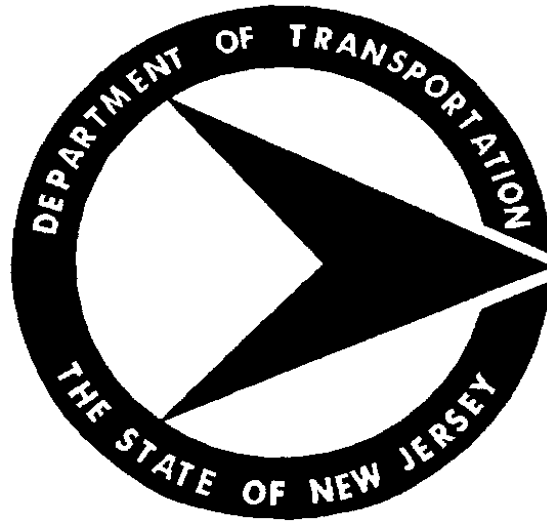


**NEW JERSEY DEPARTMENT  
OF  
TRANSPORTATION**



**GUIDELINES AND PROCEDURES  
FOR  
WIRELESS TELECOMMUNICATIONS  
LICENSES**

**DECEMBER 1996  
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## 1. Introduction

The New Jersey Department of Transportation has developed these “Guidelines and Procedures for Wireless Telecommunications Licenses” to assist those involved in the Location, Planning, Design, Licensing and Construction of Wireless Telecommunications sites within the Right of Way of Interstate and NHS highways.

These procedures describe a process by which individual antenna sites may be uniformly developed, licensed and constructed, with the safety and efficiency of the Highway system and the integrity of the Right of Way protected.

Following in these guidelines are descriptions of key elements of consideration in the Location and Planning process, the Conceptual submission checklist, the Detailed submission checklist, the Landscape and Urban Design guidelines, the Final plan submission and executed license, as well as the Public Outreach Process.

## 2. Department/Carrier Relationship

- a. In Appendix A, the State of New Jersey Attorney General’s Office, by letter dated June 18, 1996, describes the relationship between the Department and the telecommunication carriers as that of a **Licensor/Licensee**.
- b. In Appendix B, the State of New Jersey Attorney General’s Office by letter dated May 5, 1997, describes issues of the Master Agreement.

## 3. Market Conditions/Fair Market Value

Although the Department considered several methods of valuation of the Market Conditions/Fair Market Value “Historical Experience” method was the most relied upon method of establishing values.

Contracts entered into by our sister agencies, the New Jersey Highway Authority and the New Jersey Turnpike Authority, served as the basis for the Department’s Historical Experience negotiations and the baselines for our determination of the rates considered appropriate for market conditions.

The following is a summary of those contracts:

The New Jersey Turnpike Authority, has indicated that their contract rates are based upon three separate zones. These zones are geographically divided between the northern, central and southern regions of the Turnpike. There are presently 20 developed sites. Annual rates for each zone are: Zone A (north) \$30,000.00, Zone B & C (central and south) \$25,000.00 and \$15,000.00 respectively. Each of these sites included resource sharing by the Turnpike. The Marketing Coordinator emphasized that with each negotiation the Turnpike has refined negotiating practices for optimum return. Their program was initiated in 1993.

The New Jersey Highway Authority indicated that their agreements are site specific. Although the annual rates associated with these sites are divided geographically into North and South, with the Driscoll Bridge, over the Raritan River, as the geographic break. Sixty percent of the sites are in the northern region. Annual rates for the Northern district are in the range of \$40,000.00 - \$45,000.00. Southern district rates are in the range of \$30,000.00 - \$35,000.00. NJHA emphasized that the actual negotiations are site specific and dependent on the carriers' desired equipment and location. The Highway Authority's program was initiated in 1989. Currently the Highway Authority has 15 developed sites.

The Department's fees are established in the Individual Carriers Master Agreements and are based upon geographic location as well as type of equipment. Other variables such as bulk site discounts, individual site size and equipment design were addressed within the context of the master agreement negotiation process. Nonetheless, the ranges in annual rates for the Department's sites mirror the other agencies' rates from \$10,000.00 to \$45,000.00 per site/year.

The Department's fee structure for wireless antenna sites is representative of this newly emerging market. As additional master agreements begin negotiation, industry activities will be monitored to ensure that the set rates are competitive and consistent with current market conditions.

#### 4. **Safety Criteria/Design Standards**

The **Safety Criteria**, elements which will be specifically addressed in the analysis of each site and the design standards for the Wireless Communications Program are based on one or more of the following:

- A. "New Jersey Department of Transportation Design Manual - Roadway", March 3, 1987 or superseding issue.
- B. "New Jersey Department of Transportation Design Manual - Bridges and Structures", 1987 or superseding issue.
- C. "A Policy on Design Standards Interstate System", 1987 or superseding issue, available through American Associations of State Highway and Transportation Officials, Suite 225, 444 North Capitol Street, N.W., Washington, DC 20001.
- D. State Highway Access Management Code, April 1992 or superseding issue.
- E. Supplemental specifications SI-89 ELECT and standard details, or superseding issue.
- F. Institute of Transportation Engineers "5<sup>th</sup> Edition Trip Generation", 1991 or superseding issue, available through Institute of Transportation Engineers, 525 School Street, S.W., Suite 210, Washington DC 20024-2729, ITE Publ. No. 1R-016B"C".

- G. "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD), 1988 or superseding issue, available through Institute of Transportation Engineers, 525 School St., S.W., Suite 410, Washington, DC 20024-2729.
- H. "Standard Specifications of Road and Bridge Construction, New Jersey Department of Transportation", 1996 or superseding edition.
- I. "A Policy on Geometric Design of Highways and Streets", 1984 or superseding issue, available through American Association of State Highway and Transportation Officials, Suite 225, 444 North Capitol St., N.W., Washington, DC 20001.
- J. "New Jersey Department of Transportation Standard Roadway Construction / Traffic Control / Bridge Construction Details", October 1996 or superseding edition.
- K. "AASHTO 1996 Roadside Design Guide" or superseding edition.
- L. Telecommunication sites are included in the airspace leasing provisions of 23USC 156 and 23 CFR, part 713, subpart B. While these are the parameters, the Department will control vehicle access to these sites so as not to violate driver expectation with either installation or maintenance vehicles. There is a general undesirability of overhead sign bridge installations, directly over travel lanes and it is best to avoid these locations on the structure, when possible. However, due to the nature of this burgeoning technology there are instances where this type of installation may be the sole useful option. These sites will be reviewed on a case by case basis. The Department will make every attempt to situate these installations inconspicuously and avoid areas over the travel lanes. The permissible hours of maintenance and installations will be set forth in the site license, with the coordination of the Department's Traffic Operations unit. This control will avert potential interference with traffic during peak periods. Should the Department prohibit these installations, we would be "locking out" specific carriers whose technology has evolved with this type of design. On the occasions that these locations are the only option, the Department will control all operations and maintenance as part of the terms of the site license.
- M. All locations outside the clear zone will be "as far from the travel way as possible". No site will be approved within the highway's clear zone unless an existing guide rail system is in place, as required by the Department's Safety Standards, or at the top of a non-traversable cut slope.
- N. There will be no installations within Interstate medians.
- O. The carriers prefer sites that are inconspicuous and safely located. In all cases the safest and least conspicuous location will be selected.

- P. These facilities are not to be located in areas which will interfere with sight distance (according to approved design and safety standards) of the traveling public.
- Q. Utility service and vehicular access will be carefully designed and controlled on a case by case basis, based upon the site location. Vehicle site access will become part of the individual site license and reviewed and approved by the Office of Access Design. The distance from a parking site to the wireless site will be less than 200 feet. A parking area (see Appendix H) at the wireless site will be provided where off site parking cannot be provided within 200 feet.
- R. Ground mounted facilities shall be of a design compatible with the visual quality of the specific highway section being traversed. All installations will be designed to be as unobtrusive as possible and will be reviewed by the Department's Landscape and Urban Design unit. (See attached submission guidelines Appendix C.)
- S. All installations on or over highway Rights of Way and attachments to highway structures shall be of durable materials designed for long service life and relatively free from routine service and maintenance.

The hardware shall be planned so as to minimize hazards and interference with highway traffic when additional overhead or underground lines are installed at some future date. Installation of new hardware requires strict adherence to the maintenance of traffic plans and the allowable lane closure schedule as approved in the individual site license.

## 5. Office of Community Relations

The **Office of Community Relations (OCR)** shall be notified of the location of each proposed site. No construction will commence until clearance is obtained from the Department's Community Relations office. The OCR will contact local officials, informing them of the intended sites. If warranted, based on these contacts, a public outreach meeting will be scheduled for all new monopole or tower sites. See Appendix D, Public Process for Wireless Antenna Program.

## 6. New Jersey Department of Community Affairs

The **New Jersey Department of Community Affairs, Division of Housing and Development, Bureau of Construction Project Review** is the construction permitting authority of all State land. Upon receipt of the executed ISA the Carrier must make application for all construction permits through the above agency. However, the Department of Transportation still is the agency that provides the "Notice to Proceed to Construction". See Appendix E, DCA Plan Submission Checklist.

## **7. Intelligent Transportation Systems Resource Sharing**

The Department's recent reorganization has resulted in the formation of a dedicated **Intelligent Transportation Systems** unit. This valuable resource will be utilized in the site approval process. The noted publications, provided by FHWA, Sharing Right Of Way for Telecommunications, Guidance on Legal and Institutional Issues and Sharing Right Of Way for Telecommunications, Identification, Review and Analysis of Legal and Institutional Issues, FINAL REPORT were used as guidance for resource sharing.

## **8. Scenic Enhancement Parcels**

Lands purchased with Federal funds for scenic enhancements will be reviewed by FHWA on an individual basis prior to approval of a site license. These are considered, in general, to be the least desirable. However, in some cases they may become the site of choice in order to fulfill the goals of the program. Use of landscape scenic lands parcels for communication towers will be permitted only if there is no feasible alternate site. Applications for towers in these areas will be reviewed by the Landscape and Urban Design Unit to determine the impact on the visual quality of the scenic parcel.

If it is determined that the visual quality will be affected, the Department will purchase additional lands of equal or greater scenic value or credit the FHWA based on current market value of the area affected by the proposed site.

## **9. Dedicated Transportation Account**

Revenues received from these licenses are being deposited into a dedicated Transportation account. The Office of Management and Budget, Department of Treasury, has established a "400 Fund", (separate account) for the Department in Fiscal Year '97 to accommodate the receipt of funds collected. The Department recognizes the need to allocate collected revenues to projects and activities eligible for Title 23 funding. Since the Departments program also enhances existing safety services on highways and requires resource sharing of services and technology, salary costs to administer the program should also be eligible for funding, or reimbursement under Title 23.

## **10. Review/Approval Process**

The Department's review/approval process, checklists and flowchart for the Wireless Communication Program are as follows:

- 10a. Process for Licensing Individual Wireless Antenna Sites
- 10b. Concept Submission Checklist
- 10c. Detailed Submission Checklist
- 10d. License Process Flow Chart

## 10a. PROCESS FOR LICENSING INDIVIDUAL WIRELESS ANTENNA SITES

- I. A Wireless Communication Antenna Site Master Agreement must be executed by the Carrier and the Commissioner of Transportation.
- II. License submission for installation of wireless communication antennas will be submitted to the Wireless Communications Unit. The Carrier is encouraged to submit a concept submission to obtain initial feedback from the Department. A detailed submission can follow for sites that the Carrier and Department find to be feasible.
- III. Within 2 working days of receipt, the Wireless Communications Unit will review the submission (conceptual or detailed) for completeness, determine its appropriateness for access onto either the State highway system or local roads, and will transmit submission plans, as it deems warranted, to the appropriate Departmental units and the Federal Highway Administration (for all Interstate/NHS highways) for review and establish a 10 working day response time.

The following **Department** units will review all submissions:

- A. **Right of Way** to determine the following:
  1. Does the Department own the property required?
  2. Are there any title restrictions to said property?
  3. Any other information in Right of Way files that would raise a potential concern.
  4. Was Right of Way purchased as a scenic enhancement/landscape parcel or are there any existing restrictions of its use?
- B. **Landscape** to review the aesthetics (Architectural treatment and colors of various components of the “facility”, and the viewshed), review the landscape plans, review the soil erosion and sediment control plans for conformance to DOT standards, and review special approvals and mitigation measures for parcels purchased for scenic enhancements or landscaping purposes.
- C. **Project Scoping** to review for possible conflict with future road and bridge projects.
- D. **Utilities** to review whether there are any potential conflicts with what is proposed.
- E. **Traffic Engineering** to determine interference with existing Departmental electrical facilities (lighting, signals, Intelligent Transportation Systems, etc.)



- F. **Environmental Support Services** to check Departmental files for any known contaminated areas within Department right of way or other environmental commitments established at the time of, or after the highway was constructed. Review the Categorical Exclusion Document for completeness and process to FHWA. (Also process the Section 106 submission to the SHPO)
- G. **Regional Maintenance** for the following:
  1. Determine potential interference with maintenance, operations, and work being performed by permittees.
  2. Review facilities proposed within a maintenance yard facility.
  3. Establish an inspector (name and telephone number) to be the contact person for the pre-construction meeting.
- H. **Traffic Operations** the following:
  1. Review Traffic Control Plans (TCP) submitted by the Carrier for any potential lane or shoulder closures for construction and maintenance operations and establish working hours/days.
  2. Determine if any potential conflicts with construction on highway.
  3. Establish a contact (name, telephone number and/or beeper) to be notified during construction and maintenance if a potential traffic conflict or lane/shoulder closure may occur.
  4. TCP's shall conform to the Departments Standard Details (sheets TCP-1 to TCP-19) and to the referenced Safety Criteria/Design Standards in Section 4, page 3.
- I. **ITS/SMART** to review the site for present or potential future resource sharing (Fiber Optics, MAGIC, HAR, CCTV, shared or free use of frequencies / channels, etc.).
- J. **Radio Communications Equipment** to review the site for present or potential future resource sharing (DOT transmitters/receivers, repeaters, etc.).
- K. **Community Relations** to assess public opinion and if appropriate, schedule a public outreach session. OCR will then follow up on comments received.

The following units will review submissions at the discretion of the **Wireless Communications Unit**:

- L. **Federal Highway Administration** to review all submissions within the Interstate/NHS highway system right of way.
- M. **Structural Management** to determine if the proposed facilities would interfere with a structure, or its maintenance, inspection, operations, structural integrity or its aesthetics.
- N. **Jurisdictional Control** to verify that the proposed site falls within Department's jurisdiction.

- O. **Project Management** to review for possible conflicts with active projects for that section of highway.
  - P. **Facilities Planning** to determine if a proposed facility would interfere with Department operations (Motor Vehicle Services, Park and Rides, Maintenance Yards, etc.).
  - Q. **Aeronautics** to determine if a proposed facility would interfere with an .....aeronautical facility.
- IV. Each of the requested units will evaluate the Submission and respond to the **Wireless Communications Unit** within a 10 working day period. One of the following response should apply:
1. The concept submission is not feasible (list full reasons.)
  2. The concept submission is feasible with conditions (list).
  3. The concept submission is feasible as submitted, subject to a detailed submission.
- V. The **Wireless Communications Unit** will advise the Carrier of the Department's determination of feasible, denied or recommended alternative within 5 working days of receipt of comments. This response will include comments to be resolved and additional actions required to be taken. (The community outreach process begins) When the Community Outreach Process is complete the Wireless Communications Unit will initiate a final agency determination document. Once the N.J. Department of Transportation has decided to go forward with a wireless site, the New Jersey Department of the Treasury must secure State House Commission approval. The State House Commission will have Final Approval on all site licenses.
- VI. If the Carrier elects to proceed with a detailed submission, the Carrier will submit detailed plans and the Categorical Exclusion Document to the **Wireless Communications Unit** and within 2 working days of receipt, plans shall be distributed to all reviewing units deemed necessary, for review with a 10 working days response time.
- VII. Within 5 working days after the reviewing units have returned plan review comments, the **Wireless Communications Unit** will forward those review comments as well as a prepared Individual Site Agreement (ISA) to the carrier for their signature.
- VIII. When the Carrier returns the signed ISA along with revised final plans, the **Wireless Communications Unit** will obtain final Departmental and **Federal Highway Administration** approval (required on all Interstate/NHS highway submissions) within 5 working days. The Department will then forward an executed ISA and approved plans to the Carrier.

- IX. Within 2 working days of the Department's release of the executed ISA, the **Wireless Communications Unit** will notify **Department of Community Affairs**. At this time the Carrier will also be making their construction permit application to the **Department of Community Affairs**.
- X. The **Division of Accounting and Auditing** will begin receiving the annual payments once the Carrier receives its construction permits.
- XI. Prior to the commencement of construction and/or maintenance operations, the Carrier will notify **the Wireless Communications Unit, the Regional Maintenance and Traffic Operations Offices** to schedule a pre-application meeting to ensure construction and/or maintenance operations meets all requirements set forth in the ISA.
- XII. As-built plans (2-3 copies) shall be submitted to the Wireless Communications Unit for distribution to the **Regional Maintenance** inspector as well as the **Bureau of Facilities Planning and Engineering** as required by the Master Agreement.

## **WIRELESS COMMUNICATIONS ANTENNA SITES**

### 10b. **Concept Submission Checklist**

The following items shall be included on the Concept plan submission:

1. Carrier name and master agreement date
2. State Highway (or Interstate) Route number, milepost and direction
3. Municipality and County
4. North arrow, scale, latitude and longitude
5. Location of adjacent streets (for alternate access location)
6. Right of Way line and Route, Section and Parcel number from DOT Right of Way Plan.
7. Location and setback of proposed structures (monopoles/towers, shelters and fencing) with the safety clear zone line (include calculation)
8. Location of any existing guiderail (include existing fixed objects and/or slopes)
9. Location of aerial and underground utilities (fiber optic, electrical, telephone etc.)
10. Location and setback from Bridge structures (include 7-digit bridge number)
11. Block, lot number and lot lines of adjacent lots (include tax map), include a copy of the **municipal zoning map** and a copy of the **cell tower ordinance**, if one exists.
12. Height of the structure (monopole/tower) and antenna elevation
13. Existing landscape (outline of vegetation) with landscaping to be proposed and/or trees to be removed
14. Location of existing and proposed access points, driveways and parking areas

### **NOTES:**

Items 7 & 8 - Refer to the New Jersey Department of Transportation Roadway Design Manual - Section 8

Item 9 - There shall be no interference with any utilities

Item 10 - A minimum forty foot setback from any bridge or ramp structure

Twenty sets of plans shall be submitted including copies of color photo renderings, depicting the proposed locations of the monopole/tower or antenna and shelter.

Submission shall be made using Microsoft Word for Windows 6.0 or Word Perfect for Windows 6.1 software or latest version.

**FACILITIES WITHIN THE CLEAR ZONE ARE DISCOURAGED AND WILL ONLY BE APPROVED ON AN EXCEPTION BASIS AND SHALL BE IN COMPLIANCE WITH ALL APPROPRIATE SAFETY STANDARDS.**

**FACILITIES WILL NOT BE APPROVED WITHIN MEDIANS.**

**ACCESS WILL NOT BE PERMITTED ALONG RAMPS.**

**DIRECT ACCESS FROM A LIMITED ACCESS HIGHWAY OR INTERSTATE/NHS HIGHWAY WILL BE DISCOURAGED; THE USE OF ALTERNATE ACCESS IS REQUESTED FOR ALL FACILITIES, WHERE IT IS FEASIBLE.**

## **WIRELESS COMMUNICATIONS ANTENNA SITES**

### 10c. **Detailed Submission Checklist**

Copies of detailed plans will be scaled to one inch equals 30 feet. Plan sheet size shall not exceed 24 inches by 36 inches but may be reduced to half scale size. Major topographic features shall be shown on both sides of undivided roads and one side of divided roads for 250 feet in each direction, along the highway, of the site location. A title block on every plan sheet with the Department's name and address.

In addition to the items from the conceptual checklist, the following list of items shall be included on the detailed plan submission:

1. Landscape plan, Soil Erosion and Sediment Control plan (include elevations, details showing Architectural treatment, colors of the various facility components, etc.)
2. Guiderail - setbacks and proposed modifications if required
3. Curb, sidewalks and/or stairs - existing and proposed
4. Signs, regulatory, warning, directional, and private
5. Curblin opening, driveway width and alignment with respect to the highway
6. Type of driveway construction (concrete, bituminous, gravel, pavers)
7. Contours - existing and proposed (50' around site)
8. Driveway corner clearance (corner locations only)
9. Highway striping with lane and shoulder widths
10. Dimensions from the right of way line to the edge of pavement
11. Distance to nearest traffic signal if less than 250 feet
12. Maintenance of Traffic plans - for construction and maintenance (provide a construction schedule and an "**estimated**" maintenance schedule)
13. Construction and attachment details, including design criteria and material specifications
14. The following note shall appear on the **site plan** sheet: As stated in the NJDOT Master Agreement, dated mm/dd/yy, the NJDOT reserves additional space to

accommodate the introduction and enhancement of telecommunications services that include, but are not limited to, general mobile telephone service, 911 emergency telephone service, vehicle identification services, standard paging services useful to firefighters and EMS personnel

**NOTES:**

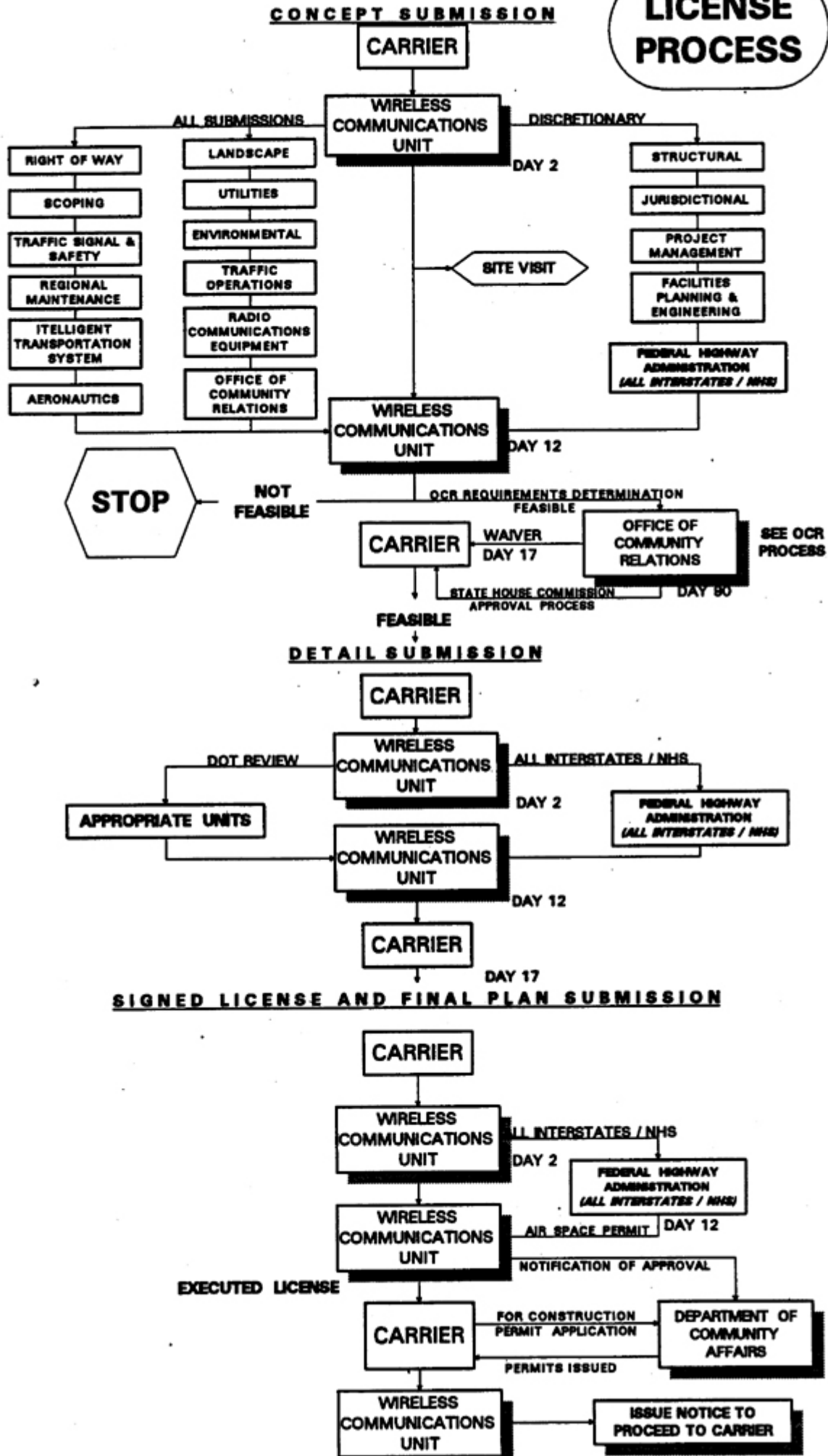
- Item 1 - Also refer to the additional "Submission Guideline" attachment from the Bureau of Landscape and Urban Design
- Item 12 - The Department will discourage any proposals that require the closing of any travel lanes during construction or maintenance except during night time operations or by approval of the Department's Traffic Operations unit
  - When estimating the frequency of site maintenance trips, provide the type of vehicles, type of equipment used (ladders, booms, etc.) and the general locations the vehicles and equipment will occupy during typical maintenance operations (these should be outside of the safety clear zone)
  - Show the location and type of equipment that will be stored on site during construction (these should also be outside of the safety clear zone)

**If any obstructions" are within the safety clear zone during the construction or maintenance of a site, additional safety items may be required and must be reviewed and approved by the Department's Traffic Operations and Traffic Signal and Safety units.**

**Collocation process after a site has been approved and/or constructed**

1. **Submit a letter of interest to the NJDOT Wireless Communications Unit and to the prime carrier of the site stating your equipment area and antenna height and number.**
2. **Submit 6 sets of Detailed plans of the site showing the location of proposed equipment, antennas etc. for NJDOT review, comment and approval.**
3. **Submit a copy of the collocation agreement between the prime carrier and the collocator.**
4. **If the submission is approved then the Carrier can submit plans to the Department of Community Affairs, Bureau of Construction Project Review, to obtain construction permits.**
5. **Submit a copy of the construction permit, to the NJDOT Wireless Communications Unit, before commencing any construction at a site.**

**LICENSE PROCESS**



OFFICE OF COMMUNITY RELATIONS  
(OCR)  
WIRELESS ANTENNA PROGRAM  
PUBLIC PROCESS

**PUBLIC  
PROCESS**

OCR CONTACTS LOCAL  
OFFICIALS

INITIAL PHONE CONTACT  
FOLLOWED BY LETTER  
WHICH WILL INCLUDE SITE  
PLANS AND LOCATION

D.O.T. ATTENDS PUBLIC OFFICIAL  
MEETING TO DISCUSS PROPOSED SITE

OCR PROCESS  
WAIVED

**CATEGORY 1**  
ANTENNA  
ATTACHMENTS  
TO EXISTING  
STRUCTURES

**CATEGORY 2**  
REPLACEMENT  
TOWERS OF  
SIMILAR HEIGHT

**CATEGORY 3**  
POLES < 70' IN  
HEIGHT

**CATEGORY 4**  
TOWERS > 70'  
IN HEIGHT

5  
DAYS

PROVIDE 60  
DAYS FOR  
RESPONSE  
FROM  
MUNICIPALITY

PROVIDE 60  
DAYS FOR  
RESPONSE  
FROM  
MUNICIPALITY

CONDUCT PUBLIC  
MEETING OR MAKE  
OFFICIAL  
PRESENTATION AT  
COUNCIL MEETING

CONDUCT  
PUBLIC  
MEETING

60 -  
DAY

OCR RECOMMENDS APPROVAL/  
DENIAL OF SITE BASED ON  
COMMUNITY RESPONSE

D.O.T. TO PROCESS  
FINAL SITE APPROVAL

WIRELESS COMMUNICATIONS UNIT  
AUTHORIZES CARRIER TO DEVELOP

## Appendixes

- Appendix A - Licensor/Licensee Letter from DAG Roop
  - Appendix B - Master Agreement Letter from DAG Roop
  - Appendix C - Landscape and Urban Design Guidelines
  - Appendix D - Public Process for the Wireless Antenna Program
  - Appendix E - D.C.A. Plan Submission Checklist
  - Appendix F - Categorical Exclusion Document and Tutorial
  - Appendix G - Scope of Work for Categorical Exclusion Document and Historical Survey  
Section 106 - National Historic Preservation Act review process
  - Appendix H - Details of Typical Parking Areas for Service Vehicles
- Exhibit A - Sample Individual Site Agreement



## Appendix A

### Licensors/Licensee Letter from DAG Roop

Contact NJDOT Wireless Communications Unit for a copy

## Appendix B

### Master Agreement Letter from DAG Roop

Contact NJDOT Wireless Communications Unit for a copy

## **WIRELESS COMMUNICATION ANTENNA FACILITIES**

### **Design Guideline**

#### **Landscape and Urban Design**

1. All antenna and shelter locations shall be selected to provide for a minimum amount of site disturbance.
2. Existing trees and shrubs shall be preserved and utilized as visual buffers and screens.
3. The facility, including access drives, shall be located as far from the highway as possible to allow for additional planting or other screening treatments.
4. The facility shall be designed to blend with each site location by the use of architectural treatments and color that will minimize the visual impact of the facility.
5. Landscape parcels will not be utilized as site locations unless it can demonstrated that the facility will not impact on the visual quality of the parcel.

If it is determined that the proposed site visually impacts the parcel then mitigation measures will be identified.

## APPENDIX D

8-19-98

### PUBLIC PROCESS FOR THE WIRELESS ANTENNA PROGRAM

- Carrier's (site-by-site) concept submission circulated for internal review and comments by OCR and others. OCR provides project staff with preliminary indication as to the nature of public process, if any, required based on the type of installation proposed and other applicable considerations which might have impact on carrier's design, plans or schedule assumptions for a particular site.
- Project staff responds to carrier's concept submission with advice as to the public process required. (see attached categories of sites)
- OCR makes arrangements for applicable public process including written notice to local officials and public officials meeting.
- OCR completes public process, which includes public meeting notification of all residents within approximately 500' of any site and establishes a written record as appropriate.
- OCR advises project staff of disposition including any site and/or design recommendations, based upon community input.
- Carrier's detailed site submission circulated for internal review and comment by OCR and others.

#### Notes:

Unless otherwise determined appropriate by OCR, the "applicable public process" referred to above will generally be a public meeting organized and conducted by OCR with participation by the carrier as necessary to provide the public with complete and accurate information concerning a proposed installation.

Generally, OCR will endeavor to complete the public process and advise project staff of the disposition of a proposed installation within 60 to 90 days.

**PUBLIC PROCESS ACCORDING TO  
CATEGORIES OF WIRELESS ANTENNA SITES  
PHYSICAL FEATURES**

**CATEGORY 1** Municipal notification, meet with local officials, and upon the passage of a 60 day comment period a site shall proceed.

Antennas attached to an existing structure, (which includes, but is not limited to, water towers, bridges, sign structures, communication towers, light poles, high mast lighting towers, CCTV poles, utility poles etc...

Whip Antennas **1"to3"** in diameter and **8'to16'** high

Panel Antennas **2" to18"** wide x **2'to 6'** high x **2"to12"** deep

Note: all dimensions are approximate and vary by manufacturer and Carrier and change with improvements in technology.

Note: antenna arrays vary by site. One to 12 antennas possible per site.

Equipment cabinets or shelters per Carrier:

2 - 4 equipments cabinets per site size varies 15"W x 15"D x 36"H to 48"W x 36"D x 72"H. OR

One equipment shelter per site size varies 10' x 20' to 15' x 30'.

Fenced area

Varies per site and only used if Carrier requires for security.

Fence is 8' high with barbed wire on top.

Access requirements;

24 hour access required by Carrier.

Technician parking at site off roadway on concrete grass pavers.

Access driveway (if required) constructed of stone, gravel or grass pavers

**CATEGORY 2** Municipal notification, meet with local officials, and upon the passage of a 60 day comment period a site shall proceed.

Attached to replacement communication towers, light poles, high mast lighting towers, CCTV poles, utility poles, etc., where the height of the new equipment does not significantly exceed the overall height of the existing facility.

Antennas same as category 1

Notes: same as category 1

Equipment cabinets or shelters same as category 1

Fenced area same as category 1

Access same as category 1

**CATEGORY 3** Municipal notification and meeting with local officials, followed by a public meeting or an official presentation at a municipal council meeting. All meetings will be advertised in appropriate newspaper(s) and a notification of either meeting will be sent to each resident within approximately 500' of the proposed site by either the NJDOT or the municipality (to be determined at the public officials meeting).

New poles, constructed of steel or other material, less than 70 feet in height, resembling light poles, CCTV poles, Highway Advisory Radio installations.

Antennas same as category 1

Notes: same as category 1 except one to three antennas only per site per Carrier.

Poles are tapered 12" - 24" top to bottom less than 70 feet in height

Equipment cabinets or shelters same as category 1

Fenced area same as category 1

Access same as category 1

**CATEGORY 4** Municipal notification and meeting with local officials, Followed by a public meeting. All public meetings will be advertised in appropriate newspaper(s) and a notification of the meeting will be sent to each resident within approximately 500' of the proposed site by the NJDOT.

New monopoles, constructed of steel or other material, and new Lattice Towers more than 70 feet in height. (including replacement poles and lattice towers which significantly exceeds the overall height of an existing facility)

Antennas same as category 1

Notes: same as category 1

Poles are tapered 24" - 60" top to bottom more than 70 feet in height

Lattice Towers three or four sided 12' - 24' per side more than 70 feet in height.

Equipment cabinets or shelters same as category 1

Fenced area same as category 1

Access same as category 1

## Appendix E

### D.C.A. Plan Submission Checklist

Department of Community Affairs  
Bureau of Construction Project Review

**PLAN SUBMISSION CHECK LIST HIGHLIGHTS**

- 3 sets of signed and sealed plans (by NJ registered architect or NJ licensed engineer)
- 1 copy of the soils report, signed and sealed  
Footing and foundation details
- 1 set of structural calculations signed and sealed  
tower framing, cable bridge, antenna connections,  
equipment platforms  
*For attaching to existing tower, manufacturers certification that tower can accommodate additional loads*
- Prefabricated equipment buildings need IBC number  
If IBC number not available at time of submission, then a certification from the manufacturer that building is IBC and number will be supplied at a later date
- Electrical plans must show details of all grounding
- Project Review Application and a check for the plan review fee.

***Plan Review Submittals***

Via US Mail

**NJ Dept. of Community Affairs  
Bur. of Construction Project Review  
Intake & Admissions  
PO Box 817  
Trenton, NJ 08625-0817  
Tel:# Intake & Admissions 609-633-7448**

Other Delivery Service

**NJ Dept. of Community Affairs  
Bur. of Construction Project Review  
Intake & Admissions  
101 South Broad St. 4<sup>th</sup> Floor  
Trenton, NJ 08625**



## Appendix F

### Categorical Exclusion Document and Tutorial

**NEW JERSEY DEPARTMENT OF TRANSPORTATION**  
**CATEGORICAL EXCLUSION DOCUMENTATION**

**I. GENERAL INFORMATION**

DOT Job Code No.	<u>2201162</u>	Federal Project No.	<u>N/A</u>
Project Management Team	<u>Wireless Communications</u>	Data Base No.	<u>N/A</u>
Route and Section	_____	Structure No.	_____
Local Road Name	_____		
Municipality	_____	County	_____
Type of Project	_____	Length	_____
From	_____	To	_____
Congressional District	_____	Legislative District	_____
ROW Cost	_____	Construction Cost	_____

EXISTING FACILITY	PROPOSED FACILITY
ROW Width _____	ROW Width _____
No. of Lanes & Width _____	No. of Lanes & Width _____
Shoulder Width _____ Median _____	Shoulder Width _____ Median _____
Overall Roadway Width _____	Overall Roadway Width _____

**II. PROJECT DESCRIPTION** (Attach location map)

**A. Project Need** ( briefly explain why the project is needed)

The Department's initiative is one of creating infrastructure, resource sharing and collocation along with the Carrier's initiative to provide reliable seamless adequate coverage under the Telecommunications Act of 1996 and also to enable the Department to advance its intelligent transportation systems and its MAGIC and other technological programs under advisement. The Act encourages State departments of transportation throughout the nation to participate in placing these facilities on state owned right of way.

**B. Proposed Improvements** ( provide a brief description of proposed improvements)

**C. Right of Way Taking**

Total area needed: None \_\_\_\_\_ est. number of parcels: in \_\_\_\_\_ easements- \_\_\_\_\_  
 fee- \_\_\_\_\_  
 Est. number of relocations: residences- \_\_\_\_\_ businesses- \_\_\_\_\_ parking spaces- \_\_\_\_\_  
 Community facilities affected: N/A  
 Area (hectares) of publicrecreational land taken: 0 out of a total area of 0

**III. ENVIRONMENTAL CONSIDERATIONS:**

**A. Noise**

- \_\_\_\_\_ Sensitive receptors within 65 meters for two lanes or 130 meters for four lanes.
- \_\_\_\_\_ Project substantially changes the vertical or horizontal alignment of the roadway.
- \_\_\_\_\_ Traffic volumes or speeds substantially increase.

**Conclusion:**

- Noise study not required. No significant impact anticipated.
- Potential noise impacts were studied and are discussed in comments. Project still meets CE criteria.

**Comments:**

**B. Air Quality**

**1. CONFORMITY WITH THE CLEAN AIR ACT AMENDMENTS (CAAA) OF 1990**

- There are sensitive receptors (i.e. residences, schools, hospitals) within 65 Meters of the project.
- This project is on page \_\_\_\_\_ of the \_\_\_\_\_ approved State Transportation Improvement Plan(STIP).
- A copy of the STIP page is in the project's CED file.

**2. CO ANALYSIS**

- The project is located in a Carbon Monoxide Attainment Area. **If so, no CO analysis needed.**
  - The project is located in a Carbon Monoxide Non-Attainment Area.
- As defined by the Transportation Conformity Rule of 11/15/93, effective date 12/27/93, this project is a :
- Table 2 type project and therefore does not impact regional emissions and **did not require** Carbon Monoxide analysis.
  - Table 3 type project and is located in a Carbon Monoxide attainment Area and therefore did not impact regional emissions and **did not require** Carbon monoxide analysis.
  - Table 3 type project located in a Carbon Monoxide Non-Attainment area and required a Carbon Monoxide hot-spot analysis. A CO Analysis was completed at the following intersections:  
and the results are:
  - Neither a Table 2 or Table 3 type project, therefore it required a Carbon Monoxide hot-spot analysis. This was done at the following intersections:  
and the results are:
  - Table 3 type project and the total eight-hour Carbon Monoxide levels are expected to be reasonably below the NAAQS of 9 ppm. No significant impact is anticipated.

**Comments:**

This project will not have an impact on air quality.

**C. Ecology & Permits** (briefly describe any potential impact(s) under comments)

- |  |  |
|--|--|
| <input type="checkbox"/> Water Quality | <input type="checkbox"/> Sole Source Aquifer               |
| <input type="checkbox"/> Floodplain    | <input type="checkbox"/> Unique/Endangered Species Habitat |
| <input type="checkbox"/> Wetlands      | <input type="checkbox"/> Wildlife                          |
| <input type="checkbox"/> Acid Soils    |  |

**Conclusion:**

- No significant impact anticipated.
- Further studies needed to obtain permits. Project still satisfies CE criteria. (see comments)
-

**D. Environmental Permits/Coordination Needed:**

U.S. Coast Guard (Bridge)		NJDEP Waterfront Development	
USACOE Section 404 (Individual)		NJDEP Stream Encroachment - Major	
USACOE Section 404 (Nationwide)		NJDEP Stream Encroachment - Minor	
USACOE Sec. 10 (Navigable Waters)		NJDEP Riparian	
CAFRA		NJDEP Water Quality Certificate	
NJDEP Remediation Approval		USEPA - Sole Source Aquifer	
NJDEP Coastal Wetlands		Delaware Basin Commission	
NJDEP Freshwater Wetlands - GP		D & R Canal Commission	
NJDEP Freshwater Wetlands - IP		Meadowlands Commission	
NJDEP Pollutant Discharge		Pinelands Commission	
EO 11900 Wetlands		EO 11988 Floodplain	

**Comments:** (potential impacts, unique features, sensitive issues)

**E. Cultural Resources**

**Technical Findings:**

- \_\_\_\_\_ No properties in Area of Potential Effect (APE)
- \_\_\_\_\_ No Effect per FHWA/SHPO Agreement of 1-12-96
- \_\_\_\_\_ No NR listed/eligible properties in APE
- \_\_\_\_\_ NR listed/eligible properties in APE (see summary table below)

Archaeology	Architecture				Sec. 106 Finding
	Bridge	Building	District	Other	
					NR listed/eligible property in APE
					NR listed/eligible property - No Effect
					NR listed/elig. property -No Adv. Effect
					NR listed/elig. prop.- NAE w/ Data Recov.
					NR listed/elig. property - Adverse Effect

**Conclusion: Consultation Summary** ( indicate date of concurrence/approval)

- \_\_\_\_\_ SHPO concurred with Sec. 106 Finding on \_\_\_\_\_
- \_\_\_\_\_ ACHP concurred with No Adverse Effect Finding on \_\_\_\_\_
- \_\_\_\_\_ SHPO approved Data Recovery Plan on \_\_\_\_\_
- \_\_\_\_\_ ACHP approved Data Recovery Plan on \_\_\_\_\_
- \_\_\_\_\_ ACHP accepted MOA on \_\_\_\_\_

**Comments :**

## F. Sec. 4(f) Involvement - Historic Sites

- Project results in a use of Historic site(s) on or eligible for the National Register of Historic Places.  
 Project results in a "**constructive use**" of Section 4(f) property.

### Conclusion:

- No Section 4(f) Involvement  
 Section 4(f) Involvement. Project falls under the **Programmatic Nationwide Section 4(f) Evaluation** and all applicability criteria have been met including agreement of the SHPO with the "No Effect" recommendation.  
 Section 4(f) Involvement. Project is a **Nationwide Section 4(f)** and all applicability standards have been met including agreement by the ACHP with the "**No Adverse Effect**".  
 Section 4(f) Involvement. Project is covered under the **Programmatic Nationwide Section 4(f)** for Historic Bridges.  
 Section 4(f) Involvement. Project has an "**Adverse Effect**". Individual Section 4(f) prepared.  
**Documentation:** If Sec. 4(f) impacts exists - refer to Appendix for documentation.

### Comments :

## G. Sec. 4(f) Involvement - Recreational Land

- Project requires acquisition from Publicly-owned recreation land.  
 Project results in a "Constructive Use" of Section 4(f) property.  
 If either of the above are checked, fill out the following:

Site (use local name):

Lot and Block #:

Total Hectares To Be Acquired (consider acquisition and easement)

Total Hectares of Park: \_\_\_\_\_ Amount of Parkland affected: \_\_\_\_\_

Federal DOI Section 6(f) regulations or other Federal encumbrances involved.

### Conclusion:

- No Section 4(f) Involvement.  
 Section 4(f) Involvement. Project falls under **Temporary Occupancy**; all applicability criteria and conditions have been met (Explain below).  
 Section 4(f) Involvement. Project falls under the **Programmatic Nationwide Section 4(f) Evaluation**; all applicability criteria and conditions have been met.  
 Section 4(f) Involvement. **Individual Section 4(f) Evaluation** was completed, but **no significant impacts are anticipated**.  
 No Section 4(f) Involvement, but any changes made to the project which require use of Section 4(f) land would require compliance with Section 4(f).

**Documentation:** If Sec. 4(f) impacts exists - refer to Appendix for documentation.

### Comments :

## H. Hazardous Materials and Landfills

- Involvement with known or suspected contaminated site. (If so, explain under comments)  
 Involvement with underground storage tanks. (If so, explain under comments)

**Conclusion:**

- Low potential for involvement with contamination, no further investigation required.
- Further investigation and/or sampling required to determine extent of involvement with contamination. Project still
- meets FHWA criteria for a CE.

**Comments:**

**I. Public Reaction** (briefly describe input from the Office of Community Relations)

**J. Environmental Commitments** (list if any)

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**DETERMINATION OF CATEGORICAL EXCLUSION**

**Project name and location:**

**CE # :**

The proposed project satisfies the Categorical Exclusion definition outlined in 23 CFR 771.117(a) and will not result in significant environmental impacts.

\_\_\_\_\_  
Manager, Bureau of Major Access Permits  
Wireless Communications Unit

\_\_\_\_\_  
Date

**Recommended:**

\_\_\_\_\_  
Environmental Team Leader

\_\_\_\_\_  
Date

**Certified**

**Approved**

\_\_\_\_\_  
Manager, Bureau of Environmental Services

\_\_\_\_\_  
Date

**Concurrence**

(only needed for  
CEs not certified  
by BES Manager)

\_\_\_\_\_  
(FOR) - Division Administrator  
Federal Highway Administration

\_\_\_\_\_  
Date

## Appendix G

### Scope of Work for Categorical Exclusion Document and Historical Survey Section 106 – National Historic Preservation Act Review Process

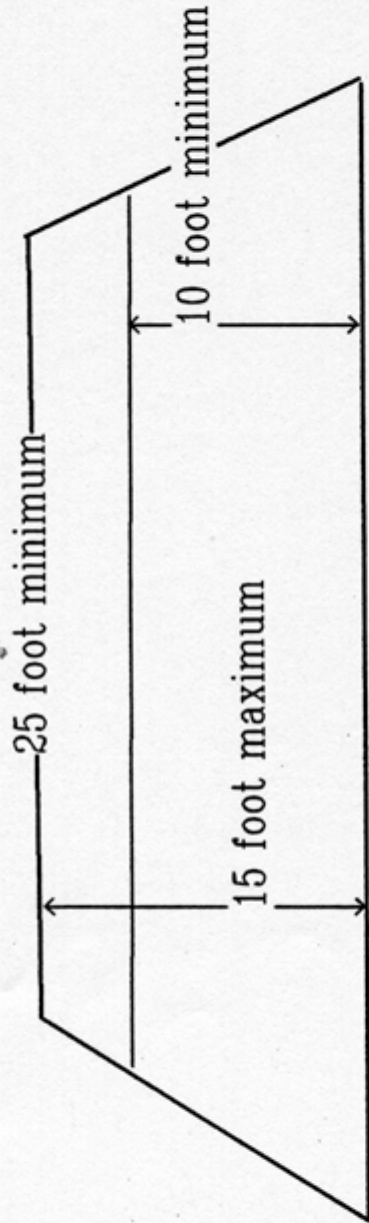
Contact NJDOT Wireless Communications Unit for a copy



## Appendix H

### Details of Typical Parking Areas for Service Vehicles

# APPENDIX H

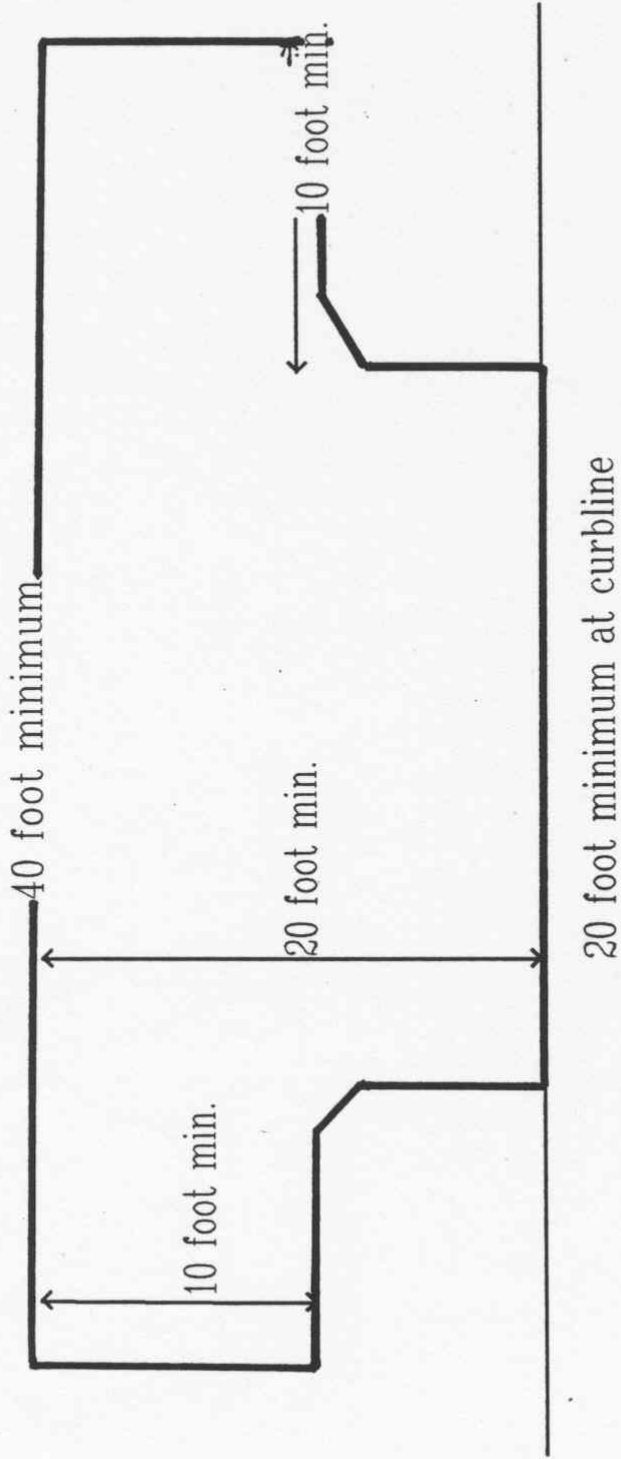


30 foot minimum  
at curbline

Parking Area for service vehicles

where ROW is restricted

# APPENDIX H



Parking area for service vehicles

where ROW is available