

APPENDICES

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P.O. BOX 942873
SACRAMENTO, CA 94273-0001
(Mail Station 49)



PHONE (916) 654-5267
FAX (916) 654-6608

September 13, 1996

Dear Sir or Madam:

The California Department of Transportation (Department) recognizes the potential benefits and opportunities in partnering with the telecommunications providers to improve its service to the traveling public and provide potential sites for telecommunications providers.

The Department is developing a process that will allow the leasing of its properties for telecommunications (wireless) services. Specific properties available for lease will be those outside the right of way, airspace parcels (sites suitable for a secondary use), excess land remnants, maintenance stations/equipment yards, Park and Ride lots, and State Roadside Rest Areas. The Department will also consider proposals to use all other properties not identified in any of the above inventories if it is determined that the operation of and access to the proposed telecommunications facility will not interfere with our operations or impact the safety of the traveling public.

The Airspace Development Leasing office, under the Right of Way and Asset Management Program, is responsible for implementing this new activity. All telecommunications industry representatives are encouraged to contact the local District Airspace Managers for information about specific sites that may be suitable for a (wireless) facility. A contact list is attached for your use,

The Department will use a Master Lease or License Agreement that outlines the general terms and conditions, a basic rate schedule, and an addendum for each selected site specifying the rate, term and use. Facility owners will be required to provide co-locations for other providers when feasible.

Siting guidelines for roadways are included for your information. The siting guidelines for non-roadway sites tend to be less restrictive.

Inventories and maps are available in all districts, so please review the sites to determine if any would satisfy your needs in establishing or expanding your telecommunications network. In order to estimate and prioritize the workload, including the review of specific sites for compatibility and conditions of use, please submit a letter (format attached) stating your interest in a particular site(s) with a basic explanation of the type of facility (e.g., vault, antenna, tower) that would be installed. As this preliminary information from you will help us implement the proposed leasing process more efficiently and effectively, we request you submit these letters by October 25, 1996. Depending upon the volume of responses, you will be informed in November or December if your proposed use is compatible with the Department's primary use, which is to provide a safe and efficient transportation system, thus warranting more in-depth reviews and approvals.

It is anticipated that remote sites with only one interested party will be offered for lease as early as possible. The leasing process for other sites, including the master agreement, will be implemented later this year.

If you have specific questions about the proposed process, please call Susan Ellis, Right of Way and Asset Management Program, at (916) 654-4812.

My staff and I look forward to working with you in developing this mutually beneficial program. Your continued participation and cooperation in this new area of state/private partnering is greatly appreciated.

Sincerely,

ANDREW POAT
Chief Deputy Director

Attachments

REGION/DISTRICT BOUNDARY MAP

DISTRICT 4

NORTHERN REGION

CENTRAL REGION

SOUTHERN REGION

DISTRICT 11



DISTRICT AIRSPACE MANAGERS

District 1, 2, 3
Bonie Oliver
Right of Way
P.O. Box 911
Marysville, CA 95901
(916) 741-4427

District 4
Larry Appiano
Right of Way
P.O. Box 23660

District 5, 6, 9
Hermann Hamm
Right of Way
P.O. Box 12616
Fresno, CA 93778-2616

District 7
Wil Brilz
Right of Way
120 South Spring Street
Los Angeles, CA 90012-3606
(213) 897-4820

District 8
Terry Moore
Right of Way
P.O. Box 231
San Bernardino, CA 92402
(909) 383-6213

District 10
Gerry Wisenor
Right of Way
P.O. Box 2048
Stockton, CA 95201
(209) 948-7860

District 11
Carolyn Lee
Right of Way
P.O. Box 85406
San Diego, Ca 92186-5406

District 12
Bob Pencall
Right of Way
Building C
Santa Ana, CA 92705
(714) 724-2554

Headquarters - Sacramento
Susan Ellis
Right of Way and Asset Management
Mail Station 37
P.O. Box 942874
Sacramento CA 94273-0001
(916) 654-4812

Licensee: _____

DEPARTMENT OF TRANSPORTATION
TELECOMMUNICATIONS MASTER LICENSE AGREEMENT
CELLULAR AND PCS CARRIERS

This Master License Agreement is made and entered into by and between the State of California, acting by and through its Department of Transportation, hereinafter called Licensor, and the above-named Master Licensee, hereinafter called Licensee.

WITNESSETH:

WHEREAS Licensee is a wireless communications company licensed by the Federal Communications Commission ("the FCC") to operate in all or some counties in the State of California as a Cellular and/or Personal Communication Service (PCS) provider; and

WHEREAS Licensee seeks to construct, install, operate and maintain radio transmitting and receiving antennas together with other associated electronic equipment in connection with its wireless communications business as needed to expand and to improve its wireless telecommunications service; and

WHEREAS Licensor has properties well suited for the antennas needed for wireless communications systems because they are extensive and located throughout the State, and because often they are adjacent to populated areas but not located in the heart of residential areas; and

WHEREAS Licensor desires to improve services available to the traveling public, to enhance communications systems within the State, and to add to its revenues by making state properties available for wireless communications infrastructure consistent with other public uses of its property; and

WHEREAS Licensee proposes that the use of State properties can be an important option for the placement of antenna sites if the cost is competitive and the process of establishing sites is expedited; and

WHEREAS Licensor has determined to make certain of its properties available to wireless communications companies, on a fair and equitable basis, for use as antenna sites; and

WHEREAS Licensor may seek to provide the traveling public with wireless telephone access to traffic information lines. If Licensor does so, Licensee shall cooperate in developing a program to provide the traveling public with wireless telephone access to information lines, and to create an emergency access line subject to Licensee's operational capacity;

NOW THEREFORE, in consideration of the mutual covenants and benefits stated herein, and in further consideration of the obligations, terms and considerations hereinafter set forth and recited; Licensor and Licensee agree as follows:

MASTER LICENSE AGREEMENT

1. Master License Agreement.

This Master License Agreement (hereinafter, "Agreement") sets forth the basic terms and conditions upon which each Site (defined in Section 2 below) is licensed by Licensor to Licensee. Upon agreement between the parties with respect to the particular terms of a Site, the parties shall execute a completed "Site License" in the form attached hereto as Exhibit A and incorporated herein by this reference (the Site License Form may be modified in the future without amending the Agreement). In the event of a discrepancy or inconsistency between the terms and conditions of a particular Site License and this Agreement, the terms and conditions of the particular Site License shall govern and control.

2. Site License.

(a) Licensor owns highway and freeway right of way, including appurtenant airspace rights, fixtures and signs, buildings, yards, park and ride lots, excess land, and other real property acquired for, or to support, the State's transportation system. Each general location licensed ("Premises") is further described in the particular Site License and the particular portion of the Premises used by Licensee is referred to herein as a "Site" (or collectively described herein as "Sites"). Subject to the terms and conditions contained in this Agreement, and in the Site License relating to a particular Site, Licensor hereby licenses to Licensee and Licensee licenses from Licensor the Site on the Premises owned or controlled by Licensor, as described in the particular Site License. The Site License includes access to and from the Site, and to and from the closest public right-of-way and on and over the land of which the Premises and the Site are a part (subject to terms and conditions of each Site License, with special limitations for access from access-controlled highways and freeways) and access to appropriate utilities as set forth in Section 7. Each Site License shall act as a separate and independent agreement for each Site, the express intent of the parties being to use this Agreement to facilitate each of the independent transactions. It is understood and agreed that Licensee's right and license to place unmanned radio communications facilities on the Premises is non-exclusive, but that the Site shall be exclusive for Licensee's equipment, subject to the terms and conditions of this Agreement, including but not limited to co-location requirements contained herein. Further, Licensee's license and rights granted under this Agreement and the particular Site License are irrevocable until the expiration or sooner termination of this Agreement and/or the Site License, by their respective terms. The "Commencement Date" for each Site License shall be either the date Licensee receives all permits and approvals necessary to construct and operate its facility at the Site (at which time Licensor will issue an Encroachment Permit allowing construction/installation at the Site), or six (6) months from the date the Site License is executed ("Execution Date"), whichever occurs first. The period between the Execution Date and the Commencement Date shall be

referred to herein as the "Local Permitting Period."

(b) Licensee may cancel a Site License at any time prior to the Commencement Date. The Local Permitting Period may be extended for two (2) additional three (3) month periods upon payment of twenty-five percent (25%) of the annual fee under the Site License for each three (3) month extension, and a showing of good faith efforts to obtain permits and/or commence construction. Under special circumstances where the delay in obtaining permits and/or commencing construction is beyond the reasonable control of Licensee, Licensor may grant up to two (2) additional extensions to the Local Permitting Period, upon the same payment terms as above.

3. Use.

(a) A Site may be used by Licensee only for the construction, installation, operation, replacement, removal, maintenance and repair (collectively "Operations") of an unmanned telecommunications facility, including required antennas and antenna support structures (as the same may be modified, added to and/or substituted from time to time), in accordance with the terms herein. Each such antenna and/or antenna support structure shall be configured as required by Licensee from time to time provided that Licensee obtains all permits and approvals required by applicable jurisdictions relative to any such desired configuration. Licensee shall have the right to park its vehicles on the Premises when Licensee is servicing its communications facility, subject to any conditions in the Site License. All operations by Licensee on the Premises or Site shall be lawful and in compliance with all applicable Federal Communications Commission ("FCC") requirements. Licensee shall, at its sole expense, comply with (and obtain and maintain such licenses, permits or other governmental approvals necessary to comply with) all laws, orders, ordinances, and regulations of federal, state, county, and municipal authorities applicable to its Operations or use of the Premises or Site. Licensee shall comply with any directive of any public officer or officers applicable to its Operations or its use of the Premises or Site (collectively "Laws"), which shall, with respect to Licensee's Operations, impose any violation, order or duty upon Licensor or Licensee arising solely from Licensee's use of the Premises subject, however, to Licensee's right to contest, in good faith, any such violation, order or duty. Licensee's Operations shall not interfere with the operations of Licensor, the traveling public, or any other users existing on the Commencement Date on the Premises. Licensor agrees to reasonably cooperate with Licensee, at Licensee's expense, in executing such documents or applications necessary or appropriate in order for Licensee to obtain and maintain, at Licensee's expense, such licenses, permits and other governmental approvals needed for Licensee's Operations. Licensor authorizes Licensee to make and prosecute applications for all such approvals. If Licensee is unable to obtain and maintain such licenses, permits or approvals (notwithstanding reasonable efforts to do so), Licensee shall so notify Licensor and the particular Site License shall immediately terminate.

(b) Licensee agrees to install, maintain, and operate its telecommunications equipment in accordance with the specific site standards more particularly described in each Site License and any other applicable statutes pertaining to the use of telecommunications and/or electronic equipment. In the event Licensee's installation, or Operation, in any way

hinders, obstructs, or interferes with, the radio or electronic equipment of Licensor, or any tenant operating at the Premises as of the Execution Date of the applicable Site License, Licensee shall, at its sole cost and expense, upon receipt of written notification, forthwith cease the interfering operation, except for brief tests necessary for the elimination of the interference. Licensee shall conduct its Operations in compliance with all laws, orders, ordinances, and regulations of all federal, state, county, and municipal authorities. Licensor may execute any Site License upon the condition that Licensee's equipment shall be installed in such a manner to facilitate Licensor's telecommunication needs as set forth in Section 21 of this Agreement.

(c) If such hindrance, interference or obstruction cited in Subsection 3(b), is not eliminated or does not fully cease within thirty (30) days after written notice to Licensee by Licensor or any appropriate regulatory agency, Licensor shall have the right to order cessation of Licensee's Operations at the Site as may be necessary to continuously eliminate said interference by giving ten (10) days prior written notice. In the event of Licensee's inability or refusal to eliminate such interference, Licensor may at its option additionally terminate the affected Site License and evict Licensee. Once Licensee has more than ten (10) Site Licenses in effect, if such uneliminated interferences occur at over twenty percent (20%) of Licensee's Sites occupied under this Agreement, Licensor may terminate this Agreement and evict Licensee from all its Sites on thirty (30) days' written notice.

(d) Any interference and compatibility testing required hereunder for radio interference with other equipment located at the Premises as of the Commencement Date, or Licensor's equipment installed at any time shall at the sole and reasonable cost of Licensee, be made by a qualified technical person representing Licensee and a representative designated by Licensor. If the test is satisfactory to both the technical person and Licensor representative, a certification of such test signed by both the technical person and the Licensor representative shall be forwarded to Licensor at locations indicated in Section 16. Any reasonable costs incurred by Licensor to conduct compatibility testing shall be reimbursed to Licensor within thirty (30) days after receipt of billing and reasonable supporting documentation.

(e) Any interference with Licensor's electronic equipment during an emergency incident will require immediate cessation of operation, transmission or further use of Licensee's equipment provided Licensee is given notice of such incident and is afforded the opportunity to cure such interference. Failure to do so promptly after notification of such interference will be grounds for immediate termination of the particular Site License and eviction of Licensee.

4. Term: Termination.

(a) The term of this Agreement shall expire on June 30, 2002. The parties agree in good faith to commence negotiations for a successor agreement or to extend the term of this agreement on, or before, January 2, 2002, if the parties have a mutual interest in such a successor agreement.

(b) No new individual Site Licenses shall be entered into pursuant to this Agreement after July 1, 2002. The initial term of each Site License shall be ten (10) years commencing on the Commencement Date. Licensee agrees to begin the process of gaining the approvals necessary to the initiation of site construction immediately after the Execution Date. If, however, Licensee does not, in good faith, actively pursue a building permit within the "Local Permitting Period" (as may be extended pursuant to Subsection 2(b)), Licensor may terminate the individual Site License.

(c) Licensee shall have the option to renew each Site License for three (3) consecutive five (5) year periods on the same terms and conditions in effect during the initial term subject to Licensor's review and approval, with the exception of the amount of the License Fee (defined in Section 5, below) for use of the Site. However, the individual Site License for each Site shall be automatically terminated unless, at least sixty (60) days before the expiration of each five (5) year term, Licensee notifies Licensor of its intention to renew. This Agreement, as incorporated into each Site License shall remain in full force and effect during the term of that individual Site License. At the end of the initial term and each renewal term, the Site shall be reevaluated to determine if the License Fee should be readjusted due to a change in geographic area type as set forth in Subsection 5(b). The License Fee shall be automatically increased if Licensee's equipment is modified to a higher category under the provisions of Subsection 5(b), and such modifications shall require the written approval of Licensor.

(d) If, at any time during the term of an individual Site License, it becomes commercially inadvisable in Licensee's business judgment for Licensee to utilize that particular Site, or if any required certificate, permit, license or approval is denied, canceled or otherwise terminated so that Licensee is unable to use the Site for its intended purpose, Licensee may terminate the individual Site License. If Licensee terminates a Site License pursuant to this Subsection 4(d), Licensee will provide Licensor with a minimum of one hundred twenty (120) days' written notice of its intention to terminate the individual Site License and will, in the case of a business judgment termination only, compensate Licensor in an amount equivalent to the annual License Fee as liquidated damages for the early termination. In the event that less than one (1) year remains in the term of the individual Site License terminated by Licensee, Licensee shall pay to Licensor such liquidated damages an amount equal only to those installments due or to become due during the remainder of the term of the individual Site License .

(e) If Licensor's use of a Site makes it necessary for Licensee to remove or relocate its equipment and facilities to another location on the Premises or to another Licensor location near the Site, or if there is interference to or involving Licensee's Operations which cannot be resolved as set forth in Section 6, Licensee may elect to terminate the Site License for that Site, without penalty.

(f) Licensor may terminate an individual Site License if its own need for or use of a Site requires relocation of Licensee's facilities because of state transportation purposes, economic necessity or the best interests of the traveling public. To the extent practicable, Licensor shall provide Licensee with three hundred sixty-five (365) days' prior written notice

of the termination of an individual Site License due to Licensor's required need for or use of the Site. If Licensor's own need for or use of a Site requires it to terminate an individual Site License within the first five (5) years of the Site License, Licensor shall credit Licensee, against fees payable or to be payable under other individual Site Licenses, for the construction costs and expenses actually incurred by Licensee in installing facilities on the Site, in an amount not to exceed \$60,000 for a macrocell site, \$40,000 for a minicell site or \$30,000 for a microcell site (as those terms are defined in Section 5 (a) (ii)), amortized over sixty (60) months straight line depreciation. (For example, if Licensee's construction costs and expenses were \$40,000, and Licensor terminated the Site License twenty four (24) months after the Commencement Date, Licensee would be entitled to a credit of \$24,000). Licensor shall use its best efforts to find another suitable location for Licensee's facilities in the event that Licensor's need for or use of a Site requires relocation by Licensee. Licensee's obligation to pay a fee for the use of an individual Site shall cease, and a prorated portion of any advanced payment made by Licensee shall be returned to Licensee by Licensor upon the date that Licensee removes its equipment and restores the Site, as set forth in Subsection (g) below.

(g) Upon termination or other expiration of an individual Site License, Licensor shall have the option of (1) keeping the tower(s) or monopole(s) and ancillary improvements, such as buildings, vaults, equipment sheds and pads, in place (except for Licensee's equipment and antennas), or (2) requiring Licensee, on thirty (30) days' notice given before, or within sixty (60) days after, the expiration of the site license, to remove the tower(s), hardware, building(s) and ancillary improvements (above and below ground) made by Licensee, and to return the Site to the condition existing on the Commencement Date, normal wear and tear and damage not caused by Licensee excepted, to the satisfaction of Licensor, at Licensee's sole cost and expense. If Licensor exercises its option to keep the tower and ancillary improvements in place on an individual Site, the following conditions shall apply: (1) Licensor shall accept the tower and ancillary improvements in their then existing condition, "AS-IS," without any representation or warranty, and Licensee shall have no further obligation with respect to the Site or such equipment, and (2) if the Site License is terminated pursuant to Subsections 4(e) or (f) above, then Licensee shall be entitled to a credit against other existing or future License Fees in an amount equal to the value of the tower and ancillary improvements retained by Licensor, based on their initial cost, not to exceed \$60,000, amortized over a ten (10) year period (straight-line amortization, e. g., 1/120th per month). To the extent reasonably practicable, Licensor will advise Licensee in writing prior to entering into a Site License of Licensor's desire to retain Licensee's Tower or ancillary improvements pursuant to this Subsection. The cost of the tower and ancillary improvements and Licensor's reimbursement obligation for the cost thereof may be modified in the individual Site Licenses.

If Licensor advises Licensee to remove its facilities, and Licensee refuses to do so, Licensor may remove the facilities and charge the cost and expense of removal to Licensee or deduct the costs and expenses from monies due Licensee under this Agreement, individual Site Licenses or any other agreements. If no such monies are owed, Licensor may invoke any remedies provided herein or at law or equity to recover all monies owed. Except as otherwise provided herein, the fee for use of a Site terminated before the end of the term for that Site

License shall not terminate until the later of (1) the effective date of the early termination or (2) the date on which Licensee has removed its equipment and restored the Site in accordance with Section 12(a) or (3) the date on which Licensor notifies Licensee of its election to exercise its option to accept transfer of Licensee's facilities.

(h) All notices of termination shall become effective on the tenth day following the date the notice is received pursuant to Section 16 or such later date specified in the termination notice.

5. License Fee.

(a) Base License Fee Factors - Licensee shall pay Licensor an annual fee ("License Fee") for the use of each Site that is the subject of an individual Site License, which fee shall be calculated in accordance with this Section 5. The License Fee for the initial ten (10) year term of the individual Site License for each Site shall be calculated on the basis of the following two factors: (1) its geographic location and (2) the equipment and building space utilized.

(i) The State shall be divided into three types of geographic areas for the determination of the first factor. The three geographic area types are as follows:

Category 1: "Prime Urban" - Are the "Urbanized" (as defined below) portions of the Counties of Marin, San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Los Angeles, Orange and San Diego.

Category 2: "Urbanized" - includes all areas defined as "Urbanized" in 23 U.S.C. 101 ["... an area with population of 50,000 or more designated by the Bureau of the Census, within boundaries to be fixed by responsible State and local officials in cooperation with each other, subject to the approval by the Secretary..."]. For reference purposes, currently designated urbanized areas are shown in yellow on the official State of California highway map attached as Exhibit B to this Agreement.

Category 3: Rural - any area within the State of California not Urbanized, as defined above.

(ii) The equipment and building space utilized shall be determined by the following definitions of macrocell, minicell and microcell facilities and shall be used to determine the second factor necessary to the calculation of the License Fee:

Macrocell: Facility with nine (9) or more antennas and/or with equipment building or concrete pad space and space required for the foundation of the monopole or tower when combined exceeds 500 square feet, not to exceed sixteen (16) antennas or two thousand five hundred (2,500) square feet. A standard telecommunications facility with a vault or enclosed building is an example of a macrocell site.

Minicell: A facility with four (4) to eight (8) antennas and/or with equipment building or concrete pad space and space required for the foundation of the monopole or tower, when combined is in excess of 300 square feet but less than 500 square feet. A standard telecommunications facility with free-standing cabinets on a pad is an example of a minicell site.

Microcell: Facility with one (1) to three (3) antennas and/or with equipment building or concrete equipment pad space and space required for the foundation of the monopole or tower, when combined is less than 300 square feet.

(b) Base License Fee Calculation: Based on the geographic location and equipment and building space factors detailed above, the annual License Fee to be paid for the use of each of the sites that is the subject of an individual Site License shall be calculated as follows:

	<u>Macrocell</u>	<u>Minicell</u>	<u>Microcell</u>
Category 1	\$21,000	\$18,000	\$15,000
Category 2	\$16,200	\$15,000	\$12,000
Category 3	\$12,000	\$12,000	\$ 9,900

(c) The License Fee for any facility which includes equipment or building space dimensions different from those set forth in the definitions in Subsection (a)(ii) above, shall be negotiated by the parties in good faith. The amount of space licensed shall include the total area fenced by Licensee. The building space dimensions shall not include space required by Licensor or any third party for co-location or co-use of the Site who is separately paying a fee to Licensor for the space it is utilizing. If Licensor requires, or if there are other circumstances caused by geographic, security or other concerns, which requires that Licensee utilize space on the Premises in excess of its customary needs or the size limitations specified herein, the individual Site License may provide for an alteration of the Site designation as a Macrocell, Minicell or Microcell.

(d) License Fee Payment Schedule - The first annual payment for each Site shall be paid to Licensor within ten (10) days after the Commencement Date and shall be a prorated payment for the period from the Commencement Date through the next occurring July 1. Thereafter, Licensee shall make an annual payment on July 1. Payments shall be mailed to: Accounting, Department of Transportation, P.O. Box 168019, Sacramento, CA 95816-3819.

(e) Fee Adjustments - Beginning on July 1, 1998 and on each July 1 thereafter during the term of each Site License: (i) Licensor will automatically increase and Licensee shall automatically pay the License Fee, payable under the Site License, and (ii) the License Fee set forth in Subsection 5(b) shall be increased. The amount of such annual increase shall be determined by multiplying the annual License Fee for the last year prior to the increase by three and one-half percent (3.5%). A chart showing the annual fee for each year after July 1,

1998, is attached hereto as Exhibit C.

(f) In the event Licensee fails to pay the annual License Fee within ten (10) days of when due, the past-due License Fees shall bear interest from (but excluding) the date due until paid at the lesser of (i) twelve percent (12%) per annum, or (ii) the maximum rate permitted under California or federal law, if the aforesaid rate exceeds such maximum.

(g) If Licensee occupies a site after June 30, 2012, the parties shall renegotiate the base License Fee to reflect fair market value. However, in no case shall the License Fee be less than it would be under the annual rent provision of Paragraph 5(b) as adjusted by 5(e). If the parties cannot agree on a new rent, the matter shall be submitted to a mutually agreeable Appraiser who is a Member of the Appraisal Institute ("MAI") for a binding determination.

6. Improvements and Construction.

(a) Prior to commencing any installation, construction, alteration or improvement at any Site, Licensee shall obtain Licensor's prior written approval of Licensee's plans for the installation or alteration work which plans shall be attached to the Site License upon execution. A response (approval, denial, request for modification or additional information), including Federal Highway Administration (FHWA) and environmental clearances, will be made within forty-five (45) days of submittal of such plans; if a response is not forwarded within forty-five (45) days, Licensee shall be entitled to an extension of the Local Permitting Period. Licensee's plans shall include information on the length, width, weight, and cable routing, of and between equipment cabinets and/or shelters, antennas and equipment technical specifications, so as to permit Licensor to reasonably verify their placement on the Premises, potential interference and proper structural loading and Licensee shall provide Licensor with any other information as Licensor may reasonably request with respect to such plans. Notwithstanding the foregoing or anything to the contrary set forth in this Agreement or any Site License, Licensee may replace, exchange, substitute or modify ("replacement") its equipment or antennas installed at any Site with equipment or antennas substantially similar to the equipment and antennas previously approved by Licensor, so long as such replacement equipment and antennas operate at the same frequencies, power levels, emissions, gain, bandwidth and beamwidth and (i) are no larger in size or heavier in weight, and (ii) do not enlarge the physical size of the Site area, subject to Licensor's having thirty (30) days' notice to insure there will be no interference with Licensor's operations.

(b) If construction is proposed, Licensee shall, prior to any construction or reconstruction, apply for an encroachment permit and submit a complete set of plans, specifications, and structural calculations, stamped by a California NIA registered Engineer, to Licensor, and construction is not to proceed prior to approval of said plans by Licensor. Licensor shall respond (approval, denial, request for modification or additional information) within forty-five (45) days of Licensor's receipt of Licensee's plans. If Licensor does not provide such approval or request for changes: (i) within such forty-five (45) day period, then Licensee shall be entitled to one month's free extension of the Local Permitting Period, and (ii) if after sixty (60) days Licensor has not delivered such approval or request for changes, Licensor and Licensee shall meet and confer to determine a mutually acceptable additional

extension to the Local Permitting Period. Licensor shall not be entitled to receive any additional consideration in exchange for giving its approval of Licensee's plans. If the appropriate local entity declines to inspect Licensee's construction, Licensee shall provide written confirmation by a qualified individual, such as a current or former building inspector or registered engineer, that the construction conforms to plans and all appropriate building standards, prior to issuance of a Department of Transportation Notice of Completion by Licensor.

(c) All of Licensee's installation and alteration work shall be performed in accordance with applicable building codes and shall not adversely affect the structural integrity or maintenance of Licensor's property or improvements. Any structural work or reinforcement on an improvement shall be approved by a licensed structural engineer at Licensee's sole cost and expense. During construction, Licensee shall perform work in such a manner as will not hamper Licensor's operations or the needs of the traveling public.

(d) Licensee shall keep the Premises and Site free from any liens arising from any work performed, materials furnished, or obligations incurred by or at the request of Licensee. If any lien is filed against the Premises or the Site as a result of the acts or omissions of Licensee, or Licensee's employees, agents, or contractors, Licensee shall discharge, bond or otherwise secure same to Licensor's reasonable satisfaction within thirty (30) days after Licensee has notice that the lien has been filed. If Licensee fails to commence steps to discharge, bond or secure any lien within such thirty (30) day period, then, in addition to any other right or remedy of Licensor, Licensor may, at its election, upon five (5) days' prior written notice to Licensee discharge the lien by either paying the amount claimed to be due or obtaining the discharge by deposit with a court or a title company or by bonding. Licensee shall pay on demand any amount so paid by Licensor for the discharge or satisfaction of any lien, and all reasonable attorneys' fees and other legal expenses of Licensor incurred in defending any such action or in obtaining the discharge of such lien, together with all necessary reasonable disbursements in connection therewith.

(e) Except as otherwise expressly set forth in this Agreement, Licensee agrees that each Site and every part and appurtenance thereof is offered AS IS. Based upon information supplied by Licensor on each Site License, Licensee will evaluate the possibility based on Licensee's contemplated Operations of interference from, or to, existing wireless communication or other uses on the Premises. Licensee will then determine if interference will occur assuming the other user's equipment and Licensee's equipment is properly and lawfully installed and operated. If Licensee determines that any such existing user would interfere with Licensee's Operations but that such interference can be reasonably eliminated, Licensee shall so notify Licensor and Licensor shall use reasonable efforts (with the cooperation of Licensee) to remedy the condition deemed to be responsible for such potential interference; provided, however, Licensor's failure to remedy such condition shall in no event result in any liability of Licensor hereunder or under any Site License. Any physical change to Licensor's existing equipment requested by Licensee shall be at Licensee's sole cost. At such time as Licensee determines that no interference shall occur, such determination by Licensee shall be binding on Licensee, and subject to Licensee's rights under Section 4, no subsequent determination with respect thereto shall excuse Licensee from liability hereunder

or with respect to any Site License; provided, however, that if Licensee's Operations are adversely affected in any material way as a result of the improper or unlawful operation of any equipment located on the Premises at the time of Licensee's evaluation or as a result of modifications to equipment and/or additional equipment being installed and operated on the Premises by either Licensor or any other user of the Premises under the control of Licensor, Licensor shall use its best efforts (with the cooperation of Licensee) to promptly resolve such interference. In no event shall Licensor's inability to resolve such interference entitle Licensee to terminate any Site License unless after thirty (30) days following the commencement of such efforts at resolution, such interference has not been resolved to the reasonable satisfaction of Licensee. Nothing in this Agreement shall be deemed to waive any rights Licensee may have pursuant to applicable FCC regulations to enjoin such interference or pursue any other remedies available to Licensee at law or in equity after expiration of the thirty (30) day period referred to in the preceding sentence.

(f) Notwithstanding anything in this Section 6 to the contrary, Licensee acknowledges that Licensor may not have control over equipment located on or adjoining the Premises which would interfere with Licensee's use of the Site and shall not be liable for such lack of control. In the event of such interference, Licensor and Licensee shall use all reasonable efforts within their control to obtain the cooperation of the equipment owner to resolve such interference; provided, however, that if the parties shall not succeed in obtaining the cooperation of the equipment owner to resolve such interference within thirty (30) days following such interference, Licensee may immediately terminate any Site License so affected (and/or this Agreement if no Site Licenses remain subject hereto), and neither party shall have any further liability with respect to such Site License. Any prepaid License Fee shall be credited or returned to Licensee on a pro rated basis.

(g) All portions of the telecommunications facilities or other property or improvements attached to or otherwise brought onto the Site by Licensee shall, at all times and for all purposes, be the personal property of Licensee and at Licensee's option, may be removed by Licensee at any time during the term, subject to the provisions of Section 4 (g), and shall be removed no later than within fifteen (15) days after expiration of the term or termination of the applicable Site License.

(h) Upon execution of a Site License, Licensor shall not thereafter grant to any third party any lease, license or other permission to use (in this Section collectively, a "Grant") the Premises, Site or area surrounding the Premises under Licensor's reasonable control, if the use permitted under such Grant would cause interference with Licensee's Operations. Any such Grant shall expressly prohibit the user thereunder from interfering with Licensee's Operations. Licensee shall reasonably cooperate with Licensor and/or any subsequent third party user to eliminate any interference and to allow co-location, if possible.

7. Utilities and Access.

(a) Licensee shall have the right at its sole cost and expense to obtain and connect to telephone and electrical service from any utility company that provides or is willing to provide such service to the Site, subject to Licensor's right to approve proposed utility routes

and the manner of installation. Licensee shall timely pay all of Licensee's utility costs. Licensee shall either obtain electric power directly from the local utility or from Licensor's power source and shall pay for installation of a submeter. Licensee shall pay all local utility company charges directly to the provider. Licensor is under no obligation to provide power or allow Licensee to use its power source, but shall cooperate with Licensee in its efforts to bring electrical power to the Site.

(b) The following provisions shall govern access to the Site and Premises by Licensee, unless otherwise modified on a particular Site License. Access for construction, routine maintenance and repair, conducting feasibility studies and other non-emergency visits shall be stated in each Site License Agreement and require a minimum of one (1) business day's prior written notice to Licensor at Licensor's address stated in the Site License (no Site License shall have more than one address of record in each Region or District of Licensor). Some Site Licenses may allow non-written notice for non-emergency visits and/or routine maintenance and repair visits. In the event of an unscheduled repair or other emergency, Licensee shall be entitled to access to the Premises twenty-four (24) hours per day, seven (7) days a week subject to any special conditions in the Site License. If Sites are allowed that could affect traffic flow, named maintenance and contractors may be restricted to non-peak flow hours. Licensee shall endeavor to provide written (but in any event shall attempt to provide oral) notice of an emergency repair prior to accessing the Site. Any such access by Licensee shall be subject to any other or superseding access requirements as may be specified in a Site License.

8. Improvement Fees/Taxes.

Licensee shall pay all real estate taxes, possessory interest taxes and other taxes and fees caused by Licensee's use and/or equipment placed on the Site or other improvements constructed by Licensee on the Premises.

9. Insurance and Indemnification.

(a) Licensee shall carry during the term of this Agreement, at its own cost and expense, the following insurance:

(i) "All Risk" property insurance for Licensee's property located at the Site;

(ii) Commercial general liability insurance having a minimum limit of liability of \$5,000,000 for each injury or death arising out of one occurrence and \$5,000,000 for damage to property from any one occurrence and excess/umbrella coverage of \$5,000,000; and,

(iii) Worker's Compensation and Employer's liability insurance, in form and as required by law.

(b) Licensee shall name Licensor as an additional insured under its liability policy and require its insurance company to give at least thirty (30) days' written notice of the termination, cancellation or material change of the policy to Licensor. Such endorsement

shall be delivered to Licensor within thirty (30) days from the execution of this Agreement and before the expiration of any term thereof from an insurance company with a minimum policy holder and financial rating of "B+/VII," or better in the then current edition of Best's Insurance Guide.

(c) Except as otherwise herein provided, the provision by Licensee of insurance required hereby shall not be construed to limit or otherwise affect Licensee's liability to Licensor.

(d) Licensee shall indemnify, defend and hold Licensor harmless from and against any and all direct and proximate claims, actions, damages, liability and expense (including reasonable attorneys' fees, costs and disbursements) in connection with the loss of life, personal injury, and/or damage to property to the extent arising from or out of: (i) all claims relating to or caused by, the equipment Licensee installs on Licensor's property and/or Licensee's Operations, (ii) any occurrence in, upon or at the Premises or elsewhere on the Site or on the land of which the Site is a part to the extent caused by the negligence or willful misconduct of Licensee or its employees, agents, or contractors, (iii) any occurrence occasioned by the violation of any law, regulation or ordinance by Licensee or its agents, employees, or contractors, or (iv) by Licensee's default under a Site License or this Agreement. The provisions of this Subsection 9(d) shall survive the expiration or termination of this Agreement with respect to any damage, injury, or death occurring before such expiration or termination.

(e) Notwithstanding anything in this Agreement, each party hereby releases and waives any and all claims against the other party and the other party's employees, agents, officers, partners and directors, for consequential, incidental or special damages, or lost profits.

10. Assignment.

This Agreement and the Site Licenses granted hereunder are personal to Licensee. Except as hereinafter provided, Licensee shall not, without Licensor's and the Federal Highway Administration's ("FHWA") prior written consent which consent may be withheld in Licensor's sole and absolute discretion, assign or otherwise transfer this Agreement, a Site License or its interest in any particular Premises or any part thereof. Notwithstanding the foregoing Licensee may assign or sublet this Agreement, a Site License or its interest in a particular Premises or any part thereof without Licensor's or FHWA's consent to any person or business entity which is a parent, subsidiary, partner, or affiliate of Licensee, or controls or is controlled by or under common control with Licensee or is merged or consolidated with Licensee or purchases a majority or controlling interest in the assets of Licensee. Licensor may assign this Agreement, a Site License or any particular Premises or any part thereof, provided said assignee will assume, recognize and become responsible to Licensee for, the performance of all of the terms and conditions to be performed by Licensor under this Agreement. Any request for an assignment requiring Licensor's consent will require the payment of Licensor's then current assignment request processing fee (\$1,000 in 1997).

11. Repairs.

(a) Licensee shall, at all times during the term of any particular Site License and at Licensee's sole cost and expense, keep its facilities and equipment located on or about the Premises and every part thereof in good condition and repair, reasonable wear and tear excepted, including making replacements when necessary. If Licensee fails to promptly make any repairs that are necessary to remedy a dangerous condition on the Site caused by Licensee, its agents, employees or contractors, or other condition caused by Licensee, its agents, employees or contractors which is materially adverse to the quiet enjoyment by Licensor or any other user of the Site, Licensor shall give Licensee written notice of its intention to make such repairs and the date on which such repairs shall commence. Except for emergencies, Licensee shall be given at least fifteen (15) days from the day the letter is sent to commence the repairs. If Licensee does not, prior to the date set forth in such notice, commence to make such repairs, Licensor may make such repairs and shall be reimbursed by Licensee for any and all reasonable costs incurred by Licensor in performing (or contracting to have performed) such repairs, including any overhead costs reasonably allocable to the performance thereof. Licensor shall provide Licensee reasonably detailed supporting documentation of such costs concurrently with any demand for reimbursement.

(b) Licensee shall, at all times, during the term of any particular Site License and at Licensee's sole cost and expense, keep Licensee's equipment at the Site and any access roads constructed by Licensee for its sole use at the Premises in good condition and repair, except for any access roads or improvements installed by Licensor or other third parties.

(c) Licensee, at its sole cost and expense, will restore all Licensor property which is destroyed or damaged by Licensee's activities on a Site subject to an individual Site License. Licensee agrees to commence performance of any remedial work within thirty (30) days of written notice by Licensor and to complete remedial work required in the reasonable opinion of Licensor to restore the site to its original condition, reasonable wear and tear excepted, within the number of days specified in the written notice. The number of days specified shall be reasonable. If remedial work is not undertaken and completed within the specified time, Licensor may, on ten (10) days' prior written notice to Licensee, undertake and complete the remedial work with its own forces and/or independent contractors, and Licensee shall pay all actual costs or charges incurred by Licensor by reason of such work. Licensor shall provide Licensee reasonably detailed supporting documentation for such costs and charges.

12. Surrender of Premises; Holding Over.

(a) Upon the expiration or other termination of a Site License, Licensee shall peacefully vacate the Premises in as good order and condition as the same were on the Commencement Date, reasonable wear and tear, and damage not caused by Licensee excepted. If Licensee fails to promptly remove all of its facilities and equipment from the Premises within thirty (30) days after expiration or earlier termination of the Term, Licensor may, after five (5) days' prior written notice to Licensee, remove the same (without any liability to Licensee for any damage to such equipment and/or facilities which may result from reasonable efforts at removal), and Licensee shall pay to Licensor on demand any and

all reasonable costs incurred by Licensor in removing and storing such improvements and equipment prior to retrieval of same by Licensee. Licensor has no obligation to store such equipment, and Licensee shall have no claim if Licensor destroys the equipment if it is not removed by Licensee as provided herein. Any improvements Licensor desires to remain, shall be governed by the provisions of Subsection 4(g).

(b) Should Licensee continue to hold the Premises after the termination of a Site License, whether the termination occurs by lapse of time or otherwise, such holding over shall, unless otherwise agreed to by Licensor in writing, constitute and be construed as a tenancy at will at a monthly License Fee equal to twelve and one-half percent (12.5%) of the annual License Fee last paid and subject to all of the other terms set forth herein including the annual percentage increase.

13. Default and Remedies.

(a) The occurrence of any one or more of the following events shall constitute an "event of default" or "default" under the particular Site License(s) to which it applies:

(i) if Licensee fails to pay any License Fee or other sums payable by Licensee under the Site License as and when the License Fee or other sums become due and payable and such failure continues for more than ten (10) days after written notice thereof from Licensor is received pursuant to Section 16;

(ii) if Licensee upon actual receipt of any formal written order or directives relating to the Site from any governmental entity fails to comply with such order or directive within the time limits set forth in such order or directive and any applicable administrative or judicial appeal rights having been exhausted;

(iii) if Licensee fails to perform or observe any other term of the applicable Site License(s), and such failure continues for more than fifteen (15) days after written notice thereof from Licensor or in the event of a default which cannot, with due diligence be cured within a period of fifteen (15) days, if Licensee does not duly institute within such fifteen (15) day period steps to remedy the same and the same is not remedied within thirty (30) days or such longer period as mutually agreed by the parties hereto;

(b) The occurrence of any one or more of the following events shall constitute an "event of default" or "default" of this Agreement and all Site Licenses:

(i) if any petition is filed by or against Licensee, under any section or chapter of the present or any future federal Bankruptcy Code or under any similar law or statute of the United States or any state thereof (and with respect to any petition filed against Licensee and such petition is not dismissed within ninety (90) days after the filing thereof), or Licensee shall be adjudged bankrupt or insolvent in proceedings filed under any section or chapter of the present or any future federal Bankruptcy Code or under any similar law or statute of the United States or any state thereof;

- (ii) if Licensee becomes insolvent or makes a transfer in fraud of creditors;
- (iii) if a receiver, custodian, or trustee is appointed by Licensee or for any of the assets of Licensee which appointment is not vacated within ninety (90) days of the date of the appointment;
- (iv) if Licensee fails to perform or observe any other term of the Agreement other than a default allocable to a particular Site License, and such failure continues for more than fifteen (15) days after written notice thereof from Licensor or in the event of a default which cannot, with due diligence be cured within a period of fifteen (15) days, if Licensee does not duly institute within such fifteen (15) day period steps to remedy the same and the same is not remedied within thirty (30) days or such longer period as mutually agreed by the parties hereto.

(c) In any notice of an alleged default by Licensee from Licensor, Licensor shall specify the nature of the default and the Site License(s) potentially affected thereby. After applicable notice and grace periods have expired, at any time thereafter that Licensee remains in default, Licensor may terminate the Site License(s) directly affected by such default and, if all Site Licenses shall be affected, this Agreement, without notice or demand. Upon the applicable termination, Licensee shall immediately surrender all applicable Sites then licensed to Licensee under the affected Site License to Licensor and, subject to Subsection 4(g), remove all of its facilities and equipment therefrom. If Licensee fails to promptly remove all of its facilities and equipment from the Premises, Licensor may remove the same (without any liability to Licensee for any damage to such equipment and/or facilities which may result from reasonable efforts at removal), and Licensee shall pay to Licensor on demand any and all costs incurred by Licensor in removing and storing such facilities and equipment prior to retrieval of same by Licensee.

(d) If either Licensor or Licensee shall be delayed or prevented from the performance of any act required hereunder by reason of acts of God, governmental restrictions, regulations or controls (except those reasonably foreseeable in connection with the uses contemplated by this License), or other cause without fault and beyond the control of the party obligated (except financial inability), performance of such act shall be excused for the period of the delay and the period for the performance of any such act shall be extended for a period equivalent to the period of such delay. Nothing in this clause shall excuse Licensee from prompt payment of any rent, taxes, insurance or any other charges required of Licensee.

(e) In the event of a termination of a Site License, it shall be lawful for Licensor, after not less than thirty (30) days' prior written notice, to reenter into and upon the Site, and every part thereof, and to remove at Licensee's expense all of Licensee's property therefrom and to repossess and occupy the Site. In the event Licensor terminates a Site License pursuant to this Section, Licensor shall not be required to pay Licensee any sum or sums whatsoever related to that Site License.

14. Warranties/Disclaimer.

(a) Licensor represents and warrants that:

(i) With respect to each particular Site, Licensor owns or has control of the land on which the Site and Premises is located and has the right to enter into the Site License with Licensee with respect thereto and if Licensor is leasing a particular Site, a copy of the underlying Lease, License, Right-of-Way deed or other instrument will be attached to the individual Site License.

(ii) Subject to Subsection 14(c) below and except as otherwise disclosed to Licensee in writing prior to the execution of any Site License, there are, to Licensor's actual knowledge (without any independent investigation), no known liens, restrictions, mortgages, covenants, conditions, easements, leases, agreements of record or not of record, which would adversely affect or prohibit Licensee's use and enjoyment of the Premises under a Site License.

(iii) Subject to Subsection 14(c) below, Licensee shall have access to the Site and Premises and the quiet and peaceful use, enjoyment and possession of the Site and Premises during the term for its permitted uses.

(iv) Except as specifically set forth in an individual Site License, Licensor represents to the best of its knowledge no Hazardous Substances are present on, in or under the Premises or Site in violation of applicable law, and, to the best of Licensor's knowledge: (i) all operations on the Premises and Site are and have been in substantial compliance with all laws regulating such Hazardous Substances, (ii) no litigation has been brought or threatened, nor any settlements reached with any governmental, quasi-governmental entity or private party concerning the actual or alleged presence, disposal, release or threatened release of such Hazardous Substances in, on, about or under the Premises or Site, and (iii) Licensor has not received notice of any violation, or any alleged violation of any law related to Hazardous Substances and relating to the Premises or Site. "Hazardous Substances" includes substances, chemicals or wastes that are identified as hazardous, toxic or dangerous in any applicable federal or state law.

(aa) Nothing herein will be construed or interpreted to require that Licensor remediate any Hazardous Substance at any Site. If Licensee discovers hazardous substances on the Site during the Local Permitting Period, its sole remedy will be to cancel the Site License. Any work needed to remove or remediate any Hazardous Substance or other Environmental Hazard that requires the removal or relocation of Licensee's equipment will be treated as "Licensor's use of a Site" pursuant to Subsection 4(e).

(b) Licensor and Licensee represent and warrant to each other that:

(i) it has full right to make this Agreement;

(ii) the making of this Agreement and the performance thereof will not violate any laws, ordinances, restrictive covenants, or other agreements under which it is bound;

(iii) it is fully organized/formed, validly existing and in good standing and has all rights, power and authority to make this Agreement and bind itself hereto through the party set forth as signatory set forth below; and,

(iv) neither party has liability for any brokerage commission due to any broker in connection with this Agreement or any Site License.

(c) Except as expressly provided herein, Licensor does not warrant:

(i) the suitability of any particular Site for the purposes contemplated hereunder, including without limitation the adequacy of such Site's location, its condition, or the condition of any structure or appurtenances thereto; or,

(ii) whether Licensee will be required to obtain (or will be able to obtain) any licenses, permits or approvals or any applicable governmental authority necessary for Licensee's Operations at any particular Site.

15. Prohibited Uses.

The following activities are prohibited on the Premises:

(a) Unlawful use or storage of any hazardous substance or hazardous chemical as those terms are used in CERCLA (42 U.S.C. 9601(14)) or SARA (42 U.S.C. 110211(e)) or any similar federal or state law, or any pesticide, oil petroleum product or fuel; except only materials packaged and purchased for consumer use in containers not to exceed one gallon or fuel in a vehicle fuel tank. Use of pesticides should be minimized, and will be applied only by authorized personnel and in accordance with all applicable laws, regulations, and label instructions. All aerial applications are prohibited. Back-up generators and the storage of fuel for said generators shall only be allowed if provided in a particular Site License under the conditions of that Site License.

(b) Accumulation, storage, treatment, or disposal of any waste material is prohibited; excepting only temporary storage, not to exceed fourteen (14) days, or nonhazardous solid refuse produced from activities on the Premises for pick up by municipal or licensed commercial refuse service, and lawful use of sanitary sewers (if any) for domestic sewage.

(c) Manufacturing; maintenance of equipment (excluding communications equipment and back-up power sources such as batteries and generators operated pursuant to the Site License Agreement) or vehicles, or use, installation or construction of vessels, tanks, (stationary or mobile), dikes, sumps, or ponds; or any activity for which a license or permit is required from any government agency for (1) transportation, storage, treatment, or disposal of any waste, (2) discharge of any pollutant including but not limited to discharge to air, water, or a sewer system is prohibited.

(d) Any spill caused by Licensee or from Licensee's equipment resulting in a release of a hazardous material to the air, soil, surface water, or groundwater in violation of applicable law will be immediately reported to Licensor as well as to appropriate government agencies and shall be promptly and fully cleaned up and the Premises (including soils, surface water, and groundwater) restored to its condition existing immediately prior to such spill or release, all in accordance with and as may be required by applicable law.

(e) Should Licensee desire to use pesticides on the Site or Premises (either herbicides, rodenticides, or insecticides) all applicable Environmental Protection Agency (EPA) standards must be met and prior approval must be received from Licensor and not all EPA approved pesticides will be permitted. Licensee will fill out form FG-880 and submit it to the area manager at least seven (7) days prior to application of pesticides. Licensor reserves the right to disapprove the use of any pesticide. Licensee shall obtain all county, state or federal permits required, including restricted pesticide use and burning permits and comply with all conditions of those permits. Licensee shall submit to the area manager a copy of all permits.

16. Notices.

Unless otherwise provided herein, any notice or demand required or permitted to be given hereunder shall be given in writing by hand delivery, first class certified or registered mail, return receipt requested, or by recognized overnight mail, in a sealed envelope, postage prepaid, to be effective when received or refused. Notice shall be addressed to the parties at the addresses set forth on the signature pages. Either party hereto may change the place for the giving of notice to it by like written notice to the other as provided herein.

17. Miscellaneous.

(a) This Agreement and the Site Licenses constitute the entire agreement and understanding between the parties, and supersede all offers, negotiations and other agreements concerning the subject matter contained herein. Any amendments to this Agreement or any Site License must be in writing and executed by both parties.

(b) If any provision of this Agreement is invalid or unenforceable with respect to any party, the remainder of this Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable shall not be affected and each provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. To the extent any provisions of this Agreement are in conflict with, or inconsistent with regulations or rules promulgated by the California Public Utilities Commission such provisions shall be null and void.

(c) This Agreement and the Site Licenses shall be binding on and inure to the benefit of the successors and permitted assignees of the respective parties.

(d) This Agreement and each Site License shall be governed by the laws of the State of California without regard to any conflict of laws doctrine. Licensor and Licensee agree

that any dispute, action or proceeding arising out of this Agreement or any Site License shall be subject to the jurisdiction of the Superior Courts of the State of California, and shall be venued in the County of Sacramento with respect to disputes arising out of this Agreement, and venued in the county in which the Site is located for disputes arising out of an individual Site License.

(e) Licensee may record an appropriate Notice or Memorandum of any Site License.

(f) In any case where the approval or consent of one party hereto is required, requested or otherwise to be given under this Agreement or any individual Site License, such party shall not unreasonably delay, withhold or condition its approval or consent.

(g) All riders and Exhibits annexed hereto form material parts of this Agreement.

(h) This Agreement may be executed in duplicate counterparts each of which shall be deemed an original.

(i) Licensee will not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, sex, age, national origin, or physical handicap. Licensee will take affirmative action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, ancestry, sex, age, national origin or physical handicap. (See California Government Code Sections 12920-12994 for further details.)

(j) Licensee shall not commit, suffer, or permit any waste on the licensed Site or any acts to be done thereon in violation of any laws or ordinances, and shall not use or permit the use of the licensed Site for any illegal or immoral purposes.

18. Administrative Fee.

(a) Licensee shall pay a one-time charge of \$1,000.00 when applying for a Site License to cover the costs associated with the preparation and the engineering and technical analysis of the Site License to assure complete compatibility of operations at the Site. This payment will entitle Licensee to the Local Permitting Period without additional charge. This amount may be periodically adjusted to reflect an actual change in the costs incurred by Licensor with the preparation and the engineering and technical analysis for the Site. This is in addition to general permits required by any party entering Licensor's property, especially if entry is sought for an access-controlled roadway, such as annual district survey permit, encroachment permits, or maintenance permits.

19. Licensee Casualty Responsibilities.

Licensor will not keep improvements which are constructed or installed by Licensee under the provisions of this Agreement insured against fire or casualty, and Licensee will make no claim of any nature against Licensor by reason of any damage to the business or property of Licensee in the event of damage or destruction by fire or other cause. Licensee is

solely responsible for insuring, or self-paying, all expenses caused by the destruction or damage of its facilities regardless of cause or fault.

20. Relocation Assistance.

Licensee acknowledges it is not entitled to any relocation assistance payments at the conclusion of this Agreement or any Site License under State (Government Code Section 7260 et seq.) or federal law (42 U.S.C.A. 4601 et seq.), and Licensee further agrees it will not file or pursue any such claim.

21. Co-location - Licensor.

(a) Unless otherwise specified in a Site License, the facility to be constructed by Licensee at that particular Site shall be built to include the following specifications to allow for Licensor's possible use, at no cost to Licensor:

(i) If Licensee will be constructing a monopole or other tower at the Site for its use, such tower/monopole shall, upon completion of construction, be available to Licensor to use for one 800 MHZ omni antenna approximately 44" long, 1.5" in diameter, with a weight not to exceed twenty pounds, to be mounted at a height designated by Licensee, not less than twenty feet (20') high.

(ii) If Licensee will be constructing a vault at the Site, Licensee shall make available, upon completion of initial construction, a 2' x 2' x 7' space for Licensor's equipment; if Licensee will be constructing an equipment pad, Licensee shall make available, upon completion of initial construction, at least 2.5' x 2.5' of space for Licensor's equipment cabinet.

(iii) Conduit or a cable tray for transmission from equipment area to antenna.

(iv) Cable access to phone and electrical lines.

(b) If Licensor chooses to occupy a tower/monopole built by Licensee, it may engage a contractor to install its equipment on Licensee's facilities. Licensee reserves the right to approve Licensor's list of contractors prequalified to perform the equipment installation. Contractors utilized by Licensor must all provide proof of adequate insurance coverage and must name Licensee as an additional insured. Licensee shall inspect the installation and advise Licensor of any deficiencies noted. Alternatively, Licensor may request that Licensee install Licensor's equipment. All expenses that Licensee actually incurs for ancillary equipment purchased or installed for the benefit of Licensor, or for radio tower work performed by Licensee for the benefit of Licensor, shall be at State expense, provided that such costs are commercially competitive and documented in reasonable detail.

(c) When Licensor occupies a tower/monopole constructed by Licensee, the parties agree to negotiate in good faith issues concerning such occupation by Licensor, including but not limited to issues relating to insurance, maintenance, interference and indemnity. If parties

other than Licensee will co-use a Site with Licensee, it shall be Licensor's responsibility to ensure, through the use of its approval rights set forth in Section 22, that any space reserved for Licensor pursuant to this Section 21 remains available and technically feasible with respect to structural and technical interference issues.

22. Co-location - Third Party.

(a) Licensee shall not hinder the co-use of a Site by another company and Licensee may permit the use by third parties of space on facilities constructed by Licensee on a Site, with Licensor's prior written permission. Licensee shall not allow the use of any space on any facility which, in Licensor's sole opinion, results in any interference with Licensor's operations, communication systems, microwave antennas, and/or other equipment, or would prevent Licensor from utilizing its reserved space as set forth in Section 21. Licensee may charge a fee for the use of tower space and/or building space by third parties, under written agreements with those third parties, within the usual parameters of industry practice. Copies of the agreements between Licensee and the third parties shall be provided to Licensor. For third-party co-locations situated entirely within the Site (each a "Sub-Use"), Licensor shall be paid by Licensee fifty percent (50%) of the gross monies paid by the third party to Licensee (but not including any portion of the amount charged the third party to compensate Licensee for the recoupment of all or any portion of its construction and installation costs, including engineering and entitlement expenses) or fifty percent (50%) of the then current License Fee, whichever is highest. For third-party co-locations requiring additional or separate land space on the Premises (each a "Direct-Use"), Licensor will have a separate license agreement with each third party using the Premises, the term of which will be co-terminus with Licensee's Site License and the License Fee for which shall be paid to Licensor. Any third party seeking to co-locate on Premises with an existing telecommunications licensee, whether under a Sub-Use or a Direct-Use, will be required to fulfill all of Licensor's review procedures and approvals.

(b) Licensee may not refuse to negotiate in good faith or to enter into agreements on equitable terms with any interested third party for the occupation of a facility built by Licensee, unless occupation will result in interference with Licensor's operations, communications systems, microwave antennas and/or other equipment.

23. Annual Financial Statements.

Licensee shall submit its most recent annual financial statement to Licensor prior to Licensor executing any Site License with Licensee; thereafter, Licensee shall submit its most recent annual financial statement on or before June 30 of each year this Agreement or any Site License remains in effect. Licensor shall not enter or renew any Site License if, based on a review of the financial statement, Licensor determines, in its sole opinion, that Licensee cannot perform the financial obligations of this Agreement and/or any Site License. Copies of annual financial statements filed with the Securities and Exchange Commission (ÒSECÓ) shall fulfill this requirement; if Licensee is not a publicly traded corporation, then an audited financial statement will be required. If Licensee desires to fulfill this requirement by

submitting the Annual Financial Statement of a parent or affiliated corporation, then that parent or affiliated corporation shall guarantee Licensee's performance of all obligations required by this Agreement and any Site License.

EXECUTED ON: _____

LICENSEE: _____

By: _____

Its: _____

Address: _____

LICENSOR: State of California, Department of Transportation (Caltrans)

By: _____

Program Manager, Right of Way

1120 "N" Street, Sacramento, CA 95814

District Encroachment Permit Offices

District 01
1656 Union Street (95501)
P.O. Box 3700
Eureka, CA 95502
(707) 445-6385

District 02
1657 Riverside Drive (96001)
P.O. Box 496073
Redding, CA 96049-6073
(916) 225-3400

District 03
625 B Street
P.O. Box 911
Marysville, CA 95901
(916) 741-4403

District 04
111 Grand Avenue, 6th Floor
P.O. Box 23660
Oakland, CA 94623
(510) 286-4401

District 05
50 Higuera Street
San Luis Obispo, CA 93401-5415
9808) 549-3152

District 06
1333 West Olive Street (93728)
P.O. Box 12616
Fresno, CA 93728
(209) 488-4289

Satellite Offices:

Kern Co. Permit Assistance Center
2700 M Street, Suite 125
Bakersfield, CA 93301
(805) 862-5175

Fresno Co. Permit Assistance
Center
2600 Fresno Street, 3rd Floor
Fresno, CA 93721
(209) 498-1343

District 07
120 South Spring Street, Rm. 112
Los Angeles, CA 90012
(213) 897-3631

Satellite Office:

950 County Square Drive, Suite 112
Ventura, CA 93003

District 08
621 Carnegie Drive, Suite 270 (92403)
P.O. Box 231
San Bernardino, CA 92402
(714) 383-4536

District 09
500 South Main Street
Bishop, CA 93514
(619) 872-0674

District 10
1976 East Charter Way
P.O. Box 2048
Stockton, CA 95201
(209) 948-7891

District 11
4080 Taylor Street (92110)
P.O. Box 85406
San Diego, CA 92186-5406
(619) 688-6843

District 12
2501 Pullman Street, Bldg. B
Santa Ana, CA 92705
(714) 724-2260

**DISTRICT LANDSCAPE ARCHITECTS AND ROADSIDE REST
COORDINATORS**

(8/14/96 sde)

DISTRICT	NAME	PUBLIC#
HQ	Mike Yanceff	(916) 454-2951
Northern Region	Tom O'Donnell	(916) 741-4436
4	Lyle Oehler	(510) 286-5918
5	Gregg Albright	(805) 549-3380
6	Lori Butler	(209) 488-4040
7	Bill Koval	(213) 897-0624
7	Dennis Snyder	(213) 897-4299
8	George Nadow	(909) 383-4519
9	Jim Pittman	(619) 872-0788
10	Don Chin	(209) 948-3655
11	Tom Ham	(619) 688-6719
11	Ray Traynor	(619) 688-6738
12	Sandy Ankhasirisan	(714) 724-2449

NOTE: There are no roadside rests in District 7 or 12

ALSO: Note Safety Roadside area Map that 364 is closed, a new roadside rest was added near Sausalito called H. Dana Bower, Turlock (#44, #45) was changed to "Enoch Christoffersen," and Corning (#21, #22) was changed to "Lt. John Helmic."

**OFFICE OF RADIO COMMUNICATIONS ENGINEERING &
MAINTENANCE**

DISTRICT	NAME	PUBLIC#	CALNET#
HQ	Gary Adams	(916) 654-5642	8-464-5648 8-464-3862 Fax (916) 551-4779 Pager
			GADAMS@TRMX3.DOT.CA.GOV Internet CALTRANS.TRMAIL4.GADAMS Groupwise
7	Roger Douglas	(213) 897-4275 (213) 565-6390 Pager	8-647-4275 8-647-0897 Fax
6	Paul Gonzalez	(209) 445-6834 (209) 472-4148 Pager	8-421-6834 8-421-6835 Fax
			TPAULG@TRMX3.DOT.CA.GOV Internet T6MAIL.T6MAIL1.paulg Groupwise
4	Lenny Mundt	(916) 654-6661 (916) 551-4784 Pager	8-464-6661 8-464-3862 Fax
			LMUNDT@TRMX3.DOT.CA.GOV Internet
HQ	Cheryl Soto	(916) 654-4321 (916) 551-4813 Pager	8-464-4321 8-464-3862 Fax
			CSOTO@TRMX3.DOT.CA.GOV E-Mail
8, 11 & 12	Bill Wray	(909) 383-6294 (909) 422-4755 Pager	8-670-6294 8-670-4788 Fax
HQ	John Schmidt	(916) 654-6709 (916) 551-4810 Pager	8-464-6709 8-464-3862 Fax
			JSCHMIDT@TRMX3.DOT.CA.GOV Internet

Memorandum

To : DISTRICT PERMIT ENGINEERS

Date : December 31, 1996

File No. : 429

From : DEPARTMENT OF TRANSPORTATION
Traffic Operations

Subject : Encroachment Permit Procedures for Wireless-Communication Sites In State Right-Of-Way

In a memorandum dated November 25, 1996 Mr. Don Benjamin, Program Manager, Design and Local Programs (DLP), delegated the exception approval of wireless sites and access to wireless sites within limited access right-of-way to the Districts' Airspace Review Committee (DARC). This and the development of new procedures to allow the leasing of Caltrans properties for telecommunications (wireless) service providers prompted us to send this memorandum clarifying our role in the process.

All wireless related encroachment permits shall be treated as Actual Cost Permits (AX) unless specified otherwise.

Site Survey Permits (Pre-Construction)

District Permits can issue one annual site survey permit per wireless service provider for all highways, including access-controlled highways within the district. An annual deposit of \$700.00 shall be submitted by applicant for such permits. Work in U.S. Forest Service and other leased or prescriptive right of way is not authorized unless approved by the property owner. Upon approving the permit, forward a copy of the permit to the District Airspace Manager, and the Headquarters Airspace Program Manager.

The issued permits should include:

1. General Provisions and Standard Special Provisions for survey work on conventional and access controlled highways.
2. Any special requirement needed for the district to ensure they have adequate time to evaluate how the work at an individual site may affect safety, operation, or the environment.
3. A requirement that each site survey has specific approval by the State representative.
4. Appropriate district procedures to ensure that highway traffic is not impacted by the work. Although not normally an option, the districts may allow work at some marginal sites if safety and operation concerns are mitigated through special work hours and traffic control. If traffic control is approved the public notification requirements should conform to Caltrans and district standards.

5. The primary contact persons who will approve routine work, or start to coordinate appropriate safety, operations, or environmental reviews. These contacts should include the permit representatives responsible for active highway right-of-way, and the District Airspace Manager who will obtain approval for work in nonoperating right-of-way, or properties controlled by Facilities Management.

The Permit Engineer should make normal requirements for safety and operation, or request additional information if any special review is needed. At locations where the work is in nonoperating right-of-way (i.e., maintenance yards, parking lots) the Permit Engineer shall refer the company to the District Airspace Manager for approval to test specific sites.

Constructing Individual Wireless Sites

Permits for Access Controlled Right Of Way (Airspace Leases)

Involvement by the District Permit Staff in such a situation is minimal, and the District Airspace Manager will ensure that the proper reviews are completed. A Right-Of-Way procedure is already in place to have preliminary proposals reviewed through DARC prior to coordinating a detailed plan review and obtaining approval.

The Airspace Manager will supply a completed application, three sets of plans, and verification of approval by appropriate review units for leased right-of-way sites. No additional reviews are required and Fee Exempt Permits are issued in accordance with current airspace procedures in Encroachment Permit Manual Section 501.3. Other than agreed upon inspections to protect public safety or State facilities, the Permit Office is not involved in construction.

Permits for Conventional Highway Right Of Way

Wireless communications providers have the same right to use State conventional right-of-way as more traditional utilities. Airspace leases are not issued for wireless communication facilities in conventional highway right-of-way. Although standard district permit review procedures are followed, permit engineers may consult those district units involved in the DARC reviews for assistance in standardizing installations. The Utility Coordinator is the Right-Of-Way representative for conventional highways and will make recommendations in lieu of the Airspace Manager as is done for access controlled property.

Applicable requirements for these installations are:

1. Transmission towers, antennas, service or splice boxes, pedestals, connecting cables and access driveways are authorized when suitable installation locations outside the right-of-way are not available.

2. Other than equipment vaults or pedestals, necessary for transmitter operation, permanent buildings and storage structures are prohibited within State right-of-way.
3. Wireless-communication sites in the right of way should not restrict access to other utilities, interfere with existing highway facilities, or obstruct future highway design.
4. No facilities are allowed in adopted or proposed scenic highway corridors.
5. At a minimum the reviews must ensure that the sites do not create an obstacle in the clear recovery area, present a visual obstruction to highway users, or require removal of trees and other landscaping.
6. Districts should encourage applicants to construct towers and antennas that are aesthetically pleasing.
7. Other utility owners providing service connections shall have valid UE maintenance permit, or a separate permit to cover the work at an individual site.
8. Headquarters Encroachment Permits shall approve deviations from these requirements.

Future Maintenance of Facilities

Encroachment permits are issued for wireless-communication owners to perform routine and emergency maintenance on their facilities. Districts may issue these permits for sites located in conventional and access controlled right-of-way. Authorized work includes replacing damaged equipment, upgrading or modifying existing equipment, and maintaining access to the sites. A permittee shall not make additions to site equipment, change access locations, or allow attachments or modifications to their equipment that would result in use by other utility providers. The permits are valid for two year periods and may allow contractors that are shown on a district approved list to perform minor work for the permittee. Permittee must obtain encroachment permit riders for deletions or additions to the approved list.

The districts shall require a minimum \$700.00 fee for a two-year permit processing and inspection covering both conventional and access controlled highways.

Applicants are responsible for all costs associated with the proposals. Caltrans recovers these costs through the airspace leases for site construction in access control, and with AX permits for site surveys and work in conventional highways.

Please inform district staff involved in permit processing, review and approval of the new procedures. A complete manual revision will include these changes.

If you have any questions you may call me at Calnet 464-6232 or Mr. Joe Koski at Calnet 453-1559.

ZOUHEIR BARAZI, Chief
Encroachment Permits Branch

JKoski:mf

bc: Susan Ellis, Right of Way
Don Benjamin, DLP
JVanBerkel
ZBarazi
JKoski
PCaruso
JMorones
JSanders
EP File 429
Traffic Ops
File: wireless.wp

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV. 9/95)

1. **AUTHORITY:** Encroachment permits are issued under the authority given the Department, Div. 1. Chpt. 1, Art. 3 in accordance with Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five days' notice, unless otherwise stated on the permit, and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights, or any other agreements for operating purposes in State highway rights of way are an exception to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
4. **ASSIGNMENT:** No party other than the Permittee or permittees' authorized agent is allowed to work under this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to acceptance of the provisions and all attachments to this permit, for any work to be performed under this permit.
6. **BEGINNING OF WORK:** It is the responsibility of the Permittee to notify the Departments' Representative, two (2) days in advance of the intent to begin work under this permit. Permittee shall notify the Departments' Representative if the work is to be interrupted for a period of five (5) days or more, unless a prearranged continuance of work agreement had been made. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within highway rights of way shall conform to recognized construction standards and current Department Standard Specifications, High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer", these are amended to be read as "Permittee and Department Representative".
8. **INSPECTION AND APPROVAL:** All work shall be subject to monitoring, and inspection. Upon completion of work permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until the local agency has obtained final acceptance and approval from the Department.
9. **PERMIT AT WORKSITE:** The Permit Package or a copy of, shall be kept at the work site and must be shown upon request to any Department Representative or Law Enforcement Officer. It is a violation of permit conditions and work shall be suspended if the Permit Package is not kept and available at the work site.
10. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work, to ongoing prior authorized work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the Permittee is solely responsible for any and all cost for rearrangements necessary (relocation, alteration or removal of).
11. **PERMITS FROM OTHER AGENCIES:** This permit shall be invalidated if the Permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (CAL-OSHA), or any other public agency having jurisdiction.
12. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 1.21 meter (4') shall be maintained through the work area, where pedestrian or bicycle facilities are existing. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street.
13. **PUBLIC TRAFFIC CONTROL:** Required by law, the Permittee is to provide traffic control protection of warning signs, lights, safety devices and other measures for the safety of the traveling public. Day and Nighttime lane closures shall be in compliance with the Manual of Traffic Controls, Standard Plans and Standard Specifications for traffic control systems. It is not intended, as to third parties, to impose on the permittee any duty or standard of care, greater than or different from, as required by law.
14. **MINIMUM INTERFERENCE WITH TRAFFIC:** Work shall be planned and conducted so as to create the least possible inconvenience to the traveling public, traffic shall not be unreasonably delayed. On conventional highways, Permittee is authorized to place properly attired flagger(s) to stop or warn the traveling public. All flagging procedures shall be in compliance with the Manual of Traffic Controls and Instructions to Flaggers pamphlet.
15. **STORAGE OF EQUIPMENT AND MATERIALS:** Equipment and Material storage in State rights of way shall be in compliance Standard Specifications, Standard Plans and Special Provisions. Where any Permittee obstacle is placed within twelve (12) feet of a lane carrying public traffic, the Permittee shall install temporary railing Type K).
16. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's Representative.
17. **RESTORATION AND REPAIRS IN RIGHTS OF WAY:** Permittee is responsible for restoration and repair of State Highway rights of way resulting from permitted work, per State Highway Code, Sections 670 et. seq.
18. **RIGHTS OF WAY CLEAN UP:** Upon completion of work Permittee shall remove entirely and dispose of all scraps, brush, timber, materials, etc., off the rights of way. The aesthetics of the highway shall be as it was before work started.
19. **COST OF WORK:** Unless stated in the permit, or separate written agreement, all costs incurred for work within the State rights of way pursuant to this encroachment permit shall be borne entirely by the Permittee. Permittee hereby waives all claims for indemnification or contribution from the State for any such work.
20. **ACTUAL COST BILLING:** When Permittee is to be billed actual costs, (as indicated on the face of the permit), such costs will be at the currently set hourly rate for encroachment permits.
21. **AS-BUILT PLANS:** When required, Permittee shall submit one (1) set of as-built plans in compliance with Department requirements. Plans shall be submitted within thirty (30) days after completion and approval of work.
22. **PERMITS FOR RECORD PURPOSES ONLY:** When work in rights of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), an Exempt Permit will be issued to the Permittee for the purpose of providing a notice and record of work. All prior rights of the permittee shall be preserved, no new or different rights or obligations are intended to be created. "Notice and Record Purposes Only" shall be stamped across the face of the permit.

23. **BONDING:** Permittee shall file the necessary bond(s) in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in suspension of all work and permit(s). Bonds are not required of public corporations or privately owned utilities, unless said Permittee failed to comply with the provisions and conditions under a prior permit. Your surety company will be responsible for any latent defects until such time as is provided for in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications prior to performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.
24. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees that upon request of the Department, whenever State construction, reconstruction or maintenance work on the highway requires a permitted installation to be rearranged, the Permittee at his sole expense, unless under a prior agreement, JUA, and CUA, shall comply with said request.
25. **ARCHAEOLOGICAL:** Should any archaeological resources be revealed in the work vicinity, the Permittee is responsible for; notifying the Department's Representative immediately, retention of a qualified archaeologist who shall evaluate the archaeological site and make recommendations to the Department Representative regarding the continuance of work.
26. **PREVAILING WAGES:** Work performed by or under a permit may require Permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements should be directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.
27. **RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permittee shall indemnify and save harmless the State of California, all officers, employees, and state contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name,

kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and state contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and state contractors, from any and all claims, suits or actions as set forth above regardless of the existence of degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For purposes of this section, "state contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

28. **NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.
29. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION :** A. The permittee, for himself, his personal representatives, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that: 1.) no person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, 2.) that in connection with the construction of any improvements on said lands and the furnishing of services thereon, no discrimination shall be practiced in the selection of employees and contractors, by contractors in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors, 3.) that such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operated on, over, or under the space of the right of way, 4.) that the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, part 8 (15 C.F.R. Part 8) and as said Regulations may be amended. B. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the facilities thereon, and hold the same as if said permit had never been made or issued.
30. **MAINTENANCE OF HIGHWAYS :** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This will require inspection and repair of any damage to State facilities resulting from the encroachment.

Memorandum

To: CHAIR AND MEMBERS
Airspace Advisory Committee

Date: March 25, 1997

File: AIRSPACE
General

From: DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY PROGRAM, MS 37

Wireless Telecommunications Technology-Overview

This narrative, and an attachment on terminology, contains an overview of the wireless telecommunications technology for cellular mobile telephone (cellular) and Personal Communications Systems (PCS). In addition, representatives from Los Angeles Cellular Telephone Company (LACTC) and Sprint Spectrum will each make a 15-minute presentation on their respective technologies.

- Cellular/PCS technologies
- Benefits of Cellular/PCS technologies
- Site Selection Process
- Components of Cellular/PCS Technologies
- Types of Installations
- Benefits to the Department of Transportation

AN OVERVIEW

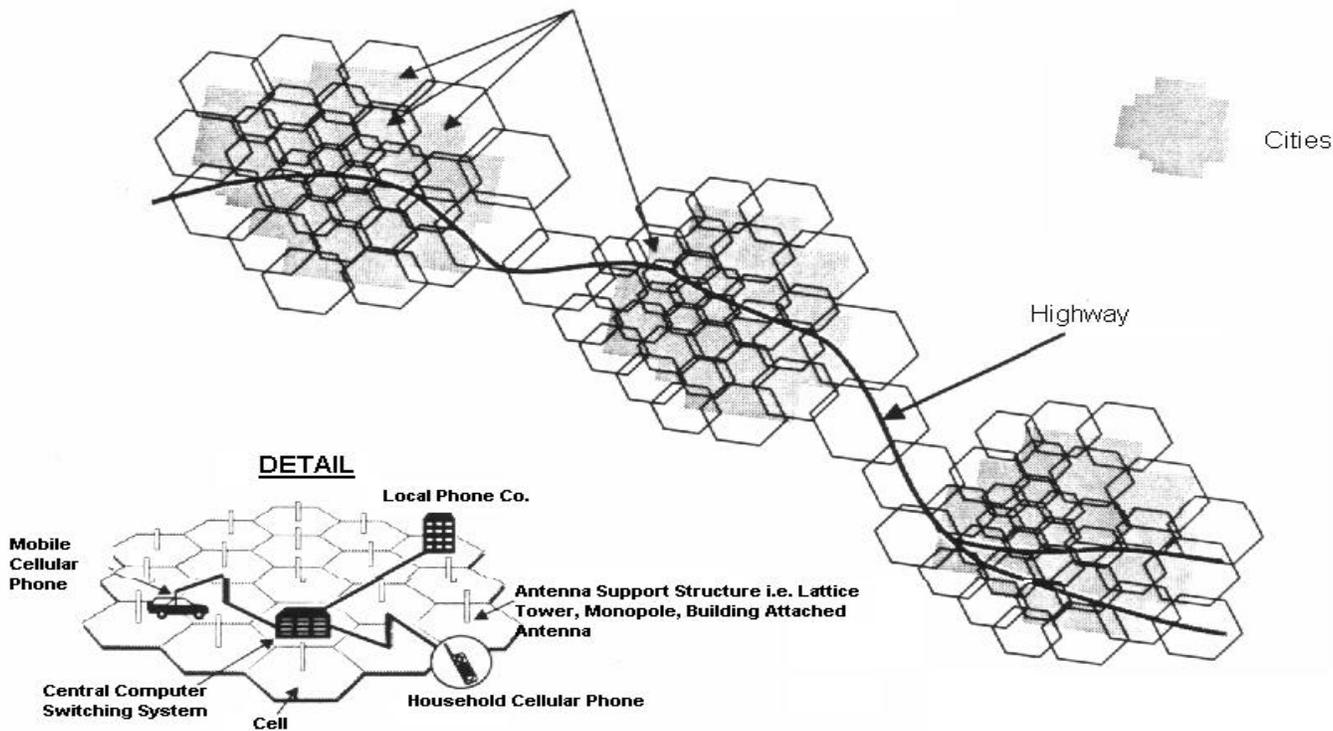
Wireless communications are transmitted through the air via radio waves of various frequencies. Cellular carriers operate at frequencies between 800 and 900 Megahertz (MHz) and Personal Communications Systems (PCS) operates at both 900 MHz and between 1850 and 2200 MHz. The technology to transmit their frequencies is similar to the honeycomb pattern of a beehive, with interconnecting "cell sites" or geographical areas that blanket a region. Figure 1 illustrates the relationship of cell sites within and between different geographical areas.

Cell sites tend to be smaller and more numerous in urbanized areas, and larger and less abundant in rural areas, as carriers build their facilities where their customers are. As more people demand wireless communications services, the wireless systems will require additional capacity to handle calls. This additional calling capacity can be acquired by either increasing the number of cell sites or changing to digital from analog technology. Most carriers are choosing to increase their capacity by combining the two methods.

Each cell site within a system contains transmitting and receiving antennas. Calls placed from a wireless phone or device are sent to a central computer switching system. The central switch completes the call by connecting it either to a conventional telephone through a land-based line, or to another mobile phone through the nearest antenna. As the mobile caller enters one cell and exits another, the call is transferred between the cells.

CELL SITE SYSTEMS

CELL Sites within cities



There are three general types of transmitting and receiving antennas used in wireless communications technology. These include whip antennas, panel antennas, and dish antennas. While whip and panel antennas are used to transmit and receive radio waves carrying conversation signals, dish antennas provide the link between the central computer switching system and the various whip and panel antennas used throughout the mobile conversation.

Whip Antenna: generally 2 - 6 inches in diameter, 1 - 18 feet in length; emits signals in a 360-degree horizontal plane. Also known as: omnidirectional antenna.

Panel Antenna: generally 6 - 12 inches in diameter, 6 - 8 inches in depth, 4 - 5 feet in length; has vertical and horizontal planes that aim signals in specific directions. Also known as: sector antenna.

Both Whip and Panel antennas emit radio waves that carry the call between a wireless phone and its intended receiver.

Dish Antenna: generally 4 - 6 feet in diameter and 1.5 - 3 feet in depth; emits microwaves that provide the critical link between the central computer switching system and the appropriate transmitting or receiving antennas.

The three types of antennas function on a line of sight transmission, thus they need to be placed at specific heights in relation to one another in order to transmit and receive signals and are mounted on top of lattice towers, monopoles, or other structures (buildings, water towers, etc.) The lattice towers, ranging from 60 to 200 feet in height, have three or four support steel legs and hold a variety of antennas. They are used where great height is needed to accommodate many users, but they tend to be visually obtrusive. Monopoles, ranging in height from 25 to 125 feet, consist of a single pole and can accommodate different antennas, and are used where height is less important than visual impact. Antennas can also be mounted on existing structures, such as bridges, buildings, signs, and other types of towers when the structure is located at or near the area where the antennas need to be located. The antennas mounted on a building can be painted to blend in with the structure, thus easily disguised or hidden from view; however, the height and location of the existing building is fixed and can be a disadvantage if the structure is not located in the most suitable location for the antennas.

Cellular mobile telephone technology is composed of interconnected neighboring cell sites that operate facilities functioning on low amounts of electric energy. The cellular industry is limited to 45 MHz of spectrum bandwidth, which without frequency reuse, would limit each cellular carrier to 396 frequencies or voice channels. In order to increase calling capacity, these low power facilities "reuse" frequencies on the electromagnetic spectrum. The manner in which providers organize their cells is an important factor in increasing frequency reuse and establishing an area's calling capacity. Although a cell site's radius depends upon its surrounding topography and its capacity to handle calls, cell sites in rural areas generally have

a radius between five and eight miles, and cell sites in urban areas typically have a radius between two and five miles. 3 basic types of cell sites are:

1. Coverage sites - serve to expand coverage in large areas. Allow users to make and maintain calls as they travel between cells.
2. Capacity sites - serve to increase a site's capacity to handle calls when surrounding sites have reached their practical channel limits.
3. Transition sites - needed for frequency reuse. Allow the carrier to increase capacity of calls and maintain coverage simultaneously.

Traditionally, cellular phones have utilized analog transmission signals, transmitting voice messages electronically to the receiving antennas. The problem is that the amplification procedures tend to pick up "noise," making it difficult to hear the message. To diminish this noise and increase calling capacity, the cellular industry is beginning to use digital transmission signals. With digital technology, voice messages are converted into digits (using the binary system of zeros and ones), that represent sound intensities at specific points in time. Because natural pauses in the conversation are eliminated, more calling capacity becomes available from the same amount of spectrum, thus reducing the need for new sites.

There are currently two forms of digital technology: time division multiple access (TDMA) and code division multiple access (CDMA). Both forms attempt to provide multiple access over one frequency or channel. Whereas cellular carriers are in the process of converting to the digital technology, PCS is already using it.

PCS also functions as a pattern of cell sites, transmitting the incoming calls through a wireless switching office, but with the digital technology, the cell sites have a higher calling capacity than analog cellular cell sites. However, due to the PC's higher frequencies, the cell sites will have smaller radii than cellular cell sites, resulting in a need for two to three times as many transmission sites.

SITE LOCATION

The first critical step in locating a site is to conduct a zoning and site prequalification analysis within the specific area designated by the carrier's radio frequency (RF) engineer as an area where a change in capacity or coverage is required. Existing and possible sites are then overlaid onto a geographical map for a comprehensive study of the carrier's system. At this point, the possible sites will be selected or eliminated depending upon how crucial they are to improving the system. The RF engineer looks at the wireless network being designed to ensure the technology utilized, population densities, and projected coverage areas will meet the objectives of the carrier's build-out plan.

After determining which sites are needed for the expansion of the system, the site acquisition team will be directed to lease (license) the preferred sites. Since the sites are "pre-qualified," the typical hold-up factors such as landlord willingness to lease, space availability, environmental considerations, and pricing issues will have been eliminated, clearing the way for quick and easy site acquisition. Once the site is leased, the required zoning and permitting processes may commence.

Cellular and PCS carriers prefer to locate facilities in primarily commercial and industrial areas due to local public agency restrictions to build in residential areas. Some of the criteria used to select the ideal site are listed below.

1. Existing structures, such as buildings, communication towers, water towers, etc., is encouraged.
2. Existing topography, vegetation, buildings, or other structures providing the greatest amount of screening is preferred.
3. Facilities should be located in a manner that preserves view corridors of surrounding development.
4. Colocation is preferred whenever possible.
5. Monopoles should be located on peaks or ridges to avoid a dominant protrusion.
6. The cross bar (device holding the antennas to the monopole) should be located below the tree line to mitigate its visual effect.
7. Electronic equipment cabinets should blend with the surrounding area in architectural design and color.

The intent of using the above criteria is to ensure the wireless communication facility is sited and designed to be sensitive to the setting in which it is placed while providing the best service to the carrier in its transmission of radio waves.

Sharing an approved site with another carrier, called colocation, can resolve some of these siting issues, but there are problems associated with colocation.

1. Creates signal interference horizontally and vertically, requiring additional area or height. In addition, the cumulative effect of adding multiple platforms holding the antennas may have a more significant aesthetic impact than several individual sites.

2. The antenna's structural design may not allow additional weight or wind loads from future antennas without significant modification and potential visual impacts.
3. Liability concerning personnel injury or antenna damage becomes an issue with shared sites.
4. Multiple users have compounded problems in adapting to new technologies.

Selection of a site suitable for a wireless facility is critical to the success of the cellular and PCS carrier's build-out plans. Whether it is working with the local public agencies on zoning issues, developing lease agreements with potential landlords, or marketing their new communication devices, the carriers are attempting to keep pace with this ever-changing industry to ensure that when the technology changes the way radio frequency waves are transmitted and received, the facilities are built to provide customers with immediate service.

SUMMARY

The San Diego Association of Governments issued a discussion paper on Wireless Communications in December 1995 that summarized the cellular and PCS markets by stating, "As these technologies evolve in response to increasing consumer demand for wireless services, providers will develop cell sites with smaller geographic radii, place antennas at lower heights, and install more antennas per square mile than in the past. Their 'common' goal is to integrate facilities into existing community structures by building rooftop or building mounted facilities, by designing fiberglass shrouds and creative screening, and by encouraging architecturally integrated and visually sensitive designs." As such, it seems the properties owned and operated by the Department, such as buildings, signs, and overcrossings, are perfect sites for the installation and operation of both cellular and PCS facilities.

(Sources used for this overview were: "Site Acquisition for Wireless Networks," January/February 1997, Right of Way Magazine; "The Superinformation Skyway," October 1996, Keith International; "Wireless Communications," December 1995, San Diego Association of Governments; and "Design Guidelines for Wireless Communications Facilities," undated, Pacific Bell Mobile Services.)

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Attachments: Terms and Definitions
 LACTC Outline and Technical Brochure
 Sprint Outline and Technical Brochure

CALTRANS TERMINOLOGY and ACRONYMS

AAC: Airspace Advisory Committee

Access Control: A right of way line where the abutting property owners have relinquished all (or limited) rights and easements for access to or from their lanes to the highway.

Antenna Space: The location of the antenna on the site's mounting structure(s) as recommended by the DGS-Telecommunications Division, or the connection point to the site's master-antenna multi-coupling system as engineered by the DGS-Telecommunications Division. The actual method of providing antenna service to the Applicant shall be determined by DGS-Telecommunications during the analysis of the TD-312 application. The Applicant will be notified by OREDS prior to lease preparation of how antenna service will be provided and the associated charges.

Caltrans Maintenance Telecommunications Unit: A Headquarters Unit with Telecommunications Engineers and Coordinators assigned to specific Districts.

Caltrans: California Department of Transportation

Carrier: A licensed telecommunications wireless carrier.

CEQA: California Environmental Quality Act as administered by the State Clearinghouse.

Clear Recovery Zone: {Section 309.1 (2) of the Highway Design Manual} An unobstructed, relatively flat or gently sloping beyond the edge of the traveled way which affords drivers of errant vehicles the opportunity to regain control. Minimum of 9m (30') for freeways, 6m (20') for uncurbed conventional highway, and 0.5m (1.5') behind face of curb or curbs on conventional highways.

Conventional Highway: A highway without control of access which may or may not be divided. Grade separations at intersections on access control may be used when justified at spot locations.

CTC: California Transportation Commission

DARC Review: Review all proposals to determine if 1) Caltrans can accommodate the TCCW equipment or space needs, 2) the proposal would affect Caltrans present or future operations, 3) proposal would provide any benefits to Caltrans specifically, or the State of California in general.

District Airspace Review Committee (DARC): Composed of representatives from various programs within the District office

DGS-Telecommunications: California Department of General Services Telecommunications Division. This division has the responsibility of coordinating all communications activities for the State. They review all applications for frequency compatibility, electronic equipment design and site availability. They make all radio vault space/antenna space assignments, assist the lessee with system design to ensure site integrity, and can dictate technical operation criteria to be included in the lease. This unit has the policy of keeping the number of separate operations at each site to a minimum to help reduce frequency incompatibility. They also will set policy/procedures to be followed by the Applicant if the Applicant plans to sub-let or expand facility use in any way.

DISTRICT AIRSPACE: Responsible for handling the everyday operations of licensing for all telecommunications (wireless) facilities.

DLAO: District Landscape Architecture Offices

EIR: Environmental Impact Report

EIS: Environmental Impact Statement

Encroachment Permit: A permissive authority to enter State highway right of way and to construct approved facilities or conduct specified activities. It is not a property right. It is a valid contract when accepted by the permittee.

ESA: Environmental Sensitive Area

ESMR: Enhanced Specialized Mobile Radio

Excess Lands: Department owned real property that is no longer required for rights of way or other operational purposes.

Expressway: An arterial highway with at least partial control of access, which may or may not be divided or have grade separations at intersections.

FAA: Federal Aviation Administration

Facility: A wireless facility including the equipment shed, tower or monopole, antennas, radio equipment, power and telephone line and site improvements (e.g. fencing, landscaping parking)

FCC: Federal Communications Commission

FHWA: Federal Highway Administration

Freeway: A divided arterial highway with full control of access and with grade separations at intersection crossings.

GC: Government Code

ITS: Intelligent Transportation Systems

License Fee: Fees established as being fair market value by using the Annual Rate Schedule for the particular site by Caltrans.

Licensee: Applicant, person, organization, company, or entity that is granted, by a license, use of a Caltrans owned facility or property.

Licensor: California Department of Transportation (Caltrans)

Master License Agreement (MLA): A license entered into by a licensed telecommunications wireless carrier with Caltrans (as a State agency) where the State is the Licensor and the carrier is the Licensee.

NEPA: National Environmental Protection Act

Offset: Fees, generally lower than fair market rate, established for some public and private users that provide some type of benefit to the State.

PCS: Personal Communications Services

POC: Pedestrian Over Crossing

P&R: Park and Ride Lot.

Premise: The entire property being used for a Caltrans facility i.e. maintenance station or park and ride.

PUC: Public Utilities Commission

Right of Way Property System (RWPS): The data base system used to identify all airspace leases and telecommunications licenses. All license fees received by accounting are entered into RWPS for a record of the carrier's account for each site. All payments received are deposited into the State Highway Account (SHA).

S&H: Streets and Highways Code

Site: The square footage of the property ("premise") required for the facility as identified on the plans and in the legal description of the SL.

Signature Authority: Proof of some kind accompanying the site license agreement when the signer for the lessee is representing some entity other than themselves, e.g. minute resolution, board meeting minutes, etc.

SLA: Site License Agreement

SRRA: State Roadside Rest Area

Traveled Way (also Travelway): The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

Term: Period during which the Master License, Site License Agreement, or the Local permitting period will allow the carrier to perform.

Vault Space: Amount of space necessary to house the equipment for Caltrans radio equipment. This might be expressed in terms of rack space (4 square feet of floor space), a portion of an existing rack at the facility, or some other volumetric measure of space for which the Applicant is to be charged to mount their equipment. The actual equipment mounting design will be determined by Caltrans Maintenance Telecommunications Unit.