CRAN ID / EXTENET ID:
CRAN\_RCTB\_2HA4\_093/NE-MA-BSTBSC01-093

LATITUDE / LONGITUDE: 42.35368686° / -71.06820149°

SITE ADDRESS: **CHARLES ST** 

CITY, STATE, ZIP: BOSTON, MA 02108

NOTE:

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.

CALL BEFORE YOU DIG UNDERGROUND SERVICE ALERT 72 HOURS NOTICE REQUIRED. ENTER 1-888-DIG-SAFE

#### **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.

| SIT              | E INFORMATION  |  |
|------------------|--|--|
| CRAN ID:         | CRAN_RCTB_2HA4_093   |  |
| EXTENET NODE ID: | NE-MA-BSTBSC01-093   |  |
| LATITUDE:        | 42.35368686°   |  |
| LONGITUDE:       | -71.06820149°  |  |
| SITE ADDRESS:    | CHARLES ST   |  |
| CITY, STATE ZIP: | BOSTON, MA 02108   |  |
| COUNTY:          | MIDDLESEX  |  |
| JURISDICTION:    | BOSTON   |  |
| PROPERTY OWNER:  | CITY OF BOSTON RIGHT-OF-WAY  |  |
| APPLICANT:       | EXTENET SYSTEMS<br>876 HAMMOND ST<br>CHESTNUT HILL, MA 02467<br>(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

#### 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               |  |  |
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- PLANS PREPARED BY:

UC/SYNERGETIC Innovative Thinking. Engine 21 OXFORD RD MANSFIELD, MA 02048

## FOR PERMITTING **PURPOSES ONLY**

**CHARLES ST** BOSTON, MA 02108

MIDDLESEX COUNTY

P.F. STAMP AREA:

- DRAWING NOTES:

ORIGINAL PLAN: SCALE: AS NOTED PLAN ORIG. DATE: 04/04/19

| RE' | VISIONS: ——— |    |      |
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LAT: 42.35368686° LONG: -71.06820149°

CRAN RCTB 2HA4 093

EXTENET NODE ID:

NE-MA-BSTBSC01-093

SITE ADDRESS:

**CHARLES ST** 

SHEET TITLE:

TITLE SHEET

- SHEET NUMBER:

T-1



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

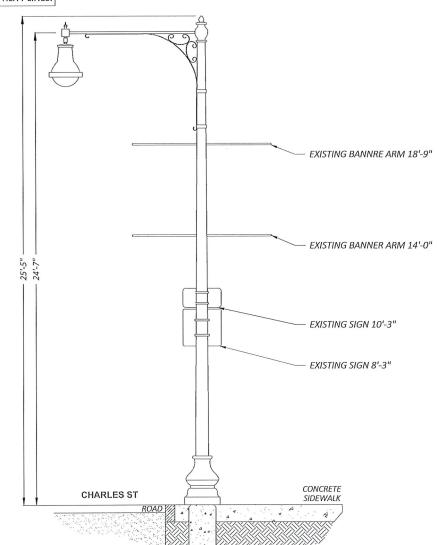
PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 4:

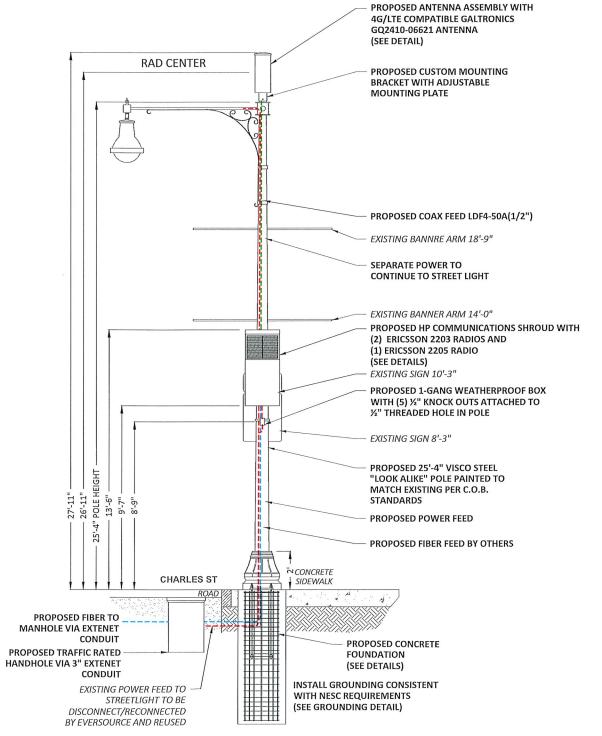
FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

NOTE 5

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



1 EXISTING PROFILE - SIDE VIEW LOOKING SOUTHEAST ALONG CHARLES ST



1 PROPOSED PROFILE - SIDE VIEW LOOKING SOUTHEAST ALONG CHARLES ST



PLANS PREPARED FOR: -



PLANS PREPARED BY: -

UC/SYNERGETIC
Innovative Thinking. Engineered Solutions.

21 OXFORD RD MANSFIELD, MA 02048 www.ucseng.com 1-508-337-7600

# FOR PERMITTING PURPOSES ONLY

OCATION: •

CHARLES ST BOSTON, MA 02108

MIDDLESEX COUNTY

P.E. STAMP AREA: -

- DRAWING NOTES:

ORIGINAL PLAN:
SCALE: AS NOTED
DRAWN BY: JR
PLAN ORIG. DATE: 04/04/19

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LAT: 42.35368686° LONG: -71.06820149°

CRAN ID:

CRAN\_RCTB\_2HA4\_093

EXTENET NODE ID:

NE-MA-BSTBSC01-093

SITE ADDRESS:
CHARLES ST

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SHEET TITLE:

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.

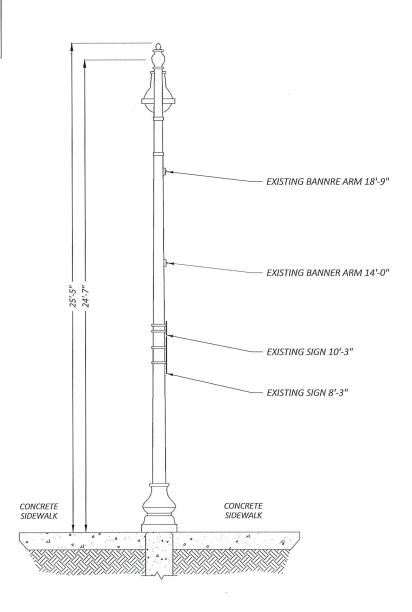
NOTE 3:

PROPOSED EQUIPMENT TO BE PAINTED TO BLEND WITH POLE.

NOTE 4: FCC MANDATED SIGNAGE TO BE ATTACHED TO POLE.

OTE 5:

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



PROPOSED ANTENNA ASSEMBLY WITH 4G/LTE COMPATIBLE GALTRONICS GQ2410-06621 ANTENNA RAD CENTER (SEE DETAIL) PROPOSED CUSTOM MOUNTING BRACKET WITH ADJUSTABLE MOUNTING PLATE PROPOSED SEPARATE POWER TO CONTINUE TO STREET LIGHT
- EXISTING BANNRE ARM 18'-9" PROPOSED COAX FEED LDF4-50A(1/2") EXISTING BANNER ARM 14'-0" PROPOSED HP COMMUNICATIONS SHROUD WITH (2) ERICSSON 2203 RADIOS AND (1) ERICSSON 2205 RADIO (SEE DETAILS) EXISTING SIGN 10'-3" PROPOSED 1-GANG WEATHERPROOF BOX WITH (5) ½" KNOCK OUTS ATTACHED TO 1/2" THREADED HOLE IN POLE EXISTING SIGN 8'-3" PROPOSED 25'-4" VISCO STEEL "LOOK ALIKE" POLE PAINTED TO MATCH **EXISTING PER C.O.B. STANDARDS** PROPOSED POWER FEED PROPOSED FIBER FEED BY OTHERS CONCRETE 1 SIDEWALK N SIDEWALK PROPOSED FIBER TO MANHOLE VIA EXTENET CONDUIT EXISTING POWER FEED TO STREETLIGHT TO BE
DISCONNECT/RECONNECTED BY EVERSOURCE AND REUSED PROPOSED CONCRETE INSTALL GROUNDING CONSISTENT FOUNDATION (SEE DETAILS) WITH NESC REQUIREMENTS (SEE GROUNDING DETAIL)

2 EXISTING PROFILE - REAR VIEW LOOKING NORTHEAST TOWARD CHARLES ST

2 PROPOSED PROFILE - REAR VIEW LOOKING NORTHEAST TOWARD CHARLES ST



PLANS PREPARED FOR: -



PLANS PREPARED BY: -

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21 OXFORD RD

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

# FOR PERMITTING PURPOSES ONLY

LOCATION: -

CHARLES ST BOSTON, MA 02108

MIDDLESEX COUNTY

P.E. STAMP AREA: -

- DRAWING NOTES: -

ORIGINAL PLAN:
SCALE: AS NOTED
DRAWN BY: JR
PLAN ORIG. DATE: 04/04/19

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SITE IN

LAT: 42.35368686° LONG: -71.06820149°

CRAN ID:

CRAN\_RCTB\_2HA4\_093

EXTENET NODE ID:

NE-MA-BSTBSC01-093

SITE ADDRESS:

CHARLES ST

SHEET TITLE:

POLE ELEVATIONS

- SHEET NUMBER: -

A-3

Engineering\Extenet Systems\ATT 72 Nodes Boston\00 - AUTOCAD

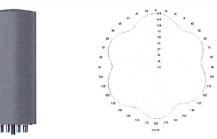
2/28/19

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

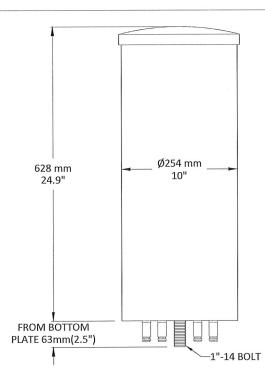
# GQ2410-06621

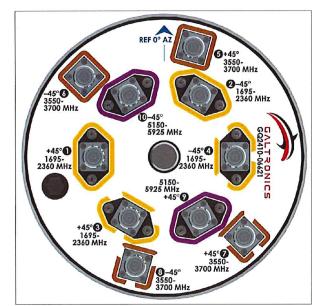
#### **Description:**

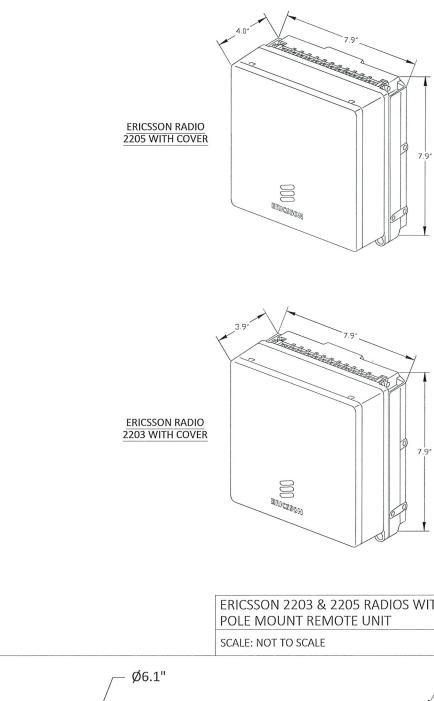
- Pseudo Omni Canister Antenna for Outdoor DAS and Small Cells.
- 4x ports for AWS/PCS/WCS Band 1695-2360 MHz
- 4x ports for CBRS Band 3550-3700 MHz
- 2x ports for UNII Band 5150-5925 MHz\*



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

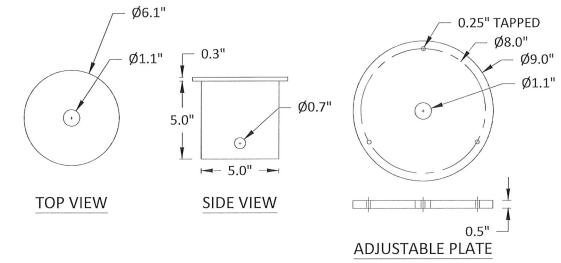






ERICSSON 2203 & 2205 RADIOS WITH COVER

0.25" TAPPED



SCALE: NOT TO SCALE

CUSTOM MOUNTING BRACKET

3

- PLANS PREPARED FOR:

PLANS PREPARED BY:

UC/SYNERGETIC 21 OXFORD RD MANSFIELD, MA 02048 1-508-337-7600

# FOR PERMITTING **PURPOSES ONLY**

**CHARLES ST** BOSTON, MA 02108

MIDDLESEX COUNTY

P.E. STAMP AREA: -

- DRAWING NOTES: -

ORIGINAL PLAN: -AS NOTED DRAWN BY: PLAN ORIG. DATE: 04/04/19

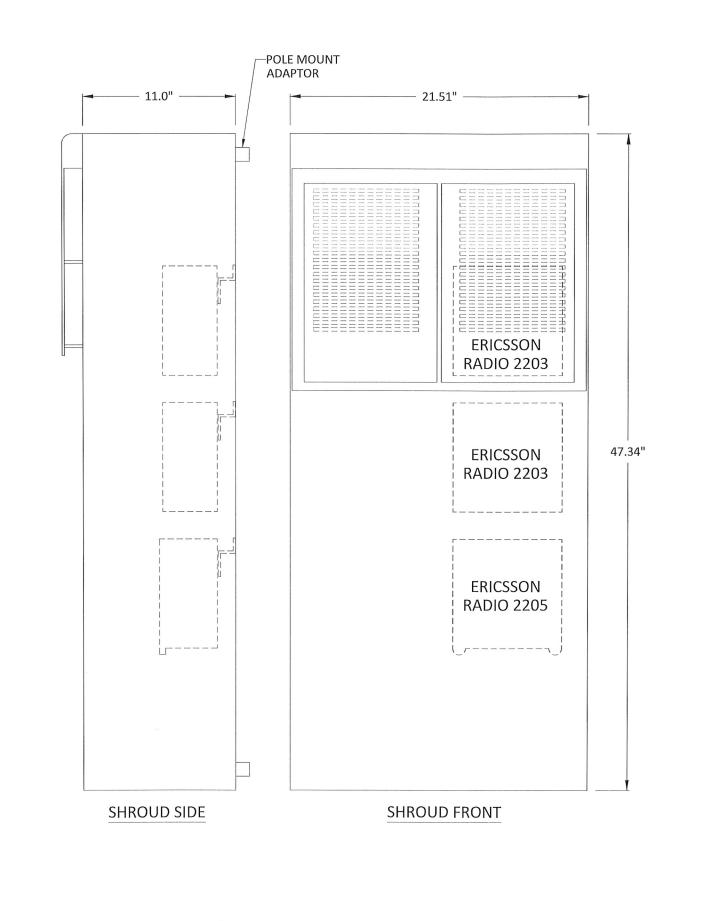
DATE DESCRIPTION

LAT: 42.35368686° LONG: -71.06820149° CRAN ID: CRAN\_RCTB\_2HA4\_093 EXTENET NODE ID: NE-MA-BSTBSC01-093 SITE ADDRESS: **CHARLES ST** ANTENNA DETAILS - SHEET NUMBER:

D-1

GALTRONICS GQ2410-06621 ANTENNA

SCALE: NOT TO SCALE



- PLANS PREPARED FOR: -

PLANS PREPARED BY: -

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MANSFIELD, MA 02048
seng.com 1-508-337-7600

# FOR PERMITTING **PURPOSES ONLY**

**CHARLES ST** BOSTON, MA 02108

MIDDLESEX COUNTY

P.E. STAMP AREA: -

- DRAWING NOTES: -

ORIGINAL PLAN: -SCALE: AS NOTED

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LAT: 42.35368686° LONG: -71.06820149°

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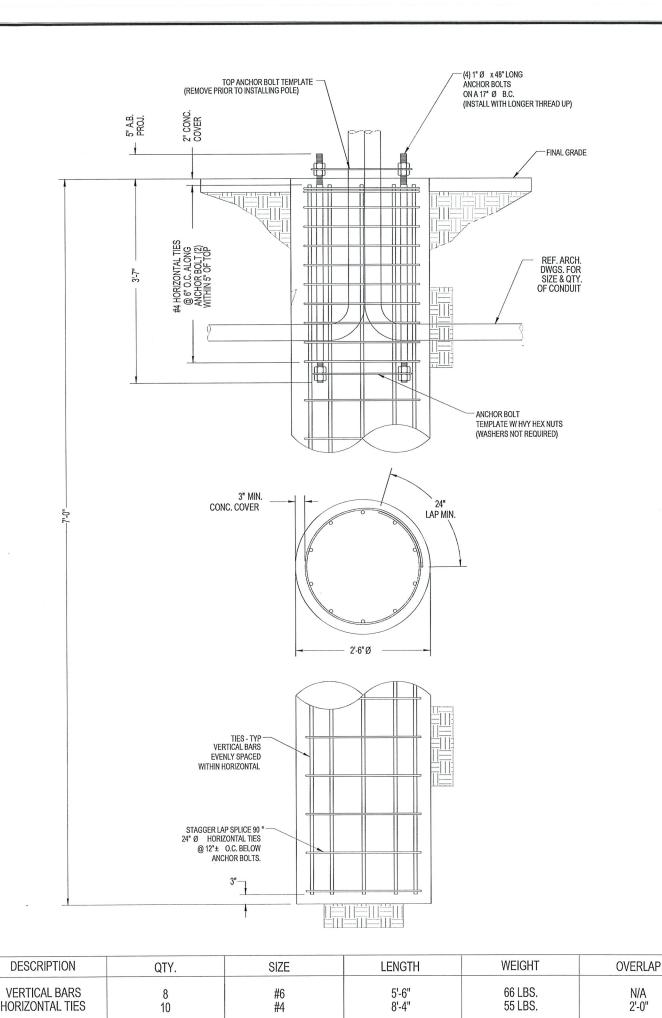
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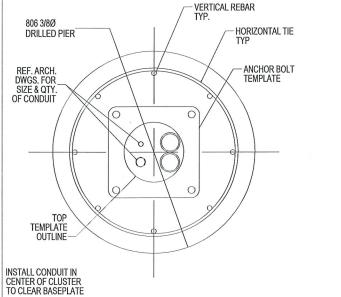
RADIO SHROUD DETAILS

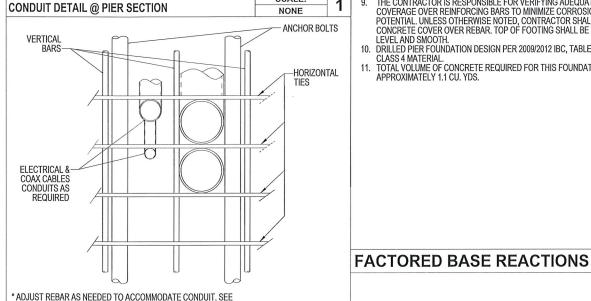
- SHEET NUMBER: -

D-2

HP COMMUNICATIONS SHROUD - 6.48 CUBIC FEET SCALE: NOT TO SCALE







SCALE:

SCALE:

**CONDUIT DETAIL** NONE ANCHOR BOLT POLE SHAFT HEAVY HEX NUT LOCK WASHER FLAT WASHER BASE PLATE FOOTING FLAT WASHER HEAVY HEX NUT NON-SHRINK 1"Ø DRAIN HOLE **GROUT** PROVIDED BY CONTRACTOR

REINFORCEMENT SUMMARY FOR SIZE, QUANTITY AND LOCATION OF VERTICAL BARS AND HORIZONTAL TIES.

\* NON-SHRINK GROUT SHALL HAVE A MINIMUM

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 EXCAVATION.
- 3. CONTRACTOR SHALL VERIFY ANCHOR BOLT LAYOUT PRIOR TO. AND MMEDIATELY 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, VIELD). CONTRACTOR SHALL USE STEEL WIRE TO HOLD REINFORCING BARS TOGETHER. IF WELDING REBAR IS PREFERRED, SUBSTITUTE USING A706 GR. 60
- DEFORMED BARS.
  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.
- 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 10. DRILLED PIER FOUNDATION DESIGN PER 2009/2012 IBC, TABLE 1806.2,
- 11. TOTAL VOLUME OF CONCRETE REQUIRED FOR THIS FOUNDATION IS APPROXIMATELY 1.1 CU. YDS.

# - PLANS PREPARED FOR: •

PLANS PREPARED BY: •



inovative Thinking. Er 21 OXFORD RD MANSFIELD, MA 02048 1-508-337-7600 www.ucseng.com

## FOR PERMITTING **PURPOSES ONLY**

**CHARLES ST** BOSTON, MA 02108

MIDDLESEX COUNTY

P.E. STAMP AREA:

DRAWING NOTES:

ORIGINAL PLAN: AS NOTED SCALE: DRAWN BY: PLAN ORIG. DATE: 04/04/19

- REVISIONS: DESCRIPTION DATE

### **SPECIAL INSPECTIONS**

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MOMENT

VERTICAL

SHEAR

SPECIAL INSPECTION: THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL INSPECTION PER 2009/2012 IBC, SECTION 1704

| ITEM | DESCRIPTION  | INSPECTION BY       |
|------|--|---------------------|
| 1    | PIER EXCAVATION<br>LATERAL BEARING CAPACITY                          | SOILS<br>ENGINEER   |
| 2    | PIER CONSTRUCTION<br>REINFORCING STEEL<br>BAR SIZES AND INSTALLATION | SPECIAL<br>INSPECTO |
| 3    | ANCHOR BOLTS<br>BOLT SIZE AND LENGTHS<br>INSTALLATION                | SPECIAL<br>INSPECTO |

| SPECIAL<br>INSPECTOR |
|----------------------|
|                      |

30.9 ft-kips

2.46 kips

1.67 kips

MATERIAL

300 PSF/FT

ASTM A615

LATERAL

GR. 60

ASTM F1554 GR. 55 SPECIAL INSPECTOR

CONCRETE TEST SPECIMENS fc = 4,000 PSI TYPE II CEMENT SPECIAL INSPECTOR PLACEMENT OF CONCRETE

LAT: 42.35368686° LONG: -71.06820149° CRAN ID:

CRAN\_RCTB\_2HA4\_093

XTENET NODE ID:

NE-MA-BSTBSC01-093

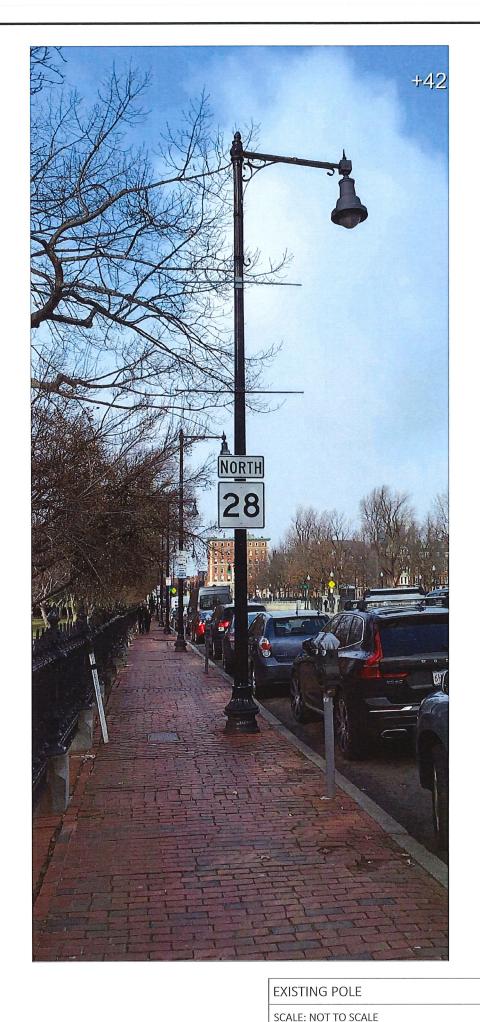
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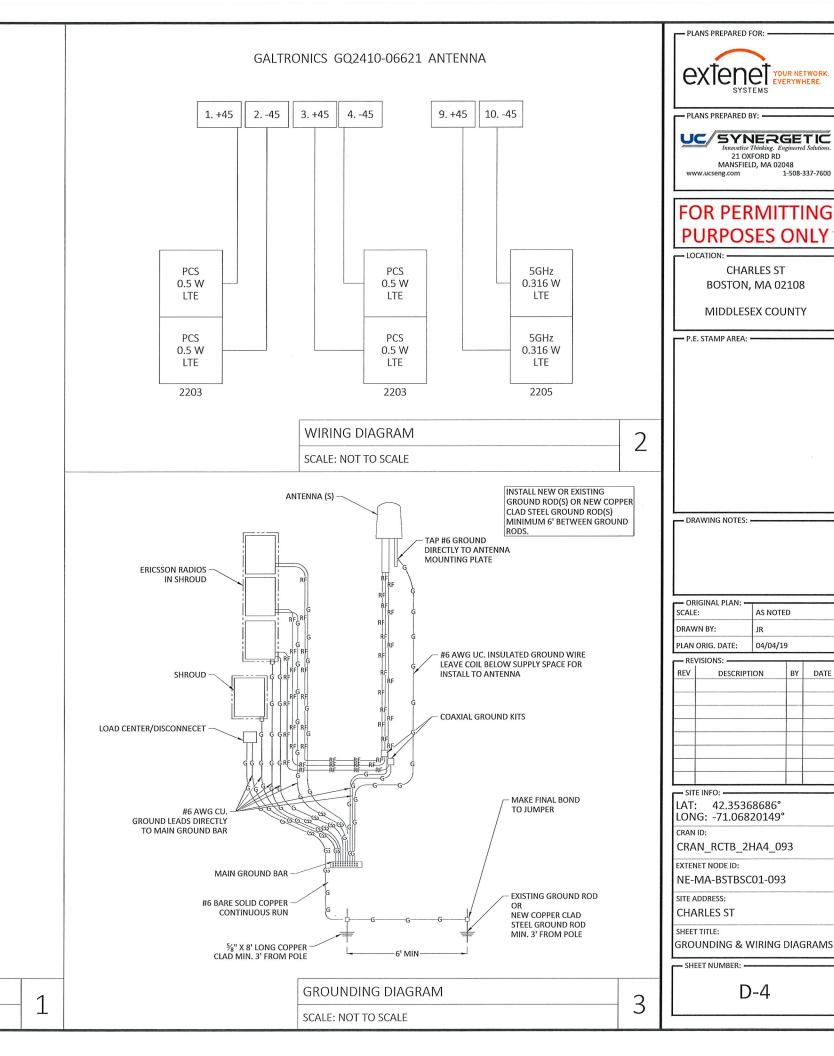
SHEET TITLE

FOUNDATION DETAILS

- SHEET NUMBER:

D-3





AS NOTED

04/04/19

D-4

DATE

\*\* INCLUDED A THE REPORT OF THESE DOCUMENTS IS TO SHOW THE COMPLETE INSTALLATION AND TO INCLUDE ALL LABOR AND IMATERIALS REASONABLY NECESSARY, WHETHER OR NOT SPECIFICALLY INDICATED, FOR THE PROPER FOR THE WORK, THE CONTRACTORS SHALL SUPERVISE AND COORDINATE ALL WORK, USING THEIR PROFESSIONAL INVOICEDES TECHNIQUES, SOURCEMON AND COORDINATE ALL WORK, USING THEIR PROFESSIONAL INVOICEDES TECHNIQUES, SOURCEMON AND COORDINATE OF THE WORK INDICATED. THE WORK IN LINEAR THE CONTRACTORS SHALL SUPERVISE AND COORDINATE ALL WORK, USING THEIR PROFESSIONAL INVOICEDES TECHNIQUES AND COORDINATE ALL WORK, USING THEIR PROFESSIONAL INVOICEDES.

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

ACL- AMERICAN CONCRETE INSTITUTE

AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS
 IEEE - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

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

ANSYTIA - TELECOMMUNICATIONS INDUSTRY ASSOCIATION - 222-G STANDARD · ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND ORDINANCES

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

GENERANG ORANNOGS SHOW PRINCIPAL AREAS WHERE WORK MUST BE ACCOMPUSHED 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 WITH THE CONTRACT REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.

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

CWIL STRUCTURAL, ELECTRICAL, AND ANTENNA DRAWINGS ARE INTERRELATED, IN PERFORMANCE OF THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR

THE GENERAL NOTES CONTAINED HEREIN ARE PART OF THE FUND AND SECURIORIONS, AND ARE TO BE COMPILED WITH IN ALL RESPECTS. THE MOST RESTRICTIVE NOTES SPECIFIED ARE TO TAKE PRECEDENCE. CERTAIN SECTIONS OF THE GENERAL CONTRACTOR
15 TO COMPLY WITH ALL APPLICABLE GENERAL RESPECTS 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 CENERAL NOTES AND STANDARD DE IALS AND THE MYNIXOM MEXDINEARUN I DUE USED IN CONDITIONS THREATMENT OF SECURITY OF PROPERTY OF THE SURVEY DRAWS SHALL NOT BE USED TO DESTRIP OF BETABLISH THE BEARING OF THE TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF THE SURVEY DRAWS AND THE THE MYNIXON AT THE SITE FOR THE ESTABLISHMENT OF THE TRUE NORTH AND SHALL NOTE! YES DO DESTRIP OF THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWNINGS AND THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE WORKING DRAWNINGS AND THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE WORKING DRAWNINGS AND THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE WORKING DRAWNINGS AND THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE WORKING DRAWNINGS AND THE TRUE NORTH ORIENTATION AS D SURVEY. THE CONTRACTOR SHALL SUSSEMENT OF THE WORKING DRAWNINGS AND THE TRUE NORTH ORIENTATION.

. THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THIS INCLUDES THE SAFETY OF ALL PERSONS AND PROFERTY. THIS REQUIREMENT IS MADE TO APPLY CONTINUOUSLY AND IS NOT UNITED TO NORWAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO INDEWNIFY AND HOLD THE DESIGN ENGINEER HARVLESS FROM ANY AND ALL LABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.

2. THE CONTRACTOR SHALL BE REPORTED FOR COMPLYING WITHALL SAFETY PRECAUTIONS AND REQUARTIONS, SUCH AS OSHA COMPLIANCE, DURING THE PRODRESS OF WORK, THE ENGINEER WITHALL NOT ADVISE NOR PROVIDE DIRECTION AS TO SAFETY PRECAU

3. SAFETY MEETINGS SHALL TAKE PLACE EVERY MORNING BEFORE THE WORK DAY BEGINS.

THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE SECURITY OF THE SITE UNTIL COMPLETION OF THE CONSTRUCTION

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

ACTOR IS NIXTRINGED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JORSITE DIRENG THE PERFORMANCE OF THIS CONTRACT TO AVOID DELAYS IN THE SCHEDULE OR OTHER WORK PERFORMED IN THE VICINITY OF THE CONSTRUCTION AREA

COTOR 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.

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

18. THE CONTRACTOR IS RESPONSIBLE FOR DOLLARISMS ALL REQUIRED PERMITS. 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 CONTRACTOR IS RESPONSIBLE FOR PROVIDING AWALE NOTICE TO FALL REQUIRED THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTOR IS RESPONSIBLE FOR PROVIDING AWALE NOTICE TO THE BUILDING INSPECTION OF 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 DELLAY CAUSE OF MISSECTIONS.

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

E APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW BE ANALABLE 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 HALL ASSO MAINTAIN ONLESET OF PLANS AT THE SITE FOR PURPOSE OF DOCUMENTING ALL AS BUILTS, CHANGES, REVISIONS, ADDEMDA, OR CHANGE ORDERS.

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

1. THE CONTRACTOR IS TO CONTACT BOTH LOCAL POWER AND TELEPHONE UTILITY COMPANES BEFORE CONSTRUCTION BEGINS TO ORDER SERVICE, OBTAIN AND PAY ALL FEES ASSOCIATED WITH THE CONSTRUCTION, SCHEDULE INSTALLATION OF SERVICE, COORDINATE CONDUIT RUNTERMINATION POINTS AND OBTAIN ANY FIELD MATERIALS THAT MAY BE SUPPLIED BY THE UTILITY COMPANIES AND INSTALLED BY THE CONTRACTORS.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK AND THE PROTECTION OF ALL WORK DURING CONSTRUCTION TO AVOID DAMAGE, COLLAPSE, DISTORTION, MISALIGNMENT AND ALTERATION OF EXISTING WARRAWITIES.

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER. WATER AND TO/LET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY.

26 THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TRYPORARY POYDER, WATER AND TOLLET FACULTIES AS REQUIRED BY THE PROPERTY OWNER OR COVENING AGENCY.

27. THE CONTRACTOR SHALL DONDON ALL ENSTING STRUCTURES DURING CONSTRUCTION.

28. THE CONTRACTOR SHALL COORDINATE THE FINAL DIMENSIONS OF ANY TYPE OF STRUCTURAL LAYOUT WITH THE FOOTPRINT OF THE NEW EQUIPMENT BEFORE ORDERING ANY MATERIALS.

29. ALL MATERIALS AND EQUIPMENT SHALL BE NEW JAID BY SAFE CONDITION PRIOR TO INSTALLATION, AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURED. THROUGHOUT, FOR EACH CLASS, GROUP, OR EQUIPMENT.

30. ALL MATERIALS MUST BE STORED ON A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OSSTRUCT THE FLOW OF OTHER WORK RELATED OR NOT RELIZED TO THIS CONTRACT. ANY EQUIPMENT OR MATERIAL STORAGE MUST MEET ALL RECOMMEND.

CONTRACTOR SHALL INSPECT THOROUGHLY ALL MATERIALS AND EQUIPMENT FROM TO FINAL INSTALLATION, DANAGED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED.

31. ALL MATERIALS SHALLE BE INSTALLED FRETH THE MUST CHORDERS INSTALLATION. DANAGED EQUIPMENT OR MATERIALS SHALL NOT BE INSTALLED.

32. ENCEPT FOR WARRINGS SIGNS SUCH AS THO TRESPASSING" AND S GIRS THAT STATE OWNERSHIP AND EMERGENCY TELEPHONE NUMBERS, NO SIGN SHALL BE LOCATED ON THE PROPERTY. EXISTING SIGNS WILL BE MANITAINED AND PROTECTED.

3. ALL EQUIPMENT SHALL BE INSTALLED LEVEL AND PLUMB.

12 EXISTING CONDITIONS AND STRUCTURES

1. BEFORE BEGINNING WORK AT THE STITE, THE CONTRACTOR SHALL INSPECT THE EXISTING PROPERTY OR BULDING AND DETERMINE THE EXISTING FROPERTY OR BULDING AND DETERMINE THE EXISTING FINISHES, SPECIAL TIES, SOUPMENT AND OTHER TIEMS WHICH MUST BE REMOVED AND REINSTALLED IN ORDER TO PERFORM THE WORK UNDER THE CONTRACTOR WAS THE CONTRACTOR WAS THE CONTRACTOR WAS THE CONTRACTOR OF THE CONTRACTOR WAS THE CONTRACTOR OF THE CONTRACTOR WAS THE CONTRACTOR ACKNOWLEDGES THAT ELMS AND CONTRACTOR AND UNDERSTOOD THE CONSTRUCTION DOCUMENTS, VISITED THE STITE, AND IS FAMILIAR WITH THE CONDITIONS ENCOUNTERED AT THE SITE.

2. PS USEMITTION AS BIT OF THIS WORK, THE CONTRACTOR ACKNOWLEDGES THAT ELMS AND CONCEINS AND UNDERSTOOD THE CONTRACTOR, FAWARDED THE CONTRACT, WILL NOT BE ALLOWED MY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THAN WHICH THE CONTRACTOR MIGHT NOT HAVE FULLY EXPLORED PRIOR TO BIDDONG.

1. NO FLEA OF KNORANCE OF CONDITIONS THAT EUST, OR OF DIFFICULTES THAT MAY BE ENCOUNTERED OR ONLY OTHER RELEVANT MATTER CONCEINING THE WORK TO BE PERFORMED WILL BE ACCEPTED AS A REASON FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL THE RECONSTRUCTION OF THE CONTRACTOR TO FULFILL THE RECONSTRUCTION OF THE CONTRACT DOCUMENTS.

REQUIREMENTS OF THE CONTRACT DOCUMENTS.

LITS 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 FACIL THE FOR THE INFRING STORING, PLACING, PLACING, AND DITHE REMOVAL OF NATERIALS AND EQUIPMENT AND ANY AND ALL DEFOCUTIES THAT MAY BE EXCOUNTERED DURING THE EXECUTION OF ALL THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE DWINER OR ITS REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED WITH THE LIWITS OF CONSTRUCTIONS AND ACCEPTS FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY THE CONTRACTOR'S FALURE TO LOCATE ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK.

SHOULD ANY ERROR OR INCONSISTENCY APPEAR IN THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR, BEFORE PROCEEDING WITH THE WORK, MUST MAKE MENTION OF THE SAME TO THE ENGINEER AND OWNER FOR PROPER ADJUSTMENT AND IN NO CASE PROCEED WITH THE WORK IN UNCERTAINTY OR WITH INSUFFICIENT INSTRUCTION.

WITH INSURPRICIENT INSTRUCTION.

THE COTING TOO AND EACH SUBCONTRACTOR 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 DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS, AND DISCREPANCY HI DIMENSIONS WHICH HAVE BE FOUND SHALL BE SUBMITTED TO THE ENGINEER AND THE CONTRACTOR PROCEED WITH THE WORK IN THE AFFECTED AREAS. THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS. THE CONTRACTOR WAY FROM THE FUNK WITHOUT THE CONTRACTOR WHITHOUT THE CONTRACTOR WITHOUT THE CONTRACTOR WITHOUT THE CONTRACTOR WHITHOUT THE CONTRACTOR WITHOUT THE C

TRADE, PRODUCT NAMES, MANUFACTURER MANES, CATALOG NUMBERS, AND INDICATIONS OF EUSTING PRODUCT TYPES SHOWN ON THE DRAWINGS ARE BELIEVED TO BE ACCURATE. IF THEY ARE DISCOVERED TO BE INACCURATE, NOTIFY OWNERS ENGINEERS INVEDITELY AND DO NOT PROCEED WITHOUT STRUCTIONS.

PRIDE TO STANTING 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 IMMEDIATELY REPARAD OR REPLACED ON TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAD THE COST OF REPARADO 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 VICKINTY OF EXISTING STRUCTURES, THE STRUCTURAL INTEGRITY AND STABILITY SHALL BE MONTORED AT ALL TIMES DURING VETER YEARS OF THE CONSTRUCTION.

TOO SHALL PROTECT EXISTING PROPERTY LINE MONIMENTATION ANY MONIMENTATION DISTURBED OR DESTROYED AS JUDGED BY THE OWNER OR OWNERS REPRESENTATIVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER SUPERVISION OF A LICENSED LAND SURVEYOR.

I. THE CUSTIANAL OF SOME A POLICY ENGINE MUTURES TO MODIFICATION AND A POLICY SEPTEMBER OF A LICENSED LAND 5.

IN EVEN CONSTRUCTION ADDED TO SENSING CONSTRUCTION SHALL EMPTALE BUT FOR FOR FOR THE METHOD AND TO LOCK EXCEPT AS MOTION FOR EXCE

REMOVED PRIOR TO PARTING NEW SUPLACES.

2. THE PLANS SHOW SOVE NOWN, SUBSURFACE STRUCTURES, ADD/E GROUND STRUCTURES, ANDOR UTILITIES BELEVED TO EXIST IN THE WORKING AREA. THE EXACT LOCATIONS MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS IVARRED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES, ANDOR UTILITIES IN THE AREA HAVY BE SHOWN IN YOUR DESIDENCE, AND IN SHALL BE THE CONTRACTORS RESPONSIBILITY OF TOPICED WITH GREAT CAME IN SECURITIES, AND OR HILLIES IN THE AREA HAVE BE SHOWN IN THE LESS THAN THE BELES THAN THE BELES THAN THE CONTRACTOR SHOWN IN THE PROPRIED BELLES THAN THE LESS THAN THE BELES THAN THE LOCAL SHOWN IN THE PROPRIED BELLES THAN THE LESS THAN THE BELES THAN THE LOCAL SHOWN IN THE PROPRIED BELLES THAN THE LOCAL SHOWN IN THE PROPRIED BELLES THAN THE CONTRACTOR DAMAGES MAY EXIST WITH A SHOWN IN THE LOCAL SHOWN IN THE SHOWN IN THE LOCAL SHOWN IN THE LOCAL

1. ALL ENSTRING ACTIVE SEYER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCONTERED 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.

USED BY THE CONTRACTOR WHEH EXCAVATING OR PIER DRILLING ARQUING OR READ WITHOUT SHALL BROWDE SAFETY TRAINING FOR THE VORKING CIEWY.

IS, IF AN INCADITY BE LEGETRICAL, TELEPHONE, SENER, NAME, OR ANY OTHER UTILITY ARE DRIVET WHERE IT NO LONGER
COMPLICITS WITH THE WORK. THE UTILITY WHEN EXPOSED AND ANY OF THE UTILITY AND CAP, PLUG, OR OTHERWISE PROPERLY TERMINATE THE UTILITY AT A PORIT WHERE IT NO LONGER
COMPLICITS WITH THE WORK. THE UTILITY WHEN EXPOSED AND ANY OF THE UTILITY AND CAP, PLUG, OR OTHERWISE PROPERLY TERMINATE THE UTILITY AT A PORIT WHERE IT NO LONGER
COMPLICITS WITH THE WORK. THE UTILITY WHEN EXPOSED AND ANY OWNERS DEPORTED AND ANY OWNERS DEPORT OF THE UTILITY OF THE REPORT OF EXCHANGE AND EXPLICIT OF THE UTILITY AND CAP, PLUG, OR OTHERWISE PROPERLY TERMINATE THE UTILITY AT A PORIT WHERE IT NO LONGER
COMPLICITION OF THE UTILITY OF THE REPORT OF THE UTILITY OF THE REPORT OF THE ACCIDANT OF THE UTILITY AND CAP, PLUG, OR OTHERWISE PROPERLY TERMINATE THE UTILITY AT A PORIT WHERE IT NO LONGER
COMPLICITION OF THE UTILITY OF THE REPORT OF T

MAINTAIN FLOW FOR ALL EXISTING UTILITIES

THE CONTRACTOR SHALL RESTORE ALL PURIL IC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNERS REPRESENTATIVE.

19. PROTECT FINISHED SURFACES INCLUDING JAMBS AND HEADS OF OPENINGS USED AS PASSAGETWAYS THROUGH HEAD HAVE AND INATERIALS WILL PASS. 20. PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIALS TO BE MOVED OVER, ARQUIND, OR WITHIN SURFACES. 21. KEEP FINISHED SURFACES CLEAN, UNHARMED AND SUITABLY PROTECTED WITH, JOB STIE IS ACCEPTED BY THE OWNER.

21. KEEP FINISHED SURFACES CLEAN, UNMARKED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE OWNER.

22. IN THE EVENT OF DAMAGE TO AN EXISTING STRUCTURE, THE CONTRACTOR SHALL HOFFT THE OWNER OR OWNER OR OWNER OR OWNER OR EXPRESSENTATIVE IMMEDIATELY, AND THEN PROMPTLY MAKE ALL REPLACEMENTS AND REPARTS TO THE SATISFACTION OF THE OWNER. THE OWNER, THE OWNER MAY ELECT TO USE A THRO-PARTY CONTRACTOR SELECTED FOR THIS CONTRACT.

23. ALL CUTS ON CONCRETE SIDEWALKS SHALL BE MODE FROM THE HEAREST JOINT OR SCORE LINE ON DUES SIDE OF THE EXCAVATION, TO THE HEAREST JOINT OR SCORE LINE ON THE OWNER SIDE OF THE EXCAVATION.

24. ALL CUTS ON BRICK SIDEWALKS SHALL BE MODE IN SHALT SQUARMAGE ALL EDGES ON THE EXCAVATION TO THE HEAREST LINE ALL BERKED SHALL BE READ SHALL BE

STORED, SAPE STORAGE AND INCLUDE STORAGE BY THE CUTMINGTOR OR WITH AND THE REAL LITTS SO INCRETED BY THE COAL CURROLOGIST OF AND AND THE ATTENDED ATTENDED AND THE ATTENDED ATTENDED AND THE ATTENDED AND THE ATTENDED AND THE ATTENDED ATTENDED

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

ARSOLUTELY NO FIELD CORING / DRILLING / CUTTING OF METALLIC POLES TO BE ALLOWED

TE WITH THE SITE OWNER AND/OR LOCAL JURISDICTION REGARDING THE CONSTRUCTION SCHEDULE & SITE ACCESS, ENSURE THAT THE OWNER OF PARENT PARCEL IS NOTIFIED IN WRITING OF CONSTRUCTION ACTIVITIE

2. THE CONTRACTOR SHALL COORDINATE ALL SPECIAL CONSIDERATIONS OF CONSTRUCTION SUCH AS NOISY OPERATION, INTERRUPTION OF ANY MECHANICAL ANDOR ELECTRICAL SERVICES, MATERIAL DELIVERIES AND STORAGE, STAGING AREA, CRAVE LIFTS, ETC. WITH THE PROPERTY OWNER SEPRESENTATIVE, ANDOR 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 WORK HOURS & STAGING AREAS WITH PROPERTY OWNER, PROPERTY OWNERS REPRESENTATIVE, AND/OR LOCAL JURISDICTION

1.2 SITE MAINTENANCE

1. REMOVE STARMING OR REACTIVE MATERIALS FROM NEW AND EXISTING SURFACES IMMEDIATELY, REMOVE HAZARDOUS ACCUMULATIONS OF DEBRIS PROMPTLY, AT LEAST DALY, CONFINE DUST PRODUCING OPERATIONS DURING CUITING, DRILLING, PAINTING AND FIVENING. THERE SHOULD BE NO DEVELOPED ABOVE TO ADMINISTRATION AND ADMINISTRATION AND FIVENING. THERE SHOULD BE NO DEVELOPED ABOVE TO ADMINISTRATION AND ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMIN

2. THERE SHALL NOT BE ANY CREATION OF INSIGE OUTSIDE THE NORMAL HORSE THE LOCAL JURISDICTION AND THE PROPERTY OWNER OR OWNERS REPRESENTATIVE, UNLESS OTHERWISE AGREED UPON WITH THE LOCAL JURISDICTION AND PROREPRESENTATIVE. HOSE SHALD BE KERT TO ANIMATE MINIMATED HOSE INSIGHT OF THE PROPERTY OWNER OR OWNERS REPRESENTATIVE.

3. NOISE AND EXISTING BULDING STRUCTURE YIBRATION GEHERATED 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.

1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEXT AND ORDERLY SITE, YARD AND GROUNDS. REMOVE AND DISPOSE, LEGALLY OFF SITE, ALL RUBBISH, WASTE MATERIALS, LITTER, AND ALL FOREIGN SUBSTANCES, REMOVE PETROCHEMCAL SPLLS, STANS AND OTHER FOREIGN DEPOSITS.
RAKE GROUNDS TO A SMOOTH EVEN-TEXTURED SUBFACE AT PROJECT COMPLETION, REMOVE TEMPORAY SERVICES, CONSTITUTION ECUPIENTI, TOOLS AND FACULTIES, MOCKUPS, TEMPORARY STRUCTURES, SURPLUS MATERIALS, DEBRIS, AND RUBBISH FROM PROPERTY OWNERS PROPERTY. PUT
SITE IN NEXT, FOREIGN LY CONDITION, READY FOR USE LE LEVIR FORO-FARES, PIE PS ARGES AND OTHER SPACES CALEN AND FREE FROM DEBRIS ON A DALY RESNE.

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

ECESSARY 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

1.1 DEMOLITION SPECIFICS

IN DESCRIPTION OF THE DESCRIPTION AND SHALLING, FROVIDING 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 DRAWINGS, BY A REGISTERED PROFESSIONAL ENGINEER, FOR THE SHOWING FAIL THAT SHALLS, SLASS, ROOF, JOSTS, OR OTHER LECENATE STRUCTURAL TRENS, THAT ARE HAVING SUPPORT FOR DEMOLITION.

2. ANY DAMAGE BUT TO DEMOLITION, OR OTHER CONSTRUCTION ACTUATING SUPPORT FOR THE SHOWING STRUCTURE.

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1.2 CUTTING & PATCHING

LO DIVID TRUL OF LUTE DISTING FLOOR JOISTS, BEANS, COLUMNS OR OTHER STRUCTURAL ELEMENTS UNLESS SPECIFICALLY INDICATED. DRLL SIABS WHERE APPROVED. CORE DRILL CIRCULAR OPENINGS THROUGH CONCRETE SLAB, LINE DRILL FOR RECTANGULAR OPENINGS, MAKE APPRINGS OF PROPER SIZE FOR CONDUIT, DUCTS, PPES AND OTHER TIEMS PASSING THROUGH OPENINGS, MAKE ALL NEW HOLES OR OPENINGS WEATHER TIGHT AND/OR FIRE SAFE AS REQUIRED BY LOCAL BULDING CODES & ORDINANCES.

2. WHERE CUTTING OF EMISTING SURFACES OR REMOVAL OF EXISTING SINGS FROM THE WORK AND FRISH TO WATCH ADJACENT EXISTING SURFACES

S EVECT IN SOLD E WARD INDED THE CAUTEACT IS DECLIBED END OSE EVENING AND NEW CANDITIS DIDES AND SHARE THE RESEARCH SHARE WELL SHARE WAS A SHARE WAS A

A BEALEY IN SPACE THIS AND CONTROL HIS CONTROL IS RECORDED, ENCLOSE EASING AND RET CONDUITS, DUCI IS, PIPES, ANAGED RE A REPAIR, PACH, FIRSH ANDOR REFINSH AS APPLICABLE TO MACHE AD LOCKEN TESSITIS FOR FISHES, ANY RESTING SURFACES 5. REPAIR ALL METAL SURFACES THAT HAVE BEEN CUT OR DAMAGED BY REMOVING ANY EUSTING RUST AND APPLYING COLD GALVANZATION.

3. SITE WORK

GOF 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 REPAIRED OR REPLACED AT THE CONTRACTOR

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

3. TRIM EXISTING TREES AND VEGETATION AS RECOMMENDED BY THE ARBORIST FOR PROTECTION DURING CONSTRUCTION

4. CLEAR AND GRUB STUMPS, VEGETATION, DEBRIS, RUBBISH, DESIGNATED TREES REQUIRED FOR THE SITE IMPROVEMENT

S. STRP AND STOCKPILE TOPSON.

8. PROTECT TEMPORARILY ADJACENT PROPERTY, STRUCTURES, BENCHMARKS, AND MONUMENTS.

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.

32 EXCAVATION AND BACKFILL

1. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE AT A LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSATION.

1. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE AT A LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSATION.

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1. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE AT A LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSATION.

1. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOL AND UNSUITABLE MATERIAL SHALL BE DISPOSATION.

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1. ALL SUI

1. ALL SUTTABLE BORROW MATERIAL, FOR BACK RILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUTRABLE MATERIAL, SMALL BE DISPOSED OF OFF-SITE AT A LOCATION APPROVED BY COVERNING AGENCIES PRIZ 2. BROKEN PAYEMENT, STOKES GREATER THAN THREE (1) INCHES IN DAMFETER, ROOTS AND OTHER DEBRIS SHALL NOT BE USED IN BACKFILL. NOW ATERIAL SHALL BE LEFT IN THE PUBLIC RIGHT-OF-WAY ONCE WORK HAS BEEN COMPLE 3. EXCAVATED MATERIAL SHALL BE REMOYED FROM THE WORK SITE AND DISPOSED OF IN A MANIER SUCH THAT WITERFERENCE WITH AND OBSTRUCTION TO VEHICULAR AND PEDESTRIAN TRAFFIC IS MINIMIZED. 4. PRIOR TO BACKFILLING, THE CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTION IF REQUIRED AND ALLOW ADEQUATE TIME FOR INSPECTION.

5 BACKFILING SHALL OCCUR ON THE SAME DAY AS THE EXCANATION. IF THIS IS NOT FOSSIBLE DUE TO THE COMPLEX NATURE OF THE WORK, EMERGENCY, OR UN-PREVENTABLE CONDITIONS, THE CONTRACTOR SHALL INVEDITELY NOTIFY THE LOCAL JURISDICTIONS, AND TAKE APPROPRIATE MEASURES TO PROTECT PUBLIC SAME THAT NO INVESTIGATION CONTINUENCE.

6. UNDER NO CIRCUMSTANCES SHALL AN OPEN EXCAVATION BE LEFT UNATTENDED OVERNIGHT, UNLESS PROPERLY BARRICADED IN A MANNER MEETING WITH APPROVAL FROM LOCAL JURISDICTION(S). 7. ALL PAYEMENT BACKFUL NATERIAL SHALL BE PROCESSED GRAVEL. PAYEMENT BACKFUL WET THE SELECTED FUL STANDARDS AS SHOWN BELOW, UNLESS STRUCTER REQUIREMENTS ARE IMPOSED BY THE OWNERS REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMEND.

SIEVE DESIGNATION PERCENT PASSING 1-1/2 INCH 3/4 INCH

B. THE USE OF CONTROLLED DENSITY FILL (COP) MAY BE MANDATED BY THE OWNERS REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMENDATION, OR BY THE LOCAL JURISDICTION. IF CONTROLLED DENSITY FILL IS MANDATED, IT SHALL CONFORM TO THE REQUIR REPRESENTATIVE, GEOTECHNICAL REPORT RECOMMENDATIONS, OR THE REQUIREMENTS OF THE LOCAL JURISDICTION, WHICHEVER IS MORE STRINGENT.

THE CDF INGREDIENTS SHALL COMPLY WITH THE FOLLOWING:

II. FINE AGGREGATE AASHTO M.4.02.02 . AIR ENTRAINING ADMIXTURES: AASHTO M.4.02.05

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

. EXCAVATION, TRENCHING, FILLING, COMPACTING AND GRADING FOR STRUCTURES.

· ALL MATERIALS FOR SUB-BASE, DRAINAGE FILL, BACK FILL, GRAVEL FOR SLABS, PAVEMENT AND IMPROVEMENTS

SUPPLY OF ADDITIONAL MATERIALS FROM OFF SITE AS REQUIRED. 4. FILL LAYERS THAT REQUIRE COMPACTION SHALL HAVE A MAXIMUM THICKNESS OF BINCHES
5. THE COMPACTING UNDER STRUCTURES, BUILDING SLABS, STEPS, PAVEMENT AND VIALKWAYS 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 TEMPO 7. WHEN BACKFILL CANNOT EFFECTIVELY BE COMPACTED TO \$5% MAXIMUM DENSITY DUE TO MULTIPLE CONDUITS, DUCTS OR PIPES, CONTROLLED DENSITY FILL (CDF) MAY BE REQUIRED.

8. THE COMPACTING UNDER LAWNS OR UNPAYED AREAS SHALL BE 65% MAXIMUM DENSITY. ASTM 01557.

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 1. ALL INDIVIDUAL SHAPAT REQUIRED SHELLING AND SHOULD BE DONE IN ACCOUNTING THE FORTH REGULATIONS FOR CONSTRUCTION.

2. WHERE UNSTRUCKE SOL 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 PROHBITED ON SITE.

14. ALL EXCAVATION ON VIVICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIAL HORIZONTAL, UNDISTURBED AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER. DEVATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED IF REQU 15. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH OTHER MECHANICALLY COMPACTED GRAVILAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STOKE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL INFO BE USED AS COMPANION CONCRETE INFORMATION. CRUSHED STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL INFORMATION OF THE USED AS COMPANION OF THE USED AS CONTROLLED AS COMPANION OF THE USED AS COMPANION OF THE USED AS CONTROLLED AS COMPANION OF THE USED AS COMPANION OF THE USED AS CONTROLLED AS COMPANION OF THE USED AS COMPANION OF THE USE

17. 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

THE CONTRACTOR SHALL PROTECT ALL STORM DRAW AND SEVIER APPURTENANCES ADJACENT TO AND WITHIN THE CONSTRUCTION SITE. THE PROTECTION USED SHALL PREVENT THE DISCHARGE OF POLLUTANTS, SEDMENT, AND/OR DEBRIS INTO ANY PORTION OF THE STORM DRAW AND/OR SEVER SYSTEM. 3.3 DRAINAGE

OF STATES AND A STATES AND A STATE AND A STATES AND AND OTHER POLLUTANTS SHALL NOT BE ALLOWED TO ACCUMULATE IN THE STORM DRAIN OR SEWER CONVEYANCE SYSTEMS. THE CONTROOT SHALL BE RESPONSIBLE FOR INJURIANIES OF THE SITE AT ALL TIMES, STORM WATER FLOW SHALL NOT BE IMPEDED AND DAWNED TO ADJACESTIF PROPERTIES HE FOR THE CONTROL TO SEPARAGE DURING THE CONTROL THE CONTROL TO SEPARAGE DURING THE CONTROL THE

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 BY:

- PLANS PREPARED FOR:

UC/SYNERGETIC 21 OXFORD RD 1-508-337-7600

# **FOR PERMITTING PURPOSES ONLY**

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**CHARLES ST** BOSTON, MA 02108

MIDDLESEX COUNTY

P.E. STAMP AREA: -

- DRAWING NOTES: -

ORIGINAL PLAN: -SCALE: AS NOTED DRAWN BY: PLAN ORIG DATE. 04/04/19

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- SITE INFO:

LAT: 42.35368686° LONG: -71.06820149°

CRAN RCTB 2HA4 093

CRAN ID:

EXTENET NODE ID: NE-MA-BSTBSC01-093

SITE ADDRESS CHARLES ST

SHEET TITLE:

**GENERAL NOTES** - SHEET NUMBER: -

GN-1

CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDMENTATION CONTROL DEASURES AS REQUIRED BY LOCAL CODES AND ORDINANCES TO PROTECT EMBANAMENTS FROM SOL LOSS AND TO PREVENT ACCUMULATION OF SOL AND SLT IN STREAMS AND DRAWAGE PATHS LEAVING THE CONSTRUCTION AREA THIS MAY NELLOW SECOND SALT PERCE, STREAMS AND EXAMPLES AS REQUIRED BY LOCAL CODES AND ORDINANCES TO PROTECT EMBANAMENTS FROM SOL LOSS AND TO PREVENT ACCUMULATION OF SOL AND SLT IN STREAMS AND DRAWAGE PATHS LEAVING THE CONSTRUCTION AREA THIS MAY NELLOW SECOND SALT PERCE, STREAMS AND EXCENTED AND ADMINISTRATION OF SOL AND SLT IN STREAMS AND DRAWAGE PATHS LEAVING THE CONSTRUCTION AREA THIS MAY NELLOW SECOND SALT PERCE, STREAMS AND EXCENTED AND ADMINISTRATION ADMINISTRATION AND ADMINISTRATION ADMINISTRATION ADMINISTRATION AND ADMINISTRAT ROSION CONTROL MEASURES MAY BE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWINGS WHERE DETER DESCRIPTION DESTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES:

• ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS

• ACI 301 - GUIDE FOR MEASUREN, MUNKIO, TRANSPORTING, AND FLACING CONCRETE ACI 309 - GUIDE FOR CONSOLIDATION OF CONCRETE ACI 318 - BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE A CLEALIN - RBER REINFORCED CONCRETE (IF SPECIFIED)

A CLEALIN - RBER REINFORCED CONCRETE (IF SPECIFIED)

A CLEALIN - MEASUREMENT OF PROPERTIES OF FIBER REINFORCED CONCRETE (IF SPECIFIED)

MIX DESIGN SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE AND/OR REQUIREMENTS OF MIX DESIGN SHALL BE APPROVED BY THE OWNERS REPRESENTATIVE AUTOR REQUIREMENTS OF THE LOCAL JURISDICTION PRIOR TO FOURING CONCRETE.
CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS: 6% AIR EMTRANED (4-1.5%) WITH A IMAMUM OF 4-12° SLUMP, AND HAVE A MINIMUM 28 DAY CONTO THE MIX IN ACCORDANCE WITH A STATE CA. MAXIMUM AGGREGATE SIZE SHALL BE 1° THE FOLLOWING MATERIALS SHALL BE USED:

PORTLAND CEMENT: REINFORCEMENT: ASTM A185 & A615 NORMAL WEIGHT AGGREGATE: ASTM C33 MONOME HEROTH AND SERVICE
 MONOME PROPERTY OF THE PROP

REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS OTHERWISE NOTED, WELDED WIRE FABRIC SHALL CONFORM TO ASTMA 165 WELDED WIRE FABRIC UNLESS OTHERWISE NOTED. SPLICES SHALL BE CLASS 'B' AND ALL HOCKS SHALL BE

THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS

CONCRETE CAST AGAINST FARTH: 3 IN

· CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND

SLABS AND WALL: 1/4 IN

 BEAMS AND ACCURANCE 1 IN A WHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, U.N.O., IN ACCORDANCE WITH ACI 301 SECTION 4.2.4
 IN INSTALLATION OF CONCRETE EXPANSIONING DE ANCHORS SHALL BE PER MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DITUDING ACCORDANCE SHALL CONFORM TO ASTIM C. 302.
 ADMICTURE SHALL CONFORM TO THE APPROPRIATE ASTIM STANDARD AS REFERENCED IN ACI 331. STURENS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS, NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE

3. 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.

ALL DOWN IS ANCHOR BOLTS EMBENDERN STEEL ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.

3. ALL OWITHER, MOUTH BULTS, EMBELMENT STEEL, ELECTROMA, CUMBUTS, PYPE SLEEVES, GNOUNDS AND ALL OTHER EMBELDOED ITEMS AND FORMED DETAILS SHALL BE IN PLACE
B. LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO EMBREER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT.
7. REINFORCEMENT SHALL BE COLD BENT WHEN BEDINGO IS REQUIRED.
8. PLACE CONCRETE IN A UNIFORM MAINER TO PREVENT THE FORMATION OF COLD JOINTS AND OTHER PLANES OF WEAVIESS. VIBRATE THE CONCRETE TO FULLY EMBED REINFOR

DO NOT PLACE CONCRETE IN PONDING WATER, ICE, OR ON FROZEN GROUND. 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 SEYER SYSTEM

ALL WORK SHALL COMPLY WITH OSH AND STATE SAFETY REQUIREMENTS, PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTIONS AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION PRIOR TO INITIATING EARTHWORK OPERATIONS, GROUND WATER AND SURFACE WATER CONTROL MEASURES NEED TO BE TAKEN.

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

THE CONTRACTOR SHALL PHOTOBE ADEQUATE IS COVERED, SHANCHARD, AND BROWNERS FOR ALL EXCENTION OF PROPERTY AND TO CONSTRUCT ONES. CHARDAGE COVERS CONSTRUCTION. THE STEE SHALL BE STREPED BOT ALL USERANCE VEGETATION OF POS AND COVERS COVERS COVER. ON OTHERWISE LINES SERIABLE SOIL SHALL BE REMOVED.

THE CONTRACTOR IS TO PREVENT SURFACE WATER FROM ENTERING EXCAVATIONS, PUDDLE, AND FROM ELOCORM ADJACENT PROPERTIES DURING CONSTRUCTION. CONTRACTOR IS ALSO RESPONSIBLE FOR PREVENTING SOFTENING OF THE FOUNDATION SOILS PRIOR TO PLACING CONCRETE.

THE EXPOSED SUB-GRADE SHALL BE PROOFED-ROLLED WITH MEDIUM WEIGHT ROLLERS OR OTHER APPROVED EQUIPMENT TO DETERMINE IF ANY POCKETS OF SOFT, COMPRESSIBLE SOIL EXISTS BELOW THE EXPOSED SUB-GRADE. WHEREVER SUCH MATERIAL IS ENCOUNTERED, THE AREA SHIT OS SUTTABLE SON, ADMINISTED BY AUGUSTED SUB-GRADE SHALL BE PROOFED AND ADMINISTED.

ALL STRUCTURAL FILL EXTENDING FROM SUITABLE SUB 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 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY 45TM 01557 IN LAYERS NOT EXCEEDING 8".

THE SOIL PREPARATION, INCLUDING FOOTING EXCAVATION, FILL BACK FILL, AND COMPACTING SHALL BE DONE FOLLOWING THE RECOMMENDATION CONTAINED IN INTERNATIONAL BUILDING CODE (2012).

PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTITUTION INTERFED OF THE FOUNDATION. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SAITSHED BASED OF CONCRETE MATERIALS SHALL DO LOPCORED AT THE STEE MAINLAND, CONCRETE SHALL DESCRIPTION OF THE FOUNDATION. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SAITSHED BASED OF THE FOUNDATION OF THE FOUNDATION. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SAITSHED BASED OF THE FOUNDATION OF THE FOUNDATION. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SAITSHED BASED OF THE FOUNDATION OF THE FOUNDATION. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SAITSHED BASED OF THE FOUNDATION OF THE FOUNDATION. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SAITSHED BASED OF THE FOUNDATION OF THE FOUNDATION. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SAITSHED BASED OF THE FOUNDATION OF THE F

11. WELDING IS PROHISTED ON REINFORCING STEEL EMBEDMENTS.

12. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES (VEMM) UNLESS OTHERWISE NOTED, APPROVED SPACERS SHALL BE USED TO INSURE A.3" (YEAM) WINIMUM COVER ON REINFORCEMENT,

13. CONCRETE COVER FROM THE TOP OF FOUNDATION OF LOBOS OF REINFORCEMENT SHALL NOT EXCEED 3 INCHES (YEAM) NOR BE LESS THAN 2 INCHES (SHAM).

14. FOOTING IS DESCRIED TO BEAR ON EDSTINGS INATURALLY OCCURRING, NON-DO-PANISHE SOLS, OR ENGINEERED FILL CAPABLE OF SAFELY SUSTAINING 200 PS.

15. IF SOLF PROPERTIES VERIE NOT AVAILABLE, THE FOUNDATION DESIGN HAS BEEN DEVELOPED IN ACCORDANCE WITH GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE LIMITS OF THE SUBSURFACE DATA BASED ON FRANCETERS FROM THE ABOVE REFERENCED BUILDING CODE AS FOLLOWS.

ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
 ALLOWABLE SLIDING RESISTANCE = 150 PSF/FT.

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 STRENGTH.

CTOR SHALL EXPECT SUBMERGED DRILLING CONDITIONS FOR DEEP FOUNDATION CONSTRUCTION SUCH AS DRILLED PIERS OR DEADMAN ANCHORS AND SHALL MORII 17F ACCORDINGLY

7. THE CONTRACTOR SHALL EXPECT SUBMERGED DRILLING CONDITIONS FOR DEEP FOUNDATION COSTS INCIDENCE OF SUCH AS SOCIAL SOCIALISMO SOCIAL SOCIAL SOCIAL SOCIAL SOCIALISMO SOCIALISMO

TREE FAIL 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

FOREFRED LOSSED HAS BUSINESS CONTRIBUDES CONCRETE PLACEMENT WITHOUT CONSTRUCTION JOINTS.

TOP OF FOUNDATION DUTSIDE 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 BOBES OF CONCRETE SHALL BE CHAMFERED Y-XY (TBRATA 1879) MAMADUL.

INTIMATE CONTRACT BETWEEN CONCRETE AND SOLL WALLS OF PAD IS ESSENTIAL FOR ADEQUATE FOUNDATION PERFORMANCE. THE CONCRETE SHOULD BE APPROPRIATELY VIBRATED DURING CONSTRUCTION.

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 JURISD/CTION REQUIREMENTS.

DRILLED SHAFT

EINFORCED CAGES SHALL BE BRACED TO RETAIN PROFER DIMENSIONS DURING HANDLING AND THROUGHOUT PLACEMENT OF CONCRETE, WHEN TEMPORARY CAGES ARE UTILIZED, BRACING SHALL BE ADEQUATE TO RESIST FORCES OCCURRING FROM THE FLOW

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).

ACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.

SPACES SPACE BY INVESTIGATION IN THE CONTROL INVESTIGATION OF THE FOLLOWING DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS EXCOUNTERED.
FOR FOUNDATION AND ANCHOR TOLERANCES REFER TO TOWER MANUFACTURER DRAWINGS FOR SPECIFIC JOB NUMBER AND DATE. IN ASSENCE OF MORE SPECIFIC INFORMATION, THE CONTRACTOR MAY USE THE FOLLOWING:

POLE FOUNDATION:
-LOCATION: L/24 OF SHAFT DIAMETER (MAX.)
-OUT OF PLUWS: 1.5% OF SHAFT LENGTH NOT TO EXCEED 12.5% OF SHAFT D'AMETER OR 12\*

OUT PLUME TO PROPE LEXALDER OF SEMANTICE TO PROPE TO ASSESS THE PROCEDURES AND PROPORTIONS OF CONCRETE MATERIALS SHALL INSURE CONCRETE WILL NOT BE ADVERSELY DISTURBED UPON CASING REMOVAL.

POLICIA FOR THE SEMANT OF THE PROPERTY DISTURBED OF CONCRETE AND SHALL BE FOR THE PROCEDURES AND PROPORTIONS OF CONCRETE MATERIALS SHALL INSURE CONCRETE WILL NOT BE ADVERSELY DISTURBED UPON CASING REMOVAL.

PORTLAND FLUID, IF USED, SHALL BE FLUIT, DISTURDED OF CONCRETE AND SHALL HOT BE DETRIMENTAL TO CONCRETE OR SURROUNDING SOIL CONTINUATED CONCRETE SHALL BE REMOVED FROM TOP OF FOUNDATION AND REPLACED WITH FRESH CONCRETE.

NITIMATE CONTROT ENTIVED CONCRETE AND SOL-WALLS OF DRILLED SHAFT IS ESSENTIAL FOR ADEQUATE FOUNDATION PERFORMANCE, THE CONCRETE SHOULD BE APPROPRIATELY VIBRATED DURING CONSTRUCTION.

CTOR SHALL PROVIDE ALL LARGE MATERIALS, INSURANCE, EQUIPMENT, TRANSPORTATION, CONSTRUCTION TOOLS, ETC, FOR THE INSTALLATION OF COMPLETE AND PROPERLY OPERATING SYSTEMS.

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 COMPLY OF THE ENTITIES LISTED UNDER TIEMS 1.1, PAPAGRAPH 1. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES ON DIFFERENCES IN THE CODE REQUIREMENTS.

HE CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS AND PAY ALL REQUIRED FEES.

ORD OF ALL CHANGES. SURSTITUTIONS RETWEEN 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

RECORD DRIVINGS: MAINTAIN RECORD OF ALL LEAVINGS, SUBSTITUTIONS BETWEEN TWICK AS SPECIFIED AND INSTALLED. RECORD DRIVINGS SEVENTIAL RECORD COPYRIGHT OF THE PROJECT.

GURBANTEEWARRANTY: GURBANTEE BISTALLATION TO BE FREE OF DEFECTS, SHORTS, GROUND, ETC., FOR A FERIOO OF ONE YEAR. FURNISH WARRANTY SO THE DEFECTIVE INTERNATION OF THE WARREN AND BLOCK CHARGING THE CONTRICTOR FOR THE WARRENCE OF THE PROJECT.

GURBANTEEWARRANTY: GURBANTEE BISTALLATION TO BE FREE OF DEFECTS, SHORTS, GROUND, ETC., FOR A FERIOO OF ONE YEAR. FURNISH WARRANTY SO THE DEFECTIVE INTERNATION TO THE OFFICE AND THE PROJECT.

GURBANTEEWARRANTY: GURBANTEE WARRANTY (SURANTIES CORRECTIONS ARE NOT COMPLETE, THE OWNER PERSENTES THE OFFITO OF A RESENSATION FOR THE WEEKERSSAY REPRAFAS AND BLOCK CHARGING THE CONTRACTOR FOR THE WORK.

OPPIGEO OF WARRANTH, S.A., EAR I HINTY (S) DAYS THE CONRECTIONS ARE DIT CONSTITUTED. THE CONTRACT RESERVES THE OFFINO OF AN OPPIGEON OF THE RESERVES AND ADDITION OF AN OPPIGEON OF THE RESERVES AND ADDITION OF THE OWNER OF THE SERVICE AND WRITTEN PERMISSION OF THIS STALLATION'S CARRIER.

CHANGES: NO ADDITIONAL COSTS FOR LABOR OR NATERIALS WILL BEAL LOWED FOR CHANGES OR NOOFFICATION'S MADE UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE ARCHITECT, ENGINEER OR OWNER IN THE FORM OF A CHANGE ORDER.

DRAWNIGS. ELECTRICAL DRAWNINGS ARE DUGGRAWANTC IN NATURE AND ARE NOT TO BE SCALED.

DISCREPANCIES: DISCREPANCIES ON THESE PLANS, SPECIFICATIONS, ETC. MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

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.

COOPERATION COOPERATE WITH DATE SHE PROVE OF SUBMITH BEBLACH WAS ASSET OF SEASON CONTINUED.

COOPERATION COOPERATION WITH OTHER CONTRACTORS AND SUBCONTRACTORS ON SIZE ARRANGE AND EXECUTE WORK IN SUCH A MANNER AS REQUIRED FOR THE SATISFACTORY AND EFFCIENT CONSTRUCTION OF THIS PROJECT BY ALL TRADES CONCERNED.

INSTALLATION SHALL COMERY SPECIFICALLY WITH ENGINEERING STANDARDS MANUAL ANY DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PROVE TO COMMENCEMENT OF WORK.

INFOCUREMENT VERRIFICATION, PROVIDE AN ITEMAZE OCRITIFICATION TO THE PROJECT MANAGER WITH EACH PROJECT MANAGER WITH ENGINEER WITH EACH PROJECT MANAGER WITH

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.

DECITIONS REQUIRED. AS PER THE LAWS AND REGIRATIONS OF THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.

INSPECTIONS REQUIRED: AS PER THE LAYS AND REGULATIONS OF THE LOCAL ANDORS IN INSPECTIONS AGENCY: APPROVED BY THE LOCAL ANDOR STATE AGENCIES HAVING JURISDICTI CERTIFICATES: SUBMIT ALL REQUIRED INSPECTION CORTICATES TO THE CARRIER AND UTILITY.

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
GAIL VANAFED. TYPES: HANGERS STRAPS RISER SUPPORTS CLAMPS IL-CHANNEL THREADED RODS ETC. AS INDICATED OR REQUIRED. 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 WAXWAM SET. O.C.

STRUCTURAL MEMARRS: DO NOT CUT. DRILL OR WELD ANY STRUCTURAL MEMBER EXCEPT AS SPECIFICALLY APPROVED BY THE ENGINEER.

MISCELLANDOUS SUPPORTS. PROVIDE ANY ADDITIONAL STRUCTURAL SUPPORT SEEL BRACKETS, ANGLES, FASTENERS AND HARDWARE AS REQUIRED TO ADEQUATELY SUPPORT ALL ELECTRICAL MATERIALS AND EQUIPMENT.
ONE-HOLE STRAWS SHALL NOT BE USED FOR CONDUITS MARCER THAN SINCH.

44 ENCLOSURE SYMERYAYS.

LOUPPENT CABBIEST, TERMINAL BOXES, JANCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR EXCEED U. 59, AND BE RATED HEMA 1 (OR BETTER) BOXOORS OR NEMA SR (OR BETTER) OR DESCRIPTION OF THE STEEL SHALL MEET OR STEEL SHALL MEET OR DESCRIPTION OF THE STEEL

2. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER AND RATE NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS 3. JUNCTION BOXES: JUNCTION BOXES SHALL BE A MINIMUM SIZE OF 4 INCHES SQUARE BY 1-1/4 INCHES DEEP.

35 HOLES, SLEEVES AND OPENNOS
15 HOLES FLOWER ALL DAMAGED SURFACES TO MATCH SURROUNDING SURFACES.
1. CENERAL: PROVIDE ALL HOLES, SLEEVES AND OPENNOS 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 IS INCHAND NOT MORE THAN I INCHIS LEFT 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 IS INCH AND NOT MORE THAN I INCH AROUND THE CONDUIT, PIPE, ETC. PATCH AROUND SLEEVE TO MATCH SURROUNDING SURFACE. 3 PROVIDE APPROPRIATE VEATHER/PROOFING MATERIALS FOR PENETRATIONS REEDING TO BE SEALED FROM POTENTIAL WATER INTRUSION, PROVIDE FIRE-PROOF MATERIALS FOR PENETRATIONS REQUIRING A FIRE RATED SEAL REFER TO CUTTING AND PATCHING NOTES UNDER SECTION 1 - GENERAL

4. F AV ROOFTOP WORK IS TO BE PERFORUED, 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 REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES, ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES, ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES, ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES, ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES, ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES, ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES. ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INMEDIATELY TO AVOID MOST THE RUINING WARRANTIES. ANY DAMAGE TO THE EXISTING ROOFING MEMBRANE SHALL BE REPARED INVESTIGATION.

5. GENERAL: PROVIDE ALL CUITING, DRILLING, HITING AND PATCHING RECESSARY FOR ACCOMPUSHING THE WORK. THIS INCLUDES REMOVAL AND REPLACEMENT OF DEFECTIVE WORK AND WORK NOT CONFORMING TO THE REQUIREMENTS OF THE CONT

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.

8. ABSOLUTELY NO FIELD CORING / DRILLING / CUTTING OF METALLIC POLES TO BE ALLOWED

68 CONDUCTORS

1. USE SINK DOEDBUCTWITY COPPER WITH TYPE XHHM-2 INSULATION, 609 YOLT, 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 SWALLER, SOLICEALESS MECHANICAL TERRINAL LIUGS FOR NO. 8 AWG AND LARGER ALUMINUM CONDUCTORS SHALL NOT BE USED.

2. HOR X. MO. OR MORREY CABLE SHALL BE PERMITED.

3 EACH END OF EVERY POWER, GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (5M BRAND, 3) INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA AND MATCH EXISTING INSULATION REQUIREMENTS.

4. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL. REMOVE SHARP EDGES.
5. ALL CONDUIT SIZES SPECIFIED IN THIS DOCUMENT WERE DONE TAKING INTO ACCOUNT THE USE OF COPPER CONDUCTORS.

61 <u>ELECTRON. SERVICE</u>

1. ELECTRON. SERVICE
2. SHORT CIRCULT VAITH AND CO-ORDINATE ALL REQUIREMENTS OF THE UTILITY COMPANY.
2. SHORT CIRCULT FRANKOS. PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY COMPANY AVAILABLE FAULT CURRENT.

3. CONTRACTOR TO VERIFY UTILITY CO. FAULT CURRENT AND ENSURE THAT ALL EQUIPMENT MEETS FAULT CURRENT (AT A MINIMUM ALL EQUIPMENT TO BE 10,000 AC) 4. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH THE ELECTRIC UTILITY RELATIVE TO A TIMELY INSTALLATION OF THE NEW SERVICE AND PAYING ALL ASSOCIATED FEES

5. IDENTIFICATION: IDENTIFY SERVICE DISCONNECTION MEANS WITH PERMANENT NAMEPLATE.

5 IDENTIFY AND INTERPRETATION AND ANY INTERPRETATION SERVICE DISCONNEUTION PROVIDED THE ACCUSAGE OF COMMENT OF THE ACCUSAGE OF

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 PERFOR

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.

6 9 RACEWAY SYSTEMS/CONDUIT

1. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT OR BETTER AS REQUIRED BY LOCAL JURISDICTION AND OR UTILITY, UNDERGROUND PVC CONDUIT SHALL TRANSITION TO RIGID GALVANZED STEEL CONDUIT SHALL SHALL BE RIGHT GALVANZED STEEL (ROS) CONDUIT.

1. STEADS OF CONDUIT SHALL BE RIGHT GALVANZED STEEL (ROS) CONDUIT OR SCHEDULE 40 PVC CONDUIT.

EXPOSED CONDUIT SHALL BE RIGIO CALVANZED STEEL (RIGS) CONDUIT OR SCHEDULE 80 PVC CONDUIT.

2. GRS CONDUITS, WHEN SPECIFIED, SHALL MEET UL 8 FOR CALVANZED STEEL ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT.

3. ELECTRICAL METALLIC TUBNIG (EMT) OR RIGID, NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40), OR RIGID PVC SCHEDULE 90 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXP.

4. ELECTRICAL METALLIC TUBNIG (EMT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

5. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

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.

A LL METALLO RACEWAYS SHALL BE GROUNDED FEB REC.

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 PROFESSION.

6.19 ELD/ GRADS

1. THIS SITE BUYE SHEW CRITICAL UNDERGROUND ELECTRIC, TELEPHONE AND OTHER SERVICES IN THE VICINITY OF OTHER UNDERGROUND SERVICES AND EQUIPMENT SUPPORTS. THE CONTRACTOR SHALL TAKE ALL RECESSARY PRECAUTIONS TO AVOID SERVICE DISRUPTION TO THESE FACILITIES. THE
CONTRACTOR SHALL ALSO CONTACT ELECTRIC AND TELEPHONE, AND ALL OTHER APPROPRIATE AGENCIES PRIOR TO EXCAVATION AT THIS SITE.

CONTINUE LOSS CONTINCE LECTION AND ELECTRONS, AND ALL OTHER APPROPRIATE ASSENCES PRIOR TO EXCAVATION AT THIS SITE.

2. PRIOR TO EXCAVATION A UTLITUT MARK OUT SIMLL BE DONE TO LOCATE EXSTRAING LOSS SITE ASSENCES.

2. PRIOR TO EXCAVATION A UTLITUT MARK OUT SIMLL BE DONE TO LOCATE EXSTRAING LOSS SITE ASSENCES.

3. PRIOR TO EXCAVATION A UTLITUT MARK OUT SIMLL BE TAKEN OF ALL UNDERGROUND WORK AND GIVEN TO THE OWNER OR OWNERS REPRESENTATIVE DURING THE SITES INSPORT.

3. ALL TRENINGEN AND EXCAVATION WITHIN EXISTING CONCIPOUNDS MAY BE PERFORMED BY HAND IN ACCORDANCE WITH THE OWNERS SPECIFICATIONS. ANY OTHER METHODS OF DIGGING MUST FIRST BE APPROVED BY THE CONSTRUCTION MANAGER.

4. ALL LOW VOLTAGE CONDUIT (600Y OR LESS) SHALL HAVE A MINIMUM BURIAL DEPTH OF 24". ALL HIGH VOLTAGE CONDUIT (600Y OR MORE) SHALL HAVE A MINIMUM BURIAL DEPTH OF 36".

5 UNDERGROUND CONDUIT SHALL BE ENCASED IN REINFORCED CONCRETE IN AREAS OF VEHICLE TRAFFIC CONCRETE ENCASEMENT SHALL BE 3' MINIMUM ALL AROUND AND RETWEEN CONDUITS

6. ALL BURIED CONDUIT SHALL BE IDENTIFIED WITH ELECTRICAL MARKER TAPE. TAPE SHALL BE PLACED 12" ABOVE CONDUIT FOR EASY IDENTIFICATION

6.11 <u>EQUIPMENT</u> 1. THE MAIN CIRCUIT BREAKER SHALL BE RATED FOR STANDARD A.L.C. RATING HIGHER THAN INCOMING EQUIPMENT A.L.C.

1. THE WANT CHICALT SHEARER SHALL BE BRATED FOR STANDARD ALC, RATING HIGHER THAN INCOMING EQUIPMENT ALC,
2. ALL EQUIPMENT SHALL BE BRACED FOR STANDARD ALC, RATING HIGHER THAN INCOMING FROM UTILITY CO.
3. THE CONTRACTOR SHALL PROVIDE AN ITEM/ZED CERTIFICATION TO THE CARRIER OF ALL EQUIPMENT AND RELATED HARDWARE, SPECIFIED TO BE PURCHASED AND INSTALLED BY THE CONTRACTOR, WHERE ORDERED WITHIN 24 HRS. OF THE NOTICE TO PROCEED.
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 IN NUMBERS (LE, PAINS).

5. METAL RECEPTACLE. SWITCH AND DEVICE BOXES SHALL BE GALVANZED, EPOXY-COATED OR NON-CORROONG: SHALL MEET OR EXCEED UL STA AND NEMA OS 1, AND BE RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (WP OR BETTER) OUTDOORS 6. NONMETALLIC RECEPTACLE SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA 05 2, AND BE RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER-PROTECTED (MYP OR BETTER) OUTDOORS

6.12 TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS)

4 TWIS DEVICES FOR AC POWER SHALL BE INSTALLED IN ALL EXISTING FACILITIES THAT ARE MISSING TVSS DEVICES OR HAVE UNSUITABLE TVSS DEVICES.

1. THIS DETRICATION AND FOUR STREAM BE ENSITED BY THE LEAST HEAVE FROM THE MEMBERS OF THE SHEETER OF AS CLOSE AS POSSIBLE TO THE BITS CABINET FOR OUTDOOR SITES, TO PROTECT AGAINST LIGHTING AND TRANSIENT VOLTAGES.

3. IN MARKETS WITH LIGHTINING ZONE > GR = TO 4, RF TYSS DEVICE SHALL BE INSTALLED AT THE ENTRANCE TO THE SHELTER OR AS CLOSE AS POSSIBLE TO THE BITS 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.

GROUNDING
THE SUBCONTRACTOR SHALL VERIEV THAT THE SYSTEM IS EFFECTIVELY GROUNDED, MEETS NEC ARTICLE 259 REQUIREMENTS, IS ACCEPTABLE TO THE LOCAL UTILITY AND THE LOCAL AUTHORITY HAVING JURISDICTION, AND MEETS THE CARRIER'S ELECTRICAL AND GROUNDING SPECIFICATIONS.
FOLLOWING COMPLETION OF WORK, CONDUCT GROUND TEST, OWNER'S REPRESENTATIVE WILL INSPECT CADWELDS AND REVIEW GROUND TEST FRONT TO BURNAL. USE CLEAN SAND AND CLAY BACKFILL FOR BURNED GROUND CONDUCTORS. 2. ALL DETAILS SHOWN ARE DIAGRAMMATICAL ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS. 3 NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING THE GROUND SYSTEM DUE TO SITE/SOIL CONDITIONS

GROUND CONNECTIONS: WHERE GROUND CONNECTIONS ARE MADE, THE CONTAGT POINTS SHALL BE THOROUGHLY CLEANED AND MADE FREE OF FOREIGN MATERIAL SUCH AS PAINT, GALVANIZATION, AND CORROSION, TO ENSURE ADEQUATE BOND. REFER TO EXOTHERMIC WELD, LUGS, AND ANTI-OXIDATION COMPOUND NOTES FOR PURTHER DEFIALS. ANTI-OXIATION COMPOUND NOTES FOR FURTHER DETAILS.

5. GROUND WIRE CUSTISEQUIND REGISTORY CONTROL OF A SAME CAN USE A LIGHT WITH THE CASE AND A LOCAL UTILITY REQUIREMENTS. UNDER NO CIRCUMSTANCES IS STRANDED WIRE ACCEPTABLE ALL BURGE WIRE SHALL BE USTALLED TO MEET MANIAUM BEDIN RADIUS. SHARP BEDINS AND KINS ARE HEVER ACCEPTABLE WHEN ANY GROUNDING WIRE RUNS THROUGH CONCRETE, IT SHALL BE SLEEVED BY PVC. GROUND WIRES SHALL NOT BE INSTALLED OR ROUTED THROUGH CONCRETE, IT SHALL BE NO. 2 AND THEN OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THEN OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THEN OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THEN OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THEN OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THEN OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THROUGH CONTROL OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THROUGH CONTROL OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THROUGH CONTROL OR THROUGH CONCRETE, IT SHALL BE NO. 2 AND THROUGH CONTROL OR THROUGH C

8 EXOTHERWIC WELDING, EXOTHERMIC WELDS SHALL BE CADWELD, A REGISTERED TRADEMARK OF ERCO PRODUCTS, INC. OF CLEVELAND, OHIO, OR THERMONELD, A DIVISION OF CONTINENTAL INDUSTRIES, INC. OF TULSA OXLAHOMA OR EQUIVALENT

GEOGRAPHIC DESCRIPTION THE CONTROL OF THE SAME DESCRIPTION AND CONTROL OF THE SAME MATERIAL ARCHITOTE LESS THAN 0.021 EXCHEST STRICK, GROUND OSS SHALL BE SPACED NO SHALL BE SPACED NO GEARER THAN 1 5 FT, 0.C. AND NO LESS THAN 6 FT, 0.C.

10. GROUND ROD COUPLING, 59° GROUND ROD COUPLING MADE OF THE SAME MATERIAL AS THE GROUND ROD OF PREVENT DISSIMLAR METAL HIGH ONDATION POINTS.

11. CHEMICAL GROUND ROD COMPRISED OF A HOLLOW COPPER GROUND ROD, A GROUND ROD, CONTROL THE SAME MATERIAL AS THE GROUND ROD CONDUCTIVE BACKFILL MATERIAL. THE CHEMICAL GROUND SHALL BE MADE OF A MINIMUM OF ZHICH LD. TYPE K COPPER TUBE WITH A MINIMUM WALL THICKNESS OF 0.033 INCH AND SHALL BE AMMAND OF FEET IN LENGTH. THE CHEMICAL GROUND SHALL BE LUSTED AN ISTUATIONS WHERE OF ALL MAY VERTICALLY IS TOO DEFICUATION COSTLY, HORCONTAL LISHAME CHEMICAL GROUND RODS ARE ACCEPTIBALE. THALL INFORMED TO MAKE A MARKING OF PETER INTEROFIC THE CHEMICAL GROUND ROD SHALL BE U. LISTED, IN STRICTION THAT WHEN EVEL NO TENTAL TO TOO DISTRICT, INFORMED THAT WHEN THE THAT OF THAT

14. CUPS: WHEN SECURING AM GROUND WIRES, SOLID OR STRANDED, INSULATED OR UNINSULATED, NEVER USE AM CUPS OR OTHER DEVICES THAT ARE CONDUCTIVE AND FORM A CLOSED LOOP. METALLIC CUPS 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.

15. GROWN CLAMP: SURJIV CAR STILL UL CLAMP WITH TWO-HOLE PROVISION FOR TO LONG BARREL MULTIPLE CRUPP TWO-HOLE LUGS.

16. CACAX CRONDONING NIT: CACAX GROWN BY THE STREET FROM THE SMALE PROVIDED BY THE CACAX FROWN INTS SHALL BE SOUD STRAP TYPE WITH NO. 8 ANY WIRE AND 2 HOLE COMPRESSION CRMPED LUGS (INSTALLED USING THE PROPER UL TOOL AND CRICUMPERENTIAL HEXAGON DE). BRAND ON HOSE CLAMP TYPE SHALL NOT BE USED. ALL COAD CRONDON THIS SHALL BE USED. ALL COAD CRONDON THE STREET FROM THE SHALL FROM THE STREET FROM THE

19. ANTENIA GROUNDIG- ALL ANTENIAS (INCLUDING) THE GPS ANTENIAS) ARE GROUNDED BY THEIR MOUNTSMASTS AND BY THE GROUND WIS ON THE COXALL CABLE CONNECTED TO THE COXAL CABLE CAB

8 RF AND TOWER APPURTENANCE INSTALLATION RELATED NOTES
8.1 COXXIAL CASILE REQUIREMENTS:
1. GENERAL: PROVIDE ALL LABOR, EQUIPMENT, AND MATERIALS NEC LE REQUIREMENTS.

THE ALL BASK, EQUIPMENT, AND MATERIALS NECESSARY FOR RECEIVING, INSTALLING, TESTING, AND ADJUSTING ANTEINA CASLES FROM THE AUTEINA TO THE CONNECTIONS AT THE BASE TRANSMISSION SYSTEM (BTS). THIS SHALL INCLUDE ALL EQUIPMENT SHOWN OR REQUIRED FOR A PARTING SYSTEM AUTEINA, AUTEINA, CASLES, CONNECTIORS, AND FITTING SHALL BE THEO PARTY FURNISHED COMPONENTS AS SHOWN ON THE BILL OF MATERIALS.

COAXIAL CABLE LENGTHS SHALL BE FIELD MEASURED. INSTALLER SHALL NOTIFY CARRIER PRIOR TO PURCHASE OF CABLE OF THE OVERALL LENGTH REQUIRED COAXIAL CABLE TYPE AND DIAMETER SHALL BE VERIFIED WITH CARRIER.

COMMUL CABLES SHALL BE LABELED IN ACCORDANCE WITH CARRIER ELECTRICAL MATERIALS AND METHODS SPECIFICATIONS. ALL MANY CABLES WILL BE COLOR CODED AT FOUR LOCATIONS. A) AT ARTENNA PRIOR TO JUMPER, B) AT THE BOTTOM OF THE TOWER, C) EXTERIOR PRAT OF THE WAVE ENTIRY FOR IT AT THE SHILL EXPLICATION THAT IN ALL DISTRICTS OF THE SHILL PRICARDET.

INSTALL CONNECTORS TO COAXIAL CABLE AT BOTH ENDS (ANTENNA END AND BTS LOCATION). UPON SUCCESSFUL COMPLETION OF THE SWEEP TEST, THE CONTRACTOR SHALL PROVIDE A WEATHERTIGHT SEAL ON THE COAX CABLES AT THE ANTENNA CONNECTION ONLY

THE MINIMUM BENDING RADIUS FOR ALL ANTENNA CABLES SHALL BE AS SHOWN BELOW OR PER THE MANUFACTURER. WHICHEVER IS MORE CON CABLE IN AIR OR CABLE TRAY IN CONDUIT

A GROUNDING KITS - AFTER INSTALLATION OF GROUND STRAPS, THE CONNECTIONS SHALL BE MADE WEATHER TIGHT USING WEATHER PROOF KITS AS IDENTIFIED, GROUND PIGTALS SHALL BE BROUGHT OUT IN THE DOMINIARD DIRECTION FROM THE CONNECTION SHALL BE MADE TO GROUNDING SYSTEM.

8 2 ANTENNA REQUIREMENTS:

1. AZIMUTHS ARE ORIENTED CLOCKWISE FROM TRUE NORTH.

- PLANS PREPARED FOR: -EXTENET YOUR NETWOR EVERYWHERE. YOUR NETWORK

- PLANS PREPARED BY: -

UC/SYNERGETIC 21 OXFORD RD MANSFIELD, MA 02048

1-508-337-7600

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**CHARLES ST** BOSTON, MA 02108

MIDDLESEX COUNTY

- P.E. STAMP AREA: -

DRAWING NOTES: -

PLAN ORIG. DATE:

- ORIGINAL PLAN: AS NOTED SCALE: DRAWN RY.

04/04/19

|     | VISIONS:    |    |      |
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| REV | DESCRIPTION | BY | DATE |
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SITE INFO:

CRAN ID:

LAT: 42.35368686° LONG: -71.06820149°

CRAN RCTB 2HA4 093

EXTENET NODE ID: NE-MA-BSTBSC01-093

SITE ADDRESS **CHARLES ST** 

SHEET TITLE:

- SHEET NUMBER: -

**GENERAL NOTES** 

GN-2