

SECTION 2
GENERAL REQUIREMENTS

CONTENTS	Page
2-1 Engineer Required	2-2
2-2 Plans Required	2-2
2-3 Reference to City Specifications	2-2
2-4 Work in City Rights of Way, Easements, and Waterways	2-2
2-5 Initial Plan Submittal Requirements	2-3
2-6 Improvement Plan Resubmittal	2-4
2-7 Plan Review and Inspection Fee	2-4
2-8 Plan Approval	2-4
2-9 Approved Plans Required	2-4
2-10 Improvement Plan Revisions During Construction	2-5
2-11 Record Plans	2-5
2-12 Conflicts, Errors, and Omissions	2-7
2-13 Change in Consulting Engineer	2-7
2-14 Incorporated Area Sewer Submittals	2-7
2-15 Sewer Annexation Requirements	2-8
2-16 Boring and Jacking Safety Requirements	2-8
2-17 Existing Utilities	2-8
2-18 Partial Plans	2-9
2-19 Other Agency Notifications	2-9
2-20 Inspection Requirements	2-9
2-21 Commercial/Private Property Inspection Requirements	2-10
2-22 Special Notices and Permits	2-10

SECTION 2
GENERAL REQUIREMENTS

2-1 ENGINEER REQUIRED

All plans and specifications for improvements which are to be accepted for maintenance by the City and private, on-site drainage and grading, shall be prepared by a Consulting Engineer of the appropriate branch of engineering covering the work submitted.

2-2 PLANS REQUIRED

Complete plans for all proposed streets, bikeways, grading, erosion control, drainage facilities, sewerage, street lighting, water distribution systems, including any necessary dedications, and easements, shall be submitted to Public Works for approval. Copies of rights-of-entry obtained from adjacent properties, if required, shall be provided to Public Works prior to a pre-construction meeting being scheduled.

2-3 REFERENCE TO CITY SPECIFICATIONS

The General Notes of all plans shall include the following note:

“All construction and materials shall be in accordance with the latest edition of the City of Elk Grove Standard Construction Specifications.”

2-4 WORK IN CITY RIGHTS-OF-WAY, EASEMENTS AND WATERWAYS

The following shall govern work done within City rights-of-way, easements, and waterways:

- A. Possession of a complete set of City-approved improvement plans shall allow a contractor, duly licensed by the State of California, to perform work specified on the plans in City right-of-ways, easements and waterways. The contractor shall be bonded as required and as specified in the City Code.
- B. Possession of a valid encroachment permit issued in accordance with City Code and the City encroachment permit policy, as adopted by the City Council will allow a contractor, duly licensed by the State of California, to perform work specified in the permit in City rights-of-way.

2.5 INITIAL PLAN SUBMITTAL REQUIREMENTS

The initial submittal of improvement plans shall be made to the Public Works Department. The submittal requirements as of January 2007 are shown below; however, these requirements may be adjusted from time to time. Please refer to the City of Elk Grove web site (www.elkgrovecity.org) for current submittal requirements.

- A.** Seven (7) sets of plans, complete and in accordance with these Improvement Standards and the Standard Construction Specifications, along with any specifications, computation, test data, and other material requested by the Director.
- B.** Two copies of the off-site and on-site watershed map as well as drainage calculations in accordance with Section 9.
- C.** Two additional copies of the street lighting plan to be used for block numbering on street name signs and street names.
- D.** One copy of the final “Conditions of Approval” for all rezones, subdivision approvals, variances, use permits, and any other discretionary planning actions for the subject site and development.
- E.** Soils Report
- F.** The names, addresses and telephone numbers of the developer and the engineer.
- G.** Utility letters in accordance with Section 2-17.
- H.** Copies of permits as required by other agencies.
- I.** Project Billing Information form.
- J.** Letter of Authorization, as needed.
- K.** Plan review deposit.
- L.** Engineer’s Estimate.
- M.** Title Report with Schedule B documents, as needed.
- N.** Two (2) approved tentative maps and/or approved site plans.

Should there be required alterations or revisions to the plans as submitted, the Director will return one copy with the corrections marked or indicated thereon. If the plans submitted are not prepared in accordance with these Improvement Standards or are not in keeping with the standards of the profession, the Director may return them unmarked and unapproved. Separate submittal of plans to other agencies may be required for approval.

2-6 **IMPROVEMENT PLAN RESUBMITTALS**

The Director shall indicate the number of plan sets to be resubmitted. The consulting Engineer shall notify the Director if plans being resubmitted contain revisions or alterations other than those required by the Director on previously corrected plans. Revision notations shall not be shown on plans until after the Director has formally approved plans. Landscape plans, stormwater pollution prevention plans (SWPPP), and final maps, if applicable, are required with or before the second submittal.

2-7 **PLAN REVIEW AND INSPECTION FEE**

When improvement plans are initially submitted to Public Works for review, a portion of the total plan review and inspection fee for the development, as required by City Code, will be required as a deposit.

Should the development not be carried to completion, any portion of the required deposit over and above the accumulated costs expended by Public Works on the development will be refunded to the developer. Failure of a developer to complete a project does not relieve the developer of paying all costs incurred by the City. Developer is obligated to pay for all outstanding charges.

Public Works shall be notified of any change of billing address. The Consulting Engineer shall notify Public Works immediately upon change of developer.

2-8 **PLAN APPROVAL**

No plans will be approved nor construction authorized until the Director signifies approval by signing the cover sheet of the set of plans and all other pre-construction requirements have been satisfied, including but limited to holding a pre-construction conference and providing required advanced notice to City inspection staff. Revisions, corrections or additions shall be resubmitted to the Director for approval. At such time as the Consulting Engineer preparing the plans has made the necessary revisions and signed and stamped the original plans, and fees have been paid, as provided under the provisions of the City Code and amendments thereto, the Director will sign the plans in the space provided. The Director's approval is valid for a period of twelve months. Should work not commence within the 12-month period, the plans shall be resubmitted for re-approval. The Director shall order any Contractor to cease work on any project if said Contractor does not have properly approved plans in his possession.

2-9 **APPROVED PLANS REQUIRED**

The Consulting Engineer shall deliver the requested number of sets of prints from the approved original plans to the Director, which is typically six (6) full size sets and four (4) half size sets. Additional copies of improvement plans

may be required by the Director in certain circumstances and these shall be furnished to the City without cost.

Copies of the final utility letters required by this Chapter shall be included with the approved plans delivered to the Director.

2-10 IMPROVEMENT PLAN REVISIONS DURING CONSTRUCTION

Should changes become necessary during construction, the Consulting Engineer shall first obtain the consent of the Director and shall then resubmit the title sheet and the plan sheets affected for approval. The changes on the plans shall be made in the following manner:

- A. The original proposal shall not be eradicated from the plans but shall be lined out.
- B. For changes affecting 25% or more of detail on sheet (plan or profile), the original proposal should be omitted.
- C. In the event that eradicating the original proposal is necessary to maintain clarity of the plans, approval must first be obtained from the Director.
- D. The changes shall be clearly shown on the plans with the changes and approval noted on the revision signature block.
- E. After three (3) or more revisions have been approved, Public Works may require complete reproduction of the plan set.
- F. The changes shall be identified by the revision number in a triangle delineated on the plans adjacent to the change and on the revision signature block.

Minor changes that do not affect the basic design or contract may be made, with the authorization of the Director, upon completion of the work before final acceptance of the completed improvements.

Certification by the Consulting Engineer of the finished pad elevations of subdivision lots shall be required prior to final acceptance of the subdivision improvements. Certification shall be in accordance with Section 10-8 of this Manual.

2-11 RECORD DRAWINGS

The Developer/Contractor shall maintain an accurate record of all approved deviations from the plans before and during construction. Upon completion of work, one set of red-lined plans reflecting all such deviations shall be submitted to the City for review. Following the City's review and approval, the redlined sets shall be converted to Record Drawings. The cover sheet shall include the following statement signed by

the engineer in responsible charge: These record drawings reflect the original City approved design and City approved revisions thereto, along with all field modifications reported by the contractor. Each sheet shall be marked "RECORD DRAWING" and shall contain the design engineer's original registration stamp and signature.

The following shall be submitted to the Director in consideration of improvement acceptance:

- a. One set of large format (36" by 24" or 34" by 22") of record drawings on Mylar (2 mil min thickness). Mylars shall include SafCo Master File Carrier Strip #6551, or approved equal, attached to each sheet. Grid coordinate data for plans, maps, data, and exhibits shall be submitted in California State Plane, Zone II, North American Horizontal Datum of 1983 (NAD 83), and National Geodetic Vertical Datum of 1929 (NGVD 29) grid projection in US survey feet. CAD files shall incorporate these grid data.
- b. Three Compact Disks (CDs) containing the following:
 1. Record Drawings of all improvements in a PDF File. The format shall be Adobe Acrobat, most recent or second most recent published software version. The resolution of improvement plan images shall be at least 400 dpi and the PDF file shall be no larger than 500KB in size per drawing sheet in the file.
 2. A separate copy of the Record Drawing sheets for streetlight and traffic signal improvements in a PDF file. The file shall contain all sheets pertaining to streetlight improvements, including streetlight locations and circuit diagrams. The format shall be Adobe Acrobat, most recent or second most recent published software version. The resolution of improvement plan images shall be at least 400 dpi and the PDF file shall be no larger than 500KB in size per drawing sheet in the file.
 3. The most up-to-date Computer-Aided Drafting file reflecting the original approved design and any approved revisions that were made electronically. The format shall be AUTOCAD, most recent or second most recent published software version.
 4. An Excel-compatible spreadsheet data file containing comprehensive attribute data, in the format provided by the Director, for the streetlight system associated with the subject development.
 5. An Excel-compatible spreadsheet data file containing comprehensive attribute data, in the format provided by the Director, for the storm drainage system associated with the subject development.,

Each CD shall have the name of the project and date of preparation neatly printed on it and shall be initialed by the design engineer.

2-12 CONFLICTS, ERRORS AND OMISSIONS

Acceptance of improvement plans by the City is based on the assumption that the information contained on the plans and supporting documents is correct and does not subrogate the design engineer's responsibility for this project. Any and all errors and omissions related to the design are the responsibility of the design engineer.

Excepted from approval are any features of the plans that are contrary to, in conflict with, or do not conform to any California State Law, City Code or Resolution, conditions of approval, or generally accepted good engineering practice in keeping with the standards of the professions, even though such errors, omissions or conflicts may have been overlooked in Public Works' review of the plans.

2-13 CHANGE IN CONSULTING ENGINEER

If the developer elects to have a registered civil engineer or licensed land surveyor other than the engineer who prepared the plans provide the construction staking, he shall provide the Director in writing, the name of the individual or firm one week prior to the staking of the project for construction. The Developer shall then be responsible for:

- verifying all construction,
- the preparation of revised plans for construction changes, and
- the preparation of "as built" plans upon completion of the construction.

In the Developer's notification of a change in the firm providing construction staking, he shall acknowledge that he accepts responsibility for design changes and "as built" information as noted above.

2-14 INCORPORATED AREA SEWER SUBMITTALS

The Consulting Engineer shall submit to the County for approval those sanitary sewer plans for improvements which are within the City of Elk Grove and also within any sanitation district, the collection system of which is maintained by the County forces. Both City and County approval is required for such plans.

2-15 SEWER ANNEXATION REQUIREMENTS

When sanitary sewer plans are submitted for an area that is not within a sanitation or sewer maintenance district, said plans will not be approved until a request for annexation to the appropriate district has been completed, unless otherwise approved by the Director. Annexation request forms and information relative to annexation procedures are available from the County of Sacramento Water Quality Division.

2-16 BORING AND JACKING SAFETY REQUIREMENTS

Any boring or jacking operation involving an opening greater than 30 inches in diameter is subject to the State of California Division of Industrial Safety's tunnel safety requirements. The Consulting Engineer shall submit to the State Division of Industrial Safety plans and specifications applicable to the tunnel operation, with a letter requesting tunnel classification, prior to bidding the project. This procedure is also recommended to avoid project delay if there is the possibility of any personnel entering the tunnel, regardless of diameter and length. The letter should identify the Public Works Agency responsible for the project and the agency's mailing address. The plans shall identify underground utilities and tanks or areas for storing fuel and toxic gases in the vicinity of the tunnel site and a description of the historical land use in the area. The request for classification should be submitted allowing ample time for the Division of Industrial Safety's review in order that any special requirements can be included in the project plans and specifications. The Consulting Engineer shall also attend the required pre-construction meeting.

2-17 UTILITIES

A. All known existing utilities are to be shown on the plans. In addition, the Consulting Engineer shall submit prints of the preliminary and approved plans to the utility companies involved. This is necessary for the utilities to properly plan their relocation projects and needed additional facilities. Copies of the transmittal letters to the utility companies shall be provided to the Director. In addition, the following note shall appear on the first page of the plans:

“No pavement work will occur within the road right-of-Way prior to completion of any necessary utility pole relocation within the right-of-way.”

B. Existing and new dry utilities (low and high voltage electrical, and gas) fronting new development shall be placed underground except for very high voltage {69KVA or greater}. Relocated poles for very high voltage {69KVA or greater} line power poles, which cannot feasibly be placed underground, shall be placed behind the back of the sidewalk. All lower voltage lines shall be removed from these poles and placed underground. Once placed underground in an area, no new overhead lines shall be installed, even if power poles exist.

C. Utility manholes and boxes for dry utilities will not be placed in sidewalks or curb ramps. All dry utility box covers shall be appropriately labeled “Telephone”, “Streetlight”, “Cable”, “Electric”, “Gas”, etc. If the Engineer approves the installation of a dry utility box in a sidewalk due to extraordinary circumstances, such box and lid shall be traffic-rated and shall be placed flush with the sidewalk grade.

- D. Hydraulic jetting of utility trenches is not allowed within the City of Elk Grove.
- E. Open trenching for utilities is not permitted within the drip line of existing trees. Such underground utilities must be installed by boring.

2-18 PARTIAL PLANS

Where the improvement plans submitted cover only a portion of ultimate development, the plans submitted shall be accompanied by the approved tentative plan or study plan of the ultimate development.

2-19 OTHER AGENCY NOTIFICATIONS

Prior to City approval, the Consulting Engineer is responsible for obtaining the approval and necessary permits of other governmental or municipal agencies when their facilities are involved and/or the plans include work within an agency's jurisdiction.

2-20 INSPECTION REQUIREMENTS

Any improvement which will ultimately be maintained by the City shall be inspected during construction by the Director. Each phase of construction shall be inspected and approved prior to proceeding to subsequent phases.

The Director shall inspect all grading and drainage during construction.

Any improvement constructed without inspection as provided above, or constructed contrary to the order or instruction of the Director, will be deemed as not complying with Standard Construction Specifications, this Manual will not be accepted by the City of Elk Grove for maintenance purposes.

The Consulting Engineer shall notify the Director when the Contractor first calls for grades and staking and shall provide the Director with a copy of all cut sheets.

Within ten (10) days after receiving the request for final inspection, the Director shall inspect the work. The Contractor, Consulting Engineer, and Developer will be notified in writing as to any particular defects or deficiencies to be remedied. The Contractor shall proceed to correct any such defects or deficiencies at the earliest possible date. At such time as the work has been completed, a second inspection shall be made by the Director to determine if the previously mentioned defects have been repaired, altered, and completed in accordance with the plans. At such time as the Director approves the work and accepts the work for the City of Elk Grove, the Contractor, Consulting Engineer and Developer will be notified in writing as to the date of final approval and acceptance.

For assessment districts and projects where City of Elk Grove participates in the costs thereof, quantities will be measured in the presence of the Director, Consulting Engineer, and Contractor, and witnessed accordingly.

2-21 COMMERCIAL / PRIVATE PROPERTY INSPECTION REQUIREMENTS

- A. Public Works Department inspection staff will perform inspection on all improvements within City right-of-way or other public easements.
- B. Public Works and/or appropriate utility service providers will inspect sewer, water, and drainage connections within the right-of-way and to the point of service for the respective utilities.

2-22 SPECIAL NOTICES AND PERMITS

The Consulting Engineer shall be responsible for advising the Contractor as follows:

- A. Contractors shall be in receipt of official City approved plans and shall participate in a pre-construction conference with City staff prior to construction.
- B. Contractor shall notify all utility companies involved in the development prior to beginning of work.
- C. Contractor shall notify Underground Service Alert two working days in advance before an excavation.
- D. Contractor shall be responsible for the protection of all existing monuments and/or other survey monuments and shall notify the City of Elk Grove Public Works of any damaged or removed City, County, State or Bureau monuments.
- E. Contractor shall notify the County of Sacramento upon receipt of permits and payment of required fees for sewer taps in accordance with the Standard Construction Specifications.
- F. Contractor shall be responsible for conducting his operation entirely outside of any floodplain boundaries unless otherwise approved. 100-year floodplain boundaries shall be clearly delineated in the field prior to construction.
- G. Contractor shall be responsible for conducting his operation entirely outside of any no grading area. These areas shall be clearly delineated in the field prior to construction.
- H. Where work is being done in an off-site easement the Contractor shall notify the property owner two working days prior to commencing work.

- I. Contractor shall not dispose of chlorinated water into the City drainage system.