



## City of Palo Alto

Public Works Engineering  
Phone: 650/329-2151 FAX: 650/329-2240  
www.CityofPaloAlto.org

## Map and Record Drawing Submittal Guidelines

*The following are guidelines for the tracking and submittal of map and as-built record drawings for public and private projects.*

Public Works has formalized the standards for the tracking and submittal of project record documents. These standards will apply to both private and public projects. Typical standards are provided for projects at various stages of development including planning review, design, construction and project closeout. The standards for each of these project phases follow:

### **The submittal standard (condition) for a project subject to Planning Review is as follows:**

The Applicant shall submit to the Public Works Engineering Division one (1) archival quality mylar reproducible set of drawings marked “as-built” or “record drawing” for the permitted work in the public right-of-way and on-site easements as actually constructed. These drawings shall also show all on-site underground storm drain and utility improvements and their connection with City systems. Archival quality record documents shall be printed by laser printer on minimum 4 mill thickness opaque mylar with a 30”x42” maximum sheet size. A similar quality mylar shall be submitted for any tract or parcel map required for the project. The mylar map sheets shall be sized 18” x 26” as required for recordation. A digital AutoCAD (\*.dwg) file of the completed work (and/or map) on CD or DVD shall also be provided in a form that will expedite import of this information into the City’s Geographic Information System (GIS). This digital submittal must comply with Public Works-Engineering and Administrative Services-Information Technology requirements. The digital copy of the map shall be submitted concurrent with the mylar map and prior to map signature by Public Works. The digital file submittal of the map will not be required for plat maps associated with certificates-of-compliance or separately dedicated easements.

### **In the public project design contract and/or construction contract specification and in private land development permit conditions include the following paragraphs:**

**As-Built/Record Drawings** – The contractor shall prepare redline markups of any installed improvements that are at variance with the approved plans. This should be done for all improvements in the public right-of-way and on-site easements. These red-line drawings shall be delivered to the project architect or engineer who shall prepare the project as-built record drawings. A stamped & signed copy of these as-built record drawings printed by laser printer on Mylar (minimum 4 mill thickness opaque mylar with a 30”x42” maximum sheet size) shall be delivered to the City Public Works Engineering Division to serve as a permanent archival quality record of the work. A digital AutoCAD (\*.dwg) file of the completed work on CD or DVD shall also be provided in a form that will expedite import of this information into the City’s Geographic Information System (GIS). All record drawing information shall be entered into the drawing file as vector based graphic elements.

**Electronic Submittal of As-Built Record Documents:**

The submittal of electronic documents shall take the form of AutoCAD files in .dwg format, with one CAD file for each of the submitted hardcopy documents (xrefs should NOT be bound to each drawing). The electronic documents must match the hardcopy documents exactly (excluding any stamps required on the hard copies), and be accompanied by a transmittal letter which clearly identifies the project represented. Electronic submittals are acceptable on media such as CDs (preferred) or DVDs in AutoCAD 2000+ format. Record Documents cannot be accepted via email or FTP. Requirements for electronic submittals are as follows:

**a. Drawing Format:**

Drawings shall be in AutoCAD 2000 DWG format or later. Files in DXF and DWF format are not acceptable. PDF or TIF files may accompany the submittal, but may not be submitted in lieu of DWGs. If converting from a format other than DWG, ensure all vector based graphic elements are preserved.

**b. Datums**

Drawings shall be NAD 83 (1988 adjustment) California State Plane Zone III US Foot horizontal and NAVD88 vertical. Drawings shall be in 2D with  $z = 0$  feet.

**c. Transmittals:**

All files must be marked As-Built or Record Drawing and this note should be inserted into each CD delivery.

For each CD delivery, a simple digital text file will need to accompany the files. This is called a Metadata file and will include the date of the file, the coordinates used, the source of the data, the company name and contact information, along with the name of the technician who prepared them.

**d. CAD File Drawing Features:**

See next sheet.

**d. CAD File Drawing Features:**

**Include the following features (if available/applicable), labeling each file as indicated by the *italic text*:**

**1. *Public Improvements* in ROW (new and existing)**

Back of Curb  
Face of Curb  
Lip of Gutter  
Sidewalk  
Planter/Tree Strip  
Driveway approaches  
Sub-grade encroachments  
ADA ramps/parking spaces  
Traffic Striping & Symbols

General/Base Map  
Property lines  
Monuments

**2. *Site Development* (new only)**

Building(s), outline  
Surface parking

General/Base Map  
Property lines  
Monuments

**3. *Public Utilities (WGW new and existing)***

Laterals...

General/Base Map  
Property lines  
Monuments

**4. *Public Utilities (L&P new and existing)***

Laterals...

General/Base Map  
Property lines  
Monuments

**5. Storm Drain System (new and existing)**

**Pipes (w/ size, material, shape, strength class, length, and invert elevations)**

**Catch Basins (w/ City standard type, grate elevation, and invert elevation)**

**Manholes (w/ City standard type, rim elevation, and invert elevations)**

**Wye/Tee (w/ saddle connection information, and invert elevation)**

**Outlet (w/ headwall type and invert elevation)**

**Inlet (e.g. rainwater leader location)**

General/Base Map

Property lines

Monuments

**6. Final Map**

Each Sheet

General/Base Map

Property lines

Monuments

**7. Cadastral COGO (new and existing)**

Assessment Parcel boundaries

Subdivision boundaries

Lot lines

Right-of-ways

Easements

Monuments

Dimensions, bearings, and references to other recorded documents should also be included.

A sample map illustrating these features is attached.