



Memorandum

May 11, 2018

To: Mr. Anthony Jacque-Plans Examiner
Division of Industrial Compliance
Bureau of Building Code Compliance
6606 Tussing Road
Reynoldsburg, OH 43068-9009

Project: Chagrin Falls Police & Fire Renovations
21 W Washington Street
Chagrin Falls, OH 44022

Project #:2018020653

We submit the following clarifications, revisions, and comments for your review and approval. Comments are organized per letter from Anthony Jacques, dated April 9, 2018, and they are reproduced below for reference. Responses are in bold italics. Clarifications made to the drawing set in response to these comments have been clouded as delta #1. Please call if you have any questions or concerns.

- 1 The sprinkler system, standpipes and their components, system design, water supplies, acceptance tests, alarms, fire department connections, installation of pipes and fittings and their support from the building structure, protection of piping against damage, use of approved listed valves, hangers, sprinkler heads, supervision, identification devices, inspection, maintenance, etc. shall be detailed to conform to the requirements of the systems referenced in Section 903.3 OBC. Such details shall include calculations and graphic data showing sprinkler spacing, water supply, sizes of piping and fittings, and identification of apparatus and devices.

Acknowledged. The sprinkler package is to be provided at a later date for review after selection of a general contractor & fire sprinkler contractor/designer. We request a phased approval to begin construction. Work/installation related to these systems will not begin until after approval of the shop drawings from your office.

- 2 The documents indicate that the building is designed for R-3 use groups. R-3 uses are for dwelling/sleeping units with independent exits. OBC 310.5. Provide the correct use group classification on the drawings and application. Submit revised documents showing compliance.

Fire Area "F" in Building #3 is an existing "R-3" designated occupancy as approved by your office in 1999(No. 9970762) that we are expanding. We are identifying Fire Area "F" as a singular dwelling unit for a singular non-transient tenant - the Fire Department - with a kitchen, 3 bathrooms, and 3 bedrooms. It also has an existing independent exit leading to the existing alley along the building's east elevation. Refer to Exit #1 on Life Safety Plan "A-101"

Per OBC 310.4, R-2 is defined as 3 or more dwelling units with a shared exit. R-3 is for occupants relatively permanent in nature with an independent exit who do not qualify as R1, R2, R4, or I.

Since this is a single dwelling unit with an independent exit for non-transient occupants without supervision, it does not qualify as R-1, R-2, R-4, or "I" and can continue to qualify as R-3.

- 3 NFPA 13D sprinkler systems are not applicable to R-2 use group building. Sprinkler systems for R-2 use groups shall be installed throughout the building not just the fire area). OBC 903.2.8.

We have identified Fire Area "F" in Building #3 as R-3. See response to comment #2.

Per OBC 903.2.8.1, R-3 occupancies are to have automatic sprinkler systems installed in accordance with OBC 903.3.1.3 allowing for a sprinkler system to be installed per NFPA 13D regulations. Per OBC 902.2.8, an NFPA 13D sprinkler is to be installed throughout Building #3 including Fire Areas "D," "E," & "F." Refer to Building #3's code analysis on sheet "A-031".

- 4 Shop drawings for fire alarm and smoke and fire detection systems shall be submitted for review and approval prior to system installation, and shall include, but not be limited to, all of the items listed in 907.1.2 OBC.

Acknowledged. Shop drawings for the fire alarm and smoke/fire detection systems will be submitted for review & approval upon their completion after a contractor is selected. We request a phased approval to begin construction. Work/installation related to these systems will not begin until after approval of the shop drawings from your office.

- 5 A manual fire alarm system that activates occupant notification shall be installed in R-2 occupancies as required by OBC 907.2.9.1.

We have identified Fire Area "F" in Building #3 as R-3. See response to comment #2. A manual fire alarm system that activates occupant notification is not required in accordance with OBC 907.2.9.1, however (2) have been located on the plans near both exits of the R-3 occupancy

- 6 Plan review and processing fees shall be paid for the entire square footage of the altered area and addition of the building. OBC 115. Fees paid to date; 5500 sq. ft. for electrical, 5300 sq. ft. for mechanical and 5600 sq. ft. for structural. Processing and plan review fees shall be paid for sprinkler and fire alarm scopes of work.

Refer to the new square footage fee calculation sheet "A-051" identifying the square footage of each area of work used to calculate the fees.

The fees for the sprinkler and fire alarm systems are in-determinate until the systems can be designed & drawn. We are requesting postponement of their payment until we can submit complete sets of shop drawings for both systems clearly identifying their scope.

- 7 The documents indicate that the building is designed for the 2011 OFC. The 2017 Ohio Fire Code is the adopted fire code of this jurisdiction. Submit revised documents showing compliance.

The fire code reference on the cover sheet was corrected to read "2017 Ohio Fire Code" in lieu of "2011 Ohio Fire Code"

- 8 Fire ratings for exterior walls shall be based on separation distances per OBC Table 602. Show compliance for Building 3 addition. The documents show the addition crossing the property line. Provide 0 distance fire rated exterior walls and submit approval to build in the right of way from the local authority having jurisdiction. Provide party wall compliance for the requirements of OBC 706.1.1.

The owner has elected to remove the "Sallyport" from the project in response to recent bids received. Drawings have been updated to reflect its removal. Refer to the following sheets.

A-031: Architectural Site Plan & Code Analysis

A-101: Life Safety Plan

A-103: Roof Plan

A-111: 1st Floor Plan

A-121: Reflected Ceiling Plan

A-201/A-211: Exterior Elevations

A-301: Building Sections

A-601/A-602: Door Schedules & Finish Schedules

S-1/S-2/S-3/S-4: Structural Drawings

M-1/M-2/M-3: Mechanical Drawings

P-1/P-3/P-5: Plumbing Drawings

E-1/E-2/E-3/E-4: Electrical Drawings

- 9 Exterior walls required to have a fire rating per OBC Table 602 shall comply with all of the requirements of OBC 705. Submit evidence of conformance for Building 3 addition and Building 2 addition.

Building #3 Existing & New East Exterior Wall: Refer to item #8. The "Sally Port" has been removed from the project per owner direction. We are maintaining the existing East exterior wall in its current location. The property line location was adjusted per a survey provided to us from CT Consultants. Alterations to this existing wall are required to comply with the requirements of OBC section 705 for fire rated exterior walls. The distance between the exterior wall and the adjacent property line varies from 5'-4" to 10'-0" and greater.

Fire Rating: Building #3 is identified as IIB construction and its proposed east exterior wall is located ~5'-4" away from the east property line. Per Table 602, this 2 story exterior wall is to have a 1hr fire rating for a building with "B" and "R" occupancies. Also, per Section 711.2.3, the east exterior wall supporting a 2hr rated horizontal assembly(1st floor wall) is required to have a min. 2hr structural support rating. (This does not include openings). The existing 1story 8" & 12" brick masonry wall has a minimum prescriptive fire rating of 2hours per Table 721.1(2) item #1.1.3(Field Observations). Infill CMU masonry at the existing 12" and 8" brick masonry wall was tagged as wall type "L" and is to have a minimum "D-2" CMU classification w/ a 4" brick veneer for a min. 2hr fire rating in accordance with wall assembly type "U902". The 2nd floor cmu & brick masonry wall assembly is to have a min. 1hr fire rating and shall be constructed per wall assembly "U902". Refer to the Floor Plans and Wall Types on sheets "A-111," & "A-112". See site plan on sheet "A-031" for separation distances.

Projections: Building #3 has a 2" masonry & metal cornice overhang. (see sect. "A-A"/A-301" & "B-B/A-301). Per Table 705.2, the non-combustible overhangs for a IIB building are allowed to extend more than 24" from the face of the exterior wall for an exterior wall between 3 and 30ft away from the adjacent property line.

Openings: Building #3 has three existing non-rated 3'-0"x4'-6" (13.5sf) double hung windows and two existing 3'-0"x7'-0" (21sf) non-rated doors to remain along the length of the exterior wall between 5'-0" and 10'-0" of the property line. We are proposing four new non-rated 3'-0"x5'-2" (15.5sf) double hung windows and one new 3'-0"x7'-0" (21sf) non-rated door along the length of exterior wall between 5'-0" and 10'-0" off the property line. Note: The fifth new 2nd floor double hung window occurs along the exterior wall at a distance greater than 10'-0" from the property line.

The portion of the exterior wall between 5'-0" and 10'-0" from the adjacent property line is 80'-9" long with two different wall heights of 19'-3" (34'-6" long) and 21'-7.5" (46'-3.75" long) for a total wall area of – 1,665sf. Per the Exterior Wall Opening Table 705.8, up to 10% of the wall is allowed to have unprotected openings. The total area of non-rated openings is (3)(13.5sf) + (2)(21) + (3)(15.5) + (1)(21) = 165.5sf.

$1665sf * 10\% = 166.5sf$ allowed > 165.5sf(proposed). Refer to plans "A-111", "A-112" and exterior elevations on "A-201" & "A-211" for door/window identification. Door/window schedules are on sheet "A601"

Joints: Wall control joints shall comply with OBC section 715.1exception 1. Refer to detail "1/A502"

Ducts: Duct penetrations occur along lengths of the unrated exterior wall located more than 10'-0" from the adjacent property line per Table 602

Parapets: The building #3 new roof associated with the new exterior wall on the east elevation is non-combustible construction – metal decking on bar joists. A parapet has not been provided per exception #3 of 705.11 where the fire rated exterior wall can terminate at a non-combustible roof assembly and is supported by non-combustible materials(masonry). Refer to the roof plan "A-103" and wall sections "A-A, B-B, & C-C/A-301" for identification of the roof assembly and its support walls.

Building #2 New South Exterior Wall: is required to comply with the requirements of OBC section 705 for fire rated exterior walls. The distance between its south wall and an adjacent building varies from 2'-10" to 5'-0" and greater. The adjacent building along its south elevation is also owned by the Village of Chagrin Falls.

Fire Rating: Building #2 is identified as IIB construction and its proposed south wall is located ~2'-10" away from the northwest corner of the adjacent building. Per Table 602, its exterior wall along this south elevation is to have a 2hr fire rating. See floor plan on sheet "A-113" for separation distances and wall identification as type "H1" - 2hr rated exterior fire assembly to be constructed in accordance with UL#-U902(8" D-2 CMU & 4" Face Brick). Refer to sheet A-041 for U902 requirements

Projections: Building #2 has a precast concrete cornice overhang that extends 9"(see detail "7/A501") from the face of the south wall for a length of 10ft along the wall. The remainder of the exterior wall has a 2" masonry & metal cornice overhang with a 5" metal gutter. (see sect. "1/A-301"). Per Table 705.2, the non-combustible overhangs for a IIB building are allowed to extend 24" from the face of the exterior wall for an exterior wall between 2 and 3ft away from the adjacent building.

Openings: Building #2 has a single 3ftx7ft door opening on its south elevation near its east end where the separation between buildings is over 5ft. The portion of wall that is 5ft or greater away from the adjacent building is 16'-10" long and the wall is 10'-8" high – 180sf. Per the Exterior Wall Openings Table 705.8, up to 25% of the wall is allowed to be a protected opening. The area of the 1-1/2hr rated door is 21sf.....less then the maximum allowed. $180sf * 25\% = 45sf > 21sf$. Refer to plan "A-113" and Dr#100D on the door schedule – sheet "A601"

Joints: Wall control joints shall comply with OBC section 715.1exception 1. Refer to detail "1/A502"

Ducts: A 4" dia. exhaust duct wall penetration has been located in a portion of the wall where unprotected openings are not allowed and is to be installed with an approved duct penetration detail per OBC 717.1.2 and OBC 714.3.1.2. The penetration detail shall comply with UL system# C-AJ-2001 found on sheet A-045. Reference to the detail has been noted on the exterior elevation sheet A-211.

Parapets: The building #2 roof associated with the exterior south wall is non-combustible construction - 8" precast hollow core concrete planks. A parapet has not been provided per exception #3 of 705.11 where the fire rated exterior wall can terminate at a non-combustible roof assembly. Refer to the roof plan "A-103" and wall sections "1 & 2/A-311" for identification of the roof assembly and its support walls.

- 10 Firewalls shall meet OBC 706.2 for structural stability. The documents show several structural members bearing on firewalls. Submit evidence of conformance for new and existing firewalls.

New fire walls between building #2 and building #3 have been designed as part of a double fire wall system in accordance w/ OBC 706.1.2 and OBC 706.2. The existing masonry block wall along building #2's east elevation is a 3hr 12" masonry firewall supporting Building #2's structure. We are proposing to construct a new independent 3hr 8" masonry firewall(UL#U904) beside this existing fire wall. The new fire wall will support Building #3's structure. Refer to plans A-111, A-112, and sections "A-A/A-301" & "B-B/A-301".

The new 8" & 12" masonry fire wall(U904 & U902) between the new Fire department apparatus room addition in building#2 and the existing 3hr 12" masonry fire wall of building #3 are also independent of each other. Refer to plan A-113 and section "2/A-311"

A fire wall(UL#U902 & UL#U904) between building #1 and building #3 has been designed as a non-bearing wall. It is independent of Building #1 and does not support any floor or roof loads from building #3. Refer to plans A-111, A-112, and section "C-C/A-301". Structural framing details "G/S-4" and "N/S-4" for this Fire Wall have been added/updated to show compliance.

- 11 Firewalls shall be continuous from exterior wall to exterior wall and shall extend 18" beyond the exterior surface of the exterior walls. OBC 706.5. The aggregate width of openings in a firewall shall not exceed 25% of the firewall length. OBC 706.8.

Horizontal Continuity – East Elevation: *The new 3hr masonry Fire Wall(U902 & U904) between building #1 and #3 terminates on the inside face of the building's East exterior masonry wall in accordance with exception #2 of OBC 706.5. The exterior masonry brick wall(other non-combustible material) extends more than 4 feet from the face of the new fire wall in both directions(north & south) without any openings. Refer to floor plans A-111, A-112, and plan details on A-502*

Horizontal Continuity – South Elevation: *The new 3hr masonry Fire Wall(U902 & U904) between Building #2 and Building #3 at the new Fire Dept Apparatus Rm addition extends 29" beyond Building #3's south elevation wall in accordance w/ 706.5.1. An imaginary north-south lot line between the two existing buildings and fire walls has been extended to the south at the Apparatus Room. This creates a 2'-5" long East exterior wall at the Apparatus Rm addition maintaining the 3hr fire rating without openings. Refer to floor plan A-113 and plan details on A-502*

FireWall Openings: *The total length of the 3hr masonry fire wall assemblies separating buildings #1 & #3 as well as #2 & #3 is 121'-11". 24'-0" is the aggregate width of the following openings: Dr#110A/110B(3'-0"), Dr#201A(3'-0"), Existing Double Fire Door at Apparatus Rm(6'-0"), and Existing single fire door between Kitchen & Training room(3'-0")*

Opening Calculation: 121'-11" (25%) = 30'-5" > 24'-0"

- 12 Firewalls shall meet OBC 706.6 for vertical continuity. The documents shall show the 30-inch extension for firewalls above a lower roof as required (see exceptions). Submit evidence of conformance for new and existing firewalls.

The new fire walls are to be constructed in accordance with OBC 706.6 and extend a min. 30" above a lower roof. Refer to sections "A-A, B-B, & C-C" indicating a min. 30" fire rated parapet wall extension above the roof.

Existing masonry fire walls terminate at the underside of non-combustible steel roof deck with a min. class B roof covering and there are not any openings through the roof within four feet of the walls on either side. This is in conformance with exception #3 of OBC 706.6.

Existing conditions are per field observations and drawings provided to us by the owner for the construction of both the Fire Department in 1989 and the Fire Dept Living Quarters in 1999.

- 13 Storm shelters shall be provided for critical emergency operations (fire, rescue, police stations) as required by OBC 423.3 and shall meet all of the requirements of ICC 500.

The scope of the project does not include a new storm shelter, only the extension and renovation of existing spaces. The existing Village complex does not have a storm shelter that is in compliance with ICC 500 but does have basements in Buildings #1 & #4 they expect to utilize as a storm shelter if the need arises. In addition, numerous reciprocal police & fire agreements are in place with surrounding communities for police, fire, & ambulance support if they are in need of additional assistance or incapacitated in any manner. 911 dispatch/call center services are provided by an off-site centrally located facility utilized by multiple area communities.

- 14 Provide resumes for all special inspectors showing qualifications. The owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more approved agencies to perform inspections during construction on the types of work listed under Section 1704. These inspections are in addition to the inspections identified in Section 108. The special inspector shall be a qualified person who shall demonstrate competence for the inspection of the construction or operation requiring special inspection.

The owner shall employ CT Consultants for the special inspections. Resume's of their employees/sub-consultants who may be performing the inspections have been attached for review.

- 15 The documents shall show all sleeping unit separations on the floor plans. OBC 106.1. Comply with OBC 420.2. Submit tested assemblies for all fire partition and fire barrier wall separations. Fire barrier walls shall be continuous through concealed construction and shall be securely attached to the floor or roof deck above. OBC 707.5. Fire partition walls shall be continuous through concealed construction and shall be securely attached to the floor or roof deck above or to a fire rated floor ceiling or roof ceiling assembly. OBC 708.4.

Sleeping Units: This project does not contain sleeping units per the definition of OBC. It has three bedrooms in a single dwelling unit for the Fire Department on the 2nd Floor of Building #3. The two new bedrooms and restrooms, though not required, have been constructed with 1hr fire rated partitions(UL#U419)in accordance with OBC 708.4 extending from the floor assembly to the underside of the roof decking above. Walls were tagged as Wall Type "F" on the floor plan A-112 and UL assembly U419 provided on sheets A-042/A-043.

Dwelling Unit: The dwelling unit is defined by 3hr masonry Fire Walls on its North & West elevations complying with UL assemblies "U902" & "U904". It has exterior walls along its East(see comment #9) and South Elevations. The supporting floor is a min. 2hr hollow core concrete plank horizontal assembly constructed in accordance with "J924". The horizontal assembly is supported by a 3hr masonry fire wall on its west side and a 2hr fire rated exterior masonry support wall on its east side. Refer to the floor plans on A-111, A-112 and building sections A-A, B-B, & C-C on sheet A-301

Fire Barriers: *There is an existing 8" cmu masonry assembly located between the existing police department(Fire Area D) and the Fire Dept storage & living quarters(Fire Areas "E" & "F"). This was previously classified as a 3hr Fire Wall extending from the foundation up to the underside of the roof's metal decking. It is being re-classified as a Fire Barrier for separation between Fire Areas "D" and "E". An existing non-bearing 8" brick wall assembly adjacent to the 12" masonry Fire Barrier extends up to the underside of the new 2hr rated 2nd floor horizontal assembly. It is a 2hr Fire Barrier continuous from the foundation to the underside of the horizontal assembly providing separation between "Fire Area "D" and "Fire Area "F" at the 2nd floor level change. It has a 2hr prescriptive fire rating in accordance with Table 721.1(2) item 1-1.3. Refer to Site Plan – A-031, Floor plans A-101, A-102, A-111, and Sections C-C/A-301, 3/A-312.*

There are existing 3hr Fire Barriers & Horizontal Assemblies separating the Fire Dept.'s Apparatus Rm(S-1 occupancy) from their Offices(B occupancy) in Building #2. These are existing to remain. The existing exterior masonry wall of the Apparatus Rm on the existing South elevation is being identified as a 3hr Fire Barrier assembly extending from the building's existing foundation up to the proposed new Apparatus Rm addition non-combustible roof deck assembly(HollowCore Concrete Planks). This prescriptive exterior 8" concrete block & 4" brick veneer Fire Barrier is filled with perlite and rated for 3hours per OBC 721.1(2) item#3-1

- 16 The documents show an open stair for one of the exits from Building 3 second floor. The open stair shall be separated from R-2 occupancies as required by OBC 420.2 and 420.3.

We are identifying Fire Area "F" as an "R-3" occupancy with an independent exit. See response to Comment #3. The open stair is existing to remain unchanged and has been classified as an Exit Access Stairway per OBC 1019 meeting each of the conditions listed under OBC 1019.3

- 1. The stair atmospherically communicates between only two stories*
- 2. The stair serves an individual R-3 dwelling unit that is less than 4 stories in height*
- 3. The dwelling unit is not an R-3 congregate living residence nor an R-4 facility*
- 4. The building is not equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1*
- 5. The stair is not located in an atrium*
- 6. The stair is not located in a parking garage*
- 7. The stair does not serve open air seating*
- 8. The stair does not serve a place of assembly*

- 17 Corridors shall be enclosed in fire rated construction in unsprinklered R and B use buildings. OBC Table 1020.1. Show all rated fire barrier, fire partitions, rated corridor doors, closers, fire dampers, etc.

This project does not contain any corridors with required fire partitions within the area of work.

Per OBC Table 1020.1: The renovated Police Dept Fire Area "D"("B" Occupancy) has a hallway serving less than 30 people. A fire rated corridor is not required.

Per OBC 1020.1 exception #2: Fire Area "F" is a single dwelling unit under the "R" occupancy and is not required to have a fire rated corridor.

Fire Walls and Fire Barriers have been located & identified on the Architectural Site Plan(A-031), the Life Safety Plans(A-101,A102), the Floor Plans(A-111, A-112, A-113), the Building Sections(A-301), and enlarged plan details(A-502). Fire rated doors in fire rated assemblies have been tagged on the floor plans(A-111, A-112, & A-113) and identified on the door schedule on sheet A601. Fire rated hardware where required has been identified in the hardware sets on A-601. Fire Dampers for duct work extending through Fire Walls and Fire Barriers have been identified on the mechanical

plans. Other penetrations through the fire assemblies (fire walls, fire barriers, & horizontal assemblies) shall comply with one of the UL listed fire penetration details provided on sheet A-044 & A-045.

- 18 The documents show the second exit from Building 3 second floor is through the S-I Fire Apparatus Bay. Fire shutters are not allowed in a means of egress. Egress doors shall be side swing pivot hinged doors. OBC 1010.1.2. Stairs are required to have solid risers and slip resistant treads. OBC 1011.5.5.3.

The 1-1/2 hr side coiling fire shutter (Dr#201A) has been replaced with a 1-1/2 hour rated door & frame with fire rated hardware. Refer to floor plan A-112, the door schedule on sheet A-601 building section "A-A/A301" and wall section "2/A-312".

Additional details identifying the construction of the new closed metal stairs for Horizontal Exit #12 (see A-102) have been provided on sheet S-2. The notes on sheets A-111 and A-112 calling for open metal stairs have been revised to indicate concrete filled metal pan stairs.

- 19 The documents show 45-minute glazing protectives in 2 exterior wall. Provide 2 hour opening protectives in 2-hour walls per OBC Table 716.5.

The 45min. second floor windows are located in existing exterior wall openings not required to be rated per Table 602. The buildings' construction (Bldg #2 & #3) is IIB and the exterior wall encloses "B" and "R" occupancies. The distance of the exterior wall from the adjacent building is in excess of 10ft. The "W4" window shown on the 2nd floor plan on sheet A-113 and the Exterior Elevation sheet A-211 have been designated as fixed non-fire rated type windows due to its proximity to a nearby exhaust fan.

The existing location of window type "W5" as shown on the 2nd floor plan on sheet "A-113" and Exterior Elevations on sheet A-211 was to replace an existing window above a vertically terminated fire wall in a double fire wall assembly requiring them to be rated for 45min in accordance with OBC 706.6.1 for stepped buildings. This existing exterior wall and the existing masonry window opening itself is within 10ft of the adjacent building requiring the wall to be 2hr rated. The remaining masonry opening above the new Fire Wall parapet with a minimum height of 30" above the roof was not enough for the owner to have it replaced as a fire rated window. They have elected to infill the opening with matching block & brick wall construction. 8" Concrete block with a D-2 classification per UL#902, filled with perlite and finished with 4" brick veneer is to be used. Refer to floor plans on sheet A-113, Exterior elevations on sheet A-211, and wall section "2/A-311". Window type "5" was removed from the Window Schedule on sheet A-601

- 20 The proposed construction shall conform to the requirements of Chapter 11 OBC and the "Americans with Disabilities Act Accessibility Guidelines" (ADAAG) in accordance with Section 1101.2 OBC.

Provide an accessible route to the second-floor residential sleeping areas per OBC 3411.5.

Provide a handicapped accessible route to the building from parking lots, streets and other buildings. ANSI all7.1, 402.2.

Provide accessible toilet rooms in accordance with ANSI all7.1,603. See Detail 3/A401.

An accessible entrance and route has not been provided to the second floor residential dwelling unit per the following:

OBC1105.1.7 exception: An accessible entrance is not required to dwelling units and sleeping units that are not required to be Accessible units, Type A units, or Type B units

OBC 1107.6.3: In group R-3 occupancies, Type B units are required if there are 4 or more dwelling or sleeping units. This R-3 occupancy has one dwelling unit with 3 bedrooms. A Type B unit is not required

OBC 1104.4 exception #1: An accessible route is not required to stories and mezzanines that have an aggregate area of not more than 3,000 square feet per story and are located above and below accessible levels. This 2nd story is located above an accessible 1st floor level and is only 2,654sf. In addition, this occupancy/function of the space does not qualify as one of the limiting items to the exception.

1.1: This is not a multiple tenant Group M occupancy

1.2: The 2nd Floor does not have offices for health care providers

1.3: The 2nd Floor is not used as a passenger transportation facility

1.4: This is not a public use government building

Accessible Site Routes: *Refer to the site plan on sheet A-031 for identification of the existing accessible routes to the Police station front administration offices and the public sidewalks. A new access aisle next to the existing Accessible parking stall has been identified. Routes are existing to remain and do not contain ramps or slopes greater than/equal to 1:20.*

Accessible Toilet Rooms: *The dwelling unit and its bathrooms are not required to meet the standards of an Accessible unit, Type A unit, or Type B unit per OBC 1107.6.3.*

- 21 The documents appear to show a holding area for detained persons. Holding spaces/rooms are 1-3 use group. 1-3 use groups require fire suppression per OBC 903.2.6. See exceptions. Provide information on the Occupancy Condition for 1-3 use group building separation requirements of OBC 408.8 and egress requirements of OBC 408. The documents shall show compliance for the requirements of OBC 408 including, but not limited to remote release of locks, 408.4.1, power operated locks, 408.4.2, redundant operation requirements, 408.4.3, relock capability, 408.4.4 and windowless building requirements of OBC 408.9.

Booking Room Occupancy: *The holding area – Booking Rm(rm#102) is expected to have less than 5 occupants secured or restrained at any one time. A single 5ft long 2 seat holding bench is being provided for securing & retaining occupants. There are no holding cells in this project or facility. If a larger or extended period holding facility is required, agreements are in place with neighboring law enforcement agencies to utilize their facilities. Per OBC 308.5.2, buildings containing five or fewer persons who are being secured or retained shall be classified as part of the primary occupancy. Note: We are continuing to identify the “Booking Rm” and “Booking Restroom” as part of the primary “B” occupancy.*

Booking Room Door Operation: *In accordance with OBC 1010.1.9.10, the keypad locks on the doors are to be locked from the egress side with the ability to be unlocked manually per item #2 – Activation of an approved manual fire alarm box.*

- 22 An accessible exit stair is required from the second floor per OBC 1009.3 and shall incorporate a width of 48" minimum between handrails and an area of refuge. See exceptions.

Exit Stair Width: *Per OBC 1009.3 exception #3, a clear width of 48" is not required between handrails for the new stair leading from Horizontal Exit #12(doors #201A & #201B) of Fire Area “F” in Building #3 to the refuge area of the existing Apparatus Rm in Building #2. The stair serves as an egress route for Fire Area “F” with an occupant load of 14(less than 50). However a 48" clear width between handrails has been provided on the new stair in the existing Apparatus room for ease of use and help reduce response times*

Area of Refuge: *Per OBC 1009.3 exception #9, an area of refuge is not required for the new stairway accessed from a refuge area in conjunction with a horizontal exit.*

- 23 Sensor release devices (card readers, key pads, magnetic locks, elec. strikes, etc.) are allowed on egress doors in use group or occupancy A, B, E, 1-1,1-2,1-4, M, R-1 and R-2 where they meet all six items in OBC 1010.1.9.8.1-3 use groups do not allow these devices. Submit revised documents showing compliance.

In accordance with OBC 1010.9.1, keypad device locations shown on the plan indicate the keypad portion of the lock device is to be on the entry side of the door restricting access into a space while the egress side of the doors are to be readily openable with a free moving lever allowing free egress from the space. Refer to additional notes on sheet A-601 for clarification.

Two doors are to have the keypad lock device on both the entry & egress sides. They are doors #102A & #102B of the Booking Room(rm102). See response to item #21 regarding these two doors. Providing a sensor or push pad for egress in the same room as an individual being held to allow free egress from the space is not a functional option for our client.

- 24 Provide door hardware information for door hardware set 01. OBC 106.1.

Door hardware Set #1 is for numerous different types of specialty doors supplied with integrated hardware from the door/gate manufacturers. The door types include Fire Shutters(Dr#110A & Dr#110B), Overhead sectional garage door(Dr#100A), roll-down security gate(Dr#102C), and fireman's pole access gates(Dr#201D). They do not include doors along egress paths of travel, accessible pathways, or doors within fire rated assemblies with the exception of the fire shutters which are to be tested and installed in accordance with NFPA 252 or UL 10B.

- 25 Materials within a plenum shall be non-combustible and shall have a flame spread index of not more than 25 and a smoke developed index of not more than 50 when tested in accordance with ASTM E-84 or UL 723. OMC 602.2.1. See exceptions.

Acknowledged. A note was added to the reflected ceiling plans(A121, A122, A123), Building Sections(A301), and Finish schedule(A602) indicating "Materials within a plenum shall be non-combustible and shall have a flame spread index of not more than 25 and a smoke developed index of not more than 50 when tested in accordance with ASTM E-84 or UL 723."

- 26 Type 1 hoods are required to be protected with fire suppression systems in accordance with OMC 509.1. Submit evidence of conformance for wet chemical sprinkler systems for exhaust hood fire suppression with NFPA 17a. The construction drawings for hood suppression shall be drawn to scale with working dimensions on standard size drawing sheet and shall be adequate, sufficiently clear, comprehensive and detailed; section 106.1.1 OBC.

Acknowledged. The Type 1 hood suppression system is to be provided at a later date for review after selection of a general contractor & hood suppression contractor/designer. We request a phased permit approval to begin construction. Work/installation related to these systems will not begin until after approval of the shop drawings from your office.

- 27 Type 1 exhaust hoods are required where cooking equipment produces grease or smoke. OMC 507.2.

- A) Provide type 1 exhaust and hood fire suppression for the range cooking appliance in accordance with OMC 507.2.1.
- B) Hood design shall comply with section M-507.0 OBBC. Provide U.L. 710 listed pre-manufactured hoods or show compliance with OMC 507.4, 507.5, 507.7, 507.12, 507.13, 507.14,507.15 and 507.16. Provide sections and details.
- C) A type 1 hood shall be installed with a clearance to combustibles of not less than 18 inches. OMC 507.9.

Item A) The Type 1 hood fire suppression is to be provided at a later date for review after selection of a general contractor & hood suppression contractor/designer. We request a phased permit approval to begin construction. Work/installation related to these systems will not begin until after approval of the shop drawings from your office. Type 1 hood exhaust ductwork shall be in accordance with NFPA96 guidelines as specified under "Section 23 10 00 HVAC Materials & Insulation" on sheet "M-4." The type 1 hood exhaust fan "EF-4" is to be interlocked with the hood. See Fan Schedule on "M-3"

Item B) Type 1 hood documentation is to be provided at a later date for review after selection of a general contractor & hood suppression contractor/designer. We request a phased permit approval to begin construction. Work/installation related to these systems will not be completed until after approval of the shop drawings from your office. Additional notes indicating compliance with OMC 507 for the hood & exhaust system have been added to sheets A-103, & A-122.

Item C) Refer to detail 2/A-103 and the 2nd floor reflected ceiling plan on A-122 indicating the hood shall be installed with a min. 18" clear to combustibles or shall incorporate a 0" clearance design.

- 28 A grease duct serving a type 1 hood that penetrates a fire rated wall or roof/ceiling assembly, shall be enclosed from the point of penetration to the outlet terminal. OMC

506.3.10. Grease ducts shall comply with OMC 506 for materials, joints, connections, supports, clearances, cleanouts, enclosures, terminations, etc.

The grease duct serving the type 1 hood in the Fire Department kitchen extends straight up through the roof and does not penetrate through a fire rated wall assembly or ceiling/roof assembly.

Refer to section 2/A-103 with the hood, exhaust & roof elements showing compliance with OMC 506 for materials, joints, connections, supports, clearances, clean-outs, and terminations. A grease duct enclosure is not required per OMC506.3.11 exception where duct penetrates only a non-rated roof/ceiling assembly. Refer to the mechanical specifications on sheet M-5 for allowed grease duct materials.

- 29 Provide information on the construction documents to show the mechanical ventilation system design for supply air and return or exhaust air. The amount of supply air shall be approximately equal to the amount of return air and exhaust air. The system shall not be prohibited from producing negative or positive pressure, a) Where ASHRAE 62.1 or 62.2 is used, the registered design professional shall demonstrate equivalency to ventilation requirements of Section 403.3 OMC. b) Provide Ventilation Schedule that demonstrates ventilation in the breathing zone complies with either the 'People' rate or the 'Area' rate per Table 403.3.1.1 for each occupied space.

Refer to sheet "M-3" for ventilation schedules demonstrating ventilation in the breathing zone complying with the "Area" rate per Table 403.1.1 for each occupied space.

- 30 Show AFCI protection for all electrical 15 and 20 amp branch circuits in dwelling units. NEC 210.12(a).

A note has been added to the 2nd floor Dwelling unit power plan on sheet "E-2" indicating "All circuits in the dwelling shall be arc fault protected" in accordance with NEC 210.12(a)

- 31 Provide fire alarm manual pull stations on both sides of horizontal exits. OBC 907.2.6.3.

Fire alarm manual pull stations have been added to both sides of the new horizontal exit #12 on sheet "A-102" as requested.

OBC 907.2.6.3 refers to an I-3 occupancy being equipped with a manual fire alarm system & automatic smoke detection. This project does not contain an I-3 occupancy. The Police Dept renovated area is continuing to be identified as a "B" occupancy. Refer to comment #21.

OBC 907.2.2 requires a manual fire alarm system in a Business occupancy if the occupant load exceeds 500 or has more than 100 occupants above/below the lowest level of exit discharge. This building(Building #3) and Fire Area(D) do not meet these thresholds, but a manual fire alarm box has been located in the occupancy per OBC 1010.1.9.10. Refer to comments #21 & #23.

- 32 Receptacles in dwelling unit are to be spaced 12 ft. apart maximum. NEC

Receptacles in the dwelling unit have been spaced 12ft apart maximum on 2nd floor power plan(E2) per NEC

- 33 Smoke detectors in dwelling/sleeping units are required to be placed in all bedrooms AND immediately outside the bedroom. OBC 907.2.11.2.

Smoke detectors have been identified in the (2) two new bedrooms (rm#202 & rm#204) and immediately outside their bedroom door in the hallway(rm#201) per OBC 907.2.11.2. . Refer to the Life Safety plan on sheet "A-102"

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Siegfried', with a stylized, flowing script.

Richard E Siegfried A.I.A. NCARB
RSA Architects, LLC.