



County of Fairfax, Virginia

MEMORANDUM

DATE: December 9, 2008

TO: David Marshall, Chief
Facilities Planning Branch, Planning Division, DPZ

FROM: Kevin Guinaw, Chief *K. Guinaw*
Special Projects/Applications Management Branch, Zoning Evaluation Division, DPZ

SUBJECT: Proposed T-Mobile Telecommunications Facility at 1800 Tysons Boulevard;
Tax Map 29-4 ((10)) 2-A2; 2232 Application FS-P08-108

This is in response to a request for a determination as to whether the telecommunications facility proposed by T-Mobile Northeast LLC, at 1800 Tysons Boulevard, is in substantial conformance with the proffers accepted by the Board of Supervisors with the approval of Rezoning RZ 84-D-049 and Proffered Condition Amendments PCA 84-D-049-2 and PCA 84-D-049-5 and Final Development Plan Amendment FDPA 84-D-049-6 approved by the Planning Commission. As described in the 2232 application dated October 6, 2008, from William O'Brien, nine (9) panel antennas (59 inches high x 11.9 inches wide x 6.3 inches deep) are proposed to be flush-mounted to the rooftop penthouse and screening wall of an existing office building. All of the antennas would be located behind an existing screening wall. In addition, three (3) equipment cabinets (63.6 inches high x 51.3 inches wide x 37 inches deep) are proposed to be placed behind the screening wall. A copy of the 2232 application, including illustrations of the proposed locations of the telecommunications equipment, is attached.

The Zoning Administration Division has determined that a telecommunications facility, as described above, is a permitted use pursuant to the provisions of Sect. 2-514 of the Zoning Ordinance provided that it is determined to be in substantial conformance with any applicable rezoning and final development plan. It is my determination that the proposed telecommunications facility described above is in substantial conformance with the above-referenced proffered condition and final development plan amendment approvals. Please note that this proposal is subject to 2232 review requirements and that T-Mobile's ability to proceed is dependent upon the pending 2232 being approved by the Fairfax County Planning Commission. This determination has been made in my capacity as the duly authorized agent of the Zoning Administrator. If you have any questions regarding this memorandum, please call Carrie Lee at (703) 324-1290.

KG/CDL/O:\clee01\ActionAssignments\Antennas\1800 Tysons Blvd_T-Mobile_rooftop.doc

Attachments: A/S

cc: Linda Q. Smyth, Supervisor, Providence District
Kenneth Lawrence, Planning Commissioner, Providence District
Regina C. Coyle, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Zoning Permit Review, ZAD, DPZ
Ken Williams, Chief, Plan and Document Control, Land Development Services, DPWES
William O'Brien, T-Mobile Northeast LLC, 12050 Baltimore Avenue, Beltsville, MD 20705
File: RZ 84-D-049, PCA 84-D-049-2, PCA 84-D-049-5, FDPA 84-D-049-6, ANT 0810 072,
Imaging, Reading File

Department of Planning and Zoning
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5509
Phone 703 324-1290
FAX 703 324-3924
www.fairfaxcounty.gov/dpz/



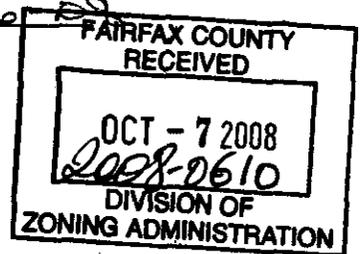


County of Fairfax, Virginia

MEMORANDUM

TO: Zoning Administration Division, DP&Z
Technology Infrastructure Division, DIT
Other: _____ Department of Planning & Zoning

DATE: 10-6-08
RECEIVED



FROM: David B. Marshall, Chief
Facilities Planning Branch, DPZ

OCT 14 2008

SUBJECT: Request for Review: 2232 Review Application
Zoning Evaluation Division

RE: Application Number: FS-P08-108 Tax Map: 29-4 (10) 2A2

Attached for your review and comment is a 2232 Review application:

RECEIVED FROM: T-Mobile

PROPOSED USE: Rooftop collocation

LOCATION OF USE: 1800 Tysons Blvd

Please send your comments to David Marshall by: 10/20/08 Additional comments:

****ZAD COMMENTS:**

Property is zoned PDC

- Proposed use is permitted by Zoning Ordinance and meets all zoning requirements, pursuant to Par. 1 of Sect.
- Proposed use does not meet all Zoning Ordinance requirements as follows: Z-514 of the Zoning Ordinance

Referred to ZED for the following: Must be in substantial compliance with the proffered

ZAD comments prepared by: Brian Parsons Date: 10/9/08 conditions associated with

****ZED COMMENTS:**

- Proposed use is in substantial accord with all development conditions and/or proffers.
- Proposed use is not in substantial accord with development conditions and proffers. FDDA 84-D-049-6

ZED comments prepared by: _____ Date: _____

Department of Planning and Zoning
 Planning Division
 12055 Government Center Parkway, Suite 730
 Fairfax, Virginia 22035-5509
 Phone 703-324-1380
 Fax 703-324-3056
 www.fairfaxcounty.gov/dpz/

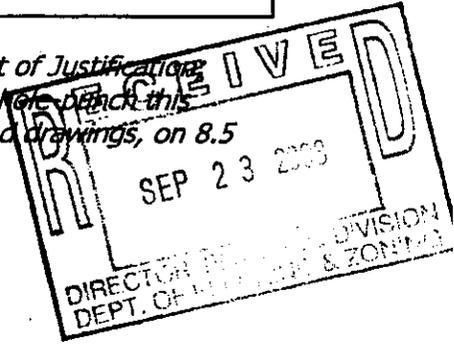
COUNTY OF FAIRFAX, VIRGINIA
APPLICATION FOR DETERMINATION
PURSUANT TO
SECTION 15.2-2232 OF THE CODE OF VIRGINIA

Application Number: FS-908-108
(assigned by staff)

The application contains three parts: I. Application Summary; II. Statement of Justification and I Telecommunication Proposal Details. Please do not staple, bind or hole punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8.5 x 11 inch paper.

(Please Type or Print All Requested Information)

PART I: APPLICATION SUMMARY



ADDRESS OF PROPOSED USE

Street Address 1800 Tysons Boulevard
City/Town McLean Zip Code 22102

APPLICANT(S)

Name of Applicant T-Mobile Northeast LLC
Street Address 12050 Baltimore Avenue
City/Town Beltsville State MD Zip Code 20705
Telephone Number: Work (240) 264-8727 Fax (240) 264-8610
E-mail Address william.obrien2@t-mobile.com
Name of Applicant's Agent/Contact (if applicable) William O'Brien
Agent's Street Address 12050 Baltimore Avenue
City/Town Beltsville State MD Zip Code 20705
Telephone: Work (410) 599-8912 Fax ()

PROPOSED USE

Street Address 1800 Tysons Boulevard

Fairfax Co. Tax Map and Parcel Number(s) 0294 10 0002A2

Brief Description of Proposed Use _____

T-Mobile is constructing a telecommunications facility on the existing rooftop at 1800 Tysons Boulevard. The equipment will be placed on the rooftop level adjacent to the penthouse within a screened enclosure which will match the existing penthouse facade. Two sectors of antennas will be placed inside this screened enclosure and the 3rd sector will be flush mounted to the north side of the penthouse and will also be placed behind the penthouse wall. The nine proposed antennas (3 within each sector) will not be visible from the exterior.

Total Area of Subject Parcel(s) 133,320 SF (acres or square feet)

Portion of Site Occupied by Proposed Use 60 SF (acres or square feet)

Fairfax County Supervisor District Providence

Planned Use of Subject Property (according to Fairfax County Comprehensive Plan)
Tysons Corner Urban Center

Zoning of Subject Property PDC

List all applicable Proffer Conditions, Development Plans, Special Exceptions, Special Permits or Variances previously approved and related to this site

NA

PROPERTY OWNER(S) OF RECORD

Owner TYF Development Co LLC

Street Address 11501 Huff Ct, Attn: Robert K. Tanenbaum

City/Town Kensington State MD Zip Code 20895

PART II, entitled "Statement of Justification," pages 4 through 6, shall be completed by all applicants and included as part of the application. **PART III**, entitled "Telecommunication Proposal Details," pages 7 through 9, also shall be completed and included for all proposed telecommunication uses.

Name of Applicant or Agent William O'Brien

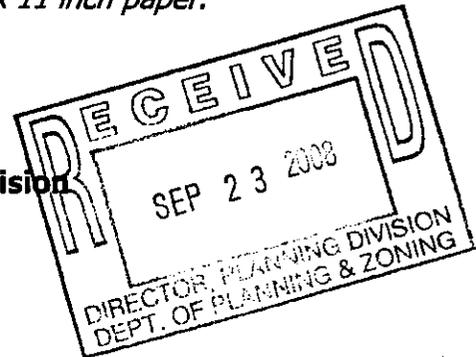
Signature of Applicant or Agent William O'Brien

Date 9/23/08

Please do not staple, bind or hole-punch this application. Please provide at least one copy of all pages, including maps and drawings, on 8.5 x 11 inch paper.

Submit completed application to:

**Fairfax County
Department of Planning and Zoning, Planning Division
Herrity Building
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035**



FOR STAFF USE ONLY

Date application received: 9/23/08

By: DBM

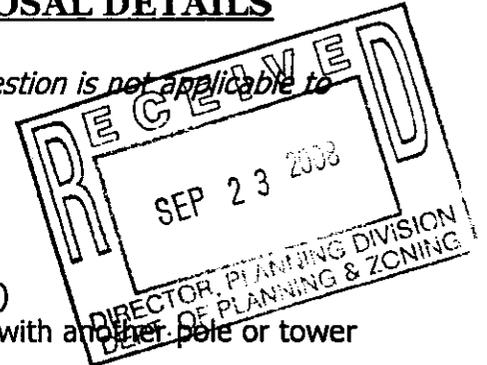
Additional information requested to complete application:

Date application accepted: 10/6/08

By: AMS

PART III: TELECOMMUNICATION PROPOSAL DETAILS

Please complete and provide all requested information. If question is not applicable to the proposed use, please indicate with N/A.



PROPOSED TELECOMMUNICATION USE

Use is (check one):

- New structure (monopole, tower or camouflaged facility)
- Replacement of existing pole or tower at same location with another pole or tower
- Antenna placement on building or penthouse facade
- Antenna placement on building or penthouse rooftop
- Collocation on other existing telecommunications structure (monopole or tower)
- Collocation on other non-telecommunications structure (such as an electric transmission tower/pole, utility pole, water tower, etc.)
- Modification to telecommunications facility previously approved for same applicant:
Prior 2232 Review application number: _____
Date of Planning Commission approval: _____

PROJECT DETAILS

1. ANTENNA

Number and Type: Nine (9) Panel Antennas - Andrew TMBXX-6516-R2M
Dimensions: height 59" width 11.9" depth 6.3" diameter _____
Location / Placement: 2 sectors within screened enclosure, 3rd sector flush
Wattage: 250 watts
Material and Color: Off White, but will be screened from view
Material and Color of the Antenna Mounting: NA will be screened from view
Height Above Ground: 200'5"

2. EQUIPMENT

Number and Type of Cabinets or Structures: 3 Cabinets - Ericsson RBS 2106
Cabinet / Structure Dimensions: height 63.6" width 51.3" depth 37"
Height of equipment platforms, if any: NA
Material and Color: gray steel
Location: on rooftop level
Method of Screening: within screened enclosure to match penthouse facade

3. STRUCTURE ON WHICH ANTENNAS WILL BE MOUNTED

Maximum Height: 204.75'
Material: gray metal grate material
Color: gray
If structure is within a utility right-of-way, state right-of-way width:
NA



Sept. 23, 2008

Fairfax County
Department of Planning and Zoning, Zoning Division
Herrity Building
12055 Government Center Parkway, Suite 730
Fairfax, VA 22035



RE: T-Mobile Northeast LLC
Request for Determination under Virginia Code Section 15.2-2232
1800 Tysons Boulevard, McLean, VA 22102
Parcel ID#: 0294 10 0002A2

To Whom It May Concern:

Enclosed please find an application package of T-Mobile Northeast LLC, seeking a determination from Fairfax County pursuant to Virginia Code 15.2-2232 that the proposed telecommunications facility to be collocated upon an existing rooftop and penthouse structure is substantially in accord with the Fairfax County Comprehensive Plan. The enclosed application package consists of: a completed application; a justification statement; three (3) sets of plans/drawings; a property tax map; photographs of the existing facility; photo simulations of the proposed facility;; an antenna specification sheet, and an equipment specification sheet.

If there are any additional materials that are needed, or if I can be of any assistance, please do not hesitate to contact me at your convenience. I can be reached by phone at 410 599-8912 or by e-mail at william.obrien2@t-mobile.com Thank you for your time and cooperation in this matter.

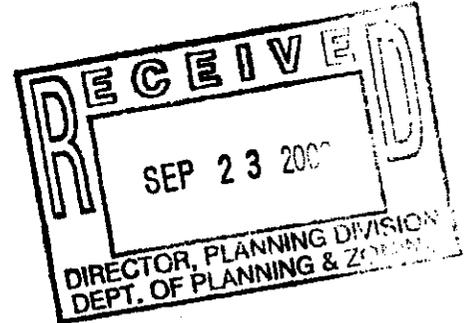
Sincere Regards,


William O'Brien

626 C Admiral Drive
Suite 313
Annapolis, MD 21401
410.263.(LINK)
Fax 410.263.5470



Fairfax County
Department of Planning and Zoning, Zoning Division
Herrity Building
12055 Government Center Parkway, Suite 730
Fairfax, VA 22035



RE: **STATEMENT OF JUSTIFICATION**
T-Mobile Northeast LLC
Request for Feature Shown Determination
1800 Tysons Boulevard, McLean, VA 22102
Parcel ID#: 0294 10 0002A2

To Whom It May Concern:

T-Mobile Northeast LLC seeks determination from Fairfax County pursuant to Virginia Code Section 15.2-2232 that the enclosed telecommunications facility to be collocated upon an existing rooftop and penthouse structure is substantially in accord with the Fairfax County Comprehensive Plan.

Applicant:

T-Mobile Northeast LLC
12050 Baltimore Avenue
Beltsville, MD 20705
Office: 240-264-8600

Agent:

William O'Brien
Smartlink LLC
716 Giddings Avenue
Annapolis, MD 21401
Phone: 410 599-8912
E-mail: william.obrien2@t-mobile.com

Location of Property:

626 C Admiral Drive
Suite 313
Annapolis, MD 21401
410.263.(LINK)
Fax 410.263.5470



Price Waterhouse Coopers office building
Proposed T-Mobile Site Number WAC343B "PriceWaterhouseCoopers"
1800 Tysons Boulevard, McLean, VA 22102
Parcel ID#: 0294 01 0002A2
Zoning District: PDC
District Name: Providence

1. Description of Proposed Use:

T-Mobile proposes to install a telecommunications facility consisting of nine (9) panel antennas. Six (6) antennas will be installed inside a screened enclosure which will match the existing penthouse façade and three (3) antennas will be flush mounted to the interior of the north side of the penthouse. All nine (9) antennas are proposed to be mounted at an antenna center line of two hundred feet five inches (200'5"). There are no other carriers currently located on this rooftop. All of the antennas will be mounted behind stealth screening material and will not be visible from the exterior.

T-Mobile's telecommunications facilities are designed in three (3) sectors; each sector is comprised of 3 panel antennas. The proposed array will consist of one sector of antennas oriented to face outward at one hundred twenty (125) degrees, another sector of antennas oriented to two hundred fifteen (215) degrees, and the third sector of antennas oriented to three hundred thirty (330) degrees. Each panel antenna will be 59" in height, 11.9" in width, and 6.3" in depth. T-Mobile's frequencies of use will transmit 1965-1975 megahertz (MHz) and receive 1885-1895 megahertz (MHz).

In addition, eighteen (18) Tower Mounted Amplifiers (TMA's) measuring 10.2"x 6.7"x 3.5" will be attached to the antennas and eighteen (18) lines of coax will run from the antennas to the equipment cabinets located within the screened enclosure on the roof.

Three (3) related Ericsson RBS equipment cabinets are proposed to be situated inside the screened enclosure minimizing any visual impact they may have on the surrounding community. Each of these cabinets measures, 63.6" in height, 51.3" in width, and 37" in depth.

The unmanned facility will operate twenty four (24) hours a day, seven (7) days a week. Routine maintenance visits are generally scheduled one to two times per month, with the possibility of visits due to emergency repair. No water, sewer or septic service is necessary for the telecommunications facility. No exterior lighting is proposed. The facility does not generate any noise, dust, fumes, odors, glare, or lights.

626 C Admiral Drive
Suite 313
Annapolis, MD 21401
410.263.(LINK)
Fax 410.263.5470



Due to the proposed design in which all antennas and associated equipment is screened from exterior view, the proposal will meet all relevant Feature Shown requirements as well as those requirements of the Zoning Regulations pertaining to telecommunication facilities.

Antenna Description

Nine (9) panel antennas, each with dimensions of 59"x 11.9"x 6.3", will be mounted at an elevation of 200'5". Two (2) antenna sector arrays located at 125 degrees and 215 degrees will be mounted within the proposed screened enclosure located on the rooftop and one (1) antenna sector located at 330 degrees will be flush mounted behind the north side penthouse wall. All antennas comply with all applicable FCC emission requirements and pose no threat to the public health, safety, or welfare. The antennas will not generate any noise, dust, fumes, odors, lights, glare, or vibrations. The antennas will not interfere with radio, television, or telephone reception.

Equipment Cabinets

Three (3) related Ericsson RBS equipment cabinets are proposed to be situated within the proposed screened enclosure located on the rooftop adjacent to the penthouse. Each of these cabinets is 63.6"x 51.3"x 37". The equipment will not produce any noise, fumes, dust, odors, lights, glare, or vibrations and will not interfere with radio, television, or telephone reception in the area.

2. Requirement of Proposed Use:

T-Mobile is licensed by the Federal Communications Commission to provide telecommunications service in Fairfax County. The proposed facility is necessary in order to mount the antennas at heights sufficient to service the intended coverage area and to provide for proper hand-off to the adjacent antenna facilities in the network.

The proposed facility will increase the capacity of the already existing coverage area, providing improved indoor and outdoor coverage to Tysons Corner Shopping Center and the surrounding areas and buildings including gaps along VA-123 Chain Bridge Road from 1-495 to VA-7 Leesburg Pike. The installation of the telecommunications facility will result in improved coverage within the nearby residential and commercial buildings allowing T-Mobile to meet current wireless customer demands.

The subject building is zoned PDC where collocation of wireless facilities is permitted pursuant to Section 2-514.1.A.(1) and pursuant to the 2232 Comprehensive Plan Objective 45, Policy A. By utilizing this rooftop, T-Mobile will be able to achieve the necessary coverage and capacity objectives without the need to construct a new monopole tower.

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Suite 313
Annapolis, MD 21401
410.263.(LINK)
Fax 410.263.5470



3. Anticipated Impacts on Adjoining Properties and On- And Off-Site Environmental Features:

Because two sectors of antennas will be installed within the proposed screened enclosure and the third sector will be flush mounted to the north side of the penthouse behind the existing penthouse wall, they will have no visual impact to the community. T-Mobile's antennas comply with all applicable FCC emission requirements and pose no threat to the public health, safety, or welfare. The antennas and equipment do not interfere with local radio, television, or telephone reception. Because the facility is unmanned, water, sewer, and septic service are unnecessary. The facility is "passive" and does not generate any noise, dust, fumes, odors, glare, lights, or traffic. The use will generate only one or two routine maintenance visits per month, and thus have an insignificant impact upon traffic and local roads.

4. Alternative Sites Considered for the Proposal:

There was only one (1) other site for T-Mobile's proposed use that was considered prior to the acceptance of the current 11 story office building.

A. 8027 Leesburg Pike, Vienna, VA 22182: This candidate was being considered due to location near Tysons Corner Mall. This site was rejected for use by T-Mobile's RF Department due to the fact that the antennas did not meet line of site requirements to cover the Tysons Corner Mall.

5. Property Identification Map(s) At a Scale of 1"=500':

Identification map is enclosed with the Application Package.

6. Proposed Facility Plan (At a Scale of 1"= Not More Than 50'):

Plans and Drawings are enclosed with the Application Package.

7. Reduced Copy of the Plans:

A reduced copy of the plans is enclosed with the Application Package.

8. Other Information:

626 C Admiral Drive
Suite 313
Annapolis, MD 21401
410.263.(LINK)
Fax 410.263.5470



1. Photos of the subject property showing the existing structures on the rooftop and near the rooftop are attached to this Application Package.
2. Photos Simulations are enclosed in this Application Package.
3. Equipment Specification cut sheets

Also included with the Application Package are a antenna specification sheet and a equipment cabinet specification sheet

If any additional information is required, or if I can be of any assistance, please do not hesitate to contact me. Thank you for your consideration of this proposal.

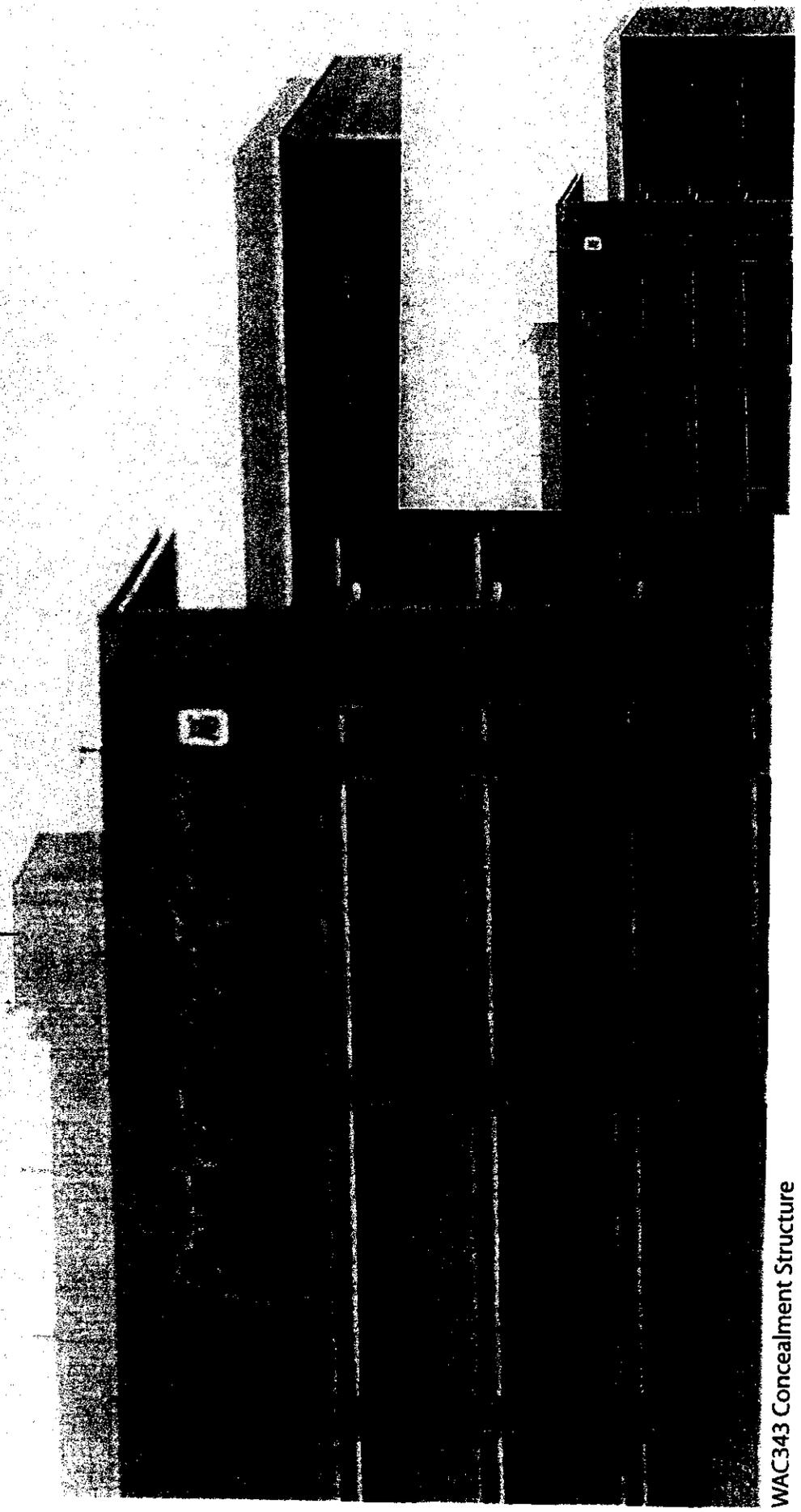
Sincerely,

William O'Brien

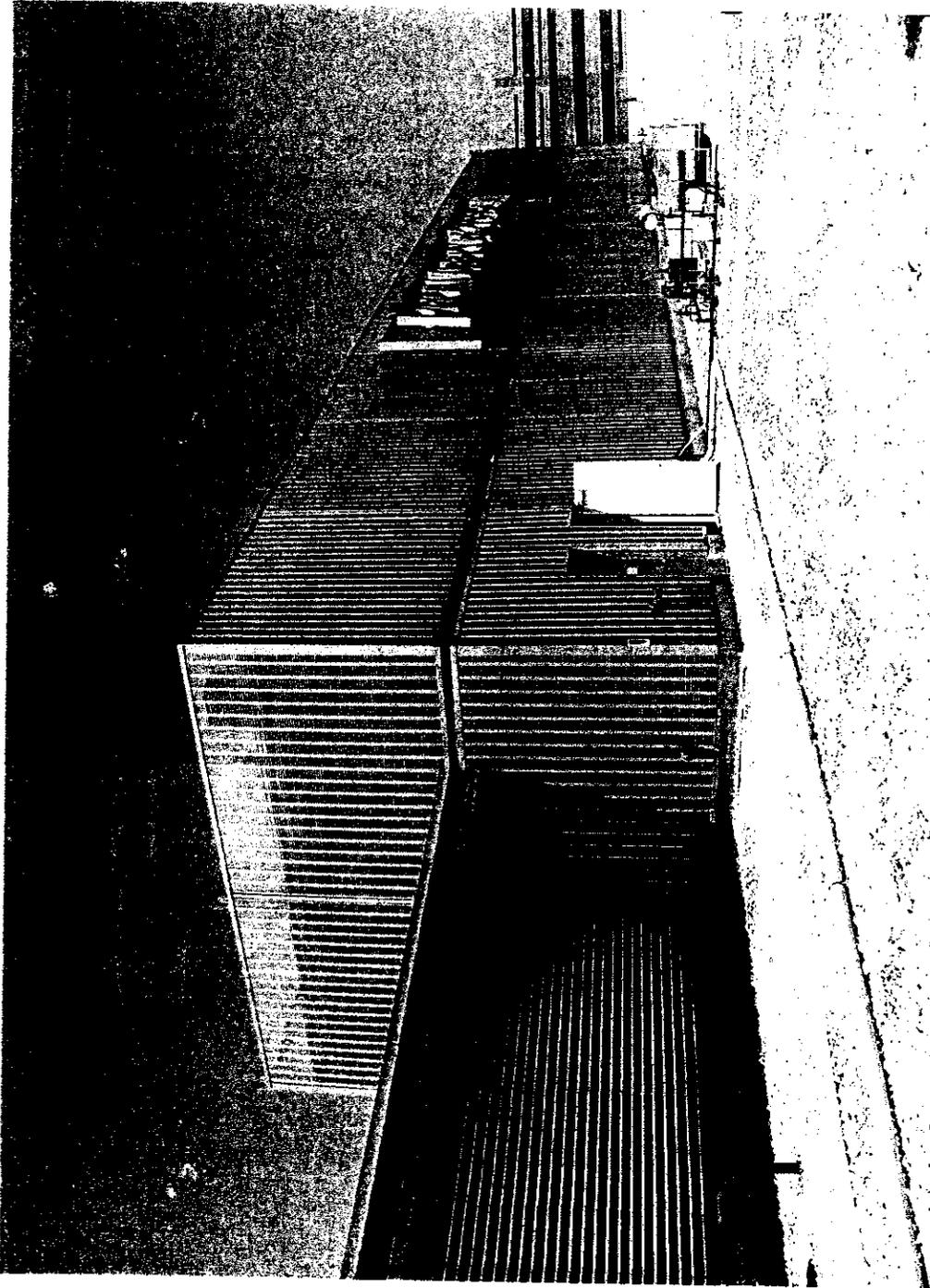
626 C Admiral Drive
Suite 313
Annapolis, MD 21401
410.263.(LINK)
Fax 410.263.5470

T-Mobile
Price Waterhouse Coopers
1800 Tyson Boulevard
McLean, VA, 22102

Antennas placed
behind concealment
structure.



WAC343 Concealment Structure



WAC343 Concealment Panels

For the best possible print results, click the printer icon on the Live Search Maps page.

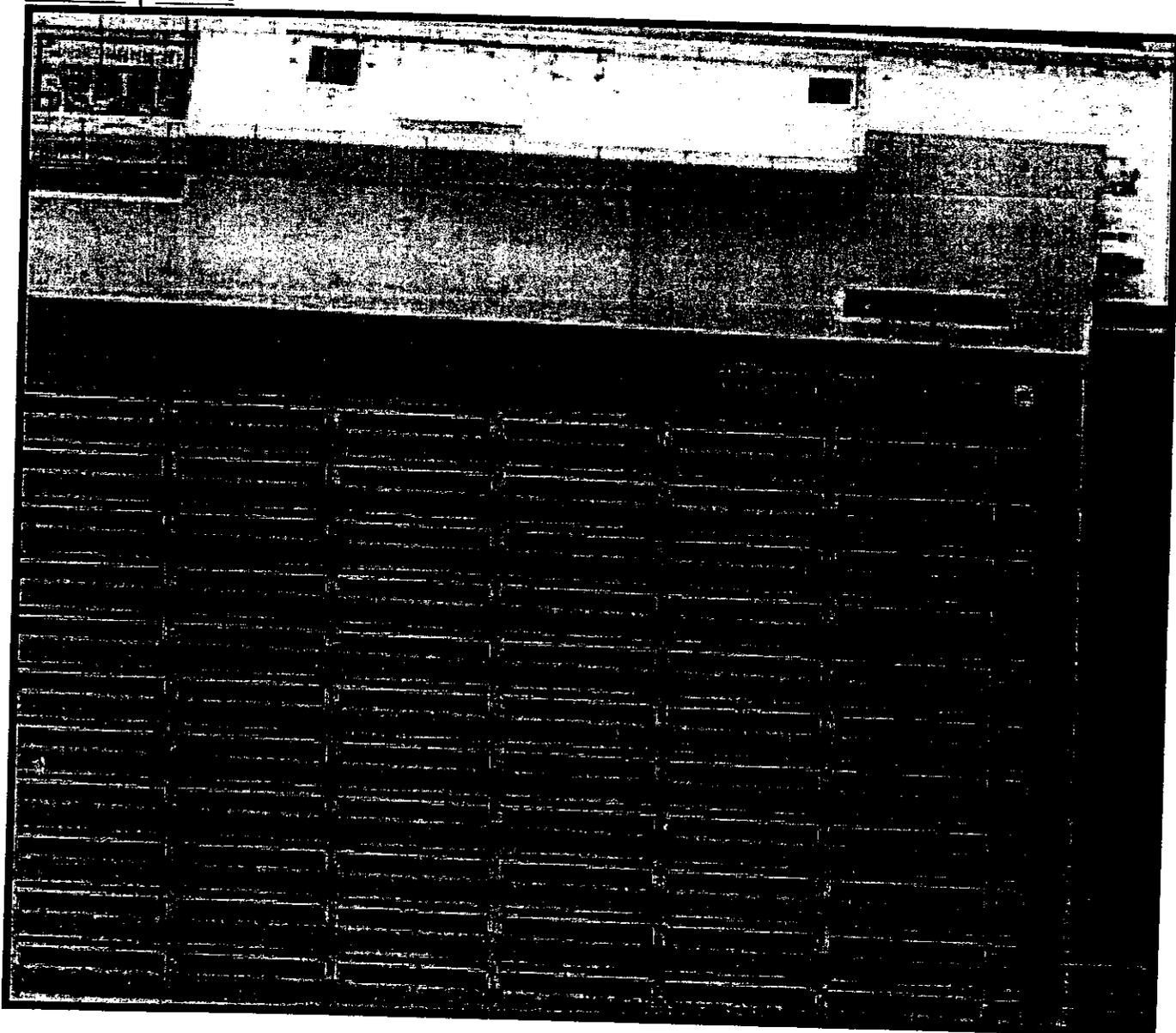
Business or location ...

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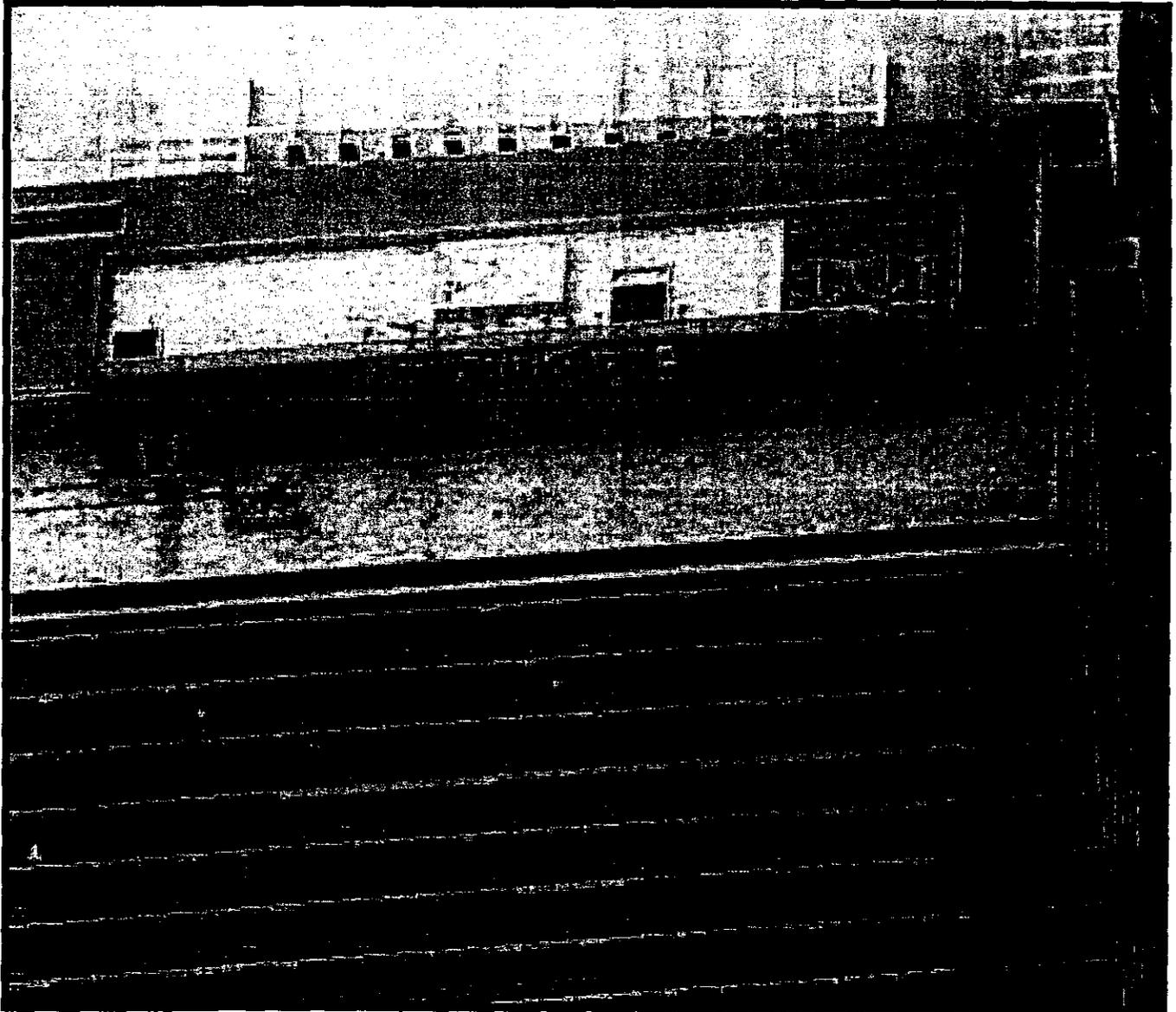
Business or location ...

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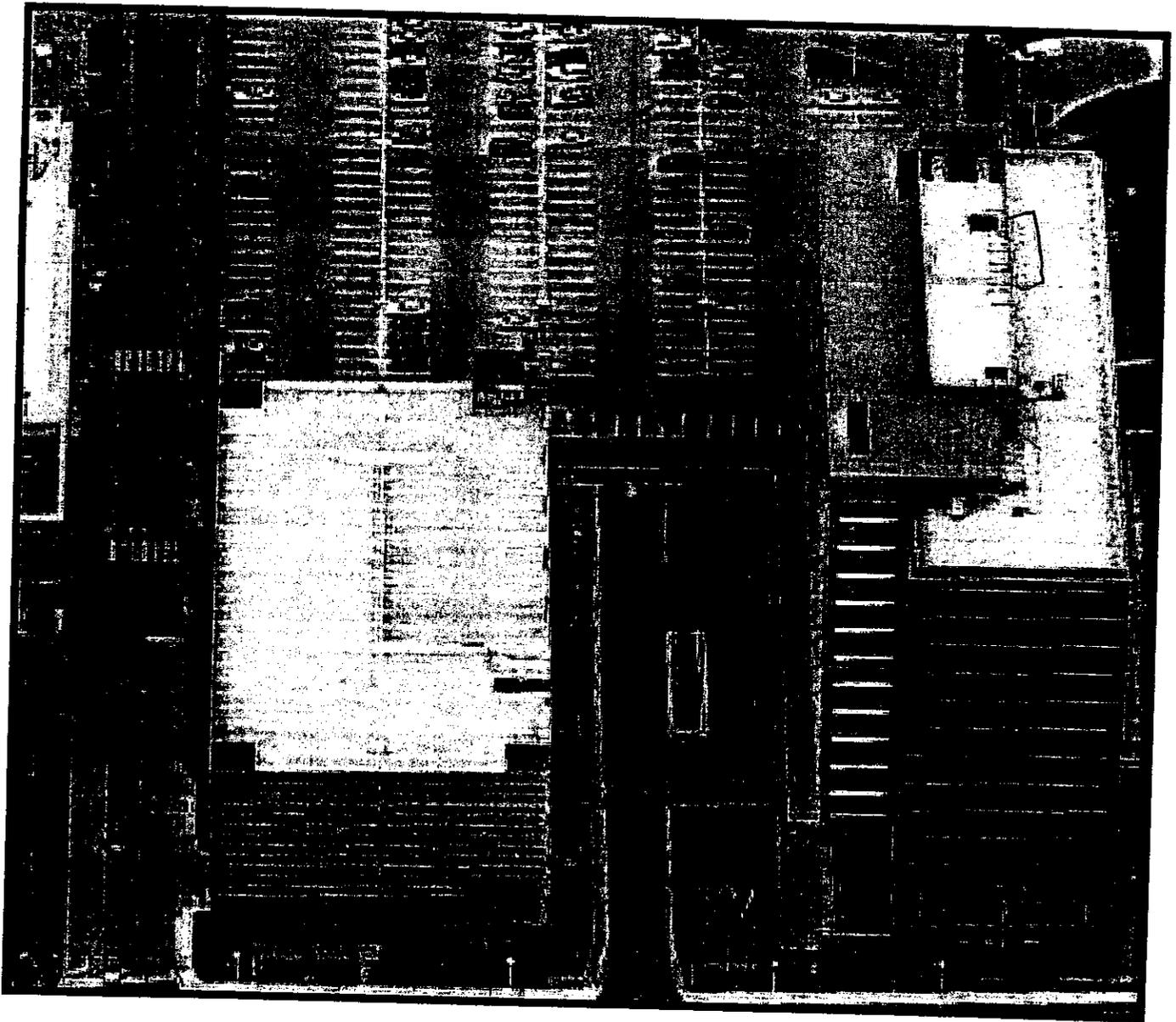
Welcome

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Welcome





TMBXX-6516-R2M

±45° Dual Band Quad Antenna

Decibel®
Base Station Antennas

- Patented cross dipole and feed system
- Rugged, reliable design with excellent PIM suppression
- Includes factory installed AISG RET actuator
- Fully compatible with Andrew Teletilt® remote control antenna system

ELECTRICAL

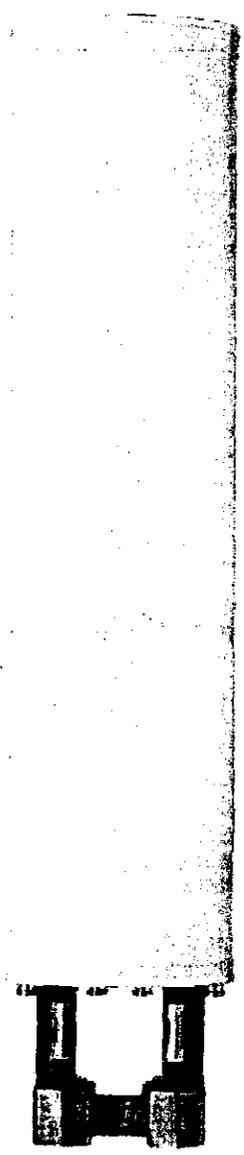
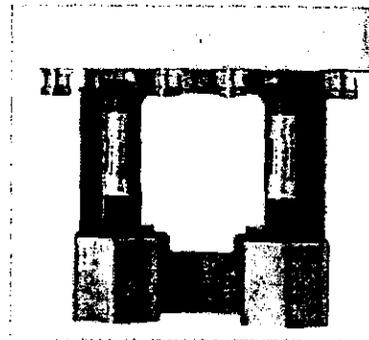
Frequency Range (MHz):	1710–2155				
Characteristic Impedance (Ohms):	50				
Azimuth BW (Deg):	64.5 ± 8				
Elevation BW (Deg):	7.2 ± 1.2				
Gain (dBi) :	17.5 ± 8				
Polarization:	±45°				
Front-to-Back Ratio (dB)	2°	4°	6°	8°	10°
Copol, 180° ± 30°:	>24	>24	>24	>24	>24
Total Power, 180° ± 30°:	>24	>23	>22	>23	>23
Upper Sidelobe (dB)	2°	4°	6°	8°	10°
Main Beam to +20°:	>18	>17	>15	>14	>11
VSWR / Return Loss (dB):	1.35:1 / 16.5				
Port-to-Port Isolation (dB):	>30				
Electrical Tilt Range (Deg):	2–10				
Electrical Downtilt Accuracy (Deg):	± 0.9				
Cross-pol (dBc)	2°	4°	6°	8°	10°
3 dB Beamwidth:	>13	>13	>12	>12	>12
Intermodulation Products (dBc)					
3rd Order, 2 x 20 Watts:	155				
Max. Input Power (Watts):	250				
Lightning Protection:	DC Ground				

PERFORMANCE TRACKING

Gain Variation (dB) (between UL and DL frequency pair):	1.3
Electrical Tilt Accuracy (Deg) (between UL and DL frequency pair within 0.5°):	<0.55
Azimuth HPBW (Deg) (between UL and DL frequency pair):	11.5

MECHANICAL

Net Weight (kg / lbs):	15.7 / 34.6
Dimensions–LxWxD: (with actuator)	1499 x 302 x 160 mm 59 x 11.9 x 6.3 inch
Max. Wind Area (m² / ft²):	0.27 / 2.9
Max. Wind Load (N / lbf):	729.4 / 164
Max. Wind Speed (km/h / mph):	241 / 150
Hardware Material:	Hot Dip Galvanized
Connector Type:	7-16 DIN, Female (4)
Color:	Off White
Standard Mounting Hardware:	TM600899A-2



Andrew Corporation
2601 Telecom Parkway
Richardson, Texas U.S.A. 755082-3521
Tel: 214.631.0310

Fax: 214.688.0089
Toll Free Tel: 1.800.676.5342
Fax: 1.800.229.4706
www.andrew.com

11/27/2006
Page 1 of 3
dbtech@andrew.com



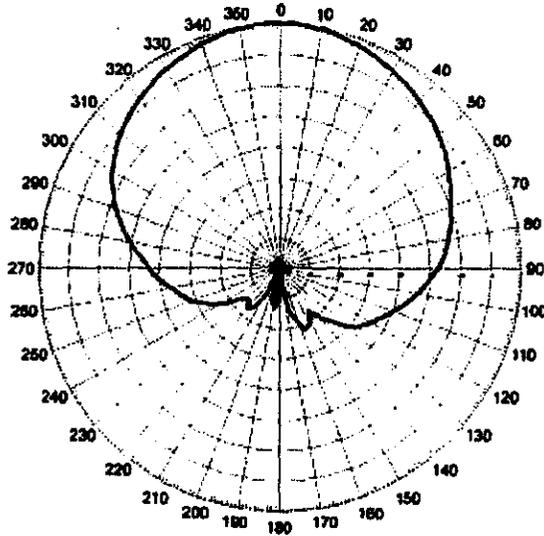
TMBXX-6516-R2M

±45° Dual Band Quad Antenna

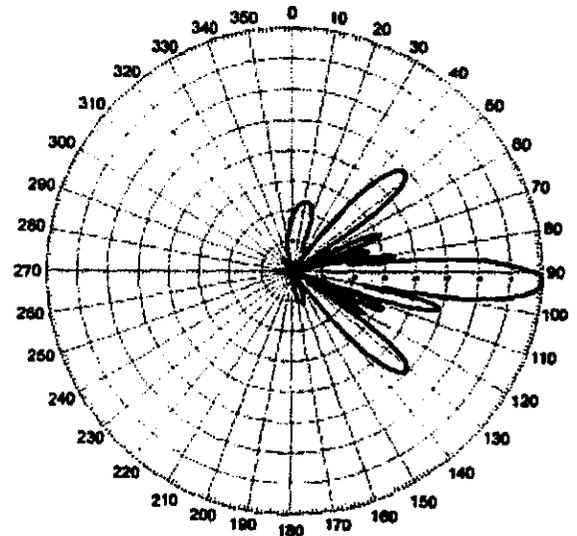
Decibel®
Base Station Antennas

AZIMUTH PATTERN

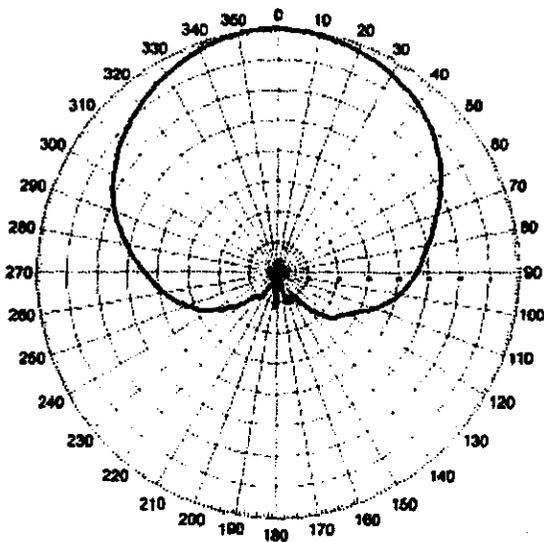
ELEVATION PATTERN



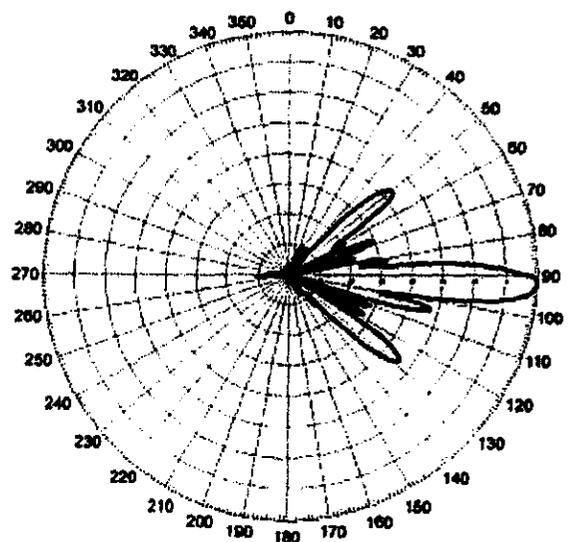
1732 MHz, Tilt: 2°



1732 MHz, Tilt: 2°



1880 MHz, Tilt: 2°



1880 MHz, Tilt: 2°

Note: Scale 5 dB per division.

Andrew Corporation
2601 Telecom Parkway
Richardson, Texas U.S.A. 755082-3521
Tel: 214.631.0310

Fax: 214.688.0089
Toll Free Tel: 1.800.676.5342
Fax: 1.800.229.4706
www.andrew.com

11/27/2006
Page 2 of 3
dbtech@andrew.com

Information correct at date of issue but may be subject to change without notice.



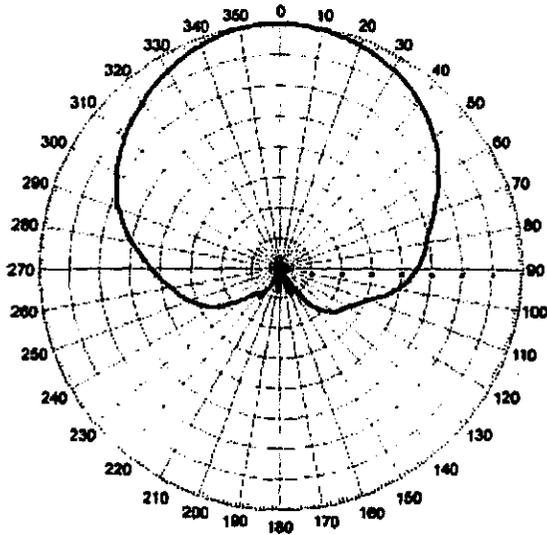
TMBXX-6516-R2M

±45° Dual Band Quad Antenna

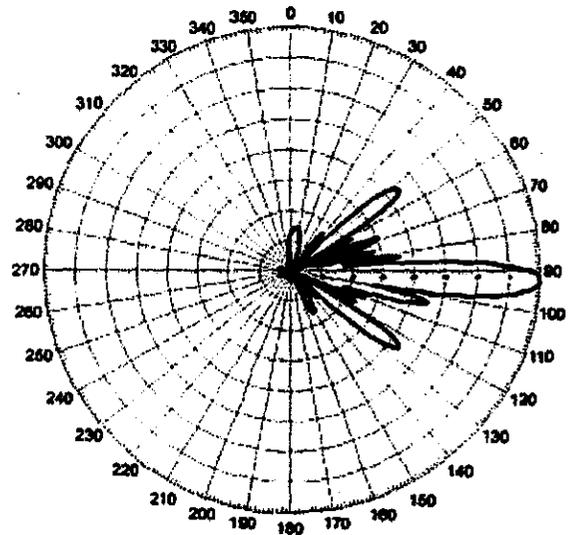
Decibel®
Base Station Antennas

AZIMUTH PATTERN

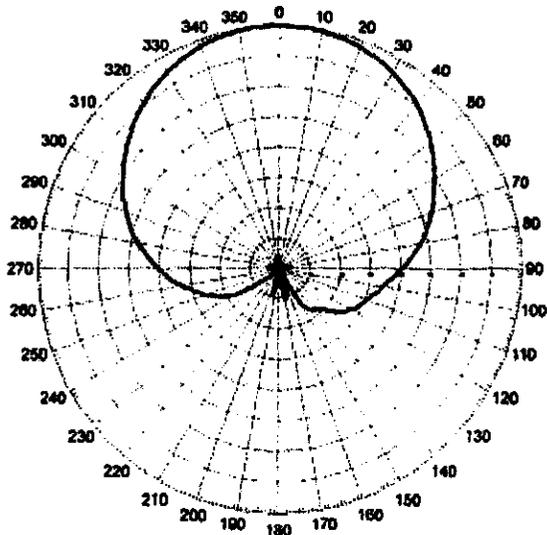
ELEVATION PATTERN



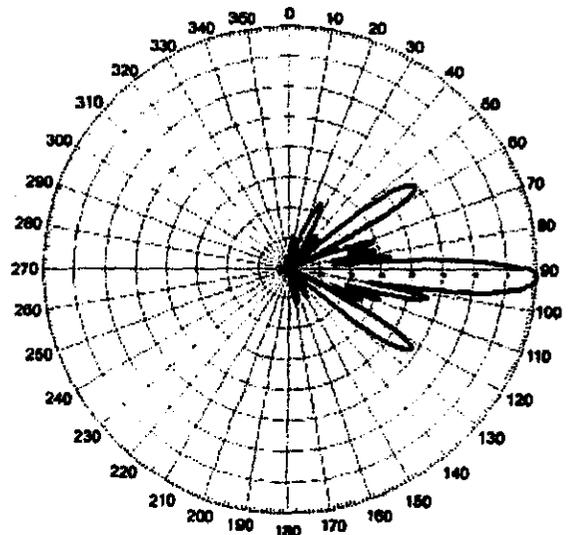
1960 MHz, Tilt: 2°



1960 MHz, Tilt: 2°



2132 MHz, Tilt: 2°



2132 MHz, Tilt: 2°

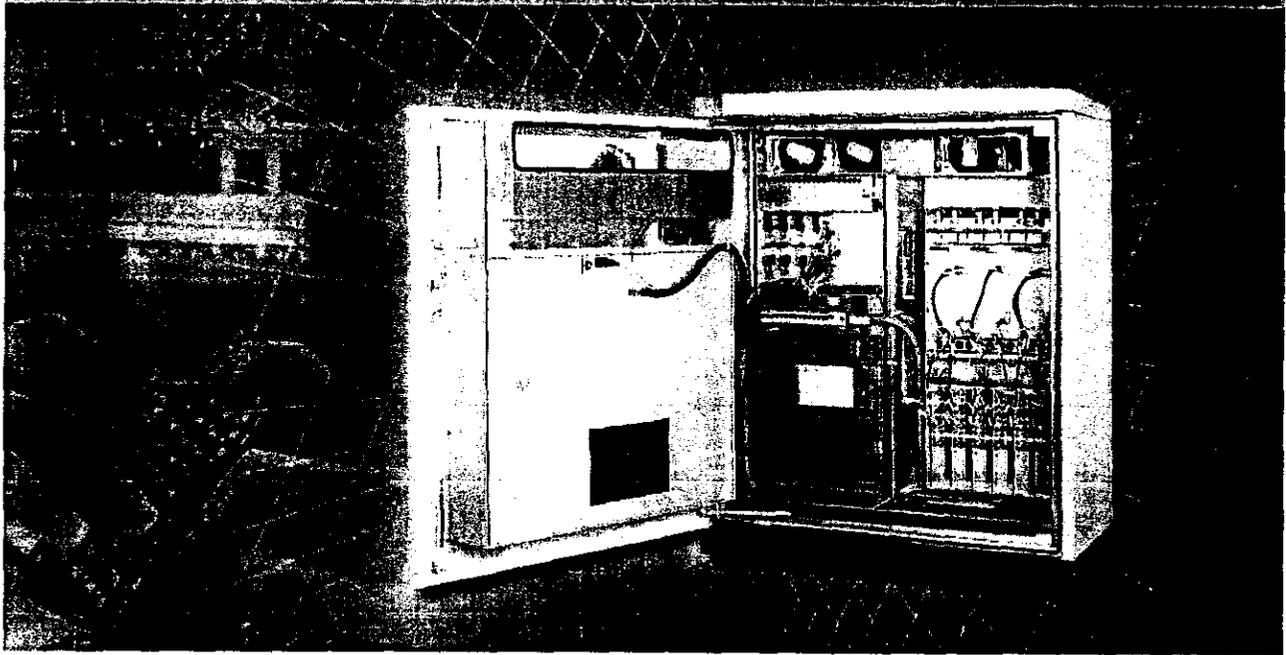
Note: Scale 5 dB per division.

Andrew Corporation
2601 Telecom Parkway
Richardson, Texas U.S.A. 755082-3521
Tel: 214.631.0310

Fax: 214.688.0089
Toll Free Tel: 1.800.676.5342
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11/27/2006
Page 3 of 3
dbtech@andrew.com

Information correct at date of issue but may be subject to change without notice.

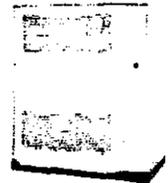
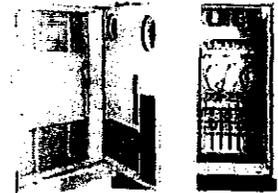


RBS 2106

RBS 2106 is a high capacity, outdoor macro radio base station supporting up to twelve transceivers per cabinet. It is possible to build one, two and three sector configurations including dual band configurations in one cabinet.

Being the latest member in the RBS 2000 family, RBS 2106 is to date the most powerful outdoor RBS in the world. Keeping the successful characteristics of the existing RBS 2000 portfolio and improving functionality as well as operation and maintenance makes the RBS 2106 a very cost-effective solution for growing GSM operators.

The RBS 2000 family supports a wide range of applications ranging from extreme coverage to extreme capacity. Being a RBS 2000 member guarantees coexistence with the installed base of RBS 200 and RBS 2000 products. Ericsson's synchronization based BSS features ensure that transceivers from different generations of radio base stations can easily form common cells. Operators can therefore bridge the past with the future. By making existing sites futureproof, investments are protected while migrating to 3G.



Part of the grow-on-site concept

Since it is becoming increasingly difficult to find new base station sites, it is of great interest to remain on the existing sites as long as possible. Site space is often a limiting factor for capacity growth. The powerful RBS 2106, included in Ericsson's grow-on-site toolbox, addresses this problem. On many sites, two or more existing cabinets can be replaced by one RBS 2106. This is of major importance, since it makes it possible to reuse the space to rollout WCDMA equipment. The RBS 2106 will pave the way for WCDMA.

Also interesting for new locations, the RBS 2106 offers a complete solution in stand-alone cabinet which rapidly can be implemented outdoors. All the units to run the RBS are included in this single cabinet, there is no need for an extra product.

Doubled capacity – superior performance – same footprint

The 12-transceiver RBS 2106 cabinet has the same footprint as RBS 2102, but has doubled the capacity, thanks to the new double-capacity transceivers and combiners. The RBS 2106 has better output power than the current RBS 2000 products, which are the best on the market today. The improved radio performance means increased site-to-site distance, and therefore, fewer sites. Another example of a cost saving feature is 121 km Extended Range. The RBS 2106 comes with a configuration switch unit, the CXU, and two extremely flexible combiners. Examples of configurations supported by the Filter Combiner (CDU-F) are 3x4, 2x6, 1x12 and dual band 8+4 in one cabinet. CDU-F supports up to 12 transceivers on one dual-polarized antenna. The other combiner (CDU-G) can be configured in two modes: capacity mode and coverage mode, making it very flexible. In coverage mode, the output power from the CDU-G is increased, making it perfect for rural sites or when fast rollout is required at a minimum cost.

Prepared for the future

The RBS 2000 family is prepared for GSM data services, including General Packet Radio Service (GPRS) and High Speed Circuit Switched Data (HSCSD) including 14.4 kbit/s timeslots. To meet the operators' need for faster datacom solutions, RBS 2106 supports EDGE.

A powerful Distribution Switch Unit (DXU) and fast internal buses guarantee full EDGE support. With the optional BSS feature RBS 2000 synchronization, it is possible to have up to 32 transceivers in one cell. With the optional BSS feature RBS 200 and RBS 2000 in the same cell, it is possible to expand an existing RBS 200 cell with RBS 2106, and thereby introduce EDGE through plug-in units.

Key features

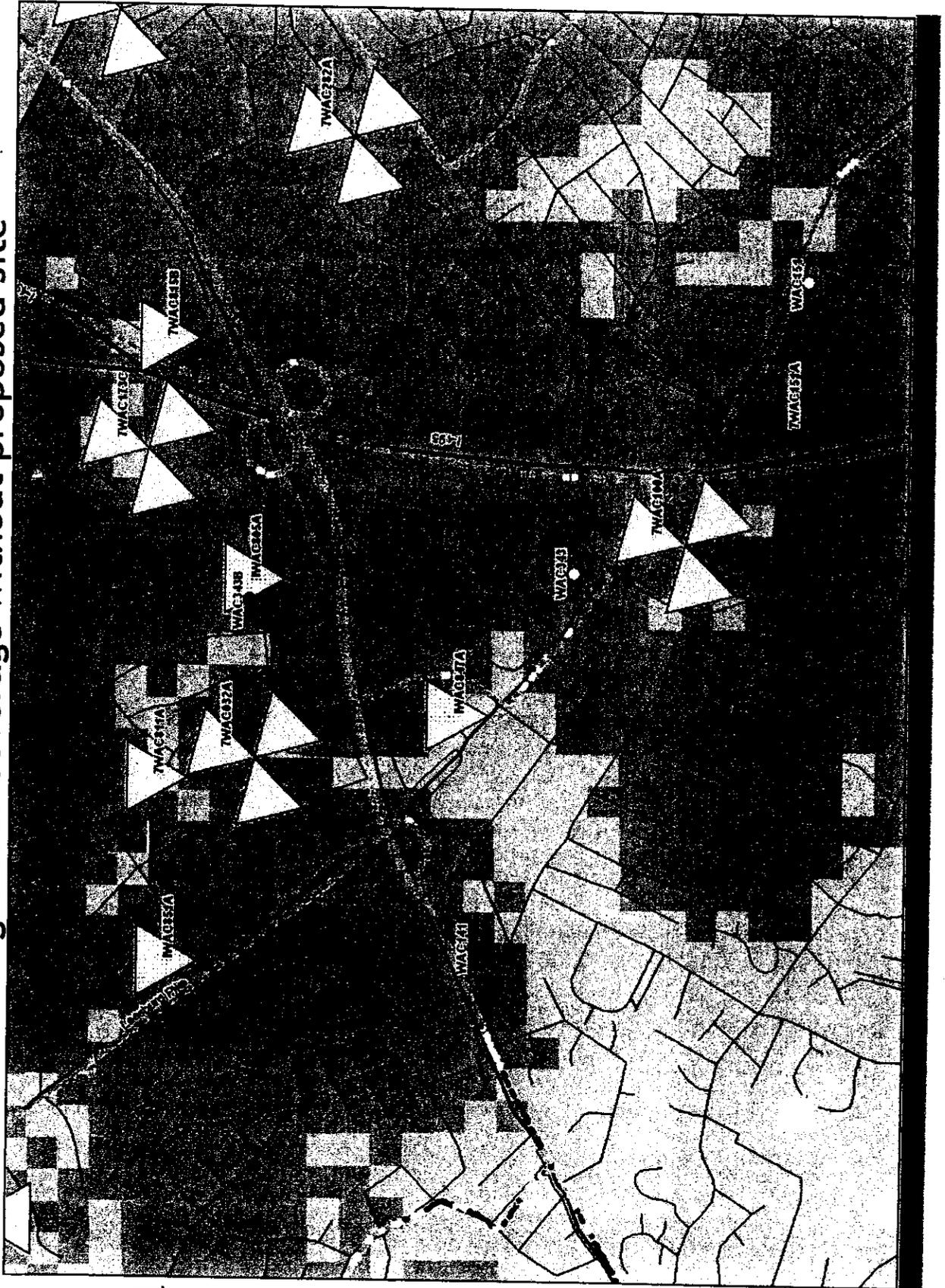
- Six double transceiver units (dTRU); that is, 12 transceivers
- Filter and hybrid combining one, two, or three sectors in one cabinet
- Improved radio performance
- Synthesized and baseband frequency hopping
- Supports 12 transceiver EDGE on all timeslots
- Supports GSM 800, 900, 1800 and 1900 MHz
- Extended Range 121 km
- Duplexer and TMA support for all configurations
- Four transmission ports supporting up to 8 Mbit/s
- Optional built-in transmission equipment transmission
- Prepared for GPS assisted positioning services
- Internal or external battery backup
- Simple co-siting with WCDMA equipment
- Supports most common power systems
- Hardware independent of transmission interface
- Prepared for outdoor environment (wide range of temperatures / humidity)

Technical specifications for RBS 2106

Frequency band:	GSM 800, E-GSM 900, GSM 1800, GSM 1900
Number of transceivers:	2-12
Number of sectors:	1-3
Transmission interface:	1.5 Mbit/s (T1), 2 Mbit/s (E1), 75, 100, 120 Ω
Dimension (H x W x D):	1614 x 1300 x 940 mm (63 1/2 x 51 1/8 x 37 in.) including installation frame
Weight without batteries:	550 kg (1211 lbs.)
Power into antenna feeder:	33 W / 45.2 dBm (GSM 800 / GSM 900) 25 W / 44.0 dBm (GSM 1800 / GSM 1900)
Receiver sensitivity:	-110 dBm (without TMA)
Power supply:	200-250V AC, 50/60 Hz
Integrated battery backup:	30 minutes, 90 minutes (TM space used)
External battery backup:	Up to 4 hours (optional)
Operating temperature:	-33°C – +45°C (-27°F – + 113°F)
Weatherproofing:	Min level IP55 according to IEC/EN 60529 Min level 3R according to UL 50 and CSA C22.2 No. 94

T-Mobile stick together

Existing On Air Coverage without proposed site



Legend

- 76
- 84
- 92

3 Year Build Out

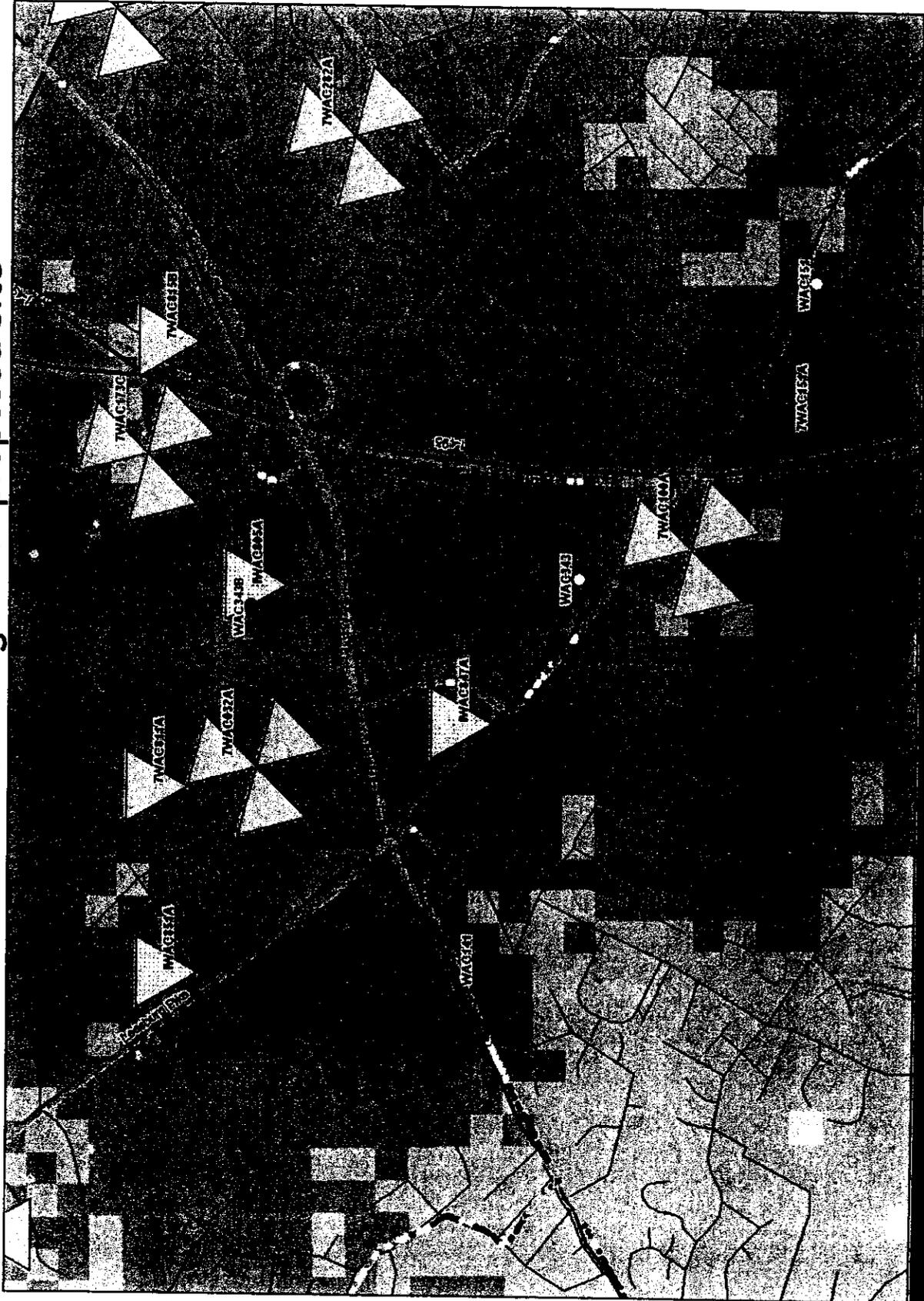
- HC
- SC
- Candidate

Scan Data

- better than -76
- 84 to -76
- 92 to -84
- below -92

T-Mobile stick together

Future On Air Coverage with proposed site



Legend

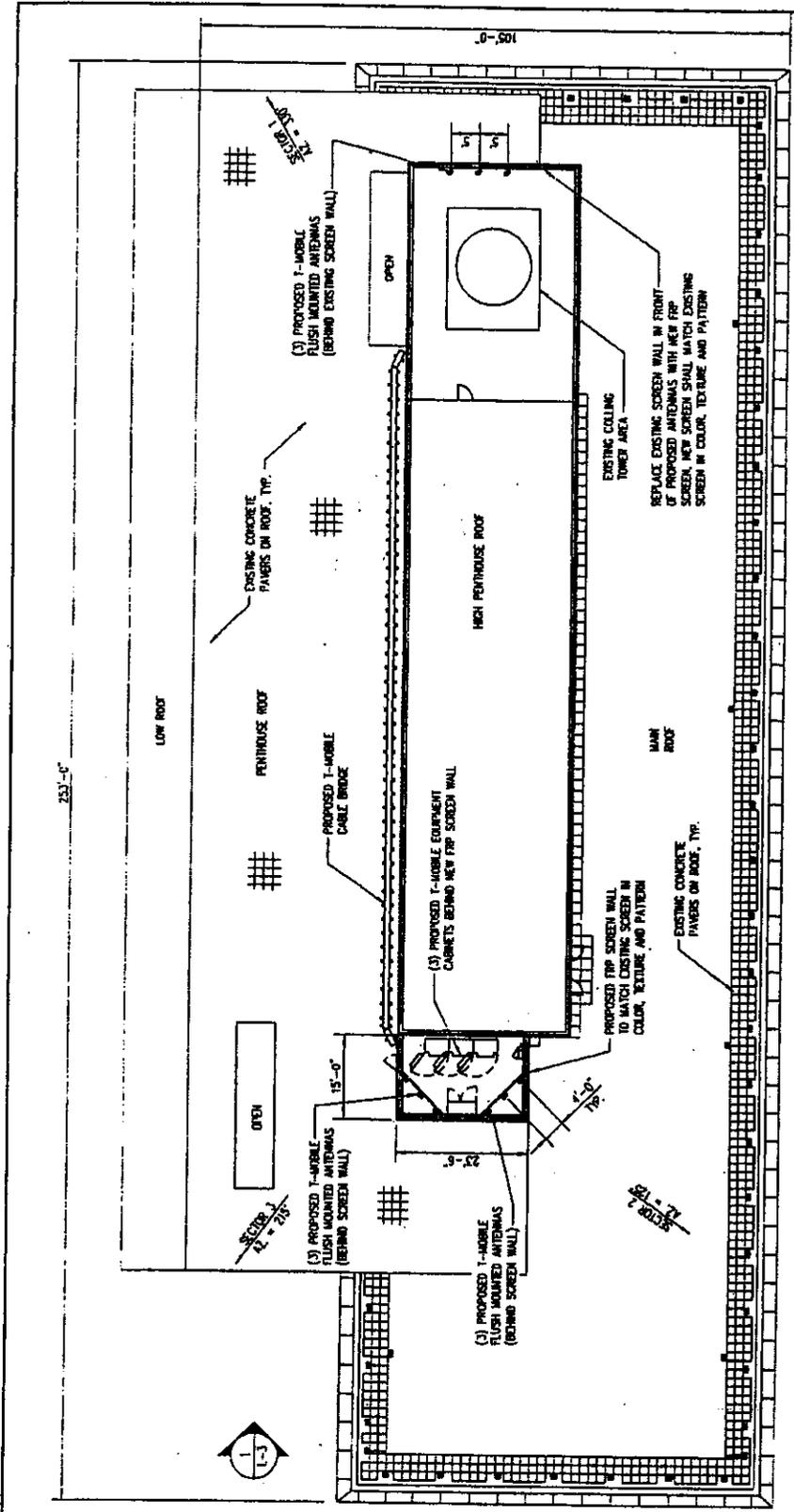
- 76
- 84
- 92

3 Year Build Out

- HC
- SC
- Candidate

Scan Data

- better than -76
- 84 to -76
- 92 to -84
- below -92



RECEIVED
 SEP 23 2008
 DIRECTOR, PLANNING DIVISION
 DEPT. OF PLANNING & ZONING

↑ NORTH
 (1-2)
ROOF PLAN
 SCALE 1" = 30'



APPROVED BY: _____

entrex
 communication services, inc.
 1575 Eye Street, N.W. Suite 350
 WASHINGTON, D.C. 20005
 PHONE: (202) 408-0900
 FAX: (202) 408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
04-24-08	LEASE EXHIBIT REVIEW	A
05-01-08	LEASE EXHIBIT	0

T-MOBILE NORTHEAST LLC
 12050 BALTIMORE AVENUE
 BELTSVILLE, MD 20705
 PHONE: (240) 264-8800

WAC343B TYSONS
 1800 TYSONS BLVD
 MCLEAN, VA 22102

TITLE: **ROOF PLAN**

PROJECT NO: 1042.580
 DESIGNER: K.H. ENGINEER: M.M.

(3) PROPOSED T-MOBILE (1195) MOUNTED ANTENNAS (BEHIND EXISTING GREEN WALL) REPLACE EXISTING SCREEN WALL IN FRONT OF PROPOSED ANTENNAS WITH NEW ZIP SCREEN. NEW SCREEN SHALL MATCH EXISTING SCREEN IN COLOR, TEXTURE AND PATTERN.

(3) PROPOSED T-MOBILE EQUIPMENT CABINETS BEHIND NEW ZIP SCREEN WALL. PROPOSED ZIP SCREEN WALL TO MATCH EXISTING SCREEN IN COLOR, TEXTURE AND PATTERN.

(3) PROPOSED T-MOBILE FLUSH MOUNTED ANTENNAS (BEHIND SCREEN WALL)

EXISTING SCREEN WALL

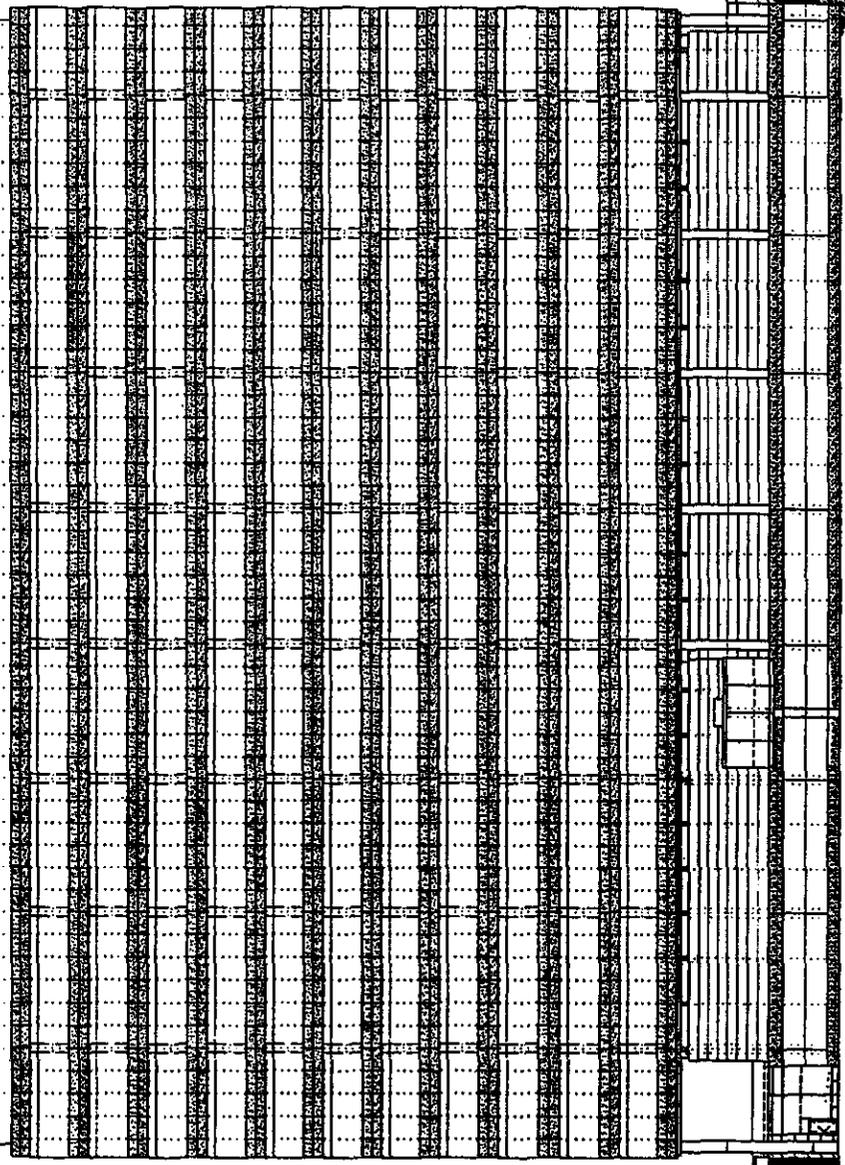
ANTENNA ROAD CENTER

EXISTING PORCHHOUSE

- 1.0. PARAPET EL. 3182.75
- 1.0. ROOF EL. 3182.75
- 1.0. PARAPET EL. 3181.42
- 1.0. ROOF EL. 3177.5

- 1.0. LOBBY EL. 331.17
- 1.0. GRAB BAR EL. 0.0

EXISTING CABAGE



1
L-7

EAST ELEVATION
SCALE 1" = 40'

APPROVED BY: _____



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SUBMITTALS

DATE	DESCRIPTION	REV.
04-24-08	LEASE EXHIBIT REVIEW	A
05-01-08	LEASE EXHIBIT	0

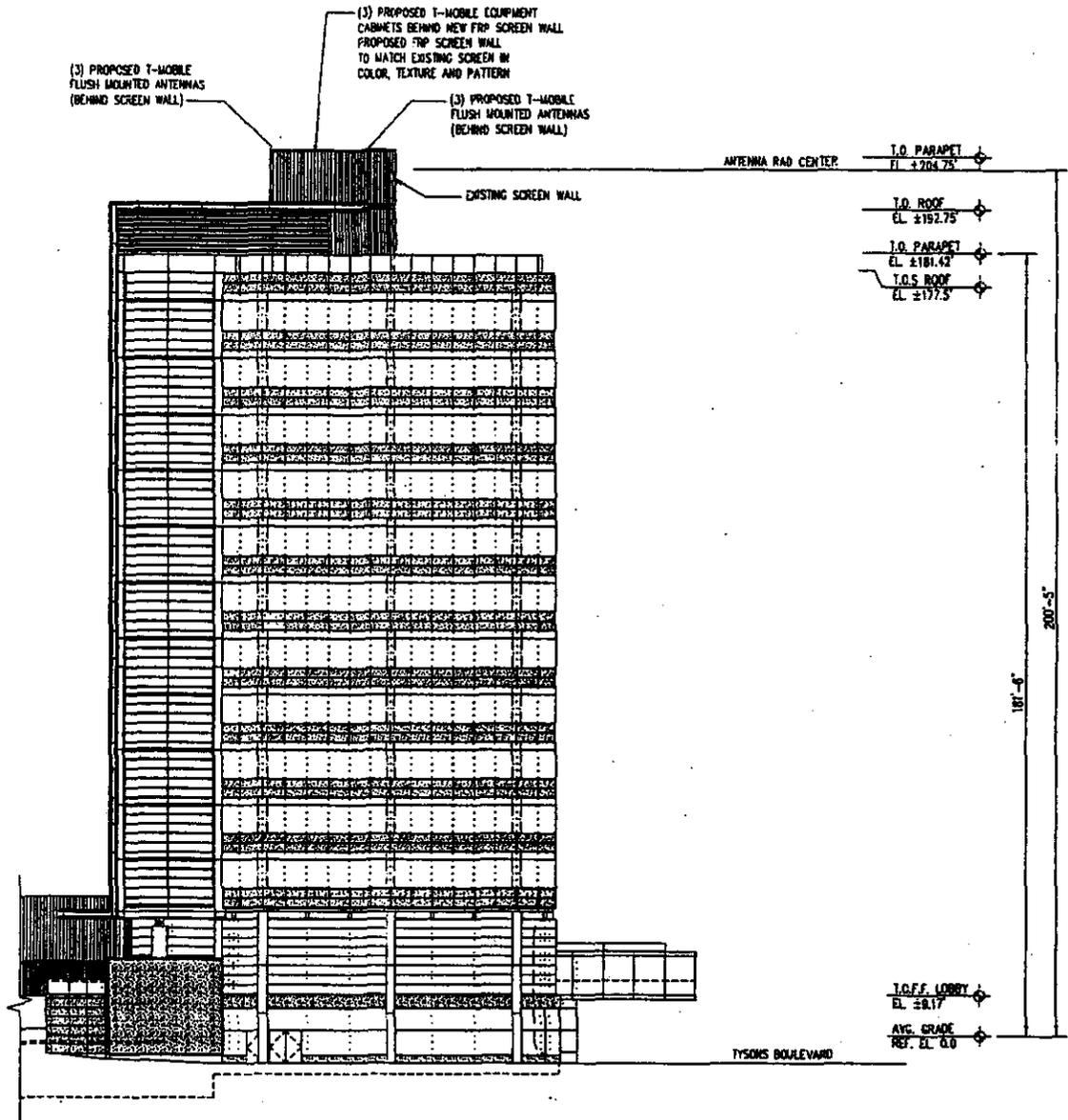
T-MOBILE NORTHEAST LLC

12050 BALTIMORE AVENUE
BELTSVILLE, MD 20705
PHONE: (240) 264-8600

WAC343B
TYSONS
1800 TYSONS BLVD
MCLEAN, VA 22102

EAST ELEVATION

PROJECT NO: 1042.580
DESIGNER: K.H. ENGINEER: M.M.



SOUTH ELEVATION
SCALE: 1" = 40'

1
L-3

APPROVED BY: _____



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PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
04-24-06	LEASE EXHIBIT REVIEW	A
05-01-06	LEASE EXHIBIT	0

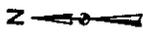
T-MOBILE NORTHEAST LLC

12050 BALTIMORE AVENUE
BELTSVILLE, MD 20705
PHONE: (240) 264-8600

**WAC343B
TYSONS
1800 TYSONS BLVD
MCLEAN, VA 22102**

TITLE: **SOUTH ELEVATION**

PROJECT NO: 1042.580
DESIGNER: K.H. ENGINEER: M.M.



GENERAL NOTES

1. This map is a preliminary zoning map and is subject to change without notice.

2. The zoning map is based on the zoning map of the City of Fairfax as of the date of the adoption of this map.

3. The zoning map is based on the zoning map of the City of Fairfax as of the date of the adoption of this map.

4. The zoning map is based on the zoning map of the City of Fairfax as of the date of the adoption of this map.

GENERAL NOTES

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8. The zoning map is based on the zoning map of the City of Fairfax as of the date of the adoption of this map.



ADMINISTRATIVE INDEX

29-1	29-2	30-1
29-3	30-2	30-3
39-1	39-2	40-1

PROPERTY MAP ZONING

29-4

Revised to: 01-01-2008

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