



PLANNING & DEVELOPMENT

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I. WIRELESS SUBMITTAL REQUIREMENTS

For: Administrative Use Permits
 Use Permits
 Modification of any of the above
 Pre-Applications

NOTE TO APPLICANTS:

- **Effective December 16, 2015 – submittal by appointment only.** All applications must be submitted by appointment. Telephone the Land Use Planning Division to schedule a submittal appointment at 510-981-7413.
- All application materials must be submitted electronically and in hard copy. See Item I.A on next page for further details.
- This document is intended to provide submittal requirements for most wireless applications. However, additional materials may be required for some applications, depending on the nature of the proposed project. In such cases, the project planner will request this information within 30 days of application submittal. Additional materials may also be required in order to comply with the California Environmental Quality Act (CEQA).
- All application materials become the property of the City of Berkeley and are subject to public review.
- You are responsible for the accuracy and completeness of all application materials. Incorrect or incomplete information may result in delay or denial of your application.
- All application materials must be clear and legible. Faxes, poor reproductions, and cluttered or confusing drawings will not be accepted.
- For certain requirements, this document provides hyperlinks to required forms or guidelines with further instructions. All required forms and guidelines are available on the “Frequently Requested Forms” page at:
http://www.ci.berkeley.ca.us/Online_Service_Center/Home/Frequently_Requested_Forms.aspx.
- Applications for properties in all commercial and manufacturing districts as well as the R-4, R-S and R-SMU districts are subject to Design Review in accordance with Berkeley Municipal Code 23E.08 for “Design Review.” A separate Design Review Application is required for this review; please obtain a Design Review Submittal Package for more information.
- Applications for buildings or properties with City Landmark, Structure of Merit or Historic District status are subject to review by the Landmarks Preservation Commission in accordance with Berkeley Municipal Code 3.24.200 and require a separate application for a Structural Alteration Permit.

I. Required for all Wireless Projects

Required /
Submitted?

A. Electronic and Paper Formats

Submit all application materials in both paper and electronic format, according to the requirements stated below. The purpose of these requirements is to:

- Allow application materials to be more easily posted and reviewed online using the City’s new permit database (“Accela Citizen Access”).
- Reduce City staff expenses from having to scan application materials.
- Prepare customers for future on-line application submittal.
- Reduce electronic files to manageable sizes.

Requirements:

- Submission Format: All files must be submitted in PDF format on CD (not via e-mail or on USB drive).
- Electronic documents (i.e., created using a computer program such as Microsoft Word, Excel, or AutoCAD) and digital photographs shall be converted to Adobe PDF format using “Save As PDF” or “Print As PDF” commands.
- Non-electronic (e.g., typewritten or handwritten) documents shall be converted to PDF format by scanning.
- Resolution:
 - Text documents: 100 to 150 DPI/PPI. (If converting electronic document to PDF, use “standard” setting in Adobe Acrobat, or 144 DPI setting in Cute PDF Writer.)
 - Plans, photos, and other graphics: 300 DPI/PPI. (To reduce file size, disable editing capabilities, “flatten” all layers¹, and use “Reduced Size PDF” function when available.)
- Total Size:
 - If total size of all PDFs is 20 MB or less, combine all documents into a single PDF file.
 - If total size exceeds 20 MB, combine documents from Section I (e.g., application form, applicant statement, pre-application poster) into a single PDF, and submit all other documents as separate PDFs.
 - If you do not have access to software which allows multiple PDFs to be combined (e.g., Adobe Acrobat Pro), submit individual PDF files and City staff will combine them.

¹ “Flattening” the files means the individual “layers” that often comprise large architectural and engineering plan sets are reduced down to one layer. As a result, the PDF file becomes much smaller and therefore more easily managed. For more information on PDF “flattening”, please visit <http://helpx.adobe.com/acrobat/kb/printing-complex-pdfs-acrobat.html>.

B. Zoning Project Application Form ---

Form available online at:

http://www.cityofberkeley.info/uploadedFiles/Online_Service_Center/Planning/Zoning%20Project%20Appl%20Form_05-23-2012.pdf

C. Fees ---

Submit required fees to the cashier in the Permit Service Center

Fee schedule available online at:

[http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/Fee%20Schedule%202011-06-16\(1\).pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/Fee%20Schedule%202011-06-16(1).pdf)

D. Applicant Statement ---

Submit a written statement (on separate 8½" x 11" paper) that briefly describes the proposed project and how it satisfies the findings required by Section 23C.17 of the Zoning Ordinance. For applications to modify a prior permit, described the proposed changes from the approved project.

- _____ **1. Description of Coverage Area** – Provide a narrative identifying the coverage area needing improvement. Specify area boundaries using street names or intersections. Provide maps of coverage from applicant’s existing and proposed (existing plus proposed) facilities (refer to Item IV.F-G, below for detailed map requirements).

- _____ **2. Statements Related to Need** – Describe, in the least ambiguous terms possible, why the proposed site is necessary, and why it is the most appropriate location under the circumstances. The statements shall be quantified and verifiable. Statements such as: “the area to be served by the proposed site now suffers 20% more dropped calls than the average for the entire Bay Area”; are preferred rather than statements such as “coverage is weak in the proposed coverage area”.

If the facility would not be co-located with an existing wireless facility, state the reasons why co-location is not feasible. The applicant shall state that they agree to allow future co-location on the subject property subject to a determination of feasibility and approval of all necessary permits.

Provide the locations of all alternative sites considered and the reasons why the applicant did not consider the alternatives feasible.

- _____ **3. Description of Services** – Provide a description of the services the applicant proposes to offer or provide in conjunction with the proposed site.
- _____ **4. Visibility** – Provide a description of the methods that would be used to ensure that the wireless facility would not be readily visible. If it is not feasible to incorporate measures that would make the facility not readily visible, provide an explanation of why (also refer to Item IV.E, below for photo simulation requirements).
- _____ **5. Third Party Evaluation Statement** – Provide a statement that the applicant would pay the reasonable actual cost and administrative fees for the hiring of an independent qualified engineering consultant to evaluate any technical aspect of the proposed site, and that the applicant would provide to the engineer any information necessary to perform the evaluation. Proprietary information may need to be provided to the independent qualified engineer following the initial application submittal to verify need for the facility. Such information shall be excluded from the public record as provided for in Section 23C.17 of the Zoning Ordinance. A deposit of \$5,500 for third party review should be submitted with application. The check should be payable to the “City of Berkeley” and separate from any other checks submitted for payment/deposit. Refer to general cost proposal for engineering review for more information.
- _____ **6. Noise Data** – Identify any equipment that may generate noise effects, such as air conditioning equipment, and provide manufacturer noise specifications for proposed equipment and/or noise measurements conducted for similar equipment. Provide a statement that the applicant would pay the reasonable actual cost and administrative fees for the hiring of an independent qualified acoustic consultant to prepare or independently review an acoustic report on the equipment. A deposit of \$4,500 for preparation of acoustic report (by City appointed consultant, no third party review required), or deposit of \$1,500 for third party review of an acoustic report prepared by applicant, should be submitted with the application. The check should be payable to the “City of Berkeley” and separate from any other checks submitted for payment/deposit. Refer to general cost proposal for noise study for more information.
- _____ **7. Assurance of Removal** – Provide a statement that, prior to obtaining a building permit to erect or install the proposed facility, the applicant shall either secure a bond or provide financial assurances, in a form acceptable to the City Manager, for the removal of the facility in the event it is abandoned or the approval is otherwise terminated.

E. Pre-Application Poster

Submit a color photo of the pre-application poster installed at the front of the site in accordance with the following guidelines (note that if the site abuts more than one street, additional signs will be required for each frontage).

Guidelines available online at:

http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/GuidelineI.E.Pre-AppSignInstructions.pdf.

Sample signs available online at:

Modification of Existing Sites:

http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/GuidelineI.E.Pre-AppSignSample_SmallProjects.pdf

All others:

http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/GuidelineI.E.Pre-AppSignSample_LargeProjects.pdf

F. Plans – General Requirements

1. Number of Plan Sets / Minimum Scale (Hard Copies):

- Two (2) sets at 11" x 17" or 12" x 18". Must meet minimum scale of 1/16" for site plan and 1/8" for all other drawings. If site or building is too large to fit on sheets at minimum scale, provide one (1) additional larger set meeting minimum scale.
- One (1) reduced set at 8½" x 11" (minimum scale not required).
- **For Use Permit applications only**, fifteen (15) additional 11" x 17" or 12" x 18" sets must be submitted at least two weeks prior to the hearing, or as requested by the project planner.
- Additional plan sets may be required by the project planner, if necessary to facilitate project review.
- **Plans must be clear and legible.**

2. Site Plans

- _____ 1. Site plans and elevations drawn to scale.
- _____ 2. The number, type, power rating, frequency range and dimensions of antennas, equipment cabinets or shelters, and related ancillary equipment proposed to be installed.
- _____ 3. The means used to secure all equipment and antennas to prevent movement or damage as a result of windstorms or earthquakes.

- _____ 4. Detailed plans and elevations for antennas and antenna mounts.
- _____ 5. Detailed plans for screening the site from public view, including sample exterior materials and colors.
- _____ 6. Where applicable, a plan showing existing and proposed landscaping, a landscape protection plan for construction, and landscape maintenance plan (including irrigation).
- _____ 7. Building Elevations

Required for projects with exterior changes. Must show the following:

- Depict all exterior features and openings, including finishes and materials.
- Indicate average building height (as defined by Zoning Ordinance; see link below), finished floor elevations, and grade.
- Where appropriate, show adjacent features such as fences, landscaping, and other buildings and property lines.

A diagram showing how height is calculated under the Zoning Ordinance is available online at :

http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/Guideline_IID_Building_Height_Instructions.pdf

G. Hazardous Waste and Substances Statement

Required for all projects (including residential).

Available online at:

http://www.cityofberkeley.info/uploadedFiles/Online_Service_Center/Planning/Guideline%20II.E%20Hazardous%20Waste%20and%20Substances%20Statement.pdf

H. Tabulation Form

Required for all projects except commercial changes of use (unless determined necessary by the project planner). Incorporate the form into plan set (on cover sheet, if possible) or provide a similar summary of compliance with applicable development standards and other relevant project data.

An example is available online at:

http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/Tabulation_Form.pdf

I. Current Licenses and Approvals ---

Provide copies of all licenses and approvals required by the Federal Communications Commission (FCC), the California Public Utilities Commission (PUC) and any other agency of the Federal or State government that are applicable to the proposed site.

J. Radio Frequency Exposure Determination ---

Provide a report, including engineering calculations, demonstrating that the proposed facility will comply with Federal Communications Commission (FCC) and Occupational Safety and Health Administration (OSHA) requirements for occupational and non-occupational exposure to radio frequency electromagnetic fields. This report shall be prepared by an independent licensed engineer and follow RCC Consultants' Guidelines for RF EME Reports (2015), attached here to for reference.

K. Photo Simulations ---

Provide before and after photo simulations, and a map depicting where the photos were taken.

L. Maps and Data of Existing Coverage Area ---

1. Provide Coverage Plots of area without proposed site:
 - a. In vehicle coverage.
 - b. In building coverage.
2. Provide Drive Testing Plots of existing coverage area:
 - a. Location of existing sites.
 - b. In vehicle down link Received Signal Strength Indication levels. (RSSI).
 - c. In vehicle up link levels.
 - d. Frame Erasure Rate (FER) data or Pilot Strength (E_c/I_0).
 - e. Drop calls data.
 - f. Block calls data.
3. If required, a network drive may be requested (witnessed by independent engineer) to verify that the submitted data is accurate.

Note: Plots should be submitted on 8 1/2 x 11" paper and include legend correlating grayscale shades used to specific signal levels or percentage as used by the applying applicant's engineering department.

M. Maps and Data of Proposed Coverage Area

1. Provide Coverage Plots of with proposed site.
 - a. In vehicle coverage.
 - b. In building coverage.
2. Provide Drive Test data of proposed site.
 - a. Using Continuous Wave (CW) transmitter.
3. Provide the following data:
 - a. Projected Minutes of Use (MOUs) at the new site.
 - b. Projected Minutes of Use (MOUs) for the affected cluster of sites (indicate increase or decrease).
 - c. Projected drops for the affected cluster of sites (indicate increase or decrease).
 - d. Projected blocks for the affected cluster of sites (indicate increase or decrease).

Note: Plots should be submitted on 8 1/2 x 11” paper and include legend correlating grayscale shades used to specific signal levels or percentage as used by the applying applicant’s engineering department.

N. Certification of Facilities

Prior to January 31 of every year, an authorized wireless carrier providing service within the City of Berkeley shall provide a written Certification of Facilities letter as outlined in Section 23C.17.090.A.2 of the City Zoning Ordinance.

Authority:

Ord. 7073-NS § 2, 2009, City of Berkeley, California
Sections 23C.17.010 through 23C.17.110 of the Zoning Code of the City of Berkeley, California



Guidelines for RF EME Reports

The applicant is required to submit a Radio Frequency – Electrical Magnetic Energy (RF EME) study to the City as part of the zoning/land use application process. In order to have a clear understanding of the requirements of the applicable code and the requirements for the RF EME study, the following matters should be completely addressed in the applicants RF EME report or construction drawings as noted below:

- 1) The applicant must address both Controlled and Uncontrolled exposures as defined by the FCC in all areas. This includes:
 - a) Behind the antennas
 - b) On any building levels above or below the antennas by 12 feet
 - c) In front of the antennas
 - d) On the roof surface (sloped shingle or flat)
 - e) On or in any adjacent structure within 30 feet
- 2) If access to the uncontrolled population is restricted by means of a lock, the controlled environment must still be addressed inside the locked area. This includes workers that may maintain equipment on the roof, or the building itself.
- 3) For uncontrolled exposure areas that are publicly accessible (i.e. Unlocked access), the applicant must provide a signage and barrier method for the uncontrolled areas to protect the public that might stray to the area.
- 4) For controlled access areas, the applicant must provide a signage plan that clearly notified trained personnel where the hazard exists and marks or floor painting the identified same. A sign that marks an area where levels are routinely expected above the Controlled level threshold must use the “Red sign” as this clearly states the levels are above the limit. The use of lesser signage saying levels “may” exceed is not permitted in this situation.
- 5) For controlled access areas, a site specific safety plan is required. This can be as simple as a sign that clearly states what must be done to mitigate the hazard while working there. Use of the words “May” and “Can” are not permitted. The sign must clearly state required steps to be taken. These are not optional steps!
- 6) A scaled diagram must be submitted of all areas where RF EME levels exceed the controlled or uncontrolled levels. This can be part of the construction drawings or the RF EME study. Signage should be marked on this drawing as well as barriers and surface markings.
- 7) Use OET65 Criteria for calculations.

The objective of the City is to assure compliance with FCC rules for RF exposure. The applicant must provide this information in order for the site to be considered. Failure to provide this information will result in delays in processing the application. The least intrusive, but still compliant methods are preferred!