



CITY OF LOMPOC
DEVELOPMENT ASSISTANCE
BROCHURE

E-80

**CHECKLISTS FOR COMPLETENESS OF
ENGINEERING PLANS, AND REPORT SUBMITTALS**

Since time is most often of the essence to the Applicant, and additional review time for the same development by the City results in less timely reviews for other projects, the Engineering Division has prepared this *Checklist For Completeness* (hereinafter referred to as *CFC*) to facilitate the preparation of plans and reports by the Applicant, and the subsequent review and approval of these of these plans and reports by the Engineering Division. This *CFC* is designed to be an aid in the preparation of all engineering submittals, and each box indicates a separate item that must be provided for the subject plan or report. The Engineering Division may use a modified form of the *CFC* to indicate where submittals are inadequate rather than providing detailed red-line comments on the plans and report by the red-line method.

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DETAILED GRADING PLANS

(Prepared By Licensed Civil Engineer or Architect)

- Grading in excess of 5,000 cubic yards shall require a Detailed Grading Plan prepared by a professional civil engineer or architect licensed in the State of California, and meeting the requirements for “engineered grading”, as defined in Appendix J of the 2007 2001 California Building Code.
- Grading involving less than 5,000 cubic yards, but more than 500 cubic yards shall require a Detailed Grading Plan prepared by a professional civil engineer or architect licensed in the State of California, and these plans shall meet the requirements for “regular grading”, as defined in Appendix J of the 2007 2001 California Building Code.
- Grading involving more than 50 cubic yards, but not more than 500 cubic yards shall require a Detailed Grading Plan prepared by a professional civil engineer or architect licensed in the State of California, unless the City Engineer determines that the grading is in an isolated, self contained area where there is no danger to private or public property, or that the grading is of the type and scope usual and customary for a single-family residence, in which case the plans may be prepared by any person the City Engineer deems able to present the information required for a Grading Plan.
- Grading involving more than 50 cubic yards for a project shall require a complete Grading Permit.
- Applications for a Grading Permit shall be accompanied by four sets of Grading Plans and one set of supporting Soils Engineering Reports, and/or Engineering Geology Reports, signed and dated, and where applicable, stamped, by the responsible party who prepared them.
 - An approved Soils Engineering Report or an approved Engineering Geology Report, or both, is required for any cut intended to be steeper than two horizontal to one vertical that will support structures.
 - An approved Soils Engineering Report or an approved Engineering Geology Report is required for any cut or fill within steep or unstable slopes.
- Detailed Grading Plans shall be drawn to an engineering scale (1” = 20’ is the preferred scale; and 1” = 50’ is the largest permitted scale) and shall be of sufficient clarity to fully indicate the extent of the work proposed. These plans shall include sufficient detail(s) to ensure that the work will conform to all applicable City standards and regulations.
- Each plan sheet of the Detailed Grading Plans shall be prepared on 3 MIL Mylar and will be 24-inches by 36-inches in size, with a 2-inch margin on the left and a 1-inch margin on all other sides. All text and details shall be of sufficient size as to be easily read and understood.
- Plans shall be drawn using permanent drafting ink.
- In conformance with Chapter 27, Section 2774.E of the Lompoc City Code, the Detailed Grading Plans 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.

- The first sheet of each plan set shall give the location of the work, the name, mailing address and e-mail address of the owner, and the name, mailing address, e-mail address, and phone number of the person who prepared the Detailed Grading Plans.
- The Detailed Grading Plans shall include the following information, signature blocks and notes:
 - o General Notes (See Development Assistance Brochure E-40)
 - o General Grading Notes (See Development Assistance Brochure E-50)
 - o General Parking Lot Notes, If Applicable (See Development Assistance Brochure E-70)
 - o Sheet Index (if more than two plan sheet)
 - o Title Block (on each plan sheet)
 - o Development Engineer's Signature Block (on each plan sheet)
 - o Revision Block (on each plan sheet)
 - o City Signature Blocks:

■ Place The Following Signature Block On Each Grading Plan Sheet:

On-Site Grading reviewed to be in conformance with Appendix J, of the 2007 C.B.C.	
_____ City Engineer	_____ Date

■ Place The Following Signature Blocks On The Cover Sheet:

Reviewed By:	
_____ Community Development Dir.	_____ Date

Concrete/Block Walls & Retaining Walls Approved By:	
_____ Fire Marshal / Building Official	_____ Date

(Use When Applicable)

- o Place Record Drawing Certificate On Cover Sheet:

RECORD DRAWING CERTIFICATION

"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."

Engineer's Signature Date: _____

(Engineer's Name)

R.C.E. _____ EXP. _____

o Additional Cover Sheet Notes:

These plans are for grading, drainage and public improvements (including water services and sewer laterals, from connection point at public main to property line). Any on site private utility lines, such as sewer laterals and water services, are being shown for grading (trenching) purposes only. Refer to the approved Architectural Plans to verify any on site private utility alignment and specifications shown on these plans.

All grading, drainage and public improvements are inspected by the City Engineering Division. The City Building Division performs inspection of all onsite private utilities.

The Contractor shall obtain a permit from the City Building Division prior to constructing concrete/block walls & retaining walls shown on these plans.

(Use When Applicable)

o Construction Notes/Legend (See Following Example):

LEGEND (Categorized By Permit Authority)

GRADING PERMIT

- PCC Curb per City Std. Dwg. No. 602
- 12"x12" Mid State CB W/Traffic Grate
- 12"x12" Mid State CB
- 6" PVC Drain Pipe
- Tie Drain Pipe To PCC Swale

ENCROACHMENT PERMIT

- ¾" Water Service Connection Per City Std. Dwg. No. 407
- Move Water Meter and Box To Behind Sidewalk
- Install 6" Water Meter
- Install Fire Hydrant Per City Std. Dwg. 411
- Construct PCC Access Ramp RD4 Per City Std. Dwg. 606
- Construct Sewer Manhole Per City Std. Dwg. No. 300

BUILDING PERMIT

- 6' Retaining Wall (See Detail "X" on Sheet "X")
- 4" Thick PCC Slab
- Sewer Clean Out (See Architectural plans to verify alignment & specifications)
- 2" Water Service (See Architectural plans to verify alignment & specifications)

- o A general vicinity map (including its own north arrow), that clearly shows the location of the development with respect to public streets and other parcels and developments.
- o Street names.
- o Property boundary clearly defined, and accurate contours of the existing ground, and details of terrain and area drainage.
- o Contours, 100 foot minimum beyond development property.
- o Street dimensions: Right-Of-Way, Pavement, etc.
- o Adjacent property labeled as to use: Agriculture, Pasture, Existing Subdivision Number, etc.
- o Limiting dimensions, elevations and finish contours to be achieved by the grading, and proposed drainage ditches, swales, and related interim and long-term construction features.
- o Detailed plans of all surface and subsurface drainage facilities, walls, cribbing, dams, and other protective facilities to be constructed with, or as part of, the proposed work together with a map showing the drainage area and the estimated amount of runoff of the area served by the drains.
- o Location of any existing buildings or structures on the property where the work is to be performed, and the location of any buildings or structures on land of adjacent owners within 15-feet of the property line or the limits of grading, or which may be affected by the proposed grading operations.
- o Recommendations included within the Soils Engineering Report and the Engineering Geology Report, when required, shall be incorporate in the grading plan and specifications, including typical cross section(s) identifying excavation under structures and pavement areas.
- o The dates of the soils engineering and the engineering geology reports together with the names, mailing address and e-mail addresses, stamps where applicable, and phone numbers of the firms or individuals who prepared the reports.
- o Limiting dimensions and depths of cut and fill.
- o Setbacks from top of cut slopes and from toe of fill slopes consistent with the provisions of Appendix J of the 2007 2001 California Building Code.
- o Terracing and drainage shall conform to the Drainage and Terracing provisions of Appendix J of the 2007 2001 California Building Code unless otherwise indicated on the approved Detailed Grading Plans.
- o Building setback lines, Native Growth Protection Easement (NGPE) Lines, wetland & wetland buffer tract lines, and stormwater tract lines.
- o Lot pad and finish floor grade.

SOILS / GEOLOGY REPORTS

- Soils Engineering Reports shall include the following:**
 - o Data regarding the nature, distribution and strength and other characteristics of the existing soil.
 - o Conclusions and recommendations for grading procedures and the design criteria for corrective measures, including buttress fills, when necessary, and opinions on adequacy for the intended use of site as affected by soils engineering factors such as stability of slopes and roof downspout infiltration systems.
 - o When slopes are steeper than two horizontal to one vertical, the Soils Engineering Report shall contain a professional engineer's opinion that the proposed cut will be stable and will not create a hazard to public or private property.
 - o The preparation date(s) of the Soils Engineering Report together with the names, mailing addresses, e-mail addresses, phone numbers, and professional stamps of the firms or individuals

who prepared the report.

Engineering Geology Reports shall include the following:

- o An adequate description of the geology of the site.
- o Conclusions and recommendations regarding the effect of geological conditions on the proposed development, and a professional opinion on the adequacy for the intended use of the site to be developed by the proposed grading, as affected by geologic factors.
- o When proposed cuts are steeper than two horizontal to one vertical, the Engineering Geology Report shall contain a geologist's professional opinion that the proposed cut will be stable and will not create a hazard to public or private property.
- o The preparation date(s) of the Engineering Geology report together with the names, mailing addresses, e-mail addresses, phone numbers, and professional stamps of the firms or individuals who prepared the report.

Public Improvement Plans

(Prepared By Licensed Civil Engineer or Architect)

- Public Improvement Plans shall be drawn to an engineering scale (1" = 20' is the preferred scale; and 1" = 50' is the largest permitted scale) and shall be of sufficient clarity to fully indicate the extent of the work proposed. These plans shall include sufficient detail(s) to ensure that the work will conform to all applicable City standards and regulations.
- Public Improvement Plans shall be drawn to scale and shall be of sufficient clarity to fully indicate the extent of the work proposed and shall show in detail that the work will conform to all applicable standards and regulations.
- Each plan sheet of the Public Improvement Plans shall be prepared on 3 MIL Mylar and will be 24-inches by 36-inches in size, with a 2-inch margin on the left and a 1-inch margin on all other sides. All text and details shall be of sufficient size as to be easily read and understood.
- Plans shall be drawn using permanent drafting ink.
- In conformance with Chapter 27, Section 2774.E of the Lompoc City Code, the Public Improvement Plans shall be prepared based upon the control monuments as established by the City of Lompoc Coordinate Control System, Record of Survey Book 172, Pages 4 through 7.
- The first sheet of each plan set shall give the location of the work, the name, mailing address and e-mail address of the owner, and the name, mailing address, e-mail address, and phone number of the person who prepared the Public Improvement Plans.
- The Public Improvement Plans shall include the following information, signature blocks and notes:
 - o General Notes (See Development Assistance Brochure E-40)
 - o General Public Improvement Notes (See Development Assistance Brochure E-60)
 - o Sheet Index (if more than two plan sheet)
 - o Title Block (on each plan sheet)
 - o Development Engineer's Block (on each plan sheet)
 - o Revision Block (on each plan sheet)
 - o City Signature Blocks:

■ Place The Following Signature Block On Each Improvement Plan Sheet:

Public Improvements Approved By:	
_____	_____
City Engineer	Date

■ Place The Following Signature Blocks On The Improvement Plan Cover Sheet (When Applicable):

Public Electric Improvements Approved By:	
_____	_____
Electric Utility Manager	Date

Trash Enclosures Approved By:	
_____	_____
Solid Waste	Date

Public Fire Lines and Hydrants Approved By:	
_____	_____
Fire Marshal/Building Official	Date

Public Water and Wastewater Improvements Approved By:	
_____	_____
Utility Director	Date

Public Trees Approved By:	
_____	_____
Urban Forester	Date

o Place Record Drawing Certificate On Cover Sheet:

RECORD DRAWING CERTIFICATION

"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."

Engineer's Signature Date:

(Engineer's Name)

R.C.E. _____ EXP. _____

- o General vicinity map (including its own north arrow), that clearly shows the location of the development with respect to public streets and other parcels and developments.
- o Benchmark.
- o Existing and proposed right-of-way limits, and accurate details of the surrounding terrain.
- o Horizontal and vertical scales.

- o North Arrows. For consistency, all north arrows shall point either to the top of the sheet or to the right hand side of the sheet only!
- o Clearly defined development boundary.
- o Street names.
- o Lots numbered and dimensioned per subdivision map.
- o Sheet numbering and cross-reference.
- o Reference to City standards.
- o Retaining and boundary walls with distance from property line.
- o Catch basins and curb outlets.
- o Limiting dimensions, elevations and finish contours to be achieved by the grading, and proposed drainage ditches, swales, and related interim and long-term construction features.
- o The location of any buildings or structures on the new or proposed right-of-way where work is to be performed and the location of any building or structures on adjacent parcels within 15-feet of the new right-of-way lines or the limits of grading – whichever is greater – when such structures may be effected by the proposed public improvements and associated grading operations.
- o The curb return data (radii, delta, arc length and tangent) and the elevations of one-quarter points for radii up to 35-feet, or one-fifth points along curb returns having a radii grater than 35-feet.
- o All the stormwater management, water main and water connections, water meters, sewer and sewer connections and appurtenances shall be shown in both plan and profiles to facilitate the City’s review of utility conflicts.
- o Improvement Plan sheets showing public water facilities shall include an itemized schedule that shows all water meter requirements for the project. The schedule shall identify water meter quantity, size and plan sheet where meter is shown.

EXAMPLE

Water Meter Requirements:			
Meter Type	Meter Size	Quantity	Plan Sheet #
House	¾" x ¾"	24	5 of 20
Irrigation	1.5"	2	4 of 20

- o A street cross section that clearly shows: the street width; structural information for the asphalt concrete, and for cement concrete sidewalks, bike lanes, pedestrian walkways; and all other street related features.
- o The horizontal alignment of the public streets and associated private streets having access to the public street system. The horizontal alignment information shall include, but is not limited to: the basis of bearings, the City coordinates of at least two horizontal control points used to establish the basis of bearings and initial project coordinates; the bearings and lengths of all centerline tangents; and the radii and arc lengths of all horizontal curves along the public street.