

Memorandum Department of Planning & Public Works



To: Planning and Public Works Committee
From: Anissa McCaskill-Clay, Lead Senior Planner
Date: June 7, 2010
RE: T.S.P. 23-2010 Excell Communications (724 Straub Road)– EXEMPTION FROM PUBLIC HEARING REQUEST: A request to obtain approval for a Telecommunication Siting Permit for the purpose of removing existing antennas, replacing with new antennas of the same number and size; and the addition of a new cabinet to the equipment compound at an existing monopole telecommunications tower on a 4.447 acre tract of land zoned “NU” Non-Urban at 724 Straub Road. (20R110111)

Summary

Excell Communications, on behalf of T-Mobile, is requesting exemption from the requirement for a public hearing to obtain a Telecommunications Siting Permit. Applicants may seek exemption from the requirements of City of Chesterfield Ordinance 2391 by submitting a written statement to City Council.



Aerial of site

The existing telecommunications tower is a monopole structure which was approved administratively by the City of Chesterfield on November 15, 2000 under the conditions of City of Chesterfield Ordinance 1214. There are currently

four (4) approved carriers on the 140 ft. monopole tower at 724 Straub Road. T-Mobile's antennas are located at 117 ft elevation on the pole and their request is to:

1. Remove three (3) existing antennas and replace them with three (3) new antennas of similar dimension.
2. Add a Node B Flexi cabinet to the existing equipment yard for the site.

Attached please find the Petitioner's written statement and materials submitted in support of their application.

Respectfully submitted,



Annissa McCaskill-Clay, AICP
Lead Senior Planner

Cc: Michael G. Herring, City Administrator
Rob Heggie, City Attorney
Michael O. Geisel, Director of Planning and Public Works



April 30, 2010

Annissa McCaskill-Clay, Alep
Lead Senior Planner
City of Chesterfield
690 Chesterfield Parkway
Chesterfield, MO 63017-0760



Re: Exemption Request for T-Mobile Telecommunications Application for UMTS overlay at existing site on 722 Straub Rd. (Submitted 4/14/10)

Dear Ms. McCaskill-Clay:

I represent T-Mobile Central LLC, a wholly-owned subsidiary of T-Mobile USA, Inc. (collectively, "T-Mobile"). Currently, the above referenced Telecommunication Facility Application is pending schedule for a public hearing before the Chesterfield Planning Commission. T-Mobile respectfully requests exemptions for the public hearing requirement for this application pursuant to § 30-27 of the City's Ordinances. Please place this exemption request on the agenda for City Council, Planning and Public Works Committee.

As detailed in the application materials, T-Mobile's equipment upgrade involves exchanging antennas and using existing coaxial cables. Following the completion of the project, the site will have the same number of antennas and coaxial cables as before. The only addition to the tower site will be an unobtrusive equipment cabinet that consists of four modules (height, width, and depth of 5.2 inches by 17 inches by 22 inches) placed on a pole. Attached is a photograph that shows the mounted equipment cabinet.

T-Mobile respectfully suggests that the equipment upgrade project that is the subject of this application does not constitute a "material modification" as defined in § 30-3 of the Ordinances because the changes would not "materially affect the obvious physical appearance of the facility." Since the addition of this equipment cabinet at the base of the towers is visually inconsequential, and the tower apparatus (antenna & coax) will be visibly the same as it is now. Further evidence of this assertion is the fact that site is in an existing fenced in compound. T-Mobile is performing this equipment upgrade to its sites throughout the country, and other jurisdictions are treating this change as ordinary maintenance.

In an effort to allay any concerns the City might have and fully document the unobtrusive nature of the changes, T-Mobile has gone through the facility permit application

*1033 Corporate Square Drive • St. Louis, MO 63132 • Office: (314)292-6916
www.excellcommunications.com*



procedures for seven sites just last year. T-Mobile presented three of these sites at a public hearing before the Chesterfield Planning Commission. T-Mobile incurred thousands of dollars in mailing expenses for this hearing. No members of the public attended the Planning Commission hearing, which is not surprising since this project does not involve the construction of a new tower or a material change in appearance of an existing one. The remaining four of these seven from last year were found to be exempt to this per a request similar to this one.

T-Mobile requests exemption from the public hearing requirement as is expressly authorized by § 30-27. The mailing expenses for the public hearings would cost thousands of dollars. Allowing T-Mobile to dispense with the public hearing requirement for this site will have "no significant affect on the health, safety and welfare of the city, its residents and other service providers."

Thank you for your consideration.

Sincerely,



Larry Coyle
Project Manager

T Mobile

SITE NAME & ADDRESS

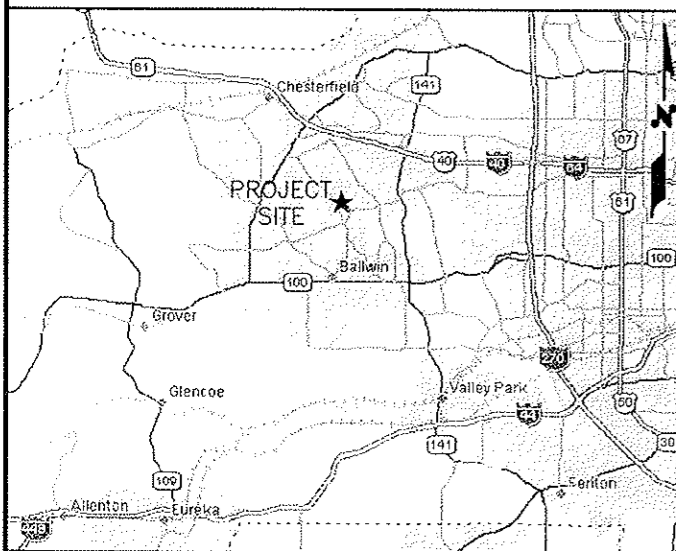
CROWN CASTLE COLO
722 STRAUB ROAD
CHESTERFIELD, MO 63017

CROWN BUN: 817468
CROWN SITE NAME: WEST COUNTY

APR 14 2010



Know what's below.
Call before you dig.



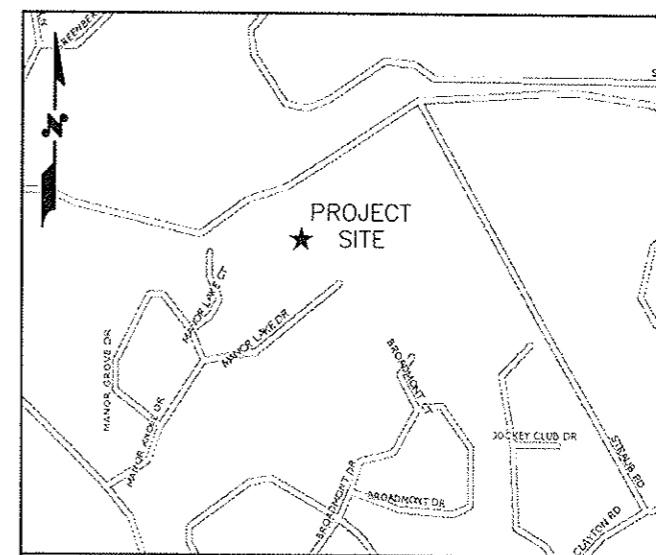
AREA MAP

SITE NUMBER
MO06038F

NEW INSTALLATION
OF NODE B FLEXI
EQUIPMENT &
ANTENNA CHANGE
ON

CO-LOCATE

MONOPOLE



LOCATION MAP

DIRECTIONS TO SITE: FROM PAGE AVENUE WEST TO 270 SOUTH TO 40 WEST TO HWY 141 SOUTH TO THE CLAYTON WEST EXIT. GO WEST (RIGHT) ON CLAYTON RD FOR 1.2 MILES AND TAKE A RIGHT ON STRAUB RD. SITE IS ON YOUR LEFT AT THE END OF STRAUB RD. ACCESS TO SITE IS A SHARED GRAVEL DRIVEWAY ON THE SOUTH SIDE OF THE HOUSE ON THE NORTHERN MOST PROPERTY OF STRAUB ROAD (ON THE LEFT).

PROJECT CONTACTS

LESSEE

T-MOBILE
555 N. NEW BALLAS RD, SUITE 350
ST. LOUIS, MO 63141

PROPERTY OWNER

NAME: CCIC
1001 CRAIG ROAD
ST LOUIS, MO 63146-6214
CONTACT: PETE FAULHABER
PHONE: (314) 432-3158

DRAWINGS BY

EXCELL COMMUNICATIONS, INC
6247 AMBER HILLS ROAD
BIRMINGHAM, AL 35173
PHONE: (205) 956-0198

CONTACT: MIKE WOODS
E-MAIL: mwoods@excellcommunications.com
PHONE: (205) 956-0198 EXT 233

APPLICABLE BUILDING CODES AND STANDARDS

CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.

CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222, REVISION CURRENTLY ENFORCED STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES

TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS

INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM

IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT

IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")

ANSI T1.311, FOR TELECOM - DC POWER SYSTEMS - TELECOM, ENVIRONMENTAL PROTECTION

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

T Mobile
555 N. NEW BALLAS RD
SUITE #350
ST. LOUIS, MO 63141

APPROVALS
CARRIER _____
LANDLORD _____
LEASING _____
CONSTRUCTION _____

PROJECT NO: _____

DRAWN BY: MDA

CHECKED BY: JAL

APPROVED BY: JMW

REV	DATE	DESCRIPTION
1	03/19/10	ISSUED FOR CONST.
0	03/12/10	ISSUED FOR REVIEW

PROFESSIONAL ENGINEER
STATE OF MISSOURI
JAMES MICHAEL WOODS
NUMBER
PE-2002019617
3/19/10



EXCELL COMMUNICATIONS, INC.
6247 AMBER HILLS ROAD
BIRMINGHAM, ALABAMA 35173
PHONE: 205.956.0198
FAX: 205.956.2632

SITE NAME
CROWN CASTLE COLO
SITE# MO06038F

SITE ADDRESS
722 STRAUB ROAD
CHESTERFIELD, MO 63017

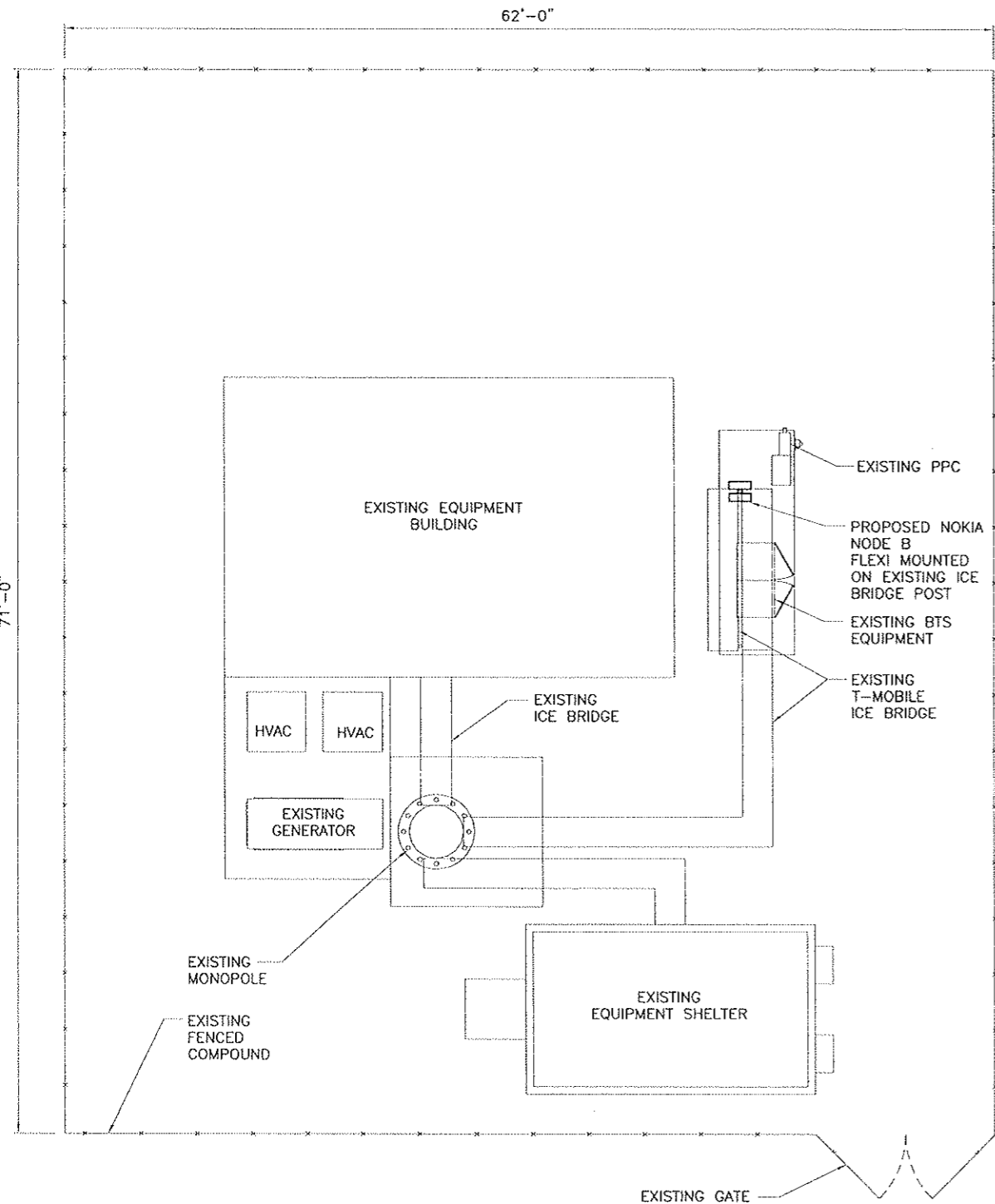
SHEET TITLE
TITLE SHEET

SHEET NUMBER
01

DRAWING INDEX

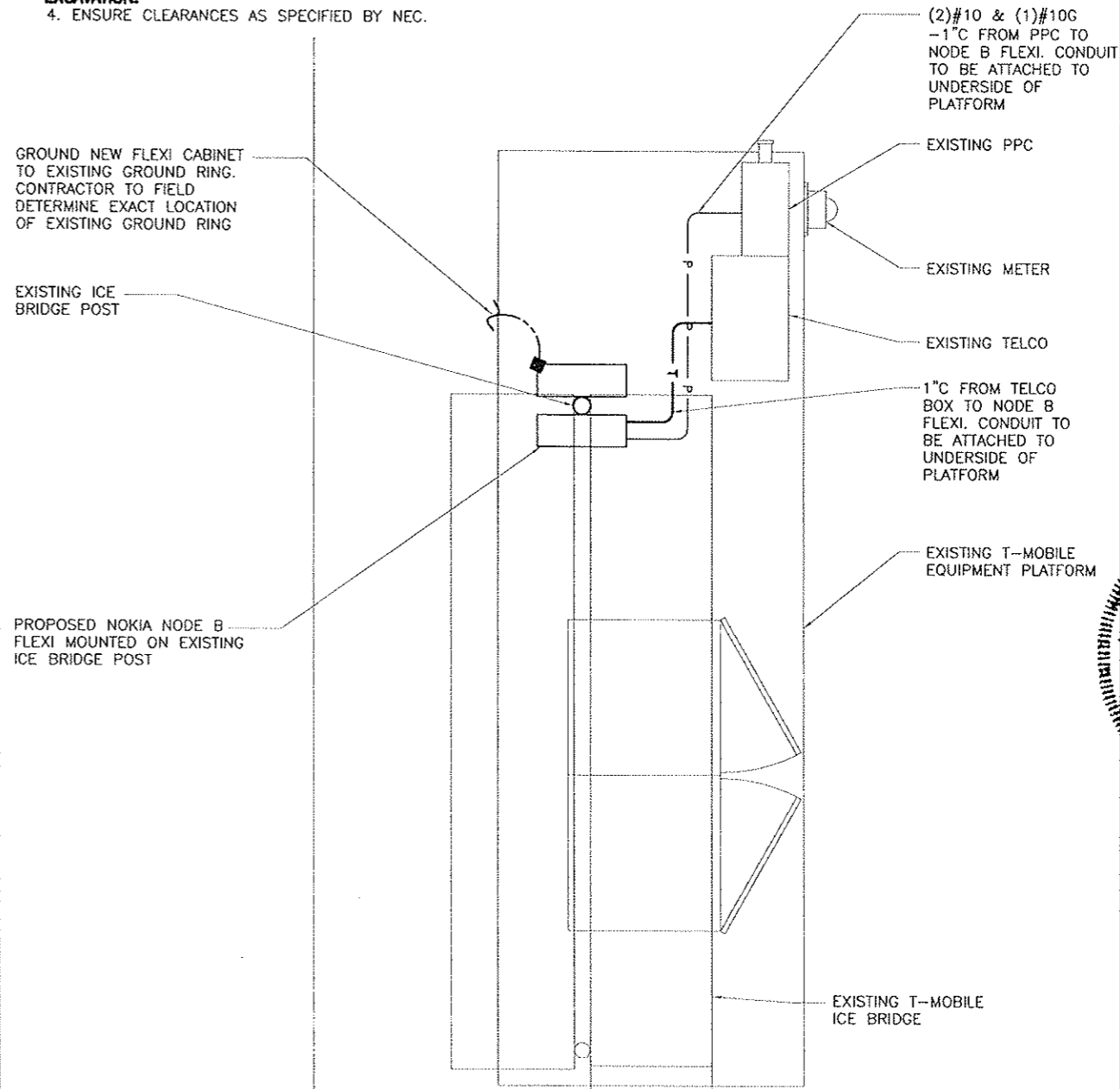
DRAWING NO.	DESCRIPTION
01	TITLE SHEET
02	SITE PLAN
03	TOWER ELEVATION & RF DATA
04	SINGLE LINE & DETAILS

TOWER DATA (NAD 83)
TOWER TYPE: MONOPOLE
TOWER HEIGHT: 140'-0"
LATITUDE: 38.62309722° NORTH
LONGITUDE: 90.5403° WEST



SITE PLAN
 22x34 SCALE: 3/16"=1'-0"
 11x17 SCALE: 3/32"=1'-0"

- NOTES:
1. CONTRACTOR TO INSURE THAT NO CONFLICTS OCCUR IN THE FIELD WITH THE T-MOBILE INSTALLED NODE B FLEXI EQUIPMENT. ANY CONFLICTS SHOULD BE REPORTED TO THE ENGINEER OF RECORD IMMEDIATELY, PRIOR TO FINAL PLACEMENT.
 2. POWER/TELCO ROUTINGS SHOWN ARE FOR GRAPHICAL REPRESENTATION ONLY. CONTRACTOR TO FIELD ROUTE TO INSURE NO TRIPPING HAZARDS AND NO CONFLICTS WITH EXISTING EQUIPMENT.
 3. UNLESS OTHERWISE NOTED ALL CONDUIT TO BE BURIED PER DETAIL ON SHEET 04. **CALL 811 BEFORE ANY EXCAVATION.**
 4. ENSURE CLEARANCES AS SPECIFIED BY NEC.



NODE B FLEXI MOUNTING PLAN
 NTS

ELECTRICAL/GROUNDING LEGEND	
— T —	TELCO WIRING
— P —	POWER WIRING
— G —	GROUND WIRING
⊙	CADWELD
⊠	LUG CONNECTION

THIS PLAN IS BASED ON A SITWALK BY EXCELL COMMUNICATIONS INC. DATED 02/01/10. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

T-Mobile
 555 N. NEW BALLAS RD
 SUITE #350
 ST. LOUIS, MO 63141

APPROVALS
 CARRIER _____
 LANDLORD _____
 LEASING _____
 CONSTRUCTION _____

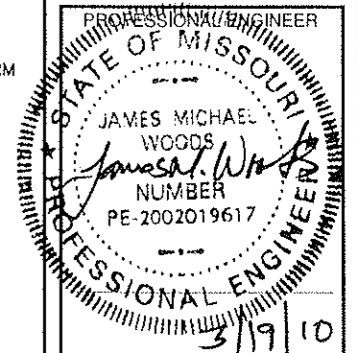
PROJECT NO: _____

DRAWN BY: MDA

CHECKED BY: JAL

APPROVED BY: JMW

REV	DATE	DESCRIPTION
1	03/19/10	ISSUED FOR CONST.
0	03/12/10	ISSUED FOR REVIEW



EXCELL COMMUNICATIONS, INC.
 6247 AMBER HILLS ROAD
 BIRMINGHAM, ALABAMA 35173
 PHONE: 205.956.0198
 FAX: 205.956.2632

SITE NAME
CROWN CASTLE COLO
 SITE# MO06038F

SITE ADDRESS
 722 STRAUB ROAD
 CHESTERFIELD, MO 63017

SHEET TITLE
SITE PLAN

SHEET NUMBER
02

T Mobile

555 N. NEW BALLAS RD
SUITE #350
ST. LOUIS, MO 63141

APPROVALS

CARRIER _____
LANDLORD _____
LEASING _____
CONSTRUCTION _____

PROJECT NO: _____

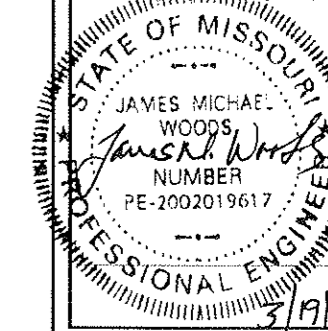
DRAWN BY: MDA

CHECKED BY: JAL

APPROVED BY: JMW

REV	DATE	DESCRIPTION
1	03/19/10	ISSUED FOR CONST.
0	03/12/10	ISSUED FOR REVIEW

PROFESSIONAL ENGINEER



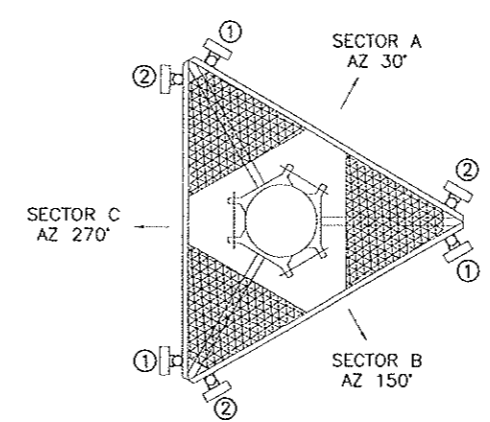
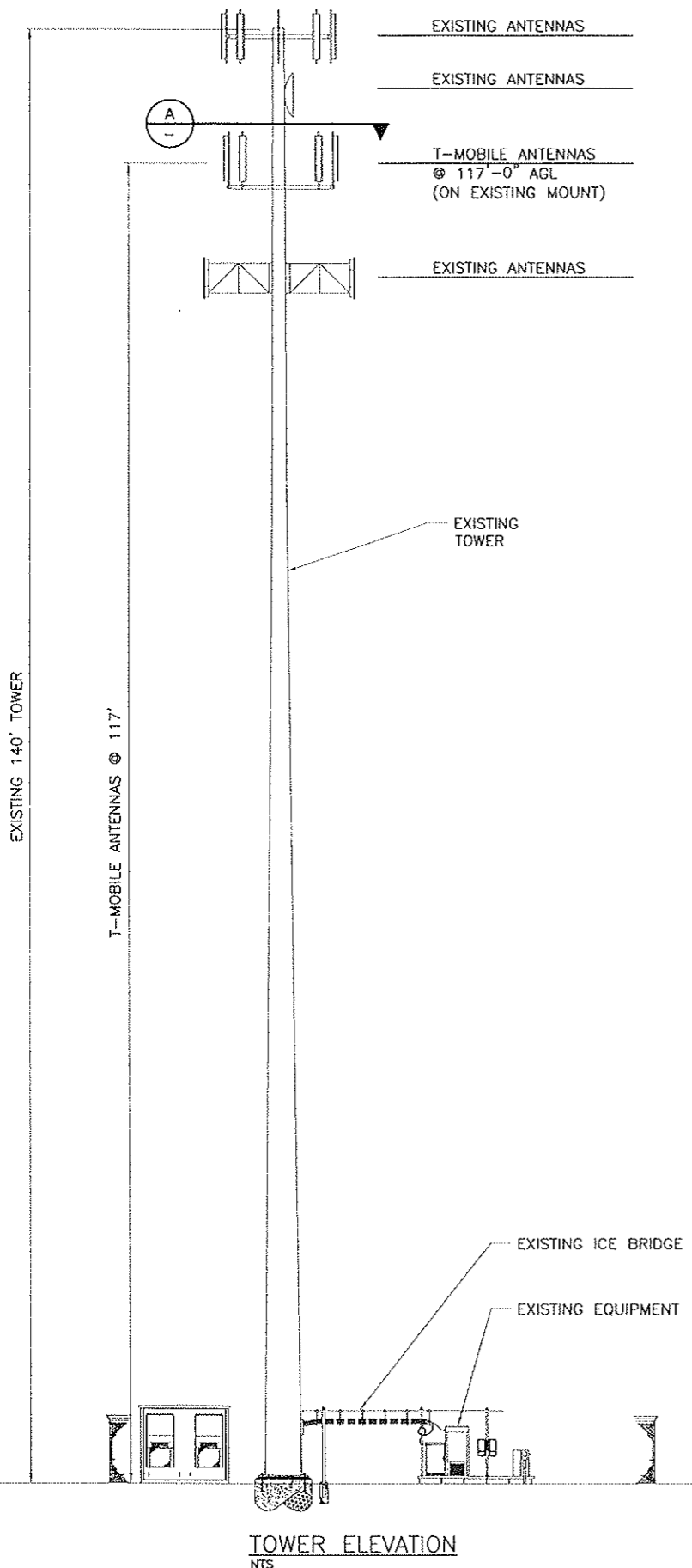
EXCELL COMMUNICATIONS, INC.
6247 AMBER HILLS ROAD
BIRMINGHAM, ALABAMA 35173
PHONE: 205.956.0198
FAX: 205.956.2632

SITE NAME
CROWN CASTLE COLO
SITE# MO06038F

SITE ADDRESS
722 STRAUB ROAD
CHESTERFIELD, MO 63017

SHEET TITLE
TOWER
ELEVATION &
PLAN

SHEET NUMBER
03



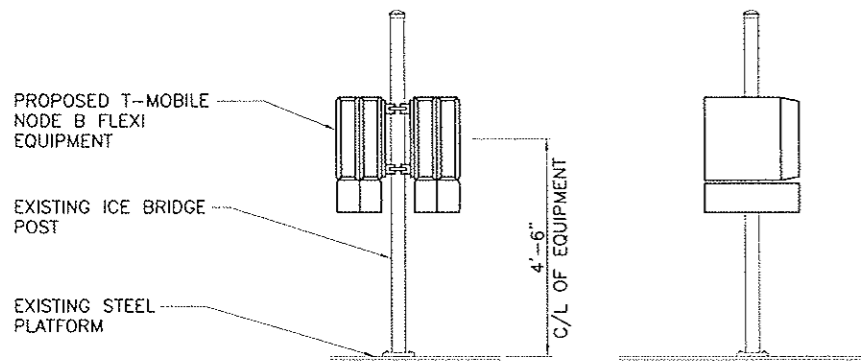
- ① EXISTING ANTENNA TO REMAIN
- ② EXISTING ANTENNA TO BE CHANGED TO NEW UMTS ANTENNA

NOTES:

1. ANTENNA ORIENTATION IS CLOCKWISE FROM TRUE NORTH.
2. MOUNT SHOWN FOR REFERENCE PURPOSE ONLY.
3. CONTRACTOR TO COORDINATE WITH T-MOBILE FOR MOST RECENT RF DESIGN. NOTIFY ENGINEER IF CONFLICT EXISTS.

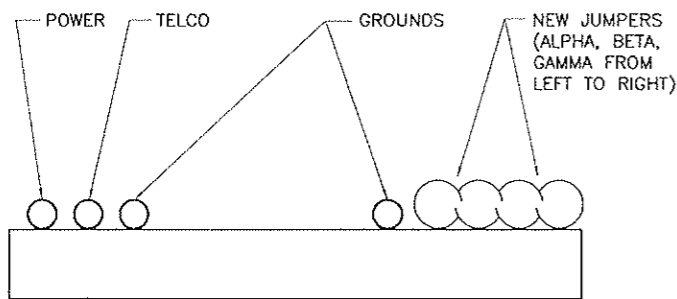


ANTENNAS TO BE ADDED	0
ANTENNAS TO BE CHANGED	3
ANTENNAS TO BE REMOVED	0
TOTAL ANTENNAS ON TWR	6
COAX TO BE ADDED	0
COAX TO BE CHANGED	0
COAX TO BE REMOVED	0
TOTAL COAX ON TWR	12
TMA's TO BE ADDED	0
TMA's TO BE CHANGED	6
TMA's TO BE REMOVED	0
TOTAL TMA's ON TWR	6
MOUNTS TO BE ADDED	0



(CONTRACTOR SHALL FURNISH AND INSTALL ALL MOUNTS & HARDWARE)

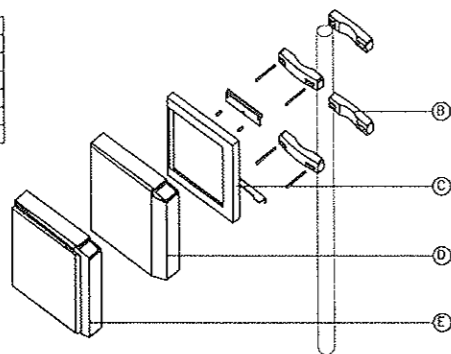
NODE B FLEXI MOUNTING ELEVATION
NTS



FRONT OF NODE B FLEXI

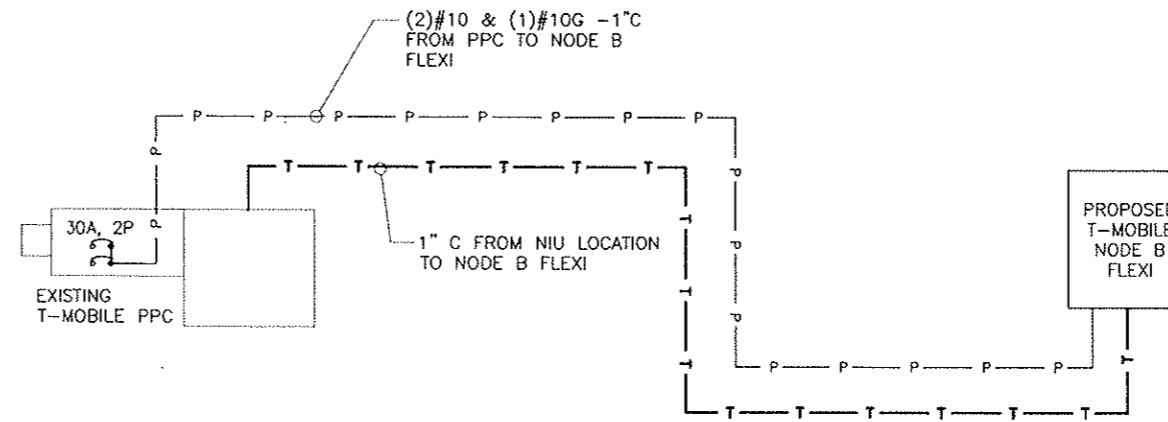
NODE B POLE CONDUIT & JUMPER LAYOUT
NTS

BILL OF MATERIALS		
QTY.	IDX.	DESCRIPTION
-	-	N/A
1	B	NOKIA POLE MOUNTING KIT
1	C	NOKIA PLINTH
1	D	INNER SLEEVE
1	E	OUTER SLEEVE



(CONTRACTOR SHALL FURNISH AND INSTALL ALL MOUNTING HARDWARE)

NODE B FLEXI MOUNT ASSEMBLY
NTS



SINGLE LINE DIAGRAM
NTS

NODE B FLEXI CONNECTION NOTES:

1" POWER CONDUIT TO BE ROUTED FROM EXISTING PPC TO NEW NODE B FLEXI LOCATION AND SUPPORTED BY UNISTRUT AT NODE B FLEXI LOCATION POST, 6" ABOVE PAD OR GRADE.

1" TELCO CONDUIT WITH PULL STRING TO BE ROUTED FROM EXISTING PPC TO NEW NODE B FLEXI LOCATION AND SUPPORTED BY UNISTRUT AT NODE B FLEXI LOCATION POST, 6" ABOVE PAD OR GRADE.

A. PAD MOUNTED POST LOCATION

1. 1" PVC CONDUIT IF DISTANCE IS GREATER THAN 2 FEET FROM THE BTS ANCHORED 12" O.C. MAXIMUM TO CONCRETE PAD WITH APPROPRIATE CLIPS. TRANSITION TO LIQUIDTITE TYPE NM CONDUIT TO FLEXI NODE B TO STUB UP.

2. 1" LIQUIDTITE FLEXIBLE METALLIC CONDUIT IS PERMITTED IF DISTANCE IS LESS THAN 2 FEET FROM THE BTS ANCHORED 12" O.C. MAXIMUM TO CONCRETE PAD WITH APPROPRIATE CLIPS.

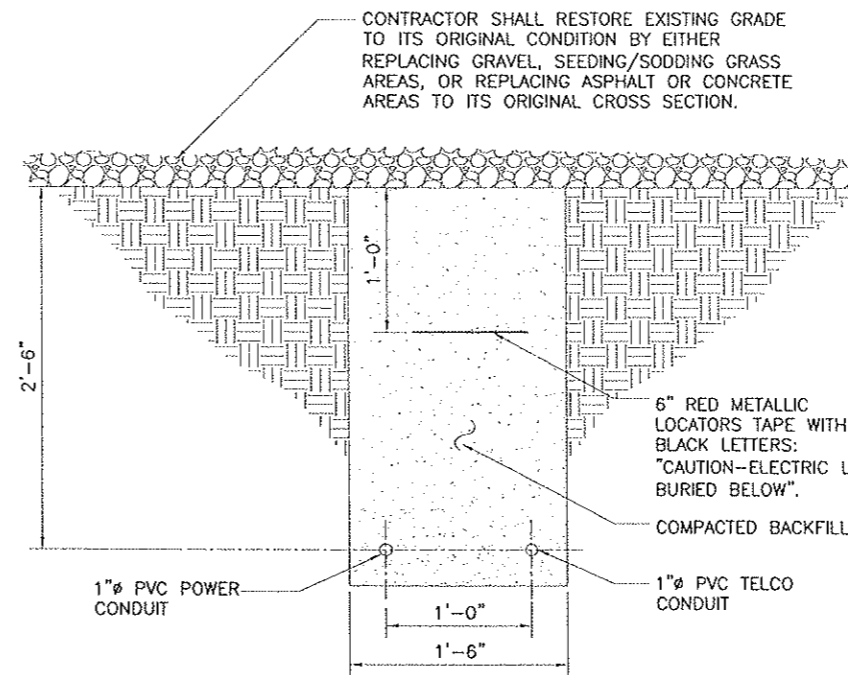
3. ALL SURFACE MOUNTED PVC CONDUIT SHALL BE UV RESISTANT RATED.

B. DIRECT BURIED POST LOCATION

1. 1" PVC OR RGS CONDUIT RUN BETWEEN BTS AND NODE B FLEXI LOCATION MUST MEET BURIAL REQUIREMENTS OF BOTH NEC & T-MOBILE SPECIFICATIONS. TRANSITION TO LIQUIDTITE TYPE NM CONDUIT TO NODE B FLEXI FROM STUB UP.

C. GROUNDING

(2) #2 TINNED SOLID GROUND LEADS CADWELDED TO EXISTING GROUND RING, SLEEVED IN 1/2" PVC SEAL TIGHT CONDUIT WITH THE ABOVE GRADE END BEING SEALED WITH SILICONE CAULK. NEW 1/2" LIQUIDTITE CONDUIT MUST SPAN FROM 24" BELOW GRADE TO WITHIN 6" OF TERMINATION. GROUNDS ARE TO BE SECURED WITH NON-METALLIC HANGERS. DO NOT SURROUND GROUND LEADS 360° WITH METAL TO PREVENT A RF CHOKE. USE ZIP-TIES (BLACK UV RATED) OR USE NYLON CONDUIT HANGERS.



TRENCH DETAIL
NTS

T1 CABLE PROVIDED BY CONTRACTOR

T-Mobile
555 N. NEW BALLAS RD
SUITE #350
ST. LOUIS, MO 63141

APPROVALS

CARRIER _____
LANDLORD _____
LEASING _____
CONSTRUCTION _____

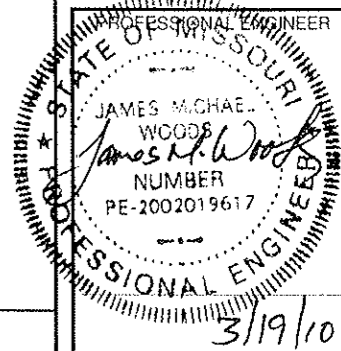
PROJECT NO: _____

DRAWN BY: MDA

CHECKED BY: JAL

APPROVED BY: JMW

REV	DATE	DESCRIPTION
1	03/19/10	ISSUED FOR CONST.
0	03/12/10	ISSUED FOR REVIEW



EXCELL COMMUNICATIONS, INC.
6247 AMBER HILLS ROAD
BIRMINGHAM, ALABAMA 35173
PHONE: 205.956.0198
FAX: 205.956.2632

SITE NAME
CROWN CASTLE COLO
SITE# MO06038F

SITE ADDRESS
722 STRAUB ROAD
CHESTERFIELD, MO 63017

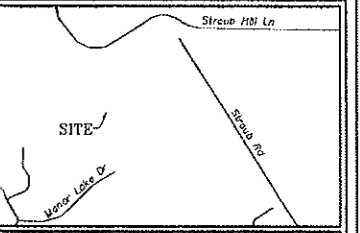
SHEET TITLE
SINGLE LINE
& DETAILS

SHEET NUMBER
04

CROWN CASTLE COLO // M006038F
 PART OF LOT 9 OF BAXTER ESTATE PARTITION,
 U.S. SURVEY 2011, T. 45 N, R. 4 E,
 IN ST. LOUIS COUNTY, MISSOURI

EXISTING CELL TOWER DATA
 Grid Coordinate
 N 309593.200m
 E 246490.430m
 Center of Tower
 Lat 38°37'23.13" North
 Long 90°32'25.09" West
 Ground Elevation = 638ft
 Top of Antenna #1 = 730ft
 Top of Antenna #2 = 744ft
 Top of Antenna #3 = 755ft
 Top of Antenna #4 = 761ft
 Top of Tower = 768ft

LEGEND	
POWER POLE	⊙ PP
TELEPHONE PEDESTAL	⊙ Tel. Ped.
ANCHOR	⊙ AN
FIRE HYDRANT	⊙ FH
AC UNIT	⊙ A/C
BENCHMARK	⊙ BM
CONTROL POINT	⊙ CP
GATE POST	⊙ GP
GROUND WIRE	⊙ GW
PROPERTY CORNER	⊙ PC
TOWER POINT	⊙ TP
TALE LINE	⊙ TL
FEENCE	⊙ F
OVERHEAD POWER LINE	⊙ OPL
UNDERGROUND TELEPHONE LINE	⊙ UTL

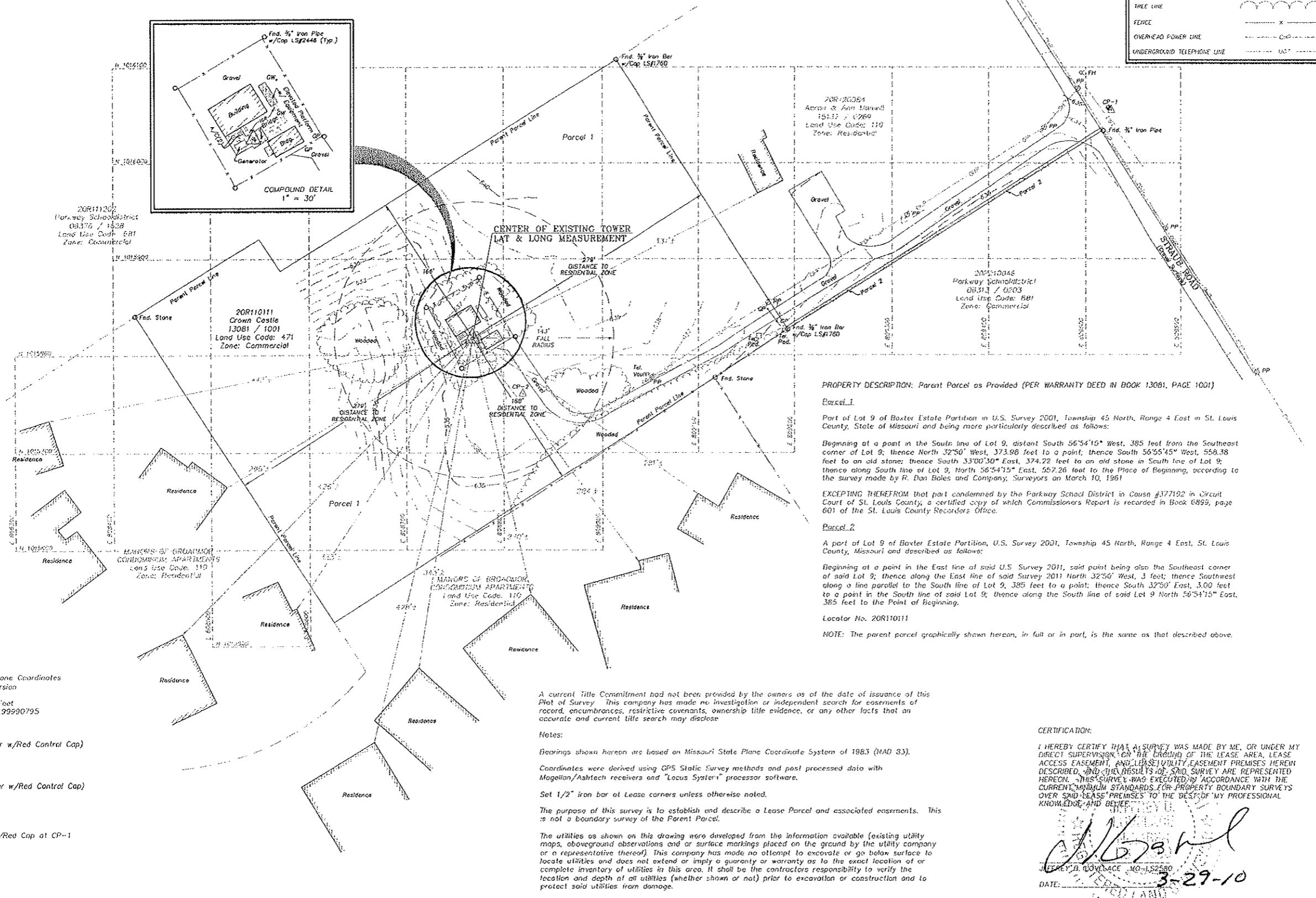


LA	LOVELACE & ASSOCIATES Land Surveying - Land Planning Telecommunications Surveys 929 SE 3rd Street, 1st Floor, Summit, Missouri 64063 Phone: (816) 347-9997 Fax: (816) 347-9979
-----------	---

SURVEY COORDINATED BY:
 LOVELACE AND ASSOCIATES, LLC
 P.O. BOX 68,
 LEE'S SUMMIT, MO 64063
 TELEPHONE: 816-347-9997
 FAX: 816-347-9979

SURVEY PROVIDED BY:
 LOVELACE AND ASSOCIATES, LLC
 P.O. BOX 68,
 LEE'S SUMMIT, MO 64063
 TELEPHONE: 816-347-9997
 FAX: 816-347-9979

SURVEY PROVIDED FOR:
 EXCELL COMMUNICATIONS, INC.
 1033 CORPORATE SQUARE DRIVE, SUITE 116
 ST. LOUIS, MO 63132
 TELEPHONE: 314-292-6919
 www.excellcommunications.com



PROPERTY DESCRIPTION: Parent Parcel as Provided (PER WARRANTY DEED IN BOOK 13081, PAGE 1001)

Parcel 1:
 Part of Lot 9 of Baxter Estate Partition in U.S. Survey 2001, Township 45 North, Range 4 East in St. Louis County, State of Missouri and being more particularly described as follows:

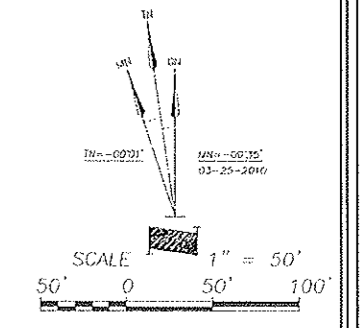
Beginning at a point in the South line of Lot 9, distant South 56°54'15" West, 385 feet from the Southeast corner of Lot 9; thence North 32°50' West, 373.98 feet to a point; thence South 56°55'45" West, 558.38 feet to an old stone; thence South 33°00'30" East, 374.22 feet to an old stone in South line of Lot 9; thence along South line of Lot 9, North 56°54'15" East, 557.26 feet to the Place of Beginning, according to the survey made by R. Dan Boles and Company, Surveyors on March 10, 1961

EXCEPTING THEREFROM that part condemned by the Parkway School District in Cause #377192 in Circuit Court of St. Louis County; a certified copy of which Commissioners Report is recorded in Book 6899, page 601 of the St. Louis County Records Office.

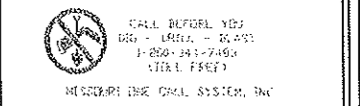
Parcel 2:
 A part of Lot 9 of Baxter Estate Partition, U.S. Survey 2001, Township 45 North, Range 4 East, St. Louis County, Missouri and described as follows:

Beginning at a point in the East line of said U.S. Survey 2011, said point being also the Southeast corner of said Lot 9; thence along the East line of said Survey 2011 North 32°50' West, 3 feet; thence Southwest along a line parallel to the South line of Lot 9, 385 feet to a point; thence South 32°50' East, 3.00 feet to a point in the South line of said Lot 9; thence along the South line of said Lot 9 North 56°54'15" East, 385 feet to the Point of Beginning.

Locator No. 20R110111
 NOTE: The parent parcel graphically shown hereon, in full or in part, is the same as that described above.



FLOOD NOTE:
 According to my interpretations of Community Panel No. 291850256H of the Flood Insurance Rate Map for St. Louis County, Missouri, dated August 2, 1995, the subject property is in Flood Zone "X", i.e. "areas determined to be outside 500 year flood plain".



SITE I.D.: M006038F
SITE NAME: CROWN CASTLE COLO
SITE LOCATION: 722 STRAUB ROAD, CHESTERFIELD, MO 63017
LA PROJECT NO.: 10047
DRAWN BY: A.C.T.
CHECKED BY: J.B.L.
DATE: 03-25-10
FIELDWORK DATE: 03-24-10
SHEET NUMBER 1 OF 1

Note: Missouri State Plane Coordinates East (2491) Zone Conversion
 1 Meter = 3.28083333 Feet
 Project Grid Factor = 0.99990795
 Project Coordinates:
 CP-1 (Set 1/2" Iron Bar w/Red Control Cap)
 N 1016055.037
 E 809426.583
 Elevation = 636.65ft
 CP-2 (Set 1/2" Iron Bar w/Red Control Cap)
 N 1015760.504
 E 808819.221
 Elevation = 637.33ft
 BENCH MARK
 Top of 1/2" Iron Bar w/Red Cap at CP-1
 Elevation = 636.65ft

A current Title Commitment had not been provided by the owners as of the date of issuance of this Plot of Survey. This company has made no investigation or independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence, or any other facts that an accurate and current title search may disclose.

Notes:
 Bearings shown hereon are based on Missouri State Plane Coordinate System of 1983 (MAD 83).
 Coordinates were derived using GPS Static Survey methods and post processed data with Magellan/Ashtech receivers and "Locus System" processor software.
 Set 1/2" iron bar at Lease corners unless otherwise noted.
 The purpose of this survey is to establish and describe a Lease Parcel and associated easements. This is not a boundary survey of the Parent Parcel.
 The utilities as shown on this drawing were developed from the information available (existing utility maps, aboveground observations and/or surface markings placed on the ground by the utility company or a representative thereof). This company has made no attempt to excavate or go below surface to locate utilities and does not extend or imply a guaranty or warranty as to the exact location or of complete inventory of utilities in this area. It shall be the contractors responsibility to verify the location and depth of all utilities (whether shown or not) prior to excavation or construction and to protect said utilities from damage.

CERTIFICATION:
 I HEREBY CERTIFY THAT A SURVEY WAS MADE BY ME, OR UNDER MY DIRECT SUPERVISION, ON THE GROUND OF THE LEASE AREA, LEASE ACCESS EASEMENT, AND LEASE UTILITY EASEMENT PREMISES HEREIN DESCRIBED, AND THE RESULTS OF SAID SURVEY ARE REPRESENTED HEREON. THIS SURVEY WAS EXECUTED IN ACCORDANCE WITH THE CURRENT MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS OVER SAID LEASE PREMISES TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

[Signature]
 JEFFREY B. LOVELACE, M.S., L.S. 2550
 DATE: 3-29-10
 03-29-10: ADDED DISTANCE TIES