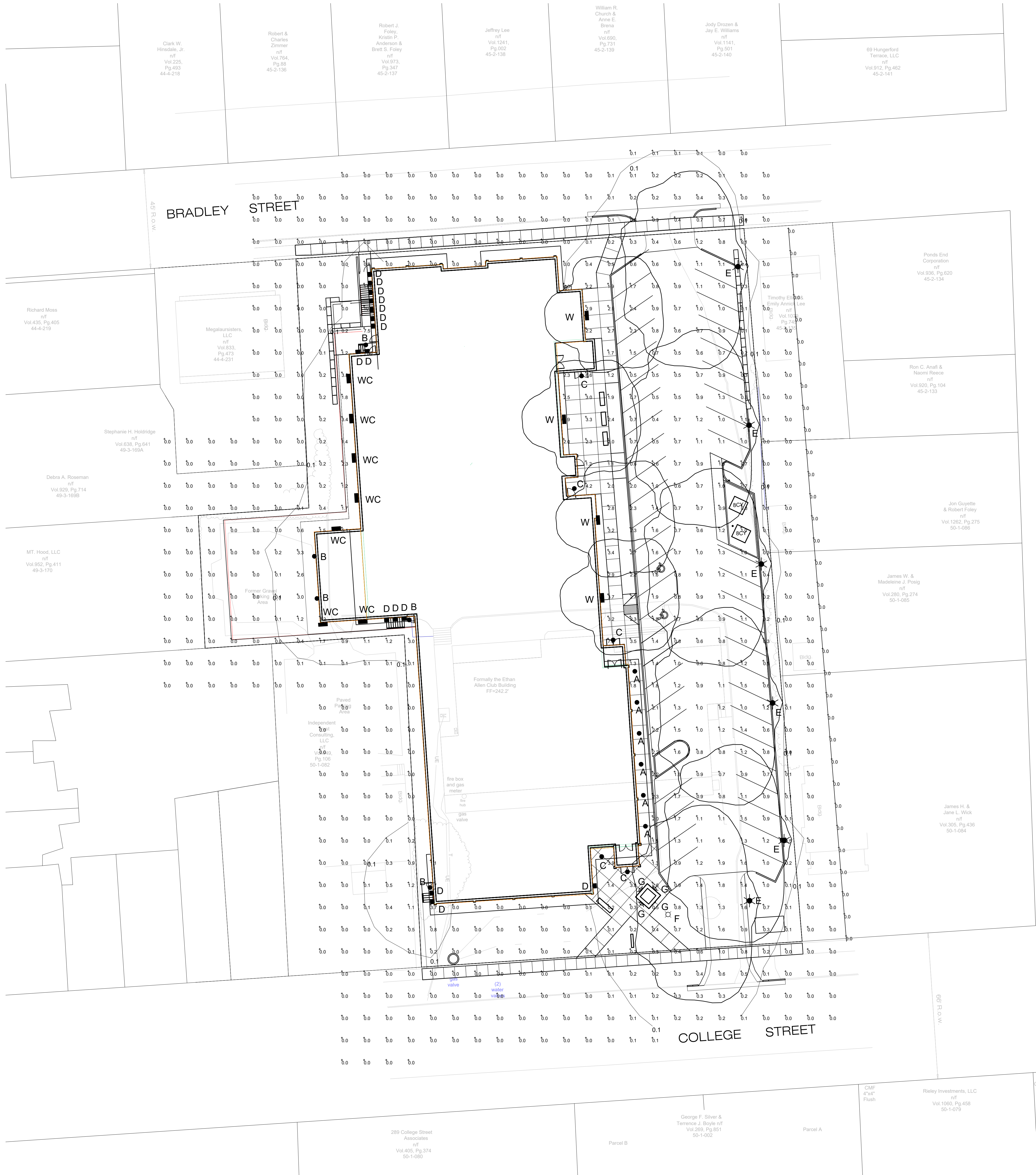
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LOCATION MAP (FROM USGS) N.T.S.

FIXTURE SCHEDULE

Luminaire Schedule							
Tag	Symbol	Qty	Lum. Lumens	LLF	Lum. Watts	Model #	Description
G		4	64	0.900	5.32	EL807_3L3K_UNV	Wall, Step, Path Light
D		15	174	0.900	10.5	EL807_9L3K_KIT	Wall, Step, Path Light
A		6	1070	0.900	13.4	LC6SL 6LCSL10L35K8	Recessed Can Downlight
E		6	3221	0.900	55.8	VP-S-24NB-55-3K-T4-BLC	20' Pole Mounted Directional
W		4	3131	0.900	39.93	CY2-35-3K7-1-4-R	Pedestrian Scale Wallpack
B		5	1901	0.900	22.2	LC6SL 6LCSL18L35K8	Recessed Can Downlight
C		5	1070	0.900	13.4	LC6SL 6LCSL10L35K8	Recessed Can Downlight
WC		7	1129	0.700	17.3	CY1-15-3K7-1-2D-R	Accent Scale Wallpack
F		1	N/A	N/A	N/A	TBD - POLE MOUNTED	Flagpole light

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
property line	0.00	0.0	0.0	N.A.	N.A.
site	0.58	11.6	0.0	N.A.	N.A.
PARKING	1.02	2.4	0.2	5.1	12.0

NOTE: LUMINAIRE SCHEDULE BY SWANEY LIGHTING ASSOCIATES, INC.

GENERAL LIGHTING NOTES:

1. ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE THE CITY OF BURLINGTON SEC. 5.5.2 OUTDOOR LIGHTING STANDARDS.
2. ALL OUTDOOR LIGHTING FIXTURES, OTHER THAN THOSE USING ONLY LOW OUTPUT LAMPS AND ALTERNATIVES SPECIFICALLY ALLOWED SHALL BE "FULL CUT OFF" OR "CUT OFF" AS DEFINED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA)
3. TO ENSURE THAT GLARE IS MINIMIZED, LIGHTING IS DIRECTED ONLY TO THE AREA TO BE ILLUMINATED. THAT ILLUMINATION IS DIRECTED BELOW A HORIZONTAL PLANE, AND THAT ILLUMINATION DOES NOT CAST DIRECT LIGHT BEYOND THE BOUNDARIES OF THE PROPERTY ON WHICH THEY ARE LOCATED.
4. LIGHT LEVELS ON ADJACENT PROPERTIES SHALL NOT EXCEED ONE-TENTH (0.1) FOOTCANDLE AS A DIRECT RESULT OF THE ON-SITE LIGHTING MEASURED TWENTY (20) FEET BEYOND THE PROPERTY LINE OF THE DEVELOPMENT SITE.
5. THE ILLUMINATION OF ALL FLAG LIGHTING OTHER THAN STATE OR NATIONAL GOVERNMENT SHALL BE EXTINGUISHED AT THE END OF PUBLIC BUSINESS HOURS OR BY 10:00PM WHICH EVER IS LATER.

PARKING LOT LIGHTING NOTES:

1. THE MAXIMUM HEIGHT FOR ANY FIXTURE SHALL NOT EXCEED 25FT.
2. THE MAXIMUM ILLUMINATION LEVEL SHALL NOT EXCEED 4 FOOTCANDLES (FC) AT ANY POINT.

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DRAFT DATE 03-23-2018

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ParkArchitecture.com



3 School House Lane Tel: 603-643-4000
Suite #1 Troy NH 03720 Mobile: 617-903-1000

Project Name

BURLINGTON VERMONT

Project Number	
3/23/18	1"=20'
PS	PS

Issue Log:	
Description 1	Issue Date 1
Description 2	Issue Date 2
Description 3	Issue Date 3
Description 4	Issue Date 4
Description 5	Issue Date 5
Description 6	Issue Date 6
Description 7	Issue Date 7

SHEET CONTENTS:

SITE
LIGHTING
PLAN

SHEET NO:

L-200

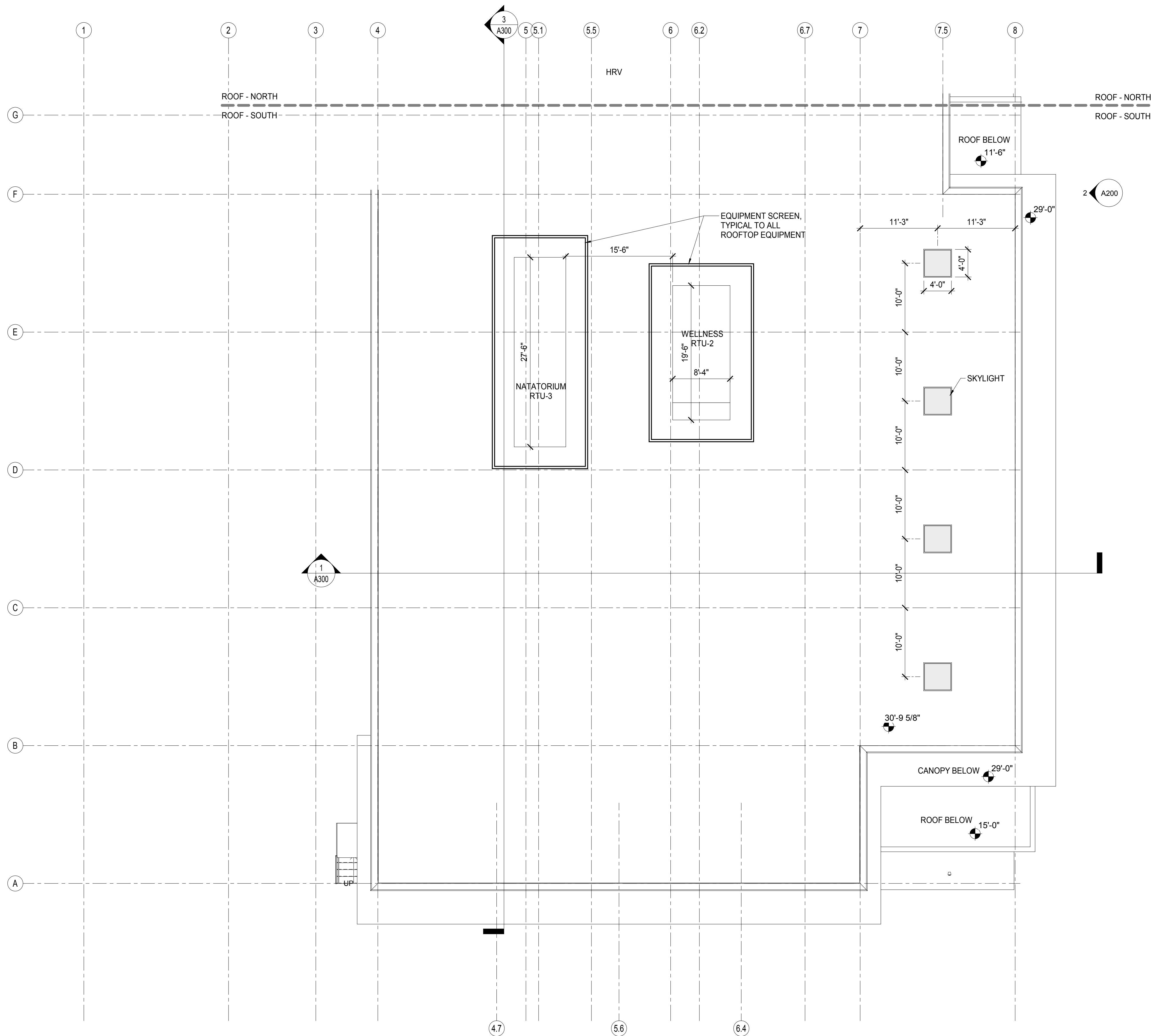
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1 ROOF - SOUTH
A105 SCALE: 1/8" = 1'-0"

ROOF PLAN GENERAL NOTES

1. PROVIDE WALK PADS TO EQUIPMENT.
2. SECONDARY OVERFLOW DRAINAGE IS PROVIDED VIA SCUPPERS.
3. PROVIDE A TOTAL OF 4 MAINTENANCE TIE-OFFS.
4. HIGH CANOPY ROOFS AND OVERHANGS ARE INTERNALLY DRAINED (NO WATER IS SHED TO THE EXTERIOR).
5. A SINGLE WALL MOUNTED OSHA COMPLIANT ROOF ACCESS LADDER IS PROVIDED BETWEEN EACH ROOF LEVEL CHANGE.
6. METAL ROOF EDGE COPING IS FLUSH BUTT JOINT WITH BACKER PLATES.
7. ALL SKYLIGHTS TO BE OSHA COMPLIANT, WITH INTGRAL CURBS AND FALL PROTECTION, AND MEET VT ENERGY CODE.



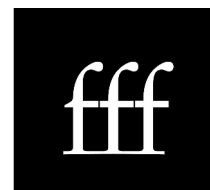
FLOOR PLAN GENERAL NOTES

- ALSO SEE SYMBOL LEGEND ON COVER SHEET.
1. **DIMENSIONS:** ALL INTERIOR DIMENSIONS ARE TO FACE OF GWB OR TILE FINISH UNLESS OTHERWISE NOTED. EXTERIOR DIMENSIONS ARE TO CORNER OF FINISH UNLESS NOTED OTHERWISE.
 2. PLANS ARE TO BE VIEWED IN CONJUNCTION WITH CIVIL, LANDSCAPE, STRUCTURAL, MEPFP AND ALL OTHER TRADES. APPROPRIATE DISCREPANCIES ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR RESOLUTION BEFORE COMMENCING WORK.
 3. ALL NON-ARCHITECTURAL INFORMATION SHOWN HERE IS FOR REFERENCE ONLY.
 4. REFER TO CIVIL PLANS FOR LIMIT OF WORK.
 5. REFER TO G200 LIFE SAFETY PLANS FOR LOCATIONS OF SMOKE AND FIRE RESISTANT RATED CONSTRUCTION.
 6. THE DISTANCE FROM THE HINGE SIDE OF THE DOOR TO THE FACE OF ADJACENT PERPENDICULAR WALL SHALL BE 6 INCHES (INCLUDING FRAME) UNLESS NOTED OTHERWISE.
 7. ALL VERTICAL AND HORIZONTAL PENETRATIONS THROUGH RATED ASSEMBLIES ARE TO BE SEALED WITH UL-LISTED FIRESAFING AND/OR SEALANT ASSEMBLIES TO MAINTAIN RATING.
 8. KEEP STANDPIPES AND ASSOCIATED ASSEMBLIES CLEAR OF THE REQUIRED PATH OF EGRESS.

FLOOR PLAN LEGEND

ALSO SEE WALL TYPES SHEET A004

- EXISTING WALL/ COLUMN TO REMAIN
- NEW METAL STUD / GYPSUM WALLBOARD WALL
- NEW MASONRY WALL
- NEW STEEL CONCRETE COLUMN - SEE STRUCTURAL
- FIRE EXTINGUISHER CABINET:
FEC-1: SEMI-RECESSED CABINET W/ FE-1
FEC-2: SURFACE MOUNT CABINET W/ FE-1
- FIRE EXTINGUISHER ON WALL BRACKET:
FE-1: MULTI-PURPOSE DRY CHEM. EXTINGUISHER (TYPE A-B-C)
FE-2: KITCHEN/ GREASE EXTINGUISHER (TYPE K)
- GWb COLUMN ENCLOSURE
GCE
- Room name - ROOM TAG - SEE A800 FOR FINISHES
ROOM NAME
101 - ROOM NUMBER
XX SF - ROOM NET AREA (SHOWN AT SD PHASE ONLY)
- WALL TAG - SEE SHEETS A003, A004
WALL TYPE
WHERE A WALL TYPE LEADER PASSES THROUGH 2 OR MORE WALLS, ALL OF THOSE WALLS SHALL BE OF THE TYPE INDICATED
- DOOR TAG - SEE SHEET A800
DOOR NUMBER
WINDOW OR CURTAINWALL TAG
SEE SHEET A810
WINDOW OR CURTAINWALL TYPE



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SCOTT MICHAEL MAPES



SCHEMATIC DESIGN SET
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Project Name

BURLINGTON VERMONT

FFF PROJECT NO:

A1630

ORIGINATION DATE: 03/23/18

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

DRAWN BY:

Author

CHECKED BY:

Checker

ISSUE LOG:

SD - NOT FOR CONSTRUCTION

SHEET CONTENTS:

ROOF PLAN - SOUTH

SHEET NO:

A105



N - PROJECT NORTH
N - MAGNETIC NORTH

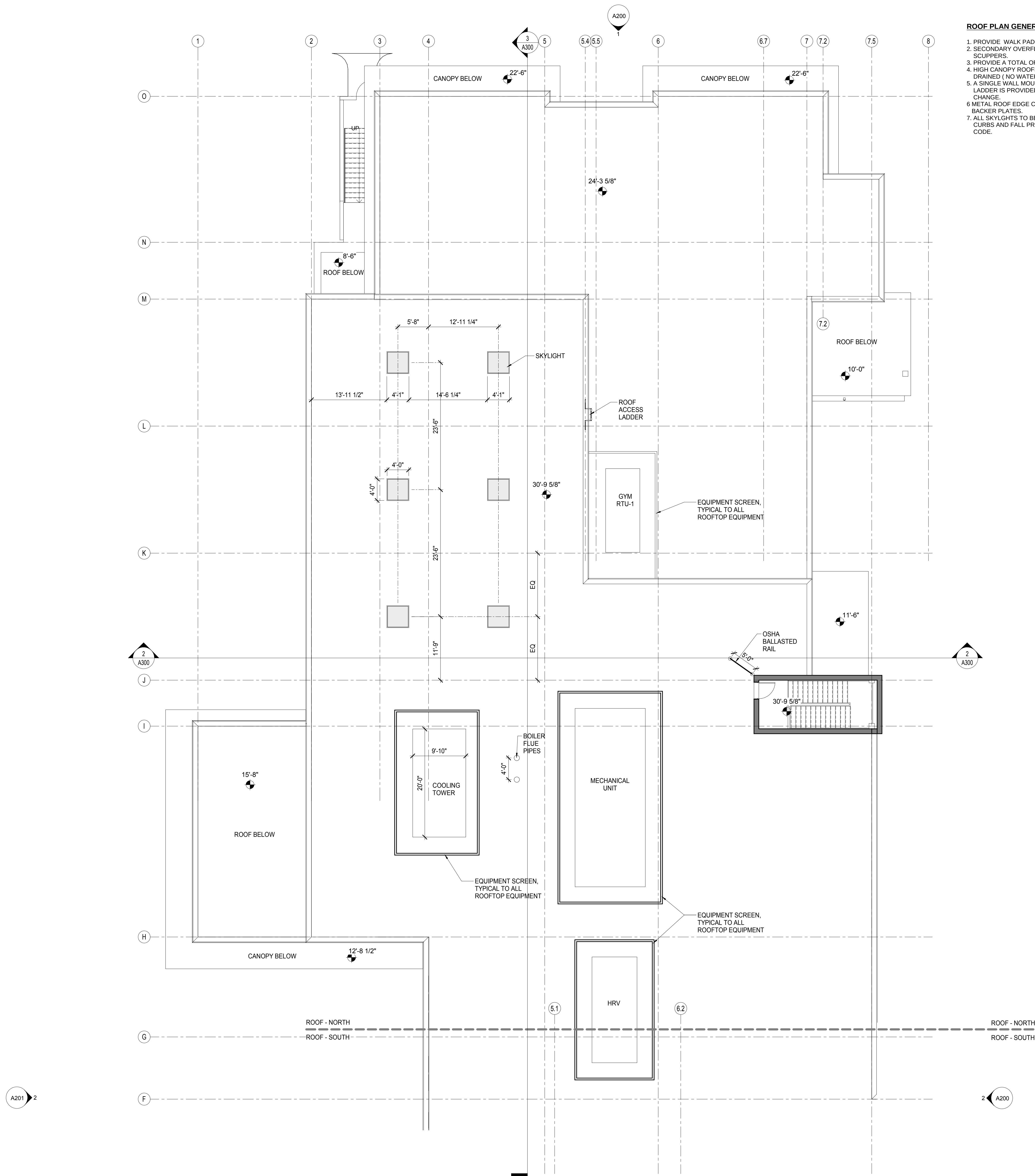
GRAPHIC SCALE

0 4' 8' 16'

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3/20/2018 4:43:57 PM

1 ROOF - NORTH
A106 SCALE: 1/8" = 1'-0"



ROOF PLAN GENERAL NOTES

1. PROVIDE WALK PADS TO EQUIPMENT.
2. SECONDARY OVERFLOW DRAINAGE IS PROVIDED VIA SCUPPERS.
3. PROVIDE A TOTAL OF 4 MAINTENANCE TIE-OFFS.
4. HIGH CANOPY ROOFS AND OVERHANGS ARE INTERNALLY DRAINED (NO WATER IS SHED TO THE EXTERIOR).
5. A SINGLE WALL MOUNTED OSHA COMPLIANT ROOF ACCESS LADDER IS PROVIDED BETWEEN EACH ROOF LEVEL CHANGE.
6. METAL ROOF EDGE COPING IS FLUSH BUTT JOINT WITH BACKER PLATES.
7. ALL SKYLIGHTS TO BE OSHA COMPLIANT, WITH INTEGRAL CURBS AND FALL PROTECTION, AND MEET VT ENERGY CODE.

FLOOR PLAN GENERAL NOTES

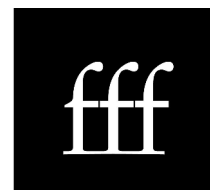
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 2. PLANS ARE TO BE VIEWED IN CONJUNCTION WITH CIVIL, LANDSCAPE, STRUCTURAL, MEPFP AND ALL OTHER TRADES, AS APPROPRIATE. DISCREPANCIES ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR RESOLUTION BEFORE COMMENCING WORK.
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 8. KEEP STANDPIPES AND ASSOCIATED ASSEMBLIES CLEAR OF THE REQUIRED PATH OF EGRESS.

FLOOR PLAN LEGEND

ALSO SEE WALL TYPES SHEET A004

- EXISTING WALL/ COLUMN TO REMAIN
- NEW METAL STUD / GYPSUM WALLBOARD WALL
- NEW MASONRY WALL
- NEW STEEL CONCRETE COLUMN - SEE STRUCTURAL
- FIRE EXTINGUISHER CABINET:
 - FEC-1: SEMI-RECESSED CABINET W/ FE-1
 - FEC-2: SURFACE MOUNT CABINET W/ FE-1
- FIRE EXTINGUISHER ON WALL BRACKET:
 - FE-1: MULTI-PURPOSE DRY CHEM. EXTINGUISHER (TYPE A-B-C)
 - FE-2: KITCHEN/ GREASE EXTINGUISHER (TYPE K)
- GWB COLUMN ENCLOSURE

- Room name - ROOM TAG - SEE A900 FOR FINISHES
- 101 - ROOM NAME
 - 101 - ROOM NUMBER
 - XX SF - ROOM NET AREA (SHOWN AT SD PHASE ONLY)
 - 11 - WALL TAG - SEE SHEETS A003, A004
 - 11 - WALL TYPE
 - WHERE A WALL TYPE LEADER PASSES THROUGH 2 OR MORE WALLS, ALL OF THOSE WALLS SHALL BE OF THE TYPE INDICATED
 - 101 - DOOR TAG - SEE SHEET A800
 - 101 - DOOR NUMBER
 - 101 - WINDOW OR CURTAINWALL TAG
 - SEE SHEET A810
 - 101 - WINDOW OR CURTAINWALL TYPE



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SCHEMATIC DESIGN SET
NOT FOR CONSTRUCTION

Project Name

BURLINGTON VERMONT

FFF PROJECT NO:

A1630

ORIGINATION DATE: 03/23/18 SCALE: 1/8" = 1'-0"

DRAWN BY: Author CHECKED BY: Checker

ISSUE LOG: SD - NOT FOR CONSTRUCTION

SHEET CONTENTS:

ROOF PLAN - NORTH

SHEET NO:

A106

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EXTERIOR RENDERING

GREATER BURLINGTON YMCA

298 COLLEGE STREET, BURLINGTON, VT

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ELEVATION KEYNOTES LEGEND	
Key Value	Keynote Text
A	ROOFTOP EQUIPMENT SCREEN – COLOR COATED
B	ROOF EDGE / PARAPET COPING – COLOR COATED METAL
D	HORIZONTAL CLAPBOARDS – PAINTED FIBER CEMENT
E	WALL PANELS – PAINTED FIBER CEMENT PANEL
F	TRIM BOARDS – PAINTED FIBER CEMENT PANEL
H	VERTICAL COLUMNS & BRACKETS – STAINED NATURAL WOOD
I	WINDOWS – COLORED FIBERGLASS (FIXED)
J	STOREFRONT – COLORED FIBERGLASS
K	STOREFRONT ENTRIES – COLORED ALUMINUM
L	STAINLESS STEEL BASE
N	WALL SCOTCH DOWNLIGHT
V	FENCE – COATED CHAIN LINK
Y	KNOX BOX

1 NORTH ELEVATION
A200 SCALE: 1/8" = 1'-0"



2 EAST ELEVATION
A200 SCALE: 1/8" = 1'-0"



SCHEMATIC DESIGN SET
NOT FOR CONSTRUCTION

Project Name

BURLINGTON VERMONT

FFP PROJECT NO: **A1630**

ORIGINATION DATE: 03/23/18 SCALE: 1/8" = 1'-0"

DRAWN BY: EC CHECKED BY: AH

ISSUE LOG: SB - NOT FOR CONSTRUCTION

SHEET CONTENTS: EXTERIOR ELEVATIONS

SHEET NO: **A200**

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ELEVATION KEYNOTES LEGEND	
Key Value	Keynote Text
A	ROOFTOP EQUIPMENT SCREEN – COLOR COATED
B	ROOF EDGE / PARAPET COPING – COLOR COATED METAL
D	HORIZONTAL CLAPBOARDS – PAINTED FIBER CEMENT
E	WALL PANELS – PAINTED FIBER CEMENT PANEL
F	TRIM BOARDS – PAINTED FIBER CEMENT PANEL
H	VERTICAL COLUMNS & BRACKETS – STAINED NATURAL WOOD
I	WINDOWS – COLORED FIBERGLASS (FIXED)
J	STOREFRONT – COLORED FIBERGLASS
K	STOREFRONT ENTRIES – COLORED ALUMINUM
L	STAINLESS STEEL BASE
N	WALL SCONCE DOWNLIGHT
V	FENCE – COATED CHAIN LINK
Y	KNOX BOX

81 Maple Street • Burlington VT 05401
802-465-4044 • www.fffinc.com
Architects • Planning • Interiors

SCOTT MICHAEL MAPES

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



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

SCHEMATIC DESIGN SET
NOT FOR CONSTRUCTION

Project Name

BURLINGTON VERMONT

FFF PROJECT NO: A1630

ORIGINATION DATE: 03/23/18	SCALE: 1/8" = 1'-0"
DRAWN BY: EC	CHECKED BY: AH

ISSUE LOG:
SD - NOT FOR CONSTRUCTION

SHEET CONTENTS:
EXTERIOR ELEVATIONS

SHEET NO:
A201

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COLLEGE STREET (SOUTH) ELEVATION



PUBLIC PARKING (EAST) ELEVATION



BRADLEY STREET (NORTH) ELEVATION

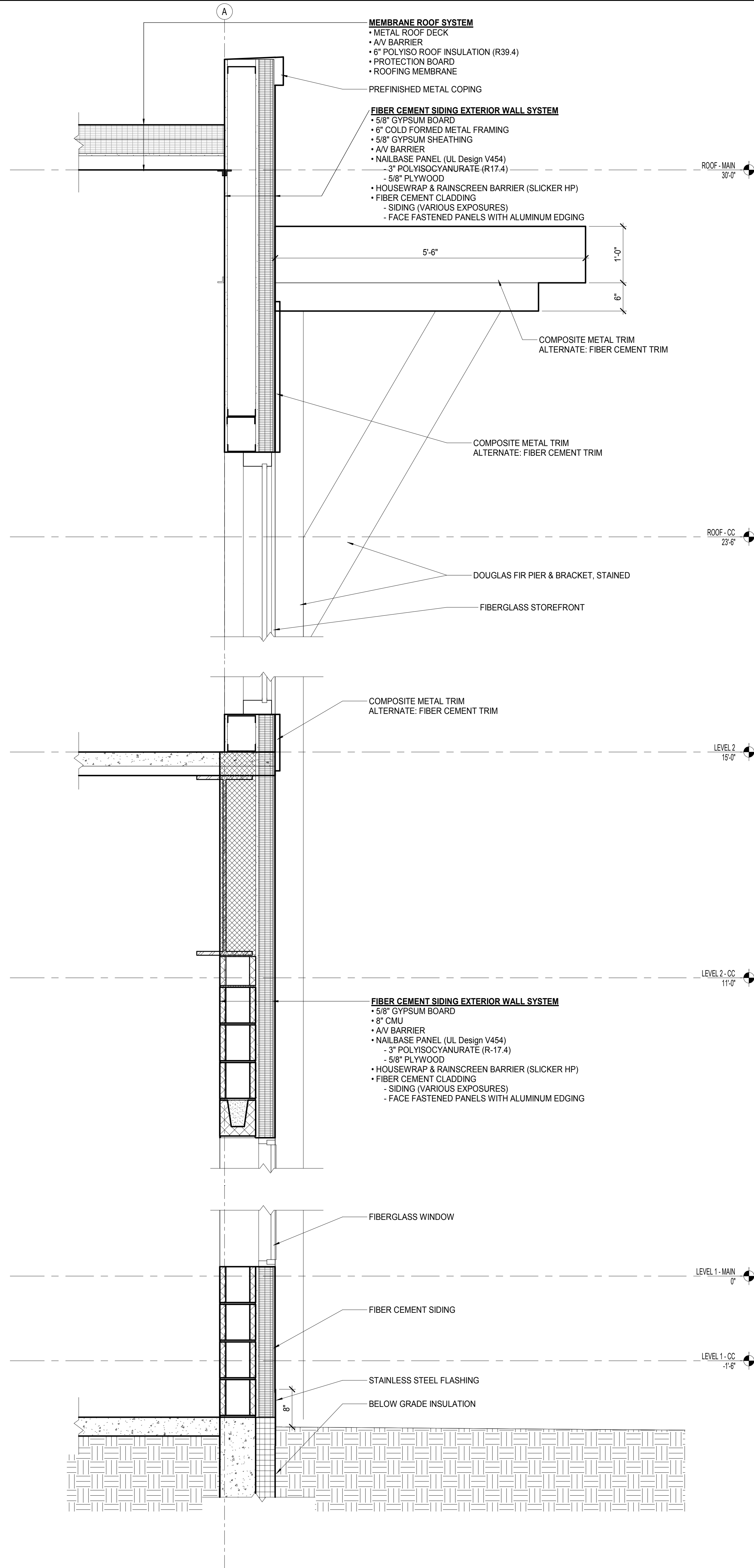


(WEST) ELEVATION

3/20/2018 11:43 PM

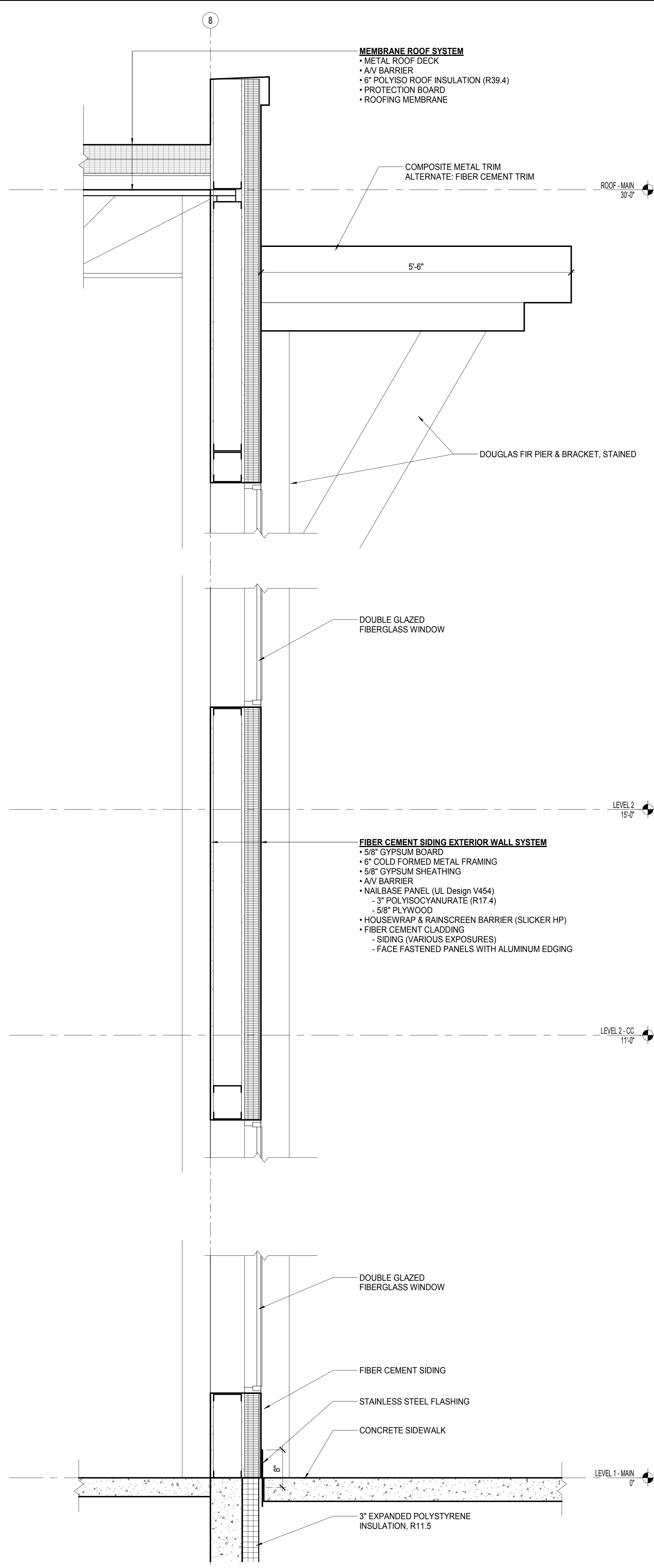
1
A310

SOUTH WALL
SCALE: 1" = 1'-0"



2
A310

EAST WALL AT COMMONS
SCALE: 1" = 1'-0"



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SCOTT MICHAEL MAPES



SCHEMATIC DESIGN SET
NOT FOR CONSTRUCTION

Project Name

BURLINGTON VERMONT

FFF PROJECT NO:
A1630

ORIGINATION DATE: 03/23/18 SCALE:
1" = 1'-0"

DRAWN BY: EC CHECKED BY: AH

ISSUE LOG:
S0 - NOT FOR CONSTRUCTION

SHEET CONTENTS:

WALL SECTIONS

SHEET NO.:

A310

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HardieZone® System

Only James Hardie fiber cement products are Engineered for Climate®. In the northern U.S. and Canada, HZ5® products resist shrinking, swelling and cracking even after years of wet or freezing conditions. HZ10® products help protect homes from hot, humid conditions, blistering sun and more.

With James Hardie siding and trim, homeowners have an exterior that's tougher than the elements and easy on the eyes.

NO MATTER WHAT NATURE BRINGS



Resist the elements
WITH IRRESISTIBLE CHARM.



TOUGHER THAN THE ELEMENTS



Stands up to storms and harsh weather



Water resistant to protect against swelling, warping and cracking; also resists mold damage



Won't be eaten by animals or insects



Fire resistant



Helps reduce time and money spent on maintenance

Sleek and strong, HardiePlank® lap siding is not just our best-selling product – it’s the most popular brand of siding in America.

With a full spectrum of colors and textures, homeowners can enjoy protection from the elements and the versatility to make their dream home a reality. From Victorians to Colonials, HardiePlank lap siding sets the standard in exterior cladding.

HardieTrim®
5/4 x 3.5 in.
Arctic White

HardiePlank®
6.25 in. Smooth
Arctic White

A classic look for
THE HOME OF THEIR DREAMS.



SELECT CEDARMILL®

Khaki Brown

Thickness	5/16 in.			
Length	12 ft. planks			
Width	5.25 in.	6.25 in.	7.25 in.	8.25 in.
Exposure	4 in.	5 in.	6 in.	7 in.
ColorPlus Pcs./Pallet	324	280	252	210
Prime Pcs./Pallet	360	308	252	230
Pcs./Sq.	25.0	20.0	16.7	14.3



SMOOTH

Countrylane Red

Thickness	5/16 in.			
Length	12 ft. planks			
Width	5.25 in.	6.25 in.	7.25 in.	8.25 in.
Exposure	4 in.	5 in.	6 in.	7 in.
ColorPlus Pcs./Pallet	324	280	252	210
Prime Pcs./Pallet	360	308	252	230
Pcs./Sq.	25.0	20.0	16.7	14.3



BEADED CEDARMILL®*

Light Mist

Thickness	5/16 in.			
Length	12 ft. planks			
Width	8.25 in.			
Exposure	7 in.			
ColorPlus Pcs./Pallet	210			
Prime Pcs./Pallet	240			
Pcs./Sq.	14.3			



BEADED SMOOTH*

Heathered Moss

Thickness	5/16 in.			
Length	12 ft. planks			
Width	8.25 in.			
Exposure	7 in.			
ColorPlus Pcs./Pallet	210			
Prime Pcs./Pallet	240			
Pcs./Sq.	14.3			

*Beaded Cedarmill® and Beaded Smooth are available exclusively with ColorPlus Technology in Pittsburgh, Philadelphia and New England districts.

Products are available primed or with ColorPlus Technology finishes. For more details, visit jameshardiepros.com

HardiePanel® vertical siding delivers style and substance. When combined with HardieTrim® boards, it achieves the rustic board-and-batten look that defines cottage charm. The covered seams contribute to a well-insulated home.

Its crisp, clean lines make HardiePanel vertical siding a smart choice for strong, contemporary designs.



True to the tradition of
PERFORMANCE AND BEAUTY.



SELECT CEDARMILL®
Navajo Beige

Thickness	5/16 in.		
Size	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
Pcs./Pallet	50	50	50
Pcs./Sq.	3.2	2.8	2.5



SMOOTH
Evening Blue

Thickness	5/16 in.		
Size	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
Pcs./Pallet	50	50	50
Pcs./Sq.	3.2	2.8	2.5



STUCCO
Navajo Beige

Thickness	5/16 in.		
Size	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
Pcs./Pallet	50	50	50
Pcs./Sq.	3.2	2.8	2.5



SIERRA 8
Not available with ColorPlus Technology

Thickness	5/16 in.		
Size	4 ft. x 8 ft.	4 ft. x 9 ft.*	4 ft. x 10 ft.
Pcs./Pallet	50	50	50
Pcs./Sq.	3.2	2.8	2.5

*4 ft. x 9 ft. HardiePanel vertical siding only available primed and exclusively in DC/Baltimore and Virginia districts.

Form meets function at every angle with HardieTrim® boards. With an authentic look, HardieTrim boards provide design flexibility for columns, friezes, doors, windows and other accent areas.

Better than wood, it will complement your long-lasting, lower maintenance James Hardie siding — adding punctuation to your design statement.

HardieTrim®
5/4 x 3.5 in.
Khaki Brown

HardiePlank®
6.25 in. Smooth
Navajo Beige

The performance you require
THE DISTINCTIVENESS YOU DESIRE.

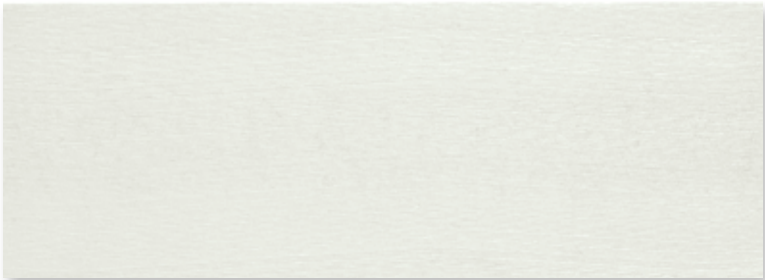
HARDIETRIM® BOARDS



4/4 NT3® SMOOTH

Arctic White

Thickness	.75 in.				
Length	12 ft. boards				
Width	3.5 in.	5.5 in.	7.25 in.	9.25 in.	11.25 in.
Pcs./Pallet	312	208	156	104	104



5/4 NT3® SMOOTH

Arctic White

Thickness	1 in.					
Length	12 ft. boards					
Width	3.5 in.	4.5 in.	5.5 in.	7.25 in.	9.25 in.	11.25 in.
Pcs./Pallet	240	200	160	120	80	80



CROWN MOULDING

Arctic White

Thickness	.75 in.	
Length	12 ft. boards	
Width	3.25 in.	5.25 in.
Pcs./Pallet	50	48

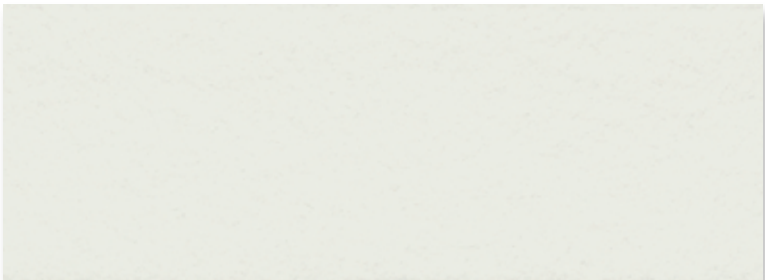
HARDIETRIM® BATTEN BOARDS



RUSTIC GRAIN®

Arctic White

Thickness	.75 in.
Length	12 ft. boards
Width	2.5 in.
Pcs./Pallet	437



SMOOTH

Arctic White

Thickness	.75 in.
Length	12 ft. boards
Width	2.5 in.
Pcs./Pallet	437

HardieTrim Boards are available primed or with ColorPlus Technology in DC/Baltimore and Virginia districts. For other districts, HardieTrim Boards are exclusively available with ColorPlus Technology. HardieTrim Batten Boards are available primed or with ColorPlus Technology. HardieTrim Crown Mouldings are available exclusively in ColorPlus Technology.

For more details, visit jameshardiepros.com

Express the true nature of a home's character with
ColorPlus® Technology

PLANK, PANEL, BATTEN AND SHINGLE COLORS



TRIM AND SOFFIT COLORS TRIM TO COLOR MATCH SIDING



Selecting a color? Request a product sample
at [jameshardiepros.com/samples](https://www.jameshardiepros.com/samples)

Colors shown are as accurate as printing methods will permit.
Please see actual product sample for true color.

Color Selection

Explore our color palettes and
differentiate your homes with stunning
curb appeal. These distinctive tones
are drawn from natural environments,
complementing your design with the
look of America's idyllic neighborhoods.

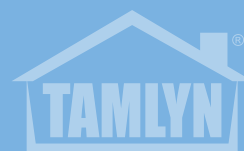
 XtremeTrim®

 XtremeColor™ Flashing

 XtremeVent™

 XtremeBlock™

 XtremeEnvelope™ Solutions



Product Catalog

2016 - 2017







 XtremeTrim®

 XtremeSelection™

 XtremeLeadership™

Tamlyn continues to lead the way in selection and choice for trims to compliment siding panels and planks of all types.

While Tamlyn has consistently been the leader in creating and developing choices for fiber cement sidings, we did not stop there.

Tamlyn has made it possible to aesthetically trim almost any type of siding panel or plank product with our wide range of depth options. And we have provided these in choices of primed, clear anodized, specialty anodized, or color matched to satisfy whatever the project requires.

XtremeTrim® has thousands of design and color options, allowing architects and users to dramatically improve their building aesthetics and create modern architectural lines preferred by millennials. Sustainable, durable, non-combustible, lightweight, easy to use, for exterior use.

Tamlyn has our own team of architects in-house to aid and assist the process of selecting and assuring the correct profile for the specific application or desired aesthetic effect.

But Tamlyn does not stop there in the selection and leadership process. Tamlyn has the ability and materials in house to provide appropriate non-extruded fabrication from sheet stock of almost any shape or profile that may be needed on the project.

And going even further, Tamlyn has for years been a leader in ventilation options and selections to improve structure longevity and quality. As a leading participant in building science innovation, Tamlyn also brings to market the industry's leading value in drainable and Water Resistive Barrier wrap systems.

Best Practice

While we design all our XtremeTrim® with drain dams for vertical runs and shingle fashion for horizontal profiles, its primary design is for aesthetics. XtremeTrim®, including water management profiles, will not stop all water from penetrating the surface of the cladding. The primary insurance of moisture mitigation for the building envelope is your housewrap, preferably a drainable housewrap. Other options are to use rainscreen along with your housewrap. We recommend that you consult your siding manufacturer for best practice application when installing XtremeTrim® with their siding. As all building professionals know, water is the most significant factor in the premature deterioration of buildings, and why proper steps should always be taken to protect the envelope.

Leakage paths exist at any opening in the wall surface, whether intended or unintended. Joints between materials and around windows and doors, vents, cracks, and porous surfaces are all potential entry points for water. This is why all flashing profiles must be properly sealed with flashing membrane and all windows and door openings flashed in shingle fashion.

All standard XtremeTrim® profiles do not form a moisture management system. The architect, builder, designer and contractor are responsible for designing and installing a code compliant building envelope. Below are the current code minimum requirements.

Tamlyn XtremeTrim® products are not part of an EIFS system and not designed or intended to be used in an EIFS or similar system.

INTERNATIONAL RESIDENTIAL CODE

WALL COVERING - SECTION R703 EXTERIOR COVERING

R703.1 General. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8. The exterior wall envelope shall be designed and constructed in such a manner that prevents the accumulation of water within the wall assembly by providing a water-resistive barrier behind the exterior veneer as required by Section R703.2 and a means of draining water that enters the assembly to the exterior.

R703.8. Flashing. Approved corrosion-resistive flashing shall be applied shingle-fashion in such a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:

EXTERIOR WALLS - SECTION 1403 PERFORMANCE REQUIREMENTS

IBC 1403.2: Weather protection. Exterior walls shall provide the building with a weather resistant exterior wall envelope. The exterior wall envelope shall include flashing, as described in Section 1405.3. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer, as described in Section 1404.2, and a means for draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with the International Energy Conservation Code.

Before Installing

Read construction drawings to ensure correct layout and placement and ensure that building wrap or rain screen (where applicable) is in place.

An outside corner is the best place to start installing XtremeTrim®. Choose one that makes the most sense for your project. XtremeTrim® System Reveals offers many options.

Cutting and Painting

Use a non-ferrous carbide miter saw blade when cutting XtremeTrim®. Use Direct To Metal (DTM) paint when jobsite painting.

Fasteners and Fastening

Stainless steel fasteners are recommended. XtremeTrim® profiles may be secured in place with a few SS nails until fastened through panels and into studs during panel or plank fastening per siding manufacturer's instructions. Aluminum fasteners may also be used.

Fastening Fiber Cement

It is recommended by most manufacturers that inset fiber cement panels be fastened to the wall with Stainless Steel Torx Head Screws or Hot Dipped Galvanized Siding Nails.

Butt Joint

Sealant is required between butt joints where two trims come together. May also be further protected by use of a piece of XtremeFlashing® behind the butt joint or with a metal flasher behind the joint. Carefully align butt joints for smooth transition if more than one length is used.

Do Not

Do not install Horizontal trims on horizontal applications where the exterior flange can catch water. Never install vertical application profiles horizontally.

Notes

Please follow siding manufacturer's best practice guides when installing. XtremeTrim® profiles DO NOT form a moisture management system. The architect and builder are responsible for designing and installing a code compliant building envelope. Before installing XtremeTrim® use either a drainable housewrap or a standard housewrap with a rainscreen system if required by code or siding manufacturer.

Limited Warranty

Tamlyn warrants defective-free products for a period of 10 years for the original purchaser unless otherwise stated for the specific product ordered. Tamlyn products are further warranted as to adequacy of design, provided products are properly specified and installed. This warranty does not apply in the event products are altered in any way or are improperly installed. Liability is limited to replacement of products proven to be defective. Tamlyn has made no other warranty, express or implied, regarding its products, including but not limited to, any warranty regarding merchantability or fitness for a specific purpose. Any claim that a product is defective must be brought within 1 month of the date of installation of such products to the original purchaser. Customer hereby agrees that no other incidental or consequential damages are the responsibility of Tamlyn.

The following voids any warranty regarding Tamlyn products:

- Product has been improperly installed
- Accepted siding installation methods have not been followed
- Building codes have not been followed
- The building envelope has not been properly installed
- Products not installed by a contractor/installer with common knowledge of the building industry

Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each Tamlyn product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection there within.

Aluminum does not rust, however it does corrode. XtremeTrim® has a protective coating to cover the bare aluminum. When making cuts on XtremeTrim® recoating will be required at ends, surface scratches or when performing form cuts. Failure to do this voids your warranty. For answers to your technical questions on recoating consult your local paint manufacturer before installation.

Please follow siding manufacturers best practice application when installing any Tamlyn accessory. XtremeTrim® profiles do not form a moisture management system, the architect and builder are responsible for designing and installing a code compliant building envelope. XtremeTrim® products are not part of an Exterior Insulation Finishing System (EIFS) and are not designed or intended to be used in an EIFS or similar system.

About Tamlyn

TAMLYN was established in May 1971 by Ron Tamlyn, Sr. with \$800 borrowed money and help from his wife, Jean, in a small shack in the back yard of their modest home in Bellaire, Texas. We remain family-owned to this day. Our history is one of quality, innovation, and proven performance. We are proud to represent the manufacturing end of the building products industry, and remain a competitive manufacturer committed to making products in America, giving customers a choice and not putting all their eggs in an uncertain import basket. An overwhelming majority of our products are still made in the USA. We believe it matters in helping America keep control of its destiny.

Tamlyn manufactures Xtreme Trim® for fiber cement, roofing products and structural metal products for stronger homes and buildings that will hold together under high wind and seismic forces.

Tamlyn provides a full line of XtremeColor Flashings. Tamlyn provides tough, weather-resistant coatings for a long lasting beauty and low maintenance on XtremeColor Flashing. Easy to install with all fiber cement siding and soffit products.

A very diversified mix of frequently needed building products is available from Tamlyn. We manufacture joist and truss hangers, brick ties, hurricane clips, straps, and holdowns, as well as special and custom welded hangers. Tamlyn structural products are ICC-listed and Florida Building Code-approved. We also make G-185 triple zinc connectors for use with the ACQ treated wood products.

We offer quality products, competitive prices, and fast service. While we recognize we are in a global economy, we remain committed to making products by choice in the USA, giving customers a quality domestic option.

Mission Statement

To become a world-class and world-wide supplier of quality building products. We will help build the dream of better homes, continually innovating, while honoring our heritage as a family business that values all employees, making Tamlyn a rewarding place to work. We will promote positive, lasting relationships with customers, providing excellent products at fair prices with superior service. We commit to be good stewards of our resources to leave Tamlyn in a stronger position for the next generation, passing these values on and bringing glory to God in all we do.

Company Directory

Corporate Headquarters / Plant
13623 Pike Road
Stafford, Texas 77477
USA Toll Free 800-334-1676
Phone: 281-499-9604
Fax: 281-499-8948

Dallas Plant
10940 Petal Street
Dallas, Texas 75238
USA Toll Free 888-416-9676
Phone: 214-348-9676
Fax: 214-348-0976

The logo for XtremeTrim features a stylized green roofline above the brand name. "Xtreme" is in a bold, dark green sans-serif font, and "Trim" is in a lighter green sans-serif font, followed by a registered trademark symbol (®).

Pages 7-64

The logo for XtremeColor Flashing features a stylized green roofline above the brand name. "XtremeColor" is in a bold, dark green sans-serif font, and "Flashing" is in a lighter green sans-serif font, followed by a trademark symbol (™).

Pages 65-76

The logo for XtremeVent features a stylized green roofline above the brand name. "Xtreme" is in a bold, dark green sans-serif font, and "Vent" is in a lighter green sans-serif font, followed by a trademark symbol (™).

Pages 77-84

The logo for XtremeBlock features a stylized green roofline above the brand name. "Xtreme" is in a bold, dark green sans-serif font, and "Block" is in a lighter green sans-serif font, followed by a trademark symbol (™).

Pages 85-88

The logo for XtremeEnvelope Solutions features a stylized green roofline above the brand name. "XtremeEnvelope" is in a bold, dark green sans-serif font, and "Solutions" is in a lighter green sans-serif font, followed by a trademark symbol (™).

Pages 89-97

Primed Finish Standard

XtremeTrim® extruded profiles and ColorFlashing™ fabricated profiles are provided standard with a primed finish using a proprietary primer suitable for field painting using most paint materials. Ideal application is with a direct to metal alkyd enamel. Consult your local paint manufacturers for best practice and proper paint selection and application.

Anodized Finishes

Tamlyn stocks Clear Anodized (Architectural 202R1) in almost all extruded profiles. In addition, other anodized finishes such as Dark Bronze, Medium Bronze, Light Bronze, Gold, or Black are available as special order. All anodized finishes are provided within an industry range of color consistency and can vary slightly from item to item. Special order anodized colors are subject to specific quantity minimums by item.

Anodizing is an electrochemical conversion process that deposits an oxide film on the aluminum profile. A natural oxidation process occurs on all bare aluminum, however, producing the oxidation process artificially through anodizing creates a thicker, harder, and more durable oxide film which is an extremely durable finish resistant to most forms of airborne corrosion.

Anodized Specifications

Standard Clear Anodized – Architectural 202R1 medium etch (AA-M32CA21). Thickness of anodic coating shall be tested in accordance with ASTM B-244-68.

Color Anodized Finish – two step impregnated color Class II Architectural of 0.40-0.70 mils (AA-M12C22A33) Thickness of anodic coating shall be tested in accordance with ASTM B-244-68.

Tamlyn also provides Clear Anodized fabricated profiles in 0.040 sheet stock to compliment the extruded Clear Anodized profiles.

Powder Coating

Powder coating is an advanced method of applying finish to products. The powder used for the process is a mixture of finely ground particles of pigment and resin, which is sprayed onto a surface to be coated. The charged powder particles adhere to the electrically grounded surfaces until heated and fused into a smooth coating in a curing oven. The result is a uniform, durable, high-quality, and attractive finish.

Powder coating gives longest-lasting and most color-durable quality finishes available. Powder coated surfaces are more resistant to chipping, scratching, fading, and wearing than other finishes.

Tamlyn powder coats in-house to match all major siding colors. Quantity limits apply for custom color powder coat processing.

Traditional Wet Paint Processing

Tamlyn also can provide traditional wet paint process for custom colors. This is advantageous often for smaller volume orders. The color control and matching can be precisely managed to assure consistency throughout a job or project. Minimum quantity limits apply for all color matches.

Colors shown are illustrated as accurately as printing methods will permit. Please utilize actual product samples for true color comparison.

	Aged Pewter*		Maple
	Artic White*		Marigold
	Autumn Red		Monterey Taupe*
	Autumn Tan*		Mountain Sage*
	Black*		Nantucket Gray
	Boothbay Blue*		Natural Clay
	Cedar		Navajo Beige*
	Coastal Blue		Night Gray*
	Cobble Stone*		Olive
	Countrylane Red*		Pacific Blue
	Cypress		Pearl Gray*
	Dark Bronze*		Pewter
	Deep Ocean*		Redwood
	Desert Tan		Rich Espresso*
	Emerald		Sable Brown
	Evening Blue*		Sail Cloth*
	Flagstone		Sandstone Beige*
	Forest		Savannah Wicker
	Granite Gray		Slate
	Gray Slate*		Snow
	Hearthstone		Sterling Gray
	Heathered Moss*		Suede
	Iron Gray*		Taupe
	Khaki Brown*		Timber Bark*
	Light Maple		Traditional Red*
	Light Mist*		Woodland Cream*
	Linen		Woodstock Brown*
	Mahogany		Clear Anodized*
			Primed*

*Colors with coil stock for fabrication in-house at time of printing.

Any other color you imagine is also available from TAMLYN.
Want to match a school or corporate color scheme, we can make it happen

Colors shown are illustrated as accurately as printing methods will permit. Please utilize actual product samples for true color comparison. With all color processes there is an allowable variance tolerance that applies to painting and use of dissimilar substrate materials to which paint is applied. Pre-matched colors on many siding products are considered to be stock matched from TAMLYN and do not require signed match approval for processing. Any other colors must have signed/accepted hand matches completed prior to order processing/acceptance. The colors below are examples of the majority of current ready matched shades. Almost any other color can be matched. There are quantity minimums for all orders of color processing. Paint variance is from lot to lot WILL occur and on large projects it is recommended that all color items be ordered at one time.

Horizontals



BRH Page 28
Horizontal Bead Reveal



CQZ Page 30
Horizontal Z



F Page 56
Style "F" Trim



FR Page 57
Style "F" Reveal Trim



JMH Page 54
Standard J-Mold



JMR Page 55
Reveal J-Mold



JMS Page 53
Basic J Mold



RH Page 26
Horizontal Reveal



RHB Page 27
Horizontal Board Reveal



XS Page 61
Starter Strip



XWF Page 58
Window Flashing



XZH Page 25
Standard Horizontal Z

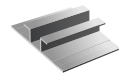


XZS Page 29
Basic Horizontal Z

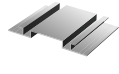
Verticals



BRV Page 22
Vertical Bead Reveal



RV Page 16
Vertical Reveal



RVB Page 20
Vertical Board Reveal



RVBN Page 19
Vertical Batten Reveal



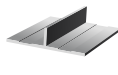
RVC Page 17
Vertical Reveal



RVT Page 18
Vertical Reveal - Transition



SHM Page 21
Vertical Siding H-Mold



TM Page 23
Vertical T-Mold



TMB Page 24
Vertical Box T-Mold

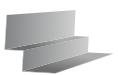


XHM Page 60
Soffit H-Mold

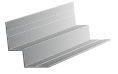


XL Page 59
"L" Transition Trim

Inside Corners



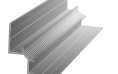
XIC Page 47
Plank Inside Corner



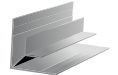
XIC Page 49
Panel Inside Corner



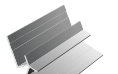
XICT Page 46
Inside Corner - Transition



XICB Page 52
Bullnose Inside Corner



XICLP Page 51
Low Profile Inside Corner



XICLP Page 63
Low Profile Inside Corner 135°



XICLP Page 50
Low Profile Inside Corner Transition



XICR Page 48
Reveal Inside Corner

Outside Corners



XOC12 Page 42
1x2 Board Outside Corner



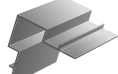
XOC35 Page 43
3-1/2" Outside Corner



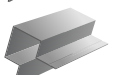
XOCB Page 45
Bullnose Outside Corner



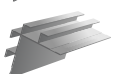
XOCBL Page 40
Blunt Panel Outside Corner



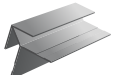
XOCBN Page 44
Batten Outside Corner



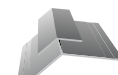
XOCBT Page 39
Butted Outside Corner



XOCDR Page 34
Double Reveal Outside Corner



XOCLP Page 37
Low Profile Outside Corner



XOCLP Page 62
Low Profile Outside Corner 135°



XOCLP Page 62
Low Profile Outside Corner 135°



XOCLP Page 38
Low Profile Outside Corner Transition



XOCR Page 31
Reveal Open Outside Corner



XOCR Page 64
Reveal Open Outside Corner 135°



XOCR Page 32
Reveal Open Outside Corner Transition



XOCRM Page 36
Reveal Open Outside Corner Minimum Face



XOCSR Page 35
Square Reveal Outside Corner



XOCW Page 33
Reveal W Outside Corner



XOCX Page 41
Bold X Outside Corner

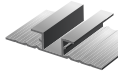
Water Management System



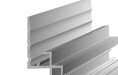
WHM Page 12
Vertical Siding H Mold



WJM Page 13
J Mold



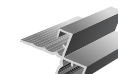
WRV Page 12
Vertical Reveal



WICLP Page 15
Low Profile Inside Corner



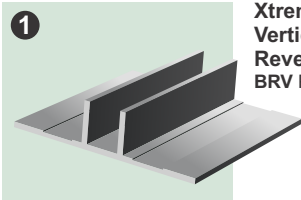
WOCLP Page 14
Low Profile Outside Corner



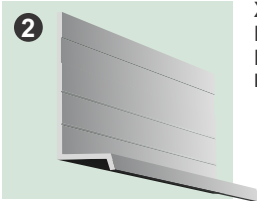
WOCR Page 14
Reveal Outside Corner



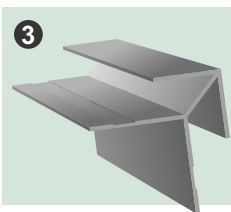
WZ Page 13
Horizontal Z



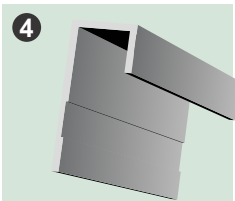
**XtremeTrim®
Vertical Bead
Reveal**
BRV Page 22



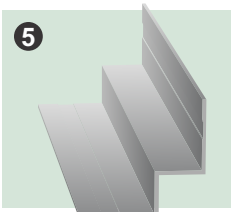
**XtremeTrim®
Horizontal
Bead Reveal**
BRH Page 28



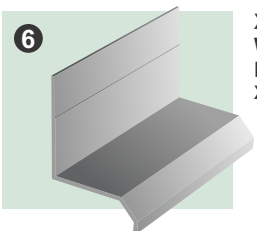
**XtremeTrim®
Low Profile
Outside Corner**
XOCLP Page 37



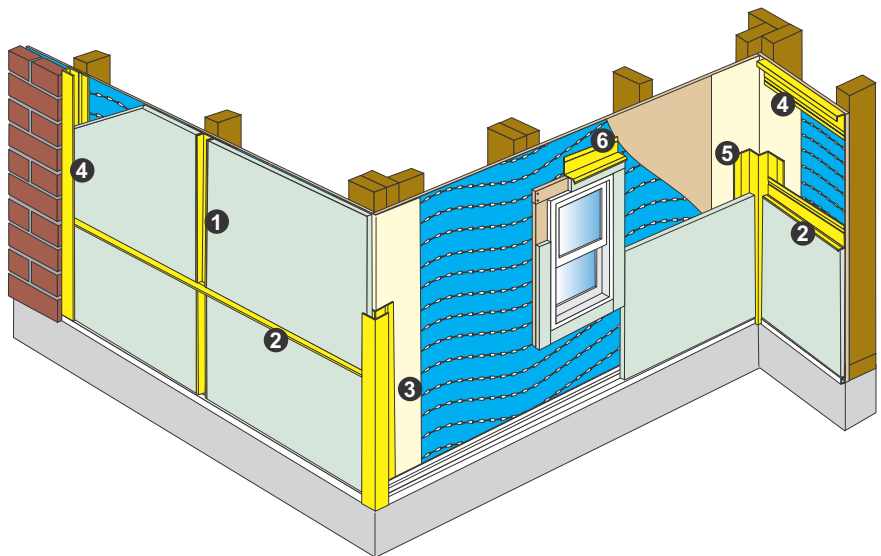
**XtremeTrim®
J Mold**
JMH Page 54



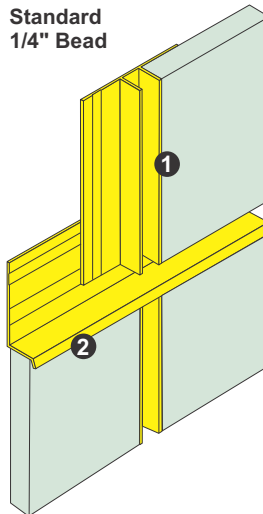
**XtremeTrim®
Panel Inside
Corner**
XIC Page 49



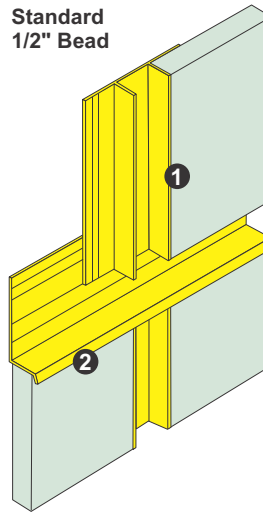
**XtremeTrim®
Window
Flashing**
XWF Page 58



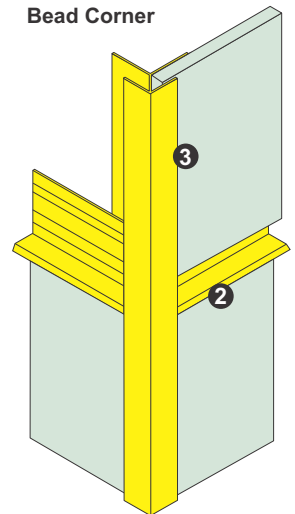
**Standard
1/4" Bead**



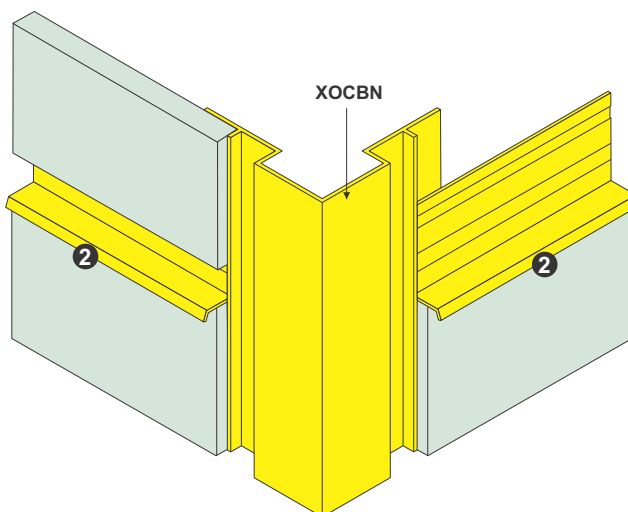
**Standard
1/2" Bead**



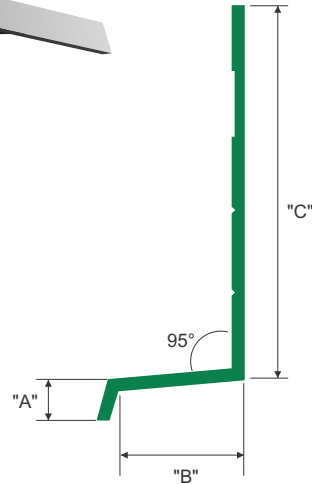
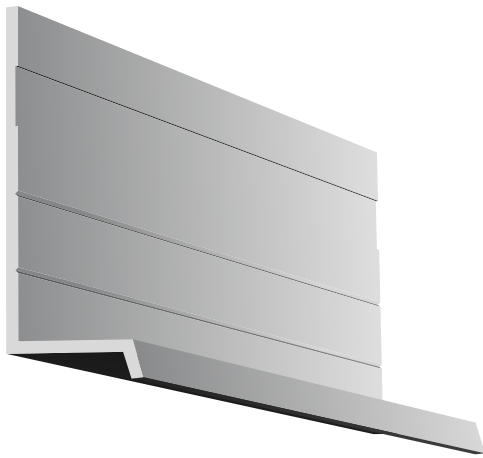
Bead Corner



Batten Corner for 1/2" Bead

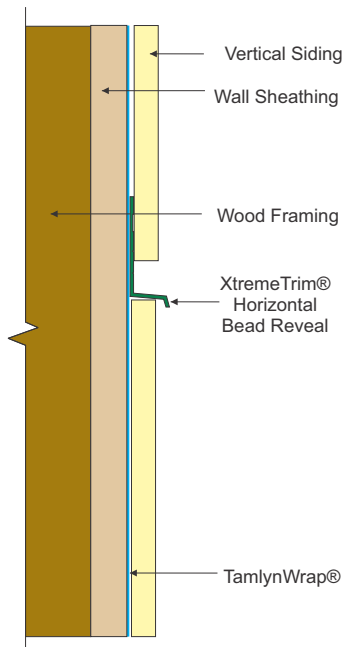


Horizontal Bead Reveal



ITEM ID	"A"	"B"	"C"	SIDING SIZE
BRH516	1/8"	3/8"	1-1/8"	5/16"
BRH716	1/8"	1/2"	1-1/8"	7/16"

All parts are 10' Length unless otherwise indicated



DESIGN FEATURES

Designed to work as part of a system with Vertical Bead Reveal. XtremeTrim® Horizontal Bead Reveal provides a minimal exposure while providing protection for the top edge of the lower panel.

MATERIAL

6063-T5 .040" ± .005 extruded aluminum alloy with proprietary coating that protects against harsh weather conditions and allows for paint adhesion.

FINISH

Unless specified all XtremeTrim® items are provided in primed finish. Also available in popular siding/soffit colors in standard face only color match or full coverage CoastalColorCoating™. Clear Anodized is stocked and custom anodized is available (minimums apply).

NOTE

Do not install Horizontal Bead Reveal on Horizontal applications where the exterior flange can catch water.

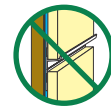
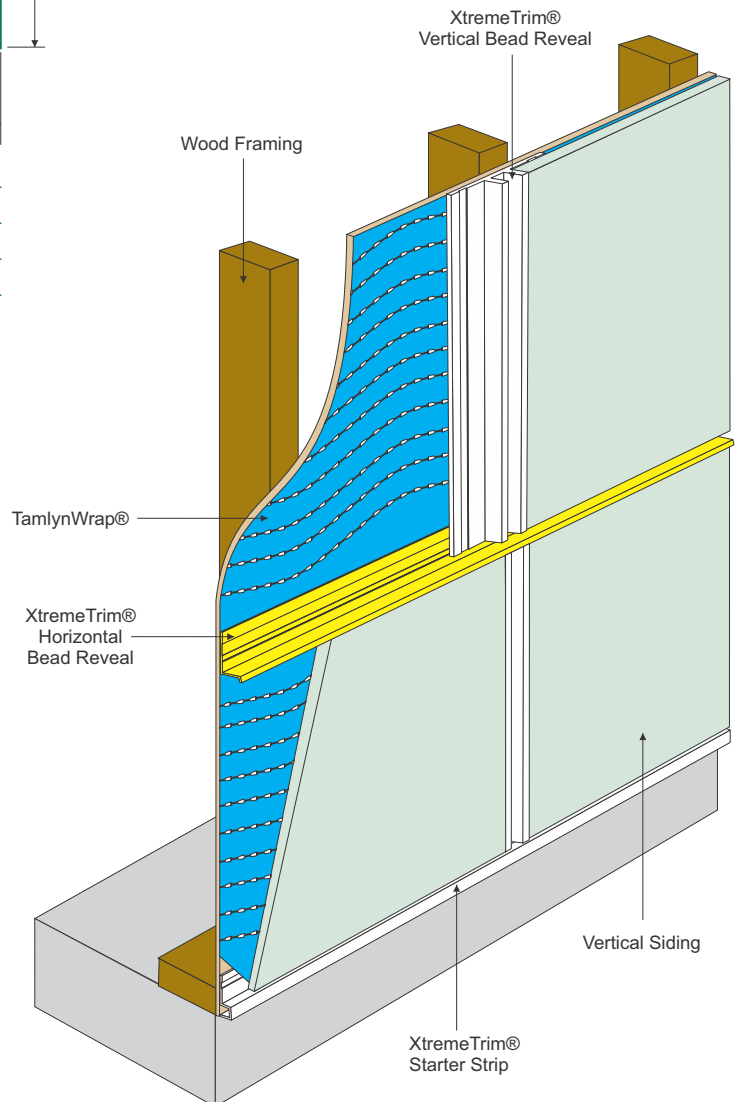
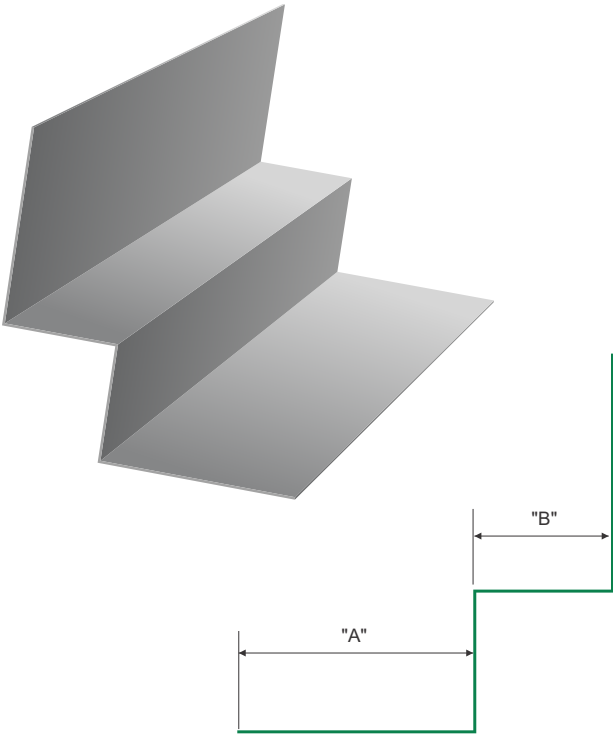


Illustration not to scale

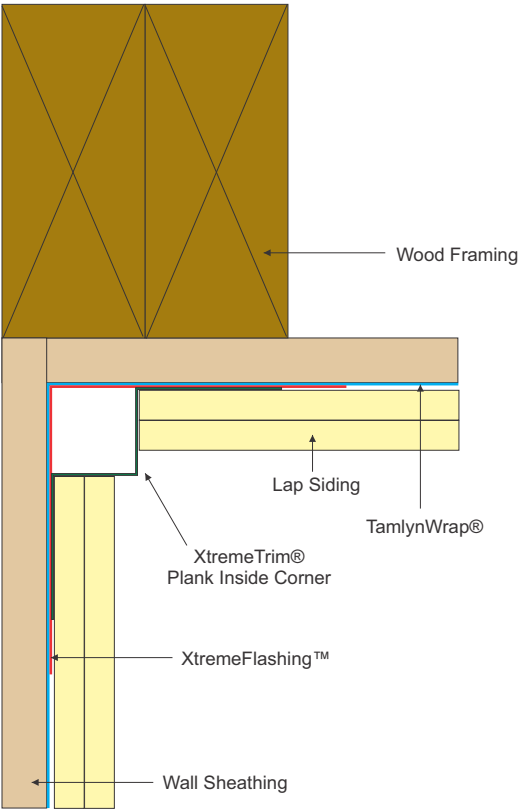


Basic Inside Corner



ITEM ID	"A"	"B"	SIDING SIZE
XIC	1-1/2"	7/8"	5/16" Lap or Panel
XICJ	1-1/2"	1-1/2"	up to 1-1/4"
XICS	2"	1-1/2"	up to 1-1/4"

All parts are 10' Length unless otherwise indicated



DESIGN FEATURES

Design authentically duplicates the look of a wood corner piece without the maintenance headaches. Eliminates wood inside corner piece that will split/rot over time.

MATERIAL

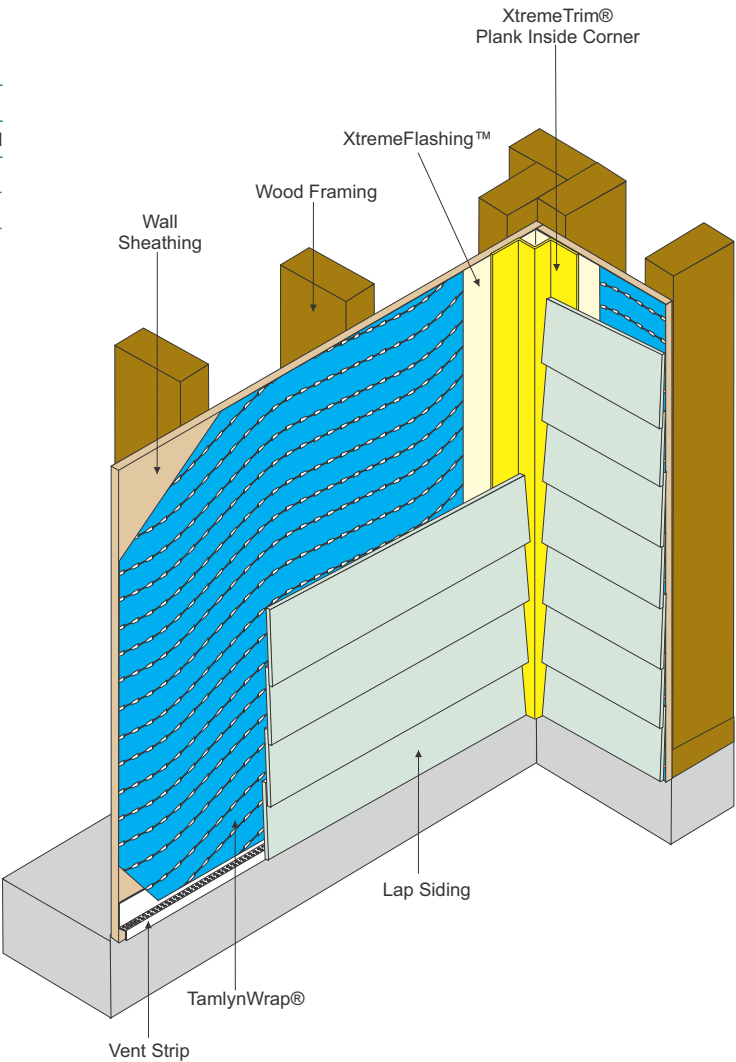
Primed: .019" $\pm$.003 Galvanized steel with proprietary coating that protects against harsh weather conditions and allows for paint adhesion.

Color Matched: .019 $\pm$.003 Aluminum sheet coated 2 sides with paint system that is specifically formulated for exterior applications.

FINISH

Unless specified all XtremeTrim® items are provided in primed finish. Also available in popular siding/soffit colors in standard face only color match or full coverage CoastalColorCoating™.

Illustration not to scale





Fiberglass Ribbon Window System



NEW Alpen Fiberglass Commercial Ribbon Window System

Alpen's new Ribbon Window System combines the *look* of conventional commercial aluminum storefront and strip windows with the *performance* of **fiberglass**. Boasting full-frame thermal values from R-5.3 (U-0.19) to R-7.7 (U-0.13), air infiltration resistance 3-4x better than aluminum storefront and fiberglass frames resistant to thermal conductivity to prevent occupant discomfort, the Alpen Fiberglass Ribbon Window System is poised to disrupt the aluminum window world.

Features:

- Structural capability to achieve expansive sizes and dramatic window walls
- Ultra-slim, modern profiles compliment modern design and commercial aesthetics
- Versatility allows incorporation of operable windows for natural ventilation
- Excellent sound attenuation
- Extensive range of Alpen super-insulating and directionally tuned glazing options available
- Modular design approach to installation delivers cost-effective alternative to aluminum site-assembled glazing
- Exclusive to Alpen: Suspended coated film glass technology and specialty architectural glass products can be used without sacrificing U-value. Alpen's Ribbon Window offers unique high thermal performance options including: **Spandrel, Frit, Tint, Laminated, Dynamic, Photovoltaic Glass and Daylight Redirecting Optics**



Fiberglass Ribbon Window System

TECHNICAL SPECIFICATIONS



Uses: Fixed, Ribbon/Strip, Large “Punched” Openings and Window Walls

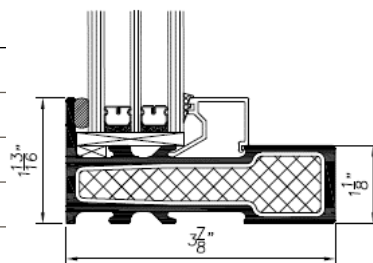
Applications: New Construction, Replacement, Residential, Commercial, Industrial & High Performance Buildings

Typical Whole-Window Performance Achieved with Alpenglass™:

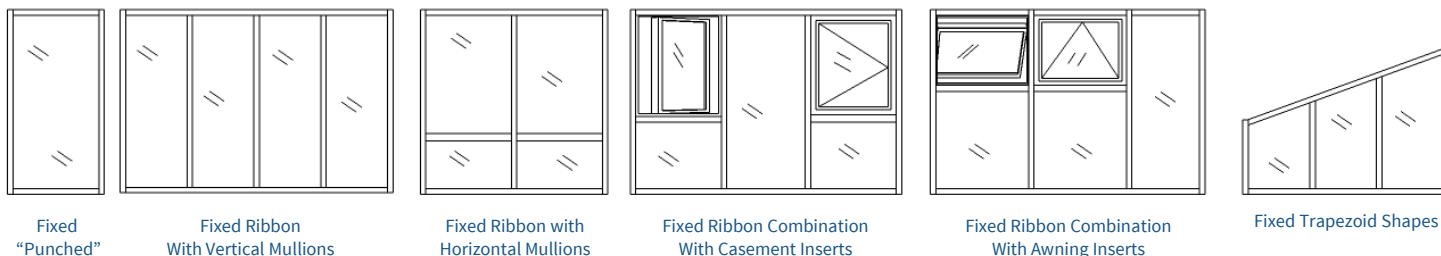
Alpenglass Type	Center-of-Glass			Full-Window			
	U-value	SHGC	VT	U-value	R-Value	SHGC	VT
All Climate-5	0.13	0.36	0.64	0.19	5.3	0.32	0.55
Solar Control-5	0.13	0.24	0.57	0.19	5.3	0.21	0.49
High Light-5	0.14	0.51	0.70	0.19	5.3	0.44	0.60
Solar Control-9	0.08	0.22	0.51	0.13	7.6	0.27	0.43
High Light-9	0.08	0.46	0.63	0.13	7.6	0.39	0.53

Structural Performance:

Description	Result
AAMA A440-11 Primary Designator:	CW-PG55-FW
Air Infiltration Resistance:	0.001 cfm/ft ² @ 1.57psf
Water Penetration Resistance:	No leakage at 15.04 psf (720 Pa)
Structural Test Pressure:	+/- 55.14 psf (2,160 Pa)
Forced Entry Resistance:	Grade 20



WINDOW STYLES: DESIGN IDEAS



Installation: Anchor using factory- or field-applied anchor brackets supplied by Alpen HPP. Ribbons wider than 9' typically require field-assembly and field glazing of “filler” units between each factory-assembled/factory-glazed ‘module’.

Exterior Trim Accessories: Aluminum Brickmold, 3-1/4” and 2-5/8” Frame Extenders

PAINT AND FINISH OPTIONS

Standard Colors: Casement, Awning, Picture Windows and Sliding Patio Doors



Trifab™ VG (VersaGlaze™)

Trifab™ VG 450, 451 & 451T (Thermal) Framing Systems &
Trifab™ 451UT (Ultra Thermal) Framing System

Design + Performance Versatility with
Unmatched Fabrication Flexibility



Preston Pointe, Louisville, KY

Architect: Potter & Associates Architects PLLC, Louisville, KY

Glazing Contractor: Kentucky Mirror & Plate Glass Company, Louisville, KY

Trifab™ VersaGlaze™ is built on the proven and successful Trifab™ platform – with all the versatility its name implies. There are enough framing system choices, fabrication methods, design options and performance levels to please the most discerning building owner, architect and installer. The Trifab™ VersaGlaze™ family's newest addition, Trifab™ 451UT (Ultra Thermal) framing system, is designed for the most demanding thermal performance and employs a "dual" Isolock™ Thermal Break.

Aesthetics

Trifab™ VersaGlaze™ framing systems offer designers a choice of front-, center-, back- or multi-plane glass applications. Structural silicone glazing (SSG) and Weatherseal glazing options further expand the designers' choices, allowing for a greater range of design possibilities for specific project requirements and architectural styles. All systems have a 4-1/2" frame depth – Trifab™ VersaGlaze™ 450 has 1-3/4" sightlines, while Trifab™ VersaGlaze™ 451/451T and Trifab™ 451UT have 2" sightlines.

With seamless incorporation of Kawneer entrances or windows, including GLASSvent™ visually frameless ventilators, Trifab™ VersaGlaze™ can be used on almost any project. These framing systems can also be packaged with Kawneer curtain walls and overhead glazing, thereby providing a full range of proven, and tested, quality products for the owner, architect and installer from a single source supplier.

Economy

Trifab™ VersaGlaze™ 450/451/451T framing systems offer four fabrication choices to suit your project (Trifab™ 451UT available as screw spline fabrication only):

- **Screw Spline** – for economical continuous runs utilizing two piece vertical members that provide the option to pre-assemble units with controlled shop labor costs and smaller field crews for handling and installation.
- **Shear Block** – for punched openings or continuous runs using tubular moldings with shear block clips that provide tight joints for transporting large pre-assembled multi-lite units.
- **Stick** – for fast, easy field fabrication. Field measurements and material cuts can be done when metal is on the job.
- **Type B** – Same fabrication benefits as shear block except head and sill run through.

All systems can be flush glazed from either the inside or outside. The Weatherseal option provides an alternative to SSG vertical mullions for Trifab™ VersaGlaze™ 450/451/451T. This ABS/ASA rigid polymer



Brighton Landing, Cambridge, MA
Architects: ADD Inc., Cambridge, MA
Glazing Contractors: Ipswich Bay Glass Company, Inc., Rowley, MA

extrusion allows complete inside glazing and creates a flush glass appearance on the building exterior without the added labor of scaffolding or swing stages. Additionally, High-Performance (HP) Flashing options are engineered to eliminate perimeter sill fasteners and associated blind seals.

For the Finishing Touch

Architectural Class I anodized aluminum finishes are available in clear and Permanodic™ color choices.

Painted finishes, including fluoropolymer, that meet AAMA 2605 are offered in many standard choices and an unlimited number of specially designed colors.

Solvent-free powder coatings add the green element with high performance, durability and scratch resistance that meet the standards of AAMA 2604.

Performance

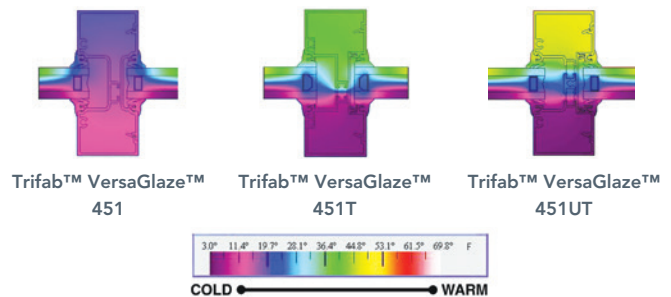
Kawneer's Isolock™ Thermal Break process creates a composite section, prevents dry shrinkage and is available on Trifab™ VersaGlaze™ 451T. For even greater thermal performance, a "dual" Isolock™ Thermal Break is used on Trifab™ 451UT.



Trifab™ 451UT uses a "dual" Isolock™ Thermal Break (right) and features a new HP (High Performance) sill design, which incorporates a screw-applied end dam (left), ensuring positive engagement and tight joints between the sill flashing and end dam.

U-factor, CRF values and STC ratings for Trifab™ VersaGlaze™ vary depending upon the glass plane application. Project specific U-factors can be determined for each individual project. (See the Kawneer Architectural Manual or Kawneer.com for additional information).

Thermal simulations showing temperature variations from exterior/cold side to interior/warm side.



PERFORMANCE TEST STANDARDS

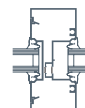
Air Infiltration	ASTM E 283
Water	AAMA 501, ASTM E 331
Structural	ASTM E 330
Thermal	AAMA 1503
Thermal Break	AAMA 505, AAMA TIR-A8
Acoustical	AAMA 1801, ASTM E 1425

Trifab™ VersaGlaze™ 450/451/451T glazing options

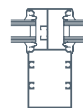
(note: Trifab™ 451UT available as center set glass plane only).



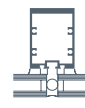
Front



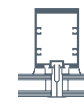
Center



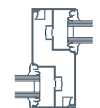
Back



SSG



Weatherseal



Multi-Plane

Kawneer Company, Inc.
Technology Park / Atlanta
555 Guthridge Court
Norcross, GA 30092

kawneer.com
770 . 449 . 5555

KAWNEER
AN ARCONIC COMPANY



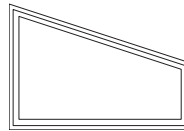


POLYGON

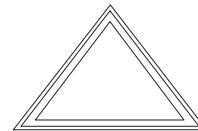
UNIQUE SHAPES FOR ONE-OF-A-KIND HOMES



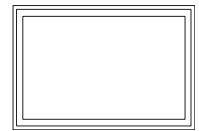
FREEDOM TO CREATE
ALMOST ANY WINDOW
ARRANGEMENT DESIRED.



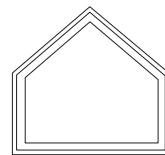
Trapezoid (R & L)



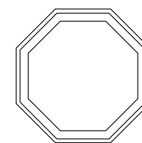
Isosceles Triangle



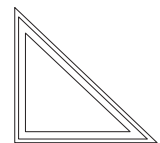
Rectangle



Pentagon



Octagon



90° Triangle (R & L)

- Standard jambs of 4 ⁹/₁₆" and 6 ⁹/₁₆" are available factory applied or as an extension kit.
- Consistent, fast delivery applies to even the most unique products.
- ENERGY STAR® certified and available with Low E1, Low E2, Low E3, or Low E3/ERS insulated glass.
- PG50 performance rating.
- Factory, reinforced, and field mulling kits available.
- Available in sizes up to 49 square feet.*

* Polygons maximum size is 72" x 96". When the longest leg exceeds 72" the shortest leg cannot exceed 72".

EXERCISE YOUR OPTIONS

FINISHES

INTERIOR FINISHES: Product comes standard in paintable Stone White.

EXTERIOR FINISHES: Stone White, Evergreen, Pebble Gray, Ebony, Cashmere or Bronze. All are AAMA 624 verified and fully paintable without affecting the durability. The Ultrex® fiberglass exterior holds dark colors better than vinyl or vinyl/wood composites.

Now Available with Ebony Interior/Exterior or Bronze Interior/Exterior



GLAZING

Available in Low E1, Low E2, Low E3, and Low E3/ERS insulated glass with argon gas for a selection of energy-efficient glazing options.*

TEMPERED GLASS: Is standard on large units and doors, and available on most other units.

OBSCURE GLASS: Provides safety and secures a modicum of privacy without sacrificing energy efficiency and light.

SOUND ABATEMENT: Variable thickness glass provides enhanced STC and OITC sound abatement performance, while still providing a full selection of glass and divided lite options.



Tempered Glass



Obscure Glass



Variable Thickness Glass

GRILLES

PROFILED GRILLES-BETWEEN-THE-GLASS (GBG):

Available in several popular lite cut options for a classic divided lite look and easy glass cleaning. Available in Stone White interior and Stone White, Pebble Gray, Cashmere, Bronze, Evergreen or Ebony exterior.



Grilles-Between-the-Glass** shown in Stone White

* Argon gas not available in high elevations where capillary tubes are required.

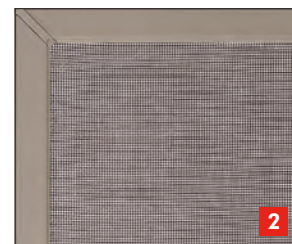
** Not available in polygons except direct-glaze rectangles.

INSTALLATION MADE SIMPLE AND EFFICIENT

INSTALLATION OPTIONS AND ACCESSORIES

1. NAILING FIN

Pre-attached folding nailing fin and drip cap for easier installation. Available through-jamb and installation bracket options.



2. FACTORY-INSTALLED SCREENS

Factory-installed screens are a standard offering with operating windows. At no extra cost, we can ship your screens separately to reduce on-site damage prior to installation.



3. FACTORY-APPLIED JAMB EXTENSIONS

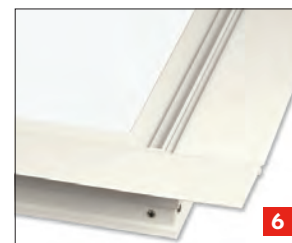
Factory-applied jamb extensions save time and labor. We supply 4 ⁹/₁₆" and 6 ⁹/₁₆" standard width jambs.

4. FACTORY-APPLIED SHEETROCK RETURN

Factory-applied sheetrock return accommodates 1/2" to 5/8" drywall, while the 3/4" receiver accommodates box jambs and thicker installation methods.

5. FACTORY MULLED ASSEMBLIES

Create your own assemblies with available standard factory mulling, reinforced factory mulling, or field mulling kits.



6. FRAME EXPANDERS

3" and 1" frame expanders provide installation flexibility, while our frame filler increases the frame depth to 3 1/4" for a seamless replacement installation.

7. SPECIAL SIZES

Special sizes are available on windows and doors in 1/64" increments for the perfect fit every time.

8. J-CHANNEL

J-channel installs easily with various installation applications, while the detailed profile provides a more dramatic finished appearance.



EXTERIOR TRIM

Ultrex® Exterior Trim is offered with all rectangular Wood-Ultrex and All Ultrex products in the same six exterior finishes. The same durability, performance, and look of Integrity® windows and doors can be extended to the trim.

BRICK MOULD

2" Brick Mould is available with or without 2 1/8" sill nosing.

FLAT

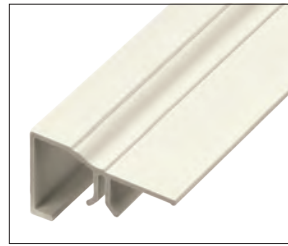
3 1/2" Flat trim is available in Flat and Flat Ranch configurations with or without 2 1/8" sill nosing.

SILL NOSE

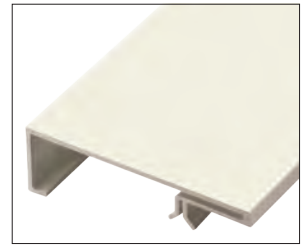
2 1/8" Sill Nose provides authentic sill appearance.

CONNECTION BARB

Barb and reciever attachment method provides for quick, secure installation.



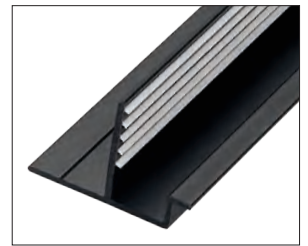
Brick Mould



Flat



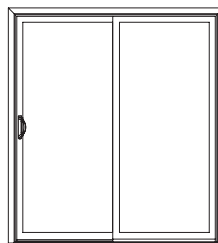
Sill Nose



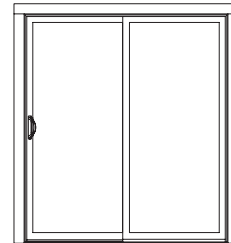
Connection Barb

TRIM CONFIGURATIONS

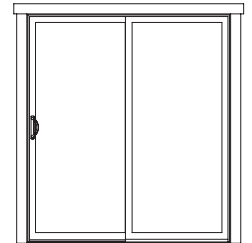
Multiple configurations are available in lineal lengths and factory pre-cut kits in all of Integrity's exterior colors.



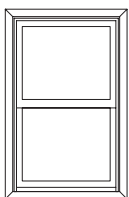
Brick Mould*



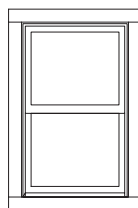
Flat*



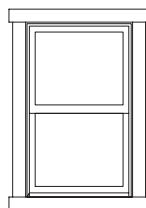
Flat Ranch*



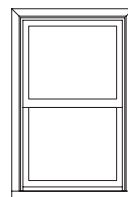
Brick Mould



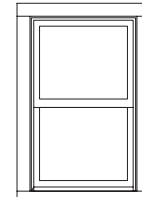
Flat



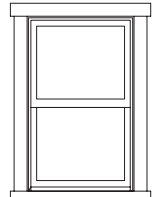
Flat Ranch



Brick Mould
with Sill Nose



Flat
with Sill Nose



Flat Ranch
with Sill Nose

* Brick Mould, Flat, and Flat Ranch profiles are available on doors. Sill profiles are not included for door trim sets.

DURABLE ULTREX® FIBERGLASS

QUITE POSSIBLY THE PERFECT BUILDING MATERIAL®

Pioneered by Marvin® Ultrex fiberglass outperforms vinyl and vinyl/wood composites in virtually every way. Non-conductive and non-corrosive, Ultrex resists the ravages of heat, cold, time and pressure to provide the most worry-free windows and doors available today.

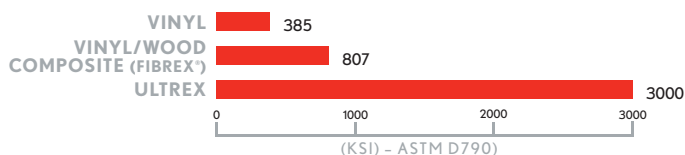
- Integrity® has 20+ years of advanced fiberglass expertise.
- Ultrex is the first and only fiberglass finish to be AAMA 624 verified.
- Fiberglass windows have a 38% longer useful life expectancy than vinyl.*

STRENGTH OF ULTREX

Ultrex is highly impact resistant and more rigid than vinyl and wood/vinyl composites. Issues of instability and less-than-perfect alignment that can complicate installation – and long-term performance – are not a concern with Integrity windows and doors.

The exceptional strength and stability of Ultrex eases installation and establishes a secure, long-lasting fit that stays square and true, year after year.

FLEXURAL MODULUS



THE MATERIAL
YOU CHOOSE FOR YOUR
WINDOWS AND DOORS
MATTERS

8X
STRONGER
THAN VINYL**

VIRTUALLY INDESTRUCTIBLE, FUNDAMENTALLY DIFFERENT

Pultruded fiberglass

Thin strands of strong glass cables, saturated with compounded resins to create a durable material.

All Ultrex interior

The interior is created with the same durable Ultrex fiberglass as the exterior and is offered in a paintable Stone White finish.

All Ultrex exterior

Integrity's patented factory finish meets AAMA 624 performance requirements and is available in Stone White, Pebble Gray, Cashmere, Bronze, Evergreen, or Ebony. Can be painted with no impact on its protective properties.

Ultrex fiberglass stands up mightily to rain, wind, heat, and time, looking beautiful and performing well long after other window and door materials have lost their luster.

* "Life cycle assessment of windows for the North American residential market: Case Study" by the University of British Columbia Scandinavian Journal of Forest Research, 2008.

** Comparison of Flexural Modulus.



Condos, townhouses, schools,
businesses, churches...whatever
your commercial project, Integrity has
the experience to meet your needs.



ALL ULTREX REINFORCED MULL

The Integrity® reinforced mull is an available factory option on All Ultrex® Series windows and doors. The reinforced mull meets AAMA 450 specifications and performs up to a PG40 assembly rating to meet stringent project performance requirements.

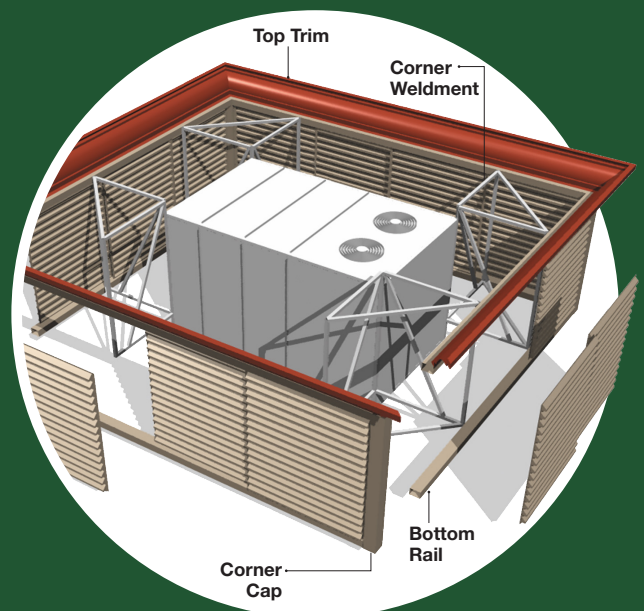


INNOVATIVE ROOFTOP SCREENS



Attractive, code-compliant and long lasting, Envisor equipment screens offer architects the flexibility to create affordable, elegant, customized screening solutions that blend into the overall design, all with no rooftop penetration. Our patented roof screen system provides practical solutions for municipal screening requirements of HVAC units, chillers, air handlers, power exhausts, roof stacks, communication equipment – you name it!

- **ZERO ROOFTOP PENETRATION**
- **APPROVED FOR USE WITH MOST MAJOR BRANDS**
- **SLIDING PANELS FOR EASY SERVICE ACCESS**

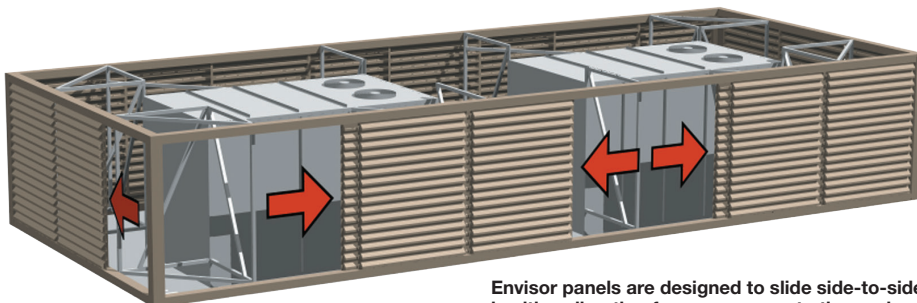


envisor[®]

U.S. Patent No. 5,664,384
U.S. Patent No. 7,000,362
U.S. Patent No. 7,707,798

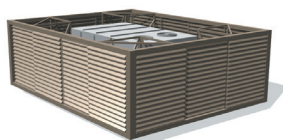
Customizing a screen to fit your needs is easy. Simply choose your design, panel style, trim option and color and tell us about the units you want to screen and our project manager will take care of it.

- Professional grade extruded aluminum structural components
- Patented panel guide tracks
- Acrylicap® ABS with UV co-extruded cap on both sides or durable, weather-resistant aluminum

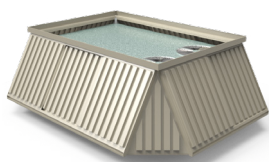


Envisor panels are designed to slide side-to-side in either direction for easy access to the equipment for servicing and routine maintenance.

DESIGN OPTIONS



Vertical



Canted



Perimeter Wall

PANEL STYLES



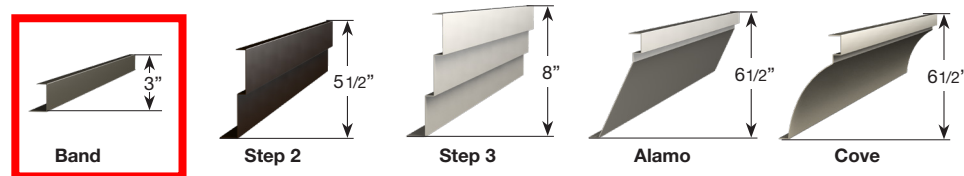
COLOR OPTIONS



CUSTOM SOLUTIONS

Envisor equipment screens can be manufactured in a limitless combination of shapes and configurations to help reduce cost, add to the aesthetics of a building, or both. Let us design one for you! Just tell us the equipment manufacturer, the model numbers, and the special requirements you might have. Call for a complete design kit today or visit us online.

TOP TRIM OPTIONS



FIXTURE TYPE A,B,C

6" LED Downlight

LC6SL

1000/1400/1800 Lumens
120V-277V, 347V
0-10V Dimming Option



APPLICATIONS:

LiteFrame Commercial LC6SL is a 6" commercial grade LED downlight with available outputs between 1000-1800 lumens. This is suitable to replace most CFL downlighting applications, while realizing substantial energy and maintenance savings. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient plenum temperatures up to 35°C (10L), 28°C (14L), 25°C (18L). Free Air Flow around the fixture is required for optimal life performance. This product is not recommended for use with 3rd party "FIREHAT" or insulation barriers.

HOUSING:

One-piece 22 gauge non-corrosive steel platform. Pre-wired J-box with snap-on cover for easy access. Snap-in connection from driver compartment allows easy installation of light engine/trim assembly and can be upgraded to accommodate technology improvements. Approved for 8 (4 in/4 out) No. 12 AWG conductors rated for 90°C through wiring.

REFLECTOR:

High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

LED LIGHT ENGINE:

The LC6SL uses mid power Nichia LEDs, specifically mixed to achieve a minimum of 80 CRI with 3 SDCM color consistency. The use of multiple mid power LEDs allows for optimal thermal management by effectively spreading the heat over a larger area and eliminating hot spots on the LEDs. A diffuse, yet highly transmissive lens obscures the view of the LEDs and creates a smooth, even look from below. The light engine is available in multiple Kelvin temperatures and the system is designed to provide optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance). The reflector/light engine assembly is mechanically retained to the housing.

LED DRIVER:

The LC6SL utilizes a constant current LED driver. This same driver is capable of running all three different lumen outputs, resulting in a reduction of housing skus and simplified specification. The driver is UL8750, Class II compliant and universal 120V-277V.

DIMMING:

0-10V dimming options are available (DM/DM1), providing flicker-free dimming at 10% and 1% respectively. See list of compatible dimmers on page (4). For the sizing of the control circuit, the dimming circuit may require up to 2mA of sink current.

INSTALLATION:

Light commercial bar hangers included (not with WWCP option). Universal adjustable mounting brackets also accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6). Wall wash orientation may be field adjusted in 90° increments to housing.

CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for wet locations (EM, EMR and WW damp location). ENERGY STAR qualified.

WARRANTY:

5 year warranty. See www.prescolite.com for details.

DATE: TYPE:

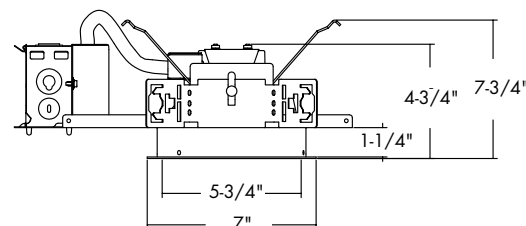
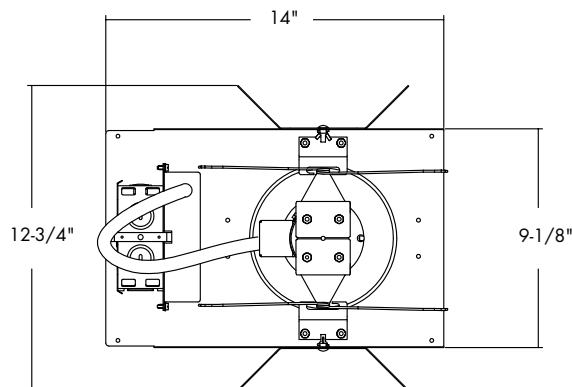
FIRM NAME:

PROJECT:

LiteFrame®



Ceiling Cutout: 6 1/4"
Maximum Ceiling Thickness 1 1/4"
For conversion to millimeters,
multiply inches by 25.4
Not to Scale



LC6SL 10L & 14L

*See page 4 for LC6SL 18L line art
*See page 4 for LC6SLEM line art
*See page 4 for LC6SLCP line art
*See page 4 for LC6SL WWCP line art

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: LC6SLDM-6LCSL14L35K9WT

HOUSING	DRIVER OPTIONS	VOLTAGE	HOUSING OPTIONS	TRIM APERTURE	OUTPUT	KELVIN	CRI	REF. FINISH/COLOR OPTION	REFLECTOR OPTIONS	ACCESSORIES
☐ LC6SL Standard Lumen Non Dimming 120V-277V	☐ DM 0-10V 10% Dimming ☐ DM1 0-10V 1% Dimming	☐ 347^{3,7,10} 347V	☐ EM^{2,4,8} Integral Battery Pack ☐ EMR⁴ Remote Battery Pack ☐ CP^{3,6,8} Chicago Plenum ☐ WWCP^{3,9} Wall Wash Chicago Plenum Housing	☐ 6LCSL Standard Lumen Clear Alzak Reflector	☐ 10L 1000 Lumen ☐ 14L 1400 Lumen ☐ 18L 1800 Lumen	☐ 27K 2700 Kelvin ☐ 30K 3000 Kelvin ☐ 35K 3500 Kelvin ☐ 40K 4000 Kelvin ☐ 50K 5000 Kelvin	☐ 8 80+ CRI ☐ 9 90+ CRI	☐ WH Painted Matte White Reflector and Flange	☐ WT Painted White Flange Only ☐ WF Wide Flange ☐ WW^{4,5,7} Wall Wash ☐ EM^{2,4,8} Integral Battery Pack ☐ CP^{3,6} Chicago Plenum	☐ B24 Set of two(2) 24" bar hangers for T-bar ceilings ☐ B6 Set of two (2) bar hangers for ceiling joist up to 24" centers ☐ SCA6D Sloped ceiling adapter (see note on page 4) ☐ LiteGear¹ Inverter, single phase central lighting, 125VA-250VA ☐ LPS Series¹ LitePower micro-inverter, 20VA- 55VA

¹ See Central Inverter compatibility note and web links on page 4.

² EM must be selected on both the housing and the trim.

³ Not compatible with EM or EMR

⁴ Damp location only

⁵ Compatible with EMR only

⁶ CP must be selected on both the housing and the trim

⁷ Not compatible with CP

⁸ Not available with WW option

⁹ WW must be selected on trim

¹⁰ Not compatible with WWCP

PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

DRIVER DATA	6LCSL10Lxxx	6LCSL14Lxxx	6LCSL18Lxxx
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.111 (120v) 0.048 (277v)	0.148 (120v) 0.064 (277v)	0.185 (120v) 0.080 (277v)
Input Power	13.4W	17.8W	22.2W
Constant Current Output	700mA	700mA	700mA
Power Factor	≥0.90	≥0.90	≥0.90
THD	<25%	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A
Operating Temperature	-30°C to +35°C	-30°C to +28°C	-30°C to +25°C
Dimming	0-10V	0-10V	0-10V

Over-voltage, over-current, short-circuit protected

When operating in EM mode, the fixture will deliver approximately 30% of the published full lumen output.

Lumen Multiplier Table

Photometrics for the LC6SL are published below at a nominal 3500 Kelvin temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

5000 Kelvin	1.09
4000 Kelvin	1.00
3500 Kelvin	1.00
3000 Kelvin	0.99
2700 Kelvin	0.96

LC6SL 6LCSL18L35K8

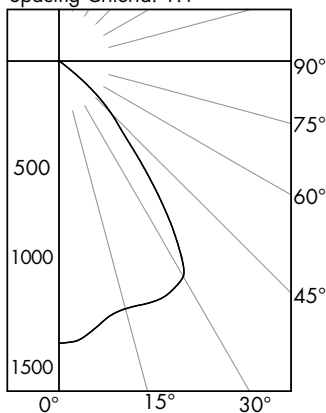
LED Light Engine: 3500K, 80+ CRI

System Wattage: 22.3W

Fixture Delivered Lumens: 1941

Fixture Efficacy: 87.0

Spacing Criteria: 1.1



CANDELA DISTRIBUTION

DEG CANDELA

0	1368
5	1345
15	1243
25	1247
35	923
45	357
55	27
65	5
75	1
85	0
90	0

Test No. 16.03178

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1935	99.7
0-90	1941	100.0
90-180	0	0.0
0-180	1941	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	27667
55°	2580
65°	648
75°	212
85°	0

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																								
	80%					70%					50%					30%					10%				
	20% Effective Floor Cavity Reflectance																								
	% Wall Reflectance																								
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10								
1	113	110	107	105	110	108	105	103	104	102	100	98	98	97	96	95	94								
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86								
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78								
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72								
5	89	79	73	68	87	78	72	67	76	71	67	74	70	66	73	69	66								
6	83	73	66	62	82	72	66	61	71	65	61	69	64	60	68	63	60								
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55								
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51								
9	70	59	52	48	68	58	52	48	57	51	47	56	51	47	55	51	47								
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44								

LC6SL 6LCSL18L35K8

Test No. 16.03178

LC6SL 6LCSL14L35K8

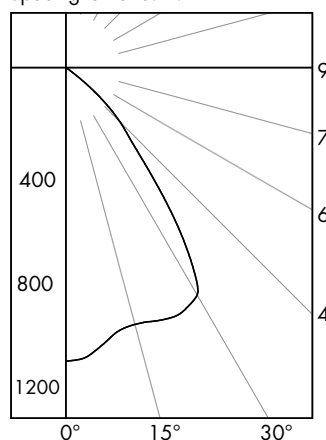
LED Light Engine: 3500K, 80+ CRI

System Wattage: 17.9W

Fixture Delivered Lumens: 1520

Fixture Efficacy: 84.9

Spacing Criteria: 1.1



CANDELA DISTRIBUTION

DEG CANDELA

0	1072
5	1050
15	971
25	990
35	721
45	277
55	20
65	4
75	1
85	0
90	0

Test No. 16.03177

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1515	99.7
0-90	1520	100.0
90-180	0	0.0
0-180	1520	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	21467
55°	1911
65°	519
75°	212
85°	0

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																								
	80%					70%					50%					30%					10%				
	20% Effective Floor Cavity Reflectance																								
	% Wall Reflectance																								
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10								
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94								
2	106	101	97	93	104	99	95	92	96	93	90	90	88	86	85	84	83								
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	78	77	76								
4	94	86	80	75	92	85	79	74	82	77	73	80	76	73	71	70	69								
5	89	79	73	68	87	78	72	67	76	71	67	74	70	66	63	62	61								
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	58	56	55								
7	78	68	61	56	77	67	61	56	66	60	56	65	59	56	53	50	49								
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	48	45	44								
9	70	59	52	48	68	58	52	48	57	51	47	56	51	47	44	41	40								
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	41	38	37								

LC6SL 6LCSL14L35K8

Test No. 16.03177



Web: www.prescolite.com • Tech Support: (888) 777-4832
 701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
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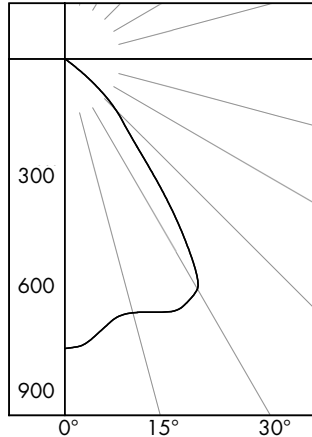
HUBBELL
Lighting, Inc.

PHOTOMETRIC DATA

LiteFrame - 6" LC6SL Downlight

LC6SL 6LC5L10L35K8

LED Light Engine: 3500K, 80+ CRI
System Wattage: 13.5W
Fixture Delivered Lumens: 1106
Fixture Efficacy: 81.9
Spacing Criteria: 1.1



CANDELA DISTRIBUTION

DEG CANDELA

0	780
5	762
15	708
25	740
35	518
45	196
55	15
65	3
75	1
85	0
90	0

Test No. 16.03179

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-60	1103	99.7
0-90	1106	100.0
90-180	0	0.0
0-180	1106	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	15190
55°	1433
65°	389
75°	212
85°	0

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method

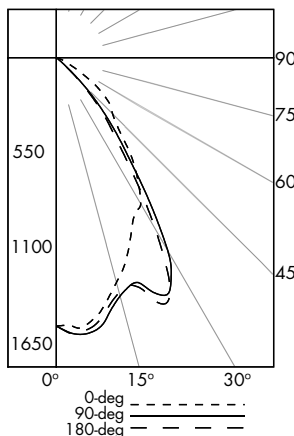
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																			
	80%				70%				50%				30%				10%			
	20% Effective Floor Cavity Reflectance																			
	% Wall Reflectance																			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94			
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86			
3	100	93	88	83	98	92	87	82	89	85	81	86	83	80	84	81	79			
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72			
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66			
6	83	73	67	62	82	73	66	62	71	65	61	69	65	61	68	64	60			
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55			
8	74	63	57	52	73	63	56	52	61	56	52	60	55	51	59	55	51			
9	70	59	52	48	69	58	52	48	57	52	48	57	51	47	56	51	47			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44			

LC6SL 6LC5L10L35K8

Test No. 16.03179

LC6SL 6LC5L18L35K8 WW

LED Light Engine: 3500K, 80+ CRI
System Wattage: 22.2W
Fixture Delivered Lumens: 1938
Fixture Efficacy: 87.3



CANDELA DISTRIBUTION

DEG	0	90	180
0	1527	1527	1527
5	1545	1581	1565
15	1324	1404	1383
25	1030	1489	1517
35	792	780	670
45	454	219	189
55	273	8	8
65	64	2	2
75	9	1	1
85	0	0	0
90	0	0	0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	38311	18480	15949
55°	28400	832	832
65°	9036	282	282
75°	2075	231	231
85°	0	0	0

MULTIPLE UNITS			
1'	2'	3'	4'
UNITS ON 3' CENTER	UNITS ON 4' CENTER		

2' DISTANCE FIXTURE MOUNTED OUT FROM WALLS FOOTCANDLE DISTRIBUTION ON WALL SURFACE (DIRECT ONLY)

DISTANCE FROM CEILING IN FEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	15	11	6	2	1															
2	40	36	26	13	5															
3	36	35	28	18	11															
4	22	22	22	19	13															
5	14	14	14	14	13															
6	10	10	9	9	9															
7	7	7	6	6	6															
8	5	5	5	4	4															
9	4	4	3	3	3															

LC6SL 6LC5L18L35K8 WW

Test No. 16.03309

Test No. 16.03309

Tested at 25°C Ambient in accordance to IESNA LM-79-2008



Web: www.prescolite.com • Tech Support: (888) 777-4832
701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
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HUBBELL
Lighting, Inc.

Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DTV	http://bit.ly/11jSvZg
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BJn2R9

Central Inverters

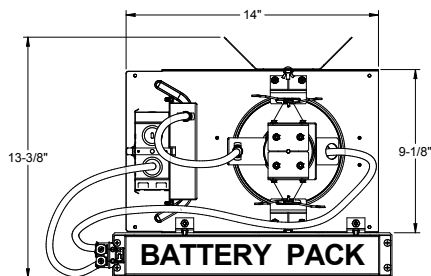
For full fixture output in back-up mode, we recommend you visit www.dual-lite.com for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

LiteGear: www.dual-lite.com/products/litegear_lg_series

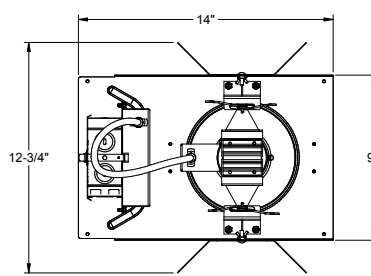
LPS Series: www.dual-lite.com/products/lps

SCA6D

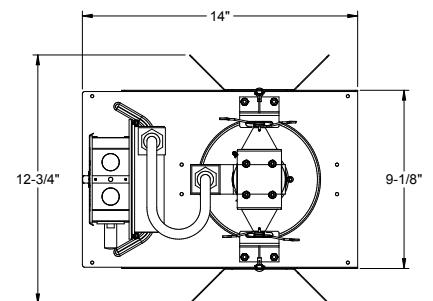
When ordering a sloped ceiling adapter, specify the degree of slope in 1° increments, maximum of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.



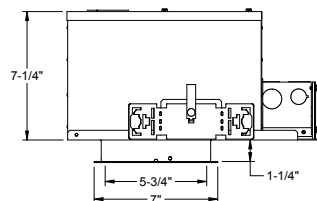
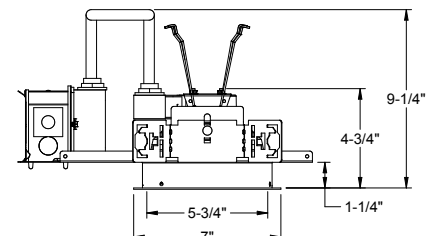
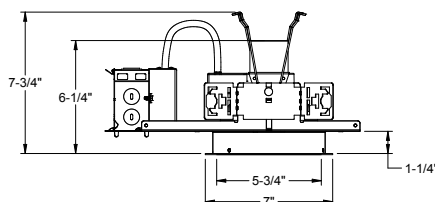
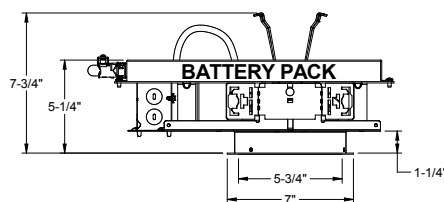
LC6SLEM



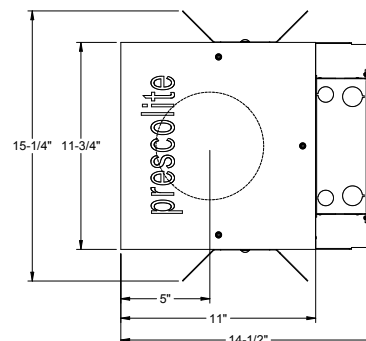
LC6SL 18L



LC6SL CP



LC6SL WWCP





Wall, Step, Path Light **EL807**

120 / 277 Volt Die-Cast Aluminum LED

revision 2/11/15 • kl_el807_spec.pdf

Type:
Job:
Fixture Catalog number:

Approvals:

Fixture Mode Finish

Date:
Page: 1 of 2

Specifications

Housing: Die-cast low copper alloy (<0.6% Cu) aluminum with clear anodized finish. Two 1/2" NPT in sides. Housing mounts into concrete, brick, or masonry (non-combustible materials). Internal splice area provided behind lamp plate.

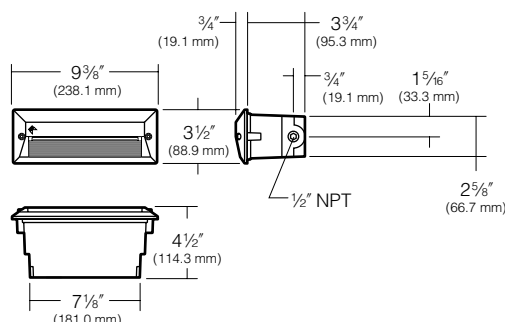
Lens Frame: Die-cast aluminum, with silicone gasket, attaches to housing with two captive 10-32 stainless steel, hex socket cap screws.

Lens: Tempered prismatic glass with silicone gasket, concealed above lens frame opening.

Finish: On lens frame only, each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors are Black (**BL**), Dark Bronze (**DB**), and Verde Green (**GR**).

Optical System: A total of 3 or 9 LED emitters are configured together as a module. Available in 3000K, 4200K, and 5100K.

Driver: Universal Voltage from 120 to 277V with a ±10% tolerance. -40° F. starting temperature. All drivers are Underwriters Laboratories recognized.



ORDERING INFORMATION

Fixture	Source
☐ EL807 / 3L3KUV ¹	5.3W, 3 LED's, 3000K
☐ EL807 / 3L4KUV ¹	5.3W, 3 LED's, 4200K
☐ EL807 / 3L5KUV ¹	5.3W, 3 LED's, 5100K

Fixture	Source
☐ EL807 / 9L3KUV ¹	10.5W, 9 LED's, 3000K
☐ EL807 / 9L4KUV ¹	10.5W, 9 LED's, 4200K
☐ EL807 / 9L5KUV ¹	10.5W, 9 LED's, 5100K

¹ Universal Voltage from 120 to 277V with a ±10% tolerance.
For 5.3W, Max Amps. are .13 for 120V, .080 for 208V, .080 for 240V, .060 for 277V. For 10.8W, Max Amps. are .090 for 120V, .050 for 208V, .040 for 240V, .040 for 277V..

Finish

- ☐ **BL** - Black
- ☐ **DB** - Dark Bronze
- ☐ **GR** - Verde Green



Listings and Ratings

UL cUL 1598 ¹	IP66 Rated	25C Ambient
--------------------------	------------	-------------

¹Suitable for wet locations

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

VIPER S SERIES SMALL VIPER LUMINAIRE	Cat.#		 BEACON design . performance . technology
	Job	Type	
			Approvals

SPECIFICATIONS

Intended Use:

The Beacon Viper luminaire is available with a wide choice of different LED Wattage configurations and optical distributions designed to replace HID lighting up to 400W MH or HPS.

Construction:

- Manufactured with die cast aluminum.
- Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements.
- External hardware is corrosion resistant.
- One piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel.
- Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system.
- Two-piece silicone and micro-cellular polyurethane foam gasket ensures a weather-proof seal around each individual LED.

Electrical:

- 100V through 277V, 50 Hz to 60 Hz (UNV), or 347V or 480V input.
- Power factor is $\geq .90$ at full load.
- Dimming drivers are standard, but must contact factory to request wiring leads for purpose of external dimming controls.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher.
- Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.
- Fixture electrical compartment shall contain all LED driver components and shall be provided with a push-button terminal block for AC power connections.
- The housing is designed for an optional twist lock photo control receptacle.
- Ambient operating temperature -40°C to 40°C.
- Surge protection - 20KA.
- Optional 7-pin ANSI C136.41-2013 twist-lock photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices.
- Lifeshield™ Circuit - protects luminaire from excessive temperature. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range. Operation shall be smooth and undetectable to the eye. Thermal circuit is designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers. The device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.).

Controls/Options:

- Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time, the Motion Response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration.
- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night (see www.beaconproducts.com/products/energeni).
- In addition, Viper can be specified with **SiteSync™** wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit www.hubbellighting.com/sitesync for more details.

Installation:

- Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included.

Finish:

- IFS polyester powder-coat electro-statically applied and thermocured.
- IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

Listings:

- DesignLights Consortium (DLC) qualified, consult DLC website for more details: <http://www.designlights.org/QPL>
- Certified to UL 1598 and CSA C22.2 No.250.0
- IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: <http://www.beaconproducts.com/products/vipersmall>

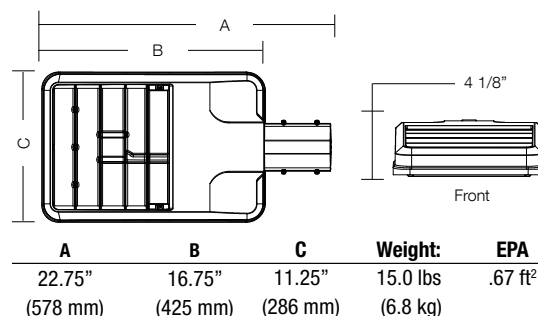
Warranty:

Five year limited warranty for more information visit: www.hubbellighting.com/resources/warranty

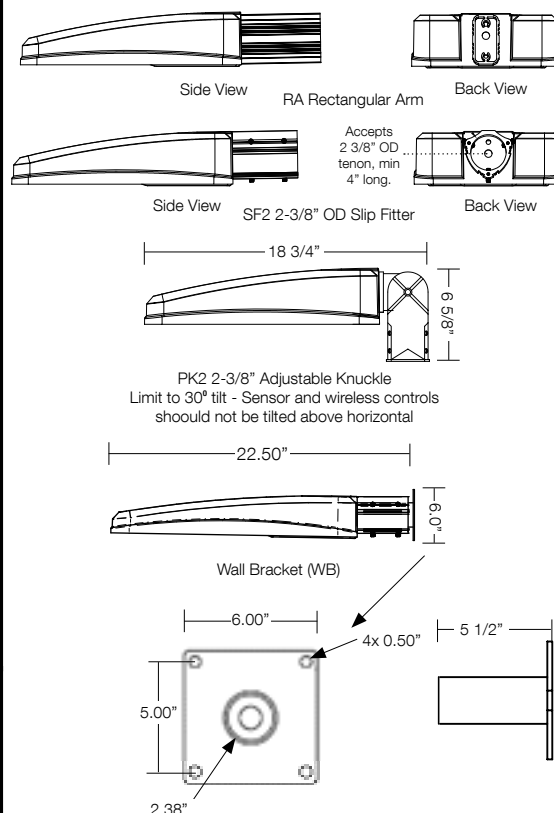
PRODUCT IMAGE(S)



DIMENSIONS



MOUNTING OPTIONS



CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only



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ORDERING INFORMATION ORDERING EXAMPLE: VPS/36NB-80/5K/T4/UNV/PCR-TL/SWP/BLC/RA/BBT

VPS									
SERIES	ENGINE-WATTS	LED COLOR ⁸	VOLTAGE	ELECTRICAL OPTIONS	HOUSE SIDE SHIELD OPTIONS				FINISH
VPS viper-small	24NB-55 55W, LED array 30NB-70 ⁹ 70W, LED array 36NB-80 80W, LED array 48NB-110 110W, LED array 60NB-136 136W, LED array	3K 3000K 4K 4000K 5K 5000K OPTICS⁴ T1 type I T2 type II T3 type III T4 type IV T5R type V, rectangular T5QM type V, square medium T5W type V, round wide FR front row auto optic	UNV 120-277V 347V 347V 480V 480V	PCR-TL Twist lock receptacle with photo control PCR-SC Twist lock receptacle with shorting cap PCR-U Twist lock receptacle 2PF ⁷ dual power feed	BLC ³ backlight control BIRD DETERRENT BSP bird spike MOUNTING OPTIONS RA rectangular arm for round or square pole mount. RPA included. SF2 2 3/8" OD slip-fitter PK2 2 3/8" adjustable knuckle WB wall bracket (use with SF2 or PK2), SF2 standard			BBT basic black textured BMT black matte textured WHT white textured MBT metallic bronze textured BZT bronze textured DBT dark bronze textured GYS gray smooth DPS dark platinum smooth GNT green textured MST metallic silver textured MTT metallic titanium textured OWI old world iron RAL	
HOUSE SIDE SHIELD ACCESSORIES									
HSS/VP-S/90-FB/XXX 90° shield front or back									
CONTROL OPTIONS									
GENI-XX ⁶ Energeni SWP ^{1,5} SiteSync Wireless Pre-Commission SWPM ^{1,2,5} SiteSync Wireless Pre-Commission w/ Motion Detection MDD ^{2,5} Motion Dimming Detector									

HOUSE SIDE SHIELD ACCESSORIES

HSS/VP-S/90-FB/XXX 90° shield front or back
HSS/VP-S/90-LR/XXX 90° shield left or right
HSS/VP-S/270-FB/XXX 270° shield front or back
HSS/VP-S/270-LR/XXX 270° shield left or right
HSS/VP-S/360/XXX Full shield
(Replace XXX with notation for desired finish color)
(Refer to page 5 for shield images)

PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.hubbelllighting.com/products/sitesync or contact Hubbell Lighting tech support at (800) 345-4928.

SiteSync fixtures with Motion control (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: VP-S/24NB-55/5K/T3/UNV/SWP/RA/DBT SiteSync only
VP-S/24NB-55/5K/T3/UNV/SWPM-20F/RA/DBT SiteSync with Motion Control

MDD ORDERING INFORMATION: When ordering a fixture with the motion detection option (MDD), please specify the appropriate information. These settings are specified in the ordering as shown in the example below.

VP-S/24NB-55/5K/T3/UNV/MDD - 1 to 30 min. - 33% or 50% - ?? / RA/DBT

High to Dim Delay Low Level Mounting Height (ft.)

Accessories and Services (Ordered Separately)

Catalog Number	Description
SWUSB*	SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node
SWTAB*	Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node.
SWBRG	SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested.
SCP-REMOTE	Remote Control for SCP/_F option. Order at least one per project to program and control

* When ordering SiteSync at least one of these two interface options must be ordered per project.
+ If needed, an additional Bridge Node can be ordered.



DesignLights Consortium qualified.
Consult DLC website for more details:
<http://www.designlights.org/QPL>



SiteSync Lighting Control is available from our most popular brands in a broad range of award-winning product families.

Hubbell Control Solutions - Accessories (sold separately)

Catalog Number	Description	HCS System
NX0FM-1R1D-UNV	On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with HubbNET Radio and Bluetooth® Radio, 120-480VAC	NX Distributed Intelligence™
WIR-RME-L	On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110-480VAC	wiSCAPE™ Lighting Control

For additional information related to these accessories please visit www.hubbellcontrolsolutions.com. Options provided for use with integrated sensor, please view specification sheet ordering information table for details.



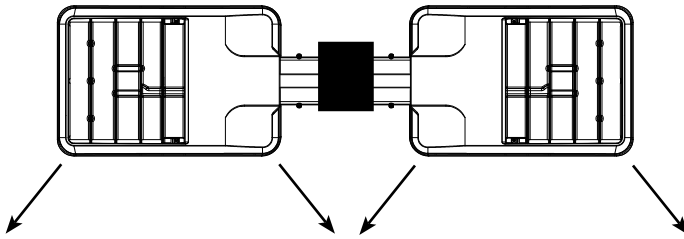
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HUBBELL
Lighting

LEFT ROTATED OPTIC

RIGHT ROTATED OPTIC



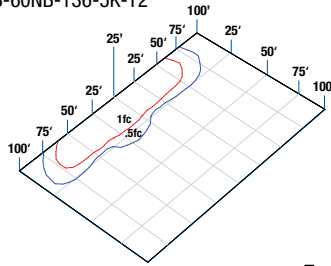
PERFORMANCE DATA

# LED'S	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
24	700 mA	55 W	FR/T1	6339	114	1	0	1	6276	112	1	0	1	5389	97	1	0	1
			T2	5666	102	2	0	2	5610	101	2	0	2	4816	86	1	0	2
			T3	5610	101	1	0	2	5554	100	1	0	2	4784	86	1	0	2
			T4	6171	111	1	0	2	6110	109	1	0	2	5245	94	1	0	2
			T5R	6283	113	3	0	3	6221	111	3	0	3	5341	96	3	0	3
			T5QM	6171	111	3	0	1	6110	109	3	0	1	5245	94	2	0	1
			T5W	6087	109	3	0	1	6027	108	3	0	1	5201	93	3	0	1
30	700 mA	70 W	FR/T1	8096	113	1	0	1	8016	112	1	0	1	6882	96	1	0	1
			T2	7204	101	2	0	2	7133	100	2	0	2	6123	86	2	0	2
			T3	7743	108	2	0	2	7666	107	2	0	2	6659	93	2	0	2
			T4	7896	111	1	0	2	7817	110	1	0	2	6791	95	1	0	2
			T5R	8035	112	3	0	3	7954	111	3	0	3	6829	95	3	0	3
			T5QM	7846	110	3	0	1	7768	109	3	0	1	6669	93	3	0	1
			T5W	8305	116	3	0	2	8222	115	3	0	2	7142	100	3	0	2
36	700 mA	80 W	FR/T1	9515	114	1	0	1	9414	112	1	0	1	8083	96	1	0	1
			T2	8505	101	2	0	3	8415	100	2	0	3	7224	87	2	0	2
			T3	8415	100	2	0	2	8331	99	2	0	2	7175	86	2	0	2
			T4	9256	110	1	0	3	9164	109	1	0	3	7868	94	1	0	3
			T5R	9425	112	3	0	3	9331	111	3	0	3	8011	96	3	0	3
			T5QM	9257	110	3	0	1	9164	109	3	0	1	7868	94	3	0	1
			T5W	9131	109	3	0	2	9040	108	3	0	2	7801	93	3	0	2
48	700 mA	110 W	FR/T1	12679	114	2	0	1	15522	113	2	0	1	10777	97	1	0	1
			T2	11332	102	3	0	3	11220	101	3	0	3	9633	87	2	0	3
			T3	11220	101	2	0	3	11108	100	2	0	3	9567	86	2	0	3
			T4	12342	111	2	0	3	12219	110	2	0	3	10491	95	2	0	3
			T5R	12567	113	4	0	4	12441	112	4	0	4	10682	96	3	0	3
			T5QM	12342	111	3	0	2	12219	111	3	0	2	10491	95	3	0	2
			T5W	12175	110	4	0	2	12053	109	4	0	2	10402	94	4	0	2
60	700 mA	136 W	FR/T1	15848	116	2	0	1	15690	115	2	0	1	13471	98	2	0	1
			T2	14165	103	3	0	3	14025	102	3	0	3	12041	88	3	0	3
			T3	14025	102	3	0	3	13885	101	3	0	3	11959	87	3	0	3
			T4	15427	113	2	0	3	15274	111	2	0	3	13114	96	2	0	3
			T5R	15708	115	4	0	4	15259	111	4	0	4	13352	97	4	0	4
			T5QM	15427	113	4	0	2	15274	111	4	0	2	13314	96	3	0	2
			T5W	15218	111	4	0	2	15066	111	4	0	2	13002	95	4	0	2

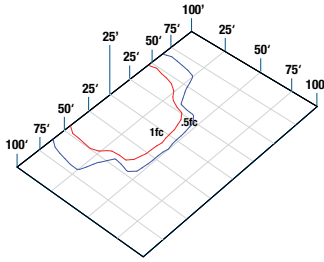
¹Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

PHOTOMETRICS

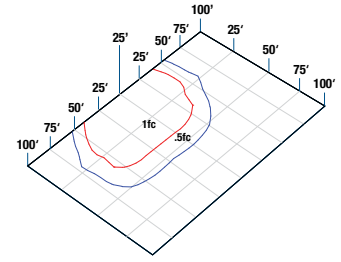
Type II
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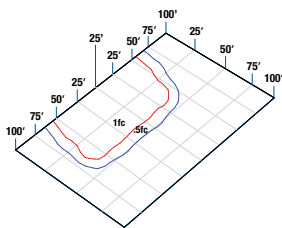
Type III
VP-S-60NB-136-5K-T3



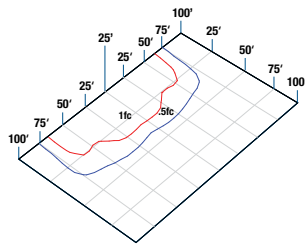
Type IV
VP-S-60NB-136-5K-T4



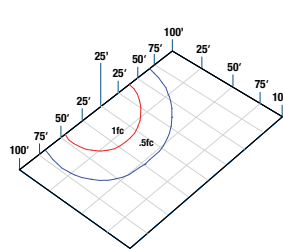
Type V Square Medium
VP-S-60NB-136-5K-T5QM



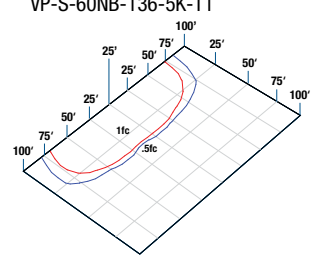
Type V Rectangular
VP-S-60NB-136-5K-T5R



Type V Round Wide
VP-S-60NB-136-5K-T5W



Front Row Auto Optic / Type I
VP-S-60NB-136-5K-FR
VP-S-60NB-136-5K-T1



ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
24	2	700 mA	120	55	0.5
			277		0.2
			347		0.2
			480		0.1
30	2	700 mA	120	70	0.6
			277		0.3
			347		0.2
			480		0.1
36	1	700 mA	120	80	0.7
			277		0.3
			347		0.2
			480		0.2
48	1	700 mA	120	110	0.9
			277		0.4
			347		0.3
			480		0.2
60	1	700 mA	120	136	1.1
			277		0.5
			347		0.4
			480		0.3

PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	0	25,000	50,000	TM-21-11 60,000	100,000	Calculated L70 (HOURS)
25°C / 77°C	1.00	0.97	0.95	0.95	0.92	>470,000

¹ Projected per IESNA TM-21-11

Data references the extrapolated performance projections for the base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

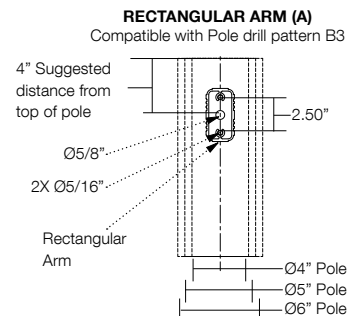
AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.98
40°C	104°F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

EPA

Config.	EPA	Config.	EPA
1	.67	3 @ 120°	1.68
2 @ 90°	1.06	3 @ 90°	1.73
2 @ 180°	1.34	4 @ 90°	2.12

DRILL PATTERN



Cypher™ – CY2 Pedestrian Scale

TYPE

FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- IES Type I, II, III & IV Distributions
- Wall Graze, Spot and Pencil Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System
- 120-277, 347 and 480V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Forms F and E are ADA compliant for use in low mounting height applications (80 inches or less)
- IDA approved, downlight only, 3000K and warmer CCTs
- Occupancy Sensor & Wireless Control Options



Downlight only, 3000K and warmer CCTs

ORDERING CODE

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

CY2-25	25w, 2500 nominal lumens
CY2-35	40w, 3500 nominal lumens
CY2-45	50w, 4500 nominal lumens

CCT-CRI

2K8	2700K, 80CRI
3K7	3000K, 70CRI
3K8	3000K, 80CRI
4K7	4000K, 70CRI
4K8	4000K, 80CRI
5K7	5000K, 70CRI

MODEL (Light Engine)

1	DownLight Only
2	50/50 Down/Up, Down/Up distributions must match
3	90/10 Down/Up
4	25/25/25/25 Split, Down/Up/Side distributions must match
5	70/10/10/10 Split, Top/Side distributions must match

Contact factory for custom distributions,
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
1D	Type 1 Diffused
2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

SECONDARY DISTRIBUTION (Up, Sides)

1	IES Type I
2	IES Type II
3	IES Type III
4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
PB*	Pencil Beam
1D	Type 1 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

SECONDARY DISTRIBUTION (Up, Sides)

2D	Type 2 Diffused
3D	Type 3 Diffused
4D	Type 4 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV	120-277V
347	347V
480	480V

BASE HOUSING FINISH

Standard Colors

AGN	Antique Green
BL	Black
BLT	Matte Black
CRT	Corten
DB	Dark Bronze
DGN	Dark Green
GT	Graphite
LG	Light Grey
MAL	Matte Aluminum
MDB	Metallic Bronze
MG	Medium Grey
TT	Titanium
VB	Verde Blue
WDB	Weathered Bronze
WH	Arctic White

Premium Colors

SFM	Seafoam
SHK	Shamrock
SPP	Salt and Pepper
WCP	Weathered Copper
RAL	Provide a RAL 4 digit color number
CUSTOM	Please provide color chip for matching
COLOR	

FASCIA FORM

F	Flat
R	Radius/Curved
T	Triangle/Wedge
E	Rounded Edge
C	Circle/Curved
CB	Cylinder Balanced
CT	Cylinder Tall
CBM	Custom Building Material Mount
	Ghost Fascia

LUMINOUS FRONT

BLANK	Standard None
RGBW	RGBW Luminous Front
LFSW	Static White Luminous Front

RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels

FASCIA PANEL

FPP	Full Panel Painted
FPS	Full Panel Stainless Steel
FPC	Full Panel Copper
OPP	Open Panel Painted
OPS	Open Panel Stainless Steel
OPC	Open Panel Copper
4PP	4-Square Panel Painted
4PS	4-Square Panel Stainless Steel
4PC	4-Square Panel Copper
PPP	Perforated Panel Painted
PPS	Perforated Panel Stainless Steel
PPC	Perforated Panel Copper

Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

PCU	Universal Button Photocell (120-277V)
SCP	Programmable Occupancy Sensor
SWP	SiteSync Wireless
SWPM	SiteSync Wireless w/Occupancy Sensor

WIR	wiSCAPE
WIRSC	wiSCAPE w/Occupancy Sensor

Occupancy sensors not available with CB, T, E or C fascia forms

OPTIONS

EM	Battery Backup Unit -20°C
SF	Single Fuse (120, 277, 347)
DF	Double Fuse (208, 240, 480)

Battery Backup not available with Triangle and Rounded Edge Fascia Forms.



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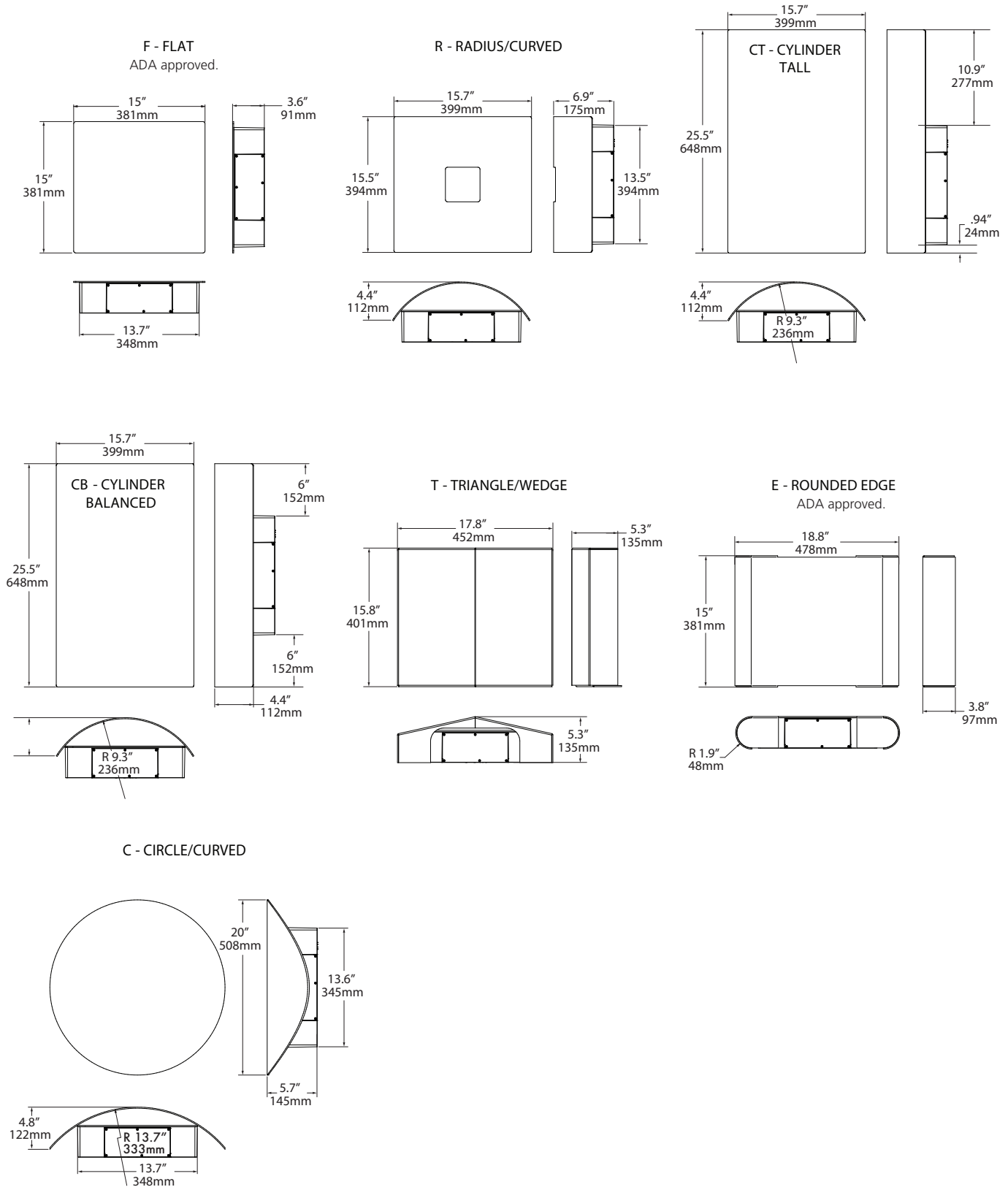
JOB	_____
TYPE	_____
NOTES	_____

Distribution Matrix

FASCIA	DISTRIBUTION				
	1 Down Only	2 50 Down/50 Up	3 90 Down/10 Up	4 25/25/25/25 Split	5 70 Down 10/10/10 Split
Window/Options Flat* F	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG
Window/Options Radius R	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG
Cylinder Balanced CB	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG
Cylinder Tall CT	I, II, III, IV, SP, WG	SP/WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG
Triangle Wedge T	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Rounded Edge* E	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Circle/ Curved C	SP, WG	SP, WG	SP/WG/PB SP, WG		
Ghost	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG

* ADA compliant for use in low mounting height applications (80 inches or less)
 2 Down/Up distributions must match
 4 Down/Up/Side distributions must match
 5 Top/Side distributions must match
 Contact factory for custom distributions

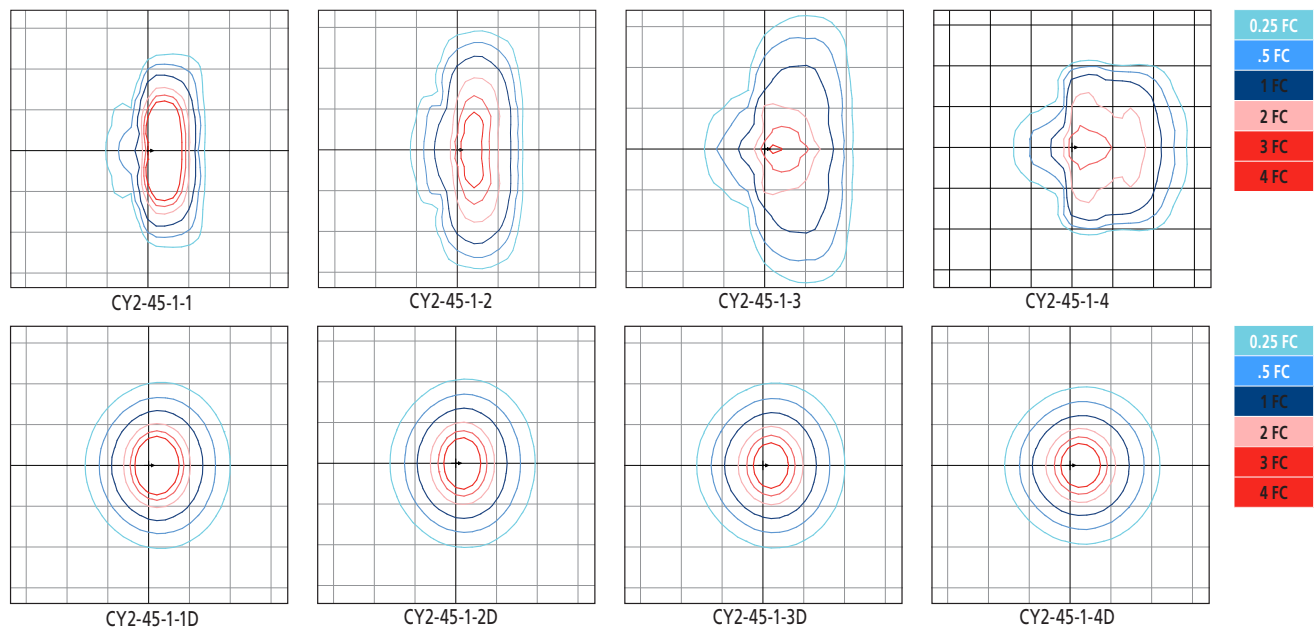
Drawings



LUMINAIRE PERFORMANCE

Downlight only			Configuration														
Nominal Output (Lm)	Average System Wattage	Distribution	Bright White (5000K)				Neutral White (4000K)				Warm White (3000K)						
			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating		
					B	U	G			B	U	G			B	U	G
2,500	26	Type 1	2836	109	0	0	0	2596	100	0	0	0	2499	96	0	0	0
		Type 2	2570	99	1	0	1	2353	90	1	0	1	2265	87	1	0	1
		Type 3	2739	107	1	0	1	2507	96	1	0	1	2413	93	1	0	1
		Type 4	2512	97	0	0	1	2299	88	0	0	1	2213	85	0	0	0
		Wall Graze	2795	107	2	0	0	2558	98	2	0	0	2462	95	2	0	0
		Spot/Column	2371	91	2	0	0	2171	83	2	0	0	2089	80	2	0	0
		Type 1 Diffused	2488	96	1	0	1	2278	88	1	0	1	2193	84	1	0	1
		Type 2 Diffused	2274	87	1	0	1	2082	80	1	0	1	2004	77	1	0	1
		Type 3 Diffused	2163	83	1	0	1	1980	76	1	0	1	1906	73	1	0	1
Type 4 Diffused	2197	84	1	0	1	2011	77	1	0	1	1936	74	1	0	1		
3,500	40	Type 1	4011	100	1	0	0	3672	92	1	0	0	3534	88	1	0	0
		Type 2	3635	91	1	0	1	3328	83	1	0	1	3203	80	1	0	0
		Type 3	3874	97	1	0	1	3546	89	1	0	1	3413	85	1	0	1
		Type 4	3553	89	1	0	1	3252	81	1	0	1	3131	78	1	0	1
		Wall Graze	3953	99	2	0	0	3618	90	2	0	0	3483	87	2	0	0
		Spot/Column	3354	84	3	0	0	3070	77	3	0	0	2955	74	3	0	0
		Type 1 Diffused	3519	88	1	0	1	3222	81	1	0	1	3101	78	1	0	1
		Type 2 Diffused	3217	80	1	0	1	2945	74	1	0	1	2835	71	1	0	1
		Type 3 Diffused	3059	76	1	0	1	2800	70	1	0	1	2695	67	1	0	1
Type 4 Diffused	3107	78	1	0	1	2844	71	1	0	1	2738	68	1	0	1		
4,500	52	Type 1	4982	97	1	0	1	4561	88	1	0	0	4390	84	1	0	0
		Type 2	4675	90	1	0	1	4280	82	1	0	1	4119	79	1	0	1
		Type 3	4812	95	1	0	1	4405	86	1	0	1	4240	82	1	0	1
		Type 4	4569	88	1	0	1	4183	80	1	0	1	4026	77	1	0	1
		Wall Graze	5083	99	3	0	0	4653	89	3	0	0	4479	86	3	0	0
		Spot/Column	4313	84	3	0	0	3948	76	3	0	0	3800	73	3	0	0
		Type 1 Diffused	4526	88	2	0	1	4143	80	1	0	1	3988	77	1	0	1
		Type 2 Diffused	4137	80	1	0	1	3787	73	1	0	1	3645	70	1	0	1
		Type 3 Diffused	3934	76	1	0	1	3601	69	1	0	1	3466	67	1	0	1
Type 4 Diffused	3996	77	1	0	1	3658	70	1	0	1	3521	68	1	0	1		

ISOLINE TEMPLATES 15' Mounting Height, 15' Grid Spacing



ELECTRICAL CHARACTERISTICS

Lumen Pack- age	System Wattage (W)	Line Voltage		Input				Min. Power Factor	Max THD (%)	Dimming Range	Source/Sink Current (mA)		Absolute voltage range on 0-10v (+) Purple	
		VAC	Hz	120	277	347	480				Min.	Max.	Min.	Max.
2,500	26	120	50/60	0.2	0.1	0.1	0.1	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
3,500	40			0.3	0.1	0.1	0.1							
4,500	52			0.4	0.2	0.1	0.1							

TM-21 LIFETIME CALCULATION (500mA)

Lumen Package	Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
		15	25	50	60 (TM-21)	100	
4,500	25	95%	94%	90%	89%	83%	>60Khrs.
	40	93%	91%	84%	82%	73%	

HOUSING

- Main housing shroud shall be of fabricated 5052-H32 aluminum alloy
- Housing mounting interface shall have a stamped silicone gasket.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

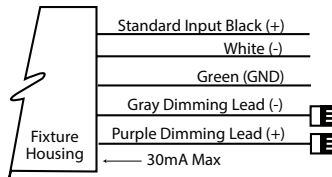
- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Optical array shall be sealed for IP66 rating.
- Secondary lens is impact resistant 5/32" tempered glass.

ELECTRICAL

- Drivers shall be in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", primary side, thermister provides protection for the sustainable life of LED module and electronic components.
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J. Surge protection device shall be wired in series.
- Drivers shall be U.L. recognized.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments.

SPECIFICATIONS

- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Luminaires not configured with a control system shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Optional universal voltage (120-277V) button photocontrol for dusk to dawn energy savings. Photocontrol is factory installed inside the housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others.
- Wireless enabled fixtures shall support bi-directional radio frequency (RF) communications utilizing IEEE 802.15.4 operating in the 2.4GHz ISM band.
- Up to 1000' wireless range may be reduced by physical obstructions between lighting fixtures.
- Occupancy Sensor shall programmable and use passive infrared (PIR) sensing technology that reacts to changes in infrared energy (moving body heat) within the coverage area. Careful consideration must be given to obstructions that may block the sensor's line of sight.
- Factory default settings for SCP option shall be:
 - High mode: 10V
 - Low mode: 1V
 - Ramp-up rate: disabled
 - Fade-down rate: disabled
 - Photocell: Off
 - Sensitivity: Full
 - Time Delay: Fade to low: 5 minutes
 - Time Delay: Fade to off: 1 hour
- The SCP enables any wall mounted luminaire, in excess of 30 watts, to meet California Title 24 requirements with integral 10KA surge protection for added reliability and serviceability.

For more detail: http://www.aal.net/products/sensor_control_programmable

- Hubbell Control Solution's wiSCAPE™ In-Fixture Module is a bi-directional wireless RF device that allows an individual fixture to be managed, monitored and metered. The wiSCAPE In-Fixture Module communicates wirelessly over a robust 2.4GHz ISM (Industrial, Scientific and Medical) certified meshed radio signal. The wiSCAPE Fixture Module drastically simplifies control and automation of projects, especially in retrofit environments, and challenges the legacy world of wired-systems. wiSCAPE wireless control technology easily adapts to complex automation situations for quick, simple and economical commissioning. The On-Fixture Module is compatible with A-25-7H option.

- SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit www.hubbellighting.com/products/sitesync for more details.

BLUETOOTH®

- RGBW option includes integral Bluetooth module, built into driver, that permits the adjustment of luminous front color when paired with Hubbell Remote App via cellular/tablet device.
- Bluetooth Low Energy (BLE) or Bluetooth Smart compatible for both iOS (iOS8 and forward) and Android (Gingerbread and forward) handheld software applications. Compatible with phones and tablets.
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.

MOUNTING AND INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring.

SERVICING

- Housing shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

FUSING

SF for 120, 277, and 347 Line volts
DF for 208, 240, and 480 Line volts

High temperature fuse holders factory installed inside the fixture housing.
Fuse is included.

FINISH

- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only.
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less).

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

Five year limited warranty (for more information visit: <http://www.hubbellingighting.com/resources/warranty/>)

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JOB	_____
TYPE	_____
NOTES	_____

FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- IES Type I, II, III & IV Distributions
- Wall Graze, Spot and Pencil Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System
- 120-277V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Forms F, E and T are ADA compliant for use in low mounting height applications (80 inches or less)
- IDA approved, downlight only, 3000K and warmer CCTs



Downlight only, 3000K and warmer CCTs



ORDERING CODE

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

CY1-15	15w, 1500 nominal lumens
CY1-25	25w, 2500 nominal lumens

CCT-CRI

2K8	2700K, 80CRI
3K7	3000K, 70CRI
3K8	3000K, 80CRI
4K7	4000K, 70CRI
4K8	4000K, 80CRI
5K7	5000K, 70CRI

MODEL (Light Engine)

1	DownLight Only
2	50/50 Down/Up, Down/Up distributions must match
3	90/10 Down/Up
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5	70/10/10/10 Split, Top/Side distributions must match

Contact factory for custom distributions,
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

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WG	60° Wall Graze
1D	Type 1 Diffused
2D	Type 2 Diffused
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4	IES Type IV
SP	15° Spot/Column
WG	60° Wall Graze
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4D	Type 4 Diffused

* PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended.
See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV	120-277V
-----	----------

BASE HOUSING FINISH

Standard Colors

AGN	Antique Green
BL	Black
BLT	Matte Black
CRT	Corten
DB	Dark Bronze
DGN	Dark Green
GT	Graphite
LG	Light Grey
MAL	Matte Aluminum
MDB	Metallic Bronze
MG	Medium Grey
TT	Titanium
VBU	Verde Blue
WDB	Weathered Bronze
WH	Arctic White

Premium Colors

SFM	Seafoam
SHK	Shamrock
SPP	Salt and Pepper
WCP	Weathered Copper
RAL	Provide a RAL 4 digit color number
CUSTOM COLOR	Please provide color chip for matching

FASCIA FORM

F	Flat
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T	Triangle/Wedge
E	Rounded Edge
C	Circle/Curved
CB	Cylinder Balanced
CT	Cylinder Tall
CBM	Custom Building Material Mount Ghost Fascia

LUMINOUS FRONT

BLANK	Standard None
RGBW	RGBW Luminous Front
LFSW	Static White Luminous Front

RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels

FASCIA PANEL

FPP	Full Panel Painted
FPS	Full Panel Stainless Steel
FPC	Full Panel Copper
OPP	Open Panel Painted
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OPC	Open Panel Copper
4PP	4-Square Panel Painted
4PS	4-Square Panel Stainless Steel
4PC	4-Square Panel Copper
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Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

PCU	Universal Button Photocell (120-277V)
-----	---------------------------------------

OPTIONS

EM	Battery Backup Unit -20°C
SF	Single Fuse (120, 277)
DF	Double Fuse (208, 240)

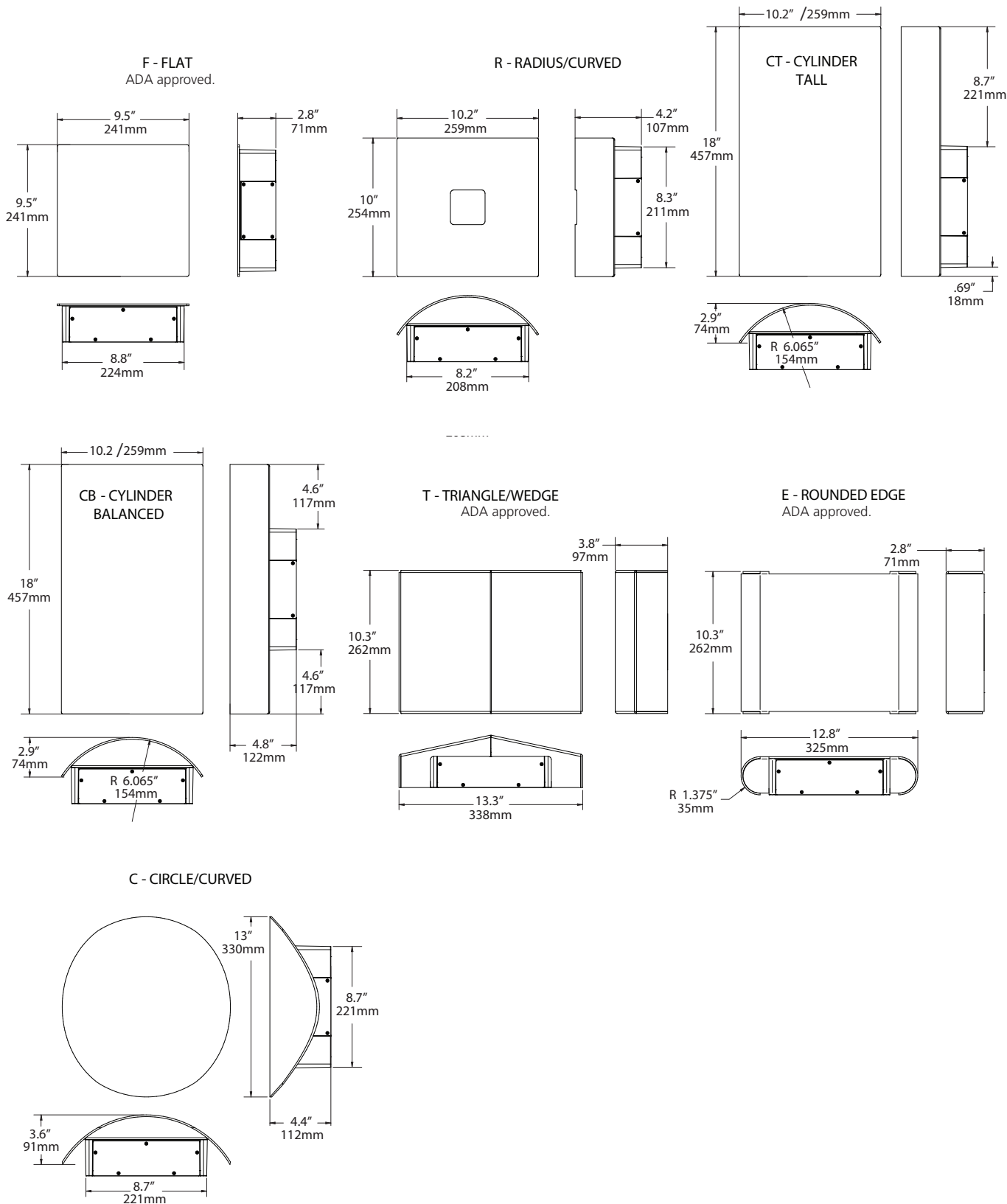
Battery Backup not available with Triangle and Rounded Edge Fascia Forms.

Distribution Matrix

FASCIA	DISTRIBUTION				
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Window/Options Flat* F	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Window/Options Radius R	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Cylinder Balanced CB	SP/WG	SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB
Cylinder Tall CT	I, II, III, IV, SP, WG	SP/WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG
Triangle Wedge* T	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Rounded Edge* E	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Circle/ Curved C	SP, WG	SP, WG	SP/WG/PB SP, WG		
Ghost	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB SP/WG/PB

* ADA compliant for use in low mounting height applications (80 inches or less)
 2 Down/Up distributions must match
 4 Down/Up/Side distributions must match
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 Contact factory for custom distributions

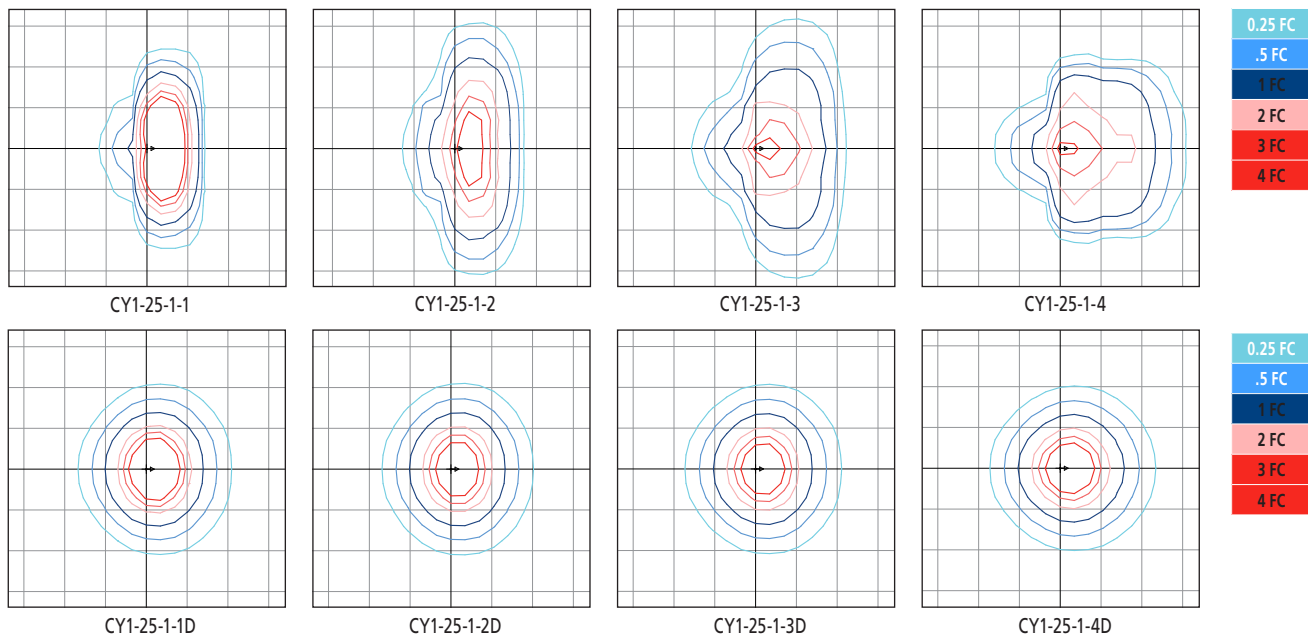
Drawings



LUMINAIRE PERFORMANCE

Downlight only			Configuration														
Nominal Output (Lm)	Average System Wattage	Distribution	Bright White (5000K)				Neutral White (4000K)				Warm White (3000K)						
			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating			Delivered Lumens	Efficacy (Lm/W)	BUG Rating		
			5000K 70 CRI				4000K 70 CRI				3000K 70 CRI						
1,500	17	Type 1	1923	113	0	0	0	1928	113	0	0	0	1825	107	0	0	0
		Type 2	1726	102	0	0	0	1730	102	0	0	0	1638	96	0	0	0
		Type 3	1750	100	0	0	1	1755	103	0	0	1	1661	98	0	0	1
		Type 4	1757	103	0	0	0	1762	104	0	0	0	1668	98	0	0	0
		Wall Graze	1971	114	1	0	0	1976	116	1	0	0	1871	110	1	0	0
		Spot/Column	1792	103	2	0	0	1797	106	2	0	0	1701	100	2	0	0
		Type 1 Diffused	1629	96	1	0	0	1634	96	1	0	0	1547	91	1	0	0
		Type 2 Diffused	1573	93	1	0	1	1577	93	1	0	0	1493	88	1	0	0
		Type 3 Diffused	1425	84	1	0	0	1429	84	1	0	0	1353	80	1	0	0
Type 4 Diffused	1602	94	1	0	1	1607	95	1	0	0	1521	89	1	0	0		
			5000K 70 CRI				4000K 70 CRI				3000K 70 CRI						
2,500	26	Type 1	2517	96	0	0	0	2524	97	0	0	0	2390	92	0	0	0
		Type 2	2233	85	1	0	1	2239	86	1	0	1	2120	82	1	0	1
		Type 3	2229	85	1	0	1	2236	85	1	0	1	2117	80	1	0	1
		Type 4	2319	88	1	0	1	2325	89	1	0	1	2201	85	1	0	1
		Wall Graze	2744	104	2	0	0	2752	106	2	0	0	2605	100	2	0	0
		Spot/Column	2471	94	2	0	0	2478	95	2	0	0	2346	90	2	0	0
		Type 1 Diffused	2344	89	1	0	1	2350	90	1	0	1	2225	86	1	0	1
		Type 2 Diffused	2062	79	1	0	1	2068	80	1	0	1	1958	75	1	0	1
		Type 3 Diffused	2050	78	1	0	1	2056	79	1	0	1	1946	75	1	0	1
Type 4 Diffused	2123	80	1	0	1	2129	82	1	0	1	2016	78	1	0	1		

ISOLINE TEMPLATES 10' Mounting Height, 10' Grid Spacing



ELECTRICAL CHARACTERISTICS

Lumen Pack- age	System Wattage (W)	Line Voltage		Input				Min. Power Factor	Max THD (%)	Dimming Range	Source/Sink Current (mA)		Absolute voltage range on 0-10v (+) Purple	
		VAC	Hz	120	277	347	480				Min.	Max.	Min.	Max.
1,500	17	120	50/60	0.1	0.1	0.0	0.0	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
2,500	26			0.2	0.1	0.1	0.1							

TM-21 LIFETIME CALCULATION (500mA)

Lumen Package	Ambient Environment °C	Projected Lumen Maintenance (Khrs)					Reported L70
		15	25	50	60 (TM-21)	100	
2,500	25	98%	97%	94%	92%	87%	>60Khrs.
	40	95%	93%	89%	87%	80%	

SPECIFICATIONS

HOUSING

- Main housing shroud shall be of fabricated 5052-H32 aluminum alloy
- Housing mounting interface shall have a stamped silicone gasket.
- Luminaire housing shall be free of any visible heat fins, hardware or fasteners.
- Bracketry and hardware shall be stainless steel.

OPTICAL ARRAY

- LEDs shall be mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features.
- Optical lenses shall be clear injection molded PMMA acrylic.
- Optical array shall be recessed in order to shield each LED optic across the length of the aperture.
- Optical array shall be sealed for IP66 rating.
- Secondary lens is impact resistant 5/32" tempered glass.

ELECTRICAL

- Drivers shall be in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer.
- "Thermal Shield", primary side, thermister provides protection for the sustainable life of LED module and electronic components.
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J. Surge protection device shall be wired in series.
- Drivers shall be U.L. recognized.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV.
- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments.

SPECIFICATIONS

- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Luminaires not configured with a control system shall be provided with 0-10 purple and gray dimming leads.



CONTROLS

- Button photocontrol for dusk to dawn energy savings
- PC12 for 120V, PC20 for 208V, PC24 for 240V, PC27 for 277V
- Photocell is factory installed inside the housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others.

BLUETOOTH®

- RGBW option includes integral Bluetooth module, built into driver, that permits the adjustment of luminous front color when paired with Hubbell Remote App via cellular/tablet device.
- Bluetooth Low Energy (BLE) or Bluetooth Smart compatible for both iOS (iOS8 and forward) and Android (Gingerbread and forward) handheld software applications. Compatible with phones and tablets.
- Free Bluetooth Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the internet at Apple App Store or Google Play.

MOUNTING AND INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates.
- Fixture attaches by two Allen-head hidden fasteners for tamper resistance.
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring.

SERVICING

- Housing shall be able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate and disconnecting the wiring plugs.
- Driver assembly shall be mounted to a prewired internal tray with quick disconnects for removal.

FINISH

- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Luminaire shall be listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only.
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.
- ANSI C136.31-2010 4G Vibration tested and compliant.
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less).

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:

Five year limited warranty (for more information visit: [http:// www.hubbellighting.com/resources/warranty/](http://www.hubbellighting.com/resources/warranty/))

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MEMO

TO: Kyle Dodson, President/Chief Executive Officer
GREATER BURLINGTON YMCA

CC: Alex Halpern, FFF

FROM: Mark Smith, PE

DATE: March 30, 2018

SUBJECT: Proposed Annex Redevelopment - Traffic Impact Study

On behalf of the GBYMCA ("the Y"), RSG has conducted an analysis of traffic operations and overall safety proximate to the proposed redevelopment of the current YMCA Annex on College Street in Burlington, Vermont. This study has been produced in conjunction with a Parking Management Plan (attached), which details particular provisions for off-site parking, access by alternate modes, and Transportation Demand Management (TDM) measures.

This study includes the following sections;

1. A project overview,
2. traffic volume analysis,
3. congestion & queuing analysis,
4. safety analysis,
5. Transportation Demand Management overview, and
6. a summary with conclusions.

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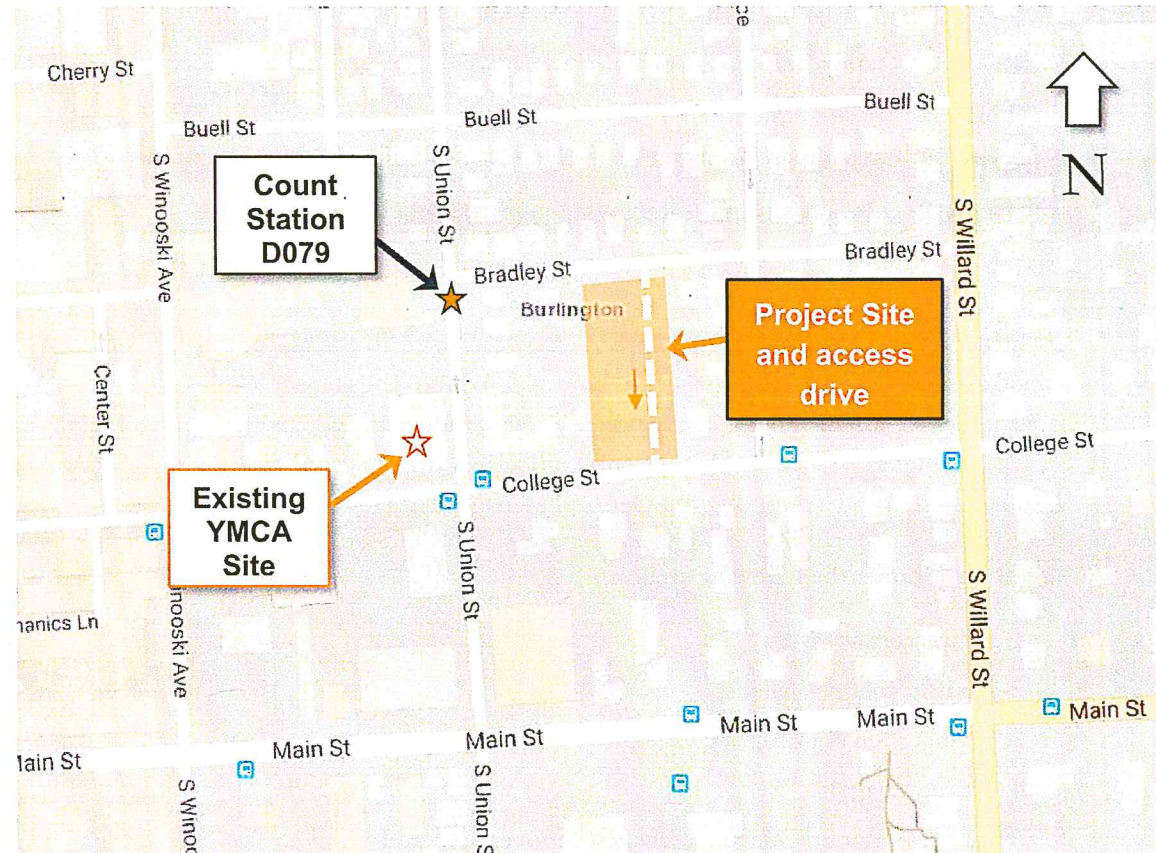
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1.0 PROJECT OVERVIEW

The proposed project is located between College St. and Bradley St., east of Union St. (see Figure 1). The new site is approximately 300 feet from the existing GBYMCA site to the west, which will be abandoned.

FIGURE 1: PROPOSED PROJECT LOCATION



The project site was formerly the Ethan Allen Club (a private social club), but now serves as temporary parking for YMCA staff and members, and the building is used for exercise classes.

Access to the new site will be provided by a one-way drive through the site – entering on Bradley St. and exiting to College St. (See site plan - Figure 2).

The proposed project size (Table 1) is similar to the existing facility (49,000 s.f.), however since the new facility is specifically designed for the activities of the Y, greater efficiencies can be realized, and future growth accommodated.

TABLE 1. RELEVANT PROJECT STATISTICS¹

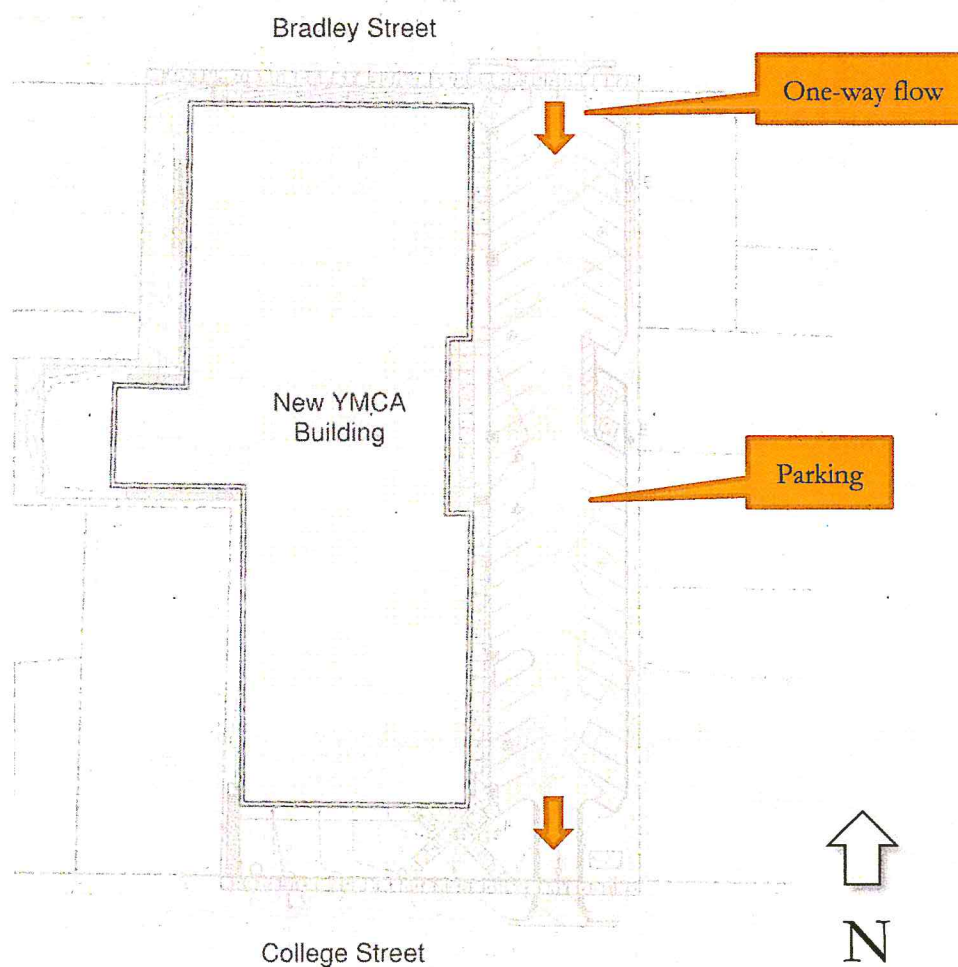
Proposed facility size (GSF)-total	49,450
Included health club	37,800
Included daycare	11,650
Proposed daycare seats	108
Proposed daycare employees	25
Proposed other employees (FTE)	60-70

PARKING

48 parking spaces will be provided on site (see Figure 2), mostly for member and daycare drop-off / pick-ups. 22 spaces will be signed as short term (15-minute max) during drop-off times so that they can be shared with members during other times. Very limited employee parking will be provided for exercise class instructors (4 spaces). Additional parking for employees is provided at 265 College Street (2 spaces), at the COTS home on Main Street (4 spaces) and at the Lakeside Avenue intercept facility (20 spaces).

¹ GSF-gross square feet, FTE-full time equivalent

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FIGURE 2: PROPOSED SITE PLAN

This study relies upon design standards and analysis procedures documented in the 2010 Highway Capacity Manual,² Trip Generation,³ A Policy on Geometric Design of Highways and Streets,⁴ Manual on Uniform Traffic Control Devices (MUTCD),⁵ the VTrans Traffic Impact Study Guidelines,⁶ and the Vermont State Standards,⁷ which are the generally accepted traffic analysis references relied upon by traffic engineering professionals and VTrans for projects of this type in Vermont.

² Transportation Research Board, National Research Council, *Highway Capacity Manual* (Washington, DC: National Academy of Sciences, 2010).

³ Institute of Transportation Engineers, *Trip Generation* 9th Edition (Washington, D.C.: Institute of Transportation Engineers, 2012).

⁴ American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition (Washington DC: AASHTO, 2011).

⁵ American Traffic Safety Services Association (ATSSA), ITE, and AASHTO, *Manual on Uniform Traffic Control Devices*, 2009 Edition (Washington DC: FHWA, 2009).

⁶ Vermont Agency of Transportation, October 2008.

⁷ State of Vermont Agency of Transportation, *Vermont State Standards* (Montpelier: VTrans, 1 July 1997).

2.0 TRAFFIC VOLUMES

2.1 | METHODOLOGY

To assess potential impacts on streets proximate to the proposed project, we have performed a detailed analysis of vehicle delays, queuing and levels of service following procedures outlined in the 2010 Highway Capacity Manual (HCM).

VTrans guidelines specify that a traffic study should be considered if the proposed development will generate 75 or more peak hour trips. The geographic scope of the study should also include the immediate access points and those intersections or highway segments receiving 75 or more project-generated peak hour trips.⁸ While we anticipate that none of the adjacent intersections will see this level of traffic from the proposed project, we have analyzed the site driveway and the nearby intersections of College St. / Union St., and Union St. / Bradley St.

Vehicle delays and queues are examined at these intersections, first with baseline, **2019 No Build** scenario traffic volumes, which represent the anticipated design hour conditions in the target study years without the proposed development in place.

Once baseline conditions are established, anticipated traffic associated with the proposed development is added to the No Build scenario volumes to create **2019 Build** scenario traffic volumes, which are in turn used to project intersection delays and levels of service with the proposed development in place.

Finally, future volumes are examined in the **2024 No build** and **2024 Build** scenarios.

A detailed description of the elements that contribute to the No Build and Build scenario traffic volumes is presented below.

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⁸ Vermont Agency of Transportation, *Traffic Impact Study Guidelines*

2.2 | BACKGROUND TRAFFIC VOLUMES AND ADJUSTMENTS

Traffic count data was collected by the CCRPC for the S. Union St / College St. intersection on 8/25/15, and the S. Union St. Bradley St intersection was counted by RSG staff on 2/21/18. Turning movements at the site driveway were derived from trip generation based on the Institute of Transportation Engineers (ITE) 10th Edition *Trip Generation Manual*.

Following VTrans traffic study guidelines, raw peak hour traffic volumes were adjusted to represent the design hour volume (DHV)⁹ in 2019 and 2024¹⁰ using two adjustment factors:

1. Design hour adjustment factors are based on the automatic traffic recorder station D079, located on S Union St. near Bradley St. (see Figure 1). The 2016 AADT at D079 was 3,368 vehicles per day. The DHV was 368 vehicles per hour. This DVH was compared to flows from the peak hour volume at the intersection to formulate a DHV adjustment. The DHV adjustment increases volumes by 9% at College St. and 0% at Bradley St. to represent 2016 design hour conditions.
2. An annual adjustment factor, which represents general background traffic growth, is based on VTrans historic count data for rural locations, as presented in the 2016 VTrans “Red Book”. The build year adjustment increases volumes by 2% from 2016 to 2018 and increases volumes by 3% between 2016 and 2024.

2.3 | OTHER DEVELOPMENT VOLUMES

Other development volumes (ODVs) represent trips generated by other permitted but unbuilt developments in the study area. Trips generated by ODVs are included in every scenario (both No Build and Build) because we assume they are already present on the road network in the analysis years.

A review of the proposed Burlington Mall traffic study by VHB dated January 23, 2017 shows no significant impact to College St. or Union St. traffic.

2.4 | TRIP GENERATION

Trip generation refers to the number of new vehicle trips originating at or destined for a particular development. The number of trips generated by the proposed project is based on observed hourly distributions of trips from similar facilities over the course of the day as collected by the Institute of Transportation Engineers (ITE) and published in the 10th edition of *Trip Generation*.

For this analysis, we used the ITE Land Use Code 565 – Daycare, and ITE Land Use Code 492 – Health Club. The surveys for similar facilities are from typical suburban locations, which do not consider the use of alternate modes of transportation.

As detailed in the Parking Management Plan, significant use of biking, walking and transit use has been documented in a member and employee survey. Results show that approximately 36 and 37% of members and employees, respectively, use alternative modes to access the existing GBYMCA. The

⁹ The DHV is the 30th highest hour of traffic for the year and is used as the analysis standard in Vermont.

¹⁰ VTrans guidelines suggest analysis during the year project construction is expected to be complete and in a future year scenario 5 years after project completion.

Y is committed to fostering this activity and has joined the Chittenden Area Transportation Management Association (CATMA) to ensure the habits continue and grow in the future.

Table 2 presents the projected trip generation associated with the project, and adjustments for biking, walking, transit use as well as the implementation of TDM strategies, with the assistance of CATMA. Note that no adjustment was made for the fact that most employees will park offsite.

TABLE 2. PEAK HOUR TRIP GENERATION SUMMARY

LUC	Land Use	Variable	Quantity	Peak Hour Trips	
				AM	PM
565	Daycare	students	108	84	85
492	Health Club	per 1,000 s.f.	37.8	50	131
less biking, walking and TDM fraction (healthclub): 40%				-20	-52
TOTAL TRIPS TO/FROM SITE				114	164

Since the values shown in Table 2 represent one-way trips, they are further broken down into trips entering and exiting the project site, as determined by the ITE survey, and as shown in Table 3.

TABLE 3. ENTER AND EXIT SPLIT FOR PROJECT SITE TRAFFIC

	AM		PM	
	enter	exit	enter	exit
Daycare	50%	50%	50%	50%
	42	42	43	43
Health Club	57%	43%	57%	43%
	17	13	45	34
	59	55	87	76

Figure 4 depicts the general pattern of actual traffic expected at the GBYMCA due to the various activities, and the relation to the actual peak hour of adjacent street traffic. This pattern is consistent with the more generic ITE trip estimates in Table 2.

FIGURE 3. GENERAL PATTERN OF SITE ACTIVITY THROUGHOUT THE DAY

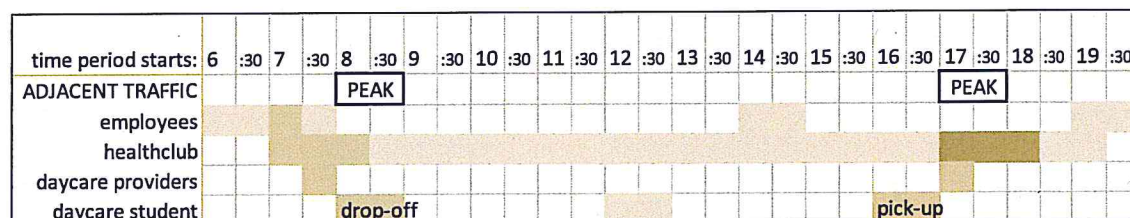
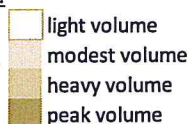


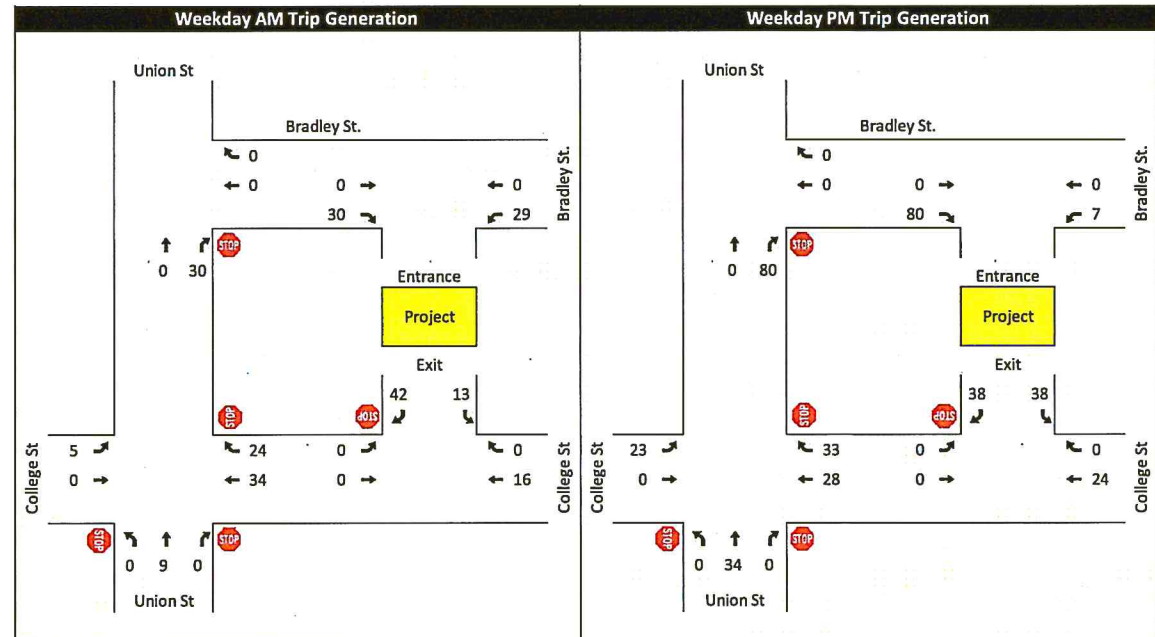
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Figure 4 presents a map of project trip generation through the study area intersections. Trips entering and exiting the site access are distributed onto the roadway network based on background traffic volumes.

FIGURE 4: PROJECT TRIP GENERATION MAP



2.5 | SCENARIO VOLUME GRAPHICS

Figures 5 through 8 present the AM and PM Peak Hour No-Build and Build scenario traffic volumes at the study intersections for the build year (2019) and future year (2024) scenarios.

No Build traffic volumes include the raw count volumes, adjusted to design hour conditions, and projected traffic from recently permitted developments in the area (ODVs). Build scenario volumes represent the addition of project-generated traffic (both primary and pass-by trips) to the No Build traffic volumes.

With the addition of site-generated traffic, volumes entering and exiting the project site increase in the Build scenario.

FIGURE 5: 2019 NO BUILD TRAFFIC VOLUMES

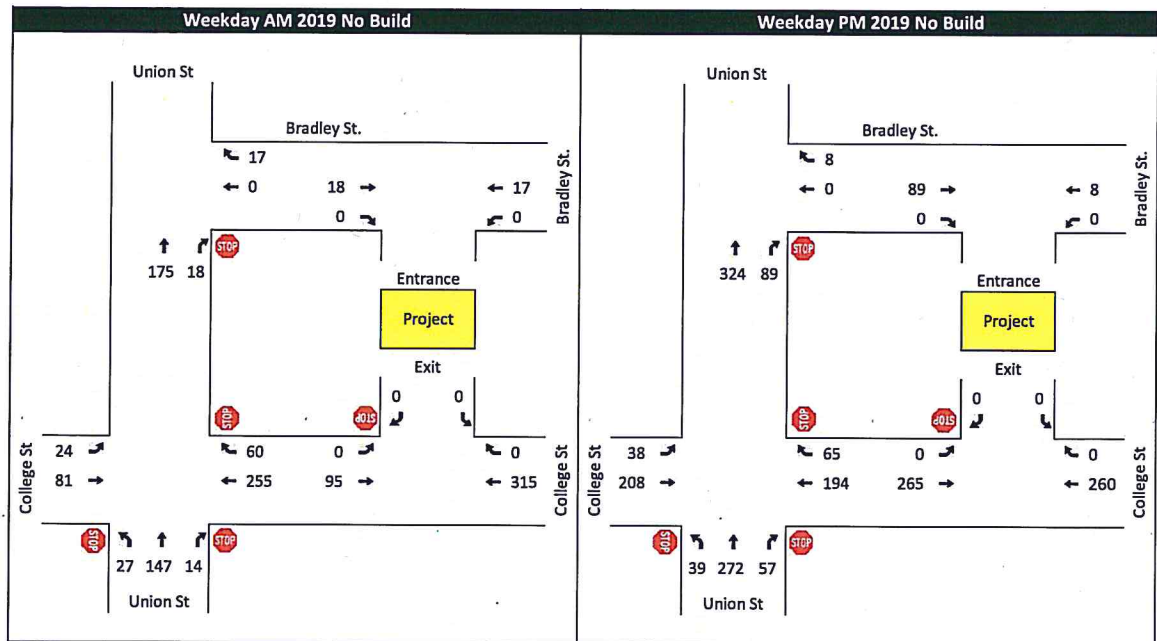
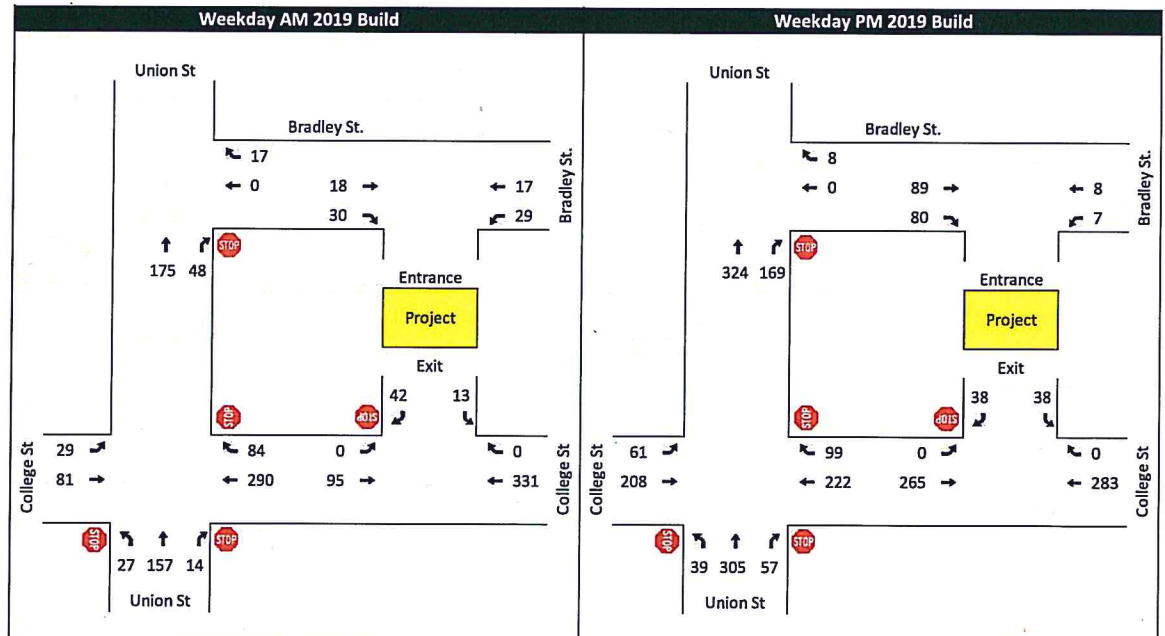


FIGURE 6: 2019 PEAK HOUR BUILD VOLUMES



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FIGURE 7: 2024 PEAK HOUR NO BUILD VOLUMES

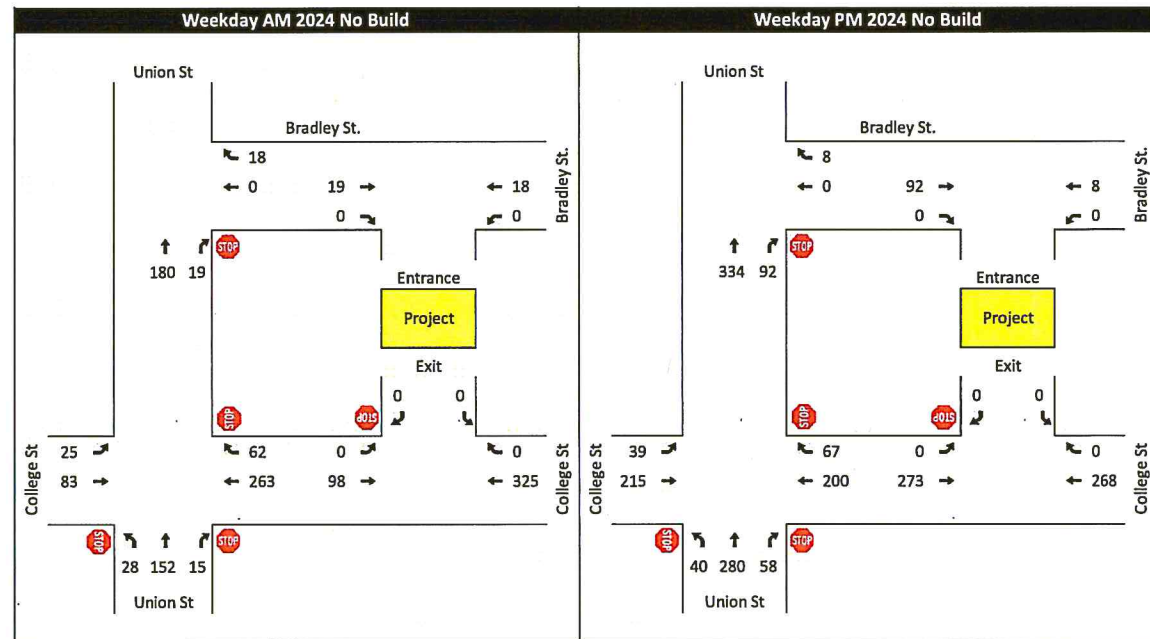
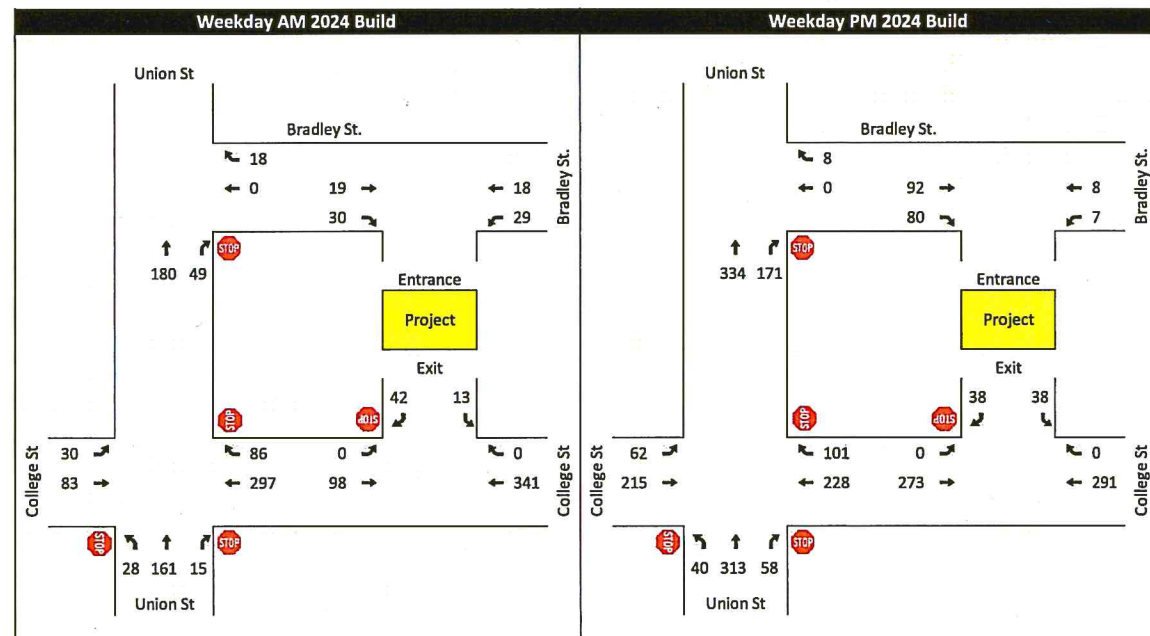


FIGURE 8: 2024 PEAK HOUR BUILD VOLUMES



3.0 CONGESTION ANALYSIS

3.1 | LEVEL-OF-SERVICE DEFINITION

Level-of-service (LOS) is a qualitative measure describing the operating conditions as perceived by motorists driving in a traffic stream. LOS is estimated using the procedures outlined in the 2000 and 2010 Highway Capacity Manuals.¹¹ In addition to traffic volumes, key inputs include the number of lanes at each intersection and the intersection control types (signalized or unsignalized) at each study intersection.

The 2010 Highway Capacity Manual defines six qualitative grades to describe the level of service at an intersection. Level-of-Service is based on the average control delay per vehicle. Figure 9 shows the various LOS grades and descriptions for unsignalized intersections.

FIGURE 9: LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

LOS	CHARACTERISTICS	UNSIGNALIZED TOTAL DELAY (SEC)
A	Little or no delay	≤ 10.0
B	Short delays	10.1-15.0
C	Average delays	15.1-25.0
D	Long delays	25.1-35.0
E	Very long delays	35.1-50.0
F	Extreme delays	> 50.0

The delay thresholds for LOS at signalized and unsignalized intersections differ because of the driver's expectations of the operating efficiency for the respective traffic control conditions. According to HCM procedures, an overall LOS cannot be calculated for two-way stop-controlled intersections because not all movements experience delay. In signalized and all-way stop-controlled intersections, all movements experience delay and an overall LOS can be calculated.

The VTrans policy on level of service is:

- Overall LOS C should be maintained for state-maintained highways and other streets accessing the state's facilities.
- Reduced LOS may be acceptable on a case-by-case basis when considering, at minimum, current and future traffic volumes, delays, volume to capacity ratios, crash rates, and negative impacts as a result of improvement necessary to achieve LOS C.
- LOS D should be maintained for side roads with volumes exceeding 100 vehicles/hour for a single lane approach (150 vehicles/hour for a two-lane approach) at two-way stop-controlled intersections.

¹¹ The HCM 2010 does not provide methodologies for calculating intersection delays at certain intersection types including signalized intersections with exclusive pedestrian phases and signalized intersections with non NEMA-standard phasing. Because of these limitations, HCM 2000 methodologies are employed where necessary.

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The VTrans LOS Policy for two-way stop-controlled intersections is to maintain a LOS “D,” or better, for side roads with volumes exceeding 100 vehicles/hour for a single lane approach, or 150 vehicles/hour for a two-lane approach. No LOS criteria are in effect for volumes less than these.

Detailed Synchro LOS worksheets are attached at the end of this report.

3.2 | LEVEL-OF-SERVICE AND QUEUING RESULTS

The Highway Capacity Manual congestion reports within Synchro (v9), a traffic analysis software package from Trafficware, routinely relied upon by transportation engineering professionals, were used to assess congestion at the study intersections.

Figure 10 presents the LOS and queuing results during the AM and PM peak hour.

FIGURE 10: PEAK HOUR LOS RESULTS¹²

INTERSECTION	Approach	AM PEAK						PM PEAK					
		No-build			Build			No-build			Build		
		delay	LOS	queue	delay	LOS	queue	delay	LOS	queue	delay	LOS	queue
1. SITE EXIT					12	B	1				12	B	1
2. S. UNION ST/COLLEGE ST													
 Northbound Union		14	B	3	17	C	4	14	B	3	16	C	4
 Eastbound College		12	B	2	13	B	2	12	B	2	13	B	2
 Westbound College		12	B	2	14	B	3	11	B	2	13	B	3
3. S. UNION ST/BRADLEY ST													
 Westbound Bradley		11	B	0	12	B	0	11	B	0	11	B	0

Note: delay in seconds, queue in vehicles

Congestion at the study intersections is modest in all scenarios, with little change expected due to the project. Note that some of the no-build traffic will be displaced to the new site (i.e. daycare drop-off traffic), thus the build scenarios are slightly conservative in this regard.

On site congestion due to daycare drop-offs and pick-ups is expected to be minimal. Observations of current operation shows that drop-off takes an average of 10 minutes. The 22 planned short term spaces would serve 120 or more arrivals if evenly spaced over one hour, 66 if spaced over ½ hour. Parking is more than adequate to serve this need.

¹² VTrans guidelines suggest an analysis in the build year and 5 years hence, however, the results for the build year shown in Figure 10 clearly indicate that the minor growth expected in 5 years (2%) would have no discernible impact.

4.0 SAFETY ANALYSIS

4.1 | SIGHT DISTANCES

Adequate sight distances are necessary where traffic enters a roadway for safety, and to maintain adequate traffic flow on the highway. Adequate *stopping sight distance* (SSD) ensures a vehicle can stop to avoid a hazard, and adequate *corner sight distance* (CSD) ensures a vehicle entering a traffic stream slows proceeding vehicles minimally.

Sight lines at the proposed project exit on College Street were measured and assessed with the findings reported in Table 5. Note that SSD was adjusted for 5.5% grade on College Street.

TABLE 4. SIGHT DISTANCES (IN FEET)

speed (mph)	SSD required (down/uphill)	Available SSD	Required CSD (L/R)	Available CSD (L/R)
25	165 / 145	500+	280 / 240	265 / 200

Sight lines from the proposed exit are limited due to parked cars along College Street, which is not unusual in urban areas and the City of Burlington. Site lines exceed the required stopping sight distance by a decent margin, thus safety is not compromised. Some reduction in parking (up to 2 spaces) may be appropriate to the south of the driveway.

4.2 | CRASH HISTORIES

RSG reviewed the VTrans web portal¹³ data for crash histories in the project vicinity for the most recent 5 calendar years (2013-2017). Crash records include records logged by the Burlington Police Department and UVM Campus Police.

No crashes were reported on Bradley Street between S. Union Street and Hungerford Terrace in this 5-year period. One crash was reported in the vicinity of the proposed exit on College Street (rear end, no injuries).

A review of the latest VTrans database (2012-2016) for High Crash Locations revealed no such occurrences in the project study area.

4.3 | ON-SITE CIRCULATION AND SAFETY

The site plan (see Figure 2) allows for one-way traffic from north to south. This circulation pattern is preferred over 2-way operation as it is more predictable, calmer and thus benefits traffic safety, more specifically as follows:

1. One-way traffic ensures each access point is impacted equally, thus ensuring there are no points of concentrated traffic.
2. Parking is more accessible due to angled entry, making sight lines during a backing maneuver safer.

¹³ <http://apps.vtrans.vermont.gov/CrashPublicQueryTool/>

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3. Passenger doors are on the building side for safer drop-off and pick-up situations (non-daycare related).
4. Pedestrian crossings only oppose one direction of traffic.
5. Headlights from vehicles will always face south - towards commercial neighbors on College Street rather than residential neighbors on Bradley Street.

DESIGN VEHICLE

To comply with the City Fire Marshall's requirements, the site has been designed to accommodate a WB-40 tractor trailer. In addition, the expected waste hauling vehicle turning template has been used to ensure the proposed garbage receptacles are accessible.

5.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) is the practice of making design and operational decisions to reduce transportation demand during peak periods. This can include encouraging active transposition, e.g. walking and biking, encouraging transit use, or providing incentives to reduce reliance on single occupancy vehicles. Considering TDM options should be standard practice for all new developments.

The GBYMCA is committed to the following strategies to reduce or manage the demand for parking for both members and employees into the future:

- Provide an inviting environment for people walking and bicycling. This component is particularly important as the Y is all about healthy activity and it currently sees a great portion of users and employees using alternate modes of transportation. To that end, City regulations require 26 short term bike parking spaces and 3 long term spaces. The latest site plan includes 44 short term spaces and 6 long term ones, consistent with the plan to exceed expectations in use of these.
- Become Members of the Chittenden Area Transportation Management Association (CATMA).
- Continue to allow a flexible workspace, allowing off peak hour arrivals and departures.
- Create and enforce sensible rules for parking at the facility.
- Develop an appropriate strategy for parking pricing (with CATMA's help).
- Continue to monitor traffic and transportation operations to adjust programs as needed. Monitoring of the proposed parking supply may lead insight into peak demands.

Please refer to the attached Parking Management Plan for more detail regarding TDM strategies.

6.0 SUMMARY AND CONCLUSIONS

The proposed project would construct a 49,450 s.f. facility with 48 parking spaces, including 37,800 s.f. dedicated to the health club and related activities, and 11,600 s.f. dedicated to daycare services for up to 108 children. Significant use of alternate modes of transportation is expected to reduce car dependence and related site trips.

Key project findings include:

- 114 and 164 trips are expected in the AM and PM peak hour, respectively. This includes reductions in trips expected from the use of alternate modes by health club members, however it does not account for the fact that most employees will park off-site.
- Use of alternate modes by members and employees has been shown to be significant at the current site. Membership with CATMA should greatly enhance the likelihood that this can be increased in the future.
- Congestion at the project site and other study intersections is modest in all scenarios, with little change expected due to the project.
- On site congestion due to daycare drop-offs and pick-ups is expected to be minimal. The planned short-term parking is expected to be more than adequate to serve this need.
- One-way circulation will enhance both vehicular and pedestrian safety compared to 2-way operation.
- Sight lines from the proposed exit are limited due to parked cars along College Street. Site lines exceed the required stopping sight distance by a decent margin, thus safety is not compromised. Some reduction in parking (up to 2 spaces) may be appropriate to the south of the driveway.

Based on the analysis and recommendations presented in this memorandum, we conclude that the proposed GBYMCA will not cause unreasonable congestion or unsafe conditions on the local roadway network and will not adversely impact the public investment in roadway infrastructure in the adjacent area.

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Attachments:

- Parking Management Plan
- Synchro 9 HCM worksheets:
 - AM Peak 2019 No-build
 - AM Peak 2019 Build
 - PM Peak 2019 No-build
 - PM Peak 2019 Build

HCM 2010 AWSC
3: College St & Union St

03/29/2018

Intersection

Intersection Delay, s/veh 12.6
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	38	208	0	0	194	65	39	271	56	0	0	0
Future Vol, veh/h	38	208	0	0	194	65	39	271	56	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	8	8	8	3	3	3	2	2	2
Mvmt Flow	38	208	0	0	194	65	39	271	56	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	11.5	11.6	14
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	11%	15%	0%
Vol Thru, %	74%	85%	75%
Vol Right, %	15%	0%	25%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	366	246	259
LT Vol	39	38	0
Through Vol	271	208	194
RT Vol	56	0	65
Lane Flow Rate	366	246	259
Geometry Grp	1	1	1
Degree of Util (X)	0.53	0.368	0.381
Departure Headway (Hd)	5.218	5.384	5.29
Convergence, Y/N	Yes	Yes	Yes
Cap	692	669	681
Service Time	3.247	3.415	3.32
HCM Lane V/C Ratio	0.529	0.368	0.38
HCM Control Delay	14	11.5	11.6
HCM Lane LOS	B	B	B
HCM 95th-tile Q	3.1	1.7	1.8

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HCM 2010 TWSC
4: Union St & Bradley St

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Intersection

Int Delay, s/veh 0.2

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations		↔	↔			
Traffic Vol, veh/h	0	8	324	89	0	0
Future Vol, veh/h	0	8	324	89	0	0
Conflicting Peds, #/hr	0	0	0	20	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	-
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	324	89	0	0

Major/Minor Minor1 Major1

Conflicting Flow All	-	389	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.22	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.318	-	-
Pot Cap-1 Maneuver	0	659	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	647	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach WB NB

HCM Control Delay, s	10.6	0
HCM LOS	B	

Minor Lane/Major Mvmt NBT NBRWBLn1

Capacity (veh/h)	-	-	647
HCM Lane V/C Ratio	-	-	0.012
HCM Control Delay (s)	-	-	10.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

HCM 2010 TWSC
2: College St & GBYMCA

03/29/2018

Intersection

Int Delay, s/veh 1.5

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↑	↑		Y	
Traffic Vol, veh/h	0	265	283	0	38	37
Future Vol, veh/h	0	265	283	0	38	37
Conflicting Peds, #/hr	0	0	0	0	30	30
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	265	283	0	38	37

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	-	0	-	0	578	313
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	295	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	478	727
Stage 1	0	-	-	0	765	-
Stage 2	0	-	-	0	755	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	478	708
Mov Cap-2 Maneuver	-	-	-	-	478	-
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	755	-

Approach EB WB SB

HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt EBT WBT SBLn1

Capacity (veh/h)	-	-	569
HCM Lane V/C Ratio	-	-	0.132
HCM Control Delay (s)	-	-	12.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.5

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HCM 2010 AWSC
3: College St & Union St

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Intersection

Intersection Delay, s/veh 14.6
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SE
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	60	208	0	0	222	98	39	305	56	0	0	
Future Vol, veh/h	60	208	0	0	222	98	39	305	56	0	0	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	8	8	8	3	3	3	2	2	
Mvmt Flow	60	208	0	0	222	98	39	305	56	0	0	
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12.8	13.6	16.7
HCM LOS	B	B	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	10%	22%	0%
Vol Thru, %	76%	78%	69%
Vol Right, %	14%	0%	31%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	400	268	320
LT Vol	39	60	0
Through Vol	305	208	222
RT Vol	56	0	98
Lane Flow Rate	400	268	320
Geometry Grp	1	1	1
Degree of Util (X)	0.608	0.421	0.486
Departure Headway (Hd)	5.475	5.66	5.463
Convergence, Y/N	Yes	Yes	Yes
Cap	660	635	659
Service Time	3.518	3.71	3.51
HCM Lane V/C Ratio	0.606	0.422	0.486
HCM Control Delay	16.7	12.8	13.6
HCM Lane LOS	C	B	B
HCM 95th-tile Q	4.1	2.1	2.7

HCM 2010 TWSC
4: Union St & Bradley St

03/29/2018

Intersection

Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	324	168	0	0
Future Vol, veh/h	0	8	324	168	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	-
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	324	168	0	0

Major/Minor Minor1 Major1

Conflicting Flow All	-	408	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.22	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.318	-	-
Pot Cap-1 Maneuver	0	643	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	-	643	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach WB NB

HCM Control Delay, s	10.7	0
HCM LOS	B	

Minor Lane/Major Mvmt NBT NBRWBLn1

Capacity (veh/h)	-	-	643
HCM Lane V/C Ratio	-	-	0.012
HCM Control Delay (s)	-	-	10.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

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2: College St & GBYMCA

03/29/2019

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	↑
Traffic Vol, veh/h	0	265	259	0	0	0
Future Vol, veh/h	0	265	259	0	0	0
Conflicting Peds, #/hr	0	0	0	0	30	30
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	265	259	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 554 289
Stage 1	-	-	- - 259 -
Stage 2	-	-	- - 295 -
Critical Hdwy	-	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	-	-	- - 3.518 3.318
Pot Cap-1 Maneuver	0	-	- 0 493 750
Stage 1	0	-	- 0 784 -
Stage 2	0	-	- 0 755 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	-	- - 493 730
Mov Cap-2 Maneuver	-	-	- - 493 -
Stage 1	-	-	- - 784 -
Stage 2	-	-	- - 755 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

HCM 2010 AWSC
3: College St & Union St

03/29/2018

Intersection

Intersection Delay, s/veh 12.4
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗			↘				
Traffic Vol, veh/h	38	208	0	0	194	65	39	271	56	0	0	0
Future Vol, veh/h	38	208	0	0	194	65	39	271	56	0	0	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	0	1	1	1	1	1	0	0	0
Mvmt Flow	38	208	0	0	194	65	39	271	56	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	11.5	11.2	13.8
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	11%	15%	0%
Vol Thru, %	74%	85%	75%
Vol Right, %	15%	0%	25%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	366	246	259
LT Vol	39	38	0
Through Vol	271	208	194
RT Vol	56	0	65
Lane Flow Rate	366	246	259
Geometry Grp	1	1	1
Degree of Util (X)	0.525	0.367	0.371
Departure Headway (Hd)	5.167	5.364	5.158
Convergence, Y/N	Yes	Yes	Yes
Cap	699	672	697
Service Time	3.194	3.393	3.188
HCM Lane V/C Ratio	0.524	0.366	0.372
HCM Control Delay	13.8	11.5	11.2
HCM Lane LOS	B	B	B
HCM 95th-ile Q	3.1	1.7	1.7

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HCM 2010 TWSC
4: Union St & Bradley St

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Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↖ ↗	↖ ↗			
Traffic Vol, veh/h	0	8	324	89	0	0
Future Vol, veh/h	0	8	324	89	0	0
Conflicting Peds, #/hr	0	34	0	34	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	-
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	1	1	2	2
Mvmt Flow	0	8	324	89	0	0

Major/Minor	Minor1	Major1
Conflicting Flow All	- 437	0 0
Stage 1	- -	- -
Stage 2	- -	- -
Critical Hdwy	- 6.22	- -
Critical Hdwy Stg 1	- -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	- 3.318	- -
Pot Cap-1 Maneuver	0 620	- -
Stage 1	0 -	- -
Stage 2	0 -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	- 602	- -
Mov Cap-2 Maneuver	- -	- -
Stage 1	- -	- -
Stage 2	- -	- -

Approach	WB	NB
HCM Control Delay, s	11.1	0
HCM LOS	B	

Minor Lane/Major Mvmt	NBT	NBRWBLn1
Capacity (veh/h)	- -	602
HCM Lane V/C Ratio	- -	0.013
HCM Control Delay (s)	- -	11.1
HCM Lane LOS	- -	B
HCM 95th %tile Q(veh)	- -	0

HCM 2010 TWSC
2: College St & GBYMCA

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Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	0	265	283	0	38	37
Future Vol, veh/h	0	265	283	0	38	37
Conflicting Peds, #/hr	0	0	0	0	30	30
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	265	283	0	38	37

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	-	0	0	578	313
Stage 1	-	-	-	283	-
Stage 2	-	-	-	295	-
Critical Hdwy	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	0	478	727
Stage 1	0	-	0	765	-
Stage 2	0	-	0	755	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	478	708
Mov Cap-2 Maneuver	-	-	-	478	-
Stage 1	-	-	-	765	-
Stage 2	-	-	-	755	-

Approach	EB	WB	SB
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HCM Control Delay, s	0	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
-----------------------	-----	-----	-------

Capacity (veh/h)	-	-	569
HCM Lane V/C Ratio	-	-	0.132
HCM Control Delay (s)	-	-	12.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.5

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HCM 2010 AWSC
3: College St & Union St

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Intersection

Intersection Delay, s/veh 14.3
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SE
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	60	208	0	0	222	98	39	305	56	0	0	
Future Vol, veh/h	60	208	0	0	222	98	39	305	56	0	0	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	0	1	1	1	1	1	0	0	
Mvmt Flow	60	208	0	0	222	98	39	305	56	0	0	
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12.7	13.1	16.4
HCM LOS	B	B	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	10%	22%	0%
Vol Thru, %	76%	78%	69%
Vol Right, %	14%	0%	31%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	400	268	320
LT Vol	39	60	0
Through Vol	305	208	222
RT Vol	56	0	98
Lane Flow Rate	400	268	320
Geometry Grp	1	1	1
Degree of Util (X)	0.602	0.419	0.474
Departure Headway (Hd)	5.419	5.634	5.328
Convergence, Y/N	Yes	Yes	Yes
Cap	664	638	675
Service Time	3.46	3.684	3.374
HCM Lane V/C Ratio	0.602	0.42	0.474
HCM Control Delay	16.4	12.7	13.1
HCM Lane LOS	C	B	B
HCM 95th-tile Q	4	2.1	2.6

HCM 2010 TWSC
4: Union St & Bradley St

03/29/2018

Intersection

Int Delay, s/veh 0.2

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations						
Traffic Vol, veh/h	0	8	324	168	0	0
Future Vol, veh/h	0	8	324	168	0	0
Conflicting Peds, #/hr	0	34	0	34	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	-
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	1	1	2	2
Mvmt Flow	0	8	324	168	0	0

Major/Minor Minor1 Major1

Conflicting Flow All	-	476	0	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.22	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.318	-	-
Pot Cap-1 Maneuver	0	589	-	-
Stage 1	0	-	-	-
Stage 2	0	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	572	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach WB NB

HCM Control Delay, s	11.4	0
HCM LOS	B	

Minor Lane/Major Mvmt NBT NBRWBLn1

Capacity (veh/h)	-	-	572
HCM Lane V/C Ratio	-	-	0.014
HCM Control Delay (s)	-	-	11.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

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TO: Scott Gustin, Burlington Planning and Zoning
FROM: Mark Smith, PE and Jonathan Slason, PE
CC: Kyle Dodson, CEO GBYMCA; John Caulo, Champlain College
DATE: March 24, 2018
SUBJECT: Parking Management Plan for the Proposed GBYMCA Development
298 College Street, Burlington VT

The purpose of this document is to develop a strategy to manage the parking demand generated by the proposed Greater Burlington YMCA (GBYMCA, the Y) at 298 College Street in Burlington. The document includes:

1. A narrative that outlines how the proposed parking management plan addresses the specific needs of the proposed development, and more effectively satisfies the intent of Article 8 of the Comprehensive Development Ordinance (CDO) and the goals of the Municipal Development Plan;
2. A review of the proposed site and facility operational characteristics;
3. A calculation of the parking spaces required pursuant to Table 8.1.8-1 of Article A of the CDO¹;
4. An analysis of the anticipated parking demand for the proposed development and recommendations for reducing demand;
5. Findings and conclusions; and
6. The necessary parking waiver.

ITEM 1: Parking Management Plan Narrative

This parking management plan documents the appropriate amount of parking that should be required for the proposed GBYMCA facility and develops a strategy for ongoing management and parking demand reduction strategies. The plan identifies and addresses the intent of Article 8 of the CDO and the goals of the Municipal Development Plan.

¹ City of Burlington Comprehensive Development Ordinance

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From the CDO, the purpose of Article 8 is to:

- (a) *Ensure there are adequate parking and loading facilities to serve the use or uses of the property;*

This parking management plan analyzes the operation of the existing and proposed facility, documents existing travel behavior, examines the land use connection of the YMCA, and explores national guidance for similar facilities to develop an appropriate parking requirement consistent with the expected parking demand and neighborhood vision.

- (b) *Ensure that parking facilities are designed to provide proper circulation, reduce hazards to pedestrians, and protect the users of adjoining properties from nuisance caused by the noise, fumes, and glare of headlights which may result from the operation of vehicles parking off the street;*

Preliminary site circulation for vehicles, pedestrians, and bicyclists have been reviewed with the Planning and Zoning Department, the Department of Public Works, and will continue to be evaluated with the development of a Traffic Impact Study (TIS) for the proposed facility. The internal parking lot has been designed for safe, travel with consideration to the neighbors.

- (c) *Reduce congestion in the streets and contribute to traffic safety; and*

Surveys of members have documented that many members do not drive with the sole intention to visit only the GBYMCA facility. Accordingly, the site has been designed to encourage walking and biking access as the primary mode of access. The site parking lot will be open to members and has been designed for one-way circulation, accounting for site constraints at the entrance and exit. The one-way circulation reduces conflicts at the driveways on College and Bradley Street.

- (d) *Encourage alternate modes of travel that will reduce dependence upon the single-occupancy automobile.*

With “Healthy Living” as a focus of the GBYMCA organization, the facility has been developed with walking and biking as the primary mode of access with high quality cycle parking and safe and efficient pedestrian access to and from the adjacent street network. Significant effort and commitment is made to support non-motorized and active transport as well as transit riders. The proximity of frequent routes, including the College Street shuttle, and an organizational membership in CATMA will provide operational and financial incentives to increase the share of non-car drivers who visit the Y.

ITEM 2: Site and Operational Characteristics

The existing facility size is approximately 49,000 square feet, with only 8 dedicated on-site parking spaces, and 6 parking spaces offsite, on nearby properties. These are leased spaces, with 2 at 265 College Street and 4 at the COTS home on Main Street, across from Edmunds Middle School.

The proposed facility is moving approximately 450' east along College Street from the existing facility located at the intersection of College Street and Union Street. The proposed location moves from the “Downtown” parking district into the “Neighborhood” parking district.

The total size of the proposed GBYMCA facility is 49,450 gross square feet (GSF) comprised primarily of a healthy living and wellness venue and a youth development center. These functions are broken down into land uses defined in the CDO in Table 1.

TABLE 1: PROPOSED GBYMCA GROSS SQUARE FOOTAGE BY CDO LAND USE CODES²

CDO Land Use	Size (GSF) – Percentage of Overall
Daycare – Large	11,650 GSF – 23.6%
Health Club	37,800 GSF – 76.4%
TOTAL	49,450 – 100%

The GBYMCA estimates 65 full time equivalent (FTE) employees at the primary healthy living and administrative facility, and 25 FTE employees at the child development center. The hours of operation for the two facilities are detailed in Table 2 (regular, non-holiday periods):

TABLE 2: PROPOSED GBYMCA HOURS OF OPERATION (PEAK WINTER HOURS). CHILD DEVELOPMENT CENTER HOURS VARY WITH THE PROGRAM.

Day(s)	Healthy Living Facility	Child Development Center
Monday - Thursday	5 AM – 10 PM	7 AM – 6 PM
Friday	5 AM – 9 PM	7 AM – 6 PM
Saturday	6 AM – 8 PM	Closed
Sunday	7 AM – 5 PM	Closed

The facility will receive regular trash, recycling, and compost collection; occasional deliveries of supplies; and typical parcel delivery.

The GBYMCA has estimated that membership may increase from 2,820 individuals to 4,875 individuals (+73%). The existing facility averages approximately 20 member-entrances per hour, with significant variations in arrival rate based on time of day, weather, and season. A recent travel behavior survey³ noted that over 90% of members depart the facility within 2 hours of arrival.

The travel survey indicates that over half of the current members are from Burlington and 81% of all members are from Burlington or the immediately adjacent communities of Colchester, Winooski, and South Burlington. The GBYMCA indicates that many of the remaining members (outside of Burlington, Colchester, Winooski, and South Burlington) register out of state zip codes, suggesting they are students at nearby institutions. The geographic distribution of membership is not expected

² Total building footprint allocated to uses. Common area, such as lobby and restrooms, proportionally allocated. Lobby and entrance not attributed to Day Care, as different location in building.

³ Survey was administered in December 2015.

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to change, and most members are expected to remain within a reasonable active transportation commute to the proposed facility, either by walking or cycling.

Evaluation of Current GBYMCA Travel Behavior

To document the true parking demand for the existing facility, the GBYMCA surveyed their existing membership and employees to understand the current travel mode choice of the membership and employees. An online survey was conducted in mid-December. A variety of information was gathered from 145 members and 64 employees (response rate of 5% of the members, 66% of employees). The key information from the survey regarding GBYMCA member and employee travel mode choice to the existing downtown Recreational Community Center follows.

FIGURE 1: TRAVEL MODE CHOICE

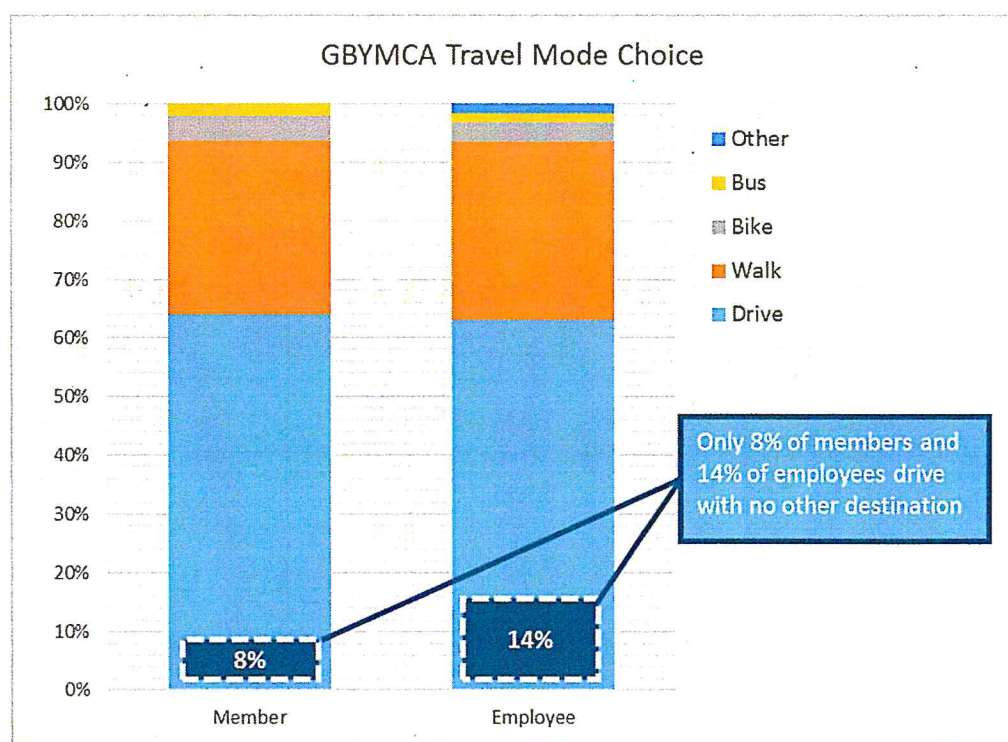


FIGURE 2: MEMBER AND EMPLOYEE TRAVEL MODE CHOICE TO AND FROM THE EXISTING GBYMCA RECREATIONAL COMMUNITY CENTER.

Figure 2 illustrates that roughly two thirds of both the members and employees (64% and 63%, respectively) drive downtown to access the GBYMCA.

Further analysis of the survey indicates that most trips (between 49-56%) to the GBYMCA are part of a 'trip chain' that include other destinations such as work, shopping, meeting friends downtown or other destinations. For instance, a member may visit the Y over their lunch break from work, or shop at nearby City Market or Church Street after their trip to

...most trips to the Y are part of a 'trip chain' that includes other destinations such as work, shopping, meeting friends downtown...

the GBYMCA; or an employee at the Y may coordinate their shift with other work engagements. Only 11 of the 145 members (8%) and nine of the 64 employees (14%) reported driving straight to the GBYMCA and driving straight home following their typical visit to the Y.

Since the visit to the GBYMCA Recreational Community Center is generally just one stop in a larger, multi-destination trip downtown, those who do drive are parking in a variety of locations that serve the entire trip purpose.

Of members who report regularly driving to the Y, 64% (59 of 92) responded that they typically park on the street proximate to the GBYMCA and their other destinations, while 29% reported parking in an off-street parking lot or garage. It is very likely that a significant portion of Y patrons who drive have come downtown primarily for other reasons than visiting the Y.

... a significant portion of Y patrons who drive have come downtown primarily for other reasons than visiting the Y.

ITEM 3: CDO Parking Requirement

Table 8.1.8-1 of the Comprehensive Development Ordinance (CDO) defines the parking requirement based on recognized land uses, proposed GSF, and number of employees. The following parking requirement has been calculated for the neighborhood parking district and is displayed in Table 3.

TABLE 3: CDO PARKING REQUIREMENT CALCULATION – NEIGHBORHOOD PARKING DISTRICT

Land Use	Table 8.1.8-1 Parking Rate	Independent Variable	Parking Requirement
Daycare – Large	1 per 2 employees + 1 per 5 children	25 employees 108 children	12 spaces + 13 (25/2) 22 spaces 22
Health Club	3 per 1,000 GSF	37,800 GSF	113 spaces 113
Total Parking Requirement			148 spaces 148

ITEM 4: Analysis of Parking Demand

The supply of parking to be provided by the GBYMCA consists of spaces on-site and possibly off-site through a lease or long-term parking agreement. The total number of vehicle parking spaces provided can be reduced relative to the CDO base number by using a Shared Parking philosophy that reflects that not all demand from all land uses are realized at the same time. In this case, the drop-off parking for the daycare facility will utilize spaces that will be time restricted (i.e. 15 min) for only loading/unloading during the morning, mid-day, and afternoon pick-up and drop-off periods.

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The overall **demand** for parking at the GBYMCA will be reduced, given that the new location is closer to more residents of Burlington making it easier to walk and bike to the YMCA. Additionally, demand for parking will be further reduced by employing a robust Transportation Demand Management (TDM) strategy.

4.1 Shared Parking

The parking supply identified by the CDO pertaining to the daycare land use is estimated to be 34 spaces total (12 based on staff numbers and 22 based on the number of children). These spaces are assumed to be used by employees as well as adequate space for the drop-off/pick-up activities.

The child portion, 22 spaces, need to be available during the times of drop-off and pick-up demand. The spaces typically cover a drop-off/pick-up period of over 1 hour and would be limited in duration to a 15-minute parking time limit. The 22 spaces then would be available during all other times of the day, save from 8-9 am and 4-5 pm.

Peak demand for the health club has been documented as 6-8 am and 5-7 pm⁴, thus the peaks for health club use and childcare drop-offs do not coincide.

4.2 Strategy for Reducing Demand Through TDM

Transportation Demand Management strategies can be implemented to increase the use of non-motorized travel and transit use above and beyond what is experienced today and expected to continue. The current facility relies mainly on the urban nature of the facility, and lack of dedicated parking to incentivize biking walking and transit use.

The GBYMCA is committed to the following strategies to reduce or manage the demand for parking for both members and employees into the future:

- **Provide an inviting environment for people walking and bicycling.** Encouraging both members and employees to walk, bike, and take transit to the proposed facility is consistent with the “Healthy Living” focus of the GBYMCA mission. The new Y has been designed as an activity-oriented facility, including a central location; ample short-term bicycle parking near primary entrances; available showers and lockers; long-term, protected bicycle parking for employees; direct and continuous pedestrian access from College Street to Bradley Street, and through all vehicle parking areas. The employees and members currently travel largely by active modes, and the GBYMCA will continue to support and encourage this.
- **Become Executive Members of the Chittenden Area Transportation Management Association (CATMA).** CATMA provides a range of services that assist an organization to better understand and manage their transportation demands. As a member of CATMA, the GBYMCA will have access to their knowledge base and programs. In addition, CATMA may be able to assist with the following programs:

⁴ 5-7 pm is by far the heaviest time of use.

- Securing off-site parking;
 - Coordinating shuttles to and from the site, if needed;
 - Guaranteed ride home program;
 - Implementing a Bulk Transit Pass program for employees; and
 - Providing regional expertise on parking management strategies.
- **Continue to allow a flexible workspace.** While many employment positions at the GBYMCA require an on-site presence, as job duties permit, the GBYMCA allows flexible working hours and work-from-home opportunities.
 - **Recommend corporate membership into Car Share Vermont.** By allowing employee use of the Car Share Vermont (CSVV) fleet, employees will have a vehicle option for work- or personal-related trips, even if the employee walked, biked or rode transit to the facility.
 - **Create and enforce sensible rules for parking at the facility.** Time limits and restrictions will be clearly displayed for use of the parking area. GBYMCA staff will monitor for infractions, warn and track offenders, and repeat violators should be towed as necessary to ensure the parking supply is not abused.
 - **Parking pricing.** The GBYMCA could offer pricing incentives as part of a membership amenity package. Incentives to provide proof of no parking, or sign in a pledge not to park and walk may be something to consider. Pricing preferred parking onto membership may be way to then pay for incentives for others who can't pay more for parking on-site.
 - **Continue to monitor traffic and transportation operations to adjust programs as needed.** Monitoring of the proposed parking supply may lead insight into peak demands, and certain programs may be managed to control parking demand. For instance, it may be beneficial for morning classes to be over, with enough time for participants to leave the site, prior to the morning Youth Development program drop-off period, and the next round of Healthy Living or community programs may be delayed until the drop-off period is over.

The VTrans draft publication entitled *TDM Guidance* (March 2016) provides guidance for the appropriate reduction expected by these types of measures, with a maximum of 20% reduction in trips expected by implementing all elements of TDM: physical, financial, operational and organizational measures.

TDM measures that the GBYMCA can implement in the new facility will continue to grow the number of trips, both employee and member, made by non-vehicle modes. With the TDM efforts, we anticipate growing the non-car trip making percentage from the 36%/37% today to 47% in the future (a modest 11% increase) after making these investments.

Adjacent Public Transit Routes

GMT operates the College Street Shuttle Route with free, regular service along College Street between the UVM Medical Center and Waterfront throughout the week. Given the proximity of other active routes, namely Main Street, Pine Street and Pearl Street, the GBYMCA is accessible to many Burlington and Chittenden County residents via transit.

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ITEM 5: Findings and Conclusion

Based on the findings documented above:

- The GBYMCA land use is supportive of healthy lifestyles by its very nature. Approximately 36% of trips are currently made by walking, biking, and transit (i.e. non-car) modes, as observed during the December 2015 travel survey. The planned facility has excellent potential to meet and exceed these levels.
- The vast majority of users who drive downtown to visit the GBYMCA facility combine their trip with other destinations such as work, shopping or entertainment. A significant portion are primarily downtown (and parking) for other reasons, and the trip to the Y is merely a secondary destination, visited for convenience.
- A new emphasis on Transportation Demand Management will increase the use of non-car trips made to the proposed GBYMCA. This will reduce the demand for car parking. Demand will be managed through a comprehensive suite of financial, operational, and organizational efforts.
- The limited demand for childcare drop-off and pick-up parking will be managed by limiting the duration of parking in those spaces and allowing all users to use those spaces outside of drop-off periods (i.e. shared parking).

Conclusion – Accounting for shared parking, the use of alternate modes by members and employees, and implementation of TDM strategies – no impact to public parking will be realized by the implementation this Parking Management Plan.

ITEM 6: Parking Waiver Amounts

As per Article 8 Section 8.1.15 of the CDO a waiver as much as 90% of the parking requirements set forth in Table 8.1.8-1 is eligible to be waived. The waiver can be considered by the DRB upon acceptance of the Parking Management Plan that consists of several items included in the above items.

Item 4 above identifies:

- Shared parking can reduce the base parking requirement, given the turnover and time of day demands for the day care facility relative to the health club land uses.
- Demand for parking is significantly reduced relative to the base CDO estimates given the level of active transport use and non-car travel behavior already in use by GBYMCA members. Combined with a robust TDM program and membership in CATMA it is expected that the non-motorized share of trips will rise.

A parking waiver in the amount of 69% is justified based on the following:

Parking supply summary and resulting waiver calculation:

CDO requirement: Health club + Day care = 148 spaces [see Table 1]

Shared parking = 22 spaces [see 4.1]

Current non-motorized / transit trips = 36% (53 spaces) [survey results, Figure 1]

Expected increase due to TDM strategies = +4% (6 spaces) [see 4.2]

Actual spaces required $148 - 22 - 53 - 6 = 67$ spaces

Spaces provided on-site = 48 spaces

Spaces currently leased off-site = 6 spaces

Employee parking at Lakeside (Gilbane) = 20 spaces

Excess parking = 67 required – (48+6+20) planned for = 7 spaces

Waiver required:

- 148 spaces, required based on the CDO.
- 48 on-site spaces are being provided (not including 6+20 off-site spaces)
- Total waiver = 148 spaces per CDO – 48 spaces provided = 100 spaces
- **Waiver required = $100/148 = 67.6\%$**

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HCM 2010 TWSC
2: College St & GBYMCA

03/29/20

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	0	265	259	0	0	0
Future Vol, veh/h	0	265	259	0	0	0
Conflicting Peds, #/hr	0	0	0	0	30	30
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	265	259	0	0	0

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All	-	0	0	554	289
Stage 1	-	-	-	259	-
Stage 2	-	-	-	295	-
Critical Hdwy	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	0	493	750
Stage 1	0	-	0	784	-
Stage 2	0	-	0	755	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	493	730
Mov Cap-2 Maneuver	-	-	-	493	-
Stage 1	-	-	-	784	-
Stage 2	-	-	-	755	-

Approach	EB	WB	SB
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HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
-----------------------	-----	-----	-------

Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

Department of Planning and Zoning

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Ryan Morrison, Associate Planner
Anita Wade, Zoning Clerk
Layne Darfler, Planning Technician



TO: Design Advisory Board
FROM: Scott Gustin
DATE: April 10, 2018
RE: 18-0793SP, 75 Briggs Street

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

Request: Sketch plan review for new health club/climbing center. Includes a new building and related site improvements.

OVERVIEW:

The applicant has requested sketch plan review of 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 13,000 sf building, retention of the existing 4,000 sf building, and new parking, landscaping, and stormwater management features.

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

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.

(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 with VT DEC to establish a corrective action plan (CAP) to address onsite contaminants. The zoning permit application, when filed, should address at least generally the corrective measures that will be utilized to address the onsite contaminants.

(g) Provide for nature's events

Presently, there are no stormwater management features onsite. The proposed project design includes three 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 reduced by 50% for the one year design storm.

(h) Building location and orientation

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

(i) Vehicular access

The site plan depicts two driveways accessing the property, although one is labeled "potential." One driveway and curb cut is recommended in the zoning standards; however, the Department of Public Works has final authority over the number of curb cuts allowed. The zoning permit application must include a final access plan.

(j) Pedestrian access

Pedestrian access to the property will be afforded by way of a new sidewalk and onsite walkways. The new sidewalk within the Briggs Street right-of-way is subject to Department of Public Works review and approval. The northern extension crosses over onto the private property and connects with that on the adjacent City Market property. This configuration should include review by the Department of Public Works. The new sidewalk is continuous across both driveways as required. The site plan depicts a new crosswalk across Briggs Street. DPW review and approval will be required for this feature.

Within the site, walkways will provide clear pedestrian routes towards the building entry. The walkway through the parking area is clearly delineated.

(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 buildings. Given the lengthwise orientation of the property along Briggs Street, the side parking lot also has frontage along the street. Proposed landscaping, including a mix of trees and shrubs will be installed to provide screening of the parking lot.

Parking spaces and circulation isles appear to be dimensionally compliant. 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.

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.

The proposed parking lot will require shade trees. No parking lot shading analysis is included in the sketch plans. One will be required with the permit application. 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 will contain 66 parking spaces and will require 13 shade trees. As proposed, 22 new trees will be planted within or around the parking lot (not counting the row of new trees along the northern edge – they will provide minimal, if any, shade for the parking lot). Species and size information is not included in the sketch plans. Minimum caliper size at the time of planting must be 2.5" – 3.5". A mature canopy diameter of at least 25' is needed.

Bike racks are depicted on the site plan near the building's southern entry. Details as to the number and type (short and long term) of bike parking spaces will be needed with the permit application.

(m) Landscaping, fences, and retaining walls

The sketch plans include a landscaping plan that encompasses a variety of plantings. Proposed landscaping will be used to frame the property and to screen parking from the street. It will be used to break up the surface parking lot and to define spaces within the site. Species and planting size information has not been provided and will be required with the permit application.

(n) Public plazas and open space

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

(o) Outdoor lighting

No outdoor lighting info is included in the sketch plans. The permit application must include fixture cutsheets and depict fixture locations on the building exterior and the site. A photometric plan will be needed in order to demonstrate compliance with the illumination standards for the building entries and parking and circulation areas.

(p) Integrate infrastructure into the design

No ground-mounted mechanical equipment is apparent in the sketch plans, nor is any dumpster enclosure. Such items, if proposed, must be depicted and screened. Any 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 13,000 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 exist 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 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

Variation in materials is evident, but the sketch plans do not note specifically what the materials are. Such information will be required with the permit application.

(f) Reduce energy utilization

Few energy details are included in the sketch plans. Inclusion of solar energy into the project design is being considered. The new building must comply with the current energy efficiency requirements of the city and state.

(g) Make advertising features complimentary to the site

No exterior signs are depicted in the sketch plans. Exterior signage is handled by way of separate zoning permit in any event.

(h) Integrate infrastructure into the building design

No rooftop mechanical units are depicted in the sketch plans, nor are utility meter locations. These items, and any other similar features that may be proposed, must be depicted on the project plans for the permit application.

(i) Make spaces safe and secure

The project underwent technical review in February 2018. As the project moves ahead, egress and fire safety standards will apply as administered through the offices of the fire marshal and of the building inspector.

RECOMMENDED MOTION:

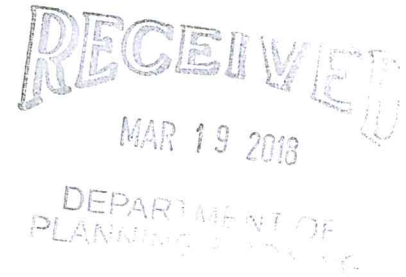
Not applicable for sketch plan review.



March 19, 2018

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

RE: Sketch Plan Application
Petra Cliffs – 75 Briggs Street



Dear Scott:

We are writing on behalf of Andrea & Steve Charest of Petra Cliffs to request sketch plan review for the proposed development of 75 Briggs Street. This application involves Lot 2 of the City Market South End subdivision. This 1.68 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.

The enclosed Landscape Plan presents the proposed site and building layout. The proposed project layout has been modified since the Technical Review Committee (TRC) meeting on February 8. The proposed building siting and parking lot layout have been revised to reflect an optimized utilization of the site and comments received from both your office and the TRC. The Landscape Plan includes coverage and parking calculations.

A multi level 13,000 square foot facility (9,450 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. The Building Design Concept plans present the proposed interior layout, as well as the building exterior.

An existing 4000 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 is working with KAS Consulting on environmental remediation and a corrective action plan (CAP). This process is

already 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 is enclosed. The meeting minutes and attendance list will be forwarded as soon as available from the NPA.

The applicant is requesting sketch plan review by the Conservation Board, Design Advisory Board, and Development Review Board.

Since this sketch plan review, the applicant will be continuing to refine and develop the project design as the development review process moves forward.

The following information is enclosed for your review:

- Zoning Permit Application
- \$900 application fee (Review by 3 Boards x \$300/Board)
- List of abutting landowners
- Project narrative
- Building Design Concept plans (Studio b Architecture, 03-16-18)
- Landscape Plan (Wagner Hodgson Landscape Architecture, 03-15-18)
- Stormwater narrative
- Ward 5 NPA Meeting Agenda (03-15-18)

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

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DEPARTMENT OF
PLANNING & ZONING



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 13,000 square feet GFA with climbing walls up to 45 feet high. The climbing facility will feature bouldering, top roping and national-level lead climbing areas, a fitness/alpine training center, yoga studio, drop-off child care and classroom 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.

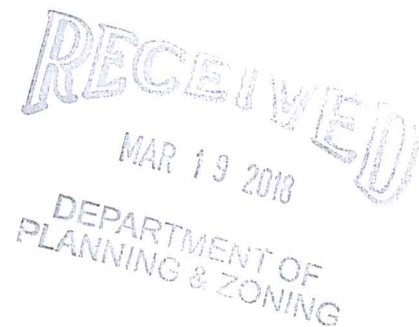
The following pages describe the physical aspects and programming goals for the project.

We appreciate the opportunity to discuss our plans with the Burlington Review Boards and to receive your feedback as we navigate the permitting process.

Thank you,

Steve & Andrea Charest
Owners, Petra Cliffs

andrea@petracliffs.com
steve@petracliffs.com



Goals for Features of the Physical Location at 75 Briggs Street

Petra Cliffs Climbing Center & Mountaineering School

105 Briggs St. Burlington VT 05401 | 802.655.5555 | www.petracliffs.com



Exterior

- 13,000 sq ft GFA (9,000 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: 25% lead, 30% lead/top rope, 30% bouldering, 15% instruction/beginner area; max height 45+'
- 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
- 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

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Petra Cliffs Program Goals

- Continued, Increased & New Community Events
- 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

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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

- Expanded hours & fitness options to grow membership base
- Additional member benefits
- Collaborate with local business for health club reimbursement for employees

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

Stormwater Narrative Conceptual Design

Proposed Petra Cliffs Facility 75 Briggs Street, Burlington

March 14, 2018

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Existing conditions

This project involves Lot 2 of the City Market South End subdivision, located at 75 Briggs Street in the City of Burlington. Lot 2 consists of 1.68 acres located to the south of the City Market building and parking lot. The railroad right of way is located along the westerly boundary, with Briggs Street to the east. A single family home is located to the south. Vacant lots are located along the opposite (east) side of Briggs Street - these parcels comprise a portion of the right of way for the future Champlain Parkway.

The project parcel was previously owned by Vermont Railway, having several buildings with a history of a variety of commercial and industrial uses. Most recently, much of the site was used as a storage and intermodal transfer facility for road salt.

Currently, only a 4,000 sf one story building remains on the southerly portion of the parcel. The remainder of the parcel consists of pavement remnants, gravel/stone or packed soil surface. Several isolated small berms with trees and shrubs are located along the parcel frontage on Briggs Street.

The site is mapped by the Natural Resources Conservation Service as Munson Raynham silt loam. However, with the exception of the narrow vegetated strip between the existing building and the nearby property line, the ground surface is comprised of imported materials. Prior environmental site assessments have identified soil contamination on the site resulting from prior land uses.

Runoff along Briggs Street is collected in the City's combined sewer system. Runoff collected along the railroad flows westerly through open channels and pipes via the Oakledge Tributary to Lake Champlain. The majority of the project parcel and an adjacent segment of Briggs Street is located in the Oakledge Tributary watershed, which discharges about 2000 feet away into Lake Champlain at the end of Flynn Avenue. The catchbasins at the Briggs Street / Lyman Avenue intersection are connected to the combined sewer collection system.

Proposed Conditions

The proposed site concept involves construction of a new multi-story Petra Cliffs facility on the northerly portion of the site. The existing 4,000 sf building will remain. New parking is proposed between the two buildings, and along the westerly side of the new building. The northernmost portion of the lot will remain open, potentially for outdoor activities or future expansion.

Due to the soil contamination, no infiltration of stormwater is proposed.

Bioretention is proposed to manage runoff from the proposed impervious surfaces. A linear bioretention area will be located along the westerly boundary, parallel to the railroad. This bioretention area will receive runoff from the majority of the parking lot and rooftop of the existing building. A smaller linear bioretention area is proposed between the two curbcuts off Briggs Street. This smaller bioretention area will receive runoff from the easternmost parking area. A third bioretention area is proposed off the northwest corner of the new building for rooftop runoff. All of the bioretention areas will have underdrains that discharge to the existing catchbasin and piping leading to the Oakledge Tributary.

The new sidewalk along Briggs Street and short segments of the access drives will slope toward Briggs Street, draining to the existing catchbasin system. The catchbasins at the Lyman street intersection are connected to the combined sewer collection system.

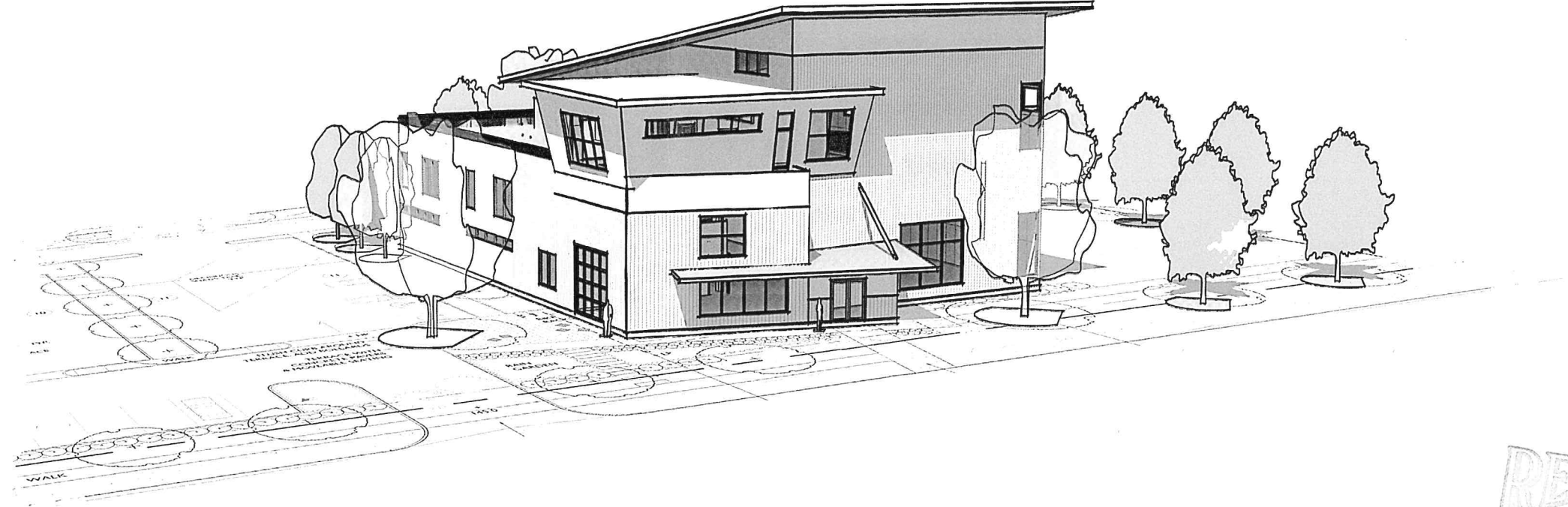
Treatment of runoff from the proposed site will be substantially improved compared to existing conditions. Currently, there is no treatment of stormwater runoff from the site, which flows off the existing rooftop and barren ground surface to several collection points.

The project will require a State Stormwater Discharge Permit. To meet City requirements for redevelopment, the project will be designed to reduce the post development peak flow to 50% of the pre-development peak flow for the one year design storm.

The project will also require a State Construction General Permit for stormwater runoff during construction, since greater than 1 acre of disturbance is proposed. The project will also be subject to City erosion prevention and sediment control plan and permitting requirements.

P:\2015\15148-Frisbie\Town\Preliminary\storm memo.docx

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**PETRA CLIFFS CLIMBING CENTER
BUILDING DESIGN CONCEPT**

MARCH 16, 2018

A/E DESIGN TEAM:

ARCHITECT: Susan Coddaira
studio b architecture
114 Meadow Lane
Dorset, VT 05251
802-318-1309

LANDSCAPE ARCHITECT: Amy Houghton
Wagner Hodgson Inc.
7 Marble Avenue
Burlington, VT 05401
802-864-0010

STRUCTURAL ENGINEER: Matt Earnst, PE
Engineering Ventures PC
208 Flynn Ave. 2A
Burlington, VT 05251
802-863-6225

MEP ENGINEER: George Martin, PE
LN Consulting, Inc.
69 Union St.
Winooski, VT 05404
802-655-7628

GEOTECHNICAL ENGINEER: Jonathan H. Grace, P.E.
Sanborn, Head & Associates, Inc.
40 College St. Suite 100
Burlington, VT 05401
802-489-6271

CIVIL ENGINEER: Andy Rowe, PE
Lamoureux & Dickinson Inc.
14 Morse Drive
Essex Jct. Vermont 05452
802-878-4450

ENVIRONMENTAL ENGINEER: Erik Sandblom, PE
KAS Consulting
368 Avenue D
Williston, VT 05495
802-383-0486

CONCEPT DESIGN DRAWINGS- SHEET INDEX:

- A1.1 LEVEL 1 PROGRAM
- A1.1M MEZZANINE PROGRAM
- A1.2 LEVEL 2 PROGRAM
- A1.3 ROOF PLAN
- A2.1 EAST ELEVATION (BRIGGS ST.)
- A2.2 SOUTH ELEVATION
- A2.3 WEST ELEVATION
- A2.4 NORTH ELEVATION

**studio b
architecture**

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dorset, vermont
802.318.1309

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75 BRIGGS STREET BURLINGTON, VT

CLIENT:
CHAREST ALPINISM, LLC
DESIGN PHASE:

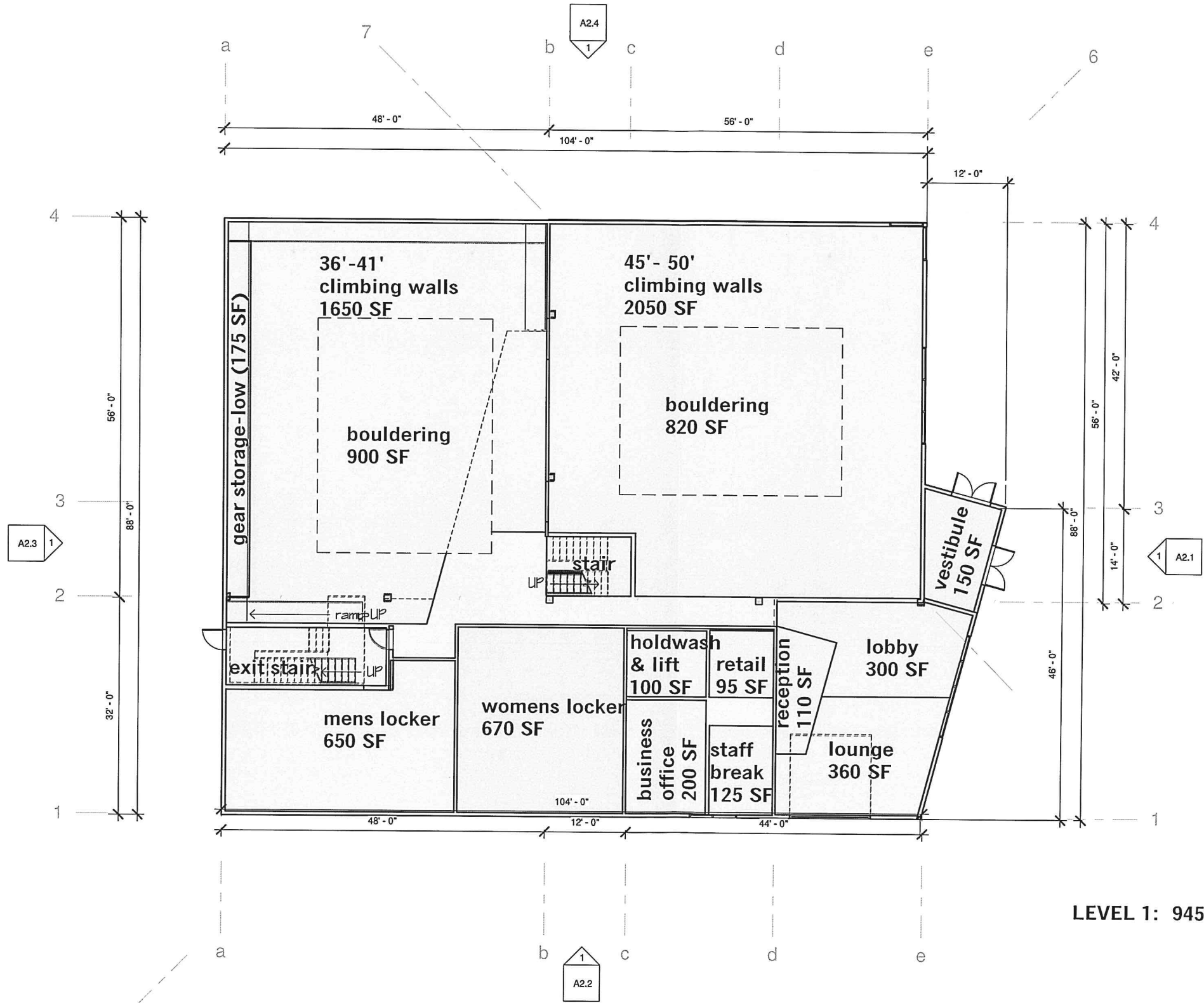
PRE-DESIGN

LEVEL 1
PROGRAM

SCALE: 3/32" = 1'-0"

A1.1

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1 LEVEL 1 PROGRAM
3/32" = 1'-0"

LEVEL 1: 9450 GSF

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CLIENT:
CHAREST ALPINISM, LLC
DESIGN PHASE:

PRE-DESIGN

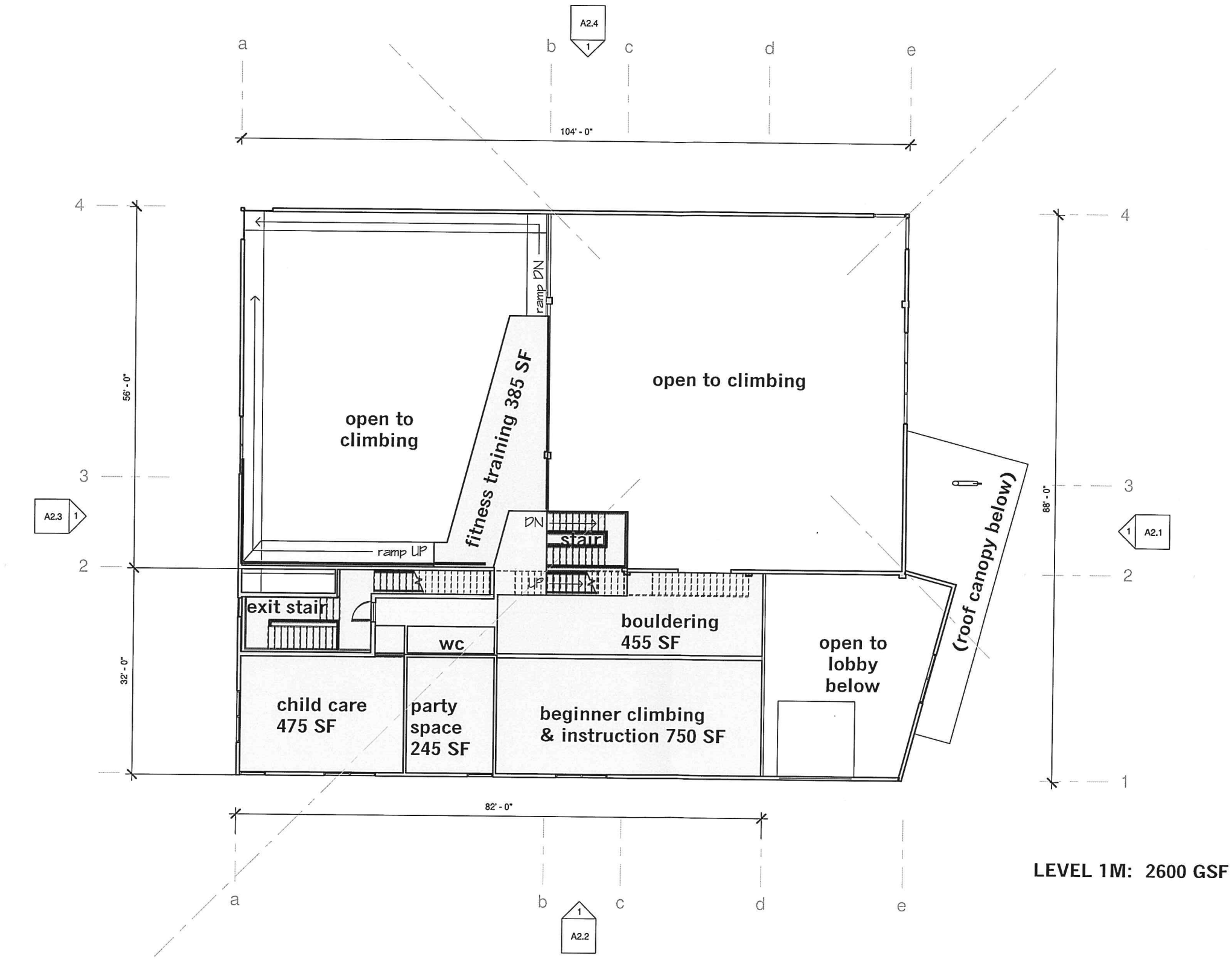
LEVEL 1
MEZZANINE
PROGRAM

SCALE: 3/32" = 1'-0"

A1.1M

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1 LEVEL 1 MEZZANINE PROGRAM
3/32" = 1'-0"

LEVEL 1M: 2600 GSF

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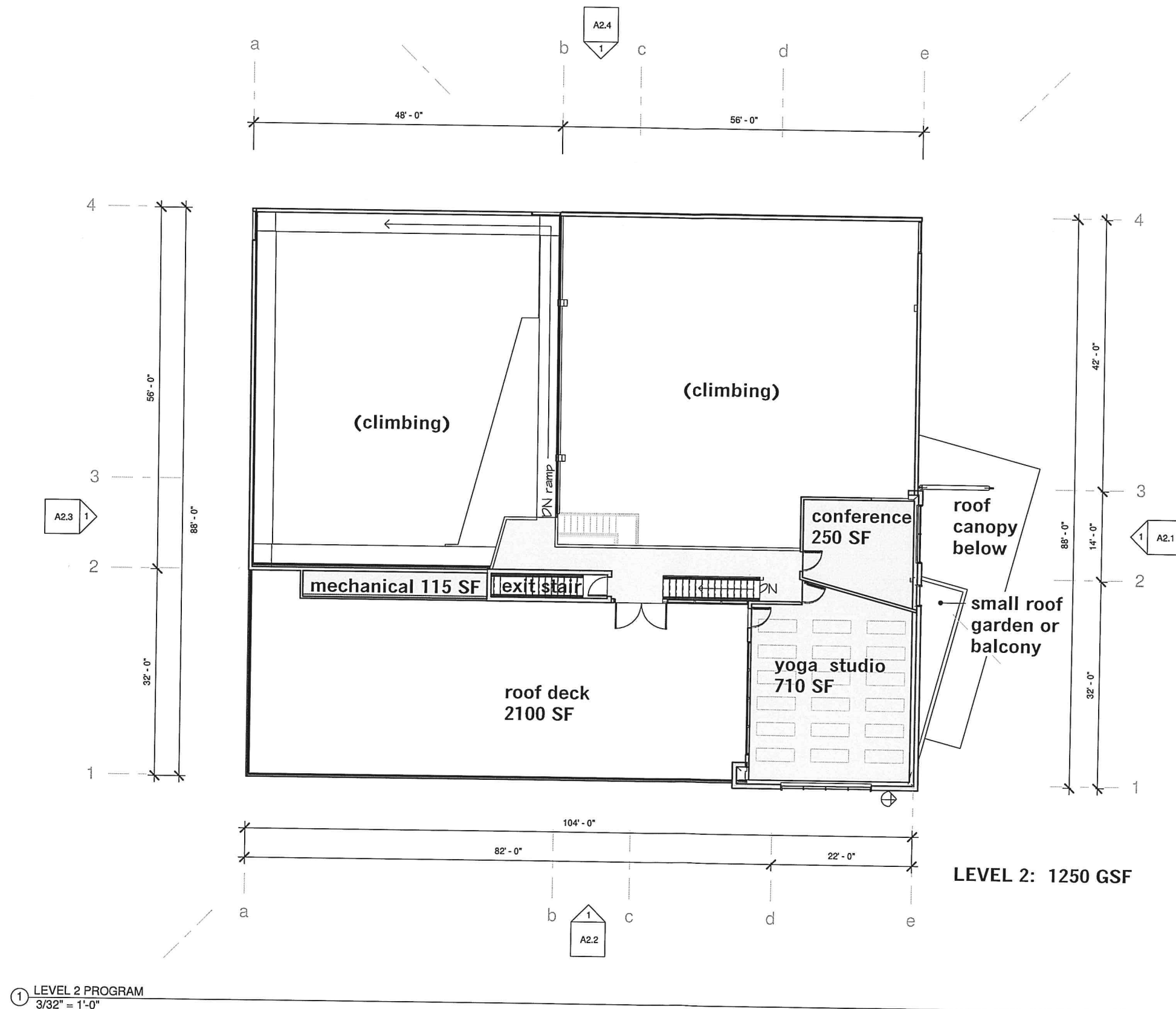
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CLIENT:
CHAREST ALPINISM, LLC
DESIGN PHASE:
PRE-DESIGN

LEVEL 2
PROGRAM
SCALE: 3/32" = 1'-0"

A1.2

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BUILDING
ELEVATION
CONCEPT

SCALE: 3/32" = 1'-0"

A2.1

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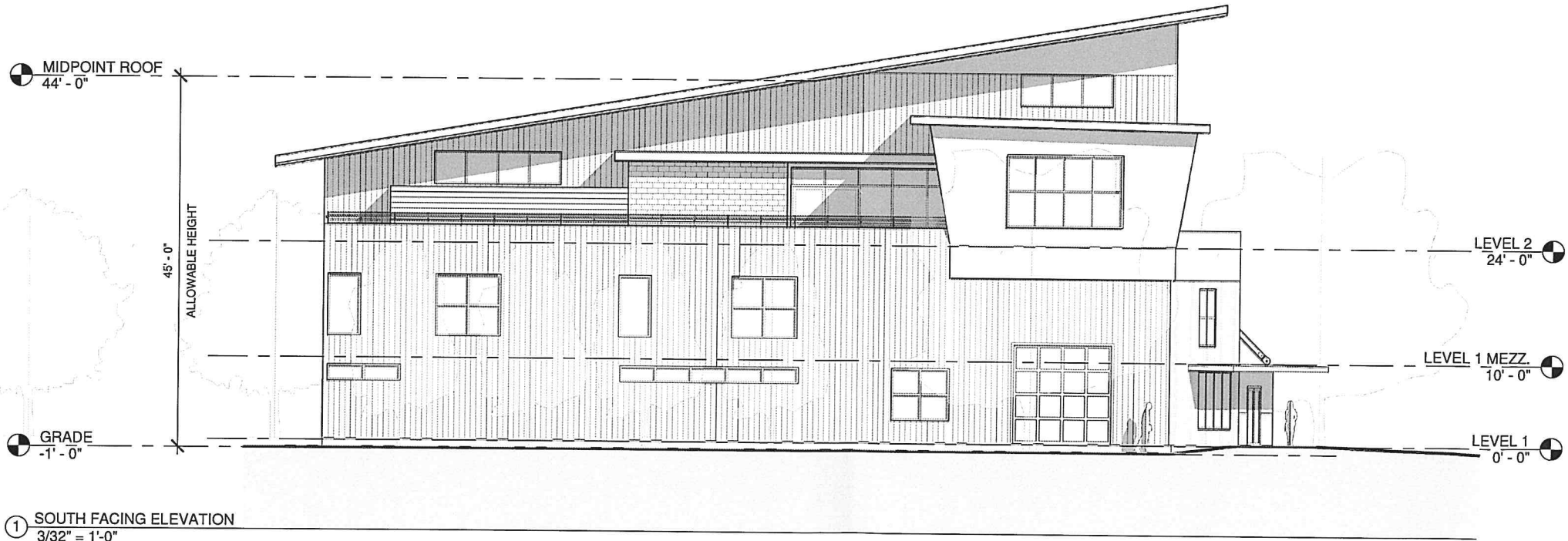
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PRE-DESIGN

BUILDING
ELEVATION
CONCEPT

SCALE: 3/32" = 1'-0"

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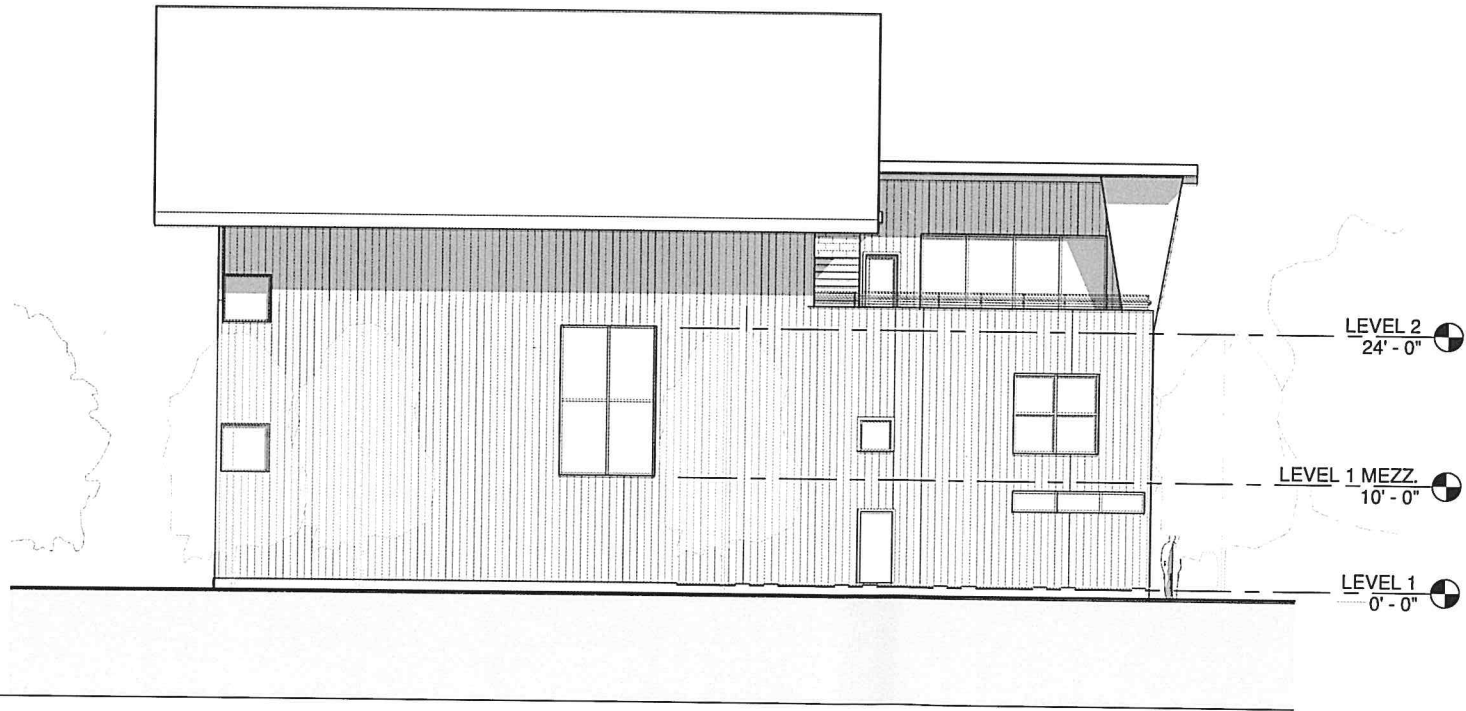
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① WEST FACING ELEVATION
3/32" = 1'-0"



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DESIGN PHASE:

PRE-DESIGN

BUILDING
ELEVATION
CONCEPT

SCALE: 3/32" = 1'-0"

A2.3

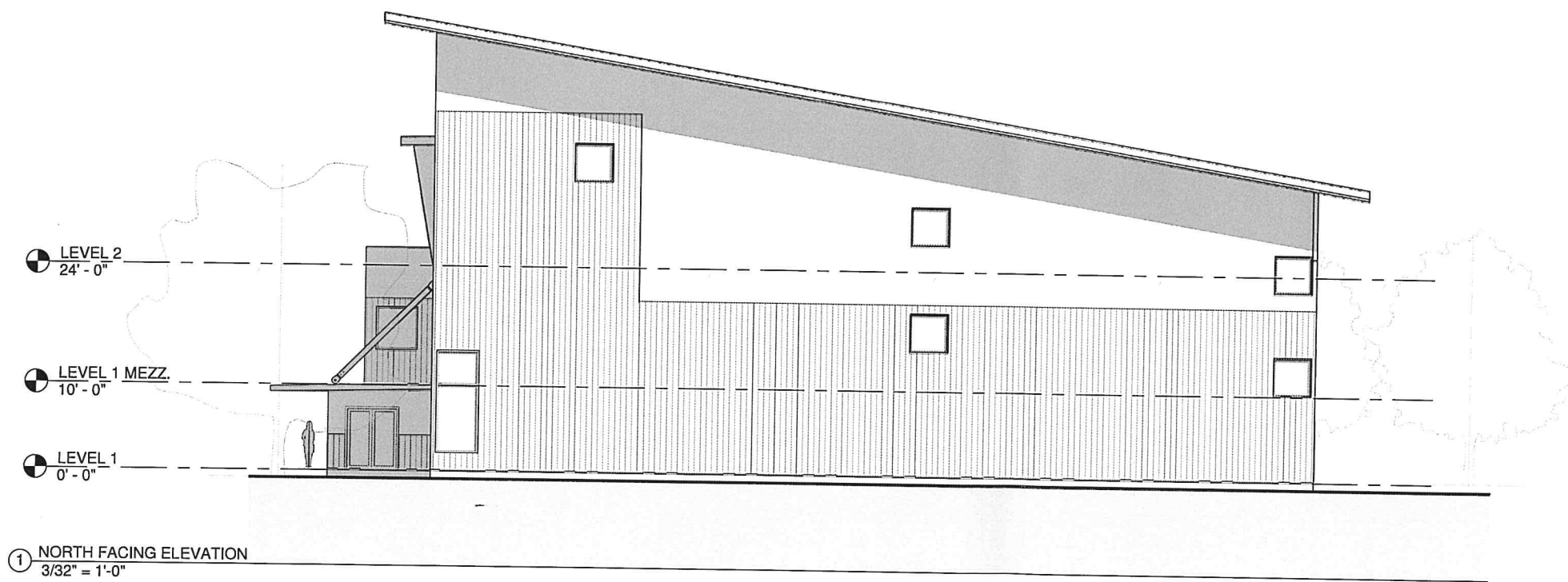
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CLIENT:
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DESIGN PHASE:

PRE-DESIGN

BUILDING
ELEVATION
CONCEPT

SCALE: 3/32" = 1'-0"

A2.4

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LOT COVERAGE

SITE AREA - 73,395 SF (1.68 AC.)
PERVIOUS AREA - 25,313 SF = 34.5%
IMPERVIOUS AREA - 48,082 SF = 65.5%
(80% ALLOWED)

PARKING CALCULATIONS

ASSUMPTIONS
SHARED USE DISTRICT
USE - HEALTH CLUB
MIN. PRKG - 2/1000 SF
MAX. PRKG - 3/1000 SF x 1.25

EX. BLDG. - 4,046SF
(4X3X1.25) = 15 SPACES
PROP. BLDG. - 13,000SF
(13X3X1.25) = 49 SPACES
ALTERNATIVE FUEL VEHICLES
2 SPACES

TOTAL MAX. PRKG. SPACES = 66



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NO.	DESCRIPTION	DATE
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PETRA CLIFFS
75 BRIGGS STREET,
BURLINGTON, VERMONT

LANDSCAPE PLAN

JOB NO. 907
SCALE 1/16"=1'-0"
DRAWN BY: AH
DATE: 03.15.2018

L100

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Department of Planning and Zoning

149 Church Street, City Hall
Burlington, VT 05401
www.burlingtonvt.gov/pz
Phone: (802) 865-7188
Fax: (802) 865-7195

David White, AICP, Director
Meagan Tuttle, AICP, Comprehensive Planner
Jay Appleton, Senior GIS/IT Programmer/Analyst
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Layne Darfler, Planning Technician
Anita Wade, Zoning Clerk



MEMORANDUM

To: The Design Advisory Board
From: Ryan Morrison, Associate Planner
RE: ZP 18-0605CA; 327 South Winooski Avenue
Date: April 10, 2018

File: ZP18-0505CA
Location: 26 Park Street
Zone: RH **Ward:** 3C
Date application accepted: January 5, 2018
Applicant/ Owner: John & Maria O'Brien
Request: Enclose back porch.



Background:

- **Zoning Permit ZP99-430;** installation of a fence to surround the front yard of the single family home. Proposal includes change of use from duplex to sfr. Approved April 12, 1999.
- **Zoning Permit ZP17-1255CA;** replace a window with a door of the rough same size on second story side of home – leading out to a flat roof. Denied September 6, 2017.

- **Zoning Appeal 18-0463AP**; appeal Notice of Violation # 335339 relative to unpermitted site and building alterations. Enforcement Upheld December 19, 2017.
- **Zoning Permit 18-0555FC**; installation of fence (after the fact). Approved December 15, 2017.

Overview: 327 South Winooski Ave. is a single family home on a small lot (3,757 sf) built ca. 1882, and is listed as a contributing resource on the Vermont State Register of Historic Resources. The applicant has been under a violation notice for replacing a second story window with a door leading out to an unpermitted rooftop deck (above the subject porch) (NOV issued October, 2017). The enforcement order was upheld by the Development Review Board on December 19, 2017, after an appeal was filed. The violation has still not been corrected, but the applicant stated that he will return the porch rooftop and door/window to its previous condition. This application is to enclose the first story porch to become part of the kitchen.

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 subject property contains no important natural features as identified in the Open Space Protection Plan.

(b) Topographical Alterations:

No topographic alterations are included in the plans.

(c) Protection of Important Public Views:

The subject property is not affected by any identified public view corridor.

(d) Protection of Important Cultural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Archeological sites likely to yield information important to the city's or the region's pre-history or history shall be evaluated, documented, and avoided whenever feasible. Where the proposed development involves sites listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8(b).

See Section 5.4.8, below. The property contains no known archaeological resources.

(e) Supporting the Use of Renewable Energy Resources:

No part of this application would preclude the use of wind, water, geothermal or other renewable energy resource.

(f) Brownfield Sites:

The site is not included on Vermont DEC's list of brownfield sites.

(g) Provide for nature's events:

Special attention shall be accorded to stormwater runoff so that neighboring properties and/or the public stormwater drainage system are not adversely affected. All development and site disturbance shall follow applicable city and state erosion and stormwater management guidelines in accordance with the requirements of Art 5, Sec 5.5.3.

The project does not result in any new impervious surfaces.

Design features which address the effects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage from circulation areas shall also be incorporated.

By enclosing the porch, the existing covered rear entrance loses its shelter. However, the 'west face' elevation drawing indicates a canopy over what will be the new entrance.

(h) Building Location and Orientation:

The building will retain its orientation; fronting on South Winooski Ave. and Spruce Street.

(i) Vehicular Access:

Access will remain as existing; from Spruce Street. There are two parking spaces located directly off Spruce Street.

(j) Pedestrian Access:

The existing walkway will continue to serve this entrance from Spruce Street.

(k) Accessibility for the Handicapped:

Handicap access is not a requirement for single family residences. The building inspector implements ADA requirements.

(l) Parking and Circulation:

Two parking spaces are provided off Spruce Street. No changes to parking are proposed.

(m) Landscaping and Fences:

No changes to landscaping or the fencing are included within the project.

(n) Public Plazas and Open Space:

Not required.

(o) Outdoor Lighting:

Where exterior lighting is proposed the applicant shall meet the lighting performance standards as per Sec 5.5.2.

The plans indicate no new lighting. Should exterior lights be proposed, they will have to meet the lighting performance standards of Sec. 5.5.2.

(p) Integrate infrastructure into the design:

Exterior storage areas, machinery and equipment installations, service and loading areas, utility meters and structures, mailboxes, and similar accessory structures shall utilize setbacks, plantings, enclosures and other mitigation or screening methods to minimize their auditory and visual impact on the public street and neighboring properties to the extent practicable.

Utility and service enclosures and screening shall be coordinated with the design of the principal building, and should be grouped in a service court away from public view. On-site utilities shall be placed underground whenever practicable. Trash and recycling bins and dumpsters shall be located, within preferably, or behind buildings, enclosed on all four (4) sides to prevent blowing trash, and screened from public view.

Any development involving the installation of machinery or equipment which emits heat, vapor, fumes, vibration, or noise shall minimize, insofar as practicable, any adverse impact on neighboring properties and the environment pursuant to the requirements of Article 5, Part 4 Performance Standards.

The plans indicate no new utilities or equipment.

Part 3: Architectural Design Standards
Sec. 6.3.2 Review Standards

(a) Relate development to its environment:

1. Massing, Height and Scale:

The proposal will not change the building's existing massing, height and scale, but it will change the structure's historic appearance as seen from Spruce Street.

2. Roofs and Rooflines.

No changes to the roof are proposed.

3. Building Openings

The project will see the existing door and window on building reused on the new porch walls. The west face will see one double hung, 2/2 window, while the south face will see the entrance door and another double hung, 2/2 window. No other changes to the rest of the building's openings are proposed.

(b) Protection of Important Architectural Resources:

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves buildings listed or eligible for listing on a state or national register of historic places, the applicant shall meet the applicable development and design standards pursuant to Sec. 5.4.8. The introduction of new buildings to a historic district listed on a state or national register of historic places shall make every effort to be compatible with nearby historic buildings.

See Section 5.4.8.

(c) Protection of Important Public Views:

Not applicable.

(d) Provide an active and inviting street edge:

This Spruce Street side of the home is currently active and inviting. The building façade offers variety, instead of a more uniform appearance. By enclosing the porch, the variation on the façade will change, and contribute to a more uniform street edge.

(e) Quality of materials:

All development shall maximize the use of highly durable building materials that extend the life cycle of the building, and reduce maintenance, waste, and environmental impacts. Such materials are particularly important in certain highly trafficked locations such as along major streets, sidewalks, loading areas, and driveways. Efforts to incorporate the use of recycled content materials and building materials and products that are extracted and/or manufactured within the region are highly encouraged.

Owners of historic structures are encouraged to consult with an architectural historian in order to determine the most appropriate repair, restoration or replacement of historic building materials as outlined by the requirements of Art 5, Sec. 5.4.8.

The applicant intends to match the enclosed porch siding with the rest of the structure's vinyl clapboard siding with 4" reveal. It is important to note that there is no record of permit approval for the vinyl siding (further discussion below). The existing wood door and window on the existing south and west facing walls will be relocated to the new porch walls. A second, new window will locate next to the door on the south face. This window should match the other windows on the home, and consist of a solid wood core. Hardwood flat stock 4" trim will be utilized around the door and windows, and made to match the rest of the trim on the home.

(f) Reduce energy utilization:

All new construction is required to meet the Guidelines for Energy Efficient construction per the requirements of Article VI, Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.

(g) Make advertising features complementary to the site:

Not applicable.

(h) Integrate infrastructure into the building design:

The plans indicate no new utilities or equipment as part of the project.

(i) Make spaces secure and safe:

Development shall conform to all applicable building and life safety code as determined by the building inspector and fire marshal.

Sec. 5.4.8 Historic Buildings and Sites

The City seeks to preserve, maintain, and enhance those aspects of the city having historical, architectural, archaeological, and cultural merit. Specifically, these regulations seek to achieve the following goals:

To preserve, maintain and enhance Burlington's historic character, scale, architectural integrity, and cultural resources;

To foster the preservation of Burlington's historic and cultural resources as part of an attractive, vibrant, and livable community in which to live, work and visit;

To promote a sense of community based on understanding the city's historic growth and development, and maintaining the city's sense of place by protecting its historic and cultural resources; and,

To promote the adaptive re-use of historic buildings and sites.

(a) Applicability:

These regulations shall apply to all buildings and sites in the city that are listed, or eligible for listing, on the State or National Register of Historic Places.

327 South Winooski Ave. was listed on the Vermont State Register of Historic Resources in 1977. These standards, therefore, apply.

(b) Standards and Guidelines:

The following development standards, following the Secretary of the Interior's Standards for the Treatment of Historic Properties, shall be used in the review of all applications involving historic buildings and sites subject to the provisions of this section and the requirements for Design Review in Art 3, Part 4. The Secretary of the Interior's Standards are basic principles created to help preserve the distinctive character of a historic building and its site. They are a series of concepts about maintaining, repairing and replacing historic features, as well as designing new additions or making alterations. These Standards are intended to be applied in a reasonable manner, taking into consideration economic and technical feasibility.

- 1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.*

The house was constructed in 1882 as a residence; a use which remains today. At one time, the structure contained two units. But as evidenced by zoning permit ZP99-430, the use changed back to single family in 1999.

- 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.*

The property appears to be intact with its form as of the 1977 recording of the structure in the Vermont State Register of Historic Resources. The porch is specifically noted in the historic listing, and in accordance with this criterion, needs to be retained.

Also of interest is the building's vinyl siding. The 1977 Historic listing notes that the siding was clapboard (wood). Sometime after 1977, the siding was changed to vinyl, as indicated by Assessor's property listings dating back to 1984. There is no evidence of zoning or building permits for this change. Unless evidence to suggest otherwise is produced, the City will view the vinyl siding as unpermitted, and thus technically a violation.

3. *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*

By enclosing the porch, a historic element of the structure will be lost. The only way to preserve the porch would be to retain it as such.

4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*

As noted above, the overall structure was sided with vinyl clapboard siding sometime after 1977, when the historic register listing was recorded. The original wood clapboard siding was not retained. Of particular note here is the fact that the historic listing takes note of the subject porch proposed to be enclosed. The structure is recorded as having a 'rear porch on SW corner'. By enclosing this porch, the historically significant porch will be lost.

5. *Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

With the exception of the vinyl siding, the house retains its integrity of location, design, setting, materials, workmanship, feeling and association. If the project is approved, it will result in the disappearance of the porch's historic railings, balusters and ornamental brackets.

6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials recognizing that new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for an efficient contemporary use. Replacement of missing features will be substantiated by documentary and physical evidence.*

There appear to be no deteriorated features on the porch. The proposal doesn't intend to replace anything on the porch, but rather close the porch completely, thus resulting in the loss of a historic feature of the structure.

7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

No chemical treatments are proposed; physical treatments include the wholesale replacement of the historic porch with additional enclosed living space. This is contradictory to the preservation of historic features.

8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*

No archaeological resources have been identified at this address.

If any work associated with the project uncovers any archaeological remains or resources, proper authorities shall be contacted for appropriate recovery, assessment and disposition.

9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment.*

By enclosing the existing porch, the historic porch will be completely gone.

10. *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

Enclosing the porch will result in a loss of a historic feature unlikely to be recovered.

Recommended Motion:

The existing porch is a documented feature of the historic structure at 327 South Winooski Avenue. By allowing it to be enclosed and converted into habital space would contradict Sec. 5.4.8 – Historic Buildings and Sites. The proposal is inconsistent with criteria 2-7 and 9-10. Denial of the permit is recommended.

PROJECT

327 South Winooski Ave

John and Maria O'Brien

A. Porch to Kitchen

- To enclose existing porch to become part of the kitchen
- To repair and reframe porch roof, raise height of roof/ceiling on porch to match existing kitchen height (9').
- ~~To replace a window with a door which will open onto the new porch/kitchen roof~~

B. Traditional wood frame construction

C. Windows

- 1 window already exists in the house. This window and storm window system will simply be moved to new location as the west-facing window.
- 1 new window will be double-glazed and double-hung; style will match existing style on home. Pella, Marvin, or similar quality manufacturer

D. Doors

- ~~Both doors are~~ ^{1 door is} already in use in home and will be moved to new locations.

E. Siding

- Siding will be vinyl clad siding to match existing siding. Reveal is currently 4"

F. 3 box columns will be 7 1/2" wide x 87" tall. Columns will extend off face of building 3"

~~G. Railings~~

- ~~Handrails will be 3 1/2" x 1 1/2" beveled~~
- ~~Bottom rail 3 1/2 x 1 1/2 flat~~
- ~~Spindles will be 1 1/2 x 1 1/2" and applied every 3"~~

H. Newel posts will be recessed box newels

- 2nd floor newel will be 6" x 5"
- 1st floor entry newel will be 3 ½ x 3 ½

I. Window and Door Trim

- Trim will be hardwood flat stock 4", which will match the rest of the home

J. Stairs

- Stairs currently exist and are in use. The same style stairs will be reapplied if not these same stairs.
- Stair stringers will be 2x wood framing
- Stair kick and treads will be an engineered product

K. Skirt Board- 8"

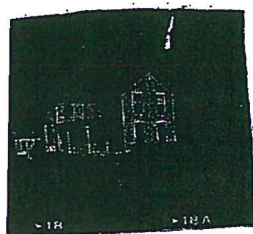
Facia Board- 8"

L. Pergola- We have a very robust climbing hydrangea on this side of our home to climb the pergola

- Pergola application (4) will be 18" x 12" hardwood slats and frame

M. Paint

- All surfaces not clad in vinyl siding will be primed and painted 3 coats; colors to match existing home colors



STATE OF VERMONT
Division for Historic Preservation
Montpelier, VT 05602

HISTORIC SITES & STRUCTURES SURVEY
Individual Structure Survey Form

COUNTY:	Chittenden
TOWN:	Burlington
LOCATION:	
COMMON NAME:	
FUNCTIONAL TYPE:	dwelling
OWNER:	W. & Y. Pariseau
ADDRESS:	327 So. Winooski, Burlington
ACCESSIBILITY TO PUBLIC:	Yes ☐ No ☐ Restricted ☐
LEVEL OF SIGNIFICANCE:	Local ☐ State ☐ National ☐

GENERAL DESCRIPTION:

Structural System

1. Foundation: Stone ☒ Brick ☐ Concrete ☐ Concrete Block ☐
2. Wall Structure
 - a. Wood Frame: Post & Beam ☐ Balloon ☒
 - b. Load Bearing Masonry: Brick ☐ Stone ☐ Concrete ☐ Concrete Block ☐
 - c. Iron ☐ d. Steel ☐ e. Other:
3. Wall Covering: Clapboard ☒ Board & Batten ☐ Wood Shingle ☐ Shiplap ☐ Novelty ☐ Stucco ☐ Sheet Metal ☐ Aluminum ☐ Asphalt Shingle ☐ Brick Veneer ☐ Stone Veneer ☐ Bonding Pattern: Other:
4. Roof Structure
 - a. Truss: Wood ☒ Iron ☐ Steel ☐ Concrete ☐
 - b. Other:
5. Roof Covering: Slate ☒ Wood Shingle ☐ Asphalt Shingle ☐ Sheet Metal ☐ Built Up ☐ Rolled ☐ Tile ☐ Other:
6. Engineering Structure:
7. Other:

Appendages: Porches ☒ Towers ☐ Cupolas ☐ Dormers ☐ Chimneys ☒ Sheds ☐ Ells ☒ Wings ☒ Other:
Roof Style: Gable ☒ Hip ☐ Shed ☐ Flat ☐ Mansard ☐ Gambrel ☐ Jerkinhead ☐ Saw Tooth ☐ With Monitor ☐ With Bellcast ☐ With Parapet ☐ With False Front ☐ Other:

Number of Stories: 2

Number of Bays: 2 x 2

Approximate Dimensions:

SURVEY NUMBER:
327 So. Winooski

NEGATIVE FILE NUMBER:
77-A-199

UTM REFERENCES:
Zone/Easting/Northing

U.S.G.S. QUAD. MAP:

PRESENT FORMAL NAME:

ORIGINAL FORMAL NAME:

PRESENT USE: dwelling

ORIGINAL USE: dwelling

ARCHITECT/ENGINEER:

BUILDER/CONTRACTOR:

PHYSICAL CONDITION OF STRUCTURE:

Excellent ☒ Good ☐

Fair ☐ Poor ☐

THEME:

STYLE:

DATE BUILT:
c. 1882

THREAT TO STRUCTURE:

No Threat ☐ Zoning ☐ Roads ☐ Development ☐ Deterioration ☐ Alteration ☐ Other:

LOCAL ATTITUDES:

Positive ☐ Negative ☐ Mixed ☐ Other:

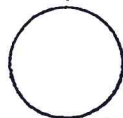
ADDITIONAL ARCHITECTURAL OR STRUCTURAL DESCRIPTION:

Massing - ell floor plan, with ell projecting from south wall. Same ridge. 1 1/2 story gabled wing projects from west wall. 1 story carved porch in ell recess. Rear porch on SW corner.
Penetration - 2/2 sash. Peaked window heads on 1st story. Straight entablatured window heads on 2nd floor.
Entrance - peaked door head. Panel door glazed top half.
Cornice - molded cornice with fascia board frieze. Plain eaves. Beautiful blue & red slate patterned roof.

RELATED STRUCTURES:**STATEMENT OF SIGNIFICANCE:**

This excellent corner property is distinguished because of its ell shaped floor plan, peaked window heads and polychromed slate roof. The property was purchased in 1873 by Lyman and Curtis Austin from the Morse Estate. In 1881 the land was sold to Daniel Roberts, presumably without any structures. In 1883 Roberts sold the property with two houses to Samuel Brownell. The 1889 map shows C. W. Brownell as owner of the property, but not residing there. Brownell was born in Williston, Vt. in 1847. He graduated from UVM in 1870 and went to Albany Law School. He became a Burlington Attorney.

REFERENCES: City Land Records; vol. 20 pg. 112; 1890, Sanborn maps; directories; Encyclopedia of Vt. Biography on Brownell.

MAP: (Indicate North in Circle)**SURROUNDING ENVIRONMENT:**

Open Land ☐ Woodland ☐
Scattered Buildings ☐
Moderately Built Up ☒
Densely Built Up ☐
Residential ☒ Commercial ☐
Agricultural ☐ Industrial ☐
Other:

RECORDED BY:

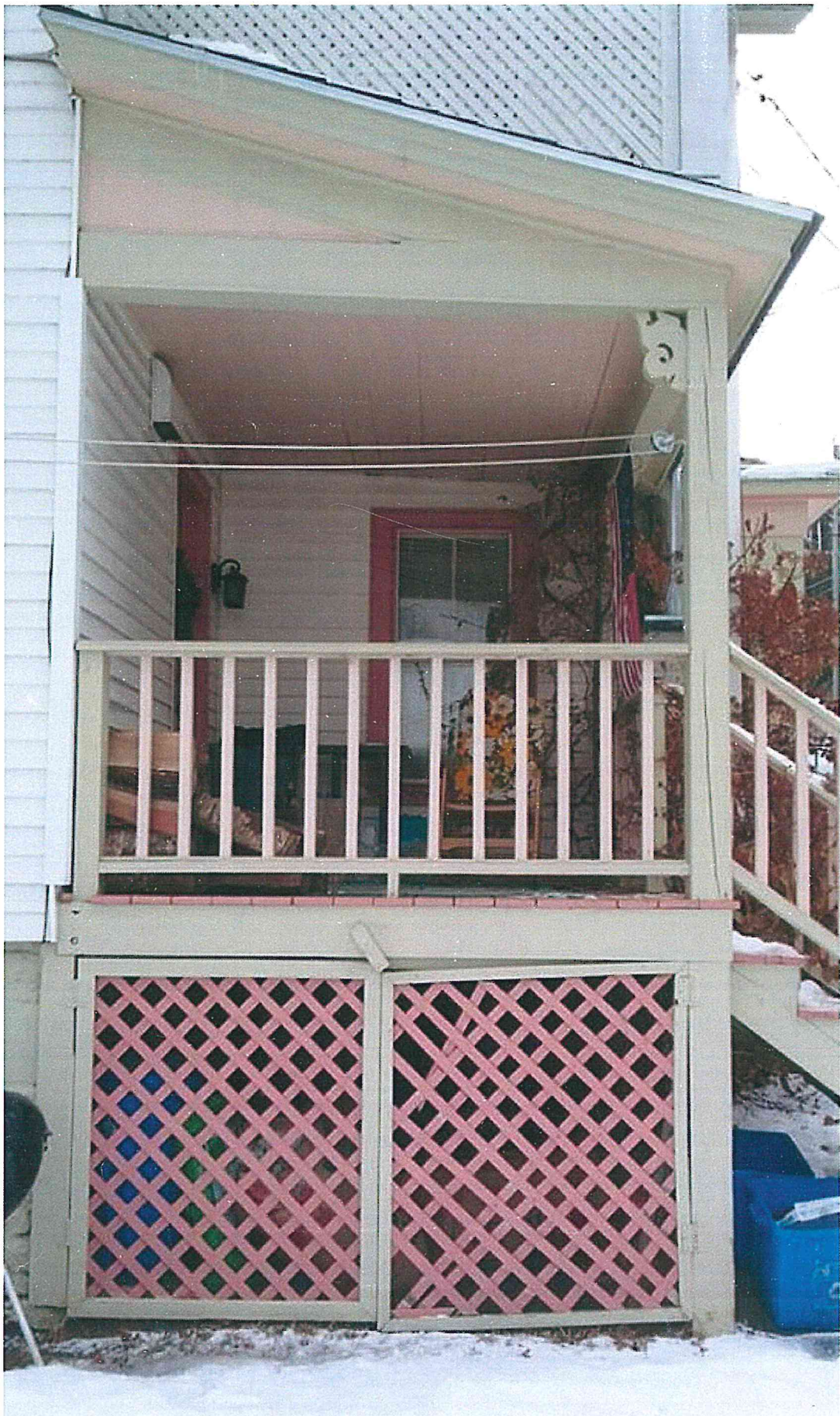
Clark Schoettle

ORGANIZATION:

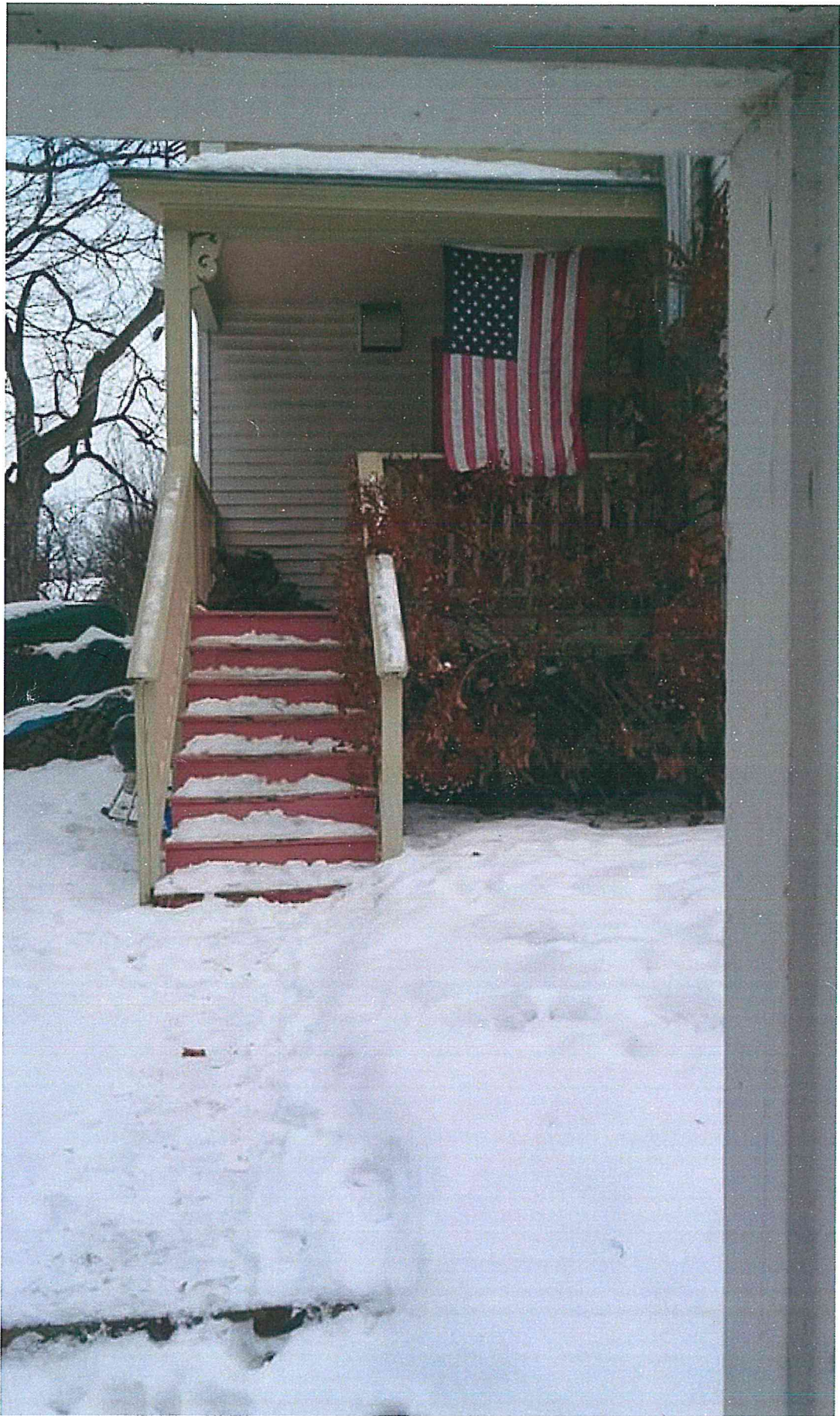
VT Division for Historic Preservation

DATE RECORDED:

7/14/77







RECEIVED

MAR 13 2018

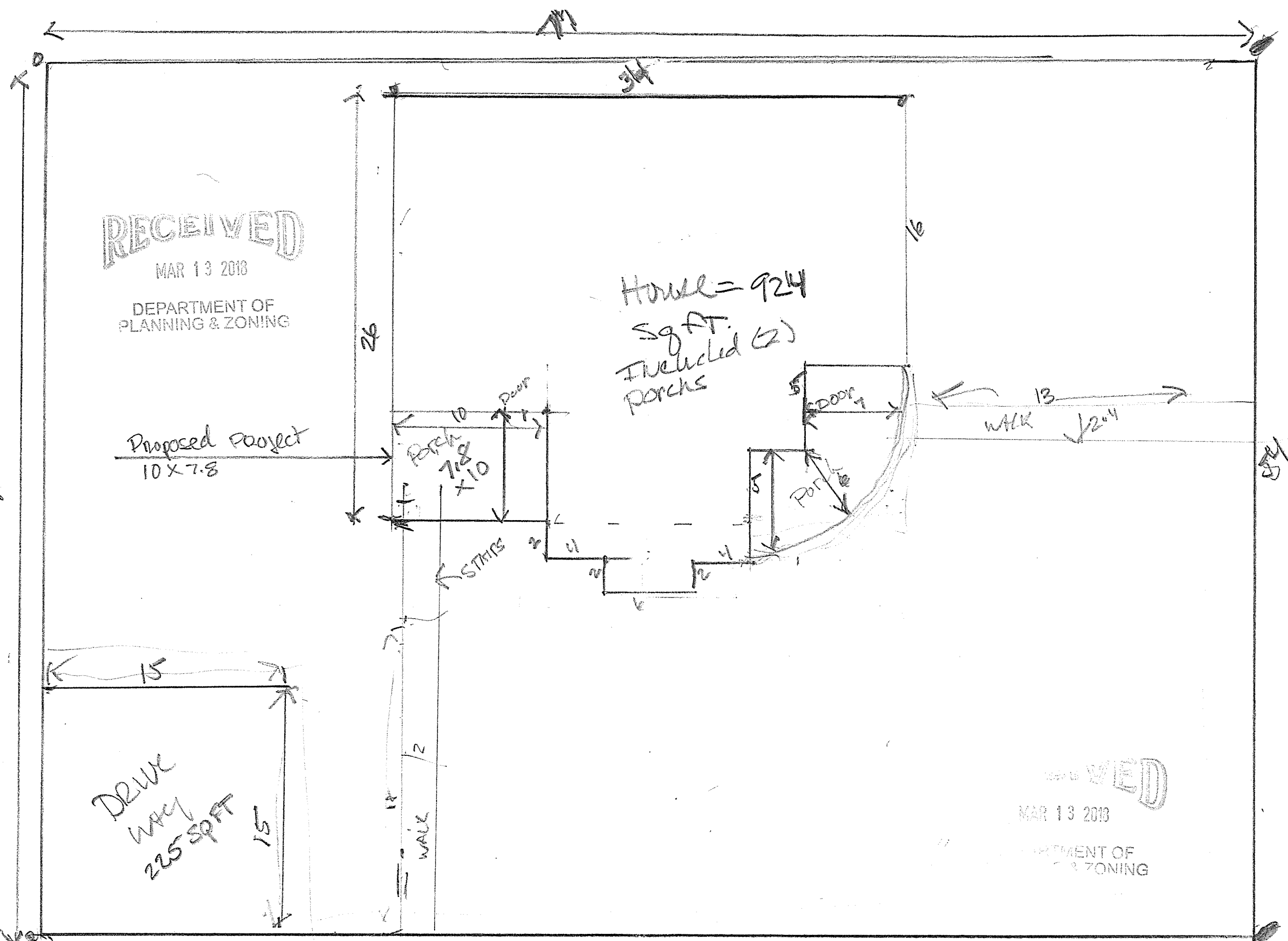
DEPARTMENT OF
PLANNING & ZONING

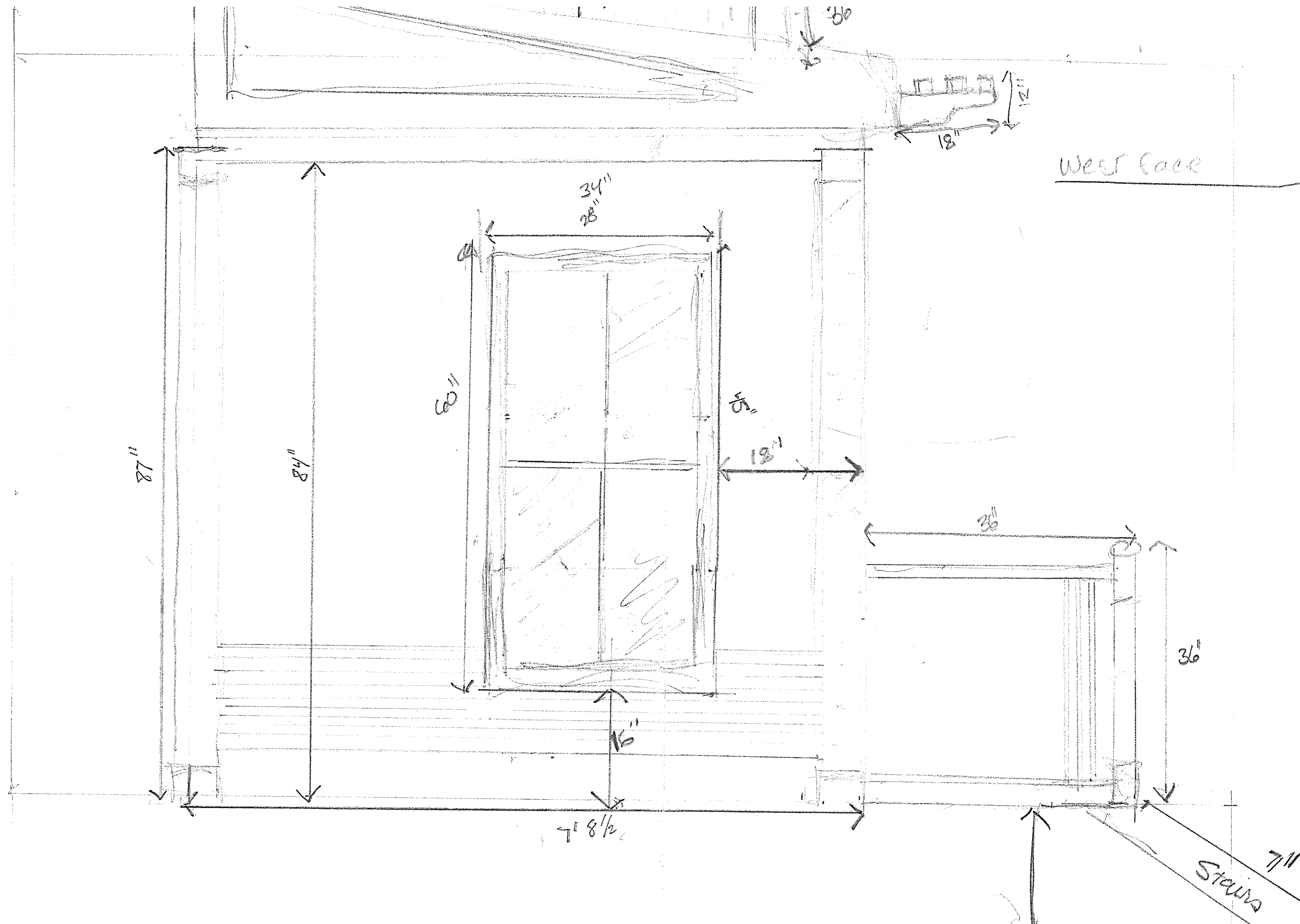
Proposed Project
10 X 7.8

House = 924
Sq. Ft.
Included (2)
porches

DRIVE
WAY
225 SQFT

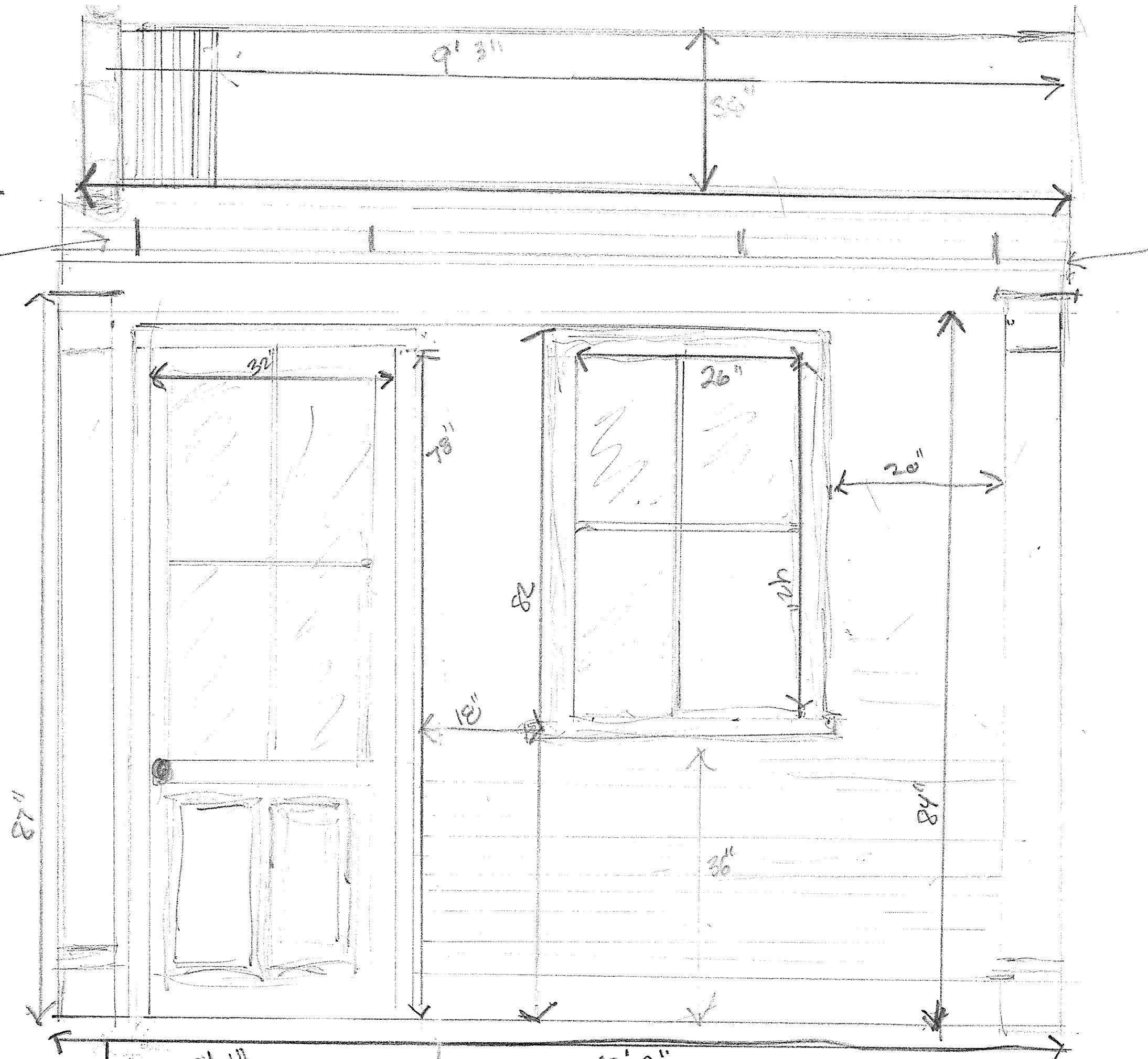
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MAR 13 2018
DEPARTMENT OF
PLANNING & ZONING





South Face

pengala



upper roof

Roof Door / Rail

Roof

30"

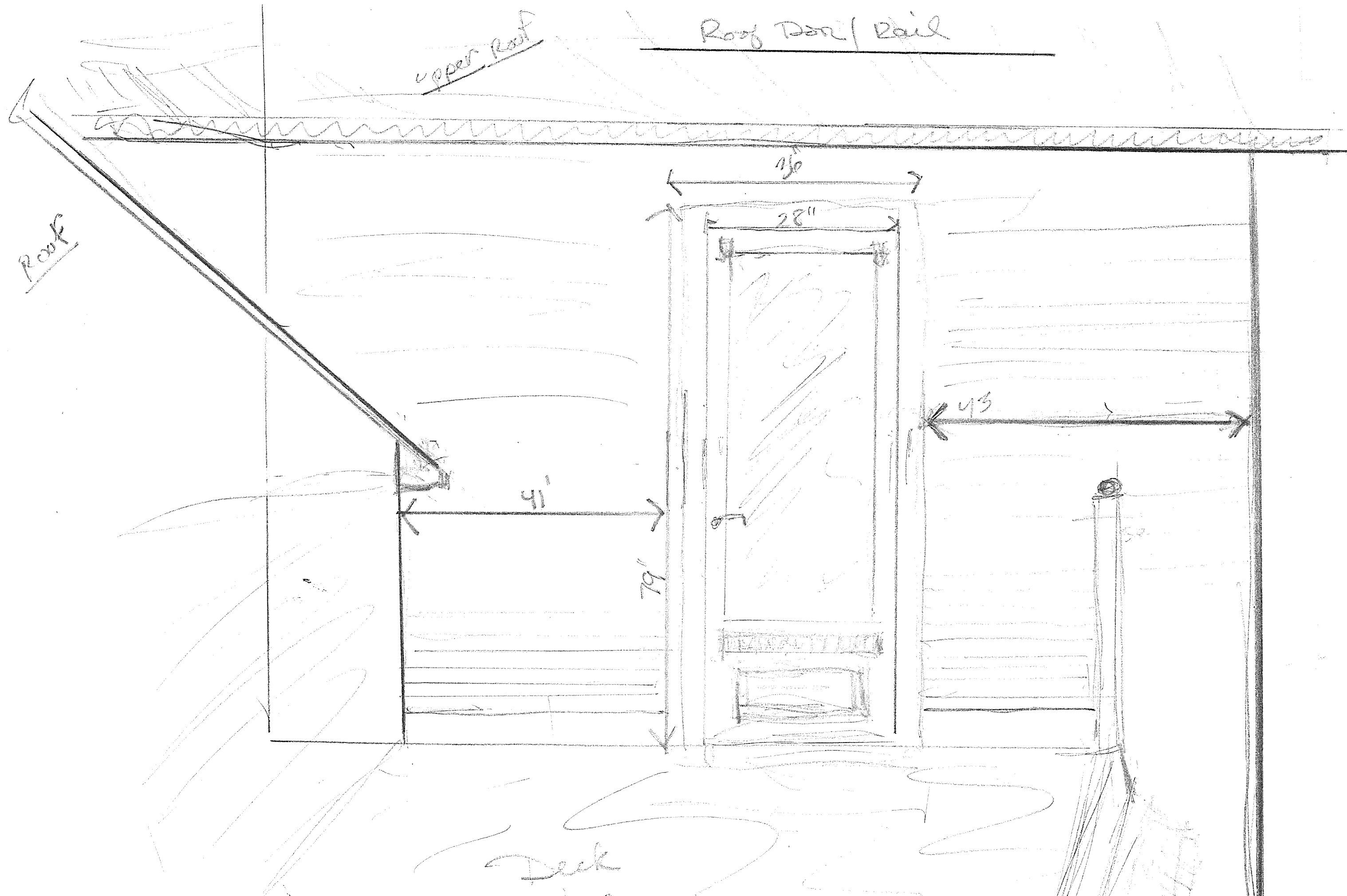
28"

41"

79"

43"

Deck



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



Minutes

Burlington Design Advisory Board

Tuesday, April 10, 2018 3:00 p.m.

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

Present: Matt Bushey (Chair), Steve Offenhartz, Phil Wagner (alternate.), Ron Wanamaker.

Absent: Tom Cullins, Phil Hammerslough (alternate)

Staff present: Mary O'Neil, Scott Gustin, Ryan Morrison

Session I – 3:00 PM – 3:30 PM

18-0793SP; 75 Briggs St (ELM, Ward 5S) Onion River Cooperative Inc

Sketch plan review for a new health club/climbing center. Includes a new building and site improvements.

(Project Manager: Scott Gustin)

Representing the project: Steve & Andrea Charest, Andy Rowe, Amy Houghton, Ester Lotz, and Susan Coddair

As this item is sketch plan review, no action was taken.

Session II – 3:30 PM – 4:00 PM

18-0605CA; 327 South Winooski Ave (RM, Ward 6S) John O'Brien

Enclose back porch.

(Project Manager: Ryan Morrison)

Representing the project: John O'Brien

Motion by Ron Wanamaker: I move we recommend denial of the application as presented.

2nd – Matthew Bushey

Vote 4-0.

Motion carries

Session II – 4:00 PM – 5:00 PM

18-0834CA/MA; 298 College St (RH, Ward 8E) Greater Burlington YMCA Foundation Inc.

Demolish former Ethan Allen Club; Construct YMCA facility at 298 College Street with Child care, two stories, approximately 50,000SF.

(Project Manager: Mary O'Neil)

Representing the project: Alex Halperin (FFF), Brian Leet (FFF), Kyle Dodson (GBYMCA), Paul Simon, Parkarchitecture, John Caulo, GBYMCA Building Committee.

Motion by Matthew Bushey: I move we recommend approval and forward to the Development Review Board with the following conditions and recommendations:

1. That the applicant shall explore the use of additional cladding material appropriate to the community and institutional nature of the building; one that complements the hardi siding, especially on the east and west elevations. (i.e. metal panel.)
2. That the exterior façade at north end of east elevation be further developed with additional detail of human scale.
3. The applicant shall provide a layout for future photovoltaic (PV) installation/array. The DAB is disappointed to have solar omitted from the plan, and comments that this project should reflect the values of the greater community. Financial avenues are available to that end.
4. Develop and define material of the trash enclosure to relate to the palette of the building.
5. The applicant shall define snow storage or a plan for removal.
6. A more attractive, residential style fence is recommended for the children's play area.
7. Illumination along walkways shall be adjusted so as to not exceed 2 fc, unless doing so would specifically conflict with NFPA Life Safety Code. A revised photometric shall be provided to demonstrate those changes.
8. Pole lights shall not exceed 25 in height.
9. Written approval of the EPSC/Stormwater plan by the Stormwater Engineering program will be a requirement of any decision.
10. All new construction is required to meet the Guidelines for Energy Efficient construction according to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.
11. Consideration of the Parking Management Plan toward a parking waiver is under the discretionary review of the Development Review Board.
12. Standard Permit Conditions 1-15.

2nd – Steve Offenhartz

Vote 4-0.

Motion carries.