



## Town of Brunswick, Maine

### PLANNING BOARD

85 UNION STREET, BRUNSWICK, ME 04011

### PLANNING BOARD BRUNSWICK TOWN HALL 85 UNION STREET COUNCIL CHAMBERS

THURSDAY, NOVEMBER 10, 2016; 7:00 P.M.

~~**Case #16-041 – 12 Bunganuc Landing Road Shoreline Stabilization:** The Planning Board will review and take action on a combination **Sketch/Final Plan Major Development Review** application submitted by authorized representatives from Walsh Engineering for Benjamin Carey's shoreline stabilization activity that results in excess of 100 cubic yards of filling and earthmoving on a mapped highly unstable bluff, and the 100-year floodplain adjacent to tidal waters (coastal wetlands) as designated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps within the **Natural Resource Protection Zone (NRPZ)**. The project is located in the **Coastal Protection Zone (CP1) Zoning District, (Map 29, Lot 35).**\*~~

1. **Case # 16-050, Environmental Studies Academic Center:** The Planning Board will review and take action on a **Sketch Plan Major Development Review** application submitted by authorized representative Don Borkowski for Bowdoin College, to construct a new academic building with various site modifications including new landscaping, a bio-swale, and pedestrian walkways. The proposed development is located at 38 Harpswell Road in the **CU3 (College Street) Zoning District (Map U-09, Lot 47)**.
2. **Other Business**
3. **Approval of Minutes**

*\*Agenda item rescheduled November 22, 2016*

*This agenda is mailed to owners of property within 200 feet of proposed development sites. Please call the Brunswick Department of Planning and Development (725-6660) with questions or comments. Individuals needing auxiliary aids for effective communications please call 725-6659 or TDD 725-5521. This meeting will be televised.*



## TOWN OF BRUNSWICK, MAINE

INCORPORATED 1739

DEPARTMENT OF PLANNING AND DEVELOPMENT  
85 UNION STREET  
BRUNSWICK, ME 04011

ANNA BREINICH, FAICP  
DIRECTOR OF PLANNING & DEVELOPMENT

PHONE: 207-725-6660  
FAX: 207-725-6663

### MEMORANDUM

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TO: The Planning Board  
FROM: Jared Woolston, Planner  
DATE: November 7, 2016  
RE: Sketch Plan Review of Environmental Studies Academic Center (Case #16-050)

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#### PROJECT SUMMARY

Staff has reviewed the Sketch Plan application and determined that it is complete.

The proposed Sketch Plan Major Development Review application was submitted by authorized representative, Don Borkowski for Bowdoin College to construct a new 9,777 square foot Environmental Studies Academic Center building at 38 Harpswell Road in the CU3 (College Street) Zoning District (Map U-09, Lot 47). The project involves redeveloping an existing 1.94 acre parcel on the Bowdoin College campus. Traffic currently enters the development site from a driveway located west from the building at 38 College Street to a parking lot at the interior of the parcel, and exits the site from a driveway east from the building at 38 College Street. As part of the project, the existing access driveway from College Street would be reconfigured to allow traffic from College Street to enter the site in the reverse direction from east to west. Additionally, a new 16-foot wide driveway connection from the above described parking lot to a second existing parking lot on the parcel adjacent to Coffin Street is proposed. Existing paved surfaces on the parcel, and the existing residence at 42 Harpswell Road is proposed to be removed. The proposed Environmental Studies Academic Center includes new pedestrian access ways, landscaped areas, and a bio-swale for stormwater management. A set of plans for the proposed development entitled, "Roux Center for the Environment" was prepared by Cambridge Seven Associates, Inc. and dated November 2, 2016. As proposed, the development satisfies the use and dimensional standards required for the CU3 Zoning District.

The Staff Review Committee (SRC) reviewed the Sketch Plan application on October 19, 2016. During the SRC meeting, the applicant's representative described the project based and the plans that were submitted with the application. During the SRC meeting, the staff requested depicting

the CU3 dimensional standards with proposed conditions on the plans; and indicating the primary zoning district (i.e. the zoning district that contains more than 50% of the subject parcel) since more than one (1) zoning district is affected by the proposed development. Further, the staff requested right, title and interest documentation. The Director of Planning and Development requested further clarification for the height of the proposed building since a maximum of 55 feet is allowed under a sliding scale standard from the subject property boundary in accordance with the Brunswick Zoning Ordinance at Section 204.3.G. The Deputy Fire Chief indicated the statewide fire code is under review at this time and consideration for meeting the draft fire code was advised. The applicant indicated the State Fire Marshall reviewed the proposal and found it acceptable to both existing and draft code requirements. The SRC recommended providing written evidence of the State Fire Marshall's acceptance of the plans for the sketch plan record. The public was present at the meeting and was allowed to participate in the review discussion.

Subsequent to the SRC meeting, the applicant provided the CU3 dimensional standards on revised plans; a deed for the land; and correspondence from the State Fire Marshall indicating satisfaction with fire code requirements. The Planner found minor discrepancies in proposed lot coverage shown on the plans, and in the scale of the plans. Despite these minor discrepancies, the lot coverage indicates the dimensions are below the limits of the CU3. The Planner recommended all restored impervious areas be amended with at least six (6) inches of loam, and the bottom three (3) inches of soil amendment tilled into native soil for permeability. On November 7, 2016, the representatives for the applicant provided a digital copy of the plan set (.pdf) to correct all discrepancies, and revisions advised by the staff. Two (2) full size plans of the current revision were provided at the request of the staff. One (1) revised plan set was provided for the file and the other plan set was provided to the Chair of the Planning Board. The original plan set (pre-revisions) and the digital copy of the revised plan set was provided to the Planning Board.

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**DRAFT MOTIONS  
SKETCH PLAN MAJOR REVIEW –  
ENVIRONMENTAL STUDIES ACADEMIC CENTER  
Case # 16-050**

**Motion 1.** That the Board deems the Sketch Plan to be complete.

**Motion 2.** That the Board approves the Sketch Plan.

Cambridge Seven Associates, Inc.

1050 Massachusetts Ave.  
Cambridge, MA 02138  
617 492-7000  
Fax 617 492-7007  
www.c7a.com

Ronald D. Baker  
Stefanie Greenfield  
Steven Imrich  
Patricia E. Intrieri  
Gary C. Johnson  
Peter Kuttner  
Timothy D. Mansfield  
Marc Rogers  
José Silveira

Yongjoo Kim  
Adam P. Mitchell  
James C. Puopolo  
Penny J. Sander  
Douglas Simpson  
Peter Sollogub  
Joslin Stewart

Architecture  
Urban Design  
Master Planning  
Programming  
Interior Design  
Graphic Design  
Exhibit Design

Charles Redmon  
Emeritus

Brunswick Planning Board  
Town of Brunswick  
28 Federal Street  
Brunswick, Maine 04011

11 October 2016

Re: **Major Development Review Sketch Plan Application**  
Environmental Studies Academic Center  
38 Harpswell Road, Brunswick, Maine  
Tax Map U-09, Lot 47

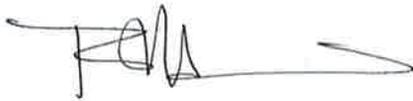
On behalf of Bowdoin College, Cambridge Seven Associates, Inc. (C7A) is pleased to submit the enclosed Major Development Review Sketch Plan Application, drawings, and supporting materials for the construction of a new academic building to be located on the corner of Harpswell Road and College Street, which is being referred to as the *Environmental Studies Academic Center*.

The new building will provide space for Bowdoin College's environmental studies program. The proposed construction will be a three story academic building and include faculty offices, classrooms, research labs and common spaces. The total square footage will be 25,800sf and fully conform to all zoning height, size and set back requirements. The new building will include an at-grade entry facing College Street with a new elevator to make all program spaces handicap-accessible.

The programs in the *Environmental Studies Academic Center* are being relocated from other spaces on-campus. There will be no new demand for parking, as faculty and students using the building will continue to use designated on-campus parking as they do now. Thirty Five off-street parking spaces are provided adjacent to the site and in addition, a connection is being planned to allow direct access to the Coffin Street lot providing additional parking for use by all campus employees and visitors.

As part of the project, Bowdoin College will be providing two of their campus standard bicycle racks for use by the building occupants.

Sincerely,



Timothy D. Mansfield AIA  
Principal  
Cambridge Seven Associates

Xc: Don Borkowski, Bowdoin College

**MAJOR DEVELOPMENT REVIEW  
SKETCH PLAN APPLICATION**

1. Project Name: Environmental Studies Academic Center
  
  2. Project Applicant  
Name: Bowdoin College  
Address: Maine Street  
Brunswick ME 04011  
Phone Number: (207) 725-3000
  
  3. Authorized Representative  
Name: Don Borkowski  
Address: Bowdoin College  
Brunswick ME 04011  
Phone Number: (207) 725-3947
  
  3. List of Design Consultants. Indicate the registration number, address and phone number Of any engineer, surveyor, architect, landscape architect or planner used:
    1. Cambridge Seven Associates Inc. - Architect
    2. Stephen Stimson Associates - Landscape Architect
    3. Sebago Technics - Civil Engineer
  
  4. Physical location of property being affected: Primarily 38 Harpswell Road, Brunswick ME
  
  5. Lot Size: 0.72 Acres (total with 6 lots 1.9 acres)
  
  6. Zoning District: CU3 & R7
  
  7. Indicate the interest of the applicant in the property and abutting property. For example, is the applicant the owner of the property and abutting property? If not, who owns the property subject to this application? The Applicant, Bowdoin College, is the owner of the property.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  
  8. Assessor's Tax Map U-09 Lot Number 47(44,46,48,49,53) of subject property.
  
  9. Brief description of proposed use: New academic building housing the environmental studies program. The new building will have faculty offices, classrooms, research labs and common spaces.  
\_\_\_\_\_
  
  10. Describe specific physical improvements to be done: The new building will be sited on the west side of the lot. Generous landscaping with an indigenous bio-swale will be designed between the new buidling and Harpswell Road. Pedestrian walks will be improved around the site.  
\_\_\_\_\_
- Owner Signature: \_\_\_\_\_
- Applicant Signature (if different): \_\_\_\_\_

**Required Attachments (by Applicant):**

- Sketch Plan Check List
- Sketch Plan Requirements for Open Space Developments (if applicable)
- Request for Waivers (if applicable)
- Required Copies of Sketch Plan

**Required Attachment (by Planning and Development Department):**

- Listing of all owners of property within 200-foot radius of property under review.

## SKETCH PLAN REQUIREMENTS

Key: "O" = Omit; "S" = Submit; "NA" = Not Applicable; "W" = Waiver; "P" = Pending

| Item   | O | S | NA | W | P | Comments |
|--|---|---|----|---|---|----------|
| Indicate Variances Granted   |   |   | NA |   |   |          |
| Indicate Special Permits   |   |   | NA |   |   |          |
| Indicate Special Exceptions  |   |   | NA |   |   |          |
| Date, north point, scale   |   | S |    |   |   |          |
| Land area, existing use of the property, location of proposed development, locations reserved for future development   |   | S |    |   |   |          |
| Tentative rights-of-way locations, lot lines, lot numbers, lot areas   |   | S |    |   |   |          |
| Estimated soil boundary locations from the Soil Conservation Service Medium Intensity Soil Survey noting areas of severe and very severe soil limitations  |   |   | NA |   |   |          |
| Existing natural, topographical, and cultural features including areas of steep slopes, bedrock outcrops, ponds, streams, aquifers, and other water bodies, wetlands, groundwater recharge areas, slumps, flood hazard areas, trees, and other vegetation, excavation sites, stone walls, net site area, historic and archeological sites, structures, or districts, and any other pertinent features. |   | S |    |   |   |          |
| Tentative locations of proposed structures, owners of existing structures, and neighboring land uses   |   | S |    |   |   |          |
| Special conservation and recreation areas  |   |   | NA |   |   |          |
| Location map   |   |   |    |   | P |          |
| Zoning information, including the zoning district(s) in which the property is located and the location of any overlay zones depicted on the plan.  |   | S |    |   |   |          |
| Any conditions imposed by previous development on the site.  |   |   | NA |   |   |          |
| Other information Planning Board/Staff Review Committee deems necessary to conduct an informed review.   |   |   |    |   | P |          |
| Letter of consent signed by property owner authorizing the development review application in cases where applicant is not the owner of the property.   |   |   | NA |   |   |          |
| Application Fee  |   | S |    |   |   |          |
| For Open Space Developments, sketch plan design review requirements indicated in Section 308.1   |   |   | NA |   |   |          |
| Open Space Development: Request for Bonus Density  |   |   | NA |   |   |          |

| Map Lot | Street No. | Street Name  | LastName                         | FirstName                               | Owner Address 1      | City          | State | Zip        |
|---------|------------|--------------|----------------------------------|---|----------------------|---------------|-------|------------|
| U09-69  | 47         | HARPSWELL RD | KIBBIE, ANN L TRUSTEE            | ATTN: KIBBIE, ANN L & WERTHEIM, KEVIN M | 47 HARPSWELL RD      | BRUNSWICK     | ME    | 4011       |
| U09-58  | 39         | HARPSWELL RD | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-40  | 5          | HARPSWELL PL | JEFFREY, PATRICIA I LE           | REMNDRMN: MICHELE T MORAROS &           | ANTHONY S MORAROS JT | ENCINITAS     | CA    | 92024-2940 |
| U12-1   | 27         | SOUTH ST     | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-48  | 38         | COLLEGE ST   | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-44  | 42         | HARPSWELL RD | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-44  | 42         | HARPSWELL RD | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-47  | 38         | HARPSWELL RD | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-43  | 44         | HARPSWELL RD | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-43  | 44         | HARPSWELL RD | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-39  | 46         | HARPSWELL RD | GIBBONS, LILE R                  |   | 27 SUNSET RD         | OLD GREENWICH | CT    | 06870-2109 |
| U35-A   | 0          | MAINE ST     | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-37  | 50         | HARPSWELL RD | BURGESS, L ROBERT & PAULINE I JT |   | 50 HARPSWELL RD      | BRUNSWICK     | ME    | 4011       |
| U09-50  | 30         | COLLEGE ST   | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-68  | 45         | HARPSWELL RD | HERRERA, GUILLERMO & JERALDINE   |   | 45 HARPSWELL RD      | BRUNSWICK     | ME    | 4011       |
| U09-59  | 41         | HARPSWELL RD | PLETTIS, MARK, PER REP           | FOR THE ESTATE OF ROSE PLETTIS          | 7517 BENT BOW TR     | CHANHASSEN    | MN    | 55317      |
| U09-51A | 26         | COLLEGE ST   | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U12-3   | 24         | COLLEGE ST   | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-49  | 32         | COLLEGE ST   | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-46  | 40         | HARPSWELL RD | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-51  | 28         | COLLEGE ST   | LAY, ARLINE P                    |   | 28 COLLEGE ST        | BRUNSWICK     | ME    | 4011       |
| U35-F   | 0          | SILLS DR     | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-70  | 3          | MCLELLAN ST  | DOLPHIN REALTY LLC               |   | 26 LYNEWOOD DR       | NORWAY        | ME    | 4268       |
| U09-38  | 48         | HARPSWELL RD | MULLIGAN, ROBERT W & JEAN E JT   |   | 48 HARPSWELL RD      | BRUNSWICK     | ME    | 4011       |
| U09-53  | 7          | COFFIN ST    | BOWDOIN COLLEGE                  | C/O TREASURERS OFFICE                   | 5600 COLLEGE STATION | BRUNSWICK     | ME    | 4011       |
| U09-42  | 8          | HARPSWELL PL | PETERSON, BIRGITTA               |   | 8 HARPSWELL PL       | BRUNSWICK     | ME    | 4011       |
| U09-41  | 10         | HARPSWELL PL | BARTLETT, FREDERICK S            |   | 10 HARPSWELL PL      | BRUNSWICK     | ME    | 4011       |

## DECLARATION OF LOT

**Bowdoin College**, a Maine corporation having its principal offices in Brunswick, Maine, hereby makes the following declaration.

1. Bowdoin College is the owner of four contiguous parcels of land in Brunswick, Cumberland County, Maine. These parcels are identified on the tax maps of the Town of Brunswick as Lot 44, Lot 46, Lot 47, and Lot 49, all on Tax Map U9.

2. The said four parcels are to be used together as though they were a single lot, and it would be preferable if they were designated and identified as a single lot.

3. Section 111 of the Town of Brunswick Zoning Ordinance defines a "Lot/Parcel" as "An area of land with ascertainable boundaries, all parts of which are owned by the same person(s) or entities."

4. In order to merge and combine the said Lot 44, Lot 46, Lot 47, and Lot 49 as one Lot within the meaning of the Town of Brunswick Zoning Ordinance, Bowdoin College, the sole owner of each, defines and establishes the boundaries of the merged and combined Lot as set forth in Exhibit A hereto.

5. This declaration shall be recorded in the Cumberland County Registry of Deeds in order that the said boundaries shall be ascertainable as a matter of public record.

In witness whereof, Bowdoin College has caused this instrument to be signed and sealed in its corporate name by its undersigned representative, hereunto duly authorized, this 7<sup>th</sup> day of May, 2013.

**Bowdoin College**

Catherine Ferdinand

Witness

By

S. Catherine Longley

S. Catherine Longley

Its duly authorized representative

STATE OF MAINE

Cumberland County

May 7, 2013

Personally appeared the above named S. Catherine Longley, duly authorized representative of Bowdoin College, and acknowledged before me the foregoing instrument to be her free act and deed in her said capacity and the free act and deed of Bowdoin College.

SEAL

James E. Kelley  
Notary Public/Attorney at law  
JAMES E. KELLEY  
Notary Public, Maine  
My Commission Expires February 14, 2016  
Print or type name as signed

## EXHIBIT A

The land, together with the buildings and improvements thereon, in Brunswick, Cumberland County, Maine, bounded and described as follows:

Beginning at the intersection of the southerly line of College Street and the westerly line of Harpswell Road; thence S 15° 38' 33" E along the westerly line of Harpswell Road 249.44 feet to the northeasterly corner of land now or formerly of Bowdoin College as described in the deed recorded in the Cumberland County Registry of Deeds in Book 26408, Page 155; thence N 89° 51' 10" W along the northerly line of said Bowdoin College land 140.05 feet to the northeasterly corner of land now or formerly of Kevin Cashman and Birgitta Peterson; thence N 83° 51' 24" W along said Cashman and Peterson land 49.5 feet to a corner thereof; thence N 01° 23' 36" E along said Cashman and Peterson land 79.20 feet to a corner thereof; thence N 83° 52' 27" W along said Cashman and Peterson land and land now or formerly of Elizabeth Bartlett and Fred Bartlett 202.48 feet to an alloy monument designated monument #265, as shown on the plan recorded in said Registry in Plan Book 160, Page 56; thence S 08° 46' 43" W along said Bartlett land 76.20 feet to a corner thereof; thence N 83° 25' 19" W along said Bartlett land 84.36 feet to a 4" square granite monument; thence continuing N 83° 25' 19" W along land now or formerly of Bowdoin College as described in the deed recorded in said Registry in Book 2603, Page 124, a distance of 104.55 feet to a 1" iron pipe; thence N 18° 17' 29" E along land now or formerly of Arline Lay and Philip Lay 146.30 feet to the southwesterly corner of land now or formerly of Bowdoin College as described in the deed recorded in said Registry in Book 4120, Page 288; thence S 84° 27' 17" E along said Bowdoin College land 94.15 feet to a ¾" iron pipe; thence N 09° 09' 38" E along said Bowdoin College land 14.85 feet to a ¾" iron pipe; thence N 09° 47' 28" E along said Bowdoin College land 82.93 feet to the southerly line of College Street; thence S 83° 55' 52" E along the southerly line of College Street 69.25 feet to the northwesterly corner of land now or formerly of Bowdoin College as described in the deed recorded in said Registry in Book 7489, Page 153; thence S 08° 50' 13" W along said Bowdoin College land 83.21 feet to a corner thereof; thence S 84° 17' 08" E along said Bowdoin College land 210.68 feet to a corner thereof; thence N 05° 59' 34" E along said Bowdoin College land 81.81 feet the southerly line of College Street; hence S 83° 55' 52" E along the southerly line of College Street 90.83 feet to the point of beginning; containing 1.94 acres.

All bearings used in the foregoing description refer to magnetic north as observed with a hand compass in December 1992. Reference is made to the survey plan entitled *Topographic Site Plan, 32 College St. & 38, 40, 42 Harpswell Rd.*, dated April 25, 2013, prepared by Harty & Harty, Professional Land Surveyors.

The above described lot includes all of the property conveyed to Bowdoin College by (a) the deed from James J. Ljunglin dated June 1, 2004, and recorded in the Cumberland County Registry of Deeds in Book 21365, Page 62, (b) the deed from Joanne F. Melville et al. dated August 30, 2002, and recorded in said Registry in Book 18024, Page 37, (c) the deed from Bowdoin Alpha Kappa Sigma Corporation dated June 3, 2000, and recorded in said Registry in Book 15519, Page 249, and (d) the deed from John R. Hudders, personal representative of the estate of Herbert R. Brown, dated October 18, 1988, and recorded in said Registry in Book 8535, Page 112.

Received  
Recorded Register of Deeds  
May 08, 2013 03:16:45P  
Cumberland County  
Pamela E. Lovley

**From:** [Donald Borkowski](#)  
**To:** [Jeff Emerson](#)  
**Cc:** [Jeff Hutchinson](#); [Jared Woolston](#)  
**Subject:** Environmental Center: State FM Review Notes (attached)  
**Date:** Thursday, October 20, 2016 6:46:31 AM  
**Attachments:** [State Fire Marshal Review Final 10.11.16.pdf](#)

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Hello Jeff,

As a follow-up to our Sketch Plan Staff Review Meeting yesterday, please find attached notes from our meeting with Dick Nason of the State Fire Marshal's Office.

You will find the answer to your question concerning the applicable version of the IECC on page #3, the seventh bullet. Basically, we will follow the most stringent requirements of the existing and potential revision.

We will include a copy of these meeting notes in our updated Sketch Plan submission next week for the Planning Board.

Don B.

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Ronald D. Baker  
Stefanie Greenfield  
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Penny J. Sander  
Douglas Simpson  
Peter Sollogub  
Joslin Stewart

Architecture  
Urban Design  
Master Planning  
Programming  
Interior Design  
Graphic Design  
Exhibit Design

Charles Redmon  
Emeritus

## Environmental Studies Building

Bowdoin College, Brunswick ME

### State Fire Marshal Review

Meeting Date: October 11, 2016, 3:00PM – 4:00PM

Issue Date: October 17, 2016

Participants: Richard Nason (RN), Office of Maine State Fire Marshal OSFM  
Don Borkowski, (DB) Director of Capital Projects, Bowdoin College BC  
Chris Muskopf (CM), Associate, Cambridge Seven Associates C7A

CC: Matthew Orlando, VP for Finance & Assist. Treasurer BC,  
Timothy Mansfield, Principal C7A  
Sydnor Scholer, Designer C7A  
Eric Cote, Senior Technical Advisor JH  
Matt Tonello, Project Executive, Consigli Construction CC  
Paul Becker, Becker Structural Engineers BSE  
Nate Merrill, Becker Structural Engineers BSE  
Julian Astbury, Arup AR

Location: Central Maine Commerce Center  
45 Commerce Drive, Augusta, ME

Subject: Bowdoin College Environmental Studies Building

| No   | Title/Description  | Resp. Party | Action Date By |
|------|--|-------------|----------------|
| 1.00 | <p><b>Overview</b></p> <ul style="list-style-type: none"> <li>The purpose of the meeting was to introduce the new Bowdoin College environmental studies center to the Office of the Main State Fire Marshal. The EC is a 25,800 sf multi-disciplinary science, lab &amp; general academic building at the corner of Harpswell Road and College Street in Brunswick, ME.</li> </ul> | None        | Record         |

Bowdoin College Environmental Studies Center

State Fire Marshal Review

October 11, 2016

Page 2

| 1.01 | Discussion   | None | Record |
|------|--|------|--------|
|      | <ul style="list-style-type: none"><li>• CM provided an overview of the plans, construction type, means of egress, occupancy classification and other highlights of the proposed environmental studies center at Bowdoin College.</li><li>• The building's construction type is IIB unprotected, noncombustible and will be equipped with an automatic fire suppression system and a fully-addressable, automatic fire detection and voice alarm system.</li><li>• CM reviewed use group approach related to NFPA 101 restrictions, including the placement of assembly classifications on the first story and second story only.</li><li>• Second story assembly space occupancy load is limited to less than 300 persons.</li><li>• 3<sup>rd</sup> story contains no assembly occupancy.</li><li>• Lecture Common Space is classified as an unenclosed vertical opening. This is a 2-story space (connecting L1 and L2) that will provide tiered-seating for 150 persons. The 2-story opening complies with section MUBC 708.2, exception 7.</li><li>• Under NFPA 101 12.3.1 and 8.6.8.1, this space requires a 1-hour separation from corridors leading to exit stairs or the exterior at either L1 or L2. C7A has proposed separating this space at L1 with a combination of rated partitions, fire rated glass and fire shutters.</li><li>• RN indicated that this approach was acceptable. He indicated that the design team might look at non-rated glass and closely spaced sprinklers.</li><li>• The building consists of mixed occupancies, primarily Group B – business (classrooms, offices &amp; meeting rooms), Group A-2 Assembly (café), Group A-3 (Large Classrooms, gathering spaces, meeting rooms) as well as Group S-1 &amp; S-2 (storage).</li><li>• CM noted that an elevator serves the Basement, L1, L2 and L3.</li><li>• Two rated stair enclosures provide the remotely located means of egress per floor. One discharges directly to the outdoors, the other discharges to an</li></ul> |      |        |

Bowdoin College Environmental Studies Center

State Fire Marshal Review

October 11, 2016

Page 3

exit passageway which provides access to the exterior.

- RN enquired about the types and quantities of chemicals to be used in the building. CM indicated that the list is being currently determined in the programming process, but that the range has been narrowed considerably due to the selection of recirculating fume hoods with integral filters.
- CM indicated that no radioactive or stable isotopes are envisioned in the lab research.
- CM reviewed the roof terrace on L3 which has 2 means of egress, is fully accessible and protected at the edge by a 42" tall guardrail. Portions of the roof contain a vegetative roof intended for teaching.
- DB indicated the College intends to control access to outdoor roof terrace by key-card.
- RN noted that any access to the vegetated roof by the public (not maintenance personnel) would need to be fully compliant with ADA and require two means of egress.
- CM and DB indicated further discussion with the faculty would be required to determine the extent of access to the roof.
- 2015 IECC adoption process: RN noted that the 2015 IECC is still in process of approval by legislature. He recommended that while the changes likely will not affect this project, the more stringent aspects of the new code should be followed to avoid any issues when 2015 IECC is adopted.
- No kitchen equipment is currently planned for the building, except a microwave and refrigerator.
- The group discussed proposed access from prep rooms through exit stairway enclosures.
- RN indicated that this is permitted when the room being accessed from the stair is a normally-occupied space. He indicated a prep room associated with a teaching lab would be considered as a normally-occupied space.
- RN noted that no penetrations are allowed into the exit stair enclosures except those permitted by MUBC 1022.4.
- Access to the mechanical room on the L3 through the stairs would not be permitted according to this same

Bowdoin College Environmental Studies Center

State Fire Marshal Review

October 11, 2016

Page 4

logic since the mechanical well is not a normally occupied space.

- C7A will change the door location to the mechanical room on L3 from the stair to the corridor.

**1.02 Schedule and Submission Requirements** **None** **Record**

All documentation should be submitted to the OSFM at the end of the Construction Document phase, concurrent with the building permit application.

RN indicated that the OSFM requires the following items:

- Full size stamped plans
- Specification book in digital format on CD.
- Chemical List, quantity and storage approach

**1.03** These meeting minutes have been prepared by Chris Muskopf and represent Cambridge Seven Associates' interpretation of the discussions that took place. If the reader's interpretation of the discussion differs, please contact Cambridge Seven Associates' office in writing within seven days of receipt of these minutes.

1050 Massachusetts Avenue 5th Floor, Cambridge, MA 02138

PROJECT: Bowdoin Roux Center 1603 DATE: 11/7/2016

SUBJECT: Bowdoin College Sketch Plan - update plans 11/04 TRANSMITTAL ID: 00021

PURPOSE: For your use VIA: Info Exchange

## FROM

| NAME  | COMPANY                             | EMAIL            | PHONE                |
|---|-------------------------------------|------------------|----------------------|
| Chris Muskopf<br>1050 Massachusetts<br>Avenue<br>5th Floor<br>Cambridge MA 02138<br>United States | Cambridge Seven<br>Associates, Inc. | cmuskopf@c7a.com | 617.492.7000<br>x250 |

## TO

| NAME                      | COMPANY | EMAIL                     | PHONE |
|---------------------------|---------|---------------------------|-------|
| jwoolston@brunswickme.org |         | jwoolston@brunswickme.org |       |

REMARKS: Jared

Per your request, revised plans attached - Let's review on the phone and if all is well, Sebago will bring you 2 full size copies.

Please note the survey (2 pages) is a 22x34 sheet size and the Civil and Architectural sets are 30x42.

Best,

Chris

## DESCRIPTION OF CONTENTS

| QTY | DATED     | TITLE  | NOTES |
|-----|-----------|--|-------|
| 1   | 11/7/2016 | 16_11_07 Bowdoin_Roux Center_Sketch Plan Submission_Full.pdf |       |

## COPIES:

Timothy Mansfield (Cambridge Seven Associates, Inc.)  
Sydnor Scholer (Cambridge Seven Associates, Inc.)  
Kylie Mason (Sebago Technics)  
Donald Borkowski (Bowdoin College)  
tpeabody@sebagotechnics.com

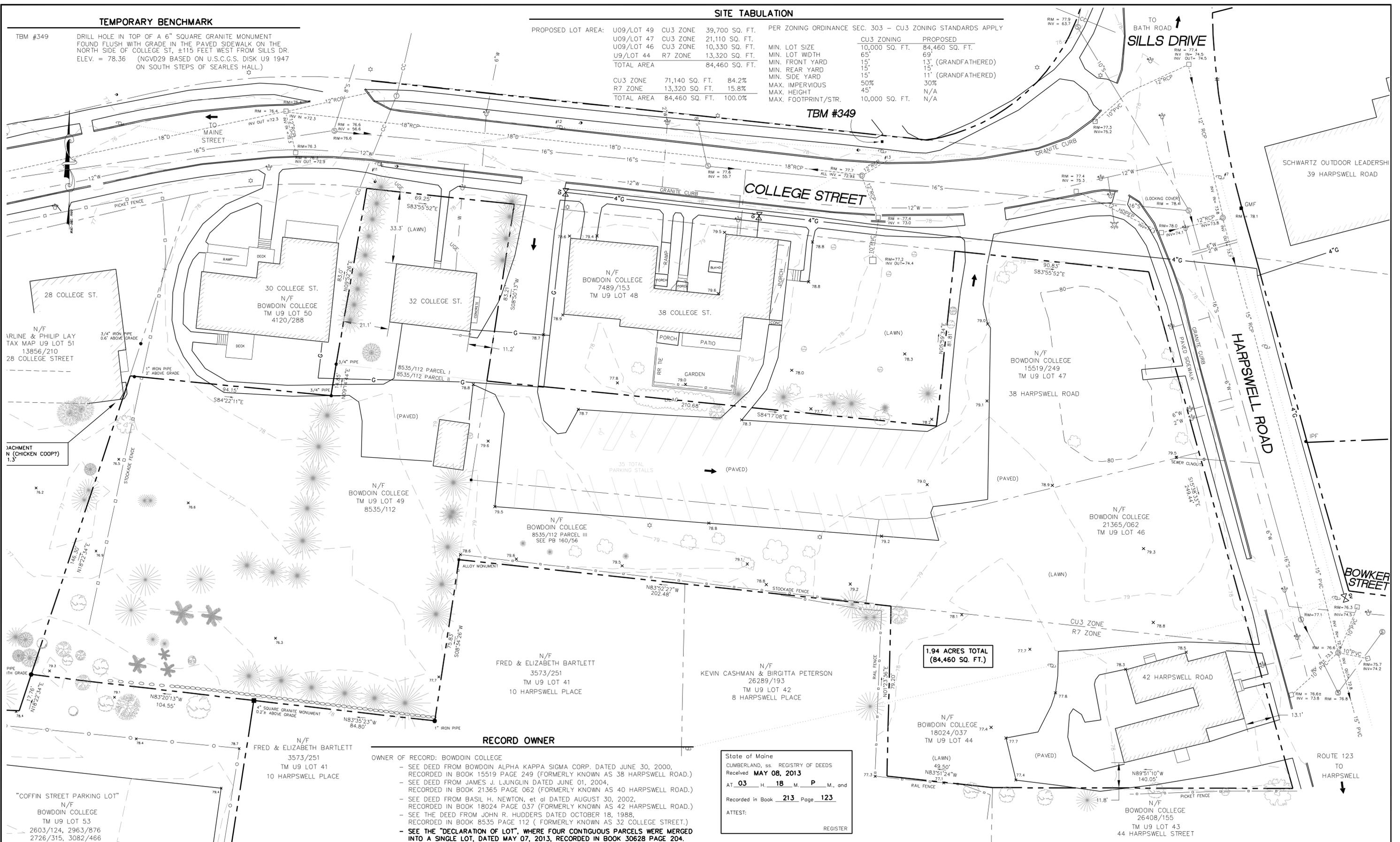
**TEMPORARY BENCHMARK**

TBM #349  
 DRILL HOLE IN TOP OF A 6" SQUARE GRANITE MONUMENT FOUND FLUSH WITH GRADE IN THE PAVED SIDEWALK ON THE NORTH SIDE OF COLLEGE ST, ±115 FEET WEST FROM SILLS DR. ELEV. = 78.36 (NGVD29 BASED ON U.S.C.G.S. DISK U9 1947 ON SOUTH STEPS OF SEARLES HALL.)

**SITE TABULATION**

|                    |            |                |                |  |
|--------------------|------------|----------------|----------------|--|
| PROPOSED LOT AREA: | U09/LOT 49 | CU3 ZONE       | 39,700 SQ. FT. | PER ZONING ORDINANCE SEC. 303 - CU3 ZONING STANDARDS APPLY |
|                    | U09/LOT 47 | CU3 ZONE       | 21,110 SQ. FT. |  |
|                    | U09/LOT 46 | CU3 ZONE       | 10,330 SQ. FT. |  |
|                    | U9/LOT 44  | R7 ZONE        | 13,320 SQ. FT. |  |
|                    | TOTAL AREA |                | 84,460 SQ. FT. |  |
|                    | CU3 ZONE   | 71,140 SQ. FT. | 84.2%          |  |
|                    | R7 ZONE    | 13,320 SQ. FT. | 15.8%          |  |
|                    | TOTAL AREA | 84,460 SQ. FT. | 100.0%         |  |

|                     |                     |
|---------------------|---------------------|
| CU3 ZONING          | PROPOSED            |
| 10,000 SQ. FT.      | 84,460 SQ. FT.      |
| MIN. LOT WIDTH      | 65'                 |
| MIN. FRONT YARD     | 15'                 |
| MIN. REAR YARD      | 15'                 |
| MIN. SIDE YARD      | 15'                 |
| MAX. IMPERVIOUS     | 50%                 |
| MAX. HEIGHT         | 45'                 |
| MAX. FOOTPRINT/STR. | 10,000 SQ. FT.      |
| CU3 ZONING          | PROPOSED            |
| 13' (GRANDFATHERED) | 13' (GRANDFATHERED) |
| 11' (GRANDFATHERED) | 11' (GRANDFATHERED) |
| N/A                 | N/A                 |
| N/A                 | N/A                 |



28 COLLEGE ST.  
 N/F  
 VRLINE & PHILIP LAY  
 TAX MAP U9 LOT 51  
 13856/210  
 28 COLLEGE STREET

30 COLLEGE ST.  
 N/F  
 BOWDOIN COLLEGE  
 TM U9 LOT 50  
 4120/288

32 COLLEGE ST.

N/F  
 BOWDOIN COLLEGE  
 7489/153  
 TM U9 LOT 48

38 COLLEGE ST.

N/F  
 BOWDOIN COLLEGE  
 15519/249  
 TM U9 LOT 47

38 HARPSWELL ROAD

N/F  
 BOWDOIN COLLEGE  
 TM U9 LOT 49  
 8535/112

N/F  
 BOWDOIN COLLEGE  
 8535/112 PARCEL I  
 8535/112 PARCEL II

N/F  
 FRED & ELIZABETH BARTLETT  
 3573/251  
 TM U9 LOT 41  
 10 HARPSWELL PLACE

N/F  
 KEVIN CASHMAN & BIRGITTA PETERSON  
 26289/193  
 TM U9 LOT 42  
 8 HARPSWELL PLACE

1.94 ACRES TOTAL  
 (84,460 SQ. FT.)

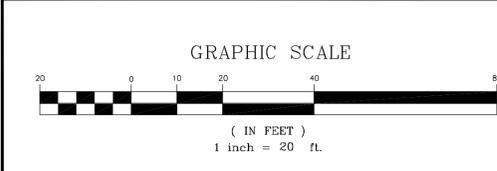
N/F  
 BOWDOIN COLLEGE  
 18024/037  
 TM U9 LOT 44

N/F  
 BOWDOIN COLLEGE  
 26408/155  
 TM U9 LOT 43  
 44 HARPSWELL STREET

"COFFIN STREET PARKING LOT"  
 N/F  
 BOWDOIN COLLEGE  
 TM U9 LOT 53  
 2603/124, 2963/876  
 2726/315, 3082/466

**RECORD OWNER**  
 OWNER OF RECORD: BOWDOIN COLLEGE  
 - SEE DEED FROM BOWDOIN ALPHA KAPPA SIGMA CORP. DATED JUNE 30, 2000, RECORDED IN BOOK 15519 PAGE 249 (FORMERLY KNOWN AS 38 HARPSWELL ROAD.)  
 - SEE DEED FROM JAMES J. LUJUNGLIN DATED JUNE 01, 2004, RECORDED IN BOOK 21365 PAGE 062 (FORMERLY KNOWN AS 40 HARPSWELL ROAD.)  
 - SEE DEED FROM BASIL H. NEWTON, et al DATED AUGUST 30, 2002, RECORDED IN BOOK 18024 PAGE 037 (FORMERLY KNOWN AS 42 HARPSWELL ROAD.)  
 - SEE THE DEED FROM JOHN R. HUDDERS DATED OCTOBER 18, 1988, RECORDED IN BOOK 8535 PAGE 112 (FORMERLY KNOWN AS 32 COLLEGE STREET.)  
 - SEE THE "DECLARATION OF LOT", WHERE FOUR CONTIGUOUS PARCELS WERE MERGED INTO A SINGLE LOT, DATED MAY 07, 2013, RECORDED IN BOOK 30628 PAGE 204.

State of Maine  
 CUMBERLAND, ss. REGISTRY OF DEEDS  
 Received **MAY 08, 2013**  
 AT **03** H. **18** M. **P** M., and  
 Recorded in Book **213** Page **123**  
 ATTEST:  
 REGISTER



|     |          |  |     |      |      |
|-----|----------|--|-----|------|------|
| REV | DATE     | STATUS   | BY  | CHKD | APPD |
| 3   | 09/29/16 | SHEET 2 - EXPAND TO COFFIN ST.   | PFH | MJH  | PFH  |
| 2   | 02/26/16 | UPDATE COLLEGE ST & UTILITIES  | PFH | MJH  | PFH  |
| 1   | 02/25/14 | SURVEYOR'S REPORT CERTIFICATION<br>#38 HARPSWELL BUILDING REMOVED<br>COLLEGE ST. HAS BEEN RECONSTRUCTED<br>BUT HAS NOT BEEN REVISED ON THIS PLAN | PFH | MJH  | PFH  |



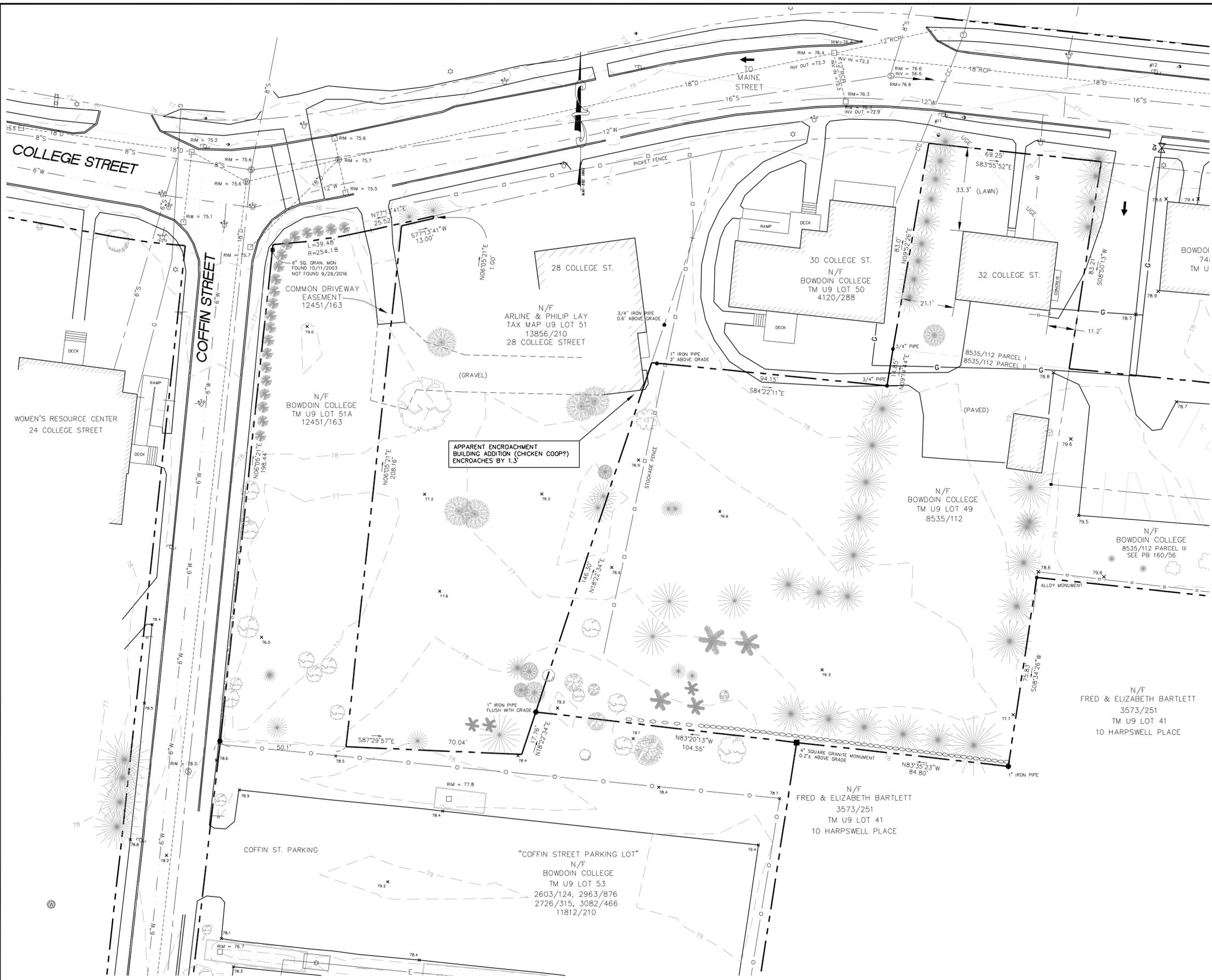
DESIGNED BY: -  
 DRAWN BY: PFH  
 CHECKED BY: MJH  
 APPROVED BY: PFH  
 DATE: 04/25/13

**Harty & Harty**  
**Professional Land Surveyors**  
 540 Bay Road  
 Bowdoinham, Maine 04008  
 Tel/FAX : (207) 729-4571

CLIENT & RECORD OWNER  
**BOWDOIN COLLEGE**  
**6800 COLLEGE STATION**  
**BRUNSWICK, ME 04011**

PROJECT  
**32 COLLEGE ST. & 38,40,42 HARPSWELL RD.**  
**BRUNSWICK, MAINE**  
 TITLE  
**TOPOGRAPHIC SITE PLAN**

SCALE HORIZ. 1"=20'  
 PROJECT NO.  
 #13026  
 DRAWING NO.  
 HARPSWELL38  
 SHT. 1 of 2 REV. 3

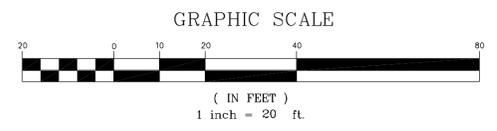


**TOPOGRAPHIC SURVEY NOTES**

- THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY HARTY & HARTY ON 09/22/04, FEB. 2013, & SEPT. 2016. THE CONTOUR INTERVAL IS ONE FOOT AND THE VERTICAL DATUM IS U.S.C.G.S. DATUM, 1929.
- THE UTILITY STRUCTURES AND INVERTS SHOWN WERE DETERMINED BY THE FIELD SURVEY. HOWEVER LOCATION OF ALL UNDERGROUND UTILITY WAS NOT ESTABLISHED. TEST PITS ARE RECOMMENDED TO DETERMINE UNDERGROUND UTILITY LOCATIONS PRIOR TO DESIGN & CONSTRUCTION.

**LEGEND**

|      |                               |   |   |
|------|-------------------------------|---|---|
| #10  | UTILITY POLE                  | ⊗ | CEDAR   |
| #122 | LIGHT POLE                    | ⊗ | RED PINE  |
| ⊗    | CATCH BASIN                   | ⊗ | WHITE PINE  |
| ⊗    | WATER GATE VALVE              | ⊗ | SPRUCE/HEMLOCK  |
| ⊗    | HYDRANT                       | ⊗ | ELM   |
| ⊗    | SIGN                          | ⊗ | MAPLE   |
| ⊗    | WOODEN/METAL POST             | ⊗ | ASH   |
| ⊗    | STEAM MANHOLE                 | ⊗ | OAK   |
| ⊗    | STORM DRAIN MANHOLE           | ⊗ | OTHER DECIDUOUS   |
| ⊗    | SEWER MANHOLE                 | ⊗ | SHRUB   |
| ⊗    | TELEPHONE MANHOLE             | ⊗ | IRON PIPE OR ROD FOUND                                    |
| ⊗    | ELECTRIC MANHOLE/PULLBOX      | ⊗ | 3/4" IRON ROD SET WITH I.D. CAP                           |
| ⊗    | GAS VALVE                     | ⊗ | MONUMENT FOUND  |
| ⊗    | TREE / VEGETATION LINE        | ⊗ | 7489/153 BOOK/PAGE AT CUMBERLAND COUNTY REGISTRY OF DEEDS |
| ⊗    | BUILDING                      | ⊗ | GRANITE/BIT./CONC. CURB                                   |
| ⊗    | STONE WALL                    | ⊗ | EDGE OF PAVEMENT  |
| ⊗    | PICKET/STOCKADE FENCE         | ⊗ | STEAM - PUMPED DISCHARGE                                  |
| ⊗    | WIRE FENCE                    | ⊗ | 4" MPS STEAM LINE   |
| ⊗    | CHAIN LINK FENCE              | ⊗ | 1" CA STEAM - COMPRESSED AIR                              |
| N/F  | NOW OR FORMERLY               | ⊗ | 15" ADS STORM DRAIN - SIZE & TYPE                         |
| T    | UNDERGROUND TELEPHONE         | ⊗ | 10" S SEWER LINE  |
| 80   | CONTOUR LINE                  | ⊗ | 8" W WATER MAIN   |
| UG   | OVERHEAD UTILITIES            |   |   |
| UG   | UNDERGROUND UTILITIES         |   |   |
| CC   | UG. CAMPUS COMMUNICATION LINE |   |   |
| ---  | APPROX. PROPERTY LINE         |   |   |
| ---  | DEED LINE                     |   |   |
| 4"C  | GAS LINE                      |   |   |



| 3   | 09/29/16 | SHEET 2 - EXPAND TO COFFIN ST. | PFH | MJH  | PFH  |
|-----|----------|--------------------------------|-----|------|------|
| REV | DATE     | STATUS                         | BY  | CHKD | APPD |



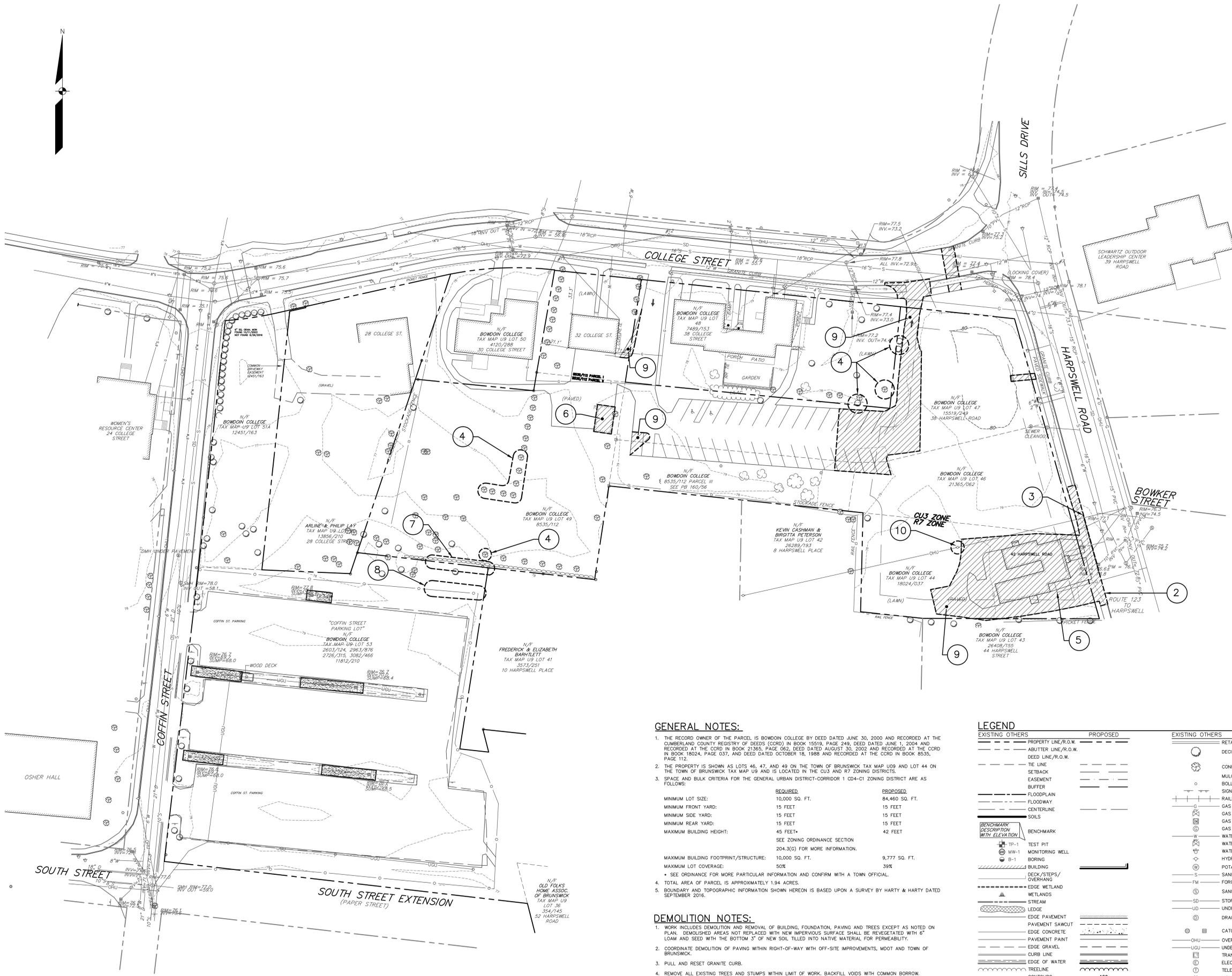
DESIGNED BY: -  
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 CHECKED BY: MJH  
 APPROVED BY: PFH  
 DATE: 04/25/13

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**TOPOGRAPHIC SITE PLAN**

SCALE HORIZ. 1"=20'  
 PROJECT NO. #13026  
 DRAWING NO. HARPSWELL38  
 SHT. 2 of 2 REV. 3



### GENERAL NOTES:

- THE RECORD OWNER OF THE PARCEL IS BOWDOIN COLLEGE BY DEED DATED JUNE 30, 2000 AND RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 15519, PAGE 249, DEED DATED JUNE 1, 2004 AND RECORDED AT THE CCRD IN BOOK 21385, PAGE 062, DEED DATED AUGUST 30, 2002 AND RECORDED AT THE CCRD IN BOOK 18204, PAGE 037, AND DEED DATED OCTOBER 18, 1988 AND RECORDED AT THE CCRD IN BOOK 8335, PAGE 112.
- THE PROPERTY IS SHOWN AS LOTS 46, 47, AND 48 ON THE TOWN OF BRUNSWICK TAX MAP U09 AND LOT 44 ON THE TOWN OF BRUNSWICK TAX MAP U09 AND IS LOCATED IN THE CU3 AND R7 ZONING DISTRICTS.
- SPACE AND BULK CRITERIA FOR THE GENERAL URBAN DISTRICT-CORRIDOR 1 CD4-C1 ZONING DISTRICT ARE AS FOLLOWS:
 

|                                       | REQUIRED  | PROPOSED       |
|---------------------------------------|---|----------------|
| MINIMUM LOT SIZE:                     | 10,000 SQ. FT.  | 84,460 SQ. FT. |
| MINIMUM FRONT YARD:                   | 15 FEET   | 15 FEET        |
| MINIMUM SIDE YARD:                    | 15 FEET   | 15 FEET        |
| MINIMUM REAR YARD:                    | 15 FEET   | 15 FEET        |
| MAXIMUM BUILDING HEIGHT:              | 45 FEET+  | 42 FEET        |
|                                       | SEE ZONING ORDINANCE SECTION 204.3(G) FOR MORE INFORMATION. |                |
| MAXIMUM BUILDING FOOTPRINT/STRUCTURE: | 10,000 SQ. FT.  | 9,777 SQ. FT.  |
| MAXIMUM LOT COVERAGE:                 | 50%   | 39%            |

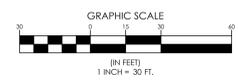
  - SEE ORDINANCE FOR MORE PARTICULAR INFORMATION AND CONFIRM WITH A TOWN OFFICIAL.
- TOTAL AREA OF PARCEL IS APPROXIMATELY 1.94 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A SURVEY BY HARTY & HARTY DATED SEPTEMBER 2016.

### DEMOLITION NOTES:

- WORK INCLUDES DEMOLITION AND REMOVAL OF BUILDING, FOUNDATION, PAVING AND TREES EXCEPT AS NOTED ON PLAN. DEMOLISHED AREAS NOT REPLACED WITH NEW IMPERVIOUS SURFACE SHALL BE REVEGETATED WITH 6" LOAM AND SEED WITH THE BOTTOM 3" OF NEW SOIL TILLED INTO NATIVE MATERIAL FOR PERMEABILITY.
- COORDINATE DEMOLITION OF PAVING WITHIN RIGHT-OF-WAY WITH OFF-SITE IMPROVEMENTS, MDOT AND TOWN OF BRUNSWICK.
- PULL AND RESET GRANITE CURB.
- REMOVE ALL EXISTING TREES AND STUMPS WITHIN LIMIT OF WORK. BACKFILL VOIDS WITH COMMON BORROW.
- REMOVE AND CAP EXISTING GAS SERVICE LINE; COORDINATE WITH TOWN OF BRUNSWICK AND MAINE NATURAL GAS.
- BUILDING TO BE REMOVED/RELOCATED.
- STONE WALL TO BE REMOVED - SAVE STONE FOR REUSE.
- FENCE TO BE REMOVED.
- PAVEMENT IN THIS AREA TO BE REMOVED.
- UTILITY POLE AND OVERHEAD ELECTRIC TO BE RELOCATED.

### LEGEND

| EXISTING OTHERS                       | PROPOSED | EXISTING OTHERS         | PROPOSED |
|---------------------------------------|----------|-------------------------|----------|
| PROPERTY LINE/R.O.W.                  | ---      | RETAINING WALL          | —X—      |
| ABUTTER LINE/R.O.W.                   | ---      | DECIDUOUS TREE          | (X)      |
| DEED LINE/R.O.W.                      | ---      | CONIFEROUS TREE         | (X)      |
| THE LINE                              | ---      | MULCH LINE              | ---      |
| SETBACK                               | ---      | BOLLARD                 | ●        |
| EASEMENT                              | ---      | RAILROAD                | —+—      |
| BUFFER                                | ---      | GAS                     | —G—      |
| FLOODPLAIN                            | ---      | GAS GATE VALVE          | —GV—     |
| FLOODWAY                              | ---      | GAS METER               | —GM—     |
| CENTERLINE                            | ---      | GAS MANHOLE             | —GMH—    |
| SOILS                                 | ---      | WATER                   | —W—      |
| DEITCHMARK DESCRIPTION WITH ELEVATION | ---      | WATER GATE VALVE        | —WGV—    |
| TP-1                                  | ---      | WATER SHUT OFF          | —WSO—    |
| TEST PIT                              | ---      | HYDRANT                 | —H—      |
| MONITORING WELL                       | ---      | POTABLE WELL            | —PW—     |
| B-1                                   | ---      | SANITARY SEWER          | —SS—     |
| BUILDING                              | ---      | FORCE MAIN              | —FM—     |
| DECK/STEPS/OVERHANG                   | ---      | SANITARY MANHOLE        | —SMH—    |
| EDGE WETLAND                          | ---      | STORM DRAIN             | —SD—     |
| WETLANDS                              | ---      | UNDER DRAIN             | —UD—     |
| STREAM                                | ---      | DRAINAGE MANHOLE        | —DMH—    |
| LEDGE                                 | ---      | CATCH BASIN             | —CB—     |
| EDGE PAVEMENT                         | ---      | OVERHEAD UTILITY        | —OHU—    |
| PAVEMENT SAWCUT                       | ---      | UNDERGROUND UTILITY     | —UGU—    |
| EDGE CONCRETE                         | ---      | TRANSFORMER PAD         | —TP—     |
| PAVEMENT PAINT                        | ---      | ELECTRICAL MANHOLE      | —EMH—    |
| EDGE GRAVEL                           | ---      | TELEPHONE MANHOLE       | —TMH—    |
| CURB LINE                             | ---      | LIGHT POLE              | —LP—     |
| EDGE OF WATER                         | ---      | UTILITY POLE            | —UP—     |
| STREAM                                | ---      | GUY WIRE                | —GW—     |
| CONTOURS                              | ---      | DRAINAGE DITCH          | —DD—     |
| X120.00                               | ---      | EROSION CONTROL BLANKET | —EB—     |
| SPOT GRADE                            | ---      | FILTER BARRIER          | —FB—     |
| CHAIN LINK FENCE                      | ---      | RIPRAP                  | —R—      |
| BARB WIRE FENCE                       | ---      | CHECK DAM               | —CD—     |
| STOCKADE FENCE                        | ---      |                         |          |
| GUARD RAIL                            | ---      |                         |          |
| STONE WALL                            | ---      |                         |          |
| INLET PROTECTION                      | ---      |                         |          |



| Number | Revision | Date |
|--------|----------|------|
|        |          |      |

### 100% SCHEMATIC DESIGN

Cambridge Seven Associates, Inc.

Architects and Planners  
 1050 Massachusetts Avenue  
 Cambridge, MA 02138  
 617-452-7000 Fax 482-7007

Job # 11001

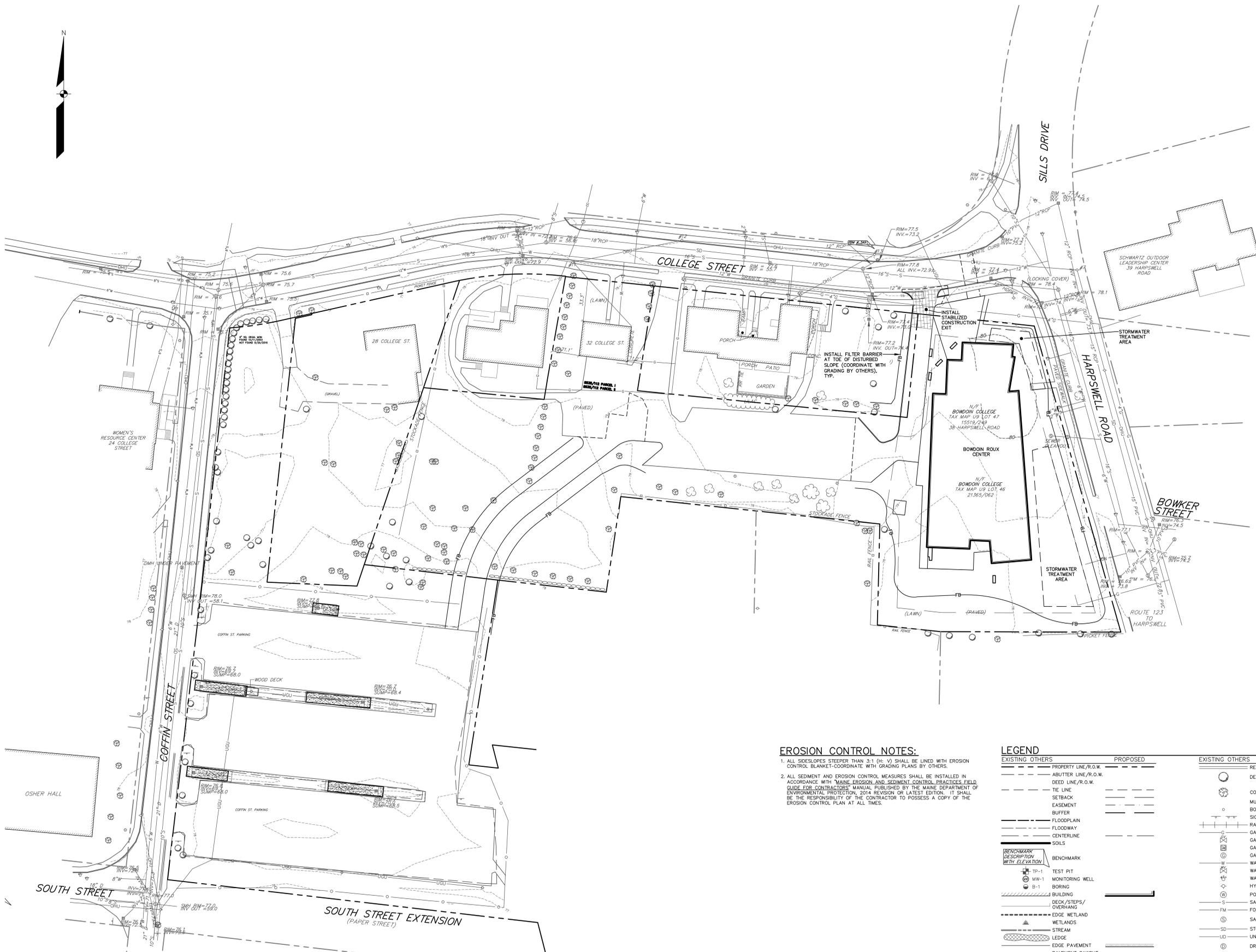
Project: Roux Center for the Environment

Drawn By: TDP Checked: KSM

Date: 11-07-16

Scale: 1"=30'

### DEMOLITION PLAN

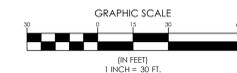


**EROSION CONTROL NOTES:**

1. ALL SIDESLOPES STEEPER THAN 3:1 (H:V) SHALL BE LINED WITH EROSION CONTROL BLANKET-COORDINATE WITH GRADING PLANS BY OTHERS.
2. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS" MANUAL PUBLISHED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, 2014 REVISION OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

**LEGEND**

| EXISTING OTHERS |                         | PROPOSED |                            |
|-----------------|-------------------------|----------|----------------------------|
| ---             | PROPERTY LINE/R.O.W.    | ---      | RETAINING WALL             |
| ---             | ADJUTER LINE/R.O.W.     | ○        | DECIDUOUS TREE             |
| ---             | DEED LINE/R.O.W.        | ⊗        | CONIFEROUS TREE            |
| ---             | TIE LINE                | ---      | MULCH LINE                 |
| ---             | SETBACK                 | ---      | BOLLARD                    |
| ---             | EASEMENT                | ---      | SIGN                       |
| ---             | BUFFER                  | ---      | RAILROAD                   |
| ---             | FLOODPLAIN              | ---      | GAS                        |
| ---             | FLOODWAY                | ---      | GAS GATE VALVE             |
| ---             | CENTERLINE              | ---      | GAS METER                  |
| ---             | SOILS                   | ---      | GAS MANHOLE                |
| ---             | BENCHMARK               | ---      | WATER                      |
| ⊕               | TP-1 TEST PIT           | ---      | WATER GATE VALVE           |
| ⊕               | MONITORING WELL         | ---      | WATER SHUT OFF             |
| ⊕               | BORING                  | ---      | HYDRANT                    |
| ---             | BUILDING                | ---      | POTABLE WELL               |
| ---             | DECK/STEPS/<br>OVERHANG | ---      | SANITARY SEWER             |
| ---             | EDGE WETLAND            | ---      | FORCE MAIN                 |
| ---             | WETLANDS                | ---      | SANITARY MANHOLE           |
| ---             | STREAM                  | ---      | SANITARY MANHOLE           |
| ---             | LEDGE                   | ---      | STORM DRAIN                |
| ---             | EDGE PAVEMENT           | ---      | UNDER DRAIN                |
| ---             | PAVEMENT SAWCUT         | ---      | DRAINAGE MANHOLE           |
| ---             | EDGE CONCRETE           | ---      | CATCH BASIN                |
| ---             | PAVEMENT PAINT          | ---      | OVERHEAD UTILITY           |
| ---             | EDGE GRAVEL             | ---      | UNDERGROUND UTILITY        |
| ---             | CURB LINE               | ---      | TRANSFORMER PAD            |
| ---             | EDGE OF WATER           | ---      | ELECTRICAL MANHOLE         |
| ---             | TREELINE                | ---      | TELEPHONE MANHOLE          |
| ---             | CONTOURS                | ---      | LIGHT POLE                 |
| ---             | SPOT GRADE              | ---      | UTILITY POLE               |
| ---             | CHAIN LINK FENCE        | ---      | GUY WIRE                   |
| ---             | BARB WIRE FENCE         | ---      | DRAINAGE DITCH             |
| ---             | STOCKADE FENCE          | ---      | EROSION CONTROL<br>BLANKET |
| ---             | GUARD RAIL              | ---      | FILTER BARRIER             |
| ---             | STONE WALL              | ---      | RIPRAP                     |
| ---             | INLET PROTECTION        | ---      | CHECK DAM                  |



| Number | Revision | Date |
|--------|----------|------|
|        |          |      |
|        |          |      |

**100% SCHEMATIC DESIGN**

Cambridge Seven Associates, Inc.

Architects and Planners  
 1050 Massachusetts Avenue  
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Job # 11001

Project Roux Center for the Environment

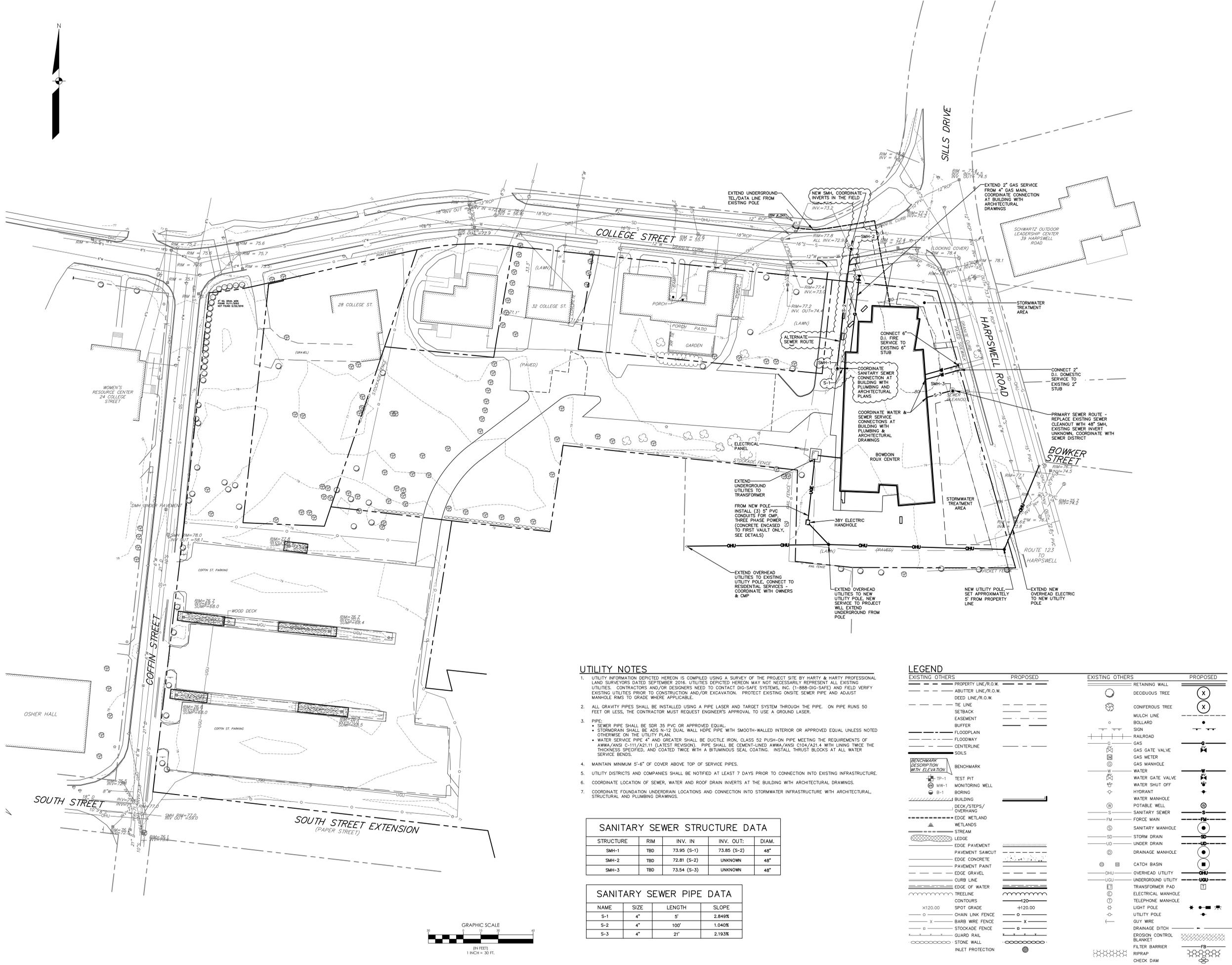
Drawn By TDP Checked KSM

Date 11-07-16

Scale 1"=30'

**EROSION CONTROL  
 PLAN**





### UTILITY NOTES

- UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING A SURVEY OF THE PROJECT SITE BY HARTY & HARTY PROFESSIONAL LAND SURVEYORS DATED SEPTEMBER 2016. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION. PROTECT EXISTING ON-SITE SEWER PIPE AND ADJUST MANHOLE RIMS TO GRADE WHERE APPLICABLE.
- ALL GRAVITY PIPES SHALL BE INSTALLED USING A PIPE LASER AND TARGET SYSTEM THROUGH THE PIPE. ON PIPE RUNS 50 FEET OR LESS, THE CONTRACTOR MUST REQUEST ENGINEER'S APPROVAL TO USE A GROUND LASER.
- PIPE:
  - SEWER PIPE SHALL BE SDR 35 PVC OR APPROVED EQUAL.
  - STORMDRAIN SHALL BE ADS N-12 DUAL WALL HDPE PIPE WITH SMOOTH-WALLED INTERIOR OR APPROVED EQUAL UNLESS NOTED OTHERWISE ON THE UTILITY PLAN.
  - WATER SERVICE PIPE, 4" AND GREATER SHALL BE DUCTILE IRON, CLASS 52 PUSH-ON PIPE MEETING THE REQUIREMENTS OF AWWA/ANSI C-111/A21.11 (LATEST REVISION). PIPE SHALL BE CEMENT-LINED AWWA/ANSI C104/A21.4 WITH LINING TWICE THE THICKNESS SPECIFIED, AND COATED TWICE WITH A BITUMINOUS SEAL COATING. INSTALL THRUST BLOCKS AT ALL WATER SERVICE BENDS.
- MAINTAIN MINIMUM 5'-6" OF COVER ABOVE TOP OF SERVICE PIPES.
- UTILITY DISTRICTS AND COMPANIES SHALL BE NOTIFIED AT LEAST 7 DAYS PRIOR TO CONNECTION INTO EXISTING INFRASTRUCTURE.
- COORDINATE LOCATION OF SEWER, WATER AND ROOF DRAIN INVERTS AT THE BUILDING WITH ARCHITECTURAL DRAWINGS.
- COORDINATE FOUNDATION UNDERDRAIN LOCATIONS AND CONNECTION INTO STORMWATER INFRASTRUCTURE WITH ARCHITECTURAL, STRUCTURAL AND PLUMBING DRAWINGS.

### SANITARY SEWER STRUCTURE DATA

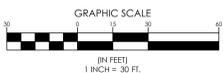
| STRUCTURE | RIM | INV. IN     | INV. OUT    | DIAM. |
|-----------|-----|-------------|-------------|-------|
| SMH-1     | TBD | 73.95 (S-1) | 73.85 (S-2) | 48"   |
| SMH-2     | TBD | 72.81 (S-2) | UNKNOWN     | 48"   |
| SMH-3     | TBD | 73.54 (S-3) | UNKNOWN     | 48"   |

### SANITARY SEWER PIPE DATA

| NAME | SIZE | LENGTH | SLOPE  |
|------|------|--------|--------|
| S-1  | 4"   | 5'     | 2.849% |
| S-2  | 4"   | 100'   | 1.040% |
| S-3  | 4"   | 21'    | 2.193% |

### LEGEND

| EXISTING OTHERS      | PROPOSED | EXISTING OTHERS     | PROPOSED |
|----------------------|----------|---------------------|----------|
| PROPERTY LINE/R.O.W. | ---      | RETAINING WALL      | —        |
| ABUTTER LINE/R.O.W.  | ---      | DECIDUOUS TREE      | (X)      |
| DEED LINE/R.O.W.     | ---      | CONIFEROUS TREE     | (X)      |
| TIE LINE             | ---      | MULCH LINE          | —        |
| SETBACK              | ---      | BOLLARD             | •        |
| EASEMENT             | ---      | SIGN                | —        |
| FLOODPLAIN           | ---      | RAILROAD            | —        |
| FLOODPLAIN           | ---      | GAS                 | —        |
| CENTERLINE           | ---      | GAS GATE VALVE      | —        |
| SOILS                | ---      | GAS METER           | —        |
| BENCHMARK            | —        | GAS MANHOLE         | —        |
| TEST PIT             | —        | WATER               | —        |
| MONITORING WELL      | —        | WATER GATE VALVE    | —        |
| BORING               | —        | WATER SHUT OFF      | —        |
| BUILDING             | —        | HYDRANT             | —        |
| DECK/STEPS/OVERHANG  | —        | WATER MANHOLE       | —        |
| EDGE CONCRETE        | —        | POTABLE WELL        | —        |
| EDGE GRAVEL          | —        | SANITARY SEWER      | —        |
| EDGE OF WATER        | —        | FORCE MAIN          | —        |
| LEDEGE               | —        | SANITARY MANHOLE    | —        |
| PAVEMENT SAWCUT      | —        | STORM DRAIN         | —        |
| EDGE CONCRETE        | —        | UNDER DRAIN         | —        |
| PAVEMENT PAINT       | —        | DRAINAGE MANHOLE    | —        |
| EDGE GRAVEL          | —        | CATCH BASIN         | —        |
| CURB LINE            | —        | OHU                 | —        |
| EDGE OF WATER        | —        | UNDERGROUND UTILITY | —        |
| TREELINE             | —        | TRANSFORMER PAD     | —        |
| CONTOURS             | —        | ELECTRICAL MANHOLE  | —        |
| SPOT GRADE           | —        | TELEPHONE MANHOLE   | —        |
| CHAIN LINK FENCE     | —        | LIGHT POLE          | —        |
| BARB WIRE FENCE      | —        | UTILITY POLE        | —        |
| STOCKADE FENCE       | —        | GUY WIRE            | —        |
| GUARD RAIL           | —        | DRAINAGE DITCH      | —        |
| STONE WALL           | —        | EROSION CONTROL     | —        |
| INLET PROTECTION     | —        | BLANKET             | —        |
|                      |          | FILTER BARRIER      | —        |
|                      |          | RIPRAP              | —        |
|                      |          | CHECK DAM           | —        |



| Number | Revision | Date |
|--------|----------|------|
|        |          |      |
|        |          |      |

### 100% SCHEMATIC DESIGN

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### UTILITY PLAN

## EROSION CONTROL MEASURES

### PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE, OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SOILS HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF, THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

### CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. AREAS CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVED/PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN 14-DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100' OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL TO BE EXPOSED TO FUTURE WORK.

### EROSION CONTROL APPLICATIONS & MEASURES

THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

#### 1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 15%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).

#### TYPES OF MULCH:

**HAY OR STRAW:** SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).

**EROSION CONTROL MIX:** SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.

**EROSION CONTROL BLANKET:** SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTANT BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

#### 2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

#### 3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1. OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4. OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESOURCE.

#### 4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SOILS HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

**SILT FENCE:** SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

**HAY BALES:** SHALL NOT BE INSTALLED ADJACENT TO WETLAND. INSTALL PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUNDED OR STRING-TIED AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 1/2" IN DIAMETER. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ADJUTING ONE ANOTHER.

**EROSION CONTROL MIX:** SHALL NOT BE USED ADJACENT TO WETLANDS. INSTALL PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 1/2" IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

**CONTINUOUS CONTAINED BERM:** SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELLED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

#### 5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 85%-90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

**STONE CHECK DAMS:** SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

**HAY BALE CHECK DAMS:** WE DO NOT RECOMMEND THE USE OF HAY BALES AS CHECK DAMS.

**MANUFACTURED CHECK DAMS:** MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

#### 6. STORMDRAIN INLET PROTECTION:

INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

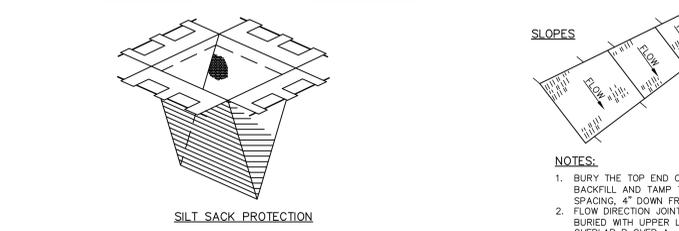
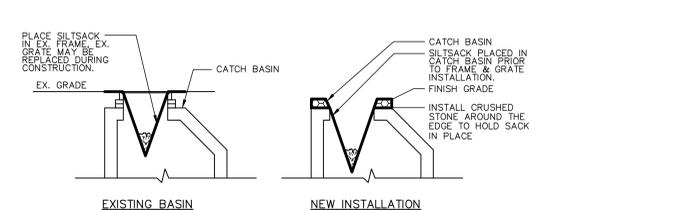
**HAY BALE DROP INLET PROTECTION:** WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

**CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET):** SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

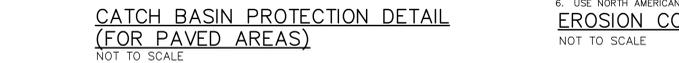
**MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET):** MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

#### 7. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SHEPT OR WASHED FURTHER MINIMIZE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILLED ON THE PLANS.



**NOTES:**  
 1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.  
 2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED.  
 3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS, STAPLE 18" ON CENTER.  
 4. STAPLE OUTSIDE LATERAL EDGE 2" ON CENTER.  
 5. WIRE STAPLES TO BE MIN. OF # 11 WIRE 6" LONG AND 1-1/2" WIDE.  
 6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.



### 8. DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE.

### 9. TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS, FAST GROWING AND SHORT LIVING) SHOULD BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, DATED 3/2003 OR LATER. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

### 10. PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOANED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

#### SEEDED PREPARATION:

A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOIL TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

| ITEM   | APPLICATION RATE     |
|--|----------------------|
| 10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)        | 18.4 LBS./1,000 S.F. |
| GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE) | 138 LBS./1,000 S.F.  |

C. WORK LINE AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.

#### APPLICATION OF SEED:

A. SEEDING: SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (MDEP SEED MIX 2 IS DISPLAYED)

| SEED TYPE         | APPLICATION RATE                    |
|-------------------|-------------------------------------|
| CRANIO RED FESCUE | 0.46 LBS./1,000 S.F. (20 LBS./ACRE) |
| REDTOP            | 0.05 LBS./1,000 S.F. (2 LBS./ACRE)  |
| TALL FESCUE       | 0.46 LBS./1,000 S.F. (20 LBS./ACRE) |
| TOTAL:            | 0.97 LBS./1,000 S.F. (42 LBS./ACRE) |

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER.

B. HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIQUE AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

**SOODING:**  
 FOLLOWING SEEDED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOD SHOULD BE LAID AT RIGHT ANGLE TO THE DIRECTION OF FLOW STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT THE JOINTS ONCE LAID DOWN, WHERE FLOW IS PREVALENT THE SOD MUST BE PROPERLY ANCHORED DOWN. IRRIGATE THE SOD IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

#### STANDARDS FOR TIMELY STABILIZATION:

**STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES --** THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE A SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE BY OCTOBER 15:

- A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS --** BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C.) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D.) OF THIS STANDARD.
- B. STABILIZE THE SLOPE WITH SOD --** THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
- C. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST --** THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- D. STABILIZE THE SLOPE WITH STONE RIPRAP --** THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

**STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS --** BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

- A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION --** BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C.) OF THIS STANDARD.
- B. STABILIZE THE SOIL WITH SOD --** THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- C. STABILIZE THE SOIL WITH MULCH --** BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, OR AT LEAST EVERY SEVEN (7) DAYS, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS AS NEEDED TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN.
2. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 85%-90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

## WINTER EROSION CONTROL MEASURES

THE WINTER CONSTRUCTION PERIOD IS FROM OCTOBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PRECEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREAS SHALL BE CONSIDERED TO BE DENuded UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOADED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS PER ACRE) AND SHOULD BE PROPERLY ANCHORED. THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

#### 1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS./1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

#### 2. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.

PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

#### 3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

#### 4. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENuded UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOADED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHOULD BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.

BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

#### 5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS./1,000 S.F. ON ALL SLOPES GREATER THAN 8X. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8X. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES 8X. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

#### 6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DOMANT SEEDED AT A RATE 2-3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DOMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DOMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 6" OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEEDS AND MULCH. IF DOMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

#### 7. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/ OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

#### STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS -- THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 15. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

**INSTALL A SOD LINING IN THE DITCH --** THE APPLICANT WILL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

**INSTALL A STONE LINING IN THE DITCH --** THE APPLICANT WILL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE APPLICANT WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE

## CONSTRUCTION NOTES

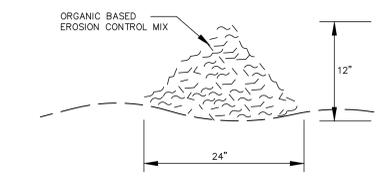
- ALL WORK SHALL CONFORM TO THE APPLICABLE LOCAL AND STATE CODES AND ORDINANCES.
- CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
- INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
- CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.
- CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
- SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1997 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
- THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (811) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
- CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND LOCATING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.
- CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 M.R.S.A. 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.
- ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
- ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
- ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE PERMIT FROM THE TOWN OF BRUNSWICK.
- IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.
- THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THIS CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
- ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
- WHERE THE TERMS "APPROVED EQUAL," "OTHER APPROVED," "EQUAL TO," "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF SEBAGO TECHNICS, INC.
- THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.
- THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
- DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.
- BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBTAINED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.
- ALL SUBSURFACE UTILITY LINES SHOWN HEREON ARE BASED SOLELY ON THE FIELD LOCATION OF VISIBLE STRUCTURES, SM'S, CB'S, HYDRANTS, ETC., IN CONJUNCTION WITH DESIGN AND/OR AS-BUILT PLANS SUPPLIED TO SEBAGO TECHNICS INC. BY OTHERS. PRIOR TO ANY CONSTRUCTION, EXCAVATION, TEST BORINGS, DRILLING, ETC., DIG SAFE MUST BE NOTIFIED AND A SITE IDENTIFICATION NUMBER ALONG WITH A SAFE TO DIG DATE OBTAINED. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DEPTH AND MATERIAL OF ALL SUBSURFACE UTILITY LINES SHOWN HEREON AND ANY AND ALL OTHERS LOCATED ON SITE WITHIN THE CONSTRUCTION AREA.

### INSPECTIONS/MONITORING:

- MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, OR AT LEAST EVERY SEVEN (7) DAYS, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS AS NEEDED TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN.
- FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 80%-90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

### HOUSEKEEPING:

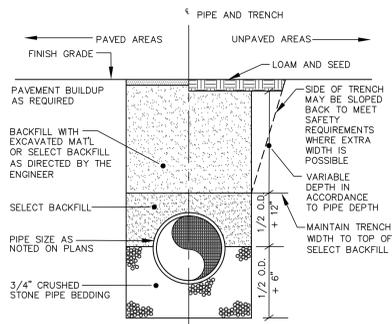
- SPILL PREVENTION:** CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON-SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
- GROUNDWATER PROTECTION:** DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS, ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
- FUGITIVE SEDIMENT AND DUST:** ACTIONS MUST BE TAKEN TO INSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL.
- DEBRIS AND OTHER MATERIALS:** LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
- TRENCH DEWATERING:** TRENCH DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFERDAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES, THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED.



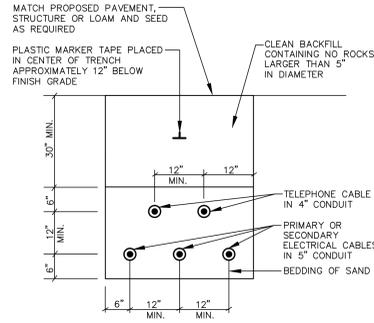
**COMPOSITION**  
 EROSION CONTROL MIX SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, LAST REVISED 3/2003 OR LATER. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

**INSTALLATION:**  
 1. THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.  
 2. EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER WILL LIE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH OUTS UNDER THE BARRIER.  
 3. THE BARRIER SHALL BE A MINIMUM OF 1 FOOT HIGH (AS MEASURED ON THE UPHILL SIDE) AND 2 FEET WIDE FOR SLOPES LESS THAN 5% IN GRADE AND SHALL BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.  
 4. EROSION CONTROL MIX CAN BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED ON THE DESIGN PLANS IN AREAS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.

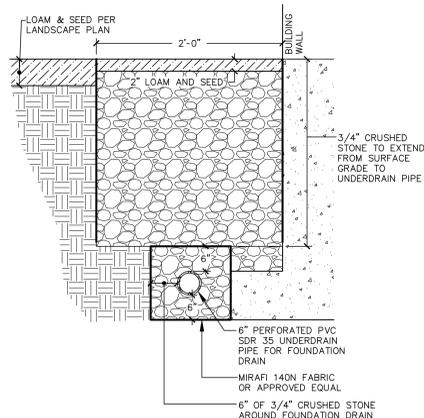
**EROSION CONTROL MIX BERM**  
 NOT TO SCALE



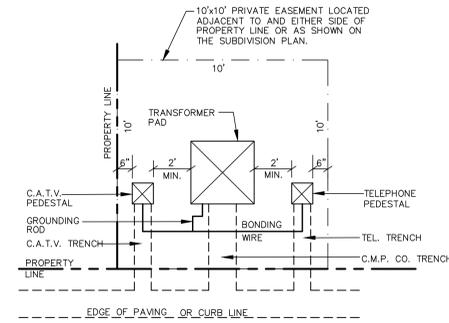
**TYPICAL TRENCH SECTION**  
 NOT TO SCALE



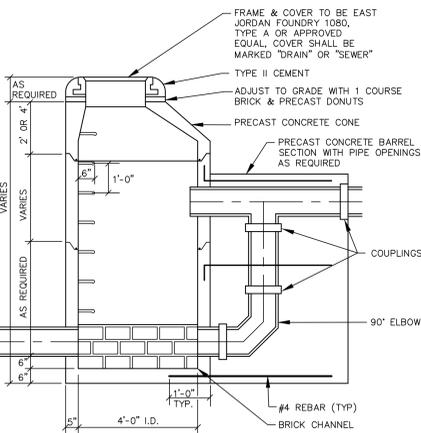
**TYPICAL UNDERGROUND CABLE INSTALLATION**  
 NOT TO SCALE



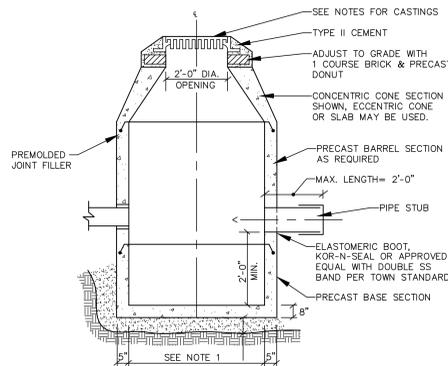
**ROOF DRIP EDGE**  
 NOT TO SCALE



**TRANSFORMER DETAIL**  
 NOT TO SCALE

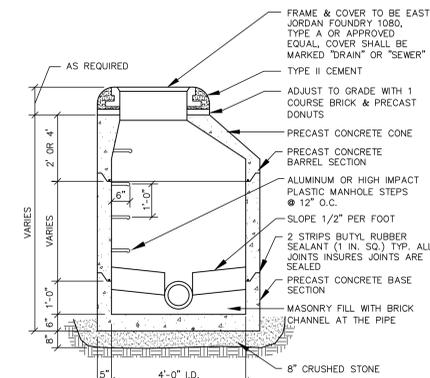


**TYPICAL SANITARY DROP MANHOLE**  
 NOT TO SCALE



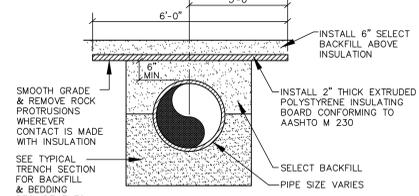
- NOTES:**
- 4'-0" I.D. TYPICAL SOME STRUCTURES MAY REQUIRE LARGER I.D. PROVIDE SHOP DRAWINGS.
  - DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
  - PIPE SIZES AND INVERTS AS NOTED ON GRADING AND UTILITY PLANS.
  - CATCH BASIN SET IN PAVED AREAS: FRAME AND GRATE SHALL BE EAST JORDAN FOUNDRY 5250, OR APPROVED EQUAL.
  - CATCH BASIN SET IN LANDSCAPED AREAS: FRAME SHALL BE V-3600-2 AND GRATE SHALL BE V-3800-2 BY EAST JORDAN FOUNDRY, OR APPROVED EQUAL.
  - DOUBLE GRATE CATCH BASIN FRAME AND GRATE SHALL BE EAST JORDAN FOUNDRY 5236, OR APPROVED EQUAL.

**TYPICAL DRAINAGE MANHOLE/CATCH BASIN**  
 NOT TO SCALE



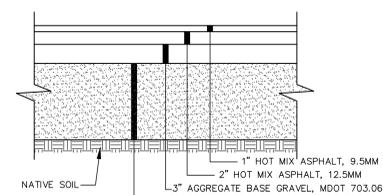
- NOTES:**
- ALL SEWER STRUCTURE SHALL NOT HAVE STEPS OR RUNGS IN THEM.
  - PIPE CONNECTIONS SHALL BE WATERTIGHT ELASTOMERIC BOOTS FOR LEAKPROOF CONNECTION. ALL ELASTOMERIC BOOT CONNECTIONS SHALL INCLUDE DOUBLE STAINLESS STEEL BANDS.
  - PRECAST SECTIONS SHALL INCLUDE AN EXTERIOR SEAL COATING.
  - ALL SEWER MANHOLES SHALL PASS A VACUUM TEST OR HYDROSTATIC TEST PER TOWN STANDARDS.

**PRECAST MANHOLE**  
 NOT TO SCALE



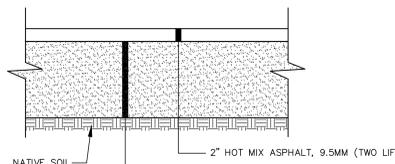
- NOTE:**  
 1. INSTALL INSULATION ABOVE PIPE WHERE SHOWN ON THE UTILITY PLANS.

**PIPE INSULATION DETAIL**  
 NOT TO SCALE



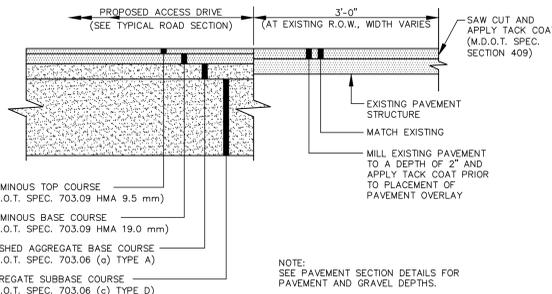
- NOTE:**  
 1. COMPACT SUBBASE AND BASE COURSE GRAVEL TO 95% OF MAXIMUM DENSITY.

**TYPICAL BITUMINOUS PAVING**  
 NOT TO SCALE



- NOTE:**  
 1. COMPACT SUBBASE AND BASE COURSE GRAVEL TO 95% OF MAXIMUM DENSITY.

**TYPICAL BITUMINOUS SIDEWALK**  
 NOT TO SCALE



- BITUMINOUS TOP COURSE**  
 (M.D.O.T. SPEC. 703.09 HMA 9.5 mm)  
**BITUMINOUS BASE COURSE**  
 (M.D.O.T. SPEC. 703.09 HMA 19.0 mm)  
**CRUSHED AGGREGATE BASE COURSE**  
 (M.D.O.T. SPEC. 703.06 (a) TYPE A)  
**AGGREGATE SUBBASE COURSE**  
 (M.D.O.T. SPEC. 703.06 (c) TYPE D)

- NOTE:**  
 1. SAW CUT AND APPLY TACK COAT (M.D.O.T. SPEC. SECTION 409).  
 2. MILL EXISTING PAVEMENT TO A DEPTH OF 2" AND APPLY TACK COAT PRIOR TO PLACEMENT OF PAVEMENT OVERLAY.  
 3. MATCH EXISTING PAVEMENT STRUCTURE.  
 4. PROVIDE APPROPRIATE TRANSITION BETWEEN CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

**TYPICAL PAVEMENT JOINT AT PUBLIC R.O.W.**  
 NOT TO SCALE

- NOTES:**
- STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
  - LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
  - THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
  - WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
  - MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

**STABILIZED CONSTRUCTION EXIT**  
 NOT TO SCALE

# Bowdoin

## Bowdoin College Roux Center for the Environment

### 100% SCHEMATIC DESIGN

Cambridge Seven Associates, Inc.

Architects and Planners  
 1050 Massachusetts Avenue  
 Cambridge, MA 02138  
 617 452-7100 Fax 452-7007

Job # 11001

Project Roux Center for the Environment

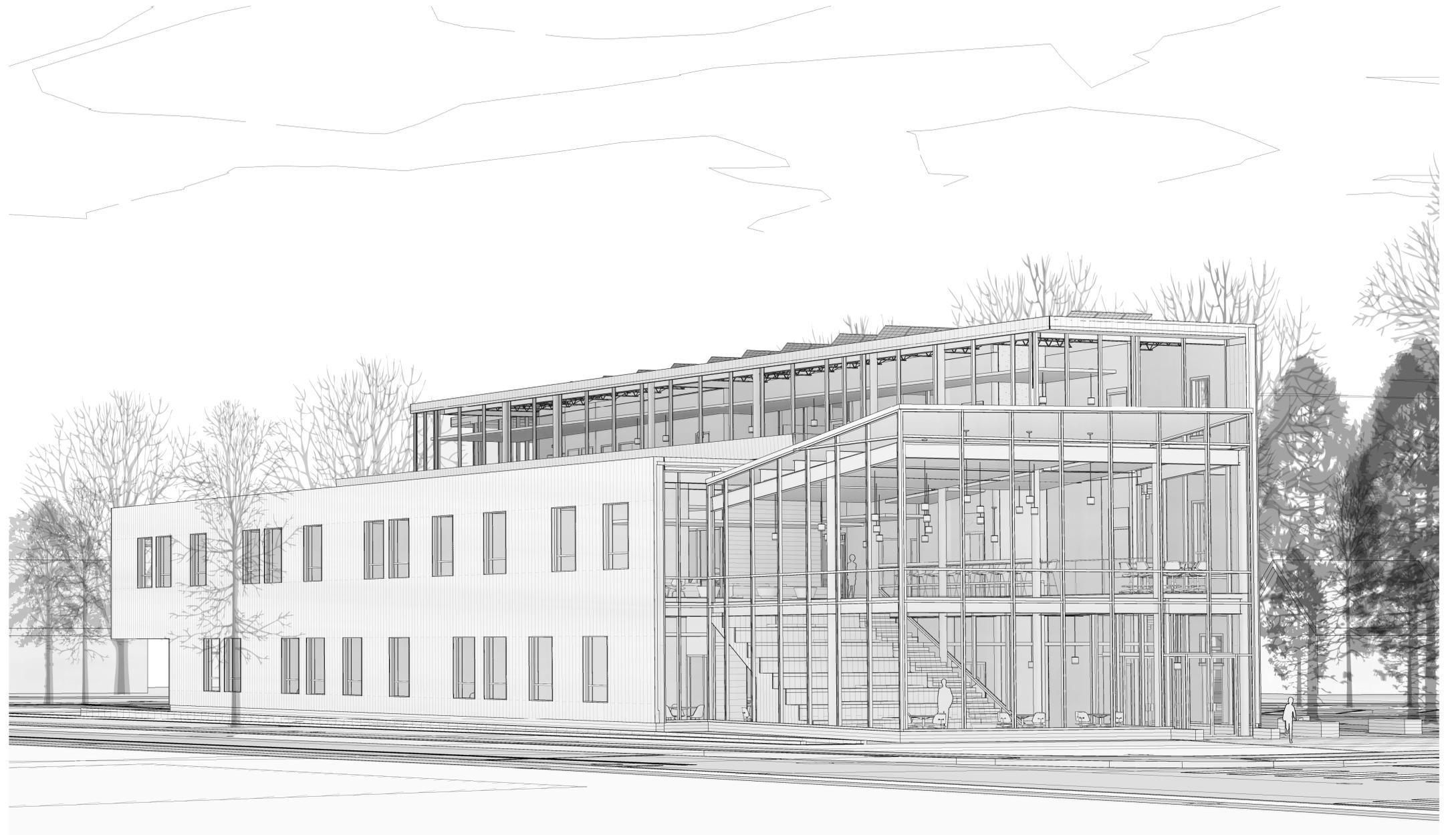
Drawn By TDP Checked KSM

Date 11-07-16

Scale As Shown

### Drawing Title DETAILS

# C6



Owner **Bowdoin College**  
5000 South St Brunswick, ME 04011

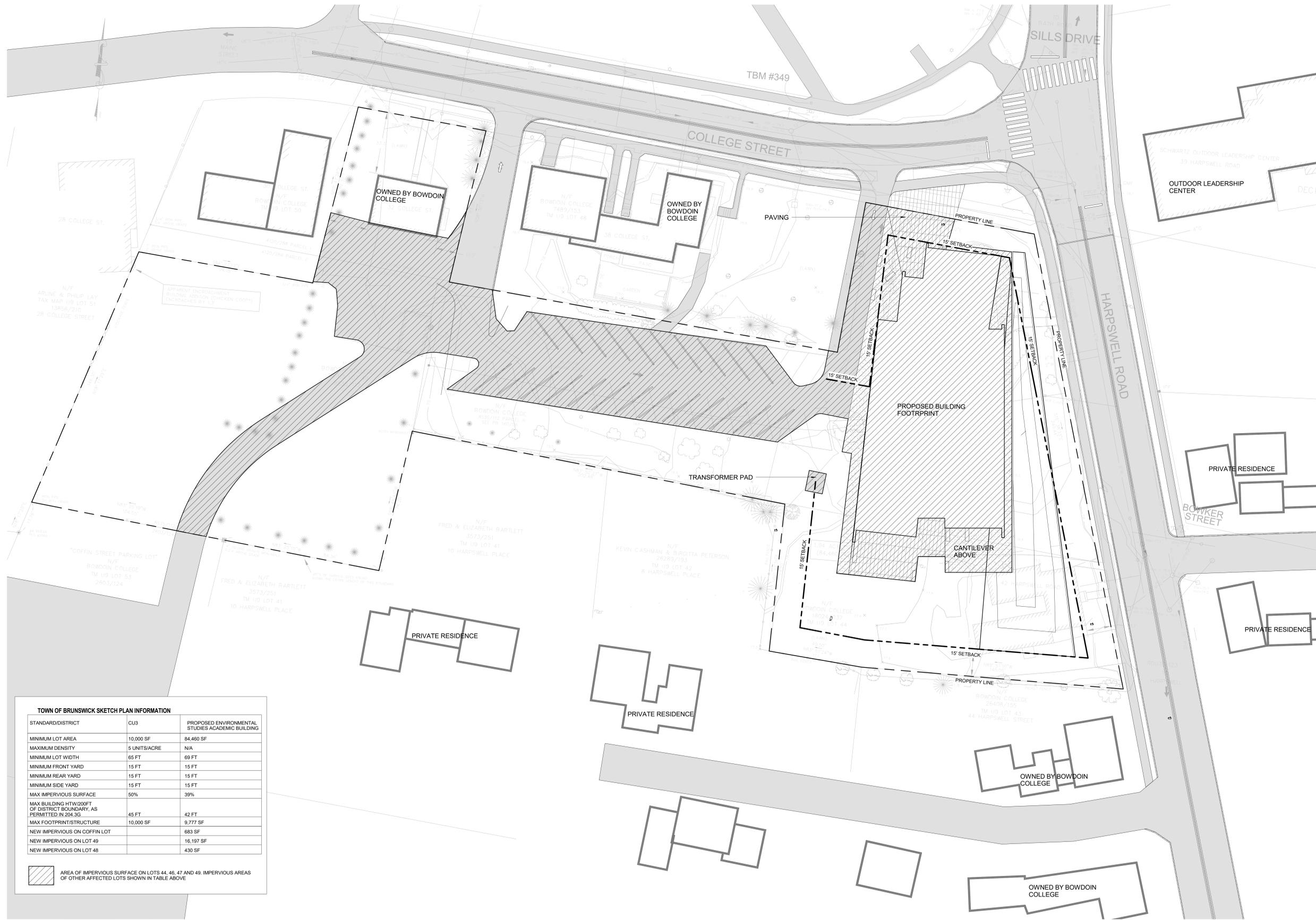
## Roux Center for the Environment

### 100% Schematic Design

11/02/16

|                     |  |                           |   |
|---------------------|--|---------------------------|---|
| Architect           | <b>CAMBRIDGE SEVEN ASSOCIATES, INC.</b><br>Cambridge, MA | Landscape Architect       | <b>STEPHEN STIMSON ASSOCIATES</b><br>Cambridge, MA    |
| MEP/FP Engineer     | <b>ARUP</b><br>Cambridge, MA                             | Sustainability Consultant | <b>THORNTON TOMASETTI</b><br>Portland, ME             |
| Structural Engineer | <b>BECKER STRUCTURAL ENGINEERS</b><br>Portland, ME       | Construction Manager      | <b>CONSIGLI CONSTRUCTION CO., INC.</b><br>Milford, MA |
| Civil Engineer      | <b>SEBAGO TECHNICS</b><br>Portland, ME                   |                           |   |
| Code Consultant     | <b>JENSEN HUGHES</b><br>Framingham, MA                   |                           |   |
| Specifications      | <b>KALIN ASSOCIATES</b><br>Newton, MA                    |                           |   |

## Bowdoin College Roux Center for the Environment



### TOWN OF BRUNSWICK SKETCH PLAN INFORMATION

| STANDARD/DISTRICT   | CU3          | PROPOSED ENVIRONMENTAL STUDIES ACADEMIC BUILDING |
|---|--------------|--|
| MINIMUM LOT AREA  | 10,000 SF    | 84,460 SF  |
| MAXIMUM DENSITY   | 5 UNITS/ACRE | N/A  |
| MINIMUM LOT WIDTH   | 65 FT        | 69 FT  |
| MINIMUM FRONT YARD  | 15 FT        | 15 FT  |
| MINIMUM REAR YARD   | 15 FT        | 15 FT  |
| MINIMUM SIDE YARD   | 15 FT        | 15 FT  |
| MAX IMPERVIOUS SURFACE  | 50%          | 39%  |
| MAX BUILDING HTW/200FT OF DISTRICT BOUNDARY, AS PERMITTED IN 204.95 | 45 FT        | 42 FT  |
| MAX FOOTPRINT/STRUCTURE   | 10,000 SF    | 9,777 SF   |
| NEW IMPERVIOUS ON COFFIN LOT  |              | 683 SF   |
| NEW IMPERVIOUS ON LOT 49  |              | 16,197 SF  |
| NEW IMPERVIOUS ON LOT 48  |              | 430 SF   |

AREA OF IMPERVIOUS SURFACE ON LOTS 44, 46, 47 AND 49. IMPERVIOUS AREAS OF OTHER AFFECTED LOTS SHOWN IN TABLE ABOVE

| Number | Revision | Date |
|--------|----------|------|
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|        |          |      |

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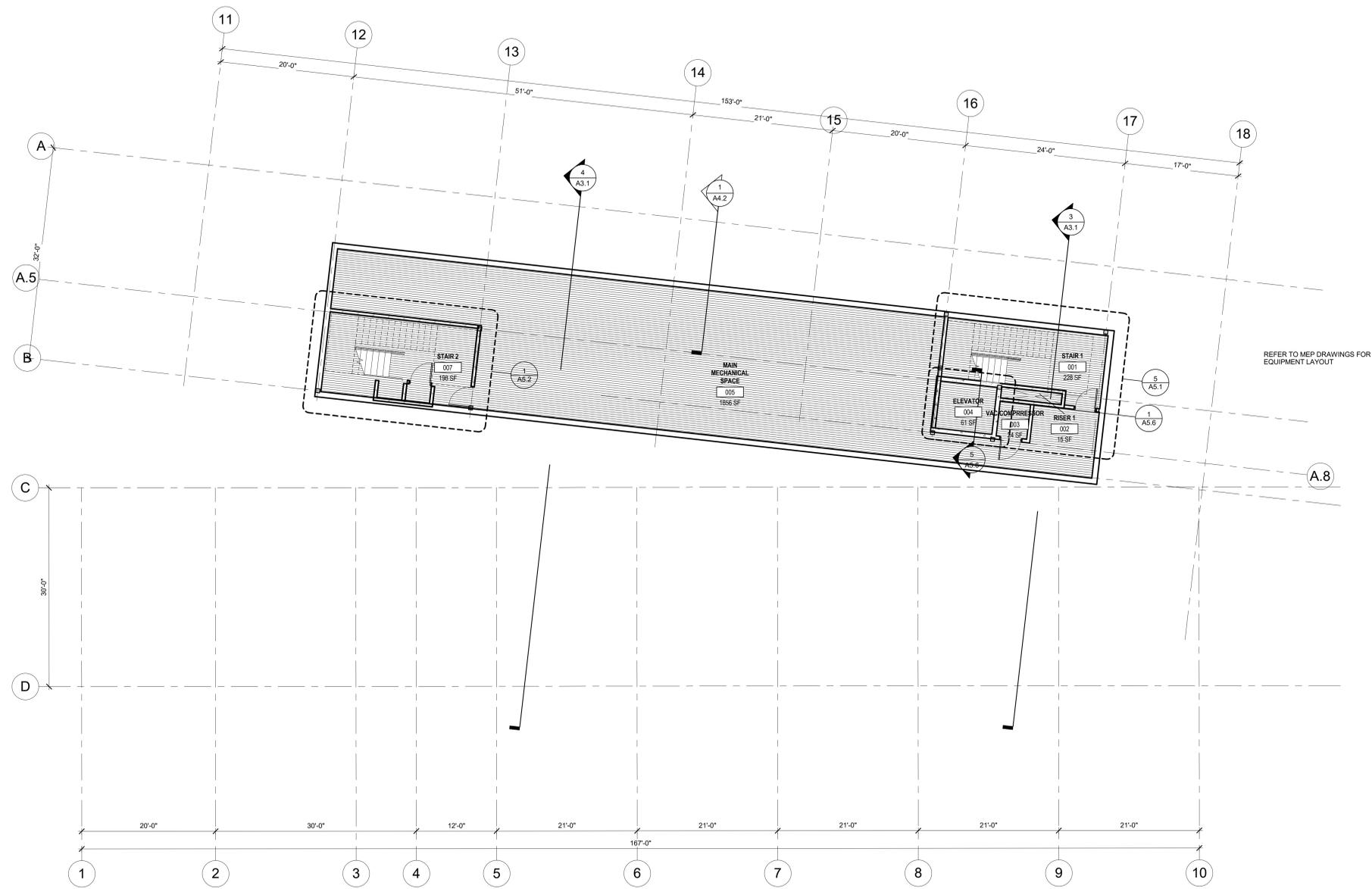
Architects and Planners  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
617-492-7000 Fax 492-7007

Job # 1603  
Project Roux Center for the Environment  
Drawn By CM Checked TM  
Date 11/02/16  
Scale As indicated

### ARCHITECTURAL SITE PLAN

## A0.1





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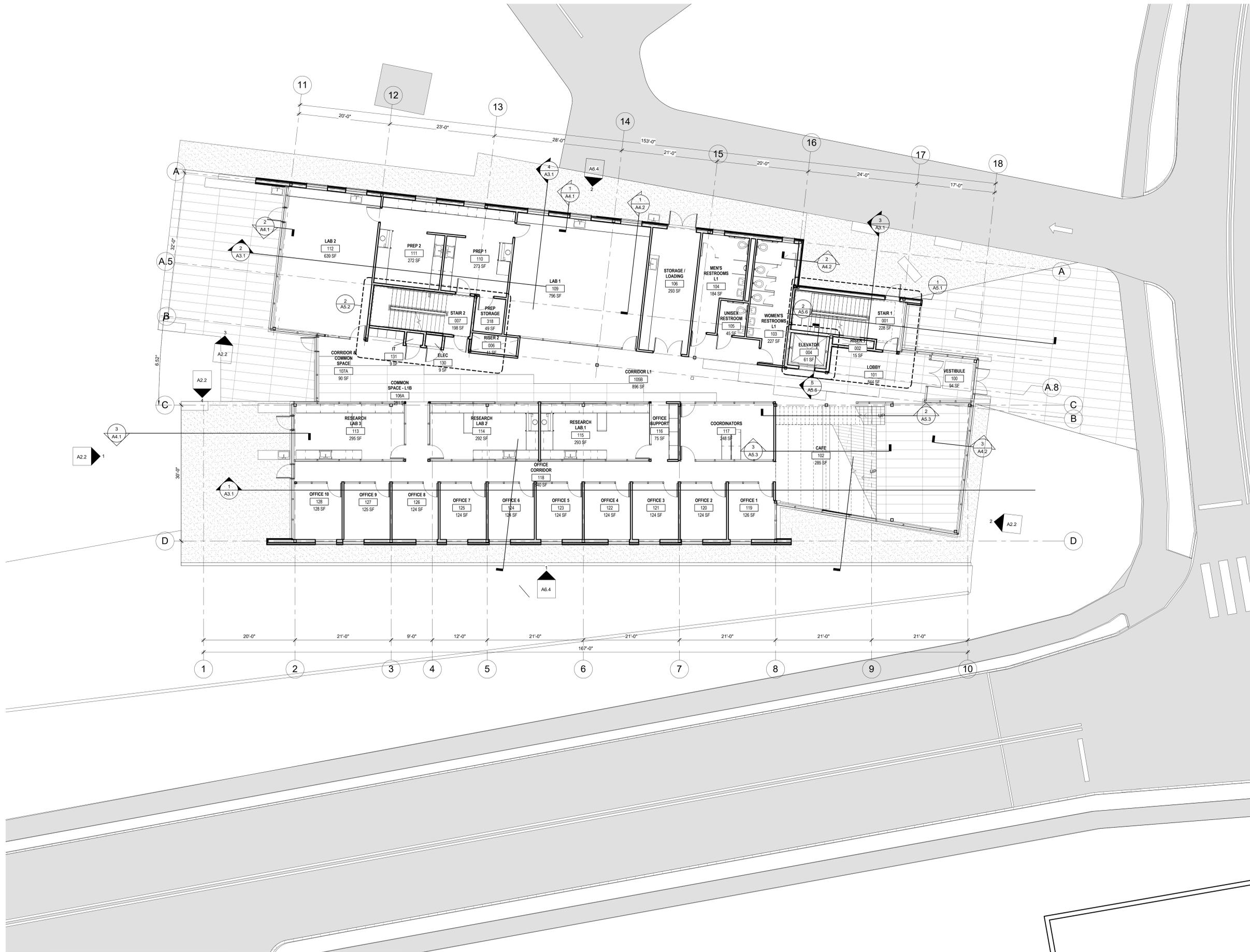
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**LOWER LEVEL PLAN**

**A1.0**



Bowdoin College  
**Roux Center for the Environment**



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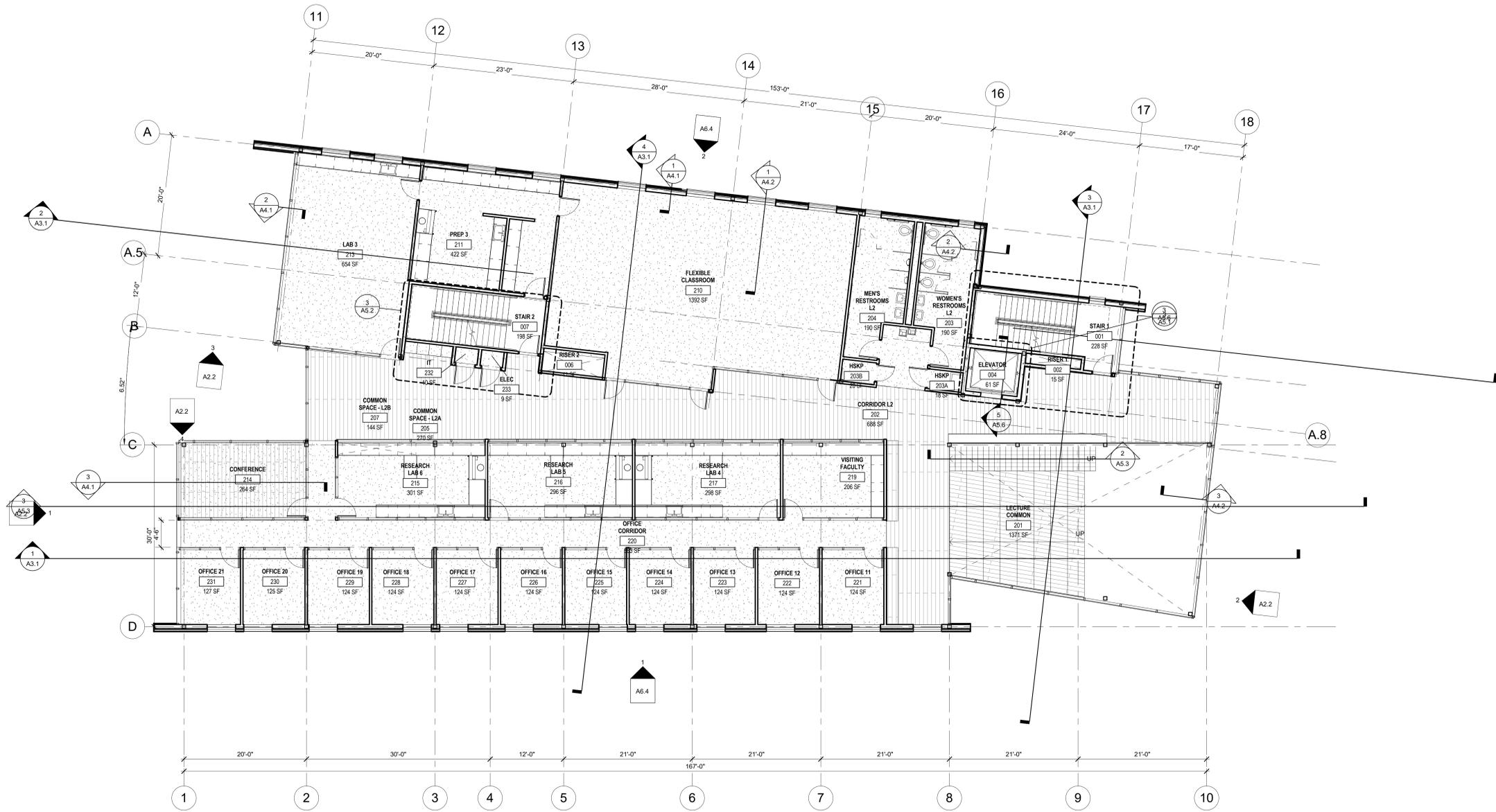
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Drawings Title  
**LEVEL 1 PLAN**



**A1.1**

Bowdoin College  
**Roux Center for the Environment**



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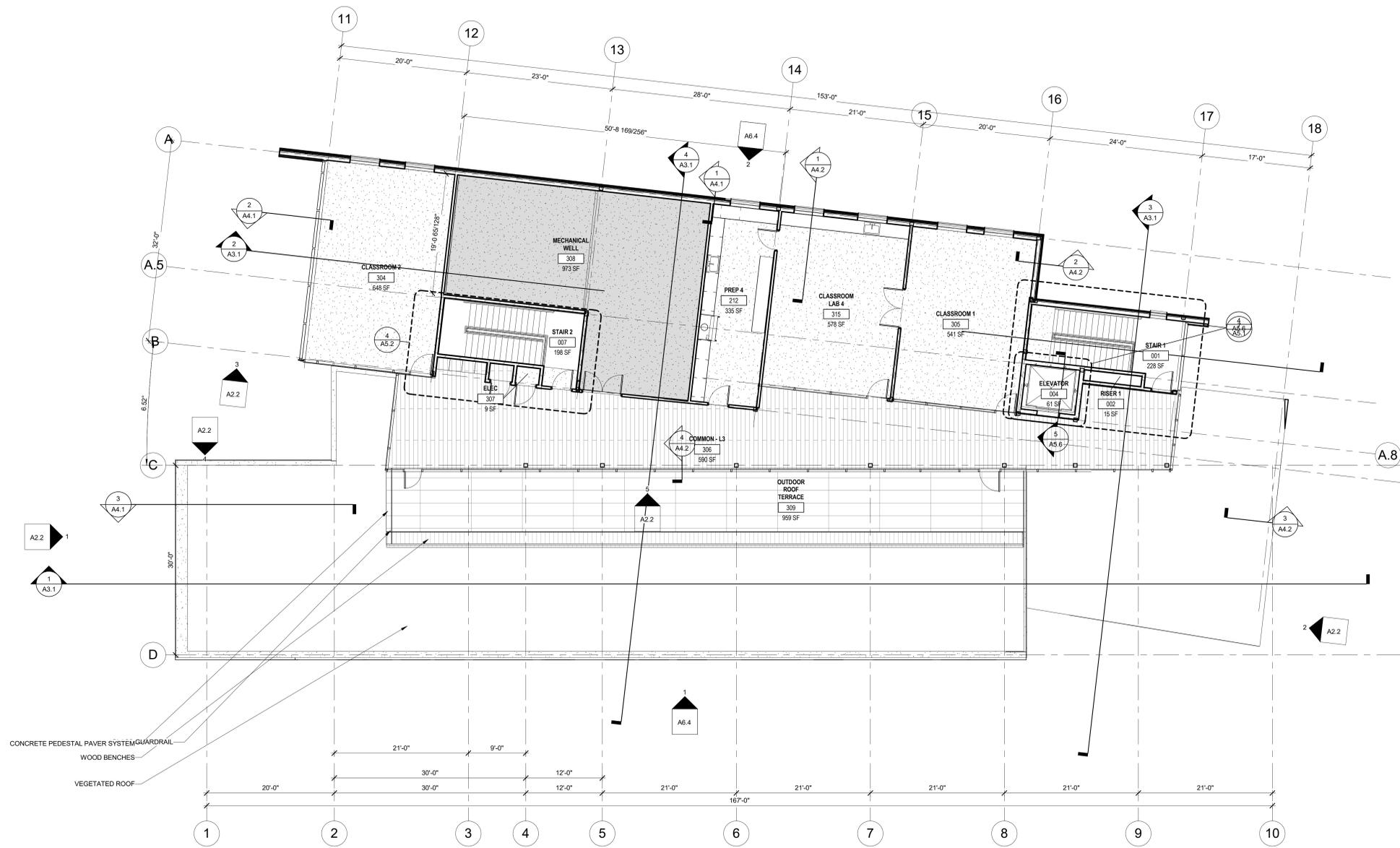
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**LEVEL 2 PLAN**

**A1.2**





CONCRETE PEDESTAL PAVER SYSTEM/GUARDRAIL  
 WOOD BENCHES  
 VEGETATED ROOF

| Number | Revision | Date |
|--------|----------|------|
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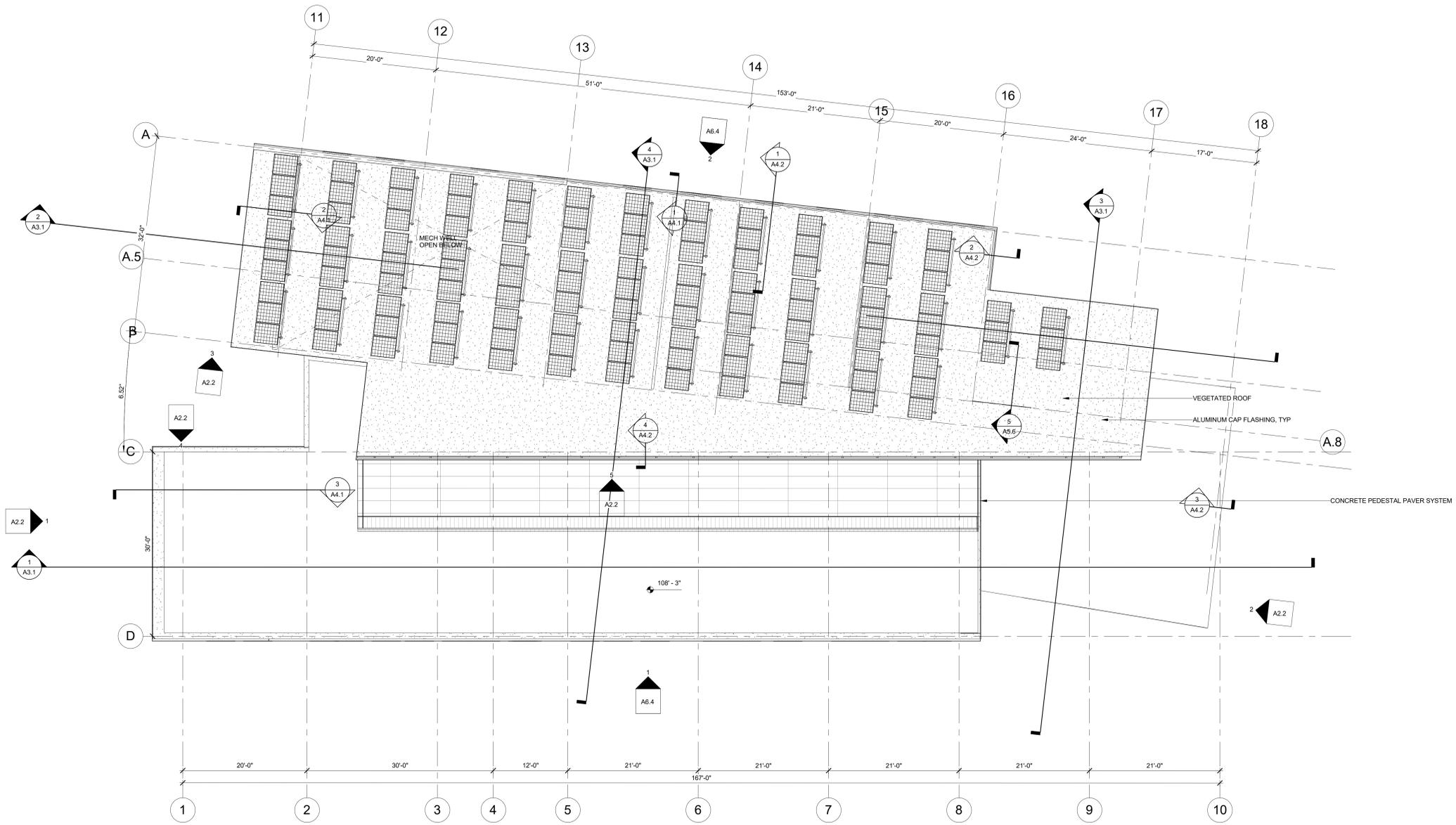
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**THIRD FLOOR PLAN**

**A1.3**





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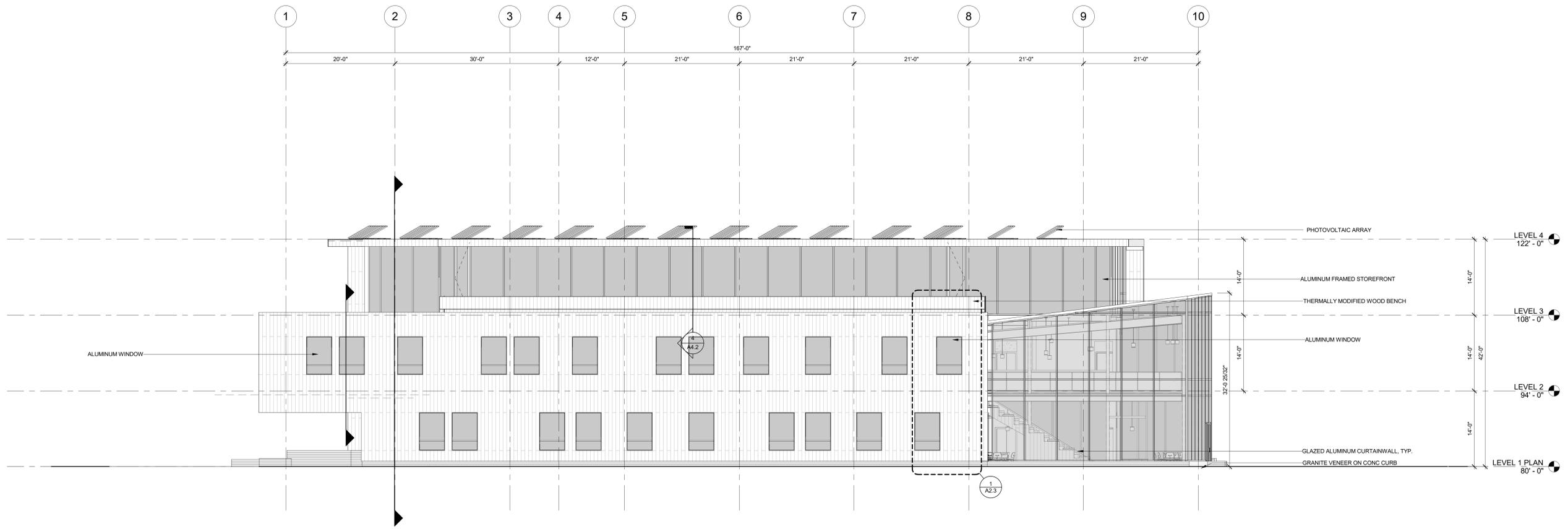
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 Date 11/02/16  
 Scale 1/8" = 1'-0"

**ROOF PLAN**

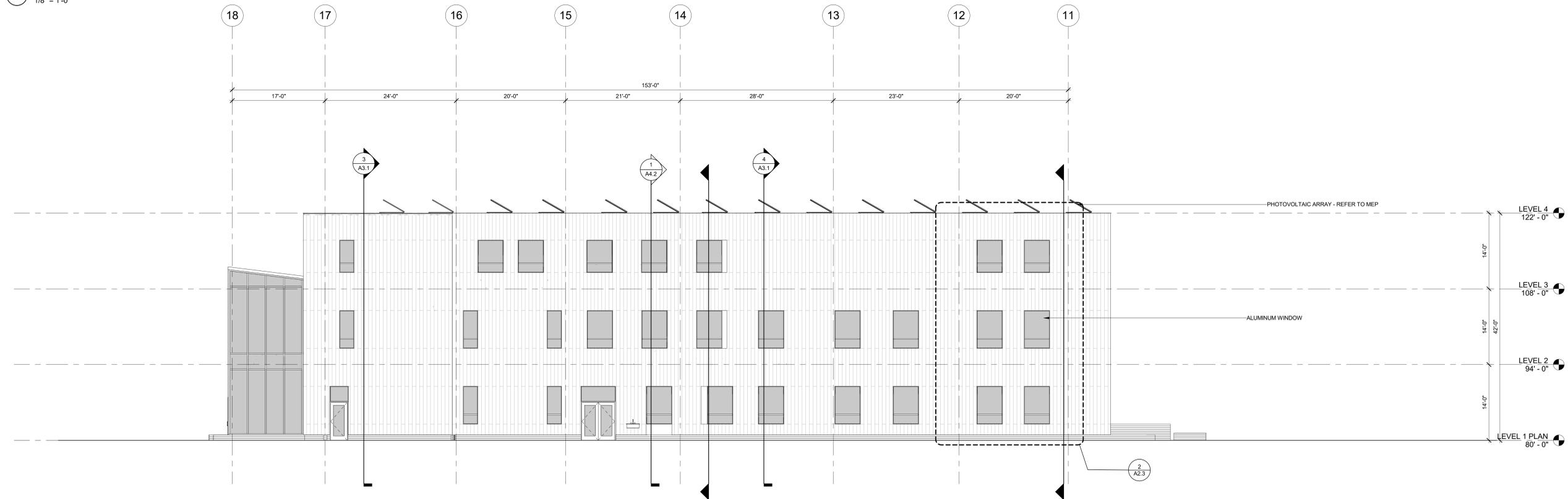


**A1.4**

Bowdoin College  
**Roux Center for the Environment**



**1** ELEVATION - EAST  
 1/8" = 1'-0"



**2** ELEVATION - WEST  
 1/8" = 1'-0"

| Number | Revision | Date |
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**100% SCHEMATIC DESIGN**

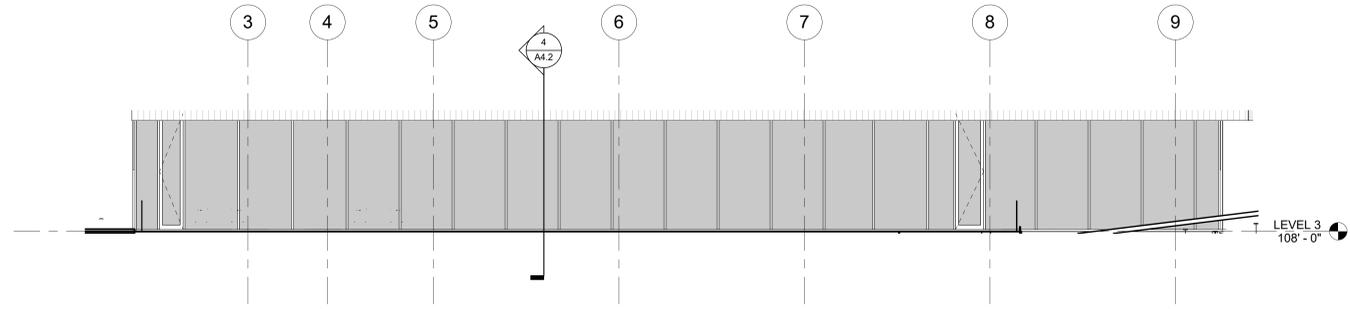
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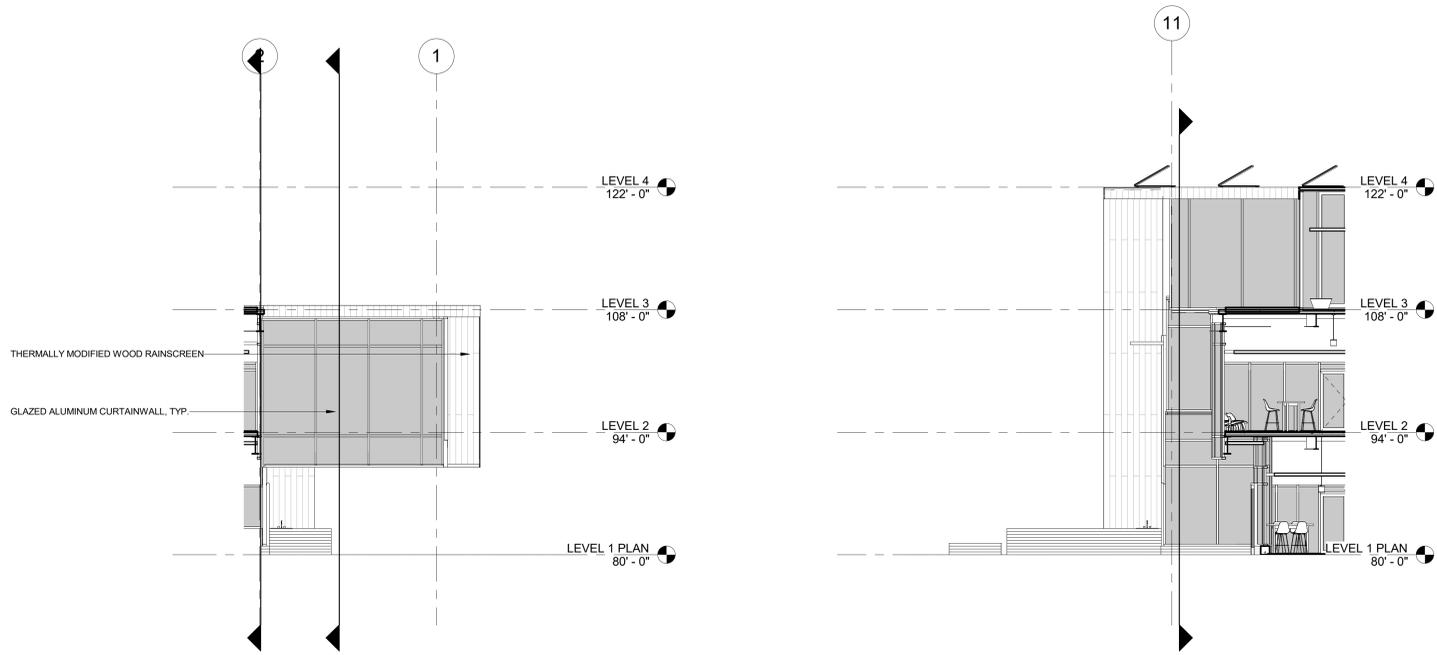
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 Scale 1/8" = 1'-0"

**EXTERIOR ELEVATIONS**

**A2.1**

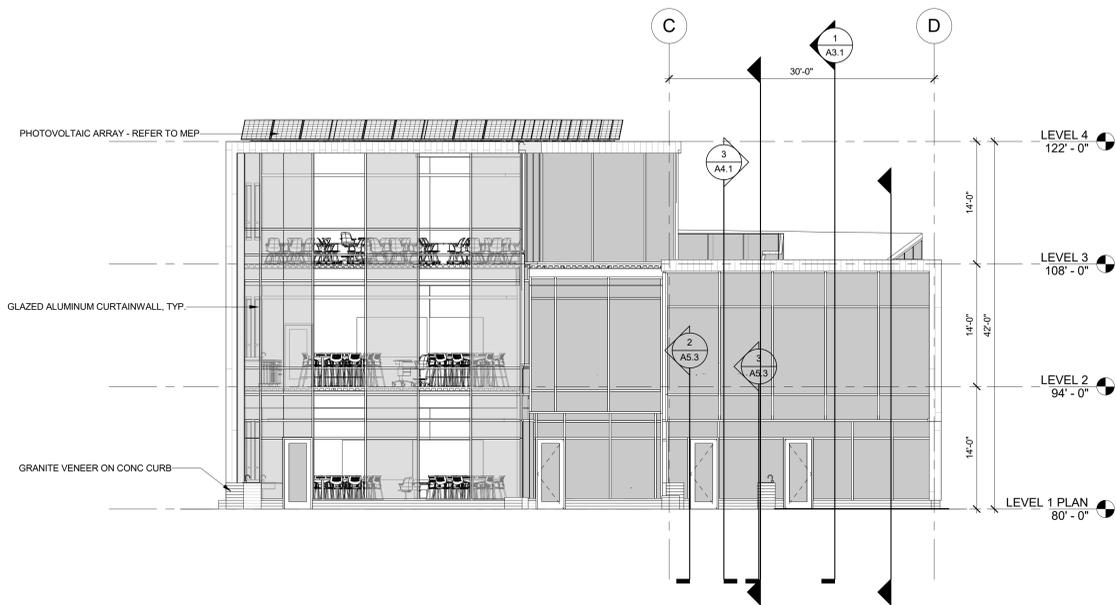


**5 PARTIAL ELEVATION - THIRD FLOOR WEST**  
 1/8" = 1'-0"

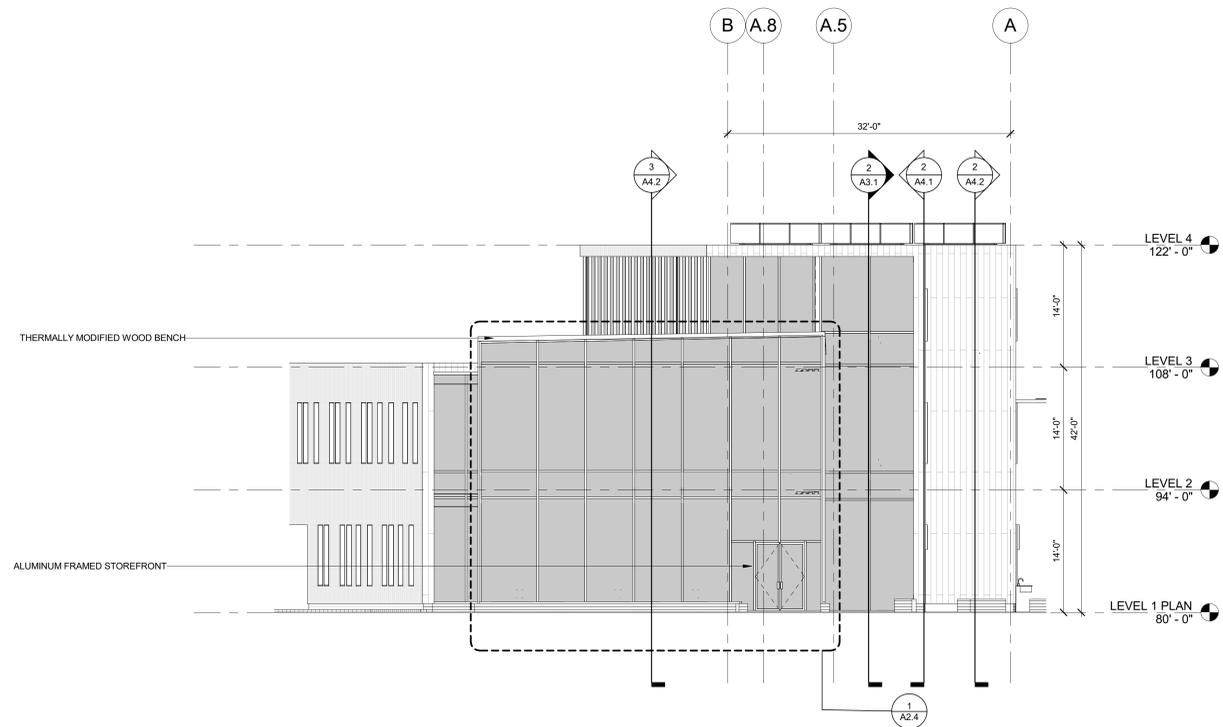


**4 PARTIAL ELEVATION - WEST COURTYARD**  
 1/8" = 1'-0"

**3 PARTIAL ELEVATION - EAST COURTYARD**  
 1/8" = 1'-0"



**1 ELEVATION - SOUTH**  
 1/8" = 1'-0"



**2 ELEVATION - NORTH**  
 1/8" = 1'-0"

| Number | Revision | Date |
|--------|----------|------|
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**100% SCHEMATIC DESIGN**

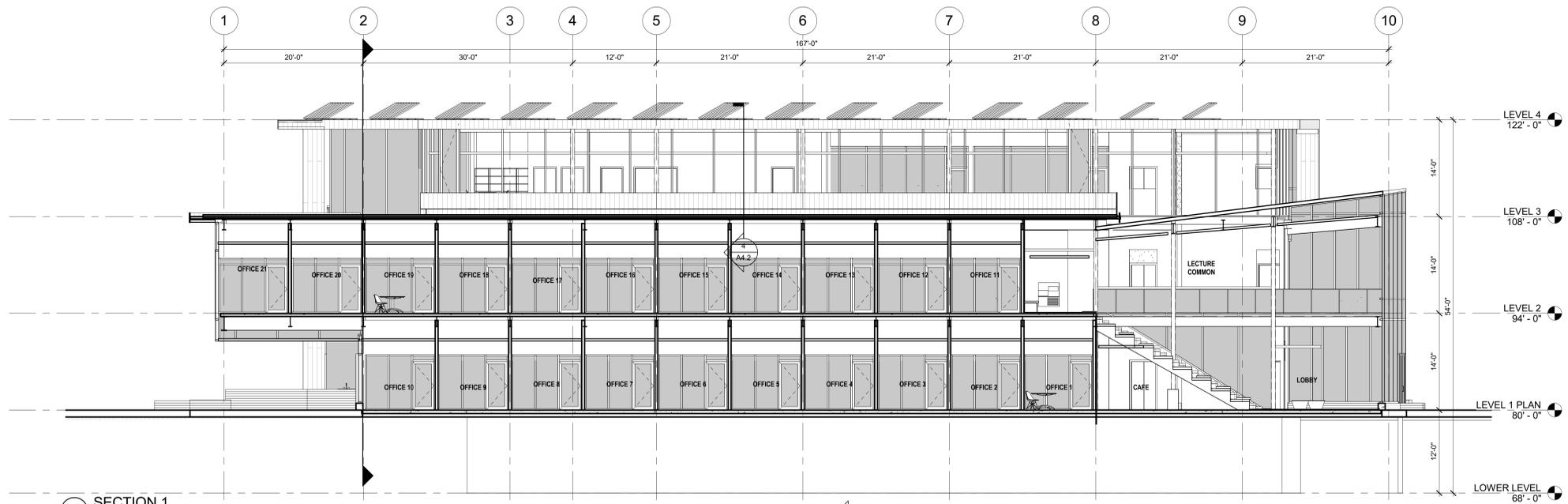
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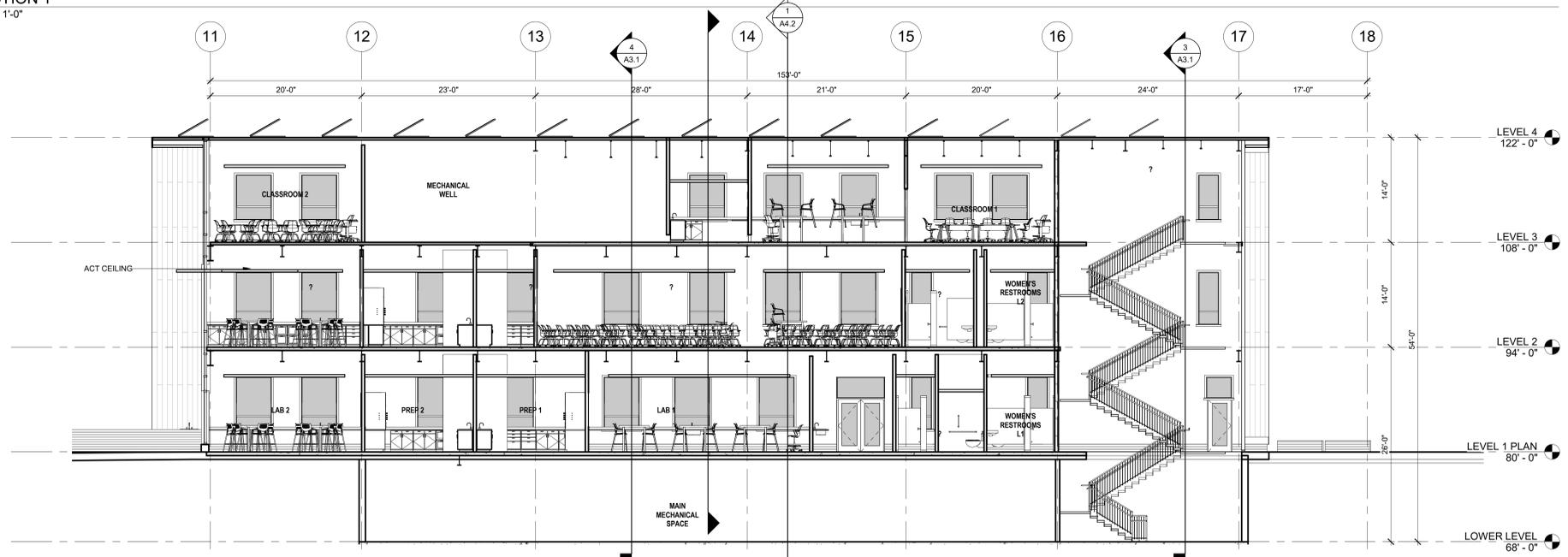
Job # 1603  
 Project Roux Center for the Environment  
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 Scale 1/8" = 1'-0"

**EXTERIOR ELEVATIONS**

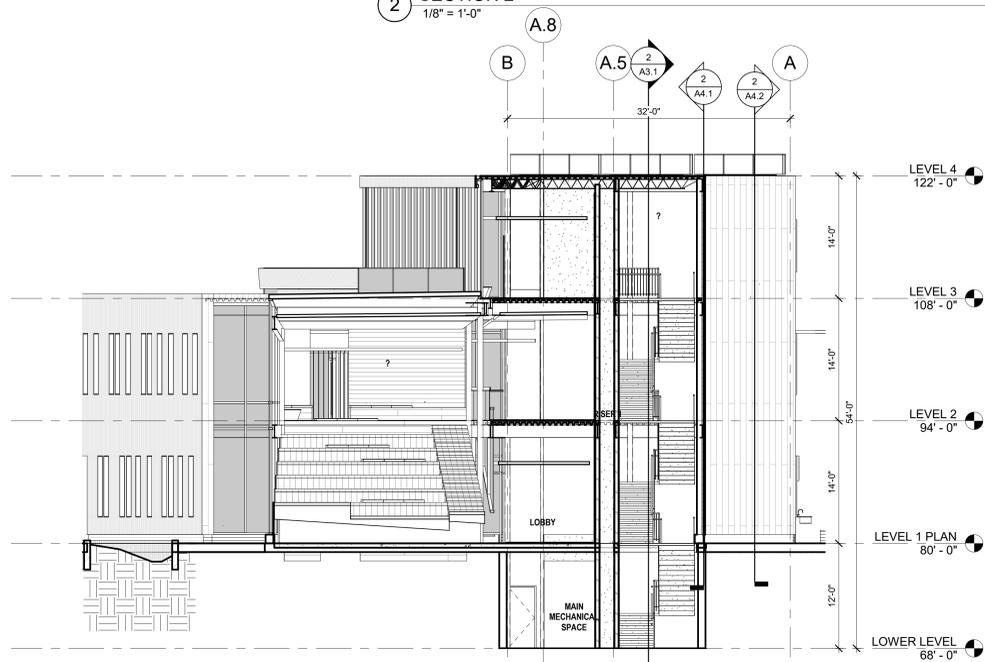
**A2.2**



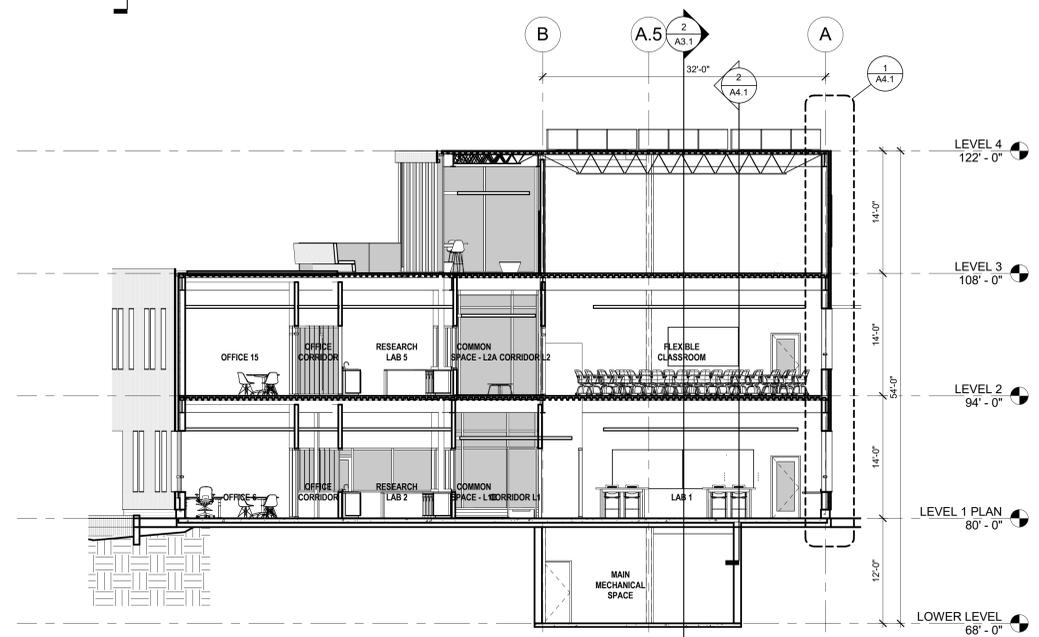
1 SECTION 1  
 1/8" = 1'-0"



2 SECTION 2  
 1/8" = 1'-0"



3 SECTION 3  
 1/8" = 1'-0"



4 SECTION 4  
 1/8" = 1'-0"

| Number | Revision | Date |
|--------|----------|------|
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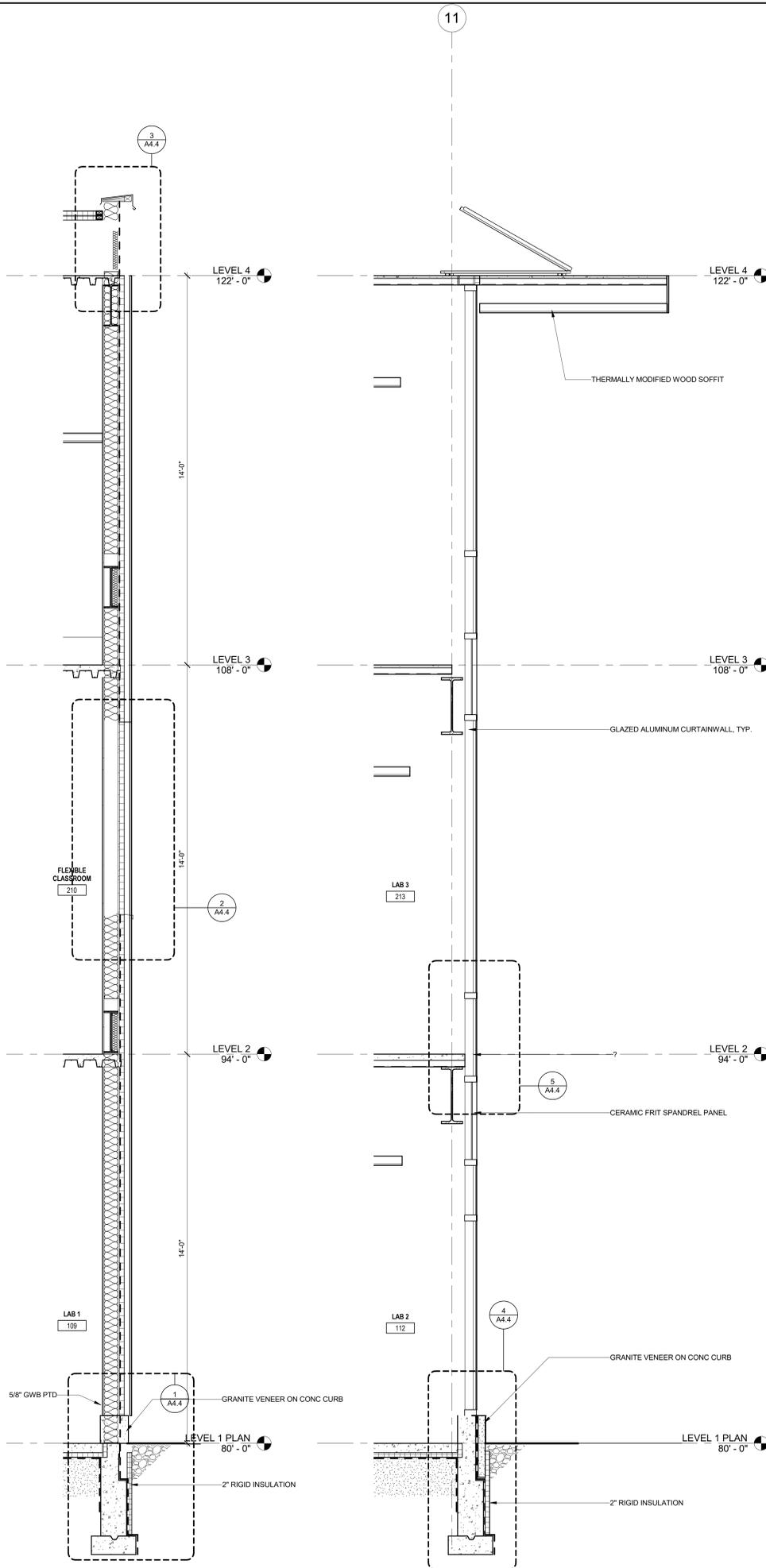
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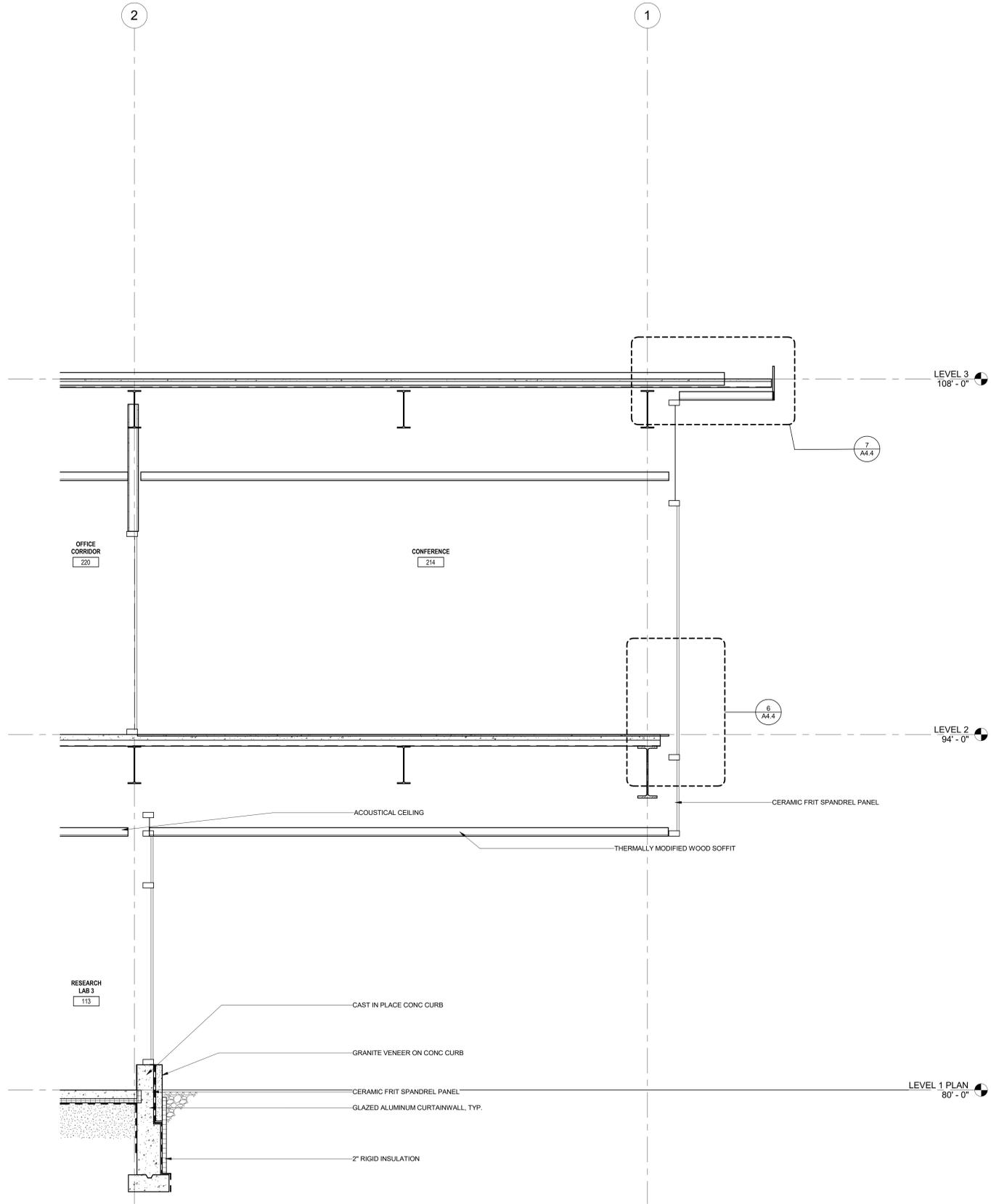
**BUILDING SECTION/ELEVATIONS**

**A3.1**



1 WALL SECTION 1  
 1/2" = 1'-0"

2 WALL SECTION 2  
 1/2" = 1'-0"



3 WALL SECTION 3  
 1/2" = 1'-0"

| Number | Revision | Date |
|--------|----------|------|
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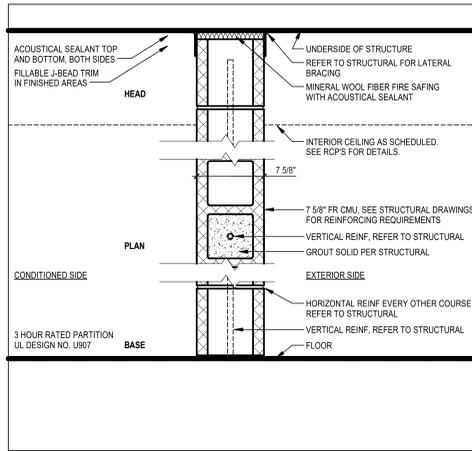
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 Architects and Planners  
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Job # 1603  
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 Scale 1/2" = 1'-0"

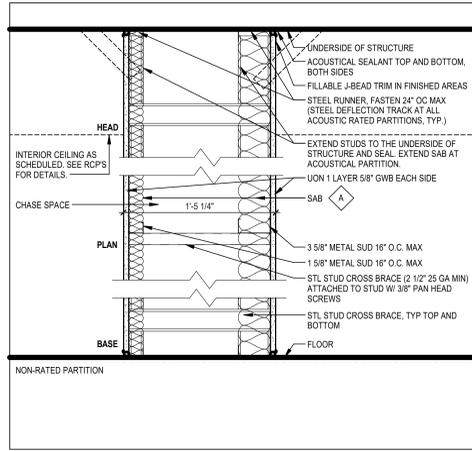
**TYPICAL WALL  
 SECTIONS**

**A4.1**

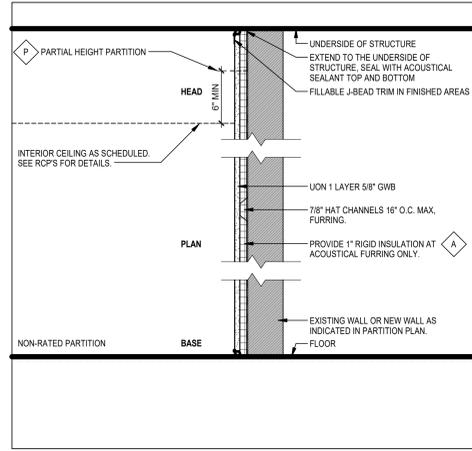
11/7/2016 11:00:00 AM



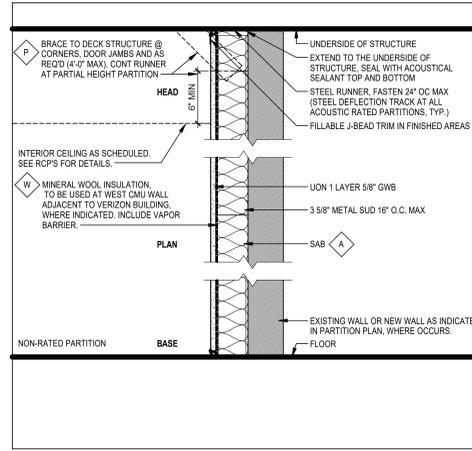
**M8R3** CMU 8" NOM., 3HR RATED



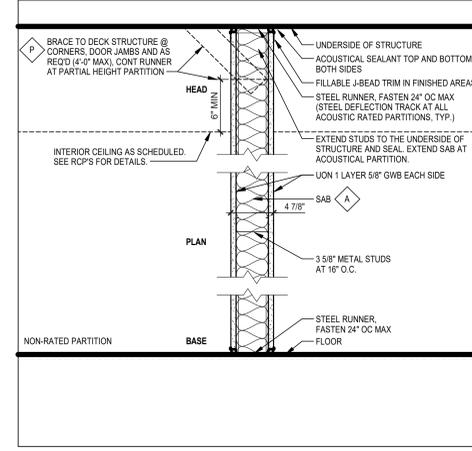
**CH18** CHASE WALL 18" NOM.



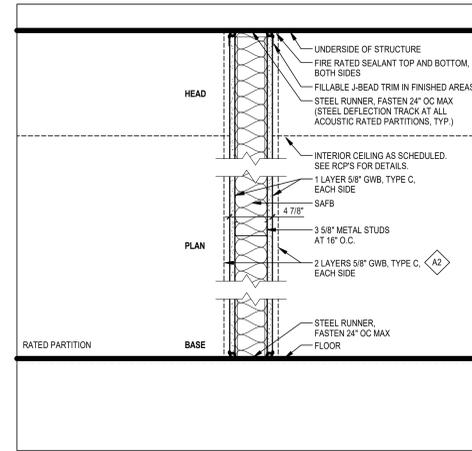
**F1** FURRING 7/8"



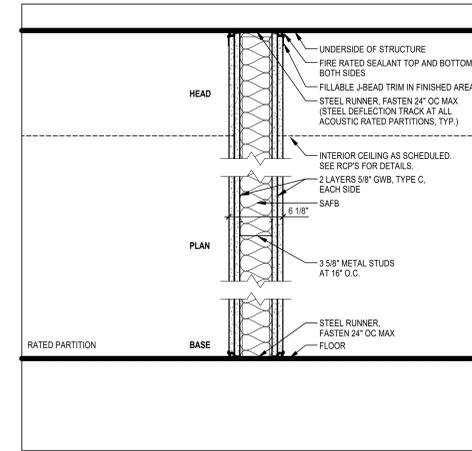
**F4** FURRING 3 5/8"



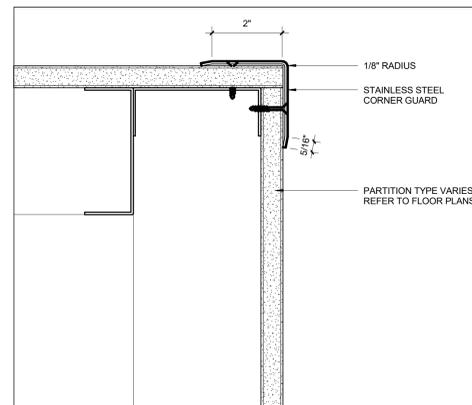
**S4** METAL STUD 4" NOM.



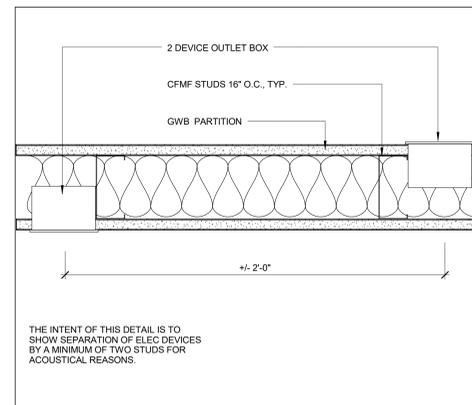
**S4R1** METAL STUD 4" NOM., 1 HOUR RATED



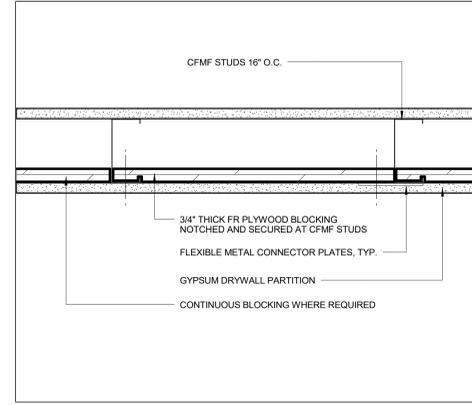
**S4R2** METAL STUD 4" NOM., 2 HOUR RATED



**8** TYPICAL CORNER GUARD PLAN DETAIL  
 6" = 1'-0"



**10** TYP. RECEPTACLE PLACEMENT FOR ACOUST. SEP.  
 3" = 1'-0"



**11** TYPICAL WOOD BLOCKING PLAN DETAIL  
 3" = 1'-0"

**100% SCHEMATIC DESIGN**

Cambridge Seven Associates, Inc.

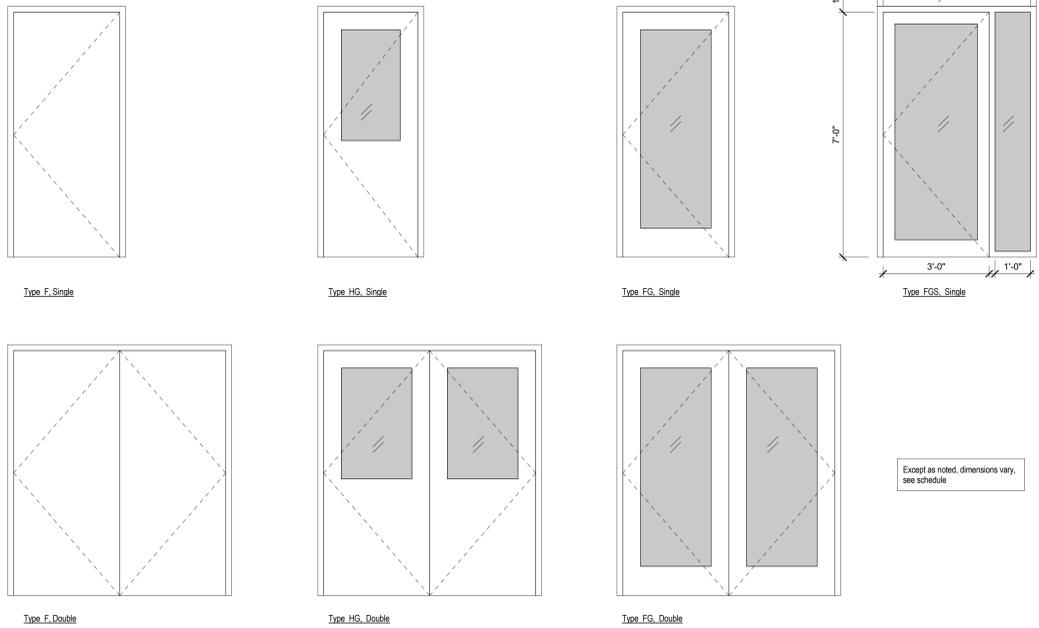
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Job # 1603  
 Project Roux Center for the Environment  
 Drawn By SS Checked CM  
 Date 11/02/16  
 Scale As indicated

**PARTITION TYPES & DETAILS**

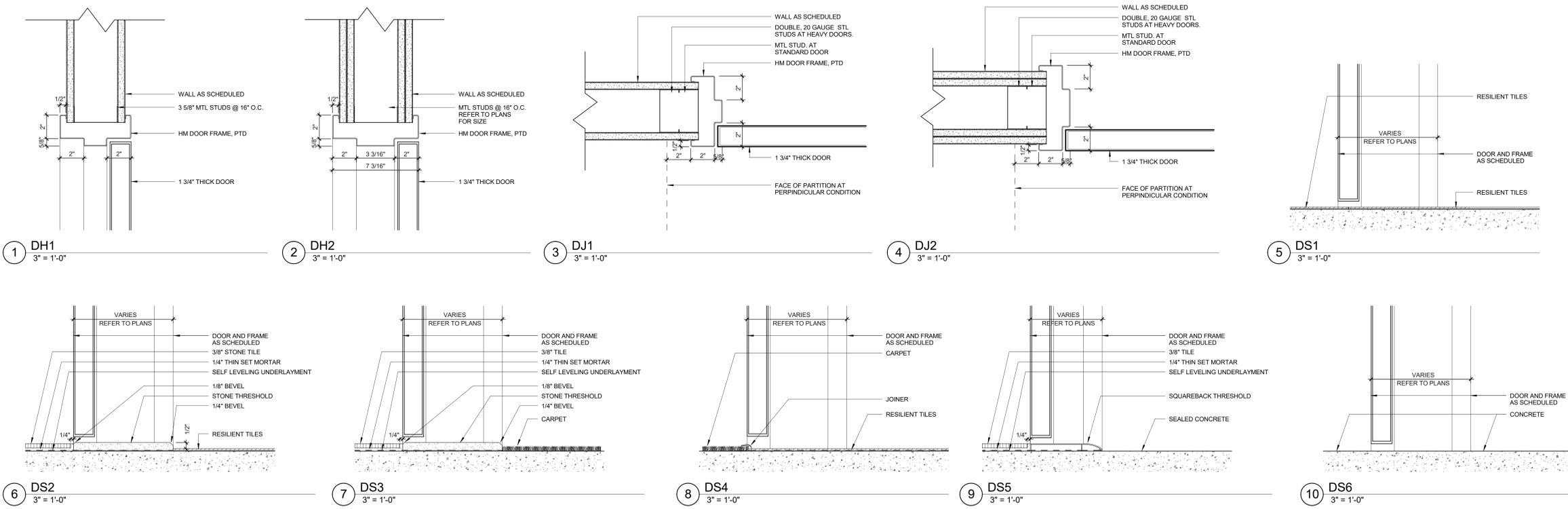
**A6.0**

**DOOR & FRAME ELEVATIONS**



Except as noted, dimensions vary, see schedule.

| MARK                | DOOR & FRAME SCHEDULE + ROOM NAMES |                       |         |                       |            |             |        |     |        |                             |      |      |            |  |
|---------------------|------------------------------------|-----------------------|---------|-----------------------|------------|-------------|--------|-----|--------|-----------------------------|------|------|------------|--|
|                     | FROM ROOM                          |                       | TO ROOM |                       | DOOR       |             |        |     | RATING | COMMENTS                    |      |      |            |  |
|                     | No.                                | NAME                  | No.     | NAME                  | SIZE       | W           | H      | THK |        |                             | MATL | TYPE | PANEL TYPE |  |
| <b>LOWER LEVEL</b>  |                                    |                       |         |                       |            |             |        |     |        |                             |      |      |            |  |
| 001                 | 005                                | MAIN MECHANICAL SPACE | 001     | STAIR 1               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 003                 | 003                                | VACUUMPRESSOR         | 005     | MAIN MECHANICAL SPACE | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 005                 | 003                                | MAIN MECHANICAL SPACE | 007     | STAIR 2               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 007                 | 005                                | MAIN MECHANICAL SPACE | 024     | MAIN MECHANICAL SPACE | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| <b>LEVEL 1 PLAN</b> |                                    |                       |         |                       |            |             |        |     |        |                             |      |      |            |  |
| 100B                | 101                                | VESTIBULE             | 100     | VESTIBULE             | 5'-8 1/8"  | 7'-3 1/4"   |        |     |        | Curtain Wall-Slows Front-De |      |      |            |  |
| 101                 | 101                                | LOBBY                 | 001     | STAIR 1               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 101A                | 001                                | STAIR 1               | 103     | WOMEN'S RESTROOMS L1  | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 103                 | 105B                               | CORRIDOR L1           | 103     | WOMEN'S RESTROOMS L1  | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | F    |      |            |  |
| 107                 | 105B                               | CORRIDOR L1           | 007     | STAIR 2               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | F    |      |            |  |
| 108                 | 109                                | LAB 1                 | 105B    | CORRIDOR L1           | 2'-10 1/4" | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 109B                | 110                                | PREP 1                | 109     | LAB 1                 | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 112                 | 112                                | LAB 2                 | 105B    | CORRIDOR L1           | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 112A                | 112                                | LAB 2                 | 111     | PREP 2                | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 113                 | 118                                | OFFICE CORRIDOR       | 113     | RESEARCH LAB 3        | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 113A                | 113                                | RESEARCH LAB 3        | 118     | OFFICE CORRIDOR       | 3'-0"      | 8'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 114                 | 114                                | RESEARCH LAB 2        | 118     | OFFICE CORRIDOR       | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 115                 | 118                                | OFFICE SUPPORT        | 115     | RESEARCH LAB 1        | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 117                 | 118                                | OFFICE CORRIDOR       | 117     | COORDINATORS          | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 118A                | 118                                | OFFICE CORRIDOR       | 118     | OFFICE CORRIDOR       | 3'-0"      | 8'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 119                 | 118                                | OFFICE CORRIDOR       | 119     | OFFICE 1              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 120                 | 118                                | OFFICE CORRIDOR       | 120     | OFFICE 2              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 121                 | 118                                | OFFICE CORRIDOR       | 121     | OFFICE 3              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 122                 | 118                                | OFFICE CORRIDOR       | 122     | OFFICE 4              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 123                 | 118                                | OFFICE CORRIDOR       | 123     | OFFICE 5              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 124                 | 118                                | OFFICE CORRIDOR       | 124     | OFFICE 6              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 125                 | 118                                | OFFICE CORRIDOR       | 125     | OFFICE 7              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 126                 | 118                                | OFFICE CORRIDOR       | 126     | OFFICE 8              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 127                 | 118                                | OFFICE CORRIDOR       | 127     | OFFICE 9              | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 128                 | 118                                | OFFICE CORRIDOR       | 128     | OFFICE 10             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 130                 | 130                                | ELEC                  | 105B    | CORRIDOR L1           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | F    |      |            |  |
| 360                 | 117                                | COORDINATORS          | 105B    | CORRIDOR L1           | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 622                 | 104                                | MEN'S RESTROOMS L1    | 105B    | CORRIDOR L1           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 623                 | 105                                | UNISEX RESTROOM       | 105B    | CORRIDOR L1           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 628                 | 105B                               | CORRIDOR L1           | 105B    | CORRIDOR L1           | 3'-0"      | 8'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 629                 | 112                                | LAB 2                 | 105B    | CORRIDOR L1           | 3'-0"      | 8'-0"       | 1 3/4" |     |        | SINGLE1                     | F    |      |            |  |
| 634                 | 131                                | IT                    | 105B    | CORRIDOR L1           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | F    |      |            |  |
| 640                 | 007                                | STAIR 2               | 110     | PREP 1                | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 650                 | 110                                | PREP 1                | 318     | PREP STORAGE          | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 663                 | 106                                | STORAGE / LOADING     | 126     | OFFICE CORRIDOR       | 6'-0"      | 7'-0"       | 1 3/4" |     |        | DOUBLE                      | FG   |      |            |  |
| 665                 | 105B                               | CORRIDOR L1           | 106     | STORAGE / LOADING     | 6'-0"      | 7'-0"       | 1 3/4" |     |        | DOUBLE                      | F    |      |            |  |
| <b>LEVEL 2</b>      |                                    |                       |         |                       |            |             |        |     |        |                             |      |      |            |  |
| 216                 | 220                                | RESEARCH LAB 5        | 220     | OFFICE CORRIDOR       | 3'-0 1/4"  | 6'-8 1/4"   |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 202                 | 210                                | CORRIDOR L2           | 210     | FLEXIBLE CLASSROOM    | 3'-0"      | 6'-8 3/32"  |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 202                 | 210                                | CORRIDOR L2           | 210     | FLEXIBLE CLASSROOM    | 2'-10 1/2" | 7'-6 27/32" |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 201                 | 201                                | LECTURE COMMON        | 001     | STAIR 1               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 203                 | 316                                | HSKP                  | 203     | WOMEN'S RESTROOMS L2  | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 204                 | 316                                | HSKP                  | 204     | MEN'S RESTROOMS L2    | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 207                 | 202                                | CORRIDOR L2           | 007     | STAIR 2               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 210B                | 211                                | PREP 3                | 210     | FLEXIBLE CLASSROOM    | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 213                 | 213                                | LAB 3                 | 202     | CORRIDOR L2           | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 213A                | 213                                | LAB 3                 | 211     | PREP 3                | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE1                     | FG   |      |            |  |
| 214                 | 220                                | OFFICE CORRIDOR       | 214     | CONFERENCE            | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 221                 | 220                                | OFFICE CORRIDOR       | 221     | OFFICE 11             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 222                 | 220                                | OFFICE CORRIDOR       | 222     | OFFICE 12             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 223                 | 220                                | OFFICE CORRIDOR       | 223     | OFFICE 13             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 224                 | 220                                | OFFICE CORRIDOR       | 224     | OFFICE 14             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 225                 | 220                                | OFFICE CORRIDOR       | 225     | OFFICE 15             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 226                 | 220                                | OFFICE CORRIDOR       | 226     | OFFICE 16             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 227                 | 220                                | OFFICE CORRIDOR       | 227     | OFFICE 17             | 3'-0"      | 7'-0"       | 1 3/4" |     |        | Single-Hinged-Cw            |      |      |            |  |
| 228                 | 220                                | OFFICE CORRIDOR       | 228     | OFFICE 18             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 229                 | 220                                | OFFICE CORRIDOR       | 229     | OFFICE 19             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 230                 | 220                                | OFFICE CORRIDOR       | 230     | OFFICE 20             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 231                 | 220                                | OFFICE CORRIDOR       | 231     | OFFICE 21             | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 233                 | 233                                | ELEC                  | 202     | CORRIDOR L2           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 624                 | 203A                               | HSKP                  | 316     | HSKP                  | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 625                 | 203B                               | HSKP                  | 316     | HSKP                  | 2'-8"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 630                 | 215                                | RESEARCH LAB 6        | 220     | OFFICE CORRIDOR       | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 635                 | 007                                | STAIR 2               | 211     | PREP 3                | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 636                 | 210                                | FLEXIBLE CLASSROOM    | 202     | CORRIDOR L2           | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 648                 | 232                                | IT                    | 202     | CORRIDOR L2           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 652                 | 220                                | OFFICE CORRIDOR       | 217     | RESEARCH LAB 4        | 3'-0 1/4"  | 6'-8 1/4"   |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 655                 | 220                                | OFFICE CORRIDOR       | 219     | VISITING FACULTY      | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| <b>LEVEL 3</b>      |                                    |                       |         |                       |            |             |        |     |        |                             |      |      |            |  |
| 309                 | 309                                | OUTDOOR ROOF TERRACE  | 306     | COMMON - L3           | 2'-8 1/32" | 13'-3"      |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 309                 | 309                                | OUTDOOR ROOF TERRACE  | 306     | COMMON - L3           | 3'-2"      | 13'-3"      |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 304                 | 313                                | CLASSROOM 2           | 313     | CORRIDOR L3           | 3'-2 1/2"  | 13'-3"      |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 307                 | 313                                | CORRIDOR L3           | 001     | STAIR 1               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 307                 | 313                                | CORRIDOR L3           | 001     | STAIR 1               | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 333                 | 307                                | ELEC                  | 313     | CORRIDOR L3           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 640                 | 319                                | IT                    | 313     | CORRIDOR L3           | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 641                 | 315                                | CLASSROOM LAB 4       | 313     | CORRIDOR L3           | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 642                 | 305                                | CLASSROOM 1           | 313     | CORRIDOR L3           | 3'-0"      | 7'-0"       |        |     |        | Single-Hinged-Cw            |      |      |            |  |
| 644                 | 305                                | CLASSROOM 1           | 315     | CLASSROOM LAB 4       | 6'-0"      | 7'-0"       | 1 3/4" |     |        | DOUBLE                      | F    |      |            |  |
| 645                 | 315                                | CLASSROOM LAB 4       | 212     | PREP 4                | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 647                 | 313                                | CORRIDOR L3           | 212     | PREP 4                | 3'-0"      | 7'-0"       | 1 3/4" |     |        | SINGLE                      | F    |      |            |  |
| 652                 | 313                                | CORRIDOR L3           | 006     | RISER 2               | 8'-0"      | 7'-0"       | 1 3/4" |     |        | DOUBLE                      | F    |      |            |  |



| Number | Revision | Date |
|--------|----------|------|
|        |          |      |

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Job # 1603  
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**DOOR SCHEDULE, TYPES & DETAILS**

| FINISH SCHEDULE     |                         |         |               |                 |                 |                 |                                       |
|---------------------|-------------------------|---------|---------------|-----------------|-----------------|-----------------|---------------------------------------|
| ROOM NO.            | ROOM NAME               | Area    | FLOOR         | WALL            | BASE            | CEILING         | Comments                              |
| <b>LOWER LEVEL</b>  |                         |         |               |                 |                 |                 |                                       |
| 001                 | STAIR 1                 | 228 SF  | SEALED CONC   | CONC            | RUBBER          | EXPOSED, PT     |                                       |
| 002                 | RISER 1                 | 15 SF   | SEALED CONC   | CONC            | RUBBER          | EXPOSED         |                                       |
| 003                 | VAC/COMPRESSOR          | 24 SF   | SEALED CONC   | CONC            | RUBBER          | EXPOSED         |                                       |
| 004                 | ELEVATOR                | 61 SF   | -             | CONC            | RUBBER          | EXPOSED         |                                       |
| 005                 | MAIN MECHANICAL SPACE   | 1856 SF | SEALED CONC   | CONC            | -               | EXPOSED         |                                       |
| 007                 | STAIR 2                 | 198 SF  | SEALED CONC   | GWB, PT         | RUBBER          | EXPOSED, PT     |                                       |
| 321                 | MAIN MECHANICAL SPACE   | 12 SF   | SEALED CONC   | CONC            | -               | EXPOSED         |                                       |
| 322                 | MAIN MECHANICAL SPACE   | 25 SF   | SEALED CONC   | CONC            | -               | EXPOSED         |                                       |
| 323                 | MAIN MECHANICAL SPACE   | 9 SF    | SEALED CONC   | CONC            | -               | EXPOSED         |                                       |
| 324                 | MAIN MECHANICAL SPACE   | 17 SF   | SEALED CONC   | CONC            | -               | EXPOSED         |                                       |
| <b>LEVEL 1 PLAN</b> |                         |         |               |                 |                 |                 |                                       |
| 006                 | RISER 2                 | 41 SF   | -             | -               | -               | -               |                                       |
| 100                 | VESTIBULE               | 94 SF   | STONE         | GLAZING, WOOD   | STONE, CW       | WOOD ACT        | RECESSED WALK OFF MAT                 |
| 101                 | LOBBY                   | 844 SF  | STONE         | GLAZING, WOOD   | STONE, CW       | WOOD ACT        | REFER TO PLANS FOR EXTENT OF MATERIAL |
| 102                 | CAFE                    | 285 SF  | POLISHED CONC | GLAZING, WOOD   | STONE, CW       | WOOD ACT        |                                       |
| 103                 | WOMEN'S RESTROOMS L1    | 227 SF  | TILE          | TILE            | TILE            | ACT             |                                       |
| 104                 | MEN'S RESTROOMS L1      | 184 SF  | TILE          | TILE            | TILE            | ACT             |                                       |
| 105                 | UNISEX RESTROOM         | 45 SF   | TILE          | TILE            | TILE            | ACT             |                                       |
| 105B                | CORRIDOR L1             | 896 SF  | STONE         | GLAZING         | STONE, CW       | WOOD ACT        |                                       |
| 106                 | STORAGE/LOADING         | 293 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 106A                | COMMON SPACE - L1B      | 281 SF  | STONE         | GLAZING         | STONE, CW       | WOOD ACT        |                                       |
| 107A                | CORRIDOR & COMMON SPACE | 90 SF   | POLISHED CONC | GWB, PT/GLAZING | STONE, CW       | WOOD ACT        |                                       |
| 109                 | LAB 1                   | 796 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 110                 | PREP 1                  | 273 SF  | POLISHED CONC | GWB, PT         | RUBBER          | ACT             |                                       |
| 111                 | PREP 2                  | 272 SF  | POLISHED CONC | GWB, PT         | RUBBER          | ACT             |                                       |
| 112                 | LAB 2                   | 639 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 113                 | RESEARCH LAB 3          | 295 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 114                 | RESEARCH LAB 2          | 292 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 115                 | RESEARCH LAB 1          | 293 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 116                 | OFFICE SUPPORT          | 75 SF   | POLISHED CONC | GWB, PT         | RUBBER          | ACT             |                                       |
| 117                 | COORDINATORS            | 248 SF  | WOOD          | GWB, PT/GLAZING | WOOD            | WOOD ACT        |                                       |
| 118                 | OFFICE CORRIDOR         | 540 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 119                 | OFFICE 1                | 126 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 120                 | OFFICE 2                | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 121                 | OFFICE 3                | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 122                 | OFFICE 4                | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 123                 | OFFICE 5                | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 124                 | OFFICE 6                | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 125                 | OFFICE 7                | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 126                 | OFFICE 8                | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 127                 | OFFICE 9                | 125 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 128                 | OFFICE 10               | 128 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 130                 | ELEC                    | 9 SF    | SEALED CONC   | PLYWOOD, PT     | RUBBER          | GWB, PT         |                                       |
| 131                 | IT                      | 9 SF    | SEALED CONC   | PLYWOOD, PT     | RUBBER          | GWB, PT         |                                       |
| 318                 | PREP STORAGE            | 49 SF   | POLISHED CONC | GWB, PT         | RUBBER          | ACT             |                                       |
| <b>LEVEL 2</b>      |                         |         |               |                 |                 |                 |                                       |
| 147                 | ELEVATOR                | 61 SF   | STONE         | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL |                                       |
| 201                 | LECTURE COMMON          | 1371 SF | WOOD          | GWB, PT/GLAZING | CW, WOOD        | WOOD ACT        |                                       |
| 202                 | CORRIDOR L2             | 688 SF  | WOOD          | GWB, PT/GLAZING | WOOD            | WOOD ACT        |                                       |
| 203                 | WOMEN'S RESTROOMS L2    | 190 SF  | TILE          | TILE            | TILE            | ACT             |                                       |
| 203A                | HSKP                    | 18 SF   | TILE          | TILE            | TILE            | ACT             |                                       |
| 203B                | HSKP                    | 20 SF   | TILE          | TILE            | TILE            | ACT             |                                       |
| 204                 | MEN'S RESTROOMS L2      | 190 SF  | TILE          | TILE            | TILE            | ACT             |                                       |
| 205                 | COMMON SPACE - L2A      | 270 SF  | WOOD          | GLAZING         | CW, WOOD        | WOOD ACT        |                                       |
| 207                 | COMMON SPACE - L2B      | 144 SF  | WOOD          | GLAZING         | CW, WOOD        | WOOD ACT        |                                       |
| 210                 | FLEXIBLE CLASSROOM      | 1392 SF | POLISHED CONC | GWB, PT         | RUBBER, CW      | ACT             |                                       |
| 211                 | PREP 3                  | 422 SF  | POLISHED CONC | GWB, PT         | RUBBER          | ACT             |                                       |
| 213                 | LAB 3                   | 654 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 214                 | CONFERENCE              | 264 SF  | WOOD          | GWB, PT/GLAZING | WOOD            | WOOD ACT        |                                       |
| 215                 | RESEARCH LAB 6          | 301 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 216                 | RESEARCH LAB 5          | 296 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 217                 | RESEARCH LAB 4          | 298 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER          | ACT             |                                       |
| 219                 | VISITING FACULTY        | 206 SF  | CARPET        | GLAZING         | RUBBER, CW      | ACT             |                                       |
| 220                 | OFFICE CORRIDOR         | 583 SF  | POLISHED CONC | GLAZING         | RUBBER, CW      | ACT             |                                       |
| 221                 | OFFICE 11               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 222                 | OFFICE 12               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 223                 | OFFICE 13               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 224                 | OFFICE 14               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 225                 | OFFICE 15               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 226                 | OFFICE 16               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 227                 | OFFICE 17               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 228                 | OFFICE 18               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 229                 | OFFICE 19               | 124 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 230                 | OFFICE 20               | 125 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 231                 | OFFICE 21               | 127 SF  | CARPET        | GWB, PT/GLAZING | RUBBER, CW      | ACT             |                                       |
| 232                 | IT                      | 10 SF   | SEALED CONC   | PLYWOOD, PT     | RUBBER          | GWB, PT         |                                       |
| 233                 | ELEC                    | 9 SF    | SEALED CONC   | PLYWOOD, PT     | RUBBER          | GWB, PT         |                                       |
| 316                 | HSKP                    | 80 SF   | TILE          | TILE            | TILE            | ACT             |                                       |
| <b>LEVEL 3</b>      |                         |         |               |                 |                 |                 |                                       |
| 212                 | PREP 4                  | 335 SF  | POLISHED CONC | GWB, PT/GLAZING | RUBBER          | ACT             |                                       |
| 304                 | CLASSROOM 2             | 548 SF  | POLISHED CONC | GWB, PT         | RUBBER, CW      | ACT             |                                       |
| 305                 | CLASSROOM 1             | 541 SF  | POLISHED CONC | GWB, PT         | RUBBER, CW      | ACT             |                                       |
| 306                 | COMMON - L3             | 590 SF  | WOOD          | PLYWOOD, PT     | CW, WOOD        | WOOD ACT        |                                       |
| 307                 | ELEC                    | 9 SF    | SEALED CONC   | PLYWOOD, PT     | RUBBER          | GWB, PT         |                                       |
| 308                 | MECHANICAL WELL         | 973 SF  | -             | -               | -               | -               |                                       |
| 309                 | OUTDOOR ROOF TERRACE    | 859 SF  | -             | -               | -               | -               |                                       |
| 313                 | CORRIDOR L3             | 839 SF  | -             | -               | -               | -               |                                       |
| 314                 | OUTDOOR ROOF TERRACE    | 191 SF  | -             | -               | -               | -               |                                       |
| 315                 | CLASSROOM LAB 4         | 578 SF  | -             | -               | -               | -               |                                       |
| 319                 | IT                      | 10 SF   | SEALED CONC   | PLYWOOD, PT     | RUBBER          | GWB, PT         |                                       |

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|--------|----------|------|
| Number | Revision | Date |
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**Cambridge Seven Associates, Inc.**

Architects and Planners  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
617 492-7000 Fax 492-7007

Job # 1603

Project Roux Center for the Environment

Drawn By Author Checked Checker

Date 11/02/16

Scale

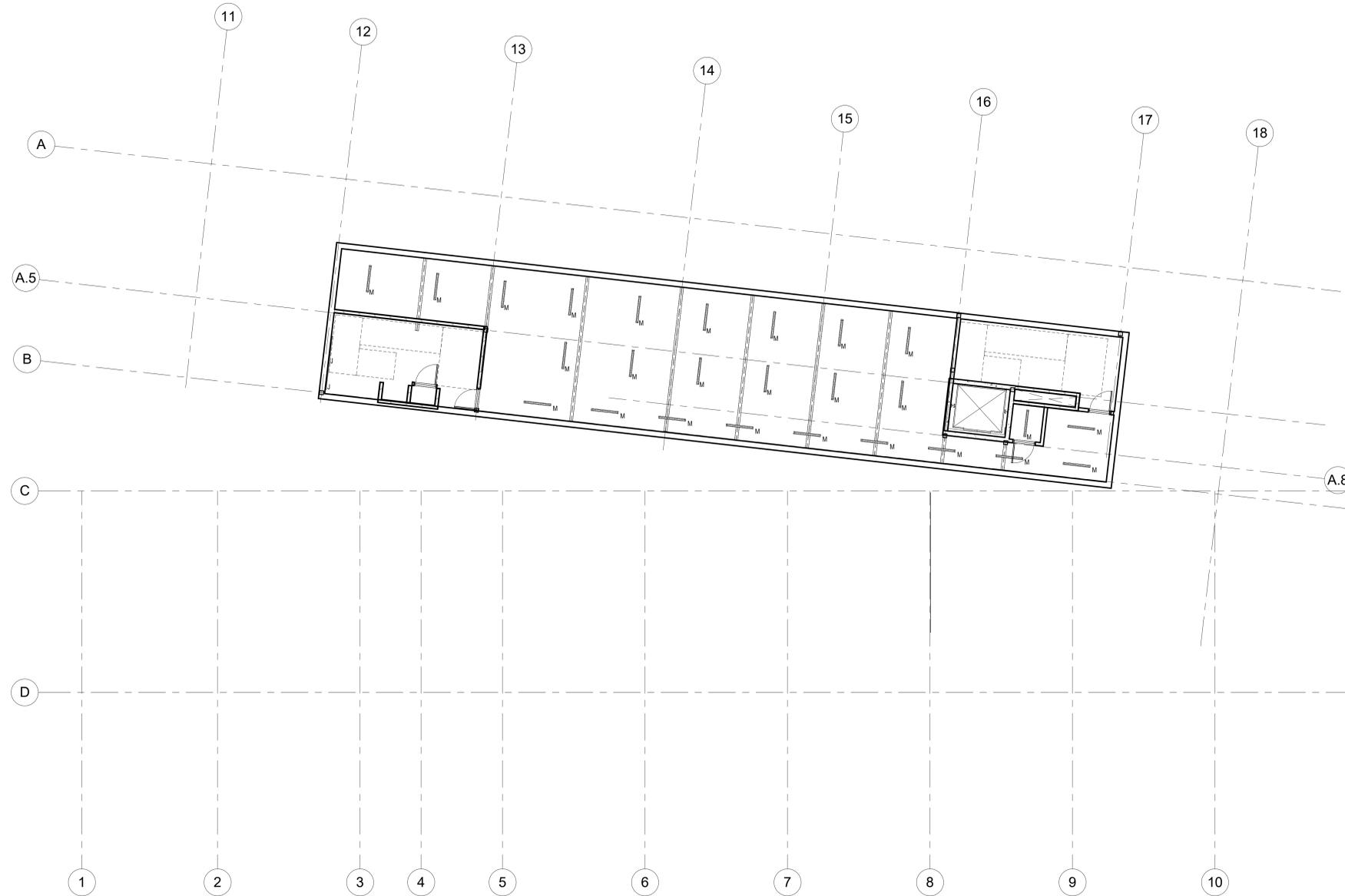
Drawing Title  
**FINISH SCHEDULE**

**A6.5**

## Bowdoin College Roux Center for the Environment

**NOTES**  
1. REFER TO A6.01 FOR INTERIOR FINISHES SCHEDULE AND SPECIFICATION.  
2. ALL EXPOSED COLUMN, BRACING TO BE PAINTED.

| LABEL | MANUFACTURER | CATALOG NUMBER                        | DESCRIPTION                                       |
|-------|--------------|---------------------------------------|---|
| A     | LUMENWERX    | NOV-22PMO-HLO-LED-2300-35             | RECESSED 2'X2' LED WITH CENTRAL MICROSCREEN PANEL |
| B     | LUMENWERX    | NOV-24PMO-HLO-LED-5500-35             | RECESSED 2'X4' LED WITH CENTRAL MICROSCREEN PANEL |
| C     | LUMENWERX    | VI44-WRO-LED-80-500-30-2FT            | RECESSED 4' X 2' LED WALL WASHER                  |
| D     | LUMENWERX    | VI44D-HLO-LED-80-500-35-4FT           | RECESSED 4' X 4' LED WITH FLUSH ACRYLIC LENS      |
| E     | DELRAY       | 7702L50W35                            | SUSPENDED DIRECT/INDIRECT LED WITH FROSTED LENS   |
| F     | GOTHAM       | EVO CYL 35/29 8AR LS FINISH - FM      | SUSPENDED 8" DIAMETER LED CYLINDER                |
| G     | GOTHAM       | EVO 35/15 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| H     | MARK         | SPRLED 4FT H35AD FA                   | RECESSED 6" WIDE LED WALL SLOT                    |
| I     | LITHONIA     | STL4 40L D40 LP835 MVOLT              | SURFACE MOUNTED 8" X 4' LED WRAP                  |
| J     | LITHONIA     | WL4 25L D24 LP835 MVOLT               | WALL MOUNTED 4' LED STAIRWELL LIGHT               |
| K     | GOTHAM       | EVO 35/10 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| L     | GOTHAM       | ICO CYL 35/15 2AR LSS 5020D MVOLT UGZ | SUSPENDED 2" DIAMETER LED CYLINDER                |
| N     | USA1         | LRTD4-9016-C3-30KS-50-FT-VOLT-DIML2   | RECESSED EXTERIOR DOWNLIGHT                       |
| P     | KENALL       | FNL6                                  | WALL MOUNTED EXTERIOR LIGHT                       |



| Number | Revision | Date |
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Date 11/02/16

Scale As indicated

LOWER LEVEL  
REFLECTED CEILING  
PLAN

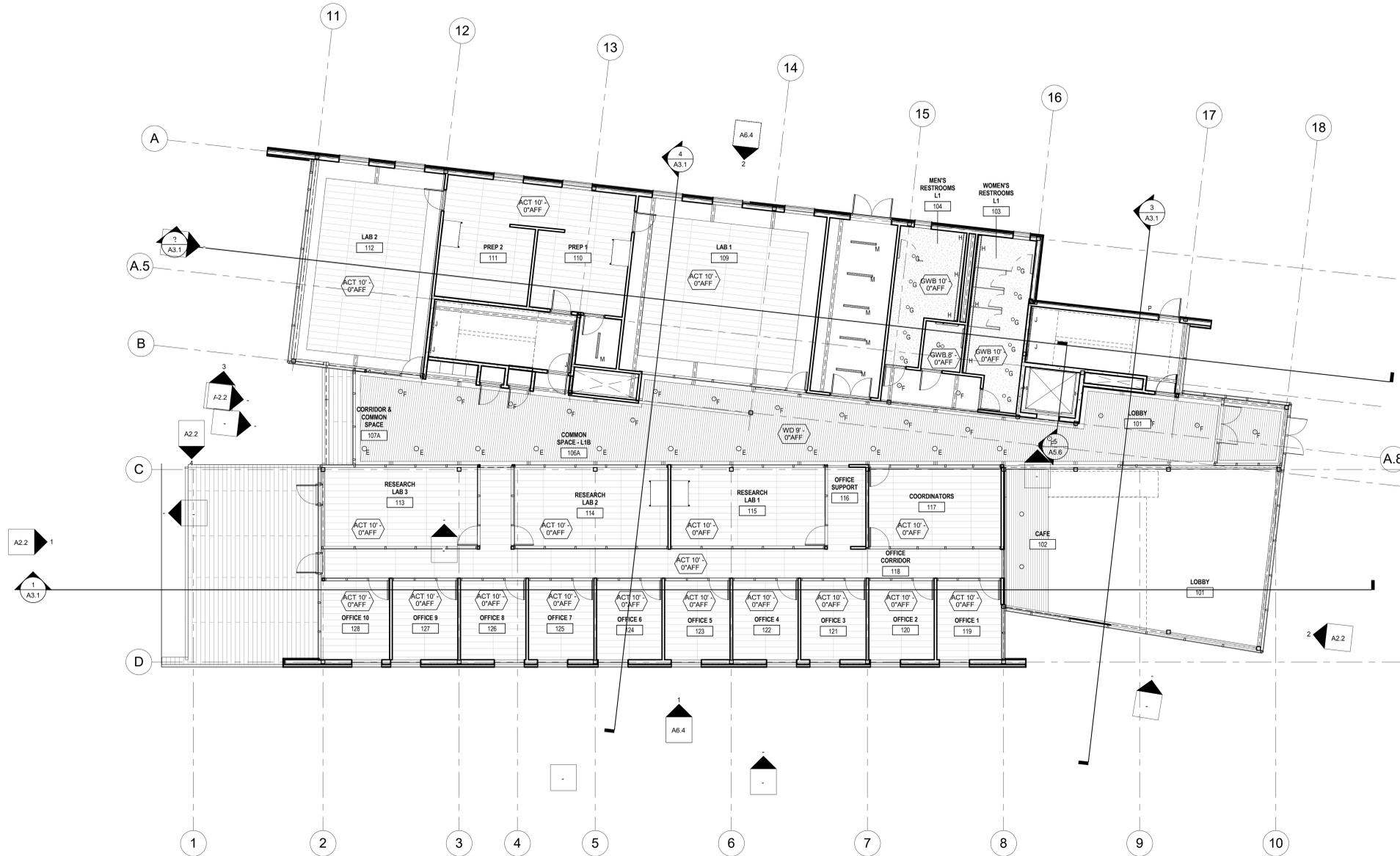
**A8.00**

## Bowdoin College Roux Center for the Environment

- NOTES**
- REFER TO A6.01 FOR INTERIOR FINISHES SCHEDULE AND SPECIFICATION.
  - ALL EXPOSED COLUMN, BRACING TO BE PAINTED.

### LIGHT FIXTURE KEY

| LABEL | MANUFACTURER | CATALOG NUMBER                        | DESCRIPTION                                       |
|-------|--------------|---------------------------------------|---|
| A     | LUMENWERX    | NOV-22PMO-HLO-LED-2300-35             | RECESSED 2'X2' LED WITH CENTRAL MICROSCREEN PANEL |
| B     | LUMENWERX    | NOV-24-PMO-HLO-LED-5500-35            | RECESSED 2'X4' LED WITH CENTRAL MICROSCREEN PANEL |
| C     | LUMENWERX    | VIA4-WRO-LED-80-500-30-2FT            | RECESSED 4' X 2' LED WALL WASHER                  |
| D     | LUMENWERX    | VIA4D-HLO-LED-80-500-35-4FT           | RECESSED 4' X 4' LED WITH FLUSH ACRYLIC LENS      |
| E     | DELRAY       | 7702L50W35                            | SUSPENDED DIRECT/INDIRECT LED WITH FROSTED LENS   |
| F     | GOTHAM       | EVO CYL 35/25 BAR LS FINISH - PM      | SUSPENDED 8" DIAMETER LED CYLINDER                |
| G     | GOTHAM       | EVO 35/15 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| H     | MARK         | SPRLED 4FT H35AD FA                   | RECESSED 6" WIDE LED WALL SLOT                    |
| I     | LITHONIA     | STL4 40L D40 LP835 MVOLT              | SURFACE MOUNTED 8" X 4" LED WRAP                  |
| J     | LITHONIA     | WL4 25L D24 LP835 MVOLT               | WALL MOUNTED 4" LED STAIRWELL LIGHT               |
| K     | GOTHAM       | EVO 35/10 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| L     | GOTHAM       | ICO CYL 35/15 2AR LSS 5020D MVOLT UGZ | SUSPENDED 2" DIAMETER LED CYLINDER                |
| N     | USAI         | LRTD4-8016-C3-30KS-50-FT-VOLT-DIML2   | RECESSED EXTERIOR DOWNLIGHT                       |
| P     | KENALL       | FNL6                                  | WALL MOUNTED EXTERIOR LIGHT                       |



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Date 11/02/16

Scale As indicated

Drawings Title  
**FIRST FLOOR  
REFLECTED CEILING  
PLAN**

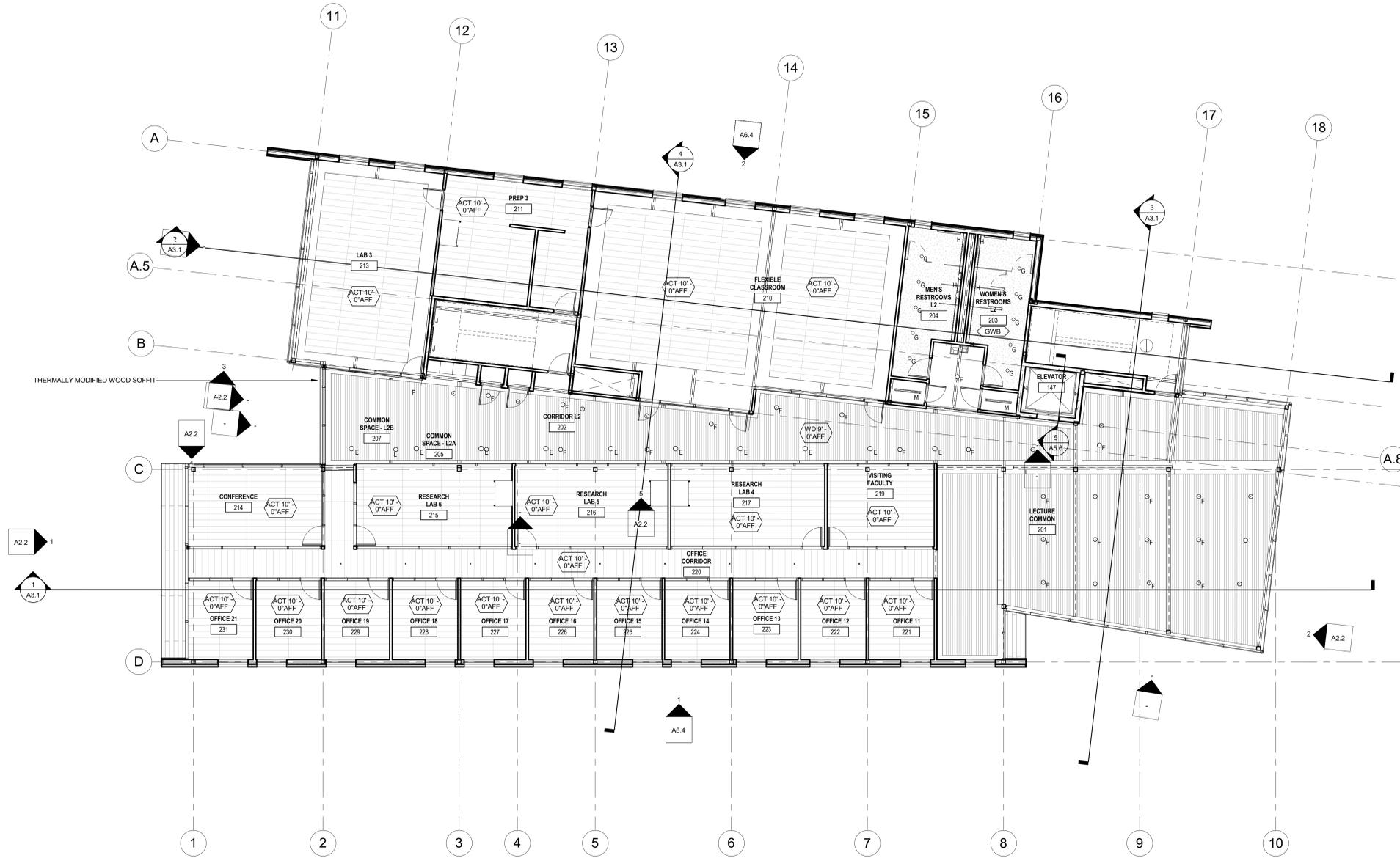
**A8.01**

## Bowdoin College Roux Center for the Environment

- NOTES**
1. REFER TO A6.01 FOR INTERIOR FINISHES SCHEDULE AND SPECIFICATION.
  2. ALL EXPOSED COLUMN, BRACING TO BE PAINTED.

### LIGHT FIXTURE KEY

| LABEL | MANUFACTURER | CATALOG NUMBER                        | DESCRIPTION                                       |
|-------|--------------|---------------------------------------|---|
| A     | LUMENWERX    | NOV-22PMO-HLO-LED-2300-35             | RECESSED 2'X2' LED WITH CENTRAL MICROSCREEN PANEL |
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| C     | LUMENWERX    | VIA4-WRO-LED-80-500-30-2FT            | RECESSED 4' X 2' LED WALL WASHER                  |
| D     | LUMENWERX    | VIA4-HLO-LED-80-500-35-4FT            | RECESSED 4' X 4' LED WITH FLUSH ACRYLIC LENS      |
| E     | DELRAY       | 7702L50W35                            | SUSPENDED DIRECT/INDIRECT LED WITH FROSTED LENS   |
| F     | GOTHAM       | EVO CYL 35/29 BAR LS FINISH - PM      | SUSPENDED 8" DIAMETER LED CYLINDER                |
| G     | GOTHAM       | EVO 35/15 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| H     | MARK         | SPRLED 4FT H35AD FA                   | RECESSED 6" WIDE LED WALL SLOT                    |
| I     | LITHONIA     | STL4 40L D40 LP835 MVOLT              | SURFACE MOUNTED 8" X 4' LED WRAP                  |
| J     | LITHONIA     | WL4 25L D24 LP835 MVOLT               | WALL MOUNTED 4' LED STAIRWELL LIGHT               |
| K     | GOTHAM       | EVO 35/10 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| L     | GOTHAM       | ICO CYL 35/15 2AR LSS 5020D MVOLT UGZ | SUSPENDED 2" DIAMETER LED CYLINDER                |
| N     | USAI         | LRTD4-8016-C3-30KS-50-FT-VOLT-DIML2   | RECESSED EXTERIOR DOWNLIGHT                       |
| P     | KENALL       | FNL6                                  | WALL MOUNTED EXTERIOR LIGHT                       |



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Date 11/02/16

Scale As indicated

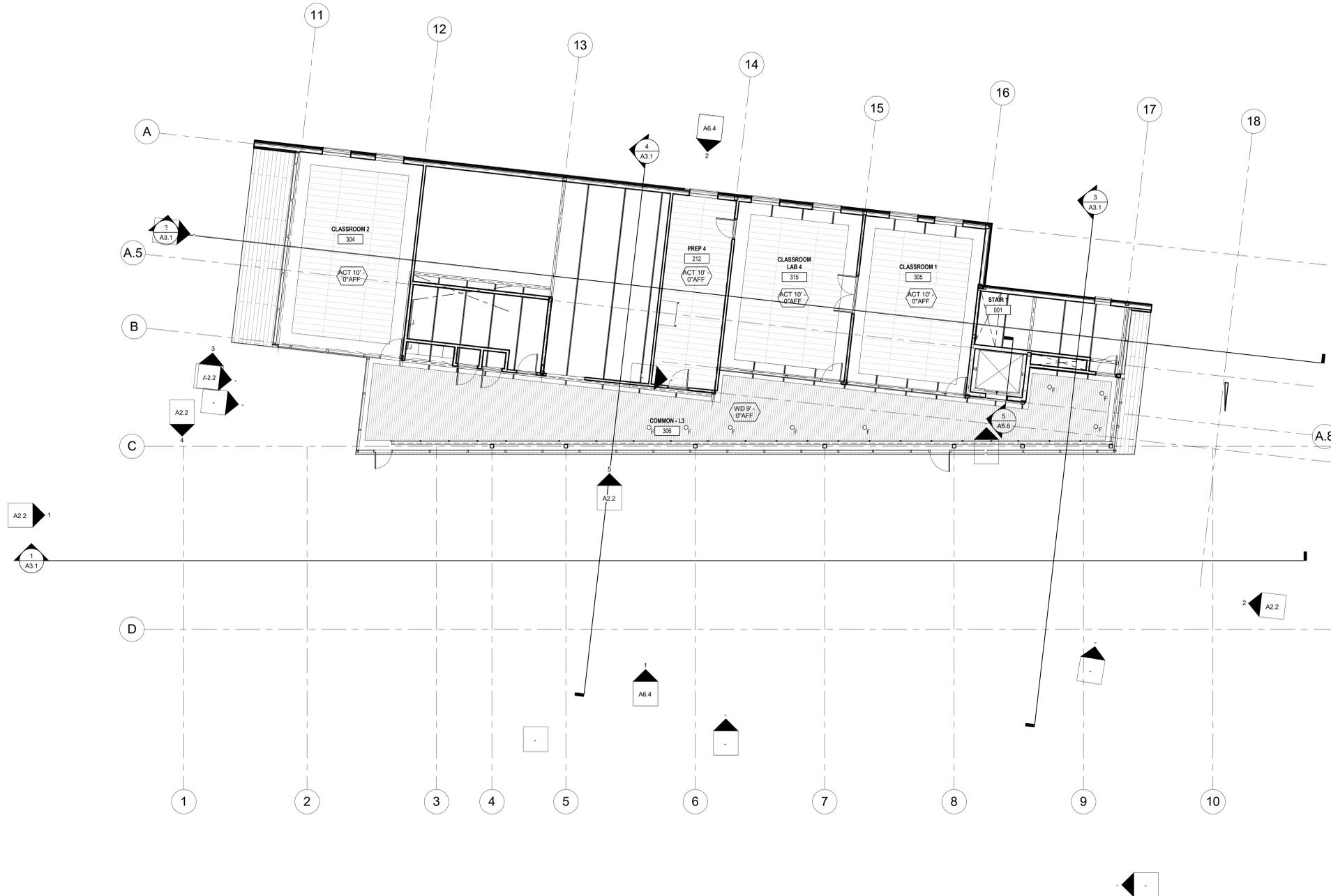
Second Floor  
REFLECTED CEILING  
PLAN

**A8.02**

## Bowdoin College Roux Center for the Environment

**NOTES**  
1. REFER TO A6.01 FOR INTERIOR FINISHES SCHEDULE AND SPECIFICATION.  
2. ALL EXPOSED COLUMN BRACING TO BE PAINTED.

| LABEL | MANUFACTURER | CATALOG NUMBER                        | DESCRIPTION                                       |
|-------|--------------|---------------------------------------|---|
| A     | LUMENWERX    | NOV-22PMO-HLO-LED-2300-35             | RECESSED 2'X2' LED WITH CENTRAL MICROSCREEN PANEL |
| B     | LUMENWERX    | NOV-24PMO-HLO-LED-5500-35             | RECESSED 2'X4' LED WITH CENTRAL MICROSCREEN PANEL |
| C     | LUMENWERX    | VIA4-WRO-LED-80-500-30-2FT            | RECESSED 4" X 4" LED WALL WASHER                  |
| D     | LUMENWERX    | VIA4-HLO-LED-80-500-35-4FT            | RECESSED 4" X 4" LED WITH FLUSH ACRYLIC LENS      |
| E     | DELRAY       | 7702L50W35                            | SUSPENDED DIRECT/INDIRECT LED WITH FROSTED LENS   |
| F     | GOTHAM       | EVO CYL 35/29 8AR LS FINISH - PM      | SUSPENDED 8" DIAMETER LED CYLINDER                |
| G     | GOTHAM       | EVO 35/15 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| H     | MARK         | SPRLED 4FT H35AD FA                   | RECESSED 6" WIDE LED WALL SLOT                    |
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| K     | GOTHAM       | EVO 35/10 4AR MWD LS                  | RECESSED 4" DIAMETER LED DOWNLIGHT                |
| L     | GOTHAM       | ICO CYL 35/15 2AR LSS 5020D MVOLT UGZ | SUSPENDED 2" DIAMETER LED CYLINDER                |
| N     | USAI         | LRTD4-9016-C3-30KS-50-FT-VOLT-DIML2   | RECESSED EXTERIOR DOWNLIGHT                       |
| P     | KENALL       | FNL6                                  | WALL MOUNTED EXTERIOR LIGHT                       |



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Date 11/02/16

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THIRD FLOOR  
REFLECTED CEILING  
PLAN

**A8.03**

**BRUNSWICK PLANNING BOARD  
MEETING MINUTES  
JULY 26, 2016**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Vice Chair Margaret Wilson, Jane Arbuckle, Bill Dana, Jeremy Evans, Sande Updegraph, and Richard Visser

**MEMBERS ABSENT:** No members were absent at this meeting.

**STAFF PRESENT:** Anna Breinich, Director of Planning and Development; Jared Woolston, Town Planner

A meeting of the Brunswick Planning Board was held on Tuesday, July 26, 2016, in Town Council Chambers, 85 Union Street. Chair Charlie Frizzle called the meeting to order at 7:00 P.M.

**1. Case #16-025 Crystal Springs Farm Community Solar Farm:** The Planning Board will hold a Public Hearing then review and take action on a Special Permit application submitted by Revision Energy for a proposed community solar farm which is an omitted use. The proposed use is located in the Coastal Protection 1 (CP1) Zoning District; Natural Resource Protection Zone (NRPZ) (Map 21, Lot 16).

Margaret Wilson recused herself from the meeting and left the room as she is a member of the Board for the Brunswick Topsham Land Trust who is the fee owner for Crystal Springs Farm.

Jared Woolston introduced the application for a solar array in an agricultural portion of Crystal Springs Farm and reviewed the project summary dated July 26, 2016. Jared provided a brief background of the project and said that this project has been in the works for a while. When the application was originally submitted, the neighborhood came out with some concerns at the Staff Review meeting. At that time, the applicant withdrew the application. In discussions with the neighborhood, the applicant decided to move the site to another location and agreed to buffer along the main street.

Applicant representative, Steve Weemes, said that this project is part of a collaborative effort including Crystal Springs Farms, Brunswick Topsham Land Trust and a group of Brunswick families who cannot support solar arrays where they live; this application is also part of Solarize Brunswick. Steve said that this project will support local agriculture by reducing the energy costs for Crystal Springs Farm and provide a model of how a farm can go green. In addition, this project will create electricity security, encourage open space, and demonstrate how individuals can band together to solarize. Steve pointed out that this project is similar to the Freeport solar project along the highway. Steve noted that the environmental impact is near zero and pointed out that there will be no access road, traffic, no impervious surface, employees, odor, loss to farmland, and no light pollution. Steve said that Seth Kroeck will maintain and install the buffer along the Pleasant Hill Road side. This buffer will consist of various evergreens and greenery to give a “natural” look.

**MOTION BY JEREMY EVANS THAT THE SPECIAL PERMIT APPLICATION IS DEEMED COMPLETE. MOTION SECONDED BY BILL DANA, APPROVED UNANIMOUSLY.**

Jane Arbuckle asked what they plan to use for the buffer. Seth Kroeck replied that the plan is to use Western firs for year round buffering with viburnum and dogwood which will add additional buffering over the summer months. Sande Updegraph asked about how they plan to mow and how often. Seth replied that the panels will be set up in rows so that machinery can go between the arrays and that they plan to mow as needed; this land will still be used as grazing pasture.

Chair Charlie Frizzle opened the meeting to public comment. Hearing none, Charlie closed the public hearing.

Charlie Frizzle stated that he understands why they don't have a fence around the arrays, but asked if the applicant had given any thoughts to vandalism. Seth Kroeck replied that the area is grazing pasture with an electric fence that is charged when the animals are there; there is a physical barrier.

**MOTION BY BILL DANA THAT THE SPECIAL PERMIT IS APPROVED WITH THE FOLLOWING CONDITION:**

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, his representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.
2. That prior to issuance of an electrical permit, a planting plan detailing the size and type of plants shall be submitted to the satisfaction of the Director of Planning and Development.

**MOTION SECONDED BY SANDE UPDEGRAPH, APPROVED UNANIMOUSLY.**

Margaret Wilson returned to the meeting as a voting member.

**2. Case #16-026 Tao Yuan Greenhouse and Café:** The Planning Board will review and take action on a Major Development Review Amendment application for a new two-story building for greenhouse, café and administrative space. The proposed development is located in the Town Center 1 (TC1) Maine Street Zoning District; and Village Review Zone (Map U13, Lots 52 & 53, and Map U-13, Lot 95).

Jared Woolston introduced the application for a two-story building and greenhouse and reviewed the Site Plan Amendment Memo to the Planning Board dated July 26, 2016. Jared said that the new proposal is to add a retail space / bakery with other minor site changes.

Kate Holcomb presented a PowerPoint presentation regarding the greenhouse / aquaponics and symbiotic work forces as well as the addition of the bakery, layout, lighting, siding and potential parking concerns.

**MOTION BY RICHARD VISSER THAT THE AMENDED SITE PLAN APPLICATION IS DEEMED COMPLETE. SECONDED BY SANDE UPDEGRAPH, APPROVED UNANIMOUSLY.**

Richard Visser asked if the applicant had given any more thought to snow removal as this was a concern at the last meeting. Kate Holcomb replied that to combat snow building up on the greenhouse, they will have the heat on to melt it. Cecile Stadler added that they have an agreement with Terrace Place to share snow removal costs for the driveway going into the garage and the restaurant. Margaret Wilson asked what times the light will be on in the greenhouse. Kate replied they plan to light similar to summer daylight hours but will not be lighting through the night. Kate added that there is also an automatic blackout curtain. Margaret asked what the life expectancy is for the material the greenhouse is made of. Kate replied that she would have to ask the manufacturer for the specifics, but said that polycarbonate has come quite a way in terms of yellowing and clouding up. Margaret said that she is happy that they have decided to install siding all the way up on the side that faces the townhouses. Anna Breinich replied that the life expectancy concern came up during Village Review a year ago and the polycarbonate was approved. Anna said that she does have the polycarbonate information if Margaret would like to see it. Margaret was comfortable knowing that Village Review did discuss this issue. Margaret asked where the collected water from the greenhouse snow runoff will go. Kate replied that Sitelines did do a stormwater management plan and they have impervious surface. In addition, they expanded the greenhouse to the edge of the building so that they could have a gutter system. Anna Breinich pointed out that one of the changes from the original application is that they removed the deck and changed this to a grated system so that there will be no snow buildup; the snow will just melt down. Anna said that the Town Engineer was at the Staff Review meeting and this was not a concern. Margaret asked where the nearest town catch basin was. Jared Woolston replied that there is one on Pleasant Street, but he does not know if there is one on Abbey Lane. Margaret stated that her concern is that they cannot have water from the greenhouse traveling to Pleasant Street for collection. Jared suggested that they add this as a condition to the Conditions for Approval. Charlie Frizzle said that there is a statement from Sitelines that they have found the existing drains are suitable, but that it does not address the “what if it freezes on the way down”. Kate said that they are willing to look into this further. With respects to the amendment, Charlie noted that the café / bakery will be open in the morning until six in the evening and that the restaurant will be open at five in the evening; there will only be an overlap of an hour and he does not anticipate parking to be a big concern.

Chair Charlie Frizzle opened the meeting to public comment. Hearing none, the public comment period was closed.

**MOTION BY BILL DANA THAT ALL APPLICABLE PRIOR CONDITIONS RELATING TO THIS AMENDMENT REMAIN IN EFFECT, IN ADDITION TO ANY NEW CONDITIONS CONTAINED HEREIN. MOTION SECONDED BY SANDE UPDEGRAPH, APPROVED UNANIMOUSLY.**

**MOTION BY MARGARET WILSON THAT THE AMENDED SITE PLAN APPLICATION IS APPROVED WITH THE FOLLOWING CONDITIONS ADDED TO PRIOR CONDITIONS CURRENTLY IN PLACE:**

1. That the Board's review and approval does hereby refer to the plans and materials submitted by the applicant and the written and oral comments of the applicant's representatives, reviewing officials and members of the public as reflected in the public record and that any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require review and approval in accordance with the Brunswick Zoning Ordinance.
2. Prior to issuance of a building permit, a photometric plan for the proposed development shall be submitted for the review and approval of the Directors of Public Works and Planning and Development.
3. Prior to issuance of a building permit, a winter stormwater plan that addresses winter thaw and freeze conditions from the greenhouse roof shall be submitted for the review and approval of the Town Engineer.

**MOTION SECONDED BY JEREMY EVANS, APPROVED UNANIMOUSLY.**

**3. Case # 16-031 – 35-39 Pleasant Street (St. John’s Church)** – The Planning Board will review and take action on a Common Development Plan for the two (2) phased construction of a new 14,685 square foot events center, and a 13,200 square foot two-story school building and various site alterations at 35-39 Pleasant Street (Map U16, Lots 47-48).

Jared Woolston introduced the Common Development Plan for St. John’s All Saints Parish and reviewed the project summary dated July 26, 2016.

The applicant representative, Joe Marden, presented a PowerPoint presentation reviewing the process that they must go through for the Common Development Plan, current zoning, project overview, phased development, proposed lot layout, proposed uses and floor plan for the multi-use events center, and different contextual views of the proposed building and abutting buildings.

**MOTION BY BILL DANA THAT THE COMBINED SKETCH/FINAL MAJOR DEVELOPMENT REVIEW COMMON DEVELOPMENT PLAN APPLICATION IS DEEMED COMPLETE. MOTION SECONDED BY JEREMY EVANS, APPROVED UNANIMOUSLY.**

Bill Dana pointed out that there is a discrepancy over the lot size and asked what the actual lot size was. Joe Marden replied that the lot is 4.68 acres. Bill asked if the parking lot would accommodate a school bus. Joe replied that the parking lot has to accommodate a fire truck so a school bus should have no issues. Margaret Wilson asked how they plan to heat and cool the events center as she does not see any HVAC equipment. Charlie Wiercinski replied that they do not have an answer to this yet as this is still preliminary. Sande Updegraph asked why the architect said that it would be difficult to move the events center over. Charlie Wiercinski

replied that the issue is that they would like to fence off the construction and still be able to pass between the convent building and the events center. In addition, they would like to build the center along the setback line. Anna Breinich added that the reason why they were asked to move the building back was because of concerns from the neighbors. Anna added that mass and scale are concerns of the Village Review Board. Anna said that the way the two proposed buildings are connected may be an issue with the new ordinance as they move forward and said that right now they do not allow for a connection of a breezeway / covered walkway between two buildings as it is considered a structure and would be part of a single footprint. The center and school would then well exceed what is allowed. Charlie Wiercinski asked if the canopy doesn't touch the building, would it still be considered one structure. Anna replied "no".

Chair Charlie Frizzle opened the meeting to public comment.

Pollyann Melton, resident of 8 Cedar Street, said that she is happy with all the landscaping that this project has proposed, but is saddened that nearly all the historic trees will have to be removed. Pollyann said that Cedar Street enjoys the very leafy environment respective of the old trees and that with nearly all new trees, the environment will feel a little like a suburban mall. Pollyann asked how the revised site plan will affect the operation of the fair; will it be closer to the Cedar Street homes. Charlie Wiercinski replied that they will not be planting all the same types of trees and in terms of the fair, there have been discussions about moving some of the booths that are currently located outside, inside the building or possibly moving the fair to another location such as Brunswick Landing.

Stew Russell, Topsham Physician and father of two children who graduated from St. Johns, said that the current school has been inadequate for some time and the locations, such as the former Knights of Columbus, where events were held, have been sold. Joe said that while he likes the trees, he would choose the education of the young people who would be able to attend the new facility over the trees as the children will be the future of this community.

Pollyann Melton said that they currently have some protection from Pleasant Street by virtue of the school and the convent building and the plan will open the four lots abutting the neighborhood. Pollyann asked that heavy evergreen and vegetation buffer be placed along the edge of the parking lot so as to mitigate any noise and view from Pleasant Street. Charlie Frizzle pointed out that the applicant has stated that they are willing to work with the neighbors on buffers as this application moves forward. Jane Arbuckle asked if there was any way to save the trees. Charlie Weircinski replied that even if they keep the all the trees, they will be impacted to the point where they will eventually pass.

**MOTION BILL DANA THAT THE BOARD APPROVES THE FOLLOWING  
WAIVERS AS CONDITIONED:**

1. Sec. 413.3 (D) – showing locations of all signs is waived provided specific sign locations shall be addressed at the time of Final Site Plan review.

2. Sec. 413.3 (E.2 & 4) – showing photometric site plan of lighting treatment is waived provided existing site lighting is maintained until the construction of Phase II is approved and the locations of fixtures shall be addressed during Phase II Site Plan review.

3. Sec. 413.3 (F) – a master landscaping plan with complete plant list and sizes is waived provided the final plan includes plans that acceptably demonstrate the theme of accenting the buildings, screening parking areas, as well as providing shade, color and interest in parking areas through the use of ornamental trees and shrubs.

**MOTION SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.**

**MOTION BY MARGARET WILSON THAT THE MAJOR DEVELOPMENT REVIEW FINAL COMMON DEVELOPMENT PLAN IS APPROVED WITH THE FOLLOWING CONDITIONS:**

1. That the Board’s review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, its representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.
2. That the dimensional and density standards as approved shall be placed on the common development plan.
3. That the size and materials for business identification signs shall be determined at the time of Final Site Plan review.
4. That existing site lighting shall be maintained until the construction of Phase II is approved and the locations of fixtures shall be addressed during Phase II Site Plan review.
5. That a master landscaping plan with complete plant list and sizes is provided that demonstrates the theme of accenting the buildings, screening parking areas, as well as providing shade, color and interest in parking areas through the use of native trees and shrubs at the time of Final Site Plan review.
6. That the proposed development is comprehensively reviewed for traffic and access of vehicles, bicycles, and pedestrians at the time of Final Site Plan review.

**MOTION SECONDED BY SANDE UPDEGRAPH, APPROVED UNANIMOUSLY.**

**4. 946 Mere Point Road:** At the request of Town Council, the Planning Board will offer input and recommendation regarding possible public use of the property.

Charlie Frizzle pointed out that the Planning Board has been copied on all correspondence regarding this parcel and also have the comments made by the Recreation Commission at their last meeting and are aware of the former owner's request that they be allowed to somehow restore their ownership of the property. Charlie said that for discussion tonight, he would like to avoid discussing re-ownership as this is outside the PB purview. Charlie said that the interest of the Board are pretty narrow as they pertain to planning and they should look at what the Comprehensive Plan offers for guidance.

Per Jane Arbuckle's request, Charlie Frizzle provided a summary of what the Recreation Commission recommended for this property. Jane pointed out the key actions of the Comprehensive Plan. Margaret Wilson said that although this is a beautiful site for a small pocket park, it would be a very passive use. Sande Updegraph agreed that this site is not really suitable and would require a major investment to make it suitable. Richard Visser asked about the gravesite. Anna Breinich said that there are gravesites throughout the Town that are mapped and are for the most part protected by easements.

Chair Charlie Frizzle opened the meeting to public comment.

Steve Walker, District 2 Town Councilor and resident of 14 Bowdoin Street, said that the Board is spot on in terms of review. Steve said that if the Town did choose to retain this parcel for public use, any design for use would certainly be seen by the Planning Board for their input. In terms of how to approach this, Steve said that the Comprehensive Plan is a key document as is the Brunswick Parks and Recreation Open Space Plan which the PB assisted in developing. Steve said that in terms of water access, water access shouldn't be limited to being able to put a boat in the water. Steve said that there are rare species and significant wildlife present on this site as well as the historic gravesite and encouraged the Board to think through all the potential uses and Comprehensive Plan goals before making a recommendation.

Heather Osterfeld, resident of Oster Lane, presented a petition for the six abutting neighbors of this property and reviewed her letter to the Board that was handed to Anna Breinich for the records and distribution.

Mr Grey, resident of 19 Eider Cove Road and abutter, pointed out that the view shed is limited to the cove. Mr. Grey said that there are an Eider duck community, Eagles and Blue Herron that can be found in this area. Mr. Grey said that anyone owning waterfront property like the quiet and any density of recreational activity in the area would drive up sound in this area. Mr. Grey stated that water use is ambiguous and limited to the tide, mud flats and the very steep slope. In terms of a view shed, any activity would be more than a single family residence would generate.

Richard Knox, resident of Simpsons Point Road, urged the Board to consider the facts. Richard agrees with a number of the points that Steve Walker made and said that there are very few access points in Brunswick with access for swimmers. Rich said that this property is unique and from a quiet passive recreation point of view, he does not think that you would see the neighbors

or that they would see you. Rich thinks that there is a real opportunity to create public access and public viewing without any negativity to the neighbors.

Mr. Osterfeld pointed out that 946 Mere Point is 100 feet from his residence and is very easily viewable. Mr. Osterfeld reiterated that swimming is ambiguous and that you could only swim at this location two to three hours per day two months out of the year.

Charlie Frizzle provided examples of what the Board would review if the Town decided to retain this property such as habitat, entrance to the parcel and etc. Anna Breinich to draft a letter for consideration for the Board to review / edit at the next meeting.

Decision among Board members to table discussion to the next meeting.

**5. Other Business:** No other business.

**6. Approval of Minutes**

No minutes were reviewed at this meeting.

**Adjourn**

This meeting was adjourned at 9:18 P.M.

Respectfully Submitted,

Tonya Jenusaitis

Recording Secretary

**Revised 7/15/16 to add Item #3**

**BRUNSWICK PLANNING BOARD  
MEETING MINUTES  
SEPTEMBER 13, 2016**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Vice Chair Margaret Wilson, Jane Arbuckle, Bill Dana, Jeremy Evans, Sande Updegraph, and Richard Visser

**MEMBERS ABSENT:** No members were absent from this meeting.

**STAFF PRESENT:** Anna Breinich, Director of Planning and Development; Jared Woolston, Town Planner

A meeting of the Brunswick Planning Board was held on Tuesday, September 13, 2016, in Town Council Chambers, 85 Union Street. Chair Charlie Frizzle called the meeting to order at 7:00 P.M.

**Case #16-022 - Mid-Coast Health Services Final Plan:** The Planning Board will review and take action on a Final Plan Major Development Review application submitted by authorized representatives from Pine Tree Engineering for Mid-Coast Health Services to construct three (3) new parking areas containing one hundred fifteen (115) new parking spaces. The site is located at 123 Medical Center Drive within the CC (Cooks Corner Center) Zoning District, the Medical Use Overlay Zone (MUZ). The parcel contains the Natural Resource Protection Zone (NRPZ), and Rural Brunswick Smart Growth Overlay District - Wildlife Habitat Block, (Map 45, Lot 32).

Charlie Frizzle recused himself from the meeting as a voting member for this project as he serves on many committees connected to Mid-Coast Hospital. Charlie reminded members that he did participate at the Sketch Plan review meeting of June 28, 2016 after hearing no objections as there was no Vice Chair and a limited attendance; Vice Chair Margaret Wilson is in attendance for this meeting.

Margaret Wilson disclosed that her husband is a member of the Health Services Board of Directors and has no financial gain. Margaret asked if there were any objections to her remaining as a voting member as she does not see this as being a conflict of interest. There were no objections from the Board or applicant.

Jared Woolston introduced the application and reviewed the Project Summary dated 8/4/2016.

The applicant representative, John Dewitt, reviewed the three proposed lots, lighting and sidewalk / crosswalk via pdf. John briefly reviewed the stormwater plan and said that they have received verbal approval from DEP. Jane Arbuckle asked if there were any vernal pools in the forested wetlands. John replied that he did not think there were. Jared Woolston added that he did ask this during Staff Review and he was told that there were not any. Jared pointed out that they did identify a small stream near the south parking lot and have decided to build a retaining wall to avoid the NRPZ. Margaret asked if bicycle parking has been added. Jared said that he put this in the findings as part of discussion, but he did not present this to the applicant.

Margaret suggested that a bike rack be part of the conditions for approval. Mike Pinkham, Mid-

Coast Facilities Director, said that the applicant is willing to add a bicycle rack and asked where the rack needs to be located. Margaret suggested that they reach out to the bicyclists to see where they feel a bike rack would fit well. Jane added that they should place the rack in a well-lit and safe area.

Referencing the 48 parking slots adjacent to 81 Medical Center Drive, Margaret Wilson asked if this was for employees; if so, she is concerned with pedestrian safety and suggested a crosswalk. Mike Pinkham replied that there would be a walkway to the crosswalk located near the existing lower parking lots. Mike said that this crosswalk will be used for those going to 81 Medical Center Drive as well as the hospital. Sande Updegraph asked about buffering especially for the lot located in the upper right. Mike replied that they do not intend to plant anything for the specified lot as the area is already heavily wooded and vegetated.

Vice chair Margaret Wilson opened the meeting to public comment. Hearing none, the public comment period was closed.

**MOTION BY BILL DANA THAT THE FINAL PLAN IS DEEMED COMPLETE. MOTION SECONDED BY JEREMY EVANS, MOTION APPROVED UNANIMOUSLY.**

**MOTION BY RICHARD VISSER THAT THE REQUESTED WAIVER OF SECTION 412.2.B.17, LOCATING EXISTING TREES OVER TEN (10”) INCHES IN DIAMETER IS APPROVED. MOTION SECONDED BY SANDE UPDEGRAPH, APPROVED UNANIMOUSLY.**

**MOTION BY JANE ARBUCKLE THAT THE FINAL PLAN IS APPROVED WITH THE FOLLOWING CONDITIONS:**

1. That the Board’s review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, his representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.
2. That prior to starting construction, a copy of the Maine Department of Environmental Protection’s (DEP) approval for the stormwater management plan for the proposed parking lot development pursuant to the Stormwater Management Law is submitted to the Director of Planning and Development.
3. That prior to starting construction, bicycle racks are provided at a rate of 2 bicycles per 10 parking spaces but no more than 20 spaces to the approval of the Director of Planning and Development.

**MOTION SECONDED BY SANDE UPDEGRAPH, MOTION APPROVED UNANIMOUSLY.**

Chair Charlie Frizzle returned as a voting member.

**2. Case #16-019 - Maine Street Station Apartments:** The Planning Board will review and take action on a Sketch Plan Major Development Review request submitted by authorized representatives from Sitelines, P.A. for Noble Street LLC to develop two (2), 3-story apartment buildings each with 12 units for lease at 16 Noble Street as part of the development of Maine Street Station (building Lot 5). The project is located within the Town Center 1 (TC1) Zoning District, (Map U16, Lot 105).

Anna Breinich introduced the application and reviewed the project summary memorandum dated September 9, 2016. Anna said that in the original approval for Lot 5 in 2008 was for mixed use, mainly residential with some retail. After many discussions with several developers, the original developers, JHR, has come back with a proposal of 24 residential units instead of 16 units with parking at 1 space per unit. Parking is being proposed as it was originally approved.

Applicant Representative, Curt Neufeld of Sitelines, presented a PowerPoint presentation and pointed out that the plan included in the packet asks for more on-street parking. Curt reviewed the 2008 concept plan and layout and the site plan. Curt briefly reviewed the landscaping and stormwater management. Curt addressed the easement issues discussed at the Staff Review meeting of August 31<sup>st</sup>.

Ryan Senator reviewed the architecture and said that the proposed buildings are two, 12-unit structures connected by a one-story mechanical room. One building will have access on Station Street and one building will have access on Noble Street. It is the applicant's intent to build energy efficient units. Ryan pointed that they are proposing exterior sliding doors to provide better air flow and more sunlight; an added amenity. Ryan reviewed the elevation facing Station Avenue and Noble Street.

With respects to comments from Jeff Hutchinson at the Staff Review meeting about the setback from the street, Bill Dana asked what they plan to do for fireproofing. Ryan Senator replied that he met with the Jeff Emerson of the Fire Department and Jeff Hutchinson, Codes Enforcement, earlier in the day and they have removed 2 windows on the side where the elevation is five feet from the park. Margaret Wilson asked about the side that is located on the road. Ryan replied that they can measure to the center line of the street to meet this threshold. Charlie Frizzle asked for more information regarding the relationship between the power lines and the buildings. Curt replied that the lines are very close and the construction crew will need to work with CMP to offset the lines when the siding is going up. Curt pointed out that this will only be a construction issue. Charlie asked if all 3 floors would be ADA accessible as he did not notice an elevator shaft in the plans. Ryan replied that the potential for ADA units will be for the first floor only. Charlie asked if the applicant had something drawn up with the Brunswick Inn to address the 3 parking spaces that they still need. Curt replied that they do not have anything at this time. Anna Breinich said that the apartment units and the Inn are under the same ownership and she has spoken with the owner about designating the 3 spots needed. Margaret pointed out that the applicant has requested a parking waiver to reduce the parking from 2 spaces per unit down to 1 space per unit. Charlie replied that given the size of the units, you may not find many 2 family occupants and pointed out that the parking study provided in the packet indicates that there is plenty of parking in this area most of the time. Bill asked if Bowdoin College will still have

parking privileges once they vacate the 3<sup>rd</sup> floor of the municipal building. Anna replied that this would need to be determined at that time. Anna said that staff has suggested to the applicant, that they contact Bowdoin about additional parking. Anna said that the parking audit was done in July, but it still indicated that there was plenty of parking.

Margaret Wilson said that she understand that the developer wants to develop the lot, but given the mass of the buildings, she concerned that there is not even a place for a tree to be located on Lot 5 in an area with a lot of parking space that is located in a critical part of town. Margaret pointed out that the Bowdoin lot is nicely landscaped and buffered. From a massing perspective, Margaret said that she would have preferred to see the building on the Noble Street side only 2-stories high. Sande Updegraph asked what happened to the original proposal for underground parking. Curt replied that it can be very expensive and sometimes you still cannot get the amount of adequate spaces required. Curt pointed out that the original plan had some tight plantings along the sidewalk and said that they do plan on placing some plantings along the foundation. Anna suggested window boxes especially along the front of the building on either side. Curt said that he would make a note of the suggestion. Anna said that she mentioned the idea of a rain garden to the applicant as this would be a functional space as well as adding green space. Richard Visser asked about noise from the HVAC. Curt replied that the units will be set back from the road and screened by the buildings but they may be able to place a fence up to block the sound further to nearby homes.

Vice Chair Margret Wilson opened the meeting to public comment. Hearing none, the public comment period was closed.

**MOTION BY JEREMY EVANS TO DEEM THE SKETCH PLAN APPLICATION COMPLETE. MOTION SECONDED BY BILL DANA, MOTION APPROVED UNANIMOUSLY.**

**MOTION BY CHARLIE FRIZZLE THAT THE BOARD APPROVES THE SKETCH PLAN. MOTION SECONDED BY BILL DANA, MOTION MOVED UNANIMOUSLY.**

Anna Pointed out that the name for this project is Maine Street Station Apartments.

**3. TO BE RESCHEDULED WITH NOTIFICATIONS PROVIDED.** ~~Case #16-041-12 Bunganue Landing Road Shoreline Stabilization: The Planning Board will review and take action on a combination Sketch/Final Plan Major Development Review application submitted by authorized representatives from Walsh Engineering for Benjamin Carey's shoreline stabilization activity that results in excess of 100 cubic yards of filling and earthmoving on a mapped highly unstable bluff, and the 100-year floodplain adjacent to tidal waters (coastal wetlands) as designated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps within the Natural Resource Protection Zone (NRPZ). The project is located in the Coastal Protection Zone (CP1) Zoning District, (Map 29, Lot 35).~~

**4. ADDED ITEM. WORKSHOP** – Discuss removal of a condition of approval (residential sprinkler requirement) for the previously approved subdivision #06-058, Lulwe Ridge Subdivision located at Safari Drive and Nyasa Lane (Map 5, Lots 4, 33, 42-51). This workshop is scheduled at the request of a property owner within the subdivision.

Margaret Wilson briefly reviewed the history behind the sprinkler condition and pointed out that the Fire Department is not wavering in their decision to require the sprinkler system. Margaret said that the workshop is to discuss whether the Planning Board would be willing to forgo requiring sprinkler systems for the two homes already under construction. Anna Breinich said that there have been quite a few discussions with the developer and that after tonight, any changes would have to be an amendment to the approved subdivision.

Chris Klien, applicant representative, asked if there were any questions. Jane Arbuckle asked if there were any less alternative sprinkler systems. Chris replied that from his understanding the system has to be in the garage and basement and the system that they have quoted is on the less expensive side. Margaret Wilson asked what the reasoning was behind the Fire Department's decision. Chris replied that he was told that not having the sprinkler system was a potential liability for the Town. Chris said he spoke with the Town Manager who spoke with the Town Attorney and the Town Attorney is not concerned with any liability to the Town. Chris disagrees with the Fire Department decision. Chris pointed out that there are a few houses down the road that do not have sprinkler systems and a few houses on Collinsbrook Road that are not required to have sprinkler systems. Anna said that she has reviewed the entire file looking for a resolution and the only resolution she could find was to drop this as a condition. Charlie Frizzle said that he is reluctant to set a precedent for undoing what the Board required in the beginning. Anna said that this oversight of the system is not the only issue that staff is dealing with and discussed other issues that they are addressing with the subdivision. Jane Arbuckle stated that she feels that they need to find a resolution and asked what their options are. Chris pointed out that a house was built in 2009 in the subdivision that was also supposed to have a sprinkler system; the system was either waived or missed as they do not have a sprinkler system. Anna said that she believes that the system may have been missed and noted that the people involved in the construction of this house were involved in the subdivision development. Chris said that when he received the plans for his lot he was only given page 2 of the subdivision plans by the realtor. Another owner in the subdivision signaled that they only received page 2 as well. Chris briefly reviewed the new realtor listings and said that since this subject has been brought to light, the site says that the Town may not waive the sprinkler system requirement. Chris pointed out that the owner of Lot 6 is serving in Iraq and he was finally able to touch base with him, the owner stated that he was also unaware of this provision. Consensus among the Board to consider waiving the sprinkler system for the 2 lots under construction and the 1 lot whose owner was not aware of this requirement.

**5. Other Business:** Sande Updegraph provided a brief report of the bridge sub-committee.

**6. Approval of Minutes:**

**MOTION BY CHARLIE FRIZZLE TO APPROVE THE MINUTES OF DECEMBER 8, 2015. MOTION SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY AMONG THOSE PRESENT.**

**MOTION BY SANDE UPDEGRAPH TO APPROVE THE MINUTES OF MAY 31, 2016. MOTION SECONDED BY CHARLIE FRIZZLE, APPROVED UNANIMOUSLY.**

**MOTION BILL DANA TO APPROVE THE MINUTES OF JUNE 14, 2016. MOTION SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.**

**MOTION BY JEREMY EVANS TO APPROVE THE MINUTES OF JUNE 28, 2016. MOTION SECONDED BY BILL DANA, APPROVED UNANIMOUSLY AMONG THOSE PRESENT.**

**Adjourn**

This meeting was adjourned at 8:31 P.M.

Respectfully Submitted,

Tonya Jenusaitis

Recording Secretary

**REVISED 9/7/16**

**BRUNSWICK PLANNING BOARD  
WORKSHOP MEETING MINUTES  
SEPTEMBER 26, 2016**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Vice Chair Margaret Wilson, Jane Arbuckle, Bill Dana, Sande Updegraph, and Richard Visser

**MEMBERS ABSENT:** Jeremy Evans

**STAFF PRESENT:** Anna Breinich, Director of Planning and Development; Jared Woolston, Town Planner; Jeff Hutchinson, Codes Enforcement Officer

A meeting of the Brunswick Planning Board was held on Monday, September 26, 2016, in Town Council Chambers, 85 Union Street. Chair Charlie Frizzle called the meeting to order at 6:30 P.M.

**1. Workshop: Draft Zoning Ordinance Review – Chapter 5, Administration**

Chair Charlie Frizzle opened the meeting to public comment that does not pertain to the agenda. Hearing none, the public comment period was closed.

Charlie Frizzle provided a brief background of Chapter 5 and said that the Administrative Section has changed little from what the Planning Board changed 4 years ago. Anna Breinich noted that this meeting was not streaming live, but will be available for streaming and shown on channel on Brunswick TV3 on Saturday. Anna reviewed the changes and formatting since the last draft. Members made suggested formatting and language changes. Anna to review Section 4.1.1 and 4.1.2 to make sure that the language is applicable for development review. Staff to review Change of Use Permit, Permit Required language further as it pertains to the Village Review Zone. Jeff Hutchinson explained the Change of Use permit; when it is required and when it is not. Carol Liscovitch expressed her concern regarding the window of opportunity for the Conditional use Permit, Review Procedure. Anna replied that the 14 days is the amount of time that staff has to forward to the applicant written documentation regarding the Planning Board's decision; this decision is made at a Planning Board meeting. Charlie pointed out that this time frame is no different from what the Planning Board does with all of their development review. Carol Liscovitch explained the origin of Conditional Use and Special Permits the intent. Anna noted that Jared Woolston has updated the General Criteria for the SPO District and said that this will be coming to the Planning Board shortly. Members discussed Development Review Activities Not Subject to Development Review, Item b., and it was decided to leave draft language as is. Members agreed that the changes to the Development Threshold Criteria Table make the table much easier and clearer to understand. Jared said that the Filling and Earth Moving Activities portion of the table still needs to be filled in and language drafted. Margaret Wilson asked if they have done something regarding the language for trees over 10 inches in diameter; staff to look into this and draft language.

**Adjourn**

This meeting was adjourned at 8:12 P.M.

Respectfully Submitted,

Tonya Jenusaitis

Recording Secretary

**BRUNSWICK PLANNING BOARD  
MEETING MINUTES  
SEPTEMBER 27, 2016**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Vice Chair Margaret Wilson, Jane Arbuckle, Bill Dana, Sande Updegraph, and Richard Visser

**MEMBERS ABSENT:** Jeremy Evans

**STAFF PRESENT:** Anna Breinich, Director of Planning and Development; Jared Woolston, Town Planner

A meeting of the Brunswick Planning Board was held on Tuesday, September 27, 2016, in Council Chambers, 85 Union Street. Chair Charlie Frizzle called the meeting to order at 7:00 P.M.

~~**1. Case #16-041 – 12 Bunganue Landing Road Shoreline Stabilization:** The Planning Board will review and take action on a combination Sketch/Final Plan Major Development Review application submitted by authorized representatives from Walsh Engineering for Benjamin Carey’s shoreline stabilization activity that results in excess of 100 cubic yards of filling and earthmoving on a mapped highly unstable bluff, and the 100-year floodplain adjacent to tidal waters (coastal wetlands) as designated on the Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate Maps within the Natural Resource Protection Zone (NRPZ). The project is located in the Coastal Protection Zone (CP1) Zoning District, (Map 29, Lot 35).\*~~

~~**2. Case #16-035 – Cumberland Farms:** The Planning Board will review and take action on a Final Plan Major Development Review application submitted by authorized representative Sandra L. Guay for a proposed Cumberland Farms retail store with fuel service and associated canopy at 190 Bath Road in the Cooks Corner Center (CC) Zoning District; (Map CC1, Lot 28).\*~~

**3. Case # 16-031 – 35-39 Pleasant Street (St. John’s Church)** – The Planning Board will review and take action on a Sketch Plan for Phase 1 of a two (2) phase development of the All Saints Parish property. Phase 1 includes a new 14,685 square foot multi-use building and various site modifications including the construction of new walkways and a utility driveway at 35-39 Pleasant Street primarily within the Intown Railroad Corridor (MU2) Zoning District (Map U16, Lots 47-48).

Jared Woolston introduced the Sketch Plan application for Phase I and reviewed the project summary Memo to the Board dated September 23, 2016.

The applicant representative, Kevin Clark, presented a PowerPoint presentation and provided a project overview. Kevin reviewed draft renderings and setbacks from the street and adjacent areas. Charlie Frizzle reminded the Board members and audience that this meeting is to determine whether or not the application meets the dimensional requirements as established by the Zoning Ordinance. Jared Woolston pointed out that the application, staff Memo and PowerPoint all have a different number for the impervious surface and asked what number they

should be using. Kevin replied that for Phase I, the impervious surface will be 63.5% and this will be a larger than the final amount of impervious surface. Jared pointed out that this number is still less than the 75% allowed. Charlie noted that there were a lot of questions raised at the Staff Review meeting of September 20<sup>th</sup> and those questions were answered at this level. Charlie asked if members wanted to discuss any of the Staff Review concerns / questions again. Sande Updegraph asked for more clarification regarding the service road. Kevin replied that they are going to do a “T” type, hammerhead turn. Kevin pointed out the proposed parking area and added that this will also serve for Emergency and Fire access. Charlie asked Anna Breinich for clarification on her alternative to another driveway as suggested at the Staff Review meeting. Anna replied that she had spoken to the Deputy Fire Chief before suggesting that the applicant see if there was a way to get an easement / shared driveway against the rear of the property line near the red brick building. Kevin pointed out the area in discussion on the plan and said that the property line is right along their garage. Anna said that what she was suggesting was an easement for emergency access only. Anna also questioned whether or not it is necessary to have entries to the first doorway with the second doorway to the kitchen. Anna said that John Foster’s concern is with backing up. Charlie replied that with a hammerhead there would be no need for backing up. Kevin replied that they will look into this further.

Chair Charlie Frizzle opened the meeting to public comment.

Mitchell Brown, resident of 46 Pleasant Street, said that his concern is the impact this very large building will have on the neighborhood. Mr. Brown said that he understands that this is not the concern of the Planning Board this evening, but as he said at the Village Review meeting of 9/20/2016, he would hope that an effort would be made to make the building consistent with the neighborhood and an appropriate size for its proposed use. Mr. Brown said that in a meeting with St. John’s, Father Murry said that the building would be rented out to generate income. Although the applicant has since backed out of this intention, the size of the building has not changed to reflect this change of perspective. As a neighbor, Mr. Brown would hope that St. John’s and the Planning Board consider his and his neighbors’ concerns as Planning and Development is charged with helping to protect its community; the neighborhood is the community. Mr. Brown said that the VRB tabled its decision in rendering a Certificate of Appropriateness given their reservations over the mass and scale of the building and pointed out that should the VRB deny a COA, the Planning Board cannot approve the final draft of the plan. Mr. Brown asked that although this is only a Sketch Plan application, shouldn’t those reservations be considered? Mr. Brown suggests that representatives of St. John’s Parish consider the opposition that the neighborhood / community may have against the size of the proposed building. Mr. Brown said that the bird’s eye rendering from the north east, as included in the packet materials, does not reflect proper scale and said that an effort was made to scale down the size of the proposed building to surrounding buildings. Based on the square footage, the new building is 3,000 sq. ft. bigger than the two buildings combined that exist at the rear of the property now. As a concerned member of the community, and a neighbor of St. John’s Parish, Mr. Brown hopes that these concerns are considered.

Chair Charlie Frizzle closed the public comment period.

Charlie Frizzle said that without knowing what the Village Review Board will decide with the revised plans, he is not sure that the Planning Board can comment on the questions posed by Mr. Brown. Margaret Wilson asked if the gym would serve as the cafeteria during the construction of Phase I. Kevin Clark replied that the gym will serve as the cafeteria during Phase I and II as well as a spot for functions, assembly's and other parish related activities. Margaret asked if this is a full sized high school basketball court. Kevin replied that it is the standard size for middle – high school basketball. Charlie Wicerzinski added that through this gym, they are trying to replace the cellar of the church for assembly's as it has inadequate fire and safety issues. The gym also be able to safely accommodate roughly 600 people. Margaret agreed that the decision tonight is based on the dimensional requirements of the ordinance. Anna Breinich said that the VRB did table their decision because of the way mass and scale was addressed. Another concern that they had was that there was no pedestrian scale at the façade level facing Pleasant Street; the architect is looking into this for the next VRB meeting.

**MOTION BY BILL DANA THAT THE BOARD DEEMS THE SKETCH PLAN TO BE COMPLETE. MOTION SECONDED BY SANDE UPDEGRAPH, MOTION APPROVED UNANIMOUSLY.**

**MOTION BY MARGARET WILSON THAT THE BOARD APPROVES THE SKETCH PLAN. MOTION SECONDED BY SANDE UPDEGRAPH, APPROVED UNANIMOUSLY.**

**5. Other Business:**

- Reminder that the next meeting on October 4<sup>th</sup> will be zoning ordinance related and will be starting at 6:00.
- Sande Updegraph provided an update on the bridge design committee meeting of September 14<sup>th</sup>.

**6. Approval of Minutes:** No minutes were approved at this meeting.

**Adjourn**

This meeting was adjourned at 7:38 P.M.

Respectfully Submitted,

Tonya Jenusaitis

Recording Secretary

**\*Agenda item removed and rescheduled for 10/11/2016**

**BRUNSWICK PLANNING BOARD  
WORKSHOP MEETING MINUTES  
OCTOBER 4, 2016**

**MEMBERS PRESENT:** Chair Charlie Frizzle, Jane Arbuckle, Bill Dana, Richard Visser (arrived at 6:39), and Sande Updegraph,

**MEMBERS ABSENT:** Vice Chair Margaret Wilson and Jeremy Evans

**STAFF PRESENT:** Anna Breinich, Director of Planning and Development; Jared Woolston, Town Planner; Codes Enforcement Officer, Jeff Hutchinson

A meeting of the Brunswick Planning Board was held on Tuesday, October 4, 2016, in Council Chambers, 85 Union Street. Chair Charlie Frizzle called the meeting to order at 6:00 P.M.

Chair Charlie Frizzle opened the meeting to public comment to any item not on the agenda. No comments were made and the comment period was closed.

1. **WORKSHOP:** The Planning Board will hold a workshop to review the Zoning Ordinance Rewrite Committee (ZORC) revisions for the following ordinance sections:
  - a. As requested by the Planning Board during workshop session for additional review by the ZORC: Anna Breinich said that in an attempt to make the changes easier, she has tried to identify what items belong to which topic.
    - i. Use of Pesticides in the Aqua Protection Overlay: Anna Breinich provided a brief background on the use of pesticides and summarized the letter from Alan Frazier of the Water District. Charlie Frizzle said that the decision of ZORC was to leave the language as is. Jane Arbuckle said that this item should be discussed as invasive species are taking over in some areas and pesticides deserve some consideration as manual labor to remove some types of invasives would be overwhelming. Charlie suggested that they schedule a Planning Board joint workshop with the Water District and start the discussion.
    - ii. Home Occupations: Anna Breinich reviewed the reworking of the Home Occupations Section and pointed out that Brunswick is the least restrictive with regards to Home Occupations then other surrounding Towns. Anna reviewed the changes. Discussion over what is allowed in single and multi-family units with regards to home occupations. Jane Arbuckle objects to not allowing a home occupation in an apartment. Anna said that they did this based on impact and this goes back to the performance standards. Anna pointed out that they have exempted telecommunication. Decision to redefine telecommuting. Members suggested language changes.
    - iii. Height Limitation Restrictions and Front Yard Setbacks Relative to Roof-top Solar Panels: Anna Breinich said that they will come back to this.

- iv. Section 4.3.3 Protection of Natural Vegetation Relative to Scenic Areas/Maintaining Existing Vegetation along Roads in Rural Areas: Anna reviewed the changes and said that the scenic areas are identified in plans and in the Comprehensive Plan. Tom Farrell of the Parks and Recreation Department replied that some of the scenic locations include Crystal Springs Farms, some costal vistas, and some areas along the river. Charlie clarified that the language is meant to clarify the identified buffers. Anna said that the reason why this language was changes was for development review. Anna will take another look at this to make sure that specific corridors are identified.
  - v. Fire Protection / Water Supply: Anna said that ZORC has opted to leave the language as proposed after discussions with the Fire Department. Charlie provided a brief summary of the discussion with the Fire Department.
  - vi. Outdoor Lighting Standards for Public Streets / Right-of-Way: Anna reviewed the changes. Jane clarified that this change only applies to new streets.
  - vii. Architectural Capability (Sec 4.11.2) - Materials, Textures and Colors: Anna reviewed the deleted language. Staff suggested langue revisions. Katherine Ferdinand, of Bowdoin College, said that she forward to staff language for Section 4.11.2.g and asked if this proposed language had been reviewed as it was sent via email earlier in the day. Anna replied that she did receive the language and although she did not interpret the language the same way as Katherine, the language did need to be cleared up. Anna said that these changes will come back before the Board at a future meeting.
  - viii. Chapter 5 – Administrative Revisions, including Appendix D – Summary of Application Requirements: Anna reviewed the changes and substantive changes. A comment was made from the audience asking if they could say diameter of trees “10 inches or larger”. Anna replied that they could.
- b. ZORC newly-revised sections as follows: Charlie Frizzle pointed out the following language has not yet been discussed by ZORC and asked that any comments be saved for the next Planning Board work session.
    - i. Shoreland Zoning Revisions: Anna pointed out that the reason why Shoreland Zoning is all over the place is because this is how the ordinance has developed over the years. Anna said that they are trying to get some of the basics back into the ordinance that have been deleted.
    - ii. Stormwater Management Revisions: Charlie Frizzle explained the langue for the executive summary portion of the Stormwater Management Section. Jared Woolston reviewed the proposed language and provided explanations where applicable. Discussion over nutrient load and pervious and impervious.
    - iii. Revised Solar Energy Collection Facilities: Anna said that this is language from a revised ZORC discussion. Anna said that they are now looking at two categories, one being small that would be allowed in town and one being large scale that would be

- allowed in certain districts. Anna pointed that they deleted fencing requirements for large scale ground mounted systems.
- iv. **Recreation Requirement and Methodology:** Anna said that this section was jointly worked on by a consultant that the Parks and Recreation Department had hired to do the beginning of the ordinance draft itself. Together staff put together a proposal that was reviewed by ZORC and the Recreation Commission. Anna said that the biggest changes is that this will apply for any new newly constructed residential construction. The second biggest changes is the criteria changes in the standard. The third biggest change is the way the fee is calculated; the recreation commission will retain their authority over determining a fee or recreational land in lieu. Tom explained the purpose of the Impact Fee Methodology Table. Tom added that one of the issues with the current ordinance is the fact that there has not been enough specificity on the amount of land offered by the developer. Allison Harris, Town Councilor, said that the Town Council finds it much more efficient to have one page listing all the fees so that when the fee's need to be changed, they are not all over the place. Discussion between Jeff Hutchinson and Tom Farrell regarding mobile homes and when they trigger a building permit.
  - v. **Signs:** Anna said that the sign section is something they really need to make sure passes the constitutionality test and provided a summary of changes. Anna pointed out that they can regulate the size, type and location of a sign only. Anna noted that they updated campus type (Bowdoin, Brunswick Landing, Mid-Coast Hospital, etc.) signs and reviewed those changes. Charlie Frizzle stated that they may want to research on how to define free standing yard signs. Discussion over temporary motor vehicle signs; decision to review further. Richard Visser suggested alphabetizing the sign list.

**Other Business:**

**Complete Streets:** Anna Breinich provided a brief summary regarding Complete Streets Policy.

**Adjourn**

This meeting was adjourned at 8:13 P.M.

Respectfully Submitted,

Tonya Jenusaitis

Recording Secretary