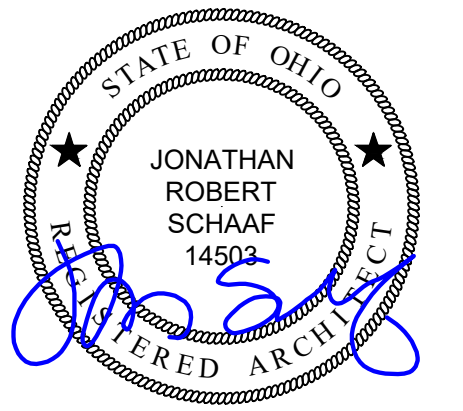


# Moderate Rehabilitation of: Huffman-Parnell RAD Conversion

9 A&B Parnell Ave. / 11 A&B Parnell Ave. / 1202 A&B Huffman Ave.  
1204 A&B Huffman Ave. / 1208 A&B Huffman Ave. / 1210 A&B Huffman Ave.  
Dayton, OH 45403

OFHA Tracking No: 22-0292



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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## PROJECT TEAM

### ARCHITECT:



## OWNER



Greater Dayton  
Premier Management  
400 Wayne Ave.  
Dayton, Ohio 45410

### PME ENGINEERS:



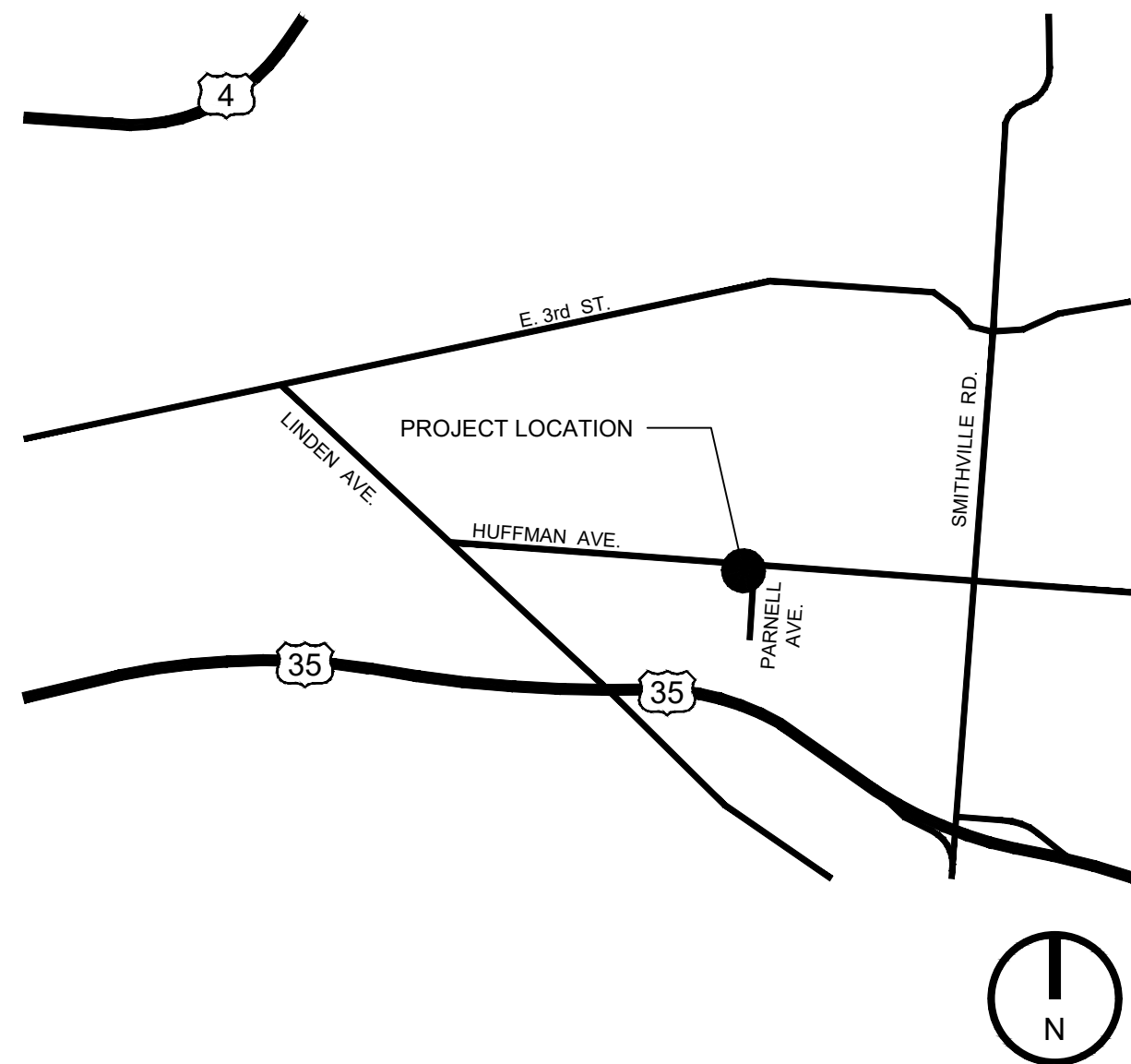
## PROJECT SUMMARY

PROJECT CONSISTS OF REHABILITATION OF AN EXISTING 12 UNIT MULTI-FAMILY BUILDING LOCATED IN DAYTON, OHIO. PROJECT CONSISTS OF 12 UNITS AND ASSOCIATED COMMON AREA SPACES.

THE PROJECT IS SUBJECT TO THE FOLLOWING STANDARDS AND REQUIREMENTS. ALL CONTRACTORS WILL BE RESPONSIBLE FOR ENSURING ALL EQUIPMENT, MATERIALS, METHODS OF INSTALLATION, CONSTRUCTION PRACTICES, ETC. USED THROUGHOUT THE PROJECT WILL MEET OR EXCEED THE CRITERIA AND/OR REQUIREMENTS LISTED WITHIN THE DOCUMENTS

- 2017 OHIO BUILDING CODE [OBC]
- 2017 OHIO MECHANICAL CODE [OMC]
- 2017 OHIO PLUMBING CODE [OPC]
- 2017 NATIONAL ELECTRIC CODE [NEC]
- 2012 IECC AND ASHRAE STANDARD 90.1-2010
- ICC A117.1-2009 [ACCESSIBILITY SAFE HARBOR]
- CITY OF DAYTON ZONING CODE
- HUD - RAD REQUIREMENTS
- OHFA FUNDING REQUIREMENTS INCLUDING BUT NOT LIMITED TO THE DESIGN AND CONSTRUCTION FEATURE FORM INCLUDED HEREIN.

## VICINITY MAP



## SHEET INDEX

### GENERAL INFORMATION / TITLE SHEETS

- G1.1 PROJECT INFORMATION
- G1.2 SCOPE OF WORK MATRIX
- G1.3 ACCESSIBILITY GUIDELINES
- G1.4 CODE REVIEW PLANS
- G1.5 UL ASSEMBLIES
- G1.6 UL ASSEMBLIES
- G1.7 UL ASSEMBLIES
- G1.8 UL ASSEMBLIES
- G1.9 UL ASSEMBLIES
- G2.1 OHFA DESIGN AND CONSTRUCTION FEATURES FORM
- G2.2 OHFA DESIGN AND CONSTRUCTION FEATURES FORM
- G2.3 OHFA LIMITED SCOPE REHAB SUSTAINABILITY STANDARDS
- G2.4 OHFA LIMITED SCOPE REHAB SUSTAINABILITY STANDARDS

### CIVIL SHEETS

- C1.1 EXISTING / DEMOLITION SITE PLAN / PROPOSED SITE PLAN
- C1.2 LANDSCAPE PLAN & DETAILS
- C1.3 ENLARGED PLANS & SITE DETAILS

### ARCHITECTURAL DRAWING SHEETS

- A0.1 OVERALL BASEMENT FLOOR PLAN
- A0.2 OVERALL FIRST FLOOR PLAN
- A0.3 OVERALL SECOND FLOOR PLAN
- A0.4 OVERALL ROOF PLAN
- A0.5 EXTERIOR ELEVATIONS
- A0.6 EXTERIOR ELEVATIONS
- A1.1 UNIT TYPE 'A' EXISTING / DEMOLITION FLOOR PLANS
- A1.2 UNIT TYPE 'A' PROPOSED FLOOR PLANS
- A1.3 UNIT TYPE 'A' REFLECTED CEILING PLANS & SCHEDULES
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- A2.1 UNIT TYPE 'B' EXISTING / DEMOLITION FLOOR PLANS
- A2.2 UNIT TYPE 'B' PROPOSED FLOOR PLANS
- A2.3 UNIT TYPE 'B' REFLECTED CEILING PLANS & SCHEDULES
- A2.4 UNIT TYPE 'B' INTERIOR ELEVATIONS
- A3.1 UNIT TYPE 'C&D' EXISTING / DEMOLITION FLOOR PLANS
- A3.2 UNIT TYPE 'C&D' PROPOSED FLOOR PLANS
- A3.3 UNIT TYPE 'C&D' REFLECTED CEILING PLANS & SCHEDULES
- A3.4 UNIT TYPE 'C' INTERIOR ELEVATIONS
- A3.5 UNIT TYPE 'D' INTERIOR ELEVATIONS
- A4.1 DETAILS
- A4.2 SECTIONS

### P/ME DRAWING SHEETS

- P1.0 PLUMBING LEGEND, SCHEDULES, DETAILS, & SPECIFICATIONS
- P2.0 PLUMBING OVERALL BASEMENT DEMOLITION FLOOR PLANS
- P2.1 PLUMBING OVERALL BASEMENT FLOOR PLANS & DIAGRAMS
- P2.2 PLUMBING OVERALL FIRST FLOOR PLANS
- P2.3 PLUMBING OVERALL SECOND FLOOR PLANS
- M1.0 MECHANICAL DEMOLITION/GENERAL NOTES & SCHEDULES
- M1.1 MECHANICAL DETAILS & SPECIFICATIONS
- M2.0 MECHANICAL OVERALL BASEMENT FLOOR PLANS
- M2.1 MECHANICAL OVERALL FIRST FLOOR PLANS
- M2.2 MECHANICAL OVERALL SECOND FLOOR PLANS
- E1.0 ELECTRICAL LEGEND, SCHEDULES, & SPECIFICATIONS
- E2.0 ELECTRICAL OVERALL BASEMENT FLOOR PLANS
- E2.1 ELECTRICAL OVERALL FIRST FLOOR PLANS
- E2.2 ELECTRICAL OVERALL SECOND FLOOR PLANS

## GDPM HUFFMAN - PARNELL

	ADDRESS	UNIT TYPE	0 BR	1 BR	2 BR	3 BR	4 BR	TOTAL	NOTES	UNIT S.F.
01	9A PARNELL AVE.	B	-	-	1	-	-	1		1,332
02	9B PARNELL AVE.	B	-	-	1	-	-	1		1,332
03	11A PARNELL AVE.	A	-	-	1	-	-	1		1,236
04	11B PARNELL AVE.	A1	-	-	1	-	-	1		1,260
05	1202A HUFFMAN AVE.	A1	-	-	1	-	-	1	SENSORY IMPAIRED UNIT	1,260
06	1202B HUFFMAN AVE.	A	-	-	1	-	-	1		1,236
07	1204A HUFFMAN AVE.	B	-	-	1	-	-	1		1,332
08	1204B HUFFMAN AVE.	B	-	-	1	-	-	1		1,332
09	1208A HUFFMAN AVE.	A	-	-	1	-	-	1		1,236
10	1208B HUFFMAN AVE.	A	-	-	1	-	-	1		1,236
11	1210A HUFFMAN AVE.	C	-	-	1	-	-	1	*TYPE A* ACCESSIBLE UNIT	756
12	1210B HUFFMAN AVE.	D	-	-	1	-	-	1		881

TOTAL:	0	0	12	0	0	12
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## CODE REVIEW

### DESCRIPTION:

REHABILITATION OF EXISTING 12-UNIT MULTI-FAMILY BUILDING  
CITY OF DAYTON  
CITY OF DAYTON  
2017 OHIO BUILDING CODE [OBC]

### CHAPTER 2: USE AND OCCUPANCY CLASSIFICATION

310.4. USE GROUP - R-2 [MULTIFAMILY RESIDENTIAL WITH SHARED EGRESS - 2 UNITS + COMMON AREAS]  
310.5. USE GROUP - R-3 [MULTIFAMILY RESIDENTIAL WITH INDEPENDENT EXITS - 10 UNITS]  
NO CHANGE TO OCCUPANCY / USE GROUPS AS PART OF THIS PROJECT.

### CHAPTER 4: SPECIAL REQUIREMENTS BASED UPON OCCUPANCY

420.2. SEPARATION WALLS BETWEEN DWELLING UNITS: FIRE PARTITIONS PER OBC 708  
420.3. HORIZONTAL FLOOR/CEILING SEPARATION BETWEEN DWELLING UNITS: HORIZONTAL ASSEMBLIES PER OBC 711.

420.5. AUTOMATIC SPRINKLER SYSTEM - REQUIRED, NONE PROVIDED - EXISTING NON-CONFORMING CONDITION [NO CHANGE]

420.6. FIRE ALARM SYSTEMS: MANUAL FIRE ALARM SYSTEM NOT REQUIRED, NONE PROVIDED; SMOKE ALARMS PER OBC 907.2.11 REQUIRED [PROVIDED]

### CHAPTER 5: GENERAL BUILDING HEIGHT AND AREA [BUILDING TYPE VB / NS]

TABLE 504.3: ALLOWABLE ACTUAL STATUS

FR	40'	20'	OK, COMPLIES
R-2	2	2	OK, COMPLIES
R-3	3	2	OK, COMPLIES
R-2	7,000	5,316 SF / FLR.	OK, COMPLIES
R-3	UNLIMITED		OK, COMPLIES

508.3. FRONTAGE INCREASE - NOT CALCULATED IN THE ALLOWABLE SF ABOVE

508.3. NON-SEPARATED OCCUPANCIES - MOST RESTRICTIVE REQUIREMENTS APPLY  
508.3.2. ALLOWABLE HEIGHT AND AREA - MOST RESTRICTIVE REQUIREMENTS APPLY  
508.3.3. SEPARATION - NO SEPARATION IS REQUIRED [DWELLING UNIT SEPARATIONS STILL APPLY]  
TABLE 509: INCIDENTAL USES - NONE APPLY

### CHAPTER 6: TYPES OF CONSTRUCTION

602.3. CONSTRUCTION TYPE - V B  
TABLE 601: FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS  
PRIMARY STRUCTURAL FRAME = 0 HOUR  
EXTERIOR BEARING WALLS = 0 HOUR  
INTERIOR BEARING WALLS = 0 HOUR  
EXTERIOR NON-BEARING WALLS - REFER TO TABLE 602  
INTERIOR NON-BEARING WALLS = 0 HOUR  
FLOOR CONSTRUCTION = 0 HOUR  
ROOF CONSTRUCTION = 0 HOUR  
TABLE 602: FIRE RESIST. RATING FOR EXT. WALLS BASED ON FIRE SEPARATION DISTANCE [V B / R]

X < 5'	X <= X < 10'	10' <= X < 30'	X >= 30'
1 HR	1 HR	0 HR	0 HR

### CHAPTER 7: FIRE-RESISTANCE RATED CONSTRUCTION

705.5. EXTERIOR WALL FIRE RESISTANCE RATING PER TABLE 601 AND 602  
TABLE 705.8: MAXIMUM AREA OF EXTERIOR WALL OPENINGS - NO CHANGE IN EXTERIOR OPENINGS, EXISTING OPENINGS ARE BEING MAINTAINED.  
708.3. FIRE PARTITIONS - 1 HOUR FIRE RESISTANCE RATING - MAINTAIN EXISTING  
711.2.4.3. HORIZONTAL ASSEMBLIES:  
1 HOUR FIRE RESISTANCE RATING BETWEEN DWELLING UNITS - MAINTAIN EXISTING  
714.3.1.2. FIRE RESISTANCE RATED WALL THRU PENETRATIONS - UL 1479, "F" RATING OF NOT LESS THAN THE WALL PENETRATED - REFER TO DRAWINGS.  
714.3.2. FIRE RESISTANCE RATED WALL THRU PENETRATIONS - UL 1479, "F" RATING OF NOT LESS THAN THE WALL PENETRATED - REFER TO DRAWINGS.  
714.3.3. FIRE RESISTANCE RATED WALL MEMBRANE PENETRATIONS - SEE NOTES ON DRAWINGS  
714.4.1. FIRE RESISTANCE RATED HORIZONTAL ASSEMBLY THRU PENETRATIONS - UL 1479, "F" "T" RATING OF NOT LESS THAN THE FLOOR PENETRATED - REFER TO DRAWINGS.  
714.4.2. FIRE RESISTANCE RATED HORIZONTAL ASSEMBLY MEMBRANE PENETRATIONS - SEE NOTES ON DRAWINGS.

TABLE 716.5: OPENING FIRE PROTECTION ASSEMBLIES: FIRE PARTITIONS: OTHER WALLS = 1 HOUR WALL / 45 MINUTE RATED DOOR / DOOR VISION PANEL SIZE MAX. SIZE TESTED.

### CHAPTER 8: INTERIOR FINISHES

803.3. INTERIOR WALL AND CEILING FINISH MATERIALS  
CLASS A = FLAME SPREAD INDEX 0-25, SMOKE DEVELOPED INDEX 0-450  
CLASS B = FLAME SPREAD INDEX 26-75, SMOKE DEVELOPED INDEX 0-450  
CLASS C = FLAME SPREAD INDEX 76-200, SMOKE DEVELOPED INDEX 0-450

TABLE 803.11: INTERIOR WALL AND CEILING FINISH REQUIREMENTS  
USE R-2 / R-3, NON-SPRINKLERED

INTERIOR EXIT STAIRWAYS/ EXIT PASSAGEWAYS: CLASS B

CORRIDORS / ENCLOSURE FOR EXIT ACCESS STAIRS: CLASS B

ROOMS AND ENCLOSED SPACES: CLASS C

804.4.2. INTERIOR FLOOR FINISHES - MINIMUM CRITICAL RADIANT FLUX - R-2 CLASS II

### CHAPTER 9: FIRE PROTECTION SYSTEMS

903.2.8. AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH 903.3 REQUIRED - NO AUTOMATIC SPRINKLER SYSTEM EXISTS, EXISTING NON-CONFORMING CONDITION - NO CHANGE - NO CHANGE IN OVERALL BUILDING AREA OR HEIGHT, NO NEW RESIDENTIAL USE.  
905.3.1. STANDPIPE SYSTEM NOT REQUIRED [HIGHEST FLOOR IS LESS THAN 30' ABOVE THE LOWEST LEVEL OF F.D. ACCESS]

906.1. PORTABLE FIRE EXTINGUISHERS IN ACCORDANCE WITH OHIO FIRE CODE AND NFPA STANDARD #10, 2010 EDITION, AND CITY OF DAYTON F.D.

907.2.9.1. R-2 USE: MANUAL FIRE ALARM SYSTEM NOT REQUIRED, NOT PROVIDED

907.2.11.2. INTERCONNECTED SMOKE ALARMS WITH BATTERY BACK UP SHALL BE PROVIDED IN EACH SLEEPING ROOM AND IN THE VICINITY OUTSIDE OF EACH SLEEPING ROOM.

[SMOKE ALARMS AND SMOKE/CARBON MONOXIDE ALARMS TO BE PHOTOELECTRIC TYPE]

915.2.1. CARBON MONOXIDE DETECTION, DWELLING UNITS, CARBON MONOXIDE DETECTORS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

915.4.3. COMBINATION CARBON MONOXIDE AND SMOKE ALARMS ARE PERMITTED

### CHAPTER 10: MEANS OF EGRESS

TABLE 1004.1.2	R-2' 1200 SF GROSS
BASEMENT	5,316 SF = 26 OCCUPANTS
FIRST FLOOR	5,316 SF = 26 OCCUPANTS
SECOND FLOOR	5,316 SF = 26 OCCUPANTS
TOTAL OCCUPANT LOAD	52,030 SF = 78 OCCUPANTS

## CONTRACT ADMINISTRATION

- RDA IS PROVIDING CONTRACT ADMINISTRATION SERVICES FOR THIS PROJECT. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND OWNER TO COORDINATE THE PROPOSED WORK, SCHEDULES, INSTALLATIONS, PERMITS, INSPECTIONS, ETC.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ARCHITECT FOR CLARIFICATION SHOULD THERE BE QUESTIONS REGARDING THE INTERPRETATION OR INTENT OF THE DOCUMENTS, FIELD DISCOVERY, ETC. THAT WOULD IMPACT OR AFFECT THE WORK AS PROPOSED. RDA SHALL NOT BE LIABLE FOR DEVIATIONS, FIELD CHANGES, AND OWNER CHANGES DURING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD CONFIRM ALL EXISTING CONDITIONS, PROPOSED INSTALLATIONS AND HOW THEY INTERFACE TO ENSURE THE SYSTEMS CAN BE INSTALLED PER THE INTENT OF THE DOCUMENTS AND TO MEET APPLICABLE BUILDING AND ZONING CODES, LOCAL REQUIREMENTS, OWNER REQUIREMENTS, ETC.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEET ALL APPLICABLE BUILDING AND ZONING CODES REQUIREMENTS WHETHER SPECIFICALLY NOTED HEREIN OR NOT. BUILDING CODES REPRESENT THE MINIMUM ACCEPTABLE STANDARD.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ALL PRODUCTS, MATERIALS, INSTALLATIONS, AND THE LIKE IN ACCORDANCE WITH APPLICABLE INDUSTRY STANDARDS, APPLICABLE MANUFACTURER'S DETAILS AND INSTRUCTIONS, IN ACCORDANCE WITH BEST PRACTICES, AND BUILDING CODE PROVISIONS.

## ABBREVIATIONS

ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES	DW	DISHWASHER	NIC	NOT IN CONTRACT
AFF	ABOVE FINISH FLOOR	ELEV	ELEVATION	NTS	NOT TO SCALE
ALUM	ALUMINUM	EQ	EQUAL	OC	ON CENTER
ATC	ACOUSTIC TILE CEILING	FD	FLOOR DRAIN	OPG	OPENING
BLKG	BLOCKING	FDN	FOUNDATION	PEMB	PRE-ENGINEERED METAL BUILDING
BET	BETWEEN	FE	FIRE EXTINGUISHER	PTD	PAINTED
BRG	BEARING	FF	FINISH FLOOR	QT	QUARRY TILE
BTM	BOTTOM	FIN	FINISH(ED)	RAD	RADIUS
CIP	CAST IN PLACE	FRT	FIRE RETARDANT TREATED	RD	ROOF DRAIN
CL	CENTERLINE	FSE	FOOD SERVICE EQUIPMENT	REF	REFRIGERATOR
CLG	CEILING	FTG	FOOTING	REQ'D	REQUIRED
CT	CERAMIC TILE	FV	FIELD VERIFY	RO	ROUGH OPENING
CLR	CLEAR	GA	GAUGE	SIM	SIMILAR
COL	COLUMN	GYP BD	GYPSUM BOARD	SM	SHEET METAL
CPT	CARPET	GC	GENERAL CONTRACTOR	SPEC	SPECIFICATION
CONC	CONCRETE	HM	HOLLOW METAL	SS	STAINLESS STEEL
CMU	CONCRETE MASONRY UNIT	HT	HEIGHT	SQ	SQUARE
CONT	CONTINUOUS	HOR	HORIZONTAL	STL	STEEL
CJ	CONTROL JOINT	MAX	MAXIMUM	T.O.	TOP OF
DF	DRINKING FOUNTAIN	MECH	MECHANICAL	TYP	TYPICAL
DIA	DIAMETER	MO	MASONRY OPENING	UFAS	UNIFORM FEDERAL ACCESSIBILITY STD.
DS	DOWNSPOUT	MTD	MOUNTED	WRB	WEATHER RESISTIVE BARRIER
DTL	DETAIL	MTL	METAL	WWF	WELDED WIRE FABRIC

RDA GROUP ARCHITECTS  
 7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440



Huffman-Parnell RAD Conversion  
 9 A&B Parnell Ave. | 1111 A&B Parnell Ave. |  
 1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
 1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
 Dayton, Ohio 45403  
 OHFA Project -  
 Greater Dayton Premier Management

Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set
Sheet Title	
Project Information	
Sheet Number	
G1.1	

## WALL / SYMBOL LEGEND

	EXISTING WALLS/FINISHES TO BE REMOVED
	EXISTING MANSORY WALL W/ 1x FURRING AND PLASTER FINISHES
	EXISTING WOOD STUD FRAME WALL W/ PLASTER FINISHES
	NEW WOOD STUD FRAME WALL W/ GYPSUM BOARD FINISHES
	NEW CONCRETE FOUNDATION WALL
	NEW CMU FOUNDATION WALL
	WALL TYPE KEY
	FLOOR DRAIN
	CARBON MONOXIDE / SMOKE ALARM - 120V W/ BATTERY BACKUP
	SMOKE DETECTOR - 120V W/ BATTERY BACKUP
	EXHAUST FAN - VENT DIRECT TO EXTERIOR
	DEMOLITION KEY NOTE
	NEW CONSTRUCTION KEY NOTE
	REFLECTED CEILING KEY NOTE
	WINDOW TYPE KEY
	DOOR TYPE KEY
	SECTION TAG
	ELEVATION TAG

## DIMENSIONING CONVENTIONS

- ALL DIMENSIONS TO EXISTING SURFACES ARE TO EXISTING FINISH SURFACE.
- DO NOT SCALE DRAWINGS.
- REFER TO DRAWING NOTES FOR ANY SPECIAL NOTES THAT GOVERN LAYOUT.
- FIELD VERIFY ALL EXISTING DIMENSIONS.

## STRUCTURAL NOTES:

DESIGN UNIFORM LOADS:  
 SOIL BEARING CAPACITY: 1,500 PSF - ASSUMED  
 FLOOR LIVE LOAD: 100 PSF - COMMON AREAS  
 FLOOR LIVE LOAD: 40 PSF - RESIDENTIAL AREAS  
 ROOF LIVE LOAD: 20 PSF  
 GROUND SNOW LOAD: 20 PSF  
 ICE ON SNOW: 5 PSF  
 SNOW EXPOSURE FACTOR: 0.7  
 SNOW LOAD IMPORTANCE FACTOR: 1.0  
 THERMAL FACTOR: 1.0

GUARDRAILS: 200 PLF, SINGLE CONCENTRATED LOAD ALONG TOP

WIND LOAD:  
 ULTIMATE DESIGN WIND SPEED: 115 MPH, 3 SEC. GUST EXPOSURE:  
 WIND IMPORTANCE FACTOR: 1.0  
 BUILDING CATEGORY: 11  
 INTERNAL PRESSURE COEFFICIENT: +/- 0.18

FLOOD DESIGN:  
 SITE IS NOT LOCATED IN FLOOD PRONE AREA, PER CORP. OF ENGINEERS.

SPECIAL LOADS: REFER TO PLANS AS APPLICABLE.

## DEFLECTION LIMITATION CRITERIA

INTERIOR PARTITIONS	H/180
FLOOR JOISTS/BEAMS	L/360
OTHER STRUCTURAL COMPONENTS	L/240
EXTERIOR WALL W/ PLASTER/SUCCO	L/360
EXTERIOR WALLS W/ BRITTLE FINISH	H/240
EXTERIOR WALL W/ FLEXIBLE FINISH	H/180
[H/180 PREVALS DUE TO INTERIOR GYPSUM BOARD]	
LINTELS SUPPORTING MASONRY VENEER	L/600

## SENSORY IMPAIRED UNIT REQUIREMENTS

- PROVIDE VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
- PROVIDE AUDIBLE/VISUAL SMOKE ALARMS. REFER TO ELECTRICAL DRAWINGS.
- PROVIDE EXTERIOR REMOTE AUDIBLE/VISUAL SMOKE ALARMS. REFER TO ELECTRICAL DRAWINGS.
- PROVIDE AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECTRICAL DRAWINGS.
- PROVIDE CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
- PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.
- PROVIDE TYPE II BRAILLE AT ADDRESS PLAQUE

## FINISH SPECIFICATIONS

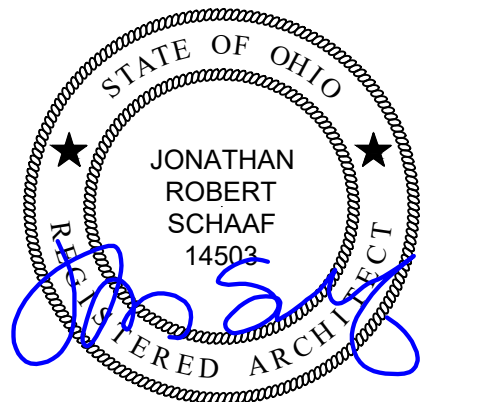
<b>FLOORING</b> LVP:	VINYL PLANK FLOORING MFR: TARKETT COLOR: EVENT + WOOD	<b>EXTERIOR PAINT:</b> BRICK:	MFR: SHERWIN WILLIAMS COLOR: T.B.D. FINISH: T.B.D.
<b>TILE:</b>	FLOOR TILE - 12x12 MFR: DAL TIE CORE FUNDAMENTALS, ADVANCE TIER TILE COLOR: T.B.D. GROUT: MAPEI GROUT COLOR: T.B.D.	<b>TRIM:</b>	MFR: SHERWIN WILLIAMS COLOR: T.B.D. FINISH: T.B.D.
<b>RUBBER:</b>	RUBBER FLOORING - 24x24 MFR: TARKETT / JOHNSONITE COLOR SPLASH COLOR: T.B.D.	<b>DOORS:</b>	MFR: SHERWIN WILLIAMS COLOR: T.B.D. FINISH: T.B.D.
<b>TREADS:</b>	RUBBER STAIR TREADS/RISERS MFR: TARKETT / JOHNSONITE COLOR SPLASH COLOR: T.B.D.	<b>RAILINGS:</b>	MFR: SHERWIN WILLIAMS COLOR: T.B.D. FINISH: T.B.D.
<b>TRANSITIONS</b> TILE-LVP:	MFR: SCHLUTER SLOPED TRANSITION STRIP	<b>VINYL SIDING:</b> VINYL SIDING #1:	MFR: T.B.D. STYLE: SHAKE COLOR: T.B.D.
<b>RUBBER-LVP:</b>	MFR: TARKETT - IF REQUIRED COLOR: T.B.D.	<b>VINYL SIDING #2:</b>	MFR: T.B.D. STYLE: HALF ROUND COLOR: T.B.D.
<b>BASE &amp; CASING</b> BASE:	3 1/4" RANCH PROFILE (PAINTED)	<b>MILLWORK:</b> COUNTERTOPS:	PLASTIC LAMINATE MFR: WILSONART COLOR: T.B.D.
<b>CASING:</b>	2 1/4" RANCH PROFILE (PAINTED)	<b>SOLID SURFACE:</b> SURROUND:	MFR: SWANSTONE COLOR: T.B.D.
<b>SHOE:</b>	1/2" x 1 1/2" SHOE MOLD (PAINTED)		
<b>RUBBER:</b>	4" RUBBER BASE MFR: TARKETT / JOHNSONITE COLOR: T.B.D.		
<b>INTERIOR PAINT:</b> WALL:	MFR: SHERWIN WILLIAMS COLOR: T.B.D. FINISH: EGG-SHELL		
<b>ACCENT WALL:</b>	MFR: SHERWIN WILLIAMS COLOR: T.B.D. FINISH: EGG-SHELL		
<b>BASE &amp; TRIM</b>	MFR: SHERWIN WILLIAMS COLOR: T.B.D. FINISH: SEMI GLOSS		
<b>CEILING:</b>	MFR: SHERWIN WILLIAMS COLOR: CEILING WHITE FINISH: FLAT		

THE SCOPE OF WORK MATRIX PROVIDED ON THIS SHEET MUST BE COORDINATED WITH THE FULL SET OF DOCUMENTS INCLUDING DRAWINGS, DETAILS, AND SPECIFICATIONS. CONDITIONS VARY BY LOCATION AND AREA SUBJECT TO FIELD VERIFICATION. ADDITIONAL SCOPE / PROJECT REQUIREMENTS ARE INDICATED ELSEWHERE IN THIS SET

EXTERIOR SCOPE OF WORK MATRIX		
DESCRIPTION		
1	EXISTING BRICK VENEER TO REMAIN	X
2	PREP AND PAINT STEEL LINTELS AT EXTERIOR OPENINGS	X
3	EXISTING VINYL SOFFITS TO REMAIN - REPAIR / RESECURE AS REQUIRED	X
4	EXISTING ALUMINUM CLAD FASCIA TO REMAIN	X
5	EXISTING ALUMINUM WRAP FRIEZE TRIM TO REMAIN	X
6	PREP AND PAINT EXISTING TRIM AT FRONT ENTRANCES, INCLUSIVE OF BRICK THAT WAS PREVIOUSLY PAINTED	X
7	PREP AND PAINT EXISTING BRICK AT RECESSED FRONT ENTRANCES WHICH WERE PREVIOUSLY PAINTED	X
8	PREP AND PAINT RECESSED FRONT ENTRANCE CEILINGS	X
9	PREP AND PAINT EXISTING BRICK WHICH WAS PREVIOUSLY PAINTED AT EXTERIOR OF BUILDING	X
10	EXISTING TILE FLOOR ON CONCRETE AT RECESSED ENTRY ALCOVES TO REMAIN	X
11	REMOVE EXISTING VINYL SIDING. INSTALL NEW VINYL SIDING OVER NEW WEATHER RESISTIVE BARRIER. INSTALL NEW TERMINATIONS, FLASHING, AND RELATED COMPONENTS	X
12	INSTALL NEW AREA WELL COVERS AT ALL EXISTING BASEMENT WINDOW AREA WALLS.	X
13	EXISTING SHINGLE ROOF SYSTEM TO REMAIN. FLASH / REPAIR AS REQUIRED BY PROPOSED WORK FOR NEW PENETRATIONS, ETC.	X
14	EXISTING GUTTERS AND DOWNSPOUTS TO REMAIN	X
15	PREP AND PAINT ALL THRU WALL PENETRATIONS, NEW AND EXISTING TO MATCH WALL	X
16	PREP AND PAINT ALL SURFACE MOUNTED CONDUITS, RACEWAYS, ETC. TO MATCH WALL	X
17	REMOVE EXISTING, INSTALL NEW CONCRETE PAVING, STOOPS, HANDRAILS, ETC. REFER TO CIVIL DRAWINGS	X
18	REMOVE EXISTING, INSTALL NEW EXTERIOR HOSE BIBS. REFER TO PLUMBING DWG.	X
19	REMOVE EXISTING, INSTALL NEW ADDRESS PLAQUES AT EACH ENTRANCE	X
20	REMOVE EXISTING, INSTALL NEW EXTERIOR LIGHT FIXTURES. REFER TO ELECTRICAL DWG.	X
21	REMOVE EXISTING, INSTALL HANDRAILS AT STEPS, STOOPS, ETC. REFER TO DRAWINGS	X

## INTERIOR SCOPE OF WORK MATRIX

DESCRIPTION	PARNELL AVE.				HUFFMAN AVE.								
	9A	9B	11A	11B	1202A	1202B	1204A	1204B	1208A	1208B	1210A	1210B	COMMON
1	REMOVE / ABATE ALL ASBESTOS CONTAINING MATERIALS. REFER TO ENVIRONMENTAL SPECIFICATIONS	X	X	X	X	X	X	X	X	X	X	X	X
2	REMEDiate LEAD BASED PAINT. REFER TO ENVIRONMENTAL SPECIFICATIONS	X	X	X	X	X	X	X	X	X	X	X	X
3	PREP AND APPLY WATERPROOFING COATING AT INTERIOR FACE OF BASEMENT FOUNDATION WALLS. PREP AND PAINT DEMISING FOUNDATION WALLS	X	X	X	X	X	X	X	X	X			X
4	PREP EXISTING CRACKS IN EXISTING CONCRETE FOUNDATION WALLS AND INJECT WITH SEALANT SYSTEM. REFER TO DRAWINGS FOR LOCATIONS.	X	X	X	X	X	X	X	X	X			X
5	PREP AND SEAL ALL PENETRATIONS (NEW, EXISTING AND ABANDONED) THROUGH PERIMETER FOUNDATION WALLS AND EXTERIOR BUILDING WALLS, COORDINATE REQUIREMENTS WITH PLUMBING, MECHANICAL, AND ELECTRICAL DWG. FOLLOW APPLICABLE PENETRATION DETAILS.	X	X	X	X	X	X	X	X	X	X	X	X
6	PREP AND PAINT EXISTING STEEL COLUMNS AND STEEL BEAM IN BASEMENT	X	X	X	X	X	X	X	X	X			X
7	SAWCUT, REMOVE, TRENCH, AND INSTALL NEW CONCRETE SLAB AS REQUIRED FOR INSTALLATION OF NEW PLUMBING STACKS TO EXISTING UNDERSLAB SANITARY PIPING. COORDINATE WITH FLOOR PLAN AND PLUMBING DRAWINGS	X	X	X	X	X	X	X	X	X			X
8	CLEAN ALL BASEMENT SLABS FROM DEBRIS, PARTICULATES, ETC. FROM PAST LEAKS												
9	INSTALL NEW 2X CENTER STRINGER AT EXISTING BASEMENT STAIR. CUT TO FIT EXISTING PROFILE. INSTALL NEW 2X CLOSED RISER FRAMING. PREP AND PAINT NEW AND EXISTING FRAMING COMPONENTS	X	X	X	X	X	X	X	X	X			X
10	REMOVE EXISTING, INSTALL NEW PAINTED HANDRAIL AND WALL MOUNTED SUPPORTS AT BASEMENT STAIR	X	X	X	X	X	X	X	X	X			X
11	REMOVE EXISTING FINISH FLOOR (CARPET, VCT, TILE, ETC.) AND UNDERLAYMENT TO ORIGINAL SUBFLOOR (OR HARDWOOD FLOOR IF IT EXISTS). INSTALL NEW UNDERLAYMENT / PREP AND INSTALL NEW FINISH FLOOR AS SCHEDULED THROUGHOUT ALL SPACES	X	X	X	X	X	X	X	X	X	X	X	X
12	EXISTING HARDWOOD FLOOR / TREADS AT STAIR AND LANDING TO REMAIN. SAND, PREP, AND REFINISH WITH STAINED HARDWOOD TREADS AND PAINTED RISERS AND SKIRT BOARDS	X	X	X	X	X	X	X	X	X	X	X	X
13	REMOVE EXISTING, INSTALL NEW STAINED WALL RAIL AT EXISTING STAIR BETWEEN FIRST AND SECOND FLOOR. REMOVE EXISTING, INSTALL NEW WALL MOUNTED SUPPORTS.	X	X	X	X	X	X	X	X	X	X	X	X
14	REMOVE EXISTING WOOD BASE AND SHOE MOLD AND/OR RUBBER BASE COMPLETE. INSTALL NEW PAINTED WOOD BASE AND SHOE MOLD THROUGHOUT ALL SPACES RUBBER BASE WHERE INDICATED ON FINISH SCHEDULE	X	X	X	X	X	X	X	X	X	X	X	X
15	REMOVE EXISTING GYPSUM BOARD / PLASTER FINISHES WHERE INDICATED ON PLANS AND WHERE REQUIRED TO EXTEND NEW UTILITIES OR TO ACCOMMODATE PROPOSED WORK SCOPE (PLUMBING, MECHANICAL, ELECTRICAL). CUT AND PATCH TO THE EXTENT REQUIRED. COORDINATE WITH PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS. REPAIRS SHALL BE TO A LIKE NEW CONDITION. INTENT OF GYPSUM BOARD / PLASTER REPAIRS IS TO MATCH EXISTING TEXTURE / FINISH AS APPLICABLE. LEVEL 4 FINISH IS THE MINIMUM STANDARD. NOTE: EXTENT OF WORK VARIES BY LOCATION. MAINTAIN INTEGRITY OF FIRE RESISTANCE RATED WALL / FLOOR-CEILING ASSEMBLIES AS APPLICABLE	X	X	X	X	X	X	X	X	X	X	X	X
16	CLEAN, REPAIR / SKIMCOAT EXISTING GYPSUM BOARD / PLASTER AT WALLS AND CEILINGS AS REQUIRED BY WORK TO CREATE A LIKE NEW CONDITION. FILL / REPAIR EXISTING HOLES, REMOVE ANY REMNANTS OF VINYL GRAPHICS, TAPE, FAILED TAPE JOINTS, MINOR SETTLEMENT CRACKS, ETC. AS WELL AS ANY NEW CUT / PATCH REPAIRS REQUIRED FOR PROPOSED WORK. INFILL OPENINGS FROM ABANDONED / RELOCATED / REMOVED ELECTRICAL DEVICES (COORDINATE WITH ELECTRICAL) REMOVE ABANDONED OR UNUSED CURTAIN RODS, BRACKETS, ETC. CONTRACTOR TO COORDINATE REQUIRED CUT / PATCH OPERATIONS TO FACILITATE WORK. REPAIR / REFINISH PREVIOUS PATCHES AS IS APPLICABLE. INTENT OF GYPSUM BOARD / PLASTER REPAIRS IS TO MATCH EXISTING TEXTURE / FINISH AS APPLICABLE. LEVEL 4 FINISH IS THE MINIMUM STANDARD. NOTE: EXTENT OF WORK VARIES BY LOCATION. MAINTAIN INTEGRITY OF FIRE RESISTANCE RATED WALL / FLOOR-CEILING ASSEMBLIES AS APPLICABLE	X	X	X	X	X	X	X	X	X	X	X	X
17	REPAIR EXISTING GYPSUM BOARD / PLASTER FINISHES AS REQUIRED FROM THE REMOVAL OF EXISTING EXTERIOR DOOR FRAMES WHERE APPLICABLE. RESTORE FINISHES TO LEVEL 4 FINISH TO MATCH ADJACENT WALLS.	X	X	X	X	X	X	X	X	X	X	X	X
18	REMOVE EXISTING, INSTALL NEW WALL AND CEILING ACCESS PANELS AT EXISTING LOCATIONS AND AS INDICATED ON DRAWINGS. AT CEILING ACCESS PANELS, INSTALL GASKET AT PERIMETER OF OPENING AND FIBERGLASS BATT INSULATION AT TOP SIDE OF PANEL	X	X	X	X	X	X	X	X	X	X	X	X
19	REMOVE EXISTING THRU-WALL MAILBOX SLOTS COMPLETE. INFILL OPENING IN EXTERIOR WALL ASSEMBLY. INSTALL NEW WALL MOUNTED EXTERIOR MAIL BOXES.	X	X	X	X	X	X	X	X	X	X	X	X
20	REMOVE EXISTING STORM DOORS COMPLETE. (FRONT & REAR ENTRANCES)	X	X	X	X	X	X	X	X	X	X	X	X
21	REMOVE EXISTING EXTERIOR DOORS, FRAMES (STEEL), AND DOOR HARDWARE. INSTALL NEW DOORS, FRAMES, AND HARDWARE, REFER TO DOOR SCHEDULE. PREP AND PAINT DOORS, FRAMES, AND CASING	X	X	X	X	X	X	X	X	X	X	X	X
22	REMOVE EXISTING INTERIOR DOORS AND HARDWARE FROM EXISTING STEEL FRAMES. STEEL FRAMES TO REMAIN. INSTALL NEW DOOR SLABS INTO EXISTING STEEL FRAMES (AND NEW STEEL FRAMES AT NEW INTERIOR DOOR LOCATIONS). INSTALL NEW HARDWARE, REFER TO DOOR SCHEDULE. PREP AND PAINT DOORS AND FRAMES	X	X	X	X	X	X	X	X	X	X	X	X
23	REMOVE EXISTING ALUMINUM WINDOWS, INSTALL NEW VINYL WINDOWS IN THE ORIGINAL ROUGH OPENINGS. MATCH ORIGINAL CONFIGURATION / OPERATION. DO NOT REDUCE NET OPENING AREA. INSTALL NEW JOINT SEALANT AT INTERIOR AND EXTERIOR PERIMETER.	X	X	X	X	X	X	X	X	X	X	X	X
24	REMOVE EXISTING MARBLE STOOLS, INSTALL NEW SOLID SURFACE WINDOW STOOLS AT ALL EXISTING WINDOW OPENINGS	X	X	X	X	X	X	X	X	X	X	X	X
25	EXISTING WINDOW CASING / JAMB CONDITIONS VARY BY WINDOW OPENING - MAINTAIN EXISTING CONDITIONS, REPAIR / PREP / PAINT AS APPLICABLE TO THE WORK	X	X	X	X	X	X	X	X	X	X	X	X
26	REMOVE EXISTING, INSTALL NEW INTERIOR JAMB MOUNTED WINDOW BLINDS. REMOVE ALL EXISTING CURTAIN RODS / BRACKETS, ETC. COMPLETE REPAIR FINISHES IN WALLS	X	X	X	X	X	X	X	X	X	X	X	X
27	EXISTING GLASS BLOCK WINDOWS AT BASEMENT TO REMAIN. REPAIR MOTOR JOINTS AS REQUIRED, REMOVE EXISTING, INSTALL NEW JOINT SEALANT AT PERIMETER OF OPENING	X	X	X	X	X	X	X	X	X			X
28	REMOVE EXISTING, INSTALL NEW CLOSET SHELVING AND HANGING RODS AT CLOSETS	X	X	X	X	X	X	X	X	X	X	X	X
29	REMOVE EXISTING KITCHEN CABINETS AND COUNTERTOPS COMPLETE. INSTALL NEW KITCHEN CABINETS AND COUNTERTOPS INCLUSIVE OF ALL ACCESSORIES AND COMPONENTS	X	X	X	X	X	X	X	X	X	X	X	X
30	REMOVE EXISTING, INSTALL NEW KITCHEN APPLIANCES - RANGE, REFRIGERATOR, AND VENTILATED RANGE HOOD. COORDINATE INSTALLATION / ROUGH-INS. TURN OVER EXISTING APPLIANCES TO OWNER IF SPECIFICALLY DIRECTED TO DO SO PER THE CONTRACT DOCUMENTS.	X	X	X	X	X	X	X	X	X	X	X	X
31	REMOVE EXISTING, INSTALL NEW SPLASH PLATE BEHIND RANGE (AND ALONGSIDE RANGE WHERE WALL IS DIRECTLY ADJACENT TO RANGE)	X	X	X	X	X	X	X	X	X	X	X	X
32	REMOVE EXISTING CERAMIC TILE BACKSPLASH COMPLETE. REPAIR / REFINISH GYPSUM BOARD FINISHES TO MATCH ADJACENT	X	X	X	X	X	X	X	X	X	X	X	X
33	MODIFY EXISTING FURRING / FRAMING / FINISHES AT SOFFITS ABOVE CABINETS, REPAIR FINISHES AT CEILING / WALL TO MATCH ADJACENT FINISHES.	X	X	X	X	X	X	X	X	X	X	X	X
34	REMOVE EXISTING, INSTALL NEW KITCHEN SINK AND FAUCET. REFER TO PLUMBING DWG. REMOVE ALL GARBAGE DISPOSALS, TERMINATE ELECTRICAL ROUGH IN. REFER TO ELECTRICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
35	REMOVE EXISTING VANITY / WALL HUNG SINK. INSTALL NEW VANITY CABINET AND COUNTERTOP WITH INTEGRAL BOWL SINK. REMOVE EXISTING, INSTALL NEW LAVATORY FAUCET. REFER TO PLUMBING DWG.	X	X	X	X	X	X	X	X	X	X	X	X
36	REMOVE EXISTING, INSTALL NEW WATER CLOSET. REFER TO PLUMBING DWG.	X	X	X	X	X	X	X	X	X	X	X	X
37	REMOVE EXISTING BATH TUB AND TILE SURROUND, INSTALL NEW BATH TUB AND SOLID SURFACE SHOWER SURROUND. REMOVE EXISTING, INSTALL NEW TUB / SHOWER CONTROLS. REFER TO PLUMBING DWG.	X	X	X	X	X	X	X	X	X	X	X	X
38	REMOVE EXISTING, INSTALL NEW BATHROOM ACCESSORIES.	X	X	X	X	X	X	X	X	X	X	X	X
39	REMOVE EXISTING, INSTALL NEW BATHROOM EXHAUST FAN. REFER TO MECHANICAL / ELECTRICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
40	REMOVE EXISTING, INSTALL NEW SUPPLY AND DRAIN PIPING. REFER TO PLUMBING DWG.	X	X	X	X	X	X	X	X	X	X	X	X
41	REMOVE EXISTING, INSTALL NEW TENANT LOAD CENTERS. REFER TO ELECTRICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
42	REMOVE EXISTING, INSTALL NEW ELECTRICAL / DATA / PHONE DEVICES AND COVER PLATES. REFER TO ELECTRICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
43	REMOVE EXISTING, INSTALL NEW INTERIOR LIGHT FIXTURES. REFER TO ELECTRICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
44	REMOVE EXISTING, INSTALL NEW INTERCONNECTED SMOKE ALARMS AND CARBON MONOXIDE ALARMS. REFER TO ELECTRICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
45	REMOVE EXISTING, INSTALL NEW WASHER AND DRYER HOOKUPS. REFER TO PLUMBING AND MECHANICAL DRAWINGS	X	X	X	X	X	X	X	X	X	X	X	X
46	REMOVE EXISTING, INSTALL NEW GAS FIRED WATER HEATERS. REFER TO PLUMBING DWG.	X	X	X	X	X	X	X	X	X	X	X	X
47	REMOVE EXISTING, INSTALL NEW HIGH EFFICIENCY FORCED AIR GAS FIRED FURNACE / AC AND PROGRAMMABLE THERMOSTAT. REFER TO MECHANICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
48	REMOVE EXISTING, INSTALL NEW AIR DEVICES AT ALL EXISTING LOCATIONS. REFER TO MECHANICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
49	CLEAN ALL EXISTING DUCTWORK. REFER TO MECHANICAL DWG.	X	X	X	X	X	X	X	X	X	X	X	X
50	INSTALL NEW PASSIVE RADON MITIGATION SYSTEMS. REFER TO DRAWINGS	X	X	X	X	X	X	X	X	X	X	X	X
51	INSTALL NEW BLOWN IN FIBERGLASS INSULATION TO MEET R-49 IN ATTIC SPACES	X	X	X	X	X	X	X	X	X	X	X	X



Jonathan Robert SchAAF #14502  
 Expiration Date 12/31/2025

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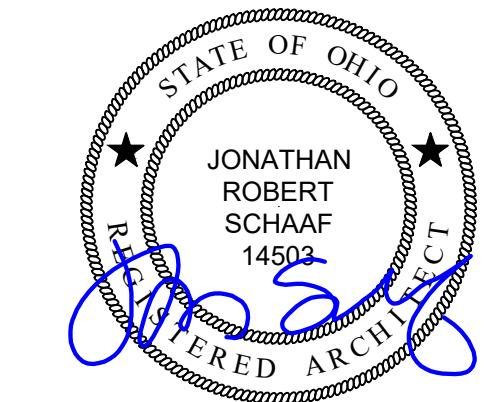


Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
 9 A&B Parnell Ave, 1111 A&B Parnell Ave, 1  
 1202 A&B Huffman Ave, 11204 A&B Huffman Ave, 1  
 1208 A&B Huffman Ave, 11210 A&B Huffman Ave, 1  
 Dayton, Ohio 45403  
 OHFA Project -  
 Greater Dayton Premier Management

Project Number	2021-033
Date	May 1, 2024
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
 Scope of Work Matrix

Sheet Number  
**G1.2**



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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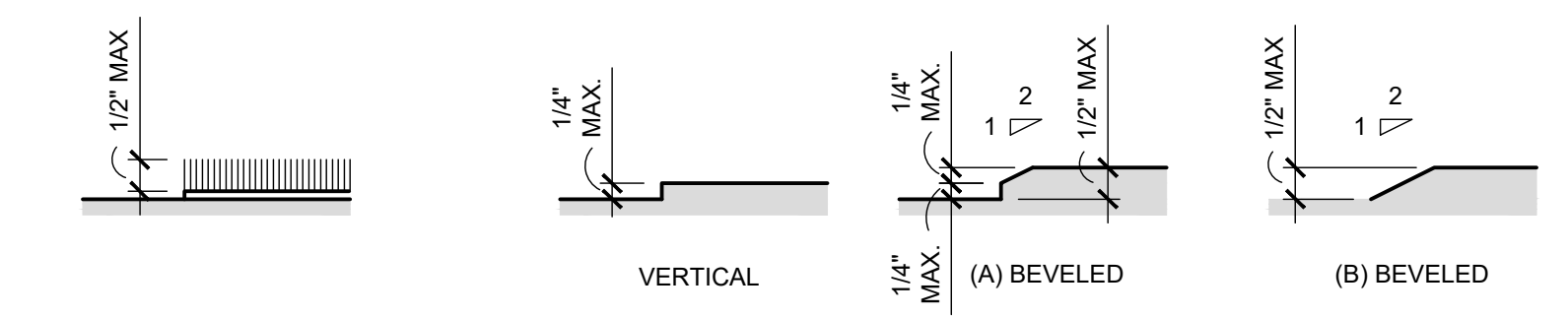
Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

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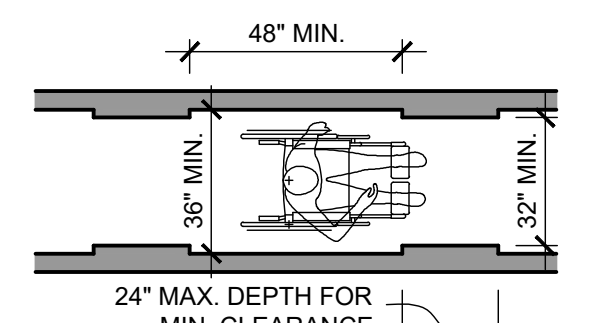
Sheet Title  
Accessibility Guidelines

Sheet Number

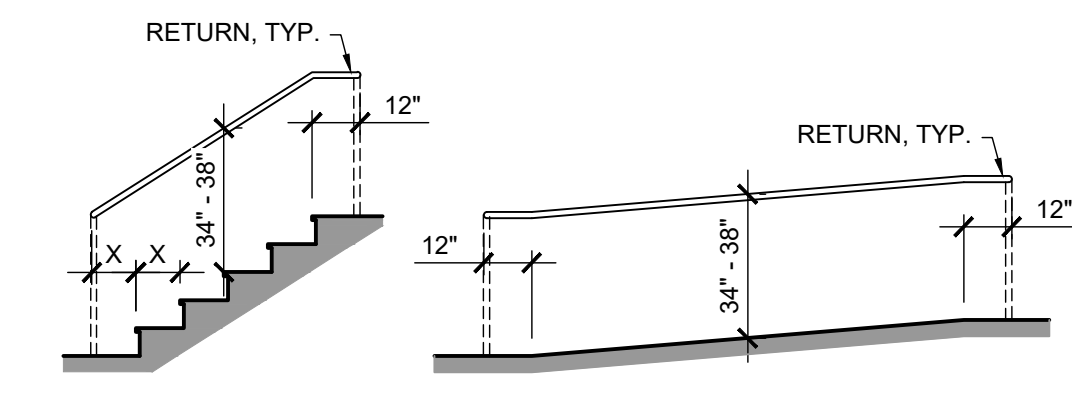
G1.3



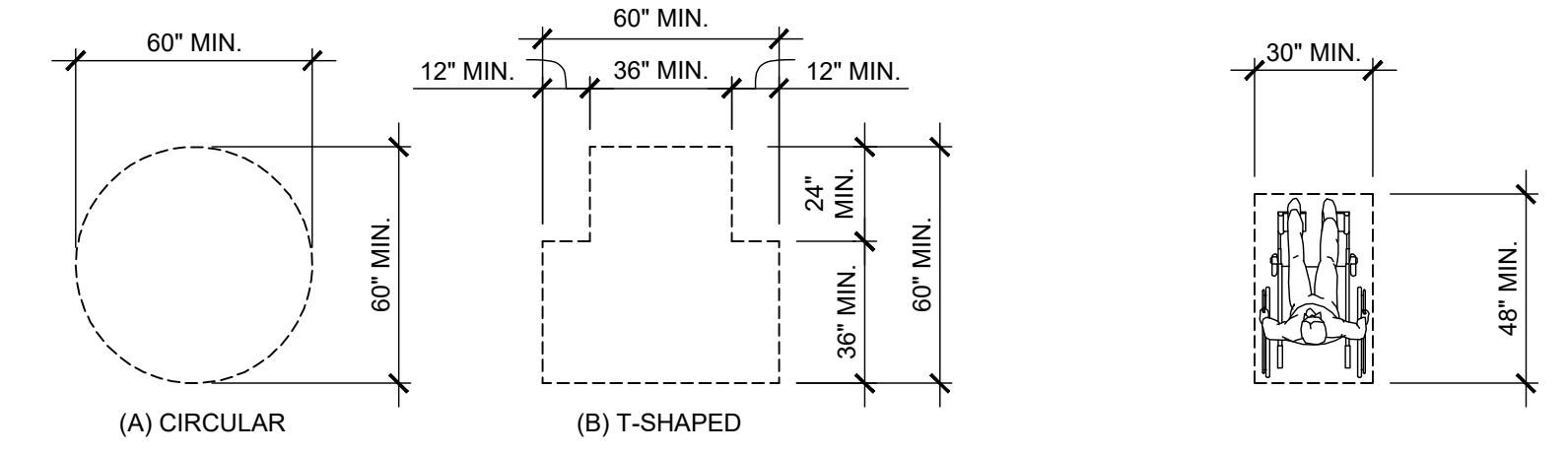
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 302.2  
**CARPET ON FLOOR SURFACES**  
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 303.2 - 3 (A) (B)  
**CHANGES IN FLOOR LEVEL**



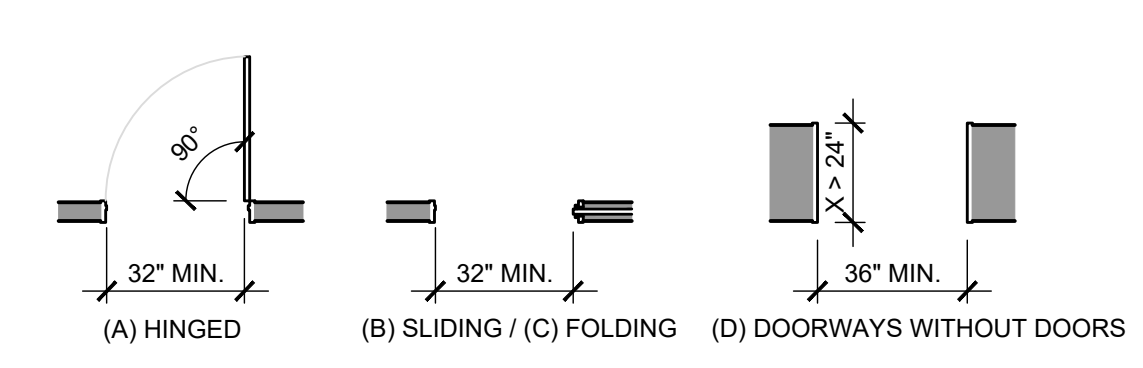
ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 403.5  
**CLEAR WIDTH OF AN ACCESSIBLE ROUTE**



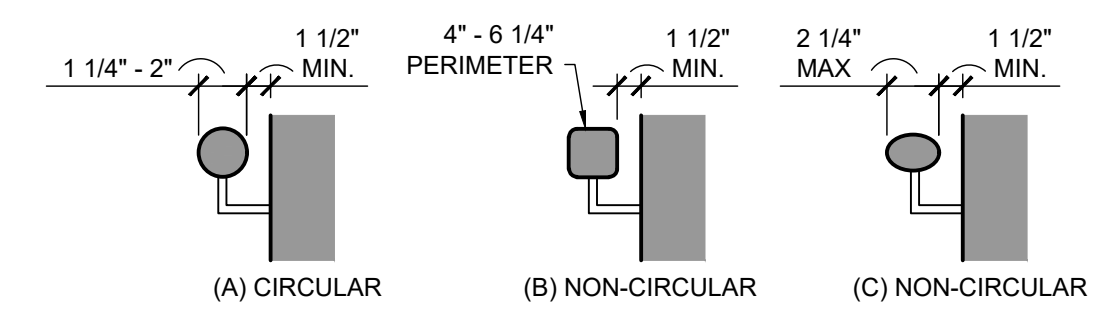
ICC/ANSI A117.1 - 2009 CHAPTER 5 FIG. 505.4 / 505.10.2 / 505.10.1 / 505.10.3  
**HANDRAIL HEIGHT / EXTENSIONS**



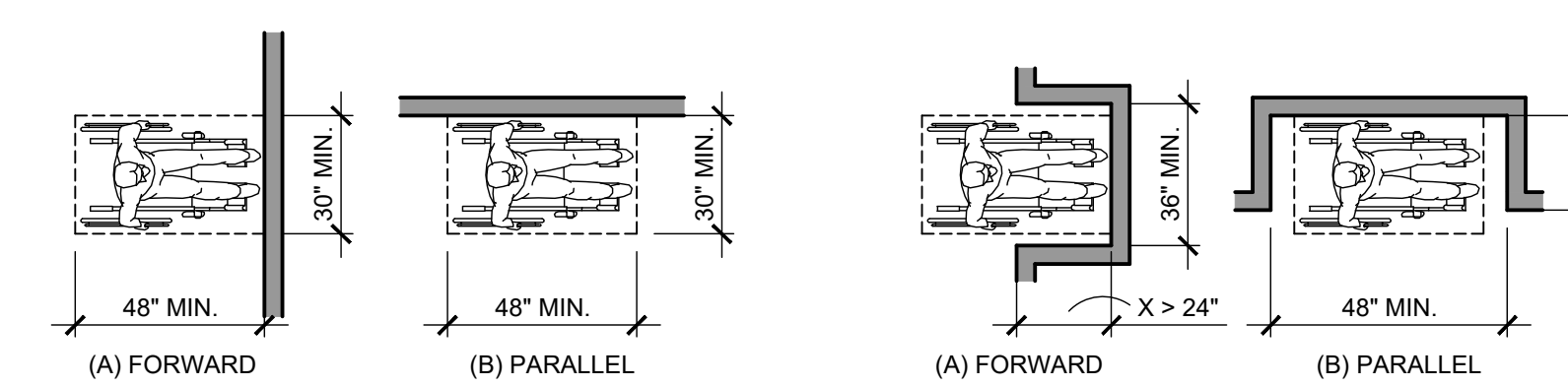
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 304.3  
**SIZE OF TURNING SPACE**  
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 305.3  
**SIZE OF CLEAR FLOOR SPACE**



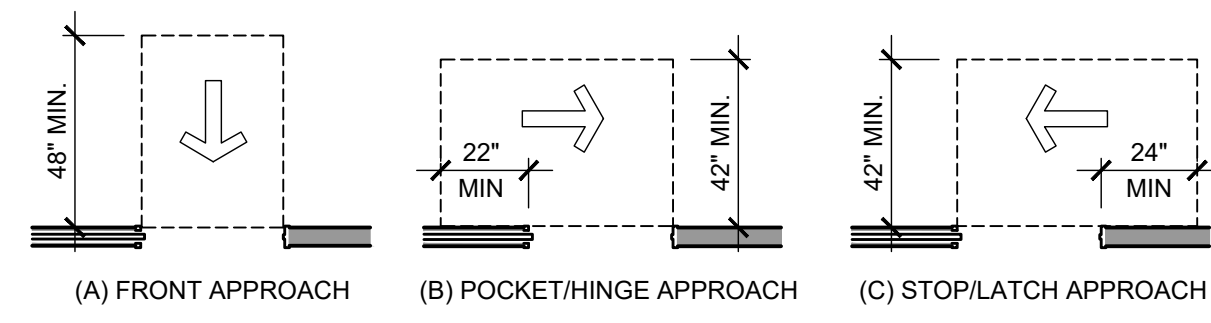
ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.2  
**CLEAR WIDTH OF DOORWAYS**



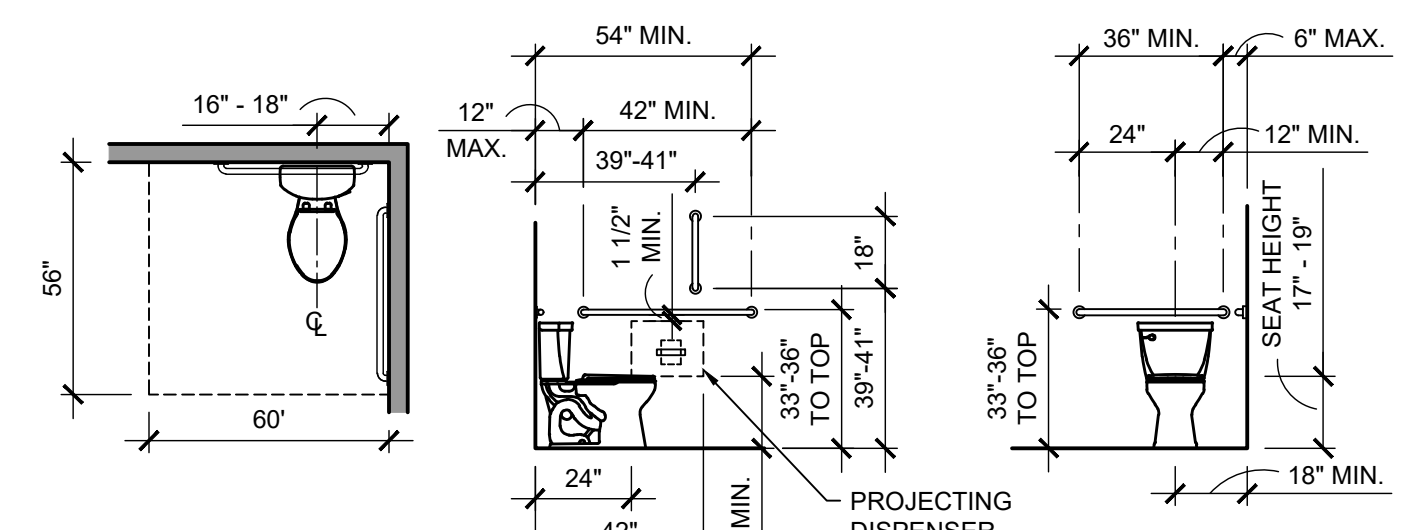
ICC/ANSI A117.1 - 2009 CHAPTER 5 FIG. 505.7  
**HANDRAIL CROSS SECTION**



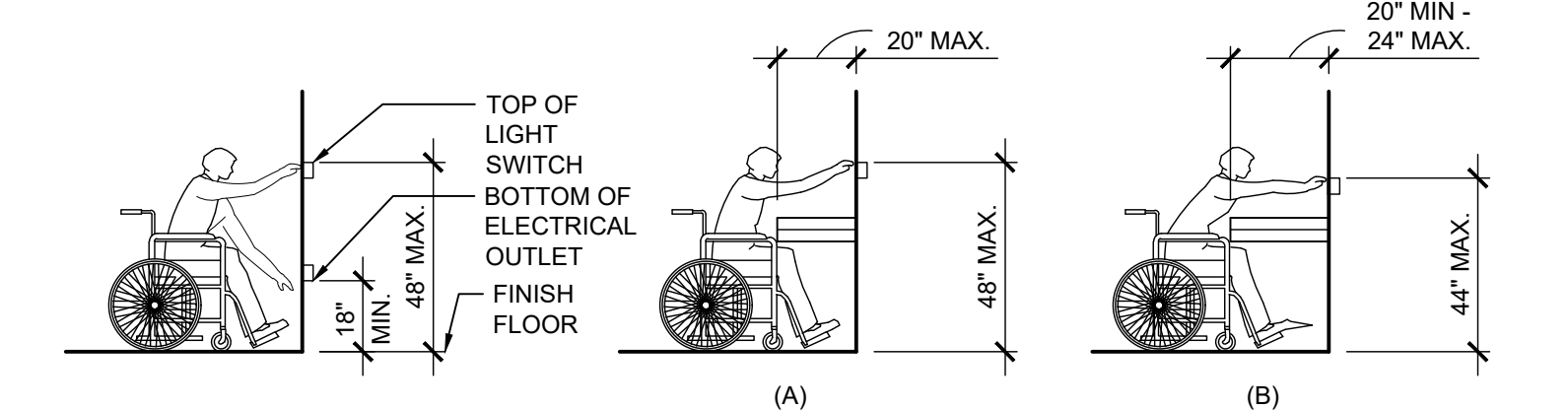
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 305.5  
**POSITION OF CLEAR FLOOR SPACE**  
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 305.7  
**MANEUVERING CLEARANCE IN AN ALCOVE**



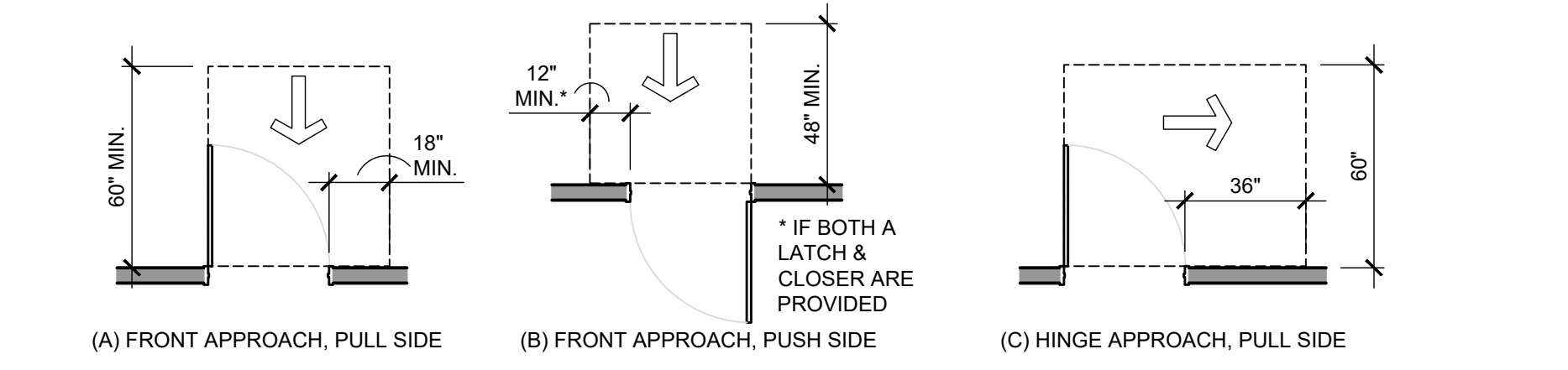
ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.3.3  
**MANEUVERING CLEARANCE AT SLIDING AND FOLDING DOORS**



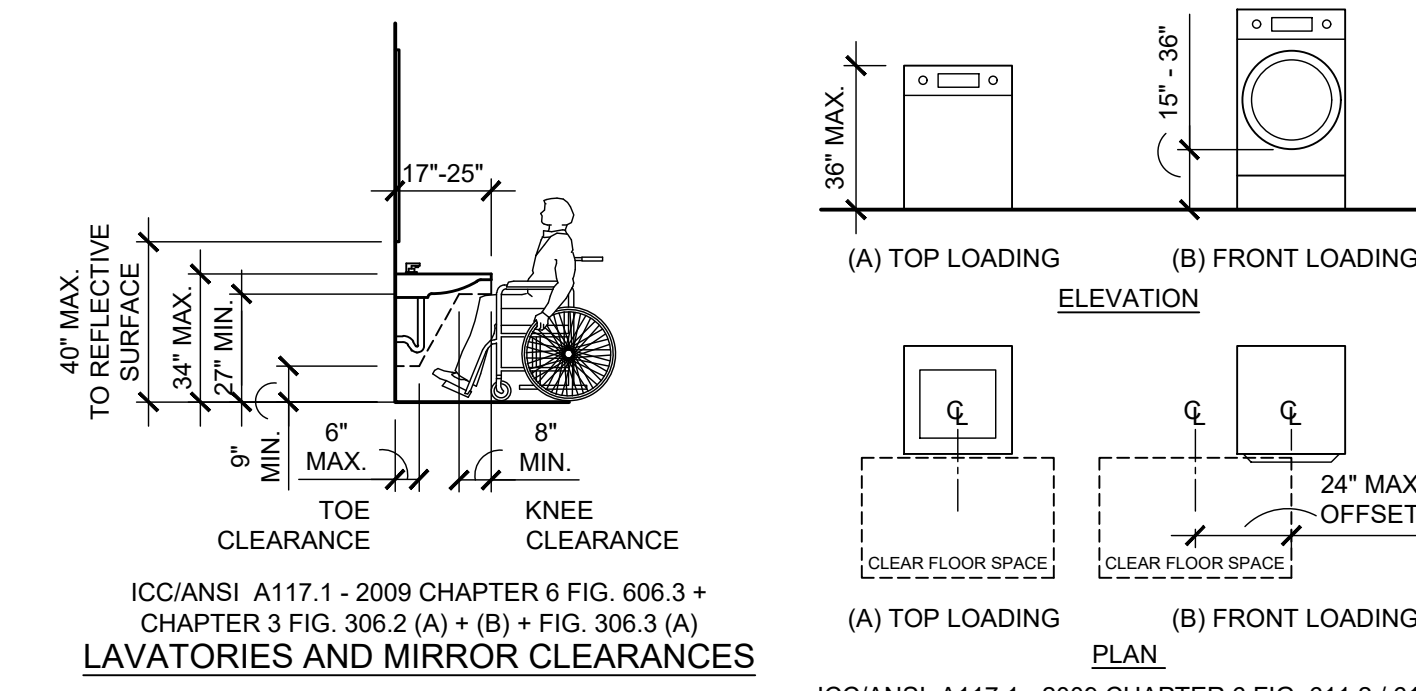
ICC/ANSI A117.1 - 2009 CHAPTER 6 FIG. 604.3  
**SIZE OF CLEAR FLOOR SPACE FOR WATER CLOSET**  
ICC/ANSI A117.1 - 2009 CHAPTER 6 FIG. 604.4 + FIG. 604.5.1 / FIG. 604.5.2 / 604.9.2  
**WATER CLOSET W/ SIDE AND REAR WALL GRAB BARS**



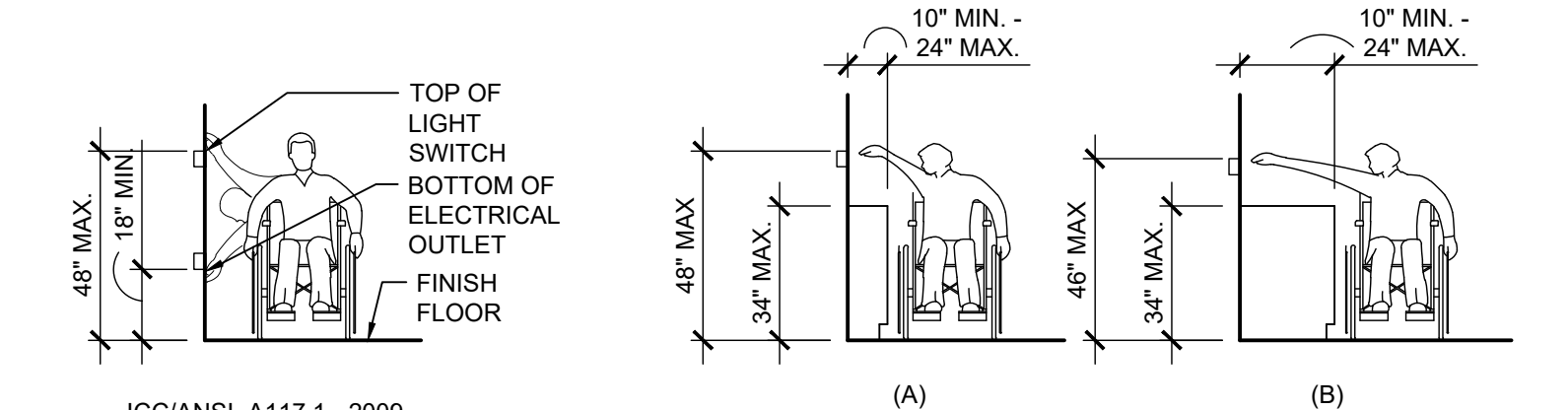
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 308.2.1  
**UNOBSTRUCTED FORWARD REACH**  
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 308.2.2  
**OBSTRUCTED FORWARD REACH**



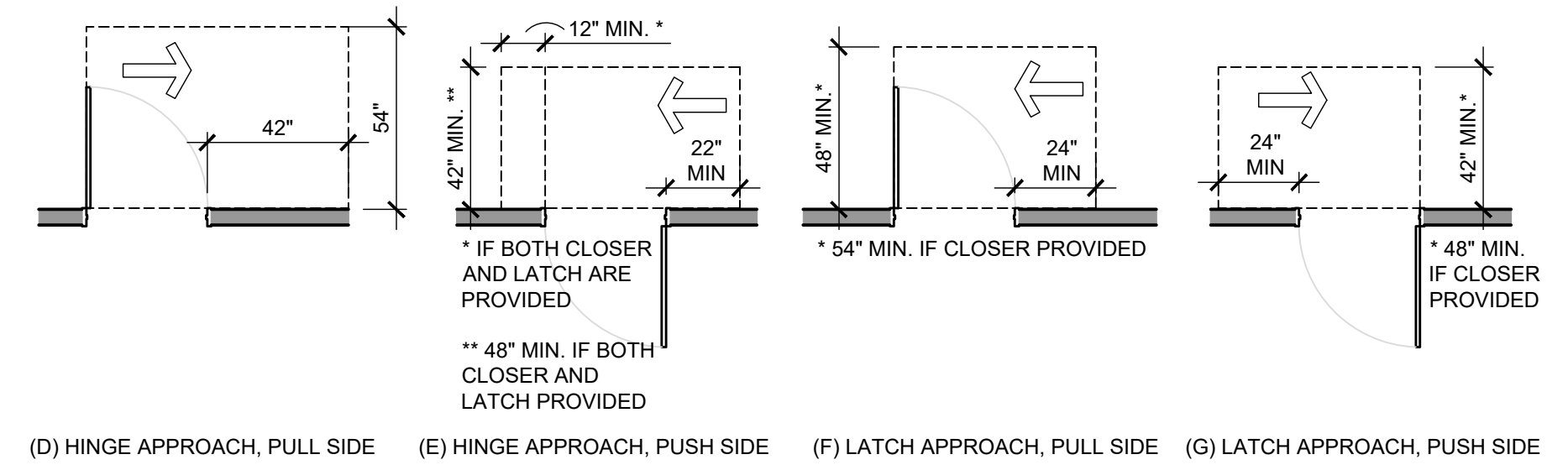
ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.3.4  
**MANEUVERING CLEARANCE AT OPENINGS WITH NO DOORS**



ICC/ANSI A117.1 - 2009 CHAPTER 6 FIG. 606.3 + CHAPTER 3 FIG. 306.2 (A) + (B) + FIG. 306.3 (A)  
**LAVATORIES AND MIRROR CLEARANCES**  
ICC/ANSI A117.1 - 2009 CHAPTER 6 FIG. 611.2 / 611.4  
**LAUNDRY EQUIPMENT**



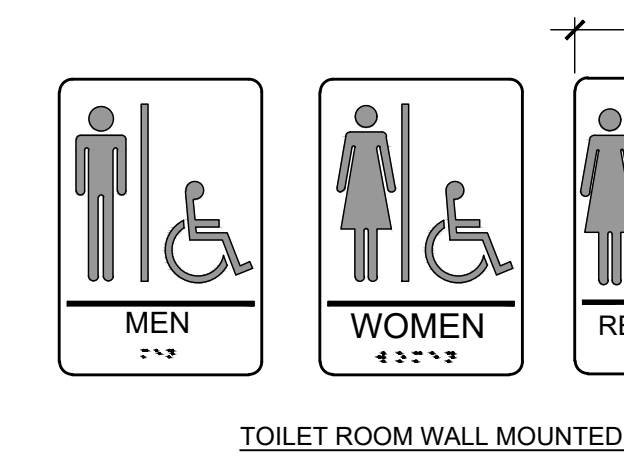
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 308.3.1  
**UNOBSTRUCTED SIDE REACH**  
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 308.3.2  
**MAXIMUM SIDE REACH OVER AN OBSTRUCTION**



ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.3.2  
**MANEUVERING CLEARANCE AT OPENINGS WITH NO DOORS**

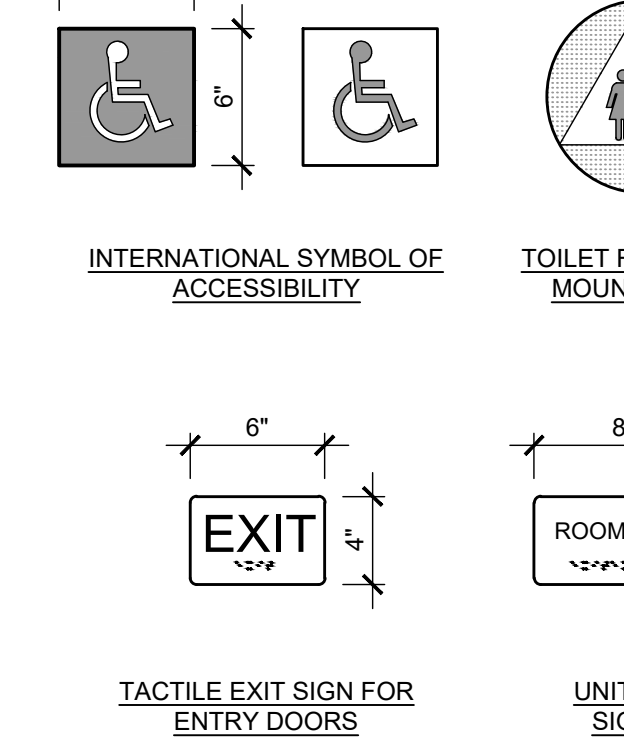
**ACCESSIBILITY SIGNAGE NOTES:**

**ACCESSIBILITY SIGNAGE NOTES:**



ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.3.4  
**MANEUVERING CLEARANCE AT OPENINGS WITH NO DOORS**

**CHARACTER PROPORTION:**  
LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO HEIGHT RATIO BETWEEN 3.5 AND 1:1 AND A STROKE-WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.  
**RAISED & BRAILLE CHARACTERS & PICTORIAL SYMBOL SIGNS (PICTOGRAMS):**  
LETTERS AND NUMERALS SHALL BE RAISED 1/32 IN. UPPER CASE, SERIF OR SIMPLE SERIF TYPE AND SHALL BE ACCOMPANIED WITH GRADE BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8 IN. (16 MM) HIGH, BUT NO HIGHER THAN 2 IN. (50 MM). PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6 IN. (152 MM) MINIMUM OF HEIGHT.  
**FINISH AND CONTRAST:**  
THE CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.  
**MOUNTING LOCATION AND HEIGHT:**  
WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR, WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3 IN. (76 MM) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF THE DOOR. MOUNTING HEIGHT SHALL BE 60 IN. (1525 MM) ABOVE THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN.  
**SYMBOLS OF ACCESSIBILITY:**  
FACILITIES AND ELEMENTS REQUIRED TO BE IDENTIFIED AS ACCESSIBLE BY SECTION 4.1 OF THE A.D.A.A.G. SHALL USE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.



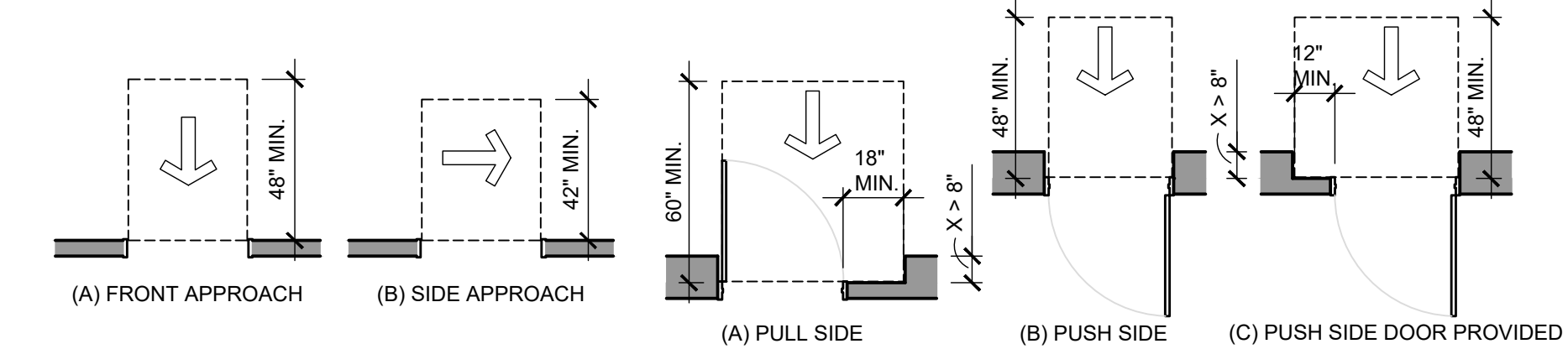
ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.3.5  
**MANEUVERING CLEARANCE AT OPENINGS WITH NO DOORS**



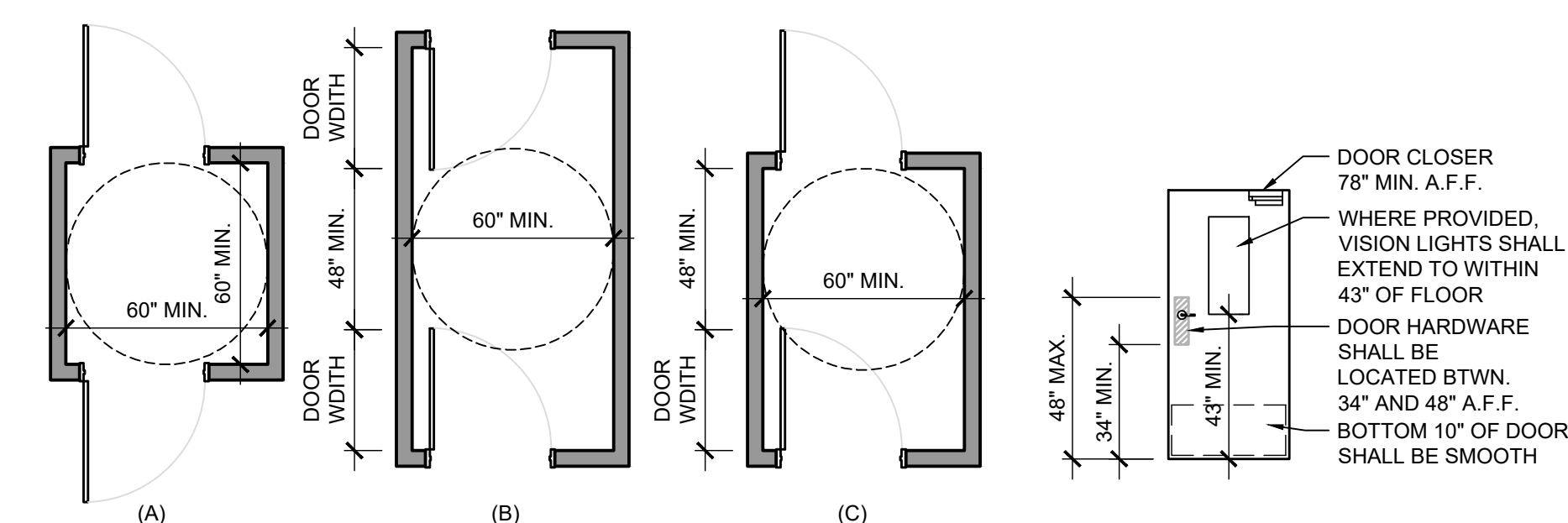
ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.5  
**TWO DOORS IN A SERIES**



ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 308.2.1 "INTERPOLATION"  
**ACCESSIBLE CLOSET SHELF/ROD**  
ICC/ANSI A117.1 - 2009 CHAPTER 3 FIG. 308.3.2 "INTERPOLATION"  
**ACCESSIBLE KITCHEN WALL CABINET**



ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.3.4  
**MANEUVERING CLEARANCE AT OPENINGS WITH NO DOORS**



ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.5  
**TWO DOORS IN A SERIES**  
ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.2 "INTERPOLATION"  
**DOOR HARDWARE MOUNTING HEIGHTS**

ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.2 "INTERPOLATION"  
**DOOR HARDWARE MOUNTING HEIGHTS**

ICC/ANSI A117.1 - 2009 CHAPTER 4 FIG. 404.2.2 "INTERPOLATION"  
**DOOR HARDWARE MOUNTING HEIGHTS**



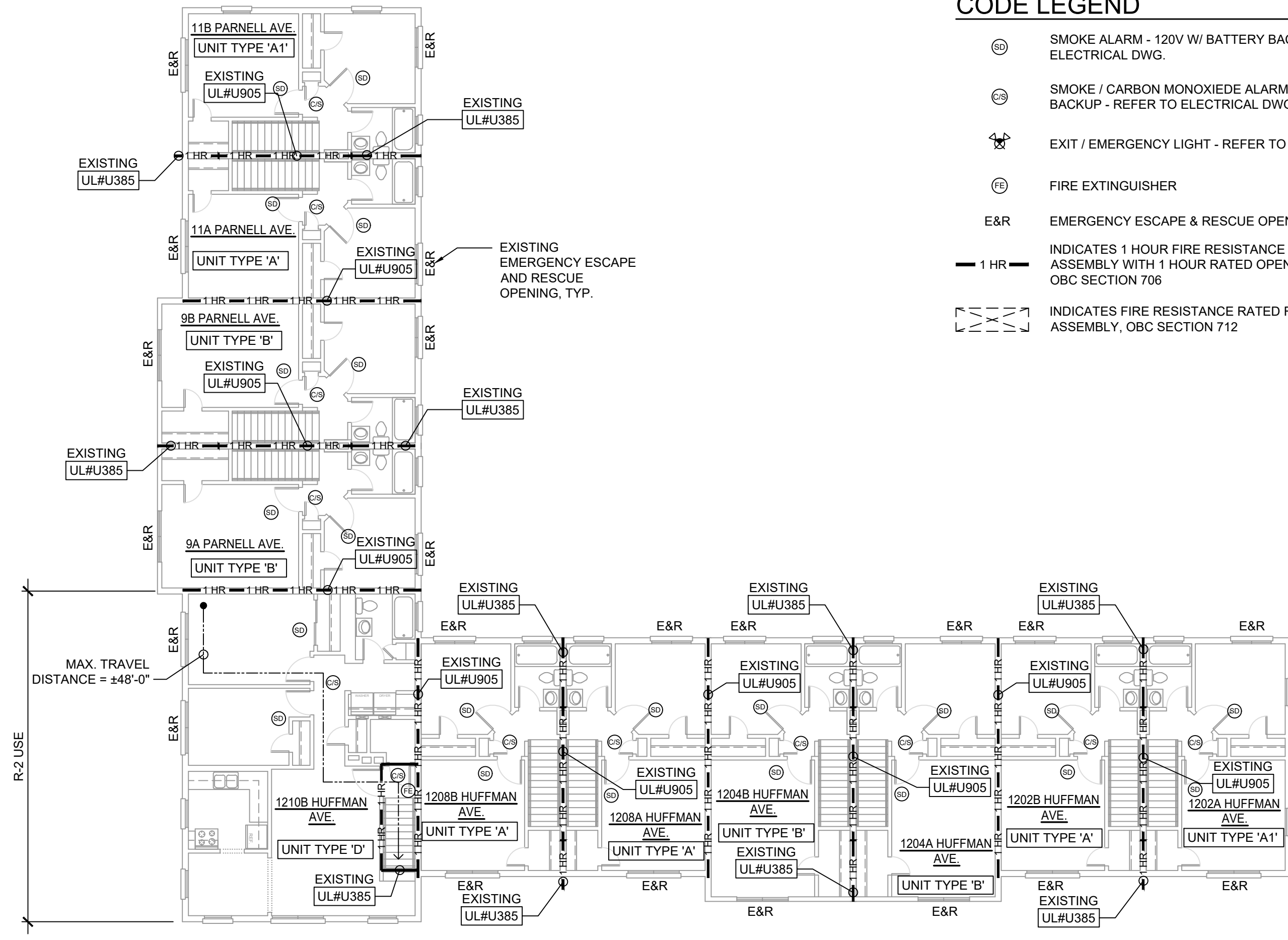
Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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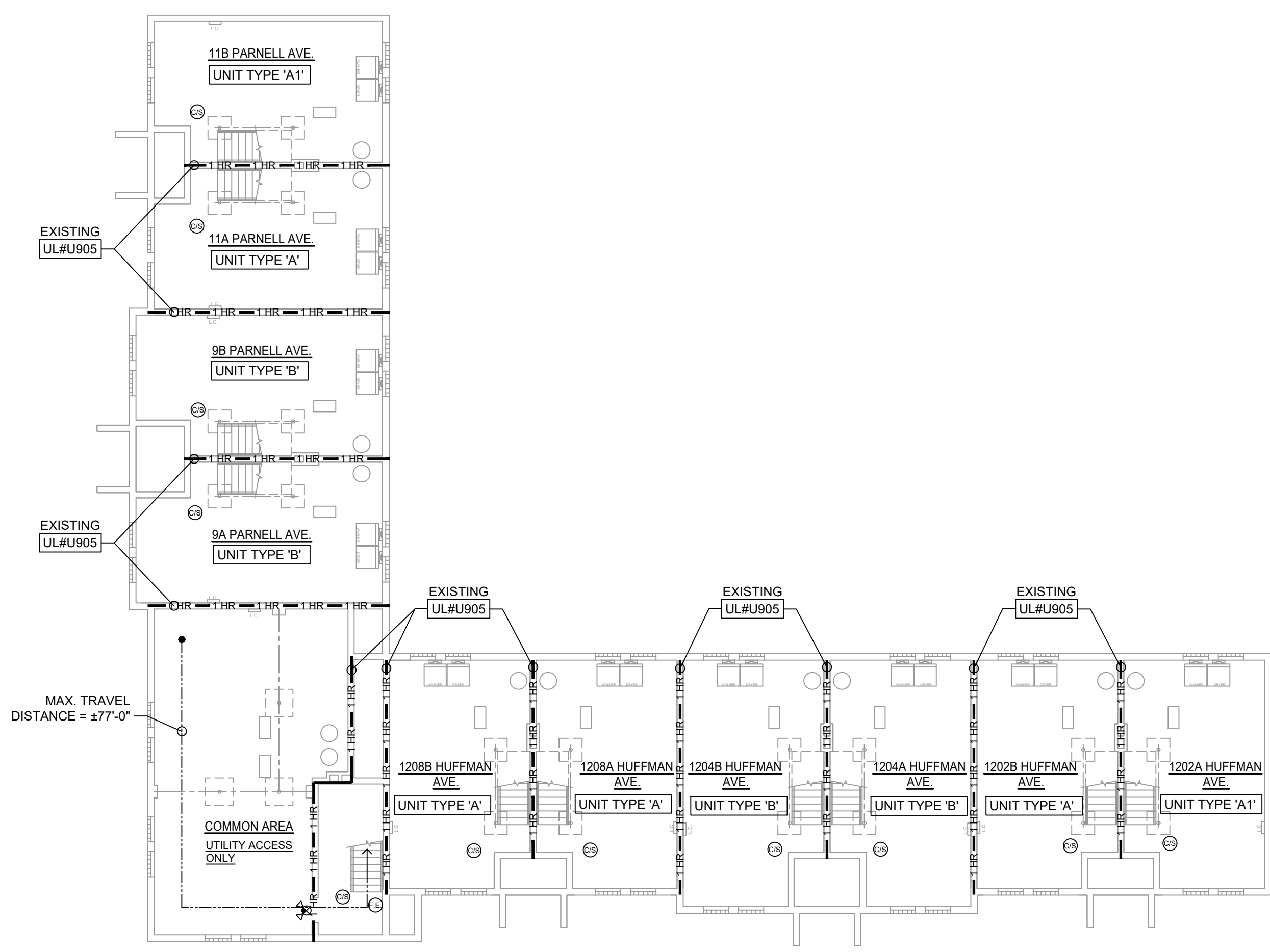


**CODE LEGEND**

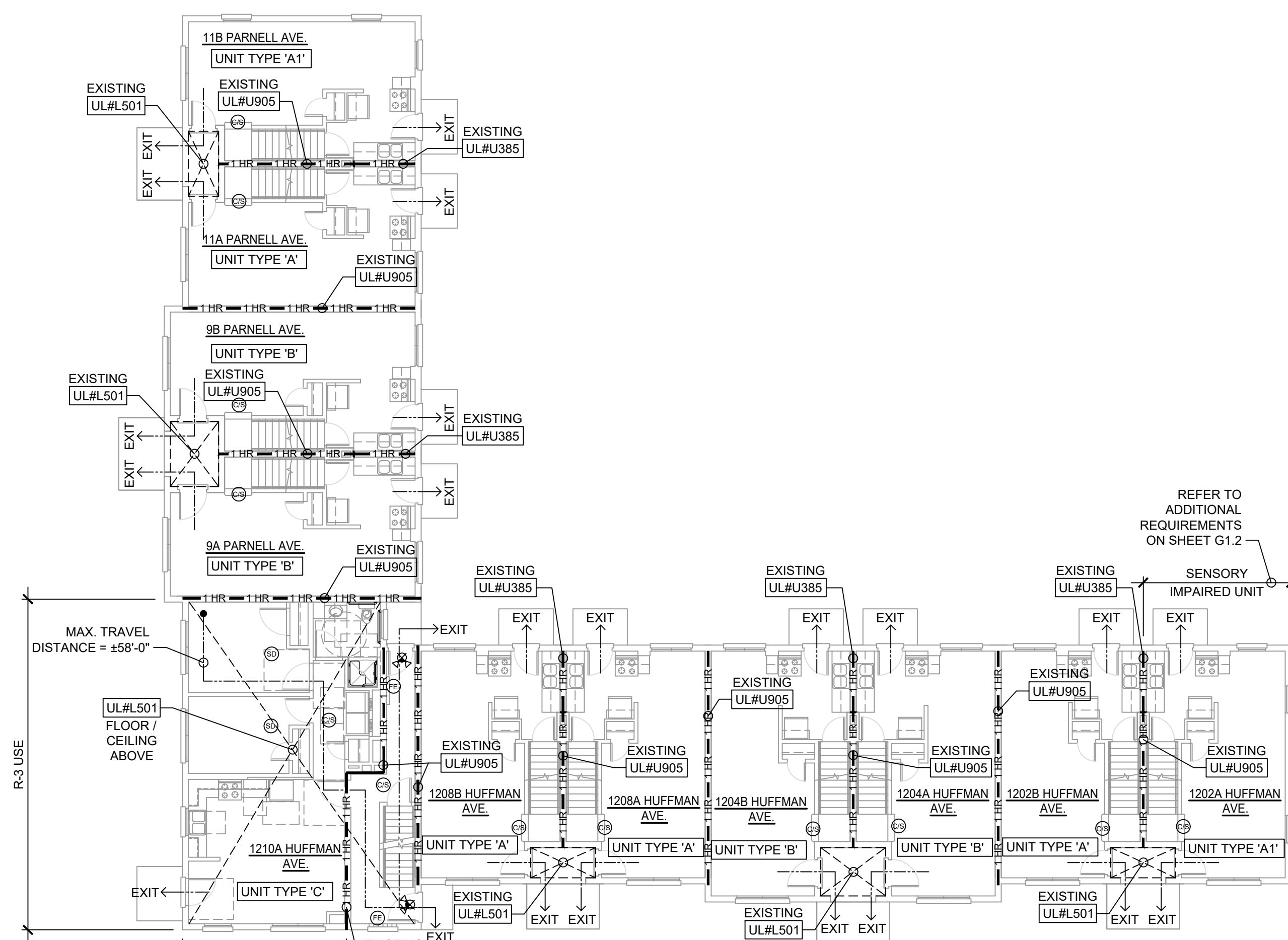
- Ⓢ SMOKE ALARM - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DWG.
- Ⓢ SMOKE / CARBON MONOXIDE ALARM - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DWG.
- Ⓢ EXIT / EMERGENCY LIGHT - REFER TO ELECTRICAL DWG.
- Ⓢ FIRE EXTINGUISHER
- E&R EMERGENCY ESCAPE & RESCUE OPENING
- 1 HR — INDICATES 1 HOUR FIRE RESISTANCE RATED WALL ASSEMBLY WITH 1 HOUR RATED OPENING PROTECTIVES, OBC SECTION 706
- [ ] [ ] [ ] [ ] INDICATES FIRE RESISTANCE RATED FLOOR / CEILING ASSEMBLY, OBC SECTION 712



**C SECOND FLOOR CODE PLAN**  
SCALE: 3/32" = 1'-0"



**A BASEMENT CODE PLAN**  
SCALE: 3/32" = 1'-0"



**B FIRST FLOOR CODE PLAN**  
SCALE: 3/32" = 1'-0"

Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
Code Review Plans

Sheet Number  
**G1.4**

## RATED FLOOR PENETRATION

PENETRATION TYPE	LOCATION ASSEMBLY	PENETRATION TEST
STEEL PIPE 6"Ø OR SMALLER SCHEDULE 40 OR HEAVIER	L501/ L502	F-C-1011
IRON PIPE 6"Ø OR SMALLER CAST OR DUCTILE		
CONDUIT 4"Ø OR SMALLER STEEL EMT OR STEEL CONDUIT		
COPPER TUBE 4"Ø OR SMALLER TYPE L OR HEAVIER		
COPPER PIPE 4"Ø OR SMALLER REGULAR OR HEAVIER		
PVC PIPE 4"Ø OR SMALLER - SCHEDULE 40 SOLID OR HEAVIER SOLID CORE [DWV]	L501/ L502	F-C-2032
RIGID NON-METALLIC CONDUIT 4"Ø OR SMALLER SCHEDULE 40		
CPVC PIPE 4"Ø OR SMALLER SDR 17 [DWV]		
WIRE CABLE	L501/ L502	F-C-3014
BATH TUB	L501/ L502	F-C-2036
WATER CLOSET	L501/ L502	F-C-2037

## RATED STUD WALL PENETRATION

PENETRATION TYPE	LOCATION ASSEMBLY	PENETRATION TEST
METALLIC CONDUIT 4"Ø OR SMALLER EMT CONDUIT	U305 / U385	W-L-1091
METALLIC CONDUIT 6"Ø OR SMALLER STEEL CONDUIT		W-L-2038
NON-METALLIC CONDUIT 2"Ø OR SMALLER SCHEDULE 40 PVC		W-L-1091
METALLIC PIPE / COPPER PIPE / TUBE 6"Ø OR SMALLER TYPE L OR HEAVIER TUBING		W-L-1091
METALLIC PIPE / COPPER PIPE / TUBE 6"Ø OR SMALLER REGULAR OR HEAVIER PIPE		W-L-1091
NON-METALLIC PIPE / TUBE [OBC 709.6.2] 2"Ø OR SMALLER SCHEDULE 40 PVC / CPVC		W-L-2003
NON-METALLIC PIPE / TUBE [OBC 709.6.2] 4"Ø OR SMALLER SCHEDULE 40 PVC / CPVC		W-L-3015
CABLE / WIRE W/ NON-COMB. JACKET / INSUL MAX. 4 COPPER CONDUCTOR NO. 2 AWG OR SMALLER ALUM OR STEEL ARMORED / MTL. CLAD CABLE		W-L-1091
NON-COMBUSTIBLE PIPES/TUBES/VENTS 6"Ø MAX. TYPE L OR HEAVIER COPPER TUBE		W-L-1091
NON-COMBUSTIBLE PIPES / TUBES / VENTS 6"Ø MAX. REGULAR OR HEAVIER COPPER PIPE		W-L-1091
NON-COMBUSTIBLE PIPES / TUBES / VENTS 24"Ø MAX. SCH 10 OR HEAVIER STEEL PIPE	W-L-1091	
NON-COMBUSTIBLE PIPES / TUBES / VENTS 24"Ø MAX. CAST OR DUCTILE IRON PIPE	W-L-1091	
CABLE / WIRE W/ COMBUSTIBLE JACKET / INSUL MAX. NO. 10 AWG COPPER MULTI CONDUCTOR [NM] CABLE W/ PVC INSUL. MAX 150 PAIR NO. 24 AWG COPPER TELEPHONE CABLE W/ PVC INSUL.	W-L-3001	
COMBUSTIBLE PIPES / TUBES / VENTS 2"Ø MAX. SCH 40 PVC / CPVC [DWV] PIPING	W-L-2003	
COMBUSTIBLE PIPES / TUBES / VENTS 2"Ø MAX. SCH 40 PVC / ABS / FRPP	W-L-2005	
RIGID NON METALLIC CONDUIT 2"Ø SCH 40 OR 80 PVC CONDUIT	W-L-2003	
SCHEDULE 80 POLYPROPYLENE PIPING 2"Ø OR SMALLER	W-L-2003	

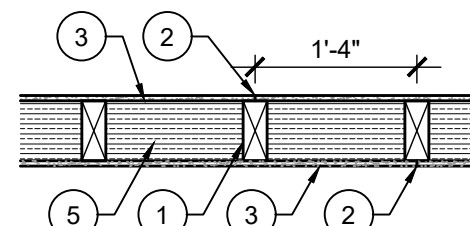
## RATED MASONRY WALL PENETRATION

PENETRATION TYPE	LOCATION ASSEMBLY	PENETRATION TEST
METALLIC CONDUIT 4"Ø OR SMALLER EMT CONDUIT	U905 [CMU]	W-J-1014
METALLIC CONDUIT 4"Ø OR SMALLER STEEL CONDUIT		W-J-2013
NON-METALLIC CONDUIT 2"Ø OR SMALLER SCHEDULE 40 PVC		W-J-1020
METALLIC PIPE / COPPER PIPE / TUBE 4"Ø OR SMALLER TYPE L OR HEAVIER TUBING		W-J-2013
METALLIC PIPE / COPPER PIPE / TUBE 4"Ø OR SMALLER REGULAR OR HEAVIER PIPE		W-J-2133
NON-METALLIC PIPE / TUBE [OBC 709.6.2] 2"Ø OR SMALLER SCHEDULE 40 PVC / CPVC		W-J-3041
CABLE / WIRE W/ NON-COMB. JACKET / INSUL MAX. 4 COPPER CONDUCTOR NO. 2 AWG OR SMALLER ALUM OR STEEL ARMORED / MTL. CLAD CABLE		W-J-1030
NON-COMBUSTIBLE PIPES / TUBES / VENTS 6"Ø MAX. TYPE L OR HEAVIER COPPER TUBE		W-J-1031
NON-COMBUSTIBLE PIPES / TUBES / VENTS 6"Ø MAX. REGULAR OR HEAVIER COPPER PIPE		W-J-3017
NON-COMBUSTIBLE PIPES / TUBES / VENTS 24"Ø MAX. SCH 10 OR HEAVIER STEEL PIPE		W-J-3037
NON-COMBUSTIBLE PIPES / TUBES / VENTS 24"Ø MAX. CAST OR DUCTILE IRON PIPE	W-J-2094	
CABLE / WIRE W/ COMBUSTIBLE JACKET / INSUL MAX. NO. 10 AWG COPPER MULTI CONDUCTOR [NM] CABLE W/ PVC INSUL. MAX 50 PAIR NO. 24 AWG COPPER TELEPHONE CABLE W/ PVC INSUL.	W-J-2021	
COMBUSTIBLE PIPES / TUBES / VENTS 4"Ø MAX. SCH 40 PVC / CPVC [DWV] PIPING		
COMBUSTIBLE PIPES / TUBES / VENTS 4"Ø MAX. SCH 40 PVC / ABS / FRPP		
COMBUSTIBLE PIPES / TUBES / VENTS 4"Ø SCH 40 PVC [DWV] PIPING		
SCHEDULE 80 POLYPROPYLENE PIPING 2"Ø OR SMALLER		

NOTE:  
CONTRACTOR SHALL VERIFY CONDITIONS AND APPLICABLE THRU PENETRATION DETAILS. ALL PENETRATIONS IN FIRE RESISTIVE RATED ASSEMBLIES [WALLS, FLOOR-CEILING, ETC.] SHALL BE APPROPRIATELY SEALED IN ACCORDANCE WITH UL ASSEMBLIES. LABEL PENETRATIONS WITH INSTALLER INFORMATION AND APPLICABLE UL ASSEMBLY PER INSPECTOR REQUIREMENTS AND PROVIDE ANY ADDITIONAL DOCUMENTATION AS REQUIRED BY INSPECTOR.

## DESIGN NO. U305

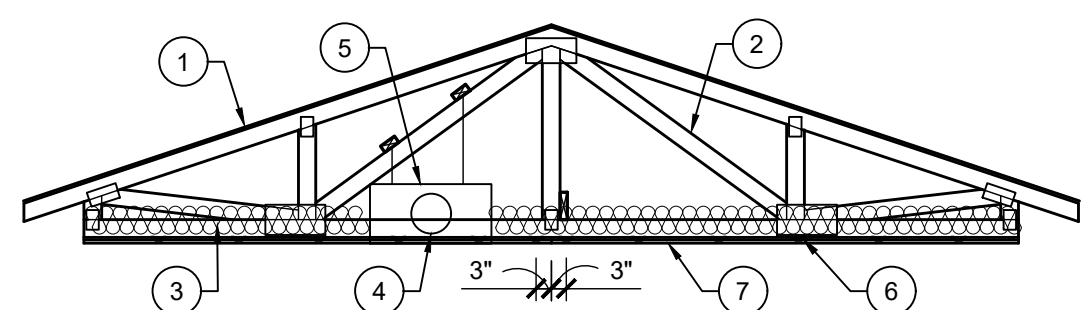
BEARING WALL RATINGS - 1 HR



- WOOD STUDS - NOM. 2x4 SPACED AT 16" O.C. MAX., EFFECTIVELY FIRESTOPPED.
- JOINT AND NAIL HEADS - JOINTS COVERED WITH JOINT COMPOUND AND PAPER TAPE. JOINT COMPOUND AND PAPER TAPE MAY BE OMITTED WHEN SQUARE EDGE BOARDS ARE USED. AS AN ALTERNATE, NOM. 3/32" THICK GYPSUM VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF CLASSIFIED VENEER BASEBOARD WITH THE JOINTS REINFORCED WITH PAPER TAPE. NAIL HEADS EXPOSED OR COVERED WITH JOINT COMPOUND.
- GYPSUM BOARD - 5/8" THICK PAPER OR VINYL SURFACED, WITH BEVELED, SQUARE, OR TAPERED EDGES, APPLIED EITHER HORIZONTALLY OR VERTICALLY. GYPSUM PANELS NAILED 7" O.C. WITH 6d CEMENT COATED NAIL 1 7/8" LONG, 0.0915" SHANK DIA. AND 15/64" DIA. HEADS. WHEN IN WIDTHS OTHER THAN 48", GYPSUM PANELS ARE TO BE INSTALLED HORIZONTALLY. FOR AN ALTERNATE METHOD OF ATTACHMENT OF GYPSUM PANELS, REFER TO ITEM 6, 6A, OR 6B, STEEL FRAMING MEMBERS.
- STEEL CORNER FASTENERS - (OPTIONAL) - FOR USE AT WALL CORNERS. CHANNEL SHAPED, 2" LONG BY 1" HIGH ON THE BACKSIDE WITH (2) 1/8" WIDE CLEATS PROTRUDING INTO THE 5/8" WIDE CHANNEL, FABRICATED FROM 24 GA. GALV. STEEL. FASTENERS APPLIED ONLY TO THE END OR CUT EDGE (NOT ALONG TAPERED EDGES) OF THE GYPSUM BOARD, NO GREATER THAN 2" FROM CORNER OF GYPSUM BOARD, MAX. SPACING 16" O.C. NAILED TO ADJACENT STUD THROUGH TAB USING (1) 6d CEMENT COATED NAIL PER FASTENER. CORNERS OF WALL BOARD SHALL BE NAILED TO TOP AND BOTTOM PLATE USING 6d CEMENT COATED NAILS.
- BATTS AND BLANKETS\* - (OPTIONAL - REQUIRED WHEN ITEM 6A IS USED [RC-1]) GLASS FIBER OR MINERAL WOOL INSULATION. PLACED TO COMPLETELY OR PARTIALLY FILL THE STUD CAVITIES. WHEN ITEM 6A IS USED, GLASS OR FIBER MINERAL WOOL INSULATION SHALL BE FRICTION-FITTED TO COMPLETELY FILL THE STUD CAVITIES.
- CAULKING AND SEALANTS - (NOT SHOWN, OPTIONAL) A BEAD OF ACOUSTICAL SEALANT APPLIED AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.
- STC RATING - THE STC RATING OF THE WALL ASSEMBLY IS 56 WHEN IT IS CONSTRUCTED AS DESCRIBED BY ITEMS 1 THROUGH 6, EXCEPT:
  - ITEM 2, ABOVE - NAILHEADS SHALL BE COVERED WITH JOINT COMPOUND.
  - ITEM 2, ABOVE - JOINTS AS DESCRIBED, SHALL BE COVERED WITH FIBER TAPE AND JOINT COMPOUND.
  - ITEM 5, ABOVE - BATTS AND BLANKETS\* THE CAVITIES FORMED BY THE STUDS SHALL BE FRICTION FIT WITH R-19 UNFACED FIBERGLASS INSULATION BATTS MEASURING 6 1/4" THICK AND 15 1/4" WIDE.
  - ITEM 6, ABOVE - STEEL FRAMING MEMBERS\* TYPE R3IC - CLIPS SHALL BE USED TO ATTACH GYPSUM BOARD TO STUDS ON EITHER SIDE OF WALL ASSEMBLY.
  - ITEM 8, ABOVE - CAULKING AND SEALANTS (NOT SHOWN) A BEAD OF ACOUSTICAL SEALANT SHALL BE APPLIED AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.
  - STEEL CORNER FASTENERS (ITEM 4) FIBER, SPRAYED (ITEMS 5A AND 5B) AND STEEL FRAMING MEMBERS (ITEM 6A), NOT EVALUATED AS ALTERNATIVES FOR OBTAINING STC RATING.

## DESIGN NO. P533

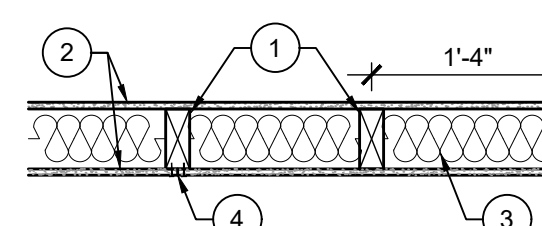
UNRESTRAINED ASSEMBLY RATING - 1 HR



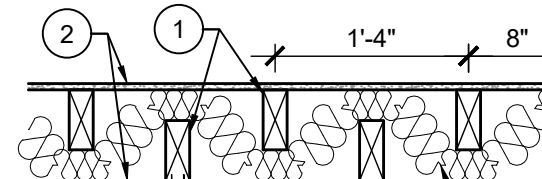
- ROOFING SYSTEM - ANY UL CLASS A, B, OR C ROOFING SYSTEM (TGFI) OR PREPARED ROOF COVERING (TR) ACCEPTABLE FOR USE OVER NOM. 15/32" THICK WOOD STRUCTURAL PANELS SECURED TO TRUSSES WITH NO. 6d RINGED SHANK NAILS SPACED 12" O.C. ALONG EACH TRUSS STAPLES HAVING EQUAL OR GREATER WITHDRAWAL AND LATERAL RESISTANCE STRENGTH MAY BE SUBSTITUTED FOR THE 6d NAILS. CONSTRUCTION ADHESIVE MAY BE USED WITH EITHER THE NAILS OR STAPLES.
- TRUSSES - PITCHED OR PARALLEL CHORD TRUSSES, SPACE A MAX. 24" O.C., FABRICATED FROM NOM. 2x4 LUMBER WITH LUMBER ORIENTED VERTICALLY OR HORIZONTALLY. TRUSS MEMBERS SECURED TOGETHER WITH MIN. 0.0356" THICK GALVANIZED PLATES. PLATES HAVE 5/8" LONG TEETH PROJECTING PERPENDICULAR TO THE PLANE OF THE PLATE. THE TEETH ARE IN PAIRS FACING EACH OTHER (MADE FROM THE SAME PUNCH) FORMING A SPLIT TOOTH TYPE PLATE. EACH TOOTH HAS A CHISEL POINT ON ITS OUTSIDE EDGE. THESE POINTS ARE DIAGONALLY OPPOSITE EACH OTHER FOR EACH PAIR. THE TOP HALF OF EACH TOOTH HAS A TWIST FOR STIFFNESS. THE PAIRS ARE SPACED APPROX. 7/8" CENTERS WITH FOUR ROWS OF TEETH PER INCH OF PLATE WIDTH. WHERE THE TRUSS INTERSECTS WITH THE INTERIOR FACE OF THE EXTERIOR WALLS, THE MIN. TRUSS DEPTH SHALL BE 5 1/4" WITH A MIN. ROOF SLOPE OF 3/12 AND A MIN. AREA IN THE PLANE OF THE TRUSS OF 21 S.F. WHERE THE TRUSS INTERSECTS WITH THE INTERIOR FACE OF THE EXTERIOR WALLS, THE MIN. TRUSS DEPTH MAY BE REDUCED TO 3" IF THE BATTS AND BLANKETS (ITEM 3) ARE USED AS SHOWN IN THE ABOVE ILLUSTRATION (ALTERNATE ILLUSTRATION PLACEMENT AND ARE FIRMLY PACKED AGAINST THE INTERSECTION OF THE BOTTOM CHORDS AND THE PLYWOOD SHEATHING).
- BATTS AND BLANKETS\* - (OPTIONAL) - GLASS FIBER INSULATION FITTED IN THE CONCEALED SPACE, DRAPED OVER THE RESILIENT CHANNELS AND GYPSUM WALLBOARD CEILING MEMBRANE OR FASTENED TO UNDERSIDE OF THE ROOFING SYSTEM. ANY GLASS FIBER INSULATION BEARING THE UL CLASSIFICATION MARKING AS TO SURFACE BURNING CHARACTERISTICS AND/OR FIRE RESISTANCE, HAVING A MIN. DENSITY OF 0.5 PCF.
- LOOSE FILL MATERIAL - AS AN ALTERNATE TO ITEM 3, ANY LOOSE FILL MATERIAL BEARING THE UL CLASSIFICATION MARKING FOR SURFACE BURNING CHARACTERISTICS, HAVING A MIN. DENSITY OF 0.5 PCF.
- AIR DUCT - ANY UL CLASS 0 OR CLASS 1 FLEXIBLE AIR DUCT INSTALLED IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE DAMPER MANUFACTURER.
- CEILING DAMPER - MAXIMUM NOMINAL AREA, 324 SQ. IN. WITH A MAXIMUM SQUARE SIZE, 18"x18" RECTANGULAR SIZES NOT TO EXCEED 324 SQ. IN. WITH A MAXIMUM WIDTH OF 18" MAXIMUM DAMPER HEIGHT IS 14" INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS PROVIDED WITH THE DAMPER. MAXI. DAMPER OPENINGS NOT TO EXCEED 162 SQ. IN. PER 100 S.F. OF CEILING AREA.
- FURRING CHANNELS - RESILIENT CHANNELS, MIN. 3/8" DEEP BY MIN. 2" WIDE AT BASE AND MIN. 1 1/4" WIDE AT THE FACE, FORMED FROM 0.020" THICK GALVANIZED STEEL, SPACED 12" O.C. CHANNELS SECURED TO EACH TRUSS WITH 1 1/4" LONG TYPE S STEEL SCREWS. CHANNELS OVERLAPPED AT SPICES 4". CHANNELS ORIENTED OPPOSITE AT WALLBOARD BUTT JOINTS (SPACED 6" O.C.) AS SHOWN IN THE ABOVE ILLUSTRATION.
- GYPSUM BOARD - NOM. 5/8" THICK, 48" WIDE GYPSUM BOARD, INSTALLED WITH LONG DIMENSION PERPENDICULAR TO RESILIENT CHANNELS. GYPSUM BOARD SECURED WITH 1 1/8" LONG TYPE S SCREWS SPACED 12" O.C. AND LOCATED A MIN. OF 1/2" FROM SIDE JOINTS AND 3" FROM THE END JOINTS. AT END JOINTS, TWO RESILIENT CHANNELS ARE USED, EXTENDING A MIN. OF 6" BEYOND BOTH ENDS OF THE JOINT. WHEN INSULATION, ITEM 3 OR 3A, IS DRAPED OVER THE RESILIENT CHANNEL / GYPSUM WALLBOARD CEILING MEMBRANE, SCREWS SHALL BE INSTALLED AT 8" O.C.
- FINISHING SYSTEM - (NOT SHOWN) - VINYL DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS. NOM. 2" WIDE PAPER TAPE EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.

## DESIGN NO. U385

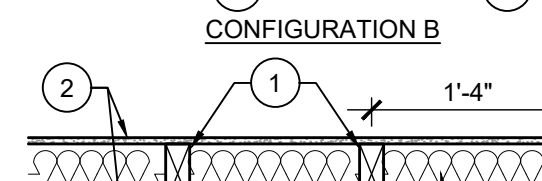
NONBEARING WALL RATINGS - 1 HR



CONFIGURATION A



CONFIGURATION B

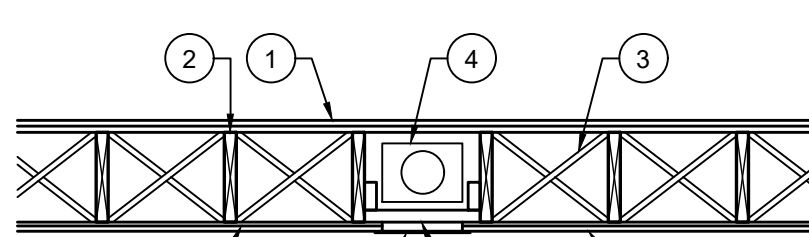


CONFIGURATION C

- WOOD STUDS - NOM. 2x4 STUDS, SPACED AT 24" O.C. MAXIMUM, EFFECTIVELY FIRE STOPPED AT TOP AND BOTTOM OF WALL.
- GYPSUM BOARD - NOM. 5/8" THICK, 4" WIDE PANELS, APPLIED VERTICALLY TO STUDS AND BEARING PLATES WITH 1 5/8" LONG, NO. 6, TYPE S, COURSE THREADED SCREWS SPACED AT 8" O.C. ALONG THE PERIMETER OF THE PANELS AND 12" O.C. IN THE FIELD. VERTICAL JOINTS CENTERED OVER STUDS AND STAGGERED ONE STUD CAVITY ON OPPOSITE SIDES OF STUD. HORIZONTAL JOINTS OF VERTICALLY APPLIED PANELS TO BE STAGGERED 4 FT ON OPPOSITE SIDE OF WALL. HORIZONTAL JOINTS OF VERTICALLY APPLIED PANELS TO BE SUPPORTED BY STUD BLOCKING.
- BATTS AND BLANKETS\* - UL CLASSIFIED FIBERGLASS INSULATION WITH OR WITHOUT KRAFT PAPER FACINGS, NOMINAL 3 1/2" THICK, NOMINAL DENSITY OF 0.95 PCF, FASTENED TO WOOD STUDS USING METAL FASTENERS TO COMPLETELY FILL THE STUD CAVITIES.
- JOINTS AND SCREW HEADS - JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS. PAPER TAPE, NOM. 2" WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.

## DESIGN NO. L501

UNRESTRAINED ASSEMBLY RATING - 1 HR

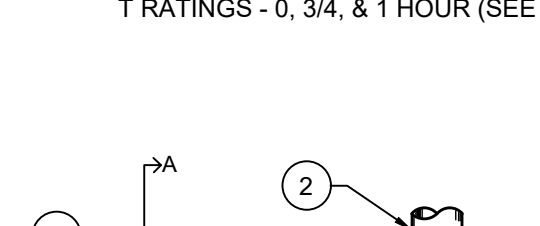


SYSTEM NO. 9

- FLOORING SYSTEMS -
  - SUBFLOORING - MIN 1/2" x 6" T&G LUMBER FASTENED DIAGONALLY TO JOISTS, OR MIN. 15/32" THICK WOOD STRUCTURAL PANELS OR 7/16" THICK ORIENTED STRAND BOARD [OSB] WOOD STRUCTURAL PANELS, MIN. GRADE "C" OR "SHEATHING" FACE GRAIN OF PLYWOOD OR STRENGTH AXIS OF PANELS TO BE PERPENDICULAR TO JOISTS WITH JOINTS STAGGERED.
  - FINISH FLOORING - MINERAL AND FIBER BOARD - MIN 1/2" THICK, SUPPLIED IN SIZES RANGING FROM 3 FT. BY 4 FT. TO 8 FT BY 12 FT. ALL JOINTS TO BE STAGGERED A MIN. OF 12" WITH ADJACENT SUBFLOOR JOINTS.
- WOOD JOISTS - MIN. 2x10 JOIST SPACED 16" O.C. AND EFFECTIVELY FIREBLOCKED IN ACCORDANCE WITH LOCAL CODES.
- CROSS BRIDGING - MIN. 1x3 OR MIN. 2x10 SOLID BLOCKING.
- HORIZONTAL BRIDGING - USED IN LIEU OF ITEM 3 IN SAME JOIST BAY AS CEILING DAMPER [ITEM 4], WHEN CEILING DAMPER IS EMPLOYED. WOOD 2x4 SECURED BETWEEN JOISTS WITH NAILS.
- CEILING DAMPER - (OPTIONAL) - MAX NOMINAL AREA SHALL BE 196 SQ. IN. MAX. RECTANGULAR SIZE SHALL BE 12" WIDE BY 16 1/2" LONGS. MAX. HEIGHT OF DAMPER SHALL BE 9 3/8". AGGREGATE DAMPER OPENINGS SHALL NOT EXCEED 99 SQ. IN. PER 100 SQ. FT. OF CEILING AREA. DAMPER INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS PROVIDED WITH DAMPER. A STEEL GRILLE [ITEM 7] SHALL BE INSTALLED IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS.
- GYPSUM BOARD - NOMINAL 5/8" THICK, 48" WIDE GYPSUM BOARD, INSTALLED WITH THE LONG DIMENSION PERPENDICULAR TO JOISTS. GYPSUM BOARD SECURED WITH 1" LONG, TYPE S SCREWS SPACED 6" O.C.
- FINISHING SYSTEM - (NOT SHOWN) - VINYL DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS. NOM. 2" WIDE PAPER TAPE EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS. AS AN ALTERNATE, NOM. 3/32" THICK VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF GYPSUM BOARD.
- GRILLE - STEEL GRILLE, INSTALLED IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS PROVIDED WITH THE CEILING DAMPER.

## SYSTEM NO. F-C-1011

F RATINGS - 1 HOUR  
T RATINGS - 0, 3/4, & 1 HOUR (SEE ITEM 2)



SECTION A-A

- FLOOR-CEILING ASSEMBLY - THE FIRE-RATED WOOD JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN DESIGN NOS. L512, L513 OR L514 IN THE UL FIRE RESISTANCE DIRECTORY, AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - FLOORING SYSTEM - LUMBER OR MIN 1/2" PLYWOOD SUBFLOOR WITH LUMBER OR MIN. 3/4" PLYWOOD FINISH FLOOR OR FLOOR TOPPING MIXTURE\*, AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIAMETER OF OPENING IS 7".
  - WOOD JOISTS - NOM. 2 BY 10 IN. LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1 BY 3 IN. LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOISTS, NOM. 10 IN. DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS\* WITH BRIDGING AS REQUIRED WITH ENDS FIRESTOPPED.
  - FURRING CHANNELS - (NOT SHOWN) - RESILIENT GALV STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN WALLBOARD (ITEM 1D) AND WOOD JOISTS AND SPACED MAX 24" O.C.
  - GYPSUM BOARD\* - NOM. 4" WIDE BY 1/2" OR 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. WALLBOARD ATTACHED TO WOOD JOISTS AND FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIA. OF OPENING IS 7".
- THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBE INSTALLED APPROXIMATELY MIDWAY BETWEEN WOOD JOISTS AND CENTERED WITHIN THE FIRESTOP SYSTEM. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE NOM 1/2" LARGER THAN THE OUTSIDE DIA. OF THROUGH-PENETRANT. PIPE, CONDUIT OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
  - STEEL PIPE - NOM. 6" DIA. (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
  - IRON PIPE - NOM. 6" DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
  - CONDUIT - NOM. 4" DIA. (OR SMALLER) ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
  - COPPER TUBING - NOM. 4" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
  - COPPER PIPE - NOM. 4" DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE. THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OF PENETRANT AND NOM DIA. OF PENETRANT USED AS TABULATED BELOW.

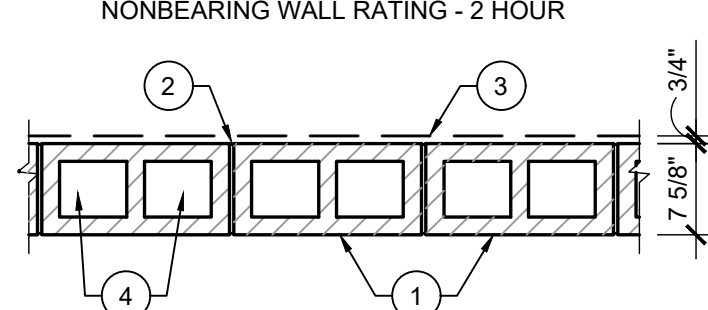
TYPE OF PENETRANT	MAX. DIA. OF PENETRANT (IN.)	T RATING (HR.)
STEEL PIPE	4	1
STEEL PIPE	6	3/4
IRON PIPE	6	0
COPPER TUBING	4	0
COPPER PIPE	4	0

- FILL, VOID OR CAVITY MATERIAL\* - CAULK - ON TOP OF ASSEMBLY, A MIN. 1 1/8" DEPTH OF FILL MATERIAL APPLIED WITHIN ANNULUS ON TOP SURFACE OF FLOOR. ON BOTTOM OF ASSEMBLY, A MIN. 1/2" DEPTH OF FILL MATERIAL APPLIED WITHIN ANNULUS ON BOTTOM SURFACE OF CEILING. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/2" THICK CROWN IS FORMED AROUND THE THRU PENETRANT ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY.
  - AID FIRE PROTECTION SYSTEMS INC - AID FIRE BARRIER SILICONE

\* BEARING THE UL CLASSIFICATION MARK

## DESIGN NO. U905

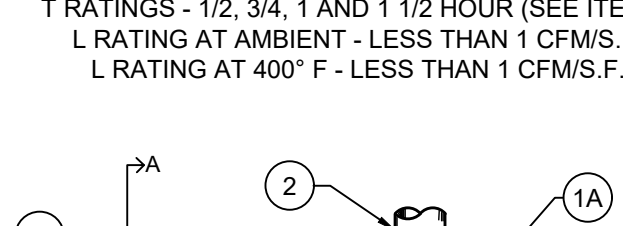
BEARING WALL RATING - 2 HOUR  
NONBEARING WALL RATING - 2 HOUR



- CONCRETE BLOCKS - VARIOUS DESIGNS. CLASSIFICATION D-2 (2 HOUR).
- MORTAR - BLOCKS LAID IN FULL BED OF MORTAR, NOM. 3/8" THICK, OF NOT LESS THAN 2 1/4" AND NOT MORE THAN 3 1/2" PARTS OF CLEAN SHARP SAND TO 1 PART PORTLAND CEMENT (PROPORTIONED BY VOLUME) AND NOT MORE THAN 50 PERCENT HYDRATED LIME (BY CEMENT VOLUME). VERTICAL JOINTS STAGGERED.
- PORTLAND CEMENT STUCCO OR GYPSUM PLASTER - ADD 1/2 HOUR TO CLASSIFICATION IF USED. WHERE COMBUSTIBLE MEMBERS ARE FRAMED IN WALL, PLASTER OR STUCCO MUST BE APPLIED ON THE FACE OPPOSITE FRAMING TO ACHIEVE A MAX. CLASSIFICATION OF 1 1/2 HOUR. ATTACHED TO CONCRETE BLOCKS (ITEM 1).
- LOOSE MASONRY FILL - IF ALL CORE SPACES ARE FILLED WITH LOOSE DRY EXPANDED SLAG, EXPANDED CLAY OR SHALE (ROTARY KILN PROCESS), WATER REPELLANT VERMICULITE MASONRY FILL INSULATION, OR SILICONE TREATED PERLITE LOOSE FILL INSULATION ADD 2 HOUR TO CLASSIFICATION.
- FOAMED PLASTIC\* - (OPTIONAL - NOT SHOWN) - 1 1/2" THICK MAX., 4" WIDE SHEATHING ATTACHED TO CONCRETE BLOCKS (ITEM 1)
- BUILDING UNITS - AS AN ALTERNATE TO ITEM 5, MIN. 1" THICK POLYISOCYANURATE COMPOSITE FOAMED PLASTIC INSULATION BOARDS, NOM. 48" x 48" x 96".

## SYSTEM NO. F-C-1010

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)  
T RATINGS - 1/2, 3/4, 1 AND 1 1/2 HOUR (SEE ITEM 2)  
L RATINGS AT AMBIENT - LESS THAN 1 CFM/S.F.  
L RATING AT 400' F - LESS THAN 1 CFM/S.F.

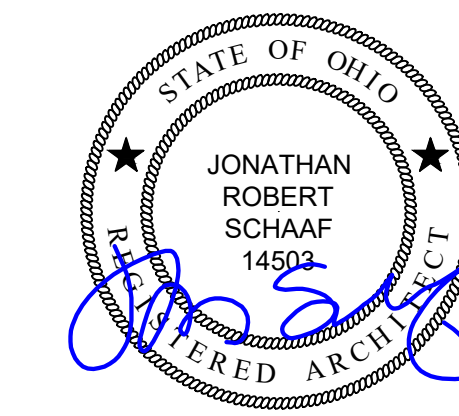


SECTION A-A

- FLOOR-CEILING ASSEMBLY - THE 1 HOUR FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE 2 HOUR FIRE-RATED WOOD JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN DESIGN NUMBERS L505, L511 OR L536 IN THE UL FIRE RESISTANCE RATING DIRECTORY. THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE FLOOR-CEILING ASSEMBLY. THE GENERAL CONSTRUCTION FEATURES OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
  - FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE\*, AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIA. OF FLOOR OPENING IS 5".
  - WOOD JOISTS\* - FOR 1 HOUR FIRE-RATED FLOOR-CEILING ASSEMBLIES, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OF COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS\* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED. FOR 2 HOUR FIRE-RATED FLOOR-CEILING ASSEMBLIES, NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED.
  - FURRING CHANNELS - (NOT SHOWN) - IN 2 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN FIRST AND SECOND LAYERS OF GYPSUM BOARD (ITEM 1D). FURRING CHANNELS SPACED MAX. 24" O.C. IN 1 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN GYPSUM BOARD AND WOOD JOISTS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FURRING CHANNELS SPACED MAX. 24" O.C.
  - GYPSUM BOARD\* - NOM. 4" WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FIRST LAYER OF GYPSUM BOARD SECURED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. SECOND LAYER OF GYPSUM BOARD (2 HOUR FIRE-RATED ASSEMBLY) SCREW-ATTACHED TO FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF CEILING OPENING IS 5".
- THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBE INSTALLED APPROXIMATELY MIDWAY BETWEEN WOOD JOISTS. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE NOM 1/2" GREATER THAN THE OUTSIDE DIA. OF THROUGH-PENETRANT. FOR 1 HOUR RATED FLOOR ASSEMBLIES, THROUGH PENETRANT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE OPENING WITH AN ANNULAR SPACE OF 6" (POINT CONTACT) TO 1/2". FOR 2 HOUR RATED FLOOR ASSEMBLIES, THROUGH PENETRANT TO BE CENTERED IN THE OPENING. PIPE, CONDUIT OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
  - STEEL PIPE - NOM. 4" DIA. (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.
  - IRON PIPE - NOM. 4" DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
  - CONDUIT - NOM. 4" DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
  - COPPER PIPE - NOM. 4" DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
  - COPPER TUBING - NOM. 4" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

FLOOR CEILING RATING HR.	TYPE OF PENETRANT	T RATING HOUR
1	STEEL OR IRON PIPE	1
1	STEEL CONDUIT	1
1	COPPER TUBE OR PIPE	3/4
2	STEEL OR IRON PIPE	1 1/2
2	STEEL CONDUIT	1 1/2
2	COPPER TUBE OR PIPE	1/2

- FILL, VOID OR CAVITY MATERIAL\* - FILL MATERIAL FORCED INTO ANNULUS TO FILL SPACE TO MAX. EXTENT POSSIBLE ON TOP SURFACE OF FLOOR AND BOTTOM SURFACE OF CEILING. MIN. 3/8" DIA. BEAD OF FILL MATERIAL APPLIED AT POINT CONTACT LOCATION ON TOP SURFACE OF FLOOR AND BOTTOM SURFACE OF GYPSUM BOARD CEILING.



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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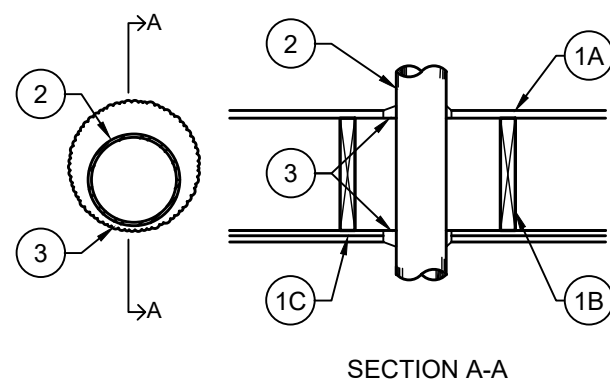
Huffman-Parnell RAD Conversion  
9 A&B Parnell Ave., 1111 A&B Parnell Ave.,  
1202 A&B Huffman Ave., 11204 A&B Huffman Ave.,  
1208 A&B Huffman Ave., 11210 A&B Huffman Ave.,  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
UL Assemblies

**SYSTEM NO. F-C-2032**

F RATINGS - 1 HOUR  
T RATINGS - 0, 1/4, 3/4 AND 1 HOUR (SEE ITEM 2)  
L RATING AT AMBIENT - LESS THAN 1 CFM/S.F.  
L RATING AT 400° F - LESS THAN 1 CFM/S.F.

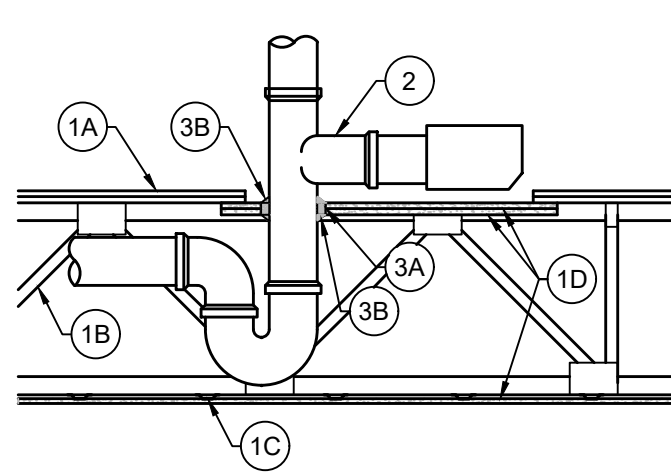


SECTION A-A

- FLOOR-CEILING ASSEMBLY - THE 1 HOUR FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
  - FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE\* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF FLOOR OPENING IS 5".
  - WOOD JOISTS\* - NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOIST, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OF STRUCTURAL WOOD MEMBERS\* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED.
  - FURRING CHANNELS - (NOT SHOWN) - RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 1B) BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.
  - GYPSUM BOARD\* - NOM. 4" WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. GYPSUM BOARD SECURED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF CEILING OPENING IN 5".
- CHASE WALL - (OPTIONAL, NOT SHOWN) - THE THROUGH PENETRANT (ITEM NO. 2) MAY BE ROUTED THROUGH A FIRE RATED OR NON FIRE RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM BOARD CHASE WALL. WHEN FIRE RATED THE CHASE WALL SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - NOM. 2x4, 2x6 OR DOUBLE 2x4 LUMBER STUDS.
  - SOLE PLATE - NOM. 2x4, 2x6 OR PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED.
  - TOP PLATE - THE DOUBLE TOP PLATE SHALL CONSIST OF 2x4 OR 2x6 OR TWO SETS OF PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED\* MAX. DIA. OF OPENING IS 4".
  - GYPSUM BOARD\* - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGN.
- THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBE TO BE INSTALLED WITHIN THE FIRESTOP SYSTEM. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE 1/4 TO 1 5/8" LARGER THAN THE OUTSIDE DIA. OF THROUGH-PENETRANT. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
  - POLYVINYL CHLORIDE (PVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 SOLID OR CELLULAR CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT THAT WHEN NOM. DIA. OF PIPE EXCEEDS 1", THE T RATING IS 1/4 HOUR.
  - RIGID NONMETALLIC CONDUIT (RNC)- NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70). THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT THAT WHEN NOM. DIA. OF PIPE EXCEEDS 1", THE T RATING IS 1/4 HOUR.
  - CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SDR 17 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT THAT WHEN NOM. DIA. OF PIPE EXCEEDS 1", THE T RATING IS 1/4 HOUR.
  - ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR CORE SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR.
  - POLYBUTYLENE (PB) PIPE - NOM. 2" DIA. (OR SMALLER) SDR 11 PB PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR.
  - CROSS LINKED POLYETHYLENE ALUMINUM-CROSS LINKED POLYETHYLENE (PEXAL-PEX) TUBING - NOM. 1" DIA. (OR SMALLER) SDR 5 PEX AL-PEX TUBING FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 3/4 HOUR.
  - CROSS LINKED POLYETHYLENE (PEX) TUBING - NOM. 2" DIA. (OR SMALLER) SDR 9 PEX TUBING FOR USE CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR.
  - ELECTRICAL NONMETALLIC TUBING (ENT)- NOM. 2" DIA. (OR SMALLER) PVC TUBING INSTALLED IN ACCORDANCE WITH ARTICLE 351 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70). THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT THAT WHEN NOM. DIA. OF TUBE EXCEEDS 1", THE T RATING IS 1/4 HOUR.
  - CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 80 CPVC PIPE IS USED IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. WHEN 2A, 2C, 2E, 2F, 2G, 2H, OR 2I IS USED, THE ANNULAR SPACE SHALL BE MIN. 0" (POINT CONTACT) TO MAX. 1 5/8". WHEN 2J IS USED THE ANNULAR SPACE SHALL BE MIN. 0" (POINT CONTACT) TO MAX. 1" EXCEPT THAT WHEN NOM. PIPE DIA EXCEEDS 1 1/2", THE MAX. ANNULAR SPACE IS 5/8".
- FILL, VOID OR CAVITY MATERIAL\* - MIN. 3/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS ON TOP SURFACE OF FLOOR. MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS ON BOTTOM SURFACE OF CEILING OR LOWER TOP PLATE OF CHASE WALL ASSEMBLY. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 1/8" CROWN IS FORMED AROUND THE THROUGH PENETRANT ON BOTTOM SURFACE OF CEILING OR LOWER PLATE OF CHASE WALL ASSEMBLY.

**SYSTEM NO. F-C-2036**

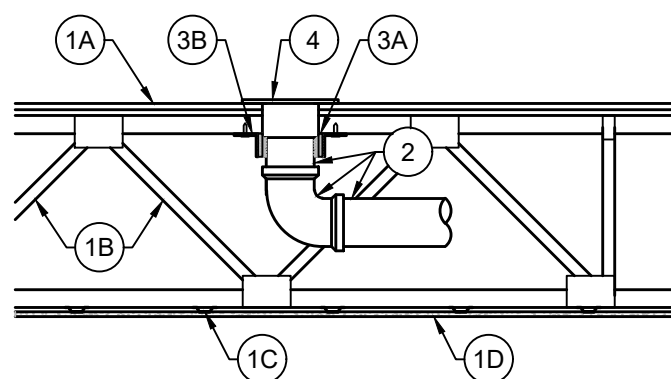
F RATINGS - 1 HOUR  
T RATINGS - 1 HOUR



- FLOOR-CEILING ASSEMBLY - THE FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
  - FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE\* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF OPENING IS 5".
  - WOOD JOISTS\* - NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOIST, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OF STRUCTURAL WOOD MEMBERS\* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED.
  - FURRING CHANNELS - RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 1B) BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.
  - GYPSUM BOARD\* - NOM. 4" WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. GYPSUM BOARD SECURED TO WOOD JOISTS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. TWO PIECES OF GYPSUM BOARD, EACH MIN. 4" LONGER AND WIDER THAN THE CUTOUT IN THE FLOORING, SCREW-ATTACHED TO BOTTOM OF FLOORING CONCENTRIC WITH CUTOUT. DIA. OF OPENING HOLE-SAWED THROUGH BOTH LAYERS OF THE GYPSUM BOARD PATCH TO BE 1/2" TO 5/8" LARGER THAN OUTSIDE DIA. OF BATHTUB DRAIN PIPING (ITEM 2).
- DRAIN PIPING - NOM. 1 1/2" DIA. SCHEDULE 40 POLYVINYL CHLORIDE (PVC) OR ACRYLONITRILE BUTADIENE STYRENE (ABS) DRAIN PIPING AND FITTINGS. DIA. OF CIRCULAR OPENING HOLE THROUGH FLOORING (ITEM 1A) TO BE MAX. 1/2" LARGER THAN OUTSIDE DIA. OF PIPE. SHORT LENGTH OF PIPE WITH 90 DEGREE ELBOW FITTING CEMENTED INTO BOTTOM SOCKET OF CLOSET FLANGE (ITEM 5). DRAIN PIPING CEINGED TO ELBOW.
- FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - FILL, VOID OR CAVITY MATERIAL\* - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON BOTH SIDE WITH A PLASTIC FILM, SUPPLIED IN 1 1/2" WIDE STRIPS. NOM. 1 1/2" WIDE STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE WITH EDGES BUTTED AGAINST THE UNDERSIDE OF FLOORING AROUND THE ENTIRE PERIMETER OF THE HOLE-SAWED OPENING. TWO LAYERS OF WRAP STRIP ARE REQUIRED. EACH LAYER OF WRAP STRIP TO BE INSTALLED WITH BUTTED SEAM, BUTTED SEAMS IN SUCCESSIVE LAYERS STAGGERED OR ALIGNED. WRAP STRIP LAYER(S) TEMPORARILY HELD IN POSITION USING ALUMINUM FOIL TAPE.
  - STEEL COLLAR - COLLAR FABRICATED FROM COILS OF PRECUT 0.016" THICK (30 MISC) GALV. SHEET STEEL AVAILABLE FROM WRAP STRIP MANUFACTURER. COLLAR SHALL BE NOM. 1 1/2" DEEP WITH MIN. FOUR 1" WIDE BY 2" LONG ANCHOR TABS FOR SECUREMENT TO TOP SURFACE OF FLOORING. RETAINER TABS, 3/4" WIDE TAPERING DOWN TO 1/4" WIDE AND LOCATED OPPOSITE THE ANCHOR TABS, ARE FOLDED 90 DEGREES TOWARD THROUGH-PENETRANT SURFACE TO MAINTAIN THE ANNULAR SPACE AROUND THE THROUGH-PENETRANT AND TO RETAIN THE WRAP STRIPS. STEEL COLLAR WRAPPED AROUND WRAP STRIPS AND THROUGH-PENETRANT WITH A 1" WIDE OVERLAP ALONG ITS PERIMETER JOINT AND SECURED TOGETHER BY MEANS OF A MIN. 1/2" WIDE BY 0.028" THICK STAINLESS STEEL HOSE CLAMP AT MID-HEIGHT OF THE STEEL COLLAR. AS AN ALTERNATE TO THE STEEL HOSE CLAMP, THE STEEL COLLAR CAN BE SECURED TOGETHER BY MEANS OF THREE NO. 8 BY 3/8" LONG STEEL SHEET METAL SCREWS. ANCHOR TABS OF COLLAR BENT OUTWARDS AND SECURED TO TOP SURFACE OF FLOORING OR UNDERSIDE OF FLOOR USING MIN. 3/4" LONG STEEL WOOD SCREWS IN CONJUNCTION WITH 1/4" BY 1 1/4" DIA. STEEL FENDER WASHERS.
- CLOSET FLANGE - PVC OR ABS CLOSET STUB USED TO ACCOMMODATE DRAIN PIPE. CLOSET FLANGE INSTALLED IN HOLE-SAWED OPENING IN FLOORING SYSTEM WITH FLANGE SECURED TO TOP OF FLOORING WITH STEEL SCREWS.
- WATER CLOSET - (NOT SHOWN) - FLOOR MOUNTED VITREOUS CHINA WATER CLOSET.

**SYSTEM NO. F-C-2037**

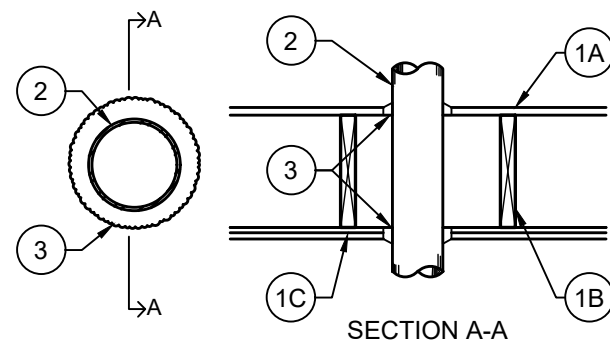
F RATINGS - 1 HOUR  
T RATINGS - 1 HOUR



- FLOOR-CEILING ASSEMBLY - THE FIRE RATED SOLID OR TRUSSED LUMBER JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
  - FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE\* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF OPENING IS 5".
  - WOOD JOISTS\* - NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOIST, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OF STRUCTURAL WOOD MEMBERS\* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED.
  - FURRING CHANNELS - RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 1B) BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.
  - GYPSUM BOARD\* - NOM. 4" WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.
- DRAIN PIPING - NOM. 4" DIA. SCHEDULE 40 POLYVINYL CHLORIDE (PVC) OR ACRYLONITRILE BUTADIENE STYRENE (ABS) DRAIN PIPING AND FITTINGS. DIA. OF CIRCULAR OPENING HOLE THROUGH FLOORING (ITEM 1A) TO BE MAX. 1/2" LARGER THAN OUTSIDE DIA. OF PIPE. SHORT LENGTH OF PIPE WITH 90 DEGREE ELBOW FITTING CEMENTED INTO BOTTOM SOCKET OF CLOSET FLANGE (ITEM 5). DRAIN PIPING CEINGED TO ELBOW.
- FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - FILL, VOID OR CAVITY MATERIAL\* - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON BOTH SIDE WITH A PLASTIC FILM, SUPPLIED IN 1 1/2" WIDE STRIPS. NOM. 1 1/2" WIDE STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE WITH EDGES BUTTED AGAINST THE UNDERSIDE OF FLOORING AROUND THE ENTIRE PERIMETER OF THE HOLE-SAWED OPENING. TWO LAYERS OF WRAP STRIP ARE REQUIRED. EACH LAYER OF WRAP STRIP TO BE INSTALLED WITH BUTTED SEAM, BUTTED SEAMS IN SUCCESSIVE LAYERS STAGGERED OR ALIGNED. WRAP STRIP LAYER(S) TEMPORARILY HELD IN POSITION USING ALUMINUM FOIL TAPE.
  - STEEL COLLAR - COLLAR FABRICATED FROM COILS OF PRECUT 0.016" THICK (30 MISC) GALV. SHEET STEEL AVAILABLE FROM WRAP STRIP MANUFACTURER. COLLAR SHALL BE NOM. 1 1/2" DEEP WITH MIN. FOUR 1" WIDE BY 2" LONG ANCHOR TABS FOR SECUREMENT TO TOP SURFACE OF FLOORING. RETAINER TABS, 3/4" WIDE TAPERING DOWN TO 1/4" WIDE AND LOCATED OPPOSITE THE ANCHOR TABS, ARE FOLDED 90 DEGREES TOWARD THROUGH-PENETRANT SURFACE TO MAINTAIN THE ANNULAR SPACE AROUND THE THROUGH-PENETRANT AND TO RETAIN THE WRAP STRIPS. STEEL COLLAR WRAPPED AROUND WRAP STRIPS AND THROUGH-PENETRANT WITH A 1" WIDE OVERLAP ALONG ITS PERIMETER JOINT AND SECURED TOGETHER BY MEANS OF A MIN. 1/2" WIDE BY 0.028" THICK STAINLESS STEEL HOSE CLAMP AT MID-HEIGHT OF THE STEEL COLLAR. AS AN ALTERNATE TO THE STEEL HOSE CLAMP, THE STEEL COLLAR CAN BE SECURED TOGETHER BY MEANS OF THREE NO. 8 BY 3/8" LONG STEEL SHEET METAL SCREWS. ANCHOR TABS OF COLLAR BENT OUTWARDS AND SECURED TO TOP SURFACE OF FLOORING OR UNDERSIDE OF FLOOR USING MIN. 3/4" LONG STEEL WOOD SCREWS IN CONJUNCTION WITH 1/4" BY 1 1/4" DIA. STEEL FENDER WASHERS.
- CLOSET FLANGE - PVC OR ABS CLOSET STUB USED TO ACCOMMODATE DRAIN PIPE. CLOSET FLANGE INSTALLED IN HOLE-SAWED OPENING IN FLOORING SYSTEM WITH FLANGE SECURED TO TOP OF FLOORING WITH STEEL SCREWS.
- WATER CLOSET - (NOT SHOWN) - FLOOR MOUNTED VITREOUS CHINA WATER CLOSET.

**SYSTEM NO. F-C-3013**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 2A)  
T RATINGS - 3/4, 1 AND 2 HOUR (SEE ITEM 2A)  
L RATING AT AMBIENT - LESS THAN 1 CFM/S.F.  
L RATING AT 400° F - LESS THAN 1 CFM/S.F.



SECTION A-A

- FLOOR-CEILING ASSEMBLY - THE 1 HOUR FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE 2 HOUR FIRE RATED WOOD JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN DESIGN NOS. L505, L511 OR L536 IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
  - FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE\* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF FLOOR OPENING IS 2".
  - WOOD JOISTS\* - FOR 1 HOUR FIRE RATED FLOOR-CEILING ASSEMBLIES NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS\* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED. FOR 2 HOUR FIRE RATED FLOOR-CEILING ASSEMBLIES, NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED.
  - FURRING CHANNELS - (NOT SHOWN) - IN 2 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN FIRST AND SECOND LAYERS OF GYPSUM BOARD (ITEM 1D). FURRING CHANNELS SPACED MAX. 24" O.C. IN 1 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN GYPSUM BOARD AND WOOD JOISTS A SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FURRING CHANNELS SPACED MAX. 24" O.C.
  - GYPSUM BOARD - NOM. 4" WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FIRST LAYER OF GYPSUM BOARD SECURED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. SECOND LAYER OF GYPSUM BOARD (2 HOUR FIRE-RATED ASSEMBLY) SCRW ATTACHED TO FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF CEILING OPENING IN 2".
- CHASE WALL - (OPTIONAL, NOT SHOWN) - THE THROUGH PENETRANT (ITEM NO. 2) MAY BE ROUTED THROUGH A FIRE RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM BOARD CHASE WALL HAVING A FIRE RATING CONSISTANT WITH THAT OF THE FLOOR-CEILING ASSEMBLY. THE CHASE WALL SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - NOM. 2x6 OR DOUBLE 2x4 LUMBER STUDS.
  - SOLE PLATE - NOM. 2x6 OR PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED.
  - TOP PLATE - THE DOUBLE TOP PLATE SHALL CONSIST OF TWO NOM. 2x6 OR TWO SETS OF PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED\* MAX. DIA. OF OPENING IS 2".
  - GYPSUM BOARD\* - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGN.
- CABLES - ONE OR MORE CABLES TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. CABLE(S) TO BE INSTALLED APPROX. MIDWAY BETWEEN WOOD JOIST. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM WALLBOARD CEILING TO BE MIN. 3/8" LARGER THAT THE OUTSIDE DIA. OF CABLE OR CABLE BUNDLE. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN. 0" (POINT CONTACT) TO A MAX. 1 1/4". CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
  - MAX. 100 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR TELEPHONE CABLE WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS.
  - MAX. 3/C (WITH GROUND) NO. 20 (OR SMALLER) AWG ALUMINUM CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET MATERIALS.
  - MAX. 3/C (WITH GROUND) NO. 12 AWG (OR SMALLER) COPPER CONDUCTOR NONMETALLIC SHEATHED (ROMEX) CABLE WITH PVC INSULATION AND JACKET MATERIALS.

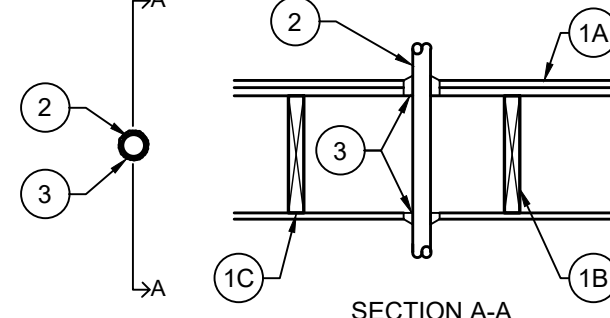
THE NUMBER OF CABLES ALLOWED WITHIN THE OPENING IS DEPENDANT UPON THE TYPE AND SIZE OF CABLE AS TABULATED IN ITEM 2A.
- THROUGH PENETRATING PRODUCTS\* - (NOT SHOWN) - AS AN ALTERNATE TO ITEM 2, THROUGH-PENETRATING PRODUCT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. ONE CABLE TO BE INSTALLED APPROX. MIDWAY BETWEEN WOOD JOIST. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE MIN. 3/8" LARGER THAT THE OUTSIDE DIA. OF CABLE. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN. 0" (POINT CONTACT) TO A MAX. 1 1/4". THROUGH PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES OF THROUGH-PENETRATING PRODUCTS MAY BE USED:
  - MAX. FOUR COPPER CONDUCTORS NO. 20 AWG (OR SMALLER) ALUMINUM OR STEEL ARMORED CABLE OR METAL-CLAD CABLE.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 6 AWG (OR SMALLER) POWER LIMITED CIRCUIT CABLE WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 10 AWG (OR SMALLER) POWER LIMITED FIRE ALARM CABLE WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 12 AWG (OR SMALLER) NON POWER LIMITED CIRCUIT CABLE WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.

THE F AND T RATINGS OF THE FIRESTOP SYSTEM ARE DEPENDANT UPON THE HOURLY RATING OF THE FLOOR-CEILING AND TYPE AND NUMBER OF THROUGH PENETRANTS, AS TABULATED BELOW:

RATING OF ASSEMBLY (HOUR)	TYPE OF THROUGH PENETRANT	MAX. NO. OF PENETRANTS	F RATING (HOUR)	T RATING (HOUR)
1	TELEPHONE CABLE	1	1	1
2	TELEPHONE CABLE	1	2	2
1	SERVICE ENTRANCE CABLE	1	1	1
1	ARMORED CABLE	1	1	3/4
1	ROMEX CABLE	7	1	3/4
1	POWER LIMITED CIRCUIT CABLE	1	1	3/4
1	NON POWER LIMITED FIRE ALARM CABLE	1	1	3/4
1	METAL CLAD OR ARMORED CABLE	1	1	3/4
- FILL, VOID OR CAVITY MATERIAL\* - ON TOP SURFACE OF FLOOR, MIN. 3/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS. FLUSH WITH TOP SURFACE OF FLOOR. ON BOTTOM SURFACE OF CEILING, MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS. FLUSH WITH BOTTOM SURFACE OF CEILING OR LOWER TOP PLATE OF CHASE WALL ASSEMBLY. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 1/8" CROWN IS FORMED AROUND THE PENETRATING ITEM ON BOTTOM SURFACE OF CEILING OR LOWER PLATE OF CHASE WALL ASSEMBLY. ON BOTH TOP AND BOTTOM OR ASSEMBLY, FILL MATERIAL FORCED INTO INTERSTICES OF CABLE GROUP TO MAX. EXTENT POSSIBLE.

**SYSTEM NO. F-C-3014**

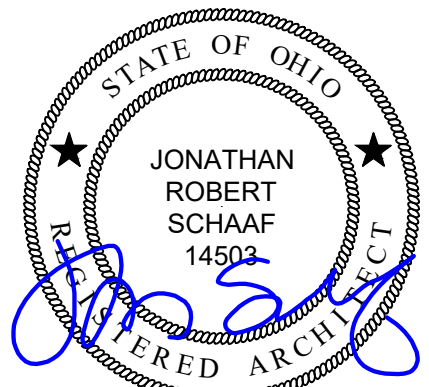
F RATINGS - 1 HOUR  
T RATING - 1 HOUR



SECTION A-A

- FLOOR-CEILING ASSEMBLY - THE FIRE-RATED WOOD JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN DESIGN NOS. L512, L513, OR L514 IN THE UL FIRE RESISTANCE DIRECTORY, AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES.
  - FLOORING SYSTEM - LUMBER OR MIN 1/2" PLYWOOD SUBFLOOR WITH LUMBER OR MIN 3/4" PLYWOOD FINISH FLOOR, OR FLOOR TOPPING MIXTURE\* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF OPENING IS 2".
  - WOOD JOISTS - NOM. 2 BY 10 IN. LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1 BY 3 IN. LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOISTS, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS\* WITH BRIDGING AS REQUIRED WITH ENDS FIRESTOPPED.
  - FURRING CHANNELS - (NOT SHOWN) - RESILIENT GALV. STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AND SPACED MAX. 24" O.C.
  - GYPSUM BOARD\* - NOM. 4" WIDE BY 1/2" OR 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. GYPSUM BOARD ATTACHED TO WOOD JOISTS AND FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF CEILING OPENING IN 2".
- CABLES - ONE CABLE TO BE INSTALLED APPROXIMATELY MIDWAY BETWEEN WOOD JOIST AND CENTERED WITHIN THE FIRESTOP SYSTEM. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM WALLBOARD CEILING TO BE NOM 1/4" LARGER THAN THE OUTSIDE DIA. OF THROUGH PENETRANT. CABLE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLES MAY BE USED:
  - 1/2-500 KCMIL (OR SMALLER) CABLE WITH CROSS-LINKED POLYETHYLENE INSULATION AND JACKET.
  - MAX 100 PAIR NO. 24 AWG CABLE (OR SMALLER) WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET.
  - TYPE RGU COAXIAL CABLE WITH FLUORINATED ETHYLENE PROPYLENE INSULATION AND JACKET.
  - MAX 2/C - NO. 12 AWG (OR SMALLER) CABLE WITH PVC INSULATION AND JACKET.
  - MAX 3/C WITH GROUND - NO. 10 AWG (OR SMALLER) TYPE NM NONMETALLIC SHEATHED CABLE.
  - MAX 3/C - NO 4/0 AWG (OR SMALLER) ALUMINUM CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET.
- CABLES - NOT SHOWN - AS AN ALTERNATE TO ITEM 2, A MAX OF SEVEN BUNDLED CABLES BUNDLED TOGETHER AND CENTERED WITHIN THE FIRESTOP SYSTEM. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM WALLBOARD CEILING TO BE NOM 1/4" LARGER THAN THE OUTSIDE DIA. OF CABLE BUNDLE. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLES MAY BE USED:
  - MAX 4 PAIR NO. 24 AWG CABLE (OR SMALLER) WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET.
  - TYPE RGU COAXIAL CABLE WITH FLUORINATED ETHYLENE PROPYLENE INSULATION AND JACKET.
- FILL, VOID OR CAVITY MATERIAL\* - CAULK - ON TOP OF ASSEMBLY, A MIN 1 1/8" DEPTH OF FILL MATERIAL APPLIED WITHIN ANNULUS ON TOP SURFACE OF FLOOR. ON BOTTOM OF ASSEMBLY, A MIN 1/2" DEPTH OF FILL MATERIAL APPLIED WITHIN ANNULUS ON BOTTOM SURFACE OF CEILING. FILL MATERIAL TO BE FORCED INTO INTERSTICES OF CABLE BUNDLE TO MAX EXTENT POSSIBLE ON BOTH SIDES. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT MIN 1/2" THICK CROWN IS FORMED AROUND THE THROUGH PENETRANT ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. A/D FIRE PROTECTION SYSTEMS INC. - A/D FIRE BARRIER SILICONE

\* BEARING THE UL CLASSIFICATION MARK.



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DATON, OH 45459 | 937.610.3440



Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**

9 A&B Parnell Ave. | 1111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave.

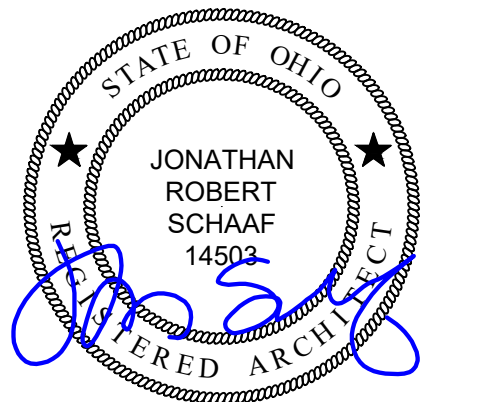
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number	2021-033
Date	May 1, 2024
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
UL Assemblies

Sheet Number

G1.6



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DATON, OH 45459 | 937.610.3440



Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
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Dayton, Ohio 45403  
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02.29.24	Permit
05.01.24	PRC / Bid Set

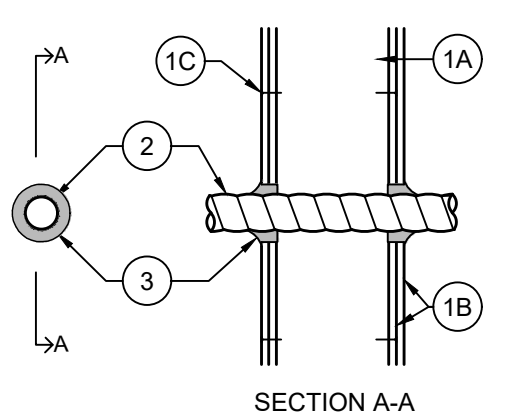
Sheet Title  
UL Assemblies

Sheet Number

G1.7

**SYSTEM NO. W-L-3015**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 3)  
T RATINGS - 0, 3/4, AND 2 HOUR (SEE ITEM 2)  
L RATING AT AMBIENT - LESS THAN 1 CFM/S.F. (SEE ITEM 3)  
L RATING AT 400° F - LESS THAN 1 CFM/S.F. (SEE ITEM 3)



- WALL ASSEMBLY - THE 1 OR 2 HOUR FIRE RATED GYPSUM BOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.
  - GYPSUM BOARD - NOM. 5/8" THICK, 4" WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 WALL OR PARTITION DESIGN. DIA. OF CIRCULAR THROUGH OPENING TO BE 3/8" TO 5/8" LARGER THAT OUTSIDE DIA. OF CABLE OR CABLE BUNDLE.
  - FASTENERS - WHEN WOOD STUD FRAMING IS EMPLOYED GYPSUM BOARD ATTACHED TO STUDS WITH CEMENT COATED NAILS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. WHEN STEEL CHANNEL STUD FRAMING IS EMPLOYED, GYPSUM WALL BOARD ATTACHED TO STUDS WITH TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN.

- MAX. 150 PAIR NO. 24 AWG COPPER CONDUCTOR TELEPHONE CABLE WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS. WHEN MAX. 25 PAIR TELEPHONE CABLE IS USED, T RATING IS 2 HOUR. WHEN 50 TO 150 PAIR TELEPHONE CABLE IS USED IN 1 HOUR FIRE RATED WALL, T RATING IS 1 HOUR.
- MAX. NO. 10 AWG COPPER CONDUCTOR TYPE NM (ROMEX) NONMETALLIC SHEATHED CABLE WITH PVC INSULATION AND JACKET MATERIALS. WHEN NM CABLE IS USED, MAX. T RATING IS 1 1/2 HOUR.
- MULTIPLE FIBER OPTICAL COMMUNICATION CABLE JACKETED WITH PVC AND HAVING A MAX. OUTSIDE DIA. OF 5/8". WHEN FIBER OPTIC CABLE IS USED, MAX T RATING IS 2 HOUR.
- MAX. 12 AWG MULTICONDUCTOR (MAX. SEVEN CONDUCTORS) POWER/CONTROL CABLE WITH CROSS-LINKED POLYETHYLENE (XLPE) INSULATION AND XLPE OR PVC JACKETED MATERIALS. WHEN MULTICONDUCTOR POWER/CONTROL CABLE IS USED, MAX. T RATING IS 2 HOUR.
- MAX. FOUR CONDUCTOR WITH GROUND NO. 2 AWG. (OR SMALLER) ALUMINUM SER CABLE WITH POLYVINYL CHLORIDE INSULATION AND JACKET MATERIALS.

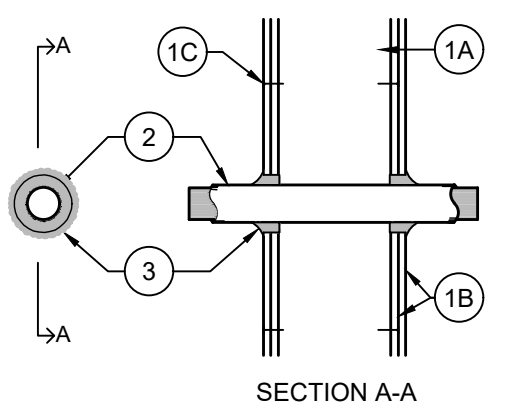
- THROUGH PENETRATING PRODUCT - MAX. ONE ARMORED CABLE OR METAL CLAD CABLE TO BE INSTALLED NEAR CENTER OF CIRCULAR OPENING IN GYPSUM BOARD. THROUGH PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES OF THROUGH-PENETRATING PRODUCTS MAY BE USED:
  - MAX. FOUR COPPER CONDUCTORS NO. 20 AWG (OR SMALLER) ALUMINUM OR STEEL ARMORED CABLES OR METAL CLAD CABLES.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 6 AWG (OR SMALLER) POWER LIMITED CIRCUIT CABLES WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 10 AWG (OR SMALLER) POWER LIMITED FIRE ALARM CABLES WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 12 AWG (OR SMALLER) NON POWER LIMITED CIRCUIT CABLES WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.

WHEN INSTALLED IN 1 HOUR FIRE RATED WALL ASSEMBLY, T RATING IS 0 HOUR. WHEN INSTALLED IN 2 HOUR FIRE RATED WALL ASSEMBLY, T RATING IS 3/4 HOUR. WHEN MAX. ARMORED CABLE, METAL-CLAD CABLE OR POWER LIMITED CIRCUIT CABLES ARE USED, THE T RATING IS 2 HOUR WHEN NON POWER LIMITED FIRE ALARM CABLE IS USED.

FILL VOID OR CAVITY MATERIAL - CAULK - CAULK FILL MATERIAL FORCED INTO ANNULAR SPACE AROUND ENTIRE CIRCUMFERENCE OF THROUGH PENETRATING PRODUCT TO COMPLETELY FILL OPENING IN GYPSUM BOARD ON EACH SIDE OF WALL ASSEMBLY. A MIN. 5/8" THICKNESS OF CAULK IS REQUIRED FOR THE 1 HOUR F RATING. A MIN. 1 1/4" THICKNESS OF CAULK IS REQUIRED FOR THE 2 HOUR F RATING.

**SYSTEM NO. W-L-3001**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)  
T RATINGS - 3/4, 1, 1 1/2 AND 2 HOUR (SEE ITEM 2)  
L RATING AT AMBIENT - 15CFM/S.F. (SEE ITEM 3)  
L RATING AT 400° F - LESS THAN 1 CFM/S.F. (SEE ITEM 3)



- WALL ASSEMBLY - THE 1 OR 2 HOUR FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.
  - GYPSUM BOARD - NOM. 1/2" OR 5/8" THICK, 4" WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 WALL OR PARTITION DESIGN. DIA. OF CIRCULAR THROUGH OPENING TO BE 3/8" TO 5/8" LARGER THAT OUTSIDE DIA. OF CABLE OR CABLE BUNDLE.
  - FASTENERS - WHEN WOOD STUD FRAMING IS EMPLOYED GYPSUM WALLBOARD LAYERS ATTACHED TO STUDS WITH CEMENT COATED NAILS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. WHEN STEEL CHANNEL STUD FRAMING IS EMPLOYED, GYPSUM WALL BOARD ATTACHED TO STUDS WITH TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN.

- MAX. 150 PAIR NO. 24 AWG COPPER CONDUCTOR TELEPHONE CABLE WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS. WHEN MAX. 25 PAIR TELEPHONE CABLE IS USED, T RATING IS 2 HOUR. WHEN 50 TO 150 PAIR TELEPHONE CABLE IS USED IN 1 HOUR FIRE RATED WALL, T RATING IS 1 HOUR.
- MAX. NO. 10 AWG COPPER CONDUCTOR TYPE NM (ROMEX) NONMETALLIC SHEATHED CABLE WITH PVC INSULATION AND JACKET MATERIALS. WHEN NM CABLE IS USED, MAX. T RATING IS 1 1/2 HOUR.
- MULTIPLE FIBER OPTICAL COMMUNICATION CABLE JACKETED WITH PVC AND HAVING A MAX. OUTSIDE DIA. OF 5/8". WHEN FIBER OPTIC CABLE IS USED, MAX T RATING IS 2 HOUR.
- MAX. 12 AWG MULTICONDUCTOR (MAX. SEVEN CONDUCTORS) POWER/CONTROL CABLE WITH CROSS-LINKED POLYETHYLENE (XLPE) INSULATION AND XLPE OR PVC JACKETED MATERIALS. WHEN MULTICONDUCTOR POWER/CONTROL CABLE IS USED, MAX. T RATING IS 2 HOUR.
- MAX. FOUR CONDUCTOR WITH GROUND NO. 2 AWG. (OR SMALLER) ALUMINUM SER CABLE WITH POLYVINYL CHLORIDE INSULATION AND JACKET MATERIALS.

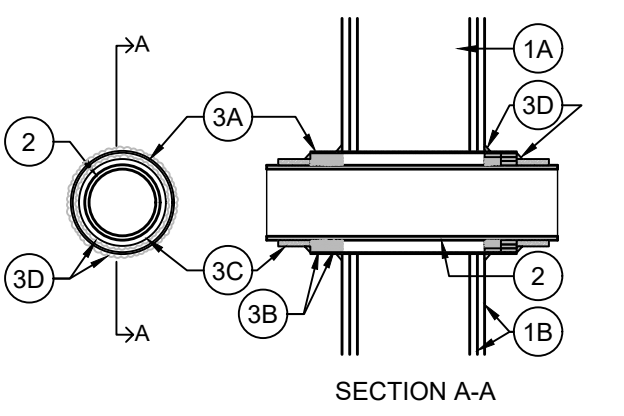
- THROUGH PENETRATING PRODUCT - MAX. ONE ARMORED CABLE OR METAL CLAD CABLE TO BE INSTALLED NEAR CENTER OF CIRCULAR OPENING IN GYPSUM BOARD. THROUGH PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES OF THROUGH-PENETRATING PRODUCTS MAY BE USED:
  - MAX. FOUR COPPER CONDUCTORS NO. 20 AWG (OR SMALLER) ALUMINUM OR STEEL ARMORED CABLES OR METAL CLAD CABLES.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 6 AWG (OR SMALLER) POWER LIMITED CIRCUIT CABLES WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 10 AWG (OR SMALLER) POWER LIMITED FIRE ALARM CABLES WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
  - TWO OR MORE TWISTED COPPER CONDUCTORS NO. 12 AWG (OR SMALLER) NON POWER LIMITED CIRCUIT CABLES WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.

WHEN INSTALLED IN 1 HOUR FIRE RATED WALL ASSEMBLY, T RATING IS 0 HOUR. WHEN INSTALLED IN 2 HOUR FIRE RATED WALL ASSEMBLY, T RATING IS 3/4 HOUR. WHEN MAX. ARMORED CABLE, METAL-CLAD CABLE OR POWER LIMITED CIRCUIT CABLES ARE USED, THE T RATING IS 2 HOUR WHEN NON POWER LIMITED FIRE ALARM CABLE IS USED.

FILL VOID OR CAVITY MATERIAL - CAULK - CAULK FILL MATERIAL FORCED INTO ANNULAR SPACE AROUND ENTIRE CIRCUMFERENCE OF THROUGH PENETRATING PRODUCT TO COMPLETELY FILL OPENING IN GYPSUM BOARD ON EACH SIDE OF WALL ASSEMBLY. A MIN. 5/8" THICKNESS OF CAULK IS REQUIRED FOR THE 1 HOUR F RATING. A MIN. 1 1/4" THICKNESS OF CAULK IS REQUIRED FOR THE 2 HOUR F RATING.

**SYSTEM NO. W-L-2005**

F RATINGS - 1 AND 2 HOUR  
T RATINGS - 0, 3/4, 1, 1/2 AND 2 HOUR  
L RATING AT AMBIENT - 7 CFM/S.F. (SEE ITEM 3)  
L RATING AT 400° F - LESS THAN 1 CFM/S.F. (SEE ITEM 3)



- WALL ASSEMBLY - 1 AND 2 HOUR FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.
  - GYPSUM BOARD - NOM. 4" WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIA. OF OPENING IS 13 3/4".

- STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.
- GYPSUM BOARD - NOM. 4" WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIA. OF OPENING IS 13 3/4".

- NONMETALLIC PIPE - NOM. 6", 8" OR 10" DIA. SCHEDULE 40 POLYVINYL CHLORIDE (PVC) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. ONE PIPE TO BE CENTERED IN THE FIRESTOP SYSTEM. PIPE TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL.
- FIRESTOP SYSTEM - INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F AND T RATINGS FOR THE FIRESTOP SYSTEM ARE DEPENDANT UPON THE SIZE OF NONMETALLIC PIPE AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW.

NOMINAL PIPE DIAMETER (IN.)	ANNULAR SPACE (IN.)	WALL FIRE RATING (HOUR)	F RATING (HOUR)	T RATING (HOUR)
6	3/4	1	1	1
6	3/4	2	2	2
8	1	1	1	3/4
8	1	2	2	1 1/2
10	1 1/2	1	1	3/4
10	1 1/2	2	1	3/4

THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

- STEEL SLEEVE - THE CYLINDRICAL SLEEVE FABRICATED FROM MIN. 0.016" THICK (28 GAUGE) GALV SHEET STEEL AND HAVING A MIN. 1" LAP ALONG THE LONGITUDINAL SEAM. LENGTH OF STEEL SLEEVE SHALL BE EQUAL TO THICKNESS OF WALL PLUS 9 1/2", 10" OR 11" FOR THE 6", 8" OR 10" DIA. PIPE SIZES, RESPECTIVELY. INSIDE DIA. OF STEEL SLEEVE AND DIA. OF THROUGH OPENING IN THE GYPSUM WALLBOARD LAYERS TO BE EQUAL TO OUTSIDE DIA. OF WRAP STRIP (ITEM B) LAYERS ON PIPE. CYLINDRICAL SLEEVE INSERTED IN ANNULAR SPACE AROUND NONMETALLIC PIPE AND CENTERED IN WALL. AFTER INSTALLATION OF THE WRAP STRIP (ITEM B) LAYERS, MIN. 1/2" WIDE x MIN. 0.028" THICK STAINLESS STEEL BAND CLAMPS INSTALLED AROUND STEEL COLLAR ON BOTH SIDES OF WALL ASSEMBLY WITH ONE BAND CLAMP LOCATED NEAR THE WALL SURFACE AND ANOTHER LOCATED APPROX. 1" FROM THE OUTER EDGE ON THE WRAP STRIP LAYERS. EDGES OF STEEL SLEEVE TO BE SLIT APPROX. 1" O.C. AROUND CIRCUMFERENCE OF SLEEVE ON BOTH SIDES OF WALL. WITH LENGTH OF SLITS APPROXIMATELY EQUAL TO THICKNESS OF MAT WRAP LAYERS. TO FORM RETAINER TABS. RETAINER TABS BENT 90 DEG TOWARD PIPE TO LOCK WRAP STRIP LAYERS) IN POSITION.

- FILL VOID OR CAVITY MATERIAL - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2" WIDE BY 24" LONG STRIPS. TWO STACKS OF WRAP STRIP (NOM. 4" HIGH STACK) TIGHTLY WRAPPED AROUND NONMETALLIC PIPE ON EACH SIDE OF WALL AND SLID INTO STEEL SLEEVE (ITEM A) SUCH THAT INNER EDGES ARE FLUSH WITH OR RECESSED MAX. 1/4" INTO SURFACE OF WALL. FOR NOM. 6" DIA. PIPES, THREE LAYERS OF WRAP STRIP ARE REQUIRED IN EACH STACK. FOR NOM. 8" DIA. PIPES, FOUR LAYERS OF WRAP STRIP ARE REQUIRED IN EACH STACK. FOR NOM. 10" DIA. PIPES, SIX LAYERS OF WRAP STRIP ARE REQUIRED IN EACH STACK. EACH LAYER OF WRAP STRIP TO BE INSTALLED WITH BUTTED SEAMS, WITH THE BUTTED SEAMS IN SUCCESSIVE LAYERS STAGGERED. WRAP STRIPS TEMPORARILY HELD IN POSITION USING ALUMINUM FOIL TAPE, FILAMENT TAPE, STEEL WIRE TIE, OR EQUIVALENT.

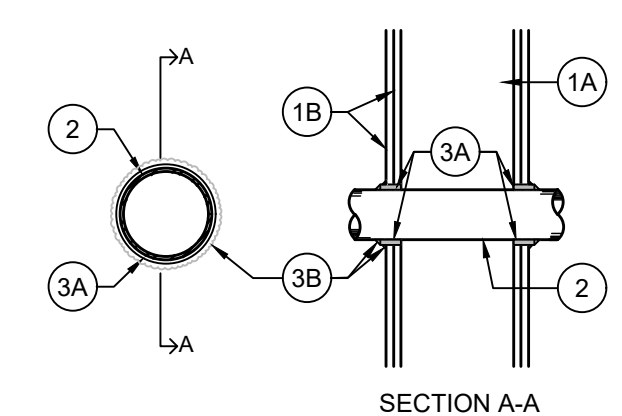
- PIPE COVERINGS - NOM. 1" THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN. 3.5 PCF OR 56 KG/M<sup>3</sup>) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. MIN. 6" LENGTH OF PIPE COVERING INSTALLED AROUND PVC PIPE AT ITS EGRESS FROM THE WRAP STRIP LAYERS (ITEM B) ON BOTH SIDES OF THE WALL. PIPE COVERING SECURED TO PIPE WITH STEEL WIRE TIES SPACED MAX. 4" O.C. EDGE OF PIPE COVERING ABUTTING WRAP STRIP TO BE SEALED WITH A MIN. 1/4" DIA. BEAD OF CAULK (ITEM D).

- SEE PIPE AND EQUIPMENT COVERING - MATERIALS (BRCU) - CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH FLAME SPREAD INDEX OF 25 OR LESS AND SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.

- FILL VOID OR CAVITY MATERIAL - CAULK OR SEALANT - GENEROUS BEAD OF CAULK TO BE APPLIED TO OUTER PERIMETER OF STEEL SLEEVE AT INTERFACE WITH WALL SURFACES AND TO PERIMETER OF PIPE COVERING MATERIAL WRAP AT ITS INTERFACE WITH THE WRAP STRIP LAYERS.

**SYSTEM NO. W-L-2003**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 3)  
T RATINGS - 1 AND 2 HOUR (SEE ITEM 3)  
L RATING AT AMBIENT - 7 CFM/S.F. (SEE ITEM 3B)  
L RATING AT 400° F - LESS THAN 1 CFM/S.F. (SEE ITEM 3B)



- WALL ASSEMBLY - 1 AND 2 HOUR FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.
  - GYPSUM BOARD - NOM. 4" WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIA. OF OPENING IS 13".

- STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.
- GYPSUM BOARD - NOM. 4" WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIA. OF OPENING IS 13".

THROUGH PENETRANTS - ONE NONMETALLIC PIPE OR CONDUIT TO BE CENTERED IN THE THROUGH OPENING. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE A MIN. 1/4" AND A MAX. 3/8". PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES OR CONDUITS MAY BE USED:

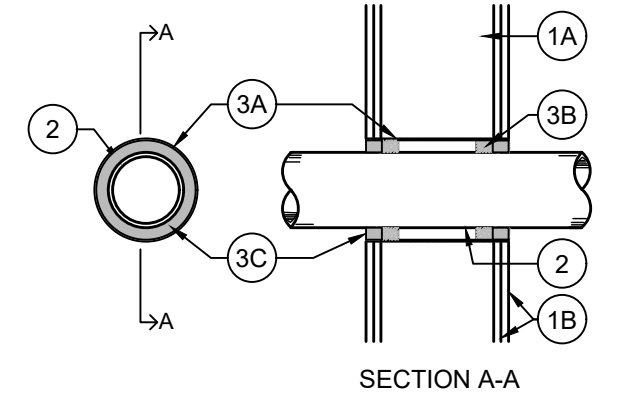
- POLYVINYL CHLORIDE (PVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
- RIGID NONMETALLIC CONDUIT +- - NOM. 2" DIA. (OR SMALLER) (SCHEDULE 40 OR 80) PVC CONDUIT INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA NO. 70).
- CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SDR 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
- CELLULAR CORE POLYVINYL CHLORIDE (ccPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
- ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
- CELLULAR CORE ACRYLONITRILE BUTADIENE STYRENE (ccABS) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

- FILL VOID OR CAVITY MATERIAL - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2" WIDE STRIPS. NOM. 2" WIDE STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO ANNULAR SPACE APPROX. 1 1/4" SUCH AS THAT APPROX. 3/4" OF THE WRAP STRIP PROTRUDES FROM THE WALL SURFACE.
- FILL VOID OR CAVITY MATERIAL - CAULK, SEALANT OR PUTTY - MIN. 5/8" THICKNESS OF CAULK OR PUTTY APPLIED INTO ANNULAR SPACE BETWEEN WRAP STRIP AND PERIPHERY OF OPENING. A NOM. 1/4" DIA. BEAD OF CAULK OR PUTTY TO BE APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYERS APPROX. 3/4" FROM THE WALL SURFACE.
- FOIL TAPE - (NOT SHOWN) - NOM. 4" WIDE, 3 MIL THICK ALUMINUM TAPE WRAPPED AROUND PIPE PRIOR TO THE INSTALLATION OF THE WRAP STRIP (ITEM 3A). MIN. OF ONE WRAP, FLUSH WITH BOTH SIDES OF WALL AND PROCEEDING OUTWARD. TAPE IS NOT REQUIRED FOR PIPES SHOWN IN ITEMS 2A, 2B AND 2C.

**SYSTEM NO. W-L-2014**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 3)  
T RATINGS - 1 AND 1 1/2 HOUR (SEE ITEM 3)



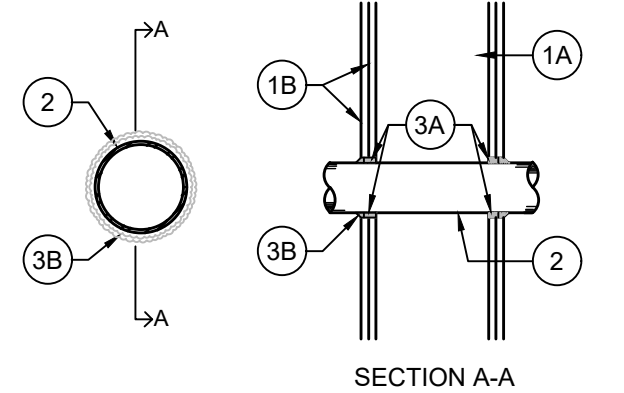
- WALL ASSEMBLY - THE FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. STEEL STUDS TO BE A MIN. 2 1/2" WIDE AND SPACED MAX. 24" O.C.
  - GYPSUM BOARD - TWO LAYERS OF NOM. 5/8" THICK GYPSUM WALLBOARD AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX. DIA. OF OPENING IS 8".

- NONMETALLIC PIPE - NOM. 4" DIA. (OR SMALLER) SCHEDULE 40 POLYVINYL CHLORIDE (PVC) OR SDR17 CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- FIRESTOP SYSTEM - THE HOURLY F AND T RATING FOR THE FIRESTOP SYSTEMS ARE DEPENDANT UPON THE SIZE OF THE PIPE, ANNULAR SPACE, AND MIN. FORMING AND FILL MATERIAL THICKNESS AS DESCRIBED IN THE TABLE BELOW. WHEN THE ANNULAR SPACE IN THE TABLE SHOWS A RANGE OF DISTANCES, THE PENETRATING ITEM MAY BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITH IN THE FIRESTOP SYSTEM. THE FIRESTOP SYSTEMS SHALL CONSIST OF THE FOLLOWING:
  - STEEL SLEEVE OR WIRE MESH - NO. 8 STEEL WIRE MESH HAVING A MIN. 1" LAP ALONG THE LONGITUDINAL SEAM. LENGTH OF SLEEVE TO BE 1/4" TO 1/2" LESS THAN OVERALL THICKNESS OF WALL SUCH THAT, WHEN INSTALLED IN CIRCULAR OPENING, THE ENDS OF THE SLEEVE ARE RECESSED 1/8" TO 1/4" FROM EACH SURFACE OF THE WALL. SLEEVE MAY ALSO BE FORMED ON A MIN. 0.034" THICK (20 MS) GALV. SHEET STEEL.
  - PACKING MATERIAL - MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM AT THE THICKNESS SHOWN IN THE TABLE BELOW. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF THE WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. AS AN OPTION TO THE ABOVE, BACKER ROD AND/OR FOAMED PLASTIC BACKER MATERIAL MAY BE USED.
  - FILL VOID OR CAVITY MATERIAL - WRAP STRIP - ALLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF THE WALL AS SHOWN IN THE TABLE BELOW.

MAX. PIPE DIA. (IN.)	ANNULAR SPACE (IN.)	MIN. FORMING MTL DEPTH (IN.)	MIN. FILL (IN.)	F RATING (HOUR)	T RATING (HOUR)
4	3/4 - 3/2	1 1/4	1 1/4	2	1 1/2
2	1 3/8	3/4	3/4	1	1

**SYSTEM NO. W-L-1091**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)  
T RATINGS - 0 HOUR



- WALL ASSEMBLY - THE FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
  - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. STEEL STUDS TO BE 2 1/2" WIDE AND SPACED MAX. 24" O.C. WHEN STEEL STUDS ARE USED AND THE DIA. OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 2-6" WIDER AND 4-6" HIGHER THAN THE DIA. OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2"-3" CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING IN ALL FOUR SIDES.
  - GYPSUM BOARD - NOM. 4" WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIA. OF OPENING IS 24 5/8" FOR STEEL STUD WALLS. MAX. DIA. OF OPENING IS 14 1/2" FOR WOOD STUD WALLS.

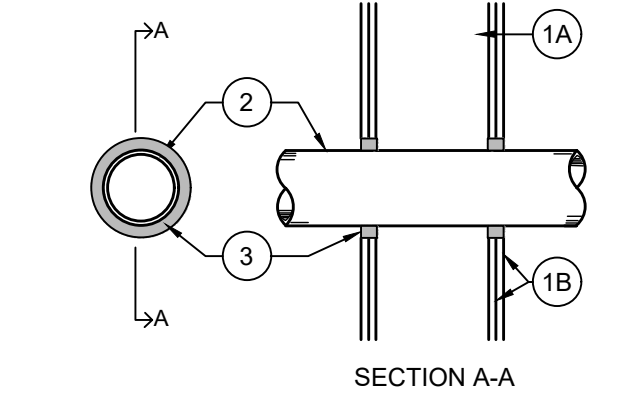
- THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND THE PERIPHERY OF OPENING SHALL BE MIN. 1/8" TO MAX. 1/2" PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
  - STEEL PIPE - NOM. 2 1/2" DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
  - IRON PIPE - NOM. 2 1/2" DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
  - CONDUIT - NOM. 4" DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6" DIA. STEEL CONDUIT.
  - COPPER PIPE - NOM. 6" DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
  - COPPER TUBING - NOM. 6" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

THE HOURLY F RATINGS OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

- FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - PACKING MATERIAL - IN 2 HOUR FIRE RATED ASSEMBLIES, MIN. 2" THICKNESS OF MIN. 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE FLUSH WITH BOTH SURFACES OF THE WALL.
  - FILL VOID OR CAVITY MATERIAL - SEALANT - IN 2 HOUR FIRE RATED ASSEMBLIES, 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 1/4" THICK CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING A MIN. 1/4" BEYOND THE PERIPHERY OF THE OPENING. IN 1 HOUR FIRE RATED ASSEMBLIES, A MIN. 1/2" THICK CROWN IN FORMED AROUND THE PENETRATING ITEM AND LAPPING A MIN. 1/2" BEYOND THE PERIPHERY OF THE OPENING ON BOTH SURFACES OF WALL.

**SYSTEM NO. W-L-2038**

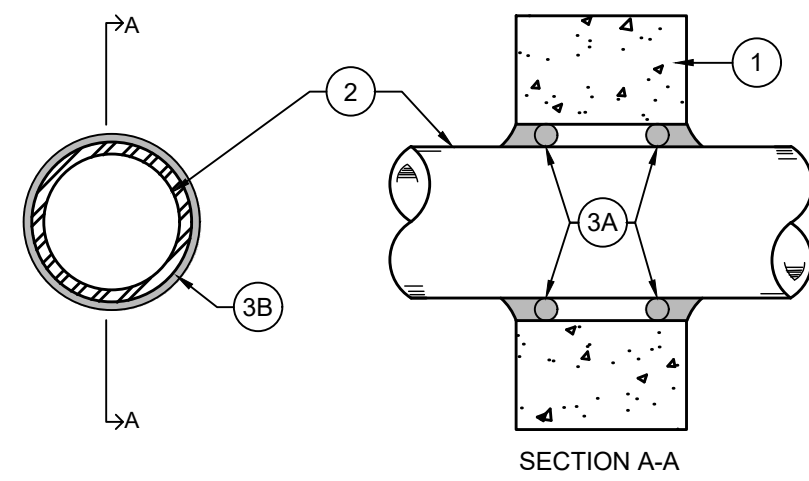
F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)  
T RATINGS - 1 AND 1 1/2 HOUR (SEE ITEM 1)



- WALL ASSEMBLY - THE 1 OR 2 HOUR FIRE RATED GYPSUM BOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE

**SYSTEM NO. W-J-1014**

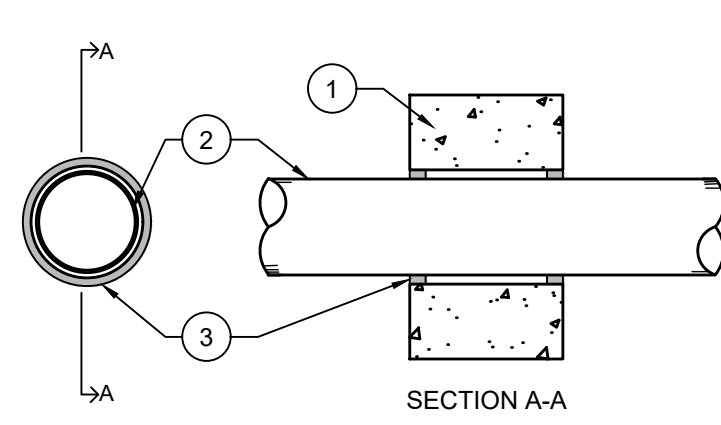
F RATINGS - 2 HOUR  
T RATINGS - 0 HOUR



- WALL ASSEMBLY** - MIN 5" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100 - 150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIA. OF OPENING IS 5".
- THROUGH PENETRANTS** - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. A NOM ANNULAR SPACE OF 1/4" IS REQUIRED WITHIN THE FIRESTOP SYSTEM. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
  - STEEL PIPE** - NOM 4" DIA. (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.
  - CONDUIT** - NOM 4" DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUNING OR RIGID STEEL CONDUIT.
- FIRESTOP SYSTEM** - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - PACKING MATERIAL** - (OPTIONAL) - NOM 1/2" DIA. POLYURETHANE BACKER ROD FRICTION FITTED INTO THE OPENING. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL. ADDITIONAL MATERIAL SHALL BE APPLIED SUCH THAT A MIN 3/8" CROWN IS FORMED AROUND THE PENETRATING ITEM.

**SYSTEM NO. W-J-1030**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)  
T RATINGS - 0 HOUR



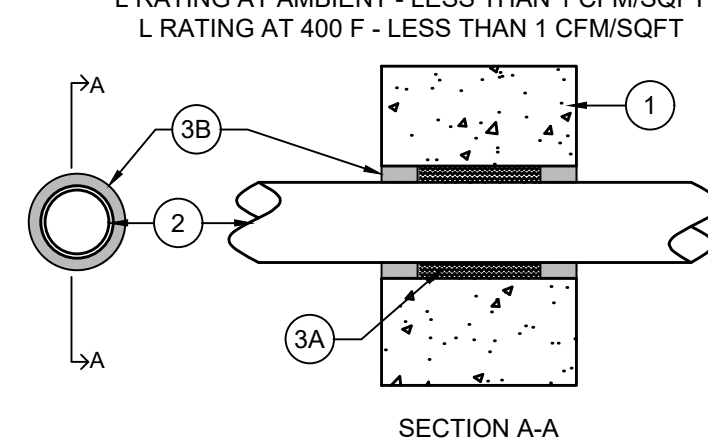
- WALL ASSEMBLY** - MIN 6" (152 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100 - 150 PCF OR 1600-2400 KG/M<sup>3</sup>) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAN DIA. OF OPENING IS 25" (635 MM).
- THROUGH PENETRANT** - ONE METALLIC PIPE, TUBING OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPES, TUBING OR CONDUITS AND PERIPHERY OF OPENING IS DEPENDENT UPON THE TYPE AND MAX DIA. OF THE THROUGH PENETRANT AS TABULATED BELOW. PIPE, TUBING OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, TUBING OR CONDUITS MAY BE USED:
  - STEEL PIPE** - NOM 24" (610 MM) DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
  - IRON PIPE** - NOM 24" (610 MM) DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE
  - COPPER TUBING** - NOM 6" (152 MM) DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
  - COPPER PIPE** - NOM 6" (152 MM) DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
  - CONDUIT** - NOM 4" (102 MM) DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING, NOM 6" (152 MM) DIA. GLAV STEEL CONDUIT OR NOM 1" DIA. FLEXIBLE STEEL CONDUIT.

TYPE OF THROUGH PENETRANT	MAX DIA. OF THROUGH PENETRANT IN. (MM)	MIN. & MAX. ANNULAR SPACE IN. (MM)
STEEL OR IRON PIPE	4 (102)	0, 1 1/2" (38)
STEEL TUBING OR CONDUIT	4 (102)	0, 1 1/2" (38)
STEEL CONDUIT	6 (152)	1/8" (3), 1/2" (13)
STEEL OF IRON PIPE	24 (610)	1/8" (3), 1/2" (13)
COPPER TUBING OR PIPE	6 (152)	1/8" (3), 1/2" (13)

- FILL, VOID OR CAVITY MATERIAL** - SEALANT - MIN. 5/8" (16 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN THROUGH PENETRANT AND CONCRETE, A MIN 3/8" (10 MM) DIA. BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/THROUGH PENETRANT INTERFACE ON BOTH SURFACES OF WALL.

**SYSTEM NO. W-J-2013**

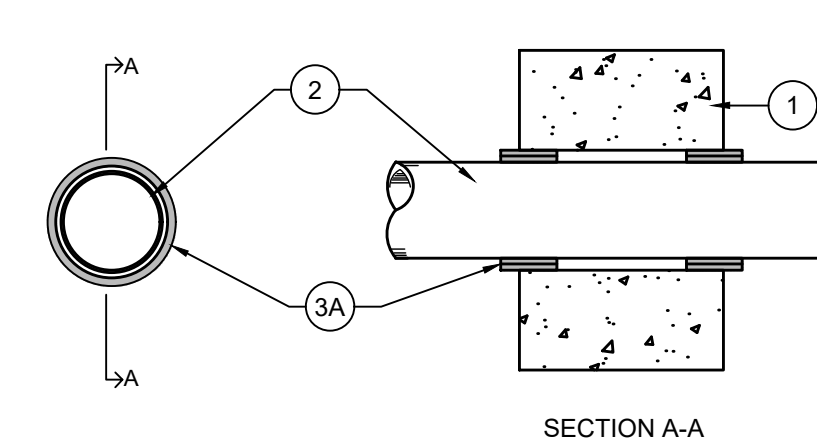
F RATINGS - 2 HOUR  
T RATINGS - 2 HOUR  
L RATING AT AMBIENT - LESS THAN 1 CFM/SQFT  
L RATING AT 400 F - LESS THAN 1 CFM/SQFT



- WALL ASSEMBLY** - MIN 5" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAN DIA. OF OPENING IS 3 1/2".
- NONMETALLIC PIPES** - ONE NONMETALLIC PIPE TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOM ANNULAR SPACE OF 9/16" IS REQUIRED WITHIN THE FIRESTOP SYSTEM. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES MAY BE USED:
  - POLYVINYL CHLORIDE (PVC) PIPE** - NOM 2" DIA. (OR SMALLER) SCHEDULE 40 PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
  - CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE** - NOM 2" DIA. (OR SMALLER) SDR 17 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
- FIRESTOP SYSTEM** - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - PACKING MATERIAL** - MIN. 2 1/2" THICKNESS OF MIN. 3.5 PCF FIBERGLASS INSULATION WRAPPED AROUND THROUGH PENETRANT AND SECURED TOGETHER BY MEANS OF NO. 24 AWG STEEL TIE WIRE. PACKING MATERIAL SHALL BE CENTERED AT MID-DEPTH OF OPENING AND RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
  - FILL, VOID OR CAVITY MATERIAL** - CAULK - MIN. 1 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL.

**SYSTEM NO. W-J-2094**

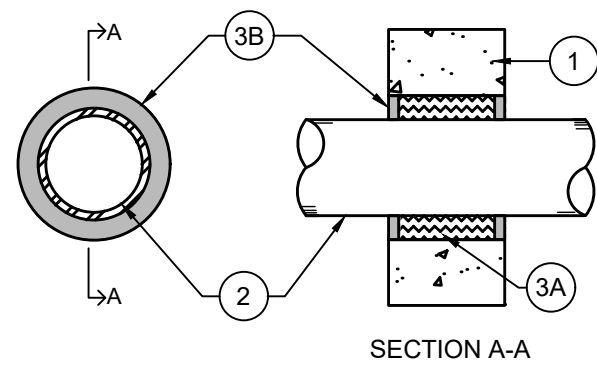
F RATINGS - 2 HOUR  
T RATINGS - 2 HOUR



- WALL ASSEMBLY** - MIN 6" THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE WALL ASSEMBLY. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIA. OF OPENING IS 5 1/2".
- THROUGH PENETRANTS** - ONE NONMETALLIC PIPE TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOM ANNULAR SPACE OF 1/2" IS REQUIRED WITHIN THE FIRESTOP SYSTEM. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES MAY BE USED:
  - ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE** - NOM 4" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
  - POLEVINYL CHLORIDE (PVC) PIPE** - NOM 4" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
  - CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE** - NOM 4" DIA. (OR SMALLER) SDR 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
- FIRESTOP SYSTEM** - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - FILL, VOID OR CAVITY MATERIAL** - WRAP STRIP - TWO LAYERS OF NOM 1/4" THICK BY 2" WIDE INTUMESCENT WRAP STRIP INDIVIDUALLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE AND SLID INTO THE ANNULAR SPACE ON EACH SIDE OF WALL SUCH THAT WRAP STRIP EXTENDS 3/4" BEYOND EACH SURFACE OF WALL. BUTTED ENDS IN SUCCESSIVE LAYERS SHALL BE OFFSET. WRAP STRIP SECURED WITH TAPE, WIRE OR TIE WIRE.

**SYSTEM NO. W-J-1020**

F RATINGS - 2 HOUR  
T RATINGS - 0 AND 1/4 HOUR (SEE ITEM 3B)  
L RATING AT AMBIENT - LESS THAN 1 CFM/SQFT  
L RATING AT 400 F - 4 CFM/SQFT

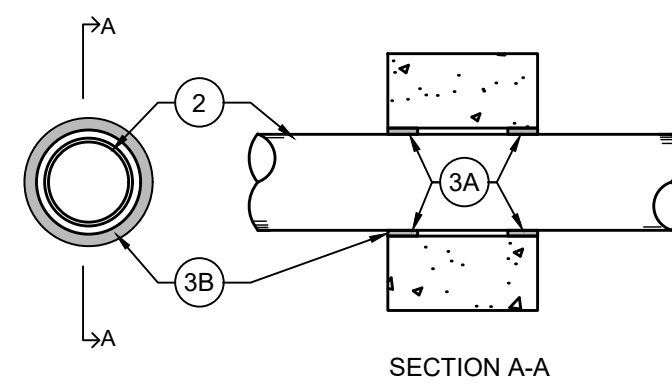


- WALL ASSEMBLY** - MIN 5" (127 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M<sup>3</sup>) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIA. OF OPENING IS 8" (203 MM).
- THROUGH PENETRANTS** - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN 3/4" (19 MM) TO MAX 3 1/2" (89 MM). THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
  - CONDUIT** - NOM 4" (102 MM) DIA. (OR SMALLER) ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
  - COPPER TUBING** - NOM 4" (102 MM) DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
  - COPPER PIPE** - NOM 4" (102 MM) DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- FIRESTOP SYSTEM** - THE HOURLY RATINGS FOR THE FIRESTOP SYSTEMS ARE DEPENDENT UPON THE TYPE AND SIZE OF PIPE, ANNULAR SPACE, FILL MATERIAL THICKNESS AND FILL MATERIAL TYPE AS DESCRIBED IN THE TABLE BELOW. WHEN THE ANNULAR SPACE IN THE TABLE SHOWS A RANGE OF DISTANCES, THE PENETRATING ITEM MAY BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE FIRESTOP SYSTEMS SHALL CONSIST OF THE FOLLOWING:
  - PACKING MATERIAL** - MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. AS AN OPTION TO THE ABOVE, BACKER ROD AND/OR FOAMED PLASTIC BACKER MATERIAL MAY BE USED. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
  - FILL, VOID OR CAVITY MATERIAL** - SEALANT - APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL AS SHOWN IN THE TABLE BELOW:

PIPE TYPE	MIN. FILL MTL. THKNS. IN. (MM)	F, FH RATING HR.	T RATING HR.
2A	1/2	2	1/4
2B	1	2	0

**SYSTEM NO. W-J-1031**

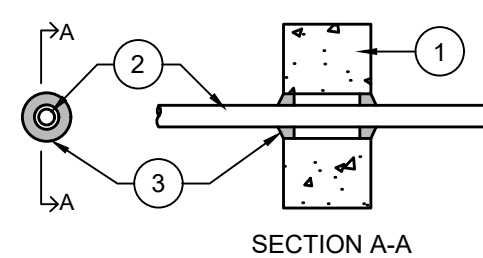
F RATINGS - 2 HOUR  
T RATINGS - 0 HOUR



- WALL ASSEMBLY** - MIN 5" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIA. OF OPENING IS 24 5/8".
- THROUGH PENETRANT** - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND THE PERIPHERY OF OPENING SHALL BE MIN 1/8" TO MAX 1/2" PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
  - STEEL PIPE** - NOM 24" DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
  - IRON PIPE** - NOM 24" DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
  - CONDUIT** - NOM 4" DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6" DIA. STEEL CONDUIT.
  - COPPER TUBING** - NOM 6" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
  - COPPER PIPE** - NOM 6" DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- FIRESTOP SYSTEM** - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - PACKING MATERIAL** - MIN 2" THICKNESS OF MIN 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
  - FILL, VOID OR CAVITY MATERIAL** - SEALANT - MIN 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4" THICK CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING A MIN 1/4" BEYOND THE PERIPHERY OF THE OPENING.

**SYSTEM NO. W-J-2021**

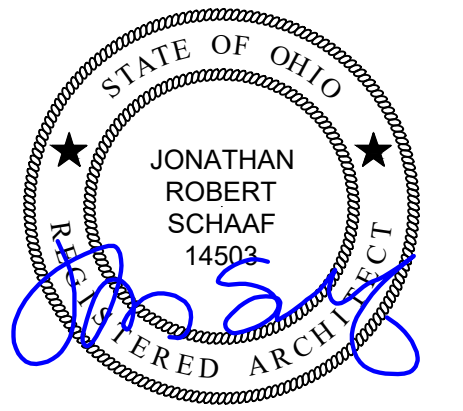
F RATINGS - 2 HOUR  
T RATINGS - 0 AND 1/4 HOUR (SEE ITEM 2)  
L RATING AT AMBIENT - LESS THAN 1 CFM/SQFT  
L RATING AT 400 F - 1 CFM/SQFT



- WALL ASSEMBLY** - MIN 6" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIA. OF OPENING IS 3 1/2".
- NONMETALLIC PIPE** - ONE NONMETALLIC PIPE OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES OF NONMETALLIC PIPES OR TUBING MAY BE USED:
  - POLYBUTYLENE PIPE** - NOM 1" DIA. (OR SMALLER) SDR 11 (OR HEAVIER) POLYBUTYLENE (PB) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. A NOM ANNULAR SPACE OF 1/4" IS REQUIRED WITHIN THE FIRESTOP SYSTEM.
  - CROSS LINKED POLYETHYLENE (PEX) TUBING** - NOM 1" DIA. (OR SMALLER) SDR 9 PEX TUBING FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. A NOM ANNULAR SPACE OF 1/4" IS REQUIRED WITHIN THE FIRESTOP SYSTEM.
  - ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE** - NOM 1 1/2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE ANNULAR SPACE SHALL BE MIN 1/4" TO MAX 1".
  - POLYVINYL CHLORIDE (PVC) PIPE** - NOM 2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR OR SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE ANNULAR SPACE SHALL BE MIN 0" (POINT CONTACT) TO MAX 1"
  - CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE** - NOM 2" DIA. (OR SMALLER) SDR 17 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE ANNULAR SPACE SHALL BE 0" (POINT CONTACT) TO MAX 1". THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT ON THE TYPE OF THROUGH PENETRANT USED AS SHOWN IN THE TABLE BELOW:

TYPE OF THROUGH PENETRANT	T RATING HR.
PB PIPE, PEX TUBING	1 1/2
PVC OR CPVC PIPE	1/4
ABS PIPE	0

- FILL, VOID OR CAVITY MATERIAL** - SEALANT - MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT MIN 1/4 IN. THICK CROWN IS FORMED AROUND THE PENETRATING ITEM.



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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**RDA GROUP ARCHITECTS**  
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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**

9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
UL Assemblies

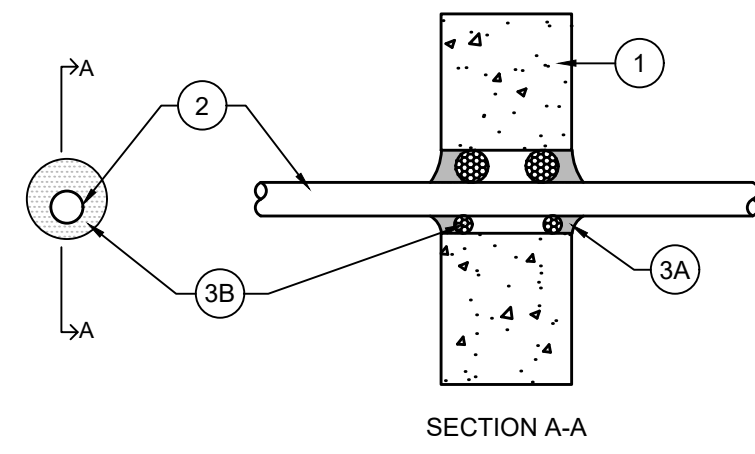
Sheet Number

**G1.8**



**SYSTEM NO. W-J-2133**

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)  
T RATINGS - 1 AND 2 HOUR (SEE ITEM 1 AND 2)

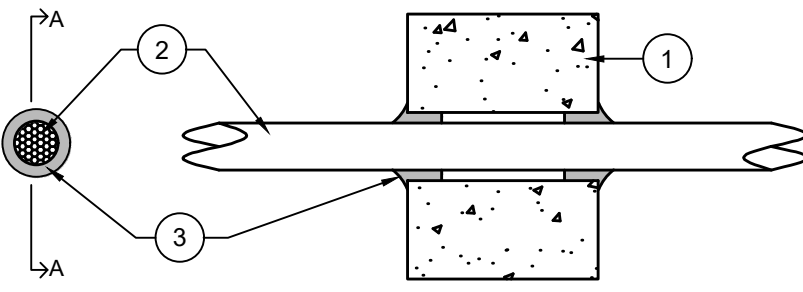


SECTION A-A

1. WALL ASSEMBLY - MIN 5" (127 MM) OR 6" (152 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF (1600-2400 KG/M3) CONCRETE FOR 1 HR OR 2 HR F AND T RATINGS, RESPECTIVELY. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAM OF OPENING IS 4" (102 MM).
2. THROUGH PENETRANTS - ONE NONMETALLIC PIPE TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES MAY BE USED:
  - A. POLYVINYL CHLORIDE (PVC) PIPE - NOM 2" (51 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE DIAM OF THE OPENING SHALL BE 7/8" (22 MM) LARGER THEN THE PENETRANT. THE ANNULAR SPACE BETWEEN PIPE AND PERIPHERY OF OPENING SHALL BE MIN 0" (POINT CONTACT) TO MAX 7/8" (22 MM). FOR USE WITH 1 HR WALL CONSTRUCTIONS ONLY. WHEN USED, F RATING IS 1 HR AND T RATING IS 0 HR.
  - B. POLYVINYL CHLORIDE (PVC) PIPE - NOM 2" (51 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE ANNULAR SPACE BETWEEN PIPE AND PERIPHERY OF OPENING SHALL BE MIN 1/4" (6 MM) TO MAX 1 3/8" (35 MM).
  - C. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM 2" (51 MM) DIAM (OR SMALLER) SDR 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE ANNULAR SPACE BETWEEN PIPE AND PERIPHERY OF OPENING SHALL BE MIN 1/4" (6 MM) TO MAX 1 3/8" (35 MM).
  - D. ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE - NOM 2" (51 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID-CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE ANNULAR SPACE BETWEEN PIPE AND PERIPHERY OF OPENING SHALL BE MIN 1/4" (6 MM) TO MAX 7/8" (22 MM).
  - E. CROSSLINKED POLYETHYLENE (PEX) TUBE - NOM 1" (25 MM) DIAM (OR SMALLER) SDR 9 PEX TUBING FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE ANNULAR SPACE BETWEEN TUBE AND PERIPHERY OF OPENING SHALL BE MIN 1/4" (6 MM) TO MAX 1 3/8" (35 MM).
  - F. RIGID NONMETALLIC CONDUIT - NOM 2" (51 MM) DIAM (OR SMALLER), SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70). THE ANNULAR SPACE BETWEEN CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 1/4" (6 MM) TO MAX 1 3/8" (35 MM).
  - G. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM 2" DIAM (OR SMALLER) FLOWGUARD GOLD® SDR11 CPVC FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE ANNULAR SPACE BETWEEN CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 1/4" (6 MM) TO MAX 1 3/8" (35 MM).
  - H. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM 2" DIAM (OR SMALLER) BLAZEMASTER® SDR13.5 CPVC FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE ANNULAR SPACE BETWEEN CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 1/4" (6 MM) TO MAX 1 3/8" (35 MM).
3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
  - A. PACKING MATERIAL - IN 2 HR WALL ASSEMBLIES, FOAM BACKER ROD FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF WALL TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
  - B. FILL, VOID OR CAVITY MATERIAL - CAULK - MIN 5/8" (16 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4" (6 MM) CROWN IS FORMED AROUND THE PENETRATING ITEM.

**SYSTEM NO. W-J-3017**

F RATINGS - 2 HOUR  
T RATINGS - 0, 1/2 AND 2 HOUR (SEE ITEM 2 AND 2A)  
L RATING AT AMBIENT - LESS THAN 1 CFM/SQFT  
L RATING AT 400 F - LESS THAN 1 CFM/SQFT

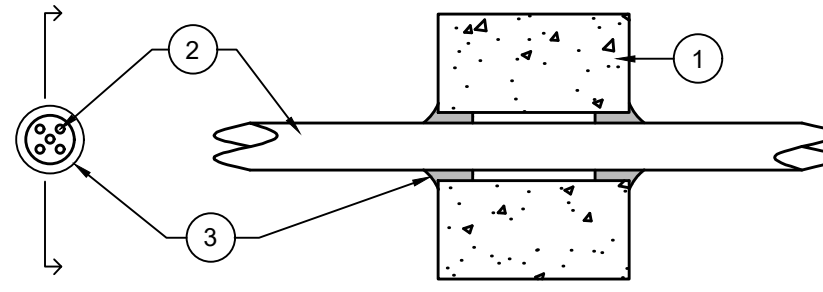


SECTION A-A

1. WALL ASSEMBLY - MIN 5" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAM OF OPENING IS 2 1/2".
2. CABLES - ONE CABLE TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN 0 IN. (POINT CONTACT) TO A MAX 1/4" CABLE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
  - A. MAX 200 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR CABLE WITH POLYVINYL CHLORIDE (PVC) JACKETING AND INSULATION. WHEN 200 PAIR NO. 24 AWG TELEPHONE CABLE IS USED, T RATING IS 0 HR. WHEN 50 PAIR NO. 24 AWG TELEPHONE CABLE IS USED, T RATING IS 2 HR.
  - B. MAX 3/C NO. 20 AWG (OR SMALLER) ALUMINUM CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKETING. WHEN SERVICE ENTRANCE CABLE IS USED, THE T RATING IS 1/2 HR.
  - C. MAX 1/C 750 KCMIL COPPER CONDUCTOR POWER CABLE WITH CROSS-LINKED POLYETHYLENE (XLPE) INSULATION AND JACKETING. WHEN 1/C-750 KCMIL CABLE IS USED, THE T RATING IS 0 HR.
  - D. MAX 3/C NO. 8 AWG (OR SMALLER) PVC INSULATED AND JACKETED NONMETALLIC SHEATHED (ROMEX) CABLE. WHEN ROMEX IS USED, THE T RATING IS 2 HR.
  - E. MAX RG59U (OR SMALLER) COAXIAL CABLE WITH FLUORINATED ETHYLENE INSULATION AND JACKETING. WHEN COAXIAL CABLE IS USED, THE T RATING IS 2 HR.
  - F. MAX 62.5/125 MICRON FIBER OPTIC CABLE WITH PVC INSULATION AND JACKETING. WHEN FIBER OPTIC CABLE IS USED, THE T RATING IS 2 HR.
  - G. MAX 4 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR DATA CABLE WITH NYLAR INSULATION AND JACKETING. WHEN DATA CABLE IS USED, THE T RATING IS 2 HR.
- 2.1. THROUGH-PENETRATING PRODUCT - AS AN ALTERNATE TO ITEM 2, MAX ONE THROUGH-PENETRATING PRODUCT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THROUGH-PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES OF THROUGH-PENETRATING PRODUCTS MAY BE USED:
  - A. MAX FOUR COPPER CONDUCTORS NO. 4/0 AWG (OR SMALLER) ALUMINUM OR STEEL ARMORED CABLE OR METAL-CLAD CABLE. WHEN ARMORED OR METAL-CLAD CABLE IS USED, THE T RATING IS 0 HR.
  - B. TWO OR MORE TWISTED COPPER CONDUCTORS NO. 8 AWG (OR SMALLER) POWER LIMITED CIRCUIT CABLE WITH OR WITHOUT A JACKET UNDER A METAL ARMOR. WHEN POWER LIMITED CIRCUIT CABLE IS USED THE T RATING IS 1/2 HR.
  - C. TWO OR MORE TWISTED COPPER CONDUCTORS NO. 10 AWG (OR SMALLER) POWER LIMITED FIRE ALARM CABLE WITH OR WITHOUT A JACKET UNDER A METAL ARMOR. WHEN POWER LIMITED FIRE CABLE IS USED THE T RATING IS 2 HR.
  - D. TWO OR MORE TWISTED COPPER CONDUCTORS NO. 12 AWG (OR SMALLER) NON POWER LIMITED FIRE ALARM CABLE WITH OR WITHOUT A JACKET UNDER A METAL ARMOR. WHEN NON POWER LIMITED FIRE CABLE IS USED THE T RATING IS 2 HR.
3. FILL, VOID OR CAVITY MATERIAL - SEALANT OR PUTTY - MIN 5/8" THICKNESS OF FILL MATERIAL INSTALLED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY. ADDITIONAL FILL MATERIAL INSTALLED SUCH THAT A MIN 1/4 IN. DIAM CROWN IS FORMED AROUND THE THROUGH-PENETRANT ON BOTH SIDES OF THE WALL.

**SYSTEM NO. W-J-3037**

F RATINGS - 2 HOUR  
T RATINGS - 1/2 AND 2 HOUR (SEE ITEM 3)  
L RATING AT AMBIENT - 8 CFM/SQFT  
L RATING AT 400 F - LESS THAN 1 CFM/SQFT



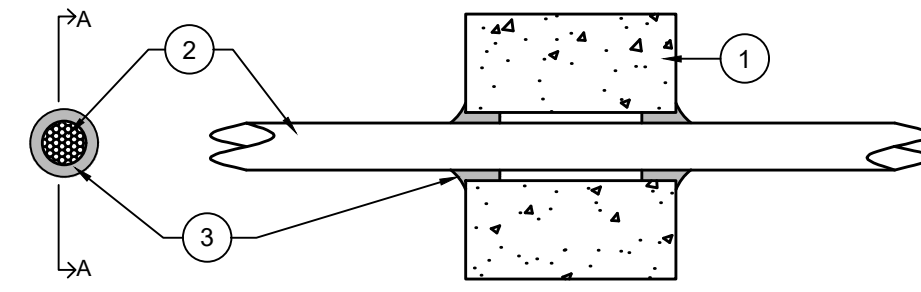
SECTION A-A

1. WALL ASSEMBLY - MIN 5" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAM OF OPENING IS 2 1/2".
2. THROUGH-PENETRATING PRODUCT - MAX FOUR COPPER CONDUCTOR NO. 2/0 AWG (OR SMALLER) ALUMINUM OR STEEL METAL-CLAD CABLE OR MAX FOUR COPPER CONDUCTOR NO. 1 AWG (OR SMALLER) ALUMINUM ARMORED CABLE. MAX ONE CABLE CENTERED WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE THROUGH-PENETRATING PRODUCT AND THE PERIPHERY OF THE OPENING SHALL BE A NOM 3/8" THROUGH-PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- 2.1. CABLES - AS AN ALTERNATE TO ITEM 2, ONE CABLE TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOM ANNULAR SPACE OF 1/4" IS REQUIRED WITHIN THE FIRESTOP SYSTEM. CABLE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
  - A. MAX 50 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR TELEPHONE CABLES WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS.
  - B. MAX 3/C (WITH GROUND) - NO. 10 AWG (OR SMALLER) PVC INSULATED AND JACKETED NONMETALLIC SHEATHED (ROMEX) CABLE.
  - C. MAX 3/C (WITH GROUND) NO. 2/0 AWG ALUMINUM CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET MATERIALS.
3. FILL, VOID OR CAVITY MATERIAL - SEALANT OR PUTTY - FILL MATERIAL APPLIED WITHIN THE ANNULUS FLUSH WITH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4" CROWN IS FORMED AROUND THE PENETRATING ITEM. THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OF THROUGH PENETRANT AND TYPE AND THICKNESS OF FILL MATERIAL AS TABULATED BELOW:

TYPE OF THROUGH PENETRANT	TYPE OF FILL MTL.	THKNS OF FILL MTL. IN.	T RATING HR.
TELEPHONE CABLE	SEALANT	5/8	2
TELEPHONE CABLE	PUTTY	3/4	2
ROMEX CABLE	SEALANT	5/8	2
ROMEX CABLE	PUTTY	3/4	2
SERVICE CABLE	SEALANT	5/8	1/2
METAL CLAD OR ARMORED CABLE	SEALANT	5/8	1/2

**SYSTEM NO. W-J-3041**

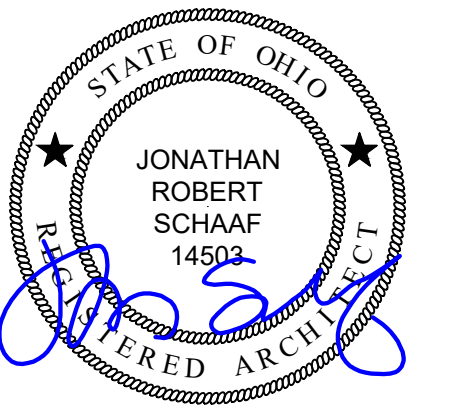
F RATINGS - 2 HOUR  
T RATINGS - 1/2 AND 2 HOUR (SEE ITEM 3)  
L RATING AT AMBIENT - 8 CFM/SQFT  
L RATING AT 400 F - LESS THAN 1 CFM/SQFT



SECTION A-A

1. WALL ASSEMBLY - MIN 5" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAM OF OPENING IS 2 1/2".
2. THROUGH-PENETRATING PRODUCT - MAX FOUR COPPER CONDUCTOR NO. 5 AWG (OR SMALLER) ALUMINUM OR STEEL METAL-CLAD CABLE. MAX ONE METAL-CLAD CABLE CENTERED WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE THROUGH-PENETRATING PRODUCT AND THE PERIPHERY OF THE OPENING SHALL BE A NOM 3/8" THROUGH-PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- 2.1. CABLES - (NOT SHOWN) - AS AN ALTERNATE TO ITEM 2, ONE CABLE TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOM ANNULAR SPACE OF 1/4" IS REQUIRED WITHIN THE FIRESTOP SYSTEM. CABLE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
  - A. MAX 50 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR TELEPHONE CABLES WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS.
  - B. MAX 3/C (WITH GROUND) NO. 10 AWG (OR SMALLER) PVC INSULATED AND JACKETED NONMETALLIC SHEATHED (ROMEX) CABLE.
  - C. MAX 3/C (WITH GROUND) NO. 5 AWG ALUMINUM CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET MATERIALS.
3. FILL, VOID OR CAVITY MATERIAL - SEALANT OR PUTTY - FILL MATERIAL APPLIED WITHIN THE ANNULUS FLUSH WITH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4" CROWN IS FORMED AROUND THE PENETRATING ITEM. THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OF THROUGH PENETRANT AND TYPE AND THICKNESS OF FILL MATERIAL AS TABULATED BELOW:

TYPE OF THROUGH PENETRANT	TYPE OF FILL MTL.	THKNS OF FILL MTL. IN.	T RATING HR.
TELEPHONE CABLE	SEALANT	5/8	2
TELEPHONE CABLE	PUTTY	3/4	2
ROMEX CABLE	SEALANT	5/8	2
ROMEX CABLE	PUTTY	3/4	2
SERVICE CABLE	SEALANT	5/8	1/2
METAL CLAD CABLE	SEALANT	5/8	1/2



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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**RDA GROUP ARCHITECTS**  
7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440



Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**

9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number  
2021-033

Date  
May 1, 2024

Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
UL Assemblies

Sheet Number

G1.9

**INSTRUCTIONS**

- The architectural entity with whom the owner and developer contracted with to provide architectural services will complete the form and obtain all required signatures for the certifications.
- The project applicant will submit the completed and signed form with the Notice of Intent to Apply.
- If funded, the project applicant will complete and submit the form again with their full application with all changes from what was submitted at Intent to Apply clearly identified.
- A copy of the final, completed form must also be included in the 80% percent plan sets, copied onto the page(s) following the cover sheet, submitted with the full application package.

All communications related to the architectural review, including submission of architectural plans, must be sent to [arch@ohiohome.org](mailto:arch@ohiohome.org).

**Helpful links:**

- 2022 Design and Architectural Standards
- 2022 HDGF Exception Request Form
- 2022 Multifamily Underwriting Guidelines
- HDGF Program Guidelines

**SUBMISSION REQUIREMENTS**

**Notice of Intent to Apply**

The following items must be submitted with the Notice of Intent to Apply:

- This form, completed and signed.
- Exception Request form(s), if applicable.

**Final Architectural Submission**

Final applications must include 80 percent complete permit sets, including final plans for all trades. Unless approved by OHFA, the plans must include the project name as submitted with the Notice of Intent to Apply and OHFA tracking number. The submission must show conformity to the information included within this form.

At minimum, the final application architectural submission must include all of the following:

- This form, completed and signed. Information included in this document must match the information in the 80% plans.
  - This includes signed Construction Certification pages, verifying that, as applicable, the drawings comply with any and all accessibility, energy efficiency, and/or green building requirements required for the development or committed to in the application for funding.
- Asbestos, mold, radon, and lead-based paint considerations as required.
- Items required to be completed per Phase I or II Environmental Site Assessment, or per applicable Environmental Review performed by OHFA's environmental consultant.
- Plan sets, which shall include all of the following:

NAME OF PROPOSED DEVELOPMENT: **Huffman Parnell**  
DATE OF SUBMISSION: **11/18/2022**  
ADDRESS OF PROPOSED DEVELOPMENT: **9 Parnell Avenue, Dayton, OH 45403**

- Site plans
- Interior and Exterior elevations
- Dimensioned floor plans
- Wall sections (if applicable)
- Structure (if applicable)
- Finishes
- Details
- Mechanical plans
  - Drawings must have a dimensioned plumbing plan and control points located for rough-in site verification. All pipes-through-floor and the walls they are intended to be located within must be dimensioned relative to the foundation where they must align with walls and/or islands above. (new construction and adaptive reuse only)
  - OHFA strongly encourages a surveyor to locate wall and through-slab pipe penetrations. Foundation over dig must be filled with insulation or forms and then back filled per geotechnical reports.

Plan sets, described above, shall be submitted in all of the following formats:

- Electronic format (pdf)
  - Separate, single PDF files for drawings including all site plans, dimensioned floor plans, elevations, wall sections, structure, finishes, details and mechanical plans.
  - Separate, single PDF file for specifications.
- Electronic format (AutoCAD)
  - Dimensioned floor plans only, submitted in DXF or DWG AutoCAD R-2017 format.
    - It is preferred that the project architect's polyline area lines be included.
    - If drawings are externally referenced (xref), submissions must be bound (xbind) prior to creating files for OHFA.
    - Proprietary authorship information such as title blocks, Architecture seals, etc. should be removed.
    - DXF should be generated from the base file and not a plan sheet file.
- Hard copy
  - Full set of architectural plans, 11"x17" scaled to fit. Full size plans will not be accepted.

**FORM SECTIONS**

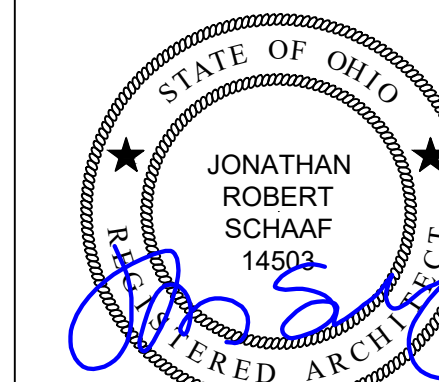
A. DEVELOPMENT INFORMATION .....4  
 B. PROJECT CONTACTS .....4  
 C. DEVELOPMENT DETAILS .....5  
 D. FLOOR AREA DETAILS .....5  
 E. ADAPTABILITY AND ACCESSIBILITY .....7  
 F. SUSTAINABILITY .....8  
 G. EXCEPTION REQUESTS .....8  
 H. SCOPE OF WORK .....9  
 I. CERTIFICATION .....12

**A. DEVELOPMENT INFORMATION**

- Development Name: Huffman-Parnell
- OHFA Tracking Number: 22-0292
- Address: 9 Parnell Avenue
- City: Dayton
- Zip Code: 45403
- Population Served: Family
- Construction Type: 10 town-house and 2 flats in one building
- Wage Rate Requirements: If federal or state funds are utilized in the proposed development, select any regulations that apply to the proposed development.
  - Davis Bacon and related acts. Davis Bacon Act prevailing wage provisions apply to contractors and subcontractors performing on federally funded or assisted contracts in excess of \$2,000 for construction, alteration or repair (including painting and decorating) of public buildings or public works.
  - Ohio Prevailing Wage. Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overall project cost is fairly estimated to be more than \$200,000 for new construction or \$60,000 for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting.
  - HUD Section 3 Requirements: Section 3 is a provision of the Housing and Urban Development (HUD) Act of 1968 requiring that recipients of certain HUD financial assistance, to the greatest extent feasible, provide job training, employment, and contracting opportunities for low or very low-income residents in connection with projects and public works.
  - None of the above are applicable

**B. PROJECT CONTACTS**

- Architect of Record
  - Company: RDA Group Architects, LLC
  - Name: Jonathan Schaaf
  - Phone: 937-610-3440
  - Email: JRS@rda-group.com
- Developer
  - Company: Invictus Development Group, Inc.
  - Name: Angela Stearns
  - Phone: 937-910-7825
  - Email: asteams@dmha.org
- Owner
  - Company: Dayton Metropolitan Housing Authority db/a Greater Dayton Premier Management
  - Name: Kya Patrick
  - Phone: 937-910-7558
  - Email: kpatrick@dmha.org



Jonathan Robert Schaaf #14503  
Expiration Date 12/31/2025

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**C. DEVELOPMENT DETAILS**

- Number of sites: 1
- Number of residential buildings: 1
- Number of accessory buildings: 0
- Date built: 1950
  - For proposals involving acquisition rehabilitation or adaptive reuse, please specify the year the building(s) were originally constructed. For multiple building proposals or scattered site projects, a range of dates may be provided.
- Date first occupied: 1950
  - Year development was or will be occupied. For multiple building proposals or scattered site projects, a range of dates may be provided.
- Site acreage: 0.537
- Total # units: 12
- Number of low-income units: 12
- Number of efficiency units: 0
- Number of one-bedroom units: 0
- Number of two-bedroom units: 12
- Number of three-bedroom units: 0
- Number of four-bedroom units: 0
- Building/Zoning variances received: none

**D. FLOOR AREA DETAILS**

Space	GSF	Notes
Gross Square Footage of all Buildings	15,894	Measured from exterior face of exterior building; includes structured exterior spaces (stair, balcony, portico).
Total Number of Low Income Units	12	

Commercial Space Condominium Areas:	0	Legally separate space under control of another program or condominiumized legal separation.
Commercial Areas and Fee-Driven Space:	0	Includes spaces for which residents must pay a fee for use/access (garages, storage).

Market Rate Unit Area:	0	Must include lofts, mezzanine and restricted headroom areas
Low Income Unit Area:	10,596	Must include lofts, mezzanine and restricted headroom areas
Managers Unit Area:	0	Must include lofts, mezzanine and restricted headroom areas

Common Area (Public):	0	Public restrooms, community rooms, libraries, offices, meeting rooms, kitchens, car canopy, portico, fitness rooms, laundry, mailboxes.
Common Area (Circulation):	272	Public hallways, stairways, and corridors to residential units.
Dedicated Program Space:	0	Counseling space, wellness and health clinic areas, day care centers, etc.
Limited Common Area (Private):	0	Exterior spaces with access only through residential unit. i.e. balcony/porch/deck (patios without roof are not included).

Support:	943	Electrical, mechanical, elevator room, sprinkler room, janitorial, trash, maintenance, storage that is not for tenant use, free standing maintenance buildings.
Tenant Storage:	0	Tenant storage outside of unit. Includes duct shafts, stair shaft, elevator shaft, space open to below.
Major Vertical Penetrations:	0	Attached or detached garage that residents do not pay a fee for.
Structured Parking / Garage:	0	Includes spaces with a minimum of 7' clear head height. Spaces less than 7' are crawl spaces per RCO 305.
Basement:	4,355	

TOTALS		
Non-Low Income Floor Area	0	Commercial Space Condo Areas + Commercial Areas + Market Rate Unit Area
Low Income Floor Area	10,868	LI unit area + Common Area (Circulation) + Limited Common Area (Private) + Tenant Storage
% Common Area	11.4%	Common Area (Public) + Common Area (Circulation) / Gross Square Footage
Net Rentable Square Footage	15,894	Gross Square Footage - Non-Low Income floor area
Average Net Rentable SQFT per LI Unit	1,324	Net Rentable Square Footage/ Total number of Low Income Units

The following items should not be included in any of the above square footages:

- Trash enclosures
- Concrete patios without roofs
- Sidewalks

**E. ADAPTABILITY AND ACCESSIBILITY**

All developments must be designed and constructed to comply with all local, state, or federal accessibility guidelines that apply.

- All developments must comply with the accessibility requirements as outlined in the Ohio Building Code, Chapter 4101:1-11, which includes the use of ICC/ANSI A117.1-2009 for the design and construction of accessible units.
  - Yes, the project will comply with the accessibility requirements as outlined in the Ohio Building Code.
- All developments receiving OHFA funding must meet the accessibility requirements of Section 504. Identify the implementing standard the development will utilize to demonstrate compliance with Section 504 requirements (select one).
  - Uniform Federal Accessibility Standards (UFAS)
  - 2010 ADA Standards for Accessible Design under Title II of the ADA, except for certain specific identified provisions, as detailed in HUD's Notice on "Instructions for use of alternative accessibility standard," published in the Federal Register on May 23, 2014 ("Deeming Notice").
  - An equivalent standard as defined in HUD's Deeming Notice (such as ICC/ANSI A117.1-2009)
- Developments may be subject to the Fair Housing Act design and construction requirements. If the development is subject to the Fair Housing Act design and construction requirements, verify that the project will be designed and constructed to meet the requirements of the Fair Housing Act and that all units, other than the accessible units, will be designed and constructed as ANSI Type B units.
  - Yes, the project will be designed and constructed to meet the requirements of the Fair Housing Act and all units, other than the accessible units, will be designed and constructed as ANSI Type B units.

- Number of 504 mobility units required: 1
- Number of 504 sensory units required: 1
- Number of 504 mobility units provided: 1
- Number of 504 sensory units provided: 1

- Number of accessible parking spaces: 1

- Total number of non-conforming accessible units & reason: (only applicable to adaptive reuse or rehabilitation projects if full compliance is technically infeasible. Exception request must have been submitted.)

**F. SUSTAINABILITY**

- Developments must meet all energy efficiency requirements as stated in the Ohio Building Code or Residential Code.
  - Yes, development will meet all energy efficiency requirements as stated in the Ohio Building Code or Residential Code.
- In addition, all multifamily developments must obtain one of the below energy efficiency or green building certifications. Select which certification will apply to the development.
 

<input type="checkbox"/> Energy Star MFHR Performance Path	<input type="checkbox"/> Energy Star Certified Homes
<input type="checkbox"/> Energy Star MFHR Prescriptive Path	<input type="checkbox"/> Energy Star MF New Construction
<input type="checkbox"/> LEED Certified	<input type="checkbox"/> LEED Gold
<input type="checkbox"/> LEED Silver	<input type="checkbox"/> LEED Platinum
<input type="checkbox"/> ICC 700 NGBS Bronze	<input type="checkbox"/> ICC 700 NGBS Gold
<input type="checkbox"/> ICC 700 NGBS Silver	<input type="checkbox"/> ICC 700 NGBS Emerald
<input type="checkbox"/> 2020 Enterprise Green Communities	

  - OHFA Limited Scope Rehabilitation Sustainability Standards

**G. EXCEPTION REQUESTS**

Select the items an Exception Request form has been submitted for.

- No requests for exception were submitted for this development.

**New Construction**

- Items that are subject to non-OHFA (such as local codes or design standards, funding source, etc.) requirements that may conflict with the OHFA Design and Architectural Standards.
- Items that are unable to be complied with for a compelling reason, as fully described by the applicant in the Exception Request form.

**Rehabilitation or Adaptive Reuse**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Accessibility requirements (if compliance is technically infeasible) | <input type="checkbox"/> Common Areas              |
| <input type="checkbox"/> Items with 75% or more RUL (if replacement required for green certification)    | <input type="checkbox"/> Elevators                 |
| <input type="checkbox"/> Durable Materials - Exterior  | <input checked="" type="checkbox"/> Interior Doors |
| <input checked="" type="checkbox"/> Main Entry   | <input type="checkbox"/> Floor Coverings           |
| <input checked="" type="checkbox"/> Sidewalks  | <input checked="" type="checkbox"/> Unit Sizes     |
| <input type="checkbox"/> Durable Materials - Interior  | <input checked="" type="checkbox"/> Bedroom Sizes  |
| <input type="checkbox"/> Major Building System Subcomponents   | <input type="checkbox"/> Bathrooms                 |
|  | <input type="checkbox"/> Kitchen & Appliances      |
|  | <input type="checkbox"/> Laundry Facilities        |

Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
 9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
 1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
 1208 A&B Huffman Ave. | 1210 A&B Huffman Ave.  
 Dayton, Ohio 45403  
 OHFA Project -  
 Greater Dayton Premier Management

Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
OHFA Design and Construction Features Form

Sheet Number

G2.1

**H. SCOPE OF WORK**

a. Provide an overview of the proposed improvements to be made involving site design, building design, mechanical and electrical systems and building components including building exterior, interior, and life safety items.

Moderate Rehabilitation of an existing [12] unit multi-family housing site. Site Improvements include asphalt repairs and sealcoating, concrete walks, stoops, and landscaping. Exterior Building Improvements include new windows, new exterior doors. Interior Building Improvements include replacement of interior floor finishes, repairs to existing plaster walls and ceilings, painting, new solid core interior doors, new bathrooms and new kitchens. Systems Improvements include replacement of plumbing fixtures, new gas forced air HVAC systems with air conditioning, new LED light fixtures, new smoke alarms, re-wiring, upgrades as required for arc fault and tamper resistant receptacles.

b. Address any issues raised in the Phase I Environmental Site Assessment (ESA) report(s) in the space provided below. Include information for all single-site and scattered-site proposals, as required by applicable program funding guidelines.

c. For any developments involving acquisition and rehabilitation, adaptive reuse or historic preservation, provide a narrative describing the history of improvements made to the building(s) and/or units.

There have been limited improvements to the property in recent years. They substantially have coincided with unit turns. The shingle roof, gutters and downspouts were replaced 4 years ago.

d. For any developments proposing adaptive reuse or rehabilitation with historic tax credits, specify any restrictions or requirements that will be used to determine compliance with the Ohio Historic Preservation Tax Credit and/or Federal Historic Preservation Tax Credit programs.

not applicable

e. Address any issues raised in the Physical Capital Needs Assessment (PCNA) and Scope of Work report(s) in the space provided below. Include information for all developments proposing rehabilitation of existing units or the adaptive reuse of a building at proposal submission, especially where the scope of work and PCNA do not agree.

The units will be renovated to follow the findings of the PCNA. Although the units have been maintained, there is work required for the long-term continued occupancy of the buildings.

**f. SITE AND BUILDING COMPONENTS**

For each item listed below, provide a brief description of the specific improvements that will be incorporated in the proposed development. Attach additional pages if needed. If no improvements will be made to the item, provide a description of their current state.

- Site Work (including security):

Replacement of asphalt repair and sealcoat; concrete walks and stoops; landscaping

- Concrete:

Replacement of exterior concrete walks and stoops where required

- Masonry:

None

- Metals:

Replacement of exterior railing systems with new metal handrail and guard rail systems where required

- Carpentry:  
Minor interior framing / blocking as required.

- Thermal and Moisture Protection:  
Re-seal exterior joints between building materials

- Doors and Windows:  
Replace exterior doors with new insulated steel entry doors. Remove storm doors. Replace windows with new Energy Star rated vinyl windows. Replace interior doors with new solid core doors in existing frames. Repair / refinish of existing components to remain.

- Finishes and Appliances:  
Replace all existing flooring with LVT flooring and tile flooring. Prep / repair and paint existing gypsum board finishes. Installation of new cabinets and countertops in kitchen. Installation of new appliances.

- Furnishings:  
Installation of new window blinds.

- Plumbing:  
Replacement of plumbing fixtures with new low flow plumbing fixtures. Replacement of existing gas water heaters with new high-efficiency, direct power vent water heaters. Replacement of water supply piping to fixtures and sanitary stacks

- HVAC:  
Replacement of forced air furnaces with new high-efficiency gas fired furnaces with air conditioning.

- Electrical:  
Replacement of electrical service and tenant load centers. Upgrade services. Upgrade all branch circuitry. Replacement of light fixtures with new LED light fixtures. Replacement of existing devices and cover plates, adding tamper resistant receptacles. Replacement of smoke alarms.

**I. CERTIFICATION**

We represent, warrant and certify to OHFA that the following does and will apply to the proposed development:

The Development will be designed and constructed to meet the requirements of all applicable laws, codes, program guidelines, as well as the OHFA Design and Architectural Standards and specific features applicable to the project as outlined in this form. This includes any and all local, state, or federal accessibility laws that currently exist and apply to the project. Any additional cost of construction required for the Development to be in compliance with any of these laws has been included in the development budget.

By signing this document, the owner, architect, and general contractor certify that the plans, specifications, and features submitted as part of this application will become a minimum standard for the proposed development. This hereby becomes a binding agreement for the actual construction intent if the development is awarded OHFA funding.

OHFA does not take responsibility for design, construction, and plan review or any other municipal or building department review or approval and in no way does this agreement supersede any requirement by such jurisdictions.

OHFA reserves the right to verify compliance with agreed-upon features including durability of materials, accessibility, green building requirements and energy efficiency components.

**1. Architect:**

I certify that the plans, specifications, and scope of work for the Development meet, and will continue to meet, any and all requirements including those set forth in this form, the OHFA Design and Architectural Standards, and all other applicable laws, codes, program guidelines or policy documents.

I understand that I am contractually obligated to know the federal, state and local accessibility laws applicable to the Development and have applied them accordingly. To the best of my professional knowledge and belief, I agree that the Development as designed is in compliance with all applicable federal, state and local housing and accessibility laws and regulations.

RDA Group Architects	937-610-3440	JRS@rda-group.com
Company/Firm Name	Phone Number	Email
7945 Washington Woods Drive, Dayton, OH 45459		
Company/Firm Address		
Jonathan Schaaaf		Principal
Printed Name (Firm Authorized Signatory)		Title
		11/18/2022
Digitally signed by Jonathan Schaaaf Date: 2022.11.17 16:38:51 -0500		Date
Signature		Date



Jonathan Robert Schaaaf #14503  
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440



2. General Contractor:  
I certify that I have reviewed the plans, specifications, and scope of work for the Development and that the Development will be constructed in accordance with any and all requirements as set forth in this form, the OHFA Design and Architectural Standards, and all other applicable laws, codes, program guidelines or policy documents.

I understand that I am obligated to know the federal, state and local accessibility laws applicable to the Development and will build the project accordingly.

Company/Firm Name	Phone Number	Email
Company/Firm Address		
Printed Name (Firm Authorized Signatory)		Title
Signature		Date

3. Owner:  
I certify that I have reviewed the plans, specifications, and scope of work for the Development and that the Development shall be constructed in accordance with any and all requirements as set forth in this form, OHFA Design and Architectural Standards, and all other applicable laws, codes, program guidelines or policy documents.

The undersigned understands that any deviations from federal and state accessibility requirements are the responsibility of the Owner and, as such, Owner is responsible for such deviations.

Further, if for any reason, the features are not constructed in accordance with the requirements set forth above, the undersigned understands that OHFA may revoke or recapture the Development's funding and/or limit or prohibit the future participation of the undersigned, any subsidiaries or related entities in OHFA programs.

Greater Dayton Premier Management	937-910-7500	jheapy@gdpm.org
Company/Firm Name:	Phone Number	Email
400 Wayne Avenue, Dayton, OH 45410		
Company/Firm Address		
Jennifer N. Heapy		Chief Executive Officer
Printed Name (Firm Authorized Signatory)		Title
Signature		Date

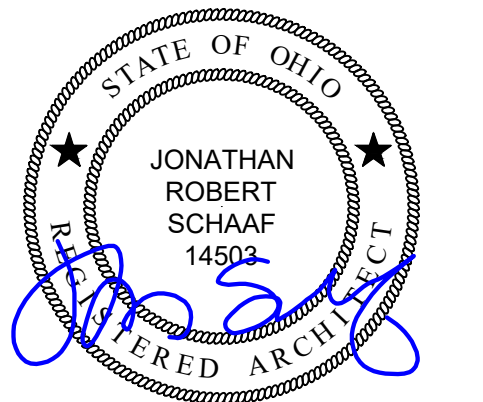
Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave.  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number	2021-033
Date	May 1, 2024
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
OHFA Design and Construction Features Form

Sheet Number

**G2.2**



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
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05.01.24	PRC / Bid Set

Sheet Title  
OHFA Limited Scope Rehab Sustainability Standards

Sheet Number  
**G2.3**

### Requirements

At Project Application:

- If the proposed scope of work includes the item but will not meet the criteria, select "No."
- If the proposed scope of work includes the item and applicable criteria, select "Yes."
- If the item is not included in the scope of work, select "N/A."

At Project Completion, certify that the scope was implemented as designed by including initials in the far right column.

Item and Question	At Project Application, Regarding Proposed Scope of Work			At Project Completion, Initials, Certifying Scope Was Executed As Designed.
	No	Yes	N/A	
<b>Landscaping</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
If being provided, will all new plants be native or adaptive species? Will the new plants be appropriate for the site's soil and microclimate? Will none of the new plants be invasive species?				
<b>Efficient Irrigation and Water Reuse</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Click or tap here to enter text.
If a new irrigation system is included, will it be an efficient system (EPA WaterSense), and/or will there be a water reuse system?				
<b>Water Conserving Fixtures</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Will all plumbing fixtures remaining in the property, or being replaced, meet the following max flow rates? [Note: Fixtures less than 5 years old which are not scheduled for replacement are exempt from this question. However, provide rationale for not replacing these fixtures, along with the quantity of fixtures and their gpf/gpm spec, in the Comments section]:				
<input checked="" type="checkbox"/> Toilets ≤ 1.28 gpf & WaterSense label				
<input type="checkbox"/> Urinals ≤ 0.5 gpf & WaterSense label				
<input checked="" type="checkbox"/> Showerheads ≤ 2.0 gpm & WaterSense label				
<input checked="" type="checkbox"/> Kitchen faucets ≤ 2.0 gpm				
<input checked="" type="checkbox"/> Lav faucets ≤ 1.5 gpm & WaterSense label				

### PROPOSAL APPLICATION

The Eligibility section of this document clarifies which properties should follow this pathway rather than the more comprehensive OHFA Green Standards. The Requirements section of this document describes the mandatory measures for each project. To confirm compliance at the time of project application, project teams will complete the Project Information section of this form, the Requirements chart, provide any additional information within the Project Application: Comments section and sign and date the Project Application: Compliance Agreement and Certification section. Project teams will include this completed and signed document in their project application for Non-Competitive Housing Tax Credits to OHFA staff.

At the completion of the development, the project team will update the form that was submitted upon project application. This update will consist of initialing the far-right column of the Requirements chart to indicate that the item was included in the property as designed, adding comments within the Project Completion: Comments section, describing any discrepancies and signing and dating the Project Completion: Compliance Agreement and Certification section. The project team will submit this form as part of the 8609 form request.

#### Eligibility

These Limited Scope Rehabilitation Sustainability Requirements apply to all multifamily and single family rehabilitation projects requesting and receiving Ohio Housing Finance Agency's (OHFA) Non-Competitive Housing Tax Credits that are neither new construction nor a gut rehabilitation. At OHFA's discretion, new construction buildings or buildings undergoing a gut rehabilitation are required to follow the more comprehensive Green Standards as described in the Qualified Allocation Plan (QAP) and/or the Design & Architectural Standards. Applicability of these requirements may be further restricted or modified in OHFA's program guidelines including but not limited to the QAP, the Design & Architectural Standards and the Consolidated Housing Development Assistance Program guidelines.

#### Project Information

Project Name and Location: Huffman-Parnell, Dayton OH  
Brief Description of Scope of Work: Rehab of existing 12 unit building

#### Compliance

Development teams should complete a walk-through audit when developing application budgets in order to ensure all requirements can be met. It is the responsibility of the owner to ensure that all items noted as "Yes" within the Requirements form are incorporated fully into the project by the time of construction completion.

A Letter from  
Enterprise Community Partners and the  
Office of Planning, Preservation and Development

Dear Partners,

The Ohio Housing Finance Agency (OHFA) has long promoted sustainability best practices in the affordable housing industry. The green building certification programs that OHFA supports through the Qualified Allocation Plan and its forthcoming Design & Architectural Standards are holistic, green building programs that, when certification is achieved, ensure our properties are healthy, safe, durable, energy efficient, environmentally responsible and affordable.

As these programs are holistic, addressing nearly all systems of a property, retrofitting existing properties with modest scopes of work may not qualify under these rigorous standards designed for new construction and extensive rehabilitations. However, these "limited scope" rehabilitations do still present opportunities to improve energy and water efficiency, durability and to address resident health. Without pre-established criteria to follow, limited scope rehab properties lack sufficient guidance to achieve these impactful cost and energy savings.

With this in mind, Enterprise Green Communities partnered with OHFA to draft a self-certification pathway for limited scope rehab properties to achieve a meaningful and cost-effective level of sustainability as described within this document. Enterprise's leadership and expertise on this issue is undeniable; their efforts to create this alternate pathway represent a significant milestone in the growth of this architectural discipline.

We thank all those who submitted public comments that shaped the final draft, and OHFA looks forward to incorporating this document into our Design & Architectural Standards guide.

Respectfully Submitted,

Kelan Craig  
 Ohio Housing Finance Agency  
 Director of Planning, Preservation and Development

Kristia Egger  
 Enterprise Community Partners, Inc., Director, Green Communities

Elizabeth Richards  
 Enterprise Community Partners, Inc.  
 Senior Program Director, Ohio

Building Performance Standard, HVAC Equipment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If any Heating, Ventilating and Air Conditioning (HVAC) or water heater system or item is being upgraded or replaced, will it/they meet required efficiencies as described below?			
<input checked="" type="checkbox"/> Cooling equipment ≥ 13 SEER			
<input checked="" type="checkbox"/> Gas Furnace ≥ 95 AFUE (Roof Top 90 AFUE)			
<input type="checkbox"/> Oil Furnace ≥ 85 AFUE, ENERGY STAR			
<input type="checkbox"/> Boiler ≥ 90 AFUE, ENERGY STAR			
<input type="checkbox"/> Heat Pump shall be ENERGY STAR Qualified			
<input checked="" type="checkbox"/> Gas Water Heater ≥ these efficiencies: 30 gal: .63 EF, 40 gal: .61 EF, 50 gal: .59 EF 60 gal: .57 EF, 70 gal: .55 EF, 80 gal: .53 EF			
<input type="checkbox"/> Electric Water Heater ≥ these efficiencies: 30 gal: .94 EF, 40 gal: .93 EF, 50 gal: .92 EF 60 gal: .91 EF, 70 gal: .90 EF, 80 gal: .89 EF			
<input type="checkbox"/> Oil Water Heater ≥ these efficiencies: 30 gal: .55 EF, 40 gal: .53 EF, 50 gal: .51 EF 60 gal: .49 EF, 70 gal: .47 EF, 80 gal: .45 EF			
Building Performance Standard, HVAC Installation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will all HVAC systems meet the following requirements?			
<input type="checkbox"/> Hot Water Boiler Space Heating: Outdoor air reset controls installed to automatically adjust supply water temperature			
<input type="checkbox"/> Exposed Boiler Pipes: Insulated in compliance with ASHRAE 90.1-2010			
<input type="checkbox"/> Ductwork carrying conditioned air in pitched roof attics with enough space to allow access are insulated minimum R-Value of R8.			
<input type="checkbox"/> Domestic hot water boiler and space heating boiler system tune-ups: Completion confirmed within the past five years			
<input type="checkbox"/> Forced air system tune-ups: Completion confirmed within the past two years			
<input type="checkbox"/> Insulated covers provided for existing or new through-wall air conditioner (AC) sleeves. These covers fit the AC sleeves and AC units properly and seal tightly to the wall.			

Sizing of Heating and Cooling Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If HVAC equipment is being replaced, rather replacing with previous size, will new equipment be sized in accordance with the Air Conditioning Contractors of America (ACCA) Manuals parts J and S?			
Building Performance Standard, Exterior Wall Insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
For projects with exterior walls with a cavity of ≥3.5" without existing insulation, will those exterior walls be insulated to capacity, with insulation voids in less than five percent of insulated area?			
Building Performance Standard, Attic Insulation and Air Sealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In properties with pitched-roof attics with enough space to allow access, will the following insulation and attic bypass air sealing requirements be met? [For properties with pitched-roof attics without enough space to allow access, describe access issues in Comments space below. As a general rule, "enough space" is defined as attics ≥ 30 ft <sup>2</sup> with a vertical height of ≥ 30" and an opening of at least 22"x30".]			
<input checked="" type="checkbox"/> Attics insulated to a minimum code R-Value of R49 in properties as follows: In electrically heated properties with existing insulation less than R39 and in gas-heated properties with existing insulation less than R30. (For existing insulation, follow the BPI Building Analyst Standards and typical insulation R-Value which assumes R-3.7/in for blown cellulose and R-3.0/in for un-faced, unmarked batt installation).			
<input type="checkbox"/> Attic bypasses air sealing in properties when insulation is required to be added. Bypass is defined as any building air leakage pathway between conditioned and unconditioned areas. Attic bypass locations include, but are not limited to chimney chases, combustion/soil stack chases, open wall tops, dropped ceilings, open plumbing walls, beneath knee walls, around ductwork, electrical work and attic access points. Attic bypasses are sealed in such a manner that the movement of air is "Essentially Stopped." "Essentially Stopped" means that air leakage will not be detected by an infrared scan when the house or dwelling unit is depressurized at 25 Pascals. Materials used for bypass sealing are determined by the size and location of the bypass. These materials include high quality caulking with 20-yr life span, polyethylene rod stock, spray foam, gypsum board, sheet metal, extruded polystyrene insulation and densely packed insulation.			
Appliances	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If washers, dishwashers and/or refrigerators are being provided, are these ENERGY STAR labeled?			

Lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If new light fixtures are provided, will they have efficacy of at least 40-60 lumens per watt or ENERGY STAR certified? Or will lighting follow the ENERGY STAR MFHR (20 percent allowed non-compliant) program or consist of all LED lamps?			
Low/No VOC Paints and Primers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If provided, will the paints and primers have less than or equal to the following VOC levels in grams per liter based on a combination of the South Coast Air Quality Management District and Green Seal standards? Flats ≤ 50 g/L, Non-flats ≤ 50 g/L, Floor ≤ 100 g/L, Primers and sealers ≤ 100 g/L, Clear woods ≤ 275 g/L			
Low/No VOC Adhesives and Sealants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If new adhesives or sealants are being provided, will they have the following maximum VOC limits (G/L):			
<input type="checkbox"/> Indoor carpet adhesives of 50			
<input type="checkbox"/> Carpet pad adhesives of 50			
<input type="checkbox"/> Outdoor carpet adhesives of 150			
<input type="checkbox"/> Wood flooring adhesives of 100			
<input checked="" type="checkbox"/> Rubber flooring adhesives of 60			
<input checked="" type="checkbox"/> Subfloor adhesives of 50			
<input checked="" type="checkbox"/> Ceramic tile adhesives of 65			
<input type="checkbox"/> VCT and asphalt tile adhesives of 50			
<input checked="" type="checkbox"/> Drywall and panel adhesives of 50			
<input checked="" type="checkbox"/> Multipurpose construction adhesives of 70			
<input type="checkbox"/> Structural glazing adhesives of 100			

Composite Wood Products that Emit Low or No Formaldehyde	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If interior composite wood products are included such as cabinetry, plywood, particle board, oriented strand board or medium density overlay, will the composite wood products be compliant with California 93120, or will all exposed edges be sealed with a low VOC sealant?			
Environmentally Preferable Flooring 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If new flooring is being provided, will a hard surface material (no carpet) be used at entryways, laundry rooms, bathrooms, kitchens/kitchenettes and utility rooms?			
Environmentally Preferable Flooring 2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If carpet (including pad and adhesives) is being provided, will it meet the Carpet and Rug Institute's Green Label and Green Label Plus Certification?			
Environmentally Preferable Flooring 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If hard surface flooring is being provided, will it be ceramic tile or unfinished hardwood? Or will it comply with the Scientific Certification System's FloorScore program?			
Exhaust Fans: Bathroom	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If being replaced, will all new bath exhaust fans be ENERGY STAR labeled; exhausted to the outdoors; and connected to a light switch or equipped with a humidistat, timer or other control?			
Ventilation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If an abandoned mechanical ventilation system exists, has it been investigated and re-commissioned per the two-step method as follows?			
1. Identification of cause of failure: either mechanical malfunction (system broken) or human error (maintenance failure, override or system shut-off).			
2. Identification of remedy: either restore/replace/repair/re-commission, or require manuals and education for management and maintenance staff or include tenant education in resident manual and orientation.			
[Note: If answer is "no" because a decision has been made not to restore the mechanical ventilation system to working order, provide rationale in Comments section]			

<b>Clothes Dryer Exhaust</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
If new dryers are being provided or existing dryers are being replaced, will the ventilation be ducted to the exterior with rigid ductwork?				
<b>Combustion Equipment 1</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Will all existing or new gas or oil space or water heating equipment be direct vented (sealed/closed) or power vented? [Check "No" if any remaining or new gas heating equipment has passive venting. Only check "N/A" if there is no gas or oil space heating or water heating equipment.]				
<b>Combustion Equipment 2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Click or tap here to enter text.
If passive venting combustion equipment is to remain, has the development team developed a combustion action plan that includes post-construction testing and a remediation plan in the event testing reveals unsafe CO levels? Combustion Safety Requirements / Testing Protocols must be per RESNET Guidelines for Combustion Safety and Development Work Orders or BPI Combustion Safety Test Procedure for Vented Appliances.				
<b>Operations &amp; Maintenance Guidelines</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
By time of project completion, will the project have written operations and maintenance guidelines, which include inspection, replacement and turnover guidance relevant to each of the above sections in this document? And have shared this document with OHFA at time of project completion? Templates available <a href="#">here</a> .				

Ohio Housing Finance Agency

### Project Application: Comments

If "No" is selected for any of the items above, provide an explanation here. Also, if not replacing water fixtures, share your rationale, along with the quantity of fixtures in the project and their gpf/gpm spec, here.

On a case-by-case basis, OHFA may approve project applications which have marked items as "No" in the Requirements table, if reasonable rationale as well as cost/benefit information for these items has been provided in comments that shows ≥10 year payback. Note that many of the Requirements do not have cost implications for a project and a selection of "No" for those items will not be approved.

Click or tap here to enter text.

### Project Application: Compliance Agreement and Certification

Sign as owner, agreeing to comply with requirements as noted throughout this document.

By execution of this form, signee and its duly authorized officers, partners, or members hereby certifies that the information contained in this document is true, correct and complete, and that the execution and delivery of this project will meet requirement noted in this document.

Name of Organization	RDA Group Architects
Authorized Signature	
Printed Name	Jonathan Schaaf
Title	Principal
Date	11/18/2022

Ohio Housing Finance Agency

### Project Completion

At the completion of the development, update the form that was submitted upon project application. This update will consist of initialing the far-right column of the REQUIREMENTS chart to indicate that the item was included in the property as designed, adding comments within the PROJECT COMPLETION: COMMENTS section describing any discrepancies and signing and dating the PROJECT COMPLETION: COMPLIANCE AGREEMENT AND CERTIFICATION section. Submit this form as part of the 8609 form request.

### Project Completion: Comments

If the project representative is not able to initial in the far right column for any item, given that the item was not implemented as designed, provide an explanation here.

Click or tap here to enter text.

### Project Completion: Compliance Agreement and Certification

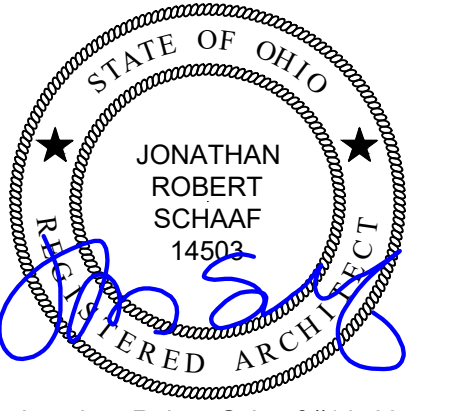
Sign as owner, certifying that the scope as proposed on this document was implemented in full.

By execution of this form, signee and its duly authorized officers, partners or members hereby certifies that the information contained in this document is true, correct and complete; and that the execution and delivery of this project has met the requirements noted in this document.

Operations and Maintenance Guidelines are attached.

Name of Organization	Click or tap here to enter text.
Authorized Signature	Click or tap here to enter text.
Printed Name	Click or tap here to enter text.
Title	Click or tap here to enter text.
Date	Click or tap here to enter text.

Ohio Housing Finance Agency



Jonathan Robert Schaaf #14503  
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440



Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
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Dayton, Ohio 45403  
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Greater Dayton Premier Management

Project Number  
2021-033

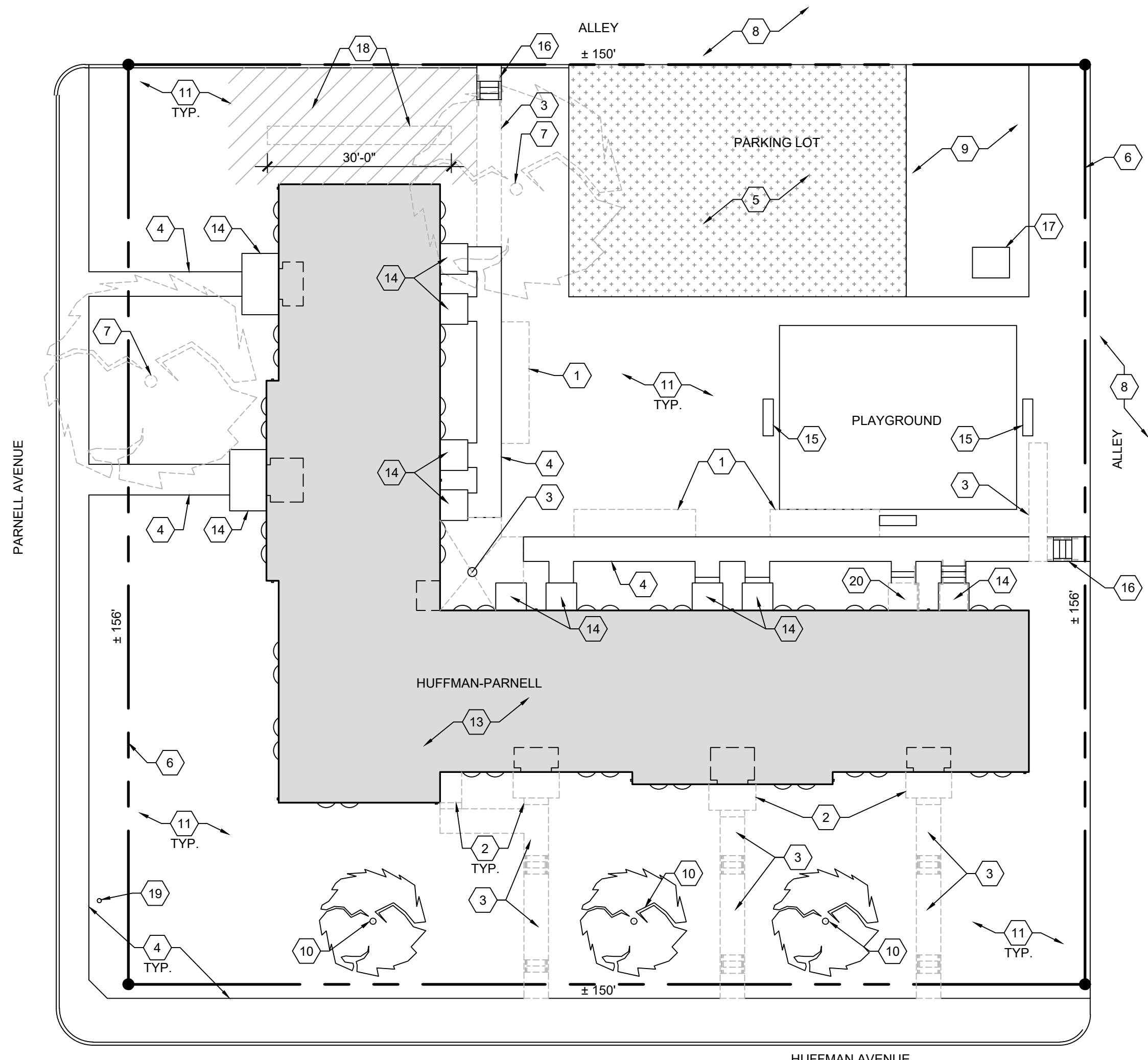
Date  
May 1, 2024

Date	Issue
10.10.22	Preliminary
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05.01.24	PRC / Bid Set

Sheet Title  
OHFA Limited Scope  
Rehab Sustainability  
Standards

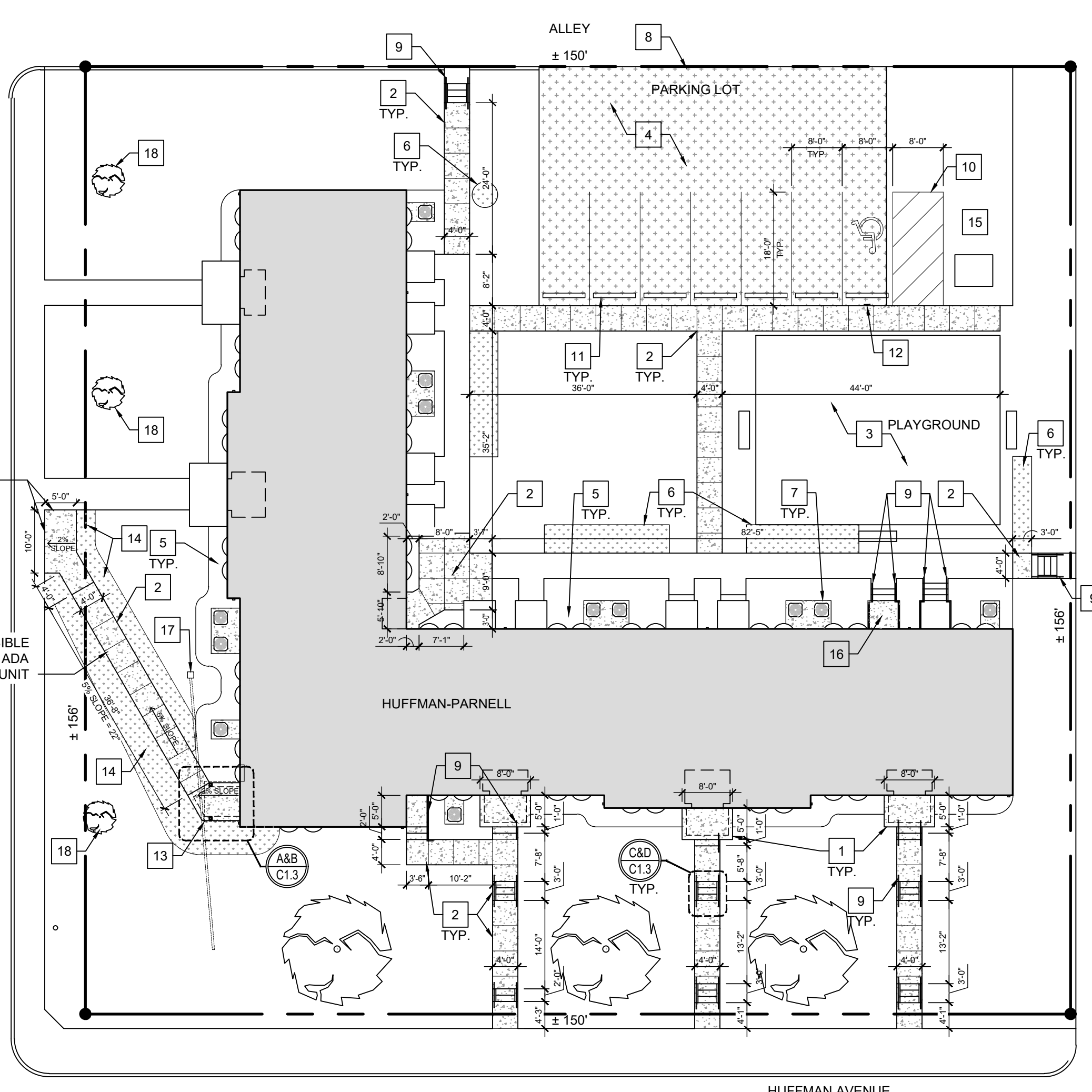
Sheet Number

**G2.4**



**A EXISTING / DEMOLITION ARCHITECTURAL SITE PLAN**

SCALE: 1/16" = 1'-0" 0 8 16 32



**B PROPOSED ARCHITECTURAL SITE PLAN**

SCALE: 1/16" = 1'-0" 0 8 16 32

**# DEMOLITION KEY NOTES**

1. REMOVE EXISTING ASPHALT PAVING COMPLETE THIS AREA.
2. REMOVE EXISTING CONCRETE STOOP / STEPS COMPLETE.
3. REMOVE EXISTING CONCRETE WALK / STEPS COMPLETE AS INDICATED.
4. EXISTING CONCRETE WALK TO REMAIN.
5. MILL ±1 1/2" EXISTING ASPHALT PAVEMENT, PREP FOR NEW ASPHALT PAVING.
6. PROPERTY LINE.
7. REMOVE EXISTING TREE COMPLETE. GRIND STUMP.
8. ADJACENT ASPHALT ALLEY TO REMAIN.
9. EXISTING CONCRETE PARKING LOT TO REMAIN.
10. EXISTING TREE TO REMAIN. PRUNE AS REQ'D TO LIMB UPR/AISE CANOPY TO MIN. 8'-0" ABOVE GRADE AND A MIN. OF 5'-0" OFF OF BUILDING/ROOF. PRUNING SHALL BE ACCOMPLISHED TO EVENLY SHAPE TREE. FOLLOW GUIDELINES OF U.S. FORESTRY SERVICE.
11. EX. LAWN TO REMAIN - RESTORE TO ORIGINAL CONDITION - OVERSEED ENTIRE LAWN.
12. NOT USED.
13. EXISTING TWO STORY BUILDING.
14. EXISTING CONCRETE STOOP / STEPS TO REMAIN. REMOVE EXISTING RAILS COMPLETE.
15. EXISTING BENCH TO REMAIN.
16. EXISTING STEPS TO REMAIN. REMOVE EXISTING RAILS COMPLETE.
17. EXISTING DUMPSTER.
18. RE-GRADE THIS AREA AS REQ'D TO PROVIDE SWALE AWAY FROM BUILDING. INSTALL NEW FRENCH DRAIN - REFER TO DETAIL E/C1.1
19. EXISTING FIRE HYDRANT TO REMAIN.
20. REMOVE EXISTING CONCRETE CAP & RAILING - EX. FOUNDATION TO REMAIN - PREP AS REQ'D FOR NEW CONCRETE CAP.

**# NEW WORK KEY NOTES**

1. INSTALL NEW CONCRETE STOOP / STEPS - REFER TO DETAIL D/C1.1.
2. INSTALL NEW CONCRETE WALK / STEPS.
3. EXISTING PLAYGROUND EQUIPMENT TO REMAIN - INSTALL NEW MUCH BED - MIN. 8" THICKNESS. F.V. EXISTING CONDITIONS.
4. INSTALL NEW ±1 1/2" THICK ASPHALT WEAR COURSE. SLOPE TO DRAIN.
5. INSTALL NEW LANDSCAPING - REFER TO LANDSCAPE PLAN.
6. INSTALL NEW TOPSOIL AND SEED/SOD. ENSURE POSITIVE DRAINAGE AWAY FROM FOUNDATION.
7. INSTALL NEW CONDENSING UNIT ON NEW CONCRETE PAD, REFER TO DETAIL F/C1.2 - COORDINATE WITH MECHANICAL DRAWINGS.
8. MEET ADJACENT ASPHALT FLUSH.
9. INSTALL NEW METAL RAILING SYSTEM, EACH SIDE OF STEPS.
10. INSTALL NEW STRIPING AS INDICATED.
11. REMOVE EX., INSTALL NEW CONCRETE PARKING BLOCKS.
12. INSTALL NEW ACCESSIBLE PARKING SIGN - REFER TO DETAIL C/C1.1
13. NEW COVERED STOOP.
14. RE-GRADE EXISTING LAWN AS REQ'D FOR NEW CONCRETE WALK MAX. SLOPE 3:1. FINISH FLUSH WITH NEW CONCRETE.
15. EXISTING DUMPSTER PAD.
16. INSTALL NEW 4" CONCRETE CAP ON EX. CONCRETE FOUNDATION.
17. INSTALL 12" SQ. YARD DRAIN AND ±50' OF 4"Ø SDR STORM PIPING AS REQUIRED TO DAYLIGHT AT GRADE AS INDICATED ON PLAN.
18. NEW TREE - REFER TO LANDSCAPE PLAN

**SITE PLAN GENERAL NOTES**

1. RDA DID NOT ACCOMPLISH OR PROVIDE BOUNDARY, TOPOGRAPHY, OR UTILITY SURVEYS TO CREATE THESE ARCHITECTURAL SITE PLANS. CONTRACTOR SHALL BE CAUTIONED TO FIELD VERIFY ALL EXISTING SITE CONDITIONS INCLUDING EXISTING UNDERGROUND UTILITY LOCATIONS, ROUTING, STORM DRAIN COMPONENTS, INVERTS, ELEVATIONS, ETC.
2. REMOVE ALL EXISTING LANDSCAPING, TREES, AND OVERGROWTH FROM THE AREAS OF WORK.
3. REMOVE ALL EXISTING CONCRETE WALKS, PATIOS, AND STOOPS AS INDICATED WITH THE INTENT OF THE NEW DESIGN. REMOVE SUB-BASE AS APPLICABLE FOR PROPOSED WORK.
4. STRIP TOPSOIL FROM ALL AREAS OF NEW PAVING. STRIP TURF FROM ALL AREAS OF NEW LANDSCAPE BEDS. PREP FOR NEW WORK.
5. FIELD VERIFY LOCATION OF ALL UTILITIES, COORDINATE ANY CONFLICTS WITH ARCHITECT/OWNER.
6. INSTALL NEW COMPACTED GRAVEL BASE AT ALL NEW CONCRETE WALKS, STOOPS, PATIOS, ETC. FIELD VERIFY THICKNESS REQ'D FOR NEW CONCRETE AT ALL ELEVATIONS INDICATED.
7. RE-GRADE EXISTING LAWN AREAS AS REQUIRED BY WORK. TYPICAL ALL AREAS. PROVIDE ADDITIONAL TOP SOIL AS REQUIRED TO RAISE GRADE TO MEET NEW CONCRETE WALKS, STOOPS, PATIOS, ETC. MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING. SLOPE AT 2:1 MAX. PROVIDE SWALES IF REQ'D.
8. RESTORE LAWN AT ALL AREAS OF WORK INCLUDING NEW CONCRETE, ETC. INSTALL NEW SEED/SOD AT ALL AFFECTED SITE AREAS. MAINTAIN SEED/SOD UNTIL ESTABLISHED.
9. INSTALL WEED BARRIER/GEO GRID UNDER AT ALL LANDSCAPE AREAS.
10. INSTALL NEW MIN. 3" MULCH BEDS AT ALL LANDSCAPE AREAS.
11. ALL CONTROL JOINTS TO BE HAND TROWELED AND RE-TRACED. CONCRETE FINISH TO BE MEDIUM BROOM FINISH UNLESS OTHERWISE DIRECTED.
12. ALL CONCRETE SHALL BE EARLY MORNING POUR. CONTRACTOR IS RESPONSIBLE TO GUARD AGAINST VANDALISM OF CONCRETE.
13. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITY CLEANOUTS, MANHOLES, COVERS, ETC. PROVIDE COLLARS/EXTENSIONS, ETC. AS REQUIRED TO MEET NEW FINISH GRADE AND/OR PAVEMENT.
14. CONTRACTOR SHALL CONFORM TO ALL APPLICABLE CITY OF DAYTON REQUIREMENTS FOR SITE IMPROVEMENTS AND WORK WITHIN THE RIGHT OF WAY. OBTAIN ALL REQUIRED RIGHT OF WAY PERMITS.
15. CONTRACTOR SHALL ENGAGE PRIVATE UTILITY LOCATOR COMPANY AS REQ'D TO LOCATE UTILITIES. [INCLUDE IN BID AMOUNT]

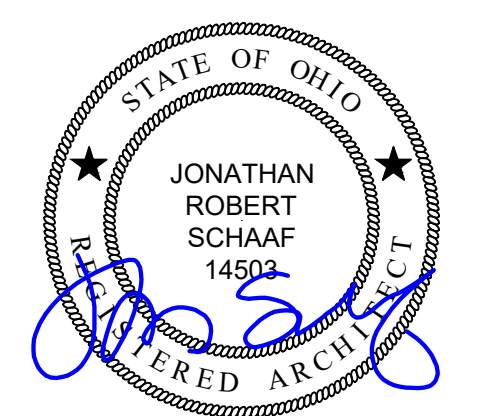
**SLOPES AT SITE CONCRETE / PAVING**

THE INTENT OF THIS PROJECT IS TO INCORPORATE ACCESSIBLE PATHWAYS AND FEATURES THROUGHOUT THE SITE WHERE NOTED AND TO THE EXTENT FEASIBLE CONSIDERING EXISTING SITE CONDITIONS. THE FOLLOWING SLOPES ARE TYPICAL REQUIREMENTS TO ACHIEVE COMPLIANCE WITH ACCESSIBILITY. FIELD COORDINATE CONDITIONS AS NEEDED. CONDITIONS MAY NOT APPLY AT ALL SITES.

- STOOPS/ PATIO - 1/48 (2%) MAXIMUM
- WALKS - 1/20 (5%) MAXIMUM
- RAMPS/ CURB RAMPS - 1/12 (8.3%) MAXIMUM [RAMPS REQ. HANDRAILS, SEE TYPICAL DETAILS]
- ACCESSIBLE PARKING AREAS - 1/48 (2%) MAXIMUM
- LANDINGS - 1/48 (2%) MAXIMUM

**SITE SYMBOL LEGEND**

- AREA OF NEW CONCRETE
- AREA OF NEW MULCH/LANDSCAPE BED (REFER TO LANDSCAPE PLAN)
- AREA OF MILLING OF EXISTING ASPHALT PAVING & NEW ASPHALT WEAR COURSE OVERLAY
- AREA OF NEW TOPSOIL AND SEED. ENSURE POSITIVE DRAINAGE AWAY FROM EX. FOUNDATION.



Jonathan Robert SchAAF #14503  
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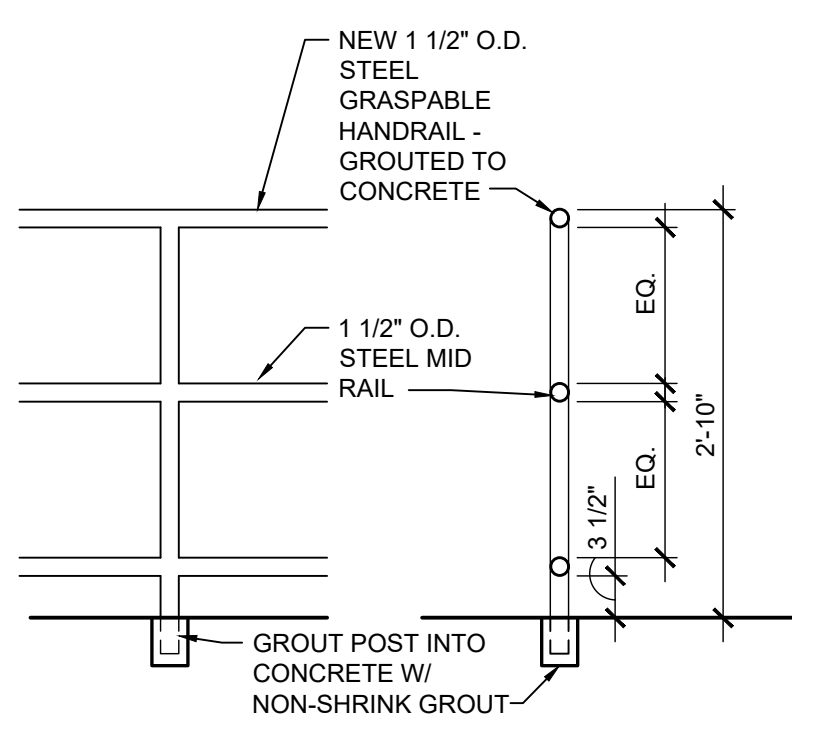
Moderate Rehabilitation of:  
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9 A&B Parnell Ave. | 1111 A&B Parnell Ave. |  
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Sheet Title  
Existing / Demolition & Proposed Site Plans

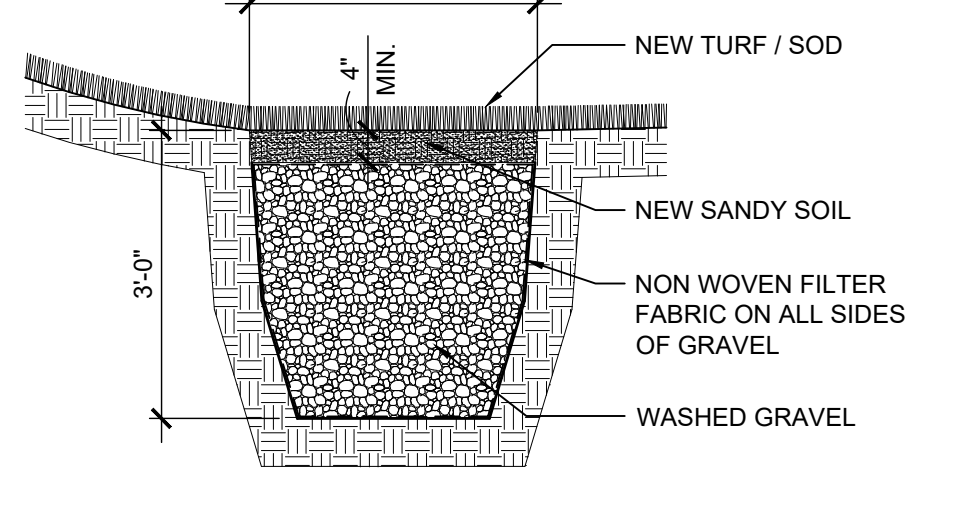
Sheet Number  
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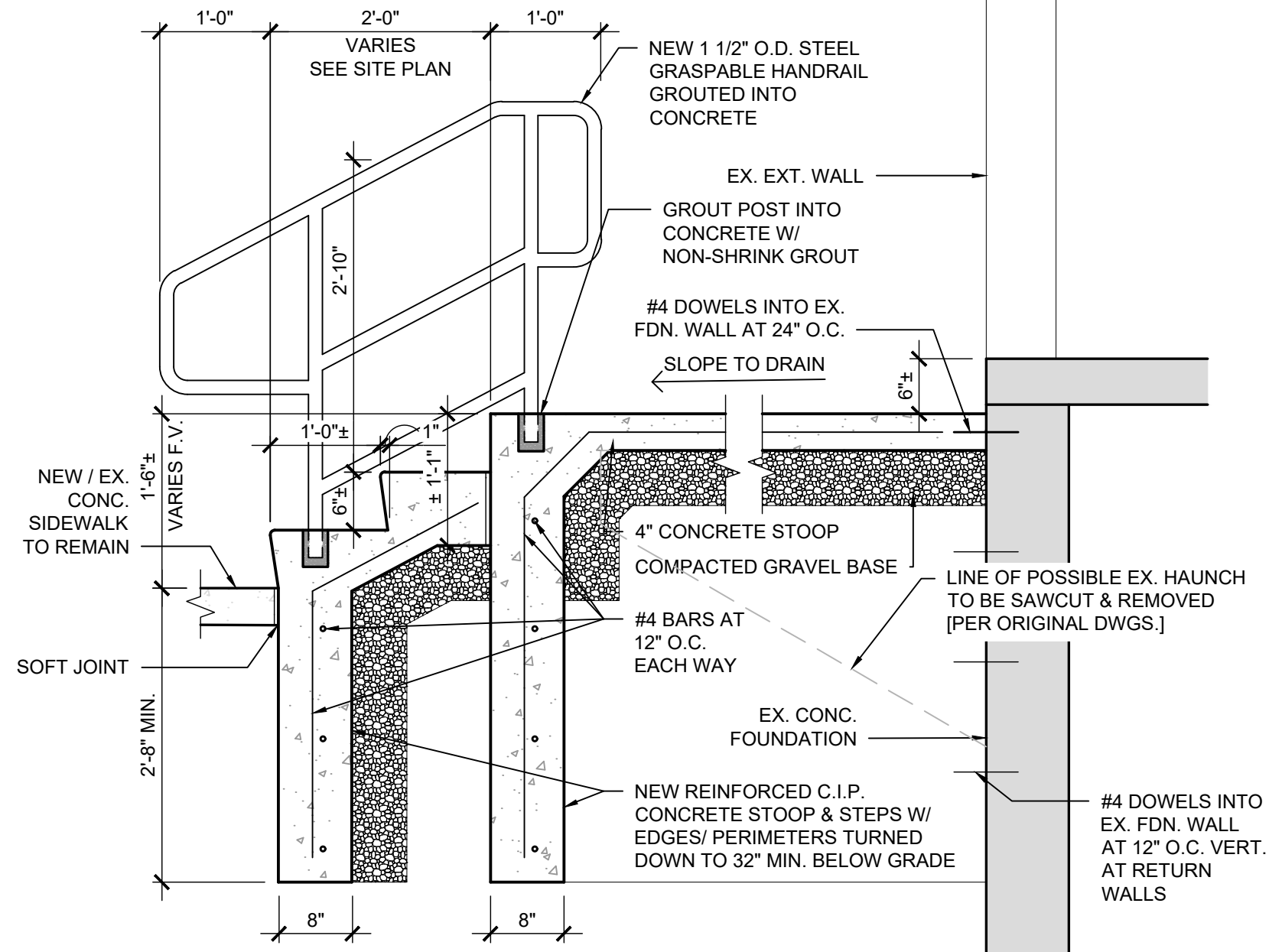
**F TYPICAL HANDRAIL DETAIL**

SCALE: 3/4" = 1'-0" 0 6 12 24



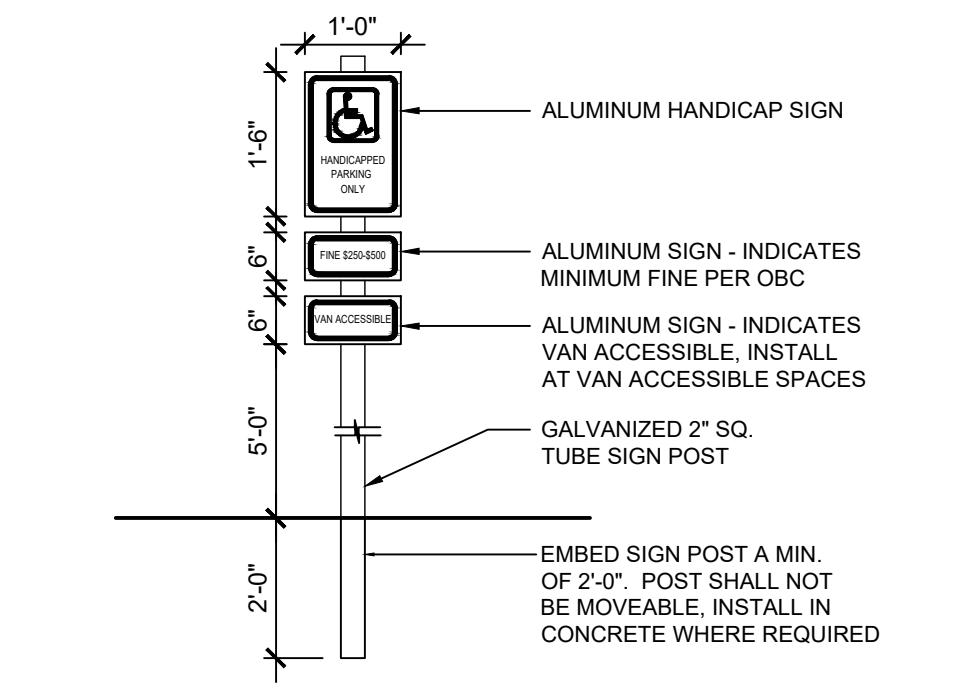
**E FRENCH DRAIN DETAIL**

SCALE: 1/2" = 1'-0" 0 1 2 4



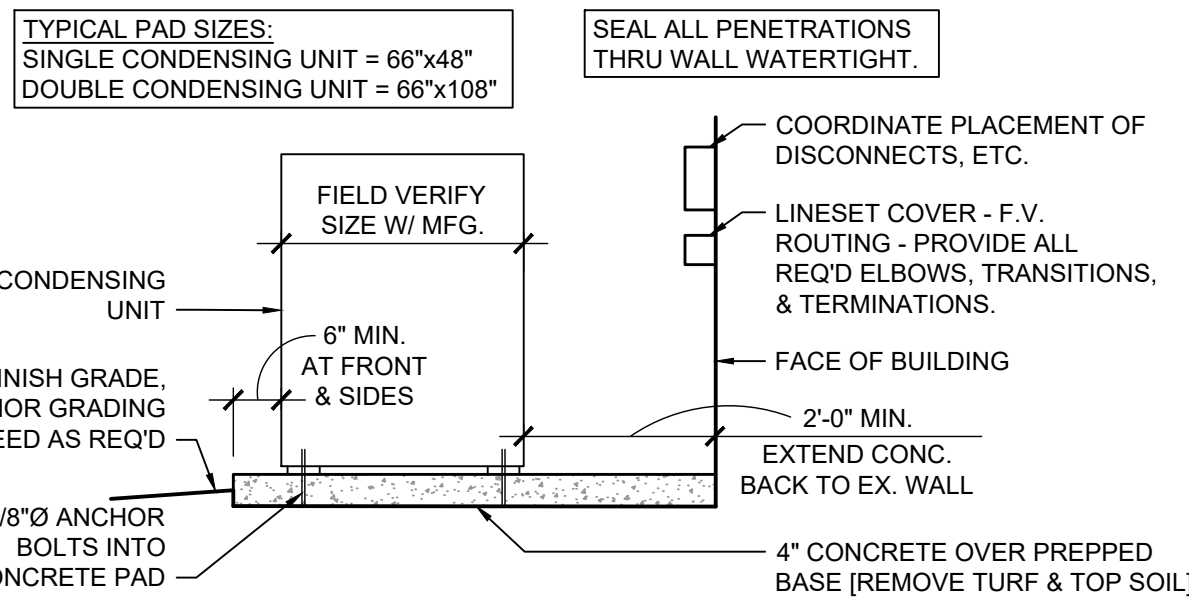
**D TYPICAL EXTERIOR STOOP SECTION**

SCALE: 3/4" = 1'-0" 0 6 12 24

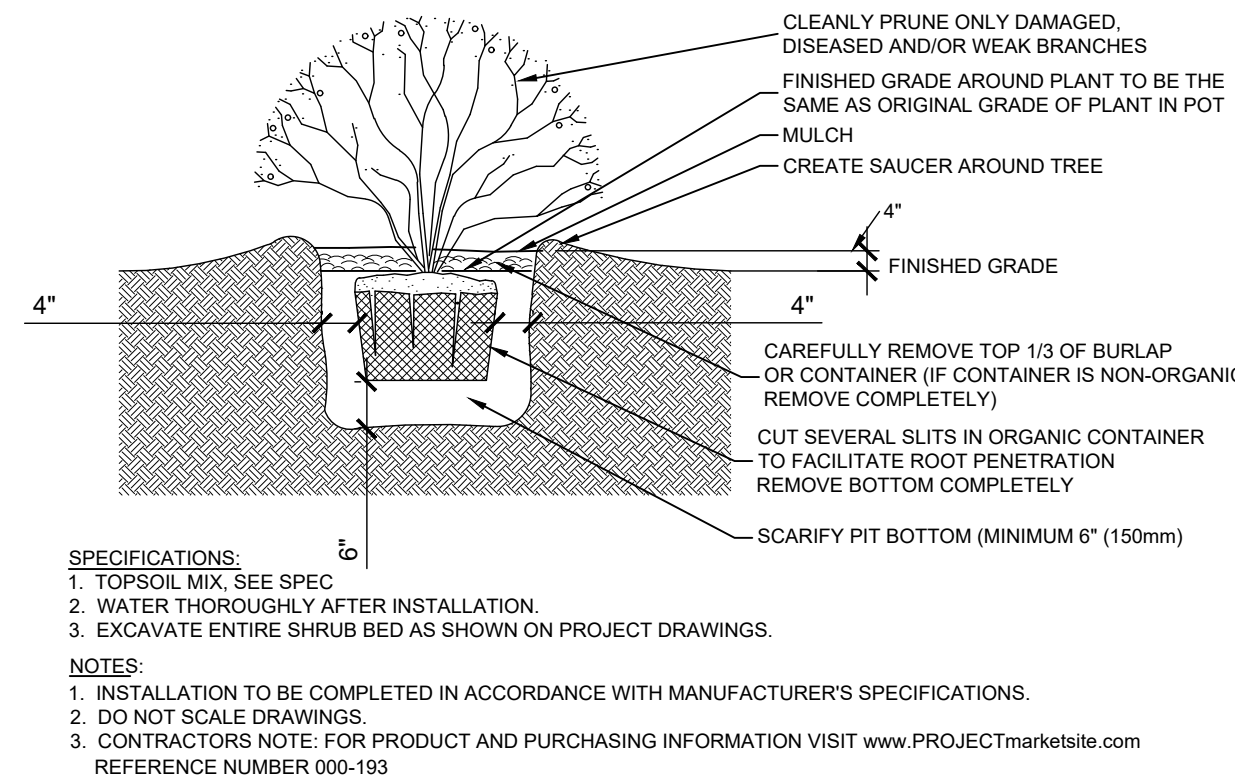


**C ACCESSIBLE PARKING SIGN DETAIL**

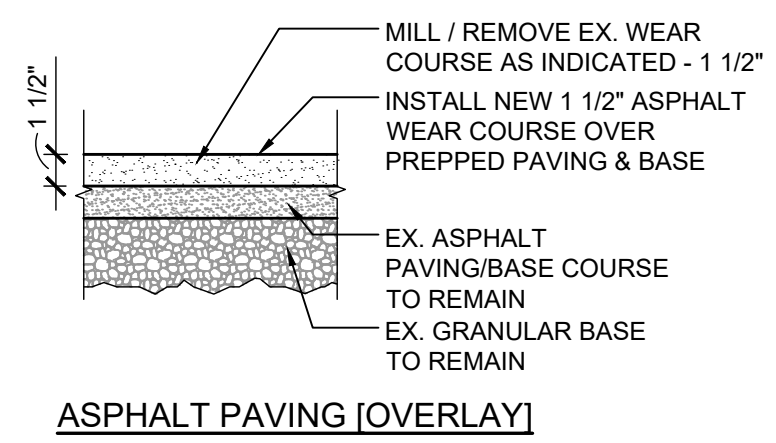
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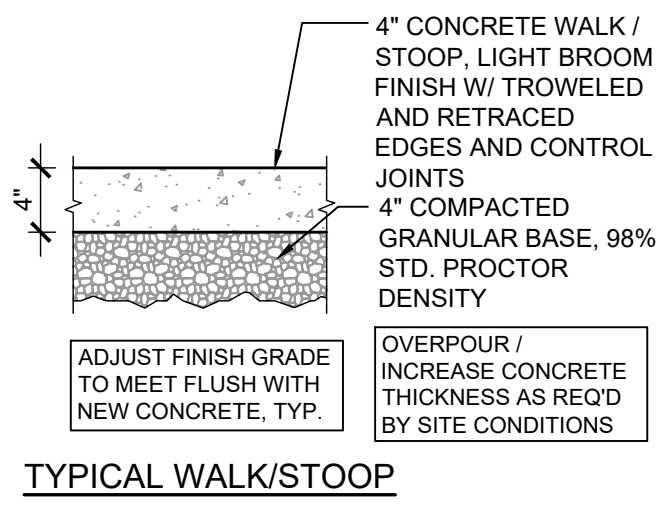
**F CONDENSING UNIT PAD DETAIL**  
 SCALE: 1/2" = 1'-0"



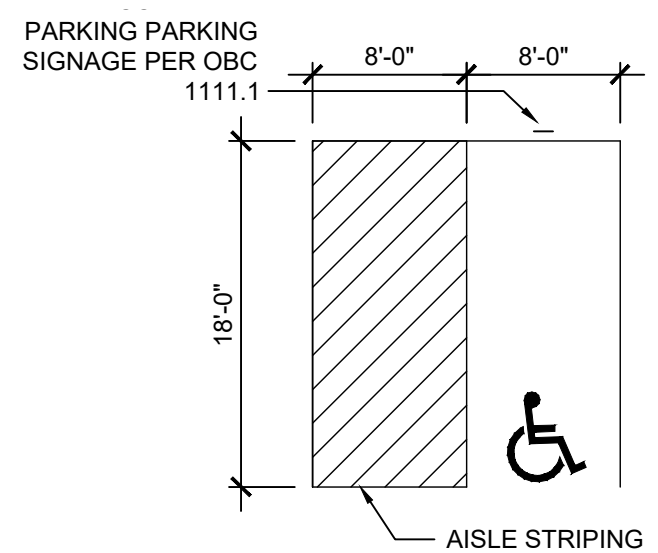
**E SHRUB DETAIL**  
 SCALE: N.T.S.



**D ASPHALT PAVING DETAIL**  
 SCALE: N.T.S.



**C CONCRETE WALK DETAIL**  
 SCALE: N.T.S.

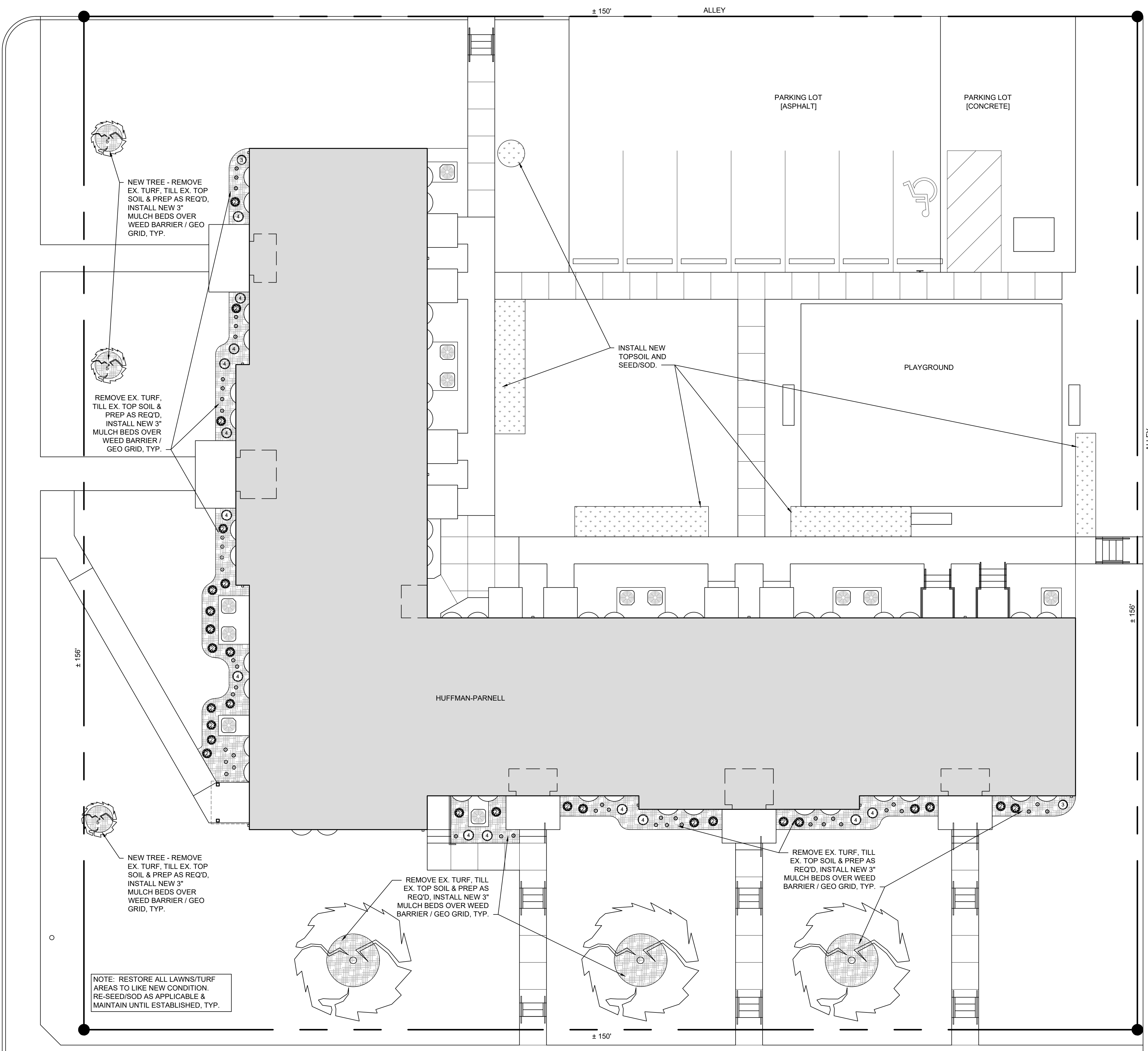


**B ACCESSIBLE PARKING STALL**  
 SCALE: 1" = 10'-0"

**PLANT SCHEDULE**

KEY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	REMARKS
①	HEMEROCALLIS 'HYPERION'	HYPERION DAYLILY	2 GAL.	1'-2" O.C.	OHIO NATIVE
②	PENNISSETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	3 GAL.	2'-3" O.C.	OHIO NATIVE
③	BUXUS X 'GREEN VELVET'	BOXWOOD	3 GAL.	3'-4" O.C.	OHIO NATIVE, EVERGREEN
④	TAXUS MEDIA DENSIFORMIS	DENSE TAXUS	3 GAL.	3'-4" O.C.	OHIO NATIVE
⑤	ACER MIYABEI 'MORTON'	STATE STREET MAPLE	2 1/2" CALIPER	AS INDICATED	OHIO NATIVE, 6' CLEAR TRUNK

- PLANT/ LANDSCAPE NOTES**
- ALL AREAS OF THE SITE AFFECTED BY CONSTRUCTION SHALL BE FINE GRADED, HAVE TOP SOIL ADDED, AND SEED/SOD INSTALLED. MAINTAIN SEED/SOD UNTIL ESTABLISHED.
  - TILL ALL COMPACTED SOIL TO A MINIMUM OF 6" DEPTH.
  - PRUNE TREES AND SHRUBS TO REMOVE ANY DAMAGED BRANCHES.
  - TREAT ALL LANDSCAPE BEDS WITH PRE-EMERGENT WEED KILLER.
  - INSTALL NEW 3" MULCH BEDS AT ALL LANDSCAPE AREAS AND OVER WEED BARRIER/GEO GRID.
  - ALL PLANTS & LANDSCAPING SHALL BE OHIO NATIVE, APPROPRIATE FOR SITE SOIL TYPE / COMPOSITION & MICROCLIMATE



**A LANDSCAPE PLAN**  
 SCALE: 1/8" = 1'-0"

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 JONATHAN ROBERT SCHAAF  
 14503  
 REGISTERED ARCHITECT  
 Jonathan Robert SchAAF #14503  
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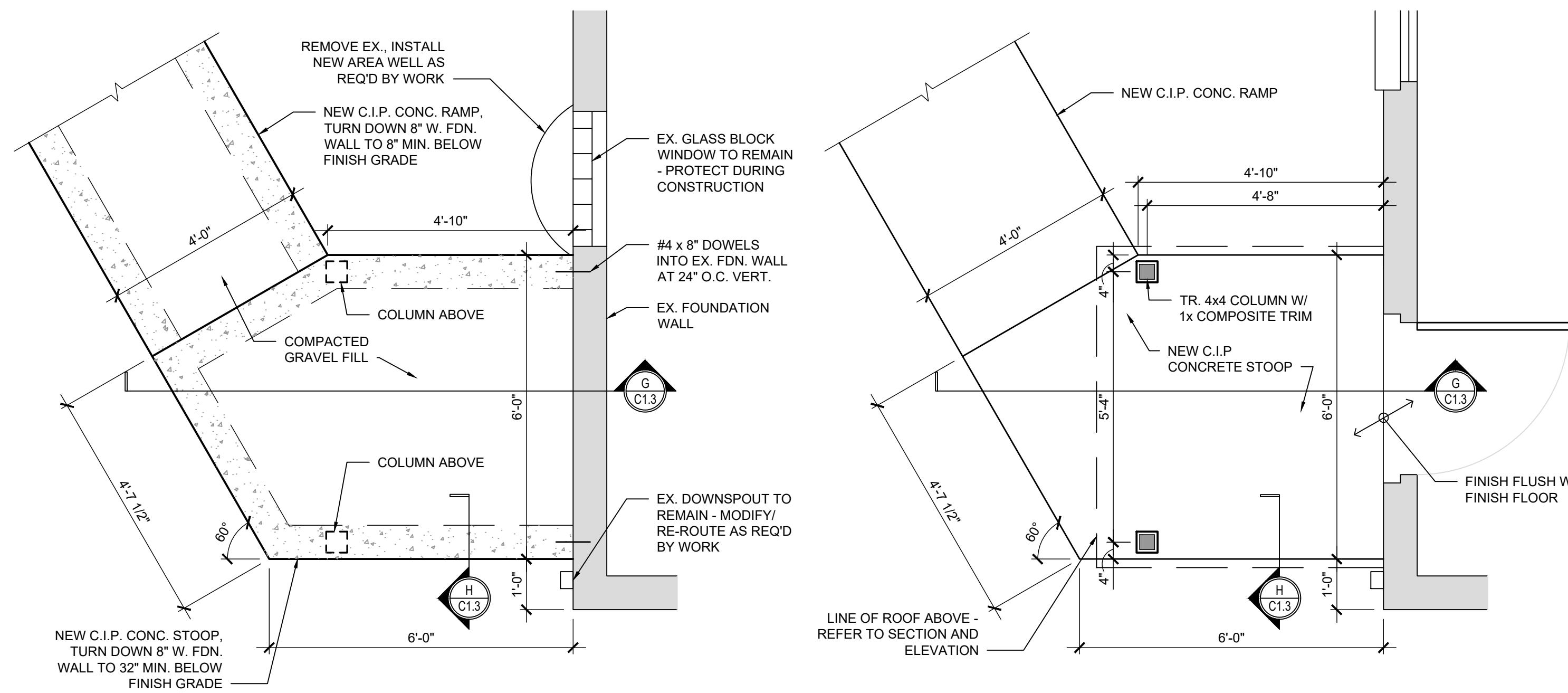
Project Number  
 2021-033

Date  
 May 1, 2024

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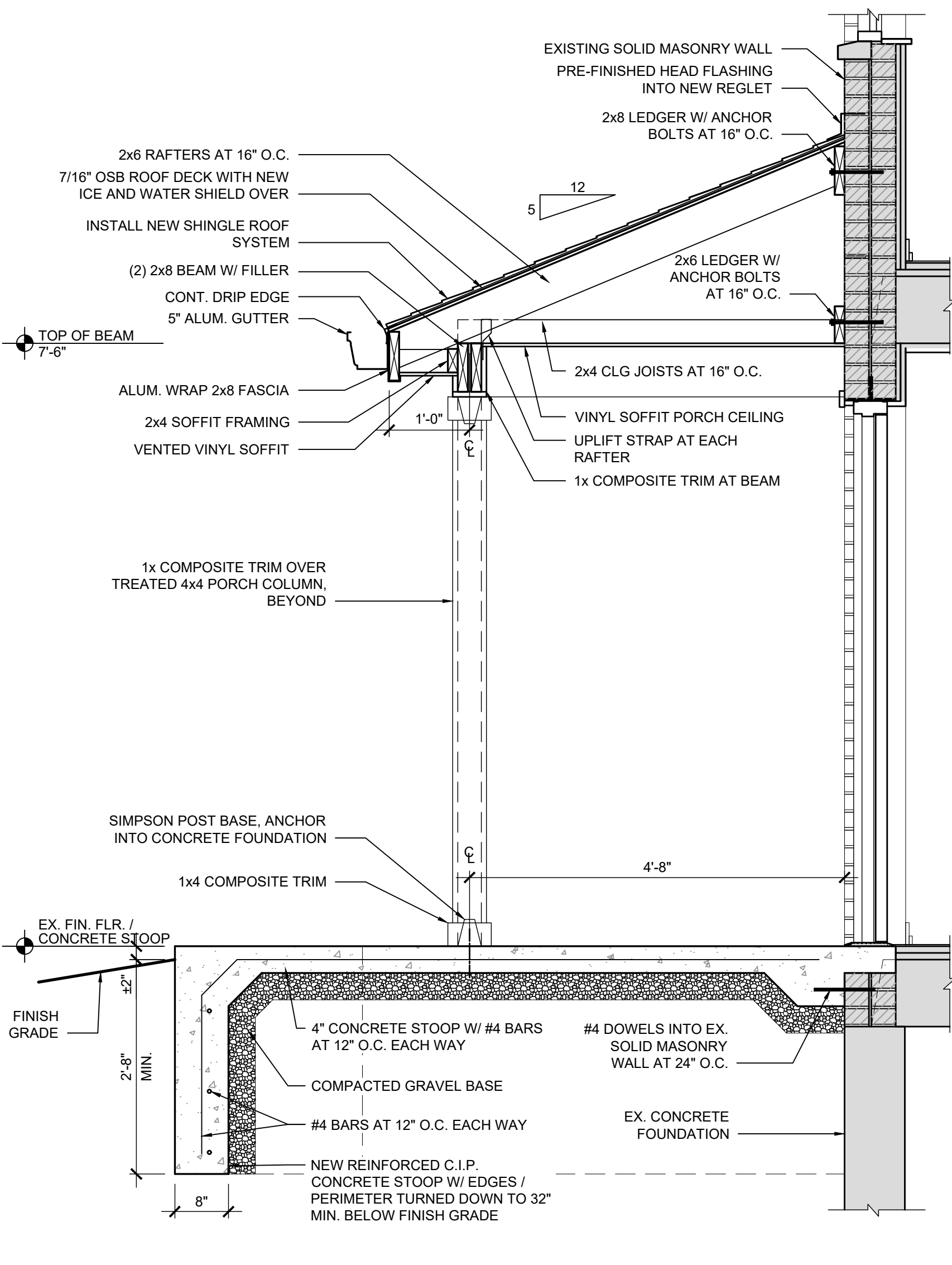
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 Landscape Plan & Details

Sheet Number  
**C1.2**

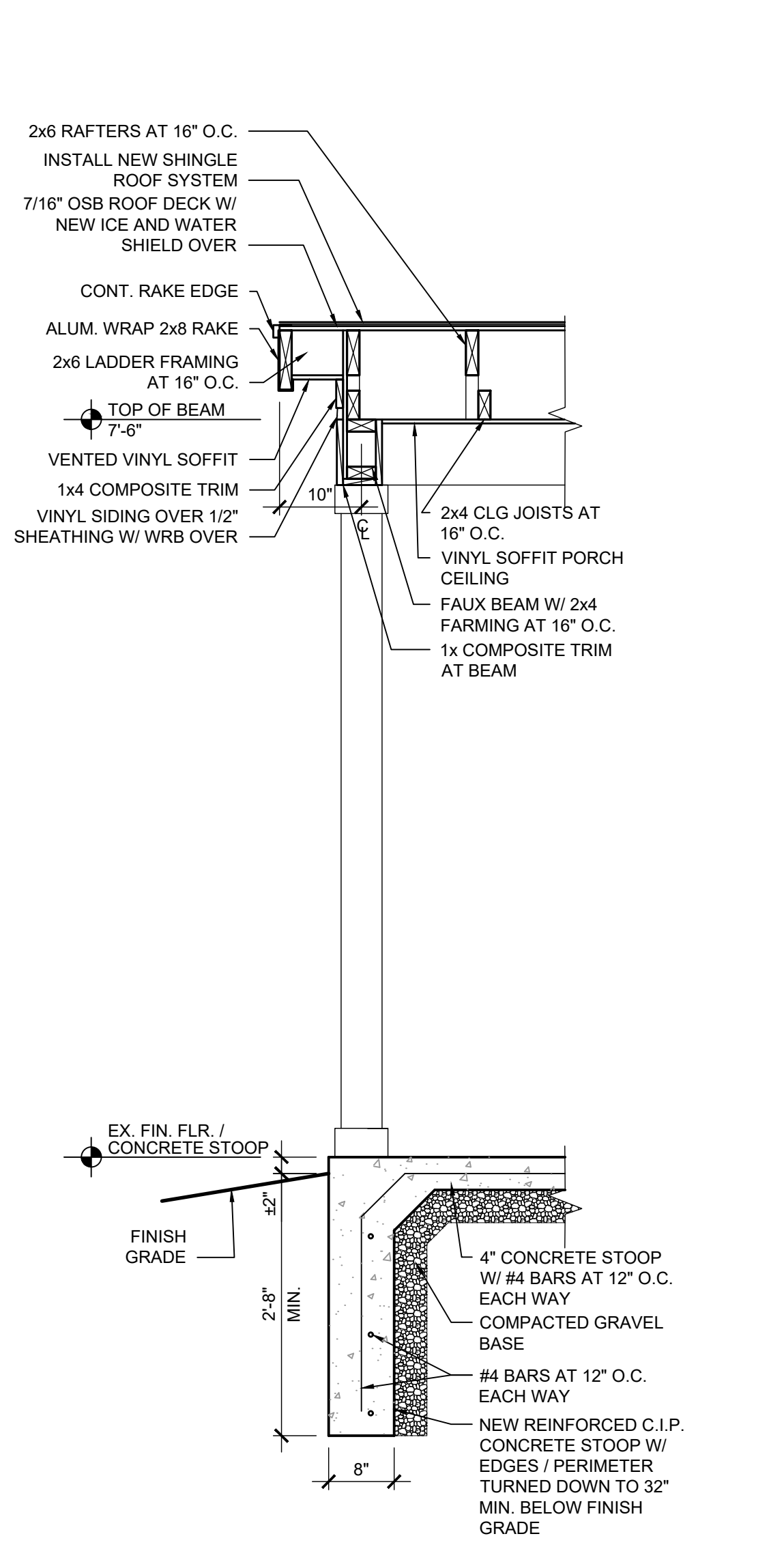


**A COVERED STOOP ENLARGED FOUNDATION PLAN**  
SCALE: 1/2" = 1'-0"

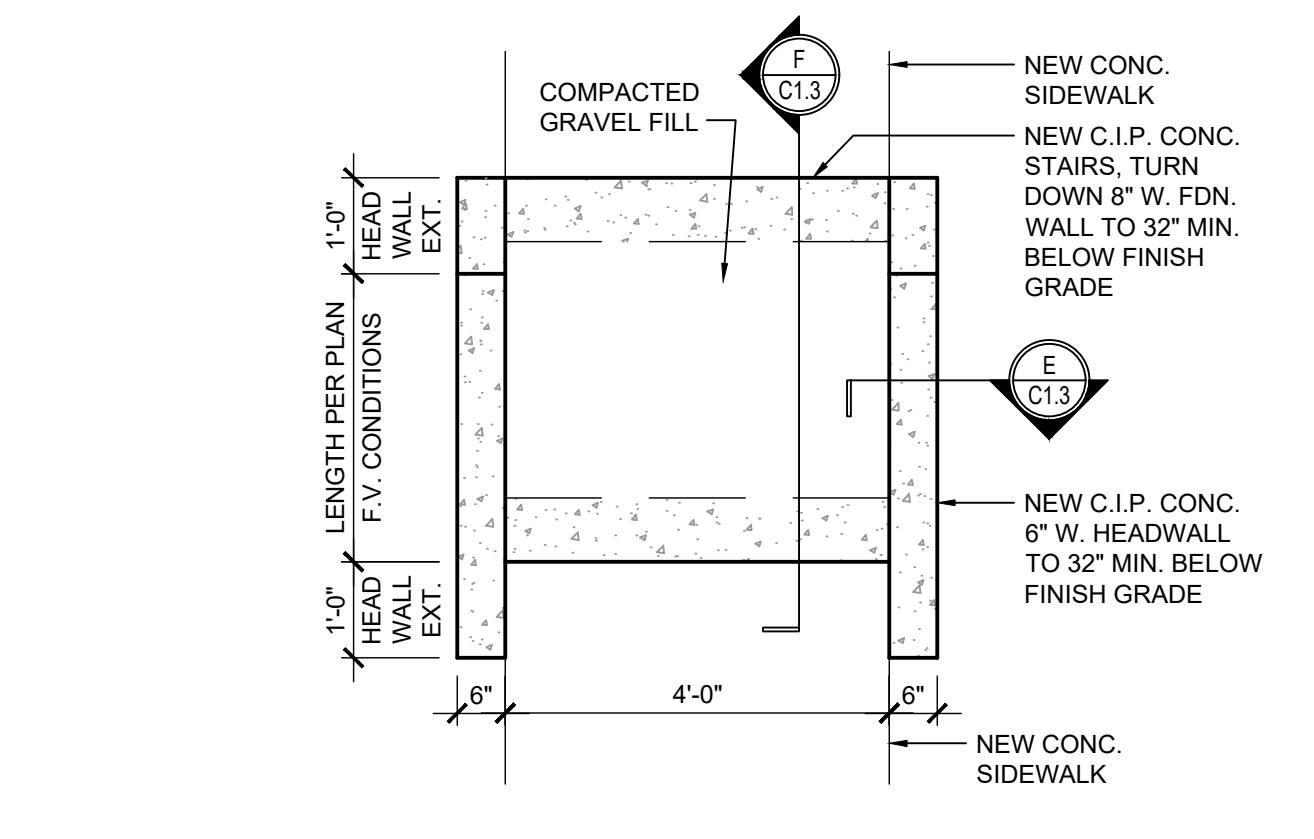
**B COVERED STOOP ENLARGED FLOOR PLAN**  
SCALE: 1/2" = 1'-0"



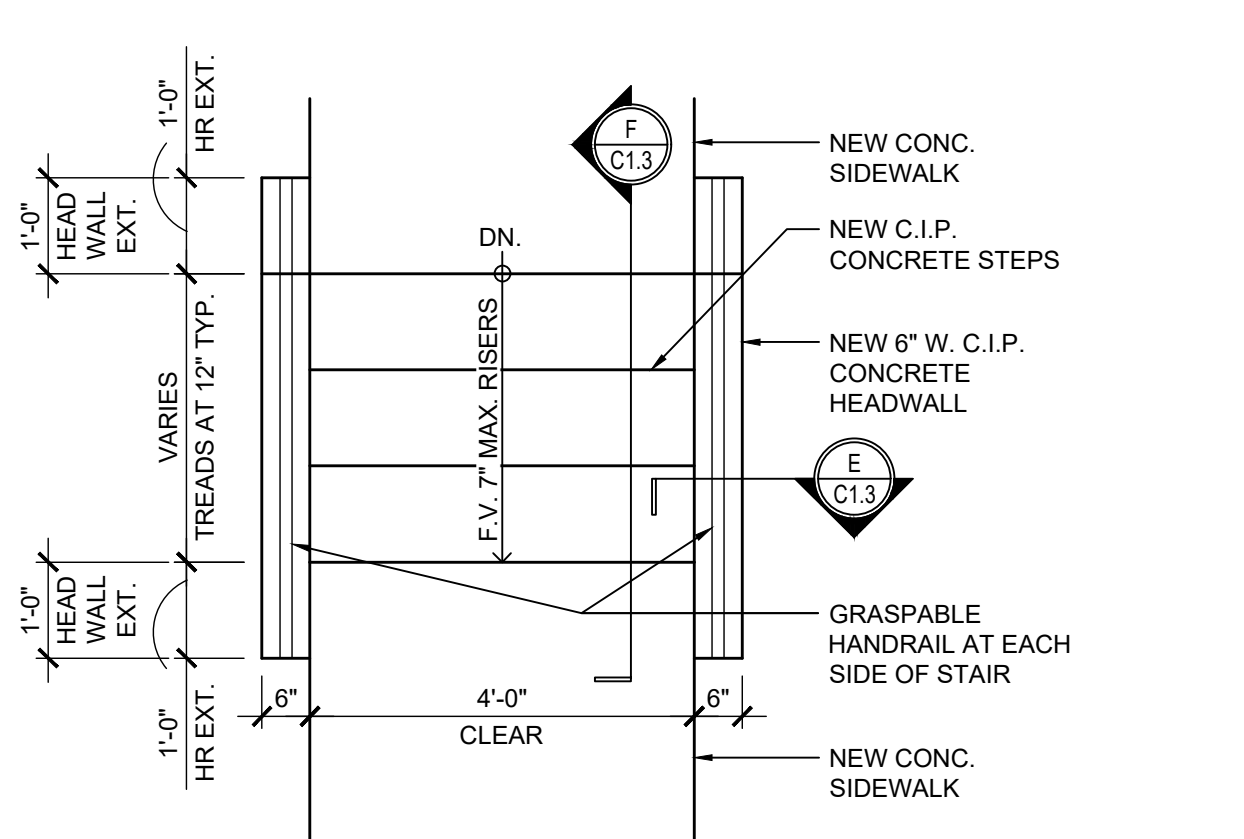
**G COVERED STOOP SECTION**  
SCALE: 3/4" = 1'-0"



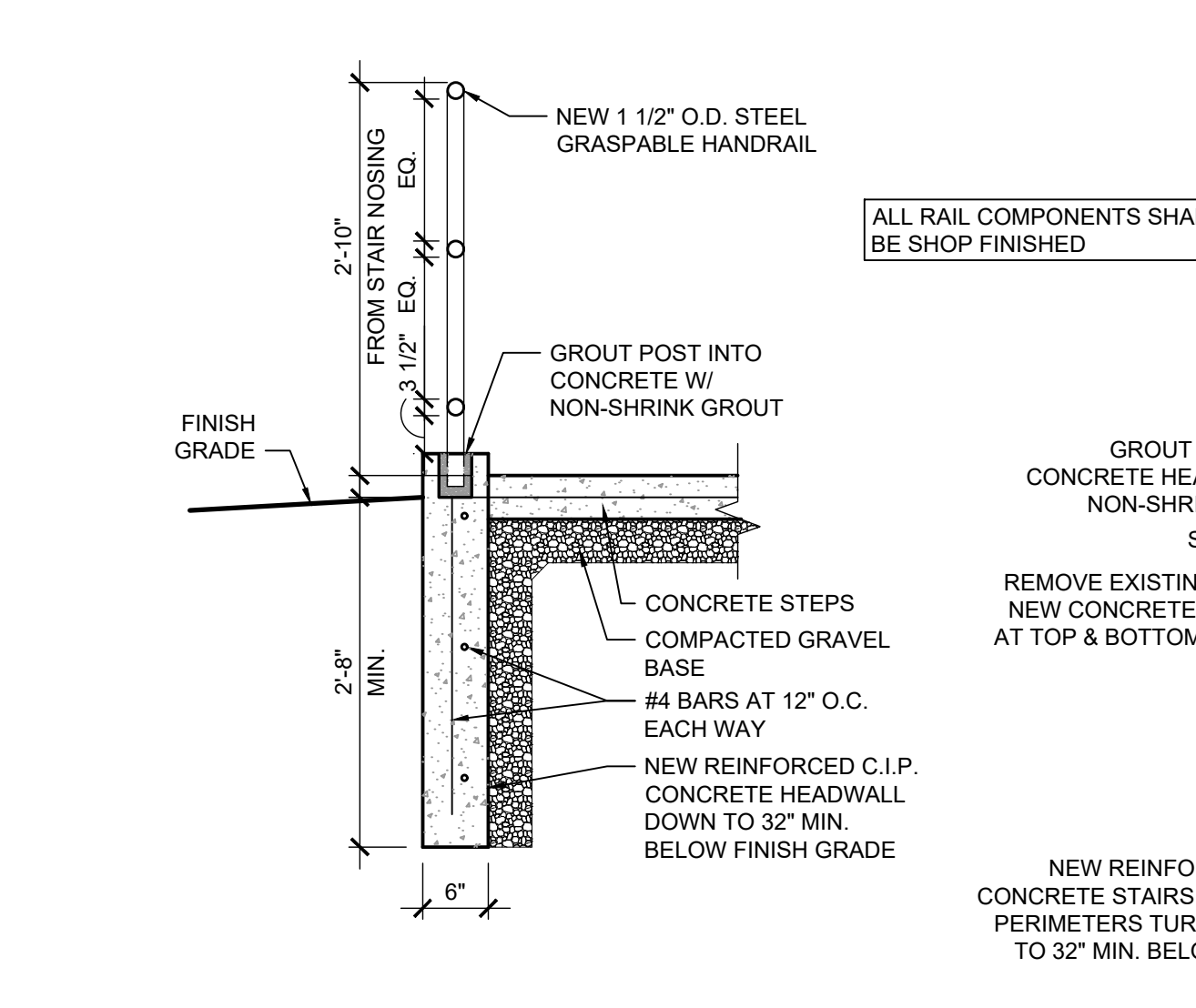
**H COVERED STOOP SECTION**  
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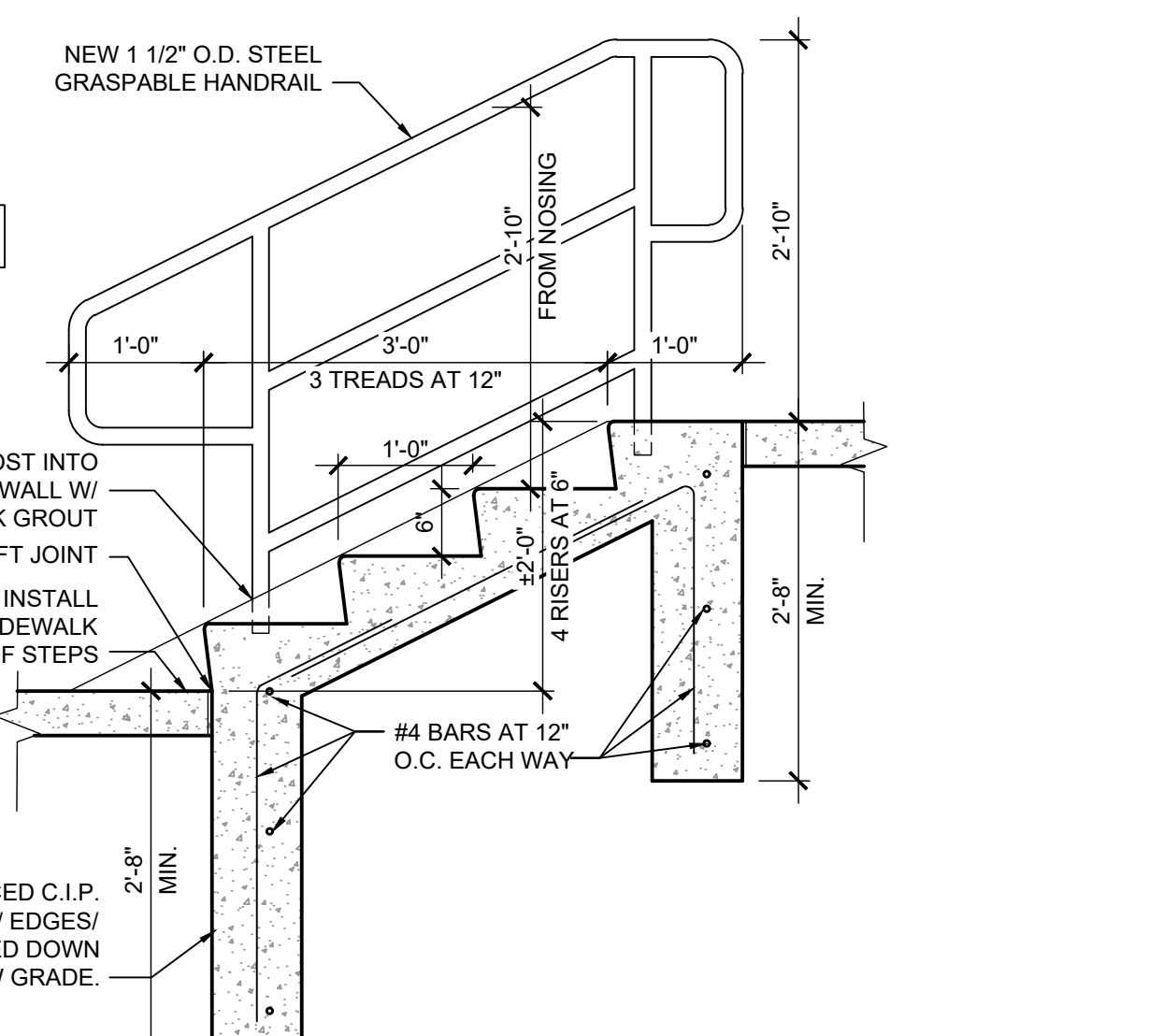
**C TYPICAL EXTERIOR STAIR ENLARGED FOUNDATION PLAN**  
SCALE: 1/2" = 1'-0"



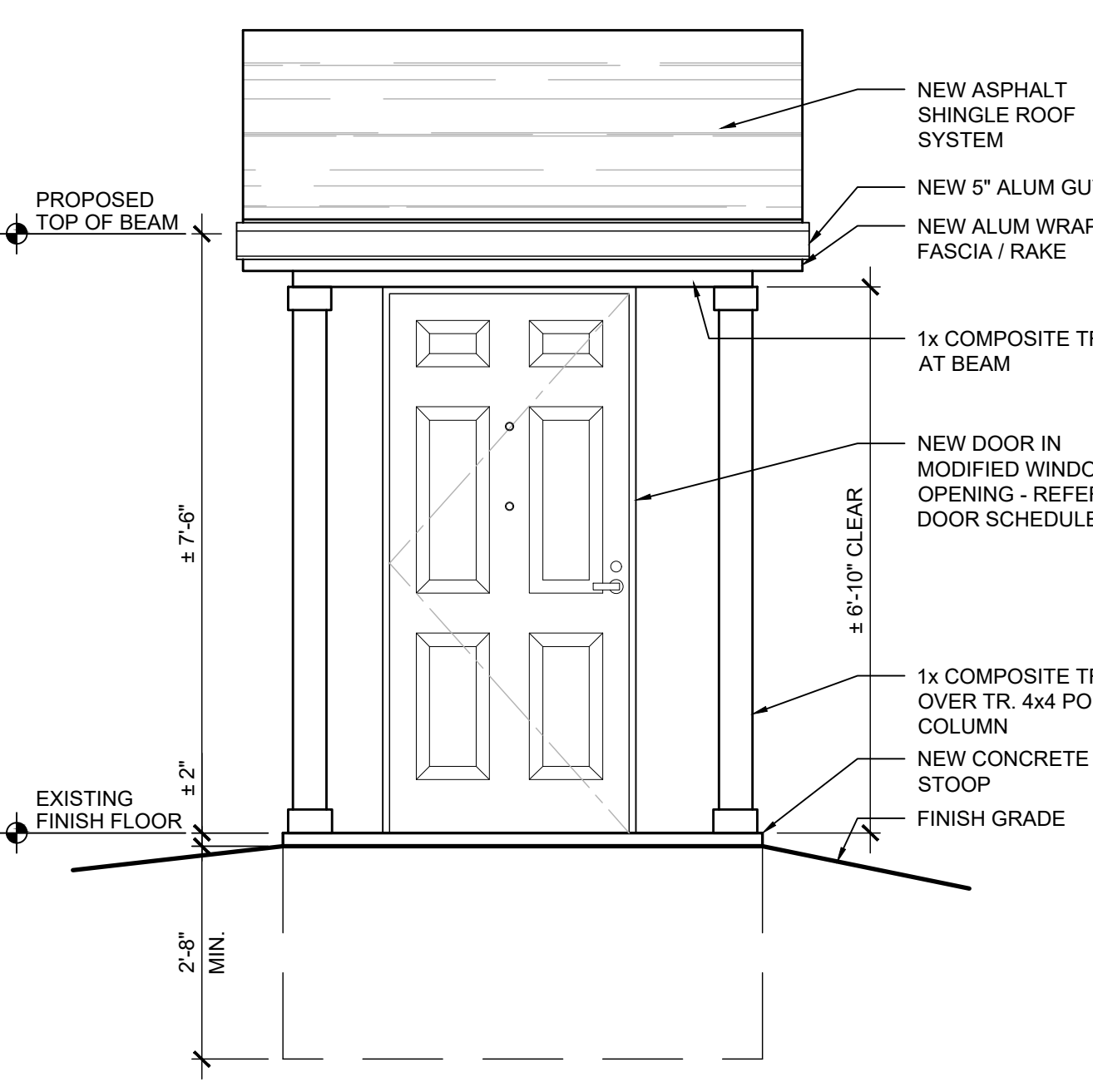
**D TYPICAL EXTERIOR STAIR ENLARGED FLOOR PLAN**  
SCALE: 1/2" = 1'-0"



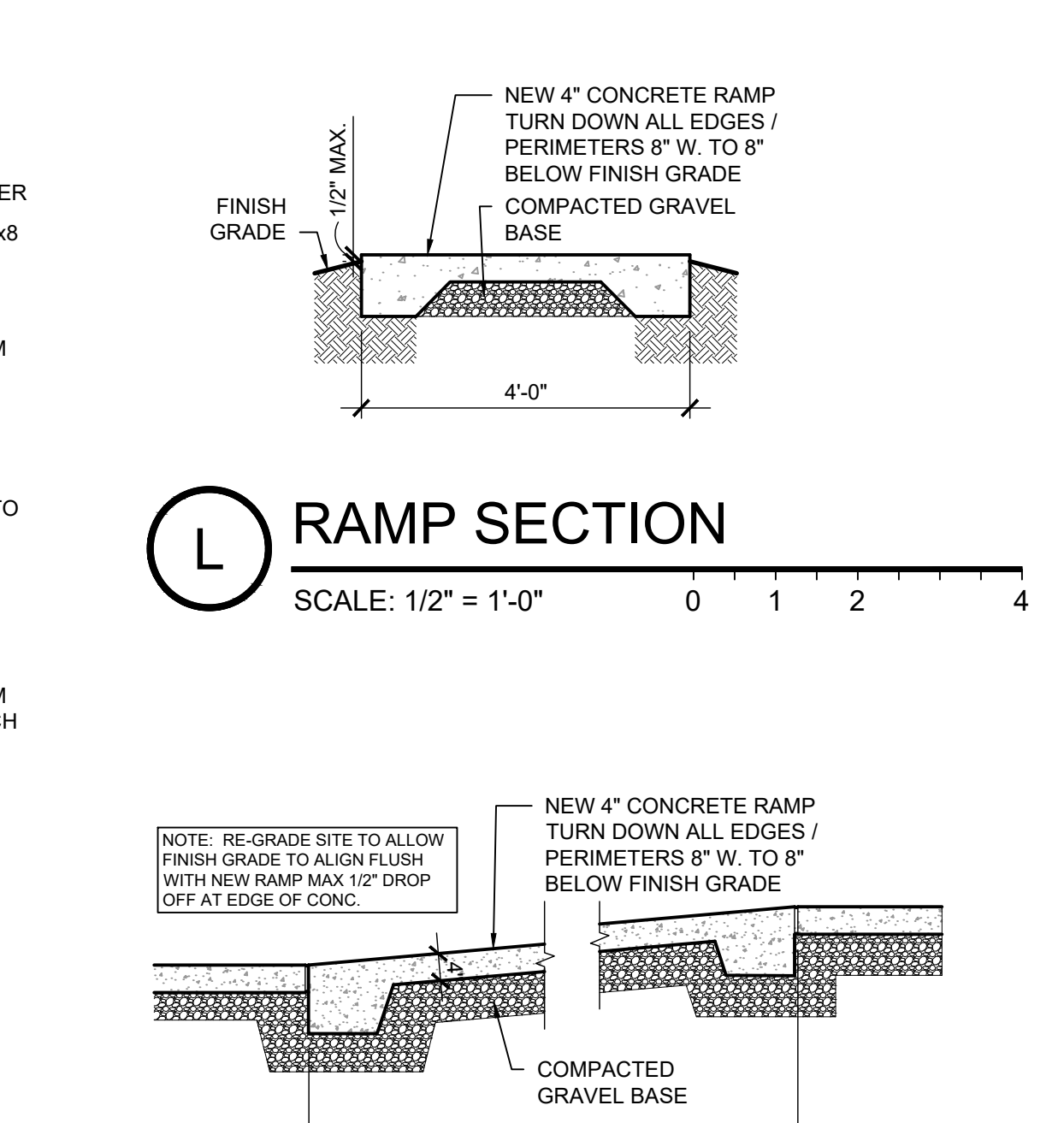
**E HEADWALL SECTION**  
SCALE: 3/4" = 1'-0"



**F STAIR SECTION**  
SCALE: 3/4" = 1'-0"



**J COVERED STOOP ELEVATION**  
SCALE: 1/2" = 1'-0"



**K RAMP SECTION**  
SCALE: 1/2" = 1'-0"

**L RAMP SECTION**  
SCALE: 1/2" = 1'-0"

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14503  
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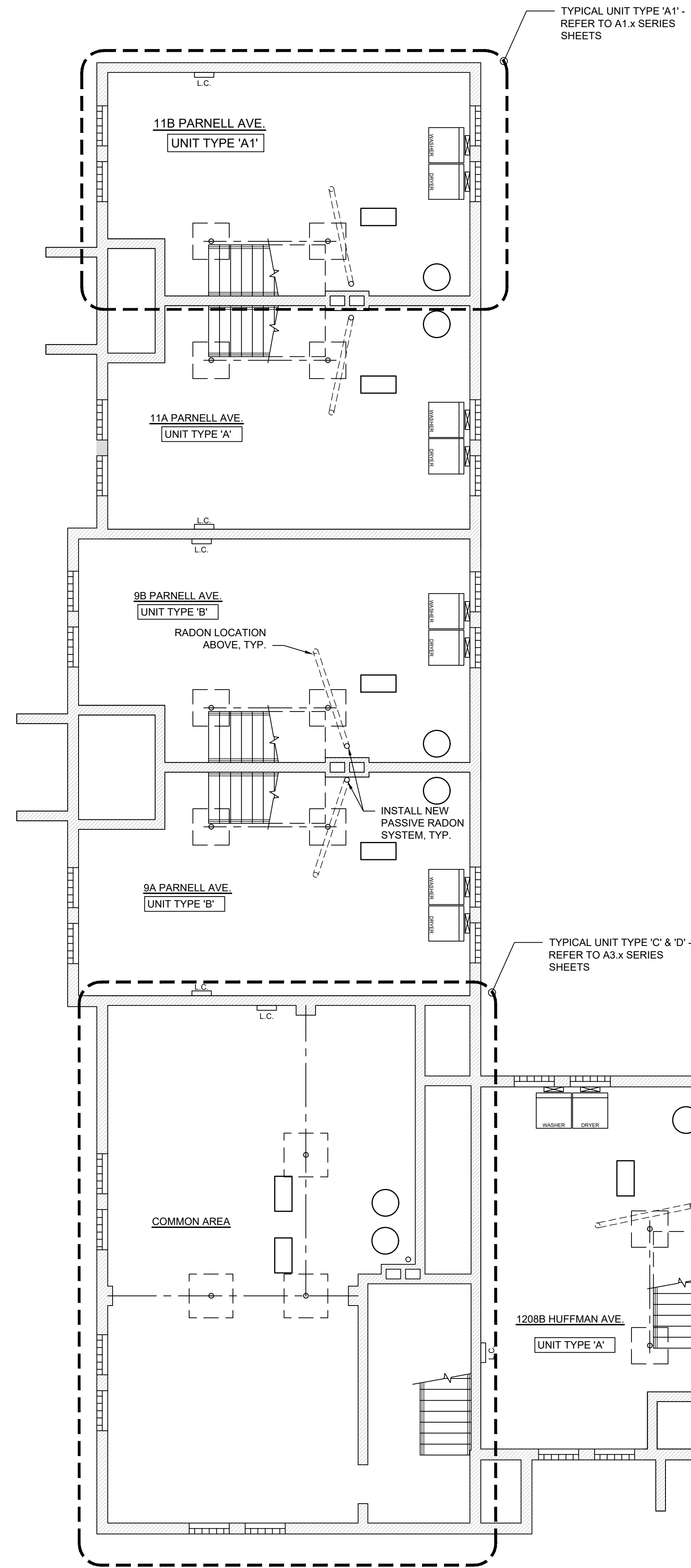
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11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
Enlarged Plans & Site Details

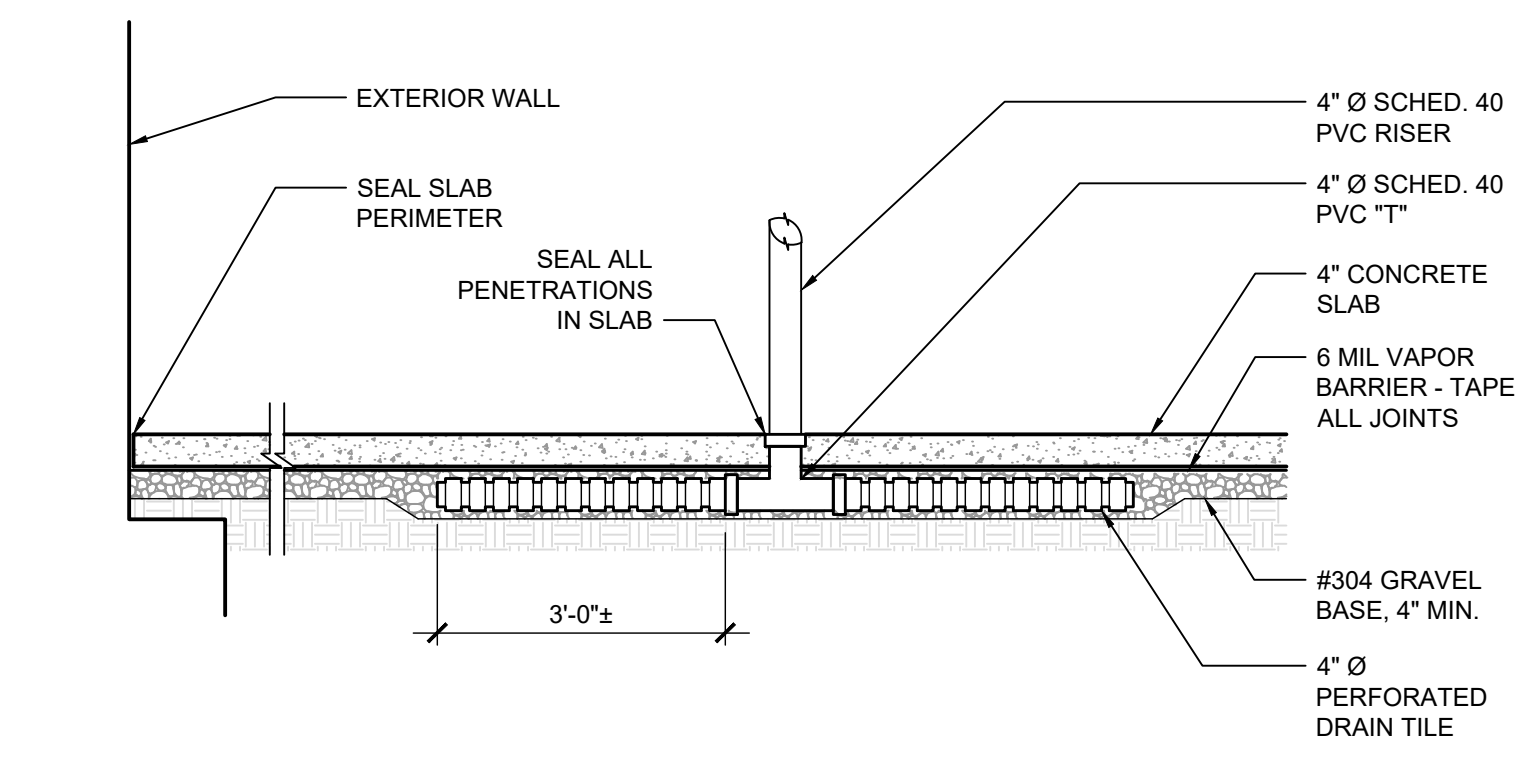
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**C1.3**





TYPICAL UNIT TYPE 'A1' - REFER TO A1.x SERIES SHEETS

TYPICAL UNIT TYPE 'C' & 'D' - REFER TO A3.x SERIES SHEETS



**B** PASSIVE RADON SYSTEM CONCEPT DESIGN AT SLAB  
SCALE: 1/2" = 1'-0"

**A** OVERALL BASEMENT FLOOR PLAN  
SCALE: 3/16" = 1'-0"

**PASSIVE RADON SYSTEM NOTES**

INSTALL A PASSIVE RADON SYSTEM IN CONFORMANCE WITH THE FOLLOWING REQUIREMENTS. DESIGN AND INSTALLATION SHALL BE COMPLETED BY LICENSED RADON MITIGATION CONTRACTOR:

1. COMPLY WITH ASTM E 2121-13 STANDARD PRACTICE FOR INSTALLING RADON MITIGATION SYSTEMS IN EXISTING LOW-RISE RESIDENTIAL BUILDINGS AND ALL APPLICABLE OHIO EPA STANDARDS.
2. EXISTING SUB-SLAB CONDITIONS AND AGGREGATE BASE SHALL REMAIN. RADON MITIGATION CONTRACTOR TO CONFIRM CONDITIONS INCLUDING SOIL POROSITY TO DETERMINE FULL REQUIREMENTS FOR THE RADON SYSTEM TO PROVIDE THE PROPER AIR EXTRACTION BELOW SLAB.
3. RADON MITIGATION CONTRACTOR TO CONFIRM SYSTEM EFFECTIVENESS PRIOR TO INSTALLATION OF FINAL INTERIOR FINISHES ARE INSTALLED.
4. MAINTAIN A 4" INCH AGGREGATE BASE UNDER THE SLAB. AGGREGATE SHOULD BE AT LEAST 1/4" AND LESS THAN 2" (#304). [WHERE IMPACTED BY SELECTIVE DEMOLITION / REMOVAL OF EXISTING SLAB ON GRADE]
5. A LAYER OF 6-MIL POLYETHYLENE SHALL COVER THE GRAVEL WITH SECTIONS OF SHEETING LAPPED AT LEAST 12 INCHES. CARE SHOULD BE TAKEN TO FIT CLOSELY AROUND ANY PIPE, WIRE OR OTHER PENETRATION OF THE MATERIAL. SEAL ALL PUNCTURES AND TEARS. [WHERE IMPACTED BY SELECTIVE DEMOLITION / REMOVAL OF EXISTING SLAB ON GRADE]
6. OPENINGS AROUND ALL PENETRATIONS THROUGH SLABS SHALL BE CAULKED OR OTHERWISE FILLED TO PREVENT AIR LEAKAGE. ACCESS DOORS OR OPENINGS INTO CRAWL SPACES SHOULD BE CLOSED, GASKETED OR OTHERWISE FILLED.
7. SUMP PITS, OPENINGS AROUND BATHTUBS, CONTROL JOINTS, OR OTHER OPENINGS OR CRACKS IN CONCRETE SLABS SHALL BE SEALED. A MINIMUM 3" PVC PIPE SHALL BE EMBEDDED INTO THE SUB-SLAB OR SUB MEMBRANE AGGREGATE AND RUN UP THROUGH THE CONDITIONED SPACES OF THE BUILDING, INTO THE ATTIC AND THROUGH THE ROOF. THE EXHAUST SHALL BE A MINIMUM OF 12" ABOVE THE SURFACE OF THE ROOF AND AT LEAST 10' AWAY FROM ANY WINDOW OR OTHER OPENING INTO THE CONDITIONED SPACES OF THE BUILDING THAT IS LESS THAN 2' BELOW THE EXHAUST POINT.
8. CARE SHOULD BE TAKEN WITH PIPE INSTALLATION TO INSURE POSITIVE DRAINAGE BACK INTO THE GROUND AND TO INSURE THAT THE PIPE IS ACCESSIBLE FOR FUTURE FAN INSTALLATION THROUGH AN ATTIC OR OUTSIDE THE HABITABLE SPACE.
9. AN ELECTRIC JUNCTION BOX FOR FUTURE OUTLET SHALL BE INSTALLED IN THE ATTIC WITHIN 6" OF THE PIPE FOR POSSIBLE FUTURE FAN INSTALLATION. ALL VISIBLE PIPE SECTIONS NEED TO BE LABELED.
10. ALL PIPING MATERIALS, ELBOWS, TERMINATIONS, ETC. SHALL BE IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS FOR THE THICKNESS OF PIPING WALLS, ETC.

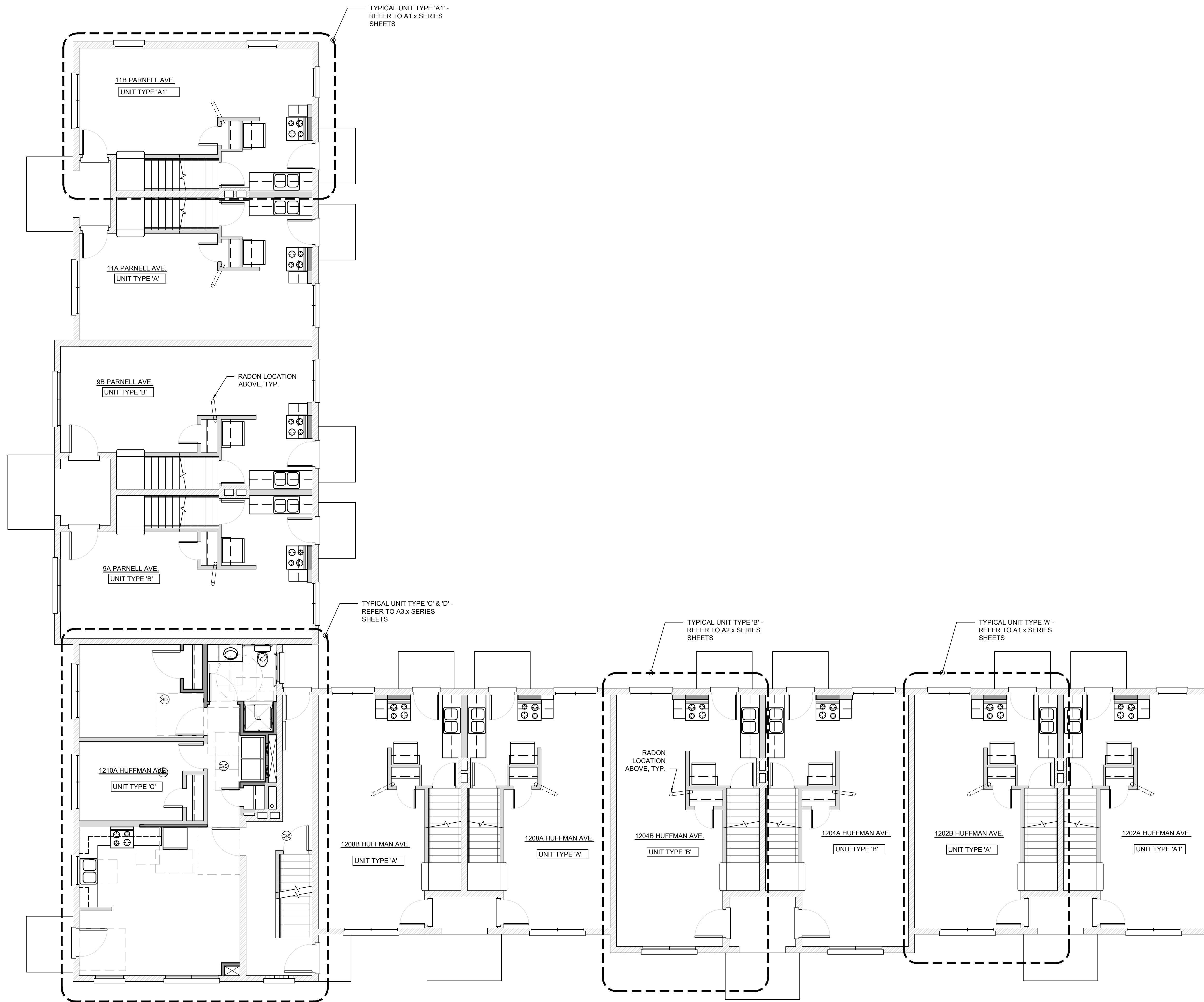


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Sheet Title  
Overall Basement Floor Plan

Sheet Number  
**A0.1**



**A OVERALL FIRST FLOOR PLAN**  
 SCALE: 3/16" = 1'-0" 0 3 6 12



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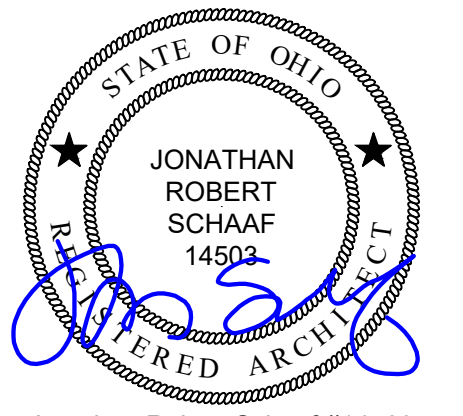
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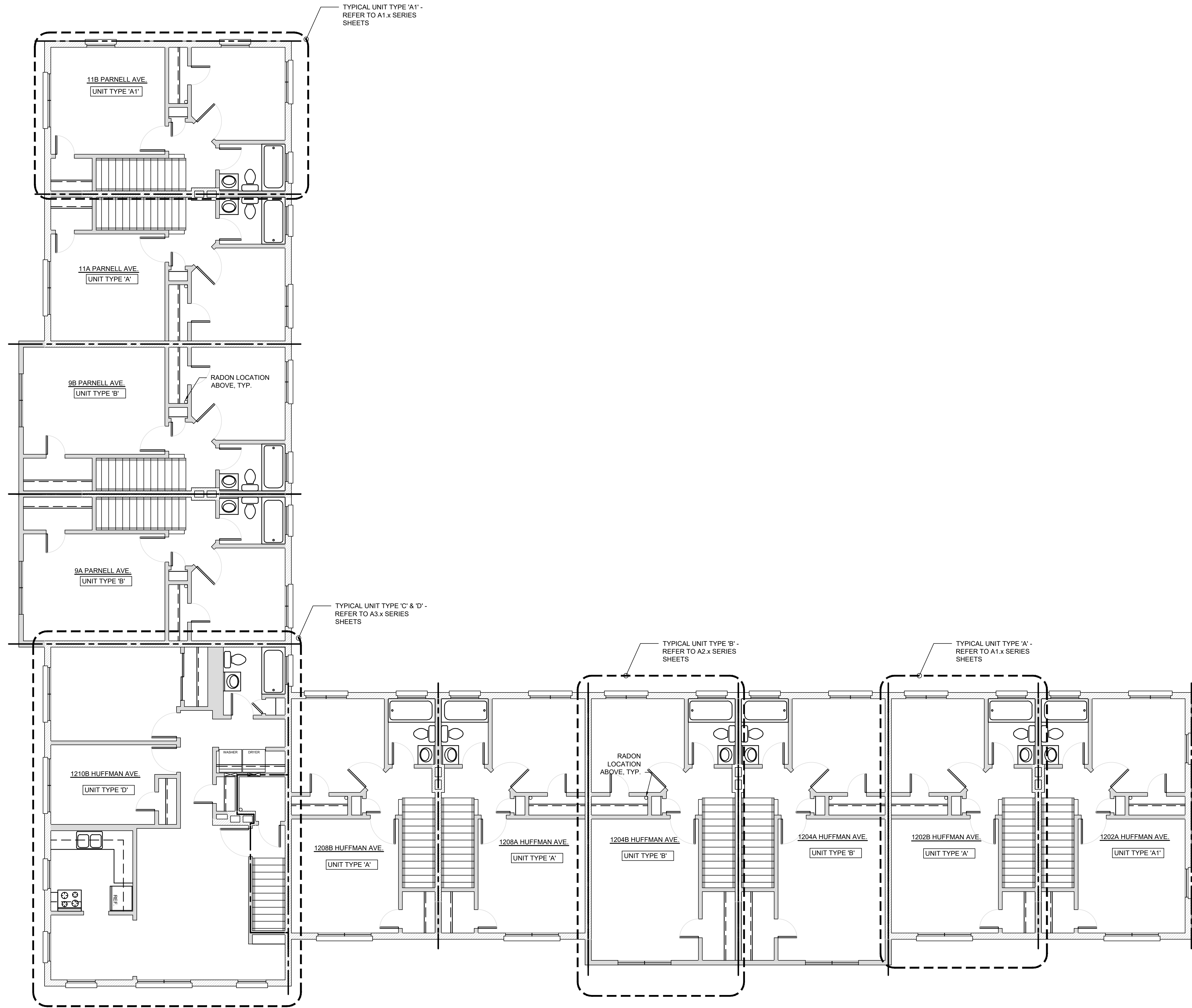
Sheet Title  
 Overall First Floor Plan

Sheet Number  
**A0.2**



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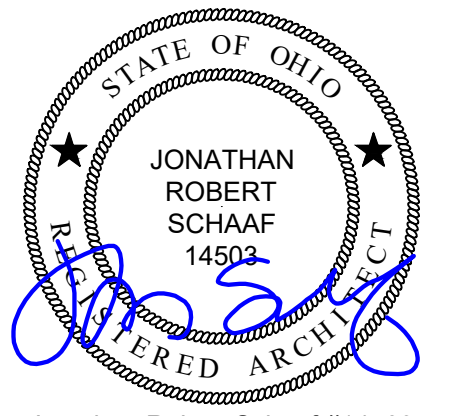
**A OVERALL SECOND FLOOR PLAN**  
SCALE: 3/16" = 1'-0" 0 3 6 12

Moderate Rehabilitation of:  
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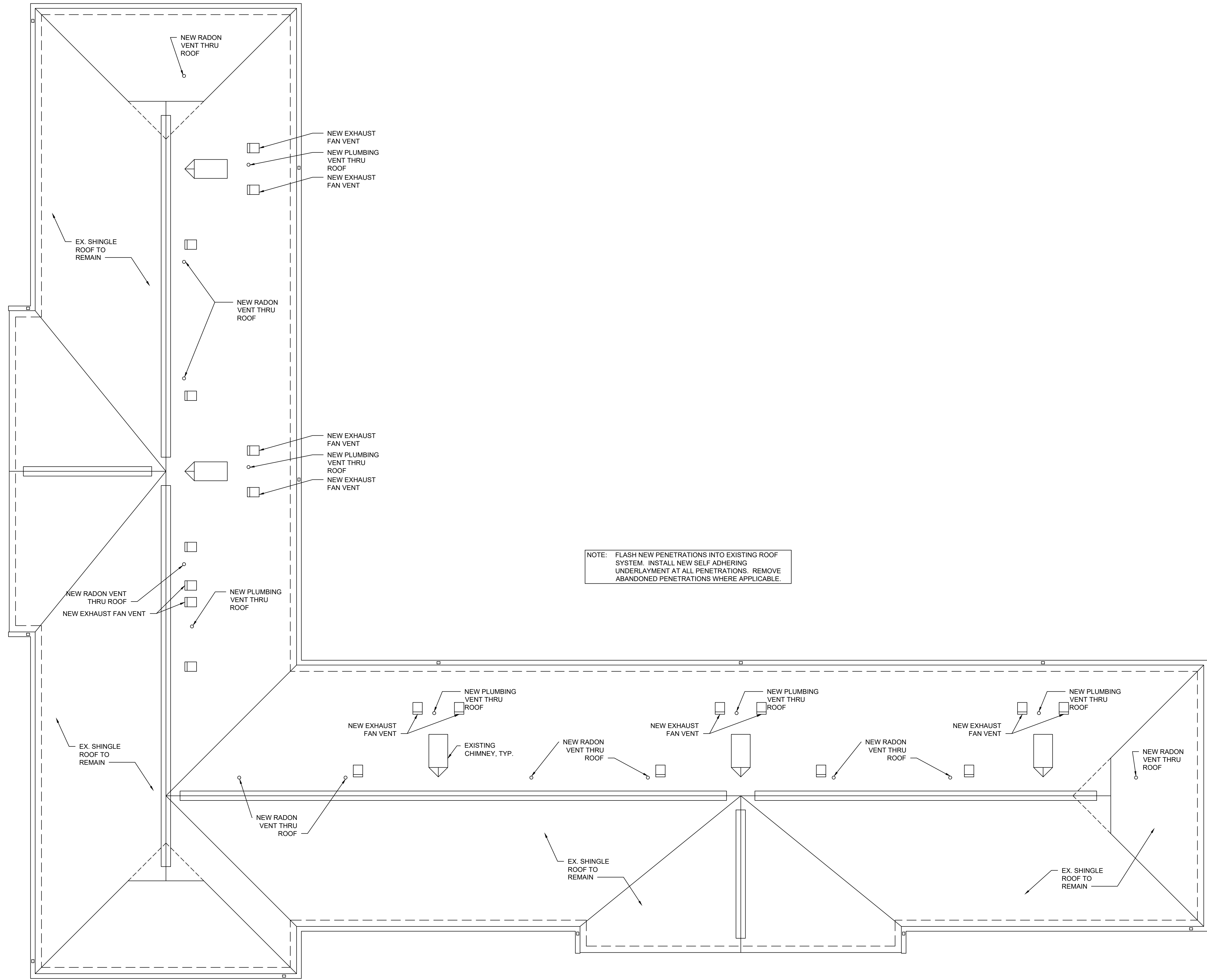
Sheet Title  
Overall Second Floor Plan

Sheet Number  
**A0.3**



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NOTE: FLASH NEW PENETRATIONS INTO EXISTING ROOF SYSTEM. INSTALL NEW SELF ADHERING UNDERLAYMENT AT ALL PENETRATIONS. REMOVE ABANDONED PENETRATIONS WHERE APPLICABLE.

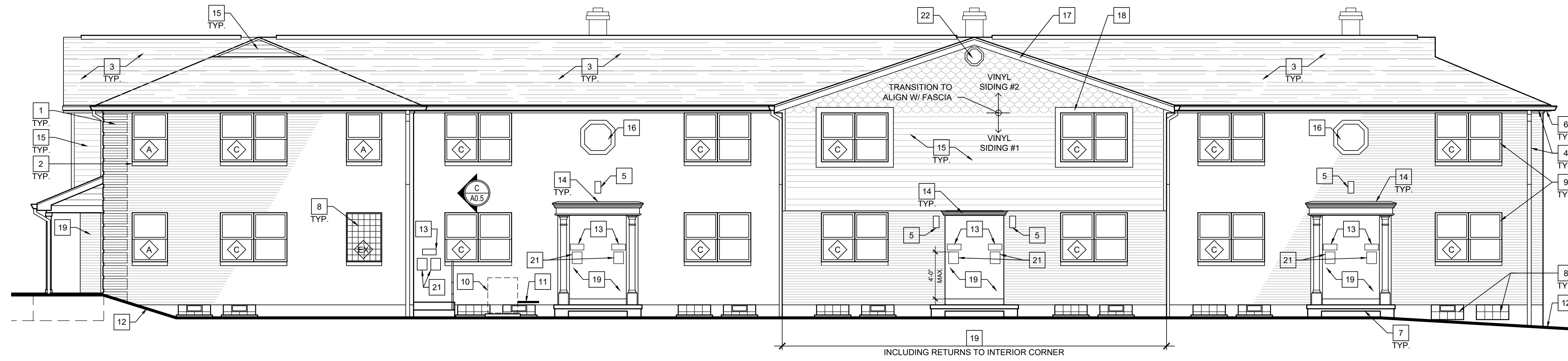
**A OVERALL ROOF PLAN**  
SCALE: 3/16" = 1'-0" 0 3 6 12 N

Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
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Dayton, Ohio 45403  
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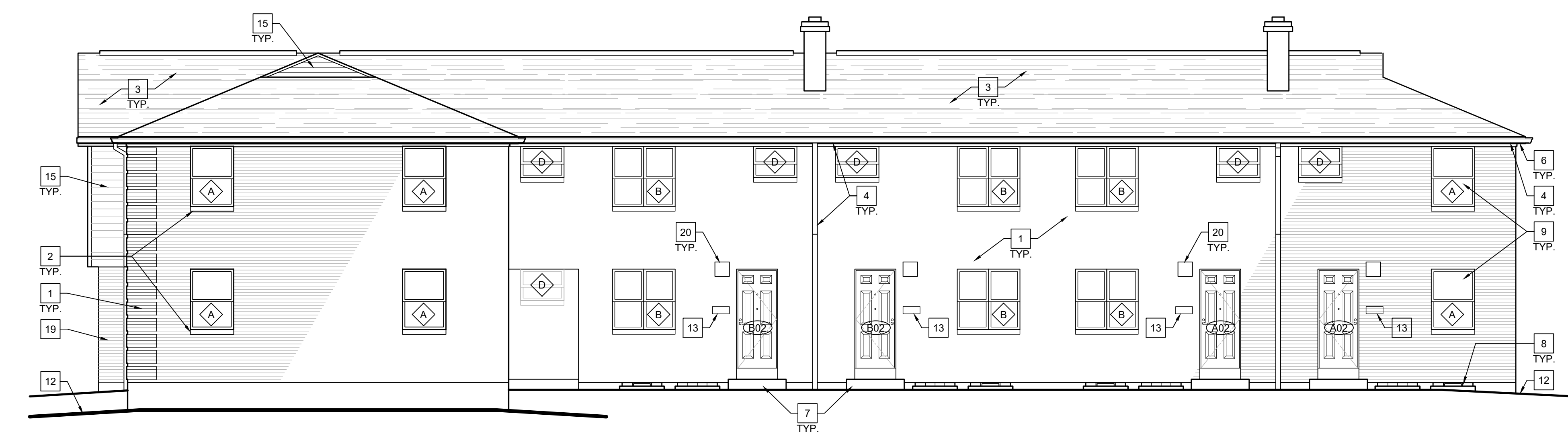
Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
Overall Roof Plan

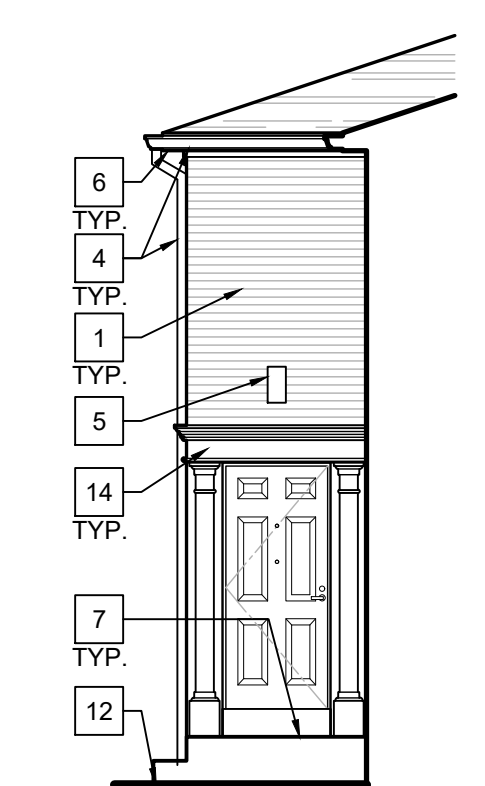
Sheet Number  
**A0.4**



**A NORTH ELEVATION**  
SCALE: 3/16" = 1'-0" 0 3 6 12



**B WEST ELEVATION**  
SCALE: 3/16" = 1'-0" 0 3 6 12



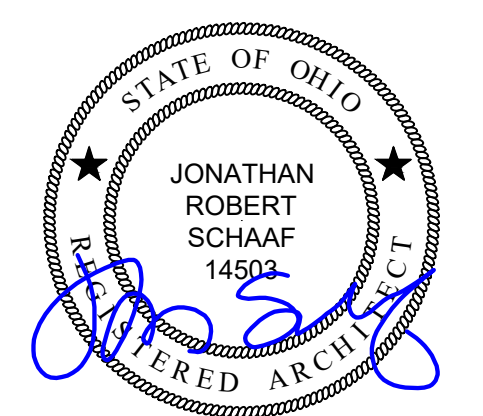
**C EAST ELEVATION**  
SCALE: 3/16" = 1'-0" 0 3 6 12

**# NEW WORK KEY NOTES**

- EXISTING BRICK TO REMAIN, CLEAN.
- POWERWASH / REPOINT EXISTING JOINT IN STONE WINDOW SILL.
- EXISTING SHINGLE ROOF SYSTEM TO REMAIN - REPAIR AS REQ'D BY WORK / NEW PENETRATIONS.
- EXISTING ALUMINUM GUTTERS AND DOWNSPOUTS TO REMAIN.
- REMOVE EX. INSTALL NEW WALL MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS.
- EXISTING VINYL SOFFITS TO REMAIN - REPAIR / RE-SECURE AS REQ'D.
- REMOVE EX. INSTALL NEW CONCRETE STOOP / STEPS - REFER TO SITE PLANS.
- EX. GLASS BLOCK WINDOWS TO REMAIN - REPAIR MORTAR / RESEAL PERIMETER OF OPENINGS, TYP.
- REMOVE EX. INSTALL NEW VINYL WINDOWS IN ORIGINAL OPENINGS.
- INSTALL NEW CONDENSING UNITS ON NEW CONCRETE PAD.
- INSTALL NEW LINESSET COVERS TO CONCEAL ELECTRICAL CONDUITS AND REFRIGERANT PIPING SERVING CONDENSING UNITS.
- EX. GRADE.
- REMOVE EX. INSTALL NEW ADDRESS PLAQUES.
- EXISTING WOOD TRIM TO REMAIN - PREP & PAINT
- REMOVE EXISTING. INSTALL NEW VINYL SIDING.
- PREP & PAINT STONE ACCENT PANEL.
- REMOVE EX. INSTALL NEW ALUMINUM WRAP RAKE.
- REMOVE EX. INSTALL NEW ALUMINUM WRAP 1x4 TRIM AT WINDOWS.
- PREP & PAINT EXISTING BRICK THIS AREA.
- MODIFY EXISTING THRU WALL VENT AS REQ'D TO TERMINATE NEW RANGE HOOD EXHAUST.
- INSTALL NEW WALL MOUNTED MAILBOX.
- REMOVE EX. INSTALL NEW VINYL GABLE VENT - COLOR TO MATCH ADJACENT VINYL SIDING.
- EX. ALUMINUM WRAP FASCIA TO REMAIN.

**GENERAL NOTES**

- REMOVE EXISTING. INSTALL NEW JOINT SEALANT AT ALL APPLICABLE JOINTS IN EXTERIOR ENVELOPE. SEAL ALL PENETRATIONS OF ELECTRICAL/PLUMBING/MECHANICAL ITEMS, ETC.
- FLASH WINDOW AND DOOR OPENINGS AS APPLICABLE TO THE CONDITIONS AND INSTALL SEALANT AS APPLICABLE AGAINST ADJACENT BUILDING JOINTS.
- PROVIDE IN BASE BID 500 LF OF DIS-CONTINUOUS BRICK MASONRY TUCK POINTING. ASSESS AND F.V. CONDITIONS & LOCATIONS OF REQUIRED WORK.
- PAINT ALL NEW AND EXISTING ROOF PENETRATIONS TO MATCH ROOF COLOR.
- PROVIDE POSITIVE DRAINAGE AWAY FROM THE BLDG AS APPLICABLE TO CONDITIONS AND DISTURBED SITE AREAS.
- PAINT ALL NEW AND EXISTING ELECTRICAL BOXES, CONDUITS, ETC. TO MATCH WALL.
- REMOVE EXISTING WIRES/CABLINGS/SATELLITE DISHES, ETC. AS IMPACTED BY THE WORK FROM THE FACE OF THE BUILDING. NEW WIRING / CABLING BY OTHERS.
- TUCKPOINT ALL PENETRATIONS IN MASONRY RESULTING FROM ITEMS TO BE REMOVED FROM FACADES. [THIS IS IN ADDITION TO ALLOWANCE FOR RE-POINTING]
- PREP AND PAINT EXTERIOR EXPOSED WOOD TRIM / EXTERIOR COMPONENTS THAT REQUIRE PAINTING.
- PREP AND PAINT EX. STEEL LINTELS.



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Moderate Rehabilitation of:  
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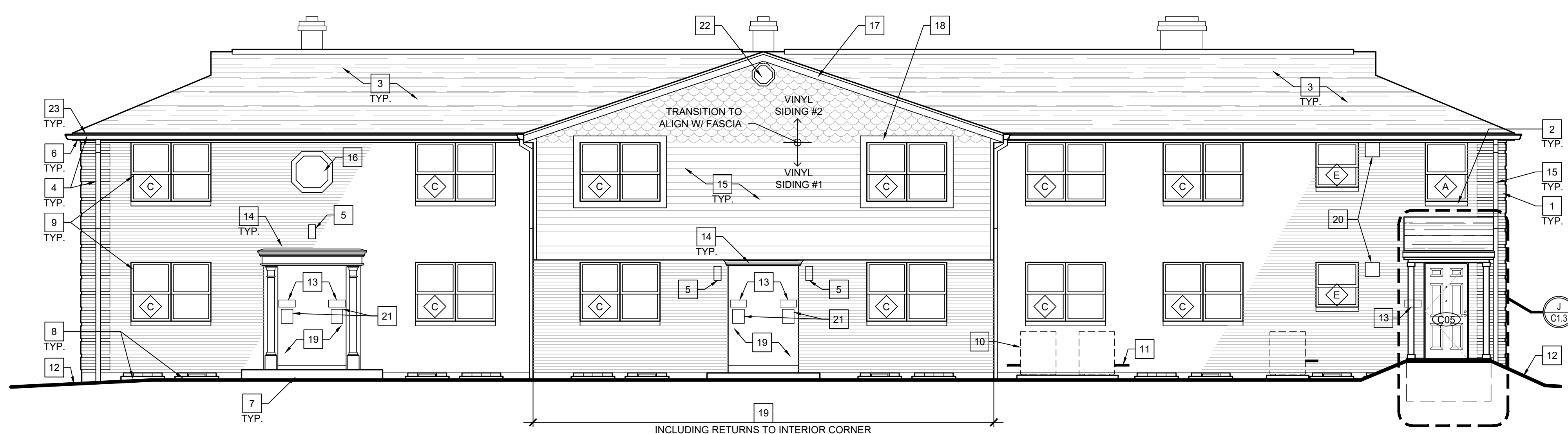
Sheet Title  
Exterior Elevations

Sheet Number

**A0.5**



**A SOUTH ELEVATION**  
SCALE: 3/16" = 1'-0" 0 3 6 12



**B EAST ELEVATION**  
SCALE: 3/16" = 1'-0" 0 3 6 12

**# NEW WORK KEY NOTES**

1. EXISTING BRICK TO REMAIN, CLEAN.
2. POWERWASH / REPOINT EXISTING JOINT IN STONE WINDOW SILL.
3. EXISTING SHINGLE ROOF SYSTEM TO REMAIN - REPAIR AS REQ'D BY WORK / NEW PENETRATIONS.
4. EXISTING ALUMINUM GUTTERS AND DOWNSPOUTS TO REMAIN.
5. REMOVE EX. INSTALL NEW WALL MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS.
6. EXISTING VINYL SOFFITS TO REMAIN - REPAIR / RE-SECURE AS REQ'D.
7. REMOVE EX. INSTALL NEW CONCRETE STOOP / STEPS - REFER TO SITE PLANS.
8. EX. GLASS BLOCK WINDOWS TO REMAIN - REPAIR MORTAR / RESEAL PERIMETER OF OPENINGS, TYP.
9. REMOVE EX. INSTALL NEW VINYL WINDOWS IN ORIGINAL OPENINGS.
10. INSTALL NEW CONDENSING UNITS ON NEW CONCRETE PAD.
11. INSTALL NEW LINESSET COVERS TO CONCEAL ELECTRICAL CONDUITS AND REFRIGERANT PIPING SERVING CONDENSING UNITS.
12. EX. GRADE.
13. REMOVE EX. INSTALL NEW ADDRESS PLAQUES.
14. EXISTING WOOD TRIM TO REMAIN - PREP & PAINT
15. REMOVE EXISTING. INSTALL NEW VINYL SIDING.
16. PREP & PAINT STONE ACCENT PANEL.
17. REMOVE EX. INSTALL NEW ALUMINUM WRAP RAKE.
18. REMOVE EX. INSTALL NEW ALUMINUM WRAP 1x4 TRIM AT WINDOWS.
19. PREP & PAINT EXISTING BRICK THIS AREA.
20. MODIFY EXISTING THRU WALL VENT AS REQ'D TO TERMINATE NEW RANGE HOOD EXHAUST.
21. INSTALL NEW WALL MOUNTED MAILBOX.
22. REMOVE EX. INSTALL NEW VINYL GABLE VENT - COLOR TO MATCH ADJACENT VINYL SIDING.
23. EX. ALUMINUM WRAP FASCIA TO REMAIN.

**GENERAL NOTES**

1. REMOVE EXISTING. INSTALL NEW JOINT SEALANT AT ALL APPLICABLE JOINTS IN EXTERIOR ENVELOPE. SEAL ALL PENETRATIONS OF ELECTRICAL/PLUMBING/MECHANICAL ITEMS, ETC.
2. FLASH WINDOW AND DOOR OPENINGS AS APPLICABLE TO THE CONDITIONS AND INSTALL SEALANT AS APPLICABLE AGAINST ADJACENT BUILDING JOINTS.
3. PROVIDE IN BASE BID 500 LF OF DIS-CONTINUOUS BRICK MASONRY TUCK POINTING. ASSESS AND F.V. CONDITIONS & LOCATIONS OF REQUIRED WORK.
4. PAINT ALL NEW AND EXISTING ROOF PENETRATIONS TO MATCH ROOF COLOR.
5. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BLDG AS APPLICABLE TO CONDITIONS AND DISTURBED SITE AREAS.
6. PAINT ALL NEW AND EXISTING ELECTRICAL BOXES, CONDUITS, ETC. TO MATCH WALL.
7. REMOVE EXISTING WIRES/CABLINGS/SATELITE DISHES, ETC. AS IMPACTED BY THE WORK FROM THE FACE OF THE BUILDING. NEW WIRING / CABLING BY OTHERS.
8. TUCKPOINT ALL PENETRATIONS IN MASONRY RESULTING FROM ITEMS TO BE REMOVED FROM FACADES. [THIS IS IN ADDITION TO ALLOWANCE FOR RE-POINTING]
9. PREP AND PAINT EXTERIOR EXPOSED WOOD TRIM / EXTERIOR COMPONENTS THAT REQUIRE PAINTING.
10. PREP AND PAINT EX. STEEL LINTELS.

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Expiration Date 12/31/2025

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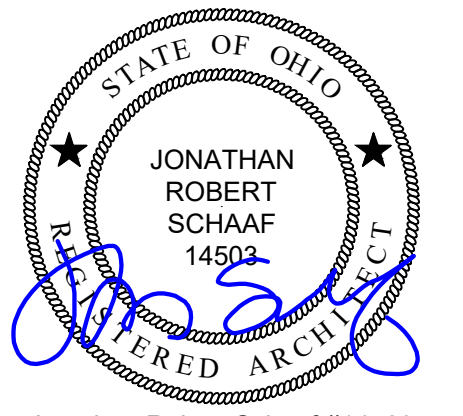
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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
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11.11.22	Owner Review
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02.29.24	Permit
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Sheet Title  
Exterior Elevations

Sheet Number  
**A0.6**



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Expiration Date 12/31/2025

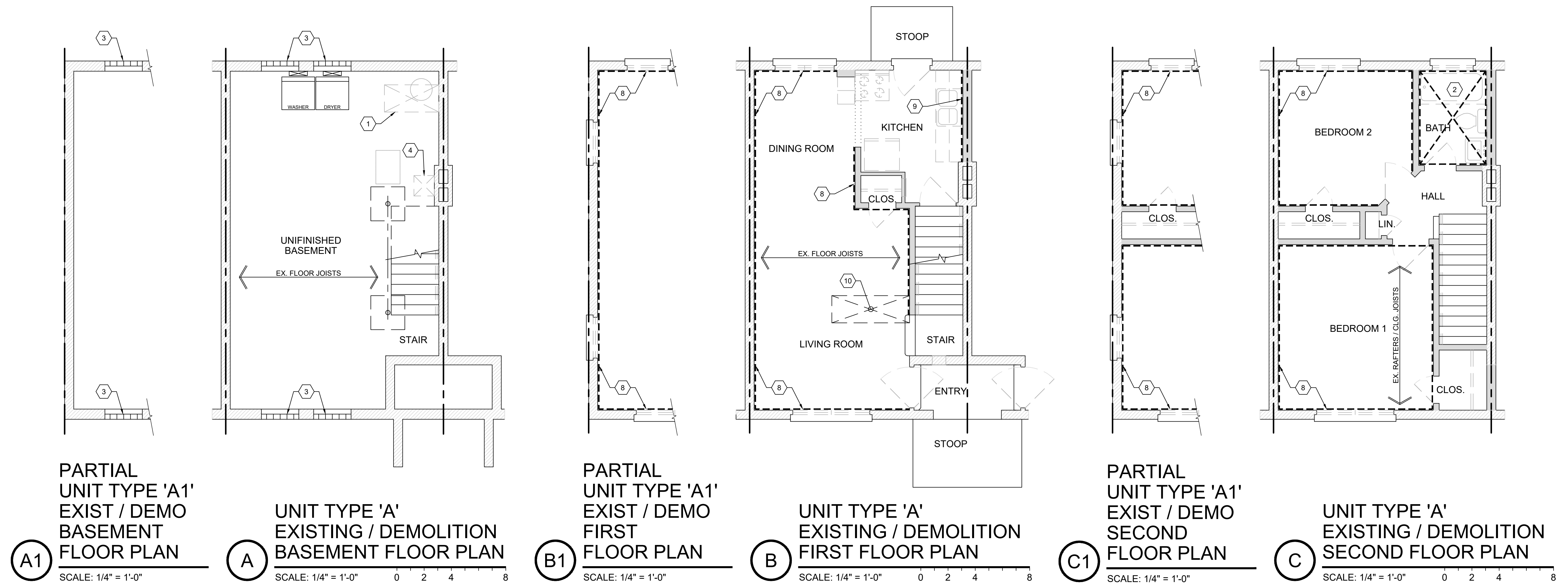
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05.01.24	PRC / Bid Set
Sheet Title	Unit Type 'A' Existing / Demolition Floor Plans
Sheet Number	A1.1



**# DEMOLITION KEY NOTES**

- SAWCUT & REMOVE EX. CONCRETE SLAB THIS AREA AS REQ'D FOR UNDERSLAB PLUMBING WORK. COORDINATE WITH PLUMBING DRAWINGS.
- REMOVE EX. PLUMBING FIXTURES, ACCESSORIES, FLOOR FINISHES, SUBFLOOR, & WALL / CEILING PLASTER FINISHES COMPLETE TO EXPOSE EXISTING FRAMING AT BATHROOM. NOTIFY ARCHITECT OF ANY DETERIORATION. SISTER JOISTS/INSTALL BLOCKING TO PROVIDE BEARING AT ALL EDGES OF NEW SUBFLOOR AS REQ'D. INSTALL GYPSUM BOARD FINISHES & NEW PLYWOOD SUBFLOOR (MATCH EXISTING THICKNESS).
- EX. GLASS BLOCK WINDOWS TO REMAIN.
- SAWCUT & REMOVE EX. CONCRETE SLAB THIS AREA AS REQ'D FOR NEW PASSIVE RADON SYSTEM.
- REMOVE PARTITION WALL COMPLETE AS INDICATED.
- REMOVE EXISTING CLOSET COMPLETE AS INDICATED.
- REMOVE EX. INTERIOR DOOR, FRAME, HARDWARE, AND CASING AT THIS OPENING.
- REMOVE EXISTING PLASTER FINISHES TO 24" AFF THIS WALL.
- REMOVE EXISTING FINISHES THIS WALL FULL HEIGHT.
- REMOVE PORTION OF EXISTING CEILING FINISHES AS REQ'D BY ELECTRICAL WORK. COORDINATE WITH ELECTRICAL DWGS.
- REMOVE EX. WINDOW AND MODIFY EX. OPENING AS REQUIRED FOR NEW DOOR OPENING - MAINTAIN EXISTING HEADER, REMOVE WALL BELOW WINDOW OPENING.

REFER TO SHEET G1.2 FOR TYPICAL SCOPE OF WORK MATRIX.

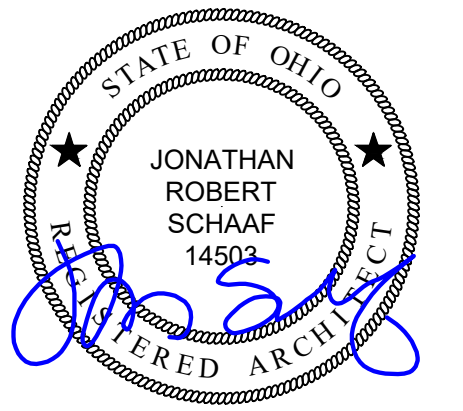
CONTRACTOR TO COORDINATE ALL REQUIREMENTS & DETAILS TO PROVIDE A COMPLETE & FINISHED PRODUCT.

REFER TO P/ME/ DRAWINGS FOR ADDITIONAL WORK SCOPE.

FIELD COORDINATE EXTENT OF CUT & PATCH OF EXISTING WALL & CEILING FINISHES WITH P/ME/ SCOPE OF WORK. THERE WILL BE ADDITIONAL AREAS OF CUT & PATCH BEYOND SPECIFIC LOCATIONS INDICATED TO ALLOW THE CONTRACTOR FLEXIBILITY TO EXECUTE THE WORK. THIS WORK SHALL BE INCLUDED COMPLETE IN THE BID AMOUNT.

**DEMOLITION GENERAL NOTES**

- REMOVE ALL MATERIALS AND FINISHES REQUIRED TO PERFORM SCHEDULED WORK INCLUDING ANY ANCILLARY ITEMS.
- SALVAGE ALL ITEMS AS DIRECTED BY OWNER OR AS NOTED IN THE DRAWINGS. COORDINATE ALL REQUIREMENTS FOR REINSTALLATION OF SALVAGED ITEMS. PROVIDE REPLACEMENT PARTS/COMPONENTS TO ALLOW COMPLETE INSTALLATION.
- PROTECT ALL FINISHES AND MATERIALS SCHEDULED TO REMAIN FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGED FINISHES TO LIKE NEW CONDITION.
- FIELD CONFIRM THE LOCATIONS OF ALL LOAD-BEARING FRAMING PRIOR TO REMOVALS. PROVIDE SHORING AND BRACING AS REQUIRED. CONTACT ARCHITECT IF CONDITIONS VARY FROM THE INTENT OF THE DRAWINGS.
- PROVIDE ALL NECESSARY TEMPORARY BRACING AND SHORING DURING DEMOLITION AND CONSTRUCTION WORK.
- CONTACT ARCHITECT/OWNER IF HAZARDOUS MATERIALS ARE DISCOVERED THAT HAVE NOT BEEN IDENTIFIED.
- REMOVE/TERMINATE/CAP EXISTING UTILITIES AS REQUIRED BY WORK. - PLUMBING SUPPLY/DRAIN PIPING, GAS PIPING, ELECTRICAL CIRCUITS, ETC. F.V. REQUIREMENTS AND EXISTING ROUTING.
- REMOVE ALL MISCELLANEOUS ITEMS, CONDUITS, WIRES, ETC. FROM SURFACES AND WALL CAVITIES. REROUTE/RELOCATE CONCEALED IN WALL.
- PROVIDE ALL PREP WORK FOR NEW FINISHES AND PROPOSED WORK.
- ANY PART OR PARTS OF THE EXISTING BUILDING STRUCTURE (IN PART OR IN WHOLE) THAT SHOWS SIGNS OF ROTTING, VANDALISM, WATER DAMAGE, PEST DAMAGE, OR ANY OTHER DETERIORATION THAT MAY CAUSE THAT PART OR PARTS TO NOT COMPLY WITH ANY EXISTING APPLICABLE GOVERNMENT BUILDING CODES AND STANDARDIZED CONSTRUCTION PRACTICES. SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND OWNER IMMEDIATELY UPON DISCOVERY.



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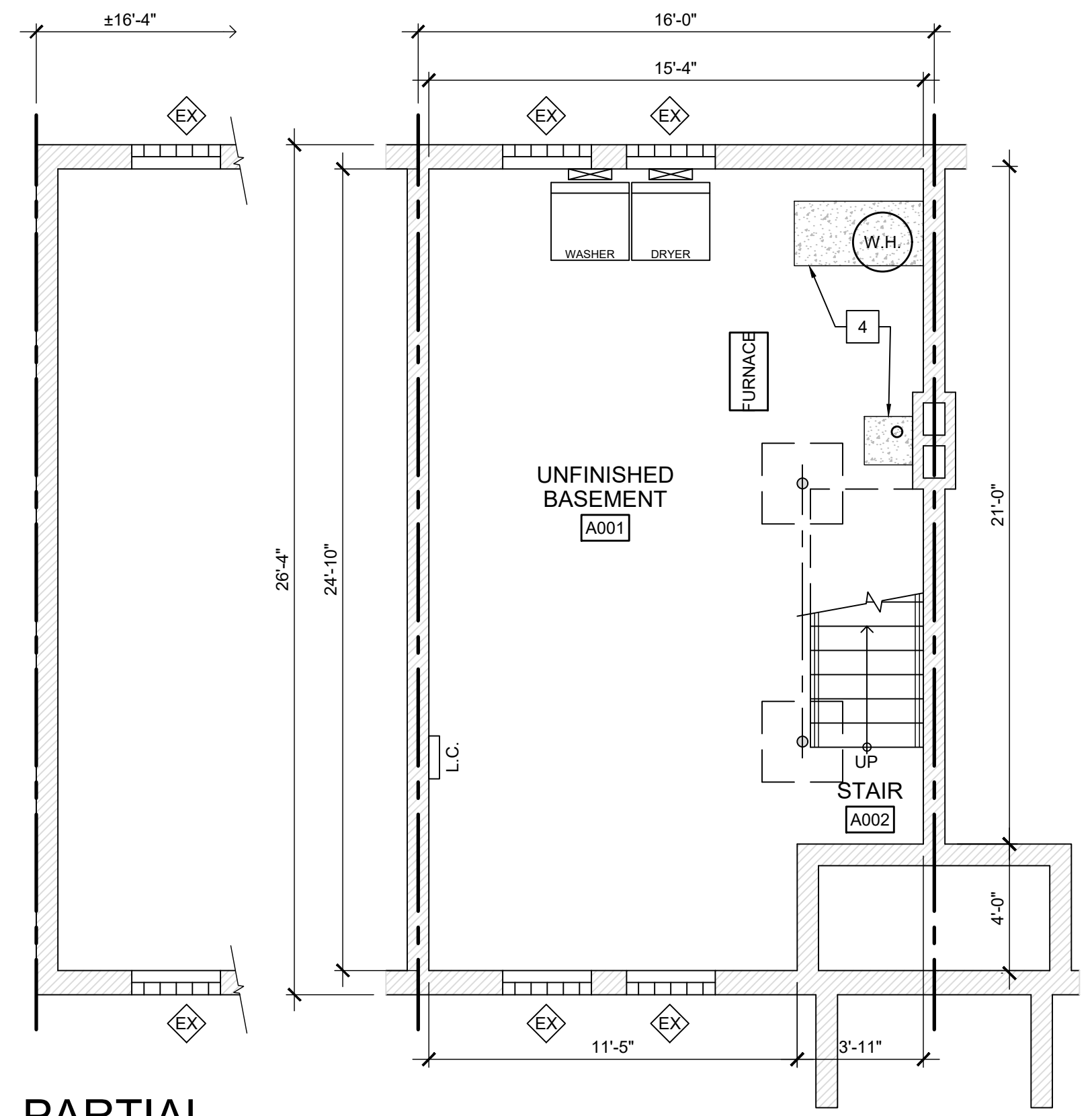
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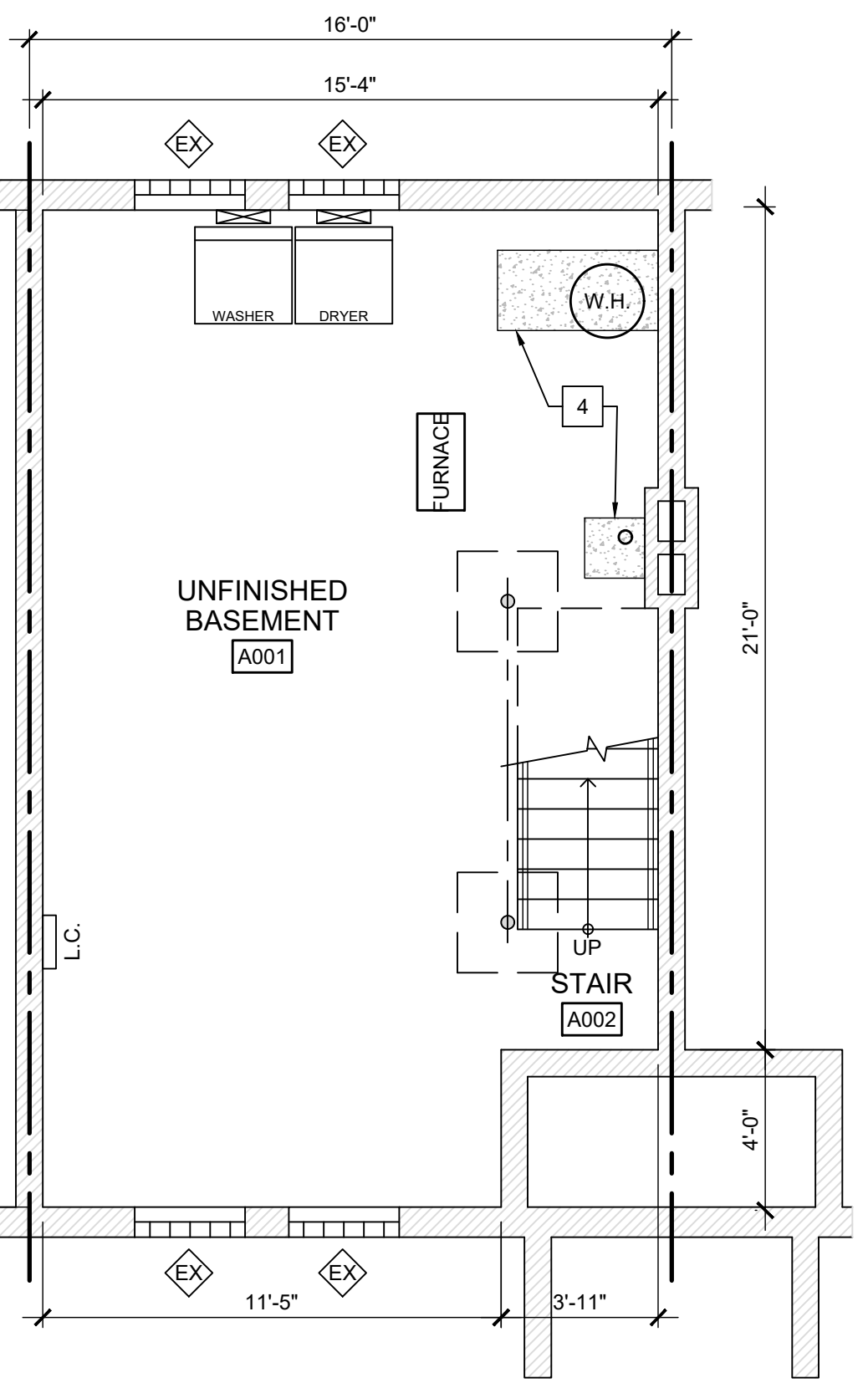


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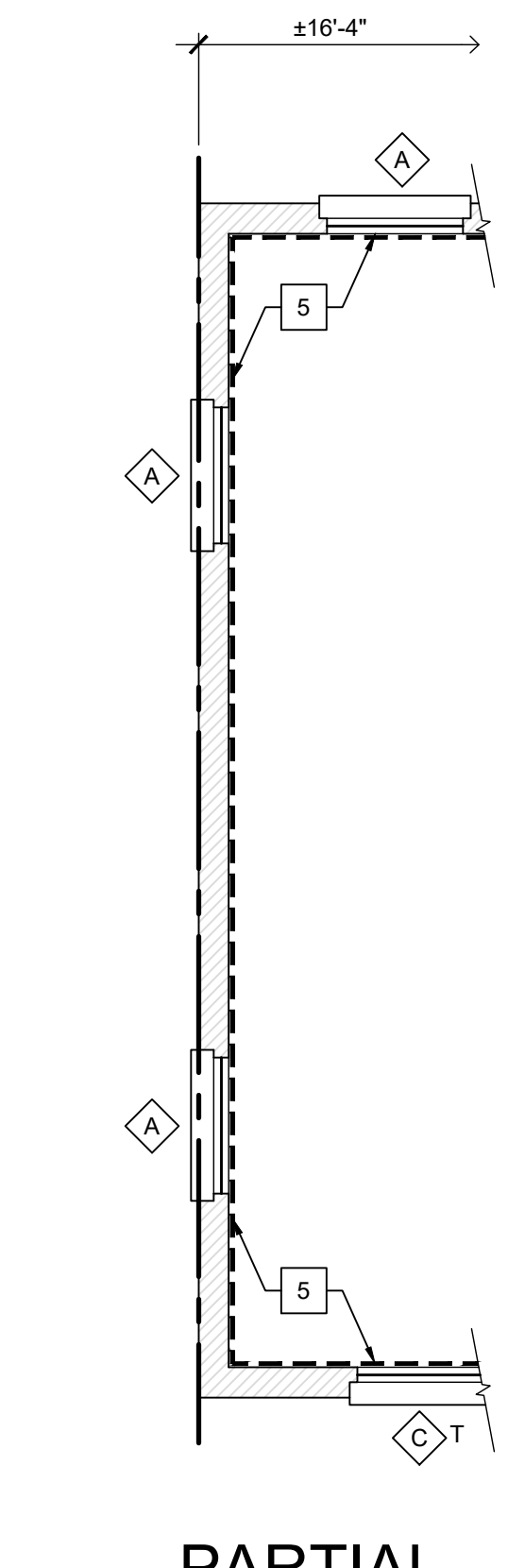
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Sheet Title	Unit Type 'A' Proposed Floor Plans
Sheet Number	A1.2



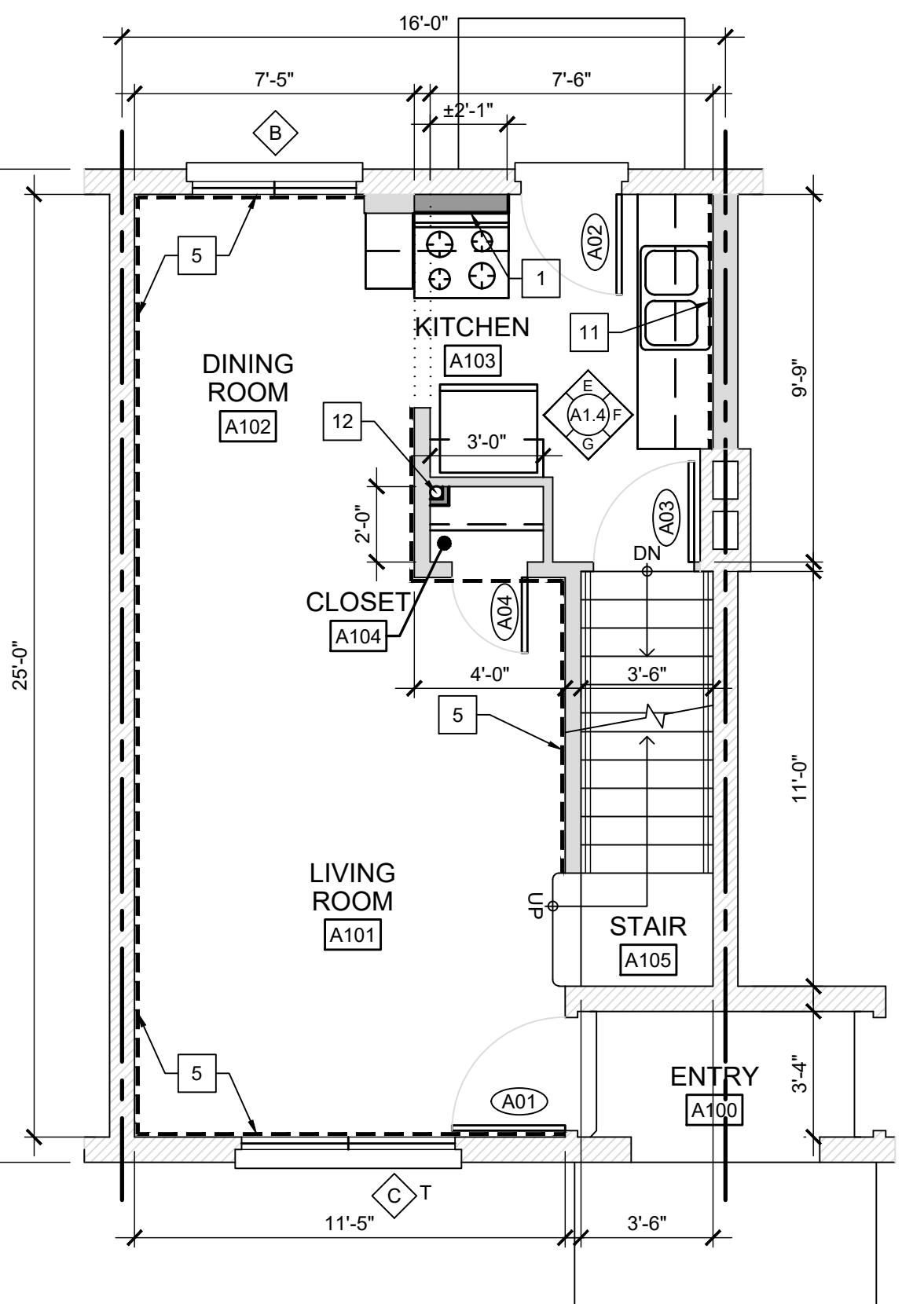
**A1**  
PARTIAL UNIT TYPE 'A1' PROPOSED BASEMENT FLOOR PLAN  
SCALE: 1/4" = 1'-0"



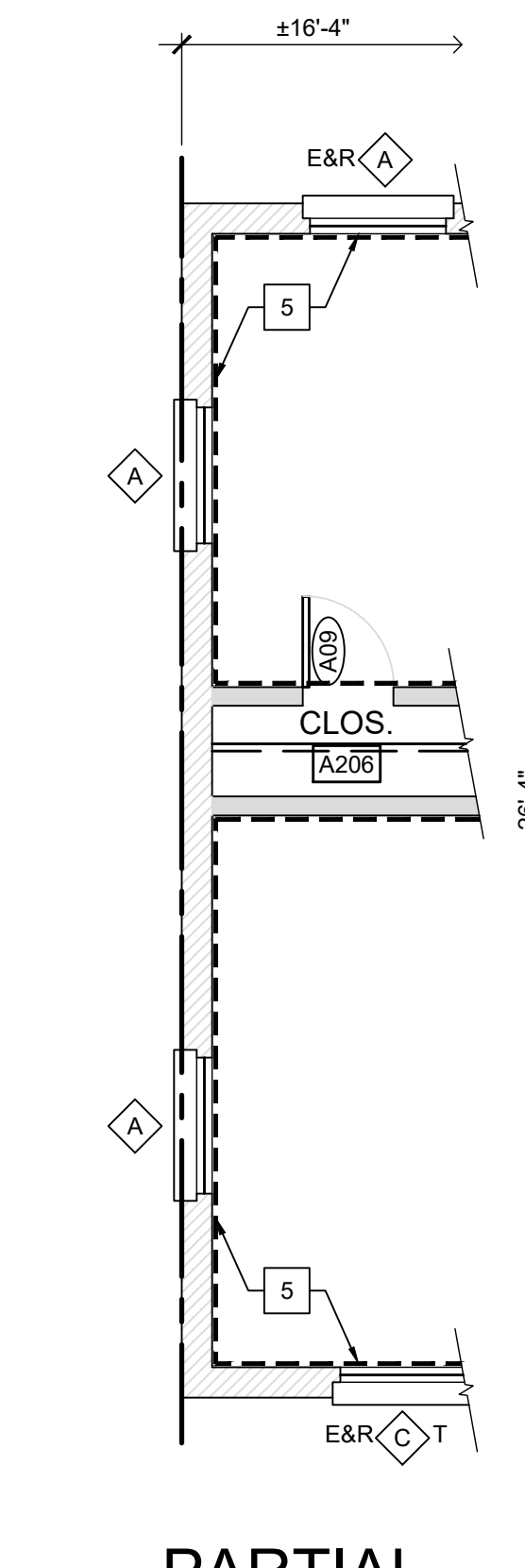
**A**  
UNIT TYPE 'A' PROPOSED BASEMENT FLOOR PLAN  
SCALE: 1/4" = 1'-0"



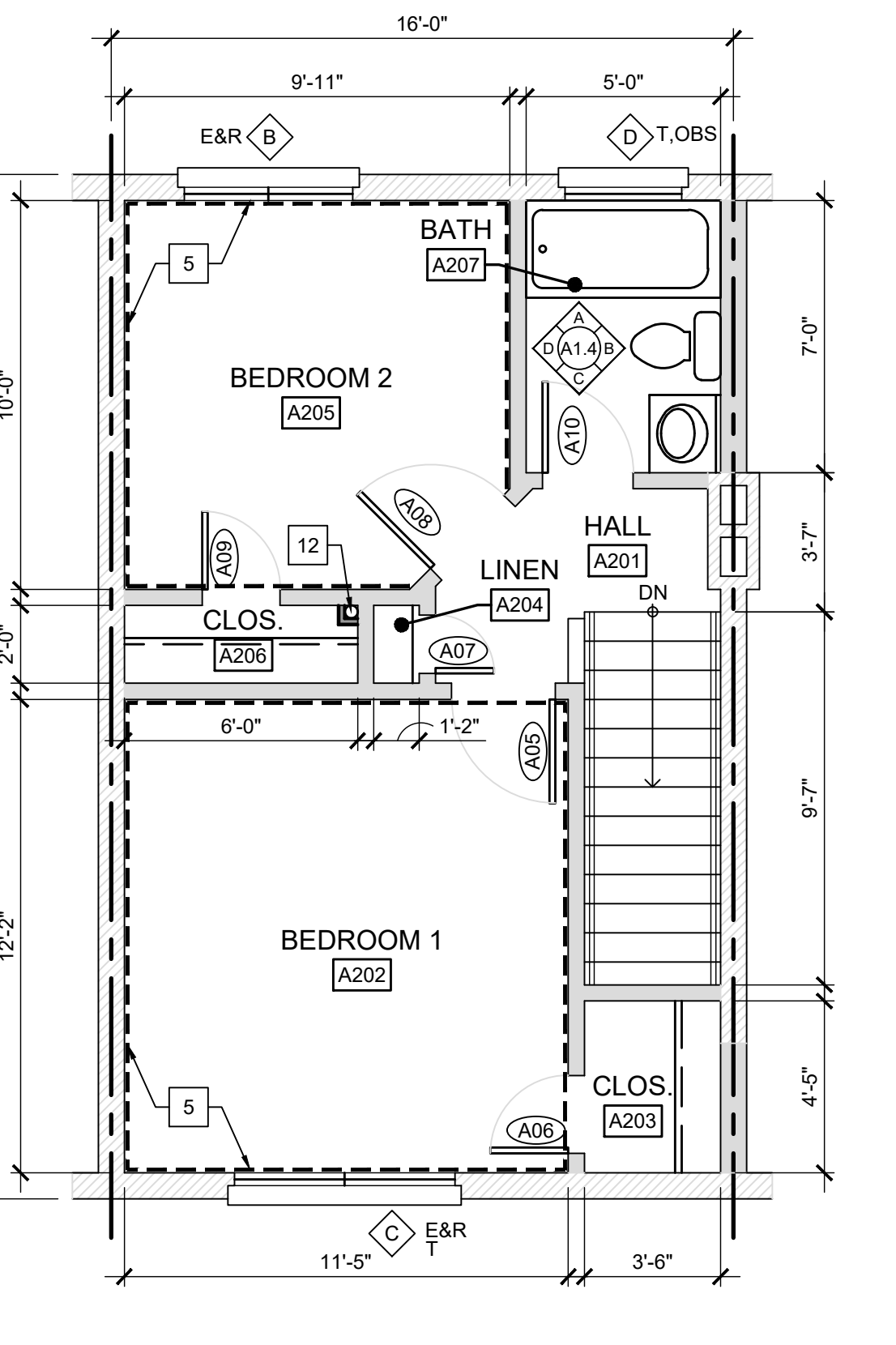
**B1**  
PARTIAL UNIT TYPE 'A1' PROPOSED FIRST FLOOR PLAN  
SCALE: 1/4" = 1'-0"



**B**  
UNIT TYPE 'A' PROPOSED FIRST FLOOR PLAN  
SCALE: 1/4" = 1'-0"



**C1**  
PARTIAL UNIT TYPE 'A1' PROPOSED SECOND FLOOR PLAN  
SCALE: 1/4" = 1'-0"



**C**  
UNIT TYPE 'A' PROPOSED SECOND FLOOR PLAN  
SCALE: 1/4" = 1'-0"

**# NEW WORK KEY NOTES (TYPICAL ALL UNIT TYPES)**

- NEW 2x WOOD STUD CHASE WALL W/ GYP. BD. FINISHES. ALIGN W/ EXISTING ADJACENT CHASE WALL.
- NEW 60 MINUTE FIRE RATED SOLID CORE WOOD UNIT ENTRY DOOR, FRAME, CASING, AND HARDWARE / ACCESSORIES AT THIS OPENING. MODIFY/REPAIR EX. WALL FINISHES, BASE, ETC. AS REQ'D.
- NEW FURRING WALL W/ 2x4 WOOD STUDS AT 16" O.C. & 1/2" GYP. BD. FINISHES ON ONE SIDE.
- PATCH CONCRETE SLAB AS REQ'D - FINISH FLUSH
- PATCH/INSTALL NEW GYPSUM BOARD FINISHES TO 24" A.F.F. MATCH EX. ADJACENT FLUSH. REFER TO CODE PLANS FOR LOCATIONS OF FIRE RATED ASSEMBLIES - INFILL / REPAIR TO FOLLOW APPLICABLE UL ASSEMBLY IDENTIFIED.
- INFILL EXISTING OPENING W/ 2x WOOD STUDS AND GYP. BS. FINISHES - FINISH FLUSH BOTH SIDES
- EXISTING GLASS BLOCK WINDOW TO REMAIN.
- REMOVE EX. INSTALL NEW WOOD ACCESS PANEL W/ WOOD CASING.
- NEW WALL MOUNTED MAILBOXES
- INSTALL 1/2" GYP. BD. FINISHES AT NEW CASED OPENING.
- INSTALL NEW GYPSUM BOARD FINISHES FULL HEIGHT. MATCH EX. ADJACENT FLUSH. REFER TO CODE PLANS FOR LOCATIONS OF FIRE RATED ASSEMBLIES - INFILL / REPAIR TO FOLLOW APPLICABLE UL ASSEMBLY IDENTIFIED.
- BOX OUT RADON PIPING W/ 2x WOOD STUD FRAMING AND GYP. BD. FINISHES. FURRING SHALL BE AS TIGHT TO PIPING AS POSSIBLE

NOTE: MAINTAIN CONTINUITY OF FIRE SEPARATION ASSEMBLIES BETWEEN UNITS.

FIELD COORDINATE EXTENT OF CUT & PATCH OF EXISTING WALL & CEILING FINISHES WITH P/ME/ SCOPE OF WORK. THERE WILL BE ADDITIONAL AREAS OF CUT & PATCH BEYOND SPECIFIC LOCATIONS INDICATED TO ALLOW THE CONTRACTOR FLEXIBILITY TO EXECUTE THE WORK. THIS WORK SHALL BE INCLUDED COMPLETE IN THE BID AMOUNT.

**GYPSUM BOARD REQUIREMENTS**

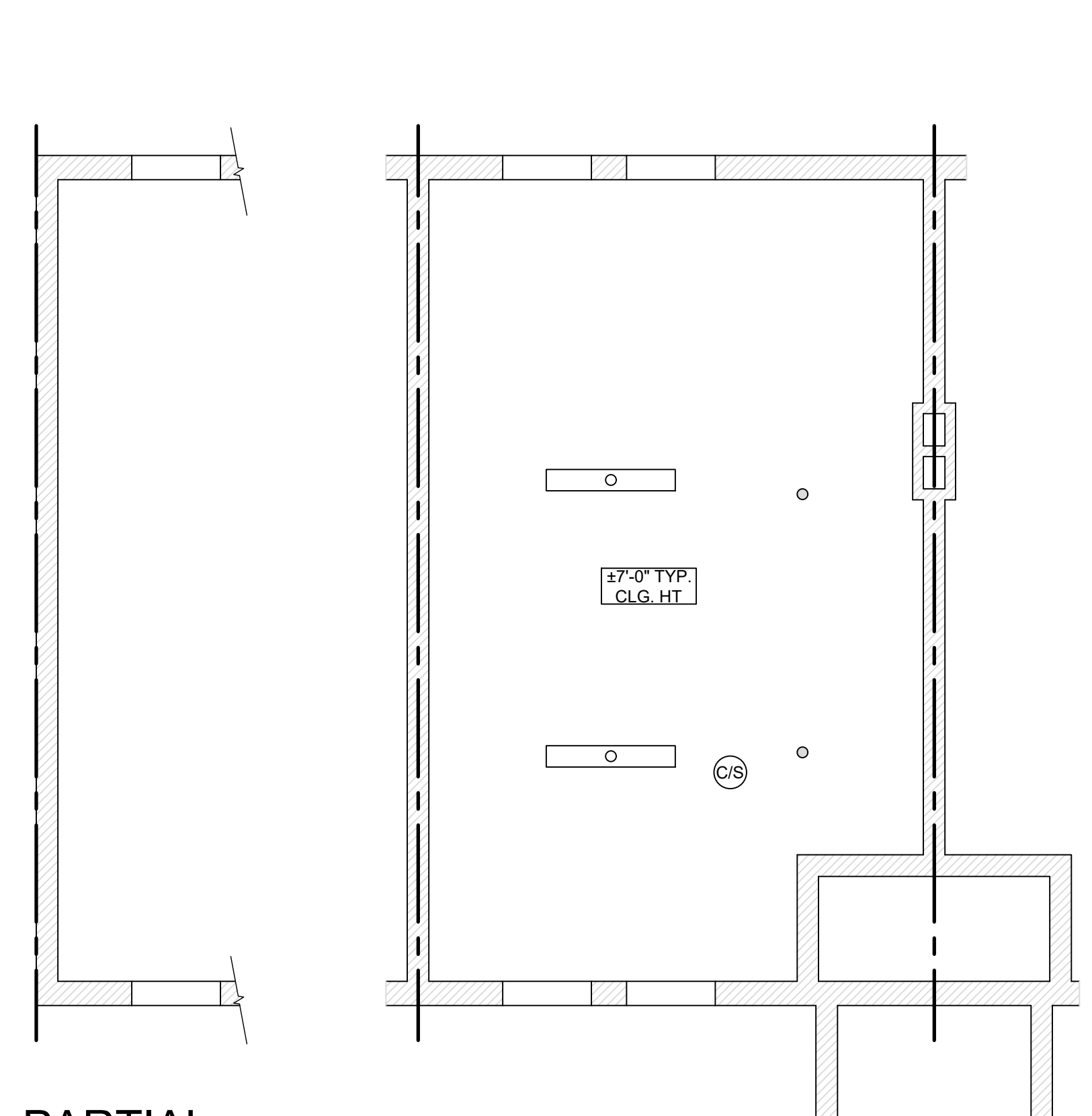
- NON-PAPERFACED GYPSUM BOARD SHALL BE IN THE FOLLOWING AREAS:
- BEHIND KITCHEN SINK AND BATHROOM/TOILET ROOM SINKS TO A HEIGHT OF APPROXIMATELY 3 INCHES ABOVE BASE CABINET.
  - SHOWER WALLS WHERE THE NON-PAPERFACED GYPSUM BOARD WILL NOT HAVE AN EXPOSED FINISH EXCEPT 6 INCHES BEYOND SHOWER AND TUB JAMBS FLOOR TO TOP OF SHOWER SURROUND OR 6 INCHES ABOVE HEAD AND THIS MAY BE CASED WITH WATER AND ROT RESISTANT TRIM.
  - BEHIND TOILETS AND THE SPACE BETWEEN THE SHOWER ENCLOSURE AND TO THE TOP OF TOILET TANKS MUST BE COVERED AS IT IS A HIGH FAILURE POINT SPECIFICALLY COVERED BY PAPERLESS GYPSUM BOARD.
  - NON-PAPERFACED GYPSUM BOARD SHALL ONLY BE LOCATED ON CEILINGS THAT BATHROOM OR TOILET ROOMS ARE LOCATED ABOVE.
  - ON WALLS LESS THAN 4 FEET FROM SPRINKLER SERVICE CONTROLS AND WATER SERVICE LINES LOCATED IN SERVICE ROOMS.
- PAPER-FACED MOISTURE RESISTANT GYPSUM BOARD SHALL BE IN THE FOLLOWING AREAS:
- WITHIN 4 FEET HORIZONTALLY AND VERTICALLY OF ANY WATER SOURCE, EXCEPT DIRECTLY BEHIND SINKS, TUBS, AND SHOWER SURROUNDS AND BEHIND TOILETS WHERE NON-PAPERFACED GYPSUM BOARD WILL BE INSTALLED.
  - WITHIN 4 FEET IN ANY DIRECTION BEHIND LAUNDRY/CLOTHES WASHING MACHINES, WATER HEATERS, WATER METERS, ETC.
  - BEHIND PUBLIC DRINKING FOUNTAINS.

REFER TO UL ASSEMBLIES FOR ADDITIONAL REQUIREMENTS ON GYPSUM BOARD REQUIREMENTS.

**GENERAL NOTES**

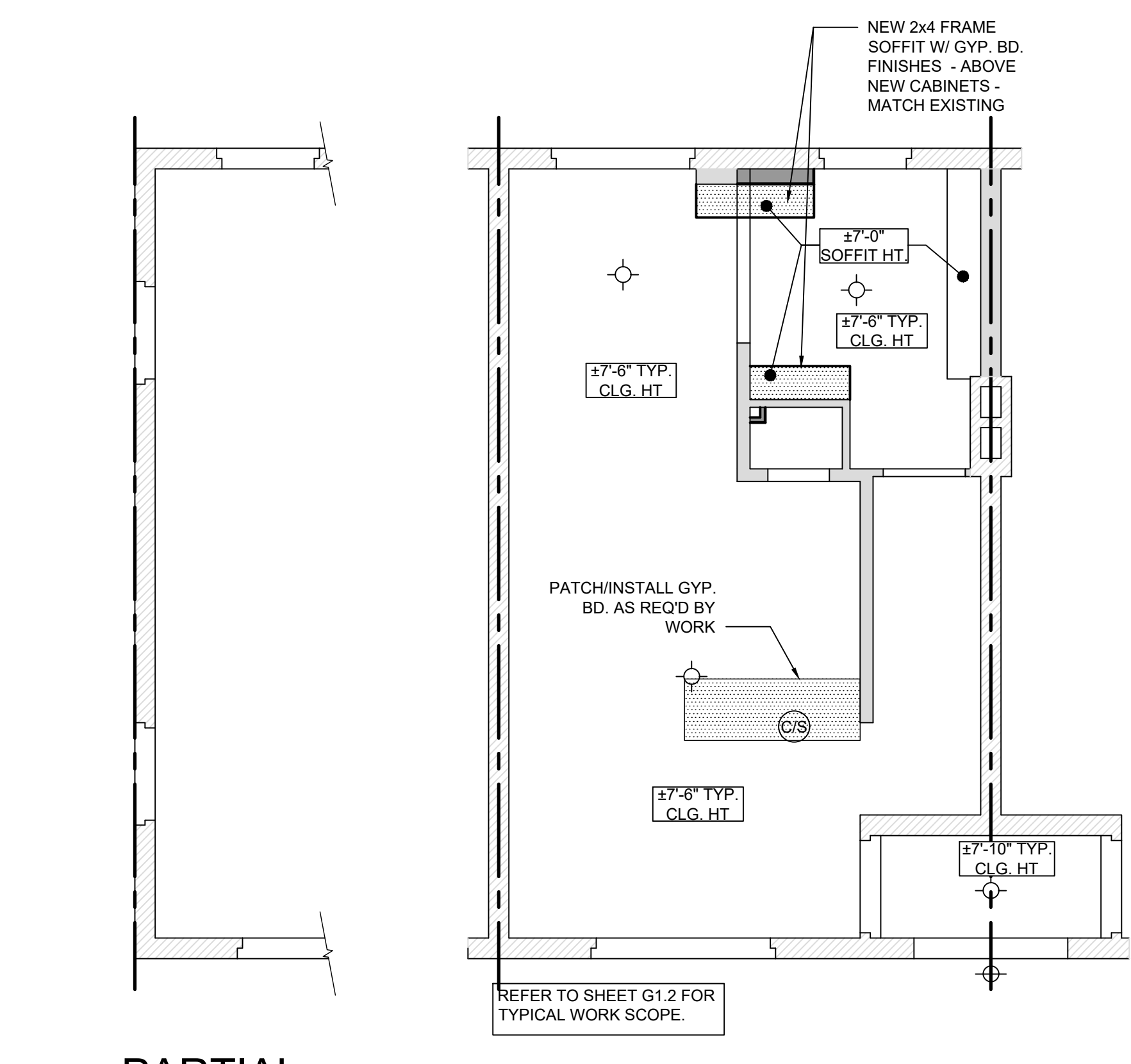
- REPAIR/SKIM COAT EXISTING GYPSUM BOARD / PLASTER AT WALLS AND CEILINGS AS REQ'D BY WORK TO CREATE LIKE NEW CONDITION. INTENT OF GYP. BD./PLASTER REPAIRS IS TO MATCH EXISTING TEXTURE/FINISH AS APPLICABLE. (LEVEL 4 FINISH MINIMUM) NEW GYPSUM BOARD AT HIGH MOISTURE AREAS SHALL BE NON-PAPER FACED MOLD/MOISTURE RESISTANT GYPSUM BOARD (LEVEL 5 FINISH)
- PROVIDE WOOD BLOCKING IN WALLS TO SUPPORT WALL MOUNTED ITEMS, TOILET ACCESSORIES, DOOR STOPS, ELECTRICAL COMPONENTS, ETC. CONCEAL ALL WITHIN WALL STUD CAVITIES. CUT/PATCH GYP. BD. AS REQ'D.
- CUT & PATCH EXISTING WALLS/CEILINGS AS REQ'D BY WORK - NEW ROUTING OF WIRING, ETC. EXTENT & LOCATIONS TO BE COORDINATED BY CONTRACTOR AND SUB CONTRACTORS.
- PAINT ALL NEW AND EXISTING WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING. ALL PAINTING / PAINT TOUCH UP / PUNCH OUT SHALL BE ACCOMPLISHED COMPLETE FROM CORNER TO CORNER, FLOOR TO CEILING OR A NATURAL STOP POINT.
- PROVIDE FLOOR LEVELER AS REQUIRED BY EXISTING CONDITIONS. INSTALL NEW UNDERLAYMENT AT BATHROOMS AND ANY ADDITIONAL DAMAGED LOCATIONS DISCOVERED DURING PROJECT DEMO.
- INSTALL NEW SEALANT JOINT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
- SEAL ALL WALL, FLOOR & JOINT PENETRATIONS W/ LOW VOC SEALANT OR OTHER APPROPRIATE NON-TOXIC SEALING METHODS TO PREVENT PEST ENTRY.
- COORDINATE ALL EXISTING AND PROPOSED ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH P/ME DRAWINGS. FIELD COORDINATE BET. TRADES. REMOVE & REPAIR FINISHES/GYPSUM BOARD AS REQ'D TO ACCOMPLISH.





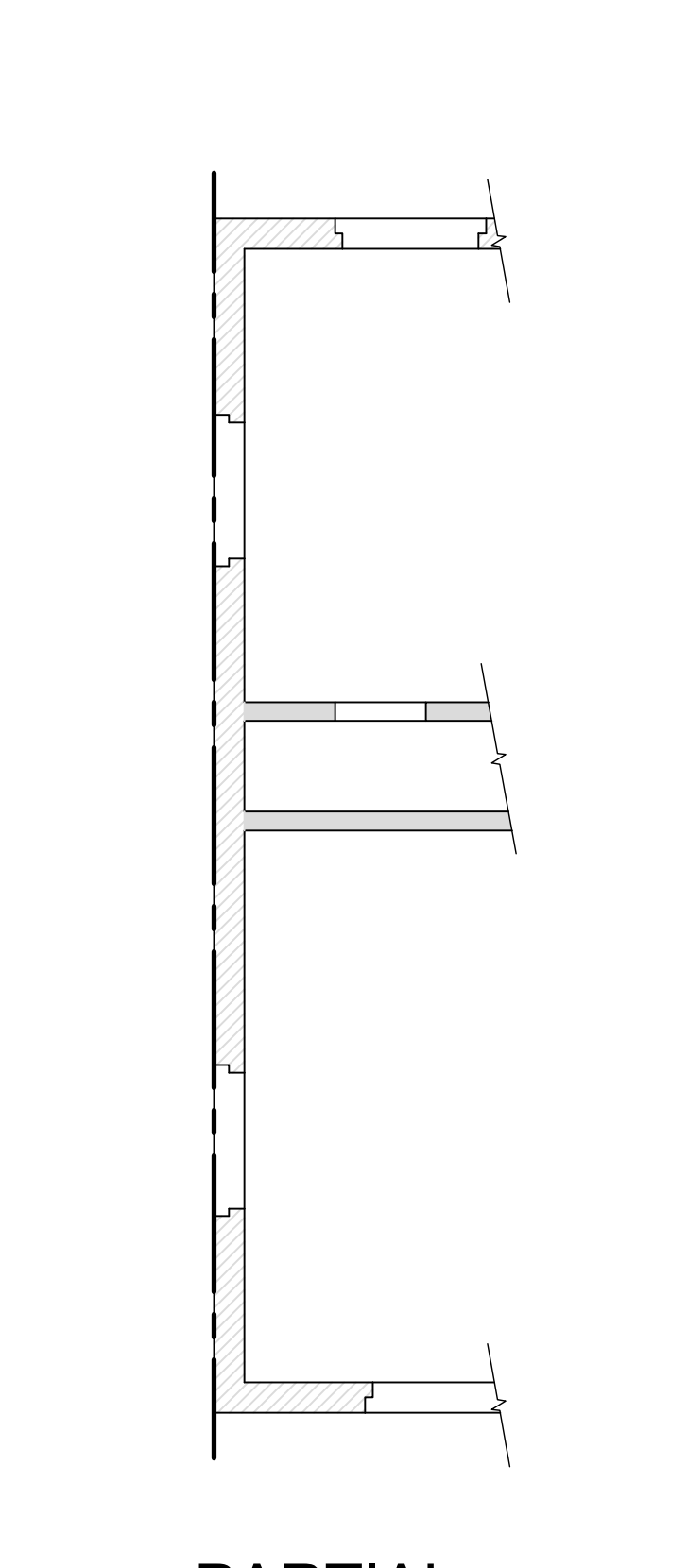
**PARTIAL UNIT TYPE 'A1' BASEMENT REFLECTED CEILING PLAN**  
 (A1) SCALE: 1/4" = 1'-0"

**UNIT TYPE 'A' BASEMENT REFLECTED CEILING PLAN**  
 (A) SCALE: 1/4" = 1'-0"

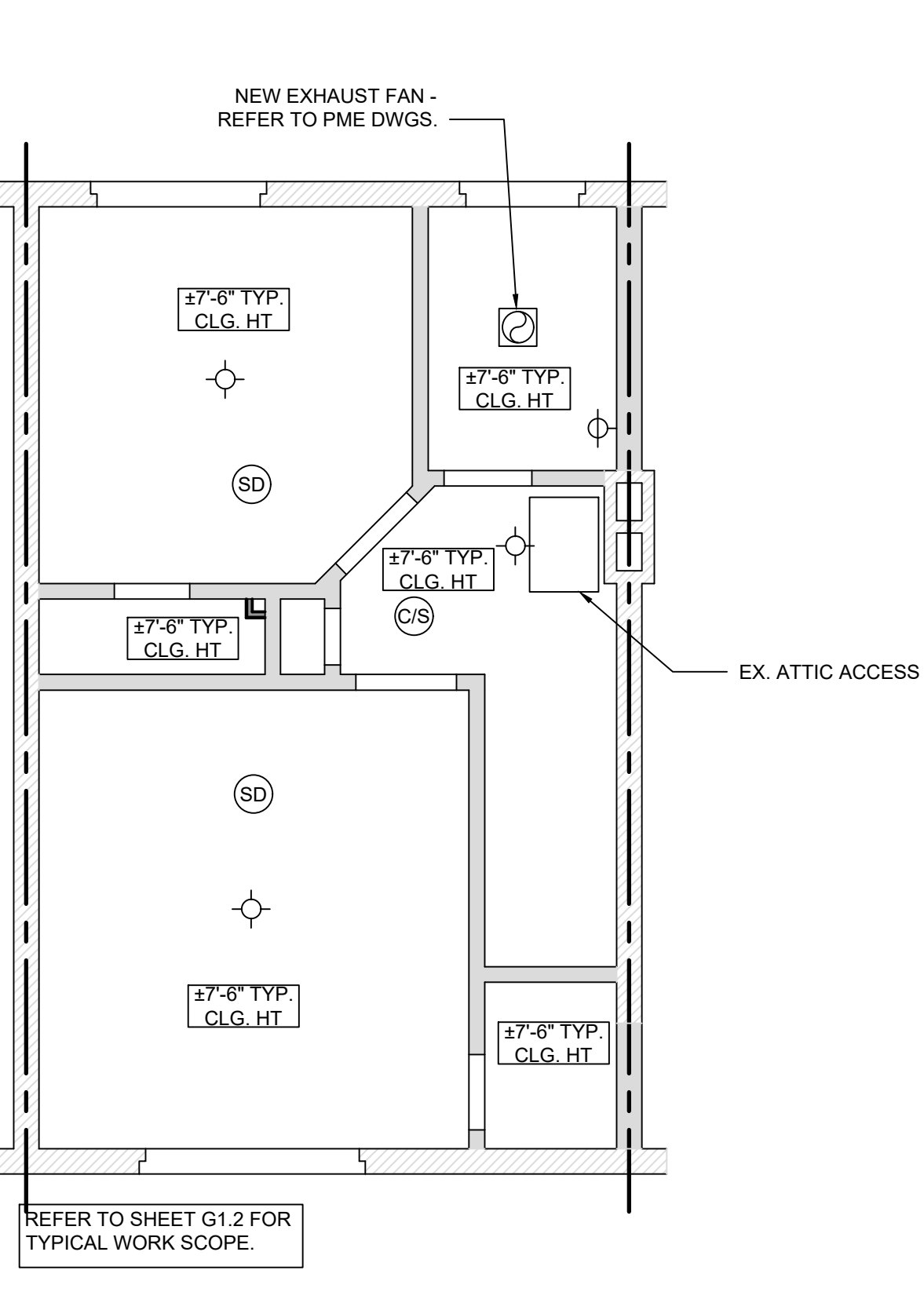


**PARTIAL UNIT TYPE 'A1' FIRST FLOOR REFLECTED CEILING PLAN**  
 (B1) SCALE: 1/4" = 1'-0"

**UNIT TYPE 'A' FIRST FLOOR REFLECTED CEILING PLAN**  
 (B) SCALE: 1/4" = 1'-0"



**PARTIAL UNIT TYPE 'A1' SECOND FLOOR REFLECTED CEILING PLAN**  
 (C1) SCALE: 1/4" = 1'-0"



**UNIT TYPE 'A' SECOND FLOOR REFLECTED CEILING PLAN**  
 (C) SCALE: 1/4" = 1'-0"

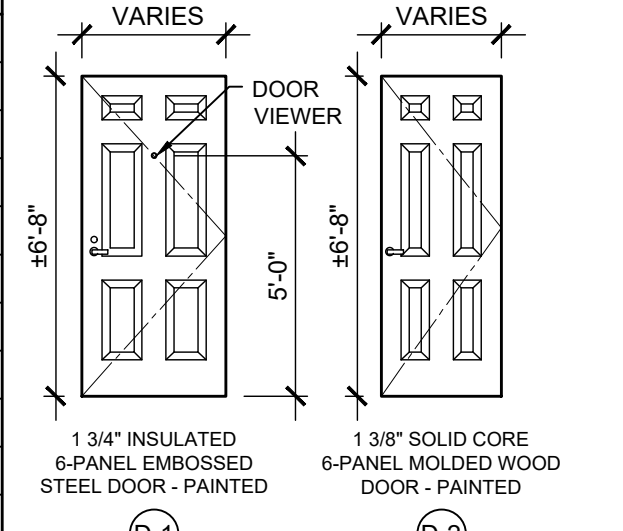
**RCP SYMBOL LEGEND**

- CEILING MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DWGS.
- WALL MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DWGS.
- EMERGENCY LIGHT / EXIT SIGN - REFER TO ELECTRICAL DWGS.
- EXHAUST FAN - REFER TO MECHANICAL DWGS.
- HVAC DIFFUSER - REFER TO MECHANICAL DWGS.
- SMOKE DETECTOR - REFER TO ELECTRICAL DWGS.
- COMBINATION CARBON MONOXIDE / SMOKE DETECTOR - REFER TO ELECTRICAL DWGS.

**DOOR SCHEDULE**

#	SIZE	FRAME	DOOR	HWDR	FIRE	REMARKS
		NEW	EXIST.	TYPE	SET #	RATG
A01	3'-0" x 6'-8"	●	●	F-1	D-1	H-1
A02	2'-8" x 6'-8"	●	●	F-1	D-1	H-1
A03	2'-8" x 6'-8"	●	●	F-1	D-2	H-2
A04	2'-0" x 6'-8"	●	●	F-1	D-2	H-2
A05	2'-8" x 6'-8"	●	●	F-1	D-2	H-2
A06	2'-0" x 6'-8"	●	●	F-1	D-2	H-2
A07	1'-6" x 6'-8"	●	●	F-1	D-2	H-2
A08	2'-8" x 6'-8"	●	●	F-1	D-2	H-2
A09	2'-0" x 6'-8"	●	●	F-1	D-2	H-2
A10	2'-4" x 6'-8"	●	●	F-1	D-2	H-3

**DOOR TYPES**



**FRAME TYPES**

- (F-1) HOLLOW METAL FRAME

**DOOR NOTES**

- REFER TO SPECIFICATIONS FOR FULL DOOR REQMTS.
- NOMINAL SIZES INDICATED. CONTRACTOR TO VERIFY ALL R.O. SIZES, ETC.
- PROVIDE FLOOR/WALL STOPS & HINGE STOPS AT ALL DOORS.
- COORDINATE ALL REQUIRED HARDWARE WITH OWNER.
- COORDINATE ALL KEYING WITH OWNER.
- REMOVE EXISTING, INSTALL NEW HARDWARE AT ALL EXISTING DOORS SCHEDULED TO REMAIN
- PROVIDE ALL REQUIRED ACCESSORIES AND HARDWARE COMPONENTS FOR A COMPLETE INSTALLATION.
- SIZE NEW DOORS TO FIT INTO EXISTING STEEL FRAMES TO REMAIN. FIELD VERIFY ALL EXISTING STEEL FRAME HARDWARE PREP LOCATIONS & PREP NEW DOORS TO ACCOMMODATE EXISTING LOCATIONS.

**HARDWARE TYPES**

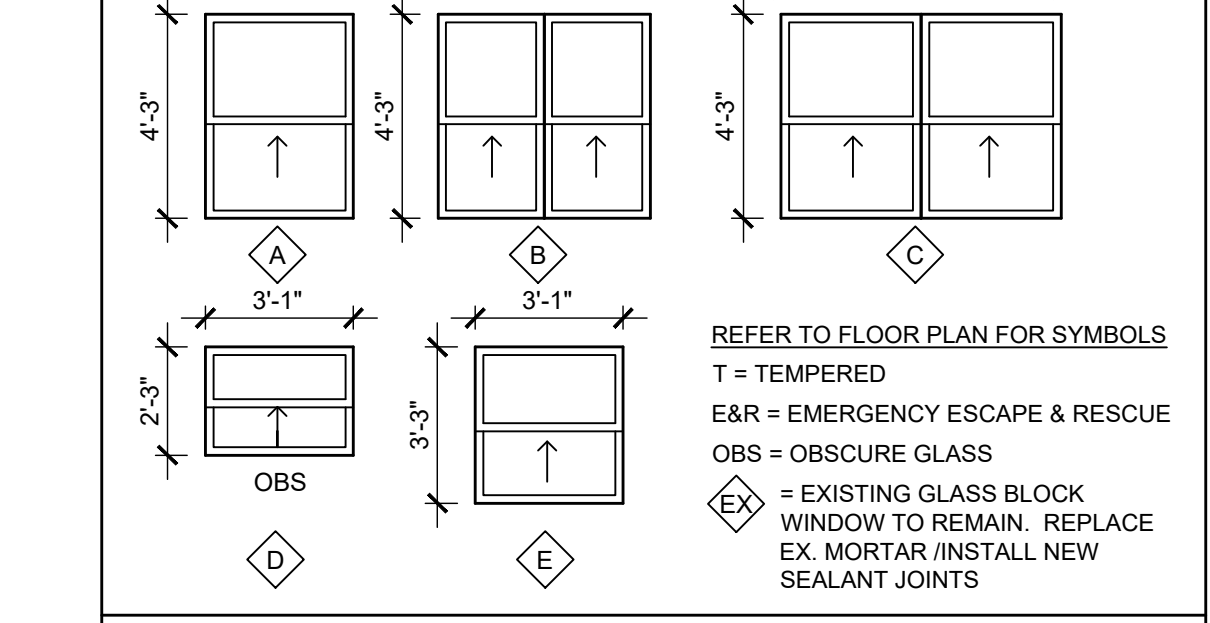
- H-1 - UNIT ENTRY
- H-2 - PASSAGE
- H-3 - PRIVACY SET

NOTE: REFER TO SPECIFICATIONS FOR SPECIFIC DETAILS ON HARDWARE

**WINDOW SCHEDULE**

#	NEW	EXIST.	SIZE	MATERIAL	TYPE	EMERGENCY ESCAPE & RESCUE
A	●	●	3'-1" X 4'-3"	VINYL	DOUBLE HUNG	
B	●	●	4'-5" X 4'-3"	VINYL	TWIN DOUBLE HUNG	●
C	●	●	5'-10" X 4'-3"	VINYL	TWIN DOUBLE HUNG	●
D	●	●	3'-1" X 2'-3"	VINYL	DOUBLE HUNG	OBS
E	●	●	3'-1" X 3'-3"	VINYL	DOUBLE HUNG	

**WINDOW TYPES**



**WINDOW NOTES**

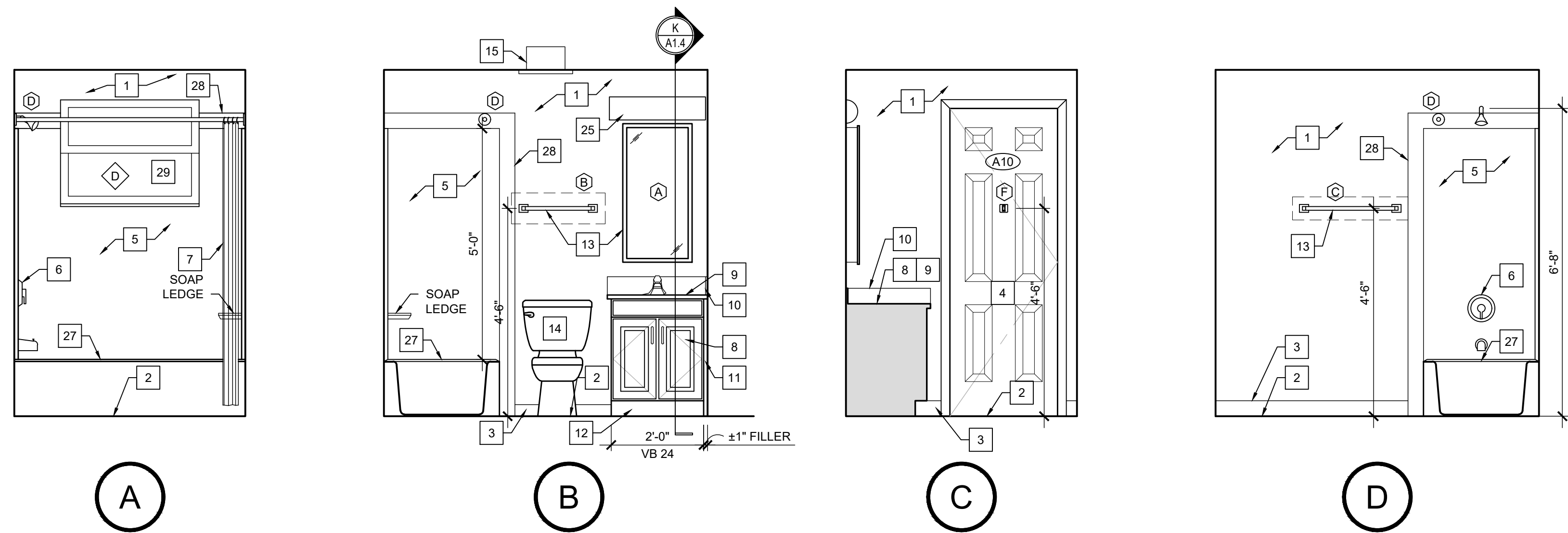
- INSTALL NEW JAMB MOUNTED MINI-BLINDS AT ALL WINDOW TYPES EXCEPT BATHROOM WINDOWS.
- REMOVE EXISTING, INSTALL NEW JOINT SEALANT AT INTERIOR AND EXTERIOR OF NEW WINDOW UNIT.
- REMOVE EX., INSTALL NEW SOLID SURFACE SILLS, TYP. SHIM AS REQ'D.
- REPAIR GYPSUM BOARD RETURNS / WOOD JAMBS AS REQ'D BY WORK.
- INSTALL NEW ALUMINUM WRAP JAMB EXTENSIONS AT EXTERIOR.
- REFER TO SHEET A4.1 FOR WINDOW DETAILS.

**ROOM FINISH SCHEDULE**

#	NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
A001	BASEMENT	CONC.	-	WATER-PROOF	EXIST	-
A002	STAIRS	CONC.	-	EXIST	EXIST	-
A100	ENTRY	CONC.	-	EX BRICK	EX CLG	PREP & PAINT EX. BRICK / CLG.
A101	LIVING ROOM	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A102	DINING ROOM	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A103	KITCHEN	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A104	CLOSET	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A105	STAIRS	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A201	HALL	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A202	BEDROOM 1	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A203	CLOSET	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A204	LINEN	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A205	BEDROOM 2	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A206	CLOSET	LVP	NEW WD	NEWEX NEWEX	NEWEX GYP.PNT	-
A207	BATH	TILE	TILE	NEW NEW	NEW GYP.PNT	-

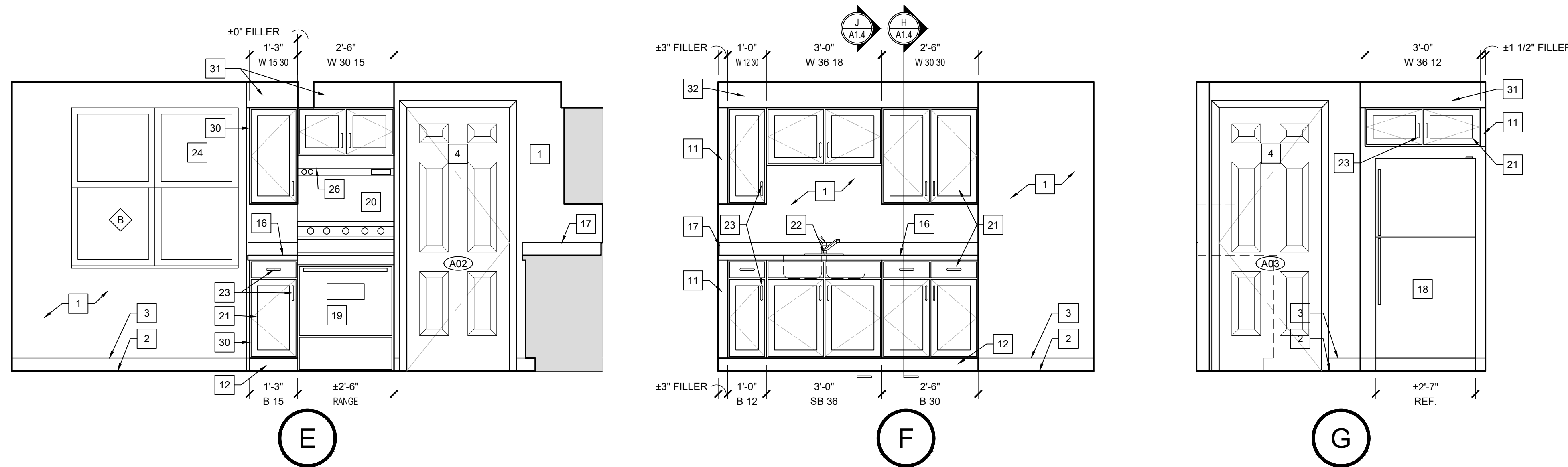
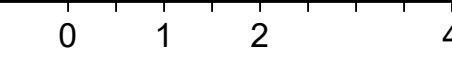
**FINISH NOTES**

- INSTALL SHOE MOLD AT ALL WOOD BASE - ALL FLOOR TYPES.
- WALLS SHALL BE LEVEL 4 QUALITY FINISHED GYPSUM BOARD/PLASTER - PREP & PAINT.
- CEILING FINISH TO MATCH EXISTING FINISH - PREP & PAINT.
- EXISTING CEILING HEIGHT = ±7'-0"
- EXISTING SOFFIT HEIGHT = ±7'-0"
- INSTALL NEW UNDERLAYMENT AT ALL SUBFLOORS (CEMENT BOARD AT TILE) COORDINATE EXACT REQUIREMENTS WITH FINISH FLOOR MANUFACTURER.
- FINISHES - NEW, UNLESS NOTED AS EXISTING  
 EX = EXISTING TO REMAIN; PREP AND PAINT  
 EX GYP. = EXISTING GYPSUM BOARD / PLASTER FINISHES
- COORDINATE WITH FINISHES ON SHEET G1.2.
- INSTALL 4" RUBBER BASE AT ALL KITCHEN & BATH VANITY CABINETS, TYP.



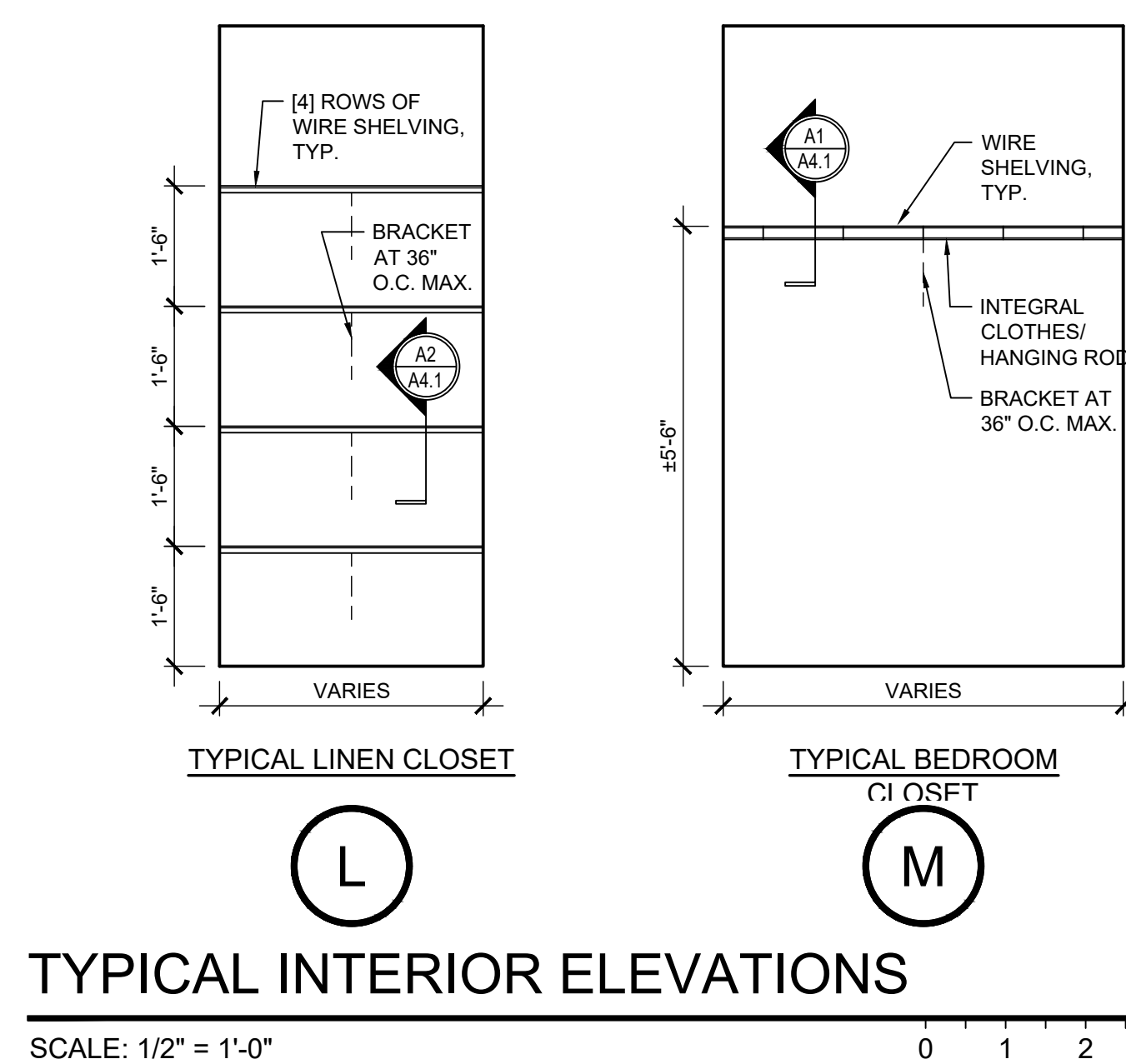
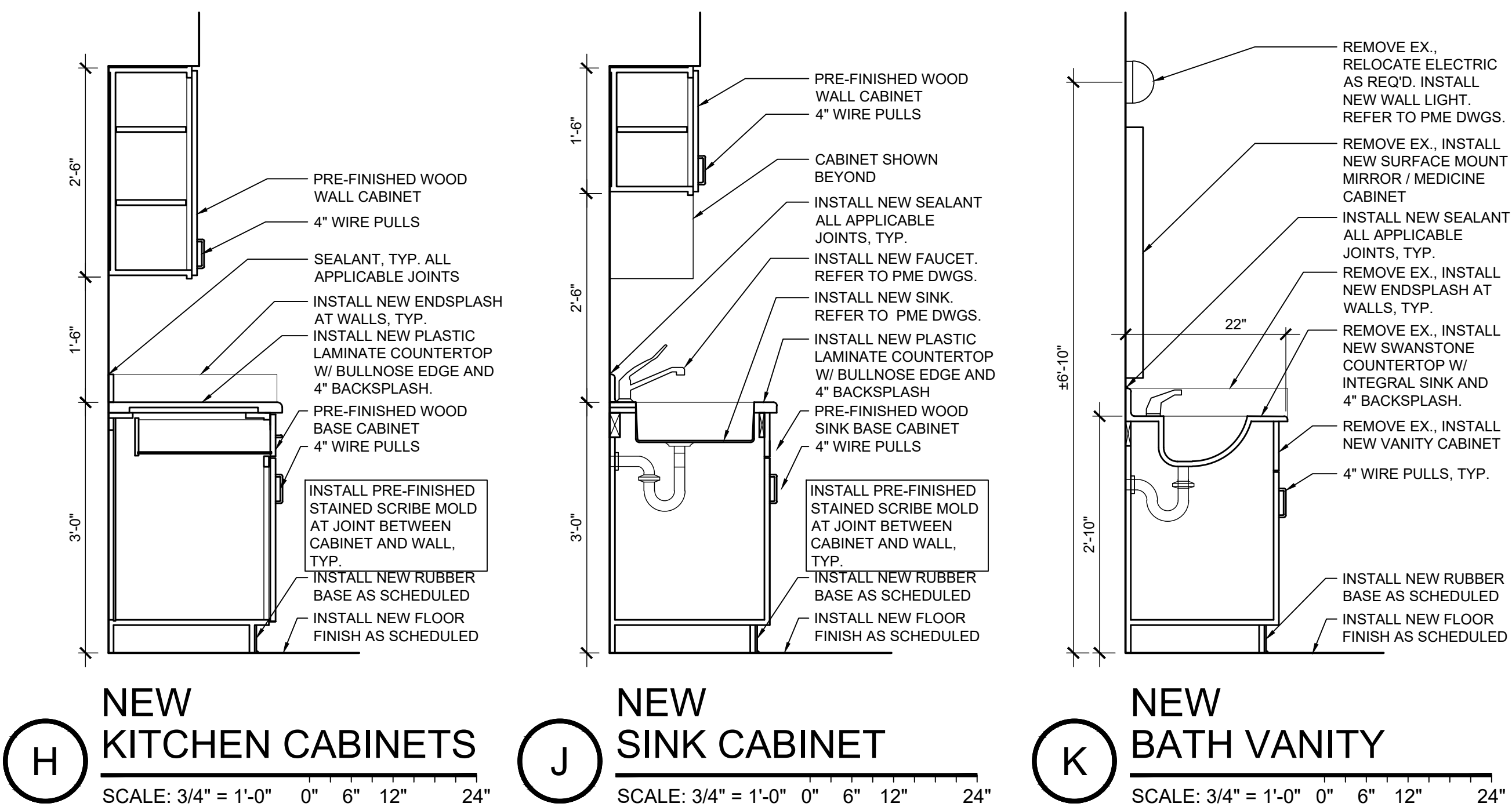
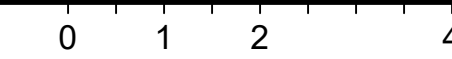
**INTERIOR ELEVATIONS AT BATHROOM - UNIT TYPE 'A'**

SCALE: 1/2" = 1'-0"



**INTERIOR ELEVATIONS AT KITCHEN - UNIT TYPE 'A'**

SCALE: 1/2" = 1'-0"



**# INTERIOR ELEVATION KEY NOTES**

1. PAINTED GYPSUM BOARD/PLASTER, TYP.
2. NEW FLOOR FINISH AS SCHEDULED.
3. NEW BASE AS SCHEDULED.
4. DOOR - REFER TO DOOR SCHEDULE.
5. NEW SWANSTONE TUB/SHOWER SURROUND. REFER TO PLUMBING DRAWINGS.
6. NEW TUB/SHOWER HEAD & CONTROLS. REFER TO PLUMBING DRAWINGS.
7. SHOWER CURTAIN BY TENANT.
8. NEW STAINED BASE/VANITY CABINET.
9. NEW SWANSTONE COUNTER W/ INTEGRAL BOWL SINK, NEW FAUCET
10. PRE-MANUFACTURED SWANSTONE END SPLASH.
11. FILLER CUT TO FIT.
12. RUBBER BASE AT TOE KICK.
13. NEW BATHROOM ACCESSORIES. SEE SCHEDULE
14. NEW WATER CLOSET. REFER TO PLUMBING DRAWINGS.
15. NEW EXHAUST FAN - REFER TO MECH / ELEC DRAWINGS. PROVIDE RADIATION DAMPER.
16. NEW PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPLASH.
17. NEW PLASTIC LAMINATE ENDSPLASH.
18. NEW REFRIGERATOR.
19. NEW RANGE.
20. NEW SPLASH PANEL AT WALL BEHIND & ADJACENT TO THE RANGE.
21. NEW STAINED WOOD BASE & WALL CABINETS.
22. NEW SINK AND FAUCET. REFER TO PLUMBING DRAWINGS.
23. NEW WIRE PULLS AT ALL CABINET DOORS / DRAWERS.
24. NEW WINDOW, PROVIDE NEW GYP. BOARD RETURN AS REQ'D BY WORK. INSTALL NEW SOLID SURFACE SILL. - REFER TO WINDOW SCHEDULE.
25. NEW LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS.
26. NEW VENTED RANGE HOOD. VENT DIRECTLY TO THE EXTERIOR.
27. NEW BATH TUB. REFER TO PLUMBING DRAWINGS.
28. 4" SWANSTONE TRIM AT ALL SIDES OF TUB/SHOWER SURROUND, TYP.
29. NEW WINDOW - REPAIR EX. GYP. BD. RETURNS AS REQ'D - RETURN SWANSTONE SURROUND BACK TO WINDOW. REFER TO DETAIL E/A4.1.
30. FINISHED END PANEL.
31. NEW SOFFIT W/ 2x4 STUD FRAMING AT 16" O.C. & GYP. BD. FINISHES - PAINT
32. EX. SOFFIT TO REMAIN - PREP & PAINT.
33. ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
34. SWANSTONE TRANSFER SHOWER BASE W/ SWANSTONE SURROUND - REFER TO PLUMBING DRAWINGS.
35. SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
36. AREA FOR SHOWER CONTROLS.
37. FINISH GRADE STAINED PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ACCESSIBILITY REQUIREMENTS.
38. FINISH GRADE STAINED WOOD PANEL AT FRONT OF CABINETS, MATCH CABINETS.
39. NEW ACCESSIBLE DROP-IN RANGE.
40. NEW STAINED WOOD ACCESSIBLE BASE AND WALL CABINETS.
41. ACCESSIBLE 22" DP, CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK, MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADUSED.
42. SLIDE OUT SHELVES AT ALL ACCESSIBLE BASE CABINETS.
43. RANGE HOOD CONTROL SWITCH.
44. COUNTERTOP MICROWAVE.

**○ BATHROOM ACCESSORY SCHEDULE**

MARK	SIZE
A	18"x36" MIRROR/MEDICINE CABINET - SURFACE MOUNT
B	18" TOWEL BAR
C	24" TOWEL BAR
D	SHOWER CURTAIN ROD
E	TOILET PAPER DISPENSER
F	ROBE HOOK
G	18" GRAB BAR
H	36" GRAB BAR
J	42" GRAB BAR
K	CORNER GRAB BAR
L	FOLDING SHOWER SEAT
M	18"x36" MIRROR

\* ALL BATHROOMS RECEIVE NEW TOILET ACCESSORIES - REMOVE EXISTING ACCESSORIES. PROVIDE NEW 2x BLOCKING AS REQUIRED FOR ALL NEW ACCESSORIES. REPAIR EXISTING FINISHES TO MATCH ADJACENT, TYP.



Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
 9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
 1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
 1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
 Dayton, Ohio 45403  
 OHFA Project -  
 Greater Dayton Premier Management

Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set
Sheet Title	
Unit Type 'A' Interior Elevations	
Sheet Number	



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

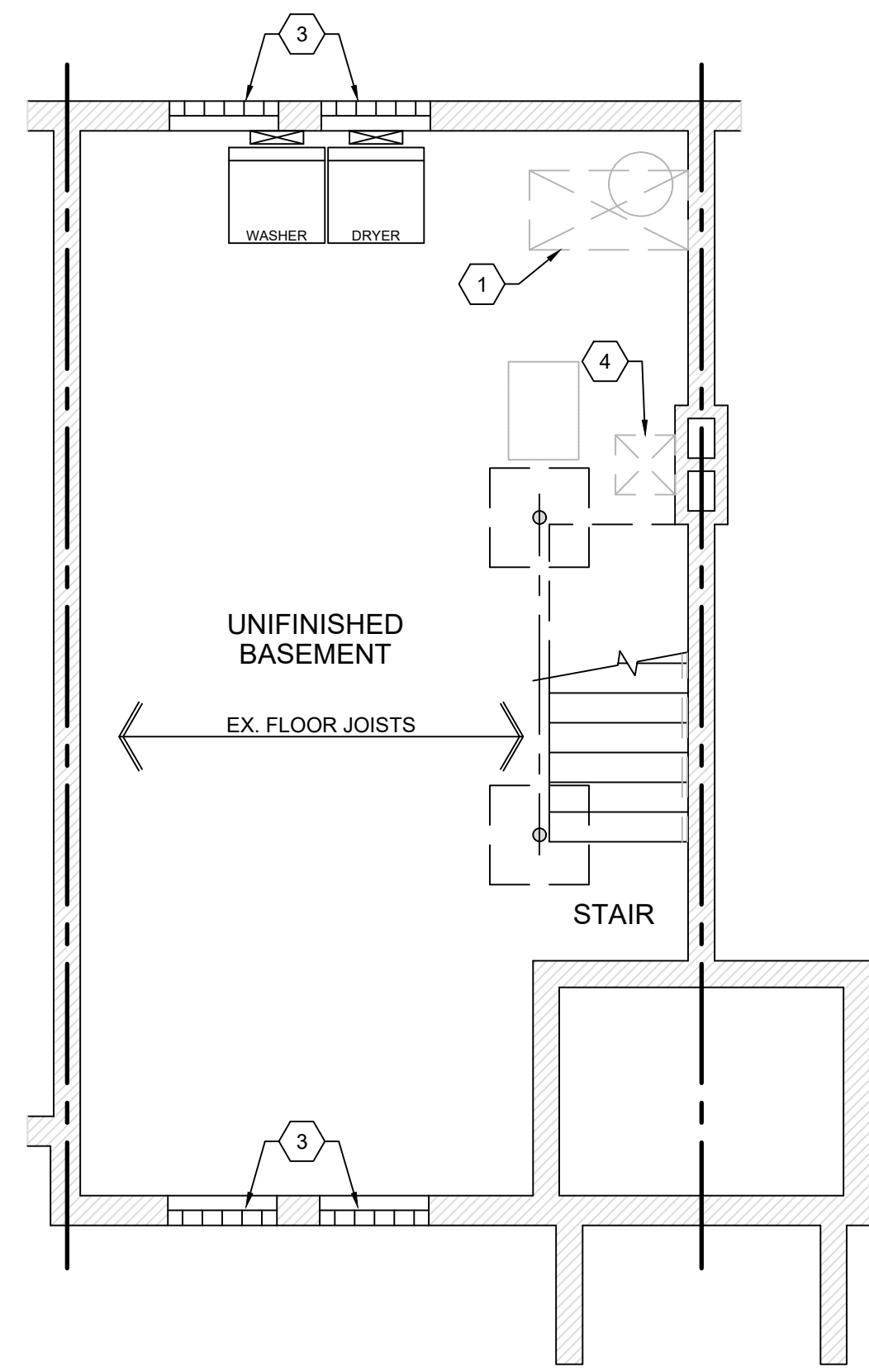
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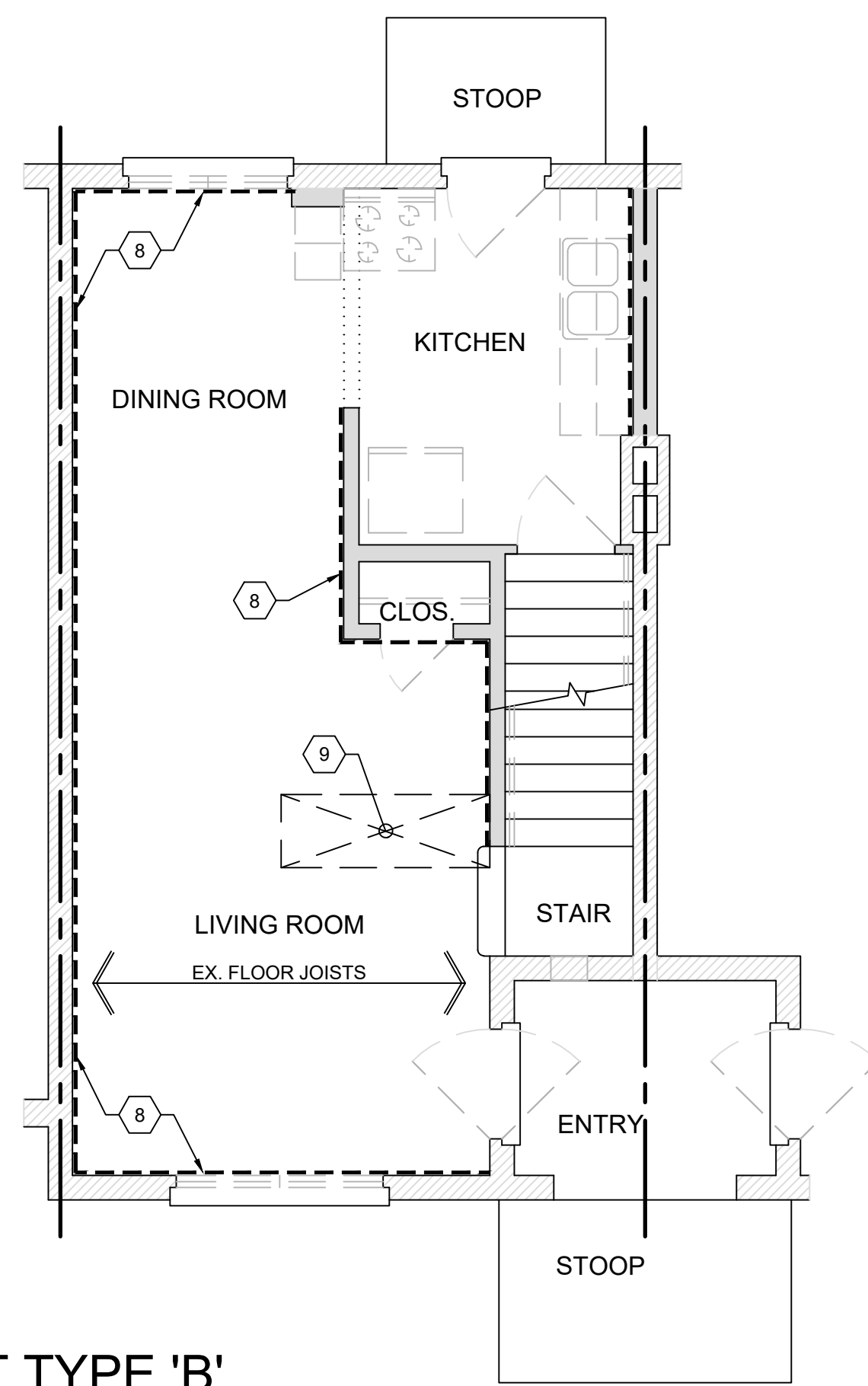


Moderate Rehabilitation of:  
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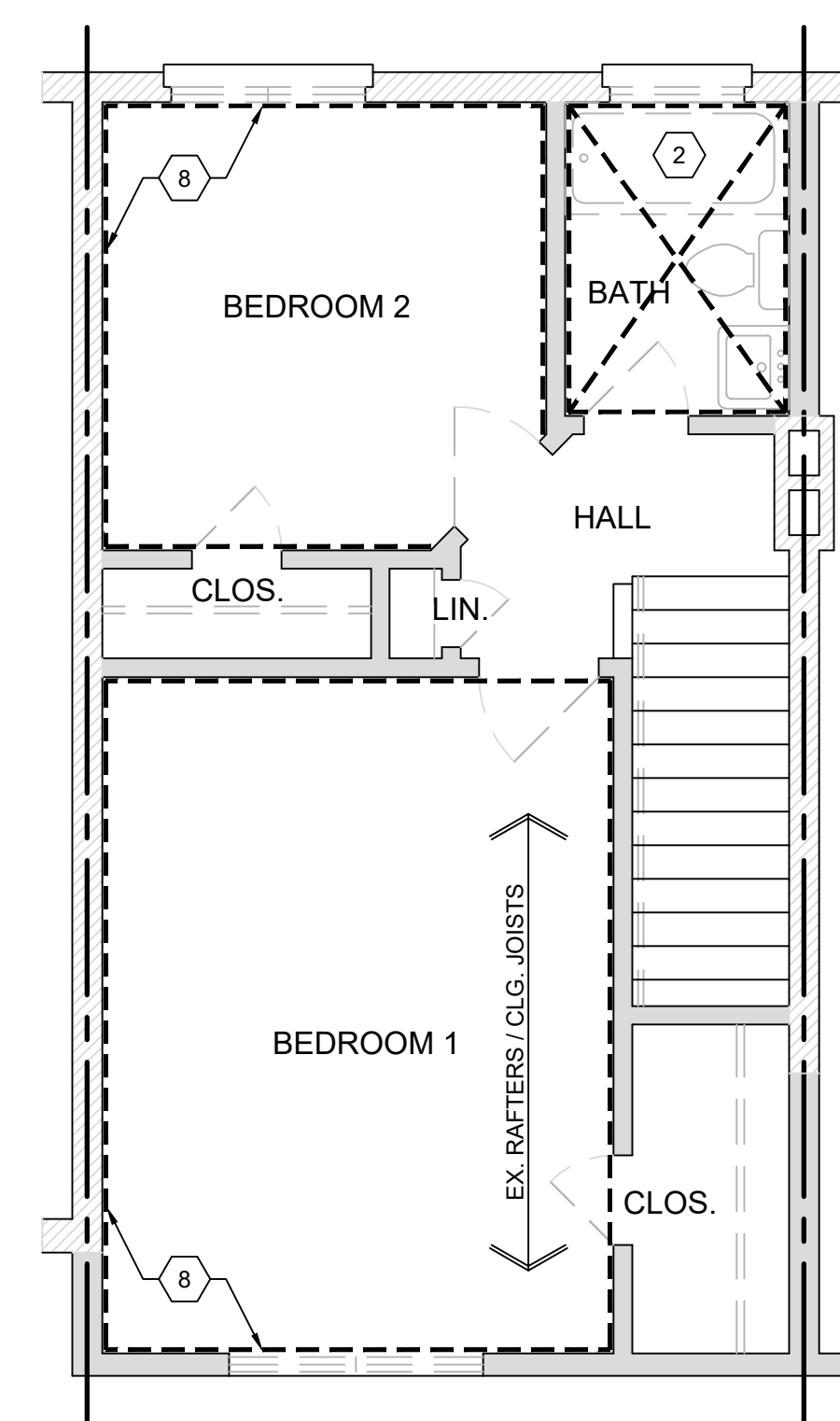
Project Number	2021-033
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11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set
Sheet Title	Unit Type 'B' Existing / Demolition Floor Plans
Sheet Number	A2.1



**UNIT TYPE 'B'**  
**EXISTING / DEMOLITION**  
**BASEMENT FLOOR PLAN**



**UNIT TYPE 'B'**  
**EXISTING / DEMOLITION**  
**FIRST FLOOR PLAN**



**UNIT TYPE 'B'**  
**EXISTING / DEMOLITION**  
**SECOND FLOOR PLAN**



**# DEMOLITION KEY NOTES**

1. SAWCUT & REMOVE EX. CONCRETE SLAB THIS AREA AS REQ'D FOR UNDERSLAB PLUMBING WORK. COORDINATE WITH PLUMBING DRAWINGS.
2. REMOVE EX. PLUMBING FIXTURES, ACCESSORIES, FLOOR FINISHES, SUBFLOOR, & WALL / CEILING PLASTER FINISHES COMPLETE TO EXPOSE EXISTING FRAMING AT BATHROOM. NOTIFY ARCHITECT OF ANY DETERIORATION. SISTER JOISTS/INSTALL BLOCKING TO PROVIDE BEARING AT ALL EDGES OF NEW SUBFLOOR AS REQ'D. INSTALL GYPSUM BOARD FINISHES & NEW PLYWOOD SUBFLOOR (MATCH EXISTING THICKNESS).
3. EX. GLASS BLOCK WINDOWS TO REMAIN.
4. SAWCUT & REMOVE EX. CONCRETE SLAB THIS AREA AS REQ'D FOR NEW PASSIVE RADON SYSTEM.
5. REMOVE PARTITION WALL COMPLETE AS INDICATED.
6. REMOVE EXISTING CLOSET COMPLETE AS INDICATED.
7. REMOVE EX. INTERIOR DOOR, FRAME, HARDWARE, AND CASING AT THIS OPENING.
8. REMOVE EXISTING PLASTER FINISHES TO 24" AFF THIS WALL.
9. REMOVE EXISTING FINISHES THIS WALL FULL HEIGHT.
10. REMOVE PORTION OF EXISTING CEILING FINISHES AS REQ'D BY ELECTRICAL WORK. COORDINATE WITH ELECTRICAL DWGS.
11. REMOVE EX. WINDOW AND MODIFY EX. OPENING AS REQUIRED FOR NEW DOOR OPENING - MAINTAIN EXISTING HEADER, REMOVE WALL BELOW WINDOW OPENING.

REFER TO SHEET G1.2 FOR TYPICAL SCOPE OF WORK MATRIX.

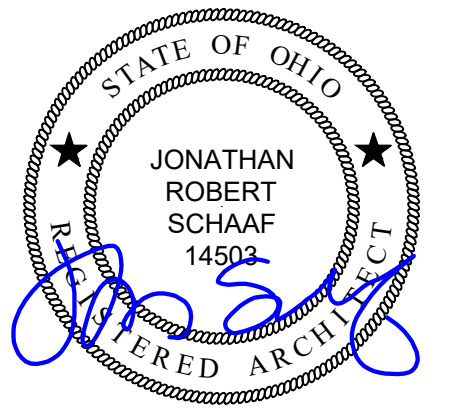
CONTRACTOR TO COORDINATE ALL REQUIREMENTS & DETAILS TO PROVIDE A COMPLETE & FINISHED PRODUCT.

REFER TO P/ME/ DRAWINGS FOR ADDITIONAL WORK SCOPE.

FIELD COORDINATE EXTENT OF CUT & PATCH OF EXISTING WALL & CEILING FINISHES WITH P/ME/ SCOPE OF WORK. THERE WILL BE ADDITIONAL AREAS OF CUT & PATCH BEYOND SPECIFIC LOCATIONS INDICATED TO ALLOW THE CONTRACTOR FLEXIBILITY TO EXECUTE THE WORK. THIS WORK SHALL BE INCLUDED COMPLETE IN THE BID AMOUNT.

**DEMOLITION GENERAL NOTES**

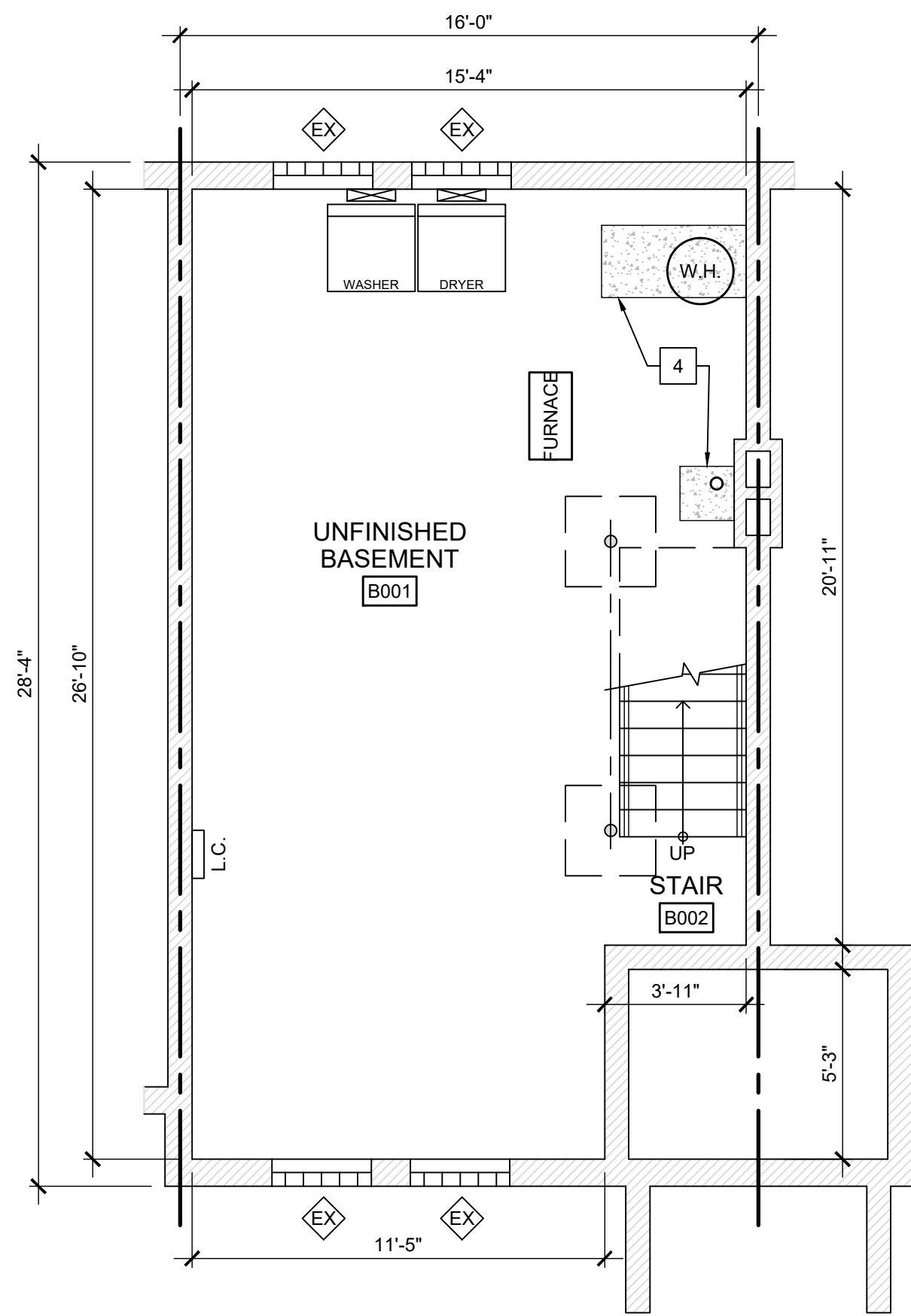
1. REMOVE ALL MATERIALS AND FINISHES REQUIRED TO PERFORM SCHEDULED WORK INCLUDING ANY ANCILLARY ITEMS.
2. SALVAGE ALL ITEMS AS DIRECTED BY OWNER OR AS NOTED IN THE DRAWINGS. COORDINATE ALL REQUIREMENTS FOR REINSTALLATION OF SALVAGED ITEMS. PROVIDE REPLACEMENT PARTS/COMPONENTS TO ALLOW COMPLETE INSTALLATION.
3. PROTECT ALL FINISHES AND MATERIALS SCHEDULED TO REMAIN FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGED FINISHES TO LIKE NEW CONDITION.
4. FIELD CONFIRM THE LOCATIONS OF ALL LOAD-BEARING FRAMING PRIOR TO REMOVALS. PROVIDE SHORING AND BRACING AS REQUIRED. CONTACT ARCHITECT IF CONDITIONS VARY FROM THE INTENT OF THE DRAWINGS.
5. PROVIDE ALL NECESSARY TEMPORARY BRACING AND SHORING DURING DEMOLITION AND CONSTRUCTION WORK.
6. CONTACT ARCHITECT/OWNER IF HAZARDOUS MATERIALS ARE DISCOVERED THAT HAVE NOT BEEN IDENTIFIED.
7. REMOVE/TERMINATE/CAP EXISTING UTILITIES AS REQUIRED BY WORK. - PLUMBING SUPPLY/DRAIN PIPING, GAS PIPING, ELECTRICAL CIRCUITS, ETC. F.V. REQUIREMENTS AND EXISTING ROUTING.
8. REMOVE ALL MISCELLANEOUS ITEMS, CONDUITS, WIRES, ETC. FROM SURFACES AND WALL CAVITIES. REROUTE/RELOCATE CONCEALED IN WALL.
9. PROVIDE ALL PREP WORK FOR NEW FINISHES AND PROPOSED WORK.
10. ANY PART OR PARTS OF THE EXISTING BUILDING STRUCTURE (IN PART OR IN WHOLE) THAT SHOWS SIGNS OF ROTTING, VANDALISM, WATER DAMAGE, PEST DAMAGE, OR ANY OTHER DETERIORATION THAT MAY CAUSE THAT PART OR PARTS TO NOT COMPLY WITH ANY EXISTING APPLICABLE GOVERNMENT BUILDING CODES AND STANDARDIZED CONSTRUCTION PRACTICES. SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND OWNER IMMEDIATELY UPON DISCOVERY.



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Expiration Date 12/31/2025

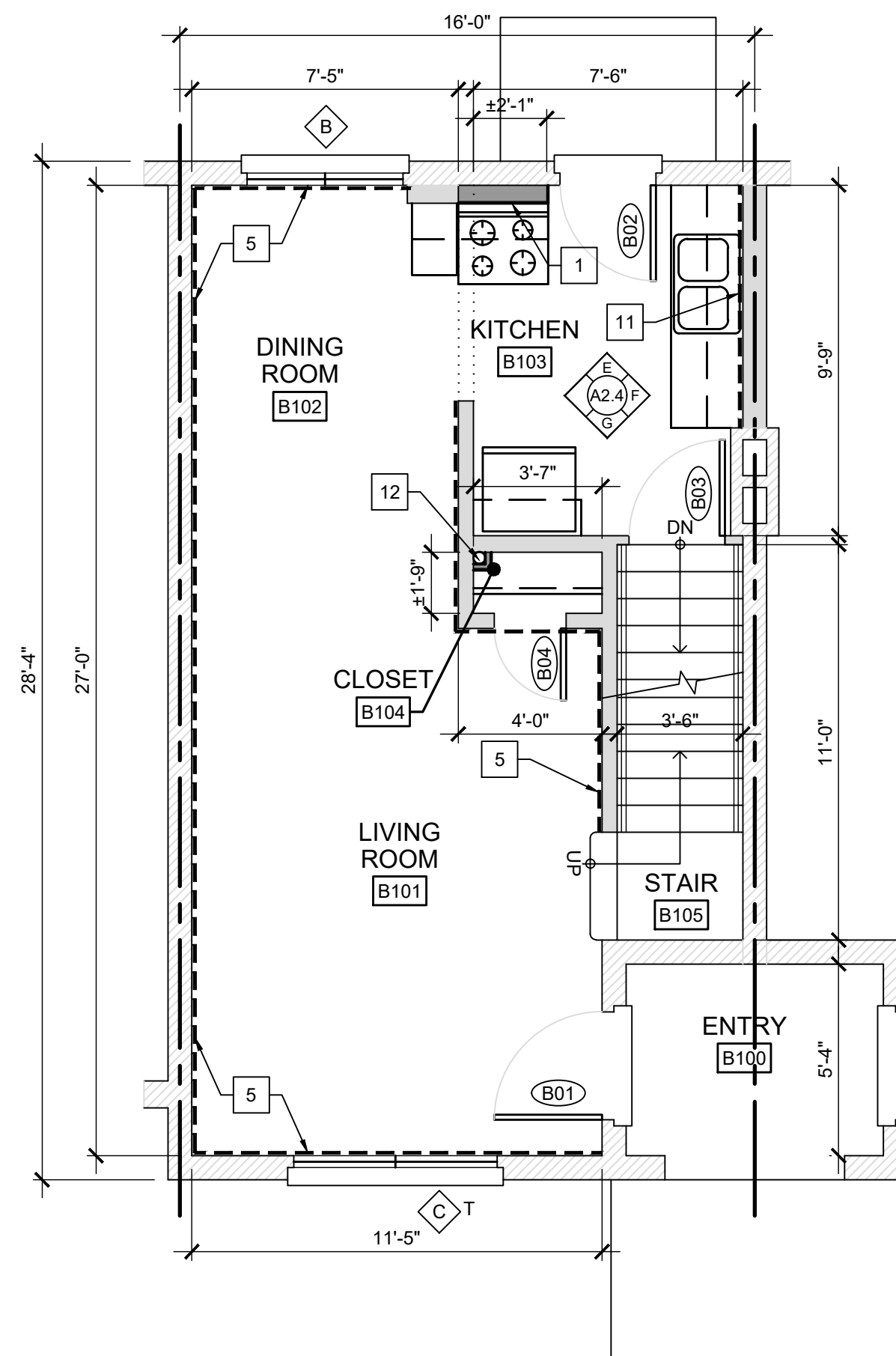
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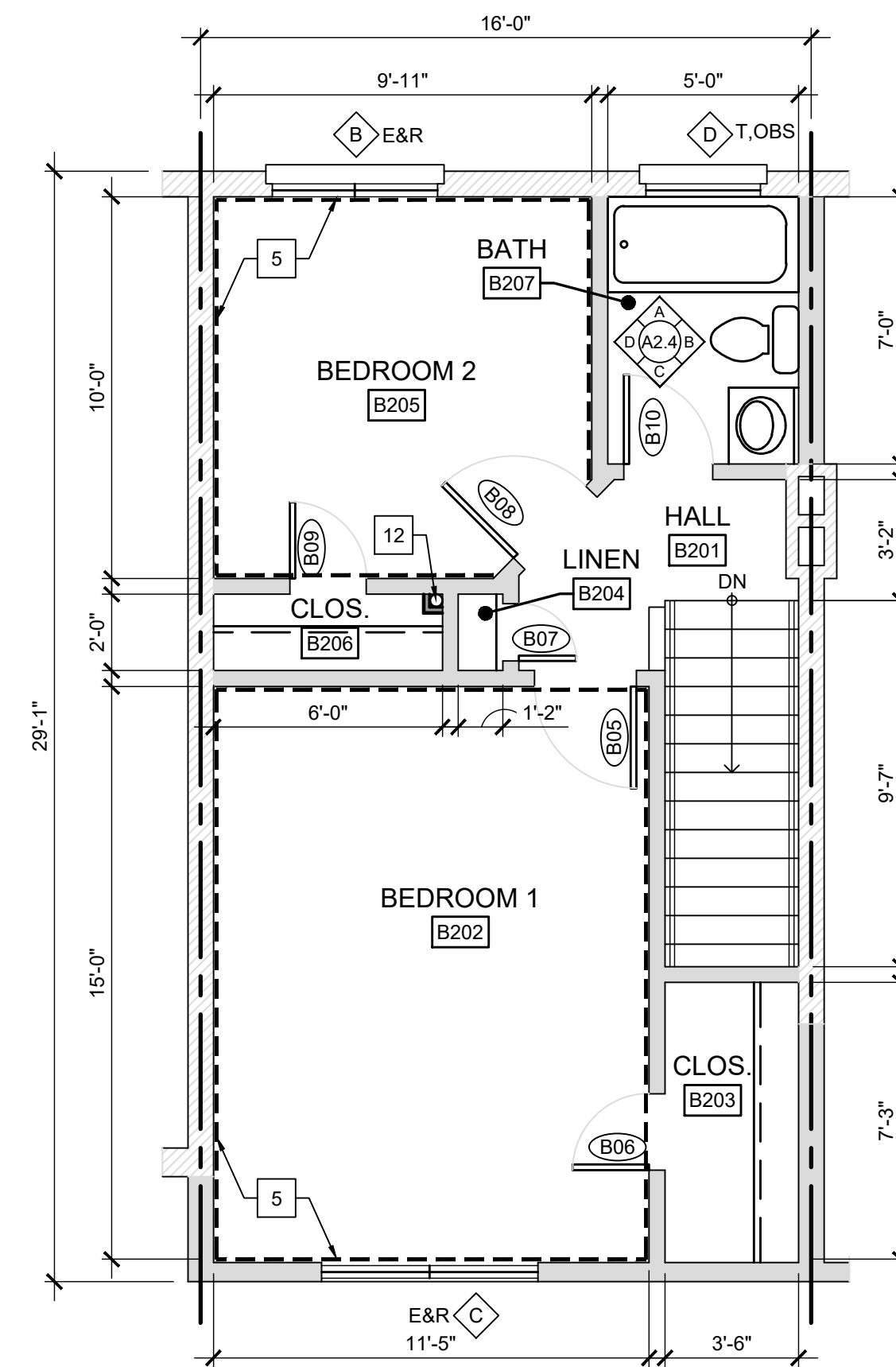
**A** UNIT TYPE 'B' - PROPOSED BASEMENT FLOOR PLAN

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



**B** UNIT TYPE 'B' - PROPOSED FIRST FLOOR PLAN

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



**C** UNIT TYPE 'B' - PROPOSED SECOND FLOOR PLAN

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

**# NEW WORK KEY NOTES** (TYPICAL ALL UNIT TYPES)

- NEW 2x WOOD STUD CHASE WALL W/ GYP. BD. FINISHES. ALIGN W/ EXISTING ADJACENT CHASE WALL.
- NEW 60 MINUTE FIRE RATED SOLID CORE WOOD UNIT ENTRY DOOR, FRAME, CASING, AND HARDWARE / ACCESSORIES AT THIS OPENING. MODIFY/REPAIR EX. WALL FINISHES, BASE, ETC. AS REQ'D.
- NEW FURRING WALL W/ 2x4 WOOD STUDS AT 16" O.C. & 1/2" GYP. BD. FINISHES ON ONE SIDE.
- PATCH CONCRETE SLAB AS REQ'D - FINISH FLUSH
- PATCH/INSTALL NEW GYPSUM BOARD FINISHES TO 24" A.F.F. MATCH EX. ADJACENT FLUSH. REFER TO CODE PLANS FOR LOCATIONS OF FIRE RATED ASSEMBLIES - INFILL / REPAIR TO FOLLOW APPLICABLE UL ASSEMBLY IDENTIFIED.
- INFILL EXISTING OPENING W/ 2x WOOD STUDS AND GYP. BS. FINISHES - FINISH FLUSH BOTH SIDES
- EXISTING GLASS BLOCK WINDOW TO REMAIN.
- REMOVE EX. INSTALL NEW WOOD ACCESS PANEL W/ WOOD CASING.
- NEW WALL MOUNTED MAILBOXES
- INSTALL 1/2" GYP. BD. FINISHES AT NEW CASED OPENING.
- INSTALL NEW GYPSUM BOARD FINISHES FULL HEIGHT. MATCH EX. ADJACENT FLUSH. REFER TO CODE PLANS FOR LOCATIONS OF FIRE RATED ASSEMBLIES - INFILL / REPAIR TO FOLLOW APPLICABLE UL ASSEMBLY IDENTIFIED.
- BOX OUT RADON PIPING W/ 2x WOOD STUD FRAMING AND GYP. BD. FINISHES. FURRING SHALL BE AS TIGHT TO PIPING AS POSSIBLE

NOTE: MAINTAIN CONTINUITY OF FIRE SEPARATION ASSEMBLIES BETWEEN UNITS.

FIELD COORDINATE EXTENT OF CUT & PATCH OF EXISTING WALL & CEILING FINISHES WITH P/ME/SCOPE OF WORK. THERE WILL BE ADDITIONAL AREAS OF CUT & PATCH BEYOND SPECIFIC LOCATIONS INDICATED TO ALLOW THE CONTRACTOR FLEXIBILITY TO EXECUTE THE WORK. THIS WORK SHALL BE INCLUDED COMPLETE IN THE BID AMOUNT.

**GYPSUM BOARD REQUIREMENTS**

- NON-PAPERFACED GYPSUM BOARD SHALL BE IN THE FOLLOWING AREAS:
- BEHIND KITCHEN SINK AND BATHROOM/TOILET ROOM SINKS TO A HEIGHT OF APPROXIMATELY 3 INCHES ABOVE BASE CABINET.
  - SHOWER WALLS WHERE THE NON-PAPERFACED GYPSUM BOARD WILL NOT HAVE AN EXPOSED FINISH EXCEPT 6 INCHES BEYOND SHOWER AND TUB JAMBS FLOOR TO TOP OF SHOWER SURROUND OR 6 INCHES ABOVE HEAD AND THIS MAY BE CASED WITH WATER AND ROT RESISTANT TRIM.
  - BEHIND TOILETS AND THE SPACE BETWEEN THE SHOWER ENCLOSURE AND TO THE TOP OF TOILET TANKS MUST BE COVERED AS IT IS A HIGH FAILURE POINT SPECIFICALLY COVERED BY PAPERLESS GYPSUM BOARD.
  - NON-PAPERFACED GYPSUM BOARD SHALL ONLY BE LOCATED ON CEILINGS THAT BATHROOM OR TOILET ROOMS ARE LOCATED ABOVE.
  - ON WALLS LESS THAN 4 FEET FROM SPRINKLER SERVICE CONTROLS AND WATER SERVICE LINES LOCATED IN SERVICE ROOMS.
- PAPER-FACED MOISTURE RESISTANT GYPSUM BOARD SHALL BE IN THE FOLLOWING AREAS:
- WITHIN 4 FEET HORIZONTALLY AND VERTICALLY OF ANY WATER SOURCE, EXCEPT DIRECTLY BEHIND SINKS, TUBS, AND SHOWER SURROUNDS AND BEHIND TOILETS WHERE NON-PAPERFACED GYPSUM BOARD WILL BE INSTALLED.
  - WITHIN 4 FEET IN ANY DIRECTION BEHIND LAUNDRY/CLOTHES WASHING MACHINES, WATER HEATERS, WATER METERS, ETC.
  - BEHIND PUBLIC DRINKING FOUNTAINS.

REFER TO UL ASSEMBLIES FOR ADDITIONAL REQUIREMENTS ON GYPSUM BOARD REQUIREMENTS.

**GENERAL NOTES**

- REPAIR/SKIM COAT EXISTING GYPSUM BOARD / PLASTER AT WALLS AND CEILINGS AS REQ'D BY WORK TO CREATE LIKE NEW CONDITION. INTENT OF GYP. BD./PLASTER REPAIRS IS TO MATCH EXISTING TEXTURE/FINISH AS APPLICABLE. (LEVEL 4 FINISH MINIMUM) NEW GYPSUM BOARD AT HIGH MOISTURE AREAS SHALL BE NON-PAPER FACED MOLDMOISTURE RESISTANT GYPSUM BOARD (LEVEL 5 FINISH)
- PROVIDE WOOD BLOCKING IN WALLS TO SUPPORT WALL MOUNTED ITEMS, TOILET ACCESSORIES, DOOR STOPS, ELECTRICAL COMPONENTS, ETC. CONCEAL ALL WITHIN WALL STUD CAVITIES. CUT/PATCH GYP. BD. AS REQ'D.
- CUT & PATCH EXISTING WALLS/CEILINGS AS REQ'D BY WORK - NEW ROUTING OF WIRING, ETC. EXTENT & LOCATIONS TO BE COORDINATED BY CONTRACTOR AND SUB CONTRACTORS.
- PAINT ALL NEW AND EXISTING WALLS AND CEILINGS, TRIM, SHELVEING, ETC. THAT REQUIRE PAINTING. ALL PAINTING / PAINT TOUCH UP / PUNCH OUT SHALL BE ACCOMPLISHED COMPLETE FROM CORNER TO CORNER, FLOOR TO CEILING OR A NATURAL STOP POINT.
- PROVIDE FLOOR LEVELER AS REQUIRED BY EXISTING CONDITIONS. INSTALL NEW UNDERLAYMENT AT BATHROOMS AND ANY ADDITIONAL DAMAGED LOCATIONS DISCOVERED DURING PROJECT DEMO.
- INSTALL NEW SEALANT JOINT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
- SEAL ALL WALL, FLOOR & JOINT PENETRATIONS W/ LOW VOC SEALANT OR OTHER APPROPRIATE NON-TOXIC SEALING METHODS TO PREVENT PEST ENTRY.
- COORDINATE ALL EXISTING AND PROPOSED ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH P/ME DRAWINGS. FIELD COORDINATE BET. TRADES. REMOVE & REPAIR FINISHES/GYPSUM BOARD AS REQ'D TO ACCOMPLISH.

Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**

9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
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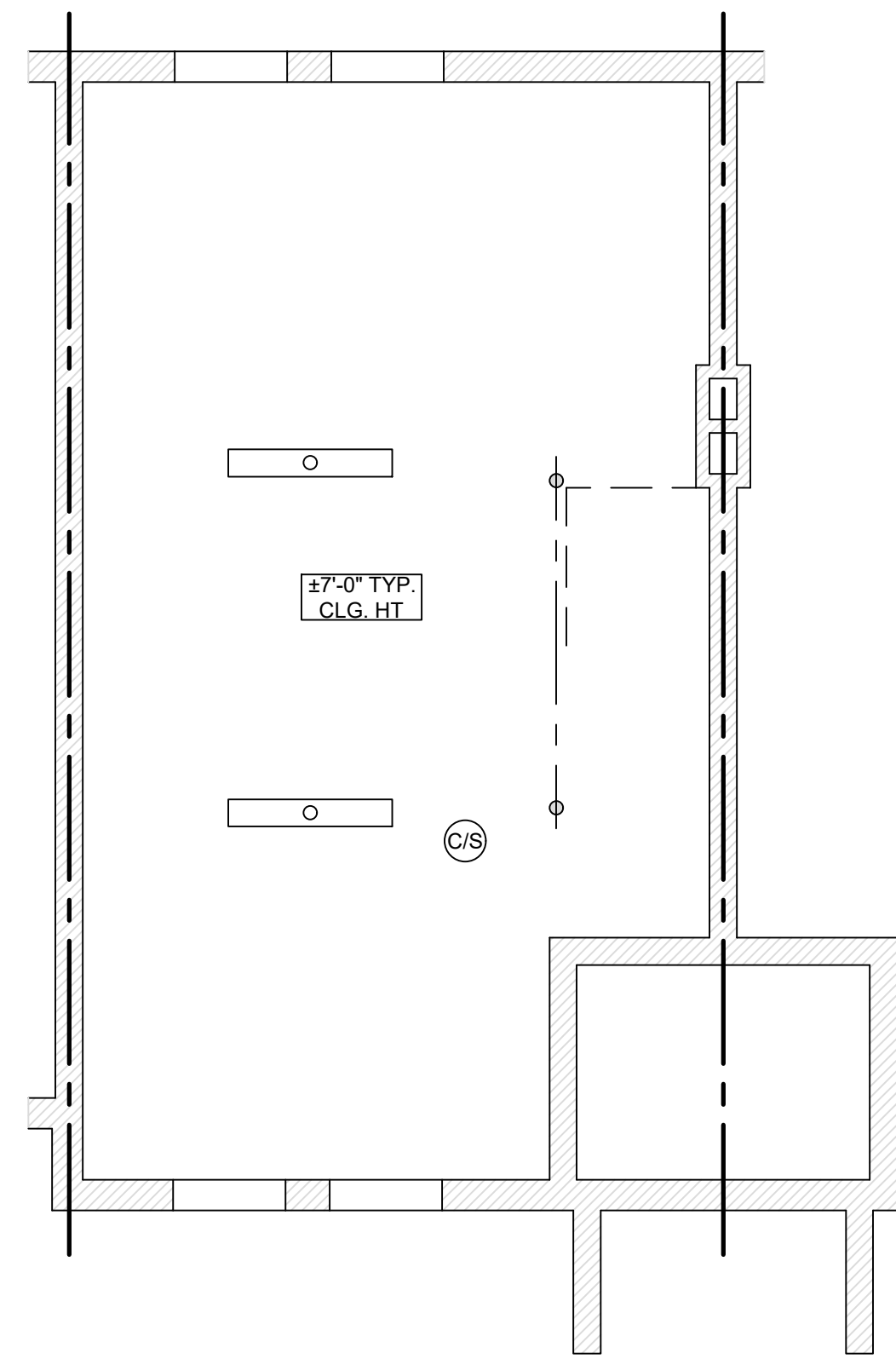
Project Number	
2021-033	
Date	
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Date	Issue
10.10.22	Preliminary
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02.29.24	Permit
05.01.24	PRC / Bid Set
Sheet Title	
Unit Type 'B' Proposed Floor Plans	
Sheet Number	

**A2.2**

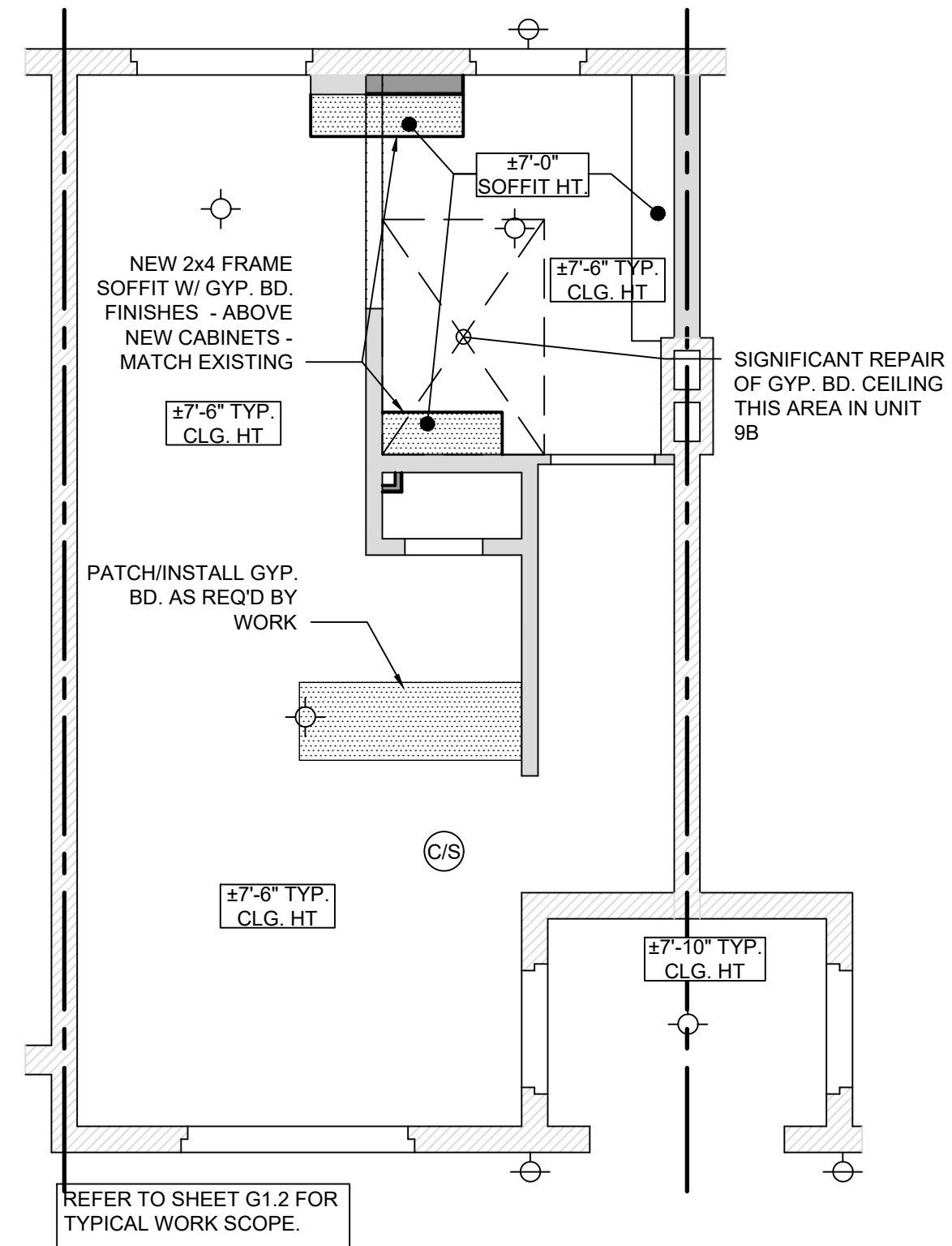


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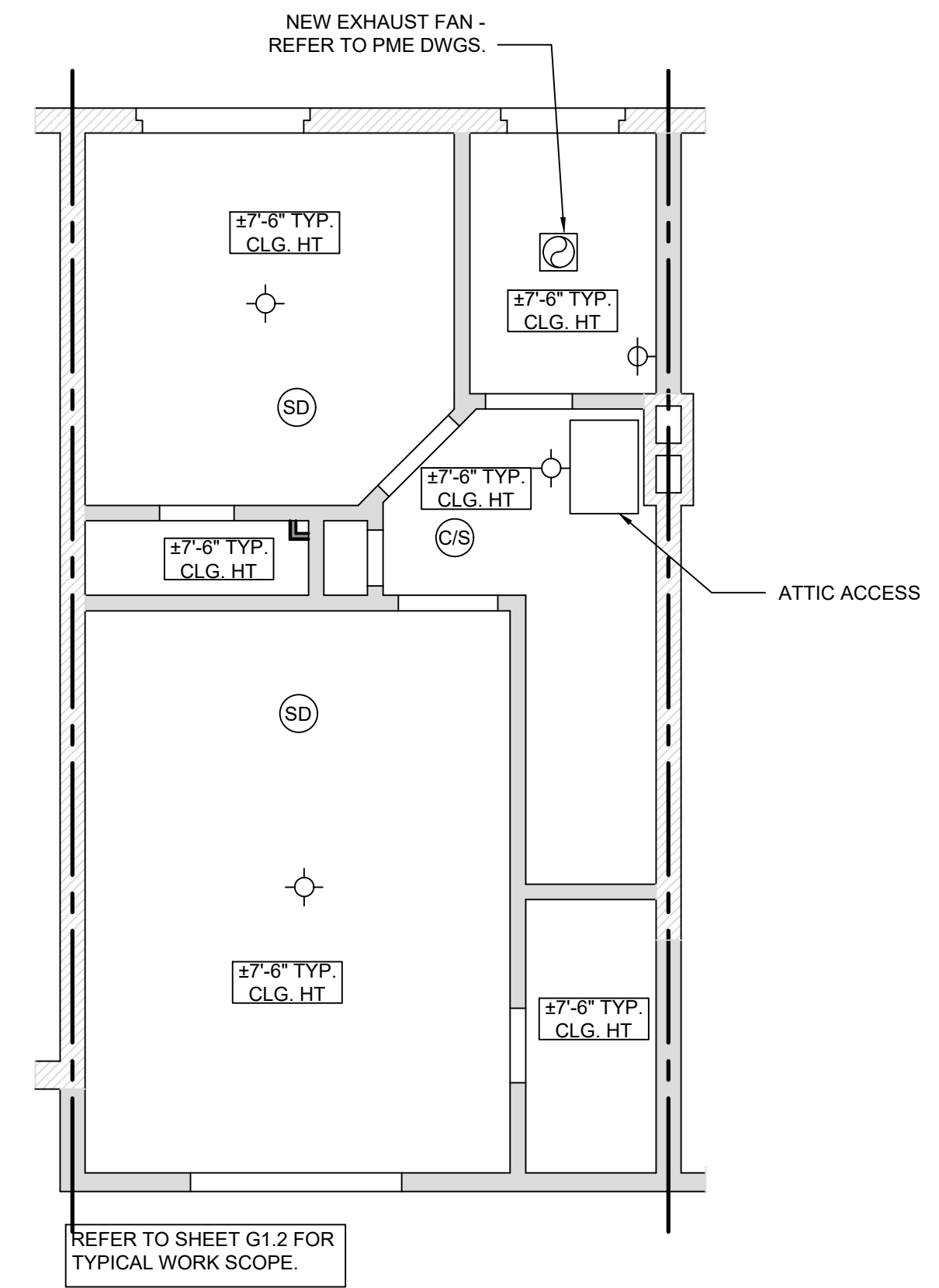
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**UNIT TYPE 'B'**  
**BASEMENT**  
**REFLECTED CEILING PLAN**  
SCALE: 1/4" = 1'-0"



**UNIT TYPE 'B'**  
**FIRST FLOOR**  
**REFLECTED CEILING PLAN**  
SCALE: 1/4" = 1'-0"



**UNIT TYPE 'B'**  
**SECOND FLOOR**  
**REFLECTED CEILING PLAN**  
SCALE: 1/4" = 1'-0"

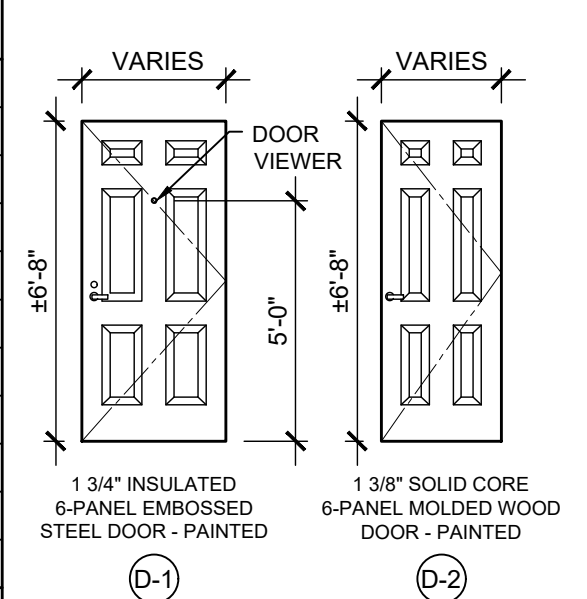
**RCP SYMBOL LEGEND**

- CEILING MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DWGS.
- WALL MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DWGS.
- EMERGENCY LIGHT / EXIT SIGN - REFER TO ELECTRICAL DWGS.
- EXHAUST FAN - REFER TO MECHANICAL DWGS.
- HVAC DIFFUSER - REFER TO MECHANICAL DWGS.
- SMOKE DETECTOR - REFER TO ELECTRICAL DWGS.
- COMBINATION CARBON MONOXIDE / SMOKE DETECTOR - REFER TO ELECTRICAL DWGS.

**DOOR SCHEDULE**

#	SIZE	FRAME	DOOR	HWDR	FIRE	REMARKS
B01	3'-0" x 6'-8"	F-1	D-1	H-1	-	-
B02	2'-8" x 6'-8"	F-1	D-1	H-1	-	-
B03	2'-8" x 6'-8"	F-1	D-2	H-2	-	-
B04	2'-0" x 6'-8"	F-1	D-2	H-2	-	-
B05	2'-8" x 6'-8"	F-1	D-2	H-2	-	-
B06	2'-0" x 6'-8"	F-1	D-2	H-2	-	-
B07	1'-6" x 6'-8"	F-1	D-2	H-2	-	-
B08	2'-8" x 6'-8"	F-1	D-2	H-2	-	-
B09	2'-0" x 6'-8"	F-1	D-2	H-2	-	-
B10	2'-4" x 6'-8"	F-1	D-2	H-3	-	-

**DOOR TYPES**



**FRAME TYPES**

- (F-1) HOLLOW METAL FRAME

**DOOR NOTES**

- REFER TO SPECIFICATIONS FOR FULL DOOR REQMTS.
- NOMINAL SIZES INDICATED. CONTRACTOR TO VERIFY ALL R.O. SIZES, ETC.
- PROVIDE FLOOR/WALL STOPS & HINGE STOPS AT ALL DOORS.
- COORDINATE ALL REQUIRED HARDWARE WITH OWNER.
- COORDINATE ALL KEYING WITH OWNER.
- REMOVE EXISTING, INSTALL NEW HARDWARE AT ALL EXISTING DOORS SCHEDULED TO REMAIN
- PROVIDE ALL REQUIRED ACCESSORIES AND HARDWARE COMPONENTS FOR A COMPLETE INSTALLATION.
- SIZE NEW DOORS TO FIT INTO EXISTING STEEL FRAMES TO REMAIN. FIELD VERIFY ALL EXISTING STEEL FRAME HARDWARE PREP LOCATIONS & PREP NEW DOORS TO ACCOMMODATE EXISTING LOCATIONS.

**HARDWARE TYPES**

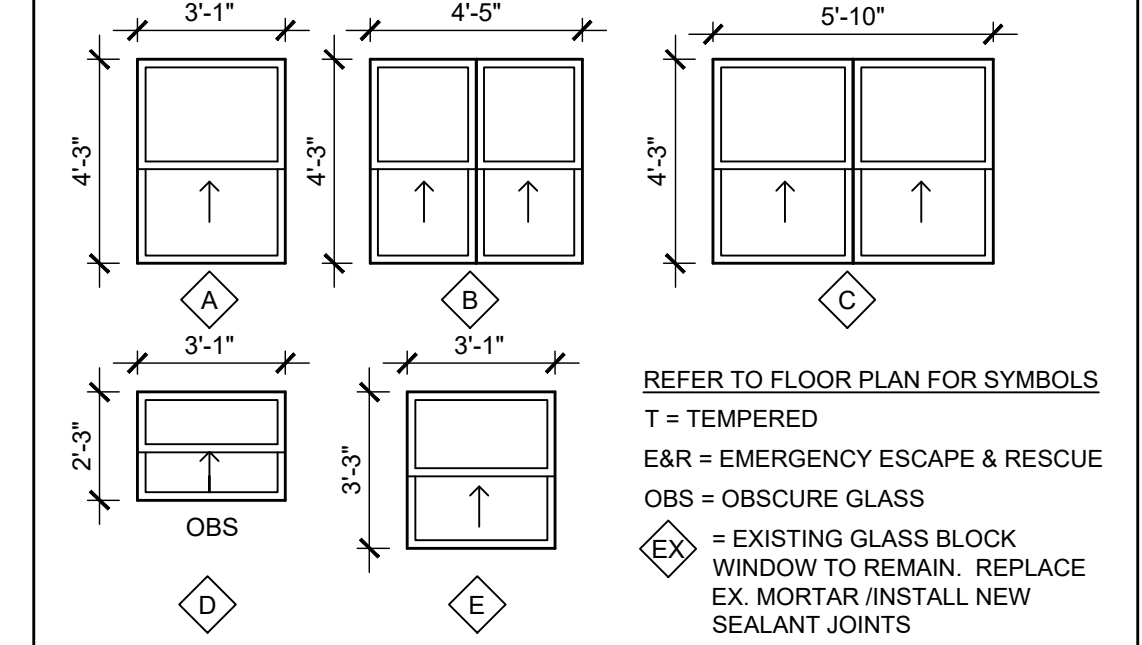
- H-1 - UNIT ENTRY
- H-2 - PASSAGE
- H-3 - PRIVACY SET

NOTE: REFER TO SPECIFICATIONS FOR SPECIFIC DETAILS ON HARDWARE

**WINDOW SCHEDULE**

#	NEW/EXIST.	SIZE	MATERIAL	TYPE	EMERGENCY ESCAPE & RESCUE
A	NEW	3'-1" X 4'-3"	VINYL	DOUBLE HUNG	
B	NEW	4'-5" X 4'-3"	VINYL	TWIN DOUBLE HUNG	
C	NEW	5'-10" X 4'-3"	VINYL	TWIN DOUBLE HUNG	
D	NEW	3'-1" X 2'-3"	VINYL	DOUBLE HUNG	OBS
E	NEW	3'-1" X 3'-3"	VINYL	DOUBLE HUNG	

**WINDOW TYPES**



**WINDOW NOTES**

- INSTALL NEW JAMB MOUNTED MINI-BLINDS AT ALL WINDOW TYPES EXCEPT BATHROOM WINDOWS.
- REMOVE EXISTING, INSTALL NEW JOINT SEALANT AT INTERIOR AND EXTERIOR OF NEW WINDOW UNIT.
- REMOVE EX., INSTALL NEW SOLID SURFACE SILLS, TYP. SHIM AS REQ'D.
- REPAIR GYPSUM BOARD RETURNS / WOOD JAMBS AS REQ'D BY WORK.
- INSTALL NEW ALUMINUM WRAP JAMB EXTENSIONS AT EXTERIOR.
- REFER TO SHEET A4.1 FOR WINDOW DETAILS.

**ROOM FINISH SCHEDULE**

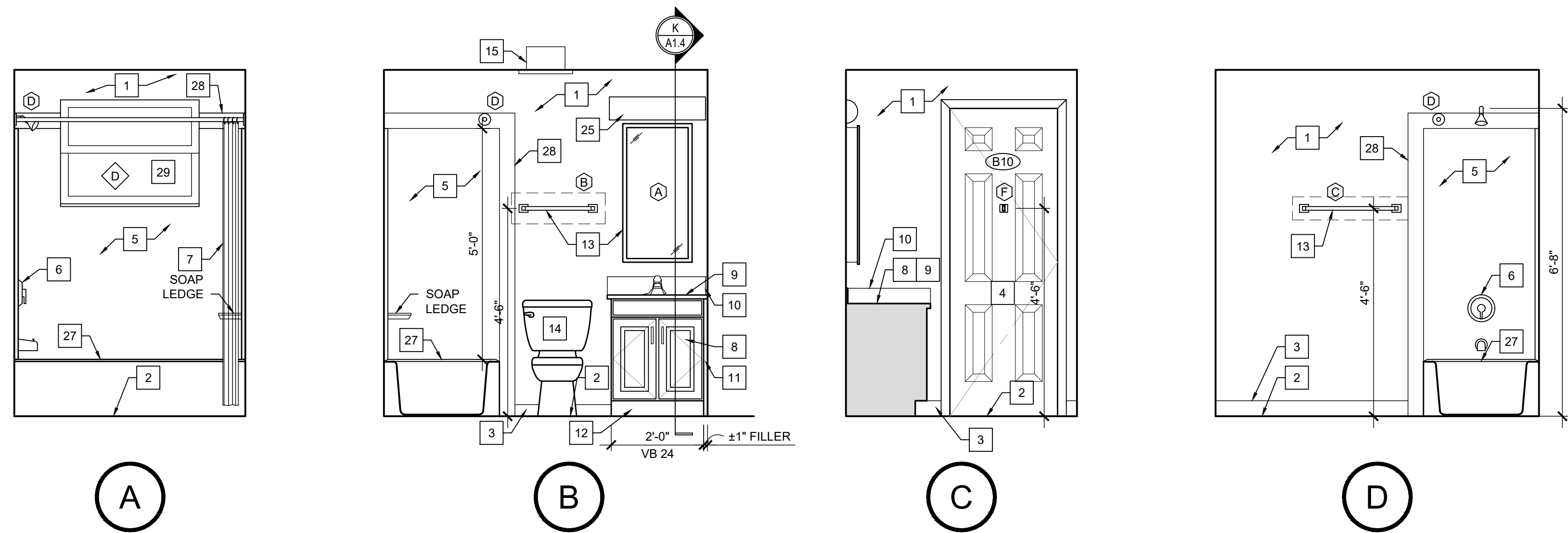
#	NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
B001	BASEMENT	CONC.	-	WATER-PROOF	EXIST	-
B002	STAIRS	CONC.	-	EXIST	EXIST	-
B100	ENTRY	CONC.	-	EX. BRICK	EX. CLG.	PREP & PAINT EX. BRICK / CLG.
B101	LIVING ROOM	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B102	DINING ROOM	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B103	KITCHEN	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B104	CLOSET	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B105	STAIRS	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B201	HALL	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
A202	BEDROOM 1	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B203	CLOSET	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B204	LINEN	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B205	BEDROOM 2	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B206	CLOSET	LVP	NEW WD	NEWEX GYP.PNT	NEWEX GYP.PNT	-
B207	BATH	TILE	TILE	NEW GYP.PNT	NEW GYP.PNT	-

**FINISH NOTES**

- INSTALL SHOE MOLD AT ALL WOOD BASE - ALL FLOOR TYPES.
- WALLS SHALL BE LEVEL 4 QUALITY FINISHED GYPSUM BOARD/PLASTER - PREP & PAINT.
- CEILING FINISH TO MATCH EXISTING FINISH - PREP & PAINT.
- EXISTING CEILING HEIGHT = 27'-6"
- EXISTING SOFFIT HEIGHT = 27'-0"
- INSTALL NEW UNDERLAYMENT AT ALL SUBFLOORS (CEMENT BOARD AT TILE) COORDINATE EXACT REQUIREMENTS WITH FINISH FLOOR MANUFACTURER.
- FINISHES - NEW, UNLESS NOTED AS EXISTING  
EX = EXISTING TO REMAIN; PREP AND PAINT  
EX GYP. = EXISTING GYPSUM BOARD / PLASTER FINISHES
- COORDINATE WITH FINISHES ON SHEET G1.2.
- INSTALL 4" RUBBER BASE AT ALL KITCHEN & BATH VANITY CABINETS, TYP.

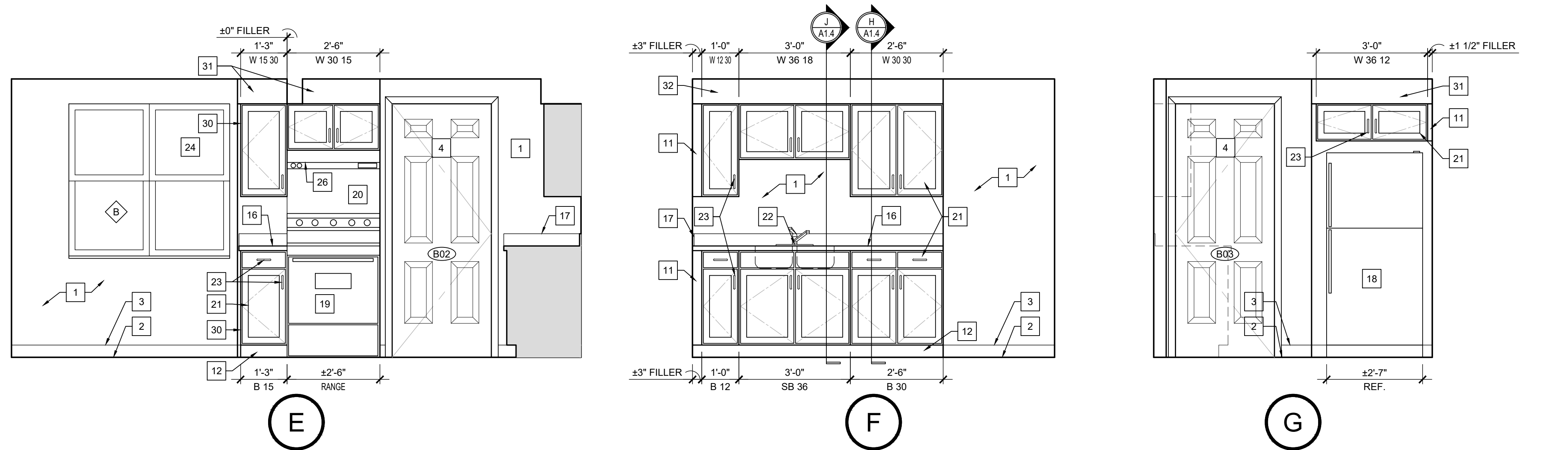
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11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set
Sheet Title	Unit Type 'B' Reflected Ceiling Plans & Schedules
Sheet Number	A2.3



**INTERIOR ELEVATIONS AT BATHROOM - UNIT TYPE 'B'**

SCALE: 1/2" = 1'-0"



**INTERIOR ELEVATIONS AT KITCHEN - UNIT TYPE 'B'**

SCALE: 1/2" = 1'-0"

**# INTERIOR ELEVATION KEY NOTES**

1. PAINTED GYPSUM BOARD/PLASTER, TYP.
2. NEW FLOOR FINISH AS SCHEDULED.
3. NEW BASE AS SCHEDULED.
4. DOOR - REFER TO DOOR SCHEDULE.
5. NEW SWANSTONE TUB/SHOWER SURROUND. REFER TO PLUMBING DRAWINGS.
6. NEW TUB/SHOWER HEAD & CONTROLS. REFER TO PLUMBING DRAWINGS.
7. SHOWER CURTAIN BY TENANT.
8. NEW STAINED BASE/VANITY CABINET.
9. NEW SWANSTONE COUNTER W/ INTEGRAL BOWL SINK, NEW FAUCET
10. PRE-MANUFACTURED SWANSTONE END SPLASH.
11. FILLER CUT TO FIT.
12. RUBBER BASE AT TOE KICK.
13. NEW BATHROOM ACCESSORIES. SEE SCHEDULE
14. NEW WATER CLOSET. REFER TO PLUMBING DRAWINGS.
15. NEW EXHAUST FAN - REFER TO MECH / ELEC DRAWINGS. PROVIDE RADIATION DAMPER.
16. NEW PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPASH.
17. NEW PLASTIC LAMINATE ENDSPLASH.
18. NEW REFRIGERATOR.
19. NEW RANGE.
20. NEW SPLASH PANEL AT WALL BEHIND & ADJACENT TO THE RANGE.
21. NEW STAINED WOOD BASE & WALL CABINETS.
22. NEW SINK AND FAUCET. REFER TO PLUMBING DRAWINGS.
23. NEW WIRE PULLS AT ALL CABINET DOORS / DRAWERS.
24. NEW WINDOW, PROVIDE NEW GYP. BOARD RETURN AS REQ'D BY WORK. INSTALL NEW SOLID SURFACE SILL. - REFER TO WINDOW SCHEDULE.
25. NEW LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS.
26. NEW VENTED RANGE HOOD. VENT DIRECTLY TO THE EXTERIOR.
27. NEW BATH TUB. REFER TO PLUMBING DRAWINGS.
28. 4" SWANSTONE TRIM AT ALL SIDES OF TUB/SHOWER SURROUND, TYP.
29. NEW WINDOW - REPAIR EX. GYP. BD. RETURNS AS REQ'D - RETURN SWANSTONE SURROUND BACK TO WINDOW. REFER TO DETAIL E/A4.1.
30. FINISHED END PANEL.
31. NEW SOFFIT W/ 2x4 STUD FRAMING AT 16" O.C. & GYP. BD. FINISHES - PAINT
32. EX. SOFFIT TO REMAIN - PREP & PAINT.
33. ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
34. SWANSTONE TRANSFER SHOWER BASE W/ SWANSTONE SURROUND - REFER TO PLUMBING DRAWINGS.
35. SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
36. AREA FOR SHOWER SEAT.
37. FINISH GRADE STAINED PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ACCESSIBILITY REQUIREMENTS.
38. FINISH GRADE STAINED WOOD PANEL AT FRONT OF CABINETS, MATCH CABINETS.
39. NEW ACCESSIBLE DROP-IN RANGE.
40. NEW STAINED WOOD ACCESSIBLE BASE AND WALL CABINETS.
41. ACCESSIBLE 22" DP, CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK. MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADIUS.
42. SLIDE OUT SHELVES AT ALL ACCESSIBLE BASE CABINETS.
43. RANGE HOOD CONTROL SWITCH.
44. COUNTERTOP MICROWAVE.

**○ BATHROOM ACCESSORY SCHEDULE**

MARK	SIZE
A	18"x36" MIRROR/MEDICINE CABINET - SURFACE MOUNT
B	18" TOWEL BAR
C	24" TOWEL BAR
D	SHOWER CURTAIN ROD
E	TOILET PAPER DISPENSER
F	ROBE HOOK
G	18" GRAB BAR
H	36" GRAB BAR
J	42" GRAB BAR
K	CORNER GRAB BAR
L	FOLDING SHOWER SEAT
M	18"x36" MIRROR

\* ALL BATHROOMS RECEIVE NEW TOILET ACCESSORIES - REMOVE EXISTING ACCESSORIES. PROVIDE NEW 2x BLOCKING AS REQUIRED FOR ALL NEW ACCESSORIES. REPAIR EXISTING FINISHES TO MATCH ADJACENT, TYP.



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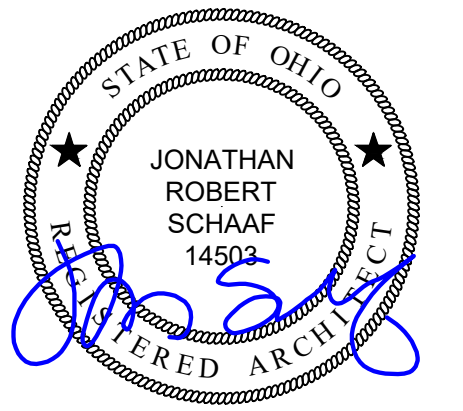
Date  
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02.29.24	Permit
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Sheet Title  
Unit Type 'B'  
Interior Elevations

Sheet Number

**A2.4**



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Date Issue

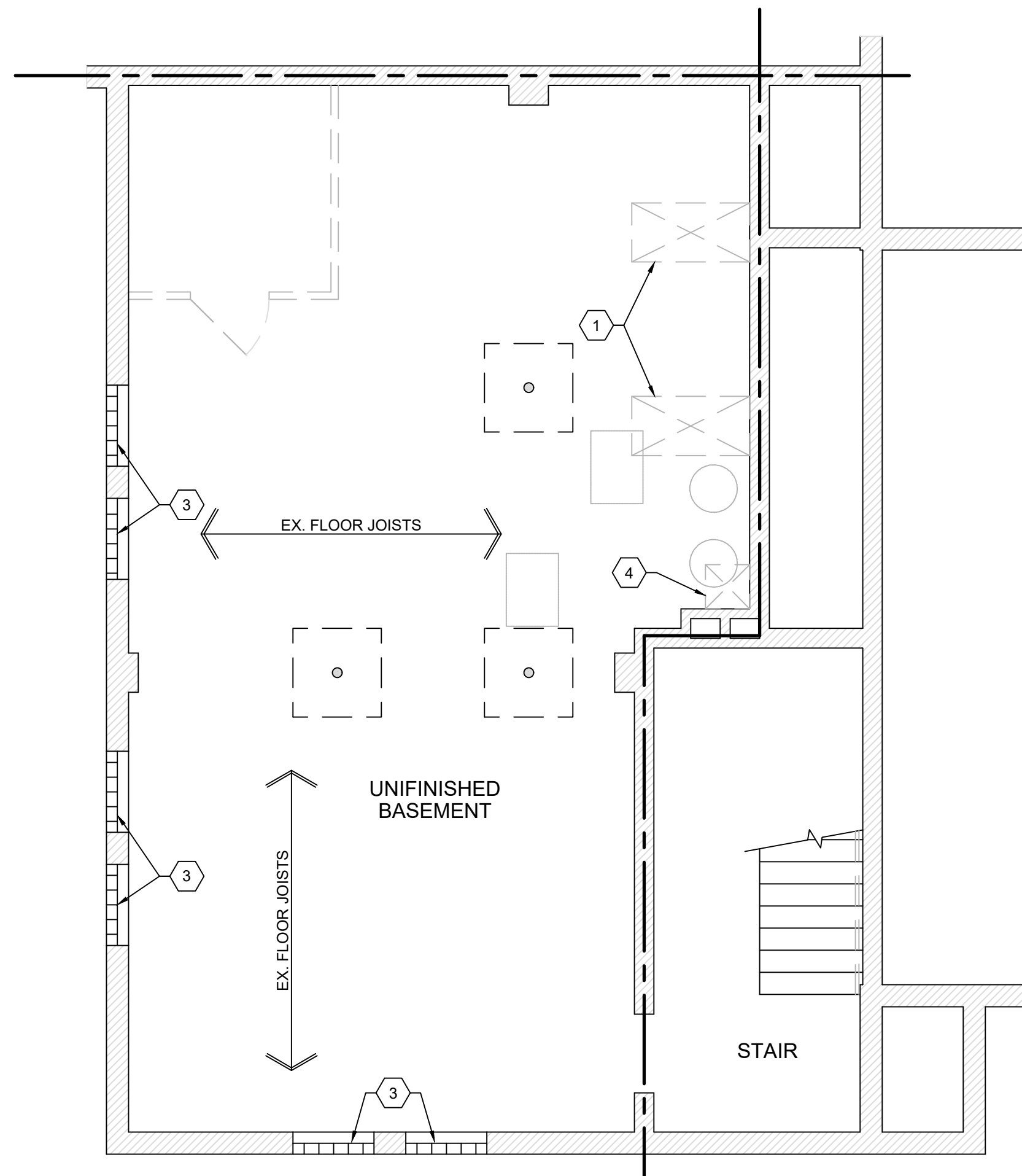
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Sheet Title

Unit Types 'C' & 'D'  
Existing / Demolition  
Floor Plans

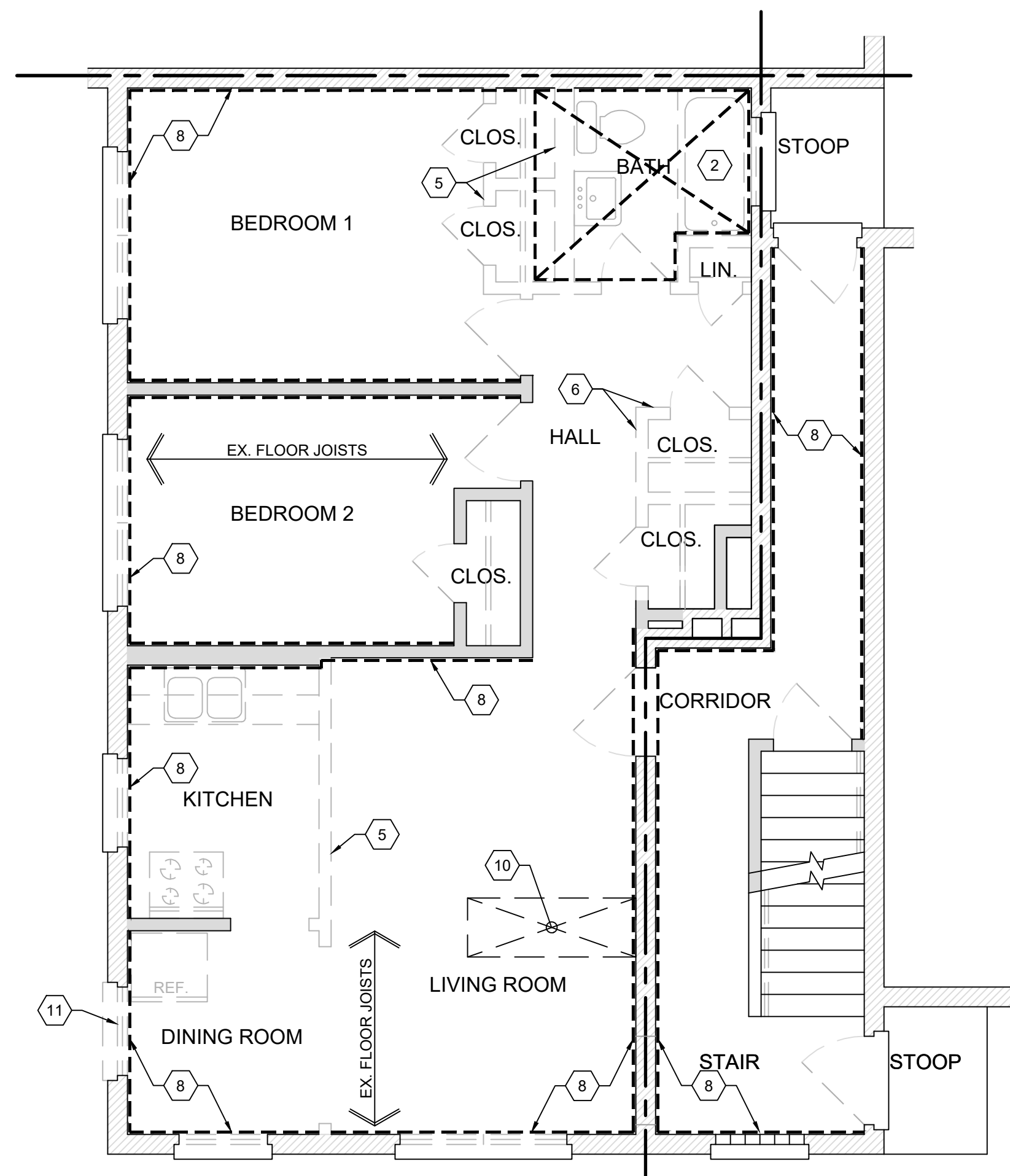
Sheet Number

**A3.1**



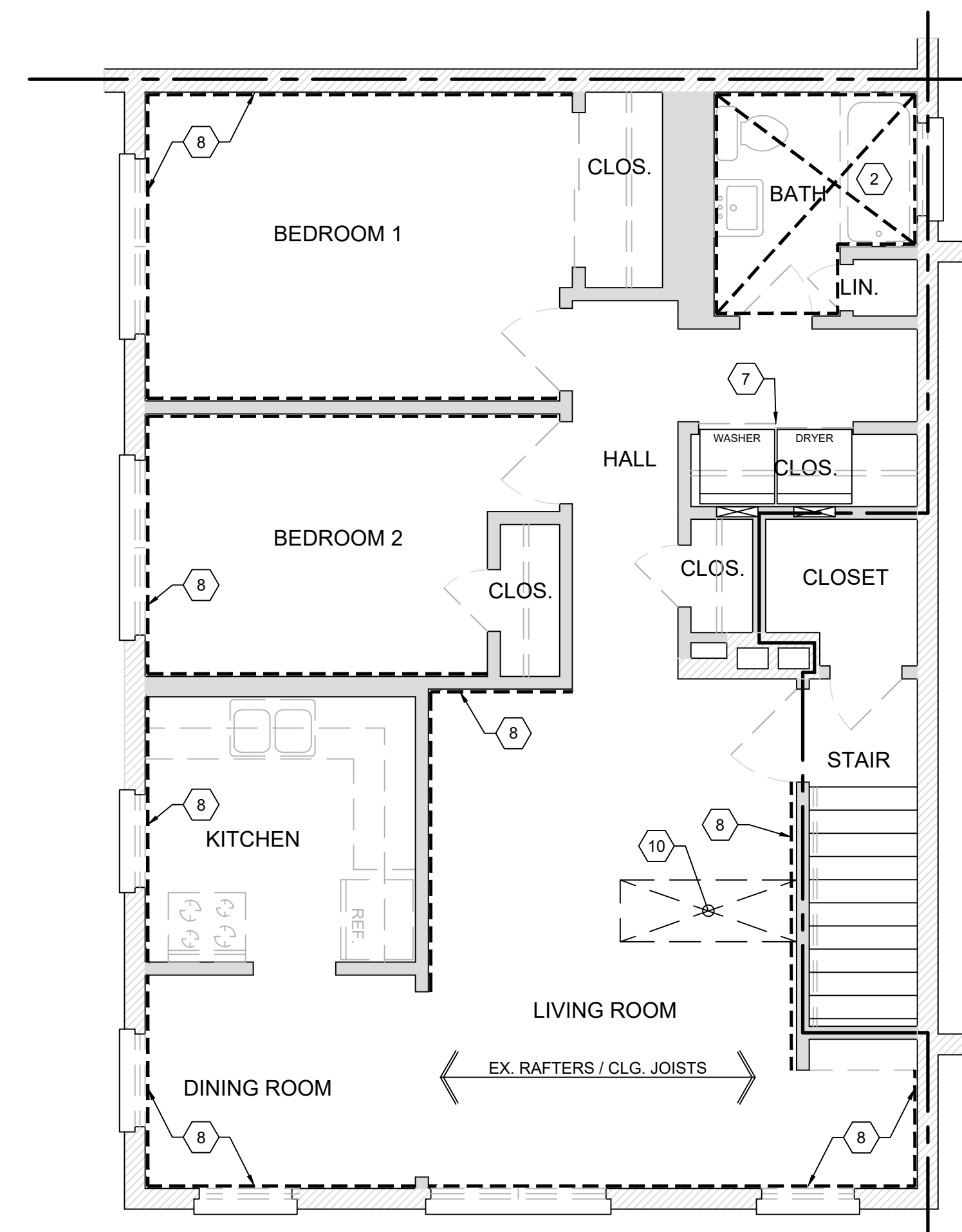
**A** COMMON AREA  
EXISTING / DEMOLITION  
BASEMENT FLOOR PLAN

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



**B** UNIT TYPE 'C'  
EXISTING / DEMOLITION  
FIRST FLOOR PLAN

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



**C** UNIT TYPE 'D'  
EXISTING / DEMOLITION  
SECOND FLOOR PLAN

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

**# DEMOLITION KEY NOTES**

- SAWCUT & REMOVE EX. CONCRETE SLAB THIS AREA AS REQ'D FOR UNDERSLAB PLUMBING WORK. COORDINATE WITH PLUMBING DRAWINGS.
- REMOVE EX. PLUMBING FIXTURES, ACCESSORIES, FLOOR FINISHES, SUBFLOOR, & WALL / CEILING PLASTER FINISHES COMPLETE TO EXPOSE EXISTING FRAMING AT BATHROOM. NOTIFY ARCHITECT OF ANY DETERIORATION. SISTER JOISTS/INSTALL BLOCKING TO PROVIDE BEARING AT ALL EDGES OF NEW SUBFLOOR AS REQ'D. INSTALL GYPSUM BOARD FINISHES & NEW PLYWOOD SUBFLOOR [MATCH EXISTING THICKNESS].
- EX. GLASS BLOCK WINDOWS TO REMAIN.
- SAWCUT & REMOVE EX. CONCRETE SLAB THIS AREA AS REQ'D FOR NEW PASSIVE RADON SYSTEM.
- REMOVE PARTITION WALL COMPLETE AS INDICATED.
- REMOVE EXISTING CLOSET COMPLETE AS INDICATED.
- REMOVE EX. INTERIOR DOOR, FRAME, HARDWARE, AND CASING AT THIS OPENING.
- REMOVE EXISTING PLASTER FINISHES TO 24" AFF THIS WALL.
- REMOVE EXISTING FINISHES THIS WALL FULL HEIGHT.
- REMOVE PORTION OF EXISTING CEILING FINISHES AS REQ'D BY ELECTRICAL WORK. COORDINATE WITH ELECTRICAL DWGS.
- REMOVE EX. WINDOW AND MODIFY EX. OPENING AS REQUIRED FOR NEW DOOR OPENING - MAINTAIN EXISTING HEADER, REMOVE WALL BELOW WINDOW OPENING.

REFER TO SHEET G1.2 FOR TYPICAL SCOPE OF WORK MATRIX.

CONTRACTOR TO COORDINATE ALL REQUIREMENTS & DETAILS TO PROVIDE A COMPLETE & FINISHED PRODUCT.

REFER TO P/ME/ DRAWINGS FOR ADDITIONAL WORK SCOPE.

FIELD COORDINATE EXTENT OF CUT & PATCH OF EXISTING WALL & CEILING FINISHES WITH P/ME/ SCOPE OF WORK. THERE WILL BE ADDITIONAL AREAS OF CUT & PATCH BEYOND SPECIFIC LOCATIONS INDICATED TO ALLOW THE CONTRACTOR FLEXIBILITY TO EXECUTE THE WORK. THIS WORK SHALL BE INCLUDED COMPLETE IN THE BID AMOUNT.

**DEMOLITION GENERAL NOTES**

- REMOVE ALL MATERIALS AND FINISHES REQUIRED TO PERFORM SCHEDULED WORK INCLUDING ANY ANCILLARY ITEMS.
- SALVAGE ALL ITEMS AS DIRECTED BY OWNER OR AS NOTED IN THE DRAWINGS. COORDINATE ALL REQUIREMENTS FOR REINSTALLATION OF SALVAGED ITEMS. PROVIDE REPLACEMENT PARTS/COMPONENTS TO ALLOW COMPLETE INSTALLATION.
- PROTECT ALL FINISHES AND MATERIALS SCHEDULED TO REMAIN FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY DAMAGED FINISHES TO LIKE NEW CONDITION.
- FIELD CONFIRM THE LOCATIONS OF ALL LOAD-BEARING FRAMING PRIOR TO REMOVALS. PROVIDE SHORING AND BRACING AS REQUIRED. CONTACT ARCHITECT IF CONDITIONS VARY FROM THE INTENT OF THE DRAWINGS.
- PROVIDE ALL NECESSARY TEMPORARY BRACING AND SHORING DURING DEMOLITION AND CONSTRUCTION WORK.
- CONTACT ARCHITECT/OWNER IF HAZARDOUS MATERIALS ARE DISCOVERED THAT HAVE NOT BEEN IDENTIFIED.
- REMOVE/TERMINATE/CAP EXISTING UTILITIES AS REQUIRED BY WORK. - PLUMBING SUPPLY/DRAIN PIPING, GAS PIPING, ELECTRICAL CIRCUITS, ETC. F.V. REQUIREMENTS AND EXISTING ROUTING.
- REMOVE ALL MISCELLANEOUS ITEMS, CONDUITS, WIRES, ETC. FROM SURFACES AND WALL CAVITIES. REROUTE/RELOCATE CONCEALED IN WALL.
- PROVIDE ALL PREP WORK FOR NEW FINISHES AND PROPOSED WORK.
- ANY PART OR PARTS OF THE EXISTING BUILDING STRUCTURE (IN PART OR IN WHOLE) THAT SHOWS SIGNS OF ROTTING, VANDALISM, WATER DAMAGE, PEST DAMAGE, OR ANY OTHER DETERIORATION THAT MAY CAUSE THAT PART OR PARTS TO NOT COMPLY WITH ANY EXISTING APPLICABLE GOVERNMENT BUILDING CODES AND STANDARDIZED CONSTRUCTION PRACTICES. SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND OWNER IMMEDIATELY UPON DISCOVERY.



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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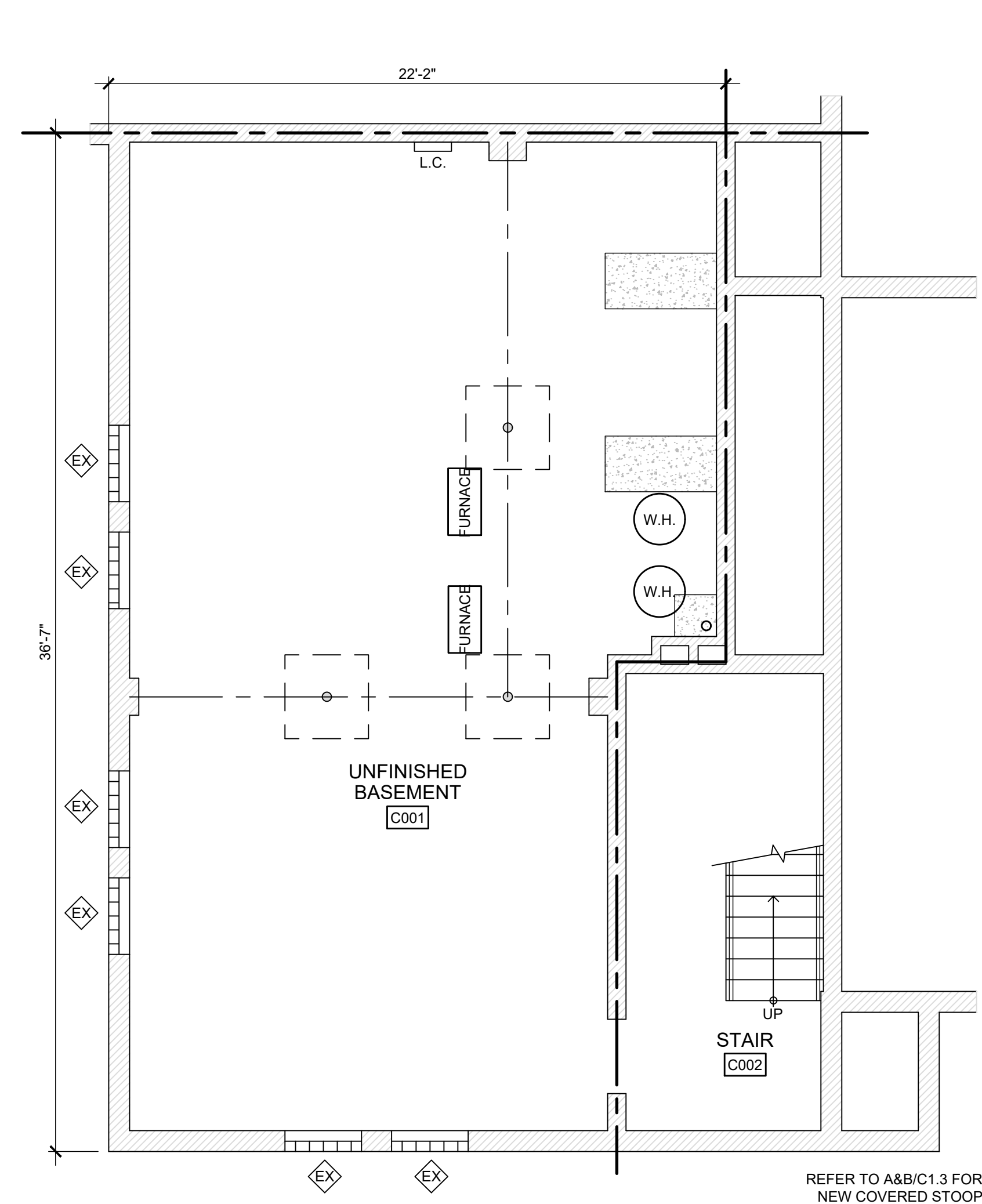
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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
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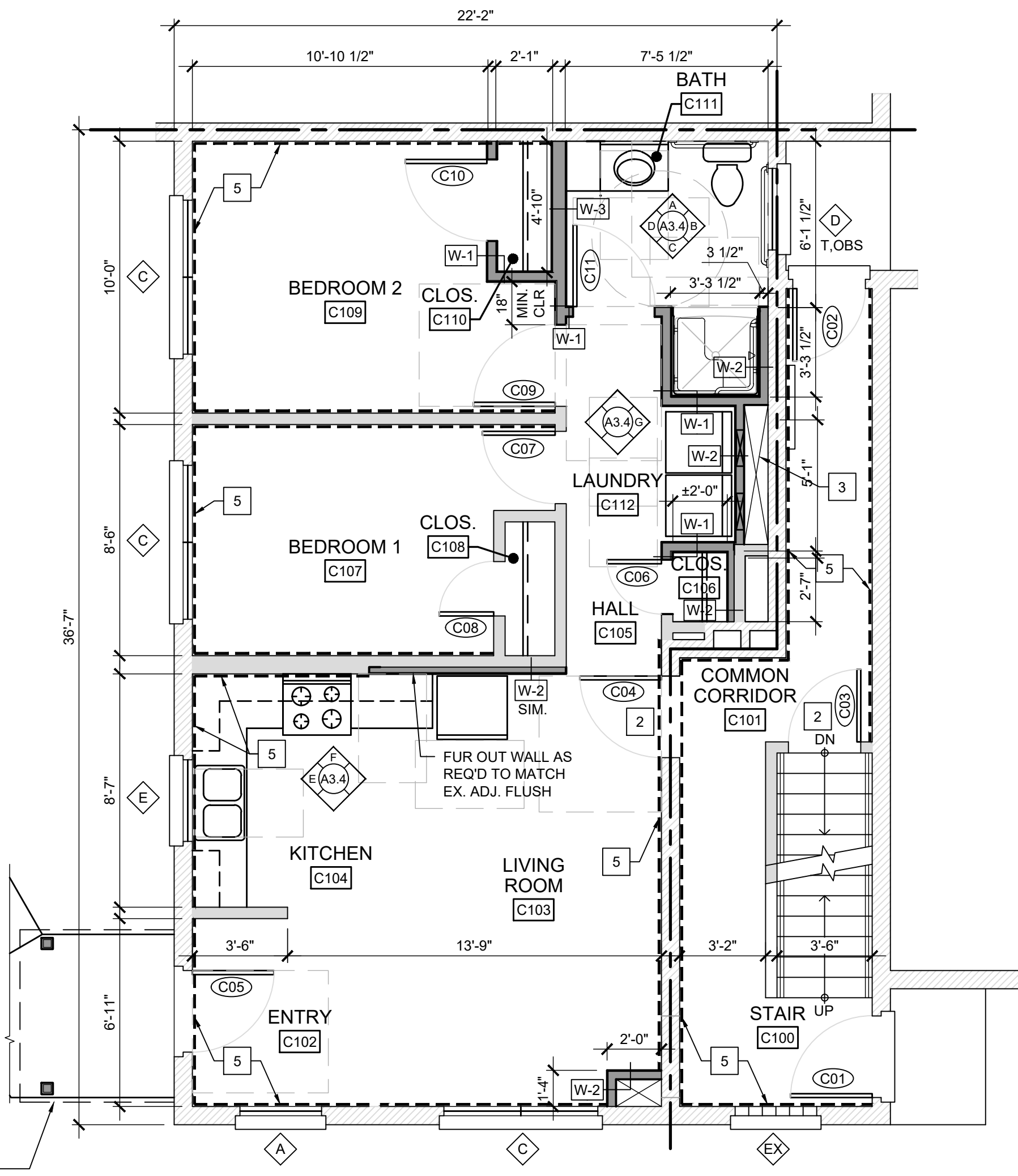
Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set
Sheet Title	
Unit Types 'C' & 'D' Proposed Floor Plans	
Sheet Number	

**A3.2**



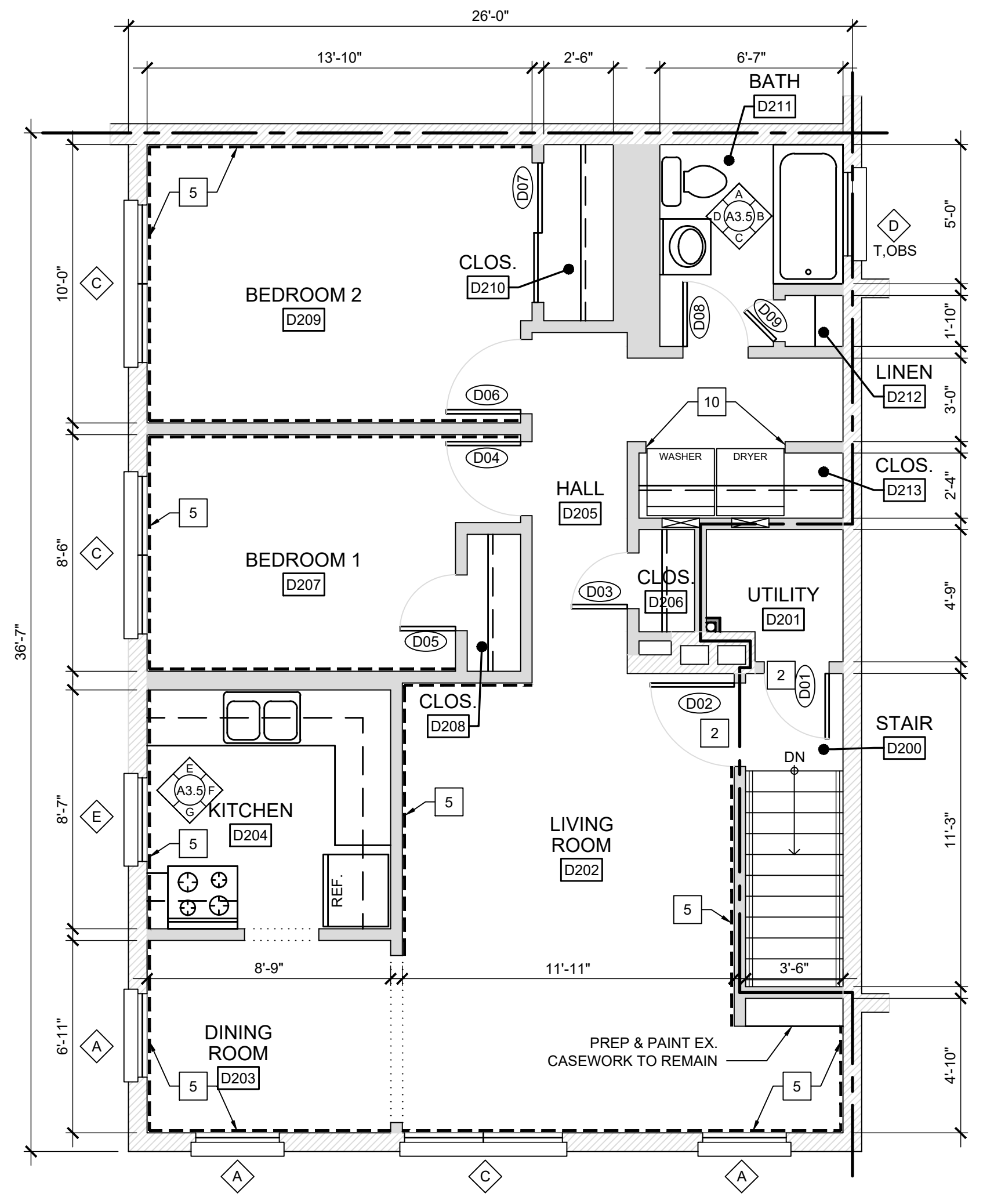
**COMMON AREA PROPOSED BASEMENT FLOOR PLAN**

SCALE: 1/4" = 1'-0" [North Arrow]



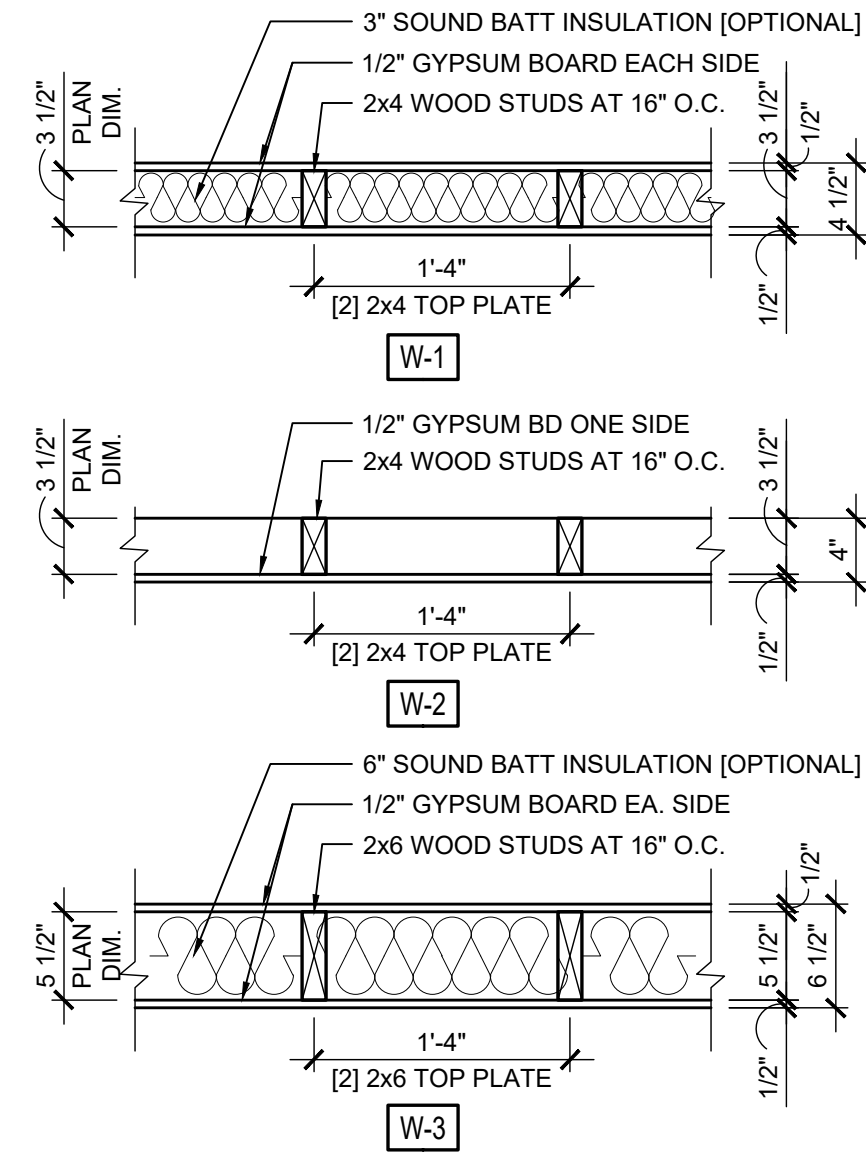
**UNIT TYPE 'C' PROPOSED FIRST FLOOR PLAN**

SCALE: 1/4" = 1'-0" [North Arrow]



**UNIT TYPE 'D' PROPOSED SECOND FLOOR PLAN**

SCALE: 1/4" = 1'-0" [North Arrow]



**WALL TYPES**

SCALE: 1" = 1'-0"

**NEW WORK KEY NOTES (TYPICAL ALL UNIT TYPES)**

- NEW 2x WOOD STUD CHASE WALL W/ GYP. BD. FINISHES. ALIGN W/ EXISTING ADJACENT CHASE WALL.
- NEW 60 MINUTE FIRE RATED SOLID CORE WOOD UNIT ENTRY DOOR, FRAME, CASING, AND HARDWARE / ACCESSORIES AT THIS OPENING. MODIFY/REPAIR EX. WALL FINISHES, BASE, ETC. AS REQ'D.
- NEW FURRING WALL W/ 2x4 WOOD STUDS AT 16" O.C. & 1/2" GYP. BD. FINISHES ON ONE SIDE.
- PATCH CONCRETE SLAB AS REQ'D - FINISH FLUSH
- PATCH/INSTALL NEW GYPSUM BOARD FINISHES TO 24" A.F.F. MATCH EX. ADJACENT FLUSH. REFER TO CODE PLANS FOR LOCATIONS OF FIRE RATED ASSEMBLIES - INFILL / REPAIR TO FOLLOW APPLICABLE UL ASSEMBLY IDENTIFIED.
- INFILL EXISTING OPENING W/ 2x WOOD STUDS AND GYP. BS. FINISHES - FINISH FLUSH BOTH SIDES
- EXISTING GLASS BLOCK WINDOW TO REMAIN.
- REMOVE EX. INSTALL NEW WOOD ACCESS PANEL W/ WOOD CASING.
- NEW WALL MOUNTED MAILBOXES
- INSTALL 1/2" GYP. BD. FINISHES AT NEW CASED OPENING.
- INSTALL NEW GYPSUM BOARD FINISHES FULL HEIGHT. MATCH EX. ADJACENT FLUSH. REFER TO CODE PLANS FOR LOCATIONS OF FIRE RATED ASSEMBLIES - INFILL / REPAIR TO FOLLOW APPLICABLE UL ASSEMBLY IDENTIFIED.
- BOX OUT RADON PIPING W/ 2x WOOD STUD FRAMING AND GYP. BD. FINISHES. FURRING SHALL BE AS TIGHT TO PIPING AS POSSIBLE

NOTE: MAINTAIN CONTINUITY OF FIRE SEPARATION ASSEMBLIES BETWEEN UNITS.

FIELD COORDINATE EXTENT OF CUT & PATCH OF EXISTING WALL & CEILING FINISHES WITH P/ME/SCOPE OF WORK. THERE WILL BE ADDITIONAL AREAS OF CUT & PATCH BEYOND SPECIFIC LOCATIONS INDICATED TO ALLOW THE CONTRACTOR FLEXIBILITY TO EXECUTE THE WORK. THIS WORK SHALL BE INCLUDED COMPLETE IN THE BID AMOUNT.

**GYPSUM BOARD REQUIREMENTS**

- NON-PAPERFACED GYPSUM BOARD SHALL BE IN THE FOLLOWING AREAS:
- BEHIND KITCHEN SINK AND BATHROOM/TOILET ROOM SINKS TO A HEIGHT OF APPROXIMATELY 3 INCHES ABOVE BASE CABINET.
  - SHOWER WALLS WHERE THE NON-PAPERFACED GYPSUM BOARD WILL NOT HAVE AN EXPOSED FINISH EXCEPT 6 INCHES BEYOND SHOWER AND TUB JAMBS FLOOR TO TOP OF SHOWER SURROUND OR 6 INCHES ABOVE HEAD AND THIS MAY BE CASED WITH WATER AND ROT RESISTANT TRIM.
  - BEHIND TOILETS AND THE SPACE BETWEEN THE SHOWER ENCLOSURE AND TO THE TOP OF TOILET TANKS MUST BE COVERED AS IT IS A HIGH FAILURE POINT SPECIFICALLY COVERED BY PAPERLESS GYPSUM BOARD.
  - NON-PAPERFACED GYPSUM BOARD SHALL ONLY BE LOCATED ON CEILINGS THAT BATHROOM OR TOILET ROOMS ARE LOCATED ABOVE.
  - WITHIN 4 FEET IN ANY DIRECTION BEHIND LAUNDRY/CLOTHES WASHING MACHINES, WATER HEATERS, WATER METERS, ETC. AND WATER SERVICE LINES LOCATED IN SERVICE ROOMS.
- PAPER-FACED MOISTURE RESISTANT GYPSUM BOARD SHALL BE IN THE FOLLOWING AREAS:
- WITHIN 4 FEET HORIZONTALLY AND VERTICALLY OF ANY WATER SOURCE, EXCEPT DIRECTLY BEHIND SINKS, TUBS, AND SHOWER SURROUNDS AND BEHIND TOILETS WHERE NON-PAPERFACED GYPSUM BOARD WILL BE INSTALLED.
  - WITHIN 4 FEET IN ANY DIRECTION BEHIND LAUNDRY/CLOTHES WASHING MACHINES, WATER HEATERS, WATER METERS, ETC.
  - BEHIND PUBLIC DRINKING FOUNTAINS.

REFER TO UL ASSEMBLIES FOR ADDITIONAL REQUIREMENTS ON GYPSUM BOARD REQUIREMENTS.

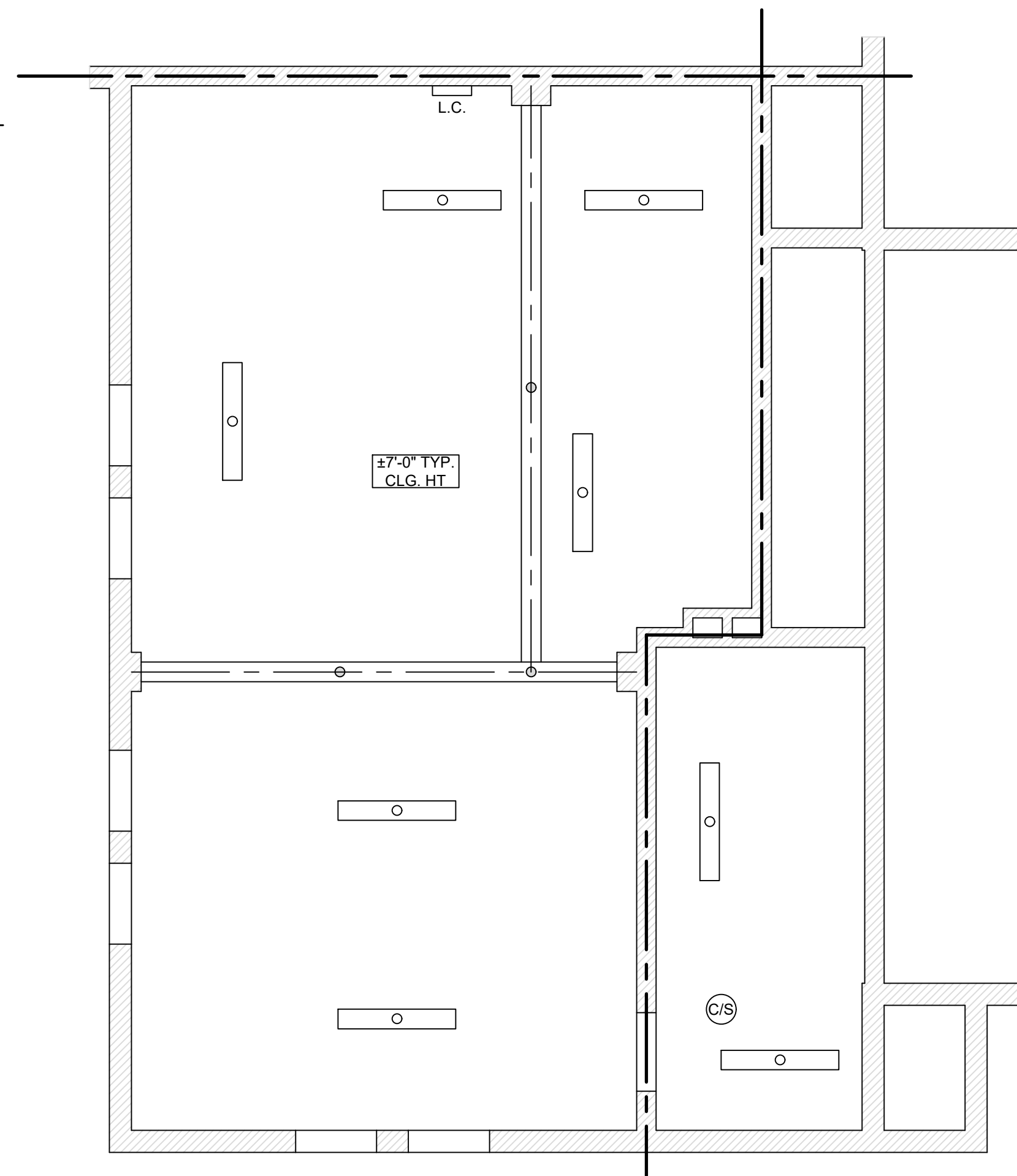
**GENERAL NOTES**

- REPAIR/SKIM COAT EXISTING GYPSUM BOARD / PLASTER AT WALLS AND CEILINGS AS REQ'D BY WORK TO CREATE LIKE NEW CONDITION: INTENT OF GYP. BD/PLASTER REPAIRS IS TO MATCH EXISTING TEXTURE/FINISH AS APPLICABLE. (LEVEL 4 FINISH MINIMUM) NEW GYPSUM BOARD AT HIGH MOISTURE AREAS SHALL BE NON-PAPER FACED MOLD/MOISTURE RESISTANT GYPSUM BOARD (LEVEL 5 FINISH)
- PROVIDE WOOD BLOCKING IN WALLS TO SUPPORT WALL MOUNTED ITEMS, TOILET ACCESSORIES, DOOR STOPS, ELECTRICAL COMPONENTS, ETC. CONCEAL ALL WITHIN WALL STUD CAVITIES. CUT/PATCH GYP. BD. AS REQ'D.
- CUT & PATCH EXISTING WALLS/CEILINGS AS REQ'D BY WORK - NEW ROUTING OF WIRING, ETC. EXTENT & LOCATIONS TO BE COORDINATED BY CONTRACTOR AND SUB CONTRACTORS.
- PAINT ALL NEW AND EXISTING WALLS AND CEILINGS, TRIM, SHELVEING, ETC. THAT REQUIRE PAINTING. ALL PAINTING / PAINT TOUCH UP / PUNCH OUT SHALL BE ACCOMPLISHED COMPLETE FROM CORNER TO CORNER, FLOOR TO CEILING OR A NATURAL STOP POINT.
- PROVIDE FLOOR LEVELER AS REQUIRED BY EXISTING CONDITIONS. INSTALL NEW UNDERLAYMENT AT BATHROOMS AND ANY ADDITIONAL DAMAGED LOCATIONS DISCOVERED DURING PROJECT DEMO.
- INSTALL NEW SEALANT JOINT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
- SEAL ALL WALL, FLOOR & JOINT PENETRATIONS W/ LOW VOC SEALANT OR OTHER APPROPRIATE NON-TOXIC SEALING METHODS TO PREVENT PEST ENTRY.
- COORDINATE ALL EXISTING AND PROPOSED ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH P/ME DRAWINGS. FIELD COORDINATE BET. TRADES. REMOVE & REPAIR FINISHES/GYPSUM BOARD AS REQ'D TO ACCOMPLISH.



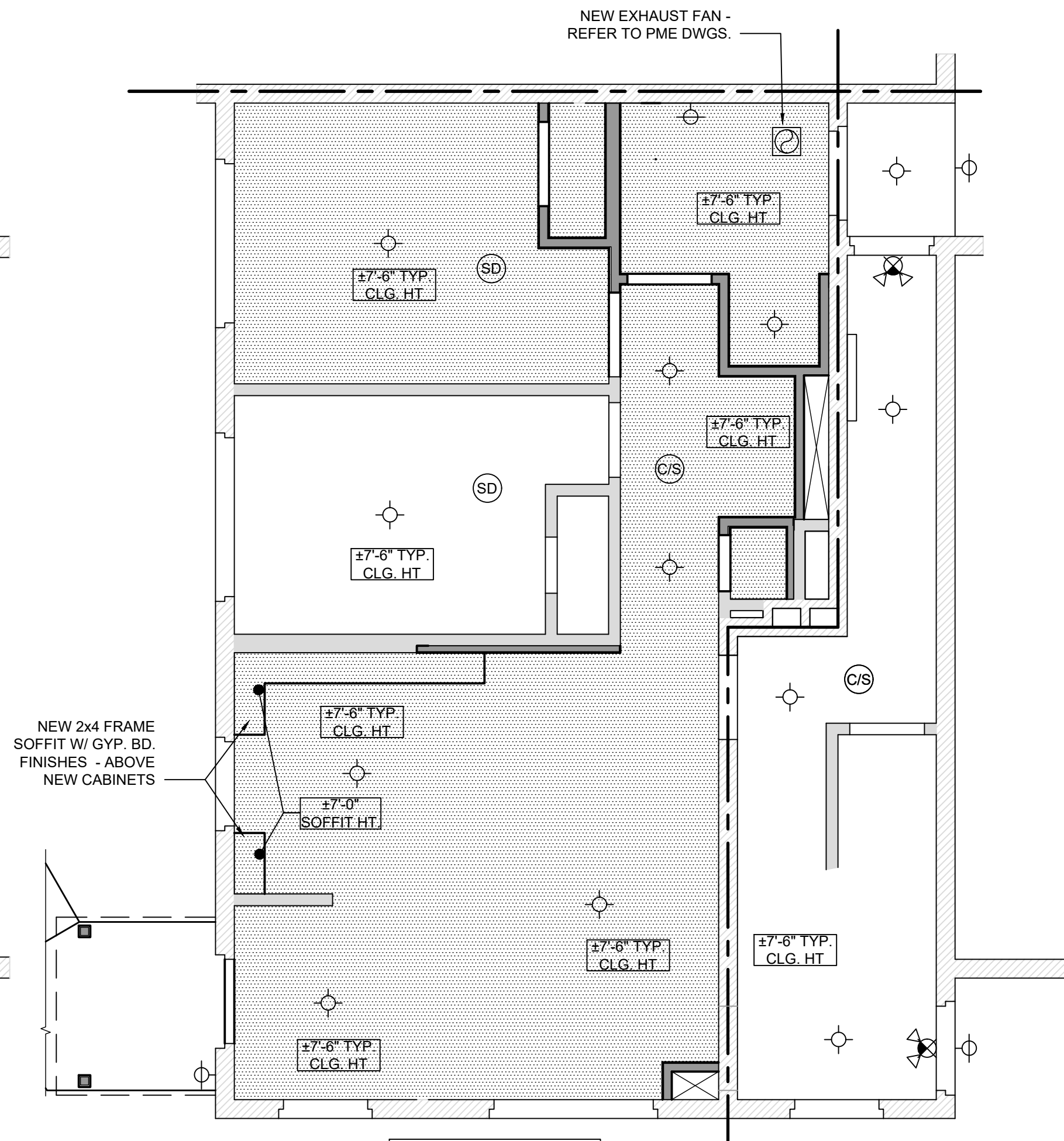
**RCP SYMBOL LEGEND**

- CEILING MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DWGS.
- WALL MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL DWGS.
- EMERGENCY LIGHT / EXIT SIGN - REFER TO ELECTRICAL DWGS.
- EXHAUST FAN - REFER TO MECHANICAL DWGS.
- HVAC DIFFUSER - REFER TO MECHANICAL DWGS.
- SMOKE DETECTOR - REFER TO ELECTRICAL DWGS.
- COMBINATION CARBON MONOXIDE / SMOKE DETECTOR - REFER TO ELECTRICAL DWGS.



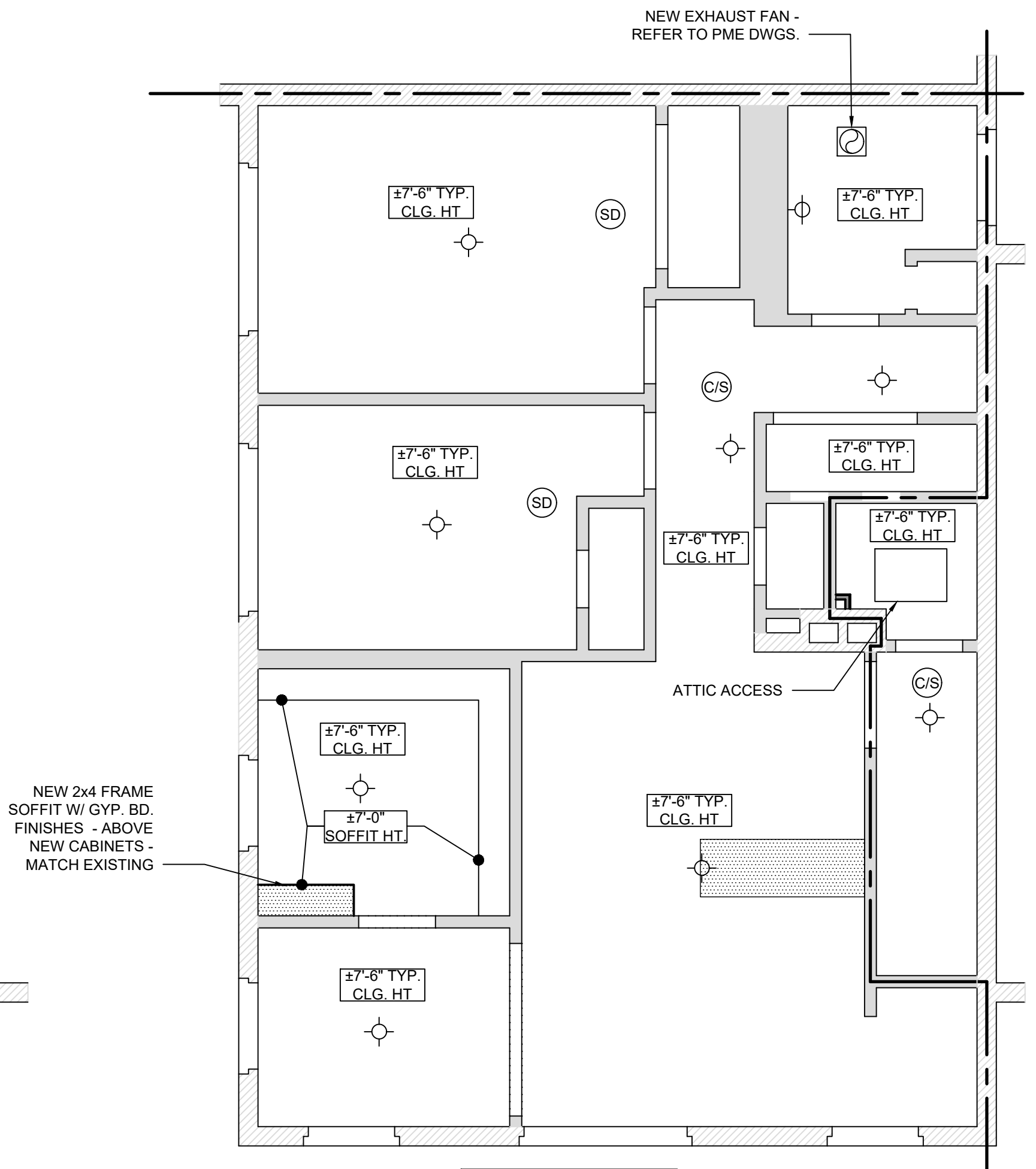
**COMMON AREA  
BASEMENT  
REFLECTED CEILING PLAN**

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



**UNIT TYPE 'C'  
FIRST FLOOR  
REFLECTED CEILING PLAN**

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



**UNIT TYPE 'D'  
SECOND FLOOR  
REFLECTED CEILING PLAN**

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



Jonathan Robert SchAAF #14503  
Expiration Date 12/31/2025

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Greater Dayton Premier Management

**DOOR SCHEDULE**

#	SIZE	FRAME	DOOR	DOOR	HW	FIRE	REMARKS
		NEW	EXIST.	REFINISH	TYPE	RATG	
C01	3'-0" x 6'-8"	●	●	●	F-1	D-1	H-6
C02	2'-8" x 6'-8"	●	●	●	F-1	D-1	H-6
C03	2'-8" x 6'-8"	●	●	●	F-1	D-2	H-2
C04	3'-0" x 6'-8"	●	●	●	F-1	D-1	H-1
C05	3'-0" x 6'-8"	●	●	●	F-1	D-1	H-1
C06	2'-0" x 6'-8"	●	●	●	F-1	D-2	H-2
C07	2'-8" x 6'-8"	●	●	●	F-1	D-2	H-2
C08	2'-0" x 6'-8"	●	●	●	F-1	D-2	H-2
C09	3'-0" x 6'-8"	●	●	●	F-1	D-2	H-2
C10	3'-0" x 6'-8"	●	●	●	F-1	D-2	H-2
C11	3'-0" x 6'-8"	●	●	●	F-1	D-2	H-3
D01	2'-4" x 6'-8"	●	●	●	F-1	D-1	H-5
D02	3'-0" x 6'-8"	●	●	●	F-1	D-1	H-1
D03	2'-0" x 6'-8"	●	●	●	F-1	D-2	H-2
D04	2'-8" x 6'-8"	●	●	●	F-1	D-2	H-3
D05	2'-0" x 6'-8"	●	●	●	F-1	D-2	H-2
D06	2'-8" x 6'-8"	●	●	●	F-1	D-2	H-3
D07	[2] 2'-6" x 6'-8"	●	●	●	F-1	D-3	H-4
D08	2'-4" x 6'-8"	●	●	●	F-1	D-2	H-3
D09	1'-6" x 6'-8"	●	●	●	F-1	D-2	H-2

**FRAME TYPES**  
(F-1) HOLLOW METAL FRAME

**DOOR TYPES**

**HARDWARE TYPES**  
H-1 - UNIT ENTRY  
H-2 - PASSAGE  
H-3 - PRIVACY SET  
H-4 - BI-PASS HARDWARE  
H-5 - STOREROOM  
H-6 - BUILDING ENTRY

**DOOR NOTES**

- REFER TO SPECIFICATIONS FOR FULL DOOR REGIMTS.
- NOMINAL SIZES INDICATED. CONTRACTOR TO VERIFY ALL R.O. SIZES, ETC.
- PROVIDE FLOOR/WALL STOPS & HINGE STOPS AT ALL DOORS.
- COORDINATE ALL REQUIRED HARDWARE WITH OWNER.
- COORDINATE ALL KEYING WITH OWNER.
- REMOVE EXISTING. INSTALL NEW HARDWARE AT ALL EXISTING DOORS SCHEDULED TO REMAIN.
- PROVIDE ALL REQUIRED ACCESSORIES AND HARDWARE COMPONENTS FOR A COMPLETE INSTALLATION.
- SIZE NEW DOORS TO FIT INTO EXISTING STEEL FRAMES TO REMAIN. FIELD VERIFY ALL EXISTING STEEL FRAME HARDWARE PREP LOCATIONS & PREP NEW DOORS TO ACCOMMODATE EXISTING LOCATIONS.

NOTE: REFER TO SPECIFICATIONS FOR SPECIFIC DETAILS ON HARDWARE

**WINDOW SCHEDULE**

WINDOWS TO BE CUSTOM SIZED TO FIT EXISTING ROUGH OPENINGS

#	NEW	EXIST.	SIZE	MATERIAL	TYPE	EMERGENCY ESCAPE & RESCUE
A	●	●	3'-1" X 4'-3"	VINYL	DOUBLE HUNG	●
B	●	●	4'-5" X 4'-3"	VINYL	TWIN DOUBLE HUNG	●
C	●	●	5'-10" X 4'-3"	VINYL	TWIN DOUBLE HUNG	●
D	●	●	3'-1" X 2'-3"	VINYL	DOUBLE HUNG	OBS
E	●	●	3'-1" X 3'-3"	VINYL	DOUBLE HUNG	●

**WINDOW TYPES**

**WINDOW NOTES**

- INSTALL NEW JAMB MOUNTED MINI-BLINDS AT ALL WINDOW TYPES EXCEPT BATHROOM WINDOWS.
- REMOVE EXISTING. INSTALL NEW JOINT SEALANT AT INTERIOR AND EXTERIOR OF NEW WINDOW UNIT.
- INSTALL NEW SOLID SURFACE SILLS, TYP.
- REPAIR GYPSUM BOARD RETURNS / WOOD JAMBS AS REQ'D BY WORK.
- INSTALL NEW ALUMINUM WRAP JAMB EXTENSIONS AT EXTERIOR.
- REFER TO SHEET A4.1 FOR WINDOW DETAILS.

**ROOM FINISH SCHEDULE**

#	NAME	FLOOR	BASE	WALLS	CEILING	REMARKS	#	NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
C001	BASEMENT	CONC.	-	WATER-PROOF	EXIST	-	D200	STAIR	RUBBER	RUBBER	NEW CONC.PNT	NEW CONC.PNT	-
C002	STAIR	RUBBER	RUBBER	NEW CONC.PNT	NEW CONC.PNT	-	D201	UTILITY	LVP	NEW WD	NEW WD	NEW WD	-
C100	STAIR	RUBBER	RUBBER	NEW WD EX. GYP.PNT	NEW WD EX. GYP.PNT	-	D202	LIVING ROOM	LVP	NEW WD	NEW WD	NEW WD	-
C101	COMMON CORR.	LVP	NEW WD	NEW WD	NEW WD	-	D203	DINING ROOM	LVP	NEW WD	NEW WD	NEW WD	-
C102	ENTRY	LVP	NEW WD	NEW WD	NEW WD	-	D204	KITCHEN	LVP	NEW WD	NEW WD	NEW WD	-
C103	LIVING ROOM	LVP	NEW WD	NEW WD	NEW WD	-	D205	HALL	LVP	NEW WD	NEW WD	NEW WD	-
C104	KITCHEN	LVP	NEW WD	NEW WD	NEW WD	-	D206	CLOSET	LVP	NEW WD	NEW WD	NEW WD	-
C105	HALL	LVP	NEW WD	NEW WD	NEW WD	-	D207	BEDROOM 1	LVP	NEW WD	NEW WD	NEW WD	-
C106	CLOSET	LVP	NEW WD	NEW WD	NEW WD	-	D208	CLOSET	LVP	NEW WD	NEW WD	NEW WD	-
C107	BEDROOM 1	LVP	NEW WD	NEW WD	NEW WD	-	D209	BEDROOM 2	LVP	NEW WD	NEW WD	NEW WD	-
C108	CLOSET	LVP	NEW WD	NEW WD	NEW WD	-	D210	CLOSET	LVP	NEW WD	NEW WD	NEW WD	-
C109	BEDROOM 2	LVP	NEW WD	NEW WD	NEW WD	-	D211	BATH	TILE	NEW	NEW	NEW	-
C110	CLOSET	LVP	NEW WD	NEW WD	NEW WD	-	D212	LINEN	LVP	NEW WD	NEW WD	NEW WD	-
C111	BATH	TILE	TILE	NEW GYP.PNT	NEW GYP.PNT	-	D213	CLOSET	LVP	NEW WD	NEW WD	NEW WD	-
C112	LAUNDRY	LVP	NEW WD	NEW WD	NEW WD	-							

**FINISH NOTES**

- INSTALL SHOE MOLD AT ALL WOOD BASE - ALL FLOOR TYPES.
- WALLS SHALL BE LEVEL 4 QUALITY FINISHED GYPSUM BOARD/PLASTER - PREP & PAINT.
- CEILING FINISH TO MATCH EXISTING FINISH - PREP & PAINT.
- EXISTING CEILING HEIGHT = ±7'-6".
- EXISTING SOFFIT HEIGHT = ±7'-0".
- INSTALL NEW UNDERLAYMENT AT ALL SUBFLOORS (CEMENT BOARD AT TILE) COORDINATE EXACT REQUIREMENTS WITH FINISH FLOOR MANUFACTURER.
- FINISHES - NEW, UNLESS NOTED AS EXISTING  
EX = EXISTING TO REMAIN. PREP AND PAINT  
EX GYP. = EXISTING GYPSUM BOARD / PLASTER FINISHES
- COORDINATE WITH FINISHES ON SHEET G1.2.
- INSTALL 4" RUBBER BASE AT ALL KITCHEN & BATH VANITY CABINETS, TYP.

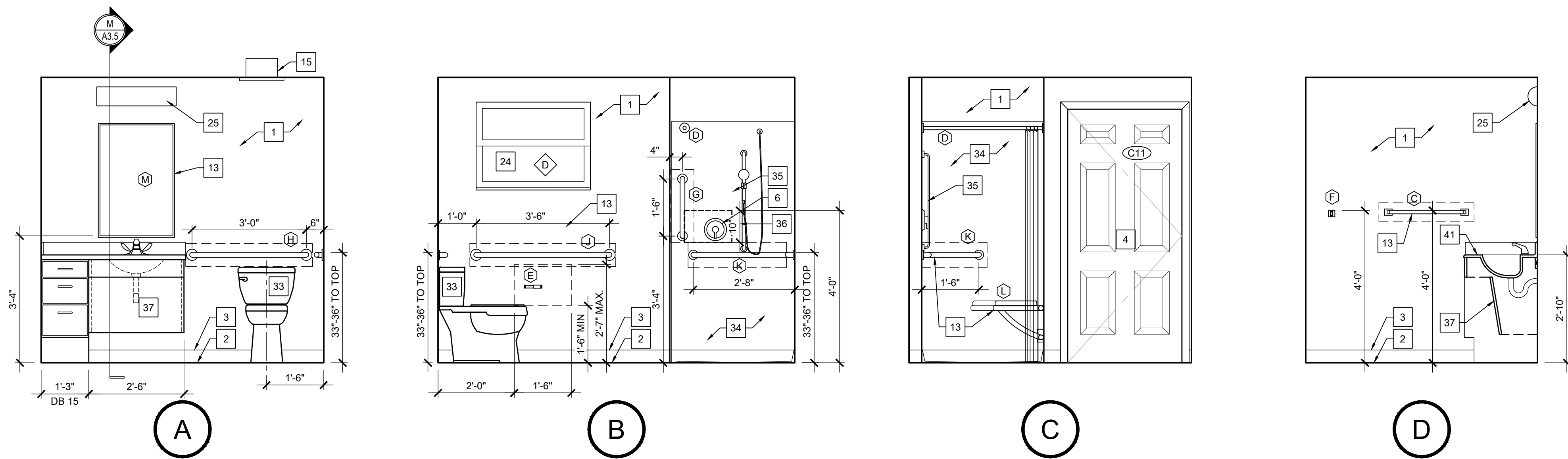
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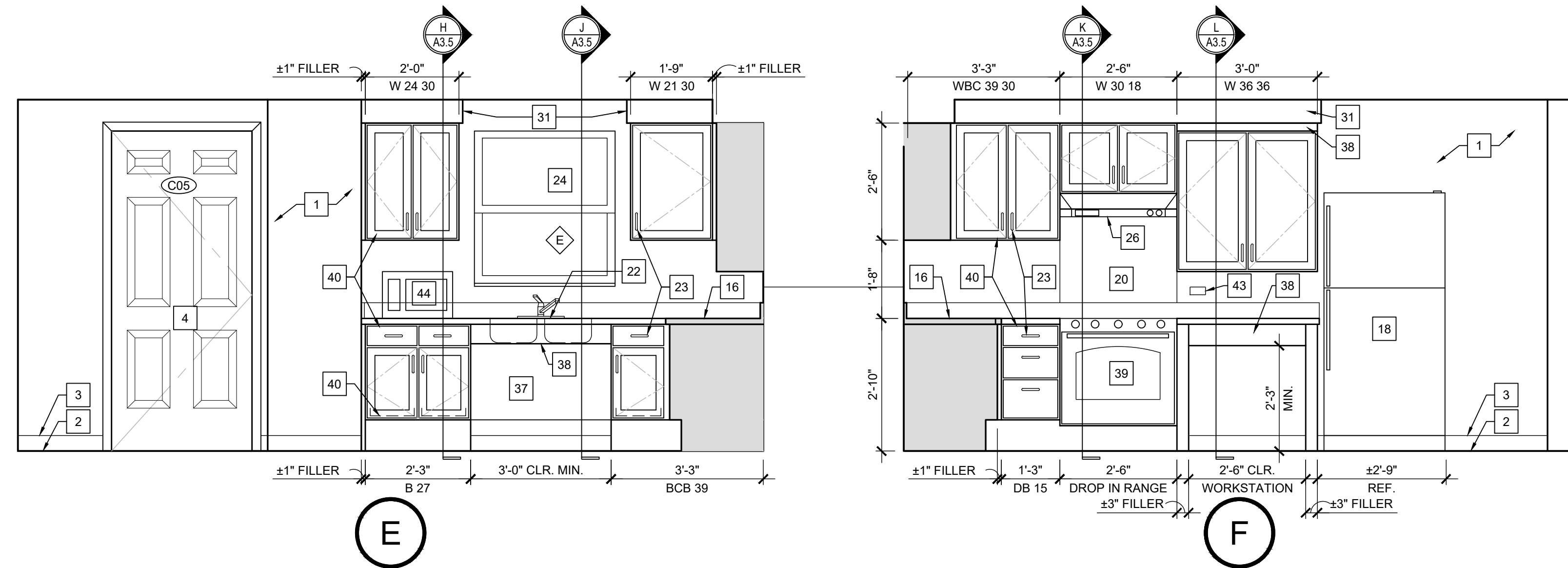
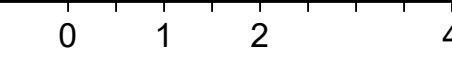
Sheet Title  
Unit Types 'C' & 'D'  
Reflected Ceiling Plans  
& Schedules

Sheet Number



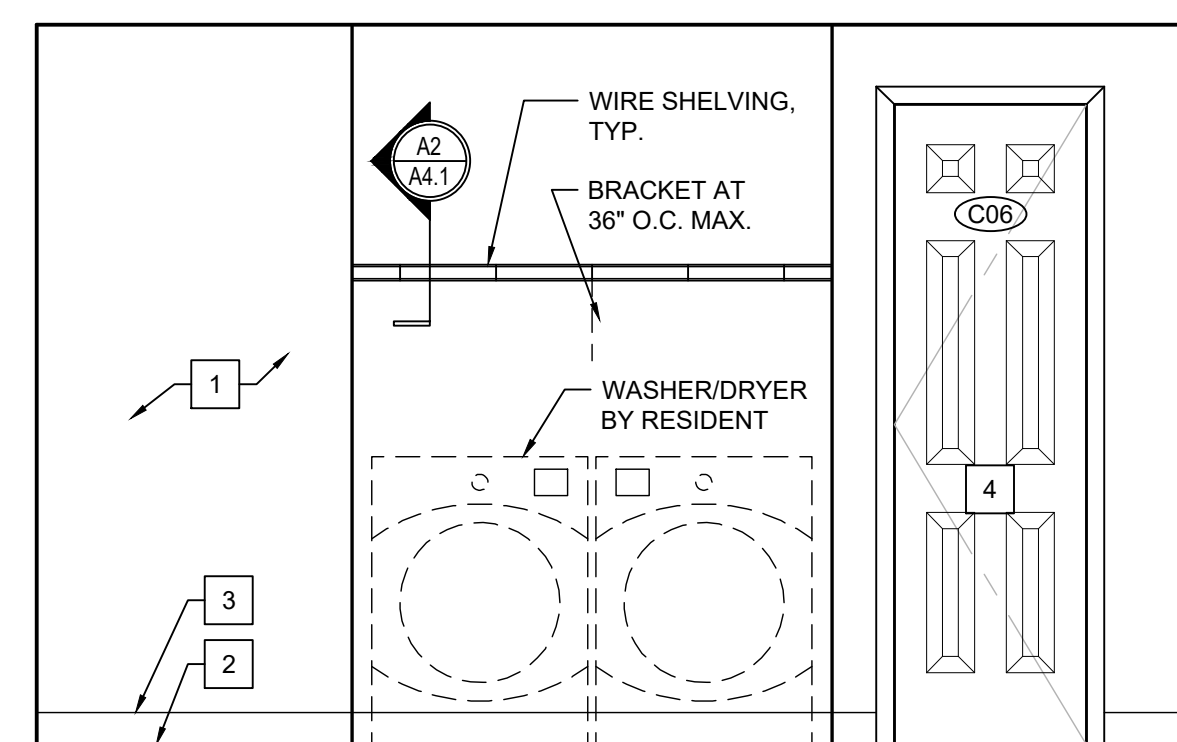
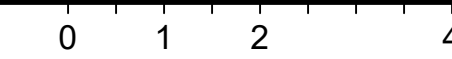
**INTERIOR ELEVATIONS AT BATHROOM - UNIT TYPE 'C'**

SCALE: 1/2" = 1'-0"



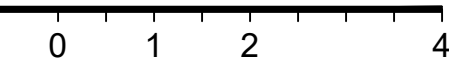
**INTERIOR ELEVATIONS AT KITCHEN - UNIT TYPE 'C'**

SCALE: 1/2" = 1'-0"



**INTERIOR ELEVATIONS AT LAUNDRY - UNIT TYPE 'C'**

SCALE: 1/2" = 1'-0"



**# INTERIOR ELEVATION KEY NOTES**

1. PAINTED GYPSUM BOARD/PLASTER, TYP.
2. NEW FLOOR FINISH AS SCHEDULED.
3. NEW BASE AS SCHEDULED.
4. DOOR - REFER TO DOOR SCHEDULE
5. NEW SWANSTONE TUB/SHOWER SURROUND. REFER TO PLUMBING DRAWINGS.
6. NEW TUB/SHOWER HEAD & CONTROLS. REFER TO PLUMBING DRAWINGS.
7. SHOWER CURTAIN BY TENANT.
8. NEW STAINED BASE/VANITY CABINET.
9. NEW SWANSTONE COUNTER W/ INTEGRAL BOWL SINK, NEW FAUCET
10. PRE-MANUFACTURED SWANSTONE END SPLASH.
11. FILLER CUT TO FIT.
12. RUBBER BASE AT TOE KICK.
13. NEW BATHROOM ACCESSORIES. SEE SCHEDULE
14. NEW WATER CLOSET. REFER TO PLUMBING DRAWINGS.
15. NEW EXHAUST FAN - REFER TO MECH / ELEC DRAWINGS. PROVIDE RADIATION DAMPER.
16. NEW PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPASH.
17. NEW PLASTIC LAMINATE ENDSPLASH.
18. NEW REFRIGERATOR.
19. NEW RANGE.
20. NEW SPLASH PANEL AT WALL BEHIND & ADJACENT TO THE RANGE.
21. NEW STAINED WOOD BASE & WALL CABINETS.
22. NEW SINK AND FAUCET. REFER TO PLUMBING DRAWINGS.
23. NEW WIRE PULLS AT ALL CABINET DOORS / DRAWERS.
24. NEW WINDOW, PROVIDE NEW GYP. BOARD RETURN AS REQ'D BY WORK. INSTALL NEW SOLID SURFACE SILL. - REFER TO WINDOW SCHEDULE.
25. NEW LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS.
26. NEW VENTED RANGE HOOD. VENT DIRECTLY TO THE EXTERIOR.
27. NEW BATH TUB. REFER TO PLUMBING DRAWINGS.
28. 4" SWANSTONE TRIM AT ALL SIDES OF TUB/SHOWER SURROUND, TYP.
29. NEW WINDOW - REPAIR EX. GYP. BD. RETURNS AS REQ'D - RETURN SWANSTONE SURROUND BACK TO WINDOW. REFER TO DETAIL E/A4.1.
30. FINISHED END PANEL.
31. NEW SOFFIT W/ 2x4 STUD FRAMING AT 16" O.C. & GYP. BD. FINISHES - PAINT
32. EX. SOFFIT TO REMAIN - PREP & PAINT.
33. ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
34. SWANSTONE TRANSFER SHOWER BASE W/ SWANSTONE SURROUND - REFER TO PLUMBING DRAWINGS.
35. SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
36. AREA FOR SHOWER CONTROLS.
37. FINISH GRADE STAINED PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ACCESSIBILITY REQUIREMENTS.
38. FINISH GRADE STAINED WOOD PANEL AT FRONT OF CABINETS, MATCH CABINETS.
39. NEW ACCESSIBLE DROP-IN RANGE.
40. NEW STAINED WOOD ACCESSIBLE BASE AND WALL CABINETS.
41. ACCESSIBLE 22" DP, CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK. MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADUSED.
42. SLIDE OUT SHELVES AT ALL ACCESSIBLE BASE CABINETS.
43. RANGE HOOD CONTROL SWITCH.
44. COUNTERTOP MICROWAVE.

**BATHROOM ACCESSORY SCHEDULE**

MARK	SIZE
A	18"x36" MIRROR/MEDICINE CABINET - SURFACE MOUNT
B	18" TOWEL BAR
C	24" TOWEL BAR
D	SHOWER CURTAIN ROD
E	TOILET PAPER DISPENSER
F	ROBE HOOK
G	18" GRAB BAR
H	36" GRAB BAR
J	42" GRAB BAR
K	CORNER GRAB BAR
L	FOLDING SHOWER SEAT
M	18"x36" MIRROR

\* ALL BATHROOMS RECEIVE NEW TOILET ACCESSORIES - REMOVE EXISTING ACCESSORIES. PROVIDE NEW 2x BLOCKING AS REQUIRED FOR ALL NEW ACCESSORIES. REPAIR EXISTING FINISHES TO MATCH ADJACENT, TYP.



Jonathan Robert SchAAF #14503  
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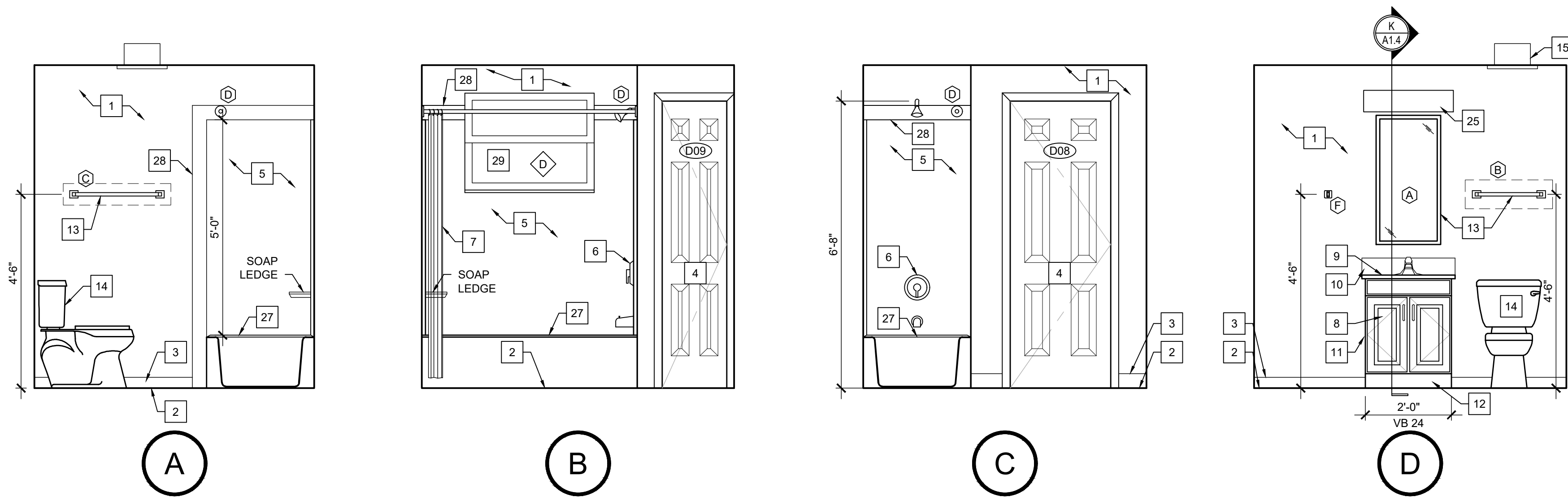
Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number	
2021-033	
Date	
May 1, 2024	
Date	Issue
10.10.22	Preliminary
10.20.22	Review
11.11.22	Owner Review
11.18.22	80% Review
02.29.24	Permit
05.01.24	PRC / Bid Set

Sheet Title  
Unit Type 'C'  
Interior Elevations

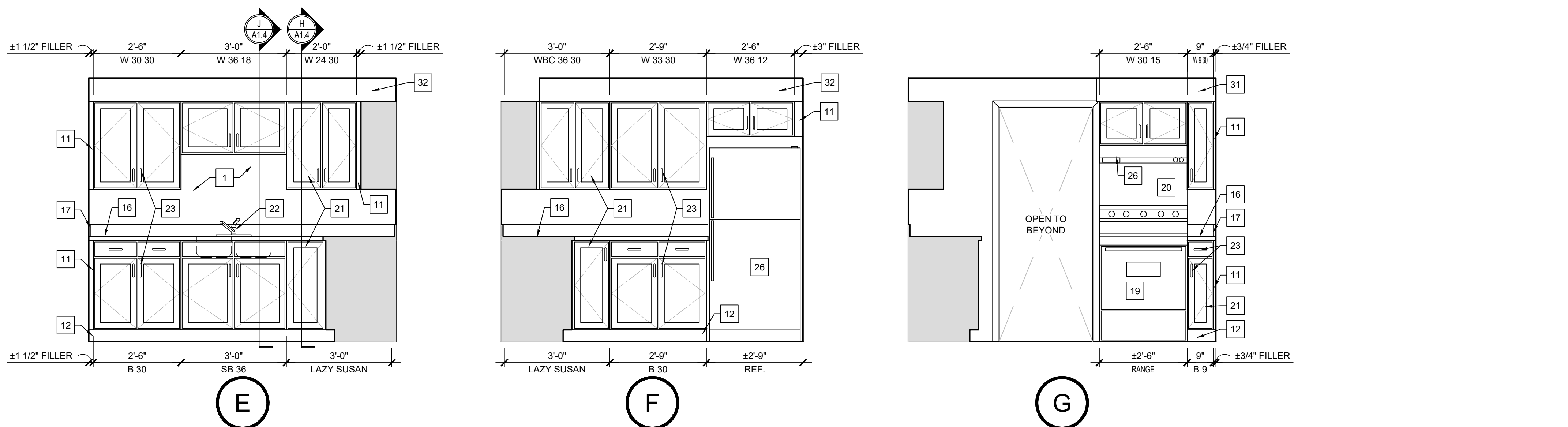
Sheet Number

**A3.4**



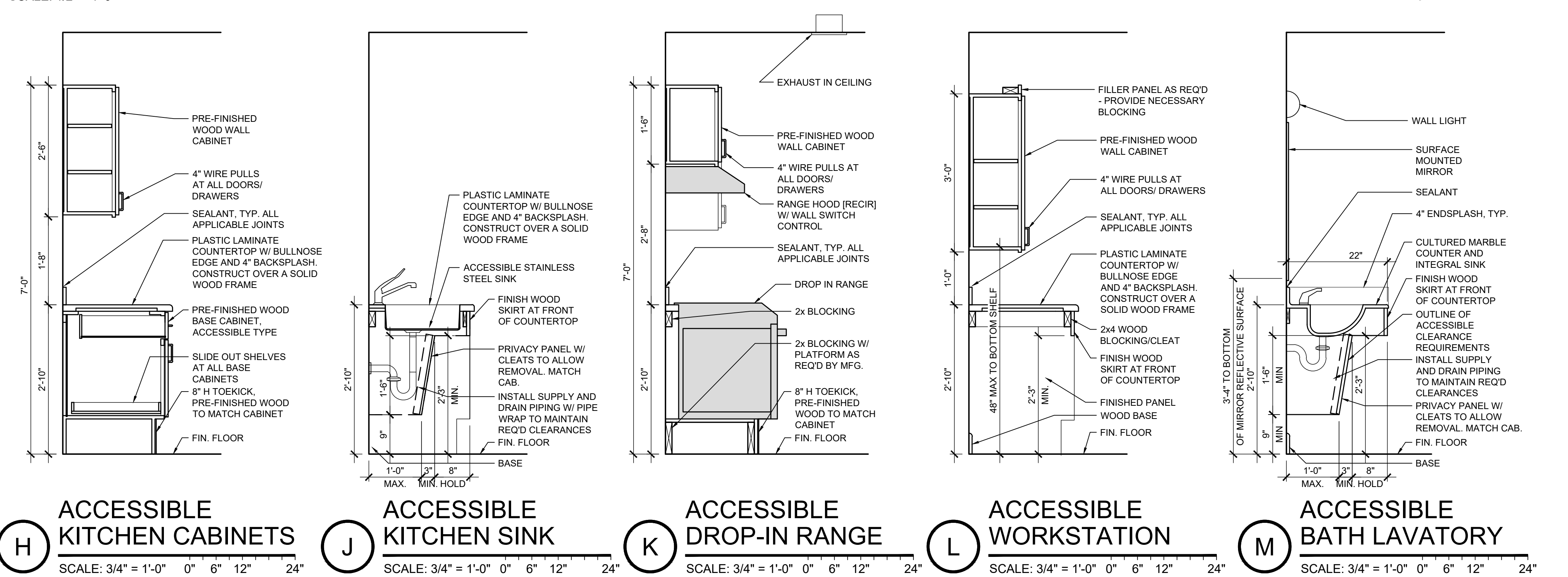
### INTERIOR ELEVATIONS AT BATHROOM - UNIT TYPE 'D'

SCALE: 1/2" = 1'-0"



### INTERIOR ELEVATIONS AT KITCHEN - UNIT TYPE 'D'

SCALE: 1/2" = 1'-0"



### # INTERIOR ELEVATION KEY NOTES

- PAINTED GYPSUM BOARD/PLASTER, TYP.
- NEW FLOOR FINISH AS SCHEDULED.
- NEW BASE AS SCHEDULED.
- DOOR - REFER TO DOOR SCHEDULE.
- NEW SWANSTONE TUB/SHOWER SURROUND. REFER TO PLUMBING DRAWINGS.
- NEW TUB/SHOWER HEAD & CONTROLS. REFER TO PLUMBING DRAWINGS.
- SHOWER CURTAIN BY TENANT.
- NEW STAINED BASE/VANITY CABINET.
- NEW SWANSTONE COUNTER W/ INTEGRAL BOWL SINK, NEW FAUCET
- PRE-MANUFACTURED SWANSTONE END SPLASH.
- FILLER CUT TO FIT.
- RUBBER BASE AT TOE KICK.
- NEW BATHROOM ACCESSORIES. SEE SCHEDULE.
- NEW WATER CLOSET. REFER TO PLUMBING DRAWINGS.
- NEW EXHAUST FAN - REFER TO MECH / ELEC DRAWINGS. PROVIDE RADIATION DAMPER.
- NEW PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPASH.
- NEW PLASTIC LAMINATE ENDSPLASH.
- NEW REFRIGERATOR.
- NEW RANGE.
- NEW SPLASH PANEL AT WALL BEHIND & ADJACENT TO THE RANGE.
- NEW STAINED WOOD BASE & WALL CABINETS.
- NEW SINK AND FAUCET. REFER TO PLUMBING DRAWINGS.
- NEW WIRE PULLS AT ALL CABINET DOORS / DRAWERS.
- NEW WINDOW, PROVIDE NEW GYP. BOARD RETURN AS REQ'D BY WORK. INSTALL NEW SOLID SURFACE SILL. - REFER TO WINDOW SCHEDULE.
- NEW LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS.
- NEW VENTED RANGE HOOD. VENT DIRECTLY TO THE EXTERIOR.
- NEW BATH TUB. REFER TO PLUMBING DRAWINGS.
- 4" SWANSTONE TRIM AT ALL SIDES OF TUB/SHOWER SURROUND, TYP.
- NEW WINDOW - REPAIR EX. GYP. BD. RETURNS AS REQ'D - RETURN SWANSTONE SURROUND BACK TO WINDOW. REFER TO DETAIL E/A.1.
- FINISHED END PANEL.
- NEW SOFFIT W/ 2x4 STUD FRAMING AT 16" O.C. & GYP. BD. FINISHES - PAINT
- EX. SOFFIT TO REMAIN - PREP & PAINT.
- ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
- SWANSTONE TRANSFER SHOWER BASE W/ SWANSTONE SURROUND - REFER TO PLUMBING DRAWINGS.
- SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
- AREA FOR SHOWER CONTROLS.
- FINISH GRADE STAINED PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ACCESSIBILITY REQUIREMENTS.
- FINISH GRADE STAINED WOOD PANEL AT FRONT OF CABINETS, MATCH CABINETS.
- NEW ACCESSIBLE DROP-IN RANGE.
- NEW STAINED WOOD ACCESSIBLE BASE AND WALL CABINETS.
- ACCESSIBLE 22" DP, CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK. MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADUSED.
- SLIDE OUT SHELVES AT ALL ACCESSIBLE BASE CABINETS.
- RANGE HOOD CONTROL SWITCH.
- COUNTERTOP MICROWAVE.

### ○ BATHROOM ACCESSORY SCHEDULE

MARK	SIZE
A	18"x36" MIRROR/MEDICINE CABINET - SURFACE MOUNT
B	18" TOWEL BAR
C	24" TOWEL BAR
D	SHOWER CURTAIN ROD
E	TOILET PAPER DISPENSER
F	ROBE HOOK
G	18" GRAB BAR
H	36" GRAB BAR
J	42" GRAB BAR
K	CORNER GRAB BAR
L	FOLDING SHOWER SEAT
M	18"x36" MIRROR

\* ALL BATHROOMS RECEIVE NEW TOILET ACCESSORIES - REMOVE EXISTING ACCESSORIES. PROVIDE NEW 2x BLOCKING AS REQUIRED FOR ALL NEW ACCESSORIES. REPAIR EXISTING FINISHES TO MATCH ADJACENT, TYP.

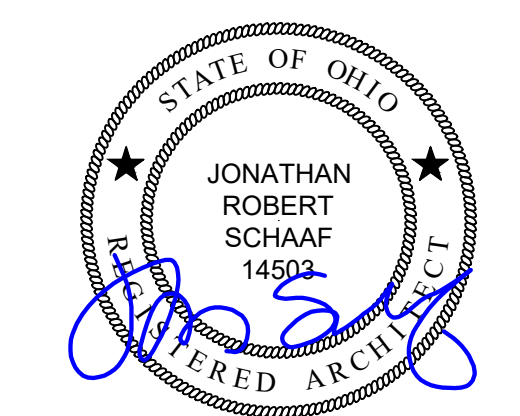


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Sheet Number	A3.5



Jonathan Robert SchAAF #14503  
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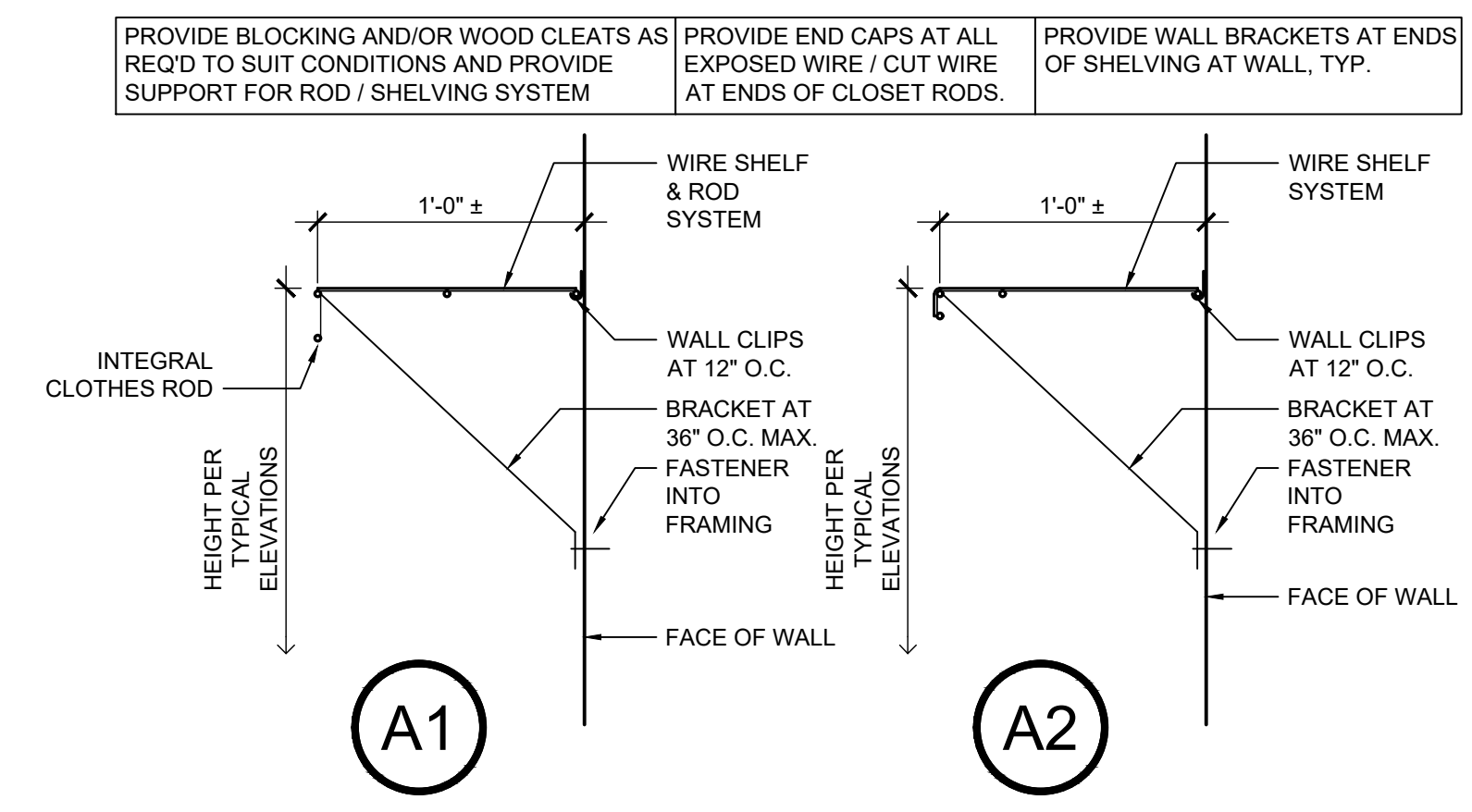
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1202 A&B Huffman Ave. 11204 A&B Huffman Ave. 1  
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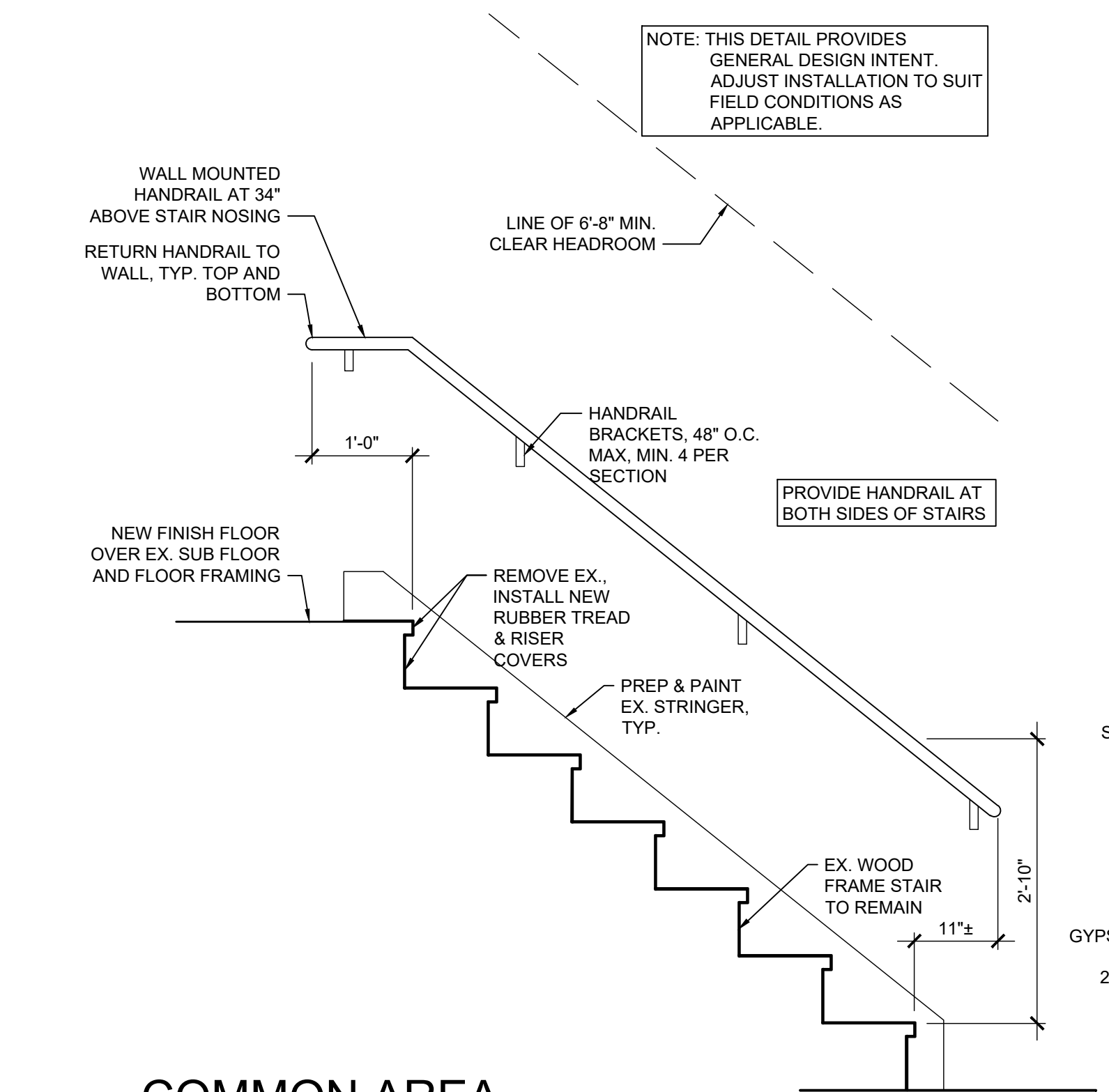
Sheet Title  
Details

Sheet Number  
**A4.1**



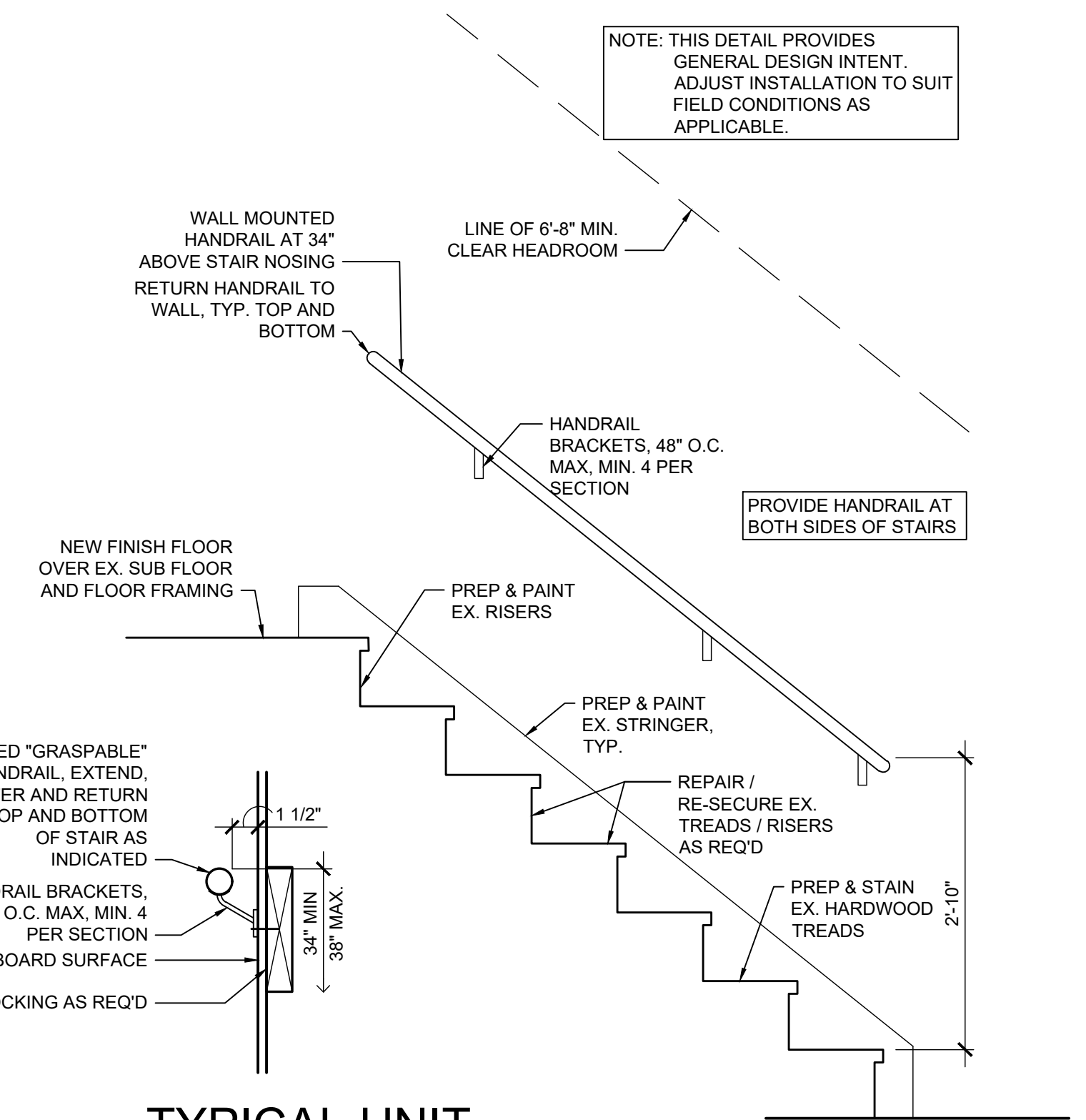
**TYPICAL SHELVING DETAILS**

SCALE: 1 1/2" = 1'-0"  
0" 3" 6" 12"



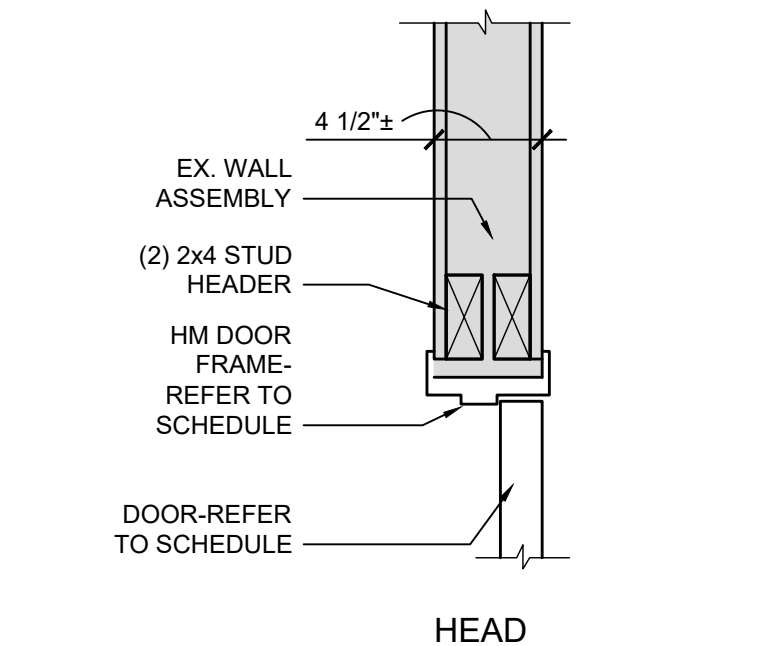
**H1 COMMON AREA TYPICAL STAIR / HANDRAIL DETAIL**

SCALE: N.T.S.



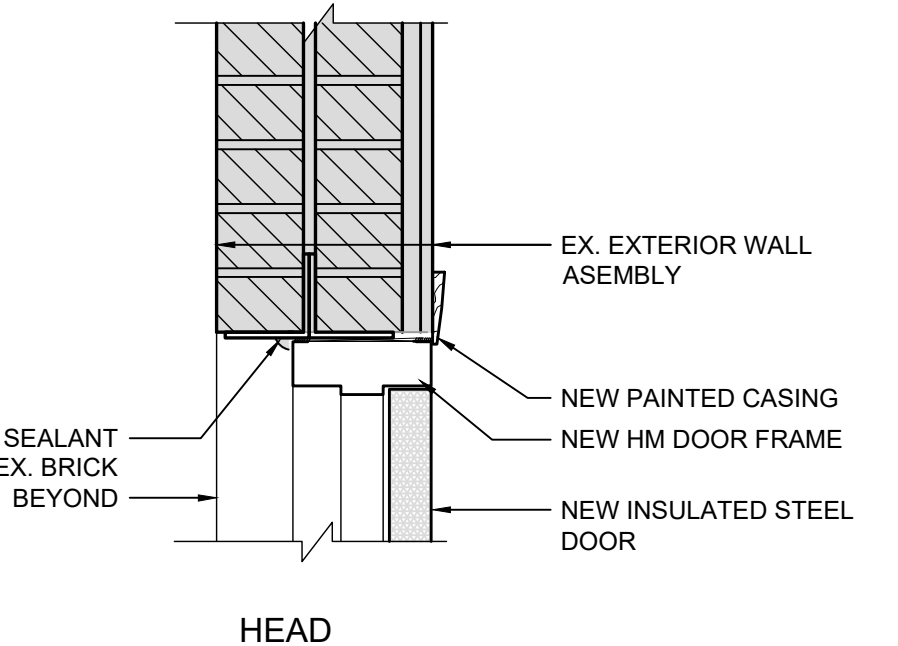
**H2 TYPICAL UNIT STAIR / HANDRAIL DETAIL**

SCALE: N.T.S.



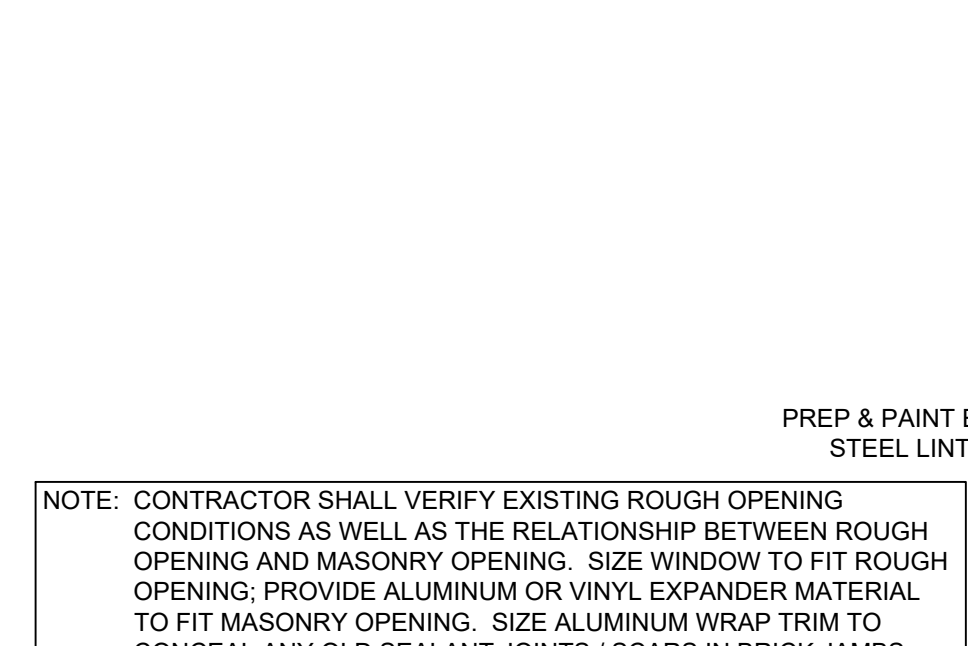
**G TYPICAL INTERIOR DOOR**

SCALE: 1 1/2" = 1'-0" 0" 3" 6" 12"



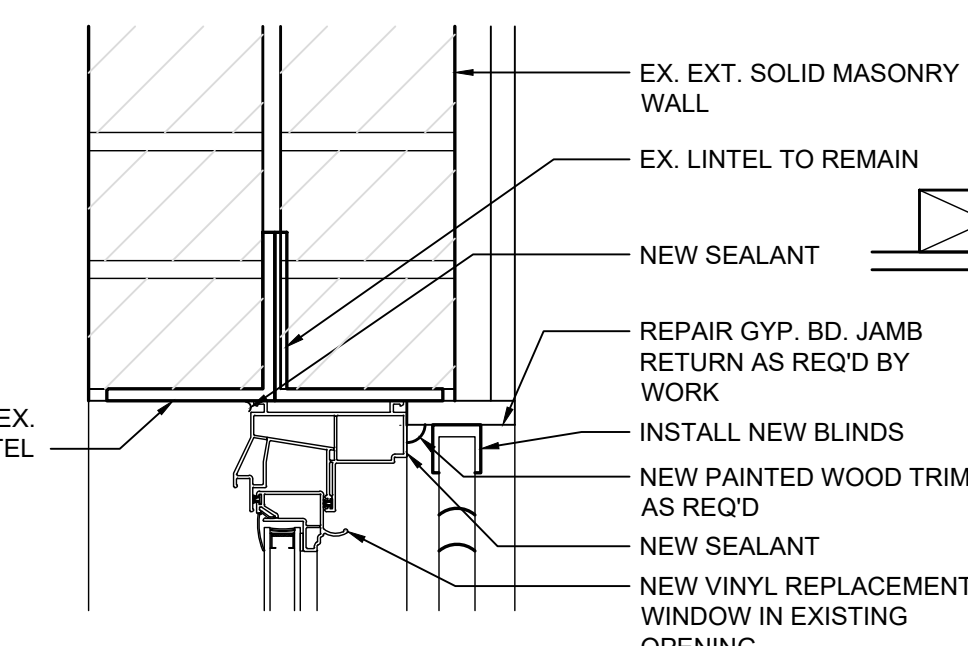
**F TYPICAL EXTERIOR DOOR**

SCALE: 1 1/2" = 1'-0" 0" 3" 6" 12"



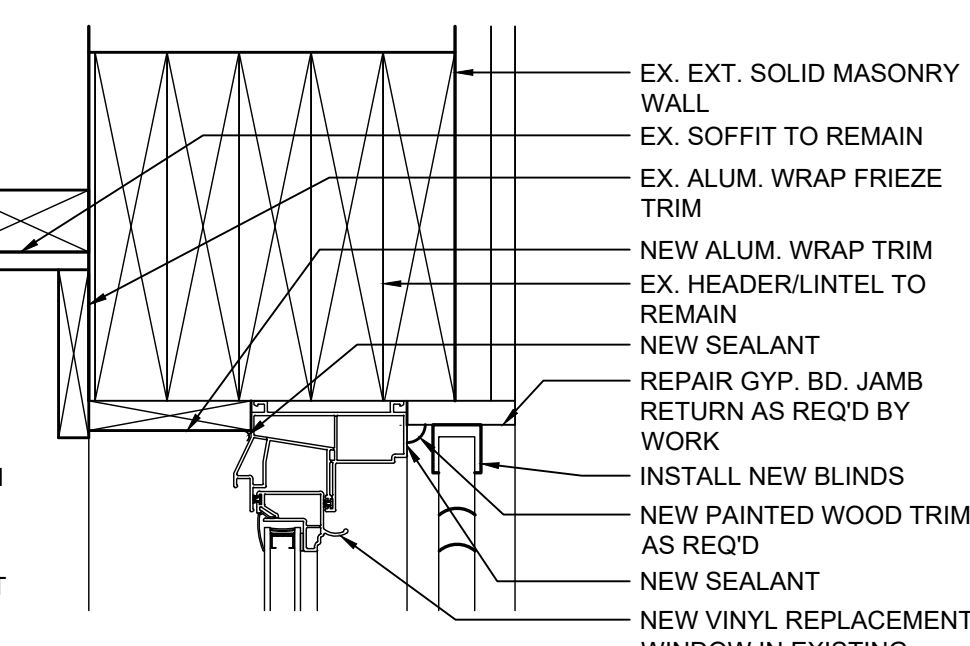
**E TYPICAL WINDOW AT SHOWER DETAILS**

SCALE: 3" = 1'-0" 0" 3" 6"



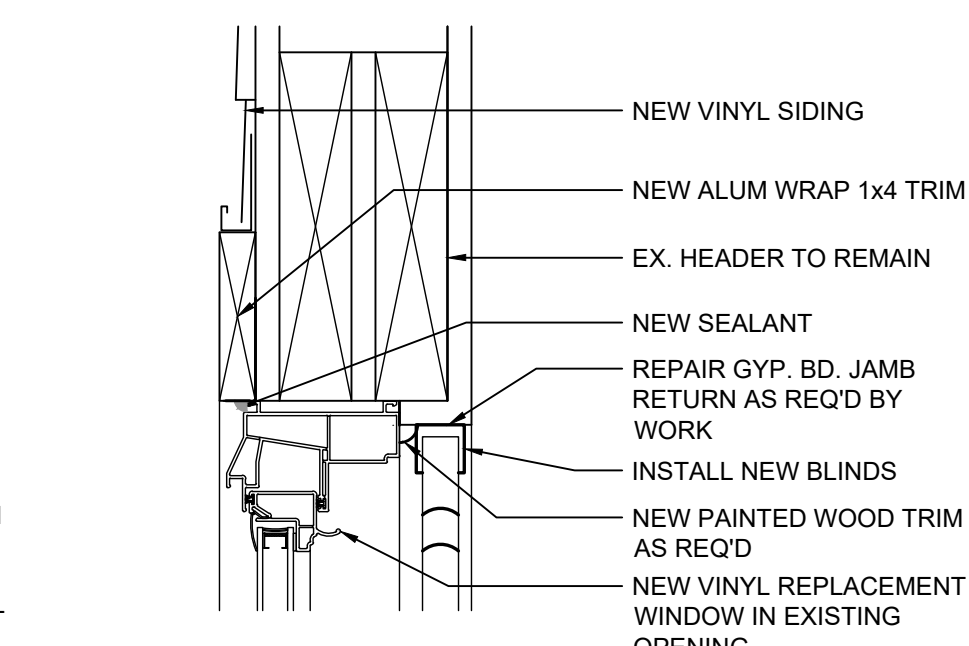
**D TYPICAL WINDOW DETAILS AT BRICK**

SCALE: 3" = 1'-0" 0" 3" 6"



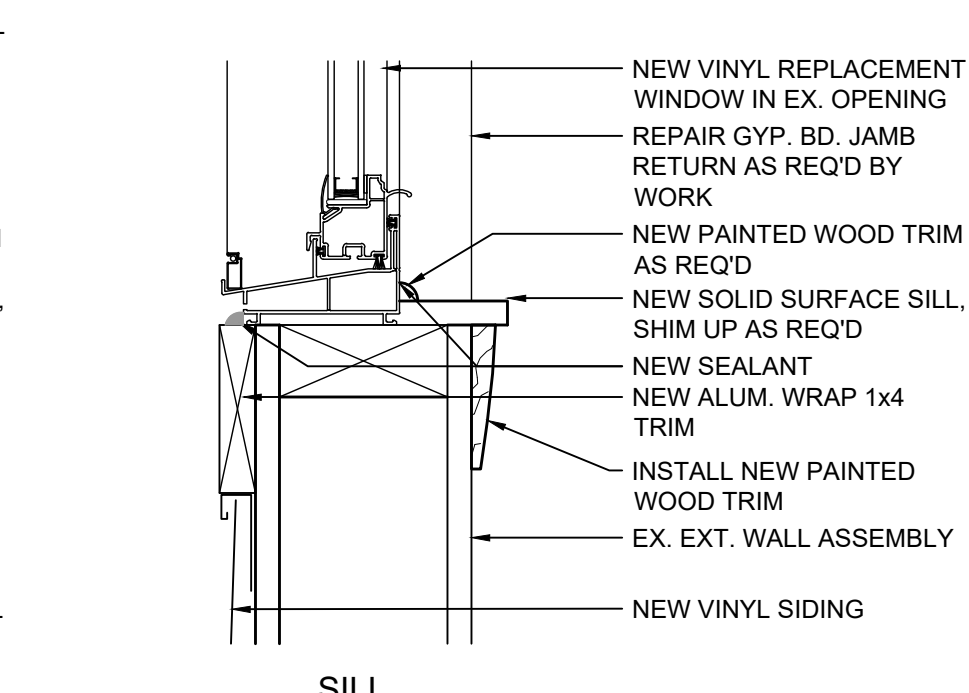
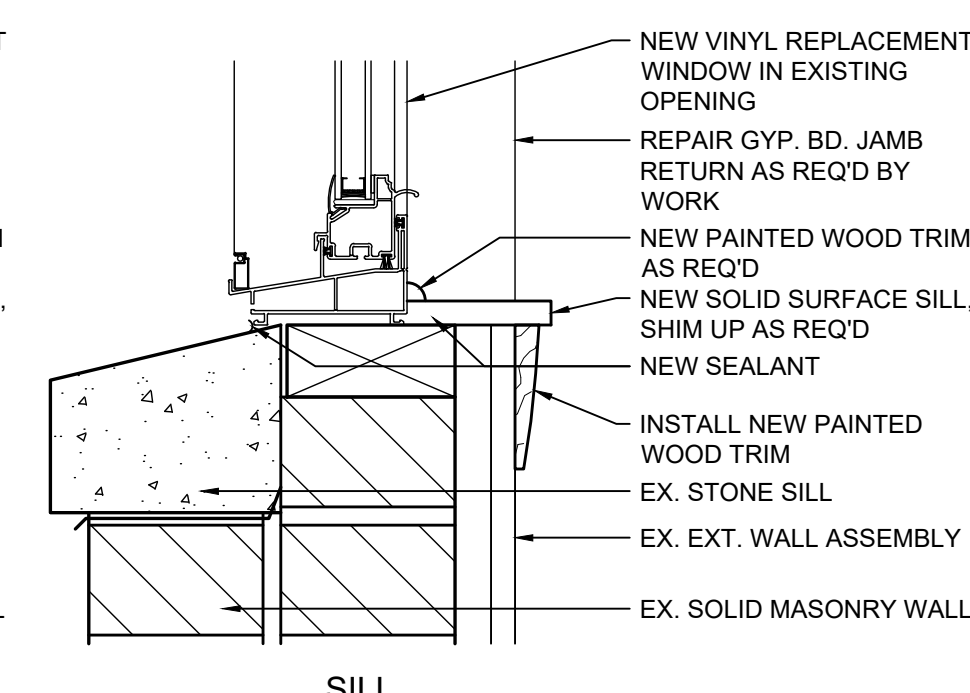
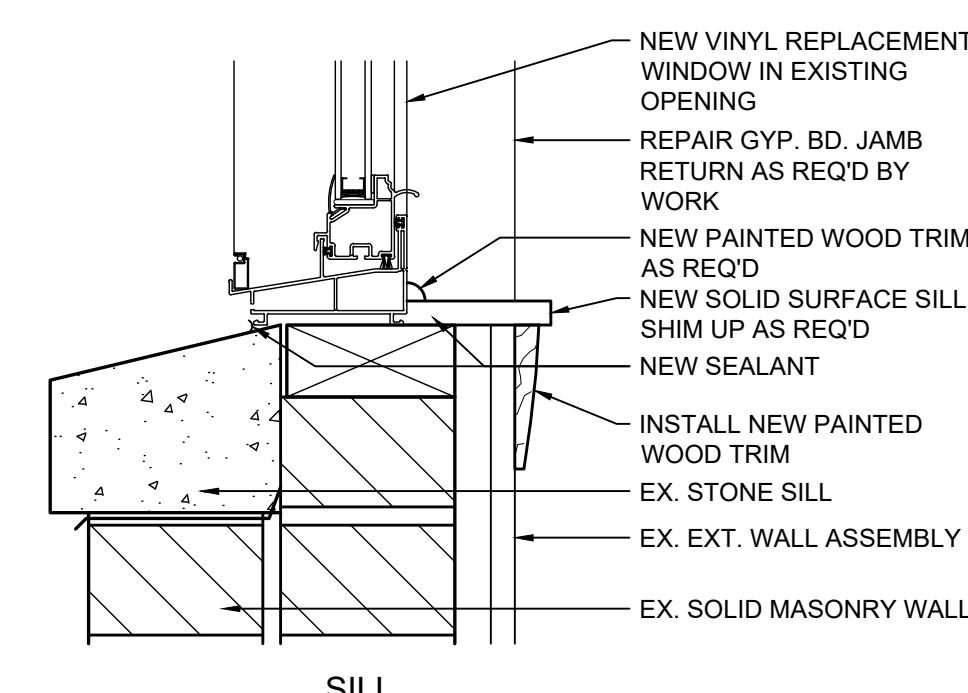
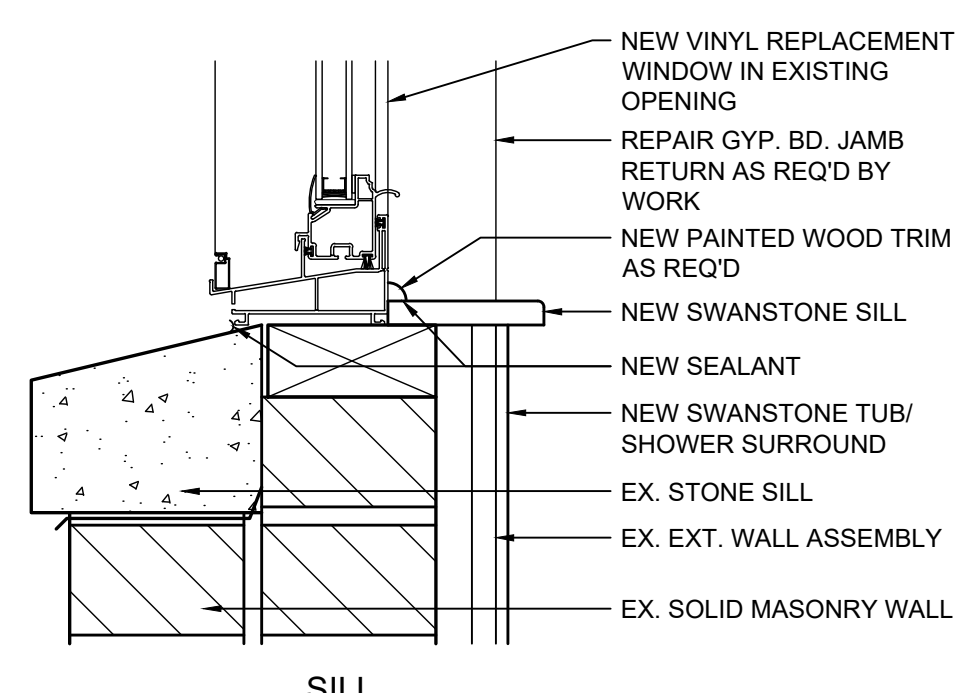
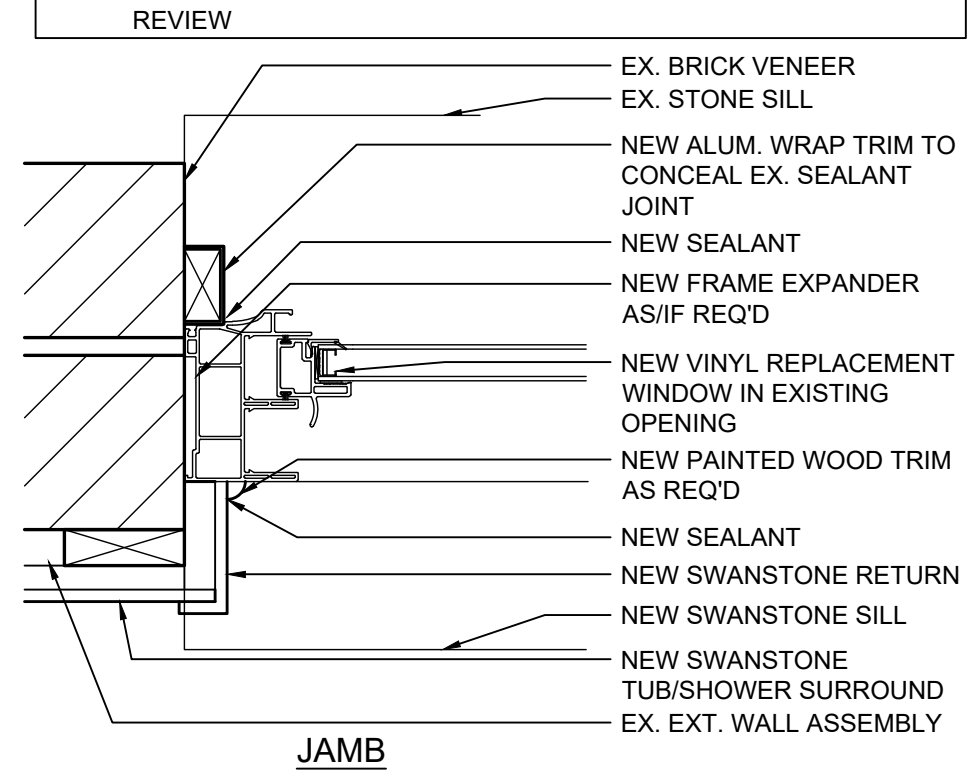
**C TYPICAL WINDOW DETAILS AT BRICK**

SCALE: 3" = 1'-0" 0" 3" 6"



**B TYP. WINDOW DETAILS AT FRAME/SIDING**

SCALE: 3" = 1'-0" 0" 3" 6"





Jonathan Robert Schaaf #14503  
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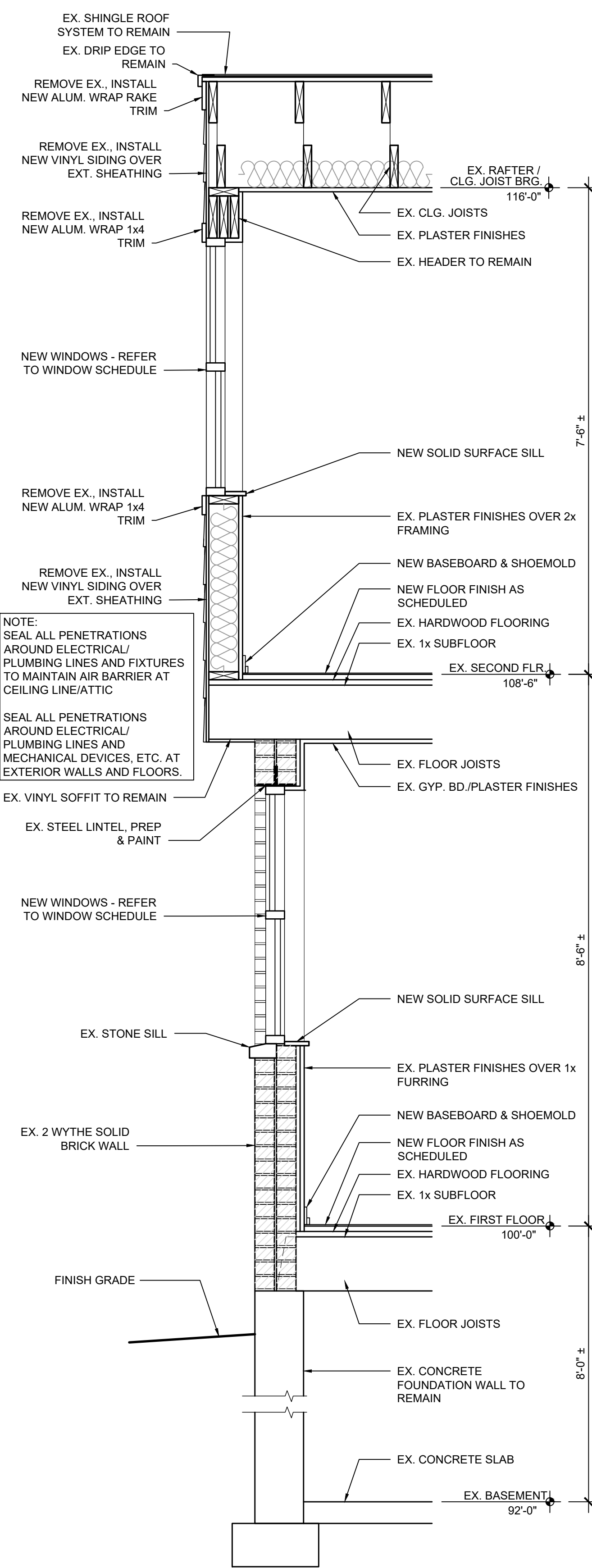
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Sections

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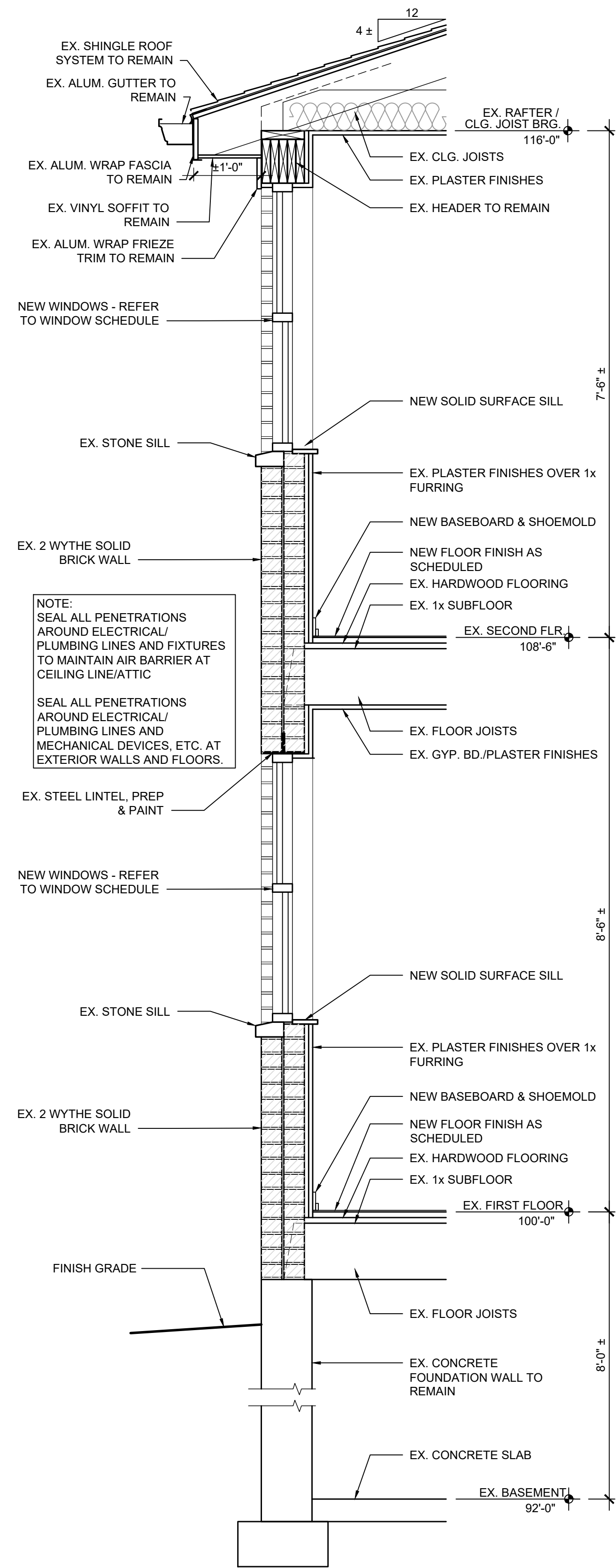
**A4.2**

NOTE:  
CONTRACTOR SHALL VERIFY CONDITIONS AND APPLICABLE THRU PENETRATION DETAILS. ALL PENETRATIONS IN FIRE RESISTIVE RATED ASSEMBLIES (WALLS, FLOOR-CEILING, ETC.) SHALL BE APPROPRIATELY SEALED IN ACCORDANCE WITH UL ASSEMBLIES. LABEL PENETRATIONS WITH INSTALLER INFORMATION AND APPLICABLE UL ASSEMBLY PER INSPECTOR REQUIREMENTS AND PROVIDE ANY ADDITIONAL DOCUMENTATION AS REQUIRED BY INSPECTOR.



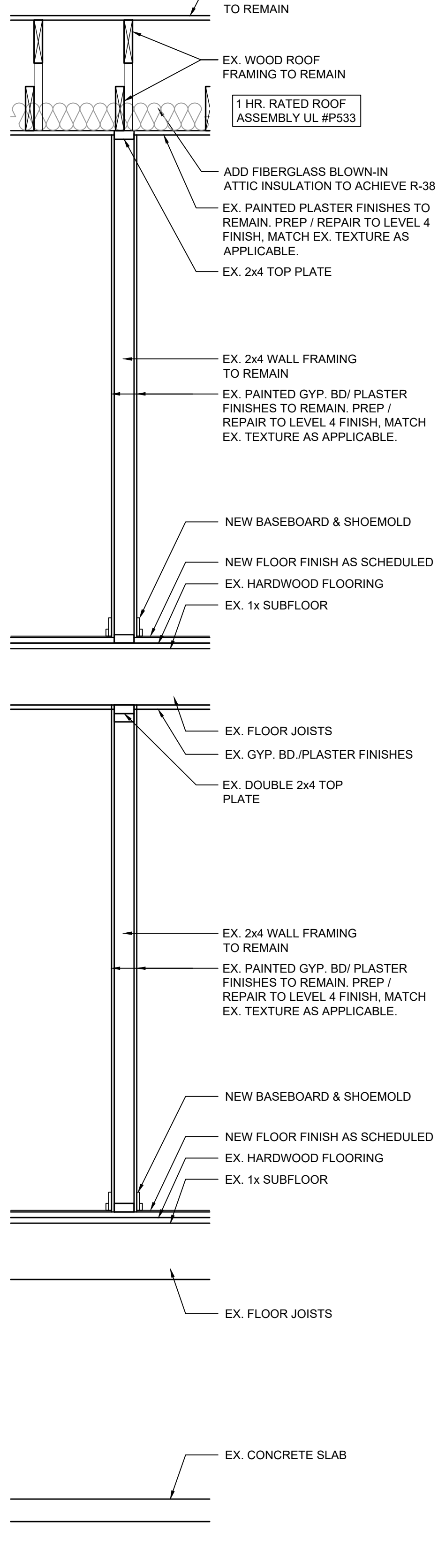
**E** TYPICAL GABLE EXTERIOR WALL SECTION

SCALE: 3/4" = 1'-0" 0" 6" 12" 24"



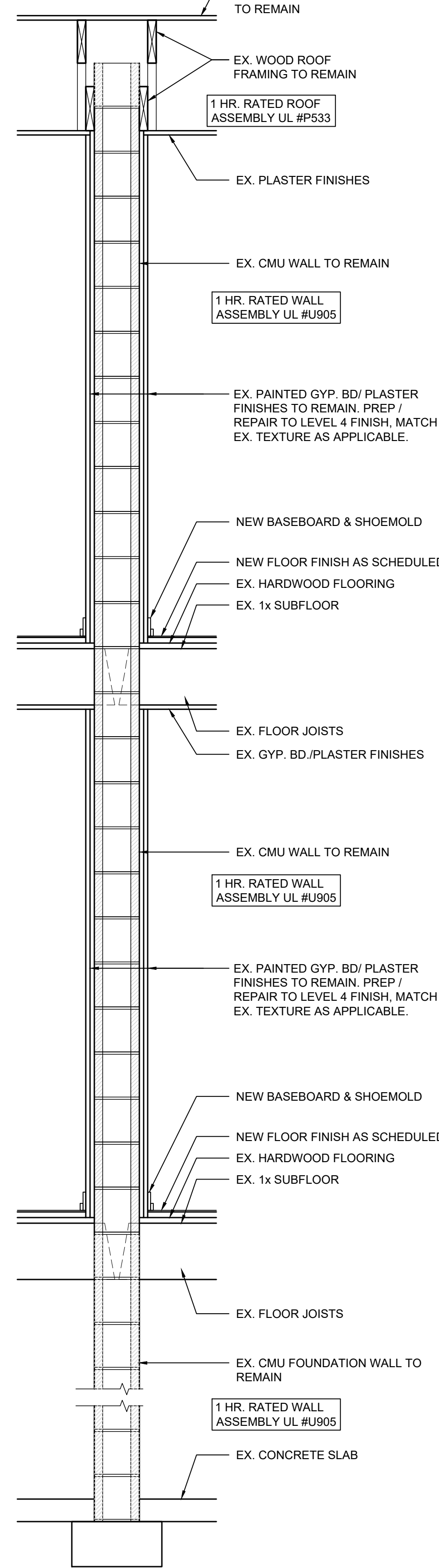
**D** TYPICAL EXTERIOR WALL SECTION

SCALE: 3/4" = 1'-0" 0" 6" 12" 24"



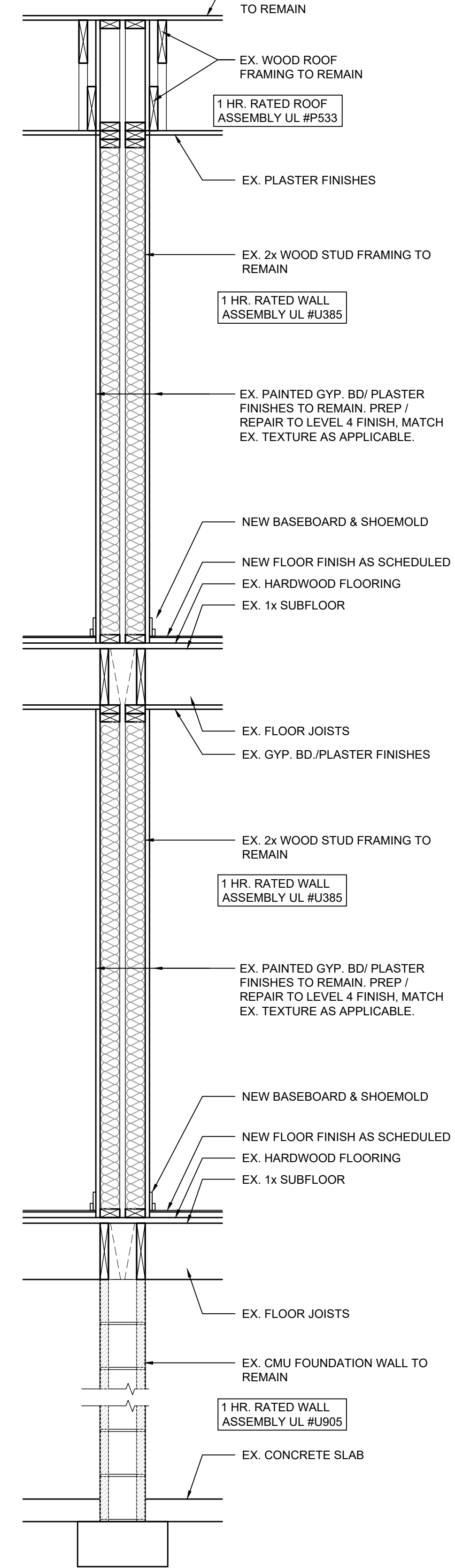
**C** TYPICAL INTERIOR PARTITION WALL

SCALE: 3/4" = 1'-0" 0" 6" 12" 24"



**B** TYPICAL INTERIOR DEMISING WALL

SCALE: 3/4" = 1'-0" 0" 6" 12" 24"



**A** TYPICAL INTERIOR DEMISING WALL

SCALE: 3/4" = 1'-0" 0" 6" 12" 24"

**FIXTURE SCHEDULE**

ITEM	GENERAL DESCRIPTION	MOUNTING HEIGHT	SUPPLY PIPING		WASTE & VENT PIPING			FIXTURE		SUPPLY TRIM		WASTE TRIM		TRAP/FIX. DR.		SUPPLY STOP		ACCESS./MISC.		CARRIER		NOTES	
			COLD	HOT	TEMPERED	FIXTURE OUTLET	TRAP	FIXTURE DRAIN	WASTE - MINIMUM SIZE	VENT - MINIMUM SIZE	MANUFACTURER	CATALOG NO.	MANUFACTURER	CATALOG NO.	MANUFACTURER	CATALOG NO.	MANUFACTURER	CATALOG NO.	MANUFACTURER	CATALOG NO.	MANUFACTURER		CATALOG NO.
WC1	FLOOR SET / TANK TYPE / LEFT HAND TRIP LEVER	16.5" RIM	1 1/2"	-	-	4" INT	4"	2"	A	215AA-104	A	UNIT	-	-	A	UNIT	G	ZH8823-CR-LK	F	1200SLOW	-	-	2
LAV1	COUNTERTOP / INTEGRAL BOWL / SINGLE LEVER	34" RIM	1 1/2"	1/2"	-	1 1/4"	1 1/4"	1 1/4"	1 1/2"	-	BY G.C.	E	4635	E	POP-UP	H	8872	G	ZH8823-LR-LK	-	-	-	1,2
WCB1	WALL TYPE / SUPPLIES & DRAIN / LEVER VALVE / HAMMER ARRESTORS	30" TO TOP	1 1/2"	1/2"	-	2"	2"	2"	2"	B	WB200HA	B	SINGLE LEVER	-	-	-	P-TRAP	-	-	-	-	-	-
SK1	COUNTERTOP / 2 COMPARTMENT / ST. STEEL 33"x22"x7.5"	-	1 1/2"	1/2"	-	1 1/2"	1 1/2"	1 1/2"	1 1/2"	C	PSR3322-3	E	7425	C	LK-335	H	8912 & 111	G	ZH8823-LR-LK	-	-	-	2,3
BA1	FLOOR SET / ACRYLIC 60"x30"x15" / RIGHT HAND OUTLET	78" SHWR. HD./32" SHWR. VALVE	1 1/2"	1/2"	-	1 1/2"	1 1/2"	1 1/2"	1 1/2"	D	260030	E	TL183EP	K	WB150L	-	P-TRAP	-	-	-	-	-	4,5
BA2	FLOOR SET / ACRYLIC 60"x30"x15" / LEFT HAND OUTLET	78" SHWR. HD./32" SHWR. VALVE	1 1/2"	1/2"	-	1 1/2"	1 1/2"	1 1/2"	1 1/2"	D	260030	E	TL183EP	K	WB150L	-	P-TRAP	-	-	-	-	-	4,5
WH1	WALL MOUNT / NON-FREEZE / VACUUM BREAKER / LOOSE KEY	24" A.F.G.	3/4"	-	-	-	-	-	-	J	17	-	-	-	-	-	BALL VALVE	-	-	-	-	-	
SH1	FLOOR SET / VERITEK 36"x36"x3.5" / HAND-HELD SHOWER	78" SHWR. HD./40" SHWR. VALVE	1 1/2"	1/2"	-	1 1/2"	1 1/2"	1 1/2"	1 1/2"	L	FTF-3838	E	T2802 & 3688EP-17	-	FLOOR DRAIN	-	P-TRAP	-	-	-	-	-	4,5

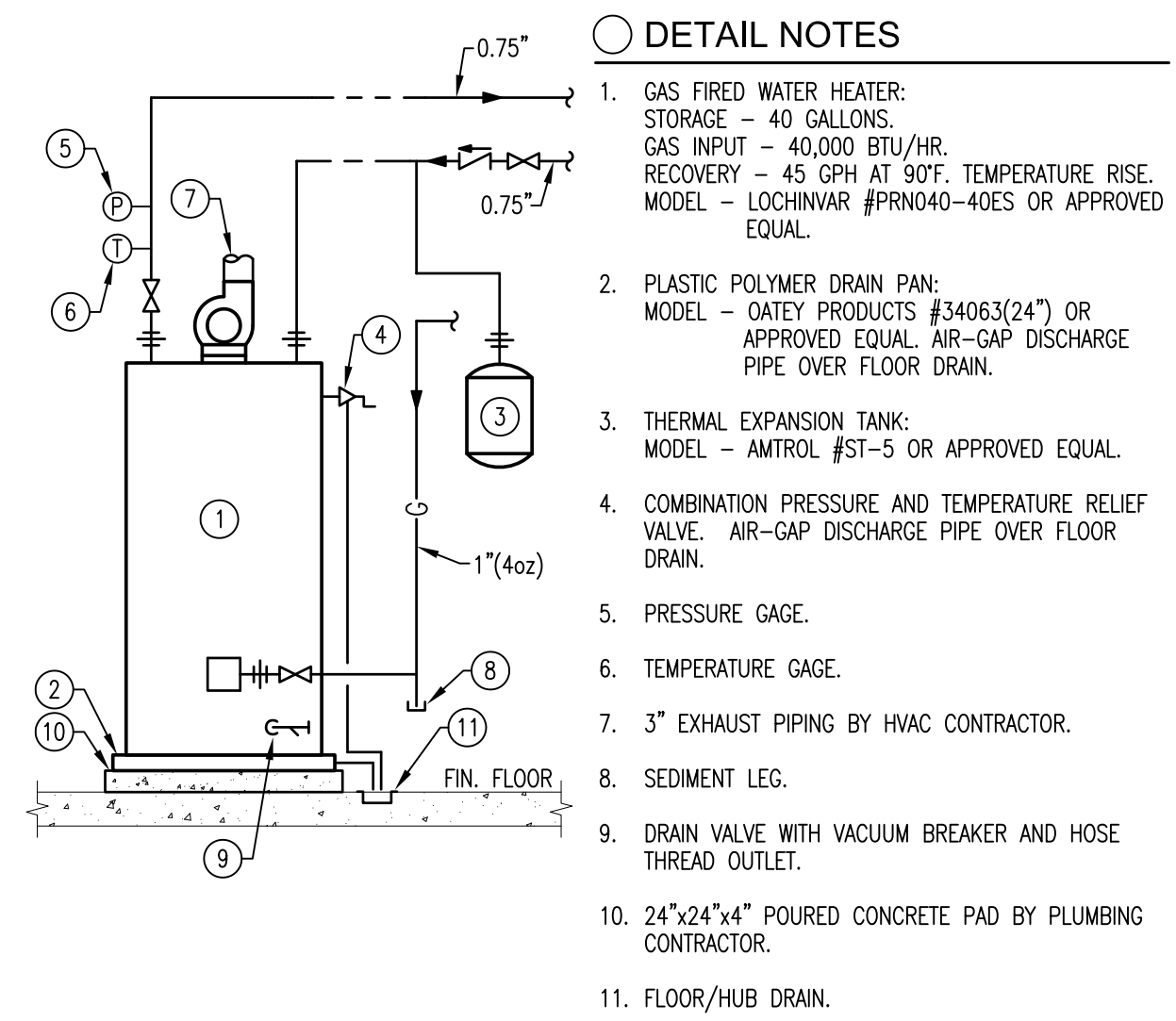
EACH MANUFACTURER LISTED FIRST IS BASIS OF DESIGN (EQUAL MANUFACTURERS ARE LISTED IN PARENTHESIS)

NOTES:  
 1. PROVIDE 0.5 GPM FLOW CONTROL DEVICE ON LAVATORY FAUCET.  
 2. PROVIDE CHROME PLATED ESCUTCHEONS AND NIPPLES TO WALL.  
 3. PROVIDE 1.5 GPM FLOW CONTROL DEVICE ON SINK FAUCET.  
 4. PROVIDE 1.75 GPM FLOW CONTROL DEVICE ON SHOWER HEAD.  
 5. WALL SURROUNDS BY OTHERS.

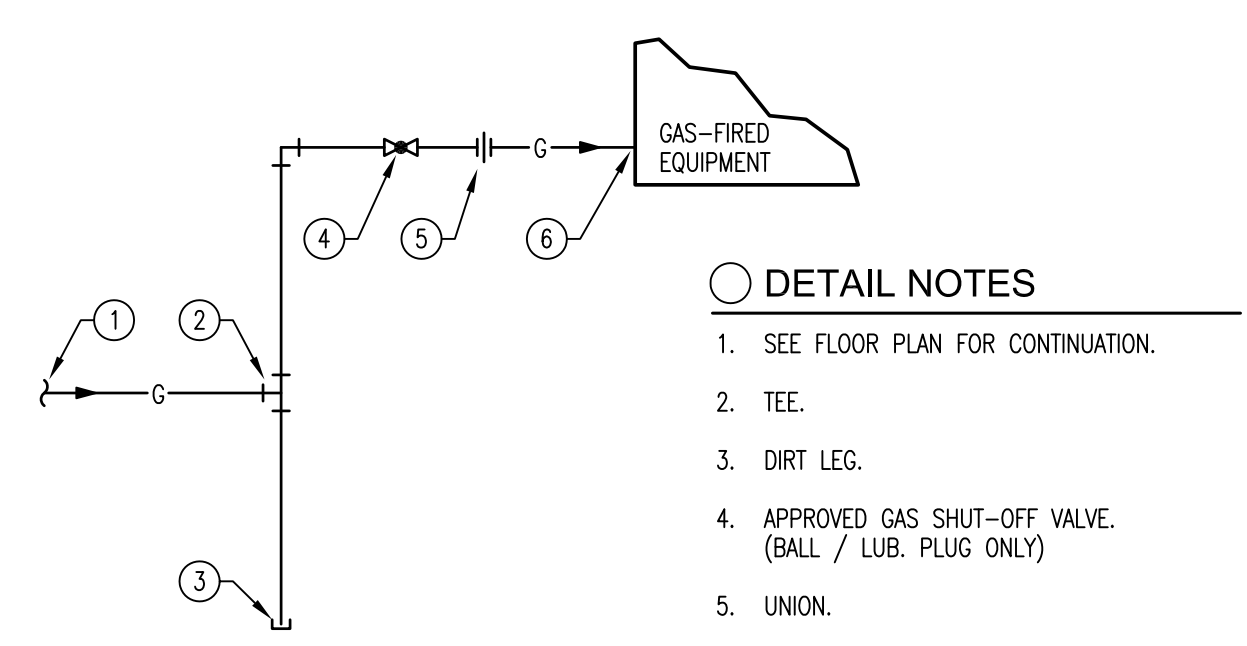
A. AMERICAN STANDARD (KOHLER, CRANE)      E. MOEN (AMERICAN STANDARD, ZURN)      J. WOODFORD (SMITH, ZURN)  
 B. GUY GRAY (WATER-TITE)      F. BEMIS (BENEKE, CENTOCO, CHURCH)      K. ENGINEERED BRASS (DEARBORN BRASS)  
 C. ELKAY (JUST W/LUG AND SCREW)      G. ZURN (CHICAGO, T&S BRASS)      L. SWAN (NO EQUALS)  
 D. AQUATIC (NO EQUALS)      H. MCGUIRE (ENGINEERED BRASS, ZURN)      M.

**DIV. 22 - PLUMBING SPECIFICATIONS**

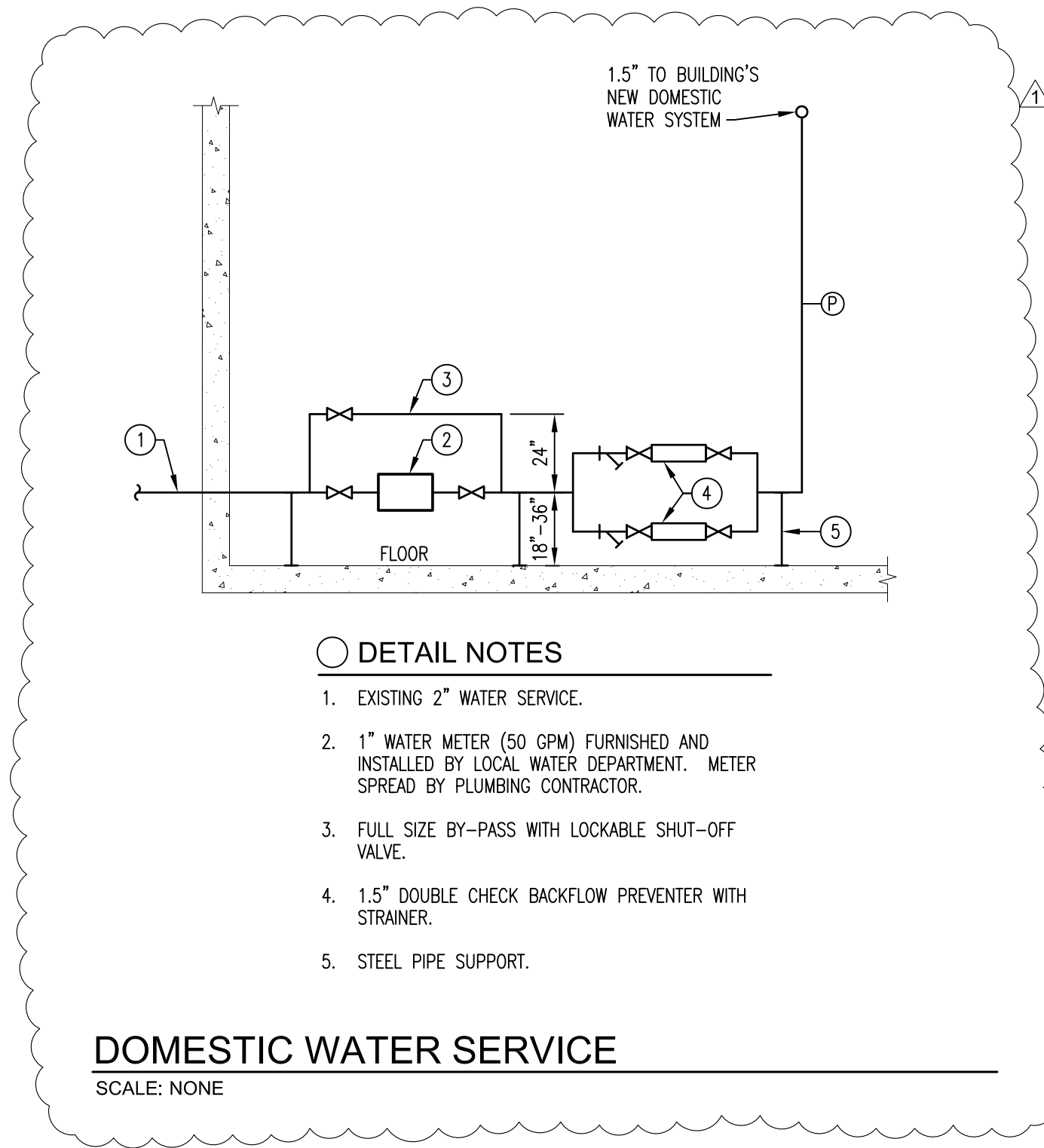
- 22 0500 - COMMON WORK RESULTS**  
 A. CUTTING OF EXISTING OR NEW CONSTRUCTION BY SAWING, DRILLING, BREAKING, CHIPPING, GRINDING, AND SIMILAR OPERATIONS, INCLUDING EXCAVATION, TO INSTALL ANY PIPING OR EQUIPMENT, SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR.  
 PATCHING OF THE CUTTING PROCEDURES IS REQUIRED TO RESTORE SURFACES TO THEIR ORIGINAL CONDITION AND ADJACENT CONSTRUCTION IN A MANNER THAT WILL ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. PROVIDE AN EVEN SURFACE OF UNIFORM FINISH, COLOR, TEXTURE, AND APPEARANCE.  
 B. DEMOLITION OF EXISTING ITEMS OR MATERIALS SHALL BE COMPLETELY REMOVED UNLESS OTHERWISE INDICATED TO BE REUSED, SALVAGED, OR REINSTALLED. ANY SALVAGED ITEMS OR MATERIALS SHALL BE TURNED OVER TO THE OWNER.  
 REMOVE, REPLACE, PATCH, AND REPAIR MATERIALS AND SURFACES CUT OR DAMAGED DURING DEMOLITION, BY METHODS AND WITH MATERIALS SO AS NOT TO VOID EXISTING WARRANTIES.  
 MAINTAIN AND DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES UNLESS AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO OWNER AND TO AUTHORITIES HAVING JURISDICTION.  
 C. CLOSEOUT PROCEDURES SHALL BE CONDUCTED BEFORE REQUESTING INSPECTION FOR SUBSTANTIAL COMPLETION. CONTRACTOR SHALL PREPARE A PUNCH LIST OF ITEMS TO BE COMPLETED AND CORRECTED, AND REASONS WHY THE WORK IS NOT COMPLETE.  
 D. OPERATION AND MAINTENANCE MANUALS SHALL INCLUDE O&M INFORMATION FOR EACH PIECE OF EQUIPMENT INCLUDING: MANUFACTURER'S INFORMATION; LIST OF SPARE PARTS; NAME, ADDRESS, AND TELEPHONE NUMBER OF INSTALLER OR SUPPLIER; MAINTENANCE PROCEDURES; COPIES OF MAINTENANCE SERVICE AGREEMENTS, WARRANTIES AND BONDS. BIND AND INDEX DATA IN HEAVY-DUTY, 3-RING, VINYL-COVERED, LOOSE-LEAF BINDERS.  
 E. MANUFACTURER'S STANDARD WARRANTIES SHALL BE PROVIDED FOR EACH PIECE OF EQUIPMENT UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE A WARRANTY FOR HIS WORK FOR A MINIMUM OF 1 YEAR AFTER DATE OF COMPLETION.  
 F. COORDINATION AMONG ALL TRADES IS MANDATORY. ANY COST CHANGES RESULTING FROM THE LACK OF COORDINATION, SHALL BE BORNE BY THE CONTRACTOR CREATING THE CONFLICT.  
 G. SUBMITTALS SHALL INCLUDE ALL PRODUCT DATA, SPECIALTIES, ACCESSORIES, POWER, SIGNAL, AND CONTROL WIRING DIAGRAMS. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE ALL EQUIPMENT'S ELECTRICAL REQUIREMENTS TO THE ELECTRICAL CONTRACTOR.  
 H. ALL EQUIPMENT AND MATERIALS SHALL BE DELIVERED, STORED AND HANDLED WITH CARE. ANY DAMAGE RESULTING FROM IMPROPER STORAGE OR HANDLING OF EQUIPMENT AND MATERIALS SHALL BE REPAIRED OR REPLACED AT CONTRACTORS EXPENSE.  
 I. FINISH PAINTING SHALL BE FURNISHED BY GENERAL CONTRACTOR. MARRED OR DAMAGED FACTORY-PAINTED FINISHES SHALL BE CONTRACTORS RESPONSIBILITY AND SHALL MATCH ORIGINAL FACTORY FINISH.  
 J. ALL PIPE PENETRATIONS THROUGH FIRE RATED CEILINGS/WALLS SHALL COMPLY TO U.L. "XHEZ" FIRE RESISTANCE SYSTEMS, U.L. 1479 FOR FIRE-PROOFING SEALANTS/MATERIALS AND U.L. 411 FOR WALL ASSEMBLY. INSTALLATION SHALL BE IN CONFORMANCE TO U.L. SYSTEMS #F-C-1006, #F-C-1036 OR #F-C-1061.  
 K. CONCRETE BASES SHALL BE FURNISHED BY EACH CONTRACTOR UNLESS OTHERWISE INDICATED.
- 22 0519 - PLUMBING METERS AND GAGES**  
 A. THERMOMETERS SHALL BE BIMETALLIC ACTUATED DIAL TYPE.  
 B. PRESSURE GAGES SHALL BE INDICATING DIAL TYPE.
- 22 0523 - PLUMBING VALVES**  
 A. SHUT-OFF VALVES SHALL BE TWO-PIECE BRASS OR BRONZE BALL TYPE OR DUCTILE IRON.  
 B. CHECK VALVES SHALL BE BRONZE SWING TYPE.
- 22 0529 - PLUMBING HANGERS AND SUPPORTS**  
 A. PIPE HOLDERS SHALL BE HIGH IMPACT RESISTANT ABS J-HOOKS EQUAL TO WATERITE "HANG-TITE" SERIES.  
 B. WOOD BEAM BRACKETS SHALL BE SIDE BEAM (TYPE 34).  
 C. STRAP SHORTS SHALL BE STEEL U-SHAPE TYPE EQUAL TO ANIL #262.  
 D. PIPE COVERING PROTECTION SHALL BE SADDLE (TYPE 39) OR SHIELD (TYPE 40).
- 22 0700 - PLUMBING INSULATION**  
 A. INSULATION SHALL BE MINERAL-FIBER WITH ALL-PURPOSE JACKET OR FLEXIBLE ELASTOMERIC WHICH MEETS OR EXCEEDS THE 25/50 FLAME SPREAD/SMOKE DEVELOPED RATINGS. THICKNESS SHALL BE 1" MINIMUM.
- 22 1116 - DOMESTIC WATER PIPING**  
 A. WATER PIPING SHALL BE ASTM B 88 TYPE "K" COPPER TUBE (BELOW FLOOR OR GRADE), TYPE "L" COPPER TUBE, ASTM F441 SCHEDULE 40 CPVC OR ASTM F877 SDR 9 PEX TUBING (ABOVE GRADE). COPPER FITTINGS SHALL BE CAST OR WROUGHT TYPE. CPVC FITTINGS SHALL BE ASTM F438 SOCKET TYPE. PEX FITTINGS SHALL BE ASTM F1807 METAL INSERT TYPE WITH COPPER/STAINLESS STEEL CRIMP RINGS. COPPER JOINTS SHALL BE SOLDERED WITH 95-5 TIN ANTIMONY SOLDER.  
 B. NO CPVC PIPING SHALL BE INSTALLED ABOVE CEILING IF SPACE IS BEING USED AS A RETURN AIR PLENUM.  
 C. HANGER SPACING AND ROD SIZING AS PER LOCAL CODE.  
 D. PIPE INSULATION REQUIRED ON ALL WATER PIPING SYSTEMS.  
 E. CLEAN AND DISINFECT PIPING AS PER LOCAL CODE.
- 22 1316 - SANITARY WASTE AND VENT PIPING**  
 A. BELOW GRADE SANITARY PIPING SHALL BE ASTM A 74 SERVICE HUB AND SPIGOT CAST IRON WITH RUBBER GASKETS, ASTM A 888 HUBLESS CAST IRON WITH STAINLESS STEEL TYPE 304 COUPLINGS OR ASTM D 2665 SCHEDULE 40 PVC WITH SOLVENT CEMENTED JOINTS.  
 B. ABOVE GRADE SANITARY PIPING SHALL BE ASTM A 888 HUBLESS CAST IRON WITH STAINLESS STEEL TYPE 301 COUPLINGS OR ASTM D 2665 SCHEDULE 40 PVC WITH SOLVENT CEMENTED JOINTS.  
 C. ABOVE CEILING VENT PIPING SHALL BE ASTM A 888 HUBLESS CAST IRON WITH STAINLESS STEEL TYPE 301 COUPLINGS.  
 D. NO PVC PIPING SHALL BE INSTALLED ABOVE CEILING IF SPACE IS BEING USED AS A RETURN AIR PLENUM.  
 E. HANGER SPACING AND ROD SIZING AS PER LOCAL CODE.  
 F. FLOOR AND GRADE CLEANOUTS SHALL BE CAST IRON BODY, PLASTIC PLUG CLOSURE, ADJUSTABLE THREADED HOUSING, ROUND NICKEL-BRONZE FRAME AND COVER.  
 G. WALL CLEANOUT SHALL BE ROUND POLISHED STAINLESS STEEL COVER WITH VANDAL-PROOF SCREW.
- 22 3400 - FUEL-FIRED WATER HEATERS**  
 A. REFER TO WATER HEATER DETAIL ON DRAWING FOR ALL REQUIREMENTS.
- 22 4000 - PLUMBING FIXTURES**  
 A. REFER TO FIXTURE SCHEDULE OR DRAWING NOTES ON DRAWINGS FOR FIXTURE AND TRIM REQUIREMENTS.
- 22 8123 - NATURAL GAS PIPING**  
 A. ABOVE GRADE GAS PIPING SHALL BE ASTM A 53/A 53M, TYPE E OR S SCHEDULE 40 BLACK STEEL WITH CLASS 150 MALLEABLE OR CAST IRON FITTINGS.  
 B. ABOVE GRADE GAS PIPING SHALL BE ASTM A 240/A 240M, SERIES 300 CORRUGATED STAINLESS STEEL TUBING WITH COPPER-ALLOY MECHANICAL FITTINGS HAVING SOCKET OR THREADED ENDS.  
 C. OPERATING PRESSURE NOT TO EXCEED 0.5 PSIG, UNLESS OTHERWISE INDICATED.  
 D. SHUT-OFF VALVES SHALL BE A.G.A. APPROVED.  
 E. NO SHUT-OFF VALVE SHALL BE INSTALLED ABOVE CEILING IF SPACE IS BEING USED AS A RETURN AIR PLENUM.  
 F. HANGER SPACING AND ROD SIZING SHALL COMPLY WITH THE INTERNATIONAL PLUMBING CODE.  
 G. ALL PIPING INSTALLATION SHALL COMPLY WITH THE INTERNATIONAL FUEL GAS CODE.  
 H. EXTERIOR PIPING SHALL BE COATED WITH AN ANTI-CORROSIVE METAL PRIMER AND PAINTED WITH AN EXTERIOR SEMI-GLOSS ALKYL ENAMEL PAINT TO MATCH BUILDING COLOR.



**WATER HEATER (POWER DIRECT VENT)**  
 SCALE: NONE



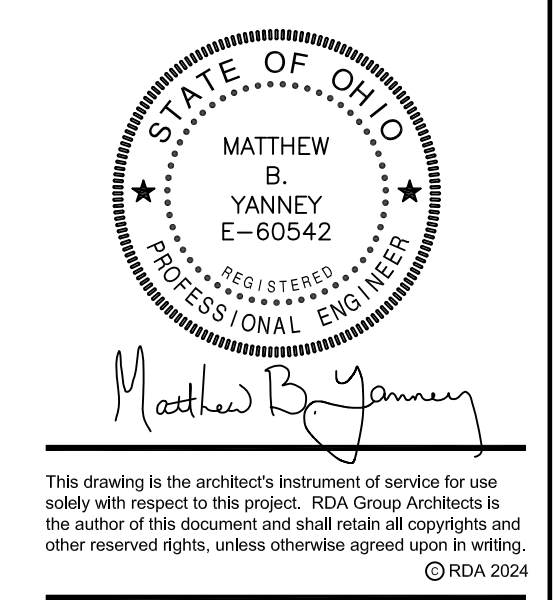
**GAS PIPING (TYP. EQUIPMENT CONNECTION)**  
 SCALE: NONE



**DOMESTIC WATER SERVICE**  
 SCALE: NONE

**LEGEND**

- EXISTING TO REMAIN
- - - EXISTING TO BE REMOVED
- DWS — DOMESTIC WATER SERVICE
- SANITARY PIPING
- - - SANITARY VENT PIPING
- INDIRECT WASTE PIPING
- - - DOMESTIC COLD WATER PIPING
- - - DOMESTIC HOT WATER PIPING - 120°F
- G — NATURAL GAS PIPING
- PIPE DROP
- PIPE RISER
- DIRECTION OF FLOW
- UNION
- CHECK VALVE
- SHUT-OFF VALVE
- GAS SHUT-OFF VALVE
- SHUT-OFF VALVE ON DROP
- SHUT-OFF VALVE ON RISER
- (P) — PRESSURE GAGE
- (T) — THERMOMETER
- CO — CLEANOUT
- GCO — GRADE CLEANOUT
- FCO — FLOOR CLEANOUT
- WCO — WALL CLEANOUT
- SS — SANITARY STACK
- SNR — SANITARY RISER
- VS — VENT STACK
- VR — VENT RISER
- VTR — VENT THRU ROOF
- SR — SUPPLY RISER
- AFF — ABOVE FINISH FLOOR
- AFG — ABOVE FINISH GRADE
- WC1 — FIXTURE SYMBOL
- — TO FIXTURE ABOVE
- ⊗ — CONNECT TO EXISTING



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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
 9 A&B Parnell Ave. 111 A&B Parnell Ave. 1  
 1202 A&B Huffman Ave. 11204 A&B Huffman Ave. 1  
 1208 A&B Huffman Ave. 11210 A&B Huffman Ave.  
 Dayton, Ohio 45403  
 OHFA Project :-  
 Greater Dayton Premier Management

Project Number		2021-033
Date		February 29, 2024
Date	Issue	
02.29.24	Permit Issue/Bid Set	
03.12.24	Revision #1	
Sheet Title		Plumbing Legend, Schedules, Details & Specifications
Sheet Number		P1.0

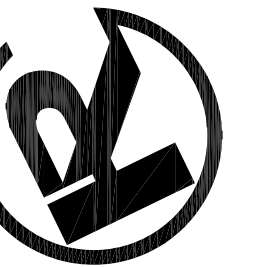
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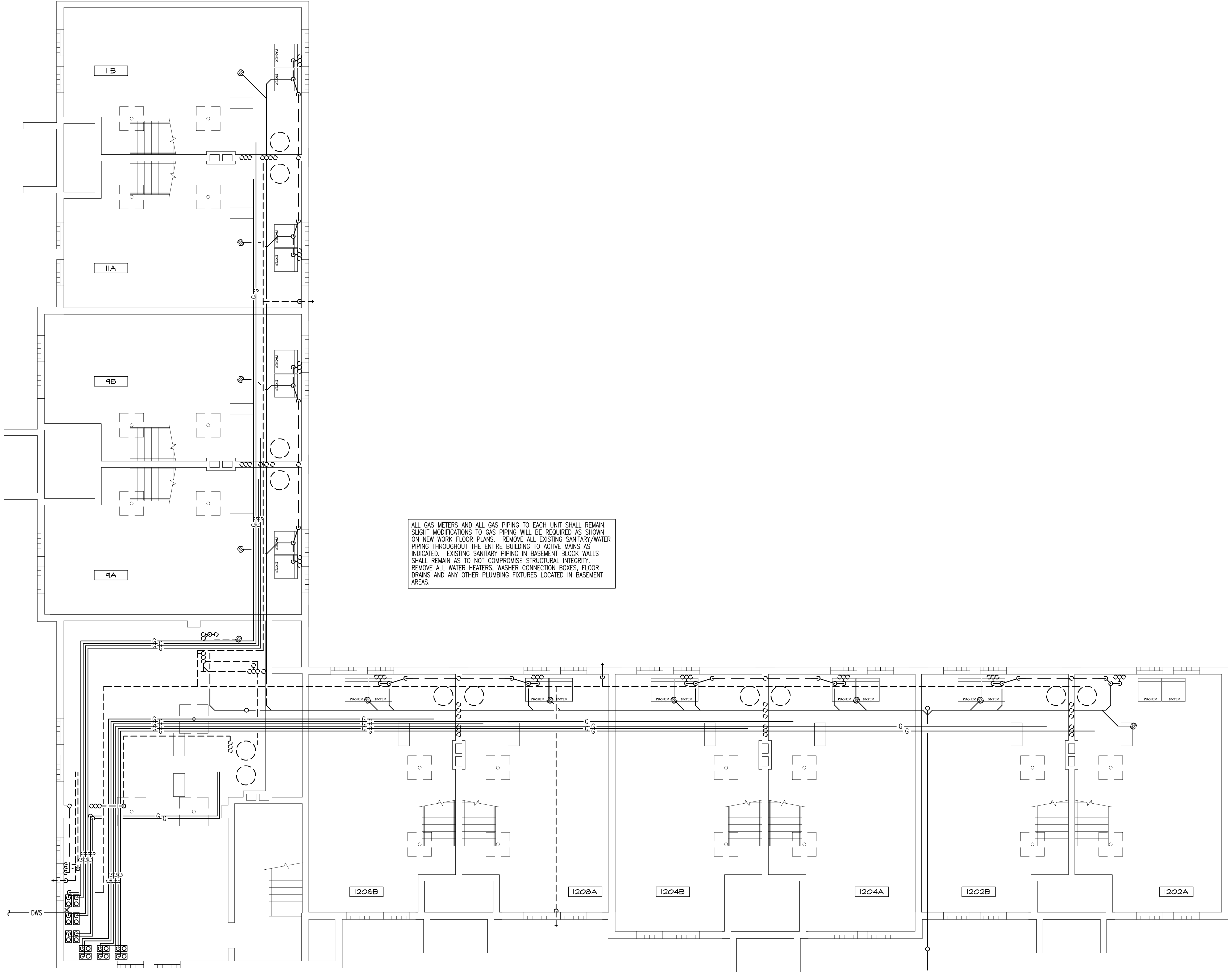
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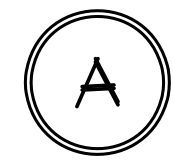
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Project Number	2021-033
Date	February 29, 2024
Date	02.29.24
Issue	Permit Issue/Bid Set

Sheet Title  
Plumbing  
Overall Basement  
Demolition Floor Plan  
Sheet Number  
**P2.0**

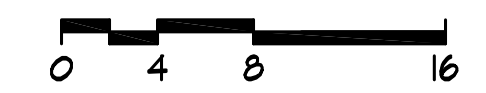


ALL GAS METERS AND ALL GAS PIPING TO EACH UNIT SHALL REMAIN. SLIGHT MODIFICATIONS TO GAS PIPING WILL BE REQUIRED AS SHOWN ON NEW WORK FLOOR PLANS. REMOVE ALL EXISTING SANITARY/WATER PIPING THROUGHOUT THE ENTIRE BUILDING TO ACTIVE MAINS AS INDICATED. EXISTING SANITARY PIPING IN BASEMENT BLOCK WALLS SHALL REMAIN AS TO NOT COMPROMISE STRUCTURAL INTEGRITY. REMOVE ALL WATER HEATERS, WASHER CONNECTION BOXES, FLOOR DRAINS AND ANY OTHER PLUMBING FIXTURES LOCATED IN BASEMENT AREAS.

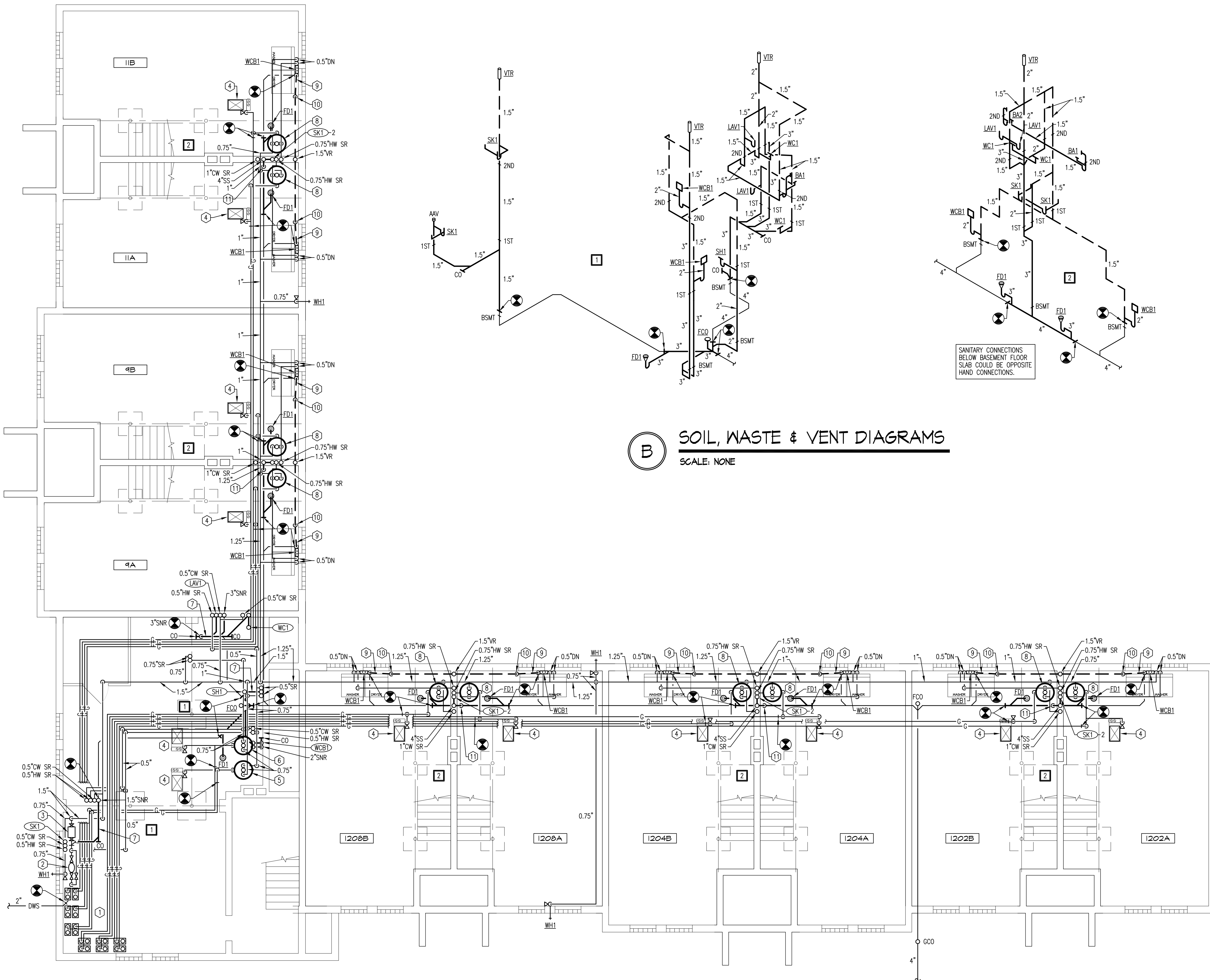


**OVERALL BASEMENT DEMO PLAN**

SCALE: 3/16" = 1'-0"



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**A** OVERALL BASEMENT FLOOR PLAN  
 SCALE: 3/16" = 1'-0"  
 0 4 8 16  
 NORTH

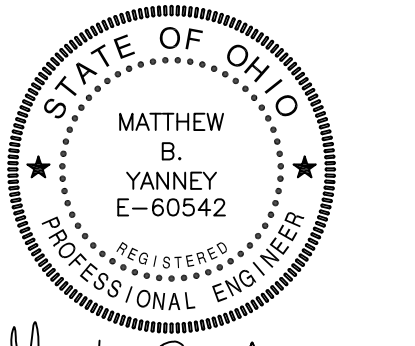
**B** SOIL, WASTE & VENT DIAGRAMS  
 SCALE: NONE

**GENERAL NOTES**

- A. ALL SANITARY PIPING INDICATED IS TO BE INSTALLED BELOW FLOOR SLAB/ IN CHASE UNLESS OTHERWISE NOTED. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION/TRENCHING/BACKFILL AND FINISHED CONCRETE WORK ASSOCIATED WITH NEW UNDERGROUND SANITARY PIPING.
- B. ALL VENT PIPING INDICATED IS TO BE INSTALLED AS HIGH AS POSSIBLE IN EXPOSED STRUCTURAL AREAS UNLESS OTHERWISE NOTED.
- C. ALL WATER PIPING INDICATED IS TO BE INSTALLED AS HIGH AS POSSIBLE IN EXPOSED STRUCTURAL AREAS AND BETWEEN FLOOR JOIST SPACES UNLESS OTHERWISE NOTED. ALL PIPING SHALL TO BE PROPERLY SECURED AS REQUIRED.
- D. ALL EXISTING GAS METERS/PIPING INDICATED SHALL REMAIN. MODIFICATIONS TO GAS PIPING IS INDICATED.
- E. ALL GAS PIPING HAS BEEN SIZED AS PER THE INTERNATIONAL FUEL GAS CODE. THE SIZING CRITERIA IS AS FOLLOWS: GAS PRESSURE OF 0.5 PSI, PRESSURE DROP OF 0.3 IN. W.C. AND SPECIFIC GRAVITY OF 0.6.
- F. REFER TO THE SCHEDULES, DETAILS AND DIAGRAMS FOR ANY PIPING/PIPE SIZES NOT INDICATED ON FLOOR PLANS.
- G. THE PLUMBING CONTRACTOR SHALL VERIFY EXACT SIZE OF EXISTING PIPE, LOCATION OF EXISTING POINTS OF CONNECTION (VIA VIDEO INSPECTION FOR UNDERGROUND PIPING) AND THAT THERE IS ADEQUATE SPACE TO INSTALL ALL NEW PIPING BEFORE STARTING ANY INSTALLATION.

**CONSTRUCTION NOTES**

1. EXISTING GAS METERS/PIPING INDICATED SHALL REMAIN.
2. WATER METER (50 GPM) FURNISHED AND INSTALLED BY LOCAL WATER DEPARTMENT. PLUMBING CONTRACTOR IS RESPONSIBLE FOR METER SPREAD AND ASSOCIATED PIPING AS PER WATER DEPARTMENT'S RULES AND REGULATIONS.
3. 1.5" DOUBLE CHECK BACKFLOW PREVENTER, WATTS #0070T-S OR APPROVED EQUAL. INSTALLATION SHALL FOLLOW LOCAL WATER DEPARTMENT'S RULES AND REGULATIONS.
4. GAS-FIRED FURNACE (40 CFH INPUT) BY HVAC CONTRACTOR. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL GAS PIPING AND FINAL CONNECTION TO THE UNIT. REFER TO GAS PIPING DETAIL ON SHEET P1.0 FOR FURTHER INSTALLATION REQUIREMENTS.
5. GAS-FIRED WATER HEATER (UNIT 1210A). REFER TO WATER HEATER DETAIL ON SHEET P1.0 FOR FURTHER INSTALLATION REQUIREMENTS.
6. GAS-FIRED WATER HEATER (UNIT 1210B). REFER TO WATER HEATER DETAIL ON SHEET P1.0 FOR FURTHER INSTALLATION REQUIREMENTS.
7. PIPING TO BE HELD AS TIGHT AS POSSIBLE TO UNDERSIDE OF FLOOR JOIST.
8. GAS-FIRED WATER HEATER. REFER TO WATER HEATER DETAIL ON SHEET P1.0 FOR FURTHER INSTALLATION REQUIREMENTS.
9. VENT PIPING TO BE OFFSET AS INDICATED AND AS LOW AS POSSIBLE ALONG BASEMENT WALL.
10. VENT PIPING TO RISE UP BASEMENT WALL AND JUST TO THE LEFT/RIGHT OF WINDOW OPENING AS INDICATED.
11. SANITARY STACK TO BE OFFSET AND DROP ALONG BASEMENT WALL AS INDICATED. PROVIDE CLEANOUT AT BASE OF STACK.



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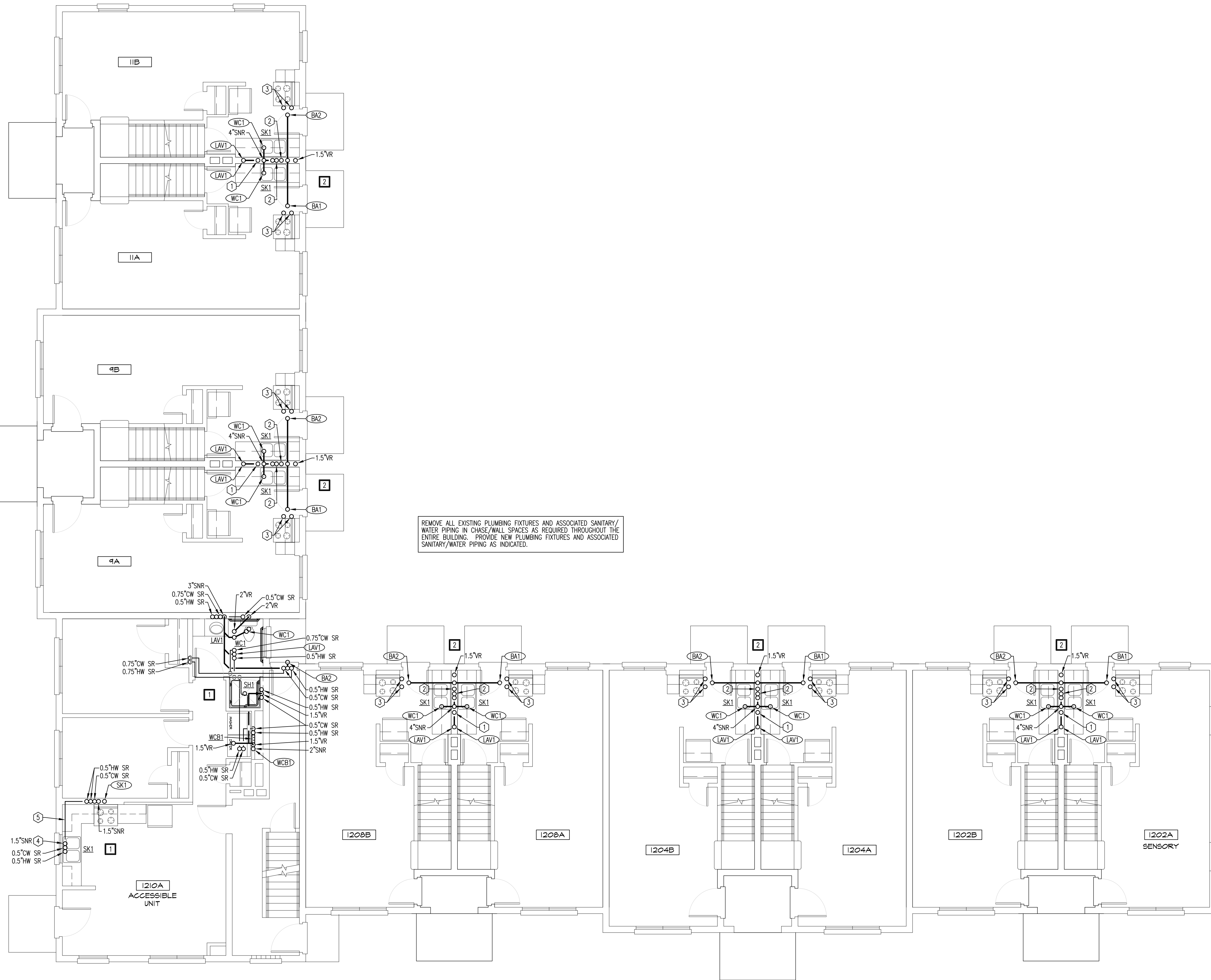
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 Dayton, Ohio 45403  
 OHFA Project :-  
 Greater Dayton Premier Management

Project Number	2021-033
Date	February 29, 2024
Date	02.29.24
Issue	Permit Issue/Bid Set

Sheet Title  
 Plumbing  
 Overall Basement  
 Floor Plans & Diagrams  
 Sheet Number  
**P2.1**

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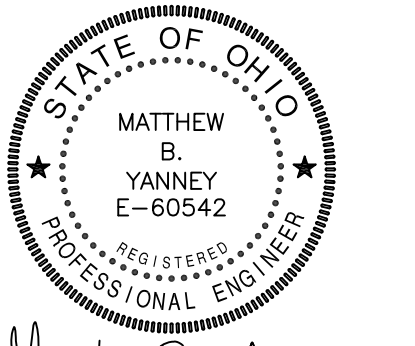




**A OVERALL FIRST FLOOR PLAN**  
 SCALE: 3/16" = 1'-0"  
 0 4 8 16  
 NORTH

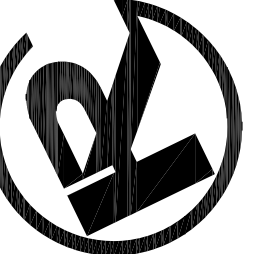
**GENERAL NOTES**

- A. ALL SANITARY PIPING INDICATED IS TO BE INSTALLED ABOVE THE CEILING/ IN CHASE UNLESS OTHERWISE NOTED.
- B. ALL VENT PIPING INDICATED IS TO BE INSTALLED AS HIGH AS POSSIBLE IN EXPOSED STRUCTURAL AREAS UNLESS OTHERWISE NOTED.
- C. ALL SUPPLY PIPING INDICATED IS TO BE INSTALLED ABOVE THE CEILING/ IN CHASE/IN STUD WALLS UNLESS OTHERWISE NOTED.
- D. REFER TO THE SCHEDULES, DETAILS AND DIAGRAMS FOR ANY PIPING/PIPE SIZES NOT INDICATED ON FLOOR PLANS.
- E. THE PLUMBING CONTRACTOR SHALL VERIFY THAT THERE IS ADEQUATE SPACE TO INSTALL ALL NEW PIPING BEFORE STARTING ANY INSTALLATION.



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**CONSTRUCTION NOTES**

- 1. 1" COLD WATER PIPING TO RISE IN CHASE AS INDICATED. PROVIDE 0.75" COLD WATER MANIFOLD FROM RISER IN CHASE TO SERVE EACH SINK AND BATHTUB IN BOTH UNITS.
- 2. 0.75" HOT WATER PIPING TO RISE IN CHASE AS INDICATED. PROVIDE 0.75" HOT WATER MANIFOLD FROM RISER IN CHASE TO SERVE SINK AND BATHTUB IN THIS UNIT ONLY.
- 3. 0.5" HOT/COLD WATER RISERS TO BATHTUB SHALL CONNECT TO MANIFOLDS IN CHASE AS REQUIRED.
- 4. AIR-ADMITTANCE VALVE, STUDOR "MINI-VENT" OR APPROVED EQUAL, TO BE INSTALLED AS HIGH AS POSSIBLE TO UNDERSIDE OF COUNTERTOP.
- 5. 0.5" HOT/COLD WATER PIPING SHALL BE RUN ALONG EXTERIOR WALL AS TIGHT AS POSSIBLE AND CONNECT TO HOT/COLD WATER RISERS IN WALL AS REQUIRED.

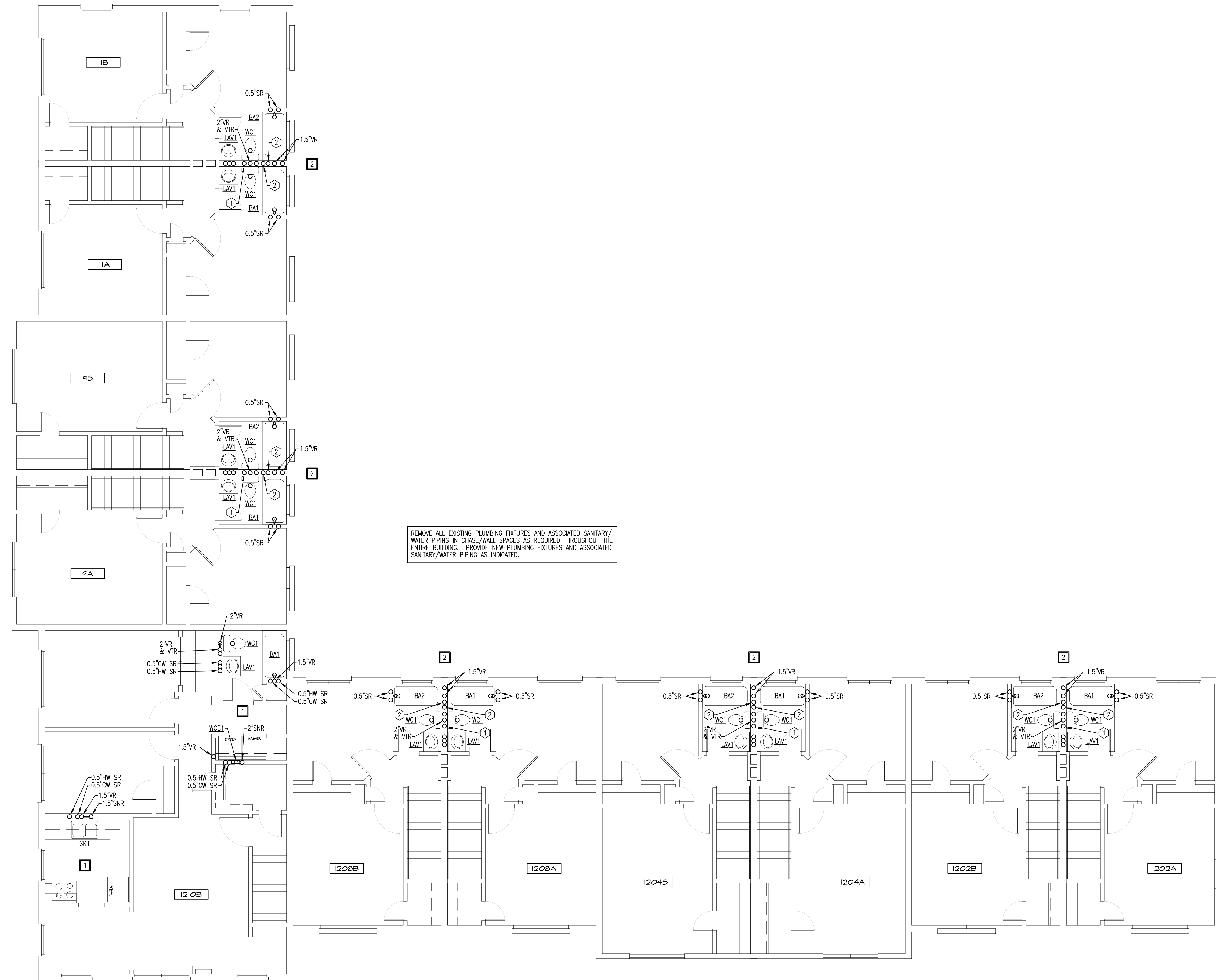
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Project Number	2021-033
Date	February 29, 2024
Date	Issue
02.29.24	Permit Issue/Bid Set

Sheet Title  
 Plumbing Overall First Floor Plans  
 Sheet Number  
**P2.2**

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REMOVE ALL EXISTING PLUMBING FIXTURES AND ASSOCIATED SANITARY/WATER PIPING IN CHASE/WALL SPACES AS REQUIRED THROUGHOUT THE ENTIRE BUILDING. PROVIDE NEW PLUMBING FIXTURES AND ASSOCIATED SANITARY/WATER PIPING AS INDICATED.



**OVERALL SECOND FLOOR PLAN**

SCALE: 3/16" = 1'-0"

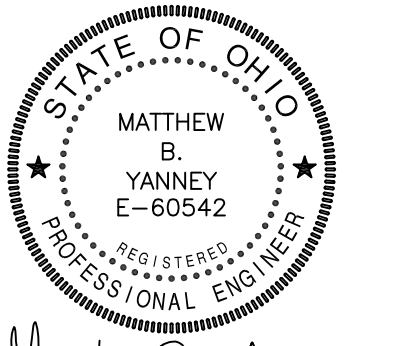


**GENERAL NOTES**

- A. ALL SANITARY PIPING IS TO BE INSTALLED BELOW THE FLOOR UNLESS OTHERWISE NOTED.
- B. ALL VENT PIPING INDICATED IS TO BE INSTALLED AS HIGH AS POSSIBLE IN EXPOSED STRUCTURAL AREAS UNLESS OTHERWISE NOTED.
- C. ALL SUPPLY PIPING INDICATED IS TO BE INSTALLED AS HIGH AS POSSIBLE IN EXPOSED STRUCTURAL AREAS, ABOVE GYPSUM BOARD CEILING OR IN PIPE CHASE UNLESS OTHERWISE NOTED.
- D. REFER TO THE SCHEDULES, DETAILS AND DIAGRAMS FOR ANY PIPING/PIPE SIZES NOT INDICATED ON FLOOR PLANS.
- E. THE PLUMBING CONTRACTOR SHALL VERIFY THAT THERE IS ADEQUATE SPACE TO INSTALL ALL NEW PIPING BEFORE STARTING ANY INSTALLATION.

**CONSTRUCTION NOTES**

- 1. 1" COLD WATER PIPING TO RISE IN CHASE; OFFSET AND RUN FULL-SIZE MANIFOLD IN CHASE TO SERVE EACH WATER CLOSET AND LAVATORY AS REQUIRED IN BOTH UNITS.
- 2. 0.5" HOT WATER PIPING TO RISE IN CHASE; OFFSET AND RUN PIPING IN CHASE TO SERVE LAVATORY FOR THIS UNIT ONLY.



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Project Number  
2021-033

Date  
February 29, 2024

Date	Issue
02.29.24	Permit Issue/Bid Set

Sheet Title  
Plumbing  
Overall Second  
Floor Plans

Sheet Number

**P2.3**

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**SPLIT SYSTEM HEATING & COOLING SCHEDULE**

UNIT TAG (INDOOR UNIT / OUTDOOR UNIT) NUMBER OF UNIT RECD.	UPFLOW: U, DOWNFLOW: D	AREA SERVED	NOMINAL SYSTEM TONS	NOMINAL DESIGN CFM	NATURAL VENTILATION	FURNACE SECTION										OUTDOOR AIR CONDITIONER										NOTES										
						ELECTRICAL					HEATING (NATURAL GAS)					MANUFACTURER					ELECTRICAL						COOLING CAP.					MANUFACTURER				
						MIN. EXT. S.P. (IN W.G.)	VOLT/PHASE/60 HZ	NO. MOTORS	MOTOR HP (EACH)	MOTOR FLA (EACH)	UNIT AMPCAPACITY	MOCP	AFLUE EFFICIENCY: (MIN.)	GAS INPUT (1000 BTU/HR)	GAS OUTPUT (1000 BTU/HR)	REDUNDANT GAS VALVE	HOT SURFACE IGNITION	ACCESSORIES	PAYNE CATALOG NO.	SEER	VOLT/PHASE/60 HZ	QUANTITY	FLA	MOTOR HP	MOTOR FLA		MINIMUM CIRCUIT AMPS	MOCP	TOTAL CAPACITY (1000 BTU/HR)	SENSIBLE (1000 BTU/HR)	ACCESSORIES	PAYNE CATALOG NO.				
F1-AC1 (12)	U	TENANT SPACES (12)	2	950	YES	5"	115/1	1	1/2	6.3	9.5	15.0	95	40	39	●	●	1,2,3,4	P695ESA30040A	16	208/230-1	1	10.9	1/10	.77	14.4	25	24.0	17.95	5,6,7	PA16NW02400GA	1				

**GENERAL NOTES:**

A. SUBMITTALS SHALL INCLUDE INSTALLATION AND WIRING DIAGRAMS. IT'S THE RESPONSIBILITY OF THE M.C. TO COORDINATE THE FINAL PURCHASED EQUIPMENT'S ELECTRICAL REQUIREMENTS WITH THE E.C.

B. ROUTE 3/4" SCH 40 PVC CONDENSATE DRAIN LINE WITH P-TRAP, SLOPED AND AIR-CAPPED OVER AREA FLOOR DRAIN. PIPE ROUTING SHALL NOT INTERFERE WITH UNIT MAINTENANCE, NOR BE A TRIP HAZARD.

C. FIELD DETERMINE BEST POSSIBLE ROUTING OF NEW REFRIGERANT LINE SETS PRIOR TO ORDERING. INCREASE LINE SIZES AS RECOMMENDED BY THE MANUFACTURER BASED ON LENGTH OF RUN. INSTALLATION, MATERIALS AND LABOR SHALL COMPLY WITH ANSI/ASHRAE STANDARD 15-2001 "SAFETY STANDARD FOR REFRIGERATION SYSTEMS."

D. REFRIGERANT: R-410A (PURON)

E. MODEL NUMBERS SHOWN DO NOT INDICATE ALL FACTORY- OR FIELD-INSTALLED ACCESSORIES OR DEVICES. IT'S THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND VERIFY EQUIPMENT REQUIREMENTS WITH THE UNIT MANUFACTURER'S REPRESENTATIVE TO ENSURE ALL SPECIFICATION REQUIREMENTS ARE MET.

F. BASIS OF DESIGN: PAYNE OR EQUAL BY BRYANT, TRANE OR LENNOX.

G. CONTRACTOR SHALL PROVIDE FOUR (4) FILTERS FOR EACH FURNACE INSTALLED.

**ACCESSORIES:**

1. SINGLE-STAGE HEAT/COOL THERMOSTAT WITH LED DISPLAY. PAYNE STAT-IB-NAC OR EQUAL.

2. CONCENTRIC COMBUSTION AIR/VENT KIT.

3. FULLY CASED COIL WITH INSULATED CABINET AND TVX.

4. FILTER RACK WITH 1" PLEATED 30% EFFICIENT THROWAWAY FILTERS; EXTERNAL SERVICE VALVES AND FIELD-INSTALLED LIQUID LINE FILTER DRYER INSTALLED OUTSIDE OF THE UNIT.

5. LOW AMBIENT CONTROLS AND HARD START KIT.

6. REFRIGERANT LINE SET.

**SCHEDULE NOTES:**

1. INSTALL CONDENSING UNITS ON A 4" THICK CAST-IN-PLACE CONCRETE PAD. SECURE CONDENSING UNIT ON THE PAD WITH STAINLESS-STEEL, TAMPER-PROOF FASTENERS.

**EXHAUST FAN SCHEDULE**

UNIT TAG: (#REQ'D. FOR PROJECT)	TYPE	AREAS/ROOMS SERVED	AIRFLOW (CFM)	STATIC PRESSURE	DRIVE			ELECTRICAL			SONES	CONTROLS & ACCESSORIES (SEE BELOW)	MANUFACTURER CATALOG NO.	NOTES	
					DIRECT DRIVE	BELT DRIVE	VFD	MOTOR RPM	MOTOR HP: WATTS	FLA					VOLTAGE/PHASE/60 HZ
E1-1(12)	CEILING EXHAUST FAN UPBLAST EXHAUST FAN FILTERED SUPPLY AIR FAN GRAVITY INTAKE VENTILATOR GRAVITY RELIEF VENTILATOR DRYER BOOSTER FAN	BATHROOM - ALL UNITS	80	0.1"	●	-	-	-	6.5 W	0.4	120/1	0.4	1,2,3,4,6,7,8	BROAN AE50110DCL	

**GENERAL NOTES:**

A. BASIS OF DESIGN: BROAN OR EQUAL.

B. SUBMITTALS SHALL INCLUDE INSTALLATION AND WIRING DIAGRAMS. IT'S THE RESPONSIBILITY OF THE M.C. TO FURNISH THE ELECTRICAL REQUIREMENTS OF THE ACTUAL EQUIPMENT PURCHASED WITH THE E.C.

C. 4" WIDE FLEXIBLE CANVAS SHALL BE USED TO CONNECT DUCTWORK TO FAN. FLEXIBLE DRYER VENT TYPE DUCT IS NOT PERMITTED.

C. MODEL NUMBERS SHOWN DO NOT INDICATE ALL FACTORY- OR FIELD-INSTALLED ACCESSORIES OR DEVICES. IT'S THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND VERIFY EQUIPMENT REQUIREMENTS WITH THE MFR'S REPRESENTATIVE TO ENSURE ALL REQUIREMENTS ARE MET.

D. BATHROOM FANS SHALL BE ENERGY STAR COMPLIANT; UL LISTED FOR OVER BATHTUBS AND SHOWERS WHEN CONNECTED TO A GFCI PROTECTED BRANCH CIRCUIT; UL LISTED FOR USE IN INSULATED CEILING (TYPE I.C.).

**CONTROLS & ACCESSORIES:**

1. COMBINATION FAN/LED MODULE UNIT REQUIRES (1) 11W 3500K COLOR TEMPERATURE AND 800 LUMEN OUTPUT (MIN.).

2. INTEGRAL OR PLUG TYPE DISCONNECT SWITCH.

3. VIBRATION ISOLATION KIT (HANGING OR BASE).

4. INTERLOCK WITH WALL SWITCH - BY E.C.

5. 4" DIA. WALL CAP W/INTEGRAL BACKDRAFT DAMPER AND BIRDSCREEN; BROAN MODEL 885BL

6. ROOF CAP: BROAN MODEL 636

7. CEILING RADIATION DAMPER: BROAN MODEL RM2

8. ENERGY STAR RATED EQUIPMENT.

**AIR DEVICE SCHEDULE**

DEVICE NO.	STYLE	DIMENSIONS	CFM RANGE	MOUNTING			MATERIAL			FINISH			ACCESSORIES			MANUFACTURER CATALOG NO.	NOTES		
				CEILING MOUNT	SIDEWALL MOUNT	DUCT MOUNT	TOE/KICK	FLOOR REGISTER	STEEL	ALUMINUM	STAINLESS STEEL	STD WHITE BAKED ENAMEL	ANODIZED	COLOR BY ARCHITECT	OPPOSED BLOE DAMPER			SQUARE-ROUND ADAPTOR	FILTER FRAME, 1" FILTERS
1	SQUARE CEILING DIFFUSER	11.7"x5.7"	0-200	-	●	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 654	
2	ROUND CEILING DIFFUSER	11.7"x7.7"	0-200	-	●	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 654	
3	LINEAR SLOT DIFFUSER	11.7"x3.7"	0-300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 411	
4	LINEAR BAR	11.7"x3.7"	0-300	-	●	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 411	
5	LOWER GRILLE/REGISTER	13.7"x5.7"	0-300	-	●	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 411	
6	WV MODULE W/PANEL FACE	11.7"x3.7"	0-300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 420	
7	DBL. DEFL. GRILLE/REG.	29.7"x7.7"	0-900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 621	
8	EXTERIOR LOWER	15.7"x5.7"	0-800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	HART & COOLEY: 650	

A. BASIS OF DESIGN: HART & COOLEY OR EQUAL.

B. AIR DEVICE NUMBER NOMENCLATURE: # = NEW AIR DEVICE PER SCHEDULE.

C. VERIFY CEILING/WALL TYPE AND REQUIRED AIR DEVICE SIZE FOR THE EXISTING SUPPLY/RETURN AIR DEVICE OPENING BEFORE ORDERING OR INSTALLING AIR DEVICES.

D. PROPERLY SECURE ALL AIR DEVICES TO STRUCTURE AND SEAL BETWEEN DUCTWORK AND GYPSUM BOARD CEILING/WALL AS REQUIRED.

**NOTE:**

ALL SHEET METAL WORK MUST BE DONE IN A PROFESSIONAL MANNER. PLENUMS, TRANSITION BOXES, FLANGES, SUPPLY, RETURN, AND COMBUSTION AIR DUCTING, PIPING, AND SUCH LIKE APPURTENANCES SHALL FIT PRECISELY TO ADJOINING COMPONENTS TO MINIMIZE AIR LEAKAGE. ALL DUCTWORK COMPONENTS SHALL BE FACTORY OR SHEET METAL SHOP FABRICATED. THE APPLICATION OF FOIL TAPES, CLOTH DUCT TAPE, OR SUCH LIKE MATERIALS, AND/OR EXCESSIVE USE OF PLIABLE SEALANTS TO NEGATE AIR LOSS DUE TO IMPROPER INSTALLATION OF THE DUCT SYSTEM IS HIGHLY DISCOURAGED AND WILL NOT BE ACCEPTED. ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK/FITTINGS, AND SUCH LIKE COMPONENTS MUST FIT PRECISELY AND MUST BE LEVEL IN HORIZONTAL CONFIGURATION AND PLUMB IN VERTICAL CONFIGURATION. CONDENSATE DRAIN LINES SHALL BE SLOPED TO DRAIN PER CODE.

**COMMON AREA HEATING UNIT SCHEDULE: 1210A & B - HUFFMAN AVE.**

UNIT TAG	AREAS/ROOMS SERVED	TYPE	MOUNTING	HEATING	ELECTRICAL			MANUFACTURER	NOTES				
					RPM	HP	KW						
EUH1-2	BASEMENT	FUEL-FIRED FURNACE	CABINET HEATER	E	10200	800	1/100	3	240/1	12.5	2,4	QMARK MUH03-21	
EWH1-2	ENTRY/STAIRS	UNIT HEATER	CEILING HEATER	E	750	2560	-	-	240/1	3.1	5	QMARK QMKC2543W	

**GENERAL NOTES:**

A. PROVIDE EQUIPMENT COMPLETE WITH INTEGRAL DISCONNECT SWITCH OR OVERCURRENT PROTECTION AS REQUIRED BY CODE. COORDINATE WITH E.C.

B. SUBMITTALS SHALL INCLUDE INSTALLATION AND WIRING DIAGRAMS. IT'S THE RESPONSIBILITY OF THE M.C. TO PROVIDE AND COORDINATE THE FINAL EQUIPMENT REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.

**CONTROLS & ACCESSORIES:**

1. INTEGRAL UNIT THERMOSTAT WITH TAMPER SWITCH.

2. UNIVERSAL MOUNTING BRACKET: QMARK B10

3. SURFACE MOUNTING SLEEVE: OCH-SM

4. SP THERMOSTAT: UHMT1

5. SP THERMOSTAT: TAIAM

**GENERAL NOTES - MECHANICAL**

A. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE CONTRACT DRAWINGS, IN ACCORDANCE WITH THE MFR'S RECOMMENDATIONS, AS SPECIFIED AND AS REQUIRED BY ALL APPLICABLE STATE, CITY AND LOCAL CODES AND REGULATIONS. ALL MECHANICAL WORK SHALL BE INSPECTED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO COVER-UP.

B. CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY UNLESS NOTED OTHERWISE. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS.

C. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL OTHER TRADES AND WITH ANY EXISTING JOBSITE CONDITIONS PRIOR TO THE INSTALLATION OF EQUIPMENT AND FABRICATION OF DUCTWORK. CONTRACTOR MAY MAKE REASONABLE REVISIONS OR CHANGES TO THE LOCATION OF EQUIPMENT, PIPING, OR DUCTWORK AS REQUIRED TO AVOID CONFLICT WITH OTHER BUILDING TRADES, WITH NO ADDITIONAL COST TO THE ARCHITECT, ENGINEER OR OWNER.

D. EQUIPMENT SCHEDULES ARE PROVIDED FOR INFORMATION PURPOSES AND ARE SUPERSEDED BY SHOP DRAWINGS. REFER TO SHOP DRAWINGS FOR THE MFR'S INSTALLATION AND OPERATION INSTRUCTIONS, AND PERFORMANCE CRITERIA.

E. ALL DUCTWORK AND PIPING SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE. THE AIR HANDY/CONDENSING UNIT SHALL BE THE MEANS OF EQUIPMENT SUPPORT.

F. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE (NEC) AND THE ELECTRICAL SPECIFICATIONS. LOW VOLTAGE AND CONTROL WIRING BY M.C.; LINE VOLTAGE WIRING BY E.C.

G. ALL DUCTWORK AND PIPING WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTWORK AND PIPING AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

H. PROVIDE 1" PLEATED TYPE THROWAWAY FILTERS WITH A MERV RATING OF 8 (30 % EFFICIENCY) ENSURE THAT FURNACE CAN MAINTAIN ADEQUATE PRESSURE AND AIR FLOW. AIR FILTER HOUSING MUST BE AIRTIGHT TO PREVENT BYPASS OR LEAKAGE. PROVIDE FOUR (4) ADDITIONAL FILTERS FOR EVERY FURNACE; TURN OVER TO GDFM BUILDING MAINTENANCE PERSONNEL FOR STORAGE.

I. ALL NEW ROOF PENETRATIONS REQUIRED SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL PROVIDE ALL PIPE BOOTS AND ROOF FLASHING FOR HIS WORK.

J. THE LOCATION OF ALL EXIST. MECHANICAL EQUIPMENT DUCTWORK OPENINGS HAS BEEN DETERMINED FROM LIMITED SITE OBSERVATIONS. THE MECHANICAL CONTRACTOR SHALL VERIFY EXACT SIZE OF EXISTING DUCTWORK LOCATED WITH THE TENANT SPACE INTERIOR WALL, AND SHALL REUSE THOSE OPENINGS IN THE NEW WORK. COORDINATE WORK WITH THAT OF THE OTHER TRADES.

K. ALL NEW SUPPLY AND RETURN DUCT SHALL BE SOLID SHEET METAL DUCT. FLEXIBLE DUCT IS NOT PERMITTED ON THIS PROJECT.

L. CONTRACTOR SHALL PROVIDE A 4" THICK CONCRETE HOUSEKEEPING PAD FOR THE INDOOR FURNACE UNIT, AND THE OUTDOOR CONDENSING UNIT. THE PAD SHALL BE A MINIMUM OF 4" LARGER THAN THE EQUIPMENT FOOTPRINT.

M. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO COVER AND SEAL ALL EXISTING SUPPLY AND RETURN AIR OUTLETS BEFORE PROJECT DEMOLITION BEGINS TO PREVENT DUST AND DIRT MIGRATION INTO THE HVAC SYSTEM. UPON NEW WORK PHASE COMPLETION, AND BEFORE TENANT OCCUPANCY, THE ENTIRE H.V.A.C. DUCT SYSTEM, FLOOR AND/OR SIDEWALL SUPPLY AIR OUTLETS, AND RETURN AIR DUCTWORK SHALL BE CLEANED OF ALL DUST, DIRT, AND DEBRIS BEFORE PLACING THE H.V.A.C. BACK INTO OPERATION. ALL RETURN AIR FILTERS SHALL BE REPLACED WITH NEW BEFORE SYSTEM STARTUP.

**DEMOLITION NOTES - MECH.**

**NOTE THE FOLLOWING:**

DEMOLITION DRAWINGS FOR THE EXISTING H.V.A.C. SYSTEMS (12 TOTAL) ARE NOT BEING PROVIDED AS PART OF THIS PROJECT. THE MECHANICAL CONTRACTOR SHALL FOLLOW THE DESCRIPTIONS OF REMOVALS LISTED BELOW FOR BIDDING AND CONSTRUCTION PURPOSES. CONTACT THE PROJECT ARCHITECT WITH ANY QUESTIONS REGARDING DEMOLITION OF THE H.V.A.C. SYSTEMS.

A. THE MECHANICAL CONTRACTOR SHALL REMOVE IN ITS ENTIRETY, THE EXISTING GAS-FIRED FURNACE, SUPPLY AND RETURN DUCTWORK CONNECTIONS FROM THE EXISTING GAS-FIRED FURNACE, ACCESSORIES AND ALL AIR DEVICES. REMOVE ALL DIRECT-VENT C.A. AND FLUE GAS PVC PIPING AND VENT TERMINATION. COORDINATE WITH THE G.C. TO TEMPORARILY CAP THE EXISTING WALL PENETRATION. ALL REMOVED GAS FIRED FURNACES SHALL REMAIN THE PROPERTY OF GDFM. COORDINATE STAGING LOCATION OF REMOVED EQUIPMENT WITH GDFM PROJECT COORDINATOR.

B. THE MECHANICAL CONTRACTOR SHALL REMOVE IN ITS ENTIRETY, ALL EXISTING THERMOSTAT CONTROL WIRING AND THERMOSTAT. PROVIDE NEW THERMOSTAT AS DESCRIBED IN THE SCHEDULE. ROUTE NEW CONTROL WIRING FROM NEW FURNACE UNIT TO THERMOSTAT LOCATION SHOWN ON PLANS.

C. ALL EXISTING SUPPLY AND RETURN AIR DEVICES, INCLUDING FILTER FRAMES SHALL BE REMOVED AND REPLACED WITH NEW AIR DEVICES OF SIMILAR SIZE AND AIR FLOW PATTERN. REFER TO AIR DEVICE SCHEDULE.

D. THE MECHANICAL CONTRACTOR SHALL REMOVE ALL CONDENSATE DRAIN PIPING LOCATED IN BASEMENT OF EACH UNIT AND REPLACE WITH NEW OF SIZE REQUIRED BY THE NEW EQUIPMENT MFR. REFER TO NEW WORK PLUMBING DRAWINGS FOR LOCATION OF FLOOR DRAIN(S) IN BASEMENT(S).

D. THE MECHANICAL CONTRACTOR SHALL REMOVE THE EXISTING THRU THE WALL KITCHEN RANGE EXHAUST HOOD AND EXTERIOR VENT CAP. REFER TO NEW WORK PLANS AND NOTES FOR NEW DUCTED RANGE HOOD COORDINATE ELECTRICAL DISCONNECTION OF THE EXISTING WITH THE E.C.

**VENTILATION AIR SCHEDULE**

ROOM DESIGNATION	NAME	ROOM AREA (SQ. FT.)	NO. OF PEOPLE	NO. OF FIXTURES	AIR DISTRIBUTION			OMC 402.2 REQUIREMENTS
					OA CFM - CODE MINIMUM	OA CFM - DESIGN	SUPPLY AIR CFM	

2 BDRM., 2 STORY UNIT: TYPE "A": 1202A & B, 1208A & B HUFFMAN AVE., 11A & B PARNELL AVE.

001	BASEMENT	365			90	90	NA	NA	
100	LIVING ROOM	145	3		170	170	5.8	31.5	
101	DINING ROOM	91			110	110	3.6	9.0	
102	KITCHEN	72			140	140	2.9	19.5	
201	BEDROOM 1	172	2		170	170	6.9	12.0	
202	BEDROOM 2	108	1		220	220	4.3	9.0	
203	BATHROOM	34	1		50	80	1.4	1.5	
204	HALL/STAIR	59	1		20	20	2.4	0.0	
TOTALS:					970	890	80	27.3	82.5

2 BDRM., 2 STORY UNIT TYPE "B": 1204A & B HUFFMAN AVE., 9A & B PARNELL AVE.

001	BASEMENT	387			90	90	NA	NA	
100	LIVING ROOM	165	3		170	170	6.6	31.5	
101	DINING ROOM	91			110	110	3.6	9.0	
102	KITCHEN	72			140	140	2.9	19.5	
201	BEDROOM 1	195	2		170	170	7.8	12.0	
202	BEDROOM 2	108	1		220	220	4.3	9.0	
203	BATHROOM	34	1		50	80	1.4	1.5	
204	HALL/STAIR	59	1		20	20	2.4	0.0	
TOTALS:					970	890	80	29.0	82.5

2 BDRM., 1 FLOOR CORNER UNIT TYPE C: 1210A HUFFMAN AVE. (FIRST FLOOR)

100	LIVING/DINING	215	3		250	250	8.6	24.5	
101	KITCHEN	55			130	130	2.2	6.0	
102	BEDROOM 1	111	2		140	140	4.4	12.0	
103	BEDROOM 2	137	1		175	175	5.9	12.0	
104	BATHROOM	47	1		50	80	1.9	1.5	
105	HALL	106			100	100	4.2	0.0	
TOTALS:					845	795	80	27.2	56.0

2 BDRM., 1 FLOOR CORNER UNIT TYPE D: 1210B HUFFMAN AVE. (SECOND FLOOR)

200	LIVING/DINING	278	3		275	275	11.1	30.5	
201	KITCHEN	55			140	140	2.2	6.0	
202	BEDROOM 1	111	2		150	150	4.4	12.0	
203	BEDROOM 2	137	1		175	175	5.9	12.0	
204	BATHROOM	47	1		50	80	1.9	1.5	
205	HALL	93			100	100	3.7	0.0	
TOTALS:					890	810	80	27.2	62.0

**ASHRAE 62.2-2007 Ventilation Requirements:**

TABLE 4.1: FOR A FLOOR AREA < 1500 SF AND 2 BEDROOMS OR LESS, THE MINIMUM OUTDOOR AIR REQUIRED = 45 CFM.

**OMC 402: Natural Ventilation Requirements:**

OMC 402.2: NATURAL VENTILATION OF AN OCCUPIED SPACE SHALL BE THROUGH WINDOWS, DOORS, LOUVERS OR OTHER OPENINGS TO THE OUTDOORS. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED.

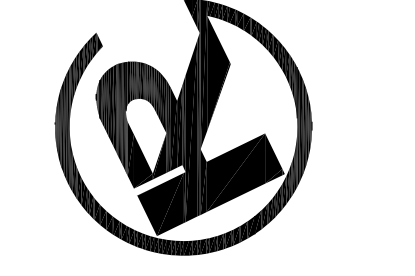
OMC 402.3: FOR NATURAL VENTILATION THRU AN ADJOINING SPACE, THE OPENINGS SHALL BE 8% OF THE FLOOR AREA BEING VENTILATED BUT NOT LESS THAN 25 SF.



Matthew B. Yanney  
Professional Engineer

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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
Dayton, Ohio 45403  
OHFA Project -  
Greater Dayton Premier Management

Project Number	2021-033
Date	February 29, 2024
Date	02.29.24
Issue	Permit Issue/Bid Set

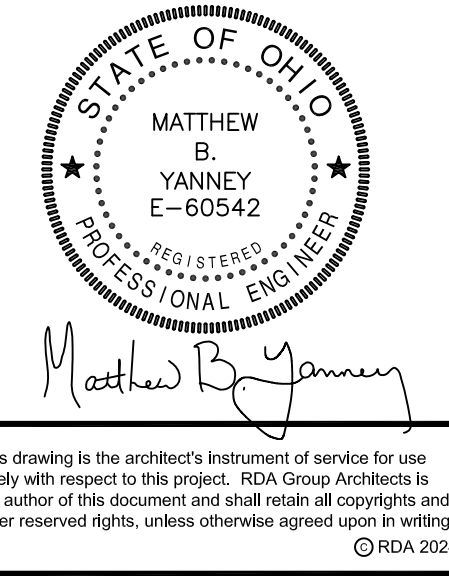
Sheet Title  
Mechanical Demolition/General Notes & Schedules

Sheet Number  
**M1.0**



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Project #: 21011



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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. 111 A&B Parnell Ave. 1  
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1208 A&B Huffman Ave. 11210 A&B Huffman Ave.  
Dayton, Ohio 45403  
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02.29.24	Permit Issue/Bid Set	

Sheet Title  
Mechanical  
Details & Specifications

Sheet Number  
**M1.1**

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## DIV. 23 - MECHANICAL SPECIFICATIONS

- 23 05 00 - COMMON WORK RESULTS FOR HVAC**
- CUTTING OF EXISTING OR NEW CONSTRUCTION BY SAWING, DRILLING, BREAKING, CHIPPING, GRINDING, AND SIMILAR OPERATIONS, INCLUDING EXCAVATION, TO INSTALL SYSTEMS AS SHOWN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR DIRECTLY RELATED TO THE WORK BEING PERFORMED.
  - DEMOLITION OF EXISTING ITEMS OR MATERIALS SHALL BE COMPLETELY REMOVED UNLESS OTHERWISE INDICATED TO BE REUSED, SALVAGED, OR REINSTALLED. ANY SALVAGED ITEMS OR MATERIALS SHALL BE TURNED OVER TO THE OWNER. REMOVE, REPLACE, PATCH AND REPAIR MATERIALS AND SURFACES CUT OR DAMAGED DURING DEMOLITION, BY METHODS AND WITH MATERIALS NECESSARY SO AS NOT TO VOID EXISTING WARRANTIES. DO NOT ABANDONED IN PLACE ANY AIR DEVICES, DUCTWORK, CONTROLS, WIRING, CONDUIT, ETC. THAT MAY CAUSE THE OWNER AND MAINTENANCE STAFF ANY CONFUSION AT A LATER DATE.
  - MAINTAIN AND DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES UNLESS AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO OWNER AND TO AUTHORITIES HAVING JURISDICTION.
  - CLOSEOUT PROCEDURES SHALL BE CONDUCTED BEFORE REQUESTING INSPECTION FOR SUBSTANTIAL COMPLETION. SUBMIT SPECIFIC WARRANTIES, WORKMANSHIP BONDS, MAINTENANCE SERVICE AGREEMENTS, FINAL CERTIFICATIONS, AND SIMILAR DOCUMENTS.
  - PREPARE AND SUBMIT PROJECT RECORD DRAWINGS AND DOCUMENTS INCLUDING OPERATION AND MAINTENANCE MANUALS. COMPLETE ALL STARTUP TESTING OF SYSTEMS AND SUBMIT ALL TESTING AND BALANCE REPORTS.
  - OPERATION AND MAINTENANCE MANUALS SHALL INCLUDE O&M INFORMATION FOR EACH PIECE OF EQUIPMENT INCLUDING: MANUFACTURER'S INFORMATION; NAME, ADDRESS AND TELEPHONE NUMBER OF INSTALLER OR SUPPLIER; MAINTENANCE PROCEDURES; COPIES OF MAINTENANCE SERVICE AGREEMENTS, WARRANTIES AND BONDS.
  - MANUFACTURER'S STANDARD WARRANTIES SHALL BE PROVIDED FOR EACH PIECE OF EQUIPMENT UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE A WARRANTY FOR HIS WORK FOR A MINIMUM OF 1 YEAR AFTER DATE OF COMPLETION.
  - DEMONSTRATION AND TRAINING SHALL BE CONDUCTED BY AN AUTHORIZED MANUFACTURER'S REPRESENTATIVE TO OWNER'S PERSONNEL ON THE PROPER ADJUSTMENT, OPERATION, AND MAINTENANCE OF SYSTEMS, SUBSYSTEMS, AND EQUIPMENT NOT PART OF A SYSTEM. INSTRUCTORS SHALL BE EXPERIENCED IN OPERATION AND MAINTENANCE PROCEDURES.
  - COORDINATION AMONG ALL TRADES IS MANDATORY. ANY COST CHANGES RESULTING FROM THE LACK OF COORDINATION, SHALL BE BORNE BY THE CONTRACTOR CREATING THE CONFLICT.
  - SUBMITTALS SHALL INCLUDE ALL PRODUCT DATA, SPECIALTIES, ACCESSORIES, POWER, SIGNAL, AND CONTROL WIRING DIAGRAMS. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE ALL EQUIPMENT'S ELECTRICAL REQUIREMENTS TO THE ELECTRICAL CONTRACTOR.
  - TEMPORARY HEATING, COOLING AND VENTILATION IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR BEFORE AND AFTER BUILDING ENCLOSURE. ALL UTILITY CHARGES SHALL BE PAID BY THE GENERAL CONTRACTOR.
  - ALL EQUIPMENT AND MATERIALS SHALL BE DELIVERED, STORED AND HANDLED WITH CARE. ANY DAMAGE RESULTING FROM IMPROPER STORAGE OR HANDLING OF EQUIPMENT AND MATERIALS SHALL BE REPAIRED OR REPLACED AT CONTRACTORS EXPENSE.
  - FINISH PAINTING SHALL BE FURNISHED BY GENERAL CONTRACTOR. MARRED OR DAMAGED FACTORY-PAINTED FINISHES SHALL BE CONTRACTORS RESPONSIBILITY AND SHALL MATCH ORIGINAL FACTORY FINISH.
  - CONCRETE BASES SHALL BE FURNISHED BY EACH CONTRACTOR UNLESS OTHERWISE INDICATED.

- 23 05 93 - TESTING, ADJUSTING, AND BALANCING**
- ASHRAE 62.1-2010: VENTILATION SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH ASHRAE STANDARD 111. SMACNA'S "HVAC SYSTEMS-TESTING, ADJUSTING AND BALANCING", AABC OR NEBA STANDARDS AT LEAST TO THE EXTENT NECESSARY TO VERIFY CONFORMANCE WITH THE TOTAL OUTDOOR AIR FLOW AND SPACE SUPPLY AIR FLOW REQUIREMENTS OF THIS STANDARD UNLESS NOTED OTHERWISE. TESTING AND BALANCING SHALL NOT BE PERFORMED BY THE M.C.
  - ALL SUPPLY, RETURN, OUTDOOR AND EXHAUST-AIR QUANTITIES SHALL BE WITHIN PLUS OR MINUS 10% OF THE CFM INDICATED IN THE CONSTRUCTION DOCUMENTS. MARK EQUIPMENT AND BALANCING DEVICE SETTINGS TO SHOW FINAL SETTINGS.

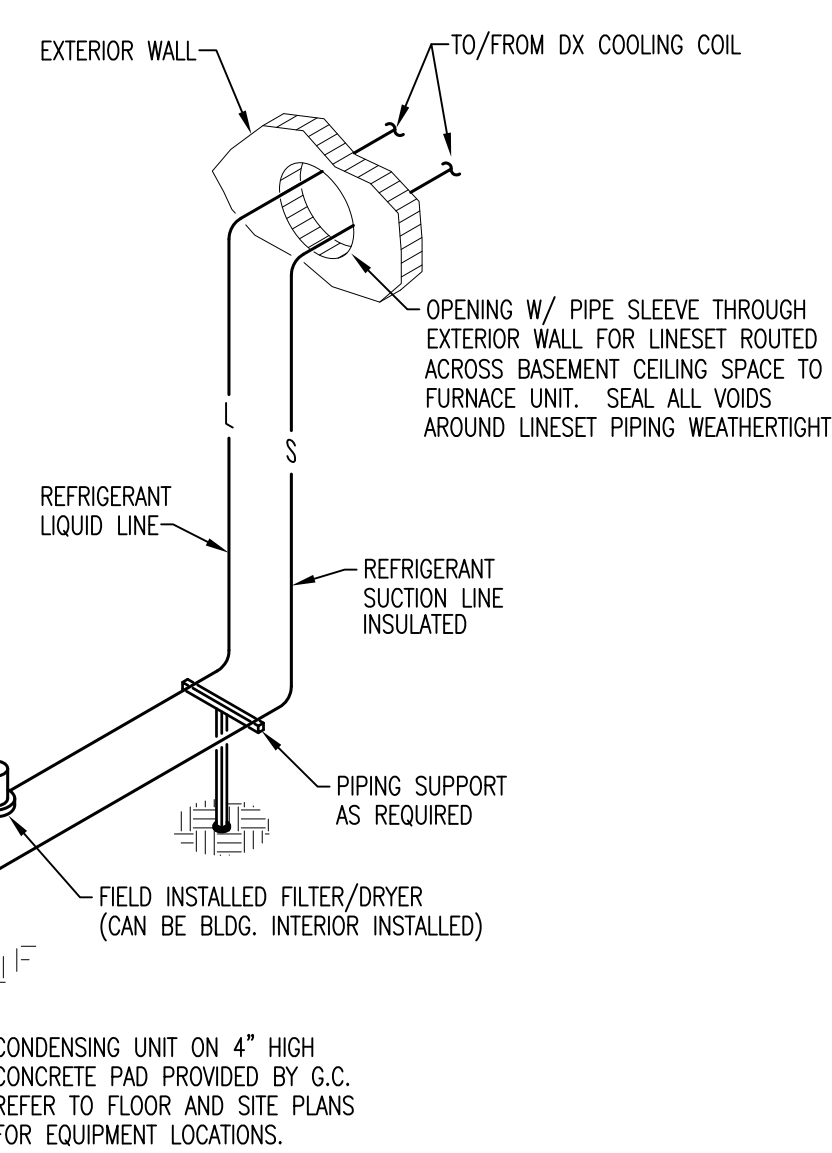
- 23 07 00 - HVAC INSULATION**
- DUCTWORK INSULATION: INSULATION AND INSTALLATION SHALL COMPLY WITH OMC 604.
    - INSULATION SHALL BE MINERAL-FIBER WITH ALL-PURPOSE FACTORY-APPLIED FSK JACKET WHICH MEETS OR EXCEEDS THE 25/50 FLAME SPREAD/SMOKE DEVELOPED RATINGS.
    - INSTALLED THICKNESS/R-VALUE: SUPPLY AND RETURN AIR DUCTS TO BE MINIMUM R8 IN ATTIC SPACES AND MINIMUM 1" THICKNESS ABOVE CEILINGS; EXHAUST DUCTS: 1" THICK; OUTDOOR AIR DUCTS: 2" THICK.
    - MINIMUM DUCT INSULATION R-VALUE SHALL BE PER TABLE 6.8.2B "MINIMUM DUCT INSULATION R-VALUE, COMBINED HEATING AND COOLING SUPPLY DUCTS AND RETURN DUCTS." REFER TO CLIMATE ZONE 5 IN ASHRAE 90.1-2007 FOR R-VALUES.
  - MANUFACTURERS: KNAUFF, CERTAINTED, MANVILLE, ARMACELL (ARMAFLEX)

- 23 31 13 - METAL DUCTS**
- DUCTWORK SYSTEMS SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE" AND OMC 603 FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESSES, AND DUCT CONSTRUCTION METHODS.
  - MATERIAL: GALVANIZED SHEET STEEL; LOCK-FORMING QUALITY; COMPLYING WITH ASTM A 653/ A 653M AND HAVING G80 COATED DESIGNATION; DUCTS SHALL HAVE MILL-PHOSPHATIZED FINISH FOR SURFACES EXPOSED TO VIEW.
  - HANGER AND SUPPORTS: GALVANIZED SHEET STEEL OR THREADED STEEL ROD; SIZE AND INSTALLED PER SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE" AND PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
  - RECTANGULAR DUCT: FABRICATE DUCTS, ELBOWS, TRANSITIONS, ETC. IN ACCORDANCE WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE."
  - ROUND DUCT: LONGITUDINAL- AND SPIRAL LOCK-SEAM DUCTS SHALL BE FABRICATED OF GALVANIZED STEEL ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE;" OR DOUBLE-WALL (INSULATED) DUCTS WITH AN OUTER SHELL AND AN INNER DUCT.
  - DIMENSIONS INDICATED ON THE DRAWINGS ARE FOR INSIDE FREE AREA OF NEW DUCTWORK. DUCT SIZES FOR EXISTING LINED DUCTWORK ARE OUTSIDE DIMENSIONS. DUCTS THAT ARE LINED DO NOT NEED EXTERIOR INSULATION.
  - MANUFACTURERS: DUCTMATE INDUSTRIES, MCGILL AIRFLOW CORP., LINDAB INC.

- 23 33 00 - DUCT ACCESSORIES**
- COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE" FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESSES, AND DUCT CONSTRUCTION METHODS.
  - BACKDRAFT DAMPERS: GRAVITY ACTION TYPE DAMPERS SHALL BE PROVIDED WITH EQUIPMENT.
  - MANUAL BALANCING DAMPERS: SINGLE-BLADE, OPPOSED-BLADE DESIGN, STANDARD LEAKAGE RATING WITH LINKAGE OUTSIDE OF AIRSTREAM, AND SUITABLE FOR HORIZONTAL OR VERTICAL INSTALLATIONS. INCLUDE LOCKING DEWICE TO HOLD SINGLE-BLADE DAMPERS IN A FIXED POSITION WITHOUT VIBRATION. COORDINATE WITH AIR BALANCE CONTRACTOR AND PROVIDE ANY ADDITIONAL DAMPERS AS RECOMMENDED.
  - TURNING VANES: FABRICATE 1-1/2" WIDE DOUBLE-WALL VANE, CURVED BLADES OF GALVANIZED SHEET STEEL SET 3/4" O.C.; SUPPORT WITH BARS PERPENDICULAR TO BLADES SET 2" O.C.; AND SET INTO VANE RUNNERS SUITABLE FOR DUCT MOUNTING.
  - 4" FLEXIBLE CANVAS CONNECTOR: FLAME-RETARDANT OR NONCOMBUSTIBLE FABRICS, COATINGS, AND ADHESIVES COMPLYING WITH UL 181, CLASS 1. GLASS FIBER DOUBLE COATED WITH NEOPRENE; 26 OZ./SQ. YD. MINIMUM WEIGHT; SERVICE TEMP -40 TO +200 DEG F.

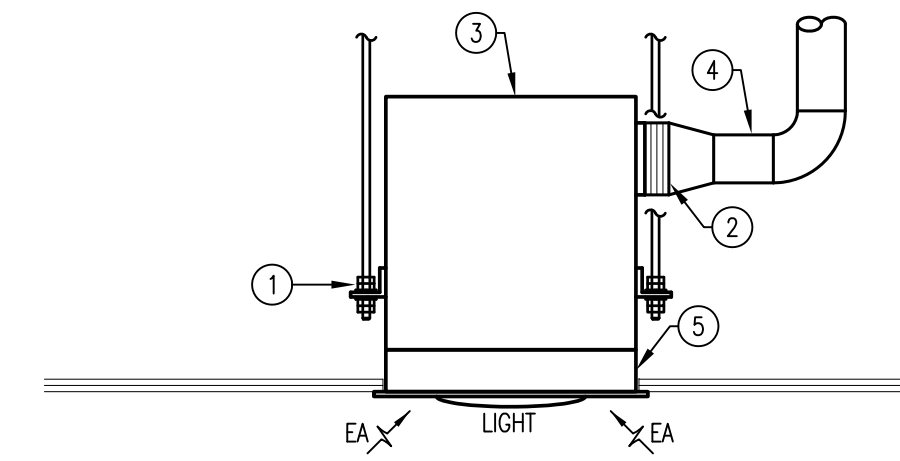
## GENERAL NOTES

- REFRIGERANT PIPE SIZES AND NUMBER OF CIRCUITS SHALL BE PER UNIT MFR'S SPECIFICATIONS.
- DETAIL IS DIAGRAMMATIC AND DOES NOT SHOW ALL ITEMS NECESSARY FOR A COMPLETE AND COMPLIANT INSTALLATION. ACTUAL FIELD CONDITIONS MAY VARY FROM DETAIL.
- REFRIGERANT PIPING/LINE SET SHALL BE INSTALLED PER CODE AND ASHRAE 15, "SAFETY CODE FOR MECHANICAL REFRIGERATION."
- REFER TO DRAWING SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL SYSTEM REQUIREMENTS.
- PROVIDE PROTECTIVE LINE-SET COVER ON VERTICAL PIPING ROUTED ON EXTERIOR OF BUILDING. REFER TO CONTRACT DOCUMENT CONSTRUCTION NOTES.
- MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES FROM BUILDING STRUCTURE FOR EQUIPMENT SERVICING AND PREVENTION OF DISCHARGE AIR RE-CIRCULATION.
- UPON PROJECT COMPLETION, AND BEFORE TURN-OVER TO THE OWNER, THE CONTRACTOR SHALL CLEAN THE CONDENSING UNIT, COMB-OUT FINS, AND WASH COILS.
- CONDENSING UNIT SHALL BE SECURED TO CONCRETE BASE WITH TAMPER-PROOF LAG BOLTS.



## CONDENSING UNIT DETAIL

SCALE: NONE



## DETAIL NOTES

- INSTALL EXHAUST FAN ON VIBRATION KIT BY UNIT MANUFACTURER.
- FLEXIBLE CANVAS CONNECTION.
- CEILING MOUNTED EXHAUST FAN.
- DUCT SIZE TO MATCH FAN CONNECTION OR AS INDICATED ON THE PLAN. FLEXIBLE DRYER VENT TYPE DUCTWORK IS NOT PERMITTED. PROVIDE 1" THICK WRAPPED INSULATION ON DUCT TO PREVENT CONDENSATION.
- PROVIDE EXHAUST FAN WITH RADIATION DAMPERS REFER TO FAN SCHEDULE.

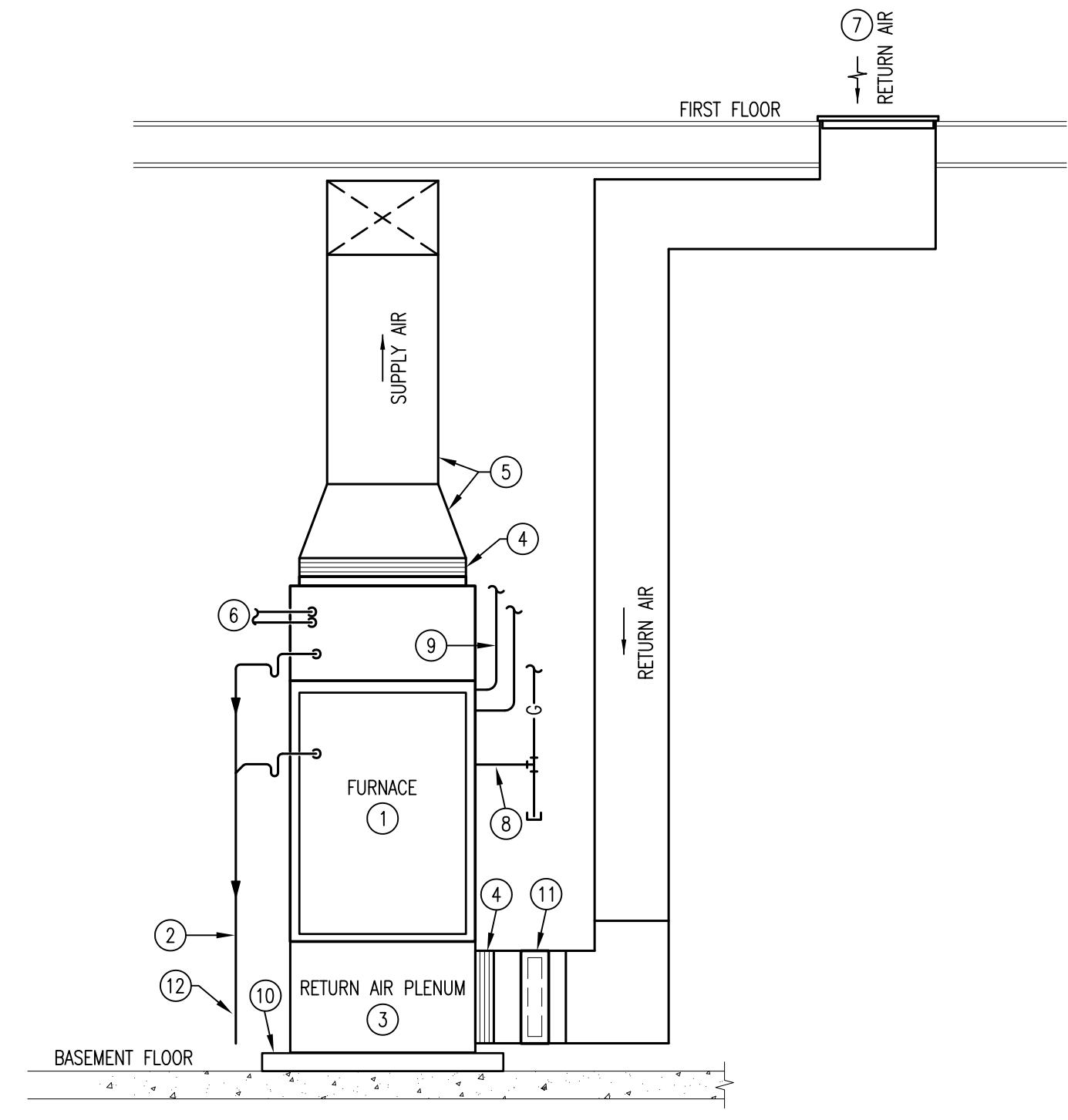
## GENERAL NOTES

- INSTALL FAN LEVEL AND PLUMB IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- REFER TO FAN SCHEDULE, DRAWING NOTES AND SPECIFICATIONS FOR FURTHER INFORMATION.
- COORDINATE DUCTWORK ROUTING WITH FRAMING PLANS AND OTHER TRADES.
- TERMINATE DUCT AS SHOWN ON THE PLANS. SEAL AROUND ALL OPENINGS WEATHERTIGHT.
- PROVIDE 1" THICK MINIMUM FIBERGLASS WRAPPED INSULATION TO AVOID CONDENSATION. INSULATE THE BACK OF ALL AIR DEVICES.

## EXHAUST FAN

(CEILING MTD)

SCALE: NONE



## DETAIL NOTES

- HIGH EFFICIENCY GAS-FIRED CONDENSING FURNACE WITH CASED DX COOLING COIL.
- ROUTE SCH. 40 PVC CONDENSATE DRAIN LINE W/ P-TRAP SLOPED TO THE AREA FLOOR DRAIN. DO NOT ROUTE PIPING IN A MANNER THAT WILL INHIBIT UNIT MAINTENANCE OR CAUSE TRIP ISSUE.
- PROVIDE FULL SIZE RETURN DROP AND BOTTOM RETURN AIR PLENUM WITH TRANSITION TO SIZE PER PLAN.
- 4" FLEXIBLE CANVAS CONNECTION.
- PROVIDE SMOOTH TRANSITION FROM UNIT TO SUPPLY AIR DUCT. CONNECT TO NEW SUPPLY DUCT MAIN. REFER TO FLOOR PLAN.
- REFRIGERANT LINE SET SHALL BE ROUTED OUT TO GRADE MOUNTED CONDENSING UNIT; MAINTAIN REQUIRED SLOPE OF PIPING.
- FLOOR MOUNTED RETURN GRILLE. SEE SCHEDULE.

## GENERAL NOTES

- DETAIL IS DIAGRAMMATIC AND DOES NOT SHOW ALL ITEMS AND CONDITIONS NECESSARY FOR A COMPLETE AND COMPLIANT INSTALLATION. INSTALL UNIT PER THE MANUFACTURER'S INSTRUCTIONS.
- EQUIPMENT SHALL BE INSTALLED ON NEW 2" THICK HOUSEKEEPING PAD. PAD SHALL BE EQUAL OR LARGER THAN FOOTPRINT OF NEW UNIT. BRICKS OR PRESSURE-TREATED LUMBER ARE NOT ACCEPTABLE EQUIPMENT SUPPORTS.
- NATURAL GAS PIPING AND FINAL CONNECTIONS TO THE UNIT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR. REFER TO DETAIL.
- ROUTE SCH. 40 PVC COMBUSTION AIR AND VENT PIPING TO SIDEWALL TERMINATION. USE 2-PIPE SYSTEM TERMINATION ASSEMBLY.
- 4" THICK CONCRETE HOUSEKEEPING PAD. REFER TO GENERAL NOTES.
- FILTER RACK ASSEMBLY SHALL BE COMPLETE WITH 1" PLEATED THROWAWAY FILTERS. VERIFY QUANTITY REQUIRED WITH SYSTEM SPECIFICATIONS. PROVIDE THE APPROPRIATE FILTER KIT BASED ON UNIT ORIENTATION.
- ROUTE SCH. 40 PVC CONDENSATE DRAIN LINES WITH P-TRAPS SLOPED TO NEAREST FLOOR DRAIN. DO NOT ROUTE PIPING IN A MANNER THAT WILL INHIBIT UNIT MAINTENANCE ACCESS.

## HIGH EFFICIENCY FURNACE: UPFLOW

SCALE: NONE







## LIGHTING FIXTURE SCHEDULE

FIXTURE DESIGNATION	QUANTITY			LUMENS	VOLTAGE	MANUFACTURER & CATALOG NO.	DESCRIPTION	TRIM COLOR			MOUNTING			SIZE (IN.)			NET LOCATION		
	FLUORESCENT	INCANDESCENT	LED					WATTS / LAMP	COLOR TEMPERATURE AND LUMEN OUTPUT	WHITE	BLACK	OTHER	RECESSED SURFACE	MOUNTING HEIGHT	OTHER	DIAMETER OR WIDTH		LENGTH	DEPTH
A1	●	23	3000K, 2332 LUMENS	120	BROWNLEE #2300-21-NT-R23-30K-ES (ENERGY STAR)			NICKEL TONE	S			21	DIA	4					
A2	●	18	3000K, 2300 LUMENS	120	BROWNLEE #2300-17-NT-R18-30K-ES (ENERGY STAR)			NICKEL TONE	S			17	DIA	4					
A3	●	12	3000K, 1276 LUMENS	120	BROWNLEE #2045-11-WH-B12-30K-ES (ENERGY STAR)				S			11	DIA	4					
A4	●	20	3000K, 1200 LUMENS	120	GREENCREATIVE #205MPR9DM/930 (ENERGY STAR)				S			9	DIA	1.65	●				
C1	●	20	3000K, 1600 LUMENS	120	PROGRESS LIGHTING #P730000-030-30 (ENERGY STAR)				S		WALL MOUNTED	2.44	24	2.125					
D1	●	16	3000K, 1657 LUMENS	120	BROWNLEE #5057-2-H16-30K-ES (ENERGY STAR)				S		WALL MOUNTED	6	27	4.25					
EM1	●	1	TWO LED 1W HEADS	120	DUALITE #EVD0W				S		WALL MOUNTED	-	-	-	●				
L1	●	10	GU24 SQUAT BASE LED LAMP	120	LEVITON #9852-LED WITH LAMP GUARD AND PULL CHAIN (ENERGY STAR)				S			-	-	-					
W1	●	38.1	4000K, 4070 LUMENS	120	HUBBELL #SG1-40-4K7-FT-120-DB-PCU-CS (DARK SKY, DLC)			DARK BRONZE	S	10'-0"	WALL MOUNTED	6.6	7.8	4.2	●				
X1	●	1	TWO LED 1W HEADS	120	DUALITE #EVCURWD4				S			9	12	2.5					

### DIV. 26 - ELECTRICAL SPECIFICATIONS

#### 26 0500 - COMMON WORK RESULTS FOR ELECTRICAL

A. CUTTING OF EXISTING OR NEW CONSTRUCTION BY SAWING, DRILLING, BREAKING, CHIPPING, GRINDING, AND SIMILAR OPERATIONS, INCLUDING EXCAVATION, SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR.

PATCHING OF THE CUTTING PROCEDURES IS REQUIRED TO RESTORE SURFACES TO THEIR ORIGINAL CONDITION AND ADJACENT CONSTRUCTION IN A MANNER THAT WILL ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. PROVIDE AN EVEN SURFACE OF UNIFORM FINISH, COLOR, TEXTURE, AND APPEARANCE.

B. DEMOLITION OF EXISTING ITEMS OR MATERIAL SHALL BE COMPLETELY REMOVED UNLESS OTHERWISE INDICATED TO BE REUSED, SALVAGED, OR REINSTALLED. ANY SALVAGED ITEMS OR MATERIAL SHALL BE TURNED OVER TO THE OWNER.

REMOVE, REPLACE, PATCH, AND REPAIR MATERIALS AND SURFACES CUT OR DAMAGED DURING DEMOLITION, BY METHODS AND WITH MATERIALS SO AS NOT TO VOID EXISTING WARRANTIES.

MAINTAIN AND DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR OPERATING FACILITIES UNLESS AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO OWNER AND TO AUTHORITIES HAVING JURISDICTION.

C. CLOSEOUT PROCEDURES SHALL BE CONDUCTED BEFORE REQUESTING INSPECTION FOR SUBSTANTIAL COMPLETION. CONTRACTOR SHALL PREPARE A LIST OF ITEMS TO BE COMPLETED AND CORRECTED (PUNCH LIST), AND REASONS WHY THE WORK IS NOT COMPLETE.

SUBMIT SPECIFIC WARRANTIES, WORKMANSHIP BONDS, MAINTENANCE SERVICE AGREEMENTS, FINAL CERTIFICATIONS, AND SIMILAR DOCUMENTS.

PREPARE AND SUBMIT PROJECT RECORD DRAWINGS AND DOCUMENTS INCLUDING OPERATION AND MAINTENANCE MANUALS. COMPLETE ALL STARTUP TESTING OF SYSTEMS AND SUBMIT ALL TESTING AND BALANCE REPORTS. ADVISE OWNER OF CHANGEOVER OF ALL UTILITIES.

D. OPERATION AND MAINTENANCE MANUALS SHALL INCLUDE O&M INFORMATION FOR EACH PIECE OF EQUIPMENT INCLUDING: MFR'S INFORMATION; LIST OF SPARE PARTS; NAME, ADDRESS, AND TELEPHONE NUMBER FOR INSTALLER OR SUPPLIER; MAINTENANCE PROCEDURES; COPIES OF MAINTENANCE SERVICE AGREEMENTS, WARRANTIES AND BONDS. BIND AND INDEX DATA IN HEAVY-DUTY, 3-RING, VINYL-COVERED, LOOSE-LEAF BINDERS.

E. WARRANTIES: PROVIDE MANUFACTURER'S STANDARD WARRANTIES FOR EACH PIECE OF EQUIPMENT UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE A WARRANTY FOR HIS WORK FOR A MINIMUM OF 1 YEAR AFTER DATE OF COMPLETION.

F. DEMONSTRATION AND TRAINING: INSTRUCT OWNER'S PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN SYSTEMS, SUBSYSTEMS, AND EQUIPMENT NOT PART OF A SYSTEM. INSTRUCTORS SHALL BE EXPERIENCED IN OPERATION AND MAINTENANCE PROCEDURES.

G. COORDINATION AMONG ALL TRADES IS MANDATORY. ANY COST CHANGES RESULTING FROM THE LACK OF COORDINATION, SHALL BE BORNE BY THE CONTRACTOR CREATING THE CONFLICT.

H. SUBMITTALS SHALL INCLUDE ALL PRODUCT DATA, SPECIALTIES, ACCESSORIES, POWER, SIGNAL, AND CONTROL WIRING DIAGRAMS.

I. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.

J. COMPLY WITH NFPA 70 AND ALL OTHER APPLICABLE LOCAL, STATE, AND FEDERAL LAWS, ORDINANCES AND REGULATIONS.

K. CONDUCTORS, NO. 10 AWG AND SMALLER SHALL BE SOLID OR STRANDED; LARGER THAN NO. 10 AWG SHALL BE STRANDED. ALL CONDUCTORS SHALL BE COPPER. INSULATION TYPE THW, OR THHN-THWN.

L. ENGRAVED-PLASTIC LABELS: ENGRAVING STOCK, MELAMINE PLASTIC LAMINATE, 1/16" THICK FOR LABELS UP TO 20 SQ. IN., 1/8" THICK FOR LARGER SIZES. ENGRAVED LEGEND IN BLACK LETTERS ON WHITE BACKGROUND.

M. INSTALL MATERIALS LEVEL, PLUMB, AND PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS.

N. WIRING MAY BE INSTALLED IN EMT, IMC, RMC, OR LFMC. UTILIZE LFMC FOR CONNECTIONS TO VIBRATING EQUIPMENT. UTILIZE RMC FOR EXPOSED EXTERIOR INSTALLATIONS. CONCEAL RACEWAYS AND CABLES WITHIN FINISHED WALLS, CEILING, AND FLOORS. ALTERNATIVELY, TYPE NM OR NM-CABLE MAY BE UTILIZED PROVIDED INSTALLATION MEETS NEC ARTICLE 334 REQUIREMENTS. MC CABLE MAY BE UTILIZED PROVIDED INSTALLATION MEETS NEC ARTICLE 330 REQUIREMENTS.

O. INSTALL PULL WIRES IN EMPTY RACEWAYS.

P. APPLY FIRESTOPPING TO CABLE-RACEWAY SLEEVES AND OTHER PENETRATIONS OF FIRE-RATED FLOOR AND WALL ASSEMBLIES TO RESTORE ORIGINAL UNDISTURBED FIRE-RESISTANCE RATINGS OF ASSEMBLIES.

26 0526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

A. GROUND RODS: COPPER-CLAD STEEL, 5/8" BY 96 INCHES UNLESS NOTED OTHERWISE.

B. USE EXOTHERMIC-WELDED CONNECTIONS FOR CONNECTION TO STRUCTURAL STEEL AND FOR UNDERGROUND CONNECTIONS.

C. BOND INTERIOR METAL PIPING SYSTEMS AND METAL AIR DUCT TO EQUIPMENT GROUNDING CONDUCTORS OF ASSOCIATED EQUIPMENT. USE BRADED-TYPE BONDING STRAPS. BOND EACH ABOVE GROUND PORTION OF GAS PIPING SYSTEM UPSTREAM FROM EQUIPMENT SHUT-OFF VALVE.

D. INSTALL INSULATED GROUNDING CONDUCTORS IN ALL FEEDER AND BRANCH CIRCUITS.

E. PROVIDE CONNECTIONS TO ALL GROUNDING ELECTRODES AS REQUIRED BY NEC 250.52. PROVIDE INSULATED GROUND CONDUCTOR IN CONDUIT FROM BUILDING'S MAIN SERVICE DISCONNECT TO MAIN METAL WATER SERVICE ENTRANCES TO BUILDING; USE GROUNDING CLAMP CONNECTIONS. USE BRADED-TYPE BONDING JUMPERS TO ELECTRICALLY BYPASS WATER METERS.

#### 26 2416 - LOAD CENTERS

A. LOAD CENTER SHALL BE "00" TYPE BY SQUARE D OR EQUAL BY G.E. CO. OR SIEMENS ENERGY AND AUTOMATIC INC.

B. LIGHTING AND APPLIANCE BRANCH-CIRCUIT LOAD CENTERS SHALL COMPLY WITH UL 67.

C. LOAD CENTERS SHALL HAVE PHASE, GROUND, AND NEUTRAL BUSES. MOUNTING BRACKETS AND BUS EXTENSIONS SHALL BE PROVIDED TO ALLOW FOR FUTURE INSTALLATION OF DEVICES.

D. LOAD CENTER SHORT-CIRCUIT RATING: FULLY OR SERIES RATED TO INTERRUPT SYMMETRICAL SHORT-CIRCUIT CURRENT AVAILABLE AT TERMINALS. REFER TO VALUES ON SCHEDULES AND SINGLE-LINE DIAGRAM.

E. MOUNT TOP TO TRIM 74" ABOVE FINISHED FLOOR. COORDINATE MOUNTING HEIGHT OF LOAD CENTER IN ACCESSORY UNIT 1201A WITH ARCHITECT AND GDM.

F. PROVIDE TYPED CIRCUIT DIRECTORY.

#### 26 2726 - WIRING DEVICES

A. WIRING DEVICES BY ARROW HART-COOPER WIRING DEVICES, HUBBELL INC. OR PASS & SEYMOUR/LEGRAND.

B. RECEPTACLES AND TOGGLE SWITCHES SHALL BE HEAVY-DUTY OR INDUSTRIAL SPECIFICATION GRADE, IVORY (EXCEPT IN SENSORY UNIT, WHITE). SWITCHES SHALL BE 20A, 120/277V AC. RECEPTACLES SHALL BE DUPLEX NEMA 5-20R.

C. WALL PLATES: SMOOTH, HIGH-IMPACT THERMOPLASTIC WITH METAL SCREWS, HEADS TO MATCH PLATE FINISH, IVORY (EXCEPT IN SENSORY UNIT, STAINLESS STEEL).

D. STRAIGHT BLADE RECEPTACLES

1. TAMPER-RESISTANT CONVENIENCE RECEPTACLES, 125V, 20A; PROVIDE ONE OF THE FOLLOWING:

a. COOPER; TRR20.  
b. HUBBELL; BR20TR.  
c. PASS & SEYMOUR; TR20.

E. GFCI RECEPTACLES

1. TAMPER-RESISTANT DUPLEX GFCI CONVENIENCE RECEPTACLES, 125V, 20A; PROVIDE ONE OF THE FOLLOWING:

a. COOPER; TRVGF20.  
b. HUBBELL; GFR20.  
c. PASS & SEYMOUR; 2095-TR.

2. WEATHER RESISTANT, TAMPER-RESISTANT DUPLEX GFCI CONVENIENCE RECEPTACLES, 125V, 20A; PROVIDE ONE OF THE FOLLOWING:

a. COOPER; TWRVGF20.  
b. HUBBELL; GFR362TR.  
c. PASS & SEYMOUR; 2095STRWR.

F. EXTERIOR RECEPTACLES SHALL BE WEATHER-RESISTANT TYPE, U.L. LISTED FOR APPLICATION, AND PROVIDED WITH IN-USE WEATHERPROOF COVER.

G. TOGGLE SWITCHES

1. 20A SWITCHES, PROVIDE ONE OF THE FOLLOWING:

a. COOPER; AH1221 (SINGLE POLE), AH1222 (TWO POLE), AH1223 (THREE WAY), AH1224 (FOUR WAY).  
b. HUBBELL; CS1221 (SINGLE POLE), CS1222 (TWO POLE), CS1223 (THREE WAY), CS1224 (FOUR WAY).  
c. PASS & SEYMOUR; 20AC1 (SINGLE POLE), 20AC2 (DOUBLE POLE), 20AC3 (THREE WAY), 20AC4 (FOUR WAY).

26 2813 - FUSES

A. CARTRIDGE FUSES RATED 600V AND LESS FOR USE IN SWITCHES, PANELBOARDS, AND CONTROLLERS SHALL COMPLY WITH NEMA FU1, MANUFACTURED BY COPPER BUSSMAN INC., FERRAZ SHIMTU INC., OR LITTELFUSE INC.

B. FUSES SHALL BE RK1, TIME DELAY.

C. INSTALL LABELS INDICATING FUSE REPLACEMENT INFORMATION ON INSIDE DOOR OF EACH FUSED SWITCH.

26 2816 - ENCLOSED SWITCHES

A. NON-FUSIBLE SWITCHES: NEMA KST; GENERAL DUTY, LOCKABLE HANDLE. MANUFACTURED BY EATON CORP (CUTLER-HAMMER), G.E. CO., SIEMENS ENERGY AND AUTOMATION INC., OR SQUARE D/GROUP SCHNEIDER.

B. FOR OUTDOOR LOCATIONS, PROVIDE NEMA 250, TYPE 3R ENCLOSURES.

26 5100 - LIGHTING

A. PROVIDE FIXTURES AS SCHEDULED OR NOTED ON THE DRAWINGS. ALL FIXTURES SHALL BE UL LABELED.

PANEL - LC (TYPICAL OF 2)						
SPEC. SECTION - 262416	SCR - 10K		LOCATION - 1210A/1210B			
VOLTAGE - 120/240V-1PH-3W	MAINS - 100A MLO		MOUNTING - RECESSED			
CONN. KVA - 28.4	DEMAND KVA - 19.5		DEMAND AMPS - 81			
LOAD	KVA	BKR.	CKT. No.	BKR.	KVA	LOAD
RANGE	10.0	50-2 GFIA	1 2	25-2 HACR	2.8	A/C
DRYER	5.0	30-2 GFIA	5 6	20-1 AFCI	.	SPARE
WASHER	1.5	20-1 AFCI	9 10	20-1 AFCI	1.5	KITCHEN SMALL APPL
FURNACE	1.1	15-1	11 12	20-1 AFCI/GFIA	.4	REFRIGERATOR
WH	.2	15-1	13 14	20-1	.2	BATHROOM RECEPT
LIGHTS/ FA	.4	20-1 AFCI	15 16	20-1 AFCI	1.0	BEDROOM
LIVING ROOM REC	1.2	20-1 AFCI	17 18	20-1 AFCI	.8	BEDROOM
DINING ROOM REC	.8	20-1 AFCI	19 20			SPACE
SPACE			21 22			
SPACE			23 24			

PANEL - LC (TYPICAL OF 10)						
SPEC. SECTION - 262416	SCR - 10K		LOCATION - APARTMENT BSMT			
VOLTAGE - 120/240V-1PH-3W	MAINS - 100A MLO		MOUNTING - SURFACE			
CONN. KVA - 28.6	DEMAND KVA - 19.5		DEMAND AMPS - 81			
LOAD	KVA	BKR.	CKT. No.	BKR.	KVA	LOAD
RANGE	10.0	50-2 GFIA	1 2	25-2 HACR	2.8	A/C
DRYER	5.0	30-2 GFIA	5 6	20-1 AFCI	.	SPARE
WASHER	1.5	20-1 AFCI	9 10	20-1 AFCI	1.5	KITCHEN SMALL APPL
FURNACE	1.1	15-1	11 12	20-1 AFCI/GFIA	.4	REFRIGERATOR
BASEMENT RECEPT/WH	.6	20-1 AFCI	13 14	20-1	.2	BATHROOM RECEPT
BSMT, 1ST FL LTS/FA	.4	20-1 AFCI	15 16	20-1 AFCI	1.8	2ND FL RECEPT
LIVING ROOM REC	.8	20-1 AFCI	17 18	20-1 AFCI	.4	2ND FL LIGHTS/FA
DINING ROOM REC	.6	20-1 AFCI	19 20			SPACE
SPACE			21 22			
SPACE			23 24			

PANEL - HP						
SPEC. SECTION - 262416	SCR - 10K		LOCATION - CENTER BSMT			
VOLTAGE - 120/240V-1PH-3W	MAINS - 100A MLO		MOUNTING - SURFACE			
CONN. KVA - 10.1	DEMAND KVA - 10.1		DEMAND AMPS - 42			
LOAD	KVA	BKR.	CKT. No.	BKR.	KVA	LOAD
RADON FANS	.4	15-1	1 2	20-1	.4	EXTERIOR LIGHTS
RADON FANS	.4	15-1	3 4		.4	EXTERIOR LIGHTS
BSMT LTG/FA DEVICES	.4	20-1	5 6		.4	EXTERIOR RECEPT
1ST FL LTG/FA DEVICES	.4	20-1	7 8		.6	BASEMENT RECEPT
EUH1	3	20-2	9 10		.	SPARE
			11 12			SPARE
EUH2	3	20-2	13 14			SPACE
			15 16			
EW1	.75	15-2	17 18			
			19 20			
EW2	.75	15-2	21 22			
			23 24			

### GENERAL NOTES

A. SERVE 120V SMOKE DETECTORS/CARBON MONOXIDE DETECTORS FROM EXTENSION OF LIGHTING CIRCUIT AHEAD OF ANY SWITCHING.

B. FOR ALL NEW CIRCUITS THAT REQUIRE NEUTRALS, NEUTRALS SHALL BE DEDICATED (NO SHARED NEUTRALS).

C. FOR THE SENSORY IMPAIRED UNIT, FINISH COLOR OF DEVICES SHALL BE WHITE AND COVERPLATES SHALL BE STAINLESS STEEL.

D. INSTALL UL LISTED PRE-STAMPED RECEPTACLE AND SWITCH SEALERS/GASKETS BEHIND ALL DEVICE COVER PLATES TO PREVENT INSECT PASSAGE OR AIR LEAKAGE.

E. WHEN INSTALLING FIRE ALARM DEVICES, E.C. SHALL REFER TO MANUFACTURER'S WIRING DIAGRAMS FOR SPECIFIC TANDEM WIRING REQUIREMENTS IN ORDER TO PERFORM APPROPRIATE SIGNAL INTERLOCKING - COORDINATE WITH MANUFACTURER TECHNICAL SUPPORT.

F. FOR SENSORY UNIT, HONEYWELL SILENT KNIGHT #SK-PS6 120V TO 24VDC POWER SUPPLY IS REQUIRED TO SERVE 24VDC DEVICES. 520 HZ HORNS INTERFACE BETWEEN KIDDE SMOKE AND CARBON MONOXIDE DETECTORS REQUIRES KIDDE #FC020R AND #SM24X RELAYS WITH NORMALLY OPEN DRY CONTACTS. PROVIDE 120V WIRING BETWEEN RELAYS AND DETECTORS, AND 24VDC WIRING FROM POWER SUPPLY THROUGH DRY CONTACTS IN RELAYS, TO GENTEX #AVSM SYNC MODULE. FROM SYNC MODULE, EXTEND 24VDC WIRING TO 520 HZ HORNS. CONTROL SHALL BE SUCH UPON ANY CARBON MONOXIDE ALARM. 520 HZ HORNS OPERATE IN TEMPORAL 4 PATTERN, AND UPON ANY SMOKE ALARM, THE HORNS OPERATE IN TEMPORAL 3 PATTERN. REFER TO MANUFACTURER'S WIRING DIAGRAMS TO PROVIDE COMPLETE COORDINATED WORKING SYSTEM. WIRING THROUGH CARBON MONOXIDE RELAY CONTACTS SHALL CONNECT TO IN1+ AND NEG1 TERMINALS ON SYNC MODULE. WIRING THROUGH SMOKE RELAY CONTACTS SHALL CONNECT TO SYNC TERMINALS, AND TO IN1+ AND NEG1 TERMINALS ON SYNC MODULE. PROVIDE END OF LINE RESISTORS IF REQUIRED FOR POWER SUPPLY WIRING.

G. EXISTING ELECTRICAL SERVICE, DISCONNECTS, METERS, FEEDERS, DEVICES, LIGHTING FIXTURES, LOAD CENTERS, AND BRANCH CIRCUITRY, SHALL BE COMPLETELY REMOVED. EXISTING FLUORESCENT, EXHAUST FANS, UNIT AND CABINET HEATERS, WILL BE REMOVED; REMOVE ALL ASSOCIATED CIRCUITRY AND WIRING. REMOVE EXISTING FIRE ALARM DEVICES, DOOR BELL SYSTEMS, AND ASSOCIATED WIRING. NEW DEVICE LAYOUTS ARE BASED ON PREVIOUS LOCATIONS WITH ADDITIONAL RECEPTACLES SPACED AS REQUIRED TO MEET NEC SPACING REQUIREMENTS. EXTERIOR PERIMETER AND DEMISING WALLS BETWEEN UNITS ARE OF MASONRY CONSTRUCTION WITH FURRING STRIPS AND PLASTER COATING. DEVICE BOXES SHALL BE RECESSED AND WIRING CONCEALED; CHANNEL WALLS AS REQUIRED; COORDINATE WITH THE GENERAL CONTRACTOR.

H. RADON MITIGATION SYSTEMS ARE TO BE INSTALLED BY OTHERS. FANS WILL LIKELY BE LOCATED WITHIN ATTIC SPACE AT FIVE LOCATIONS, THREE AT HUFFMAN WING, TWO AT PARNELL WING, AND ONE AT CENTER. E.C. SHALL PROVIDE 120V CIRCUIT TO FAN LOCATIONS WITHIN ATTIC SPACES. TOTAL TWO CIRCUITS, SERVED FROM HOUSE PANEL, AT EACH OF FIVE ATTIC ACCESS POINTS, PROVIDE TOGGLE SWITCH AND TWO 11 LIGHTING FIXTURES FOR ILLUMINATION TO FAN LOCATIONS. VERIFY EXACT REQUIREMENTS, LOCATIONS, AND QUANTITIES WITH MITIGATION CONTRACTOR PRIOR TO ANY ROUGH-IN.

I. EXISTING TELEPHONE, DATA, AND CABLE SERVICE DEMARCATION BOXES, SERVICE CABLES, EXTERIOR MOUNTED CONDUIT DROPS AT BUILDING EXTERIOR, SURFACE CABLES ON BUILDING EXTERIOR, AND ALL INTERIOR CABLES AND DEVICES AND PUNCH DOWN BLOCKS AND CABINETS SHALL BE REMOVED IN THEIR ENTIRETY; COORDINATE WITH INTERNET AND CABLE UTILITY COMPANIES FOR INSTALLATION OF NEW UNDERGROUND SERVICES TO NEW DEMARCATION BOXES. ROUTE NEW CABLES THROUGH BASEMENTS TO EACH UNIT NETWORKING PANEL. EXTEND OUTLET CABLES FROM NETWORKING PANELS TO DEVICES WITHIN EACH UNIT.

OPTIONAL DWELLING SERVICE CALCULATION (NEC 220, SECTION IV):  
GENERAL LOAD (1332 SF) 3996 VA  
SMALL APPLIANCE (2) 3000  
REFRIGERATOR 400  
RANGE 10000  
WASHER 1500  
DRYER 5000

SUBTOTAL 23896  
DEMAND LOAD  
FIRST 10KVA 100% 10000  
40% REMAINDER 5558  
FURNACE FAN 1100  
A/C 2800

TOTAL DEMAND 19458 (81A)

OPTIONAL BUILDING SERVICE CALCULATION (NEC 220, SECTION IV):  
GENERAL LOAD (1332 SF) 3996 VA  
SMALL APPLIANCE (2) 3000  
REFRIGERATOR 400  
RANGE 10000  
WASHER 1500  
DRYER 5000  
FURNACE FAN 1100  
A/C 2800

SUBTOTAL 27796  
DEMAND LOAD  
12 APARTMENTS AT 27796 333552  
41% PER 220.84 136756  
HOUSE LOAD 10100

TOTAL DEMAND 146856 (612 A)

### LEGEND

GF NEMA 5-20R, 20A-120V DUPLEX GROUND FAULT TAMPERPROOF RECEPTACLE, 48" TO TOP OF BOX.

WP/GF NEMA 5-20R, 20A-120V DUPLEX WEATHER-RESISTANT TAMPERPROOF GROUND FAULT RECEPTACLE, 18" TO BOTTOM OF BOX.

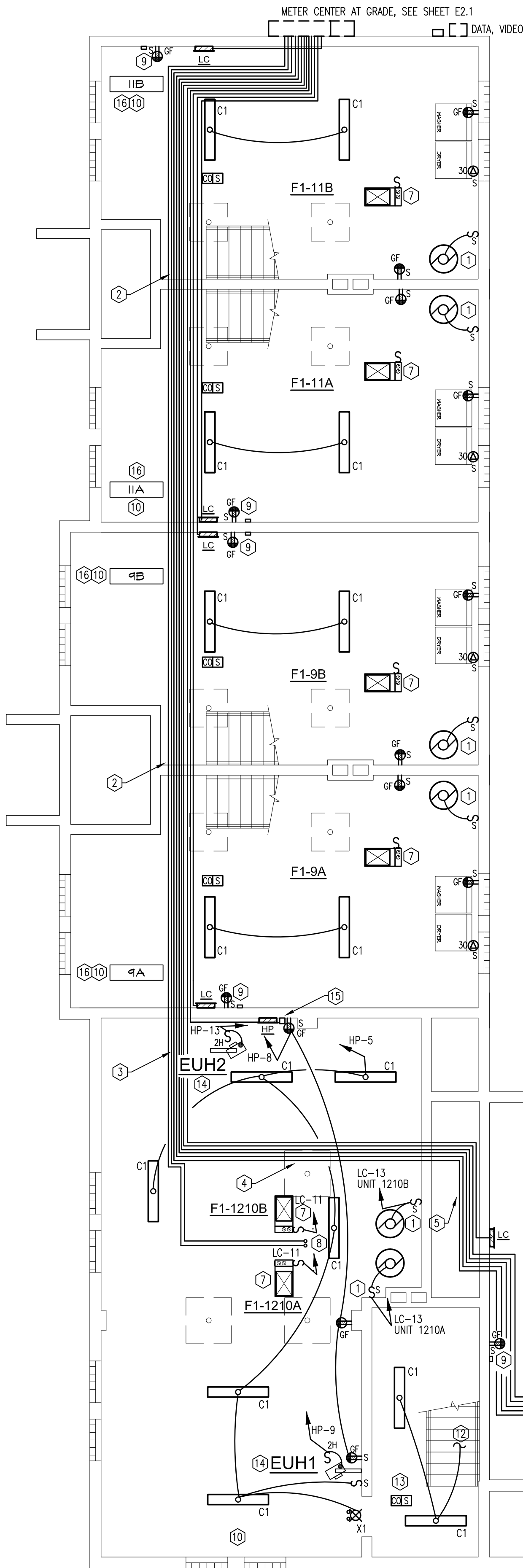
NEMA 5-20R, 20A-120V DUPLEX TAMPERPROOF RECEPTACLE, 48" TO BOTTOM OF BOX.

NEMA 5-20R, 20A-120V DUPLEX TAMPERPROOF RECEPTACLE, 48" TO TOP OF BOX.

NEMA 14-30R, 30A-125/250V, 3 POLE, 4 WIRE GROUNDING DRYER RECEPTACLE, 48" TO TOP OF BOX.

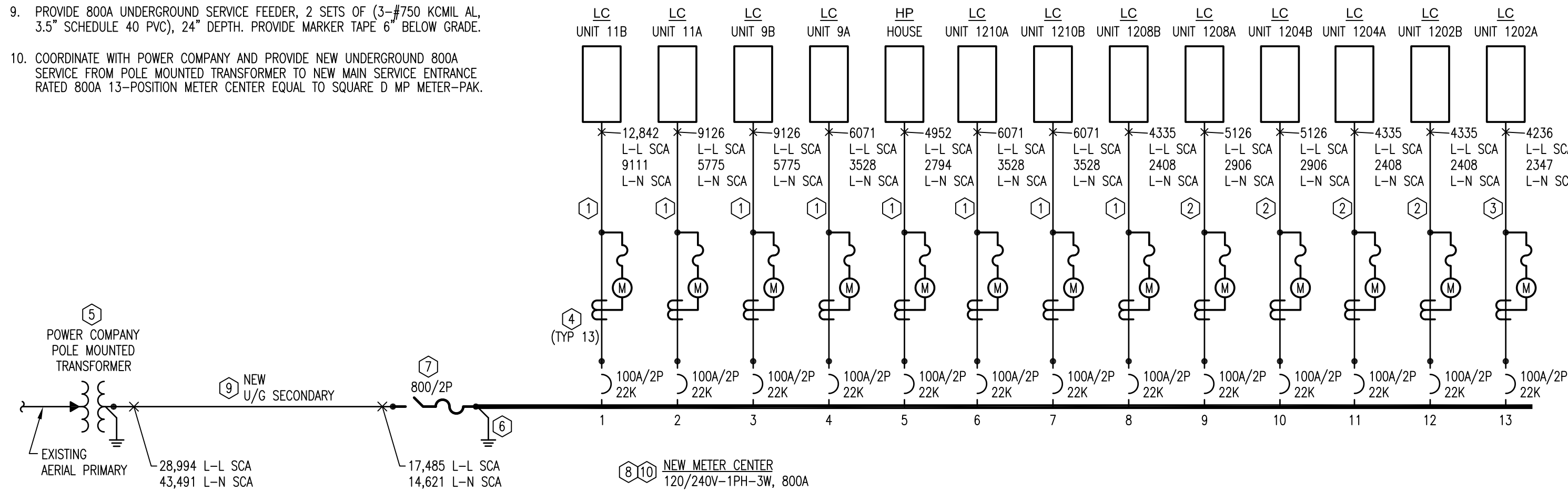
NEMA 14-50R, 50A-125/250V, 3 POLE,





### SINGLE LINE DIAGRAM NOTES

- 3-#2, 1-#4 GROUND, SER CU CABLE.
- 3-#1, 1-#3 GROUND, SER CU CABLE, SIZED TO LIMIT VOLTAGE DROP TO 2%.
- 3-#1/0, 1-#2 GROUND, SER CU CABLE, SIZED TO LIMIT VOLTAGE DROP TO 2%.
- 100A METER SOCKET. COORDINATE WITH POWER COMPANY FOR INSTALLATION OF METER.
- SHORT CIRCUIT CALCULATIONS ARE BASED ON INSTALLATION OF 167 KVA POLE MOUNTED TRANSFORMER, 2.4% IMPEDANCE, INFINITE PRIMARY. 75-100 KVA POLE MOUNTED TRANSFORMER CURRENTLY EXISTS. COORDINATE WITH POWER COMPANY FOR REPLACEMENT; SUBMIT LOAD INFORMATION AS REQUIRED TO POWER COMPANY.
- PROVIDE GROUNDING AS SPECIFIED IN SPECIFICATION SECTION 260526. PROVIDE INTERSYSTEM BONDING TERMINATION PER NEC 250.94 AND PROVIDE BONDING OF TELEPHONE AND CABLE TV SERVICES.
- PROVIDE 800A LPN-RK FUSES.
- DEMAND LOAD ON METER CENTER IS 147.0 KVA, 612 A PER NEC TABLE 220.84, 41% DEMAND FACTOR FOR MULTI-FAMILY DWELLING UNITS.
- PROVIDE 800A UNDERGROUND SERVICE FEEDER, 2 SETS OF (3-#750 KCMIL AL, 3.5" SCHEDULE 40 PVC), 24" DEPTH. PROVIDE MARKER TAPE 6" BELOW GRADE.
- COORDINATE WITH POWER COMPANY AND PROVIDE NEW UNDERGROUND 800A SERVICE FROM POLE MOUNTED TRANSFORMER TO NEW MAIN SERVICE ENTRANCE RATED 800A 13-POSITION METER CENTER EQUAL TO SQUARE D MP METER-PAK.



#### OPTIONAL BUILDING SERVICE CALCULATION (NEC 220, SECTION IV):

GENERAL LOAD (1332 SF)	3996 VA
SMALL APPLIANCE (2)	3000
REFRIGERATOR	400
RANGE	10000
WASHER	1500
DRYER	5000
FURNACE FAN	1100
A/C	2800
<b>SUBTOTAL</b>	<b>27796</b>
DEMAND LOAD	
12 APARTMENTS AT 27796	333552
41% PER 220.84	136756
HOUSE LOAD	10100
<b>TOTAL DEMAND</b>	<b>146856 (612 A)</b>

### SINGLE LINE DIAGRAM

SCALE: NONE

### OVERALL BASEMENT FLOOR PLAN

SCALE: 3/16" = 1'-0"

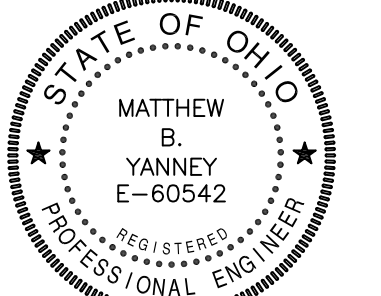


### GENERAL NOTES

- SERVE 120V SMOKE DETECTORS/CARBON MONOXIDE DETECTORS FROM EXTENSION OF LIGHTING CIRCUIT AHEAD OF ANY SWITCHING.
- FOR ALL NEW CIRCUITS THAT REQUIRE NEUTRALS, NEUTRALS SHALL BE DEDICATED (NO SHARED NEUTRALS).
- FOR THE SENSORY IMPAIRED UNIT, FINISH COLOR OF DEVICES SHALL BE WHITE AND COVERPLATES SHALL BE STAINLESS STEEL.
- INSTALL UL LISTED PRE-STAMPED RECEPTACLE AND SWITCH SEALERS/GASKETS BEHIND ALL DEVICE COVER PLATES TO PREVENT INSECT PASSAGE OR AIR LEAKAGE.
- WHEN INSTALLING FIRE ALARM DEVICES, E.C. SHALL REFER TO MANUFACTURER'S WIRING DIAGRAMS FOR SPECIFIC TANDEN WIRING REQUIREMENTS IN ORDER TO PERFORM APPROPRIATE SIGNAL INTERLOCKING- COORDINATE WITH MANUFACTURER TECHNICAL SUPPORT.
- FOR SENSORY UNIT, HONEYWELL SILENT KNIGHT #SK-PS6 120V TO 24VDC POWER SUPPLY IS REQUIRED TO SERVE 24VDC DEVICES. 520 HZ HORNS INTERFACE BETWEEN KIDDE SMOKE AND CARBON MONOXIDE DETECTORS REQUIRES KIDDE #C0120X AND #SM120X RELAYS WITH NORMALLY OPEN DRY CONTACTS. PROVIDE 120V WIRING BETWEEN RELAYS AND DETECTORS, AND 24VDC WIRING FROM POWER SUPPLY THROUGH DRY CONTACTS IN RELAYS, TO GENTEX #AVSM SYNC MODULE. FROM SYNC MODULE, EXTEND 24VDC WIRING TO 520 HZ HORNS. CONTROL SHALL BE SUCH UPON ANY CARBON MONOXIDE ALARM. 520 HZ HORNS OPERATE IN TEMPORAL 4 PATTERN, AND UPON ANY SMOKE ALARM, THE HORNS OPERATE IN TEMPORAL 3 PATTERN. REFER TO MANUFACTURER'S WIRING DIAGRAMS TO PROVIDE COMPLETE COORDINATED WORKING SYSTEM. WIRING THROUGH CARBON MONOXIDE RELAY CONTACTS SHALL CONNECT TO IN+ AND NEG1 TERMINALS ON SYNC MODULE. WIRING THROUGH SMOKE RELAY CONTACTS SHALL CONNECT TO SYNC TERMINALS, AND TO IN+ AND NEG1 TERMINALS ON SYNC MODULE. PROVIDE END OF LINE RESISTORS IF REQUIRED FOR POWER SUPPLY WIRING.
- EXISTING ELECTRICAL SERVICE, DISCONNECTS, METERS, FEEDERS, DEVICES, LIGHTING FIXTURES, LOAD CENTERS, AND BRANCH CIRCUITRY, SHALL BE COMPLETELY REMOVED. EXISTING FURNACES, EXHAUST FANS, UNIT AND CABINET HEATERS, WILL BE REMOVED; REMOVE ALL ASSOCIATED CIRCUITRY AND WIRING. REMOVE EXISTING FIRE ALARM DEVICES, DOOR BELL SYSTEMS, AND ASSOCIATED WIRING. NEW DEVICE LAYOUTS ARE BASED ON PREVIOUS LOCATIONS WITH ADDITIONAL RECEPTACLES SPACED AS REQUIRED TO MEET NEC SPACING REQUIREMENTS. EXTERIOR PERIMETER AND DEMISING WALLS BETWEEN UNITS ARE OF MASONRY CONSTRUCTION WITH FURRING STRIPS AND PLASTER COATING; DEVICE BOXES SHALL BE RECESSED AND WIRING CONCEALED; CHANNEL WALLS AS REQUIRED; COORDINATE WITH THE GENERAL CONTRACTOR.
- RADON MITIGATION SYSTEMS ARE TO BE INSTALLED BY OTHERS. FANS WILL LIKELY BE LOCATED WITHIN ATTIC SPACE AT FIVE LOCATIONS. THREE AT HUFFMAN WING, TWO AT PARNELL WING, AND ONE AT CENTER. E.C. SHALL PROVIDE 120V CIRCUIT TO FAN LOCATIONS WITHIN ATTIC SPACES, TOTAL TWO CIRCUITS, SERVED FROM HOUSE PANEL. AT EACH OF FIVE ATTIC ACCESS POINTS, PROVIDE TOGGLE SWITCH AND TWO L1 LIGHTING FIXTURES FOR ILLUMINATION TO FAN LOCATIONS. VERIFY EXACT REQUIREMENTS, LOCATIONS, AND QUANTITIES WITH MITIGATION CONTRACTOR PRIOR TO ANY ROUGH-IN.
- EXISTING TELEPHONE, DATA, AND CABLE SERVICE DEMARCATION BOXES, SERVICE CABLES, EXTERIOR MOUNTED CONDUIT DROPS AT BUILDING EXTERIOR, SURFACE CABLES ON BUILDING EXTERIOR, AND ALL INTERIOR CABLES AND DEVICES AND PUNCH DOWN BLOCKS AND CABINETS SHALL BE REMOVED IN THEIR ENTIRETY. COORDINATE WITH INTERNET AND CABLE UTILITY COMPANIES FOR INSTALLATION OF NEW UNDERGROUND SERVICES TO NEW DEMARCATION BOXES. ROUTE NEW CABLES THROUGH BASEMENTS TO EACH UNIT NETWORKING PANEL. EXTEND OUTLET CABLES FROM NETWORKING PANELS TO DEVICES WITHIN EACH UNIT.

### CONSTRUCTION NOTES

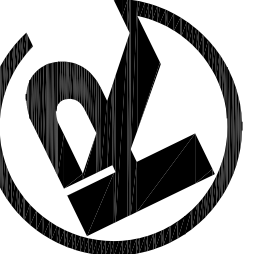
- PROVIDE TOGGLE DISCONNECT AND 120V CONNECTION TO POWER DIRECT VENT FAN SERVING GAS WATER HEATER.
- INSTALL FEEDERS IN JOIST SPACE ABOVE STAIR GYPBOARD.
- PASS ABOVE EXISTING GAS LINES CROSSING AT THIS LOCATION.
- INSTALL FEEDERS IN JOIST SPACE ABOVE STEEL BEAM.
- INSTALL FEEDERS IN CHASE SPACE AND PASS ABOVE OR BELOW EXISTING GAS LINES WITHIN CHASE.
- PROVIDE SILENT KNIGHT #SK-PS6 120V TO 24VDC POWER SUPPLY TO SERVE HORN/STROBES IN UNIT PER GENERAL NOTE F. SERVE FROM EXTENSION OF LIGHTING CIRCUIT LC-15 AHEAD OF SWITCH.
- PROVIDE TOGGLE SWITCH AND 120V CIRCUIT TO NEW 9.5A FURNACE.
- UP TO LOADCENTERS IN FIRST AND SECOND FLOOR CORNER UNITS.
- PROVIDE LEVITON #47606-BNP STRUCTURED MEDIA NETWORKING PLUS PANEL, OR EQUAL, FOR TERMINATION OF CAT 5e DATA CABLES AND TV COAX CABLES. EXTEND ONE CAT 5e CABLE AND ONE RG6 COAX CABLE FROM PATCH PANEL OVER TO EXTERIOR DEMARCATION BOXES FOR FUTURE SERVICE.
- DEVICES INSTALLED AT BLOCK WALLS OF BASEMENT SHALL BE SURFACE MOUNTED. UTILIZE GALVANIZED BOXES/COVERS AND EMT METAL CONDUIT. FLEXIBLE CONDUIT OR MC CABLE MAY BE UTILIZED FOR FURNACE CONNECTION.
- CIRCUITING TYPICAL FOR ALL UNITS EXCEPT FOR CORNER UNITS 1210A AND B.
- UP TO TOGGLE SWITCH AT TOP OF STAIR.
- SMOKE/CARBON MONOXIDE DETECTORS IN STAIR AT SECOND LEVEL AND BASEMENT, AND IN FIRST LEVEL CORRIDOR SHALL BE SERVED FROM LIGHTING CIRCUIT HP-2. INTERLOCK DETECTORS SUCH THAT ASSOCIATED KIND GOES INTO ALARM UPON ACTUATION OF ANY SMOKE DETECTOR, AND ANY CARBON MONOXIDE DETECTOR.
- PROVIDE CONNECTION TO 3KW, 240V UNIT HEATER, 2-#12, 1-#12 GROUND, 5°C.
- PROVIDE ASTRONOMIC TIME SWITCH TO SERVE EXTERIOR LIGHTING CIRCUITS HP-2 & 4. REFER TO NOTE 20, SHEET E2.1. SERVE FROM CIRCUIT HP-2. 2-CHANNEL TIME SWITCH BY TORK #EWZ201-MB OR EQUAL.
- REFER TO UNIT 1202A FOR TYPICAL CIRCUITING LAYOUT.



Matthew B. Yanney  
Professional Engineer

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7642 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440



Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
9 A&B Parnell Ave. 111 A&B Parnell Ave. 1  
1202 A&B Huffman Ave. 11204 A&B Huffman Ave. 1  
1208 A&B Huffman Ave. 11210 A&B Huffman Ave.  
Dayton, Ohio 45403  
OHFA Project :-  
Greater Dayton Premier Management

Project Number  
2021-033

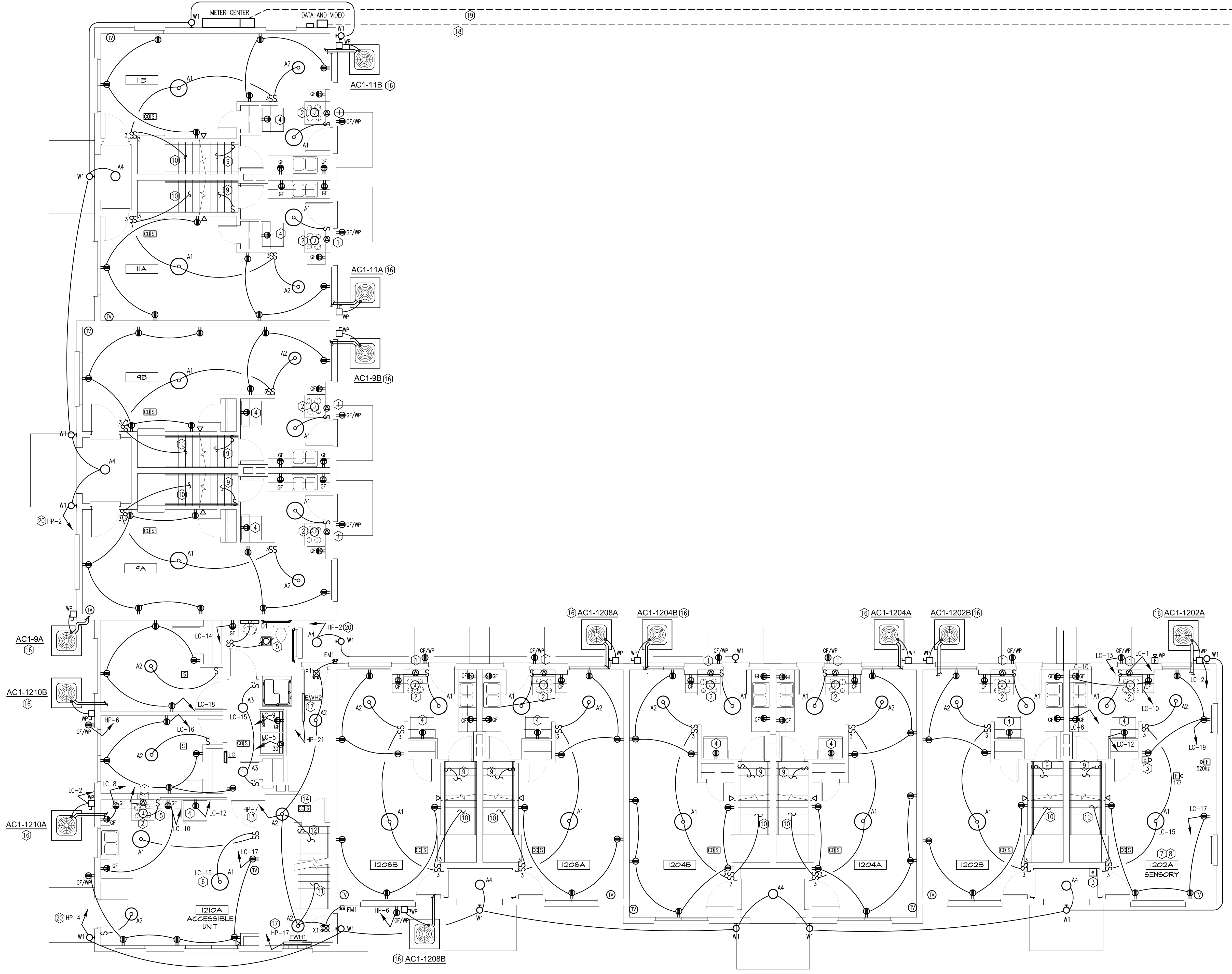
Date  
February 29, 2024

Date Issue  
02.29.24 Permit Issue/Bid Set

Sheet Title  
Electrical  
Overall Basement  
Floor Plans

Sheet Number  
**E2.0**

**BSE** BUILDING SYSTEMS ENGINEERING, Ltd.  
1370 N. Fairfield Rd.  
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Beavercreek, Ohio 45432  
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F: (937) 306-1491  
www.bseld.biz  
Project #: 21011



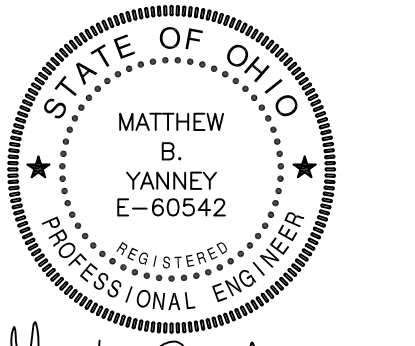
**A OVERALL FIRST FLOOR PLAN**  
 SCALE: 3/16" = 1'-0"  
 0 4 8 16  
 NORTH

**GENERAL NOTES**

- A. SERVE 120V SMOKE DETECTORS/CARBON MONOXIDE DETECTORS FROM EXTENSION OF LIGHTING CIRCUIT AHEAD OF ANY SWITCHING.
- B. FOR ALL NEW CIRCUITS THAT REQUIRE NEUTRALS, NEUTRALS SHALL BE DEDICATED (NO SHARED NEUTRALS).
- C. FOR THE SENSORY IMPAIRED UNIT, FINISH COLOR OF DEVICES SHALL BE WHITE AND COVERPLATES SHALL BE STAINLESS STEEL.
- D. INSTALL UL LISTED PRE-STAMPED RECEPTACLE AND SWITCH SEALERS/GASKETS BEHIND ALL DEVICE COVER PLATES TO PREVENT INSECT PASSAGE OR AIR LEAKAGE.
- E. WHEN INSTALLING FIRE ALARM DEVICES, E.C. SHALL REFER TO MANUFACTURER'S WIRING DIAGRAMS FOR SPECIFIC TANDEM WIRING REQUIREMENTS IN ORDER TO PERFORM APPROPRIATE SIGNAL INTERLOCKING- COORDINATE WITH MANUFACTURER TECHNICAL SUPPORT.
- F. FOR SENSORY UNIT, HONEYWELL SILENT KNIGHT #SK-P56 120V TO 24VDC POWER SUPPLY IS REQUIRED TO SERVE 24VDC DEVICES. 520 HZ HORNS INTERFACE BETWEEN KIDDE SMOKE AND CARBON MONOXIDE DETECTORS REQUIRES KIDDE #C0120X AND #SM120X RELAYS WITH NORMALLY OPEN DRY CONTACTS. PROVIDE 120V WIRING BETWEEN RELAYS AND DETECTORS, AND 24VDC WIRING FROM POWER SUPPLY THROUGH DRY CONTACTS IN RELAYS, TO GENTEX #AVSM SYNC MODULE. FROM SYNC MODULE, EXTEND 24VDC WIRING TO 520 HZ HORNS. CONTROL SHALL BE SUCH UPON ANY CARBON MONOXIDE ALARM. 520 HZ HORNS OPERATE IN TEMPORAL 4 PATTERN, AND UPON ANY SMOKE ALARM, THE HORNS OPERATE IN TEMPORAL 3 PATTERN. REFER TO MANUFACTURER'S WIRING DIAGRAMS TO PROVIDE COMPLETE COORDINATED WORKING SYSTEM. WIRING THROUGH CARBON MONOXIDE RELAY CONTACTS SHALL CONNECT TO IN1+ AND NEG1 TERMINALS ON SYNC MODULE. WIRING THROUGH SMOKE RELAY CONTACTS SHALL CONNECT TO SYNC TERMINALS, AND TO IN1+ AND NEG1 TERMINALS ON SYNC MODULE. PROVIDE END OF LINE RESISTORS IF REQUIRED FOR POWER SUPPLY WIRING.
- G. EXISTING ELECTRICAL SERVICE, DISCONNECTS, METERS, FEEDERS, DEVICES, LIGHTING FIXTURES, LOAD CENTERS, AND BRANCH CIRCUITRY, SHALL BE COMPLETELY REMOVED. EXISTING FURNACES, EXHAUST FANS, UNIT AND CABINET HEATERS, WILL BE REMOVED; REMOVE ALL ASSOCIATED CIRCUITRY AND WIRING. REMOVE EXISTING FIRE ALARM DEVICES, DOOR BELL SYSTEMS, AND ASSOCIATED WIRING. NEW DEVICE LAYOUTS ARE BASED ON PREVIOUS LOCATIONS WITH ADDITIONAL RECEPTACLES SPACED AS REQUIRED TO MEET NEC SPACING REQUIREMENTS. EXTERIOR PERIMETER AND DEMISING WALLS BETWEEN UNITS ARE OF MASONRY CONSTRUCTION WITH FURRING STRIPS AND PLASTER COATING. DEVICE BOXES SHALL BE RECESSED AND WIRING CONCEALED; CHANNEL WALLS AS REQUIRED; COORDINATE WITH THE GENERAL CONTRACTOR.
- H. RADON MITIGATION SYSTEMS ARE TO BE INSTALLED BY OTHERS. FANS WILL LIKELY BE LOCATED WITHIN ATTIC SPACE AT SIX LOCATIONS, THREE AT HUFFMAN WING, TWO AT PARRELL WING, AND ONE AT CENTER. E.C. SHALL PROVIDE 120V CIRCUIT TO FAN LOCATIONS WITHIN ATTIC SPACES, TOTAL TWO CIRCUITS, SERVED FROM HOUSE PANEL. AT EACH OF FIVE ATTIC ACCESS POINTS, PROVIDE TOGGLE SWITCH AND TWO 1" LIGHTING FIXTURES FOR ILLUMINATION TO FAN LOCATIONS. VERIFY EXACT REQUIREMENTS, LOCATIONS, AND QUANTITIES WITH MITIGATION CONTRACTOR PRIOR TO ANY ROUGH-IN.
- I. EXISTING TELEPHONE, DATA, AND CABLE SERVICE DEMARCATION BOXES, SERVICE CABLES, EXTERIOR MOUNTED CONDUIT DROPS AT BUILDING EXTERIOR, SURFACE CABLES ON BUILDING EXTERIOR, AND ALL INTERIOR CABLES AND DEVICES AND PUNCH DOWN BLOCKS AND CABINETS SHALL BE REMOVED IN THEIR ENTIRETY. COORDINATE WITH INTERNET AND CABLE UTILITY COMPANIES FOR INSTALLATION OF NEW UNDERGROUND SERVICES TO NEW DEMARCATION BOXES. ROUTE NEW CABLES THROUGH BASEMENTS TO EACH UNIT NETWORKING PANEL. EXTEND OUTLET CABLES FROM NETWORKING PANELS TO DEVICES WITHIN EACH UNIT.

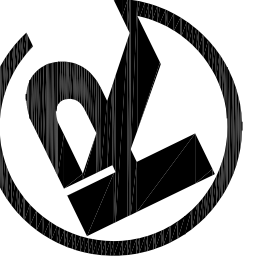
**CONSTRUCTION NOTES**

1. RECEPTACLE SHALL SERVE RANGE, 3-#6, 1-#10 GRD, NM CABLE.
2. PROVIDE DIRECT CONNECTION TO 120V RANGE HOOD, EXTENDED FROM LIGHTING CIRCUIT.
3. FOR SENSORY UNIT, PROVIDE EDWARDS #6536-G5 HORN/STROBE FOR AUDIBLE AND VISUAL SIGNALLING FROM DOOR PUSHBUTTON. PROVIDE EDWARDS #630 DOOR PUSHBUTTON, AND EDWARDS #592 TRANSFORMER. PROVIDE INTERCONNECTING WIRING FOR COMPLETE WORKING SYSTEM. MOUNT TRANSFORMER IN BASEMENT.
4. RECEPTACLE WILL NOT BE READILY ACCESSIBLE; PROVIDE GROUND FAULT CIRCUIT BREAKER AT LOADCENTER.
5. PROVIDE DIRECT CONNECTIONS TO 120V, 6.5W COMBINATION EXHAUST FAN/ 11W, 3500K LED LIGHT. INTEGRAL DISCONNECT PROVIDED WITH UNIT. SERVE FROM EXTENSION OF BATHROOM LIGHTING CIRCUIT.
6. IN THIS UNIT, LIGHTING, KITCHEN HOOD, EXHAUST FAN, AND FIRE ALARM DEVICES SHALL BE SERVED FROM CIRCUIT LC-15.
7. CIRCUITING TYPICAL FOR ALL UNITS EXCEPT FOR CORNER UNITS 1210A AND B.
8. SERVE BASEMENT AND 1ST FLOOR LIGHTING, KITCHEN HOOD, AND FIRE ALARM DEVICES FROM CIRCUIT LC-15.
9. DOWN TO BASEMENT LIGHTING FIXTURES.
10. UP TO 2ND FLOOR HALL LIGHTING FIXTURE.
11. UP TO 2ND FLOOR STAIR LIGHTING FIXTURE.
12. DOWN TO BASEMENT STAIR FIXTURES.
13. CORRIDOR AND STAIR LIGHTING SHALL REMAIN ON AT ALL TIMES.
14. SMOKE/CARBON MONOXIDE DETECTORS IN STAIR AT SECOND LEVEL AND BASEMENT, AND IN FIRST LEVEL CORRIDOR SHALL BE SERVED FROM LIGHTING CIRCUIT HP-7. INTERLOCK DETECTORS SUCH THAT ASSOCIATED KIND GOES INTO ALARM UPON ACTUATION OF ANY SMOKE DETECTOR, AND ANY CARBON MONOXIDE DETECTOR.
15. PROVIDE SWITCHES FOR HOOD LIGHT AND FAN MOUNTED HORIZONTALLY ABOVE COUNTER IN ACCESSORY UNIT.
16. PROVIDE DIRECT CONNECTION TO 240V, 1PH, 2.8 KVA AC UNIT, 2-#10, 1-#10 GROUND, 1/2" C, NON-FUSIBLE.
17. PROVIDE CONNECTION TO 750W, 240V UNIT HEATER, 2-#12, 1-#12 GROUND, .5"C.
18. REFER TO GENERAL NOTE I. PROVIDE TWO 1.5" PVC SCHEDULE 40 PVC CONDUITS TO UTILITY POLE, 24" BURIAL DEPTH, AS COORDINATED WITH CABLE, PHONE SERVICE PROVIDERS.
19. PROVIDE UNDERGROUND SERVICE CONDUCTORS PER NOTE 9. SHEET E2.0, 24" BURIAL DEPTH IN SCHEDULE 40 PVC CONDUITS. EXTEND TO UTILITY POLE, AS COORDINATED WITH UTILITY COMPANY.
20. SERVE EXTERIOR LIGHTING CIRCUIT THROUGH ASTRONOMIC TIME SWITCH TO ENABLE PROGRAMMING OF ALL FIXTURES TO BE OFF DURING DAYLIGHT HOURS. W1 FIXTURES HAVE INTEGRAL PHOTOCELL. GCPM MAY CHOOSE TO LEAVE A4 FIXTURES ON DAY AND NIGHT; COORDINATE.



Matthew B. Yanney  
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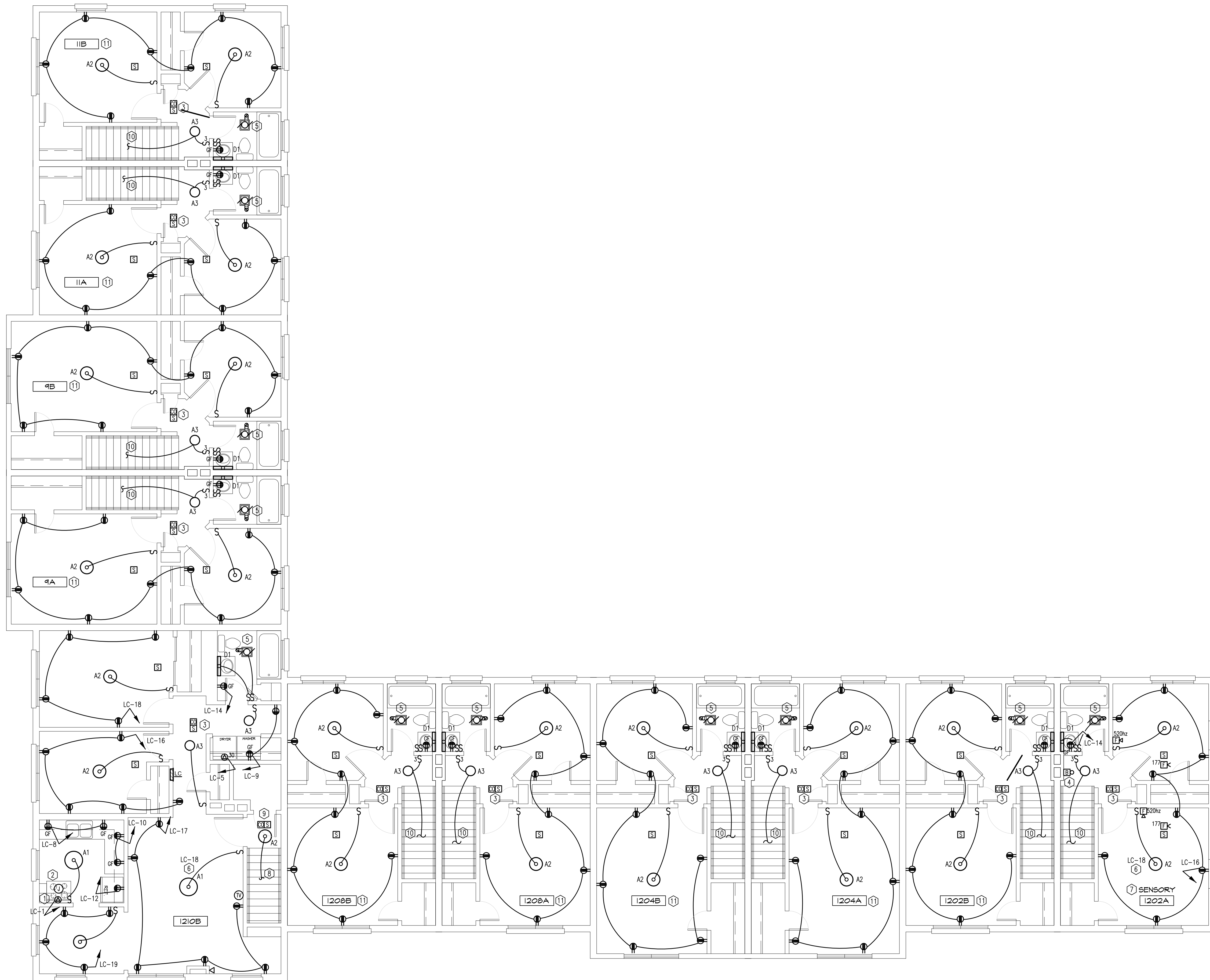
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Moderate Rehabilitation of:  
**Huffman-Parrell RAD Conversion**  
 9 A&B Parrell Ave. 111 A&B Parrell Ave. 1  
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 Dayton, Ohio 45403  
 OHFA Project :-  
 Greater Dayton Premier Management

Project Number		2021-033
Date		February 29, 2024
Date	Issue	02.29.24 Permit Issue/Bid Set
Sheet Title		Electrical Overall First Floor Plans
Sheet Number		E2.1

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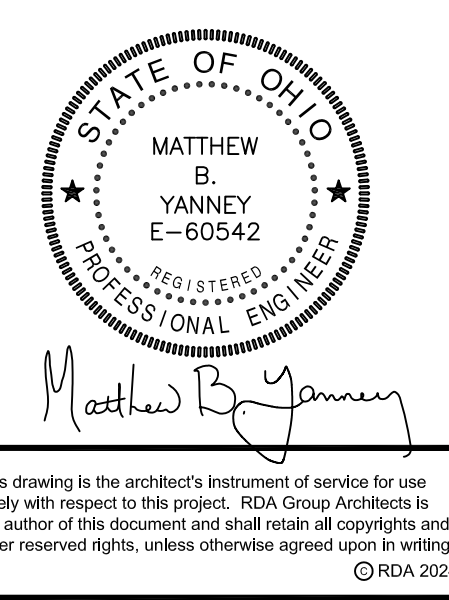
**A** OVERALL SECOND FLOOR PLAN  
 SCALE: 3/16" = 1'-0"  
 0 4 8 16  
 NORTH

**GENERAL NOTES**

- A. SERVE 120V SMOKE DETECTORS/CARBON MONOXIDE DETECTORS FROM EXTENSION OF LIGHTING CIRCUIT AHEAD OF ANY SWITCHING.
- B. FOR ALL NEW CIRCUITS THAT REQUIRE NEUTRALS, NEUTRALS SHALL BE DEDICATED (NO SHARED NEUTRALS).
- C. FOR THE SENSORY IMPAIRED UNIT, FINISH COLOR OF DEVICES SHALL BE WHITE AND COVERPLATES SHALL BE STAINLESS STEEL.
- D. INSTALL UL LISTED PRE-STAMPED RECEPTACLE AND SWITCH SEALERS/GASKETS BEHIND ALL DEVICE COVER PLATES TO PREVENT INSECT PASSAGE OR AIR LEAKAGE.
- E. WHEN INSTALLING FIRE ALARM DEVICES, E.C. SHALL REFER TO MANUFACTURER'S WIRING DIAGRAMS FOR SPECIFIC TANDDEM WIRING REQUIREMENTS IN ORDER TO PERFORM APPROPRIATE SIGNAL INTERLOCKING- COORDINATE WITH MANUFACTURER TECHNICAL SUPPORT.
- F. FOR SENSORY UNIT, HONEYWELL SILENT KNIGHT #SK-PS6 120V TO 24VDC POWER SUPPLY IS REQUIRED TO SERVE 24VDC DEVICES. 520 HZ HORNS INTERFACE BETWEEN KIDDE SMOKE AND CARBON MONOXIDE DETECTORS REQUIRES KIDDE #C0120X AND #SM120X RELAYS WITH NORMALLY OPEN DRY CONTACTS. PROVIDE 120V WIRING BETWEEN RELAYS AND DETECTORS, AND 24VDC WIRING FROM POWER SUPPLY THROUGH DRY CONTACTS IN RELAYS, TO GENTEX #AVSM SYNC MODULE. FROM SYNC MODULE, EXTEND 24VDC WIRING TO 520 HZ HORNS. CONTROL SHALL BE SUCH UPON ANY CARBON MONOXIDE ALARM, 520 HZ HORNS OPERATE IN TEMPORAL 4 PATTERN, AND UPON ANY SMOKE ALARM, THE HORNS OPERATE IN TEMPORAL 3 PATTERN. REFER TO MANUFACTURER'S WIRING DIAGRAMS TO PROVIDE COMPLETE COORDINATED WORKING SYSTEM. WIRING THROUGH CARBON MONOXIDE RELAY CONTACTS SHALL CONNECT TO IN+ AND NEG1 TERMINALS ON SYNC MODULE. WIRING THROUGH SMOKE RELAY CONTACTS SHALL CONNECT TO SYNC TERMINALS, AND TO IN+ AND NEG1 TERMINALS ON SYNC MODULE. PROVIDE END OF LINE RESISTORS IF REQUIRED FOR POWER SUPPLY WIRING.
- G. EXISTING ELECTRICAL SERVICE, DISCONNECTS, METERS, FEEDERS, DEVICES, LIGHTING FIXTURES, LOAD CENTERS, AND BRANCH CIRCUITRY, SHALL BE COMPLETELY REMOVED. EXISTING FURNACES, EXHAUST FANS, UNIT AND CABINET HEATERS, WILL BE REMOVED; REMOVE ALL ASSOCIATED CIRCUITRY AND WIRING. REMOVE EXISTING FIRE ALARM DEVICES, DOOR BELL SYSTEMS, AND ASSOCIATED WIRING. NEW DEVICE LAYOUTS ARE BASED ON PREVIOUS LOCATIONS WITH ADDITIONAL RECEPTACLES SPACED AS REQUIRED TO MEET NEC SPACING REQUIREMENTS. EXTERIOR PERIMETER AND DEMISING WALLS BETWEEN UNITS ARE OF MASONRY CONSTRUCTION WITH FURRING STRIPS AND PLASTER COATING. DEVICE BOXES SHALL BE RECESSED AND WIRING CONCEALED; CHANNEL WALLS AS REQUIRED; COORDINATE WITH THE GENERAL CONTRACTOR.
- H. RADON MITIGATION SYSTEMS ARE TO BE INSTALLED BY OTHERS. FANS WILL LIKELY BE LOCATED WITHIN ATTIC SPACE AT FIVE LOCATIONS, THREE AT HUFFMAN WING, TWO AT PARNELL WING, AND ONE AT CENTER. E.C. SHALL PROVIDE 120V CIRCUIT TO FAN LOCATIONS WITHIN ATTIC SPACES, TOTAL TWO CIRCUITS, SERVED FROM HOUSE PANEL. AT EACH OF FIVE ATTIC ACCESS POINTS, PROVIDE TOGGLE SWITCH AND TWO L1 LIGHTING FIXTURES FOR ILLUMINATION TO FAN LOCATIONS. VERIFY EXACT REQUIREMENTS, LOCATIONS, AND QUANTITIES WITH MITIGATION CONTRACTOR PRIOR TO ANY ROUGH-IN.
- I. EXISTING TELEPHONE, DATA, AND CABLE SERVICE DEMARCATION BOXES, SERVICE CABLES, EXTERIOR MOUNTED CONDUIT DROPS AT BUILDING EXTERIOR, SURFACE CABLES ON BUILDING EXTERIOR, AND ALL INTERIOR CABLES AND DEVICES AND PUNCH DOWN BLOCKS AND CABINETS SHALL BE REMOVED IN THEIR ENTIRETY. COORDINATE WITH INTERNET AND CABLE UTILITY COMPANIES FOR INSTALLATION OF NEW UNDERGROUND SERVICES TO NEW DEMARCATION BOXES. ROUTE NEW CABLES THROUGH BASEMENTS TO EACH UNIT NETWORKING PANEL. EXTEND OUTLET CABLES FROM NETWORKING PANELS TO DEVICES WITHIN EACH UNIT.

**CONSTRUCTION NOTES**

- 1. RECEPTACLE SHALL SERVE RANGE, 3-#6, 1-#10 GRD, NM CABLE.
- 2. PROVIDE DIRECT CONNECTION TO 120V RANGE HOOD EXTENDED FROM LIGHTING CIRCUIT.
- 3. LOCATE FIRE ALARM DEVICE AT THIS LOCATION TO CLEAR BATHROOM DOOR BY AT LEAST 3" PER NFPA 72 CH 29.8.3.4 (2016).
- 4. REFER TO NOTE 3, SHEET E2.1.
- 5. PROVIDE DIRECT CONNECTIONS TO 120V, 6.5W COMBINATION EXHAUST FAN/ 11W, 3500K LED LIGHT. INTEGRAL DISCONNECT PROVIDED WITH UNIT. SERVE FROM EXTENSION OF BATHROOM LIGHTING CIRCUIT.
- 6. AT THIS FLOOR LEVEL, LIGHTING, EXHAUST FAN, AND FIRE ALARM DEVICES SHALL BE SERVED FROM CIRCUIT LC-18.
- 7. CIRCUITING TYPICAL FOR ALL UNITS EXCEPT FOR CORNER UNITS 1210A & B.
- 8. DOWN TO CORRIDOR LIGHTING FIXTURES.
- 9. SMOKE/CARBON MONOXIDE DETECTORS IN STAIR AT SECOND LEVEL AND BASEMENT, AND IN FIRST LEVEL CORRIDOR SHALL BE SERVED FROM LIGHTING CIRCUIT HP-7. INTERLOCK DETECTORS SUCH THAT ASSOCIATED KIND GOES INTO ALARM UPON ACTUATION OF ANY SMOKE DETECTOR, AND ANY CARBON MONOXIDE DETECTOR.
- 10. DOWN TO 1ST FLOOR LEVEL TOGGLE SWITCH.
- 11. REFER TO UNIT 1202A FOR TYPICAL CIRCUITING LAYOUT.



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Moderate Rehabilitation of:  
**Huffman-Parnell RAD Conversion**  
 9 A&B Parnell Ave. | 111 A&B Parnell Ave. |  
 1202 A&B Huffman Ave. | 1204 A&B Huffman Ave. |  
 1208 A&B Huffman Ave. | 1210 A&B Huffman Ave. |  
 Dayton, Ohio 45403  
 OHFA Project :-  
 Greater Dayton Premier Management

Project Number	2021-033
Date	February 29, 2024
Date	02.29.24
Issue	Permit Issue/Bid Set
Sheet Title	Electrical Overall Second Floor Plans
Sheet Number	E2.2

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