



**Appendix B
AT&T Siting Plan Amendment**

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Report

To

The Pinelands Commission
P.O. Box 7
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In reference to

AT&T Wireless
Amendment to the Comprehensive Plan for Cellular and PCS Service

Date

Bruce A. Eisenstein

Background

Since August 1999, The Consulting Group (TCG: Bruce Eisenstein, Ph.D. P.E.; Moshe Kam, Ph.D. P.E.; Leonid Hrebien, Ph.D., and P. M. Shankar, Ph.D.) has been providing the Board and the staff of the Pinelands Commission (PC) with technical assistance in the area of mobile radio and telecommunications, in particular the siting of the antenna facilities for these systems. This assistance was made in conjunction with the anticipated "Comprehensive Plan for PCS Communications Facilities in the Pinelands," and following previous consulting to the PC by the TCG on matters of cellular telephony.

The TCG reviewed technical and administrative information supplied by the PC and by the prospective PCS providers ("providers" in the sequel), *Sprint Spectrum LP* and *OmniPoint PCS*. The TCG reviewed several drafts of the document entitled "Comprehensive Plan for PCS Communications Facilities in the Pinelands" ("the *Plan*") submitted by *Sprint* and *OmniPoint*, and a number of coverage maps, land-use maps, and topographical maps. The Plan was adopted and published.

At that time we wrote: "The TCG is unable to assess the ramifications of future actions by PCS entities who failed to join the present plan." We now have a new applicant, AT&T Wireless that has filed an amendment to the existing plan with proposals for 100 antenna sites in the Pinelands boundaries.

The AT&T Amendment

AT&T writes

At the time of submissions and adoption of the Comprehensive Plans, AT&T Wireless PCS of Philadelphia and its affiliates ("AT&T Wireless") were not actively developing their wireless communications system in the Pinelands and did not participate in the adoption of the Comprehensive Plans. AT&T Wireless is now building out its wireless communications system in the Pinelands and submits the within amendment to the Cellular and PCS Comprehensive Plans ("Amended Plan"). This Amended Plan is not proposed to supersede the Comprehensive Plans but is in addition to and incorporates all documents that have been approved by the Pinelands Commission in regard to the Comprehensive Plans.

The proposed 100 new antenna sites are divided into four groups.

Group 1 Antennas to be placed on existing approved *cellular* communication facilities

Group 2 Antennas to be placed on existing approved *PCS* communication facilities

Group 3 Antennas to be placed on *existing structures*

Group 4 Antenna sites to be constructed from scratch, referred to as *raw land*

The Pinelands Comprehensive Master Plan divides the New Jersey Pinelands into three regions governing the development of communication facilities.

The first region, covering the Regional Growth and Pinelands Town Areas, is, "unrestricted." This region allows providers to build facilities with associated structures to any height necessary to meet radio frequency design requirements, with no defined height limit or no limit on the number of structures in the region. This will be referred to as the regional growth area (RGA).

The second region, covering the Agricultural Production Area, Regional Development Area, and Select Villages, is defined as "height restricted." This region requires the providers to meet certain siting criteria for proposed facilities, verify that no existing suitable structure exists within the immediate vicinity of the proposed facility, as well as submit a "Comprehensive Plan" of all existing and proposed facilities within the Pinelands, for approval by the Commission. This will be referred to as the height restricted area (HRA).

The third region, covering the Preservation Area, Forest Area, Special Agricultural Production Area, and Select Villages, is defined as "height and least number of structures restricted." This region requires that the above mentioned siting criteria be met, that the providers demonstrate that the least number of structures in this region is proposed, and that a "Comprehensive Plan" of all existing and proposed facilities within the Pinelands be submitted for approval by the Commission. This will be referred to as the restricted area (RA).

Raw Land or New Construction Sites

The eight sites shown below are proposed to be new construction sites. Of these, four sites are outside of the RGA, 317, 358, 372, and 322.

Table 1 – AT&T Proposed Raw Land Construction Sites

SITE NUMBER	COUNTY	TOWNSHIP	PINELANDS ZONE	SITE GROUP	PCS PLAN NUMBER	LATITUDE	LONGITUDE
Pine317	NJAC	Egg Harbor	Federal or Military Facility	8	317	39.457780000	-74.595800000
Pine358	NJOC	Berkeley	Forest Management Area	8	358	39.932370000	-74.291990000
Pine363	NJAC	Mullica	Pinelands Town	8	RGA 363	39.605580000	-74.756400000
Pine372	NICU	Maurice River	Pinelands Village	8	372	39.366900000	-74.935500000
Pine323	NJAC	Galloway	Regional Growth Area	8	RGA 323	39.482200000	-74.589000000
Pine334	NJBU	Pemberton	Regional Growth Area	8	RGA 334	39.965830000	-74.635830000
Pine336	NJBU	Pemberton	Regional Growth Area	8	RGA 336	39.954440000	-74.550800000
Pine322	NJAC	Hamilton	Rural Development Area	8	322	39.484100000	-74.651300000

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Facility 317:

AT&T's Comment: This facility is located in Atlantic County (Egg Harbor Township). It is in the Federal or Military Facility and is required for coverage.

We note that 317 is to be located in an airport that is part of the AC airport complex. We also note that there is more than adequate and even dense coverage around the area. Based on the propagation plots supplied by AT&T, we recommend against this site.

Facility 322:

AT&T's Comment: This facility is located in Atlantic County (Hamilton Township). It is in the "height restricted" area and is required for coverage.

We agree that it is needed to cover the area in question.

Facility 323:

AT&T's Comment: This facility is located in Atlantic County (Galloway Township). It is in the "unrestricted" area and is required for coverage.

Since this site is in the RGA and it appears necessary for coverage, we agree.

Facility 334:

AT&T's Comment: This facility is located in Burlington County (Pemberton Township) on municipal property. It is in the "unrestricted" area and is required for coverage.

This site is in the RGA, and although it is relatively close to the border of the Pinelands, there is an existing site in Pemberton, outside the Pinelands, that would prevent them from going outside the border. We agree.

Facility 336:

AT&T's Comment: This facility is located in Burlington County (Pemberton Township). It is in the "unrestricted" area and is required for coverage.

Even though this site is in the RGA, we will need further justification for why the coverage cannot be obtained by a combination of sites 18, 328, and 38.

Facility 358:

AT&T's Comment: This facility is located in Ocean County (Berkeley Township). It is in the "height and fast number restricted" area and is required for coverage.

We agree that this site is needed for coverage.

Facility 363:

AT&T's Comment: This facility is located in Atlantic County (Mullica Township). It is in the "unrestricted" area and is required for coverage.

We agree that this site is needed for coverage.

Facility 372:

AT&T's Comment: This facility is located in Cumberland County (Maurice River). It is in the "height and least number of structures restricted" area and is required for coverage. The proposed PCS # 17 is not built and is not a viable alternative due to issues with Connective (sic). AT&T Wireless has a viable candidate located at the Cumberland Volunteer Fire Department.

We are somewhat puzzled by the reference to PCS #17 that is not part of the present AT&T Amendment. We assume that 17 refers to a site that is in the approved PCS CMP, and that AT&T is asserting cannot be built. We cannot independently verify this. We note that this site is very close to the border of the Pinelands and that there is AT&T coverage west of the border from an existing site. If the confusion concerning site 17 can be cleared up, and if a justification can be made about why they would not go on the approved site, we are prepared to agree with the proposed site. We need further justification beforehand.

AT&T Proposed Antenna Sites on Existing Structures in the Restricted Area

The 14 sites shown below are in the restricted areas indicated and are proposed to be built on existing structures. We have excluded from the list those sites that are already on the approved plans for cellular or PCS, and we have excluded the ones that are already on the air.

Table 2 -- AT&T Proposed Sites on Existing Structures in the Restricted Zone

SITE NUMBER	COUNTY	TOWNSHIP	PINELANDS ZONE	SITE GROUP	PCS PLAN NUMBER	LATITUDE	LONGITUDE
Pine304	NJAC	Egg Harbor	Federal or Military Facility	3	304	39.451940000	-74.569700000
Pine309	NJAC	Hamilton	Forest Management Area	3	309	39.452580000	-74.745600000
Pine311	NJAC	Mullica	Forest Management Area	3	311	39.552330000	-74.686000000
Pine318	NJAC	Hamilton	Forest Management Area	3	318	39.529170000	-74.711700000
Pine319	NJAC	Hammonton	Agricultural Production Area	3	319	39.602220000	-74.811100000
Pine324	NJAC	Folsom	Forest Management Area	3	324	39.590580000	-74.851500000
Pine339	NJBU	Bass River	Pinelands Village	3	339	39.538330000	-74.463600000
Pine346	NJCA	Winslow	Pinelands Village	3	346	39.681940000	-74.888900000
Pine347	NJCA	Winslow	Pinelands Village	3	347	39.680000000	-74.836800000
Pine357	NJOC	Berkeley	Preservation Area	3	357	39.907500000	-74.735800000
Pine364	NJBU	Tabernacle	Agricultural Production Area	3	364	39.847800000	-74.702500000
Pine373	NJAC	Folsom	Pinelands Village	3	373	39.615300000	-74.855000000
Pine374	NJGI	Monroe	Rural Development Area	3	374	39.606110000	-74.916700000
Pine375	NJOC	Lacey	Preservation Area	3	375	39.878220000	-74.320600000

Facility 30a:

This facility is located in Atlantic County (Egg Harbor Township). It is in the Federal or Military Facility and is required for coverage.

This site is close to site 317 discussed above. Like 317, it is in an area that shows dense coverage. We feel that further justification is necessary.

Facility 309:

This facility is located in Atlantic County (Hamilton Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We agree.

Facility 311:

This facility is located in Atlantic County (Mullica Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We agree.

Facility 319:

This facility is located in Atlantic County (Hammonton Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We need further clarification about why this site cannot be handled by sites 324, 373, 48, 320, 363, 52, and 14 - it is possible that 319 is the center of a seven-cell reuse pattern, but that is not obvious from the material we have.

Facility 324:

This facility is located in Atlantic County (Folsom Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We need further clarification about why this site cannot be handled by sites 310, 13, 373, and 14.

Facility 339:

This facility is located in Burlington County (Bass River Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We agree.

Facility 346:

This facility is located in Camden County (Winslow Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We agree.

Facility 347:

This facility is located in Camden County (Winslow Township). It is in the "height and least number of structures restricted" area and is required for service.

We agree.

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Facility 357:

This facility is located in Ocean County (Berkeley Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We agree.

Facility 364:

This facility is located in Burlington County (Tabernacle Township). It is in "the height restricted" area and is required for coverage.

We agree.

Facility 373:

This facility is located in Atlantic County (Folsom River). It is located in the "height and least number of structures restricted" area and is required for coverage.

This site is in an area of somewhat dense coverage. One of the potential candidates for a portion of the coverage is site 319, which we brought into question above. We would like further justification for this site before reaching a conclusion.

Facility 374:

This facility is located in Gloucester County (Monroe Township). It is in the "height restricted" area and is required for coverage.

This site is in an area of dense coverage. We will need further justification about why this area cannot be covered by a combination of sites 356, 13, and 310.

Facility 375:

This facility is located in Ocean County (Lacey Township). It is in the "height and least number of structures restricted" area and is required for coverage.

We agree.

Proposed Facility that Will Only Be Utilized If the Existing Facility Cannot Be Used

Facility 318:

This facility is located in Atlantic County (Hamilton Township). It is in the "height and least number of structure restricted" area and is required for coverage. This facility shall only be utilized if Facility 7C cannot be used.

We agree that they need either 318 or existing facility 7C for coverage.