

Memorandum Department of Planning and Public Works



To: Planning and Public Works Committee

From: Kristian Corbin, Project Planner

Date: December 8, 2011

Re: T.S.P. 38-2011 AT&T (17259 Wild Horse Creek Road): A request to obtain approval for a Telecommunication Facility Siting Permit for a collocation of additional antennas and equipment on an existing stealth tower in a "NU" Non-Urban District-zoned property located at 17259 Wild Horse Creek Road approximately 550 feet east of the intersection of Wild Horse Creek Road and Long Road (18U420104).

Summary

AT&T has requested an amendment to a telecommunication siting permit to allow for the location of upgraded antennas to facilitate 4G LTE data service on a stealth tower located approximately 550 feet east of the intersection of Wild Horse Creek Road and Long Road (18U420104).

City of Chesterfield Ordinance 2391, which governs telecommunications and facilities siting, requires that the Planning Commission provide a venue for public hearing for Telecommunications Siting Permits. Please note, the Planning Commission does not provide a recommendation to the City Council, but rather generates a list of issues during the hearing. At the public hearing on October 24, 2011, there were no issues identified with this request.

Attached are copies of the site plan, elevations, boundary plat, and propagation study.

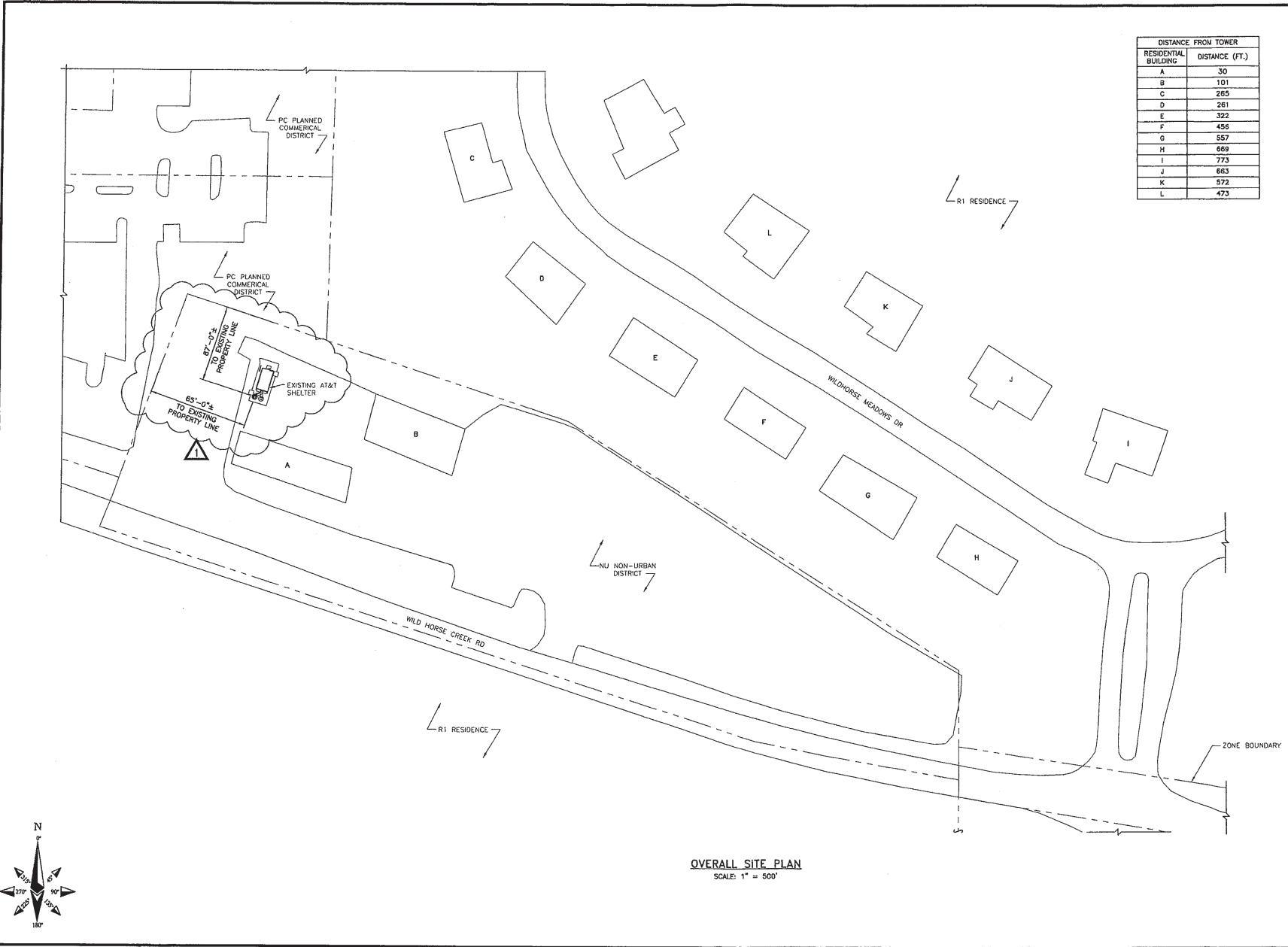
Respectfully Submitted,

Kristian Corbin
Project Planner

TSP 38-2011 AT&T (17259 Wild Horse Creek Road)
Planning and Public Works Committee
December 8, 2011

CC: Michael G. Herring, City Administrator
Rob Heggie, City Attorney
Michael O. Geisel, Director of Planning & Public Works
Aimee Nassif, Planning & Development Services Director

Attachments: AT&T 4G LTE Upgrade Packet



DISTANCE FROM TOWER	
RESIDENTIAL BUILDING	DISTANCE (FT.)
A	30
B	101
C	265
D	261
E	322
F	456
G	557
H	669
I	773
J	663
K	572
L	473



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131

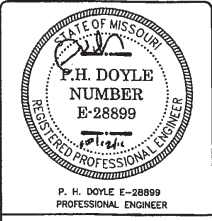


10850 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001646

PROJECT NO:	169886
DRAWN BY:	AK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
1	10/12/11	MISC REVISIONS
0	9/16/11	ISSUED FOR ZONING



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

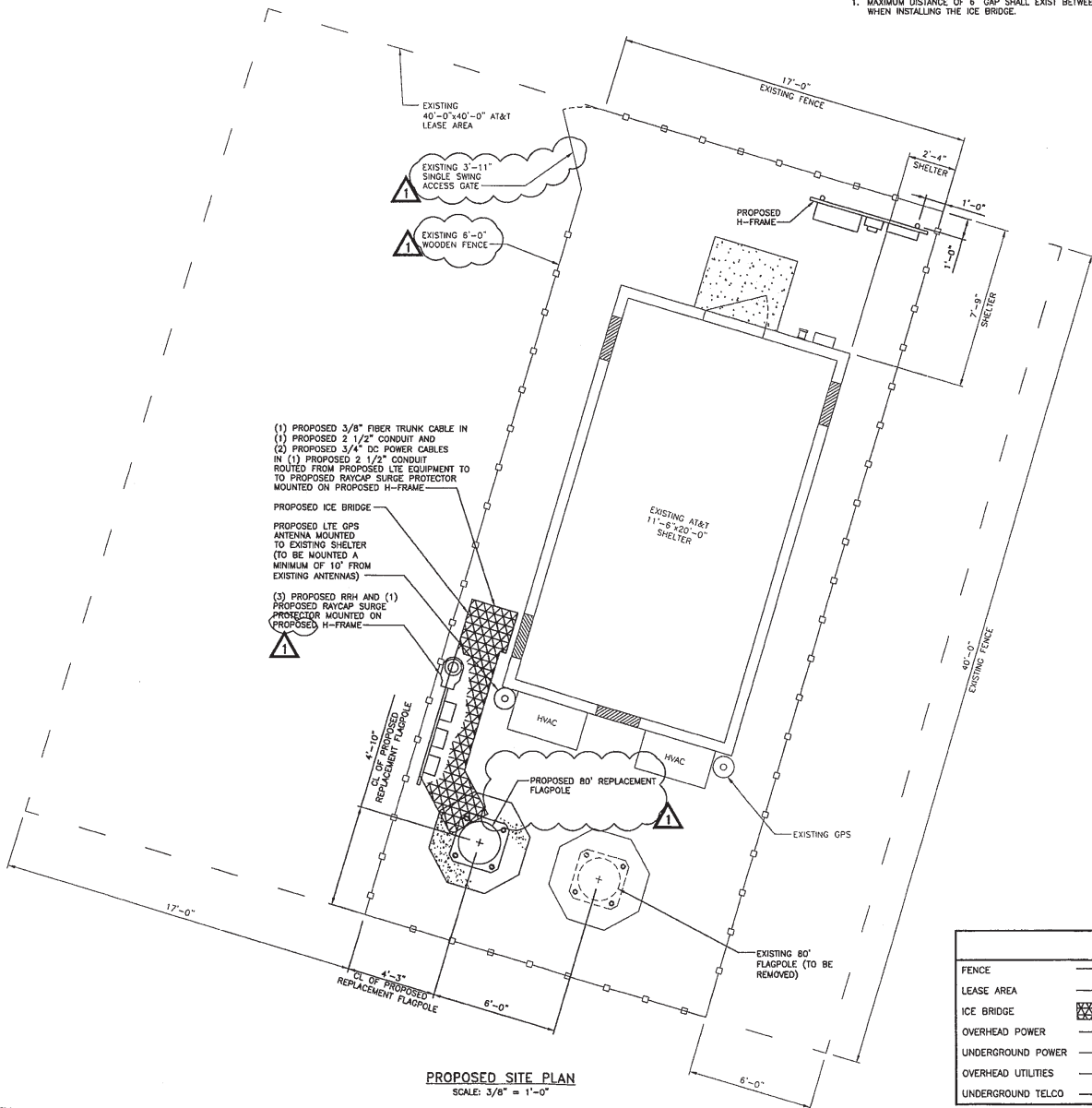
MO3508
BAXTER GARDENS
17259 WILD HORSE CREEK ROAD
CHESTERFIELD, MO 63005
LTE - REPLACEMENT FLAGPOLE

SHEET TITLE
OVERALL
SITE PLAN

SHEET NUMBER
Z-2

OVERALL SITE PLAN
SCALE: 1" = 500'

NOTE
 1. MAXIMUM DISTANCE OF 6" GAP SHALL EXIST BETWEEN ICE BRIDGE AND ADJACENT STRUCTURE WHEN INSTALLING THE ICE BRIDGE.



- (1) PROPOSED 3/8" FIBER TRUNK CABLE IN
 - (1) PROPOSED 2 1/2" CONDUIT AND
 - (2) PROPOSED 3/4" DC POWER CABLES
 - IN (1) PROPOSED 2 1/2" CONDUIT
 - ROUTED FROM PROPOSED LTE EQUIPMENT TO
 - TO PROPOSED RAYCAP SURGE PROTECTOR
 - MOUNTED ON PROPOSED H-FRAME
- PROPOSED ICE BRIDGE
- PROPOSED LTE GPS ANTENNA MOUNTED TO EXISTING SHELTER (TO BE MOUNTED A MINIMUM OF 10' FROM EXISTING ANTENNAS)
- (3) PROPOSED RRH AND (1) PROPOSED RAYCAP SURGE PROTECTOR MOUNTED ON PROPOSED H-FRAME



PROPOSED SITE PLAN
 SCALE: 3/8" = 1'-0"

LEGEND	
FENCE	—○—○—○—○—
LEASE AREA	-----
ICE BRIDGE	XXXXXX
OVERHEAD POWER	—OHP— OHP— OHP—
UNDERGROUND POWER	—UGP— UGP— UGP—
OVERHEAD UTILITIES	—OHU— OHU— OHU—
UNDERGROUND TELCO	—UGT— UGT— UGT—

13075 MANCHESTER RD, SUITE 100
 ST LOUIS, MO 63131

10950 GRANDVIEW DRIVE
 OVERLAND PARK, KANSAS 66210
 (913) 458-2000

BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
 MISSOURI STATE CERTIFICATE OF AUTHORITY # 001848

PROJECT NO:	168986
DRAWN BY:	AK
CHECKED BY:	GPX

REV	DATE	DESCRIPTION
1	10/12/11	MISC REVISIONS
0	9/14/11	ISSUED FOR ZONING

P.H. DOYLE
 NUMBER
 E-28899

P. H. DOYLE E-28899
 PROFESSIONAL ENGINEER

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MO3508
 BAXTER GARDENS
 17259 WILD HORSE CREEK ROAD
 CHESTERFIELD, MO 63005
 LTE - REPLACEMENT FLAGPOLE

SHEET TITLE
PROPOSED SITE PLAN

SHEET NUMBER
Z-4



13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131



BLACK & VEATCH

10850 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

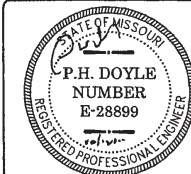
BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 001648

PROJECT NO: 168986

DRAWN BY: AK

CHECKED BY: GFX

REV	DATE	DESCRIPTION
1	10/12/11	MISC REVISIONS
0	9/16/11	ISSUED FOR ZONING



P. H. DOYLE E-28899
PROFESSIONAL ENGINEER

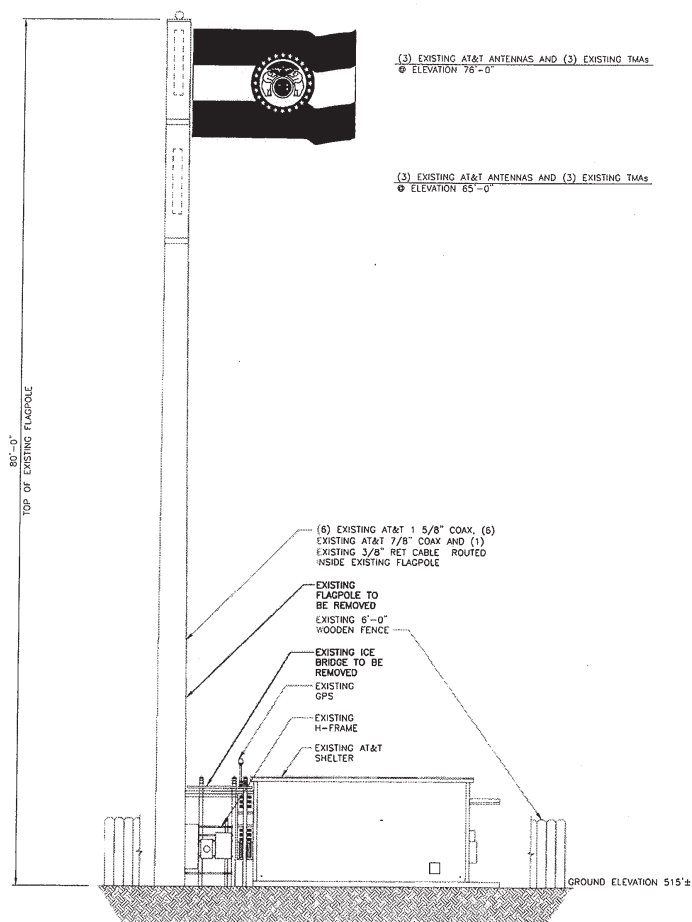
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MO3508
BAXTER GARDENS
17259 WILD HORSE CREEK ROAD
CHESTERFIELD, MO 63005
LTE - REPLACEMENT FLAGPOLE

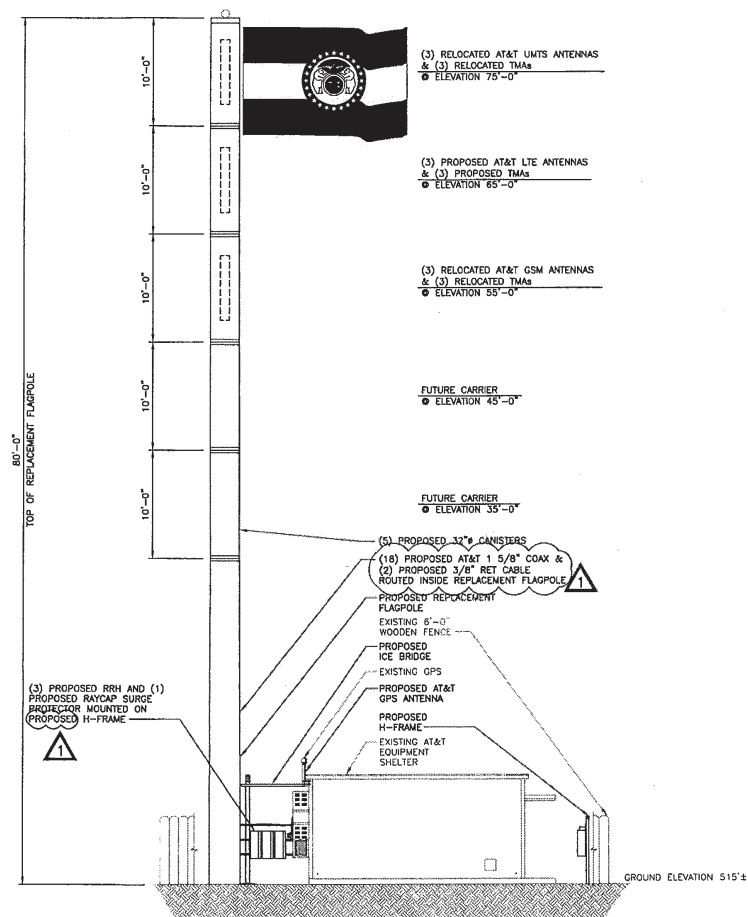
SHEET TITLE
SITE ELEVATION

SHEET NUMBER

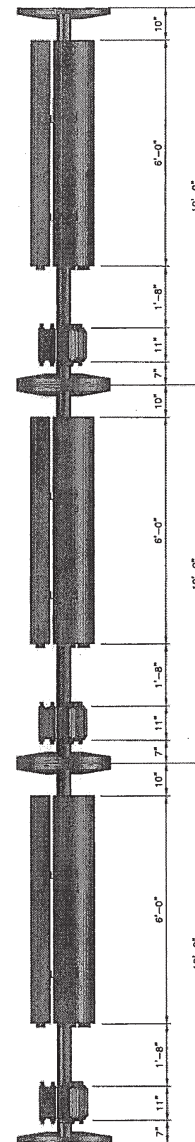
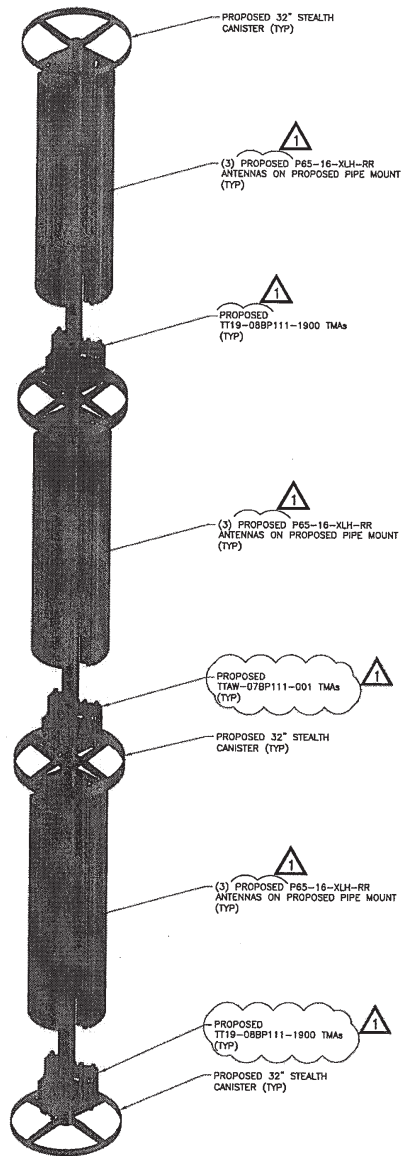
Z-5



EXISTING SITE ELEVATION
NO SCALE



PROPOSED SITE ELEVATION
NO SCALE




ANTENNA MOUNT DETAILS
NO SCALE

 **at&t**
13075 MANCHESTER RD, SUITE 100
ST LOUIS, MO 63131


BLACK & VEATCH
10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000
BLACK & VEATCH PROFESSIONAL ENGINEERING CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY # 00148

PROJECT NO: 16898D
DRAWN BY: AK
CHECKED BY: GPX

REV	DATE	DESCRIPTION
1	10/12/11	MISC REVISIONS
0	9/16/11	ISSUED FOR ZONING


P. H. DOYLE E-28899
PROFESSIONAL ENGINEER

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MO3508
BAXTER GARDENS
17259 WILD HORSE CREEK ROAD
CHESTERFIELD, MO 63005
LTE - REPLACEMENT FLAGPOLE

SHEET TITLE
ANTENNA MOUNT
DETAIL

SHEET NUMBER
Z-6



September 7, 2011

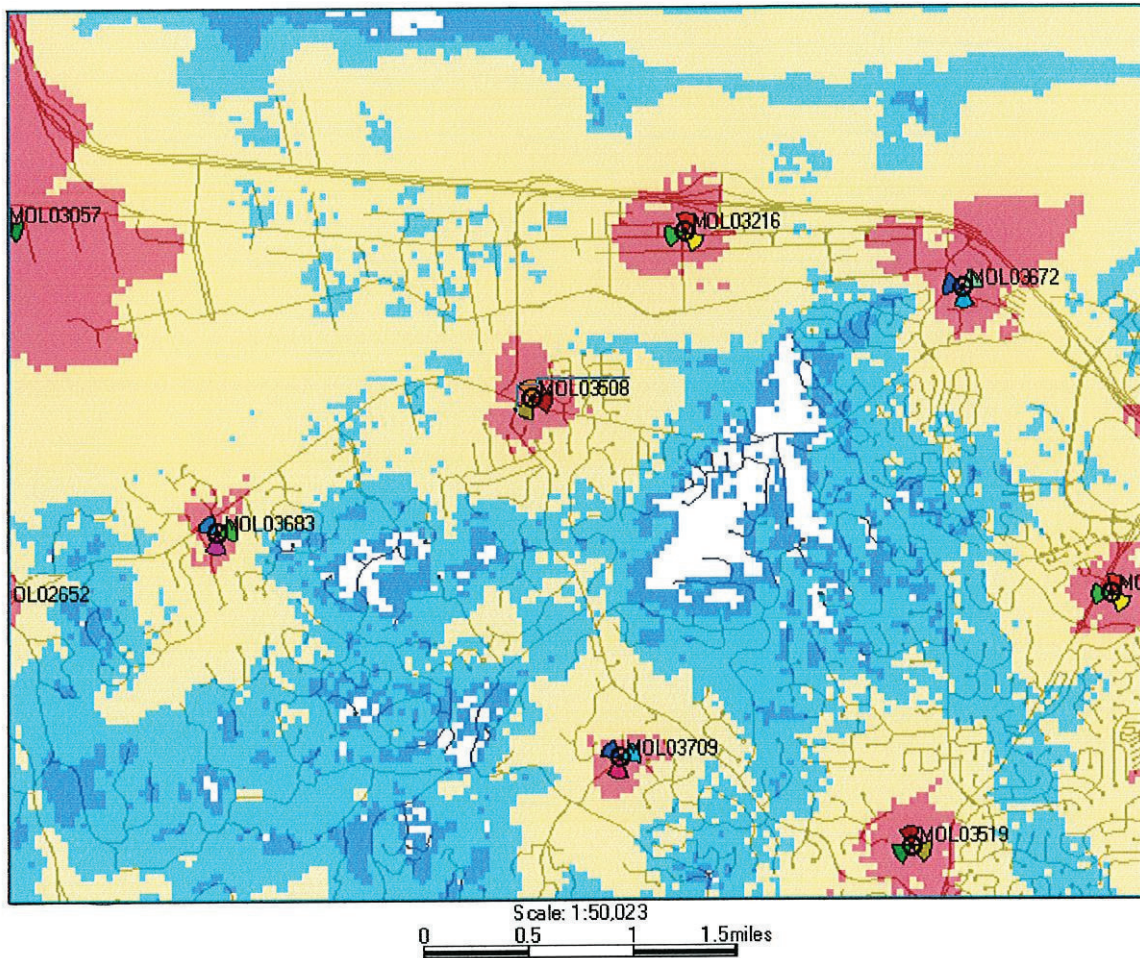
The following is a brief explanation of why AT&T Mobility is proposing to have the current wireless communication facility at 17261 Wild Horse Creek Road modified. This facility is labeled as MOL03508 on Map 1. Currently this facility is only capable of broadcasting our older technologies.

This facility currently is broadcasting our "2G" technology (called GSM) and our "3G" technology (called UMTS). Normally each technology uses its own antennas and equipment. The modification we are proposing is to add our "4G" technology (called LTE). Perhaps you have seen all the television commercials from various wireless carriers talking about their 4G systems. 4G, short for 4th generation of wireless technology, allows wireless carriers to provide much faster data speeds than our current networks. 4G is only for data at this point. All voice calls will still be served on older technologies. Currently AT&T still has the fastest data network. Although as other carriers implement and optimize their 4G networks we expect to lose that advantage and eventually fall behind other carriers unless we also launch our 4G network. The proposed modifications will allow us to implement our 4G technology by using additional antennas and equipment.

Because of national E911 requirements, this site needs to run other technologies. The 4G technology is not capable of handling voice calls at this time and all 911 calls made from a wireless device will be routed through our older technologies. Normally each technology uses its own antennas and equipment. The new 4G technology is on lower frequencies and therefore require slightly larger antennas than what we currently use. Because of this there is no way to fit these antennas in the existing enclosures. The best way to get these antennas concealed from view is to replace the current pole with another pole.

This plan will have no effect on our coverage for current technologies. Map 1 below shows the proposed coverage for our 4G network in the area. AT&T Mobility has acceptable coverage in most of the surrounding area. Because 4G is a data only service the different signal levels don't indicate whether service exists or not. In general on 4G the stronger the signal (to a point) the faster the data rates will be. It is expected that red, yellow and light blue will have data speeds faster than our 3G technology. The dark blue will likely have data speeds nearly identical to the 3G technology.

Map 1 Proposed AT&T "4G" coverage



Ron Humphrey

Radio Frequency Design Engineer

AT&T Mobility Division

PHOTO SIMULATION

PROPOSED WIRELESS COMMUNICATIONS FACILITY

SITE LOCATION MAP

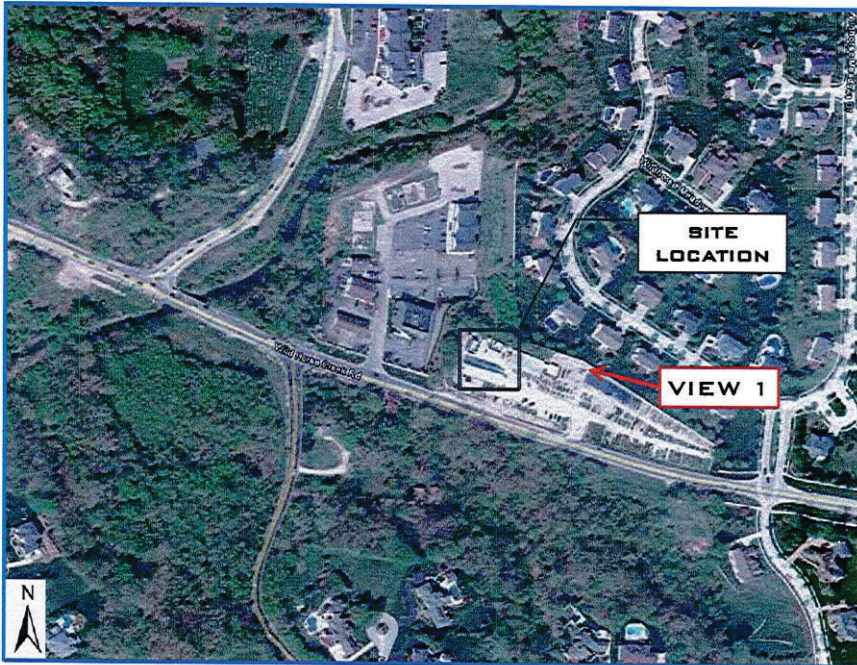


Image from GoogleMaps 2011©

SITE NUMBER: MO3508 (8747)

SITE NAME: BAXTER GARDENS

SITE ADDRESS: 17259 WILD HORSE CREEK ROAD
CHESTERFIELD, MO 63005

DATE: 09/15/11

APPLICANT: AT&T WIRELESS

CONTACT: GEORGE XENOS
BLACK & VEATCH
(913) 687-9233



EXISTING CANISTERS
AND EXISTING
FLAGPOLE

EXISTING VIEW -
LOOKING NORTHWEST

PHOTO SIMULATION -
LOOKING NORTHWEST



(1) PROPOSED 80'-0"
FLAG POLE WITH 32"
DIAMETER
CANISTERS