



CITY OF LOMPOC
DEVELOPMENT ASSISTANCE
BROCHURE

E-10

ENCROACHMENT PERMITS AND PUBLIC IMPROVEMENT PLANS

The City of Lompoc has determined that the Engineering Division should administer and issue Encroachment Permits under the authority of the Lompoc City Code and the City of Lompoc Construction Standards. The Engineering Division has prepared the following information to facilitate the processing of these permits. Additional information required for public improvement projects and related plans may be found in other City of Lompoc Development Assistance Brochures (hereafter *DAB*).

Administrative Information

1. Encroachment Permits are required for all work within public right-of-way or easement. Work includes but is not limited to:
 - a. Street paving, curbs, gutters, sidewalks, walkways, parking bays, bikeways.
 - b. Water lines, cable television, gas, electric and other utility services to serve each lot.
 - c. Sanitary sewers and laterals to serve each lot, extended to the lot line.
 - d. Storm sewers, drains, and channel improvements.
 - e. Slope planting, retaining walls, and other forms of erosion control.
 - f. Street tree wells.Contact the Engineering Division for additional information regarding when Encroachment Permits are required.
2. Fees for Encroachment Permits are taken from current City of Lompoc Fee Schedules.
3. Each complete application for an Encroachment Permit shall contain the following items:
 - a. Four (4) copies of the Public Improvement Plan on 24-inch x 36-inch paper. See the following Public Improvement Plan Requirements for information required to be included on these plans.
 - b. An itemized Engineer's cost estimate for construction of the required public improvements. The Engineer's cost estimate will be used for determining the Encroachment Permit Fee.
 - c. A certificate of insurance with a responsible carrier insuring the applicant and the City against liability for damages to persons or property arising out of the work covered by the permit. Encroachment Permit insurance requirements are available at the Engineering Division.

Public Improvement Plan Requirements

1. Street Improvement Plans shall be provided on separate plan sheets that do not contain the onsite improvements for a private development, and shall be submitted with the first submittal of civil engineering plans for private developments.
2. All Street Improvement Plans for the construction of streets, and related water, sewer, and stormwater drainage systems shall: bear a title showing the name of the street improvement project;

the name of the Owner (the City of Lompoc); the name, mailing address, e-mail address, professional civil engineering seal, the signature of the design engineer, the date of expiration of the seal, and the date the seal was signed.

3. The cover sheet and all subsequent plan sheets shall include the same general title block, and consecutive sheet numbers. The title block shall be located in the lower right hand corner of the landscape mode drawing.
4. A vicinity map shall be provided on the cover sheet that clearly shows the location of the subject street improvement with respect to other public streets, other parcels and other adjacent developments.
5. When the street improvement project is complex, then the cover sheet shall include an index drawing showing which plan sheets are related to which portion to the entire project.
6. All Street improvement Plans submitted to the City shall be on 24-inch x 36-inch 3 MIL Mylar with a 2-inch margin on the left and a 1-inch margin on all other sides. Plans shall be drawn using permanent drafting ink, and drawn to an engineering scale (i.e. 1"=20', or 1"=30', for example, not 1/8"=1', or 1"=20'). The horizontal scale shall be not more than 50 feet to the inch (1"=20' is preferred), and the vertical scale shall not be more than 10 feet to the inch (1"=2' is preferred, but vertical scales shall generally be exaggerated by a factor of 10 from the horizontal scale.) All plans shall contain a scale bar to facilitate plan size reductions, and a north arrow. NOTE: North arrows on plans shall either point to the top of the page or to the right side of the landscape mode page only.
7. Where modifications to existing streets and associated utilities are to be constructed, new features shall have darker lines, and existing features shall have lighter lines (or existing features shall be "screened", or "ghost-lined".)
8. A suitable legend shall be provided to the applicable plan sheets. Standard APWA symbols shall be used where possible to facilitate City review and approval of the plans, and to facilitate ease of use by the Contractor and the City inspectors after the project is out to bid, and/or the project is under construction.
9. The City does not encourage and may refuse to accept plan sets that are determined to be too cluttered, or too "busy", as determined by the City.

10. The cover sheet of the plans shall contain a Record Drawing Certification to facilitate the review and approval of the required Record Drawings for Street Improvement Plans. The Certification shall conform to the following:

“I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS, AND RECORD DRAWING COMMENTS ACCURATELY REFLECT EXISTING FIELD CONDITIONS AND MATERIALS ACTUALLY USED DURING CONSTRUCTION. THIS CERTIFICATION IS BASED ON MY PERIODIC FIELD OBSERVATIONS AND THE CONTRACTOR’S REPRESENTATIONS OF THE FACILITIES AS CONSTRUCTED.”

PE Stamp / PLS Stamp
Expiration Date, Date Signed & Signature

See item 30 below for additional Record Drawing requirements.

11. Street Improvement Plans will include street right-of-way, lengths, and bearings along said right-of-way. Street Improvement Plans will also include adjacent property lines, and a suitable identification of the abutting parcels.

Horizontal Street plans shall include the following items at a minimum:

12. Vertical and Horizontal Datum - In conformance with Chapter 27, Section 2774.E of the Lompoc City Code, the Improvement Plans, including but not limited to, grading, water, sewer, streets, electrical system, and other surface and subsurface improvements, shall be prepared based upon the control monuments as established by the City of Lompoc Coordinate Control System by Record Of Survey filed August 22, 2003, in Book 172, Pages 4 through 7, Santa Barbara County Records. All drawings, improvement plans and survey maps shall be prepared in accordance with the requirements currently in effect, with the additional requirement that all said drawings and improvement plans shall be delivered in a computer format readily compatible for transfer to the City Geographic Information System. The following computer formats are acceptable for delivery: DGN (native Microstation); DWX (same as or less than Version 14); DXF.

13. Street and associated utility alignments shall read from left to right, and shall include the stations and City coordinates of all centerline Point of Curvatures (PC), Point of Intersections (PI), and Point of Tangency (PT), and centerline intersections. All street and associated utility alignments shall be tied to City Coordinates and shall also include all necessary horizontal curvature data necessary to stake the horizontal alignment in the field. In addition to the PC, PI, and PT, the centers of all horizontal curves shall also be indicated with City Coordinates.

14. Existing and design elevations shall also be referenced to the City Coordinate Control System, and the used City Bench Mark shall be identified on the plan set using the City Bench Mark Number, elevation, and description of the Bench Mark.

15. Right-of way lines, property lines, and easement lines for existing and proposed improvements. Public and private streets shall be identified by name. Adjacent lots shall be identified by site address and legal description; and Lot numbers shall identify lots within subdivisions. Include any other information that would prove useful to facilitate field locations in the future.

16. All plan sheets shall contain sufficient topographic features within and adjacent to the proposed street improvement and/or associated utility improvement to assess impacts of slopes, drainage, access, the feasibility of future extensions, availability of service connections, etc.
17. All existing and proposed public and private overhead and underground utilities, including, but not limited to, all appurtenances for: telephone, television cable, electrical power, natural gas, fiber optic cables, water, stormwater management facilities, sanitary sewer. All telephone, television cable, fiber optic cables, and electrical lines shall be clearly shown to be underground or overhead.
18. All existing and proposed drainage facilities, including gutters, culverts, catch basins, ditches, swales, etc., shall include the direction of flow, size, diameter, type of materials, invert and rim elevations.
19. Curb return elevations shall be shown at quarter points (for radii 35 feet and smaller), and at fifth points for radii larger than 35-feet at a minimum, to verify direction of flow for drainage and to assess the smoothness of pavement transitions through the horizontal and vertical curves.
20. Each plan sheet shall contain at least two sets of coordinates based upon the City's Coordinate Control System to facilitate subsequent City entry into the City's Geographic Information System (GIS).

Profile Plan sheets shall include the following items at a minimum:

21. Street Profiles will include all the profiles of the sanitary sewer, water mains, storm drain pipes, and other street related utilities to facilitate the assessment of potential vertical conflicts.
22. Both existing and finish grade centerline profiles shall be given for street improvements. The existing profiles shall include all grade breaks, and other topographic features and information relevant to assess the street improvement design.
23. The finish grade elevations shall be shown with the same horizontal profile, and unless otherwise approved, the profiles shall be drawn directly under the plan views to facilitate assessment of the street improvement design.
24. Street profiles shall include centerline elevations: at all full and half station intervals at a minimum; at all Vertical Point of Curvature (VPC), Vertical Point of Intersection (VPI), and Vertical Point of Tangency (VPT), and all low and high points along all vertical curves.
25. Where streets are designed with horizontal curves requiring superelevations, secondary profiles are required for both sides of the street within the super elevation portions of the street.
26. All vertical curves shall include the length of the vertical curve (LVC) in feet, and the K value used to establish the length of the vertical curve. ($K \times A = LVC$, where A is the algebraic difference percent of the two grades which meet at the center of the vertical curve.)

27. Sanitary sewer and storm drain profiles shall include the following information at a minimum:
- a. Pipe slopes (to enough decimal points that the calculation for pipe length multiplied by the slope in decimal form shall provide the difference in elevation between two adjacent inverts for the same pipe to a hundredth of a foot), pipe materials, pipe diameters, pipe lengths, rim and invert elevations, manhole and/catch basin locations, City Identification Numbers, and all other relevant design information.
 - b. All profiles shall use a vertical scale which is 10 times the horizontal scale: i.e. if the horizontal scale for a street improvement project is 1"=20', then the vertical scale will be 1"=2' for that project.
28. Standard Notes, as contained in *DAB #E-40, "General Notes"* and *DAB #E-60, "General Public Improvement Notes,"* shall be included with each set of plans. Specific General Notes that do not directly apply to the subject project shall not be listed.
29. Refer to *DAB #E-80, "Checklists For Completeness of Engineering Plans, and Report Submittals,"* for additional information and notes to be included on Public Improvement Plans.
30. Record Drawings (As-Built Plans) are required for all Public Improvement Plans. See *DAB #E-30, "Record Drawings,"* for the information that is required on these plans.