



Z O N I N G A D J U S T M E N T S B O A R D S T A F F R E P O R T

FOR BOARD ACTION
APRIL 25, 2013

2095 Rose Street

Use Permit #12-1000058 to establish a new AT&T wireless telecommunication facility consisting of twelve panel antennas mounted on the rooftop and six associated equipment cabinets within a lease space.

I. Application Basics

A. Land Use Designations:

- General Plan: NC Neighborhood Commercial
- Zoning: C-NS(H) North Shattuck Commercial (Hillside Overlay)

B. Zoning Permits Required:

- Use Permit to establish a telecommunication facility when the site is adjacent to a residential district, under BMC Section 23C.17.100.A.2

C. CEQA Determination: Categorically exempt pursuant to Section 15301 of the CEQA Guidelines ("Existing Facilities").

D. Parties Involved:

- Applicant Tom McIver, Trillium for AT&T,
7905 Stoneridge Dr., Suite 503, Pleasanton, CA 94588
- Property Owner Peter Calthorpe and Jean Driscoll,
21 Tangle Rd., Berkeley, CA 94501

Figure 1: Vicinity Map



Figure 2: Site Plan

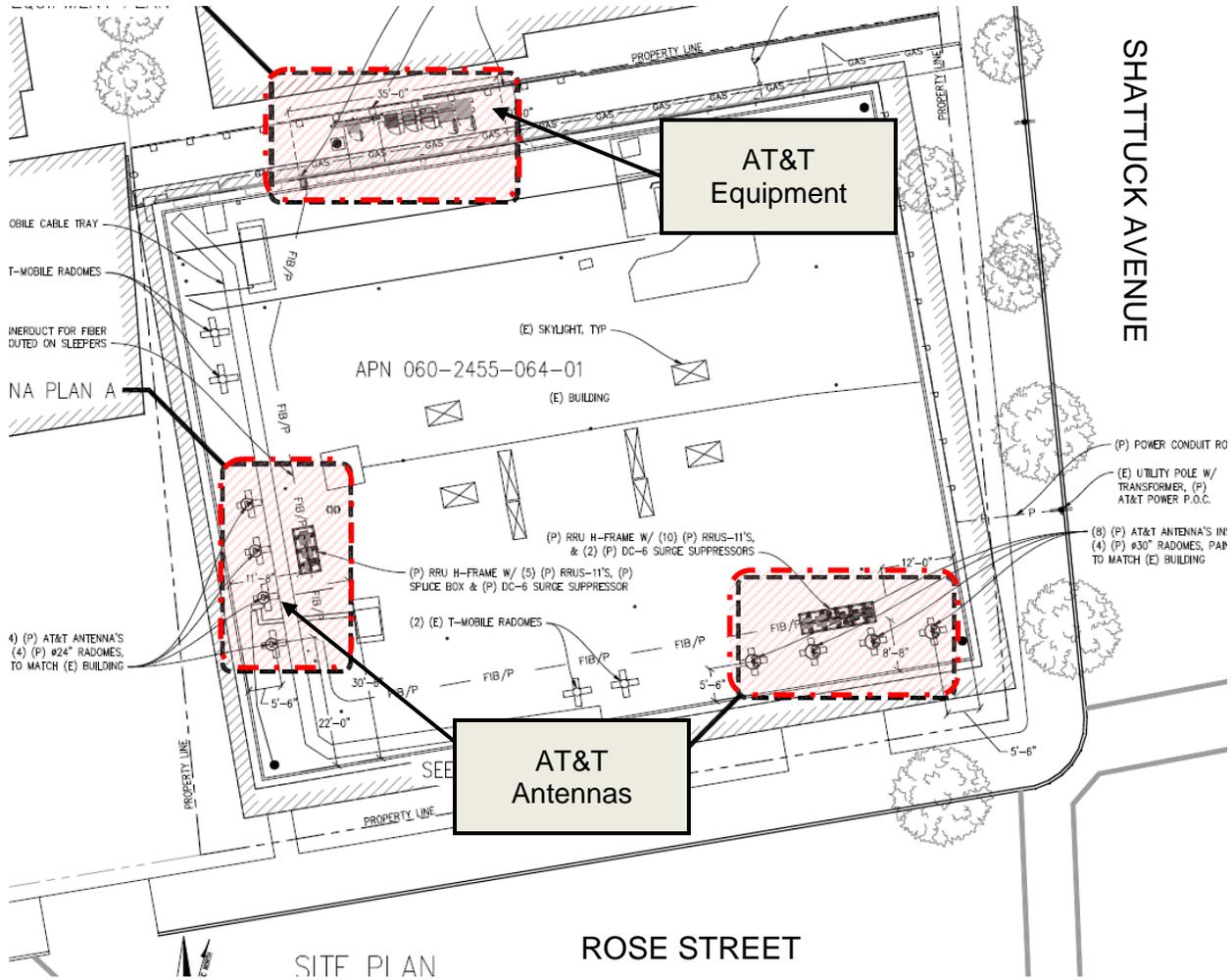


Table 1: Land Use Information

Location		Existing Use	Zoning District	General Plan Designation
Subject Property		Commercial Office Uses	C-NS (H)	Neighborhood Commercial
Surrounding Properties	North	Multi-family Dwelling Units	R-2A (H)	Medium Density Residential
	South	Retail, Food Service and Office Uses	C-NS	Neighborhood Commercial
	East	Mixed Use Offices and Residential	C-NS	Neighborhood Commercial
	West	Office Uses	C-NS	Neighborhood Commercial

Table 2: Project Chronology

Date	Action
November 30, 2012	Application submitted
December 28, 2012	Application deemed complete
April 18, 2013	Design Review Committee Hearing
April 18, 2012	Public hearing notices mailed/posted
April 25, 2012	ZAB hearing

II. Project Setting

A. Neighborhood/Area Description:

The project site is located within the North Berkeley Commercial District (C-NS) on Rose Street between Shattuck and Henry Avenues (see vicinity map, Fig. 1). The surrounding area consists of a mixture of uses including food service, office uses and large retailers (Safeway and CVS) and smaller boutiques along Shattuck Avenue and Vine Street to the south. Residential neighborhoods are located to the north along Shattuck Avenue and one block east of the site.

B. Site Conditions:

The project site is developed with a two-story commercial office building. On October 11, 2007 ZAB approved Use Permit #07-10000058, issued to T-Mobile Communications, to install four antennas and related equipment on the rooftop of the building. T-Mobile is the only telecommunications facility at this location.

The C-NS District allows a maximum height of 35'. Section 23C.17.060.C (Height Requirements) allows roof-mounted antennas to extend up to 15' above the height limit of the District. AT&T proposes to install twelve telecommunication antennas on the roof-top of the building, 40' 7" from grade at the highest, and is therefore allowed under this Section.

III. Project Description

AT&T proposes to install twelve panel antennas and six associated equipment cabinets located within a 350 sq. ft. equipment lease space. The proposal involves three main elements:

- 1) Install four antennas on the southwest portion of the roof and eight antennas at the southeast corner of the roof. Antennas and equipment are to be concealed inside faux mechanical vents and architecturally integrated with the building design; and
- 2) Install six equipment cabinets inside a 350 sq. ft. lease space located at the ground floor on the north side of the building.

IV. Community Discussion

A. Neighbor/Community Concerns: Prior to submitting the application to the City, a pre-application poster was erected by the applicant in December 2012. On April 18, 2013, the City posted public hearing notices at the site and within the vicinity and mailed notices to adjoining property owners and occupants, and to interested neighborhood organizations. As of the writing of this report, no comments have been received.

B. Committee Review: The Design Review Committee (DRC) reviewed the project at its April 18, 2012 meeting and gave a favorable recommendation to the Zoning Adjustments Board (ZAB) (4-3-0-0; no – Olson, McCulloch, Allen) with the direction for Final Design Review deferred to Staff with Committee assistance as necessary.

V. Issues and Analysis

A. Key Issues:

1. Compliance with FCC Regulations: Section 704 of the Telecommunications Act of 1996 (47 U.S.C. §332(c)) prohibits local governments from regulating proposed wireless service facilities on the basis of the environmental effects of radio frequency emissions if the facilities comply with the Federal Communication Commission's (FCC) regulations. Berkeley Zoning Ordinance Section 23C.17.100.B.1 requires the Zoning Adjustments Board to make a finding that the facility will comply with these regulations.

The applicant provided a report prepared by William F. Hammett, P.E., of Hammett & Edison, Inc. Consulting Engineering, an electrical and mechanical engineer registered with the State of California, as required by Berkeley Zoning Ordinance Section 23C.17.040.F (see Attachment 4). Hammett & Edison evaluated the proposed AT&T antenna installation for compliance with appropriate guidelines limiting human exposure to radio frequency (RF)

electromagnetic fields. The June 12, 2012 report states that the antennas are designed to concentrate their energy towards the horizon and that very little energy is directed toward the sky or the ground and that due to the short wavelength of the frequencies assigned by the FCC for this wireless service, the antennas require line-of-sight paths for their signals to provide adequate coverage. The Hammett & Edison report includes the maximum calculated cumulative level for the simultaneous operation of the existing T-Mobile facility and the proposed AT&T installation. The maximum calculated cumulative level at the ground near the Verizon facility is 3.9% of the public exposure limit, and the maximum calculated cumulative level at the second floor elevation of any building near the AT&T site is 25% of the public limit.

The AT&T antennas are not accessible to the general public, however, to prevent occupational exposures that might occur during such activities as building maintenance, the Hammett & Edison report recommends that explanatory warning signs be posted at the roof access hatch, at the exterior ladder, and on the screen in front of the antennas to prevent access within nine feet directly in front of the antennas themselves. Such signs should be readily visible from any angle of approach to persons who might need to work within that distance. These requirements are included in the conditions of approval (see Attachment 1).

In summary, the Hammett & Edison report concludes that the proposed AT&T antenna installation and facility will comply with the prevailing FCC Standards for limiting public exposure to radio frequency energy and will not cause a significant impact on the environment.

RCC reviewed and evaluated the submitted RF report (see Issue #4 Facility Need) and concurs with its analysis and conclusion that the proposed antenna installation will comply with the FCC guidelines for radio frequency emissions.

2. Visibility: Under Berkeley Zoning Ordinance Section 23C.17.100.B.2, the Zoning Adjustments Board must make a finding that the facility will either: (1) not be readily visible; or (2) that it is not feasible to incorporate additional measures that would make the facility not readily visible.

The design incorporates a number of features to ensure that the facility would not be readily visible (see photo simulations Attachment 6), including:

- i. Support equipment cabinets would be located within a lease area;
- ii. Coaxial cables are located on the roof and housed within conduit to mitigate any potential visual impacts; and
- iii. Antennas on the southwest portion of the roof and eight antennas at the southeast corner of the roof. Antennas and equipment are to be

concealed inside faux mechanical vents that are architecturally integrated with the building design

3. Certification of Facilities: Under Berkeley Zoning Ordinance Section 23C.17.100.4, in order to approve a new or modified wireless facility, the Board must find that the operator (AT&T) has submitted the following information for all its facilities within the City of Berkeley: (1) within 45 days of initial operation or modification of a telecommunications facility, written certification by a licensed engineer that the facility's radio frequency emissions are in compliance with the approved application and any required conditions, as well as a determination that the facility meets the FCC requirements; and (2) annual written certification by an authorized representative for the wireless carrier that each of its facilities within the City is being operated in accordance with the approved local and federal permits.

AT&T has submitted the required facility compliance reports to staff. The reports indicate that all AT&T facilities within the City are operating in compliance with the approved conditions and are FCC compliant. AT&T has also submitted written certification that all AT&T facilities within the City are being operated in accordance with approved local and federal permits (see Attachment 8).

4. Facility Need: Under Berkeley Zoning Ordinance Section 23C.17.100.B.3, the Board must find that the facility is necessary to prevent or fill a significant gap in coverage or capacity shortfall in the applicant's service area and that the proposed installation is the least intrusive means of doing so. The City commissioned a peer review prepared by RCC Consultants to independently review the AT&T proposal to verify the need for the facility (see Attachments 5 and 7).

Based on the documents provided by AT&T, RCC states that AT&T demonstrated a coverage gap in its network area in the area roughly bounded by Eunice Street to the north, Vine Street to the south, Grant Street to the west and Euclid Avenue to the east. RCC notes that an existing AT&T site (CNU4552), located three blocks south of the proposed site, does not provide sufficient signal levels to service the intended target area with reliable in-building and in-transit coverage, the most common design criteria for wireless service providers. RCC concludes that based on the documents provided, AT&T has demonstrated a coverage gap in its network in the area and that the gap will be substantially mitigated by the new antenna installation.

5. Noise: The Land Use Planning Division has found that equipment cabinets required to support wireless antennas can generate noise exceeding the limits of the City's Noise Ordinance outlined in Chapter 13.40 of the Berkeley Municipal Code. For this reason, the City of Berkeley requested that AT&T submit a noise study performed by an acoustical, mechanical, or electrical engineer. At the

request of AT&T, the city contracted with the Acoustics and Air Quality Specialists Illingworth and Rodkin who submitted an acoustical report dated April 3, 2013 (see Attachment 9).

Existing Noise Environment - Illingworth and Rodkin reviewed the manufacturing specifications and operations of the roof top condensers and conducted a noise monitoring survey from February 25, 2013 to February 27, 2013. The noise monitoring survey included a long term noise measurement located approximately 30' from the center of Shattuck Avenue and 180' from the center of Rose Street. The levels measured at this site were primarily the result of traffic along Shattuck Avenue. The average hourly noise levels ranged from 55 to 60 dBA during the day and from 43 to 51 dBA at night. The calculated day-night average noise level at this location ranged from 60 to 61 dBA.

Future Noise Environment - The Illingworth and Rodkin analysis factors in the proposed AT&T equipment based on the provided manufacturer specifications. Noise level data was unavailable for the RBS2106 and RBS 3106 base stations to be located at the rear of the building.

Based on a recent noise analysis of similar equipment, conducted by Illingworth and Rodkin Inc., it is assumed the new equipment uses a dehumidifier as compared to the traditional fan system used in units of wireless equipment systems. According to the report, this newer technology generates much lower noise levels than the existing cabinet cooling systems that require the operation of fans. As a result, noise levels with proposed equipment installed would be anticipated to be no different than ambient noise levels at the nearest receiver.

Since the measured ambient noise levels exceed the limits in the City of Berkeley's Noise Ordinance, the allowable noise exposure standard is the current ambient noise level. The Illingworth and Rodkin report concludes that the proposed equipment will not generate audible noise levels and would not contribute to the ambient noise level.

B. Conclusion:

Based on information provided to the City, Staff believes that the proposed project would enhance wireless connectivity in the area while not posing a threat to public health, or resulting in a structure that is detrimental to views or creates excessive noise based on the following reasons:

- Design Review Committee Preliminary Design Review approval;
- The applicant's narrative statements;
- The RF report prepared by a certified electrical engineer;

- The report by the City's RF engineer verifying the necessity of the facility upgrade;
- The Certification of AT&T Facilities operating in Berkeley; and
- The report by Illingworth and Rodkin concluding that the proposed equipment would not have any detrimental noise impacts, and would not exceed the City's Community Noise Ordinance.

C. General and Area Plan Consistency:

General Plan Policy Analysis: The 2002 General Plan contains several policies applicable to the project, including the following:

1. Policy LU-7–Neighborhood Quality of Life, Action A: Require that new development be consistent with zoning standards and compatible with the scale, historic character, and surrounding uses in the area.
2. Policy UD-16–Context: The design and scale of new or remodeled buildings should respect the built environment in the area, particularly where the character of the built environment is largely defined by an aggregation of historically and architecturally significant buildings.
3. Policy UD-24-Area Character: Regulate new construction and alterations to ensure that they are truly compatible with and, where feasible, reinforce the desirable design characteristics of the particular area they are in.

Staff Analysis: The proposed design incorporates reasonable measures to reduce the visibility of the facility and to match the architecture of the existing building. The design was reviewed and given Design Review Committee approval, subject to conditions.

VI. Recommendation

Because of the project's consistency with the Zoning Ordinance and General Plan, and minimal impact on surrounding properties, Staff recommends that the Zoning Adjustments Board:

- A. APPROVE Use Permit #12-10000058 pursuant to Section 23B.32.040 and subject to the attached Findings and Conditions (see Attachment 1).

Attachments:

1. Findings and Conditions
2. Project Plans, received November 30, 2012
3. Applicant Statement, received November 30, 2012

4. Engineering Report on Radio Frequency Analysis prepared by William F. Hammett, P.E., dated June 12, 2012 (not included in packet; see agenda online at <http://www.ci.berkeley.ca.us/zoningadjustmentboard/>)
5. Third Party Wireless Facility Application Review prepared by Dieter J. Preiser, PMP, RCC Consultants, dated February 18, 2013 (not included in packet; see agenda online at <http://www.ci.berkeley.ca.us/zoningadjustmentboard/>)
6. Photos Simulations (Existing and Proposed)
7. Coverage Maps (Existing and Proposed)
8. AT&T Certification (not included in packet; see agenda online at <http://www.ci.berkeley.ca.us/zoningadjustmentboard/>)
9. Acoustical Study prepared by Jared M. McDaniel, Illingworth and Rodkin, dated April 3, 2013 (not included in packet; see agenda online at <http://www.ci.berkeley.ca.us/zoningadjustmentboard/>)
10. Notice of Public Hearing

Staff Planner: Claudine Asbagh, casbagh@ci.berkeley.ca.us, (510) 981-7410