TGAS

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Belmont Police Station Expansion

Planning Board Application

December, 21 2018



Schedule

Final Application Submission: 12.21.2018

Planning Board Hearing: 01.08.2019

100% Construction Documents: 03.01.2019



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Cover Letter / Project Overview

TOWN OF BELMONT DEPARTMENT OF PUBLIC WORKS/ BELMONT POLICE DEPARTMENT BUILDING COMMITTEE

December 21, 2018

Members of Town of Belmont Planning Board;

We present to you our plans for the renovation and addition to the current Belmont Police Station located at the corner of Concord Avenue and Pleasant Street. This project has a long history of studies and quantified needs but no advocacy group or firm plan until the fall of 2017. A permanent solution for the police station has been a priority for the Capital Budget Committee since a master list of projects was generated in January 2000. The Board of Selectmen convened all town boards and committees to identify what facilities needed repair, upgrade, and replacement or new construction. Lack of an adequate site has always pushed the police station to the bottom of the list despite feasibility studies that detailed the acute need for a new facility.

Following the failure of a plan to move the police to the present location of the library, the Capital Budget Committee recognized the urgent needs of the police station (and three other major projects: Belmont High School, the library, and the DPW). A 2012 priority analysis placed the requirements of both the DPW and the police station above those of the high school and the library. The 2015 Financial Task Force echoed this conclusion. By 2016, with the high school project approved by the state, a subgroup of the Capital Budget Committee, Major Capital Projects Working Group, formed to create a plan to sequence and fund the construction of all four projects. MCPWG believed they had solved the site problem by recommending that the police build a new facility at the Town yard, a plan that could not be fulfilled for at least a decade. Following a feasibility study, a new plan emerged, and Special Town Meeting authorized the formation of a building committee to finally address both the police station and the DPW facility in November of 2017. The recommended plan for the police station became a combination of renovation and additions on the present site that would be a fifty-year solution for the department and the Town.

Since 2000 the Town has addressed most of the projects on that long list. New construction has included the Wellington School, two fire stations, a senior center, the Underwood Pool, Harris Field and Track (twice) and a Municipal Light substation. In addition, Town Hall, the Homer building, and the School Department Administration building have all been renovated, and Belmont Center and Trapelo Rd. were significantly upgraded. The debt exclusion was passed for the Belmont High School project and the library is forming a schematic design. The time is now to finally provide both our employees and the citizens of the Town a safe, accessible, gender equitable, and functional police station that will meet the requirements of twenty-first century policing.

To arrive at this point, various committees and boards, right up to the Building Committee report to Special Town Meeting this November, held public meetings for the neighborhoods and Town Meeting Members; hosted multiple tours for the public to see current conditions firsthand; provided both guest columns and news stories in the Belmont Citizen-Herald and Belmontonian.com; wrote reports and presented updates to Town Meeting; created video tours of both facilities available through Belmont Media. Our request for funding at Annual Town Meeting passed overwhelmingly (with only two negative votes). This is a plan whose time has finally arrived.

There are numerous advantages and benefits to the plan we propose to you, all of which have been thoroughly explored by our building committee and design team. We offer the following highlights of our plan:

- Provides a permanent solution for the Police Department fully supported by the police themselves.
- Keeps the police station in both the commercial and government center of the Town, connected to the other Town offices and proximate to the two fire stations.
- Protects the historic Georgian building on the edge of the Pleasant St. historic district.
- Upgrades the historic exterior using CPA funds, if application is approved for FY2020.
- Provides secure entry for prisoners, safe holding cells, gender equal locker rooms, conference space, secure evidence storage, an elevator, a second stair for egress, additional parking, additional storage.
- Upgrades the landscaping on both the Concord Ave. and Pleasant St. sides of the building.
- Utilizes energy efficiencies in new sections which also insulate existing building, thus reducing energy consumption.
- Complies with all safety and accessibility codes and by-laws, including a sprinkler system for the entire building.
- Enjoys the support of the Historic District Commission, the Disability Access Commission, and various Town boards and committees including the Selectmen, Warrant Committee and Capital Budget Committee as well as approval of the Zoning Board of Appeals.

Further, we wish to emphasize that our design takes the following into consideration:

- Both the public and police personnel are protected by the addition of the sally port for prisoner entrance to the station.
- Exterior lighting will be on sensors and will be located to avoid light contamination for the neighbors.
- The existing transformer and generator will be moved further out of sight.
- Trash barrels (not dumpster) will be screened from sight.
- All systems and installations will comply with noise and other Town by-laws.
- Proposed neutral exterior finishes on new sections, approved by Historic District Commission, respect the historic original structure.

The DPW/BPD Building Committee is very enthusiastic about our police station design. Our committee members represent a depth of talent and breadth of experience in the construction industry and in service to the Town. We believe we are providing a quality product for the Town for a reasonable investment in a very short amount of time. Our bid and construction timetable is tight. We plan to go out to bid on March 1 in order to secure the best possible bids and lowest bond costs. We anticipate that the construction on the police station will commence by the summer of 2019 and be completed by the summer of 2020. During that time the police will be relocated to the Town Hall and the dispatch center will be housed in a modular unit in front of the building.

We respectfully request your support for our requests and believe that as you review the material we submit with this letter you will be as enthusiastic as we are.

Sincerely,

Anne Marie S. Mahoney

Anne Marie S. Mahoney, Chair DPW/BPD Building Committee



Landscaping Calculations (Refer to drawings LS-1 & LS-2)

Existing Landscaping

Landscape Area (Formal & Natural Areas)

a. Formal Area: 1010 sf \pm b. Existing Marked to Remain: 2281 sf \pm c. Existing Marked for Removal: 5211 sf \pm **Total Existing Formal & Natural:** 8502 sf \pm

a. Trees Marked to Remain: 3
b. Trees Marked for Removal: 40
Total Trees (on-site): 43

Proposed Landscaping

Landscape Area (Formal & Natural Areas)

a. Existing to Remain (Formal): $1010 \text{ sf} \pm 5$. Existing to Remain (Natural): $2281 \text{ sf} \pm 5$. Proposed (Formal): $1084 \text{ sf} \pm 5$. Total Landscape as Proposed: $4375 \text{ sf} \pm 5$

a. Existing Trees to Remain: 3
b. Projected # of new street trees: 4
Total Trees (on-site): 7

Landscape Justifications

Removal of Existing Trees - See Letter of Support from Shade Tree Committee

^{*}Reference Proposed Landscape Plans for additional plantings on site.



Parking Calculations (Refer to drawings PK-1, PK-2, & PK-3)

Existing Parking (On-Site)

Upper Lot: 11 spaces Side of Building: 2 Spaces Lower Lot: 6 Spaces Total: 19 Spaces

Additional Parking Requirements

Zone LBI – Parking Requirements

Per Beimant By away - Section 5 - 5, 1, 2 Schiedule of Reducentents - gl. Other Service Establishments, retail obsinesses, and offices:

- One (1) parking space per 350 square feet of ground floor gross floor area
- One (1) parking space per 600 square feet gross floor area on other floors

00 - Basement

No Calculations Required

01 - First Floor

2015 gsf / 350 sf = 5.75

+ 6 Spaces

02 - Second Floor

2516 gsf / 600 sf = 4.20

+ 5 Spaces

Additional Required Spaces

+11 Spaces

Proposed Parking (On-Site)

Upper Lot: 18 spaces

** Includes Two (2) Handicap Spaces per ADA Requirements

Side of Building: 2 Spaces Lower Lot: 10 Spaces Garage Parking: 3 Spaces

Total: 33 Spaces (Gain of 14 parking spots)

Exterior Lighting (Refer to drawings LG-1 & LG-2)

Lighting Locations

North Elevation

Existing Lights -2 Proposed Lights = 0 Total - 2

East Elevation

Existing Lights - 0 Proposed Lights – 4 Total - 4

South Elevation

Existing Lights - 1 (to be removed) Proposed Lights - 5 Total - 5

West Elevation

Existing Lights - 1 Proposed Lights - 4 Total - 5

Proposed Lighting Photometry / Specifications

Product Specifications Sheet Photometry - See Attached Photometry Analysis Foot Candle Calculations



8165 E. Kaiser Blvd. Anaheim, CA 92808 p. 714.282.2270 f. 714.676.5558

Photometric Test Report

IES INDOOR REPORT

PHOTOMETRIC FILENAME: L03147207.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002 [TEST] L03147207

[TESTLAB] LIGHT LABORATORY, INC.

[ISSUEDATE] 4/1/2014

[MANUFAC] LUMENART LTD

[LUMCAT] AWL.60.1

[LUMINAIRE] 1-1/2"L. X 4-1/4"W. X 3-1/2"H. LED FIXTURE

ÎMOREI DIFFUSED LENS

[BALLASTCAT] GALLOP LCZ08IRS UNI

[BALLAST] INPUT: 100-240VAC, 50-60HZ. OUTPUT: 16VDC, 520mA

[LAMPPOSITION] 0,0

[LAMPCAT] N/A

[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND

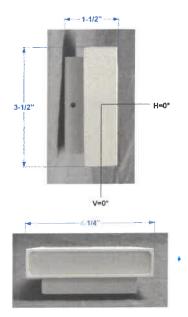
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.

[_INPUT] 120VAC, 7.46W

TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	348
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	47
Total Luminaire Watts	7.46
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	Q.06 ft
Luminous Width (90-270)	0.35 ft
Luminous Height	0.29 ft



IES INDOOR REPORT PHOTOMETRIC FILENAME : L03147207.IES

LUMINANCE DATA (cd/sq.m)

Angle In	Average	Average	Average
Degrees	0-Deg	45-Deg	90-Deg
45	5065	5995	16689
55	3547	4240	13318
65	2265	2730	9595
75	1082	1371	5439
85	79	263	1134

PHOTOMETRIC FILENAME: L03147207.IES

CANDELA TABULATION

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 115 120 125 130 135 140 145 150 155	0 66.32 65.90 64.72 62.71 60.10 57.00 53.39 49.53 45.25 40.80 36.18 31.40 26.44 21.24 16.03 10.41 5.21 0.76 0.00 1.34 5.62 10.33 15.45 20.48 25.52 30.30 34.92 39.37 43.57 47.51 51.21 54.56	5 66.32 65.87 64.67 62.63 60.02 56.94 53.31 49.47 45.26 40.82 36.20 31.37 26.36 21.23 15.99 10.34 4.93 1.20 0.00 1.61 5.66 10.39 15.42 20.50 25.48 30.28 34.89 39.30 43.53 47.45 51.14 54.51	10 66.32 65.84 64.64 62.62 60.05 57.01 53.35 49.45 45.26 40.89 36.20 31.38 26.40 21.28 15.99 10.49 5.15 1.37 0.00 1.64 5.64 10.42 15.44 20.49 25.46 30.30 34.92 39.37 43.51 47.46 51.18 54.56	15 66.32 65.82 64.63 62.65 60.10 56.96 53.36 49.49 45.29 40.89 36.22 31.43 26.43 21.26 16.05 10.40 5.16 1.39 0.00 1.78 5.68 10.43 15.48 20.58 25.50 30.31 34.91 39.33 43.52 47.54 51.16 54.50	20 66.32 65.81 64.63 62.70 60.08 56.99 53.42 49.56 45.38 40.96 36.27 31.44 26.51 21.30 16.10 10.49 5.08 1.46 0.00 1.85 5.66 10.44 15.49 20.53 25.57 30.29 34.92 39.31 43.56 47.53 51.19 54.52	25 66.32 65.79 64.66 62.67 60.13 57.03 53.52 49.65 45.47 41.04 36.34 31.54 26.50 21.34 16.11 10.54 5.23 1.55 0.00 1.84 5.68 10.45 15.44 20.55 25.54 30.37 34.99 39.38 43.62 47.59 51.24 54.55	30 66.32 65.78 64.70 62.69 60.22 57.10 53.63 49.75 45.47 41.07 36.48 31.65 26.54 21.39 16.14 10.67 5.38 1.67 0.00 1.87 5.73 10.46 15.52 20.58 25.55 30.45 35.05 39.44 43.65 47.67 51.32 54.61	35 66.32 65.78 64.65 62.76 60.23 57.27 53.68 49.77 45.59 41.23 36.50 31.65 26.72 21.45 16.19 10.80 5.62 1.80 0.00 1.92 5.74 10.47 15.53 20.62 25.68 30.44 35.12 39.60 43.74 47.67 51.35 54.76	40 66.32 65.78 64.63 62.87 60.32 57.24 53.76 49.91 45.77 41.27 36.56 31.74 26.70 21.54 16.19 10.92 5.89 1.99 0.00 1.98 5.68 10.51 15.58 20.63 25.68 30.49 35.14 39.61 43.85 47.79 51.45 54.74	45 66.32 65.78 64.62 62.92 60.38 57.32 53.80 49.99 45.87 41.42 36.67 31.90 26.76 21.60 16.23 11.05 6.09 2.09 0.00 1.99 5.74 10.54 15.60 20.66 25.71 30.58 35.20 39.74 43.95 47.88 51.54 54.77
160 165	57.50 59.94	57.40 59.86	57.41 59.84	57.45 59.86	57.41 59.90	57.46 59.85	57.54 59.84	57.55 59.88	57.63 59.95	57.68 59.99
170	61.70	61.66	61.64	61.64	61.65	61.68	61.73	61.66	61.63	61.61
175 180	62.79 63.00	62.77 63.00	62.74 63.00	62.73 63.00	62.72 63.00	62.71 63.00	62.70 63.00	62.70 63.00	62.70 63.00	62.70 63.00
Vert. Angles	Horizont	tal Angles								
0 5 10 15 20 25 30 35 40 45 50 55 60	50 66.32 65.79 64.64 62.93 60.42 57.52 53.87 50.06 45.94 41.44 36.81 31.92 26.83	55 66.32 65.80 64.67 62.89 60.47 57.55 53.98 50.22 46.03 41.56 36.89 31.96 26.95	60 66.32 65.81 64.73 62.90 60.56 57.53 54.08 50.26 46.12 41.69 36.99 32.04 27.03	65 66.32 65.83 64.71 62.96 60.54 57.64 54.15 50.36 46.22 41.77 37.11 32.16 27.07	70 66.32 65.86 64.71 63.07 60.59 57.65 54.33 50.44 46.27 41.87 37.26 32.25 27.14	75 66.32 65.88 64.72 63.05 60.73 57.70 54.35 50.53 46.39 41.96 37.30 32.33 27.21	80 66.32 65.91 64.76 63.07 60.68 57.76 54.51 50.67 46.44 41.97 37.34 32.40 27.27	85 66.32 65.94 64.81 63.11 60.68 57.77 54.45 50.73 46.46 42.03 37.38 32.46 27.24	90 66.32 65.98 64.89 63.21 60.78 57.92 54.56 50.87 46.50 42.14 37.44 32.57 27.37	

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CANDELA TABULATION - (Cont.)

95 2.00 2.02 1.96 1.94 1.95 1.93 1.84 1.90 1.93 100 5.81 5.86 5.86 5.82 5.83 5.79 5.81 5.73 5.79 105 10.61 10.66 10.68 10.69 10.67 10.70 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 <th>666 37 99 27 14 68 29 57 46 63 97 7</th>	666 37 99 27 14 68 29 57 46 63 97 7
	7

PHOTOMETRIC FILENAME: L03147207.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	23.97	N.A.	6.90
0-30	50.39	N.A.	14.50
0-40	81.69	N.A.	23.50
0-60	142.11	N.A.	40.80
0-80	175.04	N.A.	50.30
0-90	177.60	N.A.	51.00
10-90	171.35	N.A.	49.20
20-40	57.72	N.A.	16.60
20-50	89.66	N.A.	25.80
40-70	81.79	N.A.	23.50
60-80	32.93	N.A.	9.50
70-80	11.57	N.A.	3.30
80-90	2.55	N.A.	0.70
90-110	13.79	N.A.	4.00
90-120	34.30	N.A.	9.90
90-130	61.66	N.A.	17.70
90-150	122.27	N.A.	35.10
90-180	170.40	N.A.	49.00
110-180	156.61	N.A.	45.00
0-180	347.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	6.25
10-20	17.72
20-30	26.42
30-40	31.29
40-50	31.95
50-60	28.48
60-70	21.36
70-80	11.57
80-90	2.55
90-100	2.58
100-110	11.21
110-120	20.51
120-130	27.36
130-140	30.65
140-150	29.96
150-160	25.26
160-170	16.91
170-180	5.95

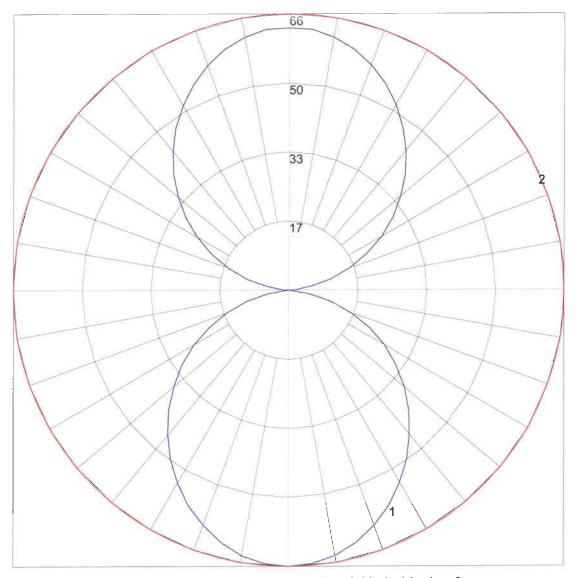
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80 70 50 3	30 10	70	70 50	30	10	50	50 30	10	50	30 30	10	50	10 30	10	0
0	107 107 1	107 107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98 94 9	90 86	90	87	83	80	74	71	69	62	60	58	50	49	48	43
2	89 82 7	76 70	82	76	70	66	64	60	57	54	51	49	44	42	41	36
3	81 72 6	34 59	75	67	60	55	57	52	48	48	44	41	39	37	34	30
4	74 63 5	6 49	68	59	52	46	50	45	41	42	38	35	35	32	30	26
5	68 57 4	18 42	63	53	45	40	45	39	35	38	34	30	31	28	26	22
6	63 51 4	37	58	47	40	35	41	35	31	34	30	27	29	25	23	20
7	58 46 3	88 32	53	43	35	30	37	31	27	31	27	23	26	23	20	17
8	54 41 3	4 28	50	39	32	27	33	28	24	29	24	21	24	20	18	16
9	50 38 3	0 25	46	35	29	24	31	25	21	26	22	19	22	19	16	14
10	47 35 2	7 23	43	32	26	21	28	23	19	24	20	17	20	17	15	13

POLAR GRAPH



Maximum Candela = 66.32 Located At Horizontal Angle = 0, Vertical Angle = 0 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.) # 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

Qty	Label	Arrangement	Lum	ens	Input W	atts	LLF	BUG Rating	Description
1.3	WP1	SINGLE	240						
		BINGEL	348		7.46		0.850	B0-U3-G0	LUMENART AWL.60.1-8W-3K-FINISH WALL MOUNTED @ 6.73FT AFG TO BOF
Calcul	ation Sum	nary							1
Label			T						
ranei			Grid Z	Avg	Max	Min	Avg	/Min Max/Min	
					\rightarrow				1

Ò.	2 0.	. 3	0.1	0.0	0.0	0.1	0.3	0.3	Ò.1	0.0	₽.0	0.1	0.4	0.3	0.1	0.1	0.1	0.2	0.5
∜3.	.5 □ 14	 7	0.1	†.O	0.0	0.1	14 .6	-5. 7	0.1	₫.0	0.0	₀.2	1 6	4 .3	0.1	0.0	0.1	0.4	1 29
2.	1 10	.1	0.1	0.0	0.0	0.1	9.4	5. 3	0.1	0.0	0.0	0.1	10.3	4.7	Ö.1	0.0	0.1	0.3	14.4
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ō.	o ō.	0	0.0	0.0	ō.o	0.0	0.1	0.1	†o.0	₽.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

GENERAL DISCLAIMER:

SCHURRAL DISCLASTIFIC:

CALCULATIONS HAVE BEEN PERFORMED ACCORDING TO IES STANDARDS AND GOOD PRACTICE
SOME DIFFERENCES BETWEEN MEASURED VALUES AND CALCULATED RESULTS MAY OCCUR DUE TO
TOLERANCES IN CALCULATION METHODS, TESTING PROCEDURES, COMPONENT PERFORMANCE,
MEASUREMENT TECHNIQUES AND FIELD CONDITIONS SUCH AS VOLTAGE AND TEMPERATOR AND
VARIATIONS. INPUT DATA USED TO GENERATE THE ATTACHED CALCULATIONS SUCH AS
DIMENSIONS, REFLECTANCES, FURNITURE AND ARCHITECTURAL ELEMENTS SIGNIFICANTLY AFFECT
THE LIGHTING CALCULATIONS. IF THE REAL ENVIRONMENT CONDITIONS DO NOT MATCH THE
INPUT DATA, DIFFERENCES WILL OCCUR BETWEEN MEASURED VALUES AND CALCULATED VALUES.

* LLF DETERMINED USING CURRENT PUBLISHED LAMP DATA

NOTE TO REVIEWER:

TOTAL LIGHT LOSS FACTOR (LLF) APPLIED AT TIME OF DESIGN IS DETERMINED BY APPLYING THE LAMP LUMEN DEPRECIATION (LLD) FROM CURRENT LAMP MANUFACTURER'S CATALOG. A LUMINIARE DIRT DEPRECIATION FACTOR (LDD) BASED ON IES RECOMMENDED VALUES AND A BALLAST FACTOR (BF) FROM CURRENT BALLAST SPECIFICATION SHEETS. APPLICATION OF AN INCORRECT LIGHT LOSS FACTOR (LLF) WILL RESULTS IN FORECASTS OF PERFORMANCE THAT WILL NOT ACCURATELY DEPICT ACTUAL RESULTS.

FOR PROPER COMPARISON OF PHOTOMETRIC LAYOUTS, IT IS ESSENTIAL THAT YOU INSIST ALL DESIGNERS USE CORRECT LIGHT LOSS FACTORS.



WETHERSFIELD, CT 06109 TELEPHONE 860.632.8766

FACSIMILIE 860.632.8236

LIGHTING SOLUTIONS THE POINT WHERE ALL ASCENDING LINES CONVERGE

PROJECT TITLE:

BELMONT POLICE - SITE TYPICAL WALL

DRAWING TITLE:

EXTERIOR LIGHTING PHOTOMETRIC CALCULATION

FILE NAME: WI BELMONT POLICE - WALL CALC 12-7-18.DWG

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

DATE: 12/7/18

DRAWN BY: CR

SHEET:

0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0																											
6 0.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0		6.	العبد الما			200		4	-			4.	-														
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Label Arrangement

WP1 SINGLE Input Watts LLF BUG Rating Description 0.850 B0-U3-G0 LUMENART AWL.60.1-8W-3K-FINISH WALL MOUNTED # VARIOUS HEIGHTS lation Summary Grid Z Avg Max Min Avg/Min Max/Min 0 0.03 0.9 8.0 N.A. N.A. 0.43 0.9 0.0 N.A. N.A. TLY UNDERNEATH WALL SCONCES

* LLF Determined Using Current Published Lamp Data

NOTE TO REVIEWER:

Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lunen Deprociation (LLD) from current lamp manufacturer's enable, a luminate Dirt Deprociation factor (LDD) based on ES recommended values and a Ballast Factor (BF) from current bilants specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.

For proper compaction of photometric layouts, it is essential that you insist all designess are correct Light Loss Factors.

20-30 BEAVER ROAD WETHERSFIELD, CT 96109
TELEPHONE 960,652,8766
FACSIMILE 860,652,8766
WWW.AFEXLTG.COM LIGHTING SOLUTIONS
THE FORT WHERE ALL ASCHOOLS LIKES CONTENSE

PROJECT TITLE

DRAWING TITLE

BELMONT POLICE SITE

EXTERIOR LIGHTING PHOTOMETRIC CALCULATION

SCALE | |"=|0"-0" DATE 12/4/18

DRAWN BY: CR

FILE NAME, SLI BELMONT POLICE - SITE CALC (Z-4-16 DWG



Rooftop Equipment

(Refer to drawings R-1 & R-2)

Existing Rooftop Equipment

Upper Roof:

1 Cellular Antenna

Lower West roof:

0 HVAC Units

Lower South Roof:

3 HVAC Units

Proposed Rooftop Equipment

Upper Roof:

1 Cellular Antenna (existing)

Lower West roof:

1 HVAC Unit

Lower South Roof:

5 HVAC Units, 1 Elevator Shaft, 1 Roof Access Hatch

Proposed Equipment Sound Data

York - YCE60 - 76.0 dBA

York - YC090 - 89 dBA

Lennox KGB048 - 75 dBA

Lennox KGB060 - 82 dBA

Lennox KGB024 - 74 dBA

Lennox KGB074 - 79 dBA

Sound Data - See Attached Unit Specifications See attached letter of from project engineer



September 21, 2018

Mr. Gerardo Ruiz-KingThe Galante Architecture Studio, Inc. 146 Mt. Auburn Street
Cambridge, MA 02138

Re: I

Belmont DPW 460 Concord Ave Belmont, Massachusetts WVA Project No. 18108

Dear Gerardo:

We understand the local sound ordinances limit sound levels generated at the Police Departments to 65 dBa daytime and 60 dBa nighttime when measured from neighboring properties.

The nearest neighboring property is approximately 30 feet from the Police department mechanical equipment. This property is a town owned commercial property. The nearest residential property is approximately 100 feet from the Police department mechanical equipment.

The mechanical equipment will operate at day and night, mechanical equipment will be selected for maximum 60 dBa at 30 feet.

We have been working with our equipment manufactures and they have been unable to provide sound data for specific distances. Using the ANSI/AHRI Standard 275 we estimate the RTU dBa sound levels to be the following.

	dBa	Location Factor (+dBa)	Sub-Total	Distance Factor (-dBa)	Sub-Total	Estimated Combined
RTU-1	74	3	77	-36.3	40.7	
RTU-2	79	3	82	-36.3	45.7	47.7
RTU-3	79	3	82	-36.3	45.7	47.7
RTU-4	74	3	77	-36.3	40.7	

Refer to the attached standard for more information.

Sincerely,

WV Engineering Associates, PA

Tell Plant

Richard A. Parks, III, PE

cc:

Mr. Ted Galante

TGAS

encl:

ANSI/AHRI Standard 275

ACCESSORIES

Refer to Price Manual for specific model numbers.

Standard Application Limits*									
Maximum Lineset Equivalent Length 80 Ft									
Outdoor Ambient Temperature Limits									
Cooling Operation	Maximum DB	125°F							
Cooling Operation	Minimum DB	55°F							

For Low Ambient and/or Long Lineset Applications, please see the accessories listed below.

Long Lineset Applications - For installations with more than 80' of equivalent lineset length, refer to the current version of the Piping Application Guide 247077-UAD-H-0209, available in the Application Bulletins section on www.upgnet.com.

OD Unit Anti Short Cycle Kit (10 Pack) S1-2TD08700124BK: A time delay that prevents rapid compressor restarting as a result of power interruption, limit switch operation, or thermostat resetting. Not required for HP models, or for AC models with factory electronic controls.

Standard Low Ambient Control Kit S1-2LA06700424: Allows the use of air conditioning at low outdoor ambient temperatures down to +20°F (-7°C). For use with all R-410A single stage AC & HP models.

Advanced Low Ambient Control Kit S1-2LA04701024: Contains the necessary components and controls to allow cooling operation down to -20°F (-29°C). For use with all R-410A single stage AC & HP models.

Low Pressure Switch Kit S1-2PS06700524: Provides field installed low pressure (loss of charge) protection. Not required for HP models, or for AC models with factory electronic controls.

High Ambient Condenser Fan Motor S1-FHM**HT:** Class F 70°C motor to allow cooling operation up to 160°F air entering the condenser. For use with all R-410A single stage AC & HP models containing R-410A refrigerant only.

Outdoor Communicating Board Kit (\$1-33102952310): Electronic control upgrade for standard AC & HP units to provide compatibility with the Residential Touch Screen Communicating Control

Start Assist Kit S1-2SA067*****: Provides increased compressor starting torque for areas with low supply voltage. Required for units with recip compressors when applied with indoor TXV, and for all units when applied with long linesets or low ambient kits. May be factory installed on select AC & HP units (see Physical & Electrical Table). See Price Pages or Source1 SmartSearch for the correct kit for each application.

Compressor Crankcase Heater Kit (\$1-025-*****-****): A wrap-around electrical resistance heater that warms the compressor sump, reducing the chance of liquid slugging on startup. Required on all long lineset and low ambient applications. See Price Pages or Source1 SmartSearch for the correct part for each application.

Indoor Blower-Off Delay Kit S1-2FD06700224: Provides a 1-minute blower-off delay at the end of the cooling cycle. May be required for retrofits with non-Johnson Controls Unitary Products indoor units. This feature is factory-provided on all JCUP indoor products.

Support Feet S1-HPRKIT-**: Kit of 5 support feet to raise unit above snow or landscaping. Available in heights of 3", 6" or 12".

Anchor Bracket Kit S1-1HK0401: Firmly anchors unit to pad or support structure. When properly installed, approved for ground-mounted or roof-mounted applications.

Indoor TXV Kit S1-1TVM***: Thermal expansion valves precisely meter refrigerant for optimum performance over a wide range of conditions. See System Charge Table, Price Pages, or Source1 Smart Search for TXV part number for each AC & HP model.

Wall Mount Kit (S1-ACB-**): Includes two brackets to allow outdoor unit to be securely mounted to a vertical wall. Mounting hardware is field sourced according to the specific application.

Winter Cover Kit S1-CCVRE***: Custom fit winter cover protects AC condensing unit from debris during the off-season. Must be removed prior to unit operation. See Price Pages or Source1 SmartSearch for the correct cover for each application.

Coid Weather Charging Tent S1-CHGTENT01: Provides warm environment to accurately service AC & HP systems in ambient conditions 55°F (13°C) or colder.

Touch-up Paint S1-5130153**:** Color matched aerosol paint for touching up unit chassis and panels. See Price Pages or Source1 SmartSearch for the correct color for each application.

Compressor Sound Blanket S1-010-07xxx-000: A field installed dense foam cover that provides 2dBA sound level reduction. See Price Pages or Source1 SmartSearch for the correct blanket for each application.

SOUND POWER RATINGS

Cooling	Octave Band Sound Power Level (db re. 1-pW)									
Model Number	63	125	250	500	1000	2000	4000	8000	dBA	SQI
YCE18B21H	69.7	66.7	65.5	65.2	69.8	65.1	63.1	60.6	73.0	19.2
YCE24B21H	68.7	74.0	68.6	72.9	70.5	67.3	63.8	60.7	75.0	19.1
YCE30B21H	69.0	72.1	71.0	71.2	69.1	64.9	65.7	63.0	74.0	19.0
YCE36B21H	71.8	76.5	71.6	73.1	71.1	66.2	65.4	61.8	76.0	19.1
YCE42B21H	69.3	73.0	75.6	71.6	72.6	67.6	59.1	57.8	76.0	19.1
YCE48B21S	68.6	76.8	71.4	71.4	70.9	63.8	60.9	58.7	75.0	19.0
YCE60B21S	72.9	73.3	71.3	74.3	70.7	66.5	64.5	64.4	76.0	19.2

Rated in accordance with ARI Standard 270.

Sound Performance

Outdoor Sound Power Levels (dB), 60 Hz

Size	Model	Sound	Octave Bands (Hz)							
(Tons)	Model	Rating ¹	63	125	250	500	1000	2000	4000	8000
090	PC090	89	88	90	89	87	84	81	77	72
(7.5) Y	YC090	89	88	89	89	87	84	81	78	73
(10.0)	PC120	89	88	90	89	87	84	81	77	72
	YC120	90	91	87	90	88	85	80	76	70
	YD120	90	92	89	91	88	85	80	77	71
150	YC150	91	96	88	90	89	86	82	77	71
(12.5)	YD150	91	92	92	92	89	86	81	78	73
180 P (15.0) Y	PC180	93	93	96	93	90	89	84	77	71
	PD180	93	93	96	93	90	89	84	77	71
	YC180	89	88	90	89	87	84	81	77	72
	YD180	89	88	90	89	87	84	81	77	72
	PC240	93	93	96	93	90	89	84	77	71
240 (20.0)	PD240	93	93	96	93	90	89	84	77	71
	YC240	93	93	96	93	90	89	84	77	71
	YD240	93	93	96	93	90	89	84	77	71
300 (25.0)	YC300	93	93	96	93	90	89	84	77	71

¹ Rated in accordance with AHRI 270 Standard.

BLOWER DATA

CEILING DIFFUSERS AIR RESISTANCE (in. w.g.)

Air Volume	RTE	9-65 Step-Dow	n Diffuser	FD9-65	RTD	FD11-95		
cfm	2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open	Flush Diffuser	2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open	Flush Diffuser
800	0.15	0.13	0.11	0.11		z Liius Opeii		
1000	0.19	0.16	0.14	0.14				
1200	0.25	0.20	0.17	0.17				
1400	0.33	0.26	0.20	0.20				
1600	0.43	0.32	0.20	0.24				
1800	0.56	0.40	0.30	0.30	0.13	0.11	0.09	0.09
2000	0.73	0.50	0.36	0.36	0.15	0.13	0.11	0.10
2200	0.95	0.63	0.44	0.44	0.18	0.15	0.12	0.12
2400					0.21	0.18	0.15	0.14
2600					0.24	0.21	0.18	0.17
2800					0.27	0.24	0.21	0.20
3000					0.32	0.29	0.25	0.25
3200					0.41	0.37	0.32	0.31
3400					0.50	0.45	0.39	0.37
3600					0.61	0.54	0 48	0.44

CEILING DIFFUSER AIR THROW DATA

Air Volume - cfm	¹ Effective	Throw - ft.
Model No.	RTD9-65	FD9-65
800	10 - 17	14 - 18
1000	10 - 17	15 - 20
1200	11 - 18	16 - 22
1400	12 - 19	17 - 24
1600	12 - 20	18 - 25
1800	13 - 21	20 - 28
2000	14 - 23	21 - 29
2200	16 - 25	22 - 30
Model No.	RTD11-95	FD11-95
2600	24 - 29	19 - 24
2800	25 - 30	20 - 28
3000	27 - 33	21 - 29
3200	28 - 35	22 - 29
3400	30 - 37	22 - 30
3600	25 - 33	22 - 24

¹ Effective throw based on terminal velocities of 75 ft. per minute.

OUTDOOR SOUND DATA

Unit Model No.	Octave Band Linear Sound Power Levels dBA, re 10 ⁻¹² Watts - Center Frequency - Hz							
	125	250	500	1000	2000	4000	8000	(dBA)
KGA036 and 048	63	66	70	71	68	62	53	75
KGA060	67	72	77	76	73	68	61	82
KGA072	66	71	74	73	70	65	57	79
KGA090	66	71	73	74	70	65	57	79
KGB024, 030, 036, 048	61	65	70	67	64	58	49	74
KGB060	66	71	74	73	70	65	57	79
KGB072, 074	66	71	74	73	70	65	57	79

Note - The octave sound power data does not include tonal corrections.

¹ Sound Rating Number according to ARI Standard 270-95 (includes pure tone penalty). "SRN" is the overall A-Weighted Sound Power Level, (LWA), dBA (100 Hz to 10,000 Hz).



Letters of Support

RICHARD J. MCLAUGHLIN POLICE CHIEF

TOWN OF BELMONT

460 CONCORD AVENUE
P.O. BOX 130
BELMONT, MASSACHUSETTS 02478-0002

POLICE DEPARTMENT



November 26, 2018

RE: Letter of Support for the Police Station Renovation Project

To Whom It May Concern;

I am submitting this letter of support such that the Planning Board understands that we believe the Police Station expansion and partial preservation of the building will have a positive impact on the neighborhood.

The focus of the project, as we understand it, is to expand the police station to provide many essential safety and code required upgrades so we can remain in the existing building for the long term future. The original 1931 building is an essential part of the historic context that makes up Belmont Center, and this cost effective expansion and restoration of the existing building will allow that to continue into the future.

We believe this project will have a positive impact on the building, the site, the neighborhood, and the overall historic downtown area. We support the project and would like to see the Board approve it so it can move forward in a timely manner.

We truly appreciate your consideration of this project.

Sincerely,

Richard J. McLaughlin

Police Chief

OFFICE OF COMMUNITY DEVELOPMENT TOWN OF BELMONT

19 Moore Street
Homer Municipal Building
Belmont, Massachusetts 02478-0900
Belmont Historical Commission

October 30, 2018

Department of Public Safety Architectural Access Board One Ashburton Place, Room 1310 Boston, MA 02108-1618

Re: Belmont Police Station Entry Variance

On behalf of the Belmont Historical Commission, this letter is in support of the application of The Galante Architecture Studio for a variance to retain the existing side entry to the historic Belmont Police Station as the accessible entry.

One major focus of this project is to make the building accessible to all, and as part of this effort, a new elevator is being planned, along with accessible restrooms and other amenities.

The building currently has two entrances; one on the historic façade and the other on the side of the building, which has been used as the accessible entrance for many years. One goal of this project is to upgrade this accessible entrance. As a secure building, access must be controlled at each location, and thus police attendance to both the front and side entrances are part of the Standard Operating Procedure for the facility. Visitors to the facility must be buzzed into the building and accompanied by a police officer throughout their visit. The entrances will continue to perform in the same manner.

The historic Police Station, built in 1930, and designed by H. Thaxter Underwood, is part of the historic Belmont Town Complex. It is also adjacent to the Pleasant Street Historic District, listed on the National Register of Historic Places. The building is listed on the Massachusetts Inventory of Historic and Archaeological Assets of the Commonwealth. The MACRIS cover page and the 1982 Massachusetts Historical Commission Form B from the 1982 inventory are attached. The existing front entrance is a character-defining feature of the historic building. However, it is not always the main entrance. The entrance on the side façade is used by employees and visitors alike as it is the primary entrance from the existing parking area. It has historic elements about it, but not as historically significant as the main building façade.

The historic design of the building is of Georgian Revival style with a prominent center entrance. The existing historic front entrance is reached by a set of eight stairs with a shallow landing that is flanked by historic side masonry walls. The historic pair of doors are too narrow to meet accessibility requirements. The existing steps, landing side walls and entry doors would need to

be completely redesigned with a new front ramp, change of door size, landing size and height, and removal of an existing wall. This would result in a major change to one of the Town's most important historic assets, irreparably damaging the historic entrance and associated landscape features.

We urge a favorable ruling on the variance application. Current and historic photographs of both the front and side entrance are enclosed.

Thank you for considering our request. If we may assist you in any way, please feel free to call upon us.

Sincerely,

Lauren Meier, ASLA

Janen/8mi

Belmont Historical Commission Co-Chair



Selectmen@belmont-ma.gov

455 CONCORD AVENUE BELMONT, MA 02478-2573 PHONE (617) 993-2610 FAX (617) 993-2611

TOWN OF BELMONT

OFFICE OF THE BOARD OF SELECTMEN 455 CONCORD AVENUE BELMONT, MASSACHUSETTS 02478

BOARD OF SELECTMEN

ADAM DASH, Chair

MARK A. PAOLILLO, Vice Chair

THOMAS CAPUTO, Selectman

TOWN ADMINISTRATOR
PATRICE GARVIN

November 27, 2018

To whom it may concern:

I am writing this letter to express my support for the Police Station project being put forward by the Department of Public Works and Belmont Police Station Building Committee.

The Police Station solution being proposed is elegant and solves the problems of creating a safe, modern station in its current location, while also preserving the look and feel of the existing building and making it ADA compliant. Doing all of this without requiring a debt exclusion is remarkable and is a testament to the ingenuity of the Building Committee and its architect.

Updating the Police Station has long been a capital need, but the Town has never been able to get it done. Until now.

For the good of the Town and its Police Force, this project needs to happen.

Thank you.

Adam Dash Chair

Belmont Board of Selectmen

Attachment: Email from Belmont Tree Warden Tom Walsh

The email below from Belmont Tree Warden Tom Walsh to DPW/BPD Committee member Michael Smith and copied to Shade Tree Committee Chair Lucia Gates confirms support for removal of the two large spruce trees in front of the Police Station.

FW: Belmont Police Station

Today at 4:54 PM

From: Tom Walsh <tom@garrity-insurance.com> Sent: Monday, November 26, 2018 12:30 PM

To: equusdesign@verizon.net Cc: <u>luciagates@aol.com</u>

Subject: Belmont Police Station

Mike, as per our conversation, I support the removal of the two large spruce trees in front of the Belmont Police Station in conjunction with re-landscaping the site. My opinion is that the trees are out of scale with the location. If you would like to discuss this further, please do not hesitate to call.

Best regards,

Thomas D. Walsh Vice President T. Edmund Garrity & Co., Inc. 545 Concord Ave., Ste. 16 Cambridge, MA 02138 Phone: (617) 354-4640 ext. 223

Cell: (978) 821-2667 Fax: (617) 902-2570

Tom@garrity-insurance.com







Coverage can't be bound, added or changed by electronic mail or fax. The documents and information contained in and attached to this electronic transmission may include information that is confidential and/or privileged and is for use of the specific individual(s) to whom it is addressed. If you are not the intended recipient of the e-mail or fax, you are hereby notified that any unauthorized use, dissemination or copying of the e-mail or the information contained in or attached to it is strictly prohibited. If you have received this e-mail or fax in error, please immediately notify the person named above by e-mail reply and delete this file. This also confirms that this e-mail and any attachments have been scanned for the presence of computer viruses



November 24, 2018

Belmont Zoning Board

Re: Police Station expansion project

To whom it may concern:

We are submitting this letter of support to the Belmont Planning Board to express our belief that the Police Station expansion project, and partial preservation of the building, will have a positive impact on the neighborhood.

The focus of the project, as we understand it, is to expand the police station to provide many essential safety and code required upgrades so they can remain in their existing building for the long term. The original 1931 building is essential to the historic nature of Belmont Center, and this cost effective expansion and restoration of the existing building will preserve that historic value.

We believe this project will have a positive impact on the building, the site, the neighborhood, and the overall historic quality of the downtown area. We support the project and would like to see the Board approve it so that it can move forward in a timely manner.

Signed;

The Belmont Woman's Club

Wendy Murphy, co-President,

Letter of Support from Vice Chair Belmont Board of Selectman

Subject: DPW / Police Station Projects

Date: Fri, 30 Nov 2018 **From:** Mark Paolillo

Anne Marie,

I understand that the DPW/Police Station Building Committee will be meeting with the Planning Board next week to discuss these very important building projects for our town. As you know, I strongly endorse moving forward in an expeditious way with both of these projects. Both the DPW facility and Police Station are aging buildings that are long overdue for reconstruction and repair. It is unfortunate that both our DPW and Police Department employees have to work in these aging structures. They present terrible working conditions and are unsafe as well. Now is the time to change that. I believe that both of the building proposals that the Building Committee has developed address these issues in both an efficient and effective way.

Good luck with your meeting next week and thank you for your outstanding leadership of this Building Committee.

Regards, Mark

Mark A. Paolillo, CPA
Principal
Ryan - Abandoned and Unclaimed Property Practice Leader
One International Place
100 Oliver Street, Suite 1800
Boston, Massachusetts 02110

857.288.1976 Ext. 88-1976 617.513.9510 (Mobile)

Letter of Support from Belmont Lions Club

Subject:Belmont Police Station Expansion and Partial Preservation Project Date:Wed, 28 Nov 2018

From:timothy king

Dear Anne Marie.

On behalf of the Belmont Lions Club, a neighbor of the Belmont Police Department for the past 70 years, I am submitting this letter in support of the expansion and partial preservation of the Belmont Police Station.

As we understand it, the focus of the project is to expand the police station to provide many essential safety and code required upgrades, so the police department can remain in their existing building for the long term.

We believe this project will have a positive impact on the building, the site, the neighborhood, the overall historic downtown area, the safety of police personnel, and the Town as a whole. We support this project and would like to see it approved by the Board, so it can move forward in a timely manner.

Respectfully,

Tim King President Belmont Lions Club 617-866-3564 (Mobile) tking35@msn.com

LETTER OF SUPPORT

To: Belmont Planning Board

We are submitting this letter of support to the Belmont Planning Board for the Belmont Police Department as we believe the Police Station expansion and partial preservation of the building will have a positive impact on the neighborhood.

The focus of the project, as we understand it, is to expand the police station to provide many essential safety and code required upgrades so they can remain in their existing building for the long term future. The original 1931 building is an essential part of the historic context that makes up Belmont Center, and this cost effective expansion and restoration of the existing building will allow that to continue into the future.

We believe this project will have a positive impact on the building, the site, the neighborhood, and the overall historic downtown area. We support the project and would like to see the Planning Board approve the application so that it can move forward in a timely manner.

Name and Belmont Address:

Signed; Kaun Herosian 585 Pleasant St

To: Belmont Planning Board

Date: November 24, 2018

Re: LETTER OF SUPPORT for Police Department application

We are submitting this letter of support to the Belmont Planning Board for the Belmont Police Department as we believe the Police Station expansion and partial preservation of the building will have a positive impact on the neighborhood.

The focus of the project, as we understand it, is to expand the police station to provide many essential safety and code required upgrades so they can remain in their existing building for the long term future. The original 1931 building is an essential part of the historic context that makes up Belmont Center, and this cost effective expansion and restoration of the existing building will allow that to continue into the future.

We believe this project will have a positive impact on the building, the site, the neighborhood, and the overall historic downtown area. We support the project and would like to see the Planning Board approve the application so that it can move forward in a timely manner.

Thank you,

Signed; (Name and Address)

Ron Creamer 634 Pleasant St.

Belmont, MA 02478



Drawing Index

AS100: Existing Conditions Survey

AS101: Proposed Site Plan

IMG-1: Existing Site / Building Images

IMG-2: Existing Site / Building Images

LS-1: Existing Site Landscape

LS-2: Proposed Site Landscape

PK-1: Existing Parking

PK-2: Proposed Parking

PK-3: Parking Calculations

LG-1: Exterior Lighting

LG-2: Exterior Lighting

R-1: Existing Rooftop Equipment

R-2: Proposed Rooftop Equipment

RND-1: Proposed Project Renderings

RND-2: Proposed Project Renderings

LS100: Landscape Plan

LS200: Plant Images Board

A-100: Basement Floor Plan

A-100M: Mezzanine Floor Plan

A-101: First Floor Plan

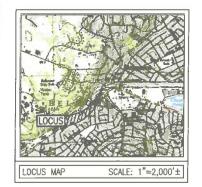
A-102: Second Floor Plan

A-103: Proposed Roof Plan

A-201: Proposed Building Elevations

A-202: Proposed Building Elevations

A-303A: Building Sections



LEGEND DESCRIPTION PROPERTY LINE CONTOUR LINE SPOT ELEVATION EDGE OF PAVEMENT VERTICAL GRANITE CURB VERTICAL CONCRETE CURB CAPE COD BERM WATER LINE GAS LINE ELECTRIC, TELEPHONE & OVERHEAD WIRES DRAIN LINE GRAVITY SEWER FENCE WOOD GUARDRAIL HYDRANT WATER GATE GAS GATE BOLLARD LIGHT UTILITY POLE CATCH BASIN DRAIN MANHOLE SEWER MANHOLE ELECTRIC MANHOLE WATER METER MANHOLE MET W W MANHOLE VENT ROOF DRAIN ELECTRIC HANDHOLE

RECORD OWNER:
ASSESSORS PARCEL I.D. 31-1-B
INHABITANTS OF BELMONT, POLICE STATION
460 CONCORD AVE.
BELMONT, MA 02478
DEED BOOK 11968, PAGE 264 (LOT 1A TAKING)

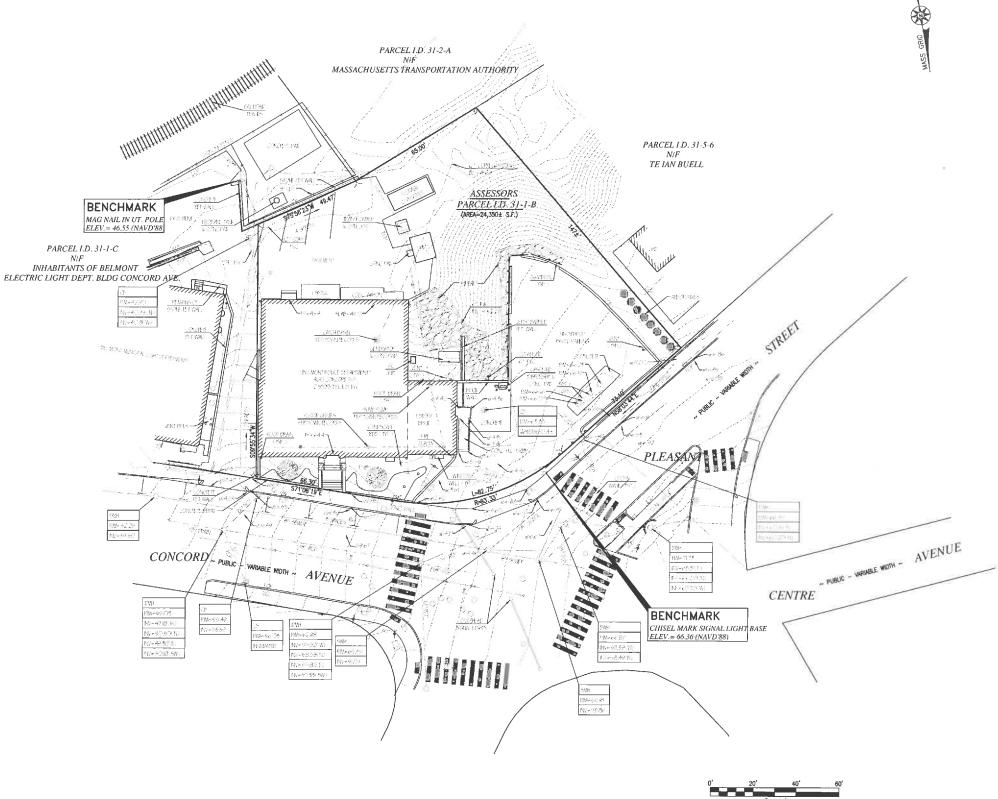
NOTES

ARLAND MAY BE 1 RECORDIN THIS DOC 1. TOPOGRAPHIC AND PROPERTY LINE SURVEY
PERFORMED BY FARLAND CORP. IN JULY 2018.
2. VERTICAL ELEVATIONS REFER TO THE NORTH
AMERICAN VERTICAL DATUM (NAVD) OF 1988

AMERICAN VERTICAL DATUM (NAVD) OF 1988
(NAVD'88) AND HORIZONTAL LOCATIONS REFER TO
THE NORTH AMERICAN DATUM OF 1983 (NAD 83).

3. THE LOCATION AND/OR ELEVATION OF EXISTING
UTILITIES AND STRUCTURES AS SHOWN ON THESE
PLANS ARE BASED ON RECORD PLANS PROVIDED B

3. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORD PLANS PROVIDED BY THE BELMONT ENGINEERING DEPARTMENT, THE BELMONT WATER DIVISION AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.



TGAS
THE GALANTE
ARCHITECTURE
STUDIO INC

146 MT AUBURN ST CAMBRIDGE, MA 02138

6 1 7 5 7 6 2 5 0 0

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Project Number 1809.00 Project Title Belmont Police Station Renovation & Expansion

460 Concord Ave, Belmont, MA 02478

Drowing Title
Existing Conditions
Site Survey

Date/Issued For 12.14.2018

60% CD Progress

NOT FOR CONSTRUCTION

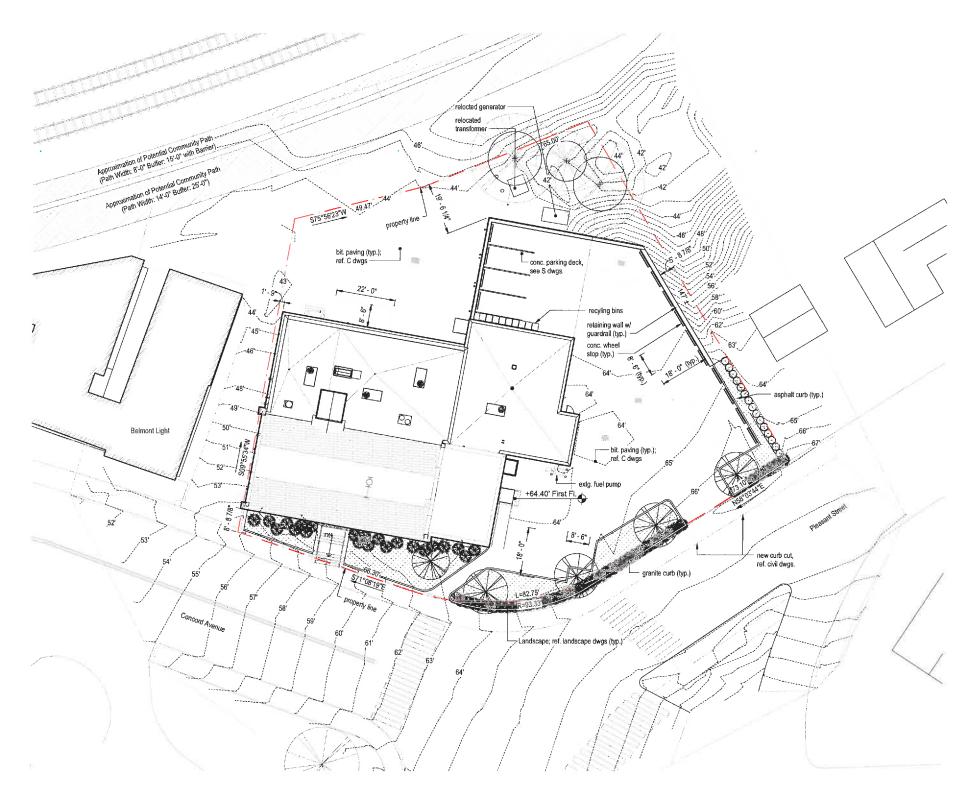
Scale

Drawn By GRK

Drawing Number

AS100

Refer to Civil drawings for full scope of site work including but not limited to site drainage & extent of pavement



Proposed Site Plan
1/16" = 1'-0"



146 MT AUBURN ST CAMBRIDGE, MA 02138

6 1 7 5 7 6 2 5 0 0

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Project Number 1809.00

Project Title

Belmont Police Station Renovation & Expansion

460 Concord Ave, Belmont, MA 02478

Drawing Title

Proposed Site Plan

Date/Issued For 12.14.2018

60% CD Progress



Scale 1/16" = 1'-0"

Drawn By GRK

AS101



9 - Front Facade



8 - Historic Front Entrance



7 - Front Sidewalk & Plantings



6 1 7 5 7 6 2 5 0 0

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6 - View From Across Intersection



5 - West Facade / Accessible Entrance



4 - Site Slope Towards Lower Parkign Lot



Renovation & Expansion

460 Concord Ave, Belmont, MA 02478

Drawing Title

Existing Site / Building Images



1 - View From 692 Pleasent Street



2 - View From 693 Pleasent Street



3 - Upper Parking Lot

Date/Issued For 12.14.2018

60% CD Progress



Scale

Drawn By SB/GRK

Drawing Number





9 - View From Royal Road



8 - View From Commuter Rail Platform



7 - Lower Parking Lot



6 1 7 5 7 6 2 5 0 0

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6 - Lower Parking Lot



5 - Existing Generator Location



4 - Lower Parking Lot



460 Concord Ave, Belmont, MA 02478

Drawing Title

Existing Site / Building Images



1.- View From Concord Avenue



2 - View From 693 Pleasent Street



3 - Parking Behind Belmont Light

Date/Issued For 12.14.2018

60% CD Progress



Scale

Drawn By SB/GRK

Drawing Number

IMG-2

Existing Landscaping:

• Landscape Area (Formal & Natural Areas)

a. Formal Area: $1010 \text{ sf } \pm$ b. Existing Marked to Remain: 2281 sf ±

c. Existing Marked for Removal: 5211 sf ± **Total Existing Formal & Natural:** 8502 sf ±

a. Trees Marked to Remain: 3 b. Trees Marked for Removal: 40

c. Total Trees (on-site):

Key Legend

- Tree Existing to Remain

- Tree Marked for Removal

- Existing Marked to Remain (Formal)

Existing Marked to Remain (Natural)

Existing Marked for Removal (Natural)



1 - Front Elevation



3 - Front Landscape



5 - Landscaped Buffer to Abutter



7 - Lower Parking Lot



2 - Front Landscape



4 - Upper Parking Lot / Sidewalk Condition



6 - Site Grade / Rear Landscape



8 - Rear Landscape



146 MT AUBURN ST CAMBRIDGE, MA 02138

6 1 7 5 7 6 2 5 0 0

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1809.00 Project Title Belmont Police Station Renovation & Expansion

460 Concord Ave, Belmont, MA 02478

Drawing Title Existing Site Landscape

Date/Issued For 12.14.2018

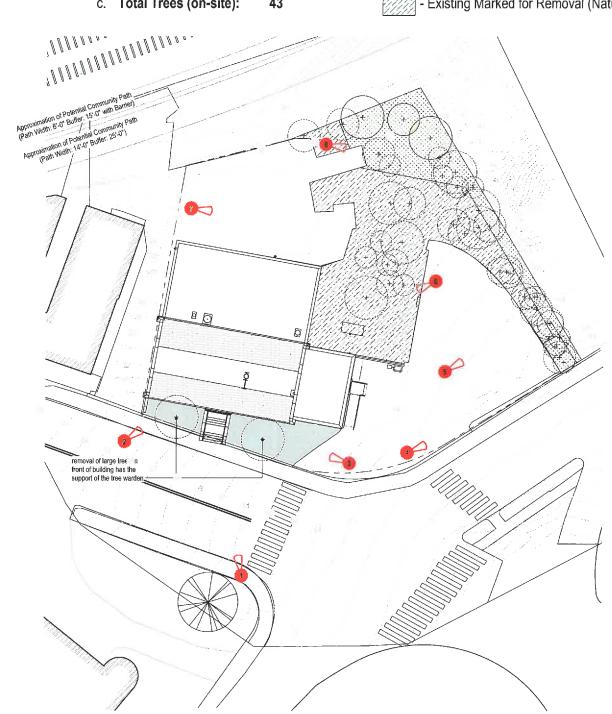
60% CD Progress

NOT FOR CONSTRUCTION

Scale As indicated

Drawn By SB/GRK

Drawing Number



Existing Landscape Diagram

1" = 20'-0"

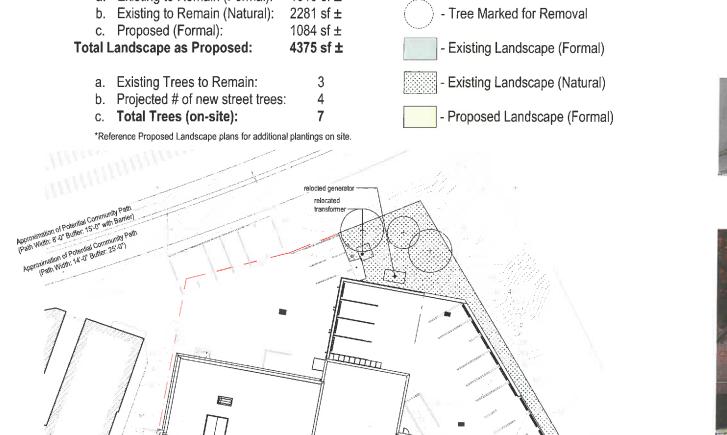
Proposed Landscaping:

• Landscape Area (Formal & Natural Areas)

a. Existing to Remain (Formal): 1010 sf \pm



- Tree Existing to Remain







1 - Abutter Landscape Buffer



1 - Front Elevation



TGAS THE GALANTE ARCHITECTURE STUDIO INC

146 MT AUBURN ST CAMBRIDGE, MA 02138

6 1 7 5 7 6 2 5 0 0

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1809.00 Project Title Belmont Police Station Renovation & Expansion

460 Concord Ave, Belmont, MA 02478

Drawing Title

Proposed Site Landscape

Date/Issued For 12.14.2018

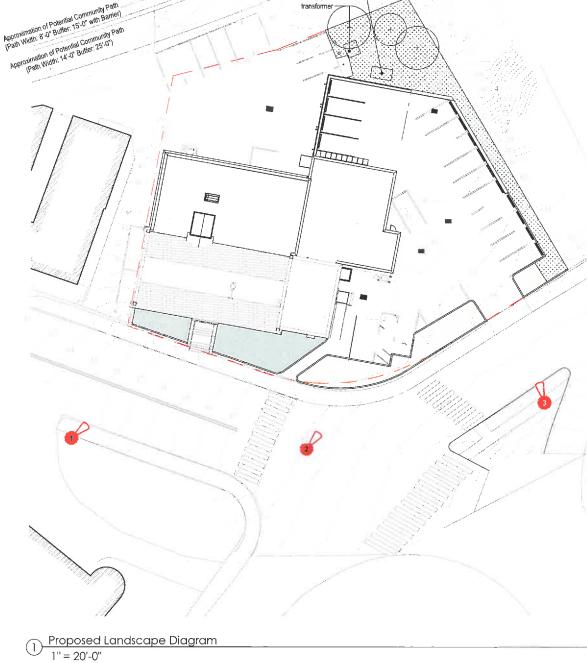
60% CD Progress

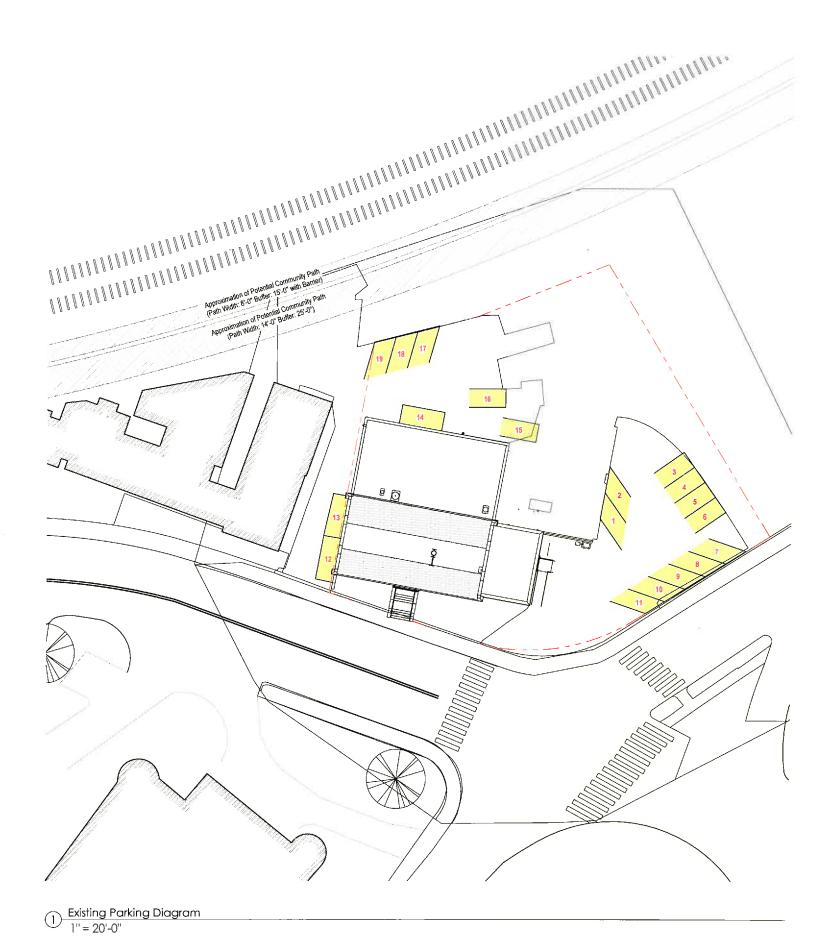
NOT FOR CONSTRUCTION

Scale As indicated

Drawn By SB/GRK

Drawing Number





Existing Parking Count:

Upper Lot: 11 Spaces

Side of Building: 2 Spaces

Lower lot: 6 Spaces

Total Count: 19 Spaces



146 MT AUBURN ST CAMBRIDGE, MA 02138

6 1 7 5 7 6 2 5 0 0

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Project Number 1809.00 Project Title Belmont Police Station Renovation & Expansion

460 Concord Ave, Belmont, MA 02478

Drawing Title

Existing Parking

Date/Issued For 12.14.2018

60% CD Progress

NOT FOR CONSTRUCTION

Print 24 x

Scale 1" = 20'-0"

Drawn By SB/GRK

Drawing Number

PK-1



Proposed Parking Count:

Upper Lot: 18 Spaces

** Two (2) Handicap Spots provided per ADA Regulations

Side of Building: 2 Spaces

Lower lot: 10 Spaces

Garage Parking: 3 Spaces

** Not Shown

Total Count: 33 Spaces (+14)



146 MT AUBURN ST CAMBRIDGE, MA 02138

6 1 7 5 7 6 2 5 0 0

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Project Number 1809.00 Project Title Belmont Police Station Renovation & Expansion

460 Concord Ave, Belmont, MA 02478

Drawing Title

Proposed Parking

Date/Issued For 12.14.2018

60% CD Progress

NOT FOR CONSTRUCTION

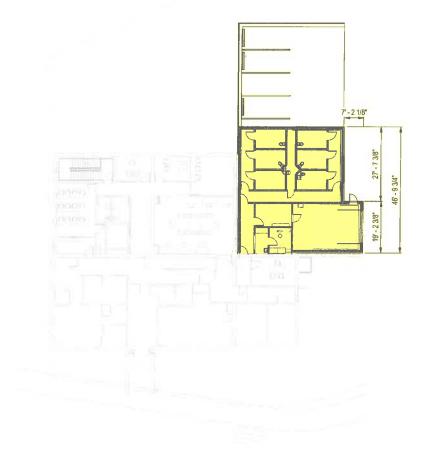
____ Print 24:

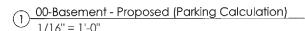
Scale 1" = 20'-0"

Drawn By SB/GRK

Drawing Numbe

PK-2





Area of Addition: 3507 gsf

Calculable Area: 0 gsf

No Calculations Required

+ 0 Required Spaces

2 01-First Floor - Proposed (Parking Calculation)
1/16" = 1'-0"

Area of Addition: 2015 gsf

Calculable Area: 2015 gsf

One (1) parking space required per 350 gsf

2015 gsf / 350 = 5.75

+ 6 Required Spaces

Zone LBI - parking Req.

Per Belmont Bylaws – Section 5 - 5.1.2 Schedule of Requirements – g) Other Service Establishments, retail businesses, and offices;

One (1) parking space per 350 square feet of ground floor gross floor area

One (1) parking space per 600 square feet gross floor area on other floors

Total Required Spaces: +11



3 02-Second Floor - Proposed (Parking Calculation)
1/16" = 1'-0"

Area of Addition: 2516 gsf

Calculable Area: 2516 gsf

One (1) parking space required per 600 gsf

2516 gsf / 600 = 4.20

+ 5 Required Spaces



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460 Concord Ave, Belmont, MA 02478

Parking
Calculations

Date/Issued For 12.14.2018

60% CD Progress

NOT FOR CONSTRUCTION

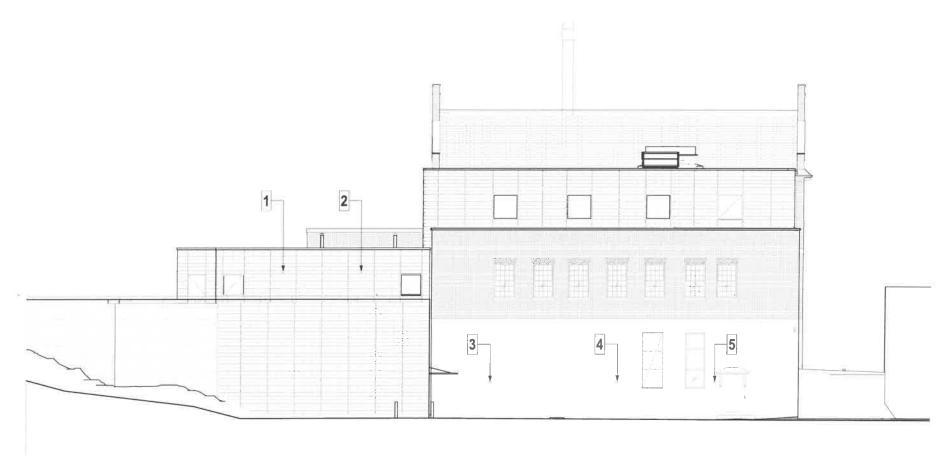
Print 2s

Scale 1/16" = 1'-0"

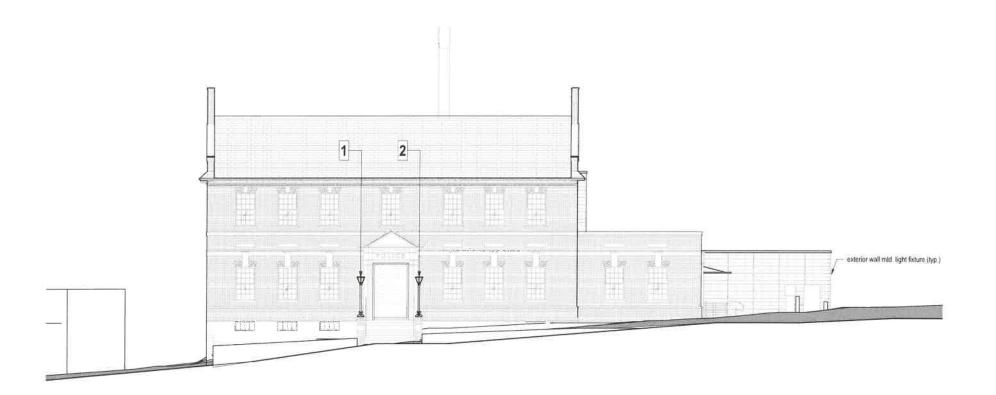
Drawn By SB

Drawina Numbe

PK-3



2 South Elevation 1/8" = 1'-0"



 $1 \frac{\text{North Elevation}}{1/8" = 1'-0"}$

Exterior Lighting:

South Elevation

Existing: 1 (to be removed)

Proposed: 5

Total: 5

North Elevation

Existing: 2

Proposed: 0

Total: 2

- * Proposed lighting is **Luminaire AWL.06.1** LED - 6w down light
- ** Exterior lighting to be controlled by daylight sensors and/or timers

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Drawing Title

Exterior Lighting

Date/Issued For 12.14.2018

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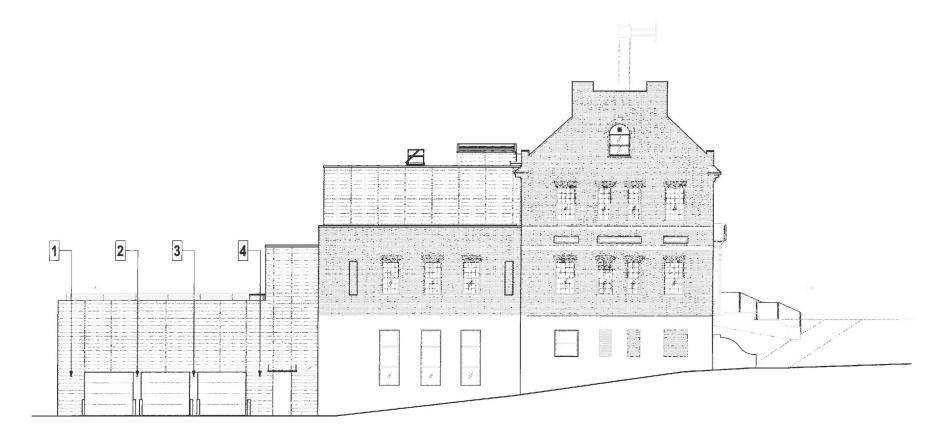
Print 2

Scale 1/8" = 1'-0"

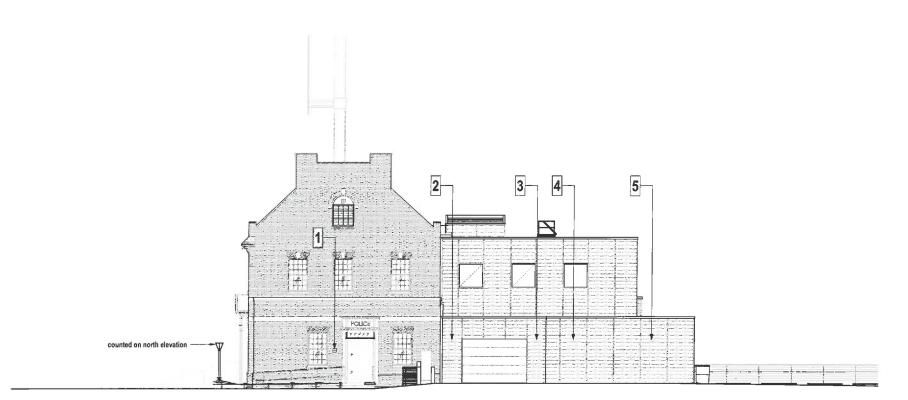
Drawn By SB/GRK

Drawing Number

LG-



2 East Elevation
1/8" = 1'-0"



West Elevation
1/8" = 1'-0"

Exterior Lighting:

East Elevation

Existing: 0

Proposed: 4

Total: 4

West Elevation

Existing: 1

Proposed: 4

Total: 5

- * Proposed lighting is Luminaire AWL.06.1 LED - 6w down light
- ** Exterior lighting to be controlled by daylight sensors and/or timers

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Drawing Title

Exterior Lighting

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Scale 1/8" = 1'-0"

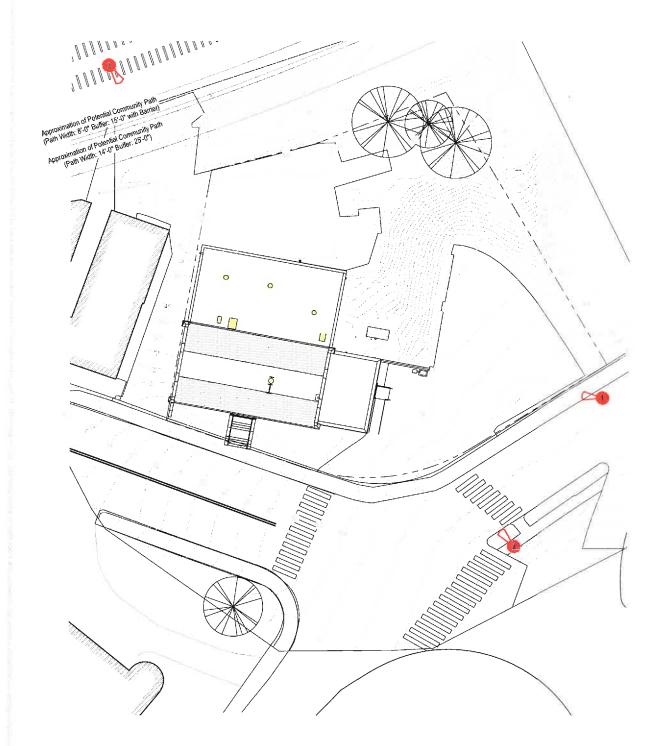
Drawn By SB/GRK

Existing Rooftop Equipment:

Upper Roof: 1 Cellular Antenna

Lower West Roof: 0 Units

Lower South Roof: 3 Units, 3 Vents



Existing HVAC Diagram
1" = 20'-0"



1 - View From Pleasent Street Sidewalk



2 - View From Across Intersection



3 - View From Royal Road (across the tracks)

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Existing Rooftop Equipment

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Scale 1" = 20'-0"

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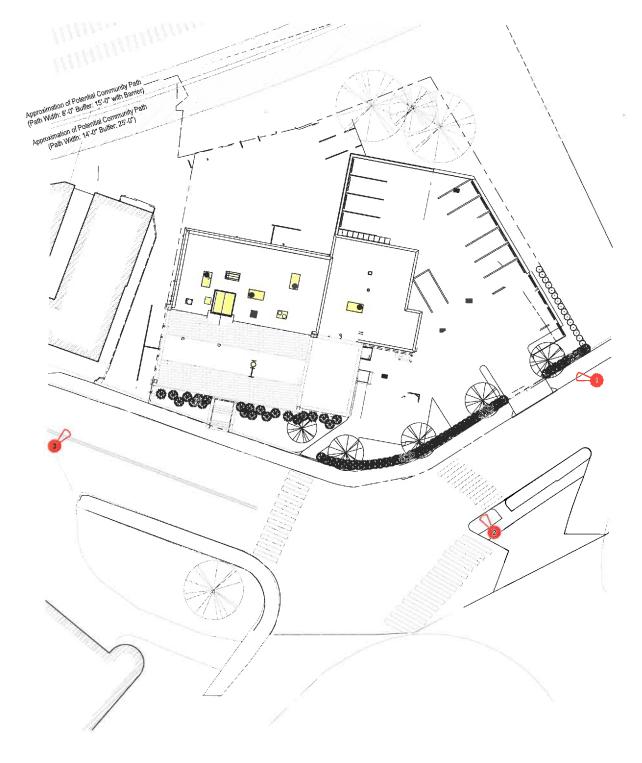
Drawing Number

Proposed Rooftop Equipment:

Upper Roof: 1 Cellular Antenna (existing)

Lower West Roof: 1 Unit

Lower South Roof: 5 Units, 1 Elevator Shaft, 1 Roof Access Hatch



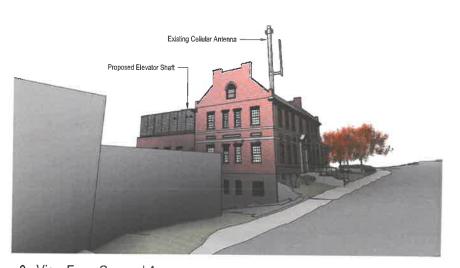
Proposed HVAC Diagram
1" = 20'-0"



1 - View From Pleasent Street Sidewalk



2 - View From Across Intersection



3 - View From Concord Avenue

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Proposed Rooftop Equipment

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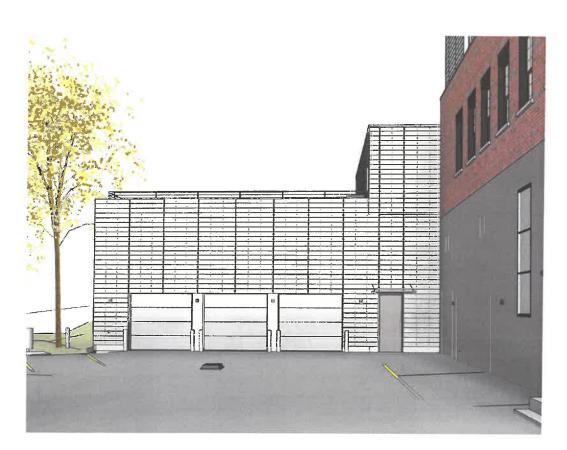
Scale 1" = 20'-0"

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Drawing Number



4 View of Sally Port Addition



1) View of Garage Addition



3 Northwest Corner



2 Northeast Corner

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Proposed Project Renderings

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calo

Drawn By

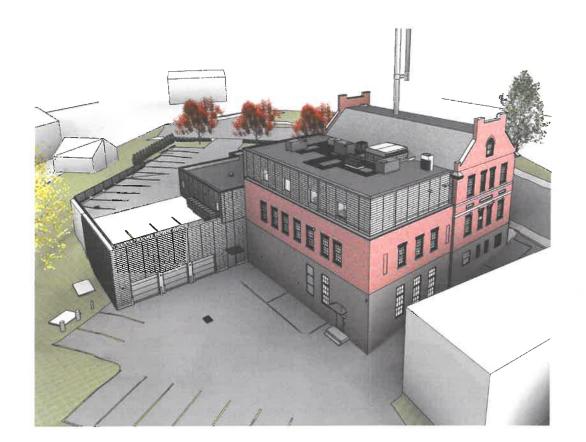
SB/GRK

Drawing Number

RND-1







4 SouthEast - Aerial



2 NorthWest - Aerial



NorthEast - Aerial

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6 1 7 5 7 6 2 5 0 0

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Proposed Project Renderings

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Scale

Print 24 x 3

Drawn By SB/GRK

Drawing Number

RND-2



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Project Number 1809

Project Title

Belmont Police Station Renovation & Expansion

460 Concord Ave Belmont, MA 02478

Hammer+Walsh Design Inc.

Landscape Architecture Master Planning

281 Summer Street, 6th Floor Boston, MA 02219-1539 (617) 439-0125

www.hammerwalsh.com

Drawing Title

LANDSCAPE PLAN

Date/Issued For 12.21.2018

60% CD Progress

NOT FOR CONSTRUCTION

Scale

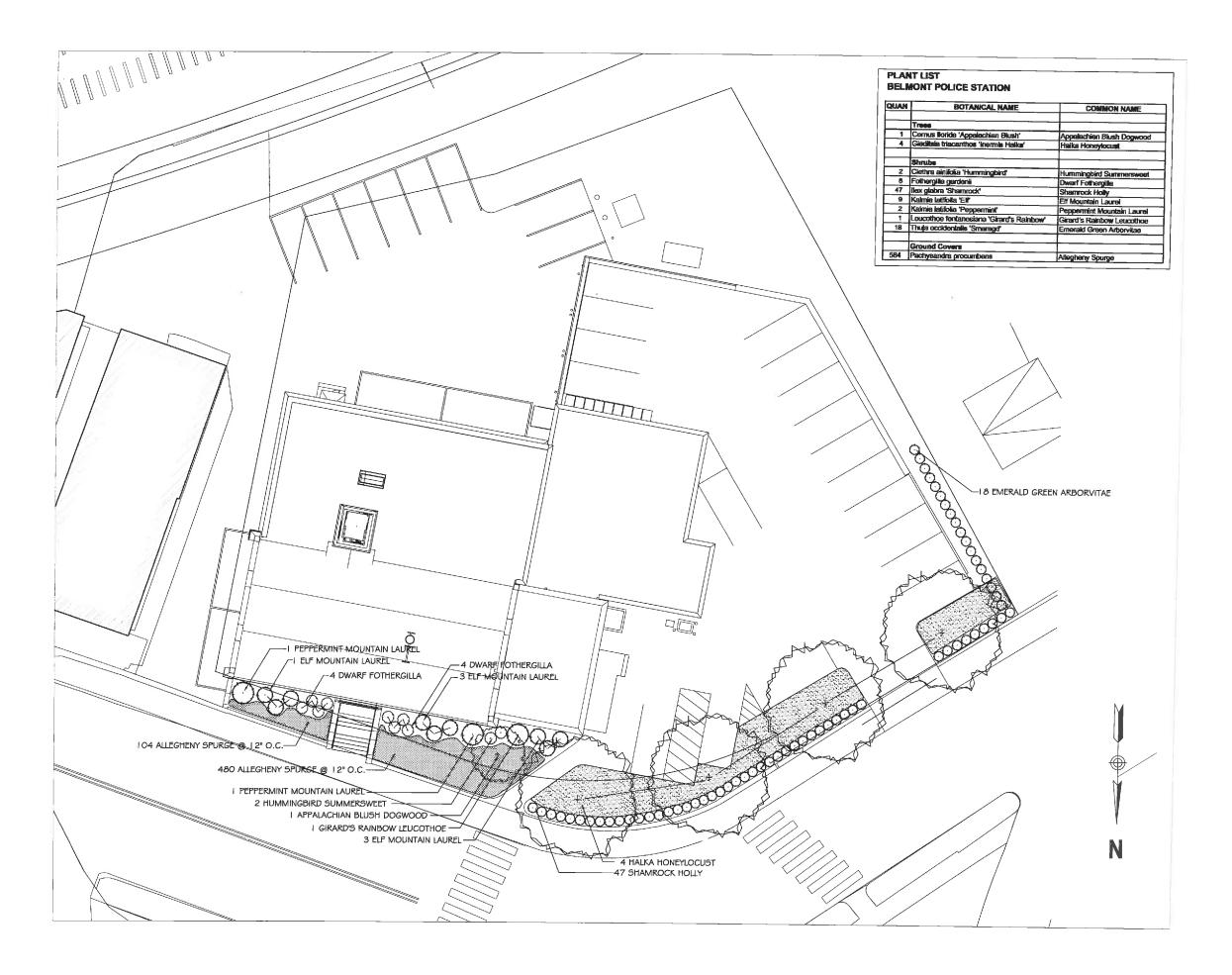
 $\frac{3}{32}$ "=1'-0"

Drawn By

NH

Drawing Number

LS100



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6 1 7 5 7 6 2 5 0 0

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Project Number

Project Title

Belmont Police Station Renovation & Expansion

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Hammer+Walsh Design Inc.

Landscape Architecture Master Planning 281 Summer Street, 5th Floor Boston, MA 02210-1539

(617) 439-0125 www.hammerwalsh.com

Drawing Title

LANDSCAPE PLAN

Date/Issued For 12.21.2018

60% CD Progress

NOT FOR CONSTRUCTION

Scale

 $\frac{3}{32}$ "=1'-0"

Drawn

NH

Drawing Number

LS100

Street Tree

Deciduous Ornamental Tree

Deciduous Ornamental Shrubs



Halka Honeylocust



Appalachian Blush Dogwood



Hummingbird Summersweet



Dwarf Fothergilla



Elf Mountain Laurel

Broadleaf Evergreen Shrubs



Peppermint Mountain Laurel



Girard's Rainbow Leucothoe





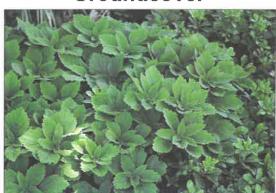
Shamrock Holly

Coniferous Evergreen Screening Plant



Emerald Green Arborvitae

Semi-Evergreen Groundcover



Allegheny Spurge

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Project Title

Belmont Police Station Renovation & Expansion

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Hammer+Walsh Design Inc.

Landscape Architecture Master Planning

www.hammerwalsh.com

PLANT IMAGES **BOARD**

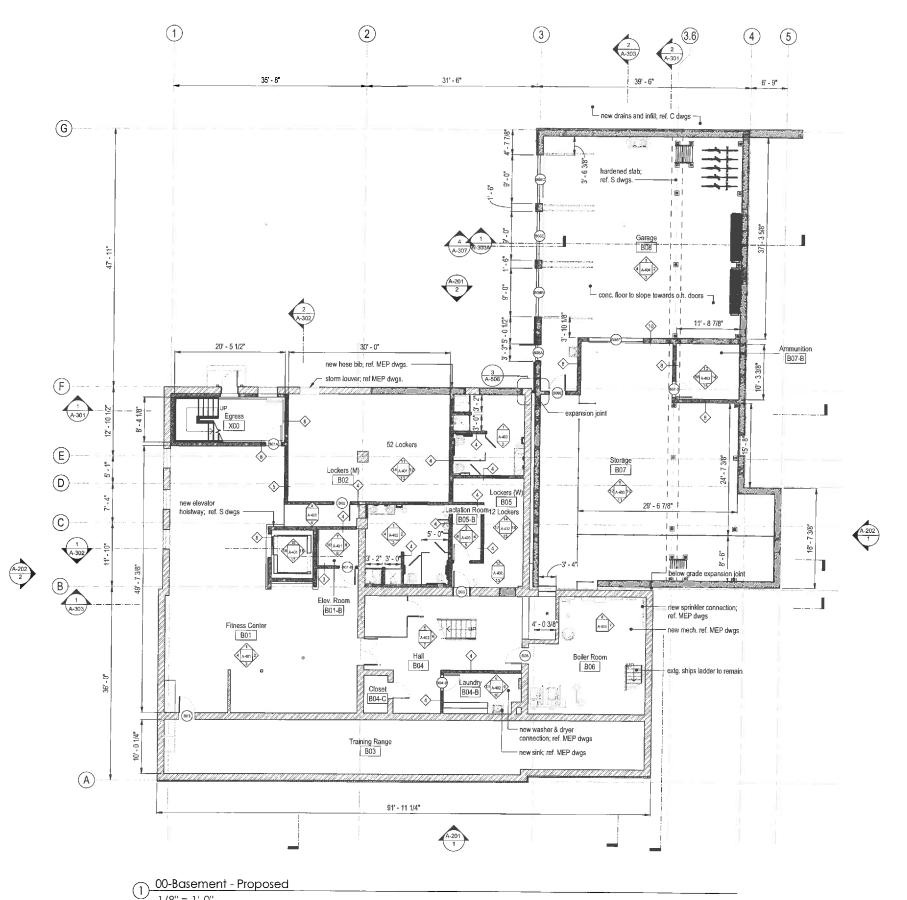
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As Shown

NH



1/8" = 1'-0"

See enlarged floor plans for additional scope not captured in floor plans Ref. MEP, S, & C dwgs for additional scope

Area Schedule (Existi	ng GFA)
Existing GFA - Basement	5807 SF
Existing GFA - Mezzanine	1482 SF
Existing GFA - First Floor	5807 SF
Existing GFA - Second Floor	2450 SF
Existing GFA - Attic	1101 SF
	16647 SE

Area Schedule (Propos	ed GFA)
Proposed GFA - Basement	3507 SF
Proposed GFA - First Floor	2015 SF
Proposed GFA - Second Floor	2516 SF
*	8037 SF

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Drawing Title

Basement Floor Plan

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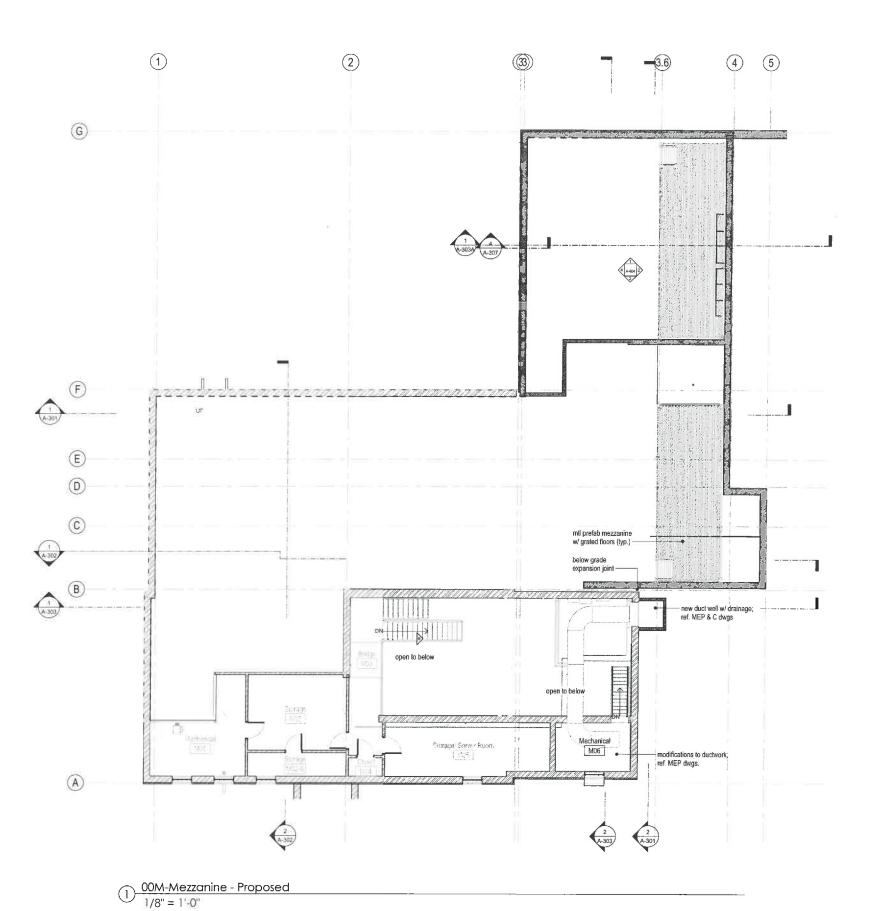
NOT FOR CONSTRUCTION

Scale 1/8" = 1'-0"

Drawn By GRK

Drawing Number

A-100



See enlarged floor plans for additional scope not captured in floor plans
 Ref. MEP, S, & C dwgs for additional scope

Area Schedule (Existin	ng GFA)
Existing GFA - Basement	5807 SF
Existing GFA - Mezzanine	1482 SF
Existing GFA - First Floor	5807 SF
Existing GFA - Second Floor	2450 SF
Existing GFA - Attic	1101 SF
•	16647 SF

Area Schedule (Proposi	ed GFA)
Proposed GFA - Basement	3507 SF
Proposed GFA - First Floor	2015 SF
Proposed GFA - Second Floor	2516 SF
	8037 SF

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Belmont Police Station Renovation & Expansion

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Drawing Title

Mezzanine Floor Plan

Date/Issued For 12.14.2018

60% CD Progress

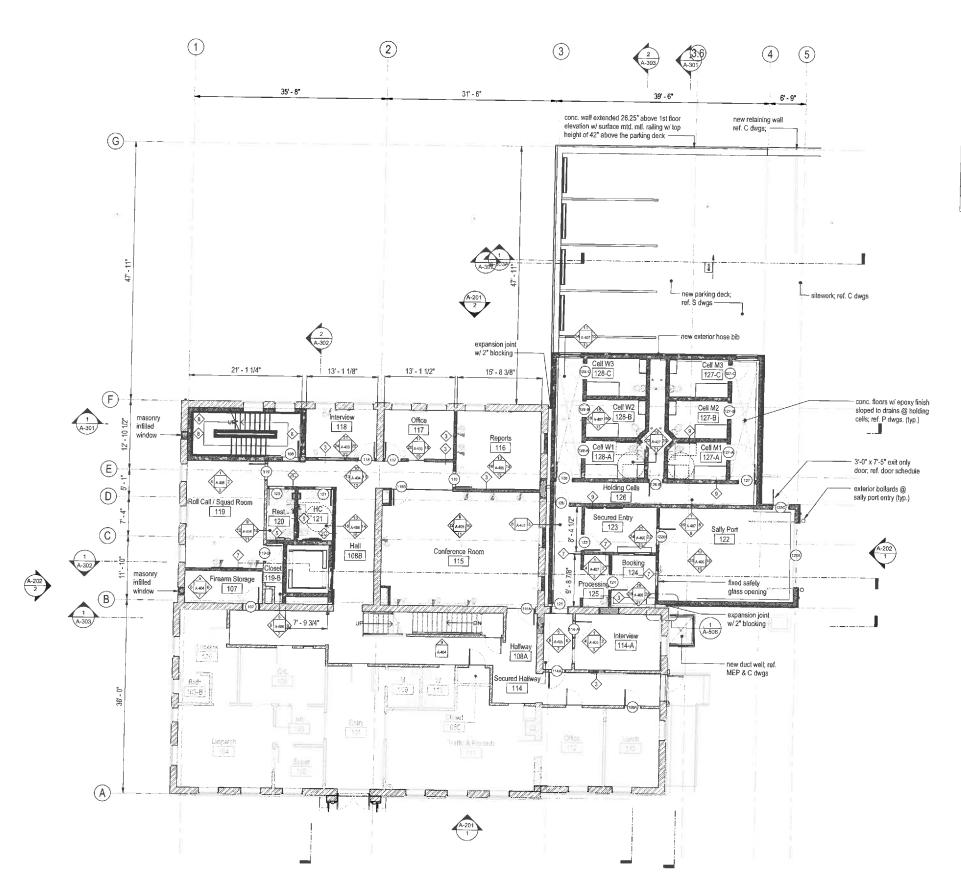


Scale 1/8" = 1'-0"

Drawn By GRK

Drawing Number

A-100M



Not

Holding cell walls are based on using a steel wall panel system.
 Holding cell walls are based on using a steel wall panel system.
 Glass Opening in Interview rooms 114-A & 117 are to have one way glass.
 See enlarged floor plans for additional scope not captured in floor plans.
 Ref. MEP, S, & C dwgs for additional scope

1 -1 - 0 ange lei additional scop	
Area Schedule (Existin	ng GFA)
Existing GFA - Basement	5807 SF
Existing GFA - Mezzanine	1482 SF
Existing GFA - First Floor	5807 SF
Existing GFA - Second Floor	2450 SF
Existing GFA - Attic	1101 SF
	16647 SF

Area Schedule (Propos	ed GFA)
Proposed GFA - Basement	3507 SF
Proposed GFA - First Floor	2015 SF
Proposed GFA - Second Floor	2516 SF
	8037 SF

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Project Number 1809.00 Project Title Belmont Police Station Renovation & Expansion

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Drawing Title
First Floor Plan

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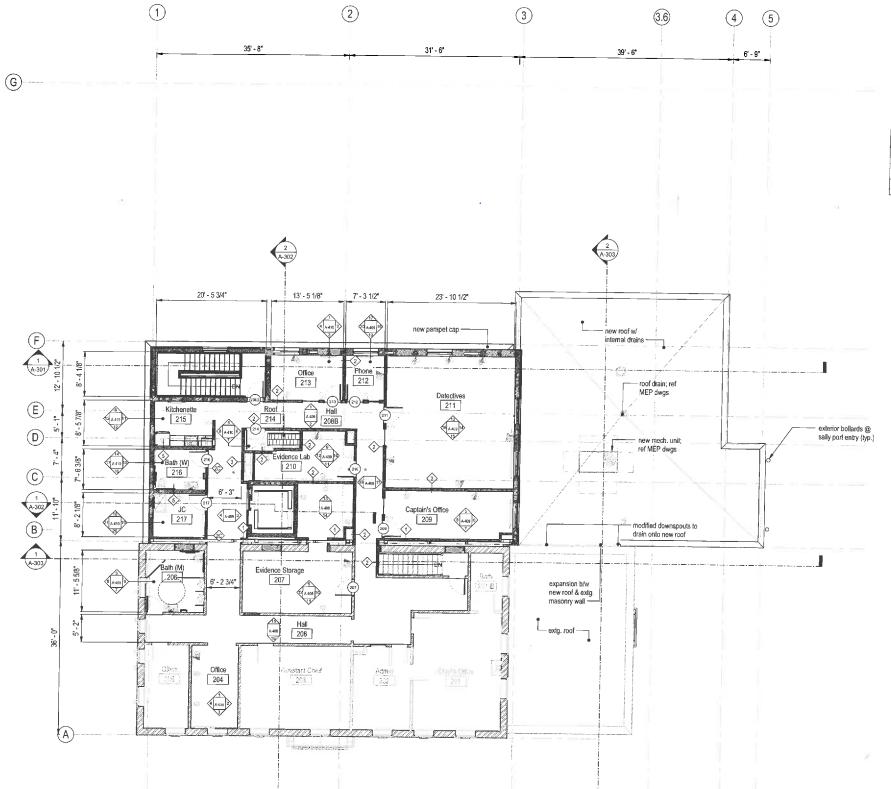
Scale 1/8" = 1'-0"

Drawn By GRK

Drawing Number

A-101

01-First Floor - Proposed
1/8" = 1'-0"



1/8" = 1'-0"

Note:

See enlarged floor plans for additional scope not captured in floor plans
 Ref. MEP, S, & C dwgs for additional scope

Area Schedule (Existin	ng GFA)
Existing GFA - Basement	5807 SF
Existing GFA - Mezzanine	1482 SF
Existing GFA - First Floor	5807 SF
Existing GFA - Second Floor	2450 SF
Existing GFA - Attic	1101 SF
	16647 SF

Area Schedule (Propos	ed GFA)
Proposed GFA - Basement	3507 SF
Proposed GFA - First Floor	2015 SF
Proposed GFA - Second Floor	2516 SF
	8037 SF

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Drawing Title

Second Floor Plan

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Scale 1/8" = 1'

1/8" = 1'-0"

Drawn By GRK

Drawing Number

A-102



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Drawing Title

Proposed Roof Plan

Date/Issued For 12.14.2018

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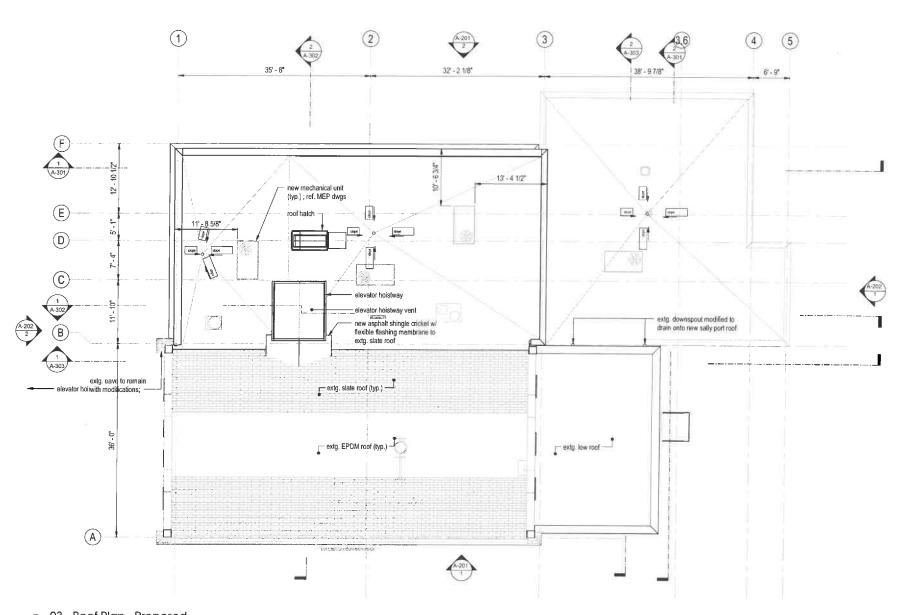
NOT FOR CONSTRUCTION

Scale 1/8" = 1'-0"

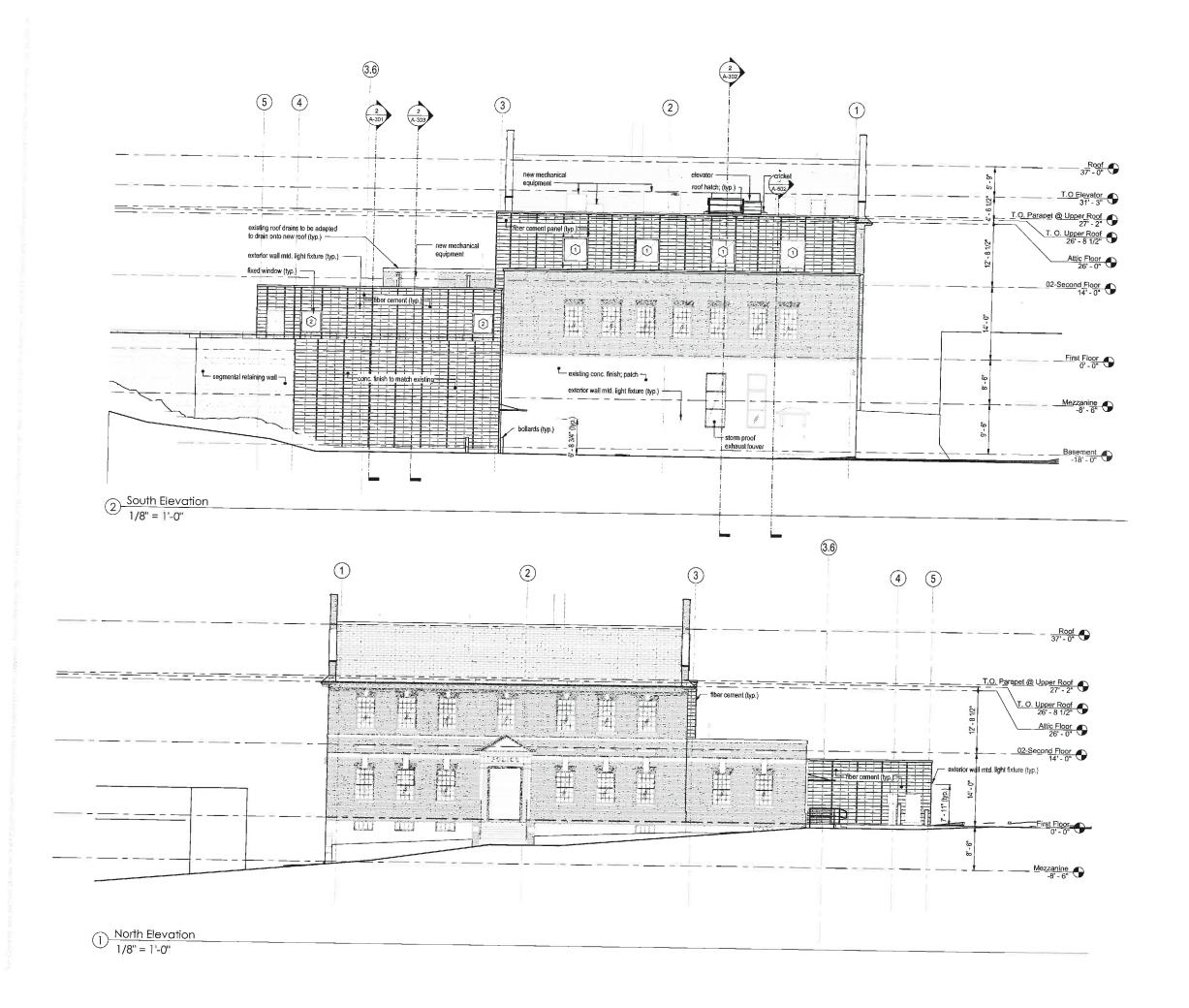
Drawn By GRK

Drawing Number

A-103



03 - Roof Plan - Proposed 1/8" = 1'-0"





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Belmont Police Station Renovation & Expansion

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Drawing Title

Proposed Building Elevations

Date/Issued For 12.14.2018

60% CD Progress

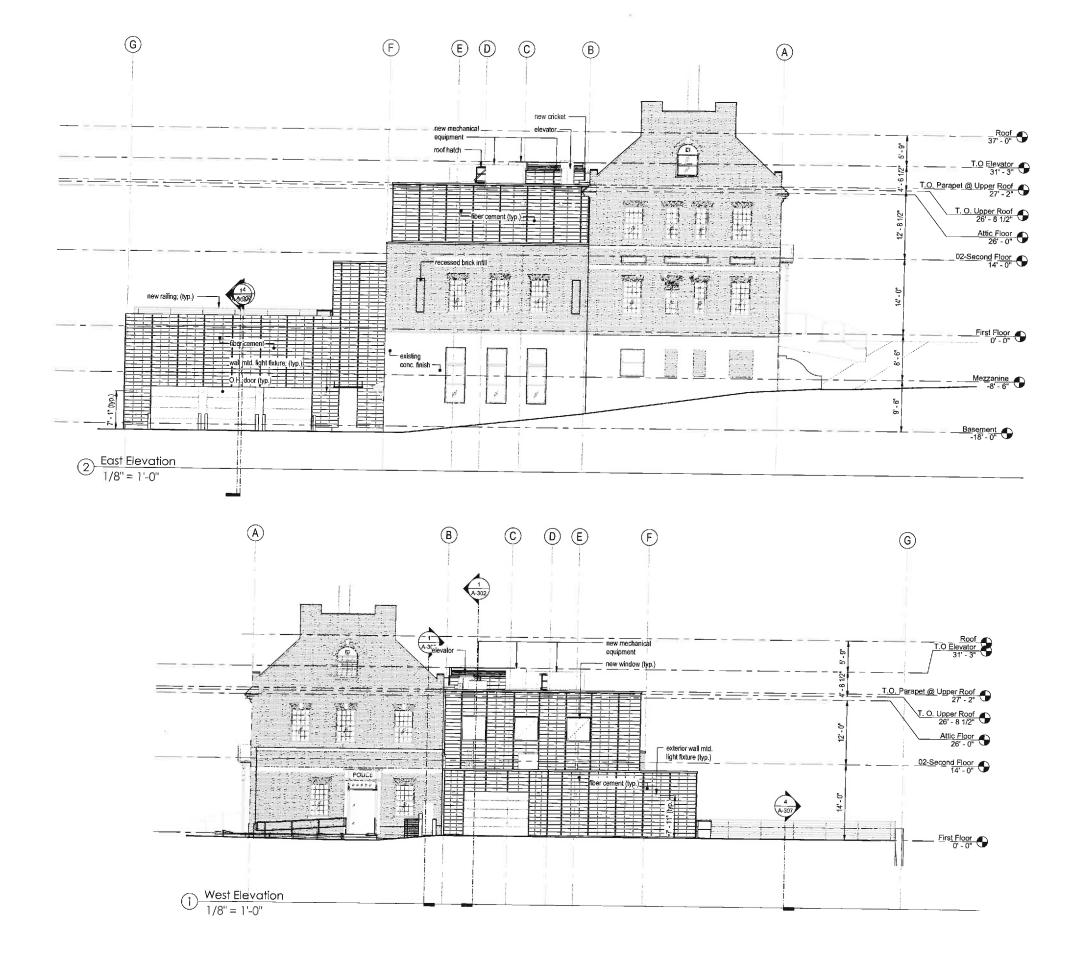
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Scale 1/8" = 1'-0"

Drawn By GRK

Drawing Number

A-201





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Project Title

Belmont Police Station Renovation & Expansion

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Drawing Title

Proposed Building Elevations

Date/Issued For 12.14.2018

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NOT FOR CONSTRUCTION

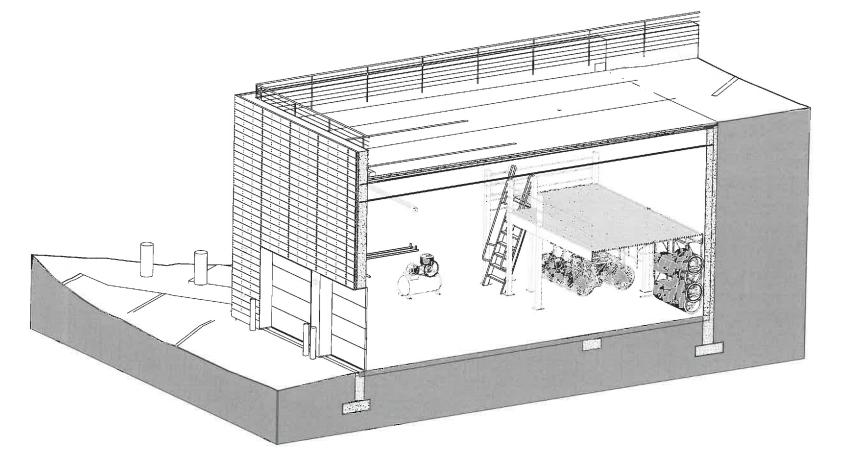
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Drawn By

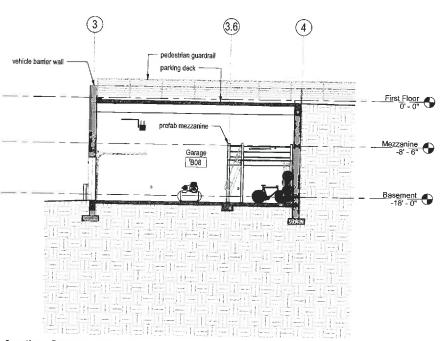
GRK

Drawing Number

A-202



2 Axon Section - Parking Deck



Section @ Parking Deck

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Project Title

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Drawing Title

Building Sections

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Scale 1/8" = 1'-0"

Drawn By GRK

A-303A