

Adopted November 23, 2021

DESIGN ADVISORY BOARD

January - December 2022

Regularly Scheduled Meetings - 2nd and 4th Tuesdays

Date of Meeting	Day of Week	Time	Location	Application Deadline Wed 4pm
January 11, 2022	Tuesday	3:00 PM	DPI Conference Room	December 29, 2022
January 25, 2022	Tuesday	3:00 PM	DPI Conference Room	January 12, 2022
February 8, 2022	Tuesday	3:00 PM	DPI Conference Room	January 26, 2022
February 22, 2022	Tuesday	3:00 PM	DPI Conference Room	February 9, 2022
March 15, 2022	Tuesday	3:00 PM	DPI Conference Room	March 2, 2022
March 29, 2022	Tuesday	3:00 PM	DPI Conference Room	March 16, 2022
April 12, 2022	Tuesday	3:00 PM	DPI Conference Room	March 30, 2022
April 26, 2022	Tuesday	3:00 PM	DPI Conference Room	April 13, 2022
May 10, 2022	Tuesday	3:00 PM	DPI Conference Room	April 27, 2022
May 24, 2022	Tuesday	3:00 PM	DPI Conference Room	May 11, 2022
June 14, 2022	Tuesday	3:00 PM	DPI Conference Room	June 1, 2022
June 28, 2022	Tuesday	3:00 PM	DPI Conference Room	June 15, 2022
July 12, 2022	Tuesday	3:00 PM	DPI Conference Room	June 29, 2022
July 26, 2022	Tuesday	3:00 PM	DPI Conference Room	July 13, 2022
August 9, 2022	Tuesday	3:00 PM	DPI Conference Room	July 27, 2022
August 30, 2022	Tuesday	3:00 PM	DPI Conference Room	August 10, 2022
September 13, 2022	Tuesday	3:00 PM	DPI Conference Room	August 31, 2022
September 27, 2022	Tuesday	3:00 PM	DPI Conference Room	September 14, 2022
October 11, 2022	Tuesday	3:00 PM	DPI Conference Room	September 28, 2022
October 25, 2022	Tuesday	3:00 PM	DPI Conference Room	October 12, 2022
November 8, 2022	Tuesday	3:00 PM	DPI Conference Room	October 26, 2022
November 22, 2022	Tuesday	3:00 PM	DPI Conference Room	November 9, 2022
December 13, 2022	Tuesday	3:00 PM	DPI Conference Room	November 30, 2022
December 27, 2022	Tuesday	3:00 PM	DPI Conference Room	December 21, 2022

Date adjustment for
Town Meeting Day
and Bennington Battle
Day

Burlington Design Advisory Board

645 Pine Street
Burlington, VT 05401
www.burlingtonvt.gov/DPI/DAB
Phone: (802) 865-7188

Matthew Bushey
Ron Wanamaker
Emily Morse
Jay White
vacant
Kathleen Ryan, Alt
Vacant, Alt



DESIGN ADVISORY BOARD Tuesday January 11, 2022 3:00 PM

Physical location: 645 Pine Street, Front Conference Room, Burlington VT 05401

And

Zoom:

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/86993501937?pwd=dVplRGFkRIAYcHQxRDlOK2M5a3BVZz09>

Webinar ID: 869 9350 1937

Passcode: 387619

Or Telephone: US: +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099 or +1 253 215 8782 or +1 346 248 7799 or +1 669 900 6833

Agenda

Session I – 3:00 PM – 3:30 PM

- 1. ZP-21-800; 501 Pine Street (E-LM, Ward 5S) Cassy Gardner / Vermont Gas Food Truck/Container Kitchen Eating area. (Ryan Morrisson, Project Manager)**

Session II – 3:30-4:00 PM

- 2. ZP 21-778; 323-325 College Street (RH, Ward 8E) Benjamin Frye / 323 Green Castle LLC**
Construction of 4-unit building addition with associated utility work and minor grading. (Ryan Morrison, Project Manager)

Session III – 4:00-4:10 PM

- 3. Revised DAB 2022 Calendar**

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 Permitting & Inspections at least 72 hours in advance so that proper accommodations can be arranged. For information call 865-7188.

Non-Discrimination

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Department of Permitting & Inspections

Zoning Division
645 Pine Street
Burlington, VT 05401
Telephone: (802) 865-7188

William Ward, Director
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Vacant, Planning Technician
Celeste Crowley, Planning Technician
Ted Miles, Zoning Specialist
Charlene Orton, Permitting & Inspections Administrator



TO: Design Advisory Board
FROM: Ryan Morrison, Associate Planner
DATE: January 11, 2022
RE: ZP-21-800; 501 Pine Street

=====

Note: These are staff comments only; decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.

Zone: ELM Ward: 5S

Owner/Applicant: Vermont Gas Systems, Inc. / Kurt Schueler

Request: Develop a container kitchen/food truck café on the vacant property.

Background Information:

- **Zoning permit ZP-21-446;** Develop a seasonal outdoor patio and picnic area that will support up to 4 food trucks, container kitchens and/or food carts (café use).

The applicant is requesting approval to develop a container kitchen café on the vacant property. The containers proposed for use are steel shipping containers (20 & 40 ft long). A covered seating area will locate centrally on the property, and a pick-up/drop-off driveway is also proposed at the front.

The property is located within the identified Pine Street Canal Superfund Site, and is also classified as a brownfield site. The applicant has been working with the interested parties to ensure compliance with EPA and State requirements.

A similar project was approved for a food trucks/carts, with no permanent structures, in July 2021. This new project will replace the previously approved development.

Article 6: Development Review Standards

Part 1: Land Division Design Standards

Not applicable.

Part 2: Site Plan Design Standards

(a) Protection of Important Natural Features:

There are no natural features. The site is currently undeveloped and will be cleared to make way for the proposed development. Some tree removal is expected.

(b) Topographical Alterations:

The applicant expects there to be 2-4 feet of site grading/excavation to make way for the development. The end result of the project, however, will see insignificant topographic alterations.

(c) Protection of Important Public Views:

There are no protected public views from the parcel.

(d) Protection of Important Cultural Resources:

There are no cultural resources on the subject property.

(e) Supporting the Use of Renewable Energy Resources:

Clearing the lot will allow for natural sunlight. The applicant notes that solar panels may be installed. No other renewable resources are proposed.

(f) Brownfield Sites:

The property is an identified brownfield site and is also located within the Pine Street Canal Superfund Site. The applicant has stated that he has been working with VT DEC to meet compliance with their requirements in order to develop the property. No information has been submitted regarding this, but ensuring compliance with DEC and EPA requirements will be a condition of this permit.

(g) Provide for nature's events:

An approved Erosion Prevention and Sediment Control plan, as well as a stormwater plan, will be required prior to the release of the zoning permit. A covered seating area will provide shelter for diners. There appears to be no shelter for the ordering areas of the two flanking trailers. The applicant should consider some sort of awning/canopy to address this. There appears to be little to no room for onsite snow storage. However, as was indicated in the applicant's first permit application, the café was only going to operate between May and November, meaning snow storage should not be an issue.

(h) Building Location and Orientation:

The container structures will locate along the periphery of the lot, with a two-story covered seating area. Also a second story container kitchen is also proposed at the property's rear.

(i) Vehicular Access:

The development proposes direct access off Pine Street with two curb cuts to allow for an easy, one-way circulation pattern. The applicant should consider installing one-way traffic signage and pavement markings.

(j) Pedestrian Access:

Pedestrians will have direct access from the Pine Street sidewalk. Internal walkways and stairs will be provided for access to the café use.

(k) Accessibility for the Handicapped:

The building inspector has jurisdiction over ADA requirements, and the proposal must comply with the Burlington Code of Ordinances.

(l) Parking and Circulation:

The development will have a one-way driveway (with two curb cuts on Pine Street). The width appears to be adequate to allow for up to three parallel parking spaces with room to allow other vehicles to pass.

(m) Landscaping and Fences:

The proposal does not include any landscaping, and it should. Given the amount of hard surface proposed, there could be some planter boxes strategically placed around the development to enhance site aesthetics. Fencing/gates are shown on the plans that will block pedestrian access to the rear areas (behind the container structures). A retaining wall will be installed along the rear and south side property lines, as well as along a small portion of the north side property line.

(n) Public Plazas and Open Space:

Not applicable.

(o) Outdoor Lighting:

The applicant has submitted lighting spec sheets, and the plans show where some of the fixtures will be placed. Pendant lighting is shown above the seating area, which appear to be compliant with the lighting standards of Sec. 5.5.2 CDO. Also included in the submittal packet are spec sheets for bollard, wall mounted, and spot/floodlight fixtures. The plans do not show where these will be located and must.

(p) Integrate infrastructure into the design:

Electric and water utilities will be provided underground. No other utilities are proposed. Trash/recycling bins are shown in three different areas.

Part 3: Architectural Design Standards

Sec. 6.3.2 Review Standards

(a) Relate development to its environment:

1. Massing, Height and Scale:

The massing, height, and scale of the proposed development is less than that of nearby development. The use of shipping containers for the café is unique, but fitting for the ELM zoning district.

2. Roofs and Rooflines.

The container structures will have flat roofs, and the covered seating area will have a glazed roof. Additionally, the southernmost container will see a container stacked vertically on top, which will highlight the property's address.

3. Building Openings

The only openings on the containers appear to be for employee access, and customer ordering windows.

(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.

Not applicable.

(c) Protection of Important Public Views:

Not applicable.

(d) Provide an active and inviting street edge:

In arrangement, design and appearance, the design provides an active and inviting street edge. The site layout is clearly discernable from the street front.

(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.

The shipping containers are made of steel, so they will be durable throughout all seasons. The glazed roofing and steel beam support structure (covered seating area) will also be durable for all seasons.

(f) Reduce energy utilization:

All new construction is required to meet the Guidelines for Energy Efficient Construction pursuant to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances. The proposal is for an outdoor café, where heating shouldn't be much of a concern. However, it is assumed that there may be the use of portable propane heaters for chillier days. The applicant notes that solar panels may be installed on the seating area's roof. While not a requirement, use of solar energy is always encouraged.

(g) Make advertising features complementary to the site:

The plans show multiple signs. Each different food service within the café appears to have their own sign, and there are three large '501 Pine' signs shown on the vertical container. While the '501 Pine' signs appear to be address signs, they exceed the size limit for exempt address signs and will be treated as wall signs. The applicant will need to provide details for each sign proposed (dimensions, materials, illumination, etc.) prior to the January 18, 2022 Development Review Board meeting.

(h) Integrate infrastructure into the building design:

Underground electric/water utilities (and assuming gas) will be used. No other infrastructure is noted. It is assumed that the kitchen use will require exterior venting. If so, the plans shall be updated to show the location of such vents. Venting will need to be screened as much as possible from view from the public street and neighboring properties.

(i) Make spaces secure and safe:

The proposed development must comply with all building and life safety code as defined by the building inspector and fire marshal.

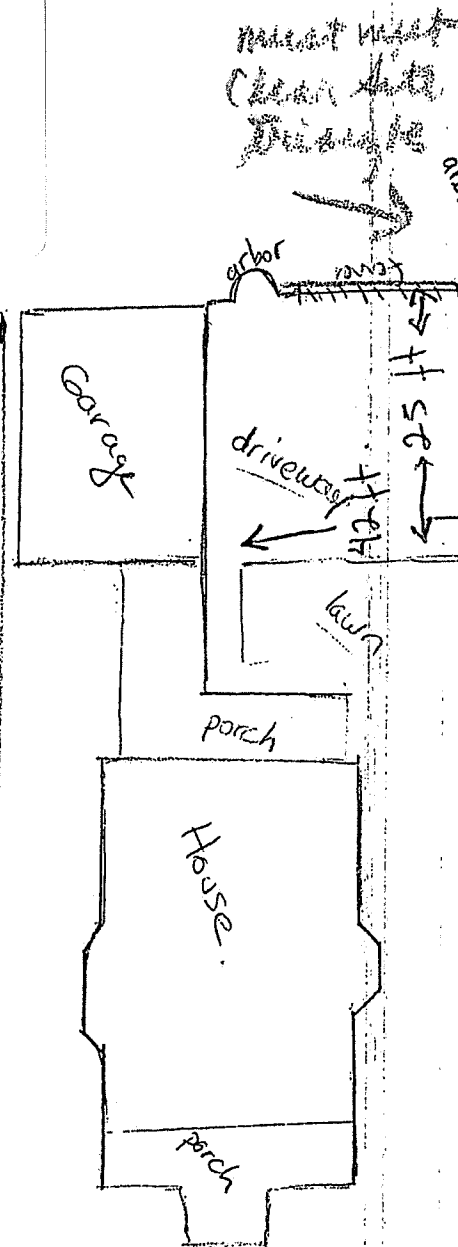
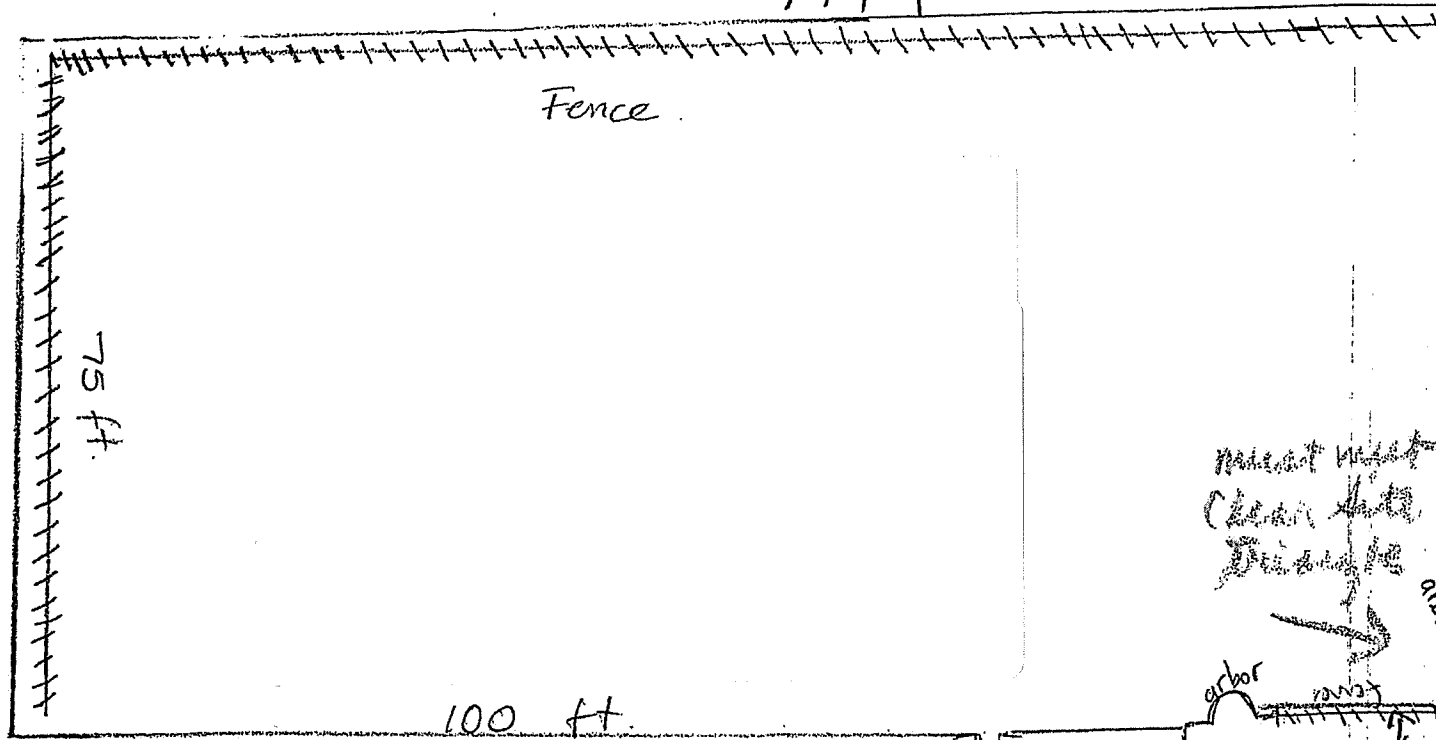
RECOMMENDED MOTION:

Approve per the following conditions and forward to the Development Review Board.

1. Update the plans to show the specific locations of all light fixtures.
2. Update the plans to include all exterior venting.
3. Submit documentation/plans for any remedial actions as they pertain to the brownfield site and the Pine Street Canal Superfund Site.
4. The applicant should consider installing one-way traffic signage and pavement markings.
5. Information (dimensions, materials, illumination, etc.) for each sign shall be submitted for compliance review.

Backyard Fence

174 ft



501 PINE STREET

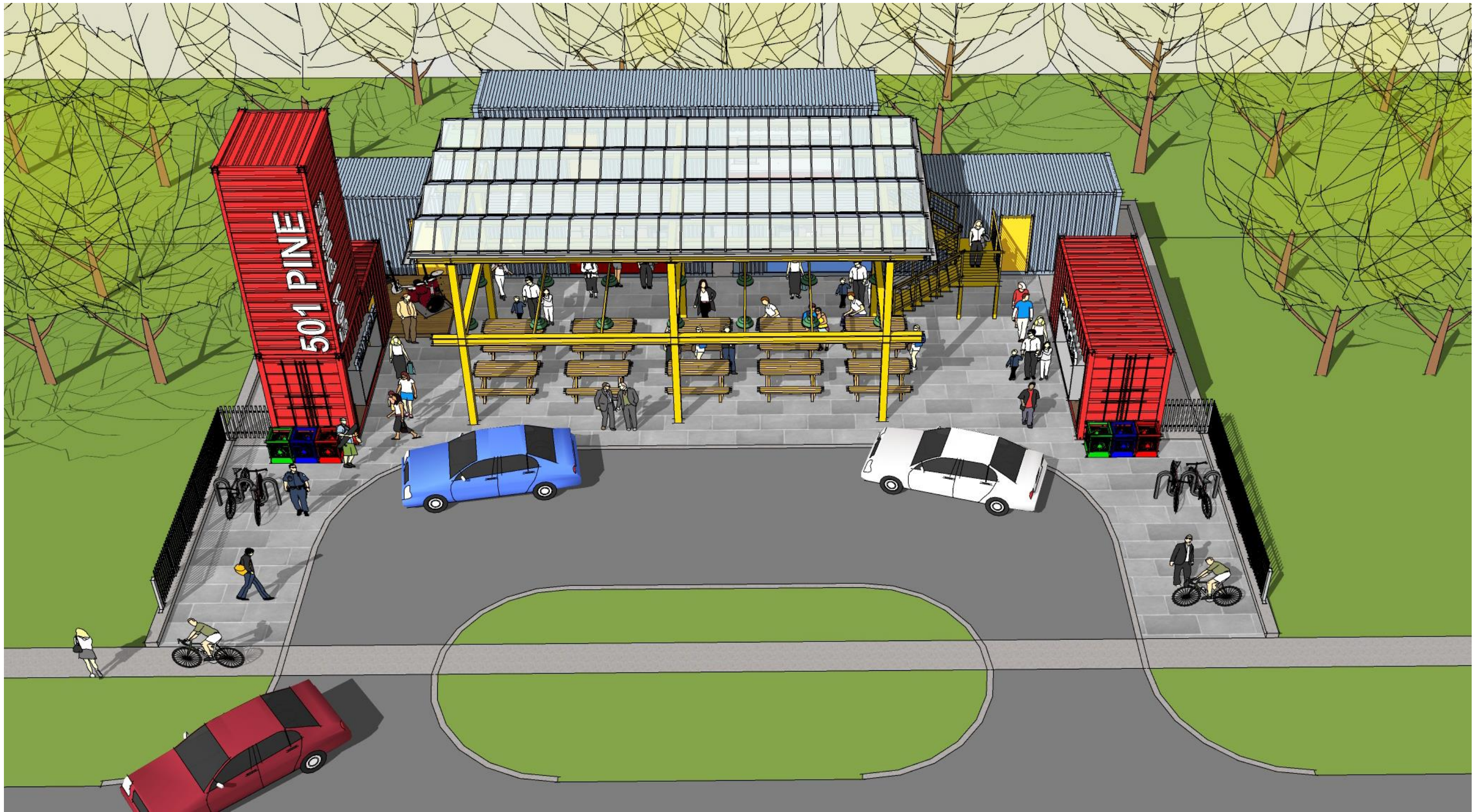
BURLINGTON, VERMONT

JRMA DESIGN STUDIO

www.jrmadesignstudio.com

SCHEMATIC DESIGN STUDY **12 08 2021**

REVISED PLAN



OVERVIEW

501 PINE STREET FOOD COURT
SCHEMATIC STUDY | 12 08 2021



LOOKING SOUTHWEST



LOOKING NORTHWEST

501 PINE STREET FOOD COURT
SCHEMATIC STUDY | 12 08 2021

JRMA DESIGN STUDIO | ARCHITECTS - PLANNERS - INTERIORS



LOOKING SOUTHWEST



LOOKING NORTHWEST



LOOKING NORTHWEST

Material List

Standartpark Mesh Ground Stabilizer

Gabion Mesh and rock Retaining Wall filled

Rocks

Shurpack/Gravel

Asphalt Pavement

Steel I-Beam Pergola, possibly with solar panels. If too expensive, Redwood Pergola.

Pine board fencing

Metal shipping containers (4-5)

Lighting

Granit or concrete curbs

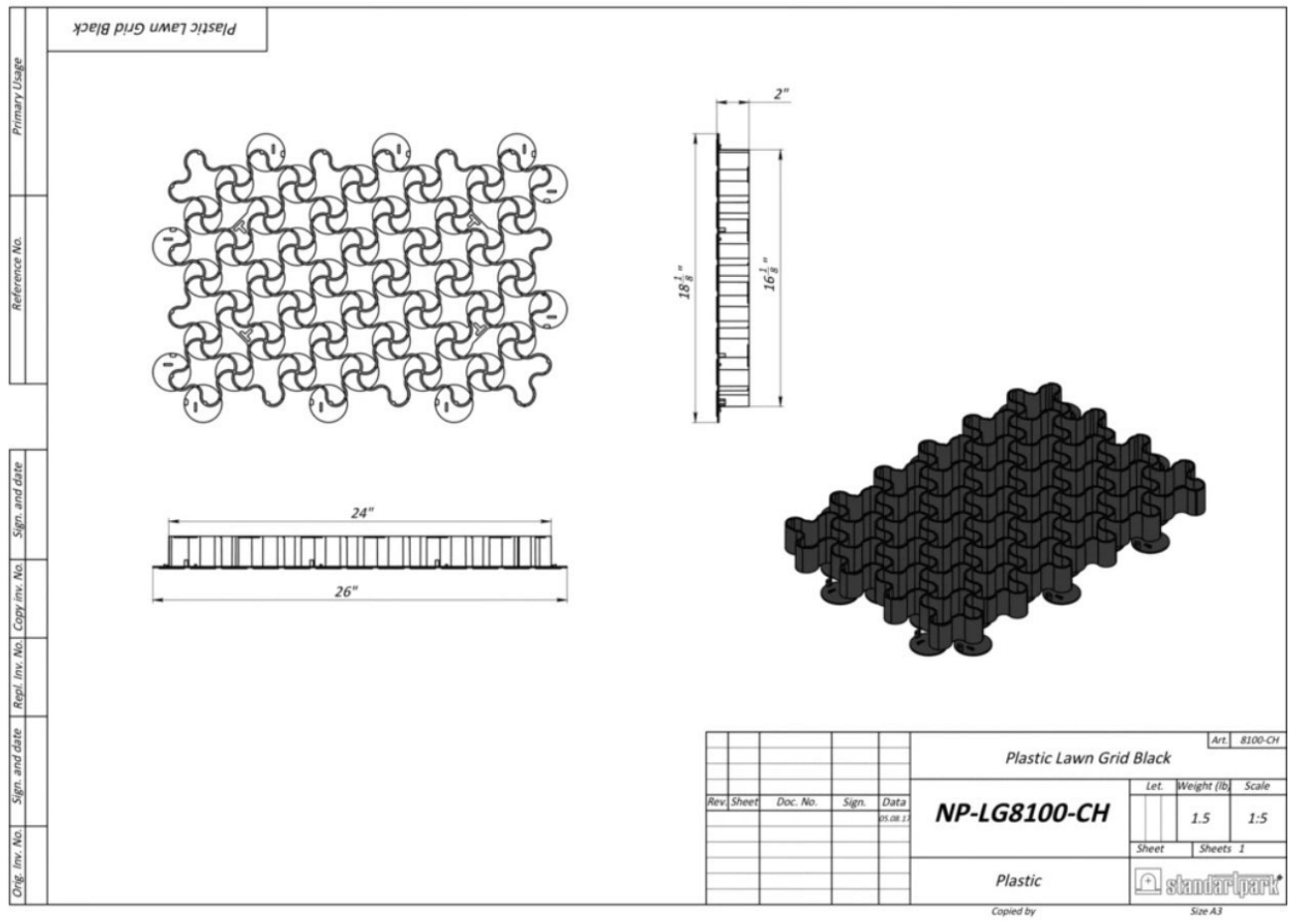
Concrete Pad for shipping containers

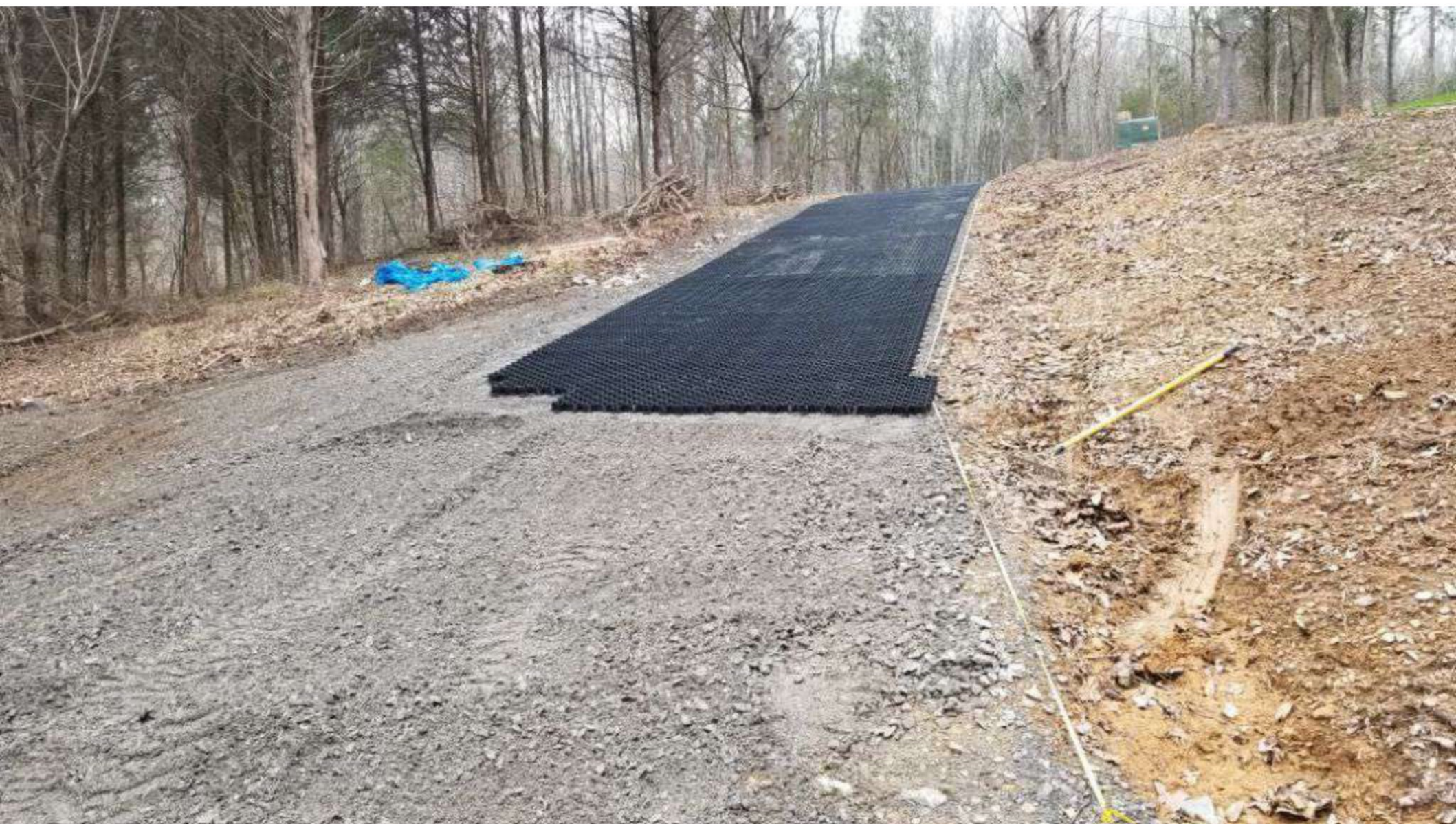
Landscaping shrubs

Grass

Wooden picnic tables

|







standartpark-usa.com







Gabion1

Home Prices Retaining Walls Garden Walls Veneers Erosion Planters Information

compacted road base, crushed from either blue metal or basalt rock is all that is required for most

[Order Wall](#) [Feedback](#) [Contact Us](#)



you can then create 6" or 12" stepped foundations to allow for changes in grade



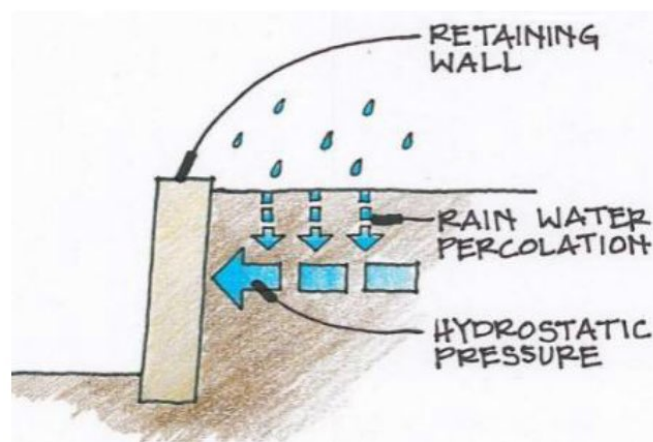
Geotech filter fabric stops fine silts and clay migrating into the wall

The filter fabric ensures the gabion remains free draining, and eliminates hydro-static pressure behind the retaining wall.



Gabion retaining walls need adequate **drainage**

The design of the drainage system is just as important as the design of the retaining wall.



Small gabion walls under 3ft tall

Gabion walls over 3ft tall





Gabion1



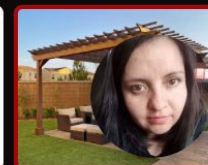
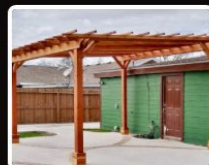


Hasson Company, Realtors.

Your Guide to Bend's Food Cart Pods - The Local Arrow Pacific ...

Images may be subject to copyright. [Learn More](#)

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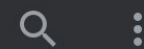


LOOKING SOUTHWEST



HEARTH and HILL
EXIT
ONLY

← Conteneurs SEA



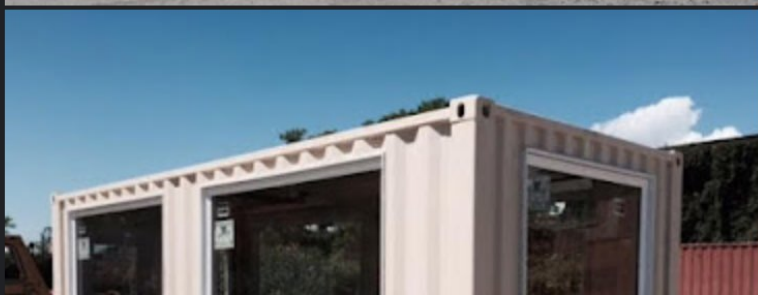
OVERVIEW

UPDATES

REVIEWS

PHOTOS

ABOUT





Conteneurs SEA



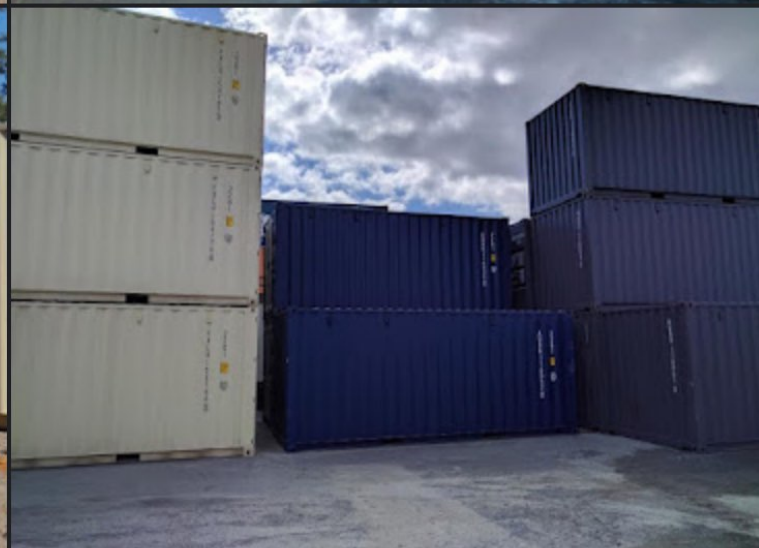
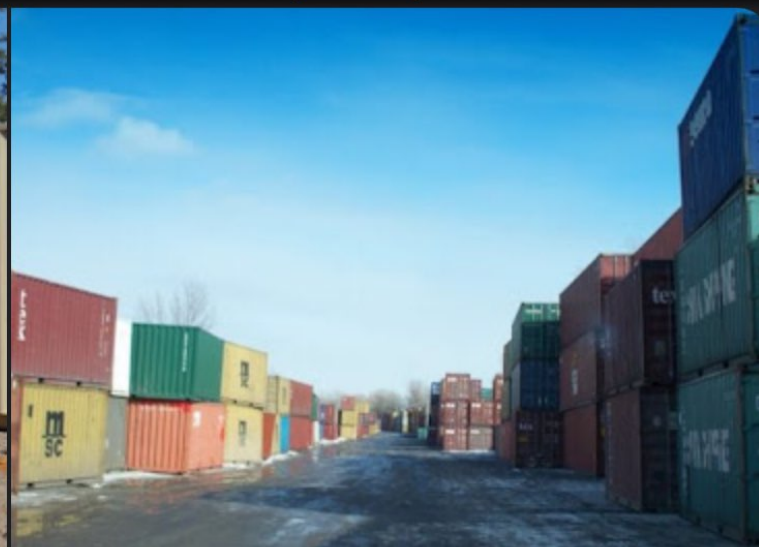
OVERVIEW

UPDATES

REVIEWS

PHOTOS

ABOUT



Calvin



Features

- Provides excellent coverage and uniformity, suitable for general and localized lighting
- Available in sizes of 12", 14", 16", 18", 20", 22" and 24" in diameter
- Practical options for application and design flexibility
- Surge protection for internal components
- Quality components combined with the most current technology for high efficiency and reduced lighting costs

Applications

The Calvin pendant is ideal for illuminating spaces where the quality of light, subtle style and economy are important. It lends itself to many commercial applications, from hospitality to agricultural.

Wall, and pole-mounted models are also available.



TMSLIGHTING

ESTABLISHED 1923

Construction

High grade spun aluminum, brushed solid copper, or brushed 316L stainless steel, with stainless steel mounting hardware, for indoor and outdoor applications.

Lamp

Operates with integrated LED and incandescent sources. Specify 3000K, 3500K, or 4000K CCT for LED systems. A dimmable 17W LED screw in lamp is also available (120V, PAR 38, CCT 4000K, E26 base).

Note: LED systems use 120-277V supply voltage, and are not compatible with 347V. Incandescent and the 17W LED PAR 38 lamp, use a medium base socket (E26).

LED Driver

The LED source is controlled by an advanced driver to deliver consistent power.

Diffuser

Globe: clear and prismatic glass globes are available for greater diffusion and lamp protection.

Globe with Cast Guard: the combination is available for greater diffusion and more robust lamp protection.

Note: G1, G3, G11 and G11P are used with 100IN, and 15LED.

Globes are not available with the 17W LED PAR 38 lamps.

Option

Wire Guard: a steel, chrome-plated wire guard is available for lamp protection against light projectiles.

Surge Suppressor

All 120V, 277V, and universal voltage fixtures are equipped with a 6kV surge suppressor.

Dimming

The LED dimming option is the 0-10V, current-sinking type.

Note: Use a current-sinking dimming system (by others) for LED dimming.

Compatibility of this product is not guaranteed with all control systems.

Dimming is not available with 347V systems.

Emergency

For LED systems, integral and remote mount emergency back-ups are available, in either the standard temperature or cold temperature type.

The test switch and indicator light would be remote.

Note: The emergency option is not available with the 17W LED PAR 38 lamp.

Finish

Select from specialty brushed, plated, and powder-coated finishes; see the "Finishes and Diffusers" chart. Custom and RAL finishes are available by special order.

Calvin



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TMSLIGHTING

ESTABLISHED 1923

Note: A clear coat is applied to copper, yet patina will form over a period.

Mounting

Mount to a ceiling, directly to a standard 4" electrical junction box. Calvin is available with either a stem mount (1/2" NPT std., IP23, indoor/outdoor), or the drop cord/ aircraft cable mount (10 ft. / 3.048 m max., IP20, indoor).

Follow the installation instructions, and adhere to your local electrical code.

Mounting Accessories

Aircraft Cable: for drop cord mounting, the steel cable provides additional support.

Ceiling Slope Adapter: for stem mounting, keeps the pendant hanging vertically, correcting up to a 20° slope.

Note: The aircraft cable or ceiling slope adapter may be required to comply with the local seismic/earthquake code.

Compliances

Rated IP20, for indoor locations, with the drop cord/aircraft cable mount; or IP23, for indoor and outdoor locations, with the stem mount. QPS-C/US certified to UL1598 standards. Consult the factory for the Consultants Europe (CE) certification.



Calvin

TMSLIGHTING

ESTABLISHED 1923

CAL

1 2 3 4 5 6 7 8 9 10 11 12

Project: _____
Type: _____
Quantity: _____

Notes:

1 • Location

I: Indoor
O: Outdoor

2 • Size

12: 12" (305 mm) dia.
14: 14" (356 mm) dia.
16: 16" (406 mm) dia.
18: 18" (458 mm) dia.
20: 20" (508 mm) dia.
22: 22" (559 mm) dia.
24: 24" (610 mm) dia.

3 • Lamping

100IN: 100W Incandescent
17LED: 17W LED (supplied)
15LED: 15W LED
19LED: 19W LED (14" and 16" dia.)
32LED: 32W LED (18" and larger)

4 • Mounting

CRD: Drop cord 120"
C__: Stem mount 1", 6", 12", 18",
24", 36", 48" or 60"

5 • LED CCT (color temp.)

30K: 3000K (CRI 80)
35K: 3500K (CRI 80)
40K: 4000K (CRI 80)

6 • Voltage

120: 120V
277: 277V
347: 347V

7 • Finish

Specialty

BR: Brushed aluminum
CO: Solid copper (brushed; stem mount
would be black)
Incompatible with 18"+ dia.
SS: Stainless steel (brushed 316L; stem
mount would be silver metallic)
Incompatible with 18"+ dia.

Plated

AN: Anodized (bright)
GA: Galvanized (rough; stem mount would
be flat silver)

Powder-coated

F05: White
F06: Clay brown
F08: Midnight blue
F09: Pewter
F10: Fire red
F13: Forest green
F14: Sunshine yellow
F15: Matte black
F16: Gloss black
F19: Mirror silver
F21: Architectural bronze
RAL: RAL custom color (specify)

These are some popular finishes. For the
complete collage, please see the "Finishes

8 • Globes

—: None
G1: Clear, elongated globe
G3: Prismatic, elongated globe
G11: Clear, elongated globe with cast guard
G11P: Prismatic, elongated globe with cast guard
Note: Globes are not available with the 17W
LED PAR 38 lamps.
G1, G3, G11 and G11P are used with 100IN,
and 15LED.

9 • Dimming

—: None
DIML: LED dimming (0-10V; current-sinking)
Note: Use a current-sinking dimming system (by others)
for LED dimming.
Not available with 347V systems.
Compatibility is not guaranteed with all control systems.

10 • Emergency

—: None
EM: Integral LED (min. operating temp. +5°C/+40°F)
EMC: Integral LED cold pack (min. operating temp.
-20°C/-4°F)
EMR: Remote LED (20 ft. / 6.096 m max. distance from
EM to lamp; min. operating temp. +5°C/+40°F, dry
location mounting)
EMCR: Remote LED cold pack (20 ft. / 6.096 m max.
distance from EM to lamp; min. operation temp.
-20°C/-4°F)

11 • Mounting Accessories

—: None
BL: Ceiling slope adapter for stem mount (20° slope max.)
ACC: Aircraft cable for drop cords (10 ft. / 3.048 m length)
Note: ACC or BL may be required to comply with the local
seismic/earthquake code.

12 • Wire Guard

—: None
W12: 12" Wire guard W18: 18" Wire guard W24: 24" Wire guard
W14: 14" Wire guard W20: 20" Wire guard
W16: 16" Wire guard W22: 22" Wire guard

Note: Some options may not be
compatible with others. To ensure
compatibility between options,
please visit tmslighting.com, on
the "details" page of this
luminaire, and use the
configuration tool.

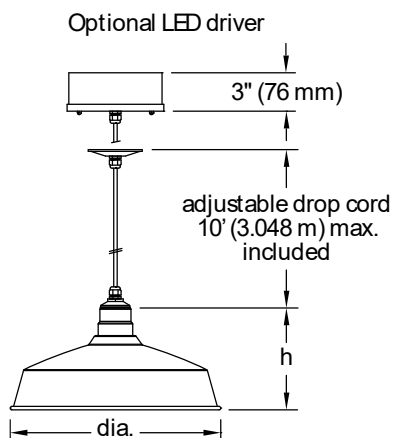


Calvin

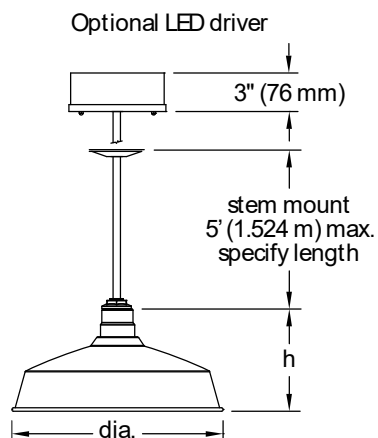
TMSLIGHTING

ESTABLISHED 1923

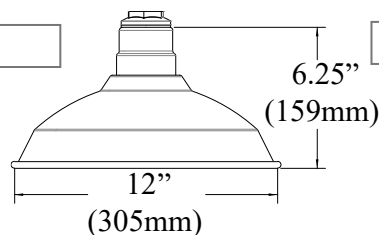
Drop Cord Mount



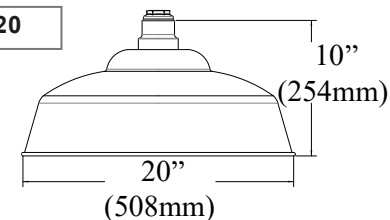
Stem Mount



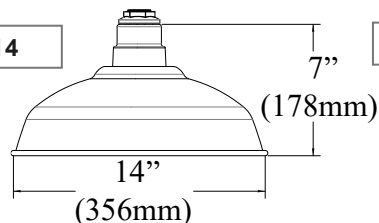
CAL-I/O-12



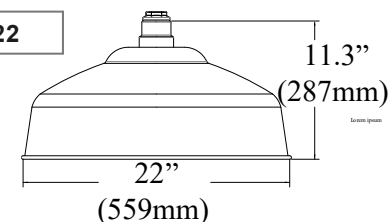
CAL-I/O-20



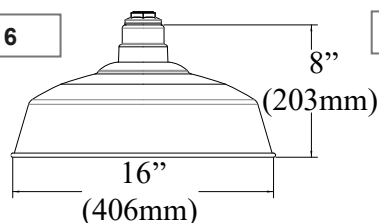
CAL-I/O-14



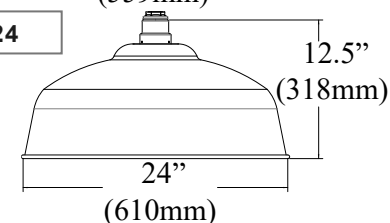
CAL-I/O-22



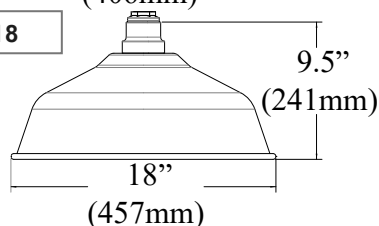
CAL-I/O-16



CAL-I/O-24



CAL-I/O-18



Custom

TMS Lighting can customize this and many of our standard fixtures. The dimensions, lamp types, enclosure and colors could be modified to suit your lighting and architectural requirements. Contact your local representative for more details: <http://tmslighting.com/info/agents>

TMS Lighting Inc.

247A Summerlea Road,
Brampton, Ontario,
Canada. L6T 4E1

Web Site: tmslighting.com

North America: (905) 793-1174

Toll-free: (866) 793-1174

Fax: (905) 793-1175

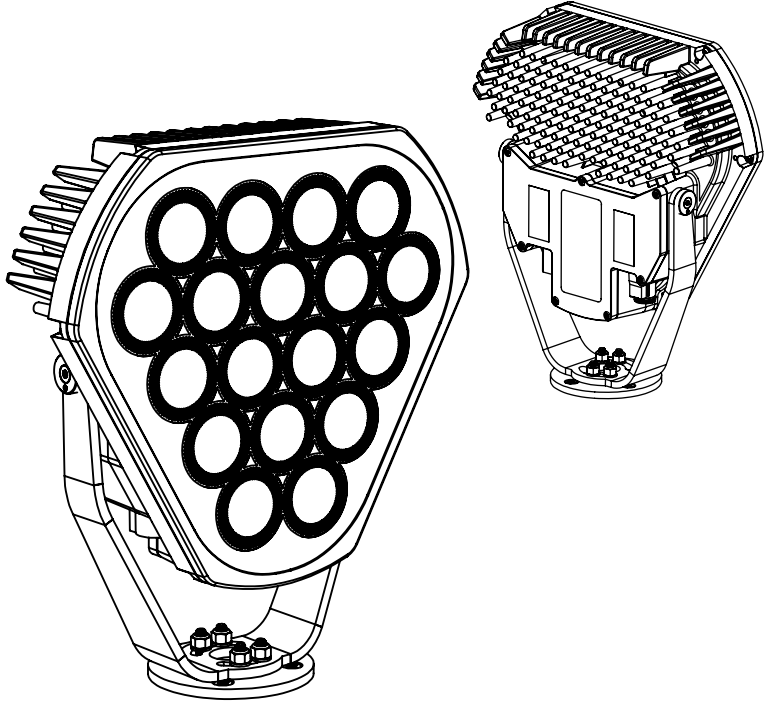
UK & Europe: 44-1474-250-654

Specifications are subject to change without notice.

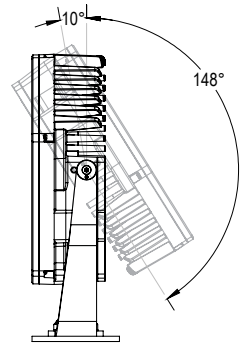
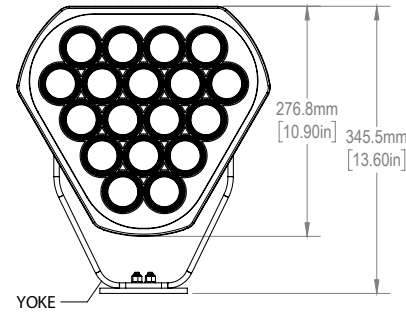
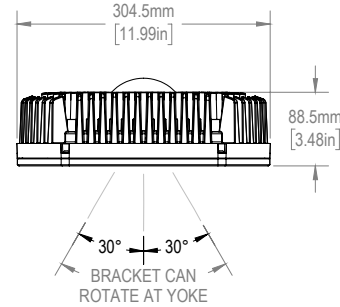
RGBW/RGBA Inner Mixing Architectural Spot and Floodlight

PRODUCT SPECIFICATION SHEET

Color mixing in a single optic for wall washing/grazing applications and color compatibility with STR9® RGBW fixtures.



DATE:	
TYPE:	
COMPANY:	
PROJECT:	



*SM200 bracket mounting option shown.
See page 2 for more mounting options.

FEATURES:

- Ultra narrow 4.5° beam angle
- INFINITY® Technology compatible (INF)
- Built-in high temperature universal power supply (AC)
- Plug-and-play with STR9® luminaires
- Compact size, only 89mm (3.5in) in depth
- Weight of only 6.5 kg (14.3 lbs) for ELV/ INF and 7 kg (15.4 lbs) for AC fixtures
- Powder coating tested for corrosion resistance per ASTM B 117 salt spray resistance test @3000h

OPTIONS:

- Highly adjustable with 60° horizontal rotation and 158° vertical rotation
- Beam angles ranging from 4° to 85° with elliptical distribution options
- Custom LED color combinations available
- Optical accessories for glare control
- White, silver, and black standard powder coated body colors
- Custom body colors available on demand
- ELV (48VDC), INF (380VDC) and AC (120-277VAC) input options
- Range of bracket lengths and mounting options

SPECIFICATION LOGIC: FL100 - IM (INNER MIXING)

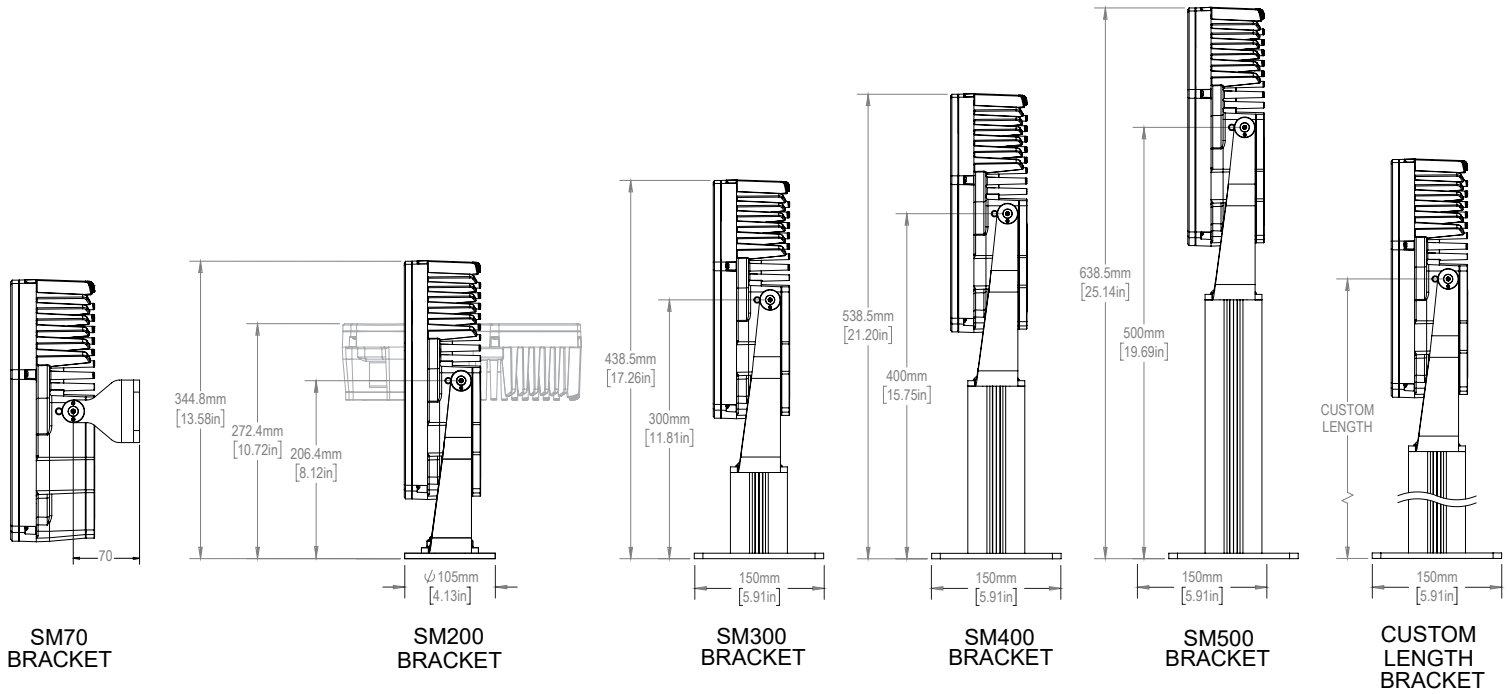
FAMILY	BODY COLOR	LED COLOR	OPTICS(FWHM)*	VOLTAGE	MOUNTING OPTION
FL100	WH - White Matte Powder Coated SR - Silver Matte Powder Coated BL - Black Matte Powder Coated CUST - Custom Color ¹	RGBA-IM RGBW30K-IM RGBW65K-IM	10 - 10°x10° 20 - 20°x20° 30 - 30°x30° 40 - 40°x40° 60 - 60°x60° 80 - 80°x80° 90 - 90°x90° 10x40 - 10°x40° H 40x10 - 40°x10° V 10x60 - 10°x60° H 60x10 - 60°x10° V 30x60 - 30°x60° H 60x30 - 60°x30° V	ELV - 48VDC INF - 380VDC AC277 - 120-277VAC	SM70 - Low Profile Surface Mount 70mm ¹ SM200 - Surface Mount 200mm SM300 - Surface Mount 300mm ¹ SM400 - Surface Mount 400mm ¹ SM500 - Surface Mount 500mm ¹ SMXXX - Surface Mount Custom ² (specify length) TM200 - Tenon Mount 200mm ¹ AA-SM200 - 90 Degree Angle Adapter Bracket PM 6- Pole Mount (5.25-6in pole) ¹ PM 6.75 - Pole Mount (6-6.75in pole) ¹

PRODUCT CONFIGURATION

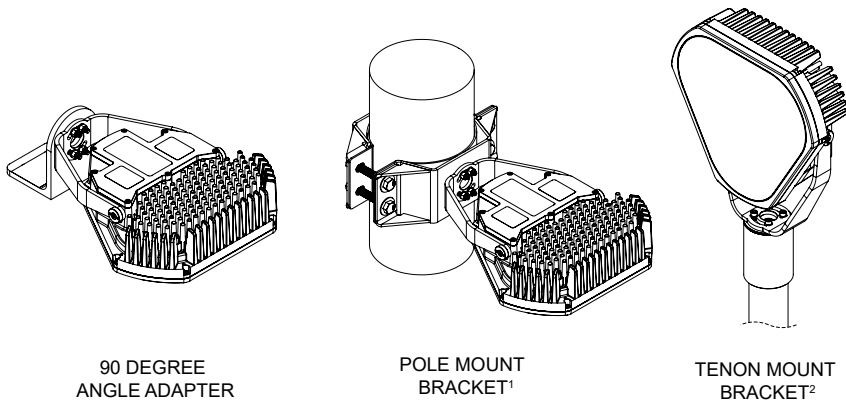
1. Non standard option and might require longer leadtime than usual. Contact factory for details.
2. Bracket lengths longer than 500mm may not be available for some applications. Contact factory for details.

Nominal values are used. Actual measurements may differ slightly.

FL100 STANDARD MOUNTING BRACKET OPTIONS



FL100 ADDITIONAL MOUNTING BRACKET OPTIONS



NOTE: 1. Available for pole diameters 5.25-6" (134-153mm) and 6-6.75" (154-171mm).
2. Available for tenon diameters 2-2.5" (50-64mm).

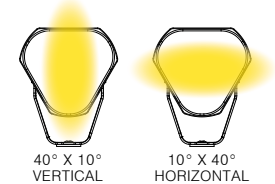
RGBW/RGBA Inner Mixing Architectural Spot and Floodlight

PRODUCT SPECIFICATION SHEET

MOUNTING BRACKET OPTIONS

PRODUCT SPECIFICATIONS: FL100 - IM (INNER MIXING)

ELECTRICAL	Rated Input Voltage	48VDC	380VDC	120-277VAC
	Power Consumption (max.)	100W	110W	120W
	Driver Type	N/A	N/A	Constant Voltage
	Driver Loss	N/A	N/A	Power Factor 200VAC: max. 97% 120VAC: max. 99%
	THD	N/A	N/A	200VAC: <17.5% 120VAC: <10%
OPTICAL	Circuit Level Surge Protection	Transient-voltage-suppression diode ³		²
	Light Source	18 x High Power 4 in 1 LEDs		
	CRI	70		
	Output (typical) 10 ^{±1} COLOR-AMP™	Color	Wave Length (nm)	Luminous Flux (lm)
		Red	617	1,651
		Green	520	2,769
		Blue	453	1,046
		Amber		1,912
		White - 3000K		4,365
		White - 6500K		5,555
		All On - 6500K		4,395
	Optics	High optical efficiency PMMA TIR Lens, Micro Lense Film, Tempered Glass Cover		
	Beam Angle (FWHM)	10 (10°x10°), 20 (20°x20°), 30 (30°x30°), 40 (40°x40°), 60 (60°x60°), 80 (80°x80°), 90 (90°x90°), 10x40 (10°x40°), 40x10 (40°x10°), 10x60 (10°x60°), 60x10 (60°x10°), 30x60 (30°x60°), 60x30 (60°x30°)		
CONTROL	Projected Lumen Maintenance	L70 > 60,000hrs @ Ta =50°C (122°F)		
	Control Interface	DMX control through GVA's Power-Data Equipment		
PHYSICAL	Size (HxWxD)	276 x 305 x 89 mm (10.9 x 12.0 x 3.5 in)		
	Weight	ELV & INF: 6.5 kg (14.3 lbs) AC: 7 kg (15.4 lbs)		
	Housing	ASTM B117 marine grade 3000h compliant powder coated, low copper, die cast aluminum alloy		
	Rated Operation Temperature	-40°C (-40°F) to +50°C (122°F)		
	Environment	Dry, Damp or Wet Locations, 0-100% humidity		
CERTIFICATION & SAFETY	Listings	RoHS, REACH		
	IEC Classifications	Class I Luminaire		
				Constructed to meet requirements outlined in UL1598 & IEC60598



- Luminous flux may vary by optical distribution.
- ± 2 kV line to line (differential mode) / ± 2 kV line to common mode ground (tested to secondary ground) on AC power port, ±0.5 kV for outdoor cables based on IEC61000-4-5
- Supplementary protection recommended at the input of power supply
- Contact factory for details.

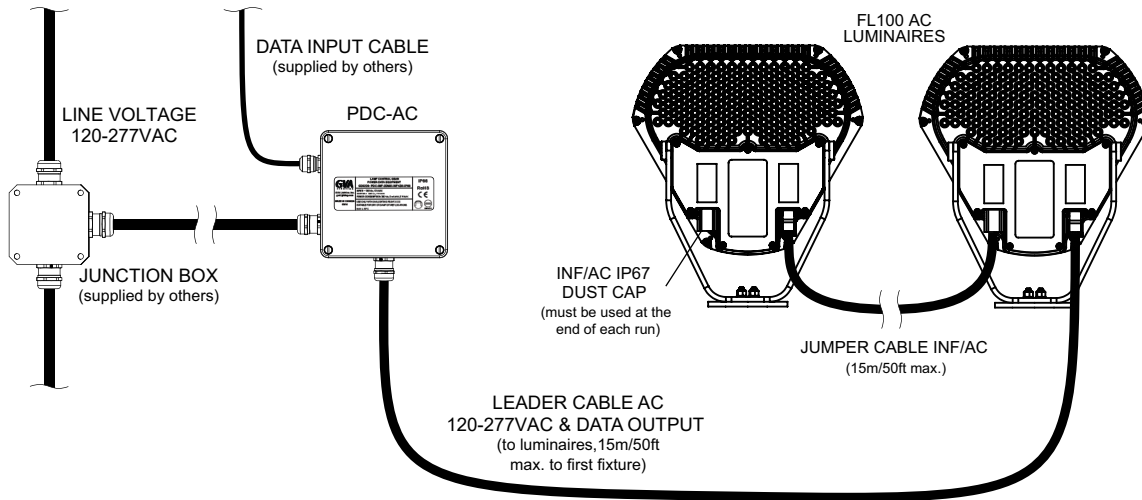
These figures are subject to change due to further development and innovations of LED light sources.

RGBW/RGBA Inner Mixing Architectural Spot and Floodlight

PRODUCT SPECIFICATION SHEET

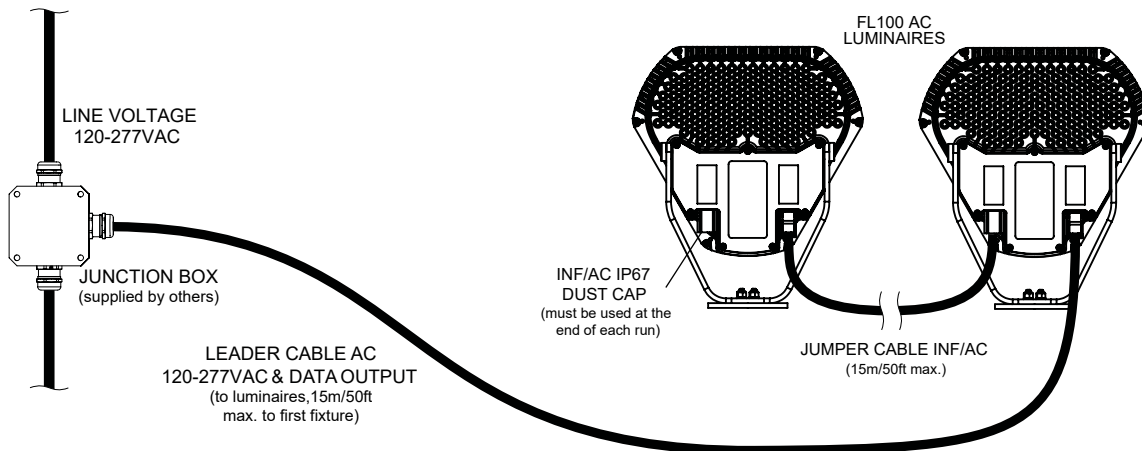
TYPICAL SYSTEM DIAGRAM: AC (WITH CONTROL)

NOTE: Length of leader cables and jumper cables directly affects the maximum number of fixtures in a single run.



TYPICAL SYSTEM DIAGRAM: AC (WITHOUT CONTROL)

NOTE: Length of leader cables and jumper cables directly affects the maximum number of fixtures in a single run.

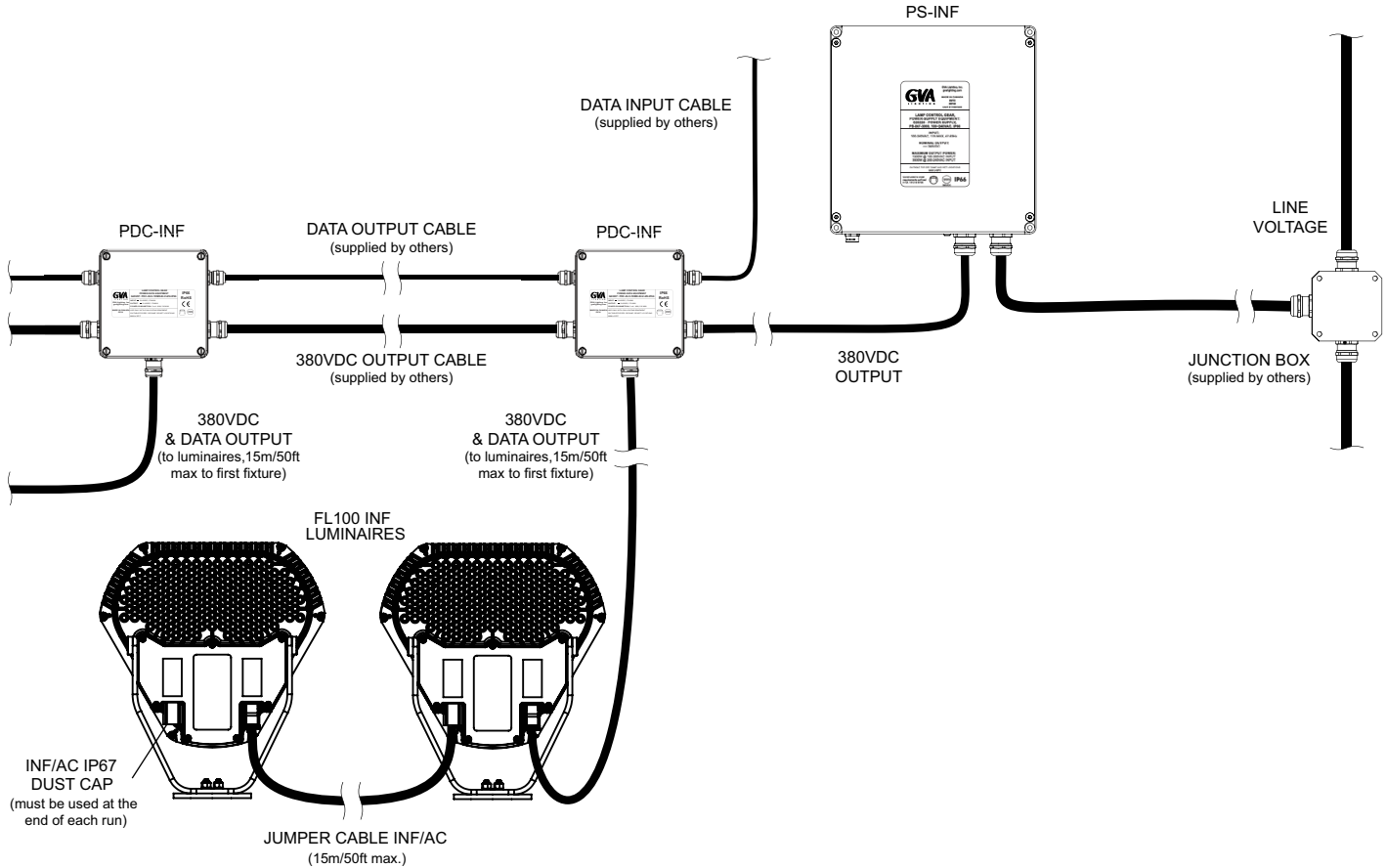


RGBW/RGBA Inner Mixing Architectural Spot and Floodlight

PRODUCT SPECIFICATION SHEET

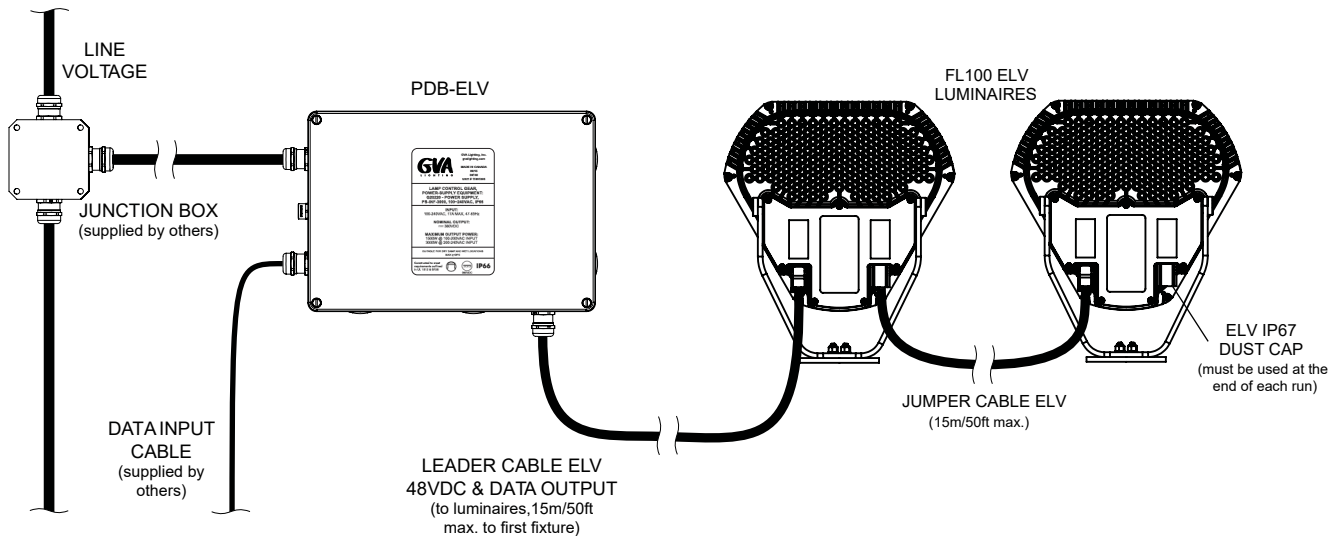
TYPICAL SYSTEM DIAGRAM: INFINITY® (WITH CONTROL)

NOTE: Length of leader cables and jumper cables directly affects the maximum number of fixtures in a single run.



TYPICAL SYSTEM DIAGRAM: ELV (WITH CONTROL)

NOTE: Length of leader cables and jumper cables directly affects the maximum number of fixtures in a single run.

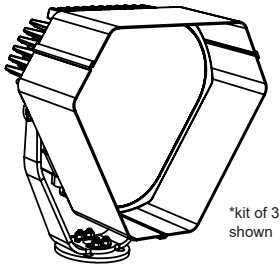


RGBW/RGBA Inner Mixing Architectural Spot and Floodlight

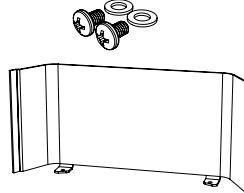
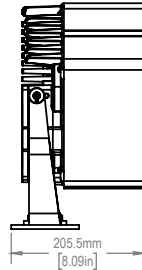
PRODUCT SPECIFICATION SHEET

ORDERING LOGIC: ACCESSORIES

VISORS



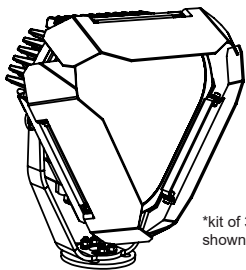
*kit of 3 shown



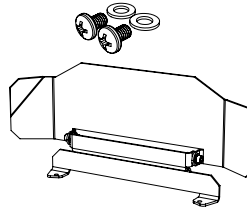
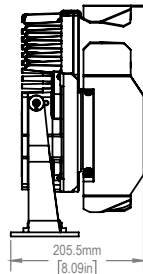
COLOR	KIT OF 1	KIT OF 2	KIT OF 3
White Matte	124776	124780	124784
Silver Matte	124777	124781	124785
Black Matte	121885	121888	121891
Custom Color	124779	124783	124787

* kit includes mounting hardware

BARN DOORS



*kit of 3 shown



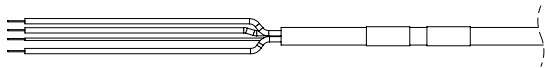
COLOR	KIT OF 1	KIT OF 2	KIT OF 3
White Matte	124688	124716	124732
Silver Matte	124689	124717	124733
Black Matte	121894	121897	121900
Custom Color	124691	124719	124735

* kit includes mounting hardware

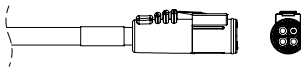
ORDERING LOGIC: FL MOUNTING ACCESSORIES

FL LEADER CABLE ELV

INPUT



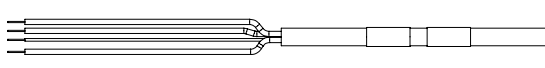
OUTPUT



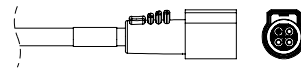
NOMINAL LENGTH	PART NUMBER	WEIGHT
3.0 m (9 ft)	141481	420 g (0.93 lbs)
6.0 m (19 ft)	141484	815 g (1.80 lbs)
9.0 m (30 ft)	141487	1210 g (2.67 lbs)
15.0 m (50 ft)	141489	2000 g (4.41 lbs)
30.0 m (100 ft)	141492	3975 g (8.76 lbs)

FL LEADER CABLE INF

INPUT



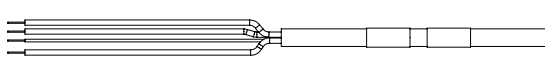
OUTPUT



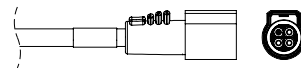
NOMINAL LENGTH	PART NUMBER	WEIGHT
3.0 m (9 ft)	141495	420 g (0.93 lbs)
6.0 m (19 ft)	141498	815 g (1.80 lbs)
9.0 m (30 ft)	141501	1210 g (2.67 lbs)
15.0 m (50 ft)	141503	2000 g (4.41 lbs)
30.0 m (100 ft)	141506	3975 g (8.76 lbs)

FL LEADER CABLE AC

INPUT



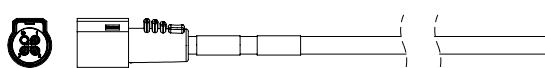
OUTPUT



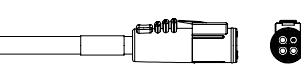
NOMINAL LENGTH	PART NUMBER	WEIGHT
3.0 m (9 ft)	141509	420 g (0.93 lbs)
6.0 m (19 ft)	141512	815 g (1.80 lbs)
9.0 m (30 ft)	141515	1210 g (2.67 lbs)
15.0 m (50 ft)	141517	2000 g (4.41 lbs)
30.0 m (100 ft)	141520	3975 g (8.76 lbs)

FLJUMPER CABLE ELV

INPUT



OUTPUT



NOMINAL LENGTH	PART NUMBER	WEIGHT
0.3 m (1 ft)	141739	90 g (0.20 lbs)
0.6 m (2 ft)	141740	129 g (0.28 lbs)
0.9 m (3 ft)	141741	169 g (0.37 lbs)
1.2 m (4 ft)	141742	208 g (0.46 lbs)
1.5 m (5 ft)	141743	248 g (0.55 lbs)
1.8 m (6 ft)	141744	287 g (0.63 lbs)
6.0 m (20 ft)	141758	840 g (1.85 lbs)
9.0 m (30 ft)	141768	1235 g (2.72 lbs)

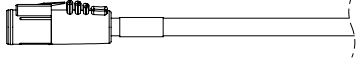
*Not all jumper lengths are shown. Lengths available in 300mm increments.

RGBW/RGBA Inner Mixing Architectural Spot and Floodlight

PRODUCT SPECIFICATION SHEET

FL JUMPER CABLE INF and AC

INPUT



OUTPUT



*Not all jumper lengths are shown. Lengths available in 300mm increments.

NOMINAL LENGTH	PART NUMBER	WEIGHT
0.3 m (1 ft)	141789	90 g (0.20 lbs)
0.6 m (2 ft)	141790	129 g (0.28 lbs)
0.9 m (3 ft)	141791	169 g (0.37 lbs)
1.2 m (4 ft)	141792	208 g (0.46 lbs)
1.5 m (5 ft)	141793	248 g (0.55 lbs)
1.8 m (6 ft)	141794	287 g (0.63 lbs)
6.0 m (20 ft)	141808	840 g (1.85 lbs)
9.0 m (30 ft)	141818	1235 g (2.72 lbs)

FL CABLE 3X14 AWG + 1X24 AWG



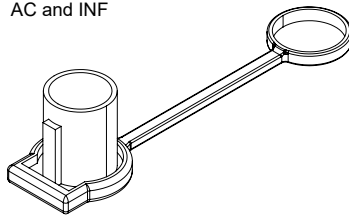
*Raw cable cut to length. Please specify required length.

NOMINAL LENGTH	PART NUMBER	WEIGHT
Sold per m	280253	132 g (0.291lbs)

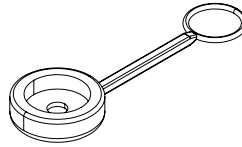
ORDERING LOGIC: COMMON COMPONENTS

FL CONNECTOR DUST CAP, IP67 (Must be used at the end of each run)

AC and INF



ELV



TYPE	PART NUMBER	WEIGHT
FL-ELV	231182	3.40g / 0.11oz
FL-AC and INF	230855	6.24g / 0.22oz



MERU Series

LED GENERAL & EMERGENCY LIGHTING



PROJECT: _____
FIXTURE TYPE: _____
LOCATION: _____
CONTACT/PHONE: _____

PRODUCT DESCRIPTION

The MERU Series is an architectural, low-profile outdoor light, offering “normally On” AC and emergency lighting with powerful LED illumination. The housing is fully sealed and gasketed, and has an IP65 rating. Designed for wall mounting with universal K/O pattern in back-plate for easy installation to most standard size junction boxes. Includes a single 1/2” NPT conduit entry in the top, center of the housing. Illumination provided by 8 high power LEDs which achieve 1,600 lumens in AC and 600 lumens in emergency. LED color at 4000K.

PRODUCT SPECIFICATIONS

CONSTRUCTION

Die cast aluminum housing with superior heat sink • Scratch resistant Polyester powder coat finish • UV resistant polycarbonate lens • Snap-fit housing and mounting plate are held together by four stainless steel clips • Universal mounting pattern molded into the back plate • 1/2" threaded top access for surface conduit installation • Silicone rubber seal with hollow center, shape adaptive design protects the electrical components • Junction box neoprene seal is attached to the back plate for a weather proof installation • Dark Bronze or White textured finish.

ELECTRICAL

Dual voltage 120/277VAC 60Hz input • Solid state charging and switching • Battery low voltage disconnect • AC power indicator and test switch at the bottom of the unit • Standard with Self Diagnostics to monitor proper operation.

LAMPS

Supplied with eight (8) LG SMD 4000K LED'S • L70 > 72,000hours • 17 Watts total (32 Watts with IH option) • 1600 Lumens in AC mode, 600 Lumens in Emergency mode • Full cut-off optics for Dark Sky compliance

BATTERY

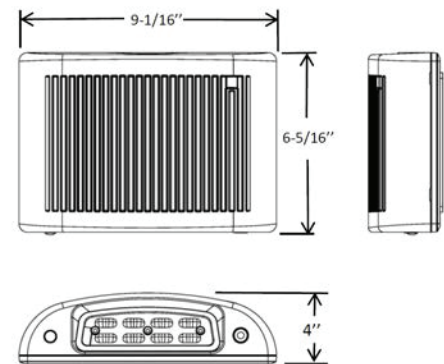
Maintenance-free, long-life rechargeable NiCad battery will operate fixture for a minimum of 90 minutes in the event of a power outage • 24 hour recharge after 90 minute discharge.

CODE COMPLIANCE

UL924 • Listed for wet location applications (0°C-50°C) • Optional "IH" cold weather package for (-40°C-50°C) • IP65 Rated • NFPA 101 Life Safety Code compliant • NEC and OSHA compliant • DLC Listed • RoHS Compliant

WARRANTY

5-year warranty. Product specifications subject to change without notice.



ACEM Model (NiCad Battery Backup)

Integral photocell: Unit operates as a dusk to dawn luminaire and in the event of a power failure as an emergency light.

Remote Switched: The integral photocell can be defeated to allow remote switching for normal operation. In the event of a power failure unit operates as an emergency light.

INSTALLATION

MOUNTING

Suitable for indoor or outdoor wall mounting on junction box, or with surface conduit using the supplied 1/2" threaded top access • Mounting plate has molded universal mounting pattern for simple mounting over junction box.

ORDERING INFORMATION

model	operation mode	housing color	options
MERU-LED	ACEM = General & Emergency Lighting	DB = Dark Bronze	Self-Diagnostics & Photocell (Included Standard)
	AC = General Lighting	WH = White	IH = Internal Heater
		BK = Black	PIR = Passive Infra-Red Motion Sensor
Ordering Example: MERU-ACEM-DB		NK = Nickel	





MERU Series

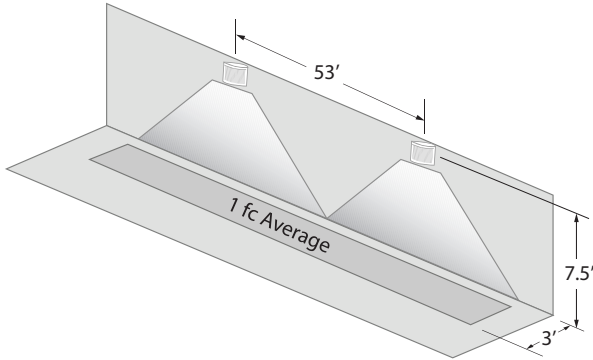
LED GENERAL & EMERGENCY LIGHTING



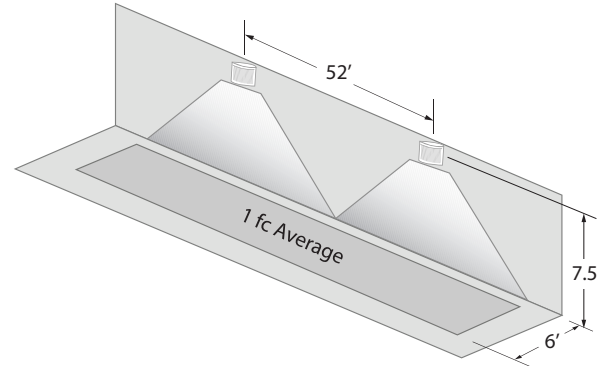
PROJECT: _____
FIXTURE TYPE: _____
LOCATION: _____
CONTACT/PHONE: _____

PHOTOMETRICS

3ft Path Spacing



6ft Path Spacing



SELF DIAGNOSTICS

Included Self Diagnostic

Diagnostic Indicator / Test Switch

- Ready
- In Test
- Battery Circuit Fault
- Battery Capacity Failure
- Charger Failure
- Transformer Fault
- Lamp Failure

Manual Testing

- Press button once - 1 minute test
- Press button twice - 5 minute test
- Press button 3 times - 30 minute test
- Press button 4 times - 90 minute test

Full self-test, self-diagnostic system is standard in every unit, performs a monthly test as well as continuously monitoring all functions to ensure reliability, a manual test may be initiated at any time



Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

BRT6 Bollard

Round LED Pedestrian Luminaire

Interactive Menu

- Ordering Information [page 2](#)
- Product Specifications [page 2](#)
- Optical Distributions [page 2](#)
- Energy and Performance Data [page 3](#)

Product Certifications

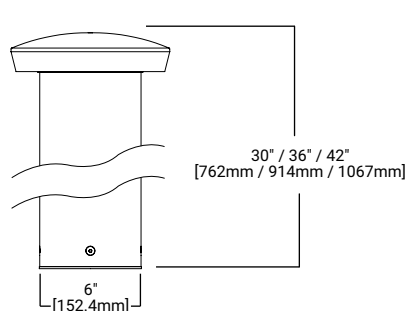


Quick Facts

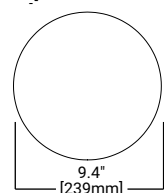
- 4 Optical Distributions
- Available in 30", 36", and 42"
- Lumen packages range from 560 - 4400 (5W - 49W)
- Efficacy up to 122 lumens per watt
- Zero uplight on all configurations

Dimensional Details

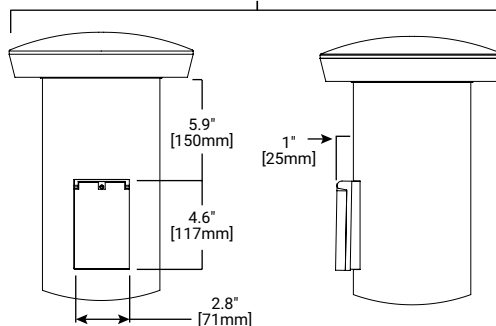
Side View



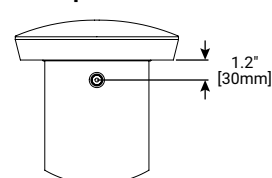
Top View



GFI Option



CBP Option



Height	Weight
30"	7.2lb (3.3kg)
36"	8.7lb (4.0kg)
42"	10.3lb (4.7kg)

* Base model without options or controls

Ordering Information

SAMPLE NUMBER: **BRT6-A3-740-U-T4-36-GM**

Product Family	Configuration ¹	Color Temperature	Voltage	Distribution	Height	Finish
BRT6 =Bollard, 6" Round Base BAA-BRT6 =Bollard, 6" Round Base, Buy American Act Compliant ¹³ TAA-BRT6 =Bollard, 6" Round Base, Trade Agreements Act Compliant ¹³	A1 =1000lm Nominal ¹¹ A2 =2000lm Nominal A3 =3000lm Nominal A4 =4000lm Nominal	727 =70CRI, 2700K 730 =70CRI, 3000K 740 =70CRI, 4000K 750 =70CRI, 5000K 830 =80CRI, 3000K AMB =Amber, 590nm ²	U =120-277V 1 =120V 2 =208V 3 =240V 4 =277V 8 =480V ⁵ 9 =347V	T3 =Path Asymmetric T4 =Wide Path Asymmetric T5 =Type V Symmetric T5S =Type V Square Symmetric	30 =30" 36 =36" 42 =42"	AP =Gray BZ =Bronze BK =Black DP =Dark Platinum GM =Graphite Metallic WH =White
Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)			Accessories (Order Separately) ¹⁴		
DIM =External 0-10V Dimming Leads ^{4,7} F =Single Fuse (120, 277 or 347V Specify Voltage) FF =Double Fuse (208, 240 or 480V Specify Voltage) CC =Coastal Construction ³ HA =50°C High Ambient 20K =20kV UL 1449 fused surge protective device CBP =Battery Pack, Cold Weather Rated ^{9,12} DALI =DALI Driver ^{4,11} LAB =Less Anchor Bolts & Template ⁶ GFI =GFCI Outlet ⁸	BPC =Button Type Photocontrol ¹⁰			BRT6ANCHOR =Anchor bolt kit and template ⁶		
NOTES: 1. Nominal output based on symmetric distributions at 4000K CCT. See lumen table and IES files for details. 2. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Available with configuration A1 only. 3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. 4. Not available with other controls options 5. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.) 6. Bollard ships with anchor bolts and template included, unless LAB is specified, in which case the BRT6ANCHOR accessory must be ordered separately. 7. Low voltage control leads brought out 18" from fixture 8. GFCI 125-Volt duplex tamper-proof outlet rated for 15A. Available in 120V only. 9. Operates at -20°C to +40°C. Not available with HA option. 6W initial output. 16.2Wh capacity. 10. Not available with "U" voltage, must specify voltage. 11. Available in 120V only. 12. Specify 120V or 277V. 13. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. 14. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.						

Product Specifications

Construction

- Extruded aluminum housing with cast base and top
- Patent-pending base plate design offers superior rigidity
- 3G vibration rated
- IK10 impact rating for housing and optic assembly

Optics

- High-efficiency injection-molded AccuLED optics technology
- 4 optical distributions; 2 symmetric and 2 asymmetric
- IDA Certified (3000K CCT and warmer only)

Electrical

- Standard with 0-10V dimming
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration
- 10kV surge module standard

Finish

- Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- RAL and custom color matches available
- Coastal Construction (CC) option available

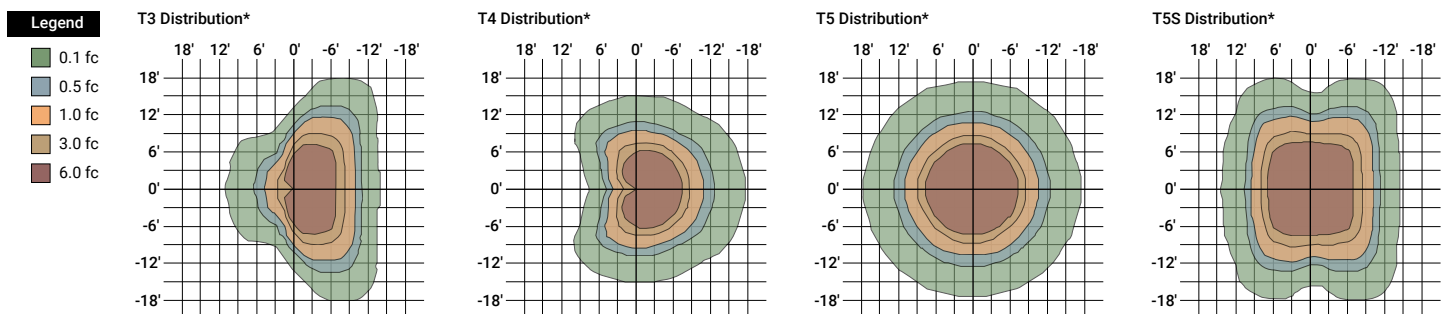
Typical Applications

- Outdoor, Walkway, Perimeter, Landscapes, Hardscapes

Warranty

- Five year warranty

Optical Distributions



*NOTE: A4 lumen package, 4000K CCT, 3.5' MH

Energy and Performance Data

Asymmetric Power and Lumens

Optics			Configuration			
			A1	A2	A3	A4
4000K / 5000K CCT, 70 CRI	T3	Wattage	5	11	17	22
		Lumens	537	1075	1627	1961
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	559	1101	1616	2193
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
3000K CCT, 70 CRI	T3	Wattage	5	11	17	22
		Lumens	489	979	1482	1786
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	509	1003	1472	1997
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
3000K CCT, 80 CRI	T3	Wattage	5	11	17	22
		Lumens	427	854	1293	1558
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	444	875	1284	1743
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
2700K CCT, 70 CRI	T3	Wattage	5	11	17	22
		Lumens	449	899	1361	1640
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	467	921	1351	1834
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
AMB 590nm	T3	Wattage	13	--	--	--
		Lumens	457	--	--	--
		BUG Rating	B0-U0-G0	--	--	--
		Lumens per Watt	34	--	--	--
	T4	Wattage	11	--	--	--
		Lumens	352	--	--	--
		BUG Rating	B0-U0-G0	--	--	--
		Lumens per Watt	32	--	--	--

Symmetric Power and Lumens

Optics			Configuration			
			A1	A2	A3	A4
4000K / 5000K CCT, 70 CRI	T5	Wattage	9	18	29	42
		Lumens	1149	2210	3244	4401
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	1125	2230	3338	4367
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
3000K CCT, 70 CRI	T5	Wattage	9	18	29	42
		Lumens	1046	2013	2954	4008
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	1025	2031	3040	3977
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
3000K CCT, 80 CRI	T5	Wattage	9	18	29	42
		Lumens	913	1757	2578	3497
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	894	1772	2653	3470
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
2700K CCT, 70 CRI	T5	Wattage	9	18	29	42
		Lumens	960	1848	2712	3680
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	941	1865	2791	3652
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
AMB 590nm	T5	Wattage	21	--	--	--
		Lumens	575	--	--	--
		BUG Rating	B0-U0-G0	--	--	--
		Lumens per Watt	28	--	--	--
	T5S	Wattage	25	--	--	--
		Lumens	676	--	--	--
		BUG Rating	B1-U0-G0	--	--	--
		Lumens per Watt	27	--	--	--

Energy and Performance Data

Asymmetric Input Current (mA)

Optics		Configuration			
		A1	A2	A3	A4
T3	Wattage	47	97	152	190
	Lumens	--	59	89	110
	BUG Rating	--	52	78	97
	Lumens per Watt	--	48	70	85
	Wattage	--	40	59	72
	Lumens	--	29	43	53
T4	Wattage	44	84	128	183
	Lumens	--	52	75	105
	BUG Rating	--	47	66	92
	Lumens per Watt	--	44	59	81
	Wattage	--	35	49	68
	Lumens	--	25	36	50

Symmetric Input Current (mA)

Optics		Configuration			
		A1	A2	A3	A4
T5	Wattage	81	159	257	373
	Lumens	--	93	146	209
	BUG Rating	--	82	128	183
	Lumens per Watt	--	73	113	159
	Wattage	--	65	96	148
	Lumens	--	48	70	108
T5S	Wattage	90	185	314	454
	Lumens	--	107	177	251
	BUG Rating	--	94	155	219
	Lumens per Watt	--	83	135	190
	Wattage	--	69	114	172
	Lumens	--	51	82	125

Lumen Maintenance (TM-21)

Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
25°C	95.9%	92.9%	91.7%	87.1%	271,000
40°C	95.7%	92.5%	91.3%	86.5%	256,000
50°C	95.3%	91.9%	90.6%	85.7%	242,000

* Supported by IES TM-21 standards

**Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

 [View BRT6 IES files](#)

Department of Permitting and Inspections

Zoning Division
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Vacant, Planning Technician
Celeste Crowley, Zoning Clerk
Theodore Miles, Zoning Specialist
Charlene Orton, DPI Administrator



MEMORANDUM

To: The Design Advisory Board
From: Ryan Morrison, Associate Planner
RE: 323-325 College Street
Date: January 11, 2022

File: ZP-21-778
Location: 323-325 College Street
Zone: RH **Ward:** 8E
Parking District: Multi-Modal Mixed Use
Date application accepted: December 14, 2021
Applicant/ Owner: 323 Green Castle LLC, Alpha Properties LLC, Peter Potts / Benjamin Frye
Request: 4 unit addition to 323-325 College Street
Background:



- **Zoning Permit 21-0329CA;** 4 unit addition. Withdrawn
- **Zoning Permit 19-0203CA;** Site changes and parking reconfiguration associated with ZP18-0977LL, ZP18-0976LL and ZP18-0975CA, 308 Main Street. October 2018.
- **Zoning Permit 18-0977LL;** Boundary line adjustment with 308 Main Street. See also ZP19-0203CA (323-325 College Street) and ZP18-0976LL and 18-0975CA (308 Main Street.). October 2018.
- **Zoning Permit 18-0230CA;** Alterations to site plan approved under ZP17-0791CA and window replacement under ZP17-0790CA. Add steps on south elevation, window changes, and boiler exhaust penetrations. August 2017.
- **Zoning Permit 18-0060CA;** Establish paved connection with 308 Main Street for shared parking; relocation of dumpster and one tree. Application withdrawn September 2017.
- **Zoning Permit 17-0791CA;** Renovate existing ell for an additional 4 residential units; re-stripe parking for additional spaces. Requires DRB discretionary review of parking space dimensional standards silent in Article 8, Table 8.1.11-1. No change to coverage or setbacks. April 2017.
- **Zoning Permit 17-0790CA;** Replace existing windows on rear ell with new clad wood windows. Approved March 2017.
- **Zoning Permit 11-0086;** Amendment to original approval issued November 3, 2010; specifically, site plan revisions, new access road, revised parking layout and substantially upgraded stormwater retention infrastructure. Approved July 2011.

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 Permit 11-0086 CA/MA;** Construct an attached building addition with 8 new dwelling units; convert the existing 5 unit building to a single unit with attached laundry/storage area; a net total of 9 dwelling units. (Re-arrangement of the number of units between buildings: 1 to be located in the existing structure; 8 in the new structure.) Demolish existing garage, expand parking area. Approved November, 2010.
- **Zoning Permit 04-496;** Move existing fence and install children's play equipment. Approved April 2004.
- **Zoning Permit 03-170;** Installation of fenced enclosure, 4' high green vinyl chain link. Approved, October 2002.
- **Zoning Permit 83-123;** Erect a 4' chain link fence along 75' of eastern property line and 125' along property line and 84' along northern property line. Approved April 1983.
- **Zoning Permit 80-962;** New doors, installation of a window where there was a door. Interior work. Approved May 1980.
- **Zoning Permit 79-146;** Install 70' of 4' chain link fencing. Approved May 1979.
- **ZBA request** to convert a three apartment house to five apartments; Approved November 1972.

Overview: 323-325 College Street is a connected, 13 unit apartment complex. 5 units are within the original 1832 Chauncey Goodrich/Luther Hagar House at 325 College Street, while 8 are in the 2010 four story addition west of the historic house. Goodrich was a Burlington publisher and bookbinder. That structure is listed on the National Register of Historic Places within the **Main Street College Street Historic District**. This application proposes a primary frontage, four story addition to the 2010 ell to include four additional residential units for a collective total of 17 residential units.

Part 1: Land Division Design Standards

No land division is proposed. Not applicable.

Part 2: Site Plan Design Standards

Sec. 6.2.2 Review Standards

(a) Protection of Important Natural Features:

Plan Sv-1 shows a birch tree in the location of the proposed addition. Google Earth also illustrates an unidentified tree (Pine?) in the front yard that does not appear on the existing conditions plan. The applicant shall define.

(b) Topographical Alterations:

The applicant includes a plan for minor grading to accommodate the addition. The site grading and utility plan are C2.01.



(c) Protection of Important Public Views:

There are no protected public views from or through this property. Not applicable.

(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.

(e) Supporting the Use of Renewable Energy Resources:

There is no mention of renewable energy resources in the application. At the very least, and in support of Burlington's renewable energy goals, it is recommended that infrastructure (conduit) be provided to accommodate a future solar installation.

(f) Brownfield Sites:

The site is not listed on DEC's Brownfield site list. Not applicable.

(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 EPSC/Stormwater plan was approved by the City's stormwater engineering staff on November 17, 2020. This approval was based on the plans submitted under ZP21-0329CA, and remain adequate for this proposal since there are no changes in ground disturbance or lot coverage for this re-application.

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.

Doors are illustrated on both the north and west elevations (Plan A2), each of which including a canopy above. The applicant provided a snow management plan with previous applications. That should be updated for this application.

(h) Building Location and Orientation:

The new addition is appended to the 2010 building addition; prominently facing the street and drawing up to a setback line as established by averaging two adjacent properties on either side. In location and orientation, it fills in the street wall.

(i) Vehicular Access:

Permit 19-0203CA provided a clock-wise circulation path through 323-325 College Street, with additional traffic flow from 308 Main Street through the site south-to-north. The applicants shall confirm that the previously approved circulation path will continue with this new addition.

(j) Pedestrian Access:

A 5' wide walkway is illustrated from the public sidewalk on College Street to the easterly entrance to the addition (Plan C1.01.) The westerly entrance immediately abuts the new parallel parking spaces. The area (9.3' in width) should be appropriately marked as a pedestrian entry, clearly marked by differentiated ground materials and/or pavement markings. Lastly, a flagstone walkway will provide front (College Street façade) access to the basement unit.

(k) Accessibility for the Handicapped:

As originally approved, the building remains accessible from the southerly entrance. One handicap parking space is identified on the site plan. The building inspector has jurisdiction for the compliance of ADA standards.

(l) Parking and Circulation:

The last permit approved 34 parking spaces on-site for the 13 units. (18-0977LL, 19-0203CA.) 41 parking spaces are proposed with this site plan, reflecting the addition of 6 new parallel parking space on the west of the addition.

This project falls within the new Multi-Modal Mixed Use Parking District (adopted 9.14.20), which eliminates parking requirements for those properties with street frontage on major thoroughfares to a depth of 200'. College Street (up to South Williams) is included on that map. Therefore, there are no new parking requirements with the addition of four new residential units.

Parcel circulation had been previously approved in a clock-wise pattern; entering from the easterly drive and circulating out the westerly drive. In addition, the parking plan for 308 Main Street allows for that traffic to move through this site from south to north. The drive width of 10' on the westerly side of the building should be adequate for most residential vehicles, but potentially challenging for trash haulers accessing the dumpster in the southwesterly corner of the lot.

(m) Landscaping and Fences:

The applicant needs to define any changes to the landscaping, including tree removal with the proposed new addition. Plan C1.01 illustrates a retaining wall with a railing. More information will be required for review. Any retaining wall over 3' requires approval of the City engineer.

(n) Public Plazas and Open Space:

No public plazas are proposed. There is a modicum of open space in the front yard for tenant use.

(o) Outdoor Lighting:

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

Exterior downlights are proposed over both new entries. See elevations on plan A2.

(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.

The existing dumpster is in the southeast corner of the parcel. Mailboxes are presumed to be within the residential entry lobby on the south as previously approved. The applicant shall confirm.

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.

While difficult to tell where, the applicant notes that all mechanical units will be inside.

Part 3: Architectural Design Standards

Sec. 6.3.2 Review Standards

(a) Relate development to its environment:

1. Massing, Height and Scale:

The addition is proposed to be appended to the existing westerly addition at 325 College Street, continuing the height and width of the 2010 structure. Although the proposed building height exceeds the dimensional limitations of Table 4.4.5-3 (35'), a 5% differential is allowed for sites with topograph changes across the site (Section 5.2.6 (b), *Exceptions to Height Limits*.) At 36'7 1/2", the proposed height falls within that allowance.

2. Roofs and Rooflines.

A flat roof is proposed, consistent with the existing addition.

3. Building Openings

Window openings are symmetrically arranged; in four columns on the north and east elevations, and three columns on the west elevation. New entrances are figured on the north and west elevations.

(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:

Although similar to the original building addition approved in 2010, the new addition removes the blind entrance at the 2010 addition's lower level with a relocation of entrances to the west and north sides.

(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.

Consistent with other recently constructed apartment buildings, it is sheathed in a combination of fiber cement clapboard, corrugated metal with an exposed concrete foundation.

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.

This is an addition to an historic structure; so assessment of appropriate sheathing for repair or replacement of historic building materials does not apply.

(f) Reduce energy utilization:

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

New structures should take advantage of solar access where available, and shall undertake efforts to reduce the impacts of shadows cast on adjacent buildings where practicable, in order to provide opportunities for the use of active and passive solar utilization.

At the very least, the addition should be constructed toward the inclusion of solar utilization in the future by incorporating conduit within the plan.

(g) Make advertising features complementary to the site:

Any signs shall require a separate sign permit.

(h) Integrate infrastructure into the building design:

See Section 6.2.2. (p), above.

(i) Make spaces secure and safe:

Construction shall comply with all required building and life safety codes as determined by the building inspector and fire marshal.

Building entrances/entry points shall be visible and adequately lit, and intercom systems for multi-family housing should be incorporated where possible, to maximize personal safety.

Both entrances are proposed to have exterior downlights. Intercom systems are recommended to maximize personal safety.

Section 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.

(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 existing Goodrich/Hagar historic structure at 325 College Street remains residential, as it was originally constructed.

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.*

Although no physical changes are proposed for the historic Goodrich/Hagar house, the entire building mass at 323 College Street is an addition to that building, as was reviewed as such in 2010. The increased setback reflected in the existing conditions plan was deliberate, so the new building mass would be appropriately deferential to the historic home. This plan eliminates that purposeful setback, removing the intentional space before the 323 residential addition and changing the spatial relationship between the two building ell. The DAB must determine the relevance of that 2010 decision that required structural setback for the new building mass, to differentiate it and defer to the prominence of the historic home.

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.*

While no conjectural features are proposed, the elimination of the intentional setback changes the relationship to the historic structure and gives greater importance to the modern building addition.

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

The 2010 addition has not acquired historic significance in its own right. Not applicable.

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

The 2010 building addition does not include any particular craftsmanship, feature, finishes or construction techniques requiring preservation.

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.*

No deteriorated historic building features are proposed for replacement. Not applicable.

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.*

Not applicable.

8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*

There are no identified archaeological resources at this location. If project development reveals any resources, construction will cease until appropriate authorities assess, evaluate, and assign appropriate disposition of them.

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.*

The 2010 approval for the 8 unit addition was very intentional in setting the building mass back from the street and allowing the historic structure to retain prominence. This proposal will indeed be differentiated from the old in materials and design. The building massing, while similar in scale and size (to the 2010 addition) steps boldly toward the street and in its location the potential to diminish the importance and the physical ability to view the 1832 structure. Were this project proposed on a separate, abutting lot, the prominence and modern vocabulary of the new work would be easily interpreted. But this remains an addition, appended to a listed historic property. The ordinance will allow the structural addition, but the DAB must assess the elimination of the 2010 addition setback providing intended deferential stature. The new addition elevates the overall importance of this large building mass; competing for attention on the single lot.

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.*

It is possible to imagine that if the entire westerly addition were removed, the 1832 Goodrich/Hagar house would retain its integrity.

Items for the Board's consideration if approval is recommended:

1. A landscaping plan, included proposed tree removal shall be provided.
2. Provide information on the type and location of all mechanical units.
3. The applicant shall confirm the direction of traffic flow throughout the site to identify any conflicts with the newly proposed parking spaces.
4. Retaining walls over 3' in height require approval by the City engineer.

5. The applicant shall provide further information about the new retaining wall and the fence, as well as more definition about what “adjust retaining wall” means. (Plan C1.01)
6. The applicants shall provide an updated snow management plan.
7. The westerly pedestrian entrance shall be clearly marked by differentiated ground materials and/or pavement markings to prevent vehicular blockage of the building entrance.
8. The applicant will be required to provide a letter of capacity for adequate water and sewer capacity for the new units.
9. The applicant will be required to secure a State of Vermont wastewater permit.
10. The applicants shall define/confirm the location of additional mailboxes for the new units.
11. Occupancy of the new units will be limited to a definition of a family in Article 13. Not more than 4 unrelated adults may occupy any unit.
12. The DRB will likely require incorporation of the property management plan, previously approved for this parcel, within this review. (ZP11-0086CA/MA, Condition #11.)



Daniel Goltzman Design & Development

119 Caroline Street
Burlington, Vermont 05401
646-957-4248

VHB
101 Walnut Street
Watertown, MA 02471
617-924-1770

No.	Description	Date
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Greencastle LLC

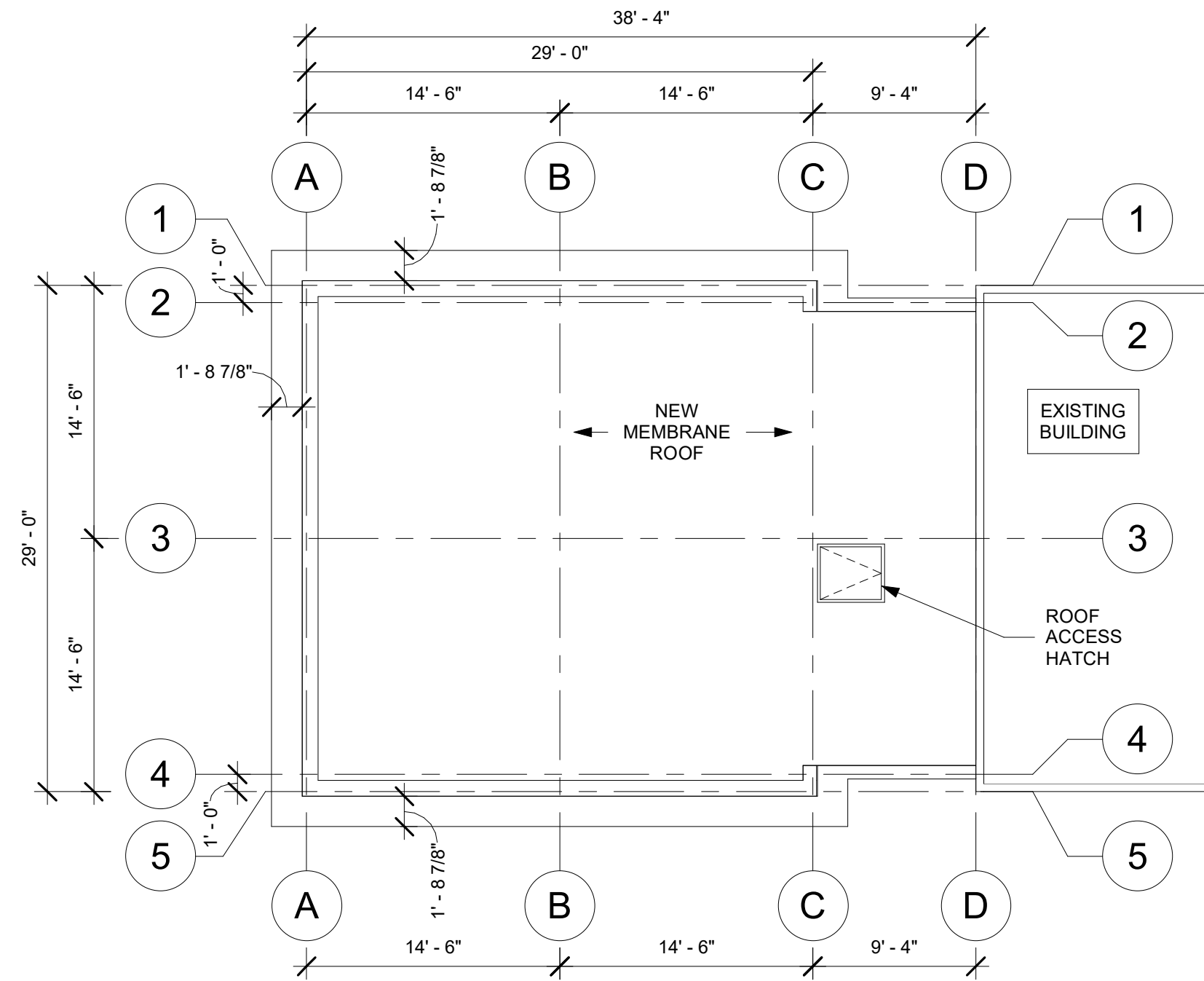
323 College Street

FLOOR PLANS

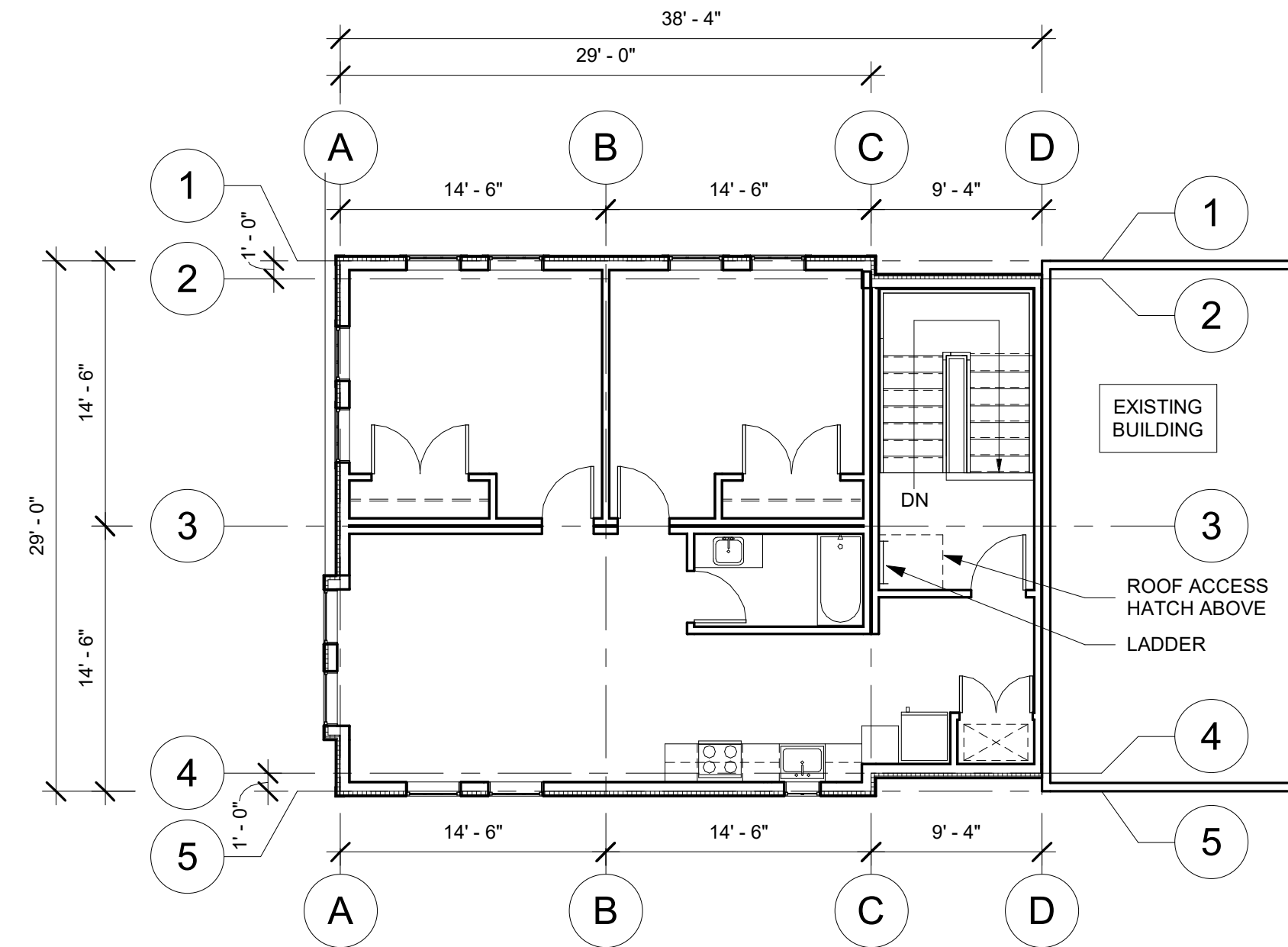
Project number :	202002
Date :	13 October 2021
Drawn by :	DLG
Checked by :	DLG
Project Phase :	Zoning Permit

A1

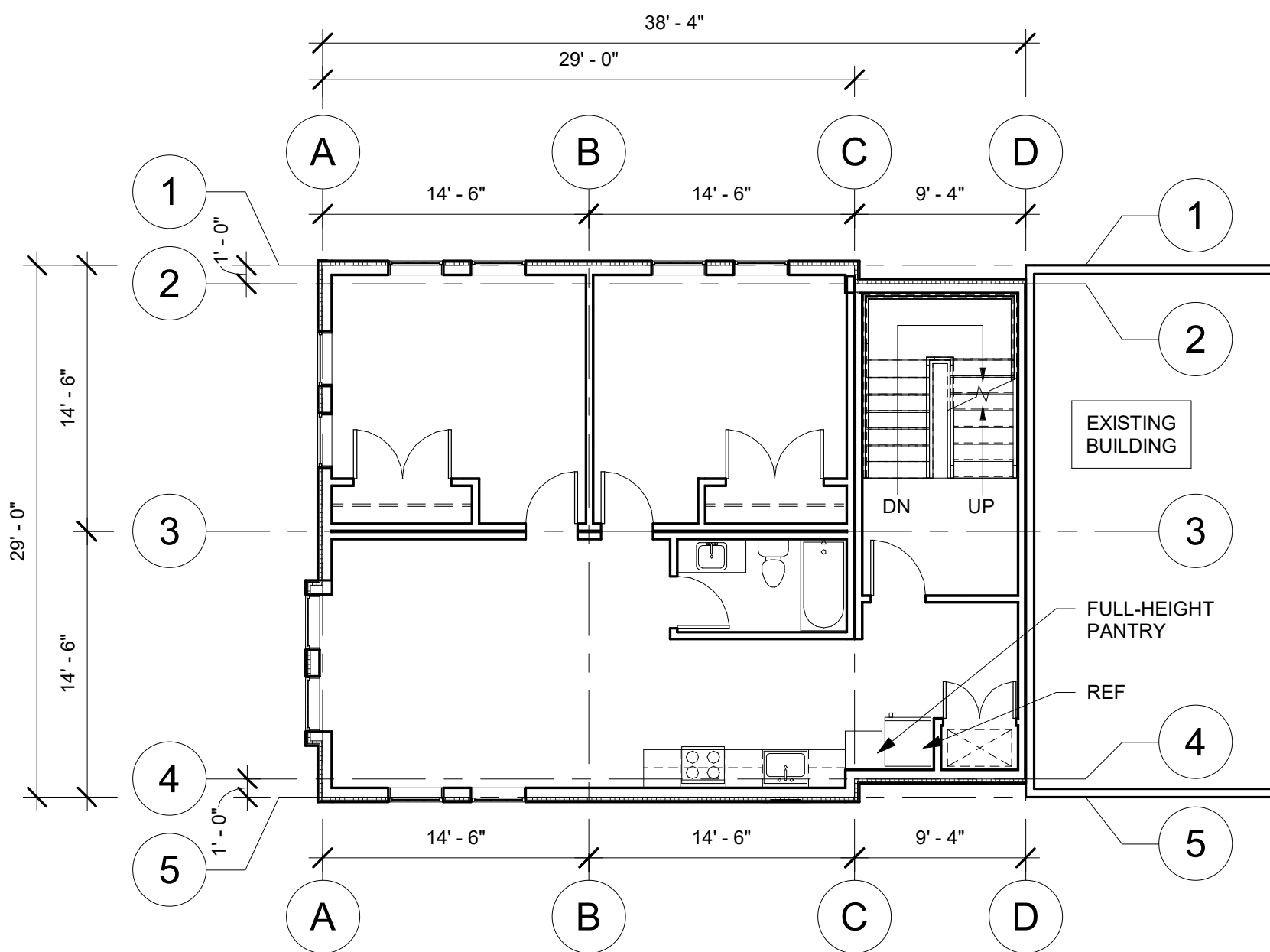
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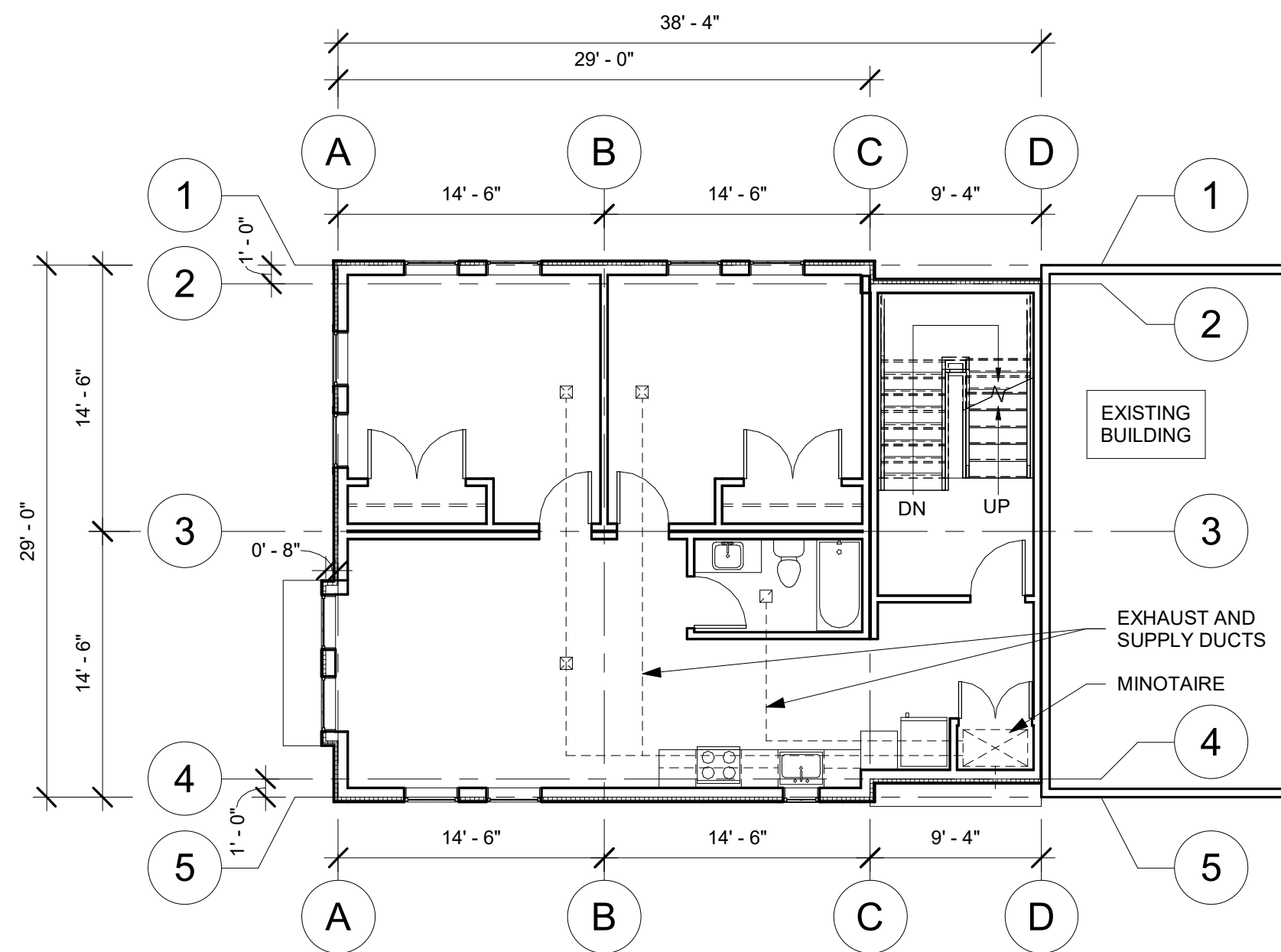
5 Roof Deck
1/8" = 1'-0"



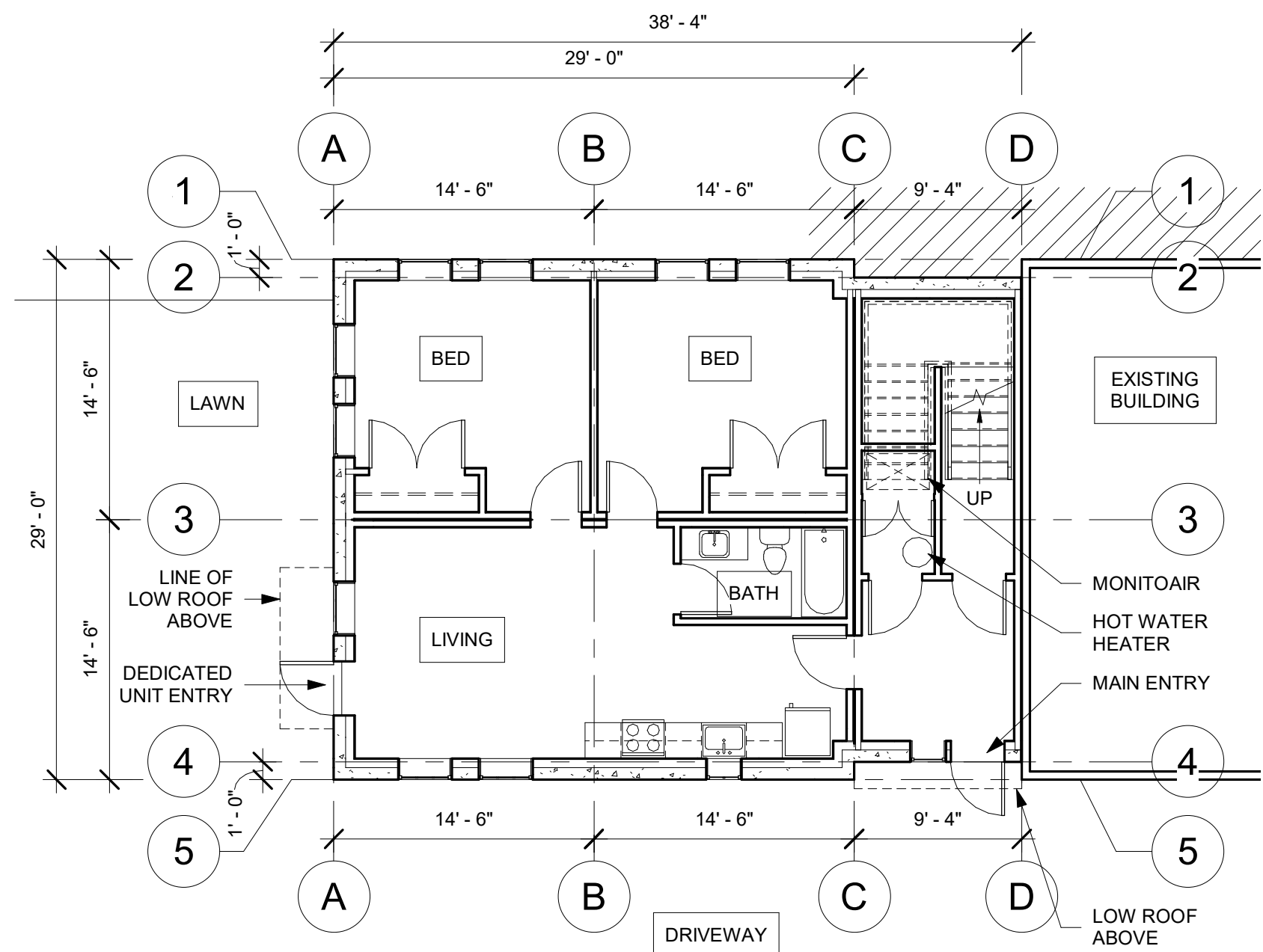
4 Third Floor
1/8" = 1'-0"



3 Second Floor
1/8" = 1'-0"



2 First Floor
1/8" = 1'-0"



1 Basement
1/8" = 1'-0"

No.	Description	Date
-----	-------------	------

Greencastle LLC

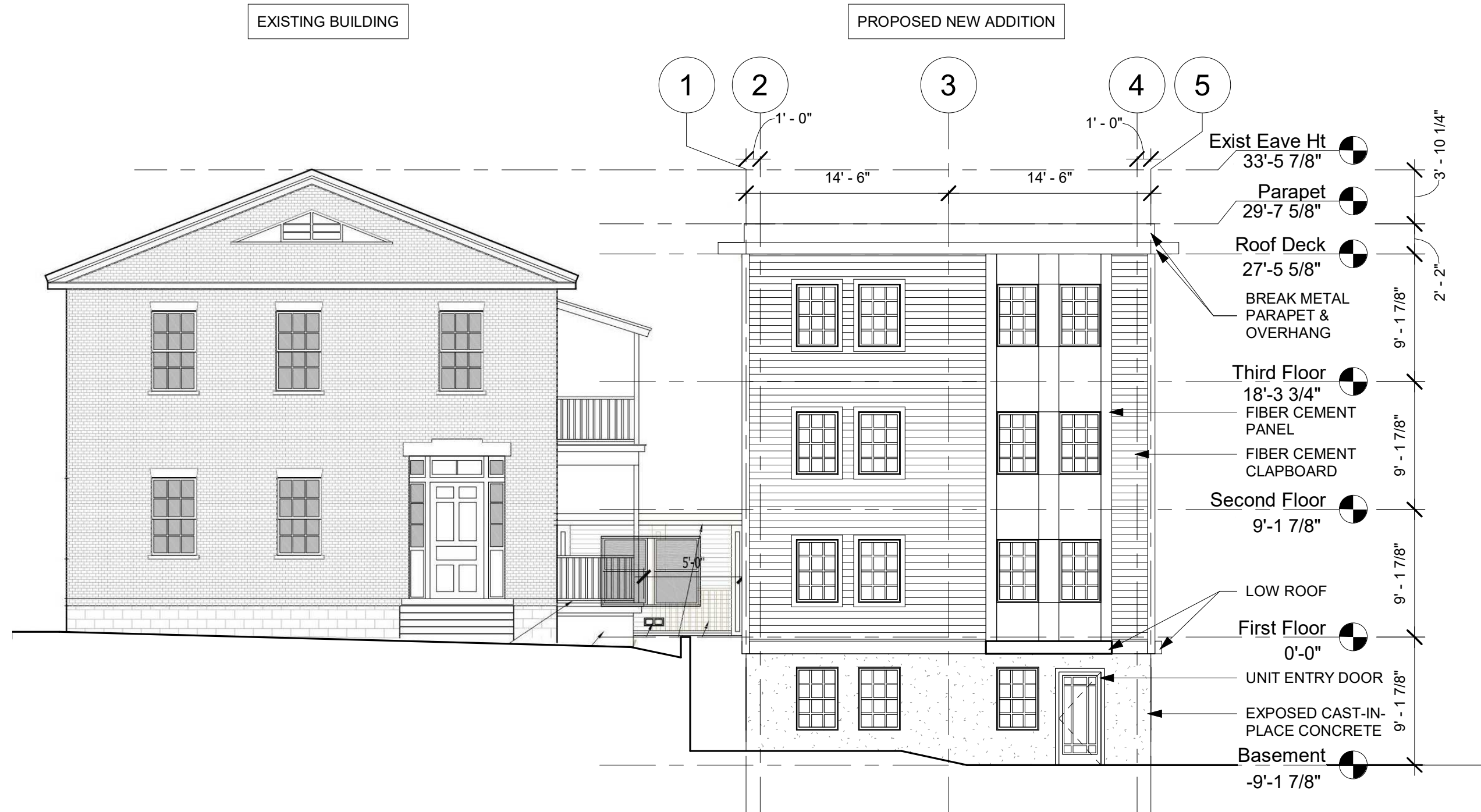
323 College Street

ELEVATIONS

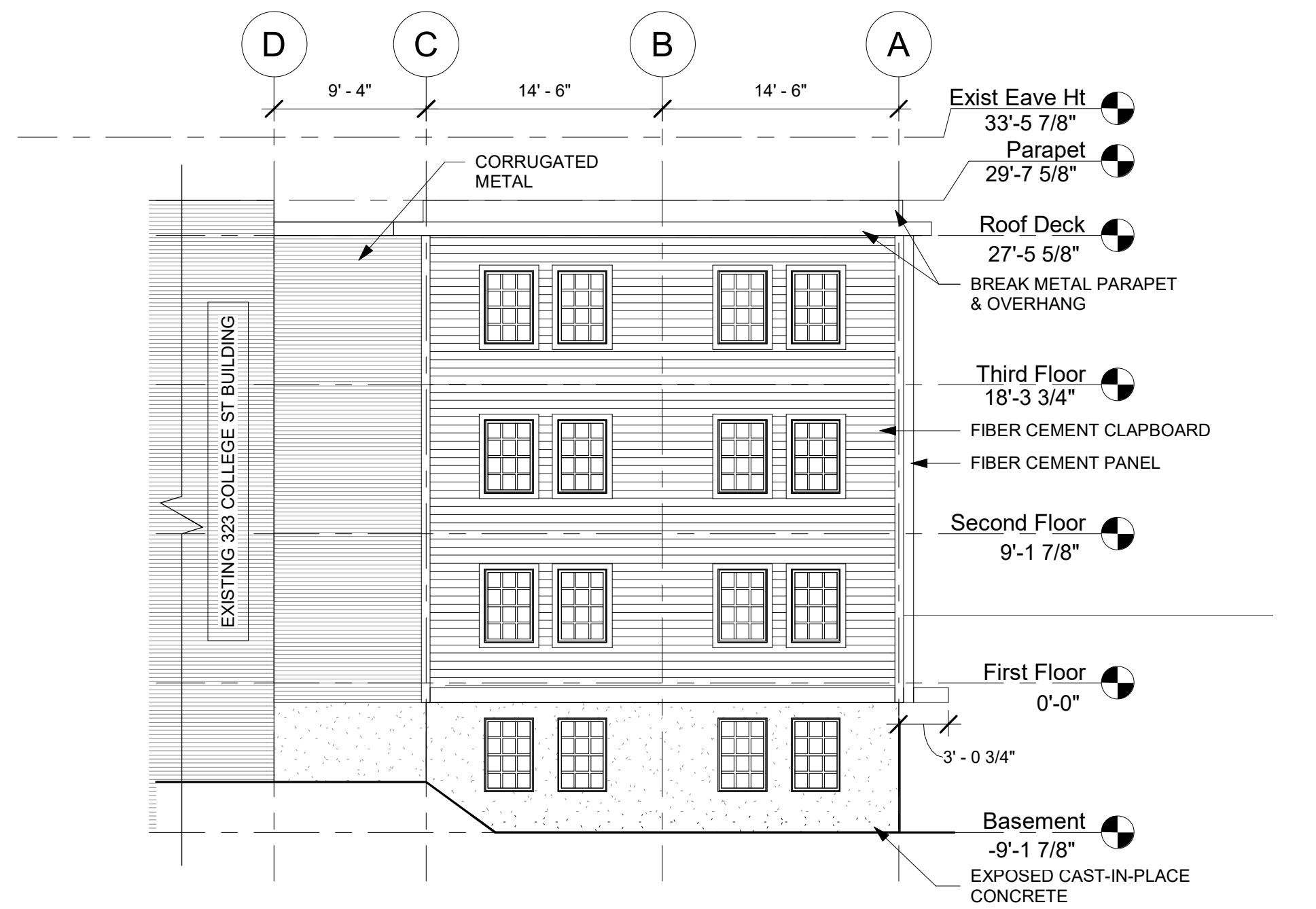
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Date :	13 October 2021
Drawn by :	DLG
Checked by :	DLG
Project Phase :	Zoning Permit

A2

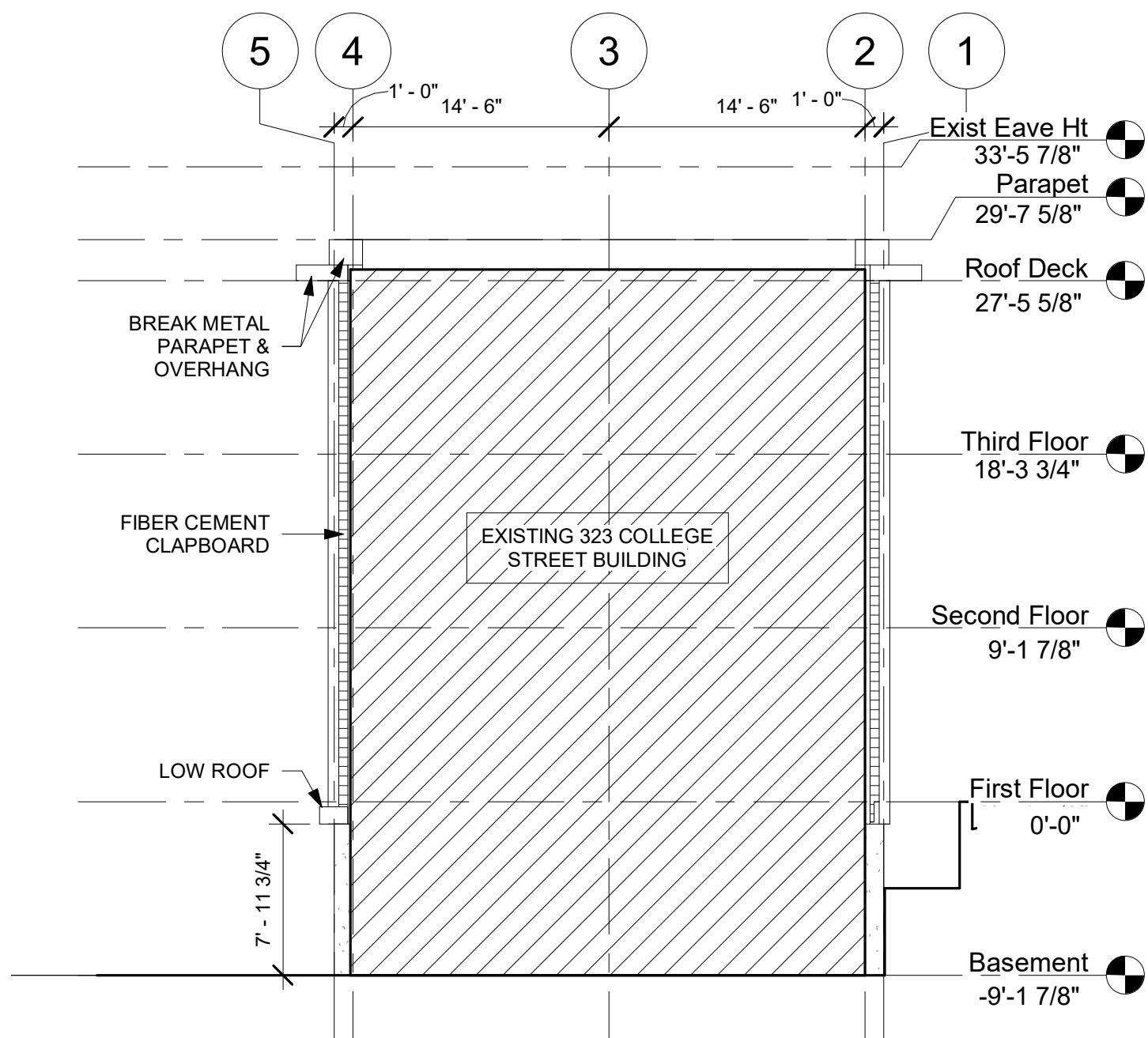
Scale : 1/8" = 1'-0"



1 North Elevation
1/8" = 1'-0"



2 East Elevation
1/8" = 1'-0"



3 South Elevation
1/8" = 1'-0"



4 West Elevation
1/8" = 1'-0"

10/12/2021 4:00:45 PM



DGD
Daniel Goltzman Design & Development
119 Caroline Street
Burlington, Vermont 05401
646-957-4248

VHB
101 Walnut Street
Watertown, MA 02471
617-924-1770

No.	Description	Date
-----	-------------	------

Greencastle LLC

323 College Street

3D View

Project number :	202002
Date :	13 October 2021
Drawn by :	DLG
Checked by :	DLG
Project Phase :	Zoning Permit

A3
Scale :

VHB
101 Walnut Street
Watertown, MA 02471
617-924-1770

No.	Description	Date
-----	-------------	------

Greencastle LLC

323 College Street

3D View

Project number :	202002
Date :	13 October 2021
Drawn by :	DLG
Checked by :	DLG
Project Phase :	Zoning Permit

A4

Scale :



HardiePlank®

Thickness 5/16 in

Length 12 ft planks

SELECT CEDARMILL® & SMOOTH

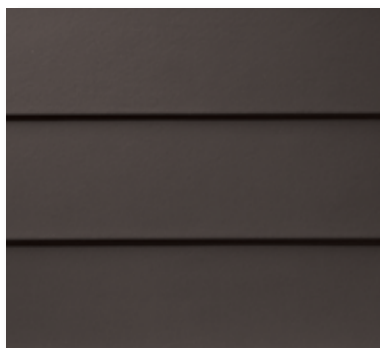
Width	5.25 in	6.25 in	7.25 in	8.25 in
Exposure	4 in	5 in	6 in	7 in
Prime Pcs/Pallet	360	308	252	230
ColorPlus Pcs/Pallet	324	280	252	210
Pcs/Sq	25.0	20.0	16.7	14.3

SELECT CEDARMILL®



Width	5.25 in	6.25 in	7.25 in	8.25 in
STATEMENT COLLECTION™	✓	✓		
DREAM COLLECTION™	✓	✓	✓	✓
PRIME	✓	✓	✓	✓

SMOOTH



Width	5.25 in	6.25 in	7.25 in	8.25 in
STATEMENT COLLECTION™	✓	✓		
DREAM COLLECTION™	✓	✓	✓	✓
PRIME	✓	✓	✓	✓

BEADED CEDARMILL®



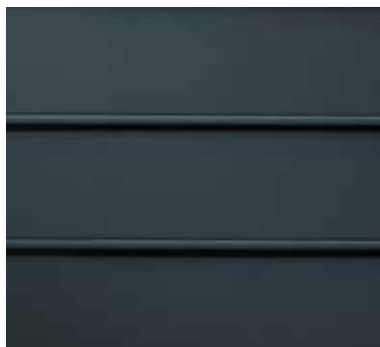
BEADED CEDARMILL® & BEADED SMOOTH

Width	8.25 in
Exposure	7 in
Prime Pcs/Pallet	240
ColorPlus Pcs/Pallet	210
Pcs/Sq	14.3

STATEMENT COLLECTION™	_____
DREAM COLLECTION™	✓
PRIME	✓

FIBER CEMENT
CLAPBOARD SIDING

BEADED SMOOTH



HardiePanel®

Thickness 5/16 in

FIBER CEMENT
PANEL SIDING

SELECT CEDARMILL®, SMOOTH, STUCCO & SIERRA 8

Size	4 ft x 8 ft	4 ft x 10 ft
Prime Pcs/Pallet	50	50
ColorPlus Pcs/Pallet	50	50
Pcs/Sq	3.2	2.5

SELECT CEDARMILL®



Size	4 ft x 8 ft	4 ft x 10 ft
STATEMENT COLLECTION™		✓
DREAM COLLECTION™	✓	✓
PRIME	✓	✓

SMOOTH



Size	4 ft x 8 ft	4 ft x 10 ft
STATEMENT COLLECTION™		✓
DREAM COLLECTION™	✓	✓
PRIME	✓	✓

STUCCO



Size	4 ft x 8 ft	4 ft x 10 ft
STATEMENT COLLECTION™		
DREAM COLLECTION™	✓	✓
PRIME	✓	✓

SIERRA 8

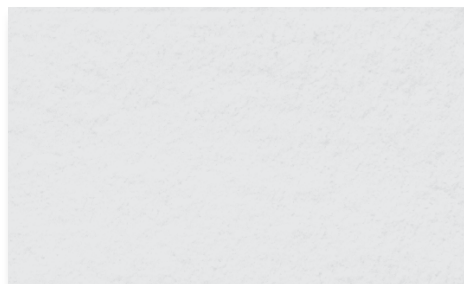


Size	4 ft x 8 ft	4 ft x 10 ft
STATEMENT COLLECTION™		
DREAM COLLECTION™		
PRIME	✓	✓

HardieTrim®

Length 12 ft boards

NT3® BOARDS SMOOTH



FIBER CEMENT
SIDING TRIM

4/4 SMOOTH

Thickness	.75 in				
Width	3.5 in	5.5 in	7.25 in	9.25 in	11.25 in
ColorPlus Pcs/Pallet	312	208	156	104	104

STATEMENT COLLECTION™	✓	✓	✓		✓
DREAM COLLECTION™	✓	✓	✓	✓	✓
PRIME					

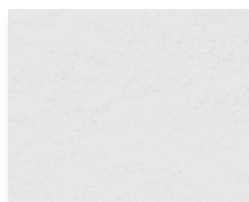
5/4 SMOOTH

Thickness	1 in					
Width	3.5 in	4.5 in	5.5 in	7.25 in	9.25 in	11.25 in
ColorPlus Pcs/Pallet	240	200	160	120	80	80

STATEMENT COLLECTION™	✓	✓	✓	✓		✓
DREAM COLLECTION™	✓	✓	✓	✓	✓	✓
PRIME						

BATTEN BOARDS

SMOOTH



RUSTIC GRAIN®



SMOOTH & RUSTIC GRAIN®

Thickness	.75 in	STATEMENT COLLECTION™	✓
Width	2.5 in	DREAM COLLECTION™	✓
Prime Pcs/Pallet	190	PRIME	✓
ColorPlus Pcs/Pallet	437		

HardieSoffit®

Thickness 1/4 in

VENTED SMOOTH

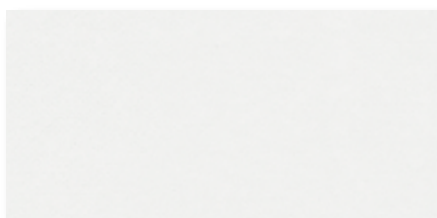


VENTED SELECT CEDARMILL®



ROOF OVERHANG FIBER CEMENT SOFFIT

NON-VENTED SMOOTH



NON-VENTED SELECT CEDARMILL®



BEADED PORCH PANEL



VENTED SMOOTH & SELECT CEDARMILL®

Length	12 ft	12 ft	8 ft
Width	12 in	16 in	24 in
Prime Pcs/Pallet	200	150	100
ColorPlus Pcs/Pallet	216	156	108

Size	12 ft x 12 in	12 ft x 16 in	8 ft x 24 in
STATEMENT COLLECTION™			
DREAM COLLECTION™	✓	✓	✓
PRIME	✓	✓	✓

Size	12 ft x 12 in	12 ft x 16 in	8 ft x 24 in
STATEMENT COLLECTION™			
DREAM COLLECTION™	✓	✓	✓
PRIME			

NON-VENTED SMOOTH & SELECT CEDARMILL®

Length	12 ft	12 ft	8 ft	8 ft
Width	12 in	16 in	24 in	48 in
Prime Pcs/Pallet	200	150	100	50
ColorPlus Pcs/Pallet	216	156	108	—

Size	12 ft x 12 in	12 ft x 16 in	8 ft x 24 in	8 ft x 48 in
STATEMENT COLLECTION™				
DREAM COLLECTION™	✓	✓	✓	
PRIME	✓	✓	✓	✓

Size	12 ft x 12 in	12 ft x 16 in	8 ft x 24 in	8 ft x 48 in
STATEMENT COLLECTION™				
DREAM COLLECTION™	✓	✓	✓	
PRIME				

BEADED PORCH PANEL

Thickness	1/4 in	STATEMENT COLLECTION™	_____
Length	8 ft	DREAM COLLECTION™	✓
Width	48 in	PRIME	_____
ColorPlus Pcs/Pallet	50		

CORRUGATED METAL SIDING

Exposed fastener panels provide ultimate flexibility with panels that can be used as exterior or interior walls, roofs or soffits. Exposed fastener panels can be installed in any weather to enable faster scheduling.

FEATURES & BENEFITS

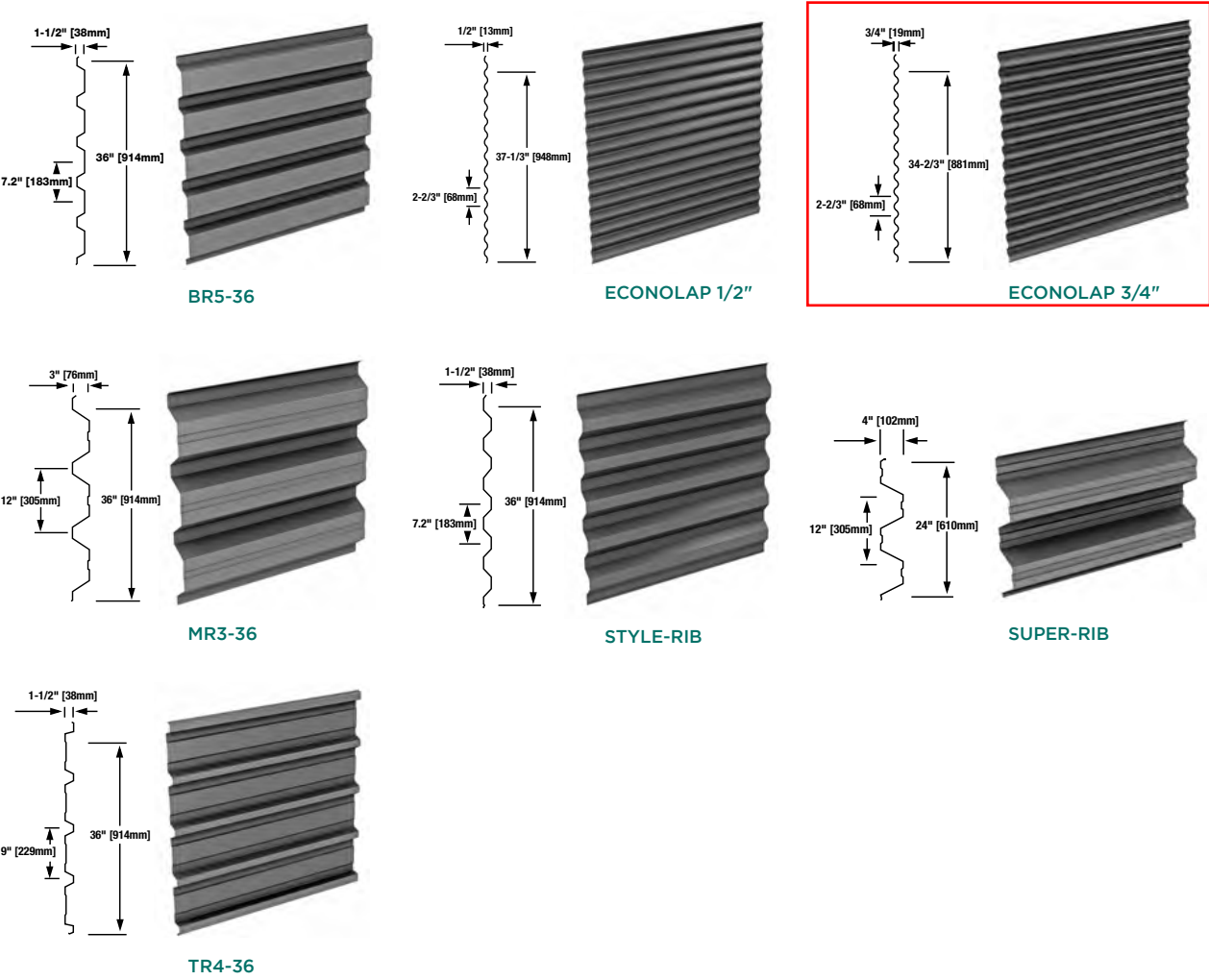
- Extremely versatile panels can be used as exterior or interior walls, roofs and soffits
- Ribs can be run either horizontally or vertically
- May be installed to meet many levels of thermal protection
- Excellent negative wind load properties
- Excellent option for both new construction and retrofit projects
- All-weather installation capability minimizes delays; permits fast-track scheduling
- Panels are available in embossed or smooth finishes

COMPONENT DESCRIPTION

SUBSTRATES	• Standard 24"-18 gauge G-90 galvanized steel • Optional aluminum or stainless steel
SURFACE FINISH	• Smooth or embossed surface texture
PANEL ORIENTATION	• Horizontal or vertical wall installation • Wall and roof installation
PANEL LENGTHS	• Lengths up to 40' [12.2m] for steel panels • Consult CENTRIA for more information.
COATINGS & COLORS	Available in a wide range of coil-coated colors and finishes. See charts on Pages 46-51.

*24-gauge only available in certain profiles. Consult CENTRIA.

EXPOSED FASTENER PANELS

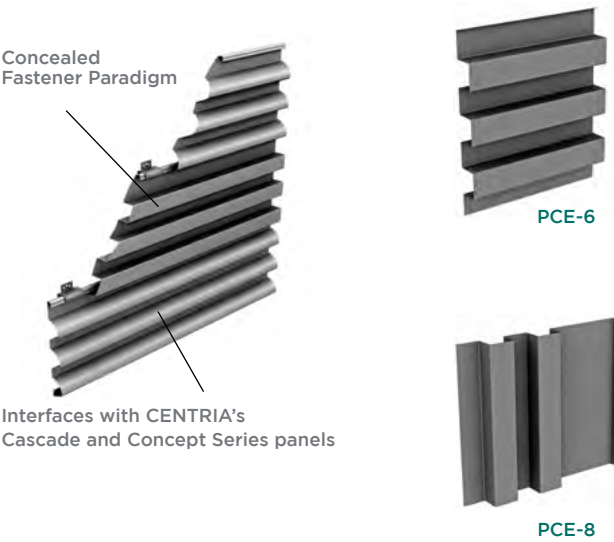


Paradigm makes it possible to create truly unique custom profiles in almost unlimited color and finish options. The result is design flexibility and control, as well as a cost-effective way to add distinctive accents to your next project.

FEATURES & BENEFITS

- Designer-customized panel profile shapes permit variation in design and shadow relief
- Vertical or horizontal installation
- Exposed and concealed fastener options available
- Custom-engineered panels with calculations and Professional Engineer stamps
- State-of-the-art production process ensures crisp and consistent panel fabrication quality
- All-weather installation capability minimizes delays and permits fast-track scheduling
- Unique, project-specific aesthetics and flexibility
- Integrates with CENTRIA Concept Series Concealed fastener panels and horizontal Cascade panels
- More than 85 standard colors and 11 finish options available along with custom color availability
- Our sales team along with a dedicated group of in-house engineers and architects are available to assist in making your product vision a reality

PARADIGM CONCEALED AND EXPOSED FASTENER PANELS



WE MADE IT EASIER AND FASTER TO GET THE METAL FLASHINGS, DRIP EDGES AND TRIM THAT SMART BUILDERS, ROOFERS AND SIDING CONTRACTORS RELY ON MOST.

Flashing, Soffit and Edge Metal

We made it easier and faster to get the metal flashings, drip edges and trim that smart builders, roofers and siding contractors rely on most. No more waiting for an order to arrive from out of state, no more labor-intensive hand-brake work.

Architectural Metal Supply offers standard window and door flashing in thicker-gauge metal than you would find in a hardware or box store, and we offer it in an array of colors. We also offer custom flashing products that accommodate the exterior insulation and rainscreen often required with today's energy-code standards.

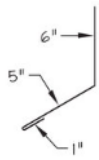


METAL CLADDING
FOR ROOF
PARAPET AND
OVERHANG

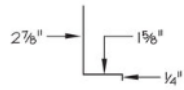
[REQUEST QUOTE](#)[LEARN MORE ABOUT OUR SISTER COMPANY REAP CONSTRUCTION](#)

ARCHITECTURAL METAL SUPPLY, 102 WILLIS FARM ROAD, RICHMOND, VT 05477,
USA (802) 434-3435 INFO@ARCHMETSUPPLY.COM

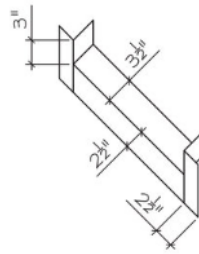




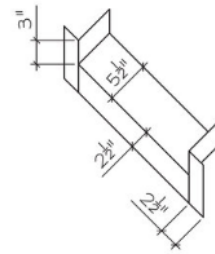
Apron Flashing



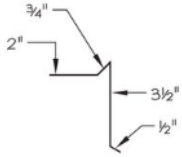
Deck Ledger



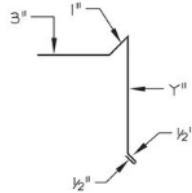
Door Pan - 2x4 Wall



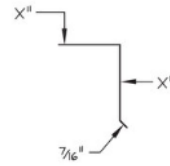
Door Pan - 2x6 Wall



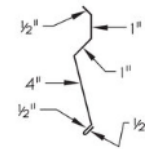
Gravel Stop



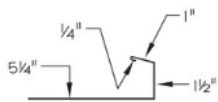
Gravel Stop 2



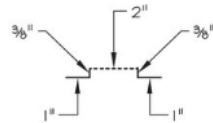
Hook Strip or Cleat



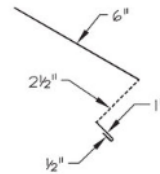
Mount Reglet



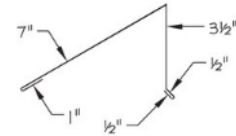
Rain Diverter



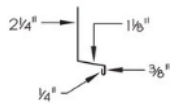
Soffit Vent



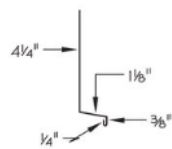
Vented Drip Edge



Vertical Ridge



4" Window Flashing



6" Window Flashing

ESSENTIAL DOUBLE HUNG

Previously known as Integrity All Ultrex Double Hung



Features of the Essential Double Hung Window

- Available in heights up to 6.5 feet or widths up to 4 feet
- Durable and low-maintenance material to the interior and exterior
- Low-profile, easy to operate locking mechanism
- Insert replacement option is available to fit seamlessly into existing window openings
- Top and bottom sash tilt and remove easily for maintenance/cleaning

ENERGY DATA	U-FACTOR	SHGC	VT	ENERGY STAR
Insulated Glass - Low E3 - Argon	0.29	0.22	0.51	NC, SC, S
Insulated Glass - Low E3 - Argon - GBG	0.29	0.20	0.46	NC, SC, S
Insulated Glass - Low E3 - Air	0.33	0.23	0.51	S
Insulated Glass - Low E3 - Air - GBG	0.33	0.20	0.46	S
Insulated Glass - Low E2 - Air - GBG	0.34	0.30	0.51	
Insulated Glass - Low E2 - Argon	0.30	0.33	0.57	NC
Insulated Glass - Low E3 / Low ERS - Argon	0.25	0.22	0.50	N, NC, SC, S
Insulated Glass - Low E3 / Low ERS - Argon - GBG	0.25	0.20	0.45	N, NC, SC, S
Insulated Glass - Low E1 - Argon	0.31	0.55	0.63	
Insulated Glass - Low E1 - Argon - GBG	0.31	0.49	0.56	
Insulated Glass - Low E1 - Air	0.34	0.54	0.63	
Insulated Glass - Low E1 - Air - GBG	0.34	0.49	0.56	
Insulated Glass - Low E3 / Low ERS - Air	0.28	0.22	0.50	NC, SC, S
Insulated Glass - Low E3 / Low ERS - Air - GBG	0.28	0.20	0.45	NC, SC, S
Insulated Glass - Low E2 - Argon - GBG	0.30	0.30	0.51	NC
Insulated Glass - None - Air	0.48	0.62	0.65	

Unit Features

Essential Double Hung: ESDH

For applicable certification and code information, refer to the Introduction and Product Performance chapter.

Frame and Sash:

- The frame and sash exteriors are made of Ultrex®, an advanced fiber reinforced material that is resistant to thermal conductance.
- Exterior colors: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony.
- Interior coating meets all the requirements in Stone White, Bronze, Ebony.
- Split finishes are not available on Dark Interior option. Only Bronze interior/Bronze exterior and Ebony interior/Ebony exterior combinations are available for dark interior options.

Frame:

- Composite frame thickness is 1 3/8", (35). Frame width is 3 3/32", (79). Flat bottom sill with 11 degree bevel. Ultrex is .065"-070" (2) thick.

Sash:

- Composite sash thickness is 15/16" (24). Ultrex is .065" - .070" (2) thick. Sash can be replaced by cannot be re-glazed.
- Cottage style unit: Sash divided 2/5 over 3/5.
- Oriel style unit: Sash divided 3/5 over 2/5.

Jamb Extension:

- 2" (51) is standard
- 4 9/16" (116) and 6 9/16" (167) maintenance free jamb extension available
- Available in Stone White, Bronze, or Ebony. Default color will match the unit interior selection. Stone White jamb extension is available for all unit interior color selections.

Hardware:

- Balance system is a coil spring block and tackle system
 - Nylon cord and steel locking shoe
- High pressure zinc die cast check rail lock and keeper.
 - Lock employs a cam-lock mechanism
 - Two locks on rough openings over 30" (762) wide
- Cam Lock, Keeper and Fastener Default Color: Stone White for Stone White Interior, Oil Rubbed Bronze for Bronze Interior, Matte Black for Ebony Interior.
 - Optional Stone White, Almond Frost, Brass, Satin Nickel, Matte Black, and Oil Rubbed Bronze hardware finishes available
- Tilt Latches, Top Sash Pull and Sash Lift will match the unit interior color (Stone White, Bronze or Ebony).
- Bottom Sash employs tilt latches to allow for easy tilting of sash
- Optional factory applied Window Opening Control Device is available in Black or White color finish.
(min size: 17 27/32" (453) x 24" (610) - max size: 36" (914) x 71 1/8" (1807))
- ABS sash travel limiter is available for field application in Beige color finish with Stone White or Matte Black screws.
- Non-operable lock is available for field application. Available colors: Stone White, Almond Frost, Brass, Oil Rubbed Bronze, Satin Nickel, Matte Black.

Installation:

- Factory applied folding nailing fin
- Optional through jamb installation method with brackets
- Factory supplied mulling kits are available for standard assemblies

Glazing:

- Dual-pane units are manufactured with an 11/16" (17) IG with Low E2, E3, E1, E3/ERS, or no coating including argon gas or air fill.
- Tempered glass and/or obscure glass, and California Fire glass (annealed exterior and tempered interior glazing configuration) are available as an option.
- The glazing seal is a silicone bedding on the exterior surface, and vinyl glazing seal on the interior surface.
- The perimeter spacer default color is mill finish (stainless). An optional black perimeter spacer color is available for all unit interior color selections.
- STC/OITC values are available for 3.1 mm thickness glass.
 - Optional 3.1/4.7 STC/OITC Upgrade glass is available. See the Product Performance chapter for STC and OITC ratings.
- Decorative glass options include frost, glue chip, rain, reed, narrow reed and tinted (bronze, gray or green).
 - Decorative glass is not available with Low E3/ERS or STC/OITC.

Unit Features Continued**Weather Strip:**

- Sill is foam filled vinyl bulb. Color: Beige for Stone White interior, Black for Bronze and Ebony interiors.
- Bottom sash is sealed to the jambs using foam filled vinyl bulb. Color: beige for Stone White interior, black for Bronze and Ebony interiors.
- Top sash is sealed to the jambs using a hollow vinyl bulb. Color: stone white rigid/bulb for Stone White interior, black rigid/bulb for Ebony interior and Bronze rigid/black bulb for Bronze interior.
- Check rails are sealed using rigid vinyl with flexible seal. Top sash check rail cover is beige for Stone White interior and black for Bronze and Ebony interiors. Bottom sash check rail cover will match the unit interior color (Stone White, Bronze or Ebony).

Screen:

- Roll formed aluminum frame with corner key construction
- Available in finish to match the exterior Ultrex frame color
- Charcoal color fiberglass (non-corrosive) screen cloth.
- Spring loaded pins for installation.
- Available in standard full screen or optional half screen

NOTE: Screen bar added when frame OM (height) is equal to or greater than 47 1/2" (1207)

Grilles-Between-The-Glass (GBG):

- 11/16" (17) contoured aluminum bar placed between two panes of glass
- Pattern: Standard rectangular pattern, optional 6 or 9 lite Prairie cut, or Cottage style cut on Double Hung
- Exterior Colors: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony
- Interior Colors: Stone White, Bronze or Ebony (matches unit interior color).
- Not available with tinted glass.

Accessories:

- Field Applied: J-Channel, a 1" (25) or 3" (76) frame expander, Flush Fin installation kit
- Factory Applied: Sheet rock return for 1/2" (13) or 5/8" (16) drywall, a 3/4" (19) receiver, a frame filler or a flush fin.
- Sheet rock return and 3/4" receiver color options: Stone White, Bronze or Ebony. Default color will match unit interior selection. Stone White sheet rock return and 3/4" receiver are available for all unit interior color selections.
- General Mull kits are available for field assembly

Exterior Casing:

- Non-integral to the unit
- Fastened to the exterior wall with barb and kerf: 2" brick mould as a full surround or with sill nosing
- 3 1/2" flat casing available as full surround or with sill nosing
- Available with 1" ranch style and header overhang

NOTE: NFRC Values are now located on www.marvin.com

ENERGY STAR® Program - United States

www.energystar.gov

About ENERGY STAR®

ENERGY STAR® is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping us all save money and protect the environment through energy efficient products and practices.

Residential Windows, Doors and Skylights

Thanks to advances in technology, today's ENERGY STAR® qualified windows, doors, and skylights offer greater savings than ever before. Just look for the ENERGY STAR® label.

Save energy and money.

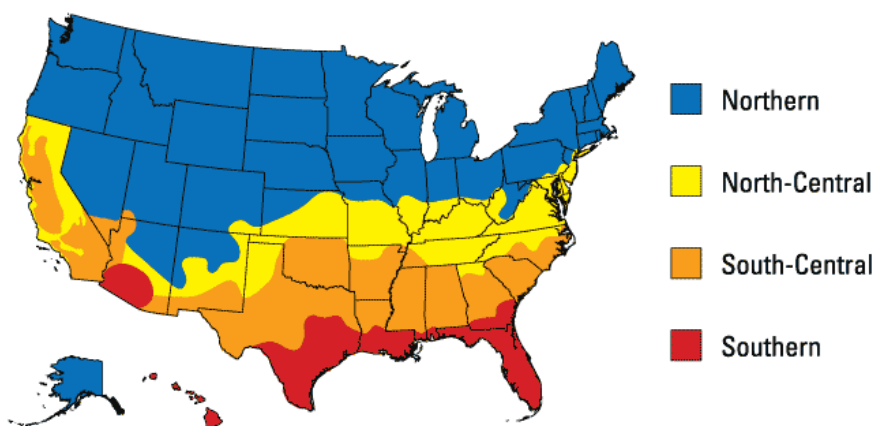
Replacing old windows with ENERGY STAR® qualified windows lowers household energy bills. Lower energy consumption also reduces greenhouse gas emissions from power plants and shrinks a house's carbon footprint.

Current Specification Effective Date: January 1, 2016

As of January 1, 2016, ENERGY STAR® qualified windows, doors, and skylights meet new performance levels, see below.

Windows and skylights must meet NFRC U-Factor and, where applicable, Solar Heat Gain Coefficient (SHGC) requirements based on climate zone. Doors must meet U-Factor and, where applicable, SHGC requirements based on glazing level (amount of glass).

At this time, most Marvin product lines qualify for the ENERGY STAR® program. For more specific information, please refer to the individual product sections in your Marvin catalog.



WINDOWS			
CLIMATE ZONE	U-FACTOR ¹	SHGC ²	
Northern	≤ 0.27	Any	Prescriptive
	= 0.28	≥ 0.32	Equivalent Energy Performance
	= 0.29	≥ 0.37	
	= 0.30	≥ 0.42	
North Central	≤ 0.30	≤ 0.40	
South Central	≤ 0.30	≤ 0.25	
Southern	≤ 0.40	≤ 0.25	

DOORS			
GLAZING LEVEL	U-FACTOR ¹	SHGC ²	
Opaque	≤ 0.17	No Rating	
≤ ½-Lite	≤ 0.25	≤ 0.25	
> ½-Lite	≤ 0.30	Northern North-Central	≤ 0.40
		Southern South-Central	≤ 0.25

ENERGY STAR® Most Efficient - United States

The ENERGY STAR® Most Efficient mark is an extension of the ENERGY STAR® brand and is designed to recognize and advance the most efficient products among those that qualify for ENERGY STAR®. This recognition is for specific categories and awarded for a specific year.

Marvin has long been a leader in providing our customers with energy efficient options. We are pleased to announce that Marvin meets the US ENERGY STAR® Most Efficient criteria with over 50 product types and 13,000+ glazing options.

MOST EFFICIENT CRITERIA

Energy Star Zone	U-factor	SHGC
Northern	≤ 0.20	≥ 0.20
North-Central	≤ 0.20	≤ 0.40
South-Central	≤ 0.20	≤ 0.25
Southern	≤ 0.20	≤ 0.25

As more product and glazing options are certified throughout the year, additional qualifying options will become available. The EPA has set up a page on its website where consumers can go to find all of the Marvin options that meet the Most efficient criteria.

To view the latest listing for [casement windows](#)

To view the latest listing for [horizontal sliding windows](#)

To view the latest listing for [vertical sliding windows](#)

To view the latest listing for [fixed windows](#)



IO (mm)	1' - 6" (457)	2' - 0" (610)	2' - 6" (762)	2' - 8" (813)	3' - 0" (914)	3' - 6" (1067)	4' - 0" (1219)
RO (mm)	1' - 6" (457)	2' - 0" (610)	2' - 6" (762)	2' - 8" (813)	3' - 0" (914)	3' - 6" (1067)	4' - 0" (1219)
FS (mm)	1' - 5 1/2" (445)	1' - 11 1/2" (597)	2' - 5 1/2" (749)	2' - 7 1/2" (800)	2' - 11 1/2" (902)	3' - 5 1/2" (1054)	3' - 11 1/2" (1207)
DLO (mm)	12 9/16" (319)	18 9/16" (471)	24 9/16" (624)	26 9/16" (675)	30 9/16" (776)	36 9/16" (929)	42 9/16" (1081)
2' - 11 3/4" (908)							
2' - 5 3/4" (756)							
3' - 0" (914)							
3' - 6" (1067)							
2' - 11 1/2" (902)							
3' - 5 1/2" (1054)							
20 5/16" (516)							
4' - 5 3/4" (1365)							
5' - 0" (1524)							
4' - 11 3/4" (1213)							

MARVIN ESSENTIAL™ COLLECTION

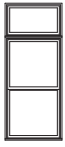
DOUBLE HUNG - Transoms and Multiple Assemblies

Transom Muller Over Double Hung

MO (mm)	2' - 6" (762)
RO (mm)	2' - 6" (762)
FS (mm)	2' - 5 1/2" (749)

5' - 11 3/4" (1822)
6' - 0" (1829)
5' - 11 1/2" (1816)

ESDHTR2616



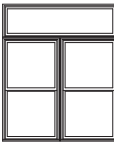
ESDH2646

Transom Muller Over Double Hung 2 Wide

MO (mm)	5' - 0" (1524)
RO (mm)	5' - 0" (1524)
FS (mm)	4' - 11 1/2" (1511)

5' - 11 3/4" (1822)
6' - 0" (1829)
5' - 11 1/2" (1816)

ESDHTR5016

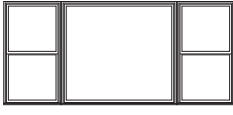


ESDH2646 / ESDH2646

Double Hung Flankers with Center Picture*

MO (mm)	10' - 0" (3048)
RO (mm)	10' - 0" (3048)
FS (mm)	9' - 11 1/2" (3035)

4' - 5 3/4" (1365)
4' - 6" (1372)
4' - 5 1/2" (1359)



ESDH2646 / ESDHP5046 / ESDH2646

Double Hung Flankers with Center Operator

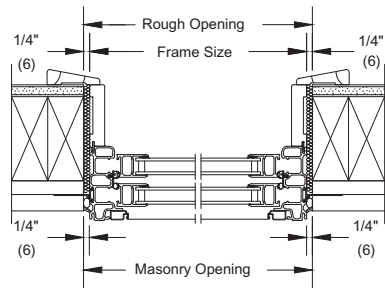
MO (mm)	7' - 6" (2286)
RO (mm)	7' - 6" (2286)
FS (mm)	7' - 5 1/2" (2273)

4' - 5 3/4" (1365)
4' - 6" (1372)
4' - 5 1/2" (1359)

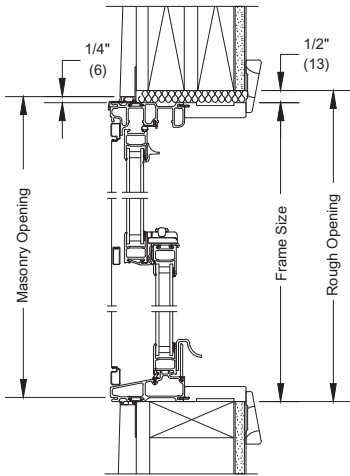


ESDH2646 / ESDH2646 / ESDH2646

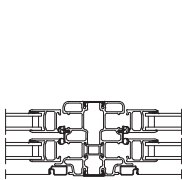
Construction Details



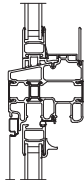
Jambs



Head Jamb
& Sill



Vertical Mullion



Horizontal Mullion
Transom/Operator

* This product is only available field muller.

Details and Elevations not to scale.

Available in equal, cottage, and reverse cottage sash configurations. Cottage and reverse cottage sash configurations are not available on 20, 60, and 66 call number heights.

Obscure Glass option available on all units.

Special sized units available within product size matrix. See your Marvin retailer.

Units may optionally include a window opening control device tested to ASTM F2090-10, which can be released from the inside without the use of a key, tool, special knowledge, or force greater than that required for normal unit operation.

See page 52 for specific PG Ratings.

For further details and drawings visit the 'Tools and Documents' section at Marvin.com.

MULTIPLE ASSEMBLIES

Multiple assemblies can be factory muller.

MAXIMUM ROUGH OPENING not to exceed 114" x 78". Maximum up to 6 units wide by 1 unit high.

MAXIMUM ROUGH OPENING not to exceed 96" x 96". Maximum up to 5 units wide by 5 units high.

Field mull kits are available. Structural mullion reinforcement is required for some assemblies.

Please consult your local Marvin representative for more information.

January 2020



HEAT PUMPS

Feel the possibilities.
Cooling & Heating Solutions
from Mitsubishi Electric

Comfort | Efficiency | Health



**MITSUBISHI
ELECTRIC**
COOLING & HEATING

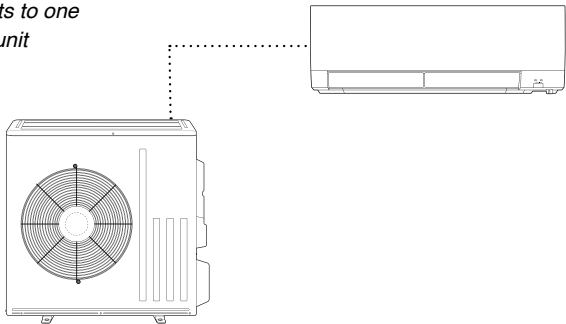
Banyan Photography



Single-zone System

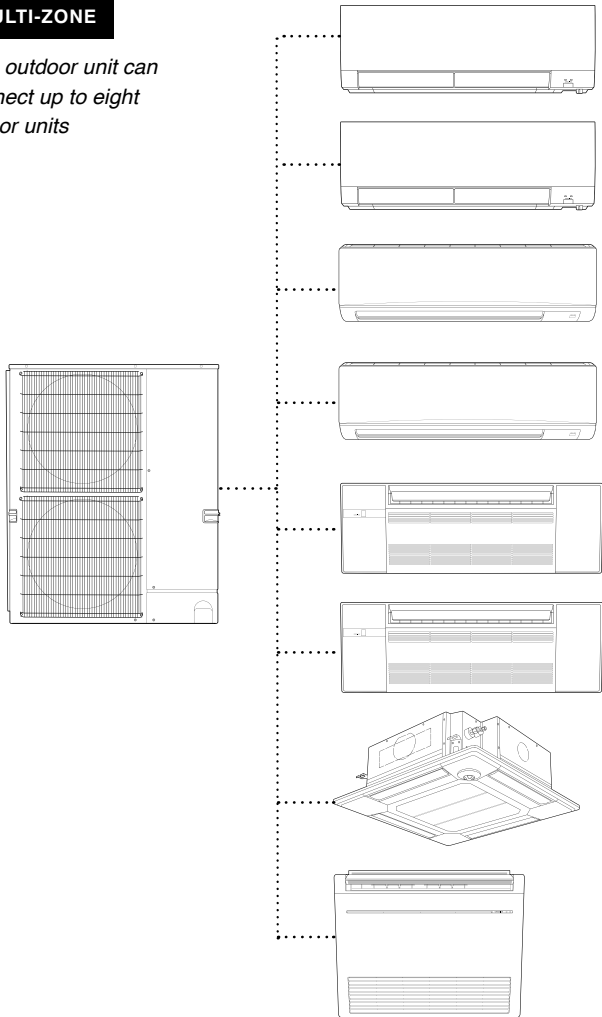
SINGLE-ZONE

One outdoor unit connects to one indoor unit



MULTI-ZONE

One outdoor unit can connect up to eight indoor units



Outdoor units and indoor units are available in single-zone and multi-zone versions.

With single-zone equipment, one outdoor unit connects to one indoor unit (see pages 18-25 for indoor units available). This option is ideal if you only need cooling and heating in a single space.

With multi-zone equipment, one outdoor unit can connect up to eight indoor units. This option is perfect if you need cooling and heating in multiple spaces with different functions, such as a nursery versus a kitchen or an office versus a conference room.

Each zone is served by its own indoor unit. Indoor units come in a variety of forms including wall-mounted units, floor-mounted units, ceiling cassettes and air handlers.

Wall-mounted units tend to be the most popular, but a floor-mounted unit could be an attractive option for a sunroom that has windows, but no wall space. A high-performance air handler could replace an older system, such as a central system or boiler that previously cooled or heated an open space.

Which outdoor unit is right for me?

Say goodbye to the noisy outdoor units of conventional systems. Our outdoor units operate as low as 46 decibels — the level of a typical conversation. Each unit has a space-saving compact design and is available in a variety of sizes to suit different cooling and heating requirements.

Single-Zone

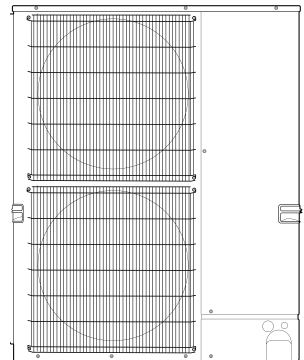
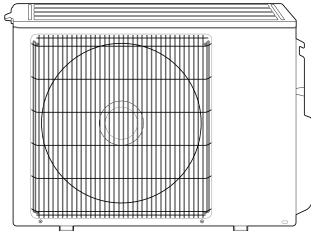
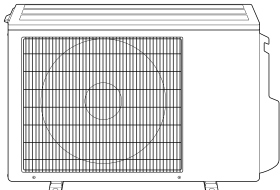
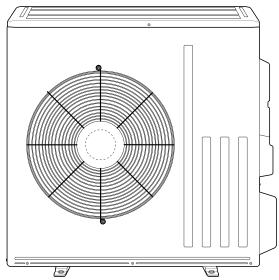
Available as a cooling only, heat pump or a hyper-heating heat pump, each outdoor unit connects to a single indoor unit through refrigerant lines. These outdoor units have INVERTER-driven compressors that only use the precise amount of energy needed to keep the space comfortable.

Multi-Zone

Available as a heat pump or an H2i® hyper-heating heat pump, each outdoor unit is capable of connecting up to eight indoor units. These outdoor units have INVERTER-driven compressors that only use the precise amount of energy needed to keep the space comfortable.



Photos © 2018 Scripps Networks, LLC. Used with permission; all rights reserved.



Multi-zone System



LED 10W & 13 Wallpacks. Patent Pending thermal management system. 100,000 hour L70 lifespan. 5 Year Warranty.

Color: Bronze

Weight: 3.3 lbs

Project:
Pine and Flynn

Type:
C

Prepared By:
A. Murphy

Date:
06/28/16

Driver Info

Type: Constant Current
120V: 0.13A
208V: 0.08A
240V: 0.07A
277V: 0.06A
Input Watts: 15W
Efficiency: 87%

LED Info

Watts: 13W
Color Temp: 4000K
Color Accuracy: 83 CRI
L70 Lifespan: 100000
Lumens: 673
Efficacy: 45 LPW

Technical Specifications

Listings

UL Listing:

Suitable for Wet Locations as a Downlight. Suitable for Damp Locations as an Uplight. Wall Mount only. Suitable for Mounting within 4ft. of ground.

Dark Sky Approved:

The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and 80, and have received the Department of Energy "Lighting Facts" label.

Optical

Lumen Maintenance:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Fixture Efficacy:

44.6 Lumens per Watt

Lumen Maintenance:

The LED will deliver 70% of its initial lumens at 100,000 hours of operation.

BUG Rating:

B1 U0 G0

Construction

Cold Weather Starting:

The minimum starting temperature is -40°F/-40°C.

Ambient Temperature:

Suitable for use in 50°C (122°F) ambient temperatures.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Green Technology:

RAB LEDs are Mercury and UV free.

For use on LEED Buildings:

IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

Gaskets:

High Temperature Silicone.

Electrical

Driver:

Multi-chip 13W high output long life LED Driver Constant Current, Class 2 100V - 277V, 50/60 Hz.

Surge Protection:

4KV

LED Characteristics

Color Temperature (Nominal CCT):

4000K

Color Accuracy:

86 CRI

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period.

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Other

Patents:

The design of the LPACK is protected by U.S. Pat. D604,004 and patents pending in Canada, China and Taiwan.

California Title 24:

See WPLED13/PC for a 2013 California Title 24 compliant model.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish.

Equivalency:

The WPLED13 is Equivalent in delivered lumens to a 100W Metal Halide Wallpack.

HID Replacement Range:

The WPLED13 can be used to replace 70-150W Metal Halide Wallpacks based on delivered lumens.

Country of Origin:

Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.

Technical Specifications (continued)

Other

Buy American Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Buy American Act.

Recovery Act (ARRA) Compliant:

This product complies with the 52.225-21 "Required Use of American Iron, Steel, and Manufactured Goods-- Buy American Act-- Construction Materials (October 2010).

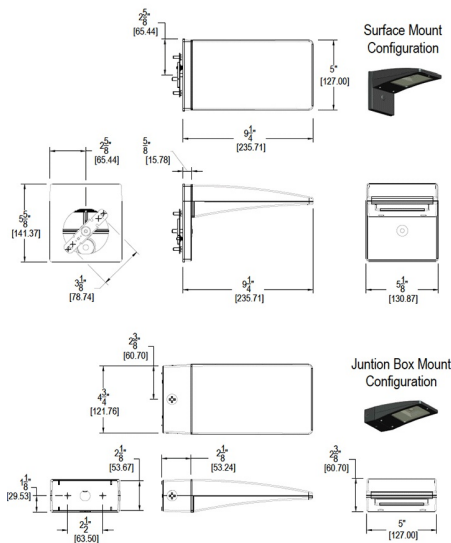
Trade Agreements Act Compliant:

This product is a COTS item manufactured in the United States, and is compliant with the Trade Agreements Act.

GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

Dimensions



Features

- High performance LED light engine
- Maintains 70% of initial lumens at 100,000 hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- 5-year warranty

Ordering Matrix

Family	Watts	Color Temp	Sensor	Surface Plate	Surface Place	Finish	Photocell
WPLED	10 = 10W 13 = 13W	= 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	= No Sensor MS = Mini Sensor	= No Surface Plate	S = Surface Plate	= Bronze W = White	= No Photocell /PC = 120V Button /PCS = 120V Swivel /PC2 = 277V Button

323 COLLEGE STREET - EXISTING CONDITIONS PHOTOS



VIEW TO SOUTHWEST FROM COLLEGE STREET



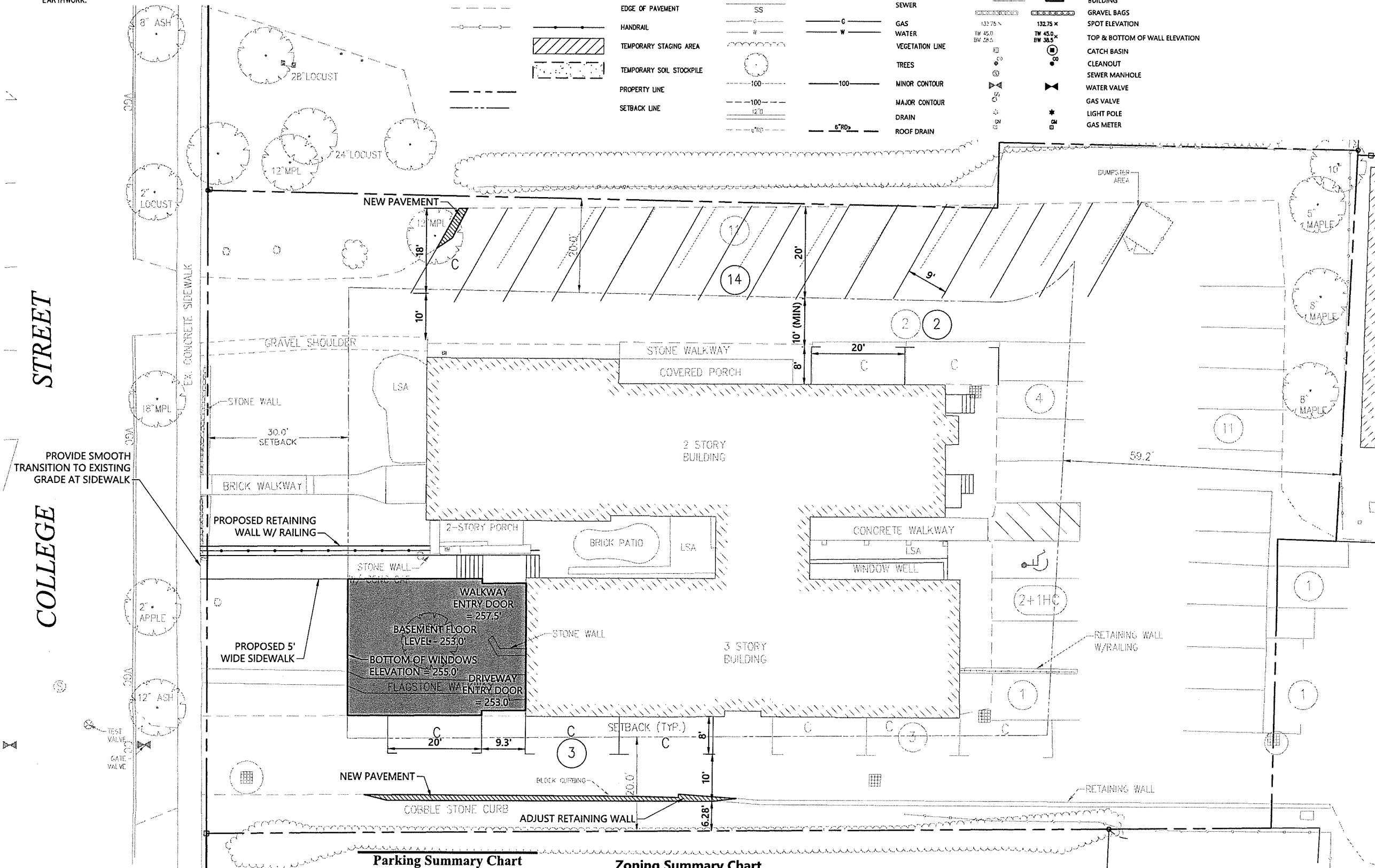
VIEW TO SOUTH FROM COLLEGE STREET



VIEW TO SOUTHEAST FROM COLLEGE STREET

Legend

EXISTING		PROPOSED		EXISTING		PROPOSED		EXISTING		PROPOSED	



Parking Summary Chart

Description	Spaces	
	Existing	Proposed
COMPACT SPACES	5	9
STANDARD SPACES	29	31
STANDARD ACCESSIBLE SPACES	1	1
PARALLEL SPACES	5	9

Zoning Summary Chart

Zoning District(S):	Residential - High Density (RH)		
Overlay District(S):	Design Review		
Zoning Regulation Requirements	Existing	Required	Proposed
LOT AREA	32,566 SF	N/A	32,566 SF
LOT COVERAGE	70.0%	80% (Max)	75.9%

Proposed Addition
323 Greencastle, LLC

323 College Street
Burlington, Vermont

No.	Revision
-----	----------

Designed by

CHS

Review

Review

Not Approved for Construction

Layout and

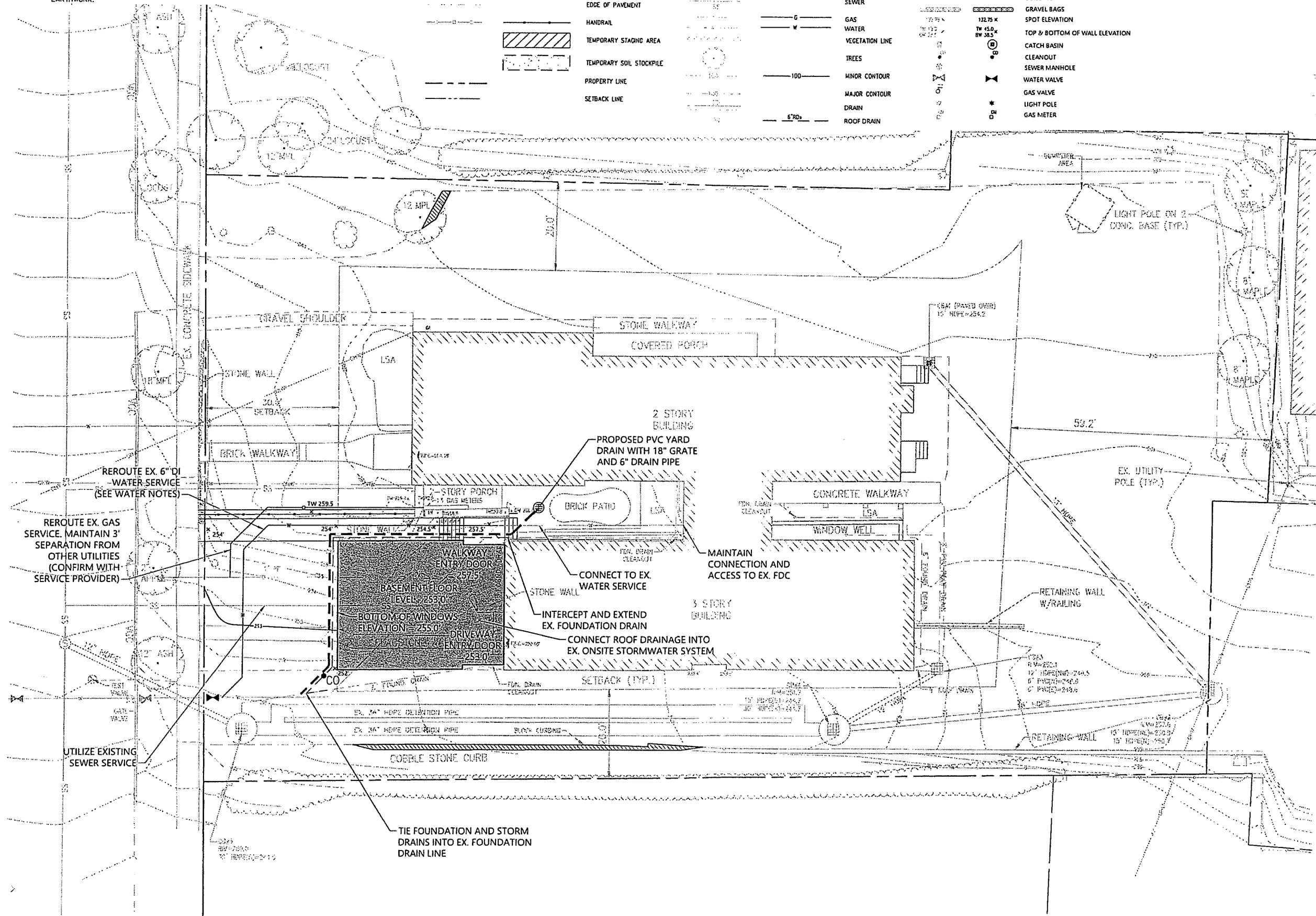
Layout and

Materials Plan

Drawing Number

C1.0

- 1) THE PROPERTY LINES SHOWN ARE BASED UPON A BOUNDARY SURVEY PLAT FOR THE SUBJECT PROPERTIES, ENTITLED "BOUNDARY LINE ADJUSTMENT SURVEY PLAT", PREPARED BY VHB, DATED MAY 30, 2018, REVISED JUNE 29, 2018.
- 2) EXISTING CONDITIONS SHOWN ARE BASED UPON VHB FIELD SURVEY PERFORMED JUNE 2020 AND A COMPARISON OF AVAILABLE EXISTING UTILITY RECORDS, UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO PERFORMING ANY EARTHWORK.



EXISTING		PROPOSED		EXISTING		PROPOSED	
					OVERHEAD UTILITY		STONE WALL
					ELECTRIC		PARKING COUNTRY
					SEWER		BUILDING
					GAS		GRAVEL BAGS
					WATER		SPOT ELEVATION
					VEGETATION LINE		TOP & BOTTOM OF WALL ELEVATION
					TREES		CATCH BASIN
					MINOR CONTOUR		CLEANOUT
					MAJOR CONTOUR		SEWER MANHOLE
					DRAIN		WATER VALVE
					ROOF DRAIN		GAS VALVE
							LIGHT POLE
							GAS METER



01 Walnut Street
PO Box 9151
Watertown, MA 02471
17.924.1770



Proposed Addition
323 Greencastle, LLC
323 College Street
Burlington, Vermont

No	Revision	Date	Appr

Prepared by **CHS** Contract Health Services Produced by **PBS**
Issued for **CHS** Date **July 14, 2020**

Not Approved for Construction
Drawing Title
**Site Grading
and Utility Plan**

C2.01

Burlington Design Advisory Board

Department of Permitting and Inspections

645 Pine Street

Burlington, VT 05401

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

Telephone: (802) 865-7188

Matt Bushey, Chair
Ron Wanamaker
Emily Morse
Jay White
Kathleen Ryan, Alternate
Vacant, Alternate



DESIGN ADVISORY BOARD

Tuesday January 11, 2022

645 Pine Street and via Zoom

Present: Matt Bushey (Chair), Ron Wanamaker (Vice Chair), Jay White, Emily Morse,

Absent: Kathleen Ryan (alternate)

Staff present: Mary O'Neil, Ryan Morrison

Agenda

Session I – 3:00 PM – 3:30 PM

I. ZP-21-800; 501 Pine Street (E-LM, Ward 5S) Kurt Schueler / Vermont Gas Systems, Inc.

Food Truck/Container Kitchen Eating area. (Ryan Morrison, Project Manager)

Motion by Matt Bushey: I move to table the application and request that the applicant return with the following:

1. Provide public restrooms for use by restaurant patrons.
2. Provide structural engineering analysis of the shipping container installation, including foundations and connection of the vertically stacked unit.
3. Provide landscaping plan.
4. Conditions outlines in the staff comments.

2nd: Emily Morse

Vote: 4-0

Motion carries.

Session II – 3:30-4:00 PM

II. ZP-21-778; 323-325 College Street (RH, Ward 8E) Benjamin Frye / 323 Green Castle LLC

Construction of 4-unit building addition with associated utility work and minor grading. (Ryan Morrison, Project Manager)

Motion by Ron Wanamaker: I move to table the application and if the applicant wishes to return that the following recommendations are addressed:

1. Set back the top floor of the new addition so it does not extend past the front of the historic structure.
2. Improve the quality of the exterior materials, such as with brick, stone veneer at the foundation and eliminating corrugated metal siding.
3. Improve the cornice design so it is more in keeping with the previous building addition.
4. Simplify the west façade.

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).

5. Reduce the height of the retaining wall.
6. Show rendering or colored elevations of the West Elevation, including the retaining wall.

2nd: Emily Morse

Vote: 4-0

Motion carries

Session III – 4:00-4:30 PM

III. Revised DAB 2022 Calendar

Motion by Ron Wanamaker: I move to approve the revised 2022 DAB meeting calendar, as presented.

2nd: Emily Morse

Vote: 4-0

IV. Adjournment