12/11/12 ISSUED FOR OWNER'S REVIEW ISSUED FOR ZONING AND PERMITTING 12/17/12 12/28/12 ISSUED FOR CONSTRUCTION REVISED ACCESS ROAD AND EASEMENT 01/16/13

PROPERTY OWNER:

PARCEL ID #:

SURVEYOR:

CHARLOTTE-MECKLENBURG

BOARD OF EDUCATION

22914402 & 22914403

SANDERS SURVEYING AND

BLACK MOUNTAIN, NC 28711

MAPPING SERVICES, INC.

510 AVENA ROAD

(828) 669-2777

A PROJECT FOR:

BASE TRANSCEIVER SITE

J.M. ROBINSON MIDDLE SCHOOL 6607 BALLANTYNE COMMONS PARKWAY **CHARLOTTE, NC 28277 MECKLENBURG COUNTY** NORTH CAROLINA

DIRECTIONS:
FROM CHARLOTTE, NC: START OUT GOING SOUTHEAST ON E. TRADE ST. TOWARD S. ALEXANDER ST. CONTINUE FOR APPROX. 0.2 MILES. TURN RIGHT ONTO S. MCDOWELL ST/NC-27. CONTINUE FOR APPROX. 0.2 MILES. TURN LEFT ONTO E. 3RD ST/NC-16 S. CONTINUE TO FOLLOW NC-16 S. FOR APPROX. 1.9 MILES. TURN LEFT ONTO PROVIDENCE RD/NC-16 S. CONTINUE TO FOLLOW NC-16 S. FOR APPROX. 10.0 MILES. TURN RIGHT ONTO BALLANTYNE COMMONS PKY. CONTINUE FOR APPROX. 0.9 MILES. END AT 5925 BALLANTYNE COMMONS PARKWAY, CHARLOTTE, NC.



VICINITY MAP

DRAWING INDEX



SITE SURVEY (SHEET 1 OF 2) SITE SURVEY (SHEET 2 OF 2)

GENERAL

SURVEY

GENERAL ABBREVIATIONS
BUILDING CODE APPENDIX B (SHEET 1 OF 2)
BUILDING CODE APPENDIX B (SHEET 2 OF 2) G1 G2 G2A

CIVIL

GENERAL NOTES AND SYMBOLS ប 2 2 2 2 5 SITE LAYOUT PLAN SITE GRADING PLAN TOWER ELEVATION AND COMPOUND FENCE DETAILS SITE DETAILS

ELECTRICAL

GENERAL ELECTRICAL NOTES AND LEGEND SERVICES ROUTING PLAN SITE GROUNDING PLAN E2 E3 E4 E5 E6 ONE LINE DIAGRAM **GROUNDING DETAILS** UTILITY RACK AND TRENCH DETAILS

SITE INFORMATION:

APPLICANT:

BERKLEY GROUP LLC 10612-D PROVIDENCE ROAD, PMB 742 CHARLOTTE, NC 28277 BONNIE NEWELL - PROJECT MANAGER TEL: (704) 907-7104

POWER:

DUKE ENERGY (800) 777-9898

TELCO:

AT&T (866) 620-6000 TOWER INFORMATION:

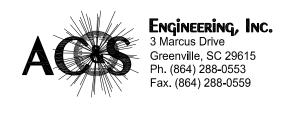
PROPOSED 175' MONOPINE LATITUDE: 35°03'47.12"N LONGITUDE: 80°47'32.86" W GROUND ELEVATION: 642.6'

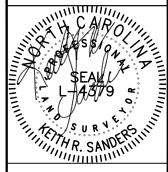
ZONING INFORMATION:

JURISDICTION: CHARLOTTE-MECKLENBURG PLANNING DEPARTMENT (704) 336-2205 CLASSIFICATION: R-3 OCCUPANCY: SCHOOL SPORTS COMPLEX

BUILDING INSPECTIONS:

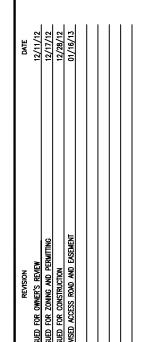
MECKLENBURG COUNTY CODE ENFORCEMENT 700 NORTH TRYON STREET CHARLOTTE, NC 28202 (704) 814-0435





SANDERS SURVEYING & MAPPING SERVICES, INC 510 AVENA ROAD, BLACK MOUNTAIN, NORTH CAROLINA, 28711 (828) 669–2777 C-2384





4444 PROJECT NUMBER:

SHEET CONTENTS: **SITE SURVEY**

(SHEET 1 OF 2)

SHEET NUMBER:

FLOOD ZONE PROPERTY IS IN FLOOD ZONE "X"

ZONE "X" - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANUAL CHANCE FLOODPLAIN; AREAS OUTSIDE FUTURE CONDITIONS 1% ANNUAL CHANCE

PER FEMA FIRM NORTH CAROLINA

MAP NUMBER 3710446800J

PANEL 4468

EFFECTIVE DATE MARCH 2, 2009

I, KEITH R. SANDERS, A REGISTERED LAND SURVEYOR, CERTIFY THAT THIS IS A TRUE, COMPLETE, AND CORRECT SURVEY OF THE DESCRIBED REAL PROPERTY SITUATED IN THE CITY OF CHARLOTTE, MECKLENBURG COUNTY, NORTH CAROLINA; THAT THIS PLAT WAS DRAWN UNDER MY DIRECT SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN THE MECKLENBURG COUNTY REGISTRY (SEE REFERENCES); THAT THE RATIO OF PRECISION AS CALCULATED IS 1: 10,000; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G,S. 77/30 AS

WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL THIS DAY OF JANUARY 3, A.D. 2013.

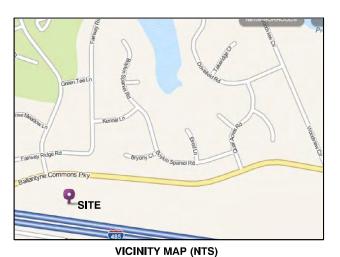
REF. PLAT. PLAT TITLED "RECOMBINATION BOUNDARY SURVEY FOR: THE CHARLOTTE-MECKLENBURG BOARD OF EDUCATION, OWNERS", PREPARED BY SANDERS SURVEYING & MAPPING SERVICES, INC., DATED 11/01/12, RECORDED 12/14/12, IN PLAT BOOK 54, PAGE 618.

- 1. NORTH CAROLINA GRID AND DISTANCES ARE GROUND UNLESS OTHERWISE SHOWN OR NOTED. COORDINATES ARE ON NORTH CAROLINA GRID (NAD 83) AND THE VERTICAL DATUM IS (NAVD 88).

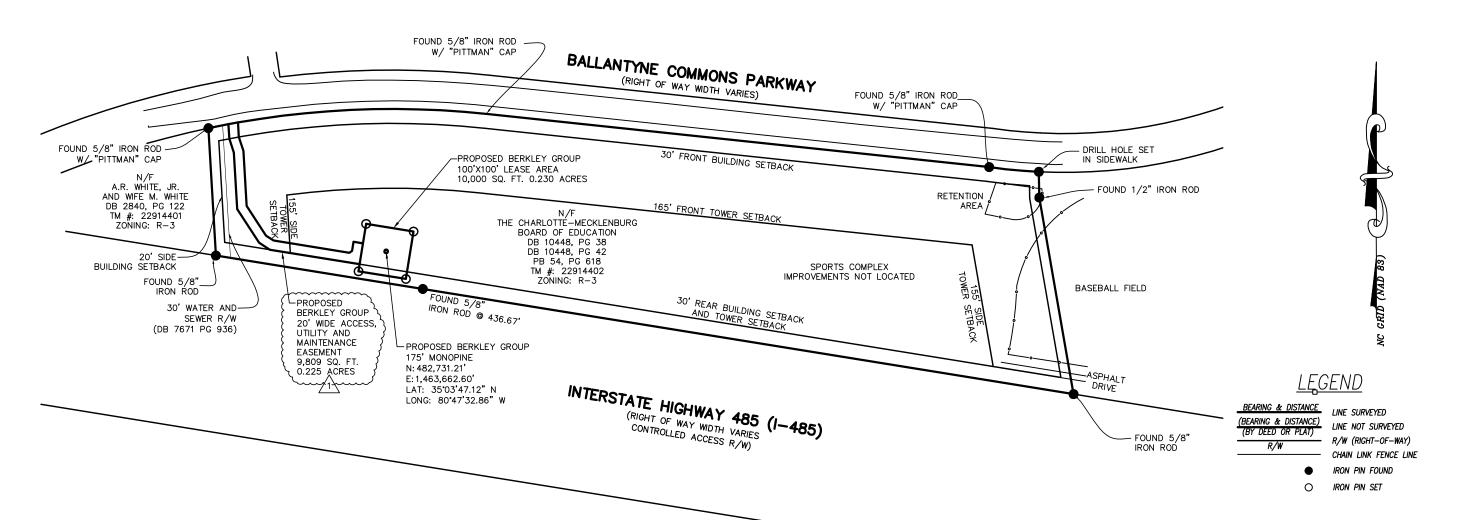
 2. GRID COORDINATES SHOWN WERE OBTAINED FROM USE OF GPS OBSERVATION,
- USING A TOPCON HIPER+ SURVEY GRADE RECIEVER (DUAL FREQUENCY). USING "NGS OPUS SOLUTION". ALL IPS ARE 5/8" IRON REBAR UNLESS OTHERWISE NOTED.
- 4. THE RATIO OF PRECISION OF THE UNBALANCED TRAVERSE MEETS OR EXCEEDS 1: 10,000.
- 5. THE FEATURE SYMBOL LOCATIONS ARE TO THE CENTER OF THE SYMBOL AND MAY BE ENLARGED FOR CLARITY.
 6. THE UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM
- FILED SURVEY INFORMATION AND EXISTING DRAWINGS MADE AVAILABLE AND PROVIDED TO THE UNDERSIGNED SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH THE UNDERSIGNED DOES STATE THE EXACT LOCATION INDICATED, ALTHOUGH THE UNDERSIGNED BOSS STATE
 THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE
 INFORMATION AVAILABLE AND PROVIDED. THE SURVEYOR HAS NOT
 PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

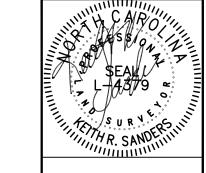
 7. THE UNDERSIGNED, DOES NOT WARRANT THE EXISTENCE OR NONEXISTENCE
 OF ANY HAZARDOUS WASTE ON THE SURVEY SITE.
- 8. THE UNDERSIGNED DOES NOT WARRANT THE EXISTENCE OR NONEXISTENCE OF ANY JURISDICTIONAL WETLANDS ON THE SURVEY SITE OTHER THAN SHOWN, IF ANY. WETLANDS SHOWN ARE SUBJECT TO FINAL APPROVAL BY THE U.S. CORPS. OF ENGINEERS.

 9. THIS PLAT WAS PREPARED AS A PROFESSIONAL SERVICE FOR THE EXCLUSIVE
- USE OF THE PERSON, PERSONS, OR ENTITY NAMED WITHIN THE HEREON STATEMENT AND/OR TITLE. SAID STATEMENT DOES NOT EXTEND TO ANY UNNAMED PERSON, PERSONS OR ENTITY WITHOUT THE EXPRESSED PERMISSION OF AC&S, NAMING SAID PERSON, PERSONS, OR ENTITY.
- 10. AREA COMPUTED BY DMD METHOD. 11. THAT THE SURVEY IS OF AN EXISTING PARCEL OR PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.
- THE PREMISES ARE IN A R-3 ZONING DISTRICT UNDER THE APPLICABLE ZONING ORDINANCE OF THE COUNTY OF MECKLENBURG, WHICH DISTRICT ALLOWS THE CURRENT USE OF THE IMPROVEMENTS LOCATED ON THE



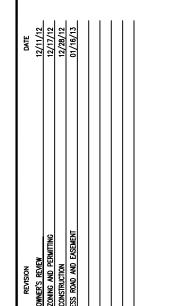
GRAPHIC SCALE: 1" = 200' BERKLEY GROUP SITE NAME "J. M. ROBINSON" PARTY CHIEF: K. SANDERS DATE SURVEYED: 11/01/12 DRAWN BY: K. SCOTT OWNER: THE CHARLOTTE-MECKLENBURG BOARD OF EDUCATION DB 10448, PG 38 DB 10448, PG 42 TM #: 22914402 & 22914403 MECKLENBURG COUNTY, NORTH CAROLINA ZONED: R-3 USE: SCHOOL SPORTS COMPLEX





SANDERS SURVEYING & MAPPING SERVICES, INC 510 AVENA ROAD, BLACK MOUNTAIN, NORTH CAROLINA, 28711 (828) 669–2777 C–2384

BASE TRANSCEIVER SITE
J.M. ROBINSON MIDDLE SCHOOL
07 BALLANTYNE COMMONS PARKWAY
CHARLOTTE, NC 28277
MECKLENBURG COUNTY
NORTH CAROLINA



₹**⋖⋖⋖** PROJECT NUMBER: SHEET CONTENTS:

SITE SURVEY

(SHEET 2 OF 2)

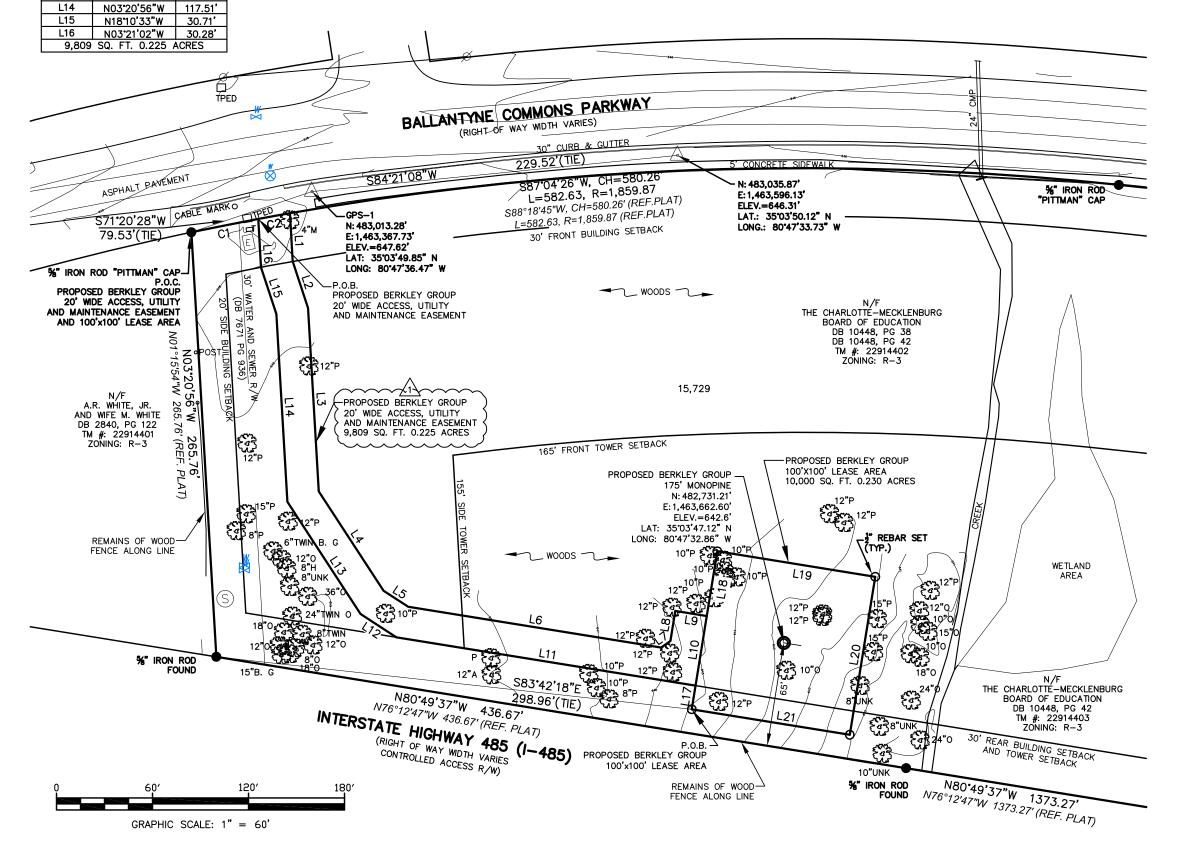
SHEET NUMBER: **V2**

PROPOSED BERKLEY GROUP 20' WIDE PROPOSED BERKLEY GROUP 100'x100' LEASE AREA-LINE TABLE CURVE LENGTH RADIUS CHORD BEARING DELTA ACCESS, UTILITY AND MAINTENANCE EASEMENT - LINE TABLE C1 42.55 1859.87 42.54 N78*45'17"E 11'18'38" C2 20.15 1859.87 20.15 N79*43'13"E 0'37'14" LINE BEARING DISTANCE LINE BEARING DISTANCE L17 15.00' C2 SEE CURVE TABLE L10 N09°10'23"E 44.00' L1 S03'21'02"E 30.11'
L2 S18'10'33"E 30.71' 41.00' TOTAL = 100.00' L3 S03*20'56"E 114.80'
 L19
 S80'49'37"E
 100.00'

 L20
 S09'10'23"W
 100.00'

 L21
 N80'49'37"W
 100.00'

 10,000
 SQ. FT. 0.230
 ACRES
 L4 S33°06'55"E 74.14' PLAT TITLED "RECOMBINATION BOUNDARY SURVEY S56'58'16"E 18.29' FOR: THE CHARLOTTE-MECKLENBURG BOARD OF L6 S80'49'37"E 160.20'
L7 N54'10'23"E 7.07' EDUCATION, OWNERS", PREPARED BY SANDERS SURVEYING & MAPPING SERVICES, INC., DATED 11/01/12, RECORDED 12/14/12, IN PLAT BOOK 54, PAGE 618. L8 N09'10'23"E 19.00' L9 S80'49'37"E 20.00' L10 S09'10'23"W 44.00' N80°49'37"W 189.42' L12 N56'58'16"W 26.74' L13 N33'06'55"W 83.68'





<u> </u>	<u>'ENU</u>
BEARING & DISTANCE	LINE SURVEYED
(BEARING & DISTANCE)	
(BY DEED OR PLAT)	LINE NOT SURVEYED
R/W	R/W (RIGHT-OF-WAY)
<u> </u>	CHAIN LINK FENCE LINE
<i>*</i> ♥ Š	FIRE HYDRANT
8	WATER METER
₩	WATER VALVE
w	WATER LINE
o	SANITARY MANHOLE
——ss——	SANITARY SEWER LINE
Ø	POWER OR UTILITY POLE
\$	LIGHT POLE
——ОНЕ ——	OVERHEAD ELECTRIC LINE
①	TELEPHONE MANHOLE
TEL PED 🗆	TELEPHONE PEDESTAL
——FOC ——	UNDERGROUND FIBER OPTIC CABLE
•	IRON PIN FOUND
©	PK NAIL SET
0	IRON PIN SET (1/2" REBAR)
•	PK NAIL FOUND
	CMF-CONCRETE R/W MONUMENT FOUND
₽	TEMPORARY BENCH MARK
$\tilde{\lambda}$	TRAVERSE NAIL
🗖	CATCH BASIN
12" RCP	STORM DRAIN LINE
	CREEK OR DITCH
CONCRETE	DENOTES CONCRETE
P.O.C.	POINT OF COMMENCEMENT

P.O.B. POINT OF REGINNING N/F NOW OR FORMERLY TM TAX MAP

DB DEED BOOK PB PLAT BOOK

APPLE B.G. BLACK GUM HICKORY

> OAK PINE

0

RCP REINFORCED CONCRETE PIPE MAPLE

CHICAGO TITLE COMPANY, LLC ALTA COMMITMENT FORM COMMITMENT NUMBER: 12-14929CH EFFECTIVE DATE: NOVEMBER 21, 2012

SCHEDULE B - SECTION II

EXCEPTIONS

SCHEDULE B OF THE POLICY OR POLICIES TO BE ISSUED WILL CONTAIN EXCEPTIONS TO THE FOLLOWING MATTERS UNLESS THE SAME ARE DISPOSED OF TO THE SATISFACTION OF THE

1. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTER, IF ANY, CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT

2. TAXES FOR THE YEAR 2012, AND SUBSEQUENT YEARS; HOWEVER, THIS POLICY INSURES THAT THE LAND IS EXEMPT FROM TAXES SO LONG AS TITLE IS HELD BY THE OWNER AS SET FORTH IN SCHEDULE A HEREOF, AND SO LONG AS THE SAID OWNER RETAINS ITS TAX EXEMPT STATUS.

3. THE CORRECTNESS OF THE SQUARE FOOTAGE/ACREAGE COMPUTATION CONTAINED IN THE DESCRIPTION OF THE LAND IS NOT INSURED.

4. ANY DISCREPANCY, CONFLICT, ACCESS, SHORTAGE IN AREA OR BOUNDARY LINES, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OVERLAP, SETBACK, EASEMENT OR CLAIMS OF EASEMENT, RIPARIAN RIGHT, AND TITLE TO LAND WITHIN ROADS, WAYS, RAILROADS, WATERCOURSES, BURIAL GROUNDS, MARSHES, DREDGED OF FILLED AREAS OR LAND BELOW THE MEAN HIGHWATER MARK OR WITHIN THE BOUNDS OF ANY ADJOINING BODY OF WATER, OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY A CURPENT INSPECTION AND ACCURPTE AND COMPLETE LAND SHEETS. DISCLOSED BY A CURRENT INSPECTION AND ACCURATE AND COMPLETE LAND SURVEY OF

5. EASEMENT(S) TO DUKE POWER COMPANY RECORDED IN BOOK 5476, PAGE 758. (BLANKET

6. EASEMENT(S) TO CITY OF CHARLOTTE RECORDED IN BOOK 7671, PAGE 936. (AFFECTS SUBJECT PROPERTY, 30' WATER AND SEWER R/W PLOTTED AND SHOWN HEREON)

7. FEE SIMPLE DEED TO THE DEPARTMENT OF TRANSPORTATION RECORDED IN BOOK 7731, PAGE 742. (AFFECTS SUBJECT PROPERTY, BALLANTYNE COMMON PARKWAY RIGHT-OF-WAY PLOTTED AND SHOWN HEREON)

8. DRAINAGE FACILITY AGREEMENT BY AND BETWEEN EDGAR T. CATO AND THE DEPARTMENT OF TRANSPORTATION RECORDED IN BOOK 7731, PAGE 745. (NOT PLOTTABLE DUE TO THE ILLEGIBILTIY OF THE DOCUMENTS)

9. EASEMENT(S) TO DEPARTMENT OF TRANSPORTATION RECORDED IN BOOK 7731, PAGE 747. (TEMPORARY DRAINAGE, CONSTRUCTION AND DETOUR EASEMENT EXPIRED

10. EASEMENT AGREEMENTS TO THE CITY OF CHARLOTTE RECORDED IN BOOK 8112, PAGE 948 AND BOOK 8112, PAGE 953. (NOT PLOTTABLE DUE TO THE ILLEGIBILTIY OF THE DOCUMENTS)

11. TERMS AND PROVISIONS OF THE LEASE BY AND BETWEEN THE CHARLOTTE-MECKLENBURG BOARD OF EDUCATION ('LANDLORD") AND BERKLEY GROUP, LLC, A NORTH CAROLINA LIMITED LIABILITY COMPANY ("TENANT"), A MEMORANDUM OF WHICH IS RECORDED IN BOOK _____, PAGE _____

Engineering, Inc 3 Marcus Drive Greenville, SC 29615 Ph. (864) 288-0553 ACC SEAL O29239

A M. ALDRUM MASSA M. ALDRUM MINIMUM 12-28-

BASE TRANSCEIVER SITE
J.M. ROBINSON MIDDLE SCHOOL
6607 BALLANTYNE COMMONS PARKWAY
CHARLOTTE, NC 28277
MECKLENBURG COUNTY
NORTH CAROLINA SERKLE

DATE
12/11/12
12/17/12
12/28/12

PROJECT NUMBER: 12049.010

444

GENERAL **ABBREVIATIONS**

> SHEET NUMBER: G1

Name of Project:	JM Robinson B	ase Transceiver Telecom	munications site		
-	_	COMMONS PARKWAY		NC Zip Co	de 28214
Proposed Use:	Cellular Commur	nications Tower Site		- <u>-</u> -	
Owner/Authorize	ed Agent: <u>BERKI</u>	EY GROUP – Bonnie N	ewell Phone	# (<u>704</u>) <u>907</u> - <u>710</u> 4	1
E-Mail <u>b_newe</u>	ell@bellsouth.net				
Owned By:		☐ City/County	□ Private	☐ Sta	ite
Code Enforceme	nt Jurisdiction:	City	County_	Sta	te
	tion: <u>100'x100</u> d power for the si	PROJECT S Lease area for telecomite,		site with propose	d Monopine tower,
fenced compoun	d area with a 12	construction, please see ' wide access road. A 1 the site will be installed.			
Code Complianc	e Summary:				
Alternative Mean	ns of Compliance	Request:			
RTAP (Revis	•	aration document attacher plans.)[See www.Meckpo	-	•	
DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural Civil Electrical Fire Alarm Plumbing Mechanical Sprinkler-Standr Structural Retaining Walls Other	Sturkie & Assoc		024170	INCLUDE EXT. () (864) 288-0553 (864) 363-4855 () () () () () (574) 288-3632 () ()	
2012 EDITION EXISTING:		OR: New Constructi	on Addition	Upfit	
	ED: (date) : (date)		USE(S) (Ch. 3): _ SE(S) (Ch. 3): _		
			USE(S) (Ch. 3): _		
Page 1 of 12		Appendix B			9-1-2012

PERCENTAGE OF WALL OPENING CALCULATIONS – N/A THIS SECTION FOR ADDITIONS, NEW CONSTRUCTION AND CHANGE OF USE

Allowable openings per T705.8

WALL LEGENDS - N/A

THIS SECTION REQUIRED TO BE COMPLETED FOR ALL PROJECTS

CHECK IF THE FOLLOWING ARE PRESENT AND INDICATED BY A WALL LEGEND ON ALL PLANS

Fire Walls 706 Fire Barriers 707 Shaft Enclosure 708 Fire Partitions 709 Smoke Barriers 710 Smoke Partitions 711

LIFE SAFETY SYSTEM REQUIREMENTS - N/A THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

Emergency Lighting: (S1006) Exit Signs: (S1011) Fire Alarm: (S907, NFPA 72-07) Smoke Detection Systems: (S907)

LIFE SAFETY PLAN REQUIREMENTS – N/A

Life Safety Plan Sheet #:

Page 6 of 12

Fire and/or smoke rated wall locations (Chapter 7)

Assumed and real property line locations Exterior wall opening area with respect to distance to assumed property lines (705.8)

Existing structures within 30' of the proposed building Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)

Occupant loads for each area

Exit access travel distances (1016) Common path of travel distances (1014.3 & 1028.8)

Dead end lengths (1018.4)

Clear exit widths for each exit door

Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)

Actual occupant load for each exit door A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for

purposes of occupancy separation Location of doors with panic hardware (1008.1.10)

Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)

Location of doors with electromagnetic egress locks (1008.1.9.8) ☐ Location of doors equipped with hold-open devices

Location of emergency escape windows (1029)

The square footage of each fire area (902)

The square footage of each smoke compartment (407.4) ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

> Appendix B 9-1-2012

 □ 2012 North Carolina State Building Code (NCSBC)
 □ 2009 NC Rehab Code □ 2012 Chapter 34 (attach summary) Building Code:

1995 Existing Building Code Vol. 9 New building Shell building

First time interior completion (upfit) ☐ Addition

☐ Change of use/occupancy
☐ Building/tenant space interior completion (renovation) Existing Building:

Please see 3411 NCSBC for compliance for Accessibility for Existing Buildings. A letter from the designer will be required to be attached or reproduced on the plans to verify how compliance will be achieved.

> Year of construction Original use

2009 NC REHAB CODE Information: N/A Scope of work / work area must be listed and delineated on the

Check all that apply: \square Repair \square Renovation \square Alteration \square Reconstruction \square Change of use \square Addition

☐ Last known legal occupancy use Historic Property: Yes ☐ No ☒ Original Building Construction Date Date of Preliminary Meeting Justifications for using the REHAB code:

Reviewers Notes for Field Inspector:

New Building:

BASIC BUILDING DATA - N/A ☐ III-A ☐ III-B □ II-A □ II-B Construction Type: (check all that apply)

 Sprinklers:
 No
 □ Partial □ Yes
 □ NFPA 13
 □ NFPA 13R
 □ NFPA 13D

 Standpipes:
 □ No
 □ Yes
 □ Lass □ I
 □ II
 □ III
 □ Wet
 □ Dry

Fire District: No Yes (Primary) Flood Hazard Area: No Yes

Building Height: (feet) N/A, No building in this project

Gross Building Area: N/A

Page 5 of 12

ALLOWABLE AREA – N/A Occupancy: ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5 Assembly (303)

Business (304) Educational (305)

Page 2 of 12 Appendix B

FIRE PROTECTION REQUIREMENTS THIS SECITON REQUIRED TO BE COMPLTED FOR ALL PROJECTS

9-1-2012

9-1-2012

Life Safety Plan Sheet #, if Provided N/A

BUILDING ELEMENT	FIRE		RATING	DETAIL#	DESIGN#	DESIGN#FOR	DESIG
	SEPARATION DISTANCE (FEET)	REQ'D	PROVIDED (W/ * REDUCTION)	AND SHEET#	FOR RATED ASSEMBLY	RATED PENETRATION	FO RAT JOI!
Structural Frame,	(===)						
including columns, girders,		i					
trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls		i			i		
North							
East					1		
West							
South					1		
Interior walls and partitions							
Floor Construction							
Including supporting beams		i			i		
and joists		i					
Roof Construction							
Including supporting beams		i			ĺ		
and joists		i			ĺ		
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Tenant Separation							
Incidental Use Separation							

Appendix B

 F-1 Moderate
 F-2 Low

 H-1 Detonate
 H-2 Deflagrate
 H-3 Combust
 H-4 Health
 H-5 HPM

 I-1
 I-2
 I-3
 I-4

 I
 I
 2
 3
 4
 5

 Hazardous (307) I-3 Condition 1 Mercantile (309) R-1 R-2 R-3 R-4
S-1 Moderate S-2 Low High-piled
Parking Garage Open Enclosed Repair Garage Residential (310) Storage (311) Utility and Miscellaneous (312) Accessory Occupancies: N/A ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5 Assembly Business Incidental Uses (Table 508.2.5): ☐ Furnace room where any piece of equipment is over 400,000 Btu per hour input $\ \square$ Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower Refrigerant machine room ☐ Incinerator rooms Paint shops, not classified as Group H, located in occupancies other than Group F Laboratories and vocational shops, not classified as Group H. located in a Group E or I-2 occupancy Laundry rooms over 100 square feet Group I-3 cells equipped with padded surfaces Group I-2 waste and linen collection rooms Waste and linen collection rooms over 100 square feet ☐ Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power Rooms containing fire pumps Group I-2 storage rooms over 100 square feet Group I-2 commercial kitchens Group I-2 laundries equal to or less than 100 square feet Group I-2 rooms or spaces that contain fuel-fired heating equipment
 Special Uses:
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412

 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 ☐ 425 ☐ 426 ☐ 427 **Special Provisions:** 509.2 509.3 509.4 509.5 509.6 509.7 509.8 509.9 Mixed Occupancy: No Yes Separation: Hr. Exception: ☐ Incidental Use Separation (508.2.5) This separation is not exempt as a Non-Separated Use (see exceptions). ☐ Non-Separated Use (508.3) The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Separated Use (508.4) - See below for area calculations For each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

9-1-2012

9-1-2012

 $\frac{Actual\,Area\,of\,Occupancy\,A}{Allowable\,Area\,of\,Occupancy\,A} \quad + \quad \frac{Actual\,Area\,of\,Occupancy\,B}{Allowable\,Area\,of\,Occupancy\,B} \quad \leq 1$ <u>N/A</u> + <u>N/A</u> + = <u>N/A</u> ≤1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503 ⁵ AREA	(C) AREA FOR FRONTAGE INCREASE ¹	(D) AREA FOR SPRINKLER INCREASE ²	(E) ALLOWABLE AREA OR UNLIMITED ³	(F) MAXIMU BUILDIN AREA

Frontage area increases from Section 506.2 are computed thus:

Perimeter which fronts a public way or open space having 20 feet minimum width = _____(F)

Page 3 of 12

Page 4 of 12

Maximum Building Area = total number of stories in the building $x \to (506.4)$. The maximum area of open parking garages must comply with Table 406.3.5. The maximum area of air traffic

Appendix B

control towers must comply with Table 412.1.2.

ALLOWABLE HEIGHT N/A							
	allowable (Table 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE			
Type of Construction	Туре		Туре				
Building Height in Feet		Feet = H + 20' =					
Building Height in Stories		Stories + 1 =					

DATE 12/11/12 12/17/12 12/28/12 444

SEAL 029239

PROJECT NUMBER: SHEET CONTENTS:

BUILDING CODE APPENDIX B (SHEET 1 OF 2)

SHEET NUMBER: G2

EXIT REQUIREMENTS N/A THIS SECTION IS REQUIRED TO BE COMPLETED FOR ALL PROJECTS

NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM OR MINIMUM ² SPACE DESIGNATION NUMBER OF EXITS		TRAVEL DISTAN	ARRANGEMENT MEANS OF EGRESS ^{1,3} (SECTION 1015.2)			
	REQUIRED T1021.2	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS

OCCUPANT LOAD AND EXIT WIDTH N/A

USE GROUP OR SPACE	(a)	(b)		((c)		EXIT WIDTI	н (in) ^{2,3,4,5,5}	
DESCRIPTION ⁷	AREA ¹ sq. ft.	AREA ¹ PER OCCUPANT	CALCULATED OCCUPANT LOAD (a÷b)	PER OC	s width ccupant n 1005.1)	(SECTION	ЕD WIDTH № 1005.1) о) х с	ACTUAL V SHOWN O	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
				0.3	0.2				

ACCESSIBLE DWELLING UNITS N/A

Тота	L Accessible	Accessible	Type A	Түре А	Түре В	Түре В	TOTAL
Unit	Units	Units	Units	Units	Units	Units	accessible Units
	Required	Provided	Required	Provided	Required	Provided	PROVIDED
Page 7	Page 7 of 12			endix B			9-1-2012

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Climate Zone:	☐ 3	□ 4	□ 5
Method of Com	pliance:		
☐ Pres	scriptive	(Energ	gy Code)
☐ Peri	formance	(Energ	gy Code)

Prescriptive (ASHRAE 90.1) Performance (ASHRAE 90.1)

THER

Floors slab on grade

Description of assembly: U-Value of total assembly:

R-Value of insulation: Horizontal/vertical requirement:

IAL EN	WELOPE		
Roof/co	eiling Assembly (each assembly)		
	R-Value of insulation:		
	total square footage of skylights	in each assembly:	
Exterio	or Walls (each assembly)		
	Description of assembly: U-Value of total assembly: R-Value of insulation: Openings (windows or doors wit U-Value of assembly: Solar heat gain coefficie projection factor: Door R-Values:		
Walls I	pelow grade (each assembly)		
	Description of assembly: U-Value of total assembly: R-Value of insulation:		
Floors	over unconditioned space (each a	assembly)	
	Description of assembly: U-Value of total assembly: R-Value of insulation:		

Page 10 of 12 Appendix B 9-1-2012

ACCESSIBLE PARKING N/A

LOT OR PARKING	TOTAL # OF PARKING SPACES		# OF AC	# OF ACCESSIBLE SPACES PROVIDED			
AREA	REQUIRED PROVIDED		REGULAR WITH	VAN SPACES WITH		ACCESSIBLE	
			5' access	132" ACCESS	8' access	PROVIDED	
			AISLE	AISLE	AISLE		
TOTAL							

	STRUCTURAL DESIGN
DESIGN LOADS:	
Importance Factors:	$ \begin{array}{ccc} \text{Wind} & (I_W) & \underline{1.0} \\ \text{Snow} & (I_S) & \underline{1.0} \\ \text{Seismic} & (I_E) & \underline{1.0} \\ \end{array} $
Live Loads:	$ \begin{array}{ccc} \text{Roof} & \underline{20} & \text{psf} \\ \text{Mezzanine} & \underline{N/A} & \text{psf} \\ \text{Floor} & \underline{\text{(see equip. info.)}} & \text{psf} \\ \end{array} $
Ground Snow Load:	<u>10</u> psf
Section 1609 E	Basic Wind Speed $\underline{90}$ mph (ASCE-7-05) Exposure Category \underline{B} Wind Base Shears (for MWFRS) $Vx = (\underline{see \ equip. \ info.})$ $Vy = (\underline{see \ equip. \ info.})$
SEISMIC DESIGN CATEGOI	RY: \B \B \B C \B D
Basic structural systen Bearing We Bearing We Building Fr Moment Fr Seismic base shear: Analysis Procedure: Architectural, Mechar LATERAL DESIGN CONTRO SOIL BEARING CAPACITIE	Seeleration Ss 32.5 %g
Field Test (provide copy Presumptive Bearing ca Pile size, type, and capa	
SPECIAL INSPECTIONS RE	QUIRED: Yes No

Page 8 of 12	Appendix B	9-1-2012

MECHANICAL SUMMARY N/A

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

winter dry bulb:		
summer dry bulb:	_	
Interior design conditions		
winter dry bulb:		
summer dry bulb:		
relative humidity:		
Building heating load:	_	
Building cooling load:	_	
	ystem	
	ystem	
Mechanical Spacing Conditioning S Unitary description of unit:		
Mechanical Spacing Conditioning S Unitary description of unit:		
Mechanical Spacing Conditioning S Unitary description of unit: heating efficiency:		
Mechanical Spacing Conditioning S Unitary description of unit: heating efficiency:		
Mechanical Spacing Conditioning S Unitary description of unit: heating efficiency: cooling efficiency:		
description of unit:		ı.:
Mechanical Spacing Conditioning S Unitary description of unit: heating efficiency: cooling efficiency: size category of unit:		ı.:

ELECTRICAL SUMMARY N/A

9-1-2012

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Com	pliance:
Energy Code: ASHRAE 90.1:	☐ Prescriptive ☐ Performance ☐ Prescriptive ☐ Performance
Lighting schedu	le (each fixture type)
number ballast t number total wa total inte	ne required in fixture of lamps in fixture ype used in the fixture of ballasts in fixture tage per fixture rior wattage specified vs. allowed (whole building or space by space erior wattage specified vs. allowed

Additional Prescriptive Compliance 506.2.1 More Efficient Mechanical Equipment

	506.2.2 Reduced Lighting Power Density
Page 11 of 12	Appendix B

SCHEDULE OF SPECIAL INSPECTION SERVICES

The following sheets comprise the required schedule of Special Inspections for this project. The construction divisions which require special inspections for this project are as follows:

quare special amperiors for the project are as follows:								
☐ IT-1 Verification of Soils	☐ IT-10 Inspection of Structural Steel							
☐ IT-2 Excavation and Fill	☐ IT-11 Structural Masonry							
☐ IT-3 Piling and Drilling Piers	☐ IT-12 Welding							
☐ IT-4 Modular Retaining Walls	☐ IT-13 High Strength Bolts & Steel Framing Insp.							
☐ IT-5 Reinforced Concrete	☐ IT-14 Sprayed Fire-Resistance Materials							
☐ IT-6 Post Tension Slab	☐ IT-15 Exterior Insulation and Finish system							
☐ IT-7 Pre-cast Concrete Erection	☐ IT-16 Seismic Resistance							
☐ IT-8 Pre-stressed Concrete	☐ IT-17 Smoke Control							
☐ IT-9 Inspection of Pre-Cast Fabricators	☐ IT-18 Detention Basin							
	IT-19 Special Cases							

Check the above boxes for the special inspection required for this project and list below specific special inspections required under Chapter 17. For questions regarding Special Inspections please see www.Meck-SI.com.

PLUMBING FIXTURE REQUIREMENTS N/A (TABLE 2902.1)

Occupancy	WATER	CLOSETS	URINALS	LAVATORIES		SHOWERS/	DRINKING
Use Group	MALE	FEMALE		MALE	FEMALE	TUBS	FOUNTAINS
AND/OR SPACE							
Designation							
Total Required							
Total Provided							

SPECIAL APPROVALS - N/A

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)

Appendix B

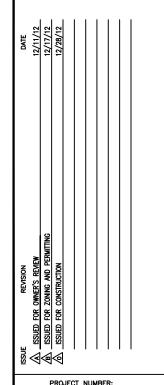
9-1-2012

9-1-2012

□ 506.2.3 Energy Recovery Ventilation Systems
□ 506.2.4 Higher Efficiency Service Water Heating
□ 506.2.5 On-Site Supply of Renewable Energy
□ 506.2.6 Automatic Daylighting Control Systems

Page 9 of 12

Page 12 of 12



PROJECT NUMBER: 12049.010 SHEET CONTENTS: **BUILDING CODE** APPENDIX B

(SHEET 2 OF 2)

SHEET NUMBER: G2A

Corridor dead ends (Section 1018.4)
 Buildings with single exits (Table 1021.2), Spaces with one means of egress (Table 1015.1)
 Common Path of Travel (Section 1014.3)

<sup>See Table 1004.1.1 to determine whether net or gross area is applicable.
See definition "Area, Gross" and "Area, Net" (Section 1002)

Minimum stairway width (Section 1009.1); min. corridor width (Section 1018.2); min. door width (Section 1008.1.1)

Minimum width of exit passageway (Section 1023.2)

See Section 1004.5 for converging exits.

The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)</sup>

⁷ Spaces within occupancies or use groups shall be calculated independently. (Ex. Lobbies, lounges, break rooms, conference

CIVIL S	SYMBOLS	
EXISTING	ITEM	NEW
Ø Ø Ø	POWER POLE WITH LIGHT LIGHT POLE POWER POLE	¢
- − OHE	GUY ANCHOR OVERHEAD ELECTRIC ELECTRIC MANHOLE	—оне—
E	COMMUNICATIONS MANHOLE UTILITY BOX BUILDING POST	L
)	SIGN GAS METER GAS VALVE	4
-SS-®-	GAS LINE SANITARY SEWER LINE & MANHOLE	
\$20 \$	Sanitary Sewer Clean Out Fire Hydrant Post Indicator Valve	ф
-₩ <u>₩</u> ⊗	WATER LINE & VALVE WATER METER FIRE WATER LINE	6" w → (W) -6" FW
× × × × × × × × × × × × × × × × × × ×	ABANDONED UTILITY CULVERT WITH HEADWALLS STORM DRAIN	24" 24"
□ ®	STORM DRAIN HEADWALL AREA INLET STORM DRAIN MANHOLE	■ (b)
→	© Drainage Ditch Flow Direction Contours	——————————————————————————————————————
X 712.13	SPOT ELEV.	713.1
<u> </u>	SIDEWALK/GRAVEL CONCRETE PAVING ASPHALT SURFACE COURSE CURB & GUTTER EDGE OF PAVEMENT	
—-x—	CHAIN LINK FENCE	x
	PARKING STRIPING / HC PARKING	
	HC RAMP	V
	BOLLARD	•
$\sim\sim$	IRON PIN SET WOODS SILT FENCE	

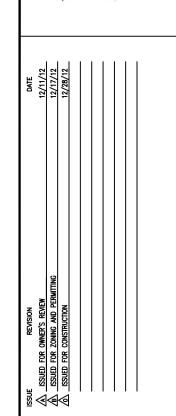
NOTE : THIS IS A GENERAL LEGEND. SOME ITEMS MAY NOT APPLY.





BASE TRANSCEIVER SITE J.M. ROBINSON MIDDLE SCHOOL 6607 BALLANTYNE COMMONS PARKWAY CHARLOTTE, NC 28277 MECKLENBURG COUNTY NORTH CAROLINA





PROJECT NUMBER: 12049.010 SHEET CONTENTS:

GENERAL NOTES AND SYMBOLS

SHEET NUMBER:

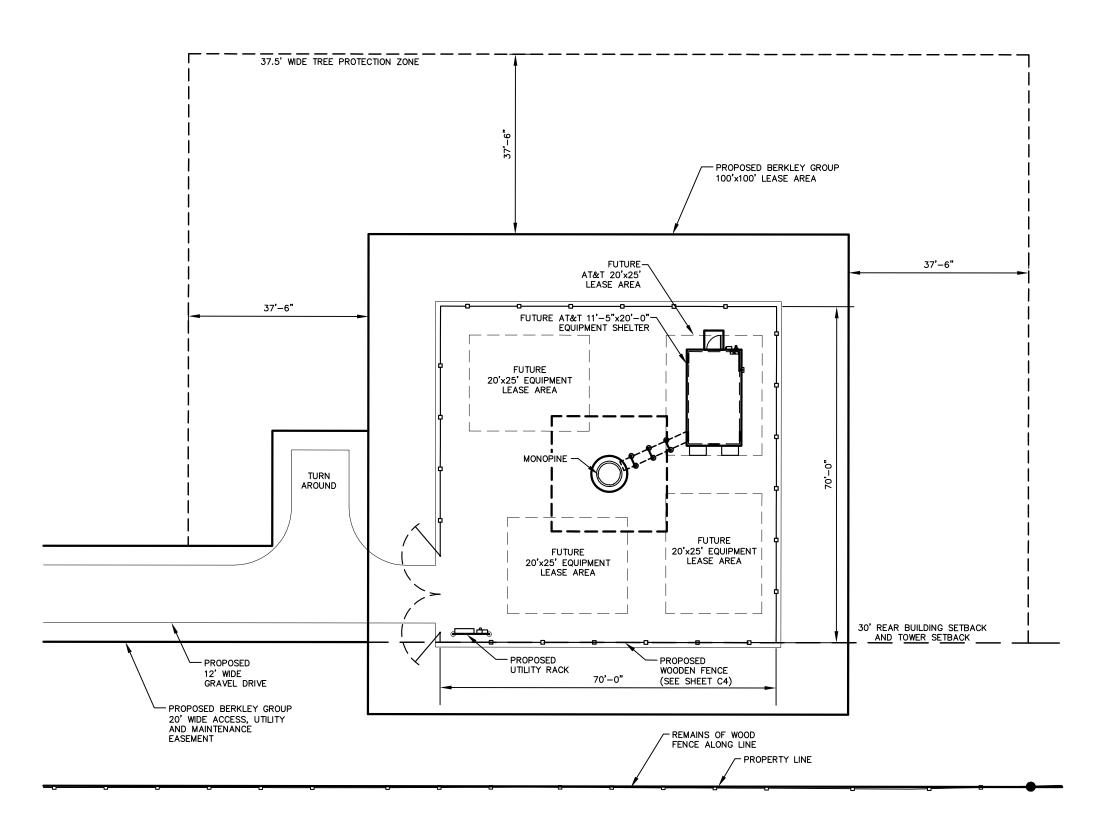
GENERAL NOTES

- 1. THE FACILITY IS AN UNOCCUPIED WIRELESS FACILITY.
- 2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK WILL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS WILL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- WRITTEN AUTHORIZATION IS REQUIRED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- 5. CONTACT LOCAL DIGGERS HOTLINE 48 HOURS PRIOR TO PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
- 6. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- 7. ALL WORK PERFORMED AND MATERIALS INSTALLED WILL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. THE CONTRACTOR WILL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK, MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- 8. THE GENERAL CONTRACTOR WILL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE PROJECT ENGINEER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
- DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS WILL BE INCLUDED AS PART OF THE WORK.
- OF THE WORK.

 10. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLAT OF THE SURVEY DRAWING, WILL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR WILL RELY SOLELY ON THE PLAT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND WILL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEDING 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 PLAT OF SURVEY. THE CONTRACTOR WILL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.

SITE LAYOUT PLAN

SHEET NUMBER: C2



GENERAL NOTES

- 1. SEE G1 FOR GENERAL ABBREVIATIONS.
- 2. SEE C1 FOR GENERAL NOTES AND SYMBOLS.
- 3. SEE SITE SURVEY FOR LIMITS OF LEASE AREA AND ADDITIONAL SURVEY INFORMATION.
- 4. PARKING FOR SERVICE VEHICLES WILL BE PROVIDED IN THE VEHICLE TURNAROUND AREA.
- 5. AFTER ALL HEAVY TRAFFIC IS COMPLETE (CONCRETE, TRUCKS, TRAILERS, DRILL RIG, ETC.) CONTRACTOR SHALL REGRADE THE ROAD/PARKING AREA COMPLETELY, ADDING AND COMPACTING ADDITIONAL CRUSHED STONE AS NECESSARY.

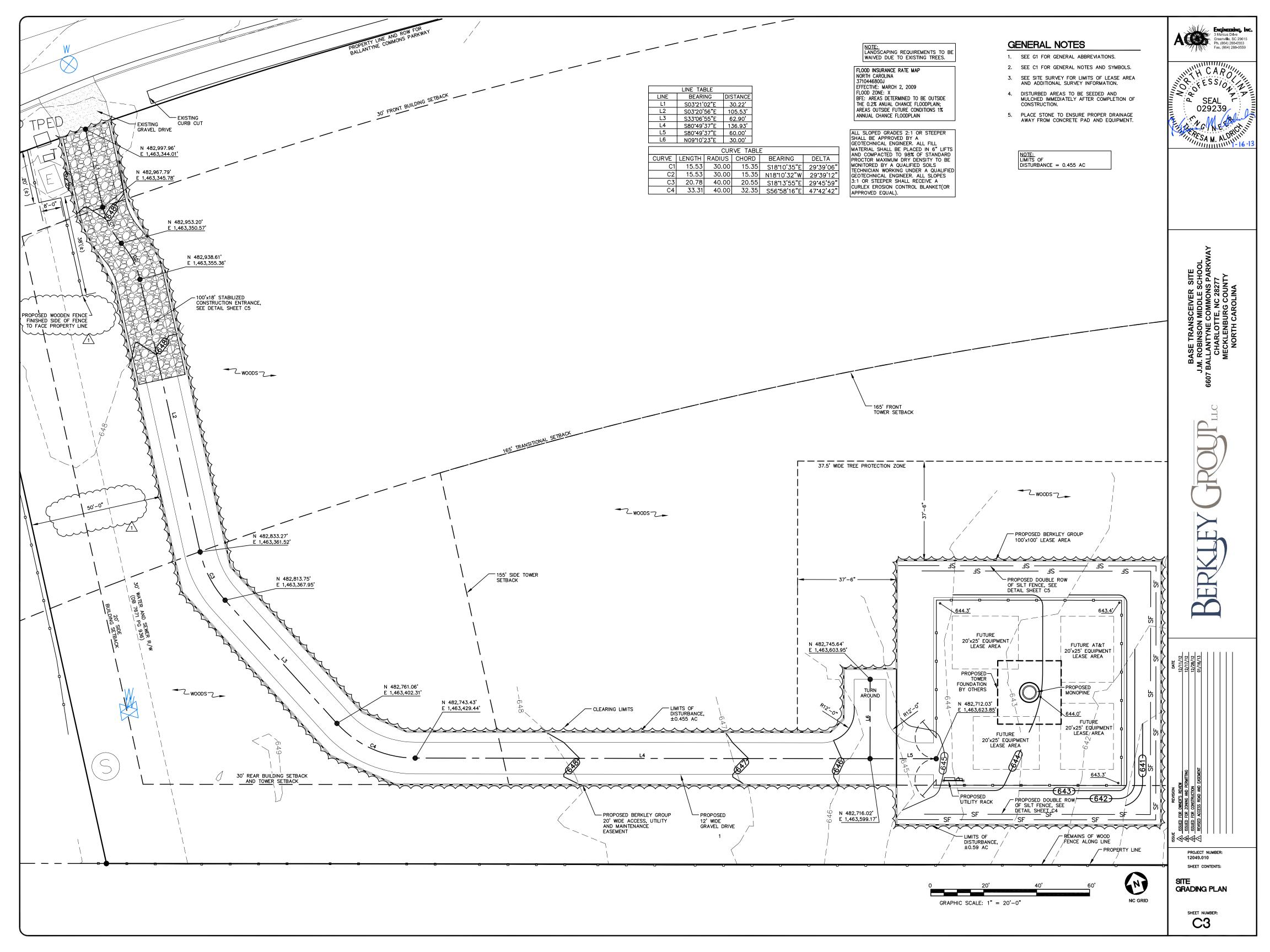
FLOOD INSURANCE RATE MAP
NORTH CAROLINA
3710446800J
EFFECTIVE: MARCH 2, 2009
FLOOD ZONE: X
BFE: AREAS DETERMINED TO BE OUTSIDE
THE 0.2% ANUAL CHANCE FLOODPLAIN;
AREAS OUTSIDE FUTURE CONDITIONS 1%
ANNUAL CHANCE FLOODPLAIN

* J. M. ROBINSON PROPOSED MONOPINE LAT. = 35° 03' 47.12" N LONG. = 80° 47' 32.86" W

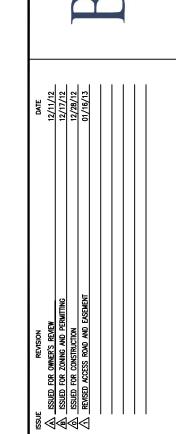
* 2C INFORMATION TAKEN FROM 2-C LETTER FOR BERKLEY GROUP, FOR JM ROBINSON SITE, DATED 11-13-12.



GRAPHIC SCALE: 1" = 20'-0"





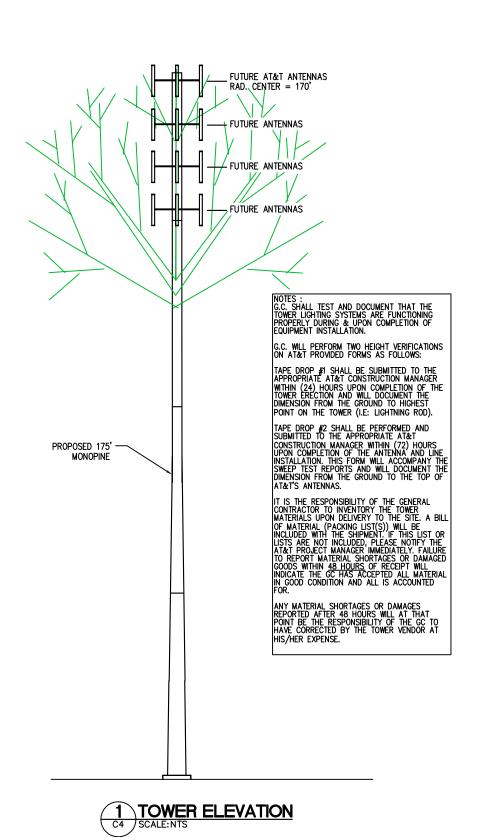


PROJECT NUMBER: 12049.010

TOWER ELEVATION, AND FENCE DETAILS

SHEET NUMBER: C4

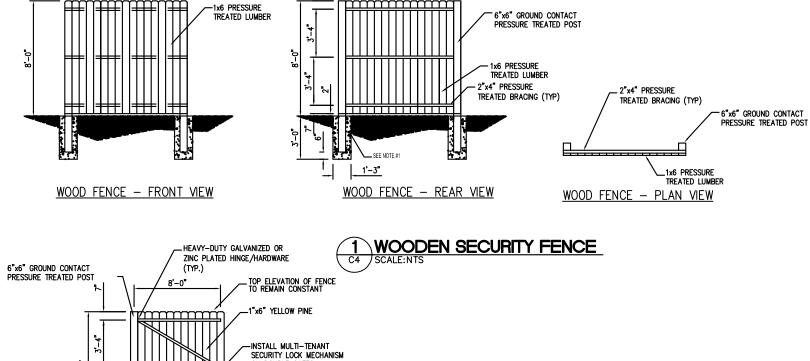
NOTE:
THE TOWER DRAWING IS ONLY A
GRAPHIC REPRESENTATION OF THE
STRUCTURE. THE ACTUAL TOWER IN
THE FIELD MAY VARY.

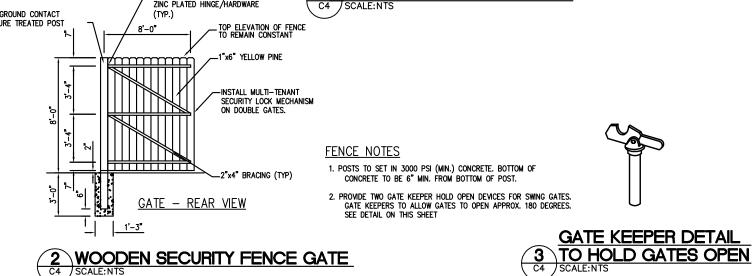


RENDERING OF MONOPINE

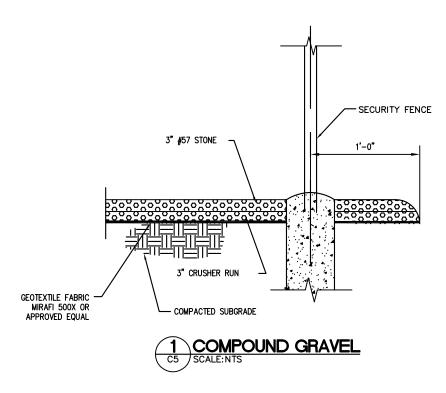
C4 SCALE: NTS

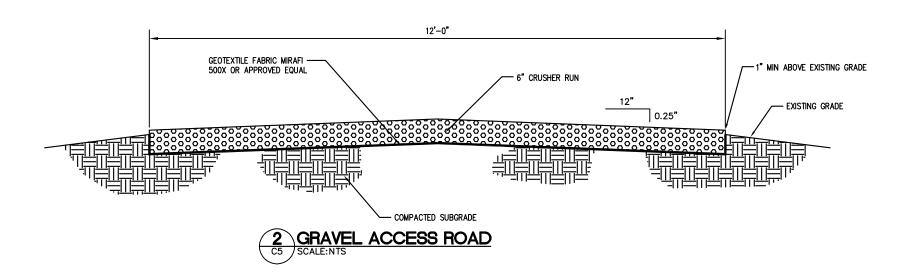
NOTES:
1. THE MONOPINE BRANCHES SHALL
BE GREEN IN COLOR AND THE POLE
SHALL BE BROWN IN COLOR.





2 WOODEN SECURITY FENCE GATE
C4 SCALE:NTS



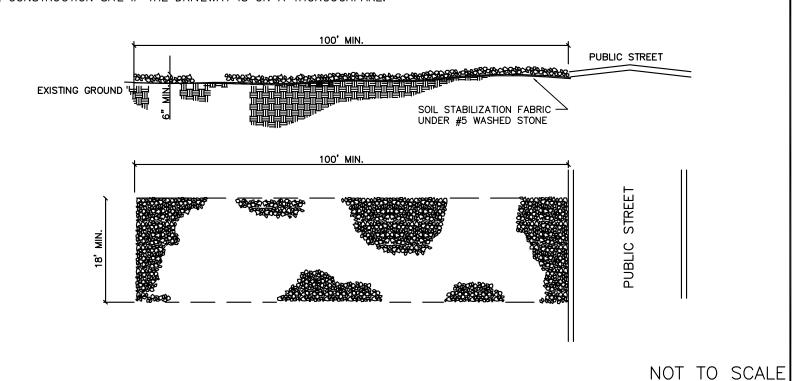


SILT FENCE NOTES:

- STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- 3. THE TRENCH SHOULD BE A MINIMUM OF 6 INCHES DEEP AND ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.
- 4. SILT FENCE SHOULD BE SECURELY FASTENED TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POSTS.
- 5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NIFFORD
- 6. SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES AND DISPOSED OF IN AN APPROVED SPOIL SITE.
- 8. SILT FENCE SHALL BE A MINIMUM HEIGHT OF 30" MEASURED FROM THE EXISTING OR GRADED GROUND
- SILT FENCE SHALL BE BURLAP, POLYPROPYLENE FABRIC, NYLON REINFORCED WITH POLYESTER NETTING OR OTHER MATERIAL (AS APPROVED & IF APPLICABLE). THE MULLEN BURST STRENGTH SHALL BE GREATER THAN 150 PSI. THE EDGES SHALL BE TREATED TO PREVENT UNRAVELING.

NOTES:

- 1. A STABILIZED ENTRANCE PAD OF #5 WASHED STONE OR RAIL ROAD BALLAST SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
- 2. FILTER FABRIC OR COMPACTED CRUSHER RUN STONE SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
- 3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- 4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
- 5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN SEE STD. NO. 30.11B.
- 6. CDOT MAY REQUIRE A STANDARD COMMERCIAL DRIVEWAY (STD. 10.24 & 10.25) TO ACCESS THE CONSTRUCTION SITE IF THE DRIVEWAY IS ON A THOROUGHFARE.



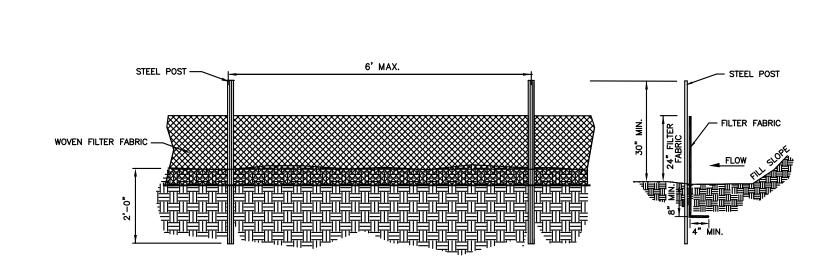
CHARLOTTE.

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

STABILIZED CONSTRUCTION ENTRANCE

30.11A

3 CONSTRUCTION ENTRANCE DETAIL
C5 SCALE:NTS



GENERAL NOTES:

- WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
- 2. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE
- 3. TURN SILT FENCE UP SLOPE AT ENDS.
- 4. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SWIM BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM BUFFER GUIDELINES). THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS.
- 5. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT OF FENCE.
- 6. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
- 7. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW.

MAINTENANCE NOTES:

- FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
- 2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

NOT TO SCALE



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

TEMPORARY SILT FENCE

30.06A 4



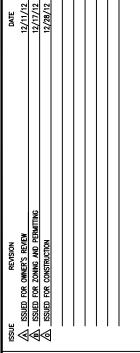


SEAL 029239

OR ED STATE OF THE SEA M. ALDRIGHT

J.M. ROBINSON MIDDLE SCHOOL
BALLANTYNE COMMONS PARKW
CHARLOTTE, NC 28277
MECKLENBURG COUNTY
NORTH CAROLINA

BERKLEY GROUPLE



PROJECT NUMBER: 12049.010 SHEET CONTENTS:

DETAILS

SHEET NUMBER:

GENERAL CONSTRUCTION NOTES:

- 1. THE FACILITY IS AN UNOCCUPIED WIRELESS FACILITY.
- 2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK WILL INCLUDE PROVIDING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 3. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ ENGINEER AND OWNER ASSUME NO RESPONSIBILITY AS TO SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY, DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
- 4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS WILL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS. FIFLD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCFFDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- 5. WRITTEN AUTHORIZATION IS REQUIRED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- 6. PRIOR TO SITE EXCAVATION, CONTRACTOR SHALL LOCATE EXISTING SERVICES.
 DAMAGE CAUSED TO EXISTING SERVICES SHALL BE REPAIRED BY CONTRACTOR AT CONTRACTOR'S EXPENSE.
- 7. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- 8. ALL WORK PERFORMED AND MATERIALS INSTALLED WILL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES INCLUDING THE 2009 NC BUILDING CODE, 2008 NEC AND 2006 IBC WITH NC AMENDMENTS (OR LATEST APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION). THE CONTRACTOR WILL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- 9. THE GENERAL CONTRACTOR WILL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE OWNER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
- 10. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS WILL BE INCLUDED AS PART OF THE WORK.
- 11. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLAT OF THE SURVEY DRAWING, WILL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR WILL RELY SOLELY ON THE PLAT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND WILL NOTIFY THE ARCHITECT/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 PLAT OF SURVEY. THE CONTRACTOR WILL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.
- 12. COORDINATE WORK WITH LOCAL UTILITY COMPANY AND CONSTRUCT TO UTILITY COMPANY ENGINEERING PLANS AND SPECIFICATIONS. PROVIDE TRENCHING AND BACKFILL, AND PAY ALL UTILITY FEES UNLESS NOTED OTHERWISE. THE WORK WILL INCLUDE PROVIDING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 13. BEFORE PURCHASING EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL CONTACT THE POWER COMPANY AND GET IN WRITING THE MAXIMUM SHORT CIRCUIT CURRENT THE POWER COMPANY IS FURNISHING TO THE POINT OF SERVICE. ALL EQUIPMENT SHALL BE RATED AND COORDINATED TO NO LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT PROVIDED BY POWER COMPANY, WITH A MINIMUM SHORT CIRCUIT RATING OF 10,000 AMPS.

SERVICE ROUTING NOTES: (DWG E2)

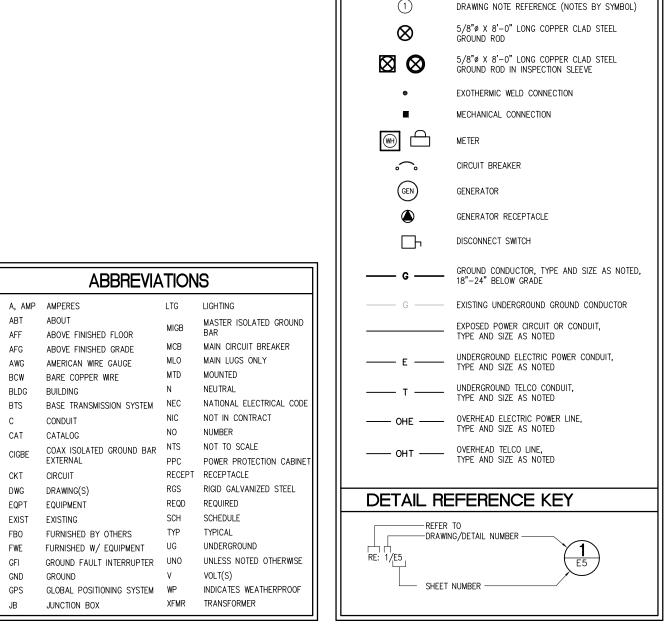
- CONTRACTOR SHALL TERMINATE THE POWER CABLES AT THE UTILITY METER LOCATED AT THE METER CENTER. COORDINATE EXACT METER BASE TYPE AND REQUIREMENTS WITH LOCAL UTILITY
- 2. CONDUIT LINES SHALL HAVE A CONTINUOUS SLOPE DOWNWARD AND AWAY FROM THE EQUIPMENT TO THE PROPERTY LINE SO THAT WATER WILL FLOW AWAY FROM THE EQUIPMENT. TRENCHES SHALL BE EXCAVATED ALONG STRAIGHT LINES REFORE CONDUITS ARE LAID SO THAT THE FLEVATION CAN BE ADJUSTED IF NECESSARY, TO AVOID UNSEEN OBSTRUCTIONS. MANUFACTURED BENDS SHALL HAVE A MINIMUM RADIUS OF 36" FOR CONDUITS.
- 3. ALL CONDUITS SHALL BE SEALED WEATHER TIGHT ON INTERIOR AND EXTERIOR OF EQUIPMENT TO PREVENT MOISTURE INFILTRATION. SEALANTS SHALL BE IDENTIFIED FOR USE WITH THE CABLE INSULATION SHIELD OR OTHER
- 4. CELLULAR EQUIPMENT SHELTER SHALL BE FURNISHED BY RESPECTIVE CARRIER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL OBTAIN SHELTER DRAWINGS AND SPECIFICATIONS TO VERIFY EXACT INSTALLATION DETAILS AND REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY ADDRESSED WITHIN THESE
- 5. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES IN CONDUIT RUNS AT FACH OCCURRENCE WHERE EXCEEDING 360 DEGREES IN TOTAL BENDS OR 300' IN LENGTH AT A CONVENIENT INTERMEDIATE LOCATION. PULL BOXES SHALL BE SIZED PER NEC 370.
- 6. ON SPARE CONDUITS, PROVIDE 2 PULL STRINGS SECURELY FASTENED AT EACH END OF THE CONDUITS. PULL STRINGS SHALL BE 200LB TEST POLYETHYLENE CORD. PROVIDE CAP ON END OF THE CONDUITS AND MARK AS SHOWN ON THE
- SERVICES ROUTING PLAN. 7. MAINTAIN MINIMUM BENDING RADIUS FOR CONDUIT INSTALLATIONS PER
- CONDUIT/FIBER MANUFACTURER RECOMMENDATIONS. 8. REFERENCE E4 FOR ONE-LINE, CONDUIT AND WIRE SIZE, AND SPECIFICATIONS.
- 9. PROVIDE MINIMUM OF 36 INCHES WORK CLEARANCE IN FRONT OF EQUIPMENT AND EQUIPMENT RACKS.
- 10. WARNING TAPE SHALL BE PLACED IN TRENCHES AND SHALL READ EITHER "UTILITIES" OR "ELECTRIC".
- 11. ENDS OF WARNING TAPE SHALL EXTEND 6" MINIMUM ABOVE FINAL GRADE.
- 12. ALL CONDUIT SHALL BE SCHEDULE 40 OR 80 PVC UNLESS NOTED OTHERWISE. EXPOSED CONDUIT SHALL BE UV RESISTANT.

GROUNDING NOTES: (DWG E3)

- REQUIREMENTS AND CONSTRUCTION MAY VARY ACCORDING TO SITE CONDITIONS. VERIFY EXACT EQUIPMENT GROUNDING WITH EQUIPMENT MANUFACTURER AND
- 4. ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE; ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE (FENCE AND TOWER) OR MECHANICAL TYPE (2-HOLE LUGS WITH MECHANICAL CONNECTORS AT EQUIPMENT). ALL HARDWARE SHALL BE STAINLESS STEEL WITH LOCKWASHERS.
- 5. CLEAN EXOTHERMIC WELD CONNECTIONS ON GALVANIZED SURFACES THOROUGHLY AND COVER W/ (2) TWO COATS SHERWIN WILLIAMS GALVITE PAINT B350W3 (OR EQUIVALENT).
- 6. ALL ELECTRICAL AND MECHANICAL GROUND CONNECTIONS SHALL BE TO BARE BRIGHT SURFACES AND HAVE ANTI-OXIDATION COMPOUND APPLIED TO
- 7. THE MINIMUM BEND RADIUS FOR GROUND CONDUCTORS SHALL BE 8 INCHES FOR #6 AWG WIRE AND 12 INCHES FOR #2 AWG AND GREATER WIRE.
- CORNER FENCE POSTS AND FENCE POSTS WITHIN 6' OF GROUND RING, GROUND BUS BARS, EQUIPMENT CABINETS, EQUIPMENT RACKS, CABLE SUPPORT STRUCTURES, TOWER, GENERATOR, ANY OTHER METAL OBJECTS WITHIN 6' OF
- 10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE
- 11. GROUNDING ATTACHMENT TO TOWER SHALL BE PER MANUFACTURER'S
- 12. GROUND COAXIAL RF CABLES USING GROUND KITS TO GROUND BARS AT TOP,
- 13. ALL EXPOSED GROUND LEADS SHALL BE ROUTED INSIDE 1/2" (MIN.) PVC OR

- 1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION
- 2 GROUND RODS SHALL BE DRIVEN AT 10'-0" INTERVALS OF THE GROUND RING OR RADIALS. GROUND RODS SHALL NOT BE PLACED CLOSER THAN 6'-0"
- 3. INSTALL GROUND CONDUCTORS AND GROUND RODS A MINIMUM OF 24" (MAXIMUM 36") FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING, OR FENCE.

- CONNECTION (THOMAS AND BETTS KOPR-SHIELD).
- 8. ITEMS TO BE BONDED TO THE GROUND RING INCLUDE BUT ARE NOT LIMITED TO:
- 9. GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL
- GROUNDING
- RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (3 MINIMUM)
- MIDDLE, AND BOTTOM OF TOWER, SEE DRAWING E7 FOR DETAILS.
- FLEXIBLE PVC CONDUIT (NON-METALLIC), TO 18" (MIN.) BELOW GRADE.



A, AMP AMPERES

ABT ABOUT

BLDG BUILDING

C CONDUIT

CAT CATALOG

CKT CIRCUIT

DWG DRAWING(S)

EQPT EQUIPMENT

EXIST EXISTING

GND GROUND

JUNCTION BOX

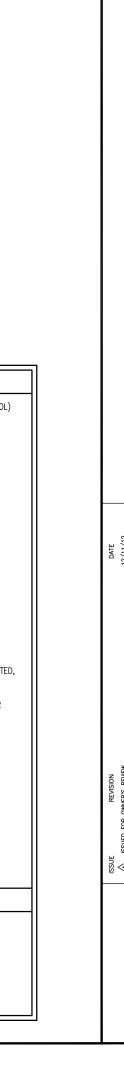
AFF ABOVE FINISHED FLOOR

AWG AMERICAN WIRE GAUGE

BCW BARE COPPER WIRE

AFG ABOVE FINISHED GRADE

ELECTRICAL LEGEND

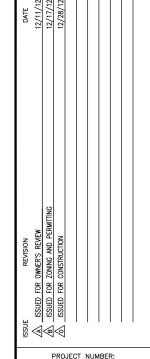




024170 OPHER D. 2.2812 WHITHIN

BASE TRANSCEIVER SITE
J.M. ROBINSON MIDDLE SCHOOL
7 BALLANTYNE COMMONS PARKWAY
CHARLOTTE, NC 28277
MECKLENBURG COUNTY
NORTH CAROLINA

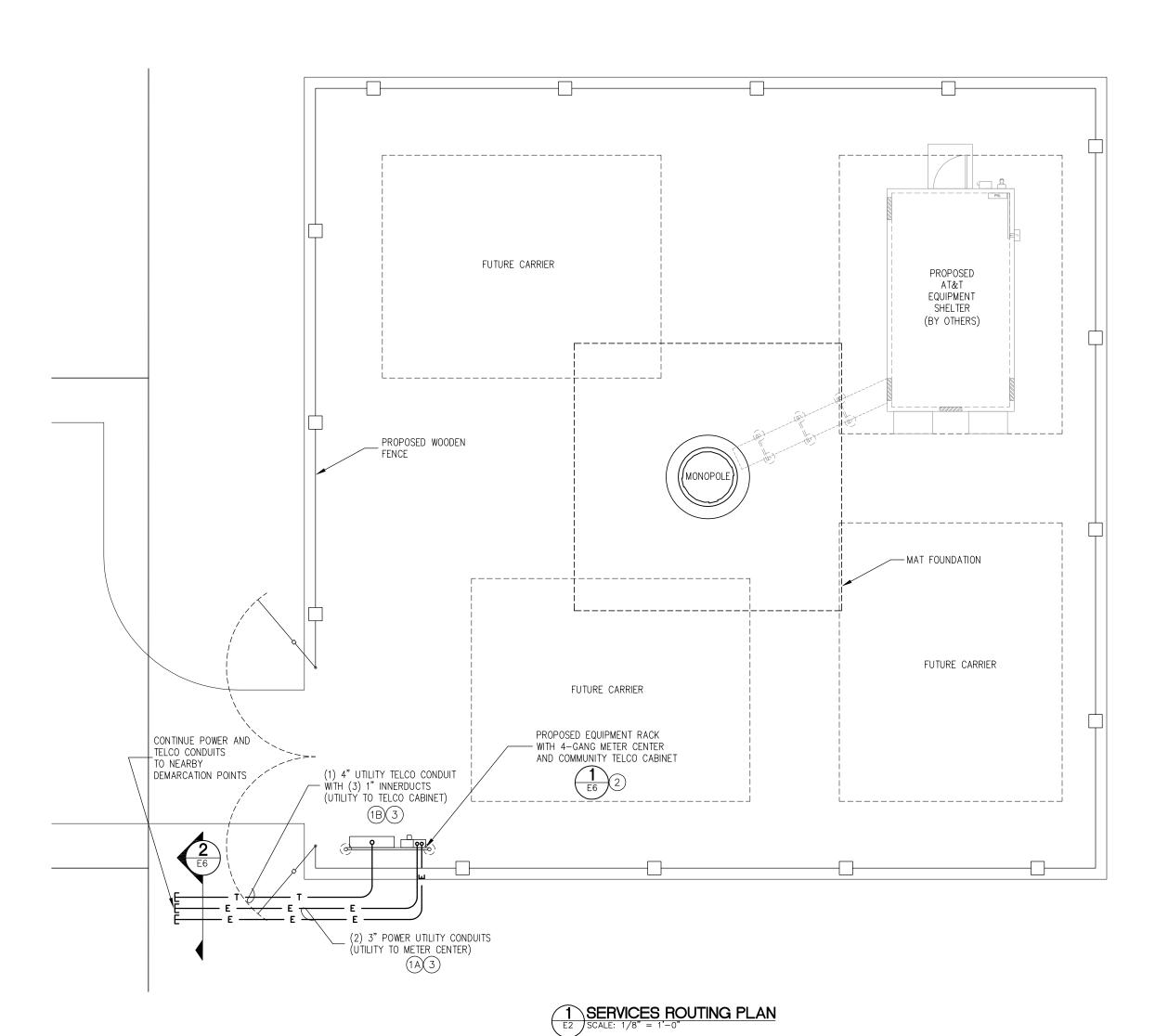




12049.010 SHEET CONTENTS: GENERAL

ELECTRICAL NOTES AND LEGEND

SHEET NUMBER:



GENERAL NOTES

- 1. REFER TO DRAWING E1 FOR GENERAL NOTES PERTAINING TO THIS DRAWING.
- 3. PROVIDE SIGNAGE AS REQUIRED BY OWNER AND LOCAL JURISDICTION INCLUDING BUT NOT LIMITED TO:

 (1.) E-911 STREET ADDRESS

 (2.) BERKLEY GROUP SITE NAME, NUMBER AND ADDRESS VERIFY EXACT SIZE AND REQUIREMENTS WITH OWNER.
- CONTRACTOR SHALL VERIFY EXACT CONDUIT ROUTING AND PENETRATION LOCATIONS WITH CONSTRUCTION MANAGER AND EQUIPMENT MANUFACTURER/SPECIFICATIONS.

NOTES BY SYMBOL " O"

- 1A. ROUTE TWO (2) 3" POWER CONDUITS TO POWER DEMARCATION POINT AS DIRECTED BY LOCAL UTILITY. COORDINATE CONNECTION OF SERVICES WITH LOCAL UTILITY
- 1B. ROUTE ONE (1) 4" TELCO CONDUIT TO TELCO DEMARCATION POINT AS DIRECTED BY LOCAL UTILITY. COORDINATE CONNECTION OF SERVICES WITH LOCAL UTILITY COMPANY.
- UTILITY RACK WITH 4-GANG METER CENTER AND TELCO CABINET, FURNISHED AND INSTALLED BY CONTRACTOR.
- CONDUITS WITH EXISTING FIELD CONDITIONS, OWNER, AND LOCAL UTILITIES.



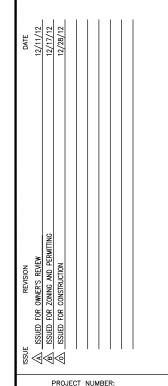
- 2. REFER TO ONE LINE DIAGRAM (1/E4) FOR CONDUCTOR SIZES, EQUIPMENT RATINGS, AND ADDITIONAL INFORMATION.



Sturkie & Associates Engineering, PC 414 Cherokee Drive Greenville, SC 29615 Ph: 864-363-4855

- FIELD VERIFY EXACT LOCATION OF UTILITY SERVICES AND ROUTE CONDUITS AS REQUIRED TO MAKE CONNECTIONS. COORDINATE EXACT ROUTING AND CONNECTION OF



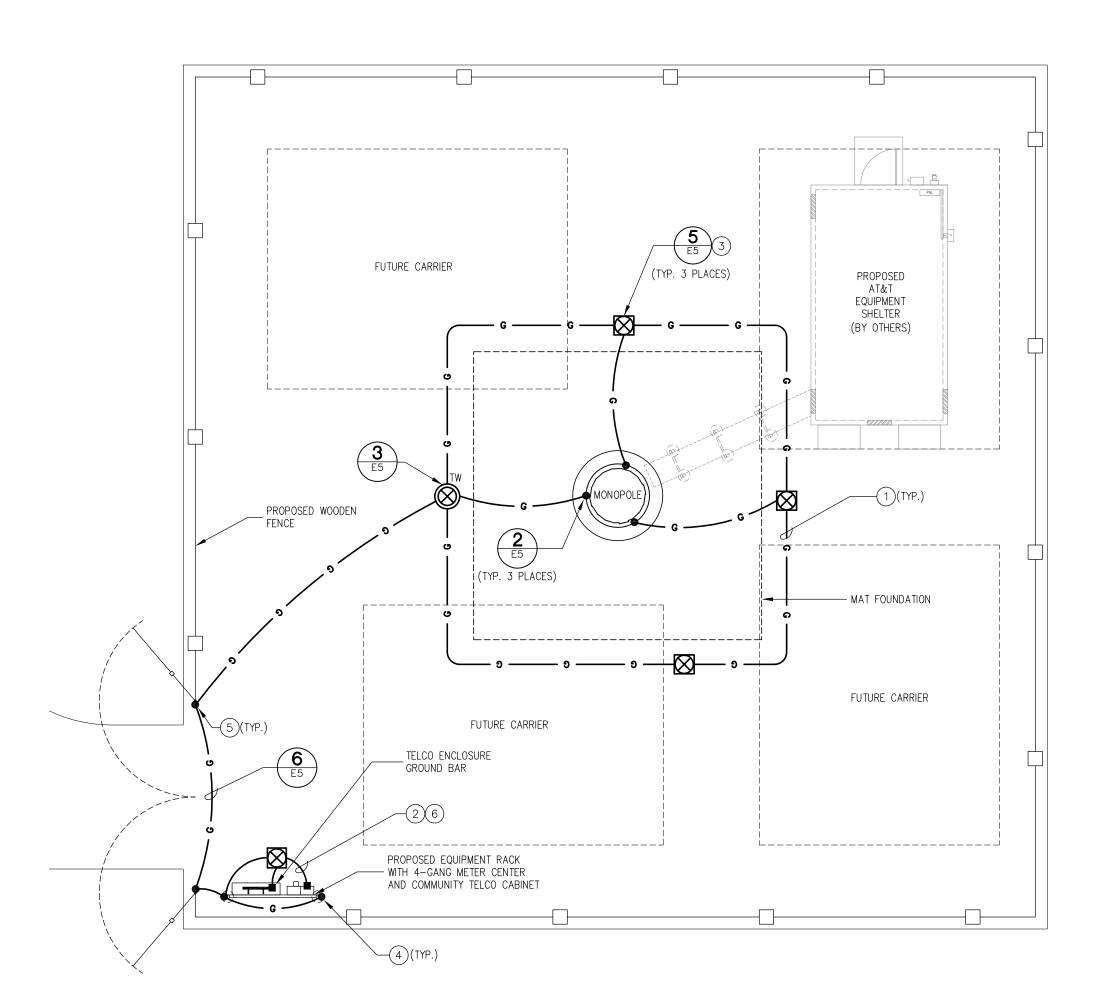






PLAN SHEET NUMBER:

12049.010 SHEET CONTENTS: SERVICES ROUTING



SITE GROUNDING PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO DRAWING E1 FOR GENERAL NOTES PERTAINING TO THIS

NOTES BY SYMBOL " ()"

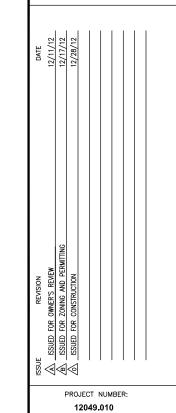
- GROUNDING SYSTEM SHALL BE COMPRISED OF #2 AWG SOLID TINNED BARE COPPER CONDUCTOR, UNLESS NOTED OTHERWISE, BURIED AT 18-24" BELOW FINISHED GRADE. ALL CONNECTIONS SHALL BE EXOTHERMIC WELD, UNLESS NOTED OTHERWISE.
- GROUNDING ELECTRODE. PROVIDE #2/0 GREEN INSULATED STRANDED COPPER GROUNDING ELECTRODE CONDUCTOR TO METER CENTER NEUTRAL—TO—GROUND BOND PER NEC 250. REFER TO ONE—LINE DIAGRAM ON E4.
- COORDINATE EXACT PLACEMENT OF GROUND RODS WITH FOUNDATION PROVIDED (i.e. SHIFT TO OUTSIDE OF MAT IF REQUIRED).
- 4. BOND LEGS OF UTILITY RACK TO GROUNDING SYSTEM WITH #2 AWG SOLID TINNED BARE COPPER CONDUCTOR USING EXOTHERMIC WELD.
- 5. BOND TO FENCE POST USING EXOTHERMIC WELD.
- EXPOSED GROUNDING CONDUCTORS SHALL BE ROUTED INSIDE PVC SLEEVES FROM POINT OF CONNECTION TO 18" (MIN.) BELOW FINISHED GRADE.



414 Cherokee Drive Greenville, SC 29615 Ph: 864-363-4855

Sturkie & Associates Engineering, PC





SHEET CONTENTS:

GROUNDING PLAN

SHEET NUMBER: **E**3

SITE

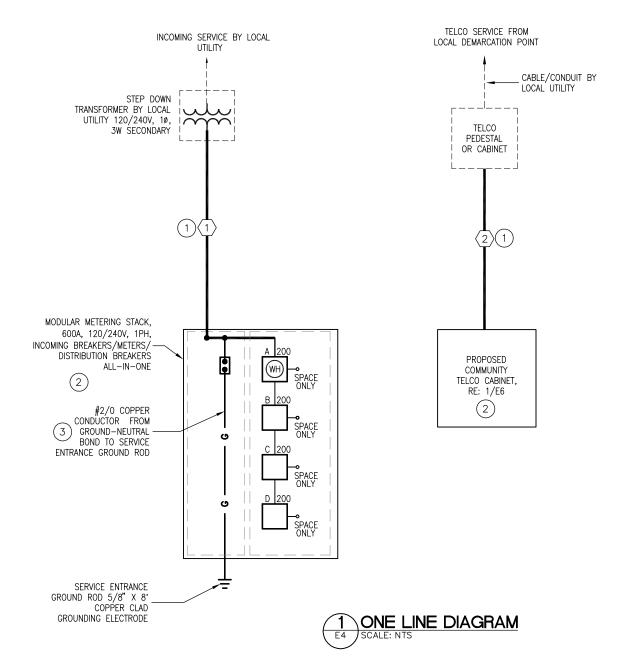




	CABLE AND CONDUIT SCHEDULE															
МА	ARK -		COND	JIT	WIRE:	S EACH	CONDUIT	E	QUIPMI	ENT		FROM	то	RESPONSIBILITY	REMARKS	
		QTY	SIZE	TYPE	QTY	SIZE	GROUND	VOLTS	AMPS			FROM	FRUM			
$\langle 1 \rangle$	1)	2	3"	PVC	3	350 kCMIL		240	600	AC F	POWER	XFMR/DEMARC.	METER/ SERVICE DISC	UTILITY/CONTRACTOR	INCOMING POWER BY LOCAL UTILITY	
(2		1	4"	PVC	WITH	(3) 1" IN	NERDUCTS			TE	LCO	DEMARC	HOFFMAN BX	UTILITY	INCOMING TELCO BY LOCAL UTILITY	

	FAULT CURRENT SUMMARY TABLE									
	FAULT LOCATION	AVAILABLE FAULT CURRENT	(AMPS RMS SYMMETRICAL)	DEMARKS						
-	FAULT LOCATION	SCA L-L	SCA L-N	REMARKS						
	TRANSFORMER SECONDARY	13,021	19,533	ASSUMING INFINITE AVAILABLE ON PRIMARY						
	METER CENTER (22K AIC)	10,935	12,420	ASSUMING 40' INCOMING SERVICE CONDUCTORS						

ASSUMING 50 KVA, 120/240V, 1 PHASE, 1.6% IMPEDANCE TRANSFORMER



GENERAL NOTES

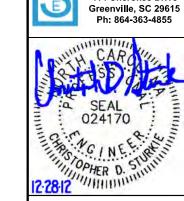
- CONTRACTOR SHALL COORDINATE INCOMING SERVICES WITH LOCAL UTILITIES PRIOR TO TRENCHING.
- ALL CONDUCTORS SHALL BE COPPER, 75 DEGREES C RATED, AND CONDUCTOR INSULATION SHALL BE THWN OR THHN.
- 3. ALL TERMINATIONS SHALL BE LISTED AND IDENTIFIED FOR USE WITH 75°C RATED CONDUCTORS OPERATING AT 75°C.
- 4. GROUND FAULT PROTECTION REQUIRED FOR UTILITY RECEPTACLES.
- 5. SERVICE NEUTRAL SHALL BE GROUNDED AT ONE LOCATION ONLY.
- WHITE/NEUTRAL, GREEN/GROUND SHALL BE MAINTAINED THROUGHOUT THE SITE ELECTRICAL SYSTEM (TAPE WILL NOT BE ACCEPTABLE).

 EQUIPMENT LOCATED OUTSIDE OR EXPOSED TO MOISTURE SHALL BE
- 8. CONTRACTOR SHALL USE SCHEDULE 40 OR 80 PVC CONDUIT THROUGHOUT, UNLESS OTHERWISE NOTED.
- 9. ALL NEWLY INSTALLED EQUIPMENT SHALL BE RATED AT 22K AIC MINIMUM. HIGHER RATINGS SHALL BE REQUIRED WHERE AVAILABLE FAULT CURRENT EXCEEDS THIS VALUE. EXACT FAULT CURRENT AVAILABLE SHALL BE COORDINATED WITH LOCAL UTILITY BASED ON EXACT CONDITIONS (XFMR SIZE, PERCENT IMPEDANCE, LENGTH OF CONDUCTORS, ETC).

ONE LINE DIAGRAM NOTES BY SYMBOL "()"

- CONTRACTOR SHALL FURNISH AND INSTALL NEW CONDUITS AND CONDUCTORS FROM EQUIPMENT TO POWER AND TELCO DEMARCATION POINTS AS INDICATED. COORDINATE WITH LOCAL UTILITIES FOR CONNECTION OF SERVICES.
- CONTRACTOR SHALL PROVIDE METER CENTER, COMMUNITY TELCO
 CABINET, AND ASSOCIATED RACKS/CONDUITS. REFER TO E6 FOR RACK
 ELEVATION DETAILS AND EQUIPMENT SPECIFICATIONS.
- 3. CONTRACTOR SHALL BOND NEUTRAL TO GROUND AT ONE LOCATION ONLY PER NEC 250 AND LOCAL CODE REQUIREMENTS.

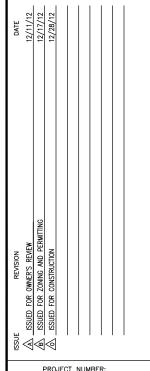




Sturkie & Associates Engineering, PC 414 Cherokee Drive

BASE TRANSCEIVER SITE
J.M. ROBINSON MIDDLE SCHOOL
6607 BALLANTYNE COMMONS PARKWAY
CHARLOTTE, NC 28277
MECKLENBURG COUNTY
NORTH CAROLINA





PROJECT NUMBER:

12049.010

SHEET CONTENTS:

ONE LINE DIAGRAM

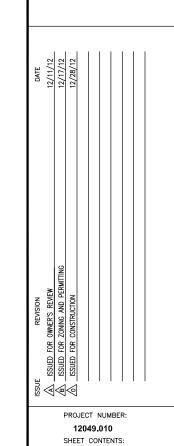
SHEET NUMBER:

E4



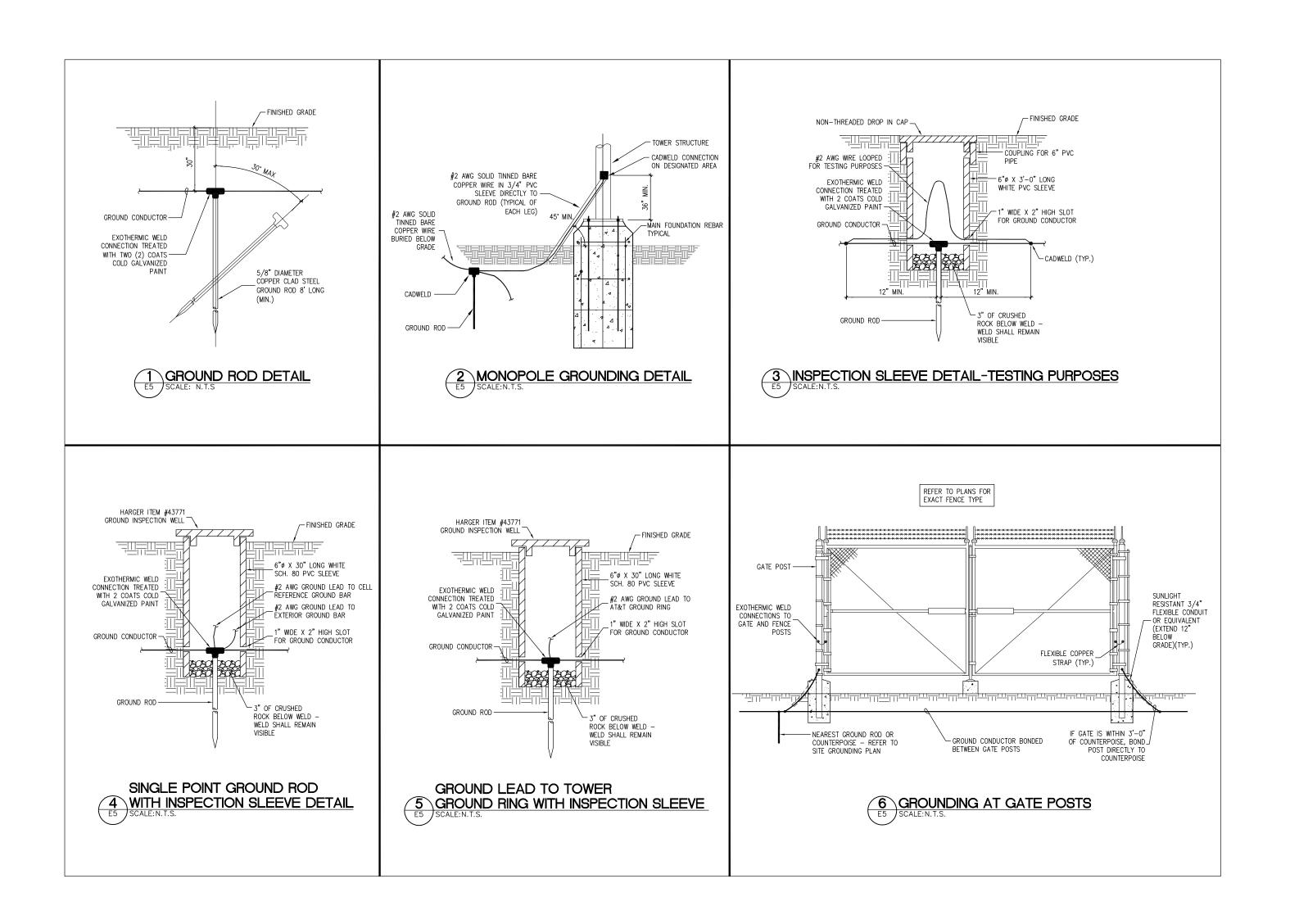


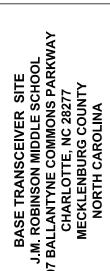




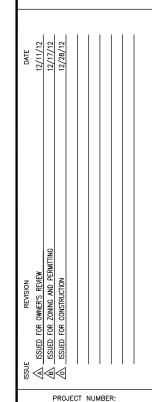
GROUNDING **DETAILS**

SHEET NUMBER: E5





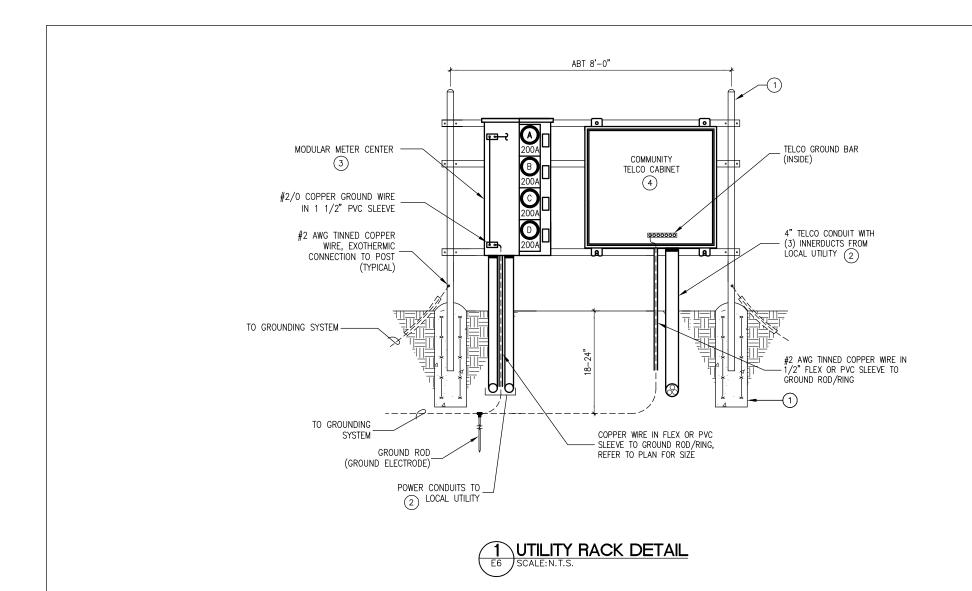






UTILITY RACK AND TRENCH DETAILS

SHEET NUMBER:



GENERAL NOTES

- DIMENSIONS SHOWN ARE APPROXIMATE. EXACT DIMENSIONS MAY BE MODIFIED SLIGHTLY BASED ON EXACT EQUIPMENT OBTAINED, SITE CONDITIONS, AND OWNER PREFERENCES.
- POWER EQUIPMENT SHALL BE SQUARE D, SIEMENS, CUTLER HAMMER, OR GENERAL ELECTRIC. ALL EQUIPMENT MUST BE OF ONE MANUFACTURER.
- UNUSED CONDUITS SHALL BE SEALED TO PREVENT MOISTURE INSIDE CONDUITS. USED CONDUITS SHALL BE SEALED AFTER SERVICES HAVE BEEN RUN.

UTILITY RACK NOTES BY SYMBOL "()"

- 1. EQUIPMENT RACK SHALL BE APPROXIMATELY 8'-0" WIDE AND A MAXIMUM OF 6'-6" HIGH. POSTS SHALL BE 3" GALVANIZED STEEL PIPE WITH CAP. CONTRACTOR SHALL PROVIDE "END CAPS" ON HORIZONTAL UNISTRUT MEMBERS. CROSS MEMBERS SHALL BE UNISTRUT, ANCHORED TO POSTS WITH U-CLAMPS AND 3/8" STAINLESS STEEL BOLTS AND WASHERS. RACK FOUNDATION SHALL BE 1'-0" DIAMETER BY 3'-0" DEEP, CONCRETE REINFORCED WITH 6X6-W1.4XW1.4 WWF CAGE.
- 2. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR INSTALLATION OF INCOMING SERVICE CONDUCTORS.
- PROVIDE MODULAR METERING MAIN SERVICE CENTER RATED FOR 120/240V, 600A, SINGLE PHASE, 3 WIRE, 22K AIC (MIN), NEMA 3R, WITH FOUR (4) 200A METER SOCKETS.
- CONTRACTOR SHALL PROVIDE AND INSTALL TELCO CABINET, 48"Hx48"Wx12"D WITH GROUND BAR. COORDINATE EXACT REQUIREMENTS WITH OWNER/BERKLEY GROUP CONSTRUCTION MANAGER.

