



TOWN OF ACTON
472 Main Street
Acton, Massachusetts 01720
Telephone (978) 264-9636
Fax (978) 264-9630
planning@acton-ma.gov

Planning Department

MEMORANDUM

To: Planning Board **Date:** August 17, 2006
From: Kristin K. Alexander, AICP, Assistant Planner *VLA*
Subject: Omnipoint Communications, Inc.
Wireless Communication Facility Special Permit – 164 Newtown Road

Attached are the application and departmental/agency reviews for Omnipoint Communications Inc. Wireless Communication Facility Special Permit. The applicant is proposing a 100' flagpole-style monopole behind the Church of the Good Shepherd (164 Newtown Road).

Mr. David Maxson of Broadcast Signal Lab has been hired by the Town (and paid for by the applicant) to provide technical/expert review of the proposal to the Planning Board. The Planning Board has used Broadcast Signal Lab's services for several, if not all, wireless communication facility applications in the past. Attached is an e-mail from him to the applicant and the Planning Department. To summarize the e-mail, Mr. Maxson needs more information from the applicant to complete his review. Mr. Maxson proposes in the e-mail that he attends the hearing this Tuesday night (8/22/06) and describes his observations to date. After the discussion, hopefully everyone can agree on a hearing continuation date. The applicant can then work on submitting the needed information. Assuming the information is submitted in a timely manner, Mr. Maxson can complete his review, provide a report to the Board, and attend the hearing continuation to discuss the report and application in more detail. Staff supports this proposal.

Below is general information about the proposed development and the Planning Department's comments. The applicant should address all departmental and agency comments.

Location:	164 Newtown Road, Acton
Applicant/Owner:	Omnipoint Communications, Inc. (a wholly owned subsidiary of T-Mobile USA, Inc.) Norton, MA
Owner:	Church of the Good Shepherd, Acton, MA
Engineer:	Aerial Spectrum Incorporated, Reading, MA
Proposed Tower Height:	100 feet
Map/Parcel:	D-3/13
Zoning:	R-4, Groundwater Protection District Zone 4
Public Hearing:	August 22, 2006 – 7:45 PM
Decision Due:	November 7, 2006

Application Materials

1. Is the proposal in compliance with applicable Federal Aviation Administration (FAA), Massachusetts Aeronautics Commission, and the Massachusetts Department of Public Health regulations (Acton Zoning Bylaw (Bylaw) Section 3.10.6.9.i)? Submit documentation.
2. Submit water balance calculations, drainage calculations, and earth removal calculations as required by Rules and Regulations for a Wireless Communication Facility Special Permit (Rules) Sections 3.8, 3.9, and 3.10.
3. The applicant submitted photo simulations of the proposed monopole from different views. Based on the photo simulations provided, it appears that the monopole wouldn't be very visible from most locations during late spring, summer, and early fall (unless you were standing at the corner of Newtown Road and Arlington Street facing the church). How visible would the pole be during the other times of year when the trees don't have leaves? It appears that the majority of trees in the area are deciduous. Bylaw Section 3.10.6.7 requires that maps be submitted with the application that show how the pole would appear when there is no vegetation. Furthermore, the applicant has not conducted what is referred to as a "balloon test." Rules Section 3.7.11 requires the applicant to float a highly visible object at the location and height of the proposed tower and provide photographs to show visibility of the object. Locations of the photographs shall be shown on a map (as was done with the summertime photo simulations provided in the application). Other wireless communication facility companies have held their balloon tests and taken their photos in the winter to comply with these requirements.
4. The applicant should request waivers in writing from sections of the Rules when compliance can't or won't be met.

Facility Need

5. The applicant is proposing several other wireless communication facilities in the adjacent towns. Is this facility still necessary if the facilities in other towns are approved?
6. Can the antennas be located within the existing or a redeveloped church steeple/belfry?
7. The radio frequency coverage map shows what seem to be still pretty large gaps in coverage if the proposed monopole is approved. Does this mean that the applicant will be back applying for another tower in that general area of Acton? If the monopole was extended in height to 175 feet, would the coverage area increase and if so, by how much?
8. The Acton Police, Fire, and Information Technology Departments have expressed an interest in locating antennas on the monopole if approved.

Facility Design

9. Since the monopole is proposed to be only 100 feet high, will future antennas by others be able to locate on the monopole high enough to provide effective cellular service coverage?
10. Is the proposed monopole designed so it could extend up to the maximum height allowed in the Bylaw of 175 feet (if in the future it is necessary and approved by the Planning Board)?
11. One of the goals of the Bylaw is to minimize the visual impacts of wireless communication facilities. For this reason, a flag should not be installed on the top of the monopole and should be removed from the Plan drawings.
12. What is a CSC cabinet? Should it be located outside the proposed chain link fence and lease area (as shown on the Compound Plan and Elevation)? Please explain.

Site Design

13. The proposal is to locate an access drive to the facility from an existing, paved drive along the west side of the church. Since at least half of the access drive would be paved, and to prevent potential future erosion, staff would recommend that the entire access drive be paved.
14. Sidewalks have not been addressed (Rules Section 3.7.5.5). A sidewalk should be shown on the Plan and constructed along the site's frontage on Newtown Road and Arlington Street, or a donation should be made to the Town's sidewalk fund.
15. Is any additional landscaping proposed for the site? If so, a landscape plan should be submitted for review. The proposed facility would be very close to the church play area. Currently, the church play area "feels" secluded because it has the church building on one side and woods on the other. Existing vegetation should be preserved and/or potentially supplemented, or fairly dense landscaping (that won't be bare in the winter) should be planted between the facility and the play area. In addition, the facility should be screened as much as possible from residential buildings and public streets within 500 feet of the facility (Rules Section 3.7.9).
16. Is outdoor lighting proposed for the site? If so, it shall comply with Bylaw Section 3.10.4.3, Rules Section 3.7.5.10, and its details and locations shall be shown the Plan.

Plan Changes

17. Specify the color of the proposed monopole on the Plan. Staff wants to ensure the color of the monopole blends in with the natural, surrounding area (Bylaw Section 3.10.6.9.f)).
18. The scales on the Survey Plan, Vicinity Plan, and Compound Plan do not match the scales of the drawings. Staff cannot verify compliance with the setback and other dimensional requirements of the Acton Zoning Bylaw. The applicant needs to correct the scales and re-submit the plan sheets for review.
19. The Survey Plan and Vicinity Plan list the incorrect owners of 14 Arlington Street (tax map D-3, parcel 17). Change the owners' names to James and Catherine Monahan.
20. The aerial photograph used on the Vicinity Plan is not of 164 Newtown Road. Please correct.
21. Remove the tree symbols shown in the legend on the Vicinity Plan because they are not used in the drawing.
22. There is a label on the Compound Plan that states: "Proposed 10' wide access road surfaced with processed compacted gravel (limit of work)." The limit of work wouldn't end there because the access road would still have to be constructed down to current access drive on the west side of the church. Clearly identify on all the plan sheets the actual, entire limits of work.
23. The Vicinity Plan should show the seal of a Registered Land Surveyor.
24. The Vicinity Map on the Title Sheet should show a minimum of one mile diameter and be at a scale of 1"=1200' (Rules Section 3.7.2).
25. Show all zoning district boundaries, including the Groundwater Protection Zone 4 and any Flood Plain, on the Plan (Rules Section 3.7.3.4).
26. Show all wetland buffer area boundaries on the Plan (Rules Section 3.7.4.4).
27. Show driveway entrances on other lots within 75 feet of the site with the distance between driveways dimensioned (Rules Section 3.7.5.7).
28. Show the location and type of existing and proposed stormwater drainage facilities, water services, and underground utilities (such as electric, gas, etc). In addition, show the location of

all fire hydrants (within 500' of the facility) or explain in a note on the Plan how fire protection will be provided to the site (Rules Section 3.7.6).

29. Show on the Plan at least one sign in a visible location at or near the base of the facility that provides the telephone number where the operator in charge can be reached on a 24-hour basis (Bylaw Section 3.10.4.5).
30. Add the Plan Notes listed in Rules Section 3.7.14 to the Plan.

L:\Development Applications\Omnipoint-T-Mobile\164 Newtown Rd - Church of Good Shepherd\164 Newtown Rd. - Preliminary - 8-06.doc

Kim DelNigro

From: Kristin Alexander
Sent: Thursday, August 17, 2006 12:43 PM
To: Kim DelNigro
Subject: FW: Acton Good Shepherd

-----Original Message-----

From: David Maxson [mailto:david@broadcastsignallab.com]
Sent: Thursday, August 17, 2006 10:49 AM
To: Grossman, Brian
Cc: Roland Bartl; Kristin Alexander
Subject: Acton Good Shepherd

Brian,

I am informed that there is a proposed Boxborough T-Mobile site that may relate to the coverage of the proposed Acton site. I request that T-Mobile prepare a coverage plot with existing plus Boxboro projected coverage, and existing plus Boxboro plus proposed Good Shepherd coverage. I would appreciate delivery of electronic copies via email, and the record may be supplemented by hard copies directed to the Planning Board.

Seeing the lack of any coverage overlap from the proposed Good Shepherd facility and the adjacent facilities, my report will contain discussion about the intervening gaps. Either

- 1) the coverage will be satisfactory, in which case
 - a) the -84 dBm threshold shown is not the threshold T-Mobile applies in this instance, in which case new plots with a new threshold should be shown, or
 - b) the accuracy of the plots is insufficient to depict actual -84 dBm service here, in which case drive tests ought to be provided, or
- 2) the coverage will be unsatisfactory, requiring more facilities in the not too distant future, in which case
 - a) coverage should be depicted from greater heights to possibly fill the gap, and
 - b) coverage should be depicted with lesser heights in anticipation of additional facilities, and
 - c) possible locations and types of those additional facilities should be presented.

The application indicates the potential use of the facility by three additional carriers. Using the 10-foot customary aperture, the lowest of four apertures would be from 60 to 70 feet. To illustrate the potential effect on PCS coverage from this height, please provide a coverage plot of existing coverage plus T-Mobile at 67 feet center.

Has coverage been crane tested? If so, please provide plots and a brief description of methodology that will permit us to verify the normalization of the drive test data to equate with the computer estimated data.

What is the greatest height of the Good Shepherd building? Has T-Mobile considered engaging the services of an architect to consider designs other than the proposed monopole design? If co-location of a total of four carriers were not a requirement, what height would be satisfactory for T-Mobile?

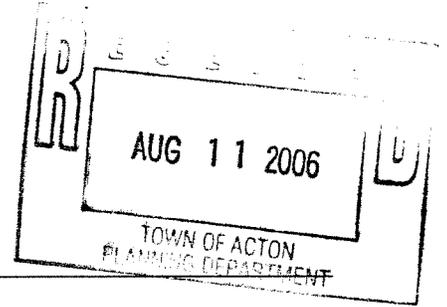
Based on the foregoing, I anticipate that my submission of a report this week would be premature. In light of the need for other materials that have not been submitted to the record, of which I have been informed by the Planning Department, I suggest that we attend the hearing Tuesday and I will discuss my observations to date. With timely answers to these questions, and others that may arise in the course of my review, I can prepare a written report in advance of the following scheduled meeting (for which we must agree on a date with the Board).

I have not consulted the Planning Department on this proposal and seek their direction.

David

David Maxson
Broadcast Signal Lab, LLP
503 Main Street
Medfield, MA 02052
508 359 8833 office
617 448 8570 mobile

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 264-9628
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Engineering Department

INTERDEPARTMENTAL COMMUNICATION

To: Planning Department

Date: August 9, 2006

From: Engineering Department

**Subject: Wireless Communication Facility Special Permit-164 Newtown Road
T-Mobile USA**

We have reviewed the above-mentioned plans for 164 Newtown Road dated June 23, 2006 and have the following comments. Unless otherwise specified, the section numbers referenced in this memo refer to the Town of Acton Wireless Communications Facility Special Permit Rules and Regulations.

1. The contractor will be required to apply for a Permit to Construct within a Public Way for any work shown in the right of way for Arlington Street or Newtown Road such as the new underground utility line at utility pole #38.
2. If there are any existing trees located in the Newtown Road layout that will be removed to install the underground telephone wire, the applicant will need to consult with Tree Warden.
3. The plans were plotted at a scale different than the scale labeled on the plans. The engineer needs to re-plot these plans at the correct scales.
4. The plans showing the proposed easement for the new facility needs to be revised so that the easement lines do not encroach into the layout of the Town roads. The engineer has shown the proposed 10-ft wide utility easement extending into the Newtown Road layout.
5. The engineer did not label the groundwater protection district on the plans. According to the Town Maps, this property is located in Groundwater Protection District Zone 4.
6. The engineer has sketched the approximate locations of the adjacent dwellings on the abutting lots from the Town Atlas. If the proposed monopole is situated in a manner that the minimum setback distance is critical, we recommend that the applicant's surveyor certify the distance to confirm the actual horizontal distance between the monopole and the structure or the property line.
7. A note should be added to the plans requiring the existing survey monuments such as the stone bounds and iron pipes to be marked in the field prior to construction. This note should also state that if these property markers are damaged or destroyed during

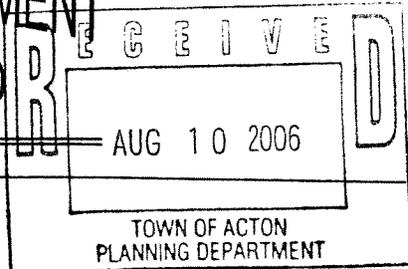
construction that the applicant will hire a registered land surveyor to reset the monuments and certify the new locations.

8. The engineer should show any signs required to be installed for this facility such as the sign specified by Section 3.7.5.9.
9. The applicant has not proposed any sidewalks in conjunction with this project. There are no existing sidewalks along the frontage of this property.
10. The engineer is proposing to construct the access driveway with a gravel surface instead of an impervious material such as bituminous concrete. We are concerned about allowing the gravel driveway due to the constant potential risk for material eroding toward the wetlands. Due to the expected low volume of traffic (bi-weekly inspections), we recommend the engineer consider pervious pavers for the proposed driveway instead of gravel to minimize the potential for future erosion and maintenance problems.
11. If the gravel driveway is approved, we recommend that the applicant be required to make any necessary repairs to the gravel driveway immediately upon notice or discovery of a problem. The applicant should also be required to clean-up and restore any areas where the gravel material might have eroded.
12. The Fire Chief will need to review the plans to ensure that a fire truck can safely maneuver within the new 10 foot wide driveway.
13. No fire hydrants have been shown on the plans. The engineer will need to add a note on the plans clearly explaining how the applicant will provide fire protection for the site.
14. The engineer should label the dimensions of any required parking spaces to demonstrate compliance with the Zoning Bylaw.
15. If the applicant intends to have any outdoor lighting at the new facility such as for security, the engineer needs to show this on the plans and include some details relating to the type of light that will be used.
16. The engineer did not show the approximate locations of any existing utilities such as water, gas, telephone, electric and cable TV on the plans.
17. The engineer should show the approximate location of the existing septic system for the church on the plans to ensure that this facility will not impact the septic system.
18. The engineer should add details on the plans to specify the construction requirements for items such as but not limited to a typical driveway cross section, etc...
19. There are no erosion and sedimentation control notes or details explaining how they will prevent the disturbed areas from eroding into the lower wetland areas during construction.
20. There should be an erosion & sedimentation control note that states the contractor is responsible to clean-up any sand, dirt or debris which erodes from the site onto any public way or private property, and to remove silt or debris that enters any existing drainage system including catch basin sumps, pipe lines, manholes and ditches immediately upon

discovery.

21. The engineer did not submit a proposed landscape plan.
22. The plan notes as specified in Section 3.7.14 should be added to the plans.
23. The engineer needs to submit a statement or calculations to certify the peak runoff rates from the site will not be increased and the recharge to groundwater will not be reduced due to the proposed facility.
24. The engineer did not submit their calculations determining the amount of material to be removed or the amount of fill to be brought into the site.

ACTON PLANNING DEPARTMENT
Inter-departmental Memo
978-264-9636



Date: July 10, 2006

To: Assessors
Conservation Commission
Fire Department
Municipal Properties
Water District
Building Commissioner
Engineering Administrator
Health Department
Police Department, fyi

From: Kim DeNigro, Secretary *DD*

Subject: Review of a Wireless Communications Facility Special Permit at 164 Newtown Road

Attached is an application for a Special Permit for a Wireless Communications Facility at 164 Newtown Road. General information about this address is as follows:

Location: 164 Newtown Road
Applicant & Owners: Omnipoint Communications Inc.
A wholly owned subsidiary of T-Mobile USA, Inc.
Address: 15 Commerce Way, Suite B
Norton, MA 02766
Record Owners: The Church of the Good Shepard
154 Newtown Road
Acton, MA 01720
Attorney for Applicant: Brian S. Grossman, Esq.
Area of site: 4.5 acres
Map: D-3
Parcel: 13
Zoning: R-4
Decision Date: November 7, 2006

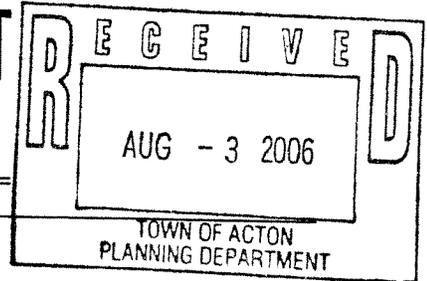
Please review the enclosed application and send your comments to the Planning Department no later than August 10, 2006. The public hearing is scheduled for August 22, 2006 at 7:45 PM.

We have also received copies of **large plans**. If you need to review them or have any questions, please call the Planning Department at 264-9636

Review Comments: Please be advised that I have no
comment or objection relative to this application.

Signature: *Robert C. Long, Fire chief* Date: 8/9/06

ACTON PLANNING DEPARTMENT
Inter-departmental Memo
978-264-9636



Date: July 10, 2006

To: Assessors Building Commissioner
Conservation Commission Engineering Administrator
Fire Department Health Department
Municipal Properties Police Department, fyi
Water District

From: Kim DeNigro, Secretary *KD*

Subject: Review of a Wireless Communications Facility Special Permit at 164 Newtown Road

Attached is an application for a Special Permit for a Wireless Communications Facility – 164 Newtown Road . General information about the address is as follows:

Location: 164 Newtown Road
Applicant & Owners: Omnipoint Communications Inc.
A wholly owned subsidiary of T-Mobile USA, Inc.
Address: 15 Commerce Way, Suite B
Norton, MA 02766
Record Owners: The Church of the Good Shepard
154 Newtown Road
Acton, MA 01720
Attorney for Applicant: Brian S. Grossman, Esq.
Area of site: 4.5 acres
Map: D-3
Parcel: 13
Zoning: R-4
Decision Date: November 7, 2006

Please review the enclosed application and send your comments to the Planning Department no later than August 10, 2006. The public hearing is scheduled for August 22, 2006 at 7:45 PM.

We have also received copies of **large plans**. If you need to review them or have any questions, please call the Planning Department at 264-9636

Review Comments: *The survey plan attached with the special permit application is reduced and not to scale, thus, difficult to use to determine the projects nearness to wetlands. Acton's Wetlands Bylaw requires that structures be a minimum of 75' off wetlands, this project does not appear to meet that setback requirement.*

Signature: *Kim DeNigro* Date: *8.3.06*

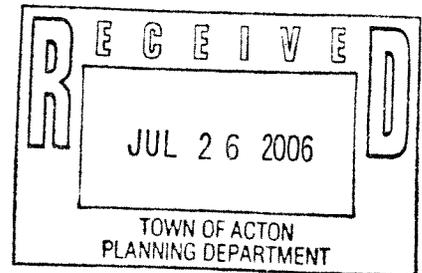
I would recommend that the applicant submit an Abbreviated Notice of Resource Area Delineation (ANRAD) with the Acton Conservation Commission to determine the extent of wetlands, prior to submitting a Notice of Intent for the project.

ACTON MUNICIPAL PROPERTIES DEPARTMENT

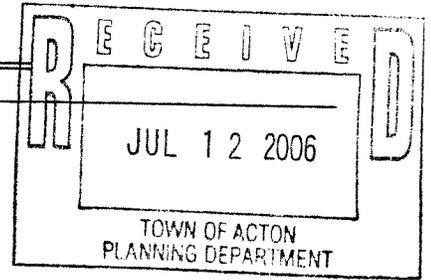
INTERDEPARTMENTAL COMMUNICATION

To: Kim DelNigro, Planning Department **Date:** 7/26/06
From: Dean A. Charter, Municipal Properties Director
Subject: Wireless Facility, 164 Newtown Road

I have reviewed the plans and inspected the site of the proposed wireless monopole. In my opinion the proposed monopole is so situated that it will be minimally and intermittently visible from the public roadway; as such no additional landscaping is required.



ACTON PLANNING DEPARTMENT
Inter-departmental Memo
978-264-9636



Date: July 10, 2006

To: Assessors
Conservation Commission
Fire Department
Municipal Properties
Water District
Building Commissioner
Engineering Administrator
Health Department
Police Department, fyi

From: Kim DelNigro, Secretary *JD*

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We have also received copies of **large plans**. If you need to review them or have any questions, please call the Planning Department at 264-9636

Review Comments: I do not have any comments

Signature: *Larry D...*

Date: July 11, 2006

ACTON PLANNING DEPARTMENT
Inter-departmental Memo
978-264-9636

RECEIVED

Date: July 10, 2006

To: Assessors
Conservation Commission
Fire Department
Municipal Properties
Water District
Building Commissioner
Engineering Administrator
Health Department
Police Department, fyi

JUL 10 2006

ACTON BOARD OF HEALTH

From: Kim DelNigro, Secretary *KD*

Subject: Review of a Wireless Communications Facility Special Permit at 164 Newtown Road

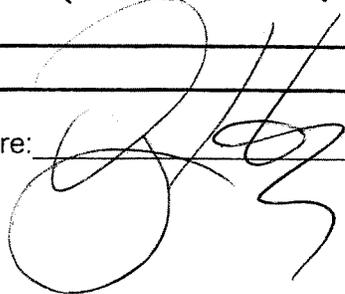
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Review Comments: *The applicant will need a hazardous materials storage permit from the Board of Health. The Health Department has no other concerns*

Signature: 

Date: *7/10/06*

