

April 4th, 2017

Stony Creek Homes  
344 Maple Ave W  
Suite 290  
Vienna, VA 22180  
Attn: Tarique Jawed



**RE: *Permit review comments***  
***Permit #B1706219***  
***1125 7<sup>th</sup> St NE, Washington, DC 20002***

Dear Mr. Jawed

This letter is in response to Century Associates review comments on September 30<sup>th</sup> 2016. Please see our response to comments below to assist with your obtaining final approval on the plans.

**THE DOCUMENT PROVIDED WAS NOT SIGNED OR SEALED BY AN ENGINEER**

*#1– Project data information is incomplete and inaccurate. Zone is listed as R-5-B when it is actually RF-1 (formerly R-4).*

Response –CS.01 under building code summary states RF-1

*#2– The use group is incorrectly listed as "R" (which is not a use group. If this is a single building with four units, the project is an apartment building which is group R-2. If this is two buildings with two units each, then there are two use group R-3 buildings. It appears that the applicant has convinced the ZA that this is a single four unit building, therefore it must be treated as R-2. However the project information makes reference to the project consisting of two buildings. Which is it? It can't be both.*

Response – Cover sheets states we are R-3. We are two buildings each being one unit.

*#3– Project description indicates the project consists of two, 2 unit buildings for a total of 4 units. Number of units also indicates 4 units proposed. Based upon the permit application date we assume this project falls under the 1958 zoning regulations. The R-4 zone does not permit 4 units on a single lot of 2,332 SF.*

Response – The project description on the cover is a 2 unit separate townhouse. There are only two units.

*#4– Lot occupancy of proposed structure is not indicated but appears to exceed 60%.*

Response – Lot coverage is 60%. Please reference plat.

*#5– Building area AVW architectural plans.*

Response – This is not a comment.

*#6– Construction type is listed as IIIB, however drawings indicate that new construction is wood frame type V.*

Response – Construction type on cover under building code summary is VB.

*#7– This 4 unit project may be subject to the requirements of the Fair Housing Act. Though it is impossible to determine from the information provided. The design does not comply with FHA.*

Board of Zoning Adjustment  
District of Columbia

CASE NO.19550  
EXHIBIT NO.65B

Response – This is a two unit project.

#8– *SSEC notes indicate lot is vacant when in fact there is an existing structure.*

Response – Existing/demo plans are provided showing existing structure. See A.01 and A.02

#9– *Proposed structure exceeds 60% maximum lot occupancy in the R-4 zone.*

Response – Structure does not exceed lot coverage. See plat for clear representation and calcs.

#10– *No emergency escape and rescue opening is provided in lower level unit rear bedrooms (labeled Bedroom #4 in both front and rear units). The window depicted does not have a sill of less than 44" above finished floor and there is likely inadequate headroom beneath the deck above.*

Response – The bedrooms in the cellar have been changed to sliding glass doors which meet egress.

#11– *New 5'-0" X 10'-0" window well proposed in public space. Doesn't this require a public space permit?*

Response – The well size was reduced and yes it does require public space permit. Which has been applied for and a sheet provided for. Please ref. sheet PS.01

#12– *The decks on each first floor unit have three steps, though this is not clearly indicated and no tread or riser information is provided. The total change in elevation between the first floor and the deck is 1'-10" per A3.01. The steps as depicted do not meet the exception under 1011.11 exception 2 and therefore require handrails on both sides.*

Response – This condition was removed.

#13– *No fire rating is provided at doors between upper and lower units. Partitions at stairs between units are not fire rated as required. The floor-ceiling assembly between units does not appear to be fire rated. The partitions and floor ceiling assemblies between units do not meet acoustical isolation requirements. Due to the lack of code required fire rating along property line (see comments below) any increased risk of fire or fire spread is of concern to adjacent property owners.*

Response – These are one unit. There is no separation between basement and first floor. Basement is part of the first floor unit.

#14– *Stair rise and run dimensions are not provided. Documents only provide a typical stair detail with a maximum riser height of 7.75" but don't demonstrate that this can be achieved in the space available.*

Response – Building sections clearly show riser and tread dimensions. Please see A5.1 A5.2 and A5.3

#15– *No insulation depicted on below grade or party walls.*

Response – Sections clearly show insulation below grade. Party walls are considered interior wall conditions and insulation is not required at those walls unless walls extend above those walls and become exterior conditions. Please see A5.1 A5.2 and A5.3

#16– *Water heater locations in the lower level units violate IMC 303.3 which prohibits locating a gas fired appliance in a location that receives combustion air from a sleeping room.*

Response – Location of water heaters has changed.

#17– *The air handlers and return ductwork and water heaters will likely not fit within the mechanical and water heater closets as dimensioned. Verify that code required clearances comply with IMC 306 and working spaces will be available once installed.*

Response – Mechanical closets have been resized and are larger. Reference sheet A2.1

#18– *No handrails or guards are indicated on the stair plans.*

Response – The section calls out the handrail requirements. A5.1

#19– *First floor front unit mechanical room does not provide required clearances or access for mechanical equipment.*

Response – Mechanical closets have been resized and are larger. Reference sheet A2.1

#20– *Stair from grade to first floor is not dimensioned, but graphically appears narrower than the required 3'-0".*

Response – All meet min 3' requirement. Reference sheet A1.1

#21– *How will required access space in accordance with IMC 306 be provided for mechanical unit over closet in first floor rear unit? Verify specified unit will fit in space provided.*

Response – This location has changed.

#22– *No tempered glazing provided at windows in the two showers indicated on the front upper unit second floor. Windows are indicated on elevations as existing (presumably to remain though it is not clear). There are numerous other locations where tempered glazing is required but not specified (i.e. sidelights, glass doors, shower enclosures, where a door swings against glazing such as at 28B, etc).*

Response –The window locations have changed. The windows that need to be tempered are designated as such on sheet A2.1

#23–*Verify there is no stair from the front unit rear deck to the courtyard. If added later it could adversely impact egress to the public right of way.*

Response – Please state how this is a code related item. There are stairs to rear yard.

#24– *The courtyard appears to be entirely paved, though it is not clearly indicated. No drainage is indicated for the courtyard on the plumbing plans. Also there are no area drains in the egress window wells for the lower units and inadequate drainage in the lower level access corridor under the upper front unit.*

Response – This is grass and is noted as such. Drains are shown in window wells and area ways on plans and plumbing plans.

#25– *Key in the wall and floor ceiling assemblies to the assemblies indicated on A2.02. Verify that insulation is provided in the floor ceiling assembly above the access corridor on the lowest level and the living space above.*

Response – Insulation is provided. Please reference sections A5.1-A5.3

#26– *Bath #3 in both upper front and rear units lack bathing facilities AVW P1 .1 which shows rough ins.*

Response –These show full bath conditions. Reference sheet A2.1.

#27– *Verify no fall protection required at front area way. Impacts front elevation which is of concern to adjacent property owners.*

Response – Railings are show. Please reference plans A1.1 and elevations A4.1

#28– *No downspout locations indicated. Where will water from covered passageway in courtyard be discharged. Verify it will not be discharged across property line.*

Response – Downspouts are show on plans A1.1-A3.1 and elevations A4.1-A4. 3 as well as plumbing plans P.01 and P.02.

*#29– There is no information provided regarding the construction of the parapets and whether they meet IBC 705.11.1 which requires one hour fire rating with fire exposure from either side. The front unit elevation indicates combustible construction (a pressure treated wood cap^ where the stair to the upper roof deck abuts the party wall in violation of 705.11.1.*

Response – The roof plan A3.1 shows the fire rated assembly. The sections as well A5.3. The structural details also detail this further, ref sheets SD.01-SD.04

*#30– No UL design number or construction details are provided for the 1 hour rated wall with stucco finish along the property line. No information is provided about how this assembly will be flashed to the adjacent properties*

Response – Stucco is no longer being used and the UL assemblies are being called out. Please reference plans A1.1-A3.1 and UL.01 sheet for assemblies used.

*#31– Handrails and guards not indicated at areaways and access corridor steps.*

Response – Handrails are shown at areaways and window wells. A detail is also provided showing the requirements on sheet A5.2

*#32– Wall Type C does not represent UL Design U305 as indicated. U305 has one layer of 5/8" gyp on each side not two as indicated.*

Response – The wall assemblies have been changed and these are no longer as referenced. Please reference plans and UL.01 for new assemblies.

*#33– According to US Gypsum, U305 has an STC rating of 34, not STC 50 as required by IBC 1207. None of the wall types are keyed to the plans so it is impossible to determine whether this error creates a code violation or not. This is relevant at dwelling unit separations.*

Response – The wall assemblies have been changed and these are no longer as referenced. Please reference plans and UL.01 for new assemblies.

*#34– Wall Type D does not have a SIC 50 as required by IBC 1207. There is no STC test for UL U333 but it likely has a rating in the low 30s. This is relevant at dwelling unit separations.*

Response – There is no floor to ceiling separation since the front unit is one unit and the rear unit is the other.

*#35– Wall Types G & H do not represent UL Design U333 as indicated. The wall assemblies depicted do not meet the requirement for a one hour rating with fire exposure for either side as described in IBC 705.5*

Response – The wall assemblies have been changed and these are no longer as referenced. Please reference plans and UL.01 for new assemblies.

*#36– Wall Type G does not indicate flashing. Nor adequate drainage for the coping on the party wall. Detail lacks blocking required for coping attachment. Potential damage to adjacent property makes this of particular concern to neighboring property owners.*

Response – The wall assemblies have been changed and these are no longer as referenced. Please reference plans and UL.01 for new assemblies.

#37– Wall Type G indicates two wythes of concrete block AVW plat and plans which indicate party walls are 12" solid brick, resulting in a 4" discrepancy. If party wall is only 12" wide, proposed construction will encroach on adjacent property. Potential for encroachment is of particular concern

Response – The wall assemblies have been changed and these are no longer as referenced. Please reference plans and UL.01 for new assemblies. For details at party walls please reference SD.01-Sd.04

#38– Wall Type H indicates a vapor barrier on the interior face of the wall. This will likely result in condensation within the wall cavity, failure of the insulation and possibly rot of the structure.

Response – The wall assemblies have been changed and these are no longer as referenced. Please reference plans and UL.01 for new assemblies. For details at party walls please reference SD.01-Sd.04

#39– No door, window or penetration flashing details are provided.

Response – See sheet AD.03

#40– Floor ceiling assemblies all make reference to UL Design L570, however none of them represent L570. For [example, L570 requires two layers of gypsum board at the ceiling and only one is shown. No L570 assembly was found that utilizes a 1/4" acoustic underlayment (Verdex or similar). It is unclear why the designer is boxing [the recessed fixture space in drywall AND specifying a fire rated enclosure - this suggests a lack of understanding of fire rated design. UL L570 is a floor ceiling assembly and is not appropriate to specify for a {roof ceiling assembly as shown in Type 10.

Response – There is no floor to ceiling separation since the front unit is one unit and the rear unit is the other.

#41– Wall Type 10 indicates insulation both above and below the plywood sheathing. The insulation below the sheathing is not depicted tight to the underside of the sheathing. If constructed as detailed with a gap between the batt insulation and the sheathing, it is possible that condensation will form on the underside of the sheathing and eventually lead to roof failure.

Response – This wall type is not a part of the plans therefore this is not applicable.

#42– Verify stair construction to roof deck can be insulated to required R value.

Response – Exterior stairs were removed

#43– How Is stairs to roof deck going to be made waterproof?

Response – Exterior stairs were removed

#44– Exterior balcony at third floor is at same elevation as interior floor. How will the door sill be waterproofed if at same elevation?

Response – Please reference detail 4/SD.03 which shows a triple sill pate at door threshold for eliminating the water issue.

#45– Provide drainage from 3rd floor balcony.

Response – Drainage is provided with a scupper and downspout on the front of the balcony. Please see A4.1

#46– Section AVW plan regarding number of stair risers. Verify there are no headroom conflicts as a result.

Response – Please reference section A5.1 and A5.2 which clearly show the headroom and how the stairs meet the headroom clearances.

#47– Handrails not indicated at rear upper unit entry steps.

Response – All handrails are shown where required.

#48– Basement wall framing AVW plans which omit wood framing.

Response – This is not a comment.

#49– Handrail detail omits diameter. Verify compliance with IBC 1014. Typical stair detail references a 2x4 handrail which does not meet graspability requirements of 1014.3.2      Response – Reference new handrail detail on sheet A5.1

#50– Notes missing from framing details in lower right corner

Response – New drawings Not applicable.

#51– Exterior wall details in lower right corner do not provide required fire rating. Hurricane clip detail references 2X4 wall framing AVW other details.

Response – All walls needed to be fire rated are shown as such. Hurricane clips are shown on SD.03 and SD.04.

#52– Electric water heater schedule indicates electric water heater AVW gas fitting sheet which indicates gas water heater.

Response – Water heater called out matches schedule

#53– Outside makeup air duct doesn't appear to be insulated

Response – This is shown please reference sheet M.01 and M.02

#54– Toilet exhausts, combustion air exhausts and laundry exhausts all violate requirements of IBC 503.1. regarding minimum distance of discharge from property lines (both adjacent lot lines and front property line).

Response – All exhausts have been updated to meet the min distance to the property line. Reference M.01 and M.02

#55– Furnace exhaust depicted venting to roof which has a roof deck

Response – No vents are venting to roof now.

#56– Provide makeup air for clothes dryers in accordance with IMC 504.5

Response – This is updated. Please see M.01 and M.02 for compliance.

#57– Dryer exhaust duct lengths exceed that allowed under IMC 506.5.4 (at least for lower level front unit, did not check all cases.. .90 deg elbow = 5 feet)

Response – This is updated. Please see M.01 and M.02 for compliance.

#58– How is volume of makeup air controlled?

Response – Please reference sheets M.01, M.02 and manual J calcs.

#59– Ductwork is not even remotely coordinated with structural drawings.

Response – Reference new structure drawings. S.01-S.04.

#60– Drawings merely recite air barrier requirements without providing project specific details for how to meet requirements.

Response – Sections show all insulation. Cover sheets calls out min requirements. Wall detail 1 on UL.01 shows the sealing of joints at the exterior. Detail 6 on AD.07 shows insulation requirements at recessed cans at building envelope.

#61– *Verify notes regarding cutting and notching of joists are acceptable to joist manufacturer (TJIs specified in structural drawings).*

Response – New structure drawings and open webs are being used. S.01-S.04

#62– *Cover sheet indicates project will be fully sprinklered but plumbing drawings do not show sprinkler service or system. Will impact service line sizing*

Response – Project is fully sprinklered please see FP.01 and FP.02 for fire suppression drawings.

#63– *Locate each unit shutoff within the unit served. Drawings show all shut offs located in lower level units*

Response – Lower levels are not a separate unit.

#64– *Provide roof drainage in accordance with 1503.4. Provide secondary means of drainage.*

Response – Two downspouts are located on the rear of the units. Please see P.02

#65– *Provide area drains at window wells and courtyard. Indicate downspouts and where tied to drains. Verify no water will discharge to adjacent property or public space.*

Response – A riser diagram is shown that the area way drains and roof drains tie to the waste line. No water will discharge to adjacent property spaces.

#66– *Verify no hose bib is required at the front of the property. Recommend providing a shut off valve at each hose bi.*

Response – There is nothing in the code requiring these.

#67– *Vents through roof conflict with roof deck. Must discharge 10 feet above deck which unlikely.*

Response – There are no vents in the roof. Please see P.02

#68– *This sheet makes reference to a fire service but no other fire sprinkler information is provided.*

Response – Project is fully sprinklered please see FP.01 and FP.02 for fire suppression drawings.

#69– *Panels #1 & #3 do not have required clear working space in front of panel.*

Response – Panels 1 and 2 have more than a the required. See E.01

#70– *Electrical panel board diagrams indicate heat pumps AVW mechanical drawings which indicate furnaces.*

Response – Mechanical and electrical are coordinated.

#71– *Smoke detectors missing from rear upper unit main living level and bedroom #2 and front upper unit bedroom #2. The lack of required fire rating makes any issue that increases the risk of fire propagation of particular concern to adjacent property owners.*

Response – Please reference E.03 and E.04 all smoke detectors meet the code regulations.

#72– *Locate sump pump on architectural and plumbing drawings. Indicate extend of sub slab drainage system.*

Response – Sump is shown on arch and plumbing drawings.

#73– *These specifications AVW numerous other portions of the set. For example, this sheet calls for R-13 exterior wall insulation which does not meet current code requirements. Revise this sheet to current codes and to coordinate with project specific requirements.*

Response – All insulation meets code requirements. R-13 is only used in the basement which is allowed.

#74– *Sump pit appears to be installed in an inaccessible location. Electrical drawings reference a sump pump, but structural drawings show a pipe from sump pit to rear property line and indicate discharge to daylight. How would that even work? Is it legal to discharge your sump pit water into public space? I don't think so.*

Response – Sump is located under the stairs. All drawings coordinate.

#75– *Architectural drawings suggest an elevated concrete slab at upper front unit entry. Structural drawings show steel framing. This will impact front elevation which is of concern to adjacent property owners.*

Response – The structural drawings show concrete as well. Please see S.01

#76– *Wall Type 1 shows a new brick footing AVW plans*

Response – Please see sheet S.01 for footings.

#77– *Wall Type 2 indicates existing footing to remain but appears to show footing lowered.*

Response – Please see sheet S.01 for footings.

#78– *Structural details do not show required insulation. Do not show sealing between footing and slab. Do not show interior wall framing or insulation.*

Response – The structural details do not show insulation since that is part of the architectural element. All new structural details have been provided, see sheets Sd.01-SD.04.

#79– *No footing indicated for posts P3.*

Response – All structure is new.

#80– *Plans reference typical stair details but no details are provided for the L shaped stairs. Provide and coordinate carriage with air sealing requirements.*

Response – All landing supports are show on the structural sheets, ref S.01-S.04

#81– *The structural engineer certification form is signed by an individual who is not a structural engineer.*

Response – The plans are now signed by a new engineer licesensed in DC.

We appreciate the opportunity to assist you with this project. Should you have any further questions regarding this plan submittal, please feel free to contact me directly at 703-988-2350.

Best Regards,

**Shawn P. Kelley, P.E.**

Principal, Structural Engineer

**moment ENGINEERING + DESIGN**

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Attachments:

- a. Updated clouded sheets