



# CAPE COD COMMISSION

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Date: August 26, 1999

Re: Development of Regional Impact Request  
Cape Cod Commission Act

Applicant: Nextel Communications of the Mid-Atlantic, Inc.  
Hartwell Avenue  
Lexington, Massachusetts 02421  
(617) 839-6617  
Francis D. Parisi, Project Manager

Project #: TR98047

Project: Nextel Tower/Wellfleet  
Gross Hill Road, Wellfleet, Massachusetts

Lot/Plan: Map 9/Parcel 6 Land Court Plan # 31260A  
*cert # 28887*  
*Lot 6*

*owner: Commonwealth  
Electric Co.*

## DECISION OF THE CAPE COD COMMISSION

### SUMMARY

The Cape Cod Commission (Commission) hereby approves with conditions the application of Nextel Communications of the Mid-Atlantic, Inc. for a Development of Regional Impact approval, pursuant to Sections 12 and 13 of the Cape Cod Commission Act (Act), c. 716 of the Acts of 1989, as amended, for the Nextel Tower in Wellfleet, Massachusetts, a monopole of 140' in height with locations for 5 personal wireless service facilities and several concrete pads with room for two storage shelters and several equipment cabinets at the base of the monopole. The decision is rendered pursuant to a vote of the Commission on August 26, 1999.

### JURISDICTION

The proposed project qualifies as a Development of Regional Impact under Chapter A, Section 3(i) of the Commission's Regulations of General Application which states that "construction of any wireless communication tower exceeding thirty-five (35) feet in height from the natural grade of the site on which it is located" is presumed to be a Development of Regional Impact.

### PROJECT DESCRIPTION

The applicant proposes a 140-foot high, five carrier monopole with carriers at 140 feet, 130 feet, and 120 feet, and 2 users at 100 feet. The monopole will not be lit, and is proposed to be constructed of galvanized steel with a gray finish intended to blend into the skyline. Also included in the project is one 200-square foot prefabricated



equipment shelter that measures 10' x 20', one 250 square foot equipment shelter that measures 10' x 25', is 10 feet high and which will be constructed on a poured concrete slab, and a 7.5' x 12.5' concrete pad on which several equipment cabinets will be located. The applicant proposes to enclose the 2,040 square foot leased area within an 8-foot tall wooden stockade fence to provide a visual buffer from abutting residences, and to provide additional landscaping to screen the project from adjacent residences and Gross Hill Road.

The project is proposed to be located at an existing Commonwealth Electric substation off Gross Hill Road in Wellfleet. Two sets of transmission line easements connect to the substation and cross the property from separate directions. The site has been cleared of vegetation due to construction and maintenance of the existing transmission lines and sub-station.

### **PROCEDURAL HISTORY**

The project was referred to the Cape Cod Commission by the Wellfleet Planning Board on November 16, 1998, and received by the Commission on November 17, 1998. A pro-forma public hearing was opened on January 14, 1999 by a hearing officer, and was closed on April 12, 1999. The applicant and the Commission signed an Extension Agreement dated March 18, 1999 to extend the decision period for the project until the close of business on September 10, 1999.

On June 2, 1999, the Cape Cod Commission opened a duly noticed public hearing at Wellfleet Elementary School. The public hearing was continued to July 7, 1999 at the Wellfleet Elementary School, at which time a hearing officer continued it to the Cape Cod Commission meeting of July 15, 1999. At the July 15, 1999 Cape Cod Commission meeting, the Commission remanded the project to the Subcommittee, and voted to continue the public hearing to August 9, 1999 in the Town of Wellfleet. At the August 9, 1999 public hearing, the subcommittee continued the public hearing to the August 26, 1999 Commission meeting for a final decision.

On June 14, 1999, a Subcommittee meeting was held to discuss the project. The Subcommittee directed staff to write a draft decision approving the project to forward to the full Commission. At a subcommittee meeting on August 12, 1999, the Subcommittee reviewed and revised the draft decision and directed staff to forward it to the full Commission for the August 26, 1999 meeting.

### **MATERIALS SUBMITTED FOR THE RECORD**

#### **Applicant Submittals:**

- DRI Application and attachments, dated 3/10/99, received 3/11/99.
- Copy of Nextel's submittal to the Wellfleet Planning Board, dated 8/12/98, received on 3/11/99.
- Correspondence from Francis D. Parisi, Nextel, to Cape Cod Commission, dated 3/10/99, received 3/11/99.
- Drive test data and propagation plot data, received 3/11/99.
- Photographs, received 3/11/99.
- Copy of correspondence from Timothy M. O'Donnell, Sprint PCS, to Francis D. Parisi, dated January 7, 1999, received 3/11/99.

- Copy of fax from Jim Smalankas, TeleCorp to Francis Parisi, dated January 11, 1999, received 3/11/99.
  - Survey Plan C-1 dated 6/11/98 and 8/10/98, received 3/11/99.
  - Site Details Plan C-2 dated 6/11/98 and 8/10/98, received 3/11/99.
  - USGS Map, received 3/11/99.
  - Correspondence from Francis D. Parisi, to Cape Cod Commission, dated 5/27/99, received 5/28/99.
  - Copy of correspondence from Thaddeus M. X. Fontes, ComElectric, to Fran Parisi, dated 5/28/99, received 5/28/99.
  - Determination of No Hazard to Air Navigation from FAA, dated 5/12/99, received 5/28/99.
  - Copy of correspondence from Cindy L. Campbell, Division of Fisheries & Wildlife, to Charles Gravel, Atlantic Environmental Technologies, Inc., dated 4/19/99, received 5/28/99.
  - Copy of correspondence and attachments from Donald G. Schall, ENSR, to Mr. Philip Ricchiuti, ATC Associates, dated 1/23/98, received 5/28/99.
  - Photographs, received 5/28/99.
  - Copy of correspondence from Sheila R. Becker, Bell Atlantic Mobile, to Mr. Francis Parisi, dated 5/24/99.
  - Copy of correspondence from Dan Goulet, TeleCorp, to Mr. Fran Parisi, dated 5/24/99, received 5/28/99.
  - Copy of Project Notification Form from Massachusetts Historical Commission, dated 4/7/99, received 5/28/99.
  - Copy of NEPA Environmental Assessment, dated 3/31/99, received 5/28/99.
  - Site Details Plan C-2, dated 6/11/98, 8/10/98, and 6/02/99, received 5/28/99.
  - Copy of correspondence from Ralph K. Swenson, Barnstable County Sheriffs Department and Department of Public Safety, to Fran Parisi, dated 5/28/99, received 5/28/99.
  - Correspondence from David M. DeCosta, ComElectric, dated June 2, 1999, received 5/28/99.
  - Copy of correspondence from John Williamson, TeleCorp Realty L.L.C., to Francis Parisi, dated 6/1/99, received 5/28/99.
  - Copy of correspondence from Robert M. Hallisey, DPH, to Eric Dudek, Nextel dated 12/30/98, received 6/22/99.
- Revised Survey Plan, Sheet C-1, and Site Details, Sheet C-2, last revised 8/09/99, received 8/9/99.

Federal and Local Submittals:

- DRI referral from the Wellfleet Planning Board, dated 11/16/98, received 11/17/98.
- Copy of correspondence from Daniel P. Fitzpatrick, Bell Atlantic Mobile, to Victor Staley, Wellfleet Inspector of Buildings, dated 1/25/99, received 4/20/99.
- Copy of correspondence from Victor Staley, to Daniel P. Fitzpatrick, dated 2/4/99, received 4/20/99.
- Copy of correspondence from Janet R. Stearns, Robinson & Cole, to Victor Staley, dated 2/19/99, received 4/20/99.
- Copy of correspondence from Victor Staley, to Janet Stearns, dated 3/9/99, received 4/20/99.
- Copy of correspondence from Victor Staley, to various town boards and others, dated 3/26/99, received 4/20/99.

- Fax from A. Grabbe, Wellfleet Planning Board, to Tana Watt, Planner, dated 6/3/99, received 6/3/99.
- Correspondence from Maria Burkes, National Park Service, to Margo Fenn, Cape Cod Commission, dated 6/2/99, received 6/4/99.
- Fax from Victor Staley, Wellfleet Building Inspector, to Tana Watt, dated 7/8/99, received 7/8/99.

**Other Submittals:**

- Correspondence from David P. Maxson, Broadcast Signal Lab, to Tana Watt, dated 3/29/99, received 3/31/99.
- Report issued by David P. Maxson, to Tana Watt, dated 5/10/99, received 5/19/99.
- Cellular/ESMR Power Density Ratio Table, to CCC subcommittee, received 6/14/99.

**Submittals from Residents:**

- Copy of correspondence from Gabrielle Lamy, to Wellfleet Planning Board Chairman, dated 8/28/98.
- Copy of correspondence, from many residents, to Wellfleet Planning Board Chairman, dated 8/28/98.
- Correspondence from Kenneth and Nancy Reisinger, to Cape Cod Commission, dated 5/25/99, received 5/27/99.
- Correspondence from Arlene C. Kirsch, to Gwen Bloomingdale and Commission staff, dated 6/1/99, received 6/2/99.
- Fax from Merilyn Hiller, to the Cape Cod Commission, dated 7/8/99, received 7/8/99.
- Fax from Kurt Hirschhorn, MD, and Rochelle Hirschhorn, MD, to the Cape Cod Commission, dated 7/8/99, received 7/8/99.
- Fax from 6 residents (Dennison, Williams, McIlroy, Merl, Korim, Behmer) to Cape Cod Commission, received 7/13/99.
- Fax from Jeffrey Glanville and Joan Wall to Cape Cod Commission, dated and received 7/14/99.
- Fax from Harriet Korim to Cape Cod Commission, received 7/15/99.
- Letter from Kenneth and Nancy Reisinger to Cape Cod Commission, dated and received 8/9/99.
- Letter from H. Korim to Cape Cod Commission, dated 8/1/99, received 8/9/99.
- Copy of pages 1 and 2 from *By What Authority* Spring 1999, received 8/9/99.
- Copy of the conclusion from a Workshop on Possible Biological and Health Effects of RF Electromagnetic Fields sponsored by the University of Vienna on October 25-28, 1998, received 8/9/99.

The application and notice of the public hearing relative thereto, the Commission's staff reports, correspondence, notes and exhibits, minutes of subcommittee meetings and hearings, and all submissions received in the course of the proceedings, including materials submitted on File TR98047 (Nextel Tower/Wellfleet) are incorporated into the record by reference.

**TESTIMONY**

**June 2, 1999 Public Hearing:**

Subcommittee members Gwen Bloomingdale (Chair), Elizabeth Taylor, Tom Broidrick, and Herb Olsen were present. Staff members Gay Wells and Sarah

Korjeff, and the Commission's consultant David Maxson, Signal Broadcast Lab, were also present.

Ms. Bloomingdale opened the hearing at 7:05 PM. Ms. Taylor read the hearing notice. Ms. Bloomingdale outlined the hearing procedure. She asked the applicant to describe the project.

Mr. Parisi, Nextel, presented the proposed project, describing Nextel's capabilities, the proposed design, and its place in the Capewide network. He presented a map with the location of all of Nextel's Cape facilities, stating that they are all on existing structures. He described the existing structures that had been considered for this project, including the NPS water tank, the DEM fire tower, the Congregational Church, municipal sites, and the ComElectric easement. He described the Commonwealth Electric substation site that was selected. Mr. Parisi discussed co-location and other carriers who were interested in locating on the monopole. Mr. Parisi introduced Ms. Blanaad Kinch, Nextel's radiofrequency consultant who re-designed the network to accommodate existing facilities.

Ms. Wells presented the staff report. She noted the Minimum Performance Standard addressing co-location on existing structures. Ms. Wells introduced David Maxson, Broadcast Signal Lab, the Cape Cod Commission consultant. Ms. Wells noted other issues the Commission will consider.

Mr. Maxson discussed his review of the project, noting Nextel's belief that only one additional facility is needed between Truro and Eastham. He suggested that an alternate strategy would be to use existing structures for as much of the network as possible. He displayed computer propagation models, and described two options for co-location. Mr. Maxson, Mr. Parisi and Ms. Kinch discussed the number of channels proposed and what Nextel's future needs would be.

The subcommittee asked questions about the accuracy of drive-test and propagation data, the revised antenna configurations and noise.

Mr. Kenneth Brock disclosed a conflict of interest and recused himself from voting. He stated that the church welcomed carriers and that the Town prefers locations on Town properties.

Mr. Steve Curley, Wellfleet Planning Board, questioned whether Nextel towers were sold to Spectrasite. Mr. Parisi said that some towers had been sold, but that this tower would be owned by ComElectric.

Mr. Peter Hall, Wellfleet Board of Selectmen, asked if Nextel had considered placing an antenna at the Police Station. Mr. Parisi said they had, but are now looking only at the Truro Police Station site.

Diane Gallagher, resident, asked how many carriers were expected. Mr. Maxson discussed the companies that are licensed for the Cape, the potential for cellular competition, other competing licensed technologies, and noted that because we have

seen this coming, we are trying to plan the network with limited impact on the communities.

Dana Franchitto, resident, addressed the question of whether people can say no to these towers, and that public health and visual blight should be addressed.

Jeff Glanville, resident, noted that Mr. Maxson and Nextel ranked possible sites differently.

Ms. Bloomingdale noted that the subcommittee would determine which alternatives were the most feasible and beneficial.

Ken Reisinger, resident, noted the existing noise from ComElectric.

Bennett Goldberg, relative of the abutters, physicist, and radiation safety officer, noted safety and noise concerns and suggested dispersing the antennas.

Ms. Joan Walt, resident, stated her concern about property values and noise.

Richard Robichaud, resident, noted that the noise from the Truro Police/Fire tower is loud, and asked for assurance that this would not happen here.

Brent Harold, resident, noted that there were many unanswered questions.

Lynn Hiller, resident, asked that unanswered questions noted in the Staff Report be addressed.

Dick Morrill, resident, noted that we don't need good cellular service.

Harriet Corin, resident, asked about the existing tower on the site.

Ms. Bloomingdale explained the public hearing process and the Commission's desire to sort through the issues and make the best decision.

Mr. Maxson explained that his contract with the Cape Cod Commission does not allow him to work for Cape Cod's licensed carriers.

The subcommittee discussed locating antennas on existing power lines, the height required by Nextel to achieve reasonable coverage, and the possibility of using the DEM fire tower. Ms. Bloomingdale entered letters from the public into the record.

Mr. Olsen made a motion to continue the public hearing to July 7, 1999, leaving the record open. Mr. Broidrick seconded the motion. Mr. Broidrick made a motion to hold a subcommittee meeting on June 14, 1999 at 11:00 AM in the Commission offices. Mr. Olsen seconded the motion. All voted in favor of both motions. The meeting was adjourned at 9:20 PM.

June 14, 1999 Subcommittee Meeting:

Subcommittee members Elizabeth Taylor, temporary Chair, Tom Broidrick, Herbert Olsen, and Gwen Bloomingdale were present. Tana Watt and Gay Wells, staff

members, and the Commission's consultant David Maxson, Signal Broadcast Lab, were also present. Ms. Elizabeth Taylor opened the subcommittee meeting at 11:10 AM at the Cape Cod Commission offices.

Mr. Broidrick voiced a preference for multiple lower towers rather than a single tall one, and noted that he would like to discuss developing a permanent philosophy to apply to this issue. Mr. Maxson, Mr. Parisi and the subcommittee discussed the merits of this with respect to flexibility in reviewing projects on a case by case basis and the public safety hazard of one higher tower versus many lower towers.

Mr. Francis Parisi, of Nextel, stated that Nextel is trying to minimize the impacts, that Nextel has only used existing structures to this point, knows how to be creative and flexible, and would have chosen an existing structure if it was possible.

The subcommittee, Mr. Maxson and Mr. Parisi discussed Nextel's search for existing sites for co-location, including on municipal property, the DEM tower, existing wooden telephone-type poles, and other options that Nextel had evaluated, including the proposed project.

The subcommittee then discussed the project in terms of the amount of noise that would be generated, the degree of coverage that would be provided, and what types of facilities would be required by future technology.

Mr. Broidrick stated that his questions had been answered. He made a motion to direct staff to write a decision with conditions approving the project to send to the full Commission. Mr. Olsen seconded the motion. It was unanimously approved.

The subcommittee directed Ms. Watt to distribute the draft decision to the subcommittee by fax for review and comments. The subcommittee authorized Ms. Taylor to approve the final draft decision to be distributed to the full Commission. The meeting was adjourned at 12:27 PM.

#### August 9, 1999 Public Hearing:

Mr. Parisi presented a revised set of site plans including a new equipment shelter and a larger lease area.

Ms. Watt presented the staff report, noting that open space, the scenic road and monopole design should be discussed.

Ms. Bloomingdale asked about the amount of open space that would be required, and Mr. Fox and Mr. Parisi responded. Mr. Maxson provided an analysis of tower siting, and reviewed alternative sites that had been considered.

Ms. Bloomingdale asked Mr. Maxson to explain the Federal legislation; Mr. Maxson provided an explanation of the Telecommunications Act and described the difference between lattice towers and monopoles.

Ms. Taylor asked if a flush mounted monopole was possible on this site. Mr. Parisi replied that what was proposed is a monopole, but increased height would make the

project more difficult to approve on the local level. He also noted that a higher monopole would require more width at the bottom and it would lose its sleek appearance.

Mr. Ken Reisinger stated that he was concerned about noise, that ComElectric was in violation of DEP regulations, and that ComElectric should not be rewarded.

Mr. Jeff Glanville questioned the accuracy of the photographs, stating that the existing tower is visible from Great Pond.

Dr. Kurt Hirschhorn said many homes in the vicinity would be impacted by the proposal and that he was concerned about noise impacts. He said that federal laws change rapidly, i.e. tobacco and asbestos, and that health issues are important. He asked if there would be a light at the top of the tower. Mr. Maxson said there would not be a light at the top.

Dr. Rochelle Hirschhorn stated that she was concerned about the addition of equipment shelters and asked how future changes in the project are regulated. Mr. Fox replied by describing the Commission process and the local process.

Ms. Lynn Hiller said that she was concerned about health issues. Mr. Maxson explained the Department of Public Health procedures, and that regulations requiring an annual report to the municipality or the Commission help to ensure compliance with RFR emissions.

Ms. Betsy Lloyd asked if emissions can suddenly rise unexpectedly, and wondered if the tower could get bigger. Mr. Maxson explained about emission levels. Ms. Lloyd asked if Mr. Maxson would sit under one for five hours. Mr. Maxson replied that he would.

Ms. Helen Miranda Wilson questioned Mr. Maxson's explanation of the Telecommunications Act. She questioned Mr. Parisi about the height of the tower versus the strength of the signal.

Mr. Brent Harold said there is controversy over the health impacts of towers. He said that the initial staff report pointed out all the reasons the tower should be denied, including the scenic road. He said that a cellular facility on the fire tower is moving right along and there would now be two towers. He suggested PCS cable rather than cellular towers.

Ms. Lynn Hiller said that satellite technology is now in use.

Ms. Harriet Korim said she was concerned about health impacts and asked what the distance is between the school and the tower as the crow flies. She asked what the standard is for adequate coverage, noting that residents should determine what is adequate. Mr. Maxson replied that the standards are determined on a case by case basis because there are dozens of technologies. Ms. Korim said that coverage was already adequate. She noted that people have the freedom to choose to use cellular phones or microwave ovens, but that allowing cellular towers takes away free choice.

She said that pre-testing for RFR emissions and noise should be required before the installation starts up and should be done on a yearly basis after that. She wondered who would be liable for problems. She said that siting cellular facilities in an existing structure is not necessarily ok, and that siting should be carefully done.

Mr. David Sullivan asked where Mr. Maxson attended school. Mr. Maxson detailed his qualifications. Mr. Sullivan asked how Mr. Maxson was selected. Mr. Fox responded by describing the selection process. Mr. Sullivan noted his concern about Mr. Maxson's conflict of interest with cellular carriers. Mr. Maxson described his limitations as far as working with the Cape's licensed carriers. Mr. Sullivan asked when Mr. Maxson could consult for wireless carriers, if the Department of Public Health was at the public hearing, if the National Seashore was in attendance, and about satellite technology. He asked about Bell Atlantic Mobile; Mr. Maxson replied that satellite systems and terrestrial systems are not compatible. Mr. Sullivan asked about a proposed bike path; Ms. Watt replied that the Commission was aware of a scenic road, but was unaware of a proposed bike path. Mr. Sullivan asked how the tower would compare to satellite TV. Mr. Maxson replied that he did not know unless he looked up the specifications.

Mr. Dana Franchitto said that the Telecommunications Act was pushed through by telecommunications corporations, and the Federal government was pushing this technology onto us. He said the Commission should send a message to the Federal government, and that the telecommunications companies should leave Wellfleet and Cape Cod.

Ms. Lynn Hiller said that the telecommunications companies are making many millions of dollars. She submitted an article for the record.

Ms. Helen Miranda Wilson said that the radiowaves in the air are exposing us involuntarily, such as Pave Paws, and said that the entire Cape should be surveyed for RFR emissions. Mr. Maxson discussed monitoring over large areas and the Federal safety standards for RFR emissions. Ms. Wilson said that we don't know what will happen to us in the future because RFR emissions are not part of our evolutionary past.

Mr. Kurt Hirschhorn said that the Commission could still protect people on the Cape despite the Telecommunications Act.

Harriet Korim asked what companies Mr. Maxson had consulted with. Mr. Maxson said Cellular One (Boston) and New England Telephone Bell Atlantic, but not Nextel. He noted that before accepting a project to review for the Commission, his company reviews an application to be sure there is no potential conflict of interest. Ms. Korim reviewed work by other experts who advise caution. She discussed foliage and seasonality in testing, and mentioned bird kills. She asked if a letter from Robert Lifton had been submitted. Ms. Watt replied that the Commission had no letter from Mr. Lifton.

Dr. Rochelle Hirschhorn asked what happens if the standards are not met. Ms. Bloomingdale explained the Conditions in the draft decision. Mr. Parisi explained the

process the project would continue to pursue locally. Ms. Hirschhorn said that the Conditions should be more stringent, and testing more frequent. Mr. Maxson said that a procedure for verifying RFR levels could be included in the draft decision, noting that a cellular facility can be shut down for repeated violations.

Ms. Bloomingdale noted that she was concerned about the scenic road.

August 12, 1999 Subcommittee Meeting:

Ms Watt suggested that the Subcommittee discuss the items contained in staff memo, starting with the revised site plan. Mr. Parisi explained the revisions related to the enlarged lease area. Ms. Bloomingdale asked about the noise issue. The subcommittee determined that the new site plan is not a significant revision, and is acceptable.

The Subcommittee discussed the RPPs open space requirement and whether the open space requirement should be waived for this project. Ms. Bloomingdale made a motion to waive the open space, Mr. Broidrick seconded the motion and all voted in favor.

The Subcommittee discussed the view of the tower from the scenic road. Ms. Bloomingdale noted that the view is already blighted by the existing Commonwealth Electric substation, the proposed tower is replacing an existing tower, and that for this reason, the proposed tower would not significantly degrade the existing viewshed from the scenic road. The Subcommittee decided that a finding would be added to the decision to this effect.

The Subcommittee discussed the existing monopole design versus a flush-mounted monopole. The Subcommittee decided that the design as proposed was acceptable.

The Subcommittee discussed the noise impacts from the project and reviewed the applicant's submittal from his noise consultant indicating that the project would produce noise levels below the Commission's standard of 50 db. The Subcommittee concluded that expected noise levels from the project will not exceed the Commission's limits and that a finding to this effect should be added to the draft decision.

The Subcommittee discussed RFR emissions. Mr. Olsen suggested that a sentence referring to future protocol be added to the Condition 6, which the subcommittee discussed. Mr. Maxson suggested changing the language of Condition 6. The Subcommittee agreed with this approach.

Ms. Watt noted that the proposed tower is about 1/2 mile from the school.

The Subcommittee discussed visibility from Great Pond. The subcommittee concluded that the photographs that were submitted were sufficient to show expected visibility.

The Subcommittee discussed the site in relation to a possible bike path. The Subcommittee was satisfied that these were not issues for this project.

The Subcommittee discussed the color of the proposed tower. The Subcommittee decided to change Condition 12 to read "colored" gray to give the applicant flexibility to maintain it appropriately.

Ms. Taylor said she would like any abandoned antennas to be removed. The Subcommittee discussed the concept of "abandoned" equipment, and decided to add a sentence saying that any antennas abandoned for 6 months shall be removed.

Other changes to the decision were made by the Subcommittee.

### **FINDINGS**

Based on the testimony received at the public hearings, application materials submitted by the project proponent, written materials submitted by all interested parties, and supporting technical information provided by staff, the Commission voted that the proposed Nextel Tower on Gross Hill Road in Wellfleet, Massachusetts, be granted a DRI approval with conditions based on the following findings:

#### **General:**

- 1) The proposed project is being reviewed as a Development of Regional Impact (DRI) under Chapter A, Section 3(i) of the Commission's Regulations of General Application which states that "construction of any wireless communication tower exceeding thirty-five (35) feet in height from the natural grade of the site on which it is located" is presumed to be a Development of Regional Impact.
- 2) Plans approved by this decision are a Survey Plan dated 6/11/98, last revised 8/09/99 and a Site Detail Plan dated 6/11/98, last revised 8/09/99.
- 3) The project is located adjacent to an existing Commonwealth Electric substation off Gross Hill Road in Wellfleet. The applicant will lease 2,040 square feet from Commonwealth Electric Company for a 140 foot telecommunications monopole that will provide space for a total of 5 carriers, including Nextel. The project includes one equipment shelter on a 10' x 25' concrete pad, one 10' x 20' equipment shelter, and several equipment units on a 7.5' x 12.5' concrete pad to be located at the base of the monopole.
- 4) Nextel stated that they have no coverage in the Wellfleet area because there are currently no Nextel facilities in Orleans, Eastham, Wellfleet, Truro or Provincetown. Drive test data plots were submitted demonstrating that Nextel currently does not have adequate coverage in the area.
- 5) Technical Bulletin 97-001, *Guidelines for DRI Review of Wireless Communication Towers*, requires that the applicant co-locate where feasible and appropriate, and demonstrate a good faith effort to co-locate with other carriers. The proposed Nextel tower will carry antennas for Commonwealth Electric Company at 100 feet, TeleCorp Realty, LLC at 120 feet, and Bell Atlantic Mobile at 130 feet, in addition to Nextel at 140 feet.
- 6) At 100 feet, the proposed tower will also carry the Barnstable County Regional 800 MHZ Trunking Radio System that services all of the Cape Cod Police, Fire and

EMS departments. Nextel has committed to providing tower space and 50 square feet of communications shelter space with emergency power at no cost to the town of Wellfleet or the 800 trunking system. Nextel has also offered to install the antennas and cabling associated with the 800 trunking system at no charge.

7) At the proposed site, an existing Commonwealth Electric substation, two sets of transmission line easements connected to the substation cross the property from separate directions. The site has been cleared of vegetation due to construction and maintenance of the existing transmission lines and sub-station.

8) The project is not located within a historic district, and comments have been received by Massachusetts Historical Commission to confirm that the project is unlikely to have impacts on significant historic or archaeological resources.

9) In 1997 the town of Wellfleet adopted zoning by-laws establishing requirements, guidelines, standards and procedures to regulate the permitting and installation of communication structures, buildings, and appurtenances within the Town. The Town requires that a Special Permit from the Planning Board be obtained prior to construction.

Because the By-laws pertain to the entire Town, the entire Town is therefore considered to fall within an overlay district. Technical Bulletin 97-001 allows facilities up to 150 feet in height where the Town does not include a maximum height in their by-laws. Wellfleet does not establish a maximum height, therefore the proposal complies with both the Town and the Technical Bulletin in this regard. The Commission finds that under Section V.C. of Technical Bulletin 97-001, the project complies with local zoning and may be taller than allowed under Sections V.A. and V.B. of the Technical Bulletin.

10) The project is not consistent with the Town's by-law establishing setback requirements. The Town by-laws require that the setback for communications facilities are the height of the structure including any antennas or appurtenances plus 10 additional feet. The structure is 140 feet, plus 1 foot of antenna. An additional 10 feet would require a setback of 151 feet. The distance from the base of the facility to Gross Hill Road is about 110 feet. Prior to construction, the applicant will require a Finding from the Planning Board, as the Special Permit granting authority, stating that the proposed setback requirement is within the best interests of the Town.

11) All of Nextel's Cape Cod facilities to date are located on existing structures. Nextel prefers to locate its wireless facilities on existing structures, and conducted a search to identify appropriate possibilities in Wellfleet, including both private and municipal property, and was unable to identify a suitable existing structure in Wellfleet.

### **Height**

12) Nextel has adequately demonstrated a need to locate its facility at a height of 140 feet in order to adequately extend cellular service to Wellfleet and the Lower Cape

Towns. This height would allow Nextel to utilize an approved tower in Eastham, and pursue an approval for one tower in Truro.

13) The proposed tower height would allow for co-location of 5 users, including Nextel, at or above 100 feet. Commonwealth Electric and Barnstable County antennas will be located at 100 feet; TeleCorp PCS has requested a location at 120 feet, Bell Atlantic Mobile at 130 feet, and Nextel at 140 feet.

14) Guidelines contained in Section VII of Technical Bulletin 97-001 recommend that "licensed carriers should share personal wireless service facilities and sites where feasible and appropriate, thereby reducing the number of personal wireless service facilities that are stand-alone facilities". The alternative to a single 140 foot tower is multiple lower facilities for Nextel, Bell Atlantic Mobile and TeleCorp PCS located throughout Wellfleet and the region. The proposed project is designed to limit the number of cellular towers through maximized co-location, and is therefore consistent with these guidelines.

15) Drive test data conducted by Nextel indicate that 140 feet is the minimum height necessary to achieve coverage throughout Wellfleet, and at 140 feet in height Nextel has stated that they will be able to provide reasonable coverage in Wellfleet, in combination with the approved facility in Eastham. A facility in Truro will be required to extend coverage to Provincetown.

16) Based on a crane test conducted on September 10, 1998, the proposed tower will be visible from several locations in nearby residential neighborhoods. It will have limited visibility from Indian Neck and the Elementary School. It would not be visible from Great Pond, the Cemetery on Cemetery Road, Newcomb Hollow Beach, Rt.6/Main Street, Ocean View Drive, Marconi Station, Old Gull Pond Road, Oak Valley Road and Gull Pond Road. Based on the results of the crane test demonstrating this limited visibility from the surrounding area, the facility will have limited visual impacts to the Town and region, warranting a waiver from the setback requirement of Technical Bulletin 97-001.

#### **Public Safety**

17) Technical Bulletin 97-001, Section IV.D. requires that for safety reasons, the fall zone should not cross property lines, unless the design would be "substantially better" as a result, either visually or for safety reasons. At the proposed height of 140 feet, the proposed tower would extend across Gross Hill Road by approximately 30 feet.

18) The majority of the fall zone for the proposed monopole includes the Commonwealth Electric substation and overhead electric wires. According to the applicant, "Commonwealth Electric has considered the impact of the proposed facility on the existing substation, and has determined that a new, structurally sound tower on the property would have no affect on its ability to provide electrical service to the public". Commonwealth Electric Company has submitted a letter of permission and support for the construction and use of the proposed tower.

19) Monopoles are designed in accordance with the Electronic Industry Association/Telecommunication Industry Association (EIA/TIA) specifications 222F. When properly designed according to these specifications, and when properly

maintained, monopoles have a high degree of structural stability under the most extreme conditions, which serves to reduce the possibility that the tower will fall. The Commission finds that the design specifications for the monopole warrant a waiver from the setback requirement of Technical Bulletin 97-001.

20) The Commission is aware and concerned about the cumulative health effects associated with cellular facilities. Carriers are required to file with the FCC and with the Massachusetts Department of Public Health (MDPH) to ensure that radiation emissions associated with proposed wireless communication facilities are below allowable levels. The Commission seeks to facilitate coordination with the MDPH relative to this issue.

21) The proposed monopole will not require lighting per FAA regulations.

22) Based on information provided by the applicant, the monopole is not expected to result in undue noise pollution in the surrounding residential area or generate noise from equipment and/or wind in excess of 50 db at the property line.

#### **Community Character**

23) The applicant has proposed a 10' x 25' equipment shelter that will be 10 feet high, and will be prefabricated off site and assembled on site. The equipment shelter will meet Massachusetts State Building Code requirements. Bell Atlantic Mobile has proposed to construct a 10' x 20' equipment shelter. The applicant proposes to enclose the leased area by an 8 foot tall stockade fence to shield the equipment shelters.

24) Technical Bulletin 97-001, Section VI.A.3. states that "to the extent that any personal wireless service facility extends above the height of the vegetation immediately surrounding it, it should be painted in a light grey or light blue hue which blends with sky and clouds". To reduce visibility of the monopole in this way, the applicant proposes to color the tower grey.

25) Section VI.A. of Technical Bulletin 97-001 provides design standards that specify that "Ground-mounted personal wireless service facilities should provide a vegetated buffer of sufficient height and depth to effectively screen the facility". The applicant has agreed to provide landscaping to buffer the proposed facility from Gross Hill Road and the residences located immediately adjacent to the site.

26) The applicant states that the only lighting on site will be the equivalent of one 100 watt bulb mounted to the wall of the equipment shelter adjacent to the door. It will be equipped with a motion detector so that it will be lit only when a technician is servicing the facility at night.

27) The Commonwealth Electric substation and a cellular tower currently exist within the viewshed of the Old Kings Highway, a scenic road as designated by the Town of Wellfleet. As the proposed tower will replace the existing tower at the site in approximately the same location, it will not significantly degrade the existing viewshed from the scenic road.

### **Natural Resources and Open Space**

28) The proposed site is not located within a Significant Natural Resource Area (SNRA), and is not included in the Natural Heritage and Endangered Species Program Atlas. The project is not located within the Wellfleet Harbor Area of Critical Environmental Concern (ACEC).

29) It is appropriate to waive the Regional Policy Plan's open space requirement because the site has already been degraded by prior construction and maintenance activities, and the site is not located within a Significant Natural Resource Area or Area of Critical Environmental Concern.

30) Massachusetts Natural Heritage and Endangered Species Program has stated that rare plants are known to occur near the proposed antenna site. A natural resources inventory prepared by ENSR indicates that "no specimens of prickly pear were documented in the field survey. No specimens of broom crowberry were found within the proposed lease area; however, a significant population of broom crowberry was found in the coastal heathland community located under the transmission line corridor in the southeastern corner of the site....Several broom crowberry plants occur within the layout of the proposed gravel access road from Gross Hill Road as shown on site plans". The applicant has abandoned plans to use the access road here referred to.

### **Other Issues**

31) There are no anticipated transportation impacts from the proposed project.

32) Access to this site is not a regional issue.

33) The proposed project is in an unmanned, private and secured compound. It is only accessed by trained technicians for periodic routine maintenance, and therefore does not require any water or sanitary sewer service.

34) The project will require lead acid batteries located inside the equipment shelter for back-up power in the event of an electrical failure. The applicant states that "Nextel's equipment shelter is a prefabricated concrete structure secured to a poured concrete pad, which will readily contain any battery leakage in the event of extreme conditions." There will be no on-site storage of fuel oil.

### **CONDITIONS**

Based on the findings above, the Commission hereby attaches the following conditions.

1) The project site shall be developed as a monopole tower with a height up to 140 feet which will allow co-location for up to 5 carriers (4 antenna array), as shown on a Survey Plan dated 6/11/98, last revised 8/9/99 and a Site Detail Plan dated 6/11/98, last revised 8/9/99. Commonwealth Electric Company and Barnstable County will both occupy the 100 foot height.

2) Prior to the filing of an application for a building permit, the applicant shall obtain a Partial Certificate of Compliance from the Cape Cod Commission. Prior to the

issuance of a Partial Certificate of Compliance, the applicant shall submit a landscape plan for approval by Cape Cod Commission staff, as well as certification that the monopole is designed in accordance with the Electronic Industry Association/Telecommunication Industry Association (EIA/TIA) specifications 222F. In addition, the applicant shall submit for Commission review and approval evidence of clearance from the Massachusetts Department of Public Health as to radiation emissions from the proposed facilities.

3.) All conditions shall be met, and the facility shall not become operational and shall not be used for commercial purposes prior to the issuance of a Final Certificate of Compliance by the Commission. Prior to the time that a Final Certificate of Compliance is needed by the applicant, notification shall be given to the Commission at least 30 days in advance to allow time for staff to inspect the site and ascertain that all conditions have been met.

4) Any company or other party that intends to co-locate on the site is required to supply the Commission with radiofrequency radiation data showing all calculations and assumptions, using a "worst case" calculation method in accordance with FCC OET Bulletin 65, dated August, 1997, sixty days prior to installing any antenna arrays on the monopole.

5) Carriers locating on the proposed facility shall receive written clearance from the Massachusetts Department of Public Health to ensure that radiation emissions associated with this proposed wireless communication facility are below allowable levels for public health purposes. Such clearance shall be promptly supplied to the Commission.

6) After the personal wireless facility is operational, the applicant shall submit, within 90 days from the beginning of operations and at annual intervals from the date of issuance of the DRI Certificate of Compliance, an RFR assessment, including measurements as appropriate, from the personal wireless facility. Such measurements shall be signed and certified by a RF engineer, stating that RFR measurements are accurate and meet FCC Guidelines as specified in the Radiofrequency Standards (sub-section VI. C.) of Technical Bulletin 97-001, *Guidelines for DRI Review of Wireless Communication Towers, Adopted 10/9/97; Revised 3/4/99*, or shall conform to the Commission's current assessment/measurement protocol as established by the Commission by the time of the assessment and as it may be amended from time to time.

7) After the personal wireless facility is operational, the applicant shall submit, within 90 days from the beginning of operations, and at annual intervals from the date of issuance of the DRI Certificate of Compliance, existing measurements of noise from the personal wireless facility. Such measurements shall be signed by an acoustical engineer, stating that noise measurements are accurate and meet the Noise Standards (sub-section VI. B.) of Technical Bulletin 97-001, *Guidelines for DRI Review of Wireless Communication Towers, Adopted 10/9/97; Revised 3/4/99*.

8) The applicant shall maintain the personal wireless facility in good condition. Such maintenance includes, but is not limited to, painting, structural integrity of the mount and security barrier, and maintenance of the buffer areas and landscaping.

9) The applicant shall not build on or disturb any areas other than those within the leased area, grading as indicated on the site plan, and an area within 15 feet of the leased area as required to facilitate construction.

10) The applicant and all lessees shall ensure that the contents of the storage shelters, containment measures, and emergency backup systems of all carriers shall meet all hazardous materials and waste requirements in the Regional Policy Plan. In the event that a portable emergency generator is needed as emergency power, natural gas is required to be used as fuel.

11) Prior to the issuance of a Final Certificate of Compliance, landscaping shall be installed to buffer the view of the facility from adjacent residences and Gross Hill Road. The applicant shall submit a landscape plan prepared by a licensed landscape architect for Commission staff approval prior to the issuance of a Partial Certificate of Compliance; after approval is granted, the applicant shall install the landscaping as approved. Landscaping shall also include an 8 foot high stockade fence around the perimeter of the leased area and a landscape maintenance contract for two full growing seasons that shall be approved by Cape Cod Commission staff and that shall be fully executed prior to the installation of plant materials.

12) Prior to the receipt of a Final Certificate of Compliance, the tower shall be colored grey.

13) Lighting at the site shall consist of one light with the equivalent of 100 watts, mounted to the wall of the equipment shelter adjacent to the door, and equipped with a motion detector. All additional equipment shelters shall be so conditioned.

14) Should the tower become abandoned for more than six months, the monopole shall be removed and the site shall be restored to its prior state. Shall any antenna become abandoned for more than six months, the antenna shall be removed.

15) Access to the site shall be limited to the access drive from Gross Hill Road as approved on plan Sheets C-1 and C-2. There shall be no access to the facility from Old Kings Highway or any other location on Gross Hill Road.

16) Nextel shall provide space on the monopole, communications shelter space, and installation and cabling at no cost to the town of Wellfleet or Barnstable County for the Barnstable County Regional 800 MHZ Trunking Radio System to service Cape Cod Police, Fire and EMS departments.

**CONCLUSION**

The Cape Cod Commission hereby concludes that the benefits of the proposed project, as conditioned, outweigh the detriments. This conclusion is supported by the findings and conditions above. The proposed development, as conditioned, is consistent with the Minimum Performance Standards of the Regional Policy Plan. The proposed development, as conditioned, would be consistent with the Wellfleet Zoning By-laws should the Planning Board make a Finding that the proposed setback requirement is in the best interests of the Town. The proposed project will provide a public service by carrying, at no cost, the Barnstable County Regional 800 MHZ Trunking Radio System.

The Commission hereby approves with conditions the Development of Regional Impact Application of Nextel Communications of the Mid-Atlantic, Inc., for the construction of a monopole wireless facility located on Gross Hill Road in Wellfleet, Massachusetts, pursuant to Sections 12 and 13 of the Cape Cod Commission Act, as amended, provided the conditions noted above are met.

Tom Broidrick  
Tom Broidrick, Chairman

8/26/99  
Date

**Commonwealth of Massachusetts**

Barnstable, ss.

Subscribed and sworn to before me this 26<sup>th</sup> day of August 1999

Katharine L. Peters  
Name, Notary Public

My commission expires:





