

RG Towers, LLC

2141 Alternate A1A South, Suite 440
JUPITER, FL. 33477

SONIC-TC04
2551 JENKINS ROAD
FORT PIERCE, FL 34947
LATITUDE 27°25'07.377"N, LONGITUDE 80°23'00.996"W



VICINITY MAP

FROM RG TOWERS OFFICE PROCEED NORTH ON A1A TO INDIANTOWN ROAD. HEAD WEST ON INDIANTOWN ROAD TO I-95. GO NORTH ON I-95 TO ST. LUCIE COUNTY. TAKE EXIT 129 (OKEECHOBEE RD) EAST TO S JENKINS RD. MAKE A LEFT ON S JENKINS RD AND TAKE THE SECOND ACCESS TO THE WEST. THE TOWER ACCESS WILL BE LOCATED ON THE SOUTH SIDE OF THE RD.

DRIVING DIRECTIONS

THIS PROJECT IS FOR THE CONSTRUCTION OF AN UNMANNED TELECOMMUNICATIONS FACILITY CONSISTING OF THE INSTALLATION OF A 150' MONOPOLE COMMUNICATIONS TOWER AND FUTURE WIRELESS BASE STATION EQUIPMENT IN ORDER TO PROVIDE RADIO TRANSMISSION SERVICES FOR PERSONAL COMMUNICATIONS AS WELL AS EMERGENCY 911 SERVICE. PROJECT SIZE IS 2,500 SF COMPOUND.

PROJECT DESCRIPTION

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

- | | |
|--|---|
| 1. 5TH EDITION (2014) FLORIDA BUILDING CODE | 6. AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC) |
| 2. NATIONAL ELECTRIC CODE (NEC) WITH LOCAL AMENDMENTS LATEST ED. | 7. UNDERWRITERS LABORATORIES (UL) APPROVED ELECTRICAL PRODUCTS |
| 3. ANSI/TIA/EIA APPLICABLE STANDARDS | 8. LOCAL BUILDING CODE |
| 4. LIFE SAFETY CODE NFPA-101-2015 | 9. CITY/COUNTY ORDINANCES |
| 5. 5TH EDITION (2014) FLORIDA FIRE PREVENTION CODE | 10. NFPA 55 AND 70 (2013) |

CODE COMPLIANCE

APPLICANT/LESSEE

MDCMC NAME: RG TOWERS, LLC
PROJECT MANAGER: SCOTT RICHARDS
PHONE: (561) 748-0302

PROPERTY INFORMATION

OWNER: RG TOWERS, LLC
2141 ALTERNATE A1A SOUTH, SUITE 440
JUPITER, FL 33477

CONTACT: SCOTT RICHARDS
(561) 748-0302

HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.

JURISDICTION: CITY OF FORT PIERCE

PROJECT INFORMATION

EQUIPMENT LOCATION: OUTDOOR INDOOR

ANTENNA LOCATION:
 GUY TOWER
 SELF SUPPORT TOWER
 MONOPOLE
 ROOF TOP
 NEW TOWER (MONOPOLE TOWER)
 OTHER

PROJECT SUMMARY

CIVIL ENGINEER:

KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FL 33411
(561) 845-0665

STRUCTURAL ENGINEER:

N/A

ELECTRICAL ENGINEER:

N/A

SURVEYOR:

WSP CONSULTANTS, INC.
19006 1ST STREET S.W.
LUTZ, FL 33548

TOWER ENGINEER:

N/A

PROJECT TEAM

SHEET	DESCRIPTION	REV.
T-1	COVER SHEET	0
G-1	GENERAL NOTES	0
C-1	SITE PLAN AND TOWER ELEVATION	0
C-2	ENLARGED SITE PLAN	0
C-3	CONSTRUCTION DETAILS	0
C-4	FENCE AND GATE DETAILS	0
C-5	STORM DRAINAGE PLAN	0
L-1	LANDSCAPE PLAN	0
L-2	LANDSCAPE DETAILS	0
E-1	ELECTRICAL RISER DIAGRAM	0
E-2	ELECTRICAL SITE PLAN	0
ISSUED FOR: CONSTRUCTION DRAWINGS		
DATE: NOVEMBER 2015		

SHEET INDEX

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2551 JENKINS ROAD
FORT PIERCE, FL 34947
ST. LUCIE COUNTY

CURRENT ISSUE DATE:

NOVEMBER 2015

ISSUED FOR:

CONSTRUCTION DRAWINGS

REV.: DATE: DESCRIPTION:

SEAL:

No. 72397

STATE OF

FLORIDA

PROFESSIONAL ENGINEER

11-30-2015

PLANS PREPARED BY:

Kimley-Horn

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1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FLORIDA 33411
(561) 845-0665
FBPE CA0000696

PROVIDER:

RG Towers, LLC
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Jupiter, FL 33477

DRAWN BY: CHK.: APV.:

GD LF MM

LICENSURE:

MARIA VICTORIA MARTIN PE 72397

SHEET TITLE:

COVER SHEET

SHEET NUMBER: REVISION:

T-1

KHA Job #:

144042036

STANDARD PROVISIONS

INTENT

- A. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE PERFORMED AND THE MATERIALS TO BE FURNISHED FOR THE CONSTRUCTION OF THE RG TOWERS, LLC SITE.
- B. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND COMPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED ON BOTH.
- C. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS INDICATED IN THE DOCUMENTS.
- D. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK HOWEVER, NO CHANGES THAT ALTER THE CHARACTER INTENT OF THE DESIGN WILL BE MADE OR PERMITTED BY RG TOWERS, LLC WITHOUT A CHANGE ORDER.

CONFLICTS

- A. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR PERFORMING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY INADVERTENTLY OCCUR SHALL BE SUBMITTED TO THE RG TOWERS, LLC CONSTRUCTION PROJECT MANAGER (CPM) FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREA.
- B. THE CONTRACTOR, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING ABOUT WHICH THE CONTRACTOR MIGHT NOT HAVE FULLY INFORMED HIMSELF PRIOR TO BIDDING.

CONTRACTS AND WARRANTIES

- A. EACH CONTRACTOR IS RESPONSIBLE FOR HELPING TO OBTAIN THE BUILDING PERMIT AT THE LOCAL JURISDICTION AS THE CONTRACTOR OF RECORD, AND PROVIDE SAID JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS A CONTRACTOR IN THAT JURISDICTION.

STORAGE

- A. DO NOT USE THE EXISTING BUILDING SPACE FOR STORAGE OF TOOLS OR MATERIALS WITHOUT THE CONSTRUCTION PROJECT MANAGER AND/OR BUILDING OWNER APPROVAL.
- B. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OBSTRUCT THE FLOW OF OTHER WORK. ANY EQUIPMENT OR MATERIAL STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTURER.

PROTECTION

- A. PROTECT FINISHED SURFACES, INCLUDING JAMBS AND HEADS OF OPENINGS USED AS PASSAGEWAYS THROUGH WHICH EQUIPMENT AND MATERIALS WILL PASS.
- B. PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIALS TO BE MOVED OVER SUCH SURFACES.
- C. MAINTAIN FINISHED SURFACES CLEAN, UNMARRED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY CPM.

REPAIRS AND REPLACEMENTS

- A. IN EVENT OF DAMAGE, THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS AND REPAIRS AND AT NO ADDITIONAL COST TO RG TOWERS, LLC AND/OR BUILDING OWNER.

TEMPORARY FACILITIES

- A. WATER:
WATER IS NOT AVAILABLE TO THE CONTRACTORS ON SITE.
- B. LIGHT AND POWER:
LIGHT AND POWER ARE NOT AVAILABLE ON SITE.
- C. TELEPHONE:
EACH CONTRACTOR TO PROVIDE HIS OWN TELEPHONE ACCESS IF REQUIRED.
- D. IF PERMANENT POWER IS COMPLETED, ALL CONTRACTORS MAY USE THE SERVICE CONNECTION FOR PRODUCTION WORK ONLY, PROVIDED THAT ELECTRICAL CORDS AND CONNECTIONS ARE FURNISHED BY THE CONTRACTORS AND ARE DISCONNECTED AND PROPERLY STORED DURING NON-WORKING HOURS.

CLEAN UP

- A. THE CONTRACTORS SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK, AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING, INCLUDING ALL TOOLS, SCAFFOLDING AND SURPLUS MATERIALS, AND SHALL LEAVE THE WORK CLEAN AND READY FOR USE.
- B. EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WATER MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
 - 1. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.

CHANGE ORDER PROCEDURE

- A. CHANGE ORDER MAY BE INITIATED BY THE CPM, AND/OR THE CONTRACTOR. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE CPM SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE CPM FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES TO THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE CPM, SHALL BECOME THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

RELATED DOCUMENTS AND COORDINATION

- A. GENERAL CARPENTRY, ELECTRICAL, AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

PRODUCTS AND SUBSTITUTIONS

- A. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS, AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
- B. ALL NECESSARY PRODUCT DATA AND CUT SHEETS SHALL PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS, AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE CPM, SUBMIT ACTUAL SAMPLES TO THE CPM FOR APPROVAL IN LIEU OF CUT SHEETS.

COMPLIANCE

- A. ALL MATERIALS, DESIGN, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES (SOME OF WHICH ARE LISTED BELOW), ORDINANCES, AND AUTHORITIES HAVING JURISDICTION OVER THE WORK. UPON THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROVIDE RG TOWERS, LLC WITH A CERTIFICATE OF OCCUPANCY (IF REQUIRED) AND OTHER LEGAL DOCUMENTS TO VERIFY SUCH COMPLIANCE. WHERE NO CODES EXIST, THE WORK SHALL CONFORM WITH THE 5TH EDITION, 2014 FLORIDA BUILDING CODE, AND/OR THE SPECIFICATIONS HEREIN, WHICHEVER IS MORE STRINGENT, AND A DOCUMENT STATEMENT SHALL BE FURNISHED TO THIS EFFECT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY COMPLIANCE WITH THE GOVERNING CODES AND TO NOTIFY THE CPM OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.

REFERENCE TO ANY STANDARD OR CODE OF PRACTICE IN THIS SPECIFICATION SHALL BE DEEMED TO MEAN THE EDITION CURRENT AT THE TIME OF AWARD OF THE CONTRACT. THE CONTRACTOR SHALL COMPLY WITH ALL ZONING AND SITE ACQUISITION SPECIAL STIPULATIONS AS OUTLINED IN THE JOB SPECIFICATIONS, OR AS DIRECTED BY THE CPM.

ANSI/TIA/EIA - 222 - G
5TH EDITION, 2014 FLORIDA BUILDING CODE
BUILDING OFFICIALS & CODE ADMINISTRATORS
NATIONAL ELECTRICAL CODE (NEC) WITH LOCAL AMENDMENTS
UNDERWRITERS LABORATORIES (U.L.) APPROVED ELECTRICAL PRODUCTS
AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)
LIFE SAFETY CODE NFPA - 101-2015
FEDERAL AVIATION REGULATIONS
5TH EDITION, 2014 FLORIDA FIRE PROTECTION CODE

PERMITS AND LICENSES

- A. RG TOWERS, LLC SHALL OBTAIN ALL REQUIRED LOCAL, STATE, AND/OR COUNTY CONSTRUCTION PERMITS AND LICENSES. COPIES OF ALL PERMITS SHALL BE SENT TO CPM. APPROVALS FROM RELEVANT PLANNING BOARDS, ENVIRONMENTAL BOARDS, AND/OR OTHER COMMITTEES WILL BE SUPPLIED BY OTHERS, BUT MUST BE CONFIRMED BY THE SITE ACQUISITION SPECIALIST PRIOR TO THE APPLICATION FOR CONSTRUCTION PERMITS.
FAA APPROVAL WILL BE SUPPLIED BY OTHERS, BUT MUST BE CONFIRMED BY THE CONTRACTOR WITH THE CPM PRIOR TO THE COMMENCEMENT OF WORK.

- B. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION AND INSTRUCTION AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED AND CORRECTED BY THE ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSE.

- C. THE CONTRACTOR SHALL BE EQUIPPED WITH A MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A CELLULAR PHONE OR A PAGER.

- D. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SITE SAFETY INCLUDING BUT NOT LIMITED TO PROTECTION OF ALL SITE PERSONNEL AND THE GENERAL PUBLIC DURING THE ENTIRE SITE CONSTRUCTION PERIOD. HE SHALL TAKE ALL REASONABLE PRECAUTIONS TO PLACE AND MAINTAIN BARRICADES, LAMPS, SIGNS, AND THE LIKE IN ACCORDANCE WITH OSHA SAFETY ACT AND ANSI OCCUPATIONAL GUIDELINES.

- E. PROVIDE WEEKLY UPDATES ON SITE PROGRESS, EITHER VERBAL OR WRITTEN TO CPM.

COORDINATION WITH PUBLIC UTILITY AUTHORITIES

THE CONTRACTOR SHALL COORDINATE WITH RELEVANT AUTHORITIES THE WORKS THEY ARE TO BE CARRIED OUT. HE SHALL CONDUCT HIS OPERATIONS SO AS TO NOT INTERFERE WITH THE OPERATIONS OF PUBLIC AND/OR PRIVATE UTILITY AUTHORITIES, INSTALLING SERVICES ON THE SITE.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROTECTION OF SUCH FACILITIES AND STRUCTURES DURING CONSTRUCTION OF THIS SITE.

INSPECTIONS

SUBCONTRACTORS SHALL NOTIFY THE GENERAL CONTRACTOR AT LEAST 24 HOURS IN ADVANCE OF REQUIRED INSPECTIONS.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING THAT ALL RELEVANT AUTHORITY INSPECTIONS ARE CARRIED OUT IN A TIMELY MANNER. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ALL INSPECTIONS.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH DESIGNATED ENGINEERING FIRM TO OBTAIN ALL REQUIRED INSPECTIONS AND TESTING. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ALL INSPECTIONS.

ENVIRONMENTAL PROTECTION

NOISE LEVEL: THE CONTRACTOR SHALL ENSURE THAT STATE AND LOCAL REGULATIONS ARE COMPLIED WITH IN REGARD TO NOISE LEVELS PRODUCED BY HIS OR HIS SUB-CONTRACTOR'S EQUIPMENT OR METHODS OF CONSTRUCTION.

DUST CONTROL: THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO LIMIT THE CREATION OF ANY DUST NUISANCE THAT MIGHT ARISE DURING CONSTRUCTION TO THE SATISFACTION OF THE LOCAL AUTHORITIES AND THE BUILDING OWNER. THE CPM MAY DIRECT THAT WORK CEASE UNTIL SUCH TIME AS ANY PARTICULAR DUST NUISANCE IS CONTROLLED TO THE SATISFACTION OF THE CPM, LOCAL AUTHORITIES, AND BUILDING OWNERS.

REINSTATEMENT

ANY PAVEMENT, FOOTPATH, CURB, GUTTERS, WALLS, FLOORS, SERVICES, AND EXISTING FEATURES OR OTHER PROPERTIES, DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REINSTATED TO A CONDITION AT LEAST EQUAL TO THAT EXISTING BEFORE COMMENCEMENT OF OPERATIONS.

AS-BUILTS DRAWINGS

THE CONTRACTOR SHALL PREPARE A RED LINED SET OF AS-BUILT DRAWINGS. THE FORM OF MARKED UP CONSTRUCTION PLANS SHALL BE STANDARD ACCEPTABLE TO THE RG TOWERS, LLC. SUCH DRAWINGS SHALL BE SUBMITTED TO RG TOWERS, LLC WITHIN TWO WEEKS FROM PRACTICAL COMPLETION AND PRIOR TO APPROVAL OF THE CONTRACTOR'S FINAL INVOICE.

PRACTICAL COMPLETION

THE FOLLOWING DOCUMENTATION SHALL BE PROVIDED TO RG TOWERS, LLC WIRELESS PRIOR TO THE DATE OF PRACTICAL COMPLETION:

- 1. WARRANTIES AND MAINTENANCE MANUALS, IF APPLICABLE
- 2. GROUND SYSTEM RESISTANCE TEST
- 3. CERTIFICATE OF OCCUPANCY

INSURANCE AND BONDS

- A. EACH CONTRACTOR SHALL AT HIS OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED AND SHALL NOT COMMENCE WITH HIS WORK UNTIL HE HAS PRESENTED A CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE GENERAL CONTRACTOR WHO SHALL, IN TURN, FORWARD A COPY OF ALL CERTIFICATES TO THE CPM.

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2141 Alternate A1A South, Suite 440
Jupiter, FL 33477

PROJECT INFORMATION:

SONIC-TC04

2551 JENKINS ROAD
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ST. LUCIE COUNTY

CURRENT ISSUE DATE:

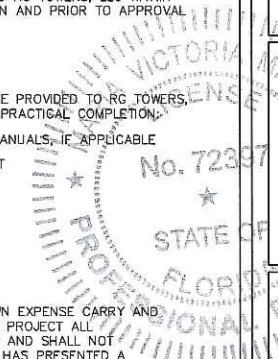
NOVEMBER 2015

ISSUED FOR:

CONSTRUCTION DRAWINGS

REV. DATE DESCRIPTION:

SEAL:



11-30-2015

PLANS PREPARED BY:

Kimley»Horn

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(561) 845-0665
FBPE CA00000696

PROVIDER:

RG Towers, LLC
2141 Alternate A1A South, Suite 440
Jupiter, FL 33477

DRAWN BY: CHK. APV.:

GD LF MM

LICENSURE:

MARIA VICTORIA MARTIN PE 72397

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER: REVISION:

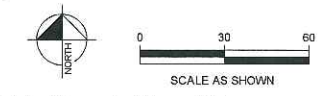
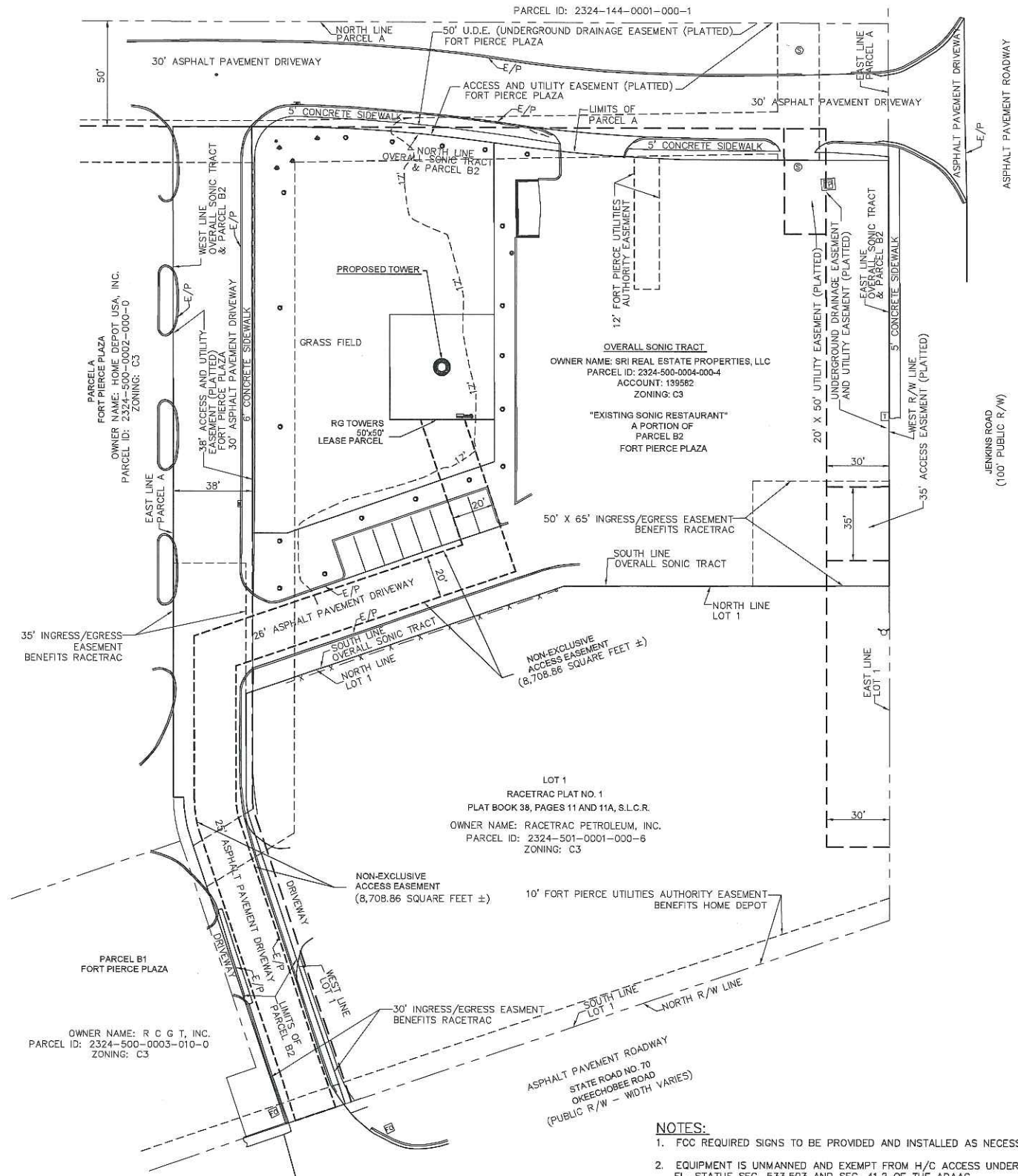
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KHA Job #:

144042036

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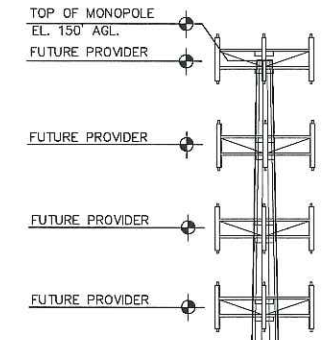
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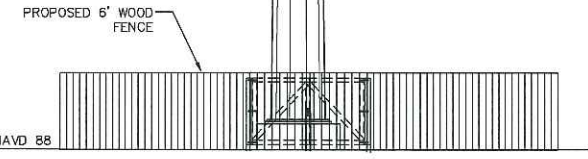
SITE PLAN

- NOTES:**
1. FCC REQUIRED SIGNS TO BE PROVIDED AND INSTALLED AS NECESSARY.
 2. EQUIPMENT IS UNMANNED AND EXEMPT FROM H/C ACCESS UNDER FL. STATUTE SEC. 533.503 AND SEC. 41.2 OF THE ADAAG.
 3. "HIGH VOLTAGE-DANGER" SIGN INSTALLED ON GATE AND SIGN SHALL NOT EXCEED 1 SF IN AREA.
 4. 6' HIGH WOOD FENCE AND LOCKED ENTRY GATE
 5. WATER AND SEWER SERVICES ARE NOT REQUIRED AT THIS SITE.
 6. SITE DESIGN ULTIMATE WIND SPEED 160MPH, PER (5TH EDITION) 2014 FBC. SEE TOWER STRUCTURAL FOR TOWER DESIGN WIND SPEED.

FLOOD ZONE INFORMATION					
COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM	FIRM ZONE	BASE FLOOD ELEVATION
120286	0167	J	02/16/2012	X	N/A

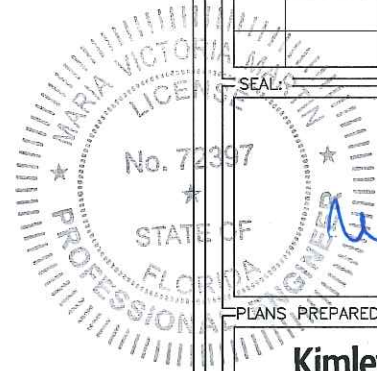


PROPOSED 150' MONOPOLE (DESIGNED BY OTHERS)



TOWER ELEVATION

- NOTE:**
1. ALL PROPOSED ATTACHMENTS TO TOWER BASED ON STRUCTURAL ANALYSIS BY OTHERS.
 2. TOWER IS DESIGNED FOR A TOTAL OF FOUR WIRELESS SERVICE PROVIDERS. LOCATION OF FUTURE PROVIDERS IS APPROXIMATE.
 3. CONTRACTOR TO COORDINATE ANTENNA MOUNTS W/ OWNER.
 4. CONTRACTOR TO REFER TO STRUCTURAL ANALYSIS (BY OTHERS).



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DRAWN BY: CHK.: APV.:

GD LF MM

LICENSURE:

MARIA VICTORIA MARTIN PE 72397

SHEET TITLE:

SITE PLAN & TOWER ELEVATION

SHEET NUMBER: REVISION:

C-1

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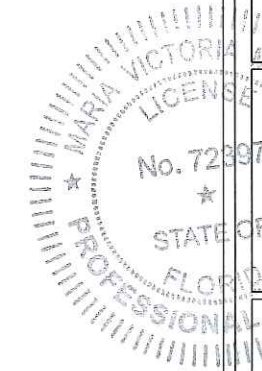
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Maria Victoria Martin
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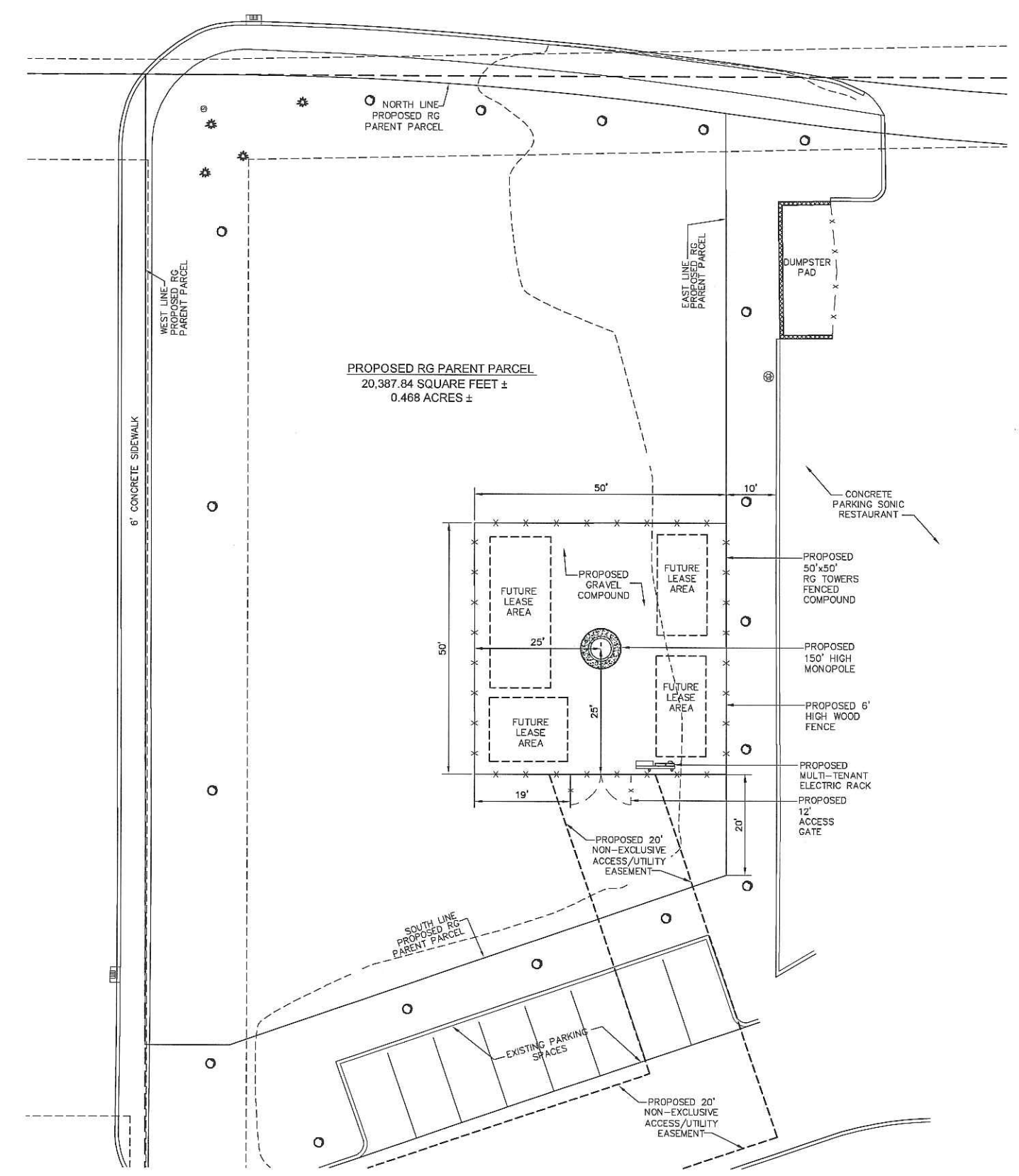
ENLARGED SITE PLAN

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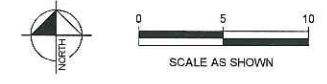
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KHA Job #:

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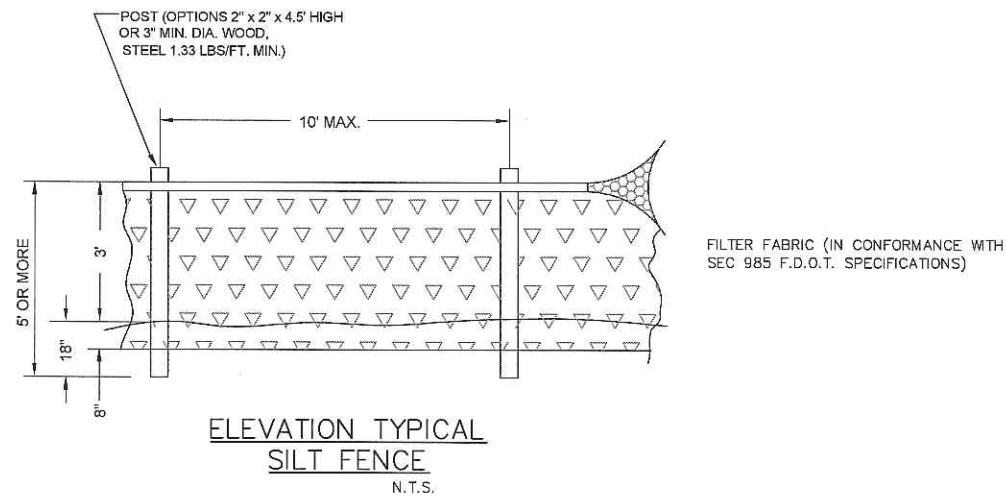
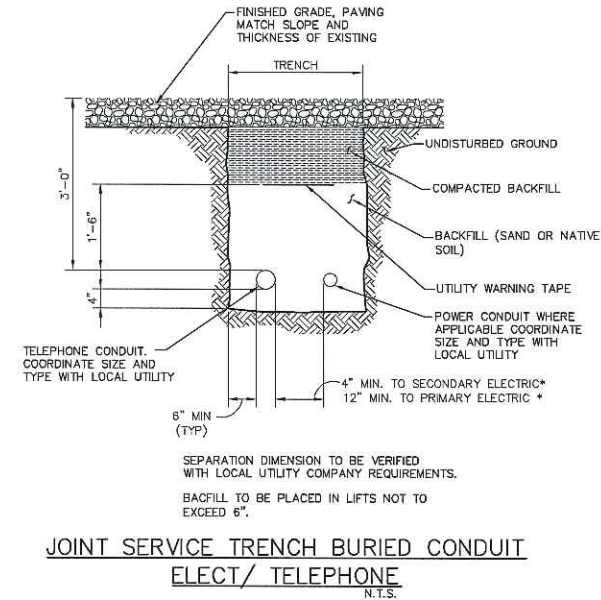
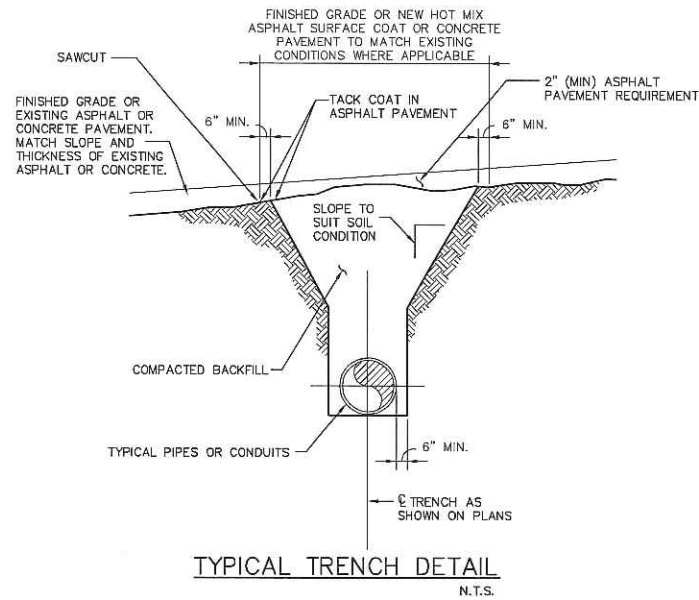


ENLARGED SITE PLAN



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PROFESSIONAL ENGINEER
11-30-2015

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Kimley»Horn
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PROVIDER:

RG Towers, LLC
2141 Alternate A1A South, Suite 440
Jupiter, FL 33477

DRAWN BY: CHK.: APV.:

GD	LF	MM
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LICENSURE:

MARIA VICTORIA MARTIN PE 72397

SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER: REVISION:

C-3

KHA Job #:

144042036

Drawing name: K:\NPR_Civil\CELL_SITES\BGP_Tower\144042036-TC04-Sonic\CAD\CDS\C3.dwg c3 Nov 30, 2015 3:28pm by: mvd/martm

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RG Towers, LLC
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 Jupiter, FL 33477

PROJECT INFORMATION:
 SONIC-TC04

2551 JENKINS ROAD
 FORT PIERCE, FL 34947
 ST. LUCIE COUNTY

CURRENT ISSUE DATE:
 NOVEMBER 2015

ISSUED FOR:
 CONSTRUCTION DRAWINGS

REV.:	DATE:	DESCRIPTION:

SEAL:
 No. 72397
 MARIA VICTORIA MARTIN
 PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 11-30-2015

PLANS PREPARED BY:
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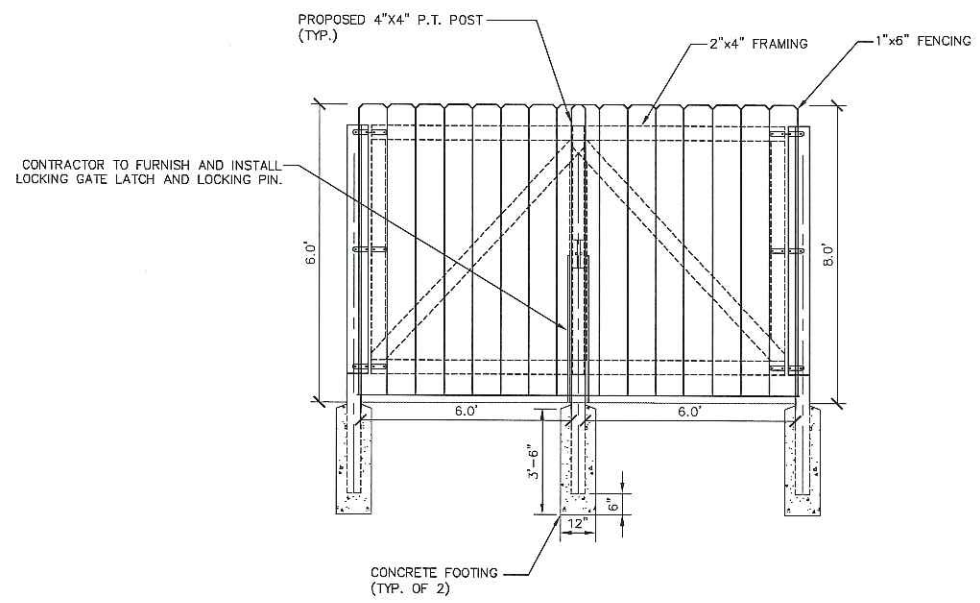
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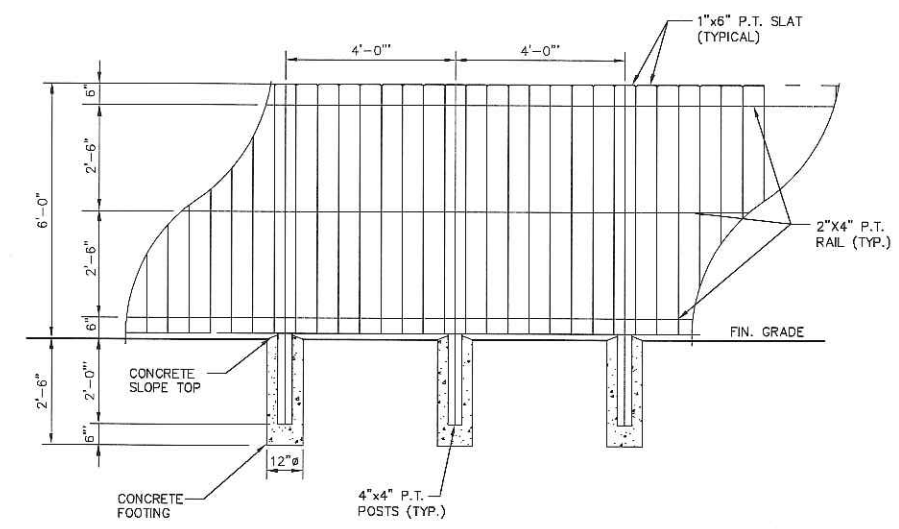
SHEET TITLE:
 WOODEN FENCE AND GATE DETAILS

SHEET NUMBER: REVISION:
C-4

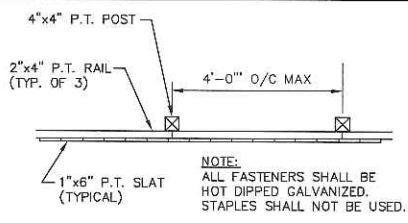
KHA Job #:
 144042036



GATE DETAIL
 N.T.S.
 NOTE:
 ALL HARDWARE TO BE HOT
 DIPPED GALVANIZED.



WOOD FENCE ELEVATION
 N.T.S.



WOOD FENCE PLAN VIEW
 N.T.S.

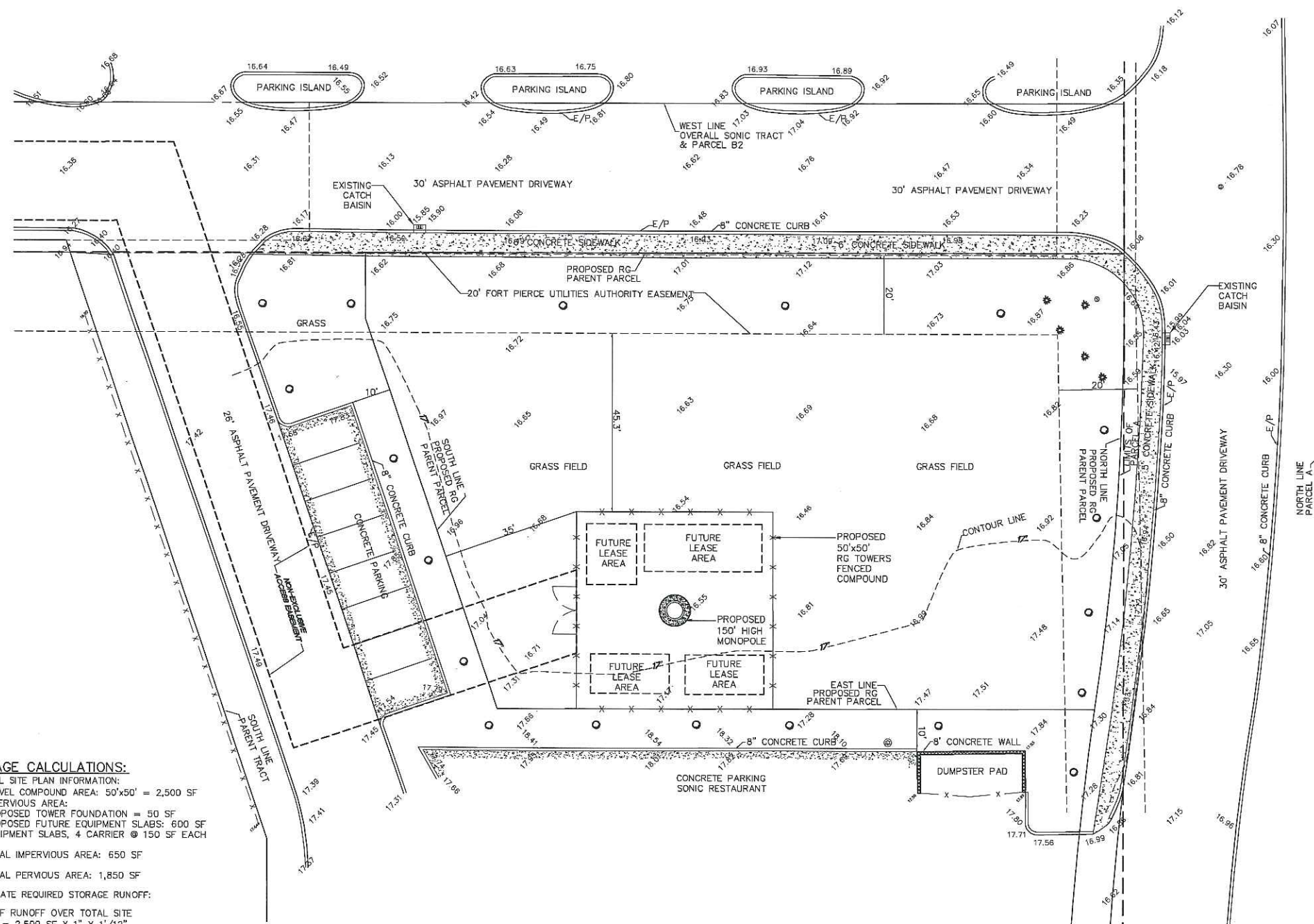
WOOD FENCING NOTES:

1. - ALL WOOD FENCE POSTS AND RAILS TO BE NO. 2 SOUTHERN YELLOW PINE CCA PRESSURE TREATED LUMBER.
2. - PICKETS TO BE 1" THICK NO. 1 SPRUCE.
3. - ALL POSTS TO BE 4"x4" NO. 2 PINE CCA PRESSURE TREATED LUMBER.
4. - ALL METAL PARTS TO BE HOT DIP GALVANIZED.
5. - GATE SHALL HAVE HEAVY DUTY HINGES AND LOCKING DEVICE.
6. - CONCRETE FOR FOOTINGS TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI

Drawing name: K:\WPB_CAD\CAD\CELL_SITES\WGP_Tower\144042036-TC04-Sonic\CAD\CAD\WOOD_FENCE.dwg WOOD FENCE Nov 30, 2015 3:33pm by: mercurio

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FLOOD ZONE INFORMATION					
COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM	FIRM ZONE	BASE FLOOD ELEVATION
120286	0167	J	02/16/2012	X	N/A

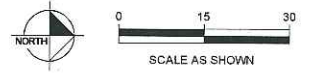


DRAINAGE CALCULATIONS:

I. GENERAL SITE PLAN INFORMATION:
 GRAVEL COMPOUND AREA: 50'x50' = 2,500 SF
 IMPERVIOUS AREA:
 PROPOSED TOWER FOUNDATION = 50 SF
 PROPOSED FUTURE EQUIPMENT SLABS: 600 SF
 EQUIPMENT SLABS, 4 CARRIER @ 150 SF EACH
 TOTAL IMPERVIOUS AREA: 650 SF
 TOTAL PERVIOUS AREA: 1,850 SF

II. CALCULATE REQUIRED STORAGE RUNOFF:
 1. 1" OF RUNOFF OVER TOTAL SITE
 $Q = 2,500 \text{ SF} \times 1" \times 1' / 12"$
 $Q = 208.33 \times 50\% \text{ (ALLOWABLE REDUCTION)}$
 $Q = 104.2 \text{ CF}$

III. STORAGE VOLUME PROVIDED:
 No. 57 STONE COMPOUND, 4" LAYER, 2,500 SF
 COMPOUND. ASSUME 40% VOIDS RATIO.
 RETENTION VOLUME PROVIDED = (2,500 SF - 650 SF)
 $\times 0.4 \times 4" / 12" = 246.66 \text{ CF}$
 RETENTION VOLUME PROVIDED = 246.66 CF
 RETENTION VOLUME PROVIDED IS GREATER THAN REQUIRED VOLUME



STORM DRAINAGE PLAN

NOTE:
 ALL STORM DRAINAGE FACILITIES SHALL CONFORM TO CHAPTERS 17 AND 18 OF THE FORT PIERCE CODE OF ORDINANCES AND THE "STANDARD SPECIFICATIONS" ADOPTED BY THE CITY COMMISSION ON FEBRUARY 13, 1973.

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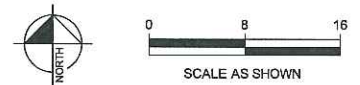
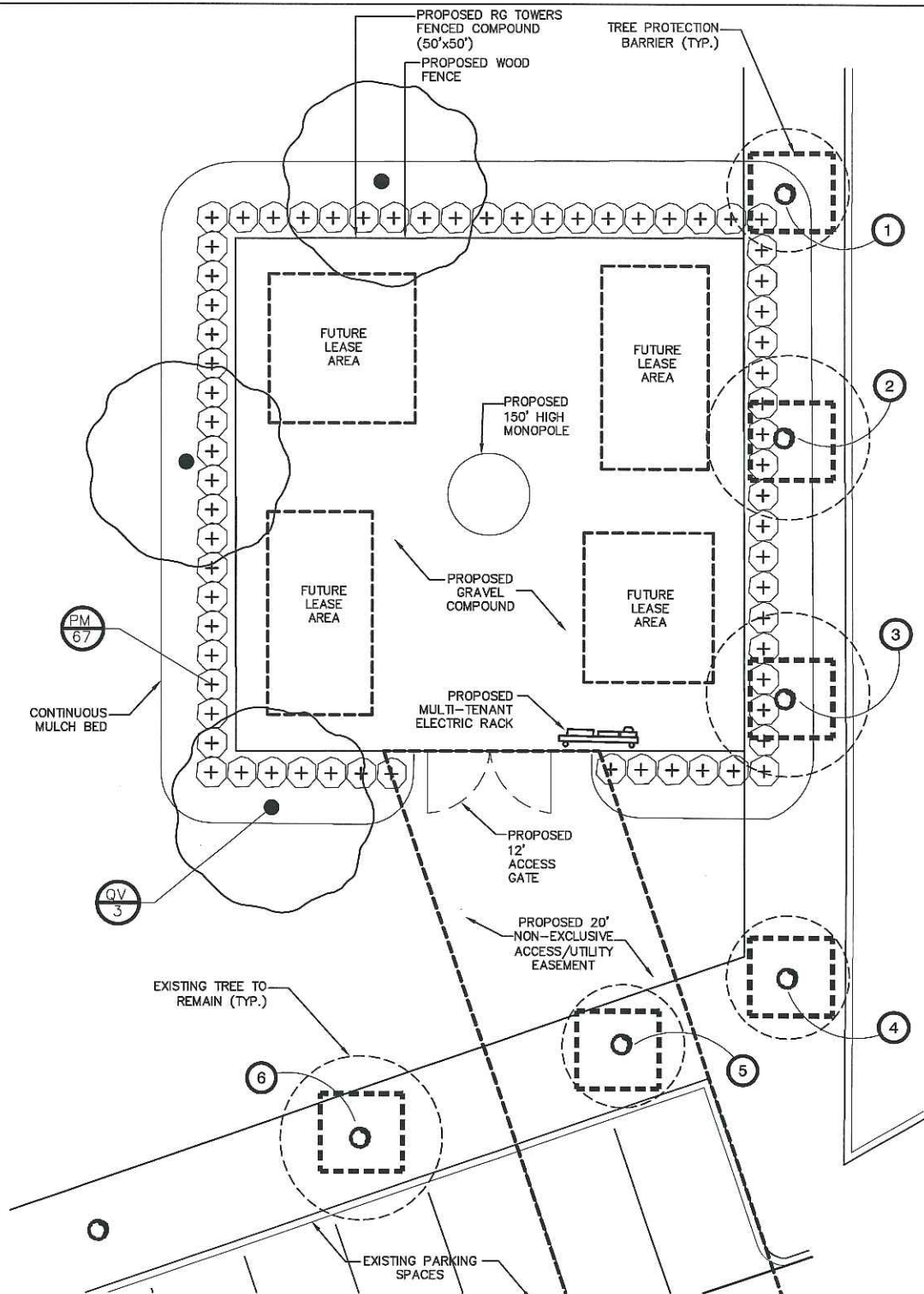
SHEET TITLE:
STORM DRAINAGE PLAN

SHEET NUMBER: **C-5** REVISION:

KHA Job #:
144042036

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Drawing name: K:\WP\DWG\CELL STDS\RG Towers\144042036-TC04-Sonic\CAD\CD\L1.DWG L-1 Nov 30, 2015 4:28pm by: mofm.merth

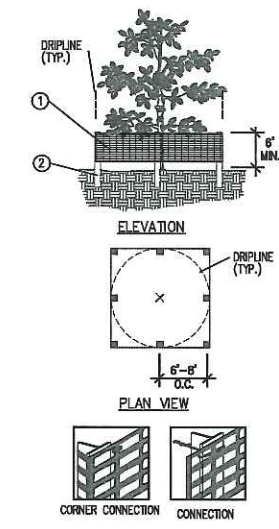


TREE #	COMMON NAME	BOTANICAL NAME	DBH	DISPOSITION
1	Live Oak	Quercus virginiana	6"	PROTECT*
2	Live Oak	Quercus virginiana	8"	PROTECT*
3	Live Oak	Quercus virginiana	8"	PROTECT*
4	Live Oak	Quercus virginiana	6"	PROTECT*
5	Live Oak	Quercus virginiana	6"	PROTECT*
6	Live Oak	Quercus virginiana	8"	PROTECT*

*SEE TREE PROTECTION DETAIL - THIS SHEET

PLANTING NOTES:

- CONTRACTOR SHALL REFER TO THE LANDSCAPE PLANTING DETAILS, PLANT LIST, GENERAL NOTES AND ALL CONTRACT DOCUMENTS FOR FURTHER AND COMPLETE INSTRUCTIONS.
- PLANT LIST QUANTITIES ARE PROVIDED FOR CONVENIENCE. IN THE EVENT OF QUANTITY DISCREPANCIES THE DRAWING SHALL TAKE PRECEDENCE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BIDDING.
- PLANT SIZES LISTED ARE THE MINIMUM SIZE THAT WILL BE ACCEPTED FOR THAT PLANT.
- ANY SUBSTITUTION IN SIZE AND/OR PLANT MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING. ALL PLANTS WILL BE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND/OR OWNERS REPRESENTATIVE BEFORE PLANTING CAN BEGIN.
- CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES AND/OR INTERFERE WITH EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK AND INCLUDED IN THE SPECIFICATIONS.
- CONTRACTOR SHALL FAMILIARIZE HIM/HERSELF WITH THE LIMITS OF WORK AND EXISTING CONDITIONS AND VERIFY ALL INFORMATION. IF DISCREPANCIES EXIST, CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IN WRITING WITHIN SEVEN CALENDAR DAYS OF NOTICE TO PROCEED.



Tree/Shrub Protector Barrier Detail

- INSTALLATION NOTES:**
- POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWD CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION AND OTHER APPLICATIONS.
 - POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/4 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 8' POST SHOULD BE SET AT LEAST 2' INTO THE GROUND.
 - SPACE POSTS EVERY 6" (MIN.) TO 8" (MAX.).
 - SECURE FENCING TO POST WITH NYLON CABLE TIES (AVAILABLE FROM CONNED PLASTICS). WOOD STRIPS MAY BE ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.
- NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.

LANDSCAPE WATERING SPECIFICATIONS AND NOTES

- A. WATER-SOLUBLE GEL SOIL AMENDMENT**
- ALL PLANTINGS SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, WITH POLYMER GEL SLURRY (AS DESCRIBED IN THESE SPECIFICATIONS), UNLESS DETERMINED TO BE UNSUITABLE - AT WHICH POINT THE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
 - A WATER-ABSORBING POLYMER GEL PRODUCT (AGRODIAMONDS (TM)) THAT HAS BEEN HYDRATED ACCORDING TO MANUFACTURER'S DIRECTION SHALL BE PLACED INTO EACH HOLE PRIOR TO PLANTING. SEE APPLICATION RATE CHART, THIS SHEET. AGRODIAMONDS (TM) BY AGROTECH AMERICA (561) 743-8025.
- B. WATER**
- 90 DAYS OF WATER MONITORING SHALL BE SCHEDULED FOR ALL PLANTINGS UNDER THIS CONTRACT.
 - IF SITE EXPERIENCES DROUGHT OR IF RAINFALL DOES NOT ACCUMULATE 2" PER WEEK DURING THE MONITORING PERIOD, HAND WATERING WILL BE NECESSARY.
 - WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER (MEETING THE ABOVE STANDARD) FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER. SUITABLE WATER MAY BE AVAILABLE IN THE ADJACENT CANAL - COORDINATE WITH OWNER FOR PERMISSIONS.
 - WATERING PROJECT PLANTINGS MAY BE ACHIEVED BY WATER TRUCK OR BY TEMPORARY IRRIGATION SYSTEM, WHICH MUST BE REMOVED AT THE END OF THE MAINTENANCE PERIOD.
 - CONTRACTOR SHALL SUPPLEMENT RAINFALL BY HAND-WATERING AND DOCUMENT WATERING EFFORTS THROUGH RAINFALL DATA AND MONITORING RECORDS. FOR BIDDING PURPOSES, FOLLOW THE SCHEDULE BELOW:
- DAY 1: WATER IN PLANTINGS PER SPECS.
 DAY 2-30: 1/2" OF WATER EACH DAY FOR MON, TUES, WED, THURS, SATURDAY
 DAY 31-90: 1/2" OF WATER EACH DAY FOR MON, WED, SATURDAY
- C. FERTILIZER**
- CONTRACTOR SHALL INCLUDE FERTILIZER IN HYDRATED GEL SLURRY MIX. FERTILIZER SHALL BE A WATER SOLUBLE 14-14-14, CONTROLLED-RELEASE TYPE. MIX WITH GEL AT A RATE OF ONE OUNCE PER PLANT. ESTIMATE PLANT QUANTITIES FOR GEL PRODUCT AND MIX FERTILIZER APPROPRIATELY.
- SIX WEEKS AFTER PLANTING, BROADCAST 10-10-10 CONTROLLED-RELEASE FERTILIZER AT A RATE OF 400 LBS PER ACRE OVER THE ENTIRE PLANTED AREA.

PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	QTY
QV	Quercus virginiana	Southern Live Oak	30 gal	3" Cal.	10'HT X 5'SPR	3

SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	O.C.	SIZE	QTY
PM	Podocarpus macrophyllus	Podocarpus	7 gal	36" O.C.	6'H Min	67

CODE COMPLIANCE SUMMARY:	
PERIMETER BUFFER REQUIRED:	PROVIDED:
SHADE TREES 1/30 LF = 6 SHADE TREES	6 SHADE TREES (3 EXISTING)
CONTINUOUS HEDGE 6' H	CONTINUOUS HEDGE 6' H

AGRODIAMONDS (TM) APPLICATION RATE CHART

CONTAINER SIZE	AGRODIAMONDS (TM) (RAW PRODUCT)
30 GAL	8 CUPS (46 OZ)
7 GAL	2 CUPS (11.5 OZ)

*MIX INTO BACKFILL MATERIAL FOR PLANT PITS. WORK MIX INTO SOIL WITH SHOVEL/SPADE.
 *AGRODIAMONDS (TM) MUST BE HYDRATED (WATER-IN) FROM TOP. DO NOT WATER BY INJECTION (SUBSURFACE).
 *MIX FERTILIZER IN HOLE PRIOR TO WATERING.

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LICENSURE:

MARIA VICTORIA MARTIN PE 72397

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBER: REVISION:

L-1

KHA Job #:

144042036

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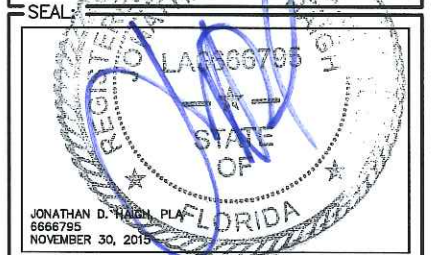
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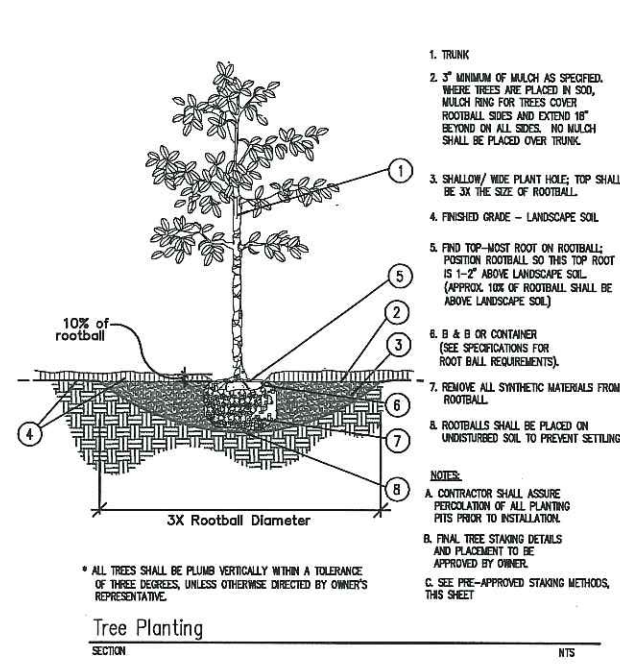
LANDSCAPE DETAILS

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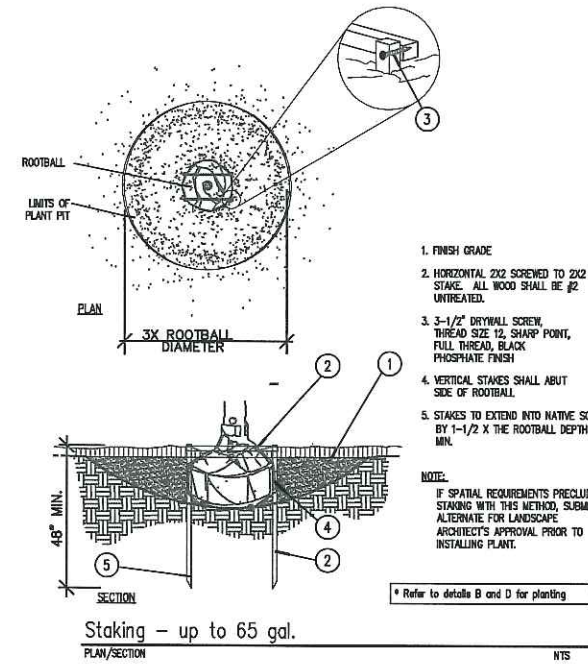
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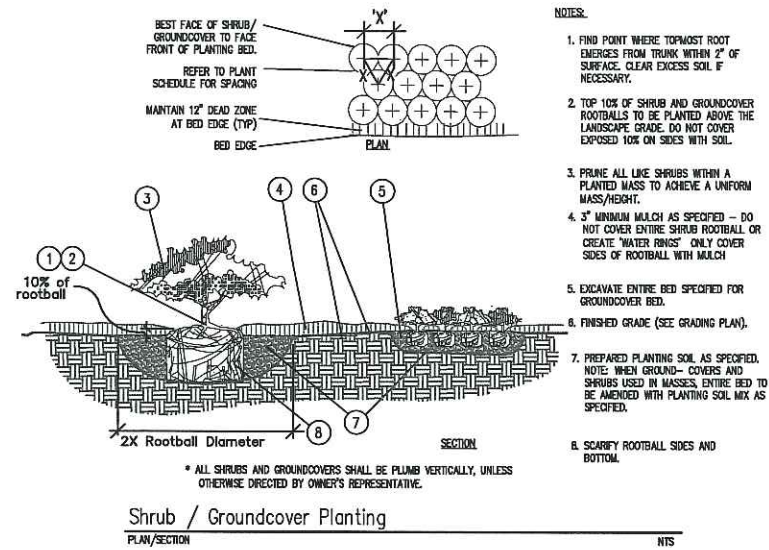
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1. TRUNK
 2. 3" MINIMUM MULCH AS SPECIFIED. WHERE TREES ARE PLACED IN SOIL, MULCH RING FOR TREES COVER ROOTBALL SIDES AND EXTEND 18" BEYOND ON ALL SIDES. NO MULCH SHALL BE PLACED OVER TRUNK.
 3. SHALLOW/WIDE PLANT HOLE: TOP SHALL BE 3X THE SIZE OF ROOTBALL.
 4. FINISHED GRADE - LANDSCAPE SOIL
 5. FIND TOP-MOST ROOT ON ROOTBALL: POSITION ROOTBALL SO THIS TOP ROOT IS 1-2" ABOVE LANDSCAPE SOIL (APPROX. 10% OF ROOTBALL SHALL BE ABOVE LANDSCAPE SOIL.)
 6. B & B OR CONTAINER (SEE SPECIFICATIONS FOR ROOT BALL REQUIREMENTS).
 7. REMOVE ALL SYNTHETIC MATERIALS FROM ROOTBALL.
 8. ROOTBALLS SHALL BE PLACED ON UNDISTURBED SOIL TO PREVENT SETTLING.
- NOTES:**
A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
C. SEE PRE-APPROVED STAKING METHODS, THIS SHEET.



1. FINISH GRADE
 2. HORIZONTAL 2X2 SCREWED TO 2X2 STAKE. ALL WOOD SHALL BE #2 UNTREATED.
 3. 3-1/2" DRYWALL SCREW, THREAD SIZE 12, SHARP POINT, FULL THREAD, BLACK PHOSPHATE FINISH
 4. VERTICAL STAKES SHALL ABOUT SIZE OF ROOTBALL.
 5. STAKES TO EXTEND INTO NATIVE SOIL 1-1/2 X THE ROOTBALL DEPTH MIN.
- NOTE:**
IF SPATIAL REQUIREMENTS PRECLUDE STAKING WITH THIS METHOD, SUBMIT ALTERNATE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLING PLANT.
- * Refer to details B and D for planting



- NOTES:**
1. FIND POINT WHERE TOPMOST ROOT EMERGES FROM TRUNK WITHIN 2" OF SURFACE. CLEAR EXCESS SOIL IF NECESSARY.
 2. TOP 10% OF SHRUB AND GROUNDCOVER ROOTBALLS TO BE PLANTED ABOVE THE LANDSCAPE GRADE. DO NOT COVER EXPOSED 10% ON SIDES WITH SOIL.
 3. PRUNE ALL LIKE SHRUBS WITH A PLANTED MASS TO ACHIEVE A UNIFORM MASS/HEIGHT.
 4. 3" MINIMUM MULCH AS SPECIFIED - DO NOT COVER ENTIRE SHRUB ROOTBALL OR CREATE "WATER RINGS". ONLY COVER SIDES OF ROOTBALL WITH MULCH.
 5. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
 6. FINISHED GRADE (SEE GRADING PLAN).
 7. PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND-COVERS AND SHRUBS USED IN MASSES, ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
 8. SCARP ROOTBALL SIDES AND BOTTOM.
- * ALL SHRUBS AND GROUNDCOVERS SHALL BE PLUMB VERTICALLY, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

- A. SCOPE OF WORK**
1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.
2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.
- B. PROTECTION OF EXISTING STRUCTURES**
ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.
- C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK**
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL, STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DUMP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELICIOUS MATERIALS WITHIN THE DUMP-LINE. NO MATERIALS SHALL BE BURNED WHERE HEAT WILL DAMAGE ANY PLANT. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/OR UNSHAPELY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.
- D. MATERIALS**
1. PLANT MATERIALS
A. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADING AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNER'S REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE.
- B. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.
- C. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY; SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

- E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)**
1. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF TWO PARTS OF TOPSOIL AND ONE PART SAND, AS DESCRIBED BELOW.
2. TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND A PH BETWEEN 5.5 AND 7.0 - SUBMIT SAMPLE AND PH TESTING RESULTS FOR APPROVAL.
3. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND. CONTRACTOR SHALL SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY THE OWNER.
4. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE - AT WHICH POINT THE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
5. CONTRACTOR TO SUBMIT SAMPLES OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.
F. WATER
WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.
*WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
G. FERTILIZER
CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY-DERIVED.
*FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
H. MULCH
MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A MINIMUM DEPTH OF 3 INCHES. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE). TYPE OF MATERIAL: PINE STRAW.
I. PLANTING PROCEDURES
1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBSCURABLE MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL, WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.
2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL NATIONAL ONE CALL - 811 - TO LOCATE UTILITIES.

3. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES WORMLIKE METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE ENDEAVORED.
6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 2004, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE "POOR DRAINAGE CONDITION" PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW FLOW ROSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER "SETTING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "LET STICK" OR EQUAL IS RECOMMENDED.
8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.
9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS.
10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACKFILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).
11. AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.
12. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE, ONLY WITH MULCH, BURLAP, ROPE, WIGS, BASKETS, ETC. SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.
13. PRUNING: TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BARELY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY LICENSED ARBORIST, IN ACCORDANCE WITH ANS A-300.
14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6", REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" OF THE PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
15. MULCHING: PROVIDE A THREE INCH (MINIMUM) LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT PLANTED UNDER THIS CONTRACT.

- J. LAWN SODDING**
1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.
3. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.
4. SODDING
A. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIALLY NOTED OTHERWISE.
B. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.
C. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS, ADJACENT TO BUILDINGS, A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED - REFER TO DETAILS. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOIL, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.
5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL, AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.
6. LAWN MAINTENANCE:
A. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNGLEN OR BARE SPOTS (LARGER THAN 12"x12") UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADEING IF NECESSARY).
B. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.

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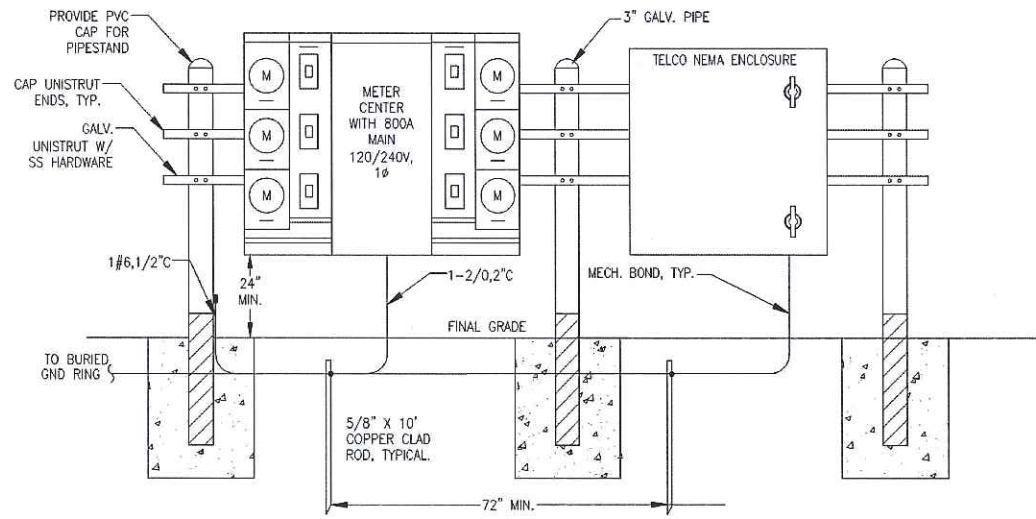
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ELECTRICAL NOTES

- GENERAL
 - THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM SHALL BE INCLUDED.
 - THE CONTRACTOR SHALL COORD. W/CONST. MANAGER FOR PERMITS & INSPECTIONS TOWER CO. SHALL OBTAIN ALL PERMITS, SCHED. INSPECTIONS, & APPROVALS.
 - ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND THE LOCAL BUILDING CODES. ALL COMPONENTS SHALL BE U.L. APPROVED.
 - THE CONTRACTOR SHALL BEFORE SUBMITTING HIS BID, VISIT THE SITE OF THE PROJECT AND BECOME FAMILIAR WITH THE CONDITIONS. NO ALLOWANCE WILL BE MADE FOR EXISTING CONDITIONS OR FAILURE OF THE CONTRACTOR TO OBSERVE THEM.
 - EXACT LOCATION OF ALL EQUIPMENT SHALL BE COORDINATED WITH CONST. MANAGER, THE BUILDING OWNER AND OTHER TRADES.
 - WHERE EQUIPMENT IS SPECIFIED BY MANUFACTURER AND TYPE, SUBSTITUTION SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROPOSED MATERIALS, REASON FOR CHANGE AND CHANGE IN CONTRACT AMOUNT.
- SCOPE OF WORK
 - THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL WIRING AND EQUIPMENT UNLESS OTHERWISE INDICATED. MAIN COMPONENTS ARE AS FOLLOWS:
 - PROVIDE ELECTRICAL SERVICE AS INDICATED ON THE DRAWINGS.
 - PROVIDE SERVICE EQUIPMENT MOUNTED AS INDICATED ON DRAWINGS.
 - PROVIDE TELEPHONE CONDUIT WITH PULL WIRE AS INDICATED ON DRAWINGS.
 - COORDINATE ELECTRICAL SERVICE WITH POWER CO., CONTACT REP PRIOR TO CONSTRUCTION.
 - COORDINATE TELEPHONE SERVICE WITH TELCO CONTACT REP PRIOR TO CONSTRUCTION.
 - INSTALL WIRE AND CONDUIT AS INDICATED.
 - PROVIDE GROUNDING AS INDICATED ON DRAWINGS.
 - RESTORE ALL AREAS TO ORIGINAL CONDITION AFTER INSTALLATION OF CONDUIT. CUT AND PATCH CONCRETE AND/OR ASPHALT AS REQUIRED.
 - CONTRACTOR SHALL CLEARLY LABEL DISCONNECTS, METERS, BREAKERS, TELEPHONE TERMINAL BOX AND OTHER RELATED GEAR.
 - CONDUIT
 - CONDUIT SIZES AS SHOWN ON THE DRAWINGS ARE A MINIMUM. THE CONTRACTOR MAY INCREASE AS REQUIRED FOR EASE OF PULLING.
 - CONDUIT TYPES AS FOLLOWS:
 - ALL ABOVE GRADE CONDUIT SHALL BE RIGID GALVANIZED STEEL.
 - ALL CONDUIT BELOW GRADE SHALL BE SCHEDULE 40 PVC.
 - CONCEALED CONDUIT IN WALLS OR ABOVE CEILING MAY BE EMT.
 - ALL EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL. CONDUITS SHALL HAVE BURRS REMOVED WITH A REAMER. CONDUITS ENTERING CABINETS SHALL HAVE LOCK NUTS INSIDE AND OUT UNLESS ENTRANCE IS THREADED. NYLON INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT TERMINATIONS.
 - FLEX CONDUIT SHALL BE LIQUID TIGHT FLEXIBLE METALLIC CONDUIT.
 - CONDUCTORS
 - CONDUCTORS SHALL BE COPPER STRANDED TYPE THWN OR XHHW WITH 75 DEGREE C RISE INSULATION OR AS INDICATED ON DRAWINGS.
 - GROUNDING
 - PROVIDE GROUND SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE AND RADIO EQUIPMENT MANUFACTURER.
 - ALL RACEWAYS REQUIRE GROUNDING CONDUCTORS. BONDING CONDUCTORS THROUGH THE RACEWAY SYSTEM SHALL BE CONTINUOUS FROM MAIN SWITCH GROUND BUS TO PANEL GROUND BARS, AND FROM PANEL GROUNDING BARS TO BRANCH CIRCUIT OUTLETS, MOTORS, LIGHTS, ETC. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.

GROUNDING PROTECTION SYSTEM NOTES:

- PROVIDE "CABLE ENTRANCE GROUND BAR" (CEGB), 3"H X 6"L X 1/4"D. MOUNT AT +2'-0" AT TELCO BOARD.
- PROVIDE A GROUND RING BURIED A MINIMUM OF 18" BELOW GRADE. THE GROUND RING SHALL BE INSTALLED 2'-0" AWAY FROM FOUNDATION (MINIMUM UNLESS SHOWN ON DRAWING).
- BOND FENCE POST TO GROUND RING USING AN EXOTHERMIC WELD. BOND FENCE GATE TO POST WITH A FLEXIBLE COPPER JUMPER STRAP MECHANICALLY OR EXOTHERMICALLY. TYPICAL FOR ALL FENCE PLANES WITHIN 12 FEET OF TOWER FOUNDATION. FOR FENCE PLANES BEYOND 12', EXTEND 1#2 TO EACH FENCE PLANE TO ANY PLANES WITHIN 50'.
- BOND DISCONNECT SWITCH, METER, TELEPHONE CABINET AND SERVICE CONDUITS TO BURIED GROUND RING AS THEY CROSS.
- EACH LEG OF THE WAVEGUIDE STRUCTURE SHALL BE INDIVIDUALLY BONDED TO THE BURIED GROUND RING. EXOTHERMICALLY WELD CONNECTIONS AT POST FOR WAVEGUIDE STRUCTURE AND BURIED GROUND RING. PLACE 5/8"X10' COPPERCLAD GROUND ROD AT 10' INTERVALS ALONG WAVEGUIDE PATH.
- BOND REBAR IN CONCRETE FOR COMMUNICATION STRUCTURE AND EQUIPMENT PAD TO BURIED GROUND RING. EXOTHERMICALLY WELD A #2 TINNED SOLID COPPER CONDUCTOR TO THE REBAR AND CONNECT TO THE BURIED GROUND RING.
- PROVIDE INSPECTION SLEEVE AT ALL BURIED GROUND RING EXOTHERMIC CONNECTIONS.
- PROVIDE BONDING CONDUCTOR(S) FROM THE BURIED GROUND RING TO THE ANTENNA CABLE BUS BAR AT POINT JUST INSIDE OF THE COMMUNICATION STRUCTURE EXIT. VERIFY EXACT LOCATION OF COPPER BUS BAR FOR PROPER CONDUCTOR LENGTH. FINAL EXOTHERMIC WELDS TO COPPER BUS BAR BY THE ANTENNA CABLE INSTALLER.
- EXOTHERMICALLY WELD BONDING CONDUCTOR TO COMMUNICATION STRUCTURE LEG AT 1'-0" ABOVE PAD AND BOND TO BURIED GROUND RING. PROVIDE A 3/4" PVC SLEEVE WITH A GRADUAL BEND IN THE CONCRETE FOUNDATION.
- 5/8"X10'-0" LONG COPPER CLAD GROUND ROD. 10' SPACING BETWEEN RODS (NON-LINEAR). TYPICAL FOR ALL GROUND RODS SHOWN. USE STAINLESS STEEL HARDWARE WHERE APPLICABLE.
- ELECTRICAL CONTRACTOR SHALL TAKE MEGGER READINGS OF GROUND. THE RESULTS SHALL NOT BE GREATER THAN 5 OHMS.
- ALL CONNECTIONS TO GROUND SYSTEM SHALL BE MADE IN LINE WITH BENDS NOMINAL 12" RADIUS IN THE DIRECTION OF CURRENT FLOW. T-CONNECTIONS WILL NOT BE ALLOWED.
- ALL BENDS IN GROUND WIRES SHALL BE NOMINAL 12" RADIUS.
- ANTENNA CABLES SHALL BE BONDED AT EACH END. RUNS GREATER THAN 150' SHALL BE BONDED TOWARDS MIDDLE OF LENGTH. COORDINATE LOCATION WITH WIRELESS PROJECT MANAGER.
- WHEN APPLICABLE, CONTRACTOR SHALL BOND FRAMES TO EACH OTHER & TO GROUND RING VIA TWO PATHS. COORD. WITH CPM.
- CONTRACTOR CAN PROVIDE ONE OF THE FOLLOWING AS DIRECTED BY PROJECT WIRELESS PROJECT MANAGER: THE SECOND OPTION IS PREFERRED.
 - CADWELD EACH CABINET GROUND WIRE TO GROUND RING AS SHOWN IN EQUIPMENT GROUNDING DETAIL.
 - CADWELD EACH WIRE TO A 1/4"X4"X12" MIN. COPPER BUS BAR LOCATED BEHIND RADIO CABINET. EXTEND A #2 WIRE FROM EACH END OF COPPER BUS BAR TO GROUND RING.
- PROVIDED BRAIDED BONDING JUMPERS BETWEEN EACH GATE AND POST.

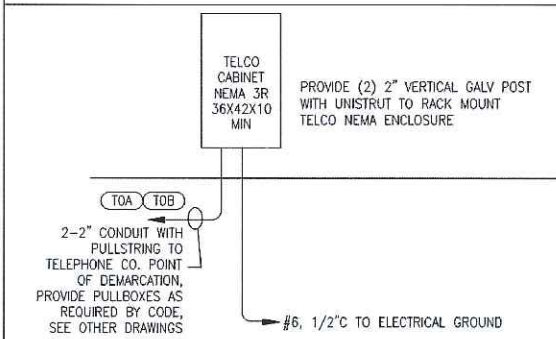


ELECTRICAL SERVICE RACK DETAIL

NTS

CONDUIT INSTALLATION NOTES:

- ALL CONDUIT RUNS AND EQUIPMENT LOCATIONS ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR TO FIELD COORDINATE WITH CPM BEFORE ANY EQUIPMENT INSTALLATION.
- CONTRACTOR SHALL PROVIDE TRAFFIC RATED, BROOKS SERIES 66, PULL BOXES WHERE REQUIRED.
- WHERE U.G. CONDUIT ROUTE IS UNDER SLAB CUT AND PATCH ASPHALT/CONCRETE AS REQUIRED, MATCH EXIST.
- WHERE NOTED ON DRAWINGS CONTRACTOR SHALL BOND GROUND RING TO PROPOSED TOWER GROUND RING AND FENCE/GATE GROUNDING, CADWELD CONNECTIONS WITH INSPECTION SLEEVE.



TELEPHONE RISER DIAGRAM (COMPOUND)

SYMBOLS

- ▼ CADWELD TYPE CONNECTION
- ⊞ 5/8" X10'-0" COPPERCLAD GRND. ROD W/INSP. SLEEVE
- 5/8" X10'-0" COPPERCLAD GRND. ROD
- MECHANICAL TYPE CONNECTION
- #2 TINNED SOLID BARE CU WIRE
- Ⓞ (CO1) CONDUIT TAG 1; REFER TO RISER
- Ⓞ (M-1.3) CONDUIT TAG 1; PANEL SCHEDULE
- ⊕ GENERATOR RECEPTACLE
- UNDER GROUND ELECTRIC CONDUIT
- UNDER GROUND TELCO CONDUIT

ABBREVIATIONS

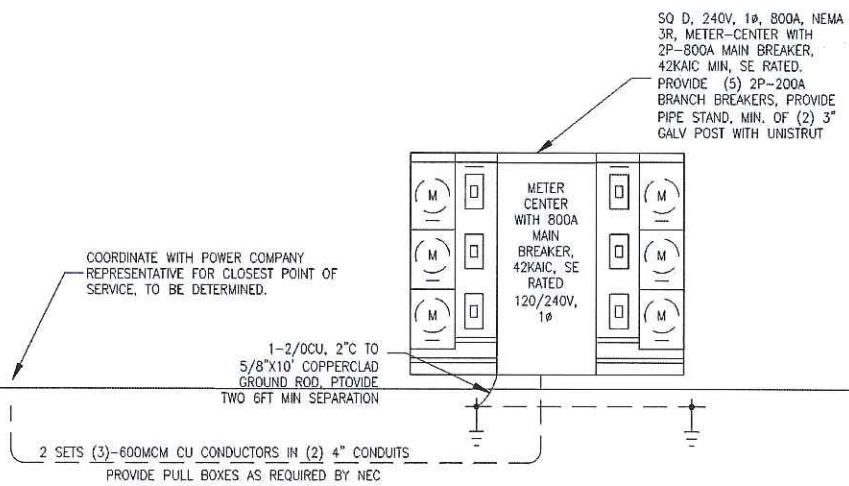
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|------|------------------------|------|------------------------------------|
| ANT | ANTENNA | EMT | ELECTRICAL METALLIC TUBING DRAWING |
| AWG | AMERICAN WIRE GAUGE | DWG | DRAWING |
| BCW | BARE COPPER WIRE | LPS. | LIGHTNING PROTECTION SYSTEM |
| RWY | RACEWAY | S.S. | STAINLESS STEEL |
| TYP. | TYPICAL | PNL | PANEL |
| RGS | RIGID GALVANIZED STEEL | CLF. | CURRENT LIMITING FUSE |
| | | CPM | CONST. PROJ. MANAGER |

240V LOAD CALCULATION

TOTAL LOADS	AMPS
PROPOSED TOWER CO LIGHTING EQUIPMENT	10
FUTURE WIRELESS CARRIER	80
FUTURE WIRELESS CARRIER	80
FUTURE WIRELESS CARRIER	80
FUTURE WIRELESS CARRIER	80
FUTURE WIRELESS CARRIER	80
TOTAL CARRIER LOAD	410

TOWER SERVICE: 1C/Ø, #6 CU, 65A
METERCENTER SERVICE: 2C/Ø, 500MCM CU, 760A

SERVICE VOLTAGE DROP LESS THAN 2% PER FBC & NEC



ELECTRICAL RISER DIAGRAM



SONIC - TC04

SITE ADDRESS:

2551 Jenkins Road
Fort Pierce, FL 34947
St. Lucie County

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PREPARED BY:

Claudette Sabol

DATE 10/30/2015

PAGE

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DESCRIPTION

ELECTRICAL RISER DIAGRAM



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DATE **10/30/2015**

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DESCRIPTION

ELECTRICAL SITE PLAN

