# Extenet Systems, Inc.

BOSTON LANDMARKS COMMISSION - 2/25/20 COLIN ROBINSON

# Scope of Work:

- ▶ Attach a wireless communications antenna at the top of the new pole along with related equipment side mounted below. Utilities to be brought underground to the new pole.
- ▶ This replacement will be done in accordance with the Agreement between the Applicant and the City of Boston.

LOCATION	DESCRIPTION
Storrow Dr and Charles St (NE-MA-BSTBSC01-00070)	Existing metal streetlight, within a row of metal street lights.
Storrow Dr and Leverett Cir (NE-MA-BOSTD3M1-04001)	Existing metal streetlight, within a row of metal street lights.

# CRAN ID / EXTENET ID: CRAN\_RCTB\_2HA4\_070/NE-MA-BSTBSC01-00070

LATITUDE / LONGITUDE: 42.36361238° / -71.07060934°

# SITE ADDRESS: STORROW DR

CITY, STATE, ZIP: BOSTON, MA 02114

GENERAL CONTRACTOR IS REQUIRED TO CROSS CHECK COORDINATES. EXHIBIT PHOTO. AERIAL PHOTO AND SITE PLAN TO ENSURE PROPER POLE LOCATION PRIOR TO BREAKING GROUND, CONCERNS OR QUESTIONS SHOULD BE IMMEDIATELY DIRECTED TO ASSIGNED EXTENET PROJECT MANAGER.

NOTE:

**GENERAL NOTES** THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, A TECHNICHIAN 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. CITE INICODA AATIONI

**CALL BEFORE YOU DIG** 

**ENTER 1-888-DIG-SAFE** 

UNDERGROUND SERVICE ALERT

72 HOURS NOTICE REQUIRED.

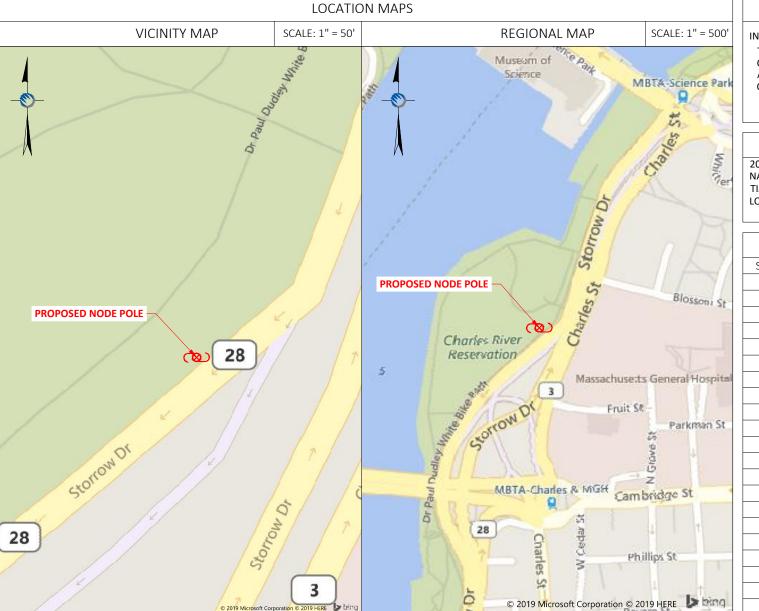
SITE INFORMATION		
	CRAN ID:	CRAN_RCTB_2HA4_070
	EXTENET NODE ID:	NE-MA-BSTBSC01-00070
	LATITUDE:	42.36361238°
	LONGITUDE:	-71.07060934°
	SITE ADDRESS:	STORROW DR
	CITY, STATE ZIP:	BOSTON, MA 02114
İ	COUNTY:	SUFFOLK
	JURISDICTION:	BOSTON
	PROPERTY OWNER:	PUBLIC RIGHT-OF-WAY
	APPLICANT:	EXTENET SYSTEMS 876 HAMMOND ST CHESTNUT HILL, MA 02467 (617) 232-4154

#### **ENGINEER**

RICK ANGELINI 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

#### DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, (EX.) DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



**Location and Design Approved Boston Public Works Street Lighting Department** 

Date:

#### PROJECT DESCRIPTION

#### INVOLVING INSTALLMENT:

THESE PLANS REPRESENT A PORTION OF A PROPOSED SMALL CELL BUILD INVOLVING THE INSTALLMENT OF AN ANTENNA AND RADIO EQUIPMENT ON AN EXISTING WOODEN UTILITY OR REPLACEMENT METAL STREETLIGHT POLE.

#### **CODES**

2019 INTERNATIONAL BUILDING CODE NATIONAL ELECTRIC SAFETY CODE TIA/EIA-222-G-2 OR LATEST EDITION LOCAL BUILDING / PLANNING CODE

DRAWING INDEX	
SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
A-1	SITE PLAN & EXHIBIT PHOTO
A-2	ELEVATIONS
A-3	ELEVATIONS
D-1	ANTENNA DETAILS
D-2	RADIO SHROUD DETAILS
D-3	FOUNDATION DETAILS
D-4	GROUNDING & WIRING DIAGRAMS
GN-1	GENERAL NOTES
GN-2	GENERAL NOTES



UC/SYNERGETIC 21 OXFORD RD MANSFIELD, MA 02048

## FOR PERMITTING **PURPOSES ONLY**

STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

P.E. STAMP AREA:

DRAWING NOTES:

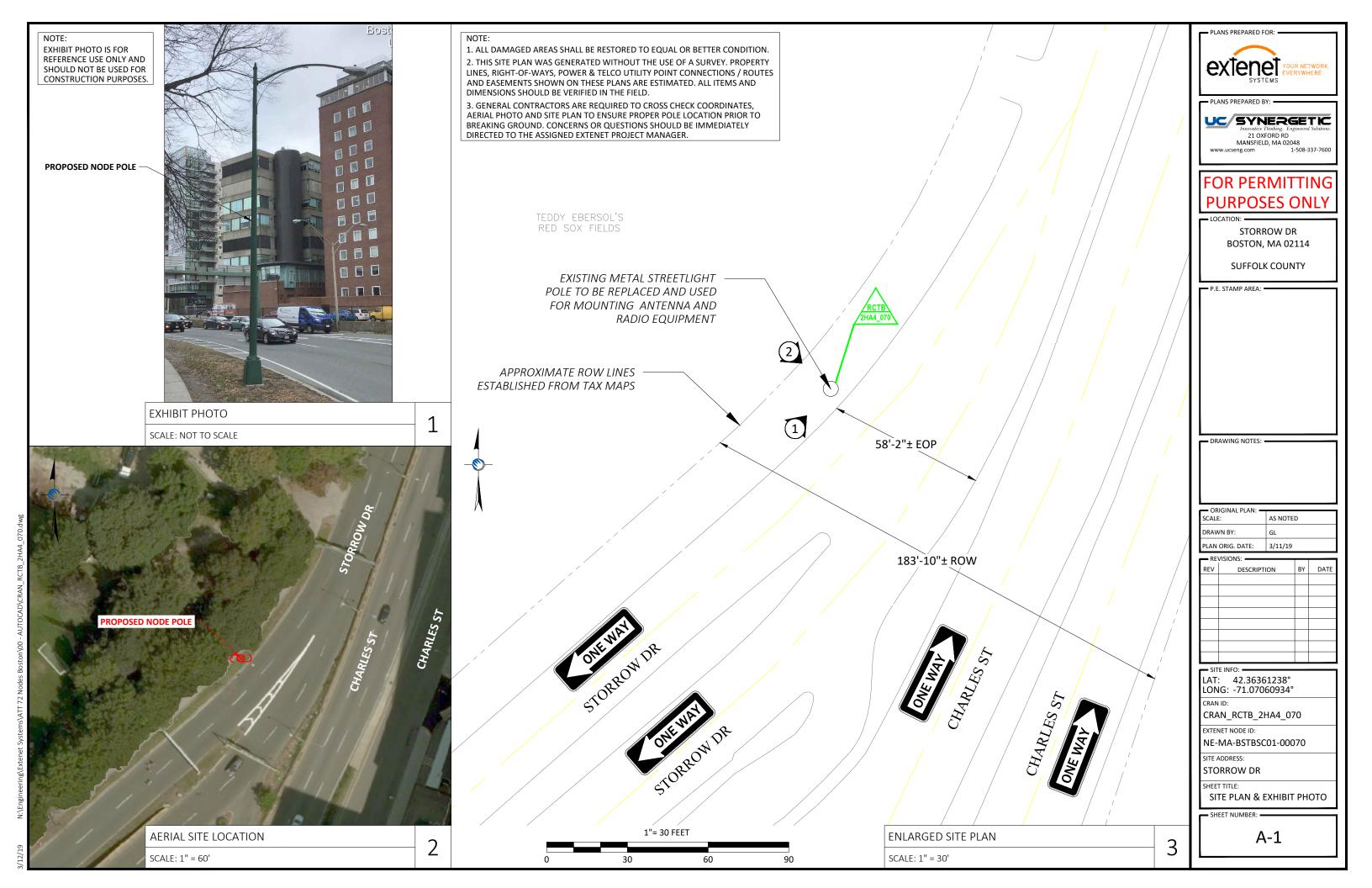
AS NOTED DRAWN BY PLAN ORIG. DATE: 3/11/19

- KE	VISIONS: —		
REV	DESCRIPTION	BY	DATE

- SITE INFO.	
LAT: 42.36361238°	
LONG: -71.07060934°	
CRAN ID:	
CRAN_RCTB_2HA4_070	
EXTENET NODE ID:	
NE-MA-BSTBSC01-00070	
SITE ADDRESS:	
STORROW DR	
SHEET TITLE:	
TITLE SHEET	

SHEET NUMBER:

T-1



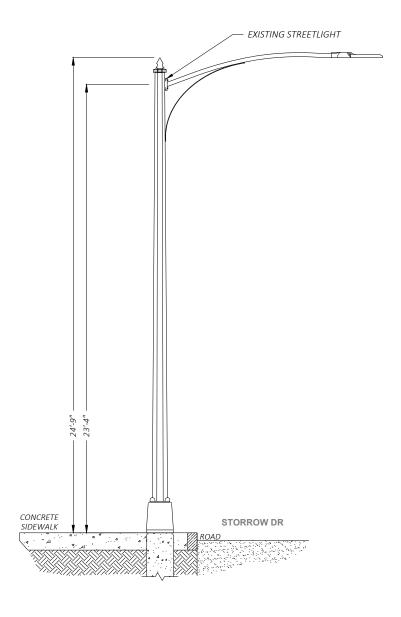
IN ACCORDANCE WITH NESC REGULATIONS.

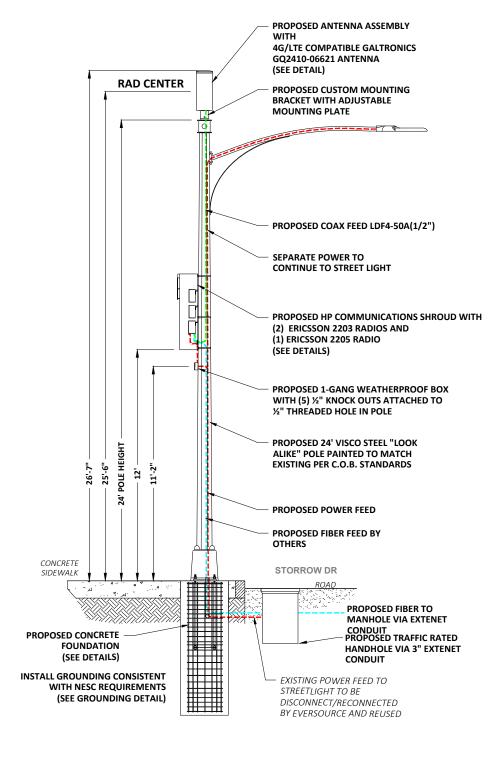
PROPOSED FIBER TO BE INSTALLED BY OTHERS.

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

PROPOSED EQUIPMENT SHALL BE INSTALLED NO HIGHER THAN 30" BELOW TELEPHONE UTILITY LINES.





EXISTING PROFILE - SIDE VIEW LOOKING NORTHEAST ALONG STORROW DR

1"= 5 FEET

PROPOSED PROFILE - SIDE VIEW LOOKING NORTHEAST ALONG STORROW DR



PLANS PREPARED BY: UC/SYNERGETIC

21 OXFORD RD MANSFIELD, MA 02048

## FOR PERMITTING **PURPOSES ONLY**

P.E. STAMP AREA:

STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

DRAWING NOTES: •

ORIGINAL PLAN: SCALE: AS NOTED DRAWN BY: PLAN ORIG. DATE: 3/11/19

REVISIONS: REV DESCRIPTION

LAT: 42.36361238° LONG: -71.07060934° CRAN ID:

CRAN\_RCTB\_2HA4\_070

EXTENET NODE ID:

NE-MA-BSTBSC01-00070

SITE ADDRESS:

SHEET TITLE:

STORROW DR

POLE ELEVATIONS

SHEET NUMBER:

A-2

NOTE 1: 40" MIN. WORKER SAFETY ZONE BETWEEN LOWEST POWER & HIGHEST COMMUNICATIONS CABLE IN ACCORDANCE WITH NESC REGULATIONS.

NOTE 2:

PROPOSED FIBER TO BE INSTALLED BY OTHERS.

NOTE 3:

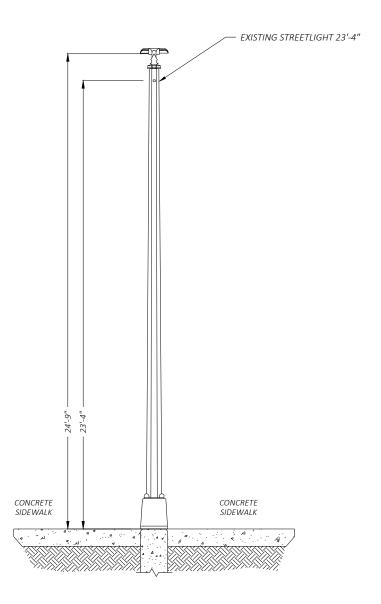
PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

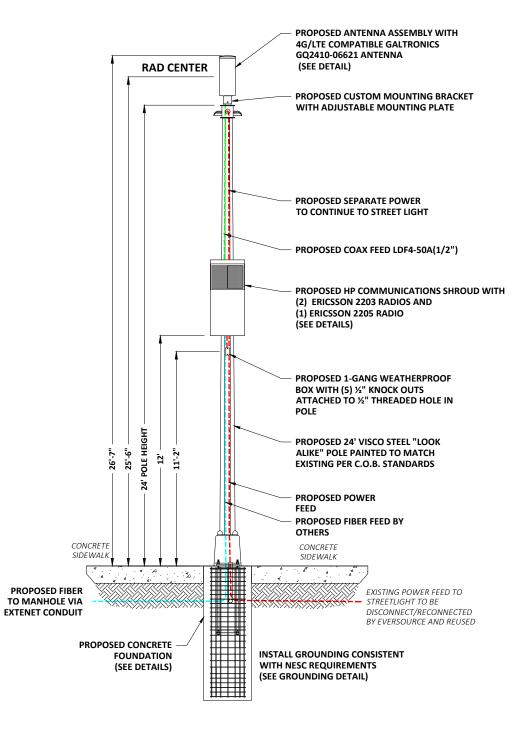
NOTE 4:

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTE 5:

PROPOSED EQUIPMENT SHALL BE INSTALLED NO HIGHER THAN 30" BELOW TELEPHONE UTILITY LINES.





2 EXISTING PROFILE - REAR VIEW LOOKING SOUTHEAST TOWARD STORROW DR

1"= 5 FEET

5 10 15

2 PROPOSED PROFILE - REAR VIEW LOOKING SOUTHEAST TOWARD STORROW DR



PLANS PREPARED BY:

UC SYNERGETIC

21 OXFORD RD
MANSFIELD, MA 02048
www.ucseng.com 1-508-

# FOR PERMITTING PURPOSES ONLY

LOCATION:

P.E. STAMP AREA:

STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

DRAWING NOTES:

ORIGINAL PLAN:
SCALE: AS NOTED
DRAWN BY: GL
PLAN ORIG. DATE: 3/11/19

REV DESCRIPTION BY DATE

LAT: 42.36361238° LONG: -71.07060934° CRAN ID:

CRAN\_RCTB\_2HA4\_070

EXTENET NODE ID:

EXTENS INODE

NE-MA-BSTBSC01-00070

SITE ADDRESS:

SHEET TITLE:

STORROW DR

POLE ELEVATIONS

SHEET NUMBER:

A-3

24"x 10" Pseudo Omni 10-Port Canister Antenna [1695-2360, 3550-3700 and 5150-5925 MHz]

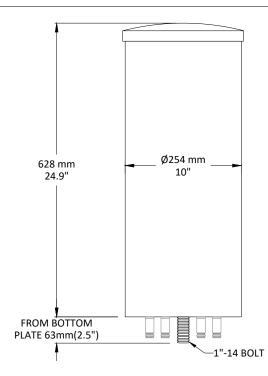
# GQ2410-06621

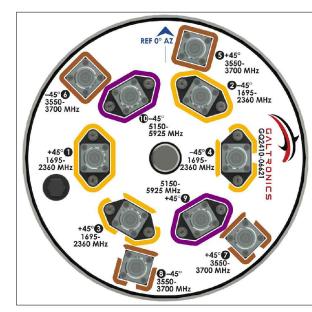
#### Description:

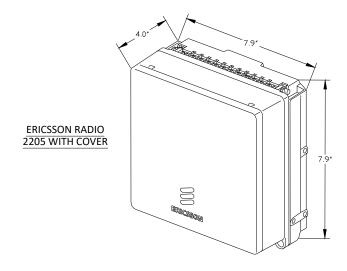
- Pseudo Omni Canister Antenna for Outdoor DAS and Small Cells.
- 4x ports for AWS/PCS/WCS Band 1695-2360 MHz
- 4x ports for CBRS Band 3550-3700 MHz
- 2x ports for UNII Band 5150-5925 MHz\*

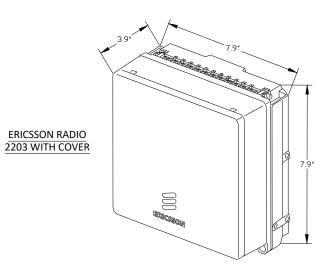


1695-2360, 3550-3700 and 5150-5925 MHz Pseudo Omni Canister Antenna



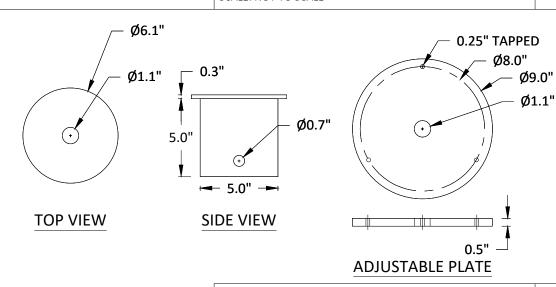






ERICSSON 2203 & 2205 RADIOS WITH COVER POLE MOUNT REMOTE UNIT

SCALE: NOT TO SCALE



CUSTOM MOUNTING BRACKET

3 SCALE: NOT TO SCALE

- PLANS PREPARED FOR:

UC/SYNERGETIC 21 OXFORD RD MANSFIELD, MA 02048

PLANS PREPARED BY:

# **PURPOSES ONLY**

P.E. STAMP AREA:

STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

- DRAWING NOTES:

2

AS NOTED DRAWN BY: PLAN ORIG. DATE:

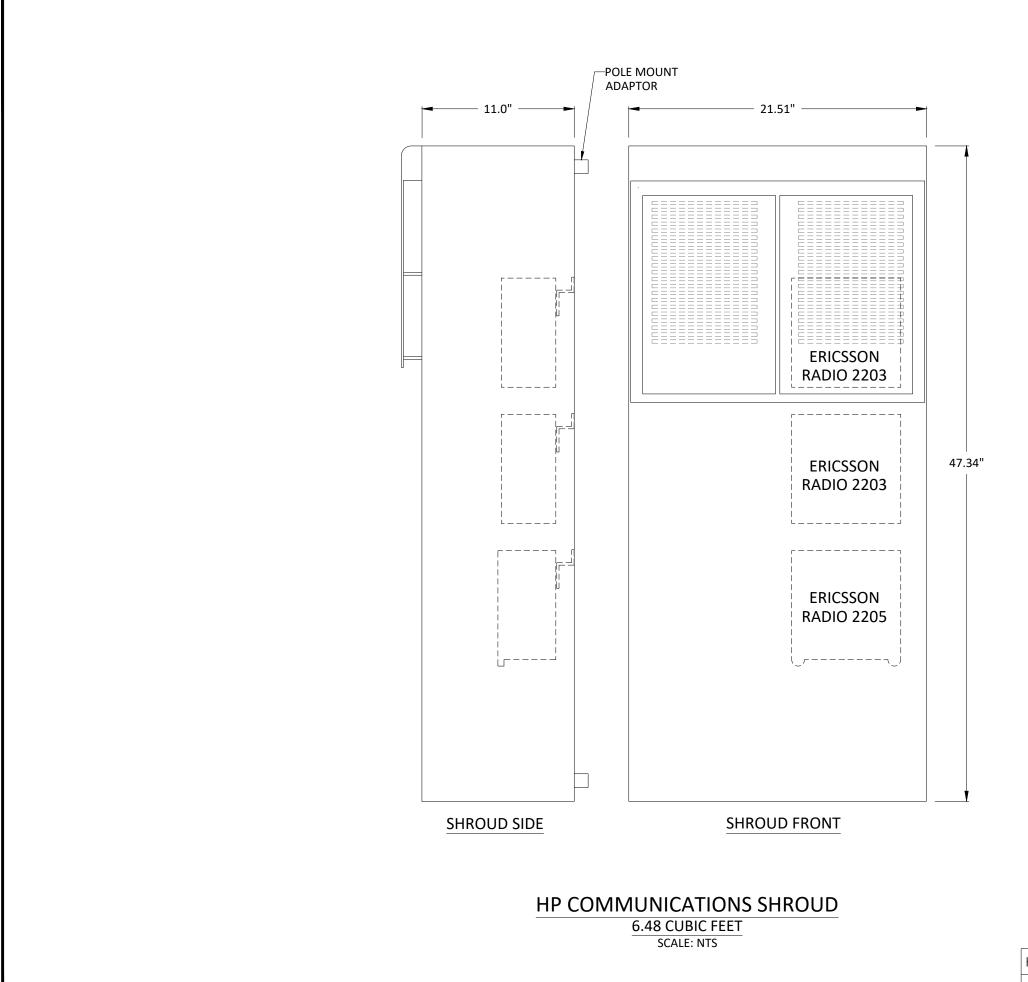
LATIN	OIIIG. DATE.	3/11/13					
RE'	REVISIONS:						
REV	DESCRIPTI	ON	BY	DATE			

LAT: 42.36361238° LONG: -71.07060934° CRAN ID: CRAN\_RCTB\_2HA4\_070 EXTENET NODE ID: NE-MA-BSTBSC01-00070 SITE ADDRESS: STORROW DR ANTENNA DETAILS

D-1

GALTRONICS GQ2410-06621 ANTENNA

SCALE: NOT TO SCALE





PLANS PREPARED BY:



# FOR PERMITTING PURPOSES ONLY

LOCATION:

P.E. STAMP AREA:

STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

DRAWING NOTES: -

ORIGINAL PLAN:
SCALE: AS NOTED

DRAWN BY: GL

PLAN ORIG. DATE: 3/11/19

REVISIONS:

REV DESCRIPTION BY DATE

SITE INFO: LAT: 42.36361238° LONG: -71.07060934°

CRAN ID:

CRAN\_RCTB\_2HA4\_070

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NE-MA-BSTBSC01-00070

SITE ADDRESS:

STORROW DR

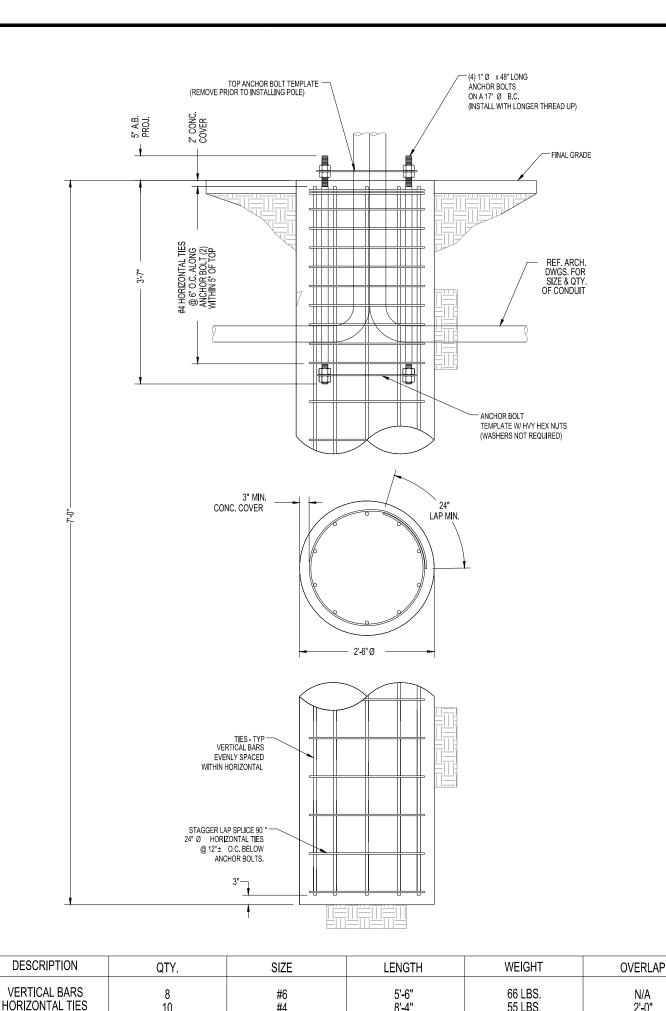
RADIO SHROUD DETAILS

SHEET NUMBER

D-2

HP COMMUNICATIONS SHROUD - 6.48 CUBIC FEET

SCALE: NOT TO SCALE



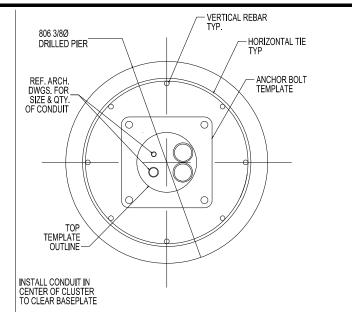
#4

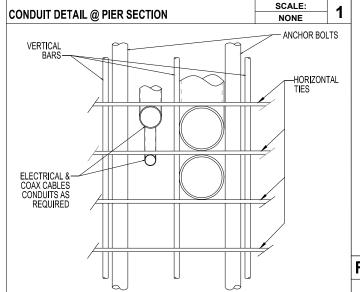
10

8'-4"

55 LBS.

2'-0"





ADJUST REBAR AS NEEDED TO ACCOMMODATE CONDUIT. SEE REINFORCEMENT SUMMARY FOR SIZE, QUANTITY AND LOCATION OF VERTICAL BARS AND HORIZONTAL TIES.

CONDUIT DETAIL

SCALE:

NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI.

BASE PLATE SHALL NOT BE GROUTED UNTIL AFTER THE STRUCTURE HAS BEEN INSTALLED AND PLUMBED.

SCALE: **BASE GROUTING DETAIL** 3 NONE

### **GENERAL NOTES**

- CONTRACTOR IS RESPONSIBLE FOR CHECKING AREA FOR UNDERGROUND FACILITIES PRIOR TO EXCAVATING ANY MATERIALS.
   CONTRACTOR SHALL INSPECT AND REMOVE ALL DEBRIS FROM BOTTOM OF
- CONTRACTOR SHALL VERIFY ANCHOR BOLT LAYOUT PRIOR TO, AND IMMEDIATELY AFTER PLACING CONCRETE. ANCHOR BOLT LAYOUT IS CRITICAL FOR MONOPOLE INSTALLATION.
- CRITICAL FOR MONOPOLE INSTALLATION.

  CONTRACTOR SHALL USE AND PROVIDE DEFORMED REINFORCING BARS
  CONFORMING TO ASTM A615 GR. 60 (60,000 PSI MIN. YIELD). CONTRACTOR
  SHALL USE STEEL WIRE TO HOLD REINFORCING BARS TOGETHER. IF
  WELDING REBAR IS PREFERRED, SUBSTITUTE USING A706 GR. 60
- CONTRACTOR SHALL USE AND PROVIDE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. CONCRETE SHALL USE 1" MAXIMUM STONE AGGREGATE. MIX DESIGN: 6 1/2 SACKS OF CEMENT MINIMUM PER CUBIC YARD. 5" MINIMUM AND 7" MAXIMUM CONCRETE
- S.LUMP.

  6. CONCRETE SHALL BE CONSOLIDATED USING VIBRATORY METHODS THROUGHOUT DEPTH OF FOUNDATION. VIBRATING LOWER DEPTHS MAY BE ACCOMPLISHED BY TOUCHING REBAR CAGE WITH VIBRATOR.

  7. CONTRACTOR SHOULD ANTICIPATE THE USE OF A FULL-LENGTH
- CONTRACTOR SHOULD ANTIGNATE I HE USE OF A FULL-LENGTH TEMPORARY CASING TO STABILIZE THE EXCAVATION. THE CASING SHALL BE WITHDRAWN DURING THE PLACEMENT OF CONCRETE IN THE EXCAVATED HOLE. CONCRETE SHALL BE PLACED USING CONVENTIONAL METHODS TO MINIMIZE SEGREGATION OF CONCRETE AND AGGREGATE. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FT. CONCRETE MAY BE
- CONCRETE SHALL NOT FREE FALL MORE THAN 5 FT. CONCRETE MAY BE PLACED BELOW WATER USING TREMIE METHODS.

  8. CONCRETE SHALL BE PLACED TO THE DEPTH INDICATED, AND THE ABOVE GRADE PORTION SHALL BE FORMED. THE REBAR CAGE, ANCHOR BOLTS, AND CONCRETE SHALL BE PLACED WITHIN 24 HOURS OF COMPLETING THE EXCAVATION. COLD JOINTS ARE NOT ALLOWED.
  THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADEQUATE CONCRETE
- COVERAGE OVER REINFORCING BARS TO MINIMIZE CORROSION POTENTIAL UNLESS OTHERWISE NOTED, CONTRACTOR SHALL USE 3" CONCRETE COVER OVER REBAR. TOP OF FOOTING SHALL BE TROWELLED
- LEVEL AND SMOOTH.

  10. DRILLED PIER FOUNDATION DESIGN PER 2009/2012 IBC, TABLE 1806.2, CLASS 4 MATERIAL.
- 11. TOTAL VOLUME OF CONCRETE REQUIRED FOR THIS FOUNDATION IS APPROXIMATELY 1.1 CU. YDS.

# PLANS PREPARED FOR: extenet

- PLANS PREPARED BY:



## FOR PERMITTING PURPOSES ONLY

P.E. STAMP AREA:

STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

DRAWING NOTES: •

#### ORIGINAL PLAN: **FACTORED BASE REACTIONS**

fc = 4,000 PSI TYPE II CEMENT

**MOMENT** = 30.9 ft-kips SHEAR = 2.46 kips VERTICAL = 1.67 kips

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١	RE	VISIONS:				
	PLAN	ORIG. DA	TE:	3/11/19		
	DRAW	VN BY:		GL		
	SCALE	≣:		AS NOTE	D	

REV	DESCRIPTION	BY	DATE

#### **SPECIAL INSPECTIONS**

CONCRETE TEST SPECIMENS

PLACEMENT OF CONCRETE

SPECIAL INSPECTION:
THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL

	CTION PER 2009/2012 IBC, SECTIO		DECIAL
ITEM	DESCRIPTION	INSPECTION BY	MATERIAL
1	PIER EXCAVATION LATERAL BEARING CAPACITY	SOILS ENGINEER	300 PSF/FT LATERAL
2	PIER CONSTRUCTION REINFORCING STEEL BAR SIZES AND INSTALLATION	SPECIAL INSPECTOR	ASTM A615 GR. 60
3	ANCHOR BOLTS BOLT SIZE AND LENGTHS INSTALLATION	SPECIAL INSPECTOR	ASTM F1554 GR. 55

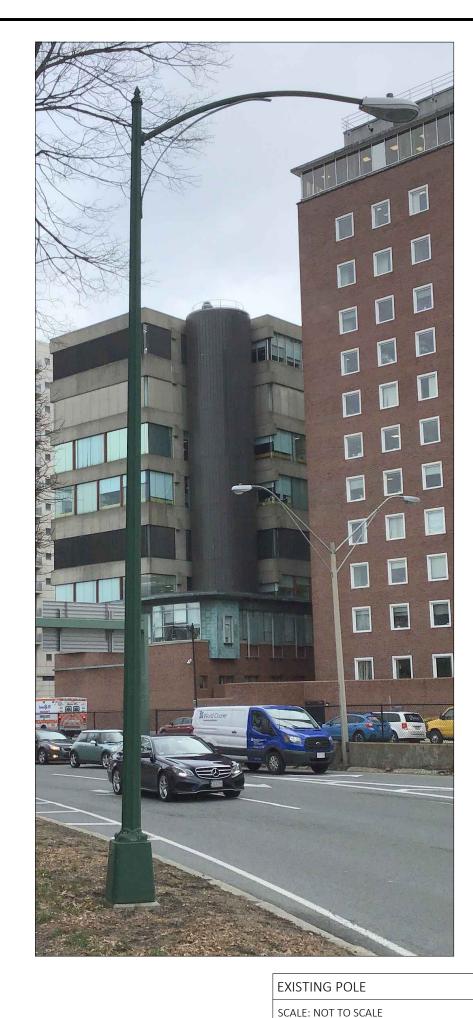
SPECIAL INSPECTOR

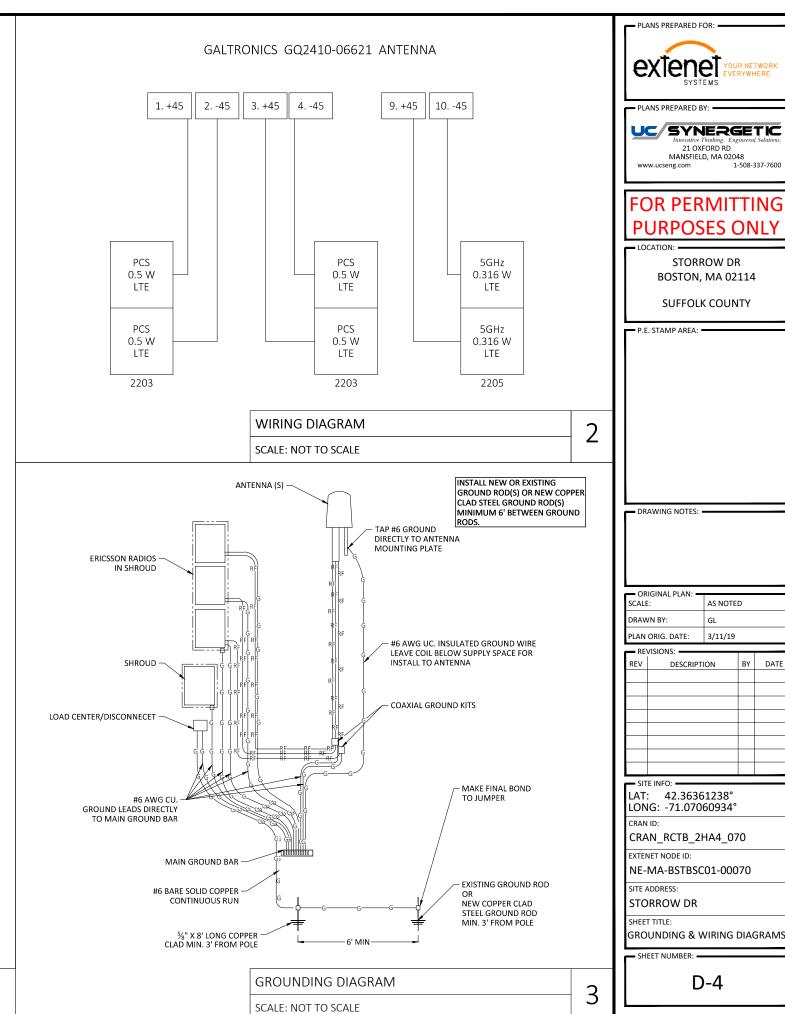
CRAN ID: CRAN\_RCTB\_2HA4\_070 EXTENET NODE ID: NE-MA-BSTBSC01-00070 SITE ADDRESS: STORROW DR SHEET TITLE: FOUNDATION DETAILS SHEET NUMBER:

LAT: 42.36361238°

LONG: -71.07060934°

D-3





1.1 CONTRACT OVERVIEW

1. THE INTENTION OF THESE DOCUMENTS IS TO SHOW THE COMPLETE INSTALLATION AND TO INCLIDE ALL LABOR AND MATERIALS REASONABLY NECESSARY, WHETHER OR NOT SPECIFICALLY INDICATED, FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT. THE INTENT OF THE OFFICE OFFICE AND SMILLS. THEY ARE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, SEQUENCING AND COORDINATING OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE FOLLOWING CODES, STANDARDS, AND SUPPLEMENTS:

• RULES AND SPECIFICATIONS FOR EXCAVATION ACTIVITY WITHIN THE CITY OF BOSTON

IBC - INTERNATIONAL BUILDING CODE

ACI - AMERICAN CONCRETE INSTITUTE

AU. - AMERICAN CONTROL ELIST HITTOTE
 AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS
 13/11/19 - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
 NEC - NATIONAL ELECTRICAL CODE

 NESC - NATIONAL ELECTRICAL SAFETY CODE UL - UNDERWRITERS LABORATORIES

NSPC - NATIONAL STANDARD PLUMBING CODE

 IMC - INTERNATIONAL MECHANICAL CODE
 NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
 OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 ANSI/TIA - TELECOMMUNICATIONS INDUSTRY ASSOCIATION - 222-G STANDARD · ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND ORDINANCES

HE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS

. THE ENGINEERING DRAWINGS SHOW PRINCIPAL AREAS WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT, INCIDENTAL WORK MAY ALSO BE NECESSARY IN AREAS NOT SHOWN ON THE ENGINEERING DRAWINGS DUE TO CHANGES AFFECTING EXISTING ELECTRICAL OR OTHER SYSTEMS. SUCH INCIDENTAL WORK IS ALSO A PART OF THIS CONTRACT, INSPECT THOSE AREAS AND ASCERTAIN WHAT IS NEEDED TO DO THAT WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER. 4. DO NOT ESTIMATE DESIRED MEASUREMENTS BY MEASURING DRAWINGS. ALL SHOWN DIMENSIONS TAKE PRECEDENCE OVER SCALING.

MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK, HOWEVER, NO CHANGE THAT ALTERS THE OBJECTIVE AND INTENT OF THE DESIGN WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT A CHANGE ORDER

GENERAL CIVIL STRUCTURAL FUECTIONAL AND ANTENNA DRAWINGS ARE INTERRELATED IN PERFORMANCE OF THE WORK FACH CONTRACTOR MUST REFER TO ALL DRAWINGS ALL COORDINATION SHALL RE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR

THE GENERAL NOTES CONTAINED HEREN AND PECIFICATIONS, AND ARE TO BE COMPILED WITH IN ALL RESPECTS. THE MOST RESTRICTIVE NOTES SPECIFIED ARE TO TAKE PRECEDENCE. CERTIAN SECTIONS OF THE GENERAL NOTES MAY NOT APPLY TO EVERY SITE. THE CONTRACTOR IS TO COMPLY WITH ALL APPLICABLE CENTRAL NOTES IN ALL RESPECTS.

ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENT TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE

ALL CENTRACTOR SHALL USE ADD STANDARD DE INICE AND ENTERTH COUNTERMENT OF THE SUPPLY DEATHING SHOULD NEED TO CENTRACTOR SHALL RELY SOLELY ON THE PLOT OF THE SURVEY DRAWING AND SURVEYORS MARKINGS AT THE SITE THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF THE SURVEY DRAWING AND SURVEYORS MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF THE TRUE NORTH, AND SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL SUSME SOLE LIBERATIVE FOR ANY FALLEY TO NOTIFY THE ENGINEER.

10. THE CONTRACTOR SHALL SHE ADDOLATE NUMBERS OF SKILLED WORKING WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS, AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.

10. THE CONTROLTOR WILL BE REQUARDLE NUMBERS OF A SILE EXPONENTIAL TYPE CONTROL OF THE VOIL.

THE CONTROLTOR WILL BE REQUARDLE TO A SISTURE SOLE AND COMMETE EXPONENTIAL TYPE TO THE VOIL.

THE CONTROL OF WILL BE REQUARDLE TO A SISTURE SOLE AND COMMETE EXPONENTIAL TYPE TO THE VOIL AND THE VOI

15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE THEIR WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT INTERRUPTED.

S. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOBSITE DURING THE PERFO

. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE TO THE PROPERTY OWNER WELL IN ADVANCE OF THE STARTING DATE OF THE WORK. THE OWNER SHALL ALSO BE NOTIFIED OF A CHANGE IN THE CONSTRUCTION SCHEDULE.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.

19. EACH CONTRACTOR IS RESPONSIBLE FOR PULLING BUILDING PERMITS AT THE LOCAL JURISDICTION AS THE CONTRACTOR OF RECORD, AND SHALL PROVIDE THE JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS CONTRACTOR IN THIS JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING BUILDING PERMITS HAVE THE CONTRACTOR OF THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING BUILDING PERMITS HAVE THE CONTRACTOR OF THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING BUILDING PERMITS HAVE THE CONTRACTOR OF THE CONTRACTOR OF THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING BUILDING PERMITS HAVE THE CONTRACTOR OF THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING BUILDING PERMITS HAVE THE CONTRACTOR OF THE CONTRACTOR OF THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING BUILDING PERMITS HAVE THE CONTRACTOR OF THE CONTRA

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO SCHEDULE THE REQUIRED INSPECTIONS. A MINIMUM OF 48 HOURS OF NOTICE SHOULD BE GIVEN TO AUTHORITIES. AN EXTENSION IN THE CONTRACT SCHEDULE WILL NOT BE GRANTED DUE TO DELY CUSTOM TO SPECTIONS.

EACH CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES, BONDS AND INSURANCES, DOCUMENTATION SHALL BE PROVIDED TO THE OWNER PRIOR TO WORK

2. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW BE AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR'S RELIGIOUS AND AND AND ADDRESS OF DOCUMENTING ALL AS BUILTS, CHANGES, REVISIONS, ADDENDA, OR CHANGE ORDERS.

3. THE CONTRACTOR IS TO PROVIDE THE OWNER WITH A FULL SET OF RECORD DRAWINGS WITH ACTUAL DIMENSIONS, ROUTING AND CIRCUITS UPON COMPLETION OF CONSTRUCTION.

28. THE CONTRACTOR IS TO CONTRACT RICH WITHOUT AS IN PROPORTED WAS INTEREST. SECURITY COMPANIES BEFORE CONSTRUCTION SCIENCED AND CONTRACTORS.
24. THE CONTRACTOR IS TO CONTRACT BOTH LOCAL POWER AND TELEPHONE UTILITY COMPANIES BEFORE CONSTRUCTION SCIENCE SERVICE, DETAIN AND PAY ALL PERSONS SCIENCE WITH THE CONSTRUCTION, SCHEDULE INSTALLATION OF SERVICE, COORDINATE CONDUIT RUNTERMINATION POINTS AND OSTERN ANY PRICE DISTRICT RESEARCH STATES AND INSTALLATION OF SERVICE, COORDINATE CONDUIT RUNTERMINATION POINTS AND OSTERN AND THE CONTRACTORS.
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACKET, SOMEWING THE PROTECTION OF ALL WORK DURING CONSTRUCTION TO AVOID DAMAGE, COLLAPSE, DISTORTION, MISALIGNMENT AND ALTERATION OF EXISTING WARRANTIES.

6. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY. THE CONTRACTOR SHALL MONITOR ALL EXISTING STRUCTURES DURING CONSTRUCTION

F. THE CONTROL FOR SHALL CONDITION THE FRANK DIMENSIONS OF ANY TYPE OF STRUCTURAL LAYOUT WITH THE FOOTPRINT OF THE NEW EQUIPMENT BEFORE ORDERING ANY MATERIALS.

9. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN SAFE CONDITION PRIOR TO INSTALLATION, AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT, FOR EACH CLASS, GROUP, OR EQUIPMENT.

0. ALL MATERIALS MUST BE STORED ON A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OBSTRUCT THE FLOW OF OTHER WORK RELATED OR NOT RELATED TO THIS CONTRACT. ANY EQUIPMENT OR MATERIAL STORAGE MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTURER. THE CONTRACTOR SHALL INSPECT THOROUGHLY ALL MATERIALS AND EQUIPMENT PRIOR TO FINAL INSTALLATION. DAMAGED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED.

SING AND SIGNS THAT STATE OWNERSHIP AND EMERGENCY TELEPHONE NUMBERS, NO SIGN SHALL BE LOCATED ON THE PROPERTY. EXISTING SIGNS WILL BE MAINTAINED AND PROTECTED

2 EXISTING CONDITIONS AND STRUCTURES BEFORE BEGINNING WORK AT THE STIE, THE CONTRACTOR SHALL INSPECT THE EXISTING PROPERTY OR BUILDING AND DETERMINE THE EXTENT OF EXISTING FINISHES, SPECIALTIES, EQUIPMENT AND OTHER ITEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THIS CONTRACTOR MUST VERY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STATING WORK, NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS INDICATED ON THE CONSTRUCTION PRAISM. SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS INDICATED ON THE CONSTRUCTION PRAISM. SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS INDICATED ON THE CONSTRUCTION PRAISM.

BY SUBMITTING A BID FOR THIS WORK, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS THOROUGHLY REVIEWED AND UNDERSTOOD THE CONSTRUCTION DOCUMENTS, VISITED THE SITE, AND IS FAMILIAR WITH THE CONDITIONS ENCOUNTERED AT THE SITE.

LIN SUMMINION OR DUT FOR THIS YOUNG, THE CONTITION, THE CONTITION OF ALLOWED AND EXPENSED AND LOWER STROOT THE CONSTRUCTION DOCUMENTS, USIFIED THE STEE, AND IS FAMILLAR WITH THE CONTITIONS ENCOUNTERED AT THE SITE.

IN PRECINE AND THE CONTRACT, WILL, FOR THE ALLOWED AND VERTAL COMPRESSATION OF REASON OF ANY MATTER OF THE WHICH THE CONTITION RIGHT OF THE VEHICLY SELVED FROM THE CONTITION OF THE ALLOWED AND ANY MATERIAL OF THE CONTITION RIGHT OF THE VEHICLY SELVED FROM THE CONTITION OF THE VEHICLY SELVED FROM THE CONTITION OF THE VEHICLY SELVED FROM THE CONTITION OF THE VEHICLY SELVED FROM THE VEHICLY

IT IS UNDERSTOOD BY THE OWNER THAT THE CONTRACTOR IN SUBMITTING HIS BID, WARRANTS THAT HE HAS CAREFULLY EXAMINED THE SITE OF THE PROJECT TO BECOME ACQUAINTED WITH THE SURROUNDING PROPERTIES, THE MEANS OF APPROACH TO THE SITE, THE CONDITIONS OF THE ACTUAL JOB SITE, THE FACILITIES FOR DELIVERING, STORING, PLACING, HANDLING, AND THE REMOVAL OF MATERIALS AND EQUIPMENT AND ANY AND ALL DIFFICULTIES THAT MAY BE ENCOUNTERED DURING THE EXECUTION OF ALL THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

I. THE LOCATIONS OF EXISTING UNDERGROUND UTLITED HE PROVIDED THE CONTRACT DOCUMENTS.

IN THE LOCATION OF EXISTING UNDERGROUND UTLITED HAVE NOT EXECUTED HE PROVIDED HE HE CONTRACT TO SESPONSIBLE FOR HAVING ALL UNDERGROUND UTLITED LOCATE ALL UNDERGROUND UTLITED SEPONSIBLE FOR HAVING ALL UNDERGROUND UTLITED LOCATE ALL UNDERGROUND UTLITED SEPONSIBLE FOR HAVING ALL UNDERGROUND UTLITED SEPONSI

INTINGENTIALS INTONCEDIALS.

TO STATE OF CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK, NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND MESSIONS INDICATED ON THE CONSTRUCTION DRIVINGS. ANY DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE BYORIES AND THE OWNER REPRESENTATIVE FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS. THE DISTRICTION WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER REPRESENTATIVE.

TRADE, PRODUCT NAMES, MANUFACTURER NAMES, CATALOG NUMBERS, AND INDICATIONS OF EXISTING PRODUCT TYPES SHOWN ON THE DRAWNINGS ARE BELIEVED TO BE ACCURATE. IF THEY ARE DISCOVERED TO BE INACCURATE, NOTIFY OWNERSENGINEERS IMMEDIATELY AND DO NOT PROCEED WIT

PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGES WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGES TO NEW OR EXISTING SURFACES, STRUCTURES, PROPERTY, SHRUBBERY, TREES, OR EQUIPMENT, SHALL BE IMMEDIATED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE COST OF REPAIRING OR REPLACING ANY DAMAGED AREAS.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES AND EFFORTS TO PROTECT THE STRUCTURAL INTEGRITY OF EXISTING STRUCTURES AND PROPERTIES. WHEN WORK IS PERFORMED IN THE VICINITY OF EXISTING STRUCTURES, THE STRUCTURAL INTEGRITY AND STABILITY SHALL BE MONITORED AT ALL TIMES DURING EVERY PHASE OF THE CONSTRUCTION.

. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER SUPERVISION OF A LICENSED LAND SURVEYOR. . NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM. TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.

. WHERE INDICATED ON THE PLANS, THE CONTRACTOR SHALL PAINT ALL NEW ANTENNAS, SHROUDS, AND RELATED MOUNTING HARDWARE TO MATCH THE EXISTING ADJACENT SURFACES. THE CONTRACTOR SHALL NOT USE A METAL BASED PAINT FOR ANTENNAS, ALL SURFACE CONTAMINATION SHALL BE REMOVED PRIOR TO PAINTING NEW SURFACES.

2. THE PLANS SHOW SOME MONINN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES, ANDIOR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA. THE EXACT LOCATIONS MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES, ANDIOR UTILITIES IN THE AREA MAY BE SHOWN AND THE CONTRACTOR SEPONDSBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. BEFORE DIGGING, DRILLING OR BLASTING, CALL THE UNDERFORMED SHOWLE DISTRICTURES, AND THE CONTRACTOR DAMAGES ANY EXISTING WATER, SEWER, DRIANGE, ELECTRICAL, GAS, TRAFFIC SYSTEM, COMMUNICATIONS OR OTHER UTILITY STRUCTURES, DUCTS, PIPES, OR OTHER FACILITIES, THE CONTRACTOR SHALL NOTIFY THE RELEVANT THE LOCAL JURISDICTIONS, UTILITY OWNERS MEMBRIADHED AND CONFORM TO ANY PROCEDURES REQUIRED BY THE LOCAL JURISDICTIONS, OR THE UTILITY STRUCTURES, DUCTS, PIPES, OR OTHER FACILITIES, THE CONTRACTOR SHALL NOTIFY THE RELEVANT THE LOCAL JURISDICTIONS OF THE UTILITY STRUCTURES.

. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES. WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, THEY SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW.

S. IF AN INACTIVE ELECTRICAL, TELEPHONE, SEWER, WATER, OR ANY OTHER UTILITY ARE ENCOUNTERED AND INTERVERES WITH THE EXECUTION OF THE WORK, THE CONTRACTOR IS TO REMOVE THE UTILITY AND CAP, PLUG, OR OTHERWISE PROPERLY TERMINATE THE UTILITY AT A POINT WHERE IT NO LONGER CONTRACTOR WITH THE WORK, THE UTILITY WORK SHALL BE USED TO AN ACCORDANCE WITH THE UTILITY COMPANY'S RECOMMENDATIONS AND PER LOCAL AUTHORITY HANNES JURISDICTION.
A LUTLITY WORK IN INJURISDICTION TO EXISTING SYSTEMS SHALL BE CORRENATED WITH THE UTILITY COMPANY'S RECOMMENDATION TO BE USED TO A UTILITY WORK SHALL BE USED TO A UTILITY WORK STREAM SHALL SHALL BE USED TO A UTILITY WORK STREAM SHALL SHALL BE USED TO A UTILITY WORK STREAM SHALL SHALL BE USED TO A UTILITY WORK STREAM SHALL BE USED TO A UTILITY WORK SHALL BE USE

8. THE CONTRACTOR SHALL RESTORE ALL PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE

PROTECT FINISHED SURFACES INCLUDING JAMBS AND HEADS OF OPENINGS USED AS PASSAGEWAYS THROUGH WHICH EQUIPMENT AND MATERIALS WILL PASS.

. PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIALS TO BE MOVED OVER, AROUND, OR WITHIN SURFACES. KEEP FINISHED SURFACES CLEAN, UNHARMED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE OWNER

THE EVENT OF DAMAGE TO AN EXISTING STRUCTURE, THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNERS REPRESENTATIVE IMMEDIATELY, AND THEN PROMPTLY MAKE ALL REPLACEMENTS AND REPAIRS TO THE SATISFACTION OF THE OWNER. THE OWNER MAY ELECT TO USE A TINTECTOR TO PERFORM THE REPAIRS, ALL EXPENSES ASSOCIATED WITH THE REPAIRS AND REPLACEMENTS SHALL BE PAID BY THE GENERAL CONTRACTOR SELECTED FOR THIS CONTRACT.

A. ALL CUTS ON CONCRETE SIDEWINASS, SHALL BE MODE FROM THE NEAREST JOINT OR SCORE LINE ON THE CHEEREST JOINT OR SCORE LINE ON THE OTHER SIDE OF THE EXCAVATION.

ALL CUTS ON CONCRETE SIDEWINASS SHALL BE MODE FROM THE NEAREST JOINT OR SCORE LINE ON THE CHEEREST JOINT OR SCORE LINE ON THE OTHER SIDE OF THE EXCAVATION.

ALL CUTS ON BRICK SIDEWINASS SHALL BE MODE BY NEATLY SUCKNING ALL EDGES OF THE EXCAVATION TO THE NEAREST LINE STORE AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR FROM THE STORE AND THE STORE AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE STORE AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE STORE AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE STORE AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF THE EXCAVATION SHALL BE NEATLY REMOVED BY THE CONTRACTOR OF WAY DEPORT AND THE WAY OF 
ALL CUTS ON ASPHALT SIDEWALKS SHALL BE MADE BY NEATLY SQUARING ALL EDGES TO FORM A RECTANGULAR SHAPE AT A 90 DEGREE ANGLE ANY PAVEMENT OR LANE MARKINGS THAT ARE DISRUPTED BY THE WORK SHALL BE RESTORED ACCORDING TO LOCAL JURISDICTION REQUIREMENTS

8. ANY PAPELENT OF LANK MAKRINGS I HAT ARE DISNOPLED BY THE WORK SHALL BE RESIDEND ACCOUNTING TO LOCAL JURISDICTION REQUIREMENTS.

A. ANY TRAFFIC LOOPS OR OTHER SIGNAL SYSTEMS BENEDOED IN THE PUBLIC REGISTOF-MAY DISNOPTED BY THE WORK SHALL BE REPORD ACCORDING TO LOCAL JURISDICTION REQUIREMENTS.

8. ADDITIONAL TIME REQUIRED TO SECURE REPLACEMENT AND MAKE REPAIRS WILL NOT BE CONSIDERED BY THE OWNER TO JUSTIFY AN EXTENSION IN THE CONTRACT TIME FOR COMPLETION.

9. ABSOLUTELY NO FIELD CORNING / DRILLING / CUTTING OF METALLIC POLES TO BE ALLOWED.

2. THE CONTRACTOR SHALL COORDINATE ALL SPECIAL CONSIDERATIONS OF CONSTRUCTION SICE AS NOISY OPERATION, INTERRUPTION OF ANY MECHANICAL ANDIOR ELECTRICAL SERVICES, MATERIAL DELIVERIES AND STORAGE, STAGING AREA, CRANE LIFTS, ETC. WITH THE PROPERTY OWNER, OWNERS REPRESENTATIVE, ANDIOR LOCAL JURISDICTION PRIOR TO THE START OF WORK.

3 CONTRACTOR SHALL COORDINATE WITH A PROPERTY OWNER REPRESENTATIVE. THE TEMPORARY REMOVAL OF FENCE LANDSCAPING & ANY EXPECTED DAMAGE TO ACCESS ROAD OR ADJACENT REPAIR OF PROPERTY PRIOR TO COMMENCING THE WORK

4. THE CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER, REPOSENTY OWNER, PROPERTY OWNERS REPRESENTATIVE, AND/OR LOCAL JURISDICTION 5. CONTRACTOR TO NOTIFY PROPERTY OWNER OF THE CONSTRUCTION START DATE WELL IN ADVANCE OF CONSTRUCTION.

1.2 SITE MAINTENANCE

REMOVE STANING OR REACTIVE MATERIALS FROM NEW AND EXISTING SUPFACES MINEDIATELY. REMOVE HAZARDOUS ACCUMULATIONS OF DEBRIS PROMPTLY, AT LEAST DAILY, CONFINE DUST PRODUCING OPERATIONS DURING CUITING, DRILLING, PAINTING AND FINISHING. THERE SHOULD BE NO OWER SPRANTING PAINT IN PAPARON AS EAST A VACUUM MINEDIATELY AFTER COMPLETION.

. THERE SHALL NOT BE ANY CREATION OF ROISE OUTSIDE THE NORMAL HOURS MANDATED BY THE LOCAL JURISDICTION AND THE PROPERTY OWNER OR OWNERS REPRESENTATIVE, UNLESS OTHERWISE AGREED UPON WITH THE LOCAL JURISDICTION AND PROPER

. NOISE AND EXISTING BUILDING STRUCTURE VIBRATION GENERATED BY THE CONSTRUCTION PROCEDURES, EQUIPMENT, TOOLS AND OPERATIONS ARE TO BE KEPT TO A PRACTICABLE MINIMUM. WHERE USE OF HIGH NOISE LEVEL EQUIPMENT IS UNAVOIDABLE, AND CAN BE HEARD, CONFINE TO HOURS MANDATED BY THE LOCAL JURISDICTION AND THE PROPERTY OWNER OR OWNERS REPRESENTATIVE. 4. THE CONTRACTOR IS TO PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2 ABC WITHIN 75FT OF TRAVEL TO ALL PORTIONS OF THE CONSTRUCTION AREA.

. THE CONTRACTOR IS RESPONSIBLE FOR MAINTANING A NEAT AND ORDERLY SITE, YARD AND GROUNDS. REMOVE AND DISPOSE, LEGALLY OFF SITE, ALL RUBBISH, WASTE MATERIALS, LITTER, AND ALL FOREIGN SUBSTANCES, REMOVE PETROCHEMICAL SPILLS, STAINS AND RAKE GROUNDS TO A SMOOTH EVEN-TEXTURED SURFACE AT PROJECT COMPLETION, REMOVE TEMPORARY SERVICES, CONSTRUCTION EQUIPMENT, TOOLS AND FACILITIES, MOCKUPS, TEMPORARY STRUCTURES, SURPLUS MATERIALS, DEBRIS, AND RUBBISH FROM PROPERT SITE IN TEACT, ORDERITY CONDITION, EARLY FOR USE LEVER FOR FORES FOR STAIN AND FREE FROM DEFOR YOU DOWN LOW AND YOUR STAIN AND FREE FROM DEFOR YOU DAY LOW AND THE STAIN STAIN AND FREE FROM DEFOR YOU DAY LOW AND THE STAIN STAIN AND THE FER FOR STAIN AND THE STAIN STAIN STAIN AND THE STA

3. THE TENANT'S INGRESS AND EGRESS OF THE SITE AND/OR BUILDING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION

1. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO MAINTAIN POLLUTION CONTROL, COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION, AND PROMPTLY REMOVE ALL DEBRIS AND ACCUMULATION OF MATERIALS RESULTING FROM THE WORK. DEMOLITION AND EXISTING STRUCTURAL ALTERATION

1- GENERAL CONTRACTOR IS SULLLY RESPONSIBLE FOR SHORING, BRACING, PROVIDING LATERAL SUPPORT, AND FOR MAINTAINING THE INTEGRITY OF THE EXISTING STRUCTURE DURING ALL PHASES OF THE DEMOLITION AND CONSTRUCTION AND SHALL PROVIDE, IF REQUIRED, SIGNED AND SEALED SHOP DRAWNINGS, BY A REGISTERED PROFESSIONAL ENGINEER, FOR THE SHORING OF ALL WALLS, BEAMS, SLARS, ROOF, JOSTS, OR OTHER LEXINGED STRUCTURAL HIRS, THAT ARE HAVING SUPPORT NOTED FOR DEMOLITION.

2. ANY DAMAGE BUT TO DEMOLITION, OR OTHER CONSTRUCTION ACTIVITIES DONE TO ANY EXISTING SUPPORT SHORING ACTIVITIES OF WORKER.

1.2 CUTTING & PATCHING 1. DO NOT DRILL OR CUT EXISTING FLOOR JOISTS, BEAMS, COLUMNS OR OTHER STRUCTURAL ELEMENTS UNLESS SPECIFICALLY INDICATED, DRILL SLABS WHERE APPROVED, CORE DRILL CIRCULAR OPENINGS THROUGH CONCRETE SLAB. LINE DRILL FOR RECTANGULAR OPENINGS, MAKE OPENINGS OF PROPER SIZE FOR COMOUNT, DUCTS, PIPES AND OTHER TEMS PASSING THROUGH OPENINGS. MAKE ALL NEW HOLES OR OPENINGS WEATHER TIGHT ANDOR FIRE SAFE AS REQUIRED BY LOCAL BUILDING CODES & ORDINANCES.

2. WHERE CUTTING OF EXISTING SURFACES OR REMOVAL OF EXISTING FINISHES IS REQUIRED TO PERFORM THE WORK UNDER THIS CONTRACT AND A NEW FINISH IS NOT INDICATED, FILL RESULTING OPENINGS AND PATCH THE SURFACE AFTER DOING THE WORK AND FINISH TO MATCH ADJACENT EXISTING SURFACES.

LAIS INICE SHEET, LESS AND SHEET HIS CONTRACT IS REQUIRED, ENCLOSE EXISTING AND NEW CONDUITS, DUCTS, PIPES, AND SIMILAR ITEMS IN FURRING WHERE SUCH ITEMS PASS THROUGH FINISHED SPACES WHETHER OR NOT FURRING A REPARK, PATCH, FINISH ANDOR REFINISH AS A PULCABLE TO MATCH ADMOST EXISTING FINISHES, ANY EXISTING SURFACES DAMAGED OR NEW PROPOSED SURFACES DAMAGED DURING PERFORMANCE OF THE WORK UNDER THIS CONTRACT.

5. REPARK ALL METALS, SURFACES THAT HAVE RESENCE OF COMMAGED BY REMOVING ANY EXISTING FOUND FO

3. SITE WORK

.CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM, ONLY TREES NECESSARY FOR THE CONSTRUCTION OF THE FACILITY SHALL BE REMOVED. ANY DAMAGES TO PROPERTY OUTSIDE THE CONSTRUCTION UNIT SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

2. THE CONTRACTOR SHALL PROTECT EXISTING TRESS, VEGETATION, LANDSCAPING, MATERIALS AND SITE IMPROVEMENTS NOT SCHEDULED FOR CLEARING OR REMOVAL WHICH MIGHT BE DAMAGED BY CONSTRUCTION ACTIVITIES

3. TRIM EXISTING TREES AND VEGETATION AS RECOMMENDED BY THE ARBORIST FOR PROTECTION DURING CONSTRUCTIO 4. CLEAR AND GRUB STUMPS, VEGETATION, DEBRIS, RUBBISH, DESIGNATED TREES REQUIRED FOR THE SITE IMPROVEMENT

5. STRIP AND STOCKPILE TOPSOIL.

5. SHRIP AND STOCKPULE TO POUL.

6. PROTECT TEMPORARILY ADJACENT PROPERTY, STRUCTURES, BENCHMARKS, AND MON

7. MARK DESIGNATED TREES AND VEGETATION DURING CONSTRUCTION ACTIVITIES.

8. PROVIDE TEMPORARY EROSION CONTROL. SILTATION CONTROL AND DUST CONTROL.

9. REMOVE AND LEGALLY DISPOSE OF CLEARED MATERIALS 3.2 EXCAVATION AND BACKFILL

9. THE PROJECT INCLUDES:

. ERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE AT A LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO I

2. BROKEN PAVEMENT, STONES GREATER THAN THREE (8) INCHES IN DIAMETER, ROOTS AND OTHER DEBRIS SHALL NOT BE USED IN BACKFILL. NO MATERIAL SHALL BE LEFT IN THE PUBLIC RIGHT-OF-WAY ONCE WORK HAS BEEN COMPLETED.
3. EXCAVATED MATERIAL SHALL BE REMOVED FROM THE WORK SITE AND DISPOSED OF IN A MANNER SUCH THAT INTERFERENCE WITH AND OBSTRUCTION TO VEHICULAR AND PEDESTRIAN TRAFFIC IS MINIMIZED.

5. BACKFILLING SHALL OCCUR ON THE SAME DAY AS THE EXCAVATION. IF THIS IS NOT POSSIBLE DUE TO THE COMPLEX NATURE OF THE WORK, EMERGENCY, OR UN-PREVENTABLE CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LOCAL JURISDICTION(S) AND TAKE APPROPRIATE IMESSIBLES TO PROTECT PRILIC SAFETY AND INTRACTRICCTURE UNTIL UNTIL COMPLEX.

(I. LUDGEN OS CONCINISTANCES SHALL AN OPEN EXCAVATION BE LEFT UNATTENDED OVERWIGHT, UNLESS PROPERLY BARRICADED IN A MANNER MEETING WITH APPROVAL FROM LOCAL JURISDICTION(S).

7. ALL PAVEMENT BACKFILL MATERIAL SHALL BE PROCESSED GRAVEL. PAVEMENT BACKFILL SHALL MEET THE SELECTED FILL STANDARDS AS SHOWN BELOW, UNLESS STRICTER REQUIREMENTS ARE IMPOSED BY THE OWNER'S REPRE
REQUIREMENTS OF THE LOCAL JURISDICTION, WHICHEVER IS MORE STRINGENT.

PERCENT PASSING SIEVE DESIGNATION 1-1/2 INCH

. THE USE OF CONTROLLED DENSITY FILL (CDF) MAY BE MANDATED BY THE OWNER'S REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMENDATION, OR BY THE LOCAL JURISDIC REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMENDATIONS, OR THE REQUIREMENTS OF THE LOCAL JURISDICTION, WHICHEVER IS MORE STRINGENT.

THE CDF INGREDIENTS SHALL COMPLY WITH THE FOLLOWING

AASHTO M.4.02.05 THE CDF MUST MEET THE FOLLOWING REQUIREMENTS. COMPRESSIVE STRENGTH AT 28 DAYS: 30-80 PSI (210-550kPa

COMPRESSIVE STRENGTH AT 90 DAYS: 100 PSI MAX. (700 kPa MAX.

. EXCAVATION, TRENCHING, FILLING, COMPACTING AND GRADING FOR STRUCTURES. ALL MATERIALS FOR SUB-BASE, DRAINAGE FILL, BACK FILL, GRAVEL FOR SLABS, PAVEMENT AND IMPROVEMENTS.

 ROCK EXCAVATION WITHOUT BLASTING SUPPLY OF ADDITIONAL MATERIALS FROM OFF SITE AS REQUIRED

4. FILL LAYERS THAT REQUIRE COMPACTION SHALL HAVE A MAXIMUM THICKNESS OF 6 NCHES.
5. THE COMPACTING UNDER STRUCTURES, BUILDING SLABS, STEPS, PAVEMENT AND WALKWAYS SHALL BE 95% MAXIMUM DENSITY, ASTM D-1557. TESTED IN EACH OF THE COMPACTING LAYERS AT EACH COMPACTING SITE, OR AT LEAST IN EACH 100 CU. YARDS OF MATERIAL VOLUME 6. IF A LAYER OF CONCRETE, COBBLESTONE, GRANITE PAVERS, OR OTHER SUPPORTING MATERIAL EXISTS, CONTRACTOR SHALL INSTALL CONCRETE TO MATCH THE EXISTING DEPTH PRIOR TO INSTALLATION OF TEI

7. WHEN BACKFILL CANNOT EFFECTIVELY BE COMPACTED TO 95% MAXIMUM DENSITY DUE TO MULTIPLE CONDUITS, DUCTS OR PIPES, CONTROLLED DENSITY FILL (CDF) MAY BE REQUIRED. 8. THE COMPACTING UNDER LAWNS OR UNPAVED AREAS SHALL BE 85% MAXIMUM DENSITY. ASTM 01557.

GRAVELSHALL BE PLACED UP TO THREE (3) INCHES BELOW GRADE OF EXISTING ASPHALT TO ALLOW ROOM FOR THREE (3) INCHES OF COMPACTED HIMA TEMPORARY SURFACE

2. CONCRETE SIDEWALKS SHALL BE PLACED ON A BED OF SIX (6) INCHES OF COMPACTED GRAVEI 3. CURB STONES MUST BE PLACED ON A BED OF SIX (6) INCHES OF CRUSHED STONE.

9. THE COMPACTED LAYERS SHALL NOT EXCEED 8 INCHES. 10. AREAS THAT DO NOT MEET ASTM D-1557 REQUIREMENTS MUST BE RECOMPACTED AT THE CONTRACTOR'S EXPENSE

1. ALL TRENCH EXCAVATIONS AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS FOR CONSTRUCTION 12. WHERE UNSTABLE SOIL CONDITIONS EXIST, LINE THE GRUBBED AREAS WITH GEOTEXTILE FABRIC (MIRAFL 500X OR APPROVED EQUIVALENT) PRIOR TO PLACING FILL OR BASE MATERIAL

13. THE USE OF EXPLOSIVES IS PROHIBITED ON SITE.

14. ALL EXCOVATION ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIAL HORIZONTAL, UNDISTURBED AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED IF REQUIRED.

15. ANY EXCOVATION OVER THE REQUIRED DEPTH SHALL BE FILED WITH OTHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SECONDAL HORIZON FOR THE PROVIDED FOR THE STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SECONDAL HORIZON FOR THE PROVIDED FOR T

AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIALS SUCH AS VEGETATION, WOOD, DEBRIS, TRASH, AND ANY FOREIGN MATERIAL 3.3 DRAINAGE

3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AWAY FROM BUILDING OR EQUIPMENT ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. STORM WATER FLOW SHALL NOT BE IMPEDED ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

5. ANY DRAIN, FIELD TILE, OR DRAINAGE STRUCTURE ENCOUNTERED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL OR BETTER CONDITIONS AFTER CONSTRUCTION AND BE NOTED ON THE RECORD DOCUMENTS

- PLANS PREPARED FOR: extenet

PLANS PREPARED BY: • UC/SYNERGETIC MANSFIELD, MA 02048 1-508-337-7600

## FOR PERMITTING PURPOSES ONLY

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STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

P F STAMP AREA

DRAWING NOTES: -

ORIGINAL PLAN: SCALE: AS NOTED DRAWN BY PLAN ORIG. DATE: 3/11/19

RE'	VISIONS:		_
REV	DESCRIPTION	BY	DATE

CRAN ID: CRAN\_RCTB\_2HA4\_070

LAT: 42.36361238° LONG: -71.07060934°

EXTENET NODE ID: NE-MA-BSTBSC01-00070

- SITE INFO:

SITE ADDRESS: STORROW DR

SHEET TITLE:

SHEET NUMBER:

GN-1

**GENERAL NOTES** 

IIINAL 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) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS -CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL CODES AND ORDIN THIS MAY INCLUDE SUCH MEASURES AS SILT FENCE, STRAW BALES, SEDIMENT BARRIERS, AND CHECK DAMS. 2 WIREWAYS SHALL RE FPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER AND RATE NEMA 1 (OR RETTER) INDOORS OR NEMA 3R (OR RETTER) OLITHOORS ROSION CONTROL MEASURES MAY BE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWINGS WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS 3. JUNCTION BOXES: JUNCTION BOXES SHALL BE A MINIMUM SIZE OF 4 INCHES SQUARE BY 1-1/4 INCHES DEE CONCRETE 6.5 HOLES, SLEEVES AND OPENINGS 1. GENERAL: PROVIDE ALL HOLES, SLEEVES AND OPENINGS REQUIRED FOR THE COMPLETION OF WORK AND RESTORE ALL DAMAGED SURFACES TO MATCH SURROUNDING SURFACES. 2. CONDUIT PENETRATIONS: SIZE CORE-DRILLED HOLES SO THAT AN ANNULAR SPACE OF NOT LESS THAN I/ INCH AROUND THE CONDUIT, PIPE, ETC. WHEN OPENINGS ARE CUT IN LIEU OF CORE-DRILLED, PROVIDE SLEEVE IN ROUGH OPENING. SIZE SLEEVES TO PROVIDE AN ANNULAR SPACE OF NOT LESS THAN I/ INCH AND NOT MORE THAN I INCH AROUND THE CONDUIT, PIPE, ETC, PATCH AROUND SLEEVE TO MATCH SURROUNDING SURFACE. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES • ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS 3. PROVIDE APPROPRIATE WEATHERPROOFING MATERIALS FOR PENETRATIONS NEEDING TO BE SEALED FROM POTENTIAL WATER INTRUSION, PROVIDE FIREPROOF MATERIALS FOR PENETRATIONS REQUIRING A FIRE RATED SEAL. REFER TO CUTTING AND PATCHING NOTES UNDER SECTION 1 - GENERAL 4. IF ANY POOFTOP WORK IS TO BE PERFORMED, THE CONTRACTOR SHALL USE THE BUILDING OWNERS APPROVED ROOFING CONTRACTOR TO PREVENT VOIDING ANY EXISTING ROOFING WARRANTIES. ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPAIRED IMMEDIATELY INTO THE BUILDING SHELL. ACI 304 - GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE ACI 309 - GUIDE FOR CONSOLIDATION OF CONCRETE ACI 318 - BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE 5. GENERAL: PROVIDE ALL CUTTING, DRILLING, FITTING AND PATCHING NECESSARY FOR ACCOMPLISHING THE WORK. THIS INCLUDES REMOVAL AND REPLACEMENT OF DEFECTIVE WORK AND WORK NOT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENT • ACI 318 - BULDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

• ACI 544 R.\* - REPRE REINFORCED CONCRETE (IF SPECIFIED)

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• ACI 544 R.\* - REPRESENTED FOR 6. REPAIRS: REPAIR ANY AND ALL DAMAGE TO WORK OF OTHER TRADES CAUSED BY CUTTING AND PATCHING OPERATIONS, USING SKILLED MECHANICS OF THE TRADES INVOLVED 7. DO NOT CUT MAJOR STRUCTURAL ELEMENTS WITHOUT APPROVAL, PATCHING SHALL BE OF QUALITY EQUAL TO AND OF MATCHING APPEARANCE OF EXISTING CONSTRUCTION B. ABSOLUTELY NO FIELD CORING / DRILLING / CUTTING OF METALLIC POLES TO BE ALLOWED 6.6 CONDUCTORS

1. USE 99% CONDUCTORY WITH TYPE XHMM-2 INSULATION, 600 VOLT, COLOR CODED, USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG, STRANDED CONDUCTORS FOR WIRE LARGER THAN NO. 8 AWG. USE PRESSURE-TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER, SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER ALUMINUM CONDUCTORS SHALL NOT BE USED. (IMUM AGGREGATE SIZE SHALL BE 1 THE FOLLOWING MATERIALS SHALL BE USED: 2. NO BX, MC OR ROMEX CABLE SHALL BE PERMITTED. PORTLAND CEMENT 3. EACH END OF EVERY POWER, GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA AND MATCH EXISTING INSULATION REQUIREMENTS. REINFORCEMENT: ASTM A185 & A615 4. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL. REMOVE SHARP EDGE: NORMAL WEIGHT AGGREGATE: ASTM C33 • WATER DRINKARI F 5. ALL CONDUIT SIZES SPECIFIED IN THIS DOCUMENT WERE DONE TAKING INTO ACCOUNT THE USE OF COPPER CONDUCTORS. 6.7 <u>ELECTRICAL SERVICE</u>

1. GENERAL: COMPLY WITH AND CO-ORDINATE ALL REQUIREMENTS OF THE UTILITY COMPANY. 2. SHORT CIRCUIT RATINGS: PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY COMPANY AVAILABLE FAULT CURRENT REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315. 3. CONTRACTOR TO VERIEV LITHLITY CO. FAULT CURRENT AND ENSURE THAT ALL FOLIPMENT MEETS FAULT CURRENT (AT A MINIMUM ALL FOLIPMENT TO RE 10 000 AC). REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS OTHERWISE NOTED, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 165 WELDED WIRE FABRIC UNLESS OTHERWISE NOTED. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, U.N.O. 3.CONTING LOT O LORGED TO LORGED TO AND ENSORE HIM TALL EQUIPMENT ME IS YAUL CONCENT (AT ANIMALISM TO LEGISLATION OF LOUISM AC).

4. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE LECETIFIC LITHIC RELATIVE TO A THICK! INSTALLATION OF LOUISM AND PAYING ALL ASSOCIATED FEES.

5. IDENTIFICATION. IDENTIFY SERVICE DISCONSECTION MEANS WITH PERMANENT NAMEDIATE.

6. THE LOCATION SERVICE DISCONSECTION MEANS WITH PERMANENT NAMEDIATE.

7. LOCATION AND ARRANGEMENTS. DRAWINGS INDICATE DIAGRAMMATICALLY THE DESIRED LOCATION OF EQUIPMENT, FIXTURES, OUTLETS, ETC., AND ARR NOT TO BE SCALED. PROPER JUDGEMENT MUST BE EXERCISED IN THE EXECUTION TO ENSURE THE BEST POSSIBLE INSTALLATION. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS · CONCRETE CAST AGAINST EARTH: 3 IN CONCRETE EXPOSED TO EARTH OR WEATHER: #6 AND LARGER: 2 IN

#5 AND SMALLER AND WWF: 1 ½ IN 8. PANEL AND DISTRIBUTION BOARD IDENTIFICATION: SWITCHBOARDS, PANELBOARDS, TRANSFORMERS AND DISTRIBUTION SECTIONS SHALL BE IDENTIFIED WITH ENGRAVED, WHITE ON BLACK, LAMINATED, RIGID PHENOLIC NAMEPLATES WITH // INCH CHARACTERS, SECURELY AFFIXED TO FACE OF CABINET 6.8 CHECKOUT. TESTING AND ADJUSTING
1. CORRECTION/REPLACEMENT: AFTER TESTING BY CONTRACTOR, OWNER OR ENGINEER, CORRECT ANY DEFICIENCIES AND REPLACE MATERIALS AND EQUIPMENT SHOWN TO BE DEFECTIVE OR UNABLE TO PERFORM AT DESIGN OR RATED CAPACITY. CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND: SLABS AND WALL: ¾ IN 2. POWER CONDUCTORS: CONTRACTOR SHALL CONDUCT A CONTINUITY AND INSULATION TEST ON CONDUCTORS BETWEEN SERVICE DISCONNECT SWITCH AND LOAD CENTER.

3. WHEN SITE POWER IS DERIVED FROM A 3-PHASE SOURCE, LOAD READINGS WILL BE TAKEN AND RECORDED TO MAINTAIN A BALANCED LOAD AT THE PRIMARY SOURCE. RECORDS SHALL BE RETURNED TO THE OWNER'S REPRESENTATIVE. BEAMS AND COLUMNS: 1 ½ IN A CHAMFER OF 1/4 IN SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE. U.N.O. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4 69 RECEIVED SYSTEMSCOADUIT

1. PROPERTY OF THE INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE CURRING COMPOUNDS SHALL CONFORM TO ASTM C - 309. ADMIXTURE SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI-301 CONCRETE FOR REPLACEMENT CONCRETE SIDEWALKS OR DRIVEWAYS SHALL BE PLACED TO A THICKNESS NOT LESS THAN 6", AND NOT MORE THAN THE THICKNESS OF THE ADJACENT CONCRETE SIDEWALK OR DRIVEWAY. DO NOT WELD OR TACKWELD REINFORCING STEEL 4. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS. ALL DOWELS ANCHOR ROLTS EMERDMENT STEEL ELECTRICAL CONDUITS PIPES I FEVES GROLINDS AND ALL OTHER EMBEDDED LITEMS AND FORMED DETAILS SHALL BE IN PLACE REFORE START OF CONCRETE PLACEMENT 5 LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS WHERE VIRRATION OCCURS OR FLEXIBILITY IS NEEDED A. THE CONTRESS, OF THE PROPERTY OF CONTRESS, OF THE SECRET OF THE CONTRESS, OFFICE ALL PROPERTY ALL OF THE CONTRESS AND THE MEMBERS AND THORSE UP IN IN SECRET OF THE CONTRESS AND THE CONTRESS 6. PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LB. TEST POLYETHYLENE COF 6.PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LB. TEST POLYETHYLENE CORD.
7. ALL CONDUIT BENDS SHALL BE MINIMUM OF 24-INCH RADIUS.
8. ALL METALLIC PACEWAYS SHALL BE GROUNDED PER INC.
9. THE CONTRACTOR SHALL FIELD VERIFY THE BEST AND LEAST DISRUPTIVE ROUTING OF CONDUITS. CABLE TRAYS AND DUCTS. CONDUIT ROUTING IS SHOWN AS A GUIDE ONLY, ACTUAL CONDUIT PLACEMENT IS TO BE DONE IN A PROFESSIONAL MANNER. DO NOT PLACE CONCRETE IN PONDING WATER, ICE, OR ON FROZEN GROUND. 0. FOR COLD WEATHER AND HOT WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC, SHALL NOT BE USED, PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS MINIMUM. . FIBER REINFORCED CONCRETE MIX. IF SPECIFIED, SHALL INCLUDE 1 1/2 LBS, OF FIBER PER CUBIC YARD WASTE CEMENT FROM CLEANING OF CONCRETE DELIVERY TRUCKS SHALL NOT BE ALLOWED TO ENTER THE STORM DRAIN OR SEWER SYSTEM PRIOR TO EXCAVATION, A UTILITY MARK OUT SHALL BE DONE TO LOCATE EXISTING UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES MUST BE LOCATED AND MARKED OUT PRIOR TO ANY EXCAVATION WORK BEING PERFORMED. PHOTOS SHALL BE TAKEN OF ALL UNDERGROUND WORK AND GIVEN TO THE OWNER OF OWNERS REPRESENTATIVE DURING THE SITE'S HANDOFF. I GENERAL
ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTIONS AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION. 3. ALL TRENCHING AND EXCAVATION WITHIN EXISTING COMPOUNDS MUST BE PERFORMED BY HAND IN ACCORDANCE WITH THE OWNER'S SPECIFICATIONS. ANY OTHER METHODS OF DIGGING MUST FIRST BE APPROVED BY THE CONSTRUCTION MANAGER 4. ALL LOW VOLTAGE CONDUIT (600V OR LESS) SHALL HAVE A MINIMUM BURIAL DEPTH OF 24". ALL HIGH VOLTAGE CONDUIT (600V OR MORE) SHALL HAVE A MINIMUM BURIAL DEPTH OF 36" PRIOR TO INITIATING EARTHWORK OPERATIONS, GROUND WATER AND SURFACE WATER CONTROL MEASURES NEED TO BE TAKEN. 5. UNDERGROUND CONDUIT SHALL BE ENCASED IN REINFORCED CONCRETE IN AREAS OF VEHICLE TRAFFIC. CONCRETE ENCASEMENT SHALL BE 3" MINIMUM ALL AROUND AND BETWEEN CONDUITS THE CONTRACTOR SHALL PROVIDE ADEQUATE SLOPING, SHORING, AND BRACING FOR ALL EXCAVATION TO PROTECT ADJACENT STRUCTURES AND COMPLY WITH LOCAL CODES, ORDINANCES, OSHA AND ANSI REQUIREMENTS PRIOR TO CONSTRUCTION OF ANY PERMANENT STRUCTURE. THE SITE SHALL BE STRIPPED OF ALL SURFACE VEGETATION, TOP SOIL, AND ORGANIC MATERIAL: ALL WET, SOFT, LOOSE, FROZEN, OR OTHERWISE UNDESIRABLE SOIL SHALL BE REMOVED. THE CONTRACTORS OF SHEETE BY COLUMENT OF SHEETE OF ALL SET BY COLUME OF SHEETE OF ALL SHE PASK YELS HAIRN, IN YOUR SHEETEN, LEVEN, AND CRANGE MATERIAL, ALL WET., SOFT, LOOSE, FROZEN, OR OTHERWISE LINGSHEESE SOIL SHALL BE REMOVED.

THE CONTRACTOR IS TO PREVENT SHEETE OF REVIEWING SOFTENING OF THE FOUNDATION SOILS PRIOR TO PLACING CONCRETE.

THE EXPOSED SHE GRADE SHALL BE PROOFED ADLIED WITH MEDIUM WEIGHT ROLLERS OR OTHER APPROVED COMPMENT TO DETERMINE IF ANY POCKETS OF SOFT, COMPRESSIBLE SOIL EXISTS BELOW THE EXPOSED SHE GRADE. WHEREVER SHICH MATERIAL IS ENCOUNTERED, THE AREA SHALL BE UNDERCLI 6.11 <u>EQUIPMENT</u>

1. THE MAIN CIRCUIT BREAKER SHALL BE RATED FOR STANDARD A.I.C. RATING HIGHER THAN INCOMING EQUIPMENT A.I.C. 2. ALL EQUIPMENT SHALL BE BRACED FOR STANDARD A.I.C. RATING HIGHER THAN INCOMING FROM UTILITY CO.
3. THE CONTRACTOR SHALL PROVIDE AN ITEMIZED CERTIFICATION TO THE CARRIER OF ALL EQUIPMENT AND RELATED HARD ALL STRUCTURAL FILE EXTENDING FROM SUITABLE SUID GRADE TO BOTTOM OF FOUNDATIONS OR FLOOR SLABS SHALL CONSIST OF GRANULAR MATERIAL AND 3% TO 10% BY DRY WEIGHT PASSING THE U.S. STD #200 SIEVE SIZE, COMPACTED TO 55%, OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS EXTENDING PROVIDED TO 10% BY DRY WEIGHT PASSING THE U.S. STD #200 SIEVE SIZE, COMPACTED TO 55%, OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS EXTENDING PROVIDED TO 10% BY DRY WEIGHT PASSING THE U.S. STD #200 SIEVE SIZE, COMPACTED TO 55%, OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS EXTENDING PROVIDED TO 10% BY DRY WEIGHT PASSING THE U.S. STD #200 SIEVE SIZE, COMPACTED TO 55%, OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS 4. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH ITS VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR CAPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANELBOARD AND CIRCUIT . THE SOIL PREPARATION, INCLUDING FOOTING EXCAVATION, FILL, BACK FILL, AND COMPACTING SHALL BE DONE FOLLOWING THE RECOMMENDATION CONTAINED IN INTERNATIONAL BUILDING CODE (2012) 5. MICTLA RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING: SHALL MEET OR EXCEED UL.51A AND NEMA OS 1, AND BE RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (WP OR BETTER 0. NONMETALLIC RECEPTACLE SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA 05.2, AND BE RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (WP OR BETTER) OUTDOORS. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SULTABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO ANTICIPATED AGGRESSIVE ACTIONS IN THE VICINITY OF THE FOUNDATION. THE DURABLITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI (20.7 MPa) IN 28 DAYS. 6.12 TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS)

1. TASS DEVICES OF A CP POWER SHALL BE INSTALLED IN ALL EXISTING FACILITIES THAT ARE MISSING TYSS DEVICES OR HAVE UNSUITABLE TYSS DEVICES.

2. THEA CP OWER COMINION MODE SURGE SUPPRESSION SHALL BE CONNECTED TO THE COMMERCIAL POWER NIFUT SIDE OF THE MANUAL TRANSFER SWITCH. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE STATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE. WELDING IS PROHIBITED ON REINFORCING STEEL EMBEDMENTS. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL RE 3 INCHES (76MM) LINLESS OTHERWISE NOTED, APPROVED SPACERS SHALL RE LISED TO INSURE A 3" (76MM) MINIMUM COVER ON REINFORCEMENT 2. IMMINIMA CUNICIDE IE COUSER FOR KEINE FOR CHEMINAL DES INDICES (MINIMI) UNICIDES OF INERVISES OF INERVISES OF INERVISES OF INSURED AS "(MINIMIN CUNICIDED IN ACCURATION OF INSURED IN ACCURATION OF INSURED AS "(MINIMIN CUNICIDED IN ACCURATION OF INSURED IN ACCURATION 3. IN MARKETS WITH LIGHTNING ZONE > OR = TO 4, RF TVSS DEVICE SHALL BE INSTALLED AT THE ENTRANCE TO THE SHELTER OR AS CLOSE AS POSSIBLE TO THE BTS CABINET FOR OUTDOOR SITES, TO PROTECT AGAINST LIGHTING AND TRANSIENT VOLTAGES 4. A T1 TRANSPORT TVSS DEVICE SHALL BE INSTALLED AT ALL SITES BETWEEN THE NTU AND THE BTS. T. I GENERAL GROUNDING MATERIALS AND NOTES
1. THE SUBCONTRACTOR SHALL VERRIP! THAT THE SYSTEM IS EFFECTIVELY GROUNDED, MEETS NEC ARTICLE 250 REQUIREMENTS, IS ACCEPTABLE TO THE LOCAL UTILITY AND THE LOCAL AUTHORITY HAVING JURISDICTION, AND MEETS THE CARRIER'S ELECTRICAL AND GROUNDING SPECIFICATIONS FOLLOWING COMPLETON OF WORK, CONDUCT GROUND TEST, OWNER'S REPRESENTATIVE WILL INSPECT CADWELDS AND REVIEW GROUND TEST PRIOR TO BURIAL. USE CLEAN SAND AND CLAY BACKFILL FOR BURIED GROUND CONDUCTORS. ALLOWABLE SOIL BEARING PRESSURE = 2000 PS - ALLOWABLE SLDING RESISTANCE = 159 PSI/FIT.
FOUNDATION SHALL BE FORMED WITH PLYWOOD OR METAL PANELS SUFFICIENT FOR STRUCTURAL AND VISUAL REQUIREMENTS. FORMS SHALL BE STRUCTURALLY ADEQUATE TO WITHSTAND UNCURED CONCRETE PRESSURE. FORMS SHALL BE REMOVED ONCE CONCRETE HAS ATTAINED 75% OF ITS ULTIMATE 2. ALL DETAILS SHOWN ARE DIAGRAMMATICAL. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS. EAL LEFT AND STATUTION AND COMPANIENT HEAR AREA OF INFORMATION IN AN ALL TO AN ADVISION OF INFORMATION AND ADDITIONS AND ADDITIONS.

IN CONTROL CONNECTIONS WHERE GROUND CONNECTIONS ARE MADE, THE CONTACT POINTS SHALL BE THOROUGHLY CLEANED AND MADE FREE OF FOREIGN MATERIAL SUCH AS PAINT, GALVANIZATION, AND CORROSION, TO ENSURE ADEQUATE BOND. REFER TO EXC ANTICOMATION COMPOUND NOTES FOR FUTHER DETAILS. THE CONTRACTOR SHALL EXPECT SUBMERGED DRILLING CONDITIONS FOR DEEP FOLINDATION CONSTRUCTION SLICH AS DRILLED PIERS OR DEADMAN ANCHORS AND SHALL MORILLIZE ACCORDINGLY TO CONCRETE SHALL BE SUPERVISED BY PERSONNEL MONULED FAMILY OF THE FOUNDATION OF THE PROPOSED PROJECT OF SOLAR DESIGNATION SHALL BE SUPERVISED BY PERSONNEL WITH GENERAL Y ACCEPTED INSTALLATION PROPOSED PROJECT OF THE PROPOSED PROPOSED PROPOSED PROPOSED PROJECT OF THE PROPOSED PROPO 5. GROUND WIRE: OUTSIDEUNDERGROUND, MINIMUM NO. 2 AMERICAN WIRE GAUGE (AWG) BARE, SOLID, ANNEALED, TINNED COPPER WIRE (BTCW) BUT SIZED IN ACCORDANCE WITH NEC TABLE 28,06, SERVICE SIZE, AND LOCAL UTILITY REQUIREMENTS. UNDER NO CIRCUMSTANCES IS STRANDED WIRE ACCEPTABLE. ALL BURIED WIRE SHALL BE INSTALLED TO MEET MINIMUM BEND RADIUS. SHARP BENDS AND KINKS ARE NEVER ACCEPTABLE. WHEN ANY GROUNDING OR BONDING WIRE RUNS THROUGH CONCRETE, IT SHALL BE SLEEVED IN PVC. GROUND WIRES SHALL NOT BE INSTALLED OR ROUTED 7. BURIED GROUND RING: THE EQUIPMENT/SHELTER PAD OR PLATFORM SHALL HAVE A BURIED GROUND RING (RG) THAT CONSISTS OF A RING NO. 2 AND BABE, SOLD, ANNEALD, THINDED COPPER WERE AND EXCHERNED.

WITH SOLD RESISTIVITIES OF UP TO 50,000 OHM-CM. SOIL RESISTIVITIES HIGHER THAN THIS WILL REQUIRE FURTHER AUGMENTATION ALL UNDERGROUND (BELOW GRADE) GROUNDING CONNECTIONS, INCLUDED COPPER GROUND ROOS, CHEMICAL GROUND ROOS ATTACHMENTS, AND GROUND HEAD FROM EXCHANGE FOR THE STATE FROM THE SHELTER FOR OWNER FOR FOR CHANGE FOR FROM THE SHELTER FOR HEAD SHELTER FOR FOR THE SHELTER FOR HEAD SHELTER FO FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING SIDES OF EXCAVATION, FORM WORK, REINFORCING BARS, FORM TIES, OR OTHER OBSTRUCTIONS, UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER FOUNDATION DESIGN ASSUMES CONTINUOUS CONCRETE PLACEMENT WITHOUT CONSTRUCTION JOINTS. OP OF FOUNDATION OUTSIDE LIMITS OF ANCHOR BOLTS SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH. AREA INSIDE LIMITS OF ANCHOR BOLTS SHALL BE LEVEL, WITH A SCRATCHED FINISH. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED "X'-X'-Y' (19mm x 19mm) MINIMUM.

NITIMATE CONTACT BETWEEN CONCRETE AND SOIL WALLS OF PAD IS ESSENTIAL FOR ADEQUATE FOUNDATION PERFORMANCE. THE CONCRETE SHOULD BE APPROPRIATELY VIBRATED DURING CONSTRUCTION. 8 EXCITERMIC WELDING: EXCITERMIC WELDS SHALL BE CADWELD A REGISTERED TRADEMARK OF ERCO PRODUCTS. INC. OF CLEVELAND OHIO OR THERMOWELD A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. INC. OF THE ACKNOWLED A DIVISION OF CONTINENTAL INDUSTRIES. S. EXCHIFFMING VELLINGS: EXCHIFFMING VELLOS SHALL BE COUNTELL). A RECISI ENED INCREMANCE OF EXCO PROJUCTS, INC. OF LEVELAND, UNIO, U THE CONTRACTOR MIGHT HAVE TO BUILD THE FOUNDATION WITH SUBMERGED CONDITIONS AND SHALL MOBILIZE ACCORDINGLY. ALL EXISTING GROUNDING RINGS AND DEVICES EXPOSED BY EXCAVATION OR REGRADING SHALL BE REPLACED AND PROPERLY CONNECTED TO EXISTING SYSTEM PER NEC OR LOCAL JURISDICTION REQUIREMENTS CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES (76 MM) NOR BE LESS THAN 2 INCHES (51 MM). SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATION DINDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT OF THE FOLLOWING DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED. 13. INSULATORS: POLYESTER FIBERGLASS, 15 KV MINIMUM DIELECTRIC STRENGTH, FLAME RESISTANT PER UL 94 VO CLASSIFICATION. R FOUNDATION AND ANCHOR TOLERANCES REFER TO TOWER MANUFACTURER DRAWINGS FOR SPECIFIC JOB NUMBER AND DATE. IN ABSENCE OF MORE SPECIFIC INFORMATION, THE CONTRACTOR MAY USE THE FOLI 14. CUPS: WHEN SECURING ANY GROUND WIRES, SOLID OR STRANDED, INSULATED OR UNINSULATED, NEVER USE ANY CUPS OR OTHER DEVICES THAT ARE CONDUCTIVE AND FORM A CLOSED LOOP. METALLIC CLIPS ARE ACCEPTABLE IF THEY DO NOT FORM A CLOSED LOOP 15. GROUND CLAMP: BURNDY GAR STYLE UL CLAMP WITH TWO-HOLE PROVISIONS FOR LONG BARREL MULTIPLE CRIMP TWO-HOLE LUGS. -LOCATION: L/23 OF SHAFT IDMINE; LIKE (MAX.)
-OUT OF PLINES; LIKE OF SHAFT IDMINE; LIKE OF SHAFT DIAMETER OR 12\*
-CONCRETE CUT OF ELEVATION 4:- ½\*
-CONCRETE CUT OF ELEVATION 4: 6. COAX GROUNDING KIT: COAX GROUND KITS SHALL BE FROM THE SAME MANUFACTURER AS THE COAX. GROUND KITS SHALL BE SOLID STRAP TYPE WITH NO. 6 AWG WIRE AND 2-HOLE COMPRESSION CRIMPED LUGS (INSTALLED USING THE PROPER UL TOOL AND CIRCUMFERENTIAL HEXAGON DIE). BRAND OR HOSE CLAMP TYPE SHALL NOT BE USED. ALL COAX CABLES ARE TO 8E GROUNDED AT THEIR SECTOR COE, IMPOINT COB, IMP THE SHELLEN WALL A MILEVON COS IS OUT. PRECURED IF THE COUNT END IT HE LEGELS 201. A WAVEGUIDE BRIDGE COS IS OUT. PRECURED WHEN IT HE LENGTH OF COSE, PROM TOWER TO EQUIPMENT) IS GREAT ENTHAN 15 FEET.

18. METALLIC CONDUIT. ANY GROUND RODS WIRES, SOLID OR STRANDED, THAT PASS-THROUGH CONDUIT, METALLIC SLEEVE, OR CABLE COVER, SHALL BE BONDED AT BOTH ENDS.

19. ANTENNA GROUNDING - ALL ANTENNAS (INCLUDION THE OF SA NTENNAS) ARE GROUNDED BY THE MOUNTSMASTS AND BY THE GROUND MIST OF THE WAVEGUIDE BRIDGE.

ANTENNAS HANDHAFCURER. THE GROY SANTENNAS) MUST BE INSTALLED AND CONNECTED TO THE WOOK GOOD OF THE WAVEGUIDE BRIDGE.

ANTENNAS HANDHAFCURER. THE GROY SANTENNAS JUST BE INSTALLED AND CONNECTED TO THE WOOK GOOD OF THE WAVEGUIDE BRIDGE. IJD IF USED, SHALL BE FULLY DISPLACED BY CONCRETE AND SHALL NOT BE DETRIMENTAL TO CONCRETE OR SURROUNDING SOLL CONTRIBUTE CONCRETE SHOULD BE REPORTED DURING TOP OF FOR THE CONCRETE SHOULD BE REPORTED DURING CONCRETE AND SHALL BE REPORTED TO THE OFFICE OF SURROUNDING SOLL CONTRIBUTE CONCRETE SHOULD BE APPROPRIATELY VIBRATED DURING CO I GENERAL
THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, TRANSPORTATION, CONSTRUCTION TOOLS, ETC, FOR THE INSTALLATION OF COMPLETE AND PROPERLY OPERATING SYSTEMS. ANTENINS MANUFACTURER: THE GPS ANTENINGS) MIST BE INSTALLED AND CONNECTED TO THE COAY GROUND BAR AT THE END OF THE WAVEGUIDE BRIDGE.

2. ANTLO XIGATION COMPOUNDS AT THOUSAND THOU SHALL BE IN ADDRESS AND THE CONTROL OF THE LIGHT. SO, TO BE TUBE, INC. OR DESTRUCE PROPERTIES. F. ENTITION TO COMPOUND SHALL BE APPLIED BETWEEN LUG AND GROUND BAR ONLY, DO NOT COVER THE LUG.

2. SERVICE DISCONNECT GROUNDING: IT THERE IS A SERVICE DISCONNECT SEPARATELY AND ON THE SUPPLY SIDE OF THE PPC CABINET AND NO NEUTRAL TO GROUND GOOD AND SHALL BE MADE AT THE SERVICE DISCONNECT SWITCH LOCATED SEPARATELY AND ON THE SUPPLY SIDE OF THE PPC CABINET AND NO NEUTRAL TO GROUND GOOD AND SHALL BE MADE AT THE SERVICE DISCONNECT SWITCH LOCATED SEPARATELY AND ON THE SUPPLY SIDE OF THE PPC CABINET AND NO NEUTRAL TO GROUND GOOD AND SHALL BE MADE AT THE SERVICE DISCONNECT SWITCH LOCATED SEPARATELY AND ON THE SUPPLY SIDE OF THE PPC CABINET AND NO NEUTRAL TO GROUND GOOD AND SHALL BE MADE AT THE SERVICE DISCONNECT SWITCH LOCATED SEPARATELY AND ON THE SUPPLY SIDE OF THE PPC CABINET AND NO NEUTRAL TO GROUND GOOD AND SHALL BE MADE AT THE SERVICE DISCONNECT SWITCH LOCATED SEPARATELY AND ON THE SUPPLY SIDE OF THE PPC CABINET AND NO NEUTRAL TO GROUND GOOD AND SHALL BE MADE AT THE SERVICE DISCONNECT SWITCH LOCATED SEPARATELY AND ON THE SUPPLY SIDE OF THE PPC CABINET AND NO NEUTRAL TO GROUND GOOD AND SHALL BE ADDED. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE LAWS AND ORDINANCES OF ALL AUTHORITIES HAVING JURISDICTION AND WITH ALL ASSOCIATED UTILITY COMPANY REGULATIONS AND APPLICABLE REQUIREMENTS. INSTALLATION WILL ALSO COMPLY WITH THE LATEST EDITIONS OF ALL CODES AND STANDARDS OF THE ENTITIES LISTED UNDER ITEM #1.1, PARAGRAPH 1. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS. THE CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS AND PAY ALL REQUIRED FEES. 8 RF AND TOWER APPURTENANCE INSTALLATION RELATED NOTES
8.1 COAXIAL CABLE REQUIREMENTS: RECORD DRAWINGS, MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS BETWEEN WORK AS SPECIFIED AND INSTALLED, RECORD CHANGES ON A CLEAN SET OF CONTRACT DOCUMENTS WHICH SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER UPON COMPLETION OF THE PROJECT ALL BROCHURES, OPERATION MANUALS, CATALOOS, SHOP DRAWINGS. SPECIFICATIONS, ETC. SHALL BE TUNNED DVER TO THE CARRIER AT THE COMPLETION OF THE PROJECT.

SURPRISHER WARRANTY: CHARANTER INSTALLATION TO BE FREE OF BEFECTS, SHORTS, GROUND, ETC. FOR A PERIOD OF ONE YEAR FLIWINSH WARRANTY SO THE DEFECTIVE MATERIAL AND OR WORKMASHIP WILL BE REPAIRED/REPLACED IMMEDIATELY UPON NOTIFICATION AT NO DYPTION OF WARRANTY, FAFTER THAT (9) DAYS THE CORRECTIONS ARE NOT COMPLETE. THE OWNER RESERVES THE OPTION OF A PRINCH OF OTHER INCESSORY REPAIRS AND BOXC CHARGING THE CONTRACTOR FOR THE WORK. PIRENT, AND MATERIALS NECESSARY FOR RECEIVANG, INSTALLING, TESTING, AND AUDISTING ANTENIA CABLES FROM THE AUTISTING TO THE CONNECTIONS AT THE BASE TRANSMISSION SYSTEM (BTS). THIS SHALL INCLIDE ALL EQUIPMENT SHOW ENIAL AUTERIAL CABLES CONNECTIONS, AND FITTING SHALL BET HIRD PARTY FURNISHED COMPONENTS AS SHOWN ON THE BILL OF METERIALS. INSTALLATION
 A. COAXIAL CABLE LENGTHS SHALL BE FIELD MEASURED. INSTALLER SHALL NOTIFY CARRIER PRIOR TO PURCHASE OF CABLE OF THE OVERALL LENGTH. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES, AS NECESSARY. THE CONTROL OF SHIRLD SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER OF THAT SERVICE AND WRITTEN PERMISSION OF THIS INSTALLATION'S CARRIER CHANGES NO ADDITIONAL COSTS FOR LABOR OR MATERIAS WILL BE ALLOWED FOR CHANGES OR MODIFICATIONS MADE UNLESS PRIOR WRITTEN APPROVAL IS OBTAINE DRAWINGS. ELECTRICAL DRAWINGS ALE OR DIGEORATION IN ATLITER AND ARE NOT TO GE SCALED.

DISCREPANCIES. DISCREPANCIES ON THESE PLANS, SPECIFICATIONS, ETC. MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER. COAXIAL CABLE TYPE AND DIAMETER SHALL BE VERIFIED WITH CARRIER. COAXIAL CABLES SHALL BE LABELED IN ACCORDANCE WITH CARRIER ELECTRICAL MATERIALS AND METHODS SPECIFICATIONS. ALL MAIN CABLES WILL BE COLOR CODED AT FOUR LOCATIONS: A) AT ANTENNA PRIOR TO JUMPER, B) AT THE BOTTOM OF THE TOWER, C) EXTERIOR PART OF THE WAVE ENTRY PORT (AT THE SHELT EXPLICABINET WALL), D) INTERIOR OF THE SHELT EXPLICABINET.

INSTALL CONNECTIONS TO COAXIAL CABLE AT BOTH ENGING ANTENNA EDNA BITS LOCATION).

UPON SUCCESSFUL COMPLETION OF THE SWEEP TEST, THE CONTRACTOR SHALL PROVIDE A WEATHERTIGHT SEAL ON THE COAX CABLES AT THE ANTENNA CONNECTION ONLY. TTEN APPROVAL IS OBTAINED FROM THE ARCHITECT, ENGINEER OR OWNER IN THE FORM OF A CH SURVEY AND CONDITIONS: VISIT THE JOB SITE PRIOR TO SUBMITTING BID, AND MAKE A SURVEY OF EXISTING CONDITIONS WHICH MAY AFFECT THE WORK TO BE PERFORMED. NO OTHER ALLOWANCES WILL BE GIVEN FOR THE SITE CONDITION THE MINIMUM BENDING RADIUS FOR ALL ANTENNA CABLES SHALL BE AS SHOWN BELOW OR PER THE MANUFACTURER, WHICHEVER IS MORE CONSERVATIVE CO-OPERATION: CO-OPERATE WITH OTHER CONTRACTORS AND SUBCONTRACTORS ON SITE ARRANGE AND EXECUTE WORK IN SUCH A MANNER AS REQUIRED FOR THE SATISFACTORY AND EFFICIENT CONSTRUCTION OF THIS PROJECT BY ALL TRADES CONCERNED

CABLE IN AIR OR CABLE TRAY A. GROUNDING KITS - AFTER INSTALLATION OF GROUND STRAPS, THE CONNECTIONS SHALL BE MADE WEATHER TIGHT USING 8.2 ANTENNA REQUIREMENTS:

1. AZIMUTHS ARE ORIENTED CLOCKWISE FROM TRUE NORTH.

- PLANS PREPARED FOR: extenet

PLANS PREPARED BY: •

UC/SYNERGETIC MANSFIELD, MA 02048 1-508-337-7600 www.ucseng.com

## FOR PERMITTING PURPOSES ONLY

STORROW DR BOSTON, MA 02114

SUFFOLK COUNTY

P F STAMP ARFA

DRAWING NOTES: -

ORIGINAL PLAN: AS NOTED DRAWN BY: PLAN ORIG. DATE: 3/11/19

- REVISIONS REV DAT DESCRIPTION

SITE INFO: LAT: 42.36361238° LONG: -71.07060934° CRAN ID:

CRAN\_RCTB\_2HA4\_070

EXTENET NODE ID:

NE-MA-BSTBSC01-00070

ITE ADDRESS

SHEET TITLE:

STORROW DR

**GENERAL NOTES** 

SHEET NUMBER:

GN-2

STRUCTURAL MEMBERS: DO NOT CUT, DRILL OR WELD ANY STRUCTURAL MEMBER EXCEPT AS SPECIFICALLY APPROVED BY THE ENGINEER MISCELLANEOUS SUPPORTS: PROVIDE ANY ADDITIONAL STRUCTURAL SUPPORT STEEL BRACKETS, ANGLES, FASTENERS AND HARDWARE AS REQUIRED TO ADEQUATELY SUPPORT ALL ELECTRICAL MATERIALS AND EQUIPMEN ONE-HOLE STRAPS SHALL NOT BE USED FOR CONDUITS LARGER THAN 1/4 INCH

SPECTIONS AGENCY: APPROVED BY THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE

PES: HANGERS, STRAPS, RISER SUPPORTS, CLAMPS, U-CHANNEL, THREADED RODS, ETC., AS INDICATED OR REQUIRED

ERTIFICATES: SUBMIT ALL REQUIRED INSPECTION CORTICATES TO THE CARRIER AND UTILITY.

CO-CHEMIA INVICUO-CHEMIA IN HIM OF THE COMINING LIGHT AND SHEED THE ARROWSE, AND EXECUTE YOUR IN SUCH A NAMENER AS REQUIRED FOR THE SATISFACTOR AND ENTERIN COMINING.

STALLATION SHALL COMEN'S PECIFICALLY WITH ENGINEERING STANDARDS MANULA. ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO COMMENCEMENT OF WORK
ROCUREMENT VERIFICATION: PROVIDE AN ITEMIZED CERTIFICATION TO THE PROJECT MANAGER PRIOR THAT EQUIPMENT AND RELATED HARDWARE HAVE BEEN ORDERED WITHIN 24 HOURS OF NOTICE TO PROCEED.

SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS

PROFESSARIA.

2 INSPECTIONS
GENERAL: DURING AND UPON COMPLETION OF WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT
UNDERSTAND AND UPON COMPLETION OF WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT
UNDERSTAND AND UPON COMPLETION OF WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT
UNDERSTAND AND UPON COMPLETION OF WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT
UNDERSTAND AND UPON COMPLETION OF WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT
UNDERSTAND AND UPON COMPLETION OF WORK IN ARRANGE AND UPON CONTRACT AND

3 HANGERS AND SUPPORTS
MATERIALS: ALL HANGERS, SUPPORTS, FASTENERS AND HARDWARE SHALL BE ZINC COATED OR OF EQUIVALENT CORROSION RESISTANCE BY TREATMENT OR INHERENT PROPERTY AND SHALL BE MANUFACTURED PRODUCTS DESIGNED FOR THE APPLICATION, PRODUCTS FOR OUTDOOR USE SHALL BE HOT DIP

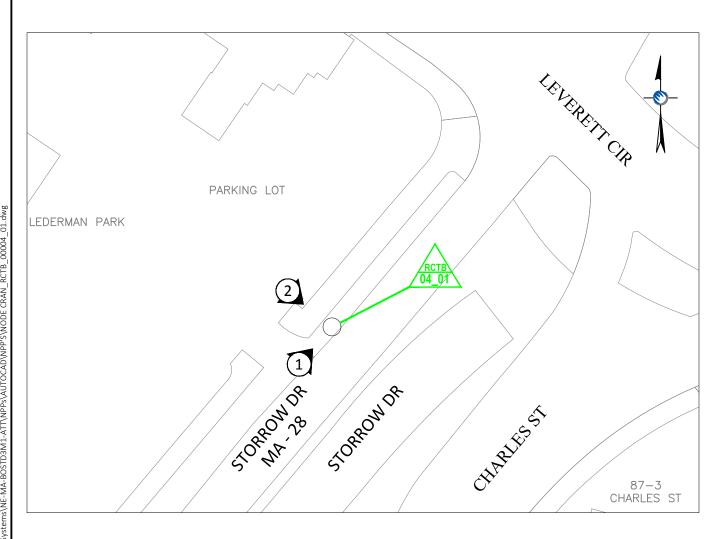
INSTALLATION: RIGIDLY SUPPORT AND SECURE ALL MATERIAL, RACEWAY AND EQUIPMENT TO BUILDING STRUCTURE USING HANGERS, SUPPORTS AND FASTENERS SUITABLE FOR THE USE ON MATERIALS AND LOADS ENCOUNTERED, PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MANIFEMENT STATEMENT OF THE PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MANIFEMENT STATEMENT OF THE PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MANIFEMENT STATEMENT OF THE PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MANIFEMENT STATEMENT OF THE PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MANIFEMENT STATEMENT OF THE PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MANIFEMENT STATEMENT STATEMENT OF THE PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MANIFEMENT STATEMENT STA

### **PROJECT DESCRIPTION:**

THESE PLANS REPRESENT A PORTION OF A PROPOSED SMALL CELL BUILD INVOLVING THE INSTALLMENT OF AN ANTENNA AND RADIO EQUIPMENT ON AN EXISTING WOODEN UTILITY OR REPLACEMENT METAL STREETLIGHT POLES.

# EXTENET SYSTEMS 384–398 STORROW DR BOSTON, MA 02114 (NORTHWEST SIDE OF STORROW DR)

CRAN\_RCTB\_00004\_01 NE-MA-BOSTD3M1-04001





# **LOCATION MAP**

LATITUDE: 42.366375° LONGITUDE: -71.068693° ELEVATION: 16.4' AGL SCALE: 1" = 50'

## LOCUS MAP

PROJECT LOCATION - NODE RCTB-04\_01 SCALE: 1" = 500' PROJECT INFORMATION

INDEX:

COVER PAGE
 SIDE PROFILE

3 REAR PROFILE

4 DETAILS - ANTENNA AND RADIOS

5 DETAILS - RADIO SHROUD
6 DETAILS - CONCRETE FOUNDATION

7 EXISTING PHOTO / WIRING DIAGRAM

POLE OWNER: CITY OF BOSTON

ONTACT: RIC

: RICK ANGELINI 3030 WARRENVILLE RD SUITE 340 LISLE, IL 60532 NOC: (866) 892-5327

SUFFOLK COUNTY

BOSTON, MA

NOTES:

PREPARED FOR:



PREPARED BY:



21 OXFORD RD MANSFIELD, MA 02048 w.ucseng.com 1-50

> NODE RCTB-04\_01 COVER PAGE

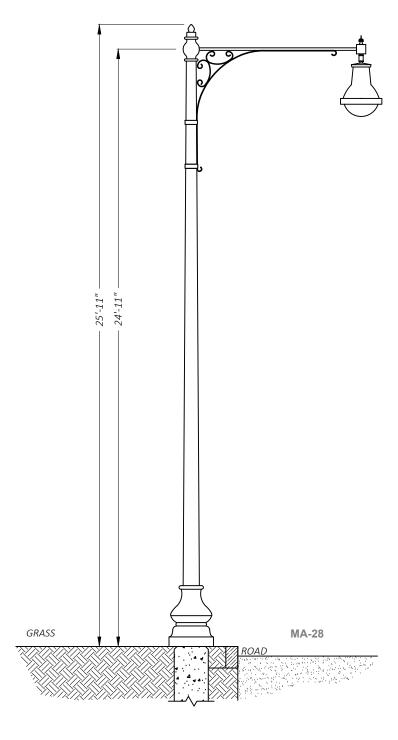
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DRAFTER: MMS SCALE: AS SHOWN

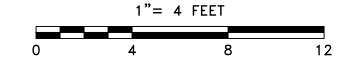
ISSUE DATE: 03/27/18
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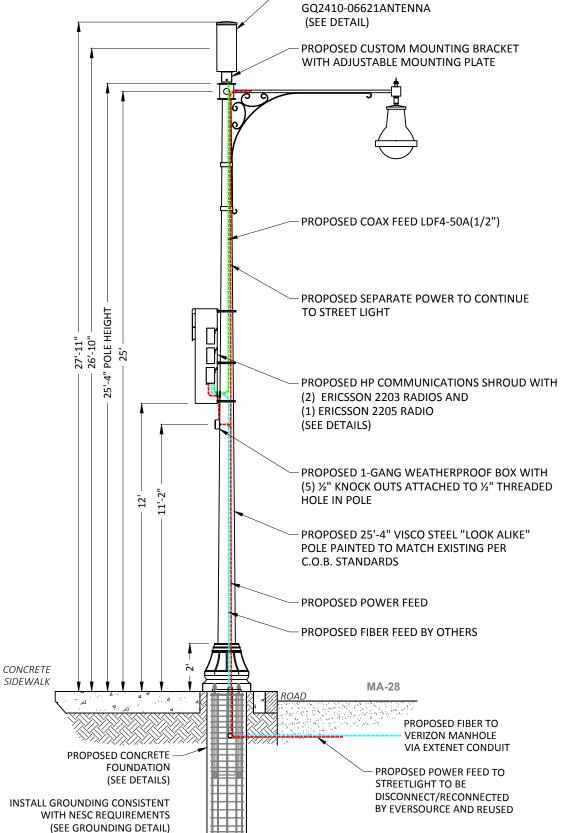
NOTE 2:

FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE



**EXISTING PROFILE - SIDE VIEW** LOOKING NORTHEAST ALONG STORROW DR





PROPOSED PROFILE - SIDE VIEW

LOOKING NORTHEAST ALONG STORROW DR

PROPOSED ANTENNA ASSEMBLY WITH

4G/LTE COMPATIBLE GALTRONICS

BOSTON, MA SUFFOLK COUNTY

NOTES:

PREPARED FOR:



PREPARED BY:



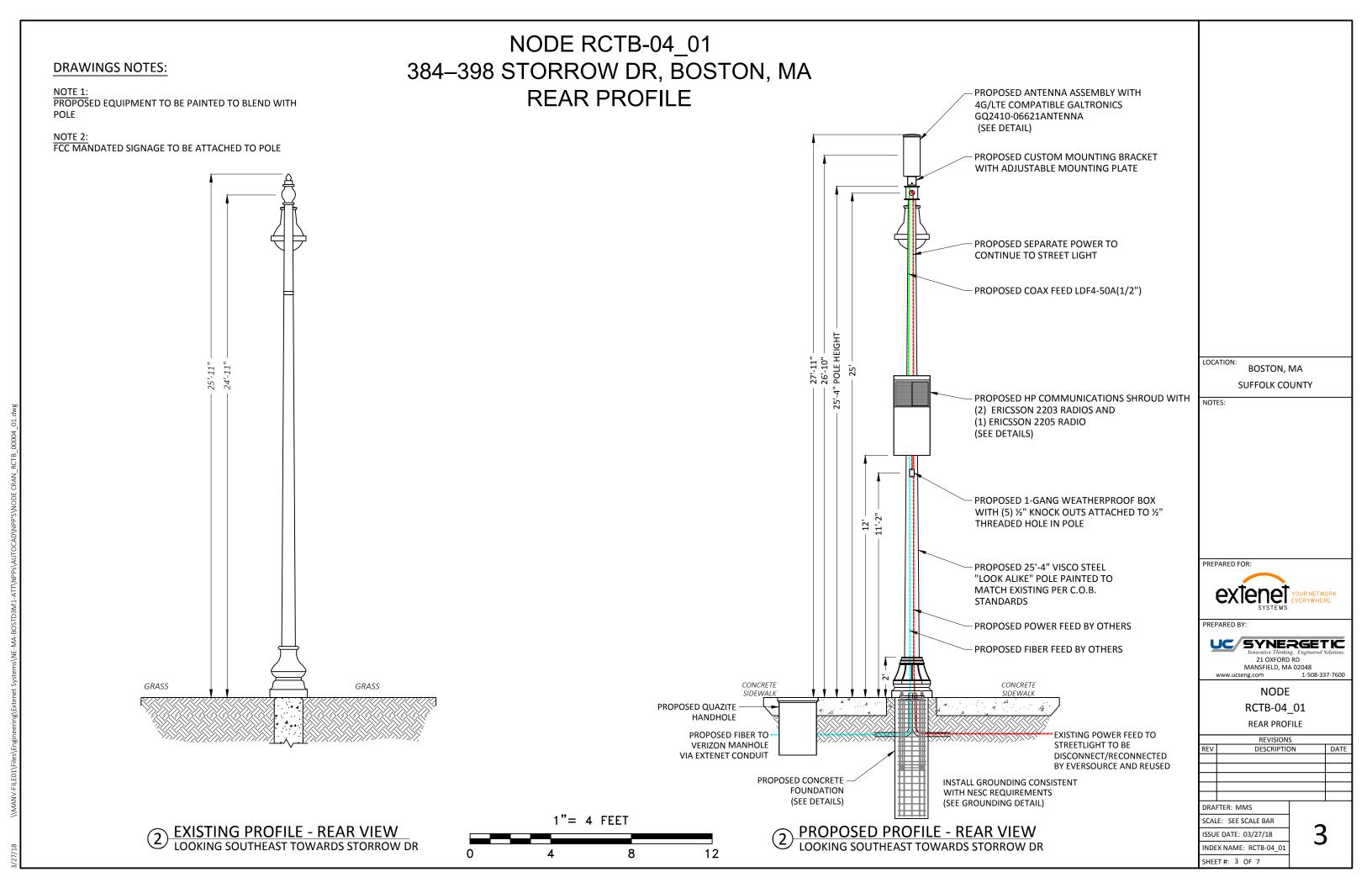
NODE RCTB-04\_01

SIDE PROFILE REVISIONS DESCRIPTION

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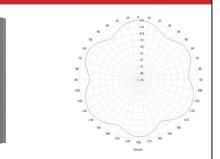


24"x 10" Pseudo Omni 10-Port Canister Antenna [1695-2360, 3550-3700 and 5150-5925 MHz]

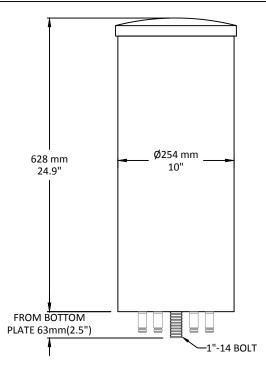
GQ2410-06621

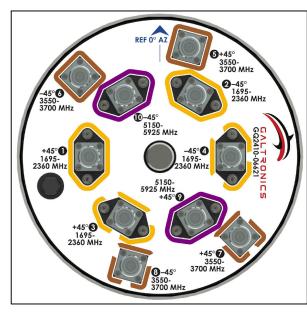
#### **Description:**

- Pseudo Omni Canister Antenna for Outdoor DAS and Small Cells.
- 4x ports for AWS/PCS/WCS Band 1695-2360 MHz
- 4x ports for CBRS Band 3550-3700 MHz
- 2x ports for UNII Band 5150-5925 MHz\*



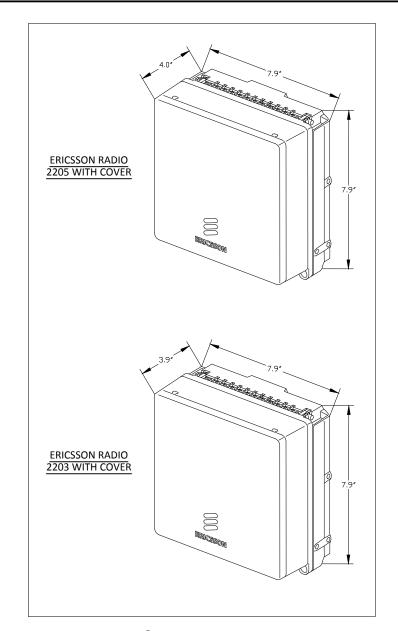
1695-2360, 3550-3700 and 5150-5925 MHz Pseudo Omni Canister Antenna





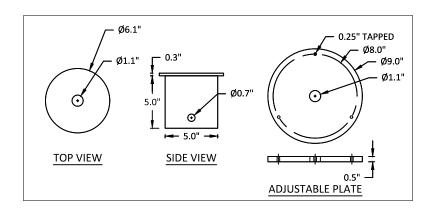
## GALTRONICS GQ2410-06621 ANTENNA

SCALE: NTS



# ERICSSON 2203 & 2205 RADIOS WITH COVER POLE MOUNT REMOTE UNIT

SCALE: NTS



# CUSTOM ANTENNA MOUNTING BRACKET SCALE: NTS

BOSTON, MA
SUFFOLK COUNTY

NOTES:

PREPARED FOR:



PREPARED BY



NODE RCTB-04\_01

DETAILS - ANTENNA AND RADIOS

REVISIONS		
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DRA	FTER: MMS	

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**HP COMMUNICATIONS SHROUD** 

6.48 CUBIC FEET SCALE: NTS

BOSTON, MA
SUFFOLK COUNTY

NOTES:

PREPARED FOR:



PREPARED BY:



NODE RCTB-04\_01

DETAILS - RADIO SHROUD

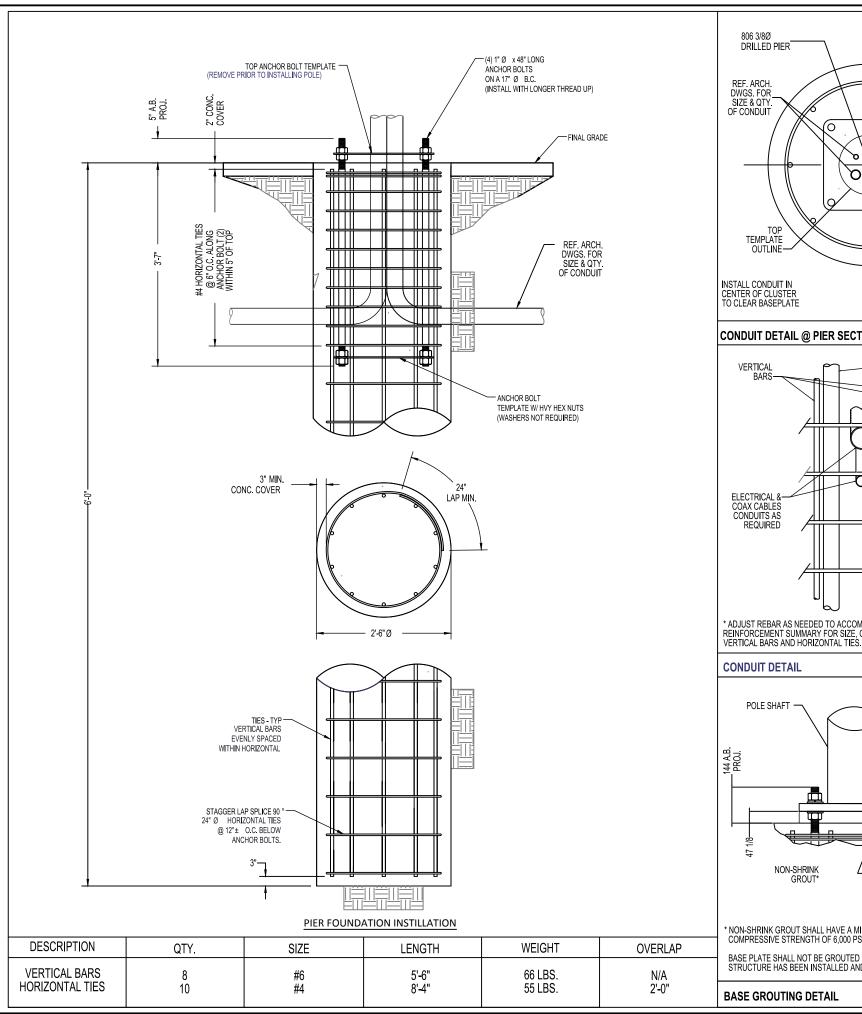
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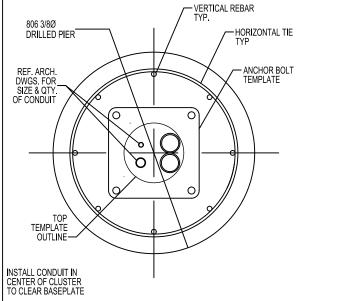
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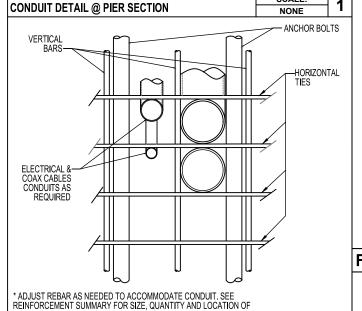
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SCALE:

SCALE:

NONE

3

ANCHOR BOLT POLE SHAFT HEAVY HEX NUT LOCK WASHER - FLAT WASHER - BASE PLATE FOOTING FLAT WASHER HEAVY HEX NU NON-SHRINK - 1"Ø DRAIN HOLE GROUT PROVIDED BY CONTRACTOR

\* NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI.

BASE PLATE SHALL NOT BE GROUTED UNTIL AFTER THE STRUCTURE HAS BEEN INSTALLED AND PLUMBED.

SCALE: **BASE GROUTING DETAIL** NONE

#### **GENERAL NOTES**

- CONTRACTOR IS RESPONSIBLE FOR CHECKING AREA FOR UNDERGROUND
- FACILITIES PRIOR TO EXCAVATING ANY MATERIALS.
  2. CONTRACTOR SHALL INSPECT AND REMOVE ALL DEBRIS FROM BOTTOM OF
- 3. CONTRACTOR SHALL VERIFY ANCHOR BOLT LAYOUT PRIOR TO, AND IMMEDIATELY AFTER PLACING CONCRETE. ANCHOR BOLT LAYOUT IS CRITICAL FOR MONOPOLE INSTALLATION.
- CONTRACTOR SHALL USE AND PROVIDE DEFORMED REINFORCING BARS CONFORMING TO ASTM A615 GR. 60 (60,000 PSI MIN. YIELD). CONTRACTOR SHALL USE STEEL WIRE TO HOLD REINFORCING BARS TOGETHER. IF WELDING REBAR IS PREFERRED, SUBSTITUTE USING A706 GR. 60
- CONTRACTOR SHALL USE AND PROVIDE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. CONCRETE SHALL USE 1" MAXIMUM STONE AGGREGATE, MIX DESIGN: 6 1/2 SACKS OF CEMENT MINIMUM PER CUBIC YARD, 5" MINIMUM AND 7" MAXIMUM CONCRETE
- CONCRETE SHALL BE CONSOLIDATED USING VIBRATORY METHODS THROUGHOUT DEPTH OF FOUNDATION, VIBRATING LOWER DEPTHS MAY BE ACCOMPLISHED BY TOUCHING REBAR CAGE WITH VIBRATOR.
- CONTRACTOR SHOULD ANTICIPATE THE USE OF A FULL-LENGTH TEMPORARY CASING TO STABILIZE THE EXCAVATION. THE CASING SHALL BE WITHDRAWN DURING THE PLACEMENT OF CONCRETE IN THE EXCAVATED HOLE. CONCRETE SHALL BE PLACED USING CONVENTIONAL METHODS TO MINIMIZE SEGREGATION OF CONCRETE AND AGGREGATE. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FT. CONCRETE MAY BE
- PLACED BELOW WATER USING TREMIE METHODS.

  8. CONCRETE SHALL BE PLACED TO THE DEPTH INDICATED, AND THE ABOVE GRADE PORTION SHALL BE FORMED. THE REBAR CAGE, ANCHOR BOLTS, AND CONCRETE SHALL BE PLACED WITHIN 24 HOURS OF COMPLETING THE EXCAVATION. COLD JOINTS ARE NOT ALLOWED.
  THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADEQUATE CONCRETE
- COVERAGE OVER REINFORCING BARS TO MINIMIZE CORROSION
  POTENTIAL. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL USE 3"
  CONCRETE COVER OVER REBAR. TOP OF FOOTING SHALL BE TROWELLED LEVEL AND SMOOTH.

  10. DRILLED PIER FOUNDATION DESIGN PER 2009/2012 IBC, TABLE 1806.2,
- CLASS 4 MATERIAL.

  11. TOTAL VOLUME OF CONCRETE REQUIRED FOR THIS FOUNDATION IS APPROXIMATELY 1.1 CU. YDS.

BOSTON, MA SUFFOLK COUNTY

NOTES:

#### **FACTORED BASE REACTIONS**

**MOMENT** 30.9 ft-kips = SHEAR 2.46 kips = VERTICAL 1.67 kips

#### SPECIAL INSPECTIONS

THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL

INSPE	INSPECTION PER 2009/2012 IBC, SECTION 1704			
ITEM	DESCRIPTION	INSPECTION BY	MATERIAL	
1	PIER EXCAVATION LATERAL BEARING CAPACITY	SOILS ENGINEER	300 PSF/FT LATERAL	
2	PIER CONSTRUCTION REINFORCING STEEL BAR SIZES AND INSTALLATION	SPECIAL INSPECTOR	ASTM A615 GR. 60	
3	ANCHOR BOLTS BOLT SIZE AND LENGTHS INSTALLATION	SPECIAL INSPECTOR	ASTM F1554 GR. 55	
4	CONCRETE TEST SPECIMENS PLACEMENT OF CONCRETE	SPECIAL INSPECTOR	fc = 4,000 PSI TYPE II CEMENT	

PREPARED FOR:



PREPARED BY:

SHEET#: 6 OF 7



MANSFIELD, MA 02048

NODE RCTB-04\_01

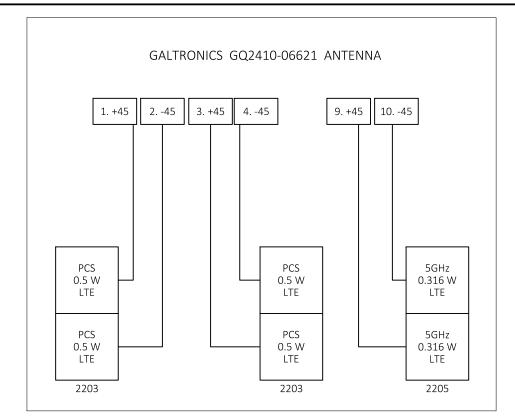
**DETAILS - CONCRETE FOUNDATION** 

REVISIONS			
REV	DESCRIPTION		DATE
DRAFTER: MMS			
SCALE: NTS			
		ı <i>#</i>	

ISSUE DATE: 03/27/18 b INDEX NAME: RCTB-04 01

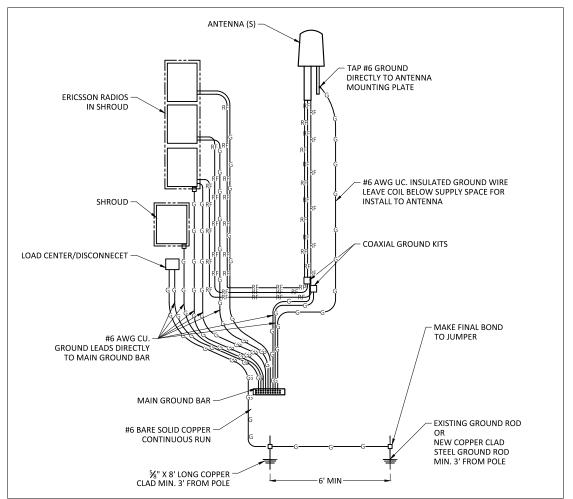


EXISTING POLE SCALE: NTS



# WIRING DIAGRAM

SCALE: NTS



GROUNDING DIAGRAM

SCALE: NTS

BOSTON, MA
SUFFOLK COUNTY

NOTES:

PREPARED FOR:



PREPARED BY:



NODE RCTB-04\_01

EXISTING PHOTO / WIRING DIAGRAM

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DRAFTER: MMS			

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SCALE: NTS

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