

SECTION 3**IMPROVEMENT PLAN REQUIREMENTS**

CONTENTS	Page
3-1 Digital Submittals	3-1
3-2 Paper Size And Scale	3-1
3-3 Drafting Standards	3-1
3-4 Title Sheet	3-1
3-5 Title Block	3-1
3-6 Plan Set Organization	3-2
3-7 Plan Details	3-2
3-8 Required Notes.....	3-4
3-9 Standard Drawings	3-6

SECTION 3 IMPROVEMENT PLAN REQUIREMENTS

3-1 DIGITAL SUBMITTALS

All plans shall be prepared using appropriate computer based design and drafting software. Improvement Plans shall be prepared using AutoCAD (version determined by County Engineer). Digital files of Improvement Plans and supporting documentation shall be submitted to the Department, in the file formats requested by the County Engineer, prior to approval of Improvement Plans.

3-2 PAPER SIZE AND SCALE

Improvement plan submittals shall be on 24" by 36" paper. Only common engineering scales shall be used. Final submittals shall be provided to the Department on 24" x 36" polyester film sheets (Mylar®, or equivalent) with matte finish.

The County Engineer may request reduced-size plans to facilitate plan review and construction, and drawing borders may be adjusted as required.

3-3 DRAFTING STANDARDS

All line work must be clear, sharp, and of appropriate weight. Letters and numerals must be Roman font, 0.1-inch minimum height, legible, well formed and sharp. Line work shall not intersect numerals showing profile elevations. Sharp solid arrowheads shall terminate dimension lines.

3-4 TITLE SHEET

All improvement plans shall have the following minimum information on the title sheet, conforming to Standard Drawing 3-1:

1. Location Map,
2. Vicinity Map
3. Benchmark information
4. Sheet Index
5. Subdivision Name, Number, and Town.
6. Legend conforming to Standard Drawing 3-3.
7. Agency/Utility contacts
8. Title, signature, approval, and revision blocks conforming to Standard Drawings 3-1 & 3-2.

3-5 TITLE BLOCK

Each sheet within the set of drawings shall have an approved title block placed across the bottom edge of the sheet in accordance with Standard Plan 3-1. The title block shall include the following

1. Sheet number
2. Scale
3. Date
4. Project title
5. Sheet title
6. Design Engineer's name, signature and seal.
7. Plan approval blocks (County plan approval signature block required on all sheets)
8. Revision block

3-6 PLAN SET ORGANIZATION

The order of the drawings in the Plan Set shall be as follows:

1. Title Sheet
2. General Notes (with Typical Sections if space allows)
3. Overall Site Plan
 - a. Scale of drawing and scale bar
 - b. North arrow
 - c. Street names
 - d. Property lines
 - e. Public easements
 - f. Assessment or Service District limits (if applicable)
 - g. Adjacent subdivision & parcel references including names, lot lines, and lot numbers
 - h. Site access
 - i. Assessor's Parcel Numbers
 - j. NAD83 coordinates of all intersections shown.
4. Existing Topography
5. Demolition Plan
6. Overall Grading and Drainage Plan
7. Overall Utility Plan
8. Street Plan and Profile
9. Other Utility Plan and Profile
10. Erosion Control Plan
11. Detailed Grading Plan
12. Signing and Striping Plan
13. Special Details

Other specialties, such as landscaping, structural, electrical, mechanical, etc., shall be included in the plan set as appropriate.

The storm drainage, sanitary sewer, and water systems shall be shown on the street plan and profile sheets. Any underground utility not within the limits of a proposed street shall be shown on a separate plan and profile sheet.

3-7 PLAN DETAILS

In addition to the other requirements of these Improvement Standards, the following details shall be shown on the plans submitted for approval. The Design Engineer and other designers are responsible for preparing neat, accurate and comprehensive plans in keeping with the standards of their profession.

A. Record Information. All existing and proposed:

1. Right of Way lines
2. Boundaries of lots fronting on the street (addresses of existing lots)
3. Easements
4. On-site and off-site right of way and easement lines shall be properly dimensioned.

B. Existing Facilities. All pertinent existing facilities shall be shown, including:

1. Street striping and signs
2. Medians including landscaping
3. Driveways (on both sides of the street when within 40 feet of the median ending)
4. Curbs
5. Sidewalks

6. Pavement shoulders
7. Location and size of all underground utilities, water, storm, and sanitary sewer lines
8. Limits of 100-year flood plains
9. Structures
10. Trees (6" and larger) and other foliage
11. Traffic signals and traffic detector loops
12. Street lights, pull-boxes, and underground electrical conduits
13. Drainage ditches
14. Utility poles
15. Fire hydrants
16. Retaining walls
17. Other features of the area which may affect the design requirements for the project.

When a potential utility conflict exists, the Design Engineer shall verify "as built" elevations for the utilities, using sub-surface investigative techniques, whether electronic or physical (excavation). For existing road structural sections, the grade of the cross slope on the road and 20 feet into the property at driveways shall be shown.

C. Contours and Elevations. Existing contours and supporting spot elevations shall be shown on all plans. Topographic information of existing facilities shall be extended an appropriate distance beyond the project limits for conform purposes. In general, the limits for drainage and grading purposes shall extend at least 100 feet beyond the project limits, or more if directed by the County Engineer. The limits for street striping and transportation conform shall extend at least 300 feet, or more if directed by the County Engineer.

D. Profile. The plans shall show the existing profile of all roadway centerline, edges of pavement, gutter flow lines, drainage ditches, storm and sanitary sewers. Designs of proposed public improvements shall include profiles showing centerline elevations at 50-foot intervals and rates of grades, vertical curves and other vertical alignment data. When curbs and gutters are designed for reconstructed roads, elevations shall be shown on the edge of the outside traveled way, or if the road has a full paved section, shall also be shown two feet from the proposed lip of gutter. Designs for vertical curves shall show elevations at 25-foot intervals. Where it exists, stationing shall be used for profiles of public roads.

The plans shall show the existing ground profile for a minimum distance of 200 feet beyond temporary street endings to ensure proper vertical alignment within the proposed improvement limits. The 200-foot minimum shall be increased when requested by the County Engineer.

E. Stationing and Orientation. The stationing on plan and profile shall read from left to right. Stationing shall increase from south to north or from west to east, except for cul-de-sacs, where stationing shall proceed from the intersection. Plans shall be so arranged that the North arrow points toward the top or upper 180 degrees, insofar as practical.

F. Bench Marks. Location, description, and elevation of benchmarks and datum shall be clearly delineated on the plans. The datum shall be North American Vertical Datum of 1988 (NAVD88). The Design Engineer shall be responsible for locating the official benchmarks nearest their project.

G. California Coordinates System. Proposed improvements shall be tied into the California Coordinate System, consistent with mapping requirements for any required Parcel or Final Map. If monument coordinates are not available within a reasonable distance (1/2 mile or less) of said improvement, special consideration may be given by the County Engineer.

- H. Cross-Sections.** Cross sections shall be included in the plans where determined necessary by the County Engineer. Sections shall include all pertinent structural and topographical features. Section calls shall be identified by a number and letter and/or the sheet on which the section appears.
- I. Special Notes.** Special Notes shall be clearly indicated. Notes shall contain a statement regarding obtaining encroachment permits from other agencies when applicable.

3-8 REQUIRED NOTES

The Design Engineer shall include the following notes on improvement plans submitted to the Department for approval in the appropriate location. Supplemental notes may be required.

- A.** Unless shown or specified otherwise, all construction and materials shall comply with the latest edition of the Yolo County Improvement Standards.
- B.** The Contractor shall not begin any work shown on these plans until the signature of approval of the County Engineer is affixed hereon and all applicable permits have been obtained.
- C.** The Contractor shall schedule a pre-construction meeting with County staff, other Agency staff, Contractor, material testing lab, Consultants, and other appropriate personnel representing the Developer at least 2 working days in advance of any construction activities.
- D.** Contractors shall be responsible for coordinating their operations with all required materials testing services as required by the Yolo County Improvement Standards and the County Inspector. Each phase of construction shall be tested and approved by the County Inspector prior to proceeding to subsequent phases.
- E.** Contractor shall notify all utility companies involved in the development prior to beginning of work.
- F.** Utilities to be installed under existing pavements shall be directionally bored.
- G.** No pavement work will occur within the road right-of-way prior to completion of any necessary utility pole removal and utility undergrounding work within that right-of-way
- H.** Contractor shall notify "Underground Service Alert" at 811 at least two working days before starting any excavation activities.
- I.** Materials submittals for material incorporated into the work including, but not limited to, aggregate base, asphalt concrete, and concrete materials shall be submitted to the County at least 2 weeks prior to delivery of materials to the site.
- J.** Contractor shall be responsible for the protection of all existing survey monuments and/or other survey markers during construction. All monuments or markers destroyed during construction shall be replaced by a licensed California Land Surveyor at the Contractor's expense.
- K.** Prior to requesting County acceptance of improvements, the Contractor shall set standard survey monuments at locations referenced by Engineer. All survey monuments shall be punched and shall bear the license number of the surveyor.
- L.** Contractor shall notify the appropriate Special District, after receipt of permits and payment of required fees, prior to making water or sewer taps.

- M.** Contractor is responsible for compliance with all currently applicable safety laws of all jurisdictional bodies. The Contractor is directed to contact the California State Department of Industrial Relations. The Contractor shall be responsible for all barricades, safety devices, and control of traffic within and around the construction area. For all trench excavation 5 feet or more in depth, the contractor shall obtain a permit from the California State Division of Industrial Relations prior to beginning any excavation.
- N.** Public safety and traffic control shall be provided in accordance with the Caltrans Traffic Manual and as may be directed by the County. Any lane closures (vehicle or bicycle) shall be approved in advance by the County. Safe vehicular, bicycle, and pedestrian access shall be provided at all times.
- O.** The Contractor shall maintain continuous temporary traffic barricades, with operable flashing devices, spaced at intervals of not to exceed 50 feet whenever the work area is adjacent to an existing traffic lane and there is a pavement cut, trench, or ditch which is over 2 inches in depth, or if the traffic lane used by vehicles is not paved. If the cut, trench or ditch is more than 10 feet from a traffic lane, then the barricade spacing may be greater, provided that it does not exceed 200 feet.
- P.** Contractor agrees that in accordance with generally accepted construction practices Contractor shall be required to assume sole and complete responsibility for job site conditions during the course of the construction of the project, including safety of all persons and property; that this requirement shall be made to apply continuously and not be limited to normal working hours, and Contractor further agrees to indemnify and hold the County of Yolo, its officers, employees, agents, and volunteers harmless from any and all liability, real or alleged, in connection with the performance of the work on this project.
- Q.** All construction and material delivery vehicles shall use the designated access and haul route(s) to the construction site. Route(s) is (are) *(design engineer to enter route description or reference detail)*. Any deviation in route(s) shall be subject to County Engineer approval. The route(s) shall be monitored during the project for any damage and debris attributable to the project vehicles. All damage and debris as a result of the project shall be repaired per County Standards.
- R.** In the event that any street or portion of any street will be closed to emergency traffic, the Contractor shall notify Yolo County Communications Dispatch at (530) 666-8920 prior to closure, and immediately after reopening said street.
- S.** Contractor shall be responsible for conducting his operation entirely outside of any floodplain boundaries unless otherwise approved. The 100-year floodplain boundaries shall be clearly delineated in the field prior to construction.
- T.** 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.
- U.** Where work is being done in an off-site easement the Contractor shall notify the property owner two working days prior to commencing work within said easement. Copies of all signed/approved off-site easement and/or right-of-entry documents shall be provided to the County.
- V.** Contractor shall not dispose of chlorinated or other chemically treated water into any drainage system.
- W.** Contractor shall provide evidence to County of notification of Lake or Streambed Alteration to the California Department of Fish and Wildlife, if necessary.

3-9 STANDARD DRAWINGS

If a variance to a standard drawing is intended, the standard drawing shall be shown with the variance clearly noted.