

Project TITLE		Auburn Street Affordable Housing & Historic Preservation		
Submitted attachments posted as part of this document on the Newton CPC website, <a href="http://www.newtonma.gov/cpa">www.newtonma.gov/cpa</a>				
REQUIRED.		PHOTOS	of existing site or resource conditions (2-3 photos may be enough)	
		MAP	of site in relation to nearest major roads (omit if project has no site)	
REQUIRED for full proposal.	PROJECT FINANCES printed and as computer spreadsheets, with both uses & sources of funds			
		development pro forma/capital budget: include total cost, hard vs. soft costs and contingencies, and project management time from contractors or staff		
		operating/maintenance budget, projected separately for each of the next 10 years – including Price Ctr congregate housing		
		description of planned ownership structure (condominium)		
		rental subsidy, if any: sources, commitment letters or application/decision schedules		
		market analysis: including prevailing/trending rents or prices & target population		
		affirmative marketing & resident selection plan		
		non-CPA funding: commitment letters, letters of inquiry to other funders, fundraising plans, etc., including both cash and est. dollar value of in-kind contributions		
		purchasing of goods & services: briefly summarize sponsor's understanding of applicable state statutes and City policies		
REQUIRED for full proposal.	✓	HISTORIC SIGNIFICANCE	attachments analyzing historic significance and significant features, and showing how project meets national preservation standards	
REQUIRED for full proposal.	PROJECT SPONSOR FINANCES & CAPACITY			
		most recent annual operating budget & audited financial statement		
		transition plan, mission & current housing portfolio, including how this project fits both		
		previous similar projects completed, with photographs		
		fair housing: training completed, past complaints & their resolution		
		Boards of Directors & project managers/team: list skills, experience, tenure & affiliations (incl. City boards or commissions)		
	SITE CONTROL, VALUE & DEED RESTRICTIONS			
		deed		
		appraisal by independent, certified real estate appraiser		
		owner's agreement to permanent deed restrictions for affordability & historic preservation		
	ZONING & PERMITTING			
		✓	short email confirming review by the Development Review Team (DRT)	
		✓	brief property history: at least the last 30 years of ownership & use	
		✓	environmental mitigation plans: incl. lead paint, asbestos, underground tanks & results of phase 1 environmental assessment (summary included – full report posted separately)	
		✓	zoning relief and permits required: incl. parking waivers, demolition or building permits, comprehensive permit or special permit	
			other approvals required: local & state historical commissions, disability & architectural access boards, etc.	
	DESIGN, CONSTRUCTION & ACCESSIBILITY			
			home inspection report by a licensed professional, for rehabilitation (posted separately)	
		✓	site plan, floor plans & elevations	
		architectural access worksheet: highlight accessibility in excess of legal requirements		
		reasonable accommodation/reasonable modification policy		
	✓	scope of construction work: highlight "green" or sustainable features & materials		
OPTIONAL		LETTERS of SUPPORT	from Newton residents, organizations, or businesses	

## Historic Significance

**Attachment: Analysis of Historical Significance, Description of Historically Significant Features, Summary and Justification of Proposed Treatment, and Confirmation of Historical Significance**

236 Auburn Street Newton MA

The Huestis-Hazen House was constructed ca. 1868 as a single family home. Benjamin Huestis is the probable builder. Heustis, born in 1808, moved to the United States, from his native Nova Scotia, in 1845, and, after settling in Brookline MA, moved to 236 Auburn Street ca. 1868. The 1870 census indicates the Heustic family living at 236 Auburn, where Benjamin and his sons practiced carpentry. After his death, the house was foreclosed and sold to Charlotte Hazen, wife of Henry, who established several Congregational churches in eastern New England, and where he acted as editor for the yearbooks of the National Council of Congregational Churches of the United States. Hazen's daughter Charlotte lived at 235 Auburn until 1955; her executor sold the house in 1957 to a third owner, Vandie Porter who owned the property until 1986 (fourth owner undocumented). A fifth owner, Peter Perel owned the property until December of 2016, when the Citizens for Affordable Housing in Newton Development Company (CAN-DO) purchased the property.

The house is located currently in a dense residential setting of single and multi-family dwellings of the late Nineteenth and Twentieth Centuries. The two and one half frame house has a three bay front façade with a low sloped roof at the open entry porch.

The architectural style is an example of Italianate domestic architecture common in Newton's early suburban development. The extended eave and its returns are heavily bracketed with pairs of supports at each corner. The deeply set, front and side windows have high corniced, bracketed heads and scrolled sills. A pair of narrow arched windows are located over the entry between second floor single double hung windows. Wood clapboards, corner/water table/frieze trims are found on the front and side exterior walls.

The existing main house plan is rectangular, measuring approximately twenty-one feet by thirty-seven feet. A small addition, unknown to be one or two stories in height, likely was at the rear of the main house, and might have included a kitchen and/or other service rooms. The current rear additions are not original and do not carry the detail of the main house; roofs intersect awkwardly, and siding courses do not align as well as window and eave trims are minimal. Foundation evidence indicates that the first floor east bay is not original, and its details vary from the character of the original house.

The interior of the house has been significantly altered with no evidence of the original materials, excepting a marble fireplace surround. Original stairways, door, window, trim, flooring and ceilings are missing; original partitioning has been removed, and the rear additions, housing two additional dwelling units are not in character with the original architectural style.

Citizens for Affordable Housing in Newton Development Company proposes to remove the rear additions, restore the exterior of the main house to its original components, renovate the interior for a single family three bedroom home, and add a small one story, addition to the rear, in character with the restored siding and details.

A small two family two story dwelling and a one story congregate house will be added toward the rear of the 18, 700 + square foot lot, behind the main historic home.

The City of Newton Historic Commission recognizes the historical significance of 236 Auburn Street and supports the proposal by CAN-DO for its development of the property.

**National Preservation Standard by Department of Interior Statement:**

The Secretary of the Interior's standards for rehabilitation have been reviewed and will be met for the exterior of the 1868 House.

This was confirmed by the project architect Terrence G. Heinlein, AIA

**Actions of Mass Historical  
and Newton Historical**



January 23, 2017

**The Commonwealth of Massachusetts**  
William Francis Galvin, Secretary of the Commonwealth  
Massachusetts Historical Commission

Rachel Powers  
Community Development Programs Manager  
City of Newton, Massachusetts  
Department of Planning and Development  
1000 Commonwealth Avenue  
Newton, MA 02459

RE: Can-Do Housing, 236 Auburn Street, Newton, MA; MHC# RC.61470

Dear Mr. Powers:

The Massachusetts Historical Commission (MHC) has reviewed the information you submitted, received December 23, 2016, concerning the proposed project referenced above. The subject property at 236 Auburn Street, historically known as the Benjamin Huestis -- Henry Allen Hazen House, is included in MHC's Inventory of Historic and Archaeological Assets of the Commonwealth. After a review of the information submitted, MHC staff have the following comments.

The proposed project including the partial demolition and renovation of a nineteenth century house, and the addition of a two-family modular duplex building and a five-bedroom congregate house on an 18,000-square-foot lot, is described in the Project Notification Form that was submitted to this office, received December 23, 2016. Demolition is proposed for two twentieth-century additions. The building, with the additions removed, will be relocated onto a new poured-in-place concrete foundation.

At this time, the MHC is unable to determine what effect the proposed project will have on the property indicated above. The MHC requests the following information. Please provide current original photographs of the subject property and adjacent properties, keyed to a sketch map. Photographic coverage of the exterior and interior of the subject property must be extensive so the MHC can accurately discern the existing historic integrity of the subject property and its context. Please provide a copy of the project plans, elevations, and proposed perspective views. The MHC looks forward to receiving and reviewing the above requested information.

Please submit a copy of the above requested information and a copy of the information submitted to the MHC thus far, to Nancy Grissom, Chairperson, Newton Historical Commission, 1000 Commonwealth Avenue, Newton, MA 02459. The MHC looks forward to receiving and reviewing the comments of the Newton Historical Commission.

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), and M.G.L. Chapter 9, sections 26-27C, as amended by Chapter 254 of the Acts of 1988 (950 CMR 71.00). Please do not hesitate to contact me at this office if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ryan T. Maciej".

Ryan T. Maciej  
Preservation Planner  
Massachusetts Historical Commission

xc: Martha Cullen, HUD  
Dan Tobyne, HOME  
Newton Historical Commission



**City of Newton, Massachusetts**  
 Department of Planning and Development  
 1000 Commonwealth Avenue Newton, Massachusetts 02459

Telephone  
 (617) 796-1120  
 Telefax  
 (617) 796-1142  
 TDD/TTY  
 (617) 796-1089  
 www.newtonma.gov

Setti D. Warren  
 Mayor

Barney S. Heath  
 Director

**RECORD OF ACTION:**

**DATE:** April 3, 2017  
**SUBJECT:** 236 Auburn Street

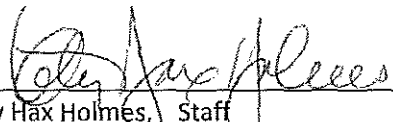
At a scheduled meeting and public hearing on March 23, 2017, the Newton Historical Commission, by a vote of 4-0:

RESOLVED to approve the proposed new siting of the historic house on the lot at 236 Auburn Street as well as the proposed site plan for three additional detached one-story housing units, parking, and landscaping as part of the project. The NHC also supports the plan to restore all architectural detail on the house where possible and replicate that which cannot be restored.

Voting in the Affirmative: \_\_\_\_\_ Voting in the Negative: \_\_\_\_\_ Abstained: \_\_\_\_\_

Nancy Grissom, Member  
 Mark Armstrong, Member  
 Laura Fitzmaurice, Member  
 Len Sherman, Alternate

Title Reference: \_\_\_\_\_ Owner of Property: CAN-DO  
Deed recorded at: Middlesex (South) Registry of Deeds  
 Book \_\_\_\_\_, Page \_\_\_\_\_  
 Date \_\_\_\_\_

  
 \_\_\_\_\_  
 Katy Hax Holmes, Staff



Setti D. Warren  
Mayor

**City of Newton, Massachusetts**  
Department of Planning and Development  
1000 Commonwealth Avenue Newton, Massachusetts 02459

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Barney S. Heath  
Director

**RECORD OF ACTION:**

**DATE:** February 28, 2017

**SUBJECT:** 236 Auburn Street

At a scheduled meeting and public hearing on February 23, 2017, the Newton Historical Commission, by a vote of 4-0:

RESOLVED to find 236 Auburn Street, without its rear additions, preferably preserved for architectural integrity and historic context.

<u>Voting in the Affirmative:</u>	<u>Voting in the Negative:</u>	<u>Abstained:</u>
Mark Armstrong, Member		
Jean Fulkerson, Member		
Peter Dimond, Member		
Laura Fitzmaurice, Member		

At a scheduled meeting and public hearing on February 23, 2017, the Newton Historical Commission, by a vote of 4-0:

RESOLVED to find 236 Auburn Street historically significant for its architectural and historical contributions to the history of Newton.

<u>Voting in the Affirmative:</u>	<u>Voting in the Negative:</u>	<u>Abstained:</u>
Mark Armstrong, Member		
Jean Fulkerson, Member		
Peter Dimond, Member		
Laura Fitzmaurice, Member		

At a scheduled meeting and public hearing on February 23, 2017, the Newton Historical Commission, by a vote of 4-0:

RESOLVED to approve moving the structure at 236 Auburn Street, without its rear additions, closer to Auburn Street on the same lot, with the exact location of the relocated house to be determined at a later date.

<u>Voting in the Affirmative:</u>	<u>Voting in the Negative:</u>	<u>Abstained:</u>
Mark Armstrong, Member		
Jean Fulkerson, Member		
Peter Dimond, Member		
Laura Fitzmaurice, Member		

Newton Historical Commission  
1000 Commonwealth Avenue, Newton, Massachusetts 02459  
Email: kholmes@newtonma.gov  
www.ci.newton.ma.us



Title Reference:

Owner of Property:

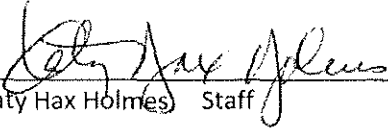
CAN-DO

Deed recorded at:

Middlesex (South) Registry of Deeds

Book \_\_\_\_\_, Page \_\_\_\_\_

Date \_\_\_\_\_

  
Katy Hax Holmes Staff

Email Re: DRT review

## Linda Moody

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**From:** Michael Gleba <mgleba@newtonma.gov>  
**Sent:** Tuesday, April 11, 2017 10:41 AM  
**To:** Linda Moody  
**Subject:** 236 Auburn St.

Dear Ms. Moody,

This email is to confirm that a Development Review Team meeting took place on February 1, 2017 concerning a project related to a CPA application for 236 Auburn St. submitted by CAN-DO.

Please let me know if you have any questions.

Thanks.

Michael Gleba  
Senior Planner  
City of Newton  
Planning and Development Department  
617-796-1123

When responding, please be aware that the Massachusetts Secretary of State has determined that most email is public record and therefore cannot be kept confidential.

## Permits and Relief Requested



2. Under §5.1.8.A to permit parking spaces to be within setback areas from a street and sidelines.
3. Under §5.1.8.C to permit the width of the maneuvering aisle to be less than 24 feet.
4. Under §5.1.9.A to permit an outdoor parking facility containing more than 5 stalls parking spaces to be located adjacent to an abutting property and the street without the minimum 3-foot landscaped strip.
5. Any other relief which may be necessary or appropriate and may be granted by the City Council under §5.1.13 to conform to the waivers sought to the plan submitted.

- D. Site Plan Approval: The Applicant requests a comprehensive permit in lieu of site plan approval required under §7.4 in connection with special permits granted under §7.3.

#### NON-ZONING ORDINANCE

- E. Tree Ordinance - Revised Ordinances §20-31 et seq.

Revised Ordinances §20-31 *et seq.* require a permit and the payment of fees for removal of trees from the property under certain circumstances. To the extent that any permit or fee payment would otherwise be required under Revised Ordinances §20-31 *et seq.*, the applicant requests a comprehensive permit in lieu of a waiver of such permit and fees.

- F. Curb Cut Permit

The applicant requests a comprehensive permit in lieu of any sidewalk crossing permits or consent of the Commissioner of Public Works to the extent necessary to comply with requirements of Revised Ordinances §26-65.

- G. Utility Connection Permits

The applicant requests a comprehensive permit in lieu of such local approvals as are required under Revised Ordinances §23, 26 and 29 or otherwise to (i) open streets, (ii) make utility connections for water, sewer, storm water, gas, electric, cable or other utilities or (iii) cross sidewalks from time to time.

- H. Light Ordinance

Revised Ordinances §§20-23 to 20-28 provided limitations on installation of light sources which do not conform to the criteria stated. §20-26 provides for waivers to be granted by the Planning and Development Board. To the extent that any light source may not conform to the requirements of §20-24 or that the requirements of that section may be inconsistent with §5.1 the Applicant seeks a comprehensive permit in lieu of any waiver requested under §7.8.

- I. Additional Relief

The applicant requests a comprehensive permit in lieu of all other permits, licenses or approvals in as may be issued by the City of Newton as necessary to conform the relief sought to the plans filed with the application as the same may be amended from time to time. Included within the relief sought are all ancillary, subsidiary, usual, customary unnecessary local permits, approvals or licenses in lieu of which the board may grant a Comprehensive Permit to the extent necessary to conform to the relief required for construction of the plans submitted here with as may be amended from time to time.

City of Newton Massachusetts  
**ZONING BOARD OF APPEALS**

Premises affected: An 18,760 sq. ft. lot of land on Auburn Street

Metro West Collaborative Development (hereinafter the “Applicant”) hereby applies to the Board of Appeals of the City of Newton, Massachusetts, pursuant to General Laws, Chapter 40B, Section 20 through 23, as amended, for the issuance of a Comprehensive Permit authorizing the Applicant to rehabilitate the existing single family dwelling, construct a new two-family dwelling and a congregate living facility containing separate living facilities for 5 residents for a total of eight affordable rental units, that include two 3-bedroom units affordable to households earning 80% of area median income and one 2-bedroom unit and five single room occupancies affordable to households earning 50% of area median income and on land located at 236 Auburn Street in Newton, Massachusetts. The Applicant and the development are more particularly described in the exhibits hereto annexed and submitted simultaneously here with all of which are incorporated herein by reference and constitute the documents required to be submitted under the regulations for filing a 40B Application by the Massachusetts Department of Housing and Community Development (760 CMR 56.00)



## Site Plan with Setbacks, Elevations, Floor Plans

Note:

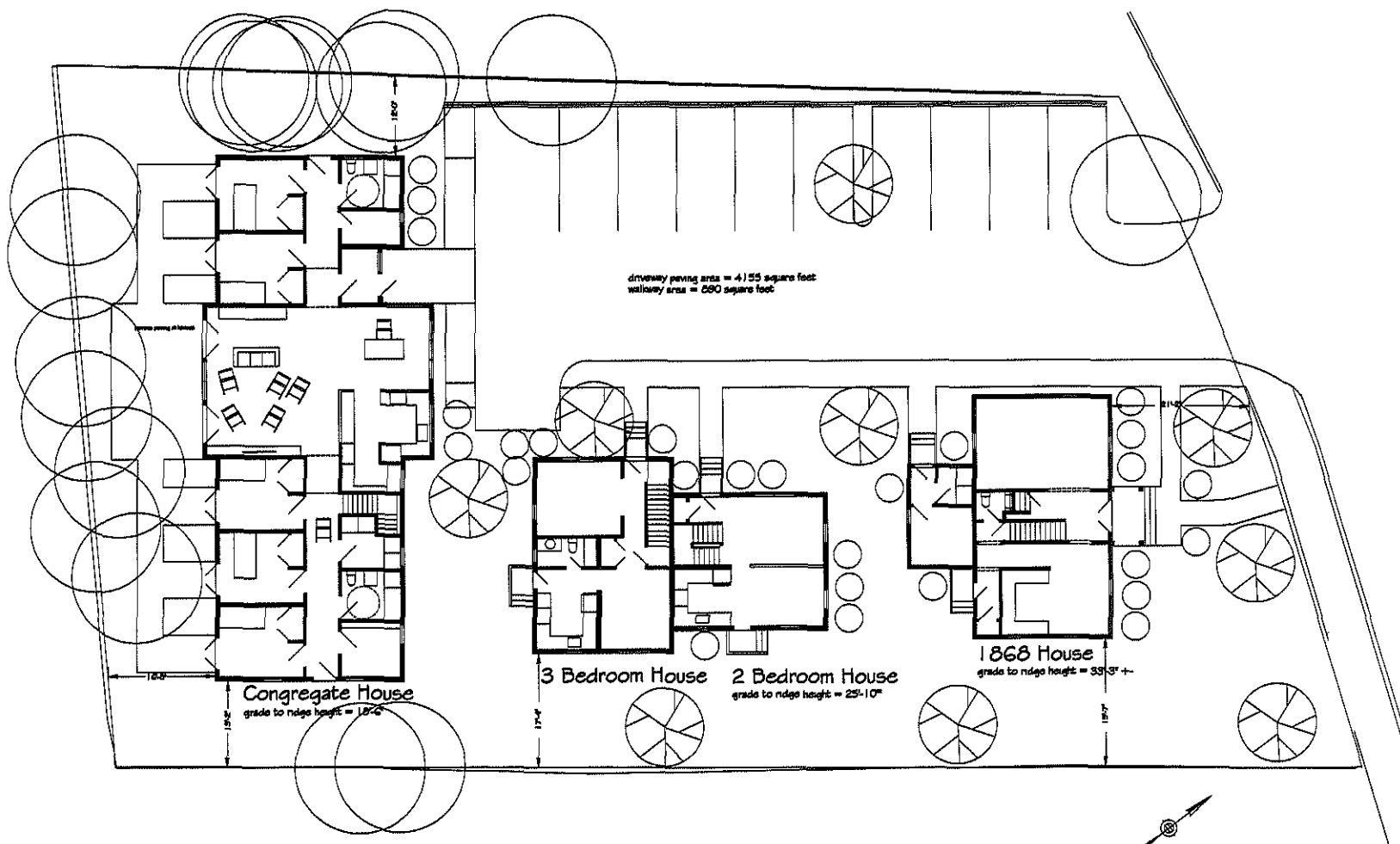
Building footprints cover 23% of site,  
impervious surface covers 45%



PERSPECTIVE SKETCH LOOKING SOUTHEAST

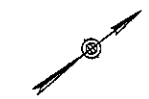


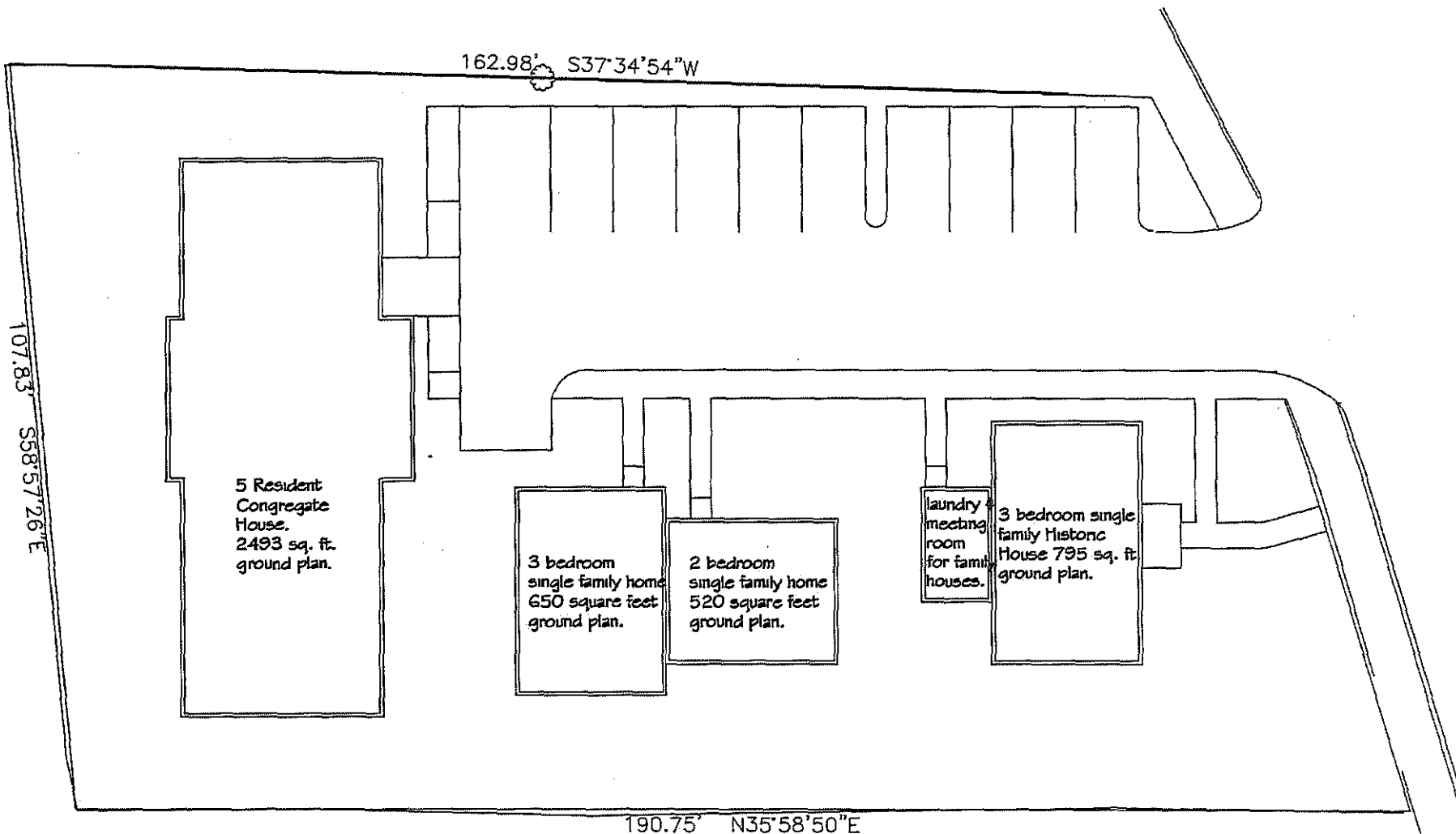
PERSPECTIVE SKETCH LOOKING NORTHWEST



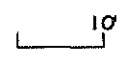
PROPOSED SITE PLAN 236 AUBURN STREET, NEWTON, MA  
 for CAN-DO

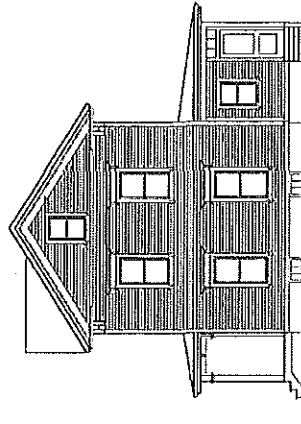
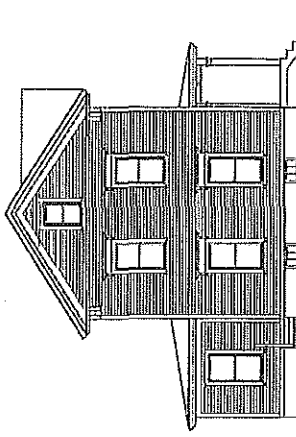
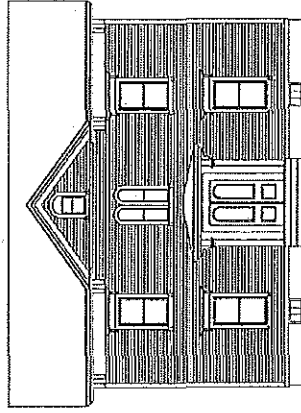
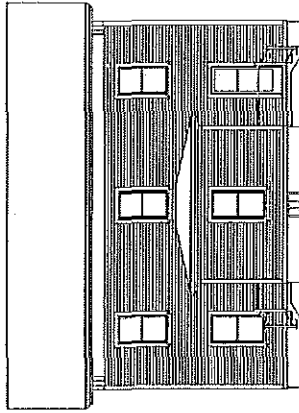
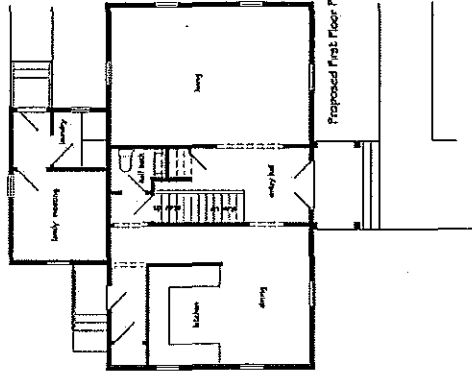
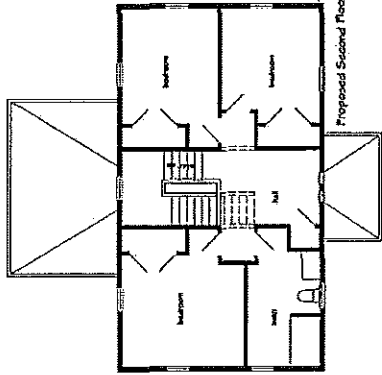
10'



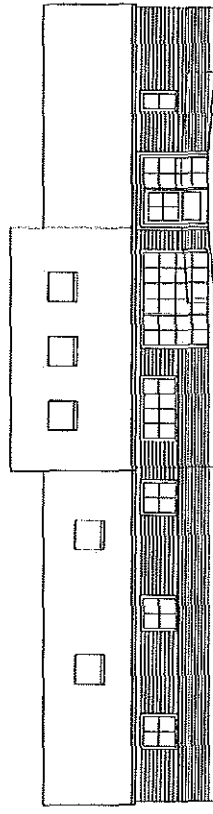


CONCEPTUAL SITE PLAN for 236 AUBURN STREET, NEWTON, MA

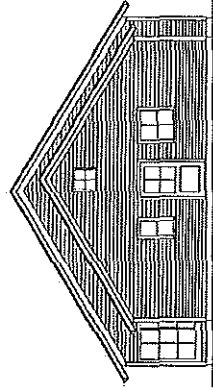




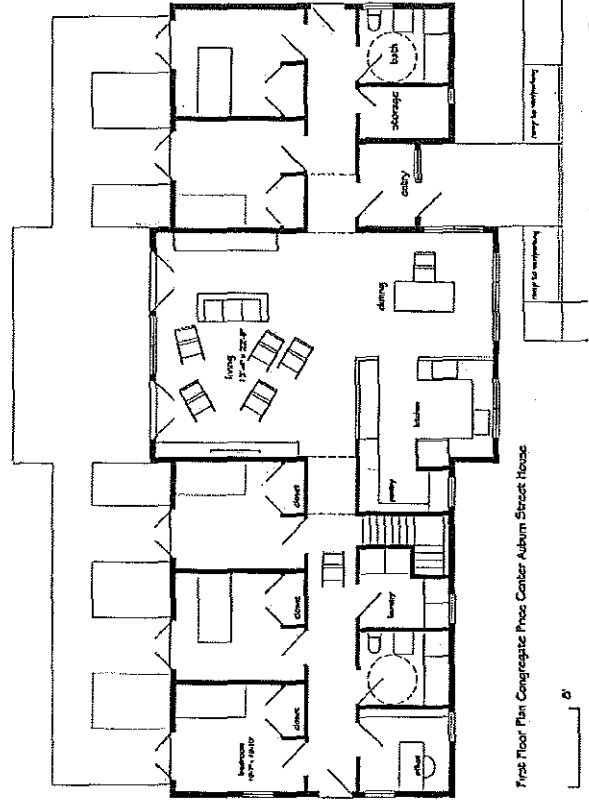
PROPOSED PLANS & ELEVATIONS for HISTORIC HOUSE 236 AUBURN STREET, NEWTON, MA  
for CAN-DO



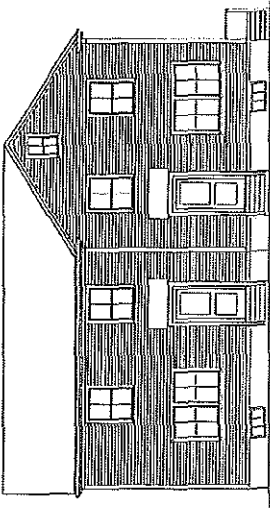
Proposed North Elevation Congregate House



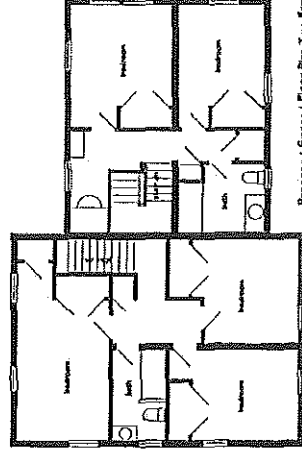
Proposed West Elevation Congregate House



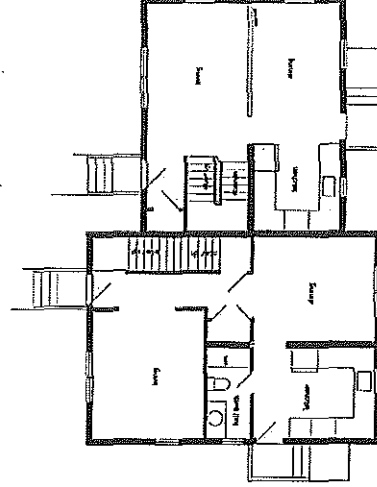
First Floor Plan Congregate Procc Auburn Street House



Proposed West Elevation Two Family House



Proposed Second Floor Plan Two Family House



Proposed First Floor Plan Two Family House

PROPOSED PLANS & ELEVATIONS FOR CONGREGATE & TWO FAMILY HOUSES 236 AUBURN ST.  
for CAN-DO

# Green and Sustainable Construction Features

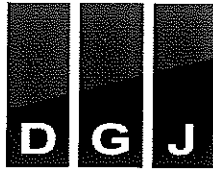
## **Green and Sustainable Features of 236 Auburn Street:**

The existing house will be restored using wood clapboard siding and will have a new concrete foundation with energy standard foundation insulation and floor insulation. This makes it much less energy consuming than the existing granite foundation, with its leaks and lack of any insulation. The inside of the historic house will be gutted and all the exterior walls and attic will be insulated to meet the MA Energy Code, making it a much higher standard than the existing.

The new housing will be built to meet MA Energy Code and Stretch Code standards, and will be assembled off site in a factory, minimizing the site labor. This modular principle is the wave of the future to produce tight, factory precision in new construction.

The congregate house will also be modular, and will be built to the MA Energy Code and Stretch Code standards. The house will be completely accessible for its developmentally disabled clientele and will be built of safe and durable materials to provide a high-quality standard for that population.





**236 Auburn Street  
Newton MA**

**Feasibility Study Cost Estimate**

**Prepared for:-  
Terry Heinlein**

**Prepared by:-  
D G Jones International, Inc.  
3 Baldwin Green Common, Suite 202,  
Woburn, MA 01801-1868  
email : [boston@dgjonesboston.com](mailto:boston@dgjonesboston.com)  
Tel: 781-932-3131**

**April 21, 2017**

**SUMMARY**

Element Name	CONSOLIDATED			Existing House			Congregate House			Two Family House			Sitework/Site Utilities
	10,991			2,569			4,996			3,426			
GROSS FLOOR AREA (in square feet)	Cost \$	S/sf	% of Bldg.	Cost \$	S/sf	% of Bldg.	Cost \$	S/sf	% of Bldg.	Cost \$	S/sf	% of Bldg.	
<b>A Substructure</b>	356,682	32.45	22.53%	86,675	33.74	21.52%	171,425	34.31	31.76%	98,582	28.77	24.81%	0
Foundations	159,190	14.48	10.65%	43,074	16.77	10.69%	74,438	14.90	13.79%	41,678	12.17	10.49%	
Basement Construction	197,492	17.97	12.47%	43,601	16.97	10.82%	96,987	19.41	17.97%	56,904	16.61	14.33%	
<b>B Shell</b>	150,468	13.69	9.50%	94,982	36.97	23.58%	22,641	4.53	4.19%	32,866	9.59	8.28%	0
Superstructure	6,218	0.57	0.39%	6,218	2.42	1.54%	0	0.00	0.00%	0	0.00	0.00%	
Exterior Enclosure	126,243	11.49	7.97%	70,737	27.53	17.56%	22,641	4.53	4.19%	32,866	9.59	8.28%	
Roofing	18,027	1.64	1.14%	18,027	7.02	4.47%	0	0.00	0.00%	0	0.00	0.00%	
<b>C Interiors</b>	141,093	12.84	8.91%	90,291	35.15	22.41%	25,322	5.07	4.69%	25,481	7.44	6.42%	0
Interior Construction	59,828	5.44	3.78%	37,078	14.43	9.20%	15,613	3.13	2.89%	7,138	2.08	1.80%	
Stairs	35,121	3.20	2.22%	16,169	6.29	4.01%	3,464	0.69	0.64%	15,488	4.52	3.90%	
Interior Finishes	46,144	4.20	2.91%	37,044	14.42	9.20%	6,245	1.25	1.16%	2,855	0.83	0.72%	
<b>D Services</b>	145,972	13.28	9.23%	77,333	30.10	19.20%	45,901	9.19	8.50%	22,738	6.64	5.73%	0
Conveying Systems	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	
Plumbing	19,720	1.79	1.25%	19,720	7.68	4.90%	0	0.00	0.00%	0	0.00	0.00%	
Heating, Ventilating and Air Conditioning (HVAC)	70,115	6.38	4.43%	35,378	13.77	8.78%	23,419	4.69	4.34%	11,318	3.30	2.85%	
Fire Protection Systems	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	
Electrical Systems	56,136	5.11	3.55%	22,234	8.65	5.52%	22,482	4.50	4.16%	11,420	3.33	2.88%	
<b>E Equipment and Furnishings</b>	17,265	1.57	1.09%	17,205	6.70	4.27%	0	0.00	0.00%	0	0.00	0.00%	0
Equipment	5,505	0.50	0.35%	5,505	2.14	1.37%	0	0.00	0.00%	0	0.00	0.00%	
Furnishings	11,760	1.06	0.74%	11,700	4.55	2.90%	0	0.00	0.00%	0	0.00	0.00%	
<b>F Special Construction and Demolition</b>	528,355	48.07	33.37%	36,355	14.15	9.02%	274,500	54.94	50.85%	217,500	63.49	54.76%	0
Special Construction	508,842	46.30	32.14%	16,842	6.56	4.18%	274,500	54.94	50.85%	217,500	63.49	54.76%	
Selective Demolition	19,513	1.78	1.23%	19,513	7.60	4.84%	0	0.00	0.00%	0	0.00	0.00%	
<b>G Building Sitework</b>	243,601	22.16	15.38%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	243,601
Site Preparation	88,571	8.06	5.59%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	88,571
Site Improvements	71,215	6.48	4.50%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	71,215
Site Civil/Mechanical Utilities	51,865	4.72	3.28%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	51,865
Site Electrical Utilities	31,949	2.91	2.02%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	31,949
Other Site Construction	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	0	0.00	0.00%	0
<b>Sub-Total Construction</b>	<b>1,583,396</b>	<b>144.06</b>	<b>100.00%</b>	<b>402,840</b>	<b>156.81</b>	<b>100.00%</b>	<b>539,789</b>	<b>108.04</b>	<b>100.00%</b>	<b>397,166</b>	<b>115.93</b>	<b>100.00%</b>	<b>243,601</b>
General Conditions/Requirements	11.00%	174,174	15.85										
Payment & Performance Bond	1.00%	17,576	1.60										
General & Excess Liability Insurance	1.25%	22,189	2.02										
Builders Risk Insurance		By Owner											
Building Permit Fee	0.75%	13,460	1.23										
Escalation to mid-point of construction 3Q2018	6.3125%	114,308	10.40										
Estimating Contingency		Excluded by Architect											
GC's Fee	3.00%	57,754	5.25										
Sales Tax		Excluded											
Construction Contingency		By Owner											
<b>Total Construction Cost</b>	<b>1,982,876</b>	<b>180.41</b>											

## Notes

1. Brief project description:-
  - Relocation of existing house and 2# new modular housing units with associated site work.
2. The estimate is based on the following:-
  - Open shop wage rates.
  - Competitive bid.
  - GC type project.
  - Receipt of 5# bona fide bids.
  - Single contract, no phasing.
  - Estimate based on assumed construction start date of 1Q2018.
  - Construction period 10-12 months.
3. The gross floor area is based on the following:-
  - Measurement is taken to the outside face of the exterior wall, measured through all stair wells, elevator shafts and ducts.
4. Story heights:-
  - Varies
5. General Conditions/Requirements for this project are priced as a percentage on the Summary page..
6. Special Conditions for this project are not applicable.
7. Escalation to the mid-point of construction (3Q2018) allowed at: -
  - 5%/annum.
8. Estimating contingency is an allowance for future design modifications/additions, which alter the cost of the building as the design progresses, this percentage reduces as the design develops. It is based on a percentage of the sum of Sub-Total Construction, General Conditions/Requirements and Escalation. For this level of estimate the following has been included:-
  - Excluded by Architect
9. Construction contingency is an allowance for scope/design modifications made by the owner during construction and also for any unforeseen circumstances. It is based on a percentage of the sum of Sub-Total Construction, General Conditions/Requirements, Escalation and Estimating Contingency. The following has been included:-
  - By Owner

## Notes (Cont'd)

10. This estimate has been prepared from the following design information:-
  - Architectural floor plans and elevations received 04/10/2017.
  - Narrative received 04/10/2017.
  - Telecons, meeting and E-mails with/from Terry Heinlein.
  
11. The estimate includes the following:-
  - Building Permit Fee.
  - Conduit & draw wire only to low voltage systems.
  - See Estimate.
  
12. The estimate excludes the following:-
  - Utility company backcharges.
  - Sales tax.
  - Design consultant's fees.
  - Rock removal during excavation work.
  - Water removal during excavation work.
  - Loose furniture, fittings and equipment.
  - Telephones.
  - Complete audiovisual.
  - Cameras, monitors, videos etc.
  
13. Allowances:-
  - Hazmat abatement - no budget number provided by specialist sub consultant.
  - See Estimate.
  
14. Assumptions:-
  - See Estimate.
  
15. Estimates by other firms:-
  - None

## Notes (Cont'd)

16. Common abbreviations included in this estimate:-
  - cd = construction documents.
  - cf = cubic foot.
  - cy = cubic yard.
  - dd = design development.
  - ea = each.
  - EO = extra over.
  - flr = floor.
  - lb = pound.
  - lf = linear foot.
  - ls = lump sum.
  - ly = linear yard.
  - mg = make good.
  - opg = opening.
  - rsr = riser.
  - sd = schematic design.
  - sf = square foot.
  - sy = square yard.
  - tn = ton.
  - vb = vapor barrier.
  
17. Builders work in connection (BWIC) with conveying, mechanical and electrical systems includes the following:-
  - Drilling and coring.
  - Chasing.
  - Cutting and patching.

Description	Qty	Unit	Rate	Amount	Total
<b><u>Foundations</u></b>					
Complete foundation system including excavation, concrete, formwork, reinforcement, damproofing, insulation, vapor barrier, etc - footprint area	965	sf	44.64	43,074	43,074
<b><u>Foundations</u></b>	<b><u>Total</u></b>			<b>43,074</b>	<b>43,074</b>
<b><u>Basement Construction</u></b>					
Complete foundation system including excavation, concrete, formwork, reinforcement, damproofing, insulation, vapor barrier, etc - footprint area	802	sf	54.37	43,601	43,601
<b><u>Basement Construction</u></b>	<b><u>Total</u></b>			<b>43,601</b>	<b>43,601</b>
<b><u>Superstructure</u></b>					
<b>Structural</b>					
Allowance - Repair existing frame structure	1	ls	2,750.00	2,750	2,750
<b>Structural Decks</b>					
Structural Decks				Not Required	
<b>Miscellaneous Structural Items</b>					
Moisture mitigation system to floor slabs				Not Required	
<b>Structural Fireproofing</b>					
<b>Structural Fireproofing</b>					
Fire protection (allow, gfa)	2,569	sf	0.50	1,285	
Intumescent paint to exposed steel, allow					
Adapt and amend Fire Protection/Firestopping at Existing Building	2,569	sf	0.85	2,184	3,468
<b><u>Superstructure</u></b>	<b><u>Total</u></b>			<b>6,218</b>	<b>6,218</b>
<b><u>Exterior Enclosure</u></b>					
<b>Exterior Wall System</b>					
<b>Exterior Wall Finish System - Existing House</b>					
Cedar clapboard siding w/stain	2,086	sf	8.75	18,253	
Cedar clapboard siding w/stain including back up	110	sf	17.85	1,964	
New exterior wall concrete band (Below existing bldg)	123	sf	Included w/Foundation		
Restore trims, etc at gables/eaves/corners	308	lf	15.00	4,620	
<b>Exterior Wall Finish System - Addition</b>					
Cedar clapboard siding w/back up	279	sf	17.85	4,980	
New exterior wall concrete band (Below addition)	48	sf	Included w/Foundation		
Allowance - Wall trims	1	ls	249.01	249	30,065
<b>Exterior Glazing Systems</b>					
<b>Restore Existing Windows - Existing House</b>					
Existing window - 1' 5" x 5' 5" (Curved on top)	2	ea	423.30	847	
Existing window - 2' 1" x 3' 5" (Curved on top)	1	ea	391.25	391	
Existing window - 2' 6" x 1' 6" (Basement)	4	ea	206.25	825	
Existing window - 2' 5" x 3' 11"	2	ea	521.75	1,044	
Existing window - 2' 10" x 5' 3"	4	ea	820.05	3,280	
Existing window - 2' 10" x 5' 5"	4	ea	846.60	3,386	
Existing window - 3' 0" x 5' 3"	6	ea	866.25	5,198	
Existing window - 3' 0" x 5' 5"	2	ea	894.30	1,789	

Description	Qty	Unit	Rate	Amount	Total
<b>Triple Glazed Windows - Addition</b>					
New window - 2' 6" x 3' 10" (Addition)	1	ea	864.00	864	
New window - 3' 0" x 5' 6" (Addition)	2	ea	1,485.00	2,970	
Window lintel at extg window	80	lf	16.00	1,280	
Trim to exterior window	406	lf	9.00	3,654	25,527
<b>Exterior Doors</b>					
Restore Existing Doors - Existing House					
Existing SL door - 2' 8" x 7' 0"	1	ea	875.00	875	
Existing DL door - 4' 8" x 7' 7"	1	ea	1,250.00	1,250	
New Doors - Addition					
New SL door & transom above - 3' 6" x 8' 0" (Addition)	1	ea	1,985.00	1,985	4,110
<b>General Items</b>					
Staging/Scaffolding	1,770	sf	3.00	5,310	
Flashing	406	lf	9.00	3,654	
Sealant	406	lf	2.25	914	
Wood Blocking	406	lf	2.85	1,157	
Expansion, control & isolation joints				Not Required	11,035
<b>Exterior Enclosure</b>	<b>Total</b>			<b>70,737</b>	<b>70,737</b>

**Roofing**

<b>Roofing Systems</b>					
Allowance - Repair/replace extg roof	963	sf	5.00	4,815	
Closed cell foam insulation to extg roof	963	sf	3.85	3,708	
New roof (Addition) including framing, etc	203	sf	16.65	3,380	
New roof (Porch) including framing, etc	67	sf	16.65	1,116	
Trim to eaves	60	lf	25.00	1,500	
Column at porch	4	ea	450.00	1,800	16,318
<b>General Items</b>					
Roof accessories, allow					Not Required
Roof Hatch System					Not Required
Metal access ladder	1	ea	600.00	600	
Fall protection equipment					Not Required
Miscellaneous flashings	56	lf	9.00	504	
Sealant	56	lf	2.25	126	
Blocking	168	lf	2.85	479	1,709
<b>Roofing</b>	<b>Total</b>			<b>18,027</b>	<b>18,027</b>

**Interior Construction**

<b>Partitions</b>					
Interior Partitions	1,800	sf	8.50	15,300	
Sealant to partitions	800	lf	1.25	1,000	
Blocking	400	lf	2.65	1,060	17,360
<b>Interior Doors</b>					
Interior Frame & Doors					
SL wood door, frame, hardware & paint	11	ea	1,094.00	12,034	
DL wood closet doors, frame, hardware & paint	3	ea	1,329.00	3,987	
Allow for					
Access doors	1	ls	1,000.00	1,000	
Wood blocking	247	lf	2.65	655	
Sealant	494	lf	1.25	618	18,293

Description	Qty	Unit	Rate	Amount	Total
<b>Fittings</b>					
Bathroom Accessories					
Single toilet	1	ea	350.00	350	
Single toilet/bathub	1	ea	550.00	550	
Lockers				Not Required	
Fire Extinguisher Cabinets:-					
Fire extinguisher & cabinet, recessed type	1	ea	350.00	350	
Allow for mounting brackets, etc	1	ea	125.00	125	1,375
<b>Sealant and Blocking</b>					
Sealant at sanitary appliances & counters	22	lf	2.25	50	50
<b><u>Interior Construction</u></b>	<b><u>Total</u></b>			<b>37,078</b>	<b>37,078</b>
<b><u>Stairs</u></b>					
<b>Exterior Stairs Construction</b>					
Wood Stairs and Landing					
Exterior stair - 3' 6" wide x 3# riser	1	ea	1,815.00	1,815	
Exterior stair - 4' 4" wide x 3# riser	1	ea	1,889.70	1,890	
Front Stair - 9' 2" wide x 3# riser	1	ea	2,325.30	2,325	
Landing to stair	31	sf	15.00	465	
Railing					
Guardrail to landing	11	lf	85.00	935	
Guardrail to stairs	6	lf	90.00	540	
Handrail to stairs	2	lf	30.00	60	8,030
<b>Interior Stairs</b>					
Stair & railing from 1st Floor to 2nd Floor	1	fir	4,675.00	4,675	
Stair & railing from Basement to 1st Floor	1	fir	3,464.00	3,464	8,139
<b><u>Stairs</u></b>	<b><u>Total</u></b>			<b>16,169</b>	<b>16,169</b>
<b><u>Interior Finishes</u></b>					
<b>Floor Finish System</b>					
Allow to 1st/2nd Floors	1,767	sf	7.75	13,694	
Allow to Basement	802	sf	1.00	802	14,496
<b>Base Finish System</b>					
Wall base	688	lf	4.50	3,096	3,096
<b>Walls Finish System</b>					
Allow to 1st/2nd Floors	6,192	sf	2.00	12,384	12,384
<b>Ceilings Finish System</b>					
Allow to 1st/2nd Floors	1,767	sf	4.00	7,068	7,068
<b><u>Interior Finishes</u></b>	<b><u>Total</u></b>			<b>37,044</b>	<b>37,044</b>



Description	Qty	Unit	Rate	Amount	Total
<b><u>Conveying Systems</u></b>					
No Work in this Element					
<b><u>Conveying Systems</u></b>					
				<b>0</b>	<b>0</b>
<b><u>Plumbing</u></b>					
<b>Sanitary Fixtures, Etc.</b>					
<b>Plumbing Fixtures</b>					
Water closet (Renovation)	2	ea	1,650.00	3,300	
Lavatory (Renovation)	2	ea	1,600.00	3,200	
Bathtub/Shower (Renovation)	1	ea	2,250.00	2,250	
Water closet (Addition)	1	ea	1,650.00	1,650	
Lavatory (Addition)	1	ea	1,600.00	1,600	
Hook-up for laundry (Addition)	1	ea	950.00	950	
Hook-up for dishwasher (Addition)	1	ea	325.00	325	
<b>Plumbing Equipment</b>					
Allowance - Water heater	1	ea	1,000.00	1,000	
Allowance - Pressure reducing valve	1	ea	100.00	100	14,375
<b>Plumbing Fixture Piping</b>					
Plumbing Fixture Piping				Included w/Fixtures	
<b>Underground Piping</b>					
Allowance - Underground Piping	1,767	sf	1.50	2,651	2,651
<b>Natural Gas System</b>					
Allowance - Natural Gas System	1,767	sf	0.75	1,325	1,325
<b>Storm Water System</b>					
Rainwater systems				Not Required	
<b>General Items</b>					
Access panels	1	ls	350.00	350	
Seismic bracing to pipework	1	ls	140.26	140	
Permit fees	1	ls	18.84	19	
Allow for Commissioning by Sub-Contractor	1	ls	94.30	94	
Owner Training, allow				Not Required	
Test & balance	1	ls	379.08	379	982
<b>Sub Bid</b>					
				<b>19,333</b>	<b>19,333</b>
Builders work in connection with Plumbing @ 2%	1	ls	386.66	387	
General Contractor's overhead and profit				GC's Fee Carried in Summary	387
<b><u>Plumbing</u></b>					
				<b>19,720</b>	<b>19,720</b>

**Heating, Ventilating and Air Conditioning (HVAC)**

**Equipment**

Heating system - Baseboard hydronic, gas fueled	1,767	sf	7.50	13,253	
Exhaust at Bathroom including ductwork, etc	2	ea	640.00	1,280	
Air conditioning unit & condensor and boiler	1	ls	12,250.00	12,250	26,783

**Pipework**

Piping System	1,767	sf	3.00	5,301	5,301
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Description	Qty	Unit	Rate	Amount	Total
<b>HVAC Controls</b>					
Automatic Temperature Controls system	1	ls	1,500.00	1,500	1,500
<b>General</b>					
Vibration isolation	1	ls	251.88	252	
Commissioning by Sub-Contractor	1	ls	169.18	169	
Owner Training, allow				Not Required	
Test & balance	1	ls	680.09	680	1,101
<b>Sub Bid</b>	<b>Total</b>			<b>34,685</b>	<b>34,685</b>
Builders work in connection with HVAC @ 2%	1	ls	693.69	694	
General Contractor's overhead and profit				GC's Fee Carried in Summary	694
<b>Heating, Ventilating and Air Conditioning (HVAC)</b>	<b>Total</b>			<b>35,378</b>	<b>35,378</b>
 <b>Fire Protection Systems</b>					
No Work in this Element					
<b>Fire Protection Systems</b>	<b>Total</b>			<b>0</b>	<b>0</b>
 <b>Electrical Systems</b>					
<b>Electrical Equipment</b>					
Allowance - Panelboards, etc.	1,767	sf	0.70	1,237	1,237
<b>Feeders</b>					
Allowance - Feeders	1,767	sf	0.35	618	618
<b>Small Power</b>					
Allowance - Small power	1,767	sf	2.50	4,418	4,418
Electrical Power to: -					
HVAC Equipment	1	ls	1,500.00	1,500	
Plumbing Equipment	1	ea	325.00	325	1,825
<b>Lighting</b>					
Allowance - Lighting System	1,767	sf	4.50	7,952	
Allowance - Lighting Controls	1,767	sf	1.00	1,767	9,719
<b>Fire Alarm</b>					
Allowance - Fire Alarm System	1,767	sf	1.00	1,767	1,767
<b>Low Voltage Systems (conduit &amp; draw wire only)</b>					
Allowance	1,767	sf	0.35	618	618
<b>General</b>					
Grounding, allow	1,767	sf	0.50	884	
Lightning protection	1,767	sf		Not Required	
Seismic restraint, allow	1	ls	158.14	158	
Permit fees	1	ls	21.24	21	
Allow for Commissioning by Sub-Contractor	1	ls	106.32	106	
Owner Training, allow				Not Required	
Test	1	ls	427.42	427	1,597
<b>Sub Bid</b>	<b>Total</b>			<b>21,798</b>	<b>21,798</b>

Description	Qty	Unit	Rate	Amount	Total
Builders work in connection with electrical @ 2% General Contractor's overhead and profit	1	ls	435.97	436	
			GC's Fee Carried in Summary		436
<b>Electrical Systems</b>	<b>Total</b>			<b>22,234</b>	<b>22,234</b>

**Equipment**

**Commercial Grade Kitchen Equipment**

Commercial kitchen equipment Not Required

**Residential Appliances**

Allowance - Kitchen Appliances

Range cooker/oven	1	ea	875.00	875	
Dishwasher	1	ea	685.00	685	
Full size refrigerator	1	ea	1,450.00	1,450	
Microwave	1	ea	375.00	375	

Allowance - Laundry Appliances

Washer	1	ea	975.00	975	
Dryer	1	ea	1,145.00	1,145	5,505

**Projection Screens**

Projection screens, allow Not Required

<b>Equipment</b>	<b>Total</b>			<b>5,505</b>	<b>5,505</b>
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**Furnishings**

**Window Treatment**

Window Treatment

Exterior - Roller window shades					Not Required
Interior - Roller window shades					Not Required

**Custom Casework**

Kitchen

Plam base cabinet	20	lf	275.00	5,500	
Plam wall cabinet	20	lf	175.00	3,500	
Solid surface countertop to base cabinet	20	lf	115.00	2,300	
Backsplash	25	lf	16.00	400	11,700

<b>Furnishings</b>	<b>Total</b>			<b>11,700</b>	<b>11,700</b>
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**Special Construction**

Move existing house to new foundations	1	ls	16,842.00	16,842	16,842
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<b>Special Construction</b>	<b>Total</b>			<b>16,842</b>	<b>16,842</b>
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**Selective Demolition**

**Demolition**

Remove and Dispose - Exterior

R&D : Exterior wall finishes	2,086	sf	0.45	939	
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Remove and Dispose - Interior

Gut out demolition (1st/2nd Floors & Attic)	1,767	sf	4.50	7,952	
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Description	Qty	Unit	Rate	Amount	Total
Allow for: -					
Hazardous material abatement & removal, allow	1	ls	10,000.00	10,000	
Make safe MEP prior to commencement of work				Included w/Site	
Miscellaneous demolition/alteration					
Temporary screen and barriers					
Remove rubbish off site	1	ls	622.31	622	19,513
<b><u>Selective Demolition</u></b>	<b><u>Total</u></b>			<b>19,513</b>	<b>19,513</b>

Description	Qty	Unit	Rate	Amount	Total
<b><u>Foundations</u></b>					
Complete foundation system including excavation, concrete, formwork, reinforcement, damproofing, insulation, vapor barrier, etc - footprint area	2,498	sf	29.80	74,438	74,438
<b><u>Foundations</u></b>	<b><u>Total</u></b>			<b>74,438</b>	<b>74,438</b>
<b><u>Basement Construction</u></b>					
Complete foundation system including excavation, concrete, formwork, reinforcement, damproofing, insulation, vapor barrier, etc - footprint area	2,498	sf	38.83	96,987	96,987
<b><u>Basement Construction</u></b>	<b><u>Total</u></b>			<b>96,987</b>	<b>96,987</b>
<b><u>Superstructure</u></b>					
No Work in this Element					
<b><u>Superstructure</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
<b><u>Exterior Enclosure</u></b>					
<b>Exterior Wall System</b>					
<b>Exterior Wall Finish System</b>					
Cedar clapboard siding w/stain	1,831	sf	8.75	16,021	
New exterior wall concrete band	160	sf	Included w/Foundation		
Allowance - Wall trims	1	ls	1,602.13	1,602	17,623
<b>Exterior Glazing Systems</b>					
Double Hung Windows					Included w/Modular Bldg
<b>Exterior Doors</b>					
Exterior Doors					Included w/Modular Bldg
<b>General Items</b>					
Staging/Scaffolding	1,200	sf	3.00	3,600	
Flashing	126	lf	9.00	1,134	
Sealant	126	lf	2.25	284	
Wood Blocking				Not Required	
Expansion, control & isolation joints				Not Required	5,018
<b><u>Exterior Enclosure</u></b>	<b><u>Total</u></b>			<b>22,641</b>	<b>22,641</b>
<b><u>Roofing</u></b>					
<b>Roofing Systems</b>					
Sloped Roofing System					Included w/Modular Bldg
<b><u>Roofing</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
<b><u>Interior Construction</u></b>					

Description	Qty	Unit	Rate	Amount	Total
Interior Construction					
Insulate ceiling of Basement	2,498	sf	2.25	5,621	
Allow for work to Basement	2,498	sf	4.00	9,992	15,613
<b><u>Interior Construction</u></b>	<b><u>Total</u></b>			<b>15,613</b>	<b>15,613</b>
Stairs					
Stair & railing from Basement to 1st Floor	1	fir	3,464.00	3,464	3,464
<b><u>Stairs</u></b>	<b><u>Total</u></b>			<b>3,464</b>	<b>3,464</b>
Interior Finishes					
Interior Finishes	Included w/Modular Bldg				
Allow for work to Basement	2,498	sf	2.50	6,245	6,245
<b><u>Interior Finishes</u></b>	<b><u>Total</u></b>			<b>6,245</b>	<b>6,245</b>
Conveying Systems					
No Work in this Element					
<b><u>Conveying Systems</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
Plumbing					
Plumbing	Included w/Modular Bldg				
<b><u>Plumbing</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
Heating, Ventilating and Air Conditioning (HVAC)					
Heating, Ventilating and Air Conditioning (HVAC)	Included w/Modular Bldg				
Air conditioning unit & condensor and boiler	1	ls	15,925.00	15,925	
Allow for work to Basement	2,498	sf	3.00	7,494	23,419
<b><u>Heating, Ventilating and Air Conditioning (HVAC)</u></b>	<b><u>Total</u></b>			<b>23,419</b>	<b>23,419</b>
Fire Protection Systems					
No Work in this Element					
<b><u>Fire Protection Systems</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
Electrical Systems					

Description	Qty	Unit	Rate	Amount	Total
Electrical Systems				Included w/Modular Bldg	
Allow for work to Basement	2,498	sf	9.00	22,482	22,482
<b><u>Electrical Systems</u></b>	<b><u>Total</u></b>			<b>22,482</b>	<b>22,482</b>

**Equipment**

Equipment				Included w/Modular Bldg	
<b><u>Equipment</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>

**Furnishings**

Furnishings				Included w/Modular Bldg	
<b><u>Furnishings</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>

**Special Construction**

<b>Modular Buildings</b>					
Single story, modular construction	1	ls	258,000.00	258,000	
Connect modular units, allow	1	ls	16,500.00	16,500	274,500
<b><u>Special Construction</u></b>	<b><u>Total</u></b>			<b>274,500</b>	<b>274,500</b>

**Selective Demolition**

No Work in this Element					
<b><u>Selective Demolition</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>

Description	Qty	Unit	Rate	Amount	Total
<b><u>Foundations</u></b>					
Complete foundation system including excavation, concrete, formwork, reinforcement, damproofing, insulation, vapor barrier, etc - footprint area	1,142	sf	36.50	41,678	41,678
<b><u>Foundations</u></b>	<b><u>Total</u></b>			<b>41,678</b>	<b>41,678</b>
<b><u>Basement Construction</u></b>					
Complete foundation system including excavation, concrete, formwork, reinforcement, damproofing, insulation, vapor barrier, etc - footprint area	1,142	sf	49.83	56,904	56,904
<b><u>Basement Construction</u></b>	<b><u>Total</u></b>			<b>56,904</b>	<b>56,904</b>
<b><u>Superstructure</u></b>					
No Work in this Element					
<b><u>Superstructure</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
<b><u>Exterior Enclosure</u></b>					
<b>Exterior Wall System</b>					
<b>Exterior Wall Finish System</b>					
Cedar clapboard siding w/stain	2,545	sf	8.75	22,269	
New exterior wall concrete band	302	sf	Included w/Foundation		
Allowance - Wall trims	1	ls	2,226.88	2,227	24,496
<b>Exterior Glazing Systems</b>					
Double Hung Windows					Included w/Modular Bldg
<b>Exterior Doors</b>					
Exterior Doors					Included w/Modular Bldg
<b>General Items</b>					
Staging/Scaffolding	2,265	sf	3.00	6,795	
Flashing	140	lf	9.00	1,260	
Sealant	140	lf	2.25	315	
Wood Blocking				Not Required	
Expansion, control & isolation joints				Not Required	8,370
<b><u>Exterior Enclosure</u></b>	<b><u>Total</u></b>			<b>32,866</b>	<b>32,866</b>
<b><u>Roofing</u></b>					
<b>Roofing Systems</b>					
Sloped Roofing System					Included w/Modular Bldg
<b><u>Roofing</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
<b><u>Interior Construction</u></b>					



Description	Qty	Unit	Rate	Amount	Total
Interior Construction				Included w/Modular Bldg	
Insulate ceiling of Basement	1,142	sf	2.25	2,570	
Allow for work to Basement	1,142	sf	4.00	4,568	7,138
<b><u>Interior Construction</u></b>	<b><u>Total</u></b>			<b>7,138</b>	<b>7,138</b>
 <b><u>Stairs</u></b>					
<b>Exterior Stairs Construction</b>					
Wood Stairs and Landing					
Exterior stair - 3' 4" wide x 3# riser	2	ea	1,799.70	3,599	
Exterior stair - 3' 6" wide x 4# riser	2	ea	1,920.00	3,840	
Landing to stair	55	sf	15.00	825	
Railing					
Guardrail to landing	28	lf	85.00	2,380	
Guardrail to stairs	14	lf	90.00	1,260	
Handrail to stairs	4	lf	30.00	120	12,024
<b>Interior Stairs Construction</b>					
Stair & railing from Basement to 1st Floor	1	flr	3,464.00	3,464	3,464
<b><u>Stairs</u></b>	<b><u>Total</u></b>			<b>15,488</b>	<b>15,488</b>
 <b><u>Interior Finishes</u></b>					
Interior Finishes				Included w/Modular Bldg	
Allow for work to Basement	1,142	sf	2.50	2,855	2,855
<b><u>Interior Finishes</u></b>	<b><u>Total</u></b>			<b>2,855</b>	<b>2,855</b>
 <b><u>Conveying Systems</u></b>					
<b>No Work in this Element</b>					
<b><u>Conveying Systems</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
 <b><u>Plumbing</u></b>					
Sanitary Fixtures, Etc.				Included w/Modular Bldg	
<b><u>Plumbing</u></b>	<b><u>Total</u></b>			<b>0</b>	<b>0</b>
 <b><u>Heating, Ventilating and Air Conditioning (HVAC)</u></b>					
Heating, Ventilating and Air Conditioning (HVAC)				Included w/Modular Bldg	
Boiler	2	ea	3,375.00	6,750	
Allow for work to Basement	1,142	sf	4.00	4,568	11,318
<b><u>Heating, Ventilating and Air Conditioning (HVAC)</u></b>	<b><u>Total</u></b>			<b>11,318</b>	<b>11,318</b>

Description	Qty	Unit	Rate	Amount	Total
<b><u>Fire Protection Systems</u></b>					
No Work in this Element					
<b><u>Fire Protection Systems</u></b>	<b><u>Total</u></b>			0	0
<b><u>Electrical Systems</u></b>					
Electrical Systems Allow for work to Basement	1,142	sf	Included w/Modular Bldg 10.00	11,420	11,420
<b><u>Electrical Systems</u></b>	<b><u>Total</u></b>			11,420	11,420
<b><u>Equipment</u></b>					
Equipment	Included w/Modular Bldg				
<b><u>Equipment</u></b>	<b><u>Total</u></b>			0	0
<b><u>Furnishings</u></b>					
Furnishings	Included w/Modular Bldg				
<b><u>Furnishings</u></b>	<b><u>Total</u></b>			0	0
<b><u>Special Construction</u></b>					
<b>Modular construction</b>					
Two story, modular construction	1	ls	203,000.00	203,000	
Connect modular buildings	1	ls	14,500.00	14,500	217,500
<b><u>Special Construction</u></b>	<b><u>Total</u></b>			217,500	217,500
<b><u>Selective Demolition</u></b>					
No Work in this Element					
<b><u>Selective Demolition</u></b>	<b><u>Total</u></b>			0	0

Description	Qty	Unit	Rate	Amount	Total
<b><u>G10 Site Preparation</u></b>					
<b>Demolition</b>					
<b>Building Demolition</b>					
R&D : Addition building to Existing House, 2 storys	820	sf	16.00	13,120	
Demolish bay window addition to existing house	1	ls	1,650.00	1,650	
Demolish and remove existing concrete slab	1,622	sf	7.50	12,165	
Demolish and remove existing foundation walls	199	lf	28.00	5,572	
Loading & removing off site including dump fees	1	ls	4,876.05	4,876	
Terminating & capping extg utilities	1	ls	2,250.00	2,250	
Hazardous material abatement & removal, allow	1	ls	6,500.00	6,500	
General site clearing/misc. demolition to remaining areas	18,108	sf	0.30	5,432	
Allow for					
Miscellaneous demolition	1	ls	1,500.00	1,500	
Remove rubbish off site	1	ls	500.00	500	53,565
<b>Temporary work</b>					
Allowance - Inlet protection	5	ea	250.00	1,250	
Allowance - Silt fencing	586	lf	6.00	3,516	
Allowance - Stabilized construction entrances	1	ea	1,500.00	1,500	
Allowance - Dust Control	1	ls	394.60	395	
Allowance - Construction fence w/gates	586	lf	6.00	3,516	
Allowance - Temporary service to existing/disturbed site utilities				Not Required	10,177
<b>Earth Stripping and Stockpiling</b>					
Strip topsoil & store on site	335	cy	6.00	2,010	
Cut & Fill at Paving and planting/lawn areas	283	cy	8.50	2,406	
Fill areas of site with excavated material to achieve new grade levels	142	cy	6.25	888	
Remove surplus excavated material off site	476	cy	12.00	5,712	
EO for excavating rock	14	cy	45.00	630	
Import fill to achieve proposed grade levels				Not Required	
Grade over entire site to achieve final levels	19,730	sf	0.15	2,960	
Proof Roll/Compact Building Slab-On-Grade area	4,442	sf	0.25	1,111	
Buildings excavation				Included w/Buildings	
Water removal during excavation works	1	ls	314.30	314	16,029
<b>Excavate and Part Backfill</b>					
Trenching and backfill for utility removal					Not Required
Trenching and backfill for utility installation					
Trench for - Water Pipe (Underground) - From Auburn Street to Buildings	240	lf	11.92	2,860	
Trench for - Gas Pipe (Underground) - From Auburn Street to Buildings	240	lf	11.92	2,860	
Trench for - Sanitary Pipe (Underground) - From Auburn Street to Buildings	240	lf	12.83	3,080	
Trench for - Surface drainage system (Under paving)					8,800
<b>Total</b>				<b>88,571</b>	<b>88,571</b>

**G10 Site Preparation**

**G20 Site Improvements**

<b>Asphalt Paving</b>					
Bituminous driveway & parking	4,405	sf	4.25	18,721	
Patch roads after utility installations	1	ls	3,200.00	3,200	
Connect new bituminous driveway to extg	32	lf	6.00	192	
Allowance - Traffic Markings	1	ls	250.00	250	22,363
<b>Concrete Paving</b>					
Concrete sidewalk	683	sf	8.00	5,464	
Concrete sidewalk at street side	592	sf	8.00	4,736	
Concrete patio at back of Congregate House	797	sf	9.00	7,173	
Concrete ramp	273	sf	11.00	3,003	
Stairs & landing	174	sf		Included w/Buildings	
Connect new side walk to extg at street side	14	lf	10.00	140	

Description	Qty	Unit	Rate	Amount	Total
Concrete curb	102	lf	17.00	1,734	22,250
<b>Site Improvement</b>					
Stockade wood fence at the perimeter of parking	279	lf	35.00	9,765	
EO - Gate	3	ea	500.00	1,500	
<b>Exterior Signage</b>					
Directional traffic signs, allow	1	ea	350.00	350	
HP parking signs, allow	1	ea	350.00	350	11,965
<b>Landscaping</b>					
Allowance - Landscaping (including following items) & Planting	8,364	sf	1.75	14,637	
3-4 inch caliper trees throughout site				Included	
Foundation planting around entry/side porches and ramps				Included	
Pruning of existing perimeter mature oak and maple trees				Included	
Seeded lawns				Included	14,637
<b>Total</b>				<b>71,215</b>	<b>71,215</b>

**G20 Site Improvements**

**G30 Site Civil/Mechanical Utilities**

**Water Service and Fire Protection**

Water Pipe (Underground) - From Auburn Street to Existing House (1861)	40	lf	30.00	1,200	
Two Family House (2# Services)	40	lf	30.00	1,200	
Congregate House	160	lf	30.00	4,800	
<b>Allowance - Fire Service</b>					
Fire Service to Hydrant	120	lf	75.00	9,000	
Hydrant	1	ea	2,250.00	2,250	18,450

**Gas Service**

Gas Pipe (Underground) - From Auburn Street to Existing House (1861)	40	lf		Trenching Only	
Two Family House (2# Services)	40	lf		Trenching Only	
Congregate House	160	lf		Trenching Only	

**Sanitary Sewer**

Sanitary Pipe (Underground) - From Auburn Street to Existing House (1861)	40	lf	22.00	880	
Two Family House (2# Services)	40	lf	22.00	880	
Congregate House	160	lf	22.00	3,520	
Sewer Manhole	1	ea	4,500.00	4,500	9,780

**Stormwater Management**

Surface drainage system (Under paving)	6,332	sf	3.48	22,035	22,035
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**General Items**

Trenching and backfill to utility lines				Included w/Earthwork	
Police detail for utility connections	20	hour	80.00	1,600	1,600

**G30 Site Civil/Mechanical Utilities**

**Total** 51,865 51,865

**G40 Site Electrical Utilities**

**Electrical Service**

<b>Equipment</b>					
Utility transformer				By Utility Company	
<b>Electrical Service (Conduit &amp; trench only) to</b>					
Existing House (1861)	40	lf	42.00	1,680	
Two Family House (2# Services)	40	lf	42.00	1,680	

236 Auburn Street, Newton, MA  
 Feasibility Study Cost Estimate - Estimate Sitework

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Description	Qty	Unit	Rate	Amount	Total
Congregate House	160	lf	42.00	6,720	10,080
<b>Site Lighting</b>					
Allowance - Site pole lights	5	ea	2,933.80	14,669	14,669
<b>Site Security</b>				Not Required	
<b>Site Telecommunication</b>					
Tel/Data/Cable Service (Conduit & trench only) to Existing House (1861)	40	lf	30.00	1,200	
Two Family House (2# Services)	40	lf	30.00	1,200	
Congregate House	160	lf	30.00	4,800	7,200
<b><u>G40 Site Electrical Utilities</u></b>			<b><u>Total</u></b>	<b>31,949</b>	<b>31,949</b>
<b><u>G90 Other Site Construction</u></b>					
No Work in this Element					
<b><u>G90 Other Site Construction</u></b>			<b><u>Total</u></b>	<b>0</b>	<b>0</b>

Gross Floor Areas

Locations	Gross Floor Areas (sf)	Perimeter
<u>Existing House</u>		
Basement	802	118
First Floor Renovation	802	118
Second Floor Renovation	802	118
First Floor Addition	163	52
<b>Total Existing House</b>	<b>2,569</b>	
<u>Congregate House</u>		
Basement	2,498	
First Floor	2,498	240
<b>Total Congregate House</b>	<b>4,996</b>	
<u>Two Family House</u>		
Basement	1,142	
First Floor	1,142	151
Second Floor	1,142	151
<b>Total Two Family House</b>	<b>3,426</b>	
<b>Total Project Area</b>	<b>10,991</b>	

# Phase 1 Environmental Assessment

# COOPERSTOWN environmental

## PHASE I ENVIRONMENTAL SITE ASSESSMENT

236 Auburn Street  
Newton, MA 02466

*Prepared for:*

Citizens for Affordable Housing in Newton Development Organization, Inc.

(CAN-DO)

79-B Chapel Street  
Newton, MA 02458

*Prepared by:*

Cooperstown Environmental LLC  
Andover, Massachusetts

April 2017



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## 8.0 CONCLUSIONS AND RECOMMENDATIONS

Cooperstown has performed this ESA in conformance with the scope and limitations of the ASTM International "Standard Practice for Phase I Environmental Site Assessment" (E-1527-13), as outlined in the proposal submitted to CAN-DO, dated April 7, 2017. The purpose of the Phase I ESA was to identify "recognized environmental conditions" (RECs) in connection with the Subject Property. The Phase I ESA included a review of regulatory and historical records, site reconnaissance, and interviews with persons having knowledge of the property.

The site reconnaissance, owner interview, and review of regulatory and historical records show a history of the Subject Property back to approximately 1861. Historical aerial photos, City Directories, and local sources contain a record of the past uses of the Subject Property and surrounding properties. The established timeline of the historical record indicates there are no significant data gaps in meeting the standard for Phase I investigations (E-1527-13).

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of 236 Auburn Street in Newton, Massachusetts (the site or Subject Property). Any exceptions to, or deletions from, this practice are described in Section 9.0 of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Subject Property.

There was one de-minimus condition associated with household solid waste surrounding the dumpster at the property. Additionally there is a history of lead based paint detected in the interior of the property building. Considering this history, there is the possibility that lead based paint was used on the exterior of the property building which has the potential to leach into site soils. This condition is exempt from reporting to Mass DEP and therefore is not a REC. However, it does affect re-use options for site soil if off-site disposal of soils was required as part of re-development in order to comply with similar soils provisions.