

Burlington Development Review Board

149 Church Street, City Hall

Burlington, VT 05401

www.burlingtonvt.gov/PZ/DRB

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Alexandra Zipparo
Geoff Hand
Jim Drummond (Alt.)



BURLINGTON DEVELOPMENT REVIEW BOARD

Tuesday, October 6, 2015

PUBLIC HEARING NOTICE

The Burlington Development Review Board will hold a meeting on **Tuesday, October 6, 2015 at 5:00 p.m. in Contois Auditorium, City Hall.**

1. **16-0237CU; 156-160 NORTH WINOOSKI AVENUE (NMU, Ward 2C) James A. Kohler**
Conditional use review of change of use from art gallery/studio and cafe to bar.
2. **14-0208HO; 51 ARLINGTON COURT (RL, Ward 7) Daniel Ukolowicz**
Time extension for conditional use home occupation for nano-brewery in garage and part of basement.

Plans may be viewed in the Planning and Zoning Office, (City Hall, 149 Church Street, Burlington), between the hours of 8:00 a.m. and 4:30 p.m.

Participation in the DRB proceeding is a prerequisite to the right to take any subsequent appeal. Please note that ANYTHING submitted to the Planning and Zoning office is considered public and cannot be kept confidential.

This may not be the final order in which items will be heard. Please view final Agenda, at www.burlingtonvt.gov/pz/drb/agendas or the office notice board, one week before the hearing for the order in which items will be heard.

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

Department of Planning and Zoning

149 Church Street
Burlington, VT 05401

<http://www.burlingtonvt.gov/PZ/>

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

David E. White, AICP, Director
Meagan Tuttle, Comprehensive Planner
Jay Appleton, Senior GIS/IT Programmer/Analyst
Scott Gustin, AICP, CFM, Interim Chief Administrative Officer
Mary O'Neil, AICP, Senior Planner
Elsie Tillotson, Department Secretary
Anita Wade, Zoning Clerk



MEMORANDUM

To: Development Review Board
From: Mary O'Neil, AICP, Senior Planner
Date: October 6, 2015
RE: ZP16-0263CA 584 South Prospect Street

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

File: ZP16-0263CA

Location: 584 South Prospect Street

Zone: RCO-RG **Ward:** 6S

Date application accepted: August 18, 2015

Applicant/ Owner: Roundtree Construction / Hardacre Real Estate, LLC

Request: Demolish existing single family home; build new home with pool and driveway.

Background:

- o Zoning Permit 16-0261LL; Lot line adjustment with 570 South Prospect Street. September 2015.
- o Zoning Permit 15-1345LL; lot line adjustment with 568 and 600 South Prospect Street. June 2015.
- o Zoning Permit 15-0657CA; removal of existing house, foundation, and existing trees adjacent to house. Area to be returned to natural state. Denied as incomplete application, January 2015.



Overview: The application is to replace an existing single family home with another on a newly configured lot. A boundary line adjustment has been reviewed under separate cover.

The **Design Advisory Board** reviewed the application at their September 8, 2015 meeting and voted unanimously to forward to the DRB with a recommendation for approval.

Applicable Regulations: Article 4 (Zoning Maps and Districts); Article 5 (Citywide General Regulations); Article 6 (Development Review Standards); Article 8 (Parking); Article 9 (Inclusionary and Replacement Housing.)

Recommendation: Certificate of Appropriateness **Consent approval**, per the following findings and conditions:

I. Findings

Article 4: Zoning Maps and Districts

Section 4.4.6 Recreation, Conservation and Open Space Districts

a) 2) *RCO-Recreation/Greenspace: The Recreation/Greenspace District is intended to provide a diversity of passive and active recreational opportunities and other urban green spaces that provide for public use and enjoyment. The District includes a wide spectrum of recreational opportunities including developed parks with active public use facilities, undeveloped open areas, dog parks, community gardens, urban parks and pocket parks, playgrounds, transportation corridors, and cemeteries. The District also includes **private property**, including a golf course and **residential properties**, where appropriate future development could be provided.*

b) Dimensional Standards and Density

Table 4.4.6-1 Dimensional Standards and Density

District	Lot Coverage ¹	Setbacks ¹			Height ¹
		Front	Side ²	Rear ²	
RCO-RG	5%	15'	10%	25%	35'
584 South Prospect St.	4.18% existing; Calculating Buildable Area per Sec. 5.2.4 lot coverage 4.93%. See standard, below.	N/A	10% or greater than current setbacks of existing structure.	N/A	24' to ridge per A7.
1. See also exceptions to lot coverage, setbacks and maximum height in Article 5. 2. Percentages figure refers to either a percentage of lot width, 10% in the case of side yard setbacks, or lot depth of 25% in the case of rear yard setbacks. 3. City Parks have specific lot coverage maximums based on use and location. See table of lot coverage standards below.					

584 South Prospect Street has no road frontage on a public street, therefore has no front or rear boundary line. All setbacks will be side yard. The existing house is non-conforming relative to setbacks, although the current boundary line adjustment with a neighboring property will bring conformity in lot size to the abutting lot. The resulting “butterfly” shaped lot would require

extraordinary setbacks (establishing setbacks as lot width changes around the parcel.) There are no maximum setbacks defined in this Table.

The engineering consultant has provided an analysis relative to setbacks; Plan **SB** shoots lot width measurements perpendicularly across the (irregular) lot and then outlines a 10% setback based on those measurements. This illustrates that all but the northeast corner of the proposed building meets the ordinance standard. That area does, however, demonstrate a setback greater than the existing structure, which proposes less non-conformity than currently exists relative to setbacks. That is acceptable, per Section 5.3.5 (a).

The new development may utilize the existing non-conformity as it relates to setbacks in replacing an existing single family home. As the proposed new development does not increase the level of non-conformity at any setback, the project satisfies this standard. **Affirmative finding.**

c) Permitted and Conditional Uses

Any residential uses in the RCO-RG district south of Main Street existing on January 1, 2007 shall be treated as conforming uses and not otherwise subject to the restrictions for non-conforming uses pursuant to Section 5.3.4.

584 South Prospect Street was an existing single family home prior to January 1, 2007. No change in use is proposed. This is a replacement single family home. **Affirmative finding.**

d) District Specific Regulations

1. Lot Coverage Exemption for Agricultural Structures

Not applicable.

2. Exemptions for Tree removal and Turf Maintenance in City Parks

Not applicable.

3. Exemptions for low impact design stormwater management techniques

Development is not within a City Park, where this provision applies. **Not applicable.**

Article 5: Citywide General Regulations

Section 5.1.2 Structures

(b) Pre- existing non-conforming structures

Pre-existing structures that do not conform to the requirements of this ordinance shall be subject to the provisions of Section 5.3.5.

Section 5.2.1 Existing Small Lots

Not applicable.

Section 5.2.2 Required Frontage or Access

This is an existing developed lot with deeded access on a private road. No changes are proposed to that access. **Affirmative finding.**

Section 5.2.3 Lot Coverage Requirements

See Table 4.4.6-1, above.

Section 5.2.4 Buildable Area Calculation

The property, within an RCO district and greater than 2 acres (17.7 acres) is subject to this standard. The replacement structure is located in approximately the same location as the existing structure.

The applicant has provided a breakdown of topography and slope. There are no slopes over 30%. Slopes between 15 and 30% are identified to the east of the development area. (See *Plan C1.0, Existing Conditions Site Plan, Slope Analysis*.) In an email dated September 18, 2015 the engineering consultant provides:

*With the 50% reduction for those slopes (demonstrating the project is compatible with the existing scale and intensity of the surrounding neighborhood) subtracted from the area of the parcel, buildable area calculates to 476,725 square feet. Based on proposed improvements as shown on the submitted plans the proposed lot coverage calculates to be **4.93%**.*

Lot coverage maximum is 5% in this district.

Affirmative finding.

Section 5.2.5 Setbacks

See Table 4.4.6-1, above.

Section 5.2.6 Building Height Limits

See Table 4.4.6-1, above.

Section 5.2.7 Density and Intensity of Development

No change from existing use and intensity. The property will remain a single family residence.

Affirmative finding.

Part 3: Non-conformities

Section 5.3.5 Nonconforming Structures

(a) Changes and Modifications:

Any change or modification may reduce the degree of nonconformity and shall not increase the nonconformity except as provided below...

The existing residential use is a permitted use as it existed prior to January 1, 2007. The structure is non-conforming to setbacks. As the proposed replacement building is largely conforming to the required 10% lot width setback requirement, and in the northeasterly corner presents a setback that is greater than the existing (non-conforming) setback, the project development meets this standard. No new non-conformity is presented. **Affirmative finding.**

(b) Demolition

A nonconforming structure may be replaced by a new structure retaining the same degree of nonconformity as the original structure. This provision is limited to the existing dimensional nonconformity (i.e. setback, lot coverage, or height) and shall not expand the degree of nonconformity except as provided for in (a) above. The new structure shall be subject to conformance with all other dimensional requirements (i.e. setback, lot coverage, and height.) Zoning permit application for the replacement structure shall be completed within 1 year of

demolition of the nonconforming structure; failure to do so shall result in the loss of the ability to retain the nonconformity.

The proposed replacement building does not expand the degree of nonconformity (setback) than the existing. The application is for both the demolition and replacement structure, meeting the one-year window between demo and application. The zoning permit itself has a two year timeline for completion.

Affirmative finding as conditioned.

Section 5.3.6 Nonconforming Lots

Not applicable.

Section 5.3.7 Nonconforming Signs

Not applicable.

Section 5.3.8 Rebuilding After Catastrophe

Not applicable.

Section 5.4.8 Historic Buildings and Sites

The property is not listed on the State or National Register of Historic Places; nor has it been identified in any historic surveys or reports. Not applicable.

Section 5.4.9 Brownfield Remediation

Not applicable.

Section 5.5.1 Nuisance Regulations

No part of this application suggests the introduction of impacts deemed to be in conflict with applicable nuisance regulations and performance standards pursuant to the requirements of the Burlington Code of Ordinances. **Affirmative finding.**

Section 5.5.2 Outdoor Lighting

A site lighting plan prepared by Wagner Hodgson has been submitted, and reflects low level LED lighting. Sconce type fixtures are abbreviated in building elevations; any exterior building mounted lighting will need to be submitted for review and approval by staff.

Affirmative finding as conditioned.

(f) Specific Outdoor Lighting Standards

2. Walkway lighting

Outdoor lighting of walkways, alleys and pedestrian paths shall comply with the following standards:

A. The average illumination level on a walkway or pathway surface shall not exceed 0.5 footcandles. Maximum lighting levels shall not exceed 2 footcandles;

Lighting of walkways and paths in tall RCO districts is discouraged. If lighting is installed, in no case shall such lighting exceed the levels cited under (A), above.

This standard discourages lighting in the RCO district; however given the remoteness of the location and the use as a single family residence, lighting is anticipated. The fixtures proposed

are all LED; the lighting consultant has provided that the pathway lighting is “mood illumination” and will not exceed the illumination levels noted above.

Affirmative finding.

Section 5.5.4 Tree Removal

Plan L1.1 defines tree removal in the intended location of new structure. The majority of trees proposed for removal are pines. When reviewed in concert with Plan L1.0 (Landscape Plan), the tree removal appears consistent with the overall site and development plan, which includes a robust planting schedule. **Affirmative finding.**

Article 6: Development Review Standards

Part 1: Land Division Design Standards

As noted, a boundary line adjustment has been reviewed and approved separately from this permit. Reference is made to that permit and decision.

Part 2: Site Plan Design Standards

Sec. 6.2.2 Review Standards

(a) Protection of Important Natural Features:

Aside from the grade change east of the existing building and development site, no significant natural features have been identified in the submitted plans. No change is proposed to the area of slope; the development will occur west of that. See **Section 5.2.4, Buildable Area**, for further discussion. **Affirmative finding.**

(b) Topographical Alterations:

Civil plans submitted with the boundary line adjustment illustrate a falling grade east of the site and behind the house. No change to that grade is proposed. The stormwater engineer will be required to review the submitted Erosion Prevention and Sediment Control plan. **Affirmative finding as conditioned.**

(c) Protection of Important Public Views:

There are no protected views from this private parcel. Not applicable.

(d) Protection of Important Cultural Resources:

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

The residence is not listed on the State or National Register, nor has it been identified as historically sensitive in any surveys or research documents. Not applicable.

(e) Supporting the Use of Renewable Energy Resources:

No part of this application will prevent the use of solar, wind, water, geothermal or other alternative or renewable energy resources. **Affirmative finding.**

(f) Brownfield Sites:

None identified. Not applicable.

(g) Provide for nature's events:

Special attention shall be accorded to stormwater runoff so that neighboring properties and/or the public stormwater drainage system are not adversely affected. All development and site disturbance shall follow applicable city and state erosion and stormwater management guidelines in accordance with the requirements of Art 5, Sec 5.5.3. Design features which address the effects of rain, snow, and ice at building entrances, and to provisions for snow and ice removal or storage from circulation areas shall also be incorporated.

An EPSC has been forwarded to the City Stormwater engineer for review (August 18, 2015.) The plan offers several opportunities for shelter from inclement weather; the main entry porch on the west, the covered entrance at the connector, and a screened porch on the south. There is adequate area for snow storage in several locations surrounding the entrance drive. **Affirmative finding.**

(h) Building Location and Orientation:

The house is proposed to be situated similarly to the existing house. **Affirmative finding.**

(i) Vehicular Access:

All interior roads are private. An access drive that terminates as a circular terminus is proposed; immediately adjacent to the garage and a guest parking area. **Affirmative finding.**

(j) Pedestrian Access:

The arrangement is unique in that the parcel does not directly front a public street or right-of-way. There are no public sidewalks that lead to this residence. There is pedestrian circulation identified around the house, with brick walks and patio areas. **Affirmative finding.**

(k) Accessibility for the Handicapped:

ADA access is not a requirement for a single family home; however Vermont “visitability” standards may apply. The building inspector has the jurisdiction for implementation of ADA codes. **Affirmative finding.**

(l) Parking and Circulation:

As noted, access roads are private. A circular drive that leads to structured (garage) and surface parking is included. Adequate parking meeting the standards of Article 8 will be provided for the single family residence. **Affirmative finding.**

(m) Landscaping and Fences:

A landscape plan has been provided (L1.0), and is accompanied by a separate tree removal plan (Plan L1.1.) See Section 5.5.4, above.

A dog fence is identified on the plans, as well as free standing dry laid stone retaining walls. If the dog fence is above ground (rather than an “invisible” electronic fence), more detailed information about that fence will be required. (Height, material, style.) Any retaining wall exceeding 3’ in height will require review and approval by the city engineer.

Two patios are illustrated; one by the pool, and one behind the house. **Affirmative finding as conditioned.**

(n) Public Plazas and Open Space:

Not applicable.

(o) Outdoor Lighting:

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

See Section 5.5.2, above.

(p) Integrate infrastructure into the design:

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

Ground mounted a/c mechanicals are proposed for the north elevation. As located on the north elevation and behind a small structural projection, additional screening does not appear to be necessary. Other utility connections are not evident on the plans, and need to be annotated on site and/or building elevations as appropriate.

The location of a mailbox (if one is proposed on-site) shall be identified.

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

Utilities are required to be placed underground. The location of trash receptacles and recycling storage shall be identified, if placed outside the garage.

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

No undue adverse impact is anticipated. **Affirmative finding as conditioned.**

Part 3: Architectural Design Standards

Sec. 6.3.2 Review Standards

(a) Relate development to its environment:

1. Massing, Height and Scale:

The one-and-a-half story home is similar in scale to the existing home it will replace. The massing is slightly more elongated but in massing increments it is consistent with a finely articulated residence. **Affirmative finding.**

2. Roofs and Rooflines.

A dormered gable roof is proposed; common to residential architecture and the existing building. **Affirmative finding.**

3. Building Openings

Door and window openings are consistent with the style of residential architecture. **Affirmative finding.**

(b) Protection of Important Architectural Resources:

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

The introduction of new buildings to a historic district listed on a state or national register of historic places shall make every effort to be compatible with nearby historic buildings.

The existing building is not listed on the Vermont State Register of Historic Resources, or on the National Register. Not applicable.

(c) Protection of Important Public Views:

There are no public views from the site. Not applicable.

(d) Provide an active and inviting street edge:

The new home will not be visible from any public right-of-way. It will, however, offer an attractive "first impression" upon approach, with its articulated facades, connected buildings, and attractive finish treatments. **Affirmative finding.**

(e) Quality of materials:

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

Exterior finishes are proposed to be pre-stained eastern white cedar shingles with a 5" exposure; Marvin clad windows in stone white with mahogany trim, and a standing seam metal roof in "sage." All are considered durable and likely to extend the life cycle of the building. **Affirmative finding.**

(f) Reduce energy utilization:

All new construction shall meet the Guidelines for Energy Efficient Construction pursuant to the requirement of Article VI, Energy Conservation, Section 8 of the City of Burlington Code of Ordinance.

<http://www.codepublishing.com/vt/burlington/>

Affirmative finding as conditioned.

(g) Make advertising features complementary to the site:

No signs are proposed. Not applicable.

(h) Integrate infrastructure into the building design:

See Section 6.2.2. (p) above.

(i) Make spaces secure and safe:

Development shall meet all building and life safety code, including ingress and egress requirements as defined by the building inspector and fire marshal. **Affirmative finding as conditioned.**

Article 8: Parking

Parking within the Neighborhood parking district requires 2 parking spaces per unit. A two car garage with parking in front is provided, (3 spaces) as well as a parking area on the south of the access oval (approx. 2 spaces.). Structured parking (in the garage) is not counted toward maximum parking count; therefore the parking proposed is sufficient to meet the requirements of the ordinance. **Affirmative finding.**

Article 9: Inclusionary and Replacement Housing

Part 2: Housing Preservation and Replacement/Demolition and Conversion

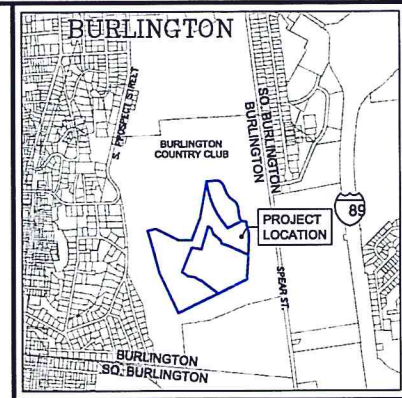
The owner proposes replacing the demolished housing unit with another single family home. There is no net loss of housing. **Affirmative finding.**

II. Conditions of Approval

1. Utilities are required to be placed underground.
2. Unless the dog fence is an invisible (underground electronic) fence, details about the proposed fence will need to be provided to staff for review and approval **prior to release of the zoning permit.**
3. Sconce-type illumination is identified on elevation plans. Fixture cut sheets for any exterior lighting shall be provided to staff for review and approval **prior to release of the zoning permit.**
4. The location of a mailbox (if one is proposed on-site) shall be identified.
5. The location of trash and recycling facilities shall be identified if proposed outside of the garage.
6. Any retaining wall greater than 3' in height will require review and approval by the city engineer.
7. All new construction shall meet the Guidelines for Energy Efficient Construction pursuant to the requirement of Article VI, Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.
8. No change in use or increase in the number of residential units is included within this review. The property remains a single family residence.
9. Standard Permit Conditions 1-15 shall apply.

NOTE: These are staff comments only. The Development Review Board, who may approve, table, modify, or deny projects, makes decisions.

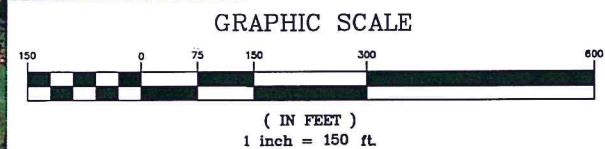
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LOCATION MAP
NOT to SCALE

- Legend -

- IPF/IRF IRON PIPE/ROD FOUND
- PROPERTY CORNER
- PROPERTY CORNER DISSOLVED
- UTILITY POLE
- EXISTING PROPERTY LINE
- NEW PROPERTY LINE
- PROPERTY LINES TO BE DISSOLVED
- TIE LINE



Date		Ch'k'd	Revision
Drawn by		MAB	Date JULY 16, 2015
Checked by		JLM	Scale 1" = 150'
Approved by			Project No. 13199

ORTHO PHOTO PLAN FOR PROPERTIES OF AMY TARRANT and HARDACRE REAL ESTATE HOLDING, LLC 570 & 584 SOUTH PROSPECT STREET BURLINGTON VERMONT	
 CIVIL ENGINEERING ASSOCIATES, INC. 10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403 802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com COPYRIGHT © 2015 - ALL RIGHTS RESERVED	C0 SHEET 1 of 1

RECEIVED
AUG 18 2015

Zone: RCO - Recreation / Greenspace

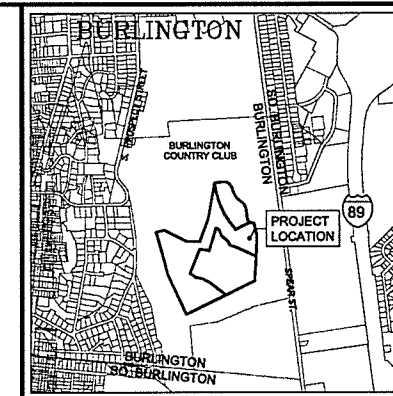
584 South Prospect Street - Parcel ID 054-4-014-000

	<u>Existing Parcel</u>	<u>Proposed Adjusted Parcel</u>
	28.6 AC.	11.3 AC.
Roads		
½ width of entry road	6,270 S.F.	6,270 S.F.
Driveway	10,781 S.F.	10,781 S.F.
Walks / Parking Areas	240 S.F.	240 S.F.
Porch / Patio / Retaining Walls	537 S.F.	537 S.F.
Residence	<u>2,779 S.F.</u>	<u>2,779 S.F.</u>
Total Coverage	20,607 S.F.	20,607 S.F.
Total Parcel	1,248,460 S.F.	492,777 S.F.
% of Coverage	1.65%	4.18%

Zone: RCO - Recreation / Greenspace

570 South Prospect Street - Parcel ID 006-1-001-001

	<u>Existing Parcel</u>		<u>Proposed Adjusted Parcel</u>	
	17.7 AC.		35.0 AC.	
Roads				
Driveway/ Walks	19,082	S.F.	19,082	S.F.
Retaining Walls / Patio	5,886	S.F.	5,886	S.F.
Tennis Courts	7,642	S.F.	7,642	S.F.
Residence	9,310	S.F.	9,310	S.F.
Total Coverage	41,920	S.F.	41,920	S.F.
 Total Parcel	 769,138	 S.F.	 1,523,636	 S.F.
% of Coverage	5.45%		2.75%	



LOCATION MAP

NOT to SCALE

"Burlington Country Club Corp., Fairholt Associates L.P. II, The Fairholt Partnership & Amy E. Tarrant" dated 08/14/12. Prepared by Button Professional Land Surveyors, PC.

1. Purpose of this survey and plat is to depict a lot line adjustment between two properties of Hardacre Real Estate Holdings, L.L.C. and Amy Tarrant, resulting in transferring 17.3 acres from Hardacre Real Estate Holdings, LLC to Amy Tarrant. Other property lines shown MAY BE approximate, and are for reference purposes only.

2. Field survey was conducted during late autumn 2014 and consisted of a closed loop traverse utilizing electronic total station instruments. Bearings shown are from Grid North, Vermont Coordinate System of 1983, based upon our GPS observations at the site.

4. Proposed corner markers set shall typically consist of 5/8" x 30" steel rebar or 4" square concrete monuments with aluminum caps or disks stamped "Civil Engineering Assocs. - VT LS 597", typically set flush with existing grade.

5. Concrete monuments found are typically 4" square unless otherwise noted. Iron pipes found are 1" inside diameter unless otherwise noted. Iron rods found are 5/8" diameter unless otherwise noted.

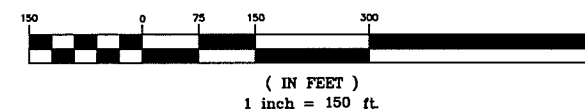
APPROVED BY RESOLUTION OF THE PLANNING COMMISSION
OF THE CITY OF BURLINGTON, VERMONT, ON THE ____ DAY
OF _____, 20____, SUBJECT TO THE REQUIREMENTS AND
CONDITIONS OF SAID RESOLUTION. SIGNED THIS ____ DAY
OF _____, 20____.

BY _____, CHAIRPERSON

RECEIVED FOR RECORDING IN THE LAND RECORDS OF THE
CITY OF BURLINGTON, VERMONT, AT _____
O'CLOCK ON THE _____ DAY OF _____, 20____.

ATTEST: _____, TOWN/CITY CLERK

GRAPHIC SCALE



IPF/IRF IRON PIPE/ROD FOUND
 O PROPERTY CORNER
 O PROPERTY CORNER DISSOLVED
 U UTILITY POLE

_____ EXISTING PROPERTY LINE
 _____ NEW PROPERTY LINE
 _____ PROPERTY LINES TO BE DISSOLVED
 _____ THE LINE

**Hardacre Real
Estate Holding, LLC**
1196 / 234-243
584 SOUTH PROSPECT STREET

n/f
Fairholt Associates L.P. II

**Burlington Country
Club Corporation**

Tarrant
617/509
570
SOUTH PROSPECT STREET

EXISTING AREA 769,138 S.F. 17.7 AC. ADJUSTED AREA 1,523,636 S.F. 35.0 AC.

Lines to be
Dissolved
(Typ.)

n/f
**Burlington Country
Club Corporation**

Date	Ch'k'd	Revision
Drawn by	<u>MAB</u>	Date <u>JULY 16, 2011</u>
Checked by	<u>JLM</u>	Scale <u>1" = 150'</u>
Approved by		Project No. <u>13199</u>

**BOUNDARY LINE ADJUSTMENT BETWEEN PROPERTIES OF
AMY TARRANT and
HARDACRE REAL ESTATE HOLDING, LLC
570 & 584 SOUTH PROSPECT STREET
BURLINGTON VERMONT**

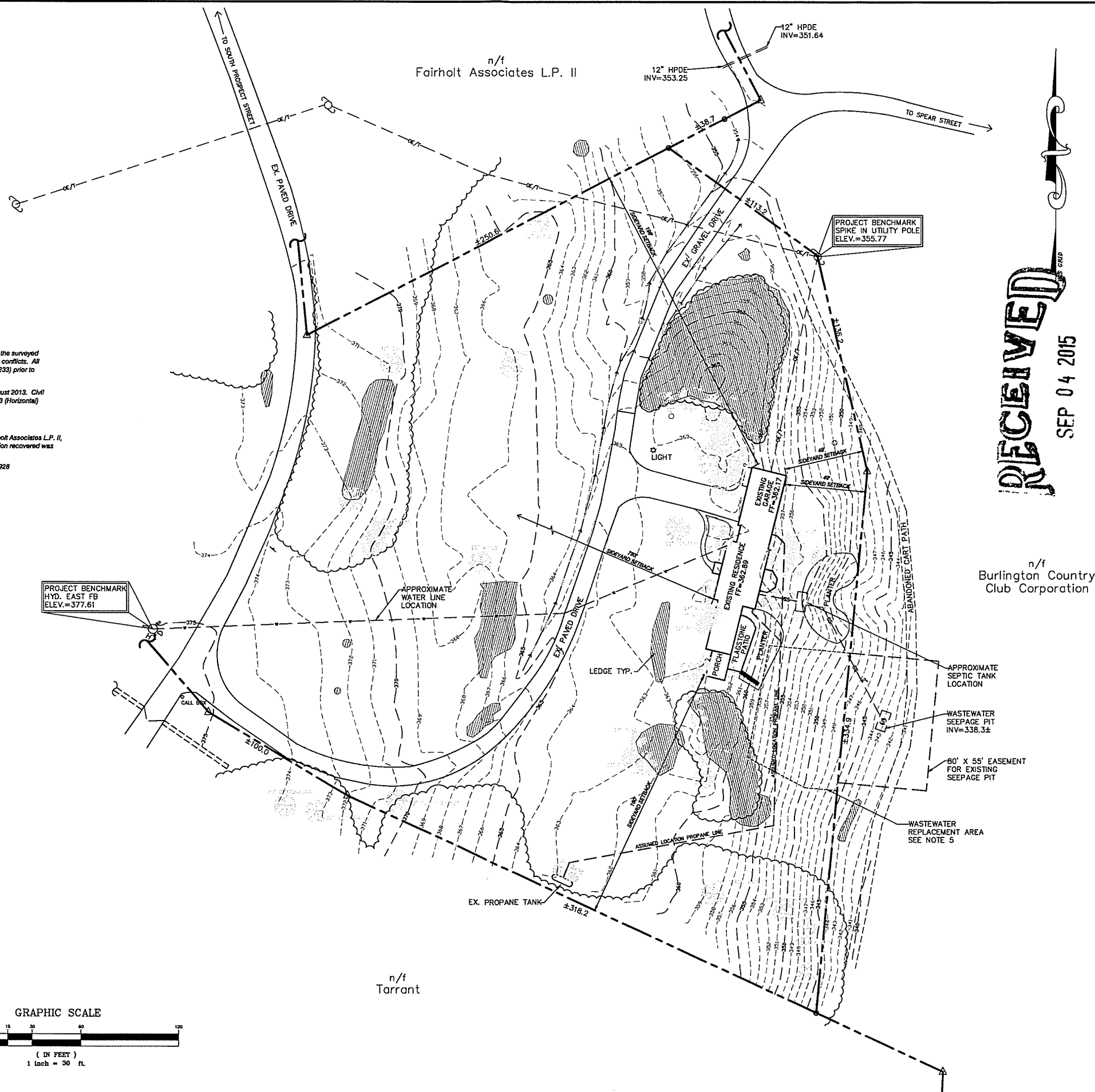
CIVIL ENGINEERING ASSOCIATES, INC.
 10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
 802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com
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SHEET 1 of

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---	336	---	EXISTING CONTOUR
=====			APPROXIMATE PROPERTY LINE
---	OE	---	OVERHEAD ELECTRIC
⌵			HYDRANT
⌵			POWER POLE
—			SIGN
●			DECIDUOUS TREE
●			CONIFEROUS TREE
~~~~~			EDGE OF BRUSH/WOODS
←-----			DRAINAGE SWALE
⬢			EXPOSED LEDGE
○			IRON ROD/PIPE FOUND
△			CALCULATED POINT
☆			LIGHT POLE

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact DigSafe (888-344-7233) prior to any construction.
2. Site Information is based on a field survey performed by Civil Engineering Associates, Inc., August 2013. Civil Engineering Associates, Inc. survey orientation is "Grid North", Vermont Coordinate System of 1983 (Horizontal) and NAVD88 (Vertical). Established from GPS Observation on Site.
3. This plan is not a boundary survey and is not intended to be used as one.
4. Property line information is based on Plat of Survey named Burlington County Club Corp., Fairholt Associates L.P. II The Fairholt Partnership dated 7/12-8/12 by Borton Professional Land Surveyors PC. Monumentation recovered was consistent with the recorded survey
5. This property is subject to provisions or conditions listed in State of Vermont. Permit # WW-4-3928  
Date: 10/10/2012



**CIVIL ENGINEERING ASSOCIATES, INC.**  
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403  
802-864-2323 FAX: 802-864-2271 web: [www.caa-vt.com](http://www.caa-vt.com)

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**DRAWN**

MAE

**CHIEF OF POLICE**

JLM

APPROVED

OWNER:

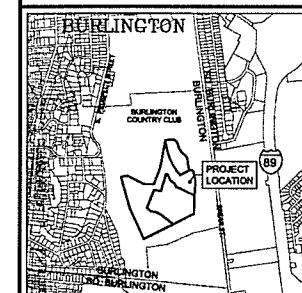
**HARDACRE REAL  
ESTATE HOLDINGS,  
LLC**

20 WINOOSKI FALLS WAY  
FLOOR 5  
WINOOSKI  
VERMONT 05404

**PROJECT:**

**FORMER  
FAIRHOLT  
PARTNERSHIP  
PROPERTY**

584 SOUTH PROSPECT  
STREET  
BURLINGTON  
VERMONT, 05401



**1° = 2000**

[illegible]

# EXISTING CONDITIONS SITE PLAN

DATE  
AUG., 8, 2013

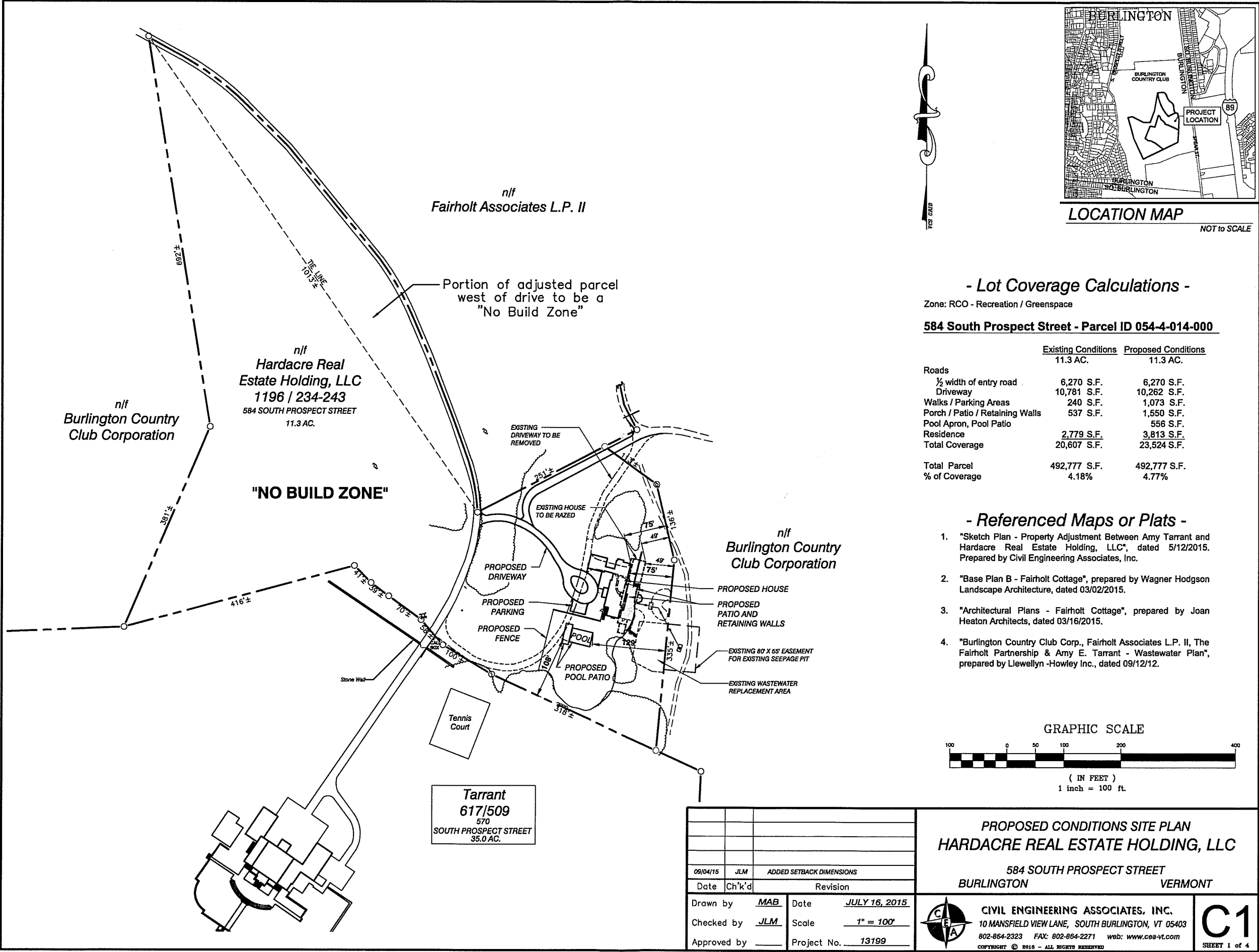
SCALE  
1" = 30'

PROJ. NO.  
13199

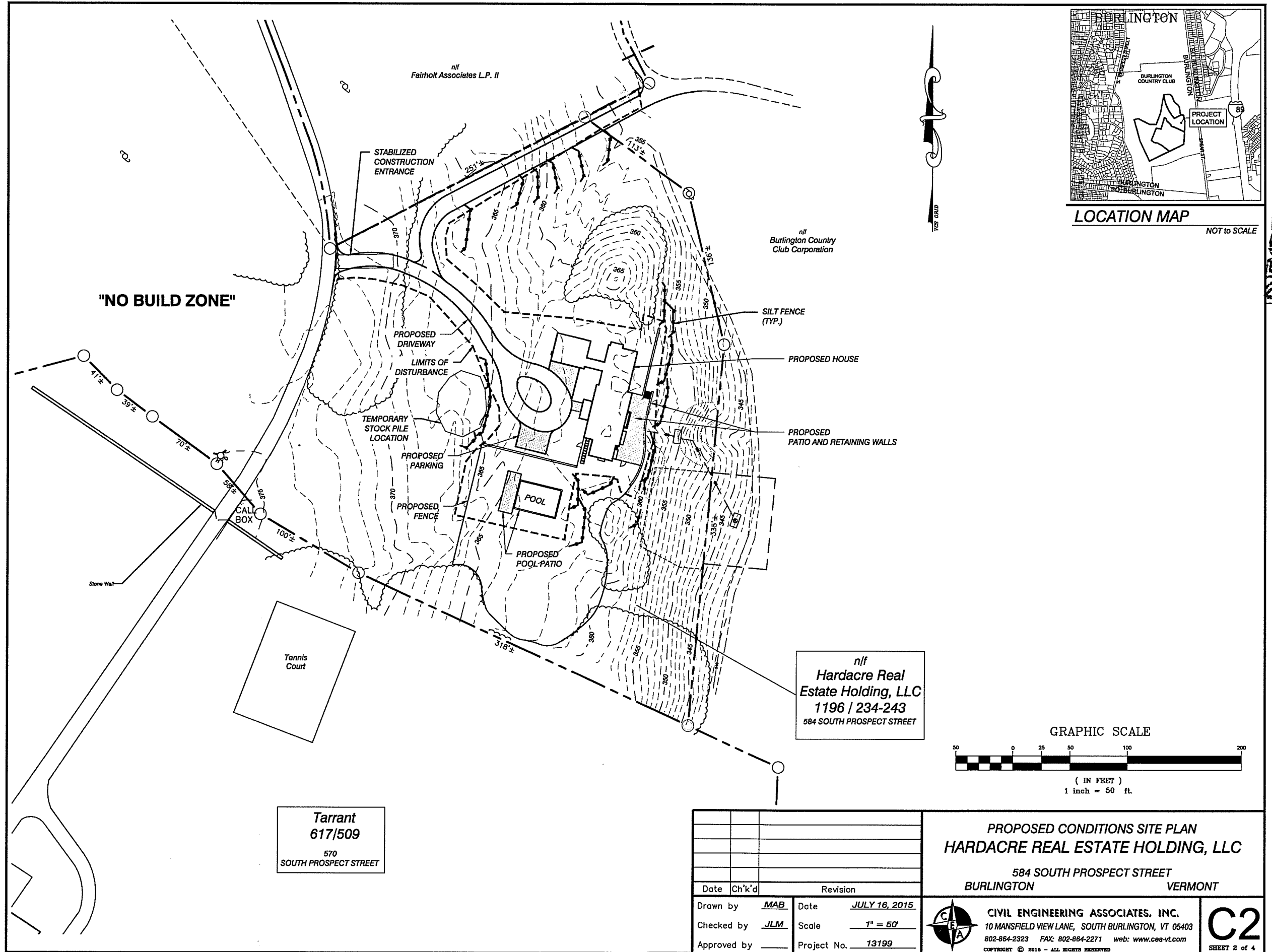
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C1.0

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OCADD Projects\2013\13199\1-CADD Files-13199\1-CADD Files-13199\13199-Plat.dwg, 8/10/2015 12:03:59 PM, DWG To PDF.pc3



AUG 18 2015

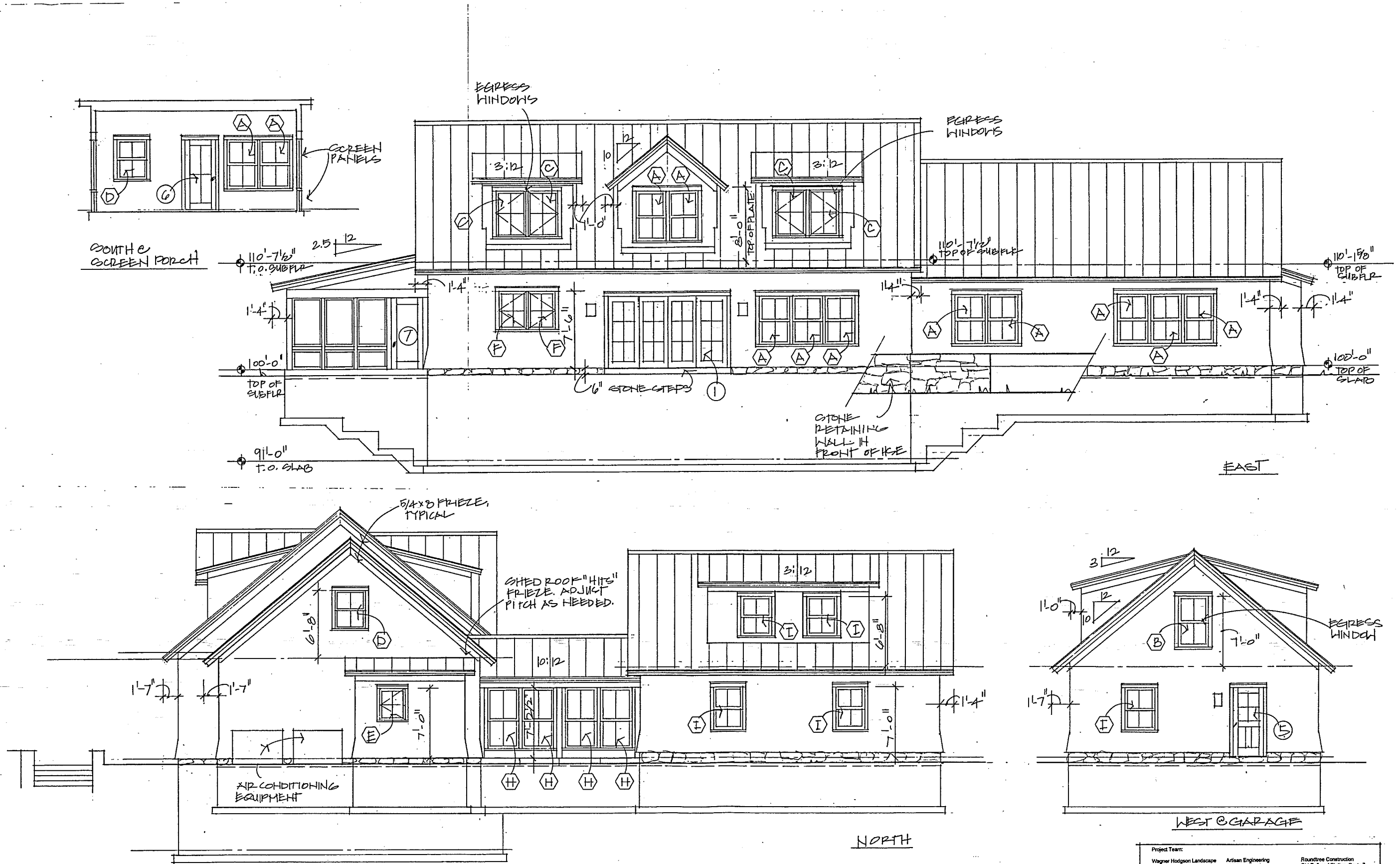


1/4" = 1'-0"

EXTERIOR  
ELEVATIONS

joan heaton architects

A5



FAIRHOLT COTTAGE  
600 SOUTH PROSPECT ST  
BURLINGTON, VERMONT

1/4" = 1'-0"  
7.28.15

EXTERIOR  
ELEVATIONS

Project Team:  
Wagner Hodgson Landscape Architecture  
823 Ferry Road  
Burlington, Vermont 05401  
Arisan Engineering  
PO Box 595  
Charlotte, Vermont 05472  
Roundtree Construction  
Old Railroad Station, Route 7,  
PO Box 99  
New Haven, Vermont 05472

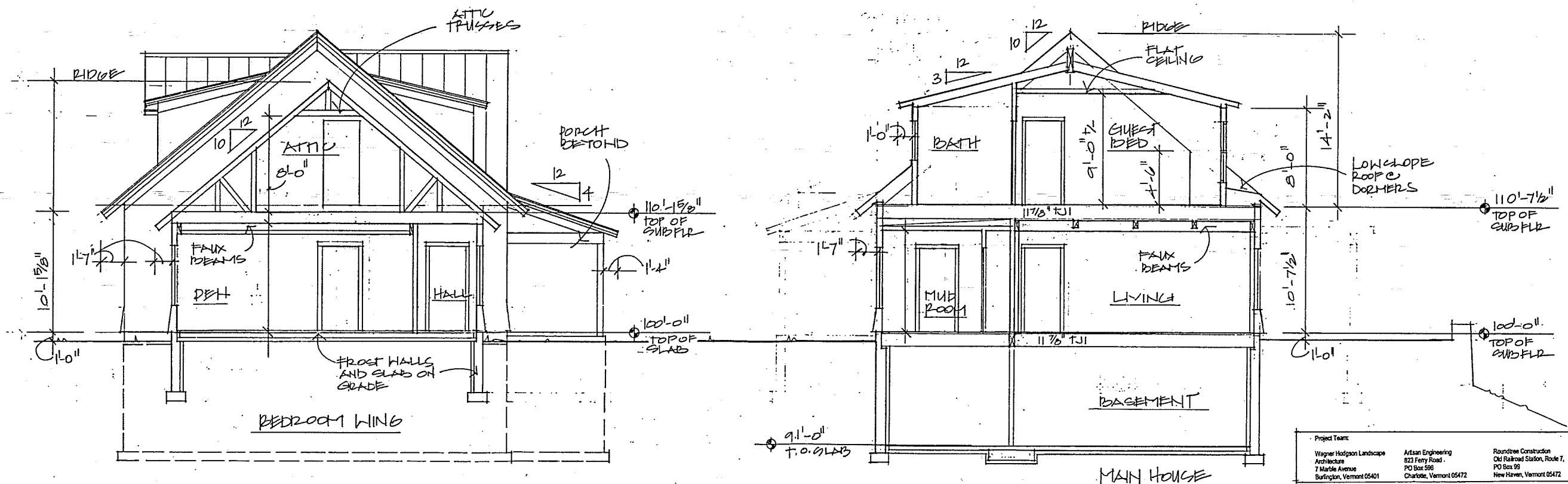
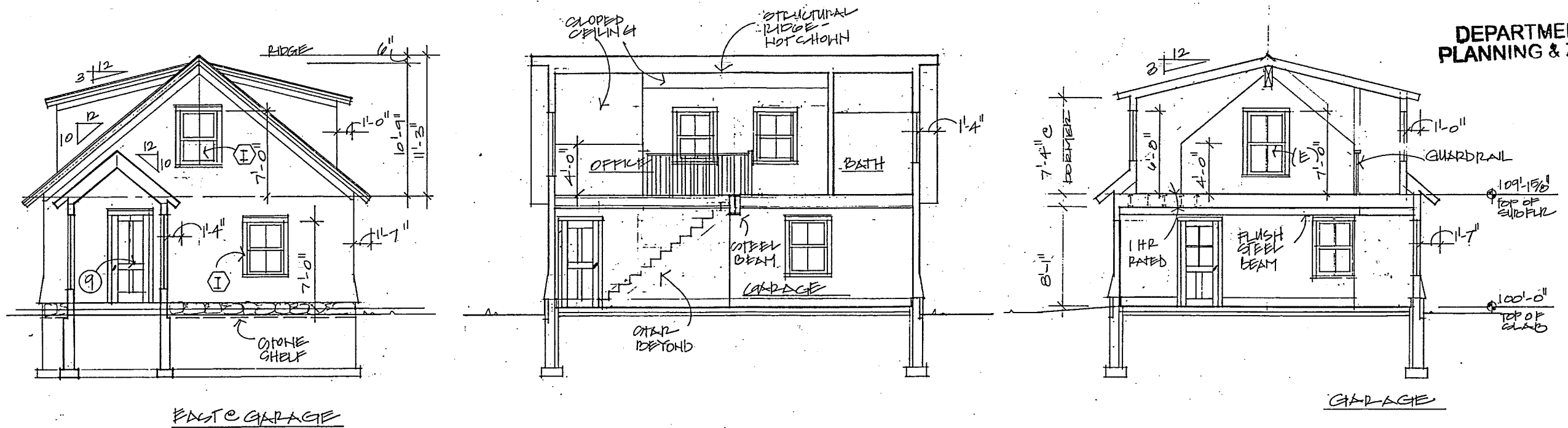
joan heaton architects  
12a Main Street  
Bristol, Vermont 05443  
P: 802.453.7120  
F: 802.453.7121

A6



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FAIRHOLT COTTAGE  
600 SOUTH PROSPECT ST.  
BURLINGTON, VERMONT

1/4" = 1'-0"  
7.28.15

BUILDING SECTIONS

Project Team:  
Wagner Hodgson Landscape Architecture  
7 Marble Avenue  
Burlington, Vermont 05401  
Artisan Engineering  
823 Ferry Road  
PO Box 595  
Charlotte, Vermont 05472  
Roundtree Construction  
Old Railroad Station, Route 7,  
PO Box 99  
New Haven, Vermont 05472

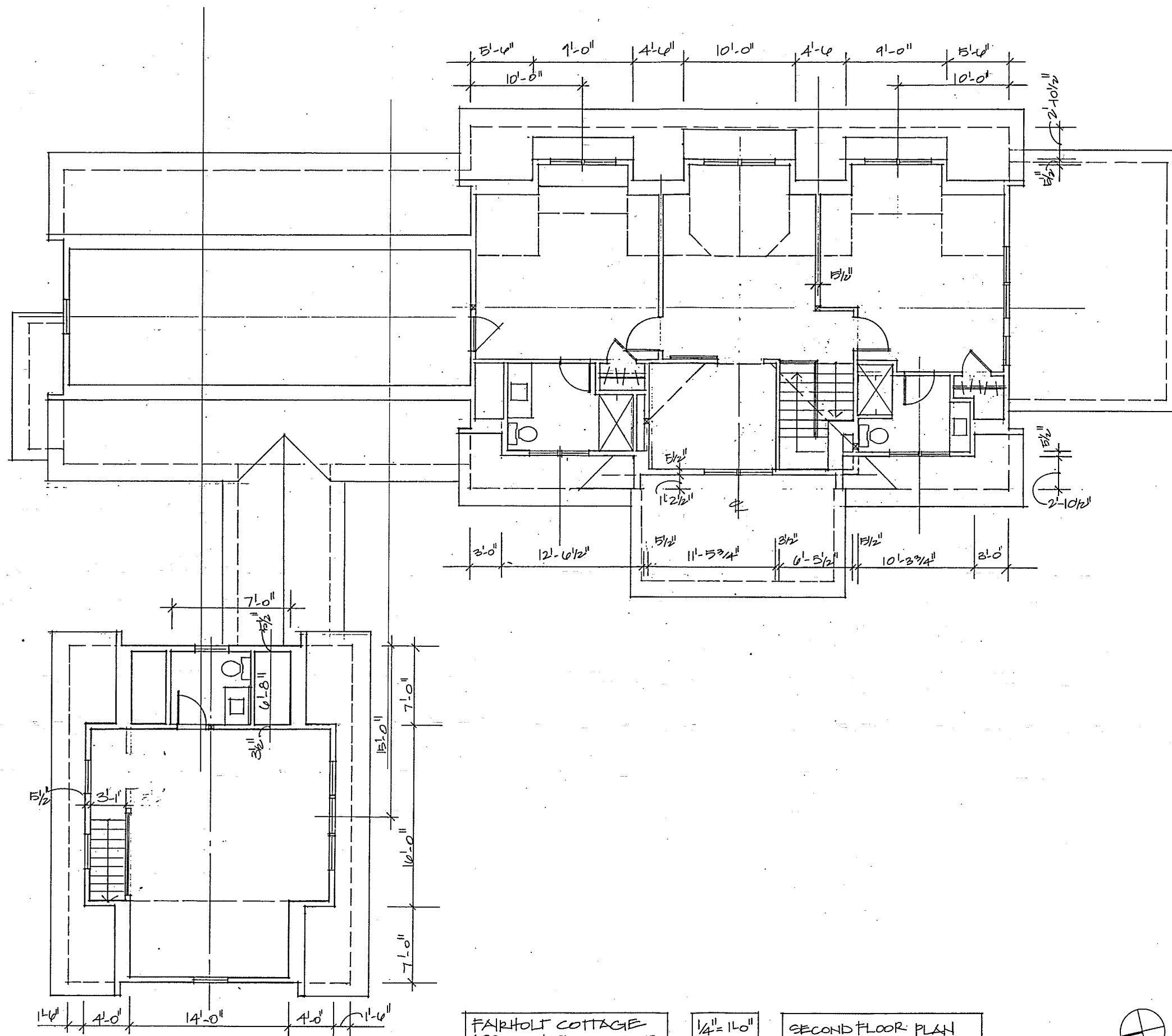
joan heaton architects  
12a Main Street  
Bristol, Vermont 05443  
P: 802.453.7120  
F: 802.453.7121

A7





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FAIRHOLT COTTAGE  
 600 SOUTH PROSPECT ST  
 BURLINGTON, VERMONT

1/4" = 1'-0"  
 7.28.15

SECOND FLOOR PLAN



Project Team:		
Wagner Hodgson Landscape Architecture 7 Marble Avenue Burlington, Vermont 05401	Artisan Engineering 823 Ferry Road PO Box 595 Charlotte, Vermont 05472	Roundtree Construction Old Railroad Station, Route 7, PO Box 99 New Haven, Vermont 05472

joan heaton architects

126 Main Street  
Bristol, Vermont 05443  
p: 802.453.7120  
f: 802.453.7121

A²



CONCEPTUAL VIEW LOOKING EAST/ FAIRHOLT COTTAGE  
AUGUST 27, 2015



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NOT FOR  
CONSTRUCTION

## FAIRHOLT COTTAGE

### LANDSCAPE PLAN

#### REVISIONS


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JOB NO. 336

SCALE 1" = 20'-0"

DATE 09.03.15

L1.0

## PLANT SCHEDULE

### DECIDUOUS TREES

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
AC	5	Amelanchier x grandiflora 'Autumn Brilliance'	SERVICEBERRY	3-3 1/2" CAL	as shown
AR	2	Acer x freemanii 'Autumn Blaze'	FREEMAN MAPLE	4 1/2-5" CAL	as shown
AS	1	Acer saccharum 'Green Mountain'	SUGAR MAPLE	4 1/2-5" CAL	as shown
BN	3	Betula nigra 'Heritage'	HERITAGE RIVER BIRCH	12-14' HT.	as shown
GT	1	Gleditsia triacanthos 'Shademaster'	SHADEMASTER HONEYLOCUST	4-4 1/2" CAL	as shown
MF	7	Malus floribunda	FLOWERING CRABAPPLE	3-3 1/2" CAL	as shown
PN	3	Prunus sargentii	SARGENT CHERRY	3-3 1/2" CAL	as shown
QR	2	Quercus rubra	RED OAK	6" CAL	as shown

### EVERGREEN TREES

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
PGa	8	Picea glauca	WHITE SPRUCE	12-14' HT.	as shown
PGb	4	Picea glauca	WHITE SPRUCE	8-10' HT.	as shown
PSa	4	Pinus strobus	WHITE PINE	12-14' HT.	as shown
PSb	2	Pinus strobus	WHITE PINE	10-12' HT.	as shown
TCa	3	Tsuga canadensis	CANADIAN HEMLOCK	10-12' HT.	as shown
TCb	3	Tsuga canadensis	CANADIAN HEMLOCK	8-10' HT.	as shown

### SHRUBS

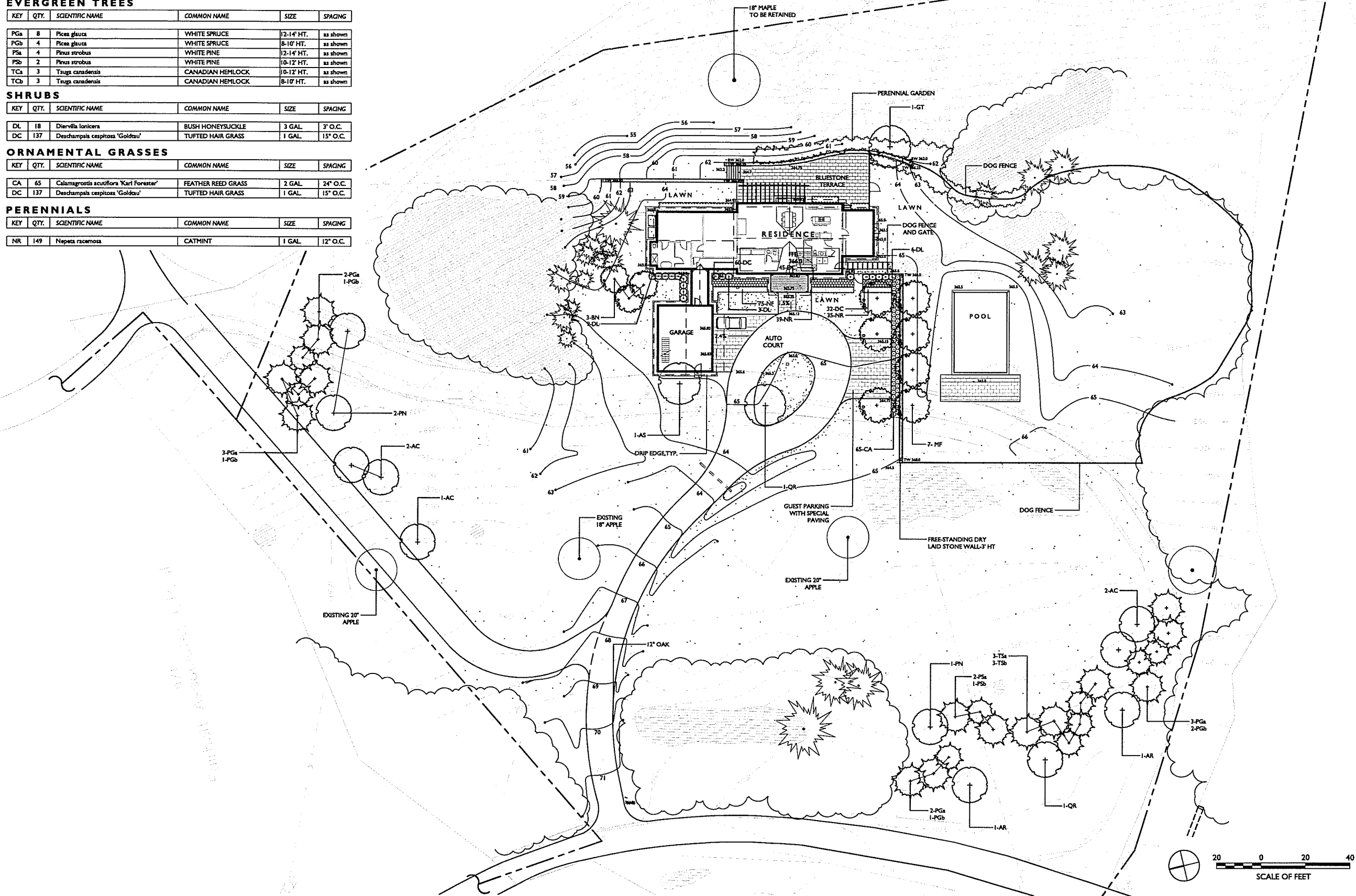
KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
DL	18	Diervilla lonicera	BUSH HONEYSUCKLE	3 GAL.	3" O.C.
DC	137	Deschampsia cespitosa 'Goldau'	TUFTED HAIR GRASS	1 GAL.	15" O.C.

### ORNAMENTAL GRASSES

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
CA	65	Calamagrostis acutiflora 'Karl Foerster'	FEATHER REED GRASS	2 GAL.	24" O.C.
DC	137	Deschampsia cespitosa 'Goldau'	TUFTED HAIR GRASS	1 GAL.	15" O.C.

### PERENNIALS

KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
NR	149	Nepeca racemosa	CATMINT	1 GAL.	12" O.C.

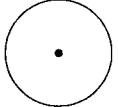


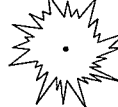


LEGEND

- 

EXISTING TREE TO BE REMOVED
- 

EXISTING TREE TO BE REMOVED
- 

DECIDUOUS TREE TO REMAIN AND BE PROTECTED DURING CONSTRUCTION
- 

EVERGREEN TREE TO REMAIN AND BE PROTECTED DURING CONSTRUCTION

TOTAL TREES TO BE REMOVED: 16  
(14) PINE  
(1) JUNIPER  
(1) OAK



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FAIRHOLT  
COTTAGE

TREE REMOVAL  
PLAN

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SEP 04 2015  
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PLANNING & ZONING

NOT FOR  
CONSTRUCTION

FAIRHOLT  
COTTAGE

LIGHTING PLAN

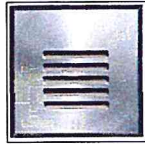
REVISIONS	

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JOB NO. 336	
SCALE 1" = 20'-0"	
DATE 07.29.15	

L1.2

LIGHTING SCHEDULE

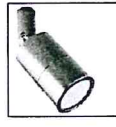
LABEL	SYM.	QTY.	NAME	MANUFACTURER	MODEL NO.	LAMP	WATTS	FINISH	COMMENTS
D	▽	5	NITE STAR	B-K LIGHTING	NS-LED-E22-MFL-X-12	LED	8 WATT	TBD	TO PROVIDE LIGHT WASH ON FOLIAGE. (TREE STRAP REQUIRED)
G	*	7	LITESTICK	B-K LIGHTING	LT-LED-E40-X-PP12	LED	3 WATT	TBD	TO PROVIDE LIGHT WASH ON PLANTINGS AND DEFINE EDGE.
W	■	6	WALL LITE	COLE	SLLUSQ	LED	1.5 WATT	TBD	TO PROVIDE LIGHT AT STAIRS AND ALONG PATH



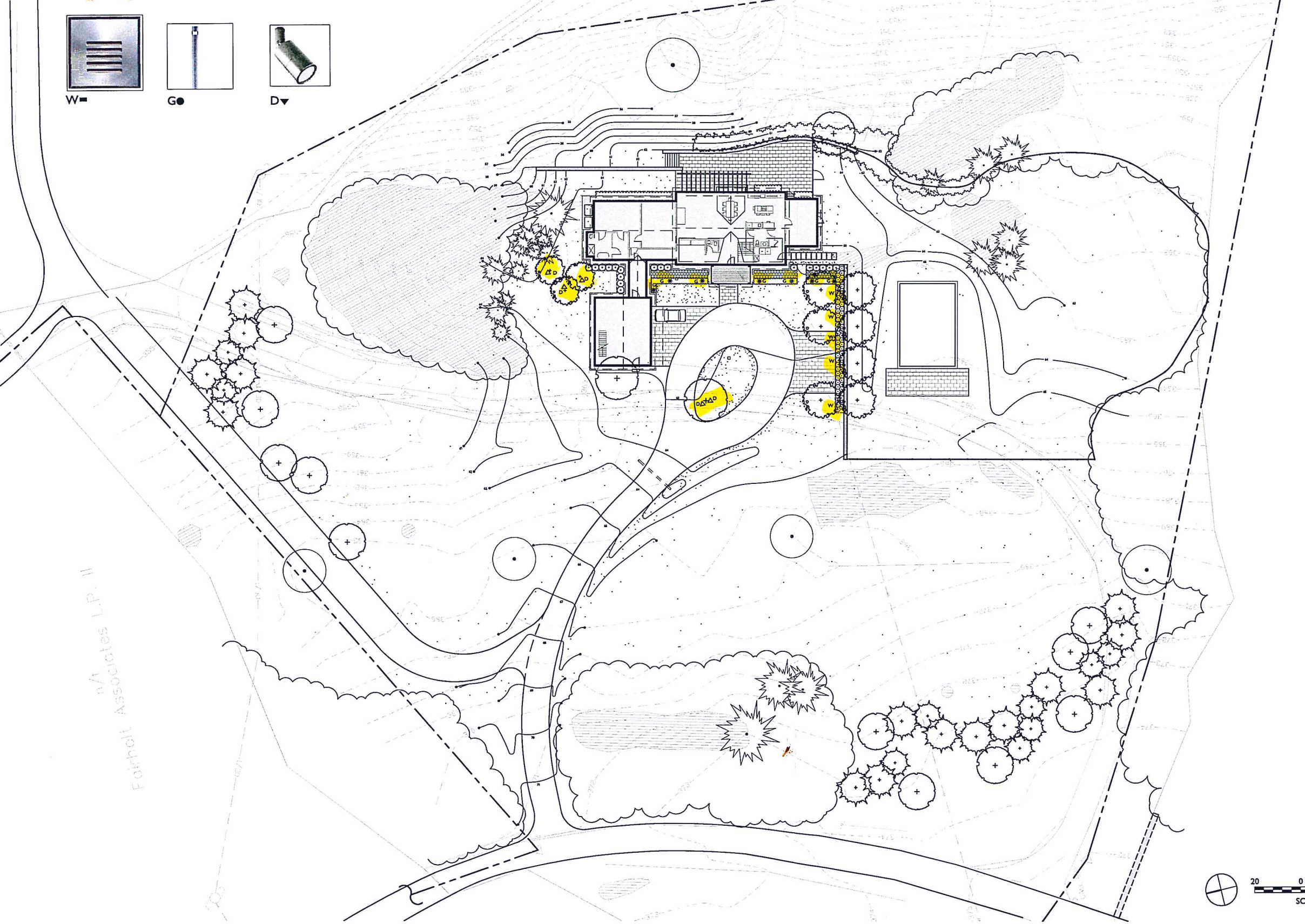
W ■



G ●



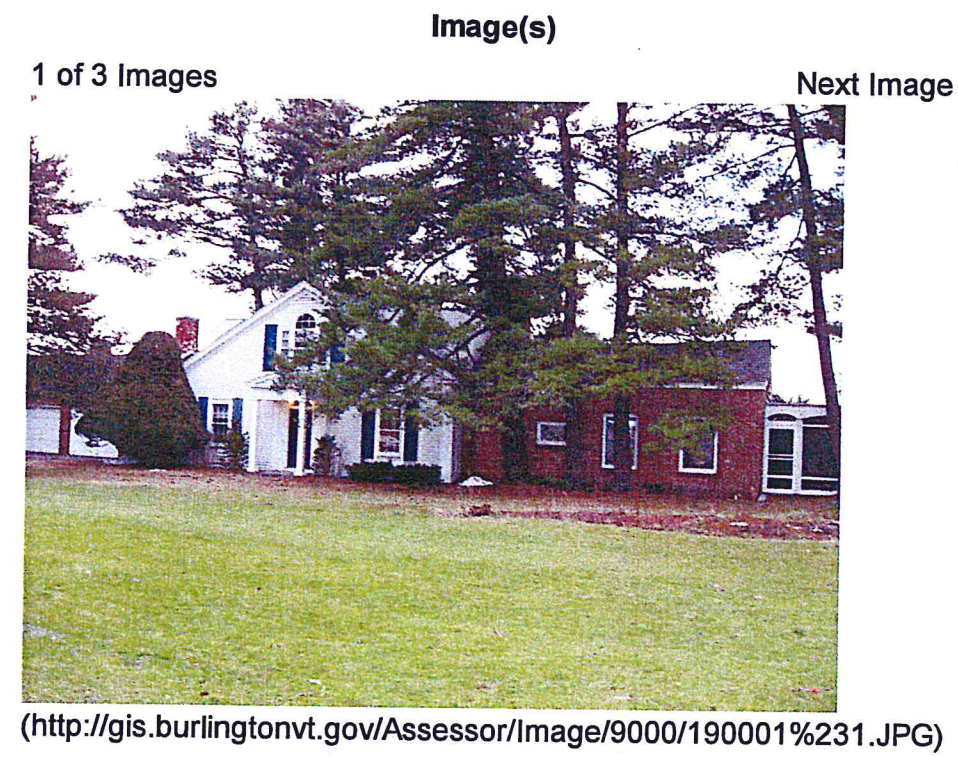
D ▽



Fairholt Cottage  
L.P. II



( <a href="http://gis.burlingtonvt.gov/Assessor/SketchGif/9000/190001.gif">http://gis.burlingtonvt.gov/Assessor/SketchGif/9000/190001.gif</a> )	1	OFP	OPEN PORCH	216	0
	1	PAT	PATIO	382	0



*To be demolished*

## Mary O'Neil

---

**From:** Jack Milbank <jmilbank@cea-vt.com>  
**Sent:** Friday, September 18, 2015 4:55 PM  
**To:** Mary O'Neil  
**Cc:** corben@wagnerhodgson.com; 'Ric Santa Maria'; Joan Heaton  
**Subject:** 584 South Prospect Street Slopes  
**Attachments:** 13199-Slope Analysis.pdf

H Mary,

Attached is a plan of the slope analysis for the subject parcel. There were no slopes over 30%. Slopes between 15% and 30% had a calculated area of 32,104 square feet based on a model created with our topographic survey and 2004 LIDAR flown for the CCMPO. Based on Section 5.2.4 of the regulation you referenced this morning *"The DRB may under conditional use criteria allow up to 50% of the maximum building density or lot coverage to be calculated on lands with a slope between 15-30% if the applicant can demonstrate that the additional density or lot coverage will be compatible within the existing scale and intensity of the surrounding neighborhood, and not have an undue negative impact on sensitive natural features."*

With the 50% reduction for those slopes ( demonstrating the project is compatible with the existing scale and intensity of the surrounding neighborhood) subtracted from the area of the parcel, buildable area calculates to 476,725 square feet. Based on proposed improvements as shown on the submitted plans the proposed lot coverage calculates to be 4.93%. We will revise our site plan coverage tables on Monday. Thanks for your help and enjoy the weekend.

Jack

Jack Milbank  
Civil Engineering Associates  
10 Mansfield View Lane  
South Burlington, Vt 05403

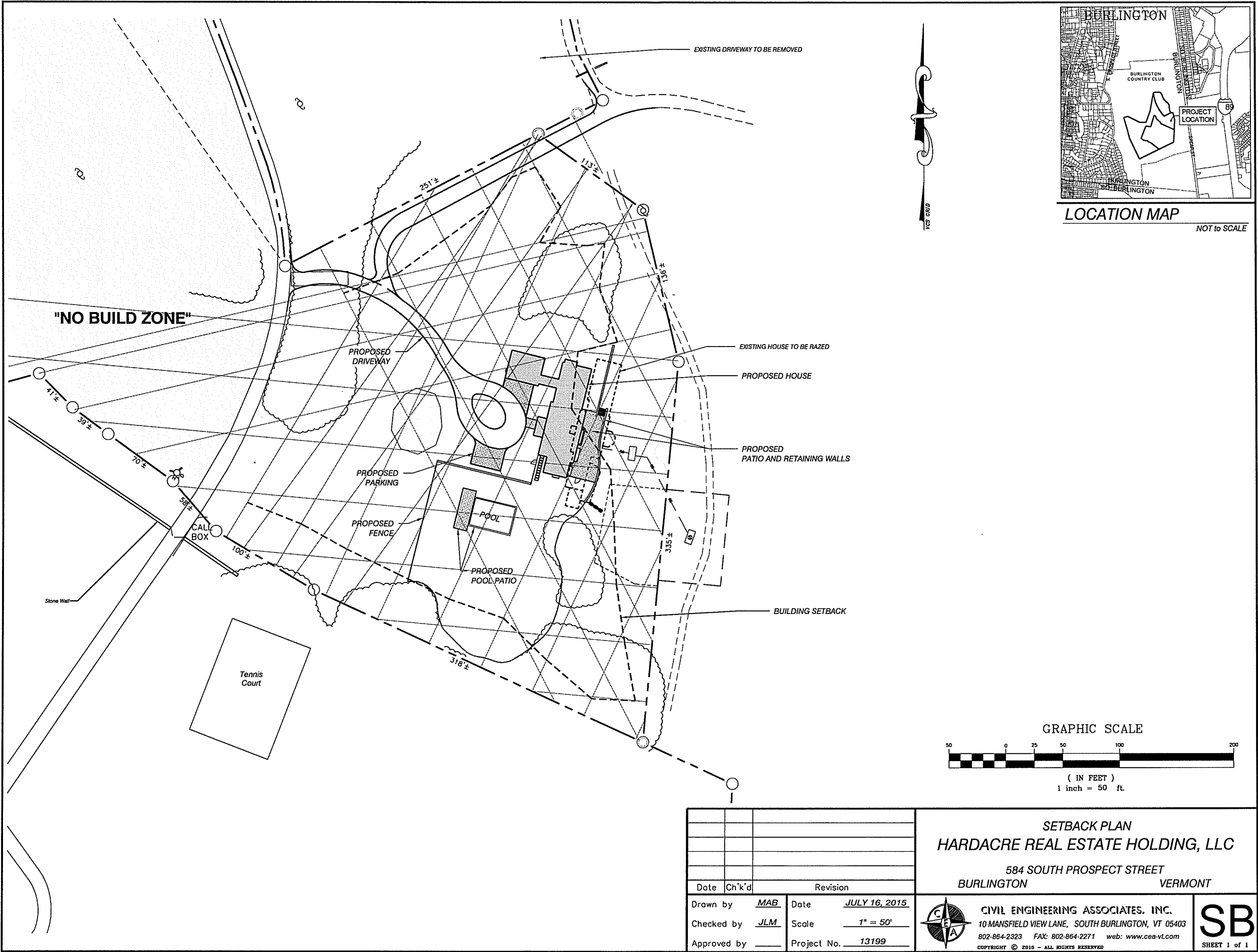
802-864-2323 x315  
[jmilbank@cea-vt.com](mailto:jmilbank@cea-vt.com)



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oCADD Projects\2013\13199\1-CADD Files-13199\1-CADD Files-13199-Plat.dwg, 9/14/2015 4:04:44 PM, DWG To PDF.pc3



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DEPARTMENT OF  
PLANNING & ZONING

SENT VIA EMAIL  
Mr. Steve Guild  
77 College Street Suite 2A  
Burlington, VT 05401

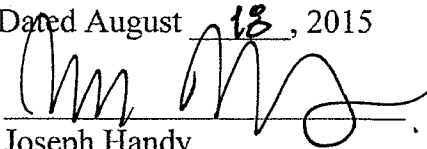
August 14, 2015

Re: Certification to Burlington Development Review Board

I, Joseph Handy, member and duly authorized agent of The Great Cedars, LLC  
certify as follows:

1. The Great Cedars, LLC is the owner of the real estate at 185-195 College Street, Burlington, Vermont (Parcel ID # 049-3-148-000), hereinafter "185-195 College Street".
2. The Great Cedars, LLC is the owner of the real estate at 166-172 College Street, Burlington, Vermont (Parcel ID # 049-3-117-002) hereinafter "166-172 College Street".
3. The Great Cedars, LLC has sufficient parking available in its parking garage at 166-172 College Street, to provide 33 parking spaces for use by the tenants of 185-195 College Street and shall make available to those tenants at all times such 33 spaces required parking spaces pursuant to its plan which was submitted with the application for Zoning Permit #ZP15-1410CA.

Dated August 18, 2015

  
Joseph Handy

DHG/dg

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**The Great Cedars, LLC**  
**Parking Space Lease Agreement**

DEPARTMENT OF  
PLANNING & ZONING

**I. Parties:** This lease entered into ____ day of _____, between The Great Cedars, LLC, the owner of 162-172 College Street, Burlington, Vermont, (Parcel ID# 049-3-117-002) (hereinafter "Lessor") and The Great Cedars, LLC, owner of 185-195 College Street, Burlington, Vermont (Parcel ID #049-3-148-000) (hereinafter "Lessee").

**II. Property Description:** The Lessor hereby leases to the Lessee such parking space in the amount of 33 spaces located at the Corporate Plaza parking garage; with said lease being for parking space in satisfaction of the 33 spaces required for parking at the Corporate Plaza parking garage on St. Paul Street in Burlington, Vermont (with the spaces located at 166-170 College Street, Burlington, Vermont) required under its permit (Permit # ZP15-1410CA dated _____). A copy of this Agreement shall be filed with the Burlington Department of Planning and Zoning for purposes of satisfying the above-referenced parking requirement.

**III. Usage:** The parking spaces shall only be used by residential tenants.

**IV. Term:** The term of the lease shall be 10 year(s), commencing on the ____ day of _____, and shall continue in effect from year to year thereafter automatically renewed unless written notice of termination is given by either party to the other at least 90 days prior to termination/revocation. Any termination shall require immediate notice of termination of the lease to Burlington Department of Planning and Zoning, as an attachment to Permit # ZP15-1410CA. In no event shall the notice of termination to Burlington Department of Planning and Zoning be less than 60 days prior to the effective date of termination.

**V. Replacement Leases:** At least 60 days prior to the termination of this lease, a copy of a replacement lease agreement shall be provided to Burlington Planning and Zoning staff for review and acceptance in consultation with the City Attorney to insure the availability and adequacy of the parking spaces. Further, said replacement leases shall be required to conform to the conditions included in Permit # ZP15-1410CA.

**VI. Consideration:** None.

**VII.** This agreement contains the entire agreement of the parties hereto with respect to the matters covered by its terms, and it may not be modified in any manner without the express written consent of the parties. Additionally, any written modification shall not be effective unless and until a copy thereof has been filed with and approved by the Burlington Department of Planning and Zoning for consistency with the conditions of Permit # ZP15-1410CA. Burlington Department of Planning and Zoning may consult with the City Attorney for review of the modified language. Said modification, once approved, shall be included as an attachment to the file for Permit # ZP15-1410CA. If the leased parking space(s) is lost without replacement prior to the termination date of the lease agreement or owners fail to renew this lease agreement, the permit for the use of the premises as approved under zoning Permit # ZP15-1410CA, shall be



2019-01-10

DE  
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deemed null and void/revoked. Failure to cease such use shall constitute a zoning violation and be subject to all penalties provided by the law.

IN WITNESS WHEREOF, I hereunto set my hand and seal this _____ day of _____, _____.

The Great Cedars, LLC

Lessor

By: _____  
Joseph Handy, Member

STATE OF VERMONT  
CHITTENDEN COUNTY, SS:

At Burlington in said County this _____ day of _____, _____, personally appeared JOSEPH HANDY, member of The Great Cedars, LLC, Burlington, Vermont, who acknowledged the foregoing instrument, by him sealed and subscribed, to be his free act and deed.

Before me: _____  
_____, Notary Public  
My commission expires: 2/10/19

IN WITNESS WHEREOF, I hereunto set my hand and seal this _____ day of _____, _____.

The Great Cedars, LLC

Lessee

By: _____  
Charles Handy, Member

STATE OF VERMONT  
CHITTENDEN COUNTY, SS:

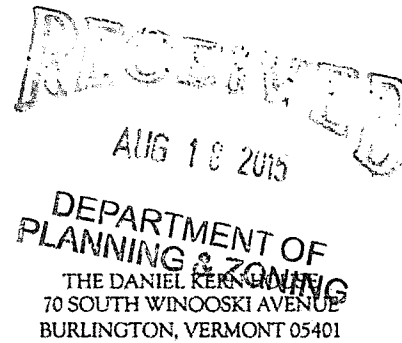
At Burlington in said County this _____ day of _____, _____, personally appeared CHARLES HANDY, member of The Great Cedars, LLC, Burlington, Vermont, who acknowledged the foregoing instrument, by him sealed and subscribed, to be his free act and deed.

Before me: _____  
_____, Notary Public  
My commission expires: 2/10/19

DAVID H. GREENBERG  
ATTORNEY AT LAW

P.O. BOX 201  
BURLINGTON, VERMONT 05402-0201

TELEPHONE (802) 862-8165  
FAX (802) 862-5537  
DAVID@DGREENBERG.COM



August 14, 2015

The Great Cedars, LLC  
Mr. Joseph Handy  
75 South Winooski Avenue  
Burlington, VT 05401

Re: 185-195 College Street, Burlington, VT

Dear Joe,

You have asked me to provide an opinion with respect to deeded rights of The Great Cedars, LLC to use Thomas Alley, Stacy Alley and Markham Lane in Burlington, Vermont which rights your company obtained when it purchased the real estate at 185-195 College Street in Burlington from Gannett Vermont Publishing, Inc. by Warranty Deed dated September 26, 2013 and recorded in Volume 1233, Page 559 of the City of Burlington Land Records. The deed included a provision that the conveyance "has the benefit of and is subject to all easements, uses and rights of way appurtenant to the land and premises."

The specific easements and rights pertaining to the above Lanes and Alley are contained in the following prior deeds in the chain of title:

- a. Right of way, in common with others, over an alley leading from South Winooski Avenue to Markham Alley granted in a Warranty Deed dated December 20, 1934 and recorded in Volume 104, Page 246 of the City of Burlington Land Records. This right of way is the eastern most portion of Thomas Alley.
- b. Right of way over a 25' x 12' lot immediately south of 193-195 College Street granted in a Warranty Deed dated December 27, 1917 and recorded in Volume 69, Page 639 of the City of Burlington Land Records. This pertains to a portion of Thomas Alley.
- c. Right of way, in common with others, over Thomas Alley to Markham Street granted in Warranty Deed dated November 11, 1913 and recorded in Volume 59, Page 413 and Warranty Deed dated November 20, 1913 and recorded in Volume 65, Page 172, all of the City of Burlington Land Records.

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PLANNING & ZONING

Mr. Joseph Handy  
August 14, 2015  
Page 2

d. Right of way over Thomas Lane which is 12' wide at rear of property at 191 College Street, granted in a Warranty Deed dated December 20, 1952 and recorded in Volume 142, Page 527 of the City of Burlington Land Records.

e. Right of way over Stacy Lane conveyed by Quitclaim Deed dated May 18, 1895 and recorded in Volume 38, Page 40 of the City of Burlington Land Records.

f. Right of way 12' wide over Stacy Street granted in Warranty Deed dated November 12, 1867 and recorded in Volume 3, Page 356 and Warranty Deed dated October 1, 1868 and recorded in Volume 3, Page 625, both in the City of Burlington Land Records.

g. Right of way 12' wide at rear of 187-189 College Street along Stacy Street to Mechanics Lane granted in Warranty Deed dated January 11, 1908 and recorded in Volume 58, Page 602 of the City of Burlington Land Records.

h. Right of way over Markham Alley granted in Warranty Deed dated December 27, 1917 and recorded in Volume 69, Page 639 of the City of Burlington Land Records.

i. Right of way over Markham Alley granted in a Warranty Deed dated November 16, 1921 and recorded in Volume 72, Page 503 of the City of Burlington Land Records.

j. Right of way and easements within the block bordered on north by College Street, on the east by South Winooski and on the south by Main Street and on the east by Church Street granted in Warranty Deed dated December 23, 1931 and recorded in Volume 97, Page 586 and by Warranty Deed dated June 30, 1933 and recorded in Volume 104, Page 526, both in the City of Burlington Land Records.

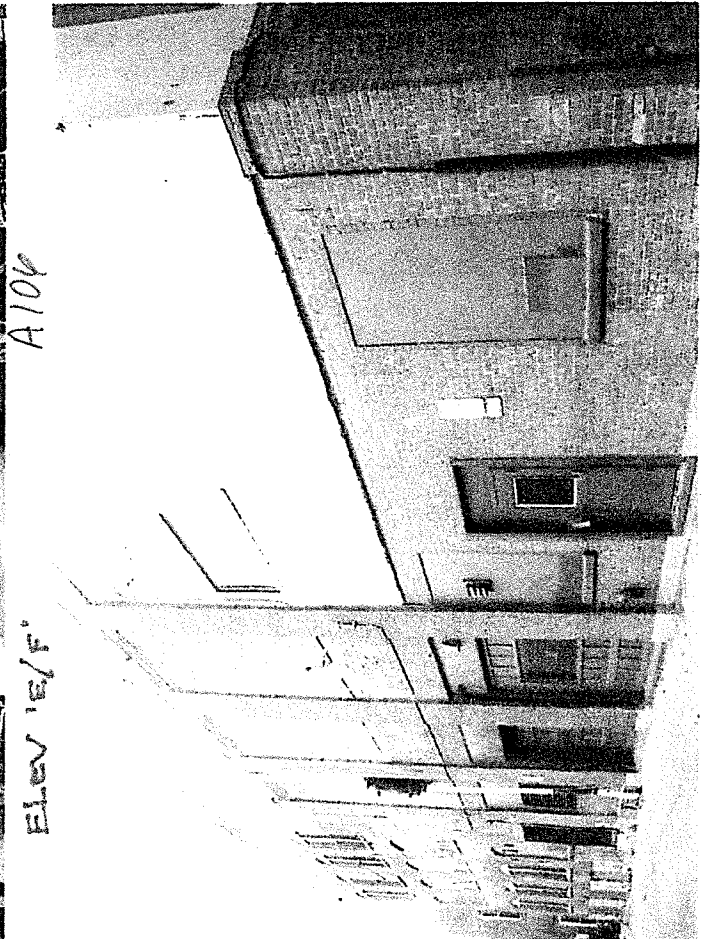
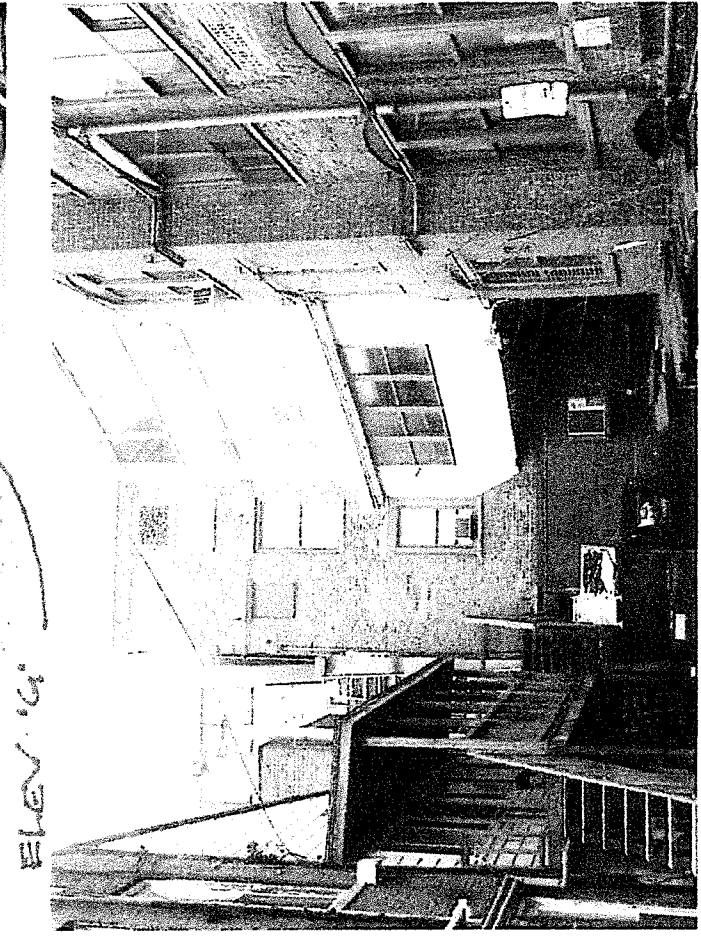
Based upon the foregoing, it is my opinion that The Great Cedars, LLC has deeded rights to use Thomas Alley, Stacy Alley (a/k/a Stacy Street and Stacy Lane) and Markham Lane for access to its buildings for trash and recycling and for access for tenants.

Very truly yours,



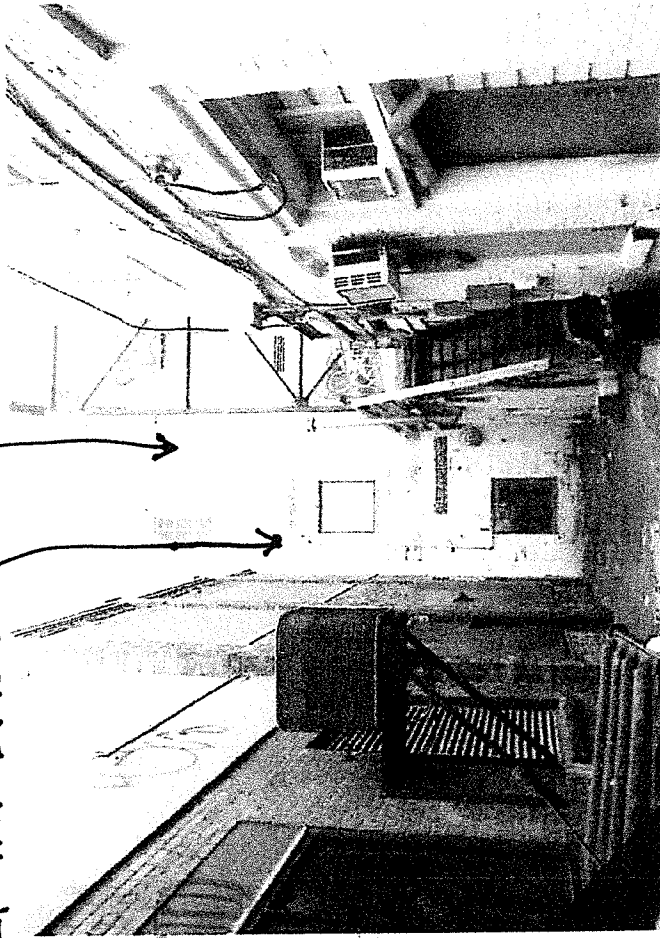
David H. Greenberg, Esq.

DHG/bsb





NEW AUM. WINDOWS  
IN EXISTING OPEN'G  
REPAINT BRICK



ELEV 'D-1'



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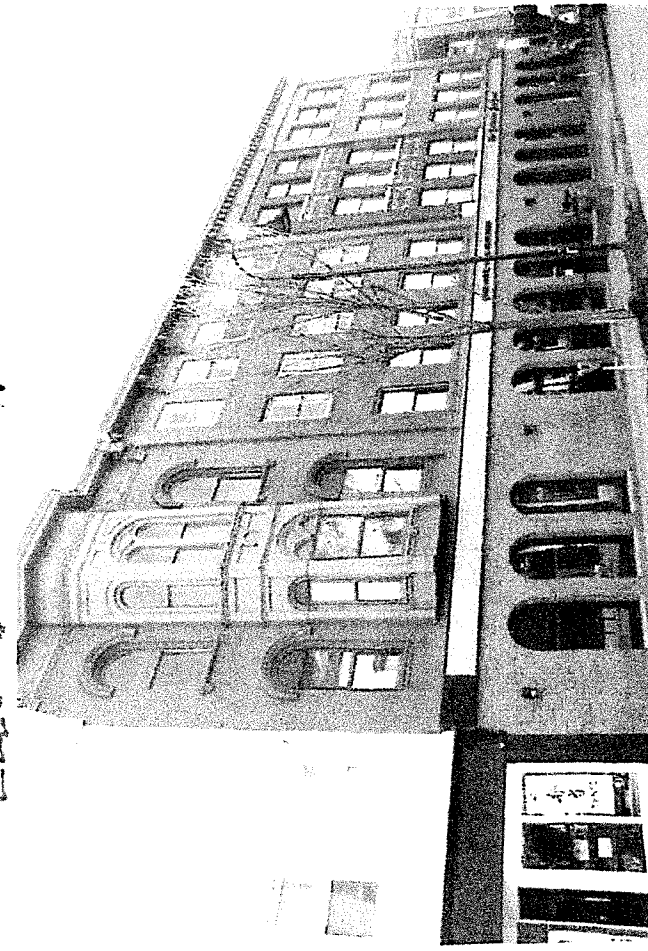
AUG 13 2015

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DEPARTMENT OF  
PLANNING & ZONING

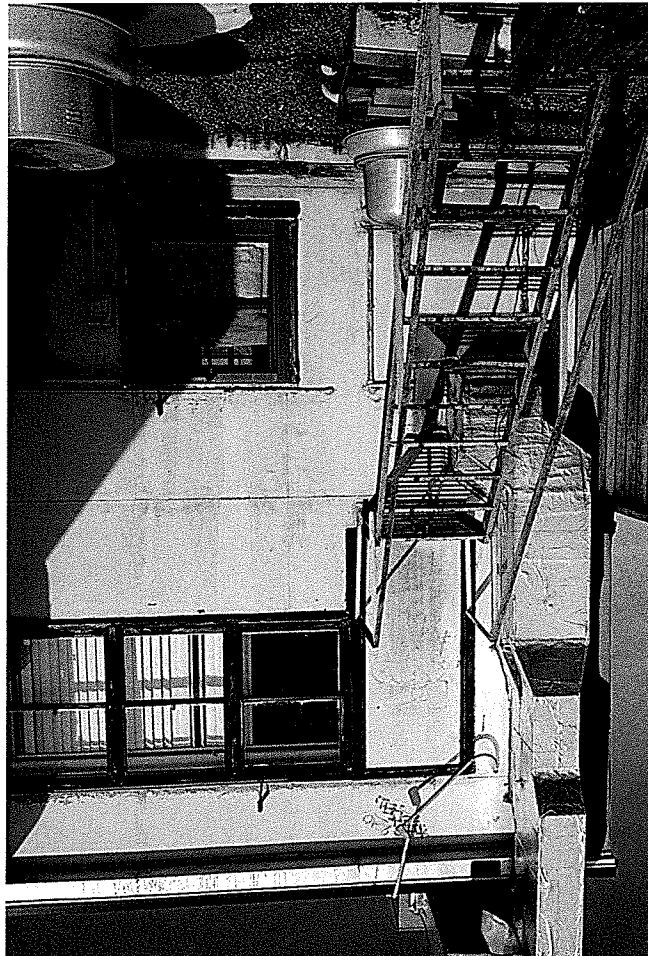
4102

ELEV 'B'



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PLANNING & ZONING

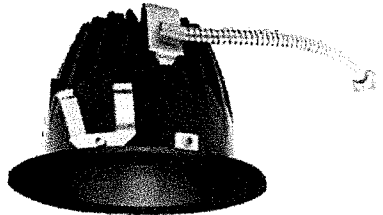
Elevation 'E'



Elevation 'E'



<b>RAB</b>	INDOOR	OUTDOOR	SUBOOR	Where to Buy	Log In	Log Out	Search
Products	Downlights	New Construction Round	New Construction Round Trim Module	NDLED4R-50Y-B-B			



Color: Black cone black trim

## NDLED4R-50Y-B-B

Butterfly bracket allows mounting with bar stock, "C" channel, 1/2" conduit or nailer bars  
 Low-profile design allows for installation in ceilings with limited space  
 Absolute White 3-step consistency and black body accurate  
 Nanostructure lens eliminates "hot spots" providing smooth and efficient light  
 90 CRI

## LED Info

Watts: 0W  
 Color Temp: 3000K (Warm)  
 Color Accuracy: 90 CRI  
 L70 Lifespan: 100,000  
 Lumens: N/A  
 Efficacy: N/A

## Driver Info

Type: Sold Separately  
 120V: N/A  
 208V: N/A  
 240V: N/A  
 277V: N/A  
 Input Watts: 0W

## Dimensions

Weight: 0.0 lbs

## Technical Specifications

## Listings

UL Listed:  
 Suitable for wet locations covered ceiling.

## Optical

**Photometrics:**  
 Photometrics are based on prorated reports. Contact the RAB Lighting Design department for the most up-to-date data.  
 See photometric data and download IES files here.

**Optics:**  
 50° beam spread with specular thermoplastic optics and Nanostructure lens technology for smooth light output and high efficiency.

## Other

**Trim Component:**  
 This component must be ordered with New Construction Round Rough-In in order to make a complete fixture.  
 See here for New Construction Round Rough-In.

**Dimming:**  
 Dimmable. Requires rough-in with dimming driver.

**California Title 24:**  
 NDLED4R complies with 2013 California Title 24 building and electrical codes as a residential indoor fixture and commercial indoor fixture for general spaces.

**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

**GSA Schedule:**  
 Suitable in accordance with FAR Subpart 25.4.

## Construction

**Housing:**  
 Professional-grade, die-cast aluminum construction.

**Trim Ring:**  
 Black powder coated die cast trim ring.

**Trim Cone:**  
 Black round trim cone.

**Drop Ceiling Installation:**  
 NDLED can be installed in drop ceiling tiles when using optional c-channel bars and following local construction codes.

**Aperture Size:**  
 4" Trim Module.

**Junction Box:**  
 Integral junction box with wiring capacity for  
 Min 90°C supply conductors  
 4 in 4 out

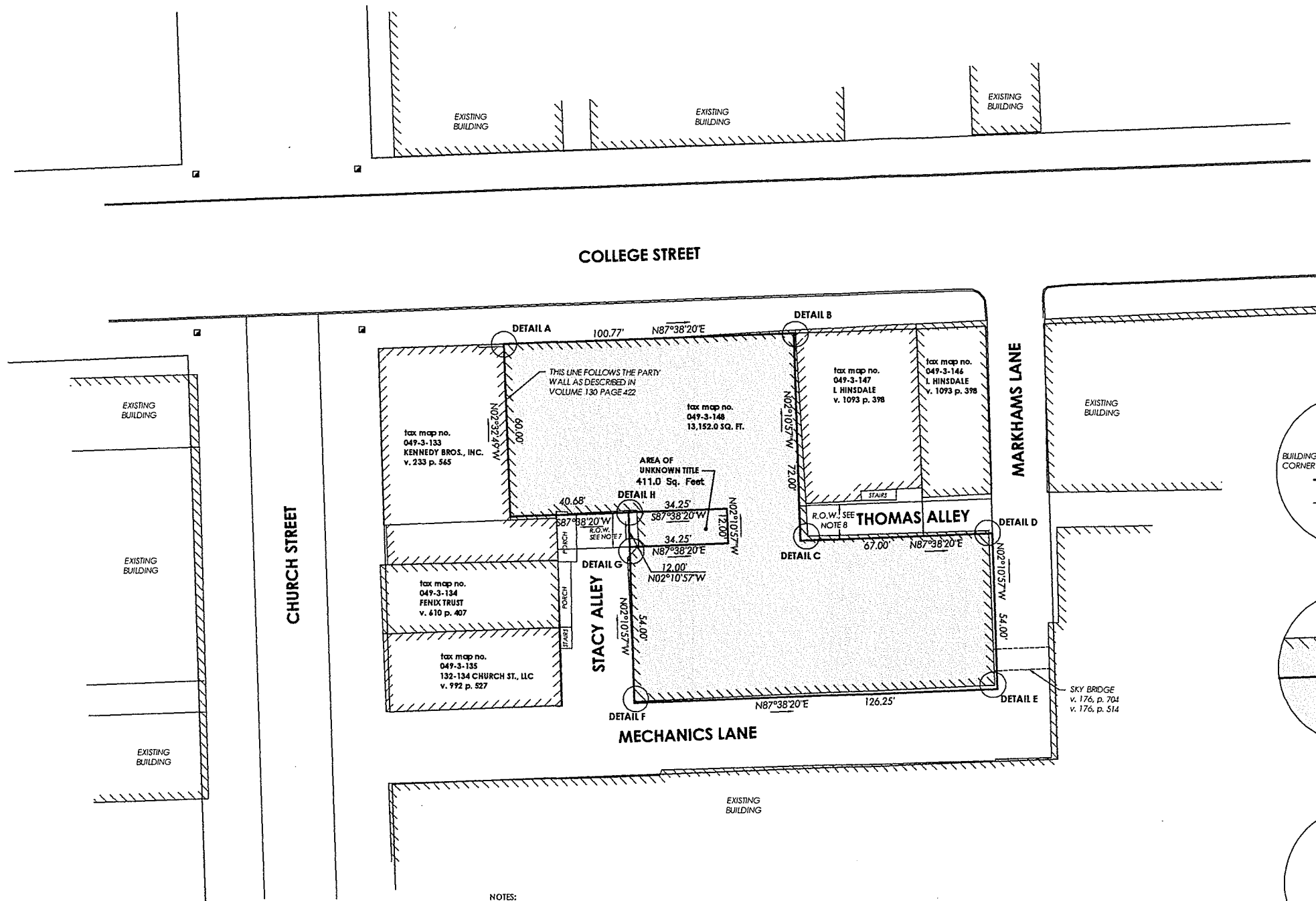
**Easy Installation:**  
 The EZ-Connector makes installation easy.

## LED Characteristics

**Color Consistency:**  
 3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

This plat meets the requirements of 27 VSA 1403.

(Signature)

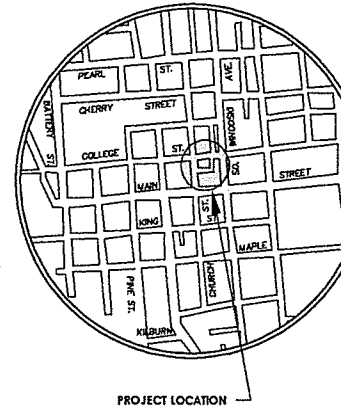
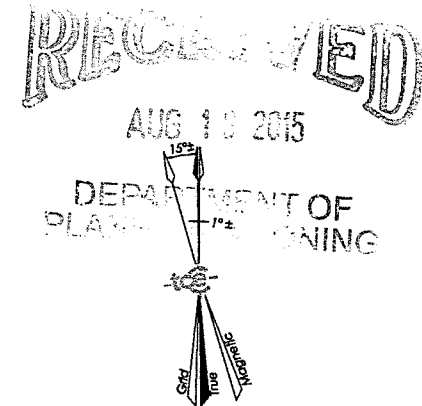
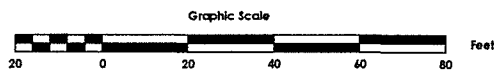


NOTES:

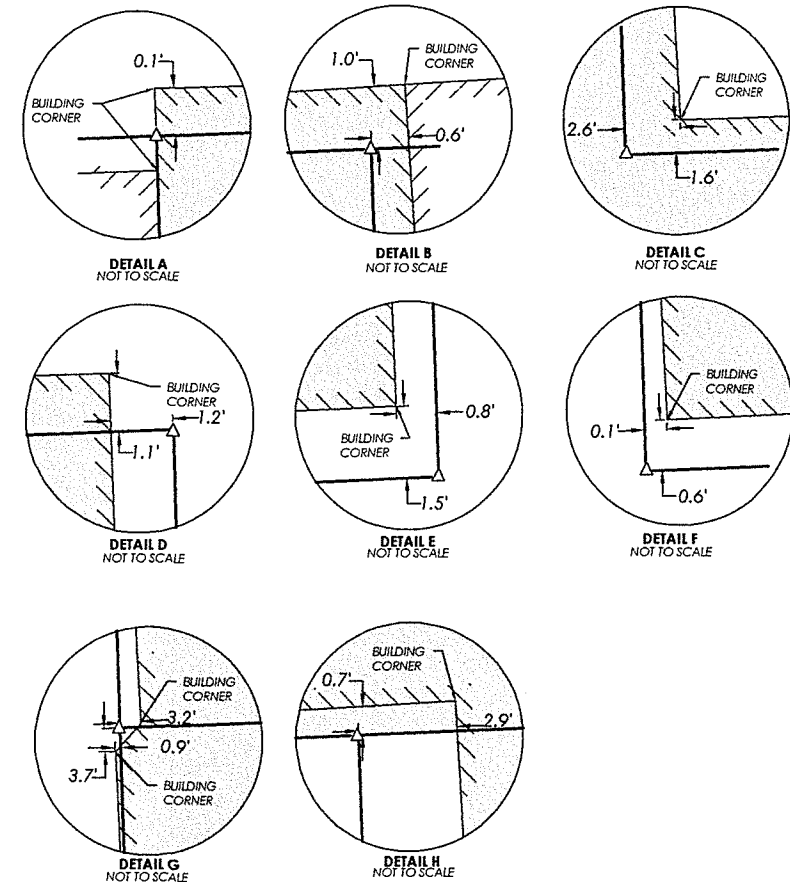
- 1) THIS PLAT IS BASED ON DEEDS RESEARCHED IN THE CITY OF BURLINGTON LAND RECORDS AND A CLOSED FIELD TRAVERSE CONDUCTED WITH A TOTAL STATION ON 11/11/13. BEARINGS ARE BASED ON VERMONT STATE PLANE GRID NORTH ESTABLISHED WITH RTK OBSERVATIONS FROM VERMONT CORS STATION VTUV.
- 2) REBAR SET ARE NO. 5 REINFORCING BARS WITH ALUMINUM CAPS STAMPED "TRUDELL CONSULTING ENGINEERS, IS 488".
- 3) THIS LAND WAS CONVEYED TO GREAT CEDARS, LLC IN VOLUME 1233 PAGE 539.
- 4) DISTANCES ARE SHOWN TO THE HUNDREDTH OF A FOOT AND BEARINGS ARE SHOWN TO THE SECOND FOR MATHEMATICAL CLOSURE PURPOSES ONLY.
- 5) AN ATTEMPT HAS BEEN MADE TO IDENTIFY OR DELINEATE EASEMENTS, RIGHTS OF WAY, LEASE LANDS, ENCROACHMENTS, ETC., OBSERVED IN THE FIELD OR READILY FOUND IN THE LAND RECORDS. ADDITIONAL ENCUMBRANCES MAY EXIST WHICH ARE NOT SHOWN ON THIS PLAT.
- 6) KEY REFERENCE PLAN DATED MAY 9, 1833 IS RECORDED IN VOLUME 11 PAGE 150 OF THE TOWN OF BURLINGTON LAND RECORDS.
- 7) THIS LOT BENEFITS FROM A 12' WIDE RIGHT OF WAY AS DESCRIBED IN VOLUME 3 PAGE 356.
- 8) THIS LOT BENEFITS FROM A 12' WIDE RIGHT OF WAY OVER THOMAS ALLEY AS DESCRIBED IN VOLUME 59 PAGE 413.

LEGEND

- REBAR (TO BE SET)
- △ CALCULATED CORNER
- PROPERTY LINE
- BUILDING WALL
- UTILITY POLE



BURLINGTON CITY CLERK'S OFFICE  
RECEIVED FOR RECORD  
A.D. 201____  
at _____ o'clock _____ minutes _____ m  
and recorded in plat hanger # _____  
Attest: _____ City Clerk

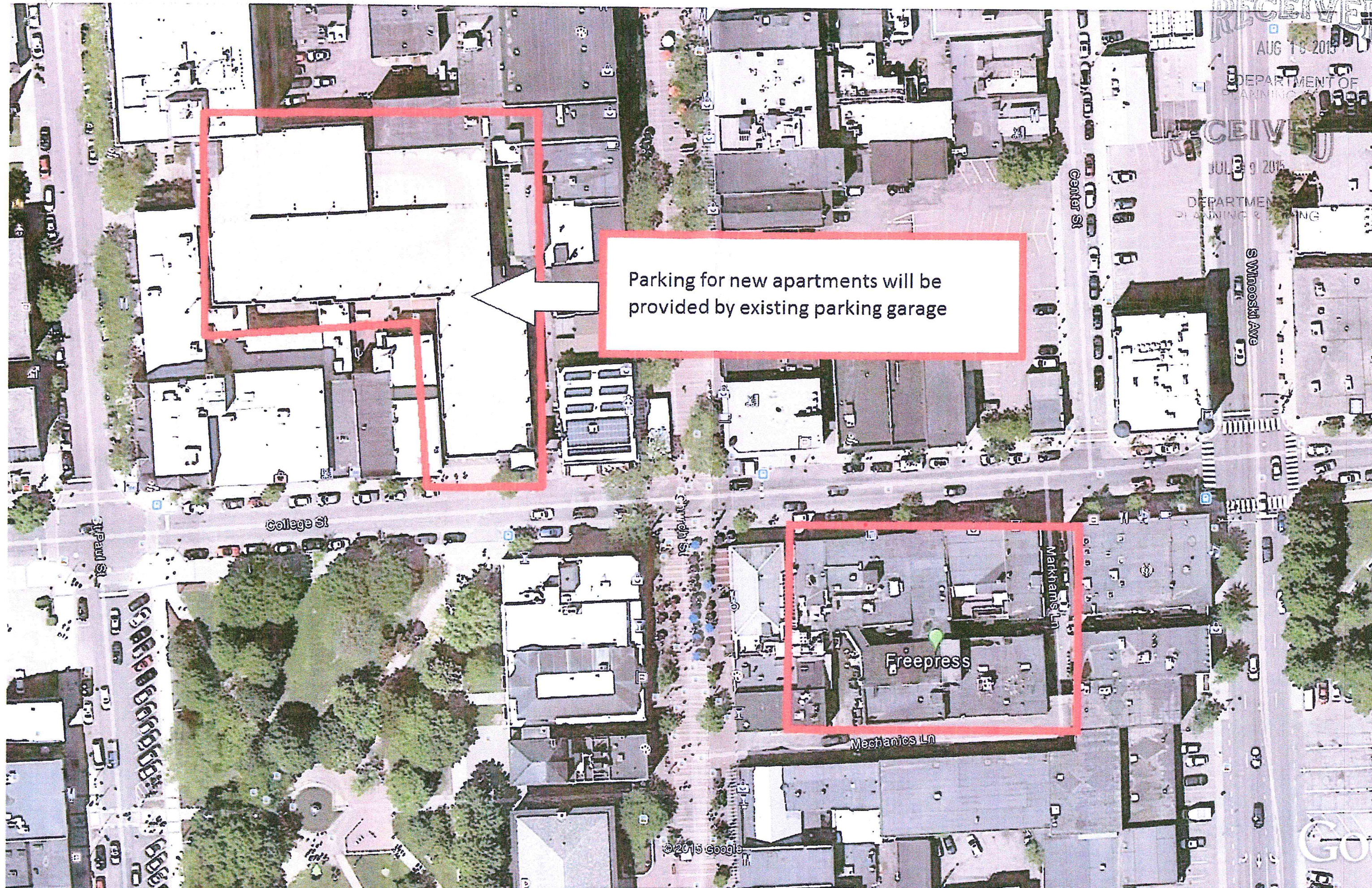


Boundary Plat  
GREAT CEDARS, LLC  
185-195 College Street  
Burlington, Vermont

TRUDELL CONSULTING ENGINEERS  
478 BLAIR PARK ROAD  
BURLINGTON, VERMONT 05405  
TEL: 802.255.1111 FAX: 802.255.1112  
WWW.TCE-VERMONT.COM

Drawing Number: 2013104-4  
Date: 11/12/13  
Scale: 1"=30'  
Project Manager: SDT  
Drawn By: SDT  
Approved By: JMM  
Field Book: 242





Parking for new apartments will be provided by existing parking garage

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JUL 29 2015

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S Winoski Ave

Center St

College St

Church St

Freepress

Mechanics Ln

Markham Ln

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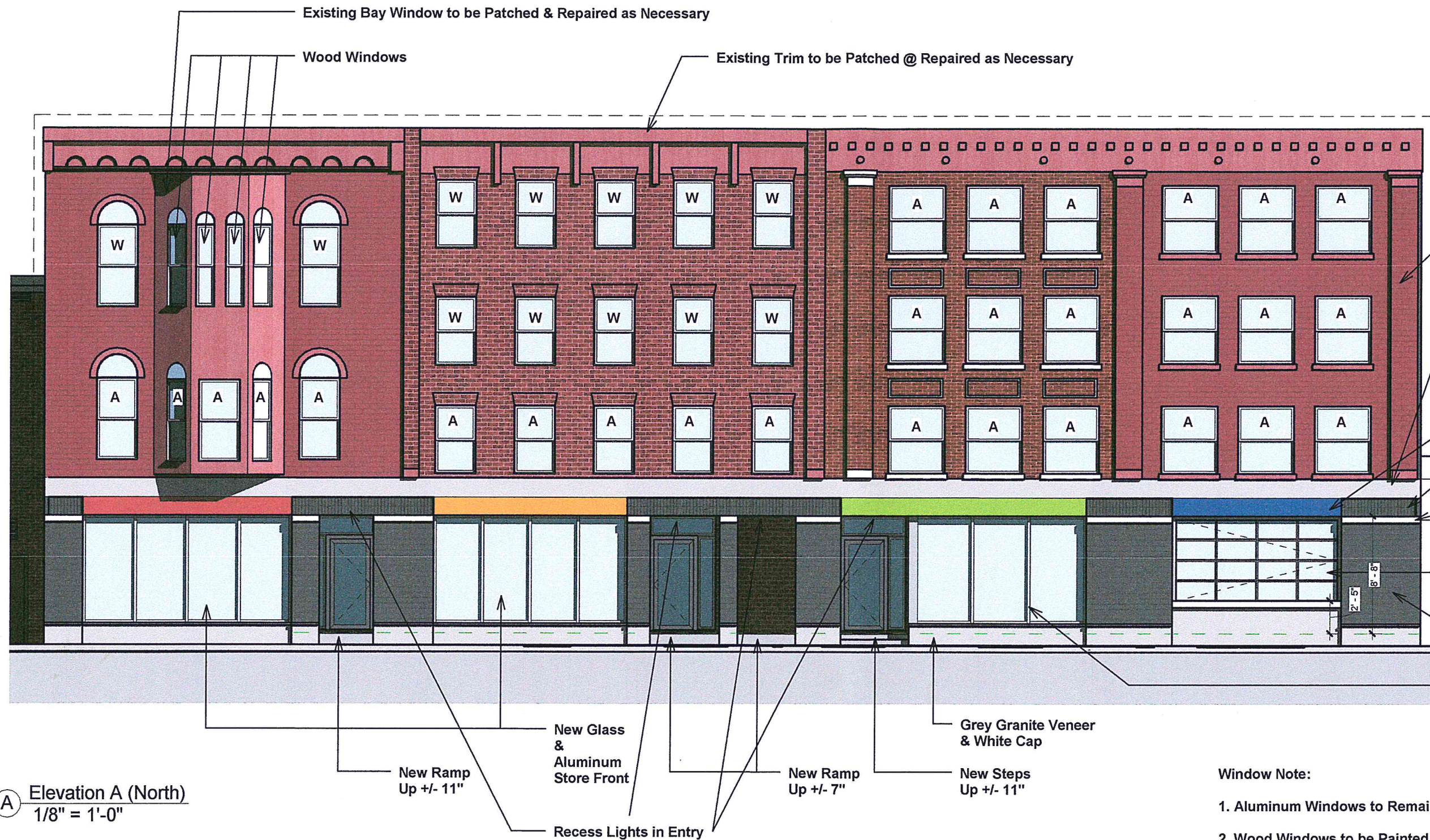
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- Existing Brick Building
- Existing Sign Channel w/  
New Sign Panel
- Colored Metal Panel
- Recessed Soldier Brick Panel
- New Granite Cap (White)
- New 12' Glass Aluminum OH
- New Brick (Charcoal)
- New Glass &  
Aluminum  
Store Front



Window Note:

1. Aluminum Windows to Remain (A)
2. Wood Windows to be Painted to  
Match Aluminum Windows (W)

A Elevation A (North)  
1/8" = 1'-0"



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OF STEVE GUILD

HANDY  
FREEPRESS

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77 COLLEGE STREET, BURLINGTON, VERMONT  
802-497-0895

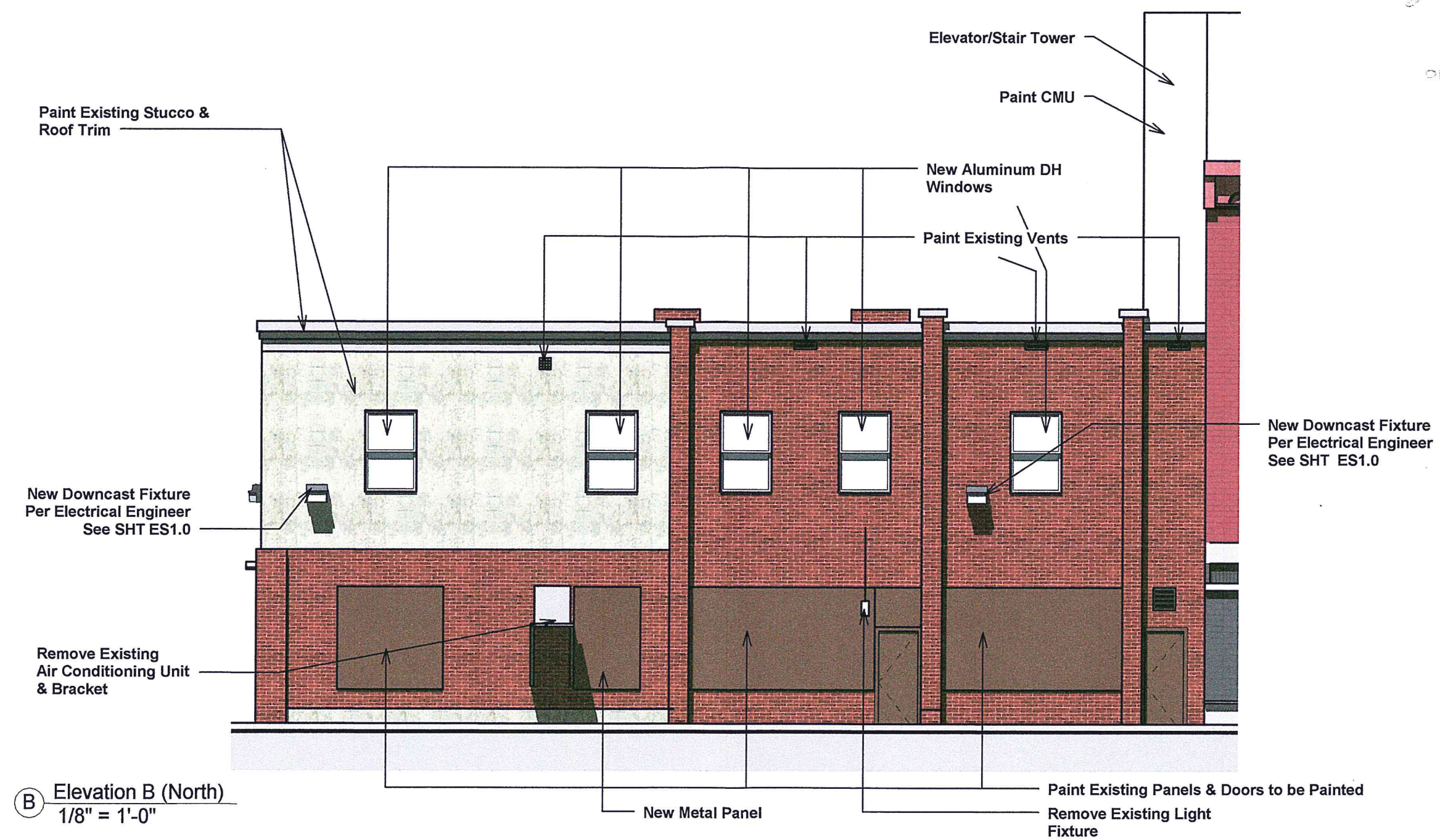
College Street

Project number	1
Date	6/8/2015
Drawn by	G4
Checked by	G4

A101



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Elev "B"



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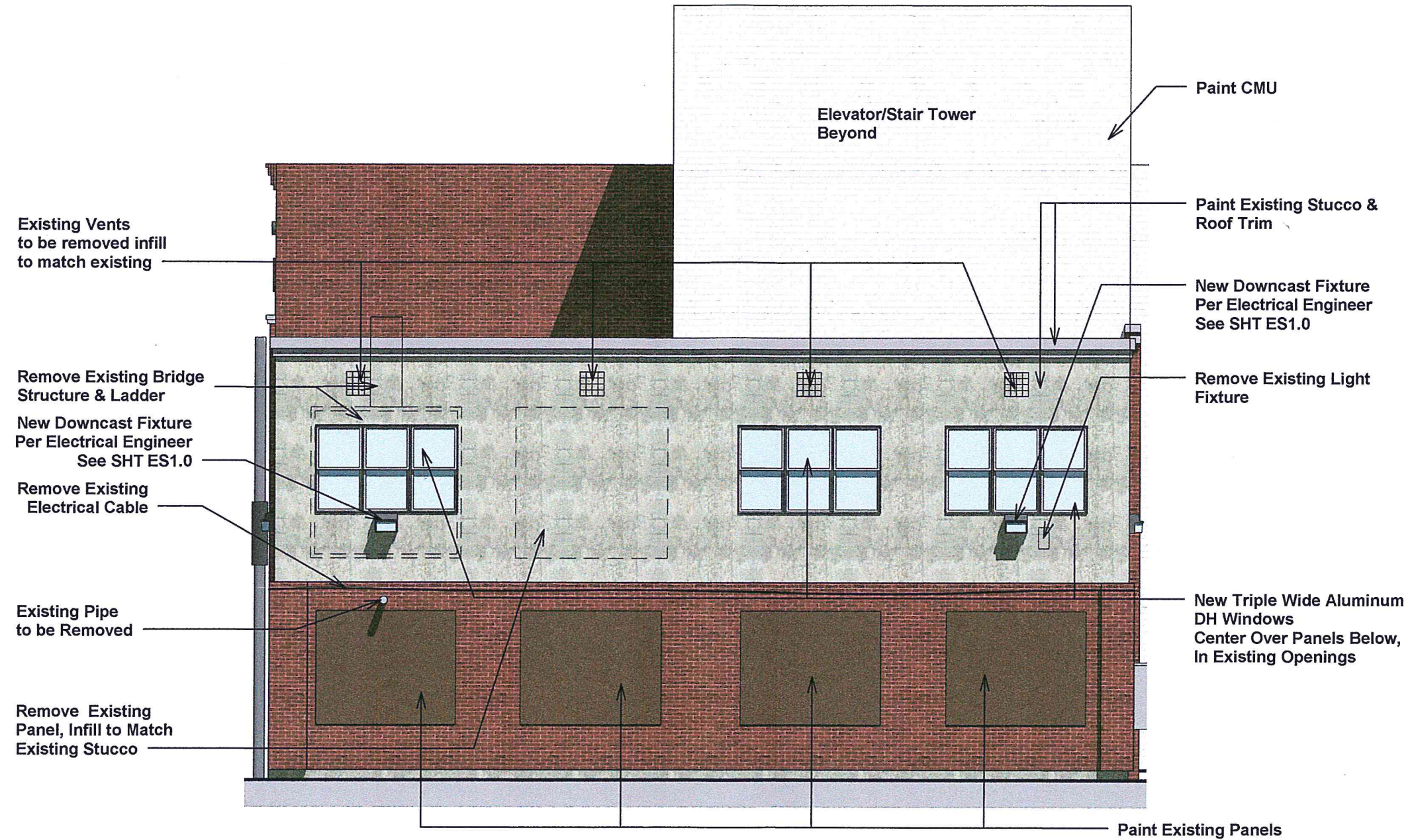
Stacy Lane		A102
Project number	1	
Date	6/8/2015	
Drawn by	G4	



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① Elevation C (East)  
1/8" = 1'-0"

Elev "C"



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Markhams Lane

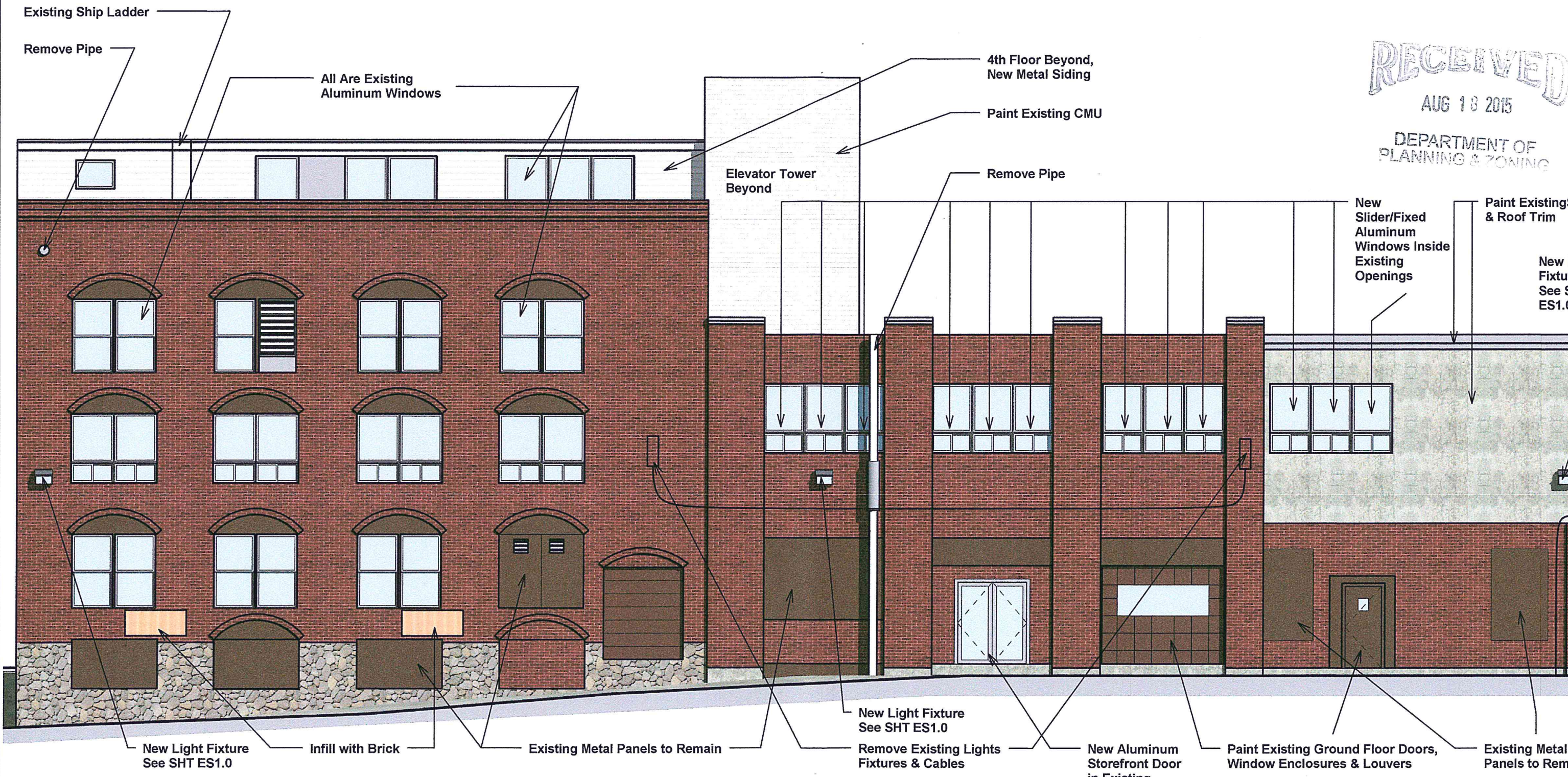
Project number 1  
Date 6/8/2015  
Drawn by Author

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D Elevation D (South)  
1/8" = 1'-0"

*Unless Noted Otherwise, All Existing Windows are Alum



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802-497-0895

Mechanic's Lane

Project number	1
Date	6/8/2015
Drawn by	G4

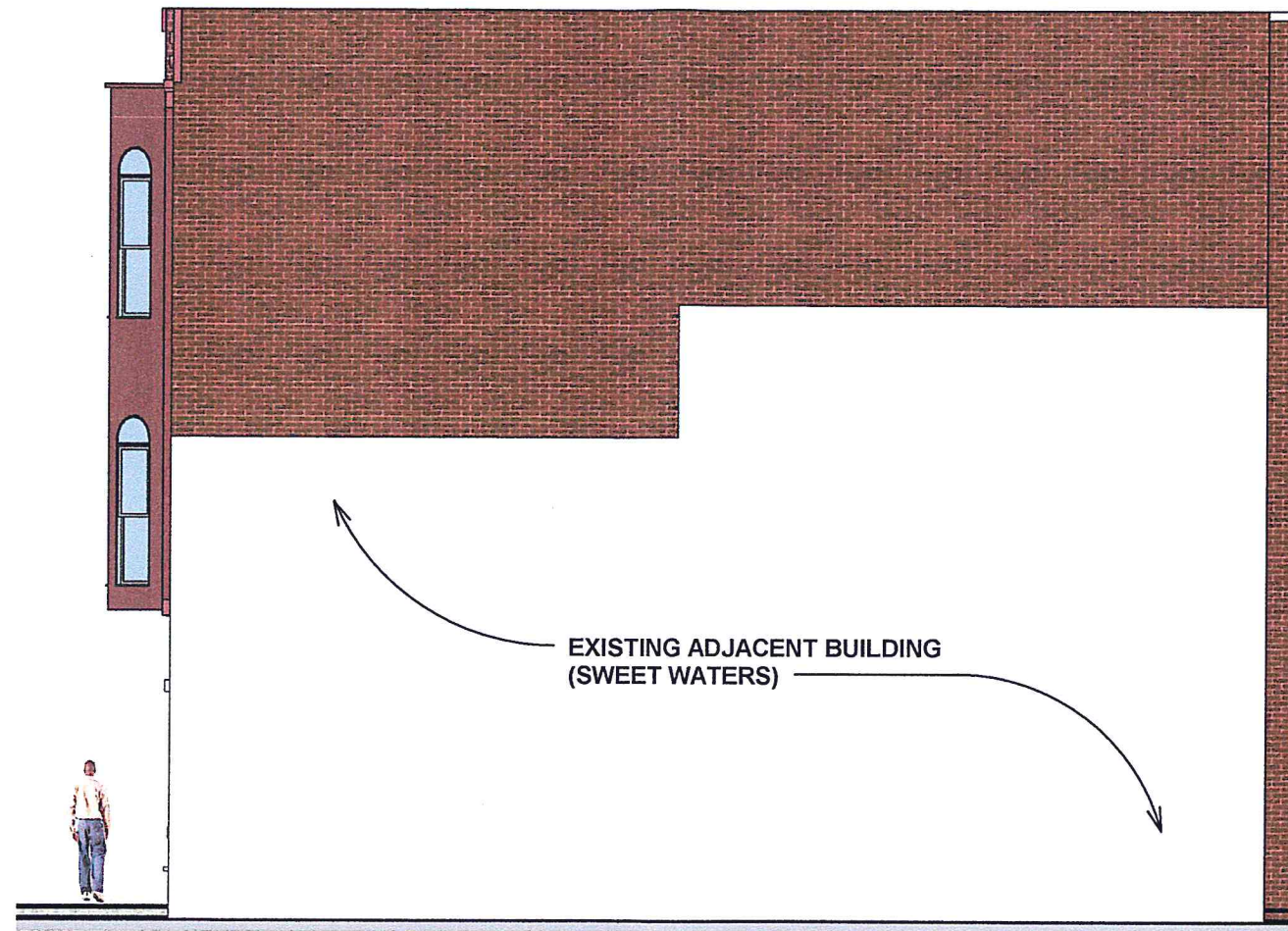
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① Elevation G (West)  
1/8" = 1'-0"



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77 COLLEGE STREET, BURLINGTON, VERMONT

802-497-0895

Sweetwaters

Project number 1

Date 6/8/2015

Drawn by Author

Checked by Checker

A105

Scale 1/8" = 1'-0"



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**Elevation F**  
3/32" = 1'-0"



**Elevation E**  
3/32" = 1'-0"

*Unless Noted Otherwise all  
Existing Windows are Aluminum



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802-497-0895

Elevations E and F

A106



COLLEGE STREET

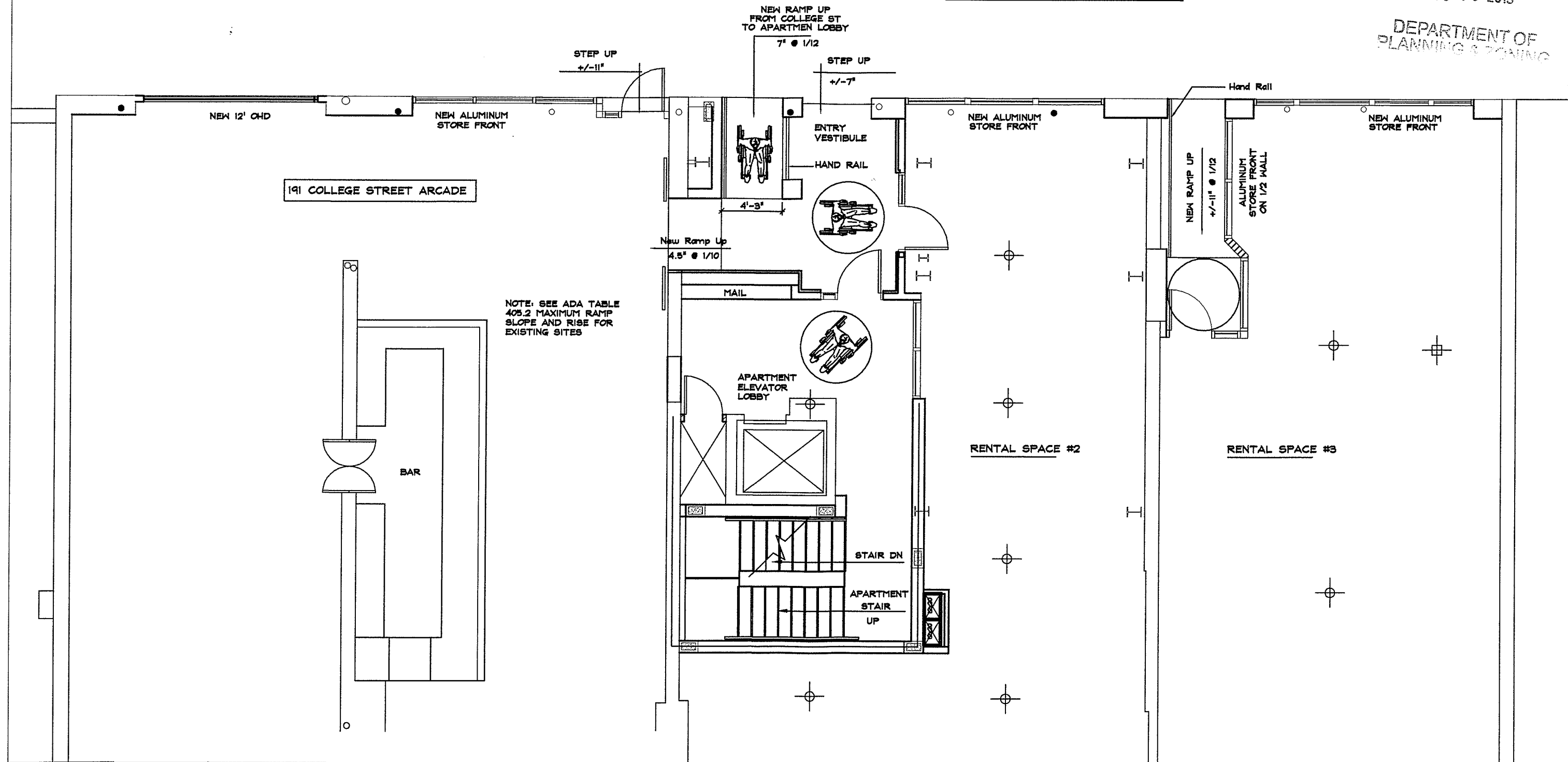
191 COLLEGE STREET

EXISTING LIGHT POLE      ○      ○      EXISTING TREE

College Street Sidewalk

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COLLEGE STREET ACCESSIBLE ROUTE TO APARTMENTS & RETAIL SPACE

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APPROXIMATE LOCATION OF ADJACENT BUILDING

STACY LANE

10' RIGHT-OF-WAY LINE

DUMPSTER ENCLOSURE ON STACEY LANE

MECHANICS LANE

Emergency  
Exit

8' GATE  
IN SCREENED  
CHAIN LINK  
FENCE

Re-Cycle  
Totter

DUMPSTER

Re-Cycle  
Totter

TOILET

HC  
TOILET

EXISTING  
STAIR  
DN

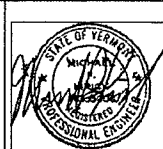
APARTMENT  
STAIRS  
UP

STAIR DN

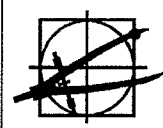
4'-5"  
1'-9"



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KIRICK ENGINEERING ASSOCIATES, P.C.  
Electrical / Telecom Consulting  
5399 Williston Road  
Suite 103  
Williston, Vermont 05495  
Phone 802-455-5731 Fax 888-444-7172



NO.	DATE	REVISION

VERMONT

191 COLLEGE STREET  
APARTMENT FIT-UP

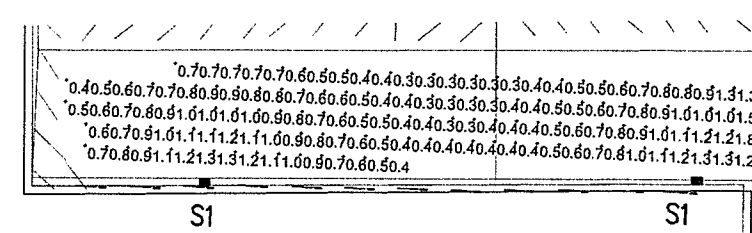
BURLINGTON

SCALE: AS NOTED  
DATE: 07/31/15  
DRAWN BY: DUG  
CHECKED BY: MPK  
PROJECT: 1509

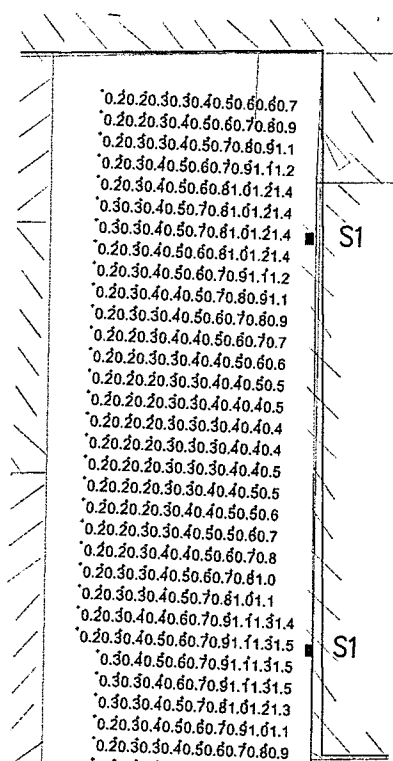
SHEET TITLE:  
SITE LIGHTING  
POINT BY POINT  
PHOTOMETRICS

DRAWING NO.  
ES1.0

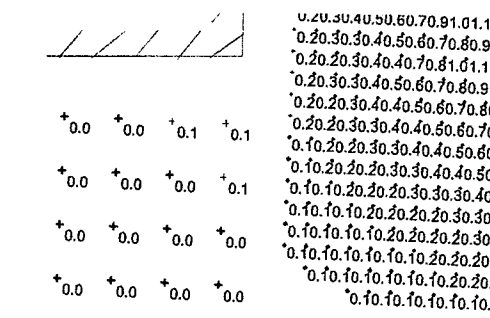
STATISTICS					
Description	Symbol	Avg	Max	Min	Max/Min
BURLINGTON CRITERIA (NOT TO EXCEED)		0.5 fc	2.0 fc		
Entire Site	+	0.5 fc	2.0 fc	0.1 fc	20.0:1



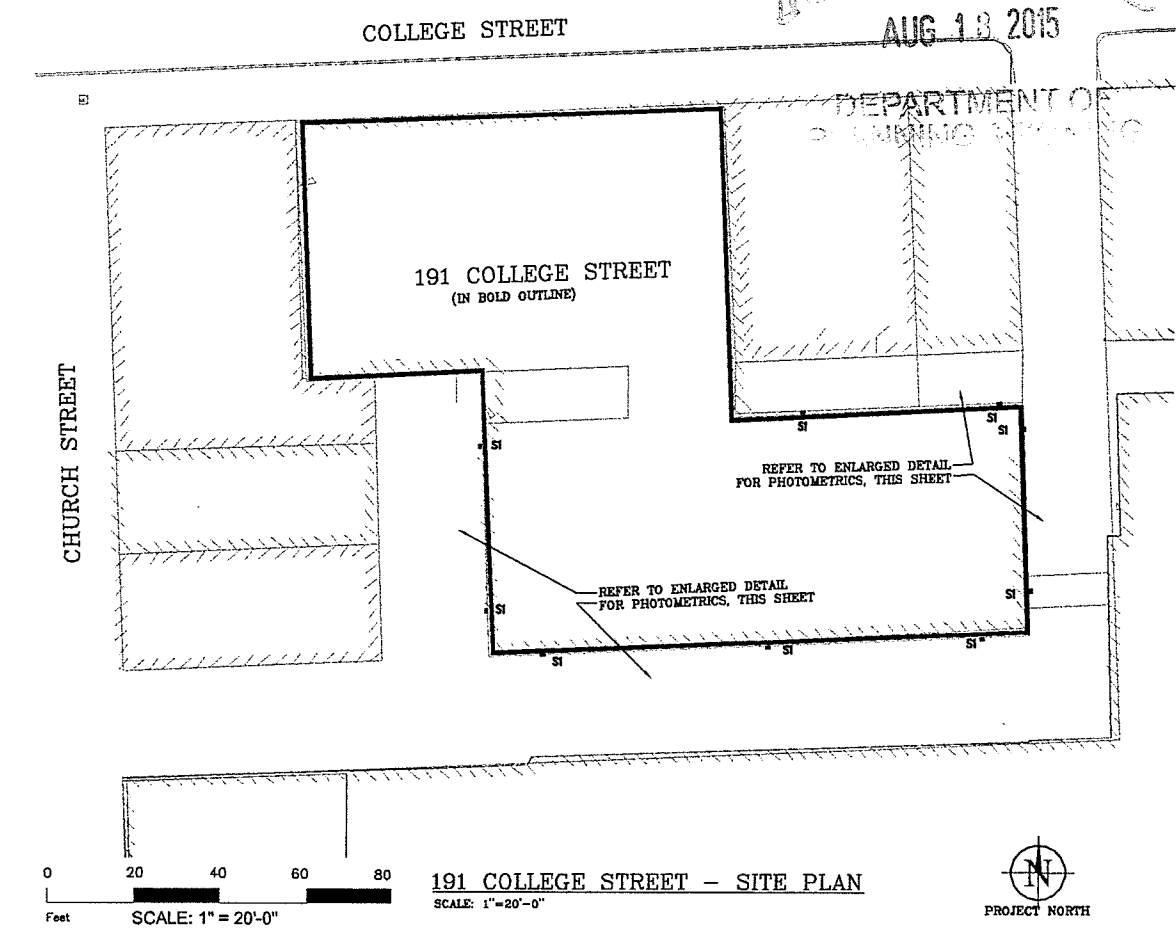
THOMAS ALLEY - ENLARGED PARTIAL  
SITE PHOTOMETRICS POINT BY POINT  
SCALE: 1/8"=1'-0" TYPE S1 MOUNTED AT 16-FT AFG



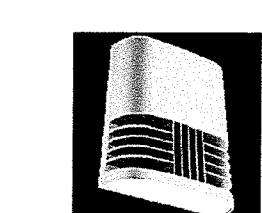
STACY ALLEY - ENLARGED PARTIAL SITE  
PHOTOMETRICS POINT BY POINT  
SCALE: 1/8"=1'-0" TYPE S1 MOUNTED AT 16-FT AFG



MECHANICS LANE - ENLARGED PARTIAL SITE PHOTOMETRICS POINT BY POINT  
SCALE: 1/8"=1'-0" TYPE S1 MOUNTED AT 16-FT AFG

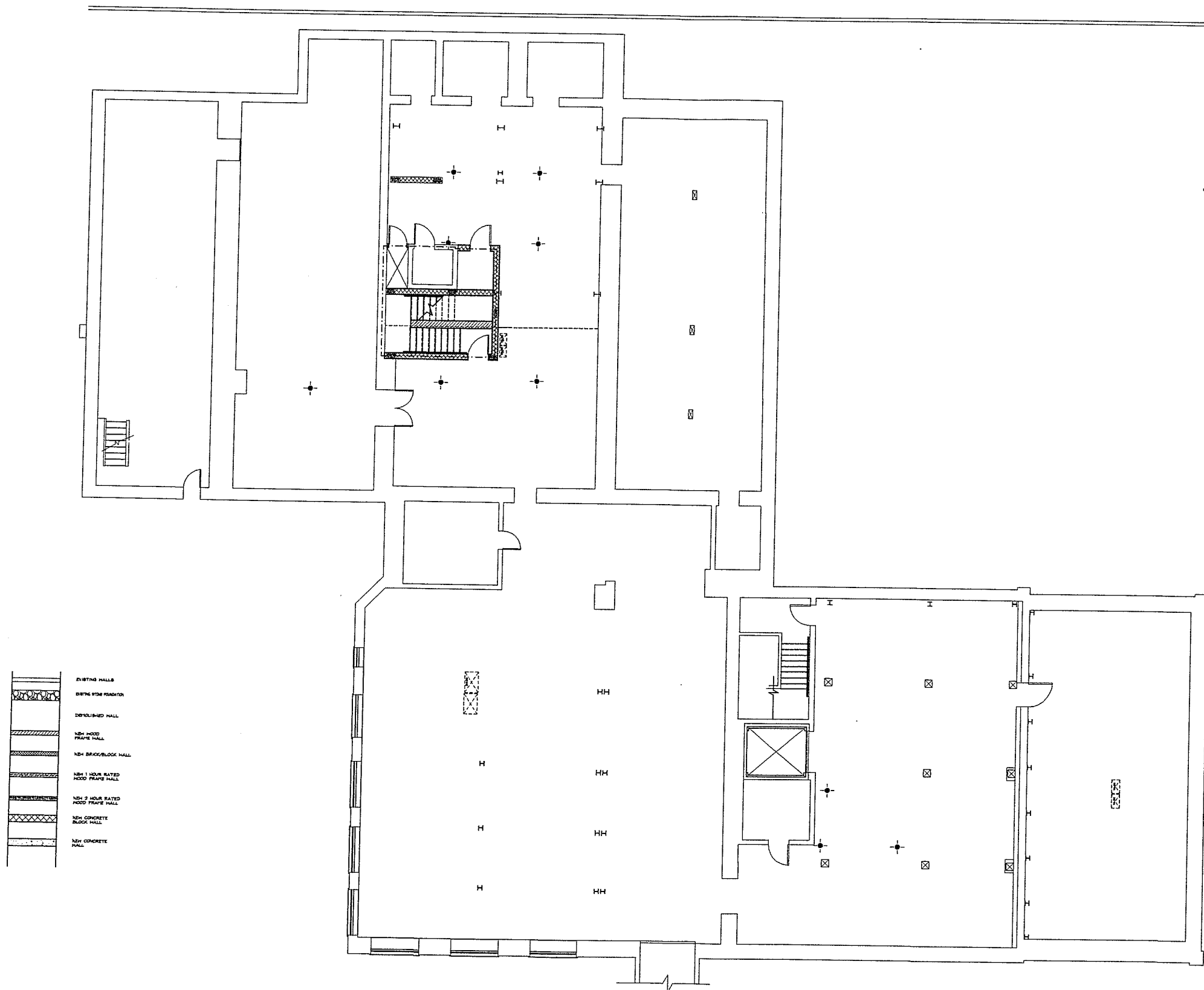


191 COLLEGE STREET - SITE PLAN  
SCALE: 1"=20'-0"



LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER & MODEL NO.	MOUNTING	LAMPS	VOLTS	DESCRIPTION
S1	LITHONIA LIGHTING OLWY1 LED 13W 40K MVOLT PROVIDE MANUFACTURER COMPONENTS FOR A SURFACE INSTALL. REFER TO DESCRIPTION	SURFACE BLD MOUNTED AT 16-FT AFG OR OTHERWISE NOTED ON SITE LIGHTING PLAN	LED 14WATT/ 1271 DELIVERED LUMEN OUTPUT 4000K COLOR TEMP	120V	EXTERIOR WALL SCONCE: LOW PROFILE EXTERIOR WALL SCONCE, TYPE 3M DISTRIBUTION, HOUSING: CAST-ALUM WITH POLYESTER POWDERED PAINT FINISH, INTEGRAL HEAT SINK, CLEAR GLASS LENS, HOUSING SEALED, 2.5KV SURGE PROTECTION, INSTALLATION REQUIRES SURFACE MOUNTING AND CONDUIT ENTRY-WITH INCLUDED JUNCTION BOX WITH (5) 1/2" THREADED CONDUIT ENTRY HUBS, WET LOCATION RATED, DLC LISTED.

- LUMINAIRE SCHEDULE GENERAL NOTES:
- A. COORDINATE ALL FIXTURE FINISH, COLORS AND TRIM STYLE WITH ARCHITECT PRIOR TO SUBMITTALS AND ORDERING.
  - B. ELECTRICAL CONTRACTOR SHALL VERIFY MOUNTING REQUIREMENTS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ORDERING AND INSTALLATION.
  - C. ELECTRICAL CONTRACTOR SHALL ENSURE CATALOG NUMBERS MATCH DESCRIPTIONS SHOWN IN THIS SCHEDULE, AS WELL AS SWITCHING REQUIREMENTS SHOWN ON PLANS, PRIOR TO BIDDING AND ORDERING.
  - D. LED FIXTURES MUST BE DLC LISTED OR ENERGY STAR RATED.
  - E. REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING CONTROLS. LIGHTING CONTROLS WILL NOT CONFLICT WITH THE CITY OF BURLINGTON REGULATIONS.



Basement Plan

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**SISTERS & BROTHERS LLC**  
BURLINGTON FREE PRESS  
191 COLLEGE STREET  
BURLINGTON, VERMONT

DESIGN DEVELOPMENT  
NOT FOR  
CONSTRUCTION  
7/20/15

NO.	DATE	REVISION

SCALE: 1/8" = 1'-0"  
DATE: XXXXX  
DRAWN BY: XXXXX  
CHECKED BY: XXXXX  
PROJECT: XXXXX  
SHEET TITLE:

BASEMENT  
PLAN

DRAWING NO.



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**AREA BREAKDOWN--**

Existing Basement = 13,760 SF

Existing 1st Floor = 13,760 SF

Existing 2nd Floor = 13,760 SF

Existing 3rd Floor = 9,821 SF

Existing 4th floor = 6,715 SF

1st Thru 4th Floor Total = 44,056 SF

**PROPOSE ---**

1st Floor, Commercial - 13,760 SF

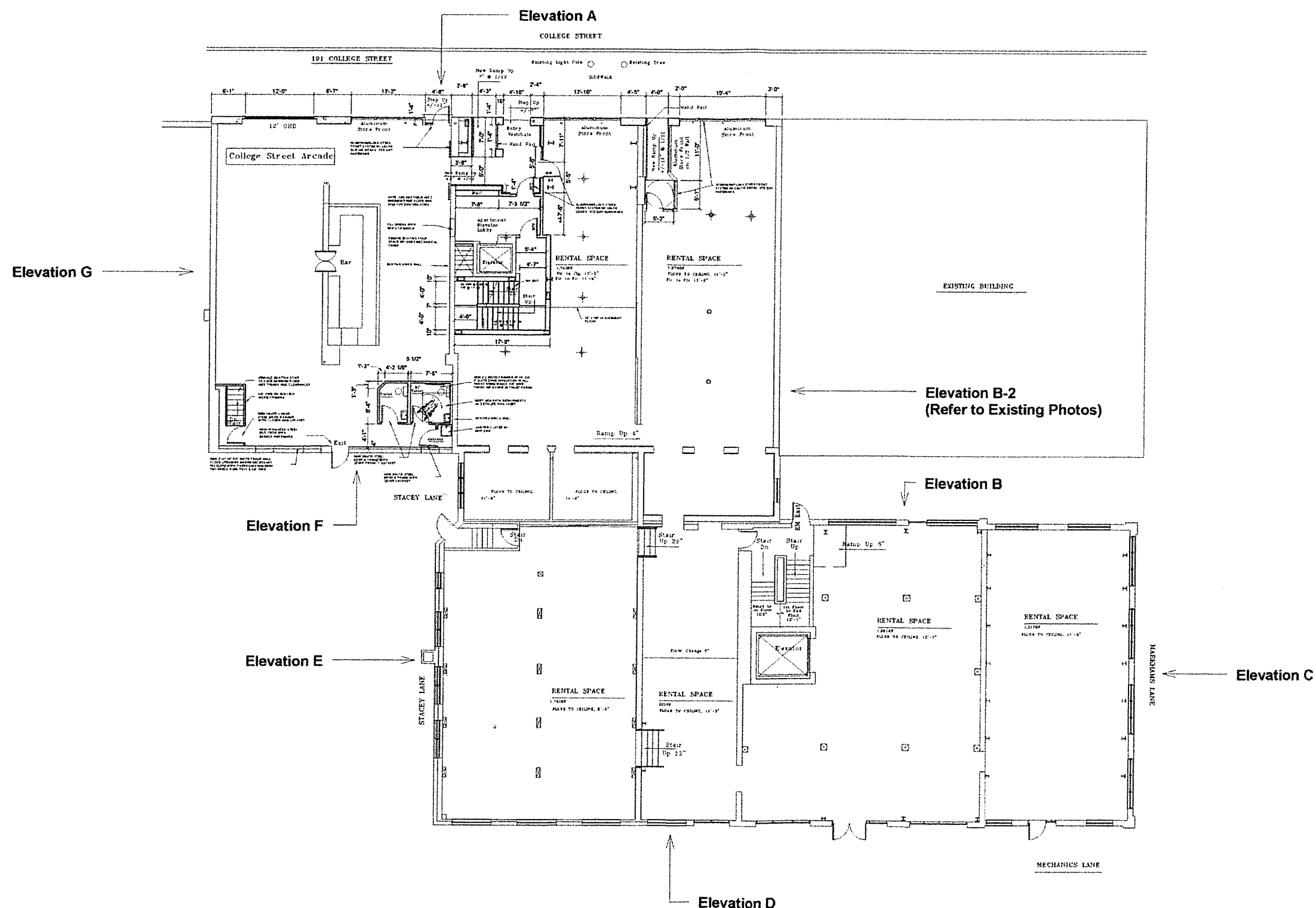
2nd Floor, 16 Apartments - 13,760 SF

3rd Floor, 10 Apartments - 9,821 SF

4th Floor, 7 Apartments - 6,715 SF

**SUMMARY ---**

13,760 SF Commercial Space on 1st Floor  
33 Apartments on 2nd, 3rd & 4th Floors



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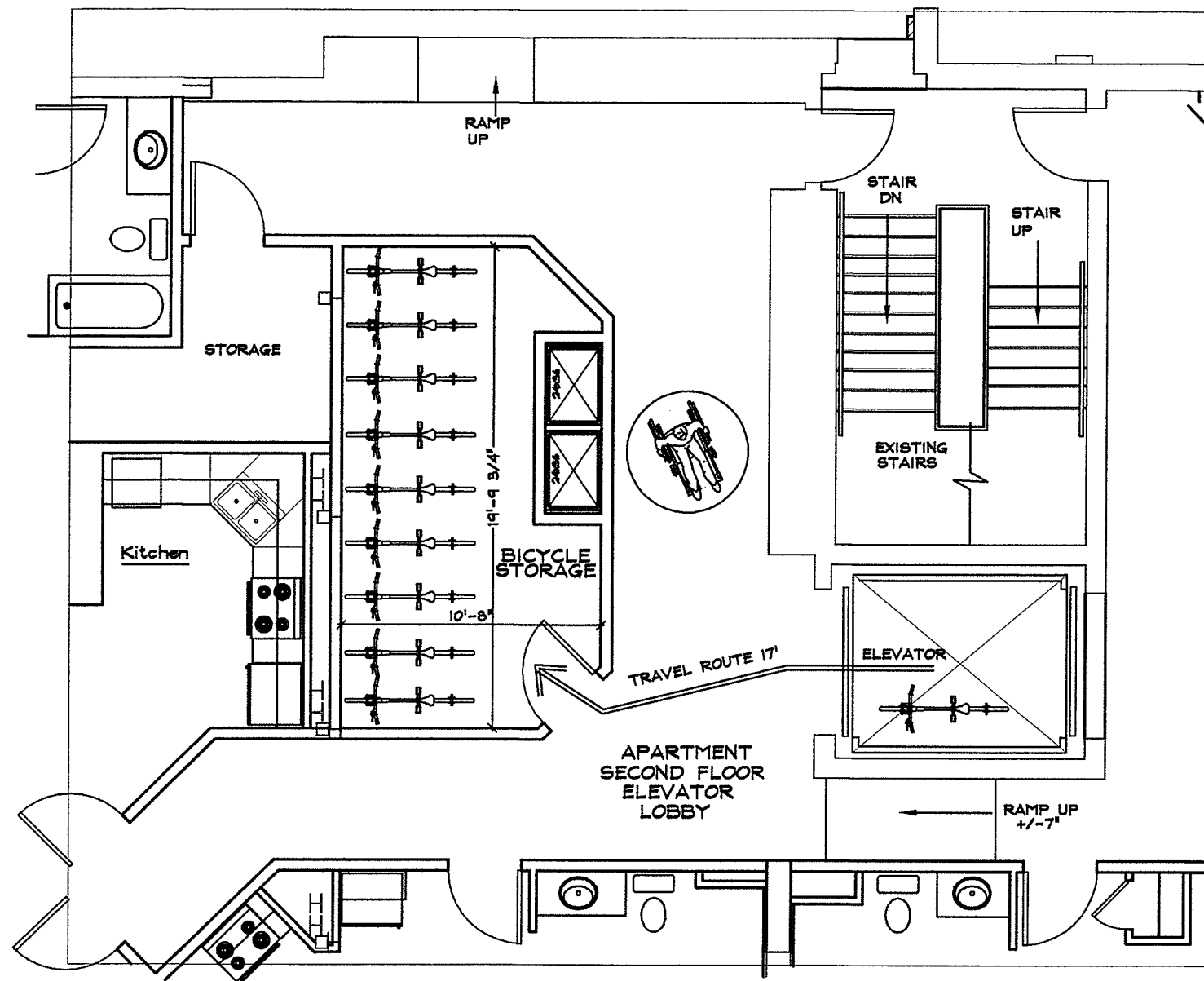
G4 DESIGN STUDIOS  
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**Site**

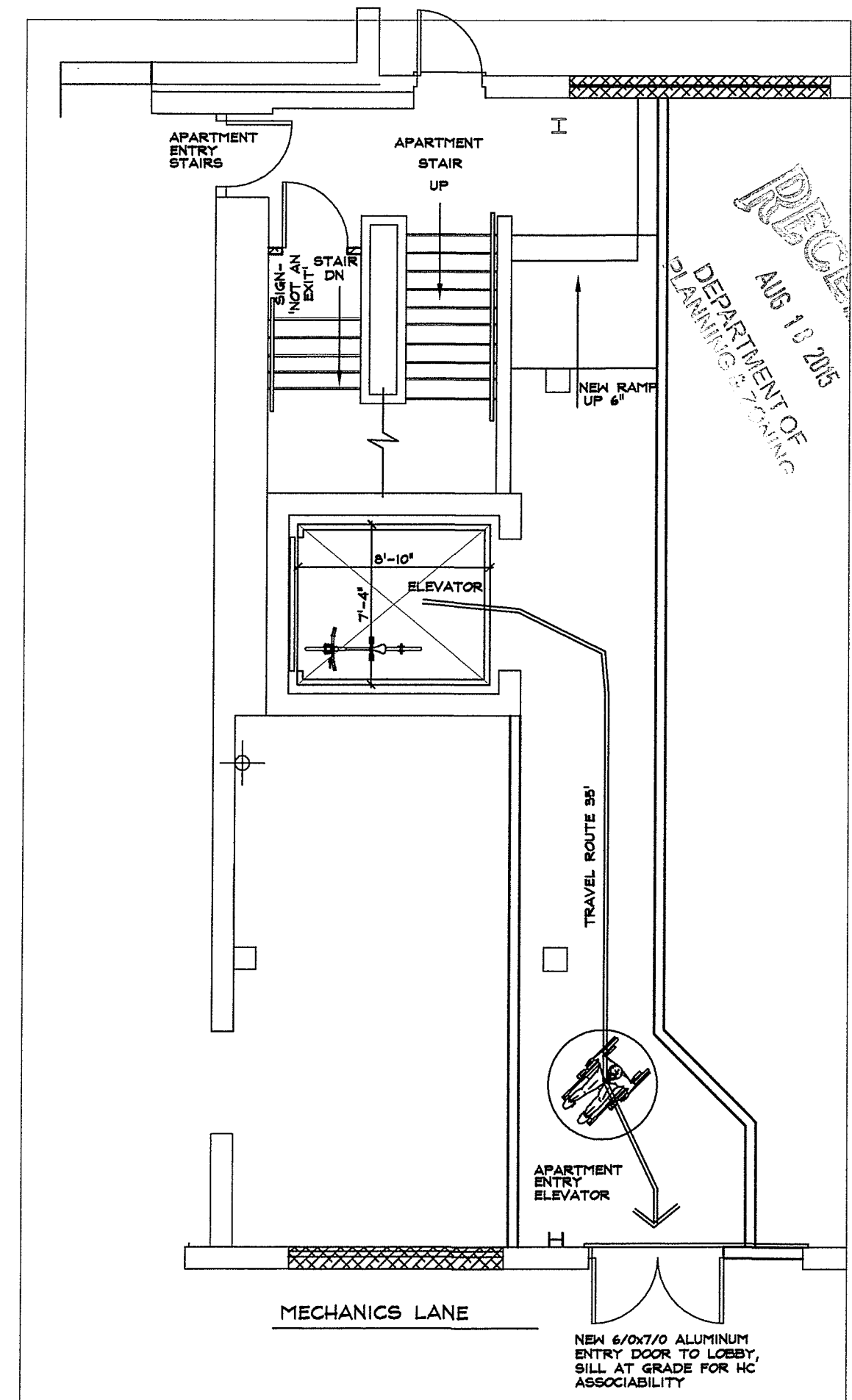
Project number 1  
Date 6/24/2015  
Drawn by G4  
Checked by G4

**A106**

Scale As indicated



2nd FLOOR ELEVATOR LOBBY/BIKE STORAGE ROOM



1st FLOOR ELEV. LOBBY, BIKE TRAVEL ROUTE TO EXTERIOR



DAVID H. GREENBERG  
ATTORNEY AT LAW  
P.O. BOX 201  
BURLINGTON, VERMONT 05402-0201

TELEPHONE (802) 862-8165  
FAX (802) 862-5537  
DAVID@DGREENBERG.COM

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THE DANIEL KERN HOUSE  
70 SOUTH WINOOSKI AVENUE  
BURLINGTON, VERMONT 05401

September 17, 2015

SENT VIA EMAIL  
Mr. Steve Guild

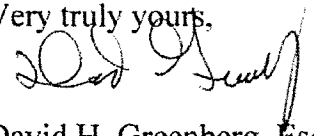
Re: The Great Cedars, LLC  
185-195 College Street, Burlington

Dear Steve,

I understand an issue has been raised regarding the use of Stacy Lane in Burlington for the placement of dumpsters. From my review of the deeds to the properties bordering Stacy Lane it is my opinion that the granted rights generally concern the right of passage only. There is no specific deeded right to place dumpsters to any of the adjoining property owners. Moreover, it is also my opinion that the property located at 136-160 Church Street owned by Ormer Group, LLC has no deeded right of way or easement concerning Stacy Lane or Mechanic's Lane with which it intersects.

Any rights regarding the placement of dumpsters arises only as the result of adverse possession which under the law is the continuous, open, hostile, and notorious use for 15 or more years. Whether any right was obtained by adverse possession can only be determined by a court proceeding in the Vermont Superior Court. Accordingly, forcing the removal of any current dumpster will most likely require suit seeking a determination of any party's claim to use Stacy Lane. It is my understanding, that Gannett Vermont Publishing, Inc. did in fact use Stacy Lane for placement of dumpster for in excess of 15 years and such use has continued after its land and buildings and rights were conveyed to The Great Cedars, LLC.

Very truly yours,



David H. Greenberg, Esq.

DHG/bsb

Enclosure

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PLANNING & ZONING

PARKING REQUIREMENT COVENANT

The Great Cedars, LLC hereby subjects its properties located at 185-195 College Street in Burlington, Vermont (hereinafter "185-195") and 166-172 College Street in Burlington, Vermont (hereinafter "166-172") to the following:

Unless otherwise permitted by the City of Burlington or the appropriate agency or department thereof, 33 parking spaces located at 166-172 shall be made available at market price for use by tenants of 185-195.

Dated 9/22/, 2015

The Great Cedars, LLC

By: [Signature]  
Joseph Handy, Duly Authorized Agent

STATE OF VERMONT  
COUNTY OF CHITTENDEN SS:

At Sept, this 22 day of September, A.D. 2015, personally appeared Joseph Handy, Duly Authorized Agent of The Great Cedars, LLC and he acknowledged this instrument, by him sealed and subscribed, to be his free act and deed and the free act and deed of The Great Cedars, LLC.

Before me, [Signature]  
Notary Public  
Commission expires: 02/10/19



Project Name: FREEPRESS HIE

Unit Model: ZJ300N32H2UZZ3

Quantity: 1

System: ZJ300N32H2UZZ3

Cooling Performance					
Total capacity	324.3 MBH				
Sensible capacity	235.4 MBH				
Refrigerant type	R-410A				
Efficiency (at ARI)	10.50 EER				
Integrated eff. (at ARI)	10.60 IEER				
Ambient DB temp.	88.3 °F				
Entering DB temp.	80.0 °F				
Entering WB temp.	67.0 °F				
Leaving DB temp.	58.2 °F				
Leaving WB temp.	56.7 °F				
Power input (w/o blower)	22.68 kW				
Sound power	92 dB(A)				
Gas Heating Performance					
Entering DB temp.	60 °F				
Heating output capacity (Max)	320 MBH				
Supply air	10000 CFM				
Heating input capacity (Max)	400 MBH				
Leaving DB temp.	89.6 °F				
Air temp. rise	29.6 °F				
SSE	80.0 %				
Stages	2				
Supply Air Blower Performance					
Supply air	10000 CFM				
Ext. static pressure	0.6 IWG				
Unit static resistance	0.15 IWG				
Blower speed	1006 RPM				
Max BHP of Motor (including service factor)	11.50 HP				
Duct location	Bottom				
Motor rating	10.00 HP				
Actual required BHP	9.14 HP				
Power input	7.49 kW				
Elevation	341 ft.				
Drive type	BELT				
Electrical Data					
Power supply	230-3-60				
Unit min circuit ampacity	146.9 Amps				
Unit max over-current protection	150 Amps				
Dimensions & Weight					
Hgt	53 in.	Len	181 in.	Wth	92 in.
Weight with factory installed options					3198 lbs.
Clearances					
Right	36 in.	Front	36 in.	Back	49 in.
Top	72 in.	Bottom	0 in.	Left	36 in.

Note: Please refer to the tech guide for listed maximum static pressures





- 25 Ton
- York Sunline Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.
- Unit Features
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards).
  - Through-the-Curb and Through-The-Base Utility Connections
  - Either Supply and/or Return can be Field Converted from Vertical to Horizontal Configuration without Cutting Panels
  - Full Perimeter Base Rails with Built in Rigging Capabilities
  - Galvanized Steel Drain Pan
  - Four Independent Refrigerant Circuits for Efficient Part Load Operation with Scroll Compressors
  - Four Stage Cooling
  - Solid Core Liquid Line Filter Driers
  - 320 MBH Output Aluminized Steel, Two Stage Gas Heat
  - 10 HP Standard Static Belt Drive Blower
  - 2" Pleated Filters (MERV 7)
  - Replacement Filters: For 2" filters 12 - (12" x 24" x 2") OR For 4" filters 2 - (20" X 24" x 4") AND 4 - (24" X 24" x 4")
  - Single Point Power Connection
  - HACR Circuit Breaker/Disconnect (Sized for 208 Volts)
  - Powered Convenience Outlet (110 VAC / 15 Amp)
  - Supply Air Smoke Detector
  - Dry Bulb Low Leak Economizer w/Barometric Relief and Hoods (Bottom Return Only)
  - Short Circuit Current: 5kA RMS Symmetrical
  - Crane Required to Unload Unit

Standard Unit Controller: Simplicity Control Board

ambient Control, Anti-Short Cycle Protection, Lead-Lag, Delays, Low Voltage Protection, On-Board Diagnostic Delay. Allows all units to operate in the cooling mode down ent without additional components or intervention. Monitors the High and Low-Pressure Switches, the s Valve, if Applicable, and the Temperature Limit Switch Heat Units. The Unit Control Board will Alarm on Ignition kouts and Repeated Limit Switch Trips.

oller with Discharge Air, Return Air, and Outside Air

Warranty on the Complete Unit

ty - Compressors and Electric Heater Elements

nty - Aluminized Steel Tubular Heat Exchangers

Hi Mary,

I Attached the roof plan. We added 2 more roof top units for a total of 9. I Also attached the 2 spec's for the 2 additional units.

Steve.





Large Sunline  
Reheat MagnaDry™ Single Pkg. R-410A

RECEIVED  
SEP 16 2015

Project Name: FREEPRESS MAGDRY

Unit Model: ZR300N32A2WZZ30001

Quantity: 1

System: ZR300N32A2WZZ30001, VR062A25M2AM41

Cooling Performance

Total capacity	312.9 MBH
Sensible capacity	228.6 MBH
Refrigerant type	R-410A
Efficiency (at ARI)	10.00 EER
Integrated eff. (at ARI)	10.50 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	78.5 °F
Entering WB temp.	65.7 °F
Leaving DB temp.	57.5 °F
Leaving WB temp.	55.7 °F
Power input (w/o blower)	23.81 kW
Sound power	92 dB(A)

Reheat Performance

Total capacity	138.2 MBH
Ambient DB temp.	85 °F
Entering DB temp.	75 °F
Entering WB temp.	67 °F
Leaving DB temp.	75 °F
Leaving WB temp.	63.0 °F
Power input (w/o blower)	21.33 kW
Gallons of water per hour	15.77 gal/hr

Gas Heating Performance

Entering DB temp.	59.3 °F
Heating output capacity (Max)	320 MBH
Supply air	10100 CFM
Heating input capacity (Max)	400 MBH
Leaving DB temp.	88.6 °F
Air temp. rise	29.3 °F
SSE	80.0 %
Stages	2

Supply Air Blower Performance

Supply air	10100 CFM
Ext. static pressure	0.6 IWG
Unit static resistance	0.1 IWG
Blower speed	1116 RPM
Max BHP of Motor (including service factor)	11.50 HP
Duct location	Bottom
Motor rating	10.00 HP
Actual required BHP	10.82 HP
Power input	8.87 kW
Elevation	0 ft.
Drive type	BELT

Outside/Mixed Air

Outside Air Cfm	5927 CFM
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Electrical Data

Power supply	230-3-60
Unit min circuit ampacity	159 Amps
Unit max over-current protection	200 Amps

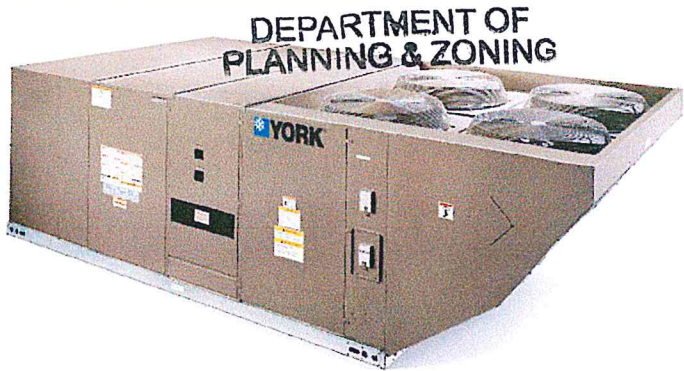
Dimensions & Weight

Hgt	53 in.	Len	181 in.	Wth	92 in.
Weight with factory installed options		3010 lbs.			

Clearances

Right	36 in.	Front	36 in.	Back	24 in.
Top	72 in.	Bottom	0 in.	Left	24 in.

Note: Please refer to the tech guide for listed maximum static pressures



25 Ton

- York Sunline Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards).
- Through-the-Curb and Through-The-Base Utility Connections
- Either Supply and/or Return can be Field Converted from Vertical to Horizontal Configuration without Cutting Panels
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Galvanized Steel Drain Pan
- Dual Refrigerant Circuits for Efficient Part Load Operation with Scroll Compressors
- Two Stage Cooling
- Solid Core Liquid Line Filter Driers
- 320 MBH Output Aluminized Steel, Two Stage Gas Heat
- 10 HP Standard Static Belt Drive Blower
- 2" Pleated Filters (MERV 7)
- Replacement Filters: 4 - (16" x 25" x 2" or 4") AND 4 - (16" x 20" x 2" or 4"). Unit accepts 2" or 4" wide filters.
- Single Point Power Connection
- HACR Circuit Breaker/Disconnect (Sized for 208 Volts)
- Powered Convenience Outlet (110 VAC / 15 Amp)
- Phase Monitor
- Return & Supply Air Smoke Detectors
- Field Installed 0 - 25% Manual Outside Air Damper Shipped Inside Unit
- Short Circuit Current: 5kA RMS Symmetrical
- Crane Required to Unload Unit

Standard Unit Controller: Simplicity Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display. Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

BAS Controller

- Simplicity SE Controller with Gateway to BACnet MS/TP (Programmable to Modbus or N2) Protocol with Discharge Air Sensor, Return Air, and Outside Air Sensor

Warranty

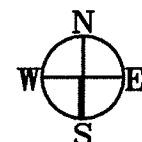
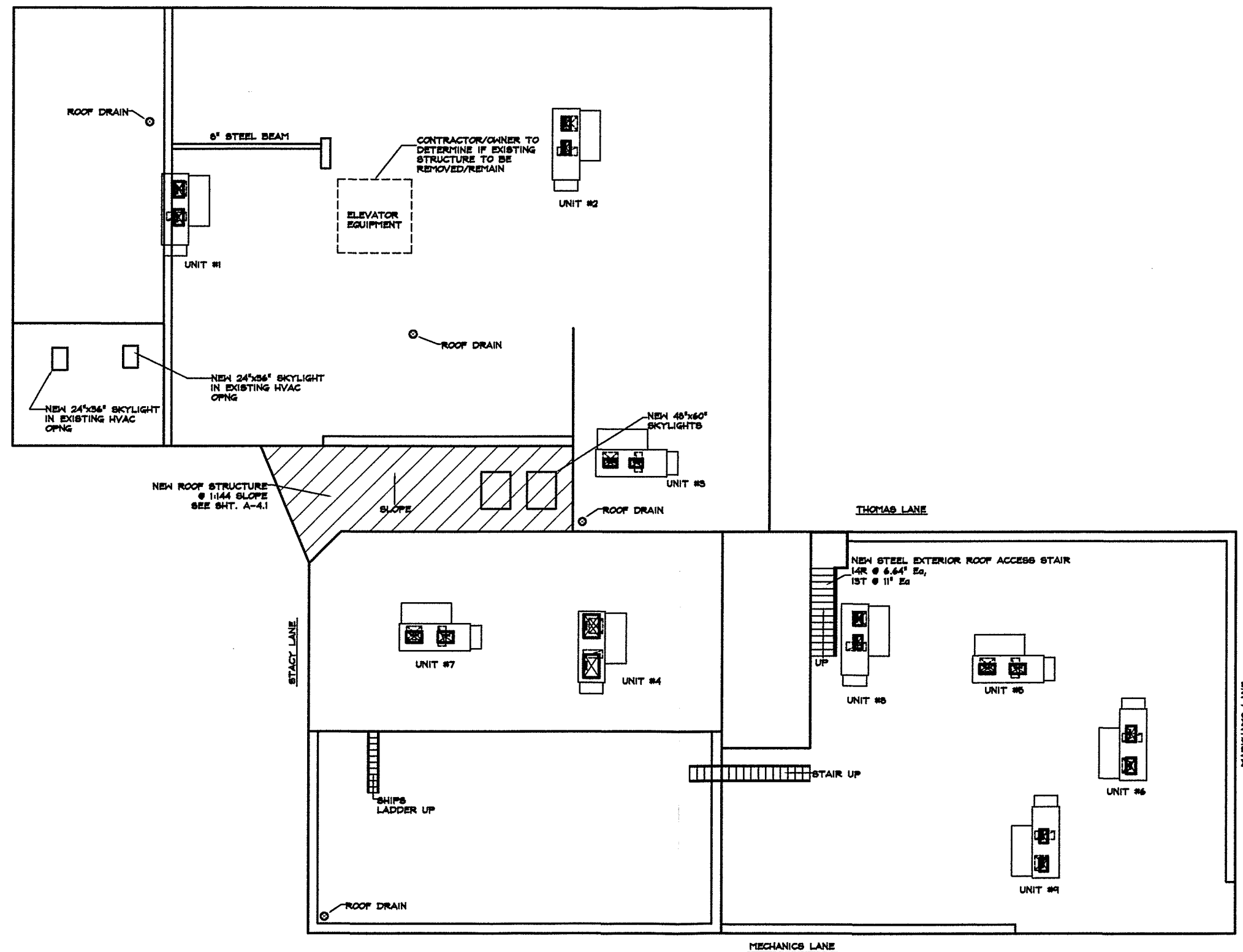
- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Ten (10) Year Warranty - Aluminized Steel Tubular Heat Exchangers



**RECEIVED**

SEP 16 2015

DEPARTMENT OF  
PLANNING & ZONING



# Roof Plan

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



NO.	DATE	RE

**SISTERS & BROTHERS LLC**  
BURLINGTON FREE PRESS  
191 COLLEGE STREET

SCALE: 1/16" =  
DATE: 9/1  
DRAWN BY:  
CHECKED BY:  
PROJECT: 191 COL

SHEET TITLE

ROOF PLAN

DRAWING NO.

## Department of Planning and Zoning

149 Church Street  
Burlington, VT 05401

<http://www.burlingtonvt.gov/PZ/>

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

*David E. White, AICP, Director*  
*Meagan Tuttle, Comprehensive Planner*  
*Jay Appleton, Senior GIS/IT Programmer/Analyst*  
*Scott Gustin, AICP, CFM, Interim Chief Administrative Officer*  
*Mary O'Neil, AICP, Senior Planner*  
*Elsie Tillotson, Department Secretary*  
*Anita Wade, Zoning Clerk*



## MEMORANDUM

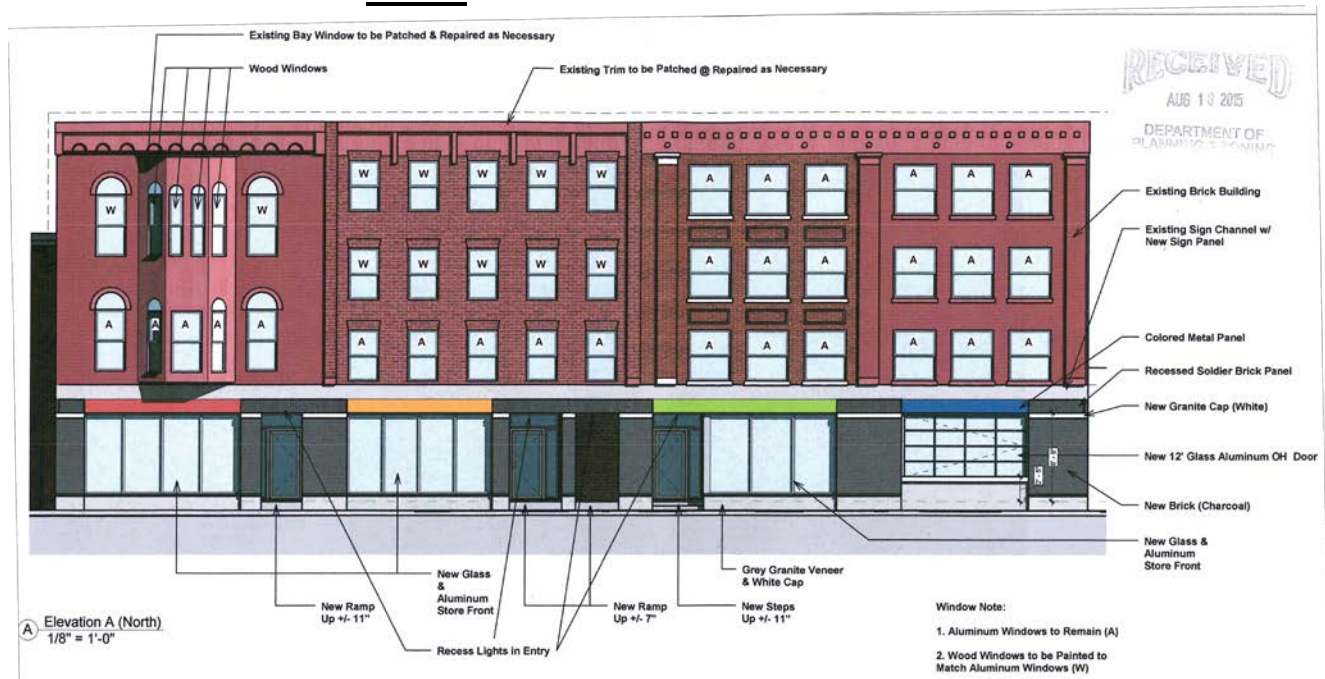
To: Development Review Board

From: Mary O'Neil, AICP, Senior Planner

Date: October 6, 2015

RE: ZP15-1410CA, 185-195 College Street (former Burlington Free Press building)

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



**File:** ZP15-1410CA

**Location:** 185-195 College Street (Burlington Free Press building.)

**Zone:** D **Ward:** 3C

**Date application accepted:** June 24, 2015 (incomplete); additional submission materials July 9, 27 and 29, 2015.

**1st DRB hearing:** August 4, 2015

**DRB deliberative hearing:** August 10, 2015; Motion to re-open hearing.

**Applicant/ Owner:** Steve Guild / Joe Handy (Great Cedars LLC)

**Request:** Interior renovations to accommodate changes-of-use: Basement and first floor fit-up for commercial (no specific uses identified); 2nd, 3rd, and 4th floor converted to 33 residential units. Exterior repair, window replacement. Assignment of parking to off-site garage.



**Background:**

- Non-Applicability of Zoning Permit Requirements; window trim, paint maintenance to College Street building façade. May 2015.
- Zoning Permit 15-0861CA; new storefronts including entries and windows for former Burlington Free Press Building, College St. elevation only. April 2015.
- Zoning Permit 15-0785CA; change of use of 2538 sf portion of building from offices to bar/arcade. Approved February 2015.
- Non-Applicability of Zoning Permit Requirements; interior rough-ins for mechanical and electrical. February 2015.
- Non-Applicability of Zoning Permit Requirements, interior demo. May 2014.
- Zoning Permit 08-383CA; new membrane roof. November 2007.
- Zoning Permit 96-099; construction of a handicapped ramp with railing on the rear (South Winooski) of the Free Press Building. August 1995.
- Zoning Permit 94-256; create handicapped access ramp partially inside existing open vestibule of Burlington Free Press building, the remainder encroaching out on the sidewalk. December 1993.
- Zoning Permit 87-044; structural repair of existing foundation wall adjacent to Mechanic's Lane. February 1987.
- Zoning Permit 85-029; demolish brick building and existing barn in order to construct additional storage spaces and a new truck loading dock to allow 65' trucks to unload without blocking sidewalk. January 1985.
- Zoning Permit 85-001; establish K.F. Armstrong Manufacturing Jeweler in the existing commercial use office. No exterior changes. January 1985.
- Zoning Permit 81-682; construction of a concrete foundation extension to the existing press foundation slab. August 1981.
- Zoning Permit 76-7; change two entryways to match existing fenestration. March 1976.

**Overview:** The applicant seeks to commence interior fit-up for new uses. Floors 2-4 are proposed to be 33 new residential units; the basement and first floor commercial (although tenants have not yet been identified.) Parking will be assigned to an off-site garage owned by the applicant.

The application includes general exterior repairs.

At the **August 10, 2015 DRB deliberative**, the following motion was made by Austin Hart: In the matter of 185-195 College Street, ZP15-1401CA, I move we **re-open the public hearing** and ask the applicant to provide the following additional information:

1. Evidence that the owner of the building has deeded rights to use access to Stacey Alley, Thomas Alley, and Markham's Lane for access to the building for trash and recycling, access for tenants in the form of deeds or opinion from an attorney;

2. Provide additional information on what windows and doors will be replaced and how replacement will be done to avoid a random Hodge podge of different windows and doors with different materials. Direction from the Board is that windows shall be consistent *per building, per elevation*. (College Street is broken up into 4 identifiable buildings);
3. Additional information on what current materials are on different elevations on the building, and how those materials will be changed or replaced. Materials shall be specific per elevation of what is existing and changes that are planned for the 2nd, 3rd and fourth floors. Very clear details are required, including specific elevations of each side of the building, with what is existing and what is proposed, due to the quality and importance of the building;
4. Additional information on applicant's plan for 33 required spaces for the parking garage will be available at all times for tenants;
5. Additional information on how the planned bike parking will be convenient for use by tenants, or an alternative plan for bike parking that meets the requirement of the ordinance. The applicant is encouraged to provide bicycle parking on the ground floor;
6. More information is required on how utilities and surface mounted infrastructure will be addressed in the development, with specific information on plans to replace or change current utility connections, vents and mechanical equipment;
7. More information on accessibility; where is accessible entrance specific to residential units, and are all residential units accessible;
8. A full revised lighting plan with specific fixtures and photometrics;
9. More information on the location of trash and recycling facilities. The applicant is encouraged to locate trash within the footprint of the building; a plan for how that will be accomplished.

Supplemental information was submitted **August 18, 2015**.

**Applicable Regulations:** Article 3 (Applications, Permits, and Project Reviews); Article 4 (Zoning Maps and Districts); Article 5 (Citywide General Regulations); Article 6 (Development Review Standards); Article 8 (Parking), Article 9 (Inclusionary and Replacement Housing) and Appendix A (Use Table.)

**Recommendation:** Approval, per the following findings and conditions:

### **I. Findings**

#### **Article 3: Applications, Permits and Project Reviews**

#### **Part 3: Impact Fees**

#### **Section 3.3.2 Applicability**

*Any new development or additions to existing buildings which result in new dwelling units or in new non-residential buildings square footage are subject to impact fees as is any change of use which results in an added impact according to Section 3.3.4.*



Impact fees for the change-of-use to residential units will be assessed; based upon square footage and calculated to give credit for the previous office use. Preliminary figures were given to staff 7/27/2015. Based upon that information, the following **Draft Impact Fees** have been calculated:

Impact Fee Calculation DRAFT  
 185-195 College Street  
 ZP15-1401CA  
 Based upon information provided 7/27/2015, plan A106

**Calculation is for new residential use on 2-4th floors only.**  
 Ground floor and basement to be evaluated when uses are defined.

Existing square footage, 2-4th floors

SF of Project **30,296**

Department	<u>Residential</u>		<u>Offices &amp; Other</u>	
	Rate	Fee	Rate	Fee
Traffic	0.188	5,695.65	0.654	19,813.58
Fire	0.215	6,513.64	0.192	5,816.83
Police	0.044	1,333.02	0.339	10,270.34
Parks	0.718	21,752.53	0.405	12,269.88
Library	0.445	13,481.72	0.000	0.00
Schools	0.929	28,144.98	0.000	0.00
<b>Total</b>	<b>2.539</b>	<b>\$ 76,921.54</b>	<b>1.590</b>	<b>\$ 48,170.63</b>

**Difference: \$ 28,750.91**

Impact fees may be adjusted for Inclusionary Housing.  
 See Section 3.3.3 c. in staff report.

**Affirmative finding as conditioned.**

### Section 3.3.3 Exemptions and Waivers

#### (c) Affordable Housing Waivers

*Any residential project containing newly constructed units or substantially rehabilitated housing units that are affordable for households as described in subsections (1), (2) or (3) below are eligible for a waiver of impact fees for that portion of the project. The terms, rules, and regulations used herein shall be the same as those defined and specified in this Ordinance pertaining to Inclusionary Zoning (Article 9).*

The applicability of any waiver of Impact Fees shall be determined by the Housing Officer in the Community and Economic Development Office. Any such waiver, if determined, will be provided to staff (with the associated square foot measurement) so as to correct the calculated impact fee assessment. **Affirmative finding as conditioned.**

## **Part 5: Conditional Use and Major Impact Review**

### **Section 3.5.3 Exemptions**

*Major Impact Review shall not apply to applications involving one or more of the following:*

*(c) Substantial rehabilitation that does not expand the floor area of an existing building or the structural capacity of existing development.*

As proposed, the development does not expand the floor area of the existing building. Major Impact and Conditional Use review does not apply for this project.

## **Article 4: Zoning Maps and Districts**

### **Section 4.4.1 Downtown Mixed Use Districts**

#### **(b) Dimensional Standards and Density**

##### **Table 4.4.1-1 Dimensional Standards and Intensity**

No change is proposed to the building setbacks, height, or lot coverage. Maximum intensity is measured in Floor Area Ratio (FAR), which is 5.5 in the Downtown Zone. No change is proposed to the building's FAR; the current area proposed to be repurposed for residential and commercial use.

**Affirmative finding.**

#### **(c) Permitted and Conditional Uses**

*Attached dwellings/mixed use* is a permitted use in the Downtown zoning district in Appendix A.

**Affirmative finding.**

#### **(d) District Specific Regulations**

##### **1. Use Restrictions**

**A. Ground Floor Residential Uses Restricted:** *In order to maintain an active streetscape for pedestrians and pedestrian-oriented businesses and activities, residential uses shall not be permitted on the ground floor of any structure as follows:*

*(i) In the Downtown (D) and Downtown Waterfront (DW) districts.*

Residential uses are identified for the 2-4th floors. The ground floor is proposed for commercial use, although no specific uses/tenants have been permitted yet outside of an arcade. **Affirmative finding.**

##### **2. Public Trust Restrictions**

Not applicable.

##### **3. Facades and Setbacks on Side and Rear Property Lines**

***New buildings, or additions or improvements to existing buildings, placed on a side or rear property line where no setback is required may contain neither doors nor windows along such façade. Where the façade of an existing adjacent principal building is within 5 feet of a common property line and has doors or windows, a setback of 10 feet shall be required for any new development up to the height of the abutting building.***

This is a most unusual building in that it is really several, connected structures with alleys woven between and among them. This standard would apply to the façade abutting the current Sweetwaters building, which shares a property boundary. New windows had been proposed for

the westerly façade. Per this standard, the windows may not be added to that façade. See Plan A105, and Boundary Plat. Revised elevations submitted 7/27/2015 have omitted these windows. Other elevations, including those within Stacey Alley, Thomas Alley and Mechanics Lane meet the required 10' setback. **Affirmative finding as conditioned.**

#### **4. Building Height Setbacks**

No changes are proposed to the building height. Not applicable.

#### **5. Lake Champlain Waterfront Setback**

Not applicable.

#### **6. Residential District Setback**

Not applicable.

#### **7. Development Bonuses/Additional Allowances**

No bonuses are sought. Not applicable.

### **Article 5: Citywide General Regulations**

#### **Section 5.2.2 Required Frontage or Access**

No change. It is likely that the new commercial uses may activate the alleys; however this will not be discerned until those uses are identified in future permitting. The applicant has provided a legal opinion with respect to deeded rights relative to use of Thomas Alley, Stacey Alley, Mechanic's and Markham Lane. These are not within the City right-of-way. **Affirmative finding as conditioned.**

#### **5.2.3 Lot Coverage Requirements**

No change. **Affirmative finding.**

#### **Section 5.2.4 Buildable Area Calculation**

Not applicable.

#### **Section 5.2.5 Setbacks**

No change to building setbacks. See comments under Section 4.4.1 (d) 3. relative to prohibition to windows and doors on side or rear property line where no setback required. Revised plans have eliminated those windows. **Affirmative finding.**

#### **Section 5.2.6 Building Height Limits**

No change is proposed to the structural building height. Submission materials include specs for new HVAC units, which have not been identified on the plans. If they exceed 10% of the roof area, they will need to be included in the height measurement. **Affirmative finding as conditioned.**

#### **Section 5.2.7 Density and Intensity of Development**

##### **(b) Floor Area Ratio**

The new uses are proposed for the existing area. No change proposed.



#### Section 5.4.8 Historic Buildings and Sites

185-195 College Street is listed on the National Register of Historic Places within the Church Street Historic District.

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 original Free Press building was built in 1833 directly onto the east wall of an existing building at the site of Sweetwaters. About 1905 the roof of the narrow three story building was removed and a fourth story was added. In 1925 a newly-built façade was added. The center building (with Italianate bracketed cornice) was standing in 1848 when Gardner Blodgett opened his plumbing business, now known as Blodgett Ovens. That business moved to Bank Street in 1903.

The building with the oriole (bay) windows was probably built in 1877, and occupied by Jones Brothers, a meat and grocery business. The Burlington Free Press expanded into the upper stories in 1918.

The recently removed arcaded storefront on College Street was a 1970 renovation. Storefront replacement was permitted in April 2015.

The evolving uses of the building have included the Rothman Cut-Rate Store, dentists, real estate agency, and publishing. In any case, the continuation of mixed uses proposed is consistent with previous uses. Changes that have been approved for the storefront will replace non-historic components. This application proposes removal of some sealed openings, replacement of some windows, and will require minimal change to exterior features, spaces and spatial relationships as they currently exist. **Affirmative finding.**

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.*

Permits have already been issued for storefront replacement, which replaces a more recent renovation. Many of the windows and building openings along the alleys, Mechanic's and Markham's Lanes have been altered, boarded up, or closed off. This application seeks to reopen some of those openings (although not as many as in the original application) and provide a more active interior use. The applicant has provided revised building elevations identifying which openings are to remain closed, re-opened, or altered. **Affirmative finding.**

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.* None identified. **Affirmative finding.**

4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.* These buildings are a record of evolution. The proposal to remove the "skyway" is removal of a non-historic building feature. The renovation and substantial investment will assure the continued use of the collection of structures. **Affirmative finding.**



Burlington Free Press 1930s

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

Much of the rear of these buildings has been heavily altered and added on to. Cleaning up the alleys and reopening windows will have the greatest benefit in finding new life and uses for the structure. Windows that can benefit from repair will be repaired or replaced in kind.

Revised plans have identified

which windows are aluminum and which are wood (see plan A101.) Based on historic photographs, the collective buildings operated by the Burlington Free Press have seen significant window alteration. In its decision August 10, 2015, the Board asked for avoidance of a hodge-podge of windows; it appears that most on the north will be retained.

General exterior repairs, including masonry repair, replacement metal siding (fourth floor, rear) and repainting stucco are proposed. **Affirmative finding**

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.*



College St. 1950s  
At least the second storefront design

Some windows will be replaced, others openings will be re-instituted with new glazing. Revised submission materials identifies existing aluminum windows, existing wooden windows, and proposed new window insertion on secondary facades in original openings. These buildings bear the renovations of more than a century, making it challenging to tease out the original from

the incompatible. Several examples of airconditioners, old lighting fixtures, and exterior plumbing will be removed. **Affirmative finding.**

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.*

None identified.

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

None identified.

9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment.*

The request is generally for interior fit-up and change of use for upper floors to residential. Exterior work is largely limited to window repair and replacement, insertion of new doors and windows in rear elevations, and exterior repairs. A skyway is proposed to be removed; this is a later addition and does not have any historic merit other than part of the story of creating access between publishing activities. **Affirmative finding.**

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.*

As proposed, the existing historic integrity of the property will be retained. The removal of poor alterations and boarded up window openings will increase the public's ability to appreciate the essential character of this building collection. Revised plans have minimized the number of building openings proposed to be re-opened. See Plans A102, A103, and A104. **Affirmative finding.**

#### **Section 5.4.9 Brownfield Remediation**

None identified.

#### **Section 5.5.1 Nuisance Regulations**

The overall building renovation and clean up of the alleys will introduce positive investment and dissuade negative activities within the rear alleys and lanes. The proposed residential use will activate the building and site, providing new residential units in the downtown. The DRB noted, however, that relocation of the trash facilities would be essential in making the building resident-ready, and to ameliorate the profusion of dumpsters within the alleys and lanes. A revised plan indicating dumpster and recycling activities will be at the terminus of Stacey Lane, behind a newly installed fence. While locating these activities within the building footprint would remove the activity from public view, the plan does limit the current profusion of dumpsters along the alleys and lanes and would minimize the proliferation of receptacles. A preferred method would remain to identify a location interior to the footprint and outside the alleyway.

**Affirmative finding.**

#### **Section 5.5.2 Outdoor Lighting**



The applicant has submitted two cut sheets for proposed exterior lighting. One is a recessed fixture, the other a wall mount LED. Most existing exterior lighting will be removed per plans A102-A104. Nine wall mount full cut-off fixtures are proposed on several elevations. See Plan ES1.0. As low output LED, they are acceptable.

The submitted photometric demonstrates compliance with lighting levels as defined in Section 5.5.2 (f) 2. within Thomas Alley, Stacey Lane, Markham's and Mechanic's Lane. Elevation drawings should be revised to illustrate the chosen wall mount, which at present, differ from the illustrations. This is consistent with General Note "B". **Affirmative finding as conditioned.**

### **Section 5.5.3 Stormwater and Erosion Control**

No ground disturbance is proposed. Not applicable.

### **Section 5.5.4 Tree Removal.**

Not applicable.

## **Article 6: Development Review Standards**

### **Part 1: Land Division Design Standards**

Not applicable.

### **Part 2: Site Plan Design Standards**

#### *(a) Protection of important natural features*

This is an existing building in the downtown urban streetscape. There are no significant natural features. **Affirmative finding.**

#### *(b) Topographic alterations*

None proposed. **Affirmative finding.**

#### *(c) Protection of Important Public Views*

There are no protected public views from this site. Existing east/west views to the college along College Street will remain. **Affirmative finding.**

#### *(d) Protection of Important Cultural Resources*

See Section 5.4.8.

#### *(e) Supporting the use of Renewable Energy Resources*

No part of this application will prevent the use of wind, water, solar, or geothermal energy resources. **Affirmative finding.**

#### *(f) Brownfield Sites*

None have been identified. **Not applicable.**

#### *(g) Provide for nature's events*

Previous permitting has allowed for storefront replacement, which included a new entryway for tenants. The addition of new building openings will provide more access to

each of the identified spaces. Re-opening of some building openings has been delayed until tenants and their specific needs have been identified. **Affirmative finding.**

*(h) Building location and Orientation*

No change to existing. **Affirmative finding.**

*(i) Vehicular Access*

There is no identified driveway to this property, but delivery vehicles daily use Mechanic's Land for trash pickup. The previous use (Burlington Free Press) accepted their deliveries at the South Winooski Street building frontage. There is no parking on-site. **Affirmative finding.**

*(j) Pedestrian Access*

The building has access from College Street, Markham's Lane and Mechanic's Lane. The applicant has expressed the intention to activate all frontages with commercial uses. If that occurs, pedestrian access will be almost 360° around the building, including immediate access to Burlington's Church Street pedestrian marketplace. **Affirmative finding.**

*(k) Accessibility for the Handicapped*

An internal elevator is included in the plan. In response to the request from the Board, the applicant has provided plan for accessible entry. (No Plan number; see "College Street Accessible Route to Apartments & Retail Space", "2nd Floor Elevator Lobby/Bike Storage Room" and "1st Floor Elevator Lobby, Bike Travel Route to Exterior." ADA compliance is under the jurisdiction of Burlington's building inspector. Building renovation has inherent requirements for access and visitability. **Affirmative finding.**

*(l) Parking and Circulation*

There is no parking associated with this building. Residential parking will be allocated to 164 College Street, a parking garage owned by the applicant. See "Certification to Burlington Development Review Board" and "The Great Cedars, LLC Parking Space Lease Agreement" supplied by the applicant. Other than trash disposal early mornings, access will largely be limited to pedestrians. Bicycle parking will be accommodated; see Article 8. **Affirmative finding.**

*(m) Landscaping and Fences*

There is no landscaping or fences included in the application. In an urban setting, opportunities for landscape enhancements may be rare (but encouraged.) **Affirmative finding.**

*(n) Public Plazas and Open Space*

The building is immediately adjacent to the Church Street Marketplace, an iconic public plaza/meeting space. There is no other identified plaza in the plan. **Affirmative finding.**

*(o) Outdoor Lighting*

See Section 5.5.2, above.

(p) *Integrate infrastructure into the design.*

The applicant has been encouraged to plan within the building for trash and recycling needs, rather than continuing with the existing dumpster locations. Internal collection could be directed to a central site, thoughtfully placed outside public view and the newly activated pedestrian alleys. Revised plans illustrate a single location, at the north of Stacey Lane and enclosed within a fence. This remains a challenging location for haulers to access; made more challenging by the proposed erection of a chain link fence. This plan would limit the current proliferation of dumpsters (although urging the larger question if *one* is sufficient to meet the needs of all potential tenants), a preferred method would be identification of a central site within the building footprint and more easily accessible to haulers. This is better than existing, but not ideal and perhaps not responsive to actual need; particularly with multiple tenants and a restaurant use.

**Affirmative finding if conditioned.**

### **Part 3: Architectural Design Standards**

#### **Section 6.3.2 Review Standards**

(a) *Relate development to its environment:*

1. *Massing, height and scale*
2. *Roofs and rooflines*
3. *Building openings*

No change is proposed to the buildings' height, massing or scale. Roofs and roofline will remain unchanged. Building openings will be renewed, with new windows and doors.

**Affirmative finding.**

(b) *Protection of Important Architectural Resources*

See Section 5.4.8.

(c) *Protection of Important Public Views*

There are no protected public views from this site. **Not applicable.**

(d) *Provide and active and inviting street edge*

The general building clean-up and insertion of new windows and doors along the alleys will provide an avenue for reenergizing the building and the street corner. The investment will allow new businesses, residential units, and activity to increase value and beauty to the location. See comments about relocation of dumpsters, above. **Affirmative finding as conditioned.**

(e) *Quality of materials*

Plan A101 identifies aluminum windows to remain, and wood windows to be painted to match. New windows are largely limited to rear elevations and in-fill for closed openings. **Affirmative finding.**

(f) *Reduce energy utilization*

New development is required to meet energy efficiency standards as defined by Burlington Electric and the Department of Public Works. **Affirmative finding as conditioned.**



*(g) Make advertising features complementary to the site*

Any signage will require a separate sign permit. **Affirmative finding as conditioned.**

*(h) Integrate infrastructure into the building design*

See Section 6.2.2. (p.)

*(i) Make spaces secure and safe*

The entire building is proposed to be sprinklered. Development is requirement to meet all ingress and egress standards, and applicable building and life safety code at the discretion of the building inspector and fire marshal. **Affirmative finding as conditioned.**

### **Article 7: Signs**

Any signage will require separate permitting. **Affirmative finding as conditioned.**

### **Article 8: Parking**

Table 8.1.8-1 requires 1 parking space per dwelling unit in the Downtown Parking District. For 33 residential units, 33 parking spaces must be assigned to the use. The applicant/owner has provided certification of ownership of a parking garage at 164 College Street, and the ability to accommodate the required 33 spaces for this project. A draft parking lease has also been submitted utilizing the boilerplate previously acceptable to the City Attorney's office to demonstrate and formalize the parking availability for tenants. The applicant has provided that the former Merchant's Parking garage has 66 parking spaces with seven (7) parking spaces assigned to 234-240 College Street Apartments. He has no other spaces reserved. They propose 33 spaces reserved for the tenants of the Free Press development.

The first floor is intended to be commercial (an arcade has already been permitted.) For that use there is no parking requirement within the Downtown parking district. Other uses that may be proposed and/or permitted on the ground or basement floors will be assessed for parking requirement per the ordinance. **Affirmative finding as conditioned.**

### **Section 8.1.12 Limitations, Location, Use of Facilities**

#### **(a) Off Site parking facilities:**

*Except for single and two family dwellings, required parking facilities may be located on another parcel of land as follows:*

*2. Downtown and Shared use Parking Districts: Any off-site parking shall be provided within 1,000 feet of the use it is intended to serve unless such parking is provided as part of a Parking Management Plan pursuant to Section 8.1.15 approved by the DRB.*

The proposed parking location is about 216 feet from the project address; meeting this standard.

**Affirmative finding.**

### **Part 2: Bicycle Parking**

**Table 8.2.5-1, Bicycle Parking** Requirements requires 1 long term bicycle parking space for every 4 units and 1 short term space for every 10 units. The required bicycle parking for the residential uses, for 33 units, would be **8 Long Term bicycle parking spaces, and 3 short term bicycle parking spaces.** Nine bicycle parking spaces are identified adjacent to the 2nd floor elevator lobby (see "Bike Storage Room", no plan ID.) No outside "short term" bicycle parking

spaces have been identified. Given the intended active use with commercial uses intended for the ground floor and basement, bicycle racks meeting the City of Burlington Bicycle Parking Guidelines will be required. **Affirmative finding as conditioned.**

## **Article 9: Inclusionary and Replacement Housing**

### **Section 9.1.5 Applicability**

*Except as otherwise provided in this ordinance, these regulations shall apply in the instances specified below.*

- (a) The creation of five (5) or more residential units through new construction and/or substantial rehabilitation of existing structures, including the development of housing units utilizing development provisions other than those specified in Section 9.1.5 (b).*
- (b) Where units are created using the Adaptive Reuse or Residential Conversion criteria pursuant to the provisions of Article 4, Section 4.4.5, this article shall be applicable when at least 10 (10) or more dwelling units are created.*

The creation of 33 new residential units will required the inclusion of affordable units. Typically 15% of units must be allocated for Inclusionary requirements. In this instance, **5 units shall be dedicated to the IZ requirement.** The Housing Trust Fund Manager shall confirm the percentage/number of units, rents/selling prices, bedroom mix, unit differences and continued affordability to assure compliance with Section 9.1.15, *General Requirements for Inclusionary Units*.

**Affirmative finding as conditioned.**

### **Section 9.1.7 Certificate of Inclusionary Housing Compliance**

*Notwithstanding any other provision of this ordinance, no certificate of occupancy for a project covered by this chapter shall be granted unless and until a Certificate of Inclusionary Housing Compliance has been issued by the manager of the city's Housing Trust Fund.*

**Affirmative finding as conditioned.**

### **Section 9.1.14 Off-Site Option**

*The DRB, upon a finding that unique, difficult and/or challenging site conditions exist that prevent the inclusionary units from being constructed upon the same site as the market units may allow a developer of a covered project that is not located within a waterfront zoning district to comply with the requirements of Section 9.1.9 [Inclusionary units, Rental and Sales] and 9.1.12 [Calculating Rents and Selling Prices] by constructing inclusionary units on a site within the City of Burlington other than that on which the covered project is located, subject to conditions....*

The applicant has made no request to the Development Review Board within the submission materials to locate the required Inclusionary Units off-site. Therefore, all five Inclusionary Units shall be located on-site. **Affirmative finding.**

## **Appendix A: Use Table**

*Attached Dwelling(s) – Mixed Use is a permitting use in the Downtown Zoning District.*

**Affirmative finding.**

## **II. Conditions of Approval**

1. **Impact fees**, as calculated by staff and based upon area calculations for the new uses(s) shall be paid to the city's chief administrative officer/city treasurer prior to the issuance of a zoning permit, or if a building permit is required, within thirty days of issuance of the building permit. Credit will be given for the previous uses in the final calculation.

Based on submitted information, the following estimated Impact Fees will be due:

**Calculation is for new residential use on 2-4th floors only.**

Ground floor and basement to be evaluated when uses are defined.

Existing square footage, 2-4th floors

SF of Project **30,296**

Department	<u>Residential</u>		<u>Offices &amp; Other</u>	
	Rate	Fee	Rate	Fee
Traffic	0.188	5,695.65	0.654	19,813.58
Fire	0.215	6,513.64	0.192	5,816.83
Police	0.044	1,333.02	0.339	10,270.34
Parks	0.718	21,752.53	0.405	12,269.88
Library	0.445	13,481.72	0.000	0.00
Schools	0.929	28,144.98	0.000	0.00
<b>Total</b>	<b>2.539</b>	<b>\$ 76,921.54</b>	<b>1.590</b>	<b>\$ 48,170.63</b>

**Difference: \$ 28,750.91**

Impact fees may be adjusted for Inclusionary Housing.

2. The applicability of any waiver of Impact Fees shall be determined by the Housing Officer in the Community and Economic Development Office. Any such waiver, if determined, will be provided to staff (with the associated square foot measurement) so as to correctly identify the impact fee assessment.
3. Per Sec. 4.4.1 (d) 3, no windows may be added to the westerly façade as have been illustrated in Plan A102 (G), mis-identified as Elevation G (East). [Revised plans received 7/27/2015.]
4. It is the applicant's responsibility to secure any required state permits, including a state wastewater and potable water permit. Any such permits shall correctly identify the use(s) and permitted number of residential units.
5. **Prior to release of the zoning permit**, the applicant shall obtain written approval of the City Engineer that there exists adequate water and sewer capacity for the proposed new residential use.



6. Any signage will require separate permitting.
7. The applicant is required to allocate 33 parking spaces at the former Merchant's Parking Garage at 164 College Street for the use of the 33 new residential uses at 185-195 College Street. The plan shall include parking allocated to other projects, approvals or leases to assure the availability of the required parking for this project review. [Email received July 27, 2015 with parking count; certification of parking garage ownership and draft lease agreements submitted August 18, 2015.]
8. For the 33 residential units, 8 long term bicycle parking spaces and 3 short term bicycle parking spaces are required. These shall be defined on a site or floor plan, as appropriate, **prior to release of the zoning permit**. The applicant shall choose a bike rack in conformance with the *City of Burlington Bicycle Parking Guidelines*, which are available via this link: <http://www.burlingtonvt.gov/DPW/Walk-Bike-In-Burlington>
9. **Prior to issuance of a Certificate of Occupancy**, the applicant/owner is required to submit a letter of compliance from the Housing Trust Fund manager **confirming compliance with Article 9, Inclusionary Housing**. For 33 new residential units, 15% (or 5 units) shall be allocated to meet this requirement. **All Inclusionary Units shall be provided on-site**, unless
  1. The applicant specifically requests the off-site option (at present, they have not);
  2. Unique, challenging or difficult site conditions exist that prevent on-site location;
  3. Any off-site location must meet conditions a-f of Section 9.1.14 and agreed to by the Board.

Review of any request for off-site Inclusionary Units and review of these conditions may require re-opening the public hearing to evaluate and discuss.
10. The promise of new activity within Mechanics Lane, Stacey Lane, Markham's Lane and Thomas Alley will bring welcome pedestrian circulation to the site. The applicant has provided a revised plan identifying the terminus of Stacey Lane as the location of dumpster facilities behind a chain link fence. The Board is again encouraged to require the applicant to thoughtfully and creatively identify a new location for trash storage; out of the public eye, enclosed to prevent blowing trash, located for ease of contractor retrieval, and designed for safety. Collection of refuse from different uses (residential, commercial) should be planned interior to the building with appropriate spaces identified for recycling and rubbish. For new pedestrian activated spaces, avoidance of exterior waste facilities is desired. Plan for recycling for residential uses, and overall trash disposal and storage shall be submitted **prior to release of the zoning permit**. The DRB may wish the option to review any such plans for adequacy.

11. New uses for the ground floor and first floor shall be reviewed and permitted individually as tenants are identified. Impact fees may be assessed for new uses.
12. If roof top mechanical equipment exceeds 10% of the roof area, they will need to be included in the height measurement and compliant with dimensional standards of Section 4.4.1 (b), *Height*. A roof plan identifying the location of new or replacement mechanicals will be required **prior to release of the zoning permit**. [Submitted September 16, 2015.]
13. Standard Permit Conditions 1-15.

**NOTE: These are staff comments only. The Development Review Board, who may approve, table, modify, or deny projects, makes decisions.**



New dumpster location



RECEIVED  
SEP 22 2015  
DEPARTMENT OF  
PLANNING & ZONING



## Mary O'Neil

---

**From:** Greg Johnson  
**Sent:** Friday, September 25, 2015 8:41 AM  
**To:** Mary O'Neil  
**Cc:** Megan Moir  
**Subject:** RE: 584 South Prospect

Mary,

The EPSC has been approved. This site is very disconnected and buffered from both City infrastructure and natural drainage/waterways.

Thanks,

Greg Johnson  
Stormwater & GIS Technician  
City of Burlington – Water Resources  
802-863-4501

---

**From:** Mary O'Neil  
**Sent:** Thursday, September 24, 2015 10:53 AM  
**To:** Greg Johnson <[gjohnson@burlingtonvt.gov](mailto:gjohnson@burlingtonvt.gov)>  
**Subject:** 584 South Prospect

Hi Greg,

I am finishing the staff report for the replacement single family home at 584 South Prospect Street. If you have had chance to review the EPSC for that project, I will include your assessment in the report.

Thanks!



## Mary O'Neil

---

**From:** Joan Heaton <joan@joanheatonarchitects.com>  
**Sent:** Monday, September 28, 2015 4:55 PM  
**To:** Mary O'Neil  
**Cc:** Ric Santa Maria; Keith Wagner; Carolyn Orben  
**Subject:** 584 South Prospect Street  
**Attachments:** spec-Cape Cod 2204DZ.pdf; ATT00001.txt

Hi Mary,

I am writing to let you know that the trash and recycling at 584 South Prospect Street will be stored in the garage and there will be a mail slot in the front entry door (no mailbox).

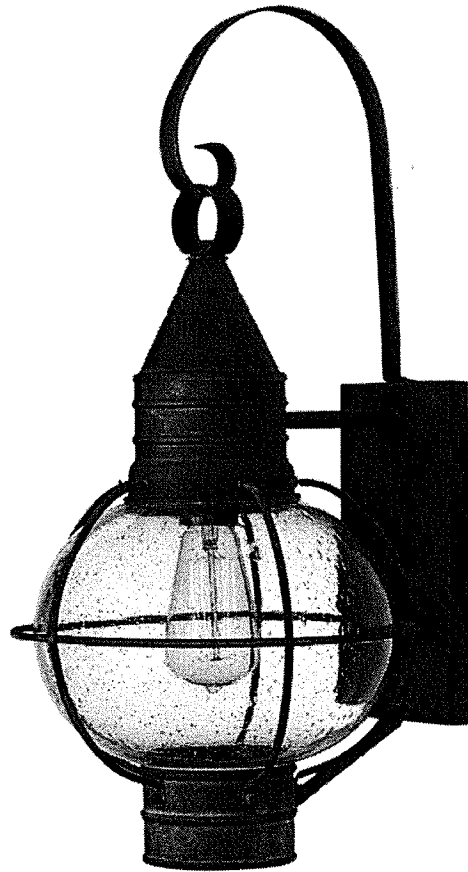
Also attached for your files is a cut sheet for the exterior, house mounted, light fixture. The fixture is LED and dark sl compliant.

Thank you,

Joan

# HINKLEY & R.

HINKLEY LIGHTING, INC.  
33000 PIN OAK PARKWAY | AVON LAKE, OHIO 44012  
(PH) 440.653.5500 (F) 440.653.5555  
HINKLEYLIGHTING.COM | FREDRICKRAMOND.COM



CAPE COD 2204DZ	
AGED ZINC	

WIDTH:	11.0"
HEIGHT:	23.3"
WEIGHT:	5.0 LBS
MATERIAL:	SOLID ALUMINUM
GLASS:	CLEAR SEEDY
BACKPLATE WIDTH:	4.5"
BACKPLATE HEIGHT:	9.5"
SOCKET:	1-100W MED
DARK SKY:	WITH DSLM-40
NOTES:	IDEAL FOR VINTAGE FILAMENT BULBS. (NOT INCLUDED)
EXTENSION:	13.0"
TTO:	16.0"
CERTIFICATION:	C-US WET RATED
VOLTAGE:	120V
UPC:	640665220476

AT HINKLEY, WE EMBRACE THE DESIGN PHILOSOPHY THAT YOU CAN MERGE TOGETHER THE LIGHTING, FURNITURE, ART, COLORS AND ACCESSORIES YOU LOVE INTO A BEAUTIFUL ENVIRONMENT THAT DEFINES YOUR OWN PERSONAL STYLE. WE HOPE YOU WILL BE INSPIRED BY OUR COMMITMENT TO KEEP YOUR 'LIFE AGLOW.'

*life*AGLOW®



## Mary O'Neil

---

**From:** Keith Wagner <hkwwagner@wagnerhodgson.com>  
**Sent:** Monday, September 28, 2015 1:29 PM  
**To:** Mary O'Neil  
**Cc:** Ric Santamaria  
**Subject:** Tarrant  
**Attachments:** safety_fence_1.jpg; safety_fence_2.jpg

Hi Mary-

Hope you are well.

Ric Santa Maria called me asking about the dog fence.

Attached please find images showing you what we are providing. We propose a 2" x2" grid metal mesh fence to keep Amy's dogs safe. We are also proposing to plant along the fence – I like the open grid fence because it allows the plantings to grow through and 'absorb' the fence. Fence will be 4' tall with metal posts 8' OC. I want the fence to 'go away" visually.

Let me know if you have questions.

Regards,  
H. Keith Wagner, FASLA  
Principal

Personal email: [hkwwagner@wagnerhodgson.com](mailto:hkwwagner@wagnerhodgson.com)

**WAGNERHODGSON**  
LANDSCAPE ARCHITECTURE

7 Marble Avenue, Burlington, VT 05401  
426 E. Allen Street, Hudson, NY 12534

VT 802.864.0010  
NY 518.567.1791  
F 802.864.6267  
W [www.wagnerhodgson.com](http://www.wagnerhodgson.com)







RECEIVED

AUG 14 2015

## Conditional Use Application

For 156 N. Winooski Ave.  
Classification of 'Cafe/Gallery' to 'Bar'

DEPARTMENT OF  
PLANNING & ZONING

**Description of Proposed Use:** The property under the previous owner ran as a 'late night' cafe, three nights a week from 8pm - close. We plan to continue that use, with expanded hours, three meals a day, and the addition of alcohol sales. We have also submitted a 'Non-Applicability of Zoning Permit Requirements' to continue use as a cafe. This condition use application is for the contingency that our alcohol sales outperform our food sales. We hope to be a mix of everything, but are planning built-in flexibility to adjust to market demands.

**Days & Hours of Operation:** Exact hours are yet unknown or determined. We plan on opening from breakfast, at 7am, through close, then cutting hours, or even days, that receive little demand. Therefore, tentative plan is as follows:

Monday: 7am - Midnight.  
Tuesday: 7am - Midnight.  
Wednesday: 7am - Midnight.  
Thursday: 7am - 2:30am.  
Friday: 7am - 2:30am.  
Saturday: 7am - 2:30am.  
Sunday: 7am - Midnight.

**Number of Employees:** Exact number to be determined as needed. Basic operations will no doubt require 3-4 full-time employees. High demand will, of course, increase that number. Being such a small establishment, we do not foresee that number going above 5-6, at most.

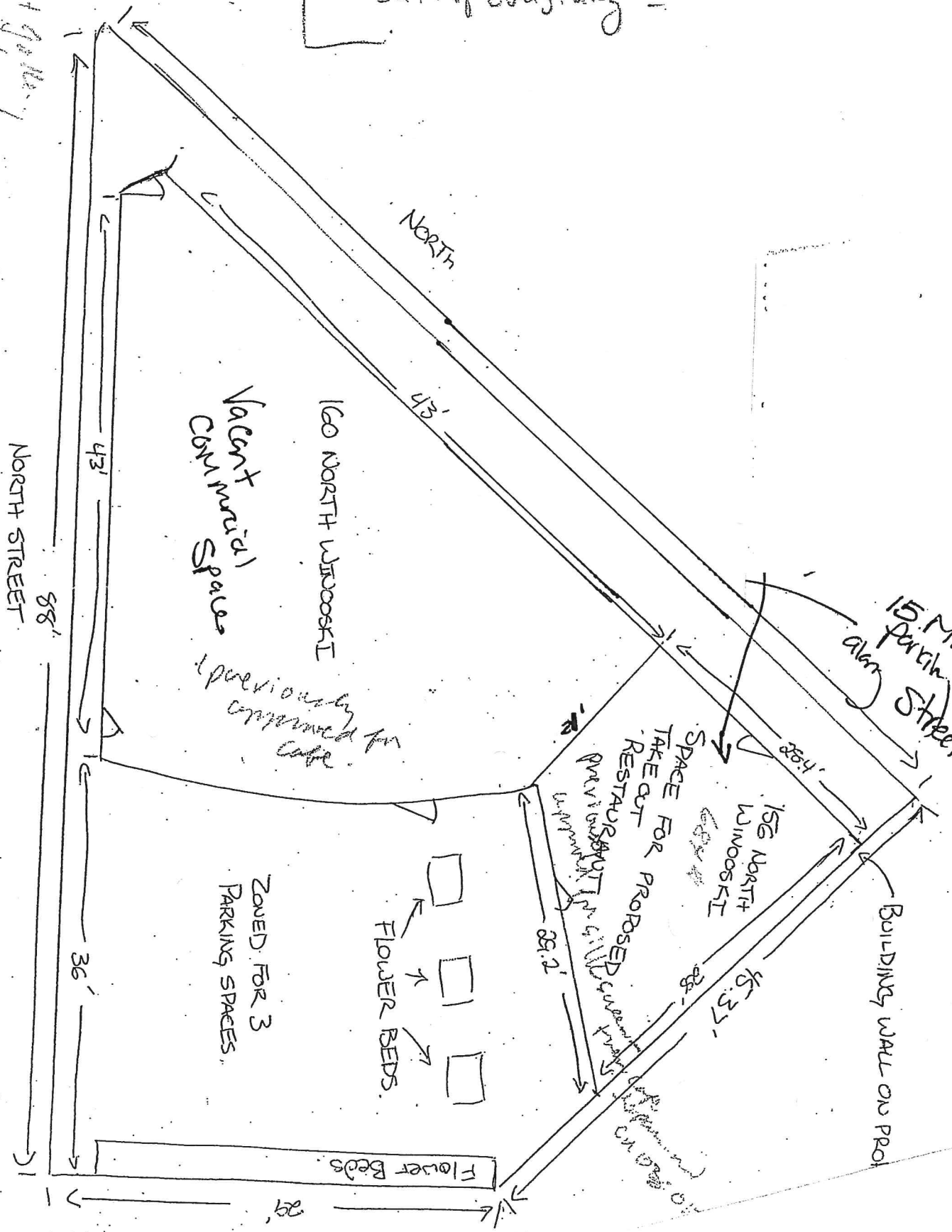
**Traffic Generation and Parking Analysis:** This conditional use will have little to no effect on traffic production. The property has functioned without parking, utilizing the sufficiently available on-street parking of N. Winooski Ave. Much of the market is local and on-foot. Additionally, we are capped at 25-seats, per our one bathroom property -- the purpose of this 'Conditional Use Permit' will not increase the number of patrons we are able to service, and therefore not affect traffic or parking.

**Floor Plans:** See Attached.



- Describe uses in Building
- To Scale including Parking
- Sq Ft of Everything

684' cut galle.  
3 spaces into original



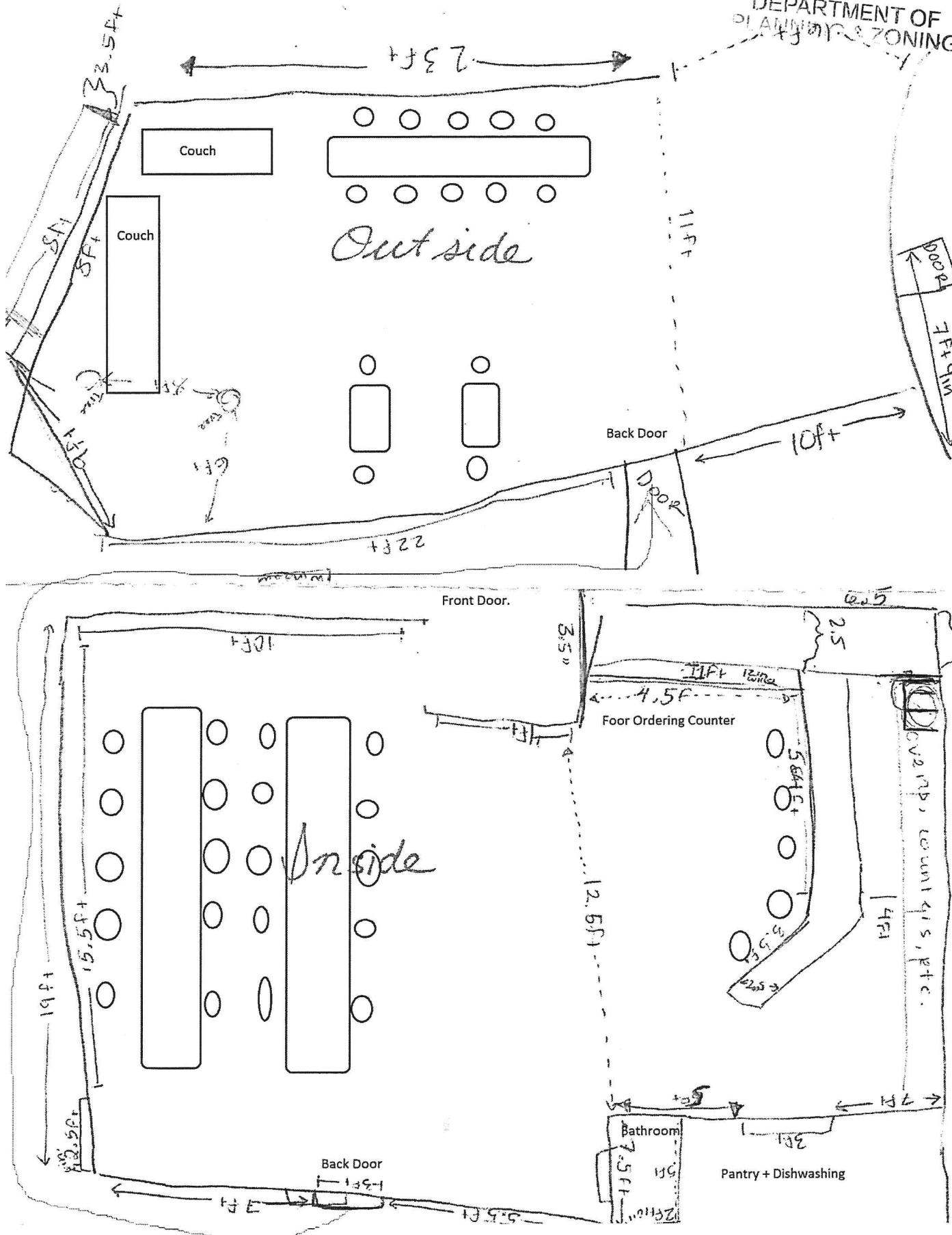
8/14/2015

Layout.jpg

RECEIVED

AUG 14 2015

DEPARTMENT OF  
PLANNING & ZONING









## 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  
vacant, Assistant Director  
vacant, Comprehensive Planner  
Jay Appleton, GIS Manager  
Scott Gustin, AICP, Senior Planner  
Mary O'Neil, AICP, Senior Planner  
Anita Wade, Zoning Clerk  
Elsie Tillotson, Department Secretary



**TO:** Development Review Board  
**FROM:** Scott Gustin  
**DATE:** October 6, 2015  
**RE:** 16-0237CU; 156-160 North Winooski Ave

=====

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

Zone: NMU                      Ward: 2C

Owner/Applicant: Red Door Holdings, LLC / The Middle Ground, LLC

**Request:** Change of use from art gallery/studio and café to bar.

### **Applicable Regulations:**

Article 3 (Applications, Permits, and Project Reviews), Article 4 (Maps & Districts), Article 5 (Citywide General Regulations), Article 8 (Parking)

### **Background Information:**

The applicant is seeking approval to establish a bar in the corner portion of the multi-unit building at 156-160 North Winooski Avenue. No site or exterior building changes are included in the proposal. The application materials submitted are marginal; however, the request is simple and the application was warned for public hearing and must, therefore, be on the DRB meeting agenda.

This mixed use property has an extensive permitting history with a variety of commercial uses and minor building renovations.

**Recommendation:** Initial review and continuation of public hearing to a future date pending resolution of parking problems:

## **I. Findings**

### **Article 3: Applications and Reviews**

#### **Part 5, Conditional Use & Major Impact Review:**

#### **Section 3.5.6 (a) Conditional Use Review Standards** (as adopted by City Council 8.10.2015.)

*Approval shall be granted only if the DRB, after public notice and public hearing, determines that the proposed conditional use and associated development shall not result in an undue adverse effect on each of the following general standards:*

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

The size of the proposed bar will be constrained by the small 700 sf space and 1 bathroom available. There is sufficient water and wastewater to serve the proposed business, and a state wastewater permit has been secured. **(Affirmative finding)**

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

The subject property is zoned as Neighborhood Mixed Use (NMU). The NMU zone is intended primarily to preserve and enhance historically commercial areas while reinforcing the compact scale and development patterns within the city's older neighborhoods. Uses are intended to provide neighborhood oriented goods and services and employment opportunities within walking or biking distance of residential neighborhoods. This zoning designation reflects the mixed use character of the properties along much of North Street and this stretch of North Winooski Avenue. No development is included in this proposal. The contextual appropriateness of the building remains unchanged. The proposed bar is small in scale with a 25-seat limit and will be one of a wide diversity of uses in this stretch of NMU zone. **(Affirmative finding)**

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

The proposed bar is not expected to generate nuisance impacts relative to odor, dust, heat, or vibrations. Noise may be a concern, particularly late at night. As with any other establishment, the proposed bar will be subject to the city's noise ordinance. **(Affirmative finding)**

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

The proposed bar is small (~700 sf and 25 seats) and has very limited onsite parking. Traffic generation is expected to be minimal. The property is readily accessible via car, bus, bike, or pedestrian. **(Affirmative finding)**

*and,*

5. *The utilization of renewable energy resources;*

No part of this request prohibits the use of wind, solar, water, geothermal or other renewable energy resource. **(Affirmative finding)**

*and,*

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

No identified conflicts. Required building and/or life safety codes will be under the review of the building inspector. **(Affirmative finding as conditioned)**

#### **Article 4: Maps & Districts**



***Sec. 4.4.2, Neighborhood Mixed Use Districts:***

***(a) Purpose***

***(2) Neighborhood Mixed Use (NMU)***

The Neighborhood Mixed Use District is intended to preserve and enhance historically commercial areas while reinforcing the compact scale and development patterns within the city's older neighborhoods. Uses are intended to provide neighborhood oriented goods and services and employment opportunities within walking or biking distance of residential neighborhoods. The proposed bar is small in scale and leaves the physical characteristics of the property untouched. Due to its location and easy accessibility, the proposed bar would likely be patronized by residents of surrounding neighborhoods. **(Affirmative finding)**

***(b) Dimensional Standards & Density***

No development is included in this proposal. **(Not applicable)**

***(c) Permitted & Conditional Uses***

The proposed bar is a conditional use in the NMU zone. **(Affirmative finding)**

***(d) District Specific Regulations***

**(Not applicable)**

**Article 5: Citywide General Regulations**

***Sec. 5.2.3, Lot Coverage Requirements***

**(Not applicable)**

***Sec. 5.2.4, Buildable Area Calculation***

**(Not applicable)**

***Sec. 5.2.5, Setbacks***

**(Not applicable)**

***Sec. 5.2.6, Building Height Limits***

**(Not applicable)**

***Sec. 5.2.7, Density and Intensity of Development Calculations***

**(Not applicable)**

***Sec. 5.5.1, Nuisance Regulations***

Nothing in the proposal appears to constitute a nuisance under this criterion. Potential for noise impacts is addressed under Sec. 3.5.6 (a) above. **(Affirmative finding)**

***Sec. 5.5.2, Outdoor Lighting***

**(Not applicable)**

***Sec. 5.5.3, Stormwater and Erosion Control***

**(Not applicable)**

**Article 8: Parking**

***Sec. 8.1.8, Minimum Off-Street Parking Requirements***

The prior use in this commercial space required 2.5 spaces per 1,000 sf. The proposed bar requires 3 spaces per 1,000 sf. The prior zoning permit was issued for a 900 sf space and, therefore, required 2 parking spaces. The subject application refers to ~700 sf in the same space. If it is really 700 sf, then parking demand remains unchanged at 2 spaces. If the space is 900 sf, then 3 parking spaces are needed.

One onsite parking space is available to serve the bar. The existing 1 space deficiency may be carried over with this new use, however, 1 additional space must be secured within 1,000' of the property per Sec. 8.1.12 (a) *Off-site parking facilities*. The applicant has not yet secured an off-site parking space. No parking waiver per Sec. 8.1.15, *Waivers from Parking Requirements/Parking Management Plans*, is possible, as a waiver is limited to 50% of the total parking requirement. Parking remains insufficiently addressed in the application. **(No finding possible)**

***Sec. 8.2.5, Bicycle Parking Requirements***

No bicycle parking information has been provided. The bar requires 2 short term spaces (6% of 25 person occupancy load) and 1 long term space (1 per 10 employees – up to 6 employees anticipated). **(No finding possible)**

**II. Conditions of Approval**

None recommended at this time.

## Department of Planning and Zoning

149 Church Street  
Burlington, VT 05401  
Telephone: (802) 865-7188  
(802) 865-7195 (FAX)  
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Mary O'Neil, Associate Planner  
Anita Wade, Zoning Clerk  
Elsie Tillotson, Department Secretary



**TO:** Development Review Board  
**FROM:** Scott Gustin  
**DATE:** October 6, 2015  
**RE:** 16-0375CA; 311 & 329 North Avenue

=====

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

Zone: WRM                      Ward: 4N

Owner/Applicant: BC Community Housing, LLC / Eric Farrell

**Request:** Tree maintenance plan for 311 & 329 North Avenue

### **Applicable Regulations:**

Article 5 (Citywide General Regulations)

### **Background Information:**

The applicant is seeking approval of a Tree Maintenance Plan per Sec. 5.5.4, *Tree Removal*, of the Comprehensive Development Ordinance. This section allows property owners to address tree removal and maintenance on their property in 5-year increments without the need for separate zoning permits for each individual tree removal project.

Previous zoning actions for this property are noted below.

- 9/1/15, Approval for addition of curb cut and drive to 351 North Ave
- 7/12/12, Approval to install wire fence
- 12/16/11, Approval to install 5 replacement windows
- 11/3/10, Approval to change use from institutional office & group home to college

**Recommendation:** Initial review and continuation of review pending revisions to proposed tree maintenance plan.

## **I. Findings**

### **Sec. 5.5.4, Tree Removal:**

#### **(a) Review criteria for zoning permit requests for tree removal**

See (b) below.

#### **(b) Tree Maintenance Plans**

1. A Tree Maintenance Plan prepared by a certified arborist shall be submitted as a Level I Certificate of Appropriateness... This plan shall include general and specific criteria for removing trees based on the criteria as per Sec. 5.5.4 (a).



The proposed Tree Maintenance Plan has been prepared by a team consisting of consulting foresters and a certified arborist as required. The plan focuses on the area of property that may ultimately be conveyed to the city as some sort of public land. Within this area, the plan delineates several distinct forest community types and notes specific management objectives for each. Several coppers within “area 3” are to be removed, consistent with the surrounding open lawn. In the rest of the woodland communities, the emphasis is on “cleaning up” the forest floor, removing dead and dangerous trees, and limbing up remaining trees.

The proposed tree maintenance plan touches on each of the criteria of Sec. 5.5.4 (a) as required. Dead, diseased, and/or dangerous trees will be removed. Trees generally will be thinned and pruned to create an open understory; however, coarse and fine woody debris will be retained. Invasive species will be targeted for removal, and certain species most well suited to the onsite sandy soils will be targeted for preservation. Mast-producing species, likewise, will generally be retained. The westernmost portion of the property is affected by the Riparian & Littoral Conservation Zone running 250’ inland from the 100’ elevation along Lake Champlain. The proposed tree maintenance plan acknowledges this overlay zone, and proposed tree clearing will be within the permitted 25% limit articulated under Sec. 4.5.4 (c).

Dan Cahill, the city’s Land Steward at the Department of Parks & Recreation has submitted written comment relative to the proposed tree maintenance plan and has expressed concern that the proposed “cleaning up” is inconsistent with wildlife habitat preservation. This criterion does not specify what the forestry goals should be within a given tree maintenance plan; however, it is reasonable to consider comments from the entity that will likely end up managing these lands (Parks & Recreation). The city’s current Open Space Protection Plan classifies all of the undeveloped land on this property as “large mowed lawn” or “forestland.” The forestland is classified as “hemlock/hemlock white pine” and differs from the individual forest communities identified in the proposed tree maintenance plan. The tree maintenance plan is based on an onsite assessment and is more accurate. The Open Space Protection Plan identifies no “under represented” (i.e. disproportionately rare) natural communities on the property. The State of Vermont has identified a small remnant of a very rare natural community type in the northwest corner of the property (Natural Resources Information: Site Conditions & Flora, Eric Sorenson, 2001). This area is within “map area 4” of the proposed tree maintenance plan. Management objectives for this area are similar to other areas within the property (removal of invasive, dead, dying, or dangerous trees and pruning remaining trees). In light of the particular significance of this area, the proposed tree maintenance plan should specifically address how the proposed tree work will protect or enhance this natural community.

Warren Spinner, the City Arborist with the Department of Parks & Recreation, has also commented on the proposed tree management plan. He notes that the management plan is a “great start” for managing the property; however, he also advises against removing all dead trees where they pose no threat to public safety. He also advises against clearing out the entire understory in consideration of wildlife habitat. Lastly, he comments that he does not see a need to limb up or reduce the trees’ canopy to reduce wind/sail effects as proposed in the management plan.

The Department of Parks & Recreation requests that a natural resource inventory be done this fall and into the spring. The Department is willing and able to conduct the inventory. The inventory would enable a more informed management protocol for the forestland. Although the management plan as proposed calls for retention of coarse and fine woody debris and for the retention of mast-

producing species, revisions to the plan may well be necessary to address the findings of a comprehensive natural resource inventory.

Obviously, the tree maintenance plan as proposed does not take into account the forgoing comments and concerns. They have been offered in response to the proposed plan. In order to address the comments and concerns of the Department of Parks & Recreation, it would be prudent to revise the proposed tree maintenance plan to address those comments and concerns prior to undertaking any tree clearing activities. Revision of the proposed tree maintenance plan and follow-up review by the Development Review Board is recommended. **(No finding)**

*2. The Tree Maintenance Plan if approved...*

This Tree Maintenance Plan, when approved, will be valid for 5 years. **(Affirmative finding as conditioned)**

*3. In order to continue tree removal...*

For ongoing tree removal on the subject lands beyond the initial approval, the Tree Maintenance Plan must be updated or re-written and approved by the DRB at 5 year intervals. **(Affirmative finding as conditioned)**

## **II. Conditions of Approval**

Revisions to the plan prior to approval are recommended. In the event that the Development Review Board determines that approval is warranted, the following conditions are recommended.

1. This tree maintenance plan is valid for a period of 5-years from the date of approval.
2. The applicant is advised not to commence tree clearing activities above the thresholds established in Sec. 3.1.2, *Zoning Permit Required*, until completion of a natural resource inventory or summer 2016, whichever is earlier.

## Scott Gustin

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**Subject:** FW: Electronic Copy of Tree Maintenance Plan submission?

**From:** Dan Cahill

**Sent:** Monday, September 28, 2015 1:34 PM

**To:** Scott Gustin <[SGustin@burlingtonvt.gov](mailto:SGustin@burlingtonvt.gov)>

**Cc:** Jesse Bridges <[jbridges@burlingtonvt.gov](mailto:jbridges@burlingtonvt.gov)>; Alicia Daniel <[adaniel@uvm.edu](mailto:adaniel@uvm.edu)>; 'Alicia Daniel' <[alicia.daniel@uvm.edu](mailto:alicia.daniel@uvm.edu)>

**Subject:** Re: Electronic Copy of Tree Maintenance Plan submission?

Scott,

The forestry plan is a good start. However this land is a prospective future park, with significant conservation value, and therefore management and planning on and for this land should align with the City's Open Space Protection Plan. Moving forward with cutting and thinning at this time would pose significant threat to known rare and endangered species as well as wildlife habitat. The Greenleaf report is missing a full natural resource inventory and assessment, including a review and assessment of natural community types. From a conservation perspective, it is critical that we have the opportunity to perform this assessment work prior to major planned thinning and cutting.

Areas within the report where I see issues are:

- Function/goal number four on page two that states "make it a clear walk-able forest" which *not* a goal for wildlife corridor.

There is mention of wildlife management on the same page, but nowhere in the report do I see an understanding that wildlife (foxes, rabbits, ground nesting birds, etc.) need brushy, unkempt forest floors for shelter. Most of the discussion about wildlife focuses on mast trees and snags, which are also important.

- Also from the wildlife perspective, language on page 6 paragraph 2 "tree crowns will be lifted and thinned to reduce wind 'sail,' thus minimizing the potential for wind damage." Although consideration of wind damage is important, this analysis disregards the importance of layering in the canopy which is critical for songbird niches.

- The Greenleaf report (with its focus on trees) barely touches on the herbaceous layer. For instance, we identified Harsh Sunflower as a species of interest on the site and it does not appear in the Greenleaf report. There may well be other species of interest to the City that were not included.

In this report, the trees are described in forest stand terms, which means that there is no discussion of natural communities including, the Pine-Oak-Heath Sandplain Forest. Instead, that area is labeled Red Oak. Natural community analysis and consideration is a key element of the Open Space Protection Plan.

I propose that natural resource inventory work commence this fall, and continue it into spring of next year. By June of 2016 an adequate natural resource inventory can be completed and a more comprehensive management protocol for the property can be adopted. BPRW staff are available and able to complete the



necessary inventory work. At the very least I recommend that BPRW staff is included in the scope and oversight of this work.

Sincerely,

Dan Cahill, CPRP  
Land Steward  
City of Burlington  
Department of Parks Recreation  
desk - 802.863-0420  
fax- 802.862.8027  
[www.enjoyburlington.com](http://www.enjoyburlington.com)

## Scott Gustin

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**From:** Warren Spinner  
**Sent:** Tuesday, September 29, 2015 2:47 PM  
**To:** Scott Gustin  
**Cc:** Jesse Bridges; Dan Cahill; Alicia Daniel (adaniel@uvm.edu)  
**Subject:** RE: Electronic Copy of Tree Maintenance Plan submission?

Hi Scott,

I have reviewed the draft tree maintenance plan for the BCCH property. The plan address the forestry/tree related issues and recommends several management objectives. This area is a section of Fragmented Forest that was left as t land was developed around it over the past several years. The Greenleaf Consulting Inc. plan will be the first professio forestry management of this property. Well this plan doesn't address all of our department wishes I think it's a good start to managing the property's forest.

Other plan comments:

I was pleased to see the plans aggressive approach to managing invasive species within the forested areas. This is a department management goal for our park property as well.

In the introduction it states "A clean walkable forest with views of the lake". My thought is for the trail/paths that are eventually developed on the property would be fine and views where possible without removing several trees to accomplish it. One might interpret this to mean clean uninterrupted walking through the entire forested area. I don't think that's what the plan intends.

Hazard and dead trees in the 5 management areas – Yes it is important to remove dead and hazard trees where they fall into a trail/path but where there is no threat to public safety I would recommend leafing some for wildlife habitat trees.

I agree with removing deadwood from the trees especially near trails and paths. I don't see why lifting or reducing tre crown's/canopy's is needed to reduce wind/sail effects. This is a forested area the trees have been working together group/unit for years actually protecting each other from this happening. I understand crown reduction or thinning for single or small groups of trees.

Again I'm pleased to see a management plan for this property and think it's a great start for managing this area.

Best, Warren



**Warren Spinner, Certified Arborist**

City Arborist

Burlington Parks, Recreation & Waterfront

645 Pine Street

Burlington, VT 05401

802-862-8245



## **NATURAL RESOURCES INFORMATION: SITE CONDITIONS & FLORA**

From the perspective of the Nongame and Natural Heritage Program, this site has several interesting to significant features. Although the sand beach is highly disturbed by human use and the rock fill for the bikepath, this is a continuation of North Beach and is still a site of statewide significance. Lake sand beach is considered a rare natural community type in Vermont, and all of our examples are degraded.

The whole site above the bike path is part of the Winooski River mouth sand delta, formed thousands of years ago during the period when Lake Champlain was a much larger lake and then a saltwater sea. This delta has deep sands that were deposited in shallow water at the mouth of the formerly larger lake/sea. These deep sands are mapped as Adams Windsor B on the NRCS soil survey for Chittenden County. This is the setting for another very rare natural community type in Vermont - the pine-oak-heath sandplain forest.

The Diocese site has been highly manipulated in the past and the only place where there is a small remnant of this rare forest type is in the northwest corner of the site. Here there are red oaks, red maple, white birch and other species characteristic of the community type. This remnant is too small to be considered of statewide significance, but is interesting none-the-less and may be considered significant at the local level. Restoration of sandplain forest on this site would be a very difficult undertaking, especially considering its small size and the abundance of exotic species at the site (Norway maple, black locust, buckthorns, and honeysuckle), however sandplain characteristics would increase and persist over time.

The western edge of the delta on this property forms an impressive bluff overlooking Lake Champlain. This bluff and the adjacent top of the delta strike me as a very significant natural area for the city. This bluff is mostly forested and over time it seems that it would be possible to reduce the abundance of exotic species and encourage native trees, shrubs, and herb. There are already numerous impressive red oaks and cottonwoods, and one white oak. It seems that there is high potential to manage the western side of the delta and the bluff as a natural area that could be enjoyed by many people in the city.

Submitted By:  
Eric Sorenson, Community Ecologist  
Nongame and Natural Heritage Program  
Vermont Fish and Wildlife Department  
103 South Main Street  
Waterbury, Vermont 05671-0501  
(802) 241-3714



**TREE MAINTENANCE PLAN**  
**FOR**  
**BC COMMUNITY HOUSING, LLC**



**September, 2015**

**Prepared by:**

**Scott Moreau  
Addison Kasmarek  
Consulting Foresters  
Greenleaf Consulting Inc.  
Fairfax, Vermont**

**Ned Meehan  
Certified Arborist  
Meehan Tree Service  
Westford, Vermont**

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**A. Legal Review**

**B. Tree Resource Map**

**C. T.J. Boyle Associates Site Concept Plans**

**D. Civil Engineering Associates, Inc. Plans**

**E. Soil Description**

**F. Invasive Exotic Plants Information Sheet**

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## **Section I.      PROPERTY DATA SUMMARY**

**Property Concern:** **BC Community Housing, LLC**

**Address:** **Farrell Real Estate Company**  
**875 Roosevelt Highway**  
**Colchester, VT 05446**

**Property Location:** **311 & 329 North Avenue, Burlington, VT**

**Orthophoto Number:** **092220; Series 5000, 2013**

## **Section II: INTRODUCTION**

The functions of this plan are designed to:

- . Describe the woodland and open areas found on the Burlington Community Housing (BCCH) property which are as follows:
  - 1) Eastern Cottonwood-Mixed Hardwood Woodland Restoration Area
  - 2) Black Locust Woodland Restoration Area
  - 3) Open Space to be Maintained for Public Access and Recreation
  - 4) Red Oak-Woodland Restoration Area
  - 5) Mid-Successional Woodland
- . Document the various zoning and planning requirements to oversee all tree related issues
- . Provide assistance when planning for annual work plans and budgets
- . To be clear that this plan is intended to make this parcel of land free of invasives species and to make it a clean walk-able forest with lake views while using sound silvicultural and arboricultural techniques. All activities will be overseen by a qualified consulting forester and/or a certified arborist
- . Take into consideration the public safety of those who use the land and should be protected from hazardous trees and individuals seeking illegal shelter in the woods

The plan is designed to integrate the ownership objectives with the principles of sound forest and plant management, wildlife management, aesthetics, recreational use and other land use planning considerations.



### **Section III. PROPERTY DESCRIPTION**

The BCCH property is located in between the New and Old North End neighborhoods in western Burlington. It was formerly the orphanage of the Catholic Diocese and was subsequently purchased by Burlington College. Burlington College sold approximately 28 acres to BCCH of which the College retained approximately 7 acres. The property overlooks the shore and waters of Lake Champlain. The BCCH property shares 900 feet of frontage with the Burlington bike path, which runs parallel to the shoreline. The boundary line extends approximately 45 feet beyond the bike path towards the Lake.

To the south, BCCH neighbors City of Burlington land, a portion of which was the former Texaco parcel. To the west, the land abuts the Burlington Bike Path. BCCH owns approximately 1,000 feet of lake frontage beyond the bike path. This beach is commonly referred to as Texaco Beach. To the east, BCCH meets North Avenue. Lakeview Cemetery borders the property to the north.

In general, the land owned by BCCH is flat to gently sloping. The greatest change in terrain from is in the western portion of the property where the bank which drops to the lake level. This bank affords views towards Lake Champlain and New York State. The slope of the bank is fairly consistent, with two small ravines being the only exception. The surface area from the top of the bank to the bike path varies from 50 feet to 150 feet. The slope from the bike path to the shoreline is fairly consistent in both grade and distance.

In general the overall health and vigor of the plants growing at BCCH is considered fair-good in the north to poor in the southeast. The soil type is Adams-Windsor loamy sand which has limited growth potential (see Appendix D). Maximum productivity occurs when these soils are occupied with red oak, white pine or other relatively drought resistant plants. Other tree species found occupying the area are considered growing in an offsite condition and therefore don't express optimal growth and vigor. The key to achieving maximum growth and vigor of trees at BCCH is to encourage the growth of the tree species best suited to the site which include, but are not limited to: Northern Red Oak, White Oak & White Pine as well as specimen trees of varying species. When tree removal is required, discriminate against the removal of drought-resistant trees, such as those listed above. This approach will provide BCCH an increasingly more vigorous stand of trees, resulting in less maintenance costs and more overall enjoyment by the community. It has been stated that the open, grassy areas and those portions of map areas 3 and 3A are reclaimed sand pit.

#### *Invasive and Non-Native Plants:*

Invasive plants pose a threat to the natural health of forest lands, open lands, and wetlands in Vermont. Generally speaking, they are often non-native species that have escaped cultivation. After escaping, they tend to proliferate through aggressive propagation methods and colonize large areas. Populations are often very high and colonies can be very dense. Their aggressiveness excludes the native plants. Ecosystem functions are negatively altered at the infestations sites. These plants generally do not provide the proper nutrients, habitat, or structure the native species provide. Nutrient, hydrologic, and fire regimes are also disrupted. Many of the species are also persistent, in that they can maintain their populations in small numbers until conditions are right for rapid spread.

A number of non-native and invasive plants are found on the BCCH property. Along with proper forest silvicultural practices, and wildlife enhancement projects, invasive species management places a vital role in fulfilling the commitment to natural resource health. The bulk of the invasive species include Common Buckthorn, Bush Honeysuckle and Oriental Bittersweet. These plants will aggressively be managed in the fall of 2015 and then subsequently on an annual basis.

## **Section IV. LEGAL AND ECOLOGICAL REVIEW**

An in-depth review of state and local statutes and ordinances was conducted to ensure the actions recommended within this plan are in compliance. See Appendix A for a description of all applicable and pertinent legal documents to this project.

Additionally, a review of ecological resources within the project area was conducted. This review analyzed the presence of rare, threatened & endangered species/natural communities, wetlands, riparian zones or any other unique features that would impact management decisions. According to data provided by the State of Vermont, there is one aquatic species and one natural community that are both mapped in close proximity to the project area. The aquatic species, Horned Pondweed, is categorized as critically imperiled in the State. This plant was last observed in 1985 along North Beach. A Lake Sand Beach, which is categorized as imperiled in the State, is mapped along Texaco Beach.

We consulted with Mr. Brett Engstrom, an ecological and botanical consultant specializing in the inventory and mapping of wetland and upland natural communities, and the inventory of rare, threatened and endangered plants, in Vermont and adjacent states. Brett indicated an endangered plant, known as Prairie Red Root, has been previously identified on the City of Burlington lands south of the BCCH property. Although not mapped on the BCCH property, this is a very unique plant that has the propensity to grow in the area and should be monitored for. Mr. Engstrom felt confident that the invasives work could be completed provided the work crews are aware of the possibility of this plant.

## **Section V. PLAN OVERVIEW**

This plan is designed to integrate the current natural resource base with the development of a 570-unit (approximately) housing program. This plan provides descriptions of five distinct vegetation zones as indicated on the tree resource map. Management recommendations provided are aimed at maintaining and optimizing the health and vigor in each unit described. Within each vegetation management unit, recommendations will be made to retain specific groups or individual trees. These recommendations include: the protection and maintenance of bank stability, selection criteria for tree removal, wildlife habitat enhancement, invasive plant control and, specimen tree retention and enhancement.

At all times tree and shrub work completed will be overseen by a qualified forester and/or arborist. The chosen professional will be consistent with maintaining erosion hazards along the fragile bluff soils. Consideration of views to the shore from the housing program area will be commensurate with views from the shoreline.

## **Section VI: AREA DESCRIPTIONS AND RECOMMENDATION**

For management purposes, the property has been divided into five units or stands, which are defined as areas of relative similarity (such as age, species, topography, etc.) which can be treated uniformly. The land use areas are identified on the Site Map, located at the end of this report. Each land use area included in this section contains a description, management objectives and recommendations section (see Appendix A).



## **MAP AREA 1 & 1A: 3 Acres**

### **EASTERN COTTONWOOD-MIXED HARDWOOD WOODLAND RESTORATION AREA**

#### **DESCRIPTION:**

This area is located in the southern portion of the property. The majority of this area is located north of the main recreation trail which enters into the property from North Avenue by the Community Garden. The vegetation consists of mixed hardwood tree and shrub species. A full species list is located at the end of this map area section. The overstory consists of small sawtimber (11.5"-17.5" diameter at breast height-DBH) trees. Structural defects and abnormalities are common throughout the overstory. The less desirable species, which include the Boxelder, aspen and cottonwood are less vigorous in the long term. The understory-midstory shrub layer is dense in this area. A multitude of invasive plants have established and are impeding the establishment and vigor of native species.

A small portion of this map area, occupying 0.08 acre, is located within the 250' setback from the 100' mean water table within which area special parameters must be met. More discussion of these parameters will be forthcoming in subsequent map area discussions.

A number of specimen trees have been identified in this area. A specimen tree is one that draws attention because of uniqueness or special beauty. Specimen trees in this area include a rather large White Oak, Hackberry and a Boxelder (Note: The Boxelder is on the boundary line with the City of Burlington Lands). The Boxelder has dozens of hypertrophies surrounding the stem and is located immediately adjacent to the main recreation trail.

Wildlife relies on a number of food sources to survive. One of the most important food sources is tree nuts and seeds, also known as mast. Oak is an important mast producer in Vermont. Other mast producers found in this area are black cherry, hackberry and butternut. Many den trees, or those with open holds or cavities in the main stem of the tree, were identified in this area. Standing dead trees, or snags, are found in this area. Snags are important as they provide both a shelter for nesting and food sources such as insects which live within the dead wood. A variety of bird species utilize snags including as chickadees, woodpeckers, and flickers among others.

#### **MANAGEMENT OBJECTIVES AND RECOMMENDATIONS:**

Restoration of the area is a primary objective. Invasive plant removal is necessary to encourage native understory vegetation. Specimen trees will be retained and their crowns should be maintained and released from competition with other trees. Mast-producers should be retained wherever possible and where they don't pose a safety threat to recreational path users.

An additional objective is to maintain a generally neat appearance and provide a safe environment for users of the recreational path. Trees that are located adjacent to the recreational path in high traffic areas must be treated as a valuable aesthetic resource and be maintained to provide a safe environment. Trees that are dead, dying or damaged should be removed for user safety. This includes trees with grape intertwined in their crowns, which can become a safety

hazard in the event of a wind storm. From an aesthetic perspective, a broken limb or wind-thrown tree is eye-catching. Trees showing these conditions should be pruned or removed to provide a continuously safe environment, which also provides a visually pleasing woodlot. Review the woodlot on an annual basis, after leaf drop and add the clean-up work to the spring clean-up list. Obviously dangerous trees should be pruned or dropped immediately. Coarse & fine woody debris should be retained according to commonly accepted guidelines, which are to maintain at least 3-5 stems at least 18" DBH and 10 stems at least 14" DBH per acre.

For the most part current stocking levels of mature and immature trees will ensure a continuous density of stems that provide the visual buffer desired. Single tree selection thinning is suggested to maintain good growth and sustainability of this stand. Recommended light thinnings will not affect the stand as a screen from the lake and bike path. Tree crowns will be lifted and thinned to reduce wind "sail", thus minimizing the potential for wind damage.

**Tree Species List:**

Red Maple  
Red Oak  
Paper Birch  
Butternut  
American Elm  
Norway Maple (**Class B Noxious Weed**)  
Black Cherry  
Eastern Cottonwood  
Hackberry  
Striped Maple  
White Oak  
Black Locust  
Boxelder

**Shrub List:**

Dogwoods (various species)  
Grape  
Canada Yew  
Bush Honeysuckle (**Class B Noxious Weed**)  
Common Buckthorn (**Class B Noxious Weed**)  
Multi-Flora Rose (**Invasive Species**)  
Bittersweet (**Class B Noxious Weed**)  
Japanese Barberry (**Class B Noxious Weed**)

## MAP AREA 2: 0.65 ACRE

### BLACK LOCUST WOODLAND RESTORATION AREA

#### DESCRIPTION:

This area is located in the southernmost tip of the property, south of the recreational path and west of Map Area 1. The primary vegetation is black locust which established approximately sixty years ago. This species has a beautiful fragrant spring flower, and nutritious seed source for a variety of wildlife species that may frequent these wooded corridors. Black locust has nitrogen-fixing bacteria on its root system, allowing it to establish on nutrient-poor soils. Although this species is a prolific root sprouting plant, there isn't a dense under/midstory cohort of black locust regeneration. In fact, the shrub-small tree layer in this stand is fairly open. Associated species include honeysuckle and dogwoods. Black Locust is not native to Vermont, although it is not listed as a noxious weed. One specimen tree, a healthy butternut hickory, has been identified in this area.

Oak, butternut and locust are three important mast producers found in this area. Several den trees, or those with open holds or cavities in the main stem of the tree, were identified in this area. Some standing dead trees, or snags, are found in this area. Snags are important as they provide both a shelter for nesting and food sources such as insects which live within the dead wood. A variety of bird species utilize snags including as chickadees, woodpeckers, and flickers.

#### MANAGEMENT OBJECTIVES AND RECOMMENDATIONS:

Restoration of the area is a primary objective. Invasive plant removal is necessary to encourage native understory vegetation. The single butternut tree will be retained and their crowns should be maintained and released from competition with other trees. Mast-producers should be retained wherever possible and where they don't pose a safety threat to recreational path users.

An additional objective is to maintain a generally neat appearance and provide a safe environment for users of the recreational path. Trees that are dead, dying or damaged should be removed for user safety. This includes trees with grape intertwined in their crowns, which can become a safety hazard in the event of a wind storm. From an aesthetic perspective, a broken limb or wind-thrown tree is eye-catching. Trees showing these conditions should be pruned or removed to provide a continuously safe environment, which also provides a visually pleasing woodlot. Review the woodlot on an annual basis, after leaf drop and add the clean-up work to the spring clean-up list. Obviously dangerous trees should be pruned or dropped immediately. Coarse & fine woody debris should be retained according to commonly accepted guidelines, which are to maintain at least 3-5 stems at least 18" DBH and 10 stems at least 14" DBH per acre. Trees will be lifted and/or have crown reduction in certain circumstances to reduce the affects of wind "sail", or shear.

#### Tree Species List:

Black Locust  
Boxelder  
Red Maple  
Butternut  
Red Oak

#### Shrub List:

Dogwoods (various species)  
Grape  
Virginia Creeper  
Bush Honeysuckle (Class B Noxious Weed)  
Common Buckthorn (Class B Noxious Weed)



## **MAP AREA 3 & 3A: 0.76 ACRE**

### **OPEN SPACE TO BE MAINTAINED FOR PUBLIC ACCESS AND RECREATION**

#### **DESCRIPTION:**

This area includes five groupings of trees and a small (6/10ths of an acre) peninsula of trees that juts out from the housing program area. The five groupings of trees are situated in a field which is annually mowed. The groupings consist of cherry, aspen, gray birch and speckled alder. The peninsula is comprised of mixed hardwoods, primarily black locust.

Of the five groupings, one is located within the 250' setback from the 100' mean water table within which area special parameters must be met. A sliver of the peninsula also falls within the setback. The grouping and portion of the peninsula which fall within the setback will be passively managed (i.e. left alone).

The existing vegetation in the groupings and the peninsula is fairly young (<30 years) and is not desirable for retention silviculturally or aesthetically. Neither specimen trees nor significant wildlife habitat features have been identified in these areas. Common Buckthorn, Class B Noxious Weed, is found within the groupings and the peninsula area. The area is surrounded by the only open land found within the area described in this plan, rendering it unique.

This area has a high value for recreational use and access. Currently the existing parking area is located south of the stone house, which is immediately adjacent to the proposed housing units #1 & #2. There is concern that the public will utilize the parking designated for residents of these units to access the recreational trails. The area currently occupied by the peninsula would provide a parking area for those accessing the recreational area, thereby removing the parking pressure from the resident parking. The area currently occupied by the groupings would provide an open grassy area for various recreational uses, such as soccer, football and wiffleball among others.

Another factor limiting the vigor of all of the trees in the area is mower damage. The damage is evidenced by open wounds and scar tissue on tree trunks at ground level. While many of the trees are capable of surviving this damage it limits the potential vigor of the trees and eventually can cause a hazard as the callous tissue repairing the wounds is not as strong as the original stem tissue. Over time, many of the trees would likely die due to excessive stress and damage caused by the ongoing mowing.

#### **MANAGEMENT OBJECTIVES AND RECOMMENDATIONS:**

Manage this area two main purposes; first for public access and second for recreation. With the exception of area 3a, the peninsula should be removed for a public parking access area and the groupings should be removed for the creation of recreational fields. Replacement plantings are recommended to enhance the landscape value. Suggestions for replacement species include native lilacs, viburnums, dogwoods and/or apple trees.

**Tree Species List:**

Gray Birch  
Speckled Alder  
Eastern Cottonwood  
Black Cherry  
Black Locust  
Green Ash  
White Pine  
American Elm  
Wild Apple

**Shrub List:**

Common Buckthorn (**Class B Noxious Weed**)

## **MAP AREA 4: 1.92 ACRES**

### **NORTHERN RED OAK-WOODLAND RESTORATION AREA**

#### **DESCRIPTION:**

This area is located in the northern and westernmost portion of the property and abuts the bike path right-of-way to the west. The vegetation consists of medium sawtimber sized (17.5" – 23.5" DBH) red oak, black oak and eastern cottonwood. This area is distinctly two-aged with a super-story canopy of oak-cottonwood and an under/midstory of Boxelder and Common Buckthorn. Common Buckthorn is a great health concern in this area as it has begun to dominate the understory.

There has been no disturbance in this area for decades, resulting in the most stately and oldest trees found on the property. The area is diverse topographically with the eastern sections situated on an escarpment and ravines to the west and the north. This diversity has resulted in a damp microclimate where jewelweed has established densely in the herbaceous layer. Stinging nettles are also abundant.

A number of specimen trees have been identified in this area. A specimen tree is one that draws attention because of uniqueness or special beauty. Specimen trees in this area include particularly large red oak, black oak and two very large (>40" DBH) cottonwoods.

Wildlife relies on a number of food sources to survive. One of the most important food sources is tree nuts and seeds, also known as mast. Oak is an important mast producer in Vermont. A few den trees, or those with open holds or cavities in the main stem of the tree, were identified in this area. Very few standing dead trees, or snags, are found in this area. Snags are important as they provide both a shelter for nesting and food sources such as insects which live within the dead wood. A variety of bird species utilize snags including as chickadees, woodpeckers, and flickers.

The primary recreational trail runs through this area and leads down to the bike path. Due to the sloping topography, there is a high risk for erosion due to runoff along this stretch of the trail. Most of this area falls within the 250' setback from 100' elevation.

#### **MANAGEMENT OBJECTIVES AND RECOMMENDATIONS:**

Restoration of the area is a primary objective. Invasive plant removal is necessary to encourage native understory vegetation. Specimen trees will be retained and their crowns should be maintained and released from competition with other trees. Mast-producers should be retained wherever possible and where they don't pose a safety threat to recreational path users.

An additional objective is to maintain a generally neat appearance and provide a safe environment for users of the recreational path. Trees that are located adjacent to the recreational path in high traffic areas must be treated as a valuable aesthetic resource and be maintained to provide a safe environment. Trees that are dead, dying or damaged should be removed for user safety. This includes trees with grape intertwined in their crowns, which can become a safety hazard in the event of a wind storm. From an aesthetic perspective, a broken limb or wind-



thrown tree is eye-catching. Trees showing these conditions should be pruned or removed to provide a continuously safe environment, which also provides a visually pleasing woodlot. Review the woodlot on an annual basis, after leaf drop and add the clean-up work to the spring clean-up list. Obviously dangerous trees should be pruned or dropped immediately. Coarse & fine woody debris should be retained according to commonly accepted guidelines, which are to maintain at least 3-5 stems at least 18" DBH and 10 stems at least 14" DBH per acre.

This area has high value for potential views of Lake Champlain and New York from proposed housing units #6-8. Trees will be lifted and the crowns will be thinned to remove deadwood and reduce wind obstruction by reducing the "sail" of the crowns. All work in this manner will consider both views to and from the lake.

**Tree Species List:**

Red Oak  
Black Oak  
Eastern Cottonwood  
Black Locust  
Gray Birch  
Paper Birch

**Shrub List:**

Grape  
Common Buckthorn (Class B Noxious Weed)  
Bittersweet (Class B Noxious Weed)  
Japanese Barberry (Class B Noxious Weed)  
Bush Honeysuckle (Class B Noxious Weed)  
Staghorn Sumac

## MAP AREA 5: 0.47 ACRE

### MID-SUCCESSIONAL WOODLAND

#### DESCRIPTION:

This area is located south of map area 4. The bike path right-of-way abuts this area to the west. The vegetation consists of mixed hardwood tree and shrub species. A full species list is located at the end of this map area section. The overstory consists of pole-sized trees (5.5"-11.5" DBH). This area constitutes the berm of what was historically used as a gravel pit and is one of the youngest areas. The understory-midstory shrub layer is moderately stocked in this area. This area falls entirely into the 250' setback from 100' Elevation.

#### MANAGEMENT OBJECTIVES AND RECOMMENDATIONS:

Restoration of the area is a primary objective. Invasive plant removal is necessary to encourage native understory vegetation. Specimen trees, if identified, will be retained and their crowns should be maintained and released from competition with other trees. Mast-producers should be retained wherever possible and where they don't pose a safety threat to recreational path users. Red Oak and high-quality Paper Birch are preferred for retention as they're exhibiting the greatest vigor and are the most aesthetically appealing trees in this area.

An additional objective is to maintain a generally neat appearance and provide a safe environment for users of the recreational path. Trees that are located adjacent to the recreational path in high traffic areas must be treated as a valuable aesthetic resource and be maintained to provide a safe environment. Trees that are dead, dying or damaged should be removed for user safety. This includes trees with grape intertwined in their crowns, which can become a safety hazard in the event of a wind storm. From an aesthetic perspective, a broken limb or wind-thrown tree is eye-catching. Trees showing these conditions should be pruned or removed to provide a continuously safe environment, which also provides a visually pleasing woodlot. Review the woodlot on an annual basis, after leaf drop and add the clean-up work to the spring clean-up list. Obviously dangerous trees should be pruned or dropped immediately. Coarse & fine woody debris should be retained according to commonly accepted guidelines, which are to maintain at least 3-5 stems at least 18" DBH and 10 stems at least 14" DBH per acre.

#### Tree Species List:

Red Oak  
Black Cherry  
Eastern Cottonwood  
Black Locust  
Gray Birch  
Paper Birch

#### Shrub List:

Grape  
Common Buckthorn (Class B Noxious Weed)  
Bittersweet (Class B Noxious Weed)  
Japanese Barberry (Class B Noxious Weed)  
Bush Honeysuckle (Class B Noxious Weed)  
Staghorn Sumac

## Section VII. SCHEDULE OF ACTIVITIES

<b>MAP AREA</b>	<b>YEAR</b>	<b>DESCRIPTION</b>
All	Annually	Assess ground and tree conditions and maintain as necessary
All	Annually	Manage for control of the invasive plants to include all invasives such as buckthorn and honeysuckle
1	2015	Removal of dead, dying, damaged or hazard trees; in particular there are many dead cottonwoods and poor quality hazard box elder trees to be removed, there is also a specimen Hackberry that will be released. Trees will be pruned to ISA standards and Best Management Practices. Specifically manage for late successional species such as the oaks
2	2015	This area has a specimen butternut that will be released, manage the invasives and prune to reduce branch hazards. Trees will be pruned to ISA standards and Best Management Practices. This area will be managed for Black Locust
3	2015	Clear groupings and portion of peninsula for recreational and parking areas, the alder patch will remain
4	2015	Removal of dead, dying, damaged or hazard trees including and especially the several box elder trees which are over hanging the several trails in this area Manage for the control of the many invasive species. Prune & Lift for view-clearing following the ISA pruning standards and Best Management Practices. This area will be primarily managed for the oak species and cottonwoods
5	2015	Removal of dead, dying, damaged or hazard trees Crop Tree Release of Red Oak & Paper Birch Prune & Lift for view-clearing; Trees will be pruned to ISA standards and Best Management Practices. This area will be specifically managed for the large and small oaks as well as the white birch component.
All	2020	Review Objectives & Update Tree Maintenance Plan

**** All activities will be completed in a way to ensure the continued stability of the escarpment on top of slope soils**

# APPENDIX



**APPENDIX A.  
LEGAL REVIEW**

**APPENDIX B.**  
**TREE RESOURCE MAP**

**APPENDIX C.**  
**T.J. BOYLE ASSOCIATES SITE CONCEPT PLANS**

**APPENDIX D.**  
**CIVIL ENGINEERING ASSOCIATES, INC. PLANS**



## **APPENDIX E. SOIL DESCRIPTION**

### **ADAMS SERIES**

The Adams series consists of deep, loose, excessively drained soils that are sandy throughout. These soils are level to steep. The larger areas are in Milton, Jericho, and Essex, east of the Windsor soils, and at higher elevations. Smaller areas of Adams soil are in Underhill, Bolton, and Richmond, and in stream valleys of the Green Mountains.

These soils developed in sandy beaches, deltas, and terraces. The sand is deeper than 4 feet. In most places it is underlain by stratified sand, gravel, sandy loam, loam glacial till, clay, silt, or bedrock.

In a representative profile the surface layer is an unplowed area is black loamy sand, high in content of organic matter, and about 1 inch thick. Under this is a layer of light brownish-gray loamy sand about 6 inches thick. In cultivated areas, these two layers are mixed with some of the subsoil to form the very dark grayish-brown loamy sand plow layer. The subsoil is very friable or loose loamy fine sand about 23 inches thick. It is dark reddish brown in the upper part, dark yellowish brown in the middle part, and yellowish brown in the lower part. The substratum is grayish-brown loamy fine sand to a depth of about 45 inches or more.

The bright colors and lack of mottles in the Adams soils indicate that they are well aerated and porous. The soils are rapidly permeable, have a moderately low available moisture capacity, and have very low natural fertility. These soils are filled to capacity with available moisture at the start of the growing season. As the growing season progresses, rain normally is not adequate to replenish the soil moisture used by plants. Crops, therefore, show signs of lack of moisture during the growing season. These soils warm faster in the spring than the more silty, more clayey, or wetter soils in the county. These soils are susceptible to soil blowing where unvegetated. Adams soils have a low shrink-well potential.

The Adams soils are used mainly for corn, pasture, and hay in farming areas and for housing developments, industrial sites, and roads near villages and cities. They have been farmed intensively, but many areas of Adams soils are now in trees or brush.

### **ADAMS AND WINDSOR LOAMY SANDS, 0 TO 5 PERCENT SLOPES**

The Windsor soil is predominant in this mapping unit, but an area may consist of either the Adams soil, the Windsor soil, or of a mixture of the two. These soils occupy irregularly shaped terraces 2 to 200 acres in size. The irregular shape is due to the many gullies dissecting the sand plains. The profiles of the Adams and Windsor soils are the ones described as representative for the respective series.

Included with these soils in mapping are some areas of Adams and Windsor soils that have a thin surface layer where soil blowing has taken place. These areas are roughly circular in shape and less than 100 feet in diameter. Also included are areas of soil in which the content, by volume, of gravel, cobblestones, and stones averages more than 15 percent between depths of 10 and 40 inches. Some of the areas mapped contain areas of Deerfield soils and Colton soils. Areas that have stones and cobblestone on the surface are also included. In a few areas, the surface layer is sand or fine sand. In many areas this mapping unit is slightly acid or neutral throughout.

These soils are used for truck gardening, inter-tilled farm crops, hay, and pasture. They have few limitations for many non-farm uses such as housing developments. A large part of this mapping unit is woodland or idle.

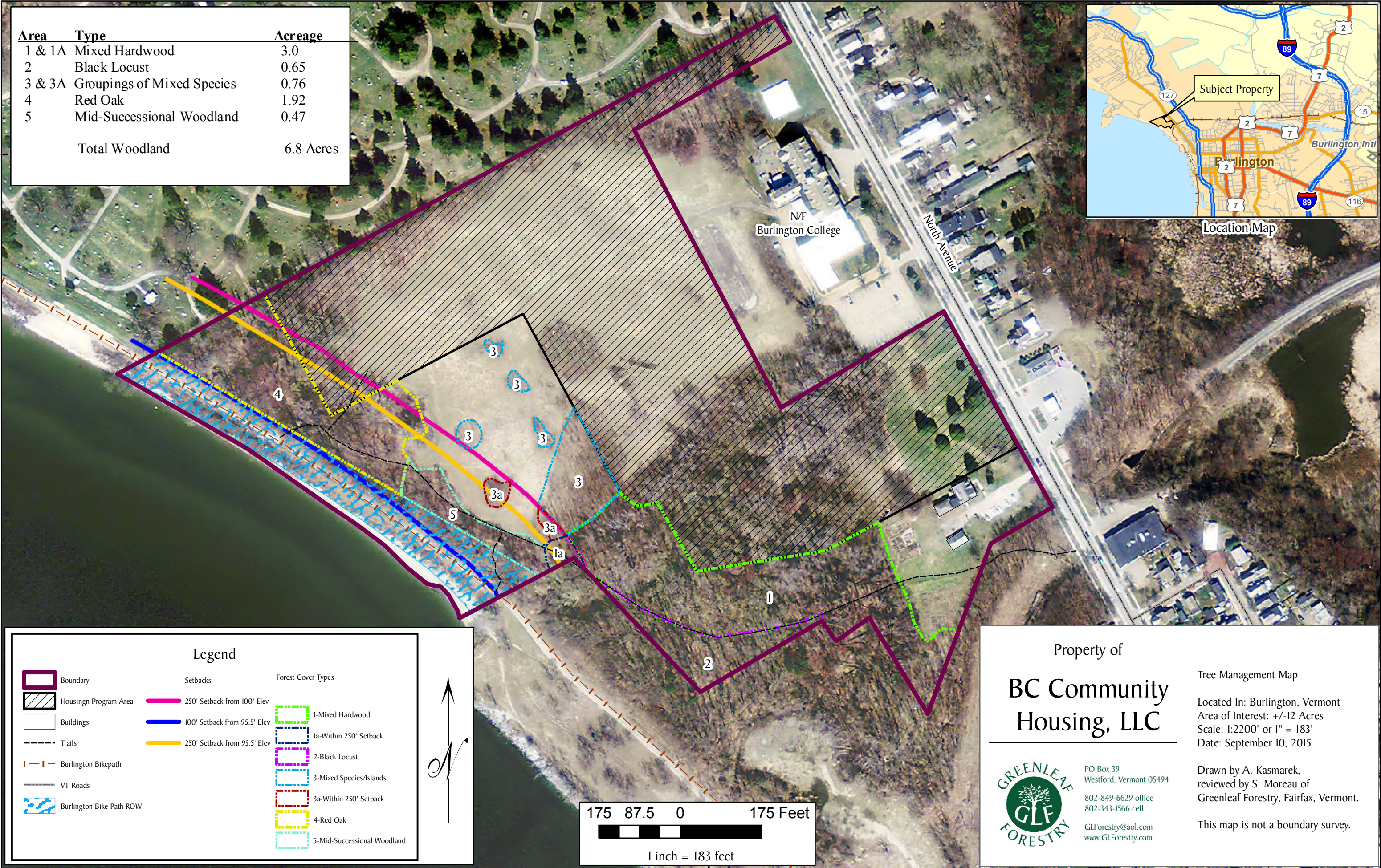
Surface runoff is very slow. The ground should be kept well covered by vegetation to prevent soil blowing. On these soils the hazard of water erosion is very slight, even in non-vegetated areas. (Both parts, capability unit IIIs-1; both parts, woodland suitability group 4s1).

Information taken from:  
Chittenden County Vermont USDASCS; 1974

**APPENDIX F.**  
**INVASIVE EXOTIC PLANTS INFORMATION SHEET**

**APPENDIX G.**  
**ISA ANSI PRUNING STANDARD PRACTICES AND BEST MANAGEMENT**  
**PRACTICES**







# Invasive Exotic Plants

## *Give Them A Niche, And They Take A Mile*

**The Problem:** People have been moving plants around the Earth's continents for centuries. Plants have long been valued for their use as food, shelter, medicine and ornament, and have been widely introduced to new areas intentionally so that we may take advantage of the many benefits they offer. Additional plant species have made their way to new places accidentally in the ballast of ships, on machinery, and through various other avenues of transport.

In most cases, **exotic plants** are not a threat to **natural communities** and do not interfere with our use and enjoyment of natural resources. Most introduced plant species have remained an asset in our yards, gardens, agricultural lands and developed areas.

Among the many thousands of species that have been intentionally or accidentally introduced, however, some have an aggressive growth habit that has resulted in their spread throughout natural communities. Once established, these **invasive exotic plants** can significantly disrupt habitats. The exotics often lack the predators that keep them in check in their own native regions.

### GLOSSARY of TERMS

**Exotic Plant:** A plant species which has been purposefully or accidentally introduced outside its original geographic range.

**Natural Communities:** Assemblages of plants and animals that are found recurring across the landscape under similar environmental conditions where natural processes, rather than human disturbances, prevail.

**Invasive Exotic Plant:** An exotic plant species which is able to proliferate and aggressively alter or displace native biological communities.

**Native Plant:** A plant species that can be shown to have been present in the region for at least 100 years and for which there is no evidence that it is an exotic plant.

As a result, the plants can run rampant, out-competing **native plants** for space, sunlight, and nutrients. Native plants help keep an ecosystem healthy and stable and are generally more beneficial to wildlife populations.

Infestations of exotic plants can also interfere with navigation, recreation, power generation, water supplies, production on agricultural and range lands, and create public health and safety hazards. The direct monetary costs of trying to control some of these plant pests and alleviate their negative effects on human activities and the environment are enormous, running into hundreds of millions of dollars annually in the United States.

**A Solution:** The Vermont Invasive Exotic Plant Fact Sheet Series was developed by the Vermont Agency of Natural Resources and The Nature Conservancy of Vermont to increase awareness of existing and potential invasive exotic plant problems in Vermont, and to promote cooperative efforts to address these problems. Many individuals outside the Agency contributed to their development. The series represents a list of 32 state quarantined species.

In April 2002, the Vermont Department of Agriculture, Food & Markets adopted a plant quarantine rule to regulate the importation, movement, sale, possession, cultivation, and/or distribution of certain invasive plants. The Noxious Weed Quarantine Rule creates two quarantine categories. Class A species are not yet known to occur in Vermont and are all species on the federal noxious weed list. The movement, importation, sale, possession, cultivation, and/or distribution of Class A plants is prohibited. Class B species occur in Vermont and pose a serious threat to the state. The rule prohibits the movement, sale, and/or distribution of Class B species.

Addressing the problem of invasive exotic plants in Vermont will not be quick or easy, but it is not impossible. This effort requires cooperative work on three fronts:

## 1. *Prevention of New Introductions*

**Status** - Invasive exotic plants that have not yet been introduced into an area

**Objective** - Prevent introduction

**Rationale** - The most successful and cost-effective solution *prevents* invasive exotic plants from getting a foot-hold in the first place

**Action** - Raise public awareness, practice spread prevention techniques, enforce the Quarantine Rule

## 2. *Eradication of New Infestations*

**Status** - Invasive exotic plants that have been recently introduced and the population is not yet well-established or widespread

**Objective** - Eradicate infestation or prevent further spread

**Rationale** - Attacking an infestation while its density and range are limited offers the best prospect for elimination or containment of the species, saving both money and natural resources

**Actions** - Train volunteers to identify invasive exotic plants, educate about Vermont's Quarantine Rule, conduct monitoring programs for early detection, have a quick response plan in place

## 3. *Management of Established Populations*

**Status** - Invasive exotic plants that are already well established and widespread

**Objective** - Manage the infestation

**Rationale** - Minimize negative effects on ecosystems and biological diversity, maximize human use and enjoyment of the infested area

**Actions** - Investigate long-term, site-specific control options, implement control and restoration strategies*, evaluate programs to identify areas for improvement

*Control efforts can vary from the use of mechanical, chemical, or biological means, to employing habitat manipulation strategies. Fighting invasive exotic plants presents special challenges, since it is necessary to ensure that the control measures themselves do not inadvertently cause further harm to sensitive species or ecosystems, or to people.

Many control activities, particularly those conducted in lakes and ponds, require a permit from the Vermont Agency of Natural Resources (802-241-3777). The use of herbicides may also require a special license from the Vermont Department of Agriculture, Food and Markets (802-828-2431). Always check with the appropriate state and local authorities before conducting any control program.

# American National Standard for Tree Care Operations –

## Tree, Shrub, and Other Woody Plant Management – Standard Practices (Pruning)

### 1 ANSI A300 standards

#### 1.1 Scope

ANSI A300 standards present performance standards for the care and management of trees, shrubs, and other woody plants.

#### 1.2 Purpose

ANSI A300 performance standards are intended for use by federal, state, municipal and private entities including arborists, property owners, property managers, and utilities for developing written specifications.

#### 1.3 Application

ANSI A300 performance standards shall apply to any person or entity engaged in the management of trees, shrubs, or other woody plants.

### 2 Part 1 – Pruning standards

#### 2.1 Purpose

The purpose of Part 1 – *Pruning* is to provide performance standards for developing written specifications for pruning.

#### 2.2 Reasons for pruning

The reasons for tree pruning may include, but are not limited to, reducing risk, managing tree health and structure, improving aesthetics, or achieving other specific objectives. Pruning practices for agricultural, horticultural production, or silvicultural purposes are exempt from this standard unless this standard, or a portion thereof, is expressly referenced in standards for these other related areas.

### 2.3 Implementation

**2.3.1** Specifications for pruning should be written and administered by an arborist.

**2.3.1.1** Specifications should include location of tree(s), objectives, methods (types), and extent of pruning (location, percentage, part size, etc).

**2.3.2** Pruning specifications shall be adhered to.

### 2.4 Safety

**2.4.1** Pruning shall be implemented by an arborist, familiar with the practices and hazards of pruning and the equipment used in such operations.

**2.4.2** This performance standard shall not take precedence over applicable industry safe work practices.

**2.4.3** Performance shall comply with applicable Federal and State Occupational Safety and Health standards, ANSI Z133.1, Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and other Federal Environmental Protection Agency (EPA) regulations, as well as state and local regulations.

### 3 Normative references

The following standards contain provisions, which, through reference in the text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard shall apply the most recent edition of the standards indicated below.

ANSI Z60.1, Nursery stock  
ANSI Z133.1, Arboriculture – Safety requirements  
29 CFR 1910, General industry ¹⁾  
29 CFR 1910.268, Telecommunications ¹⁾  
29 CFR 1910.269, Electric power generation, transmission, and distribution ¹⁾  
29 CFR 1910.331 - 335, Electrical safety-related work practices ¹⁾

### 4 Definitions

**4.1 arboriculture:** The art, science, technology, and business of commercial, public, and utility tree care.

¹⁾ Available from U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210



**4.2 arborist:** An individual engaged in the profession of arboriculture who, through experience, education, and related training, possesses the competence to provide for or supervise the management of trees and other woody plants.

**4.3 arborist trainee:** An individual undergoing on-the-job training to obtain the experience and the competence required to provide for or supervise the management of trees and other woody plants. Such trainees shall be under the direct supervision of an arborist.

**4.4 branch:** A shoot or stem growing from a parent branch or stem (See Fig. 4.4).

**4.4.1 codominant branches/codominant leaders:** Branches or stems arising from a common junction, having nearly the same size diameter (See Fig. 4.4).

**4.4.2 lateral branch:** A shoot or stem growing from another branch (See Fig. 4.4).

**4.4.3 parent branch or stem:** A tree trunk or branch from which other branches or shoots grow (See Fig. 4.4).

**4.4.4 scaffold branch:** A primary branch that forms part of the main structure of the crown (See Fig. 4.4).

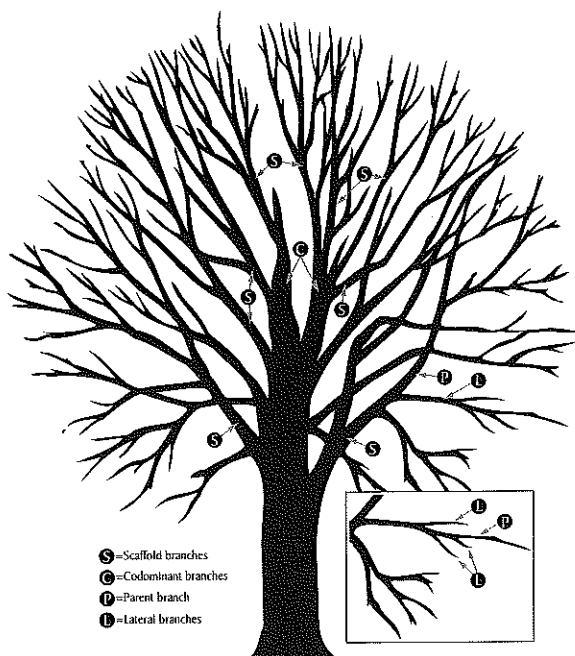


Figure 4.4 Standard branch definitions.

**4.5 branch bark ridge:** The raised area of bark in the branch crotch that marks where the branch and parent stem meet. (See Figs. 5.3.2 and 5.3.3).

**4.6 branch collar:** The swollen area at the base of a branch.

**4.7 callus:** Undifferentiated tissue formed by the cambium around a wound.

**4.8 cambium:** The dividing layer of cells that forms sapwood (xylem) to the inside and inner bark (phloem) to the outside.

**4.9 clean:** Selective pruning to remove one or more of the following non-beneficial parts: dead, diseased, and/or broken branches (7.2).

**4.10 climbing spurs:** Sharp, pointed devices strapped to a climber's lower legs used to assist in climbing trees. (syn.: gaffs, hooks, spurs, spikes, climbers)

**4.11 closure:** The process in a woody plant by which woundwood grows over a pruning cut or injury.

**4.12 crown:** Upper part of a tree, measured from the lowest branch, including all the branches and foliage.

**4.13 decay:** The degradation of woody tissue caused by microorganisms.

**4.14 espalier:** The combination of pruning, supporting, and training branches to orient a plant in one plane (6.5).

**4.15 establishment:** The point after planting when a tree's root system has grown sufficiently into the surrounding soil to support growth and anchor the tree.

**4.16 facility:** A structure or equipment used to deliver or provide protection for the delivery of an essential service, such as electricity or communications.

**4.17 frond:** A leaf structure of a palm.

**4.18 heading:** The reduction of a shoot, stem, or branch back to a bud or to a lateral branch not large enough to assume the terminal role.

**4.19 interfering branches:** Crossing, rubbing, or upright branches that have the potential to damage tree structure and/or health.

**4.20 internode:** The area between lateral branches or buds.

**4.21 job briefing:** The communication of at least the following subjects for arboricultural operations: work specifications, hazards associated with the job, work procedures involved, special precautions, electrical hazards, job assignments, and personal protective equipment.

**4.22 leader:** A dominant, typically upright, stem – usually the main trunk. There can be several leaders in one tree.

**4.23 lion's tailing:** The removal of an excessive number of inner and/or lower lateral branches from parent branches. Lion's tailing is not an acceptable pruning practice (6.1.7).

**4.24 live crown ratio:** Crown height relative to overall plant height.

**4.25 mechanical pruning:** A pruning technique where large-scale power equipment is used to cut back branches (9.3.2).

**4.26 method:** A procedure or process for achieving an objective.

**4.27 peeling:** The removal of dead frond bases without damaging living trunk tissue at the point they make contact with the trunk. (syn.: shaving)

**4.28 petiole:** A stalk of a leaf or frond.

**4.29 pollarding:** Pruning method in which tree branches are initially headed and then reduced on a regular basis without disturbing the callus knob (6.6).

**4.30 pruning:** The selective removal of plant parts to meet specific goals and objectives.

**4.31 qualified line-clearance arborist:** An individual who, through related training and on-the-job experience, is familiar with the equipment and hazards in line clearance and has demonstrated the ability to perform the special techniques involved. This individual may or may not be currently employed by a line-clearance contractor.

**4.32 qualified line-clearance arborist trainee:** An individual undergoing line-clearance training under the direct supervision of a qualified line-clearance arborist. In the course of such training, the trainee becomes familiar with the equipment and hazards in line clearance and demonstrates ability in the performance of the special techniques involved.

**4.33 raise:** Pruning to provide vertical clearance (7.3).

**4.34 reduce:** Pruning to decrease height and/or spread (7.4).

**4.35 remote area:** As used in the utility pruning section of this standard, an unpopulated area.

**4.36 restoration:** Pruning to redevelop structure, form, and appearance of topped or damaged trees (6.3).

**4.37 rural area:** As used in the utility pruning section of this standard, a sparsely populated place away from large cities, suburbs, or towns but distinct from remote areas.

**4.38 shall:** As used in this standard, denotes a mandatory requirement.

**4.39 shoot:** Stem or branch and its leaves, especially when young.

**4.40 should:** As used in this standard, denotes an advisory recommendation.

**4.41 specifications:** A document stating a detailed, measurable plan or proposal for provision of a product or service.

**4.42 sprouts:** New shoots originating from epicormic or adventitious buds, not to be confused with suckers. (syn.: watersprouts, epicormic shoots)

**4.43 standard, ANSI A300:** The performance parameters established by industry consensus as a rule for the measure of extent, quality, quantity, value or weight used to write specifications.

**4.44 stem:** A woody structure bearing buds, foliage, and giving rise to other stems.

**4.45 structural pruning:** Pruning to improve branch architecture (6.2).

**4.46 stub:** Portion of a branch or stem remaining after an internodal cut or branch breakage.

**4.47 subordination:** Pruning to reduce the size and ensuing growth rate of a branch or leader in relation to other branches or leaders.

**4.48 sucker:** Shoot arising from the roots.

**4.49 thin:** pruning to reduce density of live branches (7.5).

**4.50 throw line:** A small, lightweight line with a weighted end used to position a climber's rope in a tree.

**4.51 topping:** Reduction of tree size using internodal cuts without regard to tree health or structural integrity. Topping is not an acceptable pruning practice (6.1.7).

**4.52 tracing:** The removal of loose, damaged tissue from in and around the wound.

**4.53 trunk:** The main woody part of a tree beginning at and including the trunk flare and extending up into the crown from which scaffold branches grow.

**4.54 trunk flare:** 1. The area at the base of the plant's trunk where it broadens to form roots. 2. The area of transition between the root system and trunk (syn.: root flare).

**4.55 urban/residential areas:** Populated areas including public and private property that are normally associated with human activity.

**4.56 utility:** A public or private entity that delivers a public service, such as electricity or communications.

**4.57 utility space:** The physical area occupied by a utility's facilities and the additional space required to ensure its operation.

**4.58 vista/view prune:** Pruning to enhance a specific view without jeopardizing the health of the tree (6.4).

**4.59 wound:** An opening that is created when the bark of a live branch or stem is cut, penetrated, damaged, or removed.

**4.60 woundwood:** Partially differentiated tissue responsible for closing wounds. Woundwood develops from callus associated with wounds.

## 5 Pruning practices

### 5.1 Tree inspection

**5.1.1** An arborist or arborist trainee shall visually inspect each tree before beginning work.

**5.1.2** If a condition is observed requiring attention beyond the original scope of the work, the condition should be reported to an immediate supervisor, the owner, or the person responsible for authorizing the work.

**5.1.3** Job briefings shall be performed as outlined in ANSI Z133.1, subclause 3.1.4.

### 5.2 Tools and equipment

**5.2.1** Equipment, tools, and work practices that damage living tissue and bark beyond the scope of normal work practices shall be avoided.

**5.2.2** Climbing spurs shall not be used when entering and climbing trees for the purpose of pruning.

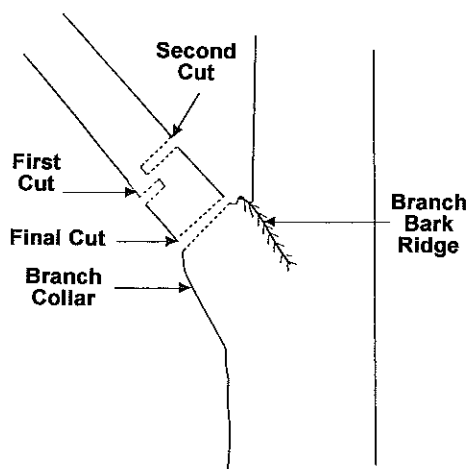
Exceptions:

- when branches are more than throw-line distance apart and there is no other means of climbing the tree;
- when the outer bark is thick enough to prevent damage to the inner bark and cambium;
- in remote or rural utility rights-of-way.

### 5.3 Pruning cuts

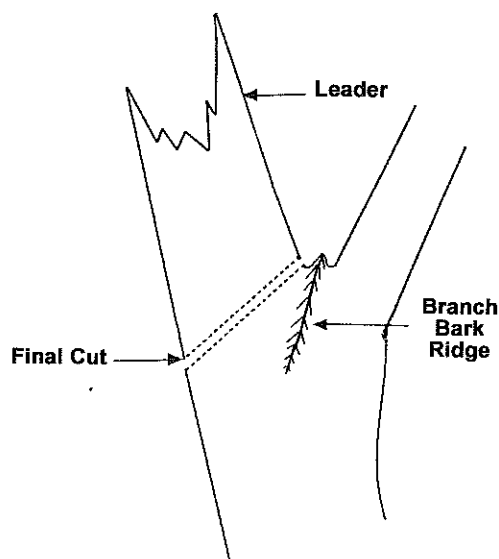
**5.3.1** Pruning tools used in making pruning cuts shall be sharp.

**5.3.2** A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent branch without cutting into the branch bark ridge or branch collar or leaving a stub (see Figure 5.3.2).



**Figure 5.3.2.** A cut that removes a branch at its point of origin. (See Annex A – Pruning cut guideline).

**5.3.3** A pruning cut that reduces the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and not damage the remaining stem. Smaller cuts shall be preferred (see Fig. 5.3.3).



**Figure 5.3.3.** A cut that reduces the length of a branch or parent stem.

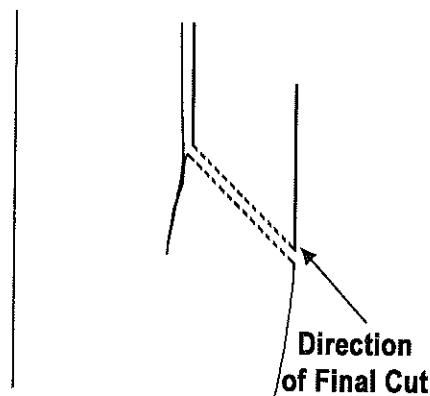
**5.3.4** When pruning to a lateral, the remaining lateral branch should be large enough to assume the terminal role.

**5.3.5** The final cut should result in a flat surface with adjacent bark firmly attached.

**5.3.6** When removing a dead branch, the final cut shall be made just outside the collar of living tissue.

**5.3.7** Tree branches shall be removed in such a manner so as to avoid damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be pre-cut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.

**5.3.8** A cut that removes a branch with a narrow angle of attachment should be made from the outside of the branch to prevent damage to the parent branch (see Figure 5.3.8).



**Figure 5.3.8.** A cut that removes a branch with a narrow angle of attachment.

**5.3.9** Severed branches shall be removed from the crown upon completion of the pruning, at times when the tree would be left unattended, or at the end of the workday.

## 5.4 Wound treatment

**5.4.1** Wound treatments shall not be used to cover wounds or pruning cuts, except when necessary for disease, insect, mistletoe, or sprout control, or for cosmetic reasons.



**5.4.2** Wound treatments that are damaging to tree tissues shall not be used.

**5.4.3** When tracing wounds, only loose, damaged tissue shall be removed.

## **6 Pruning objectives**

**6.1** Pruning objectives shall be established prior to beginning any pruning operation.

**6.1.1** Objectives should include, but are not limited to, one or more of the following:

- Risk reduction
- Manage health
- Clearance
- Structural improvement/correction
- View improvement/creation
- Aesthetic improvement
- Restoration

**6.1.2** Established objectives should be specified in writing (See Annex B – *Specification writing guideline*).

**6.1.3** To obtain the defined objective, the growth cycles, structure, species, and the extent of pruning to be performed shall be considered.

**6.1.4** Not more than 25 percent of the foliage should be removed within an annual growing season. The percentage and distribution of foliage to be removed shall be adjusted according to the plant's species, age, health, and site.

**6.1.5** When frequent excessive pruning is necessary for a tree to avoid conflicts with elements such as infrastructure, view, traffic, or utilities, removal or relocation of the tree shall be considered.

**6.1.6** Pruning cuts should be made in accordance with section 5.3 *Pruning cuts*.

**6.1.7** Topping and lion's tailing shall be considered unacceptable pruning practices for trees.

**6.2 Structural:** Structural pruning shall consist of selective pruning to improve tree and branch architecture primarily on young- and medium-aged trees.

**6.2.1** Size and location of leaders or branches to be subordinated or removed should be specified.

**6.2.2** Dominant leader(s) should be selected for development as appropriate.

**6.2.3** Strong, properly spaced scaffold branch structure should be selected and maintained by reducing or removing others.

**6.2.4** Temporary branches should be retained or reduced as appropriate.

**6.2.5** Interfering, overextended, defective, weak, and poorly attached branches should be removed or reduced.

**6.2.6** At planting, pruning should be limited to cleaning (7.2).

**6.3 Restoration:** Restoration shall consist of selective pruning to redevelop structure, form, and appearance of severely pruned, vandalized, or damaged trees.

**6.3.1** Location in tree, size range of parts, and percentage of sprouts to be removed should be specified.

**6.4 Vista/view:** Vista/view pruning shall consist of the use of one or more pruning methods (types) to enhance a specific line of sight.

**6.4.1** Pruning methods (types) shall be specified.

**6.4.2** Size range of parts, location in tree, and percentage of foliage to be removed should be specified.

## **6.5 Espalier**

**6.5.1** Branches that extend outside the desired plane of growth shall be pruned or tied back.

**6.5.2** Ties should be replaced as needed to prevent girdling the branches at the attachment site.

## **6.6 Pollarding**

**6.6.1** Consideration shall be given to the ability of the individual tree to respond to pollarding.

**6.6.2** Management plans shall be made prior to the start of the pollarding process for routine removal of sprouts.

**6.6.3** Heading cuts shall be made at specific locations to start the pollarding process. After the initial cuts are made, no additional heading cuts shall be made.

**6.6.4** Sprouts growing from the cut ends of branches (knuckles) should be removed annually during the dormant season.

## 7 Pruning methods (types)

**7.1** One or more of the following methods (types) shall be specified to achieve the objective.

**7.2 Clean:** Cleaning shall consist of pruning to remove one or more of the following non-beneficial parts: dead, diseased, and/or broken branches.

**7.2.1** Location of parts to be removed shall be specified.

**7.2.2** Size range of parts to be removed shall be specified.

**7.3 Raise:** Raising shall consist of pruning to provide vertical clearance.

**7.3.1** Clearance distance shall be specified.

**7.3.2** Location and size range of parts to be removed should be specified.

**7.3.3** Live crown ratio should not be reduced to less than 50 percent.

**7.4 Reduce:** Reducing shall consist of pruning to decrease height and/or spread.

**7.4.1** Consideration shall be given to the ability of a species to tolerate this type of pruning.

**7.4.2** Location of parts to be removed or clearance requirements shall be specified.

**7.4.3** Size of parts should be specified.

**7.5 Thin:** Thinning shall consist of selective pruning to reduce density of live branches.

**7.5.1** Thinning should result in an even distribution of branches on individual branches and throughout the crown.

**7.5.2** Not more than 25 percent of the crown should be removed within an annual growing season.

**7.5.3** Location of parts to be removed shall be specified.

**7.5.4** Percentage of foliage and size range of parts to be removed shall be specified.

## 8 Palm pruning

**8.1** Palm pruning should be performed when fronds, fruit, or loose petioles may create a dangerous condition.

**8.2** Live healthy fronds should not be removed.

**8.3** Live, healthy fronds above horizontal shall not be removed. Exception: Palms encroaching on electric supply lines (see Fig. 8.3a and 8.3b).

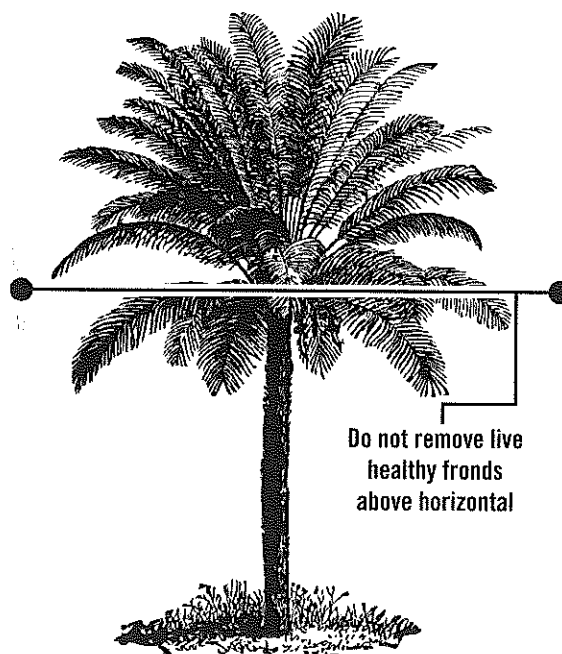
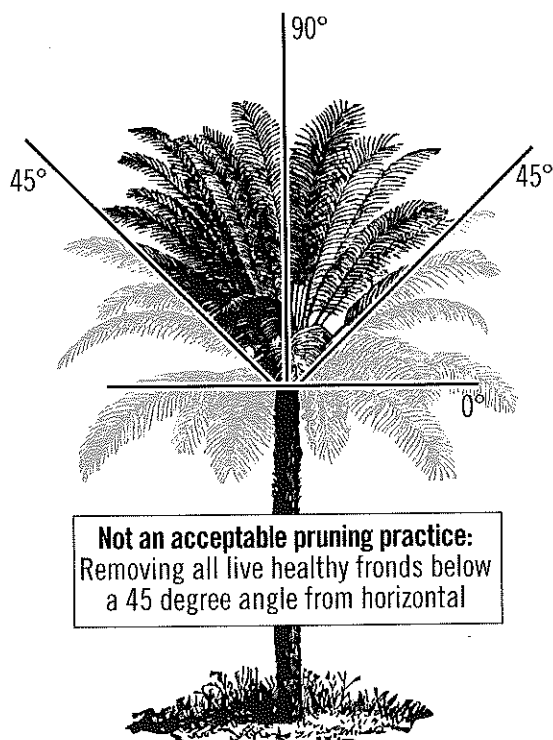


Figure 8.3a Frond removal location.



**Figure 8.3b An overpruned palm (not an acceptable pruning practice).**

**8.4** Fronds removed should be severed close to the petiole base without damaging living trunk tissue.

**8.5** Palm peeling (shaving) should consist of the removal of only the dead frond bases at the point they make contact with the trunk without damaging living trunk tissue.

## **9 Utility pruning**

### **9.1 Purpose**

The purpose of utility pruning is to prevent the loss of service, comply with mandated clearance laws, prevent damage to equipment, maintain access, and uphold the intended usage of the facility/utility space while adhering to accepted tree care performance standards.

### **9.2 General**

**9.2.1** Only a qualified line-clearance arborist or line-clearance arborist trainee shall be assigned to

line clearance work in accordance with ANSI Z133.1, 29 CFR 1910.331 – 335, 29 CFR 1910.268 or 29 CFR 1910.269.

**9.2.2** Utility pruning operations are exempt from requirements in subclause 5.1, *Tree Inspection*, for conditions outside the utility pruning scope of work.

**9.2.3** Job briefings shall be performed as outlined in ANSI Z133.1, subclause 3.1.4.

### **9.3 Utility crown reduction pruning**

#### **9.3.1 Urban/residential areas**

**9.3.1.1** Pruning cuts should be made in accordance with subclause 5.3, *Pruning cuts*. The following requirements and recommendations of 9.3.1.1 are repeated from subclause 5.3 *Pruning cuts*.

**9.3.1.1.1** A pruning cut that removes a branch at its point of origin shall be made close to the trunk or parent branch, without cutting into the branch bark ridge or collar, or leaving a stub (see Figure 5.3.2).

**9.3.1.1.2** A pruning cut that reduces the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and not damage the remaining stem. Smaller cuts shall be preferred (see Fig. 5.3.3).

**9.3.1.1.3** The final cut shall result in a flat surface with adjacent bark firmly attached.

**9.3.1.1.4** When removing a dead branch, the final cut shall be made just outside the collar of living tissue.

**9.3.1.1.5** Tree branches shall be removed in such a manner so as not to cause damage to other parts of the tree or to other plants or property. Branches too large to support with one hand shall be pre-cut to avoid splitting of the wood or tearing of the bark (see Figure 5.3.2). Where necessary, ropes or other equipment shall be used to lower large branches or portions of branches to the ground.

**9.3.1.1.6** A cut that removes a branch with a narrow angle of attachment should be made from the outside of the branch to prevent damage to the parent branch (see Figure 5.3.8).

**9.3.1.2** A minimum number of pruning cuts should be made to accomplish the purpose of facility/utility pruning. The structure and growth habit of the tree should be considered.

**9.3.1.3** Trees directly under and growing into facility/utility spaces should be removed or pruned. Such pruning should be done by removing entire branches or leaders or by removing branches that have laterals growing into (or once pruned, will grow into) the facility/utility space.

**9.3.1.4** Trees growing next to, and into or toward, facility/utility spaces should be pruned by reducing branches to laterals (5.3.3) to direct growth away from the utility space or by removing entire branches. Branches that, when cut, will produce sprouts that would grow into facilities and/or utility space should be removed.

**9.3.1.5** Branches should be cut to laterals or the parent branch and not at a pre-established clearing limit. If clearance limits are established, pruning cuts should be made at laterals or parent branches outside the specified clearance zone.

#### **9.3.2 Rural/remote locations – mechanical pruning**

Cuts should be made close to the main stem, outside of the branch bark ridge and branch collar. Precautions should be taken to avoid stripping or tearing of bark or excessive wounding.

#### **9.4 Emergency service restoration**

During a utility-declared emergency, service must be restored as quickly as possible in accordance with ANSI Z133.1, 29 CFR 1910.331 – 335, 29 CFR 1910.268, or 29 CFR 1910.269. At such times, it may be necessary, because of safety and the urgency of service restoration, to deviate from the use of proper pruning techniques as defined in this standard. Following the emergency, corrective pruning should be done as necessary.



## Annex A

### Pruning cut guideline

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#### A-1 Three-cut method

Multiple cutting techniques exist for application of a three-cut method. A number of them may be used to implement an acceptable three-cut method.

A-1.1 The technique depicted in *Figure 5.3.2* demonstrates one example of a three-cut method that is common to hand-saw usage. It is not intended to depict all acceptable three-cut method techniques.

## Annex B

### Specification writing guideline

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A300 (Part 1)-2008 *Pruning* standards are performance standards, and shall not be used as job specifications. Job specifications should be clearly detailed and contain measurable criteria.

The words "should" and "shall" are both used when writing standards. The word "shall" is used when writing specifications.

Writing specifications can be simple or complex and can be written in a format that suits your company/the job. The specifications consist of two sections.

---

#### I. General:

---

This section contains all aspects of the work to be performed that needs to be documented, yet does not need to be detailed.

Saying under the General section that "all work shall be completed in compliance with A300 Standards" means the clauses covering safety, inspections, cuts, etc. will be adhered to. There is no need to write each and every clause into every job specification.

Other items that may be covered in the General section could be: work hours and dates, traffic issues, disposal criteria, etc.

The second section under Job Specifications would be:

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#### II. Details:

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This section provides the clear and measurable criteria; the deliverables to the client.

This section, to be written in compliance with A300 standards, shall contain the following information:

**1. Objective – Clause 6**

These objectives originate from/with the tree owner or manager. The arborist shall clearly state what is going to be done to achieve the objective(s).

Objectives can be written for the entire job or individual trees. Rarely can one or two words clearly convey an objective so that all parties involved (client, sales, crew, etc.) can visualize the outcome.

**2. Method – Clause 7**

Here the method(s) to be used to achieve the objective are stated. Again, depending on the type of job, this can be stated for the individual tree or a group of trees.

**3. Location – Clause 7.2.1, 7.3.2, 7.4.2, 7.5.3**

This is the location in the tree(s) that the work methods are to take place.

**4. Density – Clause 7.3.1, 7.3.3, 7.5.1, 7.5.2, 7.5.4**

This is the amount or volume of parts that are to be removed and can be stated exactly or in ranges.

**5. Size – Clause 7.2.2, 7.3.2, 7.4.3, 7.5.4**

This is the size or range of sizes of cut(s) utilized to remove the volume specified.

**NOTE:** Items # 4 & 5 are directly related to resource allocation, staffing and dollars.

### SAMPLE PRUNING SPECIFICATIONS

**#1. Scope:** Large live oak on west side of pool

**Objectives:** Increase light penetration through east side of tree. Reduce risk potential of 1-inch-diameter branches falling.

**Specifications:** All broken branches and 1-inch-plus diameter dead branches shall be removed from the crown.

The three lowest 8-inch-plus diameter branches on the east side shall be thinned 25 percent with 1-inch- to 3-inch-diameter cuts.

**NOTE:** All work shall be completed in compliance with ANSI A300 and Z133.1 Standards.

## Annex B

### Specification writing guideline

**#2. Scope:** 1 Arizona ash

**Objective:** Enhance structure/structural development.

**Specifications:** General:

All pruning shall be completed in compliance with A300 Standards.

Detail:

Thin crown 20-25 percent with 1-inch- to 4-inch-diameter cuts. Reduce west codominant leader by approximately 12 feet.

**#3. Scope:** Twenty-three newly installed evergreen elms

**Objective:** Maximize establishment – reduce nuisance while enhancing natural growth habit.

All work shall be completed in compliance with A300 Standards and the following specifications.

**Specifications:** - Retain as much size as possible and 80-90 percent density of foliage.

- Lowest permanent branch will be 6 feet above grade in four to five years.

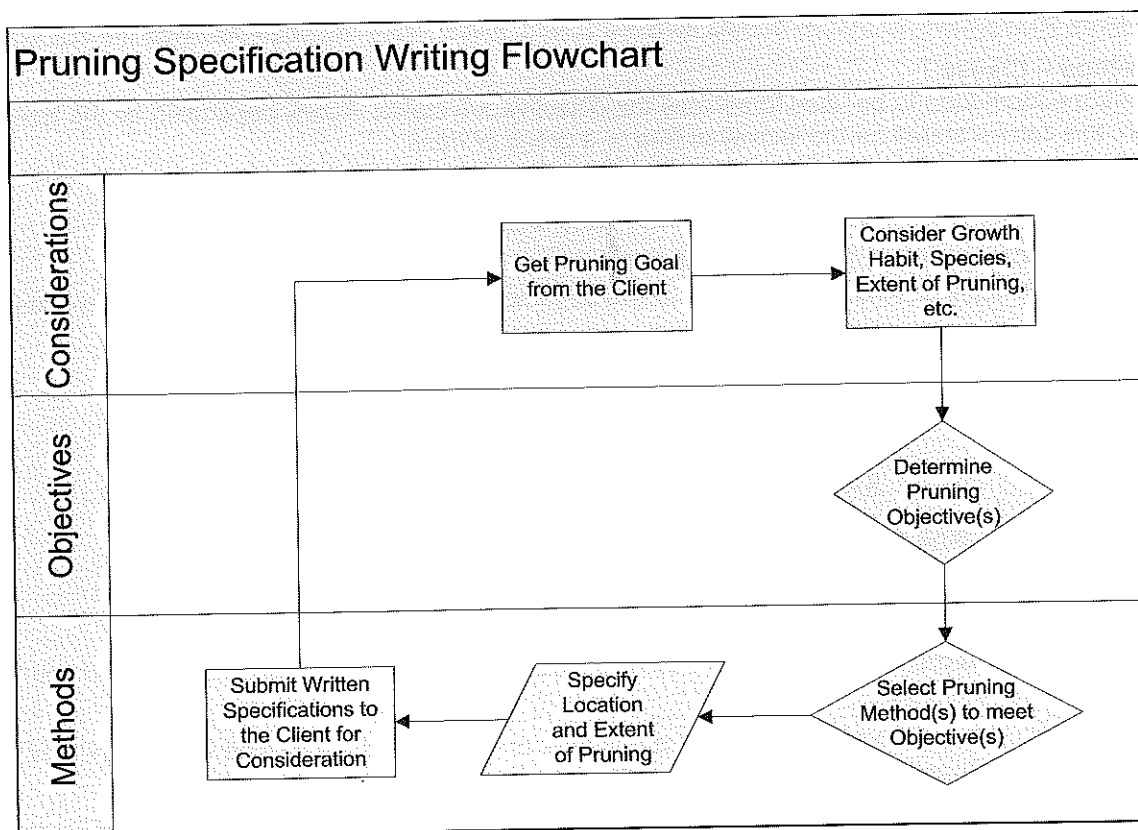
- Retain all sprout growth originating 18 inches above grade on trunk and 4 inches out from branch attachments throughout crown.

- Remove weakest rubbing branches.

- Remove dead branches.

- Reduce broken branches or branches with dead ends back to live laterals or buds. Heading cuts can be used.

- Maintain 6 inches behind adjacent edge of walks all growth that originates between 1.5 feet (18 inches) and 6 feet (72 inches) above grade. Heading cuts are acceptable.



## Annex C

### Applicable ANSI A300 interpretations

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The following interpretations apply to Part 1 – *Pruning*:

#### **C-1 Interpretation of “should” in ANSI A300 standards**

“An advisory recommendation” is the common definition of “should” used in the standards development community and the common definition of “should” used in ANSI standards. An advisory notice is not a mandatory requirement. Advisory recommendations may not be followed when defensible reasons for non-compliance exist.

#### **C-2 Interpretation of “shall” in ANSI A300 standards**

“A mandatory requirement” is the common definition of “shall” used in the standards development community and the common definition of “shall” used in ANSI standards. A mandatory requirement is not optional and must be followed for ANSI A300 compliance.



# Pruning Objectives

No tree should be pruned without first establishing clearly defined objectives. Seven main objectives are described (Table 1), along with pruning types that help meet those objectives. These objectives serve as examples and can be expanded or shortened to meet site conditions and customer expectations. Removing the correct stems and branches to accomplish specified objectives is as important as making correct pruning cuts. Even with proper pruning cuts, if the wrong branches—or too many branches—are removed, nothing of merit has been accomplished.

**Table 1. Objectives of pruning.**

- 
- Reduce risk of failure
  - Provide clearance
  - Reduce shade and wind resistance
  - Maintain health
  - Influence flower or fruit production
  - Improve a view
  - Improve aesthetics
- 

## **Reduce Risk of Failure**

Risk of tree failure can be reduced by establishing a structural pruning program that begins at planting and could carry through the first 25 years or more, depending on the species. This program should be designed to create structurally sound trunk and branch architecture that will sustain the tree for a long period. Some structural pruning can be conducted on older trees as well. Medium-aged and mature trees can be cleaned, thinned, reduced, raised, or restored to manage risk. The choice among these pruning methods depends on the tree and the situation.

## **Provide Clearance**

Growth can be directed away from an object such as a building, security light, or power line by reducing or removing limbs on that side of the tree. However, trees often grow back to fill the void created by pruning. Regular pruning is required to maintain artificial clearance. Shortening or removing low branches can raise the crown. Crown reduction or pollarding helps maintain a tree smaller than it would be without pruning. Utility pruning keeps limbs clear of overhead wires and other utility structures.

### **Reduce Shade and Wind Resistance**

Lawns, ground covers, or shrubs can receive more sunlight when live foliage is removed from the crowns of large overstory trees. The tree's resistance to wind also can be reduced with pruning. Structural pruning, thinning, reduction, and pollarding are used to accomplish this objective.

### **Maintain Health**

Health can be maintained by cleaning the crown, especially in medium-aged and mature trees. Removing dead, diseased, and rubbing branches in the crowns of young trees also is important.

### **Influence Flower or Fruit Production**

Pruning can influence the number and/or size of flowers or fruit. Fruit size can be increased on certain plants, such as peach, by removing some of the developing fruit or flowers. Flower cluster size can be increased on certain species, such as crapemyrtle, by heading. Fruit production can be eliminated by removing flowers or developing fruit.

### **Improve a View**

A view can be enhanced or created by removing live branches at the edge of the crown, at the top of the tree, or on the lower side of the crown. This pruning can include thinning, reducing, pollarding, and raising.

### **Improve Aesthetics**

A tree can be pruned to improve appearance. Cleaning, reducing, thinning, pollarding, and restoring can be used to meet this objective.

## Pruning Methods (Types)

Several pruning methods (types) are used in arboriculture to achieve the tree owner's or manager's objective. The four primary pruning methods include cleaning, thinning, raising, and reducing. Trees are also pruned to improve structure and for crown restoration. When writing job specifications the diameter range and location of the branches and stems to be removed should always be included.

### Pruning to Clean

Cleaning is the selective removal of dead, diseased, detached, cracked, and broken branches. This type of pruning is done to reduce the risk of branches falling from the tree and to reduce the movement of decay, insects, and diseases from dead or dying branches into the rest of the tree. It can be performed on trees of any age but is most common on medium-aged and mature trees. Cleaning is the preferred pruning type for mature trees because it does not remove live branches unnecessarily.

The location of branches to be removed should be specified if the entire crown is not going to be cleaned. The diameter of branches to be removed also should be specified. This usually is done by specifying the smallest branch to remove (for example, "clean branches 1 inch [2.5 cm] in diameter and larger").

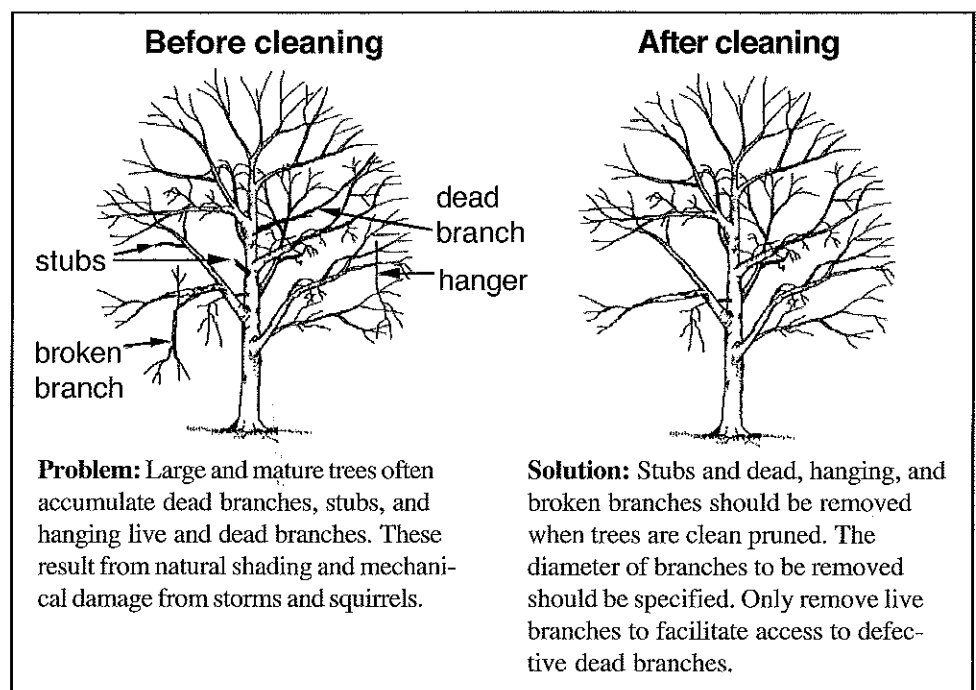
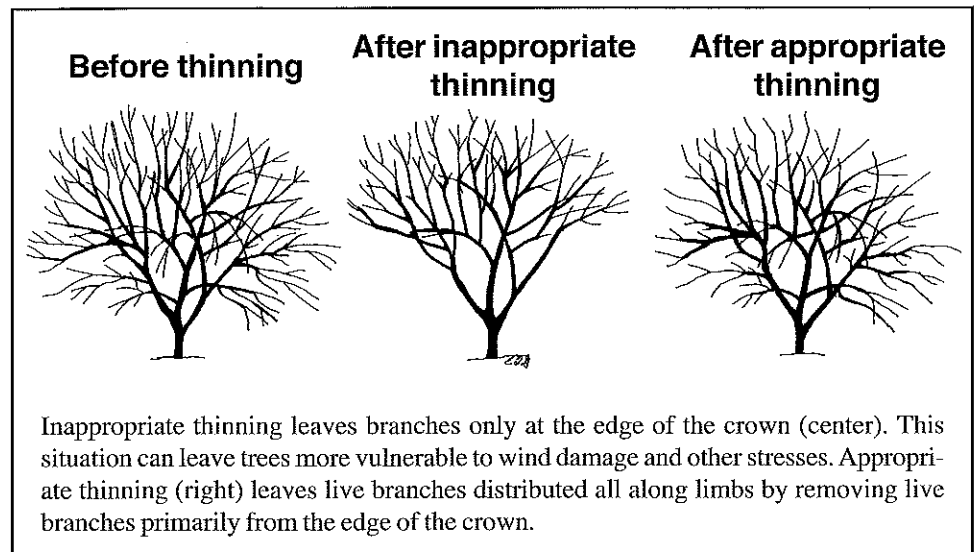


Figure 2. Pruning to clean

### Pruning to Thin

Thinning is the selective removal of small live branches to reduce crown density (Figure 3). Because the majority of small branches are at the outside edge of the crown, thinning is focused in that area. Proper thinning retains crown shape and size and should provide an even distribution of foliage throughout the crown.



**Figure 3. Thinning trees reduces density at the edge of the crown, not on the interior.**

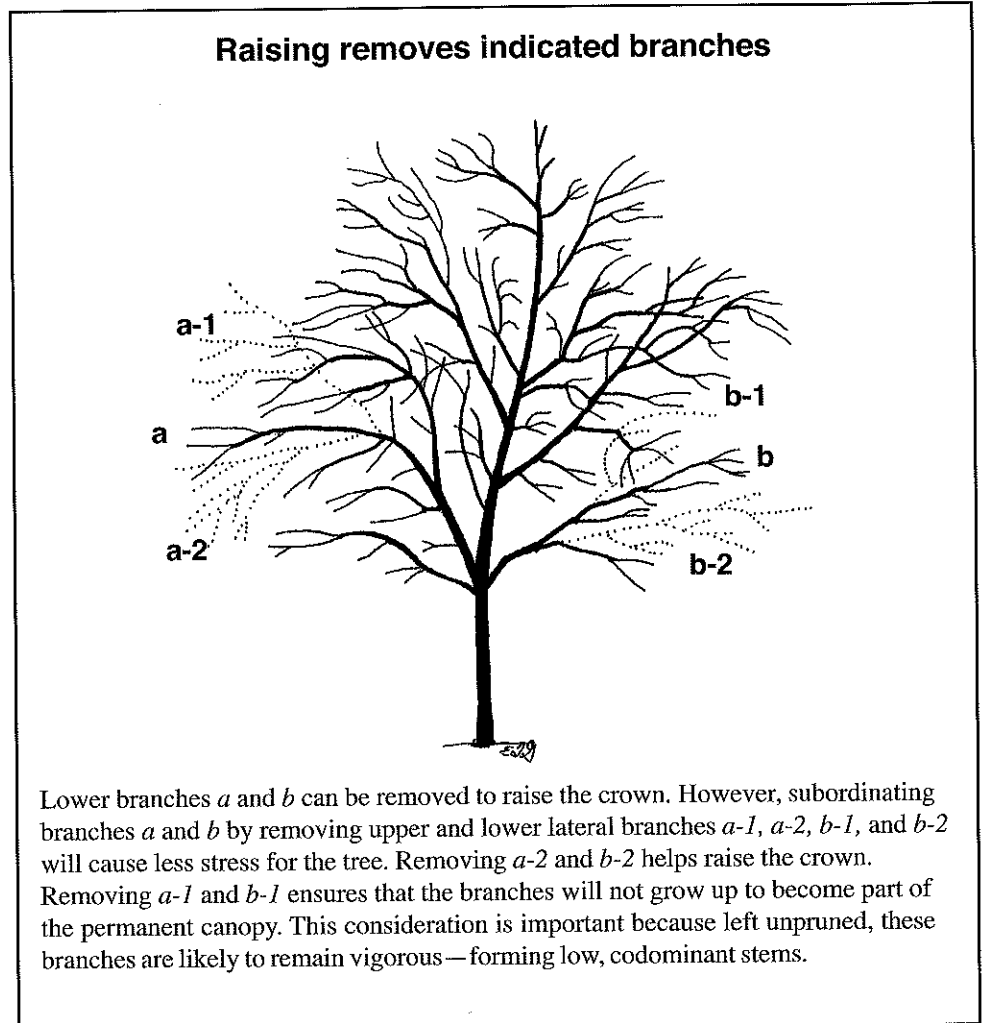
Thinning increases sunlight penetration and air movement through the crown. Increased light and air stimulate and maintain interior foliage, which can encourage taper on scaffold branches. Thinning a limb should be considered if cabling will be performed. Thinning also can remove suckers from the base of the tree and *some* watersprouts on the interior. Excessive removal of watersprouts often produces more watersprouts, so it is not recommended. Vigorous production of watersprouts on interior limbs often is a sign of overthinning, topping, or lion tailing.

Excessive branch removal on the lower two-thirds of a branch or stem (lion tailing) can have adverse effects on the tree and therefore is not an acceptable pruning practice (Figure 3). Lion tailing concentrates foliage at the ends of branches and may result in sunburned bark tissue, watersprouts, cracks in branches, reduced branch taper, increased load on branch unions, and weakened branch structure. Lion tailing also changes the dynamics of the limb and often results in excessive branch breakage.

If the entire crown will not be thinned, the areas to be thinned must be specified. The size range and percentage of foliage to be removed also must be specified—usually in the 10 to 15 percent range—but should not exceed 25 percent of the



foliage, especially on mature trees. Most thinning removes branches 1/2 inch (1.5 cm, small trees) to 2.5 inches (6.5 cm, mature trees) in diameter. If larger branches are removed, large gaps may be created in the crown, or watersprouts can result.



**Figure 4. Raising**

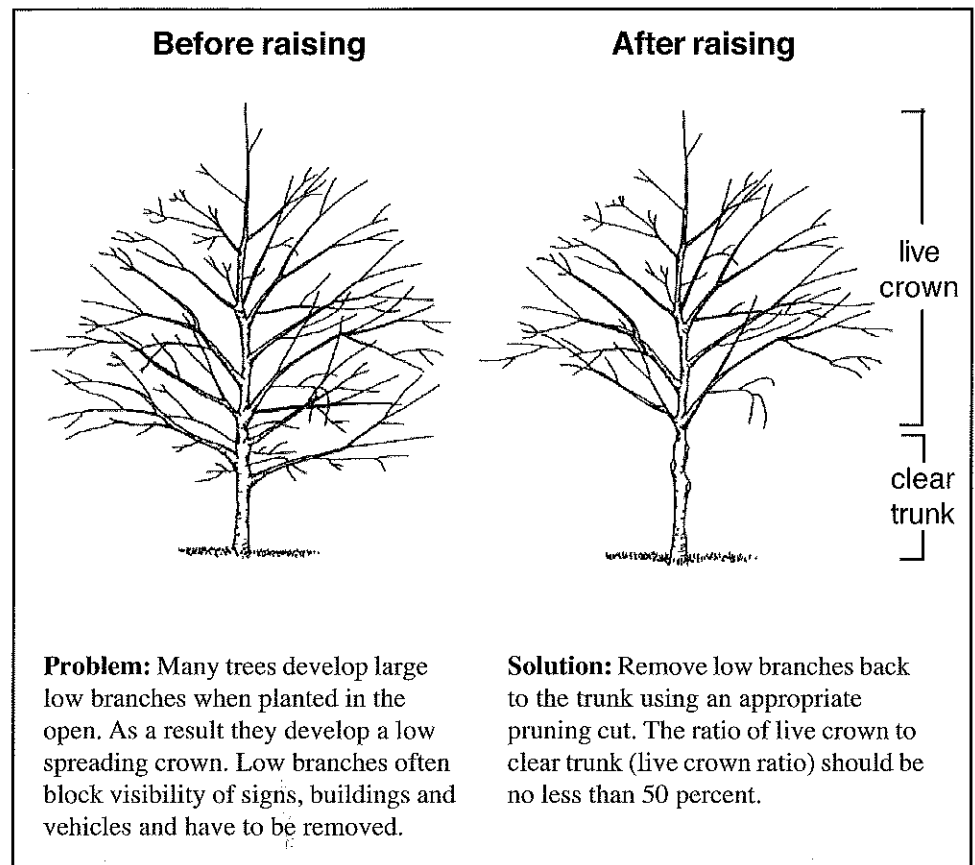
### **Pruning to Raise (Elevate, Lift)**

Raising is the selective removal of branches to provide vertical clearance. Crown raising shortens or removes lower branches of a tree to provide clearance for buildings, signs, vehicles, pedestrians, and vistas.

Excessive removal of lower limbs can slow development of trunk taper, can cause cracks or decay in the trunk, and concentrates foliage at the top of the tree.

Mature trees could become stressed if large-diameter lower branches are removed. Clearance sometimes can be achieved by shortening some of the low branches rather than removing them to prevent these problems. Live crown ratio should be no less than 50 percent when raising is completed (Figure 4), and more is better. Structural pruning should be considered along with raising.

When raising, the desired clearance should be specified. To differentiate between complete branch removal and shortening, specify the size range of the limbs to remove and their location (for example, "raise 12 feet [3.5 m] above the road by removing downward-growing branches 2 inches [5 cm] in diameter and smaller").

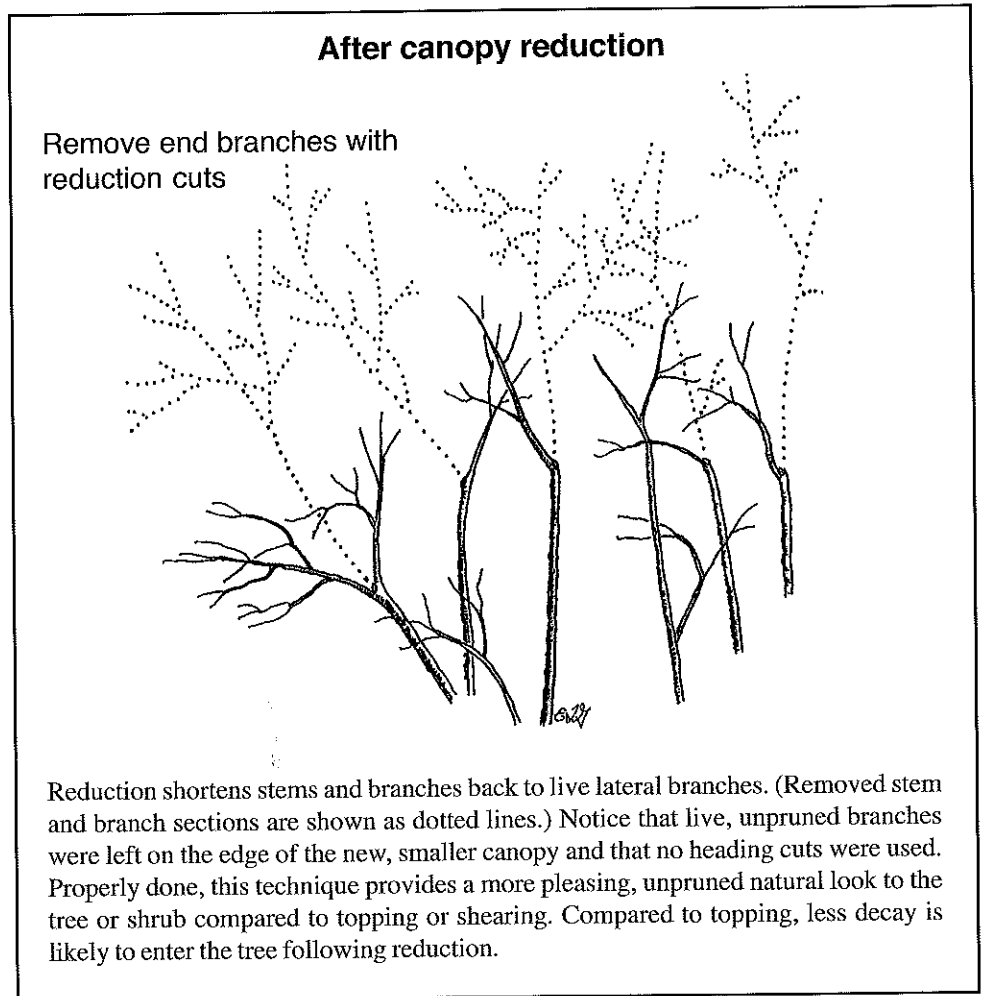


**Figure 5. Raising the crown by removing low branches.**

### Pruning to Reduce (Shape, Drop Crotch)

Reduction is the selective removal of branches and stems to decrease the height and/or spread of a tree or shrub (Figure 6). This type of pruning is done to minimize risk of failure, to reduce height or spread, for utility line clearance, to clear vegetation from buildings or other structures, or to improve the appearance of the plant. Portions of the crown, such as individual limbs, can be reduced to balance the canopy, provide clearance, or reduce likelihood of breakage on limbs with defects. Occasionally, the entire crown is reduced. Reducing or thinning should be considered if cabling would be performed. Crown reduction should be accomplished with reduction cuts, not heading cuts.

Not all tree and shrub species can be reduced. Therefore, the species and plant health should be considered before starting work. Old, stressed, or mature trees could decline or become more stressed as a result of this treatment. When a limb on a



**Figure 6. Reduction makes a plant, or portion of a plant, smaller in size.**

mature tree is cut back to a lateral, no more than one-fourth of its foliage should be removed in routine tree care. More can be removed when pruning to reduce risk, or on a young tree to accomplish particular objectives. Decay is more likely to enter the tree following reduction than following other pruning types.

The clearance distance or percentage of size reduction should be specified. Because making many small cuts or just a few larger-diameter cuts can reduce a tree, it is important also to specify the size range of cuts. Reduction usually should be done on smaller-diameter branches (for example, 1 to 4 inches [2.5 to 10 cm] for trees and 1/4 to 1 inch [0.5 to 2.5 cm] for shrubs).

### Structural Pruning

Structural pruning is the removal of live branches and stems to influence the orientation, spacing, growth rate, strength of attachment, and ultimate size of branches and stems. Structural pruning is used on young and medium-aged trees to help engineer a sustainable trunk and branch arrangement. If young trees are pruned to promote good structure, they likely will remain serviceable in the landscape for more years than trees that have not been structurally pruned. Waiting until the tree grows larger makes structural pruning difficult and is more damaging to the tree.

Structural pruning of large-maturing trees such as maples, eucalyptus, and oaks reduces certain defects and spaces main branches along one dominant trunk. Subordination can reduce branches, so they remain smaller than about half the trunk diameter, which helps prevent structural failure later. This pruning type can be summed up in the phrase: subordinate or remove codominant stems. Small-maturing trees can be trained to several trunks or pruned to develop only one, depending on the situation. Small-maturing trees and shrubs are structurally pruned to properly space codominant stems, reduce or remove rubbing limbs, and provide desirable crown configuration. The maximum diameter of the reduction cuts used with this pruning type should be specified.

Multiple prunings over time (for example, 15 to 25 years) usually are required to develop a dominant leader (Table 2). Competing stems and branches are subordinated (reduced in length) or removed (Figure 7). Subordination usually is preferred over removal, especially if the problem stem or stems are larger than half the trunk diameter. Subordination may cause less trunk decay than removal. The offending

**Table 2. To establish a dominant leader on a young or medium-aged tree, follow these four steps to encourage a leader to dominate the crown.**

1. Choose the one stem that will make the best leader.
2. Identify which stems and branches are competing with this leader.
3. Decide how much to shorten these competing stems.
4. Prevent branches from growing larger than half the trunk diameter by regular pruning.



stem(s) can always be removed later, if necessary. Cleaning and raising are usually done in conjunction with structural pruning.

The lowest permanent limb should be established by shortening vigorous branches below it and any lower branches that grow up into the crown (Figure 7). This procedure may not be possible on a young tree if all branches are below the best position for the lowest permanent limb. The height of the lowest limb is determined by the location and intended function of the tree. For example, the lowest permanent limb on a street tree might be higher than that on an arboretum specimen.

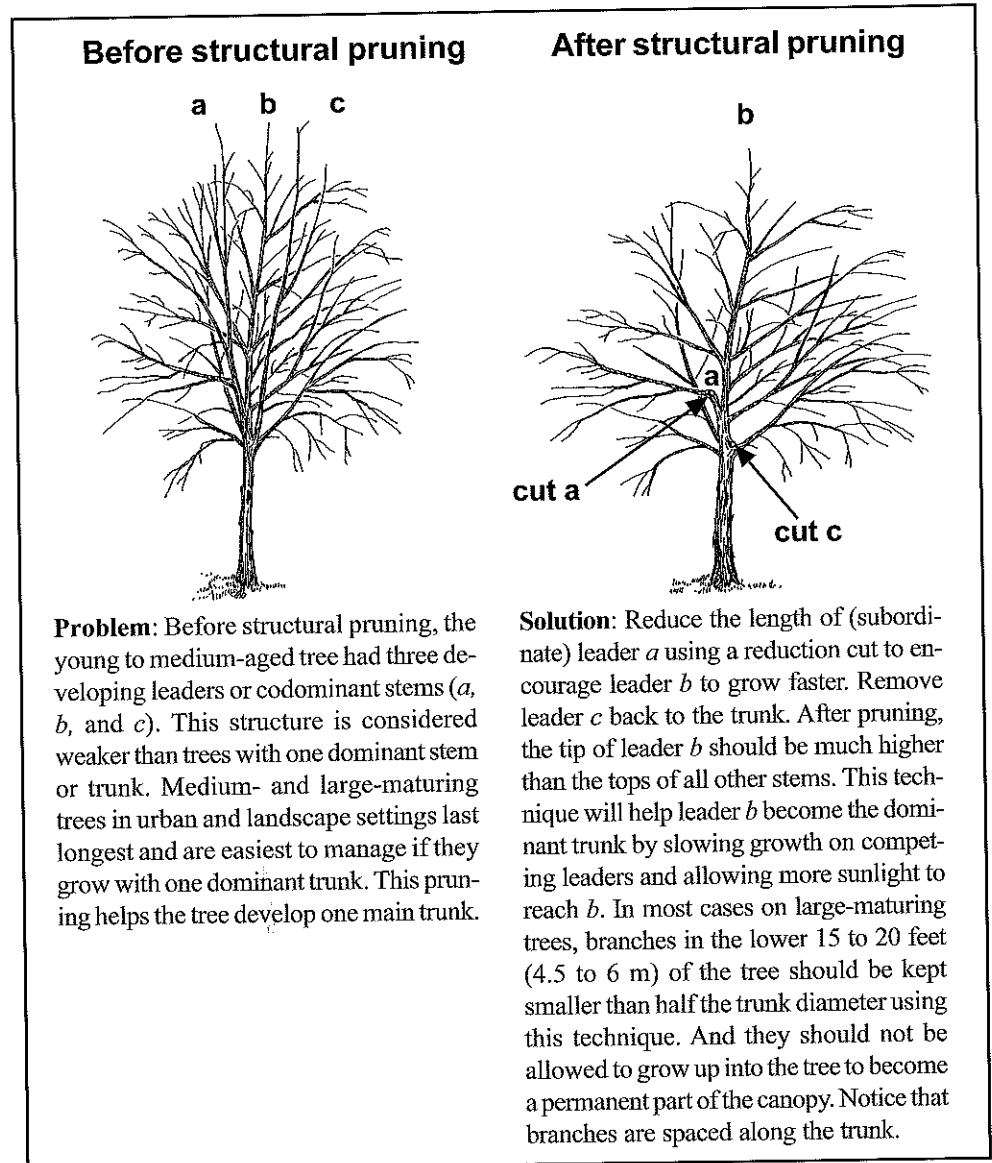
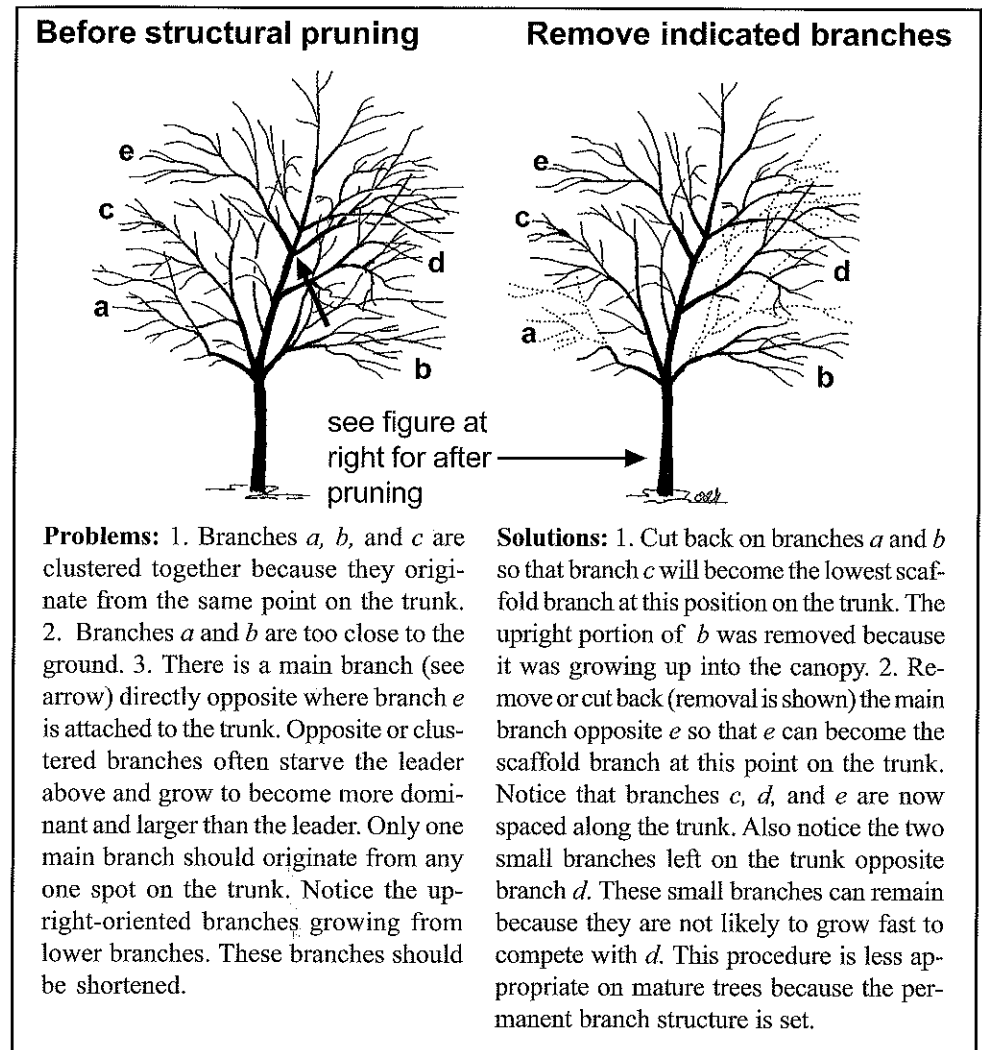


Figure 7. Structural pruning of a small tree.

Select and establish scaffold limbs by subordinating or removing competing stems or branches (Figure 8). Scaffold selection can take 10 to 20 years or more depending on climate, the type of tree, and its location. Scaffold limbs are located above the lowest permanent limb and provide the base on which to build the permanent crown. Scaffold limbs should be free of serious defects such as crooks, included bark, and cracks; should be among the largest on the tree; and should be appropriately spaced. Vertical spacing should be at least 18 inches (46 cm) for large-maturing trees and about 12 inches (30 cm) for smaller trees.



**Figure 8. Structural pruning is done to ensure more sustainable growth patterns.**

## Pruning to Restore

Restoration (remedial pruning) is the selective removal of branches, sprouts, and stubs from trees and shrubs that have been topped, severely headed, vandalized, lion tailed, broken in a storm, or otherwise damaged (Figure 9). The goal of restoration is to improve a tree or shrub's structure, form, or appearance.

On trees with many sprouts originating at the ends of branch stubs, one to three sprouts are selected to become permanent branches and to reform a more natural-appearing crown. To accomplish this objective, consider shortening some sprouts, removing others, and leaving some untouched. Some vigorous sprouts that will remain as branches may need to be shortened to control growth and ensure adequate attachment for the size of the sprout.

Lion-tailed trees can be restored by allowing sprouts to develop along the interior portion of limbs for one to three years depending on size, age, and condition of the tree. Then remove and shorten some of the sprouts along the entire length of the limbs, so they are evenly distributed and spaced apart. Restoration usually requires several prunings over a number of years.

Restoration may require a variety of types of cuts. At times, heading cuts may be preferable to branch removal cuts or reduction cuts to preserve as much of a damaged branch as practical. This is sometimes the case in restoration after storm damage.

Specify the location in the tree (for example, top or interior) and the percentage of sprouts to be removed or reduced. Typically, one-third of the sprouts are removed and one-third are reduced each pruning until adequate branches have developed.

## Pollarding

Pollarding is a training system that involves heading the first year followed by annual sprout removal to maintain trees or shrubs at a predetermined size or to maintain a "formal" appearance. Pollarding is not topping. Pollarding historically was used to generate shoots for fuel, shelter, and various products because of the abundance of adventitious sprouts that a tree or shrub produces in this process. The pollarding process should be started on deciduous trees when the tree is young by making heading cuts through stems and branches no more than about three years old.

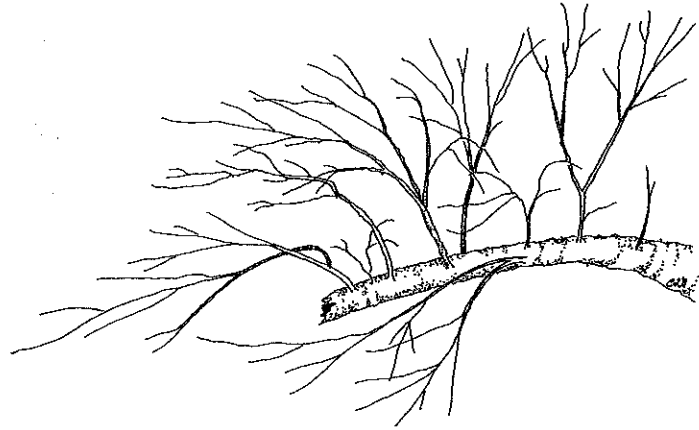
**Table 3. Some species in these genera are known to tolerate pollarding.**

---

Ash ( <i>Fraxinus</i> )
Beech ( <i>Fagus</i> )
Catalpa ( <i>Catalpa</i> )
Crapemyrtle ( <i>Lagerstroemia</i> )
Elm ( <i>Ulmus</i> )
Hawthorn ( <i>Crataegus</i> )
Horsechestnut ( <i>Aesculus</i> )
Japanese quince ( <i>Chaenomeles</i> )
Linden ( <i>Tilia</i> )
Maple ( <i>Acer</i> )
Oak ( <i>Quercus</i> )
Pear ( <i>Pyrus</i> )
Plane tree ( <i>Platanus</i> )
Sweetgum ( <i>Liquidambar</i> )

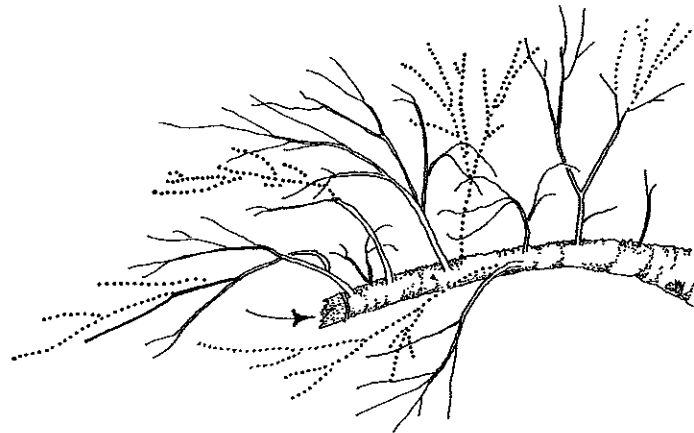
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### Before restoration



**Problem:** Many sprouts form from the cut ends of topped or storm-damaged trees. Some sprouts also develop behind the cuts. All are poorly attached to the tree—at least for several years—and can break easily. Notice the eight sprouts that developed from the damaged branch. There are too many sprouts too close together.

### After restoration



**Solution:** Begin by removing dead stubs (see arrow), removing some sprouts completely, and shortening others using reduction cuts (indicated by dotted lines). This procedure helps rebuild structure by spacing unpruned sprouts apart so that they can develop into branches. The shortened branches help protect the sprouts that remain.

**Figure 9.** Restoration attempts to improve structure by removing or reducing sprouts.



Severe heading (topping) through older tissue may kill or start a decline syndrome on some tree species. Table 3 lists several trees that can tolerate pollarding.

Heading cuts are made at strategic locations so that the sprouts from all cuts have access to sunlight. After the initial cuts are made, no additional heading cuts should be necessary. After a few pruning cycles, pollard heads (also called knuckles or knobs) develop, and the tree produces sprouts from these knuckles. Sprouts that grow from knuckles should be removed during the dormant season, taking care not to cut into or below the knobs. The knobs are the key differentiating factor between pollarding and topping. If knobs are damaged or removed in subsequent pruning, the branches react as they would on a topped tree.

### **Pruning Palms**

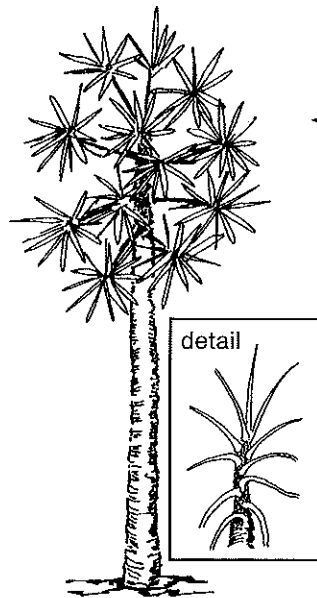
Palm pruning is the removal of fronds, flowers, fruit, stems, or loose petioles that may create a hazardous condition. Palms also may be pruned for aesthetic reasons to eliminate sprouts and stems or dead fronds and seedpods. Live, healthy fronds should not be removed. If they must be removed, however, avoid removing those that initiate above horizontal (Figure 10). Fronds removed should be severed close to the petiole base without damaging living trunk tissue. Climbing spikes should not be used to climb palms for pruning.

### **Pruning Conifers**

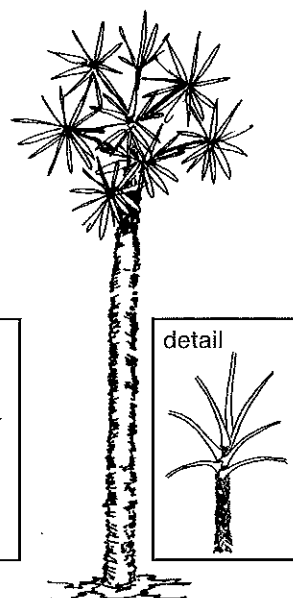
Some pruning types are not appropriate for all conifers. For example, branch spacing and scaffold limb development in conifers usually are not necessary. Thinning on spruces and firs rarely is needed, although in windy area thinning (spiral thinning) could reduce wind resistance and therefore tree failures. Pine growth may be managed by shortening new growth (candles) and removing older needles rather than branch removal. Few conifers respond well to pollarding or reduction.

## Palm Pruning

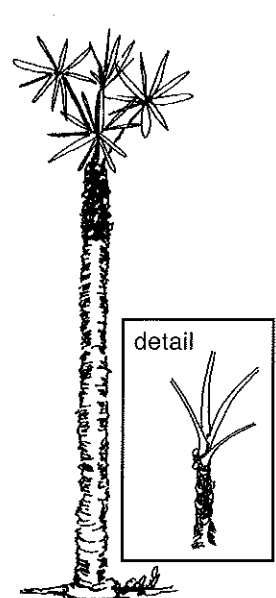
Before pruning



Proper pruning



Overpruning



Consider treating nutrient deficiencies along with pruning. Pruning nutrient-deficient palms could cause symptoms to appear in remaining foliage. Remove lower fronds that are chlorotic or dead. There is no biological reason to remove live green fronds on palms. Removing live green fronds is not known to reduce future pruning requirements.

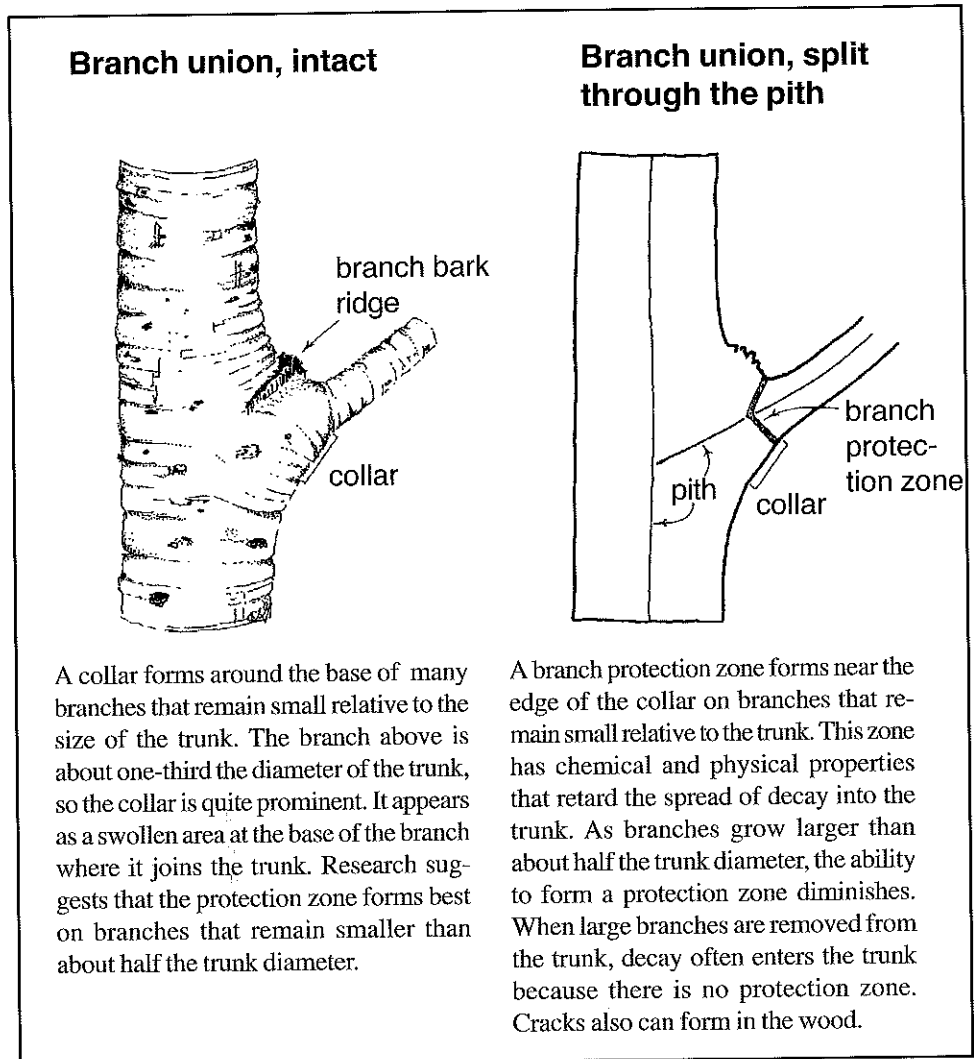
Remove lower fronds that are dead or more than about half chlorotic. It is best for the palm if green fronds remain intact. (If you decide to remove green fronds, the ANSI A300 pruning standard advises never to remove those growing above horizontal.)

Overpruned palms look terrible, have slow growth, and can attract pests. In the detail above, you can see that many upright fronds were removed. Green fronds are almost always removed during this overpruning.

Figure 10. Palm pruning primarily removes dead or chlorotic fronds.

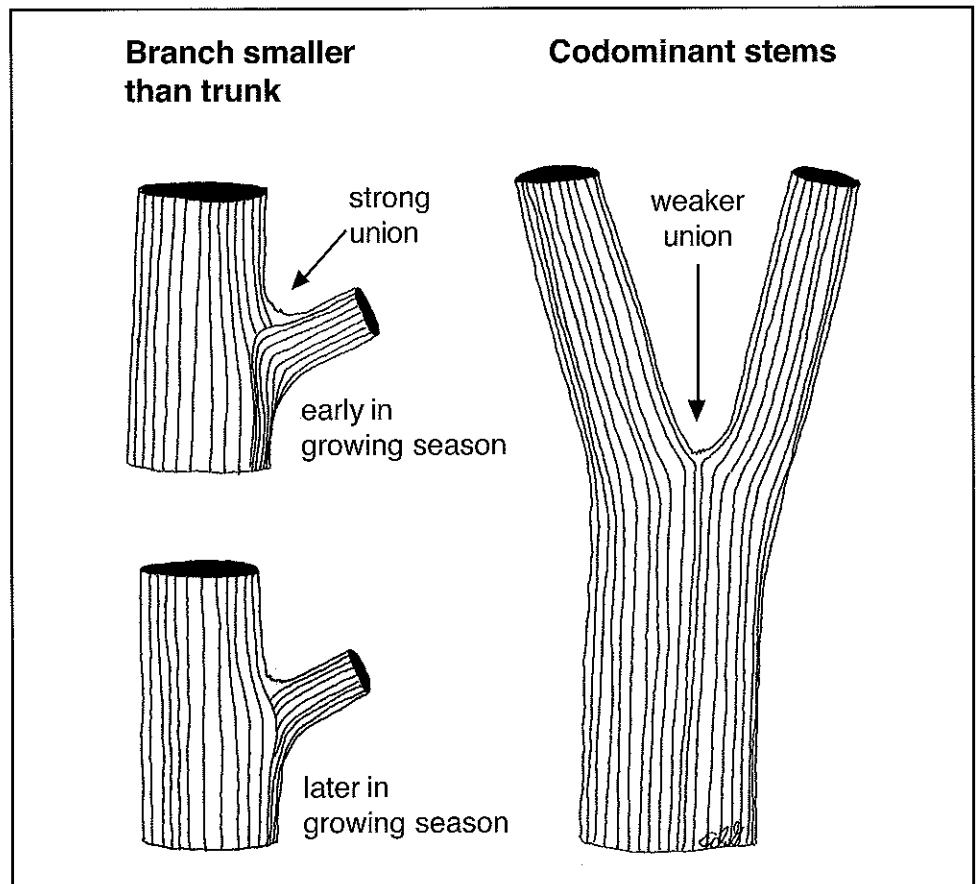
## Branch Attachment

When branches remain small relative to the trunk diameter, a swollen collar often develops around the base of the branch. The collar is formed by overlapping and deflected branch and trunk wood (Figure 11). The overlapping wood makes a union strong. Inside the collar on most trees is a unique chemical barrier called the branch protection zone (Figure 11). Its function is to retard the spread of decay organisms into the trunk. If the collar is removed or severely damaged, decay can more easily enter trunk wood and lead to defects.



**Figure 11. A collar containing a branch protection zone forms when branches remain small compared to the trunk.**

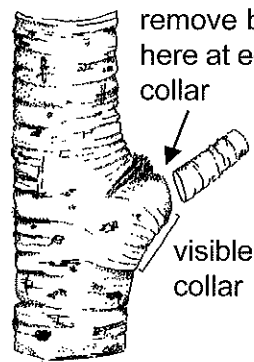
When two stems of approximately equal size (codominant stems, diameter ratios greater than 80 percent) arise from a union, there is little overlapping wood (Figure 12). The result is a weaker union. Decay can enter when one stem is removed because there is no branch protection zone at the base of a codominant stem. The union is even weaker when included bark is part of the condition. Included bark becomes trapped and embedded inside the union as the two stems grow and develop. This condition weakens the union, making the tree prone to failure at that point. There is no traditionally shaped branch bark ridge at the top of the union when included bark is present (Figure 13). Branches and stems with included bark should be removed or shortened on young trees. Removal on large trees may not be a good option because of the potential for decay. Reducing the stem's length or installing a structural support system (see *Best Management Practices: Tree Support Systems*) can minimize the likelihood of the limb failure.



**Figure 12.** Small branches are well connected to the trunk as a result of overlapping trunk and branch tissue in the union (left). Codominant stems are not as well connected because wood tissue does not overlap in the union (right).

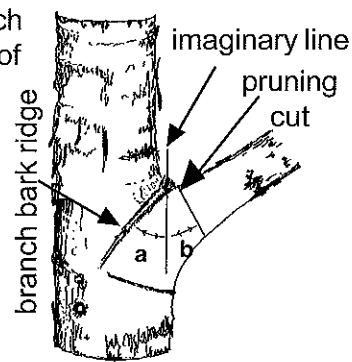


### Visible collar



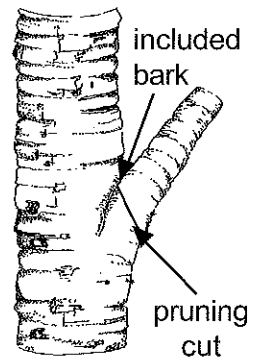
Make the pruning cut just outside the edge of the visible collar. The collar is the swollen area at the base of the branch. If you make the cut here, the branch protection zone remains intact, and decay usually is excluded from the trunk. If the cut is made closer to the trunk, the protection zone is removed, and decay and cracks could occur in the trunk. Do not leave a stub beyond the collar. Leaving a stub could result in the spread of decay into the trunk.

### No visible collar



Without a visible collar, construct an imaginary line parallel with the trunk. Estimate angle *a* between the branch bark ridge and the imaginary line. Angle *b* should be greater than or equal to angle *a*. Make your pruning cut where the top of the branch makes an abrupt turn (see pruning cut arrow) into the union. Another guideline is to make the cut to minimize the size of the pruning wound—that is, cut perpendicular to the top of the branch.

### No collar and included bark



To remove a branch with included bark and no visible collar, cut through the branch as far down into the union as possible without cutting into the trunk. Never cut below the point where the exposed included bark crack ends. Be careful not to injure trunk tissue when making the cut. If doing so is difficult because of the large size of the branch or the shape of the union, cut farther out on the branch than indicated here.

**Figure 13. Removing branches from trunks or from parent branches.**

## Pruning Cuts

Three general types of cuts are used in arboricultural pruning: branch removal cut (thinning cut), reduction cut, and heading cut. Removal cuts are preferred because they leave the branch protection zone intact.

### Branch Removal Cut (Thinning Cut)

When removing a branch at its point of origin on a trunk, stem, or larger branch, make the cut as close to the trunk as possible without cutting into the branch bark ridge or branch collar and without leaving a stub (Figure 13). The cut should leave a smooth surface with no jagged edges or torn bark. If there is no collar, the top of the cut should be located where the top of the branch makes an abrupt upward turn into the union. The correct position varies among trees and branches. Pruning here most closely simulates where branches are shed naturally. The bottom of the cut can be located according to Figure 13. Except on large limbs, the branch protection zone allows for compartmentalization of the wound. If there is a bark inclusion in the union, cut as far down into the union as possible without injuring trunk wood.

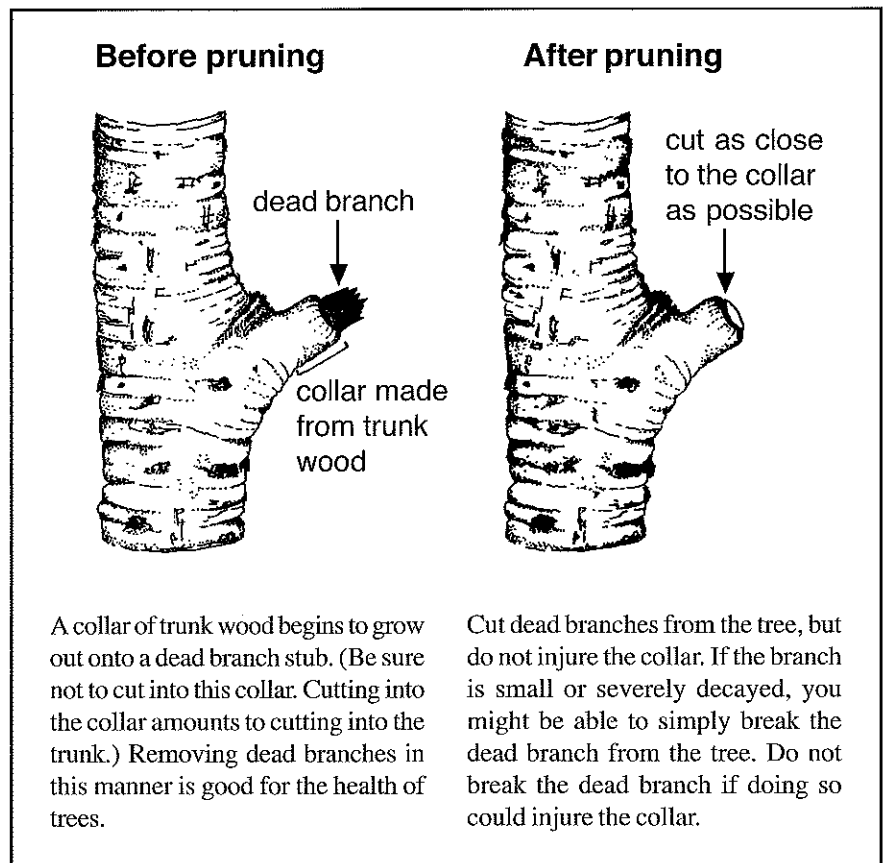
Large or heavy branches should be removed using three cuts. The first one undercuts the limb 1 to 2 feet (0.3 to 0.6 m) out from the parent branch or trunk. The undercut reduces the chance of the branch “peeling” or tearing bark as it is removed. The second cut is the top cut, which on small branches should be made directly above the undercut or slightly farther out on the limb than the undercut. The third and final cut is to remove the stub carefully without tearing bark below the cut.

With large trees, branches often need to be lowered rather than dropped to the ground to reduce damage to the tree and objects below the tree. This procedure is done with ropes, cranes, or other equipment. Details on these procedures can be found in *The Art and Science of Practical Rigging* (DVDs and accompanying book published by the International Society of Arboriculture).

When removing a dead branch, the final cut should be made just outside the collar of living tissue (Figure 14). If the collar has grown along a dead branch stub, only the dead stub should be removed. The collar contains live tissue and should not be injured or removed.

### Reduction Cut (Cutting to a Lateral, Lateral Cut, Drop-Crotch Cut)

A reduction cut shortens a limb or branch back to a smaller lateral branch or similarly sized limb (Figure 15). Reduction cuts commonly are used in



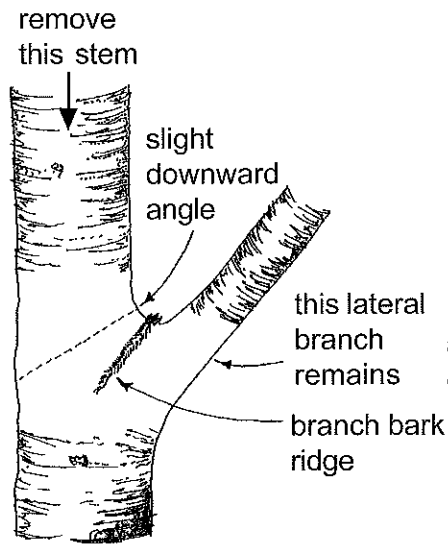
**Figure 14. Removing a dead branch should not remove the swollen collar.**

structural pruning or when reducing tree size. A stem is cut back to a lateral capable of sustaining the remaining limb and assuming the terminal role. A common rule of thumb is that the remaining lateral branch should be at least one-third to one-half the diameter of the removed portion. At such a size, the lateral branch should be able to produce enough energy to keep the parent branch alive, and enough growth regulator should be present to suppress excessive sprouting on many species. This rule varies with tree species, age, and condition, and with climate. Old, stressed, or mature trees could decline or become more stressed if too much foliage is removed.

When possible, avoid large reduction cuts (more than 2 inches [5 cm] diameter) on permanent scaffold limbs. Avoiding large cuts is less important on limbs that will be removed from the tree later. On permanent branches, it also is important to consider the ability of the lateral branch to sustain the limb. Cutting back to

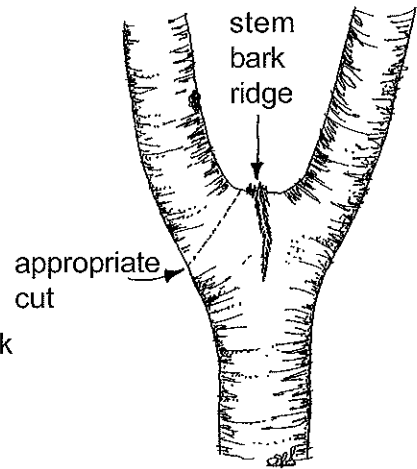
## Reduction Cuts

### Removed stem larger than branch



**Determining where to make an appropriate reduction cut:** To reduce a stem back to a lateral branch, make the cut at a slight downward angle without damaging the remaining stem or cutting any part of the branch bark ridge.

### Stems of equal size



**Determining where to make an appropriate reduction cut:** Begin the cut just beyond the edge of the stem bark ridge. Cut at an angle to minimize the size of the exposed pruning wound. This location is approximately along the dashed line. There is no natural boundary to resist decay inside the cut stem from reduction cuts.

A reduction cut removes a stem or branch back to a lateral branch or stem that is large enough to assume the terminal role. Typically, this lateral branch should be at least one-third the diameter of the removed portion. If the lateral branch that remains is less than one-third the diameter of the removed stem, then the cut is considered a heading cut. A heading cut is considered inappropriate on most landscape trees. A reduction cut may cause some decay behind the cut. The extent of decay depends on the diameter of the cut and the tree species. Larger-diameter cuts (greater than about 2 to 3 inches [5 to 7.6 cm]) are likely to cause more decay than smaller cuts.

**Figure 15. A reduction cut shortens a stem back to a lateral branch.**



a lateral that is insufficient in size is much like making a topping or heading cut. A pruning cut that reduces the length of a branch or parent stem shall be made at a slight downward angle relative to the remaining stem and not damage the remaining stem. Smaller cuts shall be preferred. (Figure 15). Cutting *toward* the branch bark ridge reduces the risk of the union splitting out.

Trees do not compartmentalize this type of wound as well as the wound created following a removal cut. The ability of the tree to compartmentalize the wound is a function of the size of the cut, the age of the cut stem or branch, tree vigor or vitality, species, and perhaps the time of year. The smaller the cut and the more vigorous the tree, the better the wound closure and compartmentalization.

### **Heading Cut**

A heading cut (topping cut, lopping cut) is made between branches. This type of cut leaves a stub. These cuts rarely are appropriate on established trees. They can, however, be used on current season's growth to remove old flower heads and developing fruit or to reduce the length of a branch or sprout to improve appearance. Heading cuts are used in the first year of pollarding. Heading should not be used to reduce the height or size of trees in other instances. This practice is called topping and is extremely damaging to shade trees. Shearing (or rounding-over) large-maturing trees also is inappropriate because it causes a profusion of sprouts that grow rapidly into a dense mass of foliage. This practice spoils good tree architecture and can significantly increase maintenance requirements. Shearing is appropriate and commonly practiced on shrubs to maintain size.

### **Wound Dressing**

Wound dressings are treatments applied to pruning cuts or other tree wounds. Traditionally, they were formulated with asphalt-based products in paint or spray form. Wound dressings once were thought to accelerate wound closure and reduce decay. Research shows that these products do not reduce the spread of decay. However, studies have shown beneficial effects of wound dressings in reducing borer attack and oak wilt infection and controlling sprout production and mistletoe. Wound dressings are used primarily for cosmetic purposes, and neither are required nor recommended in most cases. If a dressing must be applied, only a light coating of a nonphytotoxic material should be used.

## How Much to Prune

Energy reserves (starch, sugars, and oils) are stored in branches, stems, trunk, and roots. This energy can be preserved by removing the fewest number of live branches necessary to accomplish the desired objective. Excessive branch removal depletes these reserves and reduces the ability of the tree to photosynthesize more energy. There should be a good reason to remove more than 25 percent of the live crown in a single year. Many trees generate adventitious sprouts in response to overpruning as they attempt to replace the stored energy. Live branch pruning, however, is an essential ingredient to forming good structure, so it is a necessary procedure in an urban tree care program.

## When to Prune

The best time to prune live branches depends on the desired results. Removal of dying, diseased, broken, rubbing, or dead limbs can be accomplished any time, with little negative effect on the tree.

Growth is maximized and defects are easier to see on deciduous trees if live-branch pruning is done in the winter or before growth resumes in early spring. Pruning when trees are dormant can minimize the risk of pest problems associated with wounding and allows trees to take advantage of the full growing season to close and compartmentalize wounds. Trees with Dutch elm disease should have diseased branches removed as soon as a branch shows flagging.

The timing of pruning can be an important part of a Plant Health Care program. For example, one of the ways to reduce the spread of oak wilt or Dutch elm disease fungus is to prune during the dormant season and avoid pruning susceptible species during the time of the vector beetle flight in areas where disease is a problem.

Plant growth rate can be reduced if live-branch pruning takes place during or soon after the initial growth flush. This is the period when trees have just expended a great deal of stored energy to produce roots, foliage, and early shoot growth, so pruning at this time usually is not recommended because of the potential stresses. Do not prune live branches from stressed trees at this time because they need all their live foliage to help recover.

Flowering can be prevented or enhanced by pruning at the appropriate time of the year. To retain the most flowers on landscape trees that bloom on current season's growth, such as crapemyrtle (*Lagerstroemia* spp.) or lindens (*Tilia* spp.), prune these trees in winter, prior to leaf emergence, or in the summer just after bloom. Plants that bloom on last season's wood, such as crabapples (*Malus* spp.) and cherries (*Prunus* spp.), should be pruned just after bloom in order to preserve the flower display. Fruit trees can be pruned during the dormant season to enhance structure and distribute fruiting wood, and they are pruned after bloom to thin fruit.

Certain species of trees, such as maples (*Acer* spp.) and birches (*Betula* spp.), drip sap (bleed) when pruned in the early spring when sap flow is heavy (Table 4). Although unattractive, sap drainage has little negative effect on tree growth or health. Some of the sap dripping can be avoided by pruning in summer or at other times of the year.

**Table 4. Trees that often drip sap (bleed) when pruned in late winter or early spring.**

---

Avocado (*Persea americana*)  
Birch (*Betula* spp.)  
Cottonwood (*Populus* spp.)  
Elm (*Ulmus* spp.)  
Flowering dogwood (*Cornus florida*)  
Hackberry (*Celtis* spp.)  
Honeylocust (*Gleditsia triacanthos*)  
Magnolia (*Magnolia* spp.)  
Maple (*Acer* spp.)  
Mesquite (*Prosopis* spp.)  
Poplar (*Populus* spp.)  
Silk-oak (*Grevillea robusta*)  
Walnut (*Juglans* spp.)  
Willow (*Salix* spp.)

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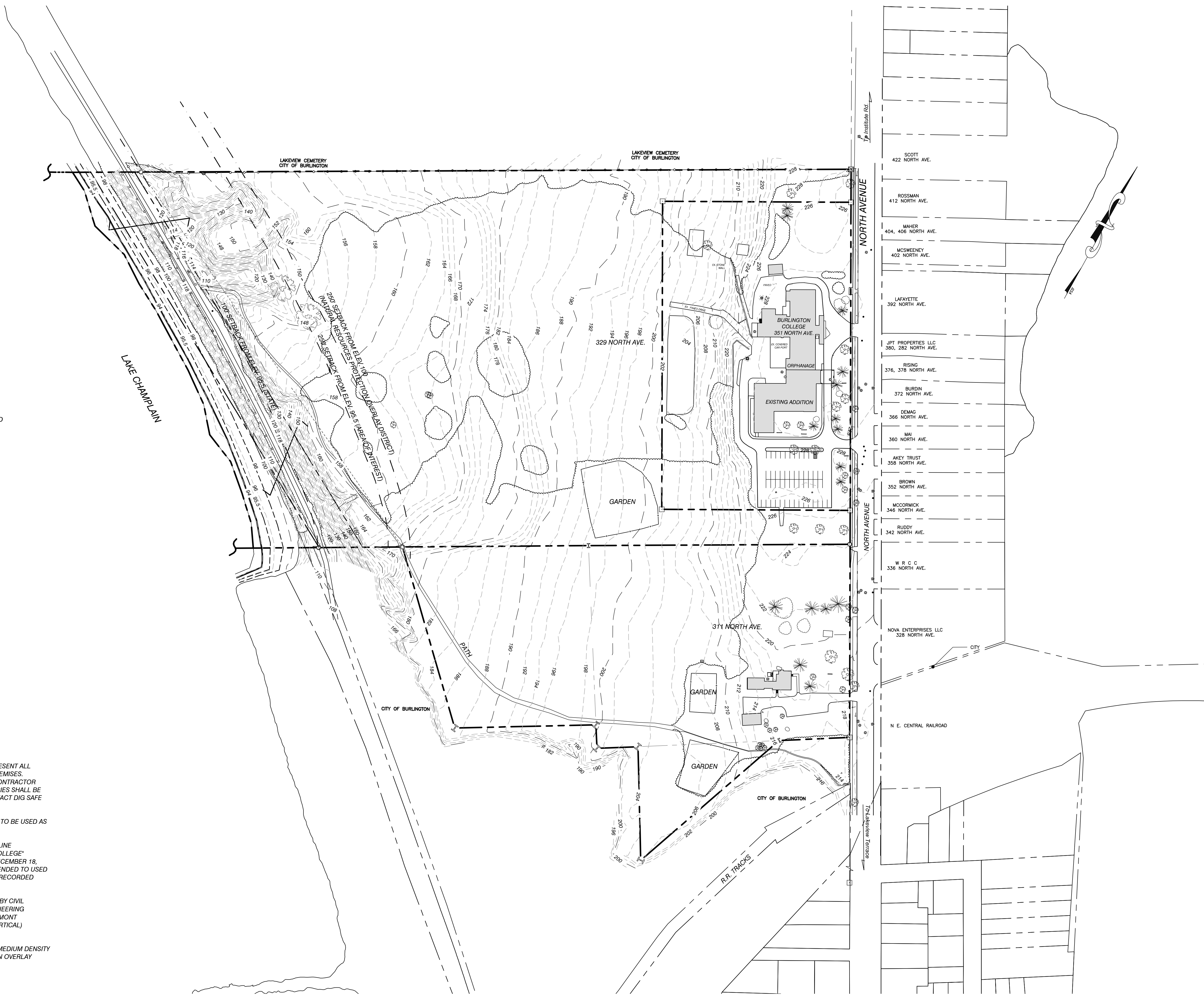


	APPROXIMATE PROPERTY LINE
	APPROXIMATE SETBACK LINE
	EXISTING CONTOUR
	EXISTING CURB
	EXISTING CHAINLINK FENCE
	EXISTING WIRE FENCE
	EXISTING GRAVEL
	EXISTING PAVEMENT
	EXISTING GUARD RAIL
	EXISTING ELECTRIC
	EXISTING FORCEMAIN
	EXISTING GAS
	EXISTING STORM
	EXISTING GRAVITY SEWER
	EXISTING TELEPHONE
	EXISTING WATER
	EXISTING SWALE
	EXISTING SEWER MANHOLE
	EXISTING STORM MANHOLE
	EXISTING CATCH BASIN
	EXISTING WELL
	EXISTING HYDRANT
	EXISTING SHUT OFF
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING GUY WIRE/POLE
	EXISTING SIGN
	EXISTING DECIDUOUS TREE
	EXISTING CONIFEROUS TREE
	EDGE OF BRUSH/WOODS
	IRON ROD/PIPE FOUND
	CONCRETE MONUMENT FOUND
	RAILROAD RAIL FOUND
	TEST PIT
	PROJECT BENCHMARK

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( IN FEET )

1 inch = 100 ft.



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APPROV

OWNER:

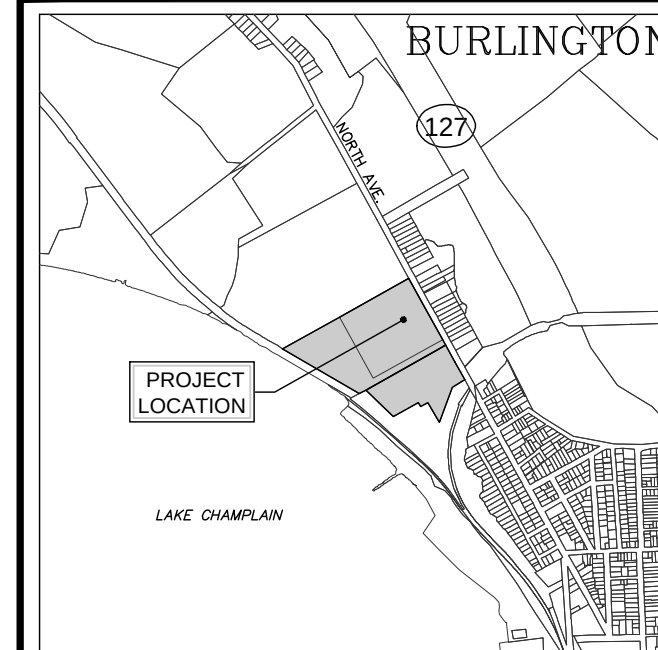
*BURLINGTON  
COLLEGE*

351 NORTH AVE  
BURLINGTON VERMONT  
05401

PROJECT:

**BUILDING  
RENOVATION AND  
SITE  
IMPROVEMENTS  
329, 351 NORTH  
AVE.**

*BURLINGTON, VT*


$$1^{\circ} = 2000$$
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**EXISTING  
CONDITIONS  
OVERALL SITE  
PLAN**

DATE _____

SCALE  
 $1'' = 100'$

PROJ. NO.  
14215

DRAWING NUMBER

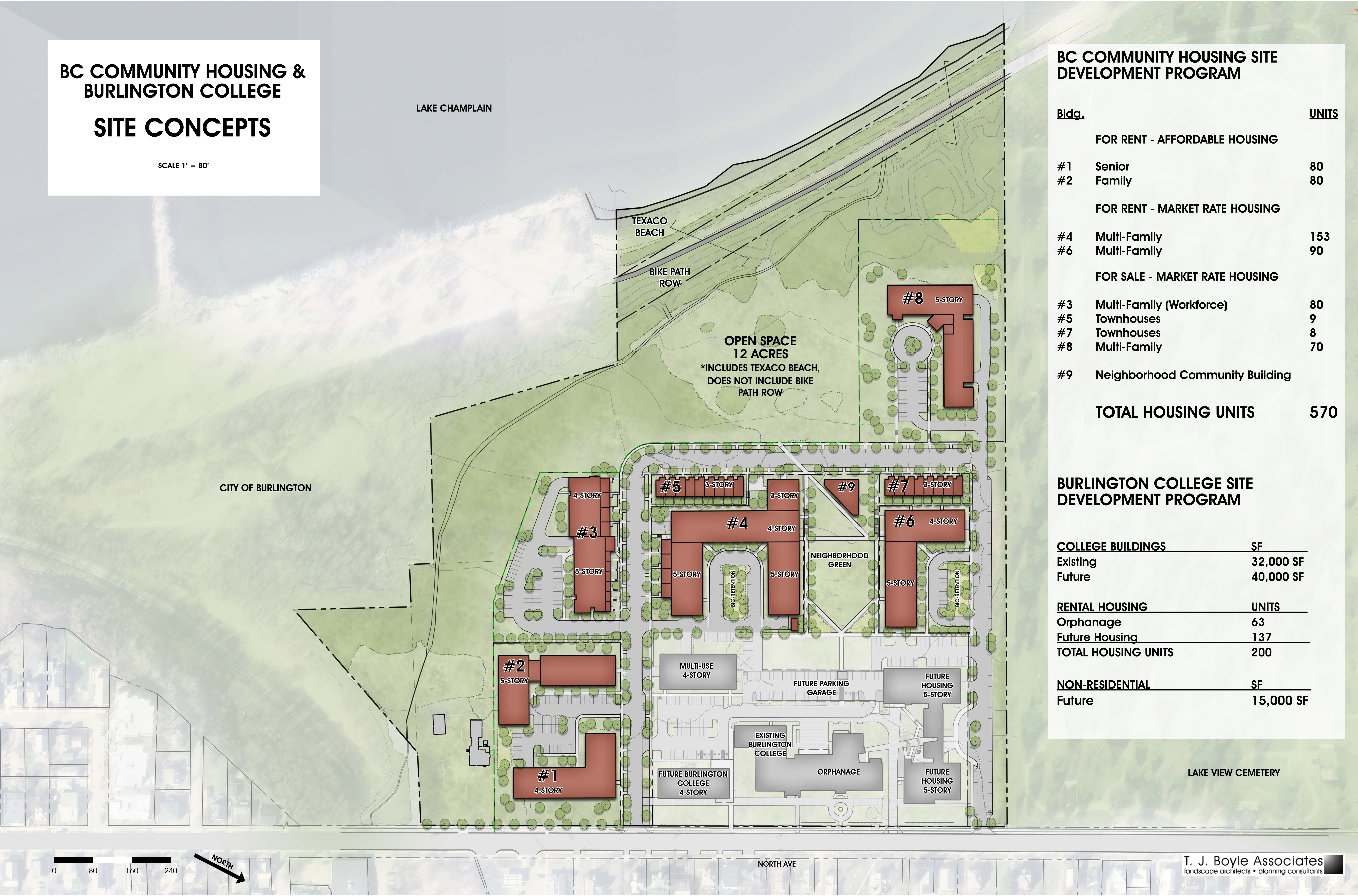
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PROGRESS PLANS  
09/03/2015



BC COMMUNITY HOUSING &  
BURLINGTON COLLEGE  
SITE CONCEPTS

SCALE 1' = 80'



BC COMMUNITY HOUSING SITE DEVELOPMENT PROGRAM		
Bldg.		UNITS
FOR RENT - AFFORDABLE HOUSING		
#1	Senior	80
#2	Family	80
FOR RENT - MARKET RATE HOUSING		
#4	Multi-Family	153
#6	Multi-Family	90
FOR SALE - MARKET RATE HOUSING		
#3	Multi-Family (Workforce)	80
#5	Townhouses	9
#7	Townhouses	8
#8	Multi-Family	70
#9	Neighborhood Community Building	
TOTAL HOUSING UNITS		570

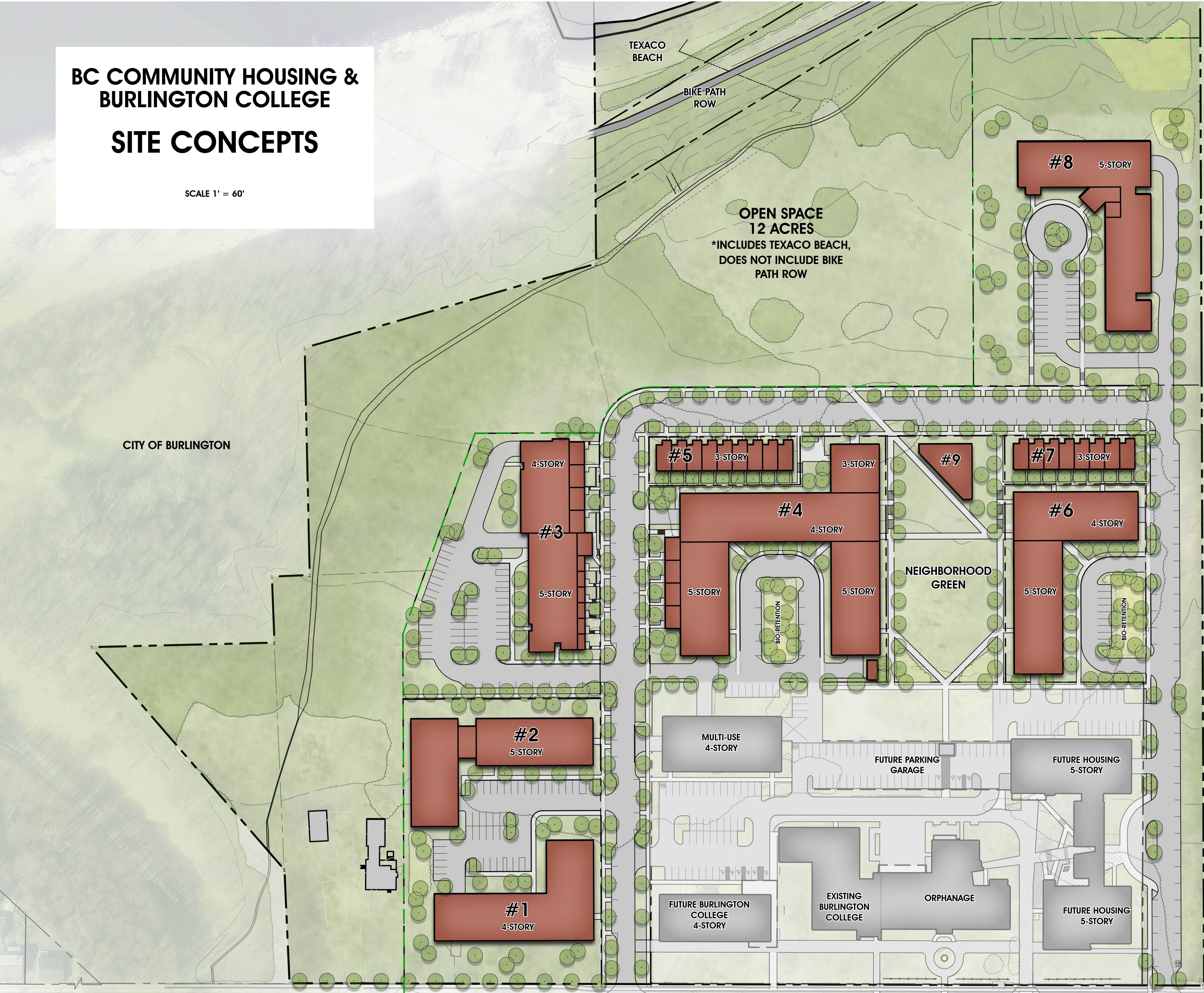
BURLINGTON COLLEGE SITE DEVELOPMENT PROGRAM	
COLLEGE BUILDINGS	SF
Existing	32,000 SF
Future	40,000 SF
RENTAL HOUSING	UNITS
Orphanage	63
Future Housing	137
TOTAL HOUSING UNITS	200
NON-RESIDENTIAL	SF
Future	15,000 SF



BC COMMUNITY HOUSING & BURLINGTON COLLEGE

SITE CONCEPTS

SCALE 1' = 60'



BC COMMUNITY HOUSING SITE DEVELOPMENT PROGRAM

Bldg.		UNITS
FOR RENT - AFFORDABLE HOUSING		
#1	Senior	80
#2	Family	80
FOR RENT - MARKET RATE HOUSING		
#4	Multi-Family	153
#6	Multi-Family	90
FOR SALE - MARKET RATE HOUSING		
#3	Multi-Family (Workforce)	80
#5	Townhouses	9
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BURLINGTON COLLEGE SITE DEVELOPMENT PROGRAM

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Existing	32,000 SF
Future	40,000 SF
RENTAL HOUSING	UNITS
Orphanage	63
Future Housing	137
TOTAL HOUSING UNITS	200
NON-RESIDENTIAL	SF
Future	15,000 SF



BC Community Housing, LLC

### **Act 250**

Under Act 250, an improvement project related to “forestry” does not need a permit. The statute provides:

10 VSA 6001 (3)

(D) The word development does not include:

(i) The construction of improvements for farming, logging, or **forestry** purposes below the elevation of 2,500 feet.

However, the district commission may see the forestry work as “pre-construction” for a “commercial purpose.”

10 VSA 6001 (3)

(A) Development means each of the following:

(i) The construction of improvements on a tract or tracts of land, owned or controlled by a person, involving more than 10 acres of land within a radius of five miles of any point on any involved land, for **commercial** or industrial purposes in a municipality that has adopted permanent zoning and subdivision bylaws.

The Project property is within the Designated Neighborhood Development Area, and certain projects related to mixed housing may be exempt from needing a permit. It is unclear whether Farrell intends to include the needed mix of affordable housing to qualify for the exemption.

### **Local Zoning Regulations**

#### ***Riparian and Littoral Conservation Zone – Section 4.5.4***

Zoning: Waterfront Residential – Medium Density  
Natural Resource Protection Overlay (NR) District

The NR Overlay District has 4 sub-parts, and the Project parcel is in the “Riparian and Littoral Conservation Zone” which includes lands within 250 feet of the high water mark (100 feet mean sea level).

Section 4.5.4 provides:

#### **4.5.4 Natural resource protection overlay (NR) district.**

(a) Purpose and Authority: The Natural Resource Protection Overlay District is intended to:

- Protect surface waters and wetlands from encroachment by development, and from sources of non-point pollution;
- Protect the functions and values of Burlington’s wetlands;
- Protect and enhance water quality near public beaches and other water-based recreation areas from sources of non-point pollution;
- Preserve natural features and communities, geologic features and cultural sites for education and research.
- Provide opportunities for public access where feasible and appropriate;
- Facilitate connections and corridors for wildlife between areas of publicly protected sites.



- Ensure that development that occurs within a Flood Hazard Area conforms to the requirements of the National Flood Insurance Program.
- Minimize and prevent the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary public expenditures and demands on public services that result from flooding and other flood related hazards; and
- Ensure that the design and construction of development in flood and other hazard areas are accomplished in a manner that minimizes or eliminates the potential for flood and loss or damage to life and property; and
- Manage all flood hazard areas designated pursuant to 10 V.S.A. § 753; and
- Make the City of Burlington and its residents eligible for federal flood insurance and other federal disaster recovery and hazard mitigation funds as may be available.

(b) Areas Affected: This overlay district consists of all areas delineated on Map 4.5.4-1-Natural Resources Protection Overlay (NR) District and is divided into four (4) subparts:

1. **A Riparian and Littoral Conservation Zone** which consists of all surface water and a corresponding upland buffer area, and specifically includes the following areas:

- Uplands within 250 feet of the Lake Champlain lakeshore (measured at 100-feet above mean sea level)** with the exception of that portion of the shoreline between the northern extent of the Interim Development Area north of the former Moran Generating Station and the most westerly extent of Roundhouse Point described as the "Urban Waterfront" in the 2000 Open Space Protection Plan;
- Uplands within 250 feet horizontal distance measured from the top of the slope where the channel runs adjacent to a valley wall or high terrace, or top of the bank where the channel has access to its floodplain, of the Winooski River;
- Uplands within 100 feet horizontal distance measured from the top of the slope where the channel runs adjacent to a valley wall or high terrace, or top of the bank, where the channel has access to its floodplain, of Engelsby Brook, Potash Brook or Centennial Brook; and
- Uplands within 50 feet horizontal distance measured from the top of the slope where the channel runs adjacent to a valley wall or high terrace, or top of the bank where the channel has access to its floodplain, of all other minor streams, or the mean shoreline of all other minor ponds;

Under 4.5.4(c), only limited uses are "permitted." For trees, only selective cutting of less than 25% of the trees 6 inches or more in diameter in a 10 year cycle.

**(c) District Specific Regulations: Riparian and Littoral Conservation Zone:**

1. **Permitted Uses:** Except where otherwise noted herein, only the following uses are permitted within the Riparian and Littoral Conservation Zone and its associated buffer subject to the requirements and limitations set forth below under subpart 4.

- Normal maintenance of existing lawns and maintained grounds including mowing, trimming of vegetation and the removal of dead or diseased vegetation around a residence,

decorative landscaping and planting, vegetable and flower gardens, and the repair of existing private landscaping structures such as walkways and walls;

B. "Accepted agricultural and silvicultural practices" as defined under 24 V.S.A. Ch 117

C. Normal maintenance of constructed wetlands and stormwater systems, provided that naturally occurring wetlands are not disturbed in conjunction with the maintenance;

D. Normal maintenance of existing docks, roads, rail lines, bridges, and culverts provided that disturbance to any shoreland is minimized in conjunction with such maintenance;

E. Selective cutting of less than 25 percent of the trees six inches or more in diameter at breast height over any 10 year cycle; and

F. Recreational and educational activities such as hiking, walking, fishing, nature study, and bird watching and associated boardwalks and unimproved trails.

2. **Prohibited Uses:** Except where noted herein, the following uses shall be prohibited within the Riparian and Littoral Conservation Zone and its associated buffer.

A. The deposition or introduction of organic and inorganic chemicals, including herbicides and pesticides, except when the application of pesticides is reviewed and approved by the BCB and DRB, and performed by an applicator certified by the Vermont Department of Agriculture for the sole purpose of controlling invasive species and subject to the requirements of the City's pesticide application ordinance (Burlington Code of Ordinances, Chapter 17, Section 9); and

B. The off-road use of any motorized vehicles including ATVs or dirt bikes (the temporary use of motorized vehicles used to construct and maintain permitted or regulated activities are specifically exempted from this prohibition);

3. **Conditional Uses:** Except where otherwise noted herein, **all uses permitted or conditionally permitted in the respective underlying zoning district**, including any construction of buildings or other structures, and roads, parking areas or any other impervious surface, may be approved only within the Riparian and Littoral Conservation Zone and its associated buffer after review and approval pursuant to the **Conditional Use review provisions of Article 3 and subject to the requirements and limitations below under Subpart 4.**

4. Requirements:

1. **Any land disturbing activities (i.e., vegetation has been removed, or the landscape has been graded or filled resulting in bare soil surfaces)** shall include a stormwater management, erosion prevention and sediment control plan pursuant to the requirements of Sec. 5.5.3 to be reviewed by the **conservation board and approved by the city engineer.**

In making determinations and decisions required herein, the city engineer shall consider the requirements of the most recent State of Vermont Stormwater Management Rules and Guidance document. The city engineer shall require the best practicable means be used to manage stormwater, prevent erosion, and control sedimentation. The city engineer is hereby authorized to develop performance standards to ensure conformance with these state stormwater management rules;

2. Agricultural and silvicultural activities shall follow Best Management Practices for the Protection of Water Quality;
3. Installation of any seawalls, rip-rap or other shoreland retention structures shall be submitted for review by the conservation board who shall consult with the city engineer prior to issuance of a recommendation to the DRB; and
4. No new stormwater outfall shall directly discharge into any surface water without approval and implementation of a stormwater management plan approved by the city engineer.

Would this Project involve the removal of no more than 25% of trees 6 inches in diameter? If not, it will be subject to conditional use review.

Attached as an **Appendix** are portions of the Conditional Use review found in Article 3

#### ***Tree Removal – 5.5.4***

Because conditional use review is required, it is doubtful the “Tree Maintenance Plan” option for tree removal will apply. This only requires a Level 1 Certificate of Appropriateness, which does not require DRB approval. The intent of this option for a Plan appears aimed at general oversight, with no development plans attached to any tree removal.

Because the public is very interested in this project, the DRB will want to review the tree removal and require the permit process.

Section 5.5.4 relates to tree removal, and provides:

##### **5.5.4 Tree removal.**

(a) Review Criteria for Zoning Permit Requests for Tree Removal:

1. **Grounds for Approval:** Tree removal involving six (6) or more trees, each of ten (10) inches or greater in caliper or the removal of ten (10) or more trees, each of which is three (3) inches or greater in caliper during any consecutive twelve (12) month period may be permitted for any of the following reasons:

- A. Removal of dead, diseased, or infested trees;
- B. Thinning of trees for the health of remaining trees according to recognized accepted forestry practices;
- C. Removal of trees that are a danger to life or property; or
- D. As part of a development with an approved zoning permit.

2. **Grounds for Denial:** Tree removal involving six (6) or more trees, each of ten (10) inches or greater in caliper or the removal of ten (10) or more trees, each of which is three (3) inches or greater in caliper during any consecutive twelve (12) month period may be denied if existing healthy trees are known to be:

- A. Providing a significant privacy or **aesthetic buffer** or barrier between properties;
- B. Providing **stabilization** on slopes vulnerable to erosion;
- C. **Located within a riparian or littoral buffer;**

- D. Provide unique wildlife habitat;
- E. A rare northern Vermont tree species as listed by the Vermont Natural Heritage Program; or
- F. A significant element of, or significantly enhances, an historic site.

(b) **Tree Maintenance Plans**: Institutions or other property owners who practice ongoing tree removal shall be exempt from the requirement to obtain a zoning permit for individual tree removal projects subject to obtaining approval from the DRB for a plan as follows:

1. A Tree Maintenance Plan prepared by a **certified arborist** shall be submitted as a **Level I Certificate of Appropriateness, with a level I application fee**. This plan shall include general and specific criteria for removing trees based on the criteria as per Sec. 5.5.4(a).
2. The Tree Maintenance Plan if approved by the Development Review Board. Approval of the Plan is valid for up to five (5) years.
3. In order to continue tree removal, Tree Maintenance Plans must be updated or re-written and approved by the Development Review Board at five (5) year intervals.

The 2 links below discuss the Certificate of Appropriateness fees and process. It appears that a Level I COA would not require DRB approval. For this reason, it is doubtful the City would permit the proposed forestry project to be approved via a COA I.

[https://www.burlingtonvt.gov/sites/default/files/PZ/Applications-Forms-Checklists/zoning_fee_schedule_burlington_vt.pdf](https://www.burlingtonvt.gov/sites/default/files/PZ/Applications-Forms-Checklists/zoning_fee_schedule_burlington_vt.pdf)

<https://www.burlingtonvt.gov/PZ/The-Zoning-Review-Process>

### ***Article 6 – Design Review Standards***

Any permit application related to trees should incorporate the “Design Review Standards” in Article 6.

**Article 6, Design Review Standards**, also govern trees. It provides:

#### **6.2.2 Review standards.**

- (a) **Protection of Important Natural Features**: The landscape, existing terrain and any significant trees and vegetation shall be preserved in their natural state insofar as practicable in keeping with the objectives of the underlying zoning district. Development and site disturbance shall preserve watercourses, wetlands, steep slopes, flood-prone areas, rock outcroppings, wildlife habitat and travel corridors, specimen trees and contiguous stands of forest, and other sensitive ecological and geological areas insofar as practicable in keeping with the objectives of the underlying zoning district. Site plans shall provide suitable buffers from any proposed site improvements, and maintain continuity and contiguousness of greenspace while allowing reasonable development in support of the overall intent of the zoning district. Where any natural features are proposed to be removed or the topography altered, special attention shall be given to replace or mitigate the loss of such features. Any development occurring on parcels containing significant natural areas identified in the city’s **Open Space Protection Plan** shall avoid disturbance to these natural areas and establish appropriate buffers that protect their natural functions.



(m) **Landscaping and Fences:** Landscaping shall be used to beautify the development site and to provide specific functions and benefits to the uses and buildings on the site. These include but are not limited to stormwater retention and erosion control, winter windbreaks and summer shade, recreational and habitat corridors, buffers and screening of parking areas, and creating privacy for and from adjacent property.

Existing trees shall be retained and incorporated into a landscape plan to the extent possible, and existing trees to be retained shall be protected during construction in accordance with specifications provided by the city arborist. Contiguous green space, both within the site and with adjacent properties, should be provided on a site whenever possible and be designed to provide wildlife travel corridors and habitat preservation, as well as enabling recreational access. If open space is intended to be publicly accessible, it shall be designed to maximize accessibility for all individuals including the disabled, encourage social interaction, and facilitate ease of maintenance. Along the street edge, landscaping shall be used to provide a visual buffer into parking areas from the public street and reinforce the streetscape.

The selection of plant materials and planting sites should create a sustainable landscape, and consideration shall be given to factors such as hardiness, salt tolerance, disease resistance, invasiveness, root and canopy spread, underground and overhead utilities, soil conditions, and microclimates. The use of native plant materials is encouraged, and the use of plants considered invasive by VT Agency of Agriculture shall be prohibited. For more information on sustainable landscapes, applicants are encouraged to consult Planting Sustainable Landscapes: A Guide for Plan Reviewers prepared for the Vermont Department of Forests Parks and Recreation by the Vermont Chapter of the American Society of Landscape Architects.

## APPENDIX CONDITIONAL USE REVIEW

Article 5 discusses City Wide Standards and Article 3, Part 5 discuss conditional uses. Section 5.1.1 provides:

(d) **Conditional Uses:** A **conditional use** is listed in any district where denoted by the letters "CU" in Appendix A, Use Table. Such uses may be permitted by the DRB only after review under the **conditional use** provisions provided in Art. 3, Part 5, such further restrictions as the DRB may establish and such additional requirements as may be established by this ordinance such as but not limited to dimensional and intensity limitations, performance and design standards, and parking requirements.

### Article 3, PART 5: CONDITIONAL USE AND MAJOR IMPACT REVIEW

#### 3.5.1 Purpose.

These conditional use regulations are enacted to provide for a more detailed consideration of development proposals which may present a greater impact on the community.

Additionally, it is the intent of these regulations through the creation of a major impact review:

- (a) To ensure that projects of major significance or impact receive a comprehensive review under established criteria; and
- (b) To ensure that the city's natural, physical and fiscal resources and city services and infrastructure are adequate to accommodate the impact of such developments, both individually and cumulatively.

### 3.5.2 Applicability.

(a) Conditional Use Review: Conditional Use Review shall be required for the approval of all development subject to the following provisions of this ordinance:

1. Any use identified under Article 4 and Appendix A - Use Table as a "Conditional Use" or "CU;"
2. Any Special Use specifically identified as being subject to conditional use review under Article 5, Part 3;
3. Any application subject to Article 9 - Inclusionary and Replacement Housing;
4. All applications for an Institutional Parking Management Plan pursuant to the provision of Article 8, Part 3;
5. All applications subject to Article 10 - Subdivision; and
6. All applications subject to Article 11 - Planned Development.

(b) Major Impact Review: In addition, Major Impact Review shall be required for the approval of all development involving:

1. The construction of five (5) or more dwelling units or the creation through adaptive reuse, substantial rehabilitation or conversion of ten (10) or more dwelling units;
2. The creation of five (5) or more lots;
3. The construction or substantial rehabilitation of fifteen thousand (15,000) s.f. or more of gross floor area of nonresidential development;
4. Land disturbance involving one (1) acre or more;
5. Site improvements involving fifty (50) or more parking spaces;
6. Site improvements and land development on parcels that contain designated wetlands as regulated pursuant to Article 4, or natural areas of state or local significance as identified in the municipal development plan;
7. Site improvements and land development on parcels seeking a waiver under Sec. 5.4.9 - Brownfields; or

8. Multiple projects by the same applicant or responsible party within any consecutive twelve (12) month period on the same property or on a property within one thousand (1,000) feet of the subject property that in the aggregate equal or exceed the above criteria.

(Ord. of 6-4-12(2))

#### 3.5.3 Exemptions.

Major Impact Review shall not apply to applications involving one or more of the following:

- (a) Single-family dwellings;
- (b) Temporary structures;
- (c) Substantial rehabilitation that does not expand the floor area of an existing building or the structural capacity of existing development;
- (d) Projects that do not result in a change of use or increased parking demand as determined by the administrative officer; and
- (e) Subsurface site improvements including but not limited to underground utility lines and subsurface drainage ways.

(Ord. of 1-25-10(1))

#### 3.5.4 Submission requirements.

In addition to the applicable application and submission requirements in Sec. 3.2.2, all applications for a zoning permit subject to Conditional Use and/or Major Impact Review under this Part shall provide any additional information necessary for the adequate review of the proposal under the applicable review criteria of Sec. 3.5.6 pursuant to Sec. 3.2.3.

Any development subject to Major Impact Review under this Part shall also include an affidavit or certification documenting that the Pre-Application Public Neighborhood Meeting requirement pursuant to Sec. 3.2.1(d) has been satisfied in accordance with the procedures and requirements set forth by the department of planning and zoning.

Pursuant to Sec. 3.2.8(D), the DRB may require the applicant to pay the reasonable costs and fees incident to an independent technical review of the application.

(Ord. of 6-4-12(2))

#### 3.5.5 Public hearing required.

Applications involving Conditional Use and Major Impact Review shall require a public hearing pursuant to the provisions of Article 2 to provide an opportunity for public input and comment to the DRB on the proposed use and its conformity with the review criteria listed below.

#### 3.5.6 Review criteria.

The application and supporting documentation submitted for proposed development involving Conditional Use and/or Major Impact Review, including the plans contained therein, shall indicate how the proposed use and associated development will comply with the review criteria specified below:

(a) Conditional Use Review Standards: Approval shall be granted only if the DRB, after public notice and public hearing, determines that the proposed conditional use and associated development shall not result in an undue adverse effect on the following general standards:

1. The capacity of existing or planned community facilities;
2. The character of the area affected as defined by the purpose or purposes of the zoning district(s) within which the project is located, and specifically stated policies and standards of the municipal development plan;
3. Traffic on roads and highways in the vicinity evaluated in terms of increased demand for parking, travel during peak commuter hours, safety, contributing to congestion, as opposed to complementing the flow of traffic and/or parking needs; if not in a commercial district, the impact of customer traffic and deliveries must be evaluated;
4. Any standards or factors set forth in existing City bylaws and city and state ordinances;
5. The utilization of renewable energy resources; and

In addition to the General Standards specified above, the DRB:

6. Shall consider the cumulative impact of the proposed use. For purposes of residential construction, if an area is zoned for housing and a lot can accommodate the density, the cumulative impact of housing shall be considered negligible;
7. In considering a request relating to a greater number of unrelated individuals residing in a dwelling unit within the RL, RL-W, RM and RM-W districts than is allowed as a permitted use, in addition to the criteria set forth in Subsection (a) hereof, no conditional use permit may be granted unless all facilities within the dwelling unit, including bathroom and kitchen facilities are accessible to the occupants without passing through any bedroom. Additionally, each room proposed to be occupied as a bedroom must contain at least one hundred twenty (120) square feet. There must also be a parking area located on the premises at a location other than the front yard containing a minimum of one hundred eighty (180) square feet for each proposed adult of the dwelling unit in excess of the number of occupants allowed as a permitted use. All other green space standards must be observed.
8. May control the location and number of vehicular access points to the property, including the erection of parking barriers.
9. May limit the number, location and size of signs.
10. May require suitable mitigation measures, including landscaping, where necessary to reduce noise and glare and to maintain the property in a character in keeping with the surrounding area.
11. May specify a time limit for construction, alteration or enlargement of a structure to house a conditional use.
12. May specify hours of operation and/or construction to reduce the impact on surrounding properties.



13. May require that any future enlargement or alteration of the use return for review to the DRB to permit the specifying of new conditions.

14. May consider performance standards, should the proposed use merit such review.

15. May attach such additional reasonable conditions and safeguards, as it may deem necessary to implement the purposes of this chapter and the zoning regulations.

(b) Major Impact Review Standards: Before a major impact development may receive approval, the DRB must be satisfied, based on documentation provided by appropriate city agencies, experts, interested parties and/or the applicant that the proposed development, in addition to meeting the review standards for conditional use review above, shall:

1. Not result in undue water, air or noise pollution;
2. Have sufficient water available for its needs;
3. Not unreasonably burden the city's present or future water supply or distribution system;
4. Not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result;
5. Not cause unreasonable congestion or unsafe conditions on highways, streets, waterways, railways, bikeways, pedestrian pathways or other means of transportation, existing or proposed;
6. Not cause an unreasonable burden on the city's ability to provide educational services;
7. Not place an unreasonable burden on the city's ability to provide municipal services;
8. Not have an undue adverse effect on rare, irreplaceable or significant natural areas, historic or archaeological sites, nor on the scenic or natural beauty of the area or any part of the city;
9. Not have an undue adverse effect on the city's present or future growth patterns nor on the city's fiscal ability to accommodate such growth, nor on the city's investment in public services and facilities;
10. Be in substantial conformance with the city's municipal development plan and all incorporated plans;
11. Not have an undue adverse impact on the present or projected housing needs of the city in terms of amount, type, affordability and location; and/or
12. Not have an undue adverse impact on the present or projected park and recreation needs of the city.

#### 3.5.7 Development review board decisions, findings of fact.

In issuing a decision regarding an application for development subject to Conditional Use and/or Major Impact Review, the DRB shall issue Findings of Fact regarding the proposed application's satisfactory conformance with each of the review standards of Sec. 3.5.6, and may attach such

additional reasonable conditions and safeguards as it may deem necessary to implement the purposes of this ordinance and the city's municipal development plan.

Pursuant to the requirements of Sec. 3.2.8(e), the DRB shall act to approve or disapprove any such requested conditional use within forty-five (45) days after the date of close of the final public hearing held under this section, and failure to so act within such period shall be deemed approval.

Any and all plans and documents pertaining to a request for Conditional Use and/or Major Impact Review as approved by the DRB along with the Findings of Fact issued, shall be incorporated into any permit issued, and except as otherwise provided, all development shall occur strictly in accordance with such approved plans, applications, findings, and conditions.

## Burlington Development Review Board

149 Church Street, City Hall

Burlington, VT 05401

[www.burlingtonvt.gov/PZ/DRB](http://www.burlingtonvt.gov/PZ/DRB)

Phone: (802) 865-7188

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Austin Hart, Chair  
Brad Rabinowitz  
Jonathan Stevens  
Israel Smith  
A.J. LaRosa  
Alexandra Zipparo  
Geoff Hand  
Wayne Senville (Alt.)  
Jim Drummond (Alt.)



### **BURLINGTON DEVELOPMENT REVIEW BOARD Tuesday, October 6, 2015, 5:00 p.m. Contois Auditorium, City Hall, 149 Church Street, Burlington, VT AMENDED AGENDA**

- I. Agenda**
- II. Communications**
- III. Minutes**
- IV. Public Hearing**
  - 1. 16-0237CU; 156-160 NORTH WINOOSKI AVENUE (NMU, Ward 2C) James A. Kohler**  
Change of use from art gallery/studio and cafe to bar. (Project Manager, Scott Gustin)
- V. Certificate of Appropriateness**
  - 1. 15-1401CA; 185-195 College Street (D, Ward 3C) Great Cedars, LLC**  
Continued review of renovations associated with changes of use: First floor and basement commercial; 2nd, 3rd & 4th floors for 33 new residential units. Window repair and replacement, exterior repair as needed and parking identification. (Project Manager, Mary O'Neil)
  - 2. 16-0263CA; 584 South Prospect Street (RCO, Ward 6S) Hardacre Real Estate Holdings**  
Demolish existing single family residence and build new home with pool and driveway. (Project Manager, Mary O'Neil)
  - 3. 16-0375CA; 311-329 North Ave (RM, Ward 7) BC Community Housing LLC**  
Five year tree maintenance plan for 311 and 329 North Avenue. (Project Manager, Scott Gustin)
- VI. Other Business**
- VII. Adjournment**

Plans may be viewed in the Planning and Zoning Office, (City Hall, 149 Church Street, Burlington), between the hours of 8:00 a.m. and 4:30 p.m.

Participation in the DRB proceeding is a prerequisite to the right to take any subsequent appeal. Please note that ANYTHING submitted to the Planning and Zoning office is considered public and cannot be kept confidential.

This may not be the final order in which items will be heard. Please view final Agenda, at [www.burlingtonvt.gov/pz/drb/agendas](http://www.burlingtonvt.gov/pz/drb/agendas) or the office notice board, one week before the hearing for the order in which items will be heard.

*The programs and services of the City of Burlington are accessible to people with disabilities. Individuals who require special arrangements to participate are encouraged to contact the Department of Planning & Zoning at least 72 hours in advance so that proper accommodations can be arranged. For information call 865-7188 (TTY users: 865-7142).*

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Jim Drummond (Alt.)



### BURLINGTON DEVELOPMENT REVIEW BOARD

Tuesday, September 15, 2015, 5:00 p.m.

Contois Auditorium, City Hall, 149 Church Street, Burlington, VT  
Minutes

**Board Members Present:** Geoff Hand, Austin Hart, Brad Rabinowitz, Israel Smith, Alexandra Zipparo, J.J. LaRosa, Jim Drummond

**Board Members Absent:** Jonathan Stevens

**Staff Present:** Scott Gustin, Mary O'Neil, and Anita Wade

#### I. Agenda

Board considers the recommendations of staff on 83 Hyde Street. Applicant wants to proceed with public hearing.

#### II. Communications

Letters pertaining to 83 Hyde Street are accepted.

#### III. Minutes

#### IV. Consent

##### 1. 13-0019CA; 11 Lakeview Terrace (RM, Ward 7) David Del Piero

Time extension for renovation and addition to existing single family home. (Project Manager, Mary O'Neil)

ISmith recused.

M.O'Neil asked Board to consider this request since applicant's job has him out of the country.

Board members accept this as a consent item.

No one from public to speak on item.

B.Rabinowitz moved to approve application and accept staff recommendations.

A.Zipparo seconds the motion.

Board Vote 6-0

##### 2. 13-1318CA; 79 Front Street (NC, Ward 3) Emma J. Mulvaney-Stark

Time extension to construct new 2-story addition at rear of existing single family home and associated site improvements. Install new fence on north and south sides. (Project Manager, Scott Gustin)

Board members consider as consent item.

A.Hart swears in applicant and then asks if she has seen and accepts staff recommendations.

M.Moir said yes.

No one from public to speak on item.

B.Rabinowitz motions to approve application and adopt staff findings.

G.Hand seconds the motion.

Board Vote 7-0-0

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**3. 16-0266CA; 25 Cherry Street (D, Ward 3C) Burlington Harbor Hotel Group**

Construct open air pavilion and masonry barbecue with structure to cover existing outdoor dining and event space. (Project Manager, Scott Gustin)

A.J.LaRosa recused

A.Hart asked if applicant has concerns about staff recommendations.

J.Wallace has seen consent agenda and has no concerns.

No one from public to speak on item.

A.Zipparo motions to approve the application and adopt staff recommendations.

B.Rabinowitz seconds the motion.

Board Vote 6-0

**V. Public Hearing**

**1. 16-0205CA; 1127 North Ave (NAC, Ward 4) David Hauke**

Construct car wash. (Project Manager, Scott Gustin)

Applicant sworn in. Asked by Board to focus on issues raised by staff.

D.Hauke says there are no problems with issues raised by staff. Describes a 2000 sq ft car wash building with two self-sufficient bays, a small office open between 7am and 8 pm Near Ethan Allen Cinema.

A.Hart asked questions the issue of noise and distance to residential area.

D.Hauke said Leddy Park Road is 50 ft away and residential is 100 ft away. Vacuums are directed toward shopping center and sound is contained behind garage doors.

B.Rabinowitz questions how exhaust is handled.

D.Hauke directed back toward shopping center.

A.Hart is there a special treatment for cleaning cars with oil or is DPW asking for oil separator a waste water plan.

D.Hauke speaks about the 2500 holding tank onsite. Presently going through waste water treatment and stormwater treatment planning with DPW.

B.Rabinowitz there is not a lot of cuing for cars.

D.Hauke will be able to fit 4 or 5 cars with the majority of people from the shopping center. Not anticipating huge lines.

B.Rabinowitz is there a rooftop unit.

D.Hauke decided it was unnecessary.

A.Zipparo how water is handled and drained during winter months.

D.Hauke water will be heated.

A.J.LaRosa will water be drained.

D.Hauke yes it will.

I.Smith asks if project is major impact.

M.O'Neil staff does not consider this project major.

D.Lane an adjacent neighbor expressed concern about nighttime lighting and the effect.

D.Hauke said only one additional parking light is being added to building. Though lighting may be left on all evening for safety, there is no exterior lighting and none shine off site.

B.Rabinowitz are there canopy lights.

D.Hauke there one canopy light near the office door and one near each garage door

Public Hearing was closed at 5:23pm

**4. 15-1123CA; 83 Hyde Street (RM, Ward 2C) Nathan Cross**

Remove existing side porch, remove rear addition and construct new 1 1/2 story addition to home. (Project Manager, Mary O'Neil)

Applicants sworn in.

No one from public spoke or asked questions on item.

A.Hart asked applicant to focus on providing additional information sufficient for findings of fact.

N.Cross introduced himself as the owner, and A.Heath as the contractor.

N.Cross project proposes to eliminate back portion of house along with re-construction consisting of 1 ½ story building.

A.Heath copies of materials and erosion reports are available.

N.Cross met with DAB and staff addressing the suggestions and recommendations of both.

A.Hart asked for the applicant's materials to be distributed.

Applicants passed out materials to Board addressing points from staff notes.

Applicants discussed setback issue in relation to neighboring properties and the need to review setbacks and averages from surrounding properties. Finding that the porch may be 3 ft out of compliance.

M.ONeil said may have gone too far in one direction.

B.Rabinowitz commented that there is not much of a site plan and would like to see site plan with setbacks.

A. Hart suggested moving the porch to be in compliance and mentioned that the DAB said the entry way was important as the main entryway from Hyde St. Code enforcement is asking for the porch to be built with non-combustible materials. Porch may need to be built on a smaller scale/dimensions. Noted this issue may need further discussion and considers this an open item.

Applicant defined roof height handing out roof sketch to Board. Architect has 8ft ceilings.

A.Hart questions the gable height of 6 ft.

N.Cross said the cross gable was a DAB request to meet code.

Board asked for a revised plan regarding outdoor lighting, the type of fixtures and whether they were properly shielded or excessively bright.

I.Smith asked applicant if half window in bathroom could be changed to a real window.

A.Hart asks if findings have been provided to DPW for stormwater management and erosion control.

MONeil said the Planning and Zoning Department has not received a CPCSP.

A.Heath said DPW is getting ready to sign off on the plan.

A.Hart asked applicant to provide a more defined a landscaping plan with descriptions on screening from adjacent properties and the buffers.

A.Heath spoke about the materials being used on the project; aluminum siding, reveal, and corrugated metal roof and double hung windows.

Board asked applicant for more detail on the double hung windows specs, site plans dimensions, and new setbacks for the porch.

A.Hart asked if there was exterior mechanical equipment.

N.Cross said there was none.

Public hearing was closed based on the need for more information. Recommended continuing the public hearing at a later time.

A.Hart said the Board needs to receive materials a week in advance.

A.Hart motioned to continue public hearing on Oct 6th.

B.Rabinowitz seconds this motion.

Board Vote 7-0-0

Public Hearing was closed at 5:56pm.

## **VI. Other Business**

## **VII. Adjournment**

Meeting adjourned at 5:58pm.

_____  
Austin Hart, Chairperson of Development Review Board

_____  
Date

_____  
Anita Wade, Planning and Zoning Clerk

_____  
Date

Plans may be viewed in the Planning and Zoning Office, (City Hall, 149 Church Street, Burlington), between the hours of 8:00 a.m. and 4:30 p.m.

Participation in the DRB proceeding is a prerequisite to the right to take any subsequent appeal. Please note that ANYTHING submitted to the Planning and Zoning office is considered public and cannot be kept confidential.

This may not be the final order in which items will be heard. Please view final Agenda, at [www.burlingtonvt.gov/pz/drb/agendas](http://www.burlingtonvt.gov/pz/drb/agendas) or the office notice board, one week before the hearing for the order in which items will be heard.