

PROJECT INFORMATION:

General Plan Designation: Community/Neighborhood Commercial & Office
 Community Plan Designation: Community Commercial
 Existing Land Use of Site: Veterinary Clinic
 Existing/Proposed Zoning of Site: General Commercial

Surrounding Land Use and Zoning:

North: Super Saver Shopping Center; C-2
 South: Vacant & Chiropractor Office; C-2\OB
 East: Commercial; C-2
 West: Vacant; C-2; and Natomas Court Apartments (R-3-R)

<u>Setbacks:</u>	<u>Required</u>	<u>Monopole</u>	<u>Existing Vet. Clinic</u>
Front/N:	5'	104'	30'
Back/S:	0'	2'	58'
Side/E:	5'	6'	44'
Side/W:	5'	196'	15'

Property Dimensions: 118' by 150'
 Property Area/Acreage: 17,700± sq. ft./0.40± gross acres
 Project Area: 20' by 20'/400 sq. ft.
 Height of Structure: 60 feet
 Monopole Diameter: 60" concrete
 Number of Panel Antennas: 6 (2 panel antennae on each of 3 sectors)
 BTS Unit Dimensions: 51" wide/28" deep/63" in height
 Topography: Flat
 Colors
 -(BTS Equip Cabinet): Forest Green
 -(Monopole): Grey

OTHER APPROVALS REQUIRED: In addition to the entitlements requested, the applicant is required to obtain a building permit from the City's Building Division. Operation of the proposed PCS cell site is regulated by the Federal Communications Commission (FCC).

BACKGROUND INFORMATION:

On July 9, 1991, the ordinance was heard and approved by the City Council (Ordinance No 91-048). The ordinance requiring special permits for the location of communication antennas and antennas went into effect on August 9, 1991.

Pacific Bell Mobile Services (PBMS), has applied for the appropriate entitlements to allow a new wireless system throughout the City and County of Sacramento. The City of Sacramento has approximately 21 new applications for various sites throughout the City and is expecting 2 more.

The wireless telephone service is similar to ordinary telephone service except that it utilizes radio waves instead of wires to transmit and receive telephone calls. Cellular radio waves transmit in the ultra-high frequency (UHF) band of the electromagnetic spectrum. The UHF band is used for television broadcast, taxicabs, emergency dispatch, and cellular carriers.

Since cellular radio waves require a relatively direct, uninterrupted signal path, cellular antennas are often placed on the roof of a building or otherwise attached to an existing structure. When existing structures are not available, a freestanding mast, monopole, or guyed or latticed tower may be installed. Each service area (cell) is served by a "cell site" which consists of radio transmitters, receivers, and antennae. The receivers and transmitters are typically housed in small ground-based equipment shelters.

There are several factors affecting the design and site selection for cellular facilities: coverage, capacity, and interference. Coverage implies that a location can receive, at sufficient signal strength, a transmitted signal. Capacity equates to the amount of usage an individual cell site can provide. To prevent signal interference between cell sites, the transmitters operate at very low power levels and at different wave frequencies.

Each of the PCS sites provides coverage in a specific service area that is roughly circular. The proposed site would provide coverage to the area roughly bounded by Interstate 80 to the north Richard Boulevard to the south, Interstate 5 to the west and Norwood Avenue to the east (see Attachment 4). According to the applicant, the service areas need to slightly overlap in order to provide adequate service.

The PBMS proposed digital wireless telecommunication system varies from the traditional analog cellular system. These differences include digital vs. analog technology, and a different radio frequency band (1870-1960 MHz for Personal Communication Services, compared to 800-900 MHz for other cellular carriers).

STAFF EVALUATION:

- A. Land Use and Zoning: The project site consists of 0.4± partially developed acres in the General Commercial (C-2) zone. According to the City Zoning Ordinance (Section 2.G.10) a special permit is required to locate a communication tower/antenna in any nonresidential zone. Additional specifications are required for communication towers/antennas intending to locate in a residential zone. The surrounding land use and zoning does not include residential property. Adjacent land uses are zoned for General Commercial development and developed with commercial structures to the north and east of the subject site.

DISTANCE BETWEEN POLE AND NEAREST RESIDENTIAL PROPERTY

Direction	Distance
North	1000'
East	500'
South	500'
West	350'

The nearest residentially zoned developed property is located to the west of the project site approximately 350 feet in distance. Staff finds the proposed monopole appropriate in location and compatible with the surrounding commercially zoned and developed properties.

B. Policy Considerations: The policy framework used to analyze this project is to examine the proposed tower relative to the following considerations:

- Is the cellular tower compatible with adjacent land uses?
- Are adjacent towers (cellular, radio, water, etc.) upon which these antennae can co-locate within the "search ring" area as an alternative to the proposed site?;
- Are adjacent structures/buildings upon which these antennae can co-locate within the search ring as an alternative to the proposed site?
- If this tower is to be a new structure, can the tower be engineered to allow future co-location opportunities, and will the cellular carrier agree to provide for these co-location opportunities?

The applicant's proposal is compatible with the General Plan and the site's designation of "Community/Neighborhood Commercial & Offices." This designation is intended to accommodate shopping centers and smaller office developments which offer goods and services compatible with the daily needs of nearby and adjacent residential land uses. The proposal will not adversely affect this land use. Staff believes the proposed monopole to be compatible with the General Plan designation.

The proposed 60 ft. high monopole and related equipment cabinets are also considered to be compatible with the goals of the General Plan to "improve and provide communication and utility services to all areas of the City" (Sec 7-11). The project as proposed will enhance the effectiveness and quality of wireless service in the region and is therefore considered to be consistent with the General Plan.

C. Project Siting/Co-Location Efforts: The City of Sacramento is encouraging co-location efforts of cellular/PCS telecommunication projects to minimize the number of towers, monopoles and similar structures that are built. Therefore, proposed PCS projects are being encouraged to co-locate, where feasible, or be designed to be co-locatable (designed to be able to support additional telecommunication facilities).

1. Possible Co-location Sites: The location criteria for a cell site is generally within a ½-2 mile radial search ring from the center of the service area (Northgate Blvd. @ West El Camino Avenue). As shown below, there are no existing monopoles within the project area. Therefore, to meet the needs of the PCS carrier, a new tower would be necessary.

ADJACENT CELL TOWERS	DISTANCE FROM CENTER OF SEARCH RING	HEIGHT
Proposed Tower (P96-007)	1,320'	60'
Northgate Park (P95-086)	4,950' ^a	50'
Johnston Park (M94-053)	3,300' ^b	84'
AT&T Proposed Tower (P96-019)	15,000'	60'
KROY Radio Tower	14,000'	500'
Air Touch @2150 River Plaza Dr.	13,000'	65'

^aThe Northgate Park site does not meet the criteria, per the applicant, because of interference from an existing tower @ I-80/West El Camino (Truck Stop).

^bThe Johnston Park site does not meet the criteria, per the applicant, because of interference from an existing tower @ Norwood/I-80.

2. Alternative Site Locations: A number of alternative locations were evaluated for siting of a cell site that would meet the objectives of the applicant. Following is a brief analysis:
 - a. **Niños Park**: The City owns property adjacent to the Niños Parkway (under the Western Area Power Authority overhead lines). This park contains a ballfield and tot lot. Because of interference from the overhead power lines, the antennae would have to be located in the middle of the ballfield or adjacent to the tot lot. This alternative was rejected by staff.
 - b. **Super Saver Building**: The shopping center immediately to the north of the site was evaluated for the opportunity to mount an antenna on an existing structure. However, the existing structure is only a single story and would have had to be substantially modified to support a pole. This alternative was rejected by staff.

3. Lower Height Alternative: Staff inquired about the effect of reducing the proposed height of the tower to the 45' height limit of the C-2 zone. The applicant provided a diagram of the area served by a hypothetical 45' high antenna at this same location. The diagram shows a very substantial reduction in the area served, and would require an additional tower in the target area. Therefore, the applicant and staff rejected this alternative.
 4. Future Co-location Opportunities on This Site: The applicant has agreed to provide a more substantial foundation for the monopole in order to support the potential for a future new pole capable of holding a second antenna array. Typical weights for an antenna array range between 50-100 pounds. Staff is not recommending that the PBMS applicant be required to erect a pole capable of holding a possible future 2nd antenna. Rather, in the event that another carrier wishes to locate in this area, PBMS will be required to make the site available and agrees to allow the 2nd carrier to erect a taller and stronger pole on the existing foundation, and agrees not to preclude a future lease space for the 2nd carrier's equipment cabinet.
- D. Aesthetics: The project site is located approximately 160' west of Northgate Blvd., and would be visible from the Boulevard. In this stretch of Northgate Blvd., telephone poles & wires are located on the west side of Northgate Boulevard. The presence of the cellular tower would be somewhat masked by the existing clutter of wires & poles. Nonetheless, the tower would negatively impact the efforts to revitalize Northgate Boulevard. In contrast, a previous application by Air Touch for a tower on the east side of Northgate Blvd. (which was ultimately located in Johnston Park to the east across the NEMDC) would have more dramatically impacted the aesthetics and would have been immediately adjacent to residential property.

PROJECT REVIEW PROCESS:

- A. Environmental Determination: The Environmental Services Manager determined that the project, as proposed, will not have a significant affect on the environment. Therefore, a Negative Declaration has been prepared. No mitigation measures have been required. The human health section of the Negative Declaration concludes that the radio frequencies operate at power levels at a fraction of recognized allowable exposure limits.
- B. Neighborhood Comments: The Natomas Community Association had requested that staff investigate the possibility of moving the tower to Niños Park in that the tower would be farther from Northgate Blvd (the focus of revitalization activity) and that a portion of lease revenue could have been used to enhance the community. (See Attachment 6).
- C. Summary of Agency Comments: The proposal was routed to several City Departments and other agencies. The only comment was from Lynne Ohlson of the City Police Dept., who requested clear view fencing and non-obstructive landscaping surround the project site.

PROJECT APPROVAL PROCESS: The Planning Commission has the authority to approve or deny the requested Special Permit. The Planning Commission action may be appealed to the City Council. The appeal must occur within 10 days of the Planning Commission action.

RECOMMENDATION: Staff recommends the Planning Commission take the following actions:

- A. Ratify the Negative Declaration;
- B. Adopt the attached Notice of Decision and Findings of Fact (Attachment 1) approving the Special Permit to allow a sixty (60) foot high cellular tower (monopole) to exceed the 45-foot height limit located at 615 Northfield Drive in the General Commercial (C-2) zone.

Report Prepared By,

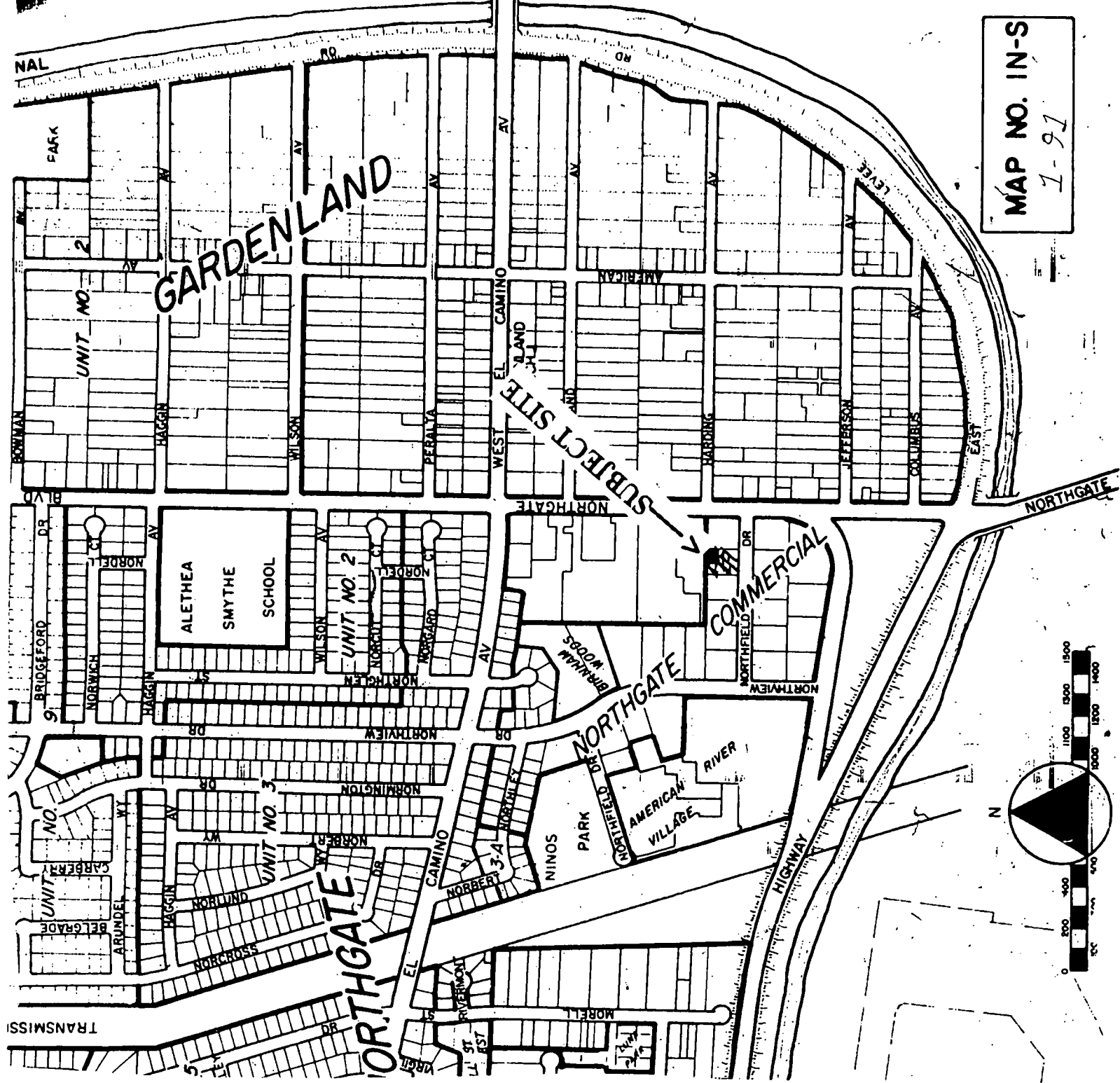


Scot Mende
Senior Planner

Attachments

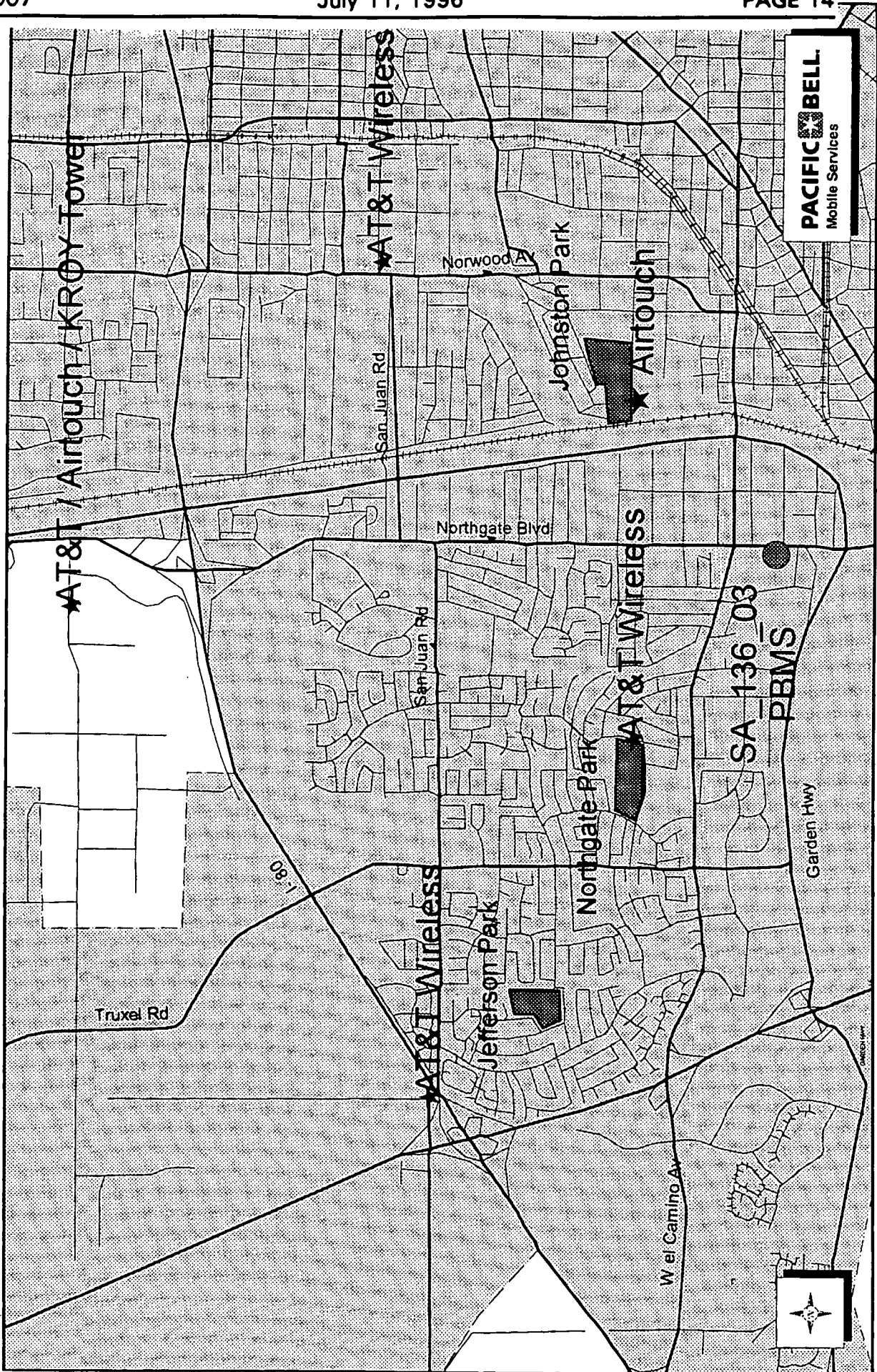
Attachment 1	Notice of Decision and Findings of Fact
Exhibit 1-A	Site Plan
Attachment 2	Vicinity/Locator Map
Attachment 3	Land Use and Zoning Map
Attachment 4	Service Area Served By Proposed Cell Site
Attachment 5	Digital Personal Communication Services system
Attachment 6	Letter from Natomas Community Association

ATTACHMENT 2
VICINITY MAP



MAP NO. IN-S
1-91

Attachment 4



Attachment 5

**DIGITAL PERSONAL COMMUNICATIONS SERVICES****What is PCS?**

Personal Communications Services (PCS) is considered the next generation of wireless telecommunications. Like cellular, PCS provides a wireless phone service. However, PCS offers much more than traditional cellular. The GSM technology being employed by PBMS offers improved quality, roaming capabilities, services and security not available with existing cellular systems. Its digital format provides higher voice quality than today's analog cellular phones - less congestion, fewer dropped calls, and better sound. GSM was designed to be compatible with Integrated Services Digital Network (ISDN), which is a technology used to transmit voice and data (including video, graphics and sound) in digital signals over traditional telephone lines. This flexibility allows GSM to "grow" with new telecommunications developments. With all of these features, PacBell's new services will provide the basis for the one number identity that is the hallmark of PCS.

How is PCS different than traditional analog cellular?

PCS uses a technology that encodes speech into a digital format, and employs error correction to further improve the signal quality. Voice clarity and consistency are better than with analog cellular, especially under poor conditions of weak coverage or interference. GSM PCS provides 8 times the capacity of analog cellular, which means that more users can access the system with fewer blocked calls. Finally, GSM provides many new services such as wireless fax and short messaging.

Why is PBMS PCS different than digital cellular?

PBMS is using a digital technology called GSM (Global System Mobile), a version of which has been successfully deployed in Europe. Its advantages are many:

- (1) **Less Congestion** - GSM provides a 2-1/2 times greater increase in capacity than the U.S standard for TDMA (Time Division Multiple Access), the only commercially available digital technology. This translates into less congestion and fewer blocked calls.
- (2) **Fraud Protection** - GSM provides a highly sophisticated subscriber authentication reducing the possibility of fraud.
- (3) **Evesdropping Protection** - The multiple timeslot digital format, combined with ciphering (message or voice encryption) greatly reduces the possibility of evesdropping.
- (4) **Portability & International Roaming**- GSM is unique in its use of the "SmartCard" which contains all user information. A user can carry a SmartCard chip or card anywhere and insert it into any GSM phone. The phone will then operate with the SmartCard billing/health and other subscriber specific information. For example, a subscriber can carry his SmartCard to Europe, rent a phone and be billed at home. Emergency services are enhanced by this concept, as well. If a subscriber dials 911, his SmartCard may automatically transmit preprogrammed health information, saving valuable time in the event of a health crisis. The flexibility in this approach paves the way for the new applications that will follow.

Attachment 5 (continued)**Will PacBell PCS have the same type of towers that cellular now has?**

No! PCS base stations are significantly lower than the cellular towers of the past. Because of the frequency and coverage needs, PCS transmitters are mounted at heights from 40' - 80' as compared to cellular towers which can range from 50' to 450'. The lower sites will be much less conspicuous than the previous cellular base stations.

Will PCS phones be similar to cellular phones?

Initially, PCS phones will look much like the smallest cellular phones. The PCS phones will have longer battery life as compared to cellular phones, however, and should have more advanced features.



Natomas Community Association

Attachment 6

P.O. Box 340451 • Sacramento, California 95834

Date: 17 June 1996

To: Mr. Scott Mende
City of Sacramento, Planning and Development (Planning Division)
1231 I Street, Room 300
Sacramento, CA 95814

Re: NCA Planning Committee Comments * P-96-007 PBMS Cell Site at 615 Northfield Drive.

The NCA Planning Committee met at a regular Tuesday night meeting and with the Natomas CPAC regarding cell tower sites. The results of this meeting are as follows:

1. The proposed location is only 160' from Northgate Blvd., a major thoroughfare in a revitalization area and we believe that a cell tower in this location will hinder those efforts aesthetically.
2. We suggested relocating to the west at Nino's Park. Not only does this get the tower away from Northgate Blvd., it also would mean that the community would benefit from the money generated in rent. (See Northgate Park's Cell One Tower.)
3. Pacific Bell's response was a lot of techno-gobbledygook that suggested no other site would work.

At this point, the proposed site may be more acceptable if some mitigation beneficial to the community were offered.

James Bacchini
Chair, NCA Planning Committee



