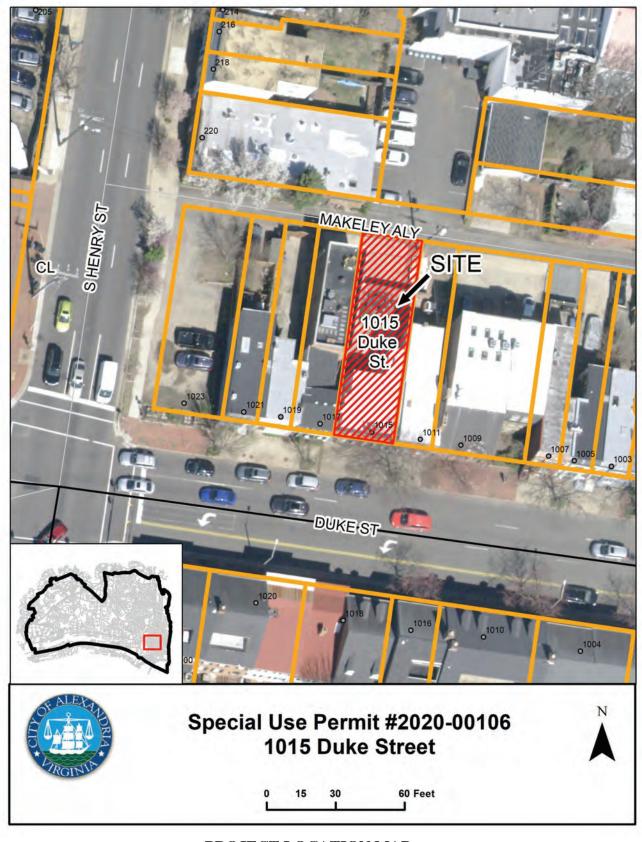
Application	General Data	
Request: Consideration of a request	Planning Commission	May 4, 2021
for a special use permit for a parking	Hearing:	
reduction with lot modifications for a	City Council	May 15, 2021
commercial to residential use	Hearing:	
conversion.		
Address: 1015 Duke Street	Zone:	CL / Commercial Low Zone
Applicant: Patrick Jansen	Small Area Plan:	Old Town Small Area Plan

Staff Recommendation: APPROVAL subject to compliance with all applicable codes and ordinances and the recommended permit conditions found in Section III of this report.

Staff Reviewer: Maggie Cooper, <u>margaret.cooper@alexandriava.gov</u>
Ann Horowitz, <u>ann.horowitz@alexandriava.gov</u>



PROJECT LOCATION MAP

I. DISCUSSION

The applicant, Patrick Jansen, represented by Theodora Stringham, requests Special Use Permit approval for a parking reduction for two compact parking spaces with lot modifications to the CL zone residential use regulations for front yard setback and open space, pursuant to Section 4-106(A)(2) of the Zoning Ordinance.

SITE DESCRIPTION

The subject site is located on one parcel of record with 26.40 feet of frontage on Duke Street and a depth of 88.00 feet. It has a lot area of 2,323.00 square feet. The parcel is developed with a two-story 1,717.40 square-foot townhouse (Figure 1). The rear parking area is accessible by Makeley Alley and includes a brick partition separating the parking area from the rear yard. (Figure 2).

Commercial and residential uses are found on this block. Historic homes, consisting primarily of townhouse dwellings, are to the south, west, and east. Commercial properties, primarily offices, are located to the south.



Figure 1

BACKGROUND

The subject property is a two-story structure that was constructed prior to 1877, before the city's first zoning ordinance. The property was used as a residence until 1986, when it converted to a commercial use.

In 1985, a subdivision was approved to change the location of the lot line between 1015 and 1017 Duke Street. On December 10, 2018, the Board of Zoning Appeals approved BZA2018-00018 to waive the required front yard setback in order to convert the commercially-used townhouse back to its original residential use.



Figure 2

On January 16, 2019, the applicant received approval from the Board of Architectural Review (BAR) (BAR2019-00571/00579) to construct a 413 square-foot two-story addition with a 2.50-foot monitor with clerestory windows in the rear of the property, as the BAR felt that the proposed addition was compatible with the rear elevation. The BAR staff report stated that the "construction of the proposed addition would preclude future residential use of the property" and zoning

comments for the BAR report were as follows: "The building will continue to be used commercially. The proposed addition will negate the recent variance which approved a reduction to the required front yard setback if the building was to be used residentially. While open space is not required for commercial uses, the proposed addition would reduce the required open space for a residential use beyond what is required." Following this approval, zoning staff approved the building permit (BLDR2019-00590) for the subject property with the condition that the building use remain commercial.

Per tax records, many of the structures on the block were used commercially during the mid-1980s and have progressively converted to residential uses over the past 30 years.

After the additions were made to the commercial building, the applicant decided to use the property for residential use and submitted this SUP request.

PROPOSAL

The applicant requests a parking reduction from two standard spaces to two compact parking spaces as a way to increase open space on the property. Open space and front yard setback modifications are also requested to residential comply with requirements in the CL zone. The open space requirement for a residential use on this lot is 40% of the lot area or 929.28 square feet. The proposal to convert the two existing standard parking spaces to two compact spaces will allow the applicant to increase his open space by 192.00 square feet for a total of 879.5 feet of countable open space or 37.86% of the lot area, 2.14% less than the open space requirement.

The front yard setback requirement for residential uses in the CL zone is 20 feet and the applicant provides 0.90 feet. A front yard setback modification of 19.1 feet is requested.

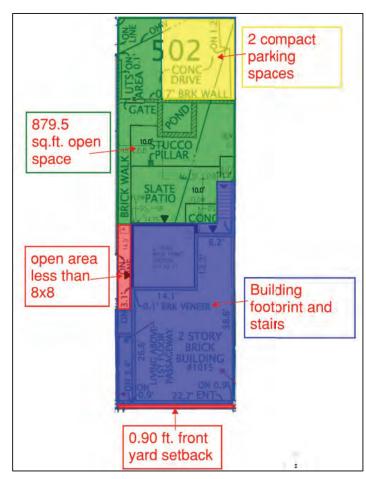


Figure 3

PARKING

Section 8-200(A)(1) of the Zoning Ordinance requires townhouse dwellings to provide two standard parking spaces for each dwelling unit. Section 8-200(D)(1) requires off-street parking spaces to be standard in size and no less than 18.5 feet in length by 9 feet in width. Given that the

applicant proposes two compact spaces, SUP approval for a parking reduction is required, pursuant to Section 8-100(A)(4),

ZONING

The property is located in the CL, Commercial Low Zone, which allows for a mix of residential and commercial uses. Townhouse dwellings are a permitted use in the CL zone, pursuant to Zoning Ordinance Section 4-102(A)(2) of the Zoning Ordinance. Section 4-106(A)(2) outlines the area and bulk regulations for residential uses (Table 1). Section 11-416(C) of the Zoning Ordinance allows for lot modifications, such as front yard setback and open space, to be reviewed for requests that include an SUP proposal.

ZONING ANALYSIS

Table 1. Zoning Table

CL Zone	Requirement	Existing/Proposed
	(residential townhouse)	
Lot Area	1,980 sq. ft.	2,323.20 sq. ft.
Lot Width	18.00 ft.	26.40 ft.
Lot Frontage	18.00 ft.	26.40 ft.
Front Yard	20.00 ft.	<mark>.90 ft.</mark>
Side Yard (west)	0 ft.	0 ft. (2 nd floor)
Side Yard (east)	0 ft.	0 ft.
Rear Yard	1:1 minimum 8.00 ft.	46.28 ft.
Open Space	929.28 sq. ft. (40%)	879.50 (37.86%)
Floor Area	Maximum 1,742 sq. ft.	1,717.40 sq. ft.
Ratio	(.75)	(.739)
Height	45.00 ft.	22.67 ft.
Parking	2 spaces	2 spaces

MASTER PLAN DESIGNATION

The subject property is located within the Old Town Small Area Plan. The plan designates this area as a mixture of uses that is predominately residential while being anchored by the King Street and Washington Street commercial corridors.

II. STAFF ANALYSIS

Staff recommends approval of the parking reduction to convert two standard spaces to two compact spaces and for the proposed lot modifications for open space and front setback to allow for a reversion from commercial to residential use. Additionally, approval of the lot modifications for front yard and open space is recommended as it allows the building to return to its original residential use, consistent with the Old Town Small Area Plan goals and neighborhood trends,

reflecting an increasing interest from property owners to revert commercial properties to their historic residential use.

Staff finds this parking reduction request to be reasonable and technical in nature as the property would still have two off-street parking spaces, providing for open space that is only 2.14% less than required. The front yard setback modification request is also reasonable as all buildings except one dwelling on the north side of the block are setback less than a foot from the front property line. Additionally, the required front yard setback of 20 feet is inconsistent with the historic development character of this block (Figure 4).

Staff has included two conditions to ensure that open space of 37.86% is maintained (Condition 1) and that the area for the two compact parking spaces remains distinct from the adjacent open space so not to encroach on the open space (Condition #2).

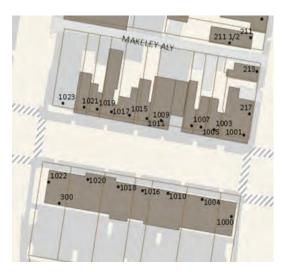


Figure 4

Subject to the conditions contained in Section III of this report, staff recommends approval of the Special Use Permit request.

III. RECOMMENDED CONDITIONS

Staff recommends *approval* subject to compliance with all applicable codes and ordinances and the following conditions:

- 1. The open space shall not be reduced to less than 37.86% of the lot area. (P&Z)
- 2. The two compact parking spaces shall be clearly delineated from the adjacent open space. (P&Z)

STAFF: Tony LaColla, AICP, Division Chief, Land Use Services

Ann Horowitz, Principal Planner Maggie Cooper, Urban Planner

<u>Staff Note:</u> In accordance with section 11-506(c) of the zoning ordinance, construction or operation shall be commenced and diligently and substantially pursued within 18 months of the date of granting of a special use permit by City Council or the special use permit shall become void.

IV. CITY DEPARTMENT COMMENTS

Legend: C - code requirement R - recommendation S - suggestion F - finding

Transportation & Environmental Services:

F-1 SWM and Transportation Planning has no comments.

Code Enforcement:

No comments.

Fire:

No comments.

Health:

No comments received.

Parks and Recreation:

F-1 Please work to meet the open space requirements.

Police Department:

No comments received.



APPLICATION

SPECIAL USE PERMIT

SPECIAL USE PERMIT #____

	MAP REFERENCE:	074.01	- 08	ZONE:	BC.	1_
APPL	ICANT:	9				
Name:	Patrick	Janse	h			-
Addre	ss <u>1015</u>	Duke 5	+			_
PRO	POSED USE:	esidentic	0			
d	THE UNDERSIGNED), hereby applies fo 11-500 of the 1992	or a Special Use Permit Zoning Ordinance of th	in accordance wi e City of Alexand	th the provisio	ns of
Ø	permission to the	City of Alexandria	ed permission from the staff and Commission etc., connected with the	n Members to	er, hereby g visit, inspect,	rants and
d	permission to the Cit	y of Alexandria to p nt to Article IV, Sec	ned permission from t post placard notice on the ction 4-1404(D)(7) of the	ne property for wh	nich this applic	ation
Ø	including all surveys, accurate to the best materials, drawings representations mad the applicant unless	drawings, etc., recoftheir knowledge or illustrations sub e to the Director of those materials of I plans and intention	that all of the informati quired to be furnished be and belief. The applica emitted in support of the f Planning and Zoning of or representations are tions, subject to substar- ing Ordinance of the Cit	by the applicant all ant is hereby notiful is application and on this application clearly stated to ntial revision, pur	re true, correctied that any will any specification will be bindired be non-bindired to Articles.	t and ritten oral og on
	Section 11-207(A)(10					
P	Section 11-207(A)(10	340	77	1	11/9	120
Point	Section 11-207(A)(10	ent				<u>/2</u> 0
6	Section 11-207(A)(10	ent Sainian		225-7947	// 9 Date 7 Fax#	<u>/2</u> 0

Last updated: 11.11.2019

	ERTY OWNER'S AUTHORIZATION	
As the	property owner of 1015 Dake	5dIncreby
	(Property Address)	
rant t	the applicant authorization to apply for theSc (use)	pacial USS use as
lescri	bed in this application.	
lame	Patrick lansen	Phone 571-225-2947
	Please Print	Daniel () 11.155 Dal. 1 Da 1
laares	55: 1015 Duka St	Email: PATRICK @ JANSENPAULBA. C
Signa	ture:	Date: 12/22/20
	/ /	* /
2.	The applicant is the (check one);	
	[v] Owner	
	[] Contract Purchaser	
	[] Lessee or [] Other: of	the subject property.
State	s the entity is a corporation or partnership, in whice	any person or entity owning an interest in the applicant or owner, the case identify each owner of more than three percent.
unles	s the entity is a corporation or partnership, in whice	th case identify each owner of more than three percent.
unles	s the entity is a corporation or partnership, in whice	th case identify each owner of more than three percent.
untes	s the entity is a corporation or partnership, in which	th case identify each owner of more than three percent.
untes	s the entity is a corporation or partnership, in whice	th case identify each owner of more than three percent.

OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

1. Applicant. State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
Patrick Vanzen	6631 Old Donies D.	50%
Maryon Janzen	6631 012 Danie 7-	50%

31 012 Donice.	Ca 0,
of the section.	50%
	50°/.
	31 01d Dania 2

3 Business or Financial Relationships. Each person or entity indicated above in sections 1 and 2, with an ownership interest in the applicant or in the subject property are require to disclose any business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the 12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review. All fields must be filled out completely. Do not leave blank. (If there are no relationships please indicated each person or entity and "None" in the corresponding fields).

For a list of current council, commission and board members, as well as the definition of business

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
NA	N/A	N/A
Potrot Jansen	NA	NA
Dance Jane	N/A	N/A

NOTE: Business of financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

Date Printed Name

Signature

If property owner or applicant is being represented by an authorized agent such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?
[] Yes. Provide proof of current City business license
[] No. The agent shall obtain a business license prior to filing application, if required by the City Code.
NARRATIVE DESCRIPTION
3. The applicant shall describe below the nature of the request in detail so that the Planning Commission and City Council can understand the nature of the operation and the use. The description should fully discuss the nature of the activity. (Attach additional sheets if necessary.)
1) Request celiaf from front setback
2) Allow Two Compact parking spaces in The
cear of The Love.
3) Make The use of The home Residential

Last updaled: 10.21,2020

USE CHARACTERISTICS

] ot	ner. Please describe:
Pleas	e describe the capacity of the proposed use:
	How many patrons, clients, pupils and other such users do you expect? Specify time period (l.e., day, hour, or shift).
3.	How many employees, staff and other personnel do you expect? Specify time period (i.e., day, hour, or shift).
lea:	se describe the proposed hours and days of operation of the proposed use:
	20.20
Day:	N/A Hours: /A
	te describe any potential noise emanating from the proposed use. Describe the noise levels anticipated from all mechanical equipment and patrons.
Pleas	se describe any potential noise emanating from the proposed use.

Diaz	
rica	se provide information regarding trash and litter generated by the use.
Α.	What type of trash and garbage will be generated by the use? (i.e. office paper, food wrappers)
В.	How much trash and garbage will be generated by the use? (i.e. # of bags or pounds per day or week)
C.	How often will trash be collected?
	Once a breek
D.	How will you prevent littering on the property, streets and nearby properties?
	HAT City provided Track receptules
	HAT City provided Track correpticles

Last updated: 10.21.2020

76

11,		y organic compounds, for example paint, ink, lacquer thinner, or cleaning or degreasing solvent, be d, stored, or generated on the property?
	[] Ye	s. [JNo.
	If yes,	provide the name, monthly quantity, and specific disposal method below:
	_	
12.	What	methods are proposed to ensure the safety of nearby residents, employees and patrons?
ALC	—	. SALES
13.		
101	A.	Will the proposed use include the sale of beer, wine, or mixed drinks?
		[] Yes W No
		If yes, describe existing (if applicable) and proposed alcohol sales below, including if the ABC license will include on-premises and/or off-premises sales.

PARKING AND ACCESS REQUIREMENTS

14.

	Compact spaces Handicapped accessible spaces.
	Handicanned accessible spaces
	Traildicapped docessible spaces.
	Other.
	Planning and Zoning Staff Only
Required number	r of spaces for use per Zoning Ordinance Section 8-200A
Does the applica	tion meet the requirement? [] Yes [] No
Where	is required parking located? (check one)
[4] on-	ite
[] off-	ite
If the a	equired parking will be located off-site, where will it be located?
it the re	dament bernand and control of the co
NOTE: Pursu	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may p
NOTE: Pursu g within 500 f al uses. All c use with a sp If a red	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may pleet of the proposed use, provided that the off-site parking is located on land zoned for cither uses must provide parking on-site, except that off-street parking may be provided ecial use permit.
NOTE: Pursu g within 500 f al uses. All c use with a sp If a red	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may peet of the proposed use, provided that the off-site parking is located on land zoned for cither uses must provide parking on-site, except that off-street parking may be provided ecial use permit.
NOTE: Pursu g within 500 to al uses. All co use with a sp If a red Ordinan	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may pleet of the proposed use, provided that the off-site parking is located on land zoned for cither uses must provide parking on-site, except that off-street parking may be provided ecial use permit.
NOTE: Pursu g within 500 f al uses. All o use with a sp If a red Ordinan	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may peet of the proposed use, provided that the off-site parking is located on land zoned for cether uses must provide parking on-site, except that off-street parking may be provided ecial use permit. Institute of the proposed use, provided that the off-street parking may be provided ecial use permit. Institute of the parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the ce, complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION.
NOTE: Pursu g within 500 to al uses. All o use with a sp If a red Ordinan [/ Par ase provide in	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may pleet of the proposed use, provided that the off-site parking is located on land zoned for cother uses must provide parking on-site, except that off-street parking may be provided ecial use permit. Introduction in the required parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION. It is reduction requested; see attached supplemental form
NOTE: Pursu g within 500 to al uses. All o use with a sp If a red Ordinan [/ Par ase provide in	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may pleet of the proposed use, provided that the off-site parking is located on land zoned for continuous must provide parking on-site, except that off-street parking may be provided recial use permit. Inction in the required parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION. It is reduction requested; see attached supplemental form Information regarding loading and unloading facilities for the use:
NOTE: Pursu g within 500 f al uses. All o use with a sp If a red Ordinan [Par ase provide in	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may pleet of the proposed use, provided that the off-site parking is located on land zoned for content uses must provide parking on-site, except that off-street parking may be provided ecial use permit. Inction in the required parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the ce, complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION. It is reduction requested; see attached supplemental form Information regarding loading and unloading facilities for the use:
NOTE: Pursu g within 500 f al uses. All o use with a sp If a red Ordinan [Par ase provide i How ma	ant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may pleet of the proposed use, provided that the off-site parking is located on land zoned for counter uses must provide parking on-site, except that off-street parking may be provided recial use permit. Inction in the required parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION. It is reduction requested; see attached supplemental form and information regarding loading and unloading facilities for the use: In loading spaces are available for the use? Planning and Zoning Staff Only

How many parking spaces of each type are provided for the proposed use:

C.	During what hours of the day do you expect loading/unloading operations to occur? N/A
D.	How frequently are loading/unloading operations expected to occur, per day or per week, as appro
	reet access to the subject property adequate or are any street improvements, such as a new turning la
	treet acress is edequate Through Makeley St.
_	
CH	ARACTERISTICS
	the prepared uses he legated in an existing building?
Will	the proposed uses be located in an existing building? [] Yes [] No
Will	
Will Do	the proposed uses be located in an existing building? [] Yes [] No
Will Do :	the proposed uses be located in an existing building? [] Yes [] No you propose to construct an addition to the building? [] Yes [] No
Will Do :	the proposed uses be located in an existing building? [] Yes [] No you propose to construct an addition to the building? [] Yes [] No vlarge will the addition be? square feet.
Will Do : How Wha	the proposed uses be located in an existing building? you propose to construct an addition to the building? you large will the addition be? square feet. at will the total area occupied by the proposed use be?
Will Do : Hov	the proposed uses be located in an existing building? you propose to construct an addition to the building? you propose to construct an addition to the building? you propose to construct an addition to the building? you propose to construct an addition to the building? you propose to construct an addition to the building? you propose to construct an addition to the building? Yes No
Will Do : Hov Wh:	the proposed uses be located in an existing building? Yes [] No you propose to construct an addition to the building? If yes [] Yes [] No y large will the addition be? square feet. at will the total area occupied by the proposed use be? sq. ft. (existing) + sq. ft. (addition if any) = sq. ft. (total) a stand alone building a house located in a residential zone
Will Do : Hov Wh: The	the proposed uses be located in an existing building? Yes [] No you propose to construct an addition to the building? If yes [] No y large will the addition be? square feet. at will the total area occupied by the proposed use be? sq. ft. (existing) + sq. ft. (addition if any) = sq. ft. (total) a proposed use is located in: (check one) a stand alone building a house located in a residential zone a warehouse
Will Do : Hov Wh: The []: []: []:	the proposed uses be located in an existing building? Yes [] No you propose to construct an addition to the building? If yes [] Yes [] No y large will the addition be? square feet. at will the total area occupied by the proposed use be? sq. ft. (existing) + sq. ft. (addition if any) = sq. ft. (total) a stand alone building a house located in a residential zone



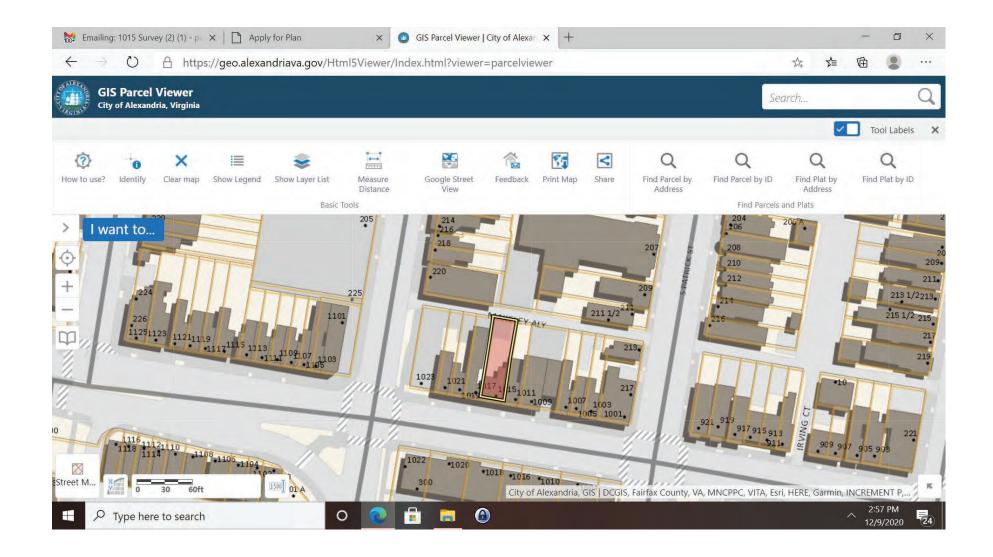
APPLICATION - SUPPLEMENTAL

PARKING REDUCTION

Supplemental information to be completed by applicants requesting special use permit approval of a reduction in the required parking pursuant to section 8-100(A)(4) or (5).

	Describe the requested parking reduction. (e.g. number of spaces, stacked parking, size, off-site						
locat	lucing the two normal parking spaces to compact parking spaces						
1100	Treadoning the two horman parking spaces to compact parking spaces						
2.	Provide a statement of justification for the proposed parking reduction.						
	ucing the parking sq footage to meet open space requirements.						
3.	Why is it not feasible to provide the required parking?						
	lucing the parking sq footage to meet open space requirements.						
4.	Will the proposed reduction reduce the number of available parking spaces below the						
nun	ber of existing parking spaces?						
	Yes √ No.						

- 5. If the requested reduction is for more than five parking spaces, the applicant must submit a *Parking Management Plan* which identifies the location and number of parking spaces both on-site and off-site, the availability of on-street parking, any proposed methods of mitigating negative affects of the parking reduction.
- 6. The applicant must also demonstrate that the reduction in parking will not have a negative impact on the surrounding neighborhood.



Department of Planning and Zoning Floor Area Ratio and Open Space Calculations

A 1.	Property Info 1015 Duke Street Street Address		(0.75			CL Zon	
A2.	2,323.00 Total Lot Area			0.75 Floor Area Ratio A	llowed by Zone	=		ximum Allowable Floor Area
В.	Existing Gross			Allowable Exclu	sions**			
	Basement	820.40		Basement**	820.40		B1.	99:: "
	First Floor	976.3		Stairways**	121.30			Existing Gross Floor Area*
	Second Floor	976.30		Mechanical**			B2.	- 1
	Third Floor			Attic less than 7'**				Allowable Floor Exclusions**
	Attic			Porches**			B3.	Sq. Ft. Existing Floor Area Minus Exclusions
	Porches			Balcony/Deck**				(subtract B2 from B1)
	Balcony/Deck			Lavatory***	114		Coi	mments for Existing Gross Floor Area
	Lavatory***			Other**				
	Other**			Other**				
B1.	Total Gross	2773	B2.	Total Exclusions	1055.6			
C.	Proposed Green Proposed Green Proposed Gross Basement First Floor Second Floor Third Floor Attic Porches Balcony/Deck Lavatory***	oss Floor Area s Area		Allowable Exclusion Basement** Stairways** Mechanical** Attic less than 7'** Porches** Balcony/Deck** Lavatory*** Other**			C1. C2.	Proposed Gross Floor Area* 0.00 Allowable Floor Exclusions**
	Other			Other**				Notes
C1.	Total Gross	0.00	C2.	Total Exclusions	0.00			*Gross floor area is the sum of <u>all areas</u> <u>under roof of a lot</u> , measured from the face of exterior walls, including basements,
D.	Total Floor A	rea		E. Open Spa	Ce (RA & RB Zones)		garages, sheds, gazebos, guest buildings and other accessory buildings.
D1.	D1. 1717.4 Sq. Ft. Total Floor Area (add B3 and C3) D2. 1,742.25 Sq. Ft. Total Floor Area Allowed by Zone (A2)			E1. 687.10 Existing Ope				** Refer to the Zoning Ordinance (Section 2-145(B)) and consult with Zoning Staff for information regarding allowable exclusions. Sections may also be required for some exclusions.
D2.				Required Op E3. 879.50 Proposed O	Sq.			***Lavatories may be excluded up to a maximum of 50 square feet, per lavatory. The maximum total of excludable area for lavatories shall be no greater than 10% of gross floor area.

The undersigned hereby certifies and attests that, to the best of his/her knowledge, the above computations are true and correct.

Patrick Jansen

Digitally signed by Patrick Jansen Date: 2021.02.03 13:53:44 -05'00'

Date

1015 DUKE STREET INTERIOR ALTERATION / REAR ADDITION

		SQL	JARE FO	$\frac{ \cup A}{ }$	GE / PRUJE	CT DESCRIPTION
LEVE	<u>L</u>	EXISTING	PROPOSED	TOTAL		STRUCTURAL ENGINEER OF RECORD: KALPESH PATEL
BASEMENT	-	607.4	304.6	912	PROPERTY LOCATION:	INTEGRAL ENGINEERING INC 21351 GENTRY DRIVE, STE 230 STERLING VA 20166
FIRST FLO	OR	715.2	196.8	912	1015 DUKE STREET	703.829.2340
SECOND F	LOOR	728.9	204	932.9	ALEXANDRIA VA 22314	DESIGNER SALVATORE BENVENGA SB DESIGN STUDIOS LLC A 50 V FAL
		0054.5	705.4	07500		4201 S 31ST STREET #950 ARLINGTON VIRGINIA 22206
TOTAL -		2051.5	705.4	2756.9		571.317.1932
OVERALL	WD x DPTH	26'-3" X 38'-6"	26'-3" X 40'-6"			
		DRAW		$\overline{\Box}$		ZONING INFORMATION — PER JUI
				/ \	REVISION	
					PERMIT 03/13/19 REVIEW 04/23/19	ZONE: CL LOT SIZE: 2323
SHEET		SHEET TITLE			0.3 PE	- OVERLAY DISTRICT:
GENERAL		SHEET HILE				OLD TOWN ALEXANDRIA HISTORIC YEAR BUILT 1900
GUNLINAL GOO1	COVER SHE	FT				- ILAN BOILT 1300
G002		NOTES AND SPECIFIC	CATIONS			<u>EXISTING USE:</u> BUSINESS
G003	SYMBOLS A	AND ABBREVIATIONS				DOSINESS
G004	CODE ANAL	ysis / life safet	Y DIAGRAMS			PROPOSED USE:
G005	PROPERTY	SURVEY - EXISTING	G AND PROPOSED			BUSINESS
ARCHITEC	TURF					LEGAL DESCRIPTION:
		PLAN — EXISTING /	AND PROPOSED			LOT 502 R/S 1015-1017 DUKE ST
		DR PLAN — EXISTINO				EXISTING FOOTPRINT: 715
A003		OOR PLAN — EXIST		ED		PROPOSED FOOTPRINT: 912
A004	ROOF PLAN	N — EXISTING AND I	PROPOSED			
A005		S — SOUTH — EXIS				SUBJECT
A006		S - NORTH - EXIS				PROPERTY
A007 A008		<u>S — WEST — EXISTI</u> Pection	NG AND PROPOSEI)		-
	BUILDING S	WINDOW SCHEDULE	S / WALL TYPES			
		OR BATHROOM ELEV				1. ALL DIMENSIONS ARE
7 7 7 7 7	111(01 1200	27 27 THE OWN LEEP	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			2. CONTRACTOR MUST (ROUTING THROUGH CONC
STRUCTUF	RE					LOCATIONS WITH ARCHITE
S001	STRUCTURA	AL NOTES				SCHEMATIC ARRANGEMENT
	FRAMING P		3. CONTRACTOR MUST N CRITICAL AREAS WHEN CI			
	FRAMING P					CONTRACTOR.
	FRAMING P FRAMING D					4. ANY DISCREPANCIES
3103	INAMIING D	LIMILO				CONDITIONS MUST BE BR CLARIFICATION BEFORE P
E001	ELECTRICAL	 _ PLANS				5. <u>T.B.D.</u> (TO BE DETER
						APPROPRIATE PARTY AT
MECHANIC	CAL PLANS					6. <u>V.I.F.</u> (VERIFY IN FIEL ASSUMED TO EXIST BUT
		AL NOTES / SCHEDU	JLES			CONSULT ARCHITECT IF D
MOO2	NATION AND A					7 DIE (DETERMINE IN

M002 | MECHANICAL PLANS

PLUMBING PLANS

M003 | MECHANICAL DETAILS

POO1 | PLUMBING NOTES / SCHEDULES

P003 | PLUMBING PLANS - DOMESTIC WATER

P002 | PLUMBING PLANS - SANITARY

POO4 | PLUMBING RISERS AND DETAILS

ZONING INFORMATION — PER JURISDICTIONAL RECORDS

ARCHITECT OF RECORD: **WEST WORKSHOP** 450 W BROAD STREET - STE 201 FALLS CHURCH VIRGINIA 22046 202-957-0933

PROPERTY OWNER: IMPRESSIVE HOME SOLUTIONS 1011 DUKE STREET 571-225-7947 PATRICK@JANSENPAULBA.COM

BUILDING CODE DATA AND SCOPE OF WORK

. CODES: IBC2015, VUSBC 2015, EBC2015, FC2015, IMC2015, IPC2015, IFC2015, NEC 2014 2017 ICC ANSI A117.1, VEBC 2015

2. BUILDING TYPE: 5B WOOD FRAME AND MASONRY UNPROTECTED; NO SPRINKLERS; NO FIRE ALARM SYSTEM

SCOPE OF WORK:

INTERIOR ALTERATION: FIRST AND SECOND FLOOR EXTERIOR ADDITION: 2 STORY PLUS BASEMENT

GROUNL) WIND DESIGN	SEISMIC	SUBJECT	TO DAMAGE F	ROM] WINTER	ICE BARRIER	FLOOD	AIK	MEAN
SNOW	SPEED	DESIGN	WEATHERING	FROST LINE	TERMITE	DECAY	DESIGN	UNDERPAYMENT	HAZARDS	FREZING	ANNUAL
LOAD		CATEGORY		DEPTH			TEMP	REQUIRED		INDEX	TEMP
								·		100YR	
25 204	90 MPH	D D	SEVERE	0.4"	MODERATE	NI /A	15° F	YES	NFIPCRS	480	50°
25 psf	90 MPH	В	SEVERE	24"	TO HEAVY	N/A	13 F	YES 24" FROM EXT WALL	1990	PER NOAA	30
INSUL	ATION AN	D FENES	STRATION	REQUIRE	EMENTS	PER I	ECC T	ABLES R402	2.1.1 AND	R402	.4.1.1
С	CLIMATE ZONE: 4A CONSTRUCTION TYPE: BRICK + WOOD FRMG										
DOOR U FACTOR: 0.35 NO. STORIES: 2 PLUS CELLAR											

DOOR U FACTOR: 0.35 WINDOWS / DOORS U-FACTOR: 0.35 CONSTRUCTION FIRE RATING: N/A AUTOMATIC SPRINKLER SYSTEM: NONE WINDOWS / DOORS SHGC: 0.40 SKYLIGHT U-FACTOR / SHGC: 0.55/.30

CEILING R-VALUE: 49 WOOD FRAME WALL R-VALUE: 15

FLOOR R-VALUE: 19 BASEMENT WALL R-VALUE: 13 SLAB R-VALUE AND DEPTH: 10, 2FT.

THERMAL AIR BARRIERS AND INSTALLATION PER IECC TABLE R402.4.1.1

SEE SHEET GOO3 FOR THE FULL TABLE

DRAWING STANDARDS

1. ALL DIMENSIONS ARE FROM STUD TO STUD, UNLESS OTHERWISE NOTED 2. CONTRACTOR MUST COORDINATE ALL ELECTRICAL, PLUMBING AND HVAC ROUTING THROUGH CONCEALED SPACES. CONTRACTOR SHALL COORDINATE LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. DRAWINGS PROVIDE SCHEMATIC ARRANGEMENTS ONLY.

3. CONTRACTOR MUST NOTIFY ARCHITECT TO VERIFY WALL PLACEMENT IN CRITICAL AREAS WHEN CHALK LINE LAYOUT HAS BEEN COMPLETED BY THE CONTRACTOR.

4. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

5. T.B.D. (TO BE DETERMINED) INDICATES AN ITEM TO BE SELECTED BY THE APPROPRIATE PARTY AT A LATER DATE.

6. <u>V.I.F.</u> (VERIFY IN FIELD) INDICATES AN ITEM OR DIMENSION THAT IS ASSUMED TO EXIST BUT REQUIRES VERIFICATION DURING CONSTRUCTION. CONSULT ARCHITECT IF DISCREPANCY EXISTS.

7. <u>D.I.F.</u> (DETERMINE IN FIELD) INDICATES A DIMENSION WHICH IS DETERMINED BY OTHER CONDITIONS SPECIFIED ON THE DRAWINGS. 8. A DIMENSION LABELED "CLR." INDICATES THAT THE SPECIFIED CRITICAL

DIMENSION BE MAINTAINED. 9. A DIMENSION LABELED "MIN." INDICATES THAT THE REQUIRED DIMENSION MAY NOT BE LESS THAN THE SPECIFIED DIMENSION.

ELECTRICAL NOTES

ARC-FAULT INTERRUPTER AND GFCI.

1. ALL WORK MUST BE IN FULL ACCORDANCE WITH ALL CODES, RULES AND REGULATIONS OF GOVERNING AGENCIES AND SHALL COMPLY WITH THE REQUIREMENTS OF THE SERVING POWER AND TELEPHONE COMPANIES.

2. SMOKE DETECTORS MUST BE INSTALLED IN EACH SLEEPING ROOM AND IN THE IMMEDIATE VICINITY OUTSIDE OF EACH SEPARATE SLEEPING AREA AND ON EACH ADDITIONAL STORY PER IBC/IRC CODE, LATEST EDITION. SMOKE DETECTORS TO BE HARDWIRED ON INDEPENDENT CIRCUITS. 3. ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO WEATHER

MUST BE WEATHER-PROOF.

4. RECEPTACLES AT REFRIGERATORS, KITCHEN COUNTERS AND BATHROOM VANITIES MUST BE INSTALLED AT 42" A.F.F. UNLESS OTHERWISE NOTED ON DRAWINGS.

BEDROOM DUPLEX ELECTRICAL RECEPTACLES TO BE EQUIPPED WITH

PLUMBING NOTES:

ALL WORK TO CONFORM TO CURRENT IPC CODE, ALL STATE AND LOCAL CODES, AND ALL UTILITY COMPANY REGULATIONS

2. CONTRACTOR'S LICENSED PLUMBER TO REVIEW RISER DIAGRAM AND UPGRADE AS REQUIRED

3. ALL HORIZONTAL PIPE RUNS WASTES OR VENTS SHALL PITCH AT A MINIMUM OF 1/4" PER FOOT

VTR'S MUST NOT BE LOCATED WITHIN 10 FEET OF A WINDOW PLUMBING CONTRACTOR MUST OBTAIN AND PAY FOR ALL PERMITS AND PAY ALL FEES RELATIVE TO THE INSTALLATION OF HIS WORK

CONTRACTOR'S PRE-BID SITE VISITS MUST VERIFY ALL EXISTING CONDITIONS AND HE SHALL BE RESPONSIBLE FOR THE INCLUSION OF ALL REQUIRED DEMOLITION IN AREAS UNDERGOING MODIFICATION WHETHER OR NOT SUCH WORK IS INDICATED ON THE PLANS. DEMOLITION SHALL GENERALLY BE ARRANGED TO AGREE WITH THE ACCOMPLISHMENT OF WORK UNDER THE VARIOUS PHASES AND IN COORDINATION WITH THE WORK OF OTHER TRADES. CONTRACTOR SHALL EXAMINE ALL ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

7. THE PLUMBING CONTRACTOR MUST OBTAIN A FULL SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT AND SHALL BE AWARE OF THE WORK OF ALL OTHER TRADES WHICH MAY REQUIRE COORDINATION.

THE PLUMBING CONTRACTOR MUST VERIFY POINT OF CONNECTIONS TO AND ELEVATIONS OF EXISTING PIPING PRIOR TO INSTALLATION OF NEW PIPING PLUMBING CONTRACTOR MUST COORDINATE HIS WORK WITH THAT OF ALL OTHER CONTRACTORS BEFORE INSTALLATION OF HIS WORK IN CHASES, CEILING SPACES AND OTHER AREAS WHERE CONFLICTS MAY OCCUR

10. ALL EXISTING LINES AND CONDITIONS SHOWN ON THE DRAWINGS HAVE BEEN SHOWN IN GOOD FAITH, HOWEVER, THERE IS NO IMPLIED GUARANTEE AS TO THEIR SIZE, LOCATION, ELEVATION, COMPLIANCE WITH CURRENT CODES OR CONDITIONS. THE CONTRACTOR SHALL INVESTIGATE ALL EXISTING CONDITIONS AND SHALL MODIFY THE PROPOSED WORK AS REQUIRED OR DIRECTED. 11. ALL PIPING SHOWN IS SCHEMATIC. IT IS NOT POSSIBLE TO INDICATE EVERY OFFSET, ELBOW, UNION, VALVE, TRAP, ACCESS PANEL ETC. THAT IS REQUIRED

FOR A PROPER WORKING SYSTEM. NO ADDITIONAL COST WILL BE ALLOWED FOR THESE FITTINGS THAT ARE REQUIRED TO INSTALL THE PIPING SYSTEM WITHIN THE SPACE PROVIDED AND THAT ARE REQUIRED FOR A COMPLETE WORKING SYSTEM IN ACCORDANCE WITH ALL OF THE REQUIREMENTS OF THE CODES AND REGULATIONS.





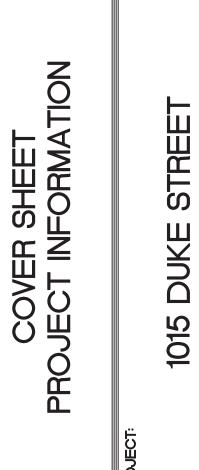
SB DESIGN STUDIOS LLC

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2018-24

DESCRIPTION

05-06-19 REVIEW COMMENTS

03-13-19

DRWN. BY: SBDS **AS NOTED**

G001

VICINITY MAP

BUILDING CODES

. CODES: IBC2015. IRC2015. IEBC2015. IEC2015. IMC2015. IPC2015, VEC2015, VUSBC 2015, NEC 2014, 2017 ICC ANSI A117.1 VEBC 2015

– GENERAL REQUIREMENTS

- WORK PERFORMED MUST COMPLY WITH THESE GENERAL NOTES UNLESS OTHERWISE NOTED ON PLANS.
- WORK PERFORMED MUST COMPLY WITH ALL APPLICABLE LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS.
- ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS MUST BE THE RESPONSIBILITY OF ALL CONTRACTORS.
- DISCREPANCIES: THE CONTRACTOR MUST COMPARE AND COORDINATE ALL DRAWINGS; WHEN IN THE OPINION OF THE CONTRACTOR, A DISCREPANCY EXISTS HE SHALL PROMPTLY REPORT IT TO THE DESIGNER FOR PROPER ADJUSTMENT BEFORE PROCEEDING WITH THE WORK.
- OMISSIONS: IN THE EVENT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS, THEIR CONSTRUCTION MUST BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR NOTED.
- ALL WORK IS TO BE PERFORMED IN A PROFESSIONAL MANNER AND IN ACCORDANCE WITH STANDARD PRACTICE AND MUST BE IN STRICT COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND/OR RECOMMENDATIONS.
- DIMENSIONS MUST BE READ OR CALCULATED AND NEVER SCALED. ALL DIMENSIONS ARE TO THE ROUGH UNLESS NOTED OTHERWISE.
- 8. ALL CONTRACTORS MUST CAREFULLY EXAMINE THE DRAWINGS, INSPECT THE SITE AND ACQUAINT THEMSELVES WITH ALL GOVERNING ORDINANCES, LAWS, ETC. AND OTHERWISE FAMILIARIZE THEMSELVES WITH ALL MATTERS WHICH MAY AFFECT PERFORMANCE OF THE WORK.

DIVISION 2- SITEWORK

- SOIL INVESTIGATION AND REPORT: ALL EARTH WORK, COMPACTION AND SUPERVISION MUST BE DONE PER RECOMMENDATIONS OF SOIL INVESTIGATION REPORT. CONCRETE SLAB AND FOOTING CALCULATIONS ARE BASED ON A 1,500 PSF VALUE. IF THE SITE TEST BORINGS INDICATE LESSER VALUES, NOTIFY DESIGNER SO THAT NECESSARY STRUCTURAL MODIFICATIONS CAN BE MADE.
- FOOTINGS, FOUNDATIONS, WALLS, AND SLABS MUST NOT BE PLACED ON MARINE CLAY, PEAT OR ANY OTHER ORGANIC MATERIAL
- DO NOT BACKFILL AGAINST THE FOUNDATION WALLS UNTIL THE FIRST FLOOR SUBFLOOR IS IN PLACE.
- PROVIDE 4" PERIMETER DRAIN AROUND THE FOOTING AND SLOPE. GRADE AWAY FROM THE STRUCTURE A MINIMUM OF 6" IN 10 FEET.
- WHERE CONDITIONS DEVELOP REQUIRING CHANGES IN EXCAVATIONS, SUCH CHANGES MUST BE MADE AS DIRECTED BY THE GEO-TECHNICAL ENGINEER.

DIVISION 3-CONCRETE/FOUNDATIONS

<u>CONCRETE</u>

THE CONCRETE PROPERTIES SHALL BE AS FOLLOWS:

MINIMUM STRENGTH FOOTINGS 3000 PSI @ 28 DAYS WALLS 3000 PSI @ 28 DAYS INTERIOR SLAB-ON-GRADE 3000 PSI @ 28 DAYS GARAGE SLAB-ON-GRADE 3500 PSI @ 28 DAYS (5% AIR-ENTRAINED) EXTERIOR SLAB-ON-GRADE 3500 PSI @ 28 DAYS (5% AIR-ENTRAINED)

- CONCRETE WORK MUST CONFORM TO ALL REQUIREMENTS OF ACI-318-89 AND ACI 301-72, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
- ALL CONCRETE SLABS ON GRADE MUST BE A MINIMUM OF 4" THICK ON 6 MIL POLYETHYLENE FILM WITH 6X6 W.W.F. AT MID SLAB.
- 4. FILL UNDER SLABS AND FOOTINGS MUST BE APPROVED BACKFILL MATERIAL AT 95% COMPACTION IN 6" LAYERS.
- BACKFILL TO BE OF APPROVED MATERIAL. REFERENCE FOUNDATION NOTES FOR REINFORCEMENT

REINFORCING STEEL

- REINFORCING STEEL MUST BE INTERMEDIATE GRADE NEW BILLET DEFORMED BARS CONFORMING TO ASTM A 615. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
- 2. ALL STEEL REINFORCEMENT: FY=60 KSI
- 3. DETAILING, FABRICATING AND PLACING OF REINFORCEMENT MUST BE IN ACCORDANCE WITH ACI-315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES." FURNISH SUPPORT BARS AND ALL REQUIRED ACCESSORIES IN ACCORDANCE WITH CRSI STANDARDS.
- ALL REINFORCING BARS WHICH INTERCEPT PERPENDICULAR ELEMENTS MUST TERMINATE IN HOOKS, PLACED TWO (2) INCHES CLEAR FROM OUTER FACE OF
- 5. THE CONTRACTOR MUST NOTIFY THE BUILDING OFFICIAL OR APPROVED ENTITY AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EACH CONCRETE POUR. NO CONCRETE SHALL BE PLACED UNTIL ALL REINFORCING HAS BEEN INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE BUILDING OFFICIAL.
- SEE FOUNDATION PLAN, DETAILS AND TYPICAL WALL SECTION FOR REINFORCEMENT 2. QUANTITIES AND SIZES.

7. PROTECTIVE COVERAGE FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

MINIMUM COVERAGE LOCATION FOOTINGS BEAMS AND COLUMNS WALLS (INTERIOR FACE)

WALLS (EXTERIOR FACE) (WIRE MESH TO BE PLACED AT MID-DEPTH OF SLAB.)

1. FOOTING DEPTHS ARE SHOWN ON THE SECTIONS UNLESS OTHERWISE NOTED, FOOTINGS MUST BEAR A MINIMUM OF 12" INTO ORIGINAL UNDISTURBED SOIL AND A MINIMUM OF 24" BELOW FINISHED GRADE.

- WHERE REQUIRED, STEP FOOTINGS TO RATIO OF 2 HORIZONTAL TO 1 VERTICAL
- ALL FOOTING EXCAVATIONS MUST BE INSPECTED BY THE BUILDING OFFICIAL PRIOR TO THE PLACING OF ANY CONCRETE. THE BUILDING OFFICIAL MUST BE GIVEN NOTICE FOR THIS OBSERVATION.

DIVISION 4- MASONRY

- SOLID MASONRY WALLS TO HAVE "DUR-O-WALL" (OR APPROVED EQUAL)TRUSS TIES AT 16" O.C. VERTICALLY ABOVE GRADE AND 8" O.C. VERTICALLY BELOW GRADE.
- BRICK VENEER WALLS TO HAVE NON-CORROSIVE METAL TIES AT 16"O.C. VERTICALLY AND HORIZONTALLY.
- PROVIDE FLASHING AT THE TOP, BOTTOM AND SIDES OF ALL OPENINGS AND BASE WITH WEEP HOLES AT 24" O.C.
- 4. PROVIDE AT LEAST 8" OF SOLID MASONRY UNDER CONCENTRATED LOADING CONDITIONS.
- 5. MORTAR TO CONFORM TO ASTM C270, TYPE N
- 6. BRICK VENEER WALLS MUST HAVE ONE LAYER VAPOR PERMEABLE MEMBRANE, CONTINUOUS, WITH 4" OVERLAP. STONE VENEER WALLS SHALL HAVE TWO LAYERS #15 ASPHALT PAPER, CONTINUOUS, WITH 4" OVERLAP.

DIVISION 5- METALS

- STRUCTURAL STEEL MUST CONFORM TO THE REQUIREMENTS OF THE 9TH EDITION OF A.I.S.C. MANUAL OF STEEL CONSTRUCTION. STRUCTURAL STEEL MUST CONFORM TO ASTM A-36. STEEL FOR PIPE COLUMNS MUST BE OF EQUIVALENT CAPACITY AND WELDABILITY TO ASTM A-501. ALL WELDING MUST BE IN ACCORDANCE TO THE AMERICAN WELDING SOCIETY CODE AND BE PERFORMED BY WELDERS QUALIFIED IN ACCORDANCE WITH AWS PROCEDURES. ELECTRODES MUST CONFORM TO ASTM A-5.20 E70 SERIES.
- PROVIDE BASE PLATE FOR ALL STRUCTURAL STEEL BEAMS BEARING ON CONCRETE OR MASONRY. PROVIDE STANDARD ANGLE ANCHORS AND INSERTS, TIES, CLIPS, ANCHORS, STRAPS, HANGERS, BOLTS, AND OTHER HARDWARE AND FASTENING
- DEVICES AS MAY BE REQUIRED.

STEEL COLUMNS, LINTELS, BEAMS AND RAILINGS MUST HAVE A SHOP COAT OF RUST WALLS: INHIBITING PAINT

GAUGE ADJUSTABLE AND FIXED STEEL COLUMNS ARE CONSTRUCTED OF CARBON STEEL WITH A MINIMUM YIELD STRENGTH OF 33 KSI AND ULTIMATE STRENGTH OF 45 KSI. IN ACCORDANCE WITH ASTM 500 AND MANUFACTURED BY MARSHALL STAMPING COMPANY IN ACCORDANCE WITH ESR REPORT NO. 94-54 AND HAVE MINIMUM 8"x4"x1/4" BEARING AND CAP PLATES UNLESS NOTED OTHERWISE. SCREW JACK SHOULD BE ENCASED IN CONCRETE OR TACK WELDED AFTER INSTALLATION. EACH COLUMN SHOULD BE DESIGNED WITH THE CAPACITY RATING AND WITHSTAND COMPRESSION LOADS AS NOTED ON PLAN.

FASTENERS:

- 1. ALL FASTENERS IN EXTERIOR DECKS MUST BE GALVANIZED.
- ANCHOR BOLTS MUST BE 1/2" DIAMETER×10" LONG GALVANIZED (SEE DRAWING FOR PLACEMENT AND SPACING). UNLESS NOTED OTHERWISE
- FLICH BEAMS MUST HAVE A MINIMUM FB = 1000 PSI, E=1,300,000 PSI WITH (2) ROWS 1/2" BOLTS, 16" O.C. TOP AND 32" O.C. AT BOTTOM UNLESS OTHERWISE
- 4. JOIST HANGERS MUST BE USED TO SUPPORT ALL PURLINS, JOISTS AND BEAMS NOT FRAMED OVER SUPPORTING MEMBERS.
- MACHINE BOLT AND CARRIAGE BOLT HOLES IN WOOD MUST BE DRILLED 1/16" LARGER THAN DIAMETER OF BOLT.
- 7. LAG SCREWS MUST BE SQUARE HEAD, OF STRUCTURAL GRADE STEEL, BE PLACED WITH WASHERS UNDER THE HEAD.
- BOLTS IN WOOD FRAMING MUST BE STANDARD MACHINE BOLTS WITH STANDARD MALLEABLE IRON WASHERS OR STEEL PLATE WASHERS.
- STEEL PLATE WASHER SIZES SHALL BE AS FOLLOWS:

BOLT DIAMETER WASHER SIZE 2-1/4" X 5/16" 5/8" 2-1/4" X 5/16" 2-5/8"X 5/16" LINTELS SIZES MUST BE PER THE LINTEL SCHEDULE SHOWN ON THE

BRICK LINTEL DETAIL, UNLESS OTHERWISE NOTED.

DIVISION 6- WOOD LUMBER:

- ALL EXTERIOR LUMBER AND LUMBER IN CONTACT WITH MASONRY AND CONCRETE MUST BE PRESSURE PRESERVATIVE TREATED IN ACCORDANCE WITH AWPA
- ALL NAILING MUST COMPLY WITH IBC CODE, LATEST EDITION AND ALL STATE AND LOCAL BUILDING CODES.

- BUILT-UP BEAMS OR JOISTS FORMED BY A MULTIPLE OF 3-PLY OR LESS 2x MEMBERS MUST BE CONNECTED W/ 16D NAILS AT 8" O.C.
- BUILD UP AT BEAMS FORMED BY 3 PLYS OF LAMINATED VENEER LUMBER MUST BE FASTEN W 3-ROWS 16D NAILS AT 12" O.C. ON EACH SIDE OR PER MANUFACTURER'S RECOMMENDATION.
- BLOCK SOLID AT ALL BEARING SUPPORTS WHERE ADEQUATE LATERAL SUPPORT IS NOT OTHERWISE PROVIDED.
- WHEN FRAMING END TO END JOISTS MUST BE SECURED TOGETHER BY METAL STRAPS.
- 8. ALL RAFTERS AND JOISTS FRAMING FROM OPPOSITE SIDES MUST LAP AT
- LEAST THREE (3) INCHES AND BE SPIKED TOGETHER. 9. DO NOT ALTER SIZES OF MEMBERS NOTED WITHOUT APPROVAL OF ENGINEER.

<u>CUTTING OF BEAMS, JOIST AND RAFTERS:</u>

- NO STRUCTURAL MEMBER SHALL BE OMITTED, NOTCHED, CUT, BLOCKED OUT OR RELOCATED WITHOUT PRIOR APPROVAL BY THE ENGINEER OF RECORD.
- CUTTING OF WOOD BEAMS, JOISTS AND RAFTERS MUST BE LIMITED TO CUTS AND BORED HOLES NOT DEEPER THAN ONE-SIXTH (1/6TH) THE DEPTH OF THE MEMBER AND SHALL NOT BE LOCATED IN THE MIDDLE ONE-THIRD (1/3RD) OF THE SPAN. NOTCHES LOCATED CLOSER TO SUPPORTS THAN THREE TIMES THE DEPTH OF THE MEMBER SHALL NOT EXCEED ONE-FIFTH (1/5TH) THE DEPTH. HOLES BORED OR CUT INTO JOIST MUST NOT BE CLOSER THAN TWO (2) INCHES TO THE TOP OR BOTTOM OF THE JOISTS AND THE DIAMETER OF THE HOLE SHALL NOT EXCEED ONE-THIRD (1/3RD) THE DEPTH OF THE JOIST.

WHERE JOIST DEPTH EXCEEDS TWELVE NOMINAL INCHES THERE MUST NOT BE LESS THAN ONE LINE OF BRIDGING IN EVERY EIGHT FEET OF SPAN IN FLOOR, ATTIC AND ROOF FRAMING. THE BRIDGING MUST CONSIST OF NOT LESS THAN ONE BY THREE INCH LUMBER DOUBLE NAILED AT EACH END OR OF EQUIVALENT METAL BRACING OF EQUAL RIGIDITY.

- ALL PLYWOOD MUST BE OSB 3/4 T&G OR EQUAL AND SHALL BE MANUFACTURED AND GRADED IN ACCORDANCE WITH "PRODUCT STANDARD P-1-66" FOR SOFT PLYWOOD - CONSTRUCTION AND INDUSTRIAL
- EACH PLYWOOD SHEET MUST BEAR THE "APA" GRADE TRADEMARK
- ALL END JOINTS MUST BE STAGGERED AND SHALL BUTT ALONG THE CENTER LINES OF FRAMING MEMBERS.
- THE FACE GRAIN OF THE PLYWOOD MUST BE LAID AT RIGHT ANGLES TO THE JOISTS AND TRUSSES AND PARALLEL TO THE STUDS.
- NAILS MUST BE PLACED 3/8" MINIMUM FROM THE EDGE OF THE SHEETS. THE MINIMUM NAIL PENETRATION INTO FRAMING MEMBERS MUST BE 1-1/2"
- FOR 8D NAILS AND 1-3/8" FOR 10D NAILS. ALL FLOORS MUST BE GLUED/SCREWED WITH #8 WOOD SCREWS AT 6" O.C. ON DIRECT EDGES AND AT 10" O.C. AT INTERMEDIATE.
- - ALL EXTERIOR BEARING WALLS SHALL BE 2x6 (SPF STUD GRADE) @ 24" O.C. UNLESS NOTED OTHERWISE. SEE PLANS FOR CEILING HGT.
 - ALL INTERIOR BEARING WALLS MUST BE 2x4 (SPF STUD GRADE) @ 16" O.C. UNLESS NOTED OTHERWISE.
 - ALL INTERIOR NON-BEARING WALLS TO BE 2x4 (SPF STUD GRADE) SINGLE TOP PLATE @ 16" O.C. UNLESS NOTED OTHERWISE.
 - 4. ALL BEARING WALLS TO BE 2x (SPF) DOUBLE TOP PLATES, LAPPED AT ALL CORNERS AND INTERSECTIONS AND STAGGER SPLICE 48" AND LOCATE OVER WALL STUDS.
 - 5. ALL EXTERIOR CORNERS MUST BE BRACED WITH 1x4 DIAGONALS, LET INTO STUDS, OR WITH 4x8 STRUCTURAL SHEATHING OF THICKNESS TO MATCH THAT OF SHEATHING, OR WITH METAL BRACING OF EQUAL RIGIDITY
 - PROVIDE ADDITIONAL STUDS AT CONCENTRATED LOAD LOCATION TO MATCH NUMBER OF STUDS ABOVE AND EXTEND TO FOUNDATION
 - NOTCHES OR BORED HOLES IN STUDS OF BEARING WALLS OR PARTITIONS MUST NOT BE MORE THAN ONE-THIRD THE DEPTH OF THE STUD.

FIRE STOPPING:

- FIRE STOPPING MUST BE PROVIDED TO CUTOFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) IN THE FOLLOWING LOCATIONS:
- A. IN ALL STUD WALLS AND PARTITIONS INCLUDING FURRED SPACES AT FLOOR AND CEILING LEVELS AND NOT MORE THAN 10'-0" APART.
- BETWEEN STAIR STRINGERS AT TOP AND BOTTOM AND BETWEEN STUDS IN LINE WITH STAIR RUN.
- FIRE STOPS, WHEN OF WOOD, MUST BE 2" NOMINAL THICKNESS AND MAY BE MADE OF GYPSUM BOARD, MINERAL WOOL OR OTHER NONCOMBUSTIBLE MATERIAL.
- SPACES BETWEEN CHIMNEYS AND WOOD FRAMING MUST BE FILLED WITH LOOSE NONCOMBUSTIBLE MATERIAL (2" MINIMUM THICKNESS).

- ROOF TRUSS MANUFACTURER TO SUPPLY SHOP DRAWINGS AND ERECTION DRAWINGS AND MUST BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE GOVERNING JURISDICTION. FLOOR TRUSS MANUFACTURER TO SUPPLY CONNECTION AND BEARING DETAILS, BRIDGING AND BRACING DETAILS WITH NOMINAL DIMENSIONS, TRUSS CONFIGURATIONS, LUMBER GRADE AND SPECIES AND MAGNITUDES OF FORCE IN ALL MEMBERS .
- TRUSS DIAGRAMS SHOW DESIGN INTENT ONLY. TRUSS MANUFACTURER TO VERIFY ALL SPANS, DIMENSIONS, PITCHES, ETC. AND SUBMIT SHOP DRAWINGS TO DESIGNER PRIOR TO FABRICATION.
- WOOD ROOF TRUSSES TO BE INSTALLED BY MANUFACTURER'S INSTRUCTIONS.
- WOOD ROOF TRUSSES TO BE BRACED IN ACCORDANCE WITH TPI-BWT LISTED IN IRC R802.10.

- 1. FLOOR TRUSS MANUFACTURER TO SUPPLY SHOP DRAWINGS AND ERECTION DRAWINGS AND MUST BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE GOVERNING JURISDICTION. FLOOR TRUSS MANUFACTURER TO SUPPLY CONNECTION AND BEARING DETAILS. BRIDGING AND BRACING DETAILS WITH NOMINAL DIMENSIONS, TRUSS CONFIGURATIONS, LUMBER GRADE AND SPECIES AND MAGNITUDES OF FORCE IN ALL MEMBERS.
- 2. BAND BOARD: 2x CONTINUOUS U.N.O.
- FLOOR TRUSSES MUST BE DESIGNED TO ACCOMMODATE HVAC DUCT LAYOUT AS INDICATED AND CONVENTIONAL FRAMING AS INDICATED.
- 4. FLOOR TRUSSES MUST BE DESIGNED TO LIMIT DEFLECTION TO L/480 LIVE LOAD OR FOR A DEAD LOAD OF 16 PSF WHICH EVER IS GREATER EXCEPT IN ROOMS CONSISTING OF DIFFERENT LENGTHS OF WHICH THE DEFLECTION OF THE SHORTEST SPAN SHALL GOVERN, UNLESS NOTED OTHERWISE

WOOD "I"-JOISTS

- "I"-JOIST MANUFACTURER TO SUPPLY SHOP DRAWINGS AND ERECTION DRAWINGS AND MUST BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE GOVERNING JURISDICTION. FLOOR JOIST MANUFACTURER TO SUPPLY CONNECTION AND BEARING DETAILS, BRIDGING AND BRACING DETAILS, NOMINAL DIMENSIONS AND JOIST LAYOUT CONFIGURATIONS. USE SERIES 230.
- PROVIDE SOLID MATERIAL, 1 1/4" (MINIMUM), AT ALL BAND BOARDS,
- FLOOR JOISTS MUST BE DESIGNED TO LIMIT DEFLECTION TO L/480 LIVE LOAD, OR L/720 FOR CERAMIC TILE, EXCEPT IN ROOMS CONSISTING OF DIFFERENT LENGTH SPANS OF WHICH THE DEFLECTION OF THE SHORTEST SPAN SHALL GOVERN UNLESS NOTED OTHERWISE.
- 4. PROVIDE 2x4 CRIPPLES @ ALL INTERIOR BEARING CONDITIONS

DIVISION 7 - THERMAL / MOISTURE PROTECTION WATER PROOFING

ONE COAT OF ASPHALT BITUMINOUS MUST BE APPLIED TO ALL BELOW GRADE WALLS AT BASEMENT CONDITIONS.

2. EPDM ROOF SYSTEM — INSTALL PER MANUFACTURER'S SPECIFICATIONS.

- 1. ALL FLASHING TO BE OF THE APPROVED CORROSION-RESISTIVE TYPE AND MUST BE PROVIDED WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OR WOOD-FRAMED CONSTRUCTION. FLASH AND CAULK WOOD BEAMS AND OTHER PROJECTIONS THROUGH EXTERIOR WALLS OR ROOF SURFACES.
- 2. ALL FLASHING, COUNTER FLASHING, AND COPING WHEN OF METAL MUST BE OF NOT LESS THAN NO. 26 U.S. GAUGE APPROVED CORROSION RESISTANT METAL.
- 3. PROVIDE METAL FLASHING ABOVE ALL WINDOWS, DOORS & CAPITALS.
- PROVIDE EAVE FLASHING AND DRIP EDGE FLASHING AT THE ROOF EDGES.

- PROVIDE CONTINUOUS RIDGE AND EAVE WITH A TOTAL NET FREE VENTILATING AREA OF NOT LESS THAN 1 TO 150 OF THE AREA OF THE SPACE TO BE VENTILATED. PROVIDE A MINIMUM OF 1" SPACE BETWEEN THE ROOF SHEATHING AND THE INSULATION.
- ENCLOSED ATTIC TRUSS SPECIES AND ENCLOSED ROOF RAFTERS MUST HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE WITH SCREENED VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF MOISTURE AND RAIN IN ACCORDANCE WITH IRC CODE, LATEST EDITION.

INSULATION

1. THE FOLLOWING INSULATION SCHEDULE WILL BE USED UNLESS OTHERWISE NOTED:

R - VALUE / TYPE SILL PLATE 1/2" FIBERGLASS PERIMETER R-10 CLOSED CELL EXTRUDED POLYSTYRENE BASEMENT WALL R-13 FLAME SPREAD BATT (FULL HEIGHT) EXTERIOR WALL R-18 BATT OR BLOWN FLOOR AND SOFFIT R-19 BATT OR BLOWN R-49 BATT OR BLOWN FLAT CEILING

DIVISION 8 - DOORS AND WINDOWS

CATHEDRAL CEILING R-49 BATT OR BLOWN

- <u>WINDOWS:</u> 1. ALL WINDOWS MUST HAVE INSULATING GLASS. SEE COVER PAGE FOR U / SHGC
- SIZES INDICATED ON PLANS ARE NOMINAL ONLY. BUILDER TO CONSULT WITH WINDOW MANUFACTURER TO DETERMINE EXACT SIZES, ROUGH OPENINGS, ETC.
- EVERY SLEEPING ROOM MUST HAVE AT LEAST ONE OPERABLE

HEIGHT DIMENSION SHALL BE 24 INCHES. THE MINIMUM NET CLEAR

- WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. 4. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE THEY MUST HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR.
- 5. ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING OF 5.0 SQUARE FEET AT GROUND LEVEL — 5.7 SQ. FT. NET CLEAR OPENING AT 6'-0" ABOVE GRADE AND HIGHER. THE MINIMUM NET CLEAR OPENING

OPENING WIDTH DIMENSION SHALL BE 20 INCHES.

TEMPERED GLASS LOCATIONS: THE FOLLOWING AREAS ARE SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSES OF GLAZING AND MUST BE TEMPERED GLASS:

- GLAZING IN ALL DOORS.
- GLAZING, IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24 INCH ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.
- GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS. GLAZING IN ANY PART OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE DRAIN INLET.
- 4. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE WINDOWS THAT MEETS ALL OF THE FOLLOWINGS CONDITIONS:
- BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR.
- TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR.
- ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE GLAZING.

EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SQ. FT.

- ALL GLAZING IN RAILINGS REGARDLESS OF AN AREA OR HEIGHT ABOVE WALKING SURFACE. INCLUDED ARE STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS.
- EXCEPTIONS: THE FOLLOWING PRODUCTS, MATERIALS AND USES ARE EXEMPT FROM THE ABOVE HAZARDOUS LOCATIONS:
- OPENINGS IN DOORS THROUGH WHICH A 3"0 SPHERE IS UNABLE TO PASS. LEADED GLASS PANELS.

FACETED AND DECORATIVE GLASS.

DIVISION 9- FINISHES **GYPSUM** WALLBOARD

- 1. ALL GYPSUM WALLBOARD MUST BE INSTALLED AND FASTENED IN ACCORDANCE WITH THE PROVISIONS OF IBC CODE, LATEST EDITION, STATE AND LOCAL CODES.
- ALL EDGES AND ENDS OF GYPSUM WALLBOARD MUST OCCUR ON THE FRAMING MEMBERS EXCEPT THOSE EDGES WHICH ARE PERPENDICULAR TO THE FRAMING MEMBERS. ALL EDGES OF GYPSUM WALLBOARD MUST BE IN MODERATE CONTACT EXCEPT IN CONCEALED SPACES WHERE FIRE RESISTING CONSTRUCTION IS NOT
- PROVIDE MOISTURE RESISTANT DRYWALL AT BATHROOMS, RESTROOMS, SINKS AND OTHER AREAS EXPOSED TO MOISTURE.
- THE BUSINESS USE MUST BE SEPARATED FROM THE LIVING SPACE BY 2 LAYERS 5/8" TYPE "X" GYPSUM WALL BOARD INCLUDING ALL EXPOSED BEAMS AND COLUMNS.
- 5. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS MUST HAVE WALLS AND SOFFITS PROTECTED BY ON THE ENCLOSED SIDE WITH 2 LAYERS 5/8" TYPE "X" DRYWALL.

DIVISION - 10 SPECIALITIES

- **STAIRWAYS** 1. THE MAXIMUM RISER HEIGHT <8 1/4">; MINIMUM TREAD DEPTH <9">.
- STAIRWAYS MUST NOT BE LESS THAN 36" IN CLEAR WIDTH AND HEADROOM OF NOT LESS THAN 6'-8". THE MINIMUM WIDTH AT THE HANDRAIL MUST NOT BE LESS THAN 31.5" WITH A HAND RAIL ON ONE SIDE AND 27" WITH A HAND RAIL ON BOTH SIDES.
- 3. ENCLOSED ACCESSIBLE SPACE UNDER STAIRS MUST HAVE WALLS AND SOFFITS PROTECTED BY ON THE ENCLOSED SIDE WITH 2 LAYERS 5/8" TYPE "X" DRYWALL
- 4. HEIGHT OF HANDRAIL TO BE NOT LESS THAN 34"/ NOT GREATER THAN 38" IN HEIGHT MEASURED FROM STAIR NOSING.

5. HANDRAIL SIZE TO BE NOT LESS THAN 1-1/4"/NOT GREATER THAN 2-5/8" ϕ .

- PORCHES, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW MUST HAVE GUARDRAILS NOT LESS THAN 42"
- THE FLOOR OR GRADE BELOW MUST HAVE GUARDRAILS NOT LESS THAN 42" IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. REQUIRED GUARDRAILS ON OPEN SIDES OF STAIRWAYS, RAISED FLOOR AREAS.

2. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30 INCHES ABOVE

CLOSURES WHICH WILL NOT ALLOW PASSAGE OF AN OBJECT 4"ø. 4. EXCEPTION: THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD AT THE OPEN SIDE OF A STAIRWAY MAY BE OF SUCH A SIZE

BALCONIES AND PORCHES MUST HAVE INTERMEDIATE RAILS OR ORNAMENTAL

THAT A SPHERE 4" Ø CANNOT PASS THROUGH. DIVISIONS 11 THROUGH 14 NOT USED

- DIVISION 15 MECHANICAL MECHANICAL SUBCONTRACTOR TO REVIEW DUCT LAYOUTS, CONDENSER LOCATION, DUCT SIZES, ETC., AS NOTED HEREIN AND NOTIFY ARCHITECT PRIOR TO INSTALLATION OF ANY CONFLICTS IN THE DESIGN, SIZING OR INSTALLATION OF THE SYSTEM. MECHANICAL SUBCONTRACTOR TO REVIEW STRUCTURAL SHOP DRAWINGS AND NOTIFY
- THE ARCHITECT OF ANY MECHANICAL AND STRUCTURAL TO THE EXTERIOR. ALL WORK MUST BE IN FULL ACCORDANCE WITH ALL CODES, RULES, AND REGULATIONS
- OF THE GOVERNING AGENCIES. ALL KITCHENS AND BATHROOMS MUST BE MECHANICALLY VENTED TO THE EXTERIOR.

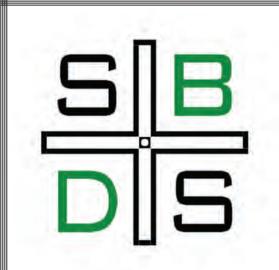
SERVING POWER AND TELEPHONE COMPANIES.

DIVISION 16 - ELECTRICAL ALL WORK MUST BE IN FULL ACCORDANCE WITH ALL CODES, RULES AND REGULATIONS OF GOVERNING AGENCIES AND SHALL COMPLY WITH THE REQUIREMENTS OF THE

SMOKE DETECTORS MUST BE INSTALLED IN EACH SLEEPING ROOM AND IN THE

- IMMEDIATE VICINITY OUTSIDE OF EACH SEPARATE SLEEPING AREA AND ON EACH ADDITIONAL STORY PER IBC/IRC CODE, LATEST EDITION. SMOKE DETECTORS TO BE HARDWIRED ON INDEPENDENT CIRCUITS.
- ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO WEATHER MUST BE WEATHER-PROOF. RECEPTACLES AT REFRIGERATORS, KITCHEN COUNTERS AND BATHROOM VANITIES
- SHALL BE INSTALLED AT 42" A.F.F. UNLESS OTHERWISE NOTED ON DRAWINGS. BEDROOM DUPLEX ELECTRICAL RECEPTACLES TO BE EQUIPPED WITH ARC-FAULT INTERRUPTER AND GFCI.





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SBDS PROJ. NO.:

DATE

DESCRIPTION

AS NOTED

CHKD. BY:

G002

22

A	AMPERES	DR	DOOR	INCL.	"INCLUDE, INCLUSIVE"	R	RADIUS
A.B.	ANCHOR BOLT	E.A.	EXPANSION ANCHOR	INSUL.	INSULATION	R.D.L.	ROOF DRAIN LEADER
A.F.F.	ABOVE FINISHED FLOOR	E.F.	EXHAUST FAN	INT.	INTERIOR	R.D.O.	ROOF DRAIN OVERFLOW
A.F.G.	ABOVE FINISHED GRADE	E.J.	EXPANSION JOINT	J-B0X	JUNCTION BOX	R.O.	ROUGH OPENING
A/C	AIR CONDITIONING	E.N.	END NAILING	JCT	JUNCTION	R.O.W. or R/W	RIGHT OF WAY
ABC	AGGREGATE BASE COURSE	E.W.	EACH WAY	JST.	JOIST	REF	REFRIGERATOR
ABS	ACRYLONITRILE-BUTADIENE-STYRENE	EA.	EACH	JT.	JOINT	REF.	REFERENCE
ABV.	ABOVE	EL	ELEVATION	K-D	KNOCK DOWN	REINF.	REINFORCED
ACB	ASBESTOS—CEMENT BOARD	ELECT.	"ELECTRIC, ELECTRICAL"	KD	KILN DRIED	REQ'D.	REQUIRED
ACOU.	ACOUSTIC ACOUSTICAL CEILING TILE	ELEV.	ELEVATOR	KO	KNOCK OUT LIGHT EMITTING DIODE	RET. REV.	RETURN REVISION
ACT ADD.	ADDITION or ADDENDUM	EMT	ELECTRICAL METALLIC CONDUIT ELECTRICAL METALLIC TUBING	L.E.D. L.FT.	LINEAR FEET	REV.	ROOM
AG.	ABOVE GRADE	ENT	ELECTRICAL METALLIC TOBING ELECTRICAL NON—METALLIC TUBING	LAM	LAMINATE	RMV.	REMOVE
AHU	AIR HANDLER UNIT	EQ.	EQUAL	LAT.	LATERAL	S.C.	SOLID CORE
AL. or ALUM.	ALUMINUM	EQUIP.	EQUIPMENT	LAV	LAVATORY	S.D.	SMOKE DETECTOR
ALT.	ALTERNATE	EST.	ESTIMATE	LD.	LEAD	S.O.V.	SHUT OFF VALVE
ANL	ANNEALED	EVAP.	EVAPORATIVE COOLER	LIN.	LINEAR	S/L	SKYLIGHT
ASPH.	ASPHALT	EWC	ELECTRIC DRINKING COOLER	LINO.	LINOLEUM	S/S	STAINLESS STEEL
AVG	AVERAGE	EXC	EXCAVATE	LT.	LIGHT	SC	SELF CLOSING
AWG	AMERICAN WIRE GAUGE	EXH.	EXHAUST	LTG.	LIGHTING	SCHED.	SCHEDULE
<u> </u>	ANGLE	EXIST. or E	EXISTING	LVL	LAMINATED VENEER LUMBER	SECT.	SECTION
B.M.	BENCH MARK	EXT.	EXTERIOR	M.B.	MACHINE BOLT	SES	SERVICE ENTRANCE SECTION
B.N.	BOUNDARY NAILING BOTTOM OF	F.A. F.C.	FIRE ALARM FAN COIL	M.H. M.I.	MANHOLE MALLEABLE IRON	SH SHT'G.	SHEET SHEATHING
B.O. B.O.F.	BOTTOM OF FOOTING	F.C.O.	FLOOR CLEAN OUT	M.I. M.O.	MASONRY OPENING	SHIG.	SIMILAR
B.U.	BUILT UP	F.D.	FLOOR DRAIN	MAR.	MARBLE	SPA.	SPACE
B/C	BACK OF CURB	F.E.	FIRE EXTINGUISHER	MAS.	MASONRY	SPECS	SPECIFICATIONS
BD.	BOARD	F.N.	FIELD NAILING	MAT'L	MATERIAL	SPKR.	SPEAKER
BLDG	BUILDING	F.O.	FACE OF	MAX.	MAXIMUM	SQ. FT.	SQUARE FEET
BLK.	BLOCK	F.S.	FLOOR SINK	MECH.	MECHANICAL	SQ. IN.	SQUARE INCHES
BLKG.	BLOCKING	F/G	FIBERGLASS	MED.	MEDIUM	STC	SOUND TRANSMISSION CLASS
BM.	BEAM	FAB.	FABRICATE	MFG.	MANUFACTURING	STD.	STANDARD
BR	BRASS	FACP	FIRE ALARM CONTROL PANEL	MFR.	MANUFACTURER	STL.	STEEL
BRG.	BEARING	FDC	FIRE DEPARTMENT CONNECTION	MIN.	MINIMUM	SUSP.	SUSPENDED
BRZ	BRONZE	FDN.	FOUNDATION	MISC.	MISCELLANEOUS	SW	SWITCH
C.A.P.	CONCRETE ASBESTOS PIPE	FHC	FIRE HOSE CABINET	MOD	MODULAR	SYM	SYMMETRICAL
C.D.	CONSTRUCTION DOCUMENTS	FIN.	FINISH FLOOR	MTL.	METAL	SYS.	SYSTEM TONGUE AND GROOVE
C.I.P.	CAST IN PLACE CONTROL JOINT	FLG.	FLOORING	MUL N.I.C.	MULLION NOT IN CONTRACT	T & G T.B.	THROUGH BOLT
C.O.	CLEAN OUT	FLUOR.	FLUORESCENT	N.T.S.	NOT TO SCALE	T.M.B.	TELEPHONE MOUNTING BOARD
C.T.	CERAMIC TILE	FP FP	FIRE PROOF	NCM	NON-CORROSIVE METAL	T.O.	TOP OF
CAB	CABINET	FTG.	FOOTING	NFC	NOT FOR CONSTRUCTION	T.O.B.	TOP OF BEAM
CAM.	CAMBER	FURN.	FURNISH	NLR.	NAILER	T.O.C.	TOP OF CURB
CCTV	CLOSED CIRCUIT TELEVISION	G.I.	GALVANIZED IRON	NO.	NUMBER	T.O.F.	TOP OF FOOTING
CEM.	CEMENT	GA.	GAUGE	NOM.	NOMINAL	T.O.J.	TOP OF JOIST
CER	CERAMIC	GALV.	GALVANIZED	0.C.	ON CENTER	T.O.M.	TOP OF MASONRY
CFM	CUBIC FEET PER MINUTE	GAR.	GARAGE	O.D.	OUTSIDE DIAMETER	T.O.S.	TOP OF SLAB
CH or □	CHANNEL	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	O.H.	OVER HANG	T.O.W.	TOP OF WALL
CKT. BKR.	CIRCUIT BREAKER	GFI	GROUND FAULT INTERRUPTER	0.1.	ORNAMENTAL IRON	T.S.	TUBE STEEL
CL or Q	CENTERLINE	GL	GLASS SEAM	O.R.	OUTSIDE RADIUS	T.V.	TELEVISION OUTLET
CLG.	CEILING CAULKING	GLB GM	GLUE LAMINATED BEAM GRADE MARK	OAI OH	OUTSIDE AIR INTAKE OVER HEAD	TEL.	TELEPHONE THRESHOLD
CLO.	CLOSET	GM	GATE VALVE	OPNG.	OPENING	THD.	THRESHOLD
CLO.	CLEAR	GRC	GALVANIZED RIGID TUBING	OPPO.	OPPOSITE	THK.	THICK
CMU	CONCRETE MASONRY UNIT	GYP.	GYPSUM	P.C.	PRECAST CONCRETE	THRU	THROUGH
CNTRD.	CENTERED	GYP. BD.	GYPSUM BOARD	P.L. or P	PROPERTY LINE	TLT.	TOILET
COL.	COLUMN	H.B.	HOSE BIBB	P.LAM.	PLASTIC LAMINATE	TRANS.	TRANSFORMER
COMB.	COMBINATION	H.C.	HOLLOW CORE	P.O.C.	POINT OF CONNECTION	TYP.	TYPICAL
CONC.	CONCRETE	H.M.	HOLLOW METAL	PERF.	PERFORATED	UNF.	UNFINISHED
CONST.	CONSTRUCTION	H/C	HANDICAPPED	PERP. or ⊥	PERPENDICULAR	UR	URINAL
CONT.	CONTINUOUS	HDBD.	HARDBOARD	PH or Ø	PHASE	V.B.	VAPOR BARRIER
CONTR.	CONTRACTOR	HDW	HARDWARE	PL.	PLASTER	V.I.F.	VERIFY IN FIELD
CU	COPPER	HGT.	HEIGHT	PL. or PL	PLATE	VA	VOLT AMPERE
d	PENNY DDINKING FOUNTAIN	HOR.	HORIZONTAL	PLAS.	PLASTIC	VCT	VINYL COMPOSITION TILE
D.F.	DRINKING FOUNTAIN	HTR	HEATER "HEATING, VENTILATING & AIR CONDITIONING"	PLUMB.	PLUMBING PLYWOOD	VERT.	VERTICAL WATER CLOSET
D.G.	DECOMPOSED GRANITE DOWN SPOUT	HVAC HW	HEATING, VENTILATING & AIR CONDITIONING HOT WATER	PLYWD. PORC.	PLYWOOD PORCELAIN	W/C WDW	WATER CLOSET WINDOW
D.S. D/W	DISHWASHER	HYD.	HYDRAULIC	PREFAB.	PREFABRICATED	WCT	WAINSCOT
DBL.	DOUBLE	I.C.	INTERCOM OUTLET	PSF	POUNDS PER SQUARE FOOT	WP	WEATHER PROOF
DEMO	DEMOLITION	I.D.	INSIDE DIAMETER	PSI	POUNDS PER SQUARE INCH	WT.	WEIGHT
DIA. or Ø	DIAMETER	I.F.	INSIDE FACE	PTN.	PARTITION PARTITION	W/	WITH
DIAG.	DIAGONAL	ID	IDENTIFICATION	PVC	POLYVINYLCLORIDE	W/O	WITHOUT
DIM.	DIMENSION	IG	ISOLATED GROUND	PWR.	POWER	WD.	WOOD
DL	DEAD LOAD	IMC	INTERMEDIATE METALLIC CONDUIT	Q.T.	QUARRY TILE	W.I.	WROUGHT IRON
DN.	DOWN	IMPG	IMPREGNATED	QTY.	QUANTITY	YD.	YARD
$\wedge \cap \cap \Box$	HITECTURAL						

ARCHITECTURAL ABBREVIATIONS

N.T.S.

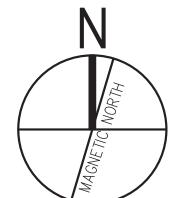
DASH AND DOT LINE -CENTER LINES, PROJECTIONS, EXT, ELEVATION LINES

DASH AND DOUBLE DOT LINE PROPERTY LINES, BOUNDARY LINES

DASHED LINE HIDDEN, FUTURE, OR CONSTRUCTION TO BE REMOVED

TO BREAK OFF PARTS OF DRAWING

LINEWORK



NORTH POINT

COMPASS



- INDICATES SECTION NUMBER

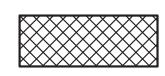
INDICATES DRAWING SHEET

ON WHICH SECTION IS DRAWN

DETAIL REFERENCE NUMBER



ARCHITECTURAL MATERIALS SYMBOLS











Rim joists shall be insulated.





Windows, skylights and doors

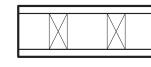
Rim joists

CONCRETE







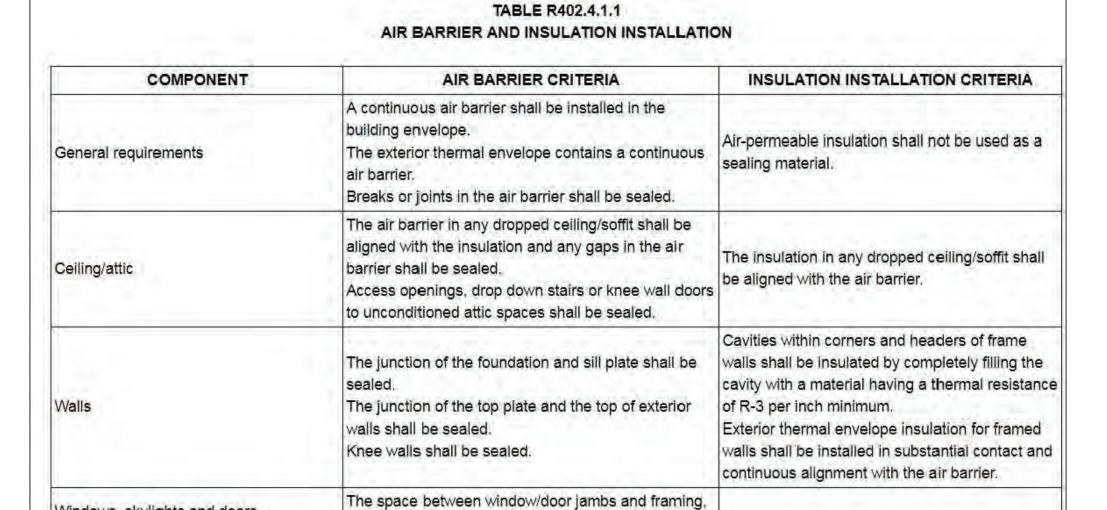






FIRE WALL SEPARATION SEE WALL TYPES

SHEET FOR DETAILS

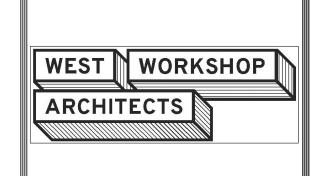


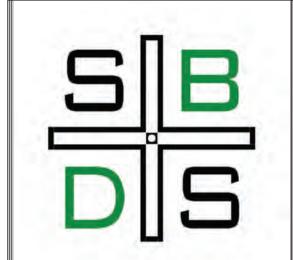
Floors (including above garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace walls.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the drywall.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.

and skylights and framing shall be sealed.

Rim joists shall include the air barrier.

Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.	
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.	
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	

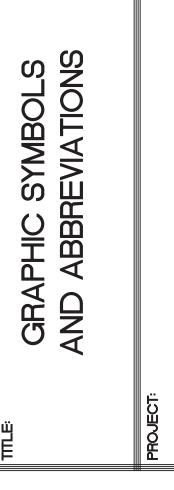




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SBDS PROJ. NO.: REVISIONS:

AS NOTED G003

EXIT ACCESS MAXIMUM TRAVEL DISTANCE IN BUILDING _____H_ 102 SQ FT 36" MIN PATH / OF EGRESS EXIT ACCESS PDR RM TRAVEL DISTANCE = 29'-10" OFFICE 5 415 SQ FT 5 160 BASEMENT PATH OF EGRESS EXIT SIGNS BASEMENT PLAN FIRST FLOOR SECOND FLOOR

OCCUPANCY LOAD DIAGRAMS

SCOPE OF WORK DESCRIPTION

CODE ANALYSIS:

GENERAL INFORMATION USE AND OCCUPANCY TYPE OF CONSTRUCTION NUMBER OF STORIES FIRE SUPPRESSION FIRE ALARM	EXISTING B VB 2+BSMT NO NO	PROPOSED B VB 2+BSMT NO NO
FLOOR AREA: BASEMENT FLOOR AREA: 1ST FLOOR FLOOR AREA: 2ND FLOOR	607 SF 715 SF 763 SF	912 SF 912 SF 954 SF
FLOOR ARFA: TOTAL	2085 SF	2778 SF

GOVERNING JURISDICTION AND BUILDING CODES: CITY OF ALEXANDRIA, VIRGINIA

BUILDING	2015	INTERNATIONAL BUILDING CODE
MECHANICAL	2015	INTERNATIONAL MECHANICAL CODE
PLUMBING	2015	INTERNATIONAL PLUMBING CODE
ELECTRICAL	2014	NATIONAL ELECTRICAL CODE
ENERGY CONSERVATION	2015	INTERNATIONAL ENERGY CONSERVATION CODE
FIRE	2015	FIRE PREVENTION CODE /1
GAS	2015	FUEL GAS CODE
LOCAL SUPPLEMENTS	2015	VIRGINIA CONSTRUCTION CODE / 2015 VIRGINIA EBC
ACCESSIBILITY	2017	ICC A117.1

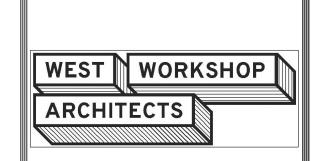
EGRESS REQUIRED	EGRESS PROVIDED
1 (PER IBC 1004.1.2)	
BASEMENT	912 / 100 = 10 /1
FIRST FLOOR OFFICE #5	415 / 100 = 5
FIRST FLOOR OFFICE #4	185 / 100 = 2
FIRST FLOOR KITCHEN	103 / 100 = 2
SECOND FLOOR OFFICE #1	203 / 100 = 3
SECOND FLOOR OFFICE #2 + #3	260 / 100 = 3
POWDER ROOM	1
BATH #1	1
BATH #2	1
BATH #3	1
TOTAL OCCUPANCY:	29 PEOPLE /1

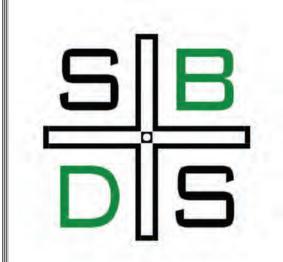
PLUMBING FIXTURE CALCULATIONS

REQUIRED PR	ROVIDED
$WC \qquad \qquad 1 \qquad \qquad 1$	<u> </u>
LAVATORY 1 1	
URINAL 0 0	
MOP SINK 1 1	
DRINKING FOUNTAIN 0 0	

FIRE RATINGS

TENANT SEPARATION	N/A
INTERIOR WALLS	NON RATED
EXTERIOR WALLS / NON LOAD BEARING	N/A
EXTERIOR WALLS / LOAD BEARING	EXISTING 2 HOUR
CEILING AND FLOOR RATING	N/A

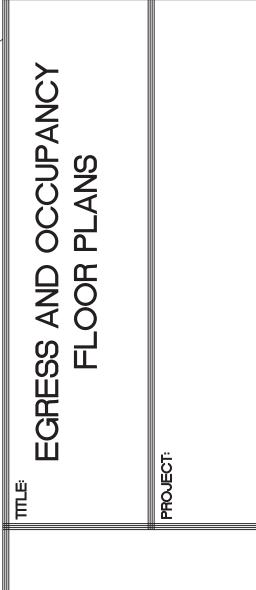




SB DESIGN STUDIOS LLC

4201 S 31ST STREET #950 ARLINGTON VIRGINIA 22206 571.317.1932 salvatore@sbdesignstudios.com

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DESIGN STUDIOS LLC.



SBDS PROJ. NO.:

REVISIONS:
NO. DATE DESCRIPTION

1 05-06-19 REVIEW COMMENTS

DATE:

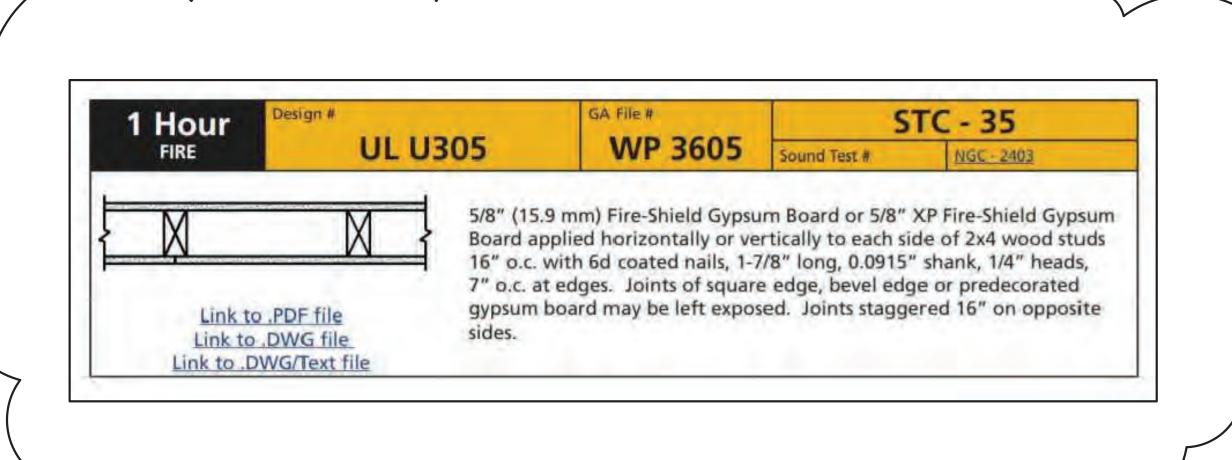
DRWN. BY:

CHKD. BY:

SCALE:

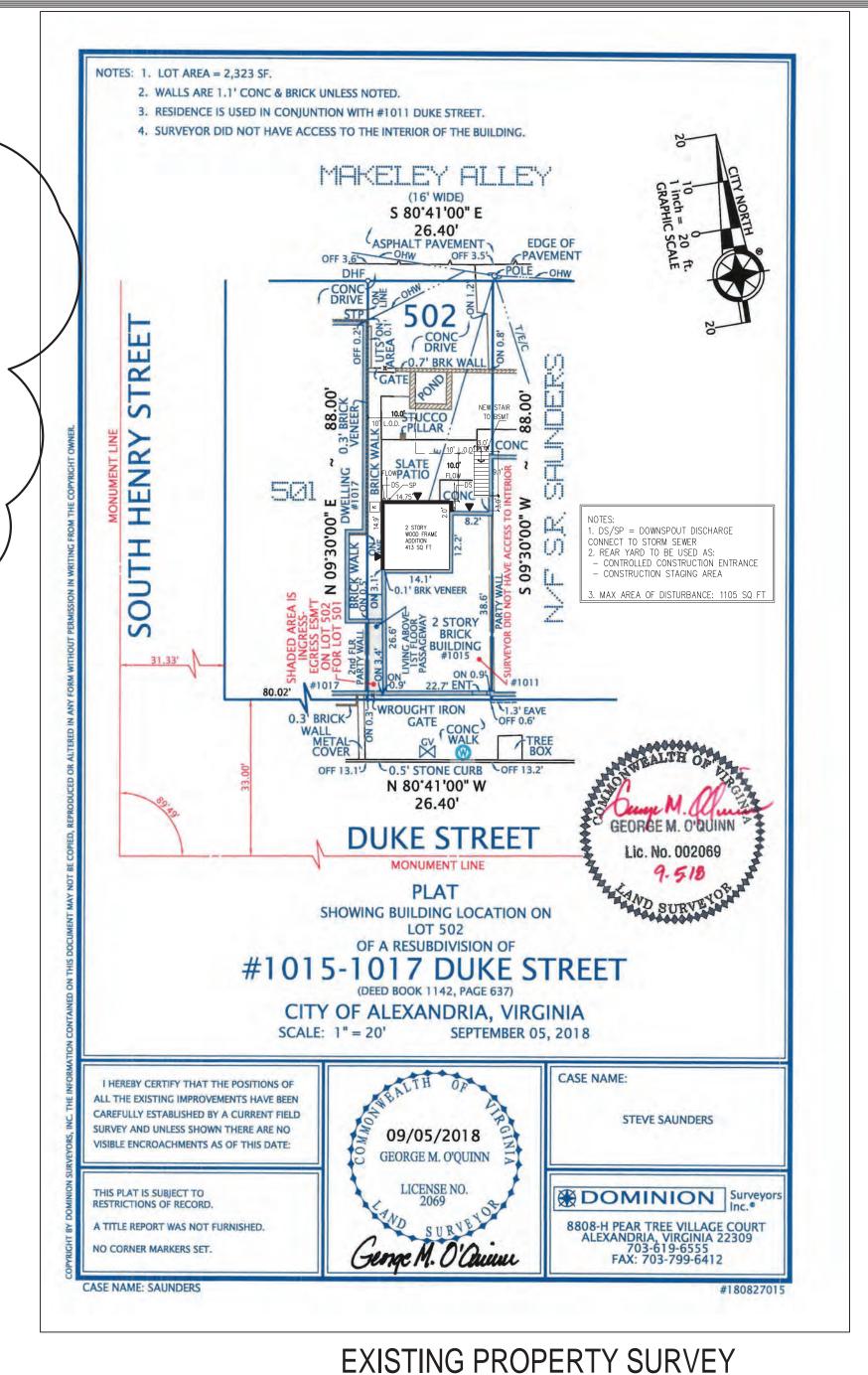
AS NOTED

G004

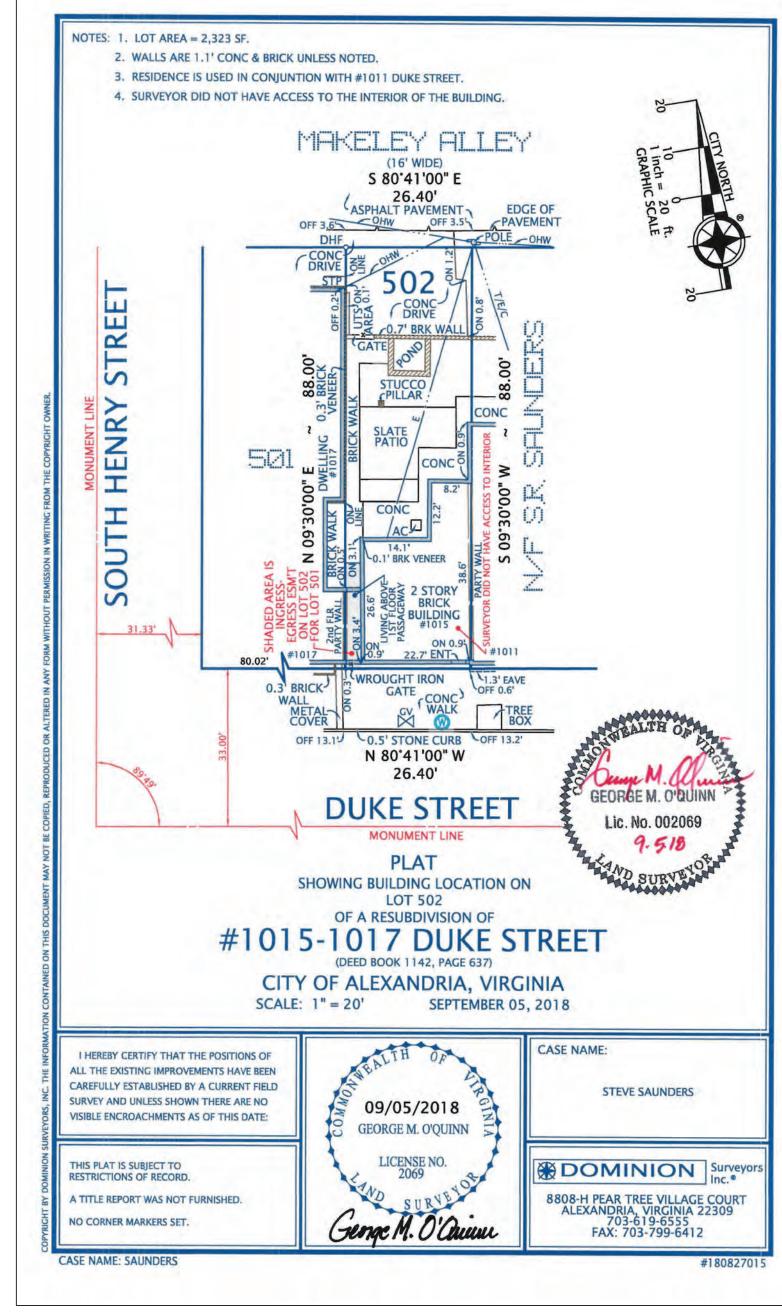


UL U305 1 HOUR RATED ASSEMBLY

WALL TYPE #4



SCALE: 1" = 20'



EXISTING PROPERTY SURVEY SCALE: 1" = 20'

DISTURBED AREA CERTIFICATION STATEMENT

Disturbed Area Certification:

I hereby certify that the limits of disturbance associated with this project represent a total land disturbance of less than 2,500 square feet. I further certify that no construction work, material storage, dumpster placement, construction access or disturbance of any other kind will take place beyond the limits of disturbance as depicted. I acknowledge that should this project result in land disturbance equal to or greater than 2,500 square feet, the City will issue a stop work order and work on the project will not be allowed to resume until a Grading Plan has been submitted to and approved by the City of Alexandria, Department of Transportation and Environmental Services. Drainage Certification:

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SCALE: 1/4" = 1'-0" UNLESS NOTED OTHERWISE

EXITING AND PROPERTY SBDS PROJ. NO.: DATE 05-06-19 REVIEW COMMENTS AS NOTED G005

WEST WORKSHOP

SB DESIGN STUDIOS LLC

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571.317.1932 salvatore@sbdesignstudios.com

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GENERAL NOTES:

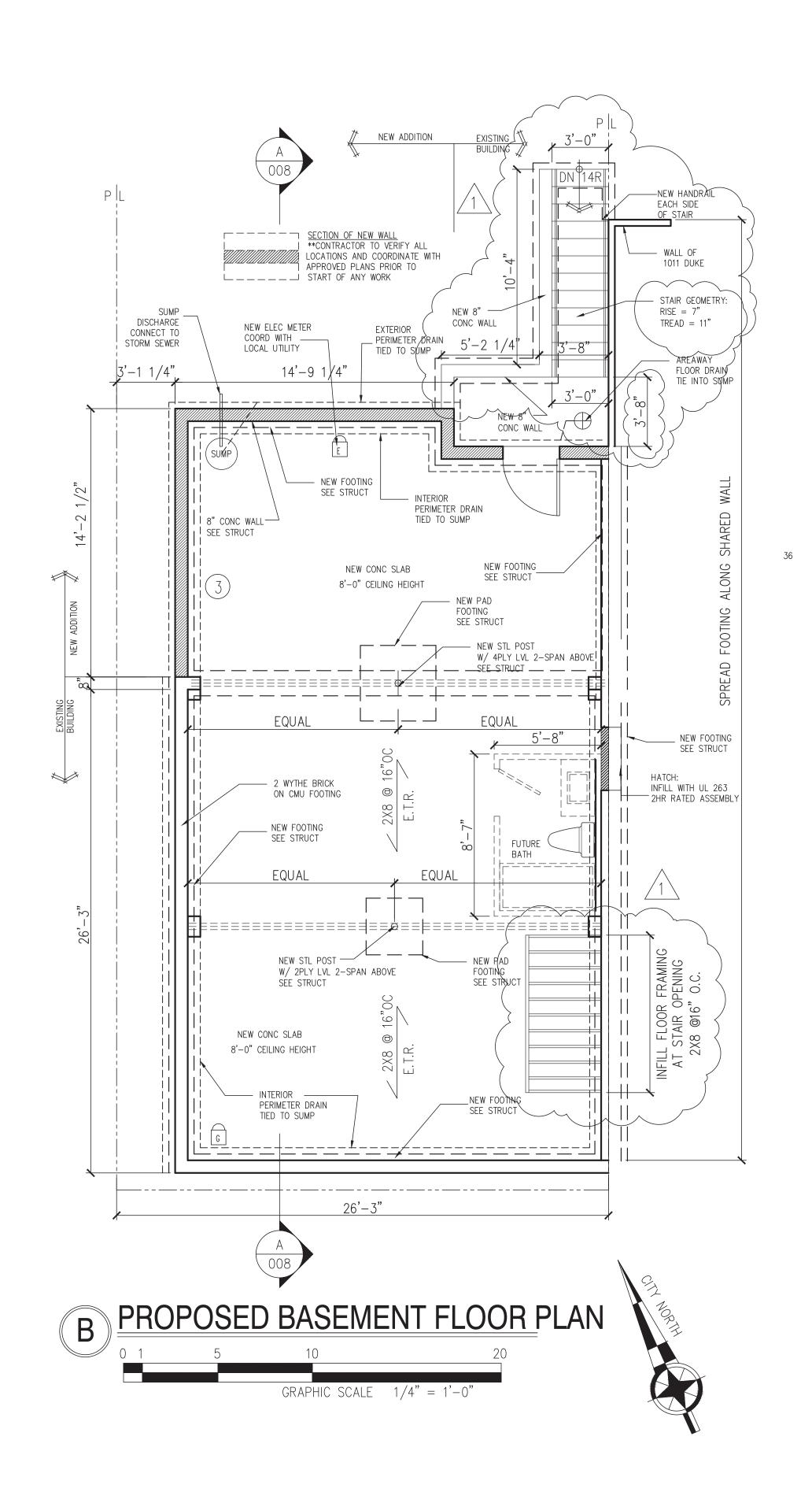
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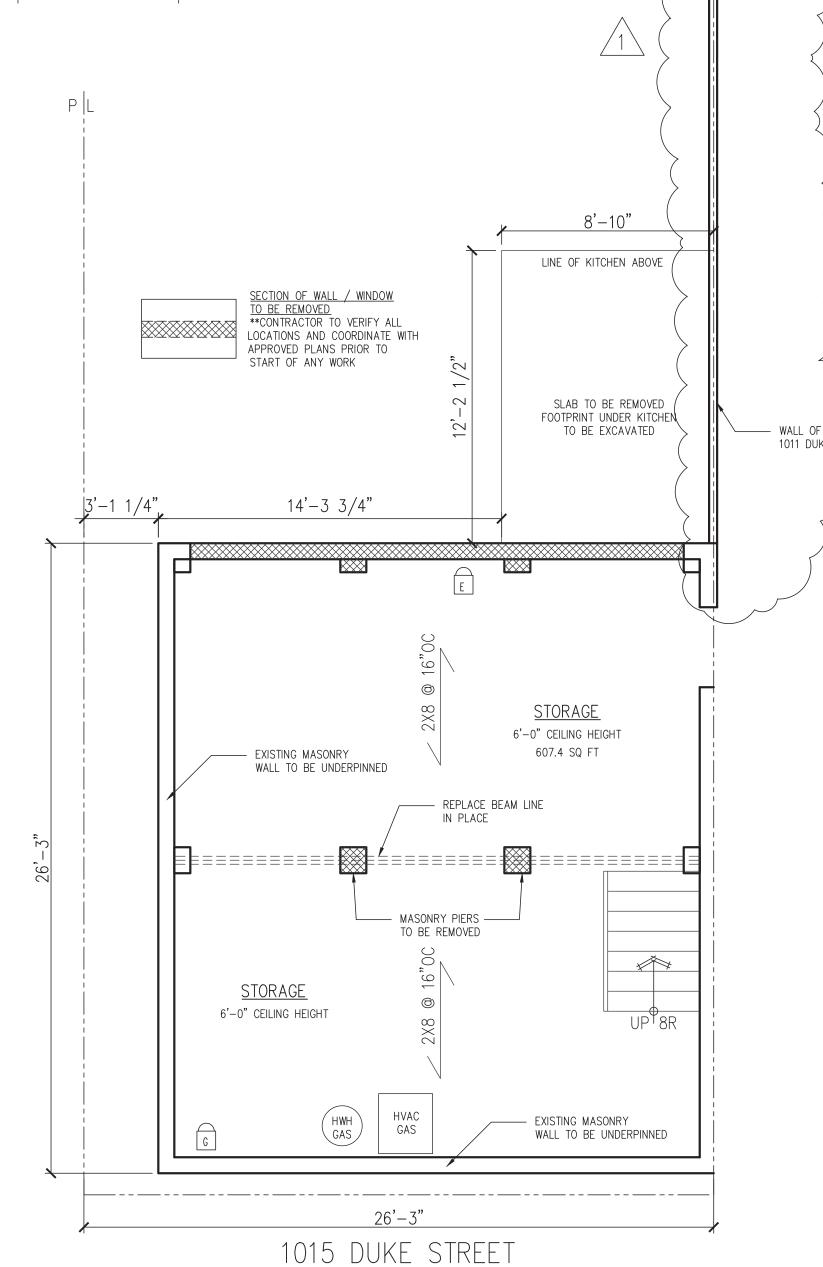
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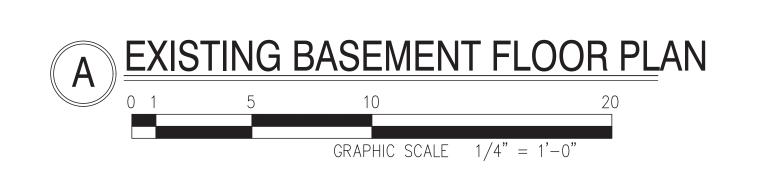


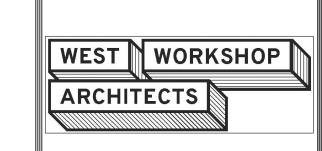
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S PROJ. NO.: 2018-24

ISIONS: DATE DESCRIPTION

05-06-19 REVIEW COMMENTS

DATE: 03-01-19

DRWN. BY: SBDS CHKD. BY: SB

SCALE: AS NOTED

SHEET ND.

A001

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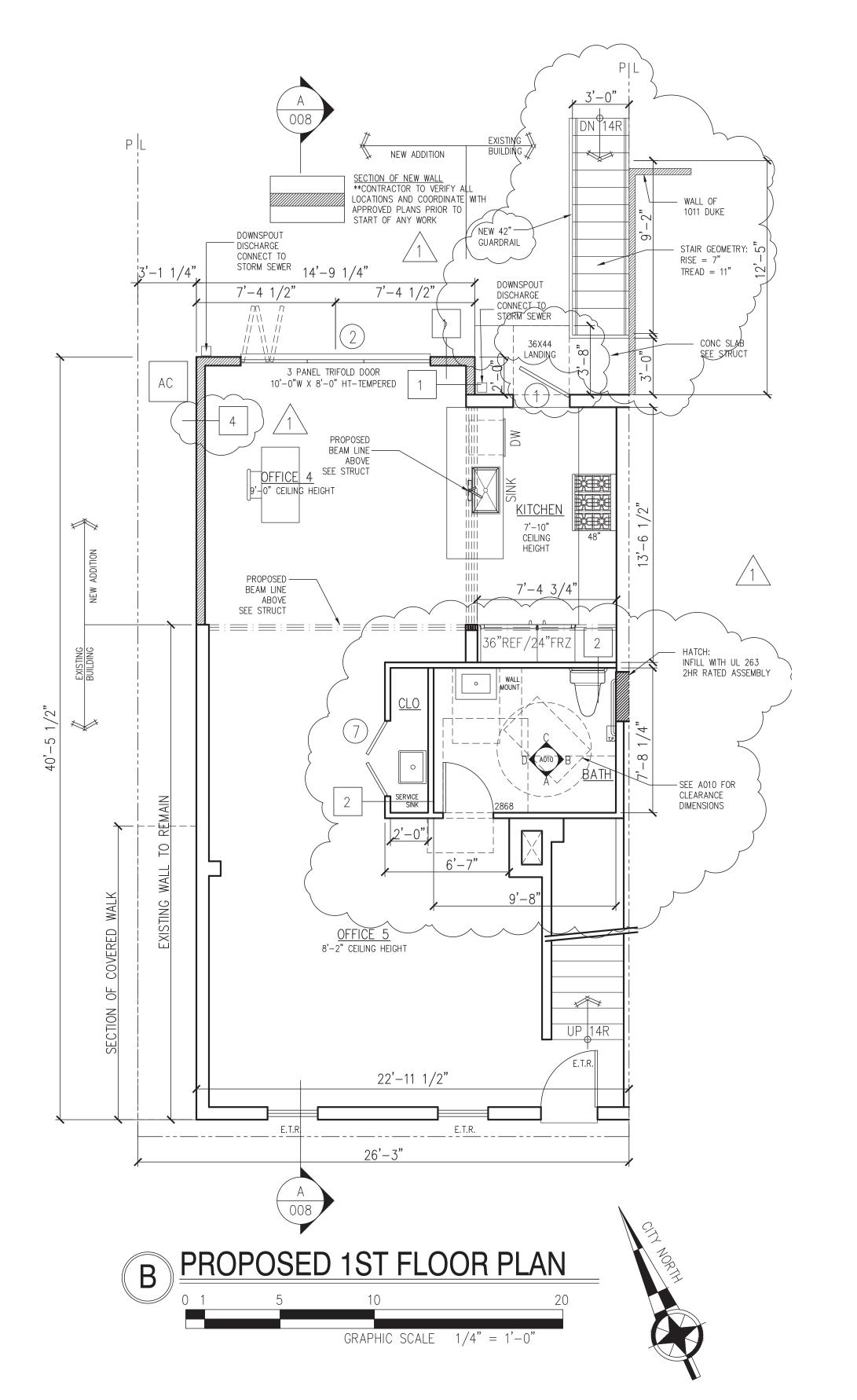
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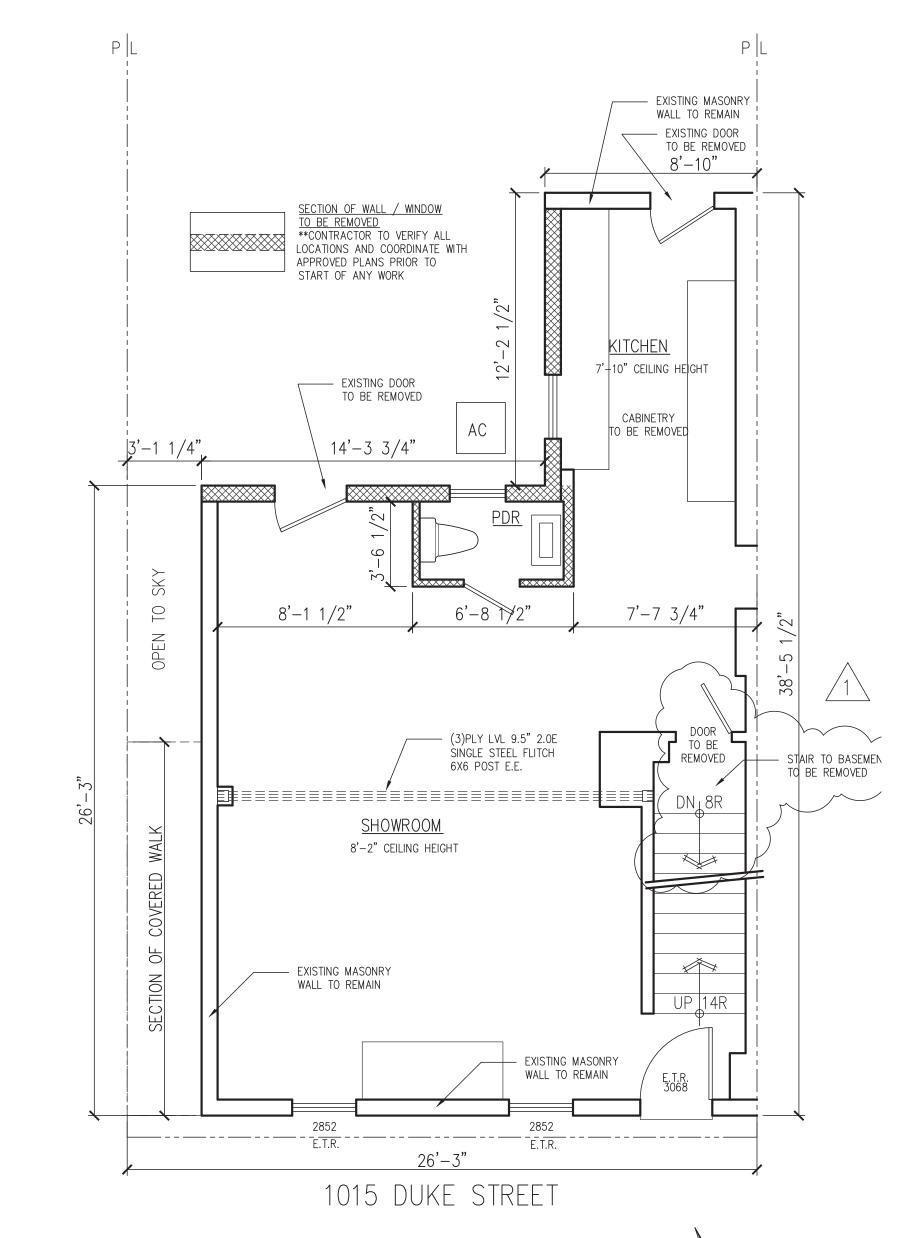
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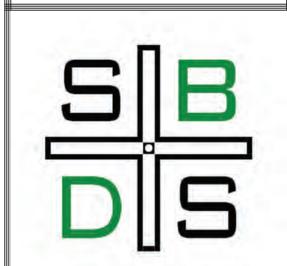
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EXISTING 1ST FLOOR PLAN

GRAPHIC SCALE 1/4" = 1'-0"





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 SBDS PROJ. NO.:
 2018-24

 REVISIONS:
 DATE

 NO.
 DATE

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 05-06-19

 REVIEW COMMENTS

DATE: 03-01-19

DRWN. BY: SBDS CHKD. BY: SB

SCALE: AS NOTED

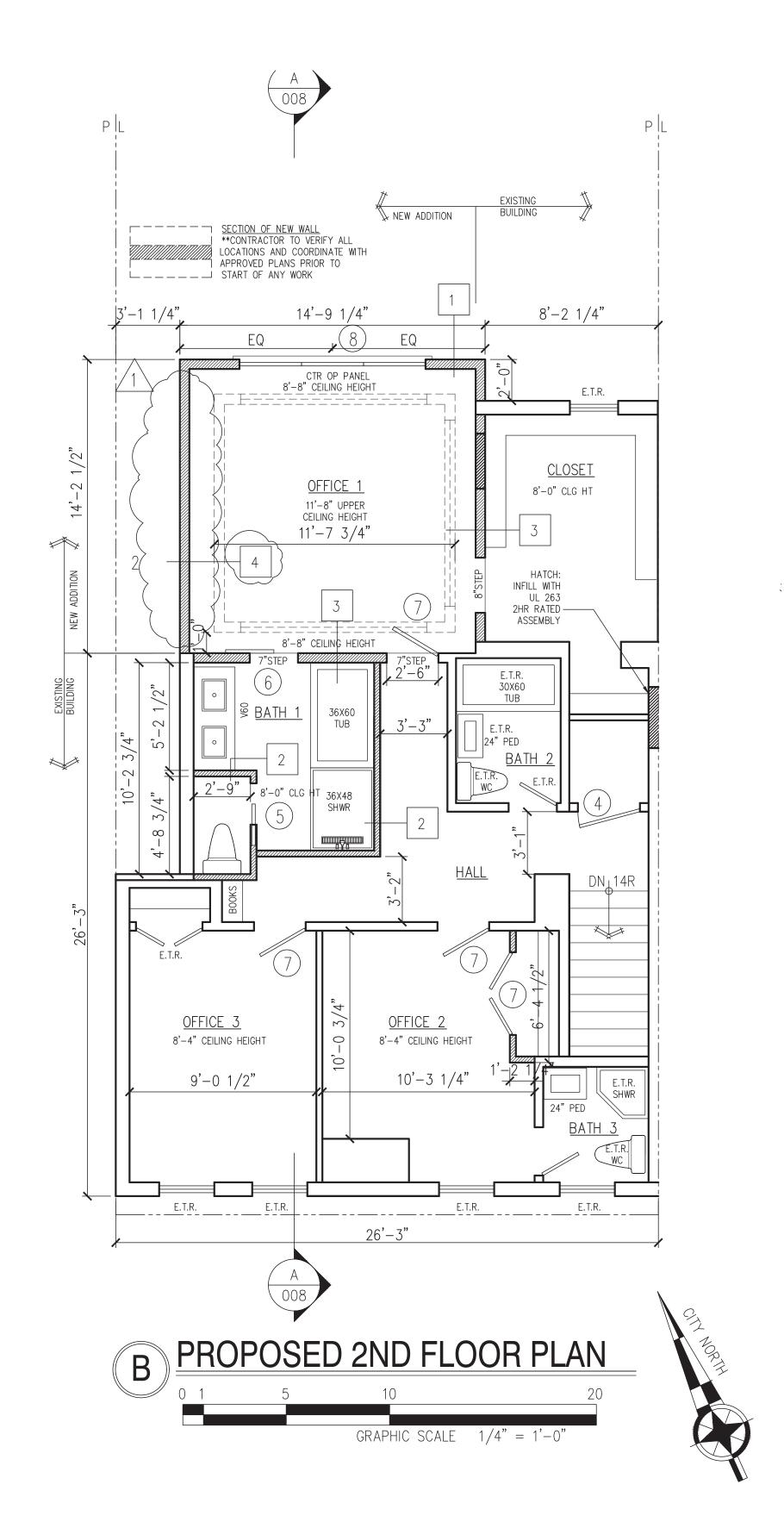
SHEET ND.

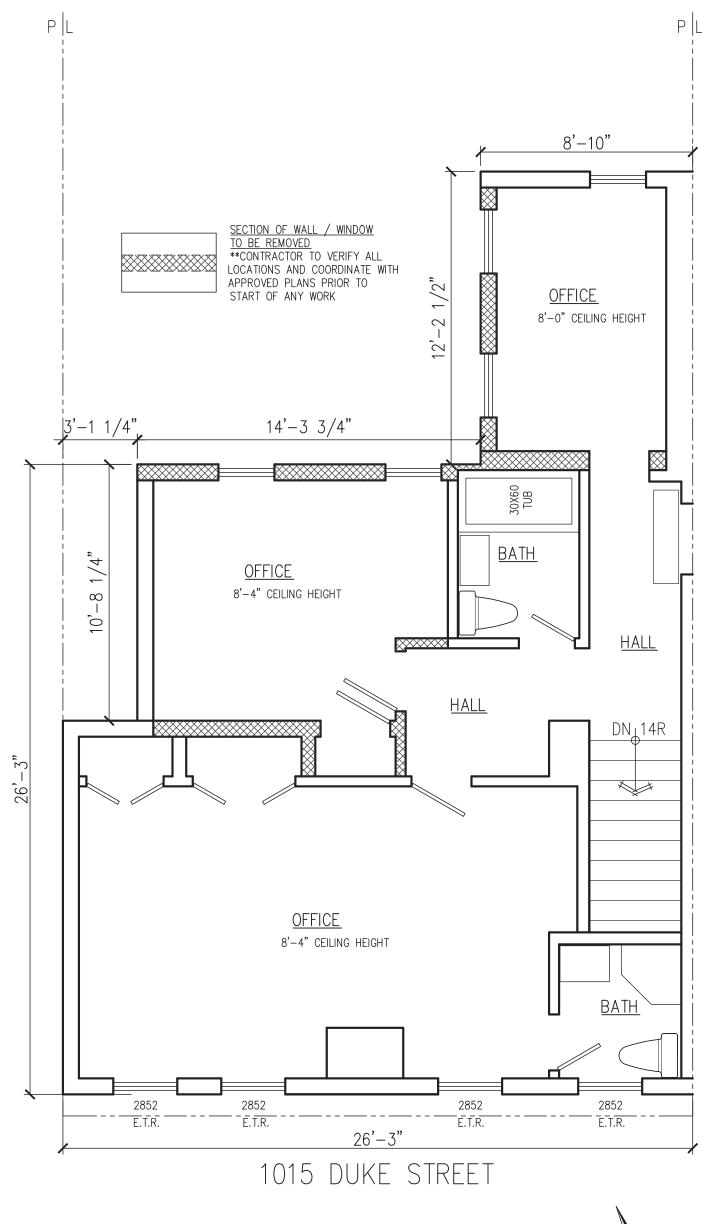
A002

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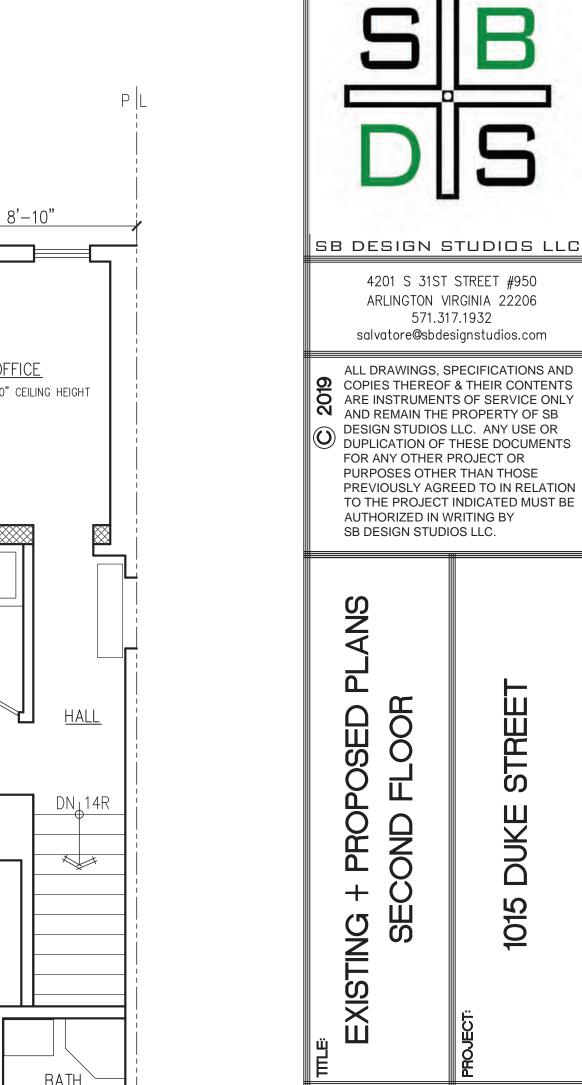
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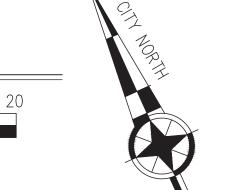




EXISTING 2ND FLOOR PLAN

GRAPHIC SCALE 1/4" = 1'-0"





2018-24 DATE DESCRIPTION

05-06-19 REVIEW COMMENTS

WORKSHOP

4201 S 31ST STREET #950

ARLINGTON VIRGINIA 22206

571.317.1932 salvatore@sbdesignstudios.com

1015

ARCHITECTS

03-01-19 BRWN. BY: AS NOTED

A003

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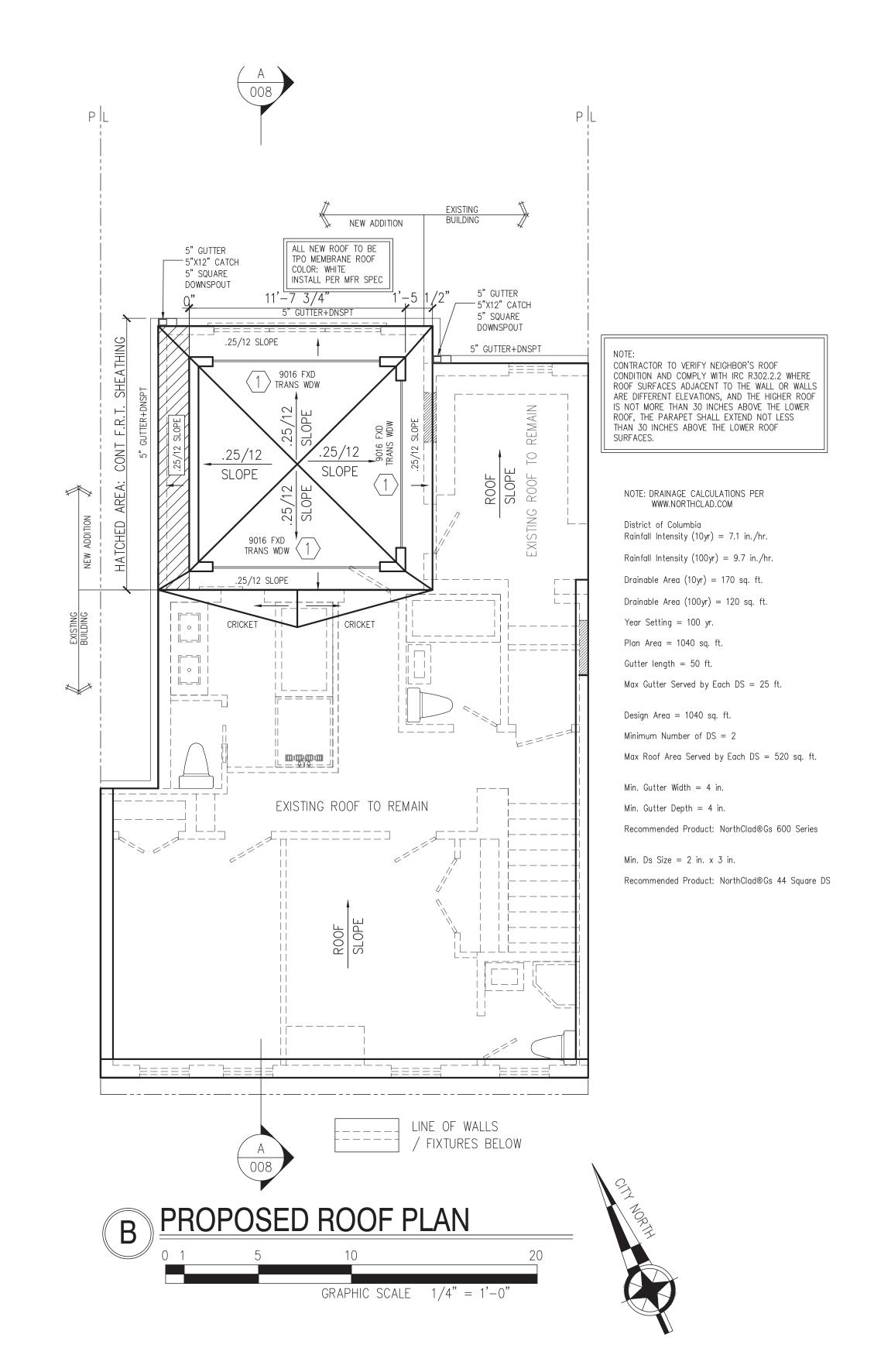
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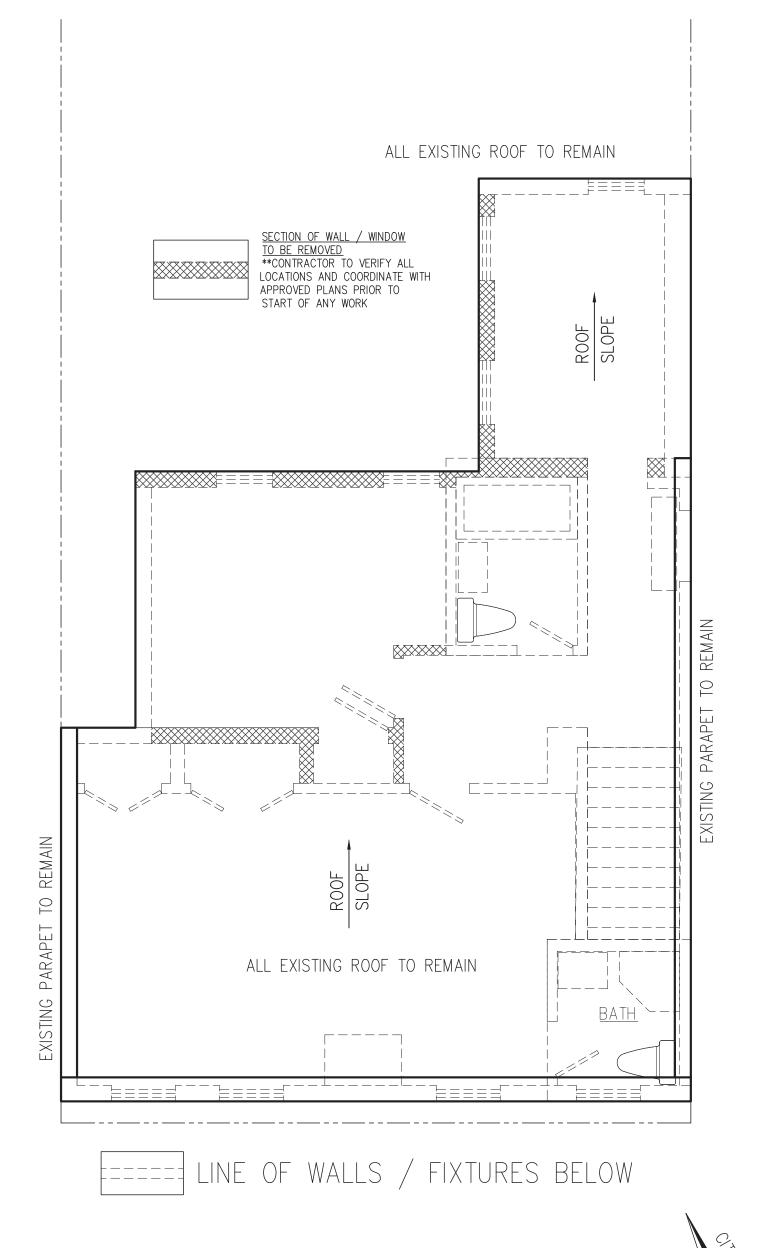
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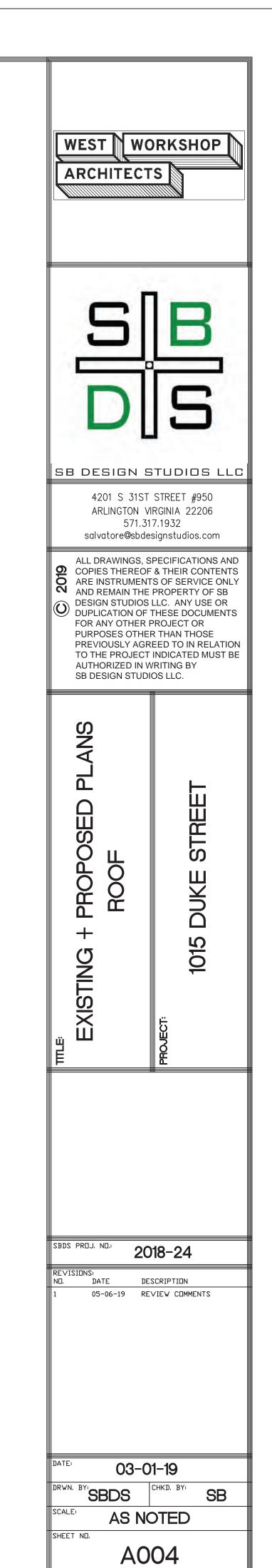
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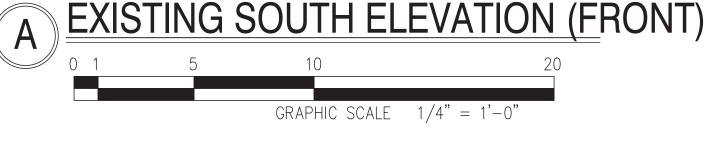
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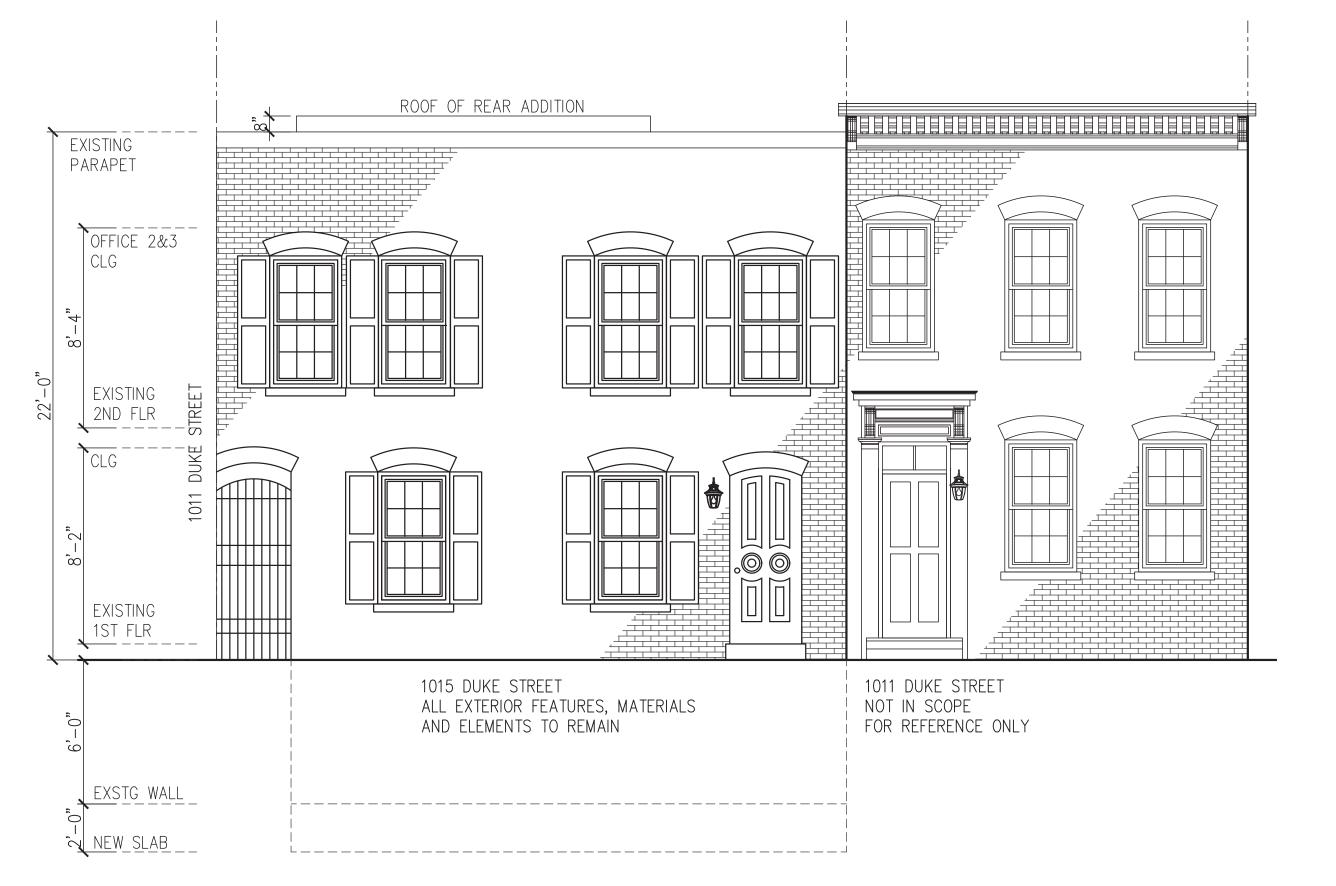
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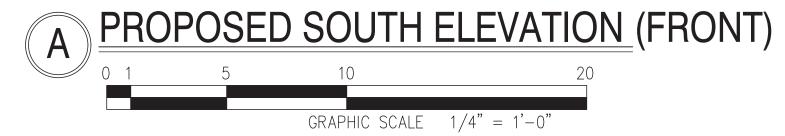
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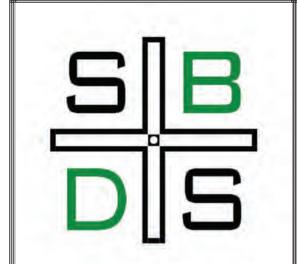












SB DESIGN STUDIOS LLC

4201 S 31ST STREET #950 ARLINGTON VIRGINIA 22206 571.317.1932 salvatore@sbdesignstudios.com

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EXISTING + PROPOSED
ELEVATIONS
PROJECT:
1015 DUKE STREET

2018-24

DESCRIPTION

DATE

DATE: 03-01-19

DRWN, BY: SBDS CHKD, BY:

AS NOTED

AS NOTED

AS NOTED

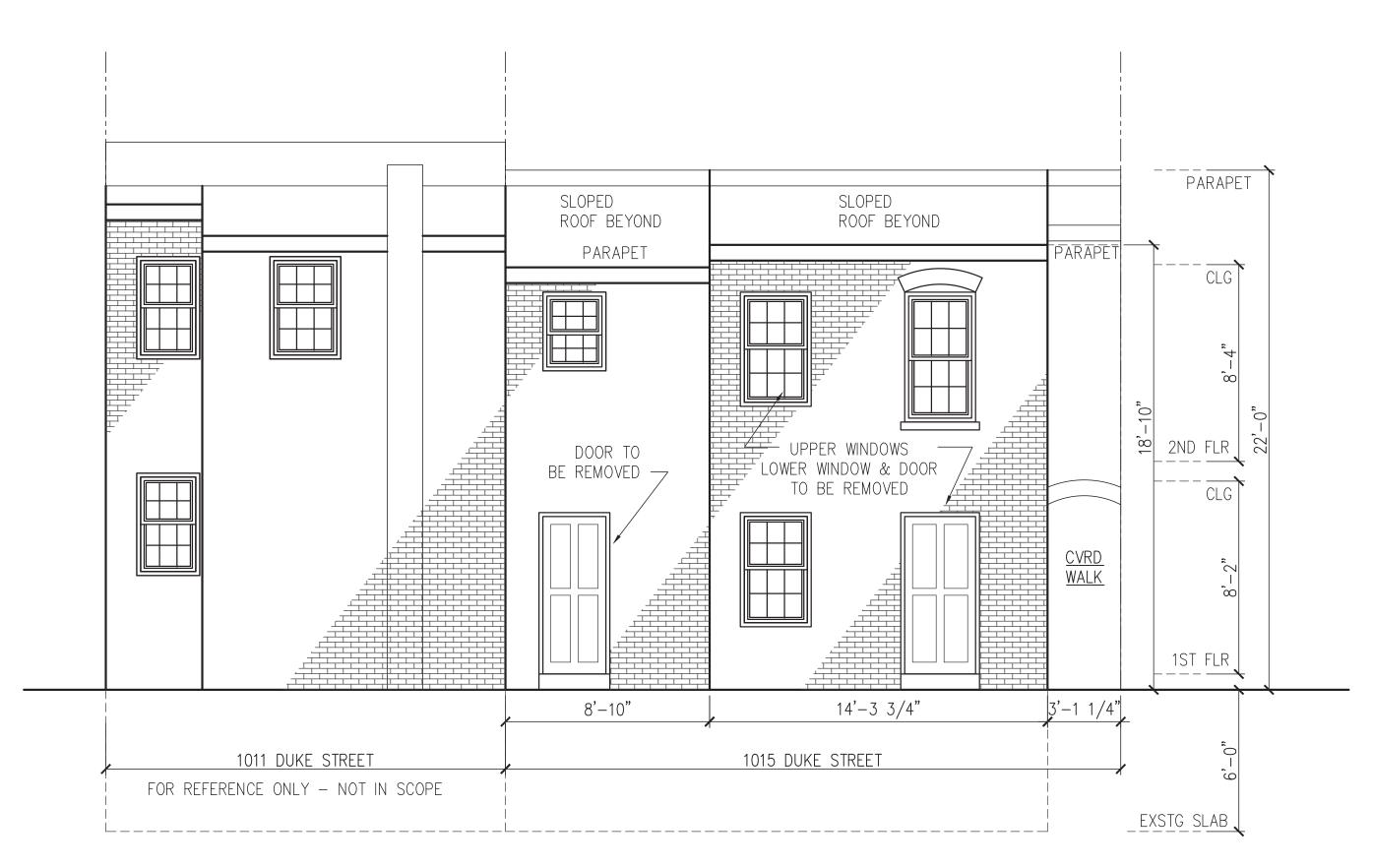
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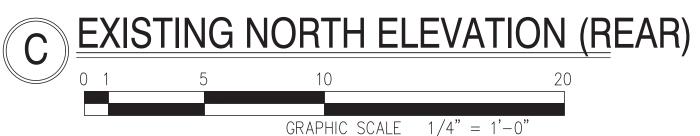
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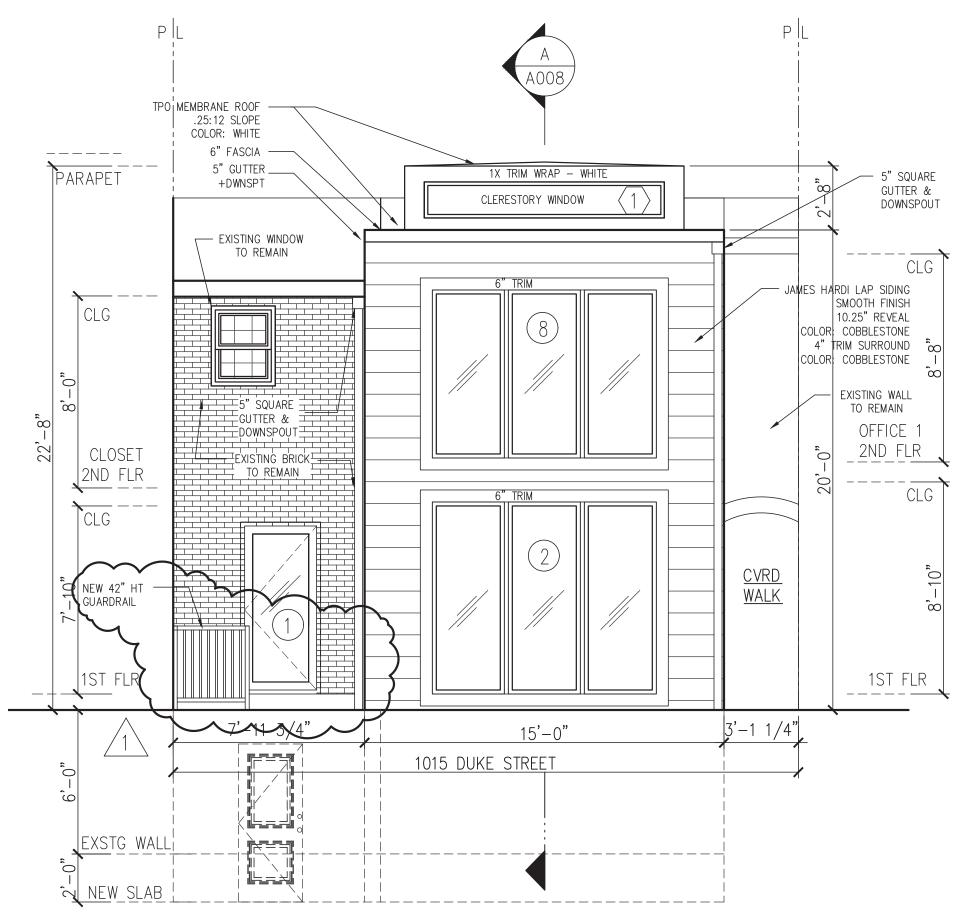
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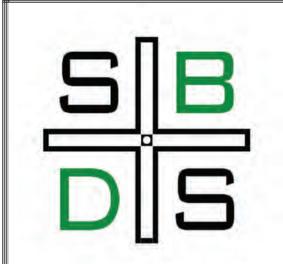
PROPOSED NORTH ELEVATION (REAR)

O 1 5 10 20

GRAPHIC SCALE 1/4" = 1'-0"

SCALE: 1/4" = 1'-0" UNLESS NOTED OTHERWISE





SB DESIGN STUDIOS LLC

4201 S 31ST STREET #950 ARLINGTON VIRGINIA 22206 571.317.1932 salvatore@sbdesignstudios.com

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2018-24

VISIONS:
DATE DESCRIPTION

05-06-19 REVIEW COMMENTS

DATE: 03-01-19

DRWN. BY: SBDS CHKD. BY:

AS NOTED

A006

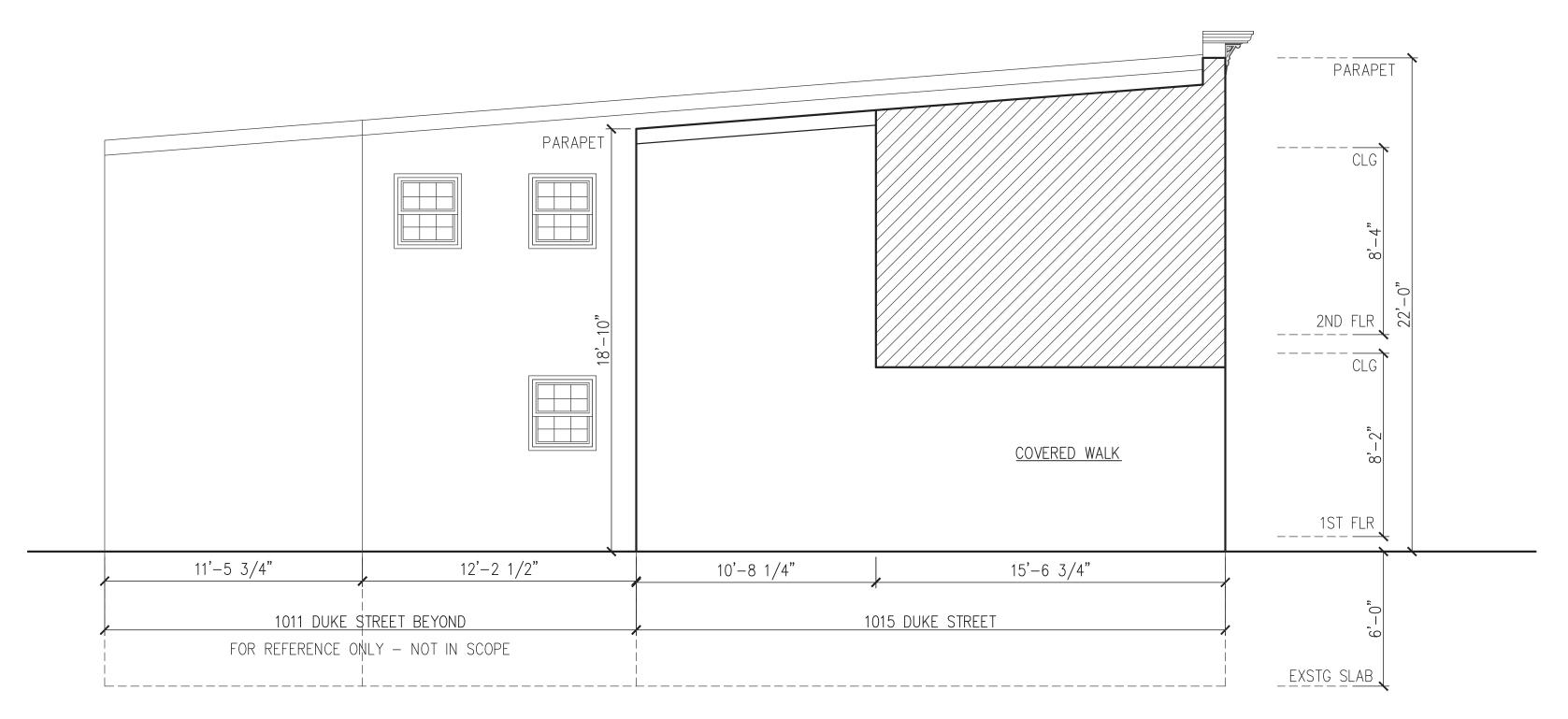
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. NO DEMOLITION WORK SHALL COMMENCE WITHOUT FIELD VERIFICATION BY THE CONTRACTOR, OWNER AND ARCHITECT.
- 2 IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND REMOVE ALL MECHANICAL, ELECTRICAL AND MISCELLANEOUS EQUIPMENT AS REQUIRED TO COMPLETE THE WORK REFER TO MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DRAWINGS FOR DEMOLITION INFORMATION.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY STRUCTURAL BRACING AS REQUIRED DURING DEMOLITION AND CONSTRUCTION.
- 4. ANY PORTION OF THE PROJECT TO REMAIN WHICH IS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITY, SHALL BE REPAIRED OR REPLACED TO MATCH THE EXISTING CONDITION.
- THE CONTRACTOR SHALL COORDINATE AND ARRANGE FOR THE DISCONNECTION OF ALL UTILITIES AND EQUIPMENT WITH THE OWNER AND UTILITY COMPANIES. THE CONTRACTOR SHALL CAP OFF ALL UNUSED UTILITIES.
- 6. THE CONTRACTOR SHALL REMOVE, DISCONNECT AND SALVAGE ALL MECHANICAL, ELECTRICAL AND MISCELLANEOUS WALL MOUNTED EQUIPMENT FOR RECONNECT AND REINSTALLATION.
- THE CONSTRUCTOR SHALL ALLOW NO DEBRIS TO ACCUMULATE ON THE SITE.
 IMMEDIATELY REMOVE ALL DEBRIS AND SALVAGE FROM THE SITE.
- 8. THE OWNER HAS FIRST RIGHT TO ALL SALVAGE ITEMS. ITEMS NOT CLAIMED BY OWNER SHALL BECOME THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE PROMPTLY DISPOSED OF FROM THE SITE.
- 9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SECURE, DRY STORAGE WITHIN THE DESIGNATED CONTRACTOR LAY-DOWN AREA OR AN AREA DESIGNATED BY OWNER FOR OWNER RETAINED ITEMS.

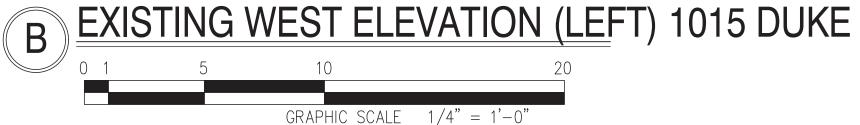
GENERAL NOTES:

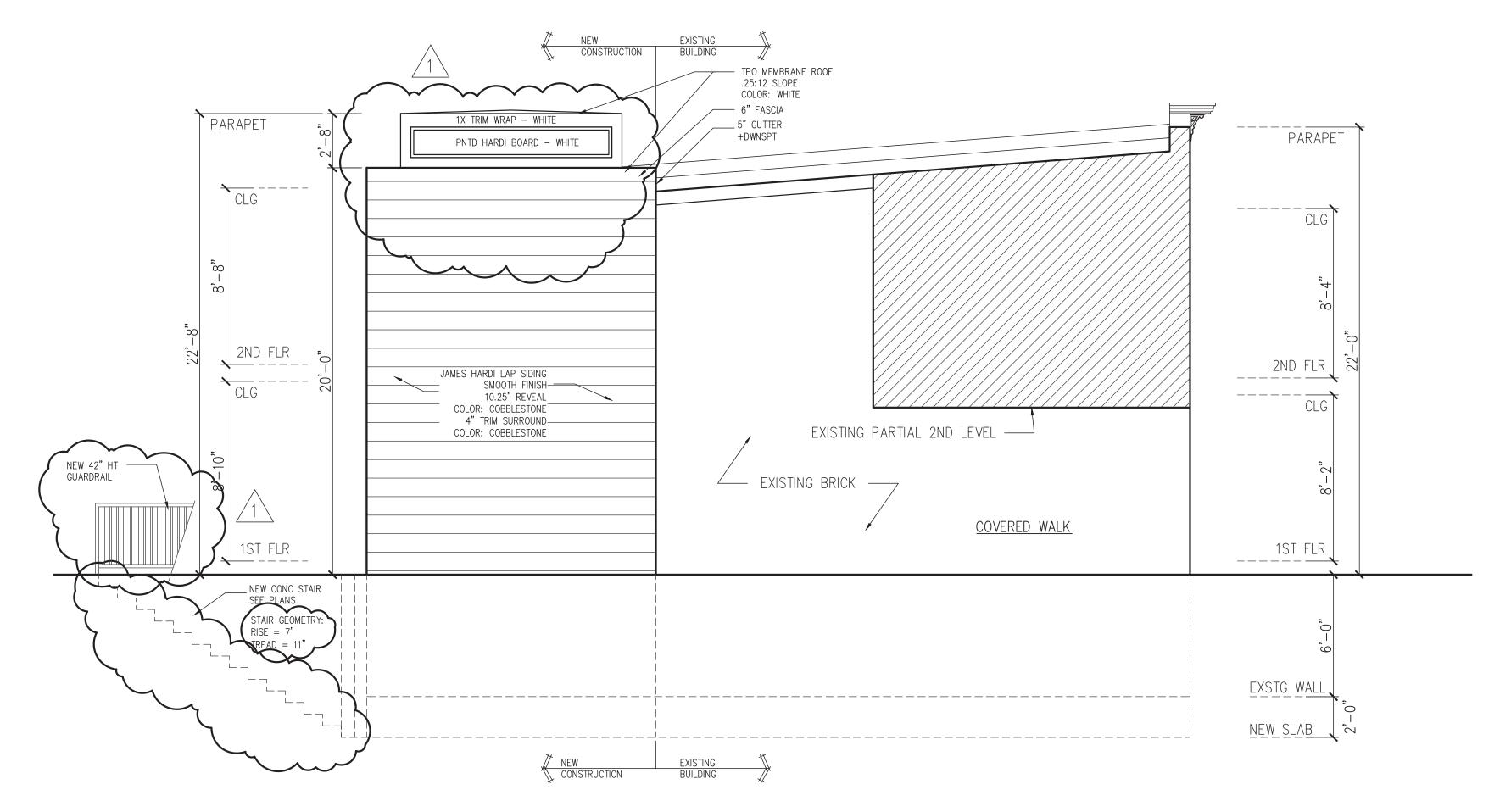
- 1. REFERENCE FRONT ELEVATIONS FOR HEADER HEIGHTS OF FEATURE WINDOWS.
- 2. FIRST FLOOR HEADER HEIGHTS VARY PER ELEVATION & LOCATION
- 3. KITCHEN WINDOW SILL HEIGHT TO BE SET AT 48" A.F.F.
- 4. SECOND FLOOR HEADER HEIGHTS VARY PER ELEVATION & LOCATION
- 5. WINDOWS AT TUB DECK TO BE SET AT 33" A.F.F. UNLESS OTHERWISE NOTED.
- 6. ALL TRIPLE, AND QUAD WINDOWS TO GET DOUBLE 2X_ STRUCTURAL MULLIONS UNLESS OTHERWISE NOTED.
- 7. FLOOR TRUSS SPACING TO BE A MAX. OF 19.2" O.C. UNLESS OTHERWISE
- 8. ALL SHEATHING USED FOR SUB FLOORING WILL BE GLUED AND SCREWED WITH 1 5/8" SCREW AT FOUR (4) INCHES O.C. AT EDGES AND EIGHT (8) INCHES O.C. IN FIELD. ALL EDGES REQUIRE A 1/16 INCH GAP. ALL TONGUE AND GROOVE JOINTS WILL RECEIVE A BEAD OF GLUE. GLUING AND SCREWING WILL BE ACCOMPLISHED ONE SHEET AT A TIME.
- 9. ROOF SHEATHING WILL BE 3/4" EXTERIOR GRADE PLYWOOD OR EQUAL, NAILED FOUR (4) INCHES O.C. AT ALL EDGES AND EIGHT (8) INCHES O.C. IN FIELD WITH A 1/8" GAP AT ALL EDGES. LEAVE TWO (2) INCHES OF GAP AT RIDGE VENT AS REQUIRED. CONTINUOUS FRT PLYWOOD 48" FROM ALL PROPERTY LINES 10. CERAMIC TILE FLOORS SHOULD BE SUPPORTED PER TILE COUNCIL OF AMERICA (TCA) RECOMMENDATIONS.
- 11. VERIFY LÓCATION OF PLUMBING DROPS AND SHIFT JOISTS A MAXIMUM OF 2 INCHES.
- 12. HANGERS TO BE INSTALLED PER MANUFACTURERS' RECOMMENDATIONS.

 13. ALL CEILING JOISTS AND RAFTER BRACING TO BEAR ON LOAD BEARING
- WALLS OR BEAMS DESIGNED TO CARRY LOAD TO THE FOUNDATION.

 14. ALL ROOF FRAMING WOOD TRUSSES TO BE SET AT A MAX. OF 24" O.C. U.N.O.
- 15. ALL ROOF TRUSSES TO BE ATTACHED PER STRUCTURAL ENGINEER'S NOTES.
- 16. ALL ROOF TRUSSES TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
- 17. ROOF TRUSS MANUFACTURER TO SUPPLY CERTIFIED ENGINEERED SHOP DRAWINGS.
- 18. REFERENCE FIRST FLOOR PLANS FOR GARAGE BEAM SIZES AND LOCATIONS.19. ALL SMOKE DETECTORS TO BE 110V WITH BATTERY BACKUP AND INTERCONNECTED.
- 20. PROVIDE BRACING FOR ALL CEILING FAN OUTLETS.
- 21. CARBON MONOXIDE ALARMS TO BE INSTALLED PER IRC SECTION 315
 22. ALL STAIRS, HANDRAILS, AND GUARDS SHALL BE CONSTRUCTED IN ACCORDANCE
- WITH SECTION R311 AND R312 OF THE IRC2012 AND VUSBC2012 23. ALL INTERIOR PARTITIONS NOT DIMENSIONED SHALL BE 3 1/2" UNLESS NOTED OTHERWISE
- 24. ALL INTERIOR DIMENSIONS ARE TAKEN FROM FACE OF STUD
- 25. ALL EXTERIOR DIMENSIONS ARE TAKEN FROM FACE OF STUD
- 26. ALL ANGLES ARE 90 AND/OR 45 DEGREES UNLESS NOTED OTHERWISE 27. ALL WINDOW DIMENSIONS ARE GIVEN IN FEET AND INCHES.
- EXAMPLE: 3050 = 3'-0" (W) X 5'-0" (H)
- 28. ALL DOOR DIMENSIONS ARE GIVEN IN FEET AND INCHES. EXAMPLE: 3068 = 3'-0" (W) X 6'-8" (H)
- 29. BATH WALLS WITH TILE TO HAVE 1/2" CEMENT BOARD
- 30. ALL OTHER BATH WALLS TO BE MOISTURE RESISTANT GREEN BOARD
 31. SILL HEIGHT IS BASED ON WINDOW SIZE AND WINDOW HEAD HEIGHT INDICATED ON
- ELEVATIONS. IN LOCATIONS WHERE THE SILL IS LESS THAN 18" AND THE FINISH GRADE OR SURFACE ON THE EXTERIOR SIDE IS MORE THAN 72" OPERABLE WINDOWS MUST HAVE A GUARD INSTALLED IN ACCORDANCE WITH R613.2 EXCEPTION 2.
- 32. ALL SMOKE / CARBON MONOXIDE DETECTORS TO BE 110V WITH BATTERY BACKUP AND INTERCONNECTED — REQUIRED LOCATIONS PER IBC CHAPTER 9
- S) SMOKE DETECTOR (C) CARBON MONOXIDE DETECTOR
- NOTE: THESE PLANS ARE SUBJECT TO MODIFICATION AS NECESSARY TO MEET CODE REQUIREMENTS OR TO FACILITATE MECHANICAL/PLUMBING INSTALLATION OR TO INCORPORATE DESIGN IMPROVEMENTS.





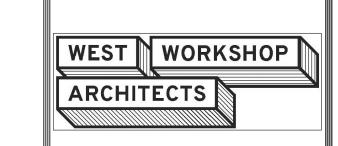


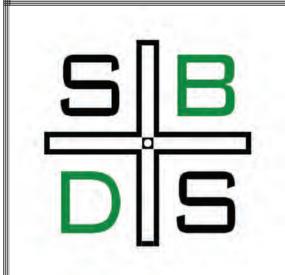
PROPOSED WEST ELEVATION (LEFT) 1015 DUKE

O 1 5 10 20

GRAPHIC SCALE 1/4" = 1'-0"

SCALE: 1/4" = 1'-0" UNLESS NOTED OTHERWISE

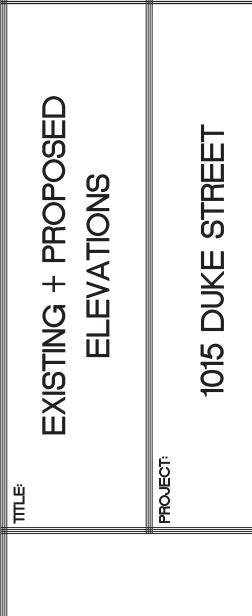




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DS PROJ. NO.:

2018-24

VISIONS:
DATE DESCRIPTION

05-06-19 REVIEW COMMENTS

DATE: 03-01-19

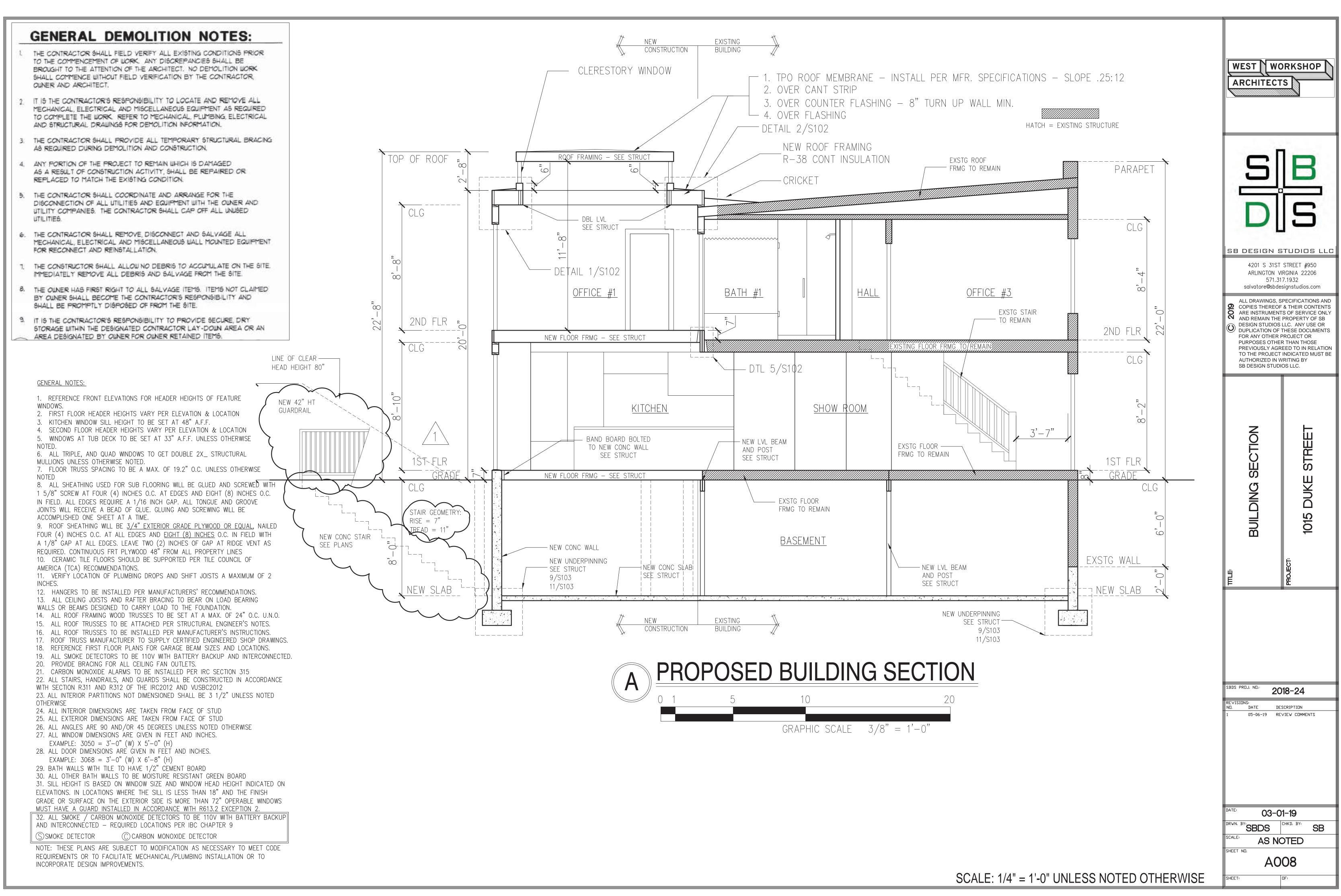
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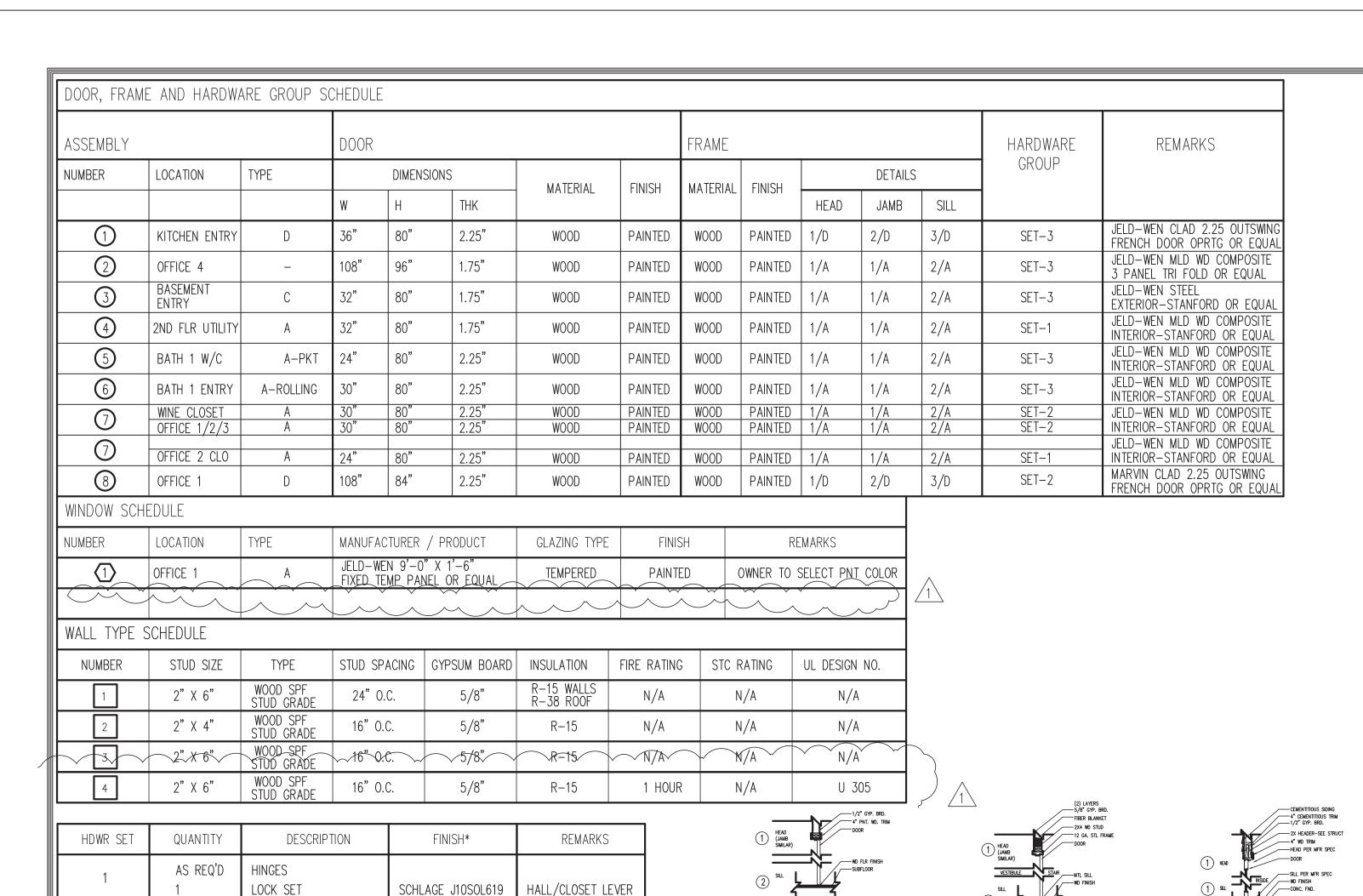
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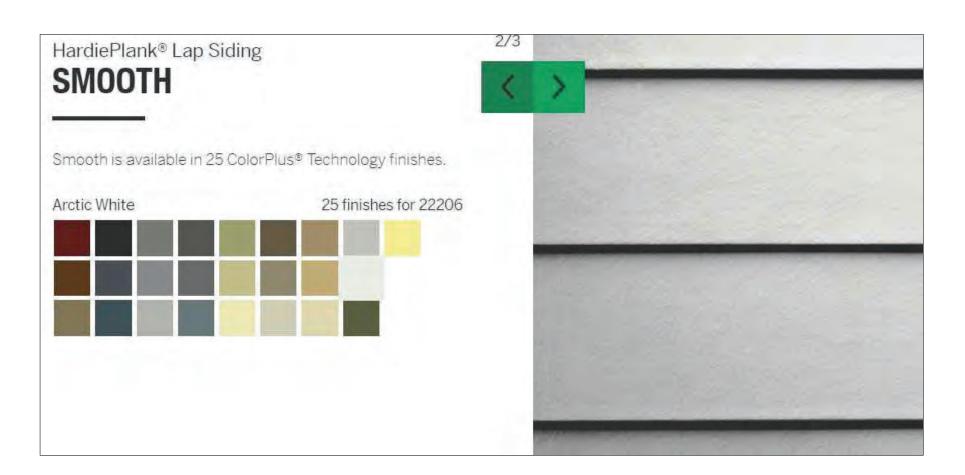
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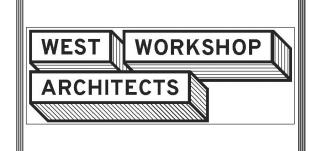


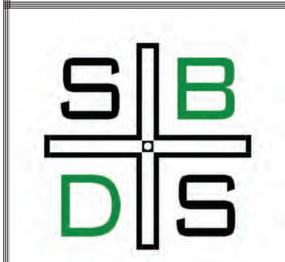


CEMENTITIOUS SIDING









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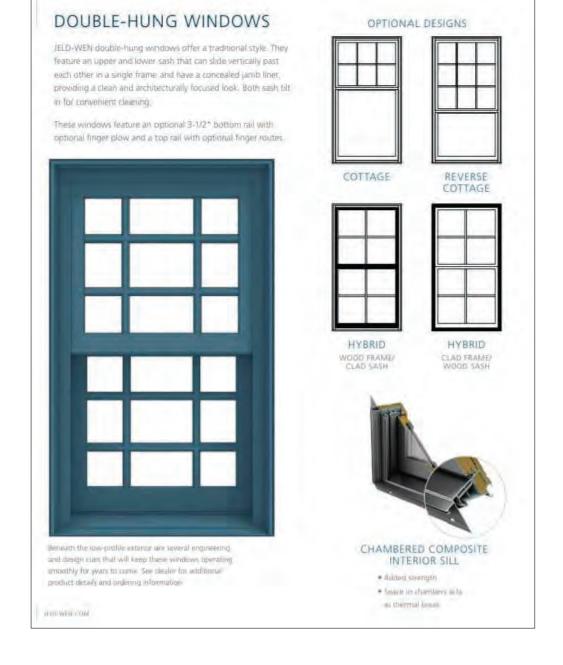
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R SCHDEULI PES

WINDOW SELECTION





WALL TYPES

HINGES LOCK SET

CLOSER

KICK PLATE

LOCK SET

DEAD BOLT

*ALTERNATE FINISHES TO BE APPROVED PRIOR TO SUBSTITUTION / INSTALLATION

SET WEATHERSTRIPPING

STOP

AS REQ'D

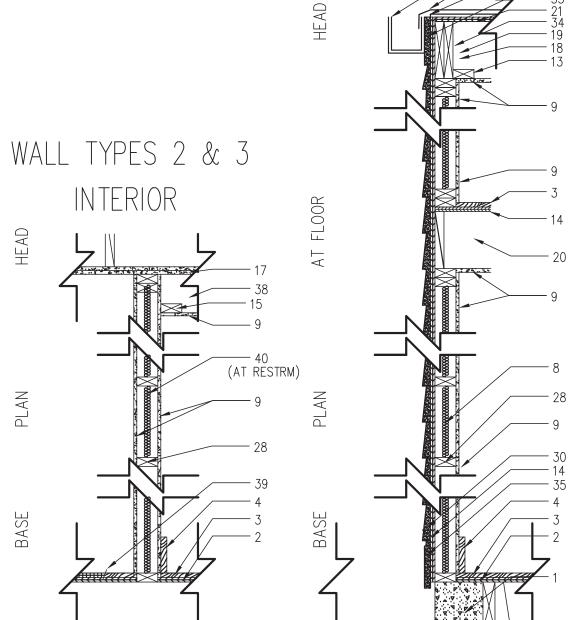
SCHLAGE J40S0L619

BED/BATH LOCK

2 COAT HOOKS AT

BATHROOM DOOR

SCHLAGE J54SOL619 | KEYED ENTRANCE



WALL TYPE 1 - EXT

. CONCRETE FOUNDATION

SEE STRUCT FOR SIZE / LOCATION / EXTENTS

2. 3/4" P.T. PLYWOOD SUBFLOOR

3. T & G WOOD FLOOR FINISH - OWNER TO PROVIDE 4. 1"X6" PNTD. WD. TRIM

8. R-15 CONTINUOUS INSULATION

9. 5/8" GYPSUM BOARD

13. 1" GYPSUM FIRESTOP

14. 3/4" PLYWOOD SHEATHING 15. 2X BLOCKING

17. (2) LAYERS 5/8" GYPSUM BORAD TYPE "X"

18. R-38 CONTINUOUS ROOF INSULATION 19. ROOF FRAMING - SEE STRUCTURE FOR SIZE AND SPACING

20. FLOOR FRAMING - SEE STRUCTURE FOR SIZE AND SPACING

JELD-WEN MOLDED

ALL PANEL INTERIOR

WOOD COMPOSITE

DOOR-STANFORD

DOOR TYPE A

21. 3/4" EXTERIOR GRADE PLYWOOD SHEATHING 22. TPO ROOF MEMBRANE - INSTALL PER MFR. SPECIFICATIONS

23. CANT STRIP

24. COUNTER FLASHING - 8" TURN UP WALL MIN.

25. FLASHING

26. HORIZONTAL CEMENTITIOUS SIDING 27. 1"X8" BLOCKING

28. 3 1/2" WOOD FRAMING (NOM. 2X4)

OR 5 $\frac{1}{2}$ WOOD FRAMING (NOM. 2X6)

29. METAL PARAPET CAP FLASHING 30. HORIZONTAL CEMENTITIOUS SIDING

31. NEW FLOOR FRAMING ON BOLTED LEDGER - SEE STRUCT

34. (2) 2X END JOISTS - SEE STRUCTURE FOR SIZE

35. 8" CEMENTITIOUS TRIM — WHITE 36. FLASHING

37. GUTTER W/ 5" DOWNSPOUT - SEE ROOF PLAN 39. CERAMIC TILE FLOORING AT 1ST FLOOR RESTROOM

40. ACOUSTICAL (NON-FACED) BATT INSULATION

Design/System/Construction/Assembly Usage Disclaimer

 Authorities Having Juris diction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials. · Authorities Having Juris diction should be consulted before construction.

• Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every

 When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.

· Only products which bear UL's Mark are considered Certified.

JELD-WEN 2.25"

FRENCH DOOR -CMOFD SEE PLANS

WINDOW TYPE A

OUTSWING

3068 X-R

DOOR TYPE D

JELD-WEN STEEL

EXTERIOR DOOR

CT-22 2-PANEL

DOOR TYPE C

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

Design Criteria and Allowable Variances

Design No. U301

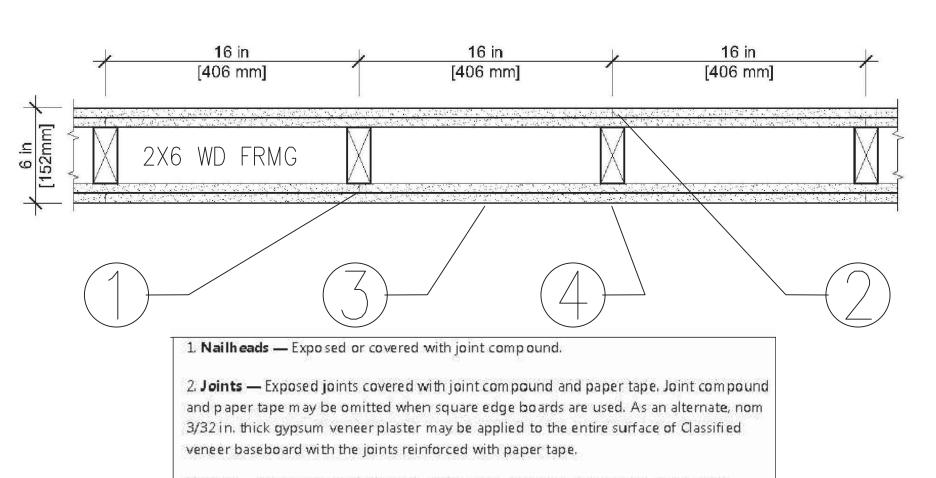
December 21, 2018 Bearing Wall Rating — 2 Hr.

Finish Rating - 66 Min. This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used —

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

See Guide BXUV or BXUV7

-2HR SEPARATION WALL - U301 / UL263

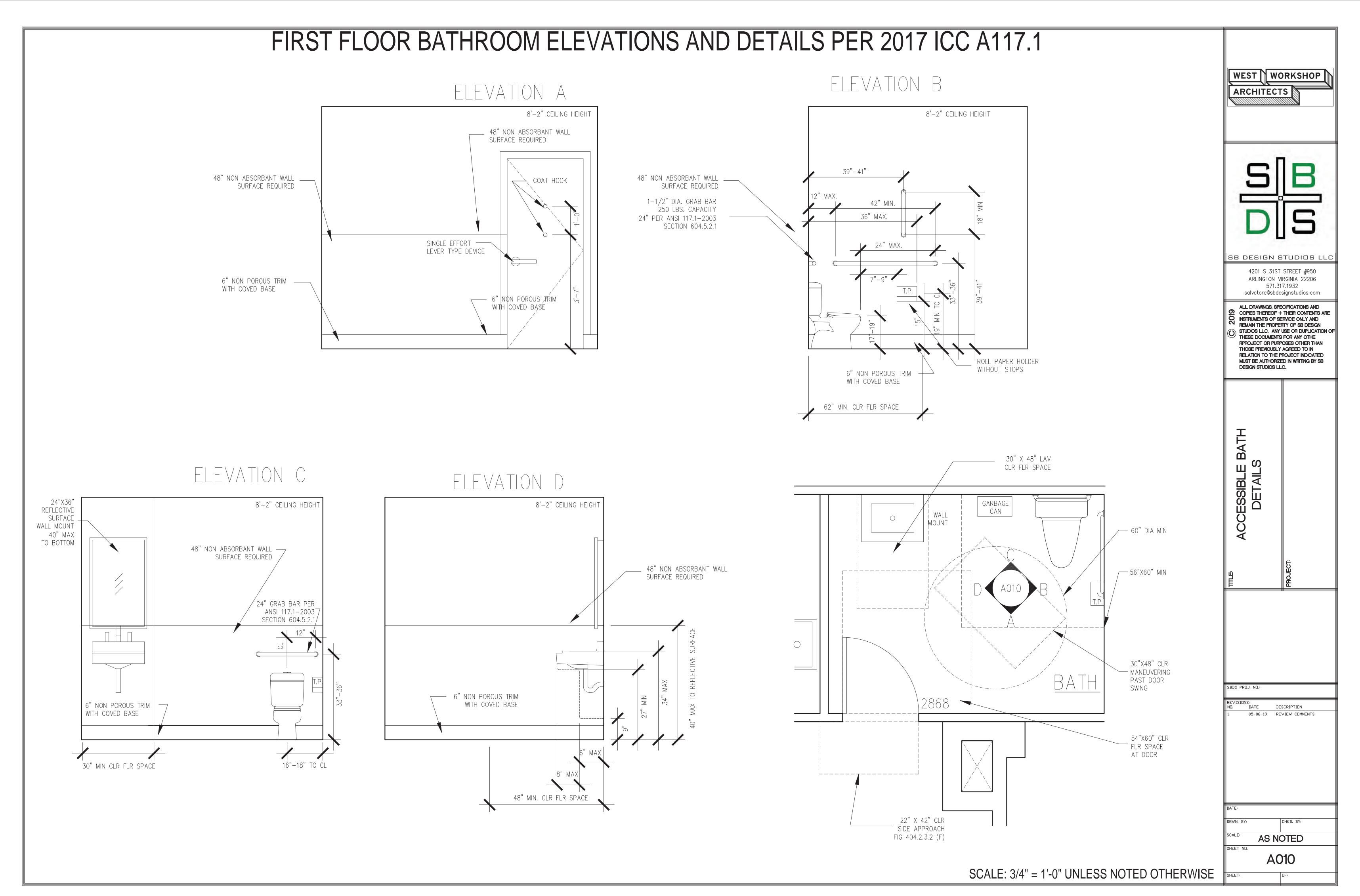


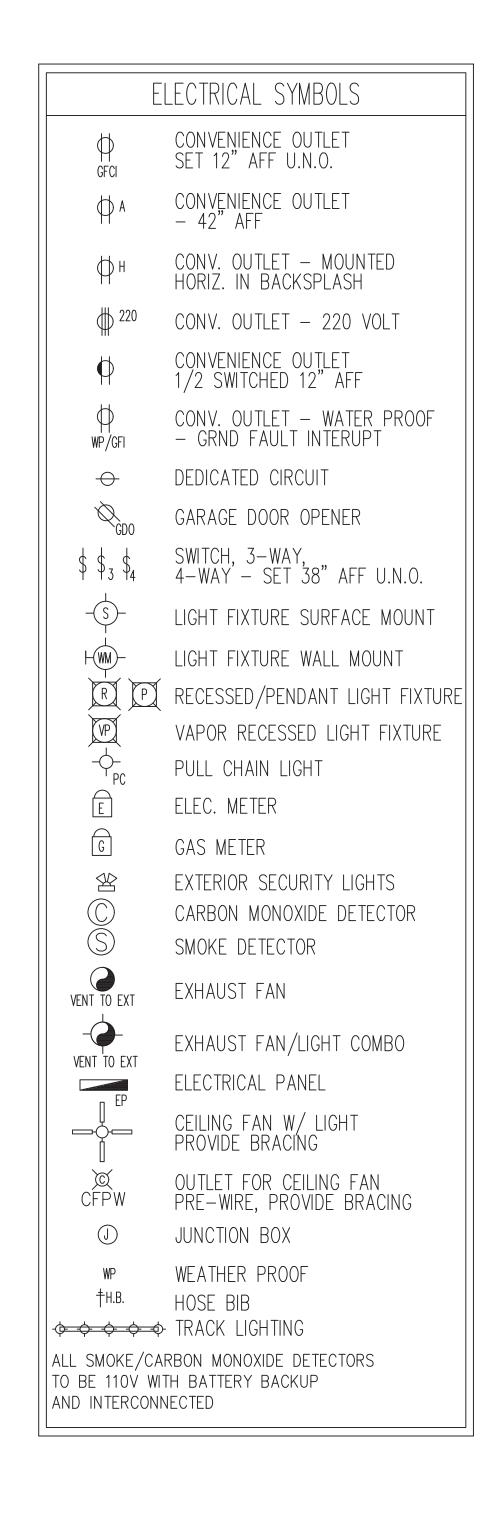
3. Nails — 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam, 1/4 in. diam heads, and 8d cement coated nails 2-3/8 in. long, 0.113 in. shank diam, 9/32 in. diam

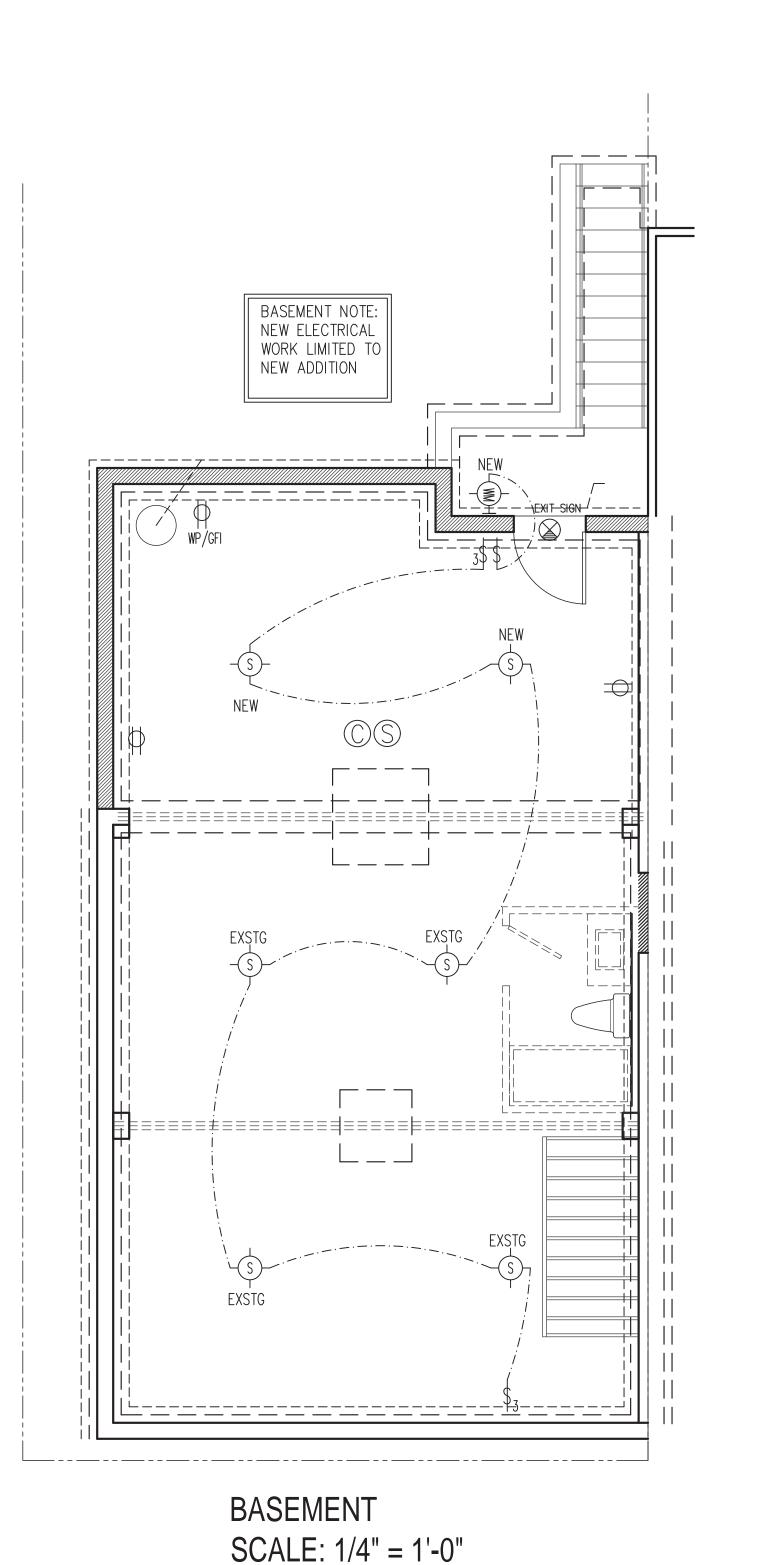
4. Gypsum Board* — 5/8 in, thick, two layers applied either horizontally or vertically. Inner layer attached to study with the 1-7/8 in, nails spaced 6 in, OC. Outer layer attached to studs over inner layer with the 2-3/8 in. long nails spaced 8 in. OC. Vertical joints located over studs. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on opposite side. When used in widths ather than 48 in., gypsum board to be installed harizantally.

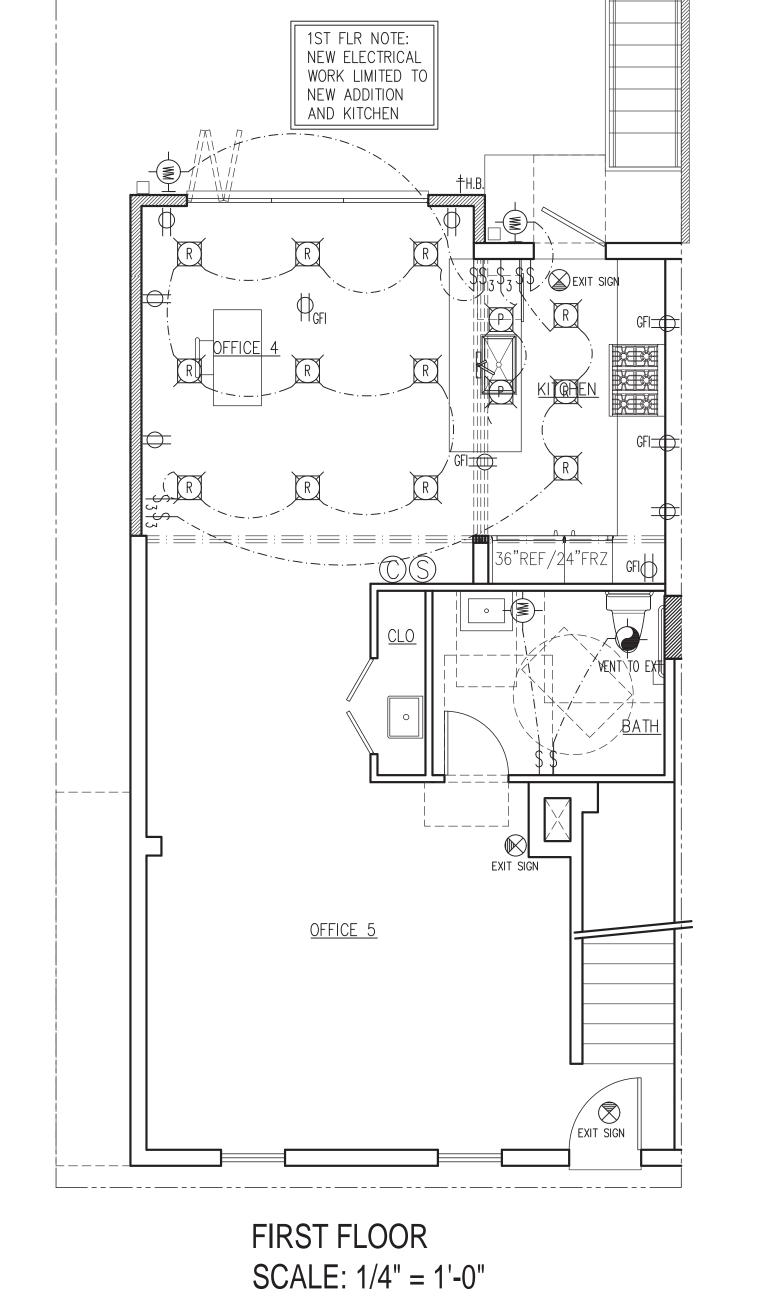
SCALE: 1/4" = 1'-0" UNLESS NOTED OTHERWISE

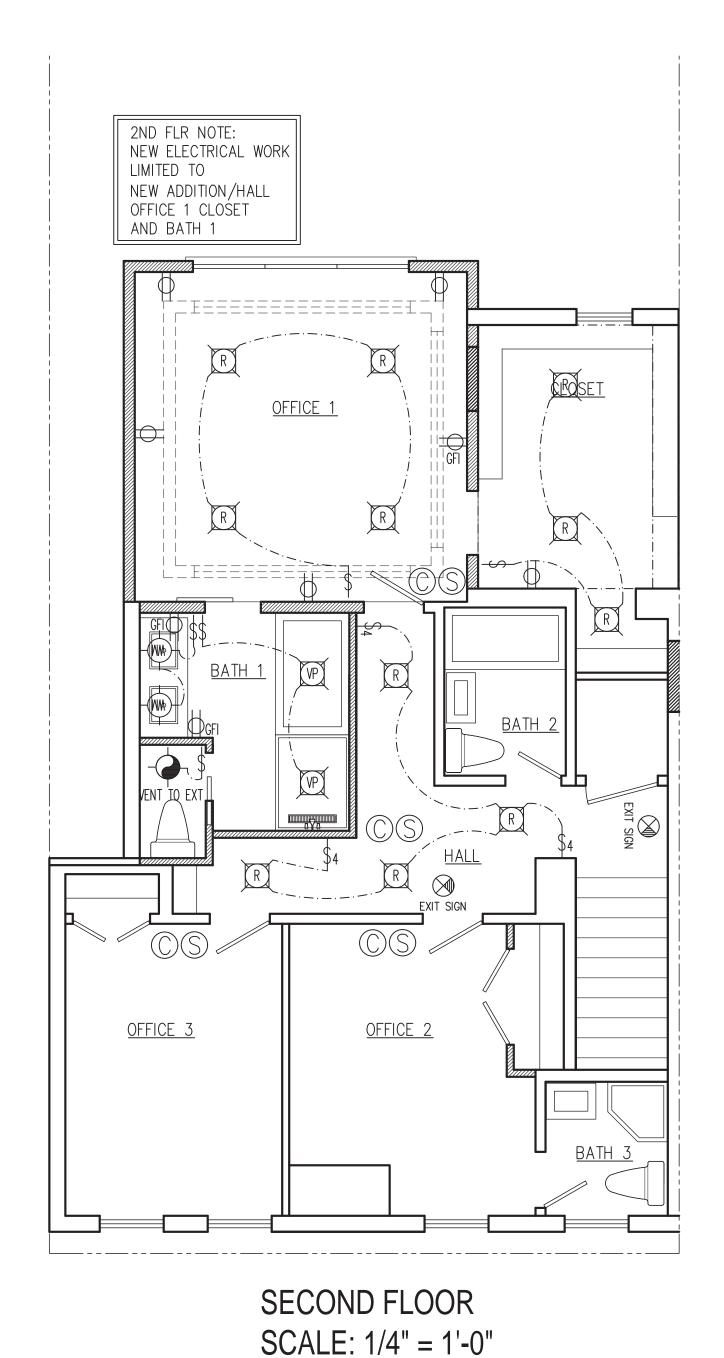
DATE 05-06-19 REVIEW COMMENTS AS NOTED A009

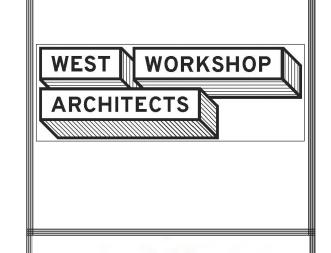














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PROPOSED
POWER AND LIGHTING PLANS
PROJECT:
1015 DUKE STREET

SBDS PROJ. NO.: 2018-24

ND. DATE DESCRIPTION

1 05-06-19 REVIEW COMMENTS

DATE: 03-01-19

DRWN. BY: SBDS CHKD. BY: SB

SCALE: AS NOTED

SHEET NO.

E001

GENERAL DESIGN BUILDING CODE: VEBC 2015. THE CONTRACTOR SHALL COORDINATE ALL DIMENSIONS AND ELEVATIONS SHOWN ON THESE DRAWINGS WITH THE ARCHITECTURAL AND OTHER TRADES DRAWINGS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT /ENGINEER OF ANY DISCREPANCIES OR OMISSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY BRACING AND SHORING, AS REQUIRED, TO INSURE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OR PORTION THEREOF DURING CONSTRUCTION. THE DESIGN PROCEDURES SHALL CONFORM TO ALL GOVERNING CODES AND SAFETY REQUIREMENTS. TEMPORARY BRACING AND SHORING SHALL BE IN CONFORMANCE WITH OSHA REGULATIONS. DESIGN LOADS: a) ROOF 25 PSF OFFICE FLOOR 50 PSF 100 PSF CORRIDORS - 1ST FLR CORRIDORS - ABV 1ST FLR WIND LOADS BASIC WIND VELOCITY = 115 MPH (ULTIMATE) i) EXPOSURE CATEGORY = B SUBMITTALS a) SUBMITTALS REQUIRING A REGISTERED PROFESSIONAL ENGINEERS SEAL OR REQUIRING SUPERVISION BY A REGISTERED PROFESSIONAL ENGINEER: THE ENGINEER SHALL HAVE AN ACTIVE REGISTRATION IN THE STATE IN WHICH THE PROJECT IS LOCATED.

SITE WORK

6) SUBGRADE DESIGN VALUES: PRESUMPTIVE VALUES HAVE BEEN USED FOR THE PROPOSED CONSTRUCTION. a) BEARING ON VIRGIN MATERIAL: LEAN CLAY

- b) BEARING PRESSURE: 1500 PSF.
- c) SOIL DENSITY: 110 PCF
- BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 2'-6" BELOW EXTERIOR GRADE.
- ALL FOOTINGS SHALL PROJECT AT LEAST 1'-0" INTO UNDISTURBED NATURAL SOIL OR COMPACTED STRUCTURAL FILL. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED. NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (TWO HORIZONTAL TO ONE VERTICAL) TO A FOOTING. DO NOT PLACE CONCRETE OVER FROZEN SOIL, FOOTINGS SHALL NOT BE FOUNDED ON EXISTING FILL, LOOSE OR WET SOIL. STEP FOOTINGS WITH A RATIO OF 2 HORIZONTAL TO 1 VERTICAL.

CAST-IN-PLACE CONCRETE

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 301, ACI 318 AND ACI 302,
- 10) REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615 GRADE 60
- 11) REINFORCEMENT SPLICES SHALL BE LAP SPLICES WITH A MINIMUM LAP OF 40 BAR DIAMETERS UNLESS NOTED OTHERWISE
- 12) CONCRETE COMPRESSIVE STRENGTHS AT 28 DAY CURE, Fc (PSI) = 3000
- 13) SLABS ON GRADE SHALL BE 4" THICK CONCRETE AND REINFORCED WITH 6X6 W1.4x1.4 WWF CONFORMING TO ASTM A185. LAP MESH 8" IN EACH DIRECTION. PLACE CONCRETE OVER 10 MIL POLYETHYLENE VAPOR BARRIERS WITH MIN 12" OVERLAP AND 4" MIN. INCHES MIN OF COARSE AGGREGATE OR AS RECOMMENDED BY THE SOILS ENGINEER. THE AGGREGATE LAYER SHALL BE PLACED OVER FIRM NATURAL SUBGRADE OR ON COMPACTED AND CONTROLLED FILL. USE AIR ENTRAINMENT AT ALL EXTERIOR SLABS. PROVIDE CONTROL AND CONSTRUCTION JOINTS AT BREEZEWAYS AS REQUIRED TO PREVENT UNCONTROLLED CRACKING PER ACI REQUIREMENTS.
- 14) SLUMP: 4 INCHES PLUS OR MINUS 1 INCH AT THE POINT OF DISCHARGE INTO THE FORMS.
- 15) CAST-IN-PLACE CONCRETE SHALL BE READY-MIX PER ASTM C94. THE MIX SHALL BE PROPORTIONED WITH:
- PORTLAND CEMENT, ASTM C150
- AGGREGATES. ASTM C33 WITH 0.75 INCH MAXIMUM DIAMETER
- NO CALCIUM CHLORIDE SHALL BE PERMITTED AIR ENTRAINMENT, ASTM C260
- WATER REDUCING ADMIXTURE, ASTM C494
- FLYASH, ASTM C618-78 CLASS F, 15% MAXIMUM BY WEIGHT
- WATER, CLEAN AND POTABLE
- 16) CONCRETE COVER BETWEEN FACE OF REINFORCING BAR AND FACE OF CONCRETE SHALL BE PLACE ACCORDING TO THE FOLLOWING MINIMUM DIMENSIONS UNLESS NOTED OTHERWISE:
 - a) 3 INCHES FOR CONCRETE CAST AGAINST EARTH
- b) 2 INCHES FOR CONCRETE FORMED AND EXPOSED TO WEATHER OR EARTH
- c) 1.5 INCHES FOR CONCRETE FORMED AND NOT EXPOSED TO WEATHER OR EARTH
- 17) ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE A MINIMUM AIR ENTRAINMENT OF 6% ± 1.5% PER ACI, 318 4.1.1.
- 18) PROVIDE CORNER BARS 2' x 2' AT ALL WALL AND FOOTING INTERSECTIONS TO MATCH CONTINUOUS
- REINFORCING. ALL LAPS SHALL BE A MINIMUM OF 30 BAR DIAMETER. 19) PROVIDE PROPERLY TIED SPACERS, CHAIRS, BOLSTERS, ETC, AS REQUIRED AND NECESSARY TO ASSEMBLE, PLACE AND SUPPORT ALL REINFORCING IN PLACE. USE WIRE BAR TYPE SUPPORTS COMPLYING WITH CRSI
- RECOMMENDATIONS. USE PLASTIC TIP LEGS ON ALL EXPOSED SURFACES. 20) CONTRACTOR SHALL VERIFY EMBEDDED ITEMS. INCLUDING BUT NOT LIMITED TO ANCHOR BOLTS. BOLT
- CLUSTERS, WELD PLATES, ETC., BEFORE PLACING CONCRETE. NOTIFY ENGINEER OF ANY CONFLICTS WITH REBAR.
- 21) STEP AND SLOPE ALL BALCONIES, WALKWAYS, AND PATIOS AWAY FROM THE BUILDING.
- 22) RESTRICT THE ADDITION OF MIX WATER AT THE JOB SITE. DO NOT ADD WATER WITHOUT THE APPROVAL OF THE GENERAL CONTRACTOR AND DO NOT EXCEED SLUMP LIMITATIONS. USE COLD WATER FROM THE TRUCK TANK AND REMIX TO ACHIEVE CONSISTENCY. THE REPORTS SHALL INDICATE HOW MUCH WATER WAS ADDED AT THE JOB SITE.
- 23) CONCRETE SHALL BE PLACED WITHIN 90 MINUTES OF BATCH TIME.

CONCRETE MASONRY

- 24) HOLLOW LOAD BEARING UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE I, GRADE N WITH A MINIMUM 28 DAY NET COMPRESSIVE UNIT STRENGTH OF 1900 PSI. (NET AREA COMPRESSIVE MASONRY STRENGTH
- 25) MORTAR SHALL BE TYPE M BELOW GRADE AND IN CONTACT WITH SOIL AND TYPE S AT ALL OTHER LOCATIONS. MORTAR SHALL CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATION).
- 26) FILLED CELLS SHALL BE FILLED WITH COARSE GROUT. COARSE GROUT SHALL CONFORM TO ASTM C476. PROPERTIES SHALL INCLUDE: 2500 PSI AT 28 DAYS, 3/8" MAXIMUM AGGREGATE, AND 8" - 11" SLUMP. FILLED CELLS MAY ALTERNATIVELY BE FILLED WITH A 3000 PSI PEA GRAVEL MIX CONCRETE. THE PEA GRAVEL MIX SHALL BE PROPORTIONED WITH A MAXIMUM AGGREGATE SIZE OF 3/8 INCH DIAMETER TO PROVIDE A MINIMUM OF 1/2 INCH CLEARANCE. ADDITIONALLY, THE PEA GRAVEL MIX SHALL PROVIDE AN 8 TO 11-INCH SLUMP.
- 27) CODES AND STANDARDS INCLUDE: ACI 530/ASCE 5, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"; ACI 530.1/ASCE 6, "SPECIFICATIONS FOR MASONRY STRUCTURES"
- 28) VERTICAL REINFORCING BARS SHALL BE HELD IN POSITION, WITH BAR POSITIONERS, AT THE TOP AND BOTTOM OF BAR AND AT 8'-0" O.C. MAXIMUM WITH A MINIMUM CLEARANCE OF 1/2" FROM MASONRY. THE CLEAR DISTANCE BETWEEN BARS SHALL NOT BE LESS THAN ONE BAR DIAMETER, NOR LESS THAN 1". CENTER BARS IN WALLS
- 29) PROVIDE ACI 90 DEGREE STANDARD HOOKS INTO FOOTINGS AND ROOF TIE BEAM. MAINTAIN VERTICAL REINFORCING SHOWN ON DRAWINGS, ABOVE AND BELOW MASONRY OPENINGS EXCEEDING 10'-0" CLEAR. CONTINUE FOUNDATION DOWELS BELOW ALL MASONRY OPENINGS.
- 30) REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNERS AND WHERE BENDS OR HOOKS ARE DETAILED ON THE PLANS.
- 31) MINIMUM LAP SPLICE SHALL BE 48 BAR DIAMETERS. WIRE TIE LAP SPLICES.

- 32) WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICAL, DOWELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN IF IT IS IN A CELL ADJACENT TO THE VERTICAL WALL REINFORCEMENT
- 33) HORIZONTAL WALL REINFORCING SHALL BE 9 GA. GALVANIZED LADUR TYPE DUR-O-WAL (OR EQUIVALENT) SPACED AT 16" O.C. MAXIMUM. VERTICAL. LAP SPLICE 12-INCH MINIMUM.
- 34) PROVIDE HORIZONTAL JOINT REINFORCEMENT AT MASONRY OPENINGS SUCH AS DOORS AND WINDOWS. CONTINUE JOINT REINFORCING FOR THE FIRST AND SECOND BLOCK COURSE ABOVE AND BELOW MASONRY OPENING. EXTEND JOINT REINFORCING A MINIMUM OF TWO FEET BEYOND OPENING.
- 35) CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE OF MASONRY IN EACH GROUT POUR WHEN THE POUR HEIGHT EXCEEDS 5'. CLEANOUTS SHALL BE SAW-CUT 4" X 4".
- 36) GROUT POUR HEIGHT SHALL NOT EXCEED 24'. PLACE GROUT IN 5' MAXIMUM LIFT HEIGHTS
- INITIAL WATER LOSS AND SETTLEMENT. 38) PLACE ALL MASONRY IN RUNNING BOND WITH 3/8" MORTAR JOINTS. PROVIDE COMPLETE COVERAGE FACE SHELL
- MORTAR BEDDING, HORIZONTAL AND VERTICAL. FULLY MORTAR WEBS IN ALL COURSES OF PIERS, COLUMNS, AND PILASTERS AND ADJACENT TO GROUTED CELLS. 39) MASONRY CONTROL JOINTS SHALL BE INSTALLED AT LOCATIONS INDICATED ON THE DRAWINGS, ADDITIONALLY, 54) INSTALL MASONRY CONTROL JOINTS SPACE AT 26'-0" O.C. AT EXTERIOR WALLS, 32'-0" O.C. AT INTERIOR WALLS

- 40) STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION, EXCEPT CHAPTER 4.2.1, CODE OF STANDARD 56) FLOOR DECKING SHALL BE APA RATED FLOOR SHEATHING, GLUED AND NAILED PER APA RECOMMENDATIONS PRACTICE.
- 41) ALL STRUCTURAL STEEL SHALL BE ASTM A993 GRADE 50
- 42) ALL BOLTS SHALL BE ASTM A307 U.N.O.

UNLESS NOTED OTHERWISE.

43) PAINTING; ONE COAT OF SHOP PAINT SHALL BE APPLIED TO ALL STRUCTURAL STEEL WITH THE EXCEPTION OF 57) WOOD TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE "NATIONAL DESIGN AREAS TO BE WELDED.

WOOD - GENERAL

- 44) ALL FOLLOWING DESIGN VALUES ARE IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATIONS (NDS) AND 58) THE WOOD TRUSS MANUFACTURER MUST PARTICIPATE IN A CODE APPROVED THIRD PARTY QUALITY ASSURANCE SUPPLEMENT NATIONAL DESIGN SPECIFICATIONS.
 - PROPERTIES: (UNLESS NOTED OTHERWISE ON PLANS)
 - Fb = 875 PSIFc per = 425 PSI
 - Fv = 70 PSIE = 1,400,000 PSI
- b) EXTERIOR AND INTERIOR BEARING WALL STUDS SHALL BE SPF No. 2 OR OTHER SPECIES HAVING THE
 - FOLLOWING MINIMUM PROPERTIES: (UNLESS NOTED OTHERWISE ON PLANS) Fb = 875 PSI
 - Fc per = 425 PSI
 - Fv = 70 PSI
 - E = 1.400.000 PS
- SEE STUD SCHEDULE FOR SPACING, NON-BEARING INTERIOR WALL STUDS MAY BE STUD GRADE 2X4 AT 24 O.C. EXCEPT AT SHEAR WALL LOCATIONS.
- c) WALL TOP AND BOTTOM PLATES AT BEARING LOCATIONS AND EXTERIOR WALLS TO BE SYP #2 MIN OR OTHER SPECIES HAVING THE FOLLOWING MINIMUM PROPERTIES (U.N.O.)
 - Fb = 1500 PSI
 - Fc per = 565 PSI
 - Fv = 90 PSI
- d) ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE AND EXPOSED TO WEATHER (FOR BALCONY DECK BOARDS, LEDGER, JOISTS, BEAMS, AND SILL PLATES) SHALL BE SOUTHERN PINE PRESSURE TREATED TO 0.40 Ib RETENTION, PER AWPA STANDARDS, HAVING THE FOLLOWING MINIMUM PROPERTIES:
 - Fb = 1500 PSI, 1250 PSI, 1200 PSI, 1050 PSI AND 975 PSI FOR 4, 6, 8, 10, AND 12 INCH WIDE SECTIONS

 - Fc per = 565 PSI
 - Fv = 90 PSI
- E = 1,600,000 PSI
- e) LSL (LAMINATED STRAND LUMBER) RIM BOARDS SHALL BE MINIMUM OF 1-1/4" WIDE, OF THE DEPTH SPECIFIED ON THE PLANS, AND SHALL BE SECURED TOGETHER AS DIRECTED BY THE MANUFACTURER UNLESS NOTED OTHERWISE. THE FOLLOWING MINIMUM PROPERTIES SHALL APPLY:
 - Fb = 1200 PSIFc per = 680 PSI

Fv = 400 PSI

- E = 800.000 PSI E) LSL (LAMINATED STRAND LUMBER) BEAMS/HEADERS SHALL BE MINIMUM OF 1-3/4" WIDE, OF THE DEPTH SPECIFIED ON THE PLANS, AND SHALL BE SECURED TOGETHER AS DIRECTED BY THE MANUFACTURER
- UNLESS NOTED OTHERWISE. THE FOLLOWING MINIMUM PROPERTIES SHALL APPLY:
 - Fb = 2600 PSI FOR 12" DEPTH. FOR OTHER DEPTHS MULTIPLY BY [12/d] 0.092 Fc per = 880 PSI
 - Fv = 400 PSI
 - E = 1,700,000 PSI
- g) LVL (LAMINATED VENEER LUMBER) MEMBERS SHALL BE MINIMUM OF 1-3/4" WIDE, OF THE DEPTH SPECIFIED 80) WOOD TRUSSES THAT DO NOT MEET INTERIOR LOAD BEARING WALLS MUST BE SHIMMED, DO NOT PULL WOOD ON THE PLANS, AND SHALL BE SECURED TOGETHER AS DIRECTED BY THE MANUFACTURER UNLESS NOTED OTHERWISE. THE FOLLOWING MINIMUM PROPERTIES SHALL APPLY:
 - Fb = 2600 PSI FOR 12" DEPTH. FOR OTHER DEPTHS MULTIPLY BY [12/d] 0.136
 - Fc per = 750 PSI
 - Fv = 285 PSIE = 1,900,000 PSI
- h) PSL (PARALLEL STRAND LUMBER) MEMBERS SHALL BE A MINIMUM OF 31/2" WIDE, OF THE DEPTH SPECIFIED ON THE PLANS, AND SHALL BE SECURED TOGETHER AS DIRECTED BY THE MANUFACTURER UNLESS NOTED OTHERWISE. THE FOLLOWING MINIMUM PROPERTIES SHALL APPLY:
 - Fb = 2900 PSI FOR 12" DEPTH. FOR OTHER DEPTHS MULTIPLY BY [12/d] 0.111
 - Fc per = 750 PSI
 - Fv = 290 PSI
 - E = 2,000,000 PSI
- 45) ALL LUMBER SHALL BE SOUND, SEASONED, AND FREE FROM WARP.
- 46) ALL STUDS SHALL BE INSTALLED IN ACCORDANCE WITH AF & PA (AMERICAN FOREST & PAPER ASSOCIATION) REQUIREMENTS. MEMBERS ARE NOT TO BE DRILLED IN EXCESS OF NDS OR LOCAL CODE REQUIREMENTS. WHICHEVER IS MORE STRINGENT. ALL POSTS AND STUDS SHALL STACK CONTINUOUSLY TO SOLID BEARING ON FOUNDATION WALLS OR BEAMS; PROVIDE SOLID BLOCKING AND OR CRIPPLES AS REQUIRED BETWEEN FLOORS.
- 47) STUD BEARING WALLS AND EXTERIOR STUD WALLS SHALL BE CONTINUOUSLY BRIDGED WITH WOOD BLOCKING AT MIDSPAN VERTICAL SPACING BETWEEN FLOOR (AND ROOF) LEVELS. STUDS AND POSTS SHALL BE ONE-PIECE-CONTINUOUS BETWEEN FLOOR LEVELS AND BETWEEN FLOOR LEVEL AND ROOF DIAPHRAGMS. 48) PLYWOOD SHALL BE IDENTIFIED WITH THE DFPA GRADE-TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION,
- AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 49) MINIMUM FASTENING OF WOOD FRAMING MEMBERS AND SHEATHING SHALL BE AS INDICATED IN IRC. SEE

- STRUCTURAL DETAILS/SCHEDULES FOR INCREASED NAILING REQUIREMENTS WHERE APPLICABLE.
- 50) WALL SHEATHING: SEE WALL SHEATHING SCHEDULE. a) INSTALLATION OF GYPSUM SHEATHING SHALL CONFORM TO IRC AND ASTM STANDARDS C1396. WOOD COLUMNS AND POSTS SHALL BE FRAMED TO TRUE END BEARINGS, AND SHALL BE POSITIVELY ANCHORED TO FOUNDATION WITH APPROVED POST BASES. SUPPORT COLUMN AND POST SECURELY IN
- POSITION AND PROTECT BASE FROM DETERIORATION. COLUMNS AND POSTS OF TREATED WOOD MAY BE PLACED DIRECTLY ON CONCRETE OR MASONRY. USE TREATED WOOD FOR ALL FLOOR JOISTS AND BEAMS WHICH ARE EXPOSED, OR WITHIN 18" OF THE GROUND, OR IN PERMANENT CONTACT WITH EARTH, ALL EXTERIOR P.T. WOOD SECURED W/ HOT DIPPED GALVANIZED FASTENERS.
- 52) BEAR BEAMS AND GIRDERS AT LEAST 3 1/2" ON MASONRY OR CONCRETE, FLOOR JOISTS, CEILING JOISTS AND ROOF RAFTERS SHALL HAVE 2 1/4" MINIMUM BEARING ON WOOD OR WOOD PLATES ON METAL OR MASONRY CONSOLIDATE GROUT POURS AT THE TIME OF PLACEMENT BY MECHANICAL MEANS AND RECONSOLIDATE AFTER 53) PROVIDE 2" NOMINAL THICKNESS FULL DEPTH SOLID BLOCKING FOR JOISTS AND RAFTERS AT ENDS AND AT SUPPORTS. OMIT SOLID BLOCKING WHEN JOISTS ARE END-NAILED TO AND/OR HUNG FROM A CONTINUOUS HEADER. LAP JOISTS FRAMING FROM OPPOSITE SIDES OF A BEAM, GIRDER OR PARTITION AT LEAST 6". SECURE JOISTS FRAMED END-TO-END WITH METAL STRAPS. USE APPROVED FRAMING ANCHORS TO SUPPORT JOISTS FRAMING INTO THE SIDES OF WOOD OR STEEL BEAMS.
 - PROVIDE DOUBLED (OR EQUIVALENT CROSS- SECTION) TRIMMER AND HEADER JOISTS AROUND OPENINGS UNLESS NOTED OTHERWISE. SUPPORT HEADER JOISTS FROM FRAMING ANCHORS OR JOIST HANGERS UNLESS BEARING ON A BEAM, PARTITION OR A WALL.
 - 55) JOISTS CARRYING PARTITIONS PERPENDICULAR TO JOISTS SHALL NOT BE OFFSET FROM SUPPORTING GIRDERS. WALLS OR PARTITIONS MORE THAN THE JOIST DEPTH. JOISTS CARRYING PARTITIONS PARALLEL TO JOISTS SHALL BE DOUBLED.
 - FOR THE STURDI-FLOOR SYSTEM.

WOOD - PREFABRICATED OPEN-WEB TRUSSES

- SPECIFICATION FOR WOOD CONSTRUCTION". PUBLISHED BY THE AMERICAN FOREST AND PAPER ASSOCIATION. "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES, TPI", PUBLISHED BY THE TRUSS PLATE INSTITUTE, AND THE APPLICABLE BUILDING CODE LISTED IN THESE SPECIFICATIONS
- PROGRAM SUCH AS THE TRUSS PLATE INSTITUTE'S "QUALITY CONTROL INSPECTION PROGRAM" OR EQUIVALENT. a) ALL HEADERS AND BEAMS SHALL BE SPF No. 1/No. 2 OR OTHER SPECIES HAVING THE FOLLOWING MINIMUM 59) WOOD TRUSS MEMBERS AND CONNECTIONS SHALL BE DESIGNED FOR ALL LOADS SHOWN ON THE CONTRACT
 - DOCUMENTS INCLUDING; LIVE, DEAD, WIND, AND CONCENTRATED.
 - a) SEE DESIGN LOADS SECTION FOR LIVE LOADS b) MINIMUM NET UPLIFT 15 PSF
 - 60) ALL TRUSSES SHALL BE INSTALLED AND BRACED IN ACCORDANCE WITH HIB AND THE MANUFACTURER'S INSTRUCTIONS. THE TRUSS DESIGNER MUST DESIGN THE TRUSSES FOR THE APPROPRIATE WIND LOADS AND PROVIDE THE NECESSARY END WALL BRACING DETAILS AND ANCHORAGE REQUIREMENTS.
 - 61) LIVE LOAD DEFLECTION SHALL NOT EXCEED L/480 FOR ROOF TRUSSES.
 - 62) PILING OF PLYWOOD OR OTHER BUILDING MATERIALS ON WOOD TRUSSES IS NOT ALLOWED.
 - 63) INSTALLATION OF BROKEN, DAMAGED, WARPED, OR IMPROPERLY REPAIRED WOOD TRUSSES IS NOT ALLOWED.
 - IMPROPER OR UNAUTHORIZED FIELD ALTERATIONS OF WOOD TRUSSES IS NOT ALLOWED.
 - 65) ALL CONNECTION HARDWARE SHALL BE GALVANIZED AND SUPPLIED BY SIMPSON STRONG-TIE, HILTI, OR BY APPROVED EQUIVALENT MANUFACTURER.
 - 66) THE TRUSS FABRICATOR SHALL PROVIDE TRUSS LAYOUTS.
 - 67) THE TRUSS ENGINEER SHALL DESIGN LOWER ROOFS AND TRUSSES ADJACENT TO PARAPETS FOR SNOW DRIFT AND SLIDEOFF IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE.
 - 68) MECHANICAL EQUIPMENT SIZES, LOCATIONS AND WEIGHTS SHALL BE COORDINATED WITH MECHANICAL
 - 69) PREFABRICATED COMPONENTS SUBJECT TO OUT-OF-PLANE BENDING, SUCH AS GABLE ENDS EXPOSED TO WIND, SHALL BE DESIGNED BY THE TRUSS ENGINEER FOR FLEXURE IN THE WEAK AXIS (FLAT BENDING).
 - 70) ALL GABLE END ROOF TRUSSES THAT ARE ADJACENT TO A CATHEDRAL OR SLOPED CEILING SHALL BE DESIGNED SUCH THAT THE WALL STUDS MAY SPAN TO THE BOTTOM OF THECEILING LINE. 71) ALL TRUSS MEMBERS SHALL BE SIZED TO AVOID WOOD CRUSHING AT BEARING POINTS BASED ON THE
 - PROPERTIES OF THE WALL PLATE MATERIAL INDICATED IN STRUCTURAL NOTES, AND ON THE AVAILABLE WALL WIDTH INDICATED ON ARCHITECTURAL DRAWINGS. 72) ALL MULTIPLE-PLY TRUSSES SHALL BE ATTACHED TOGETHER TO ACT AS A SINGLE UNIT UNDER SUPERIMPOSED LOAD. THE METHOD OF ATTACHMENT SHALL BE INDICATED ON THE CERTIFIED SHOP DRAWING AND SHALL
 - INCLUDE SIZES AND MAXIMUM SPACINGS OF FASTERNERS. 73) TOP CHORD BEARINGS SHALL BE DESIGNED IN ACCORDANCE WITH PCT-80 SUPPLEMENT: INTERIM DESIGN
 - METHODOLOGY FOR PCT-CII 2x4/2x6 WOOD TRUSSES. 74) ALL WOOD TRUSSES SHALL BE FASTENED TO THEIR SUPPORTS WITH APPROVED TRUSS TIE DOWN CLIPS OR
 - 75) PROVIDE TRUSS TIE DOWN CLIPS OR STRAPS FOR THE UPLIFT AND LATERAL FORCES SHOWN ON THE SUBMITTED WOOD TRUSS DESIGN CALCULATIONS.
 - 76) TEMPORARY AND ERECTION BRACING, UNLESS OTHERWISE NOTED, SHALL BE DONE IN ACCORDANCE WITH HIB-91, AND SHALL BE THE RESPONSIBILITY OF THE TRUSS ERECTOR.
 - 77) LOCATION OF PERMANENT BRACING REQUIRED TO REDUCE THE BUCKLING LENGTH OF AXIALLY LOADED COMPRESSION MEMBERS IN MANUFACTURED TRUSS COMPONENTS IS THE RESPONSIBILITY OF THE TRUSS ENGINEER.
 - 78) ALL CONNECTIONS AND BRACING MUST BE INSTALLED BEFORE SHEATHING THE ROOF.
 - 79) GABLE ENDWALL TRUSSES MUST TRANSFER LATERAL LOADS TO SHEAR WALLS AND/OR THE ROOF DIAPHRAGM.
 - TRUSSES DOWN TO INTERIOR BEARINGS.
 - 81) ALL DIMENSIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS.
 - 82) DO NOT PRODUCE SHOP DRAWINGS PRIOR TO ISSUE OF FINAL CONSTRUCTION ISSUE DRAWINGS. 83) DO NOT FABRICATE PRIOR TO SHOP DRAWING REVIEW AND APPROVAL. REVIEW IS LIMITED TO CONFORMANCE WITH THE DESIGN CONCEPT. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR FOR COMPATIBILITY WITH ARCHITECTURAL AND STRUCTURAL REQUIREMENTS. NOTIFY ARCHITECT OR ENGINEER OF ANY CONFLICTS PRIOR TO FABRICATION. SHOULD THE OWNER OR GENERAL CONTRACTOR FAIL TO OBTAIN THE STRUCTURAL ENGINEER S REVIEW OF THE SHOP DRAWINGS; THE STRUCTURAL ENGINEER WILL NOT ACCEPT RESPONSIBILITY

WOOD - SUBMITTALS

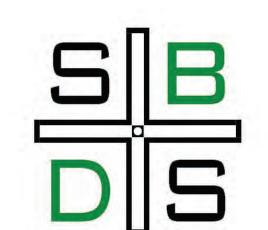
- 84) SUBMIT SIGNED AND SEALED FLOOR AND ROOF TRUSS SHOP DRAWINGS AND CALCULATIONS FOR REVIEW AND APPROVAL. SHOP DRAWING PREPARATION SHALL BE SUPERVISED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED.
- 85) WOOD TRUSS DESIGN SHOP DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING INFORMATION:
- a) SPAN LENGTH, OVERHANG AND EAVE DIMENSIONS, SLOPE AND SPACING OF THE WOOD TRUSSES. b) ALL DESIGN LOADS AND THEIR POINTS OF APPLICATION, VALLEY AND CONVENTIONAL FRAMING MUST BE CONSIDERED.
- c) ADJUSTMENTS TO ALLOWABLE VALUES. (DURATION OF LOAD FACTORS, ETC.
- REACTIVE FORCES AND THEIR LOCATIONS.
- BEARING TYPE AND MINIMUM BEARING LENGTH. DEFLECTIONS, SPAN AND REACTION.
- METAL CONNECTOR PLATE TYPE, GAUGE, SIZE, AND LOCATION.
- h) LUMBER SIZE, SPECIES, GRADE AND MOISTURE CONTENT.

FOR THE DESIGN AND CERTIFICATION OF THIS PROJECT.

- TRUSS SPLICES MUST BE DETAILED. THIS INCLUDES "PIGGY BACK" TRUSSES.
- k) CONNECTION DETAILS: TRUSS TO BEARING, TRUSS TO TRUSS, TRUSS TO TRUSS GIRDER, PIGGY BACK TO TRUSS,
- BRACING REQUIREMENTS.

HANDRAILS, GUARDRAILS, STAIRS AND LADDERS

- HANDRAILS, GUARDRAILS, STAIRS AND LADDERS SHALL BE DESIGNED AND CERTIFIED BY THE MANUFACTURER'S LICENSED ENGINEER.
- a) HANDRAILS ASSEMBLIES AND GUARDRAILS SHALL BE DESIGNED TO RESIST A LOAD OF 50 POUNDS PER LINEAR FOOT APPLIED IN ANY DIRECTION AT THE TOP.
- b) HANDRAILS ASSEMBLIES AND GUARDRAILS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200 POUNDS APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP OF THE GUARDRAIL.
- 87) AT METAL STAIRS: PROVIDE CROSS-BRACING BELOW METAL STRINGERS TO AVOID LATERAL MOVEMENT AS DETERMINED TO BE NECESSARY BY CALCULATIONS. DESIGN SHALL BE PER THE METAL STAIR MANUFACTURER'S ENGINEER.



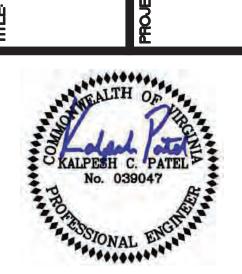
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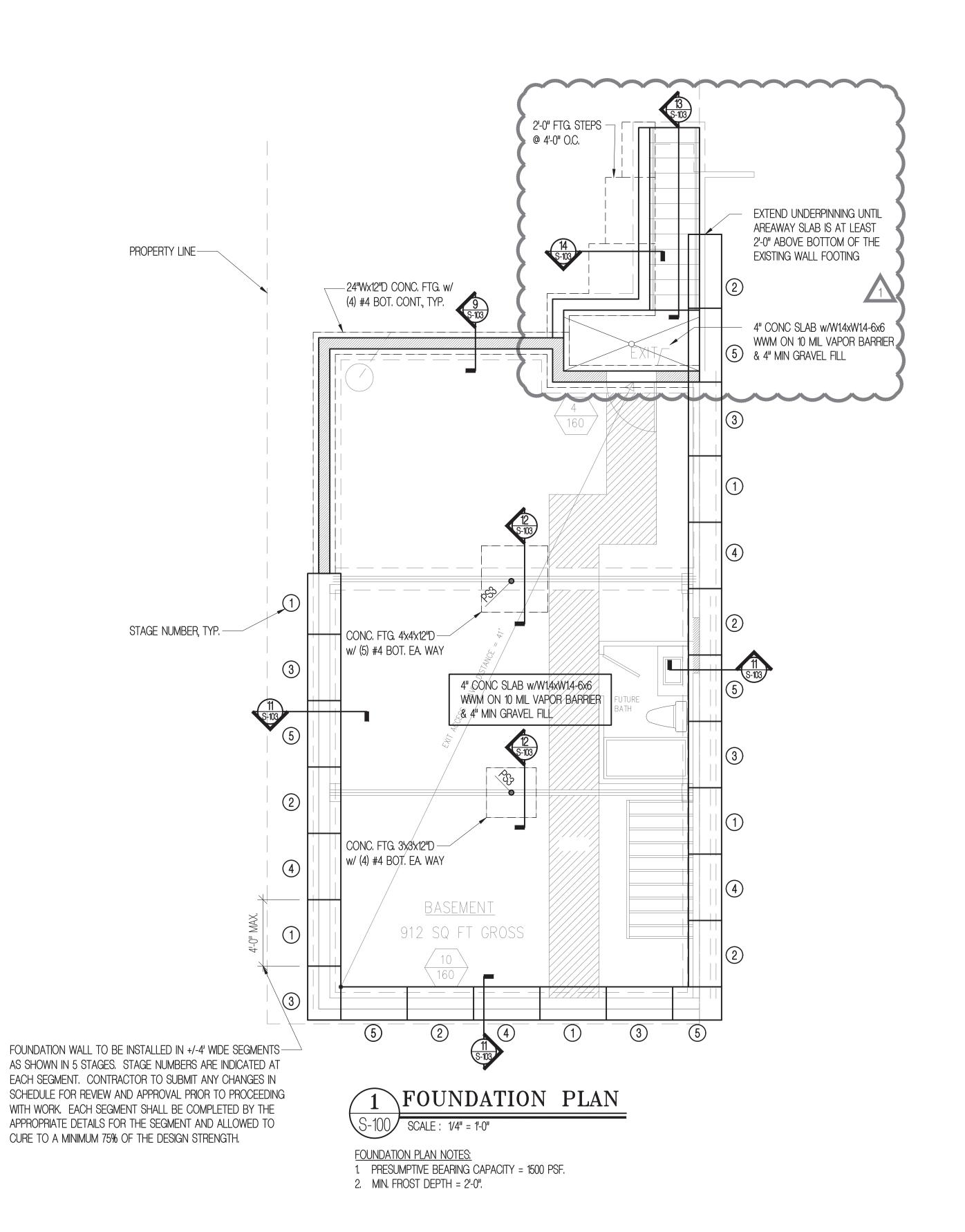
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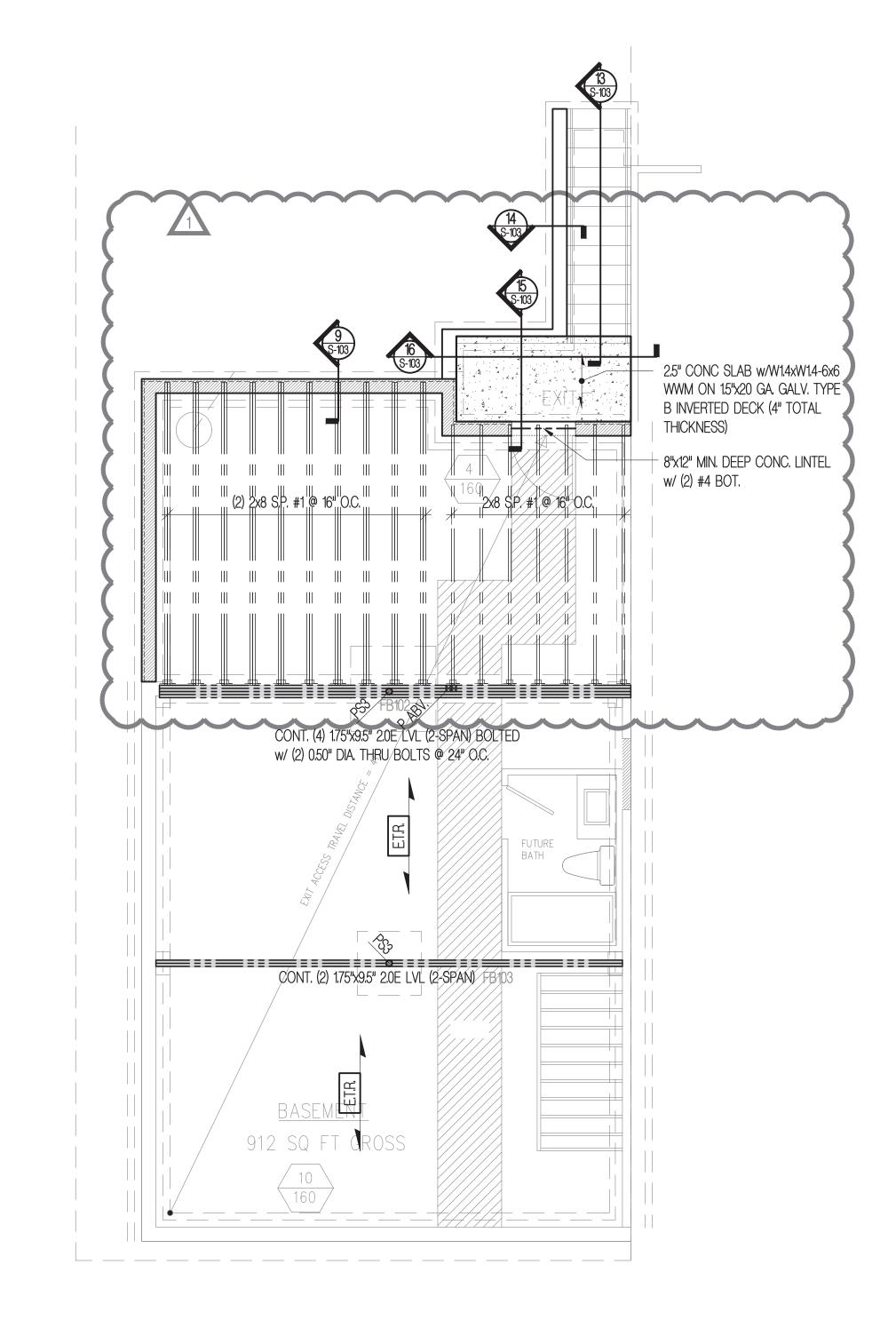


DESCRIPTION 04-25-2019 PERMIT COMMENT RESPONSES

2019-02

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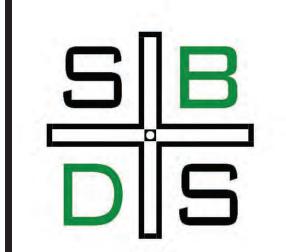




2 1ST FLOOR FRAMING PLAN

S-100 SCALE: 1/4" = 1'-0" 1ST FLOOR FRAMING NOTES:

- 1. 1ST FLOOR FRAMING SHALL BE 2x8 S.P. #1 FLOOR JOISTS @ 12" O.C. UNLESS NOTED OTHERWISE.
- 2. ALL POST AND MULTIPLE STUD SHALL BE RUNNING CONTINUOUSLY TO SOLID BEARING ON FOUNDATION WALL OR BEAMS.
- PROVIDE SOLID BLOCKING AT FLOOR DIAPHRAGM @ COLUMN ABOVE AND BELOW 3. PABV ON PLAN INDICATES POSTS/JACKS FROM FLOOR ABOVE. PROVIDE SOLID 2x BLOCKING OVER DROPPED BEAMS,
- HEADERS, & FOUNDATION WALL EQUAL TO WIDTH OF POSTS/JACKS ABOVE
- 4. PROVIDE KING STUDS PER THE KING STUD SCHEDULE AT ALL BEAMS AND HEADERS. KING STUDS ARE IN ADDITION TO
- JACK STUDS SPECIFIED ON PLAN OR IN THE JACK STUD SCHEDULE.
- 5. SEE GENERAL FRAMING NOTES AND STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.
- 6. PS3 = 3" DIA. SCHEDULE 40 ADJUSTABLE STEEL COLUMN.



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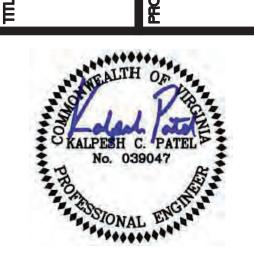
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STERLING, VIRGINIA 20166 I.E PROJ NO: DN19003

STRUCTURAL ENGINEER

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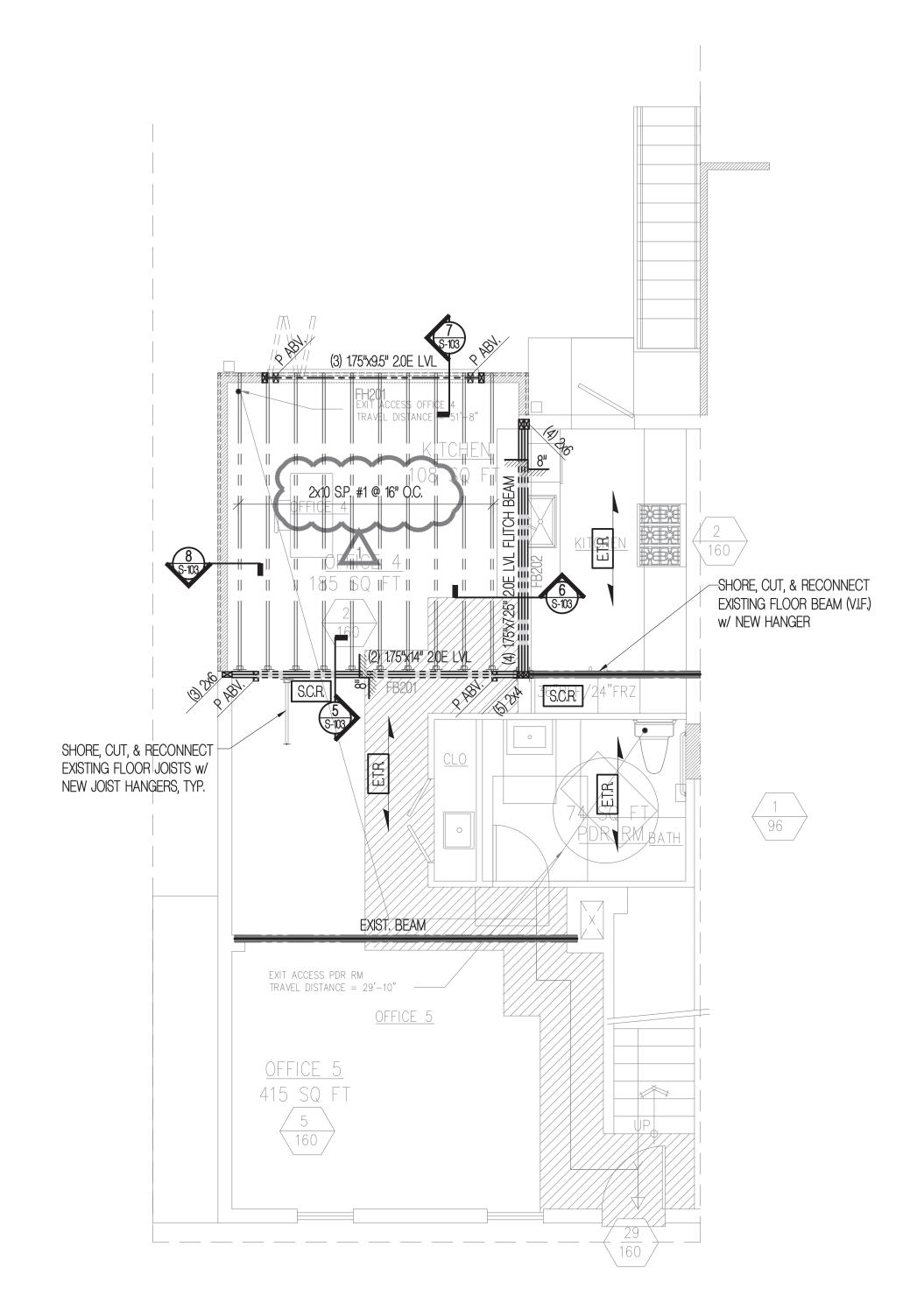
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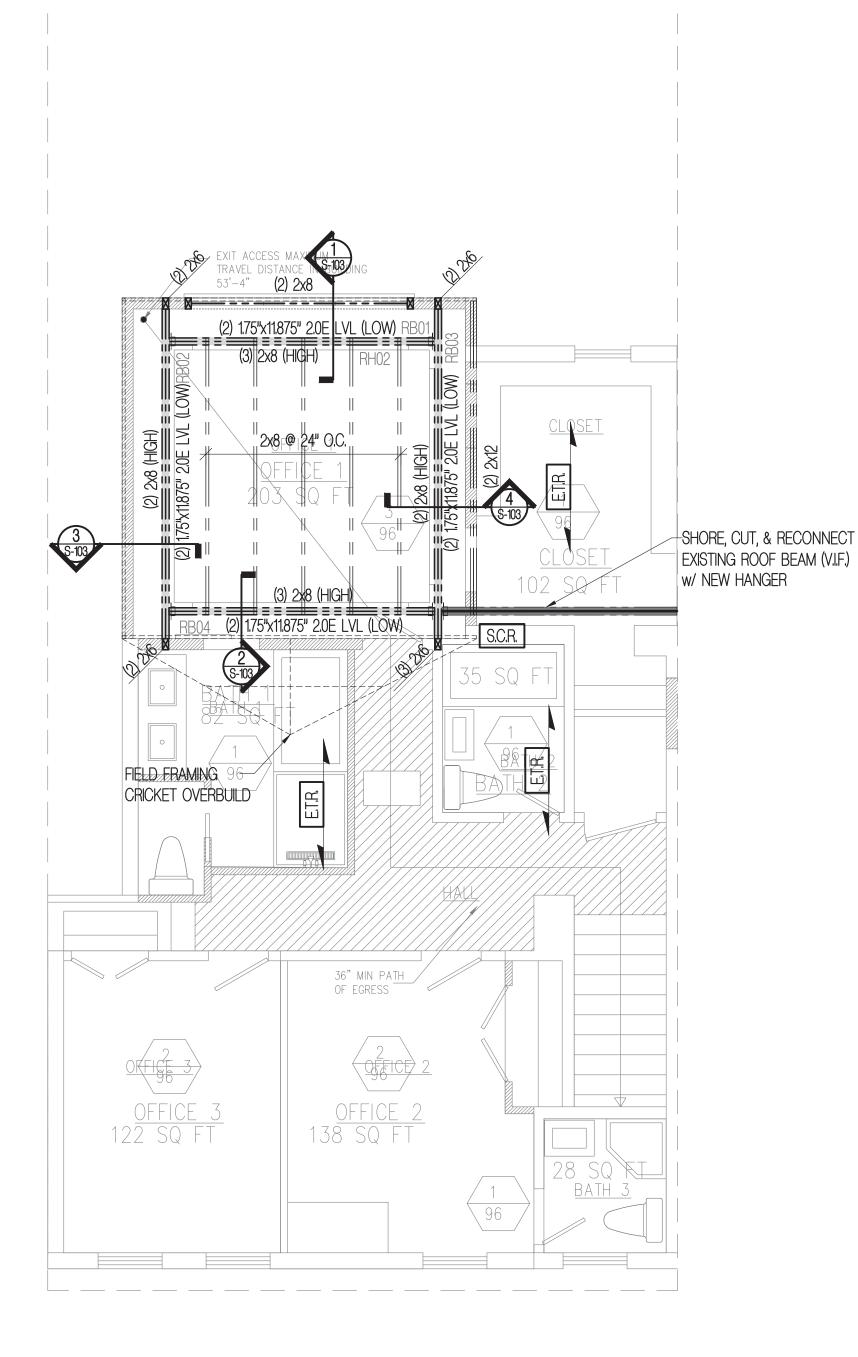


1 2ND FLOOR FRAMING PLAN

S-101 SCALE: 1/4" = 1'-0"

2ND FLOOR FRAMING NOTES:

- 1. 2ND FLOOR FRAMING SHALL BE 2x10 FLOOR JOISTS @ 16" O.C. UNLESS NOTED OTHERWISE.
- 2. ALL POST AND MULTIPLE STUD SHALL BE RUNNING CONTINUOUSLY TO SOLID BEARING ON FOUNDATION WALL OR BEAMS. PROVIDE SOLID BLOCKING AT FLOOR DIAPHRAGM @ COLUMN ABOVE AND BELOW
- 3. <u>P ABV</u> ON PLAN INDICATES POSTS/JACKS FROM FLOOR ABOVE. PROVIDE SOLID 2x BLOCKING OVER DROPPED BEAMS, HEADERS, & FOUNDATION WALL EQUAL TO WIDTH OF POSTS/JACKS ABOVE
- 4. PROVIDE KING STUDS PER THE KING STUD SCHEDULE AT ALL BEAMS AND HEADERS. KING STUDS ARE IN ADDITION TO JACK STUDS SPECIFIED ON PLAN OR IN THE JACK STUD SCHEDULE.
- 5. 1ST FLOOR EXTERIOR WALLS: 2x6 @ 24" OC:
 - EXTERIOR SHEATHING: CS-WSP = 0.50" WOOD STRUCTURAL PANEL SHEATHING w/ 8d COOLER NAILS, 6" EDGE SPACING, 12" INTERMEDIATE SPACING. INSTALL PANELS WITH VERTICAL EDGES ALIGNED w/ STUDS AND HORIZONTAL JOINTS BLOCKED @ 8'-0" MAX OC.
 - INTERIOR SHEATHING: 0.50" GYPSUM WALLBOARD SHEATHING W/ 5d COOLER NAILS. 7" EDGE SPACING & 10" INERMEDIATE SPACING.
- 6. SEE GENERAL FRAMING NOTES AND STRUCTURAL NOTES FOR ADDITIONAL INFORMATION.



2 ROOF FRAMING PLAN S-101 SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN NOTES:

- 1. ROOF FRAMING SHALL BE 2x8 ROOF JOISTS @ 24" O.C. MAX..
- 2. ALL WINDOW HEADERS (2) 2x12 + 0.50" CONT PLYWOOD FLITCH W/ (2) JACKS & STUDS @ EACH END UNLESS NOTED OTHERWISE
- 3. 2ND FLOOR EXTERIOR WALLS: 2x6 SPF #2 @ 24" OC:
 - EXTERIOR SHEATHING: CS-WSP = 0.50" WOOD STRUCTURAL PANEL SHEATHING w/ 8d COOLER NAILS, 6" EDGE SPACING, 12" INTERMEDIATE SPACING. INSTALL PANELS WITH VERTICAL EDGES ALIGNED w/ STUDS AND HORIZONTAL JOINTS BLOCKED @ 8'-0" MAX OC. INTERIOR FACE: 0.50" GYPSUM WALLBOARD SHEATHING w/ 5d COOLER NAILS. 7" EDGE SPACING & 10" INERMEDIATE SPACING.
- 4. INTERIOR BEARING WALLS = 2x6 SPF #2 @ 16" O.C.
- 5. PROVIDE KING STUDS PER THE KING STUD SCHEDULE AT ALL BEAMS AND HEADERS. KING STUDS ARE IN ADDITION TO JACK STUDS SPECIFIED ON PLAN OR IN THE JACK STUD SCHEDULE.

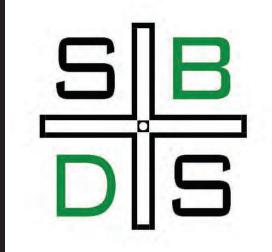
GENERAL FRAMING PLAN NOTES:

- 1. NAIL EACH PLY OF MULTIPE PLY POSTS WITH 12d NAILS @ 6" O.C. STAGGERED.
- 2. KING STUD SHALL BE PROVIDED FOR ALL OPENINGS AS INDICATED IN THE KING STUD SCHEDULE.
- 3. MATERIAL NOTES: PT = PRESSURE TREATED WOOD
- 4. BEAR ALL BEAMS AND HEADERS ON (2) JACK STUDS MINIMUM, UNLESS NOTED OTHERWISE ON PLAN.
- PROVIDE SOLID 2x VERTICAL BLOCKS UNDER ALL JACKS IN FLOOR PLENUM BELOW OPENINGS.
- 5. [E.T.R.] = EXISTING FRAMING TO REMAIN
- 6. S.C.R. = SHORE EXISTING FRAMING, CUT, AND RECONNECT TO NEW FRAMING

	KING S	TUD SCHE	EDULE (SP	F #1/2 GF	RADE)				
OPENING SIZE	2x4 WALLS	2x6 WALLS	2x4 WALLS	2x6 WALLS	TWO STORY				
	9'-1 1/8" MAX			8" MAX	19'-7" MAX				
INTERIOR WALLS									
7'-6" OR LESS	1	1	1	1	-	2			
7'-7" TO 10'-3" 2		2	2	2	-	3			
		EX	TERIOR WALLS						
2'-0" OR LESS	1	1	2	1	-	3			
2'-1" TO 5'-6"	2	1	3	2	-	5			
5'-6" TO 8'-3"	3	2	4	2	-	8			
8'-3" TO 10'-3" 4 2		2	5	3	-	11			

KING STUD SCHEDULE NOTES:

- 1. NAIL EACH PLY OF KING STUDS TO EACH OTHER AND STRUCTURAL POST WITH 12d NAILS @ 6" O.C. STAGGERED.
- 2. KING STUD SHALL BE PROVIDED FOR ALL FRAMED OPENING AND DROPPED BEAM WOOD POSTS AS INDICATED ABOVE.
- 3. KING STUD SCHEDULE APPLIES TO ALL STANDARD HEIGHT INTERIOR BEARING AND EXTERIOR WALLS WITH PLATE HEIGHTS UP TO 9'-1 1/8". SEE PLANS FOR SPECIAL REQUIREMENTS FOR WALLS EXCEEDING THIS HEIGHT.



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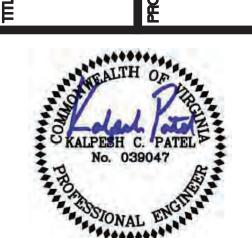


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STRUCTURAL PLANS

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SBDS PROJ. NO.: 2019-02

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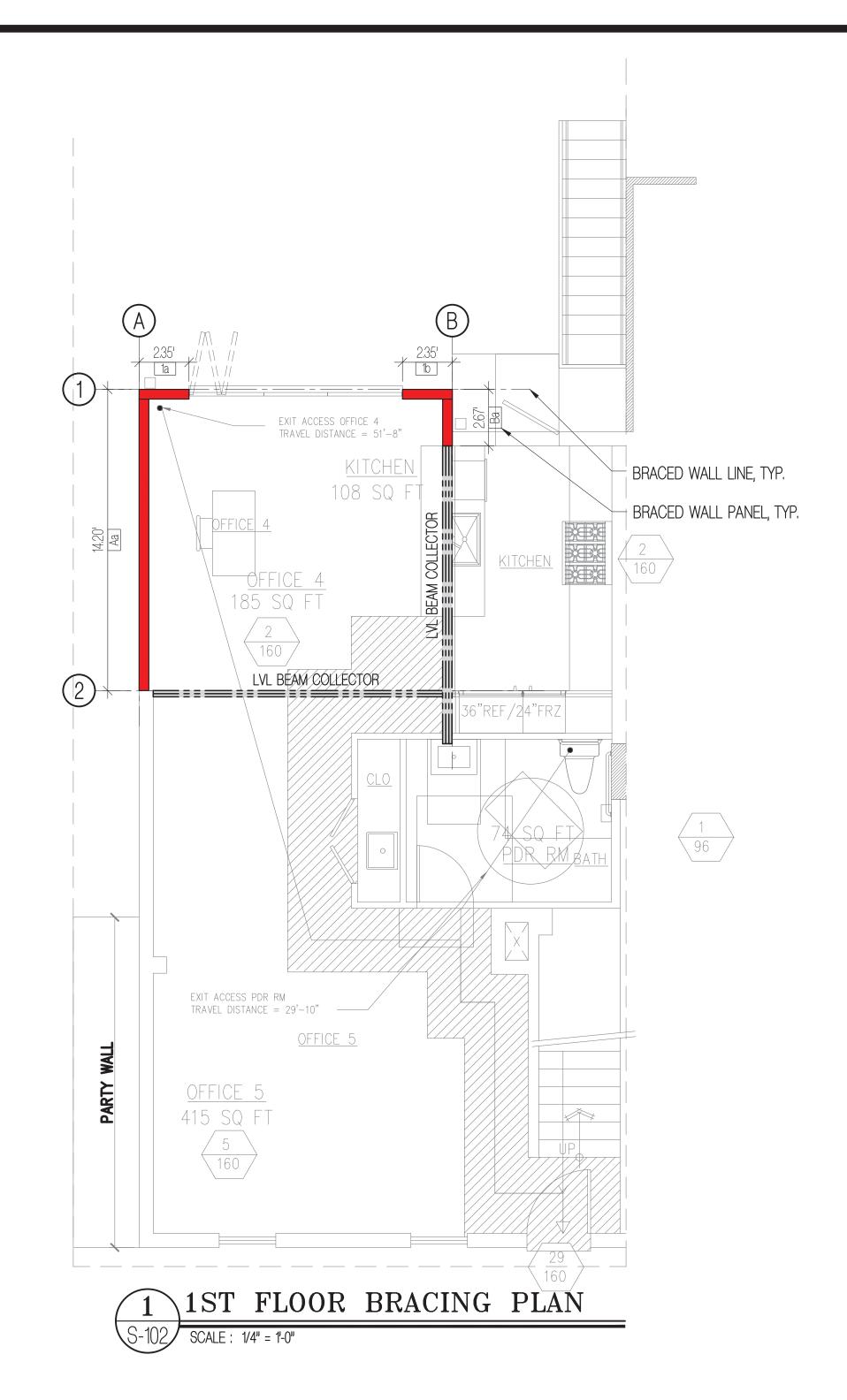
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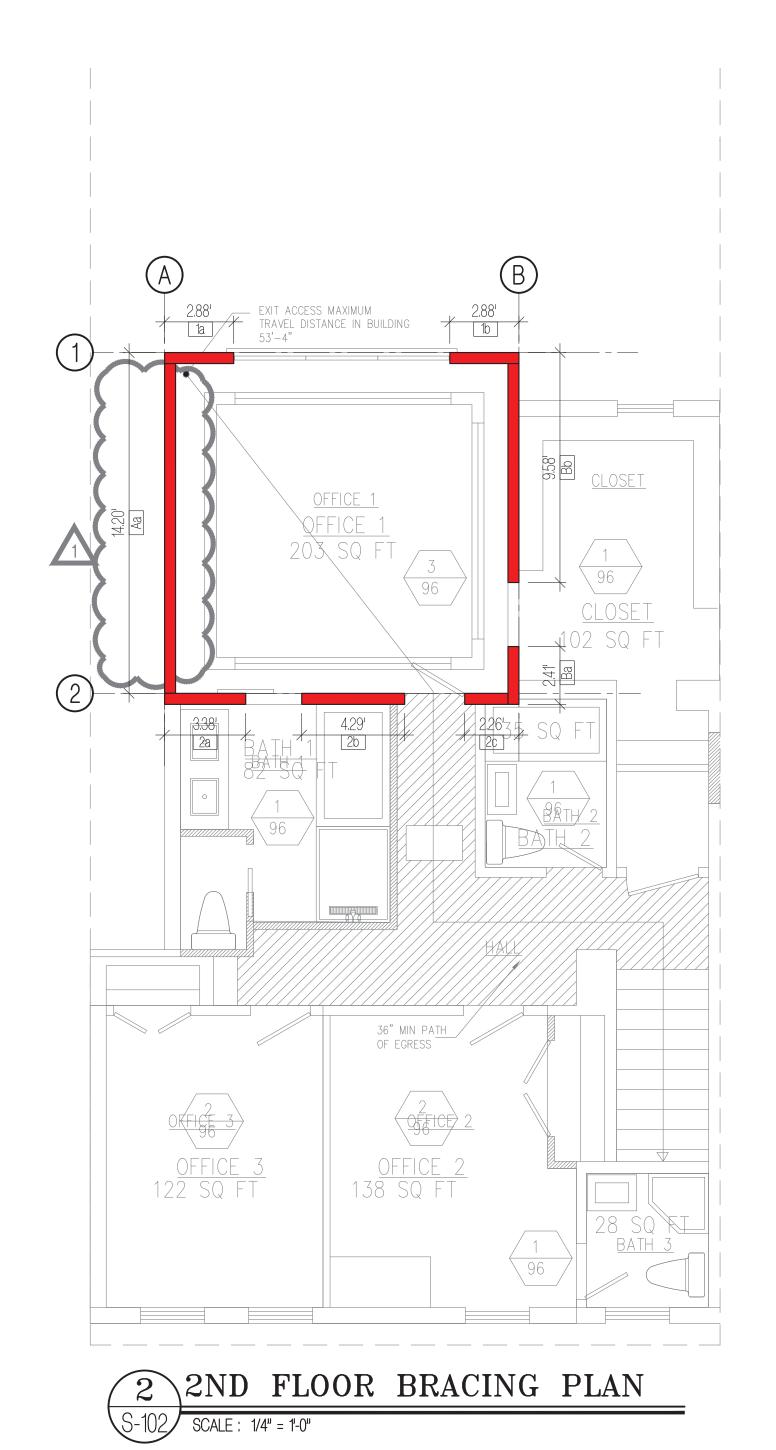
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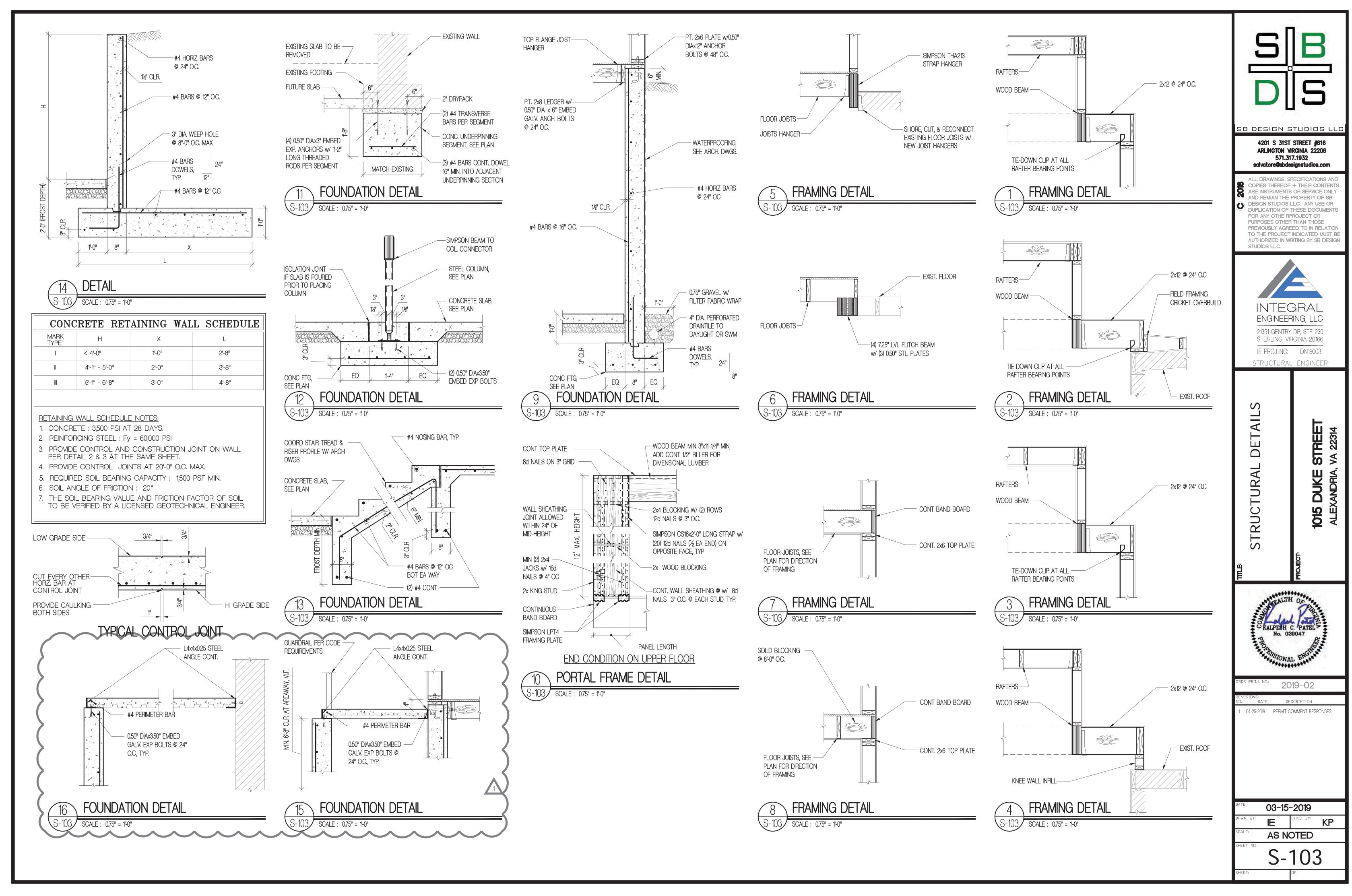
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ABBREVIATIONS EXISTING TO REMAIN GALLONS PER MINUTE HORSEPOWER EXISTING TO BE REMOVED NEW LOCATION OF EXISTING EXISTING TO BE LEAVING AIR TEMPERATURE REMOVED AND RELOCATED LOCKED ROTOR AMPS RETURN/EXHAUST AIR CFM MAXIMUM MANUFACTURER **ADJUSTABLE** ABOVE FINISHED FLOOR NOISE CRITERIA AIR HANDLING UNIT NOT TO SCALE ACCESS PANEL OUTSIDE AIR BACKDRAFT DAMPER POINT OF CONNECTION BACK FLOW PREVENTER return air BETWEEN JOISTS RETURN GRILLE BRANCH SELECTOR BOX RATED LOAD AMPS CUBIC FEET (AIR) PER MINUTE RPM CFM REVOLUTIONS PER MINIUTE CEILING SUPPLY AIR CONSTANT SUPPLY REGISTER SD CSR SMOKE DAMPER CONDENSING UNIT SUPPLY GRILLE CONDENSATE DRAIN SOUNDLINING SQUARE DWG DRAWING TRANSFER AIR DUCT EXHAUST AIR TRANSFER AIR OPENING ENTERING AIR TEMPERATURE TBD TO BE DETERMINED EXHAUST FAN EXHAUST GRILLE UNLESS NOTED OTHERWISE EXTERNAL STATIC PRESSURE VD VOLUME DAMPER FAN COIL UNIT VARIABLE REFRIGERANT VOLUME FIRE DAMPER WIRE MESH SCREEN FULL LOAD AMPS WPD WATER PRESSURE DROP IN.

M002 FLOOR PLANS - MECHANICAL

M001 GENERAL NOTES, SYMBOLS, SCHEDULES AND ABBREVIATIONS -

DRAWING LIST

SPLIT SYSTEM COOLING WITH GAS HEATING FURNACE:

M003 SCHEDULES AND DETAILS - MECHANICAL

MECHANICAL

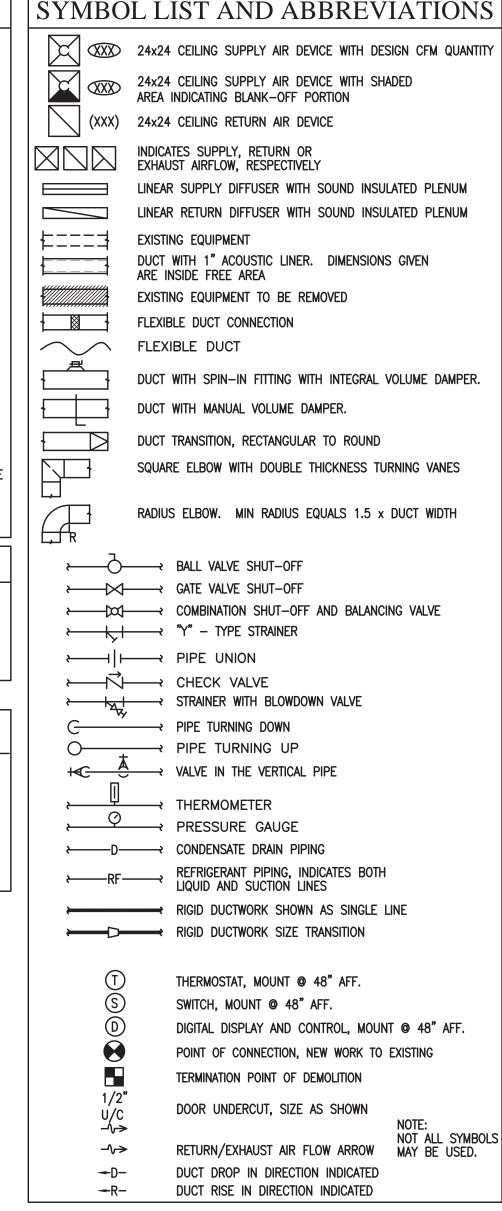
A. UNIT SHALL RUN BE ENERGIZED AS REQUIRED BY THE USER.

SEQUENCE OF OPERATION

- B. UPON CALL FOR COOLING, UNIT SHALL CYCLE COMPRESSOR TO
- UPON CALL FOR HEAT, UNIT SHALL ENERGIZE THE BURNERS OF THE FURNACE TO MAINTAIN THE HEATING SETPOINT.

OUTSIDE AIR COMPLIANCE

OUTSIDE AIR COMPLIANCE IS SATISFIED THROUGH NATURAL VENTILATION BY OPERABLE WINDOWS THROUGHOUT THE PROPERTY. ALL EXISTING WINDOW OPENINGS HAVE BEEN MAINTAINED THROUGHOUT THE PROPERTY WHICH EXHIBIT AN OPENING SIZE OF AT LEAST 4% OF THE FLOOR AREA.



MECHANICAL NOTES

A. THE GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS AND APPLICABLE PROVISIONS OF OTHER DIVISIONS, FORM A PART OF THIS

SPECIFICATION AND CONTRACT, AND SHALL BE CAREFULLY EXAMINED BY EACH BIDDER BEFORE SUBMITTING THEIR PROPOSAL B. COMPLIANCE WITH LOCAL JURISDICTIONS: ALL WORK PERFORMED UNDER THIS SECTION SHALL CONFORM TO THE REQUIREMENTS OF DRAWINGS, SPECIFICATIONS AND TO THE CODES, ORDINANCES AND STANDARDS OF THE LOCAL AUTHORITY HAVING JURISDICTION.

C. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES FOR INSPECTIONS RELATED TO HIS WORK. D. INSTALLATIONS SHALL BE GUARANTEED FOR WORKMANSHIP, MATERIALS AND EQUIPMENT AGAINST DEFECTS, LEAKS AND SYSTEM NON-OPERATION FOR A PERIOD OF ONE YEAR AFTER DATE OF FINAL ACCEPTANCE OF WORK BY OWNER. WHERE MANUFACTURER'S STANDARD WARRANTY IS LONGER THAN ONE YEAR, THE LONGER WARRANTY PERIOD SHALL TAKE PRECEDENCE. FOR REFRIGERATION COMPONENTS, PROVIDE EXTENDED 100% PARTS AND LABOR WARRANTY FOR YEARS 2-5. CONTRACTOR SHALL PAY ALL COSTS INVOLVING THE GUARANTEE OF ALL SYSTEMS.

E. THE WORD "PROVIDE", AS USED IN SPECIFICATIONS AND ON PLANS, SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR USE.

F. ALL WORK SHALL BE COORDINATED WITH ALL TRADES PRIOR TO INSTALLATION. G. IN GENERAL. THE DRAWINGS ARE DIAGRAMMATIC, MAY VARY FROM ACTUAL FIELD CONDITIONS AND SHOW THE GENERAL LOCATION. TYPE AND SIZE OF PIPING, DUCTWORK, EQUIPMENT, CONTROLS, ACCESSORY EQUIPMENT, ETC. THE CONTRACTOR SHALL MODIFY, EXTEND, RELOCATE AND REROUTE ANY DUCTWORK, PIPING, EQUIPMENT, CONTROLS, ACCESSORY EQUIPMENT, ETC. AS REQUIRED TO ACCOMMODATE THE CEILING LAYOUT, OBSTRUCTIONS, STRUCTURE, PARTITIONS, ETC. AND TO SATISFY THE INTENT OF THE NEW

H. THE CONTRACTOR SHALL FIELD VERIFY ALL NECESSARY DIMENSIONS BEFORE INSTALLING ANY OF THE WORK, AND SHALL CHECK HIS LAYOUTS TO ALLOW CLEARANCE REQUIRED FOR OTHER WORK AS SHOWN ON THE DRAWINGS. IN THE EVENT OF A CONFLICT, THE CONTRACTOR SHALL ALERT THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

I. THE SCOPE OF WORK CONSISTS GENERALLY OF PROVIDING A COMPLETE SYSTEM FOR HEATING, VENTILATING AND AIR CONDITIONING AS INDICATED, AUTOMATIC TEMPERATURE CONTROLS AND FINAL TESTING, ADJUSTING, AND BALANCING OF ALL SYSTEMS AND EQUIPMENT. PROVIDE ALL MATERIALS, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO ACCOMPLISH THE WORK.

J. CONTRACTOR SHALL EXAMINE ALL DRAWINGS, SPECIFICATIONS AND ADDENDA, AND VISIT THE SITE PRIOR TO ISSUING BID. ANY QUESTIONS OR CLARIFICATIONS SHALL BE REFERRED TO THE ENGINEER AT LEAST 7 WORKING DAYS PRIOR TO BIDDING. ANY REQUEST BY THE CONTRACTOR FOR ADDITIONAL COSTS RELATED TO THE INSTALLATION, RELOCATION, MODIFICATION OR ADDITION OF EQUIPMENT REQUIRED TO SATISFY THE INTENT OF THIS PROJECT, DUE TO A LACK OF CLEAR UNDERSTANDING OF THE PROJECT

K. TO ELIMINATE CONFLICTS, CONTRACTOR TO PREPARE COMPLETE AND DETAILED 1/4" SCALE PLAN COMPOSITE COORDINATION DRAWINGS FOR ALL DUCT AND PIPING WORK INSTALLED IN THIS PROJECT. SUBMIT DRAWINGS TO THE ENGINEER FOR REVIEW,

PRIOR TO CONSTRUCTION. L. ALL WORK SHALL BE INSTALLED WITHIN CEILING AND SHALL BE DONE SO THAT ALL REQUIRED CLEARANCES ARE MAINTAINED.

MAINTAIN MAXIMUM CEILING SPACE BY RUNNING WORK CLOSE TO THE UNDERSIDE OF STRUCTURE. M. IN THE EVENT OF A CONFLICT BETWEEN CODES, DRAWINGS, AND/OR SPECIFICATIONS, THE MORE STRINGENT OR DEMANDING

N. SUBMIT 7 SETS OF EQUIPMENT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO PURCHASE, FABRICATION OR INSTALLATION OF EQUIPMENT. SUBMIT DATA SHEETS TO ALLOW ADEQUATE TIME FOR REVIEW, INCLUDING RE-REVIEW OF ITEMS NOT

APPROVED UPON FIRST SUBMISSION. O. CUT, PATCH AND REPAIR ALL DISTURBED SURFACES IN KIND.

P. COORDINATE THE EXACT ROUTING OF ALL DUCTWORK AND PIPING IN THE FIELD WITH SITE CONDITIONS. MODIFY, EXTEND, REROUTE AND RELOCATE AS NECESSARY.

Q. COORDINATE THE EXACT LOCATION OF ALL EQUIPMENT IN THE FIELD WITH SITE CONDITIONS. RELOCATE ANY EQUIPMENT AS REQUIRED. MODIFY, EXTEND, REROUTE AND RELOCATE ANY ASSOCIATED DUCTWORK AND PIPING AS NECESSARY.

R. ALL DUCTWORK SHALL BE SEALED WITH AN APPROPRIATE MATERIAL TO ELIMINATE ALL LEAKAGE EVIDENT TO THE SENSES. S. THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS FOR THE COMPLETE AND PROPER INSTALLATION OF ALL NEW EQUIPMENT. CONFIRM THAT ALL NEW EQUIPMENT IS INSTALLED IN ACCORDANCE WITH

MANUFACTURER'S CLEARANCE REQUIREMENTS. MODIFY AND RELOCATE ANY EQUIPMENT AS NECESSARY TO ACCOMMODATE SITE T. UNDER NO CIRCUMSTANCE SHALL THE WORK PERFORMED UNDER THIS CONTRACT ADVERSELY AFFECT ADJACENT AREAS, NOT PART

U. IN THE EVENT THAT SUSPECTED ASBESTOS CONTAINING MATERIALS ARE ENCOUNTERED IN THE COURSE OF THE WORK, THE CONTRACTOR SHALL CEASE WORK WITH THE SUSPECT MATERIALS AND SHALL REQUEST DIRECTION FROM THE OWNER BEFORE PROCEEDING FURTHER.

V. ANY OPERATIONS THAT WILL RESULT IN THE GENERATION OF NOISE OR VIBRATION, OR THAT MAY RESULT IN DUST EXTENDING BEYOND THE WORK AREA, SHALL BE PERFORMED AT TIMES AND IN ACCORDANCE WITH REQUIREMENTS STIPULATED BY BUILDING'S

2. PRODUCTS AND INSTALLATION: A. ALL PRODUCTS SHALL BE FIRST QUALITY, SUITABLE FOR THE INTENDED INSTALLATION, AND SHALL BE PROVIDED COMPLETE WITH

ALL NECESSARY APPURTENANCES FOR A COMPLETE SYSTEM, READY FOR BENEFICIAL USE.

B. ALL ELECTRICAL EQUIPMENT SHALL BE UL LABELED, OR EQUIVALENT BY COMPARABLE TESTING LAB.

C. REGISTERS, GRILLES AND DIFFUSERS:

a. DEVICES SHALL BE AS INDICATED ON SCHEDULES OR APPROVED EQUALS.

b. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

c. COLORS/FINISHES SHALL BE AS DETERMINED BY ARCHITECT.

d. PROVIDE FRAME/BORDER TO SUIT INTENDED INSTALLATION SURFACE. D. DUCTWORK:

a. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA METAL DUCT STANDARDS. METAL DUCTS TO BE CONSTRUCTED OF GALVANIZED STEEL UNLESS NOTED OTHERWISE. MINIMUM SHEET METAL THICKNESS SHALL BE 24 GAUGE FOR GALVANIZED DUCTS. FOLD FLAT ALL STANDING SEAMS ON TOP OF DUCT OF LOW PRESSURE DUCTS. HOLD ALL DUCTWORK TIGHT TO UNDERSIDE OF SLAB ABOVE.

b. SUPPLY DUCTWORK, EXHAUST DUCTWORK, OUTSIDE AIR INTAKE, RETURN AND RELIEF DUCTWORK SHALL BE CONSTRUCTED FOR A SMACNA 2" PRESSURE CLASSIFICATION. MEDIUM PRESSURE DUCTWORK SHALL BE CONSTRUCTED TO A 3" PRESSURE CLASS, DUCTMATE OR OTHER TDC TYPE DUCT. EXHAUST DUCTS SHALL BE SEALED PER SMACNA SEAL CLASS 'A', ALL OTHER DUCTS

c. FLEXIBLE INSULATED DUCTS SHALL BE UL-181-LISTED, CLASS '1', WITH HELICAL WIRE REINFORCEMENT, SECURED WITH

ADJUSTABLE STAINLESS STEEL HOSE CLAMP. d. PROVIDE FIRE DAMPERS AT ALL DUCT PENETRATIONS OF RATED ASSEMBLIES. DAMPERS TO BE UL LISTED, TYPE B, PREFCO OR

e. PROVIDE FLEXIBLE DUCT CONNECTORS FOR ALL CONNECTIONS TO MOTOR-OPERATED EQUIPMENT.

f. SUPPORT: MAIN DUCT SUPPORTED BY 1-1/2" DEEP, 16 MSG COLD-ROLLED CHANNELS SPACED 48" O.C. SUSPENDED BY 12 SWG GALVANIZED STEEL WIRE. BRANCH DUCTS SUPPORTED BY 1-1/2" DEEP, 16 MSG COLD-ROLLED CHANNELS SPACED AT 36" O.C. SUSPENDED BY 12 SWG GALVANIZED STEEL WIRE. DIFFUSERS TO BE SUPPORTED INDEPENDENTLY OF CEILING SYSTEM.

E. PIPING: g. CONDENSATE PIPING SHALL BE SEAMLESS COPPER TUBING, ASTM B88, WITH SOLDER-JOINED WROUGHT COPPER FITTINGS OR SCHEDULE 40 PVC PLASTIC PIPE AND FITTINGS AND SOLVENT WELDED FITTINGS.

h. REFRIGERANT PIPING SHALL BE ACR TYPE COPPER, CLEANED AND CAPPED.

HANGERS AND SUSPENSION RODS CONFORMING TO ANSI B31.1.0.

PROVIDE FLEXIBLE COUPLING TO ALL CONNECTIONS TO MOTOR OPERATED EQUIPMENT. PIPES TO BE SUPPORTED INDEPENDENTLY SO NO WEIGHT IS SUPPORTED BY EQUIPMENT. SUPPORT SHALL BE SPACED IN ACCORDANCE WITH ANSI B31.1.0. OVERHEAD PIPING SHALL BE SUPPORTED FROM STRUCTURE WITH ADJUSTABLE CLEVIS

k. INSULATION SHALL BE PROTECTED AT SUPPORTS WITH THE USE OF PROTECTION SADDLES OR SHIELDS THAT SUPPORT PIPE.

a. BALL VALVES SHALL BE TWO-PIECE COPPER ALLOY, BRONZE BODY WITH TEFLON SEAL AND STEM PACKING, 125 PSI WOG, APOLLO BRAND OR APPROVED EQUAL.

b. GATE VALVES SHALL BE THREADED IRON, 150 PSI WOG, HAMMOND OR APPROVED EQUAL. G. PIPE FITTINGS:

a. PROVIDE DIELECTRIC ISOLATOR BETWEEN ALL CONNECTIONS OF DISSIMILAR PIPING MATERIALS. b. PROVIDE FLEXIBLE COUPLING TO ALL CONNECTIONS OF MOTOR OPERATED DEVICES, OR WHEN CROSSING BUILDING EXPANSION

H. EQUIPMENT AND DUCTWORK SHALL BE INSULATED AND SEALED AS FOLLOWS:

1)ANY DUCTWORK THAT IS LOCATED WITHIN AN ATTIC SHALL BE INSULATED WITH 3 INCH THICK FIBERGLASS INSULATION WITH A FRK BARRIER AS MANUFACTURED BY OWENS CORNING, SOFTR DUCT WRAP FRK, TYPE 75 (0.75 PCF), TO A MINIMUM OF R-8.

2)ANY DUCTWORK THAT IS LOCATED WITHIN AN UNCONDITIONED SPACE (AND NOT IN THE ATTIC) SHALL BE INSULATED WITH 2 INCH THICK FIBERGLASS INSULATION WITH A FRK BARRIER AS MANUFACTURED BY OWENS CORNING, SOFTR DUCT WRAP FRK, TYPE 100 (1.00 PCF), TO A MINIMUM OF R-6.

3)ANY DUCTWORK THAT IS LOCATED WITHIN A CONDITIONED SPACE (COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE) SHALL BE INSULATED WITH A 1-1/2 INCH THICK FIBERGLASS INSULATION WITH A FRK BARRIER AS MANUFACTURED BY OWENS CORNING, SOFTR DUCT WRAP FRK, TYPE 75 (0.75 PCF), TO A MINIMUM OF R-4.

4)OUTDOOR DUCTWORK SHALL BE INSULATED WITH MINERAL FIBER BLANKET, 3 INCHES THICK, AND 1.5 LB/CU. FT. NOMINAL DENSITY; OR, MINERAL FIBER BOARD, 3 INCHES THICK AND 3 LB/CU. FT. NOMINAL DENSITY. PROVIDE A FIELD APPLIED JACKET OVER THE INSULATION MATERIAL. FOR INSULATION WITH FACTORY APPLIED JACKET, INSTALL FIELD APPLIED JACKET OVER THE FACTORY APPLIED JACKET. FOR EXPOSED DUCTWORK UP TO 48 INCHES IN DIAMETER OR WITH FLAT SURFACES UP TO 72 INCHES PROVIDE EITHER OF THE FOLLOWING FIELD APPLIED JACKETS: ALUMINUM, SMOOTH, 0.020 INCHES THICK; OR, STAINLESS STEEL, TYPE 304, SMOOTH 2B FINISH, 0.016 INCHES THICK. FOR EXPOSED DUCTWORK LARGER THAN 48 INCHES IN DIAMETER OR WITH FLAT SURFACES LARGER THAN 72 INCHES PROVIDE EITHER OF THE FOLLOWING FIELD APPLIED JACKETS: ALUMINUM, SMOOTH WITH 1-1/4 INCH DEEP CORRUGATIONS, 0.032 INCHES THICK; OR, STAINLESS STEEL, TYPE 304, SMOOTH WITH 1-1/4 INCH DEEP CORRUGATIONS, 0.020 INCHES THICK.

5)ACOUSTIC INTERNAL DUCTLINER (SOUNDLINER) SHALL BE PROVIDED AS REQUIRED BY THE DRAWINGS IN LIEU OF EXTERNAL DUCT INSULATION. THIS SHALL ONLY BE USED WHERE DIRECTED BY THE DRAWINGS FOR DUCTWORK THAT IS LOCATED WITHIN A CONDITIONED SPACE (COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE). THE DUCTLINER SHALL BE A SINGLE LAYER OF 1 INCH ACOUSTIC LINER WITH COATED SURFACE FACING AIRSTREAM AS MANUFACTURED BY OWENS CORNING, MODEL QUIETR ROTARY DUCT LINER, OR APPROVED EQUAL, WITH A MINIMUM R-VALUE OF 4.0.

6)INDOOR REFRIGERANT AND CONDENSATE PIPING SHALL BE INSULATED WITH 3/4 INCH ARMAFLEX PIPE INSULATION WITH MINIMUM R-VALUE OF 3.0. OUTDOOR REFRIGERANT PIPING SHALL BE INSULATED WITH 1.0 INCH ARMAFLEX PIPE INSULATION WITH MINIMUM R-VALUE OF 6.0. PROVIDE A SMOOTH ALUMINUM 0.016 INCH JACKET OR 30 MIL THICK PVC JACKET FOR ALL

7)ALL EQUIPMENT, FILTER BOXES, DUCTWORK JOINTS, SEAMS AND CONNECTIONS SHALL BE CONSTRUCTED AS SPECIFIED IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE AND NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARDS. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS AND CONNECTIONS IN DUCTWORK SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS (ADHESIVES), MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS, LIQUID SEALANTS OR TAPES. ALL SEALING AND CONNECTIONS SHALL ALSO COMPLY WITH THE INTERNATIONAL MECHANICAL CODE

8)BUTT TRANSVERSE JOINTS WITHOUT GAPS AND COAT JOINTS LIBERALLY WITH ADHESIVE. LONGITUDINAL JOINTS SHALL OCCUR ONLY AT CORNERS OF DUCTS. PROVIDE FULL COVERAGE ADHESIVE FASTENING OF LINERS. FOR DUCTS WHICH EXCEED 12" IN ANY DIMENSION, PROVIDE MECHANICAL FASTENERS IN ADDITION TO CHEMICAL ADHESIVE. PROVIDE METAL NOSING ON LEADING EDGES OF LINER. INSTALLATION TO COMPLY WITH SMACNA REQUIREMENTS. ADHESIVE TO BE FOSTER'S FOSTEX OR APPROVED

MANUAL DAMPERS: PROVIDE MANUAL BALANCING DAMPERS, AS MANUFACTURED BY RUSKIN OR APPROVED EQUAL, WITH LOCKING INDEXED QUADRANT ON DUCTS AT LOCATIONS SHOWN. PROVIDE STAND-OUT LINKAGE FOR INSULATED DUCTS.

J. STARTERS FOR ALL MOTORS, INCLUDING VFD'S, SHALL BE FURNISHED BY MECHANICAL, INSTALLED BY ELECTRICAL.

K. CONTROLS: CONTROLS SHALL BE ELECTRIC/ELECTRONIC, SIMILAR TO HONEYWELL OR APPROVED EQUAL. TIME CLOCKS SHALL BE MULTI-CHANNEL DIGITAL TYPE WITH MINIMUM 72 HOUR INTERNAL MEMORY BACKUP. SUITABLE FOR 7 DAY PROGRAMMING WITH 4

EVENT SCHEDULES PER DAY, MANUAL OVER-RIDE. L. ALL FLOOR PENETRATIONS SHALL BE CORE DRILLED OR SAW CUT. X-RAY SLAB PRIOR TO CUTTING. DO NOT CUT STRUCTURAL

M. ALL FLOOR AND WALL PENETRATIONS SHALL BE SLEEVED. PROVIDE 18 GAUGE GALVANIZED SHEET METAL SLEEVES FOR DUCTS, STEEL PIPE SLEEVES FOR PIPES. PACK VOID SPACE WITH FIRE SAFING. PIPE SLEEVES IN MECHANICAL ROOM SHALL STAND 1"

PROUD OF FLOOR SURFACE. SEAL ALL FLOOR PENETRATIONS WATER TIGHT. N. PROVIDE ACCESS DOORS FOR ALL CONCEALED VALVES, DAMPERS, ETC.

O. HANGERS AND SUPPORTS: DEVICES SHALL BE FACTORY PRE-FABRICATED.

a. COMPLY WITH MSS-58 FOR ACCEPTABLE TYPES.

b. INSTALL PER MSS-69 FOR SPACING AND MOUNTING. c. PROVIDE SPRING-TYPE VIBRATION ISOLATORS FOR ALL MOTOR-OPERATED EQUIPMENT.

Q. ALL CABLING AND PIPING SHALL BE PLENUM RATED.

A. ALL WORK SHALL BE ACCOMPLISHED BY EXPERIENCED MECHANICS, SPECIALIZING IN THE PARTICULAR TRADE, UTILIZING APPROPRIATE TOOLS AND TECHNIQUES. ALL WORK SHALL BE FIRST QUALITY, CONSISTENT WITH INDUSTRY'S BEST STANDARDS. WORK DEEMED TO BE SUBSTANDARD SHALL BE REMOVED AND REMADE AT CONTRACTOR'S EXPENSE.

B. PERFORM ALL OPERATIONS REQUIRED AND INSTALL ALL UNITS, DUCTWORK, EQUIPMENT, CONTROLS AND PIPING, WITH ALL REQUIRED ACCESSORIES, TO PRODUCE A COMPLETE INSTALLATION, READY FOR USE.

C. TESTS: BEFORE ACCEPTANCE OF HVAC SYSTEM, THE SYSTEM SHALL BE TESTED, ADJUSTED AND BALANCED BY A NEBB OR AABC MEMBER BALANCING CONTRACTOR. SUBMIT FOR REVIEW 6 COPIES OF THE CERTIFIED FINAL REPORT. THE SYSTEM SHALL BE AIR BALANCED TO DELIVER MEASURED QUANTITIES WITHIN 10% OF SPECIFIED AMOUNT FOR EACH OUTLET, INLET OR DEVICE. EQUIPMENT AND CONTROLS ARE TO BE TESTED AND DETERMINED THAT ALL SYSTEMS AND OPERATIONS ARE SATISFACTORY AND PERFORMING AS INTENDED AND THAT CLEAN FILTERS ARE IN PLACE PRIOR TO BALANCING. ADJUST/REPLACE DRIVE SHEAVES AS

REQUIRED TO ACHIEVE DESIRED AIRFLOW. D. ALL EQUIPMENT. DUCTWORK, CONTROLS AND PIPING SHALL BE PROTECTED DURING THE COURSE OF CONSTRUCTION. ANY

DAMAGED EQUIPMENT SHALL BE REPLACED AT NO EXTRA COST TO THE OWNER. E. LOCATE THERMOSTATS AS INDICATED. ALL CONTROL WIRING SHALL BE PLENUM RATED AND INSTALLED CONCEALED IN OCCUPIED

F. SUBMIT ONE COMPLETE SET OF PLANS AND RELATED DOCUMENTS, APPROVED BY THE CITY, TO THE OWNER. G. PROVIDE TO OWNER 3 SETS OF MAINTENANCE AND OPERATING MANUALS AND MANUFACTURER'S WARRANTY DOCUMENTS FOR ALL

EQUIPMENT IN INDEXED 3 RING BINDER. H. PROVIDE AS-BUILT DRAWINGS TO OWNER UPON COMPLETION OF THE PROJECT. SUBMIT ONE ELECTRONIC COPY (CD) AND TWO SETS OF HARD COPIES (BLUE PRINTS) OF THE AS-BUILT DRAWINGS, CORRECTED TO SHOW ALL FIELD MODIFICATIONS TO THE

CONSTRUCTION DOCUMENTS. PROTECT AGAINST INJURY TO PERSONS AND DAMAGE TO PROPERTY AT ALL TIMES.

J. CONTRACTOR SHALL CLEAN THE WORK SITE AFTER EACH DAY'S WORK. K. FOLLOWING COMPLETION OF CONSTRUCTION AND PRIOR TO AIR BALANCING, PROVIDE NEW FILTERS IN ALL FAN COIL AND AIR

HANDLING UNITS. L. CLEAN ALL AIR DEVICES UPON PROJECT COMPLETION.

M. DEMONSTRATE OPERATION OF SYSTEM TO OWNER. N. PROVIDE INSTRUCTION TO OWNER DESIGNATED PERSONNEL, DEMONSTRATING NORMAL MAINTENANCE AND TROUBLESHOOTING PROCEDURES.

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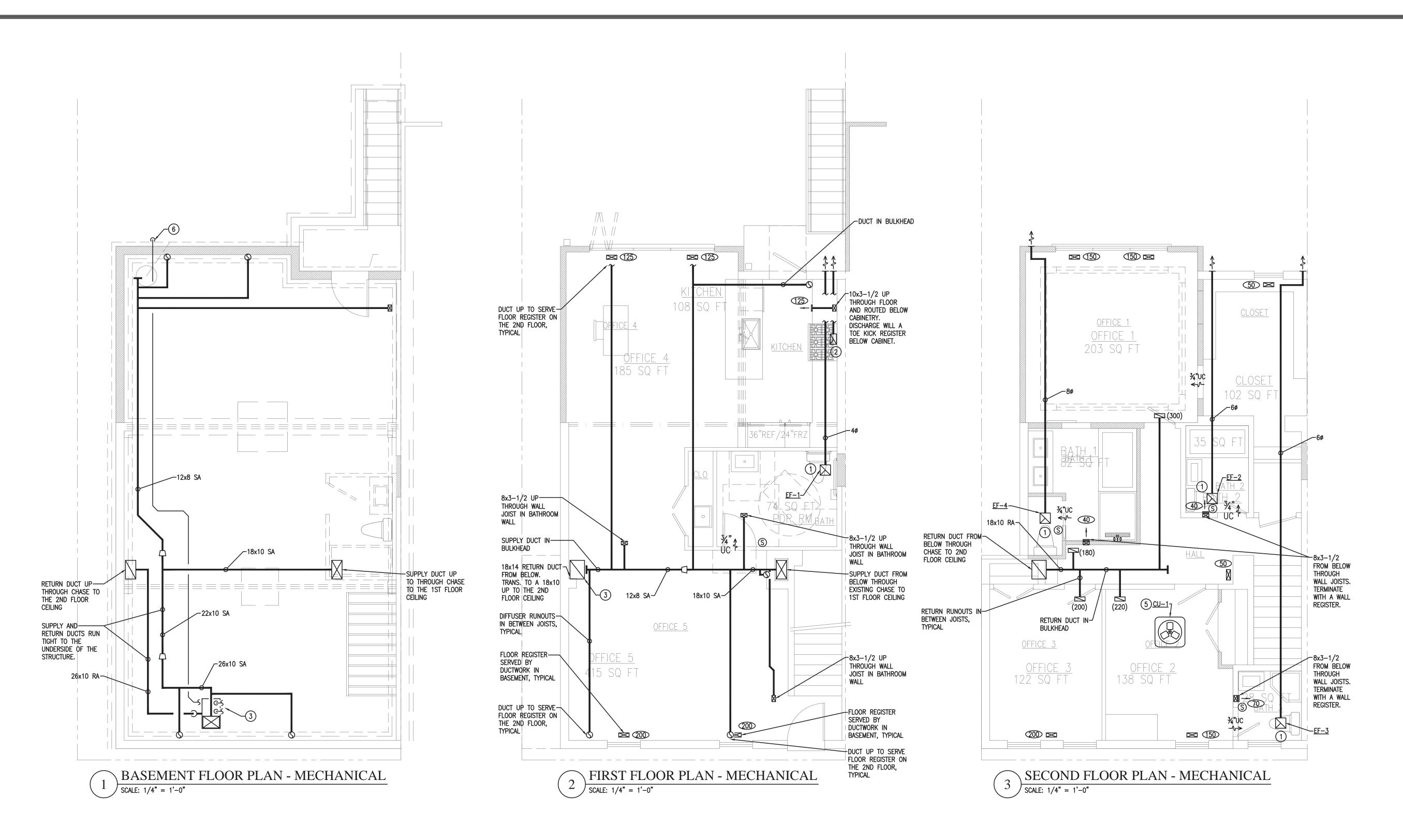
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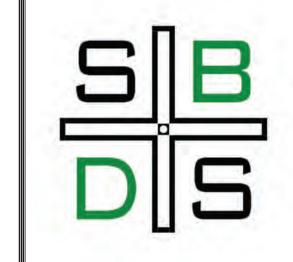
KEY NOTES

- 1 EXHAUST FAN INSTALLED IN THE CEILING OF THE BATHROOM. COORDINATE EXACT LOCATION WITH THE ARCHITECT. EXTEND THE EXHAUST DUCT AND TERMINATE AT THE EXTERIOR WALL WITH A HOODED ALUMINUM WALL CAP (OR BRICK VENT) WITH INSECT/BIRD SCREEN AND BACKDRAFT DAMPER, COLOR TO MATCH ADJACENT SIDING (OR BRICK). CONFIRM THAT EXHAUST OUTLET IS AT LEAST 3 FEET FROM ANY OPERABLE OPENING TO THE BUILDING. RELOCATE THE EXACT WALL PENETRATION AS REQUIRED. COORDINATE FINAL TYPE, FINISH, COLOR AND LOCATION OF EXTERIOR WALL TERMINATION WITH THE ARCHITECT.
- 2 KITCHEN HOOD EXHAUST CONNECTION. CONNECT A 60 DUCT TO THE KITCHEN HOOD OUTLET CONNECTION. EXTEND THE FULL SIZE RECTANGULAR DUCT FROM THE HOOD TO THE CEILING SPACE AND CONNECT THE 60 IN THE CEILING AS REQUIRED. EXTEND THE 60 DUCT TO THE EXTERIOR WALL AND TERMINATE WITH A HOODED ALUMINUM WALL CAP (OR BRICK VENT) WITH INSECT/BIRD SCREEN AND BACKDRAFT DAMPER, COLOR TO MATCH ADJACENT SIDING (OR BRICK). CONFIRM THAT EXHAUST OUTLET IS AT LEAST 3 FEET FROM ANY OPERABLE OPENING TO THE BUILDING. RELOCATE THE EXACT WALL PENETRATION AS REQUIRED. COORDINATE FINAL FINISH, COLOR AND LOCATION OF THE EXTERIOR WALL CAP WITH THE ARCHITECT.
- 3 PROVIDE A WALL RETURN GRILLE HIGH ON WALL ON CHASE WALL CONNECTED TO THE RETURN AIR DUCT FOR THE RETURN AIR FOR THE 1ST FLOOR. SIZE OF RETURN GRILLE AS INDICATED.
- CONCENTRIC COMBUSTION/VENTILATION PIPING EXTENDED TO THE EXTERIOR ROOF FROM THE FURNACE. PROVIDE AS PER MANUFACTURER'S DIRECTIONS AND INSTRUCTIONS. PROVIDE A VENT TERMINATION KIT PER MANUFACTURER. CONFIRM THAT EXIT LOCATION COMPLIES WITH ALL CODE REQUIREMENTS.
- AND INSTRUCTIONS. PROVIDE A VENT TERMINATION KIT PER MANUFACTURER. CONFIRM THAT EXIT LOCATION COMPLIES WITH ALL CODE REQUIREMENTS.

 OUTDOOR UNIT ON ROOF. INSTALL UNIT ADHERING TO MANUFACTURER INSTRUCTIONS AND MAINTAIN CLEARANCE REQUIREMENTS. RUN REFRIGERANT PIPING TO THE INDOOR UNIT AS REQUIRED. COORDINATE THE EXACT ROUTING OF THE REFRIGERANT PIPING AND THE EXACT LOCATION OF THE UNIT WITH THE ARCHITECT PRIOR TO INSTALLATION FOR APPROVAL.
- 6 EXTEND 3/4" PUMPED CONDENSATE DRAIN LINE FROM THE INDOOR UNIT TO THE EXTERIOR. DISCHARGE ONTO A SPLASH BLOCK ON GRADE.
 CONTRACTOR SHALL CONFIRM THAT THE LOCATION OF THE CONDENSATE DISCHARGE IS NOT INTO A STREET, ALLEY OR OTHER AREA SO AS TO CAUSE A NUISANCE. RELOCATE THE EXACT DISCHARGE LOCATION IN THE FIELD AS REQUIRED.

GENERAL NOTES

- . ALL REFRIGERANT PIPING ROUTING SHALL BE COORDINATED IN THE FIELD. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS REGARDING THE LENGTH OF RUN, PIPING REQUIREMENTS, VALVES, ACCESSORIES, ETC. THE CONTRACTOR SHALL NOT INSTALL THE REFRIGERANT PIPING EXPOSED. IF UNABLE TO CONCEAL PIPING, COORDINATE WITH THE ARCHITECT.
- 2. REFER TO THE AIR DEVICE UNIT SCHEDULE FOR SIZE OF DUCT RUN-OUTS TO SUPPLY REGISTERS.



C-Viloury-NSB SESSEN STURIOS-NA_SBOS SUSSNESS SHFORMATION-NA_LOGIN-VEST VORKSHIP Laga_jpg

SB DESIGN STUDIOS LLO

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FLOOR PLANS - MECHANICAL

ROJECT:
1015 DUKE STREET

SBDS PROJ. NO. 2018-24

REVISIONS:
NO. DATE DESCRIPTION

DATE: 03-01-19

DRWN. BY: SBDS CHKD. BY: SB

SCALE: AS NOTED

SHEET NO. MOO2

SPLIT SYSTEM AC UNIT GAS FURNACE SCHEDULE COOLING NOMINAL NOMINAL GAS GAS GAS GAS INPUT OUTPUT EFF. SEER | WEIGHT | WEIGHT OA CFM | INCHES | TOTAL | SENS. | STAGES | ENTERING AIR INDOOR UNIT OUTDOOR UNIT DESIGNATION CAPACITY | SUPPLY | BASIS OF DESIGN REMARKS TONS CFM | HIGH | HIGH | LOW | LOW | % | MCA | MFS | OUTDOOR FAN MBH MBH VOLTAGE INDOOR OUTDOOR QTY. | FLA | QTY. | STAGES | RLA | LRA | " GOODMAN MFG MODEL: INDOOR # GMEC9601004CNA OUTDOOR # GSXC16048 100.0 | 96.0 | 70.0 | 67.2 | 96 | 13.3 | 15 | 115V/1ø/60 4.0 1675 0.5 49.2 34.9 75 230V/1ø/60 | 16.0 200 250 <u>CU-1</u>

NOTES:

- 1. PROVIDE ALL UNITS WITH DISCONNECT SWITCH FOR EACH UNIT, VIBRATION ISOLATION, SIDE WALL VENT KIT OR THROUGH THE ROOF VENTING (CONFIRM WITH OWNER), DRAIN KIT, EXTERNAL FILTER RACK, CONCRETE PAD FOR OUTDOOR UNIT, ANCHOR BRACKET, ANTI-SHORT CYCLE KIT, HARD START KIT, FREEZE PROTECTION KIT, OUTDOOR THERMOSTAT WITH LOCKOUT STAT, TXV KIT, VIBRATION ISOLATION, PRIMARY CONDENSATE PAN WATER LEVEL OVERFLOW SAFETY SWITCH LOCATED IN THE PRIMARY DRAIN PAN, AUXILIARY DRAIN PAN WITH A WATER LEVEL DETECTION DEVICE, FULLY INSULATED UNIT ENCLOSURE, FILTERS, PROGRAMMABLE THERMOSTAT
- 2. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS FOR COMPLETE INSTALLATION, CLEARANCE REQUIREMENTS, VENT KIT INSTALLATION AND REFRIGERANT PIPING INSTALLATION.
- 3. PROVIDE ALL INTERLOCKS FOR SAFETY SWITCHES, SENSORS, DETECTORS, ETC. TO SHUT DOWN UNIT AS REQUIRED. PROVIDE ADDITIONAL INTERLOCKING AS NECESSARY.
- 4. PROVIDE COOLING COIL ON THE INDOOR UNIT. BASIS OF DESIGN: GOODMAN MODEL CHPF4860D6D WITH TXV. COORDINATE CABINET WIDTHS AS REQUIRED FOR THE FURNACE AND COOLING COIL.

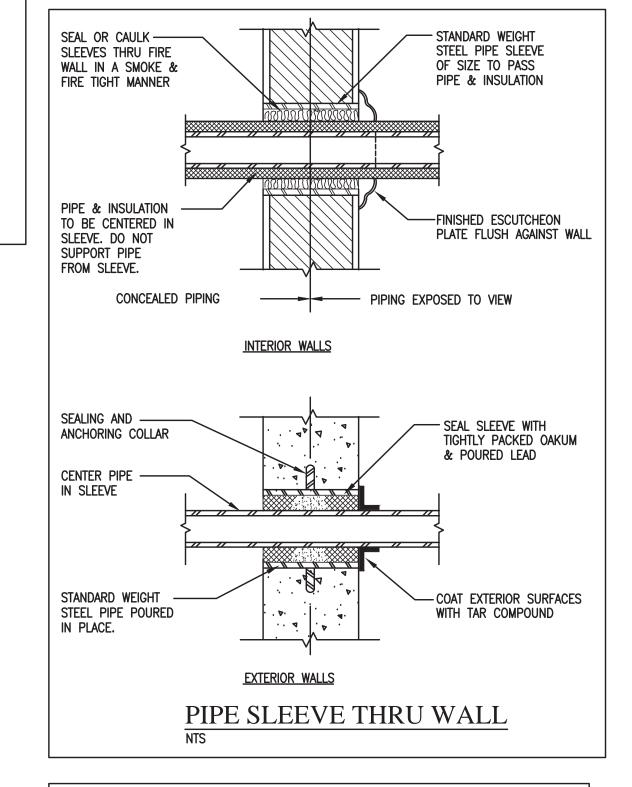
	EXHAUST FAN SCHEDULE								
UNIT TAG	SERVING	TYPE	CFM	ESP	RPM	WATTS (HP)	VOLTS/HZ/PHASE	BASIS OF DESIGN	
<u>EF-1</u>	TOILET EXHAUST	CEILING	80	0.1	-	7.6	120/1/60	BROAN MODEL XB80	
<u>EF-2,3</u>	TOILET EXHAUST	CEILING	110	0.1	-	7.7	120/1/60	BROAN MODEL XB110	
<u>EF-4</u>	TOILET EXHAUST	CEILING	214	0.1	740	127	120/1/60	BROAN MODEL L200	

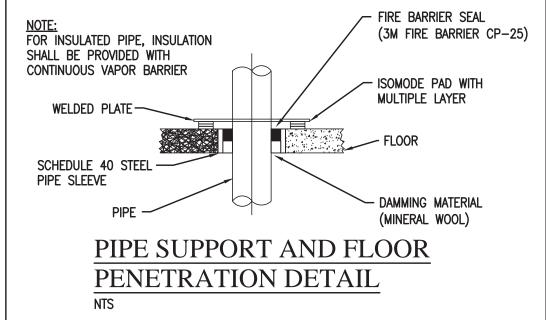
- 1. PROVIDE ALL FANS WITH DISCONNECT SWITCH, BACKDRAFT DAMPERS, BRICK VENTS, WALL OR ROOF CAPS (AS DIRECTED BY THE DRAWINGS AND THE ARCHITECT)
- 2. FANS SHALL BE EQUIPPED WITH A WALL TIMER SWITCH. REFER TO ARCHITECTURAL DRAWINGS FOR THE LOCATION OF THE WALL SWITCH. CONFIRM COMPATIBILITY WITH EXHAUST FAN PRIOR TO PURCHASING.
- 3. PROVIDE FANS WITH A CEILING RADIATION DAMPER BROAN MODEL RD, COMPATIBLE WITH FAN MODEL, IF INSTALLED IN A FIRE RATED CEILING.
- 4. ALL EQUIPMENT SHALL BE INSTALLED ADHERING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.

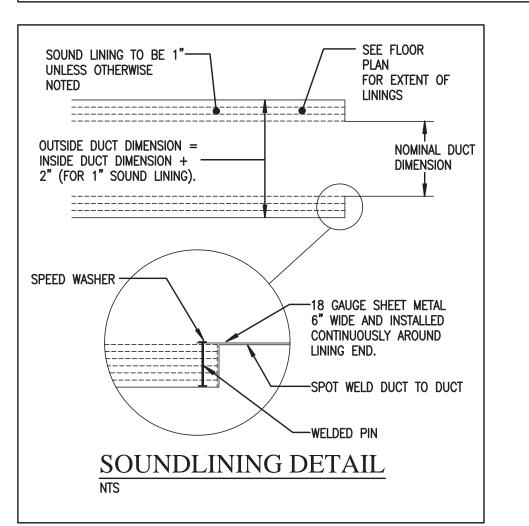
	AIR DEVICE UNIT SCHEDULE									
UNIT TAG OR SYMBOL	CFM RANGE	DESCRIPTION	INLET SIZE FOR OUTLET BOX	SIZE	BASIS OF DESIGN	REMARKS				
\boxtimes	0 - 100	STEEL FLOOR REGISTER	6"ø	10x4	HART & COOLEY MODEL 420					
\boxtimes	101 -210	STEEL FLOOR REGISTER	8"ø	14x6	HART & COOLEY MODEL 420					
	0 - 100	STEEL RETURN AIR GRILLE	6"ø	8x8	HART & COOLEY MODEL 650					
	101 -210	STEEL RETURN AIR GRILLE	8"ø	12x8	HART & COOLEY MODEL 650					
	101 -340	STEEL RETURN AIR GRILLE	10 " ø	12x12	HART & COOLEY MODEL 650					

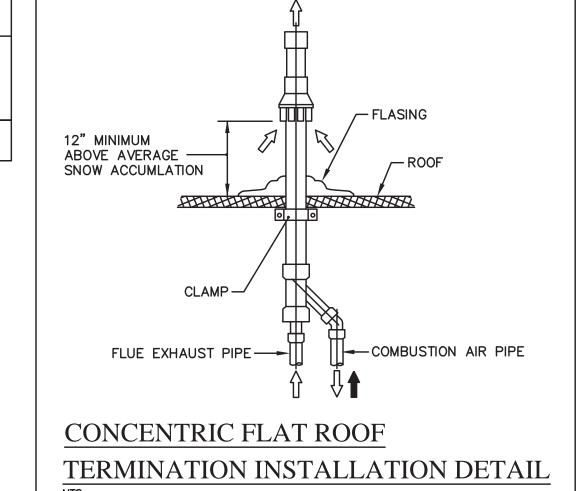
- NOTES:

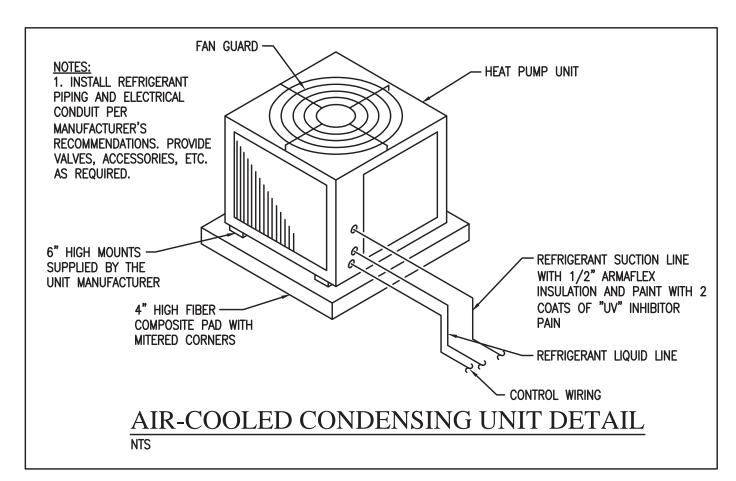
 1. FOR DUCT SIZE CONNECTED TO THE DIFFUSER OR REGISTER REFER TO THE DIFFUSER AND REGISTER INLET SIZE UNLESS NOTED OTHERWISE ON THE DRAWINGS. THE INLET SIZE SHOWN ON THE SCHEDULE IS MEANT FOR A DIFFUSER BRANCH RUNOUT. THIS SIZE IS NOT APPLICABLE WHEN THE DIFFUSER IS INSTALLED AS A SIDE DISCHARGE TO A DUCT THAT IS IN A
- 2. ALL REGISTERS AND GRILLES SHALL BE EQUIPPED WITH AN INTEGRAL MANUAL OPPOSED BLADE DAMPER ACCESSIBLE FROM THE FACE OF THE DIFFUSER.
- 3. ALL DIFFUSERS, REGISTERS AND GRILLES SHALL BE COMPATIBLE WITH THE SPECIFIED CEILING, WALL OR FLOOR TYPE. REFER TO THE ARCHITECTURAL DRAWINGS FOR MORE INFORMATION. PROVIDE MOUNTING FRAME COMPATIBLE WITH CEILING/WALL MATERIALS.
- 4. COLOR AND FINISH SHALL BE COORDINATED WITH THE ARCHITECT AND OWNER.
- 5. SEE PLANS FOR MISCELLANEOUS AIR DEVICES.
- 6. PROVIDE A CEILING RADIATION DAMPER, PLENUM BOX EQUAL TO RUSKIN MODEL CFDT7, FOR ALL AIR DEVICES INSTALLED IN A RATED CEILING. THE INLET SIZE SHOWN IS CONNECTION SIZE TO THE BOX. CONFIRM THE RATING OF ALL CEILINGS WITH THE ARCHITECT AND ARCHITECTURAL DRAWINGS.
- 7. DIFFUSERS MAY BE INSTALLED IN A SIDEWALL OR CEILING APPLICATION. REFER TO DRAWINGS FOR MORE INFORMATION.
- 8. FOR RESTROOM INSTALLATION PROVIDE ALUMINUM VERSIONS OF THE GRILLES LISTED IN THE SCHEDULE.

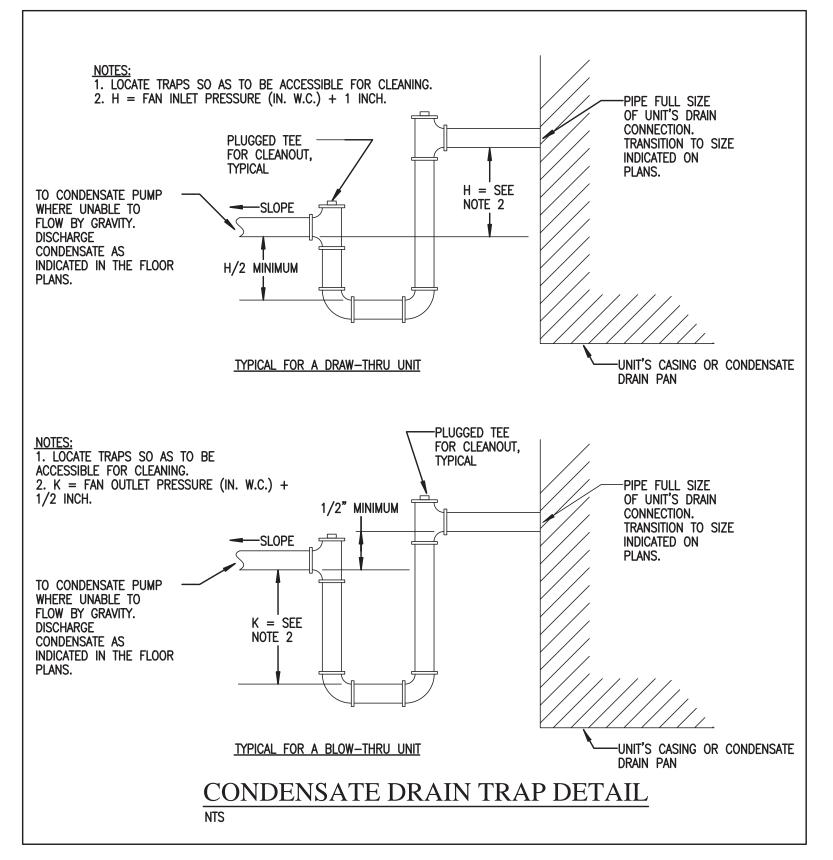












SB DESIGN STUDIOS LLI

Albers/SD TESSEN STUDIS/M_SSOS SUSDESS SPERMITIDAL_LIGE/VEST VERICHEP Lega_jpg

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¥ DUKE 1015

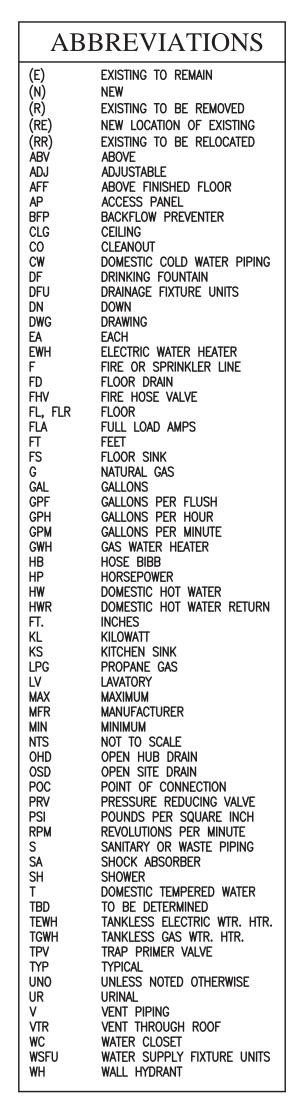
2018-24

DATE DESCRIPTION

03-01-19

SHEET NO.

AS NOTED



DRAWING LIST

GENERAL NOTES, SYMBOLS, ABBREVIATIONS - PLUMBING FLOOR PLANS - SANITARY -PI UMBING FLOOR PLANS - DOMESTIC WATER -PI UMRING

P004 RISERS AND DETAILS - PLUMBING

SYMBOL LIST

////// DEMOLITION → SANITARY OR WASTE PIPE → HOT WATER PIPE → T → TEMPERED WATER PIPE C→ G→ NATURAL GAS PIPING ≥—ST—→ STORM PIPING FIRE OR SPRINKLER PIPING ≥—→→ BALL VALVE ≥— I GATE VALVE

≥ BALANCING VALVE

≥ BUTTERFLY VALVE

≥ Z-WAY CONTROL VALVE

≥ X 3-WAY CONTROL VALVE

≥ PRESSURE REDUCING VALVE

TEMPERATURE/PRESSURE RELIEF VALVE

⁷ → PIPE TURNING DOWN

+<- → VALVE IN THE VERTICAL PIPE

├─── GLOBE VALVE

→ PUMP

≥——|----> PIPE UNION

≥—N→ CHECK VALVE

○ PIPE TURNING UP

➤ <mark>부 → THERMOMETER</mark>

PRESSURE GAUGE

©G → OPEN HUB DRAIN

SA SHOCK ABSORBER

CW, HW AND HWR RISER DESIGNATION

SANITARY RISER DESIGNATION

STORM RISER DESIGNATION

NATURAL GAS RISER DESIGNATION

STANDPIPE RISER DESIGNATION

NEW WORK KEY NOTE

DEMOLITION KEY NOTE

POC, NEW TO EXISTING

NOTE: ALL SYMBOLS ARE NOT USED IN THIS PROJECT.

TERMINATION POINT OF DEMOLITION

≥——> ECCENTRIC REDUCER

SWITCH

→ P → FLOW SWITCH

CO| SANITARY OR WASTE CLEANOUT

GAS PRESSURE REGULATOR

©c FLOOR DRAIN

—→ GAS COCK

—→ CAPPED PIPE

WILL BE REPAIRED BY THE CONTRACTOR, TO THE SATISFACTION OF THE ARCHITECT/OWNER AND AT NO ADDITIONAL COST TO THE OWNER. E. THE WORD "PROVIDE", AS USED IN SPECIFICATIONS AND ON PLANS, SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR USE. PROVIDE ALL TRAPS, NIPPLES, CARRIERS, BOLT CAPS, ETC. AS REQUIRED TO COMPLETE THE WORK.

F. ALL WORK SHALL BE COORDINATED WITH ALL TRADES PRIOR TO INSTALLATION. G. IN GENERAL, THE DRAWINGS ARE DIAGRAMMATIC, AND MAY VARY FROM ACTUAL FIELD CONDITIONS AND SHOW THE GENERAL LOCATION, TYPE AND SIZE OF PIPING, EQUIPMENT, CONTROLS, ACCESSORY EQUIPMENT, ETC. THE CONTRACTOR SHALL MODIFY, EXTEND, RELOCATE AND REROUTE ANY PIPING, EQUIPMENT, ACCESSORIES, ETC. AS REQUIRED TO ACCOMMODATE THE CEILING LAYOUT, OBSTRUCTIONS, STRUCTURE, PARTITIONS, ETC. AND TO SATISFY THE INTENT OF THE NEW WORK. WORK INDICATED ON THESE DRAWINGS SHOULD NOT BE SCALED TO ESTABLISH LOCATION OF WORK. THE DRAWINGS ARE INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF ENGINEERED SYSTEMS, THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND MAKE

A. THE GENERAL CONDITIONS. SUPPLEMENTARY CONDITIONS AND APPLICABLE PROVISIONS OF OTHER

BY EACH BIDDER BEFORE SUBMITTING HIS PROPOSAL

OF THE LOCAL AUTHORITY HAVING JURISDICTION.

DIVISIONS, FORM A PART OF THIS SPECIFICATION AND CONTRACT, AND SHALL BE CAREFULLY EXAMINED

B. COMPLIANCE WITH LOCAL JURISDICTIONS: ALL WORK PERFORMED UNDER THIS SECTION SHALL CONFORM

C. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES FOR INSPECTIONS RELATED TO

LEAKS AND SYSTEM NON-OPERATION FOR A PERIOD OF ONE YEAR AFTER DATE OF FINAL ACCEPTANCE

OF WORK BY OWNER. WHERE MANUFACTURER'S STANDARD WARRANTY IS LONGER THAN ONE YEAR, THE

LONGER WARRANTY PERIOD SHALL TAKE PRECEDENCE. CONTRACTOR SHALL PAY ALL COSTS INVOLVING

THE GUARANTEE OF ALL SYSTEMS. ALL DEFECTS THAT DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD

ADJUSTMENTS AS NECESSARY TO COMPLETE THE WORK. H. THE DRAWINGS DO NOT INDICATE ALL MISCELLANEOUS ITEMS, ACCESSORIES, FASTENERS, OFFSETS, ETC. NECESSARY TO SATISFY THE INTENT OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE ADDITIONAL VALVES, ACCESSORIES, MISCELLANEOUS ITEMS, ETC. AS REQUIRED TO SATISFY THE INTENT OF THE PROJECT.

THE CONTRACTOR SHALL FIELD VERIFY ALL NECESSARY DIMENSIONS BEFORE INSTALLING ANY OF THE WORK, AND SHALL CHECK THEIR LAYOUTS TO ALLOW CLEARANCE REQUIRED FOR OTHER WORK AS SHOWN ON THE DRAWINGS. IN THE EVENT OF A CONFLICT, THE CONTRACTOR SHALL ALERT THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. FAILURE TO DO SO SHALL HOLD THE CONTRACTOR RESPONSIBLE FOR THE CHANGES WITHOUT ANY ADDITIONAL COSTS TO THE OWNER.

. THE SCOPE OF WORK CONSISTS GENERALLY OF PROVIDING A COMPLETE PLUMBING SYSTEM AND FINAL TESTING, ADJUSTING, AND BALANCING OF ALL SYSTEMS AND EQUIPMENT. PROVIDE ALL MATERIALS, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO ACCOMPLISH THE WORK. K. CONTRACTOR SHALL EXAMINE ALL DRAWINGS, SPECIFICATIONS AND ADDENDA, AND VISIT THE SITE PRIOR

TO ISSUING BID. ANY QUESTIONS OR CLARIFICATIONS SHALL BE REFERRED TO THE ENGINEER AT LEAST 7 WORKING DAYS PRIOR TO BIDDING. ANY REQUEST BY THE CONTRACTOR FOR ADDITIONAL COSTS RELATED TO THE INSTALLATION, RELOCATION, MODIFICATION OR ADDITION OF EQUIPMENT REQUIRED TO SATISFY THE INTENT OF THIS PROJECT, DUE TO A LACK OF CLEAR UNDERSTANDING OF THE PROJECT REQUIREMENTS, WILL NOT BE ACCEPTED.

L. TO ELIMINATE CONFLICTS, CONTRACTOR TO PREPARE COMPLETE AND DETAILED 1/4" SCALE PLAN COMPOSITE COORDINATION DRAWINGS FOR ALL PIPING WORK INSTALLED IN THIS PROJECT. SUBMIT DRAWINGS TO THE ENGINEER FOR REVIEW, PRIOR TO CONSTRUCTION.

M. ALL WORK SHALL BE INSTALLED WITHIN CEILING AND SHALL BE DONE SO THAT ALL REQUIRED CLEARANCES ARE MAINTAINED. MAINTAIN MAXIMUM CEILING SPACE BY RUNNING WORK CLOSE TO THE UNDERSIDE OF STRUCTURE. RUN PIPING PARALLEL OR PERPENDICULAR TO MAJOR WALLS. N. THE CONTRACTOR SHALL FURNISH ALL ITEMS NECESSARY FOR THE PROPER INSTALLATION OF THE WORK

ALL INSTALLATIONS SHALL ADHERE TO THE ASSOCIATED MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND INSTRUCTIONS. PROVIDE ALL REQUIRED ACCESSORIES, CONTROLS, VALVES, MISCELLANEOUS ITEMS, ETC. AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURER OF THE ASSOCIATED EQUIPMENT EVEN IF NOT SHOWN ON THE DRAWINGS

O. IN THE EVENT OF A CONFLICT BETWEEN CODES, DRAWINGS, AND/OR SPECIFICATIONS, THE MORE STRINGENT OR DEMANDING REQUIREMENT SHALL TAKE PRECEDENCE.

P. EVERY FIXTURE, DEVICE, APPARATUS OR EQUIPMENT WHICH CONVEYS, USES, CONTROLS, SUPPLIES OR IS ACTIVATED BY POTABLE WATER, SHALL BE OF SUCH DESIGN AND BE INSTALLED IN SUCH A MANNER THAT THE MAIN WATER SUPPLY IS PROTECTED AGAINST CONTAMINATION. PROVIDE BACKFLOW PREVENTERS, AS REQUIRED, IN COMPLIANCE WITH LOCAL CODES AND REGULATIONS. DEVICES WHICH HAVE RELIEF OUTLETS SHALL HAVE DISCHARGE PIPING ROUTED TO THE NEAREST FLOOR DRAIN OR SERVICE SINK.

A. ALL PRODUCTS SHALL BE FIRST QUALITY, SUITABLE FOR THE INTENDED INSTALLATION, AND SHALL BE PROVIDED COMPLETE WITH ALL NECESSARY APPURTENANCES FOR A COMPLETE SYSTEM, READY FOR BENEFICIAL USE.

B. ALL ELECTRICAL EQUIPMENT SHALL BE UL LABELED, OR EQUIVALENT BY COMPARABLE TESTING LAB.

a. ABOVE GROUND DOMESTIC HOT WATER, COLD WATER AND HOT WATER RECIRCULATION PIPING SHALL BE SEAMLESS COPPER TUBING, TYPE L, ASTM B 88, WITH SOLDER-JOINED WROUGHT COPPER FITTINGS UP TO 3". PIPING LARGER THAN 3" SHALL BE DUCTILE IRON, ANSI C151, WITH DUCTILE IRON THREADED FITTINGS.

b. BELOW GROUND WATER PIPING SHALL BE TYPE K SEAMLESS COPPER TUBING, ASTM B 88. WITH WROUGHT COPPER SOLDER JOINED FITTINGS FOR PIPING 3" AND SMALLER. FOR PIPING LARGER THAN 3", PROVIDE DUCTILE IRON PIPING, ANSI/AWWA C151/A2.1 51, WITH DUCTILE IRON THREADED

c. WASTE AND VENT PIPING SHALL BE DWV COPPER WITH WROUGHT COPPER SOLDER JOINED FITTINGS, OR SERVICE WEIGHT CAST IRON WITH NO-HUB FITTINGS IN ACCORDANCE WITH CISPI 301 AND ASME B16.4. SCHEDULE 40 DWV PVC SHALL BE ACCEPTABLE ONLY FOR BELOW SLAB (UNDERGROUND) PIPING 2-1/2" AND SMALLER, 1/8" (1%) FOR PIPING BETWEEN 3" AND 6", 1/16" (0.5%) FOR PIPING 8" AND LARGER.

d. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL, ASTM A-53, TYPE E OR S, GRADE B WITH MALLEABLE-IRON THREADED FITTINGS; ASME B16.3, CLASS 150, STANDARD PATTERN. UNIONS: ASME B16.39, CLASS 150, MALLEABLE IRON WITH BRASS-TO-IRON SEAT, GROUND JOINT, AND THREADED ENDS ACCORDING TO ASME B1.20.1. PAINT ALL EXPOSED METAL PIPING, FITTINGS, VALVES AND SUPPORTS FOR CORROSION PROTECTION. ALL PIPING SHALL BE IN COMPLIANCE WITH AGA AND LOCAL

REQUIREMENTS. e. STORM WATER PIPING SHALL BE SERVICE WEIGHT CAST IRON. BELL AND SPIGOT, PIPE AND FITTINGS ANSI A.1125.1 AS MANUFACTURED BY TYLER PIPE AND FOUNDRY CO., US PIPE AND FOUNDRY CO. AND CENTRAL FOUNDRY OR APPROVED EQUAL, TYLER "TY-SEAL" NEOPRENE SEAL COMPRESSION TYPE GASKETS OR CAULKED JOINTS, JUTE YARNED AND CAULKED WITH LEAD OR APPROVED EQUAL. STORM WATER PIPING SHALL BE SLOPED IN COMPLIANCE WITH THE CURRENT INTERNATIONAL PLUMBING CODE REQUIREMENTS f. PROVIDE FLEXIBLE COUPLING TO ALL CONNECTIONS TO MOTOR OPERATED EQUIPMENT.

E. VALVES:

a. BALL VALVES SHALL BE TWO-PIECE COPPER ALLOY, BRONZE BODY WITH TEFLON SEAL AND STEM PACKING, 125 PSI WOG, APOLLO BRAND OR APPROVED EQUAL. b. Gate valves shall be threaded iron for ductile iron piping and soldered end bronze for COPPER PIPING, 150 PSI WOG, HAMMOND OR APPROVED EQUAL.

. PIPE FITTINGS: a. PROVIDE DIELECTRIC ISOLATORS BETWEEN ALL CONNECTIONS OF DISSIMILAR PIPING MATERIALS. b. PROVIDE FLEXIBLE COUPLING TO ALL CONNECTIONS OF MOTOR OPERATED DEVICES, OR WHEN CROSSING BUILDING EXPANSION JOINTS.

c. AIR VENTS SHALL BE MANUAL TYPE, INSTALLED AT HIGH POINT OF PIPING, AND INSTALLED TO BE READILY ACCESSIBLE. EXTEND DISCHARGE PIPE TO NEAREST FLOOR DRAIN OR ACCEPTABLE RECEPTACLE.

d. STRAINERS SHALL BE 'Y' TYPE, CAST BRASS OR CAST IRON TO MATCH PIPING, WITH 0.045 INCH PERFORATIONS STRAINER. PROVIDE BLOW-DOWN VALVE AND HOSE END CONNECTION. e. CHECK VALVES SHALL BE SWING TYPE, CLASS 125 AND SUITABLE FOR INTENDED SERVICE.

f. PROVIDE SHOCK ABSORBERS EQUAL TO JOSAM SERIES 75000 ON ALL QUICK CLOSING VALVES SUCH AS FLUSH VALVES, DISHWASHERS, CLOTHES WASHERS, ETC. AIR CHAMBERS ARE NOT ACCEPTABLE. SHOCK ABSORBERS SHALL BE INSTALLED IN ACCORDANCE WITH PDI STANDARD WH-201. G. EQUIPMENT SHALL BE INSULATED AS FOLLOWS:

a. NEW DOMESTIC WATER PIPING SHALL BE INSULATED WITH 1" THICK HEAVY-DUTY GLASS FIBER MATERIAL WITH ALL PURPOSE NON-COMBUSTIBLE SERVICE JACKET (VAPOR BARRIER AS MANUFACTURED) BY JOHNS-MANVILLE (MICRO-LOK), ARMSTRONG (ACCUTHERM), OWENS-CORNING (ASJ) OR APPROVED EQUAL WITH THERMAL CONDUCTIVITY FACTOR OF 0.23 BTU-IN./HR.-F AT 75°, A FLAME SPREAD NOT TO EXCEED 25 AND SMOKE DEVELOPED RATING NOT TO EXCEED 50 AS TESTED PER ASTM E-84. NFPA 255 AND UL 723. ADHESIVE SYSTEMS WHICH EMPLOY RELEASE PAPER WILL NOT BE ACCEPTED. INSULATION SHALL BE APPLIED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. PROVIDE PROTECTIVE GALVANIZED SHEET METAL SHIELDS AT ALL PIPING SUPPORTS. SEAL JOINTS WITH APPROVED MASTIC. PROVIDE PREMOLDED FITTING, FIBERGLASS INSULATION WITH ZESTON COVER, FOR ALL VALVES AND FITTINGS. THE MINIMUM R VALUE OF THE INSULATION AT ALL PIPE SIZES SHALL BE AT MINIMUM 3.0.

PLUMBING NOTES

b. INSULATE HORIZONTAL ABOVE GRADE STORM WATER PIPING, SAME AS DOMESTIC WATER. c. INSULATE EXPOSED PIPING AT HANDICAP ACCESSIBLE LAVATORIES IN ACCORDANCE WITH ADA REQUIREMENTS.

d. INSULATE EQUIPMENT (HOT WATER STORAGE TANKS, HEAT EXCHANGERS, ETC.) WITH 2" FIBERGLASS MAT WITH ASJ. e. VENT PIPING WITHIN 4 FEET OF THE ROOF SHALL BE WRAPPED WITH 1-1/2" FIBERGLASS BLANKET

TO THE REQUIREMENTS OF DRAWINGS, SPECIFICATIONS AND TO THE CODES, ORDINANCES AND STANDARDS PROVIDE OFFSET TAILPIECE FOR ADA COMPLIANT FIXTURES TO COMPLY WITH CURRENT ADA STANDARDS. FLOOR DRAINS SHALL BE JOSAM SERIES 30000-A WITH SATIN FINISHED BRONZE TOP. PROVIDE SQUARE TOP DRAIN FOR CERAMIC TILE FLOORS. D. INSTALLATIONS SHALL BE GUARANTEED FOR WORKMANSHIP, MATERIALS AND EQUIPMENT AGAINST DEFECTS,

J. ROOF DRAINS SHALL BE JOSAM SERIES 21000 WITH GALVANIZED CAST-IRON DOME, ADJUSTABLE COLLAR. OVERFLOW DRAIN SHALL BE SCUPPER TYPE, JOSAM SERVES 25000. STARTERS FOR ALL MOTORS, INCLUDING VFD'S, SHALL BE FURNISHED BY MECHANICAL, INSTALLED BY

PROVIDE ONE TRAP PRIMER VALVE FOR EACH FLOOR DRAIN, FLOOR SINK, OPEN HUB DRAIN, ETC. WITHOUT A CONSTANT SOURCE OF WATER SUPPLY TO MAINTAIN THE TRAP SEAL. LOCATE THE PRIMER VALVE IN AN ACCESSIBLE LOCATION AND CONNECT TO THE NEAREST 3/4" COLD WATER LINE SERVING A PLUMBING FIXTURE.

M. CONTROLS: CONTROLS SHALL BE ELECTRIC/ELECTRONIC, SIMILAR TO HONEYWELL OR APPROVED EQUAL. TIME CLOCKS SHALL BE MULTI-CHANNEL DIGITAL TYPE WITH MINIMUM 72 HOUR INTERNAL MEMORY BACKUP. SUITABLE FOR 7 DAY PROGRAMMING WITH 4 EVENT SCHEDULES PER DAY, MANUAL OVER-RIDE. N. ALL FLOOR PENETRATIONS SHALL BE CORE DRILLED OR SAW CUT. X-RAY SLAB PRIOR TO CUTTING.

DO NOT CUT STRUCTURAL MEMBERS. O. ALL FLOOR AND WALL PENETRATIONS SHALL BE SLEEVED. PROVIDE STEEL PIPE SLEEVES FOR PIPES. PACK VOID SPACE WITH FIRE SAFING. PIPE SLEEVES IN MECHANICAL ROOM SHALL STAND 1" PROUD OF

FLOOR SURFACE. SEAL ALL FLOOR PENETRATIONS WATER TIGHT. P. PROVIDE ACCESS DOORS FOR ALL CONCEALED VALVES, ETC. ALL WORK SHALL BE INSTALLED IN SUCH A MANNER SO THAT ALL COMPONENTS REQUIRING ACCESS ARE LOCATED SO THAT THEY MAY BE SERVICED, REPLACED, RESET OR RE-CALIBRATED WITH NORMAL SERVICE TOOLS AND TECHNIQUES.

R. EXPANSION LOOPS AND ANCHORS SHALL BE PROVIDED ON ALL PIPING SYSTEMS WHICH CROSS BUILDING EXPANSION JOINTS AND ALL HORIZONTAL PIPING RUNS GREATER THAN 100 FEET.

Q. DOMESTIC WATER PIPING SHALL BE SLOPED TO DRAIN VALVES TO ALLOW FOR PROPER DRAINAGE OF THE

HANGERS AND SUPPORTS: DEVICES SHALL BE FACTORY PRE-FABRICATED. SUPPORT FROM THE EXISTING OR NEW STRUCTURE WITH UL LISTED HANGERS AND SUPPORTS SUITABLE FOR THE INTENDED

a. COMPLY WITH MSS-58 FOR ACCEPTABLE TYPES.

b. INSTALL PER MSS-69 FOR SPACING AND MOUNTING. c. PROVIDE SPRING-TYPE VIBRATION ISOLATORS FOR ALL MOTOR-OPERATED EQUIPMENT.

A. UNDER NO CIRCUMSTANCE SHALL THE WORK PERFORMED UNDER THIS CONTRACT AFFECT ADJACENT

AREAS. NOT PART OF THIS WORK. B. IN THE EVENT THAT SUSPECTED ASBESTOS CONTAINING MATERIALS ARE ENCOUNTERED IN THE COURSE OF THE WORK, THE CONTRACTOR SHALL CEASE WORK WITH THE SUSPECT MATERIALS AND SHALL

REQUEST DIRECTION FROM THE OWNER BEFORE PROCEEDING FURTHER. ANY OPERATIONS THAT WILL RESULT IN THE GENERATION OF NOISE OR VIBRATION, OR THAT MAY RESULT IN DUST EXTENDING BEYOND THE WORK AREA, SHALL BE PERFORMED AT TIMES AND IN ACCORDANCE

WITH REQUIREMENTS STIPULATED BY BUILDING'S MANAGEMENT. ALL EQUIPMENT, MATERIAL AND DEVICES SHOWN AS EXISTING TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY INCLUDING ALL APPURTENANCES.

ALL DEMOLISHED EQUIPMENT AND MATERIAL SHALL BE PROMPTLY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR. ITEMS TO BE SALVAGED FOR REUSE OR DELIVERY TO THE OWNER SHALL BE PROTECTED AND STORED, BY THE CONTRACTOR, UNTIL REUSED OR TRANSFERRED TO THE OWNER. CONTRACTOR SHALL VERIFY WITH THE OWNER TO DETERMINE THE ITEMS TO BE SALVAGED.

ALL PIPES SHOULD BE CAPPED IMMEDIATELY UPON DEMOLITION WORK TO PREVENT ODORS AND EXPOSURE TO RODENTS AND PESTS.

CUTTING, PATCHING AND REPAIR

A. THE CONTRACTOR SHALL NOT PENETRATE CONCRETE SLABS WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE OWNER. SUBMIT DETAILS OF PROPOSED PENETRATION LOCATIONS TO OWNER FOR

B. PATCH AND REPAIR ALL DISTURBED SURFACES IN KIND TO MATCH EXISTING AND SURROUNDING AREAS. EXTREME CARE SHALL BE EXERCISED WITH REGARD TO PROTECTION OF ALL EXISTING WORK. CORRECT ALL DAMAGE TO EXISTING WORK TO THE SATISFACTION OF THE ARCHITECT/OWNER AT NO ADDITIONAL COST TO THE OWNER.

. IF ANY EXISTING EQUIPMENT, DUCTS, PIPES, UTILITIES, ETC. ARE DAMAGED DURING CONSTRUCTION, WHETHER OR NOT DUE TO CONTRACTORS NEGLIGENCE, DAMAGED ITEMS SHALL BE REPAIRED OR REPLACED AND LEFT IN A CONDITION SATISFACTORY TO THE ARCHITECT/OWNER AT NO ADDITIONAL COST TO THE OWNER.

. <u>SUBMITTALS</u>, <u>RECORD AS-BUILT DRAWINGS AND O&M MANUALS</u>: A. SUBMIT ONE COMPLETE SET OF PLANS AND RELATED DOCUMENTS, APPROVED BY THE CITY, TO THE

B. PROVIDE TO OWNER 3 SETS OF MAINTENANCE AND OPERATING MANUALS AND MANUFACTURER'S

WARRANTY DOCUMENTS FOR ALL EQUIPMENT IN INDEXED, 3-RING BINDER. C. PROVIDE "AS-BUILT" DRAWINGS TO OWNER UPON COMPLETION OF THE PROJECT. SUBMIT ONE

ELECTRONIC COPY (CD) AND TWO SETS OF HARD COPIES (BLUE PRINTS) OF THE AS-BUILT DRAWINGS, CORRECTED TO SHOW ALL FIELD MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS. SUBMIT 7 SETS OF EQUIPMENT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO PURCHASE, FABRICATION OR INSTALLATION OF EQUIPMENT. SUBMIT DATA SHEETS TO ALLOW ADEQUATE TIME FOR REIVEW, INCLUDING RE-REVIEW OF ITEMS NOT APPROVED UPON FIRST SUBMISSION.

APPLICATIONS. HORIZONTAL SANITARY PIPING SHALL SLOPE NOT LESS THAN 1/4" (2%) PER FOOT FOR A. ALL WORK SHALL BE ACCOMPLISHED BY EXPERIENCED MECHANICS, SPECIALIZING IN THE PARTICULAR TRADE, UTILIZING APPROPRIATE TOOLS AND TECHNIQUES. ALL WORK SHALL BE FIRST QUALITY, CONSISTENT WITH INDUSTRY'S BEST STANDARDS. WORK DEEMED TO BE SUBSTANDARD SHALL BE REMOVED AND REMADE AT CONTRACTOR'S EXPENSE.

> B. PERFORM ALL OPERATIONS REQUIRED AND INSTALL ALL UNITS. EQUIPMENT. CONTROLS AND PIPING, WITH ALL REQUIRED ACCESSORIES, TO PRODUCE A COMPLETE INSTALLATION, READY FOR USE.

INSTALL FIXTURES LEVEL, PLUMB AND PARALLEL TO THE WALL.

D. CONTRACTOR SHALL CONFIRM ALL ROUGH-INS WITH ARCHITECTURAL PLANS PRIOR TO INSTALLATION. PIPING SHALL HAVE ITS INTERIOR SLOPES AND INVERTS ESTABLISHED PRIOR TO INSTALLATION OF ANY PIPING. PROPER SLOPES MUST BE MAINTAINED COMPLYING WITH CODE REQUIREMENTS. LOCATE PIPING SUCH THAT THERE ARE NO CONFLICTS WITH OTHER TRADES. COORDINATE CLOSELY WITH THE BUILDING MANAGEMENT/ENGINEER.

IDENTIFY ALL PIPING FOR USE AND DIRECTION OF FLOW. PROVIDE VALVE TAG AND WALL-MOUNTED VALVE CHART FOR ALL VALVES. IDENTIFICATION SHALL BE PER ASME REQUIREMENTS. G. PROTECT AGAINST INJURY TO PERSONS AND DAMAGE TO PROPERTY AT ALL TIMES.

H. CONTRACTOR SHALL CLEAN THE WORK SITE AFTER EACH DAY'S WORK, AT THE COMPLETION OF THE

PROJECT, THE CONTRACTOR SHALL CLEAN THE ENTIRE JOB SITE, INCLUDING ALL NEW AND EXISTING SURFACES OF THE BUILDING, EQUIPMENT AND SYSTEMS, LEAVING THE AREA THOROUGHLY CLEAN, CLEAR AND READY FOR OCCUPANCY TO THE SATISFACTION OF THE OWNER.

MAKE PROPER HOT, COLD, WASTE AND VENT PIPE CONNECTIONS TO ALL FIXTURES AND EQUIPMENT AS REQUIRED. ALL TIE-INS TO EXISTING SERVICES SHALL BE COORDINATED WITH THE BUILDING AND BE DONE AFTER HOURS IF REQUIRED.

SITE VERIFY EXACT LOCATION OF ALL EXISTING PIPING, POINT OF DISCONNECTION TO EXISTING, SIZES, DEMOLITION WORK. ETC. BEFORE THE START OF ANY WORK.

. REFER TO RISER DIAGRAMS FOR PIPE SIZES PROPERLY SUPPORT ALL PIPING FROM FLOOR OR SLAB ABOVE THAT HAS BEEN TEMPORARILY DISCONNECTED AND WILL BE RECONNECTED IN NEW INSTALLATION. PROPERLY LABEL PIPING PRIOR TO

DISCONNECTION AS TO AVOID RECONNECTION TO AN IMPROPER SERVICE. M. PROVIDE ACCESS DOORS FOR ALL CONCEALED VALVES, FITTINGS, ETC. AS REQUIRED FOR PROPER MAINTENANCE AND ACCESS.

N. FOLLOWING COMPLETION OF CONSTRUCTION AND PRIOR TO INSULATION, TEST PIPING IN ACCORDANCE WITH LOCAL REQUIREMENTS. REPAIR ALL LEAKS, RE-TEST SYSTEM. FLUSH AND STERILIZE PIPING AND ASSOCIATED EQUIPMENT PRIOR TO BENEFICIAL USE. BEFORE PLACING THE SYSTEM IN SERVICE, THE CONTRACTOR SHALL ENGAGE A QUALIFIED SERVICE ORGANIZATION TO STERILIZE THE NEW WATER LINES IN ACCORDANCE WITH APPLICABLE REGULATIONS. A CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED TO

THE OWNER. O. DEMONSTRATE OPERATION OF SYSTEM TO OWNER. PROVIDE INSTRUCTION TO OWNER DESIGNATED PERSONNEL, DEMONSTRATING NORMAL MAINTENANCE AND TROUBLESHOOTING PROCEDURES.

	PLUMB	ING FI	XTUI	RE C	ONI	NECTION SCHEDULE
ITEM	DESCRIPTION	SANITARY	VENT	WATER		
IDENT	DESCRIPTION	OR WASTE	VEINI	COLD	НОТ	DESCRIPTION/REMARKS
WC	WATER CLOSET, TANK TYPE	3"	2"	1/2"	-	CONFIRM FINAL SPECIFICATION WITH THE ARCHITECT AND OWNER.
LV	LAVATORY	1½"	1½"	1/2"	½"	CONFIRM FINAL SPECIFICATION WITH THE ARCHITECT AND OWNER.
ВТ	BATHTUB WITH SHOWERHEAD	1½"	1½"	1/2"	1/2"	CONFIRM FINAL SPECIFICATION WITH THE ARCHITECT AND OWNER.
SH	SHOWER HEAD	11/2"	1½"	1/2"	1/2"	CONFIRM FINAL SPECIFICATION WITH THE ARCHITECT AND OWNER.
KS	KITCHEN SINK	1½"	1½"	½"	1½"	CONFIRM FINAL SPECIFICATION WITH THE ARCHITECT AND OWNER. PROVIDE GARBAGE DISPOSAL: INSINKERATOR BADGER, 1/3-HP
DW	DISHWASHER	5/8"	_	-	1/2"	CONFIRM FINAL SPECIFICATION WITH THE ARCHITECT AND OWNER.
НВ	HOSE BIBB	_	-	3/4"	_	FREEZE-PROOF, CONFIRM FINAL SPEC WITH ARCHITECT.
RF	REFRIGERATOR	-	-	½"	-	TERMINATE WATER SUPPLY IN RECESSED WALL BOX, OATEY ICE MAKER OUTLET BOX WITH 6" x 6" RECESS OPENING AND QUARTER TURN BRASS BALL VALVE. PROVIDE A BACKFLOW PREVENTER CONFORMING TO ASSE 1024.

1. PROVIDE INDIVIDUAL DEDICATED FULL SIZE SHUT-OFF VALVES ON ALL HOT AND COLD WATER PIPING TO ALL PLUMBING FIXTURES FOR SERVICING AND/OR REPLACEMENT. ALL VALVES ARE TO BE ACCESSIBLE 2. OBTAIN APPROVAL AND COORDINATE THE FINAL SELECTIONS AND FINISHES OF ALL PLUMBING FIXTURES WITH THE ARCHITECT.

16" SQ.

MISCELLANEOUS FIXTURE SCHEDULE

	THIS CEEEN IN COOR I MIT CITE SCHED CEE								
SYMBOL	DESCRIPTION	MANUFACTURER	MODEL	REMARKS					
SA	SHOCK ARRESTOR	PRECISION PLUMBING INC	PRIME RITE	SIZED IN ACCORDANCE WITH PDI METHODS					
AAV	AIR ADMITTANCE VALVE	STUDOR INC	MINIVENT	ANSI/ASSE-1051 APPROVED					
	SA	SYMBOL DESCRIPTION SA SHOCK ARRESTOR	SYMBOL DESCRIPTION MANUFACTURER SA SHOCK ARRESTOR PRECISION PLUMBING INC	SYMBOL DESCRIPTION MANUFACTURER MODEL SA SHOCK ARRESTOR PRECISION PLUMBING PRIME RITE INC					

MISCELLANEOUS EQUIPMENT

ACCESS PANELS

ACUDOR, MODEL NO. UF 5000, STAINLESS STEEL PROVIDE DOOR SIZES AS FOLLOWS:

- CW SHUT-OFF VALVE AT WATER CLOSETS:

- CW SHUT-OFF VALVE AT WATER CLOSETS WITH PRESSURE REDUCING VALVE:

16" X 24" 12" SQ. - SHOCK ABSORBERS: HW/CW SHUT-OFF VALVES AT LAVATORIES: 16" SQ. HW/CW

- SHUT-OFF VALVES AT LAV'S WITH PRESSURE 16" X 24" REDUCING VALVE:

COORDINATE WITH WALL CONSTRUCTION AND LOCATE VALVES WITHIN CENTER AREA OF ACCESS PANEL. COORDINATE ACCESS PANEL LOCATION PRIOR TO VALVE INSTALLATION TO ALLOW PROPER ACCESS TO VALVES FOR SERVICE AND REPLACEMENT. LOCATE VALVES

	SUMP PUMP SCHEDULE										
ITEM	DESCRIPTION	FLOW GPM	TDH FT.	MOTOR RPM	MOTOR HP	VOLTAGE	PHASE	HZ	MANUFACTURER	MODEL NO.	LOCATION
SP-1	DUPLEX SUBMERSIBLE	30	15	3450	4/10	120	1	60	STANCOR	SE-40	BASEMENT

1. A DUPLEX SUMP PUMP HAS BEEN SPECIFIED.

WITHIN 8" OF ACCESS PANEL FACE.

2. SUMP PUMP SHALL BE INSTALLED ADHERING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.

4. PROVIDE WITH DUPLEX CONTROL PANEL WITH STARTERS AND DISCONNECT SWITCHES, NEMA 4X FIBERGLASS, PUMP ALTERNATION, TETHERED ENCAPSULATED UL LISTED MECHANICAL FLOAT SWITCHES ON 20 FOOT CABLES.

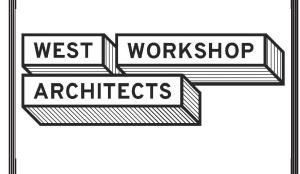
5. EACH PUMP SHALL INCLUDE THE ACCESSORIES. THE SYSTEM IS A DUPLEX SYSTEM WITH TWO PUMPS.

	GAS WATER HEATER SCHEDULE								
UNIT NO.	LOCATION	HW HEATER RECOVERY RATED 90°F RISE (GPH)	TYPE	INPUT (MBH)	STORAGE CAPACITY (GAL)	UEF	BASIS OF DESIGN		
WH-1	BASEMENT	73	NATURAL GAS	62	50	0.68	A.O. SMITH GPDL 50L, SEE "NOTES" ON THIS SHEET TO VERIFY EXISTING CAPACITY		

PROVIDE WITH EXPANSION TANK, WATERGUARD ETC-5X.

. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.

5. PROVIDE WITH A NEW DRAIN PAN, DIRECT VENTILATION TERMINATION KIT. 6. THE WATER HEATER STORAGE TEMPERATURE SHALL BE SET AT 140°F. THE NEW MIXING VALVE PROVIDED SHALL BE SET AT 120°F.





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2018-24

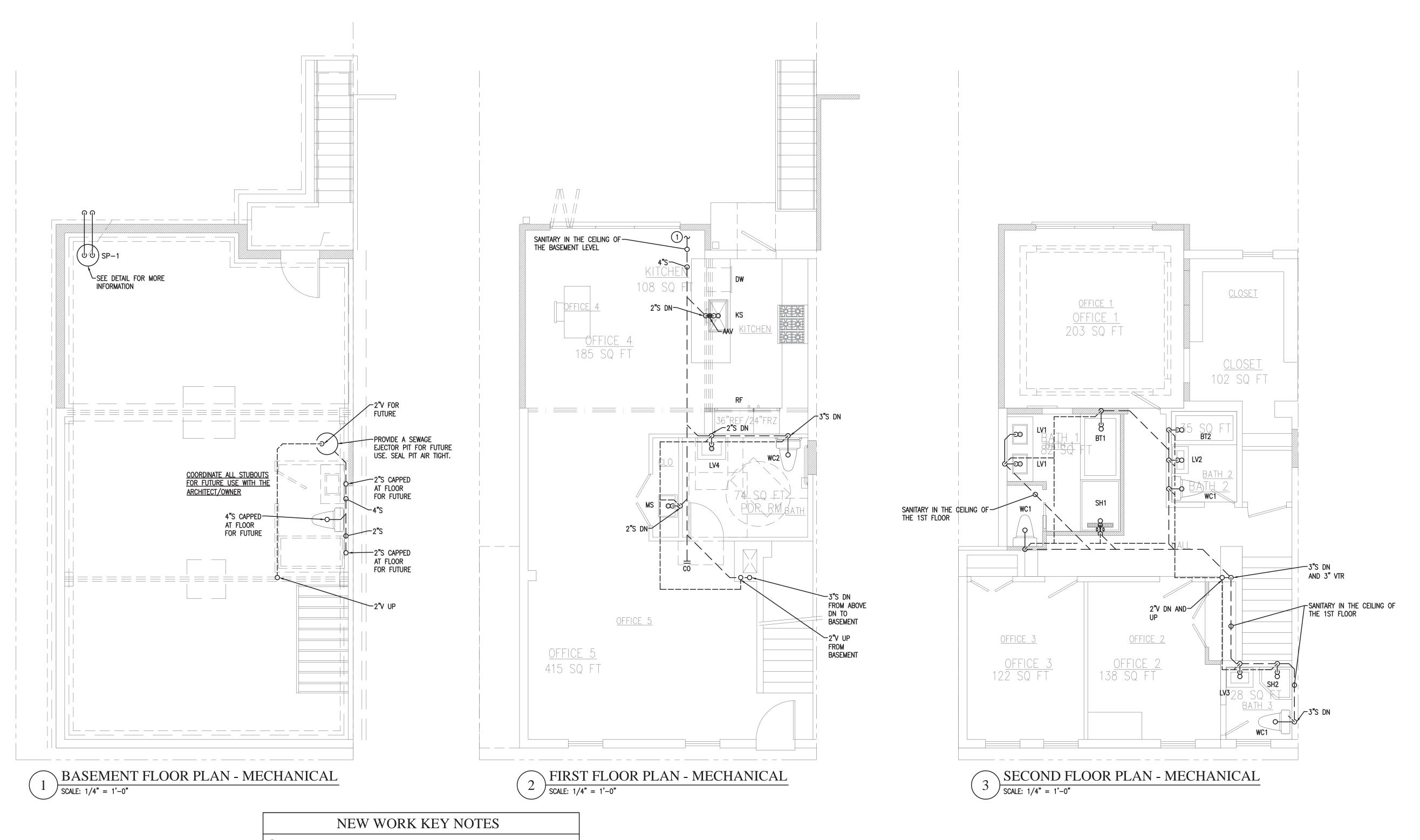
DESCRIPTION

DATE

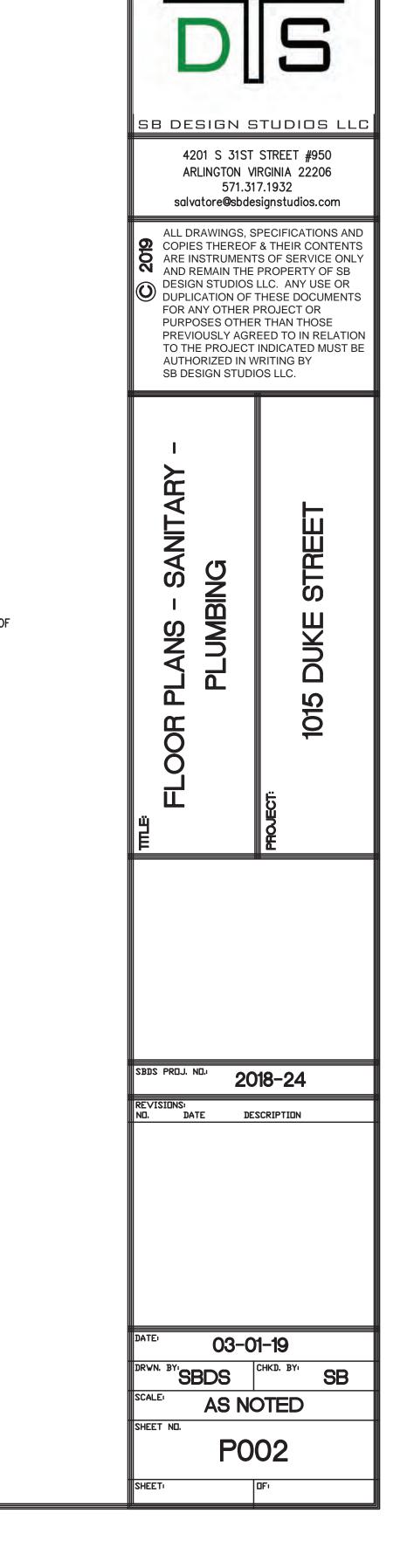
03-01-19 CHKD. BY:

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SHEET NO.

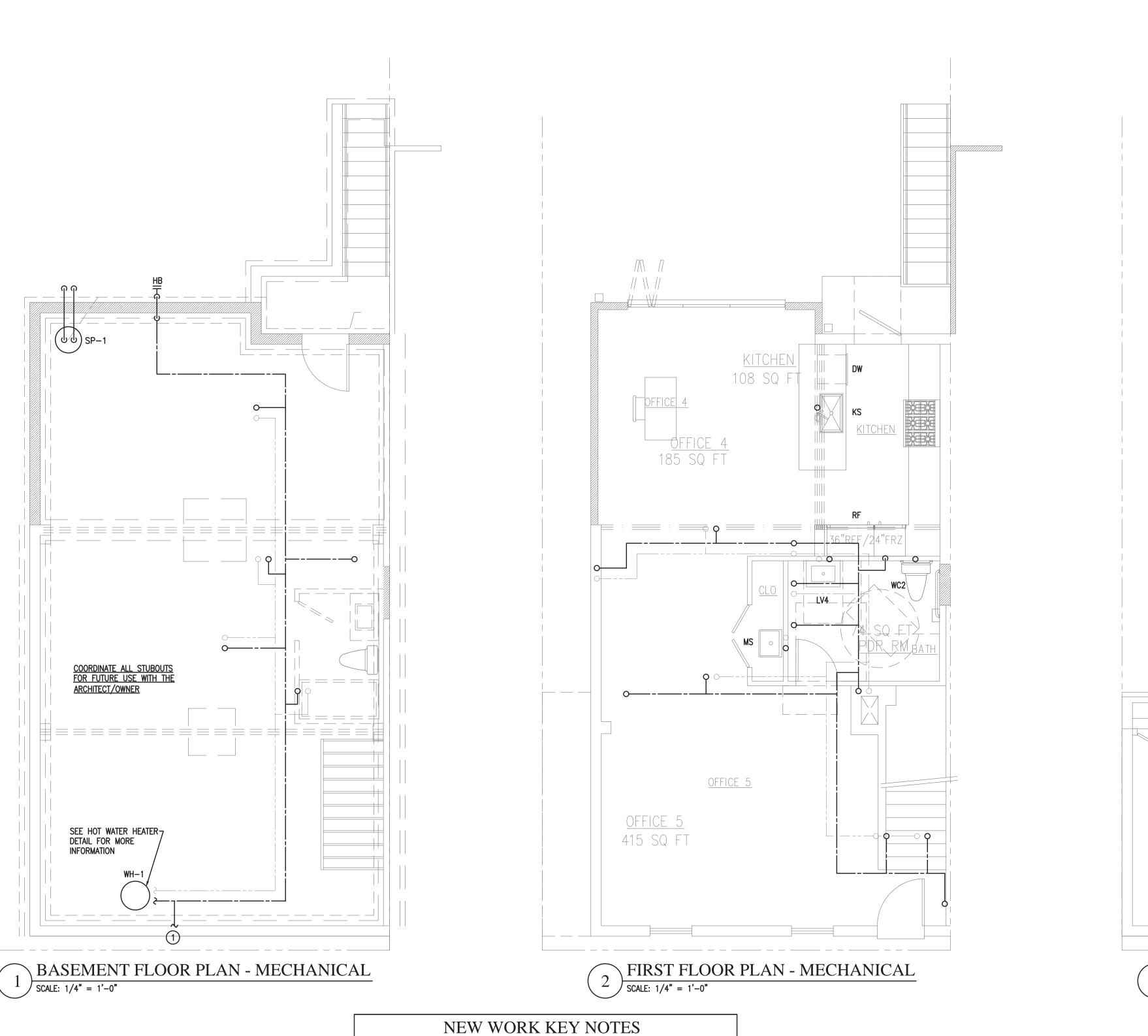


CONNECT NEW SANITARY PIPE TO EXIST. SAN PIPE. CONTRACTOR SHALL VERIFY IN FIELD EXACT LOCATION, SIZES & CONFIGURATION OF PIPING.



WEST WORKSHOP

ARCHITECTS



ONNECT NEW CW PIPE TO EXIST. CW PIPE. CONTRACTOR SHALL VERIFY IN FIELD EXACT LOCATION, SIZES & CONFIGURATION OF PIPING.

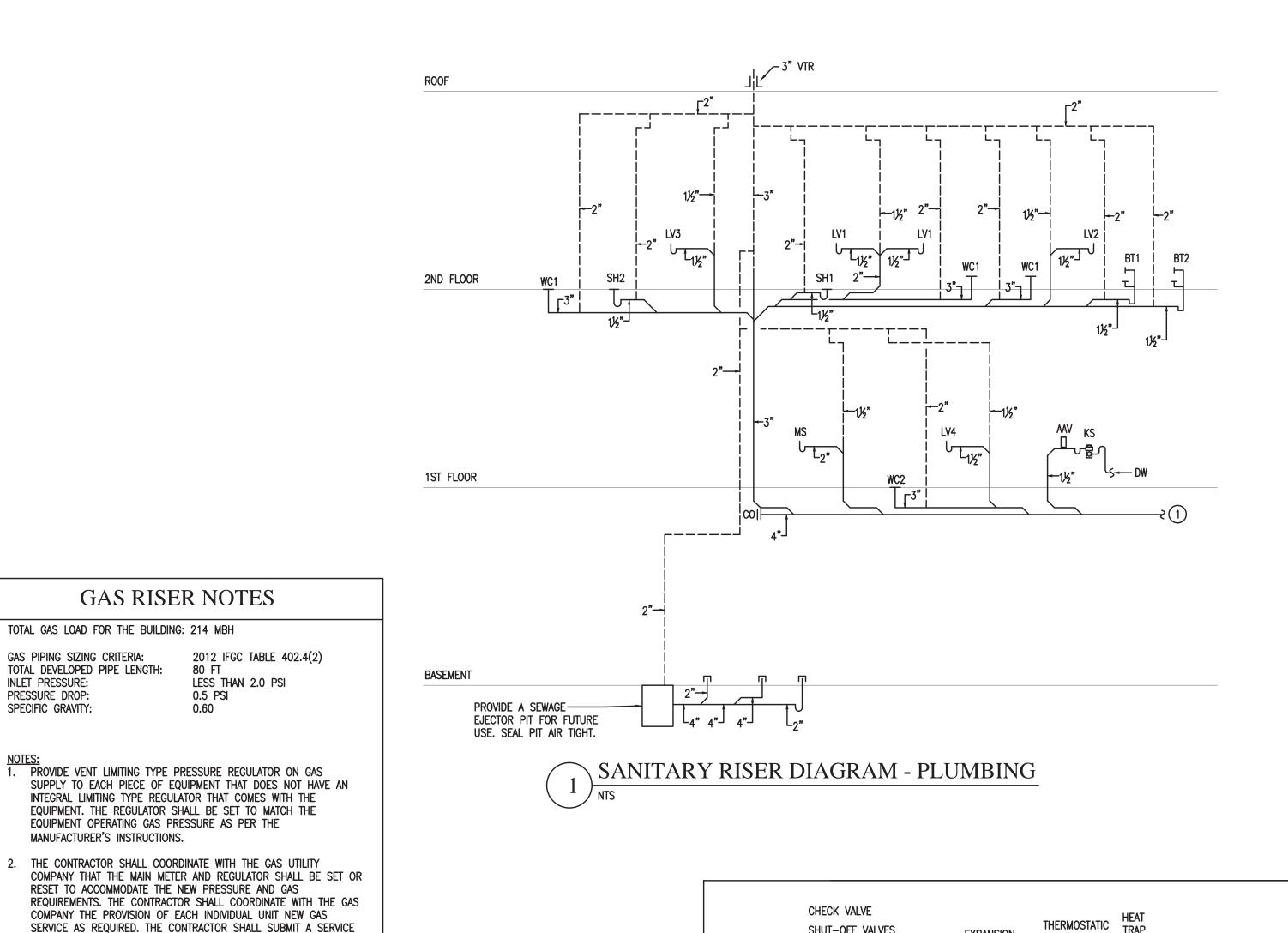
CLOSET OFFICE 1 203 SQ FT CLOSET 102 SQ FT BT2 LV2 ∘ | LV1 SH1 HALL OFFICE 3 OFFICE 2 SECOND FLOOR PLAN - MECHANICAL

SCALE: 1/4" = 1'-0"

WEST WORKSHOP ARCHITECTS SB DESIGN STUDIOS LLC 4201 S 31ST STREET #950 ARLINGTON VIRGINIA 22206 571.317.1932 salvatore@sbdesignstudios.com ALL DRAWINGS, SPECIFICATIONS AND
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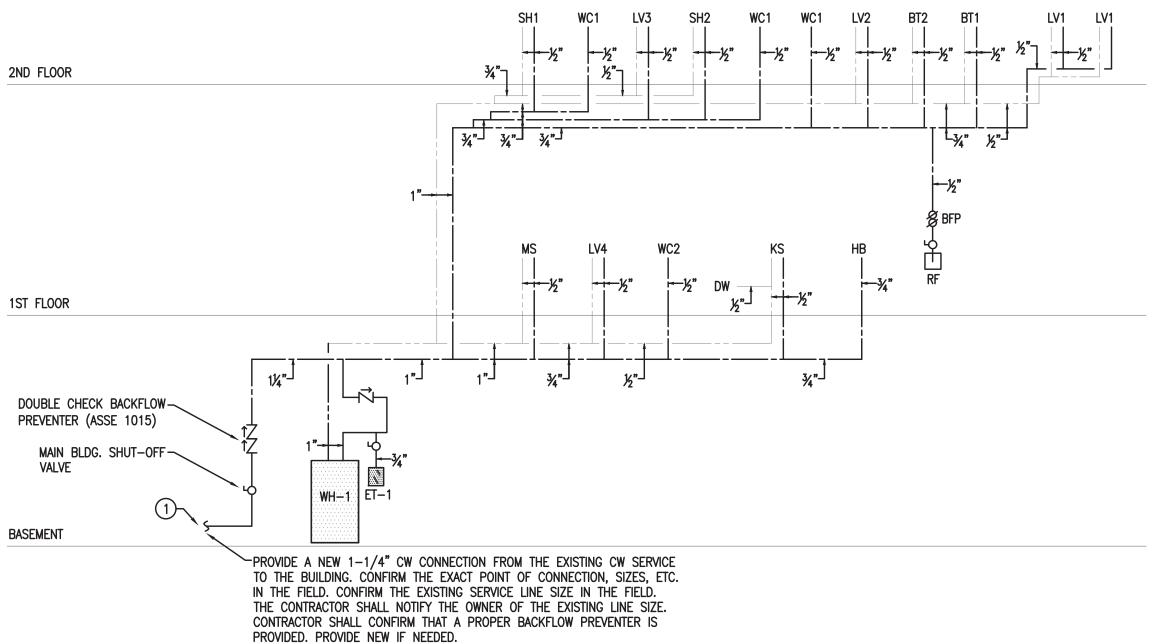
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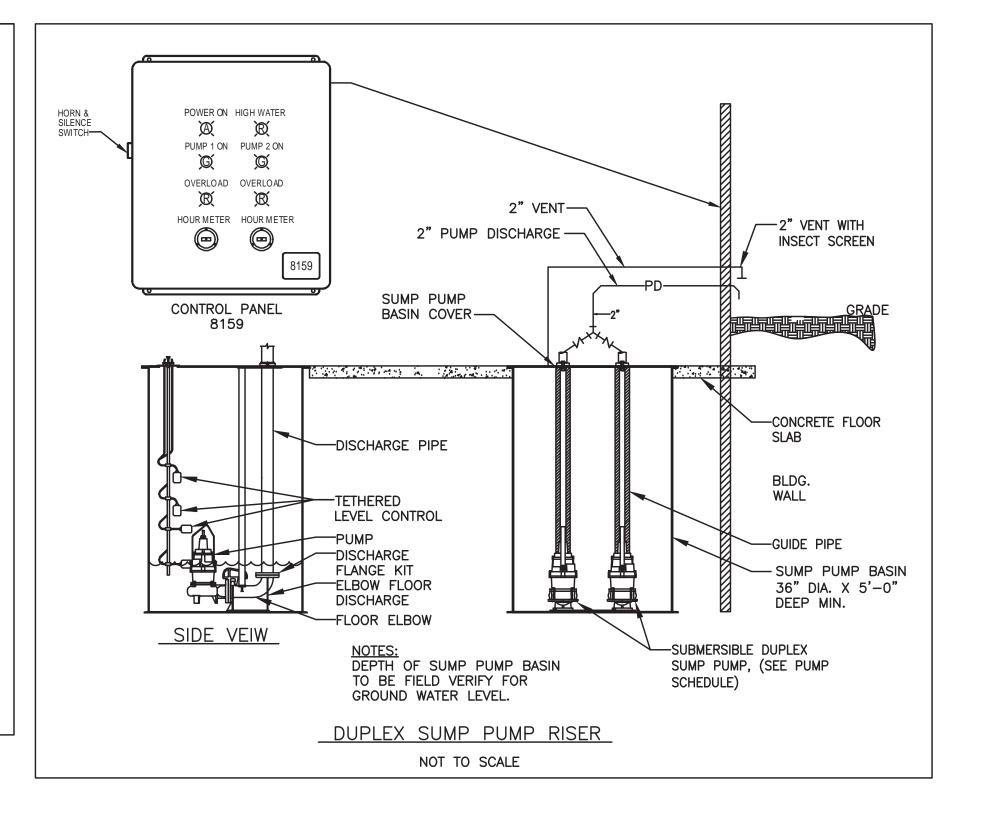
¾"\ KITCHEN

52 MBH



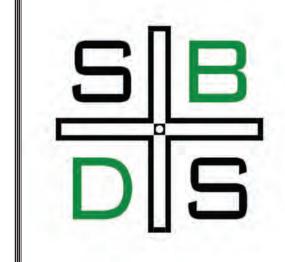
CW SUPPLY NOTE 3 TRAP HW SUPPLY VALVE CW SUPPLY DIELECTRIC UNIONS, ON H.W. & C.W. SUPPLIES WATER HEATER

THERMOSTATIC HEAT TRAP MIXING SHUT-OFF VALVES TYPICAL EXPANSION TANK VALVE REFER TO MECHANICAL FOR VENTING REQUIREMENTS VACUUM RELIEF COMBINED TEMP. AND PRESSURE RELIEF VALVE FULL SIZE T&P VALVE PIPING GAS BURNER VALVED TANK RUN TO WATER HEATER DRAIN RISER Drain Pan WATER HEATER DETAIL 1. PROVIDE HEAT TRAPS FOR HOT AND COLD WATER PIPING AT WATER HEATER IN COMPLIANCE WITH IPC SECTION 503 AND IECC.



\ DOMESTIC WATER RISER DIAGRAM - PLUMBING





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PLUMB DUKE AND 1015

2018-24

DATE DESCRIPTION

03-01-19

AS NOTED SHEET NO.

DIRT LEG -

NATURAL GAS RISER DIAGRAM - PLUMBING

₹ WH-1 62 MBH

DIRT LEG -

TOTAL GAS LOAD FOR THE BUILDING: 214 MBH

80 FT

WORK ORDER AS REQUIRED AND COORDINATE ALL NECESSARY

THE INTENT OF THE DESIGN AND THE OWNER'S REQUIREMENTS.

3. SEE EQUIPMENT MANUFACTURER INSTALLATION REQUIREMENTS FOR

GAS METER-

└─ MAIN BLDG.

SHUT-OFF

VALVE

ADJUSTMENTS NEEDED WITH THE GAS UTILITY COMPANY TO SATISFY

0.5 PSI

GAS PIPING SIZING CRITERIA:

INLET PRESSURE: PRESSURE DROP:

SPECIFIC GRAVITY:

1ST FLOOR

EXISTING INCOMING-GAS SERVICE

BASEMENT

TOTAL DEVELOPED PIPE LENGTH:

MANUFACTURER'S INSTRUCTIONS.

HOOK-UP SIZE AND ACCESSORIES.

EXTERIOR WALL-

ROOF