



Architecture Engineering Planning Interiors

7290 West 133rd Street  
Overland Park, KS 66213

November 3, 2020

Mike Weisenborn, Project Manager, Development Center  
City of Lee's Summit: Development Services  
220 SE Green St.  
Lee's Summit, MO 64063

Re: Lee's Summit R-7 School District  
DLR Group Project No. 13-20102-00  
**Lee's Summit Middle School #4 – Bailey Road**  
**Permit No. PRCOM20202637**

Dear Mr. Weisenborn:

Below are DLR Group's responses to your plan review comments dated October 22, 2020 for Lee's Summit Middle School #4. We hope this letter and its attachments adequately and fully respond to your comments. Please notify us if additional information is needed. Thank you very much for your assistance with this project.

Thank you,

Joe Breidenbach  
DLR Group

**Fire Review:**

1. 2018 IFC 1004.3- Posting of occupant load. Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or authorized agent. (Verified At Inspection)

(Action required)

Post occupant load signage in all assembly areas.

Response: *Refer to updated signage schedule A13.3.*

2. 2018 IFC 907.1.1- Construction documents. Construction documents for fire alarm systems shall be submitted for review and approval prior to system installation. Construction documents shall include, but not be limited to, all of the following: 1..A floor plan which indicates the use of all rooms. 2. Locations of alarm-initiating and notification appliances. 3. Alarm control and trouble signaling equipment. 4. Annunciation. 5. Power connection. 6. Battery calculations. 7. Conductor type and sizes. 8. Voltage drop calculations. 9. Manufacturers, model numbers and listing information for equipment, devices and materials. 10. Details of ceiling height and construction. 11. The interface of fire safety control functions.

Action required: Provide PE stamped electronic shop drawings for the fire alarm system to [mike.weissenbach@cityofls.net](mailto:mike.weissenbach@cityofls.net)

Response: *The full construction documents with all required calculations, conductor types/sizes, model numbers, etc. will be submitted by the contractor as a deferred submittal.*

3. 2018 IFC 505.1- Address numbers. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. In Multi-tenant commercial building where tenants have multiple entrances located on different sides of the building , each door shall be addressed. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm).  
(Verified At Inspection)

Response: *Noted. Exterior elevations refer to location/size of address numbers.*

4. 2018 IFC 506.1- Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the fire code official.

(Action Required)

Order two Knox boxes for the exterior. Placement to be made by the FDC and the other by the riser room. Order can be placed through [knoxbox.com](http://knoxbox.com)

Response: *Knox boxes now shown at FDC & Riser Room locations on building exterior. Ref. CP0.0 & CP1.1.*

5. 2018 IFC 506.1.1-Locks. An approved lock shall be installed on gates or similar barriers when required by the fire code official.

(Action Required)

Order knox locks for the gates at [knoxbox.com](http://knoxbox.com)

Response: *Knox boxes shown at gates on CP0.0.*

6. 2018 IFC 901.2- Construction documents. The fire code official shall have the authority to require construction documents and calculations for all fire protection systems and to require permits be issued for the installation, rehabilitation or modification of any fire protection system. Construction documents for fire protection systems shall be submitted for review and approval prior to system installation.

(Action Required)

Provide PE stamped electronic shop drawings for the fire sprinkler system to [mike.weissenbach@cityofils.net](mailto:mike.weissenbach@cityofils.net)

Response: *The full construction documents with all required calculations will be submitted by the contractor as a deferred submittal.*

Response:

7. 2018 IFC 901.5- Installation acceptance testing. Fire detection and alarm systems, fire-extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service mains and all other fire protection systems and appurtenances thereto shall be subject to acceptance tests as contained in the installation standards and as approved by the fire code official. The fire code official shall be notified before any required acceptance testing. The fire code official shall be notified 48 hours before any required acceptance test.

(Informational Purposes)

Call (816)969-1300 to schedule testing.

Response: *Noted. Contractor to schedule testing as required.*

8. 2018 IFC 506.1.2 Key boxes for non-standardized fire service elevator keys. Key boxes provided for non-standardized fire service elevator keys shall comply with Section 506.1 and 506.2 or as approved by the fire code official.

(Action Required)

Provide an elevator knox box. Placement to be made on the first floor. Order at [knoxbox.com](http://knoxbox.com)

Response: *Knox box added adjacent to elevator. Ref. CP1.1 & A1.1B.*

9. 2018 IFC 1008.1 Illumination required. The means of egress, shall be illuminated at all times the building space served by the means of egress is occupied.

(Action Required)

Provide emergency lighting in rooms B107/108 studio.

Response: *Noted. Fixture closest to the door will be revised to be type A1E in these two Studios, similar to the other Studio spaces. Note, this "emergency lighting" in the Studios is being provided for convenience only as it is not required based on the occupant load of the space.*

Building Plan Review:

1. The building permit for this project cannot be issued until the Development Services Department has received, approved, and processed the Final Development Plan.

(Action required)

Comment is for informational purposes.  
9/14/20 - acknowledged in letter.

4. This review covers entire campus project including remote buildings, site lighting, etc.

(Action required)

Comment is for informational purposes.

5. ICC/NSSA 500 Standard for the Design and Construction of Storm Shelters - 106.1.1 Peer review. A peer review by an independent registered design professional for compliance with the requirements of Chapters 3, 5, 6, and 7 shall be conducted for the following shelter types.

1. Community shelters with occupant load greater than 50.
2. Storm shelters in elementary schools, secondary schools, and day care facilities with an occupant load greater than 16.
3. Storm shelters in Risk Category IV (essential facilities) as defined in Table 1604.5 in the International Building code.

(Action required)

Provide independent third party review of storm shelter by registered design professional.

Response: *See attached third party review approval letters.*

6. All plans submitted for review on or after April 1, 2019 shall be designed to the requirements of the 2018 International Building Code, 2018 International Mechanical Code, 2018 International Plumbing Code, 2018 International Fuel Gas Code, 2018 International Fire Code, 2017 National Electric Code and the ICC/ANSI A117.1-2009 as amended and adopted by the City of Lee's Summit.

(Action required)

Comment is for informational purposes. Plans have been reviewed and will be inspected per the 2009 version of the ICC/ANSI A117.1.

Response: *Noted.*

7. Prior to the installation or construction of any elevator equipment, an elevator equipment permit shall be obtained from the Missouri Department of Public Safety or its authorized representative.

(Action required)

Comment is for informational purposes.

Response: *Noted.*

8. Prior to the operation of any new elevator equipment or the issuance of the operating certificate, such elevator equipment shall be inspected by a licensed inspector. Testing must be performed in accordance with these rules and regulations. The testing must be witnessed by a licensed inspector.

(Action required)

Comment is for informational purposes.

Response: *Noted.*

9. Elevator Safety Act and Rules 701.361 - Each privately owned or operated installation and each installation owned or operated by the state of Missouri or any political subdivision of the state shall have a certificate of inspection and meet the safety code promulgated pursuant to sections 701.350 to 701.380.

(Action required)

Comment is for informational purposes.

10. For the Health Department review contact Deb Sees with the Jackson County Public Works Department, Environmental Services Division, at (816) 847-7070. Health Department approval is required prior to receiving any type of building permit from the City of Lee's Summit.

(Action required)

Comment is for informational purposes.

Response: *Noted.*

11. For the Health Department inspection contact Deb Sees with the Jackson County Public Works Department, Environmental Health Division at (816) 847-7070. Health Department approval is required prior to receiving any type of Occupancy from the City of Lee's Summit.

(Action required)

Comment is for informational purposes.

Response: *Noted.*

12. Inadequate information to complete review.

(Action required)

Provide the following:

- Complete MEP designs for storage building and Coaches/Locker building.
- Complete plumbing design for kitchen including grease interceptor.

Response: *Refer to Addendum 002 documents for completed MEP designs of storage building and Coaches/Locker building (Fieldhouse). Note, there are no mechanical or plumbing systems in the storage building. Refer to Addendum 002 documents for the completed plumbing design of the kitchen, including grease interceptor.*

13. 2018 IBC 603.1 Allowable Materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3: (see code for specific examples and exceptions)

(Action required)

Wood is not allowed in Type II construction. Modify A10 series roof framing sections and detail 34/A5.6

Response: *Per 2018 IBC 603.1 commentary, "While combustible roofs must be of FRTW if used in a Type I or II building, roof coverings, blocking, nailers and furring strips are also permitted to be combustible without the use of FRTW (see Items 4, 14 and 18)." Per email correspondence with Joe Frogge on 11/4, this exception is acceptable.*

14. Inadequate information to complete review of fire rated assemblies.

(Action required)

Provide the following:

- UL# for wall C6.2.
- UL# for shaft wall S6.1

- Complete set of UL assembly details for all rated walls that includes nail/screw patterns. (inspectors do not have access to UL books in field)

Response: *For S6.1, refer to assembly U415 on CP1.3  
(System A for S6.1, 1 hour rated assembly)  
For C6.2, refer to assembly U419 on CP1.3*

*Refer to updated A0.1 drawing referencing correct UL# numbers for rated assemblies C6.2 and S6.1.*

15. ICC A117.1 Section 604.3.1 Clearance Width. Clearance around a water closet shall be 60 inches minimum in width, measured perpendicular from the sidewall.

(Action required)

Modify restroom designs to provide minimum 60" behind all water closets including but not limited to rooms A112, B114, B121A, C103, C121, C127, etc.

Response: *Refer to updated A2.1 drawing showing 60" x 60" clear area around each water closet.*

16. ICC A117.1 604.5.1 Fixed side wall grab bars. Fixed side-wall grab bars shall include a horizontal bar complying with Section 604.5.1.1 and a vertical grab bar complying with Section 604.5.1.2. The vertical grab bar at water closets primarily for children's use shall comply with Section 609.4.2. ICC A117.1 604.5.1.1 Horizontal grab bar. A horizontal grab bar 42 inches minimum in length shall be located 12 inches maximum from the rear wall and extending 54 inches minimum from the rear wall. ICC A117.1 604.5.1.2 Vertical grab bar. A vertical grab bar 18 inches minimum in length shall be mounted with the bottom of the bar located 39 inches minimum and 41 inches maximum above the floor, and with the center line of the bar located 39 inches minimum and 41 inches maximum from the rear wall.

(Action required)

Provide vertical side wall grab bar at accessible water closets. Ref: elevation on sheet A2.1.

Response: *Refer to updated A2.1 drawing and vertical grab bar GB-5 at student restrooms.*

17. 2018 IBC 706.1 General. Fire walls shall be constructed in accordance with Sections 706.2 through 706.11. The extent and location of such fire walls shall provide a complete separation. Where a fire wall also separates occupancies that are required to be separated by a fire barrier wall, the most restrictive requirements of each separation shall apply.

(Action required)

Modify door schedule to show minimum 90 minute doors at 2 hour fire walls per Table 706.1(2).

Response: *Refer to note next to "Wall Separation Legend" on CP1.1. 2 hour double fire wall assembly consists of (2) 60 minute rated wall assemblies with a building separation inbetween, therefore doors in each of those wall assemblies shall match the rating of the wall, per NFPA 221 Chapter 4.*

2-HR DOUBLE FIRE WALL PER IBC 706.2 NFPA 221 CHAPTER 4, SECTION 4.5 TABLE 4.5, DOUBLE WALL ASSEMBLIES, COMPOSED OF THE FOLLOWING ELEMENTS:

1-HR FIRE BARRIER, UL#U906  
1-HR FIRE BARRIER, UL#U415



18. 2018 IMC 601.5 Return air openings. Return air openings for heating, ventilation and air-conditioning systems shall comply with all of the following:



1. Openings shall not be located less than 10 feet measured in any direction from an open combustion chamber or draft hood of another appliance located in the same room or space.
2. Return air shall not be taken from a hazardous or insanitary location or a refrigeration room as defined in this code.
3. The amount of return air taken from any room or space shall be not greater than the flow rate of supply air delivered to such room or space.
4. Return and transfer openings shall be sized in accordance with the appliance or equipment manufacturer's installation instructions, ACCA Manual D or the design of the registered design professional.
5. Return air taken from one dwelling unit shall not be discharged into another dwelling unit.
6. Taking return air from a crawl space shall not be accomplished through a direct connection to the return side of a forced air furnace. Transfer openings in the crawl space enclosure shall not be prohibited.
7. Return air shall not be taken from a closet, bathroom, toilet room, kitchen, garage, boiler room, furnace room or unconditioned attic.
8. Return air shall not be taken from indoor swimming pool enclosures and associated deck areas.  
(see code for exceptions to item #8)

(Action required)

Modify hvac design to remove return air from all restrooms.

Response: *The HVAC design does not utilize return air from the restrooms. The amount of air exhausted from the EG-X grilles is higher than the amount of air supplied by the SD-X diffusers, so the restroom spaces are negatively pressurized. The RG-X and associated ductwork at the restrooms are intended to provide a transfer path for makeup air from the surrounding spaces into the restrooms, not the other way around.*

Licensed Contractors Reviewed By: Joe Frogge Rejected

1. Lee's Summit Code of Ordinance, Section 7-130.4 - Business License. (excerpt)

No person, other than a licensed contractor or employees of a licensed contractor, shall engage in electrical, plumbing or mechanical business, construction, installation or maintenance unless duly licensed in accordance with this section.

(Action required)

MEP subcontractors are required to be listed on permit. Provide company names of licensed MEP contractors.

Response: *Noted. Construction Manager to provide names of MEP contractors upon award of bid.*

Sincerely,

**DLR Group**

A handwritten signature in black ink, appearing to be 'JB', with a stylized flourish extending to the right.

Joe Breidenbach, LEED AP  
Associate

cc: Joe Frogge, City of Lee's Summit  
Kyle Gorrell, Lee's Summit R-7 Schools  
Kent Andersen, Lee's Summit R-7 Schools  
Scott Pashia, DLR Group  
Chris Hess, McCownGordon Construction