

Burlington Design Advisory Board

149 Church Street, City Hall

Burlington, VT 05401

www.burlingtonvt.gov/PZ/DAB

Phone: (802) 865-7188

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*Matthew Bushey
Ron Wanamaker
Sean McKenzie
Steven Offenhart
Tom Cullins
Philip Hammerslough, Alt.
Jeremy Gates, Alt.*



DESIGN ADVISORY BOARD Tuesday, March 28, 2017 at 3:00 PM Conference Room 12, City Hall, Burlington, VT Agenda

Session I - 3:00pm - 3:45pm

- 1. 17-0825CA/MA; 85 North Ave (NMU, Ward 3C) Catamount/Lakeview, LLC**
Construction of a 43-unit residential building with associated parking and site improvements. (Project Manager, Scott Gustin)

Session II - 3:45pm - 4:15pm

- 2. 17-0838CA; 76 King St (RH, Ward 3C) Amy Danielson**
Replace asphalt shingles roof with metal standing seam roof.
(Project Manager, Ryan Morrison)

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Department of Planning and Zoning

149 Church Street
Burlington, VT 05401
Telephone: (802) 865-7188
(802) 865-7195 (FAX)
(802) 865-7142 (TTY)

David White, AICP, Director
Meagan Tuttle, Comprehensive Planner
Jay Appleton, GIS Manager
Scott Gustin, AICP, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, Associate Planner
Anita Wade, Zoning Clerk



TO: Design Advisory Board
FROM: Ryan Morrison
DATE: March 28, 2017
RE: 17-0838CA, 76 King Street

Zone: RH Ward: 3C
Owner/Representative: Amy Danielson

Request: Replace asphalt shingle roof with a black, metal standing seam roof.

OVERVIEW:

The applicant is seeking approval to replace an asphalt shingle roof with a black, metal standing seam roof at 76 King Street, in the Residential High Density (RH) zoning district. The three-dwelling unit building is included on the National Register of Historic Places (Battery Street Historic District). The National Registry entry reads as follows:

"House, 76 King Street, 2-story, wood frame covered with aluminum siding, gabled roof, redstone ashlar foundation. The house is 3 bays wide and has a large central chimney. A wing is on the west side of the house along King Street and is one story with a gabled roof sheathed with slate and an imbricated band. The main part of the house dates before 1853."

The Battery Street Historic District was entered into the National Register of Historic Places in 1977, and at that time, the structure at 76 King Street was recorded as having a wing on the west side of the house with a roof sheathed with slate. According to a 1984 Assessor's listing, the building was noted as having a slate roof. It does not suggest that there was a mix of roofing materials. Assessor's records also indicate that sometime between October 1984 and April 1990, the slate roof was replaced with an asphalt roof. There are no zoning permits on file that indicate that this change was approved by Planning and Zoning. Additional permitting history shows building permits issued for:

- 1/29/96 – roof shingle repair; and
- 11/12/10 – remove asphalt shingle and replace with new asphalt shingle, new paper, flashing, drip edge, ice & water shield and repair roof decking where needed.

Because the building is listed on both the National Register of Historic Places, it is subject to the standards of Sec. 5.4.8, *Historic Buildings and Sites*. Similar to the current zoning ordinance, the 1973 Zoning Ordinance that was in effect between 1984 and 1990, also required preservation of historic buildings. Applying the historic preservation standards of the 1973 Zoning Ordinance would likely have seen denial of any application proposing to change the slate roof on 76 King Street to asphalt shingles.

Regardless, building permit history shows that the unpermitted asphalt roof was not only repaired in 1996, but it also appears that a portion, if not all, of the asphalt roof was replaced in 2010. The current owner purchased the property in 2012, after the various changes to the roof had been done.

There is evidence in the Assessor's records that would suggest a more specific timeframe of when asphalt shingle roofing was installed. In 1989 there were interior fire damage repairs conducted which may explain the change in roofing materials. This appears to correlate with the 1990 Assessor's listing that notes the roof as changing to asphalt. Additionally, in the Gamache Appraisal of December 16, 1995, it is noted that the structure had a mix of asphalt and slate roofing. While these changes would still have required a zoning permit, the attached documents appear to provide some insight as to why the roofing changes were made, and the DAB should be aware of them while considering the current proposal.

Planning and Zoning staff is seeking a recommendation from the Development Advisory Board whether to hold the structure to the requirements of Section 5.4.8 and require the roof to revert back to slate, or allow the proposed metal standing seam.

ARTICLE 5: CITYWIDE GENERAL STANDARDS

Sec. 5.4.8, Historic Buildings and Sites

(a) Applicability

1. The building is 50 years old or older.

The building at 76 King Street was constructed in 1853 and is more than 50 years old.

2. The building or site is deemed to possess significance in illustrating or interpreting the heritage of the city, state, or nation in history, architecture, archeology, technology, and culture because one or more of the following conditions is present:

- A. Association with events that have made a significant contribution to the broad patterns of history; or,***
- B. Association with the lives of persons significant in the past; or,***
- C. Embodiment of distinctive characteristics of a type, period, or method of construction, or representation of the work of a master, or possession of high artistic values, or representation of a significant or distinguishable entity whose components may lack individual distinction; or,***
- D. Maintenance of an exceptionally high degree of integrity, original site orientation and virtually all character defining elements intact; or,***
- E. Yielding, or may be likely to yield, information important to prehistory.***

The building is a contributing resource on the National Register of Historic Places. It is a 2-story structure, with aluminum siding covering a wood frame, a gabled roof, and a redstone ashlar foundation. The structure is 3 bays wide and has a large central chimney. As noted in the National Register listing, a one-story, gabled-roof wing is on the west side of the building, along King Street, and was sheathed with slate and an imbricated band.

It is important to note that the Battery Street Historic District was written and adopted into the National Register of Historic Places in 1977. The description of the building is based on what was observed during surveying, which was that the west-side wing, along King Street, had a slate roof. While the Register description does not state that the entire house had a slate roof, the Assessor's record from 1984 suggests that it did.

3. The building or site possess a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association.

See item 2 above. With the exception of two building permits issued for ‘in-kind’ exterior repairs to rotten materials (in 2013 and 2015), and the unpermitted change from a slate to an asphalt shingle roof, there have been minimal alterations to the building. Review under the standards of Sec. 5.4.8 should ensure continued integrity, whereas without it, incremental changes may continue until such integrity is lost. If the DAB recommends approval of the new metal standing seam roof, it would legitimize a significant loss of historic integrity that the building once had when the roof was slate.

(b) Standards and Guidelines

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 building at 76 King Street was constructed for residential use, and currently contains 3 units. There are no plans to change the use of the property.

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.

Roofing is a character defining feature. Changing from a slate roof to asphalt shingle roofing undeniably changed the historic character of the property. To allow a new metal standing seam roof, at this point, would further confirm not only the loss of the slate roof, but also a significant portion of the structure’s historic character. Such action would be inconsistent with this standard.

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.

The building was not designed or constructed with asphalt shingle or metal standing seam roofing. To acknowledge the removal of the original slate roofing and replacement with an asphalt shingle, and now the proposed metal standing seam roof, would introduce features anachronistic to the style.

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

No such changes are included in this proposal.

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

The existing asphalt shingle roof is inconsistent with this standard. Considering it as legally existing, and then allowing its replacement with a metal standing seam roof is equally inconsistent. Replacement of the slate roof on this structure with asphalt shingles would not have been approved previously, nor would it be today. The same would apply to the proposed metal standing seam roof.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old

in design, color, texture, and, where possible, materials recognizing that new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for an efficient contemporary use. Replacement of missing features will be substantiated by documentary and physical evidence.

There is no way of knowing why the slate roof was replaced with asphalt shingles. It is possible that the slate roof was deteriorating. Or perhaps the property owner at the time simply wanted a different look. However, had the owner sought a zoning permit for the change in roofing materials, it is quite likely that the City would have denied the request, and required slate roofing. A great portion of the structure's historic character was lost when the slate roof was removed.

7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*
No such treatment is included in this proposal.

8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*
There are no known archeological resources on the property.

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.*

Approval of the proposed metal standing seam roof would validate the removal of the original slate roof, and its replacement with an asphalt shingle roof. The existing asphalt shingle roof was never permitted. Replacing the asphalt shingle roof with a metal standing seam roof is to be considered as if the original slate roof had not yet been replaced. Installation of a metal standing seam roof runs contrary to this criterion.

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.*
See #9 above.

ARTICLE 6: DEVELOPMENT REVIEW STANDARDS

Sec. 6.2.2, Review Standards

(a) Protection of Important Natural Features

Not applicable.

(b) Topographic Alterations

Not applicable.

(c) Protection of Important Public Views

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... 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 Sec. 5.4.8 (b) above. The building is included in the National Register of Historic Places (Battery Street Historic District), and as a result, Sec. 5.4.8 (b) applies. Application of the principles of Sec. 5.4.8 (b) would see that a slate roof should be installed.

(e) Supporting the Use of Renewable Energy Resources

Not applicable.

(f) Brownfield Sites

Not applicable.

(g) Provide for Nature's Events

Not applicable.

(h) Building Location and Orientation

Not applicable.

(i) Vehicular Access

Not applicable.

(j) Pedestrian Access

Not applicable.

(k) Accessibility for the Handicapped

Not applicable.

(l) Parking and Circulation

Not applicable.

(m) Landscaping and Fencing

Not applicable.

(n) Public Plazas and Open Space

Not applicable.

(o) Outdoor Lighting

Not applicable.

(p) Integrate Infrastructure into the Design

Not applicable.

Sec. 6.3.2, Review Standards

(a) Relate Development to its Environment

1. Massing, Height and Scale

Not applicable.

2. Roofs and Rooflines

Not applicable.

3. Building Openings

Not applicable.

(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.

See Sec. 5.4.8 above. The building is included on the National Register of Historic Places (Battery Street Historic District). To allow a metal standing seam roof would be in direct conflict with the intent of this section; which is to protect Burlington's architectural and cultural heritage. It would also establish that the existing asphalt shingle roof was an acceptable replacement of the original slate roof.

(c) Protection of Important Public Views

Not applicable.

(d) Provide an Active and Inviting Street Edge

Not applicable.

(e) Quality of Materials

Not applicable.

(f) Reduce Energy Utilization

Not applicable.

(g) Make Advertising Features Complementary to the Site

Not applicable.

(h) Integrate Infrastructure into the Building Design

Not applicable.

(i) Make Spaces Secure and Safe

Not applicable.

REQUESTED ACTION:

Staff requests that the Design Advisory Board determine whether or not the asphalt shingle roof at 76 King Street, which was originally sheathed in slate, should be allowed to be replaced with a metal standing seam roof. It should be noted that if the Board supports the application, a significant portion of the structure's historic characteristics would change as a result, and could set a precedent where similar modifications on historic structures throughout the city would be acceptable.



Department of Planning and Zoning

149 Church Street, City Hall

Burlington, VT 05401-8415

Phone: (802) 865-7188

Fax: (802) 865-7195

www.burlingtonvt.gov/pz

Mar 4 3rd
RECEIVED
MAR 03 2017

Zoning Permit Application

Use this form for ALL zoning permit applications. See the relevant checklist for specific requirements.

PROJECT LOCATION ADDRESS: 76 King Street Burlington

PROPERTY OWNER*: Amy Danielson

APPLICANT: Same

*If condominium unit, written approval from the Association is also required

POSTAL ADDRESS: 214 Rocky Ridge Cr

POSTAL ADDRESS: _____

CITY, ST, ZIP: St George VT 05495

CITY, ST, ZIP: _____

DAY PHONE: (646) 221-3392

DAY PHONE: _____

EMAIL: amyd@tsn@comcast.com

EMAIL: _____

SIGNATURE: [Signature]

SIGNATURE: _____

I am the owner. In addition, I duly authorize the applicant (if noted) to act on my behalf for all matters pertaining to this zoning permit application.

Description of Proposed Project: Replace asphalt shingles roof with metal standing seam roof. Color [unclear] work begins April 2017

Existing Use of Property: ☐ Single Family ☒ Multi Family: # 3 Units ☐ Other: _____

Proposed Use of Property: ☐ Single Family ☒ Multi Family: # 3 Units ☐ Other: _____

- Does your project involve new construction, addition, alteration, renovation, or repair to a structure that is heated or cooled? Yes ☐ No ☒
(If yes, the Vermont Residential Building Energy Standards (VRBES) apply. Visit the P&Z Office, Public Service Board or PSB website for details)
- Will 400 sq ft or more of land be disturbed, exposed and/or developed? Yes ☐ No ☒
(If yes, you will need to submit the 'Erosion Prevention and Sediment Control Plan' questionnaire, with a site plan)
- For Single Family & Duplex, will total impervious area be 2500 sq ft or more? Yes ☐ No ☒
(If yes, you will need to submit the 'Stormwater Management Plan' questionnaire, with a site plan)
- Are you proposing any work within or above the public right of way? Yes ☐ No ☒
(If yes, you will need to receive prior approval from the Department of Public Works)

Estimated Construction Cost (value)*: \$ 10,000

(*Estimated cost a typical contractor would charge for all materials and labor, regardless of who physically completes the work)

Within 30 days of submission, the permit application will be reviewed for completeness, and, if complete, will be processed administratively or referred to a board for review. All permit approvals or denials are subject to an appeal period (15 days for administrative permit; 30 days for board permit). A building (and/or electrical, mechanical, plumbing, curb cut) permit will also be required. Contact the Department of Public Works at 802-863-9094 to inquire. Please ask for assistance if you have any questions about filling out this form. Call the Planning and Zoning at 802-865-7188, or visit the office in the lower level of City Hall, 149 Church Street.

Office Use Only: Zone: RH Eligible for Design Review? Y Age of House 1853 Lot Size 1978

Type: SN ☐ AW ☐ FC ☐ BA ☐ COA 1 ☒ COA 2 ☐ COA 3 ☐ CU ☐ MA ☐ VR ☐ HO ☐ SP ☐ DT ☐ MP ☐

Check No. 0018 Amount Paid \$80. Zoning Permit # 17-0838CA

replace Siding with Metal Siding
Entire roof will be replaced



P.F.S., Inc. Cool Kynar 500®/Hylar 5000® Coatings

P.F.S., Inc. uses the system acknowledged as the premier paint system for coating exterior metal — Kynar 500®/Hylar 5000® coatings. This high-performance paint system is extremely durable, providing long-term protection against color change and chalking as well as resistance to surface damage encountered under normal environmental conditions.

Kynar 500®/Hylar 5000® coatings utilize pigments that are specifically designed to reflect infrared light, help reduce the heat gain of a dwelling, and conform with ENERGY STAR® criteria for steep slope cool roofing products.

In testament to our commitment to deliver the highest quality products backed by exceptional service, we offer a 30-Year, Non-Prorated Limited Manufacturer's Warranty covering fading, chalking, chipping, cracking and peeling.

Why Choose "Cool" Metal Roofing

When it comes to your roof, lowering the roof's surface temperature translates into less heat gain into the attic or living space below the roof. "Cool" metal roofing is noted as one of the best roofing options to help reduce a roof's surface temperature. A lower surface temperature translates into several benefits:

- A cooler living space and lower cooling energy consumption
- Increased service life of product — lower temperatures help to lessen chemical and atmospheric degradation as well as panel expansion and contraction
- The Energy Policy Act of 2005 provides homeowners the ability to get up to a \$1500 tax credit for installing a qualified Cool Metal Roof on their primary residence

Why we only use Kynar 500®/Hylar 5000® Coatings

Three primary resins are used for coating exterior metal — polyester, SMP, and PVDF. Polyesters have traditionally occupied the low end of the market and provide a hard, scratch-resistant finish. However, polyesters are prone to chalking and fading when exposed to sunlight. Silicone-modified polyesters (SMPs) add silicone to improve polyester's chalk and fade performance providing a low-cost middle ground between inexpensive polyesters and the better performing PVDFs (polyvinylidene fluoride).

PVDF is a fluoropolymer resin that is manufactured under the names Kynar 500® and Hylar 5000®. Paint finishes containing a minimum 70% Kynar 500®/Hylar 5000® resin meet the high-performance weathering criteria established by the American Architectural Manufacturing Association and are allowed to carry the Kynar 500®/Hylar 5000® name.

Paint Specifications
Test methods established by ASTM
(American Society for Testing and Materials)

Tests	ASTM Test	Duramar ULTRA-Cool® Kynar 500®/Hylar 5000®
Dry Film Thickness	D-1400	.15 - .25 mil primer .70 - .80 mil finish coat
Specular Gloss - Standard 60°	D-523	30% ± 5%
Solar Reflectance	D-903	Steep Slope: > 25% initial > 15% after 3 years
Color Change	D-2244	10 years @ 45° finish coat color change not to exceed 5 NBS units
Chalking Resistance	D-4214	10 years @ 45° Max 8 chalk
Salt Spray Resistance (5% neutral salt spray)	B-117	1000 hours, no blistering, no loss of >1/8" from score line
Adhesion	D-3359	no loss of adhesion

Tests demonstrate Kynar 500®/Hylar 5000®'s superior performance relative to other exterior metal coatings.

For additional information on our paint system and products please contact P.F.S., Inc.

Oil Canning — all light gauge metals can display waviness often referred to as "oil canning." This is caused by steel mill tolerances, substrate variation and relative reflectivity. "Oil canning" is an inherent characteristic of steel products, not a defect, and is not a cause for rejection.

Kynar 500 is a registered trademark of Arkema, Inc.

Hylar 5000 is a registered trademark of Solvay Solexis, Inc.

Duramar, ULTRA-Cool and the PPG logo are registered trademarks of PPG Industries.

P.F.S., Inc.

Standard Cool
Kynar 500®/Hylar 5000® Colors

30-Year Manufacturer's Warranty
Written copy of warranty available upon request

All colors available in 26 Gauge. Select colors available in 24 Gauge, please inquire.

DEPARTMENT
PLANNING & TO

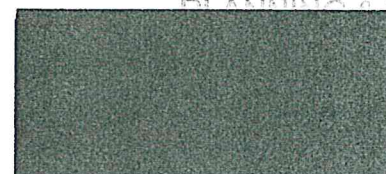
MAR 03 2017



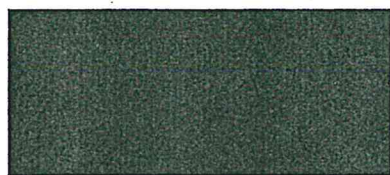
Dark Charcoal



Medium Charcoal



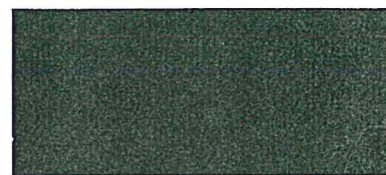
Slate Gray



Black



Hartford Green



Pine Green



Dark Bronze



Medium Bronze



Mansard Brown



Bright Red



Colonial Red



Burgundy

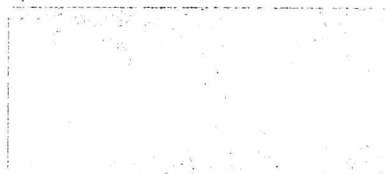


16 oz. Copper

(20 oz. available special order)



Slate Blue



Galvalume

Custom sheet metal fabrication.
Panels, Drip Edge, Ridge Cap, Valley and
Flashings available in matching colors.

Printed color samples are a close representation of actual colors.
Actual material color samples available upon request.

In Partnership With:



PPG Coatings Protected



UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY

RECEIVED

DATE ENTERED

CONTINUATION SHEET

ITEM NUMBER 7 PAGE 14

- ✓36. ^{191-195 Pine St.} House, ~~2 1/2~~-story, Queen Anne style, clapboarded, double house with hipped roof. Central dormer and polygonal bay windows topped with pedimented gables.
- ✓37. ^{191 Pine Street} House, ~~185 1/2 Pine Street~~, c. 1875; ~~1 1/2~~-story, asbestos siding, frame gabled roof with front gable orientation.
- ✓38. ^{189 Pine Street} House, ~~185 Pine Street~~, ~~2 1/2~~-story, asbestos shingle siding, frame, gabled roof with cross gable and bracketed doorhead, c. 1875.
- ✓39. House, 2 1/2-story, front gable roof with a side hall plan and rounded arched gable window. The house is clad with asbestos shingle and has an Italianate door hood.
- ✓40. Apartment House, 73 & 75 King Street; 3 1/2-story, wood frame, clapboarded, gabled roof sheathed with slate. The windows are two-over-two and have triangular pediments. A 3-story porch with flat roof is on the King Street side and a 3-story projecting section is on the northwest corner and connects to the porch. The house has its original shutters and there is a molded rusticated concrete post and iron rail fence in the front yard of the house along King Street.
- ✓41. House, 76 King Street, 2-story, wood frame covered with aluminum siding, gabled roof, redstone ashlar foundation. The house is 3 bays wide and has a large central chimney. A wing is on the west side of the house along King Street and is one story with a gabled roof sheathed with slate with an imbricated band. The main part of the house dates before 1853.
- ✓42. House, 161 & 163 Pine Street; 2 1/2-story, brick veneer and imbricated shingle, frame, hip roof with 2-story porch, dormers, plate glass lights with colored glass transoms, c. 1915, Queen Anne.

CITY OF
BURLINGTON, VERMONT

1985 REVALUATION ☐ UPDATE

00
N
05401

13 010675 03
ACCOUNT NUMBER

50	ROUTING NUMBER
57	MAP NUMBER

01	OF	129
CARD NUMBER		CATEGORY

76 King St

PROPERTY ADDRESS

		SITE DATA		ADJUSTMENT		
OCCU	ITYP	FRONTAGE	EFFECTIVE SIZE	DATE		
<u>031</u>	<u>031</u>		1978			

PROPERTY CHARACTERISTICS									
15	FDTN	GLST	21	FLTY	SMW	28	OCUC	29	DSGN
G	- GRADE WALLS		E	- EARTH		RC	- RANCH	CC	- CAPE COD
S	- SLAB		S	- SLAB		BG	- BUNGALOW	CT	- CONTEMPORARY
P	- PIERS		W	- WOOD JOIST		VT	- VICTORIAN	DP	- DUPLEX
16	XFIN	AA	0	- OTHER		HG	- HALF DUPLEX	CL	- COLONIAL
W0	- WOOD		22	BFLG	UNI	RR	- RAISED RANCH	SL	- SPLIT LEVEL
AV	- ALUM./VINYL		23	FFLG	CPITL	TD	- TUDOR	TE	- TWNHSE. END*
AB	- ASBESTOS		24	UFLG	CPITL	TI	- TWNHSE. INSIDE*	GQ	- GARAGE QUARTERS
AP	- ASPHALT		HW	- HARDWOOD		DK	- DECKER	OS	- OLD STYLE
GL	- PLATE GLASS		SW	- SOFTWOOD		MH	- MOBILE HOME	DT	- OTHER
MT	- STEEL		WD	- WOOD					
SC	- STUCCO		CP	- W/W CARPET					
CB	- CONCRETE BLOCK		IN	- INLAID					
PC	- POURED CONCRETE		TL	- TILE					
BR	- BRICK		UN	- UNFINISHED					
ST	- STONE		OT	- OTHER					
17	RFTY	GB	25	WFIN	PL				
GB	- GABLE		DW	- DRYWALL					
GD	- GBL W/DORMER								
WD	- W.D.								

31	LIVU	31	YRBL	10	
32	YRRV	32	YRRV	0	
33	RVPT	33	RVPT	10	
34	ROOM	34	ROOM	5	
35	BEDR	35	BEDR	5	
36	FAMR	36	FAMR	1	
37	FRPL	37	FRPL	3	
38	BATH	38	BATH	00	
39	HFBT	39	HFBT	00	
40	UNFF	40	UNFF		
41	UNFH	41	UNFH		
42	GRAD	42	GRAD		

9	26	$\frac{2\frac{5}{18} \text{ hr}}{B}$	26
18	14	$\frac{1\frac{5}{18} \text{ hr}}{B}$	14

96 71,000

BASE AREA		STORIES		WTYP	ATTIC • BASEMENT • CRAWL					
BLDG.	FEATURE	SPECIAL FEATURES • COST REFINEMENTS • AUXILIARY IMPROVEMENT'S	UNIT OF MEASURE	TYPE	GRADE	COND.	RATE			
30		()		0	54 ASIZ	-- --	57 AFIN			
31		()			55 BSIZ	4	58 BFIN		0	
32		()			56 CSIZ	0	59 BREC		0 0	
33		()								
34										

EL IN EFF

DATE 10/10/94 R + C

VISIT HISTORY R + C

THIS SIGNATURE ONLY ACKNOWLEDGES A VISIT BY A DATA COLLECTOR. IT DOES NOT REPRESENT AGREEMENT WITH THE ITEMS DESCRIBED HEREON.

11/16/84 105,000 incl.

THIS SIGNATURE ONLY ACKNOWLEDGES A VISIT BY A DATA COLLECTOR. IT DOES NOT REPRESENT AGREEMENT WITH THE ITEMS DESCRIBED HEREON.

11/16/84 105000 (inc. 7-2)

CITY OF BURLINGTON
SESSORS OFFICE
90 UPDATE

BUILDING PERMIT WORK SHEET

01/19/90

OWNER : BEAUDRY CARL N ET AL
C/O C & S PROPERTIES
P O BOX 563
BURLINGTON VT

USE : R4

PCL.NG.: 50 - 0 - 57 - 0
SEQ # 1

05402

PREP. LOC.: 76 0 KING ST

L & H

EST. COST : 10000 WORK CODE : 3

DATE : 04/25/89

DESCRIPTION : INTERIOR FIRE DAMAGE REPAIRS
AKA 165 PINE ST

CURRENT VALUE : 63700
LOT SIZE : 1978

1st Year COMPLETION CODE : 0

COMPLETION CODE : 4

2nd Year DATE INSPECTED : **/**/**

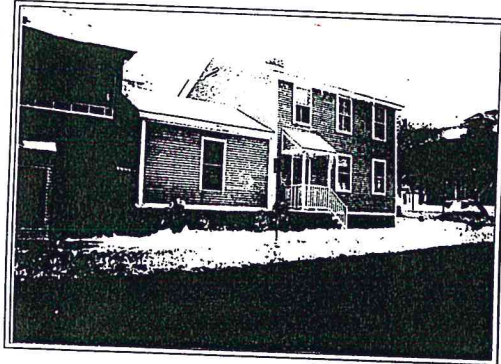
DATE INSPECTED : 4/23/90

COMPLETION CODES:

05 Work and Data Collection completed.
04 85%+ completed. Data Collection completed. by April 1.
03 Work in progress, Data Collected, Reinspect NEXT YEAR.
02 Work in progress, Data Collected, Reinspect NEXT YEAR.
01 Work not begun, No Data Collected, Reinspect NEXT YEAR.

ID NO. : 912

APPRAISAL OF



David J. & Sharon Marcou, Borrowers

LOCATED AT:

76 King Street
Burlington, VT 05401

FOR:

KeyCorp Mortgage, Inc.
3980 Sheridan Drive - 5th Floor
Amherst, NY 14226

AS OF:

December 16, 1995

BY:

George C. Gamache
079-0000071

Summary Report **SMALL RESIDENTIAL INCOME PROPERTY APPRAISAL REPORT** MF51201G

General description		Exterior description (Materials/condition)		Foundation		Insulation (R-value if known)	
Units/bldgs.	2 / 1	Foundation	Stone & Mrtr/Gd	Slab	No	Roof	
Stories	One-Two	Exterior walls	Wood Clapboard	Crawl space	No	Ceiling	Concealed
Type (det./att.)	Detached	Roof surface	AS/Slate/Gd-Avg.	Sump Pump	None	Walls	Concealed
Design (style)	One Two Story	Gutters & downsp.	Overhangs	Dampness	Ltd/Typical	Floor	Concealed
Existing/proposed	Existing	Window type	Db1 hung/Casement	Settlement	Ltd/Typical	None	
Under construction		Storm sash/Screens	AC/Thermal Pn/Yes	Infestation	None	Adequacy	Unknown *
Year Built	+100 yrs	Manufactured housing*	Yes ☒ No ☐	Basement	100 % of 1st floor area	Energy efficient items:	
Effective age(yrs.)	10-15	*(Complies with the HUD Manufactured Housing Construction and Safety Standards.)		Basement finish	None	# Concealed	

Units	Level(s)	Foyer	Living	Dining	Kitchen	Den	Family rm.	Bedrooms	# Baths	Laundry	Other	Sq. ft./unit	Total sq
1	1st		Eff.	Apt.					.75			324	324
1	2nd	1	1		1			2	1			949	949
1	1st		1	1	1			2	1			901	901

Improvements contain:

GROSS BUILDING AREA (GBA) IS DEFINED AS THE TOTAL FINISHED AREA (INCLUDING COMMON AREAS) OF THE IMPROVEMENTS BASED UPON EXTERIOR MEASUREMENTS.

9 Rooms: 4 Bedroom(s): 2.75 Bath(s): 2,235 Square feet of GROSS BUILDING AREA

Surfaces (Materials/condition)		Heating		Kitchen equip. (# / unit-cond.)		Attic		Car Storage	
Floors	WW, Vinyl	Type	WrmAir/El BB	Refrigerator	1/unit-Avg	None	Garage	No. Cars	
Walls	DW/WdPnl/Plstr	Fuel	Gas/Electric	Range/oven	1/unit-Avg	☒ Stairs	Carport		
Trim/finish	Wood	Condition	Average	Disposal		☐ Drop stair	Attached		
Bath floor	Vinyl			Dishwasher		☐ Scuttle	Detached		
Bath wainscol	Fiberglass	Cooling		Fan/hood		☒ Floor	Adequate		
Doors	Hollow Core	Central	None	Compactor		☐ Heated	Inadequate		
Surfaces: Avg. Cond.		Other	None	Washer/dryer		☐ Finished	Offstreet		
Fireplace(s)	#	Condition	NA	Microwave		☒ Unfinished	None		
Condition of the improvements, repairs needed, quality of construction, additional features, modernization, etc.: (...See Attached Addendum)		Ltd Utility		Somewhat Typical					

Depreciation (physical, functional, and external inadequacies, etc.): As indicated above, the general condition is felt to be average with condition upgrading noted. Water staining on the second floor was observed at the of inspection. Reportedly, the stains resulted from a leaky roof which has subsequently been repaired. The subject's floor plan is felt to be average or typical of similar properties within the market area.

Department of Planning and Zoning

149 Church Street
Burlington, VT 05401
Telephone: (802) 865-7188
(802) 865-7195 (FAX)
(802) 865-7142 (TTY)

David White, AICP, Director
Meagan Tuttle, AICP, Comprehensive Planner
Jay Appleton, GIS Manager
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Ryan Morrison, CFM, Associate Planner
Anita Wade, Zoning Clerk
vacant, Department Secretary



TO: Design Advisory Board
FROM: Scott Gustin
DATE: March 14, 2017
RE: 17-0825CA/MA, 85 North Avenue

=====

Zone: NMU	Ward: 3C
Owner/Representative:	Catamount/Lakeview, LLC

Request: Construction of 43-unit residential building with associated parking and site improvements.

OVERVIEW:

The applicant is seeking approval to construct a 43-unit residential structure with associated parking and site improvements. The parcel presently consists of a parking lot at the bottom of Lakeview Terrace and a vegetated bluff with steep slopes to the south and west. As proposed, the building would be set atop the hillside at the western edge of the present parking area. Parking will be provided on the first level with apartments above. Associated surface parking and site improvements would be located generally to the east of the proposed building.

This project underwent sketch plan review with the Design Advisory Board on November 24, 2015 and with the Development Review Board on December 1, 2015. At the time, the project was larger with 53 apartments, and the building was to be set into the hillside. It is now 43 apartments, and very little earthwork is now proposed. Where the slope falls away to the west, the building will be held up by columns rather than set into the grade. Sketch plan comments were generally favorable as to the building design. Suggestion was made to increase the usable space around the building, particularly along its primary frontage. Recommendation was also made to improve access to the public sidewalk and the street.

ARTICLE 6: DEVELOPMENT REVIEW STANDARDS

Part 1, Land Division Design Standards

Not applicable.

Part 2, Site Plan Design Standards

Sec. 6.2.2, Review Standards

(a) Protection of important natural features

The site contains no significant natural areas as identified in the Open Space Protection Plan. The slope is vegetated with a variety of vegetation, including trees, shrubs, and ground cover. The project plans denote the proposed limits of clearing.

(b) Topographical alterations

The existing surface parking lot is flat. The slope precipitously drops away to the south and west beyond the edges of the existing asphalt. Rather than alter the slope and set the building into it, the proposal calls for setting the building at grade along its primary façade and holding it up with columns as the slope falls away to the south and west. Little in the way of topographical alteration is evident in the topographic plans.

(c) Protection of important public views

There are significant views from the project site across the lake and towards the Adirondacks. These views, however, are not part of any defined view corridor (such as those along Main, College, Pearl, and Cherry Streets) and are not protected under this criterion.

(d) Protection of important cultural resources

The project site consists of a surface parking lot and steep slopes. The site has no known archaeological significance. It contains no archaeological site points, nor is it located within an archaeologically sensitive area.

(e) Supporting the use of alternative energy

See Sec. 6.3.2 (f).

(f) Brownfield sites

The site is included on the Vermont DEC Hazardous Site List. Contaminants related to fill and dumping include asbestos, coal tar, lead, and PAH. A corrective action plan with VT DEC will likely be required prior to construction. The applicant should be prepared to address this criterion and status of a CAP, if applicable.

(g) Provide for nature's events

Present site conditions include no stormwater management. As proposed, stormwater runoff from the building's roof and associated parking area will be captured and directed into an onsite system for attenuation and infiltration into the ground. Overflow will be directed into the separate storm sewer. No stormwater from this project will enter the combined sewer system.

Both pedestrian entryways are sheltered under projecting canopies.

(h) Building location and orientation

The proposed building will take advantage of the expansive southerly and westerly views and will be set at the top of the bluff, set back from North Avenue. The Depot Street right-of-way effectively precludes setting the building up along North Avenue. As proposed, the building will continue the street edge set by existing homes along Lakeview Terrace. Two east-facing front entries reinforce the continuation of that established street edge. The front entries are clearly identifiable from the public street.

(i) Vehicular access

Vehicles may access the site from Lakeview Terrace or from North Avenue. Full size true-to-scale application plans are needed in order to confirm the adequacy of circulation within the parking areas. A single doorway affords access in and out of the garage.

(j) Pedestrian access

The project includes an apparent continuation of the sidewalk from Lakeview Terrace across the front of the proposed building. Confirmation as to whether this feature will indeed be a public sidewalk is needed, as it has implications for measuring building height. Dept. of Public Works' standards will also need to be adhered to. Both building entries will afford direct access onto the sidewalk. As depicted in the sketch plans, the sidewalk continues to dead-end east of the proposed building. Seemingly, the parking easement precludes extension of the sidewalk to North Ave. Confirmation from the applicant is needed.

(k) Accessibility for the handicapped

Handicap parking spaces are depicted in the project plans. They are located within the garage adjacent to the lobby. It is the applicant's responsibility to comply with all applicable ADA requirements.

(l) Parking and circulation

This criterion calls for placement of new buildings in front, or to the side, of parking areas. The idea is to avoid parking in front of structures. In this case, the parking lot is already in place. As noted previously, the Depot Street right-of-way effectively precludes construction of a building along North Avenue (with parking behind). As proposed, the building will be set towards the western end of the property and will continue the street edge established along Lakeview Terrace.

The existing surface parking area will be reconstructed and restriped. A center landscaping island will also be installed. As revamped surface parking associated with this project amounts to only 11 spaces, no shade trees are required. As proposed, however, 4 new shade trees will be installed in the new landscaping island.

As noted previously, full size true-to-scale project plans must be provided in order to confirm adequacy of parking and circulation dimensions.

(m) Landscaping and fences

A landscaping plan is included in the project plans. It depicts several new shade trees in the surface parking area as noted above. In addition, landscaping is concentrated along the eastern frontage of the new building and includes a variety of shrubs and flowering plants in addition to new grassy turf.

The trash area to the side of the new building will be screened with a wood slat enclosure.

(n) Public plazas and open space

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

(o) Outdoor lighting

Outdoor lighting information has been provided, including a photometric plan and a fixture cutsheet for the surface parking area. The specified fixture is acceptable – a cutoff LED luminaire. Illumination levels; however, are too bright in places. There are several hot spots exceeding the 4.0 footcandle limit for surface parking areas. Lamp mounting height is acceptable at 20.'

What appears to be a bollard-type fixture will illuminate the sidewalk in front of the building. It qualifies as a low-output fixture producing just 128 lumens. Whether there are any wall-mounted

building entry lights is unclear. If any are proposed, fixture cutsheets and illumination levels must be provided.

No information about the illumination of the garage is included in the application and must be. A fixture cutsheet must be provided along with illumination levels in order to confirm compliance with the applicable IESNA standard.

(p) Integrate infrastructure into the design

No new outdoor mechanical equipment is apparent in the site plan. A trash enclosure is set to the side of the proposed building at the northeastern end of the site. Screening will consist of a slatted wood enclosure with a gate. Any new utility lines must be buried.

Part 3, Architectural Design Standards

Sec. 6.3.2, Review Standards

(a) Relate development to its environment

1. Massing, Height, and Scale

The proposed building is large, larger than the homes along Lakeview Terrace, but not dissimilar in scale to the newly renovated COTS building or the apartment building below Depot Street. The proposed structure incorporates distinct building elements defined by varying materials, planes, and sections. The slight “V” shape of the building further offsets the perceived mass of the structure. Perspective drawings as viewed from the south and west are lacking. Given the unusual proposal to sit the building atop tall columns as it faces south and west, such perspective drawings are needed to better appreciate the building’s visual impact from Burlington’s downtown waterfront. Height as perceived from North Avenue is unremarkable. The building is a full 3 stories with a partial 4th story set back from the front facade. A mechanical enclosure sits atop the 4th story.

2. Roofs and Rooflines

The proposed building will include angular shed roofs and flat roof components. Flat and pitched roofs are common in the neighborhood.

3. Building Openings

Fenestration is consistent throughout the building. It consists of boxy windows in various formations that repeat around the structure. The fenestration is consistent with the geometry of the proposed building.

(b) Protection of important architectural resources

There are no structures onsite. Other structures nearby are historically significant. The proposed building is offset from these existing buildings and will have no direct impacts on their historic significance.

(c) Protection of important public views

See 6.2.2 (c) above.

(d) Provide an active and inviting street edge

Lakeview Terrace ends at the northern end of the site. Depot Street and North Avenue lie to the east. The proposed development aims to continue the street edge from Lakeview Terrace out towards North Avenue. In doing so, it continues the Lakeview Terrace sidewalk across the front

of the building. The building entries are well defined and connect directly to the sidewalk. The change from sketch plan to eliminate below grade parking and to, instead, provide it at grade is significant. Doing so introduces a fairly monotonous street-level face. While at-grade parking is certainly possible, it brings about a particular challenge to provide a lively, activated street presence. As proposed, pedestrian activation is limited to the two entries. Greater attention is needed for the street level of this building. Within this Neighborhood Mixed Use zone, provision of an active, pedestrian-oriented street presence is especially important.

(e) Quality of materials

Exterior building materials are not entirely clear. Windows will be fiberglass, and membrane roofing will be installed. As noted previously, screening for the dumpster and rooftop mechanicals will consist of wood slat material. The elevation plans note siding types 1-5. Just what they are is not clear. A materials cut sheet suggests that perhaps all of the siding types are metal siding. Clarity is needed.

(f) Reduce energy utilization

Cold air heat pumps will be installed for the apartments. Gas will provide heat in common spaces. The application plans assert that the building will meet or exceed applicable energy efficiency codes. At a minimum, the new building must comply with the current energy efficiency requirements of the city and state.

(g) Make advertising features complimentary to the site

No signs are included in the project plans.

(h) Integrate infrastructure into the building design

The aforementioned heat pumps will be installed on the rooftop. They will be set back from the front of the building and surrounded by slatted wood screening. Provision for mailboxes is not evident and must be included in the project plans.

(i) Make spaces safe and secure

The proposed building appears to be accessible by emergency service vehicles. The project underwent technical review by Police, Fire, Building, etc. on December 10, 2015. Comments from that review have been provided to the applicant. No dedicated building entry lighting is evident on the project plans and is recommended. An intercom system connecting individual dwelling units with the front entry is also recommended.

RECOMMENDED MOTION:

As proposed, several key aspects of the application need additional detail and/or revision:

- Perspective drawings from Burlington's downtown waterfront
- Activated, pedestrian-oriented street level
- Building cladding, lighting details, and full size project plans

Continued review by the Design Advisory Board is recommended prior to moving along to Development Review Board.

RECEIVED
FEB 27 2017

85 North Avenue – Zoning Permit Application Narrative

DEPARTMENT OF
PLANNING & ZONING

Description of the Proposed Development and Proposed Use:

The proposed project will create much needed new housing on a parcel in the Neighborhood Mixed Use zone at 85 North Avenue. The property is a 1.2 acre parcel, or approximately 52,272 square feet of land. The current development intensity represents a FAR (floor area ratio) of only 1.0 in a zoning district that encourages dense mixed-use development of up to 2.0 FAR. Approximately half of the parcel is a paved parking lot with access from both Lakeview Terrace and North Avenue, while the other half consists of a steep forested slope. A portion of the parking lot is controlled through a parking easement by an adjacent property owner.

Per the Burlington Municipal Development Plan, 85 North Avenue is located within the *North Street Commercial District*. The aim of the district, per the Plan, is to 'create a more livable and pedestrian-friendly environment, and restore community pride and vitality in the commercial district. In doing so, the same concept of higher-density, neighborhood-oriented uses envisioned for Neighborhood Activity Center's were applied as a strategy for future development and revitalization of this struggling commercial district'. The project is also located in the *Old North End Enterprise Community*. Per the Plan- 'Neighborhoods immediately north of downtown have suffered neglect and disinvestment over the years. These areas need public and private investment in infrastructure, housing and street amenities to improve their residential and commercial environment. It continues to be a high priority of the City to actively promote redevelopment and investment within the Enterprise Community'.

This project endeavors to continue the ongoing evolution of North Avenue, adding much needed new housing at one of the largest remaining undeveloped sites adjacent to downtown. The project adds density in a mixed-use zone that seeks compact transit/bike/pedestrian oriented development and increases customer base for adjacent local businesses.

The primary use of the new building will be for 43 apartments (anticipated to be 24 efficiency units, 9 one-bedroom units and 10 two-bedroom units) located on the second, third and fourth floors, with full elevator service and common laundry rooms. Indoor bike storage will be accommodated at the ground level with a lockable bike room, while exterior open bike rack storage will be located in the covered parking deck.

The ground floor of the building will be a covered parking deck accessed from the parking lot. The main entrance to the residences will be at the front of the building, facing the parking lot, off a new sidewalk that is a continuation of the Lakeview Terrace sidewalk.

The existing parking lot is completely impervious, with the paving in need of extensive repair. Parking spaces are currently haphazardly striped. The proposed site plan better defines the parking scheme with curbs, islands, planting, lighting and a clear circulation

scheme. Parking lot access from Lakeview Terrace will remain unchanged, while the North Avenue access will be rebuilt and better defined as part of the neighbor's construction project. Green strips of lawn and landscape plantings will be created along the eastern side of the proposed building footprint.

Traffic Generation and Parking Analysis:

The property is located in the shared use parking district within the Neighborhood Mixed-Use District and based on the owners' experience, the close proximity to downtown is expected to attract tenants that are more apt to bike/walk, use public transportation, and use CarShare. The proposed site plan includes a total of 43 off-street parking spaces. Approximately 32 spaces will be constructed on the ground level of the proposed apartment building and 11 spaces are located in an existing surface lot with access to North Avenue and Lakeview Terrace. The parking within the building will be accessed directly from the surface lot, with controlled access.

Under separate cover is a copy of our traffic impact study prepared by Stantec. The traffic analysis considers conditions defined in the recent North Avenue corridor study and concludes that the proposed development will have only a nominal impact on area traffic operations. Peak hour traffic volumes at the North Avenue/North Street intersection, located proximate to the subject site, are expected to increase by less than one percent due to the proposed development. The intersection is expected to operate well below capacity with or without the proposed project.

85 North Avenue Parking Management Plan:

Given the neighborhood mixed use location in close proximity to downtown we are confident the project will attract tenants that are more apt to bike/walk, use public transportation and/or use CarShare. The 43 off-street spaces are sufficient to provide at least one space per apartment, per the Zoning Ordinance requirement. Parking will be made available as an option- and if some tenants choose not to rent the parking space assigned to their unit it may be re-assigned to another tenant who chooses to rent an extra space.

The vehicular access is from North Avenue with traffic entering the site at the curb cut east of the building, and from Lakeview Terrace with traffic entering the site at the curb cut north of the building. The proposed building will have pedestrian and vehicle entries off the parking lot that allow for easy access to the secure bike storage located on the covered ground level. Exterior bike storage will be located under cover in the parking deck.

Phasing and Construction Schedule:

The redevelopment is proposed to occur in a single phase with site work occurring first, immediately followed by construction of the new building, with final utility connections and finish site work including landscaping to occur last. The overall construction schedule is anticipated to take approximately 14 months, with a target start date of Fall 2017 (dependent on zoning approval, Act 250 approval, and issuance of a building permit).

Storm water management:

The project site includes the western half of the existing paved parking lot shared with COTS, and wooded slopes to the west and south. Currently, runoff from the parking lot discharges at 2-3 low areas along its southern edge. There is some evidence of erosion on the bank below.

The COTS project was approved with a stormwater infiltration system that will collect runoff from the northern portion of their half of the parking lot. Runoff from the remainder of the COTS lot and any overflow will continue to flow south, into the area of the proposed building.

City requirements for stormwater management for the proposed site (from the 2016 Technical Review) include infiltration all water from new impervious surfaces and 50% of all other impervious surfaces for up to a one year storm event (to the extend feasible).

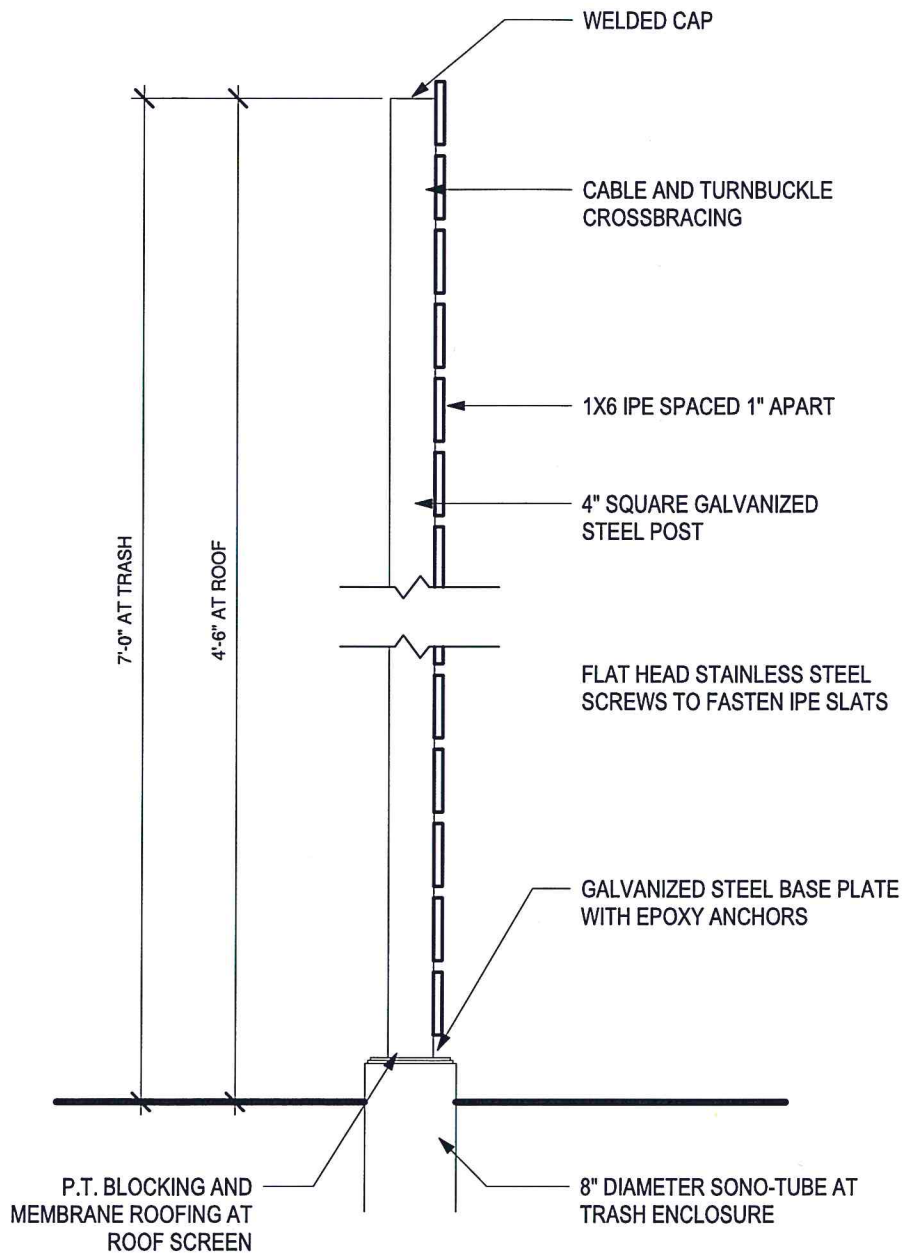
As proposed, the stormwater system for this site will collect all runoff from the project parking lot, pre-treat in a concrete tank, and discharge into an infiltration gallery. Runoff from building roofs will also be collected by the infiltration gallery. This subsurface infiltration system will utilize pre-fabricated stormwater chambers surrounded by an envelope of crushed stone. As currently configured, this system will have capacity to accept and infiltrate the full one year storm volume for both the parking area and building roofs.

Capacity of municipal utilities, services & existing or planned community facilities:

Based on the similarity of the proposed uses to recently approved projects, the stated planning goals of the Neighborhood Mixed Use District and initial feedback obtained from the Technical Review Committee the applicant's understanding is that there is sufficient capacity of municipal utilities, services and existing or planned community facilities to accommodate the proposed new development.

Utilization of renewable energy resources:

The applicant will be working with BED, Vermont Gas and Efficiency Vermont to minimize energy usage in the proposed building through 'VEIC Certified' certification and installation of the most energy efficient available technology for primary space heating and cooling (cold-climate air source heat pumps). The building's design will also provide for future installation of rooftop solar through adequate structural load capacity and conduit run from the utility room to the roof when it becomes economically feasible to do so.



2 WOOD SLAT SCREEN

SCALE: 1" = 1'-0"

- SCREENING AROUND HVAC CONDENSERS AT ROOF
- DUMPSTER ENCLOSURE

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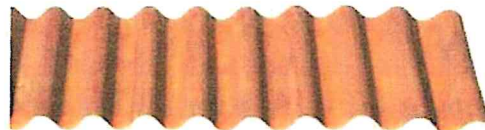


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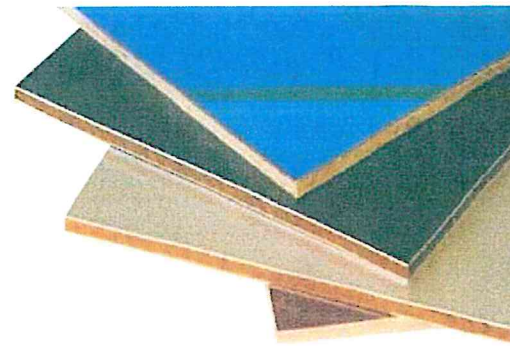
Flat Sheet, 11 Gauge, A606-4



7/8" CORRUGATED

Best Value In A Corten Corrugated Panel. Deep Wavy Corrugations Make This Our Nicest Looking and Most Popular Panel. Available in A606-4 (Aka Corten) Or Bare Steel. Small Or Large Orders.

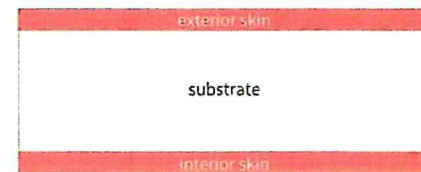
Siding Type 4
7/8" Corrugated



Standard Veneer Application with Applied Stops or Mapes Molding

1. Panel should be sealed interior & exterior with permanently elastic silicone caulking.
2. Use setting blocks and drill weeps in sash molding.
3. Veneer panels with loose insulation behind them should be back-caulked in conjunction with a minimum 6 mil vapor barrier to eliminate condensation formation.
4. Wall cavity should be vented to prevent moisture entrapment.

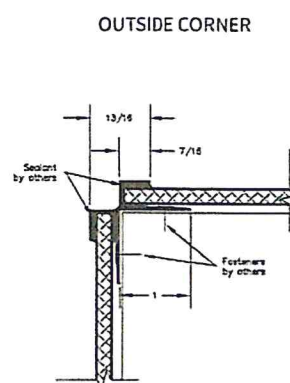
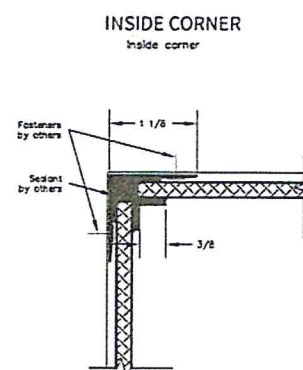
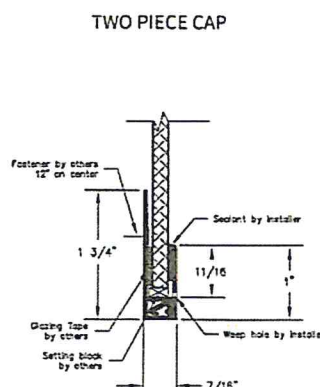
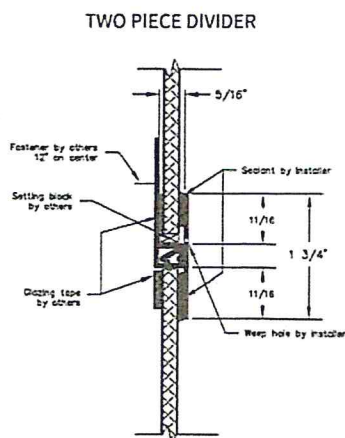
Important for Both Installation Techniques: A continuous 6 mil vapor barrier is required to prevent condensation within the wall cavity.



- High density hardboard
- Cement board
- HDPE High Density Polyethylene
- SPS Solid Plastic Substrate

	Embossed	Smooth	Custom Color	Aluminum	Steel	Warranty (yrs)
Porcelain on Steel		X	X*		X	20
Kynar	X	X	X*	X	X	5 to 20
Polyester Baked Enamel	X	X	X*	X		5
Anodized	X*	X	X*	X		n/a
Primed Aluminum	X	X		X		n/a
Galvanized		X			X	n/a
Mill Finish	X	X		X		n/a

*Indicates premium charge; consult factory



ALL ULTREX CASEMENT & AWNING

These dynamic windows deliver high end performance with the strength and sustainable characteristics of All Ultrex®. Dual-arm operating hardware and a single lever sequential locking system deliver PG40 performance. A clean design and measured sight lines provide visual depth and a modern classic feel. Six exterior finish colors, five hardware finishes, assorted lite cut configurations, special sizing to 1/64" and available picture and transom units allow for stunning and unique combinations.



Typical Window
(Black Frame Color)

All Ultrex Casement and Awning

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- Interior screen features an extruded aluminum surround and concealed pressure mounting points for ease of operation and enhanced aesthetics.
- Stationary, operating, transom and picture units available.

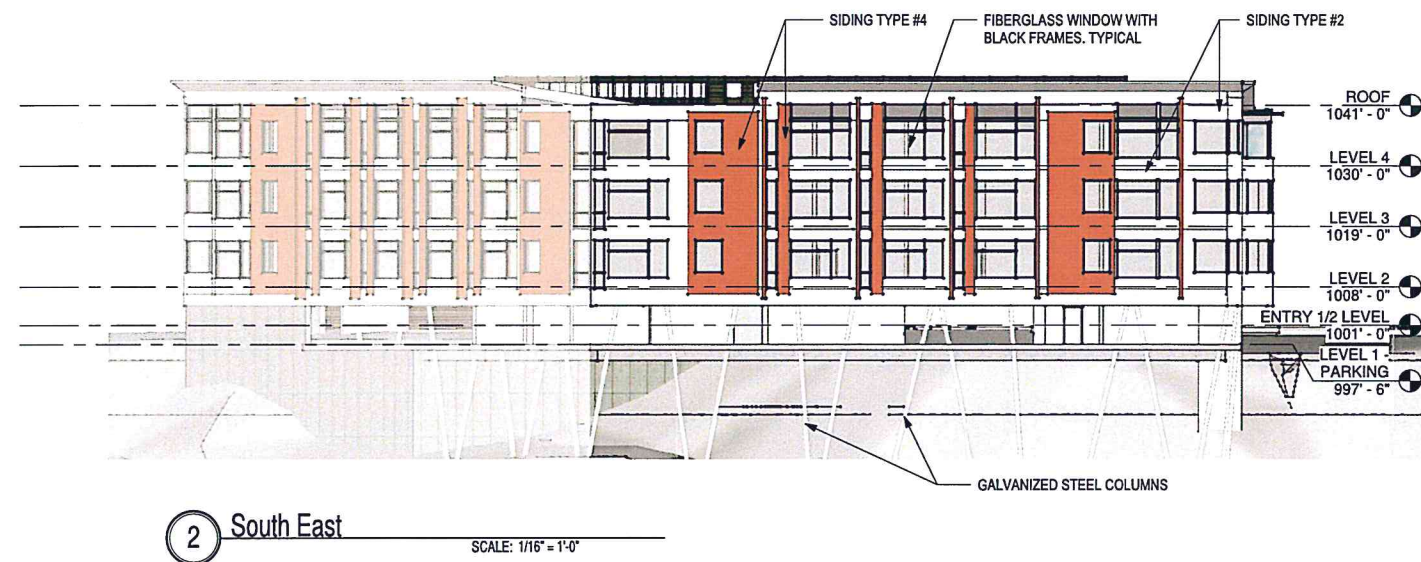
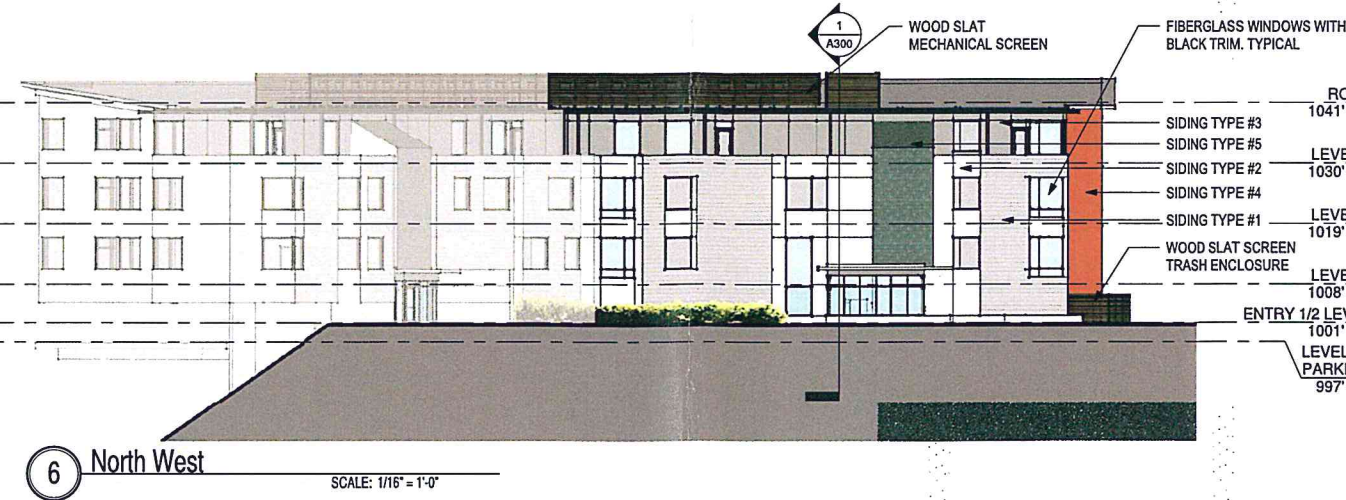
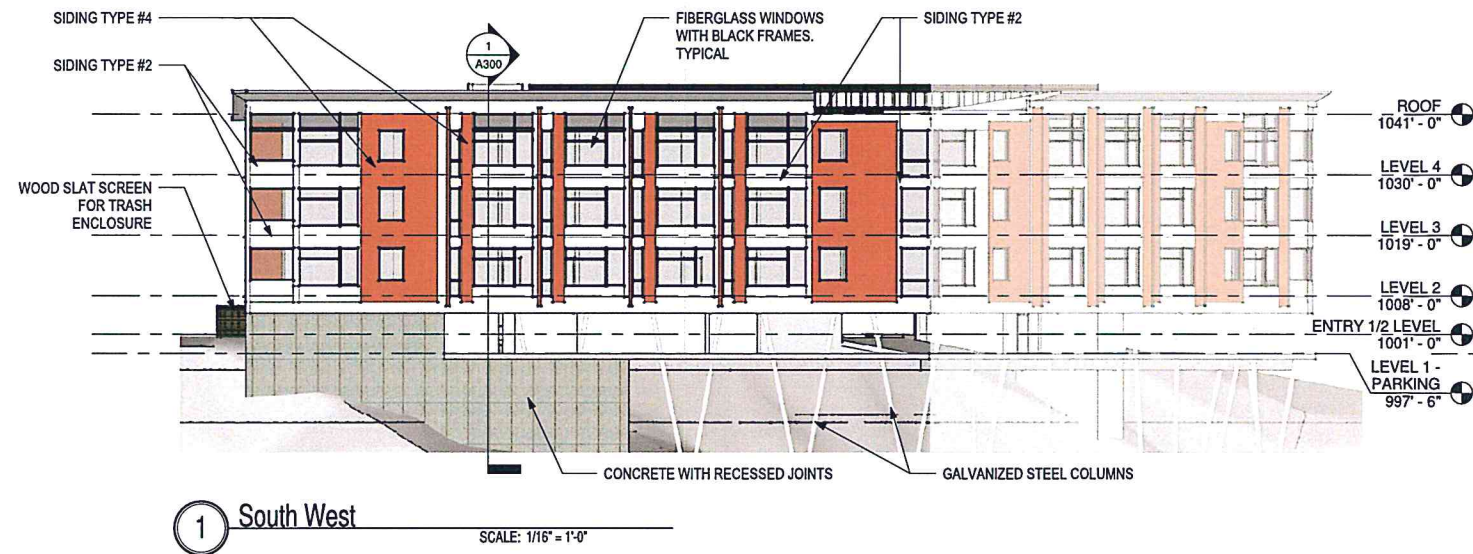
For more information visit IntegrityWindows.com



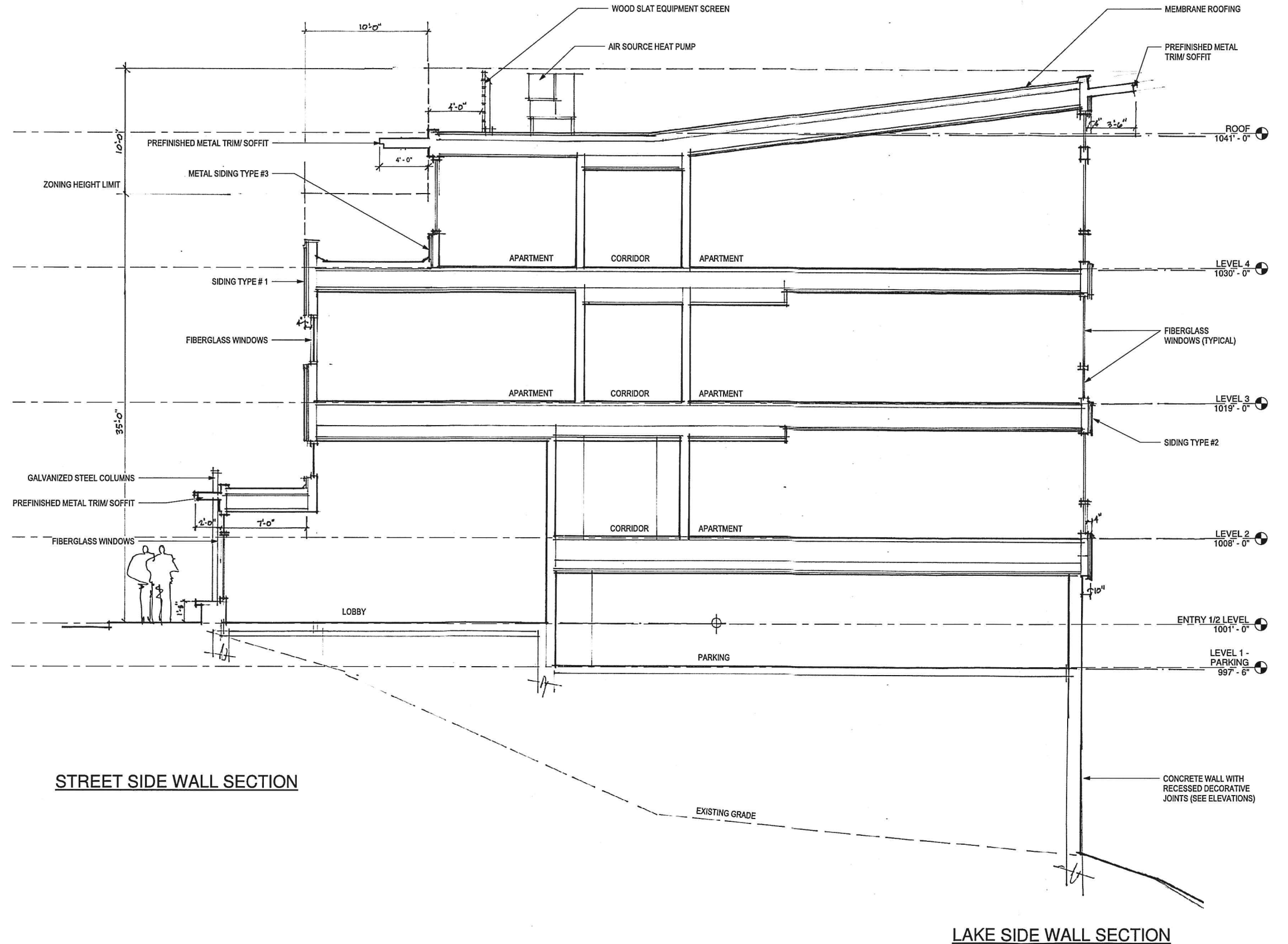
Marvin® brands are dedicated to producing enduring energy-efficient products in ways that will support a sustainable future.

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Integrity
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Built to perform



Redstone - 85 North Avenue

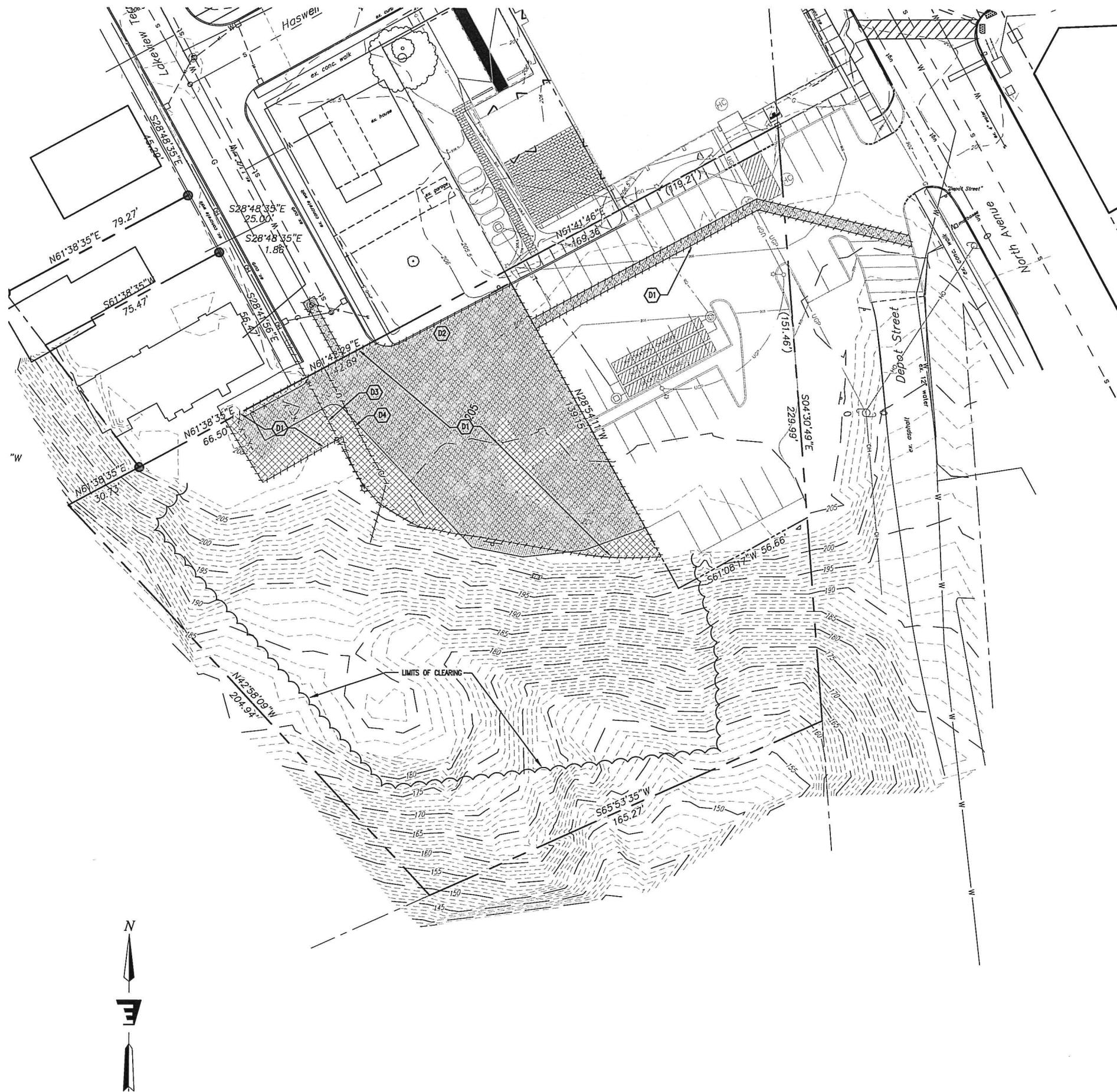


1 BUILDING SECTION
SCALE: 1/4" = 1'-0"

Redstone - 85 North Avenue



Redstone - 85 North Avenue



DEMOLITION NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MOST RECENT EDITION OF VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION, UNLESS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS.
2. PARKING ON CITY-OWNED GREENBELTS IS PROHIBITED WITHOUT ADVANCE APPROVAL FROM THE CITY.
3. NO DEMOLITION SHALL COMMENCE UNTIL A PRE-CONSTRUCTION MEETING IS HELD WITH THE OWNER AND ALL EROSION PREVENTION AND SEDIMENT CONTROL DEVICES ARE INSTALLED.
4. ALL MATERIALS GENERATED BY DEMOLITION, UNLESS NOTED BY THE OWNER TO BE STORED OR REUSED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM THE SITE. EXCESS OR UNSUITABLE SOIL SHALL BE REMOVED FROM THE SITE.
5. ALL ADJACENT FACILITIES AND STRUCTURES NOT INDICATED AS INCLUDED IN THE SCOPE OF WORK SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING OR REPLACING ALL ADJACENT FACILITIES OR STRUCTURES DAMAGED DURING CONSTRUCTION TO PRE-CONSTRUCTION CONDITION OR BETTER.
6. CONTRACTOR TO PREVENT CONSTRUCTION AREA RUNOFF FROM REACHING THE COTS INFILTRATION SYSTEM.
7. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK AREA FOR THE DURATION OF THE PROJECT, INCLUDING INSTALLING AND MAINTAINING CHAINLINK FENCING AROUND ACTIVE WORK AND STAGING AREAS.
8. CONTRACTOR SHALL CONTACT DIG-SAFE AND OBTAIN A VALID TICKET PRIOR TO BEGINNING ANY EXCAVATION WORK, IN ACCORDANCE WITH VERMONT STATE LAW.
9. PRIOR TO DEMOLITION, HAND EXCAVATE AROUND ANY UNDERGROUND UTILITIES THAT COULD BE IMPACTED BY EXCAVATION WORK. NOTIFY THE OWNER IF ANY OTHER UTILITIES NOT NOTED ON THE DRAWINGS ARE FOUND.
10. CARE SHALL BE TAKEN NOT TO DAMAGE OR DISTURB ANY TREES AND SITE LIGHTING NOT INDICATED FOR REMOVAL DURING CONSTRUCTION.
11. PROPOSED FEATURES ARE SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
12. ALL EXISTING UTILITIES, FENCING AND SITE FEATURES SHOWN WITH CROSS HATCHING (---) ARE TO BE REMOVED (PAVING, GRAVEL, WALLS, WALKS, WH, CB, PIPE, ETC.).
13. SEED AND MULCH ALL RESULTING DISTURBED AREAS IN ACCORDANCE WITH THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN WHERE NO WORK IS ANTICIPATED WITHIN 48 HOURS.
14. THE CONTRACTOR MAY NOT HAVE ACCESS TO PERFORM WORK ON THE ENTIRE SITE AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER PRIOR TO BEGINNING WORK IN ANY AREA.
15. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AND VEHICLE BARRIERS TO PREVENT ACCESS TO THE WORK AREA BY PERSONS ONSITE TO ACCESS THE FACILITIES OCCUPIED BY THE OWNER.
16. REMOVE ALL TEMPORARY AGGREGATE AT THE END OF CONSTRUCTION AND SEED AND MULCH.

DEMOLITION SCHEDULE

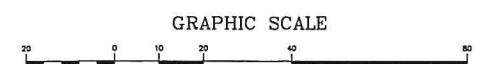
- D1 SAW-CUT, REMOVE AND DISPOSE OF EXISTING ASPHALT.
- D2 REMOVE EXISTING CONCRETE CURB.
- D3 REMOVE AND DISPOSE OF EXISTING ELECTRIC CONDUIT, LIGHT POLE AND BASE.
- D4 EXISTING 10" STEEL GAS LINE. COORDINATE RELOCATION WITH VERMONT GAS.

TREE PROTECTION NOTES

1. ALL TREES AND SHRUBS EXTENDING TO WITHIN SIX FEET OF DOWNHILL SIDE OF THE BUILDING ARE TO BE REMOVED, UNLESS OTHERWISE INDICATED.
2. TREES NOT REMOVED ARE TO BE PROTECTED FROM DAMAGE AND ANY ROOTS OR BRANCHES DAMAGED BY CONSTRUCTION ACTIVITY NEATLY PRUNED.

LEGEND

EXISTING FEATURES	PROPOSED FEATURES
	CATCH BASIN
	BOLLARD
	LIGHT POLE
	UTILITY POWER POLE
	SOIL BORING
	SIGN
	SPOT ELEVATION +100.5
	TREE
	SHRUB
	HANDICAP SYMBOL
	GUARDRAIL
	CONTOUR
	EDGE OF PAVEMENT
	STORM LINE
	SILT FENCE
	TO BE REMOVED
	PAVEMENT REMOVAL AREA



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85
North
Avenue
Burlington, Vermont

Revisions:	
Job Number:	00
File Name:	15330 C1.
Scale:	As
Date:	February 27,

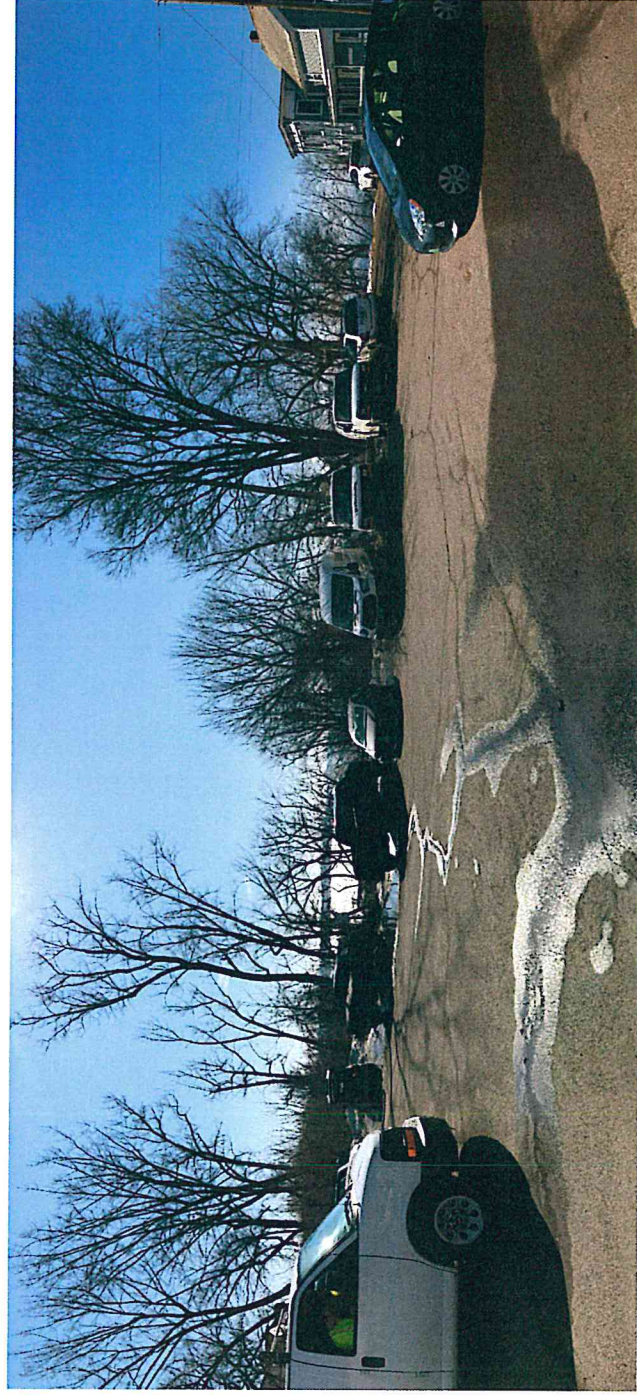
EXISTING
CONDITION
AND
DEMOLITION
PLAN

C1

85 NORTH AVENUE - EXISTING CONDITIONS PHOTOS



VIEW TO SOUTH FROM LAKEVIEW TERRACE

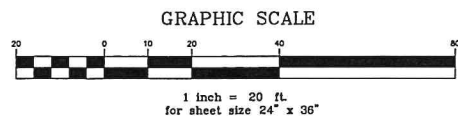
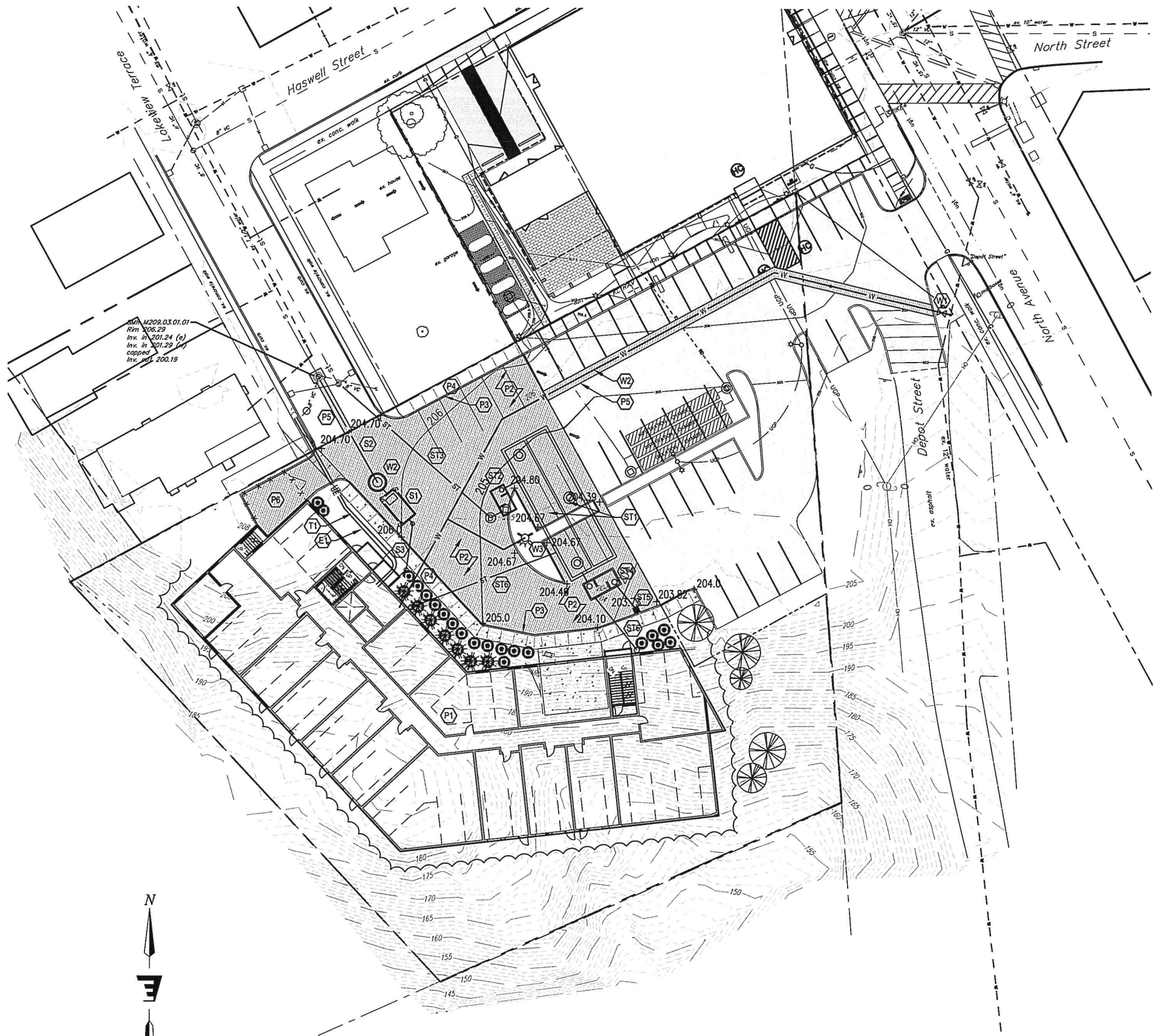


VIEW TO WEST FROM PARKING LOT



VIEW TO SOUTH OF SLOPE





LEGEND

EXISTING		PROPOSED
---	100	---
---	CONTOUR	---
S	SANITARY SEWER LINE	S
ST	STORM LINE	ST
W	WATER LINE	W
UE	UNDERGROUND ELECTRIC	UE
	UNDERGROUND TELECOM	UT
	CATCH BASIN	
	STORM MANHOLE	
	FLARED END SECTION	
	GATE VALVE	
	HYDRANT	
	WATER SHUT OFF	

GENERAL NOTES

- LOCATE AND PROTECT IN PLACE ALL EXISTING UNDERGROUND AND OVERHEAD POWER, TELEPHONE, AND DATA LINES NOT NOTED FOR DEMOLITION.
- COORDINATE ALL WORK NEAR OR ON UTILITIES OWNED BY OTHERS WITH THE UTILITY PROVIDER.
- PROTECT ALL DISTURBED AREAS FROM EROSION IN ACCORDANCE WITH THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN.
- PROTECT ALL TREES AND VEGETATION NOT SLATED FOR REMOVAL.

SITE AND UTILITY NOTES

- P1 NEW BUILDING
- P2 NEW ASPHALT PAVEMENT . SEE DETAIL SHEET C3.3.
- P3 NEW 6" CONCRETE CURB. SEE DETAIL SHEET C3.3.
- P4 NEW CONCRETE SIDEWALK. SEE DETAIL SHT C3.3
- P5 NEW PAVEMENT TRENCH PATCH. SEE DETAIL SHEET C3.3.
- P6 TRASH ENCLOSURE. SEE DETAIL SHEET C3.3.
- W1 NEW TAPPING VALVE. SEE DETAIL SHEET C3.0.
- W2 NEW 8" DI WATERLINE. SEE DETAIL SHEET C3.0.
- W3 NEW FIRE HYDRANT AND APPURTENANCES. SEE DETAIL SHEET C3.0
- S1 NEW 4,000 GALLON PUMP STATION AND VALVE CHAMBER. SEE DETAIL SHEET C3.1
- S2 NEW 2" PVC FORCEMAIN. SEE DETAIL SHEET C3.1
- S3 NEW 4" BUILDING SEWER AND CLEANOUTS. 2% MINIMUM SLOPE.
- ST1 NEW STORMITEK INFILTRATION CHAMBERS. SEE DETAIL SHEET C3.2
- ST2 NEW 4,000 GALLON STORM WATER OVERFLOW TANK. SEE DETAIL SHEET C3.2.
- ST3 NEW 12" HDPE STORM LINE. SEE DETAIL SHEET C3.2
- ST4 NEW 4,000 GALLON STORMWATER PRE-TREATMENT TANK. SEE DETAIL SHEET C3.2
- ST5 NEW 48" DIA CATCH BASIN. SEE DETAIL SHEET C3.2
- ST6 NEW 8" PVC ROOF DRAIN COLLECTOR. SEE DETAIL SHEET C3.2.
- E1 NEW ELECTRIC CONDUIT. COORDINATE WITH BURLINGTON ELECTRIC DEPARTMENT
- T1 NEW TELECOM CONDUIT. COORDINATE WITH SERVICE PROVIDER.

TOTAL EXISTING LOT COVERAGE		
Total Lot	52,272 sf	100%
Paved Area	21,199 sf	41%
Building Area	0 sf	0%
Total Coverage	21,199 sf	41%
Total Pervious	31,073 sf	59%

TOTAL PROPOSED LOT COVERAGE		
Total Lot	52,272 sf	100%
Paved Area	19,100 sf	37%
Building Area	13,500 sf	26%
Total Coverage	32,600 sf	63%
Total Pervious	19,672 sf	37%

OWNER OF RECORD
Catamount/Lakeview LLC
210 College St, Suite 201
Burlington, VT 05401

SITE INFORMATION
Zone: Neighborhood Mixed Use
Proposed Dwelling Units: 43

PARKING
Parking District: Shared Use
1 space per unit required
Proposed Parking Spaces: 43
32 Covered
11 Uncovered

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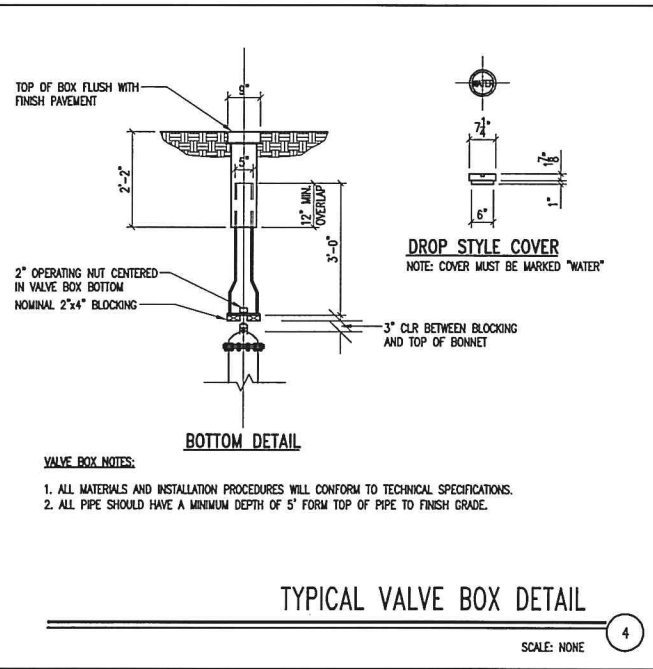
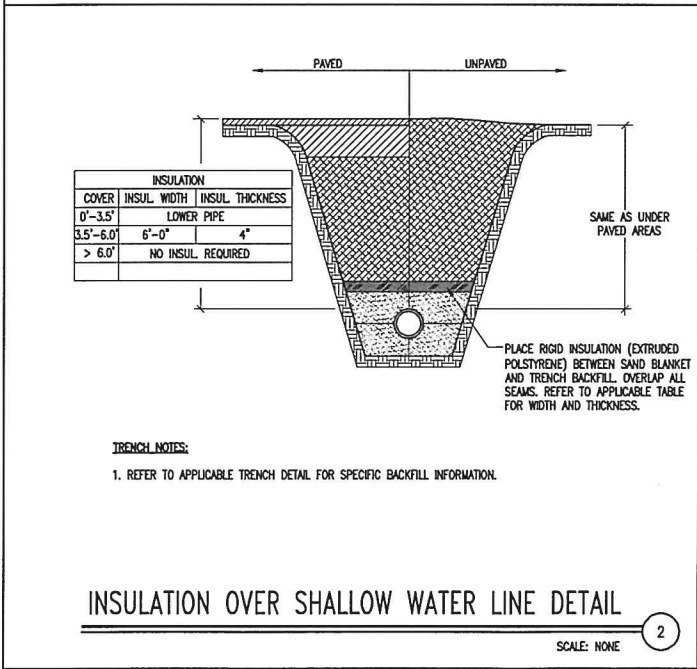
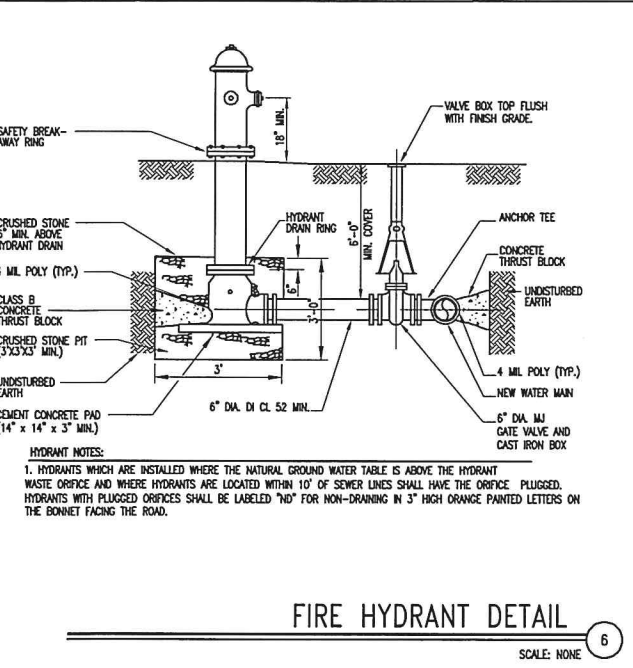
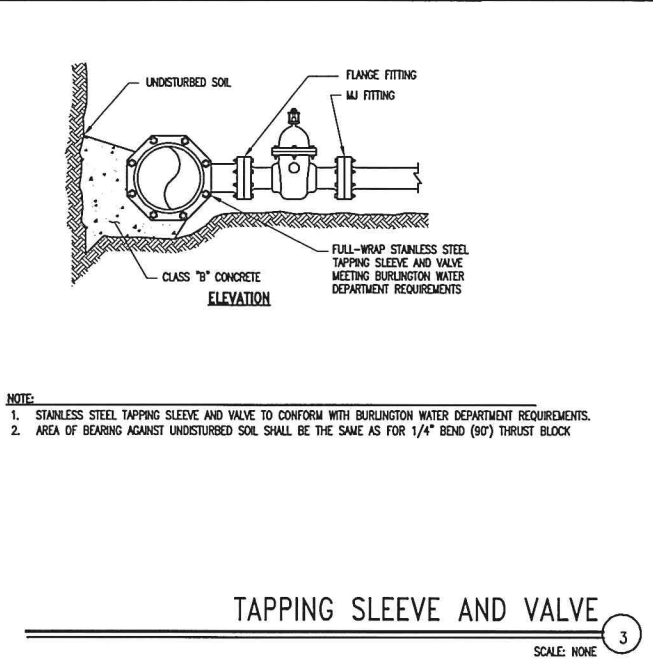
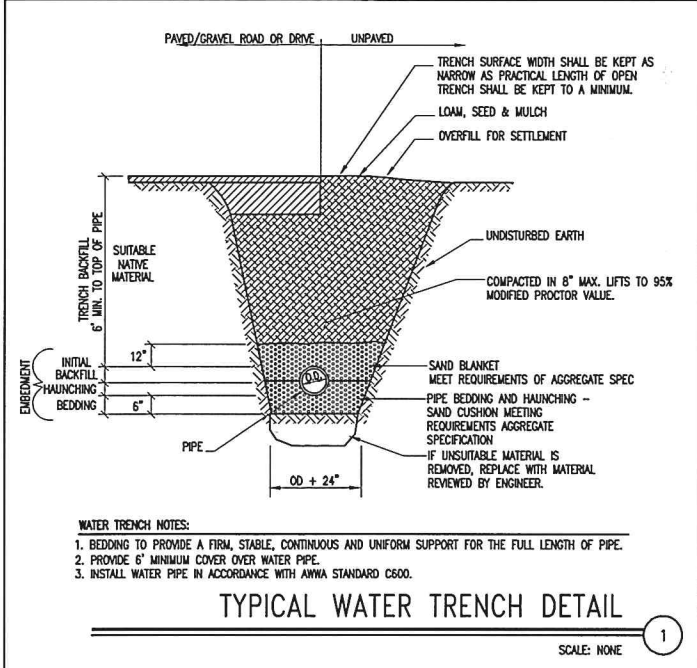
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GRADING
AND UTILITIES
PLAN
(DRAFT)

C1

FOR PERMIT REVIEW



WATER NOTES

GENERAL

- WATER SYSTEM COMPONENTS ARE TO BE LEAD FREE, AND APPROVED BY THE WATER DEPARTMENT.
- WATER INFRASTRUCTURE IS TO INCLUDE SWING TIES. "AS BUILT" DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR WHICH REFLECT ACTUAL UTILITY LOCATIONS AND RESULTING EASEMENTS AT THE TIME OF COMPLETION OF THE SYSTEM.
- THE WATER UTILITY SHALL INSPECT ALL ITEMS TO BE TAKEN OVER BY THE TOWN PRIOR TO ACCEPTANCE.
- THE CONTRACTOR SHALL PROVIDE A 2 YEAR WARRANTY ON ALL WATER RELATED ITEMS FROM THE TIME OF COMPLETION OF THE PROJECT.

EXISTING UTILITIES

- LOCATION OF UTILITIES AND UNDERGROUND STRUCTURES ARE SHOWN AS APPROXIMATE ON THE CONTRACT DOCUMENTS.
- ALL UTILITIES SHALL BE LOCATED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
- EXISTING UTILITIES SHALL BE PROTECTED AND SUPPORTED DURING CONSTRUCTION.
- ALL WATER, GAS, CABLE, TELEPHONE, ELECTRIC, SEWER, AND OTHER UTILITIES FOUND TO INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED IN A MANNER ACCEPTABLE TO THE ENGINEER.

PIPE BEDDING

- SAND BEDDING MEETING REQUIREMENTS OF EARTHWORK SPECIFICATIONS
- SAND BLANKET MEETING REQUIREMENTS OF EARTHWORK SPECIFICATIONS
- TRENCH FINAL BACKFILL MATERIAL - MATERIAL WILL EXCLUDE PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT, CLAY, LARGE ROCKS (12" DIMENSION), OR ANY MATERIAL DETERMINED BY THE ENGINEER THAT WILL NOT BE SUITABLE.

WATER MAINS

- ONCE INSTALLED PERFORM A HYDROSTATIC AND LEAKAGE TEST ACCORDING TO ANMA C600(LATEST REVISION) ON EACH PIPE LINE.
- THE ENGINEER AND THE WATER UTILITY SHALL BE GIVEN AT LEAST 72 HOURS NOTICE BEFORE THE TEST IS CONDUCTED. TEST MUST BE WITNESSED BY THE ENGINEER.
- SPECIFIED TEST PRESSURE IS 200 PSI, AND PRESSURE DURING TEST SHALL NOT VARY BY MORE THAN 5 PSI.

DUCTILE IRON PIPE- ANMA C151

- FITTINGS: DUCTILE IRON, STANDARD THICKNESS, 350 psi PRESSURE RATING. (ANMA C110, C153, C105, ANSI A21.10).
- FITTINGS: CAST IRON, 250 psi PRESSURE RATING (ANSI A21.10).
- JOINTS: MECHANICAL, PUSH-ON AND FLANGED (ANMA C111, C115).
- GASKETS:
 - MECHANICAL AND PUSH-ON JOINTS, ANSI A21.11.
 - FLANGED JOINTS: 1/8" THICK RING OR FULL FACED RUBBER, ANSI A21.15.
- BOLTS/NUTS:
 - MECHANICAL JOINT: ANSI A21.11.
 - FLANGED JOINT: ANSI A21.15.
- MECHANICAL JOINT GLANDS SHALL BE "MEGA-LUG" RETAINER GLANDS.
- LININGS AND LINING REPAIR TO ANMA/ANSI C104.
 - INTERIOR - CEMENT LINING, DOUBLE THICKNESS BITUMINOUS SEAL.
 - EXTERIOR - BITUMINOUS COATING APPROXIMATELY 2 MILS THICK, ANSI A21.15, ANSI A21.15, AND ANSI A21.10.
- FLANGE MACHINED FACE COATING: ANSI A21.15.

COPPER TUBING

- TYPE-K, ANNEALED, ASTM B88
- FITTINGS: ASME B16.18, CAST COPPER, OR ASME B16.22, WROUGHT COPPER.
- JOINTS: COMPRESSION CONNECTION OR ANS A5.8, BCP SILVER BRAZE.

CHLORINATION OF DOMESTIC WATER LINES

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE WATER UTILITY AT LEAST 72 HOURS IN ADVANCE OF BEGINNING ANY DISINFECTION OF WATER MAINS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR BACTERIOLOGICAL TESTING AS REQUIRED BY THIS SPECIFICATION AND REFERENCE STANDARDS MENTIONED.
- DISINFECT ALL NEW PIPELINE SYSTEMS IN ACCORDANCE WITH ANMA C651, INCLUDING:
 - METHOD OF CHLORINE APPLICATION. USE CONTINUOUS FEED METHOD OR SLUG METHOD. (TABLET METHOD IS NOT ACCEPTABLE)
 - FORM OF CHLORINE UTILIZED.
 - FINAL FLUSHING.
 - BACTERIOLOGICAL TESTING
 - REPETITION OF PROCEDURE

GATE VALVES

- RESILIENT SEAT GATE VALVES BY KENNEDY "XON-SEAL" OR EQUAL.
- IRON BODY GATE VALVES TO MEET ANMA C-509-B7.
- STEM CONSTRUCTION: NON-RISING.
- STEM SEALS: DOUBLE O-RING.
- GATE: CAST IRON RESILIENT WEDGE WITH SYNTHETIC ELASTOMER COATING, AND SHALL BE EPOXY COATED (FUSION BONDED) INSIDE AND OUT.
- BONNET HARDWARE SHALL MEET ASTM A307, CADMIUM PLATED.
- OUTLET CONNECTION: STANDARD MECHANICAL JOINT
- OPERATION: OPEN TO THE RIGHT.

TAPPING VALVES

- TAPPING VALVES TO MEET ANS/ANMA C509-B7, STANDARD FOR RESILIENT SEATED GATE VALVES.
- VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI.
- VALVES SHALL OPEN RIGHT (CONFORM WITH DPM).
- INLET FLANGES SHALL BE CLASS 125, ANSI B16.1, OR ANS/ANMA C110/A21.10.
- OUTLET CONNECTION: STANDARDIZED MECHANICAL JOINT.
- STEM SEALS: O RING.
- STEM CONSTRUCTION: NON-RISING.
- SEATING: PARALLEL SEAT
- END CONNECTIONS: MECHANICAL ON RUN, FLANGED ON BRANCH.
- BURIED TAPPING VALVES SHALL BE PROVIDED WITH A 2 INCH SQUARE WRENCH NUT AND CAST IRON VALVE BOX. IF DEPTH FROM GRADE TO TOP OF VALVE OPERATING NUT IS GREATER THAN 6'-0" VALVE STEM RISER MADE OF HIGH STRENGTH STEEL SHALL BE PROVIDED. DEPTH FROM VALVE STEM RISER NUT TO GRADE WILL BE 4 TO 6 FEET.

TAPPING SLEEVES

- ANMA C509, LATEST REVISION.
- ANMA C207, CLASS D, MAX. WORKING PRESSURE OF 150 PSI.
- SLEEVES: SPLIT SLEEVES OF CAST IRON OR DUCTILE IRON.
- MECHANICAL JOINT ENDS WITH END AND GASKET SEALS.
- PROVIDE A 3/4" NPT TEST PLUG OR OTHER PROVISION FOR AIR TESTING THE VALVE AND SLEEVE AT MAXIMUM WORKING PRESSURE.
- BOLTS AND NUTS, MECHANICAL JOINTS: HIGH STRENGTH CAST IRON OR HIGH STRENGTH LOW ALLOY STEEL, ANS/ANMA C111/A21.11-90.
- BOLTS AND NUTS, FLANGED JOINTS: HIGH STRENGTH, LOW CARBON STEEL CONFORMING TO ANS/ANMA C110/A21.10-B7, APPENDIX A.
- COAT ALL NUTS AND BOLTS WITH A RUST RESISTANT LUBRICANT.
- ALL BOLTS AND NUTS USED WITH PIPE SLEEVES SHALL BE BRUSH COATED HEAVILY AFTER FINAL TIGHTENING WITH BITUMASTIC COLD-APPLIED MATERIAL TO THOROUGHLY COVER ALL EXPOSED SURFACES OF BOLTS AND NUTS.

VALVE BOXES

- ACCEPTABLE MANUFACTURER'S: MUELLER, CLOW, OR EQUAL.
- CLOW F-2452 SLIDING TYPE, TWO PIECE, OR EQUAL.
- 5 1/4" INCH SHAFT.
- SIZE 664-A (40-60 INCH OVERALL LENGTH).
- CAST IRON.
- CLOW F-2490 LIDS OR EQUAL.
- THE WORD "WATER" TO BE CAST INTO TOP OF COVERS, AND ARROW SHOWING DIRECTION OF OPENING.

NOTE:
THE CITY OF BURLINGTON HOLDS THE RIGHT OF FIRST REFUSAL FOR ALL WATER SYSTEM WORK. COORDINATE WITH PUBLIC WORKS DEPARTMENT.

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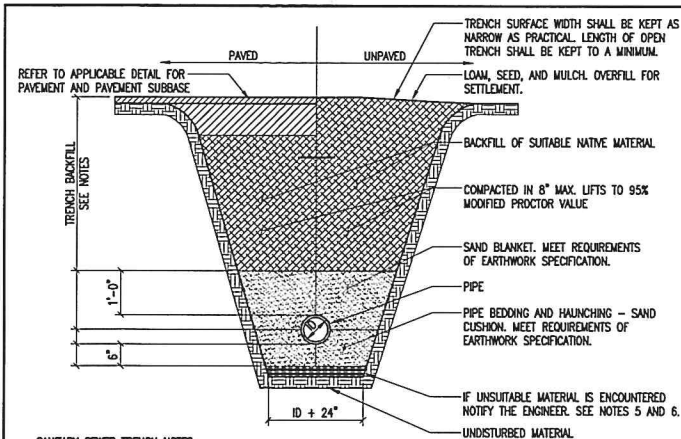
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Date:	February 21

WATER
DETAILS
AND NOTES

C3.0

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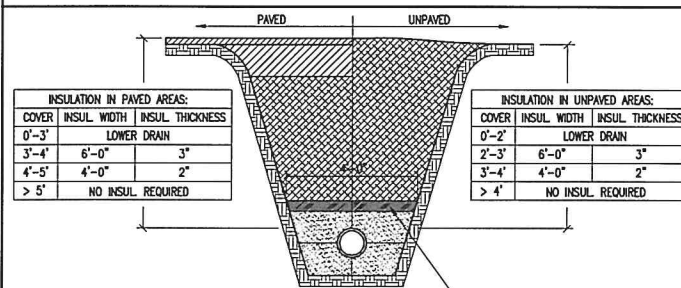


SANITARY SEWER TRENCH NOTES:

1. UNLESS OTHERWISE NOTED, ASSUME CLASS "C" SOILS. PERFORM ALL EXCAVATIONS TO OSHA REQUIREMENTS.
2. BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR FULL LENGTH OF PIPE.
3. FOR BUILDING SEWERS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 4'-0". WHERE BUILDING SEWERS ARE TO BE INSTALLED AT A DEPTH LESS THAN 5'-0" UNDER DRIVEWAYS, EXTRA HEAVY CAST IRON OR OTHER HIGH STRENGTH PIPE SHALL BE USED. OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
4. FOR SEWER COLLECTION SYSTEMS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 5'-0". THIS DEPTH SHALL BE INCREASED TO 6'-0" IN AREAS TO BE PLOWED DURING THE WINTER MONTHS. OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
5. BACKFILL SHALL BE OF A SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS SHALL NOT BE USED FOR BACKFILL WITHIN TWO FEET OF THE TOP OF THE PIPE.
6. LODGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.
7. SEWERS ON 20 PERCENT SLOPES OR GREATER SHALL BE ANCHORED SECURELY WITH CONCRETE ANCHORS OR EQUIVALENT, SPACED AS FOLLOWS:
 - A. NOT OVER 36 FEET CENTER TO CENTER ON GRADES 20 PERCENT AND UP TO 35 PERCENT
 - B. NOT OVER 24 FEET CENTER TO CENTER ON GRADES 35 PERCENT AND UP TO 50 PERCENT
 - C. NOT OVER 16 FEET CENTER TO CENTER ON GRADES 50 PERCENT AND OVER

SANITARY SEWER TRENCH DETAIL

SCALE: NONE

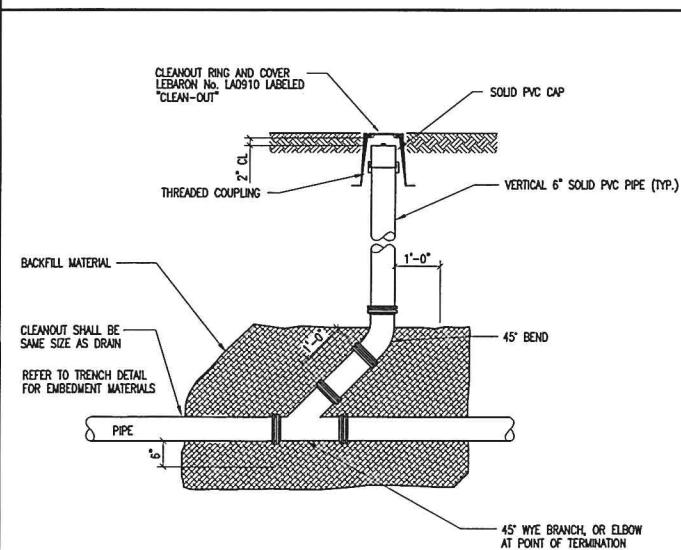


TRENCH NOTES:

1. REFER TO APPLICABLE TRENCH DETAIL FOR SPECIFIC BACKFILL INFORMATION.
2. RIGID EXTRUDED POLYSTYRENE INSULATION SHALL CONFORM WITH ASTM C578 - STANDARD SPECIFICATION FOR RIGID CELLULAR POLYSTYRENE THERMAL INSULATION AND SHALL BE DOW STYROFOAM HIGH LOAD 40 OR EQUIVALENT.

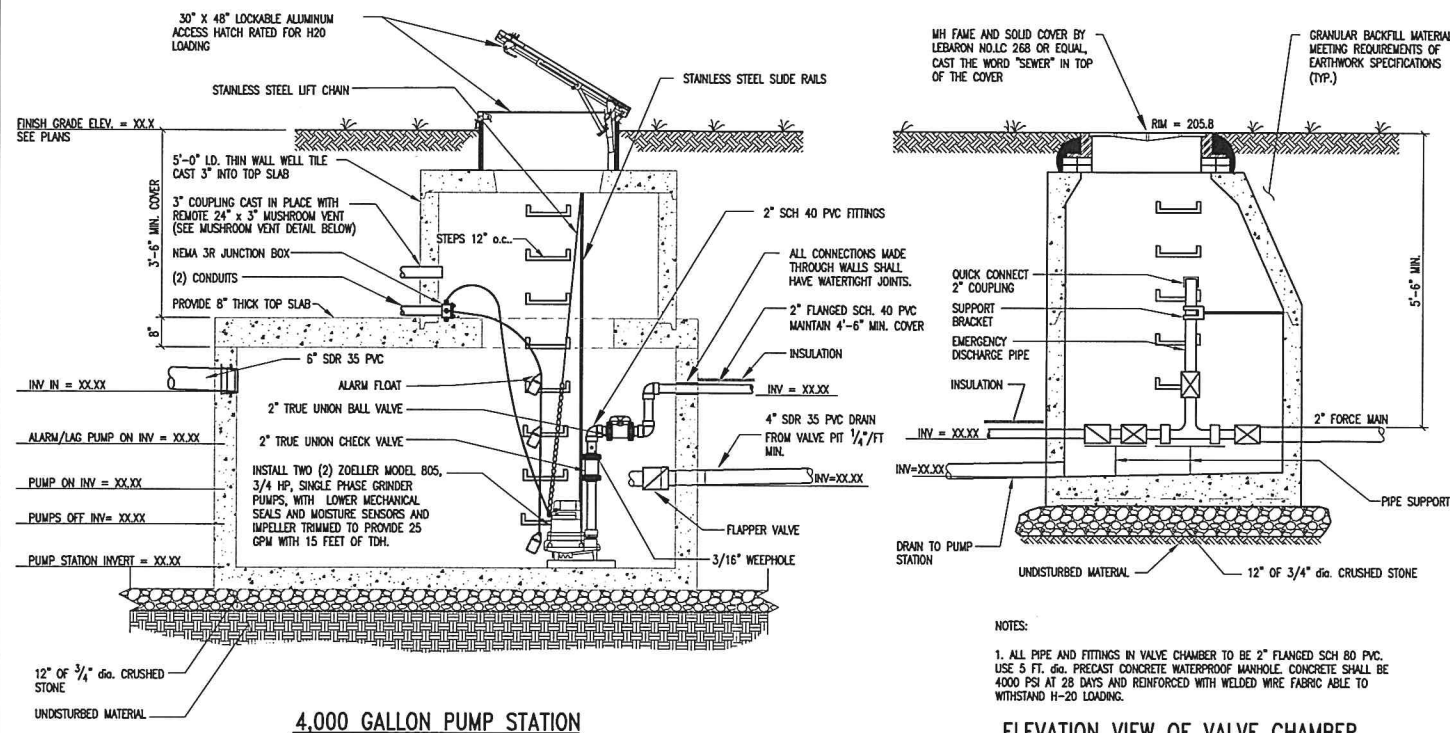
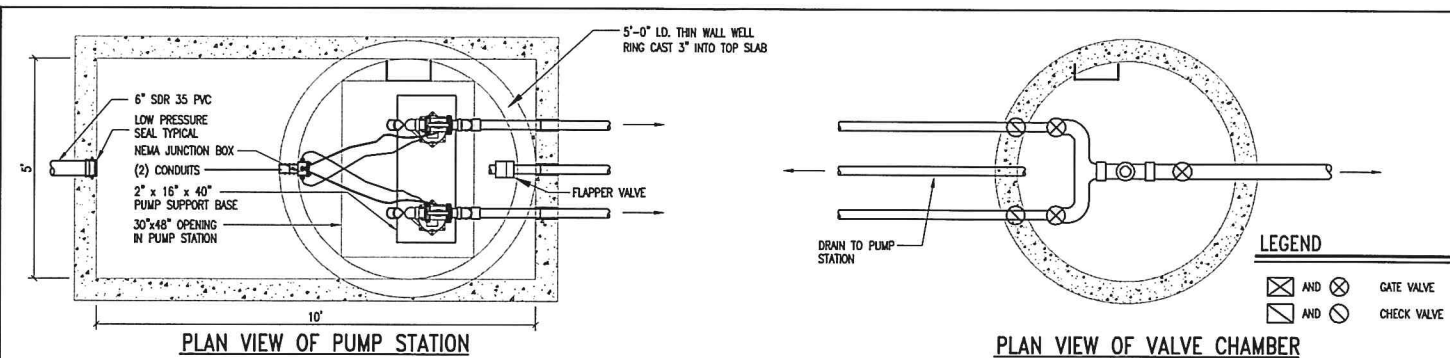
INSULATION OVER SHALLOW SEWER LINE DETAIL

SCALE: NONE



SEWER CLEANOUT DETAIL

SCALE: NONE

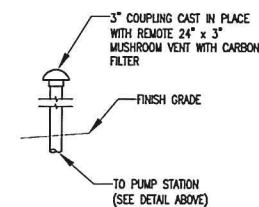


4,000 GALLON PUMP STATION

ELEVATION VIEW OF VALVE CHAMBER

NOTES:

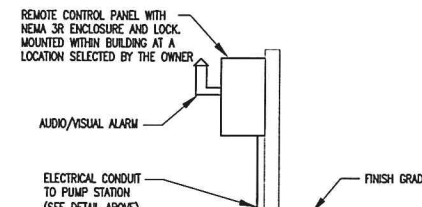
1. ALL PIPE AND FITTINGS IN VALVE CHAMBER TO BE 2" FLANGED SCH 80 PVC. USE 5 FT. dia. PRECAST CONCRETE WATERPROOF MANHOLE. CONCRETE SHALL BE 4000 PSI AT 28 DAYS AND REINFORCED WITH WELDED WIRE FABRIC ABLE TO WITHSTAND H-20 LOADING.



MUSHROOM VENT DETAIL

PUMP STATION NOTES:

1. ITEMS OF WORK SHALL INCLUDE ALL NECESSARY MATERIALS AND THEIR INSTALLATION AS REQUIRED TO OPERATE THE PUMPING SYSTEM.
2. PUMP STATION SHALL BE REINFORCED CONCRETE. BOTH PUMP STATION AND HATCH RATED TO SUPPORT H20 LOADING.
3. CONTROL PANEL TO BE LOCATED IN THE BUILDING AND SHALL CONTAIN:
 - A. PUMP ALTERNATOR
 - B. RUN LIGHTS
 - C. MANUAL ON/OFF AUTOMATIC CONTROL
 - D. ALARM SILENCE BUTTON
 - E. AUDIO AND VISUAL ALARM TO BE MOUNTED ON THE CONTROL PANEL BOX.
 - F. 120 VOLT RECEPTACLE
 - G. PROVIDE ONLY AN EXTRA DRY CONTACT FOR A DIAL UP ALARM (A COMPLETE DIAL UP MODEM SHOULD NOT BE INCLUDED).
 - H. PUMP TIMER AND COUNTER SHALL BE AN ELAPSED TIME METER FOR EACH PUMP AND AN EVENT COUNTER TO TRACK SYSTEM CYCLES.
 - I. SEAL FAILURE INDICATORS
 - J. EXTERNAL FLOW CONTROL STOPPING PUMPS DURING HEAVY RAINFALL EVENTS.
4. LOCATION OF VENT TO BE COORDINATED WITH ARCHITECT AND ENGINEER.
5. SPARE PARTS TO BE SUPPLIED TO INCLUDE:
 - A. EXTRA FLOAT SWITCH
 - B. EXTRA MAGNETIC CONTACTORS
 - C. TWO ORIGINAL SETS OF MANUALS FOR BOTH THE PUMPS AND CONTROL PANELS.



CONTROL PANEL AND ALARM DETAIL

6. ALL ELECTRICAL COMPONENTS TO BE UNDERWRITERS LABORATORY APPROVED, INSTALLED BY A LICENSED ELECTRICIAN IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
7. ALL PIPE AND FITTINGS IN PUMP STATION SHALL BE FLANGED SCHEDULE 40 PVC.
8. TANK SHALL BE INSTALLED LEVEL ON A COMPACTED 12" GRAVEL BASE.
9. STEPS TO BE COPOLYMER POLYPROPYLENE PLASTIC WITH 3/8" GRADE 60 REBAR CONTINUOUS THROUGHOUT.
10. SLIDE RAILS AND DISCONNECT FITTINGS SHALL BE INSTALLED SO THAT THE PUMPS CAN BE REMOVED WITHOUT ENTERING THE PUMP STATION. A STAINLESS STEEL LIFT CHAIN AND REQUIRED MOUNTING HARDWARE WILL BE PROVIDED FOR EACH PUMP WITHIN THE PUMP STATION.
11. THE PUMP CHAMBER AND VALVE PIT SHALL BE FILLED WITH WATER AND SUBJECTED TO A 24 HOUR HYDROSTATIC LEAKAGE TEST. NO LEAKAGE WILL BE ALLOWED DURING THE TEST PERIOD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A WATER TIGHT STRUCTURE.
12. THE FORCE MAIN LEAKAGE TEST SHALL EXTEND FROM THE RECEIVING MANHOLE INTO THE 1,500 GALLON PUMP CHAMBER INTERIOR.
13. SHOP DRAWINGS OF THE PUMP STATION, VALVE PIT, AND COMPONENTS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

4,000 GALLON DUPLEX PUMP STATION DETAIL

SCALE: NONE

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Revisions:

Job Number: 000

File Name: 15330 C3.0.1

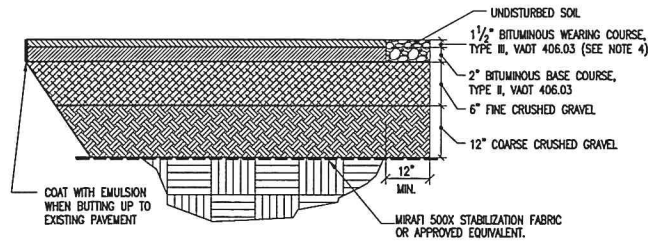
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Date: February 27,

WASTE WATER
DETAILS AND
NOTES

C3.1

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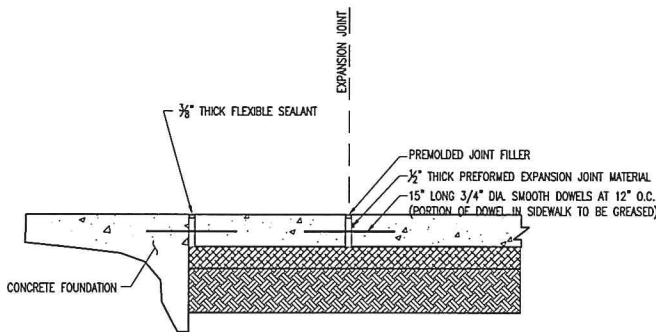


PAVEMENT PATCHING NOTES:

1. IN ALL PAVEMENT AREAS TO BE PATCHED, SAW CUT AND REMOVE EXISTING PAVEMENT.
2. EXCAVATE BASE MATERIAL AND SUB-BASE MATERIAL IF INADEQUATE.
3. COMPACT ALL FILL MATERIAL TO 95% MODIFIED PROCTOR DENSITY.

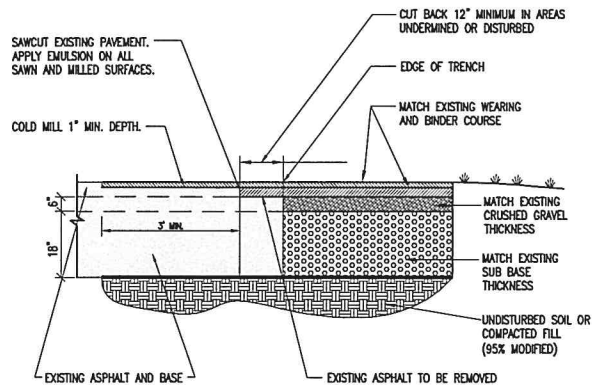
TYPICAL PAVEMENT DETAIL

SCALE: NONE



SIDEWALK DETAIL AT BUILDING

SCALE: NONE

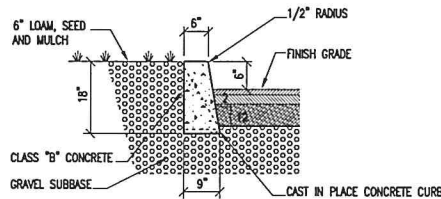


PAVEMENT PATCHING NOTES:

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PAVING PATCH DETAIL

SCALE: NONE

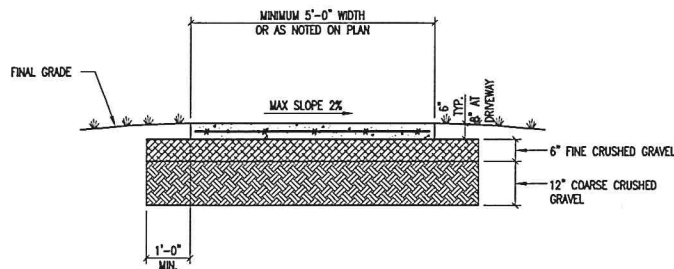


CONCRETE CURB NOTES:

1. CONSTRUCT CURBING IN 10'-0" SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS
2. EXPANSION JOINTS AT 20'-0 D.C., MAX
3. CONCRETE CURBS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VDOT 616.06.

CONCRETE CURB DETAIL

SCALE: NONE

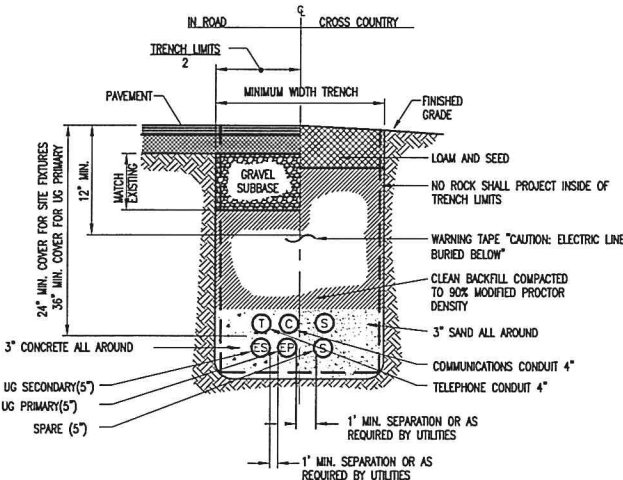


CONCRETE SIDEWALK NOTES:

1. PLACE A TOOLED JOINT 1/8" WIDE AND AT LEAST 1/3 OF THE DEPTH, TYPICALLY AT INTERVALS MATCHING THE SIDEWALK WIDTH, OR AS NOTED ON PLANS (NOT TO EXCEED 10'-0").
2. PLACE EXPANSION JOINT AS INDICATED ON PLANS, NOT TO EXCEED 20'-0" MAX. ALL EXPANSION JOINTS SHALL BE DOWELED WITH A 3" DIAMETER SMOOTH DOWEL AT 12" O.C. DOWEL SHALL BE 15" IN LENGTH AND SHALL HAVE AN EXPANSION CAP INSTALLED AT THE END. SEE DETAIL ON THIS SHEET.
3. BROOM FINISH WITH SMOOTH TROWELED EDGES, TREAT WITH SILANE-SILOXANE OR EQUAL.
4. CAST-IN-PLACE CONCRETE TO BE 4500 PSI CONCRETE, 5X-7X AIR ENTRAINMENT WITH 6X8-W4.0XW4.0 REINFORCING CENTERED IN SIDEWALK.
5. WHERE SIDEWALK IS ADJACENT TO ENTRY/EXIT DOOR PADS WITH FROST WALL FOUNDATIONS, SIDEWALK SHALL BE DOWELED TO PAD WITH 24" LONG #4 DOWELS (CENTERED) AT 1'-6" OC (PORTION OF DOWEL IN SIDEWALK TO BE GREASED).
6. WHERE SIDEWALK IS ADJACENT TO CURB, BOLLARD OR OTHER HARD FEATURE, INSTALL 1/2" EXPANSION MATERIAL (FULL DEPTH OF SIDEWALK) BETWEEN FEATURE AND SIDEWALK.
7. COMPACT ALL FINE MATERIAL TO 95% MODIFIED PROCTOR DENSITY

CONCRETE SIDEWALK DETAIL

SCALE: NONE



UNDERGROUND CONDUIT TRENCH

SCALE: NONE

SITE/EARTHWORK SPECIFICATIONS

1. PRIOR TO THE START OF THE WORK, A PRE-CONSTRUCTION MEETING WILL BE HELD WITH THE CONTRACTOR, OWNER, PROJECT ENGINEER AND A REPRESENTATIVE FOR THE CITY OF BURLINGTON TO REVIEW PROCEDURES AND IDENTIFY RESPONSIBILITIES. THE CITY SHALL BE GIVEN NOTICE AT LEAST 24 HOURS PRIOR TO THE MEETING. UNLESS STATED OTHERWISE, ALL MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE STATE OF VERMONT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. CLEARING AND GRUBBING- ALL TOPSOIL AND UNSUITABLE MATERIALS SHALL BE REMOVED FROM IMPACTED AREAS.
3. COMPACTION SHALL BE PERFORMED USING VIBRATORY ROLLERS AND WATER IN LIFTS OF NO GREATER THAN SIX INCHES. COMPACTION SHALL BE PERFORMED UNTIL THE REQUIRED DENSITY IS ACHIEVED. DENSITY SHALL BE DETERMINED BY AASHTO T238 METHOD AND SHALL NOT BE LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY FOR PAVED AREAS AND 90 PERCENT OF THE MAXIMUM DENSITY FOR NON PAVED AREAS DETERMINED IN ACCORDANCE WITH AASHTO T99.
4. COMPACTION TESTING SHALL BE PERFORMED FOR EVERY LAYER OF MATERIAL PLACED AND FOR EVERY 1000 SQUARE FEET OF AREA.
5. ALL REMAINING DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE TOPSOILED, FERTILIZED AND SEEDED IN ACCORDANCE WITH THE VERMONT STATE SPECIFICATIONS.
6. THE SEEDING OF SLOPES AND DITCHES SHALL REQUIRE THE USE OF EROSION CONTROL MATTING.
7. COST OF INITIAL INSPECTION AND TESTING SHALL BE PAID BY THE OWNER. SUBSEQUENT TESTING OF MATERIALS NOT PASSING INITIAL INSPECTION, SHALL BE PAID BY THE CONTRACTOR. B. ALL EARTHWORK MATERIALS SHALL BE OBTAINED FROM APPROVED SOURCES. THEY SHALL CONSIST OF SATISFACTORILY GRADED, FREE DRAINING MATERIAL, REASONABLY FREE FROM LOAM, SILT, CLAY AND ORGANIC MATERIAL. EARTHWORK MATERIALS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING TABLES:

A. SAND BLANKET/BEDDING:	SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
	2 INCHES	100
	1 1/2 INCHES	90 - 100
	1 1/4 INCH	70 - 100
	NO. 4	60 - 100
	NO. 100	0 - 20
	NO. 200	0 - 8
- B. 3/4" CRUSHED STONE:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
1 INCH	100
3/4 INCHES	90 - 100
3/8 INCHES	20 - 55
NO. 4	0 - 10
NO. 8	0 - 5
- C. 1-1/2" CRUSHED STONE:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
2 INCH	100
1-1/2 INCH	95 - 100
3/4 INCHES	35 - 70
3/8 INCHES	10 - 30
NO. 4	0 - 5
- D. NO. 57 STONE:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
1-1/2 INCHES	100
1 INCH	95 - 100
1/2 INCHES	25 - 60
NO. 4	0 - 10
NO. 8	0 - 5
- E. GRAVEL SUB-BASE:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
NO. 4	20 - 60
NO. 100	0 - 12
NO. 200	0 - 6
- F. COARSE CRUSHED GRAVEL:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
4 INCHES	95 - 100
NO. 4	25 - 50
NO. 100	0 - 12
NO. 200	0 - 6
- G. FINE CRUSHED GRAVEL:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
2 INCHES	100
1 1/2 INCHES	90 - 100
NO. 4	30 - 60
NO. 100	0 - 12
NO. 200	0 - 6
- H. GRANULAR BACKFILL:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
3 INCHES	100
NO. 4	45 - 75
NO. 100	0 - 12
NO. 200	0 - 6
- I. TYPE I STONE FOR STONE FILL THE LONGEST DIMENSION OF THE STONE SHALL VARY FROM 1 INCH TO 12 INCHES, AND AT LEAST 50 PERCENT OF THE VOLUME OF THE STONE IN PLACE SHALL HAVE A LEAST DIMENSION OF FOUR INCHES.
- J. TYPE II STONE FOR STONE FILL THE LONGEST DIMENSION OF THE STONE SHALL VARY FROM TWO INCHES TO 36 INCHES, AND AT LEAST 50 PERCENT OF THE VOLUME OF THE STONE IN PLACE SHALL HAVE A LEAST DIMENSION OF 12 INCHES.

Revisions:

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SITE DETAIL
AND NOTE

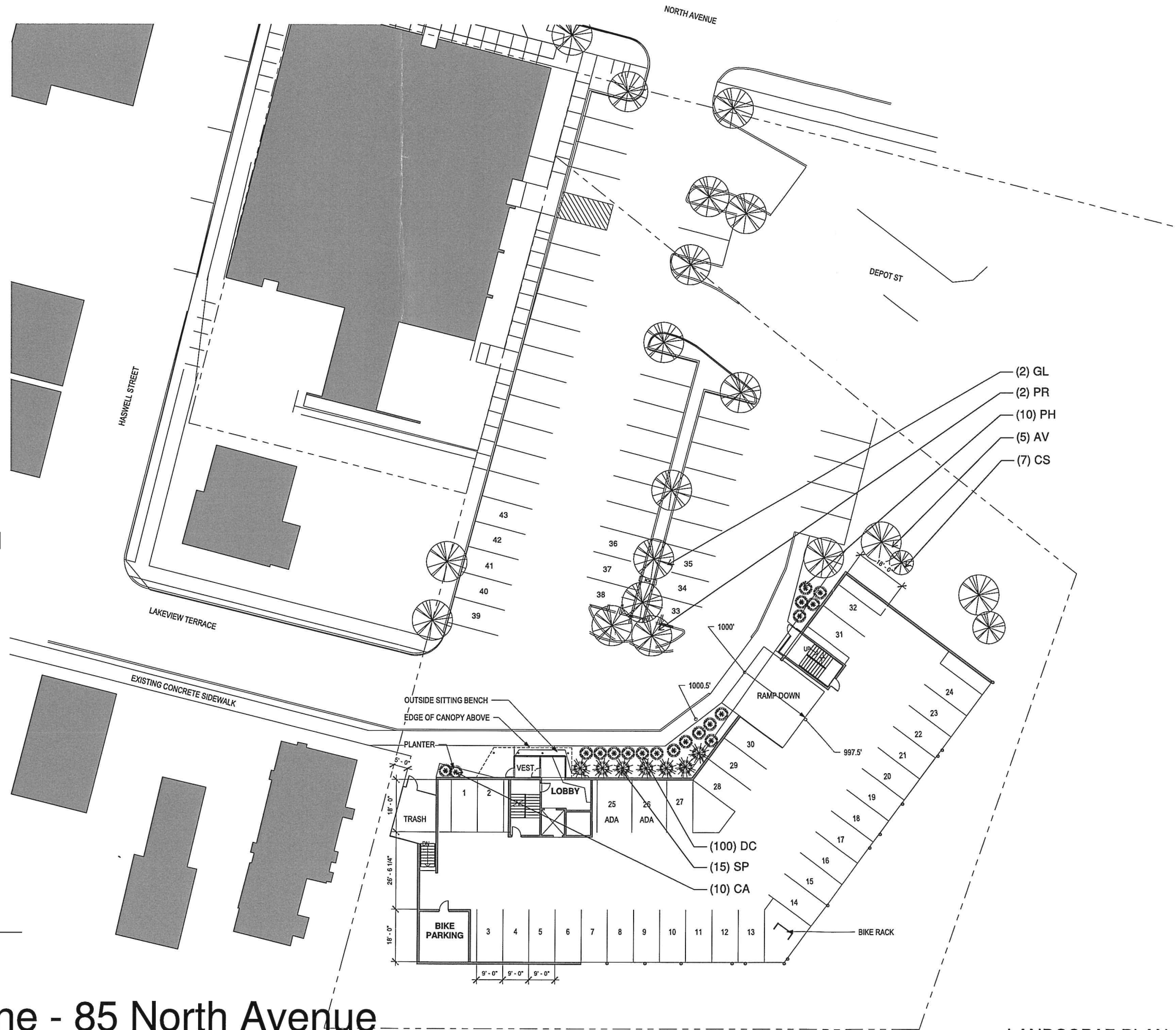
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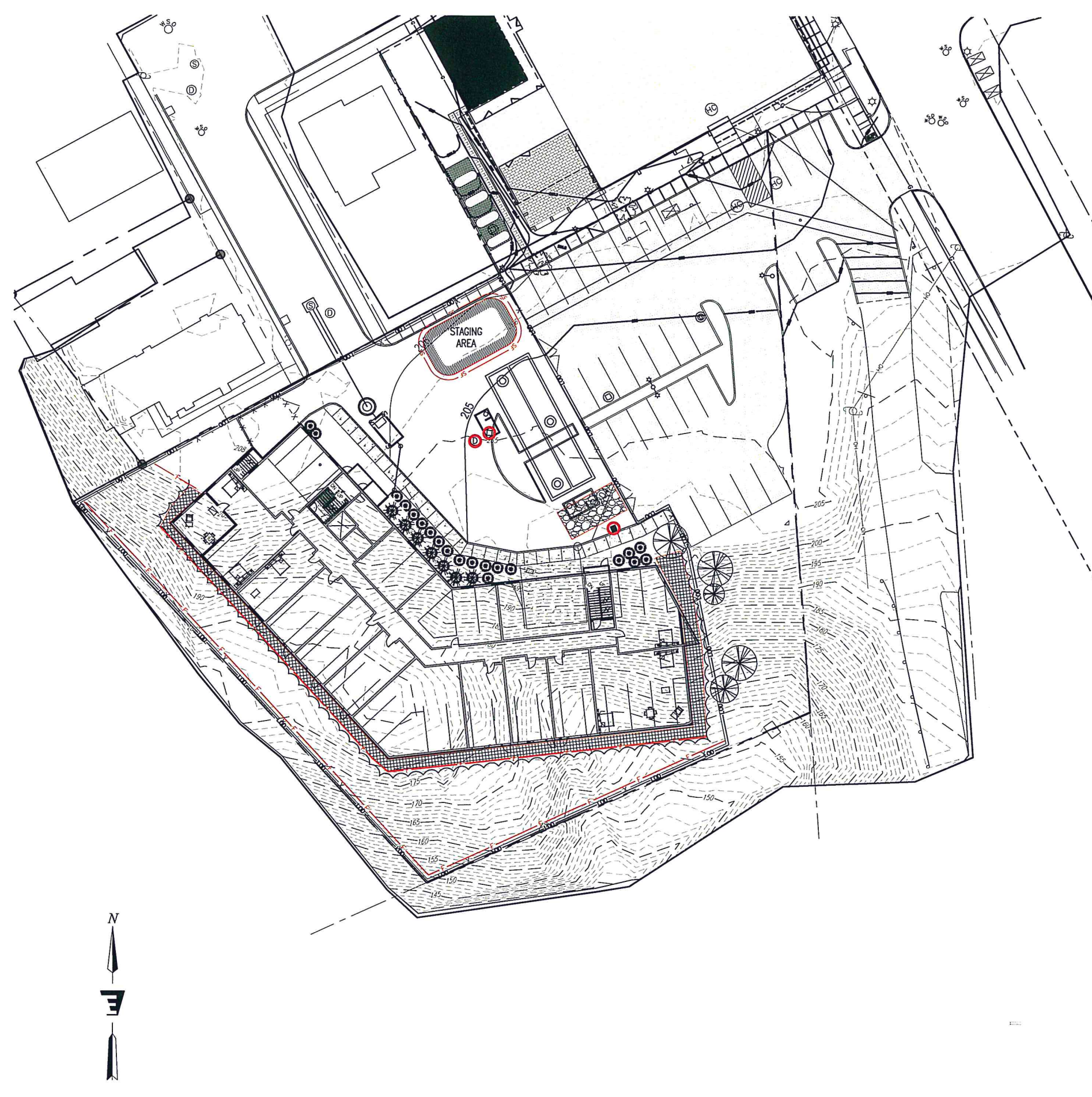
PLANT SCHEDULE

KEY	SCIENTIFIC NAME	COMMON NAME	SIZE
PR	ULMUS AMERICANA	PRINCETON	2 1/2" - 3"
GL	GLEDITSIA	SHADEMASTER	2 1/2" - 3"
CA	CALAMAGROSTIS	KARL FOERSTER	2 GAL
SP	SYRINGA PATULA	MISS KIM	5 GAL
DC	DESCHAMPSIA CESPITOSA	PIXIE FOUNTAIN	1 GAL
PH	PHYSOCARPUS	LITTLE DEVIL	3 GAL
AV	AMELANCHIER	AUTUMN BRILLIANCE	6-8'
CS	CORNUS STOLONIFERA	ALLEMAN COMPACT	3 GAL

1 LEVEL 1 - PARKING

SCALE: 1/16" = 1'-0"





GENERAL EROSION CONTROL NOTES

1. THE DISTURBANCE LIMITS INDICATED INCLUDE LESS THAN 1 AC OF SOIL DISTURBANCE AREA, WHICH IS BELOW THE THRESHOLD FOR COVERAGE UNDER VERMONT CONSTRUCTION GENERAL PERMIT 3-9020. THE CONTRACTOR MUST STILL MEET THE "LOW-IMPACT" REQUIREMENTS OF THAT PERMIT. CHANGES TO THE SCOPE OF WORK OR PROCEDURES OUTLINED ON THIS SHEET ARE TO BE CLEARED WITH THE ENGINEER PRIOR TO IMPLEMENTATION.
2. A PRE-CONSTRUCTION MEETING INCLUDING THE ON-SITE COORDINATOR (OSC), CONTRACTOR, BURLINGTON PUBLIC WORKS DEPARTMENT, AND ENGINEER IS TO BE SCHEDULED BY THE CONTRACTOR AT LEAST ONE WEEK PRIOR TO THE PLANNED START OF CONSTRUCTION. AT LEAST 72 HOURS OF NOTICE TO THE ABOVE PARTIES IS REQUIRED PRIOR TO THE MEETING.
3. A COPY OF THE EPSC PLAN, WITH ALL AMENDMENTS AND ASSOCIATED REPORTS, SHALL BE KEPT ON SITE DURING CONSTRUCTION, AND SHALL BE MADE AVAILABLE TO AUTHORIZED REPRESENTATIVES OF THE CITY OF BURLINGTON UPON REQUEST. THE NOTICE PAGE, PROVIDED BY THE CITY, MUST BE POSTED IN A PUBLICLY VISIBLE LOCATION.
4. DISTURBANCE LIMITS ARE TO BE MARKED, AND THE FOLLOWING MANAGEMENT PRACTICES INSTALLED, PRIOR TO BEGINNING EARTH WORK IN ANY GIVEN AREA: SILT FENCE, CONSTRUCTION ENTRANCE, TREE PROTECTION, CHECK DAMS, AND INLET PROTECTION.
5. THE CONTRACTOR MUST INSPECT ALL BMP'S AND WALK THE SITE PERIMETER AT THE END OF EACH WORKDAY TO ENSURE THAT SEDIMENT WILL NOT LEAVE THE SITE. ANY SEDIMENT FOUND BEYOND THE SITE LIMITS IS TO BE REMOVED IMMEDIATELY.
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE "VERMONT HANDBOOK FOR SOIL EROSION AND SEDIMENT CONTROL ON CONSTRUCTION SITES," THE VERMONT GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES AND BURLINGTON ORDINANCE.
7. ALL DISTURBED AREAS ARE TO BE STABILIZED (TEMPORARY OR FINAL) WITHIN 14 DAYS OF INITIAL DISTURBANCE. AFTER THIS TIME, ANY DISTURBANCE WITHIN THIS WORK AREA MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - a. STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN 24 HOURS AND NO LIQUID PRECIPITATION IS FORECAST DURING THAT PERIOD.
 - b. WORK IS OCCURRING WITHIN A SELF-CONTAINED EXCAVATION, 2 FEET OR MORE IN DEPTH.
9. THE PERIOD BETWEEN OCTOBER 15TH AND APRIL 15TH IS CONSIDERED THE "WINTER CONSTRUCTION PERIOD". DURING THIS PERIOD, STABILIZATION MUST OCCUR AT THE END OF EACH WORKDAY UNLESS EXCEPTIONS a AND b ABOVE APPLY.
8. ALL DISTURBED AREAS ARE TO BE PERMANENTLY STABILIZED WITHIN 48 HOURS OF FINAL GRADING. THIS WILL INCLUDE MATTING AT A MINIMUM.
9. ALL STABILIZATION INVOLVING SEEDING IS TO BE COMPLETED BY SEPTEMBER 15TH.
10. THE CONTRACTOR SHALL CLEAN ALL EXISTING INLETS AND FLUSH THE EXISTING STORM SEWER SYSTEM AS NEEDED TO PREVENT EXISTING PIPES FROM CLOGGING.
11. THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTION OF THE ADJACENT ROADWAYS FOR OFF-SITE TRACKING OF SOIL MATERIALS. SOIL, STONE, AND DEBRIS FOUND LEAVING THE SITE ARE TO BE REMOVED (WHEN FOUND) BY SWEEPING AT THE END OF EACH CONSTRUCTION DAY, OR MORE FREQUENTLY WHEN NEEDED TO PREVENT IMPACTS TO ADJACENT ROADS AND SIDEWALKS.
12. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY FOR INSPECTION ONCE FINAL STABILIZATION MEASURES ARE IN PLACE, AND ANOTHER INSPECTION ONCE FINAL STABILIZATION HAS BEEN REACHED (VEGETATED AREAS HAVE GROWN IN).
13. IF DEWATERING IS REQUIRED FOR CONSTRUCTION, THE CONTRACTOR MUST UTILIZE SEDIMENT FILTER BAGS (OR ALTERNATE APPROVED BY THE ENGINEER) TO PREVENT DISCHARGE OF SEDIMENT-LOADED WATER OFF SITE.

EPSC NOTES & LEGEND

DUST CONTROL
DUST SHALL BE CONTROLLED THROUGH APPLICATION OF WATER, AS REQUIRED TO PREVENT MIGRATION BEYOND THE PROJECT LIMITS. CONTROL OF DUST REMAINS AN ONGOING RESPONSIBILITY OF THE CONTRACTOR UNTIL THE SITE IS FULLY STABILIZED.

INSPECTION REQUIREMENTS
THE ON-SITE COORDINATOR (OSC) IS RESPONSIBLE FOR INSPECTION OF ALL EPSC MEASURES EVERY DAY AND AS SOON AS REASONABLY POSSIBLE DURING OR AFTER WEATHER RESULTING IN RUNOFF FROM THE SITE. FULL COMPLIANCE WITH THE REQUIREMENTS OF VERMONT GENERAL PERMIT 3-9020 IS THE RESPONSIBILITY OF THE CONTRACTOR AND OSC. INSPECTION FREQUENCY MAY BE REDUCED TO MONTHLY IF ALL DISTURBED AREAS HAVE BEEN STABILIZED. INSPECTION AND REPORTING REQUIREMENTS DO NOT CEASE UNTIL THE SITE IS PERMANENTLY STABILIZED AND A NOTICE OF TERMINATION HAS BEEN FILED. DISCHARGE OF SEDIMENT AFTER FILING A NOTICE OF TERMINATION IS PROHIBITED.

VEGETATIVE STABILIZATION
ALL SEEDING FOR VEGETATIVE STABILIZATION IS TO TAKE PLACE BETWEEN APRIL 15TH AND SEPTEMBER 15TH UNLESS OTHERWISE APPROVED.

STABILIZATION REQUIREMENTS
TO BE CONSIDERED PERMANENTLY STABILIZED, ALL DISTURBED AREAS MUST BE PROTECTED BY ONE OF THE FOLLOWING: PAVEMENT, GRAVEL, MULCH BEDS, OR VEGETATION (70% MINIMUM COVERAGE). THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL SEDIMENT CONTROL MEASURES (SILT FENCE, DISTURBANCE LIMIT MARKERS, INLET PROTECTION, ETC.) AND FOR RESTORATION OF ALL STAGING AND SOIL STOCKPILE AREAS BEFORE FILING NOTICE OF TERMINATION.

EROSION PREVENTION AND SEDIMENT CONTROL STRATEGY
THE FOLLOWING TECHNIQUES WILL BE UTILIZED AS PART OF A SEDIMENT AND EROSION CONTROL PROGRAM. THE SEDIMENT AND EROSION CONTROL PROGRAM WILL BE IMPLEMENTED IN STAGES. CERTAIN ITEMS FROM ONE STAGE WILL LIKELY OVERLAP OR TAKE PLACE CONCURRENTLY WITH ITEMS FROM OTHER STAGES. REFER TO DETAILS ON SHEET C3.4

STABILIZED CONSTRUCTION ENTRANCE
THIS STRUCTURAL MEASURE IS A STABILIZED PAD OF AGGREGATE UNDERLAIN WITH FILTER FABRIC LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, SIDEWALK, OR PARKING AREA. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY OR STREETS. THIS WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED.

SILT FENCING
THIS STRUCTURAL MEASURE IS A TEMPORARY BARRIER OF GEOTEXTILE FABRIC USED TO INTERCEPT SEDIMENT LADEN RUNOFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL. IT IS INSTALLED ALONG THE PERIMETER OF IMPACTED AREAS AND ALONG THE BASE OF THE FILL SLOPES. ADDITIONALLY, WHEN DESIGNATED ALONG THE LIMITS OF DISTURBANCE, INSTALL CONSTRUCTION FENCE BEHIND THE SILT FENCE. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED.

FIBER ROLL
THIS STRUCTURAL MEASURE IS A TEMPORARY BARRIER USED TO INTERCEPT SEDIMENT LADEN RUNOFF FROM SMALL DRAINAGE AREAS OF DISTURBED SOIL. IT IS INSTALLED ALONG THE PERIMETER OF IMPACTED AREAS AND ALONG THE BASE OF THE FILL SLOPES. ADDITIONALLY, WHEN DESIGNATED ALONG THE LIMITS OF DISTURBANCE, INSTALL SPECIFIED FENCE BEHIND THE FIBER ROLL. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED.

APPROXIMATE STAGING AND WASTE AREAS
THESE ARE APPROVED LOCATIONS WHERE NON-SOIL, NON-ERODIBLE MATERIALS MAY BE STORED. SOILS SHALL NOT BE STORED IN THESE AREAS.

LIMITS OF DISTURBANCE
THE CONTRACTOR SHALL CONTAIN ANY EARTH MOVING ACTIVITIES WITHIN THE DESIGNATED LIMITS SHOWN ON THIS PLAN. THE ENGINEER SHALL REVIEW THE SITE TO MAKE ANY ADJUSTMENTS TO ACCOUNT FOR ENVIRONMENTALLY SENSITIVE AREAS, SPECIMEN TREES AND SPECIAL AREAS OF CONCERN. THE LIMITS SHALL BE DEMARKED WITH ORANGE CONSTRUCTION FENCE OR CHAIN LINK FENCE AS SPECIFIED ON PLANS. THESE WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE PROJECT SITE HAS BEEN PERMANENTLY STABILIZED. CONFIRM LOCATION, EXTENTS AND GATES WITH OWNER. FENCE LOCATION AND GATES TO BE RE-ADJUSTED AS NECESSARY BASED ON CM REQUIREMENTS AND PROJECT PHASING AND COORDINATION.

CHAIN LINK FENCING
CONTRACTOR SHALL INSTALL AS INDICATED ON PLANS AT LIMIT OF DISTURBANCE.

3:1 OR GREATER
EROSION CONTROL MATTING
THIS STRUCTURAL MEASURE IS INSTALLED IN AREAS THAT HAVE SLOPES OF 3:1 OR GREATER AND OTHER LOCATIONS INDICATED ON THIS PLAN TO STABILIZE THE SLOPE AND REDUCE THE EROSION POTENTIAL. MATTING IS TO BE INSTALLED AND STAPLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION AND MAINTAINED UNTIL VEGETATION IS FULLY ESTABLISHED.

TEMPORARY INLET PROTECTION
INSTALL AS INDICATED ON PLANS. STONE TO BE REMOVED AND REPLACED WITH CLEAN STONE WHEN SEDIMENT REACHES $\leq 1/2$ DEPTH OF STONE. REMOVE ALL SEDIMENT IF COLLECTED IN STRUCTURE AS SOON AS POSSIBLE. FIBER ROLLS MAY BE USED AS AN ALTERNATIVE TO CRUSHED STONE.

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Revisions:

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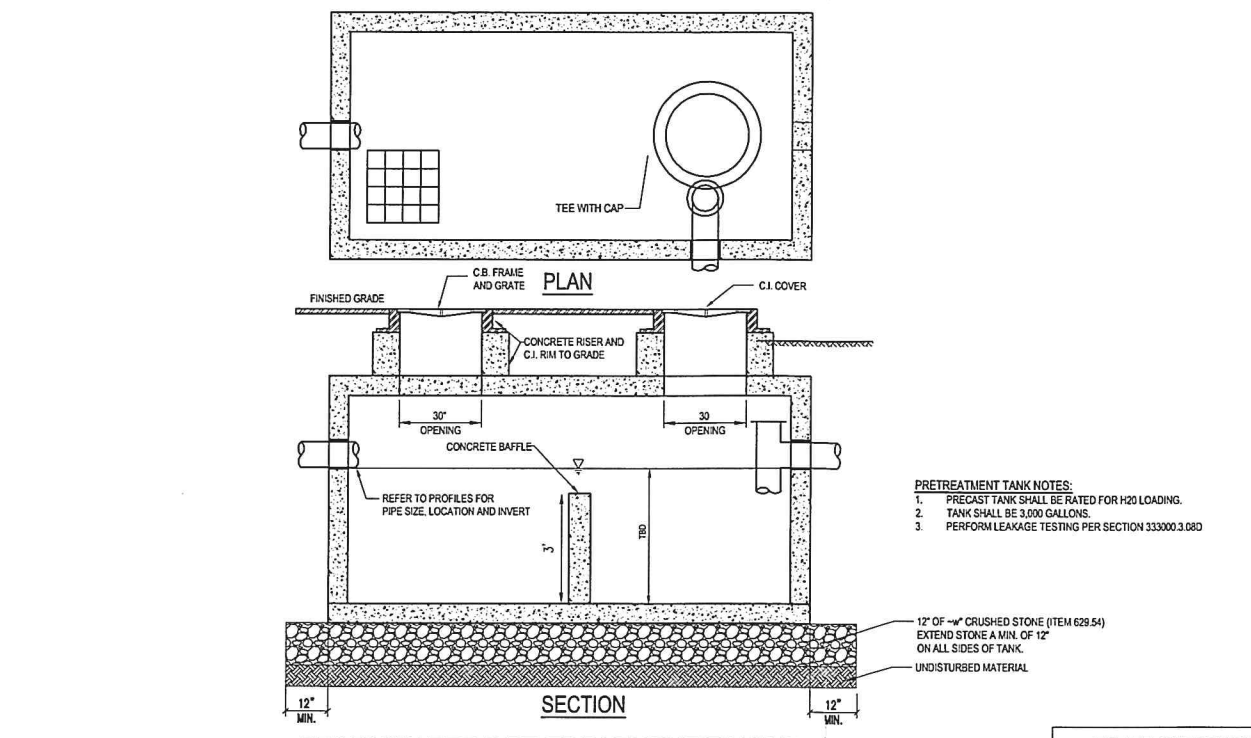
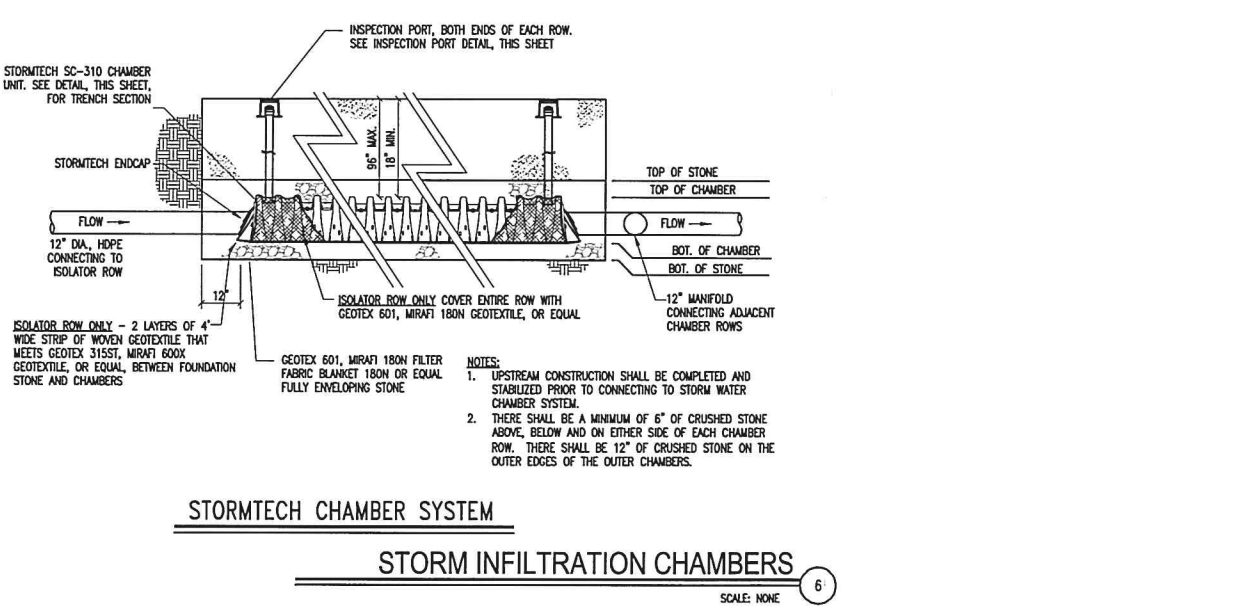
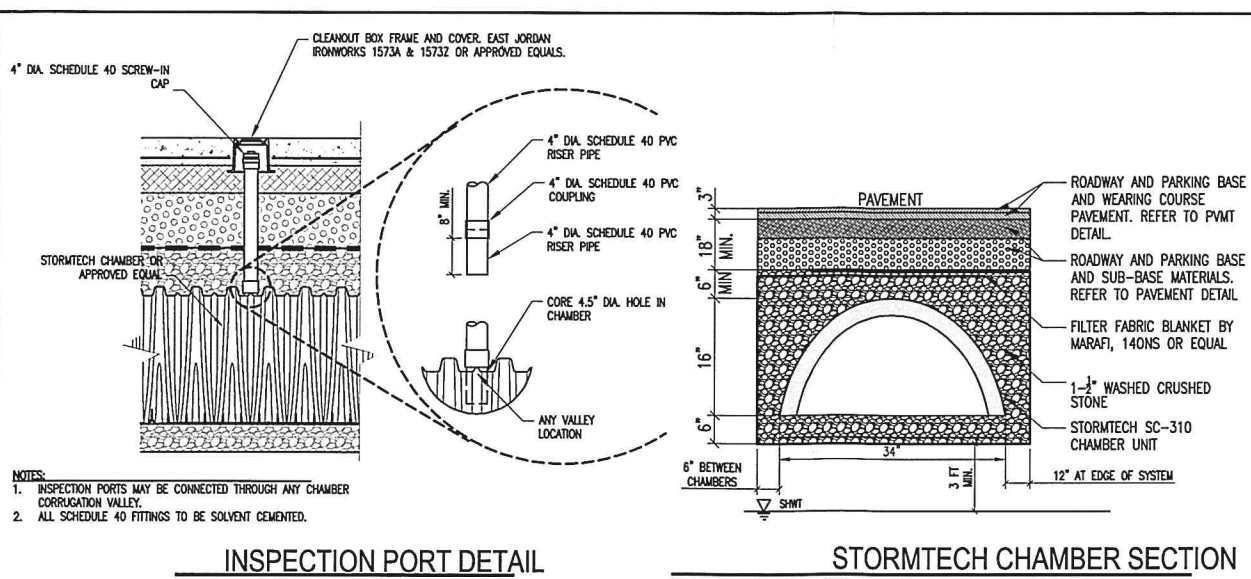
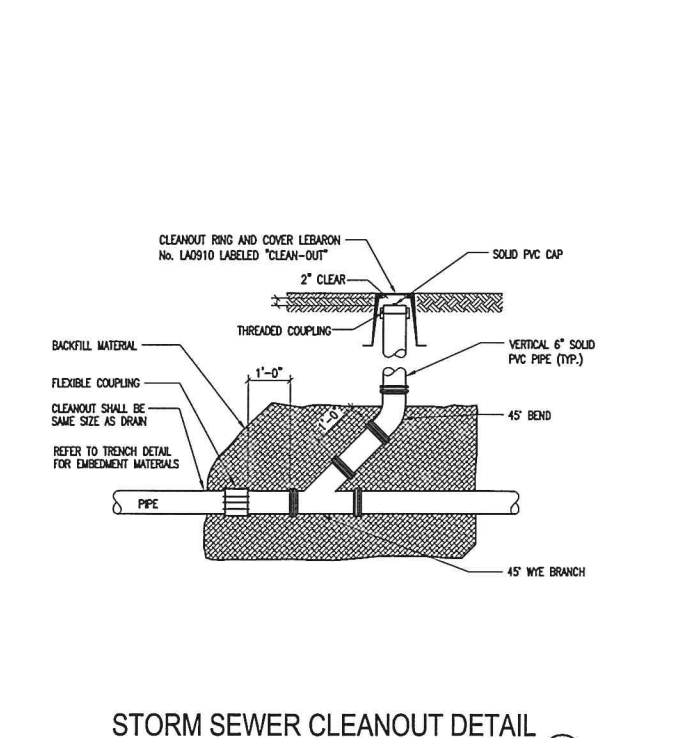
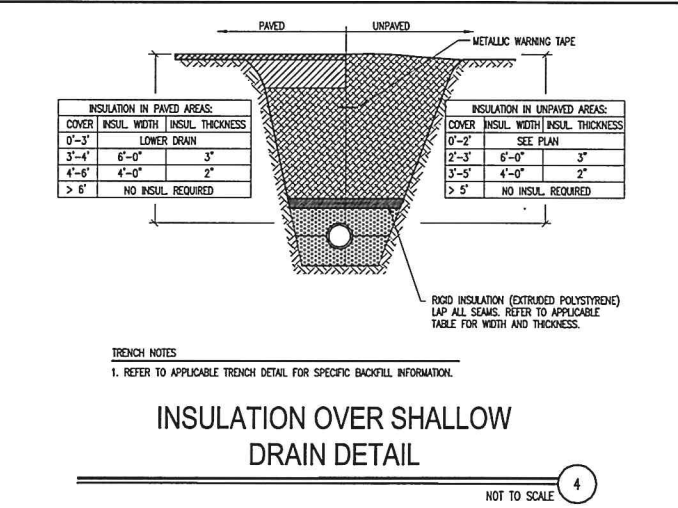
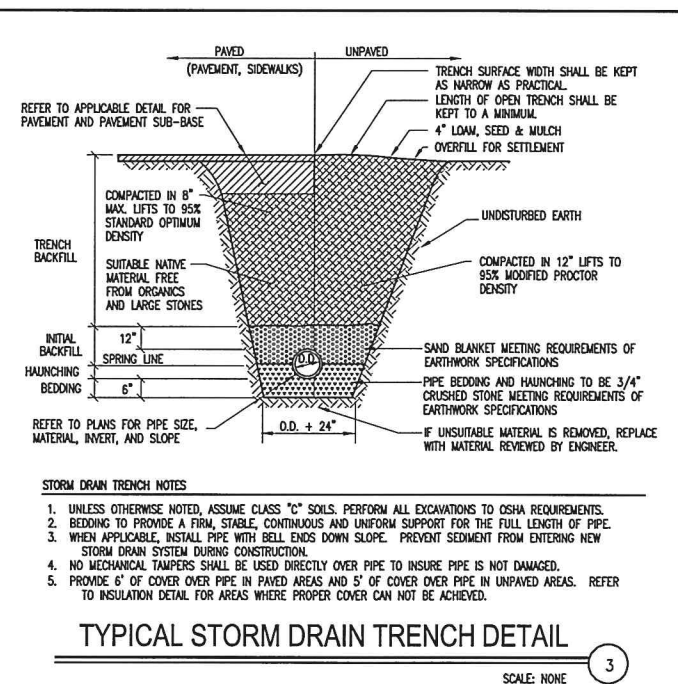
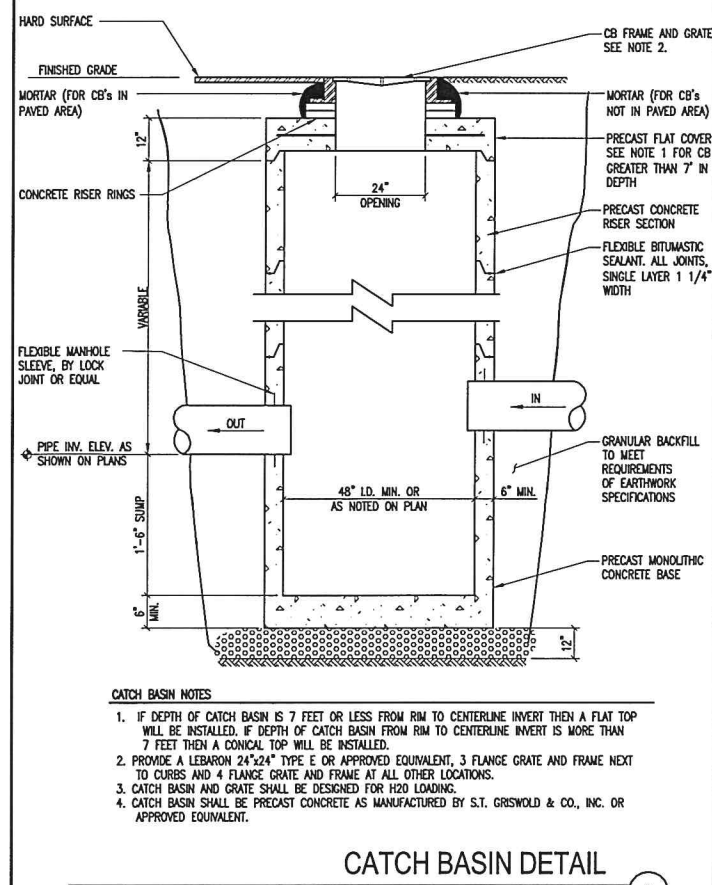
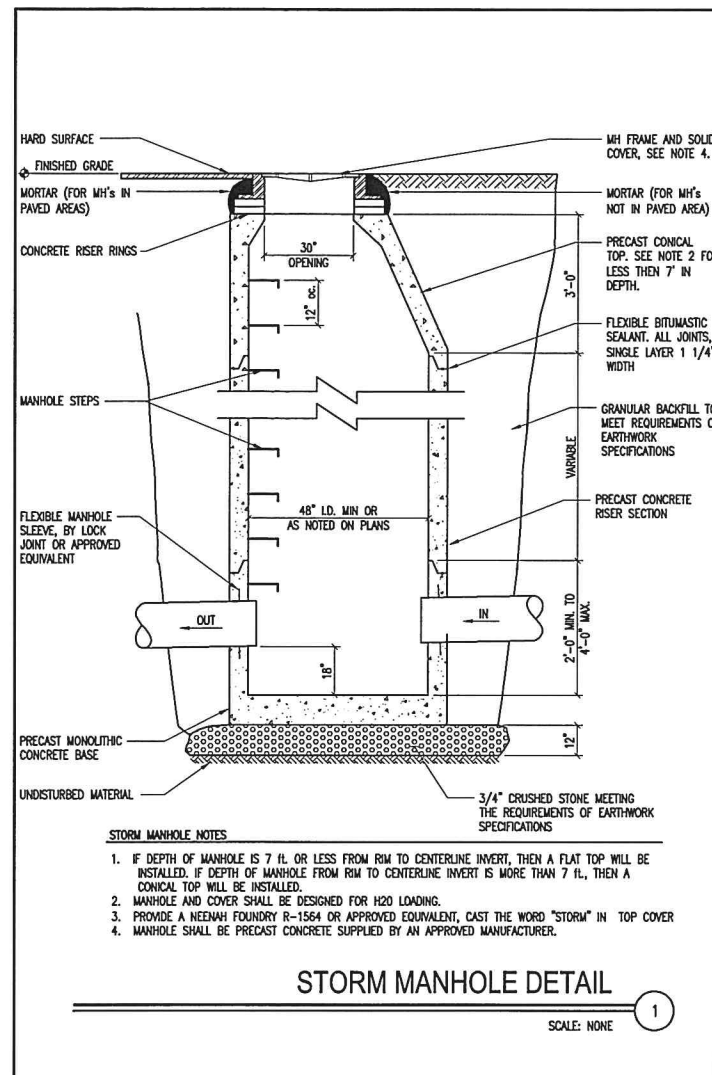
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Date: February 27

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

C1

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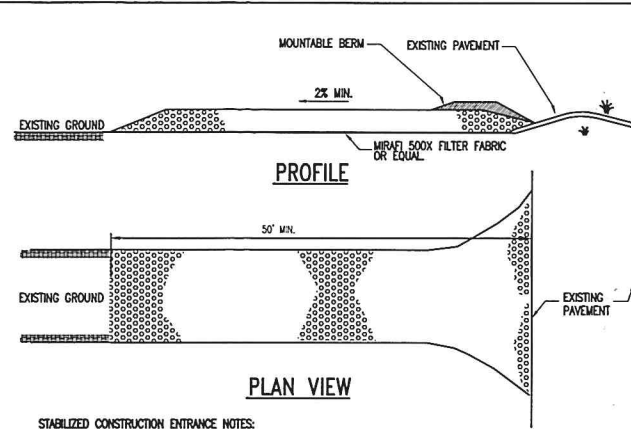
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Revisions:
Job Number: 00
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Date: February 21

STORM WATER
DETAILS

C3

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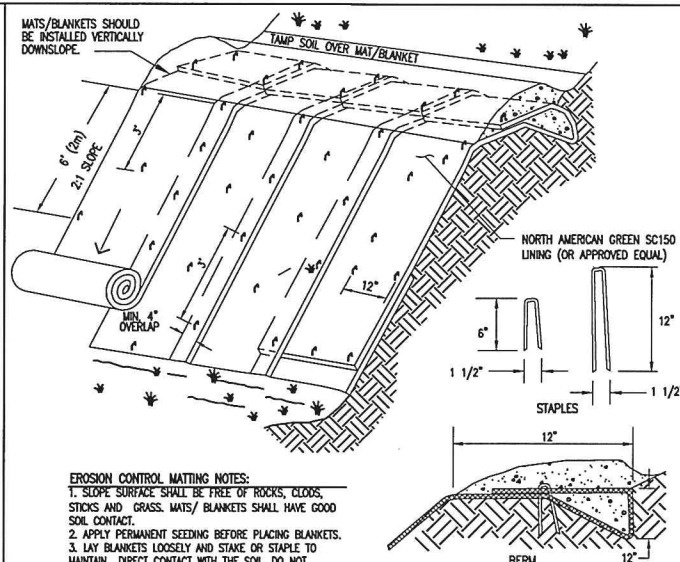


STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE: USE 1-1/2" CRUSHED STONE.
2. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE.
3. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
4. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
5. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

CONSTRUCTION ENTRANCE DETAIL

SCALE: NONE

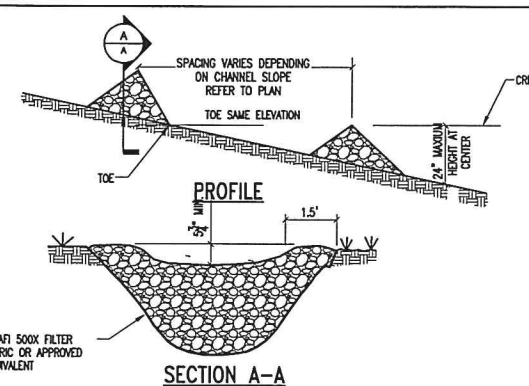


EROSION CONTROL MATTING NOTES:

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/ BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

EROSION CONTROL MATTING

SCALE: NONE

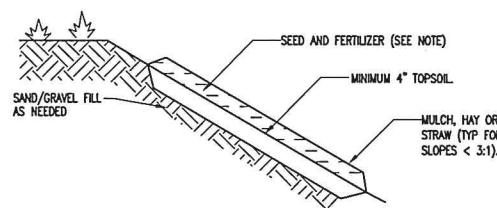


CHECK DAM NOTES

1. TYPE I STONE FILL WILL BE PLACED ON A FILTER FABRIC FOUNDATION AT THE GRADES AND LOCATIONS AS DESCRIBED HEREIN, AND TO MEET THE ABOVE DETAIL IN AREAS SHOWN ON PLANS.
2. SET SPACING OF CHECK DAMS SUCH THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM FOR A MINIMUM OF 100' DOWNSTREAM OF DISTURBED EARTH.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED WEEKLY (EVERY 7 DAYS) AND WITHIN 24 HOURS AFTER EACH RAIN.
6. REMOVE SEDIMENT COLLECTED BEHIND EACH DAM WHEN DEPTH OF SEDIMENT IS ONE HALF THE HEIGHT OF THE DAM.

STONE CHECK DAM DETAIL

SCALE: NONE

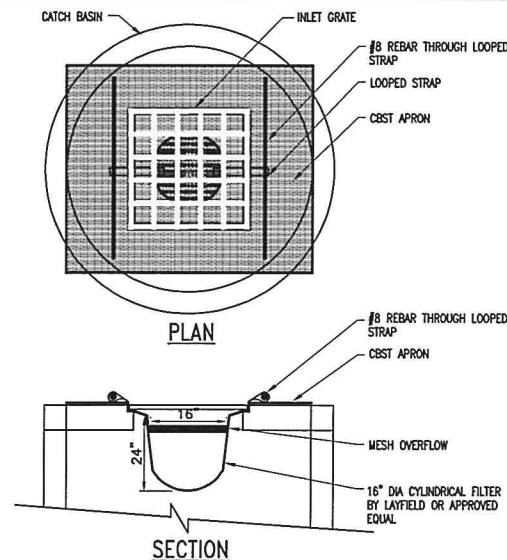


NOTES FOR SEEDED AND MULCHED AREAS

1. ALL DISTURBED SURFACES SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED WITHIN 7 DAYS OF DISTURBANCE.
2. SEEDING AND MULCHING OF DISTURBED AREAS SHALL TAKE PLACE WITHIN 48 HOURS OF FINAL GRADING.
3. MULCH: TYPICALLY HAY OR STRAW MAY BE UTILIZED AND SHALL BE APPLIED AT A RATE OF 90-100 LBS/1,000 SF. MULCH SHALL NOT BE PLACED ON SLOPES OF GREATER THAN 3:1. EROSION CONTROL MATTING SHALL BE USED IN ITS PLACE.
4. SEED: SEEDING SHALL OCCUR AFTER APRIL 15 AND PRIOR TO SEPTEMBER 15TH IN ORDER TO ESTABLISH A STAND OF GRASS PRIOR TO GROUND FREEZING. SEED SHALL BE IN ACCORDANCE WITH SECTION 32 9200.
5. COVER SEED WITH 1/2" INCH SOIL UNLESS A HYDROSEEDER IS USED.
6. MULCH ANCHORING: SHALL BE ACCOMPLISHED BY DEGRADABLE MULCH NETTING. USE WHEN SLOPES ARE GREATER THAN 10%.
7. TOPSOIL AND MULCHING NOT TO BE APPLIED IN AREAS OF TRAVEL WAYS.
8. REFER TO SECTION 32 9200 FOR TOPSOIL AND PERMANENT SEEDING INFORMATION.

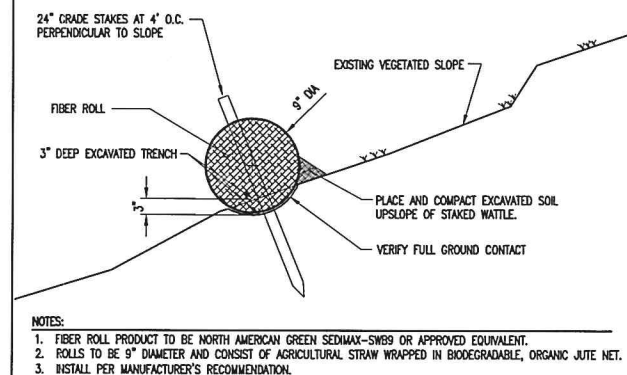
SEEDED AND MULCHED AREAS DETAIL

SCALE: NONE



FABRIC INLET PROTECTION

NOT TO SCALE

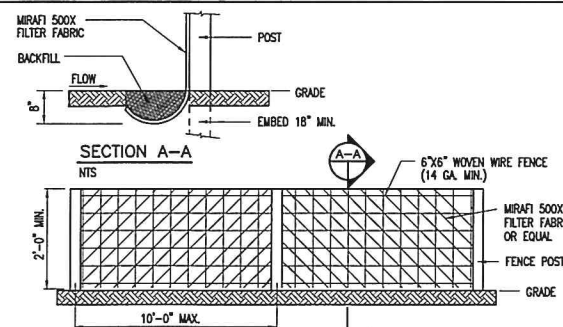


NOTES:

1. FIBER ROLL PRODUCT TO BE NORTH AMERICAN GREEN SEDIMAX-SW89 OR APPROVED EQUIVALENT.
2. ROLLS TO BE 9" DIAMETER AND CONSIST OF AGRICULTURAL STRAW WRAPPED IN BIODEGRADABLE, ORGANIC JUTE NET.
3. INSTALL PER MANUFACTURER'S RECOMMENDATION.

FIBER ROLL DETAIL

NOT TO SCALE

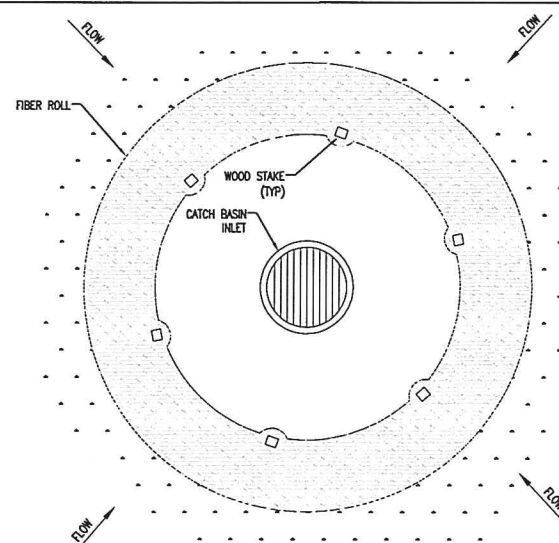


SILT FENCE NOTES:

1. SILT FENCE SHALL BE PRE-FABRICATED EROSION CONTROL FENCE BY MIRAFI OR EQUAL, OR CONSTRUCTED IN PLACE AS SPECIFIED HEREIN.
2. CONSTRUCTED IN PLACE SILT FENCE:
 - A. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 - B. FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE TIES SPACED EVERY 24" AT TOP OF MID SECTION.
 - C. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6", FOLDED AND STAPLED.
3. INSPECTION SHALL BE FREQUENT (MINIMUM ONCE A WEEK AND AFTER EVERY RAINFALL). MAINTENANCE SHALL BE PERFORMED AS NEEDED, AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE.
4. WOVEN WIRE FENCE REINFORCEMENT IS REQUIRED BY THE VT CONSTRUCTION GENERAL PERMIT WHEN SILT FENCE IS PLACED WITHIN 100 FEET UPSLOPE OF RECEIVING WATERS.

SILT FENCE DETAIL

SCALE: NONE



FIBER ROLL INLET PROTECTION DETAIL

SCALE: NONE

EPSC NOTES

1. PRIOR TO THE START OF WORK, A PRE-CONSTRUCTION MEETING WILL BE HELD WITH THE CONTRACTOR, OWNER, PROJECT ENGINEER AND CITY DPW TO REVIEW PROCEDURES AND IDENTIFY RESPONSIBILITIES. 4 WEEKS NOTICE SHALL BE GIVEN TO THE CITY PRIOR TO START OF CONSTRUCTION. UNLESS STATED OTHERWISE STATED, ALL MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE VTRANS SPECIFICATIONS.
2. ALL REMAINING DISTURBED AREAS SHALL BE FERTILIZED AND SEEDING IN ACCORDANCE WITH APPLICABLE STATE SPECIFICATIONS FOR EROSION CONTROL.
3. THE SEEDING OF 10% OR GREATER SLOPES SHALL REQUIRE THE USE OF EROSION CONTROL MATTING.
4. ALL EARTHWORK MATERIALS SHALL BE OBTAINED FROM APPROVED SOURCES. THEY SHALL CONSIST OF SATISFACTORILY GRADED, FREE DRAINING MATERIAL, REASONABLY FREE FROM LOAM, SILT, CLAY AND ORGANIC MATERIAL. EARTHWORK MATERIALS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING TABLES:

WINTER EROSION CONTROL NOTES

WINTER CONSTRUCTION PROCEDURES

1. DURING WINTER CONSTRUCTION, INSPECTIONS BY THE ON-SITE PLAN COORDINATOR SHALL OCCUR DAILY WHEN AREAS ARE UN-STABLE, AND WEEKLY PRIOR TO ANY FORECASTED RAIN, THAW OR SPRING MELT WHEN TEMPORARY STABILIZATION IS IN PLACE.
2. IN AREAS TO BE STABILIZED BY VEGETATION, ALL SEEDING MUST BE COMPLETED BY SEPTEMBER 15 TO ALLOW GROWTH TO OCCUR PRIOR TO THE GROUND FREEZING. STABILIZATION OF ALL OTHER DISTURBED AREAS SHALL BE COMPLETED BY OCTOBER 15.
3. ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING SHALL BE INSTALLED.
4. LIMITS OF DISTURBANCE SHALL BE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
5. SNOW WILL NOT BE PILED WITHIN 25 FEET OF PERIMETER CONTROLS (SUCH AS SILT FENCE) TO ALLOW FOR CLEARING AND MAINTENANCE. SNOW IS TO BE REMOVED FROM ALL STRUCTURAL EROSION PREVENTION AND SEDIMENTATION CONTROL MEASURES FOLLOWING EACH SIGNIFICANT SNOWFALL. NO SNOW STORAGE UP-GRADE OF DISTURBANCE. NO SNOW DISPOSAL IN SEDIMENT PONDS/BASINS. IF NECESSARY, SNOW/ICE MUST BE REMOVED PRIOR TO STABILIZATION OF DISTURBED AREAS. ACCESS POINTS SHALL BE ENLARGED AND STABILIZED TO ALLOW FOR SNOW STOCKPILING.
6. IN AREAS OF DISTURBANCE WITHIN 100 FT OF A RECEIVING WATER, SILT FENCE SHALL BE REINFORCED OR ELSE REPLACED WITH PERIMETER DIKES, SWALES OR OTHER PRACTICES RESISTANT TO THE FORCES OF SNOW LOADS.
7. DRAINAGE STRUCTURES SHALL BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
8. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TO BE IN PLACE BY OCTOBER 15, OR IF NOT POSSIBLE, THEN PRIOR TO GROUND FREEZE.
9. MULCH IS TO BE APPLIED AT THE END OF EACH WORKDAY TO ALL EXPOSED AREAS THAT HAVE NOT YET REACHED FINAL GRADE AT TWICE THE RATE INDICATED IN THE SEEDING AND MULCHING DETAIL FOR THE REGULAR CONSTRUCTION SEASON. MULCH SHALL BE TRACKED IN OR STABILIZED WITH NETTING.
10. TO ENSURE COVER OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - A) IF NO PRECIPITATION WITHIN 24 HOURS IS FORECAST AND WORK WILL RESUME IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
 - B) DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS HOUSE FOUNDATIONS OR OPEN UTILITY TRENCHES.
11. SNOW AND ICE SHALL BE REMOVED TO LESS THAN 1" THICKNESS PRIOR TO STABILIZATION.
12. STONE STABILIZATION, 10 TO 20 FT WIDE IN AREAS SUCH AS THE PERIMETER OF BUILDINGS UNDER CONSTRUCTION WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED SHALL BE INSTALLED.

gossens.bachman.Archite
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montpelier, vt 05602
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85
North
Avenue
Burlington, Vermont

Revisions:

Job Number: 00

File Name: C3

Scale: As

Date: February 21

EROSION
PREVENTION AND
SEDIMENT CONTROL
DETAILS

C3

FOR PERMIT REVIEW

ALED4T50Y



Specification grade area lights available in IES Type IV distributions. Suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. Mounts to 4" square steel poles at 20-35'. Patent pending management system. 5 Year Warranty.

Color: Bronze

Weight: 32.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	50W
120V:	0.46A	Color Temp:	3000K
208V:	0.27A	Color Accuracy:	82 CRI
240V:	0.23A	L70 Lifespan:	100000
277V:	0.20A	Lumens:	4,199
Input Watts:	52W	Efficacy:	81 LPW
Efficiency:	96%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations as a downlight.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED fixtures 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.

Dark Sky Approved:

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

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000178W

LED Characteristics

Lifespan:

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

LEDs:

Multi-chip, high-output, long-life LEDs

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.

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semiCircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Effective Projected Area:

EPA = 0.75

IP Rating:

Ingress Protection rating of IP66 for dust and water

Ambient Temperature:

Suitable for use in 40°C ambient temperatures.

Cold Weather Starting:

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

Thermal Management:

Superior thermal management design with external Air-Flow fins provides maximum operational life, even in high ambient temperature environments.

Housing:

Die cast aluminum housing, lens frame and mounting arm.

Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screws.

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High temperature silicone gaskets

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:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

Electrical

Driver:

Constant Current, Class 2, 1400mA, 100-277V, 50-60Hz, 0.8A, Power Factor 99%

THD:

6.9% at 120V, 7.8% at 277V

Surge Protection:

6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2.

Other

California Title 24:

See ALED4T50/PC, ALED3T50/PCS or ALED3T50/PCT for a 2013 California Title 24 compliant model.

Patents:

The ALED™ design is protected by patents pending in the U.S., Canada, China, Taiwan and Mexico.

ALED4T50Y



Technical Specifications (continued)

Other
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.
Country of Origin:
Designed by RAB in New Jersey and assembled in the USA by RAB's IBEW Local 3 workers.
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).
GSA Schedule:
Suitable in accordance with FAR Subpart 25.4.
Equivalency:
Replaces 200W Metal Halide.

Optical
BUG Rating:
B0 U0 G1

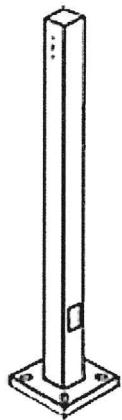
Dimensions

Features

- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type IV distribution
- 5-year warranty

Ordering Matrix										
Family	Distribution	Watts	Mount	Color Temp	Finish	Voltage	Photocell	Dimming	Sensor	Bi-Level
ALED										
	2T = Type II 3T = Type III 4T = Type IV	50 = 50W	Blank = Arm SF = Slipfitter	Blank = 5000K (Cool) Y = 3000K (Warm) N = 4000K (Neutral)	Blank = Bronze W = White RG = Gray	Blank = 120-277V /480 = 480V	Blank = No Photocell /PC = 120V Button /PC2 = 277V Button /PCS = 120V Swivel /PCS2 = 277V Swivel /PCT = 120-277V Twistlock /PCS4 = 480V Swivel /PCT4 = 480V Twistlock	Blank = No Dimming /D10 = Dimmable	/WS2 = Multi-Level Motion Sensor (Only available for 120-277V with /D10 for 50W)	Blank = No Bi-Level /BL = Bi-Level

PS4-11-20D2



Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze Weight: 137.0 lbs

Project:	Type:
Prepared By:	Date:

Lamp Info		Ballast Info	
Type:	N/A	Type:	N/A
Watts:	0W	120V:	N/A
Shape/Size:	N/A	208V:	N/A
Base:	N/A	240V:	N/A
ANSI:	N/A	277V:	N/A
Hours:	N/A	Input Watts:	0W
Lamp Lumens:	N/A		
Efficacy:	N/A		

Technical Specifications

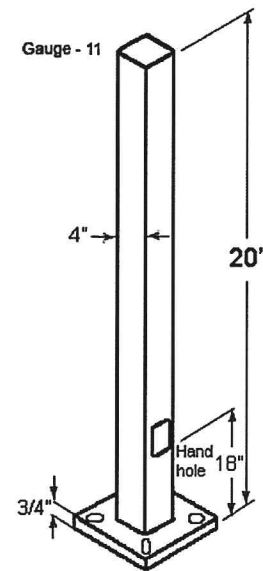
Listings	Weight:	Anchor Bolt:
CSA Listed:	137 lbs.	Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.
Suitable for wet locations.	Gauge:	Anchor Bolt Templates:
Construction	11	WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available .
Shaft:	Wall Thickness:	Pre-Shipped Anchor Bolts:
46,000 p.s.i. minimum yield.	1/8".	Bolts can be pre-shipped upon request for additional freight charge.
Hand Holes:	Shaft Size:	MaxEPA's/Max Weights:
Reinforced with grounding lug and removable cover.	4".	70MPH 8.3 ft_/240 lb
Base Plates:	Hand Hole Dimensions:	80MPH 5.6 ft_/165 lb
Slotted base plates 36,000 p.s.i.	3" x 5".	90MPH 3.6 ft_/110 lb
Shipping Protection:	Bolt Circle:	100MPH 2.2 ft_/75 lb
All poles are shipped in individual corrugated cartons to prevent finish damage.	8 1/2".	110MPH 1.0 ft_/45 lb
Color:	Base Dimension:	120MPH 0.2 ft_/20 lb.
Bronze powder coating.	8".	Other
Height:		Terms of Sale:
20 FT.		Pole Terms of Sale is available .



PS4-11-20D2



Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Anchor Bolt Kit includes pole cap and base cover (sold separately)
- Custom manufactured for each application

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BLED5-36Y



Professional Grade LED Bollards compliment any pathway or landscape design. Low profile 5W Square LED comes in Cool, Warm and Neutral color temperatures. Bollards come in 18, 36 and 42" versions

Color: Bronze Weight: 10.8 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	5W
120V:	0.1A	Color Temp:	3000K
208V:	0.06A	Color Accuracy:	87 CRI
240V:	0.05A	L70 Lifespan:	100000
277V:	N/A	Lumens:	128
Input Watts:	5W	Efficacy:	25 LPW
Efficiency:	96%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations.

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.

LED Characteristics

Lifespan:

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

Color Temperature (Nominal CCT):

3000K

Color Accuracy:

87 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.

Electrical

Driver:

Multi-chip 5W high output long life LED Driver
Constant Current, Class II, 120V-240V, 50/60 Hz, 400mA.

Construction

Thermal Management:

Cast aluminum Thermal Management system for optimal heat sinking. The BLED is designed for cool operation, most efficient output and maximum LED life by minimizing LED junction temperature.

Housing:

Precision die cast aluminum housing, lens frame.

Mounting:

36" Bollard.

Cold Weather Starting:

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

Maximum Ambient Temperature:

Suitable for use in 104°F (40°C) ambient temperatures

Gaskets:

High temperature silicone.

Finish:

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

Anchor Bolt:

The anchor bolts for the BLED's have the following dimensions 1/2 - 13 x 12 1/4" long with 2 3/4" hook.

Green Technology:

Mercury and UV free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

Optical

Lumen Maintenance:

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

Other

California Title 24:

See BLED5-36/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.

Country of Origin:

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

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).

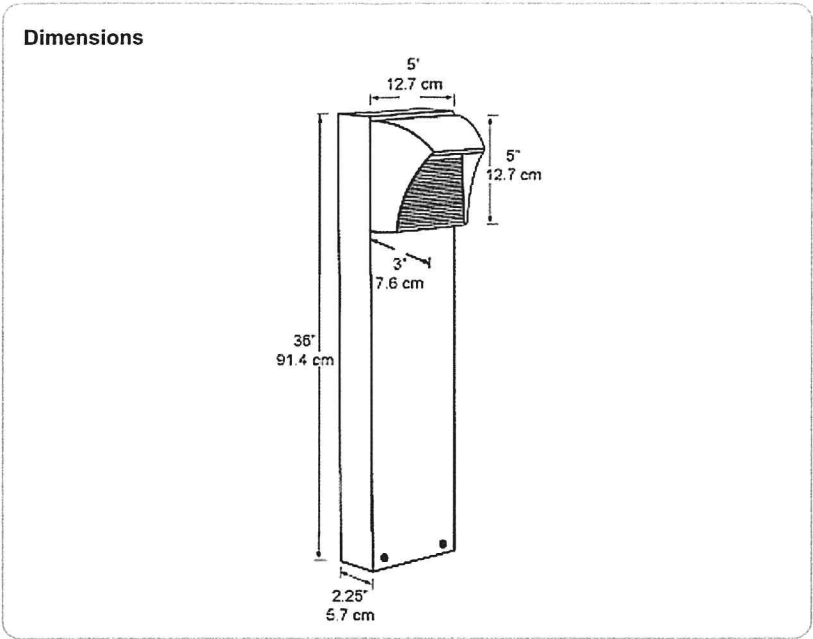
GSA Schedule:

Suitable in accordance with FAR Subpart 25.4.

Equivalency:

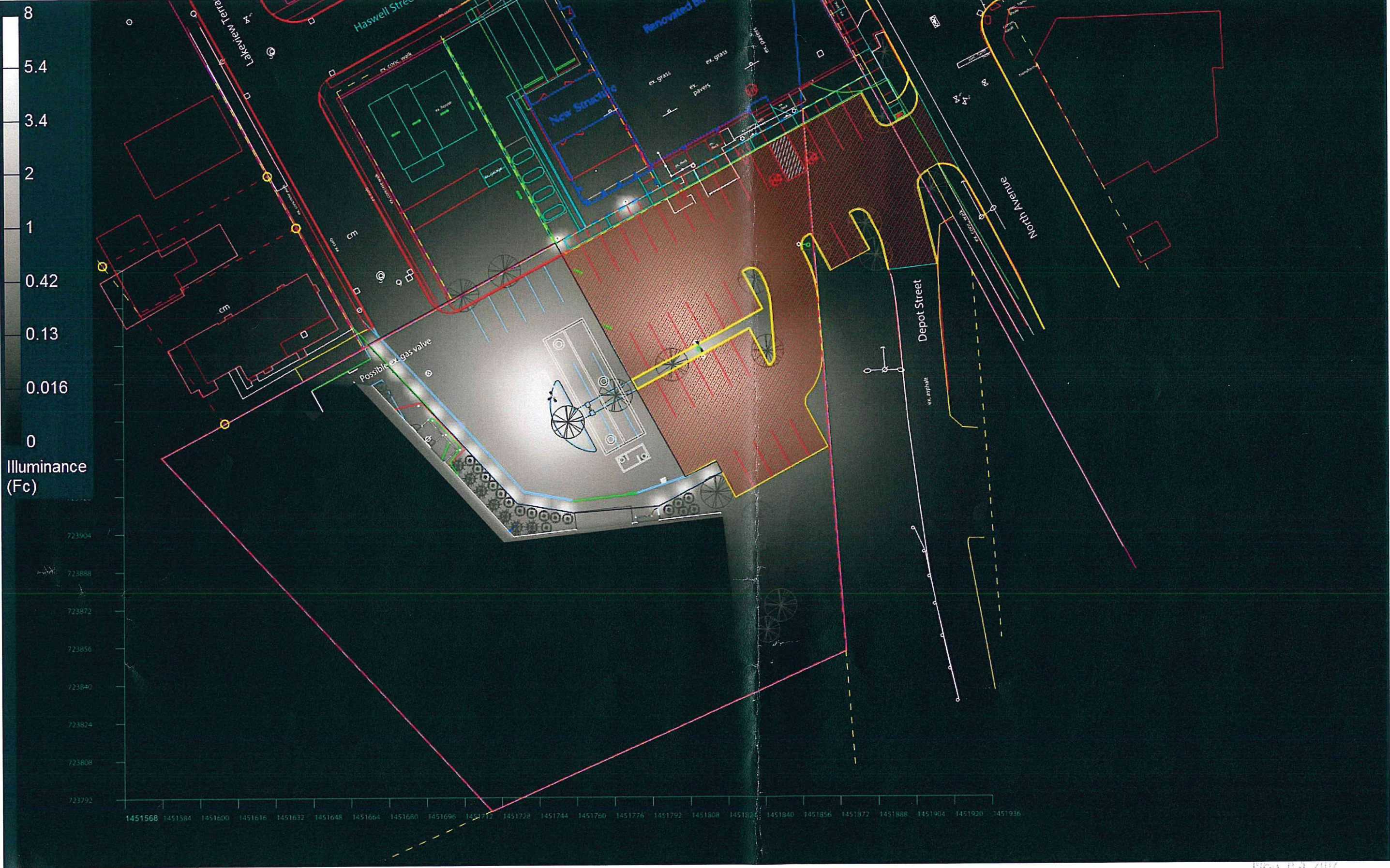
Equivalent to 13W CFL or 60W Incandescent.

BLED5-36Y



- Features
- High output LED
 - 100,000 hour life
 - Superior heat sinking with die cast aluminum housing
 - Meets ADA Requirements

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Render

The Lighting Analysis, and associated Energy Analysis and/or Visual Simulation ("Lighting Design") provided by BAB Lighting Inc. ("BAB") represents an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by BAB and therefore actual measured results may vary from the actual field conditions. BAB recommends that design parameters and other information be field verified to reduce risk.

Scale: as noted	CASE # 0008280
Date: 3/2/2017	

Job Name:
North Ave Project across from COTS
Burlington, VT

Prepared For:
Holbrook Associated
35 Reservoir Park Drive
Burlington, MA 05401



Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpclr	PtSpctb	Meter Type
CalcPts_1	Illuminance	Fc	1.38	6.4	0.1	13.80	64.00	Readings taken @ 0'-0" AFG	10	10	Horizontal

Luminaire Schedule													
Project: Project_1													
Symbol	Qty	Tag	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Description	Lum. Watts	Arr. Watts	Total Watts	Filename	BUG Rating
	1	A	ALED4T50Y x 3 @ 90°	3 @ 90 DEGREES	4199	12597	1.000	ALED4T50Y (TYPE IV)	51.9	155.7	155.7	ALED4T50Y - Warm - ITL80302.IES	B0-U0-G1
	13	B	BLED5-36Y	SINGLE	128	128	1.000	BLED5-36Y	5.3	5.3	68.9	BLED5Y-Warm - LSI27623.IES	B0-U1-G0

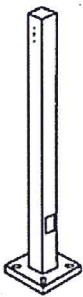
Expanded Luminaire Location Summary						
Project: Project_1						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
5	B	1451674.451	723981.207	3	42.936	0
11	B	1451682.583	723972.383	3	42.936	0
12	B	1451690.715	723963.558	3	42.936	0
13	B	1451698.848	723954.734	3	42.936	0
14	B	1451706.98	723945.91	3	42.936	0
15	B	1451715.112	723937.086	3	42.936	0
16	B	1451723.244	723928.261	3	42.936	0
17	B	1451731.376	723919.437	3	42.936	0
18	B	1451743.235	723914.667	3	79.916	0
19	B	1451755.069	723912.679	3	79.916	0
20	B	1451795.788	723915.223	3	118.431	0
21	B	1451806.27	723921.065	3	118.431	0
22	B	1451816.751	723926.908	3	118.431	0
25	A	1451750.219	723960.292	20	209.665	0
25	A	1451752.77	723959.593	20	299.665	0
25	A	1451750.918	723962.843	20	119.665	0
Total Quantity: 16						



ALED4T50Y x 3 @ 90°



BLED5-36Y



PS4-11-20D2

NOTES:

* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.

* Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.

* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.

* Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

* It is the Owner's responsibility to confirm the suitability of the existing or proposed poles and bases to support the proposed fixtures, based on the weight and EPA of the proposed fixtures and the owner's site soil conditions and wind zone. It is recommended that a professional engineer licensed to practice in the state the site is located be engaged to assist in this determination.

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The Lighting Analysis, layout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") represents an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information have not been field verified by RAB and therefore actual measured results may vary from any predicted results. RAB does not warrant, represent or guarantee the accuracy or completeness of any predictions or calculations. RAB recommends that design parameters and other information be field verified for accuracy and reliability.

Scale: as noted
Date: 3/2/2017
Case # 00082280

Job Name:
North Ave Project across from COTS
Burlington, VT

Prepared For:
Holbrook Associated
35 Reservoir Park Drive
Burlington, MA 05401

RAB

Redstone

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DEPARTMENT OF
PLANNING & ZONING

Date: 3/10/2017

To: Scott Gustin
Principal Planner
Department of Planning & Zoning
City Hall
Burlington, VT 05401

From: Daniel Goltzman
Development Manager, Redstone
646-957-4248

Via: Hand delivery

Re: 85 North Avenue Permit Drawings

Scott-

Enclosed are revised perspective & elevation drawings of 85 NA. I realize board packets have already gone out to DAB members, but if these more current versions could be switched out that would be much appreciated. I intend to present these images at next week’s hearing.

A perspective from the waterfront up towards our building is in the works, and I intend to have it to show next Tuesday.

I’m also working on full size site plans & revised photometric drawings for submission.

Regards,

Dan

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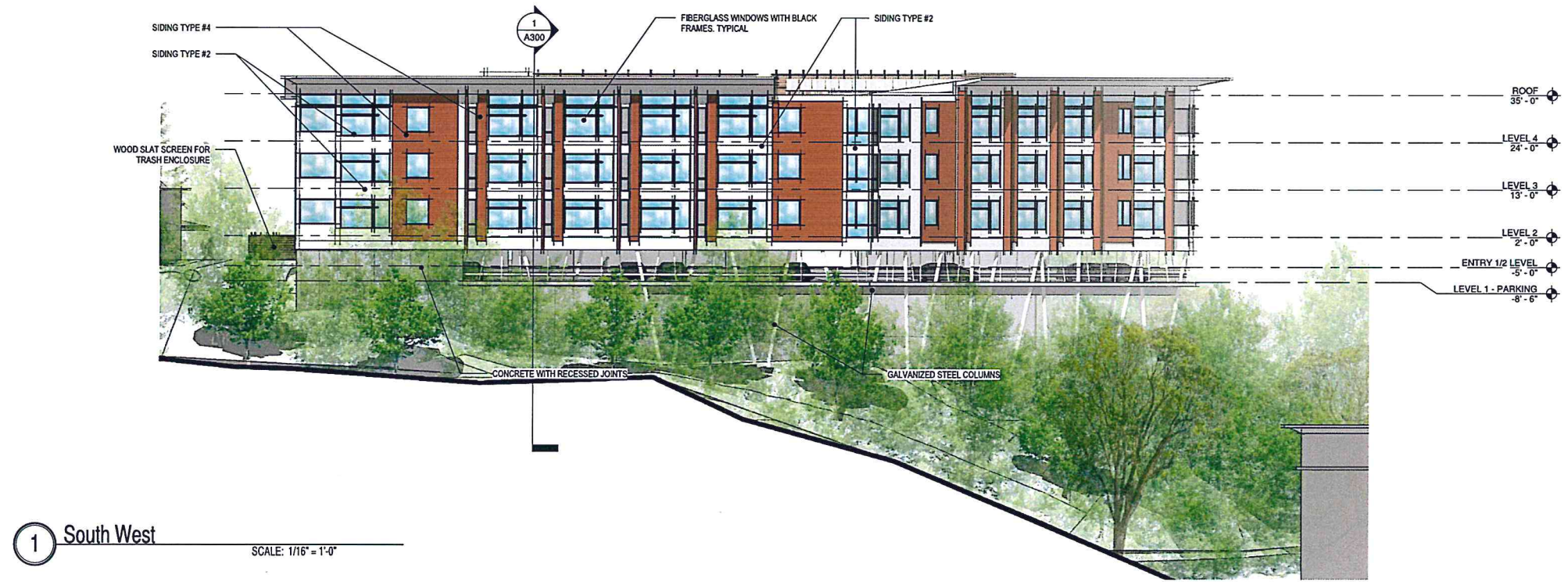
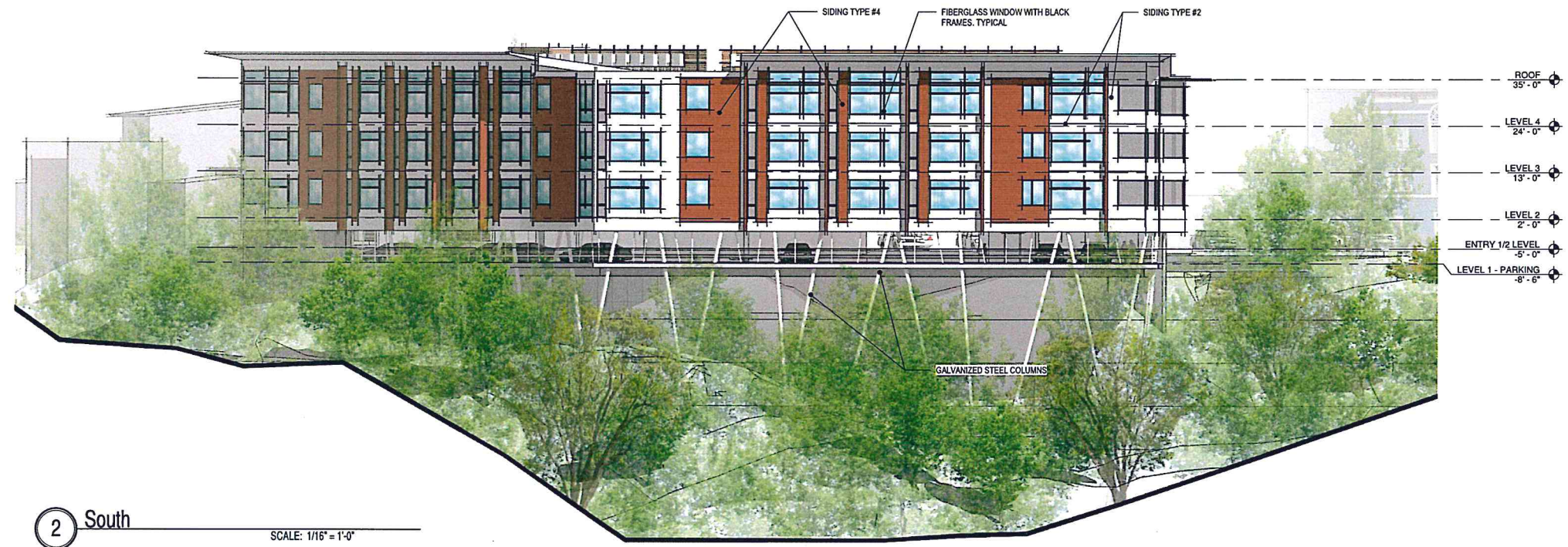
DEPARTMENT OF
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VIEW FROM LAKEVIEW TERRACE



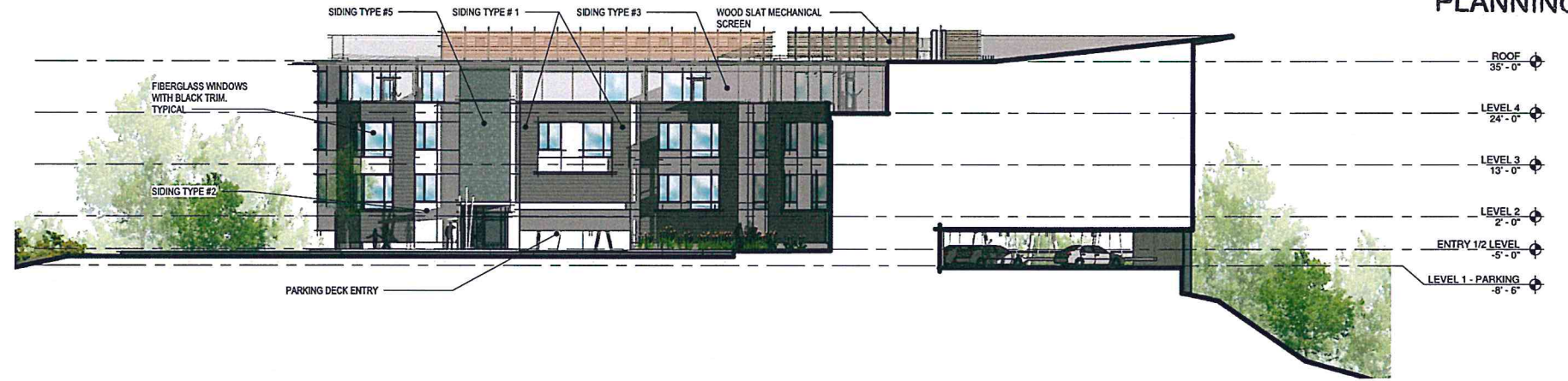
VIEW FROM NORTH AVE



Redstone - 85 North Avenue

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3 North

SCALE: 1/16" = 1'-0"



1 North East

SCALE: 1/16" = 1'-0"

Redstone - 85 North Avenue

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1 North West
SCALE: 1/16" = 1'-0"



2 East
SCALE: 1/16" = 1'-0"

Burlington Design Advisory Board

149 Church Street, City Hall Burlington, VT 05401
<http://www.burlingtonvt.gov/PZ/Boards/Design-Advisory-Board/>
Telephone: (802) 865-7188
(802) 865-7195 (FAX)

Matt Bushey, Chair
Ron Wanamaker, Vice Chair
Sean McKenzie
Tom Cullins
Steve Offenhartz
Jeremy Gates, Alternate
Phil Hammerslough, Alternate



Minutes **Burlington Design Advisory Board** **Tuesday, March 28, 2017** **3:00 pm, Conference Room 12**

Present: Matt Bushey (Chair), Steve Offenhartz, Sean McKenzie, Ron Wanamaker, Tom Cullins, Phil Hammerslough (alternate)

Absent: Jeremy Gates (alternate)

Staff present: Mary O'Neil, Ryan Morrison

Public Present: Jonathan Farrell, Committee on Temporary Shelter

Session I - 3:00pm – 3:45pm

1.

17-0825CA/CU; 85 North Avenue (NMU, Ward 3C) Catamount/Lakeview LLC

Dan Golzman and Erik Hoekstra present.

Motion by Matthew Bushey: I move we recommend approval with the following additional conditions:

1. Add crosswalk at the end of Lakeview Terrace.
2. Add architectural screening on the southwest of the parking level. Screening shall block lighting from cars and be complementary to the building. It shall focus heavily on the lower half of the opening, with the purpose of screening view of the cars from the waterfront.
3. Sidewalk (circling building on south of site) shall terminate at the easement line, not to extend past the parking area and crossing easement.
4. Increase caliper of trees within the crescent shaped island to 5-6" caliper.

2nd: Tom Cullins

Vote 5-0. (PH not participating.)

Motion carries.

Session II - 3:45pm – 4:30pm

2. **17-0838CA; 76 KING STREET (RH, Ward 3C) AMY DANIELSON**

Request to replace an asphalt shingle roof with a black, metal standing seam roof.

(Project Manager, Ryan Morrison)

Neither the applicant, nor a representative, were present for the meeting. Although the roof on the structure is currently asphalt shingles, which is not representative of the original roofing materials, the DAB expressed concern to replace the roof with a metal standing seam roof. The general feeling across the board is that there would not be support for a metal standing seam roof. The DAB is willing to consider allowing a replacement asphalt roof, or reverting back to a slate roof.

The Board agreed to defer the meeting to April 11, 2017, and requested that the applicant furnish a cost analysis between a 30-year architectural asphalt shingle roof and a slate roof.