Design Standard
Emergency Vehicle Access and Fire Protection Considerations

Purpose:

East Side Union High School District is committed to providing a safe environment for students, faculty, staff and visitors. This Design Standard is provided to support this commitment. In the event of an emergency, it is critical for response vehicles to have quick, clear, and easy access to all areas. Response time is of the utmost importance, reacting quickly can be the difference between life and death.

Whenever possible, ESUHSD shall comply with recommendations and requests of the local fire and emergency service response agencies, above and beyond code requirements. Partnering with the support agencies, ESUHSD and project design teams will research and employ possible means to remove existing barriers to quick response time, and ensure that new structures and design elements support and embrace this goal.

Design Standard:

Fire Department Service Areas and Authority Having Jurisdiction

- ESUHSD schools are served by San Jose Fire Department (SJFD)
- The State Fire Marshal is the jurisdictional authority (through Division of the State Architect (DSA))

General Site Access

1) Provide Emergency Vehicle Access (EVA) lanes into central campus 'quads' or central plaza areas. Paving for EVA lanes must be capable of supporting fire trucks (60,000 pound minimum loading requirement, subject to review and acceptance by SJFD). It is important that emergency vehicles have driving access close to all campus buildings and exterior quadrangle/plaza areas; a good goal is to provide EVA access to within 150 feet of all exterior portions of each building. Provide doublewide EVA lanes, to allow adequate space for two emergency vehicles to pass each other going in opposite directions; SJFD requires a minimum 14 feet clear width for each direction of travel. Where this cannot be provided for the entire length of the EVA lanes (due to existing structural or landscape feature), a passing lane or other accommodation will be reviewed by ESUHSD and the appropriate emergency response agencies. Furthermore, the EVA lanes must have a minimum 13' canopy clearance to accommodate emergency response vehicles.

2) Ideally EVA lanes should be 'looped' to allow alternate means to access central and critical areas of the campus. Where this cannot be provided, provide hammer-head turnarounds (subject to the acceptance of SJFD and DSA).

3) Fire trucks require a 52' outside diameter turning circle.
   a) If a 52' outside diameter turning circle is not possible, confirm with SJFD if a 3-point turning configuration is acceptable.

Knox Boxes and Padlocks
Where appropriate, provide Knox Box(es) for SJFD access. ESUHSD has standardized on Knox-Box 3200 Series for SJFD key storage.

- Select recessed Knox boxes if feasible; otherwise install surface-mounted units
- Comply with SJFD Key Box Policy for Restricted Access Points and SJFD Key Box Policy for Secured Gates/Doors at Site Access Points

Fire Suppression Systems
Where required, provide in accordance with ESUHSD Division 21 00 00 Basic Fire Protection Systems Design Standard.

Standpipes
Where required, install standpipes in stairwells. Install at the main floors, not at intermediate landings. Include the ground/first floor landing, even if not required by code.

Fire Alarm Systems
Coordinate fire protection monitoring with ESUHSD Section 28 31 00 Fire Detection and Alarm Systems Design Standard.

Approved Manufacturers

- Knox-Box

Substitutes Allowed?

No substitutes allowed.

Pursuant to Section 3400 of the Public Contract: Knox-Box key boxes are now in use on the particular public improvement described as East Side Union High School District. At each instance in these specifications that a designated material, product, thing or service is designated by the brand name "Knox", "Knox" is designated to support the existing key box systems that are in place at each campus and the District Administration Building. The Contractor will furnish and install only "Knox" key boxes as required, and no substitutions shall be deemed to be "or equal" or allowed.

Associated Design Standards and Construction Specifications

- Section 21 00 00 Basic Fire Protection Systems Design Standard
- Division 22 Design Standards and Construction Specifications
- Section 28 31 00 Fire Detection and Alarm Systems Design Standard

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