

# **HDC**

## **ADMINISTRATIVE**

### **APPROVALS**

**February 05, 2025**

- |           |                              |                              |
|-----------|------------------------------|------------------------------|
| <b>1.</b> | <b>93 Pleasant Street</b>    | <b>-Recommended Approval</b> |
| <b>2.</b> | <b>40 Pleasant Street</b>    | <b>-Recommended Approval</b> |
| <b>3.</b> | <b>15 Pleasant Street</b>    | <b>-Recommended Approval</b> |
| <b>4.</b> | <b>442-444 Middle Street</b> | <b>-Recommended Approval</b> |
| <b>5.</b> | <b>1 Walton Alley</b>        | <b>-Recommended Approval</b> |
| <b>6.</b> | <b>100 High Street</b>       | <b>-Recommended Approval</b> |
| <b>7.</b> | <b>50 Austin Street</b>      | <b>-Recommended Approval</b> |
| <b>8.</b> | <b>87 Market Street</b>      | <b>-Recommended Approval</b> |

**1. 93 Pleasant Street**

**-Recommended Approval**

**Background:** The applicant is seeking approval for changes to a previously approved design (shutter design, building signage and landscaping).

**Staff Comment:** Recommended Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

# 93 PLEASANT STREET RENOVATIONS & ADDITION



## DRAWING LIST

P0.0 COVER  
P1.0 LANDSCAPE PLAN  
P1.1 TREADWELL MANSION SIGN  
P1.2 SHUTTERS, PREVIOUSLY APPROVED  
P1.3 SHUTTERS, PROPOSED

### HDC ADMINISTRATIVE APPROVAL: REVISIONS TO PREVIOUSLY APPROVED APPLICATION:

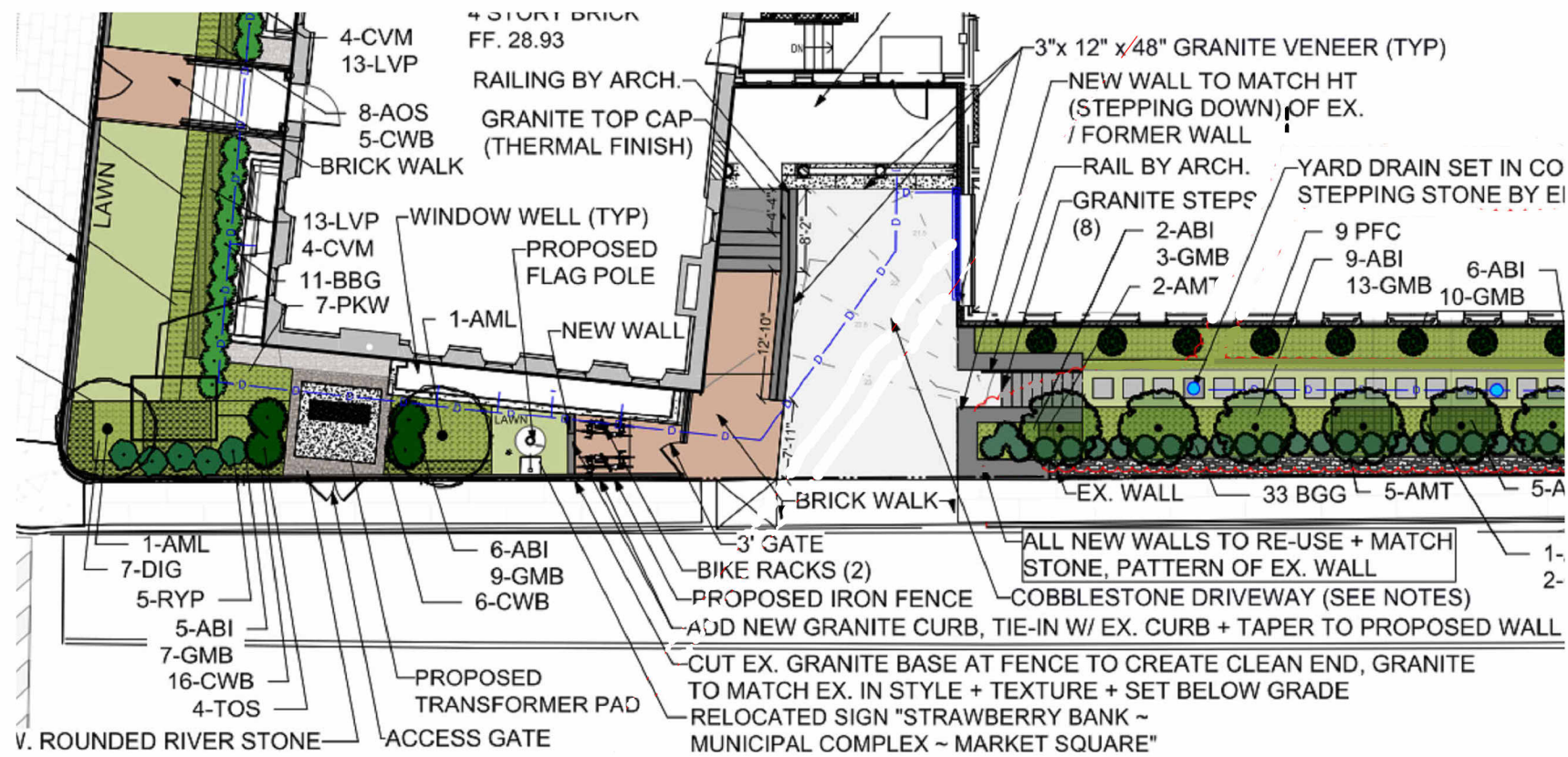
- SHUTTERS
- BUILDING SIGN
- LANDSCAPING

**P0.0** COVER  
93 PLEASANT STREET

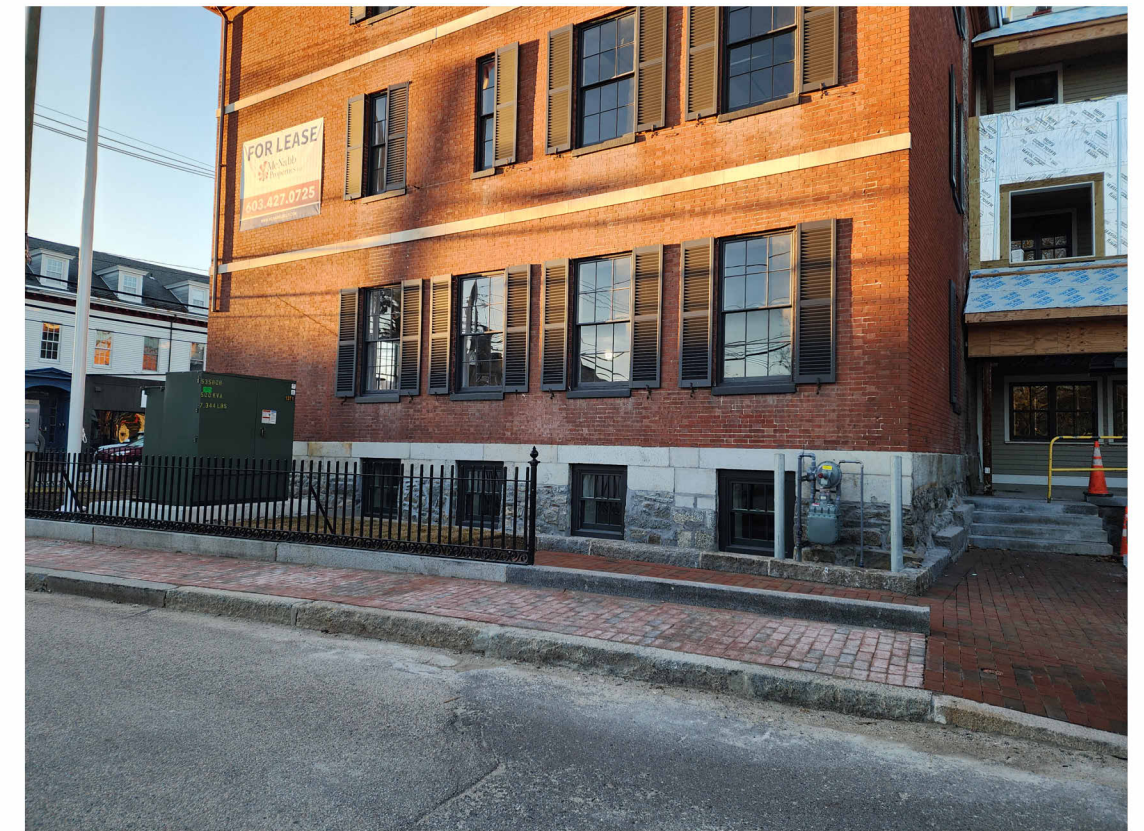
01/17/2025



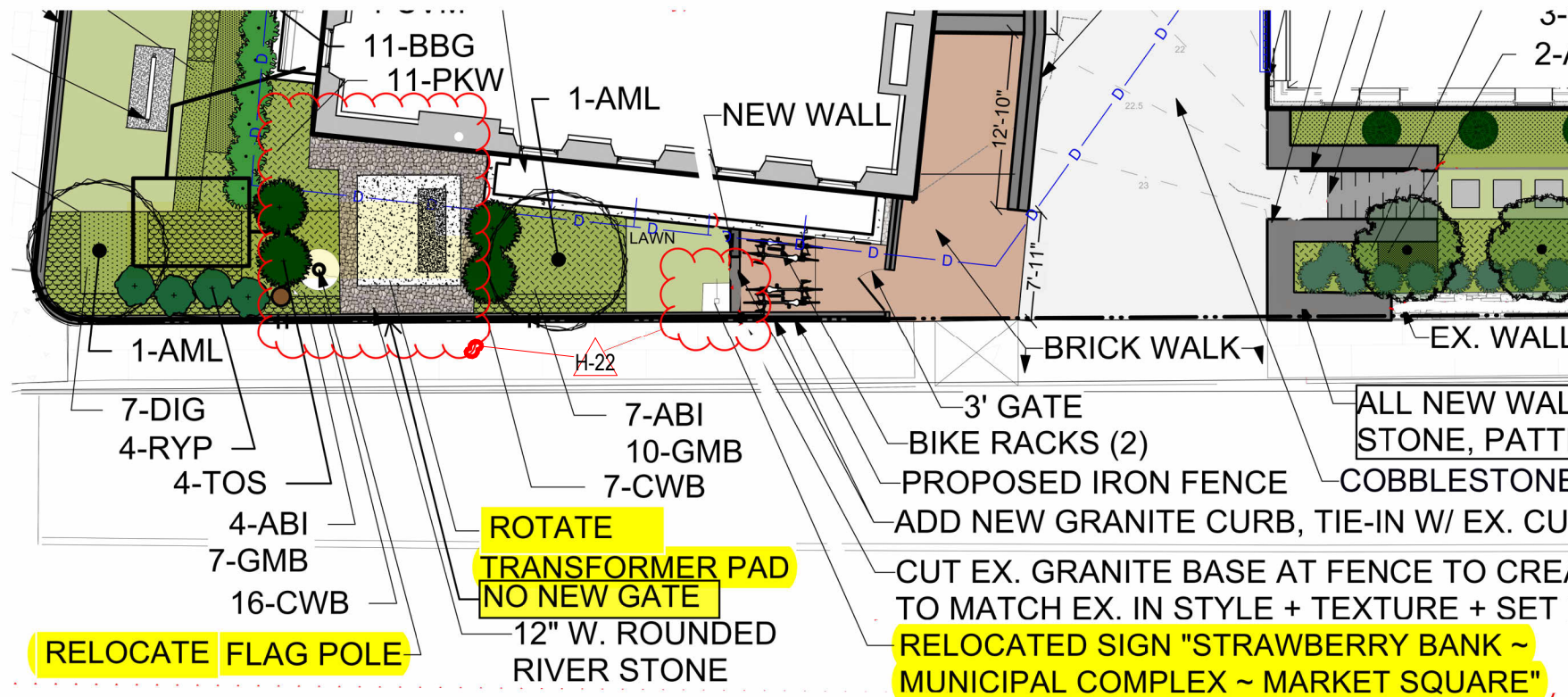
COPYRIGHT © 2022



**PREVIOUSLY APPROVED**



**CURRENT PROGRESS**



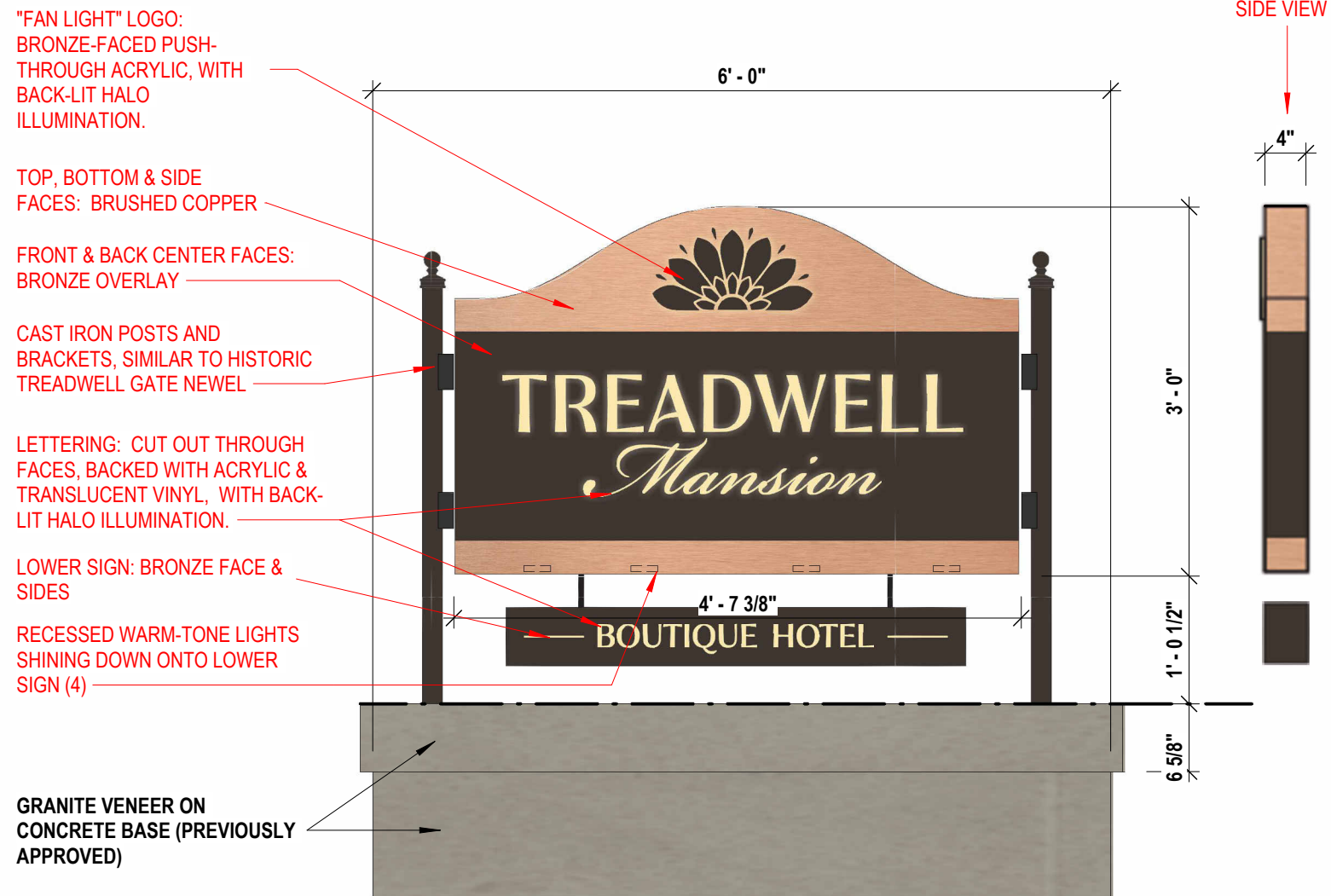
**PROPOSED**

**P1.0**

**LANDSCAPE PLAN  
93 PLEASANT STREET**

01/17/2025





1 SIGN ELEVATION  
3/4" = 1'-0"



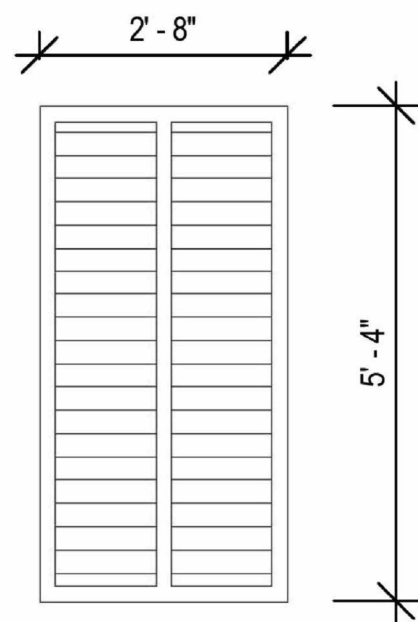
2 SIGN PERSPECTIVE  
NTS

P1.1 BUILDING SIGN  
93 PLEASANT STREET

01/17/2025



SLIDING ALUMINUM SHUTTERS



S1 SHUTTER



1 SLIDING SHUTTER DETAIL  
NTS



INNOVATE YOUR SPACE  
WITH WEATHERWELL ALUMINUM SHUTTERS

**Accuride**  
Always Moving Forward

## Corrosion-Resistant Movement Solutions

Accuride corrosion-resistant slides deliver unmatched performance no matter the environment. Super heavy-duty, over-travel, stainless steel, or **aluminum**. Whatever the challenge, we have the movement solution.

Premium options for:

- Outdoor kitchens
- **Marine cabinetry**
- Industrial manufacturing



**P1.2 SHUTTERS, PREVIOUSLY APPROVED**  
**93 PLEASANT STREET**

01/17/2025

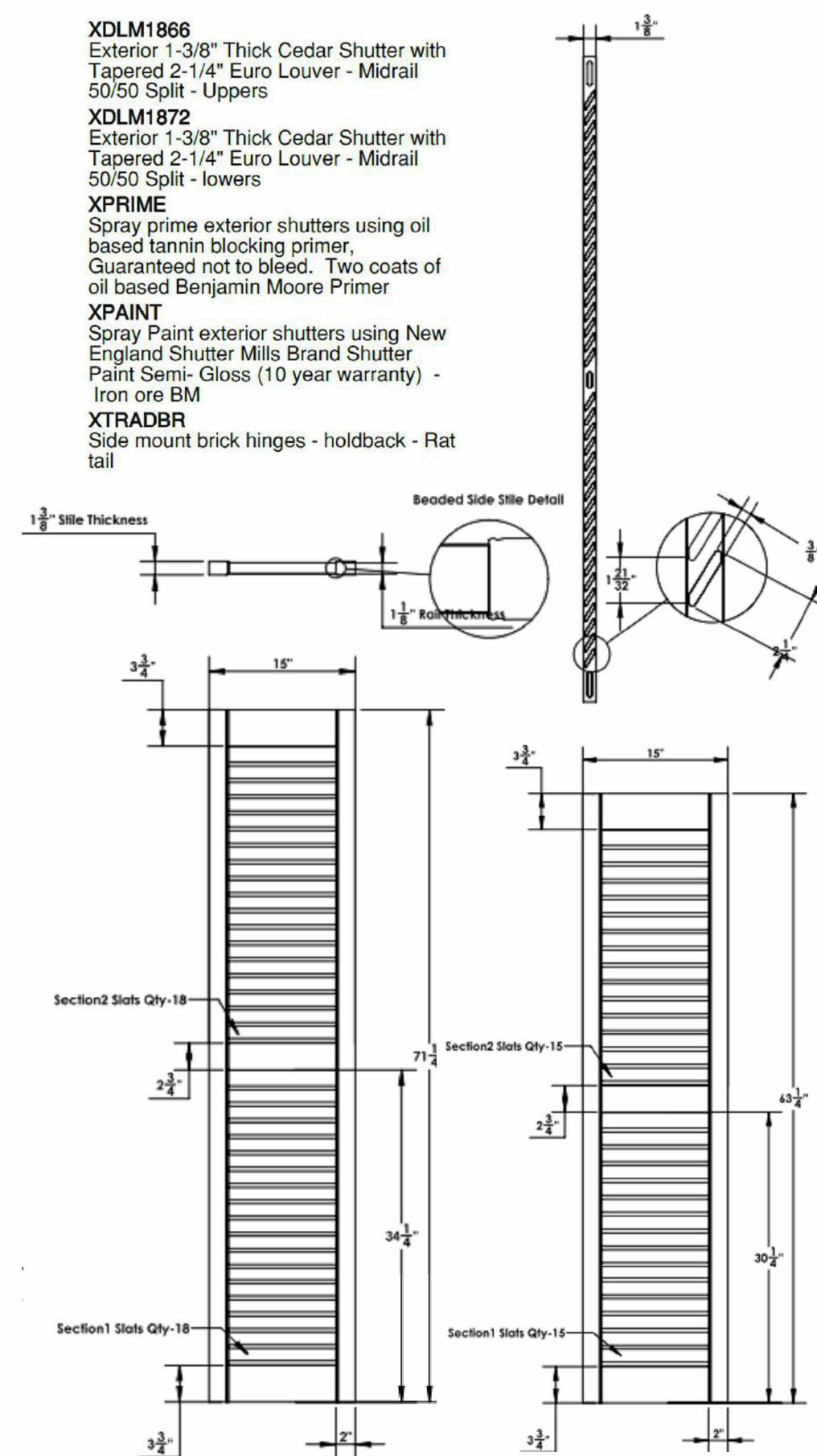
GRAPHIC SCALE: 1/16" = 1'-0"



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- XDLM1866**  
Exterior 1-3/8" Thick Cedar Shutter with Tapered 2-1/4" Euro Louver - Midrail 50/50 Split - Uppers
- XDLM1872**  
Exterior 1-3/8" Thick Cedar Shutter with Tapered 2-1/4" Euro Louver - Midrail 50/50 Split - lowers
- XPRIME**  
Spray prime exterior shutters using oil based tannin blocking primer, Guaranteed not to bleed. Two coats of oil based Benjamin Moore Primer
- XPAIN**  
Spray Paint exterior shutters using New England Shutter Mills Brand Shutter Paint Semi- Gloss (10 year warranty) - Iron ore BM
- XTRADBR**  
Side mount brick hinges - holdback - Rat tail



1 3D View from Pleasant @ Court HDC



**P1.3 SHUTTERS, PROPOSED**  
**93 PLEASANT STREET** GRAPHIC SCALE: 1/16" = 1'-0"  
 01/17/2025



**2. 40 Pleasant Street**

**-Recommended Approval**

**Background:** The applicant is seeking approval for exterior railings to match those already installed and signage.

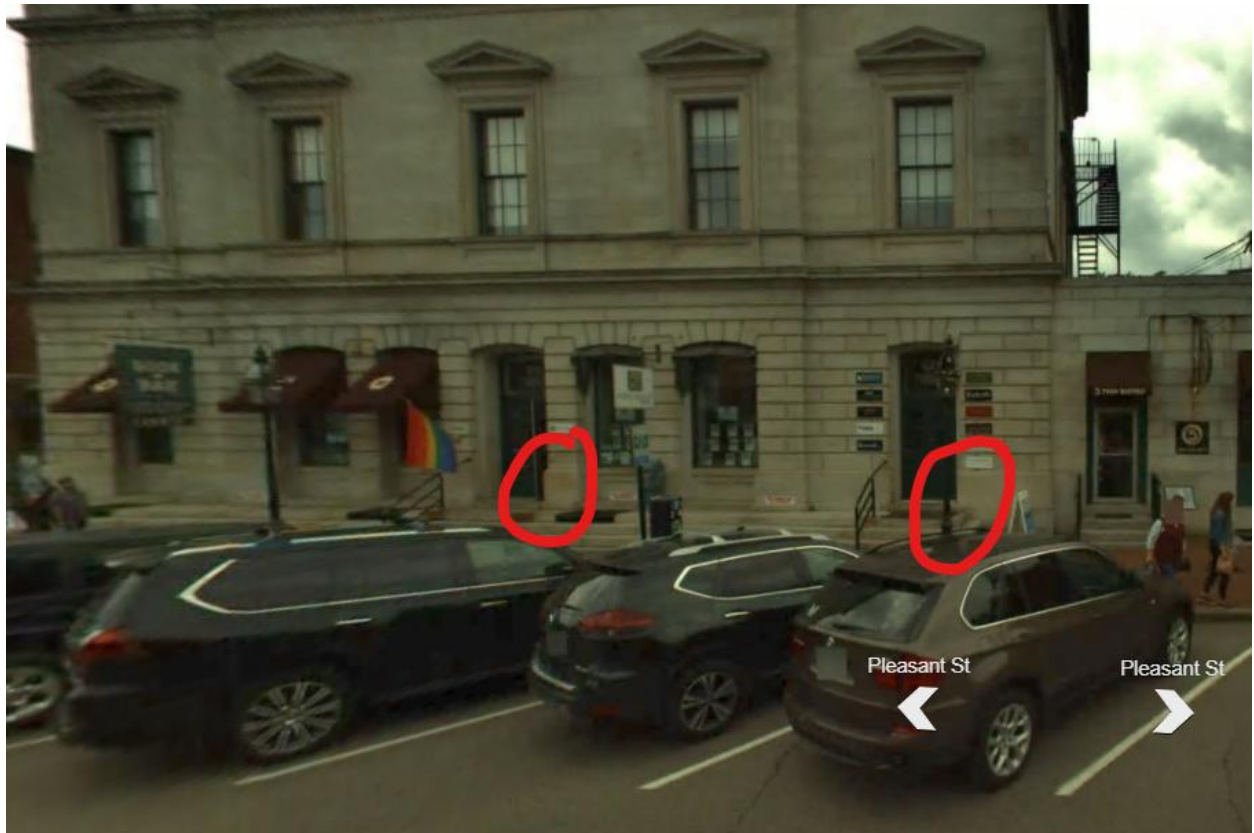
**Staff Comment:** Recommended Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_







Dear Members of the Historical District Commission,

We recently took over the Book and Bar space at 40 Pleasant Street and opened Howling Wolf Taqueria. We are seeking a variance to allow use a sign that is 60"x48".

With signage, our objective was to keep all the existing infrastructure in place, simply replacing their signage with updated signs of the same size. This would allow us to utilize all the current hardware, so we did not have to make any more changes than necessary as we know this is in a historic district. After submitting the initial application, we were notified that signage that had been in place for at least the last 6 years (most likely longer, we just do not have any dated pictures of the sign prior to that) was a non-conforming sign.

As a restaurant owner, I am not as versed in responding to specifics in codes, so I will defer to the enclosed letter from Portsmouth Sign company for more details.

Thank you very much for your time and consideration.

Eric Holstein

Howling Wolf Taqueria



Variance Planning Department  
Town of Portsmouth  
1 Junkins Avenue  
Portsmouth, NH 03801

Subject: Request for Variance for Projecting Sign at 40 Pleasant Street (Howling Wolf)

Dear Members of the Planning Board,

I am writing on behalf of Portsmouth Sign, representing the Howling Wolf, which recently relocated to 40 Pleasant Street in Portsmouth. We are requesting a variance to hang a projecting sign of the same size as the previous sign that was located at this space for Book & Bar. This new sign is intended to be an exact replacement, both in size and design, to the original sign that was previously permitted and installed.

We were informed that, under the current interpretation of the ordinance, the new sign would only be allowed to be half the size of the original sign, which we respectfully feel would be detrimental to the visibility of the business. We are therefore seeking a variance to install the same size sign (approximately [insert dimensions]) in the same exact location, utilizing the same bracket that supported the previous sign.

In accordance with Section 10.233.20 of the Portsmouth Zoning Ordinance, we believe that our request meets all of the criteria for a variance, as outlined below:

- 1. 10.233.21 - The variance will not be contrary to the public interest:**  
The new sign for Howling Wolf will not alter the character of the neighborhood. The sign is an exact replica of the previous sign that was in place for several years, and it will not affect public health, safety, or welfare. The proposed sign will continue to serve as a clear, attractive marker for the business without causing any disruption or concern to the public.
- 2. 10.233.22 - The spirit of the Ordinance will be observed:**  
The spirit of the ordinance is intended to maintain the aesthetic and functional integrity of signage within the city. The new sign maintains this intent, as it mirrors the size and design of the previous sign, and its installation will not negatively impact the visual quality or safety of the surrounding area.
- 3. 10.233.23 - Substantial justice will be done:**  
Allowing the new sign to be installed in the same size and location as the previous sign ensures that no injustice will be done to the property owner or the business. The new sign was specifically produced to match the previous sign, and altering its size would create unnecessary inconvenience and additional costs for the business. The surrounding public will not be impacted by this change.
- 4. 10.233.24 - The values of surrounding properties will not be diminished:**  
The proposed sign is consistent with the previous sign that has been in place for several years. It has not caused any reduction in the value of surrounding properties, and we do not foresee any negative impact from reinstalling a sign of the same size. In fact, this type of consistent signage contributes positively to the character of the neighborhood.
- 5. 10.233.25 - Literal enforcement of the provisions of the Ordinance would result in an unnecessary hardship:**  
The sign for Howling Wolf has already been produced, and the installation of the sign in its original size and location is ready to proceed. Any further delays or changes to the sign would cause unnecessary hardship, as the new design and permitting process would take months to complete. This delay would create a financial burden on the business and impact its ability to effectively communicate with potential customers.

For these reasons, we respectfully request that the Planning Board grant a variance to allow Howling Wolf to install the same size projecting sign that was previously permitted for Book & Bar. We believe this request aligns with the intent of the ordinance, respects the surrounding community, and will not negatively impact public safety or property values.

Thank you for your time and consideration. We are happy to provide any additional information or attend the upcoming meeting to further discuss this request.

**Michelle Gilmore**

Chief Operating Officer  
**Mobile** 603-866-1167

**Web** [northsouthnh.com](http://northsouthnh.com)

**Email** [michelle@northsouthnh.com](mailto:michelle@northsouthnh.com)

19 Nimble Hill Road, Suite 2, Newington NH 03801



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*A family of companies*



**City of Portsmouth**  
**Sign Permit**  
 Inspection Department  
 1 Junkins Avenue  
 Portsmouth, NH 03801  
 603-610-7243

**Permit Number:**  
 SIGN-24-70  
**Date of Issue:**  
 October 16, 2024  
**Expires:**  
 October 16, 2025

**Owner:** CUSTOM HOUSE LLC  
**Applicant:** Marc Gagnon  
**Contractor:** , Portland Sign Company **Phone #:** (603) 436-0047  
**Location:** 40 PLEASANT ST ,,  
**Description of Project:** Signage for the Howling Wolf Taqueria located at 40 Pleasant Street  
 NOTE: Separate Permit Approval Required for Projecting Sign  
 Signage to Include:  
Projecting Sign A- NOT APPROVED UNDER THIS PERMIT APPLICATION

**WALL SIGNS- (26.28 SF Total)**

**Wall Sign B:**  
 Remove Existing Book & Bar Signage and install One (1) New Non-Illuminated 144.75" (W) x 24.5" (H) Wall Sign. No Change to Existing External Lighting Authorized. **(24.62 SF)**

**Wall Sign C:**  
 Remove Existing Book & Bar Signage and Install One (1) New Non-Illuminated 24" (W) x 10" (H) Wall Sign **(1.66 SF)**

Signage as per rendering by Portsmouth Sign Company, labelled Howling Wolf Taqueria, dated 07/30/2024.  
 No Exterior Changes Authorized without prior Historic Commission Written Authorization

**Sign Type(s):**

- Wall / Attached  
 Wall / Attached

**Total Sign Area:** 27  
**Total Number of New Signs:** 2

**Remarks:**

•

The PERMIT HOLDER has read this permit, the permit application, and the Building Official's marked-up plans and agrees to perform the work authorized including any conditions or requirements indicated thereon; and any stipulations imposed by a Land Use Board in conjunction with the project.

**Code Official:**

*Paul Garand*

This is an e-permit. To learn more, scan this barcode or  
 visit [portsmouthnh.viewpointcloud.com/#/records/85608](https://portsmouthnh.viewpointcloud.com/#/records/85608)



# HOWLING WOLF

t a q u e r i a

**NAME:**  
Howling Wolf  
Exterior Signage\_Portsmouth

**ADDRESS:**  
40 Pleasant Street  
Portsmouth, NH 03801 United States

**SALES PERSON:**  
Carrie Vaughn

**DESIGNER:**  
SS

**DATE:**  
07.30.2024

**CONTACT PRIOR TO ARRIVAL:**  
Eric Holstein  
914-484-2853  
eric@streetlightventures.com

**REQUESTED COMPLETION DATE:**  
Opening 1st Week of September 2024

Survey for measurements and to confirm access to  
State St. Wall Mounted sign completed on 7/22/24

PG	ITEM	REV	DATE
1.0	A HANGING SIGN - OPT 1	6	10.17.24
1.1	ITEM REMOVED	10.17.24	
2.0	ITEM REMOVED	10.17.24	
3.0	ITEM REMOVED	10.17.24	
4.0	ITEM REMOVED	10.17.24	



PortsmouthSign.com  
603-436-0047

**REVISION:**

All orders under \$250 include 1 revision only.  
All orders over \$250 include 2 revisions only.  
Additional revisions will be charged at \$25 per revision.

**PLEASE NOTE:**

Designs are NOT actual size and color may vary depending on printer and/or monitor.

**RETURN SIGNED TO: service@portsmouthsign.com**

I understand this design is the final production order and replaces all previous drawings, notes and verbal instructions to this job. Standard vinyl & paint colors will be unless otherwise specified. I have carefully reviewed this proof and verify that it contains all necessary specifications and represents my order. I authorize fabrication according to this approval.

**SIGNATURE:** \_\_\_\_\_ **Date:** \_\_\_\_\_

© COPYRIGHT 2023, BY PORTSMOUTH SIGN COMPANY. All designs and custom artwork remain the property of Portsmouth Sign Company until the order is complete and paid in full.

MEMBER



The Chamber

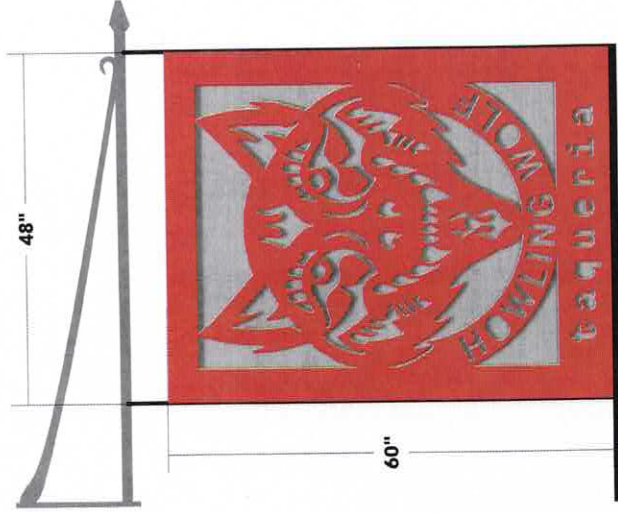
**COLLABORATIVE**  
of Greater Portsmouth

**A**

SCALE: 1/2"=1'

REQUESTED COMPLETION DATE:

Opening 1st Week of September 2024



3/4" PVC

1/2" FRAMING/SPACERS

ROUTED 080 ALUMINUM PANELS

ADD BOTTOM ANTI-SWING BRACKET

**HANGING SIGN:**

SIGN TYPE: using existing bracket, add bottom anti-swing bracket, existing 48" x 48" with 48" x 14" drop sign

SIZE (Width x Height x Depth): 48" x 60"

QUANTITY: 1

VINYL TYPE: n/a

SUBSTRATE: 3/4" PVC, routed 080 aluminum panels to each side with 1/2" framing/spacers to give the shadow effect

DOUBLE SIDED

CONTENT: wolf logo, Howling Wolf Taqueria

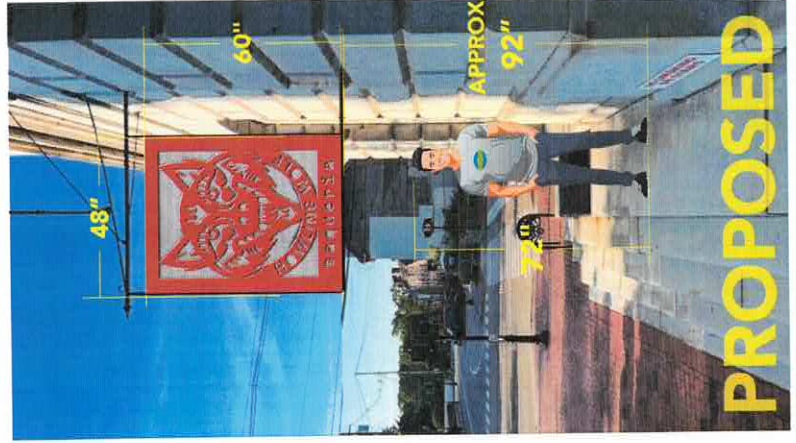
GRAPHIC/TEXT COLOR:

Red (PMS 7621), Grey (PMS Cool Gray 3)

FABRICATION NEEDED: CNC Router, welding, paint

SIGN MOUNTING: side straps and bottom anti-swing bracket

POSTS & HARDWARE: existing bracket, hooks at 48"



**INSTALLATION:**

INSTALL MAX. HEIGHT: approx. 16' to above door panel

REPLACING EXISTING OR NEW: replacing existing

EXISTING SIGN REMOVAL AND DISPOSAL: removal and disposal of all except going over existing for above door panel

SITE SURVEY NEEDED: completed on 7/22

PERMITS NEEDED: Customer to acquire

INSPECTION NEEDED: no

DIG SAFE: n/a

SUBCONTRACTORS NEEDED: n/a

CONTACT PRIOR TO ARRIVAL:

Eric Holstein

914-484-2853

eric@streetlightventures.com

COLOR SCHEDULE (CLIENT TO VERIFY)

PMS 7621 C

PMS COOL GRAY 3 C

BLACK



# Projecting Sign Location



**MAP FOR REFERENCE ONLY  
NOT A LEGAL DOCUMENT**

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 09/26/2024

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.



Eric Holstein &lt;eric@streetlightventures.com&gt;

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## Sign Authorization

5 messages

---

**Eric Holstein** <eric@streetlightventures.com>  
To: Dave Schleyer <dschleyer@chinburg.com>

Tue, Aug 27, 2024 at 12:06 PM

Hey Dave,

We finally have sign designs. Hoping we can get a written authorization from you.

Let me know if you have any questions happy to review.

Best,  
Eric

---

 **240915-03 Proposal Howling Wolf - Exterior.pdf**  
102K

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**David Schleyer** <dschleyer@chinburg.com>  
To: Eric Holstein <eric@streetlightventures.com>

Tue, Aug 27, 2024 at 12:11 PM

Hey Eric,  
Did they give you renderings? Owner typically asks for it.

Dave Schleyer

Chinburg Properties

**Phone:** (603) 502-5987

**Email:** [dschleyer@chinburg.com](mailto:dschleyer@chinburg.com)

Sent from mobile device.

---

**From:** Eric Holstein <eric@streetlightventures.com>  
**Sent:** Tuesday, August 27, 2024 12:06:34 PM  
**To:** David Schleyer <dschleyer@Chinburg.com>  
**Subject:** Sign Authorization

[Quoted text hidden]

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This email has been scanned for spam and viruses by Proofpoint Essentials. Click [here](#) to report this email as spam.

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**Eric Holstein** <eric@streetlightventures.com>  
To: David Schleyer <dschleyer@chinburg.com>

Tue, Aug 27, 2024 at 12:30 PM

That would help, sorry, I attached the wrong file.

See Attached



**STREETLIGHT**  
VENTURES



[www.streetlightventures.com](http://www.streetlightventures.com)

+1 (914) 484-2853

[Quoted text hidden]

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 **240915 - Howling Wolf - Exterior Signage\_Portsmouth-Rev2.pdf**  
5297K

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**Eric Holstein** <eric@streetlightventures.com>  
To: David Schleyer <dschleyer@chinburg.com>

Tue, Aug 27, 2024 at 12:31 PM

Sorry, I meant to attach the simpler file with the specific signs. Please use this.

Eric



**STREETLIGHT**  
VENTURES



[www.streetlightventures.com](http://www.streetlightventures.com)

+1 (914) 484-2853

[Quoted text hidden]

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 **Howling Wolf Portsmouth Signage.pdf**  
1243K

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**David Schleyer** <dschleyer@chinburg.com>  
To: Eric Holstein <eric@streetlightventures.com>

Tue, Aug 27, 2024 at 1:14 PM

Approved.

Thanks

**Dave Schleyer**

Commercial Operations and Leasing

Chinburg Properties

**Phone:** (603) 502-5987

Email: [dschleyer@chinburg.com](mailto:dschleyer@chinburg.com)

---

**From:** Eric Holstein <[eric@streetlightventures.com](mailto:eric@streetlightventures.com)>

**Sent:** Tuesday, August 27, 2024 12:31 PM

**To:** David Schleyer <[dschleyer@Chinburg.com](mailto:dschleyer@Chinburg.com)>

**Subject:** Re: Sign Authorization

Sorry, I meant to attach the simpler file with the specific signs. Please use this.

Eric



[www.streetlightventures.com](http://www.streetlightventures.com)

+1 (914) 484-2853

On Tue, Aug 27, 2024 at 12:30 PM Eric Holstein <[eric@streetlightventures.com](mailto:eric@streetlightventures.com)> wrote:

That would help, sorry, I attached the wrong file.

See Attached



[www.streetlightventures.com](http://www.streetlightventures.com)

11/21/24, 10:17 PM

Streetlight Ventures Mail - Sign Authorization

+1 (914) 484-2853

[Quoted text hidden]



# PROPOSAL

240915-03

Date: 08/26/2024

Expires: 09/10/2024

Drawing Numbers: 240915-05

19 Nimble Hill Rd, Newington, NH 03801

**Project:** Howling Wolf - Exterior Signage\_Portsmouth  
40 Pleasant Street  
Portsmouth, NH 03801

**Client:** Howling Wolf  
40 Pleasant Street  
Portsmouth, NH 03801

**Contact:** Eric Holstein 914 484 2853 eric@streetlightventures.com

repairs are not included unless specifically stated.

**TERMS:** The terms of this contract shall be subject to and enforceable under the laws of the state of New Hampshire. The parties expressly waive their rights to enforce their rights hereunder in any jurisdiction other than New Hampshire and agree and consent that any dispute arising out of this contract shall be decided by a New Hampshire Court and that trial by jury is specifically waived by each party hereto for themselves or their assigns. In the event a lawsuit for collection of funds unpaid is filed, the debtor agrees that the contract interest rate of 18% shall prevail over any statutory interest rate. The debtor agrees to pay all costs of collection, including reasonable attorneys' fees.

**UTILITY/DIG SAFE SERVICES:** If Dig Safe is required customer can arrange or request Portsmouth Sign to coordinate. Any costs incurred for services provided to cover overhead lines or verify location of underground utility/sewer/water/phone/gas or other obstructions will be an additional charge at time of billing.

**WARRANTY:** Signage furnished is warranted to be free of manufacturing defects for 1 year, effective from the date of installation. The warranty does not apply due to damage caused by power failure, surges, or lightning strikes. Warranty is VOID if account is delinquent.

**Salesperson: Michelle Gilmore**

Buyer's Acceptance \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Seller's Acceptance \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

**3. 15 Pleasant Street**

**-Recommended Approval**

**Background:** The applicant is seeking approval for the installation of an EV charging station.

**Staff Comment:** Recommend Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

# PISCATAQUA SAVINGS BANK EV CHARGING SYSTEM

## PROJECT SUMMARY

SERVICE SUMMARY		
TRANSFORMER SPECS	133 kVA TRANSFORMER ON EXISTING SERVICE	
SERVICE SECONDARY WIRING	SIZED FOR UP TO 200A 480V 3Φ*	
MAIN PANEL RATING	200A 480Y/277Vac	
EXPANSION CAPACITY	ENTIRE SYSTEM IS SIZED FOR EXPANSION/UPGRADE	
CHARGER(S) SUMMARY		
ITEM	DESCRIPTION	QTY
CHARGEPOINT CPE250	480V STANDALONE DCFC	1

## SHEET LIST

SHEET	TITLE
G001	TITLE SHEET
AI00	SITE PLAN
E300	DETAILS & ELEVATIONS

## REVISION LIST

REV	BY	DATE	STATUS	CHANGES MADE
000	CNH	11/25/2024	PRE-APP	NA

## AUTHORITIES HAVING JURISDICTION

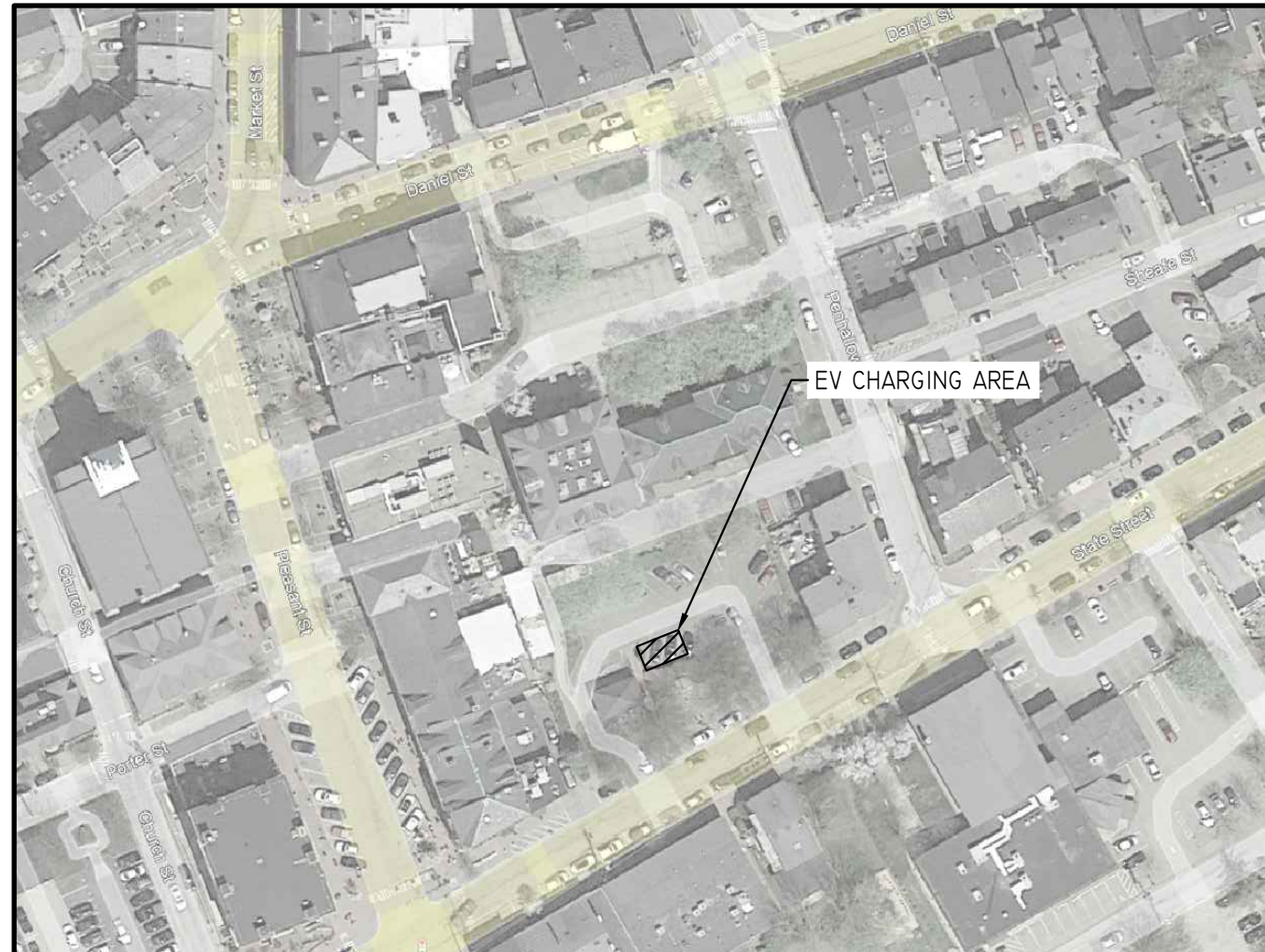
BUILDING AUTHORITY	PORTSMOUTH, NH
ELECTRICAL AUTHORITY	PORTSMOUTH, NH
ZONING/PLANNING AUTHORITY	PORTSMOUTH, NH
ELECTRICAL UTILITY	EVERSOURCE
APPLICABLE CODES	NATIONAL ELECTRICAL CODE 2023

## CONTACT INFORMATION

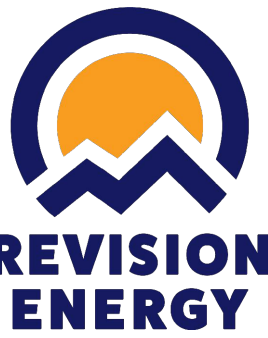
PROJECT MANAGER:  
 JOSH BASTON  
 758 WESTBROOK STREET  
 SOUTH PORTLAND, ME 04106  
 PHONE: 207-595-2445  
 EMAIL: JOSHB@REVISIONENERGY.COM

PROJECT DESIGNER:  
 CHUCK HAYWARD  
 758 WESTBROOK STREET  
 SOUTH PORTLAND, ME 04106  
 PHONE: 207-805-4070  
 EMAIL: CHAYWARD@REVISIONENERGY.COM

ENGINEER OF RECORD:  
 HANS ALBEE  
 PO BOX 6  
 LIBERTY, ME 04949  
 PHONE: 207-322-4106  
 EMAIL: HANS@REVISIONENERGY.COM



A  
N.T.S. SITE LOCATION



**REVISION ENERGY**  
 758 WESTBROOK STREET  
 SOUTH PORTLAND, ME  
 04106  
 (207)-221-6342

CLIENT:  
 PISCATAQUA SAVINGS BANK  
 15 PLEASANT ST  
 PORTSMOUTH NH, 03801

SYSTEM TYPE:  
 NEW ELECTRICAL VEHICLE CHARGING STATIONS

NOT FOR CONSTRUCTION

DESIGNED BY: CNH  
 REVISION: 000  
 PRINT SIZE: 11" X 17"  
 DATE: 11/25/2024  
 DWG TITLE: TITLE SHEET  
 DWG NUMBER: G001

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# REVISION ENERGY

758 WESTBROOK STREET  
SOUTH PORTLAND, ME  
04106  
(207)-221-6342

CLIENT:

PISCATAQUA SAVINGS  
BANK  
15 PLEASANT ST  
PORTSMOUTH NH, 03801

SYSTEM TYPE:

NEW ELECTRICAL VEHICLE  
CHARGING STATIONS

NOT FOR CONSTRUCTION

DESIGNED BY: CNH  
REVISION: 000  
PRINT SIZE: 11" X 17"  
DATE: 11/25/2024  
DWG TITLE:

SITE PLAN

DWG NUMBER:  
A100

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EDITION OF THE NATIONAL  
ELECTRIC CODE, AND LOCAL  
GOVERNMENTAL AUTHORITIES.



METAL-CLAD CIRCUITS RUN  
~80' THROUGH CRAWLSPACE  
AND BASEMENT

NEW FLOOR-MOUNTED  
208V TO 480V STEP-UP  
TRANSFORMER IN NOOK

CIRCUITS IN CONDUIT RUN ~30'  
THROUGH OPEN BASEMENT

EXISTING PASS THROUGH  
OPENING IN STONE WALL

CIRCUITS IN CONDUIT RUN ~50'  
THROUGH OPEN BASEMENT

CPE250 DC FAST CHARGER  
ON CONCRETE PAD WITH 2  
BOLT-DOWN BOLLARDS

CHARGER DISCONNECT  
ON PT POST

TRENCH ~15' FROM  
MANHOLE TO  
CHARGER LOCATION

CIRCUITS RUN THROUGH EXISTING  
UNDERGROUND TUNNEL TO MANHOLE

0' 25' 50'



# REVISION ENERGY

758 WESTBROOK STREET  
SOUTH PORTLAND, ME  
04106  
(207)-221-6342

CLIENT:

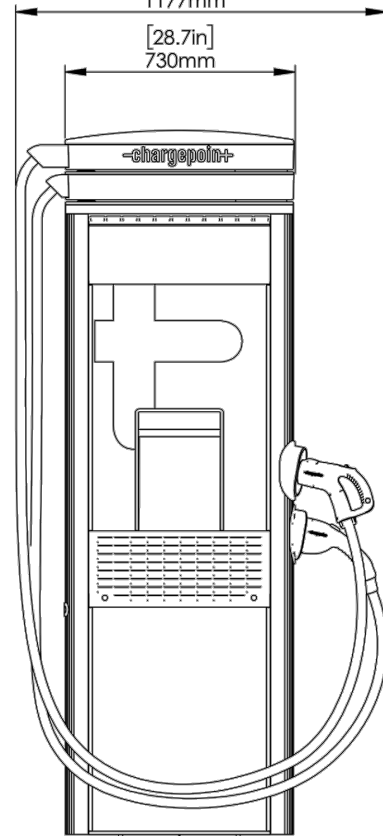
PISCATAQUA SAVINGS  
BANK  
15 PLEASANT ST  
PORTSMOUTH NH, 03801

SYSTEM TYPE:

NEW ELECTRICAL VEHICLE  
CHARGING STATIONS

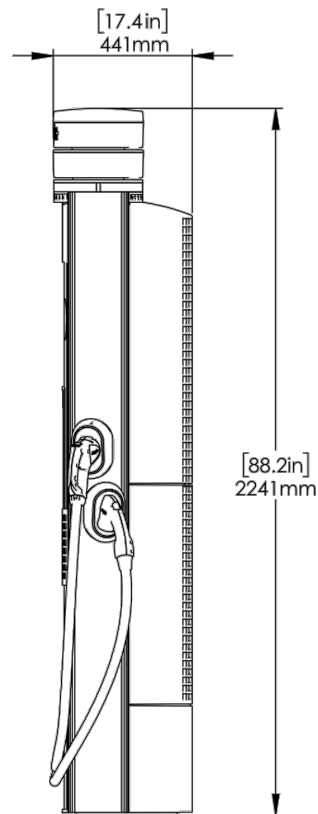
FRONT VIEW

[46.3in]  
1177mm



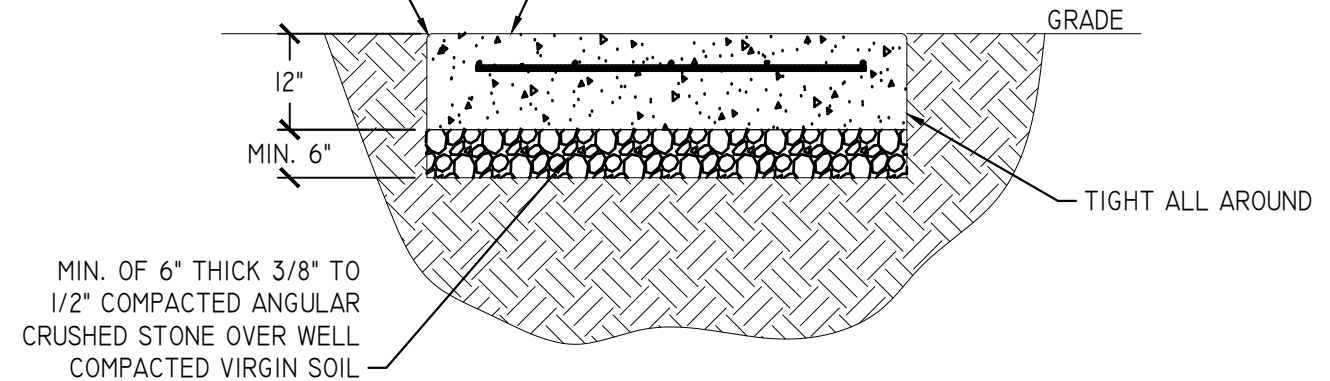
SIDE VIEW

[17.4in]  
441mm



3/4" CHAMFER  
(TYP. - ALL SIDES)

PRE-FAB CONCRETE PAD BY EZ-CRETE  
#4 REBAR 12" OC BOTH WAYS  
5000 PSI CONCRETE @ 28 DAYS



MIN. OF 6" THICK 3/8" TO  
1/2" COMPACTED ANGULAR  
CRUSHED STONE OVER WELL  
COMPACTED VIRGIN SOIL

**B**  
1/2" = 1'-0" CP250 CHARGER ELEVATION

**C**  
N.T.S. PRECAST CONCRETE PAD DETAIL

### TRENCH INSTRUCTIONS:

1. CONTRACTOR TO VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING.
2. EXCAVATE TO 30" DEPTH TO PROVIDE MINIMUM 24" COVER ABOVE CONDUITS/DIRECT BURY CABLE OR AS REQUIRED PER NEC 2023 300.5.
  - 2.1. UTILITY MAY REQUIRE ADDITIONAL COVER FOR PRIMARY POWER.
3. ENCASE CONDUIT IN MINIMUM 2" CONCRETE WHEN UNDER ROADWAYS OR MINIMUM COVER IS NOT POSSIBLE DUE TO LEDGE.
4. CONDUIT/CABLE SHALL BE SURROUNDED BY MINIMUM 6" CLEAN SAND ABOVE AND BELOW.
5. EXCAVATED MATERIAL MAY BE USED AS BACKFILL IF FREE OF ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIAL, SUCH AS LARGE ROCKS. IF NOT, PROVIDE CLEAN, COMPACTABLE MATERIAL.
6. COMPACT IN 8" LIFTS AND INCLUDE WARNING RIBBON IN TRENCH 12" ABOVE CONDUIT/CABLE.
7. PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRE-CONSTRUCTION CONDITIONS OR BETTER.

**D**  
N.T.S. TRENCH INSTRUCTIONS

NOT FOR CONSTRUCTION

DESIGNED BY: CNH

REVISION: 000

PRINT SIZE: 11" X 17"

DATE: 11/25/2024

DWG TITLE:

DETAILS &  
ELEVATIONS

DWG NUMBER:

E300

© COPYRIGHT REVISION ENERGY  
THIS DIAGRAM IS PROVIDED AS  
A SERVICE AND IS BASED ON THE  
UNDERSTANDING OF THE  
INFORMATION SUPPLIED. IT IS  
SUBJECT TO CHANGE BASED ON  
ACTUAL CONDITIONS, APPLICABLE  
EDITION OF THE NATIONAL  
ELECTRIC CODE, AND LOCAL  
GOVERNMENTAL AUTHORITIES.



ChargePoint  
Stock Unit

Proposed Wrap  
for installation





# Current Location





# Screening

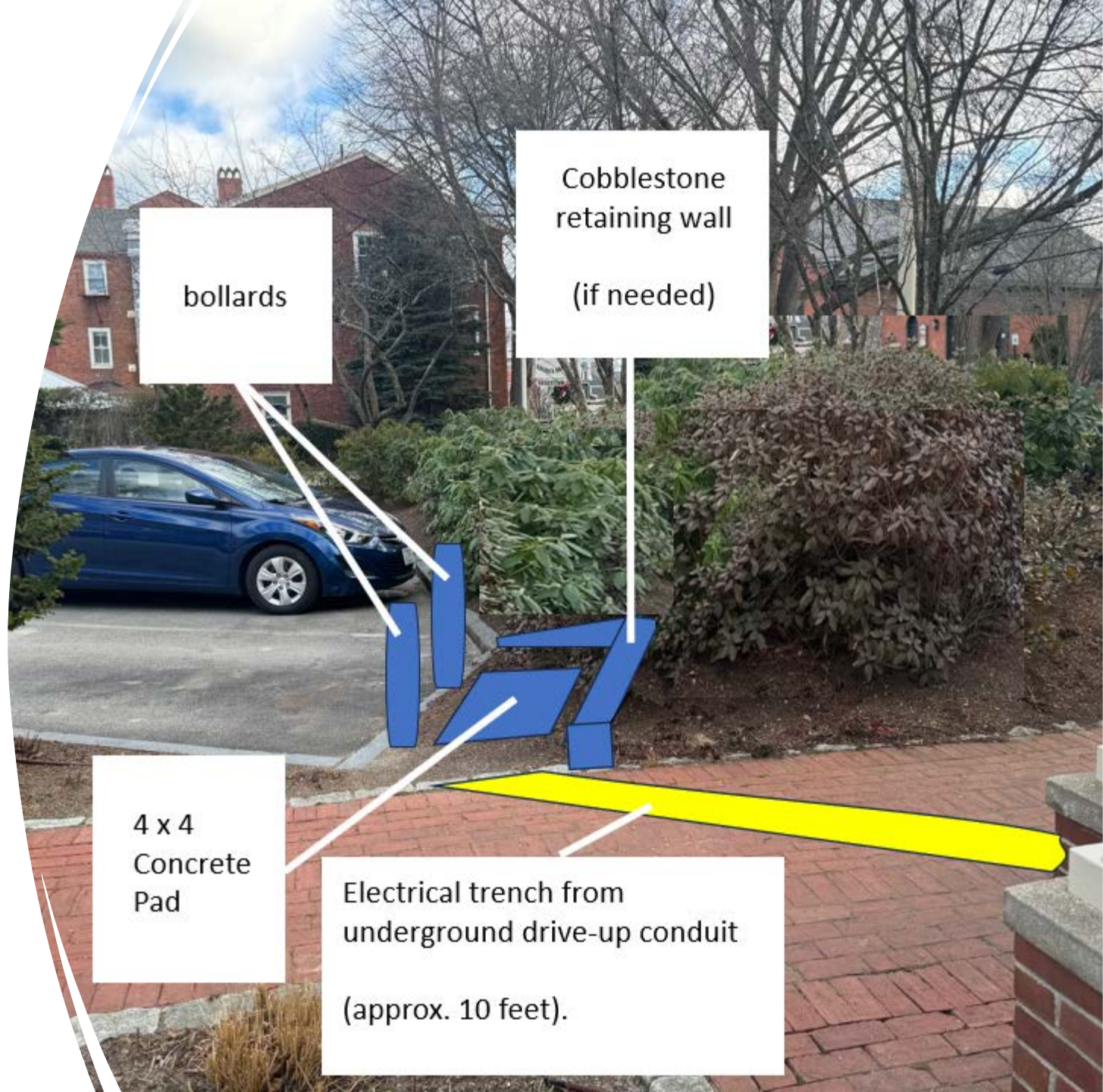
→ Both the plant relocation and hardscape will be performed by the Bank's gardener who has been tending the grounds since 1978.





# Site Work

→ Depending on the grading the cobblestone retaining wall may not be needed.



bollards

Cobblestone retaining wall  
(if needed)

4 x 4  
Concrete  
Pad

Electrical trench from  
underground drive-up conduit  
(approx. 10 feet).



# Finished Product

Certified  
**B**  
Corporation





# Actual Unit Size







# View from State Street (Parking lot Exit)





# View from State Street (Flagpole)





# View from State Street (Parking lot Entrance)



**4. 442-444 Middle Street**

**-Recommended Approval**

Background: The applicant is seeking approval for the replacement of (1) attic window. The applicant has provided (2) window options to choose from.

Staff Comment: Recommend Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



Mathews Brothers

Tel:  
Fax:  
Email:



Customer  
QUOTATION

**BILL TO:**

**SHIP TO:**

QUOTE #	STATUS	CUSTOMER PO#	DATE QUOTED
724449	None		1/6/2025 7:38:35 AM
QUOTED BY	TERMS	PROJECT NAME	QUOTE NAME
Bruce Reichard		Aaron Henderson Gen Contracting	Schwartz

LINE #	QTY	SUB-LINES
--------	-----	-----------

100

1

2



LINE #	DESCRIPTION	QTY	LIST PRICE	NET PRICE	EXTD. PRICE
100-1		1	\$857.85	\$560.45	\$560.45

Sanford Hills Dual Pane Double Hung  
 20.5 X 48.5 Unit Size, Unfinished Interior, Extruded White  
 Exterior, Exterior Pocket Cover, Dual Pane Low E Argon,  
 PG50, 4/4 Lite 5/8" Historic Putty Muntin, Unfinished  
 Int/White Ext Simulated Divided Lite w/ Spacer Bar, No Lift  
 Rail, 15.187 X 19.25 Clear Opening, 2.03 SQFT, Hidden Tilt  
 Latch, Dual Adobe Robo-Tilt Lock, No Window Opening  
 Control Device, Fiberglass Mesh White Full Screen Shipped  
 Loose  
 w/J-Channel Cover, No Exterior Casing, w/ Nailing Fin  
 Unit 1: UFactor: 0.27, SHG: 0.27, VLT: 0.5, CR: 58



Opening: 21" X 49"

O.S.M.: 20.5" X 48.5"

Tag: Custom Size

LINE #	DESCRIPTION	QTY	LIST PRICE	NET PRICE	EXTD. PRICE
100-2	Screen1	1	\$0.00	\$0.00	\$0.00

Insert Full Screen Shipped Loose

Opening: 0" X 0"

O.S.M.:

Tag: None Assigned

QUOTE #	STATUS	CUSTOMER PO#	DATE QUOTED
724449	None		1/6/2025 7:38:35 AM
QUOTED BY	TERMS	PROJECT NAME	QUOTE NAME
Bruce Reichard		Aaron Henderson Gen Contracting	Schwartz

All Prices are net. Please review all quantities, specifications, and information for accuracy. Special orders can not be returned for credit. Signature implies acceptance of these specifications. Your order will not be processed without authorized signature.

SUB-TOTAL:	\$560.45
LABOR:	\$0.00
FREIGHT:	\$0.00
SALES TAX:	\$0.00
TOTAL:	\$560.45

**Thank you for all of your efforts!**

CUSTOMER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

<p>We appreciate the opportunity to provide you with this quote!</p>
--

# Henderson, Aaron Schwartz

Quote #: 5AQR7Z

A Proposal for Window and Door Products prepared for:

**Job Site:**

03801

**Shipping Address:**

ELDREDGE LBR & HDWE-PORTSMOUTH  
275 Constitution Ave  
Portsmouth, NH 03801-8600

Featuring products from:



# SELECTWOOD

*The Choice For Building Professionals.*

BRUCE REICHARD  
ELDREDGE LBR & HDWE-PORTSMOUTH  
PO BOX 69  
CAPE NEDDICK, ME 03902-0069  
Phone: (603) 436-9663

Email: breichard@eldredgelumber.com

This report was generated on 1/6/2025 7:28:54 AM  
using the Marvin Order Management System,  
version 0004.13.00 (Current). Price in USD. Unit  
availability and price are subject to change. Dealer  
terms and conditions may apply.

## UNIT SUMMARY

The following is a schedule of the windows and doors for this project. For additional unit details, please see Line Item Quotes.

Additional charges, tax or Terms and Conditions may apply. Detail pricing is per unit.

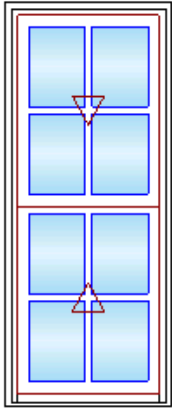
NUMBER OF LINES: 2		TOTAL UNIT QTY: 2		EXT NET PRICE: USD 1,500.67		
LINE	MARK UNIT	PRODUCT LINE	ITEM	NET PRICE	QTY	EXTENDED NET PRICE
1	custom RO size	Elevate	Double Hung RO 21 1/2" X 49" Entered as RO 21 1/2" X 49"	833.62	1	833.62
2	Standard size	Elevate	Double Hung CN 2248 RO 22 1/2" X 48 1/4" Entered as CN 2248	667.05	1	667.05



## LINE ITEM QUOTES

The following is a schedule of the windows and doors for this project. For additional unit details, please see Line Item Quotes. Additional charges, tax or Terms and Conditions may apply. Detail pricing is per unit.

Line #1	Mark Unit: custom RO size	Net Price:		833.62
Qty: 1		Ext. Net Price:	USD	833.62



As Viewed From The Exterior

**Entered As:** RO  
**FS** 20 1/2" X 48 1/2"  
**RO** 21 1/2" X 49"  
**Egress Information**  
 Width: 17 3/8" Height: 19 11/32"  
 Net Clear Opening: 2.33 SqFt  
**Performance Information**  
 U-Factor: 0.28  
 Solar Heat Gain Coefficient: 0.28  
 Visible Light Transmittance: 0.48  
 Condensation Resistance: 56  
 CPD Number: MAR-N-272-01534-00001  
**Performance Grade**  
 Licensee #783  
 AAMA/WDMA/CSA/101/ I.S.2/A440-08  
 LC-PG40 1054X1720 mm (42X67.7 in)  
 Water Resistance: 6.06 psf  
 LC-PG40 DP +40/-40  
 FL6525

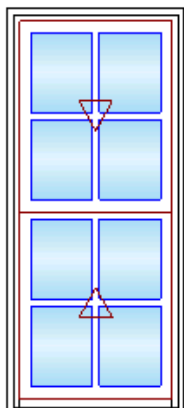
Stone White Exterior  
 Bare Pine Interior  
 Elevate Double Hung  
 Rough Opening 21 1/2" X 49"  
 Top Sash  
 Stone White Exterior  
 Bare Pine Interior  
 IG  
 Low E2 w/Argon  
 Stainless Perimeter and Spacer Bar  
 7/8" SDL - With Spacer Bar - Stainless  
 Rectangular - Special Cut 2W2H  
 Stone White Ext - Bare Int  
 Bottom Sash  
 Stone White Exterior  
 Bare Pine Interior  
 IG  
 Low E2 w/Argon  
 Stainless Perimeter and Spacer Bar  
 7/8" SDL - With Spacer Bar - Stainless  
 Rectangular - Special Cut 2W2H  
 Stone White Ext - Bare Int  
 Beige Weather Strip Package  
 1 Almond Frost Sash Lock  
 Exterior Aluminum Screen  
 Stone White Surround  
 Bright View Mesh  
 4 9/16" Jamb  
 Nailing Fin  
 \*\*\*Note: Divided lite cut alignment may not be accurately represented in the OMS drawing. Please consult your local representative for exact specifications.  
 \*\*\*Note: Unit Availability and Price is Subject to Change

Initials required  
 Seller: \_\_\_\_\_  
 Buyer: \_\_\_\_\_

Line #2	Mark Unit: Standard size	Net Price:		667.05
Qty: 1		Ext. Net Price:	USD	667.05



Stone White Exterior  
 Bare Pine Interior  
 Elevate Double Hung  
 CN 2248  
 Rough Opening 22 1/2" X 48 1/4"  
 Top Sash  
 Stone White Exterior  
 Bare Pine Interior  
 IG  
 Low E2 w/Argon  
 Stainless Perimeter and Spacer Bar  
 7/8" SDL - With Spacer Bar - Stainless  
 Rectangular - Standard Cut 2W2H  
 Stone White Ext - Bare Int



As Viewed From The Exterior

- Bottom Sash
- Stone White Exterior
- Bare Pine Interior
- IG
- Low E2 w/Argon
- Stainless Perimeter and Spacer Bar
- 7/8" SDL - With Spacer Bar - Stainless
- Rectangular - Standard Cut 2W2H
- Stone White Ext - Bare Int
- Beige Weather Strip Package
- 1 Almond Frost Sash Lock
- Exterior Aluminum Screen
- Stone White Surround
- Bright View Mesh
- 4 9/16" Jambs
- Nailing Fin

\*\*\*Note: Divided lite cut alignment may not be accurately represented in the OMS drawing. Please consult your local representative for exact specifications.

\*\*\*Note: Unit Availability and Price is Subject to Change

Entered As: CN

CN 2248

FS 21 1/2" X 47 3/4"

RO 22 1/2" X 48 1/4"

**Egress Information**

Width: 18 3/8" Height: 18 31/32"

Net Clear Opening: 2.42 SqFt

**Performance Information**

U-Factor: 0.28

Solar Heat Gain Coefficient: 0.28

Visible Light Transmittance: 0.48

Condensation Resistance: 56

CPD Number: MAR-N-272-01534-00001

**Performance Grade**

Licensee #783

AAMA/WDMA/CSA/101/ I.S.2/A440-08

LC-PG40 1054X1720 mm (42X67.7 in)

Water Resistance: 6.06 psf

LC-PG40 DP +40/-40

FL6525

Initials required

Seller: \_\_\_\_\_

Buyer: \_\_\_\_\_

Project Subtotal Net Price: USD	1,500.67
0.000% Sales Tax: USD	0.00
Project Total Net Price: USD	1,500.67

## TERMS AND CONDITIONS

## PRODUCT AND PERFORMANCE INFORMATION

### NFRC Ratings:

NFRC energy ratings may vary depending on the exact configuration of glass thickness used on the unit. NFRC energy values and ratings may change over time due to ongoing product changes, updated test results or requirements. NFRC values and ratings are finalized on the date of manufacture.

The National Fenestration Rating Council (NFRC) has developed and operates a uniform rating system for the energy performance of fenestration products, including windows, doors and skylights. For additional information regarding this rating system, see [www.nfrc.org](http://www.nfrc.org).

### Code (residential, building or energy) Compliance:

Determining the suitability and compliance with state, provincial, local, or other applicable building codes or standards, including energy codes, is the responsibility of the buyer, user, architect, contractor, installer, and/or other construction professional.

## PURCHASE APPROVAL/SIGN OFF

<b>Project Subtotal Net Price: USD</b>	<b>1,500.67</b>
<b>0.000% Sales Tax: USD</b>	<b>0.00</b>
<b>Project Total Net Price: USD</b>	<b>1,500.67</b>

I have reviewed all line item quotes in detail and agree that the product specifications and pricing are accurate, and I approve the project for order. I acknowledge that additional charges, tax or Terms and Conditions may apply.

### BUYER:

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**5. 1 Walton Alley**

**-Recommended Approval**

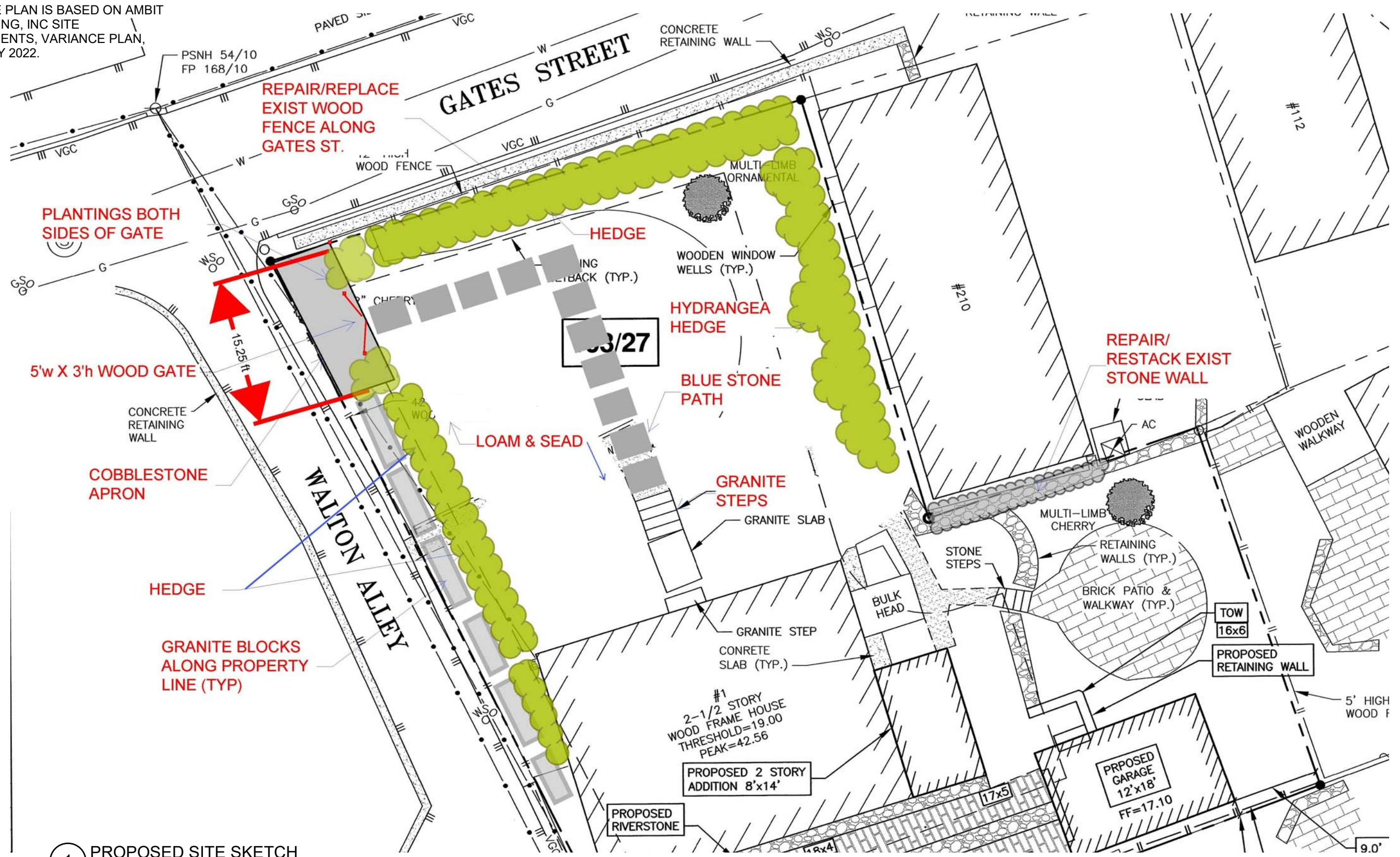
**Background:** The applicant is seeking approval for the installation of a gate and the replacement of a removed fence.

**Staff Comment:** Recommend Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

NOTE: SITE PLAN IS BASED ON AMBIT ENGINEERING, INC SITE IMPROVEMENTS, VARIANCE PLAN, DATED MAY 2022.



1 PROPOSED SITE SKETCH

© 2024 Portsmouth Architects

# WALTON ALLEY ADDITION

1 WALTON ALLEY  
PORTSMOUTH, NH 03801

# PARITAL SITE PLAN

4 Market Street  
Portsmouth, New Hampshire  
603.430.0274  
brought to you by  
McHENRY ARCHITECTURE



SK-6

1/8/2025  
McHA: MG  
Project Number: 22041  
NOT TO SCALE





GATES STREET FENCE



COBBLESTONE APRON



GRANITE BLOCK BOARD & HEDGE



PROPOSED WOODEN FIELD GATE

NOTES:

1. THE PARKING SPACE CONSTRUCTED IN THE FRONT YARD WILL BE REMOVED, INCLUDING THE CRUSHED STONE AND GRANITE BORDER AND REPLACE WITH LOAM AND SEED.
2. IT IS PROPOSED TO MAINTAINED THE COBBLESTONE APRON TO IMPROVE THE ROADWAY EDGE AS VEHICLES TYPICALLY CROSS ONTO THE PROPERTY WHEN MAKING A RIGHT TURN ONTO GATES STREET DUE TO THE NARROWNESS OF THE ROADWAYS AND INTERSECTION.
3. A 5' WIDE WOODEN FIELD GATE WILL BE PROVIDED ALONG WALTON ALLEY FOR THE PROPERTY OWNER TO HAVE ACCESS TO THEIR YARD FOR MAINTAINED.
4. THE GRANITE BLOCKS BOARDING WALTON ALLEY ARE SETBACK FROM THE PROPERTY LINE AND PROVIDE PROTECTION TO THE HOUSE AND PROPERTY DURING SNOW REMOVAL.
5. I IS OUR INTERPRETATION OF THE ZONING THAT THE REPAIR AND PLACEMENT OF THE WOODEN FENCE AND GATE FALL UNDER STAFF LEVEL EXEMPTION FROM CERTIFICATE OF APPROVAL AS LISTED IN PARAGRAPH 10.633.20 (18) *THE PLACEMENT, REMOVAL OR REPLACEMENT OF WOOD OR METAL FENCE (EXCEPT FOR CHAIN-LINK WHICH MAY ONLY BE REMOVED) PROVIDED THE REPLACEMENT FENCE IS IN SUBSTANTIALLY THE SAME LOCATION WITH SUBSTANTIALLY THE SAME HEIGHT, MATERIAL, AND DESIGN. THE GATE WILL BE UNDER 4 FEET IN HEIGHT AND NOT CONSIDERED A STRUCTURE AS DEFINED BY ZONING.*
6. OTHER PROPOSED LANDSCAPING SUCH AS GRANITE STEPS/LANDINGS AND STONE PATHS ALSO FALL UNDER THE EXEMPTIONS IN PARAGRAPH 10.633.20 (21).

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**WALTON ALLEY ADDITION**

1 WALTON ALLEY  
PORTSMOUTH, NH 03801

**IMAGES & NOTES**

4 Market Street  
Portsmouth, New Hampshire  
603.430.0274  
brought to you by  
McHENRY ARCHITECTURE



SK-7

1/8/2025

McHA: Author

Project Number: 22041

**NOT TO SCALE**

**6. 100 High Street**

**-Recommended Approval**

**Background:** The applicant is seeking approval for changes to a previously approved design (final placement of rooftop telecommunications equipment due to building constraints).

**Staff Comment:** Recommend Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



January 21, 2025

**Dish Wireless Site ID:** BOBOS01018D

**RE: Site Address:** 100 High St, Portsmouth, NH

To Whom It May Concern:

I am seeking approval from the Historic District Commission to approve the as-built drawings from the most recent build at 100 High Street.

This site was already approved in September but we need further approval on where Beta is placed.

The General Contractor could not achieve the setback put forth on the CDs due to a roof drain that could not be covered. The Beta sector is as far back as it can go and we are looking for final approval and to close out this project.

Please feel free to call me at (339)210-9718 if you have any questions.

Sincerely,

*Meagan Beausoleil*

Meagan Beausoleil  
Site Acquisition Specialist I  
Infraservices Wireless (formally Qualtek Wireless)

Final AS BUILT CDs are below.

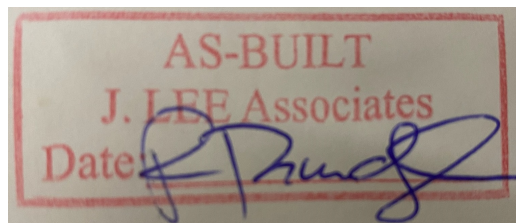


DISH Wireless L.L.C. SITE ID:

**BOBOS01018D**

DISH Wireless L.L.C. SITE ADDRESS:

**100 HIGH STREET  
PORTSMOUTH, NH 03801**



**SCOPE OF WORK**

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

- SECTOR SCOPE OF WORK:**
- INSTALL (3) PROPOSED PANEL ANTENNAS PAINTED TO MATCH (1 PER SECTOR)
  - INSTALL (3) PROPOSED SLED MOUNTS
  - INSTALL PROPOSED JUMPERS
  - INSTALL (6) PROPOSED RRUs (2 PER SECTOR)
  - INSTALL (3) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP) (1 PER SECTOR)
  - INSTALL (3) PROPOSED HYBRID CABLES (1 PER SECTOR)

- ROOFTOP SCOPE OF WORK:**
- INSTALL (1) PROPOSED METAL PLATFORM WITH H-FRAME
  - INSTALL (1) PROPOSED CABLE LADDER TRAY OR CABLE TRAY
  - INSTALL (1) PROPOSED BBU IN CABINET
  - INSTALL (1) PROPOSED EQUIPMENT CABINET
  - INSTALL (1) PROPOSED POWER CONDUIT
  - INSTALL (1) PROPOSED TELCO CONDUIT
  - INSTALL (1) PROPOSED NEMA 3 TELCO-FIBER BOX
  - INSTALL (1) PROPOSED GPS UNIT
  - INSTALL PROPOSED CONDUIT SLEEPERS

SITE INFORMATION	PROJECT DIRECTORY
PROPERTY OWNER: CHATHAM PORTSMOUTH LLC C/O CHATHAM LODGING TRUST PROPERTY OWNER ADDRESS: 222 LAKEVIEW AVE, SUITE 200 WEST PALM BE, FL 33401	APPLICANT: DISH Wireless L.L.C. 5701 SOUTH SANTA FE DRIVE LITTLETON, CO 80120
TOWER TYPE: ROOF TOP	BUILDING OWNER: CHATHAM PORTSMOUTH LLC C/O CHATHAM LODGING TRUST 222 LAKEVIEW AVE, SUITE 200 WEST PALM BE, FL 33401
TOWER CO SITE ID: N/A	SITE DESIGNER: VRG Inc 23 MIDSTATE DR., #210 AUBURN, MA 01501 508-981-9590
COUNTY: ROCKINGHAM	SITE ACQUISITION: RYAN LYNCH (781) 392-4040
LATITUDE (NAD 83): 43° 4' 40.36" N 43.077878	CONSTRUCTION MANAGER: AARON CHANDLER (508) 367-7138
LONGITUDE (NAD 83): 70° 45' 35.41" W -70.759836	RF ENGINEER: NIKITA JOSHI Nikita.Joshi@dish.com
ZONING JURISDICTION: CITY OF PORTSMOUTH	
ZONING DISTRICT: CD5	
PARCEL NUMBER: 118-0030	
OCCUPANCY GROUP: U	
CONSTRUCTION TYPE: II-B	
POWER COMPANY: EVERSOURCE	
TELEPHONE COMPANY: VERIZON	



5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120



QUALTEK WIRELESS INC  
16 ESQUIRE ROAD  
BILLERICA, MA 01821



VERTICAL RESOURCES GRP.  
23 Midstate Dr., #210  
Auburn, MA 01501  
Tel. (508) 981-9590  
Fax (508) 519-8939  
mnobre@verticalresourcesgrp.com

Michael F. Plahovinsak, P.E.  
2024.09.19  
0909.44-04'00'



Michael F. Plahovinsak, P.E.  
Sole Proprietor - Independent Engineer  
18301 SR Rd., Plain City, Ohio  
614-398-6250 / mika@mfpe.com  
MFP Project #40922-116

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: GAM	CHECKED BY: MN	APPROVED BY: MP
---------------	----------------	-----------------

RFDS REV #: 0

**CONSTRUCTION DOCUMENTS**

SUBMITTALS		
REV	DATE	DESCRIPTION
0	11/01/2022	FOR PERMITTING
1	11/29/2022	GENERAL REVISIONS
2	01/19/2023	GENERAL REVISIONS
3	09/18/2024	GENERAL REVISIONS

A&E PROJECT NUMBER  
BOBOS01018D

DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
TITLE SHEET

SHEET NUMBER  
**T-1**

**NEW HAMPSHIRE CODE OF COMPLIANCE**

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES

CODE TYPE	CODE
BUILDING	NH STATE BUILDING CODE/2015 IBC W/ BCR 300 AMENDMENTS
MECHANICAL	NH STATE BUILDING CODE/2015 IMC W/ BCR 300 AMENDMENTS
ELECTRICAL	2017 NEC W/ BCR 300 AMENDMENTS

**SITE PHOTO**



**DIRECTIONS**

DIRECTIONS FROM BOSTON LOGAN AIRPORT: FROM BOSTON TAKE RT-1A NORTH. STAY STRAIGHT ONTO RT-60 NORTH. MERGE ONTO RT-1 NORTH. MERGE ONTO I-95 NORTH. TAKE I-95 NORTH EXIT FOR WOODBURY AVE. TURN RIGHT ONTO WOODBURY AVE. STAY RIGHT TOWARDS US1 BYPASS. TAKE FIRST EXIT FOR MAPLEWOOD AVE. TURN LEFT ONTO HANOVER ST. BUILDING WILL BE ON LEFT AT 100 HIGH ST.

**VICINITY MAP**



**UNDERGROUND SERVICE ALERT**  
UTILITY NOTIFICATION CENTER OF RHODE ISLAND  
(888) 344-7233  
WWW.DIGSAFE.COM

CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

**GENERAL NOTES**

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

**SHEET INDEX**

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	OVERALL SITE PLAN
A-2	ANTENNA PLAN LAYOUT AND SCHEDULE
A-3	SOUTH EAST BUILDING ELEVATION
A-4	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-5	EQUIPMENT DETAILS
A-6	EQUIPMENT DETAILS
A-7	EQUIPMENT DETAILS
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	DETAILS
E-3	ONE-LINE DIAGRAM & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
GN-1	LEGEND AND ABBREVIATIONS
GN-2	RF SIGNAGE
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES
GN-5	GENERAL NOTES

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. CONTRACTOR TO VERIFY WITH DISH Wireless L.L.C. C.M. THE LOCATION OF THE POWER AND FIBER SOURCE PRIOR TO CONSTRUCTION.
4. UTILITY RUBBER MAT TO BE IN STALLED UNDER ALL DISH Wireless L.L.C. EQUIPMENT THAT IS RESTING ON OR AFFIXED TO ROOF MEMBRANE



5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120



QUALTEK WIRELESS INC  
16 ESQUIRE ROAD  
BILLERICA, MA 01821



VERTICAL RESOURCES GRP.  
23 Midstate Dr., #210  
Auburn, MA 01501  
Tel. (508) 981-9590  
Fax (508) 519-8939  
mnobre@verticalresourcesgrp.com



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DRAWN BY: GAM CHECKED BY: MN APPROVED BY: MP

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	11/01/2022	FOR PERMITTING
1	11/29/2022	GENERAL REVISIONS
2	01/19/2023	GENERAL REVISIONS
3	09/18/2024	GENERAL REVISIONS

A&E PROJECT NUMBER  
BOBOS01018D

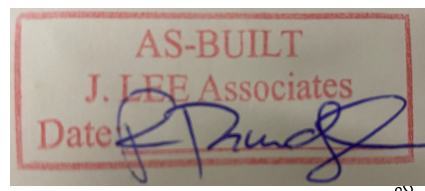
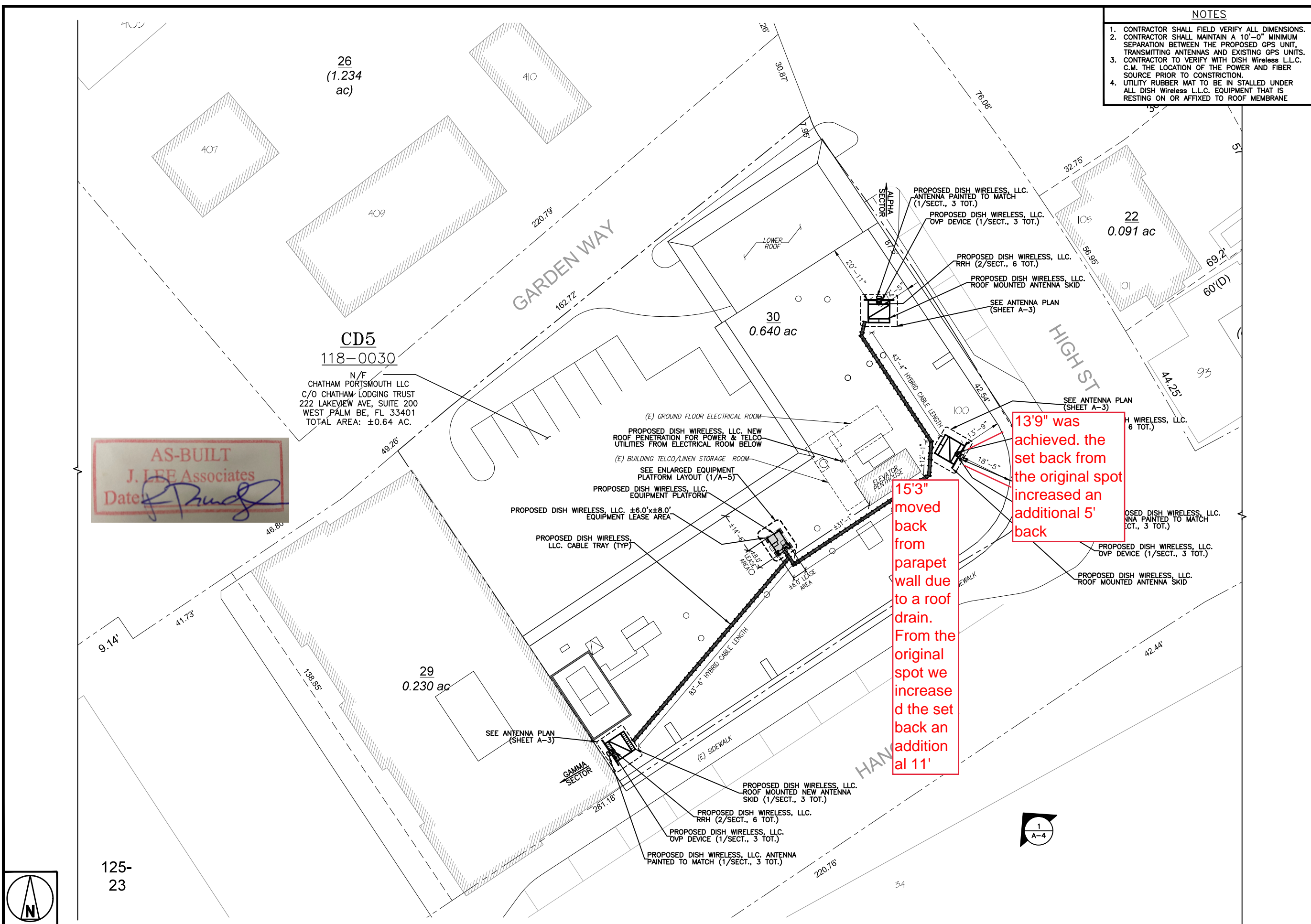
DISH Wireless L.L.C.  
PROJECT INFORMATION

BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

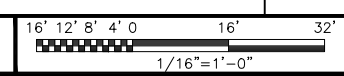
SHEET TITLE  
OVERALL  
SITE PLAN

SHEET NUMBER

A-1

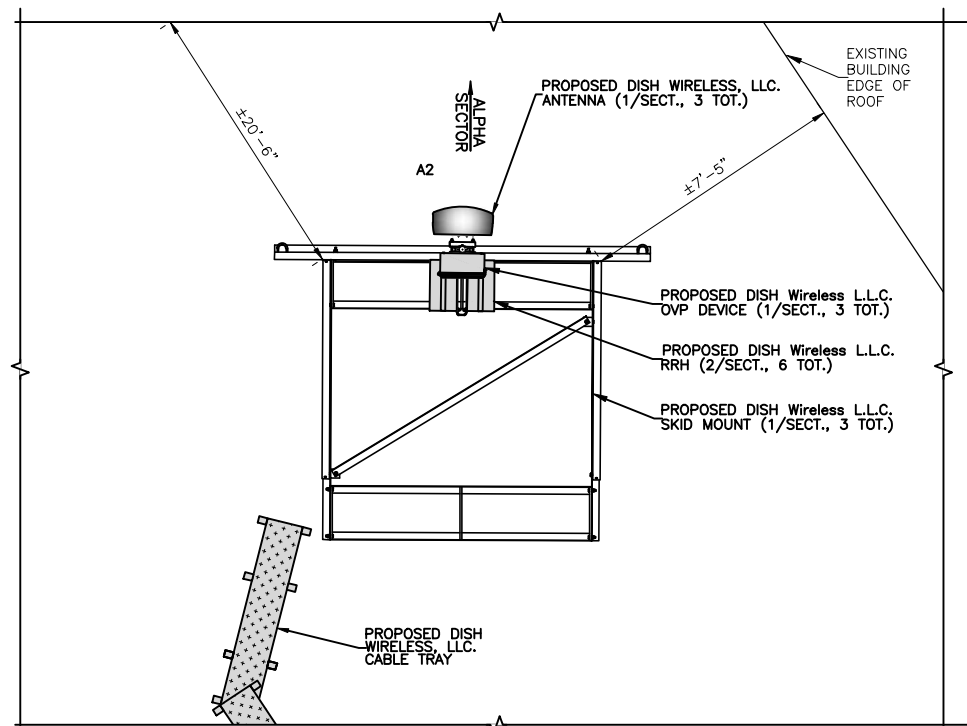


OVERALL SITE PLAN

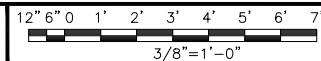


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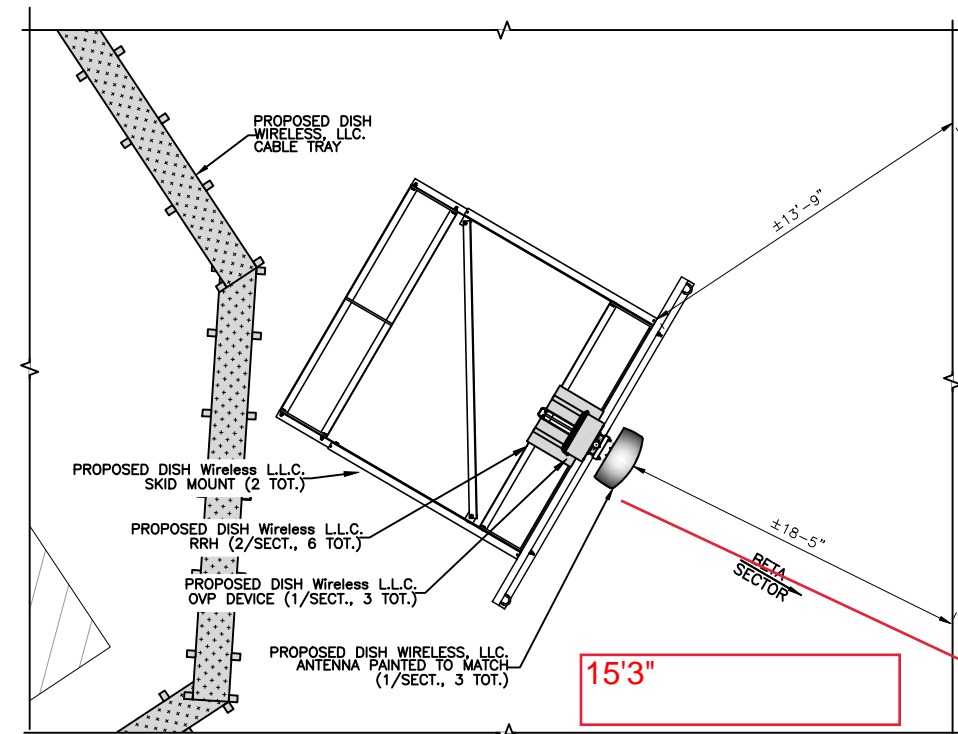
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.
4. ALPHA SECTOR SHOWN TYPICAL FOR BETA AND GAMMA SECTORS.



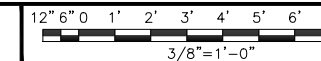
ANTENNA PLAN - ALPHA SECTOR



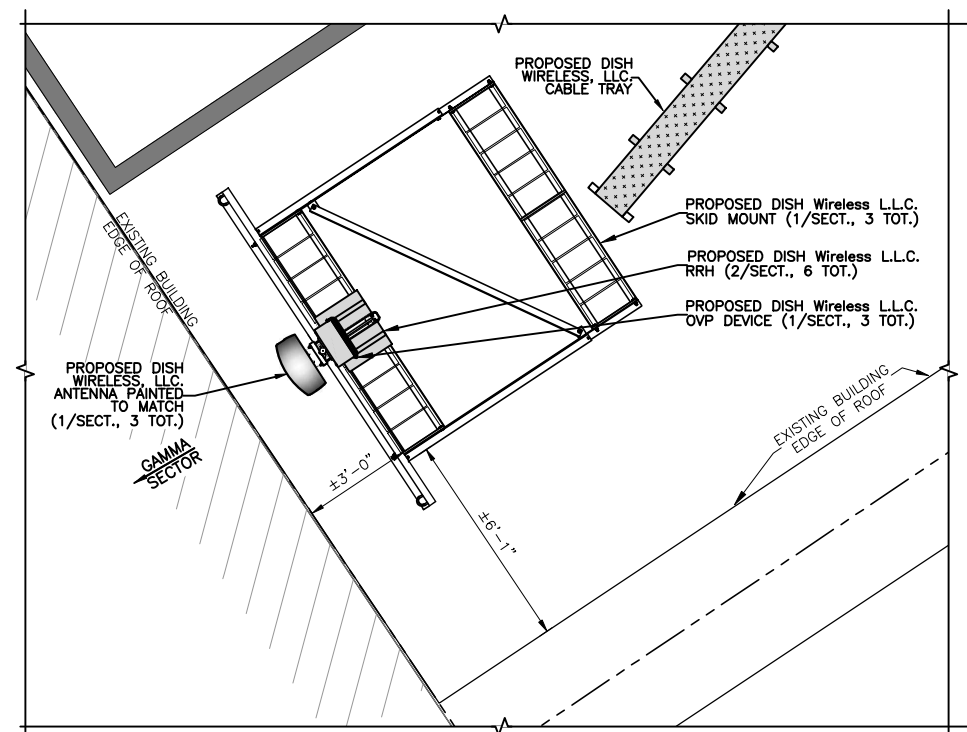
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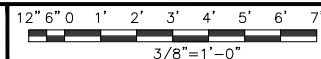
ANTENNA PLAN - BETA SECTOR



2



ANTENNA PLAN - GAMMA SECTOR

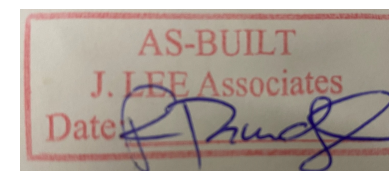


3

SECTOR POS.	ANTENNA					TRANSMISSION CABLE FEED LINE TYPE AND LENGTH	RRH			OVP
	EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECH	AZIMUTH	RAD CENTER		MANUFACTURER - MODEL NUMBER	TECH	POS.	MANUFACTURER MODEL
A1	--	--	--	--	--	(1) NWS DC CABLE (1) NWS FIBER CABLE (130' LONG)	FUJITSU - TA08025-B604	5G	A2	RAYCAP RDIDC-3045 -PF-48
A2	PROPOSED	JMA - MX08FR0665-21	5G	0°	60°-0"		FUJITSU - TA08025-B605	5G	A2	
A3	--	--	--	--	--		--	--	--	
B1	--	--	--	--	--	(1) NWS DC CABLE (1) NWS FIBER CABLE (80' LONG)	FUJITSU - TA08025-B604	5G	B2	RAYCAP RDIDC-3045 -PF-48
B2	PROPOSED	JMA - MX08FR0665-21	5G	120°	60°-0"		FUJITSU - TA08025-B605	5G	B2	
B3	--	--	--	--	--		--	--	--	
C1	--	--	--	--	--	(1) NWS DC CABLE (1) NWS FIBER CABLE (90' LONG)	FUJITSU - TA08025-B604	5G	C2	RAYCAP RDIDC-3045 -PF-48
C2	PROPOSED	JMA - MX08FR0665-21	5G	240°	60°-0"		FUJITSU - TA08025-B605	5G	C2	
C3	--	--	--	--	--		--	--	--	

NOTES

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.



**dish**  
wireless.

5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120

**QUALTEK**  
WIRELESS

QUALTEK WIRELESS INC  
16 ESQUIRE ROAD  
BILLERICA, MA 01821

**VRG**

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mnobre@verticalresourcesgrp.com



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DRAWN BY: CHECKED BY: APPROVED BY:  
GAM MN MP

RFDS REV #: 0

CONSTRUCTION DOCUMENTS

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A&E PROJECT NUMBER  
BOBOS01018D

DISH Wireless L.L.C.  
PROJECT INFORMATION

BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
ANTENNA PLAN,  
ELEVATION AND SCHEDULE

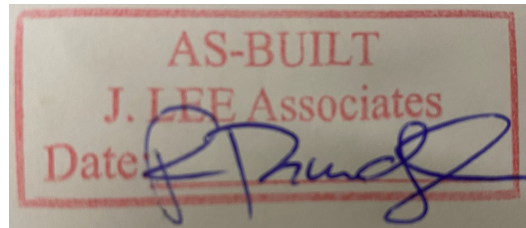
SHEET NUMBER

**A-2**

ANTENNA SCHEDULE

NO SCALE

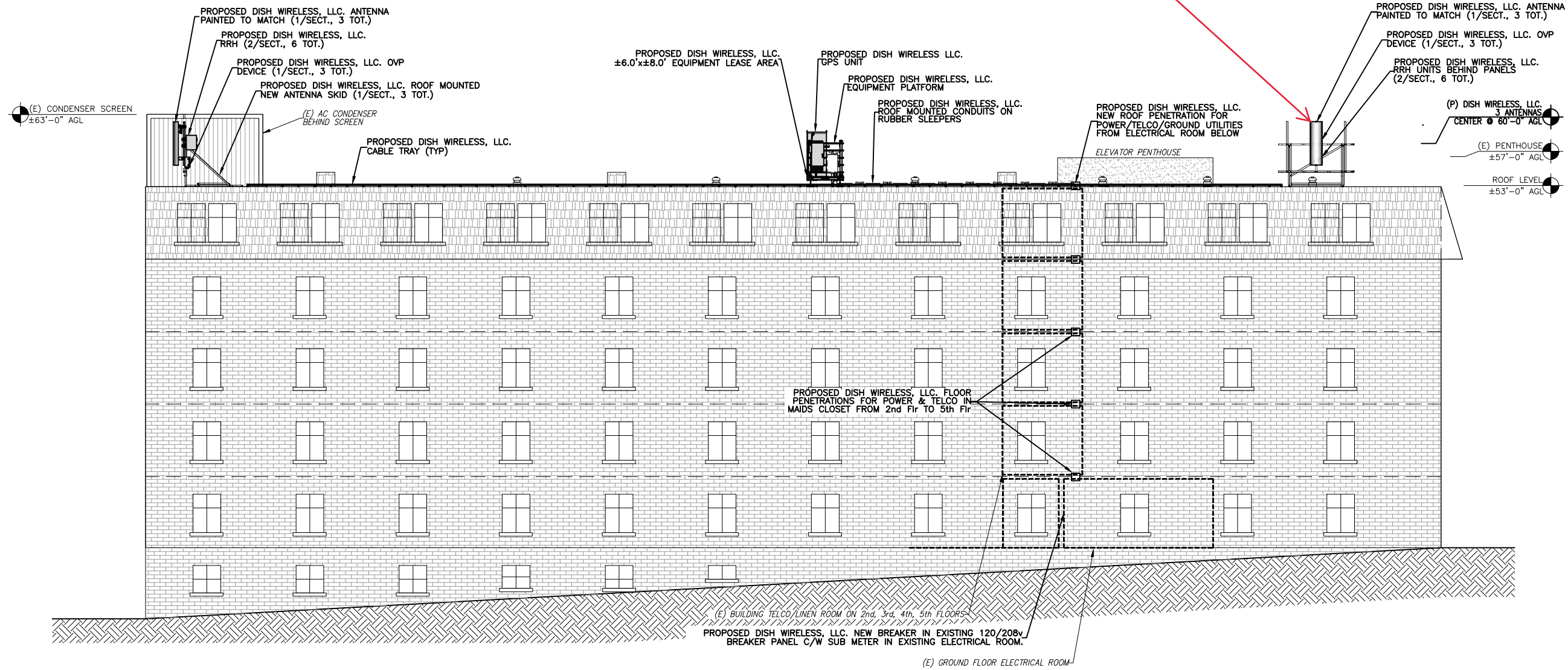
4



NOTES

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All three panel antennas painted to match Sherwin Williams Gauntlet gray SW-7019



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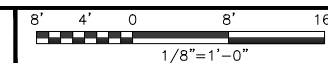
A&E PROJECT NUMBER  
BOBOS01018D

DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
SOUTH EAST  
ELEVATION

SHEET NUMBER  
**A-3**

BUILDING SOUTH EAST ELEVATION





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GAM MN MP

RFDS REV #: 0

### CONSTRUCTION DOCUMENTS

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A&E PROJECT NUMBER  
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DISH Wireless L.L.C.  
PROJECT INFORMATION

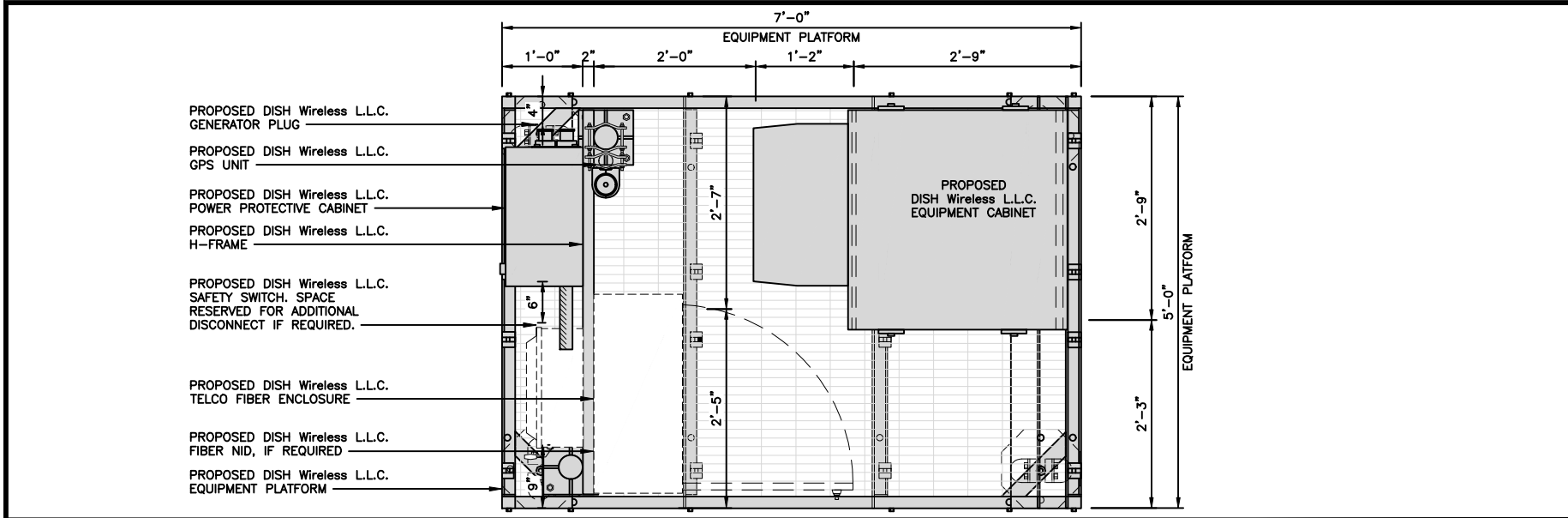
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
EQUIPMENT PLATFORM AND  
H-FRAME DETAILS

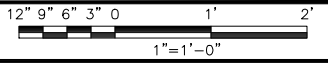
SHEET NUMBER

**A-4**

#### NOTE



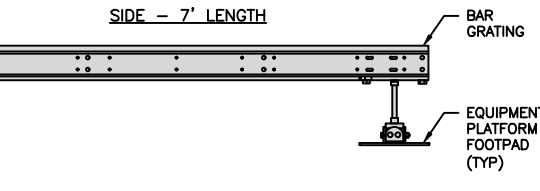
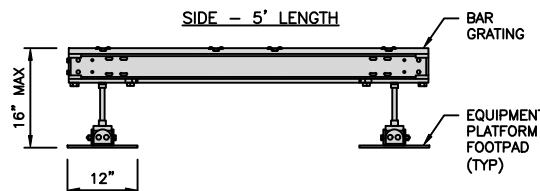
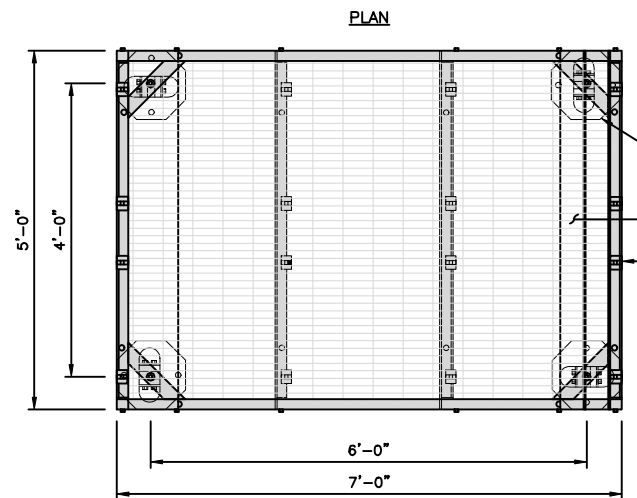
PLATFORM EQUIPMENT PLAN



1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

NOTE:  
GC TO PROVIDE EXTENDED  
THREAD FOR PLATFORM IF  
REQUIRED HEIGHT EXCEEDS 17"



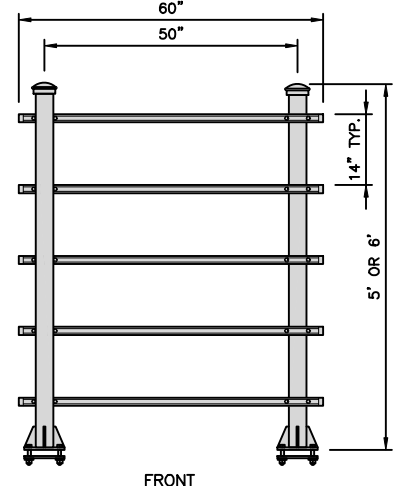
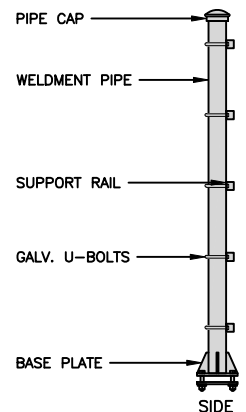
PLATFORM DETAIL

NO SCALE

2

COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs

NOTE:  
OR DISH Wireless L.L.C.  
APPROVED EQUIVALENT



H-FRAME DETAIL

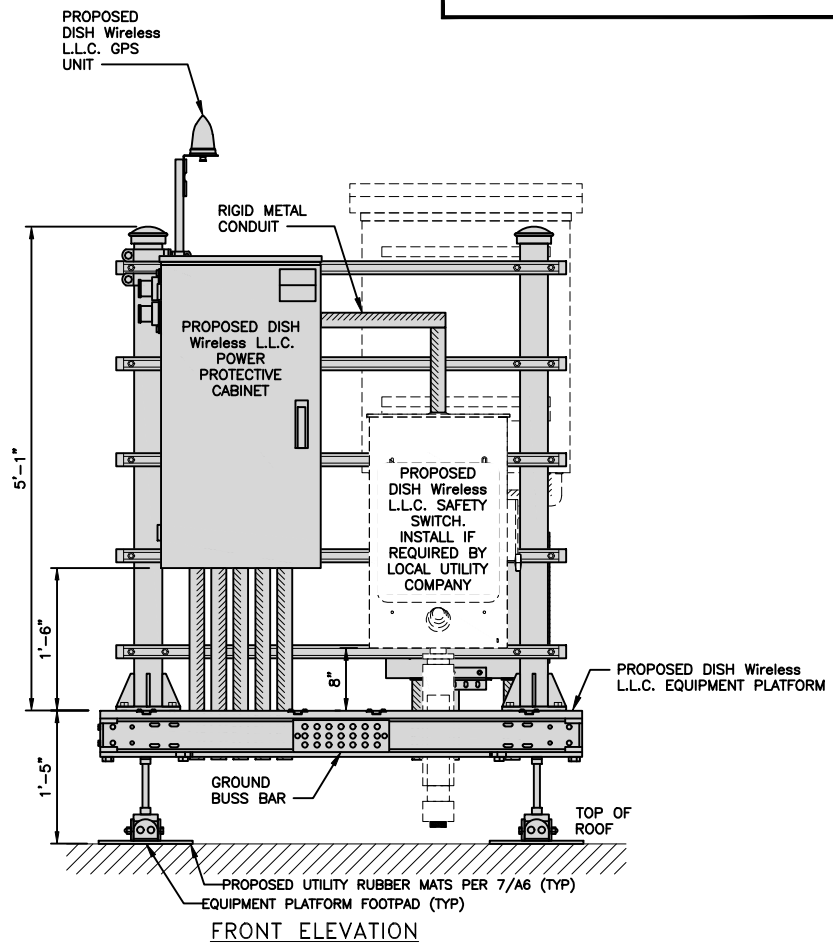
NO SCALE

3

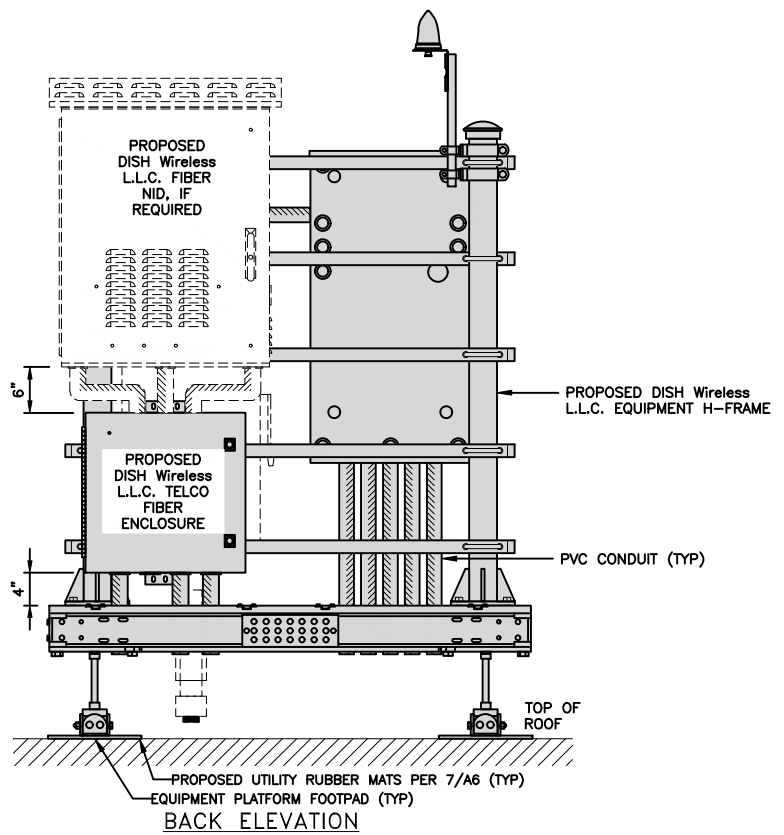
NOT USED

NO SCALE

4

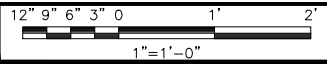


FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION



5



CHARLES INDUSTRY HEX CUBE-PM628155N4	
DIMENSIONS (HxWxD):	54.8"x32"x32"
POWER PLANT:	-48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	366 lbs

CABINET DETAIL NO SCALE 1

GE BREAKER PANEL TLM1220RUCP	
ENCLOSURE DIM (HxWxD)	29"x13"x5"
TOTAL WEIGHT (EMPTY)	26 LBS
MAX VOLTAGE/MAX AMPS	240V/200A
ENCLOSURE RATING	OUTDOOR NEMA 3R

BREAKER PANEL DETAIL NO SCALE 2

SQUARE D SAFETY SWITCHES D224NRB	
ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E-2875

SAFETY SWITCH DETAIL NO SCALE 3

LEVITON 1N240-21 SUBMETER	
WATTAGE	3
AMPS	200
VOLTS AC	120, 208, 240
PHASE	1

E-MON D-MON DETAIL NO SCALE 4

ZAYO 5RU (LEFT SWING DOOR) FIBER NID ENCLOSURE	
DIMENSIONS (HxWxD)	36.1"x29"x12.9"
WEIGHT	85 lbs

FIBER NID ENCLOSURE DETAIL NO SCALE 5

CHARLES CFIT-PF2020DSH1 FIBER TELCO ENCLOSURE	
ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4

FIBER TELCO ENCLOSURE DETAIL NO SCALE 6

PCTEL GPSGL-TMG-SPI-40NCB	
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"
WEIGHT W/ACCESSORIES	075 lbs
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1590 ± 30MHz

GPS DETAIL NO SCALE 7

MINIMUM OF 75% OR 270° IN ANY DIRECTION

GPS UNIT

OBSTRUCTIONS MUST BE BELOW 10'

GPS MINIMUM SKY VIEW REQUIREMENTS NO SCALE 8

CU12PSM6P4XXX (4 AWG CONDUCTORS) 1.75"φ, 27" MIN BEND RADIUS

CU12PSM9P6XXX (6 AWG CONDUCTORS) 1.60"φ, 24" MIN BEND RADIUS

CU12PSM9P8XXX (8 AWG CONDUCTORS) 1.41"φ, 22" MIN BEND RADIUS

CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUS NO SCALE 9

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GAM	MN	MP
RFDS REV #:		0

CONSTRUCTION DOCUMENTS

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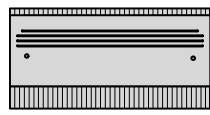
A&E PROJECT NUMBER  
BOBOS01018D

DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

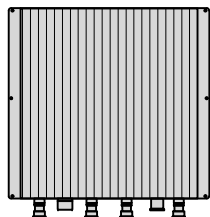
SHEET TITLE  
EQUIPMENT DETAILS

SHEET NUMBER  
**A-5**

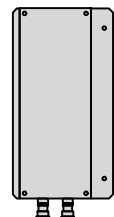
FUJITSU DUAL BAND TA08025-B604	
DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



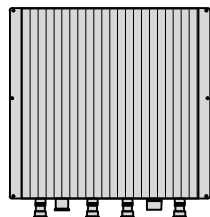
PLAN



BACK

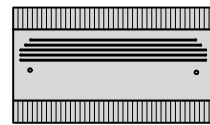


SIDE

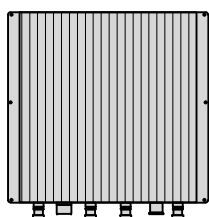


FRONT

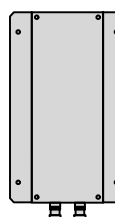
FUJITSU TRIPLE BAND TA08025-B605	
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



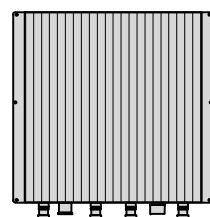
PLAN



BACK



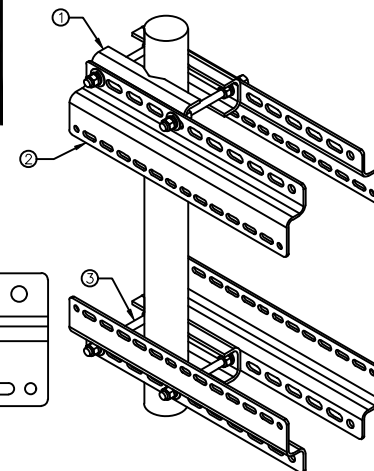
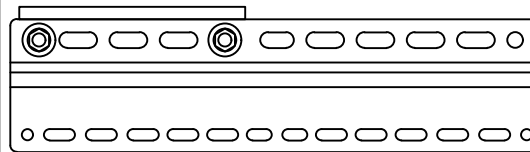
SIDE



FRONT

SABRE DOUBLE Z-BRACKET C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"



NOTE:  
OR DISH Wireless L.L.C.  
APPROVED EQUIVALENT

RRH DETAIL

NO SCALE

1

RRH DETAIL

NO SCALE

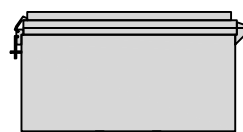
2

RRH MOUNT DETAIL

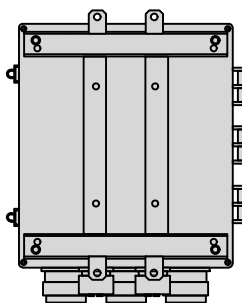
NO SCALE

3

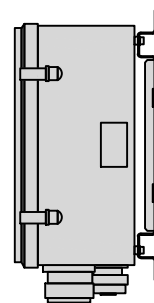
RAYCAP RDIDC-3045-PF-48 SURGE PROTECTION DEVICE (OVP)	
DIMENSIONS (HxWxD)	19"x16.21"x9.64"
WEIGHT	21 lbs



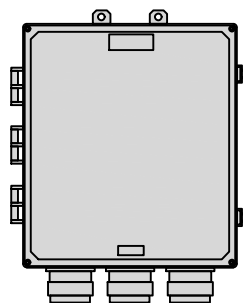
PLAN



BACK

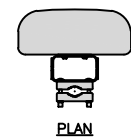


SIDE

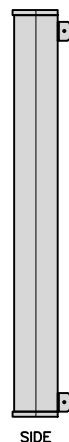


FRONT

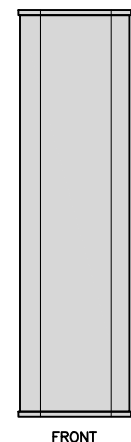
JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



PLAN



SIDE



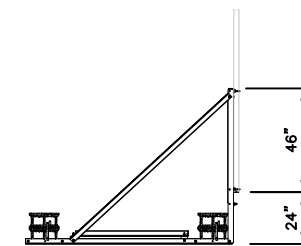
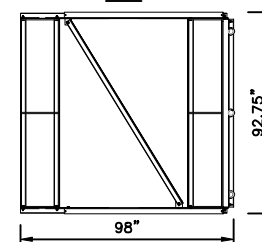
FRONT

SITEPRO1 RTW-7 NON-PENETRATING SLED MOUNT	
FACE SIZE	7'-0"
WEIGHT	389 lbs

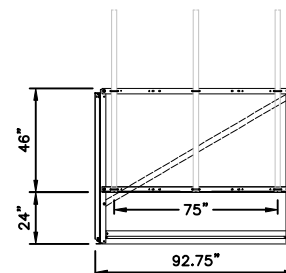
NOTE:  
(15) 4"x8"x16" SOLID CORE BLOCKS PER TRAY (CMU)  
MUST BE PURCHASED SEPARATELY

NOTE:  
OR DISH Wireless L.L.C.  
APPROVED EQUIVALENT

PLAN



SIDE



FRONT

SURGE PROTECTION DEVICE (OVP) DETAIL

NO SCALE

4

ANTENNA DETAIL

NO SCALE

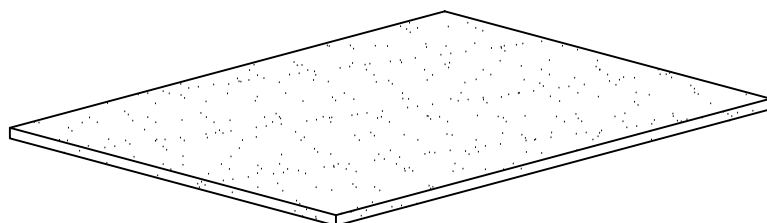
5

SLED DETAIL

NO SCALE

6

UTILITY RUBBER MAT, BLACK	
DIMENSIONS	4'x 3'x 1/2"
WEIGHT/ VOLUME	36.5 LB AVERAGE
MATERIAL	100% RECYCLE RUBBER



UTILITY RUBBER MAT DETAIL

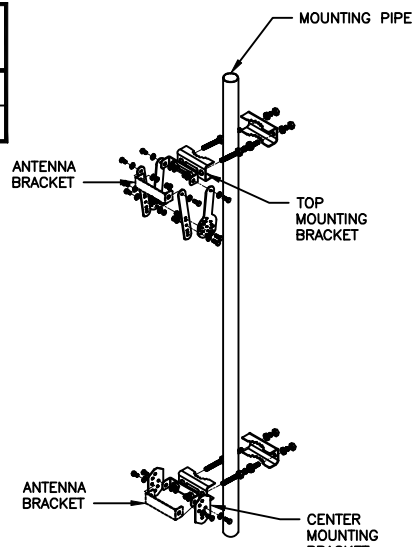
NO SCALE

7

JMA ANTENNA MOUNT BRACKET #91900318	
TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:  
KIT #91900318: TOP AND BOTTOM BRACKETS  
FOR 4-, 6-, AND 8-FOOT ANTENNAS  
ANTENNA BRACKET NOT PART OF KIT

NOTE:  
OR DISH Wireless L.L.C.  
APPROVED EQUIVALENT



ANTENNA BRACKET DETAIL

NO SCALE

8



5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120



QUALTEK WIRELESS INC  
16 ESQUIRE ROAD  
BILLERICA, MA 01821



VERTICAL RESOURCES GRP.  
23 Midstate Dr., #210  
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A&E PROJECT NUMBER

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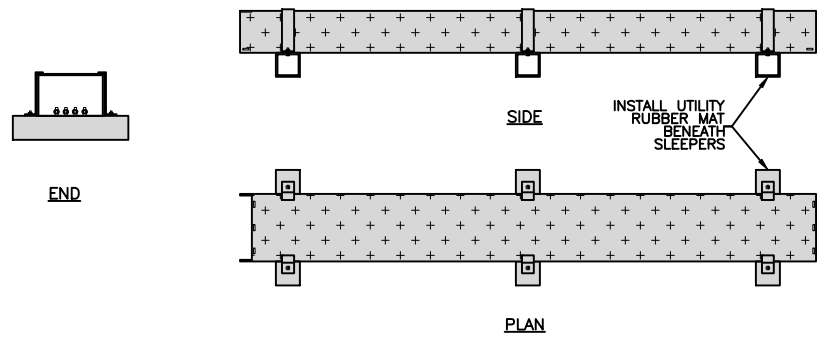
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100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
EQUIPMENT DETAILS

SHEET NUMBER

A-6

COMMSCOPE RT-CB4D ROOFTOP COVER KIT		MOUNTING	NON-PENETRATING
DIMENSIONS (HxWxL)	7"x 11.25"x 96"	INCLUDED PRODUCTS:	RTCB4D.01 CHANNEL (1) MT-F1598 SLEEPERS (3) RTCUH HARDWARE RTHC.01 HOLD-DOWN CLAMPS (6)
WEIGHT/ VOLUME	85.98 LBS		
CABLE RUN (QTY)	4		



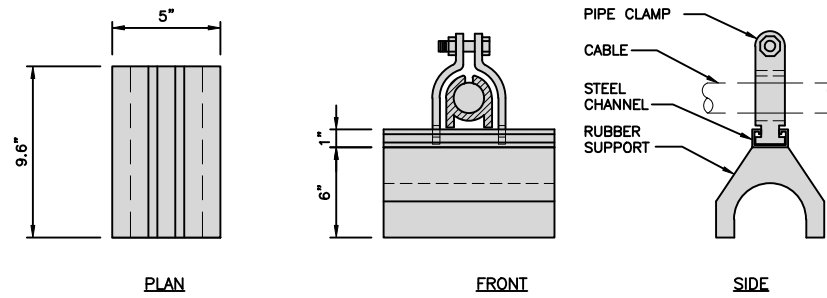
ROOFTOP CABLE TRAY DETAIL

NO SCALE

1

DURA-BLOK DB10 ROOFTOP CABLE SUPPORT	
DIMENSIONS (HxWxL)	5"x6"x9.6"
WEIGHT/ VOLUME	5.28 LBS
ULTIMATE LOAD CAPACITY	500 LBS

NOTE: NON-PENETRATING

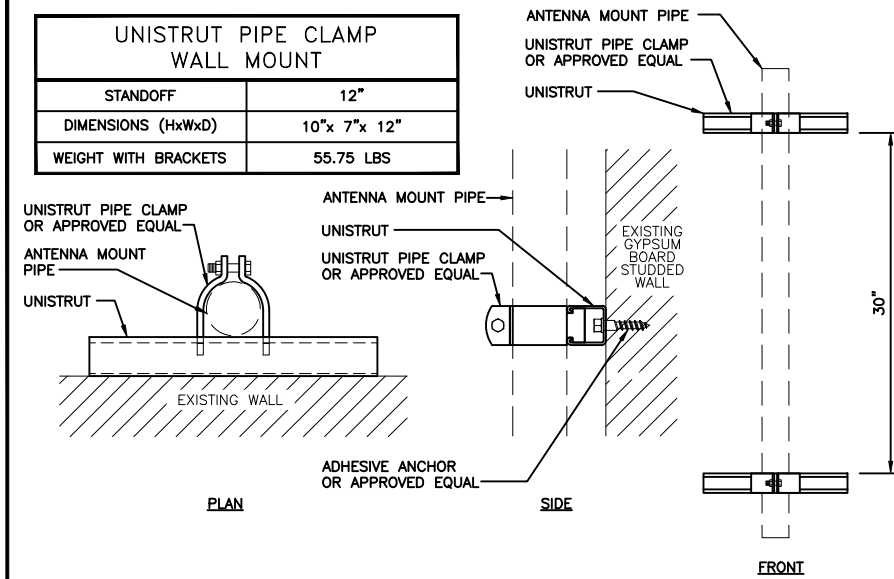


ROOFTOP CABLE SUPPORT DETAIL

NO SCALE

2

UNISTRUT PIPE CLAMP WALL MOUNT	
STANDOFF	12"
DIMENSIONS (HxWxD)	10"x 7"x 12"
WEIGHT WITH BRACKETS	55.75 LBS



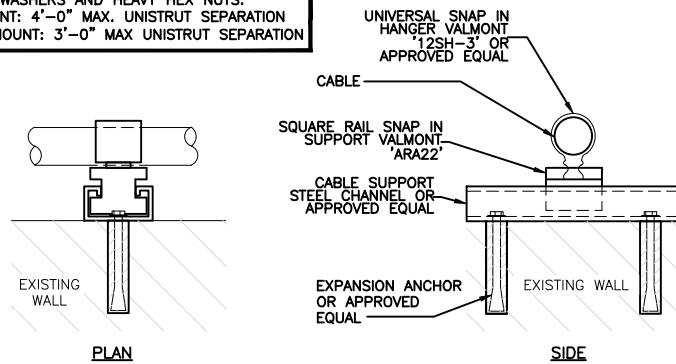
UNISTRUT WALL MOUNT DETAIL

NO SCALE

3

CABLE/CONDUIT WALL MOUNT SUPPORT	
UNISTRUT TYPE	GRAINGER P100T
UNISTRUT DIMENSIONS (HxWxL)	1 5/8"x 1 5/8"x 12"
WEIGHT/ VOLUME	1.85 LB PER FOOT
ULTIMATE LOAD CAPACITY	718.5 LB

NOTES:  
1. ALL HARDWARE AND PARTS SHALL BE HOT DIPPED GALVANIZED WITH LOCK WASHERS AND HEAVY HEX NUTS.  
2. VERTICAL CABLE MOUNT: 4'-0" MAX. UNISTRUT SEPARATION  
3. HORIZONTAL CABLE MOUNT: 3'-0" MAX UNISTRUT SEPARATION



CABLE WALL MOUNT SUPPORT DETAIL

NO SCALE

4

PACKING MATERIAL: MIN. 1 in. THICKNESS OF MIN. 3.5 pcf FIBERGLASS INSULATION SHALL BE WRAPPED AROUND THE THROUGH-PENETRANT AND SECURED TOGETHER BY MEANS OF NO. 24 AWG STEEL TIE WIRE. PACKING MATERIAL SHALL BE CENTERED AT MID-DEPTH OF OPENING AND RECESSED FROM BOTH SURFACES OF WALL ASSEMBLY REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

FILL, VOID OR CAVITY MATERIAL - CAULK OR PUTTY: IN 2 HR FIRE RATED ASSEMBLIES MIN 3/4 IN. THICKNESS FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4 in. CROWN IS FORMED AROUND THE PENETRATING ITEM. IN 1 HR FIRE RATED ASSEMBLIES, MIN 5/8 in. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 3/8 in. CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING 1 in. BEYOND THE PERIPHERY OF THE OPENING.

SPECIFIED TECHNOLOGIES INC.: SPECSEAL SERIES SSS SEALANT, SPECSEAL LCI SEALANT OR SPECSEAL PUTTY.

ONE 4"Ø OR SMALLER METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY AND HAVE AN ANNULAR SPACE OF 3/4"

LAYERS OF 5/8" THICK GYPSUM WALL BOARD

WOOD OR METAL STUDS

UL SYSTEM NUMBER: W-L-1029 F RATING - 1 & 2 HR.

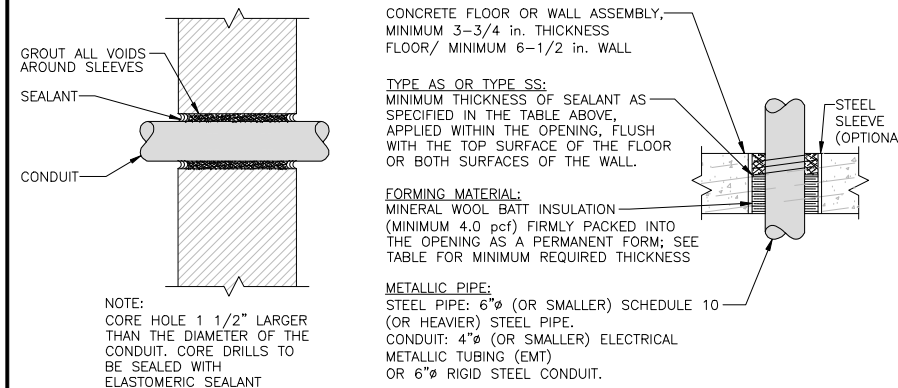
ALL CORES THROUGH ELECTRIC ROOMS TO BE FIRE-STOPPED.  
USE FULL CONDUIT RUNS THROUGH PENETRATIONS

PIPE AND CONDUIT PENETRATION DETAIL IN GYPSUM WALLBOARD

PENETRATION DETAILS

NO SCALE

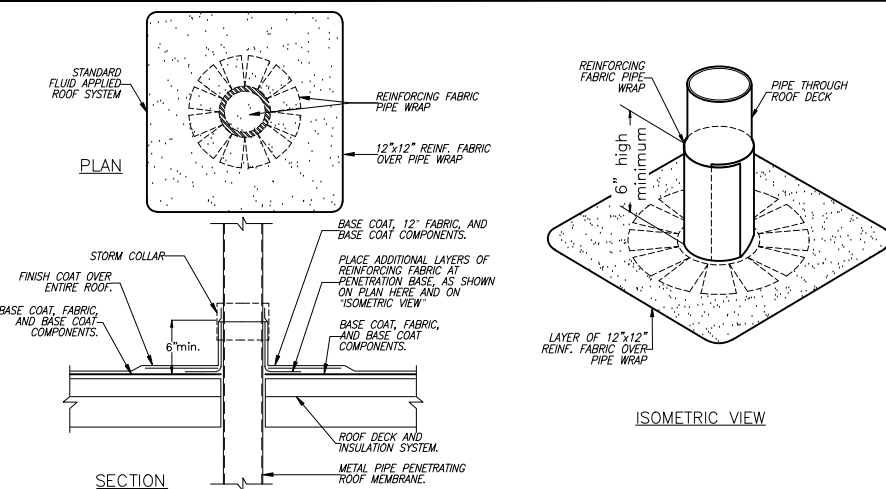
5



PENETRATION DETAILS

NO SCALE

6



— MOUNTING BOLT MOUNTED IN MOUNTING PLATE OF RRR

PIPE FLASHING DETAIL

NO SCALE

7

NO SCALE

8

NO SCALE

9

**dish**  
wireless.

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LITTLETON, CO 80120

**QUALTEK**  
WIRELESS

QUALTEK WIRELESS INC  
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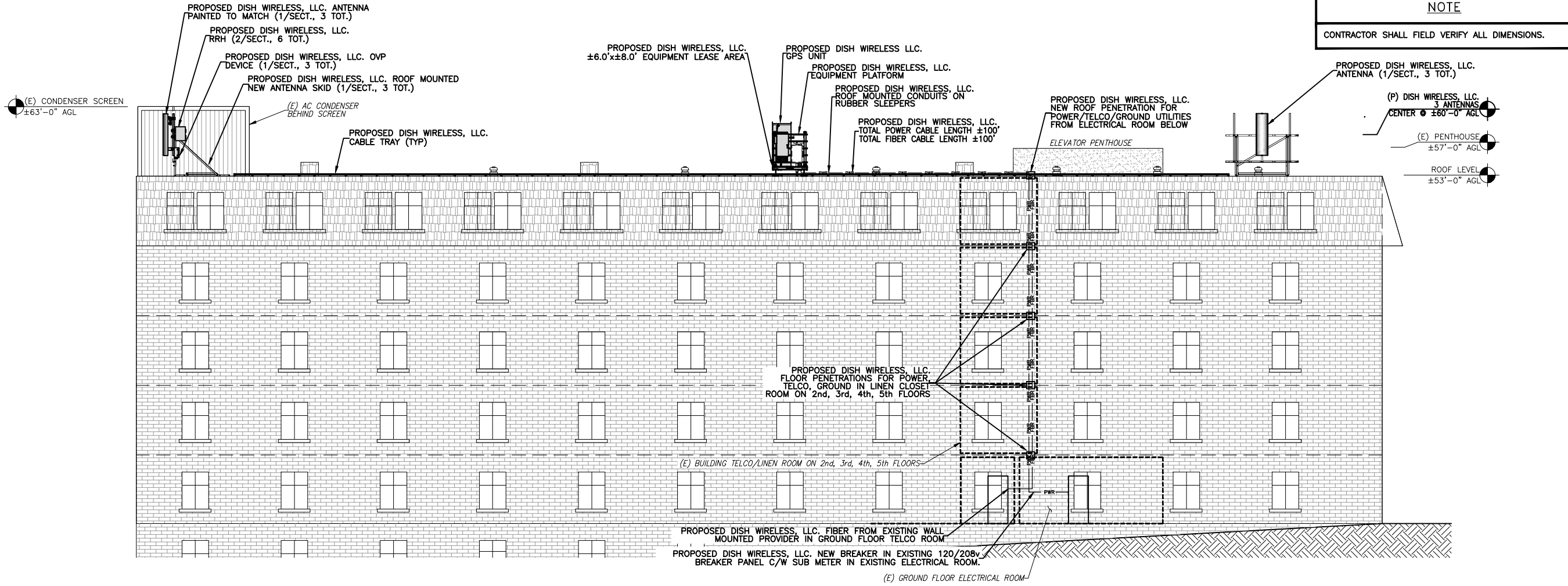
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100 HIGH STREET  
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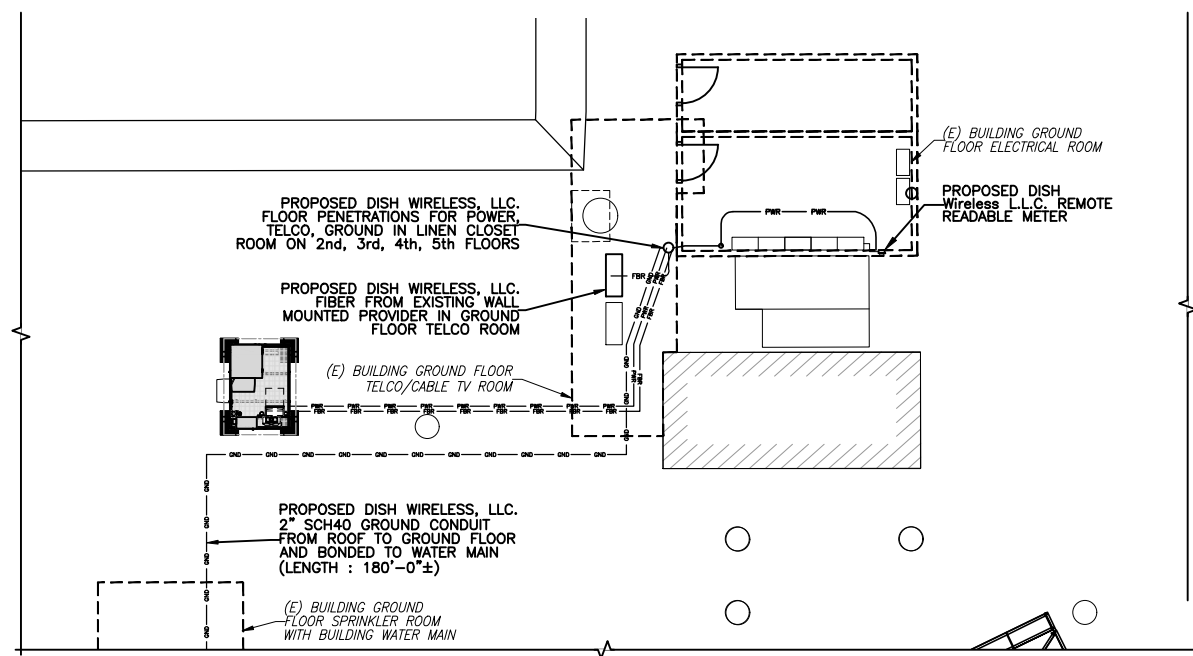
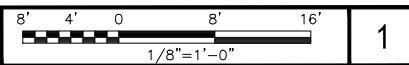
SHEET TITLE  
EQUIPMENT DETAILS

SHEET NUMBER

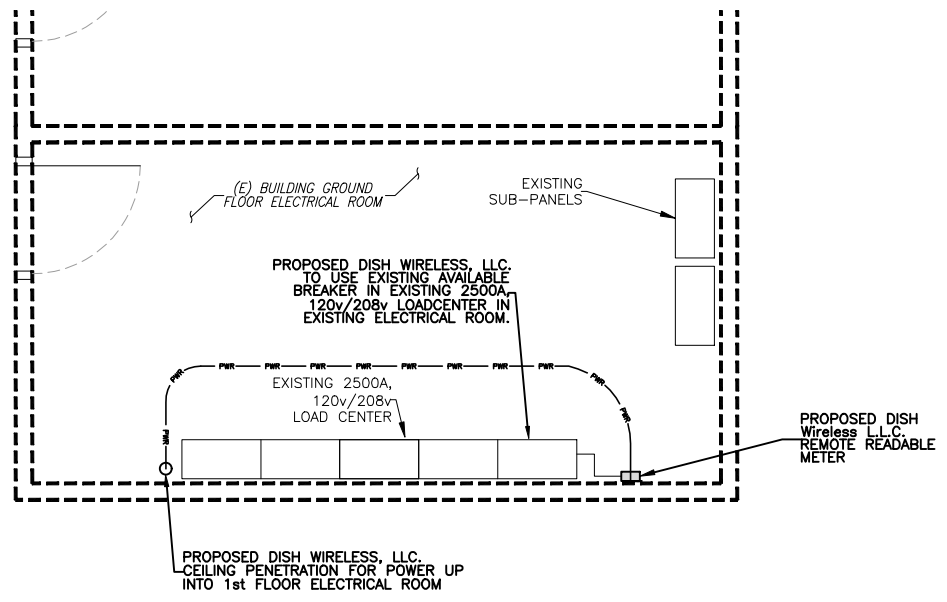
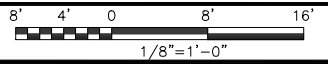
A-7



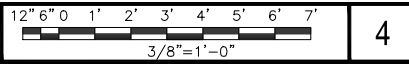
UTILITY ROUTE ELEVATION



UTILITY ROUTE PLAN



GROUND FLOOR ELECTRICAL ROOM PLAN



- NOTES
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
  2. REMOTE READABLE METER IN THE ELECTRICAL ROOM LOCATED ON WALL WILL NEED BUILDING MAINTENANCE FOR ROOM ACCESS



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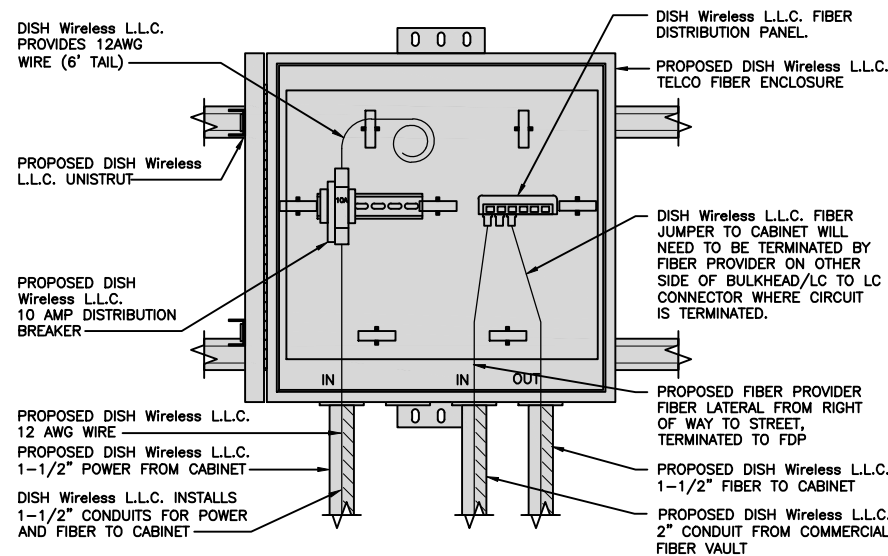
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SHEET TITLE  
ELECTRICAL/FIBER ROUTE  
PLAN AND NOTES

SHEET NUMBER  
**E-1**

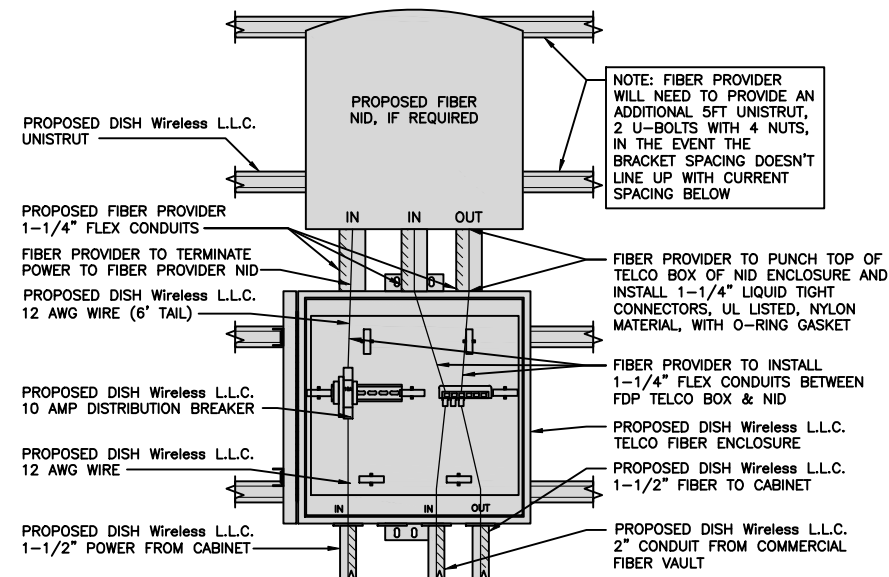
DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

- CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
- LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
- CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
- CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
- CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
- INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
- ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
- PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.



DARK TELCO BOX - INTERIOR WIRING LAYOUT

NO SCALE 2



LIT TELCO BOX - INTERIOR WIRING LAYOUT (OPTIONAL)

NO SCALE 3

ELECTRICAL NOTES

NO SCALE 1

NOT USED

NO SCALE 4

NOT USED

NO SCALE 5

NOT USED

NO SCALE 6

NOT USED

NO SCALE 7

NOT USED

NO SCALE 8



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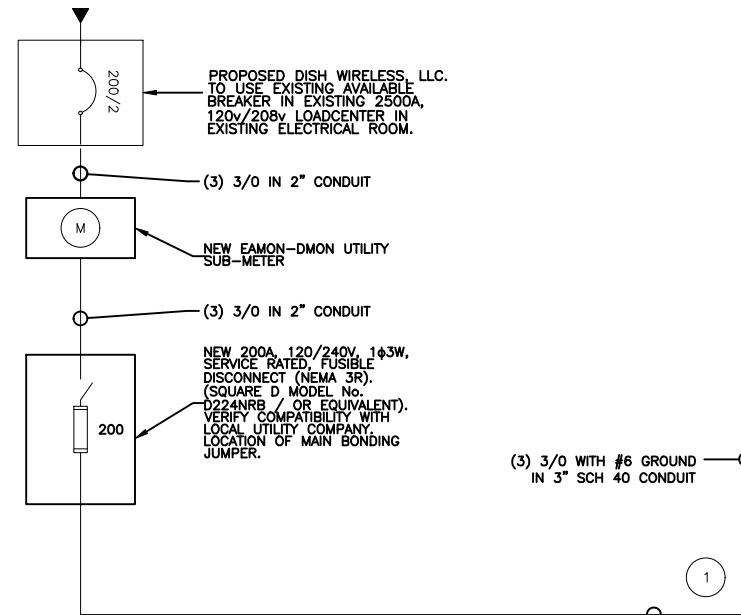
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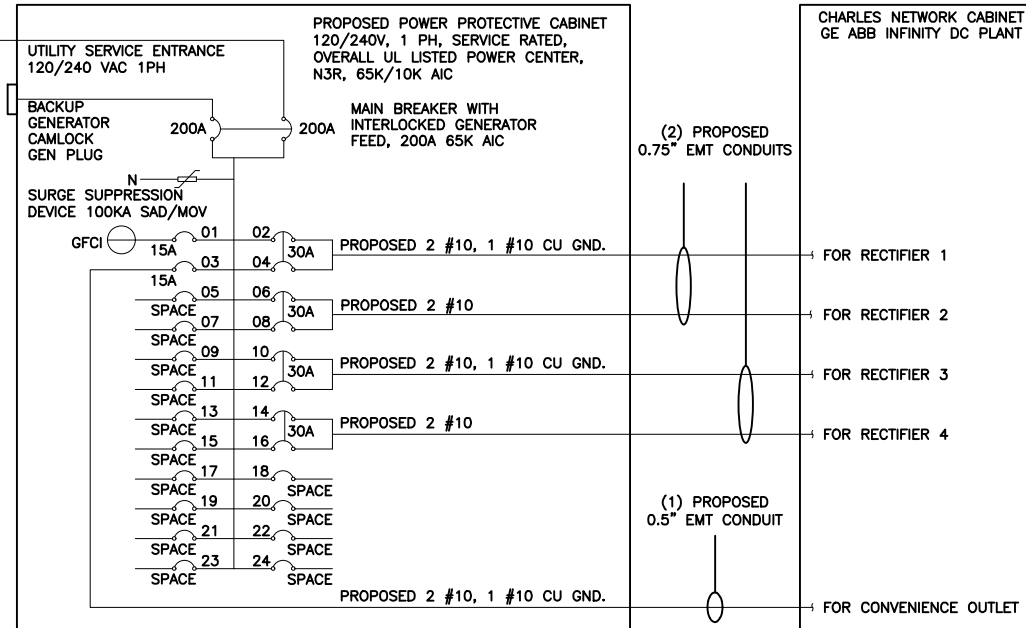
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PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
DETAILS

SHEET NUMBER  
E-2



CONTRACTOR TO REFER TO FINAL UTILITY DESIGN DETAILS



NOTE:  
 BRANCH CIRCUIT WIRING SUPPLYING RECTIFIERS ARE TO BE RATED UL1015, 105°C, 600V, AND PVC INSULATED, IN THE SIZES SHOWN IN THE ONE-LINE DIAGRAM. CONTRACTOR MAY SUBSTITUTE UL1015 WIRE FOR THWN-2 FOR CONVENIENCE OUTLET BRANCH CIRCUIT.  
 BREAKERS REQUIRED: (OR EQUIVALENT MANUFACTURER)  
 (4) 30A, 2P BREAKER - SQUARE D P/N:Q0230  
 (2) 15A, 1P BREAKER - SQUARE D P/N:Q0115  
 (1) OPTIONAL ALUMINUM SERVICE CONDUCTOR:  
 • 4/0 AL + #2 GRD MAY BE USED INSTEAD OF 3/0 CU + #6 GRD IF THE TOTAL LENGTH OF THE CONDUCTOR IS LESS THAN 300 FT FROM THE TRANSFORMER.  
 • ALUMINUM CONDUCTORS MUST BE 90°C TO CARRY THE FULL 200A LOAD REQUIRED  
 • ALUMINUM TO COPPER BUSS CONNECTIONS MUST MEET AND CONFORM TO ANSI AND BE UL LISTED. USE ANTI CORROSION CONDUCTIVE LUBRICANT ON CONNECTIONS

PPC ONE-LINE DIAGRAM

NO SCALE

1

PROPOSED CHARLES PANEL SCHEDULE  
 GE ABB INFINITY DC PLANT

LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
PPC GFCI OUTLET	180		15A	1	A	2	30A	2880		ABB/GE INFINITY RECTIFIER 1
CHARLES GFCI OUTLET	180	180	15A	3	B	4	30A	2880	2880	ABB/GE INFINITY RECTIFIER 2
-SPACE-				5	A	6	30A	2880	2880	ABB/GE INFINITY RECTIFIER 3
-SPACE-				7	B	8	30A	2880	2880	ABB/GE INFINITY RECTIFIER 4
-SPACE-				9	A	10	30A	2880	2880	-SPACE-
-SPACE-				11	B	12	30A	2880	2880	-SPACE-
-SPACE-				13	A	14	30A	2880	2880	-SPACE-
-SPACE-				15	B	16	30A	2880	2880	-SPACE-
-SPACE-				17	A	18				-SPACE-
-SPACE-				19	B	20				-SPACE-
-SPACE-				21	A	22				-SPACE-
-SPACE-				23	B	24				-SPACE-
VOLTAGE AMPS	180	180						11520	11520	
200A MCB, 1Ø, 24 SPACE, 120/240V				L1	L2					
MB RATING: 65,000 AIC				11700	11700			VOLTAGE AMPS		
				98	98			AMPS		
				98	98			MAX AMPS		
				123	123			MAX 125%		

PANEL SCHEDULE

NO SCALE

2

NO SCALE

3



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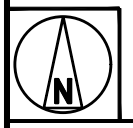
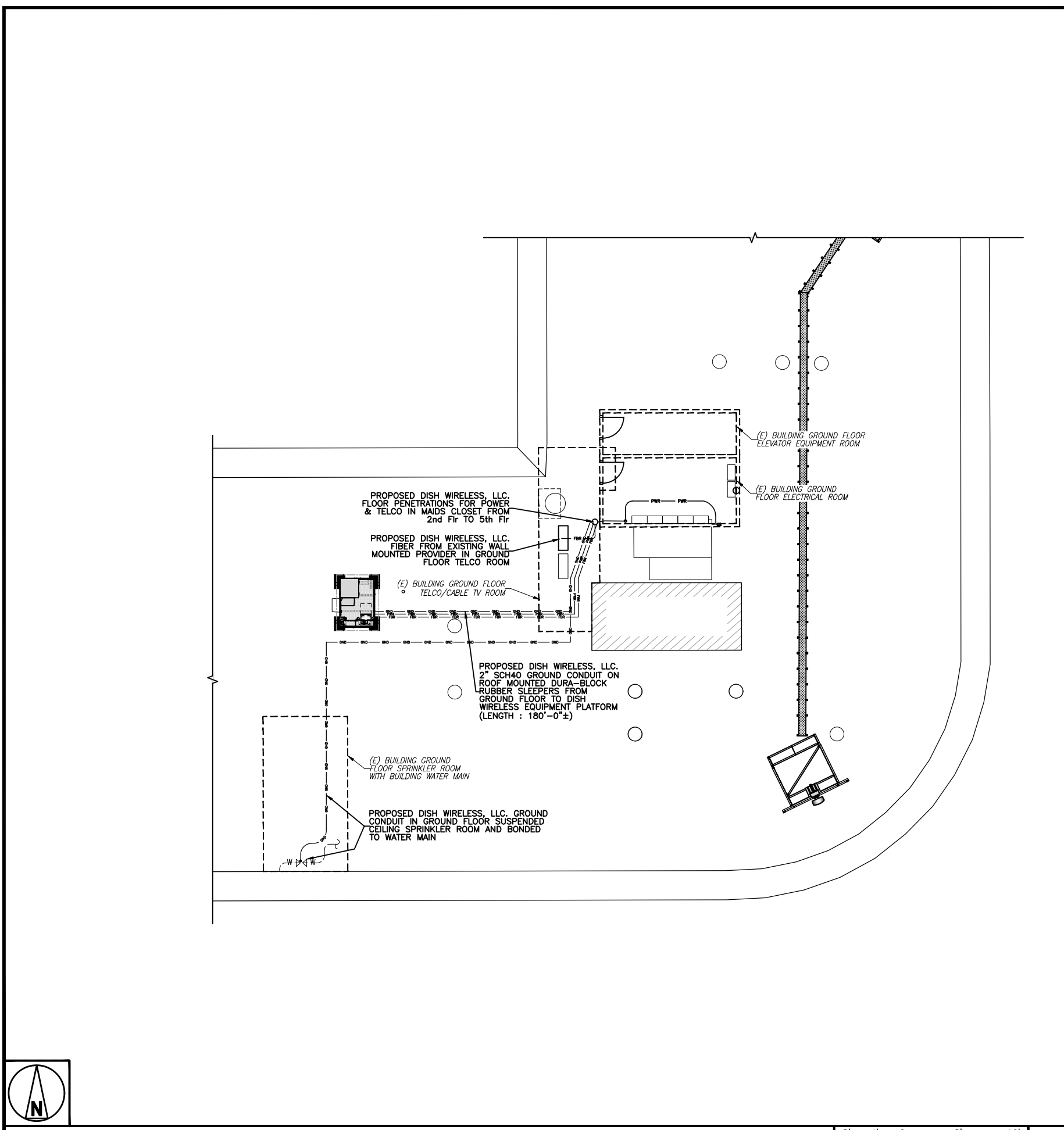
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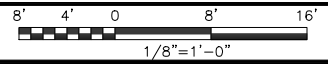
DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
ONE-LINE DIAGRAM,  
& PANEL SCHEDULE

SHEET NUMBER  
**E-3**



GROUNDING PLAN



1

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- ▬ GROUND BUS BAR
- GROUND ROD
- T TEST GROUND ROD WITH INSPECTION SLEEVE
- #6 AWG STRANDED & INSULATED
- - - - - #2 AWG SOLID COPPER TINNED
- ▲ BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
4. NO EXOTHERMIC WELDING ON ROOFTOP

GROUNDING ROOFTOP KEY NOTES

- (A) **EXTERIOR GROUND RING:** #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
  - (B) **ROOFTOP GROUND SYSTEM:** THE GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
  - (C) **INTERIOR GROUND RING:** #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
  - (D) **BOND TO INTERIOR GROUND RING:** #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING OR ROOM.
  - (E) **GROUND ROD:** UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
  - (F) **CELL REFERENCE GROUND BAR (CRGB):** POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO COMMON BUILDING GROUND SYSTEM WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
  - (G) **HATCH PLATE GROUND BAR:** BOND TO THE COMMON BUILDING GROUND SYSTEM WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
  - (H) **EXTERIOR CABLE ENTRY PORT GROUND BARS:** LOCATED AT THE ENTRANCE TO THE CELL SITE ROOM. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH MECHANICAL CONNECTIONS.
  - (I) **TELCO GROUND BAR:** BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
  - (J) **FRAME BONDING:** THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
  - (K) **INTERIOR UNIT BONDS:** METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
  - (L) **FENCE AND GATE GROUNDING:** METAL FENCES SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
  - (M) **EXTERIOR UNIT BONDS:** METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM. USING #2 TINNED SOLID COPPER WIRE
  - (N) **ICE BRIDGE SUPPORTS:** EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.
  - (O) **DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR**
  - (P) **ROOFTOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO COMMON BUILDING GROUND SYSTEM.**
- REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE

2

5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120

QUALTEK WIRELESS INC  
16 ESQUIRE ROAD  
BILLERICA, MA 01821

VERTICAL RESOURCES GRP.  
23 Midstate Dr., #210  
Auburn, MA 01501  
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RFDS REV #:		0

CONSTRUCTION DOCUMENTS

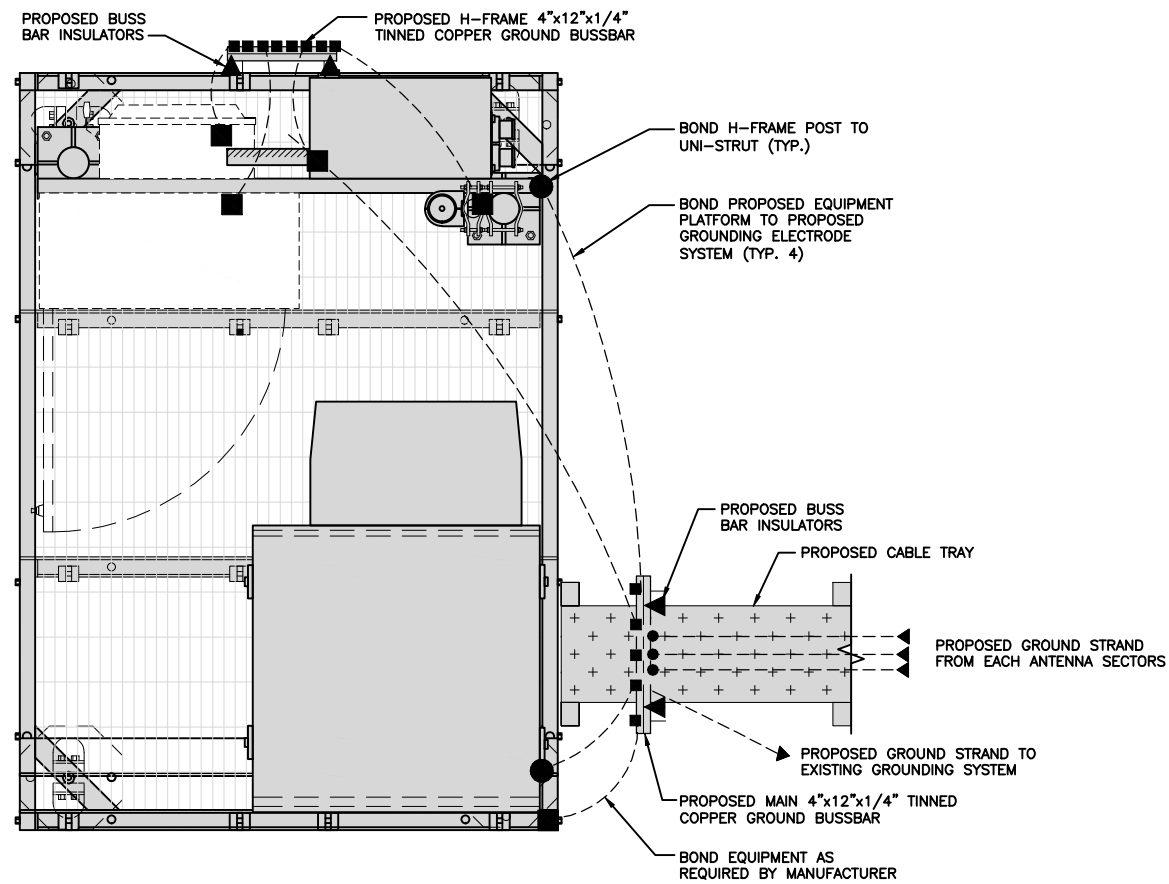
SUBMITTALS		
REV	DATE	DESCRIPTION
0	11/01/2022	FOR PERMITTING
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A&E PROJECT NUMBER  
BOBOS01018D

DISH Wireless L.L.C.  
PROJECT INFORMATION  
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100 HIGH STREET  
PORTSMOUTH, NH 03801

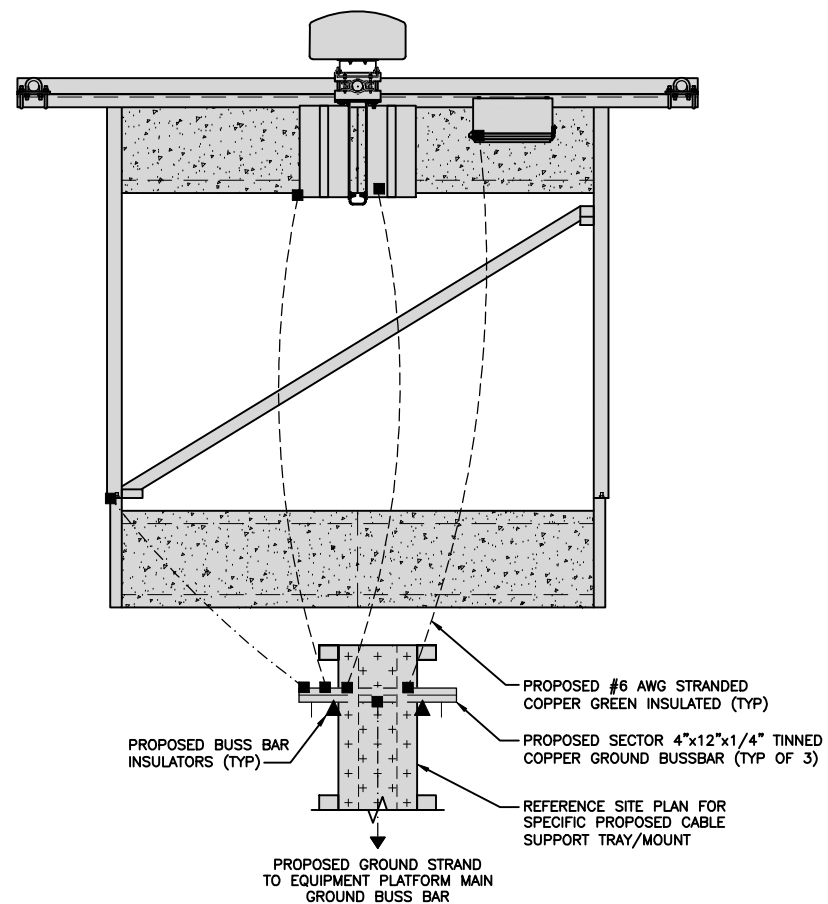
SHEET TITLE  
GROUNDING PLANS  
AND NOTES

SHEET NUMBER  
**G-1**



TYPICAL ROOFTOP EQUIPMENT GROUNDING PLAN

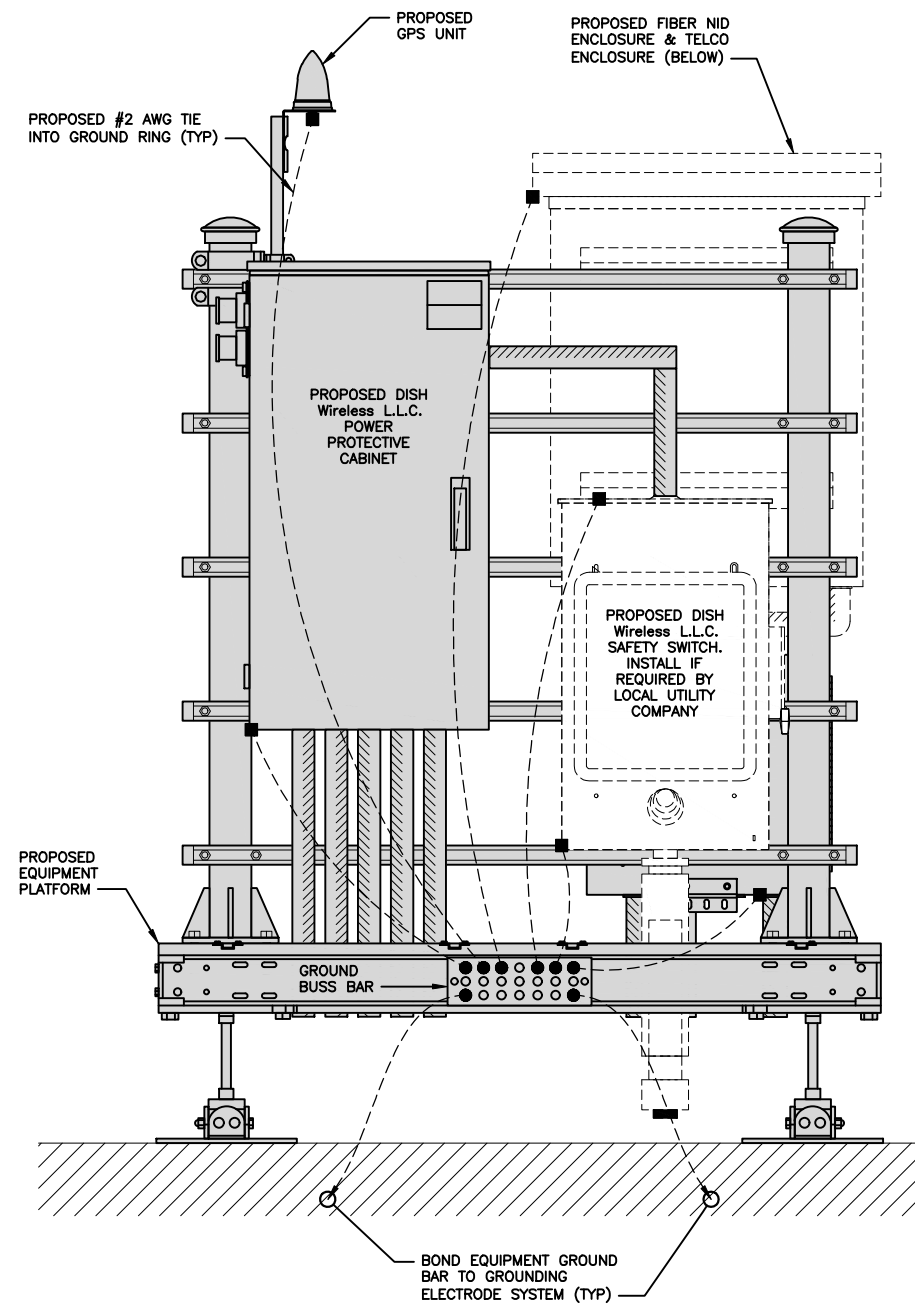
NO SCALE 1



TYPICAL ROOFTOP ANTENNA GROUNDING PLAN

NO SCALE 2

NOTE  
EQUIPMENT CABINET OMITTED FOR CLARITY



H-FRAME GROUNDING DETAIL

NO SCALE 3

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wireless.

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**QUALTEK**  
WIRELESS

QUALTEK WIRELESS INC  
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SHEET TITLE  
GROUNDING DETAILS

SHEET NUMBER  
**G-2**

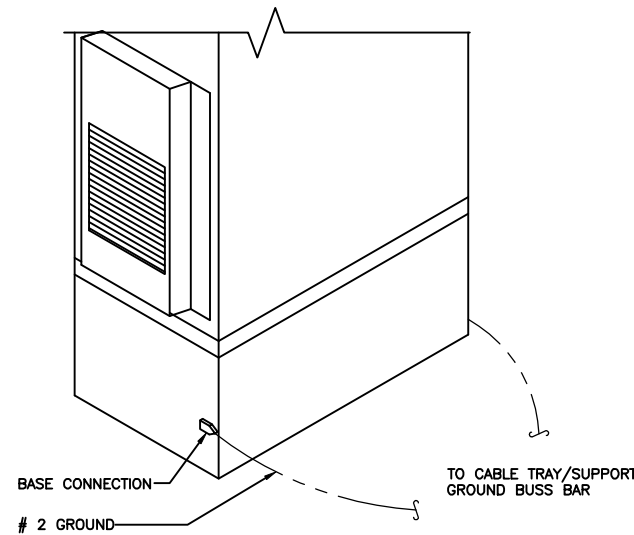


1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).

TYPICAL GROUNDING NOTES

NO SCALE

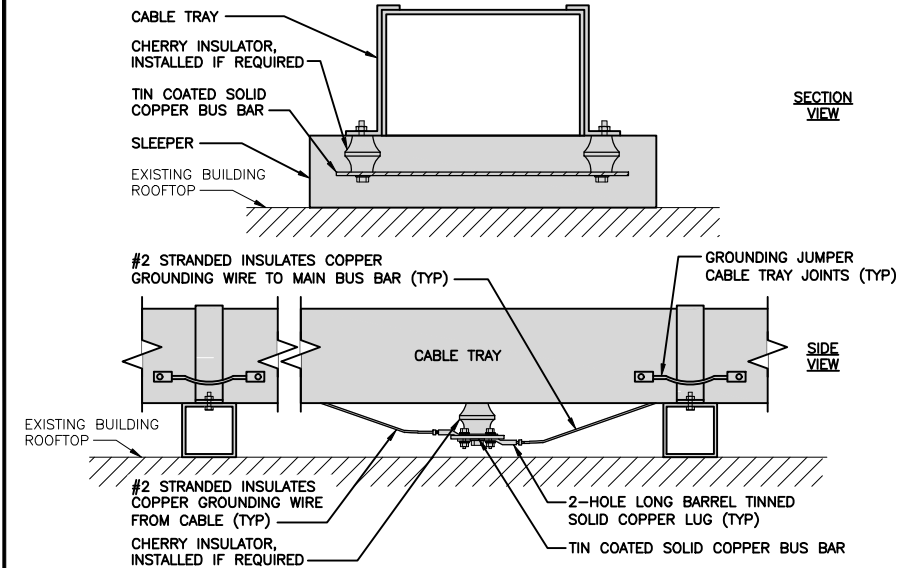
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OUTDOOR CABINET GROUNDING

NO SCALE

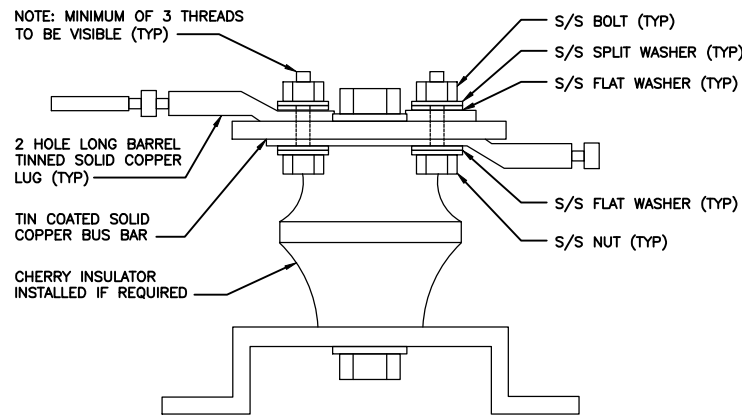
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TYPICAL CABLE TRAY GROUND BUSS BAR

NO SCALE

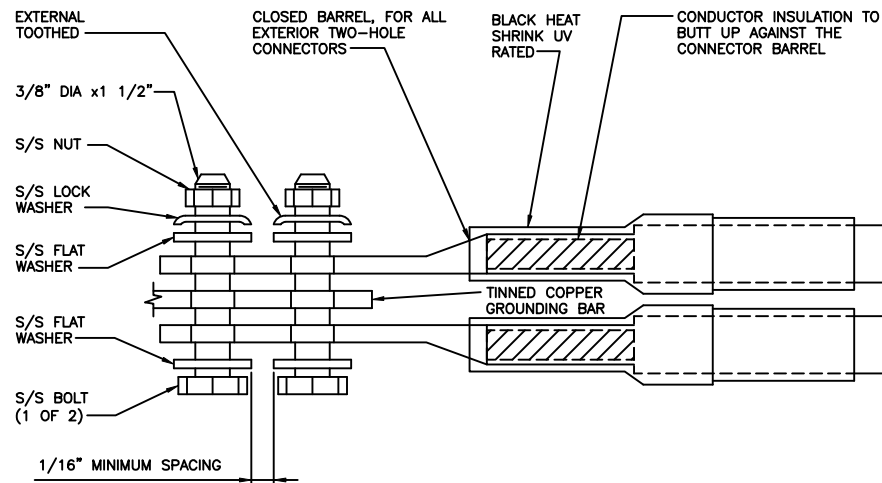
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LUG DETAIL

NO SCALE

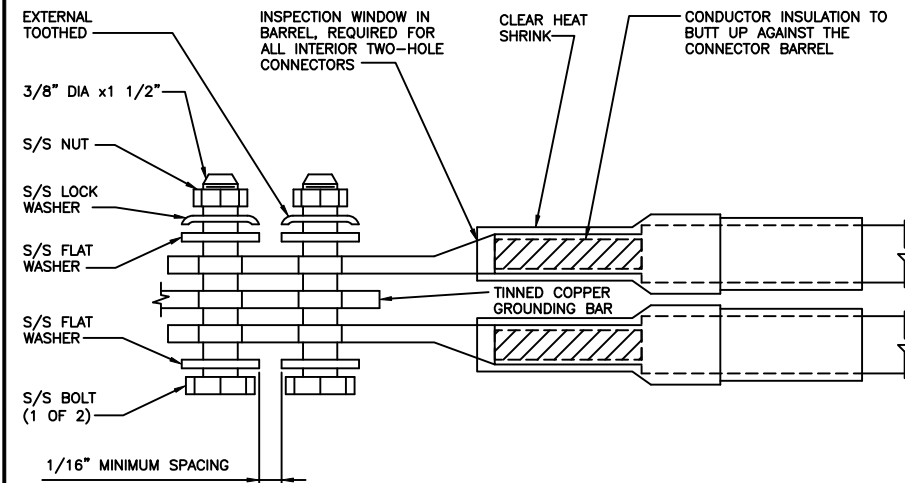
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TYPICAL EXTERIOR TWO HOLE LUG

NO SCALE

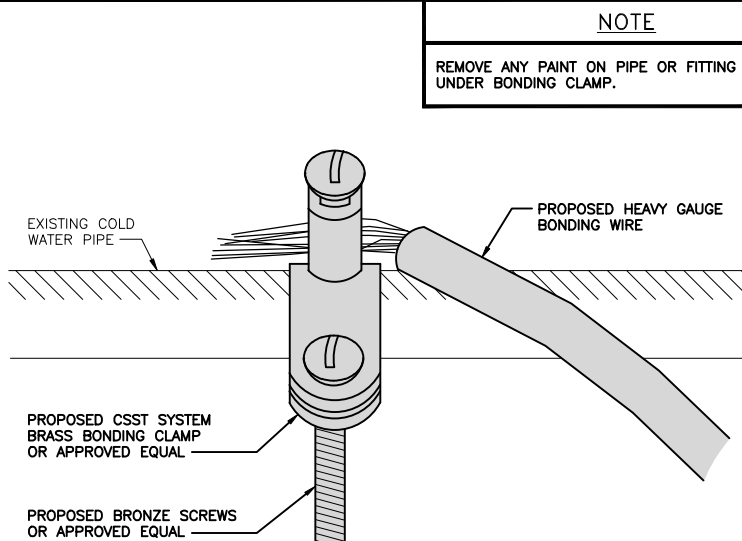
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TYPICAL INTERIOR TWO HOLE LUG

NO SCALE

6



TYPICAL COLD WATER CONDUIT GROUNDING DETAIL

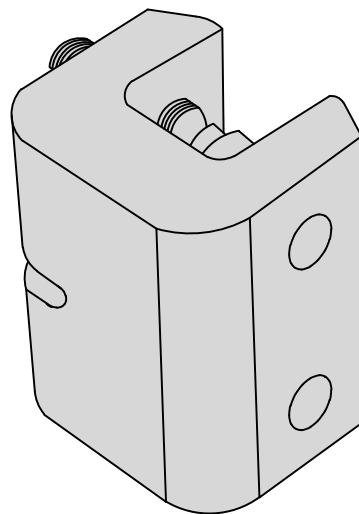
NO SCALE

7

**PANDUIT GUBC500-6  
UNIVERSAL BEAM GROUNDING, CLAMP**

COPPER CONDUCTOR SIZE RANGE AWG	#6-500
FLANGE THICKNESS INCHES	0.250-0.675
STUD SIZE INCHES	1/2"
THREAD SIZE	1/2"-13
DIMENSIONS (LxWxH)	3.15" x 2.13" x 2.50"

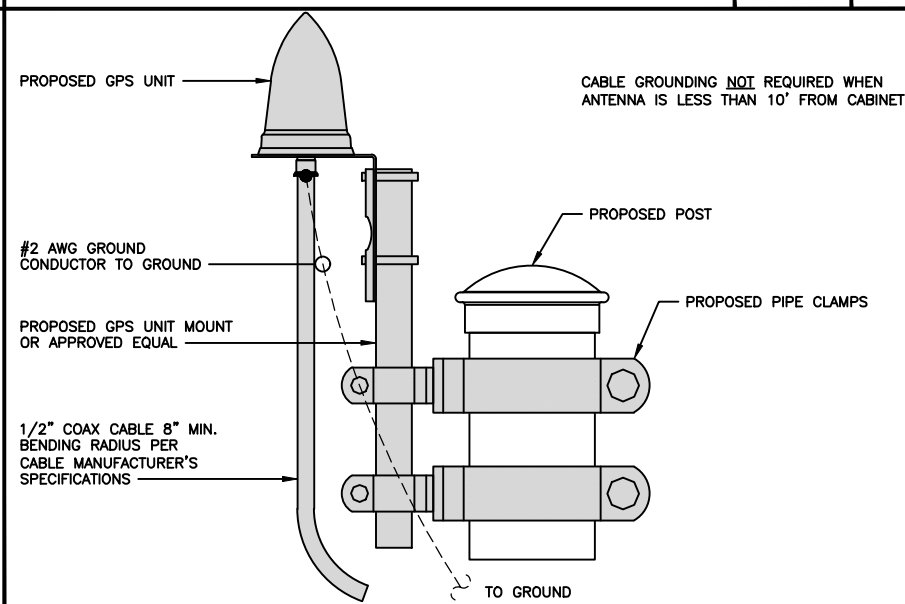
NOTE:  
1. UNIVERSAL, FITS ON A WIDE RANGE OF STANDARD (ANGLED) AND WIDE FLANGE (PARALLEL) STRUCTURAL STEEL BEAMS.  
2. UL 467 LISTED FOR GROUNDING AND BONDING ONLY



BUILDING STEEL GROUNDING DETAIL

NO SCALE

8



TYPICAL GPS UNIT GROUNDING

NO SCALE

9

**dish wireless.**  
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PORTSMOUTH, NH 03801

SHEET TITLE  
GROUNDING DETAILS

SHEET NUMBER  
**G-3**

**RF Jumper Color Coding**

3/4" tape widths with 3/4" spacing

	ALPHA RRH				BETA RRH				GAMMA RRH			
	Port 1 + slant	Port 2 - slant	Port 3 + slant	Port 4 - slant	Port 1 + slant	Port 2 - slant	Port 3 + slant	Port 4 - slant	Port 1 + slant	Port 2 - slant	Port 3 + slant	Port 4 - slant
Low-Band RRH - (600MHz N71 baseband) + (850MHz N26 band) + (700MHz N29 band) - optional per market	RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
Add Frequency Color to Sector Band (CBRS will use Yellow bands)	ORANGE	ORANGE	RED	RED	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN
		WHITE (-) Port	ORANGE	ORANGE		WHITE (-) Port	ORANGE	ORANGE		WHITE (-) Port	ORANGE	ORANGE
			WHITE (-) Port					WHITE (-) Port				WHITE (-) Port

Mid-band RRH - (AWS bands N66+N70)	RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
Add Frequency Color to Sector Band (CBRS will use Yellow bands)	PURPLE	PURPLE	RED	RED	PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN
		WHITE (-) Port	PURPLE	PURPLE		WHITE (-) Port	PURPLE	PURPLE		WHITE (-) Port	PURPLE	PURPLE
			WHITE (-) Port					WHITE (-) Port				WHITE (-) Port

Hybrid/Discreet Cables	Example 1	Example 2 (3rd Tech added)	Example 3 COAX #1 (Alpha)	(canister) COAX #2 (Alpha)
Include sector bands being supported along with frequency bands	RED BLUE GREEN	RED BLUE GREEN	RED	RED
Example 1 - Hybrid, or discreet, supports all sectors, both low-bands and mid-bands	ORANGE PURPLE	YELLOW		RED
Example 2 - Hybrid, or discreet, supports CBRS only, all sectors				
Example 3 - Main Coax with ground mounted RRUs				

Fiber Jumpers to RRHs	Low Band RRH	Mid Band RRH	Low Band RRH	Mid Band RRH	Low Band RRH	Mid Band RRH
Low Band RRH fiber cables have sector stripe only	RED ORANGE	RED PURPLE	BLUE ORANGE	BLUE PURPLE	GREEN ORANGE	GREEN PURPLE

Power Cables to RRHs	Low Band RRH	Mid Band RRH	Low Band RRH	Mid Band RRH	Low Band RRH	Mid Band RRH
Low Band RRH power cables have sector stripe only	RED ORANGE	RED PURPLE	BLUE ORANGE	BLUE PURPLE	GREEN ORANGE	GREEN PURPLE

RET motors at Antennas	Antenna 1 Mid Band / IN	Antenna 1 Low Band / IN	Antenna 1 Mid Band / IN	Antenna 1 Low Band / IN	Antenna 1 Mid Band / IN	Antenna 1 Low Band / IN
RET control is handled by the MID-band RRU when one set of RET ports exist on antenna.	RED	RED	BLUE	BLUE	GREEN	GREEN
Separate RET cables are used when antenna ports provide inputs for both LOW and MID bands.	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE	ORANGE

Microwave Radio Links	Forward azimuth of 0-120 degrees		Forward azimuth of 120-240 degrees		Forward azimuth of 240-359 degrees	
	Primary	Secondary	Primary	Secondary	Primary	Secondary
Links will have a 1.5-2 inch white wrap with the azimuth color overlapping in the middle. Add additional sector color bands for each additional MW radio.	WHITE RED WHITE	WHITE RED WHITE	WHITE BLUE WHITE	WHITE BLUE WHITE	WHITE GREEN WHITE	WHITE GREEN WHITE
Microwave cables will require P-touch labels inside the cabinet to identify the local and remote Site ID's.						

Low Bands (N71+N26) Optional - (N29)	AWS (N66+N70+H-block)	CBRS Tech (3 GHz)	Negative Slant Port on Ant/RRH
ORANGE	PURPLE	YELLOW	WHITE

COLOR IDENTIFIER	NO SCALE	2
------------------	----------	---

NOT USED	NO SCALE	3
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DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
RF  
CABLE COLOR CODE

SHEET NUMBER  
**RF-1**

RF CABLE COLOR CODES

NO SCALE

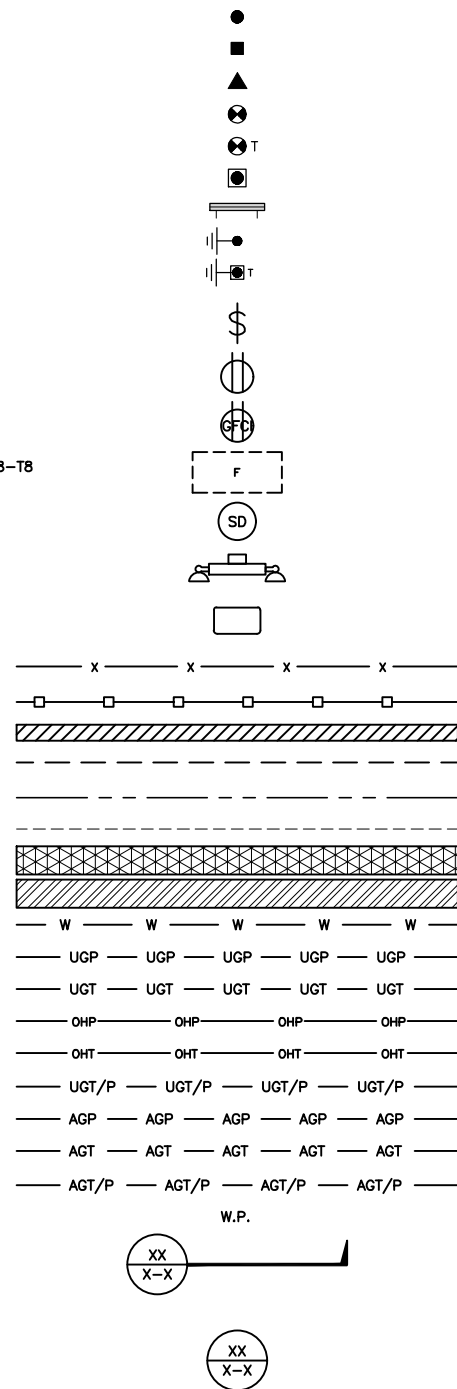
1

NOT USED

NO SCALE

4

EXOTHERMIC CONNECTION  
 MECHANICAL CONNECTION  
 BUSS BAR INSULATOR  
 CHEMICAL ELECTROLYTIC GROUNDING SYSTEM  
 TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM  
 EXOTHERMIC WITH INSPECTION SLEEVE  
 GROUNDING BAR  
 GROUND ROD  
 TEST GROUND ROD WITH INSPECTION SLEEVE  
 SINGLE POLE SWITCH  
 DUPLEX RECEPTACLE  
 DUPLEX GFCI RECEPTACLE  
 FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48-T8  
 SMOKE DETECTION (DC)  
 EMERGENCY LIGHTING (DC)  
 SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW  
 LED-1-25A400/51K-SR4-120-PE-DBBTXD  
 CHAIN LINK FENCE  
 WOOD/WROUGHT IRON FENCE  
 WALL STRUCTURE  
 LEASE AREA  
 PROPERTY LINE (PL)  
 SETBACKS  
 ICE BRIDGE  
 CABLE TRAY  
 WATER LINE  
 UNDERGROUND POWER  
 UNDERGROUND TELCO  
 OVERHEAD POWER  
 OVERHEAD TELCO  
 UNDERGROUND TELCO/POWER  
 ABOVE GROUND POWER  
 ABOVE GROUND TELCO  
 ABOVE GROUND TELCO/POWER  
 WORKPOINT  
 SECTION REFERENCE  
 DETAIL REFERENCE



LEGEND

AB ANCHOR BOLT  
 ABV ABOVE  
 AC ALTERNATING CURRENT  
 ADDL ADDITIONAL  
 AFF ABOVE FINISHED FLOOR  
 AFG ABOVE FINISHED GRADE  
 AGL ABOVE GROUND LEVEL  
 AIC AMPERAGE INTERRUPTION CAPACITY  
 ALUM ALUMINUM  
 ALT ALTERNATE  
 ANT ANTENNA  
 APPROX APPROXIMATE  
 ARCH ARCHITECTURAL  
 ATS AUTOMATIC TRANSFER SWITCH  
 AWG AMERICAN WIRE GAUGE  
 BATT BATTERY  
 BLDG BUILDING  
 BLK BLOCK  
 BLKG BLOCKING  
 BM BEAM  
 BTC BARE TINNED COPPER CONDUCTOR  
 BOF BOTTOM OF FOOTING  
 CAB CABINET  
 CANT CANTILEVERED  
 CHG CHARGING  
 CLG CEILING  
 CLR CLEAR  
 COL COLUMN  
 COMM COMMON  
 CONC CONCRETE  
 CONSTR CONSTRUCTION  
 DBL DOUBLE  
 DC DIRECT CURRENT  
 DEPT DEPARTMENT  
 DF DOUGLAS FIR  
 DIA DIAMETER  
 DIAG DIAGONAL  
 DIM DIMENSION  
 DWG DRAWING  
 DWL DOWEL  
 EA EACH  
 EC ELECTRICAL CONDUCTOR  
 EL ELEVATION  
 ELEC ELECTRICAL  
 EMT ELECTRICAL METALLIC TUBING  
 ENG ENGINEER  
 EQ EQUAL  
 EXP EXPANSION  
 EXT EXTERIOR  
 EW EACH WAY  
 FAB FABRICATION  
 FF FINISH FLOOR  
 FG FINISH GRADE  
 FIF FACILITY INTERFACE FRAME  
 FIN FINISH(ED)  
 FLR FLOOR  
 FDN FOUNDATION  
 FOC FACE OF CONCRETE  
 FOM FACE OF MASONRY  
 FOS FACE OF STUD  
 FOW FACE OF WALL  
 FS FINISH SURFACE  
 FT FOOT  
 FTG FOOTING  
 GA GAUGE  
 GEN GENERATOR  
 GFCI GROUND FAULT CIRCUIT INTERRUPTER  
 GLB GLUE LAMINATED BEAM  
 GLV GALVANIZED  
 GPS GLOBAL POSITIONING SYSTEM  
 GND GROUND  
 GSM GLOBAL SYSTEM FOR MOBILE  
 HDG HOT DIPPED GALVANIZED  
 HDR HEADER  
 HGR HANGER  
 HVAC HEAT/VENTILATION/AIR CONDITIONING  
 HT HEIGHT  
 IGR INTERIOR GROUND RING  
 IN INCH  
 INT INTERIOR  
 LB(S) POUND(S)  
 LF LINEAR FEET  
 LTE LONG TERM EVOLUTION  
 MAS MASONRY  
 MAX MAXIMUM  
 MB MACHINE BOLT  
 MECH MECHANICAL  
 MFR MANUFACTURER  
 MGB MASTER GROUND BAR  
 MIN MINIMUM  
 MISC MISCELLANEOUS  
 MTL METAL  
 MTS MANUAL TRANSFER SWITCH  
 MW MICROWAVE  
 NEC NATIONAL ELECTRIC CODE  
 NM NEWTON METERS  
 NO. NUMBER  
 # NUMBER  
 NTS NOT TO SCALE  
 OC ON-CENTER  
 OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
 OPNG OPENING  
 P/C PRECAST CONCRETE  
 PCS PERSONAL COMMUNICATION SERVICES  
 PCU PRIMARY CONTROL UNIT  
 PRC PRIMARY RADIO CABINET  
 PP POLARIZING PRESERVING  
 PSF POUNDS PER SQUARE FOOT  
 PSI POUNDS PER SQUARE INCH  
 PT PRESSURE TREATED  
 PWR POWER CABINET  
 QTY QUANTITY  
 RAD RADIUS  
 RECT RECTIFIER  
 REF REFERENCE  
 REINF REINFORCEMENT  
 REQ'D REQUIRED  
 RET REMOTE ELECTRIC TILT  
 RF RADIO FREQUENCY  
 RMC RIGID METALLIC CONDUIT  
 RRH REMOTE RADIO HEAD  
 RRU REMOTE RADIO UNIT  
 RWY RACEWAY  
 SCH SCHEDULE  
 SHT SHEET  
 SIAD SMART INTEGRATED ACCESS DEVICE  
 SIM SIMILAR  
 SPEC SPECIFICATION  
 SQ SQUARE  
 SS STAINLESS STEEL  
 STD STANDARD  
 STL STEEL  
 TEMP TEMPORARY  
 THK THICKNESS  
 TMA TOWER MOUNTED AMPLIFIER  
 TN TOE NAIL  
 TOA TOP OF ANTENNA  
 TOC TOP OF CURB  
 TOF TOP OF FOUNDATION  
 TOP TOP OF PLATE (PARAPET)  
 TOS TOP OF STEEL  
 TOW TOP OF WALL  
 TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION  
 TYP TYPICAL  
 UG UNDERGROUND  
 UL UNDERWRITERS LABORATORY  
 UNO UNLESS NOTED OTHERWISE  
 UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM  
 UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)  
 VIF VERIFIED IN FIELD  
 W WIDE  
 W/ WITH  
 WD WOOD  
 WP WEATHERPROOF  
 WT WEIGHT

ABBREVIATIONS



5701 SOUTH SANTA FE DRIVE  
 LITTLETON, CO 80120



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 100 HIGH STREET  
 PORTSMOUTH, NH 03801

SHEET TITLE  
 LEGEND AND ABBREVIATIONS

SHEET NUMBER  
 GN-1

SIGN TYPES		
TYPE	COLOR	COLOR CODE PURPOSE
INFORMATION	GREEN	"INFORMATIONAL SIGN" TO NOTIFY OTHERS OF SITE OWNERSHIP & CONTACT NUMBER AND POTENTIAL RF EXPOSURE.
NOTICE	BLUE	"NOTICE BEYOND THIS POINT" RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
CAUTION	YELLOW	"CAUTION BEYOND THIS POINT" RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
WARNING	ORANGE/RED	"WARNING BEYOND THIS POINT" RF FIELDS AT THIS SITE EXCEED FCC RULES FOR HUMAN EXPOSURE. FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS COULD RESULT IN SERIOUS INJURY. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)

**SIGN PLACEMENT:**

- RF SIGNAGE PLACEMENT SHALL FOLLOW THE RECOMMENDATIONS OF AN EXISTING EME REPORT, CREATED BY A THIRD PARTY PREVIOUSLY AUTHORIZED BY DISH Wireless L.L.C.
- INFORMATION SIGN (GREEN) SHALL BE LOCATED ON EXISTING DISH Wireless L.L.C. EQUIPMENT.
  - A) IF THE INFORMATION SIGN IS A STICKER, IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C. EQUIPMENT CABINET.
  - B) IF THE INFORMATION SIGN IS A METAL SIGN IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C. H-FRAME WITH A SECURE ATTACH METHOD.
- IF EME REPORT IS NOT AVAILABLE AT THE TIME OF CREATION OF CONSTRUCTION DOCUMENTS; PLEASE CONTACT DISH Wireless L.L.C. CONSTRUCTION MANAGER FOR FURTHER INSTRUCTION ON HOW TO PROCEED.

**NOTES:**


1. FOR DISH Wireless L.L.C. LOGO, SEE DISH Wireless L.L.C. DESIGN SPECIFICATIONS (PROVIDED BY DISH Wireless L.L.C.)
2. SITE ID SHALL BE APPLIED TO SIGNS USING "LASER ENGRAVING" OR ANY OTHER WEATHER RESISTANT METHOD (DISH Wireless L.L.C. APPROVAL REQUIRED)
3. TEXT FOR SIGNAGE SHALL INDICATE CORRECT SITE NAME AND NUMBER AS PER DISH Wireless L.L.C. CONSTRUCTION MANAGER RECOMMENDATIONS.
4. CABINET/SHELTER MOUNTING APPLICATION REQUIRES ANOTHER PLATE APPLIED TO THE FACE OF THE CABINET WITH WATER PROOF POLYURETHANE ADHESIVE
5. ALL SIGNS WILL BE SECURED WITH EITHER STAINLESS STEEL ZIP TIES OR STAINLESS STEEL TECH SCREWS
6. ALL SIGNS TO BE 8.5"x11" AND MADE WITH 0.04" OF ALUMINUM MATERIAL

# INFORMATION

This is an access point to an area with transmitting antennas.


Obey all signs and barriers beyond this point.  
Call the DISH Wireless L.L.C. NOC at 1-866-624-6874

Site ID: \_\_\_\_\_



THIS SIGN IS FOR REFERENCE PURPOSES ONLY

NOTICE



Transmitting Antenna(s)

Radio frequency fields beyond this point **MAY EXCEED** the FCC Occupational exposure limit.


Obey all posted signs and site guidelines for working in radio frequency environments.


Call the DISH Wireless L.L.C. NOC at 1-866-624-6874 prior to working beyond this point.

Site ID: \_\_\_\_\_

dish

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**CAUTION**



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Site ID: \_\_\_\_\_

dish

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**WARNING**



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Site ID: \_\_\_\_\_

dish

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DRAWN BY:	CHECKED BY:	APPROVED BY:
GAM	MN	MP

RFDS REV #: \_\_\_\_\_ 0

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
0	11/01/2022	FOR PERMITTING
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A&E PROJECT NUMBER  
BOBOSO1018D

DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOSO1018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
RF SIGNAGE

SHEET NUMBER  
**GN-2**

**SITE ACTIVITY REQUIREMENTS:**

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:  
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

**GENERAL NOTES:**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION  
CARRIER: DISH Wireless L.L.C.  
TOWER OWNER: TOWER OWNER
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



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A&E PROJECT NUMBER  
BOBOS01018D

DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
GENERAL NOTES

SHEET NUMBER  
**GN-3**

**CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:**

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:  
 #4 BARS AND SMALLER 40 ksi  
 #5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
  - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
  - CONCRETE EXPOSED TO EARTH OR WEATHER:
    - #6 BARS AND LARGER 2"
    - #5 BARS AND SMALLER 1-1/2"
  - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
    - SLAB AND WALLS 3/4"
    - BEAMS AND COLUMNS 1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

**ELECTRICAL INSTALLATION NOTES:**

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



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REV	DATE	DESCRIPTION
0	11/01/2022	FOR PERMITTING
1	11/29/2022	GENERAL REVISIONS
2	01/19/2023	GENERAL REVISIONS
3	09/18/2024	GENERAL REVISIONS

A&E PROJECT NUMBER  
BOBOS01018D

DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
GENERAL NOTES

SHEET NUMBER  
**GN-4**

**GROUNDING NOTES:**

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120



QUALTEK WIRELESS INC  
16 ESQUIRE ROAD  
BILLERICA, MA 01821



VERTICAL RESOURCES GRP.  
23 Midstate Dr., #210  
Auburn, MA 01501  
Tel. (508) 981-9590  
Fax (508) 519-8939  
mnobre@verticalresourcesgrp.com



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY:	CHECKED BY:	APPROVED BY:
GAM	MN	MP

RFDS REV #: 0

**CONSTRUCTION DOCUMENTS**

SUBMITTALS		
REV	DATE	DESCRIPTION
0	11/01/2022	FOR PERMITTING
1	11/29/2022	GENERAL REVISIONS
2	01/19/2023	GENERAL REVISIONS
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A&E PROJECT NUMBER  
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DISH Wireless L.L.C.  
PROJECT INFORMATION  
BOBOS01018D  
100 HIGH STREET  
PORTSMOUTH, NH 03801

SHEET TITLE  
GENERAL NOTES

SHEET NUMBER  
**GN-5**

**7. 50 Austin Street**

**-Recommended Approval**

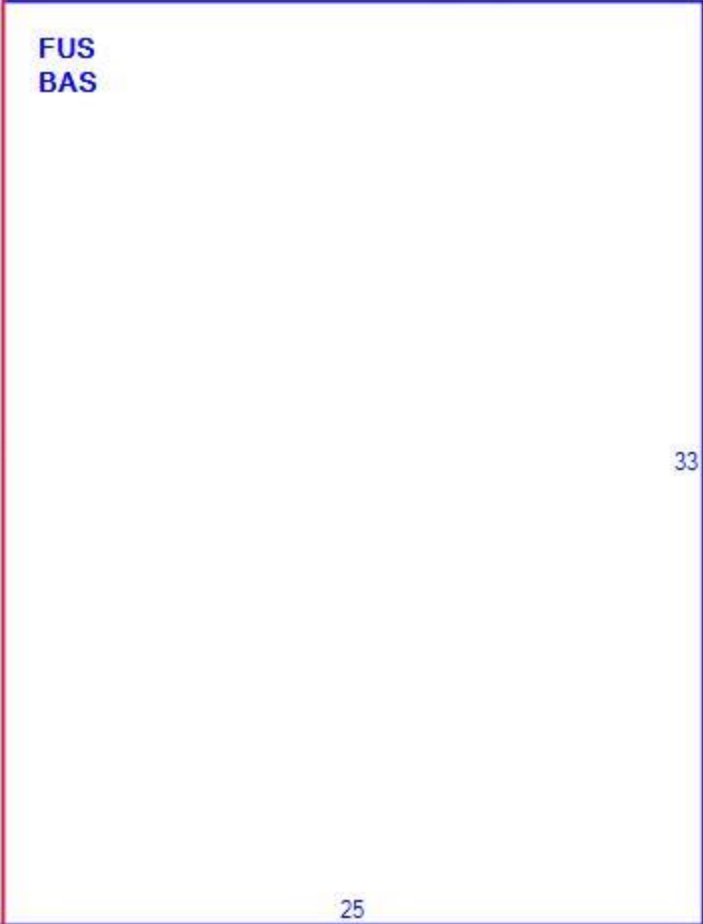
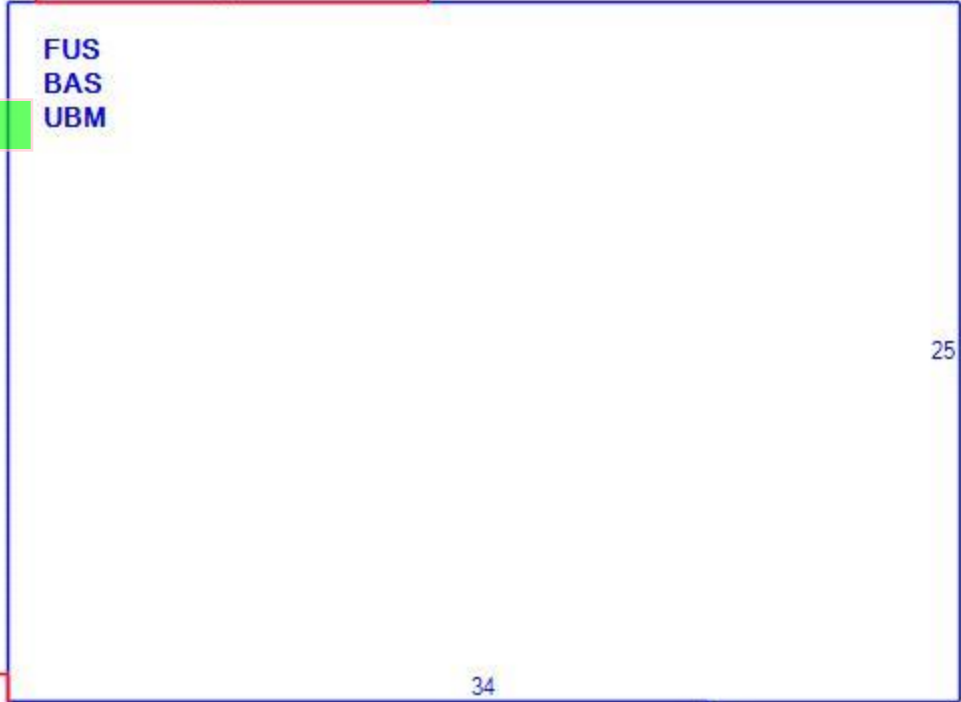
**Background:** The applicant is seeking approval for the installation of venting.

**Staff Comment:** Recommend Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

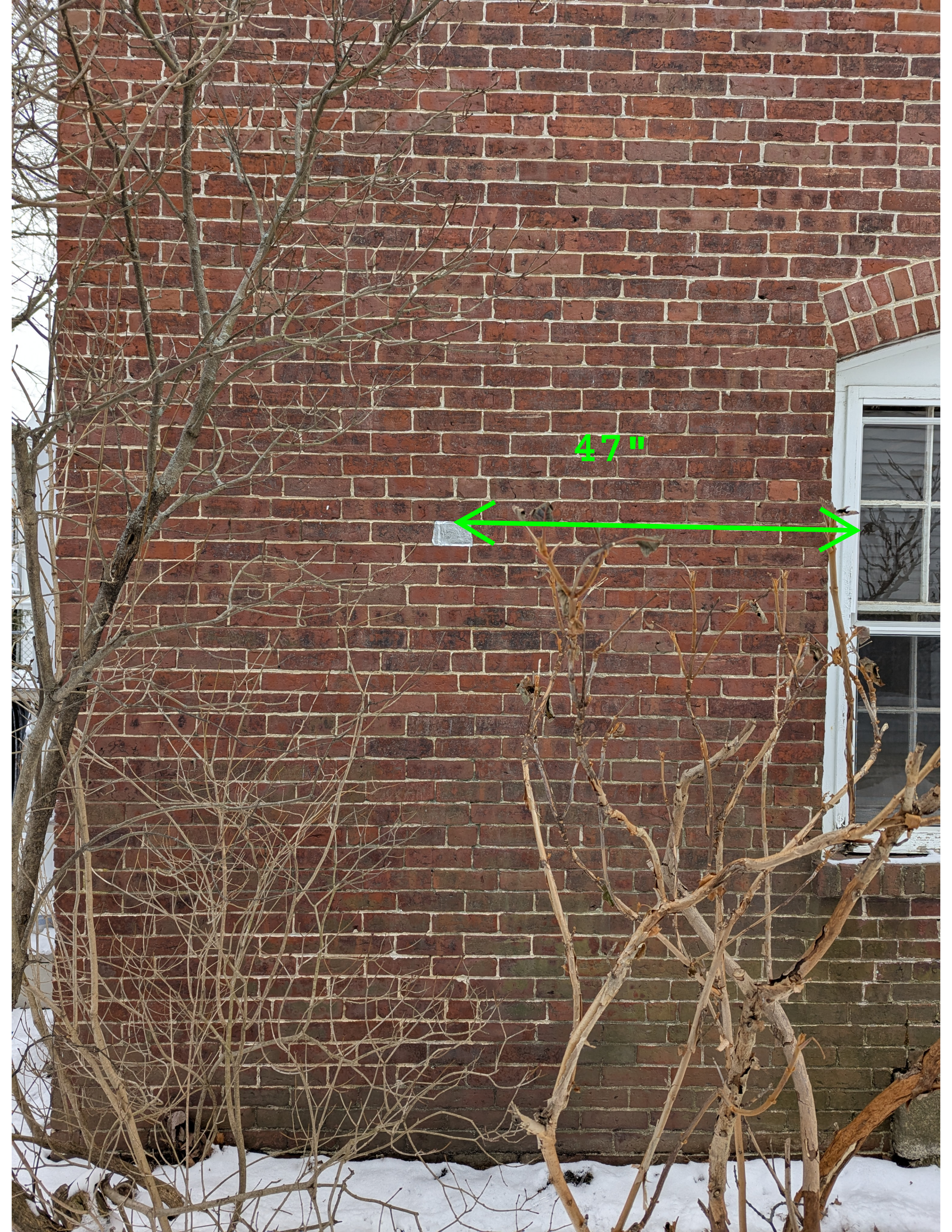






2/21/19, 11:25:09 AM

34084



47"







**Property Information**

Property ID 0136-0001-0000  
 Location 50 AUSTIN ST  
 Owner MAHER FAMILY REVOCABLE TRUST OF 2018



**MAP FOR REFERENCE ONLY  
 NOT A LEGAL DOCUMENT**

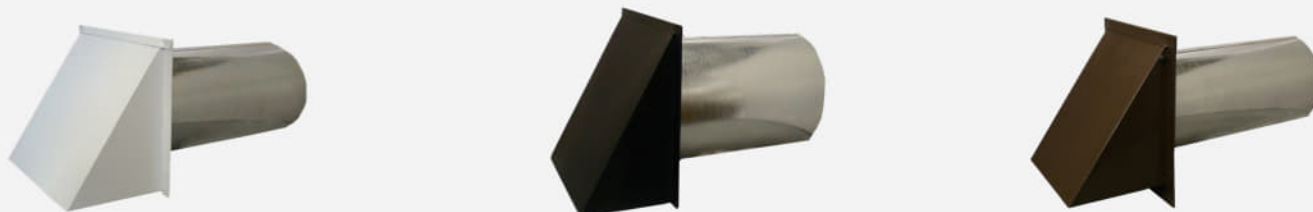
City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 09/26/2024

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

- WALL CAP — POWDER COATED
- WALL CAP — REVERSIBLE DAMPER FOR INTAKE OF EXHAUST

## WALL CAP — POWDER COATED



DAMPER ONLY		SCREEN ONLY		DAMPER & SCREEN	
SIZE	ITEM #	SIZE	ITEM #	SIZE	ITEM #
4"	PDWV 4	4"	PSWV 4	4"	PSDWV 4
5"	PDWV 5	5"	PSWV 5	5"	PSDWV 5
6"	PDWV 6	6"	PSWV 6	6"	PSDWV 6
7"	PDWV 7	7"	PSWV 7	7"	PSDWV 7
8"	PDWV 8	8"	PSWV 8	8"	PSDWV 8
10"	PDWV 10	10"	PSWV 10	10"	PSDWV 10

(BL—Black, BR—Brown, WH—White)\*

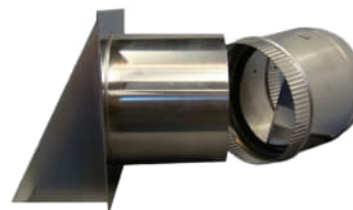
The Artis Wall Cap is ideal for use as fresh air intake, kitchen fan exhaust, whole house ventilation and HRVs. Powder coated\* (Hood, Flange, Damper & Screen Only)

- \*Specify color by placing BL, BR, or WH at the end of the part number.
- Screen is 1/4" galvanized standard.
- 1/8" galvanized screen is available upon request.
- Hood, flange and damper are powdercoated.
- Tubes will be galvanized.

## WALL CAP — REVERSIBLE DAMPER FOR INTAKE OR EXHAUST

GALVANIZED		ALUMINUM	
SIZE	ITEM #	SIZE	ITEM #
4"	RDWVG 4	4"	RDWVA 4
5"	RDWVG 5	5"	RDWVA 5
6"	RDWVG 6	6"	RDWVA 6
7"	RDWVG 7	7"	RDWVA 7
8"	RDWVG 8	8"	RDWVA 8
10"	RDWVG 10	10"	RDWVA 10
12"	RDWVG 12	12"	RDWVA 12

The Artis Reversible Damper Wall Cap is ideal for use as fresh air intake, kitchen fan exhaust, whole house ventilation and HRVs.



- All screened wall vents come with 1/4" screen standard. 1/8" screen is available upon request.
- Two-piece throat has reversible butterfly damper attached.

See [www.artiscaps.com](http://www.artiscaps.com) or call us for specialty powder coating options and other customizations available.

**8. 87 Market Street**

**-Recommended Approval**

**Background:** The applicant is seeking approval for the reconfiguration/installation of wall mounted and roof mounted HVAC condensers with screening.

**Staff Comment:** Recommend Approval

**Stipulations:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

# 87 Market Street

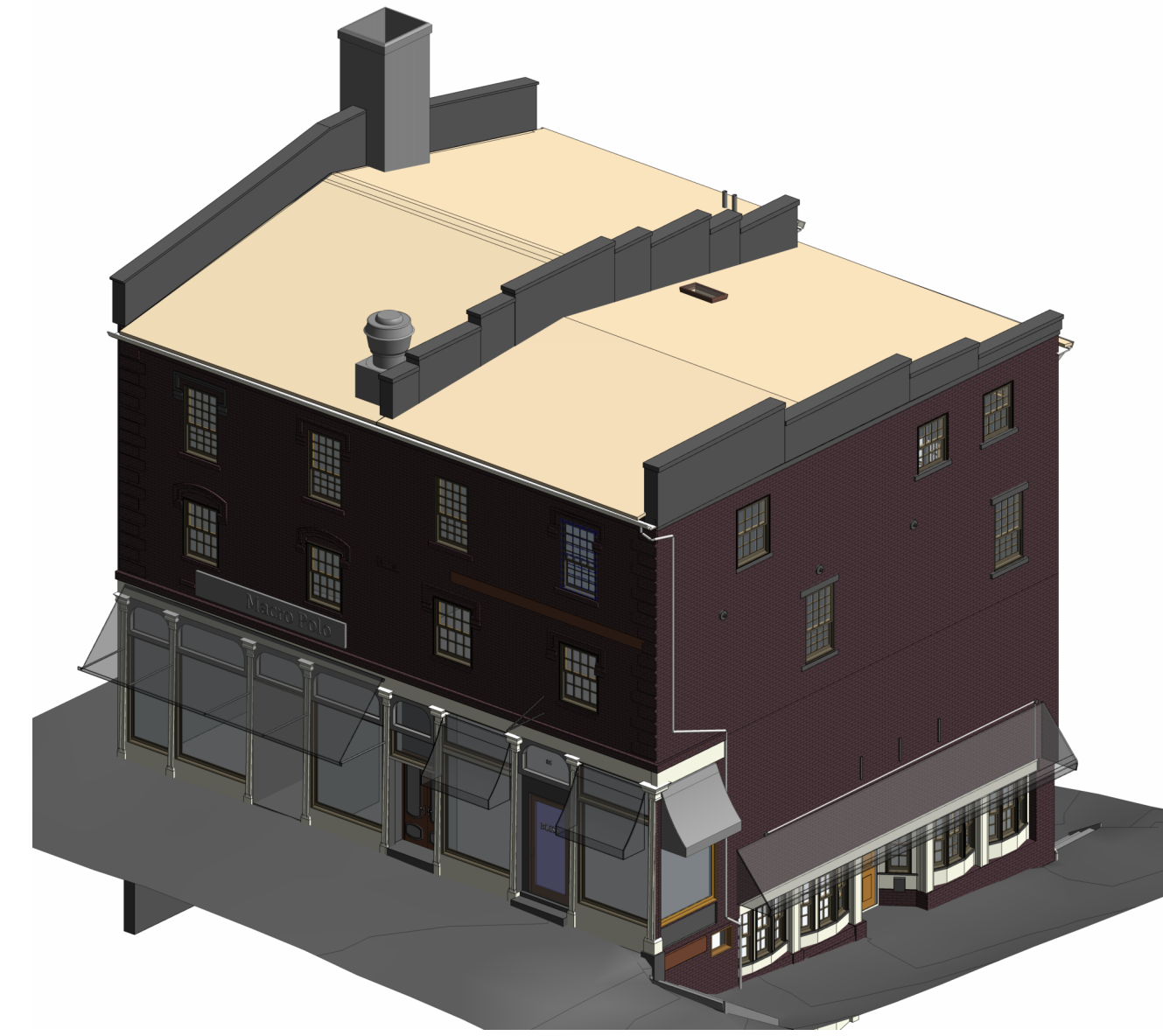
87 Market Street  
Portsmouth, NH

HDC Submission  
01/17/2025

## Sheet List

Sheet Number	Sheet Name	Sheet Issue Date	Current Revision	Current Revision Date
Architecture				
A010	Existing Basement Plan	01/17/2025		
A011	Existing Bow Street Entrance Level	01/17/2025		
A020	Existing Market Street Elevation	01/17/2025		
A021	Existing Bow Street Elevation	01/17/2025		
A022	Existing Ceres Street Elevation	01/17/2025		
A023	Existing Building Massing Views	01/17/2025		

## LOCUS MAP



**3D MASSING / CONCEPTUAL RENDERING NOTE: NOT FOR CONSTRUCTION USE**  
CONCEPTUAL RENDERINGS AND MASSING MODELS SHOWN ARE FOR GRAPHICAL AND SPATIAL REPRESENTATION ONLY AND DO NOT ALWAYS MATCH THE CURRENT ARCHITECTURAL DRAWINGS AND DETAILS WITHIN THE DRAWING PACKAGE. CONCEPTUAL IMAGES NOT TO BE BUILT FROM. ALL ELEVATIONS, DETAILS, SCHEDULES AND OTHER SHEETS WITHIN THE ARCHITECTURAL DRAWINGS TAKE PRECEDENT. NOTIFY ARCHITECT OF DISCREPANCIES FOR CLARIFICATION.

## GENERAL NOTES

- ALL CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED TO HAVE COMPLETE CONTRACT DOCUMENT PACKAGES AS DESCRIBED IN THE "SHEET LIST" AND PROJECT MANUAL "TABLE OF CONTENTS".
- CONTRACTOR REQUIRED TO FOLLOW ALL LOCAL, STATE AND FEDERAL BUILDING AND LIFE SAFETY CODES AS LISTED ON THE "PROJECT CODE REVIEW". THE PROJECT CONTRACT DOCUMENTS ARE PRESUMED TO BE IN COMPLIANCE WITH THESE CODES. DEVIATION FROM THE CONTRACT DOCUMENTS IS PROHIBITED AND THE CONTRACTOR WILL ASSUME ALL LIABILITY FOR SUCH ACTIONS.
- THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, WHAT IS REQUIRED BY ONE IS AS BINDING AS IF REQUIRED BY ALL. THE CONTRACTOR SHALL COORDINATE ALL PORTIONS OF THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS. NOTIFY THE ARCHITECT OF RECORD FOR RESOLUTION OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION.
- REPETITIVE ELEMENTS MAY NOT BE DRAWN IN THEIR ENTIRETY AT EACH INSTANCE. REFER TO TYPICAL DETAILS AND CONSTRUCT EACH INSTANCE AS IF DRAWN IN FULL.
- THE EXISTING CONDITIONS DESCRIBED WITHIN THE PROJECT DOCUMENTS ARE GRAPHICAL REPRESENTATIONS OF THE CURRENT FIELD CONDITIONS. ACTUAL FIELD CONDITIONS MAY VARY AND ALL CONTRACTORS ARE REQUIRED TO BE FAMILIAR AND VERIFY ALL DIMENSIONS, SIZES AND LOCATIONS OF EXISTING STRUCTURE, BUILDING ELEMENTS AND EQUIPMENT PRIOR TO BEGINNING WORK. ALL DIMENSIONS NOTED ON PLANS ARE TO FACE OF STUD FOR NEW WALLS OR FACE OF FINISH FOR EXISTING WALLS UNLESS NOTED OTHERWISE. VERTICAL DIMENSIONS IN ELEVATION, SECTION AND DETAILS ARE FROM TOP OF CONCRETE SLAB/DECK FOR NEW FLOORS OR TOP OF FINISH FLOOR AT EXISTING FLOORS.
- ALL GRADE LINES, BOTH NEW AND EXISTING, SHOWN ON ARCHITECTURAL PLANS ARE APPROXIMATE ONLY. FINAL GRADES TO BE COORDINATED WITH CIVIL ENGINEERING DRAWINGS.
- CONTRACTOR TO VERIFY ALL ROUGH OPENING REQUIREMENTS WITH ACTUAL PRODUCT SUBMITTALS.
- WALLS WITH UL DESIGN NUMBERS SHALL BE CONSTRUCTED TO UL STANDARDS. PRODUCTS USED SHALL BEAR UL CLASSIFICATION WHERE REQUIRED BY THE UL DESIGN.
- DRAWINGS AND SPECIFICATIONS UTILIZE REFERENCES TO INDUSTRY DESIGN, CONSTRUCTION, AND PROCESS STANDARDS BY APPLICABLE TRADE AND MATERIAL ORGANIZATIONS. THESE DOCUMENTS SHALL BE INCORPORATED INTO THE CONTRACT DOCUMENTS BY SUCH REFERENCES. ALL CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED TO FOLLOW THE STANDARD PRACTICES CONTAINED WITHIN.
- ALL PENETRATIONS OF FIRE RATED CONSTRUCTION ARE REQUIRED TO MEET THE ASSEMBLY RATING REQUIREMENT.
- ALL NON-BEARING METAL STUD WALLS SHALL BE CONSTRUCTED WITH DEFLECTION TRACK AND MINIMUM DEFLECTION DISTANCE OF 3/4" FROM THE STRUCTURE ABOVE IF NOT DETAILED ELSEWHERE.
- SEE STRUCTURAL DRAWINGS FOR SIZES OF STRUCTURAL MEMBERS, DESIGN LOADS AND MINIMUM REQUIREMENTS.
- ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DESIGN/BUILD CONTRACTORS ARE REQUIRED TO SUBMIT A COORDINATION BUILDING INFORMATION MODEL IN A REVIT COMPATIBLE FORMAT PRIOR TO FINALIZING DESIGN AND CONSTRUCTION DOCUMENTS.
- CONTRACTOR TO REVIEW MANUFACTURER OF SUBMITTED PRODUCTS INSTALLATION RECOMMENDATIONS AND COORDINATE WITH DESIGN DETAILS. UNLESS OTHERWISE NOTED OR SPECIFIED, THESE DRAWINGS AND NOTES REPRESENT UTILITIES AND COORDINATION WITHIN THE BUILDING AND TO THE EXTERIOR WITHIN A DISTANCE OF 5'-0" FROM THE EXTERIOR FOOTPRINT OF THE BUILDING. CONTRACTOR TO COORDINATE UTILITY CONNECTIONS AND IS RESPONSIBLE FOR ALL OVERHEAD AND UNDERGROUND UTILITY RUNS AND CONNECTIONS.
  - CONTRACTOR SHALL PERFORM ALL NECESSARY LEAKAGE AND PRESSURIZATION TESTS PRIOR TO ENCLOSING UNDERGROUND PIPING.
  - OVERHEAD UTILITIES SHALL BE COORDINATED WITH UTILITY COMPANY AND LANDSCAPE DRAWINGS FOR POTENTIAL CONFLICTS.

## PROJECT TEAM

**TMS**  
architects  
interiors

**Client**  
Maine Coast Builders / Jeff Jones  
jjones.mcb@gmail.com

23A Witchtrot Road  
York, ME 03909  
P: 207.752.0809

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tim@tms-architects.com

**Project Manager - Dan Santacroce**  
dans@tms-architects.com

One Cate Street  
Portsmouth, NH 03801  
P: 603.436.4274  
www.tmsarchitects.com

**McBrie, LLC**  
Structural Design & Sales

**Structural Engineer**  
Michael Perham, Structural Engineer  
mperham@mcbr.ie.com

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North Andover, MA 01845  
P: 978.646.0097  
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**MCB**  
Maine Coast Builders

**General Contractor**  
Maine Coast Builders  
jjones.mcb@gmail.com

23A Witchtrot Road  
York, ME 03909  
P: 207.752.0809  
mainecoastbuilders.com



Revision & Reissue Notes

Rev #	Date	Description

STAMPS

HDC Submission

PROJECT NUMBER  
24-050

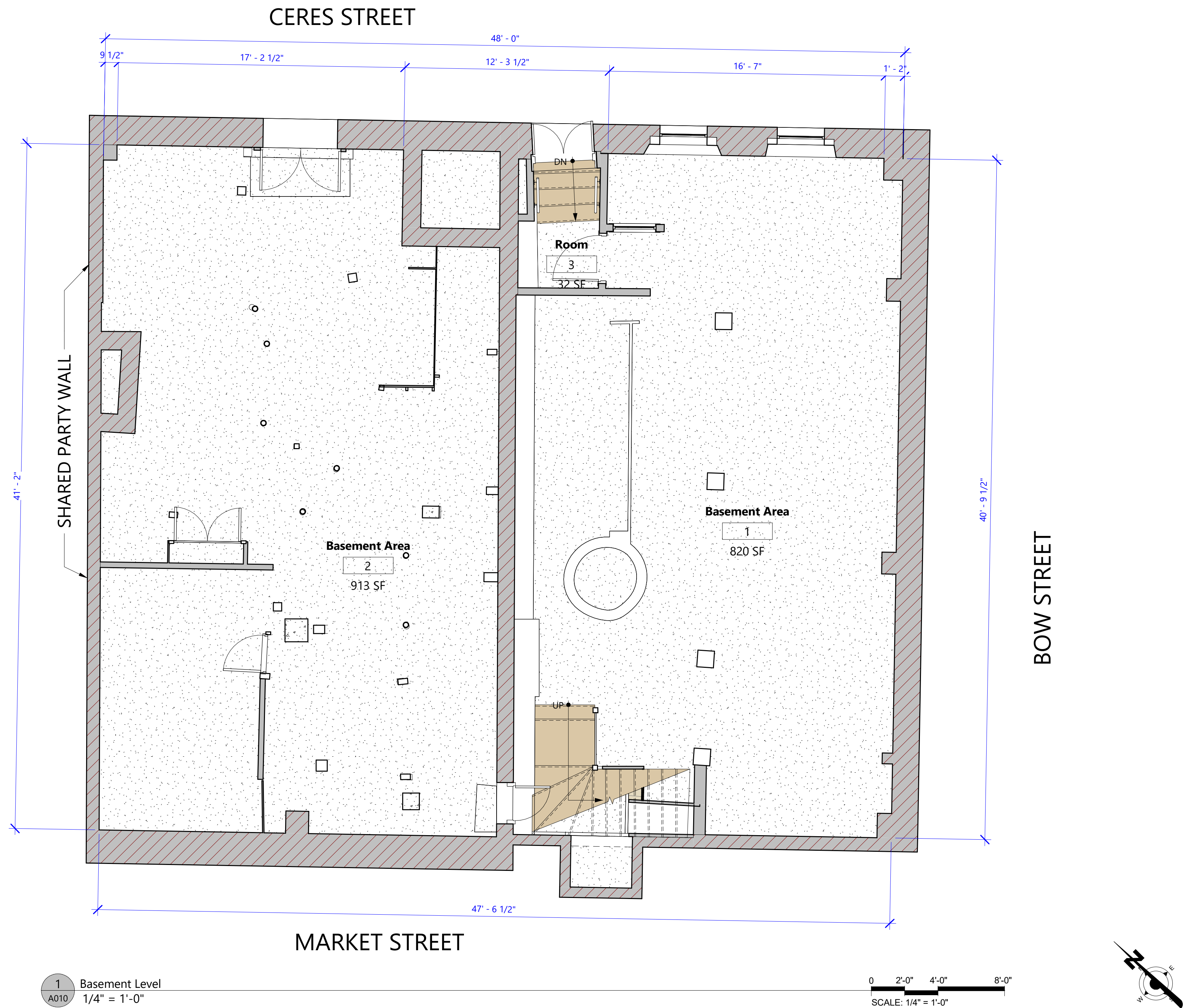
**87 Market Street**

87 Market Street  
Portsmouth, NH

**Existing  
Basement  
Plan**

**A010**

Auth:      SHEET SCALE      SHEET DATE  
Ch:      1/4" = 1'-0"      01/17/24



1 Basement Level  
A010 1/4" = 1'-0"

Autodesk.Docs\87 Market Street - Maine Coast Builders\87 Market Plan ONLY - Existing.rvt

Revision & Reissue Notes

Rev #	Date	Description

STAMPS

HDC Submission

PROJECT NUMBER  
24-050

**87 Market Street**

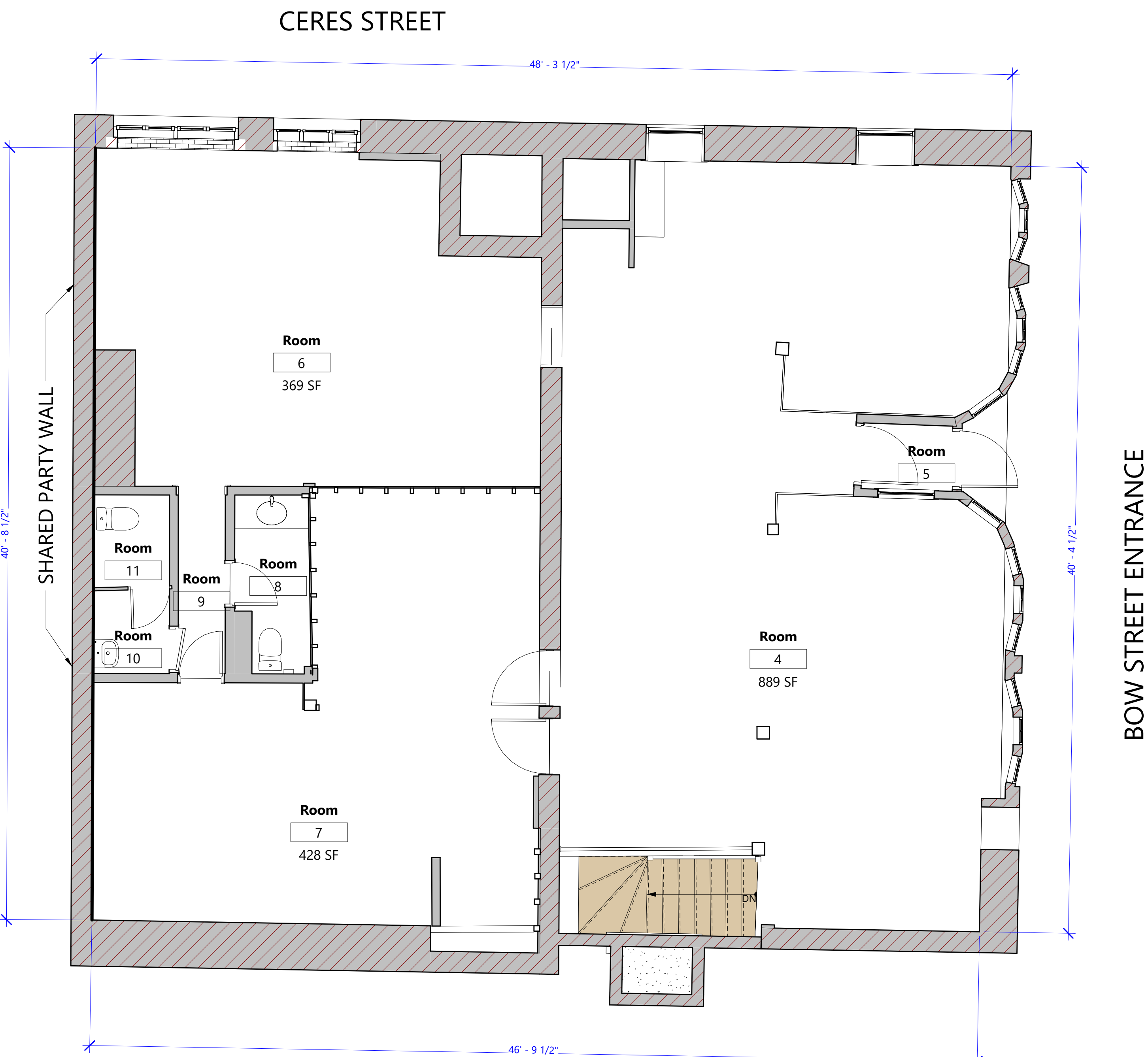
87 Market Street  
Portsmouth, NH

**Existing Bow Street Entrance Level**

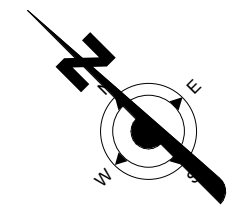
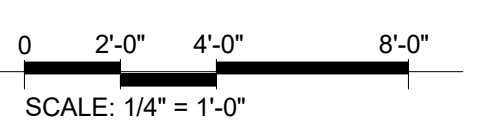
**A011**

Autho: / SHEET SCALE: / SHEET DATE:  
1/4" = 1'-0" / 01/17/24

PLOT DATE: 1/7/2025 2:00:25 PM



1 Bow Street Entrance Level  
A011 1/4" = 1'-0"



Autodesk Docs//87 Market Street - Maine Coast Builders/87 Market Plan ONLY - Existing.rvt

Rev #	Date	Description



EXISTING MARKET STREET PHOTO REFERENCE IMAGE. NOT TO SCALE



Autodesk.Docs/87 Market Street - Maine Coast Builders/Exterior Shell - 87 Market Street\_Current.rvt

Rev #	Date	Description



EXISTING BOW STREET PHOTO REFERENCE IMAGE. NOT TO SCALE

NOTE: ARCHITECTURAL DESIGN INTENT: MARVIN WINDOWS TO MATCH EXISTING UPPER TRANSOM CUSTOM SHAPE WINDOWS. MATCH EXISTING SPRING LINE & RADIUS AS EXISTING WINDOWS.



1 Existing Bow Street Elevation  
A021 1/4" = 1'-0"

Revision & Reissue Notes

Rev #	Date	Description

STAMPS

HDC Submission

PROJECT NUMBER  
24-050

**87 Market Street  
Portsmouth,  
NH**

**Existing Ceres Street  
Elevation**

**A022**

DR: DES | SHEET SCALE | SHEET DATE  
CH: TMG | 1/4" = 1'-0" | 01/17/24



EXISTING CERES STREET PHOTO REFERENCE IMAGE. NOT TO SCALE



1 Existing Ceres Street Elevation  
1/4" = 1'-0"

Revision & Reissue Notes

Rev #	Date	Description

STAMPS

HDC Submission

PROJECT NUMBER  
24-050

**87 Market Street  
Portsmouth, NH**

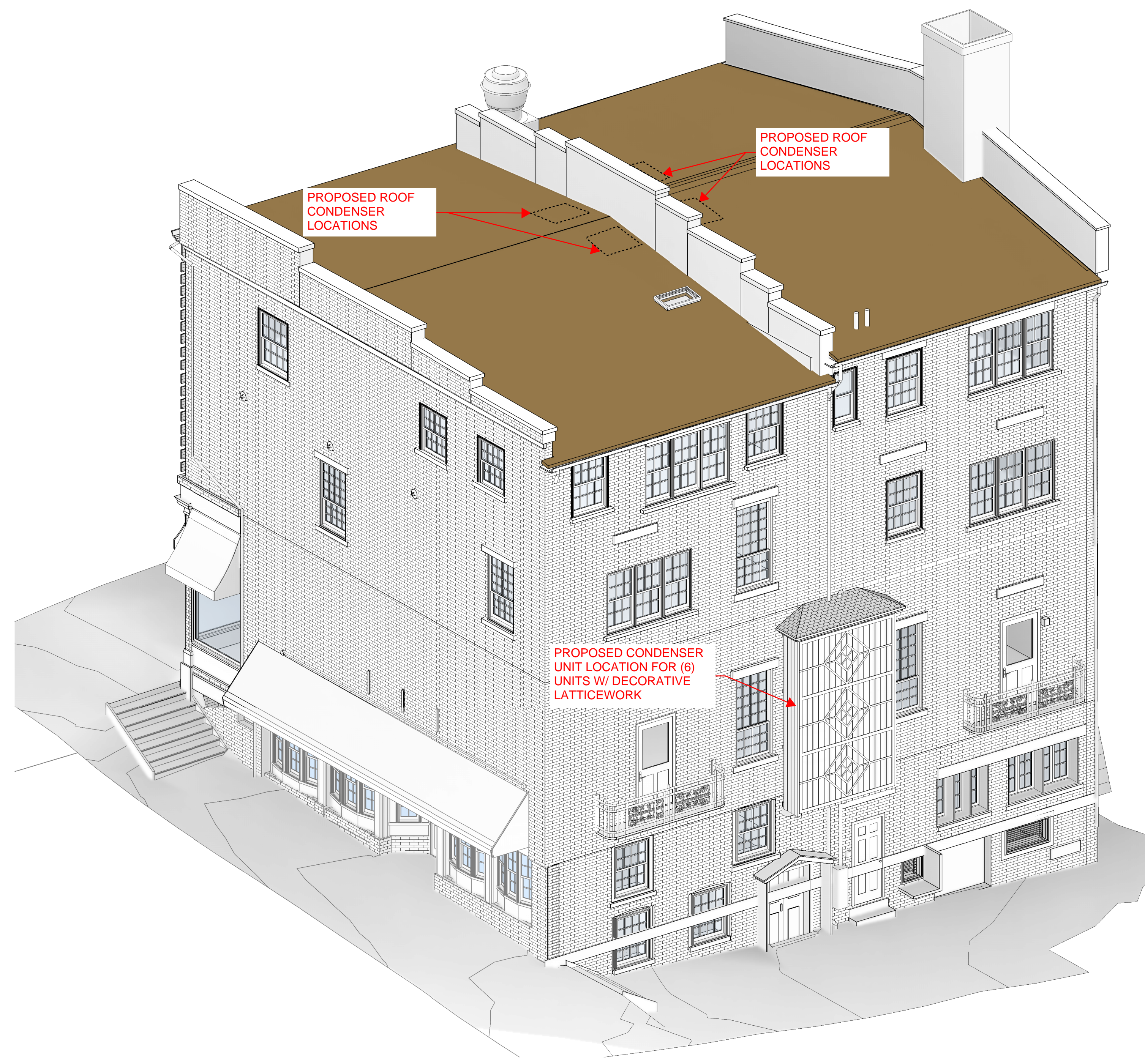
**Existing Building  
Massing Views**

**A023**

DR: DES SHEET SCALE SHEET DATE  
CH: TMG 01/17/2025



1 3D Massing View - Corner of Market and Bow Street



2 3D Massing View - Ceres Street Side