















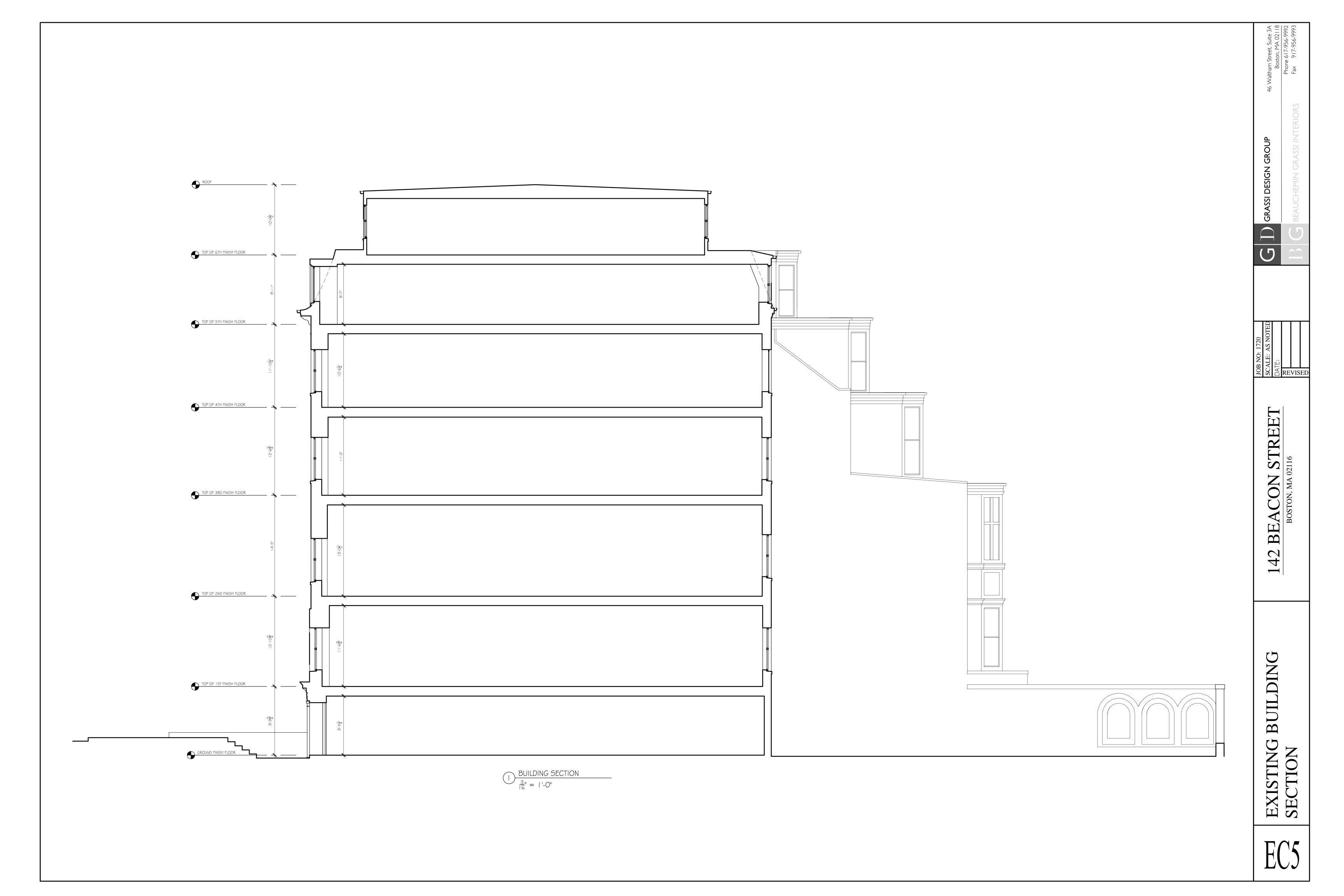


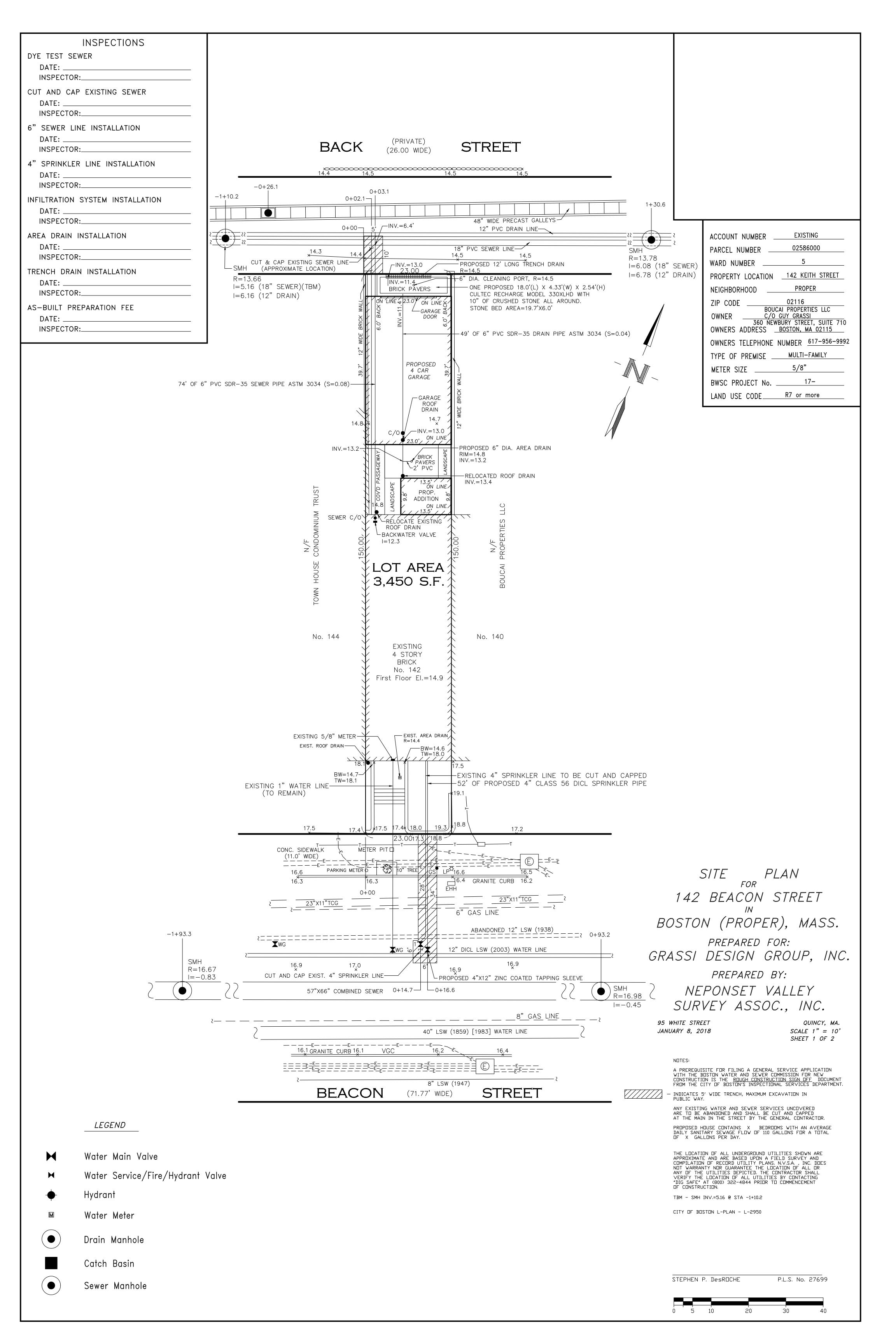


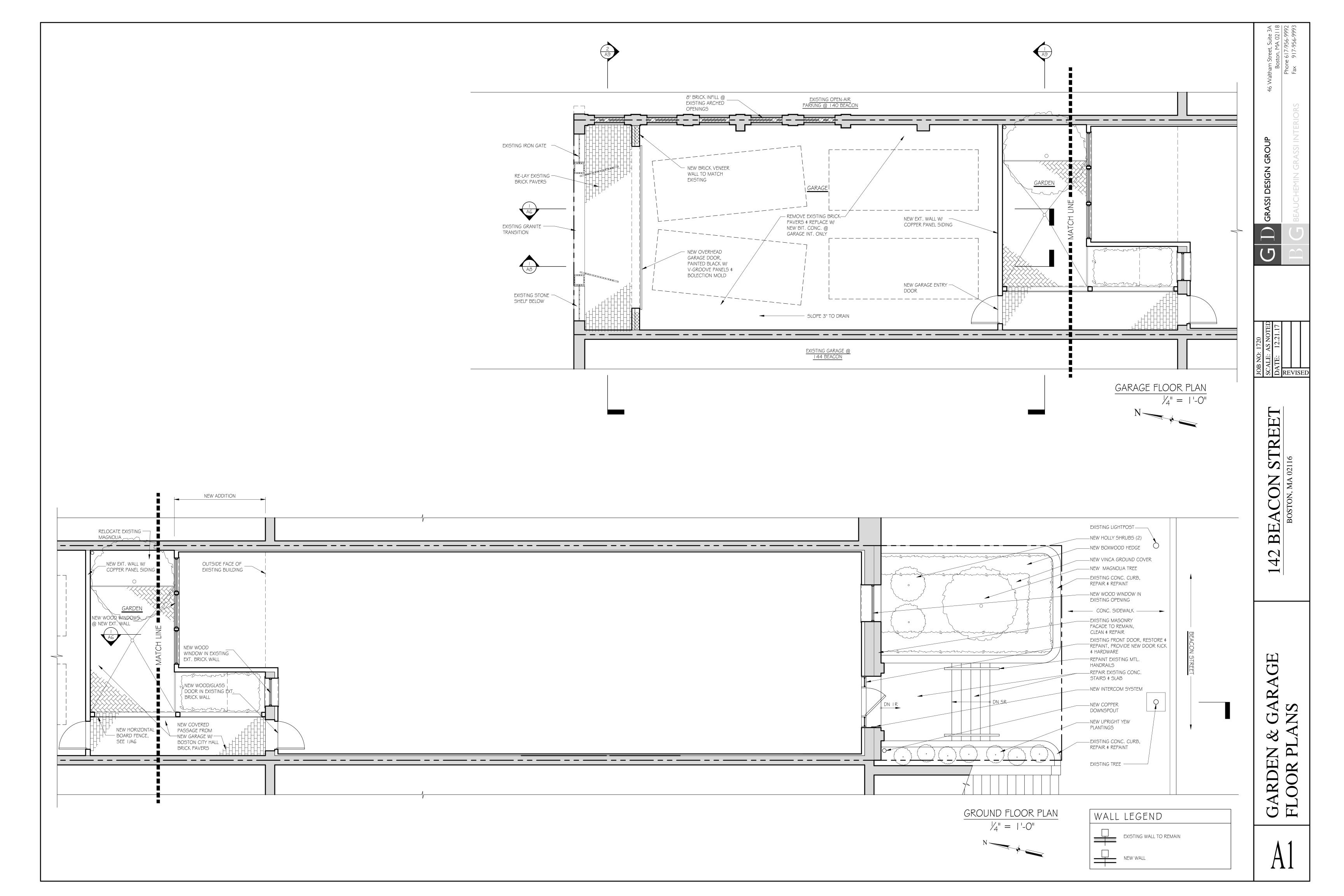


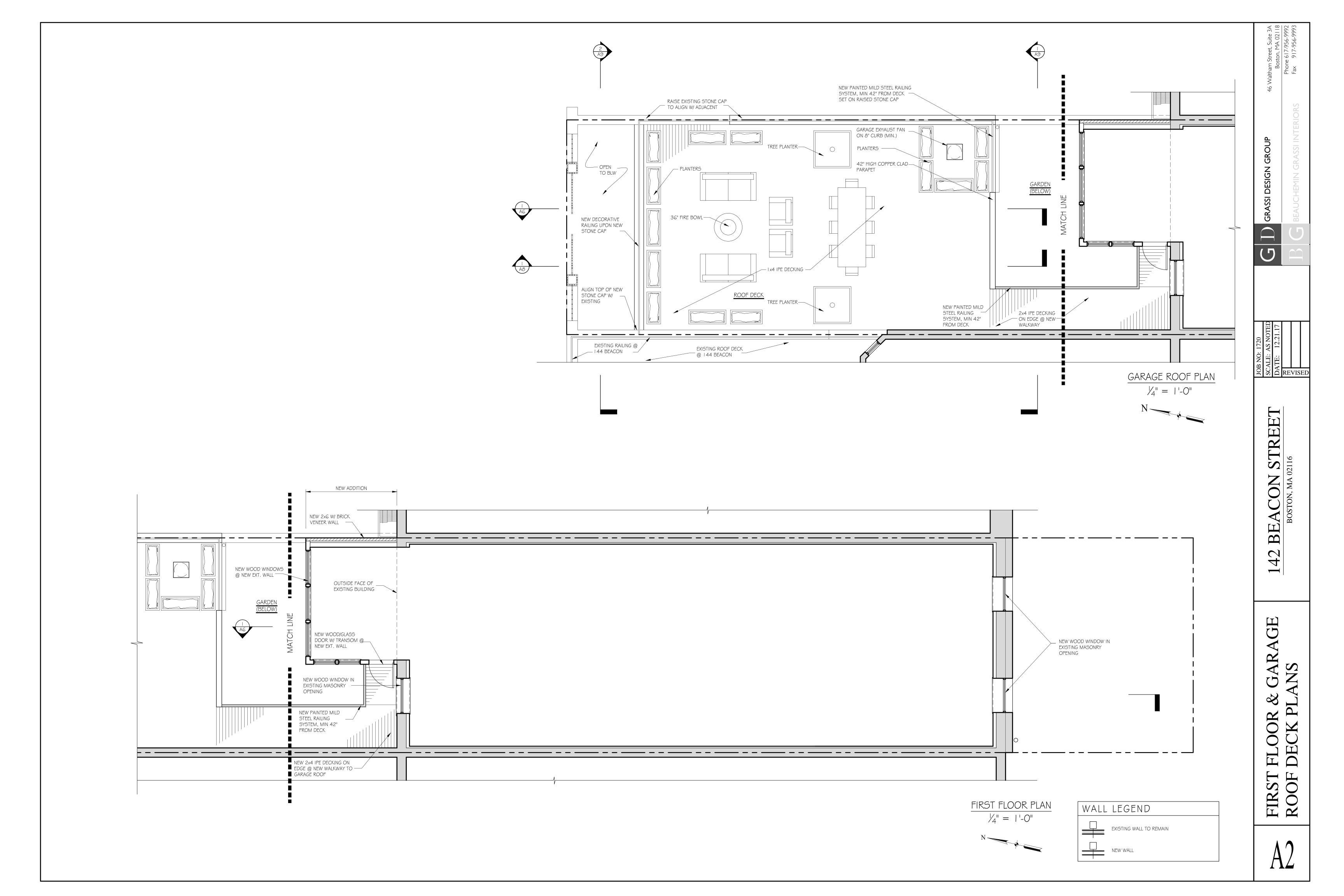


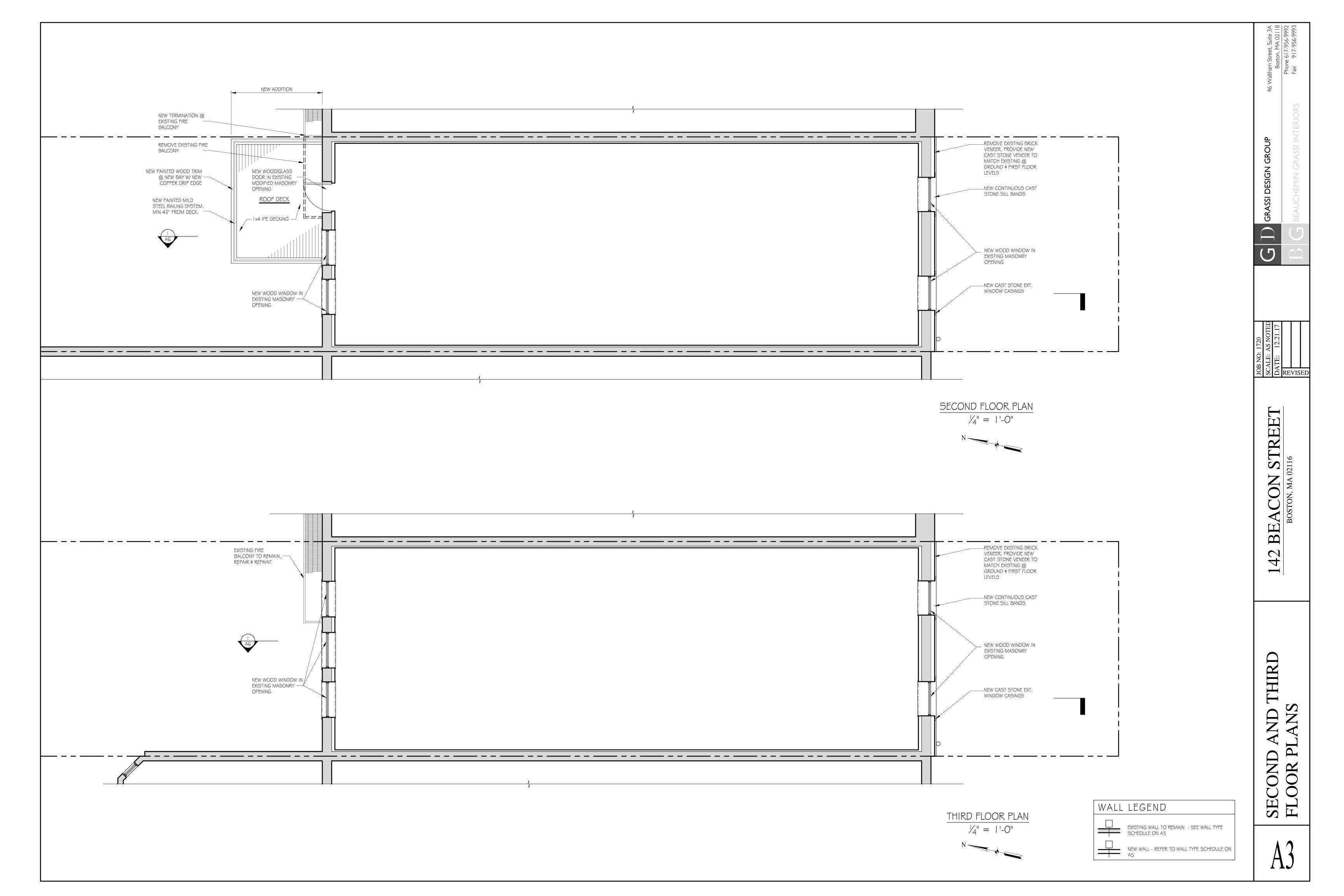
BOSTON, MA 02116

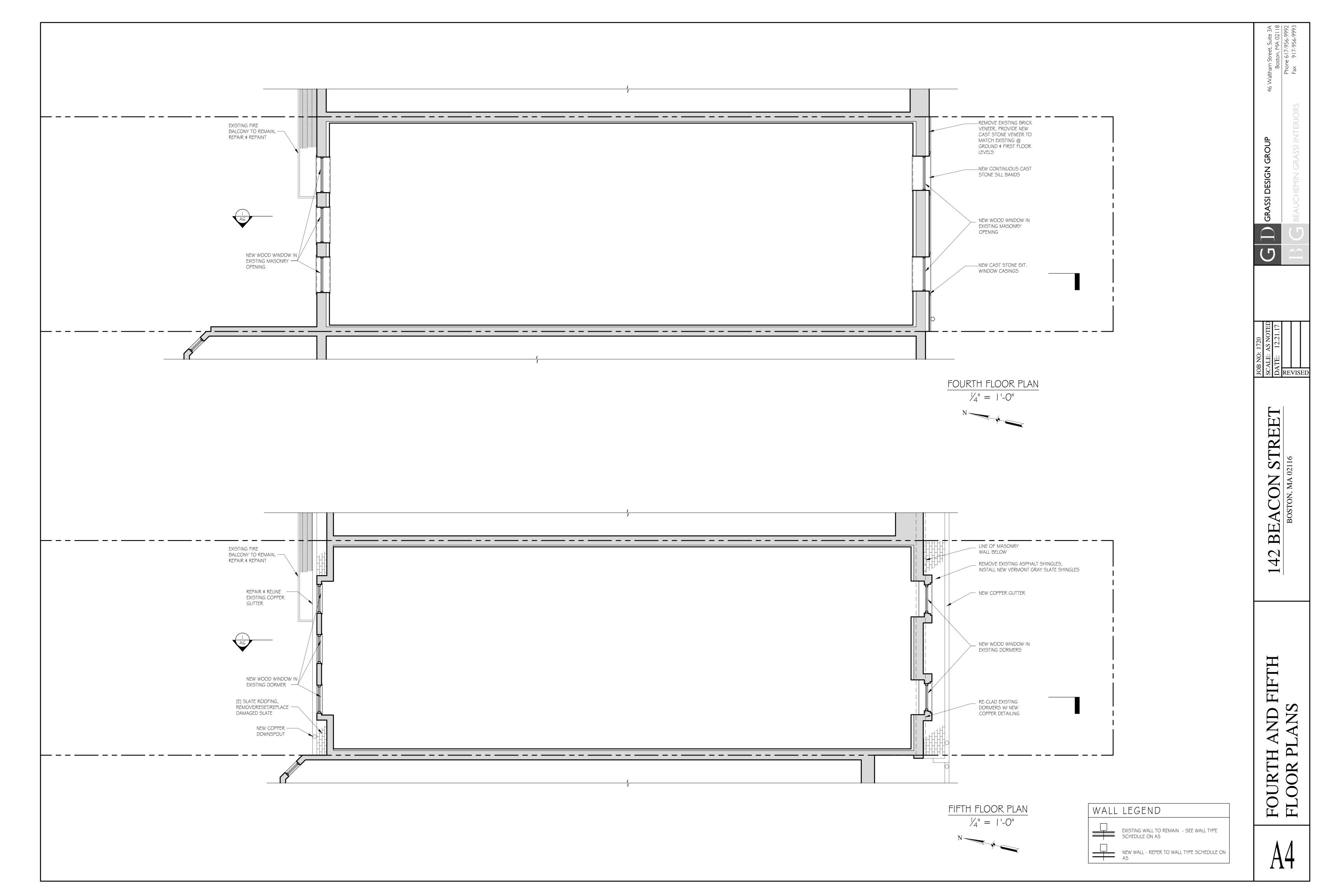


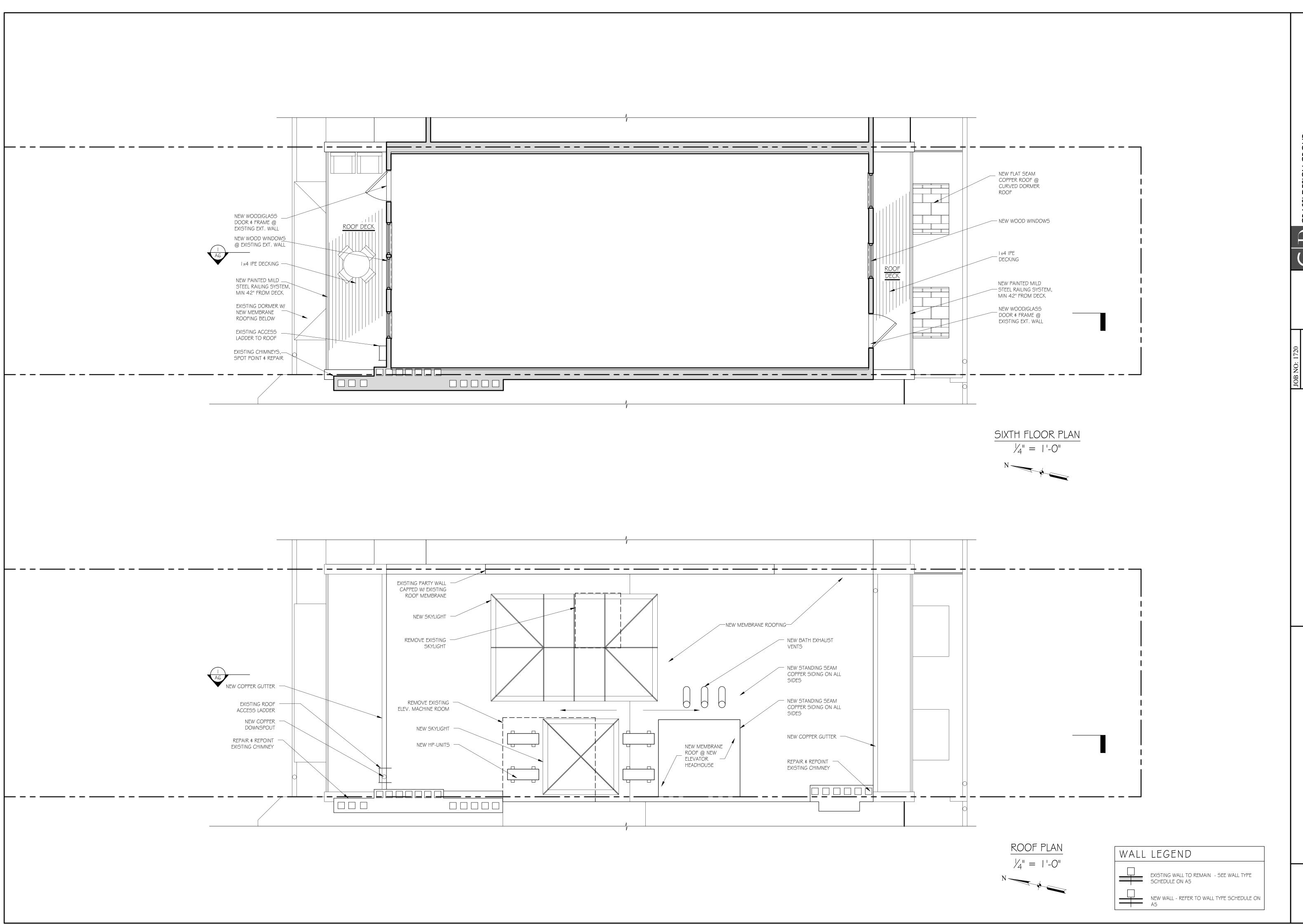








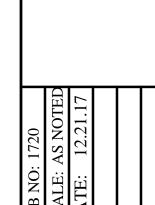




46 Waltham Street, Substan, MA
Boston, MA
Phone 617-956
INTERIORS
Fax 917-956

GRASSI DESIGN GROUP





JOB NO: 1720

SCALE: AS NOT

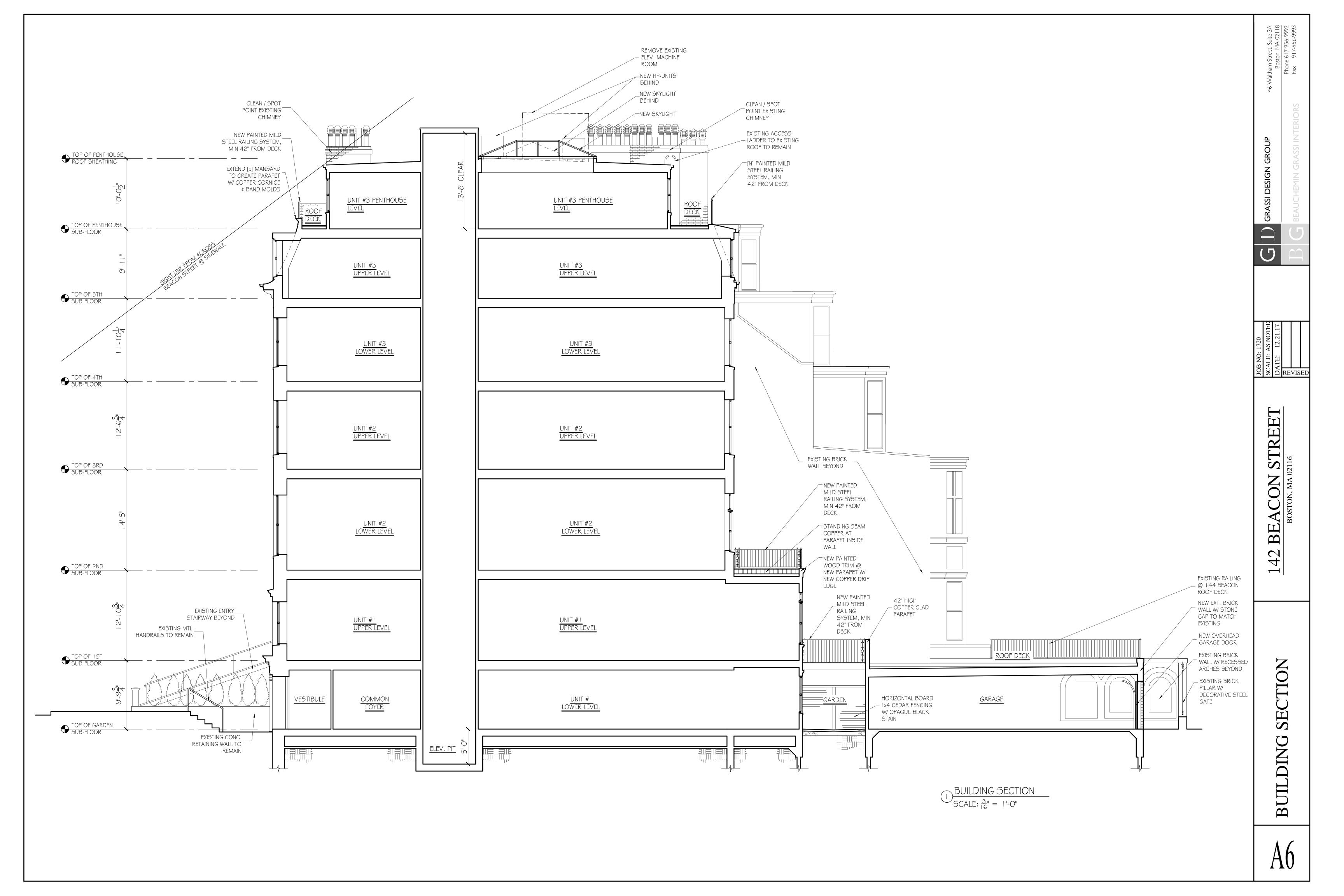
DATE: 12.21.

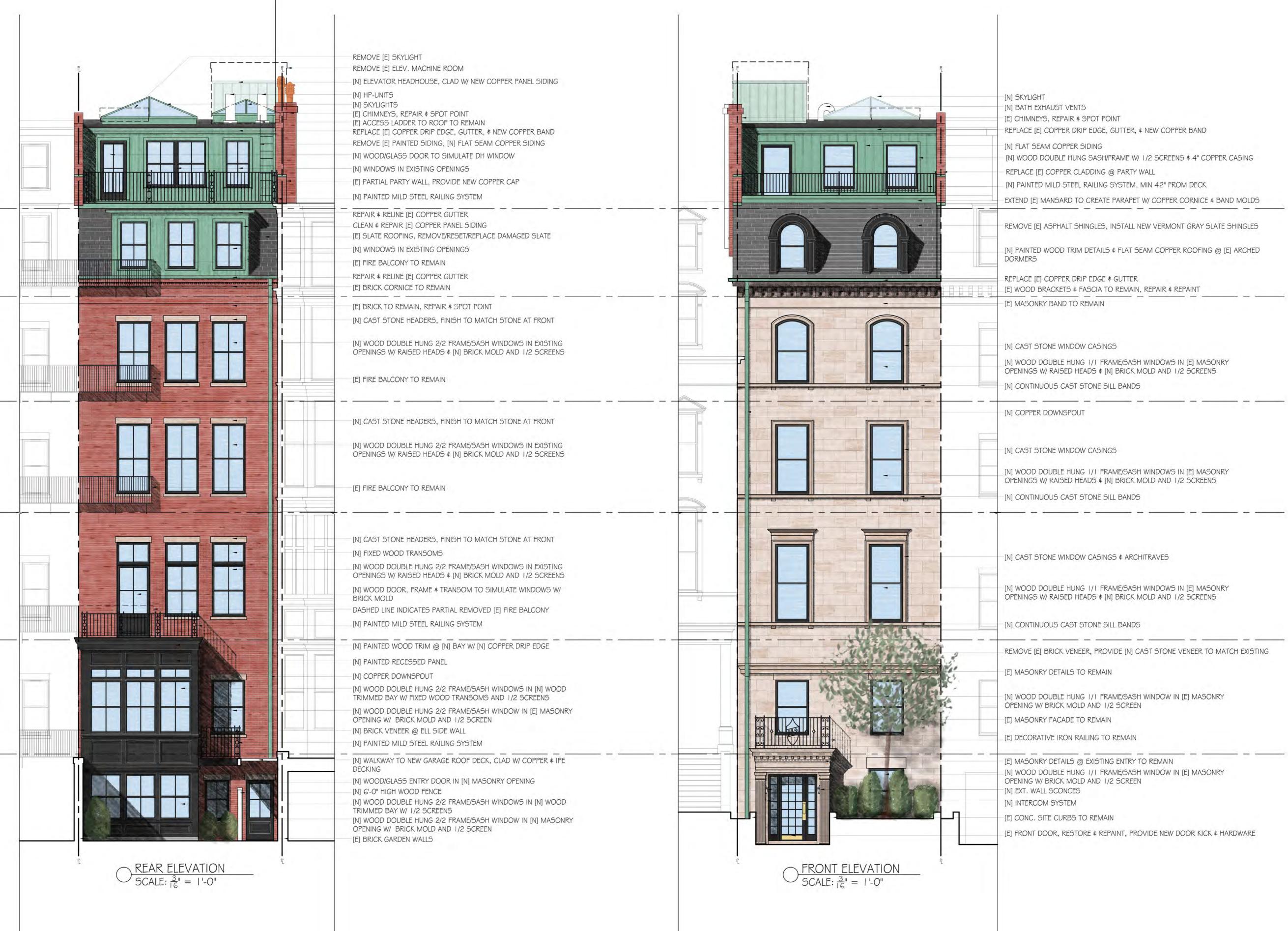
BEACON STREET

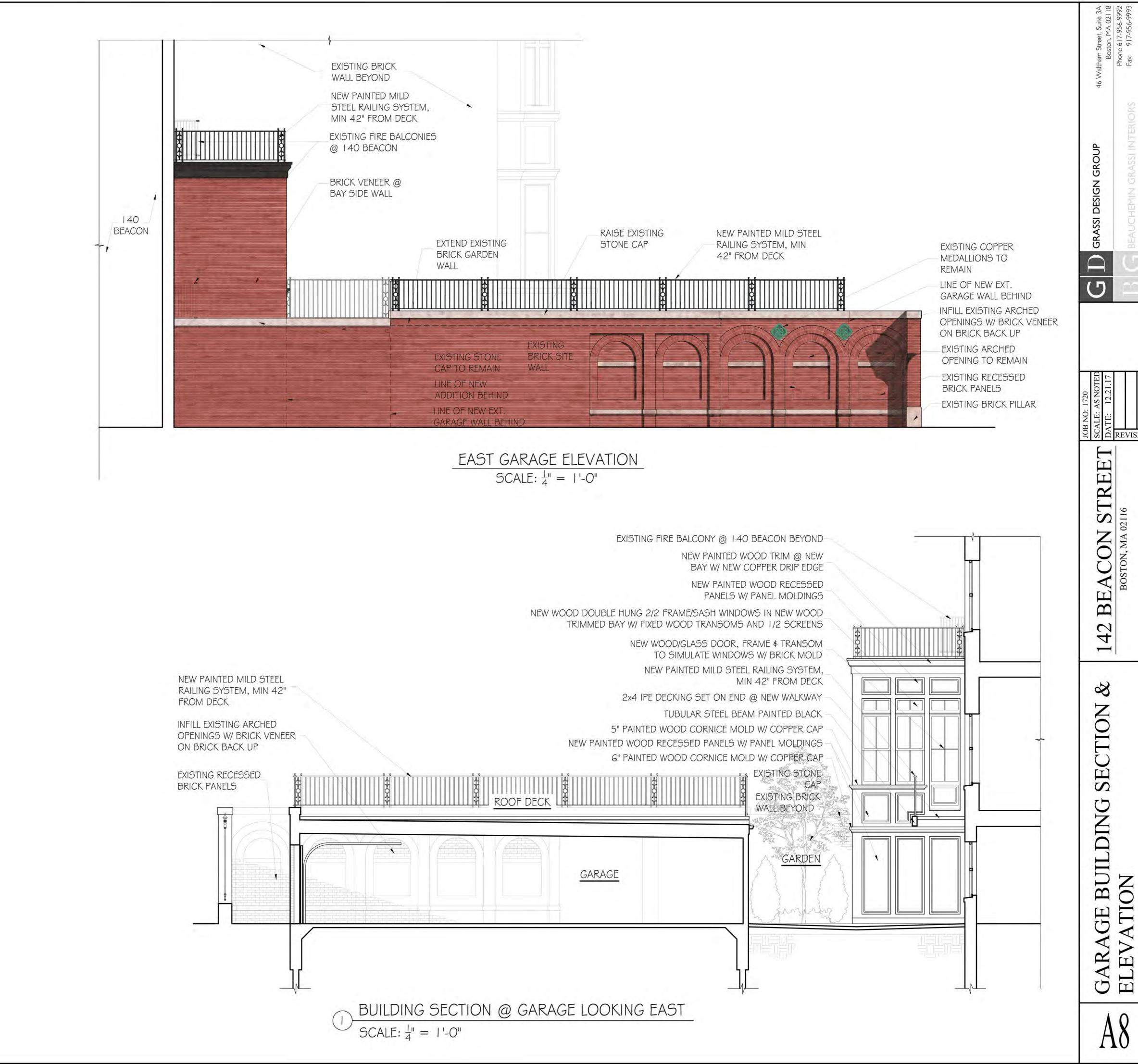
142 BEACC

NTHOUSE & ROOF

A5



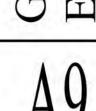


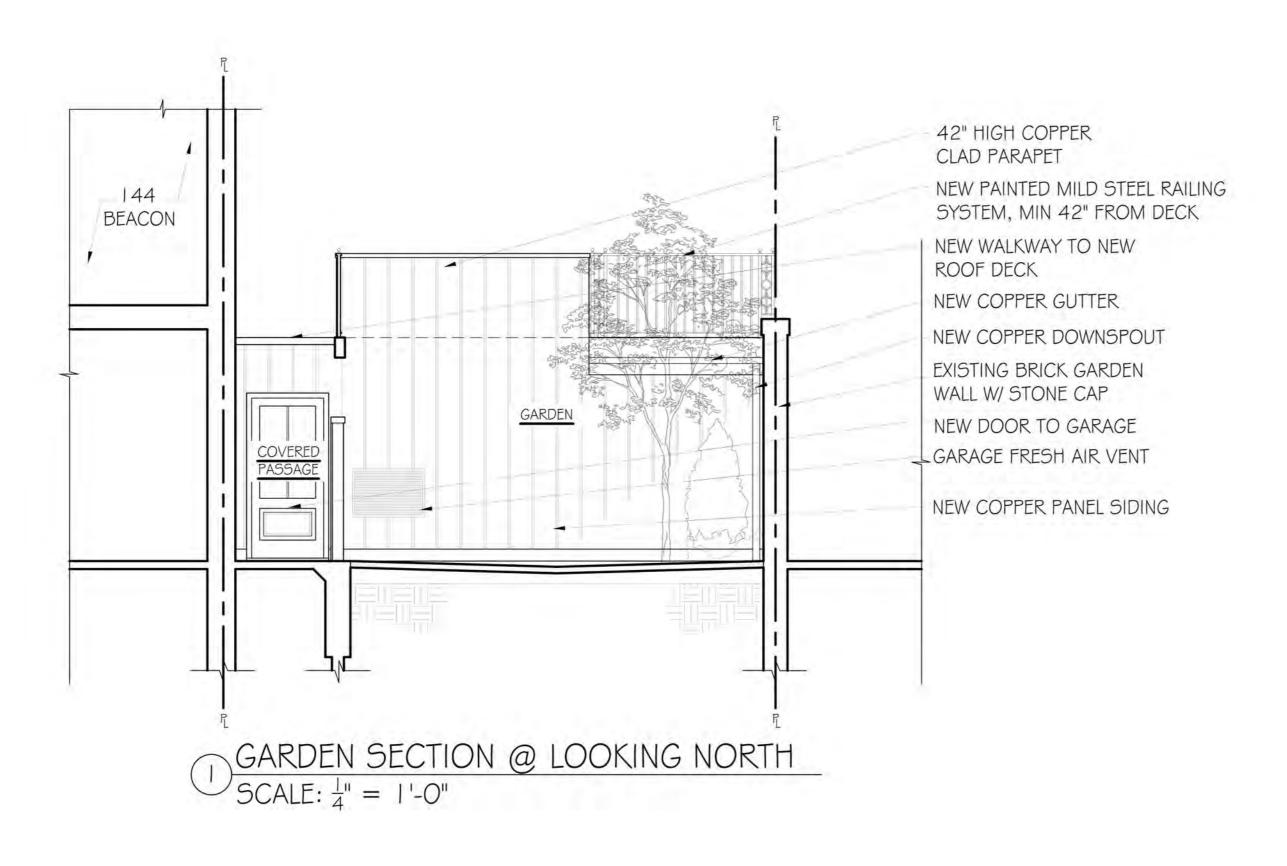


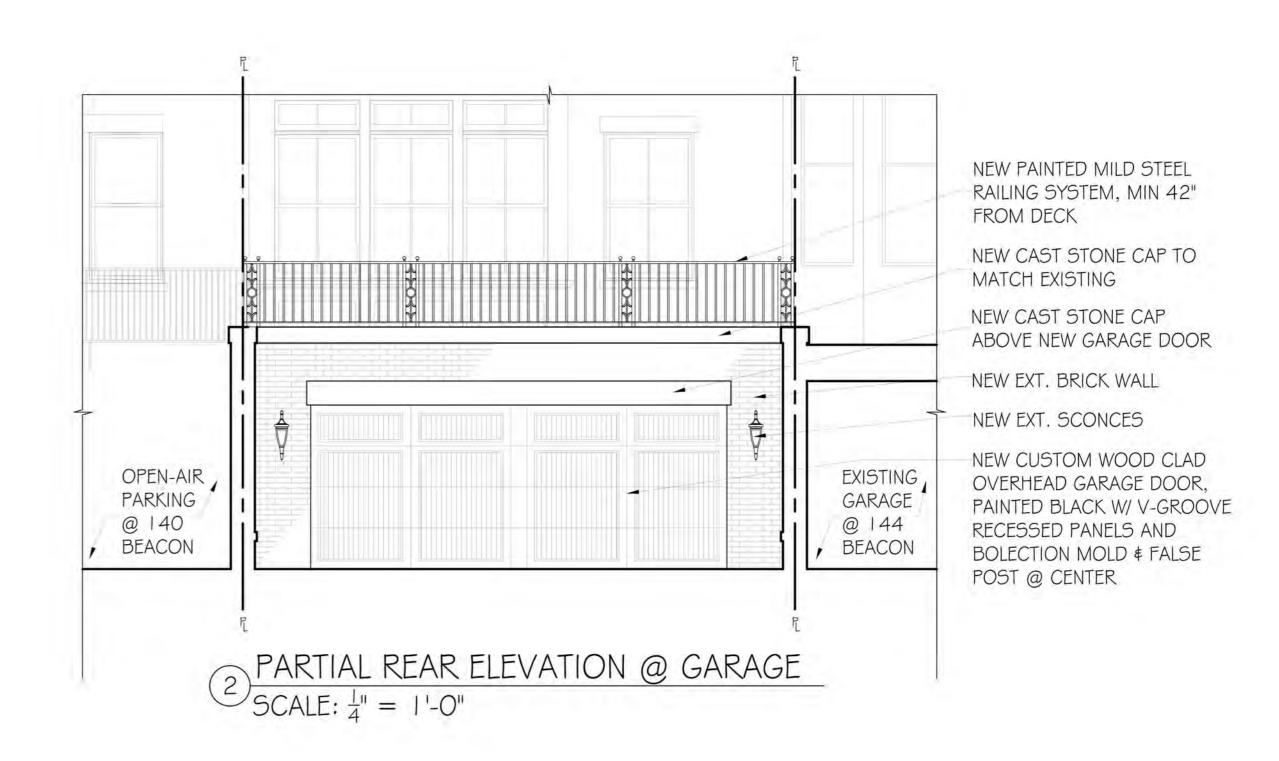
BOSTON, MA 02116 142

& GARAGE

GARDEN SECTION ELEVATIONS

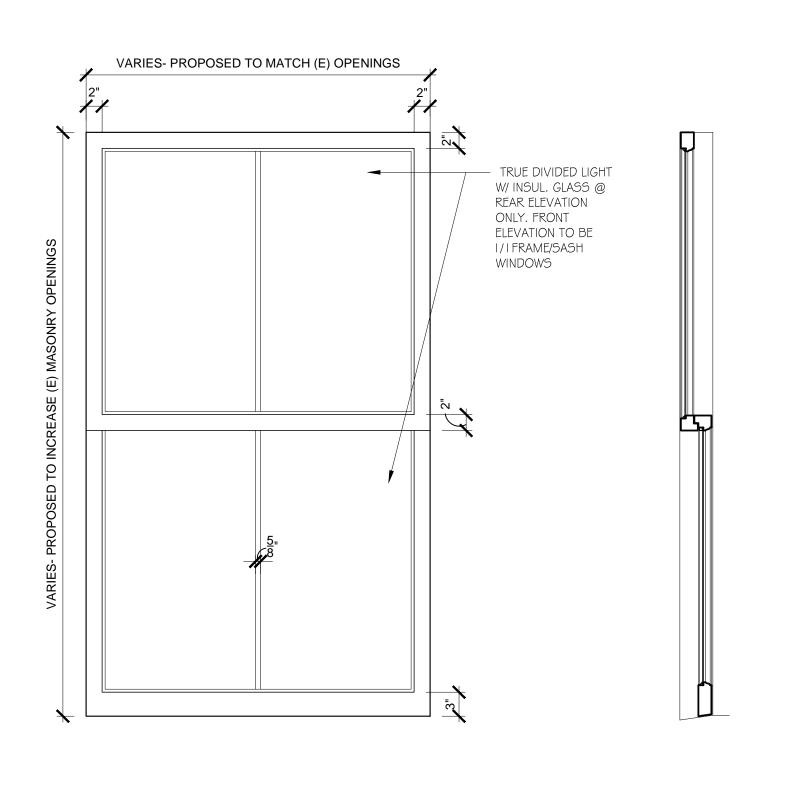


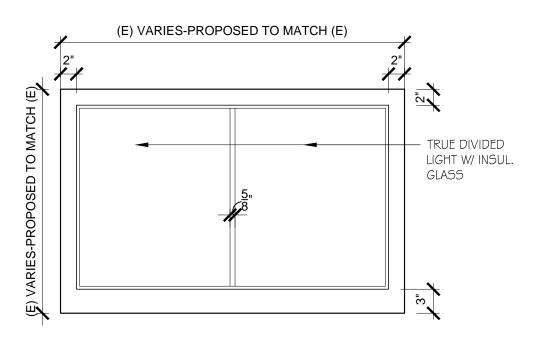














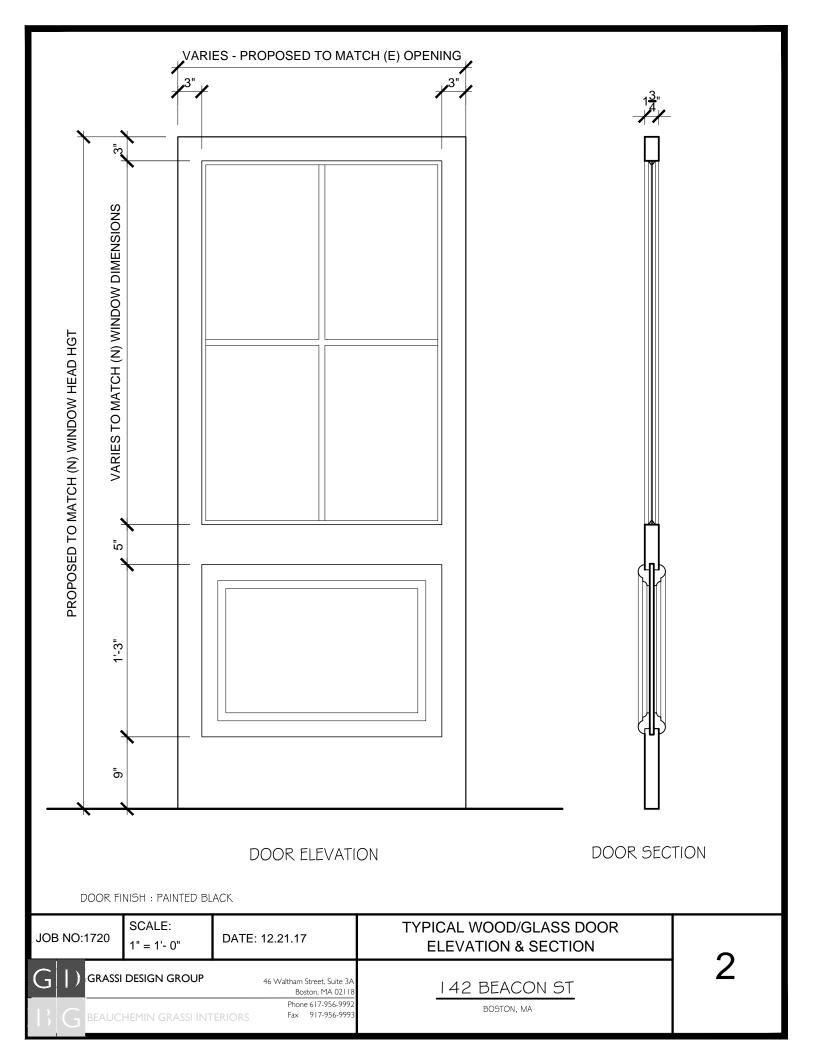
TRANSOM WINDOW ELEVATION

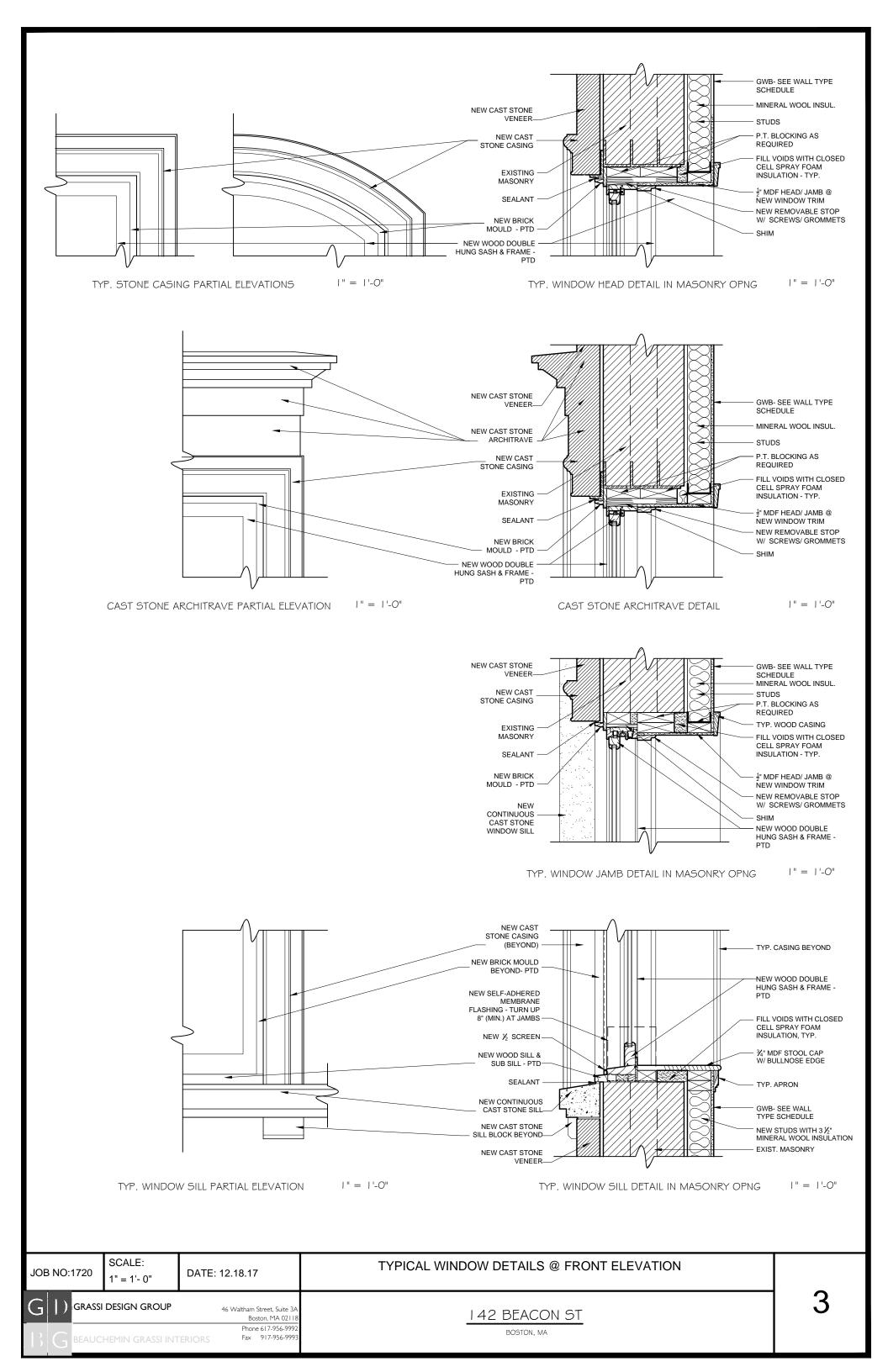


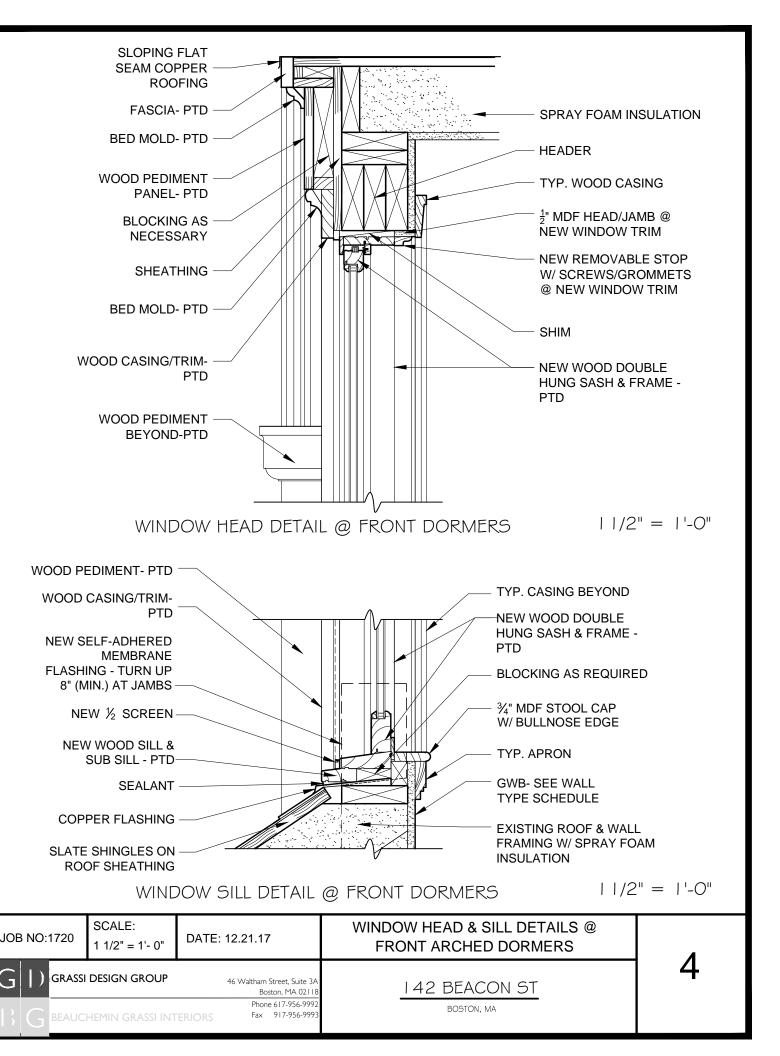
TRANSOM WINDOW SECTION

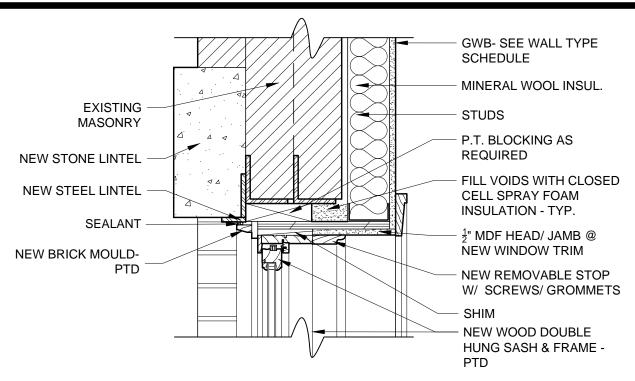
TYPICAL WINDOW ELEVATION

TYPICAL WINDOW SECTION

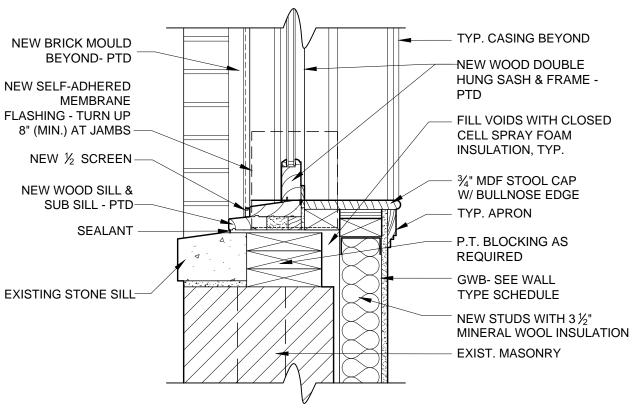






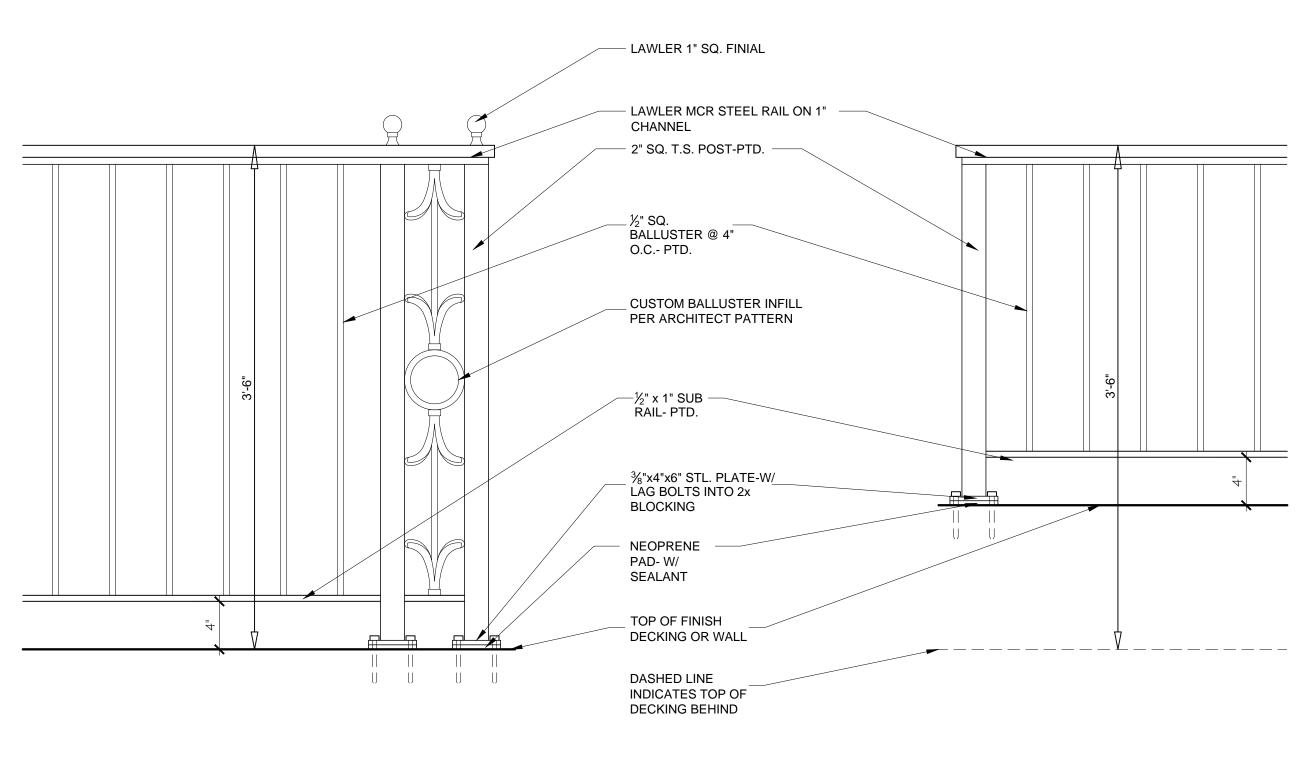


TYP. WINDOW HEAD DETAIL IN MASONRY OPNG 11/2" = 1'-0"



TYP. WINDOW SILL DETAIL IN MASONRY OPNG | 1 1/2" = 1'-0"

J	OB NO:1720	SCALE: 1 1/2" = 1'- 0"	DATE: 12.21.17	TYP.WINDOW HEAD & SILL DETAILS @ REAR ELEVATION	_
	GRASSI	DESIGN GROUP	46 Waltham Street, Suite 3A Boston, MA 02118	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5
	} G BEAUC	hemin grassi int	Phone 617-956-9992 Fax 917-956-9993	DUSTUN MA	



TYPICAL RAILING @ REAR ELEVATION

PENTHOUSE RAILING @ FRONT ELEVATION

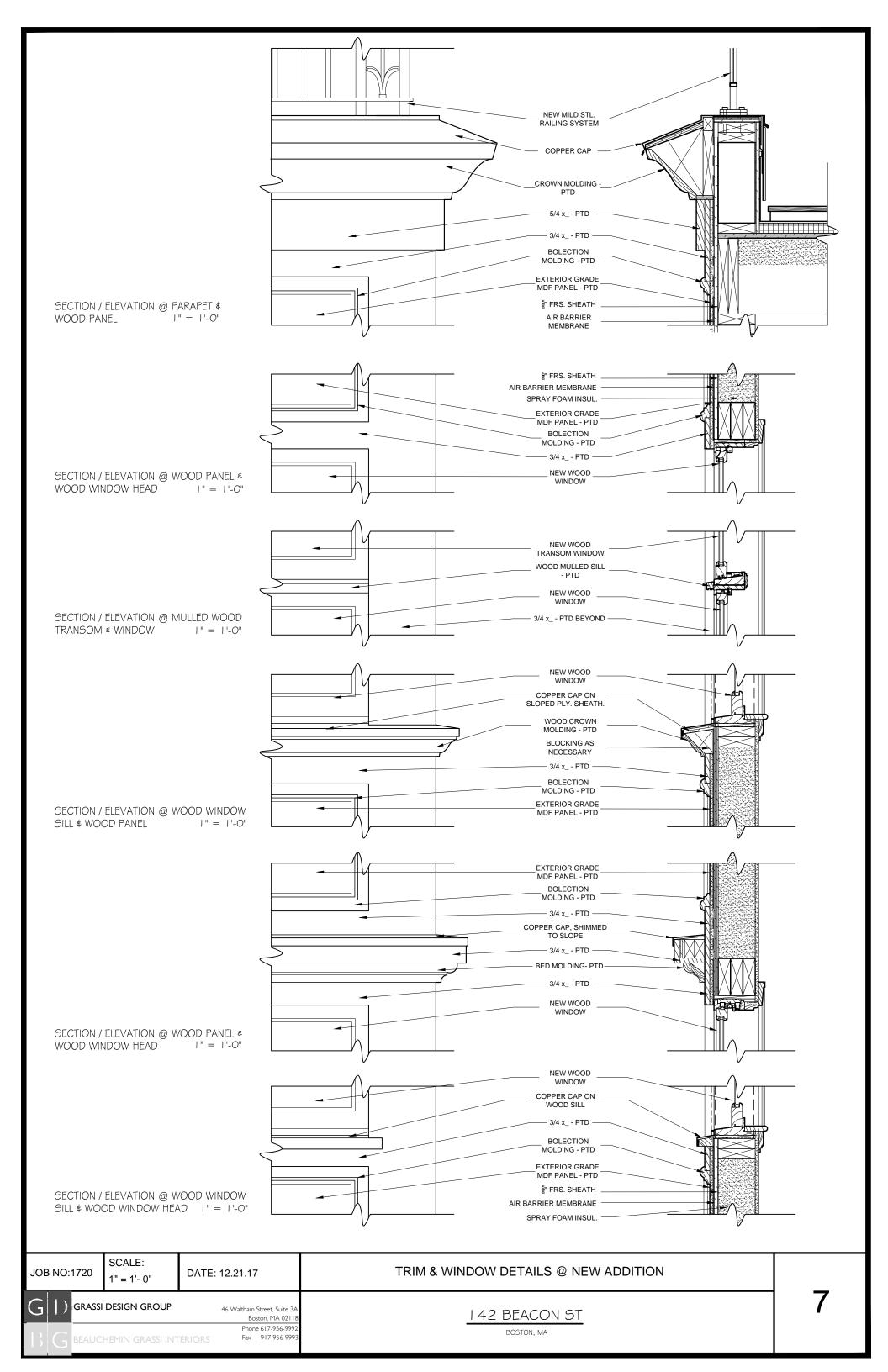
SCALE:
1 1/2" = 1'- 0"
DATE: 12.21.17

PROPOSED EXTERIOR RAILING SYSTEMS
ELEVATIONS

6

| 1/2" = 1'- 0" | DATE: 12.21.17

| 1/2" = 1'- 0" | DA





## **Product Information**

Item No.: 7-X 1" Sq. Finial

Dimensions: Height: 2.25 in.

1" ball Plug 1" x 3/4" deep

Weight: 0.31 lb.

<< Back to Search





Selected: Brass

**Product Overview** 

Click Image to Zoom

- Plate is easy to install
- Plastic cover protects finish during installation
- Includes fasteners
- Aluminum material
- Anodized surface for extra durability

Designs

**Home Designs** 

A variety of knobs, pulls, cabinet catches and hinges designed to add the final detail to any kitchen or bathroom.

ENLARGE

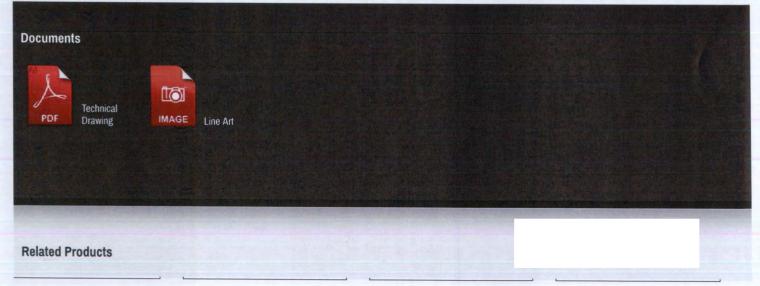
# **Package Specifications**

8" x 34"

+ ADD TO PROJECT LIST

WHERE TO BUY »

Stock #	N244-079
Catalog #	V1996
Material	Aluminum
UPC	038613244078
Quantity Per Package	1
Quantity Per Box	2 PK



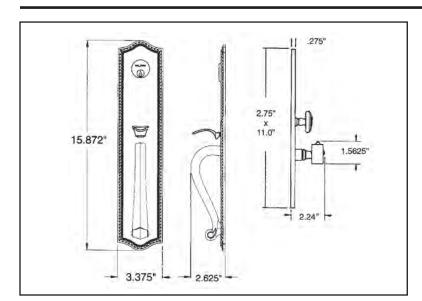
# BALDWIN

# **6963 - BRISTOL** ESTATE HANDLESET

#### **SPECIFICATIONS**







- > Accessibility Code (ADA) A117.1 for all levers.
- > Certified by Underwriters Laboratories (UL) for use on fire doors up to three-hour rating
- > U L10C / UBC 7-2 (1997) Positive Pressure Rated, UL10B Pressure Rated
- > Material: Solid Forged Brass

## SHOWN WITH LEVER 5104



#### TIER 1 FINISHES



#### **TIER 2 FINISHES**



Overview

Specs

Warranty

Q&A

Reviews

The Kingsman Fire Bowl is crafted from hand cast concrete, a beautiful low-maintenace material that provides incredible strength and durability. The textured black or smooth grey finish is beautiful and will blend with any outdoor decor.



#### Features:

- Dimensions: 30" D x 14" H
- · Cast concrete construction
- Can be set on wood deck or patio
- · Ultimate in design, engineering and quality

This Kingsman Fire Bowl includes leg extensions, filler strip, key way valve and lava rock. The fire pit burner that is included has been tested with the burner to use lava rock media at 65,000 BTUs.





Rating: 5 out of 5

Owner's Manual







Special Order | Ships Within: 3 to 4 Weeks FREE Shipping - Freight

Starting At: \$1,712.70

Qty: 1



#### Build Your Kingsman Fire Bowl



#### Required

#### Select your Fire Bowl Finish Color

- · Fire Bowl is constructed of cast concrete
- · Choose between black or grey



#### Required

#### Select Fuel Type

- · Select fuel type
- · Unit can use natural gas or propane



#### Option

#### Kingsman Fire Pit Log Set

- · Add these logs to your fire bowl
- 4-piece log set
- Cast oak construction/design



#### Option

#### Kingsman Fire Pit Bowl Cover - Charcoal

- · Protect your outdoor fire pit from the elements
- Fits a 30" fir ebowl
- Designed for Kingsman fire pit bowl



Item #: 358FuelType Price: \$0.00 \*Select Your Fuel Type: - Select -

> Item #: 3580633 Price: \$191.70

Add Item

Item #: 3580626 Price: \$175.50 Add Item





# AX-DV, AX-DVF

Video Door Stations for AX Series

#### AX-DV



#### **AX-DVF**



#### DESCRIPTION:

The AX-DV is a surface mount color video door station for the AX Series. The AX-DVF is a flush mount color video door station. Both units wire directly to the AX Central Exchange Unit using CAT-5e wire with an RJ45 jack for connection.

The AX-DV has an aluminum die cast cover. The AX-DVF has a stainless steel faceplate. Both units include a camera, microphone, speaker, and call button. Tamper resistant screws are provided for mounting.

When the call button on the door station is pushed, the master station(s) ring and the video monitor comes on with the image from the door station's camera. The master station user then pushes the "TALK" button to initiate communication. The person at the door station speaks hands-free.

The AX door stations can be located up to 980' from the AX CEU and wired with CAT-5e cable. Additional equipment is available to interface with third party hardware for transmission over fiber optic cable or an IP network.

#### **FEATURES:**

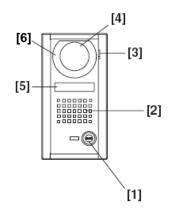
- Color video camera with audio intercom
- 2-way hands-free voice communication with AX master station
- Call button to initiate call to master(s)
- White LED illuminator for low light conditions
- RJ45 jack for easy CAT-5e connection
- Surface (AX-DV) or flush mount (AX-DVF) styles available
- 980' wiring distance from CEU on CAT-5e cable

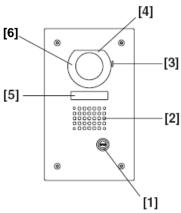
Covered with a Brass finish housing box

# AX-DV, AX-DVF

#### **Video Door Stations for AX Series**

#### **FEATURE CALL-OUTS:**



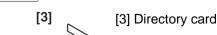


#### **PACKAGE CONTENTS:**

[1]

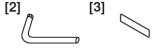


[1] Vandal resistant door station (AX-DV, AX-DVF)



@P @P

[2] Special screwdriver



[4] Mounting screws and Anchor bolts (AX-DV)



[5] Mounting screws (AX-DVF)\*



[6] Back box (AX-DVF)\*

\* [5] and [6] are packed with AX-DVF only

#### **FEATURE CALL-OUT DEFINITIONS:**

[1] Call Button

[2] Speaker

[3] Microphone

[4] Camera

[5] Directory Card

[6] White LED illuminators

#### **SPECIFICATIONS:**

Power Source: 24V DC Supplied from CEU

Wiring connection: RJ45 jack (CAT-5e)

Communication: Hands-free communication

(auto-voice actuated or PTT) controlled by master station

Camera: ¼" color CCD camera

Pixels: 250,000 Pixels

Minimum

illumination:

Operating temp:  $14 - 140^{\circ} \text{ F} (-10 \sim 60^{\circ} \text{ C})$ 

5 Lux

Mounting:

AX-DV Surface wall mount

AX-DVF Flush mount (with provided box)

Housing:

AX-DV Front Panel: Aluminum die cast

Main Unit: Resins

AX-DVF Front Panel: Stainless steel

Main Unit: Resins Back box: Steel plate

Color:

AX-DV Solid silver (metallic gray)
AX-DVF Stainless steel, brush-finished

Dimensions: AX-DV: 7-11/16" x 3-15/16" x 1"

(195x100x25 mm)

(HxWxD) AX-DVF: 9-11/16" x 5-3/4" x 1-7/8"

(246x146x45 mm)

Weight: AX-DV: 0.88 lbs (400g) (approx.) AX-DVF: 1.45lbs (660g)

tech@aiphone.com

# Paint Colors

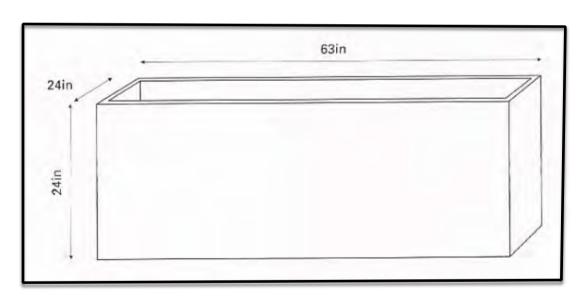


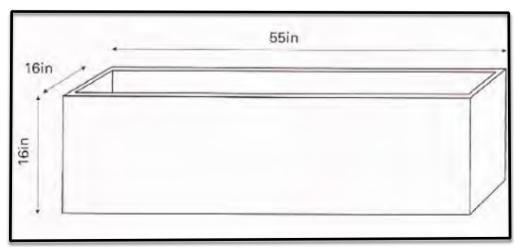
Benjamin Moore Black 2132-10: For windows / doors & trim at rear addition at 142 Beacon St. 197 Roslindale Avenue • Boston, Massachusetts 02131 • www.perennialgardens.net • 617.327.0317

# 142 Beacon Street Roof Deck Planters



Lightweight, fiberglass planters with drainage (4) 63"L x 24"D x 24"H 44.1 lbs ea (2) 55"L x 16"W x 16"H 22 lbs ea





# Roof Top Mech. Equipment

# CITY MULTI® S-Series Building Comfort Solutions







#### S-Series Solutions for the home or small office

The CITY MULTI S-Series offers all the features and benefits of our large commercial CITY MULTI Y-Series. The S-Series Solution features a single-phase outdoor unit with Variable Refrigerant Flow Zoning (VRFZ) technology and CITY MULTI Controls Network (CMCN) to cool or heat all zones with a variety of indoor unit styles. The compact outdoor unit utilizes R410A refrigerant and an INVERTER-driven compressor to use energy effectively. A maximum of eight CITY MULTI indoor units can be connected with up to 130% connected capacity, depending on diversity. CITY MULTI Controls Network intelligently manages the CITY MULTI building comfort solution through zone controllers and system controllers and optionally through a networked PC to manage individual comfort and to provide the ultimate building comfort solution.

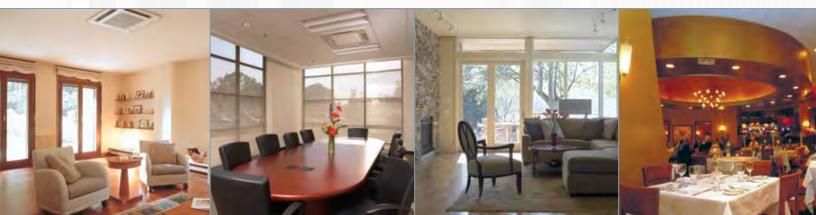
### Easy, flexible installation

The S-Series outdoor unit is easy to install and can be accessed for service through both a front and side panel. The unit's compact dimensions and easy accessibility allow multiple units to be stacked side by side in tight areas, saving valuable space and resources.



#### **Available indoor units**

Capacity Code	Wall-mounted PKFY-P-N★MU-E	Ceiling-recessed Cassette PLFY-P-N*MU-E	Ceiling-recessed Cassette PMFY-P-NBMU-E	Ceiling-suspended PCFY-P-NGMU-E	Ceiling-concealed (ducted) PDFY-P-NMU-E	Ceiling-concealed (ducted low-profile) PEFY-P-NMLU-E	Ceiling-concealed (ducted alternate high-static) PEFY-P-NMHU-E	Floor-standing (exposed/concealed) PFFY-P-NEMU/NRMU-E
Nominal Btu/h	1							
	6,000-30,000	8,000-36,000	6,000-15,000	15,000-36,000	6,000-48,000	6,000-12,000	15,000-54,000	(PFFY-NEMU shown) 6,000-24,000



	PUM	Y-P-NHMU	(-BS) Specifications		
Model Name			PUMY-P36NHMU(-BS)	PUMY-P48NHMU(-BS)	
Power Source			208/230V, 1-phase, 60Hz		
Capacity *1	Cooling	Btu/h	36,000	48,000	
	Heating	Btu/h	40,000	54,000	
Power Input	Cooling	kW	3.22	4.97	
	Heating	kW	2.93	4.88	
Current (208-230V)	Cooling	А	14.2-15.7	24.0-21.7	
	Heating	А	12.9-14.2	23.6-21.3	
Fan	Type x Qty.	•	Propelle	r Fan x 2	
	Airflow Rate	CFM	3,5	530	
	Motor Output	kW	0.08	6 x 2	
Compressor	Туре	•	Inverter-driven Scroll		
	Motor Output	kW	2.2	2.4	
	Crankcase Heater	W	-		
Lubricant			FV50S		
Refrigerant			R4 <sup>-</sup>	10A	
External Finish			Galvanized Sheets (plus Pov Munsell 3		
Dimensions	Height Inches		53-3	3/16	
	Width	Inches	37-7/16		
	Depth Inches		13 + 1-3/16		
Net Weight		Pounds	28	37	
Sound Levels (as measure	d in an anechoic room)	dB(A)	49/51	50/52	
Protection Devices	High Pressure Protect	ction	High Pressure Switch		
	Compressor/Fan		Discharge Thermo and Overcurrent Detection/Overheat and Voltage Protection		
	Inverter		Overcurrent/Overheat Protection		
Refrigerant Pipe	Low Pressure Inches		5/8 Flare		
Dimensions	High Pressure	Inches	3/8 Flare		
Indoor Unit	Total Capacity		50 - 130% of Outdoor Unit Capacity		
	Quantity	1	P06-36/1-6	P06-P54/1-8	
Operating Temperature Range	Cooling		Outdoor: 23°FDB ~ 115°FDB; 50°FDB ~ 115°FDB if connecting PKFY-P06/08 Indoor Unit		
	Heating		Outdoor: 0°FWB ~ 60°FWB		

Note: Rating Conditions:

-BS indicates seacoast protection option.

Specifications are subject to change without notice.

Optional Parts for PUMY Outdoor Units					
Description Model		Remarks			
Branch Joint	CMY-Y62-G-E	Branch Joint (2 branches)			
Header - 4 Branch	CMY-Y64-G-E	4 Branch Header includes sets for use with liquid and gas pipes			
Header - 8 Branch CMY-Y68-G-E		8 Branch Header includes sets for use with liquid and gas pipes			
Drain Socket PAC-SG61DS-E		For use when drain piping is necessary, use the drain socket or the drain pan (option)			
Drain Pan PAC-SG64DP-E					
Air Outlet Guide	PAC-SG59SG-E	Need 2 pieces			
Wind Baffle	WB-PA2	Need 2 pieces			













Mitsubishi Electric Shizuoka Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO), based on a review of quality warranties for the production of air-conditioning equipment. The plant also acquired environmental management system standard ISO 14001 certification.

Form No. CMBROS-02-08-5M
For more information visit www.mehvac.com





HVAC Advanced Products Division

Mitsubishi Electric HVAC Advanced Products Division 3400 Lawrenceville Suwanee Road Suwanee, GA 30024

Phone: 888-467-7546 Fax: 800-658-1458

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<sup>\*11</sup> Cooling: Indoor: 80°F (27°C) DB / 67°F (19°C) WB; Outdoor: 95°F (35°C) DB. Heating: Indoor: 70°F (21°C) DB; Outdoor: 47°F (8°C) DB/ 43°F (6°C) WB.

# Front Entry Wall Sconces

# Venetian Rain Collection Outdoor Wall Sconce 1Lt BKG

49130BKG (Black W/Gold)



#### **Dimensions**

147.10	Height	11.75"
Width 6.75"	Width	6.75"

Project Name:	
Location:	
Туре:	
Qty:	
Comments:	

# **Ordering Information**

Product ID	49130BKG
Finish	Black W/Gold
Available Finishes	BKG, BRZ
Collection	Venetian Rain Collection

#### **Dimensions**

Extension	3.75"
Height from center of Wall opening	7.50"
Base Backplate	5.00 X 6.75
Weight	3.00 LBS

# **Specifications**

Material	Cast Aluminum
Diffuser Description	Clear Vertical Rain

#### **Electrical**

Voltage	120V	
---------	------	--

#### Qualifications

Safety Rated	Wet
ADA Compliant	Yes
Warrantv	www.kichler.com/warrantv

# **Primary Lamping**

Light Source	Incandescent
Lamp Included	Not Included
# of Bulbs/LED Modules	1
Max or Nominal Watt	60W
Socket Wire	150
Socket Type	Candelabra
Lamp Type	В
Bulb Product ID	4064CLR

# **Alternate Lamps**

Lamp Included	Bulb Listing	Light Source	Max Wattage/Range	Bulb Product ID	Dimming
No	Alternate	INCA	40W	5971CLR	



7711 East Pleasant Valley Road Cleveland, Ohio 44131-8010 Toll free: 866.558.5706 or kichler.com

#### Notes



# Exterior Sconces at New Garage

# Venetian Rain Collection Outdoor Wall 2Lt BKG

49131BKG (Black W/Gold)



#### **Dimensions**

Height	25.25
Width	7.25"

Project Name:	Project Name:
Location:	Location:
Туре:	Туре:
Qty:	Qty:
Comments:	Comments:

# **Ordering Information**

Product ID	49131BKG
Finish	Black W/Gold
Available Finishes	BKG, BRZ
Collection	Venetian Rain Collection

#### **Dimensions**

Extension	10.50"	
Height from center of Wall opening	6.00"	
Base Backplate	5.25 X 15.00	
Weight	7.00 LBS	

#### **Specifications**

Material	Cast Aluminum
Diffuser Description	Clear Vertical Rain

#### **Electrical**

Voltage	120V	
---------	------	--

#### Qualifications

Safety Rated	Wet	
Warranty	www.kichler.com/warranty	

# **Primary Lamping**

Light Source	Incandescent
Lamp Included	Not Included
# of Bulbs/LED Modules	2
Max or Nominal Watt	60W
Socket Wire	150
Socket Type	Candelabra
Lamp Type	В
Bulb Product ID	4064CLR

# **Alternate Lamps**

Lamp Included	Bulb Listing	Light Source	Max Wattage/Range	Bulb Product ID	Dimming
No	Alternate	INCA	40W	5971CLR	



#### **SECTION 04500**

#### MASONRY RESTORATION AND CLEANING

#### PART 1 GENERAL

#### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including general and supplementary conditions and Division-1 specifications sections, apply to work of this section.

#### 1.02 DESCRIPTION OF WORK

- A. Extent of masonry restoration work is indicated on drawings and in schedules.
- B. Masonry Restoration Work Includes the Following:
  - 1. Chemical cleaning of exposed exterior masonry surfaces.
  - 2. Repairing and rebuilding damaged stonework.
  - 3. Stonework restoration.
  - 4. Re-pointing of masonry joints as required.

NOTE: The chemical cleaning of exterior surfaces should be accomplished before new windows are installed.

- C. Masonry construction is specified in other Division 4 sections.
- D. Joint sealers are specified in a Division 7 section.

#### 1.03 QUALITY ASSURANCE

- A. Restoration Specialist: Work must be performed by a firm with not less than 5 years successful experience in masonry restoration projects employing skilled personnel for execution of the work.
  - B. Job Mock-Ups: Prior to start of general masonry restoration, conduct the following procedures. Obtain Architect's acceptance of visual qualities before proceeding with the work.
    - 1. Cleaning: Prepare a 4 ft. by 6 ft. sample area on the building where directed by architect, showing materials and methods to be used for cleaning exterior masonry surfaces.

- 2. Re-pointing: Prepare a 4 ft. by 6 ft. sample area on the building where directed by architect, showing routing and repointing including mortar, type of joint, and workmanship for masonry in project.
- 3. Stonework Restoration: Prepare a 2' x 2' sample area on the building, where directed by Architect for stonework restoration. Use anchorage, bonding, mortar and workmanship expected in completed work. The restoration patching mix shall match the existing brownstone in texture and color. Acceptable panel shall be used as a standard for judging completed work.
- C. Source of Materials: Obtain materials for masonry restoration from a single source for each type material required (face brick, cement, sand, etc.) to ensure match quality, color, pattern, and texture.

#### 1.04 SUBMITTALS:

- A. Product Data: Submit manufacturer's specifications and other data for each manufactured product, including certification that each product complies with specified requirements. Include instructions for handling, storage, installation and protection of each product.
- B. Samples: Sample areas shall be used to exhibit the cleaning performance of the restoration cleaner on brick work. Test areas shall be selected by Architect and shall be approximately 20 sq. ft. Multiple tests of varying concentrations shall determine composition of cleaning solution required. Provide written certification by manufacturer that restoration cleaner is compatible with brownstone.

#### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Protect masonry materials during storage and construction from wetting by rain, snow or ground water, and from staining or intermixture with earth or other types of materials.
- B. Protect grout and mortar materials from deterioration by moisture and temperature. Store in a dry location or in waterproof containers tightly closed and away from open flames. Protect liquid components from freezing. Comply with manufacturer's recommendations for minimum and maximum temperature requirements for storage.

#### 1.06 JOB CONDITIONS

- A. Materials Protection: Do not use metal reinforcing or ties having loose rust or other coatings, including ice, which will reduce or destroy bond.
- B. Protection of Work: During restoration cover wall with heavy waterproof sheeting at end of each day's work, if precipitation is expected.

04500-2

Masonry Restoration and Cleaning

- C. Staining: Prevent grout or mortar from staining face of masonry to be left exposed. Remove immediately grout or mortar in contact with masonry.
- D. Protect sills, ledges and projections from droppings of mortar.
- E. Cold Weather Protection:
  - 1. Remove ice or snow formed on masonry bed by carefully applying heat until top surface is dry to the touch.
  - 2. Remove masonry determined to be frozen or damaged by freezing conditions.
- F. Perform the following construction procedures while the work is in progress:
  - 1. When air temperature is from 40 deg. F (4 C) to 32 Deg. F (0 C), heat sand or mixing water to produce mortar temperatures between 40 deg. F (4 C) and 120 deg. F (49 C).
  - 2. When air temperature is below freezing, do not undertake tuckpointing or stone restoration.
- G. Perform the following protections for completed masonry and masonry not being worked on:
  - 1. Protect masonry from rain or snow for at least 24 hours by covering with water-resistive membrane.

#### **PART 2 PRODUCTS**

#### 2.01 BRICK:

A. Rebuild and/or repair existing masonry to be exposed, using bricks salvaged from selective demolition or new bricks to match existing.

#### 2.02 MORTAR MATERIALS

- A. Mortar for Face Brick and Accessories: Provide mortar for face brick and accessories to match original mortar in texture, color, strength, and hardness (density and porosity).
  - 1. Determining existing mortar mix constituents and ratios by analysis. Review laboratory evaluations with Architect before proceeding with the work.
  - 2. Match color of existing mortar by use of aggregates matching original aggregate color where possible. Use inorganic coloring pigments if satisfactory color match cannot be attained with natural materials.
  - 3. Mortar mix to be in accordance with New York City Landmarks Preservation Commission Row House Manual page 44 1 part Portland cement, 2 parts lime, 8 parts sand mix, then add pigments and water- (Type O).

#### 2.03 MASONRY CLEANING (BRICKWORK)

- A. A sample patch of cleaning must be reviewed and approved by architect before work is begun.
- B. Cleaning Agent: Blended organic and inorganic acids combined with special wetting systems and inhibitors; as manufactured by ProSoCo, Inc., Type 1 Restoration cleaner or approved equal for the removal of atmospheric carbon and dirt, paint oxidation, and embedded clay and mud stains from brick and other masonry surfaces.

#### 2.04 RESTORATION MATERIALS

- A. Epoxy Mortar: Conproco "mimic" trowel applied color matched, or approved equal.
- B. Primer: Conproco "mimic" bonding agent or approved equal.
- C. Stone Restoration Mix: Mix as per mortar manufacture's recommendations.

#### PART 3 EXECUTION

#### 3.01 CLEANING EXISTING MASONRY:

- A. Preparation of Surfaces: Cleaners specified herein are highly concentrated products, and to the extent established by job site tests, shall be diluted with clean water before application.
  - 1. Cleaners specified herein are harmful to glass, aluminum, painted, surfaces, foliage, and human skin and eyes.
  - 2. Protect all surrounding areas as recommended by the literature of the manufacturer and as requested by the architect.
  - 3. Windows shall be protected from contact with materials by masking with polyethylene, or by using Sure Klean Acid Stop, as manufactured by ProSoCo, Inc. South Plainfield, NJ or approved equal.
  - 4. All polished stone, metal or non-masonry surfaces shall be protected from contact with the material by masking with polyethylene or approved protective material.
  - 5. Adjacent shrubs, lawn, plants and sidewalks should be covered with polyethylene and protected from direct contact with the material.
  - 6. Necessary routing of joints and replacement of damaged masonry units shall have been completed, with exception of final pointing, prior to beginning cleaning operation.
  - 7. Adequate water supply shall be made available to assure thorough pre-soaking and thorough rinsing of the wall before undertaking general cleaning. All surfaces shall be thoroughly pre-soaked with clean water to prevent the absorption of the cleaning solution within the pores of the masonry.

B. Cleaning Process: Brick, unpolished granite, sandstone, terra cotta and/or exposed aggregate shall be spray or brush coated with Type I restoration cleaner, and left on the surface two or three minutes. A second application shall follow if deemed necessary by preliminary tests. Coated area shall then be rinsed from bottom up with clear water using high pressure rinsing equipment. Equipment shall be adjusted so that rinse water, either warm or cold, is applied at a pressure not to exceed 500 P.S.I. Attempts shall be made during the testing stage to determine if effective cleaning can be achieved with rinse water applied at pressures not to exceed 500 P.S.I. Flow of water shall be 10 gallons per minute. Gun used to apply water shall be equipped with not less than a 15" spray tip. All tips shall be fan type.

#### 3.02 REPAIRING EXISTING MASONRY

- A. Routing of Joints: Remove defective mortar joints to solid material or a depth of 1.0" whichever is greater, using hand tools. Take care to avoid damaging existing masonry or enlarging width of joints.
  - 1. A sample of pointing must be reviewed and approved by architect before work is begun.
  - 2. Mechanical tools will be permitted only on specific written approval of architect and demonstrated ability by operators to use without damage to masonry.
  - 3. Remove and repair damage to existing masonry by cutting, spalling and chipping as caused by routing operations.
  - 4. Thoroughly remove loose material from joints using a hose stream under normal pressure or by low pressure compressed air.
- B. Mortar Mixing: Add only enough water to dry mix ingredients to produce a damp, workable mix. Keep mortar in dampened condition for 1 to 2 hours, and then add sufficient to bring it to proper consistency.
- C. Replacing Brick: Lay brick and accessories to match existing bond, unless otherwise indicated.
  - 1. Match existing course height (one brick and one joint) for both face brick and backup brick.
  - 2. Provide bonding between face brick and back-up brick as indicated.
  - 3. Provide joints to match existing, unless otherwise indicated. Delay final tooling of joints until mortar is thumb print hard. Take care to not spread mortar over the edges of face brick onto exposed surfaces.
  - 4. Wet brick before laying. Do not use brick which are saturated with water, or which have been unduly exposed to moisture or rain at site, or which have been in contact with ground.
  - 5. Lay brick with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not slush head joints. Do not furrow bed joint; strike mortar flat with trowel.

- 6. Lay up brickwork with full or half brick, as required. Do not fill in concealed work with spalls, small bats, or excess mortar.
- 7. Lay up brickwork level and plumb, or as otherwise required to match existing.

#### D. Re-pointing:

- 1. After careful routing and cleaning joints, wet joints thoroughly and then apply fresh, pre-hydrated mortar. Allow water to soak into joints, but joints should not be visibly wet with standing water during tuckpointing.
- 2. Fill mortar joints in layers not over 1/4" thick, with each layer applied with pressure as soon as previous layer has partially dried. Do not tool each layer smooth: Leave surface rough to help bond of subsequent layers. Compress the final packing as much as possible to completely fill joint. Compact joints solidly before final tooling.
- 3. Tool joints to match existing work which has not been repointed, or oldest joints found, unless otherwise indicated. Take care to not spread mortar over edges of brick onto exposed surfaces. Do not featheredge mortar. Cure mortar by maintaining in a damp condition for 5 days.

#### 3.03 FINAL CLEANING

- A. All mortar to fully harden for approximately 30 days after completion of work, then thoroughly clean exposed masonry surfaces of excess mortar and foreign matter using stiff nylon or bristle brushes and clean water under normal pressure.
  - 1. Use of metal scrapers or brushes will not be permitted.
  - 2. Use of acid or alkali cleaning agents will not be permitted.

#### 3.04 STONE RESTORATION-PATCH METHOD

- A. Carefully remove loose and friable stone, dust, dirt, oil and other contaminants.
- B. Saw cut edges with a diamond blade at a 90 degree angle to eliminate feather edges. Repair zone must be ½" deep min.
- C. Saturate surface of stone to be repaired.
- D. Prime the prepared substrate in accordance with manufacturers instructions, while wet.
- E. Mix mortar patch in accordance with mortar manufacturers instructions.
- F. Apply materials in lifts, ½" minimum, 2: maximum, forcing materials against edges.
- G. Cross hatch scratch each lift to prepare surface for next lift.
- H. Overbuild ¼", and shave to final form with trowel edge.
- I. Entire method to be performed in accordance with manufacturers detailed instructions.

- END OF SECTION -