

LARIMER COUNTY  
ENGINEERING DEPARTMENT



# FLOODPLAIN DEVELOPMENT GUIDE



SECTION 6:  
CONSTRUCTION PLANS



## 6. CONSTRUCTION PLANS

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Construction plans must be submitted with an FDP Application. FDP Applications can be submitted for structural or non-structural projects. In Larimer County, structural projects include (but are not limited to) a building with at least two walls or a roof, gas and liquid storage tanks, electrical facilities (e.g. cellular towers, transformers, solar panels, etc.), and fixed accessory structures (decks, fences, carports, gazebos, pergolas, etc.). Non-structural projects include (but are not limited to) earthwork activities, stream restoration, bank stabilization, bridges, culverts, roads, and utility projects. For non-structural projects, construction plans must be certified by a licensed Colorado Professional Engineer (PE). The following sections describe the requirements for structural and non-structural projects.

### Structural Plan Requirements

The following information is required in the plans for structural projects unless waived by the County Engineer:

- Plan view showing footprints of existing and proposed structures, the channel centerline, and all FPO District boundaries. The plan view must provide a scale, north arrow, and legend corresponding to all linework and hatching (including flood zones). The plan view should provide the horizontal datum and all survey control points.
- Grading plans showing existing and proposed contours and the total area of disturbed land for projects where grading will occur. The plans should provide the vertical and horizontal datum.
- Ground cross-sections showing the existing and proposed ground elevations (spaced at no more than 100') within the disturbed area for projects where grading will occur
- Building cross-section(s) showing finished floor elevations for each floor of the structure and the elevation(s) of any mechanical equipment
- Foundation design
- Flood vent size, location, and design details
- Floodproofing design details
- Erosion control measures necessary to prevent sediment from leaving from the site
- Mechanical equipment elevations (e.g. HVAC, air conditioning, etc.)
- Lowest floor elevation of any proposed structures, in feet referenced to the North American Vertical Datum of 1988 (NAVD88)

- Base flood elevations (BFEs), in feet referenced to the NAVD 88, determined for the structure(s) by the County Engineer or licensed Colorado Professional Engineer (PE)
- Flood protection elevations (FPEs), in feet referenced to the NAVD 88, determined for the structure(s) by the County Engineer or licensed Colorado Professional Engineer

### **Non-Structural Plan Requirements**

For non-structural projects, construction plans must be certified by a licensed Colorado Professional Engineer (PE). The following information is required in the plans for non-structural projects unless waived by the County Engineer:

- Construction plans must be certified by a licensed Colorado Professional Engineer (PE)
- Plan view showing the project elements, channel centerline, and all FPO District boundaries. The plan view must provide a legend corresponding to all linework and hatching (including flood zones). The plan view should provide the horizontal datum and all survey control points.
- Grading plans showing existing and proposed contours and the total area of disturbed land for projects where grading will occur. The plans should provide the vertical and horizontal datum.
- Ground cross-sections showing the existing and proposed ground elevations (spaced at no more than 100') within the disturbed area
- Vertical profile for proposed roads, bridges, utilities, or other applicable project elements. Profiles must include the existing and proposed ground elevations for utilities or other underground features.
- Erosion control plan showing the required temporary and permanent best management practices (BMPs) to prevent sediment from leaving from the site
- Base flood elevations (BFEs), in feet referenced to the NAVD 88, for the area affected by the project