Department of Consumer and Regulatory Affairs

DCRA will be conducting systems maintenance this evening from 7 pm Wednesday, November 30, 2016 until 5 am on Thursday, December 1, 2016. Online application services related to **permits & licensing** will be unavailable during this time period.

Department of Consumer and Regulatory Affairs

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1514 Q Street, NW - Determination Letter

Tuesday, March 22, 2016

Letter of Determination

1514 Q Street, NW - Letter of Determination

The Zoning Administrator issues determination letters resulting from requests by property owners, developers, architects, and land use attorneys inquiring about the applicable zoning regulations applicable to specific development proposals. These letters offer guidance to requesting parties as to whether a proposed project, such as a new building, an addition to an existing building, or a use change, conform to the District's Zoning regulations as set forth in in DCMR Title.

Attachment(s):

- 1514 Q Street, NW - Determination Letter - 2.1 MB (pdf)
- 1514 Q Street, NW - Letter - 497.1 KB (pdf)
- 1514 Q Street, NW - Photos of Cellar Area measurements - 2.2 MB (pdf)
- 1514 Q Street, NW - Plan showing Cellar Area measurements - 125.7 KB (pdf)
- 1514 Q Street, NW - Proposed Plans - 9.5 MB (pdf)

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GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS
OFFICE OF THE ZONING ADMINISTRATOR

March 21, 2016

Samantha Mazo
Griffin, Murphy, Moldenhauer & Wiggins, LLP
1912 Sunderland Place, NW
Washington DC, 20036

Re: 1514 Q Street NW- Square 194, Lot 27 (the "Property")

Dear Ms. Mazo,

The purpose of this letter is to confirm the matters discussed at our PDRM on November 4, 2015 and subsequent meeting on January 22, 2016 concerning the above-referenced property. Further, I am aware that on February 12, 2016, there was a meeting on the Property with Ruben Legaspi, DCRA building inspector, Abigail Nichols, SMD 2B05, the property owner and the property owner's architect during which the measurements discussed below were taken and observed (the "February 12, 2016 Site Meeting").

I would like to memorialize our discussions and the observations of the February 12, 2016 Site Meeting regarding your client's proposed redevelopment of the Property. As explained more fully below, based on the evidence provided to me and attached hereto, the project proposed for the Property satisfies the requirements of Title 11 of the District of Columbia Municipal Regulations in effect as of the date of this letter (the "Zoning Regulations") and can be constructed as a matter of right.

Property Background

The Property is currently an existing row dwelling in the R-5-B Zone/Dupont Circle overlay. The Property is also a contributing building in the Greater 14th Street Historic District. The Property has approximately 2,200 s.f. of lot area. The property owner proposes to redevelop the Property into a four-unit apartment house with two parking spaces (the "Project"). The plans for the Project are included herein as Exhibit "A".

The Proposed Project complies with the Zoning Regulations

Uses

An "apartment house" is defined in 11 DCMR § 199.1 as "any building or part of a building in which there are three (3) or more apartments, or three (3) or more apartments and one (1) or more bachelor apartments, providing accommodation on a monthly or longer basis." Because the Project proposes a four-unit building, it is considered to be an "apartment house".
The apartment house use on the Property is permitted as a matter of right in the R-5-B Zone District pursuant to 11 DCMR § 350.4(f), which states "Multiple dwellings... provided, that in an apartment house, accommodations may be provided only to residents who stay at the premises a minimum of one (1) month" is "permitted as a matter of right."

Cellar

A "cellar" is defined in 11 DCMR § 199.1 as "that portion of a story, the ceiling of which is less than four feet (4 ft.) above the adjacent finished grade." This definition has been interpreted to find that a cellar condition exists when the bottom of the ceiling of the lowest level is not more than four feet above the adjacent, finished grade, as measured in the middle of the front of a building. (*See* December 6, 2011 Zoning Determination Letter for 1155 21st Street NW, and October 31, 2012 Zoning Determination Letter for 1725 C Street SE).

I was provided with photos of the Property taken during the February 12, 2016 Site Meeting, which are attached as Exhibit "B". These photos have been authenticated by the property owner who participated in that meeting, pursuant to the affidavit included as Exhibit "B". It is my understanding that the photos as Exhibit "B" accurately reflect the observations and conclusions made by the February 12, 2016 Site Meeting's attendees.

These photos depict the measurements from the adjacent, finished grade at the middle of the front of the building to the top of the mock-up of the proposed lower level ceiling (the "Cellar Area").[1] The photos as Exhibit "B", which were taken in the presence of a DCRA inspector and the Property's SMD Commissioner, document that the distance between the adjacent, finished grade and the ceiling of the lower-level story is 3' -11".[2] In addition, I have been provided evidence, in the form of an elevation plan attached here as Exhibit "C", that depicts the ceiling location vis-a-vis the window, further confirming that the distance between the adjacent, finished grade and the ceiling of the lower-level story is 3' -11".

It is my understanding that the attendees at the February 12, 2016 Site Meeting observed the measurement between the adjacent, finished grade and the bottom of the ceiling of the lower-level story to be 3' -11", which is consistent with the photographs and plans as Exhibit "B" and "C".[3] Therefore, it is my understanding that the February 12, 2016 Site Meeting attendees

[1] The mock up is necessary because the property owner does not yet have the building permits to construct the proposed ceiling.

[2] The photos also show that the distance between the concrete turn up at the adjacent grade and the ceiling of the lower-level story is 3' –9 ½ ".

[3] I note that Exhibit "C" also demonstrates that the floor to ceiling height of the Cellar Area is proposed to be 7' – 10".

concluded that the Cellar Area is a "cellar" as defined by the Zoning Regulations, based on these observations.

I also note that you propose to lower the existing ceiling of this lowest level of the building. The measurement of the 3` 11" cellar dimension would then be from this lowered ceiling level. This is permissible as there is no limitation in the Zoning Regulations from altering the ceiling level, and it has been this office's long standing practice to allow changes to the bottom of the ceiling level to measure the cellar minimum dimension. I also note that the reason for lowering the ceiling level is documented in two letters dated March 18, 2016 that you submitted to me from the project's architect KC Price and structural engineer Alex Sallah, P. E as Exhibit "D". In the letter from Mr. Price, he states:

> "The existing floor joists that span the length of the structure are 2x10's (9 ½" in depth) that do not meet current code or load limits to support the proposed use and are required to be maintained by the HPO office. This requires the new floor joists be placed 16" o.c. between the existing floor joist to maintain their integrity.[Also] The minimum required insulation between floors is R-19 and we must also provide an uninterrupted 1 hour fire separation between the cellar level and 1st floor...."

The effect of the larger joists is to lower the ceiling by 7 ¼ inches.

I also note that a concern was expressed by a neighboring resident over a possible change in the window sill height for the window that is at the front of the building that leads into the cellar area. Such a change to the window sill height does not have any effect on the cellar dimension measurement.

Based on the evidence provided to me, I concur with the observations and conclusions made at the February 12, 2016 Site Meeting. Accordingly, I have determined that the Cellar Area satisfies the Zoning Regulations' definition of a "cellar", because this evidence included as Exhibit "B" and Exhibit "C", as authenticated, demonstrates that the ceiling of the Cellar Area "is less than four feet (4 ft.) above the adjacent finished grade" in satisfaction of the definition of "cellar" at 11 DCMR § 199.1 referenced above.

Floor Area Ratio ("FAR")

The Zoning Regulations define FAR as, "a figure that expresses the total gross floor area as a multiple of the area of the lot. This figure is determined by dividing the gross floor area of all buildings on a lot by the area of that lot." 11 DCMR § 199.1. The term "gross floor area", is then defined as, "the sum of the gross horizontal areas of the several floors of all buildings on the lot, measured from the exterior faces of exterior walls and from the center line of walls separating two (2) buildings." 11 DCMR § 199.1. The term "gross floor area" further expressly states:

> The term "gross floor area" **shall not** include **cellars** and outside balconies that do not exceed a projection of six feet (6 ft.) beyond the exterior walls of the building. 11 DCMR § 199.1 (**emphasis added**).

Accordingly, as I have determined that the evidence provided to me demonstrates that the Cellar Area satisfies the definition of a "cellar" in the Zoning Regulations, I hereby confirm that the Cellar Area will not be counted against the FAR permitted in this zone.

In the R-5-B Zone District, the maximum FAR is 1.8. *See* 11 DCMR § 402.4. As shown on the plans as Exhibit "A", the proposed Project will have an FAR of 1.8. Accordingly, the Project's FAR satisfies the requirements of the R-5-B Zone District.

Height

The R-5-B Zone District permits a maximum height of 50 feet and no limit on stories. *See* 11 DCMR § 400.1. Pursuant to 11 DCMR § 400.18, the height of the Project will be measured as follows:

> From the [established at the existing grade at the mid-point of the building façade of the principal building that is closest to a street lot line – known as the BHMP] to the average level between the highest eave, not including the eave of a dormer and the highest point of the roof; and
>
> Where there are no eaves, the average level shall be measured between the top of the highest wall plate and the highest point of the roof.

As shown on the plans as Exhibit "A", the Project's proposed height is 45'- 3 ¾ " measured in accordance with 11 DCMR § 400.18. Therefore, because the proposed height is lower than the 50-foot maximum height in the Zone, the Project's height satisfies the requirements of the R-5-B Zone District.

Lot Occupancy

The R-5-B Zone District permits a maximum of 60% lot occupancy. *See* 11 DCMR § 403.2. As shown on the plans as Exhibit "A", the Project's proposed lot occupancy is 60%. Accordingly, the Project's lot occupancy satisfies the requirements of the R-5-B Zone District.

Rear Yard

Pursuant to 11 DCMR § 404.1, properties in the R-5-B zone must satisfy the following rear yard requirements:

> 4 inches per foot of vertical distance from the mean finished grade at the middle of the rear of the structure to the highest point of the main roof or parapet wall, but not less than 15 feet.

Based on the 45'- 3 ¾ " height, the Project requires a rear yard 11' 4" in size, which would be increased to 15 feet pursuant to 11 DCMR § 404.1, referenced above. The Project satisfies this requirement, because a 25'-7" is proposed as shown on the plans at Exhibit "A". Accordingly, the Project's rear yard satisfies the requirements of the R-5-B Zone District.

Side Yard

Pursuant to 11 DCMR § 405.9, no side yard is required for an apartment house in the R-5-B Zone. Accordingly, this Project does not provide a side yard, which satisfies the requirements of the R-5-B Zone District.

Parking

Pursuant to 11 DCMR § 2120.3, no parking spaces are required for this Project because the Property is a contributing building to the Greater 14th Street Historic District that does not trigger the parking requirement set forth in 11 DCMR § 2120.3 (a-b). However, the Project proposes two (2) parking spaces on a 418 s.f. parking pad in the rear. Accordingly, the number of parking spaces provided by this project exceeds the required number, and the Zoning Regulations' parking requirements have been satisfied.

Conclusion

After consideration of the representations made at the November 4, 2015 PDRM, January 22, 2016 meeting, my understanding of the observations and conclusions made at the February 12, 2016 Site Meeting, the plans and photos included herein at Exhibits A-C, including the applicable provisions of the Zoning Regulations discussed above, I have determined that there is sufficient evidence to determine the Cellar Area satisfies the definition of a "cellar" under 11 DCMR § 199.1. Therefore, the Project satisfies the requirements of the R-5-B Zone District.

Accordingly, it is my determination that the Project may be constructed as a matter of right, provided that the project plans filed with the applicable building permit do not substantially deviate from the plans attached here as Exhibit "A". My approval does not obviate the need to obtain all of the other approval required for a building permit.

I finally note that since the project is in the Greater 14th Street Historic District, and is subject to all applicable requirements administered by the Historic Preservation Office of the Office of Planning. No building permit can be issued without HPO's approval. Any authorized construction must also adhere to HPO's requirements.

Please let me know if you have any further questions.

Sincerely,

Matthew Le Grant
Zoning Administrator

Exhibits:
A) Proposed plans
B) Photos of Cellar Area measurements
C) Plan showing Cellar Area measurements
D) Letters dated 3-18-16 from KC Price and Alex Sallah, P. E.

File: Det Let re 1514 Q St NW to Mazo 3-21-16

Exhibit A

1514 Q STREET, NW

LEGEND:

GRID LINE

SECTION TAG

INTERIOR ELEVATION

EXTERIOR ELEVATION

DETAIL TAG

ELEVATION TAG

ELEVATION TAG

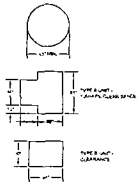
WINDOW TAG

DOOR TAG

WALL TYPE

DRAWING TITLE

ADA TURNING SPACE



ABBREVIATIONS:

AB	ANCHOR BOLT	GR	GRADE	R	RISER
A/C	AIR CONDITIONING	GTR	GUTTER	RAD	RADIUS
ACT	ACOUSTICAL CEILING TILE	GWB	GYPSUM WALL BOARD	RD	RDDF DRAIN
ADJ	ADJUSTABLE	HB	HOSE BIB	REBAR	STEEL REINFORCING BAR
AFF	ABOVE FINISHED FLOOR	HC	HANDICAP	REC	RECESSED
BD	BOARD	HD	HEAD	REFG	REFRIGERATOR
BIT	BITUMINOUS	HDR	HEADER	REINF	REINFORCED
BKG	BLOCKING	HDW	HARDWARE	REQ	REQUIRED
BLDG	BUILDING	HGR	HANGER	REV	REVERSE
BM	BEAM	HOR	HORIZONTAL	RFG	ROOFING
BOF	BOTTOM OF FOOTING	HT	HEIGHT	RH	RIGHT HAND
BR	BRICK	HTG	HEATING	RM	ROOM
BRG	BEARING	HVAC	HEATING VENTILATING AND AIR CONDITIONING	RO	ROUGH OPENING
C	COURSE			RTG	RATING
CAB	CABINET	HW	HOT WATER	SCHD	SCHEDULE
CFM	CUBIC FEET PER MINUTE	HWD	HARDWOOD	SECT	SECTION
CI	CAST IRON	ID	INSIDE DIAMETER	SF	SQUARE FOOT
CLG	CEILING	INS	INSULATION	SHT	SHEET
CMU	CONC MASONRY UNIT	INT	INTERIOR	SIM	SIMILAR
COL	COLUMN	JB	JAMB	SM#	SMOOT LUMBER
CONC	CONCRETE	JST	JOIST		COMPANY DESIGNATION
CONT	CONTINUOUS	KIT	KITCHEN	SPEC	SPECIFICATION
CPT	CARPET	LAM	LAMINATED	SPKR	SPRINKLER
CT	CERAMIC TILE	LAV	LAVATORY	SQ	SQUARE
CTR	CENTER	LBS	POUNDS	S&R	SHELF AND ROD
DBL	DOUBLE	LH	LEFT HAND	STD	STANDARD
DEM	DEMOLISH/DEMOLITION	LT	LIGHT	STL	STEEL
DN	DOWN	MAS	MASONRY	STR	STRUCTURE
DR	DOOR	MAX	MAXIMUM	SUSP	SUSPENDED
DS	DOWNSPOUT	MECH	MECHANICAL	SYS	SYSTEM
DWG	DRAWING	MEMB	MEMBRANE	T	TREAD
EA	EACH	MFR	MANUFACTURER	T&G	TONGUE AND GROOVE
EL	ELEVATION	MIN	MINIMUM	TEL	TELEPHONE
ENCL	ENCLOSURE	MISC	MISCELLANEOUS	TEMP	TEMPERED
EQ	EQUAL	MLDG	MOLDING	THK	THICK
EQPT	EQUIPMENT	MO	MASONRY OPENING	TOF	TOP OF FOOTING
EX	EXISTING	MTD	MOUNTED	TOW	TOP OF WALL
EXP	EXPANSION	MTL	METAL	TV	TELEVISION
EXT	EXTERIOR	NO#	NUMBER	TYP	TYPICAL
FBRGL	FIBERGLASS	NTS	NOT TO SCALE	UON	UNLESS OTHERWISE NOTED
FD	FLOOR DRAIN	OC	ON CENTER	VB	VAPOR BARRIER
FDN	FOUNDATION	OD	OUTSIDE DIAMETER	VCT	VINYL COMPOSITION TILE
FF	FOIL FACE	OPG	OPENING	VERT	VERTICAL
FIN	FINISH	OPP	OPPOSITE	VT	VINYL TILE
FL	FLOOR	PC	PRECAST CONCRETE	W/	WITH
FLG	FLASHING	PL	PLATE	WD	WOOD
FOM	FACE OF MASONRY	PLAM	PLASTIC LAMINATE	WIN	WINDOW
FS	FULL SIZE	PLAS	PLASTER	W/O	WITHOUT
FT	FOOT OR FEET	PNL	PANEL	WP	WATERPROOFING
FTG	FOOTING	PNT	PAINT	WR	WATER RESISTANT
FUR	FURRING	PR	PAIR	WSCT	WAINSCOT
GA	GAUGE	PSF	POUNDS PER SQ FOOT	WT	WEIGHT
GAL	GALVANIZED	PSI	POUNDS PER SQ INCH	WWF	WELDED WIRE FABRIC
GC	GENERAL CONTRACTOR	PVC	POLYVINYL CHLORIDE		
GL	GLASS	PLY	PLYWOOD		

APPLICABLE BUILDING CODES		
This project conforms to all applicable building codes and zoning regulations for the District of Columbia. All codes subject to the District of Columbia Construction Codes 2013 Supplement Amendments and all revisions		
BUILDING IRC 2012:	INTERNATIONAL RESIDENTIAL CODE - 2012, DCMR 12A	
MECHANICAL IMC 2012:	INTERNATIONAL MECHANICAL CODE - 2012, DCMR 12E	
PLUMBING IPC 2012:	INTERNATIONAL PLUMBING CODE - 2012 DCMR 12F	
ELECTRICAL:	2005 NEC/NFPA 70 - NATIONAL ELECTRICAL CODE, DCMR12C	
FIRE IFC 2012:	INTERNATIONAL FIRE CODE - 2012, DCMR 12H	
ENERGY IECC 2012:	INTERNATIONAL ENERGY CONSERVATION CODE - 2012 DCMR12I	
FUEL IFGC 2012:	INTERNATIONAL FUEL GAS CODE - 2012, DCMR 12D	
EXISTING BLDG IEBC 2012:	INTERNATIONAL EXISTING BLDG CODE - 2012 DCMR 12J	
PROPERTY IPMC 2012:	INTERNATIONAL PROPERTY MAINTANCE CODE - 2012, DCMR 12G	
AMENDMENTS:	DCMR12 BUILDING CODE REGULATIONS, 2009	
ZONING:	DCMR TITLE 11 - ZONING REGULATIONS	
ADA:	ICC/ANSI A117.1-2003: ACCESSIBLE AND USABLE BUILDINGS & FACILITIES	

BUILDING CLASSIFICATIONS		
USE GROUP (IBC 2012 - 310)	R-2	
TYPE OF CONSTRUCTION (IBC 2012 - 602)	TYPE VA	

PROJECT NARRATIVE:

CHANGE OF USE FROM SINGLE FAMILY HOME TO 4 UNIT APARTMENT BUILDING, INCLUDING MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL. BUILDING TO BE FULLY SPRINKLED

DRAWING LIST:

GENERAL NOTES:

CONTRACTOR SHALL VERIFY AND FAMILIARIZE HIMSELF WITH ALL FIELD CONDITIONS PRIOR TO SUBMITTING PROPOSALS AND COMMENCING CONSTRUCTION. FIELD CONDITIONS NOT AGREEING WITH CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER & DESIGNER PRIOR TO BEGINNING WORK. ALL ADDITIONAL WORK NEEDED TO COMPLETE THE PROPOSED PROJECT WHICH IS NOT INDICATED ON DRAWINGS SHALL RECEIVE PRIOR AUTHORIZATION FROM THE HOMEOWNER.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INCLUSION OF ALL WORK NECESSARY FOR A COMPLETE INSTALLATION WHETHER SUCH WORK IS INDICATED ON DRAWINGS OR SPECIFICATIONS.

ALL MANUFACTURED / PREFABRICATED ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE WRITTEN MANUFACTURES SPECIFICATIONS.

JOB SITE SHALL BE KEPT IN A CLEAN AND ORDERLY FASHION AT THE END OF EACH DAYS WORK. ALL WARRANTIES, GUARANTIES AND MANUFACTURERS INSTRUCTIONS SHALL BE PRESENTED TO THE HOMEOWNER IN A COMPLETE AND ORDERLY MANNER AT THE CONCLUSION OF CONSTRUCTION. ALL WORK PERFORMED SHALL BE EXECUTED TO GREATER THAN STANDARD BUILDING QUALITY AND SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.

THE DESIGNER SHALL NOT BE RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, OR FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE FAILURE OF THE CLIENT OR HIS CONTRACTORS, SUBCONTRACTORS OR ANYONE PERFORMING WORK, TO CARRY OUT THE WORK IN ACCORDANCE WITH THE APPLICABLE RESIDENTIAL CODES, REGULATIONS, AND CONTRACT DOCUMENTS.

BY A LICENSED GENERAL CONTRACTOR ENTERING INTO AGREEMENT WITH THE HOMEOWNER/PROPERTY OWNER, HE AGREES TO KEEP CURRENT ALL INSURANCES, WORKER'S COMPENSATION AS REQUIRED, AND AGREES TO INDEMNIFY/HOLD HARMLESS THE HOMEOWNER/ PROPERTY OWNER FROM ANY ACCIDENTS OCCURRING FROM THE SCOPE OF WORK REQUIRED TO COMPLETE THE PROPOSED PROJECT.

CONTRACTORS SHALL BE RESPONSIBLE FOR REMOVING & DISPOSING OF DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM WORK AT THE JOB SITE. CONTRACTOR SHALL PROVIDE PROTECTION BETWEEN THE NEW CONSTRUCTION AND THE EXISTING BUILDING AND TAKE ADEQUATE MEASURES TO KEEP DUST TO A MINIMUM. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL CLEAN THE ENTIRE PREMISES AND TURN OVER ALL KEYS USED DURING CONSTRUCTION, OLD AND NEW. SEE NOTE ABOVE.

ALL EXISTING CONDITIONS SHOULD BE FIELD VERIFIED INCLUDING DIMENSIONS AND STRUCTURE. SOME VARIATIONS COULD EXIST AND IT IS THE RESPONSIBILITY OF OTHERS TO CONFIRM THE INFORMATION HEREIN.

KC/DC STUDIOS

1514 Q STREET, NW

1514 Q STREET, NW
WASHINGTON, DC 20009
LOT:0027 SQUARE:0194

DISTRICT OF COLUMBIA
REGISTERED
ARCHITECT

SCALE:	AS NOTED
DATE:	02/29/2016
PROJECT NUMBER:	1514 Q

CS

Permit #:

Compliance Approach Used: ○ Prescriptive ○ Trade Off ○ Performance

Project Type: ○ New Building ⊠ Addition ○ Level 3 Alteration

2012 IECC Section #	Pre-Inspection Section Description	Prescriptive Code Value	Plan Value	Designer Identified Dwg Page	Plan Review	Field Insp.
302.1, 403.6 MR	Heating and Cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J	N/A				
2012 IECC Section #	**Foundation Inspections**	**Prescriptive Code Value**	**Plan Value**	**Identified Dwg Page**	**Plan Review**	**Field Insp.**
402.1.1 SR	Slab Insulation R-value. Perimeter insulation extending downward from the top of the slab surface	Unheated R-10 Heated R-15		A0301		
402.1.1 SR	Slab Insulation depth.	2 feet		A0301		
402.1.1 SR	Conditioned basement wall insulation R-value. Where internal insulation is used, verification to occur during insulation inspection	Continuous R-10 Cavity: R-13		A0301		
303.2 I	Conditioned basement wall insulation installed per manufacturer instructions.	N/A				
402.2.8 SR	Conditioned basement wall insulation depth of burial or distance from top of wall.	10 ft or to bsmt. floor		N/A		
402.2.10 SR	Unvented crawlspace wall insulation R-value	Continuous: R-10 Cavity: R-13		N/A		
303.2 I	Unvented crawlspace installed per manufacturer's instructions	N/A				
402.2.10 SR	Unvented crawlspace continuous vapor retarder installed over exposed earth, joints overlapped by 6 in. and sealed, extending at lest 6 in. up and attached to the wall.	Continuous R-10 Cavity: R-13		N/A		
402.2.10 SR	Unvented crawlspace wall insulation depth of burial or distance from top of wall	To finished grade +24 in. vert. & / or horiz.		N/A		
303.2.1 S	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.	N/A		N/A		
403.8 ER	Snow and Ice-melting system controls installed.			N/A		

2012 IECC Section #	Framing/ Rough-In Inspection	Prescriptive Code Value	Plan Value	Identified Dwg Page	Plan Review	Field Insp.
402.1.1, 402.3,4 SR	Door U-factor	U-0.35		CS-2		
402.1.1, 402.3.1, 402.3.3 SR	Glazing U-factor (Area weighted average, show proof of average if any u-value is less than 0.35)	U-0.35		CS-2		
402.1.1, 402.3.2, 402.3.3, 402.3.6, SR	Glazing SHGC value (Area weighted average)	SHGC: 0.4		CS-2		

Key: Mandatory for all Compliance Approaches as Relevant to the Scope of Work

2012 IECC Section #	Framing/ Rough-In Inspection	Prescriptive Code Value	Plan Value	Designer Identified Dwg Page	Plan Review	Field Insp.
303.1.3 I	U-factors of fenestration products are determined in accordance with the NFRC or the default table values.			CS-2		
402.1.1, 402.3.3, 402.3.6 SR	Skylight U-factor	U-0.55 (15 square foot exemption)		N/A		
402.1.1, 402.3.3, 402.3.6 SR	Skylight SHGC	SHGC: 0.30 (0.5 max w/ tradeoff, 15ft²exempt		N/A		
303.1.3 I	SHGC values were determined in accordance with the NFRC or the default table values.			N/A		
402.1.1 SR	Mass wall exterior insulation R-value.	R-13 Interior R-8 Exterior		A0301		
303.2 I	Mass wall exterior insulation installed per manufacturer's instructions.	N/A		N/A		
402.3.5 SR	Fenestration in thermally isolated sunrooms has a max. U-factor of 0.45. All other sunroom fenestration must meet code requirements.	Not Isolated 0.35 Isolated:0.45		N/A		
402.3.5 SR	Skylights in thermally isolated sunrooms has a max. U-factor of 0.7. All other sunroom skylights must meet code requirements.	Not Isolated 0.55 Isolated:0.7		N/A		
402.4.1.2 SR	Additions, alterations, renovations and replair shall be completed in accordance with Table 402.4.1.1.	Not Isolated 0.55 Isolated:0.7				
402.4.1.1 I	Air and Thermal Barrier installed per Manufacturer's instructions.					
402.4.3 I	Fenestration is listed and labeled as meeting AAMA/ WDMA/CSA 101/I.S. 2/A440 or does not exceed code limits per NFRC 400.	0.3 CFM/ft²				
402.4.4 E	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤ 2.0 CFM leakage at 75 Pa.			E1		
403.2.1 MR	Supply Ducts in attic are insulated to ≥ R-8. All other ducts in unconditioned spaces or outside the building envelope are ≥ R-6.	Attic: R-8 Other: R-6		M1		
403.2.2 MR	All joints and seams of air ducts, air-handlers, and filter boxes are sealed.			M1		
403.2.3 MR	Building cavities are not used as ducts or plenums.					
403.3 MR	HVAC piping carrying fluids > 105°F or fluids < 55°F are insulated to ≥ R-3.	HVAC Pipe ≥ R-3		M1		
403.3.1 MR	Protection of insulation on HVAC piping.			M1		
403.4.2 MR	Hot water pipes are insulated to ≥ R-3.			M1		
403.5 MR	Auto./ gravity dampers install on all intakes/ exhausts.			M1		

2012 IECC Section #	Insulation Inspections	Prescriptive Code Value	Plan Value	Designer Identified Dwg Page	Plan Review	Final Review
303.1 I	All installed insulation labeled or installed R-values provided.			A0301		
402.1.1, 402.2.6 SR	Floor Insulation R-value	Wood: R-19 Steel: R-19+6		A0301		
303.2, 402.2.7 SR	Floor insulation installed per mnfr instructions, and substantial contact with underside of floor.			A0301		
402.1.1, 402.2.5 402.2.6 SR	Wall Insulation R-value. If a mass wall with ½ insulation on the wall exterior, ext insulation applies.	Wood:R-20 or R-13+5 Mass: R-13 Int. R-8 Ext. Steel:R19+8		A0301		
402.1.1 SR	Mass wall exterior insulation R-value.	R-13 Interior R-8 Exterior		A0301		
402.2.12 S	Walls of thermally isolated sunrooms have a min. R-13. All other sunrooms must meet code requirements.	Isolated:R13		N/A		
302.2 I	Sunroom walls insulation installed per manufacturer's instructions.			N/A		
402.2.12 S	Ceilings of thermally isolated sunrooms have min. R-24. All other sunroom ceilings must meet code requirements	Isolated: R-24		N/A		
302.2 I	Sunroom ceiling insulation installed per manufacturer's instructions.			N/A		
2012 IECC Section #	**Final Inspections**	**Prescriptive Code Value**		**Identified Dwg Page**	**Plan Review**	**Field Insp.**
402.2.1 402.2.6 SR	Ceiling Insulation R-value	Wood: R-49 Steel: U-0.026		A0301		
303.1.1.1 303.2 I	Ceiling insulation installed per mnfrs instructions. Blown ins. marked every 300ft²			A0301		
402.2.3 SR	Baffle over air permeable insulation adjacent to soffit and eave vents.			N/A		
402.2.4 SR	Attic access hatch and door insulation ≥ R-value of adjacent assembly.	≥ R-value of adjacent assembly		N/A		
402.4.1.2 I	Blower door test @ 50 Pa≤5 Air Changes per Hour. Applies to Level 3, Gut Rehab, New	ACH50≤5.0		A0101		
402.4.2 I	Wood burning fireplaces have tight fitting flue dampers and outdoor air for combustion.			N/A		
403.2.2 I	Total Duct leakage test ≤8 CFM/100 ft² with air-handler installed.	≤8 CFM/ 100 ft²		M1		
403.2.2.1 I	Air-handler leakage designed by mfr. at ≤2% of air-flow.			M1		
403.8 I	HVAC equipment type and capacity as per plans.			M1		
403.1.1 MR	Programmable thermostats installed on forced air furnace			M1		
403.1.2 MR	Heat pump thermostat installed on heat pumps.			M1		
403.4.1 MR	Circulating hot water systems have auto. or accessible manual controls.			M1		
404.1 ER	75% lamps in permanent fixtures or 75% permanent fixtures use high effic. lamps			E1		

DCRA Energy Verification Sheet

Low-Rise Residential Version 1.0_2014

This Energy Verification Sheet is based on DOE's Store and Score spreadsheets and was adapted to fit the 2013 DC Energy Conservation Code. This verification sheet does not replace the 2013 DC ECC or 2012 IECC and is included for DCRA to verify significant requirements during permitting and inspection. The project team shall design and install the building to the full energy code whose measures specific to the project may not be included in this sheet. The project team shall also include this document into their drawings and fill it in for low-rise residential projects completing Level 3 Alterations or new construction. Elements that are not applicable to the scope of work shall be marked "N/A" in the "Designer Identified Drawing Page #" & "Plan Value" columns. Elements that are applicable shall be marked with the relevant page number where the item is specified in the drawings. Exemptions to items on this sheet shall be indicated so that plan reviewers and inspectors may verify compliance by code section number references and brief description. Projects using the Performance Path need to fill in only the highlighted, mandatory rows. Other Compliance Approaches require filling in all rows. Completion of this page does not absolve project teams from providing other energy verification documentation.

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1514 Q STREET, NW
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WASHINGTON, DC 20009
LOT:0027 SQUARE:0194

DISTRICT OF COLUMBIA REGISTERED ARCHITECT

SCALE: AS NOTED
DATE: 02/29/2016
PROJECT NUMBER: 1514 Q

CS-1

CLIMATE ZONE	FENESTRATION U-FACTOR[b]	SKYLIGHT[b] U-FACTOR	GLAZED FENESTRATION SHGC[b,e]	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE[i]	FLOOR R-VALUE	BASEMENT[c] WALL R-VALUE	SLAB[d] R-VALUE & DEPTH	CRAWL SPACE[c] WALL R-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13+5[h]	8/13	19	5/13[f]	0	5/13
4 except Marine	0.35	0.55	0.40	49	20 or 13+5[h]	8/13	19	10/13	10, 2 ft	10/13
5 and Marine 4	0.32	0.55	NR	49	20 or 13+5[h]	13/17	30[g]	15/19	10, 2 ft	15/19
6	0.32	0.55	NR	49	20+5 or 13+10[h]	15/20	30[g]	15/19	10, 4 ft	15/19
7 and 8	0.32	0.55	NR	49	20+5 or 13+10[h]	19/21	38[g]	15/19	10, 4 ft	15/19

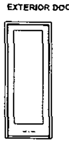
BUILDING DATA	EXISTING	PROPOSED
HEIGHT ABOVE GRADE	33'-1 1/2"	45'-3 3/4"
HEIGHT BELOW GRADE	3'-11"	3'-11"
GROSS SQ. FT. PER FLOOR - CALCULATED FROM EXTERIOR WALLS		
CELLAR	748 sq. ft.	1,320 sq. ft.
1st FLOOR	748 sq. ft.	1,320 sq. ft.
2nd FLOOR	748 sq. ft.	1,320 sq. ft.
3rd FLOOR	-	924 sq. ft.
MEZZ	-	396 sq. ft.
USE GROUP	R-3	R-2
CONSTRUCTION TYPE	TYPE - VA	TYPE -VA
SPRINKLER SYSTEM	NO	YES
FIRE ALARM SYSTEM	NO	YES
FIRE EXTINGUISHERS	YES	YES
SMOKE DETECTION SYSTEM	YES	YES
ADA ACCESSIBILITY	NO	NO
FLOOR AREA (GFA) (INC. CELLAR)	2,244 sq. ft.	5,280 sq. ft.
NUMBER OF STORIES ABOVE GRADE IBC/CHAPTER 5	2	TYPE -VA 3S / 12,000
SOUND TRANSMISSION CLASS	50	50

ZONING DATA	EXISTING	PROPOSED
SQUARE:	0194	0194
LOT:	0027	0027
ZONE:	R-5-B	R-5-B
YEAR BUILT	1885	2015
LOT AREA	2,200 sq. ft.	2,200 sq. ft.
GFA (NIC. CELLAR FLOOR)	1,496 sq. ft.	3,960 sq. ft.
F.A.R.	1.47	1.8
BUILDING AREA	748 sq. ft.	1,320 sq. ft.
LOT OCCUPANCY	34%	60%
NO. STORIES ABOVE GRADE	2 + C	3 + C
BUILDING HEIGHT	33'-1 1/2"	45'-3 3/4"
NO. OF UNITS	1	4
SIDE YARD SET BACKS	0	0
REAR YARD SET BACK	35'-8"	25'-7"

INTERIOR CEILING & WALL FINISH REQUIREMENTS FOR GROUP R-2	
ITEM	FINISH CLASS
EXIT ENCLOSURES/PASSAGE	C
CORRIDORS	C
ROOMS/ENCLOSED SPACES	C

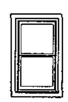
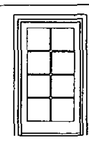
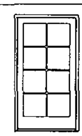
DOOR SCHEUDLE		
TAG	SIZE	DESCRIPTION
24X80	2'-0" X 6'-8"	FLAT PANEL SOLID CORE MASONITE
30X80	2'-6" X 6'-8"	FLAT PANEL SOLID CORE MASONITE
30X80 FRENCH	2'-6" X 6'-8"	WEATHERSHIELD LOW-E U .30
36X80	3'-0" X 6'-8"	FLAT PANEL SOLID CORE MASONITE
36X80 ENTRY	3'-0" X 6'-8"	EXTERIOR ENTRY DOOR / EXTERIOR ROOF DECK ENTRY
36X80 2 HR	3'-0" X 6'-8"	FLAT PANEL 60 MIN RATED FIRE DOOR
48X80	(2) 2'-0" X 6'-8"	FLAT PANEL SOLID CORE MASONITE
60X80	(2) 2'-6" X 6'-8"	FLAT PANEL SOLID CORE MASONITE
60X80	(2) 2'-6" X 6'-8"	WEATHERSHIELD LOW-E U .30

EXTERIOR DOOR SCHEDULE



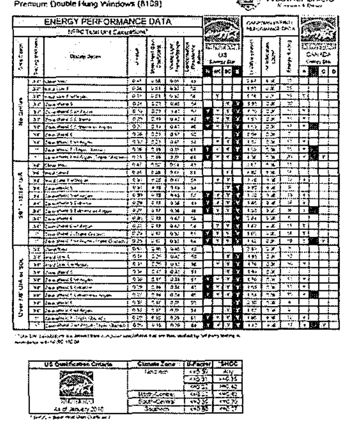
36X80 ENTRY

WEATHERSHIELD PREMIUM LINE
ENERGY STAR
U FACTOR - .30
STANDARD LOW-E

WINDOW SCHEDULE		
TAG	ELEVATION	DESCRIPTION
A		WEATHERSHIELD PREMIUM LINE ENERGY STAR U FACTOR - .30 STANDARD LOW-E
B		WEATHERSHIELD PREMIUM LINE ENERGY STAR U FACTOR - .30 STANDARD LOW-E
D		WEATHERSHIELD PREMIUM LINE ENERGY STAR U FACTOR - .30 STANDARD LOW-E

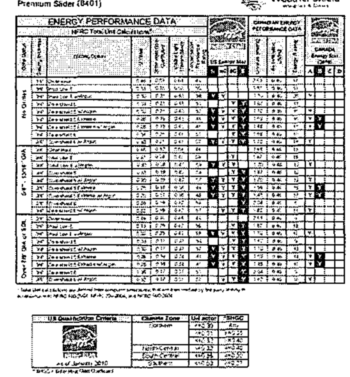
Thermal Performance Data
Premium Double Hung Windows (8109)

Weather Shield



Thermal Performance Data
Premium Slider (8401)

Weather Shield



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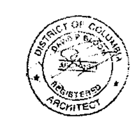

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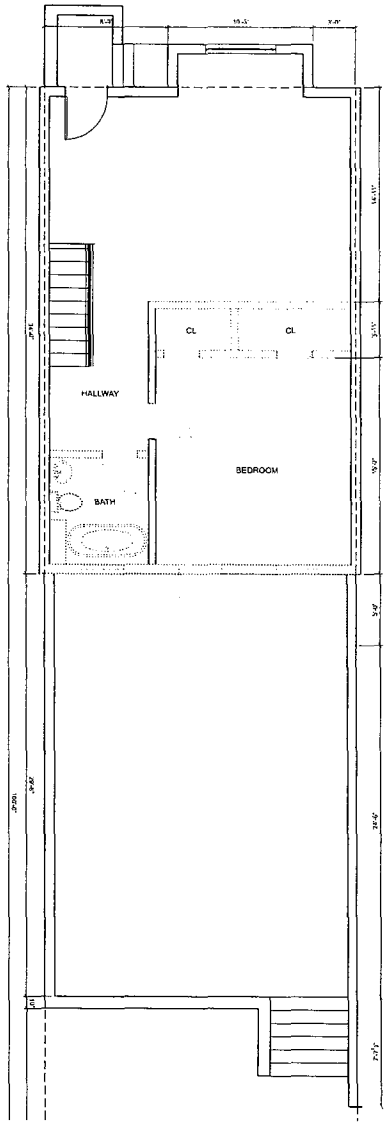
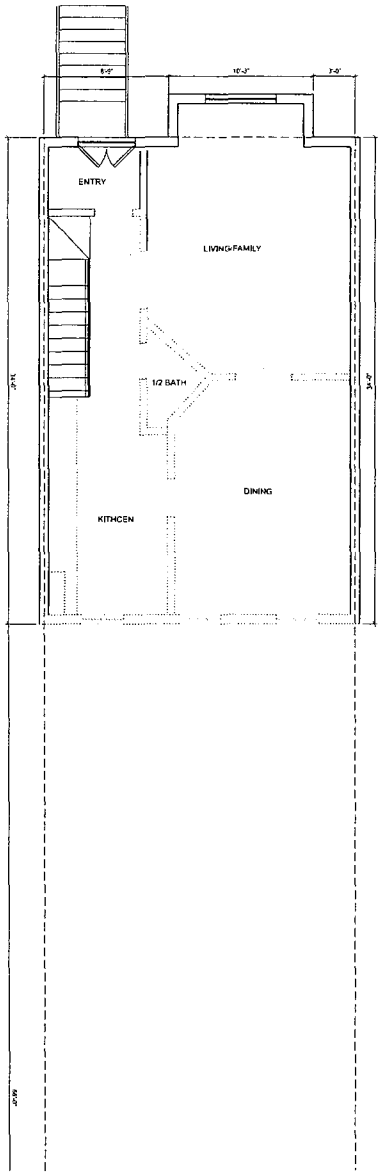
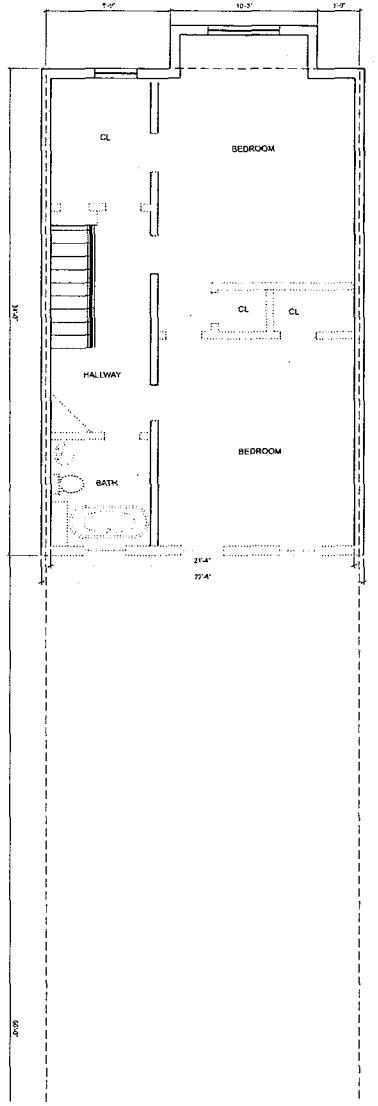
CS-2



1 CELLAR FLOOR PLAN - DEMO
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



2 1ST FLOOR PLAN - DEMO
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



3 2ND FLOOR PLAN - DEMO
SCALE: 1/4" = 1'-0" 24X36 LAYOUT

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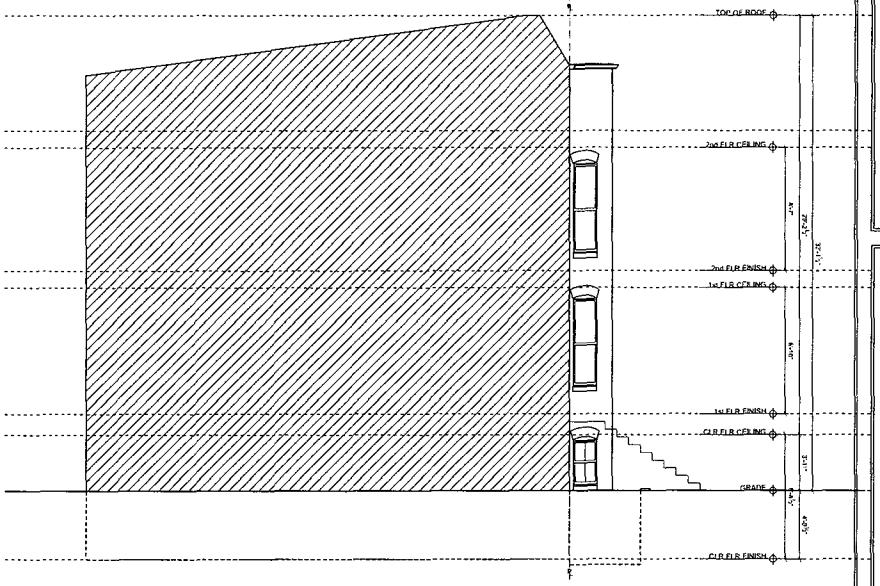
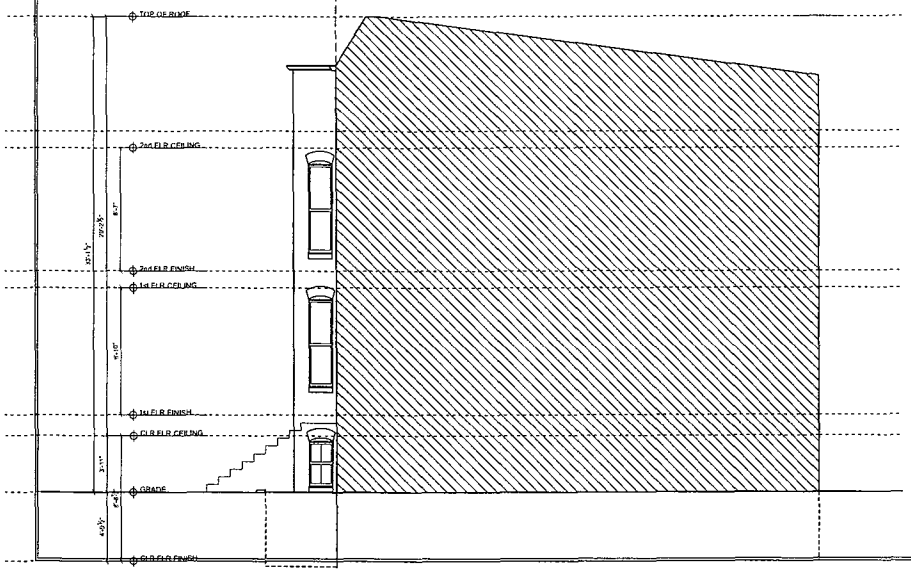
AD0101

1 NORTH FACADE - EXISTING
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



2 EAST FACADE - EXISTING
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



3 WEST FACADE - EXISTING
SCALE: 1/4" = 1'-0" 24X36 LAYOUT

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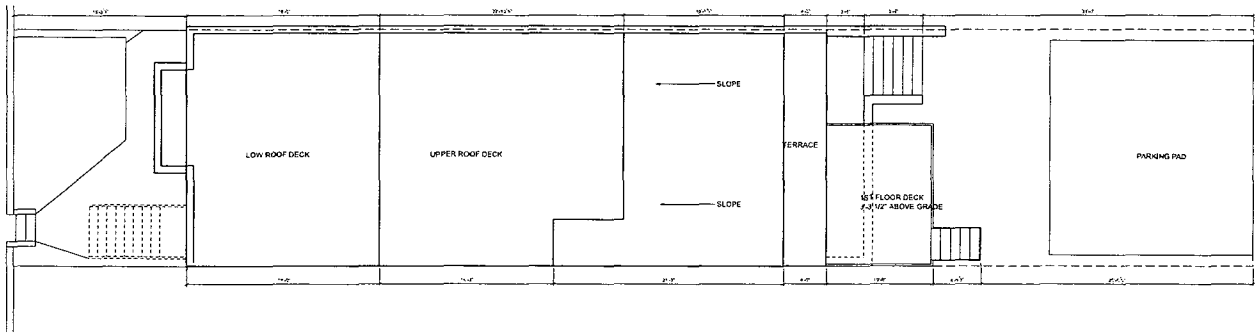
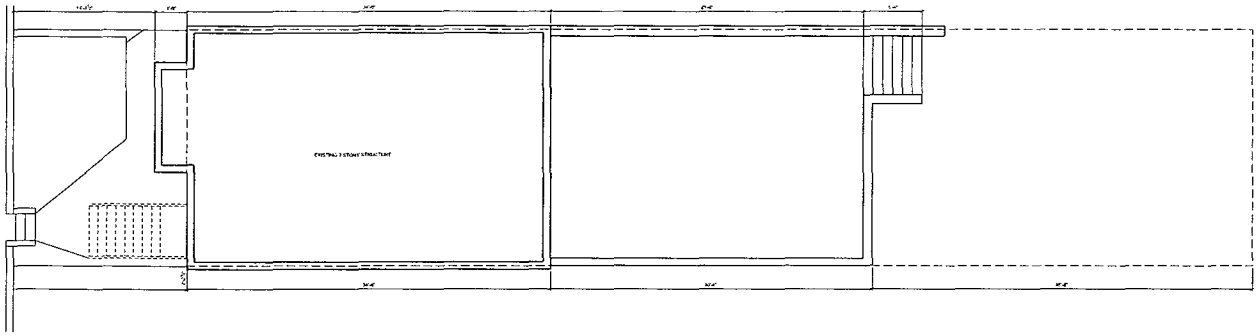
AD0201



1 PROPOSED SITE PLAN
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



2 EXISTING SITE PLAN
EXISTING SITE PLAN

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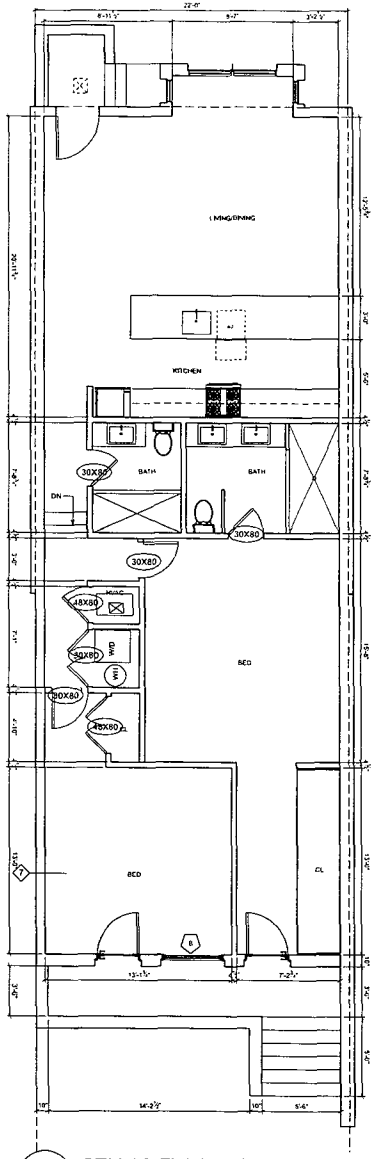
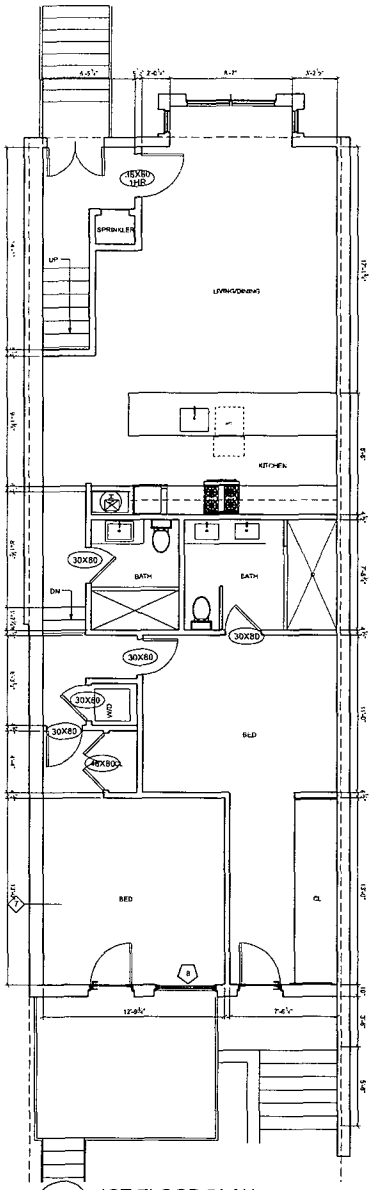
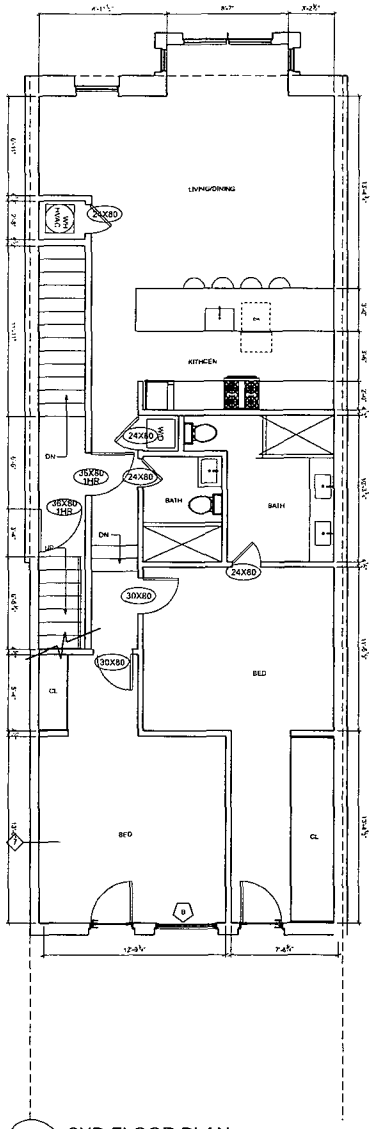
A0100



1 CELLAR FLOOR PLAN
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



2 1ST FLOOR PLAN
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



3 2ND FLOOR PLAN
SCALE: 1/4" = 1'-0" 24X36 LAYOUT

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DATE:	02/29/2016
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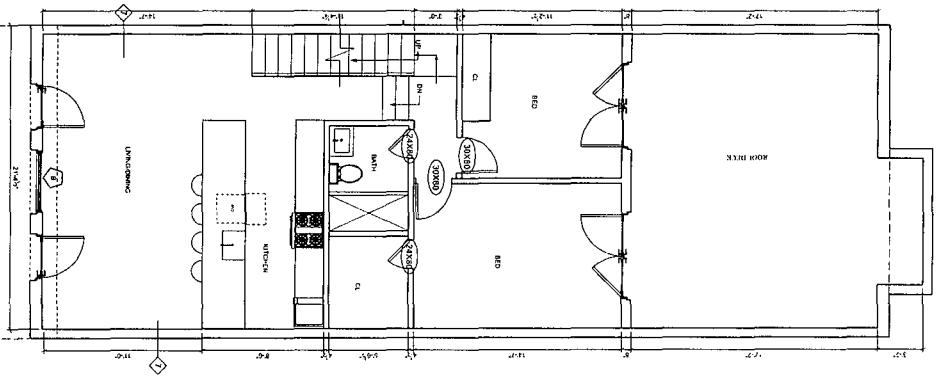
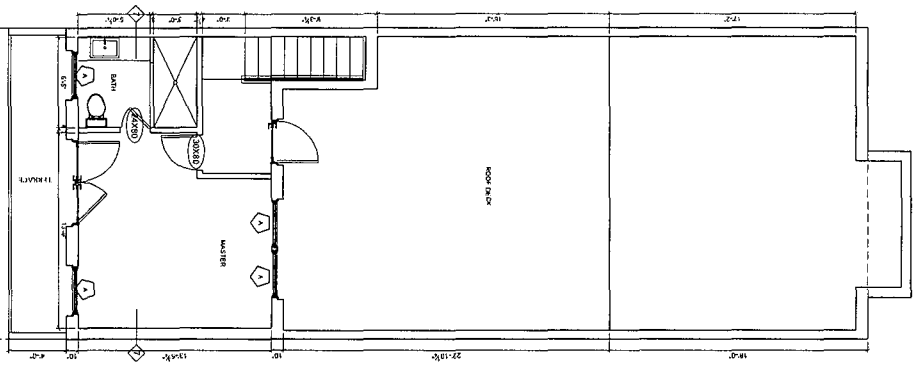
A0101

1 3rd FLOOR
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



2 MEZZANINE LEVEL
SCALE: 1/4" = 1'-0" 24X36 LAYOUT



A0102

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DISTRICT OF COLUMBIA REGISTERED ARCHITECT

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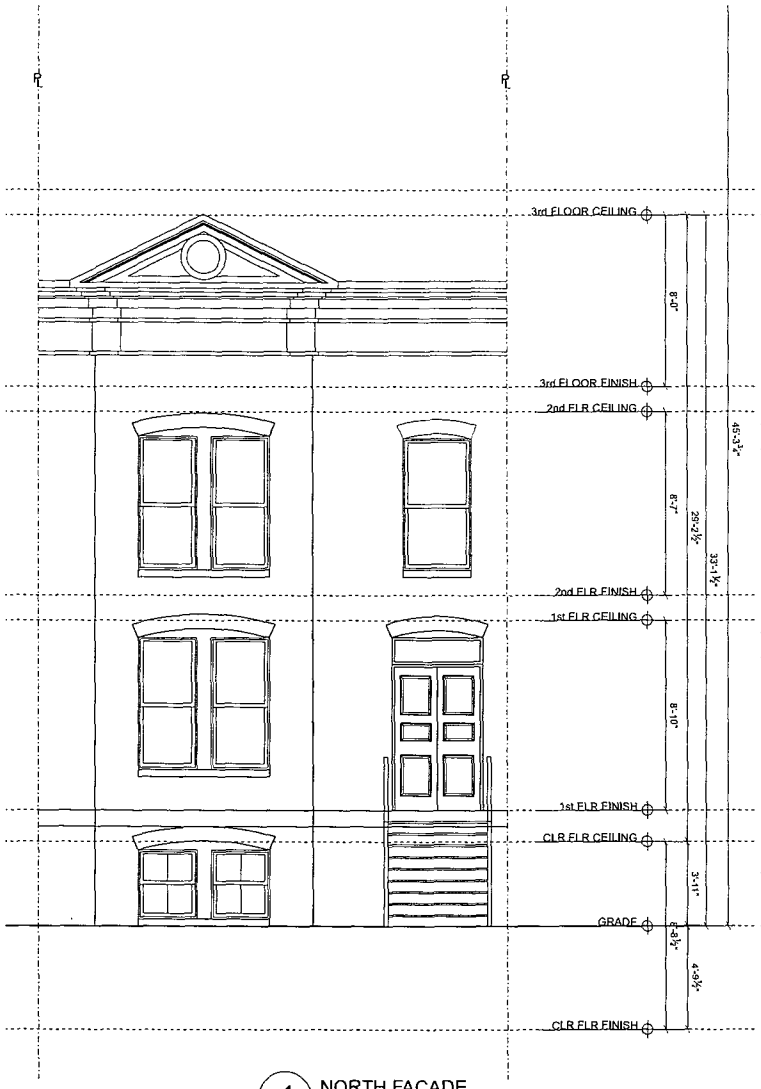
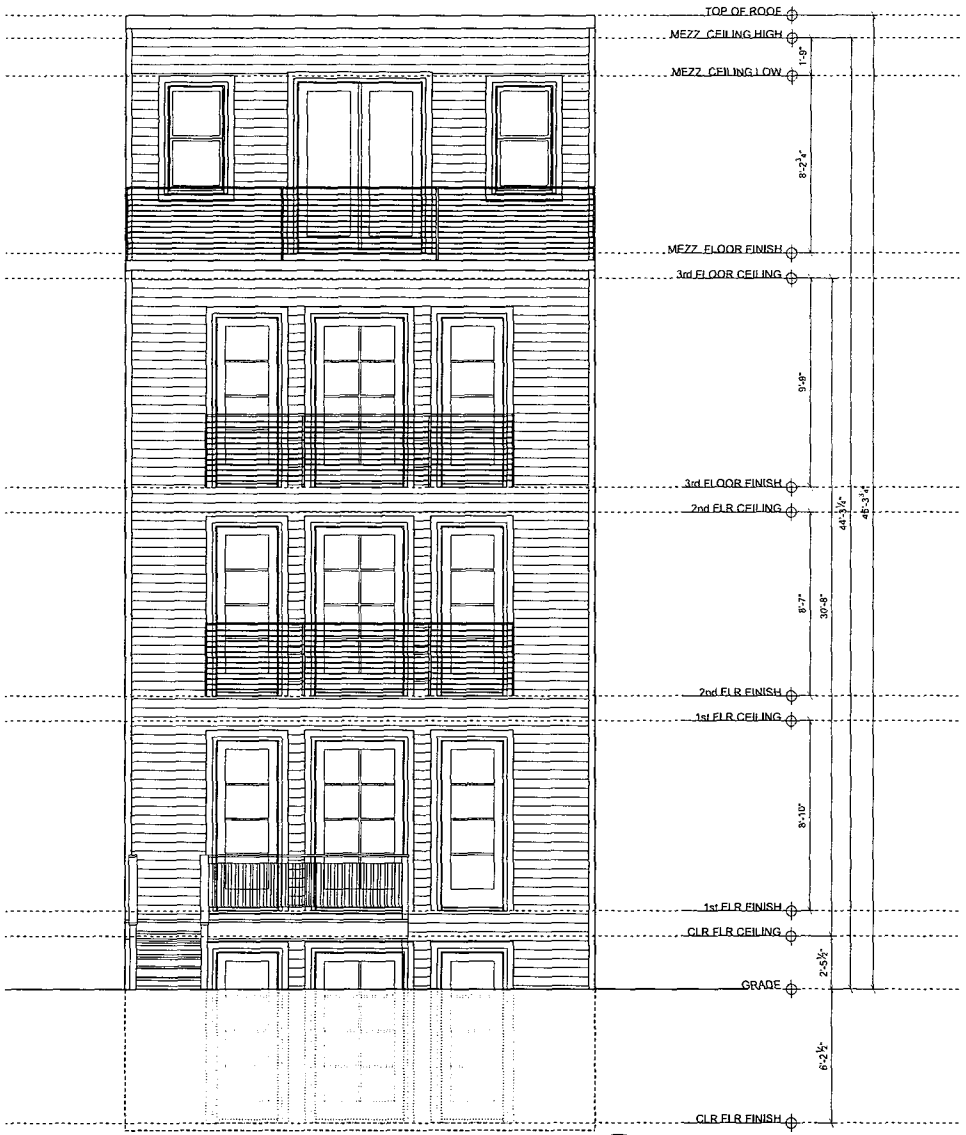


1 NORTH FACADE
SCALE: 3/4" = 1'-0" 24X36 LAYOUT



2 CELLAR FACADE
SCALE: 3/4" = 1'-0" 24X36 LAYOUT

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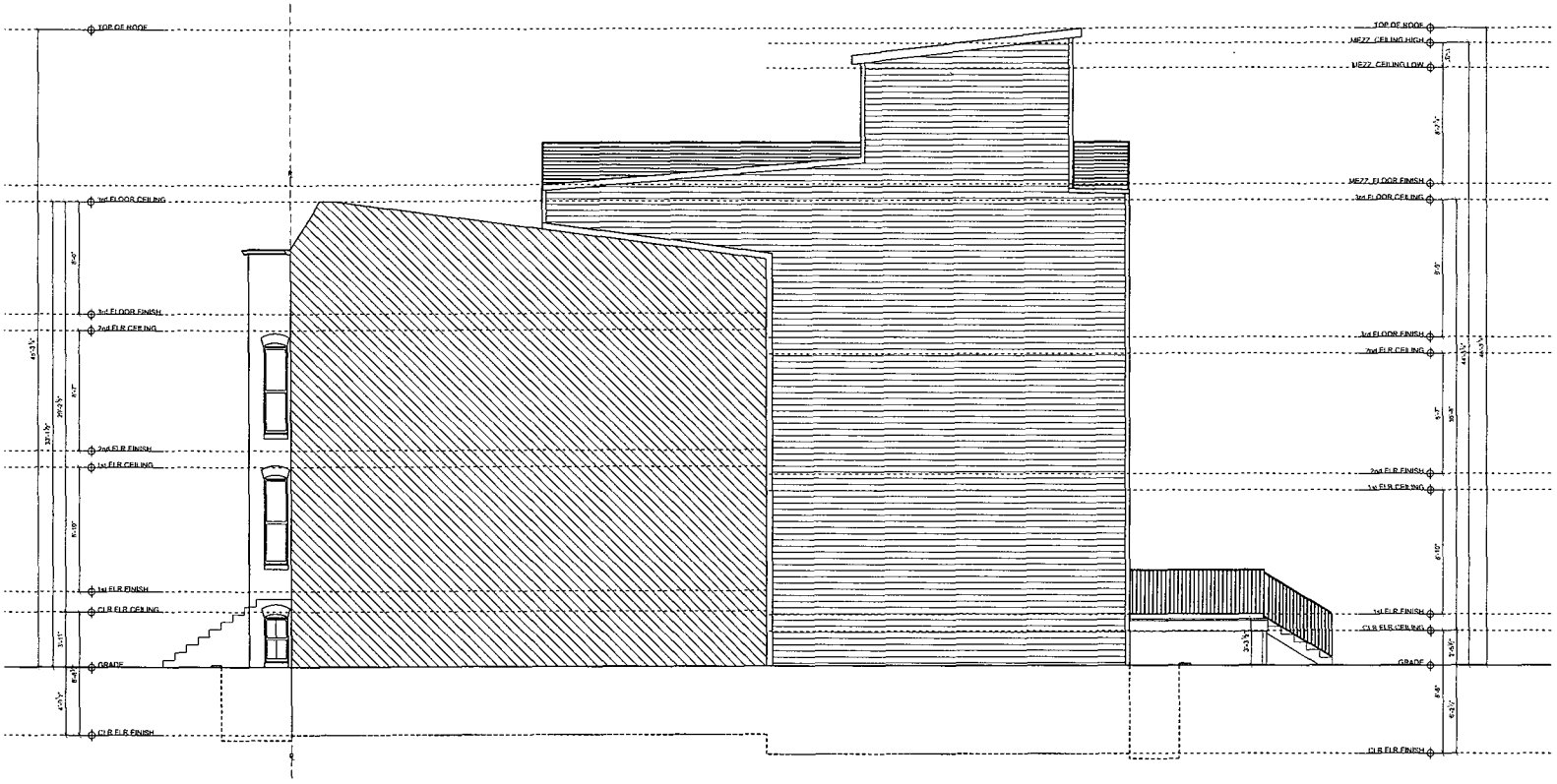
A0201



1 WEST SECTION
SCALE: 1/4" = 1'-0" 24X36 LAYOUT

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DISTRICT OF COLUMBIA REGISTERED ARCHITECT

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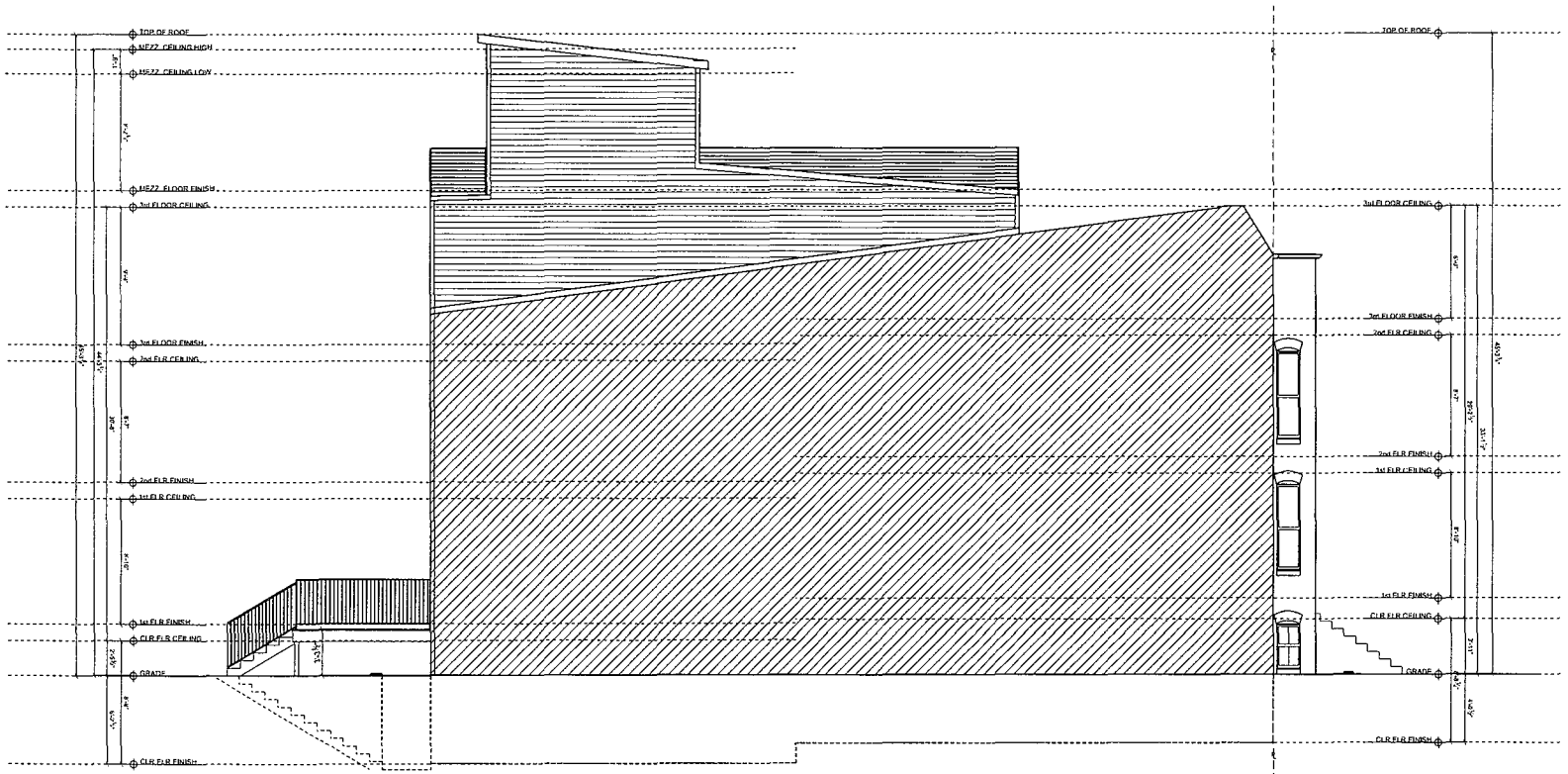
A0202



1 EAST ELEVATION
SCALE: 1/4" = 1'-0" 24X36 LAYOUT

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DISTRICT OF COLUMBIA
DAVID FERGUSON
REGISTERED
ARCHITECT

SCALE:	AS NOTED
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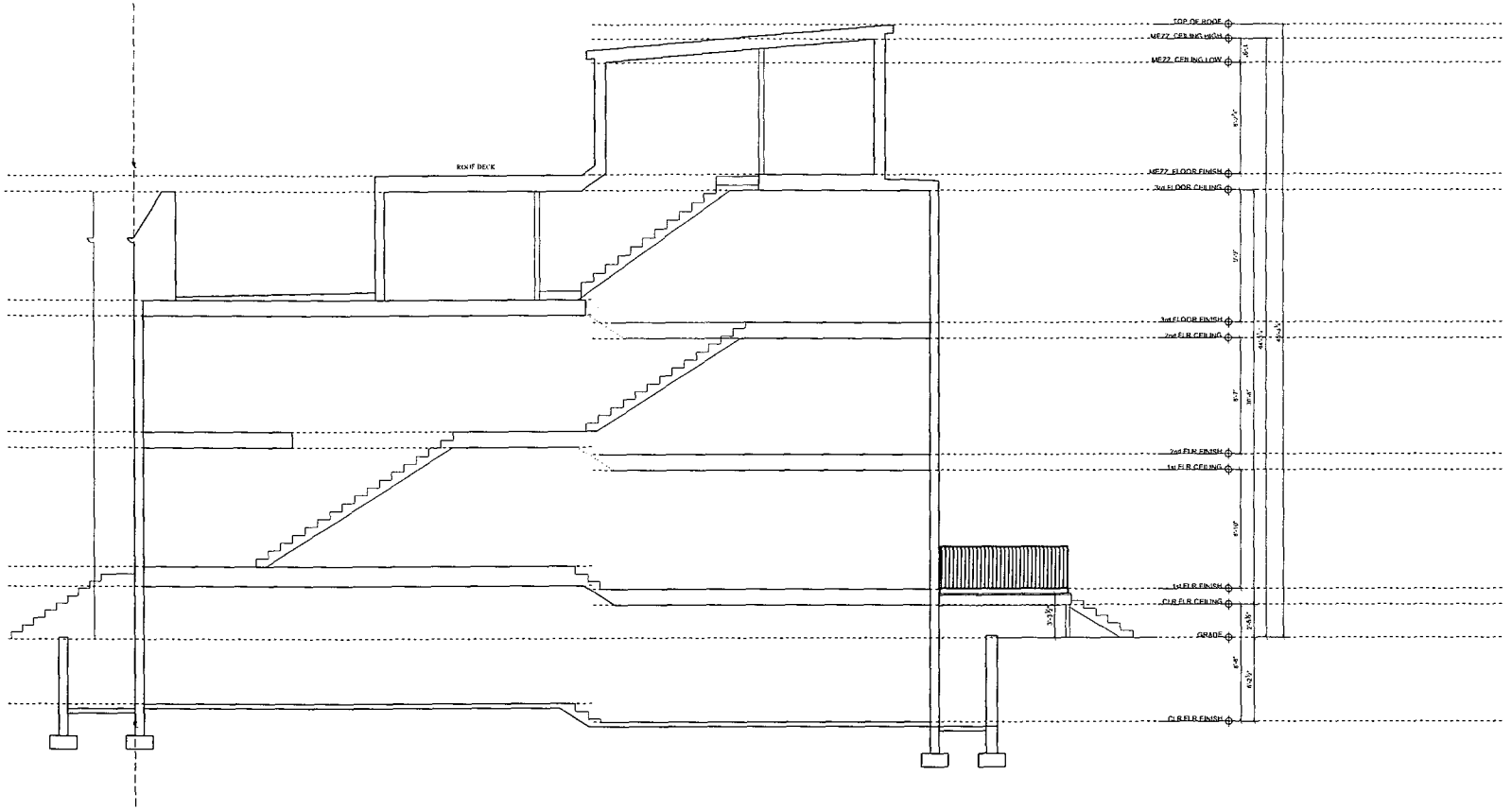
A0203



1 TYPCIAL BUILDING SECTION
SCALE: 1/4" = 1'-0" 24X36 LAYOUT

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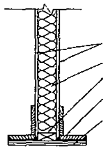
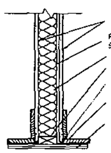
DISTRICT OF COLUMBIA DAVID F. BLACK REGISTERED ARCHITECT

SCALE: AS NOTED
DATE: 02/29/2016
PROJECT NUMBER: 1514 Q

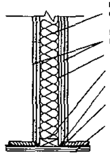
A0301



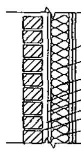
1 NON RATED INTERIOR PARTITION
ANSI/UL 263 DESIGN #U317
STC RATING - 44



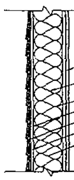
2 1 HR RATED INTERIOR PARTITION
ANSI/UL 263 DESIGN #327
STC RATING: 50



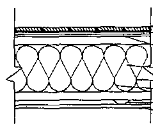
3 2 HR RATED INTERIOR PARTITION
ANSI/UL 263 DESIGN #U334
STC RATING: 62



4 2 HR RATED WALL - MASONRY VENEER
ANSI/UL 263 DESIGN #U302
STC RATING: 64



7 1 HR FIRE RATED WALL - CLABBORD SIDING
ANSI/UL 263 DESIGN # 418
STC RATING: 55



8 1 HR RATED FLOOR ASSEMBLY
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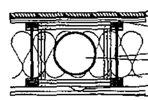
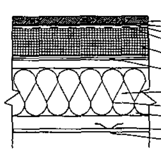
STC RATING: 60+

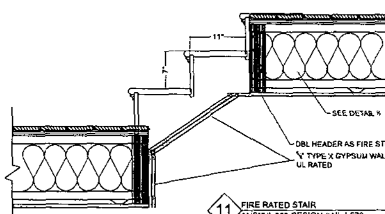


*WHERE MECH DUCTS/VENT SHOWN ON PLANS BETWEEN JOISTS, PROVIDE GWB SURROUND ON 5 SIDES OF SPACE CONTAINING DUCT IN THICKNESS & LAYER(S) EQUAL TO SCHEDULED ASSEMBLY LAYERS

9 DUCT IN RATED CEILING
ANSI/UL 263 DESIGN # UL-L570
STC RATING: 60+



10 1 HR RATED ROOF ASSEMBLY
ANSI/UL 263 DESIGN # UL-L570
STC RATING: 60+



11 FIRE RATED STAIR
ANSI/UL 263 DESIGN # UL-L570
STC RATING: 60+

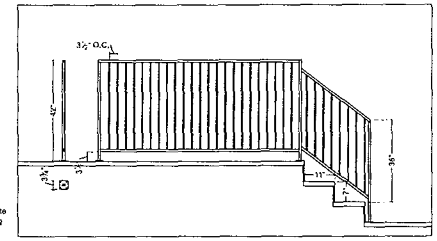
1012.2 Height.
Handrail height, measured above stair tread nosings, or finish surface of ramp slope shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

1013.2 Height.
Guards shall form a protective barrier not less than 42 inches (1067 mm) high, measured vertically above the leading edge of the tread, adjacent walking surface or adjacent seatboard.

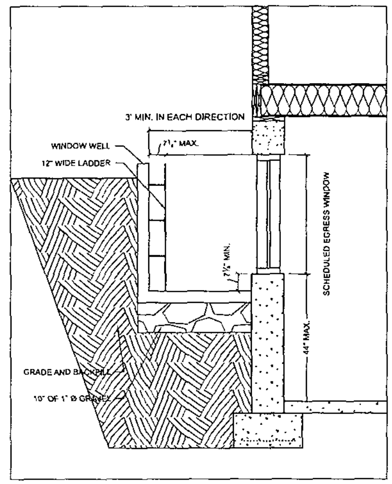
1013.3 Opening limitations.
Open guards shall have balusters or ornamental patterns such that a 4-inch-diameter (102 mm) sphere cannot pass through any opening up to a height of 34 inches (864 mm). From a height of 34 inches (864 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, a sphere 8 inches (203 mm) in diameter shall not pass.

1607.7.1 Handrails and guards.
Handrail assemblies and guards shall be designed to resist a load of 50 plf (0.73 kN/m) applied in any direction at the top and to transfer this load throughthe supports to the structure.

1607.7.1.1 Concentrated load
Handrail assemblies and guards shall be able to resist a single concentrated load of 200 pounds (0.89 kN), applied in any direction at any point along the top, and have attachment devices and supporting structure to transfer this loading to appropriate structural elements of the building. This load need not be assumed to act concurrently with the loads specified in the preceding paragraph.



3 GUARD/HAND RAIL TREAD/RISER DETAIL
SCALE: NTS



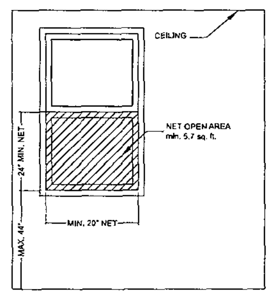
1026.2 Minimum size.
Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m2).
Exception: The minimum net clear opening for emergency escape and rescue grade-floor openings shall be 5 square feet (0.46 m2).

1026.2.1 Minimum dimensions.
The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1026.3 Maximum height from floor.
Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

1026.5 Window wells.
An emergency escape and rescue opening with a finished sill height below the adjacent ground level shall be provided with a window well in accordance with Sections 1026.5.1 and 1026.5.2.
1026.5.1 Minimum size.
The minimum horizontal area of the window well shall be 9 square feet (0.84 m2), with a minimum dimension of 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

1026.5.2 Ladders or steps.
Window wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an approved permanently affixed ladder or steps. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the window well. The ladder or steps shall not encroach into the required dimensions of the window well by more than 6 inches (152 mm). The ladder or steps shall not be obstructed by the emergency escape and rescue opening. Ladders or steps required by this section are exempt from the stairway requirements of Section 1009.

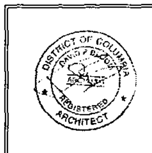


2 EGRESS WINDOW DETAIL
SCALE: NTS

KC/DC STUDIOS

1514 Q STREET, NW

1514 Q STREET, NW
WASHINGTON, DC 20009
LOT:0027 SQUARE:0194



SCALE:	AS NOTED
DATE:	02/29/2016
PROJECT NUMBER:	1514 Q

A0501

STRUCTURAL NOTES

BUILDING CODES

ALL CONSTRUCTION SHALL COMPLY WITH THE 2012 INTERNATIONAL RESIDENTIAL BUILDING CODE (IRC) UNLESS OTHERWISE NOTED. THE CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PUBLICATIONS PRODUCED BY THE FOLLOWING ASSOCIATIONS' LATEST EDITIONS

CONCRETE	AMERICAN CONCRETE INSTITUTE (ACI) CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
MASONRY	BRICK INSTITUTE OF AMERICA (BIA) AMERICAN SOCIETY OF TESTING AND MATERIAL (ASTM) NATIONAL CONCRETE AND MASONRY ASSOCIATION (NCMA)
STEEL	AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) AMERICAN SOCIETY OF TESTING AND MATERIAL (ASTM)
WOOD	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) AMERICAN PLYWOOD ASSOCIATION (APA) AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) ARCHITECTURAL WOODWORK MANUAL (AWM) AMERICAN SOCIETY OF TESTING AND MATERIAL (ASTM)

DESIGN LOADS

GRAVITY LOAD

ROOF LIVE LOAD	= 30 PSF
ROOF DEAD LOAD	= 17 PSF
FLOOR DEAD LOAD	= 10 PSF
FLOOR LIVE LOAD	= 30 PSF (SLEEPING AREAS)
FLOOR LIVE LOAD	= 40 PSF (LIVING AREAS)
GROUND SNOW LOAD (Pg)	= 30 PSF
EXPOSURE FACTOR (Ce)	= 1.00
THERMAL FACTOR (Ct)	= 1.00
IMPORTANCE FACTOR (I)	= 1.00

ROOF

FLAT ROOF SNOW LOAD (Pf)	= 21 PSF

SNOW DRIFT CALCULATIONS PER ASCE7-05

ALLOWABLE DEFLECTION FACTOR FOR

LIVE LOAD	= L/360
TOTAL LOAD	= L/240
FLOORS & DECKS	= 40 PSF (ALL OTHERS)
LIVE LOAD	= L/480
TOTAL LOAD	= L/360

MEMBERS SUPPORTING MASONRY / BRICK

LIVE LOAD	= L/600
TOTAL LOAD	= L/600

WIND LOAD

FASTEST MILE WIND SPEED	= 76 MPH (PER IRC 2012-TABLE R301.2(3))
3 SECOND GUST WIND SPEED	= 90 MPH (PER IRC 2012-FIG. R301.2(4))
EXPOSURE	= B

THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDENT UPON TIMELY COMPLETION ACCORDING TO THE PLANS AND SPECIFICATIONS. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. THE METHOD OF CONSTRUCTION AND SEQUENCE OF OPERATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY ANY NECESSARY SHORING, BRACING, GUYS, ETC., TO PROPERLY BRACE THE STRUCTURE AGAINST WIND LOAD AND LIVE LOADS UNTIL THE BUILDING IS COMPLETED ACCORDING THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL NOT PLACE BACKFILL AGAINST BASEMENT WALLS UNTIL THE FLOOR SYSTEM IS COMPLETELY INSTALLED OR THE CONTRACTOR HAS PROVIDED ADEQUATE SHORING AND BRACING. ANY QUESTIONS REGARDING TEMPORARY SHORING REQUIREMENTS SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER FOR REVIEW. MECHANICAL UNITS AND OTHER EQUIPMENT SUPPORTED BY THE STRUCTURE WITH WEIGHTS IN EXCESS OF 200 LBS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
WHERE STRUCTURAL ENGINEER SHALL BE CONTACTED IF DEAD LOADS ARE DEEMED TO BE GREATER THAN THE ASSUMED STANDARD LOADING CONDITION VALUES DEPICTED HEREIN.

CONCRETE

REFER TO FOUNDATION PLAN SET FOR DETAILS

FOUNDATION SILL PLATES

FOUNDATION SILL PLATES TO BE BOLTED TO FOUNDATION WITH 1/2" DIAMETER x 15" LONG HOOKED STEEL BOLTS @ 72" o/c (MAX.). PLACED NO FURTHER THAN 12" FROM EACH CORNER AND EMBEDDED INTO FULLY GROUTED CMU CELLS OR AT ANCHORS SHALL BE GROUT FILLED TO 24" MIN DEPTH BELOW SILL PLATE.
ALL FOUNDATION SILL PLATES SHALL BE PRESSURE TREATED PER SPECIFICATIONS FOR SIZE

FOUNDATION UNDERPINNING

REFER TO FOUNDATION PLAN SET FOR DETAILS

STRUCTURAL STEEL

ALL STEEL SHALL BE ASTM, A-441 MINIMUM, F_y=50 KSI UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL CONNECTIONS SHALL BE WELDED OR BOLTED. SHOP AND FIELD FASTENERS SHALL BE ASTM A-325 HSB (HIGH STRENGTH BOLTS), IN FRICTION TYPE CONNECTIONS USE "TURN-OF-NUT" METHOD IN TIGHTENING ALL BOLTS.

HOLES SHALL NOT BE CUT THROUGH BEAMS UNLESS INDICATED OR APPROVED BY THE STRUCTURAL ENGINEER. PROVIDE STANDARD ANGLE WALL ANCHORS FOR BEAMS RESTING ON MASONRY.

BOLTED CONNECTIONS TO USE A325-TYPE N, HIGH STRENGTH BOLTS IN BEARING TYPE CONNECTIONS TIGHTENED TO A SNUG TIGHT CONDITION IN ACCORDANCE WITH RCSC SPECIFICATIONS.

BOLTS IN MOMENT CONNECTIONS AND WIND RESISTING FRAMES SHALL BE ASTM A325-TYPE SC (SLIP CRITICAL) SLIP CRITICAL CONNECTIONS SHALL HAVE CONTACT SURFACES MEETING CLASS A SURFACE CONDITIONS. BOLTS SHALL BE TENSIONED.

SHOP CONNECTIONS TO BE WELDED OR BOLTED. FIELD CONNECTIONS TO BE BOLTED UNLESS OTHERWISE SHOWN. BOLT HOLES TO BE STANDARD ROUND HOLES (d+1/16") UNLESS OTHERWISE NOTED. SHORT SLOTS SHALL BE PERMITTED NORMAL TO THE LOAD DIRECTION IN SLIP CRITICAL AND BEARING TYPE CONNECTIONS AS PER AISC REQUIREMENTS.

ALL WELDING WORK SHALL BE PERFORMED PER SPECIFICATIONS AND GUIDELINES OF AMERICAN WELDING SOCIETY.

STEEL LINTELS
a) TYPICAL STEEL ANGLE LINTELS U.N.O. ON THE DRAWINGS, STEEL LINTELS SHALL BE AS FOLLOWS:
SPANS UNDER 6'-0":
4" x 3 1/2" x 1/4" LONG LEG VERTICAL ANGLE FOR EACH 4" WALL THICKNESS
SPANS 6'-0" TO 8'-0":
a) 6" x 3 1/2" x 5/16" LL / ANGLE FOR EACH 4" OF WALL THICKNESS
b) PAIR ANGLES USED SHALL HAVE A MINIMUM BEARING OF 6", BUT NOT LESS THAN 1" OF SUCH BEARING FOR EACH FOOT OF OPENING WIDTH
c) OVERHEAD GARAGE DOOR ANGLE LINTELS: SEE DRAWINGS.

STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST AISC MANUAL. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS -

WF AND SHALLER BEAMS	A36	(F_y = 36 KSI)
OTHER BEAM AND COLUMNS	A572-GR50	(F_y = 50 KSI)
STEEL PLATE, CHANNELS AND ANGLES	A36	(F_y = 36 KSI)
STRUCTURAL PIPES AND TUBES	A500-GRADE "B"	(F_y = 46 KSI)
ANCHOR BOLTS	A307	
HIGH STRENGTH BOLTS	A325	

REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60. ALL REINFORCING BAR DIMENSIONS SHOWN ON THE DRAWINGS ARE TO THE CENTER LINE OF BARS, UNLESS OTHERWISE NOTED.
ALL CONCRETE AND REINFORCING STEEL SHALL BE FURNISHED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI STANDARD BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE STRUCTURES, (ACI 318-05). REINFORCED STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315)

UNLESS OTHERWISE INDICATED ON THE DRAWINGS, THE CLEAR CONCRETE COVER PROVIDED FOR REINFORCEMENT SHALL BE:

A.	CAST AGAINST EARTH AND PERMANENTLY EXPOSED TO EARTH	3"
B.	EXPOSED TO EARTH OR WEATHER #6 THROUGH #18 BARS	2"
	#5 BARS AND SMALLER	1.5"
C.	NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND (SLABS AND WALLS)	0.75"
D.	BEAMS, GIRDERS, COLUMNS, PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1.5"

STEEL REINFORCING REQUIREMENTS IN CONCRETE FLOOR SLABS SHALL BE AS REQUIRED BY CODE AND/OR LOCAL JURISDICTIONS, OR PER SITE CONDITIONS
CONCRETE PORCH SLABS AND EXTERIOR CONCRETE WORK EXPOSED TO WEATHER SHALL BE MINIMUM 3,500 PSI, AIR ENTRAINED, 4" THICK WITH #4 BARS AT 12" OC EACH WAY WITH 6" x 6" - W1.4 x W1.4 WELDED WIRE FABRIC (W.W.F.), UNLESS OTHERWISE NOTED OR DIRECTED BY THE STRUCTURAL ENGINEER BASED ON SITE CONDITIONS.

GENERAL WOOD FRAMING

ALL WALL FRAMING IS EXAC 16" OC UNLESS OTHERWISE NOTED. ALL DIMENSIONAL LUMBER SHALL BE SPF #2 OR BETTER WITH THE FOLLOWING MINIMUM PROPERTIES
F_b = 900 PSI, F_v = 75 PSI, E= 13X10.6 PSI
ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED
PROVIDE 2X4 JACK AND 2X4 KING STUDS AT ALL DOOR AND WINDOW JAMBS UNLESS OTHERWISE NOTED.
WHERE NEW AND EXISTING STUD WALLS AT ALL NEW BEAM BEARING END POINTS, UNLESS OTHERWISE NOTED.
WHERE NEW AND EXISTING RAFTERS AND JOISTS ARE HUNG FROM NEW BEAMS AND LEDGERS, USE PREFORMED METAL HANGERS (SIMPSON BRAND OR EQUAL)
ALL PRESSURE TREATED 2X LEDGERS SHALL BE ATTACHED WITH 1/2" DIA. "A" 307 BOLTS (1/2" DIA EPOXY ANCHORS AT MASONRY WALL) @ 16" OC STAGGERED SPACING 4" EMBEDMENT, MIN. UNLESS OTHERWISE NOTED
CONTRACTOR IS SOLELY RESPONSIBLE FOR SHORING AND BRACING OF EXISTING STRUCTURE AS REQUIRED DURING CONSTRUCTION.
LAYOUT OF JOIST SPACING IS DIAGRAMMATIC. CONTRACTOR SHALL COORDINATE LOCATION OF FRAMING WITH FIXTURES, RECEPTACLES AND DIFFUSERS TO BE INSTALLED.
WHERE NEW LOAD BEARING AND EXTERIOR STUD WALLS CONNECT TO EXISTING, INSTALL 3/8" DIA X4" LONG LAG BOLTS @ 24" OC. VERTICALLY
FOR VENTING OF CATHEDRAL CEILING AT SKYLIGHTS, NOTCH TOP OF RAFTERS IN-LINE WITH SKYLIGHTS WITH 1"X3" NOTCHES @ 24" O.C. ALONG THE RAFTERS LENGTH
INSTALL RAFTER TIE DOWN CLIPS OR HURRICANE STRAPS AT EACH RAFTER SECURING THEM TO THE TOP PLATE. INSTALL BRIDGING @ FLOORS AND ROOFS AS PER ALL LOCAL CODES

STRUCTURAL LUMBER

STRUCTURAL LUMBER SHALL BE IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (NDS) 2005 EDITION, PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. ALL STRUCTURAL FRAME MEMBERS SHALL BE ONE OF THE FOLLOWING MINIMUM VALUES UNLESS OTHERWISE NOTED

TYPE OF WOOD	Fb	Ft	Fv	Fc⊥	Fc	E	Emin
HEM FIR #2	850	525	150	405	1300	11,300,000	470,000
SPF #1/#2	875	450	135	425	1150	1,400,000	510,000
SPF STUD GRADE	675	350	135	425	725	1,200,000	440,000
SP #2 (2" TO 4" WIDE)	1500	825	175	565	1650	1,600,000	580,000
SP #2 (5" TO 6" WIDE)	1250	725	175	565	1600	1,600,000	580,000
MICRO=LAM LVL GRADE=1.9E	2600	-	285	750	2510	1,900,000	-
PARALLAM PSL GRADE=2.0E	2900	-	290	750	2900	2,000,000	-

NOTATIONS
Fb ALLOWABLE BENDING IN psi
Ft ALLOWABLE TENSION (parallel to grain) IN psi
Fv ALLOWABLE SHEAR (parallel to grain) IN psi
Fc ALLOWABLE COMPRESSION (perpendicular to grain) IN psi
Fc ALLOWABLE COMPRESSION (parallel to grain) IN psi
E MODULUS OF ELASTICITY IN psi
Emin MODULUS OF ELASTICITY IN psi

WHERE INDICATED ON THE DRAWINGS ENGINEERED FLOOR "I" JOISTS SHALL BE MANUFACTURED BY WEYERHAEUSER TRUSS JOISTS PRIOR TO ORDERING THE GENERAL CONTRACTOR SHALL ACQUIRE SHOP DRAWINGS FROM THE FLOOR JOIST MANUFACTURER AND SUBMIT THEM TO THE STRUCTURAL ENGINEER IN A TIMELY MANNER FOR REVIEW PRIOR TO ORDERING. IN THE EVENT THE GENERAL CONTRACTOR FAILS TO SUBMIT SHOP DRAWINGS TO STRUCTURAL ENGINEER THE GENERAL CONTRACTOR AND THE FLOOR JOIST MANUFACTURER SHALL BE ALL DESIGN, PERFORMANCE AND LEGAL RESPONSIBILITIES OF THE FLOOR SYSTEM(S) AND HOLD STRUCTURAL ENGINEER HARMLESS

PROVIDE 3/4" TONGUE AND GROOVE PLYWOOD (APA RATED STRUD-I-FLOOR) GLUED AND NAILED TO THE FLOOR JOISTS TO MEET THE AMERICAN PLYWOOD ASSOCIATION (APA) APPROVED GLUED FLOOR SYSTEM, UNLESS OTHERWISE SPECIFIED.

LUMBER EXPOSED TO THE ELEMENTS AND/OR IN CONTACT WITH MASONRY, INCLUDING BUT NOT LIMITED TO POSTS, BEAMS, DECKING, DECK FRAMING LEDGERS, ETC. SHALL BE PRESSURE TREATED PER IRC SECTION R319. ALL FASTENERS SHALL BE PER IRC SECTION R319.3.

REQUIRED POST SIZES FROM POINT LOADS AT GIRDER TRUSS BEAM AND/OR HEADER END LOCATIONS SHALL BE CONTINUOUS, BEARING ONTO BEAMS OR CONTINUOUS TO FOOTINGS AS INDICATED. PROVIDE SOLID BLOCKING BETWEEN FLOOR FRAMING AS NECESSARY OR REQUIRED.

STRUCTURAL CONNECTORS INDICATED ON THESE DOCUMENTS SHALL BE PROVIDED BY SIMPSON STRONG-TIE COMPANY, INC., PROVIDE JOIST HANGERS AT EACH END OF ALL FLOOR JOISTS, WHICH BEAMS FLUSH WITH ADJACENT BEAMS, HEADERS, PROVIDE COLUMN CAPS AND POST BASES AT ALL STRUCTURAL LOAD BEARING WOOD BEAMS, INCLUDING EXTERIOR DECKS.

FLUSH BEAMS INDICATED MAY BE DROPPED AT THE GENERAL CONTRACTOR/OWNER'S DISCRETION. VERIFY AND COORDINATE WITH ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR COMPATIBILITY PRIOR TO INSTALLATION.

LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) LEVEL BY WEYERHAEUSER. IF THE SPECIFIED MATERIAL IS SUBSTITUTED WITH ANOTHER PRODUCT IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SUBSTITUTED PRODUCT STRUCTURALLY MEETS OR EXCEEDS THE ORIGINALLY SPECIFIED PRODUCT.

NOTCHES IN THE TOP AND BOTTOM OF DIMENSIONAL LUMBER JOISTS SHALL NOT EXCEED 1/6 OF THE DEPTH OF THE JOIST, AND SHALL NOT BE LOCATED IN THE MIDDLE ONE THIRD (1/3) OF THE SPAN. NOTCHES AT THE JOIST ENDS SHALL NOT EXCEED 1/4 OF THE JOIST DEPTH. HOLES THROUGH THE JOISTS SHALL NOT BE WITHIN 2" OF THE TOP AND BOTTOM OF THE JOIST. THE HOLE DIAMETER SHALL NOT EXCEED 1/3 OF THE JOIST DEPTH.
STRUCTURAL MEMBERS INDICATED ARE REQUIRED MINIMUM SIZES AND MAY BE INCREASED TO ALIGN WITH ADJACENT FRAMING MEMBERS AS NECESSARY OR REQUIRED WITHOUT ADDITIONAL STRUCTURAL ENGINEERING AT THE GENERAL CONTRACTOR/OWNERS DISCRETION.

ALL INTERIOR WALLS SHALL BE MINIMUM 2X4 (OR 2" STUD GRADE) @ 16" OC WITH 1/2" THICK GWB (UNBLOCKED) ON MIN ONE FACE w/ 5d COOLER NAILS @ 4" OC TO STUDS, TOP AND BOTTOM PLATES
INSTALL CROSS-BRIDGING OR SOLID BLOCKING BETWEEN FLOOR JOISTS @ 8'-0" OC MAXIMUM AS REQUIRED BY CODE OR THE FLOOR JOIST MANUFACTURER
ALL WOOD SHALL BE MINIMUM 8" ABOVE FINISH GRADE, OR SHALL BE PRESSURE TREATED.

SHEATHING

ALL WALL SHEATHING SHALL BE 1/2" COX PLYWOOD, UNLESS OTHERWISE NOTED.
ALL FLOOR SHEATHING SHALL BE 3/4" TONGUE & GROVE COX PLYWOOD FOR ALIGNMENT WITH EXISTING 1X TYPE FLOOR SHEATHING. ALL ROOF SHEATHING SHALL BE AS FOLLOWS: 1/2" COX PLYWOOD WHEN RAFTERS ARE SPACED 16" OC. 5/8" COX PLYWOOD WHEN RAFTERS ARE SPACED 24" OC.

NAILING SCHEDULE

REFER IRC 2012 TABLE R602.3(1) FOR FASTNER SCHEDULE

WOOD HEADERS

LOAD BEARING WALLS:
ALL WOOD HEADERS WITHIN STUD WALLS SHALL BE INSTALLED WITH CONTINUOUS PLYWOOD
SPACER(S) AS REQUIRED TO MATCH DEPTH OF WALL (USE 8 NAIL SPACER(S) TO HEADERS.
UNO IN DRAWINGS, TYPICAL WOOD HEADERS IN WALL OPENINGS SHALL BE AS FOLLOWS:
SPAN 0'-0" TO 3'-0" (2) 2X8'S
SPAN 3'-1" TO 4'-0" (2) 2X10'S
SPAN 4'-1" TO 6'-0" (2) 2X12'S
NON-LOAD BEARING PARTITIONS
UNO IN DRAWINGS, TYPICAL WOOD HEADERS IN PARTITION OPENINGS SHALL BE AS FOLLOWS
SPAN 0'-0" TO 3'-0" (2) 2X4'S
SPAN 3'-1" TO 6'-0" (2) 2X6'S

CONCRETE MASONRY UNIT

REFER TO FOUNDATION PLAN SET FOR DETAILS

MASONRY

REFER TO FOUNDATION PLAN SET FOR DETAILS

BRICK VENEER

BRICK VENEER INSTALLATION TO COMPLY WITH BRICK INDUSTRY ASSOCIATION (BIA) LATEST TECHNICAL REPORT

PLUMBING

REFER TO DRAWINGS FOR THE TYPES AND LOCATION OF NEW PLUMBING FIXTURES REQUIRED FOR THE PROJECT.
THE PLUMBING SUBCONTRACTOR SHALL PROVIDE NEW DOMESTIC WATER SUPPLY, WASTE, AND VENT LINES AS REQUIRED FOR THE INSTALLATION OF NEW PLUMBING FIXTURES.
PLUMBING SUBCONTRACTOR SHALL PROVIDE ANY REQUIRED CALCULATIONS AND/OR DRAWINGS REQUIRED BY BUILDING OFFICIALS HAVING JURISDICTION OVER THE PROJECT

MECHANICAL

HVAC SUBCONTRACTOR SHALL PROVIDE ANY REQUIRED CALCULATIONS AND/OR DRAWINGS REQUIRED BY BUILDING OFFICIALS HAVING JURISDICTION OVER THE PROJECT.

ELECTRICAL

REFER TO DRAWINGS FOR LOCATIONS AND TYPES OF ELECTRICAL, TELEPHONE, AND CABLE OUTLETS REQUIRED FOR THE PROJECT.
ELECTRICAL SUBCONTRACTOR SHALL PROVIDE ANY REQUIRED CALCULATIONS AND/OR DRAWINGS REQUIRED BY BUILDING OFFICIALS HAVING JURISDICTION OVER THE PROJECT.
ALL SMOKE ALARMS SHALL BE INSTALLED, INTERCONNECTED AND HARDWIRED PER IRC SECTION R313.

INTERIOR WALL CONSTRUCTION

REFER TO WALL SCHEDULE ON DRAWINGS FOR WALL TYPE COMPONENTS AND INFORMATION
TAPE, COMPOUND AND SAND ALL DRYWALL JOINTS TO A SMOOTH FINISH READY TO RECEIVE PAINT.
WALLS SCHEDULED TO RECEIVE CERAMIC TILE IN WET LOCATIONS (SHOWERS) SHALL BE PROVIDED WITH TILE BACKER BOARD (DUROCK) IN LIEU OF STANDARD DRYWALL. WATER RESISTANT DRYWALL (GREENBOARD) SHALL NOT BE ACCEPTABLE FOR TILE BACKING.
PROVIDE WATER RESISTANT DRYWALL (GREENBOARD) AT ALL DAMP LOCATIONS. TAPE, COMPOUND AND SAND ALL DRYWALL JOINTS TO A SMOOTH FINISH READY TO RECEIVE PAINT.
DRYWALL CEILINGS SHALL BE 1/2", GLUED AND SCREWED TO JOISTS/RAFTERS. SHIM AS REQUIRED TO ACHIEVE A LEVEL CEILING. TAPE, COMPOUND AND SAND ALL DRYWALL JOINTS TO A SMOOTH FINISH READY TO RECEIVE PAINT.

IMPORTANT NOTE:
CONTRACTOR TO FIELD VERIFY DIMENSIONS AND DESIGN BEFORE COMMENCEMENT OF WORK.

WALL BRACING NOTE:
WALL BRACING TO BE IN ACCORDANCE WITH SECTION R602.10 OF THE 2012 IRC

drafted by RetroSpec

STRUCTURAL ENGINEER
SYSTEMATIC ENGINEERING, LLC

DESIGNER
KC DOUGLAS STUDIO

Structural Notes
1514 Q Street, NW
Washington, DC 20009
SQUARE 8037

DATE	08/19/15
CLIENT	KCDC STUDIOS 641 S STREET, NW WASHINGTON, DC 20001
REVISIONS	
STAMP	

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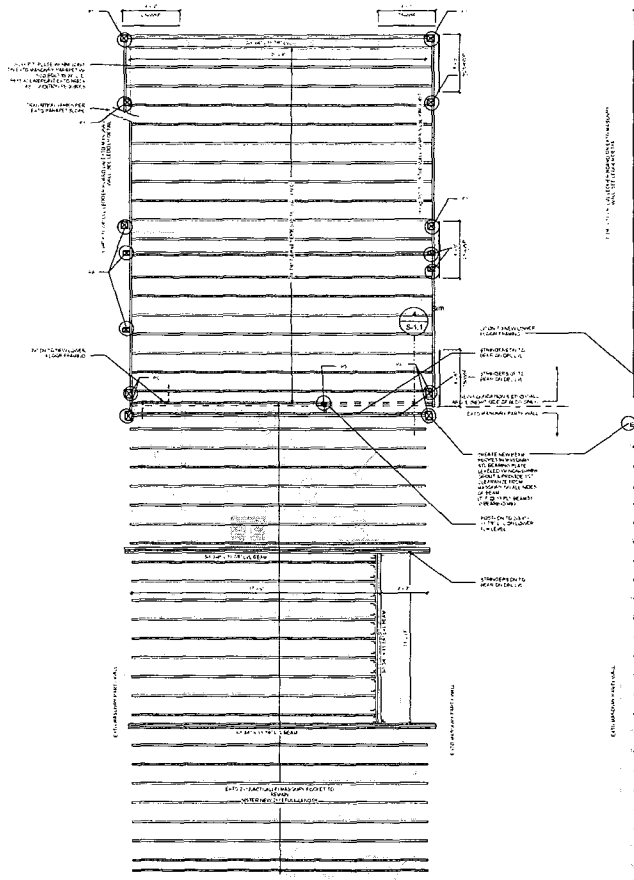
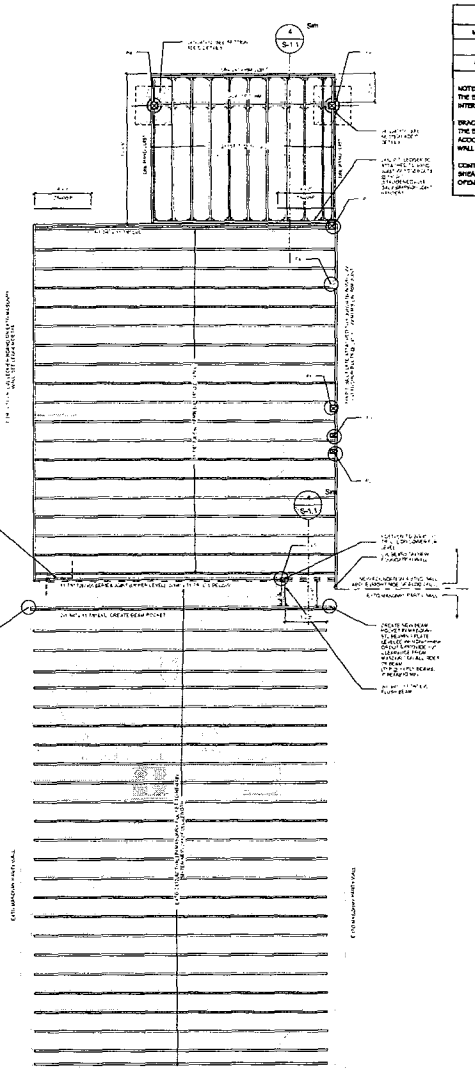


Second Floor Framing Plan



First Floor Framing Plan

BRACED WALL SCHEDULE			
METHOD	THICKNESS	FASTENERS	
		EDGE	FIELD
CS-WSP	7/16" OSB SHEATHING	6D @ 12" O.C.	6D @ 12" O.C.

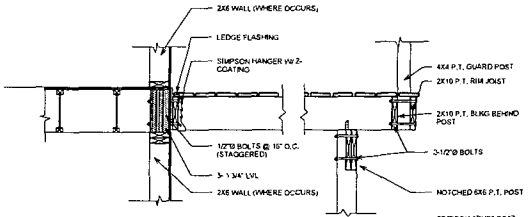
NOTES:
THE BRACING CALCULATIONS HAVE BEEN DONE IN ACCORDANCE WITH PROVISIONS OF R602.10, 2015 INTERNATIONAL RESIDENTIAL CODE.

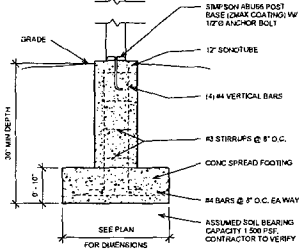
BRACED WALL PANELS SHALL HAVE GYPSUM WALL BOARD INSTALLED ON THE SIDE OF THE WALL OPPOSITE THE BRACING MATERIAL. GYPSUM WALL BOARD SHALL BE 1/2" THK. # 5C FASTENED IN WALLS OR SCREWS IN ACCORDANCE W/ TABLE R602.3 (1) FOR EXTERIOR SHEATHING OR TABLE R702.3.5 FOR INTERIOR GYPSUM WALL BOARD.

CONTINUOUS SHEATHING METHOD(CS) REQUIRE STRUCTURAL PANEL SHEATHING TO BE USED ON ALL SHEATHABLE SURFACES ON ONE SIDE OF A BRACED WALL LINE INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS AND SHALL MEET THE REQUIREMENTS OF SECTION R602.10.7

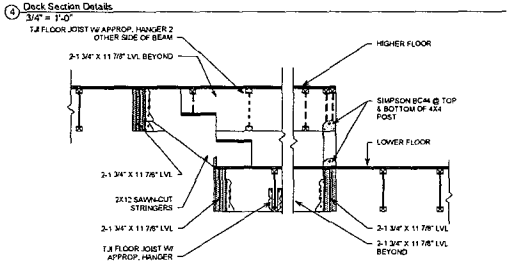
POST SCHEDULE	
P1	6X6 PSL POST
P2	4X6 PSL W/O POST
P3	4X4 PT W/O POST
P4	6X6 PT POST
P5	3-2X6 FRAMING
P6	5X8 PSL POST
P8	POST ABOVE

FRAMING/ FOUNDATION NOTES

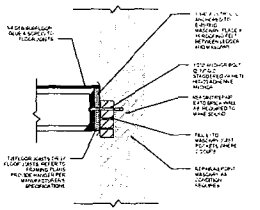




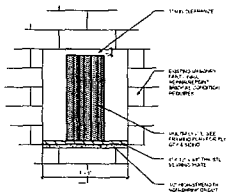
④ Deck Section Details
3/4" = 1'-0"



③ Stepped Floor Framing Detail
3/4" = 1'-0"



① Typical Ledger Board Detail
3/4" = 1'-0"



② Detail @ Beam Pocket
1 1/2" = 1'-0"

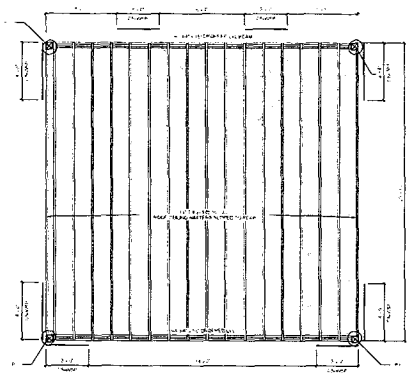
drafted by RetroSpec

STRUCTURAL ENGINEER
SYSTEMATIC ENGINEERING, LLC
DESIGNER
K.C. DOUGLAS STUDIO

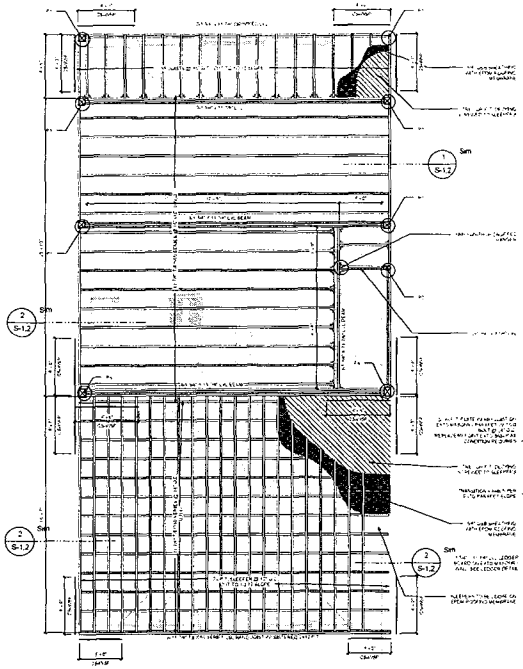
Framing Plans
1514 Q Street, NW
Washington, DC 20009
SQUARE 80194 LOT #827

DATE	07/07/16
SUBMIT	KC/DC STUDIOS 641 S STREET, NW WADC 20001
SCALE	As indicated

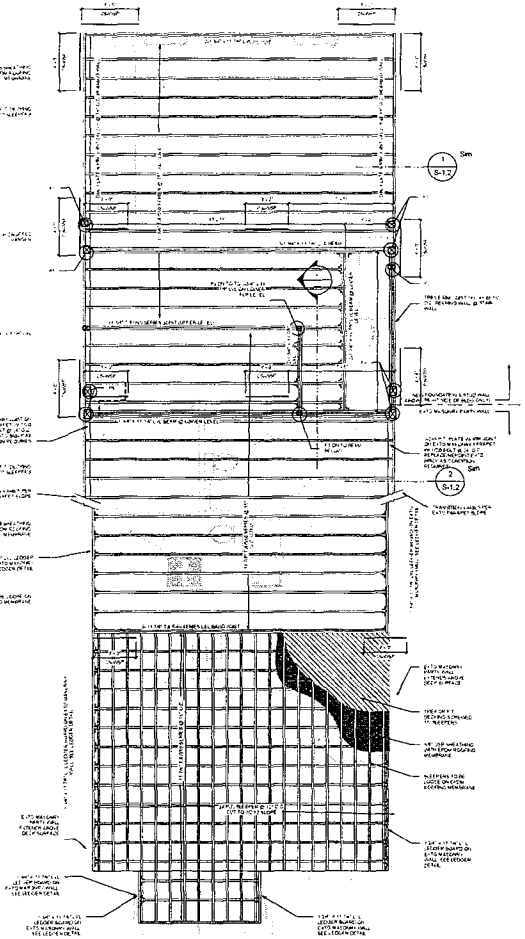
S-1.1



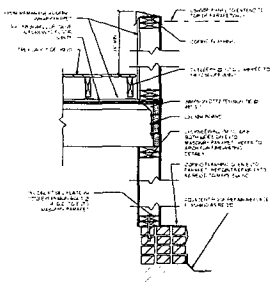
Roof Framing



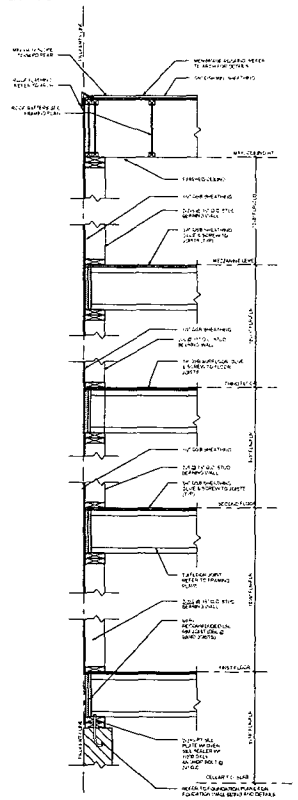
Mezzanine Floor Framing Plan



Third Floor Framing Plan



② Extension @ Parapet
3/4" = 1'-0"



① Typical New Wall Section
3/4" = 1'-0"

drafted by
RetroSpec

STRUCTURAL ENGINEER
SYSTEMATIC ENGINEERING, LLC
DESIGNER
KC DOUGLAS STUDIO

Framing Plans & Details

1514 Q Street, NW
Washington, DC 20009
SQUARE 0074 LOT 0027

DATE	02/02/16
CLIENT	KC/DC STUDIOS 641 S STREET, NW WADC 20001
PROJECT	
SCALE	As indicated

S-1.2

ELEC. LEGEND

ALL LIGHTING FIXTURES AND LAMPS TO MEET 75% EFFICIENCY

VANITY LIGHT FIXTURE
TBD
Lamp (3) CFL — EcoSmart BPESL11SR40 — 20 Watt — 950 lumens (75 Watt equivalence)

4" RECESSED LIGHT FIXTURE W/ LENS
Housing New Construction — Elite PL-401 — 20 Watt — 120 Volt
Lamp CFL — EcoSmart BPESL11R20 — 15 Watt — 630 lumens (50 Watt equivalence)

6" RECESSED LIGHT FIXTURE
Housing New Construction — Elite FR6NAL26E/20 — 26 Watt — 120 Volt
Lamp CFL — EcoSmart BPESL11SR40 — 20 Watt — 950 lumens (75 Watt equivalence)

PENDENT LIGHT FIXTURE
Fixture Mini Pendant/Hampton Bay 09401-4 — 50 Watt — 120 Volt
Lamp LED — GE LED10a3/96 — 10 Watt — 760 lumens (60 Watt equivalence)

EXTERIOR SCONCE LIGHT FIXTURE WATERPROOF W/ MOTION SENSOR & PROGRAMMABLE OPERATION
Fixture Wall Lantern — Hampton Bay HB7024-057P — 120 Volt
Lamp LED — Integrated — 6.2 Watt Watt

INLINE BATH CEILING EXHAUST
Fixture — NuTone 696N — 50 CFM

INLINE BATH CEILING EXHAUST W/ LIGHT
Fixture — NuTone 763RLN — 100 Watt — 50 CFM
Lamp CFL — EcoSmart BPESL11R20 — 15 Watt — 630 lumens (50 Watt equivalence)

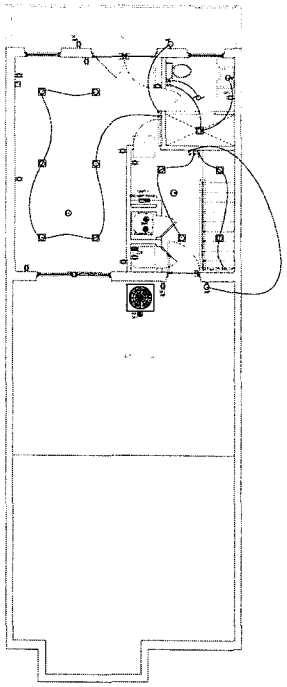
CEILING-MTD FIXTURE
TBD
Lamp (3) CFL — EcoSmart BPESL11SR40 — 40 Watt — 950 lumens (75 Watt equivalence)

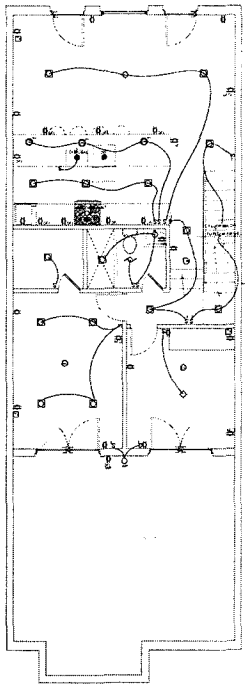
CLOSET WALL MOUNTED W/ LENS
TBD
Lamp (1) CFL — EcoSmart BPESL11SR40 — 40 Watt — 950 lumens (75 Watt equivalence)
*Provide pressure-switch @ door hinge-attach to right-hand door @ dbl-dr locations

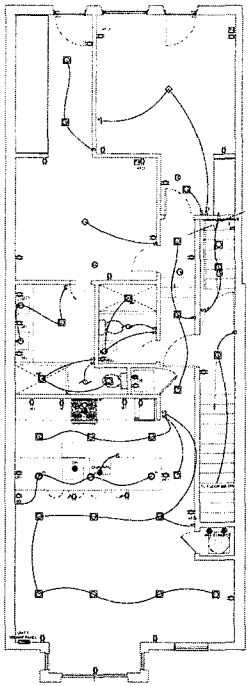
FAN AND LIGHT FIXTURE (FAN SPEED CONTROLLED BY SEPARATELY BY DIMMABLE SWITCH)
TBD
Lamp (4) CFL — EcoSmart BPESL11SR40 20 Watt — 950 Lumens (75 Watt equivalence)

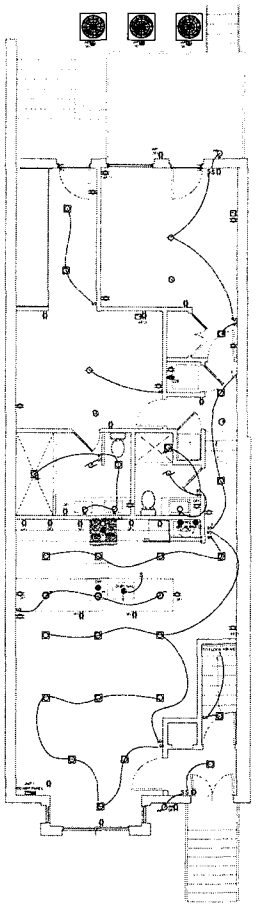
- PROGRAMMABLE THERMOSTAT
- SMOKE DETECTOR
- CARBON MONOXIDE ALARM & SMOKE DETECTOR
- S — SINGLE POLE SWITCH
- S_3 — THREE-WAY SWITCH
- S_D — DIMMER
- DUPLEX RECEPTACLE OUTLET
- GFI — WALL OUTLET W/ GFI
- AFCI — WALL OUTLET W/ AFCI; ALL OUTLET CIRCUITS TO BE AFCI-PROTECTED
- QUADPLEX RECEPTACLE OUTLET
- RANGE OUTLET
- *ALL OUTLETS TO BE TAMPER RESISTANT
- SPECIAL PURPOSE CONNECTION
- TV — CABLE TV OUTLET
- ELEC PANEL SEE SCHEDULE

NOTES
1 ALL ELEC FIXTURES TO MEET IECC EFFICIENCY STANDARDS
2 ALL BEDROOMS TO HAVE AFCI OUTLETS
3 THERMOSTAT TO BE PROGRAMMABLE

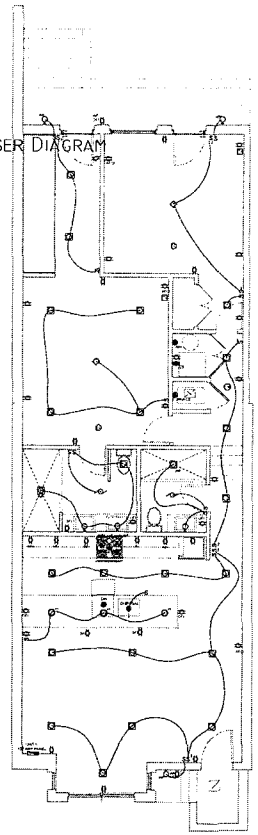








POWER RISER DIAGRAM



DESIGN FOR DC

PROJECT ADDRESS
1514 Q Street, NW
WASHINGTON, DC 2009
LOT # 827 SQUARE # 0154

DESIGNER
KC DOUGLAS STUDIO
202-320-2127

REVISIONS

DATE 9/30/2016
SCALE 3/16"=1'-0"
DRAWN
CHECKED

DRAWING TITLE
ELECTRICAL PLANS

SHEET NO.
E1

ELECTRICAL NOTES

A. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION, SERVICING, MAINTENANCE AND REPLACING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL, SUCH AS CHANNELS, RODS ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE FASTENED TO BUILDING STEEL, CONCRETE OR MASONRY, BUT NOT PIPING OR DUCT WORK. ALL CONDUITS SHALL BE CONCEALED WHEREVER POSSIBLE. EXPOSED CONDUITS SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMNS, WALLS OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES. WHEREVER THEY RUN ALONGSIDE OR ACROSS SUCH LINES. ALL CONDUCTORS SHALL BE IN CONDUIT. DUCTS OR OTHER CODE APPROVED RACEWAYS.

B. ALL LINE AND LOW VOLTAGES POWER AND CONTROL WIRING INCLUDING TEMPERATURE CONTROL, INSTALLATION OF THERMOSTATS, INTERLOCKING, ETC., EXCEPT THAT WHICH IS SPECIFICALLY NOTED AS BEING BY MECHANICAL OR TEMPERATURE CONTROL CONTRACTORS, SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

C. THE ELECTRICAL CONTRACTORS SHALL PROVIDE ALL CUTTING, CHASING OR CHANNELING AND PATCHING REQUIRED FOR ANY WORK UNDER THIS DIVISION. ANY CUTTING SHALL HAVE PRIOR APPROVAL OF ARCHITECT. SLEEVES SHALL EXTEND AT LEAST TWO (2") INCHES ABOVE FINISHED FLOOR AND ALL SLEEVES, OPENINGS, ETC., THROUGH FIRE RATED WALLS AND FLOORS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE RTV, FOAM, 3M FIRE RATED SEALANTS OR EQUAL BY HILTI AFTER CONDUIT INSTALLATION SO AS TO

D. THE FOLLOWING EQUIPMENT SHALL BE IDENTIFIED WITH ENGRAVED PANEL TYPE NAMEPLATES AS TO NAME AND/OR FUNCTION:
INSTALLED OR PANEL WITHIN PANEL, MOTOR STARTERS AND DISCONNECT SWITCHES.
NAMEPLATES TO BE WHITE MATERIAL W/ BLACK.

E. THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND THE ARCHITECT SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ADDITIONAL COST.

F. ELECTRICAL CONTRACTORS SHALL RECORD ALL FIELD CHANGES IN HIS WORK AS THE JOB PROGRESSES, AND TURN THIS INFORMATION OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT.

G. PROTECT ALL EXISTING EQUIPMENT AGAINST DAMAGE FROM LEAKS, ABUSE, ETC., AND PAY COST OF REPAIR OR REPLACEMENT OF FIXTURES OR EQUIPMENT MADE NECESSARY BY FAILURE TO PROVIDE SUITABLE SAFEGUARDS (OR PROTECTION).

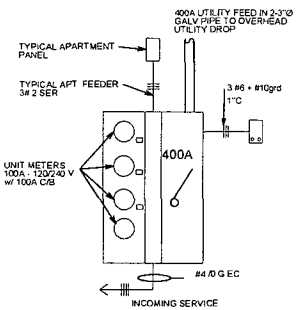
H. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS AFTER ALL EQUIPMENT HAS BEEN INSPECTED AND ACCEPTED. THOROUGHLY CLEAN ALL EQUIPMENT FURNISHED UNDER THIS WORK THAT REMAINS TO COMPLETION OF PROJECT.

ELECTRICAL CALCULATIONS

TYPICAL APT

L+R = 7 x 1500	= 10,500 VA
APPLIANCE	= 3,000 VA
DW	= 1,500 VA
DISP	= 1,000 VA
TOTAL	= 16,000 W
1ST 10,000 @ 100%	= 10,000 VA
REMAINING @ .35%	= 10,500 VA
	= 12,100VA
A.C. UNIT	= 4500 VA
TOTAL	= 16,600 VA
DEMAND	= 26,400 VA /230 V
	= 72 AMPS

72 AMPS X 4 UNIT
TOTAL = 288 AMPS



ELECTRICAL RISER DIAGRAM

UNIT 1

MTD SURFACE MOUNTED												PANEL" TYP UNIT"			
VOLTS 120/240, 1-PHASE, 3-WIRE				MAIN CIRCUIT BREAKER 125 AMPERES 120/240 VOLTS								LOCATION LIVING ROOM			
MAIN 100 AMPERES												LUGS STANDARD			
CIRCUIT NUMBER	DESCRIPTION	VOLTS	WIRE SIZE THHN	CIRCUIT BREAKER	A	B	C	A	B	C	CIRCUIT BREAKER	WIRE SIZE THHN	VOLTS	DESCRIPTION	CIRCUIT NUMBER
1	SMOKE DETECTORS	120	14	20A	1500			1400			20A	12	120	AHU	2
3	KIT/DIN LIGHTING	120	12	20A		1500								SPARE	4
5	KITCHEN RECEP	120	12	20A			1500							SPARE	6
7	BEDROOM L+R	120	12	20A	1500						20A	12	120	SPARE	8
9	BEDROOM L+R	120	12	20A		1500				1500	20A	12	120	DISHWASHER	10
11	BATH L+R	120	12	20A			1500	1000			15A	14	120	FOOD DISPOSER	12
13	BATH L+R	120	12	20A	1500					1000	15A	14	120	GAS DRYER	14
15	L+R	120	12	20A		1500			1000		15A	14	120	GAS WH	16
17	SPARE							1000			15A	14	120	DISPOSAL	18
19	AC	208	8	40A										SPARE	20
21					4500									SPARE	22

UNIT 2

MTD SURFACE MOUNTED												PANEL" TYP UNIT"			
VOLTS 120/240, 1-PHASE, 3-WIRE				MAIN CIRCUIT BREAKER 125 AMPERES 120/240 VOLTS								LOCATION LIVING ROOM			
MAIN 100 AMPERES												LUGS STANDARD			
CIRCUIT NUMBER	DESCRIPTION	VOLTS	WIRE SIZE THHN	CIRCUIT BREAKER	A	B	C	A	B	C	CIRCUIT BREAKER	WIRE SIZE THHN	VOLTS	DESCRIPTION	CIRCUIT NUMBER
1	SMOKE DETECTORS	120	14	20A	1500			1400			20A	12	120	AHU	2
3	KIT/DIN LIGHTING	120	12	20A		1500								SPARE	4
5	KITCHEN RECEP	120	12	20A			1500							SPARE	6
7	BEDROOM L+R	120	12	20A	1500						20A	12	120	SPARE	8
9	BEDROOM L+R	120	12	20A		1500				1500	20A	12	120	DISHWASHER	10
11	BATH L+R	120	12	20A			1500	1000			15A	14	120	FOOD DISPOSER	12
13	BATH L+R	120	12	20A	1500					1000	15A	14	120	GAS DRYER	14
15	L+R	120	12	20A		1500			1000		15A	14	120	GAS WH	16
17	SPARE							1000			15A	14	120	DISPOSAL	18
19	AC	208	8	40A										SPARE	20
21					4500									SPARE	22

UNIT 3

MTD SURFACE MOUNTED												PANEL" TYP UNIT"			
VOLTS 120/240, 1-PHASE, 3-WIRE				MAIN CIRCUIT BREAKER 125 AMPERES 120/240 VOLTS								LOCATION LIVING ROOM			
MAIN 100 AMPERES												LUGS STANDARD			
CIRCUIT NUMBER	DESCRIPTION	VOLTS	WIRE SIZE THHN	CIRCUIT BREAKER	A	B	C	A	B	C	CIRCUIT BREAKER	WIRE SIZE THHN	VOLTS	DESCRIPTION	CIRCUIT NUMBER
1	SMOKE DETECTORS	120	14	20A	1500			1400			20A	12	120	AHU	2
3	KIT/DIN LIGHTING	120	12	20A		1500								SPARE	4
5	KITCHEN RECEP	120	12	20A			1500							SPARE	6
7	BEDROOM L+R	120	12	20A	1500						20A	12	120	SPARE	8
9	BEDROOM L+R	120	12	20A		1500				1500	20A	12	120	DISHWASHER	10
11	BATH L+R	120	12	20A			1500	1000			15A	14	120	FOOD DISPOSER	12
13	BATH L+R	120	12	20A	1500					1000	15A	14	120	GAS DRYER	14
15	L+R	120	12	20A		1500			1000		15A	14	120	GAS WH	16
17	SPARE							1000			15A	14	120	DISPOSAL	18
19	AC	208	8	40A										SPARE	20
21					4500									SPARE	22

UNIT 3

MTD SURFACE MOUNTED												PANEL" TYP UNIT"			
VOLTS 120/240, 1-PHASE, 3-WIRE				MAIN CIRCUIT BREAKER 125 AMPERES 120/240 VOLTS								LOCATION LIVING ROOM			
MAIN 100 AMPERES												LUGS STANDARD			
CIRCUIT NUMBER	DESCRIPTION	VOLTS	WIRE SIZE THHN	CIRCUIT BREAKER	A	B	C	A	B	C	CIRCUIT BREAKER	WIRE SIZE THHN	VOLTS	DESCRIPTION	CIRCUIT NUMBER
1	SMOKE DETECTORS	120	14	20A	1500			1400			20A	12	120	AHU	2
3	KIT/DIN LIGHTING	120	12	20A		1500								SPARE	4
5	KITCHEN RECEP	120	12	20A			1500							SPARE	6
7	BEDROOM L+R	120	12	20A	1500						20A	12	120	SPARE	8
9	BEDROOM L+R	120	12	20A		1500				1500	20A	12	120	DISHWASHER	10
11	BATH L+R	120	12	20A			1500	1000			15A	14	120	FOOD DISPOSER	12
13	BATH L+R	120	12	20A	1500					1000	15A	14	120	GAS DRYER	14
15	L+R	120	12	20A		1500			1000		15A	14	120	GAS WH	16
17	SPARE							1000			15A	14	120	DISPOSAL	18
19	AC	208	8	40A										SPARE	20
21					4500									SPARE	22

DESIGN FOR DC

PROJECT ADDRESS
1514 Q Street, NW
WASHINGTON, DC 2009
LOT # 027 SQUARE # 0134

DESIGNER
KC DOUGLAS STUDIO
202-320-1137

REVISIONS

DATE 04/30/2014
SCALE 3/16" = 1'-0"
DRAWN
CHECKED

DRAWING TITLE
ELECTRICAL NOTES & DIAGRAMS

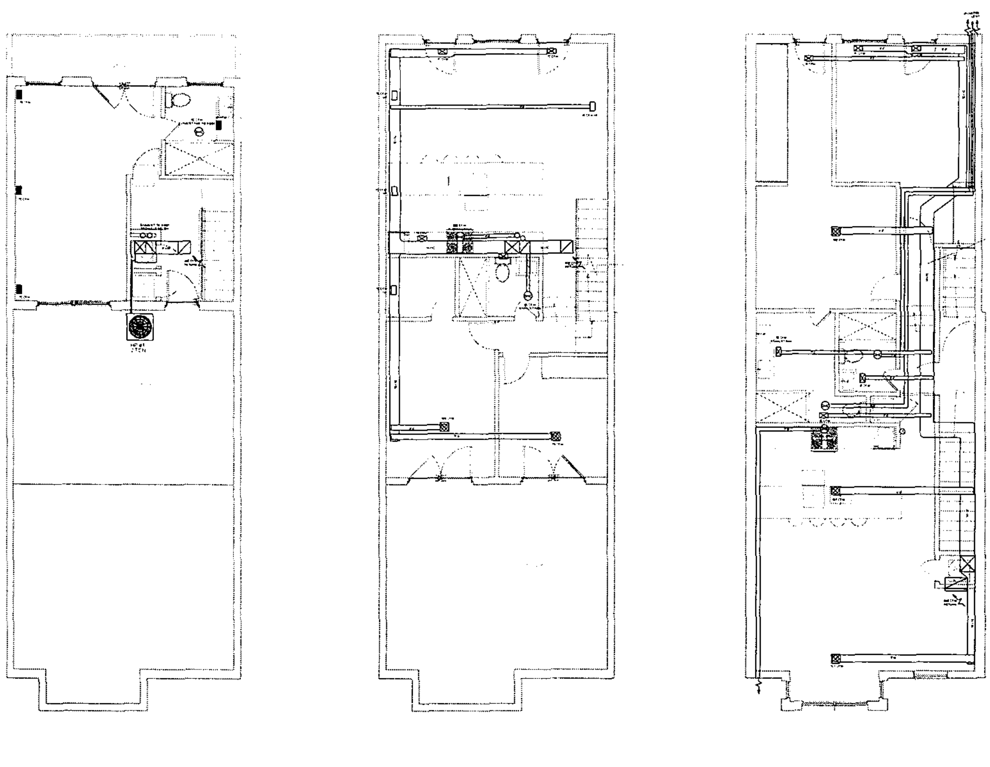
SHEET NO.
E2

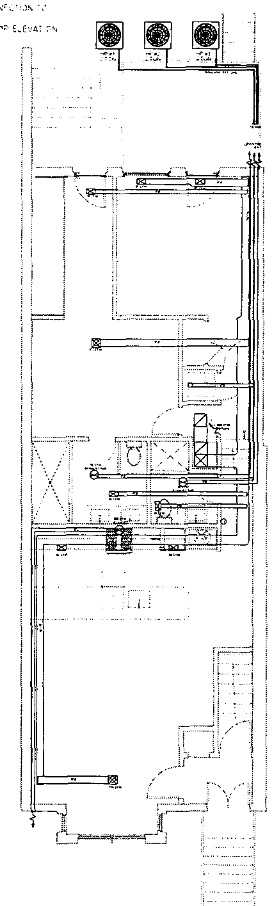
MECHANICAL NOTES

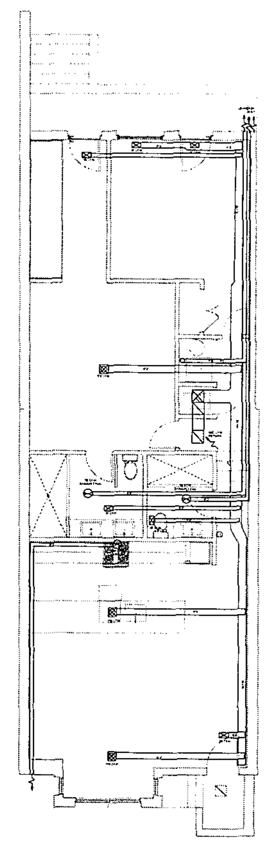
- ALL FLEXIBLE SUPPLY AIR DUCTS ARE OF [illegible] DIAMETER
- ALL FLEXIBLE EXHAUST PIPES ARE OF [illegible] DIAMETER
- FIRST FLOOR IS SUPPLIED BY THE CEILING MOUNTED SA REGISTERS [illegible] THE DUCTS RUNNING THROUGH FIRST FLOOR CEILING
- SECOND FLOOR IS SUPPLIED BY THE FLOOR MOUNTED SA REGISTERS FROM THE DUCTS RUNNING THROUGH THE FIRST FLOOR CEILING
- THIRD FLOOR IS SUPPLIED BY THE CEILING MOUNTED SA REGISTERS FROM THE DUCTS RUNNING THROUGH ATTIC
- INSTALL A/C UNIT ON [illegible] CONCRETE PAD. EXTEND PAD 2 [illegible] FOOT PRINT
- EXHAUST AIR CAP WITH [illegible] CONNECTION [illegible] DAMPER [illegible] ALUMINUM CONSTRUCTION AND SHALL BE INSTALLED IN A WEATHER [illegible] MANNER IN THE WALL
- ALL THE DUCT SIZES SHOWN ON THIS DRAWING INDICATE [illegible]
- RETURN AIR DUCT DOWN TO AHU. PROVIDE TRANSITION IN VERTICAL TO CONNECT RETURN AIR DUCT TO UNIT OPENING. PROVIDE FLEXIBLE CONNECTION IN VERTICAL
- SUPPLY AIR DUCT DOWN TO AHU. PROVIDE TRANSITION IN VERTICAL TO CONNECT SUPPLY AIR DUCT TO UNIT OPENING. PROVIDE FLEXIBLE CONNECTION IN VERTICAL
- ELECTRIC FAN FOR BATHROOM EXHAUST. CEILING MOUNTED CABINET TYPE FAN WITH INTEGRAL EXHAUST GRILLE FOR 50 CFM

CONTRACTOR NOTES

1. THE CONTRACT DOCUMENTS ARE SCHEMATIC AND ARE INTENDED TO CONVEY A FUNCTIONAL GENERAL LOCATION OF THE HVAC SYSTEM EQUIPMENT
2. CONTRACTOR SHALL EXAMINE THE CONSTRUCTION DOCUMENTS AND SHALL BECOME FAMILIAR WITH ALL THE REQUIREMENTS OF THE PROJECT AND SHALL NOTIFY THE ARCHITECT OF ANY KIND FAULT IN THE CONSTRUCTION DOCUMENTS SO THAT THE MATTER MAY BE RESOLVED PRIOR TO SUBMISSION OF BIDS
3. BY SUBMISSION OF BID THE CONTRACTOR SHALL AGREED ACCEPTANCE OF THE CONTRACT DOCUMENTS [illegible] INFORMATION OF THE SCOPE OF WORK AND EXTRA CLAIMS [illegible] INSUFFICIENT INFORMATION WILL NOT BE CONSIDERED
4. ALL WORK ON THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS
5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR PROPER EQUIPMENT INSTALLATION PRIOR TO PURCHASING EQUIPMENT
6. CONTRACTOR SHALL VERIFY ALL VOLTAGE AND POWER REQUIREMENTS AND COORDINATE WITH ELECTRICAL CONTRACTOR AS REQUIRED
7. ALL DIMENSIONS IN DUCTS [illegible] INDICATED IN THIS DRAWING SHALL BE IN INCHES INSIDE CLEAR UNLESS OTHERWISE NOTED
8. THE WORD PROVIDE MEANS TO FURNISH AND INSTALL
9. MECHANICAL WORK SHALL BE PERFORMED BY LICENSED CONTRACTOR TO PROVIDE COMPLETE OPERATING SYSTEM
10. MECHANICAL CONTRACTOR SHALL COORDINATE ALL PHASES OF WORK WITH OTHER TRADES
11. RUNNING THE DUCT WORK IN BETWEEN JOIST AND [illegible] SHALL CLOSELY COORDINATED ON THE FIELD. CONTRACTOR TO ARRANGE ALL [illegible] KITCHEN EXHAUST HOOD AND TOILET EXHAUST DUCT IN CONCEALED PLACE AT CEILING OR WALL
12. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES RELATED TO THE INSTALLATION OF HIS WORK
13. INSTALLATION SHALL BE PERMIT ACCESS [illegible] FOR SERVICES AND/OR REPLACEMENT OF EQUIPMENT PROVIDED, ALSO AS PER THE MANUFACTURER RECOMMENDATIONS
14. ALL DUCTWORK SHALL BE FABRICATED FROM FIELD TAKEN DIMENSIONS AND NOT FROM DRAWING. CHECK SPACE AVAILABILITY PRIOR TO DUCT FABRICATION
15. GENERAL NOTES APPLIED TO ALL DRAWINGS OF THIS PROJECT FOR SCHEDULE OF EQUIPMENT SEE DWG M
16. ALL DUCTWORK SHALL BE SUPPORTED FROM ADJACENT STRUCTURE AS [illegible]
17. USE FLEXIBLE CONNECTION FOR SUPPLY AND RETURN AIR DUCT FOR CONNECTION TO [illegible]
18. ALL EXTERIOR PENETRATIONS SHALL BE COORDINATED W/ ARCH. DWG FOR ELEVATION
19. ALL DUCT WORK MATERIAL SHALL BE GALVANIZED AND FABRICATION SHALL BE PER SMACNA STANDARD







DESIGN FOR DC

PROJECT ADDRESS
1514 Q Street, NW
WASHINGTON, DC 2009
LOT# 027 SQUARE# 0194

DESIGNER
KC DOUGLAS STUDIO
202-320-2137

REVISIONS

DATE 3/30/2016
SCALE 3/16"=1'-0"
DRAWN
CHECKED

DRAWING TITLE
MECHANICAL PLANS, NOTES & DIAGRAMS

SHEET NO
M1

SPLIT SYSTEM HEAT PUMP SCHEDULE

		INDOOR SECTION												OUTDOOR SECTION									
		BLOWER DATA					COOLING COIL				E. HEAT	BASIS OF DESIGN			COMPRESSOR			CONDENSER FAN			MCA	HEATING CAPACITY
TAG	TON	CFM	ESP IN	HP	VOLT/PHASE 208 / 1 FLA	FUSE	EAT °F DB/WB	LAT °F DB/WB	MBH TOTAL	MBH SENS.	KW	MAKE MODEL	MODEL	UNIT NO.	VOLT/PHASE	LRA EA	RLA EA	VOLT/PHASE	FLA			BTUHR @ 24°F OA
AHU 1	2.0	1225	0.5	1/2	4.1	15A	72	22	36.6	25.6	10	CARRIER	25HBC524C	1	208-230-1	58.3	11.1	208-230-1	0.6		14.5	26,354
AHU 2	2.0	1225	0.5	1/2	4.1	15A	72	22	36.6	25.6	10	CARRIER	25HBC524C	1	208-230-1	58.3	11.1	208-230-1	0.6		14.5	26,354
AHU 3	2.0	1225	0.5	1/2	4.1	15A	72	22	36.6	25.6	10	CARRIER	25HBC524C	1	208-230-1	58.3	11.1	208-230-1	0.6		14.5	26,354
AHU 3	2.0	1225	0.5	1/2	4.1	15A	72	22	36.6	25.6	10	CARRIER	25HBC524C	1	208-230-1	58.3	11.1	208-230-1	0.6		14.5	26,354

	BASIS OF DESIGN	REMARK
	MANUAL J	SEE CALCULATIONS
	MANUAL J	SEE CALCULATIONS
	MANUAL J	SEE CALCULATIONS
	MANUAL J	SEE CALCULATIONS

NOTES:

1. UNIT SHALL BE FREE STANDING ON 4" THICK CONCERT PAD EXTENDED 4" ALL AROUND FOR OUTSIDE UNIT HP-1.
2. ONE POINT ELECTRICAL CONNECTION
3. COOLING COIL CASED WITH DRAIN PAN.
5. DUTDOOR AND INDOOR UNIT SHALL BE MATCHING FROM ONE MANUFACTURER.
6. PROVIDE PROGRAMMABLE 2 SPEED THERMOSTAT

MECHANICAL NOTES, SCHEDULE AND RISER DIAGRAM

SYMBOLS & ABBREVIATIONS

	FLOOR MOUNTED SUPPLY REGISTER
	WALL MOUNTED RETURN GRILLE/REGISTER
	DUCT MOUNTED SUPPLY REGISTER
T	THERMOSTAT
	SA DUCT UP
	RA DUCT UP
	SA DUCT DOWN
	RA DUCT DOWN
SR XX	SUPPLY REGISTER SHOWING CFM
RG XX	RETURN GRILLE SHOWING CFM
LAT	LEAVING AIR TEMP
EAT	ENTERING AIR TEMP
EF	EXHAUST FAN
HWH	HOT WATER HEATER
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
RA	RETURN AIR
V	VOLT
CLG.	CEILING
PH	PHASE
TEMP	TEMPERATURE
KW	KILO WATTS
BTUH	BRITISH THERMAL UNIT PER HOUR
CONN	CONNECTION
FLEX	FLEXIBLE
DN.	DOWN
RPM	REVOLUTION PER MINUTE
HP	HORSE POWER
ESP	EXTERNAL STATIC PRESSURE
WG	WATER GAUGE
CFM	CUBIC FEET PER MINUTE
DWG	DRAWING
CONT	CONTINUOUS

GENERAL NOTES: (MECHANICAL)

1. THE CONTRACT DOCUMENTS ARE SCHEMATIC AND ARE INTENDED TO CONVEY A FUNCTIONAL GENERAL LOCATION OF THE HVAC SYSTEM EQUIPMENT.
2. CONTRACTOR SHALL EXAMINE THE CONSTRUCTION DOCUMENTS AND SHALL BECOME FAMILIAR WITH ALL THE REQUIREMENTS OF THE PROJECT AND SHALL NOTIFY THE ARCHITECT OF ANY KIND FAULT IN THE CONSTRUCTION DOCUMENTS SO THAT THE MATTER MAY BE RESOLVED PRIOR TO SUBMISSION OF BIDS.
3. BY SUBMISSION OF BID THE CONTRACTOR SHALL AGREED ACCEPTANCE OF THE CONTACT DOCUMENTS AS AN ENOUGH INFORMATION OF THE SCOPE OF WORK, AND EXTRA CLAIMS BASED ON INSUFFICIENT INFORMATION WILL NOT BE CONSIDERED.
4. ALL WORK ON THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.
5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR PROPER EQUIPMENT INSTALLATION PRIOR TO PURCHASING EQUIPMENT.
6. CONTRACTOR SHALL VERIFY ALL VOLTAGE AND POWER REQUIREMENTS AND COORDINATE WITH ELECTRICAL CONTRACTOR AS REQUIRED.
7. ALL DIMENSIONS ON DUCTWORK INDICATED ON THIS DRAWING SHALL BE IN INCHES, (INSIDE CLEAR) UNLESS OTHERWISE NOTED.
8. THE WORD "PROVIDE" MEANS TO FURNISH AND INSTALL.
9. MECHANICAL WORK SHALL BE PERFORMED BY LICENSED CONTRACTOR TO PRODUCE COMPLETE OPERATING SYSTEM.
10. MECHANICAL CONTRACTOR SHALL COORDINATE ALL PHASE OF WORK WITH OTHER TRADES.
11. RUNNING THE DUCT WORK IN BETWEEN JOIST AND IN JOIST SHALL CLOSELY COORDINATED ON THE FIELD. CONTRACTOR TO ARRANGE ALL SA, HWH FLUE,KITCHEN EXHAUST HOOD AND TOILET EXHAUST DUCT IN CONCEALED PLACE AT CEILING OR WALL.
12. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES RELATED TO THE INSTALLATION OF HIS WORK.
13. INSTALLATION SHALL BE PERMIT ACCESSIBILITY FOR SERVICES AND/OR REPLACEMENT OF EQUIPMENT PROVIDED, ALSO AS PER THE MANUFACTURER RECOMMENDATIONS.
14. ALL DUCTWORK SHALL BE FABRICATED FROM FIELD TAKEN DIMENSIONS AND NOT FROM DRAWING. CHECK SPACE AVAILABILITY PRIOR TO DUCT FABRICATION.
15. GENERAL NOTES APPLIED TO ALL DRAWINGS OF THIS PROJECT, FOR SCHEDULE OF EQUIPMENT SEE DWG M-3
16. ALL DUCTWORK SHALL BE SUPPORTED FROM ADJACENT STRUCTURE AS INDUSTRIAL
17. USE FLEXIBLE CONNECTOR FOR SUPPLY AND RETURN AIR DUCT FOR CONNECTION TO
18. ALL EXTERIOR PENETRATIONS SHALL BE COORDINATED W/ ARCH DWG FOR ELEVATION
19. ALL DUCT WORK MATERIAL SHALL BE GALVANIZED AND FABRICATION SHALL BE PER "SMACNA" STANDARD

AIR DEVICE SCHEDULE

TAG#	CFM	FACE SIZE	NECK SIZE	DUCT SIZE	BASES OF DESIGN DATA
SG-1	100	12X6	12X6	12X6	TITUS MODEL 300FS, 3/4" SPACING
SG-2	75	6X6	6X6	6X6	TITUS MODEL 300FS, 3/4" SPACING
SG-3	50	6X6	6X6	6X6	TITUS MODEL 300FS, 3/4" SPACING
RG-1	600	18X12	18X12	18X12	TITUS MODEL 350FL
RG-2	500	12X12	12X12	12X12	TITUS MODEL 350FL

NOTES:

1. SUPPLY REGISTER (SR) AND RETURN GRILLE (RG) SHALL BE WALL AND DUCT MOUNTED TYPE.
2. SR SHALL BE WITH OPPOSED BLADE DAMPER.
3. USE STANDARD DUCT TRANSITION TO CONNECT SR AND RG AS REQUIRED.

TOILET EXHAUST FAN

TAG#	EXHAUST CFM	FAN			ELECTRICAL DATA
		WATTS	RPM	E.S.P (WG)	
EF-1	50-75	48	1500	0.40 -0.35	115 V, 1Ø, 60 HZ

NOTES:

1. FAN SHALL BE CEILING MOUNTED CENTRIFUGAL TYPE. CABINET FAN.
2. FAN SHALL HAVE EXHAUST GRILLE
3. PROVIDE WALL CAP (MODEL WCSP 5/6)
4. FAN SHALL BE UL LISTED
5. DESIGNE BASED ON GREEN NECK MODEL SP-6
6. FAN SHALL BE CONTROLLED BY SWITCH.

ELECTRIC WATER HEATER SCHEDULE

TAG#	EWH-1
STORAGE CAPCITY	50 GALLONS
ELECTRIC ELEM.	15 KW
POWER SUPPLY	208V-1PH-60 HZ
RECOVERY @100°F	60 GALLON PER HOUR
SHIPPING WT.	125 LB
DIMENSION	55" H, 21"ø
MODEL	A.O.SMITH DSE-50

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202-320-2127

REVISIONS

DATE 01/30/2014
SCALE 3/16"=1'-0"
DRAWN
CHECKED

DRAWING TITLE
MECHANICAL NOTES & DIAGRAMS

SHEET NO
M2

PLUMBING NOTES

[illegible]

... [illegible] BETWEEN THE FIXTURES ARE PROVIDED ... [illegible]

2. [illegible] INSTALLATION AND MAINTENANCE OF ... [illegible] SHALL BE ACCORDING TO THE ... [illegible]

[illegible]

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL ... [illegible] ORDINANCES AND STANDARDS OF THE LOCAL ... [illegible] IN CASE OF A CONFLICT BETWEEN DRAWINGS ... [illegible] AND THE REQUIREMENTS OF THE LOCAL ... [illegible] THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
2. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS ... [illegible] OF ... [illegible] FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE.
3. ALL WORK SHALL BE COORDINATED WITH ALL TRADES. ... [illegible] INSTALLATION.

3. IN GENERAL, DRAWINGS FOR THE WORK ARE DIAGRAMMATIC AND SHOW THE LOCATION ... [illegible] EQUIPMENT AND ACCESSORY EQUIPMENT. THE CONTRACTOR SHALL FURNISH ALL ITEMS NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE WORK ... [illegible] CALLED FOR OR NOT. THE CONTRACTOR SHALL VERIFY ALL NECESSARY DIMENSIONS BEFORE INSTALLING ANY OF THE WORK AND SHALL CHECK HIS LAYOUT ... [illegible] REQUIRED FOR OTHER WORK. THE SCOPE OF WORK CONSISTS GENERALLY OF PROVIDING AND INSTALLING COMPLETE PLUMBING SYSTEMS AND FINAL TESTING OF ALL ... [illegible] AND EQUIPMENT AS REQUIRED.

[illegible] PRODUCTS

1. PLUMBING FIXTURES SHALL BE SELECTED BY THE OWNER
2. ALL WATER PIPING BEFORE MAIN BUILDING ... [illegible] SHALL BE ... [illegible] COPPER PIPE ... [illegible] WROUGHT ... [illegible] COPPER ... [illegible] SOLDER SWEAT FITTINGS
3. ALL SANITARY AND VENT PIPING ABOVE GRADE SHALL BE ... [illegible] SCHEDULE 40
4. ALL COLD AND HOT WATER PIPING SHALL BE INSULATED AND ALL PIPING SHALL BE INSTALLED ON THE INSIDE OF THE BUILDING INSULATION ENVELOPE. PIPING INSULATION SHALL BE ... [illegible] DENSITY ... [illegible]
5. ALL VALVES SHALL BE 125 PSI BRASS RISING STEM GATE VALVE

6. DOMESTIC WATER SHALL BE COPPER TYPE L WITH WROUGHT COPPER FITTINGS ... [illegible]
7. INSULATE ALL ... [illegible] DOMESTIC WATER PIPING WITH ... [illegible] FIBERGLASS INSULATION ... [illegible] WITH ALL PURPOSE JACKET
8. HANGERS SHALL BE ADJUSTABLE ... [illegible] HANGERS ... [illegible] PIPING INCLUDING INSULATION
9. VALVES FOR DOMESTIC WATER SHALL BE CRANE ... [illegible]
10. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS ... [illegible] PIPE TO EQUIPMENT, PIPE TO SUPPORT
11. WATER HEATER SHALL HAVE PROVISION FOR EXPANSION TANK DUE TO THE BACKFLOW PREVENTOR
12. WATER SUPPLY PIPES TO BE CPVC PLASTIC PIPE TO THE STANDARDS OF ASTM D 2846, ASTM F ... [illegible], ASTM F 442, CSA B 137.6
13. DRAIN PIPES TO BE PVC PLASTIC PIPE TO THE STANDARDS OF ASTM D 2665, ASTM D 2949, ASTM ... [illegible], CSA B 181.2

[illegible] EXECUTION

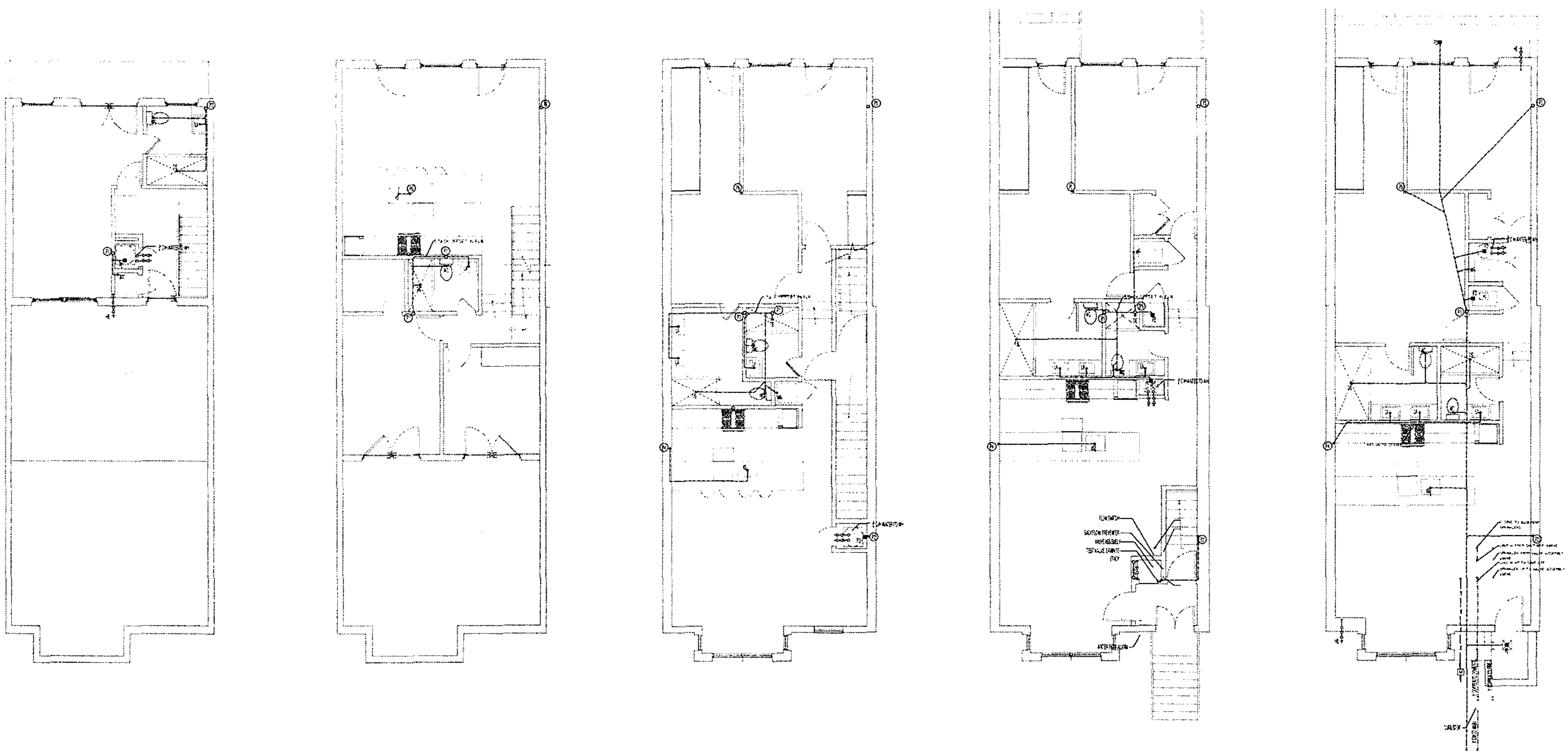
1. INSTALL FIXTURES LEVEL, PLUMB AND PARALLEL TO WALLS ... [illegible] EXPOSED METAL PARTS SHALL BE CHROME PLATED AND ... [illegible] GROUT BETWEEN WALL HUNG FIXTURES AND WALL. PROVIDE ACCESS PANELS TO ALL CONCEALED SUPPLY STOPS AND TRAP
2. FIXTURES DESIGNATED FOR USE BY PHYSICALLY HANDICAPPED PEOPLE SHALL BE IN ACCORDANCE WITH ANSI A117.1

[illegible] CUTTING, NOTCHING AND BORING IN WOOD MEMBERS

1. [illegible] NOTCHING ... [illegible] IN THE ENDS OF JOISTS SHALL NOT EXCEED ONE FOURTH THE JOIST DEPTH. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE THIRD THE DEPTH OF THE JOIST. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED ONE SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN.

2. STUD CUTTING AND NOTCHING IN EXTERIOR WALL AND BEARING PARTITIONS. ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. CUTTING OR NOTCHING OF STUDS TO A DEPTH NOT GREATER THAN 40 PERCENT OF THE WIDTH OF THE STUD IS PERMITTED IN NONBEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE WEIGHT OF THE PARTITION.

3. BORED HOLES. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. BORED HOLES NOT GREATER THAN 60 PERCENT OF THE WIDTH OF THE STUD IS PERMITTED IN NONBEARING PARTITIONS OR IN ANY WALL WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLED STUDS ARE SO BORED. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 0.625 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.



DESIGN FOR DC

PROJECT ADDRESS
1514 Q Street, NW
WASHINGTON, DC 2009
LOT# 027 SQUARE# 0194

DESIGNER
KC DOUGLAS STUDIO
202-320-2137

REVISIONS

DATE 01/30/2018
SCALE 3/16"=1'-0"
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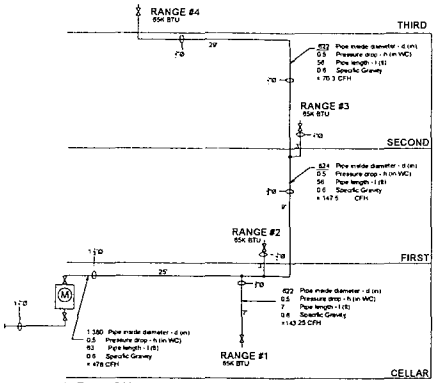
DRAWING TITLE
PLUMBING PLANS & NOTES

SHEET NO.
P1



NATURAL GAS @ .6 SPECIFIC GRAVITY BLACK STEEL PIPING TO BE USED

GAS RISER DIAGRAM

DCMR 12
TABLE 1001.1
MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

PLUMBING FIXTURE GPM CHART

Pipe Size (in) Nominal	Pipe Length (ft) Inside Diameter	Capacity of Pipe (MBH = CFH) 10	20	40	60	100	200
1/2	0.622	120	85	60	45	31	22
3/4	0.824	272	192	136	95	70	50
1	1.049	547	387	275	195	141	100
1 1/4	1.380	1200	849	600	424	310	219
1 1/2	1.610	1850	1318	930	656	480	340
2	2.067	3759	2658	1880	1330	971	685
2 1/2	2.469	6159	4357	3084	2180	1593	1126
3	3.068	11278	7938	5613	3969	2896	2049
4	4.026	23476	16602	11742	8301	6062	4287
5	5.047	42945	30387	21473	15163	11066	7841
6	6.065	69671	49295	34838	24632	17969	12720
8	7.981	141832	100290	70918	50145	36621	25895

GAS PIPE SIZING CHART

Sanitary Fixtures Schedule

SYMBOL		DESCRIPTION	WATER PIPES COLD WATER	HOT WATER	MATERIAL	STANDARD	DWV PIPES DRAIN SIZE	VENT SIZE	MATERIAL	STANDARD
	WC	Water Closet	3/4"	–			3"	2"		
	LA	Lavatory	3/4"	3/4"			2"	1 1/2"		
	T/S	Bath Tub/Shower	3/4"	3/4"			2"	1 1/2"		
	KS	Kitchen Sink	3/4"	3/4"			2"	1 1/2"		
		Dish Washer	3/4"	3/4"			2"	1 1/2"		
	WA	Washer	3/4"	3/4"			2"	1 1/2"		
	WH	Water Heater	3/4"	3/4"			2"	1 1/2"		
	FD	Floor Drain	–	–			2"/3"	1 1/2"		
	WH	Stack Clean-out	–	–						
	HB	Hose Bibb	3/4"	–						

Water Supply Fixtures Count

Fixture Type	WSFU
Bathroom group	10.0
Kitchen Sink w/ Dishwasher & Disposal	2.0
Clothes Washer	1.0
Total	15

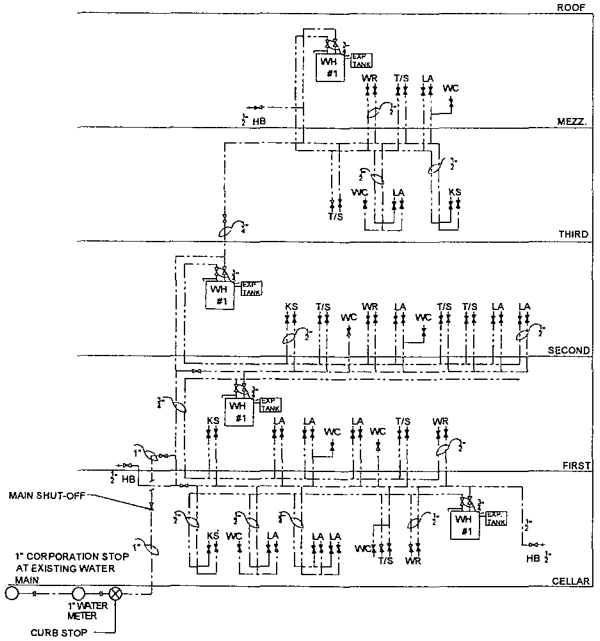
For WSFU 15, the supply system demand is 17.5 gpm. Maximum developed length = 100 ft, and the required static pressure at the most remote fixture in the building is 8 psi.

Drainage Fixtures Count

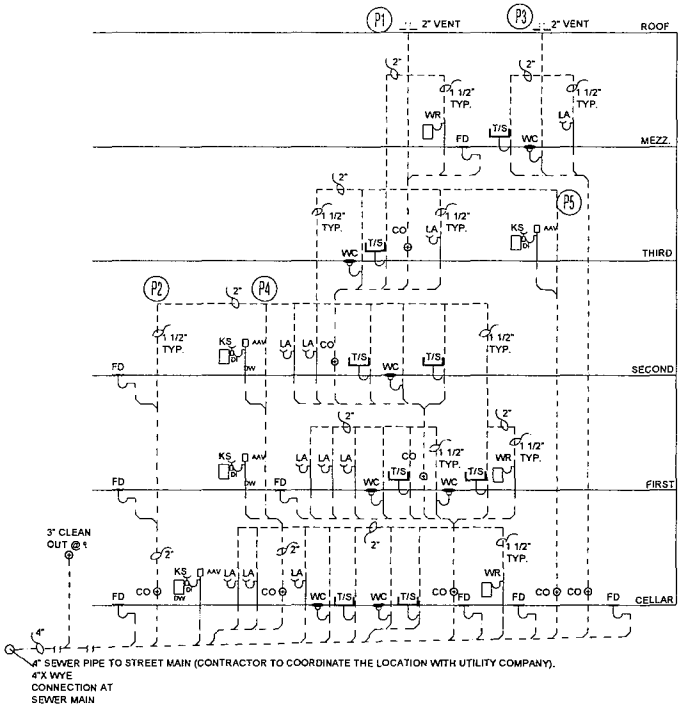
Fixture Type	DFU
Bathroom group	6
Kitchen Sink w/ Dishwasher & Disposal	2
Floor Drain	2
Clothes Washer	2
Total	12

Provide 3" D. sewer @ 2" per foot slope.

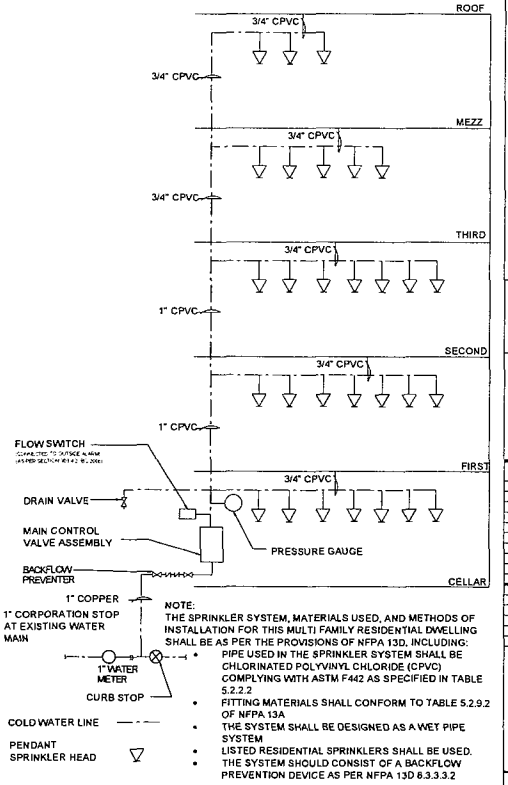
FIXTURE PLUMBING SPECIFICATIONS



COLD/HOT WATER RISER DIAGRAM



SANITARY RISER DIAGRAM



NOTE:
THE SPRINKLER SYSTEM, MATERIALS USED, AND METHODS OF INSTALLATION FOR THIS MULTI FAMILY RESIDENTIAL DWELLING SHALL BE AS PER THE PROVISIONS OF NFPA 13D, INCLUDING:

- PIPE USED IN THE SPRINKLER SYSTEM SHALL BE CHLORINATED POLYVINYL CHLORIDE (CPVC) COMPLYING WITH ASTM F442 AS SPECIFIED IN TABLE 5.2.2.2
- FITTING MATERIALS SHALL CONFORM TO TABLE 5.2.9.2 OF NFPA 13A
- THE SYSTEM SHALL BE DESIGNED AS A WET PIPE SYSTEM
- LISTED RESIDENTIAL SPRINKLERS SHALL BE USED.
- THE SYSTEM SHOULD CONSIST OF A BACKFLOW PREVENTION DEVICE AS PER NFPA 13D 6.3.3.3.2

SPRINKLER RISER DIAGRAM

DESIGN FOR DC

PROJECT ADDRESS
1514 Q Street, NW
WASHINGTON, DC 2009
LOT # 827 SQUARE # 0154

DESIGNER
KC DOUGLAS STUDIO
202-329-2137

REVISIONS

DATE 01/30/2018
SCALE 3/16" = 1'-0"
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CHECKED

DRAWING TITLE
PLUMBING PLANS & NOTES

SHEET NO
P2

Exhibit B

AFFIDAVIT OF JOHN CASEY

AUTHENTICATING ATTACHED PHOTOS

I, John Casey, being duly sworn, do hereby attest that the attached photos are authentic and were taken of 1514 Q Street NW during the February 12, 2016 meeting I attended on the property with DCRA Inspector Ruben Legaspi, SMD 2B05 Abigail Nichols, and project architect KC Price. The attached photos accurately document that the ceiling of the lower level is less than four feet (4 ft.) above the adjacent finished grade.

Date: 2/27/16 Signature: John F Casey

Subscribed and sworn to me this 27 date of February 2016.

Edward A Arabian

(Signature)

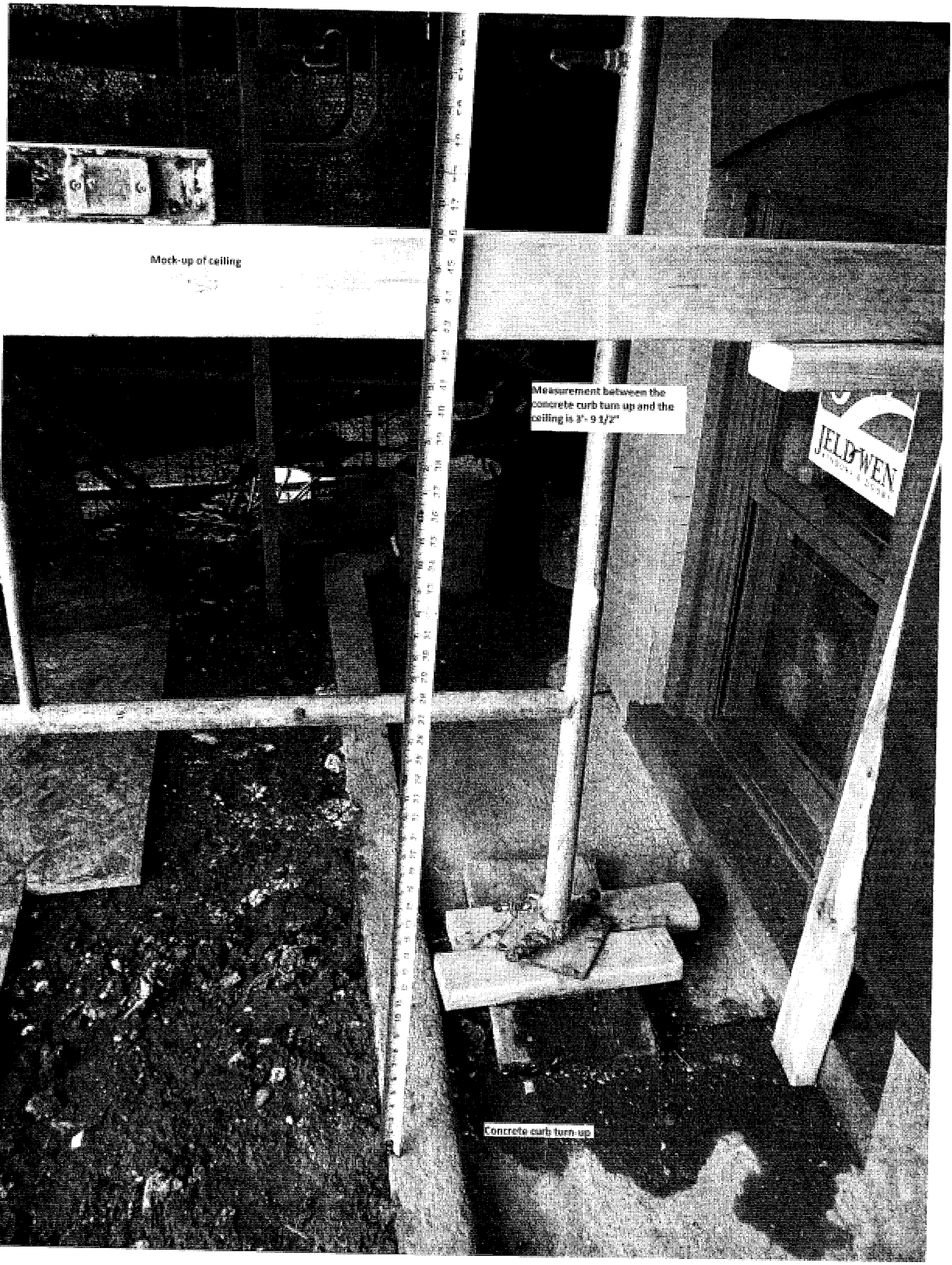
My commission expires on: 10-10-2017

Seal:

EDWARD A. ARABIAN
Notary Public
Montgomery County
Maryland
My Commission Expires Oct 10, 2017


Mock-up of Ceiling
Measurement between the adjacent finished grade and the ceiling is 3' - 11"
JELD-WEN
Adjacent Finished Grade
JW
JELD-WEN

Close up showing measurment dimension of 3' - 11" at ceiling


Mock-up of ceiling
Measurement between the concrete curb turn up and the ceiling is 3'- 9 1/2"
JELD-WEN
Concrete curb turn up

Close up showing measurement dimension of 3' - 9 1/2"

Exhibit B

AFFIDAVIT OF JOHN CASEY

AUTHENTICATING ATTACHED PHOTOS

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Notary Public
Montgomery County
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My Commission Expires Oct 10, 2017


Mock-up of Ceiling
Measurement between the adjacent finished grade and the ceiling is 9' - 11"
JELD-WEN
Adjacent Finished Grade
JELD-WEN

Close up showing measurment dimension of 9' - 11" at ceiling


Mock-up of ceiling
Measurement between the concrete curb turn up and the ceiling is 3'- 9 1/2"
JELD-WEN
Concrete curb turn-up

Close up showing measurement dimension of 3' - 9 1/2"

Exhibit C

15th St NW
3'-9½"
3'-11"
3'-11"
7' 10"

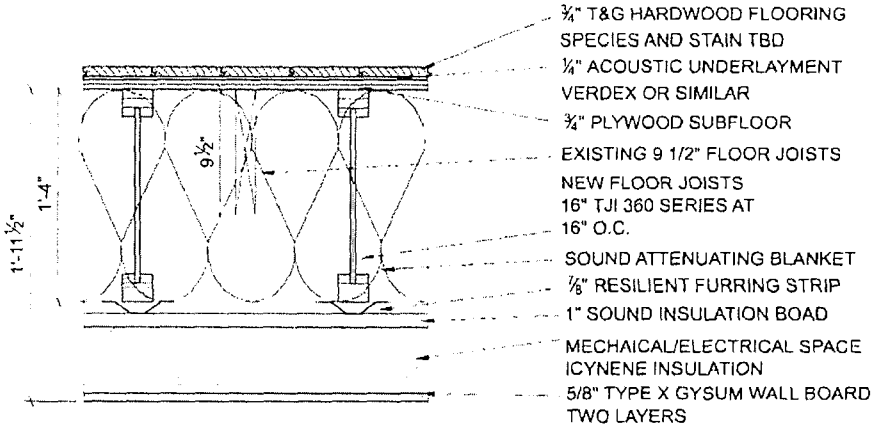
Exhibit D

March 18, 2016

Mr. Matthew Le Grant – Zoning Administrator
Department of Consumer and Regulatory Affairs
1100 4th Street, SW
Washington, DC 20024

Dear Mr. Le Grant –

Thank you for reviewing the concerns at 1514 Q Street, NW. The below image is the detail section that provides the makeup of the floor system at the area in question. The existing floor joists that span the length of the structure are 2x10's (9 ½" in depth) that do not meet current code or load limits to support the proposed use and are required to be maintained by the HPO office. This requires the new floor joists be placed 16" o.c. between the existing floor joist to maintain their integrity.



The minimum requried insualtion between floors is R-19 and we must also provide an uninteruped 1 hour fire sepeartion between the cellar level and 1st floor. The above floor makeup provides this as well as provideding an electrical/mechanical area that allows for the continuos 1 hr fire rating to be maintined.

Should you require futher information or clarifiaiton pelase do not hesistate in contacting me.

Sincerely,

KC Price

AYS ENGINEERS, PLC

8837 Western Hemlock Way, Lorton, VA 22079
Tel: 301-906-5601 Fax: 703-646-5779
Email: a.sallah@aysengineers.com

March 18, 2016

Re: Floor Framing
1514 Q St NW

The renovation of the building at the address referenced above required a clear floor space of 22 feet from bearing to bearing wall. The minimum joist size that is structurally adequate and that will not provide excessive floor deflection is a 16" depth floor member. As such I recommended a 16" deep wood TJI joist at 16" on center to be used. A floor joist depth of 9 ¼" will not be structurally adequate to span the 22 feet clear floor space.

Please call me at 301-906-5601 if you have any questions.

Alex Sallah, P.E.
Structural Engineer