



FIRE PREVENTION CONSTRUCTION STANDARDS CIVIL ENGINEERING COMMENTS FOR RESIDENTIAL SUBDIVISIONS

Standard Number: FPCS-1016
Original Effective Date: 4/29/2020
Revision Date: 9/8/2023, 1/12/2024
Code Section: 2022 California Fire Code

PURPOSE AND SCOPE

1016.1 These comments are required to be reproduced on and included in the "General Notes" section at the front of each civil plan set.

APPLICATION

1016.2 Standard Comments

- a. Deviations from the approved plans will require a revised plan to be submitted to the fire department for approval.
- b. Fire Department signed approved plans shall be printed in large format and made available at the job site for fire inspections.
- c. Subdivisions of more than 30 lots shall have at least two fire apparatus access roads remotely placed as approved by both the city engineer and the fire code official. Fire access shall meet the requirements of the [Cosumnes Fire Department Fire Apparatus Access Standard FPCS-1004](#).
- d. Required roadways, fire access lanes, street signs, and addresses shall be installed prior to combustible construction or on-site storage of combustible materials. Required roadways shall be capable of supporting 80,000 pounds gross vehicle weight in all weather conditions. All-weather is defined as at least one layer of asphalt or concrete that is designed to carry the imposed weight load of fire apparatus.
- e. Fire department access routes shall be constructed to a 20-foot minimum width with no parking on either side. Routes shall provide a minimum 13-foot 6-inch vertical clearance and turning radii of 25-feet inside and 50-feet outside. Or alternately meet the requirements as shown in the turning performance analysis in the Cosumnes Fire Department Fire Apparatus Access Standard FPCS-1004. Routes shall



be paved and capable of supporting at least 80,000 gross vehicle weight in all weather conditions. The slope for access roadways shall not exceed 10% for asphalt and 5% for concrete. The angle of approach and angle of departure shall not exceed eight degrees. The use of turf-block, grass-crete or similar alternate road surfaces is not approved for installation for fire apparatus access routes.

- f. Water mains and fire hydrants designated for a project shall be installed, tested, flushed, inspected, and able to provide the required fire flow prior to any construction.
- g. Residential developments are required to provide fire flow from a public water system that meets the fire flow requirements of the California Fire Code. For development in rural areas, an alternate means for water supply in accordance with National Fire Protection Association (NFPA) Standard 1142 may be submitted for review and approval.
- h. Addresses for all lots shall be provided to the Fire Department prior to permit issuance.
- i. The installation of on-site or off-site fire protection equipment including fire hydrants, water mains and underground piping installations shall meet the requirements and specifications of the Cosumnes Fire Department and the water purveyor having jurisdiction. Both the fire department and the water purveyor shall be notified 48 hours in advance of any shut down or interruption of normal service to fire hydrants or fire sprinklered buildings.
- j. Fire hydrants shall be Clow 960, factory-painted white and installed in accordance with the local water purveyor standards. The 4 ½ inch pumper connection shall face the roadway/fire lane.
- k. Bridges and culverts shall be designed in accordance with the California Fire Code, California Building Code, City/County standards, and the standards of the Cosumnes Fire Department.
- l. Dead-end streets, driveways, or fire department access routes more than 150 feet in length require an approved emergency vehicle turn-around.
- m. Gates obstructing fire access routes shall comply with the [Cosumnes Fire Department Emergency Access Gates and Barriers Standard FPCS-1003](#).



- n. Required traffic signaling installations erected or modified by this development shall be provided with traffic pre-emption devices of a type approved by Cosumnes Fire Department. These devices shall be installed and function prior to occupancy and at no cost to the Cosumnes Fire Department.
- o. The installation of traffic calming devices is subject to the standards of the Cosumnes Fire Department. All proposed traffic-mitigation plans shall be submitted to Cosumnes Fire Department for review and approval prior to installation. These devices shall be clearly designated on the civil plans.
- p. When required, "NO PARKING FIRE LANE" signs and/or red painted curbs shall be installed per CFD guidelines and the California Fire Code. All raised curbs in "NO PARKING FIRE LANE" areas shall be painted RED with approved red traffic grade paint. Lettering shall be white stencil, 3 inches tall with a $\frac{3}{4}$ inch stroke. Stenciling shall be located every 25 feet. Signs shall be posted every 50 feet. Fire lanes will be enforced during construction.
- q. Vehicle barriers shall be installed for the protection of fire equipment in accordance with the California Fire Code.
- r. Construction equipment, including portable restrooms, building materials, worker vehicles, delivery vehicles and the like shall not obstruct fire hydrants or the fire lane at any time.
- s. Landscaping shall provide a minimum of 3 feet of clearance (when fully grown) around fire protection equipment.
- t. Sound walls, masonry walls, or fencing shall not be erected without fire department approval as such walls and fencing can interfere with fire department access and fire hydrant requirements for the property.
- u. Projects along wetlands, riparian corridors, and open space the following requirements apply:
 - 1. Provide non-combustible fencing along all developed areas adjacent to wetlands, riparian corridors, creeks, or open spaces.
 - 2. Provide fire department access to all wetlands, riparian corridors, creeks and open spaces at the end of cul-de-sacs or other approved location via rolled curbs.



3. Gates or bollards limiting access shall be equipped with an approved method for rapid access.
4. A turning radius of not less than 35 feet inside and 45 feet outside is required.
5. Bike lanes adjacent to creeks shall be paved a minimum of 10 feet wide with 2 feet of all-weather material on each side.
6. Fire access routes, bike paths, and bridges shall be capable of supporting 35,000 pounds gross vehicle weight.
7. Provide at least ten (10) feet of greenbelt or other defensible space between noncombustible fences and the creek/wetlands area.

REFERENCES

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| 1016.3 | 2022 California Fire Code (CFC) |
| 1016.4 | Cosumnes Fire Department Fire Apparatus Access Standard FPCS-1004 |
| 1016.5 | National Fire Protection Association (NFPA) Standard 1142 |
| 1016.6 | California Building Code (CBC) |
| 1016.7 | Cosumnes Fire Department Emergency Access Gates and Barriers Standard FPCS-1003 |