

Conditional Use Application Questions + Responses  
Lot 100-5575

- 1.) Describe how the proposed use will not have an undue adverse impact on the capacity of existing or planned community facilities to accommodate it (including roads and highways, municipal water or sewer systems, school system, fire protection services):
  - a.) School System
    - i.) Spacious turnarounds are provided for school buses. School bus routes potentially will become more efficient due to a single pickup point for multiple students.
    - ii.) Design input and approval from the Waterbury Superintendent of Schools to be incorporated soon.
  - b.) Fire Protection
    - i.) Spacious turnarounds are provided for fire trucks. A 1 way circulation pattern also enhances ease of circulation. Each upstairs unit will be served by a private, fire-rated entry and set of stairs. Downstairs units will have egress directly to ground level.
    - ii.) Design input and approval from the Waterbury Fire Department to be incorporated soon.
  - c.) Roads and Highways
    - i.) A State permit is required for a pull off on Rt. 100. The design team will work with the State to ensure adequate pull offs will be provided to facilitate safety and prevent any potential congestion.
  - d.) Municipal water or sewer systems
    - i.) The Project will not use municipal water or sewer systems, both will be private on site.
- 2.) Describe how the proposed use will not have an undue adverse impact on the character of the area affected as defined by the Municipal Plan and the zoning district in which the proposed project is located:
  - a.) Project Goals
    - i.) Character of the Community: Pragmatic, efficient buildings that sip energy and provide excellent quality of life with tall ceilings and abundant natural lighting.
    - ii.) Minimize environmental impact, preserve open & natural space, and ensure greater efficiency in infrastructure.
  - b.) Compressed Site Plan + Limited Building Size
    - i.) The site plan has been compressed as feasible to create clusters of buildings that protect a sense of open space & connection with nature.
    - ii.) Modern and energy efficient new buildings will complement & enhance the architectural aesthetics of the surrounding area while increasing surrounding property values.

- iii.) The site plan seeks to maintain the rural and scenic beauty of the area. As many existing trees as possible on the site have been kept. Residents will have nature literally out their back door.
  - c.) 50% of land to be conserved as public space
    - i.) Over 50% of the property will be conserved as a public park supporting access to nature through forested walking trails.
- 3.) Describe how the proposed use will not violate any municipal bylaws and ordinances in effect:
  - a.) A thorough vetting of the Waterbury Zoning Regulations has been completed for compliance and support of town-wide goals. No bylaws or ordinances have been violated.
- 4.) Describe any devices or methods to prevent or control fumes, gas, dust, smoke, odor, noise, or vibration:
  - a.) All on site energy use will be electric. Super-insulated walls provided excellent acoustic isolation. No other sources of smoke, odor, fumes, or gas exist on site.
- 5.) For removal of earth or mineral products which is not incidental to a construction, landscaping, or agricultural operation, a removal project must meet specific conditions outlined within Section 302 of the Waterbury Zoning Regulations. Are the conditions included within the Application Submittals?
  - a.) No removal of earth or mineral products is planned at this time.

PUD Application Questions + Responses  
Lot 100-5575

- 1.) A statement describing the character and proposed uses of the undeveloped land, including the nature of proposed public uses.
  - a.) The comprehensive property is primarily forested with open fields on the eastern half towards Rt. 100. A large wetland runs through the center from North to South. The western half which is all forested will be conserved as undeveloped land. Walking trails will serve the public and on-site residents as a place to unwind, relax, and connect with nature.
- 2.) A statement on the impact of the development on public roads and other public infrastructure such as schools, sewer systems, or public water systems, if appropriate.
  - a.) School System
    - i.) Spacious turnarounds are provided for school buses. School bus routes potentially will become more efficient due to a single pickup point for multiple students.
    - ii.) Design input and approval from the Waterbury Superintendent of Schools to be incorporated soon.
  - b.) Fire Protection
    - i.) Spacious turnarounds are provided for fire trucks. Each upstairs unit will be served by a private, fire-rated entry and set of stairs. Downstairs units will have egress directly to ground level.
    - ii.) Design input and approval from the Waterbury Fire Department to be incorporated soon.
  - c.) Roads and Highways
    - i.) A State permit is required for a pull off on Rt. 100. The design team will work with the State to ensure adequate pull offs will be provided to facilitate safety and prevent any potential congestion.
  - d.) Municipal water or sewer systems
    - i.) The Project will not use municipal water or sewer systems, both will be private on site.
- 3.) Articles of association, bylaws, or declarations of condominium that relate to provisions for undeveloped land, design controls, land use restrictions, recreation, parking areas, or other facilities used, owned, or maintained in common.
  - a.) All properties are to be maintained under single ownership and no homeowner's association or similar entity is planned. Parking areas will be provided for the public to access the undeveloped / conserved land.
- 4.) A description of how the project meets each of the standards in Section 705 (PUD), including justification for any density bonuses that are requested. Standards:
  - a.) The project must conform to the density and dimensional requirements set forth in Section 702.
    - i.) Lot Area  
(1) min = 5 acres

- (2) planned = ~10 acres (after relinquishing 10+ acres as protected, undeveloped space)
- ii.) Road Frontage
  - (1) min = 400'
  - (2) planned = 1116.9' on Rt. 100
  - (3) section 301 (h) Site Plan Review and Approval
    - (a) min: 25% frontage on Rt. 100, 250' deep to be undeveloped
    - (b) planned: 30% (336')
- iii.) Building Height
  - (1) max = 35' & 2 stories
  - (2) planned = 21.5' & 2 stories
- iv.) Coverage
  - (1) max = 10% for any lot, excluding undeveloped land, created in a planned unit development (PUD)
  - (2) planned = 5.3%
    - (a) 10 acres = 435600 ft<sup>2</sup>
    - (b) buildings =  $48 \times 48 \times 2 + 72 \times 48 \times 7 = 28800$  ft<sup>2</sup>
    - (c)  $28800 / 435600 = 6.6\%$
- v.) Setbacks
  - (1) Minimum:
    - (a) front: 100'
    - (b) side: 50'
    - (c) back: 50'
  - (2) Planned:
    - (a) front: 100'
    - (b) side: 50'+
    - (c) back: 50'+
  - (3) Section 702 PUD Permitted Densities
    - (a) We request a setback reduction (200' to 100' along Rt. 100) to provide practical building sites. When a 200' setback is applied along Rt. 100, few to zero practical building sites exist in the front / Eastern half of the property (in front of the wetland).
    - (b) A wetland separates the "back" from the "front" of the property (front is the Rt. 100 or Eastern side).
    - (c) 50% of PUD is required to be kept as undeveloped land.
    - (d) Keeping the back of the property, rather than the front, as undeveloped land we currently understand to be in the best interest of all stakeholders (Citizens of Waterbury, Conservation Commission & Wild Life, Shutesville Hill Wildlife Corridor Partnership, Applicants).
- vi.) Dwelling unit density per building
  - (1) max: 6

- (2) planned: 4 to 6
- vii.) Dwelling unit density per acre
  - (1) max: 2.5 per acre (2 per acre with 25% bonus available as PUD)
  - (2) planned: 2.5 per acre
    - (a)  $50 \text{ units} / 20.8 \text{ acres} = 2.4$
- b.) A residential density increase of up to 25 percent may be permitted only if the Development Review Board finds that such increase:
  - i.) (1) Will not have an undue adverse impact on the capacity of community facilities and services;
    - (1) See other sections.
  - ii.) (2) Will not have an undue adverse impact on the character of the area as defined by the Municipal Plan and the zoning district in which the use is located; and
    - (1) See other sections.
  - iii.) (3) Is compensated for by substantial efforts to provide one or more of the following: the provision of low- and moderate-income housing; preservation of agricultural land; or the provision of publicly accessible park or recreation land.
    - (1) A publicly accessible park with parking & walking trails through the forest is to be established as recreational land.
- c.) The project is an effective and unified treatment of the development possibilities of the site and makes appropriate provision for preservation of streams and stream banks, steep slopes, wetlands, soils unsuitable for development, agricultural and open lands, unique natural and man-made features, watersheds, wildlife habitat, floodplains, and scenic features.
  - i.) Clustered development ensures the preservation of all natural features including the large wetland in the center of the property. Unique natural features to be preserved are predominantly mature deciduous trees. No notable man-made features exist to be preserved. No floodplain exists. Preserving wildlife habitat and passage is the primary goal of the clustered building sites, as the parcel sits within the Shutesville Hill Wildlife corridor where bears, deer, and other species have the ability to move between major habitat districts. 57.6% of the Rt. 100 road frontage is completely clear and open to wildlife passage (taking perpendicular lines into the property and avoiding all buildings). Over 100' of space is available for the wildlife to move in for the remaining 42.4% of the frontage (before any buildings or parking). The 57.6% is 644.45' in length with 202.45' in the north of the property and 442' in the south.
- d.) Phasing of the development shall be scheduled or phased to ensure that adequate municipal facilities and services will be provided. In the event it is determined that the project will unduly burden municipal facilities or services, the municipality may require contributions to cover costs or dedication of land or interests in land for the purpose of providing or contributing toward the provision of necessary facilities or services.

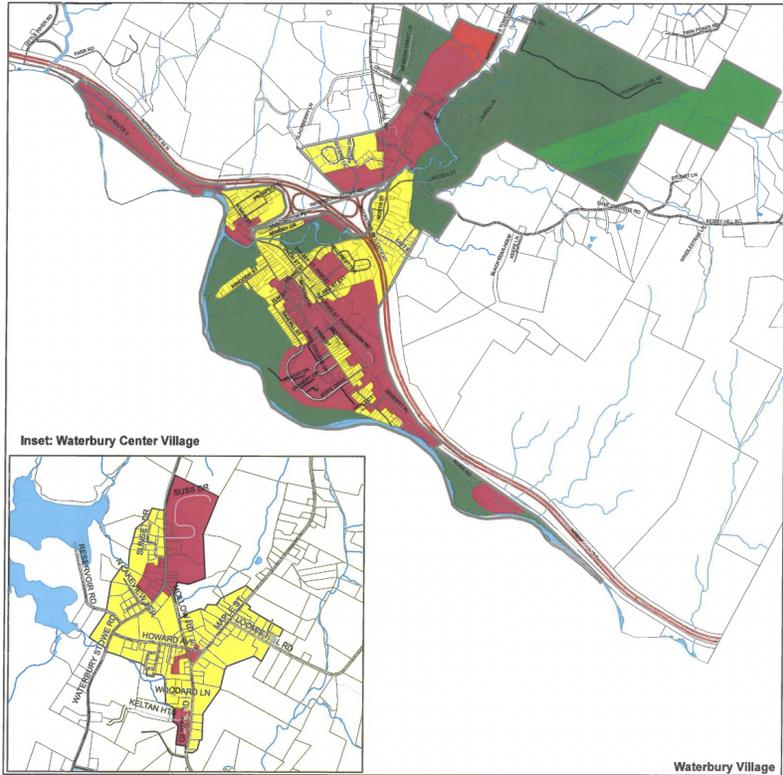
- i.) Phasing of the project will be roughly 50% built in year 1 and 50% in year 2.
- e.) If a project is to be served by a public water supply or a public sewer system, a letter from the appropriate municipal department shall be submitted to the Development Review Board certifying that such services can be provided to all habitable units before occupancy.
  - i.) All water and sewer is private.
- f.) If a project is not served by a public water supply system and a public sewer system, approval of the water supply and sewage disposal systems by all state authorities shall be required.
  - i.) Thomas Wawrzeński is in active communication with State authorities on both the water & sewer systems. At least 1 sewer & water plan has received initial approval. These initial and final approvals will be provided promptly.
- g.) The proposed PUD shall not unduly burden the school system. The applicant may be required to obtain a letter from the Superintendent of Schools regarding the impact of the project on the school system.
  - i.) A letter from the Superintendent of Schools will be obtained soon. Due to shrinking school enrollments providing excess capacity no chance of undue impact is anticipated.
- h.) The proposed PUD shall not unduly burden municipal roads, including intersections and access roads immediately burdened by the project.
  - i.) No municipal roads are involved in the project.
- i.) Development access roads shall be of a width, surface, and design adequate for handling proposed traffic, including accessibility for emergency vehicles, school buses, and public transit, if appropriate.
  - i.) Please see site design for details. Large turnarounds have been provided for school buses and fire trucks. All roads and parking conform to common conventions. Parking spaces are 9'x18' or larger.
- j.) Adequate pedestrian circulation, which may include sidewalks, maintained trails, or other pathways, shall be provided.
  - i.) Each building includes sidewalks around the perimeter that serve the entry. Ample open space in fields has been provided for recreation. The forest trails and conserved / undeveloped land will also create opportunities for enjoying nature & the outdoors.
- k.) Adequate landscaping and screening of both buildings and parking areas shall be required in order to protect scenic vistas and the site's natural aesthetic features.
  - i.) As many existing deciduous trees as possible have been maintained. Additional landscaping, plantings, and screening have been depicted on the site plan.
- l.) The proposed PUD must be consistent with the Municipal Plan.
  - i.) The site plan and all decisions have been made in accordance with the intentions and goals of the municipal plan.

- ii.) Specific Goals of the Municipal Plan + Responses
  - (1) “Achieve continued availability of housing for existing and new residents in a manner respectful of natural resources;”
    - (a) The Future Housing Distribution + Growth Centers Map (published in 2013, see footnotes) calls for the addition of 250-334 dwelling units within Waterbury looking forward 10 years (2013-2023). Housing applications slowed to 10 new dwelling units per year between 2010-2012 (the last available data point on this topic). Assuming no rapid acceleration has since taken place, the approval of 50 additional units will help close in on this goal and provide much needed housing. There is a well known housing shortage in Vermont in general and this is a top priority of our State Government. The Housing Distribution Map & 10 Year Plan calls for 20-27 units in the Rt. 100 Corridor while aiming for 90-120 in the Rural Residential district, which likely is under permitted now in 2022 based on these goals. Residences situated along this northernmost section of Rt. 100 will likely serve those commuting to the North well by shortening commute times. It will also serve the growing population of people that are working from home and/or striving to live active outdoor lifestyles which involve traveling to “playgrounds” such as ski resorts and mountain bike trail networks. In this respect the location is ideal.
  - (2) “Cultivate a vibrant economic climate that achieves sustainable economic growth in Waterbury”
    - (a) Supporting the goals and needs of work-from-home employees and active outdoor enthusiasts with long-term, high quality, and high value housing helps Waterbury achieve this goal.
  - (3) “When considering further development of the Route 100 corridor north of Colbyville, traffic congestion should be a primary concern”
    - (a) Any potential traffic congestion caused by the Rt. 100 curb cut design can be avoided with proper design, including the possibility of lane creation, and the fact that no other significant sources of merging traffic (such as popular businesses like Cold Hollow Cider Mill) are in the immediate vicinity.
- m.) Land that is not included in building lots, streets, rights-of-way, or utility easements shall be reserved as undeveloped land for recreation, conservation, agriculture, and the enhancement of the natural environment for living. Such undeveloped land shall not be less than 50 percent of the total project area. Further, the undeveloped land shall:

- i.) (1) Take the fullest advantage of all natural features, such as natural watercourses and drainages, topography, existing trees, outlook, agricultural land, forests, and other features;
    - (1) All features have been considered. Please see the site plan.
  - ii.) (2) Be in a location, and of a character, size, extent, and shape suitable for the land's intended use;
    - (1) The location and character of the conserved land complement the residential use of the property.
  - iii.) (3) Contain no building or development, except one primarily devoted to a purpose for which the undeveloped land is intended, including swimming pool, tennis courts, and similar recreational facilities, and minor incidental buildings connected therewith; and
    - (1) No additional building or development unrelated to the preserved land is planned other than parking.
  - iv.) (4) Be conveyed to a 3rd Party
    - (1) Our intention is to convey the preserved land to either the municipality directly or the Waterbury Conservation Commission. Details are still being worked out.
- 5.) PUDs that include nonresidential uses or structures must also apply for site plan approval for the nonresidential portions of the project. Please include a Site Plan Application.
- a.) No nonresidential uses or structures are planned at this time.
- 6.) PUDs that included uses that are conditional in the district for which they are proposed must also apply for and obtain conditional use approval for those uses. Please include a Conditional Use Application.
- a.) Conditional Use Application is duly submitted.

Footnotes

-Future Housing Distribution + Growth Centers Map (published in 2013)



Future Housing Distribution Maps - Growth Centers, Map 1-5

<b>WATERBURY VILLAGE GROWTH CENTER:</b>	
Mixed Use: Commercial/Industrial	(25-35)
Village Residential	(40-55)
Rural Residential/Agricultural	(25-35)
<b>SUBTOTAL:</b>	<b>(90-125 units)</b>

<b>WATERBURY CENTER VILLAGE GROWTH CENTER:</b>	
Mixed Use: Commercial/Industrial	(10-14)
Village Residential	(20-35)
<b>SUBTOTAL:</b>	<b>(30-42 units)</b>

<b>AREAS OUTSIDE GROWTH CENTERS</b>	
Route 100 Corridor	(20-27)
Rural Residential/Agricultural	(90-120)
Forest	(15-30)
<b>SUBTOTAL:</b>	<b>(125-334)</b>

**TOTAL IN ALL AREAS:** (250-334 units)

Legend	
<b>Zone</b>	<b>Roads</b>
Forest	Paved Public Roads
Route 100 Corridor	Unpaved Public Roads
Rural Residential/Agricultural	State Forest Highway
Village Residential	Paved Private Roads
Mixed Use	Unpaved Private Roads
Growth Center Village Area	Interstate
Waterbury Parcels	Rivers, Lakes, and Ponds
	Streams



Source: Waterbury, CVRPC 2011  
 Waterbury Future Land Use: 2002  
 Roads: VTrans 2012  
 Surface Water: VHD 2008

Map created 2013 by CVRPC  
 Path: N:\Towns\Waterb\TownPlan\Future Land Use- village-table.mxd

Data is only as accurate as the original source materials.  
 This map is for planning purposes only.  
 This map may contain errors and omissions.

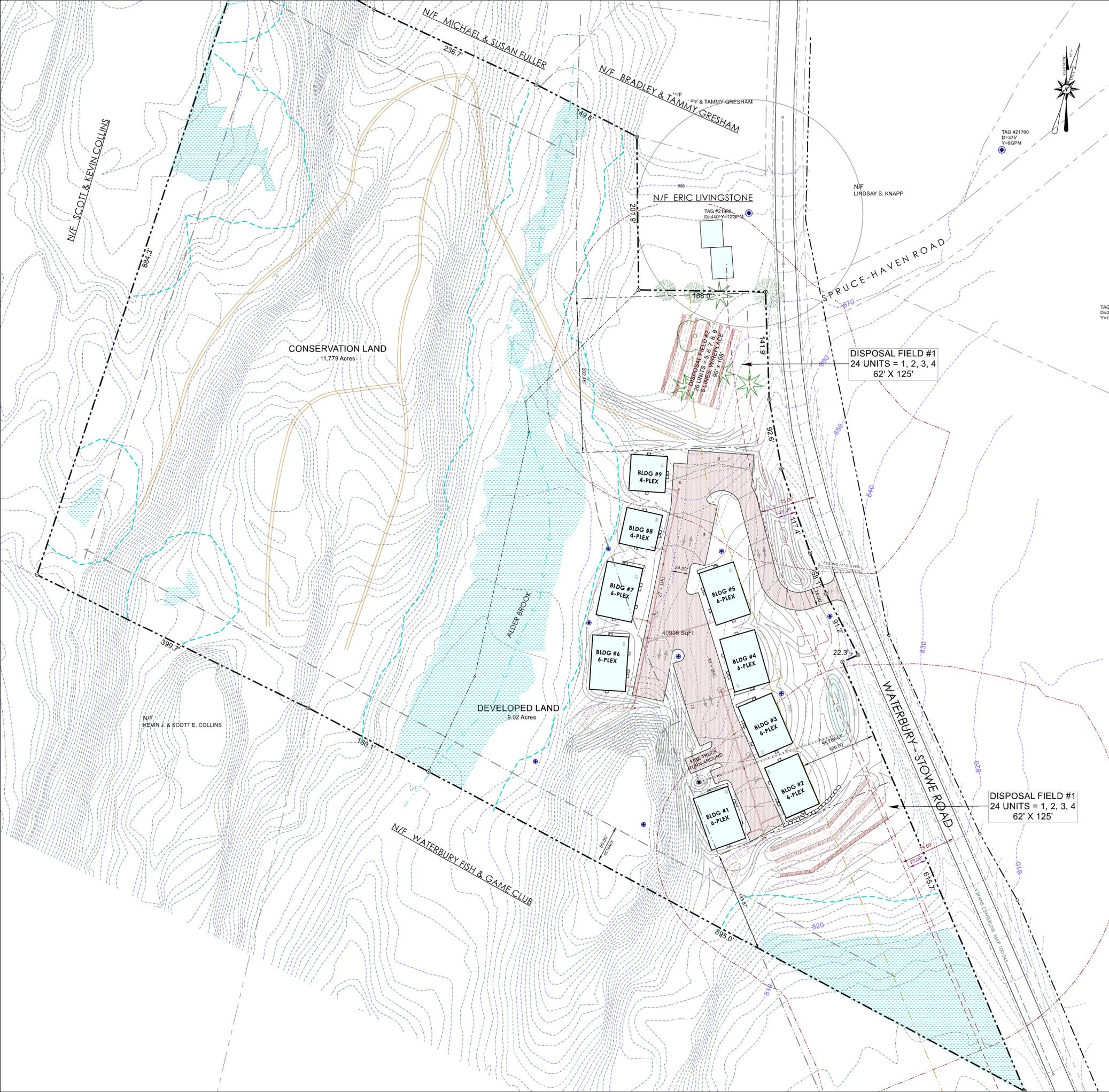




**SITE CIVIL ENGINEERING**  
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**LOCATION MAP**



**DISPOSAL FIELD #1**

In-ground disposal field serves Buildings 1, 2, 3, and 4, 24 Units.  
 Based on EPA latest approved regulations dated April 19, 2019,  
 under Section 803, Table 8-1, Total design flows will be  
 245gpd/unit. Total designs flows = 24 x 245 gpd = 5,880 gpd

Soils are classified as Tundridge-Lyman, loamy sand.  
 Application rate = 1.5 gal/ft<sup>2</sup>/day. 5,880 / 1.5 = 3,920 gpd  
 Adding pre-treatment filtrate effluent, the additional reduction  
 will be 2.0 gal/ft<sup>2</sup>/day. Therefore, the total design flows =  
 3,920 gpd / 2.0 = 1,960 gpd. Using 4' wide absorption trenches  
 the total linear feet of stone in pipe trenches = 490'  
 Using 4 absorption trenches, the length will be 123 feet long.  
 This disposal field will include alternating replacement trenches.  
 The overall disposal field is 62' x 125'

**DISPOSAL FIELD #2**

In-ground disposal field serves Buildings 5, 6, 7, 8 and 9, 26 Units.  
 Based on EPA latest approved regulations dated April 19, 2019,  
 under Section 803, Table 8-1, Total design flows will be  
 245gpd/unit. Total designs flows = 26 x 245 gpd = 6,370 gpd

Soils are classified as Tundridge-Lyman, loamy sand.  
 Application rate = 1.5 gal/ft<sup>2</sup>/day. 6,370 / 1.5 = 4,247 gpd  
 Adding pre-treatment filtrate effluent, the additional reduction  
 will be 2.0 gal/ft<sup>2</sup>/day. Therefore, the total design flows =  
 4,247 gpd / 2.0 = 2,123 gpd. Using 4' wide absorption trenches  
 the total linear feet of stone in pipe trenches = 531'  
 Using 5 absorption trenches, the length will be 106 feet long.  
 This disposal field will include alternating replacement trenches.  
 The overall disposal field is 86' x 108'

**PLAN LEGEND**

	PROPERTY/LOT LINE
	EXISTING 10 FOOT CONTOUR
	EXISTING 2 FOOT CONTOUR
	EXISTING OVERHEAD POWER
	CLASS II WETLAND DELINEATION
	CLASS II WETLAND 50' BUFFER LINE
	PAVED SIDEWALK
	4 OR 6 PLEX BUILDING FOOTPRINT
	IN-GROUND DISPOSAL SYSTEM
	DISPOSAL FIELD ISOLATION
	100' ROAD ROW SETBACK
	50' & 250' SETBACK LINE
	75' SETBACK VTRANS CENTERLINE
	25' SETBACK VTRANS RIGHT OF WAY
	TRASH / RECYCLE ENCLOSURE
	WALKING TRAIL
	EXISTING DRILLED WELL
	DRILLED WELL SHIELD
	PROPOSED DRILLED WELL

Revisions:



Project Title

**20.8 Acre Parcel**  
**Waterbury - Stowe Road**  
**Waterbury, Vermont**

Sheet Title

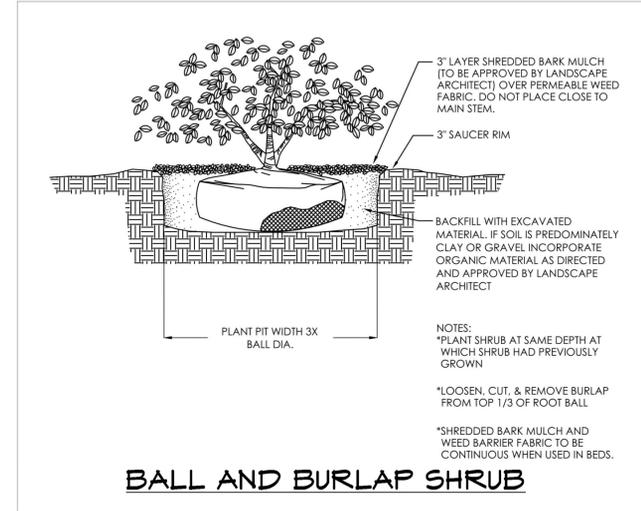
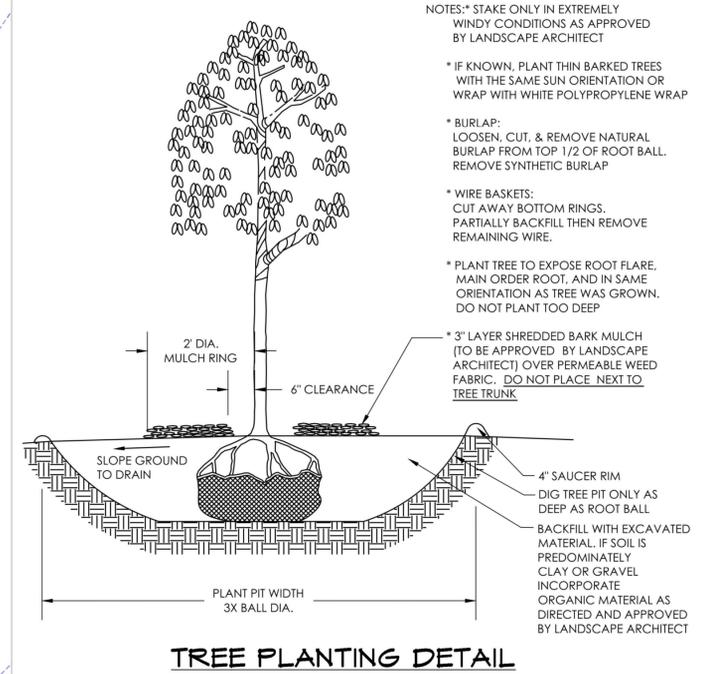
**50 Unit PUD**  
**Development**

Date: 01-23-2023  
 Scale: 60 SCALE  
 Project Number: 22-617 / 22-036  
 Drawn By: TJW  
 Project Engineer: \_\_\_\_\_  
 Approved By: \_\_\_\_\_

**C1-03.5**



**SITE CIVIL ENGINEERING**  
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 Hyde Park, Vermont 05655  
 802-730-3443 - www.twarsaw1@aol.com



**PLAN LEGEND**

	PROPERTY LOT LINE
	EXISTING 10 FOOT CONTOUR
	EXISTING 2 FOOT CONTOUR
	EXISTING OVERHEAD POWER
	CLASS II WETLAND DELINEATION
	CLASS II WETLAND 50' BUFFER LINE
	PAVED SIDEWALK
	4 OR 6 PLEX BUILDING FOOTPRINT
	IN-GROUND DISPOSAL SYSTEM
	100' ROAD ROW SETBACK
	50' & 250' SETBACK LINE
	75' SETBACK VTRANS CENTERLINE
	25' SETBACK VTRANS RIGHT OF WAY
	WALKING TRAIL
	PROPOSED DRILLED WELL
	EXISTING SPECIFIC TREES
	13-SUGAR OR SILVER MAPLE- 3" DIA.
	30-SCREENING HEDGE ROW- 2 GAL
	7-DECORATIVE HEDGE- 2 GAL
	TRASH / RECYCLE ENCLOSURE



Revisions:

Project Title

**20.8 Acre Parcel  
 Waterbury - Stowe Road  
 Waterbury, Vermont**

Sheet Title

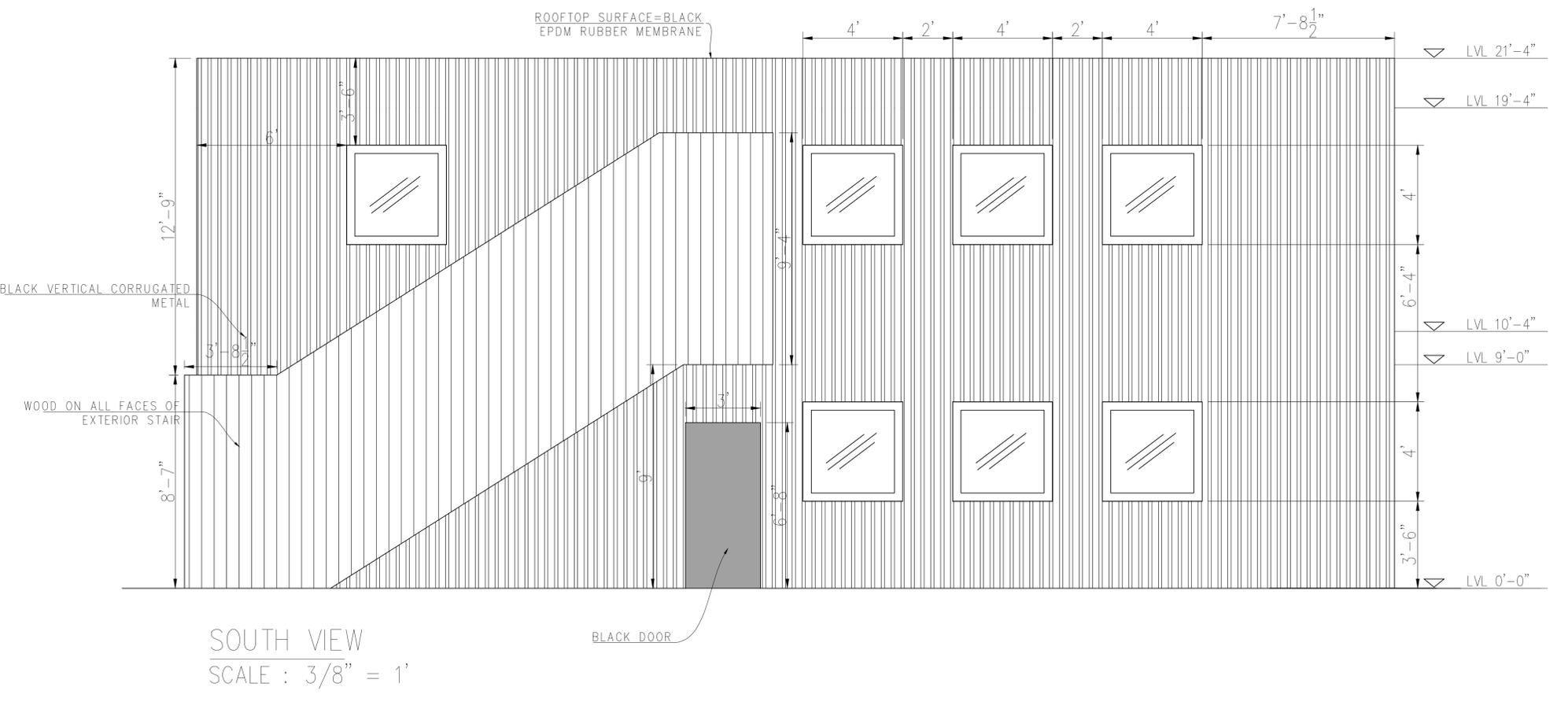
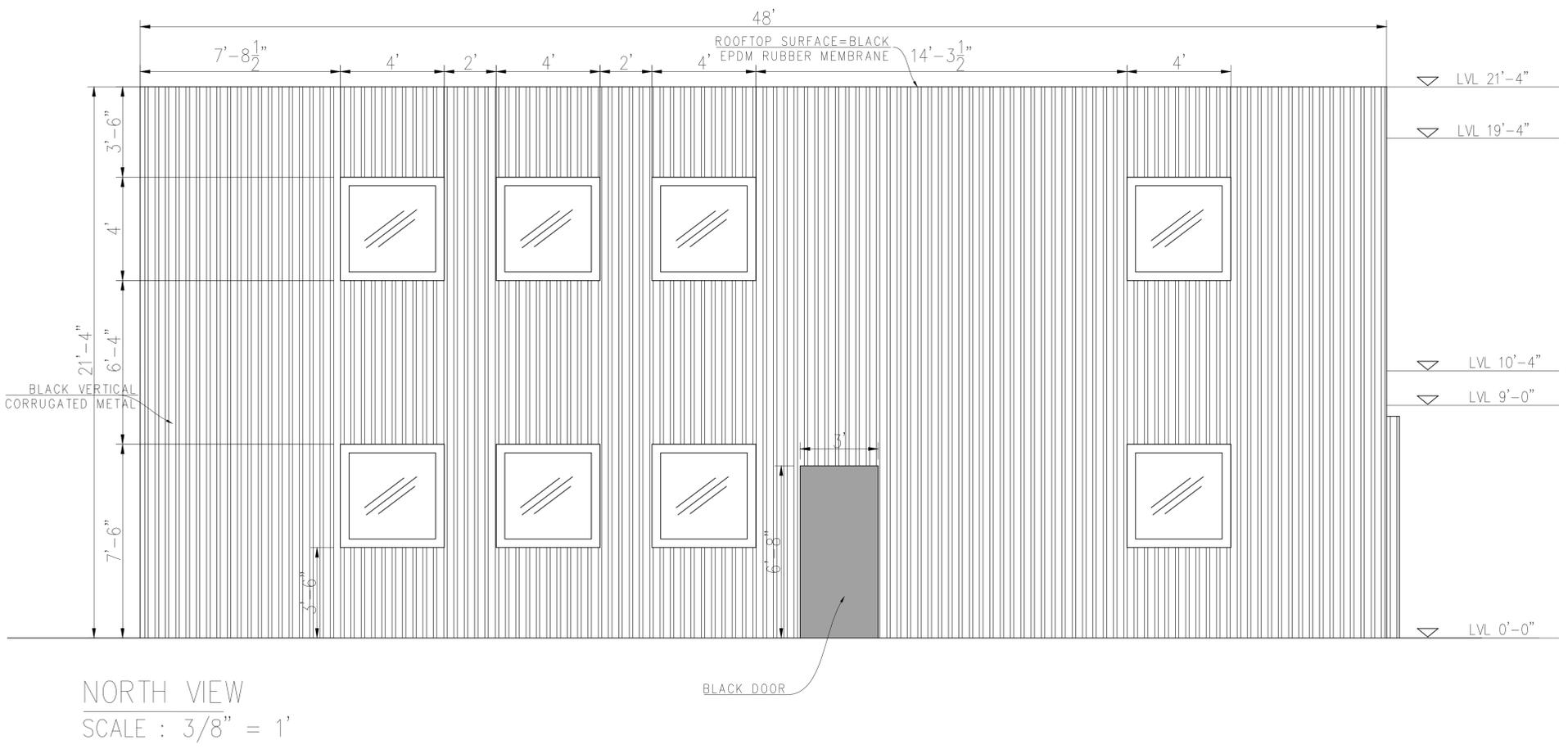
**LANDSCAPE PLAN**

Date: 01-25-2023  
 Scale: 30 SCALE  
 Project Number: 22-617 / 22-036  
 Drawn By: TJW  
 Project Engineer:  
 Approved By:

**L1-01**

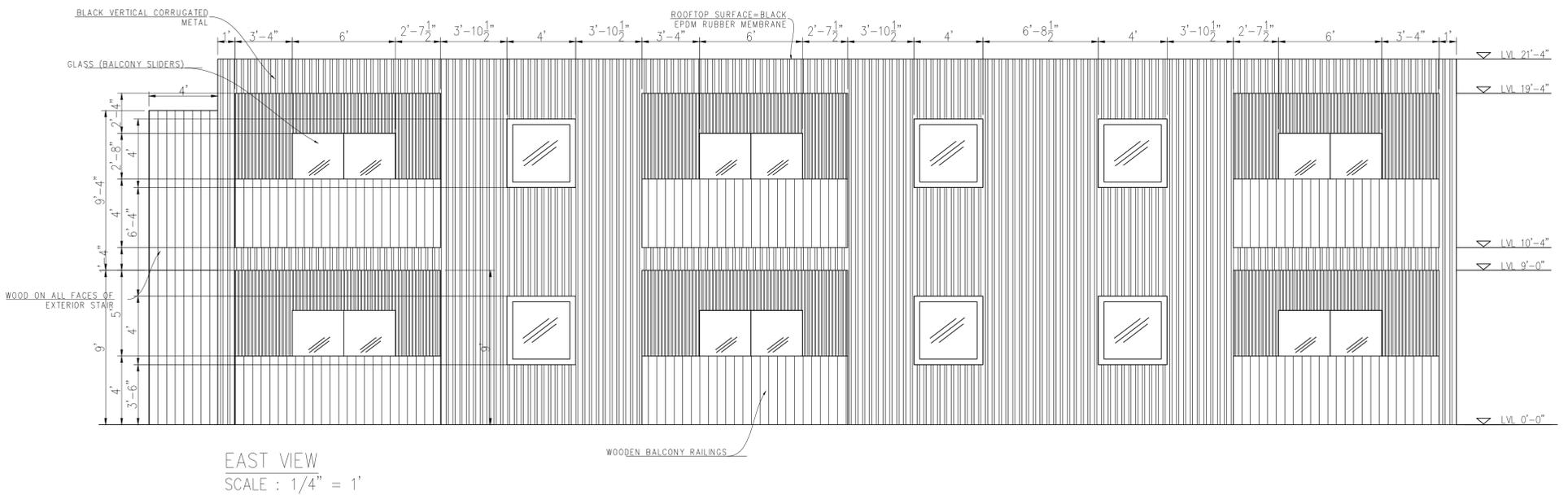
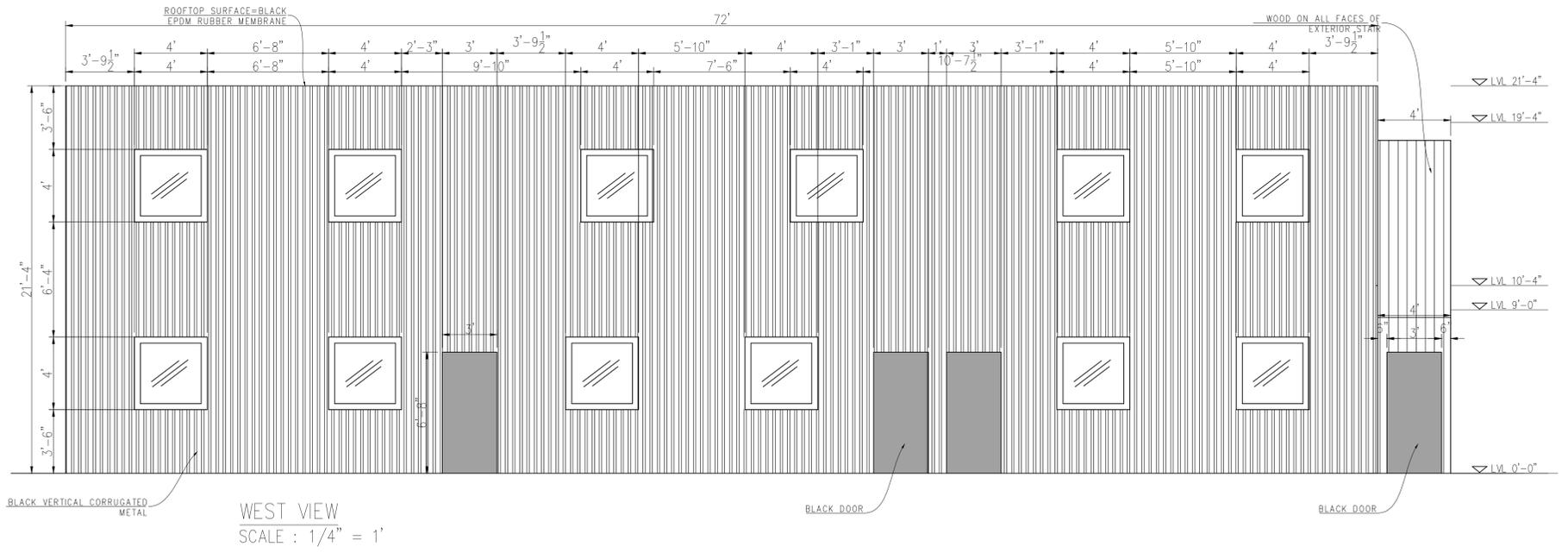
common name	spec	site use(s)				
zen rocks	4-6" minus graded stone	building perimeters + landscaped space between buildings & walkways				
3/4" stone	3/4" graded stone	walkways = 3' wide by default				
staymat	3/4" crushed stone black	parking + roadways				
mulch	bark mulch	around plantings				
edging	tbd	to define edges everywhere needed				
pavers	4'x5' concrete poured on site	every entry way				
concrete curbs	6x6" concrete curb poured on	defines the front of all parking spaces, continuous pour				

scientific name	common name	height	spread	function(s)	form	VT native
viburnum prunifolium	blackhaw viburnum	12-15'	8-12'	hedge, screen	upright oval	yes
syringa vulgaris	common lilac	12-15'	10-18'	hedge, screen	upright oval	no
lonicera periclymenum	common honeysuckle	4-6'	5-10'	climber, dense screen	spreading, climb	no
acer saccharinum	silver maple / soft maple	70-80'	60-80'	accent or focal point, hedge	maple tree	yes
acer saccharum	sugar maple / hard maple	70-80'	40-60'	accent or focal point, hedge	maple tree	yes
rosa virginia	virginia rose	4-8'	5-6'	decorative, hedge	upright oval	yes
microbiota decussata	siberian carpet cypress	6-10"	4-8'	ground cover, near buildings	creeping	no
lolium multiflorum	rye grass	12-24"	na	re-naturalized surfaces	grass	yes
multiple	northeast wildflower seed	12-24"	na	re-naturalized surfaces	wildflower	yes



DESIGNED BY  
NELSON RILEY  
01-08-2023

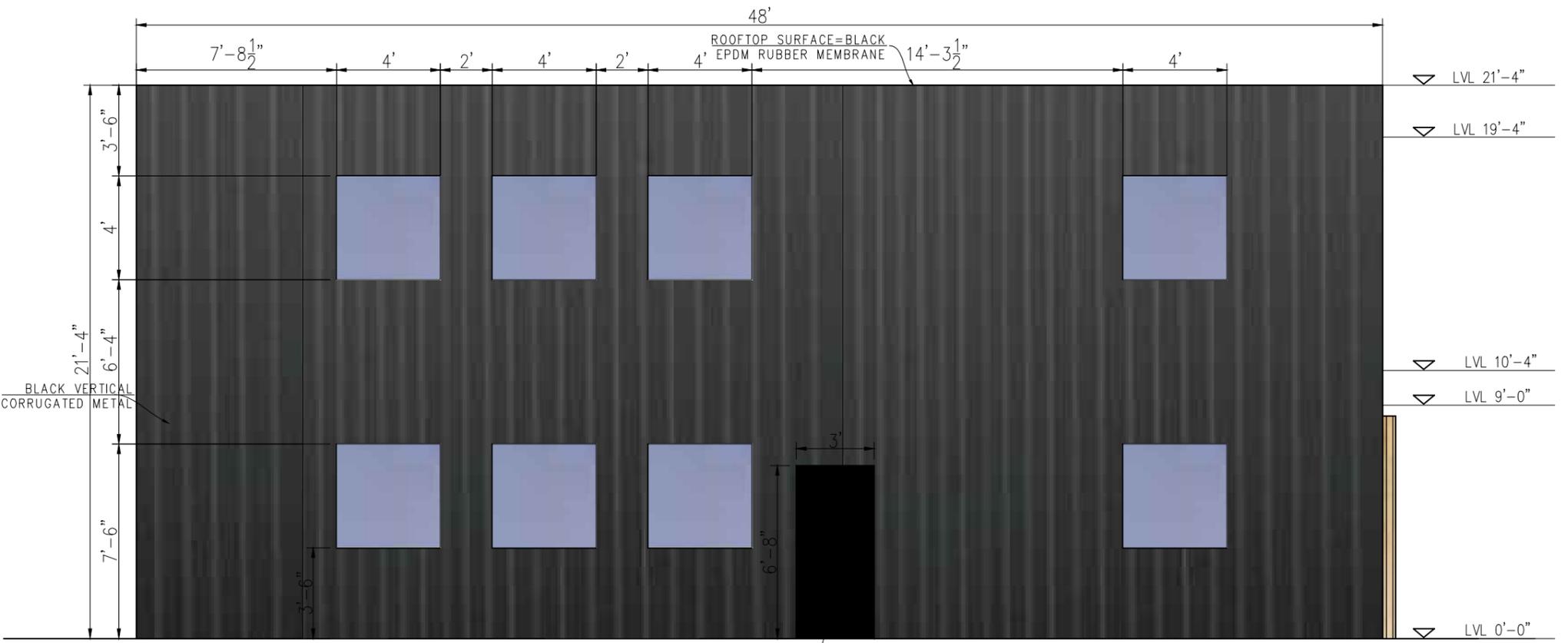
NORTH AND SOUTH ELEVATION	
REF.:	P-29
SCALE:	AS SHOWN
SIZE:	24x36
DRG. #:	A-01



DESIGNED BY  
NELSON RILEY  
01-08-2023

WEST AND EAST  
ELEVATION

REF.:	P-29
SCALE:	AS SHOWN
SIZE:	24x36
DRG. #:	A-02



NORTH VIEW  
 SCALE : 3/8" = 1'

## DESCRIPTION

The HLB4 is a 4-inch ultra-thin LED lens downlight with remote driver / junction box suitable for new construction and remodel applications. Field selectable color temperature and high color rendering provide excellent color performance. Simplified installation in drywall or suspended ceilings eliminates recessed cans saving time and money. Installs from below the ceiling in as little as 3-1/2" plenum height, can be used in direct contact with insulation and is airtight. Use for general area lighting in low to medium height ceilings where energy savings, long life and economy are required.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

## SPECIFICATION FEATURES

### HOUSING

- Die cast aluminum mounting frame with integral flange provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications
- High impact diffuse lens provides shielding to the light guide minimizing pixilation.

### GASKET

- Closed cell gasket achieves restrictive airflow and wet location listing without additional gaskets or caulking

### OPTICS

- Precision acrylic light guide organizes source flux into wide distribution with 1.28 spacing criteria, useful for general area illumination

### LED ARRAY

- Plurality of mid power LED's provides a uniform source with high efficiency and long life
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 4 SDCM providing color uniformity
- Field selectable color temperature, select 2700, 3000, 3500, 4000 or 5000 K CCT
- Meets ENERGY STAR® color angular uniformity requirements, deviation is less than 0.006 u' v'

### REMOTE DRIVER / JUNCTION BOX

- Aluminum driver / junction box with captive hinged junction box cover
- Listed for (6) #12 AWG 90° C splice conductors, 2-in, 2-out plus (2) ground
- (2) 1/2" conduit pry-outs
- (2) Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box

- Accepts 14-2, 14-3, 12-2, 12-3 U.S. and 14-2, 14-3, 12-2 Canadian NM cable
- (3) 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral keyhole mounting slots facilitate direct mounting to building structure or new construction mounting frame

### DRIVER

- 120V 60 Hz constant current driver provides noise free operation
- Continuous, flicker-free dimming from 100% to 5% with select leading or trailing edge 120V phase cut dimmers
- Plenum rated inline electrical quick connect provides low voltage connection to fixture fitting

### INSTALLATION

- Can be installed in 1/2" to 1-1/4" thick ceilings
- Cutout utilizes standard round hole saw sizes, cutout template provided
- Heat treated springs hold fixture fitting securely in the ceiling eliminating light leaks
- Housing is less than 1/2" thick and can span a 2" nominal framing member
- Can be removed from below the ceiling for service or replacement

### OPTIONAL MOUNTING FRAME

- Pre-galvanized steel mounting frame locates fixture fittings during electrical rough in and provides cutout guidance for drywall contractor
- Provides tool-less attachment of remote driver / junction box

### COMPLIANCE

- cULus certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Wet location listed
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

### WARRANTY

- Five year limited warranty, consult website for details. [www.eaton.com/lighting/legal](http://www.eaton.com/lighting/legal)



## HLB4

**4-Inch Ultra-thin LED Lens Downlight with Remote Driver / Junction Box**

**Up to 750 Lumens Field Selectable CCT**



2700K • 3000K • 3500K  
4000K • 5000K

### ENERGY DATA

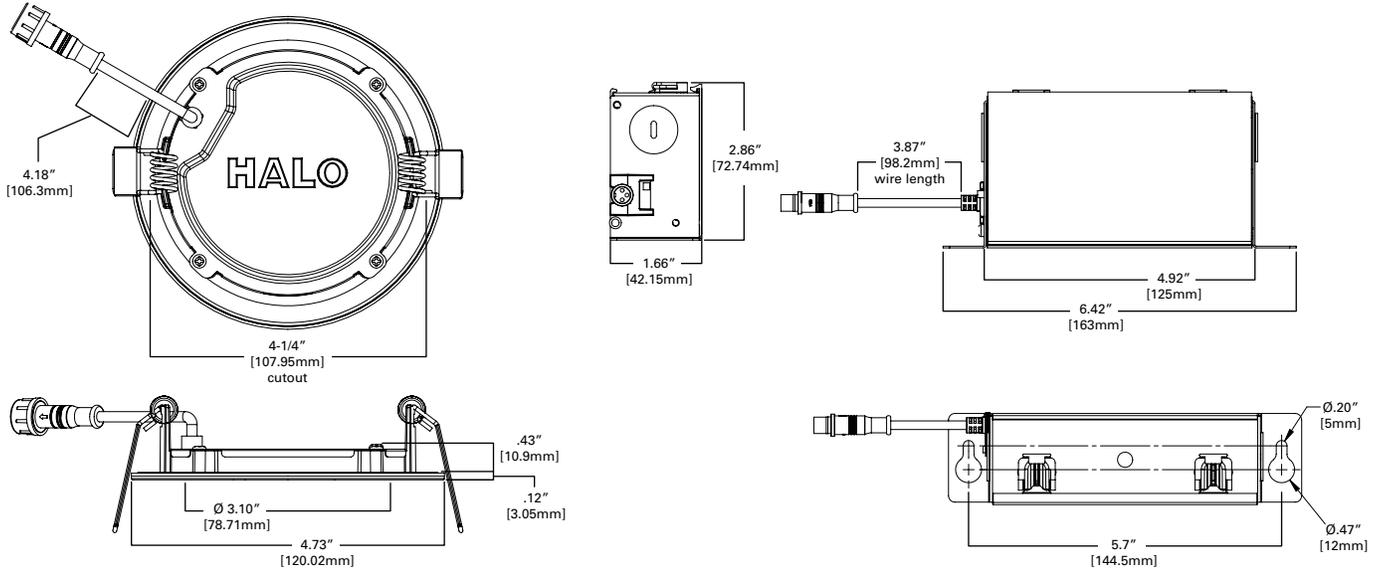
Lumens	600 Series
Input Voltage	120V
Input Current	99 (mA)
Input Power	12.0 (W)
Efficiency	60 (LPW)
Inrush (A)	2.0 A @ 15mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 20dba



Refer to ENERGY STAR® Certified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JA8.



## DIMENSIONS



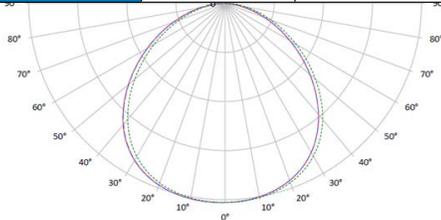
## ORDERING INFORMATION

SAMPLE NUMBER: HLB4069FS1EMWR

Models	Lumens	CRI / CCT	Driver	Finish	Packaging	Accessories
<b>HLB4</b> = 4-Inch ultra-thin LED lens downlight with remote driver / junction box	<b>06</b> =600 lumen (nominal)	<b>9FS</b> =90 CRI minimum, field selectable 2700, 3000, 3500, 4000 or 5000 K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 5% dimming	<b>MW</b> = matte white flange	<b>R</b> = recyclable 4-color unit carton suitable for point of purchase merchandizing display	<b>HL4NCMF</b> = 4" new construction mounting frame

## PHOTOMETRIC DATA

HLB4069FS1EMWR-3000K		
Luminaire lumens	723	
Input watts	12	
LER (LPW)	60.3	
Spacing Criteria	0-180	1.28
	90-270	1.28
	Diagonal	1.39
Beam angle (degrees)	110.2	
Field angle (degrees)	160	
Zonal lumen	Lumens	% Lumens
0-30	203	28.1
0-40	335	46.3
0-60	581	80.4
0-90	723	100



\* Tested in accordance with IES LM63. Field results may vary.

## Color Metric Summary - 3000K

TM-30-15	R <sub>f</sub> = 90.9
	R <sub>g</sub> = 100.7
CRI/CIE	R <sub>a</sub> = 94.1
	R <sub>9</sub> = 68.5



CCT - Range of 2700K- 5000K

## Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	723
Watts	12
Lumens Per Watt (Efficacy)	60.3
Color Accuracy (CRI)	92
Light Color (CCT)	3000K
Correlated Color Temperature (CCT)	
warm white	soft white
2700K	3000K
4500K	bright white
6500K	

	CCT	Lumens	Power (W)	LPW
4in HLB	2700K	706.9	12	58.9
	3000K	723.0	12	60.3
	3500K	735.2	12	61.3
	4000K	746.1	12	62.2
	5000K	751.9	12	62.7

# Exterior Lighting

## Spec Sheets



### Description

Path lighting, a single light at each apartment entry, and porch ceiling lights will comprise the entirety of the outdoor lighting scheme.

Path lighting will be every 10' along walkways bordering parking and leading to entries. Light intensity will be very subtle at 85 lumens per light source. For comparison, a 60 watt incandescent bulb is ~700 lumens.

Most entry lights will be mounted on building faces not visible from the road. Roughly 1/3 will be on the sides of the buildings (indirect road exposure). None in the East most row of buildings will face the road. With West row, only 4 lights will be in view of the road & they will also be screened.

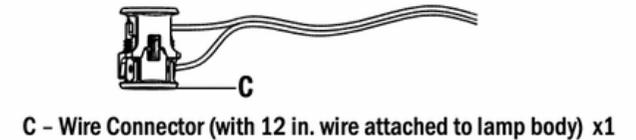
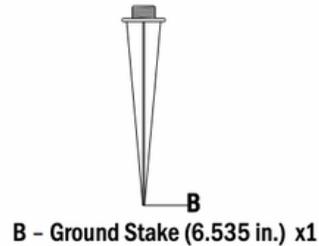
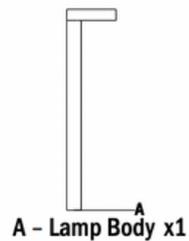
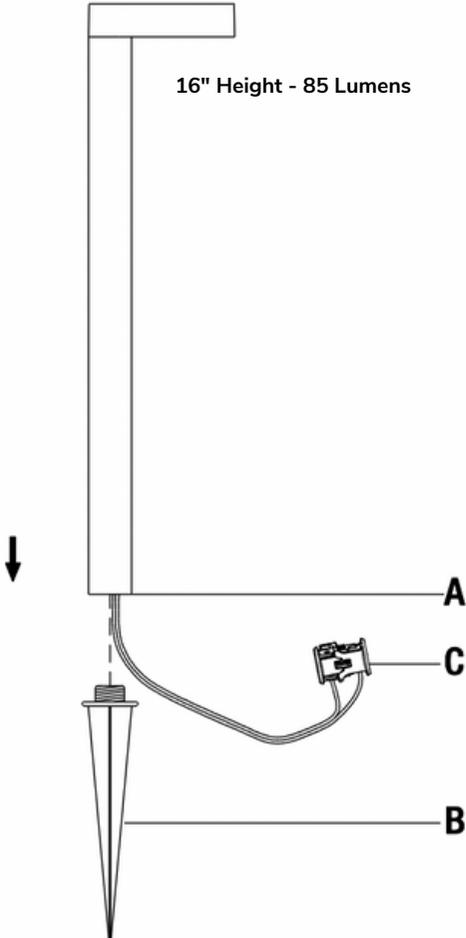
Porch ceiling lights are dimmable and not expected to be used often at night. A curfew on porch lighting can be set as a community standard if desired.

# Path Lighting

## Spec Sheet

Actual Color Temperature (K)	3000	Actual Color Temperature (K)	3000
Color Rendering Index (CRI)	80	Color Temperature	Warm White
Durability	Weather Resistant	Exterior Lighting Product Type	Path Light
Fixture Color/Finish	Black	Fixture Material	Aluminum
Glass/Lens Type	Frosted	Included	Hardware Included
IP Rating	65	Lens Material	Plastic
Light Bulb Type Included	Integrated LED	Lumens	85
Mounting Location	Ground	Number of Housings Included	1
Outdoor Lighting Features	No additional features	Pack Size	1
Power Source	Hardwired	Product Weight (lb.)	1.389 lb
Returnable	90-Day	Style	Modern
Voltage (v)	12v	Voltage Type	Low Voltage
Watt Equivalence	25		

16" Height - 85 Lumens



### Cable Selection

12 VOLT TAP	Total Fixture Wattage	Cable Length		
		0-50 feet	51-100 feet	101-150 feet
	0-60 Watts	16 AWG	16 AWG	14 AWG
	61-120 Watts	16 AWG	14 AWG	12 AWG
	121-180 Watts	14 AWG	12 AWG	Not recommended
	181-240 Watts	14 AWG	12 AWG	Not recommended
	241-300 Watts	12 AWG	Not Recommended	Not recommended
	600W Transformer = (2x300) Watts	12 AWG	Not Recommended	Not recommended
	900W Transformer = (3x300) Watts	12 AWG	Not Recommended	Not recommended

15 VOLT TAP	Total Fixture Wattage	Cable Length		
		0-50 feet	51-100 feet	101-150 feet
	0-60 Watts	16 AWG*	16 AWG	16 AWG
	61-120 Watts	16 AWG*	16 AWG	12 AWG
	121-180 Watts	14 AWG*	14 AWG	12 AWG
	181-240 Watts	14 AWG*	14 AWG	12 AWG
	241-300 Watts	12 AWG*	12 AWG	Not recommended
	600W Transformer = (2x300) Watts	12 AWG*	12 AWG	Not recommended
	900W Transformer = (3x300) Watts	12 AWG*	12 AWG	Not recommended

# Entry Lighting

## Spec Sheet



Down Facing  
Mounting Height = 5' 0"

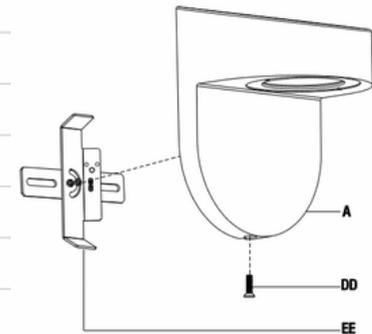


**Light Output (Lumens)** 333  
**Watts** 5.5  
**Lumens per Watt (Efficacy)** 60.55

**Color Accuracy** 80  
Color Rendering Index (CRI)



Actual Color Temperature (K)	3000	Actual Color Temperature (K)	3000
Color Rendering Index (CRI)	80	Color Temperature	Bright White
Damp/Wet Rating	Damp Rated	Durability	Weather Resistant
Exterior Lighting Product Type	Outdoor Sconce	Fixture Color/Finish	Black finish
Fixture Material	Aluminum	Glass Type	Frosted Glass
Included	Hardware Included	Indoor/Outdoor	Outdoor
Light Bulb Type Included	Integrated LED	Light Direction	Down
Lumens	333	Number of Lights	1 Light
Outdoor Lighting Features	Dark Sky	Package Quantity	1
Power Source	Hardwired	Product Size	Small
Product Weight (lb.)	1.2 lb	Returnable	90-Day
Sconce Type	Lantern	Shade Material	Glass
Shape	Geometric	Style	Modern
Voltage Type	Line Voltage	Watt Equivalence	60



# Porch Ceiling Lighting

## Spec Sheet

2 Lights per porch  
723 Lumens (at 3000K color temperature)  
Dimmable



Actual Aperture Width (in.)	4 in	Housing Height (in.)	0.5 in
Maximum Cutout Size (in.)	4 in	Nominal Lens Aperture Size	4 in.
Product Depth (in.)	4.25 in	Product Height (in.)	0.6 in
Product Width (in.)	4.25 in	Trim Size (Width)	4 in.
Actual Color Temperature (K)	2700, 3000, 3500, 4000, 5000	Color Family	White
Color Rendering Index (CRI)	90	Color Temperature	Warm White, Soft White, Neutral White, Bright White, Daylight
Commercial/Residential	Commercial, Residential	Compatible Bulb Type	Integrated LED
Damp/Wet Rating	Damp Rated, Dry Rated, Wet Rated	Features	Air Tight, Dimmable, Junction Box Compatible, Retrofit, Shallow
Fixture Color/Finish	White	Fixture Material	Metal
IC Rating	IC Rated	Included	Gasket(s), Mounting Brackets, Remodel Clips, Stencil, Wiring Connectors
Indoor/Outdoor	Indoor, Outdoor	Integrated LED Type	Selectable
Kit Type	Integrated LED	Maximum Bulb Wattage	12 W
New Construction or Remodel	New Construction, Remodel	Package Quantity	1
Product Weight (lb.)	1 lb	Recessed Lighting Type	Canless
Reflector Finish Family	White	Returnable	90-Day
Style	Modern	Trim Type	Surface Mount
Voltage	Line Voltage	Watt Equivalence	60