



Town of Parker Community Development  
Department Development Review Division  
Attention: **Stacey Nerger**

Application Type: **Site Plan**  
Status: **First Referral**  
Application Name: **Compark Village F5 Tract A – Rocky Mountain Pre-School**  
Case/AP#: **SP19-118**  
Referral Received: January 13, 2020  
Comments Due: February 7, 2020  
**Applicant Responses: April 8, 2020**

Application Location: Generally located on the northwest corner of Canyon Rim Circle and Chambers

Road... Review date: **January 13, 2020**  
Plan reviewer: **Randall L. Capra,**  
[rcapra@parkeronline.org](mailto:rcapra@parkeronline.org) Phone: 303.805.3169

**Narrative:** The applicant, Cahen Architecture Group, is proposing a Site Plan for a 12,780 sq. ft. day care located on the northeast corner of Chambers Road and Canyon Rim Circle.

**Code Reference:** 2018 International Fire Code, 2018 International Building Code, 2017 NEC

<b>TOWN OF PARKER FIRE/LIFE SAFETY:</b>	<b>R REVIEWED FOR CODE COMPLIANCE; REVISIONS REQUIRED</b>
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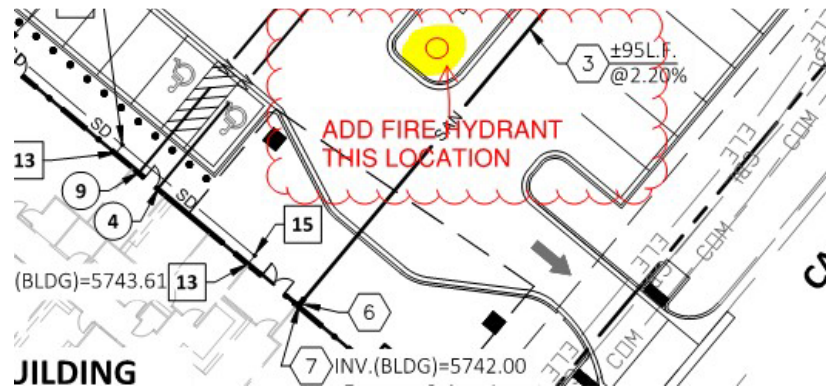
- 1<sup>st</sup> Submittal – Reviewed January 13, 2020
- 2<sup>nd</sup> Submittal – (*comments in red, italicized font*)

**UNRESOLVED ISSUES/COMMENTS**

1. The applicant shall be aware that ***no vertical construction on this site will be allowed until such time that curb gutter and first lift of asphalt are installed***; a site inspection will be required to ensure that this requirement is made prior to allowing vertical construction to commence.
  - **Response:** [Understood!](#)
2. The applicant shall be aware that the Town of Parker officially adopted the 2018 ICC codes on January 1, 2019; all submittal documents shall comply with the 2018 ICC codes. Note – the Town of Parker officially adopted the 2017 NEC on January 1, 2018 and will adopt the 2020 NEC on January 1, 2021.
  - **Response:** [Understood!](#)
3. The Town of Parker requires that fire apparatus access roads meet the clear-width and weight-bearing standards of the jurisdiction in which the project is located. Roadways shall be designed to support the imposed weight of fire apparatus, 30-ton two axle and 40-ton three axle vehicles. An unimpeded clear width of 20-feet shall be maintained at all times. As such, any location where parked vehicles would obstruct this clear width requirement will require “NO PARKING – FIRE LANE” signage. NO PARKING – FIRE LANE signage is required for any portion of the access where the 20-foot clear width requirement cannot be met. *This signage shall be red on white. Update design criteria has been provided at the end of this document; ensure compliance when resubmitting.*
  - **Response:** [Understood. Signage will be provided per the Town of Parker Standards and per the standards at the end of this document. Signage has been added in locations. Drive aisles have been modified to meet the 20’-0” wide unimpeded clear width, and the fire lane in front of the porte-cochere was shifted away from the overhand to provide this clear dimension above.](#)
4. The applicant shall provide an auto turn analysis (for the entire site) indicating that apparatus can navigate all portions of this site. NO PARKING – FIRE LANE signage is required for any portion of the access where the 20- foot clear width requirement cannot be met.



10. The applicant shall show all fire hydrants within 1,000 feet on the overall utility plan when resubmitting; address this issue when resubmitting.
- Response: [The adjacent fire hydrants within 1000 feet are indicated on the plans.](#)
11. The applicant shall provide a separate utility document when resubmitting; ensure that
- Response: [Overall utility plan included within the plan set. Fire approval block added.](#)
12. The applicant has not provided the **REQUIRED** fire hydrant (as discussed in the pre-application meetings); per the requirements of NFPA 24, section 7.2.3, a fire hydrant shall be located within 40 feet of the building to be protected. See below for the location of the required fire hydrant:
- Response: [The additional fire hydrant has been added at the location requested.](#)



## GENERAL COMMENTS (as applicable)

All engineering documents submitted to the Town of Parker shall bear the wet signature and seal of the engineer or architect in responsible charge of the design.

Water distribution and site access components shall be installed and in service prior to the construction of any portion of the structure, except by special permit issued by the Fire District.

### Underground fire lines

When thrust blocks are used as part of the pipe restraint system, submitted plans for permit shall provide detailed documentation that the thrust blocks satisfy all requirements of 16 NFPA 24: 10.8.2, including specific thrust block dimensions and mathematical calculations for block dimensions per guidelines provided in Annex A.10.8.2.

## FIRE CODE REVIEW BLOCK

All fire hydrants shall be installed according to water utility standards. The number and locations of the fire hydrants as shown on the Overall Utility Plan are correct as specified by the Town of Parker, Community Development Department.

Fire Code Official or Designated Representative

Date

(NOTE – Underground Fire Line (UFL) submittal documents must meet the requirements of NFPA 24 when submitting for review.)

## Underground Fire Line - Submittal Requirements

Reference: 2016 NFPA 24 [Installation of Private Fire Service Mains and Their Appurtenances](#)

A separate permit is required and will be issued pending review of a detailed submittal which must include the following: [15 IFC 901.2]

4.1.1 Working plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed or replaced.

4.1.2 Deviation from approved plans shall require permission of the authority having jurisdiction.

4.1.3 Working plans shall be drawn to an indicated scale on sheets of uniform size, with a plan of each floor as applicable, and shall include the following items that pertain to the design of the system:

- (1) Name of owner
- (2) Location, including street address
- (3) Point of compass
- (4) A graphic representation of the scale used on all plans
- (5) Name and address of contractor
- (6) Size and location of all water supplies
- (7) The following items that pertain to private fire service mains:
  - (a) Size
  - (b) Length
  - (c) Location
  - (d) Material (ductile-iron, PVC., etc.)
  - (e) Point of connection to city main
  - (f) Sizes, types, and locations of valves, depth at which the top of the pipe is laid below grade
  - (g) Method of restraint (Meg-a-Lug or similar)

4.1.4 The working plan submittal shall include the manufacturer's installation instructions for any specially listed equipment, including descriptions, applications, and limitations for any devices, piping, or fittings. Submittals must include installation specifications for thrust blocks, corrosion protection, restraint system, bedding, detail of pipe under the building up to, and

including, the flange. When it is intended that a different contractor will extend the fire line from a stopping point outside the building, to the inside flange, a second submittal and permit is required.

All tees, plugs, reducers, valves, and hydrant branches shall be restrained against movement by thrust blocks [10.8.2] or restrained joint systems [10.8.3]. When thrust blocks are used as part of the pipe restraint system, submitted plans shall provide detailed documentation that the thrust blocks satisfy all requirements of Section 10.8.2, including specific thrust block dimensions and mathematical calculations for block dimensions per guidelines provided in Annex A.10.8.2.

Any individual or company who physically works on or installs any part of a fire suppression system, including underground supply lines, from public water lines to system risers and backflow preventers, **must** be registered with the Colorado Division of Fire Safety. [Dept of Public Safety, Division of Fire Safety, Fire Suppression Program 8 CCR 1507-11:3.1.2] Documentation of valid annual registration may be required with plan submittal.

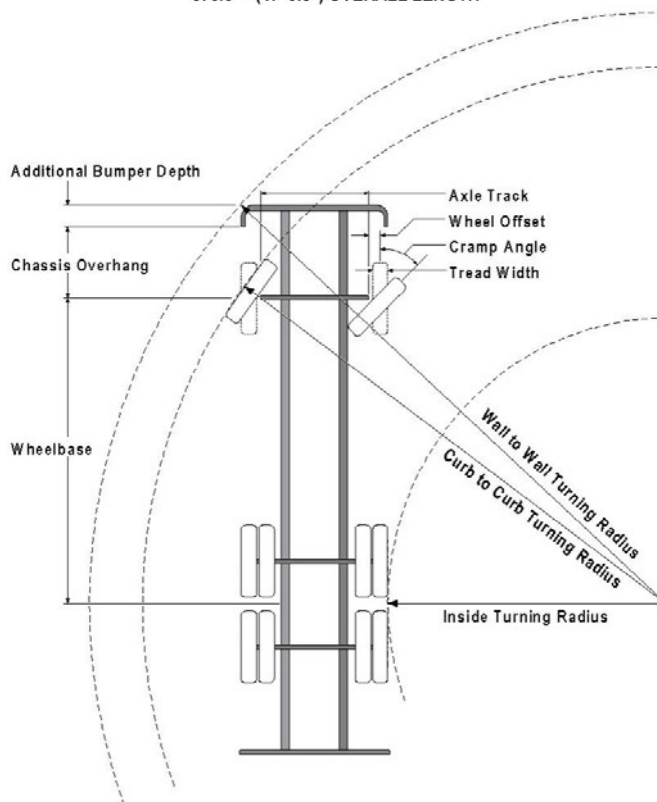
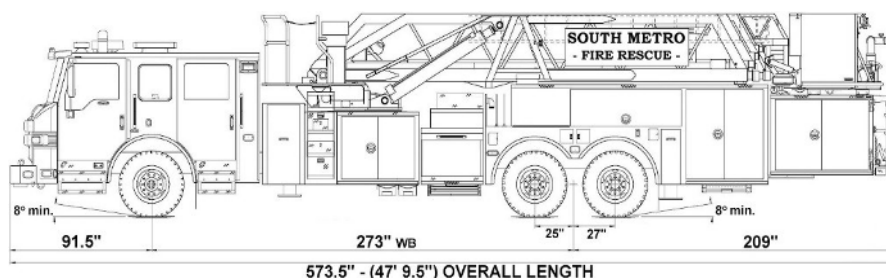
The following website for the Colorado Division of Fire Safety will provide registration instructions.

<http://dfs.state.co.us/SuppAppsProclnsp.htm>

All submittals must display a wet stamp and original signature by a Colorado licensed professional engineer or NICET III, or higher, in fire suppression systems. [Dept. of Public Safety, Division of Fire Safety, Fire Suppression Program 8 CCR 1507]

## + FIRE ACCESS ROAD DESIGN CRITERIA

VEHICLE SPECIFICATIONS are provided for the largest apparatus in use by South Metro Fire Rescue. Fire Apparatus Access Roads shall be capable of accommodating this apparatus.



## Vehicle Specifications

Length: 47' 9.5"

Width: 8' 5" - (10' 1" mirror to mirror)

Height: 10' 9"

Wheelbase: 273 in.

Design load: 80,000 pounds

Inside Cramp Angle: 40°

Axle Track: 83"

Wheel Offset: 5.3"

Tread Width: 13.5"

## Turning Radii:

Inside Turn: 26 ft. 1 in.

Curb to curb: 41 ft. 11 in.

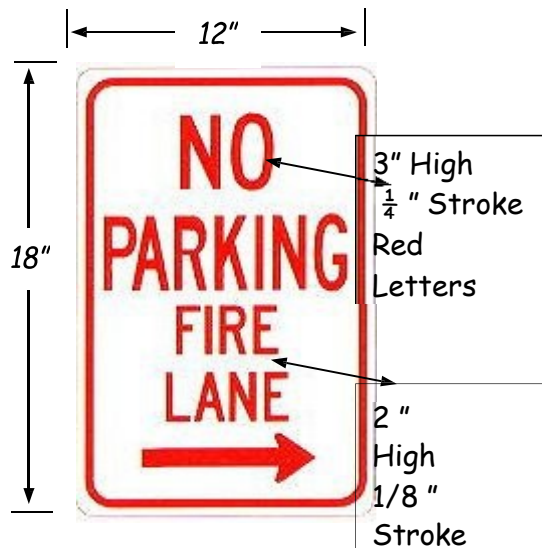
Wall to wall: 46 ft. 8 in.

**Where objects are present adjacent to the fire apparatus access road, particularly on turns and turn arounds which require backing, a reasonable safety margin shall be provided to prevent potential damage to the property and to the fire apparatus.**

PRIVATE ROADS that provide access to more than two dwellings or one or more commercial buildings shall be constructed to meet the roadway standards approved by the South Metro Fire Rescue Authority for fire apparatus access. Private roads that do not meet the roadway standard may be accepted provided that alternative methods and materials are incorporated into the subdivision that addresses the fire and life safety of the citizens.

**Posting of Fire Lanes:** The posting of the "Fire Lanes" is required.

**Fire Lane Sign Dimensions.** NO PARKING – FIRE LANE signs shall be 12 inches wide and 18 inches high.



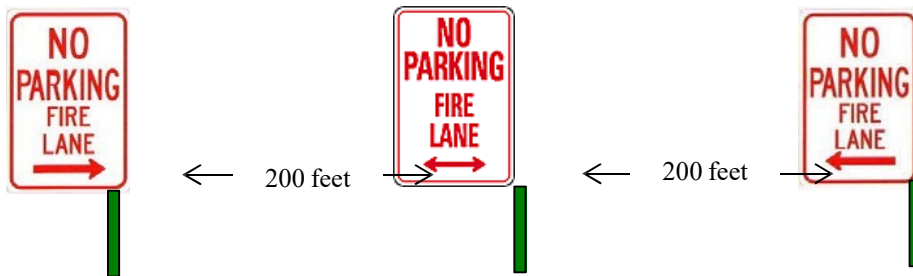
**Fire Lane Sign Characteristics:** Signs shall be engineer grade reflective sheeting on 0.80 aluminum with red lettering on a white background.

**Fire Lane Sign Locations.** Fire apparatus access roadways between 20 and 28 feet wide, signs shall be posted on *both sides*. Fire apparatus access roadways between 28 feet wide and 34 feet wide, signs may be posted on *one side only*.

**Fire Lane Sign Installation.** NO PARKING – FIRE LANE signs shall be installed as follows:

1. Bottom edge of the signs shall be 7 feet above surface (sidewalk) and post shall be placed 24 inches from flow line (curb).
2. One sign at the beginning of the restriction (one arrow pointing towards the restriction zone).
3. One sign at the end of the restriction (one arrow pointing back into restricted zone).
4. One sign at least every 150 ft. within the restricted area (double arrow pointing in each direction, to indicate the continuing restriction).
5. Spaced evenly within the restriction (for straight curbs/zones). For example, if the parking restriction zone is 300 ft long, only one double arrow sign is required at a distance of 150 ft. from the beginning of the restriction. If the restriction zone is 400 ft. long, two double arrow signs are required; spaced 100 ft. evenly from each other and from the beginning/ending signs.
6. Spaced so that at least one readable sign is visible in front of a parked vehicle from any point along the restriction (for curved curbs/zones and areas that may present visual obstacles.)
7. Set at an angle of no fewer than 30 degrees and no more than 45 degrees with the lane of traffic flow visible to approaching traffic.
8. Signs shall be provided at all normal and emergency access points to structures and within 20 feet of each fire hydrant and fire department connection (FDC) in compliance with UFC 901.4.2.
9. Some areas may need additional fire lane signs. Check with the Division of Life Safety for any additional requirements.

**Fire Lane Sign Types.** The diagrams below indicate the types of signs that may be used, and the recommended placement.



Additional sign styles may be used – provided the same type is used consistently.



**Painting of Curbs or Streets.** In addition to the required signage, South Metro Fire Rescue does permit fire lanes to be painted with curb or street markings. However, these markings shall not replace the required fire lane signs. Curbs may be painted red with 3 inch white block letters stating **NO PARKING – FIRE LANE**. Lettering shall be spaced every 15 feet.