

## Daniel Feldmann

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**From:** Daniel Feldmann  
**Sent:** Thursday, August 30, 2018 5:04 PM  
**To:** 'HistoricalComm@TownOfNewbury.org'  
**Cc:** 'info@townofnewbury.org'  
**Subject:** Temple Street (BS54XC925); Job # 39233 = Section 106 Request for Comment  
**Attachments:** e - CLG Involvement.pdf; b1 - Site Maps.pdf; b2 - Site Photos.pdf; b3 - Site Plans.pdf

Good Evening,

Ramaker & Associates, Inc. (RAMAKER) was retained by Centerline Communications LLC (CENTERLINE) on behalf of SprintCom, Inc. (SPRINT) to complete a NEPA and Section 106 review of a proposed antenna and equipment installation/modification (upgrade) at an existing SPRINT facility atop an existing rooftop/building. The proposed activity is located at 25 Temple Street in Newburyport, Essex County, Massachusetts. The location of the property is depicted on the attached Newburyport, Massachusetts Quadrangle. The project is located at 42° 48' 31.4" North and 70° 52' 08.5" West.

Following the FCC protocols and procedures, should you wish to provide additional comments with respect to the potential to effect cultural and/or historic properties, please contact RAMAKER. Additionally, if you have any information regarding other potentially interested consulting parties that should be contacted, your input on this matter would also be greatly appreciated. As the project is proposed for development in the very near future, we would appreciate receiving your comments in the next 30 days.

Thank You,

Daniel Feldmann | Environmental Specialist  
**RAMAKER & ASSOCIATES, INC.** | 100% Employee-Owned  
855 Community Drive, Sauk City, WI 53583  
o: 608-643-4100 | c: 608-644-2240  
[www.ramaker.com](http://www.ramaker.com) | [dfeldmann@ramaker.com](mailto:dfeldmann@ramaker.com)  
[Facebook](#) | [Twitter](#) | [LinkedIn](#) | [YouTube](#)

***Named 2017 Business of the Year by the Sauk Prairie Chamber of Commerce!***



August 29, 2018

Newburyport Historical Commission  
Sarah White, Chair  
60 Pleasant Street  
Newburyport, Massachusetts 01950

Submitted Via Email: [HistoricalComm@TownOfNewbury.org](mailto:HistoricalComm@TownOfNewbury.org)

**SUBJECT: REQUEST FOR SECTION 106 COMMENTS = CLG REPRESENTATIVE**

**SITE: TEMPLE STREET (SITE NUMBER: BS54XC925)  
25 TEMPLE STREET  
NEWBURYPORT, ESSEX COUNTY, MASSACHUSETTS 01950  
RAMAKER & ASSOCIATES, INC. PROJECT NUMBER: 39233**

Dear Ms. White:

Ramaker & Associates, Inc. (RAMAKER) was retained by Centerline Communications LLC (CENTERLINE) on behalf of SprintCom, Inc. (SPRINT) to complete a NEPA and Section 106 review of a proposed antenna and equipment installation/modification (upgrade) at an existing SPRINT facility atop an existing rooftop/building. The proposed activity is located at 25 Temple Street in Newburyport, Essex County, Massachusetts. The location of the property is depicted on the attached Newburyport, Massachusetts Quadrangle. The project is located at 42° 48' 31.4" North and 70° 52' 08.5" West.

SPRINT proposes an antenna and equipment modification (upgrade) at an existing SPRINT facility atop an existing building/rooftop in Newburyport, Massachusetts. As part of the proposed development SPRINT will install/replace new antennas to the northeast, southwest, and northwest façades of an existing penthouse. The proposed antennas will be mounted to existing pipe masts and painted to match the host-structure's facade. Additionally, SPRINT will replace/upgrade existing equipment located on an existing rooftop equipment platform. Hybrid cables will be routed along the rooftop within existing cable trays from the existing/proposed equipment to the proposed antennas with no planned ground disturbance. Additional site development details are included in the attached figures.

The host structure is a seven-story residential building constructed circa 1972. The building is located northwest of Fair Street along the northeast side of Temple Street. The surrounding area is characterized by residential, commercial, and institutional properties along neighboring roadways. An on-line search of the Massachusetts SHPO Cultural Resource Information System (MACRIS) database identified the host-structure as an undetermined feature (SHPO ID:NWB.2267) located within the South End District and the NRHP listed Newburyport Historic District.

Upon review, the facility does not qualify for an exclusion under the Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process, March 7, 2005, 47 CFR, Appendix C to Part 1, the First Amendment to Nationwide Programmatic Agreement for the Collocation of Wireless Antennas, August 8, 2016, or the Code of Federal Regulations: 47 CFR, §§ 1.1301-1.1319.

It is the opinion of RAMAKER that the proposed SPRINT undertaking will have "No Effect" to the Direct APE and "No Adverse Effect" to the Indirect APE.

Following the FCC protocols and procedures, should you wish to provide additional comments with respect to the potential to effect cultural and/or historic properties, please contact RAMAKER. Additionally, if you have any information regarding other potentially interested commenting parties that should be contacted, your input on this matter would also be greatly appreciated. As the project is proposed for development in the very near future, we would appreciate receiving your comments in the next 30 days.

August 29, 2018

Page 2 of 2

Please direct all future correspondence to:

Ramaker & Associates, Inc.  
Daniel Feldmann, Environmental Specialist  
855 Community Drive  
Sauk City, Wisconsin 53583  
Telephone: (608) 643-4100  
Facsimile: (608) 643-7999  
Email: [dfeldmann@ramaker.com](mailto:dfeldmann@ramaker.com)

If you have any questions or comments, please do not hesitate to contact our office.

Sincerely,

RAMAKER & ASSOCIATES, INC.

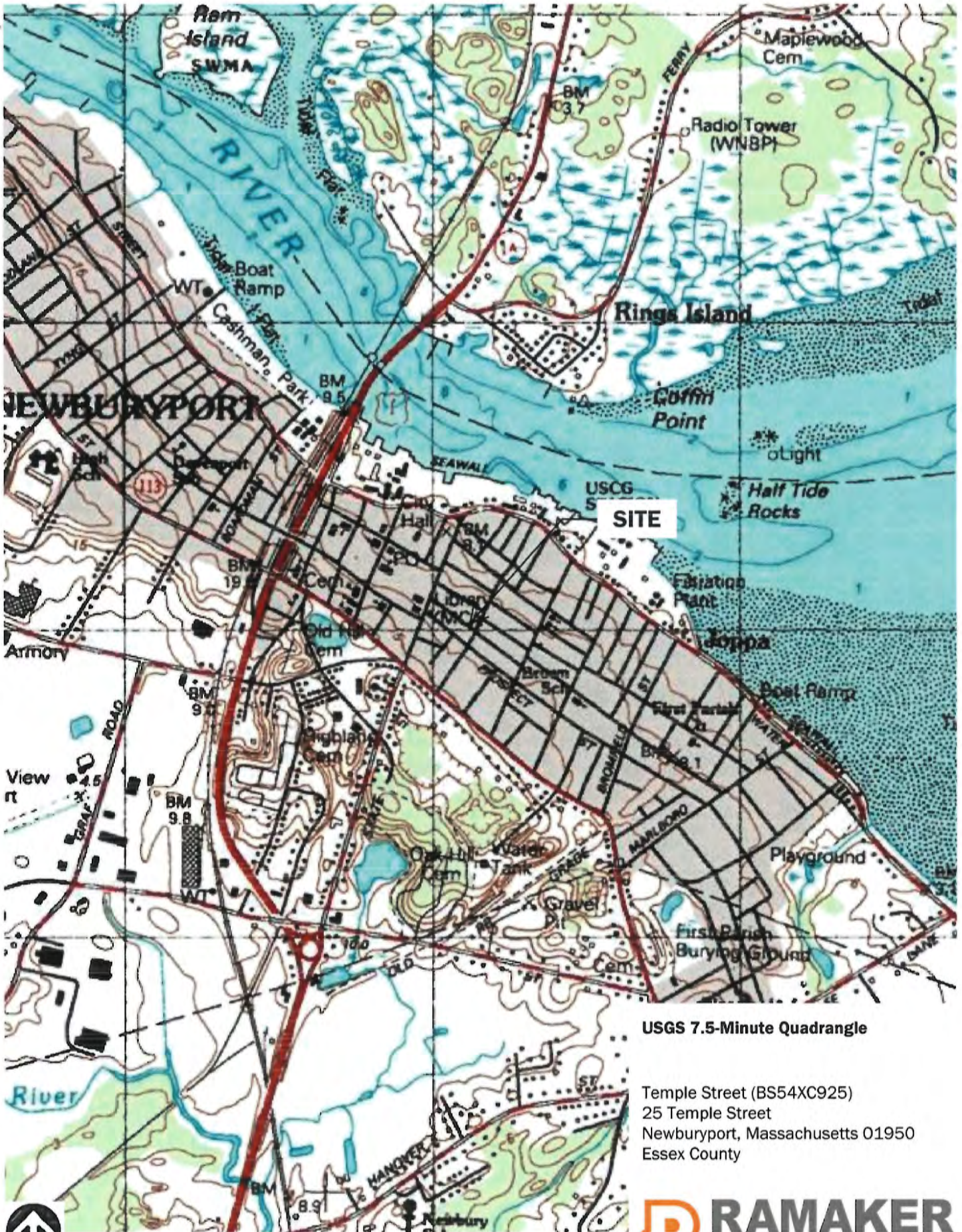


Daniel Feldmann, Environmental Specialist

Attachments: Site Location Maps

Cc: City of Newburyport  
Richard Jones, City Clerk  
60 Pleasant Street  
Newburyport, Massachusetts 01950

Newburyport Preservation Trust  
Linda Miller, President  
P. O. Box 184  
Newburyport, Massachusetts 01950



USGS 7.5-Minute Quadrangle

Temple Street (BS54XC925)  
 25 Temple Street  
 Newburyport, Massachusetts 01950  
 Essex County



Source: Mapcard.com

NOT TO SCALE

**RAMAKER**  
 & ASSOCIATES, INC.



**Aerial Photograph**

Temple Street (BS54XC925)  
25 Temple Street  
Newburyport, Massachusetts 01950  
Essex County



NORTH

Source: Mapcard.com

NOT TO SCALE

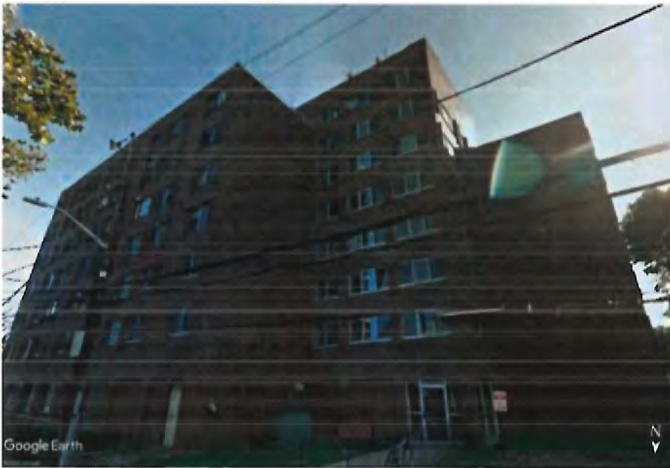
**RAMAKER**  
& ASSOCIATES, INC.



View of the host structure facing north.



View of the host structure facing northwest.



View of the host structure facing south.



View of the host structure facing west.



View of the host structure and surrounding area facing southeast.



View of the surrounding area facing west from the host structure.

**SPECIAL CONSTRUCTION NOTE:**  
 SPRINT TOWER TOP WORK IS CONTINGENT ON THE FOLLOWING:  
 • COMPLETION OF A GLOBAL STRUCTURAL STABILITY ANALYSIS (PROVIDED BY TOWER OWNER OR A&E VENDOR).  
 • COMPLETION OF AN ANTENNA/RRH MOUNT STRUCTURAL ASSESSMENT (PROVIDED BY A&E VENDOR).  
 • GC SHALL FURNISH, INSTALL AND COMPLETE ALL REQUIRED STRUCTURAL MODIFICATIONS AS INDICATED IN BEFORE-MENTIONED ANALYSIS AND ASSESSMENT.



**NOTE:**  
 OWNER AND TENANT MAY, FROM TIME TO TIME AT TENANT'S OPTION, REPLACE THIS EXHIBIT WITH AN EXHIBIT SETTING FORTH THE LEGAL DESCRIPTION OF THE SITE, OR WITH ENGINEERED OR AS-BUILT DRAWING DEPICTING THE SITE OR ILLUSTRATING STRUCTURAL MODIFICATIONS OR CONSTRUCTION PLANS OF THE SITE. ANY VISUAL OR TEXTUAL REPRESENTATION OF THE EQUIPMENT LOCATED WITHIN THE SITE CONTAINED IN THESE OTHER DOCUMENTS IS ILLUSTRATIVE ONLY, AND DOES NOT LIMIT THE RIGHTS OF SPRINT AS PROVIDED FOR IN THE AGREEMENT. THE LOCATIONS OF ANY ACCESS AND UTILITY EASEMENTS ARE ILLUSTRATIVE ONLY. ACTUAL LOCATIONS MAY BE DETERMINED BY TENANT AND/OR THE SERVING UTILITY COMPANY IN COMPLIANCE WITH LOCAL LAWS AND REGULATIONS.

**SITE INFORMATION**

**PROPERTY OWNER:**  
 NEWBURY HOUSING AUTHORITY  
 25 TEMPLE STREET  
 NEWBURYPORT, MA 01950

**LATITUDE (NAD83):**  
 GOOGLE EARTH 2-C CONFIRMATION  
 N 42° 48' 30.20"  
 42.808390°

**LONGITUDE (NAD83):**  
 GOOGLE EARTH 2-C CONFIRMATION  
 W 70° 52' 09.50"  
 70.869310°

**COUNTY:**  
 ESSEX

**ZONING JURISDICTION:**  
 CITY OF NEWBURYPORT

**ZONING DISTRICT:**  
 INDUSTRIAL

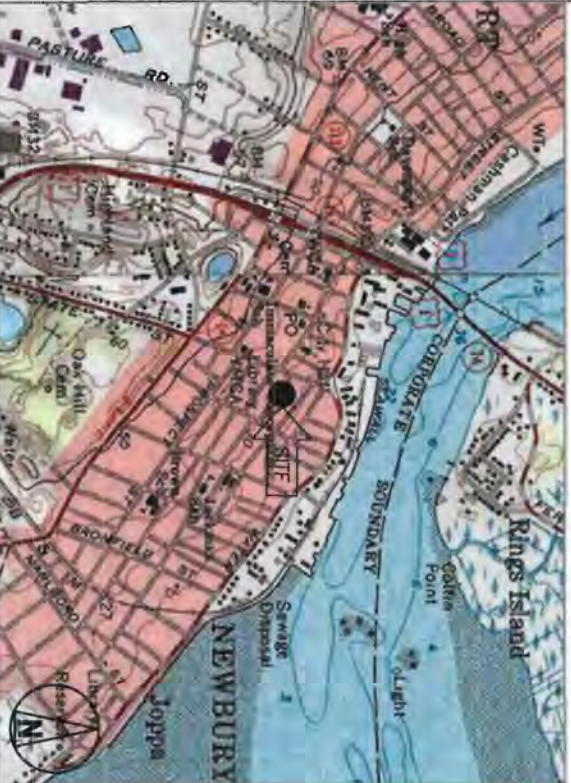
**POWER COMPANY:**  
 NATIONAL GRID  
 PHONE: 1-800-375-7405

**AAV PROVIDER:**  
 COMCAST  
 PHONE: 1-800-COMCAST

**SPRINT CM:**  
 RON FARJUS  
 PHONE: 401-297-7043  
 Ronid.farjus@sprint.com

**EQUIPMENT SUPPLIER:**  
 ALGATEL-LUCENT  
 600 MOUNTAIN AVENUE  
 MORRIST HILL, NJ 07974  
 (908) 508-8080

**AREA MAP**



LOCATION MAP - GOOGLE EARTH 2-C CONFIRMATION



**PROJECT:** DO MACRO UPGRADE

**SITE NAME:** NEWBURYPORT

**SITE CASCADE:** BS54XC925

**SITE ADDRESS:** 25 TEMPLE STREET  
 NEWBURYPORT, MA 01950

**SITE TYPE:** ROOFTOP

**PROJECT DESCRIPTION**

SPRINT EQUIPMENT MODIFICATIONS REQUIRED TO SUPPORT MODERNIZATION OF AN EXISTING WIRELESS COMMUNICATIONS FACILITY AND UTILIZATION OF FCC BROADBAND SPECTRUM LICENSE FOR 2.5GHZ FREQUENCY, INCLUDING INSTALLATION OF:

- GROUND-LEVEL RAN EQUIPMENT, CONSISTING OF
  - (1) NEW 2.5GHZ RETROFIT KIT & RECEIVERS (AS REQ'D) WITHIN EXISTING MA-BITS EQUIPMENT CABINET
  - (1) ADDITIONAL BATTERY STRING(S) WITHIN EXISTING BATTERY CABINET
- TOWER-TOP EQUIPMENT, INCLUDING INSTALLATION OF:
  - (6) PANEL ANTENNAS TO REPLACE EXISTING (9) PANEL ANTENNAS
  - (3) REMOVE RADIO HEADS (RRH)
  - (2) HYBRID FIBER & POWER) CABLES (AND ASSOCIATED FIBER, DC POWER, COAXIAL CABLE JUMPERS AND ANTENNA REMOTE ELECTRICAL-TILT (RET) CABLE)

**SPECIAL ZONING NOTE:**  
 BASED ON INFORMATION PROVIDED BY SPRINT REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE TAX RELIEF ACT OF 2012, 47 USC 1455(A), AND IS SUBJECT TO AN EXPEDITED ELIGIBLE FACILITIES REQUEST/REVIEW AND ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, ADMINISTRATIVE REVIEW).

**GENERAL NOTES**

- THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE. ADA COMPLIANCE NOT REQUIRED.  
 PORTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.  
 NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEIPTABLES REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES, BUILDING CODE MASSACHUSETTS STATE BUILDING CODE 780-CMR (9TH EDITION) ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE  
 STRUCTURAL CODE: 10A/EM-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811



**DRAWING INDEX**

SHEET NO.	SHEET TITLE	REV.	CHK.	BY.
T-1	TITLE SHEET	1	JMT	JRV
SP-1	OUTLINE SPECIFICATIONS	1	JMT	JRV
SP-2	OUTLINE SPECIFICATIONS	1	JMT	JRV
SP-3	OUTLINE SPECIFICATIONS	1	JMT	JRV
A-1	ROOF & EQUIPMENT PLANS	1	JMT	JRV
A-2	ELEVATION PLAN	1	JMT	JRV
A-3	ANTENNA PLANS	1	JMT	JRV
A-4	RF DATA SHEET	1	JMT	JRV
A-5	RAN WIRING DIAGRAMS	1	JMT	JRV
A-6	EQUIPMENT DETAILS	1	JMT	JRV
A-7	EQUIPMENT DETAILS	1	JMT	JRV
S-1	STRUCTURAL DETAILS	1	JMT	JRV
E-1	ONE-LINE DIAGRAM & PPC DETAILS	1	JMT	JRV
E-2	GROUNDING DETAILS & NOTES	1	JMT	JRV

**APPROVALS**

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

SPRINT: \_\_\_\_\_ DATE: \_\_\_\_\_

CONSTRUCTION MANAGER: \_\_\_\_\_ DATE: \_\_\_\_\_

LEASING/SITE ACQUISITION: \_\_\_\_\_ DATE: \_\_\_\_\_

RF ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_

LANDLORD/TOWER OWNER: \_\_\_\_\_ DATE: \_\_\_\_\_



95 FRAN DRIVE, SUITE 1  
 RAYHAM, MA 02757  
 (944) 748-8878  
 www.centerlinecommunications.com



R.K. EXECUTIVE CENTRE  
 201 BOSTON POST ROAD WEST, SUITE 101  
 NEWBURYPORT, MA 01952  
 (508) 481-2740  
 www.chappellengineering.com



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 APPROVED BY: JMT

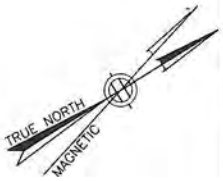
**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY

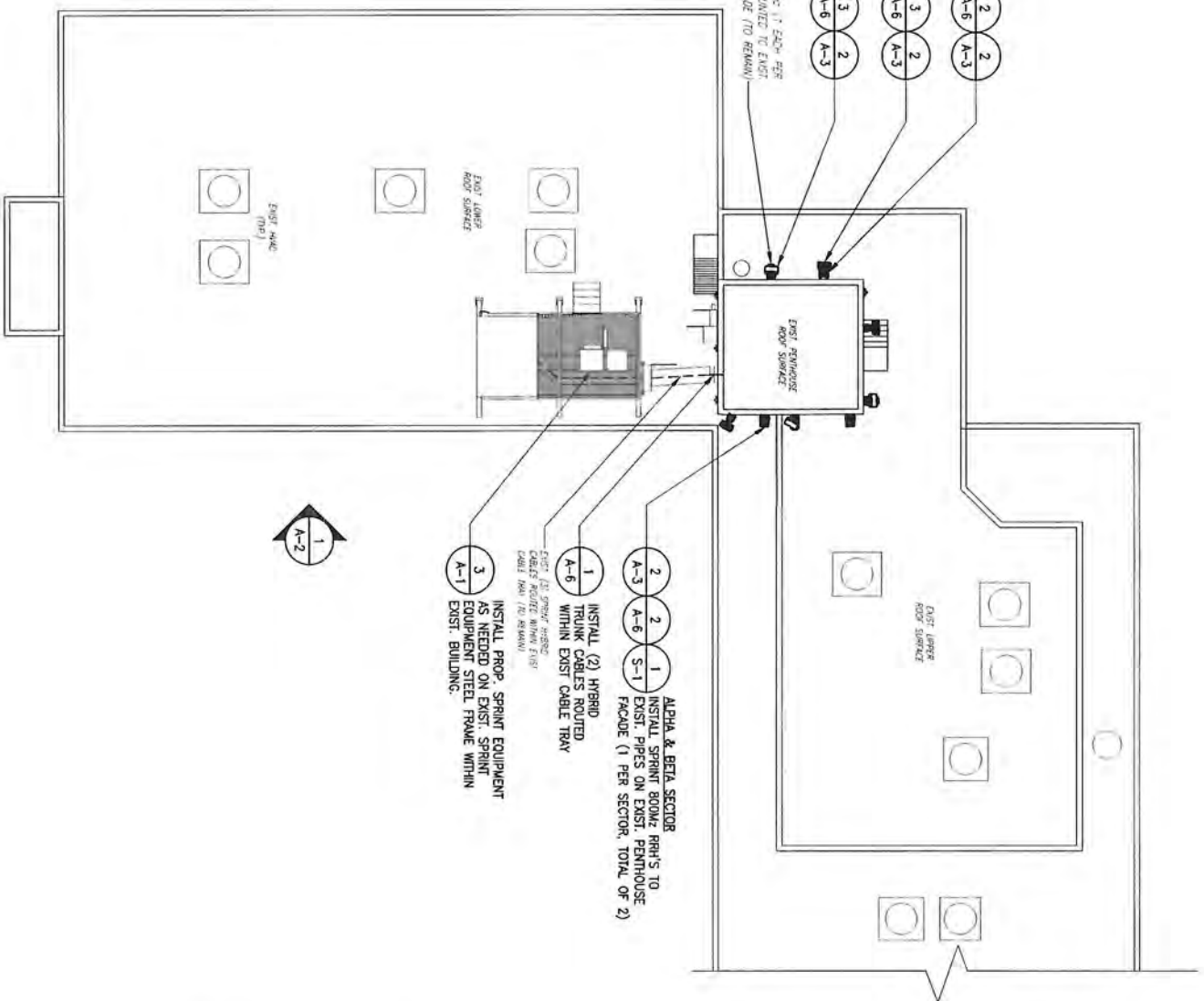
SITE NUMBER: BS54XC925  
 SITE NAME: NEWBURYPORT  
 SITE ADDRESS: 25 TEMPLE STREET  
 NEWBURYPORT, MA 01950

SHEET TITLE: TITLE SHEET

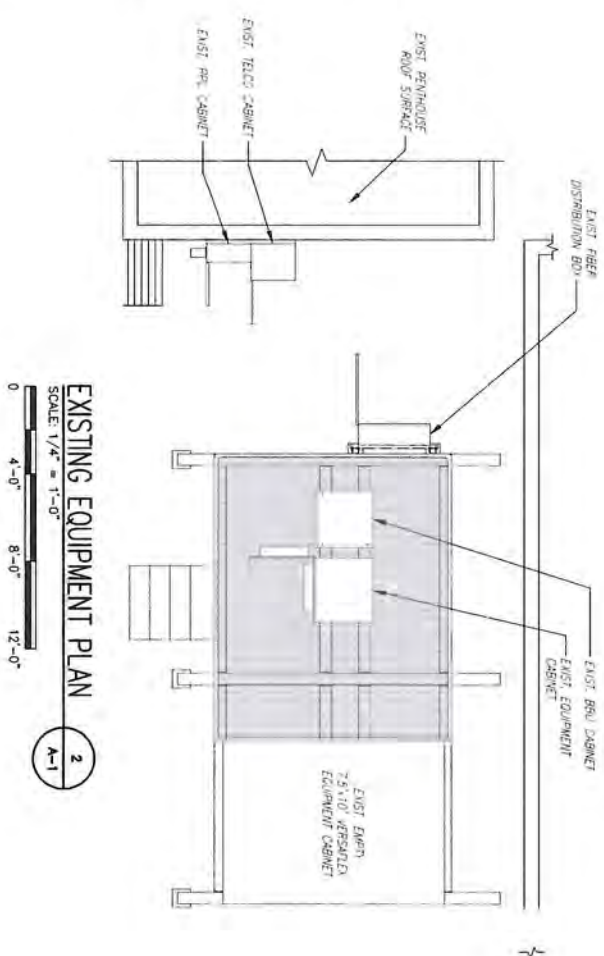
SHEET NUMBER: T-1



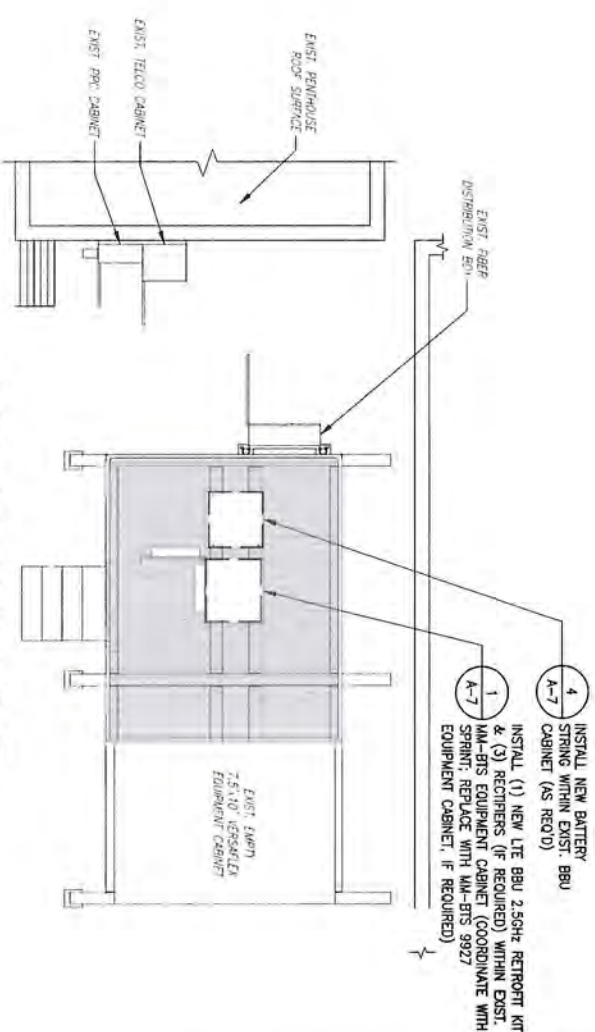
**GAMMA SECTOR**  
 INSTALL SPRINT 800MHz RRH'S TO EXIST. PIPES BELOW PROP. ANTENNA ON EXIST. PENTHOUSE FACADE (TOTAL OF 1)  
 (1) S-1 (2) A-6 (2) A-3  
 INSTALL SPRINT 2500MHz ANTENNAS TO EXIST. PIPES ON EXIST. PENTHOUSE FACADE (1 PER SECTOR, TOTAL OF 3)  
 (1) S-1 (3) A-6 (2) A-3  
 INSTALL SPRINT 800/1900MHz ANTENNAS TO EXIST. PIPES ON EXIST. PENTHOUSE FACADE REPLACE EXIST. SPRINT ANTENNAS (1 PER SECTOR, TOTAL OF 3)  
 (1) S-1 (3) A-6 (2) A-3  
 EXIST. SPRINT 800 & 1900MHz 1' 2x4w-8x8 SECTION TOTAL OF 3 EACH RRH MOUNTED TO EXIST. PIPE ON EXIST. PENTHOUSE FACADE TO REMAIN.



**ALPHA & BETA SECTOR**  
 INSTALL SPRINT 800MHz RRH'S TO EXIST. PIPES ON EXIST. PENTHOUSE FACADE (1 PER SECTOR, TOTAL OF 2)  
 (2) A-3 (2) A-6 (1) S-1  
 INSTALL (2) HYBRID TRUNK CABLES ROUTED WITHIN EXIST. CABLE TRAY  
 EXIST. 1/2" SPRINT HYBRID CABLES ROUTED WITHIN EXIST. CABLE TRAY (TO REMAIN)  
 INSTALL PROP. SPRINT EQUIPMENT AS NEEDED ON EXIST. SPRINT EQUIPMENT STEEL FRAME WITHIN EXIST. BUILDING.  
 (3) A-6 (1) A-1



**EXISTING EQUIPMENT PLAN**  
 SCALE: 1/4" = 1'-0"  
 0 4'-0" 8'-0" 12'-0"  
 A-1



**PROPOSED EQUIPMENT PLAN**  
 SCALE: 1/4" = 1'-0"  
 0 4'-0" 8'-0" 12'-0"  
 A-1

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 APPROVED BY: JMT

SUBMITTALS		
REV.	DATE	DESCRIPTION
1	06/12/18	ISSUED FOR CONSTRUCTION
0	06/04/18	ISSUED FOR REVIEW

SITE NUMBER: B554XC925  
 SITE NAME: NEWBURYPORT  
 SITE ADDRESS: 25 TEMPLE STREET  
 NEWBURYPORT, MA 01950

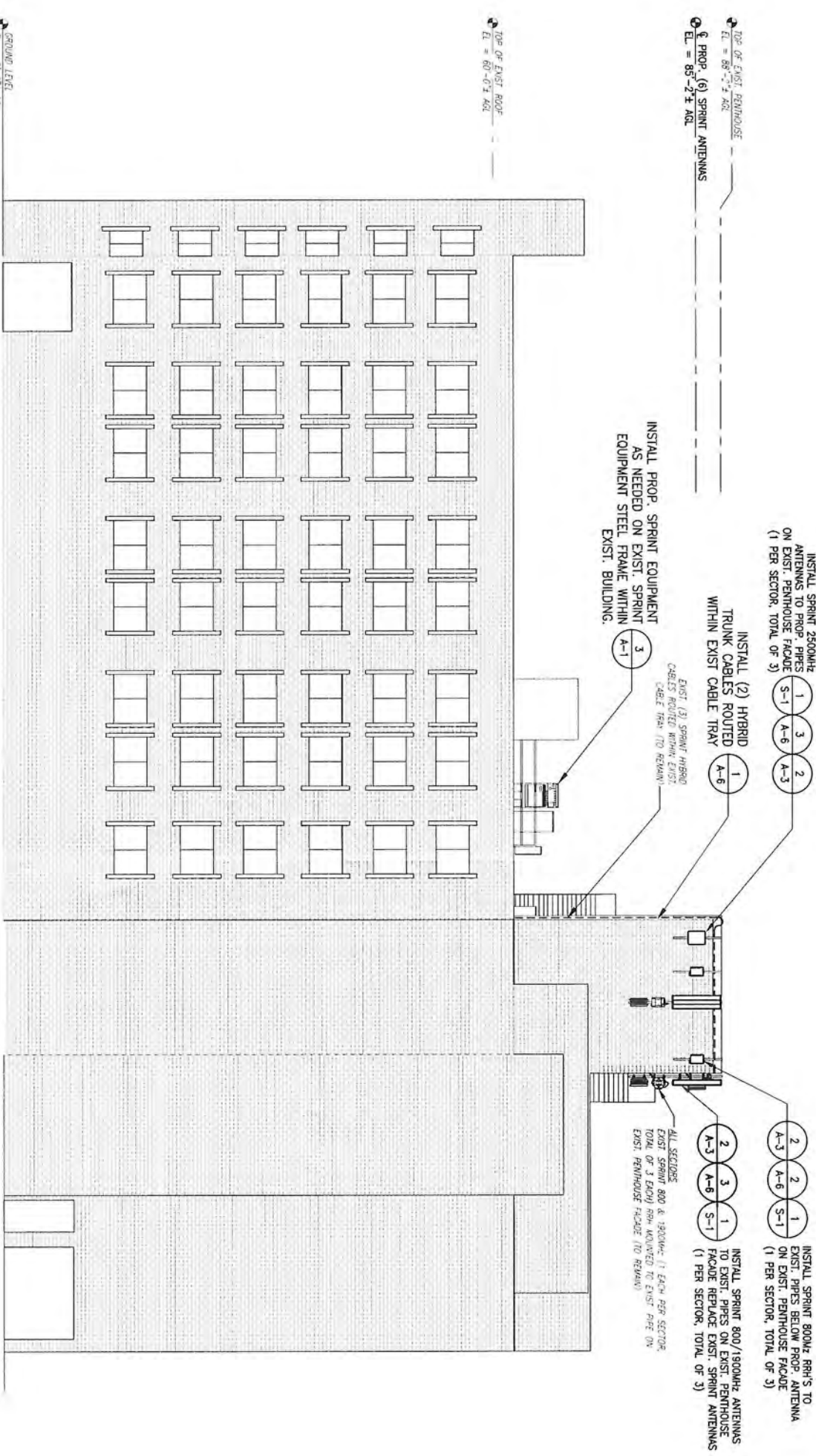
SHEET TITLE: ROOF & EQUIPMENT PLANS

SHEET NUMBER: A-1





**SPECIAL CONSTRUCTION NOTE:**  
 SPRINT TOWER TOP WORK IS CONTINGENT ON THE FOLLOWING:  
 • COMPLETION OF A GLOBAL STRUCTURAL STABILITY ANALYSIS (PROVIDED BY TOWER OWNER OR A&E VENDOR)  
 • COMPLETION OF AN ANTENNA/RRH MOUNT STRUCTURAL ASSESSMENT (PROVIDED BY A&E VENDOR)  
 • GC SHALL FURNISH, INSTALL, AND COMPLETE ALL REQUIRED STRUCTURAL MODIFICATIONS AS INDICATED IN BEFORE-MENTIONED ANALYSIS AND ASSESSMENT.



**WEST ELEVATION**  
 SCALE 1/8" = 1'-0"  
 0 4'-0" 8'-0" 16'-0" 24'-0"  
 1  
 A-2

**Sprint VISION**  
 1 INTERNATIONAL BLVD, SUITE 800  
 WALTHAM, MA 07455  
 (800) 357-7641

**CENTERLINE COMMUNICATIONS**  
 95 RYAN DRIVE, SUITE 1  
 RAYNHAM, MA 02767  
 (944) 748-8978  
 www.centerlinecommunications.com

**CHAPPELL ENGINEERING ASSOCIATES, LLC**  
 R.K. EXCISE CENTRE  
 201 BOSTON POST ROAD WEST, SUITE 101  
 MARLBOROUGH, MA 01752  
 (508) 481-7400  
 www.chappellengineering.com



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 APPROVED BY: JMT

**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
1	06/12/18	ISSUED FOR CONSTRUCTION	JNY
0	06/04/18	ISSUED FOR REVIEW	JNY

SITE NUMBER: **BS54XC925**  
 SITE NAME: **NEWBURYPORT**  
 SITE ADDRESS: **25 TEMPLE STREET NEWBURYPORT, MA 01950**

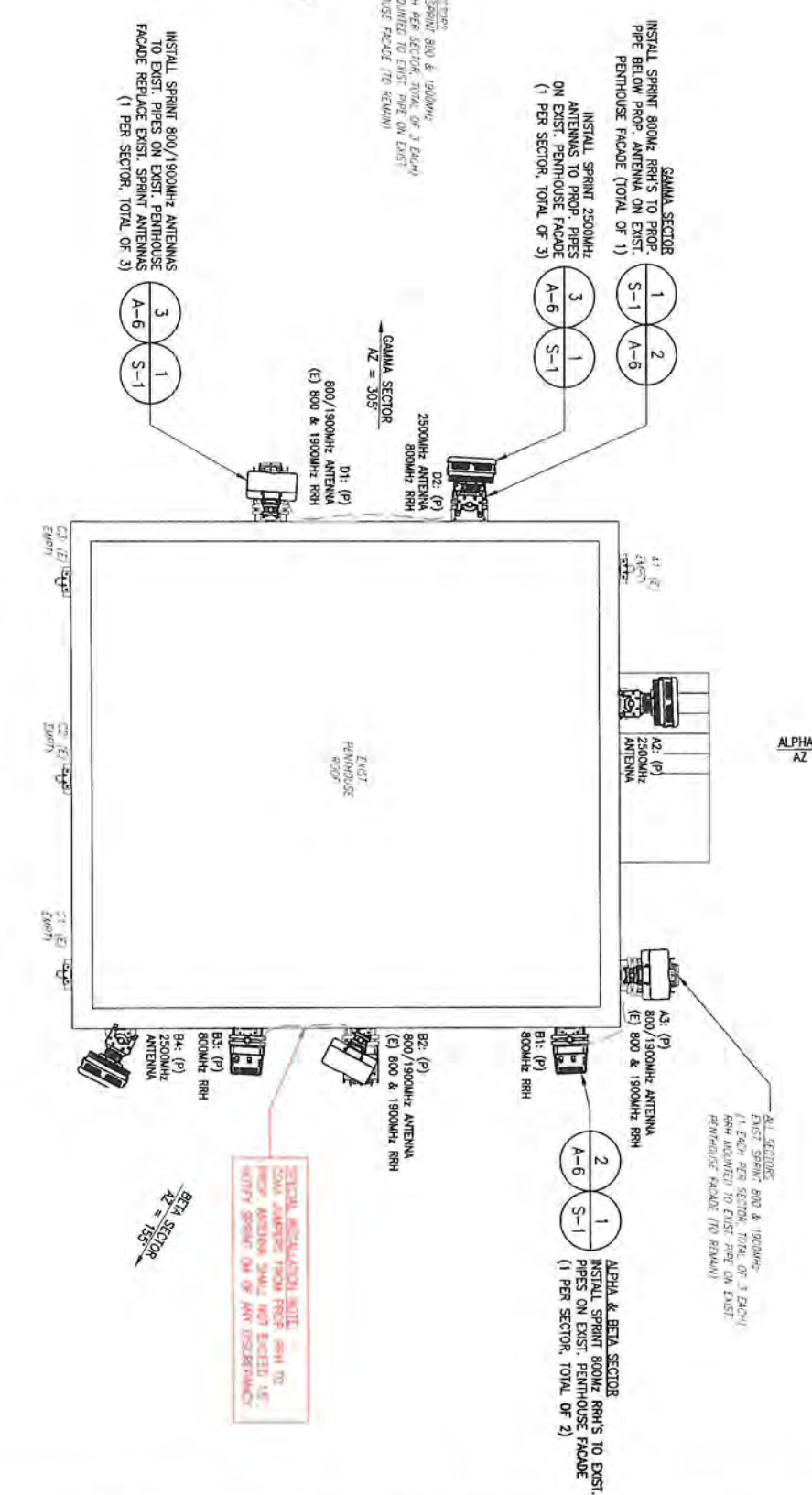
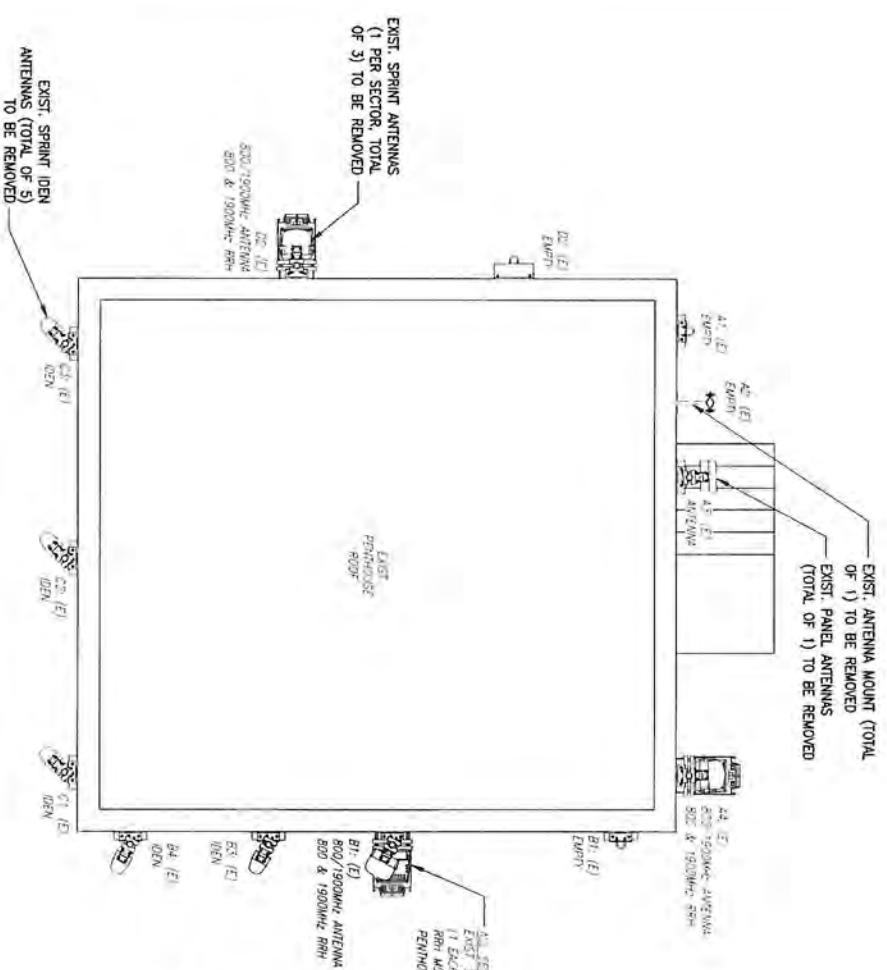
SHEET TITLE: **ELEVATION**

SHEET NUMBER: **A-2**  
 1725-058

**SPECIAL CONSTRUCTION NOTE:**  
 SPRINT TOWER TOP WORK IS CONTINGENT ON THE FOLLOWING:  
 • COMPLETION OF A GLOBAL STRUCTURAL STABILITY ANALYSIS (PROVIDED BY TOWER OWNER OR AEE VENDOR).  
 • COMPLETION OF AN ANTENNA/RFH MOUNT STRUCTURAL ASSESSMENT (PROVIDED BY AEE VENDOR).  
 • GC SHALL FURNISH, INSTALL AND COMPLETE ALL REQUIRED STRUCTURAL MODIFICATIONS AS INDICATED IN BEFORE-MENTIONED ANALYSIS AND ASSESSMENT.

**ANTENNA STATUS LEGEND:**

Empty	- Empty Pipe
(E)	- EXISTING
(P)	- INSTALL
NV	- SPRINT ANTENNA
2.5	- SPRINT ANTENNA



**SPECIAL CONSTRUCTION NOTE:**  
 COM. ANTENNAS SHALL NOT EXCEED 15' HIGHER THAN THE EXIST. PENNHOUSE FACADE (TO REMAIN)

**NOTE:**  
 VERIFY EXISTING AZIMUTHS FROM CEA SITE VISIT, DATED 4/18/2018.

**NOTE:**  
 VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.

INTERNATIONAL BLDG, SUITE 800  
 WASHINGTON, NJ 07455  
 (800) 351-7641

95 RYAN DRIVE, SUITE 1  
 RAVENHILL, MA 02767  
 (944) 746-8878  
 www.centerlinecommunications.com

95 RYAN DRIVE, SUITE 1  
 201 BOSTON POST ROAD WEST, SUITE 101  
 WARRIOR BOROUGHS, MA 01752  
 (508) 481-7400  
 www.chappellengineering.com

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APPROVED BY: JMT

**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
1	06/12/18	ISSUED FOR CONSTRUCTION	JM
0	06/04/18	ISSUED FOR REVIEW	JM

SITE NUMBER:  
**B554XC925**

SITE NAME:  
**NEWBURYPORT**

SITE ADDRESS:  
 25 TEMPLE STREET  
 NEWBURYPORT, MA 01950

SHEET TITLE:  
**ANTENNA PLANS**

SHEET NUMBER:  
**A-3**

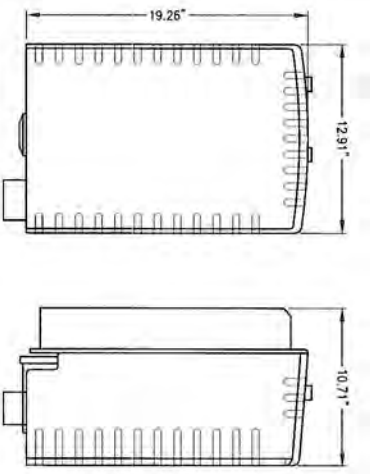
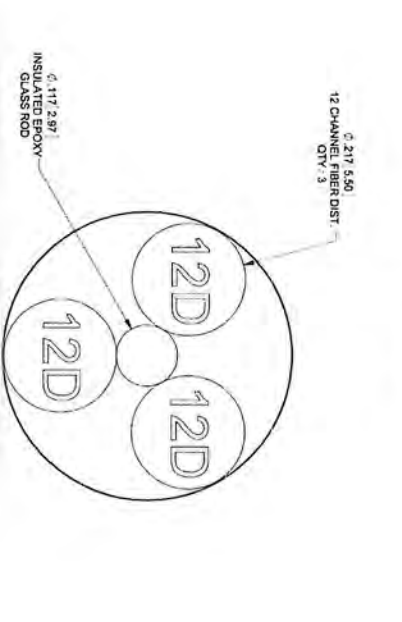
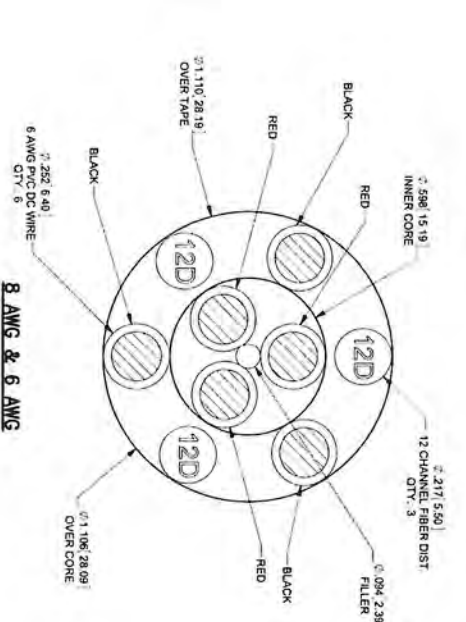
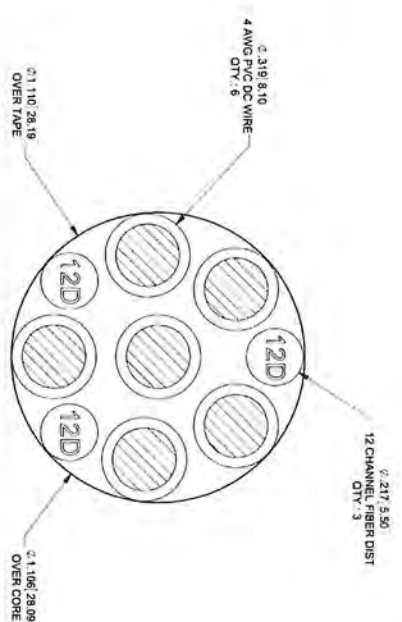
HYBRID CABLE DC CONDUCTOR SIZE GUIDELINE	WAVELENGTH	DC CONDUCTOR	CABLE DIAMETER
HYBRID JUMPER CABLE	4000	6 AWG	1-1/4"
HYBRIFLEX	225-300	6 AWG	1-1/4"
HYBRIFLEX	325-375	4 AWG	1-1/4"

**RFS HYBRIFLEX RISER CABLE SCHEDULE**

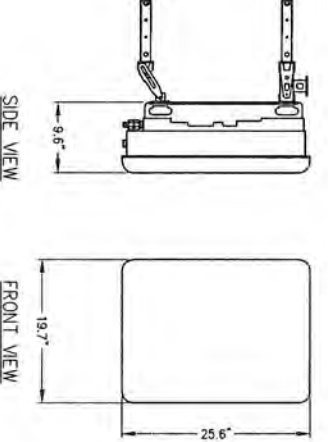
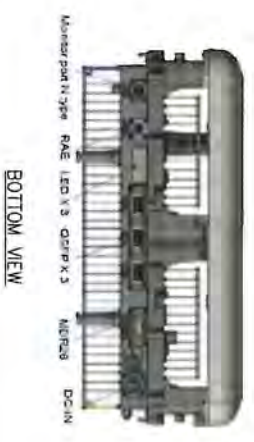
Fiber Only (Existing DC Power)	8 AWG Power	6 AWG Power	4 AWG Power
<b>Hybrid cable</b> MN: HB058-M12-050F 12x multi-mode fiber pairs, Top: Outdoor protected connectors, Bottom: LC Connectors, 5/8 cable, 50 ft	<b>Hybrid cable</b> MN: HB114-08U3M12-200F 3x 8 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/2 cable, 200 ft	<b>Hybrid cable</b> MN: HB114-13U3M12-235F 3x 6 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/2 cable, 235 ft	<b>Hybrid cable</b> MN: HB114-21U3M12-325F 3x 4 AWG power pair, 12x multi-mode fiber pairs, Outdoor rated connectors & LC Connectors, 1 1/2 cable, 325 ft
MN: HB058-M12-075F Connectors, 5/8 cable, 50 ft	MN: HB114-08U3M12-100F MN: HB114-08U3M12-100F MN: HB114-08U3M12-100F MN: HB114-08U3M12-100F MN: HB114-08U3M12-100F MN: HB114-08U3M12-200F	MN: HB114-13U3M12-250F MN: HB114-13U3M12-275F MN: HB114-13U3M12-300F	MN: HB114-21U3M12-250F MN: HB114-21U3M12-275F MN: HB114-21U3M12-300F
90 ft	200 ft	275 ft	325 ft
75 ft	100 ft	250 ft	300 ft
100 ft	125 ft	275 ft	325 ft
150 ft	175 ft	225 ft	275 ft
200 ft	225 ft	300 ft	375 ft

**RFS HYBRIFLEX JUMPER CABLE SCHEDULE**

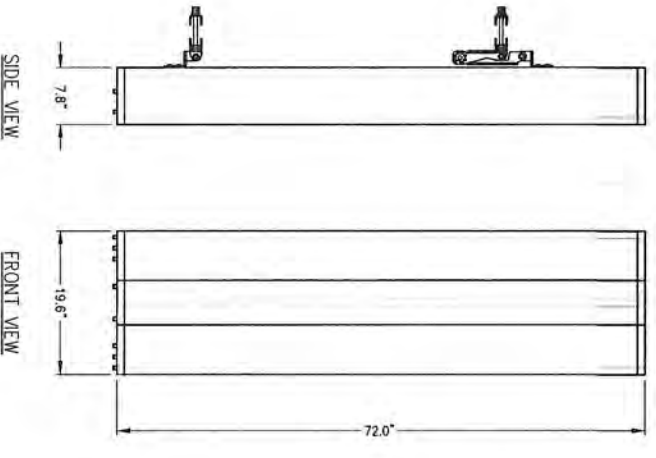
Fiber Only	8 AWG Power	6 AWG Power	4 AWG Power
<b>Hybrid jumper cable</b> MN: HB012-M13-5F1 5 ft, 3x multi-mode fiber pairs, Outdoor & LC connectors, 1/2 cable	<b>Hybrid jumper cable</b> MN: HB058-08U1M3-10F1 MN: HB058-08U1M3-15F1 MN: HB058-08U1M3-20F1 MN: HB058-08U1M3-25F1 MN: HB058-08U1M3-30F1	<b>Hybrid jumper cable</b> MN: HB058-13U1M3-5F1 5 ft, 1x 6 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 5/8 cable	<b>Hybrid jumper cable</b> MN: HB078-21U1M3-5F1 5 ft, 1x 4 AWG power pair, 3x multi-mode fiber pairs, Outdoor & LC Connectors, 7/8 cable
5 ft	10 ft	5 ft	5 ft
10 ft	15 ft	10 ft	10 ft
15 ft	20 ft	15 ft	15 ft
20 ft	25 ft	20 ft	20 ft
25 ft	30 ft	25 ft	25 ft
30 ft	30 ft	30 ft	30 ft



**RRH DETAILS**



NOKIA AAHC PANEL ANTENNA  
 DIMENSIONS: 25.6" x 19.7" x 9.6"  
 WEIGHT: 103.6 LBS W/ HARDWARE  
 FREQUENCY RANGE: 2495-2690 MHz



COMSCOPER NINVE-658-RL PANEL ANTENNA  
 DIMENSIONS: 72.0" x 19.6" x 7.8"  
 WEIGHT: 77.4 LBS W/ HARDWARE  
 FREQUENCY RANGE: 694-696 MHz, 1695-2690 MHz

**ANTENNA DETAILS**

SCALE: A-6

**Sprint VISION**  
 1 INTERNATIONAL BLVD, SUITE 800  
 MANHATTAN, NY 07495  
 (800) 357-7641

**CENTERLINE COMMUNICATIONS**  
 95 RYAN DRIVE, SUITE 1  
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**CHAPPELL ENGINEERING ASSOCIATES, LLC**

P.A. DECORRE CENTRE  
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 (508) 481-7400  
 www.chappellengineering.com



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CHECKED BY: [ ]  
 APPROVED BY: [ ]  
**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
1	06/12/18	ISSUED FOR CONSTRUCTION	JAV
0	06/04/18	ISSUED FOR REVIEW	JAV

SITE NUMBER: **BS54XC925**  
 SITE NAME: **NEWBURYPORT**  
 SITE ADDRESS: 25 TEMPLE STREET, NEWBURYPORT, MA 01990

SHEET TITLE: **EQUIPMENT DETAILS**

SHEET NUMBER: **A-6**

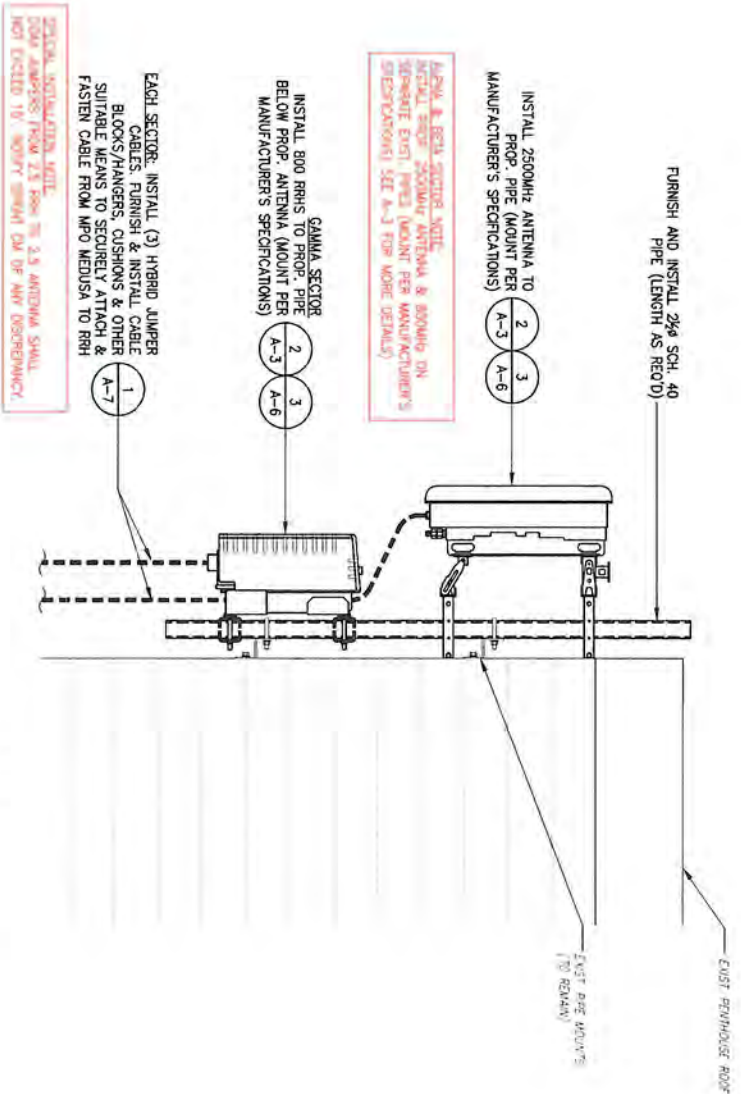
**2500MHz HYBRID CABLE X-SECTION & DATA**

SCALE: NTS

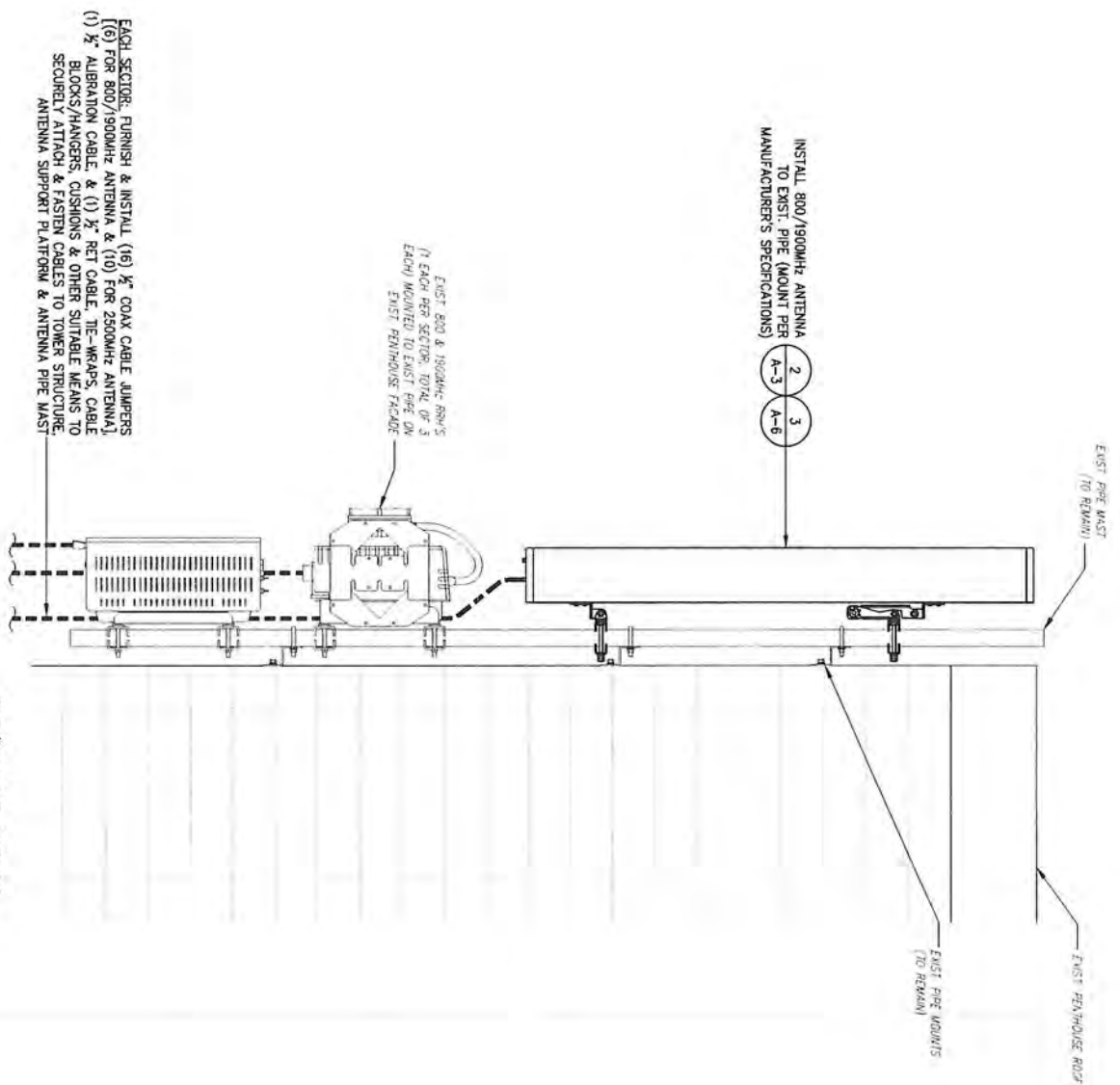
1 A-6

1725.056

**SPECIAL CONSTRUCTION NOTE:**  
 SPRINT TOWER TOP WORK IS CONTINGENT ON THE FOLLOWING:  
 • COMPLETION OF A GLOBAL STRUCTURAL STABILITY ANALYSIS (PROVIDED BY TOWER OWNER OR A/E VENDOR).  
 • COMPLETION OF AN ANTENNA/RRH MOUNT STRUCTURAL ASSESSMENT (PROVIDED BY A/E VENDOR).  
 • GC SHALL FURNISH, INSTALL AND COMPLETE ALL REQUIRED STRUCTURAL MODIFICATIONS AS INDICATED IN BEFORE-MENTIONED ANALYSIS AND ASSESSMENT.



2500MHZ ANTENNA



800/1900MHZ ANTENNA

TYPICAL ANTENNA & RRH MOUNTING DETAIL

1  
S-1



1 INTERNATIONAL BLVD, SUITE 800  
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 www.droppellingengineering.com



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 APPROVED BY: JMT

SUBMITTALS		
REV.	DATE	DESCRIPTION
1	06/12/18	ISSUED FOR CONSTRUCTION
0	06/04/18	ISSUED FOR REVIEW

SITE NUMBER:  
**BSS4XC925**  
 SITE NAME:  
**NEWBURYPORT**  
 SITE ADDRESS:  
 25 TEMPLE STREET  
 NEWBURYPORT, MA 01950

SHEET TITLE  
**STRUCTURAL DETAILS**

SHEET NUMBER  
**S-1**