

Administrative Site Review Application

Planning and Development Customer Service Center • One Exchange Plaza, Suite 400 | Raleigh, NC 27601 | 919-996-2500



This form is required when submitting site plans as referenced in Unified Development Ordinance (UDO) Section 10.2.8. Please check the appropriate building types and include the plan checklist document when submitting.

Office Use Only: Case #: _____	Planner (print): _____
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Please review UDO Section 10.2.8. to determine the site plan tier. If assistance determining a Site Plan Tier is needed a Site Plan Tier Verification request can be submitted online via the [Permit and Development Portal](#). (Note: There is a fee for this verification service.)

Site Plan Tier: Tier Two Site Plan <input type="checkbox"/>		Tier Three Site Plan <input type="checkbox"/>
Building and Development Type (Check all that apply)		Site Transaction History
<input type="checkbox"/> Detached <input type="checkbox"/> Attached <input type="checkbox"/> Townhouse <input type="checkbox"/> Apartment <input type="checkbox"/> Tiny house <input type="checkbox"/> Open lot	<input type="checkbox"/> General <input type="checkbox"/> Mixed use <input type="checkbox"/> Civic <input type="checkbox"/> Cottage Court <input type="checkbox"/> Frequent Transit Development Option	Subdivision case #: _____ Scoping/sketch plan case #: _____ Certificate of Appropriateness #: _____ Board of Adjustment #: _____ Zoning Case #: _____ Design Alternate #: _____

GENERAL INFORMATION

Development name:
Inside City limits? Yes <input type="checkbox"/> No <input type="checkbox"/>
Property address(es):
Site P.I.N.(s):
Please describe the scope of work. Include any additions, expansions, and uses (UDO 6.1.4).
NEW CONSTRUCTION OF FIVE (5) APARTMENT UNITS AND A LEASING OFFICE. CONSISTING OF (3) THREE FLOORS. NO BASEMENT.

Current Property Owner(s):	
Company:	Title:
Address:	
Phone #:	Email:
Applicant Name (If different from owner. See “who can apply” in instructions):	
Relationship to owner: <input type="checkbox"/> Lessee or contract purchaser <input type="checkbox"/> Owner’s authorized agent <input type="checkbox"/> Easement holder	
Company:	Address:

Phone #:	Email:
NOTE: please attach purchase agreement or contract, lease or easement when submitting this form.	
Developer Contact:	
Company:	Title:
Address:	
Phone #:	Email:
Applicant Name:	
Company:	Address:
Phone #:	Email:

DEVELOPMENT TYPE + SITE DATE TABLE (Applicable to all developments)	
SITE DATA	BUILDING DATA
Zoning district(s) (please provide the acreage of each):	Existing gross floor area (not to be demolished):
Gross site acreage:	Existing gross floor area to be demolished:
# of parking spaces proposed:	New gross floor area:
Max # parking permitted (7.1.2.C):	Total sf gross (to remain and new):
Overlay District (if applicable):	Proposed # of buildings:
Existing use (UDO 6.1.4):	Proposed # of stories for each:
Proposed use (UDO 6.1.4): RESIDENTIAL APARTMENT	Proposed # of basement levels (UDO 1.5.7.A.6)

STORMWATER INFORMATION	
Imperious Area on Parcel(s): Existing (sf) _____ Proposed total (sf) _____	Impervious Area for Compliance (includes ROW): Existing (sf) _____ Proposed total (sf) _____

RESIDENTIAL & OVERNIGHT LODGING DEVELOPMENTS	
Total # of dwelling units:	Total # of hotel bedrooms:
# of bedroom units: 1br _____ 2br _____ 3br _____ 4br or more _____	
# of lots:	Is your project a cottage court? <input type="radio"/> Yes <input type="radio"/> No
	A frequent transit development? <input type="radio"/> Yes <input type="radio"/> No

Continue to Applicant Signature Block on Page 4.

APPLICANT SIGNATURE BLOCK

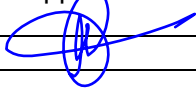
Pursuant to state law (N.C. Gen. Stat. § 160D-403(a)), applications for development approvals may be made by the landowner, a lessee or person holding an option or contract to purchase or lease land, or an authorized agent of the landowner. An easement holder may also apply for development approval for such development as is authorized by the easement.

Acting as an authorized agent requires written permission from the property owner for the purposes of making this development approval and/or permit application. Written permission from the property owner to act as an authorized agent must be made available to the City of Raleigh upon request.

By submitting this application, the undersigned applicant acknowledges that they are either the property owner or one of the persons authorized by state law (N.C.G.S. 160D-403(a)) to make this application, as specified in the application. The undersigned also acknowledges that the information and statements made in the application are correct and the undersigned understands that development approvals are subject to revocation for false statements or misrepresentations made in securing the development approval, pursuant to N.C. Gen. Stat. § 160D-403(f).

The undersigned indicates that the property owner(s) is aware of this application and that the proposed project described in this application will be maintained in all respects in accordance with the plans and specifications submitted herewith, and in accordance with the provisions and regulations of the City of Raleigh Unified Development Ordinance.

The undersigned hereby acknowledges that, pursuant to state law (N.C.G.S. 143-755(b1)), if this permit application is placed on hold at the request of the applicant for a period of six consecutive months or more, or if the applicant fails to respond to comments or provide additional information requested by the City for a period of six consecutive months or more, then the application review is discontinued, and a new application is required to proceed and the development regulations in effect at the time permit processing is resumed shall apply to the new application.

Signature: 	Date:
Printed Name:	
Signature:	Date:
Printed Name:	

TRYON ROAD APARTMENTS

3015 TRYON ROAD, RALEIGH, NC 27603

GENERAL NOTES:-

- ALL WORK SHALL COMPLY WITH CITY, STATE OF NORTH CAROLINA, AND ALL OTHER MUNICIPAL CODES & APPLICABLE STANDARDS. IN CASE OF CONFLICT BETWEEN REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE PROJECT BE IN CONFORMANCE WITH CODES AND REGULATIONS OF ALL APPLICABLE GOVERNING BUILDING AUTHORITIES, THE 2018 NORTH CAROLINA BUILDING CODE, AND INTERNATIONAL BUILDING CODE WITH NORTH CAROLINA AMENDMENTS, AND MANUFACTURER'S RECOMMENDATIONS.
- THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION PER THE OWNER'S SPECIFICATIONS. WHILE EVERY EFFORT HAS BEEN MADE IN THE PREPARATION OF THESE DOCUMENTS TO AVOID MISTAKES, THE MAKER CANNOT GUARANTEE AGAINST HUMAN ERROR. ANY CHANGES TO THESE DOCUMENTS AFTER THE DATE ON THESE DRAWINGS WILL BE DONE AT THE OWNER'S EXPENSE AND RESPONSIBILITY. IN CASE OF DISCREPANCIES, THE DESIGNER & ENGINEER SHALL BE IMMEDIATELY CONTACTED.
- THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL REQUIRED APPROVALS AND PERMITS FROM THE APPROPRIATE AGENCY AND FOR COORDINATION AND COSTS ASSOCIATED WITH CONSTRUCTION AND INSPECTION.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL CONDITIONS, DIMENSIONS, AND OTHER DETAILS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY TO THE ACCURACY OF THE PLANS AND ANY CHANGES MADE DURING CONSTRUCTION, AND BE SOLELY RESPONSIBLE THEREAFTER. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PROVISIONS ARE MADE AND APPROVED METHODS USED FOR CONSTRUCTION.
- THE CONTRACTOR SHALL ACCEPT RESPONSIBILITY FOR ANY UNSEEN CONFLICTS OR CONSTRUCTION COMPLEXITIES DISCOVERED DURING CONSTRUCTION NOT DESCRIBED IN THE CONSTRUCTION DOCUMENTS, NOTIFY THE ARCHITECT, AND COORDINATE NECESSARY MEANS AND METHODS TO PROCEED.

UTILITY NOTES:-

- CONTRACTOR SHALL COORDINATE AND BE RESPONSIBLE FOR ALL UTILITIES, AS REQUIRED, (ELECTRIC, MECHANICAL, PLUMBING, GAS) TO CONSTRUCT THIS PROJECT.
- CONTRACTOR SHALL INVESTIGATE AND ASSESS THE CONDITION AND CAPABILITIES OF EXISTING UTILITY SERVICES FOR MEETING OR EXCEEDING THE NEEDS OF THIS PROJECT.
- CONTRACTOR SHALL PROPOSE MOST ENERGY EFFICIENT SYSTEMS, PROPOSE EXISTING SYSTEM UPGRADES AND MODIFICATIONS, AND SERVICE LOCATIONS AND RUNS PRIOR TO CONSTRUCTION FOR REVIEW BY THE OWNER (AND/OR OWNERS REPRESENTATIVES).



PROJECT DESCRIPTION

NEW CONSTRUCTION OF FIVE (5) APARTMENT UNITS AND A LEASING OFFICE. CONSISTING OF (3) THREE FLOORS, NO BASEMENT. THE TOTAL PROPERTY AREA IS APPROXIMATELY 0.279 ACRES, AND HAVE A STREET FRONTAGE OF 68.28'.

CODE ANALYSIS

- ZONING	R-4
- STOREYS	3
- BUILDING HEIGHT	45'-0"
- NUMBER OF APARTMENT UNITS	5
- NUMBER OF OFFICE	1
- TOTAL HEATED AREA	9,187.80 SF
- TOTAL UNHEATED AREA	846.69 SF
- TOTAL AREA	10,034.49 SF
- CONSTRUCTION TYPE	VB

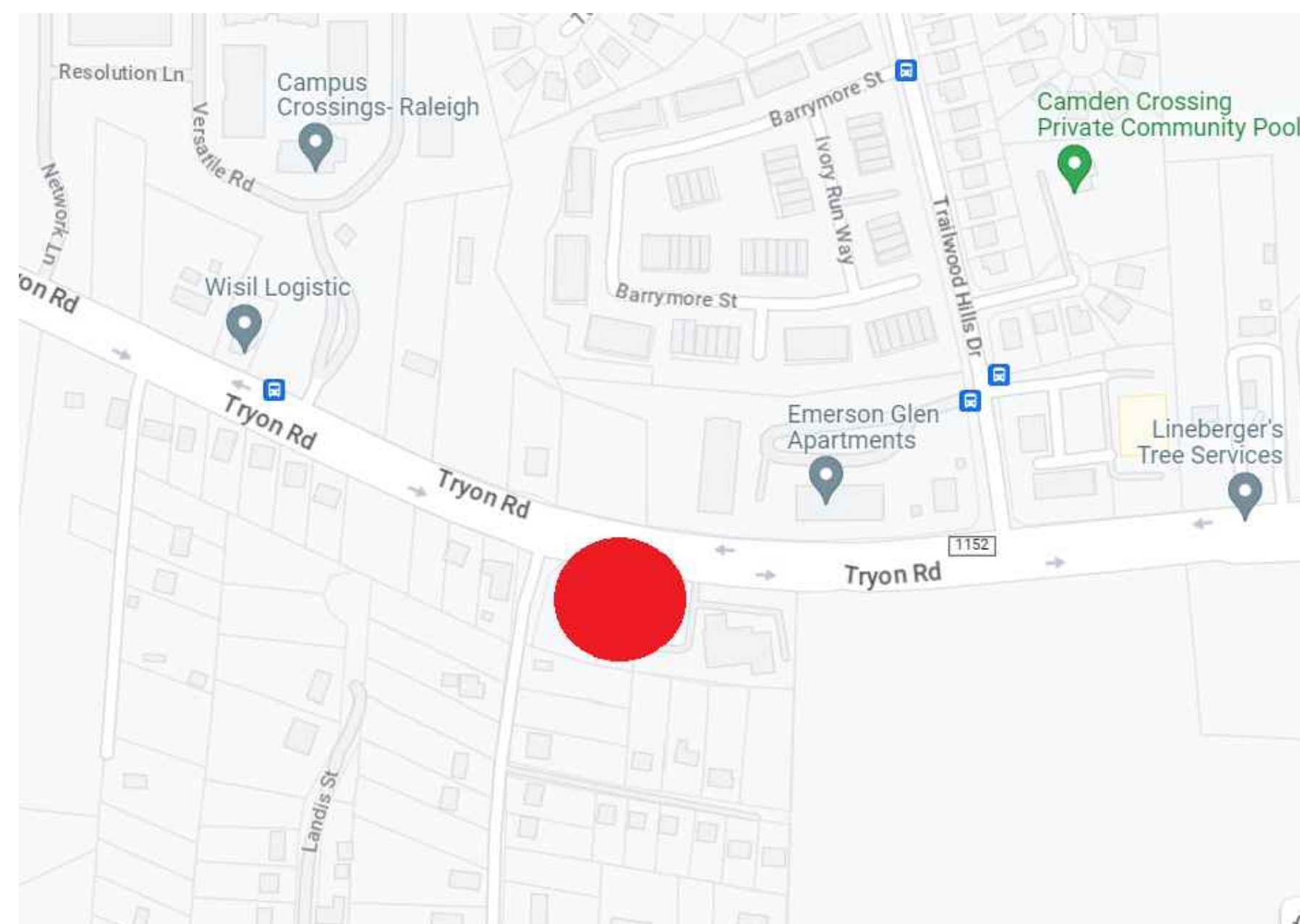
DRAWING INDEX

ARCHITECTURE		ELECTRICAL	
A-00	COVERSHEET	E000	ELECTRICAL COVER SHEET
A-00-1	FORMS	E001	ELECTRICAL FLOOR PLANS
A-00-2	FORMS	E002	ELECTRICAL FLOOR PLANS
A-01	SITE PLAN	E003	ELECTRICAL FLOOR PLANS
A-02	FLOOR PLANS	E004	ELECTRICAL PANELS
A-03	ROOF PLAN	E005	ELECTRICAL PANELS
A-04	FLOOR FRAMING PLANS	PLUMBING	
A-05	REFLECTED CEILING PLANS	P000	PLUMBING COVER SHEET
A-06	SOUTH ELEVATION	P001	PLUMBING FLOOR PLANS
A-07	EAST ELEVATION	P002	PLUMBING FLOOR PLANS
A-08	NORTH ELEVATION	P003	PLUMBING FLOOR PLANS
A-09	WEST ELEVATION		
A-10	SECTIONS		
A-11	SECTIONS		
A-12	WALL SECTIONS		
A-13	STAIR DETAILS		
A-14	HANDRAIL DETAILS		
A-15	WALL TYPES & DETAILS		
A-16	DOORS/WINDOWS		
A-17	KITCHEN INTERIOR ELEVATIONS		
STRUCTURAL			
S001	STRUCTURAL NOTES		
S101	FIRST FLOOR FOUNDATION PLAN		
S101S	FIRST FLOOR WIND BRACING PLAN		
S102	SECOND FLOOR FRAMING PLAN		
S102S	SECOND FLOOR WIND BRACING PLAN		
S103	THIRD FLOOR FRAMING PLAN		
S103S	THIRD FLOOR WIND BRACING PLAN		
S104	ROOF FRAMING PLAN		
S201	SCHEDULES		
S301	SECTIONS & DETAILS		
S401	SECTIONS & DETAILS		
S501	WALL DETAILS SHEAR		
MECHANICAL			
M000	MECHANICAL COVER SHEET		
M001	MECHANICAL FLOOR PLANS		
M002	MECHANICAL FLOOR PLANS		
M003	MECHANICAL FLOOR PLANS		
M004	MECHANICAL DETAILS		

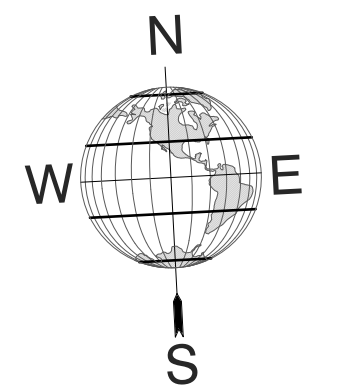
DRAWING SYMBOLS & MATERIALS

	DETAIL SCALE: 1/4"=1'-0"		DRAWING TITLE		PARTITION TAG
	(WALL) SECTION		WINDOW TAG		DOOR TAG
	EXTERIOR ELEVATION		ROOM NAME LABEL		
	INTERIOR ELEVATION		LIGHT WEIGHT CONCRETE		PRECAST CONCRETE/ CAST-IN-PLACE
	DETAIL		GRAVEL		CONCRETE BLOCK
	ELEVATION TARGET		BATT/LOOSE FILL INSULATION		RIGID INSULATION
	COLUMN REFERENCE				

LOCATION MAP



GENERAL NOTES



No.	REVISION/ISSUE	Date



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361 OSMOSIS DR., SW
PALM BAY, FL 32908
WWW.IWANCONSULT.COM

TRYON APARTMENTS BUILDING
3015 TRYON ROAD
RALEIGH, NC 27603

Project COVER SHEET	Sheet A-00
Date 8/16/2024	
Scale As Noted	

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS**
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone

winter dry bulb: _____
summer dry bulb: _____

Interior design conditions

winter dry bulb: _____
summer dry bulb: _____
relative humidity: _____

Building heating load: _____

Building cooling load: _____

Mechanical Spacing Conditioning System

Unitary

description of unit: _____
heating efficiency: _____
cooling efficiency: _____
size category of unit: _____

Boiler

Size category. If oversized, state reason.: _____

Chiller

Size category. If oversized, state reason.: _____

List equipment efficiencies: _____

**2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS**
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code Performance Prescriptive
ASHRAE 90.1 Performance Prescriptive

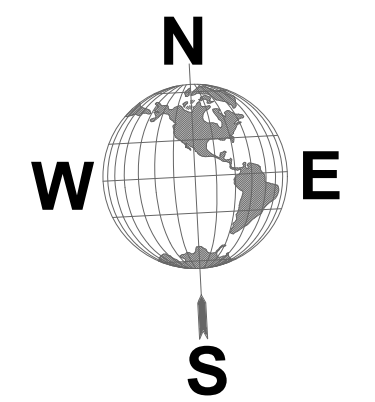
Lighting schedule (each fixture type)

lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified vs. allowed (whole building or space by space)
total exterior wattage specified vs. allowed

**Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)**

- C406.2 More Efficient HVAC Equipment Performance
- C406.3 Reduced Lighting Power Density
- C406.4 Enhanced Digital Lighting Controls
- C406.5 On-Site Renewable Energy
- C406.6 Dedicated Outdoor Air System
- C406.7 Reduced Energy Use in Service Water Heating

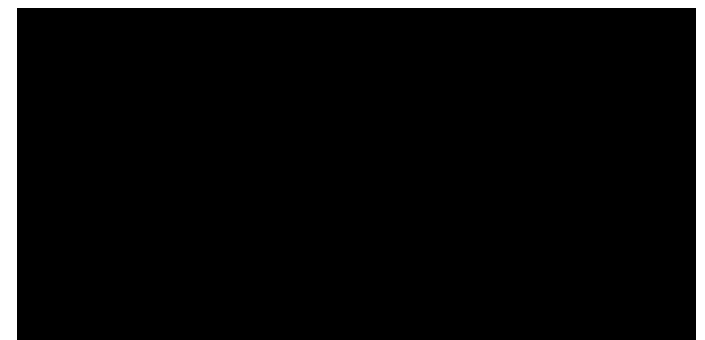
GENERAL NOTES



No.	REVISION/ISSUE	Date



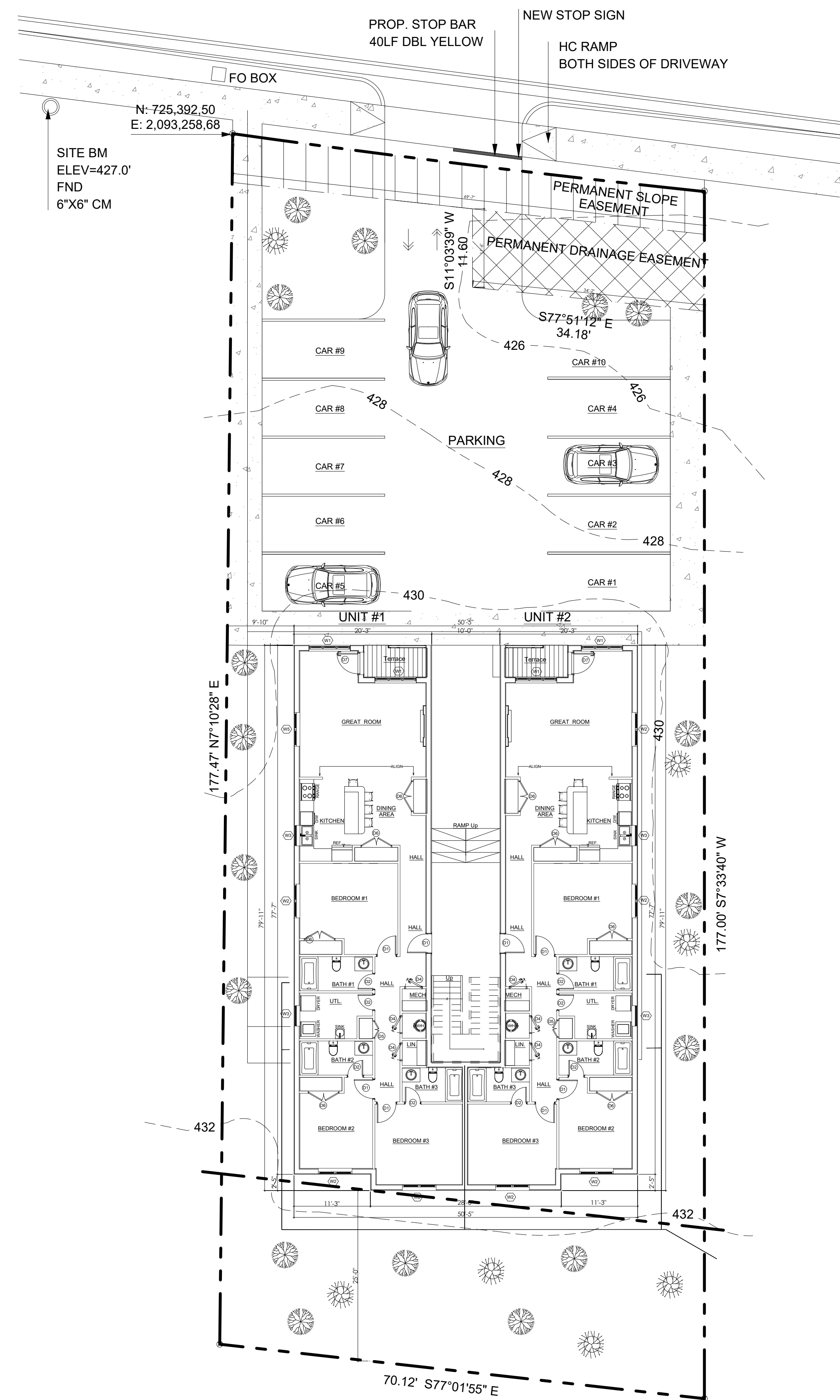
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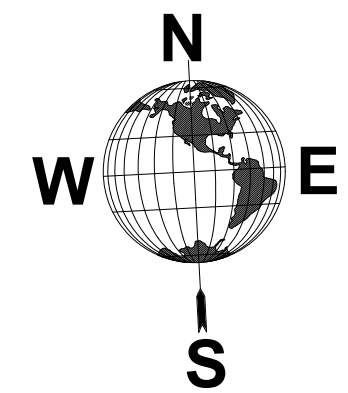
Project Name and Address
TRYON APARTMENTS BUILDING
3015 TRYON ROAD
RALEIGH, NC 27603

SHEET TITLE: FORMS	Sheet
Date 08/27/2024	A-00-2
Scale	



1 SITE FLOOR PLAN
3/32" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date



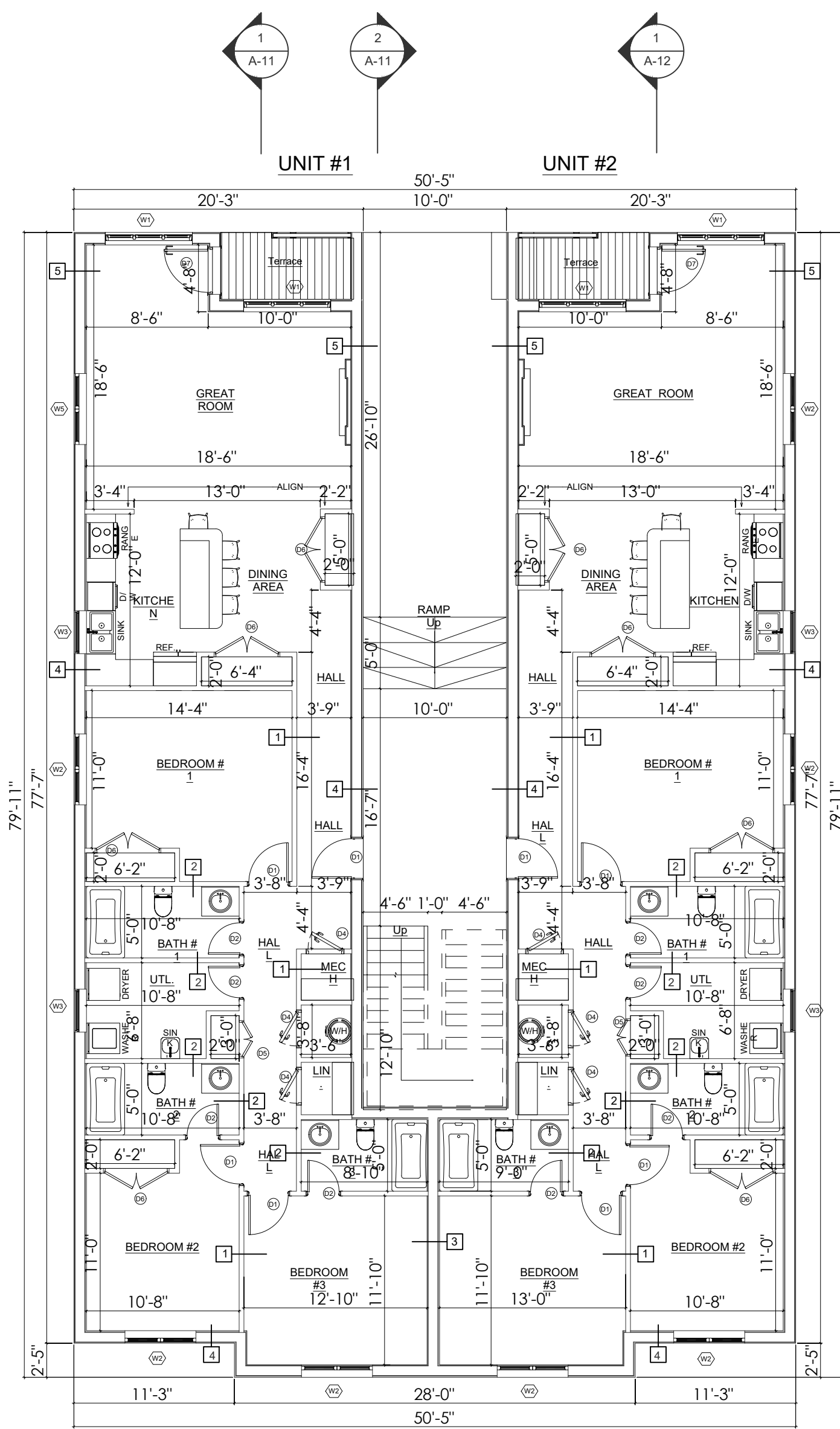
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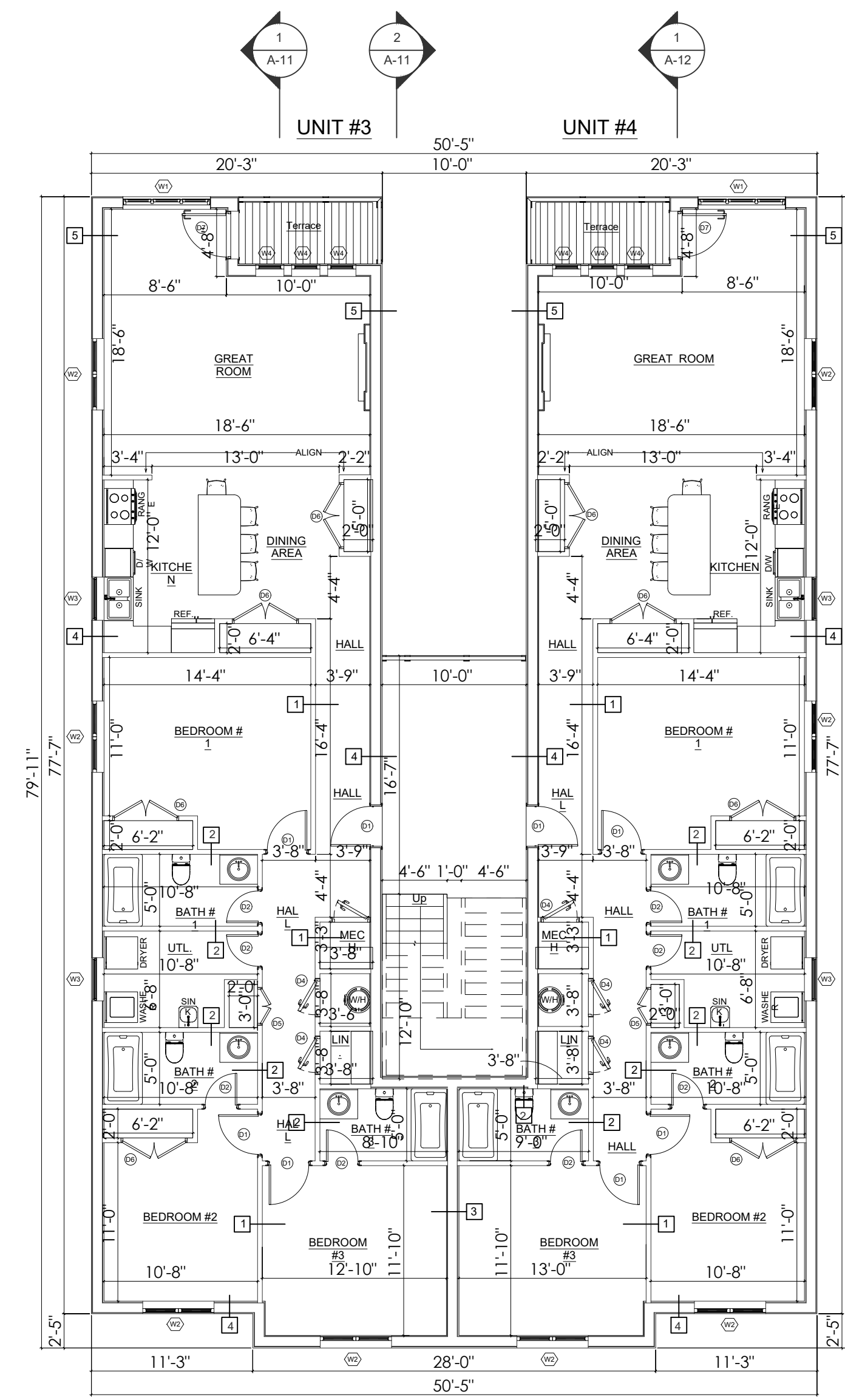
Firm Name and Address

Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

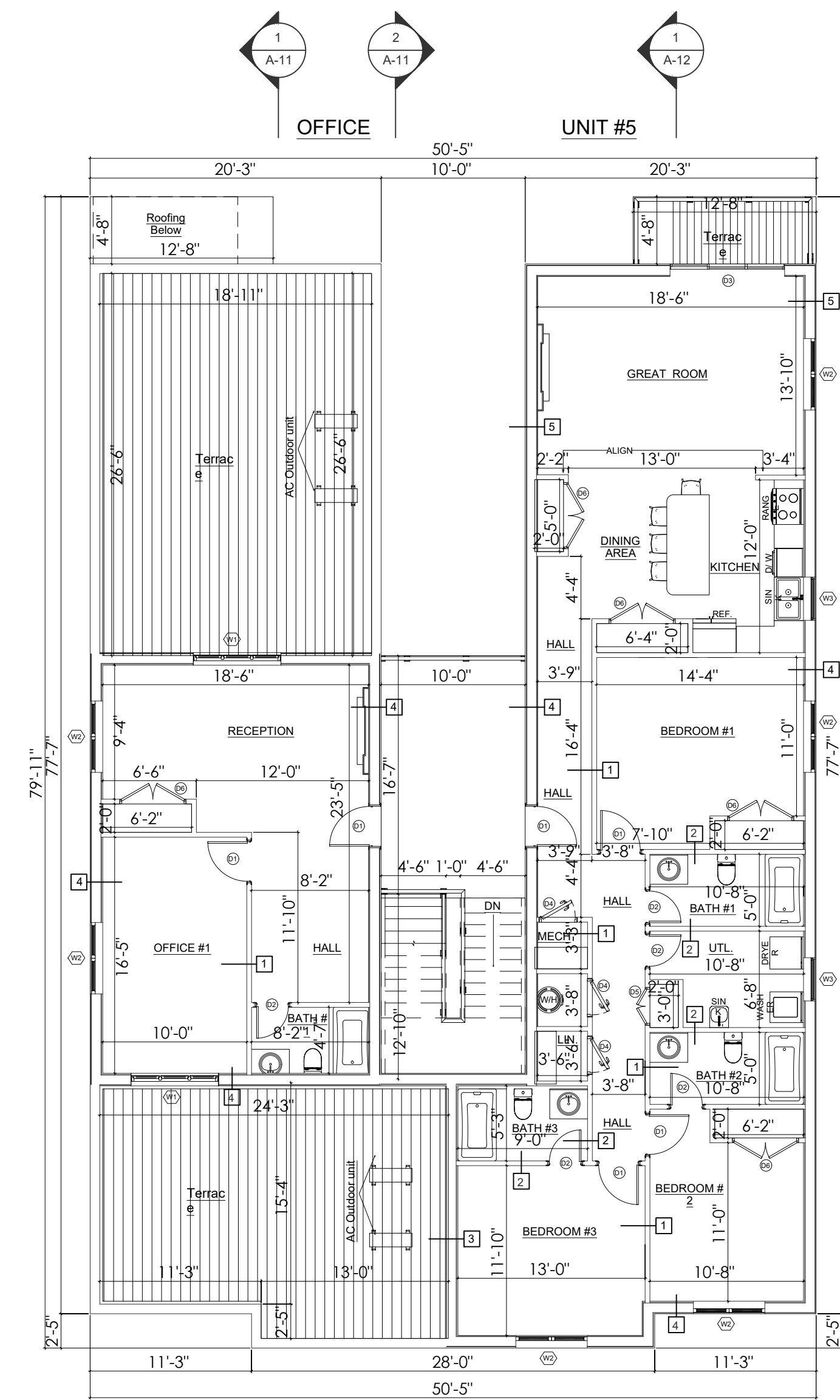
Project	SITE PLAN	Sheet
Date	8/16/2024	A-01
Scale	3/32" = 1'-0"	



3 FIRST FLOOR PLAN
1/8" = 1'-0"

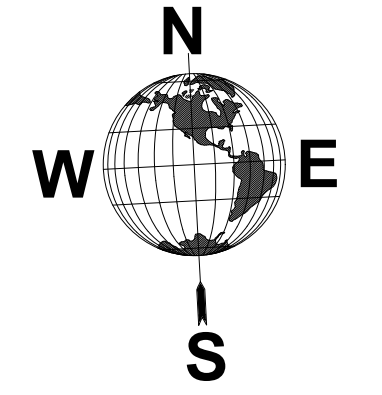


1 Second Floor Plan
1/8" = 1'-0"



2 Third Floor Plan
1/8" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

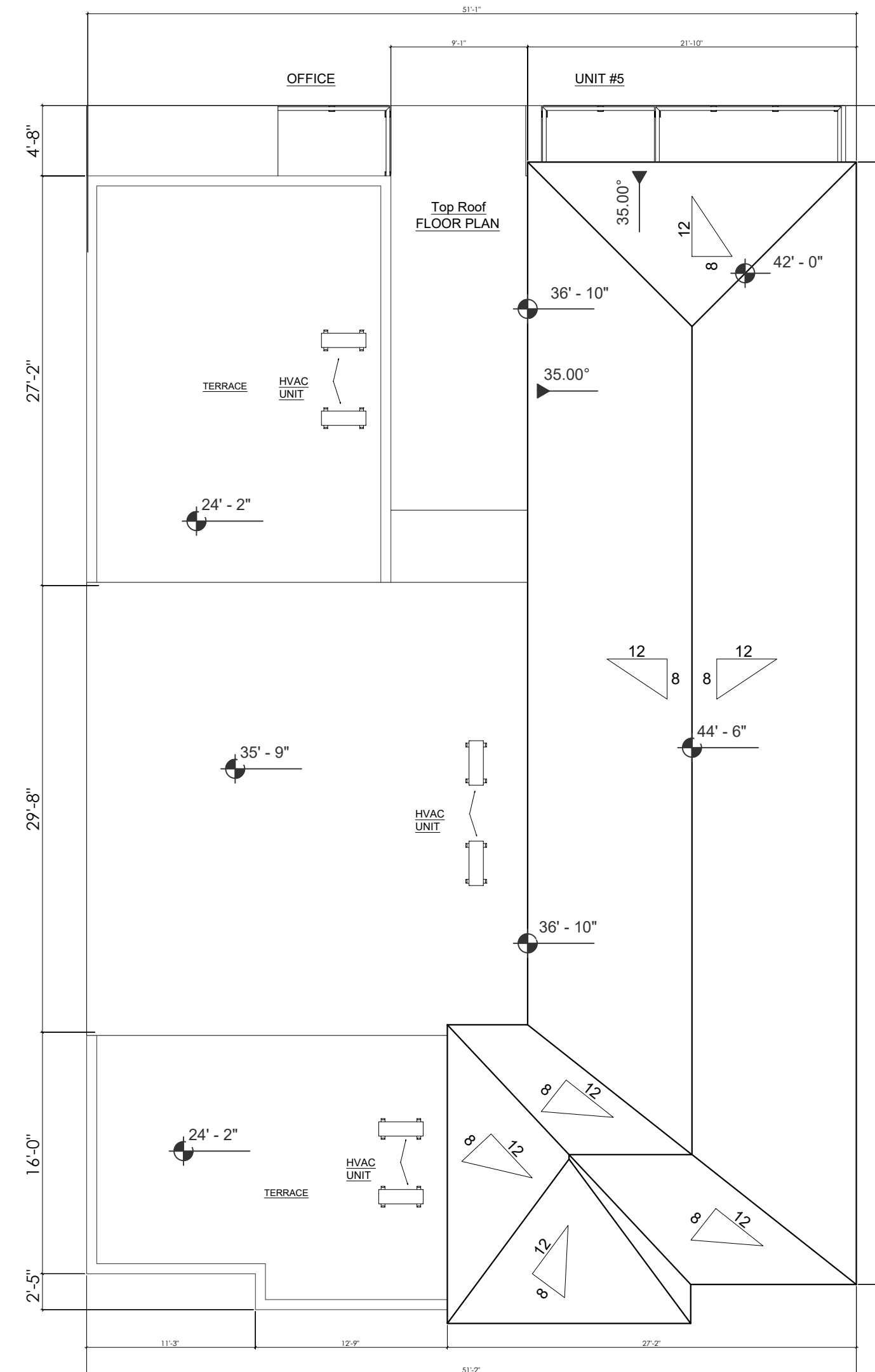


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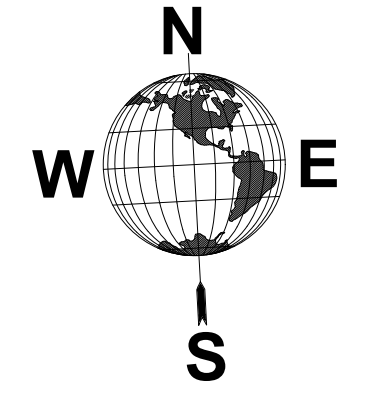
Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

Project	FLOORS PLANS	Sheet
Date	8/16/2024	A-02
Scale	1/8" = 1'-0"	



1 TOP ROOF PLAN
1/8" = 1'-0"

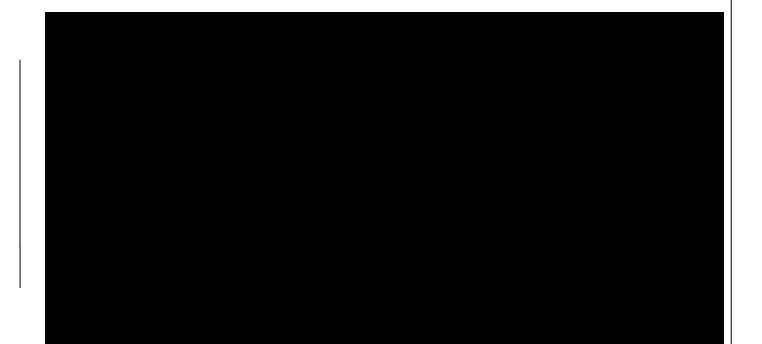
GENERAL NOTES



No.	REVISION/ISSUE	Date



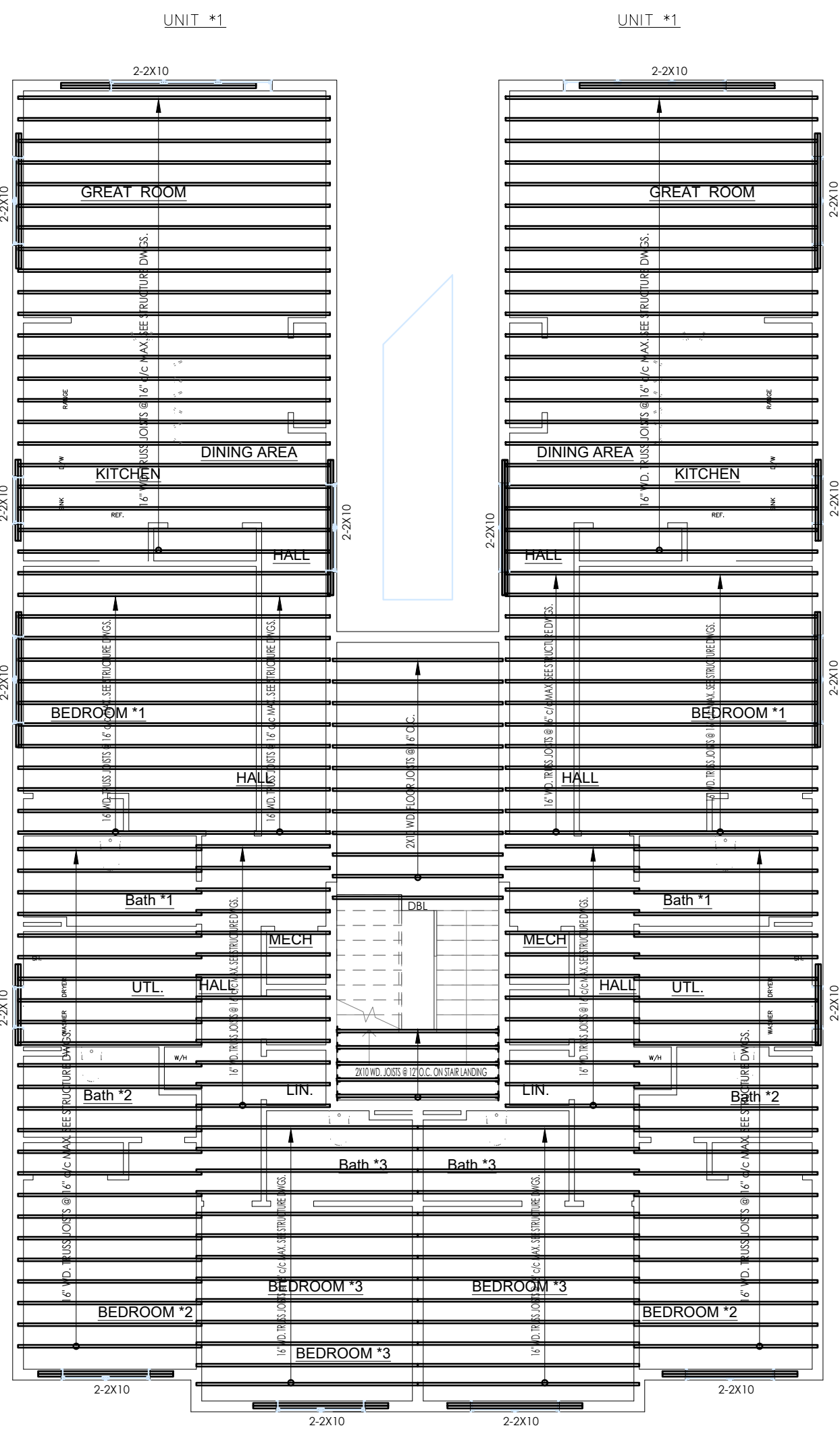
Firm Name and Address
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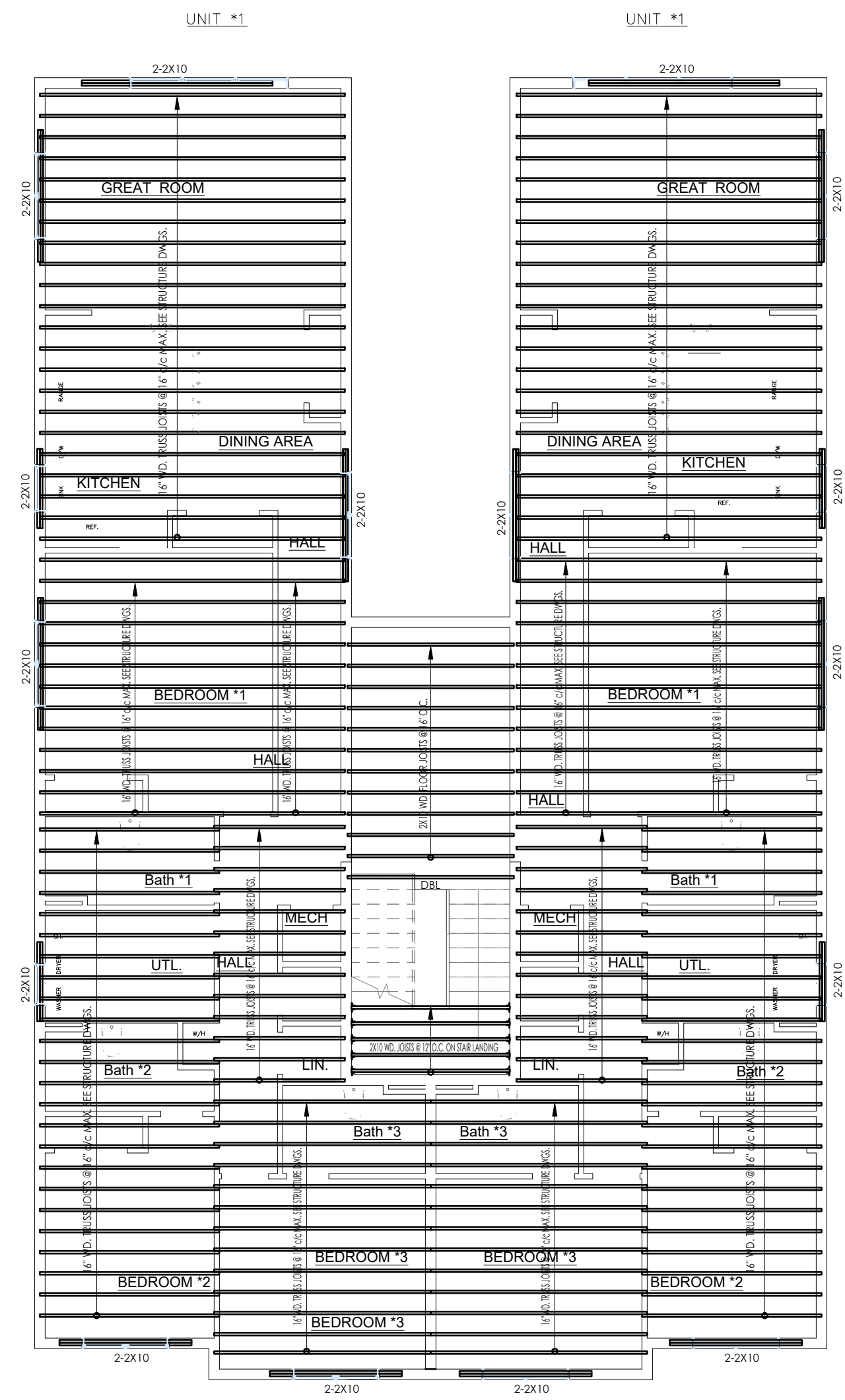
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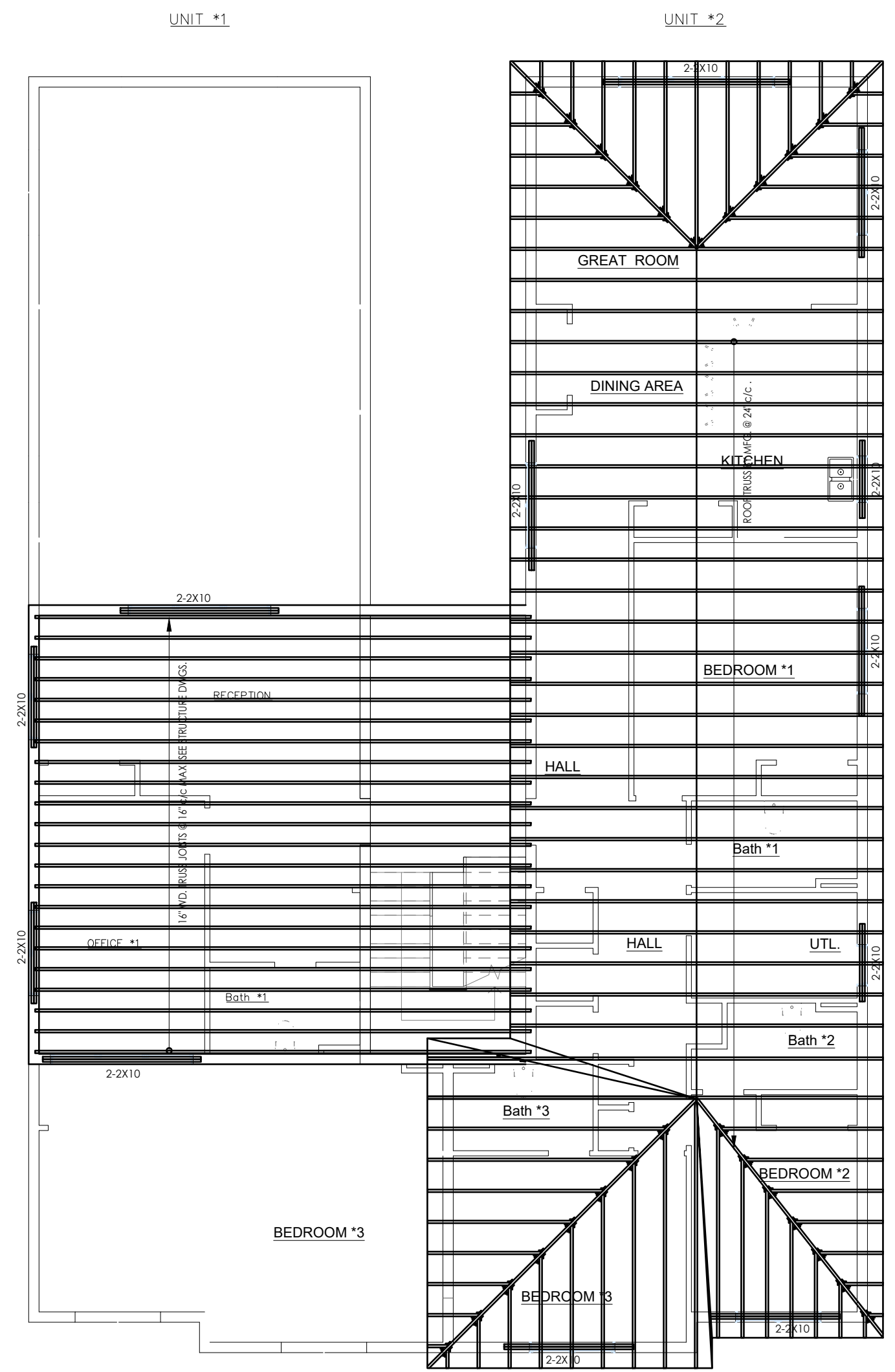
Project	ROOF PLAN	Sheet	A-03
Date	8/16/2024		
Scale	1/8" = 1'-0"		



1 FIRST FLOOR FRAMING PLAN
1/8" = 1'-0"



2 SECOND FLOOR FRAMING PLAN
1/8" = 1'-0"



3 ROOF FRAMING PLAN
1/8" = 1'-0"

GENERAL NOTES

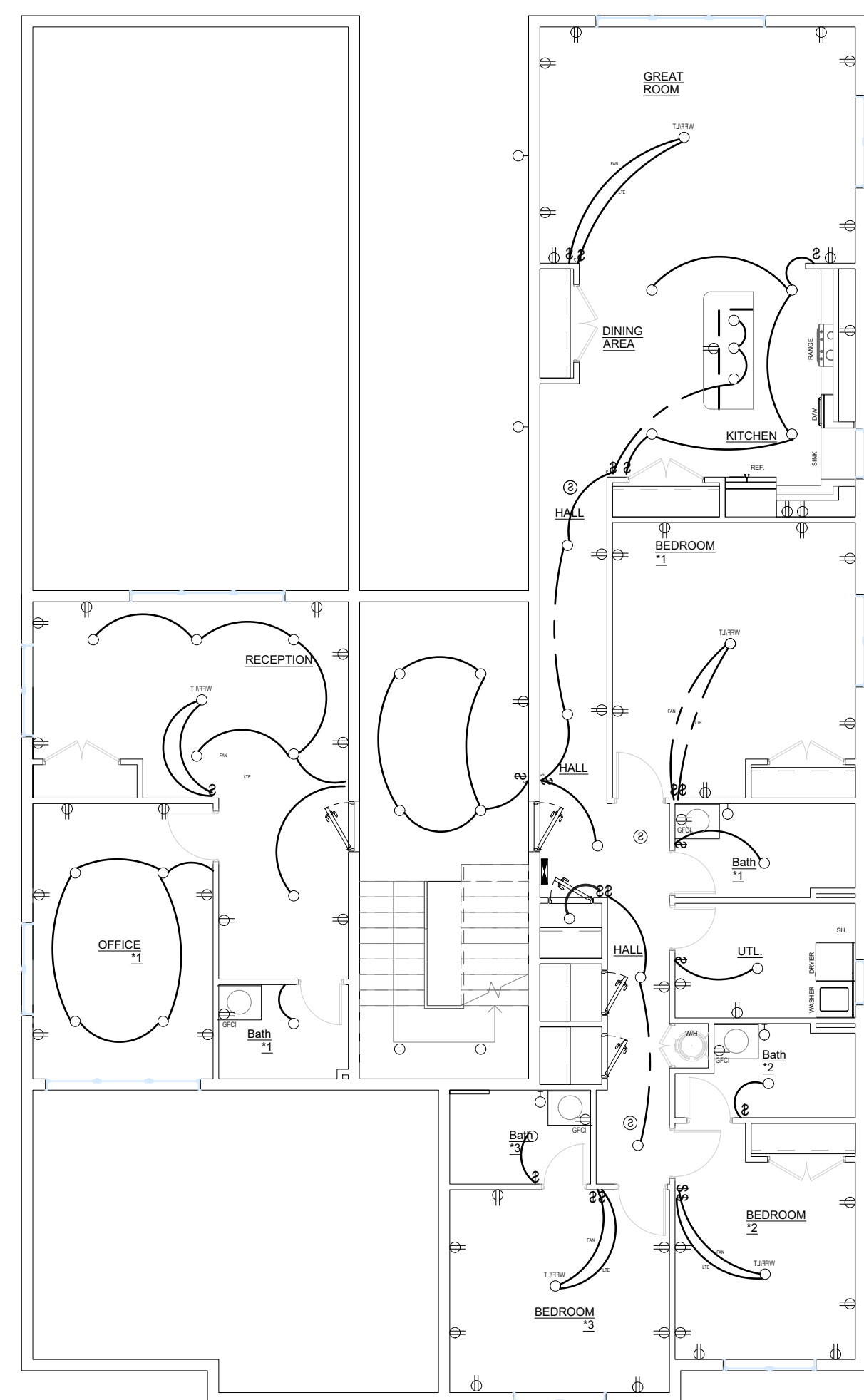
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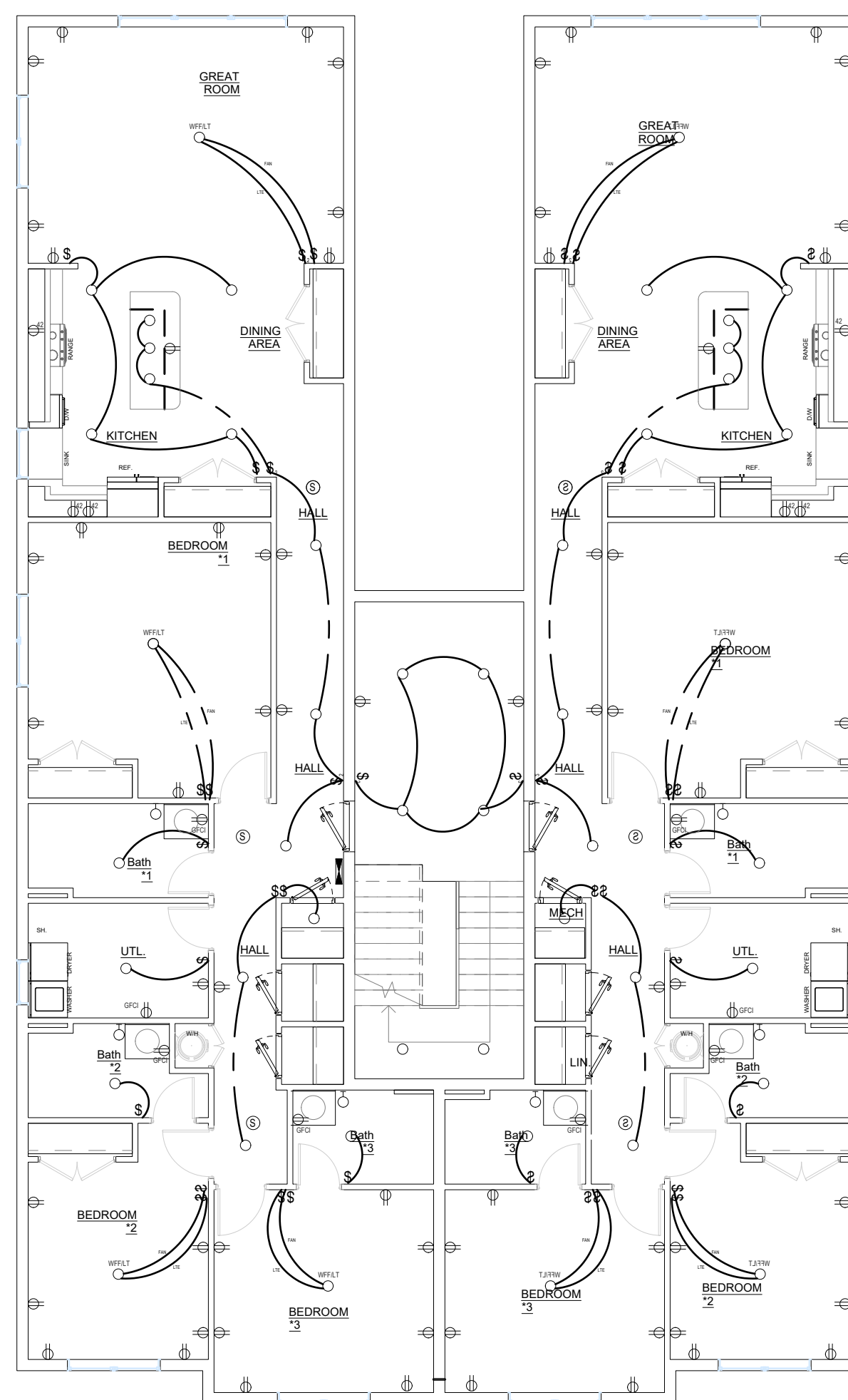
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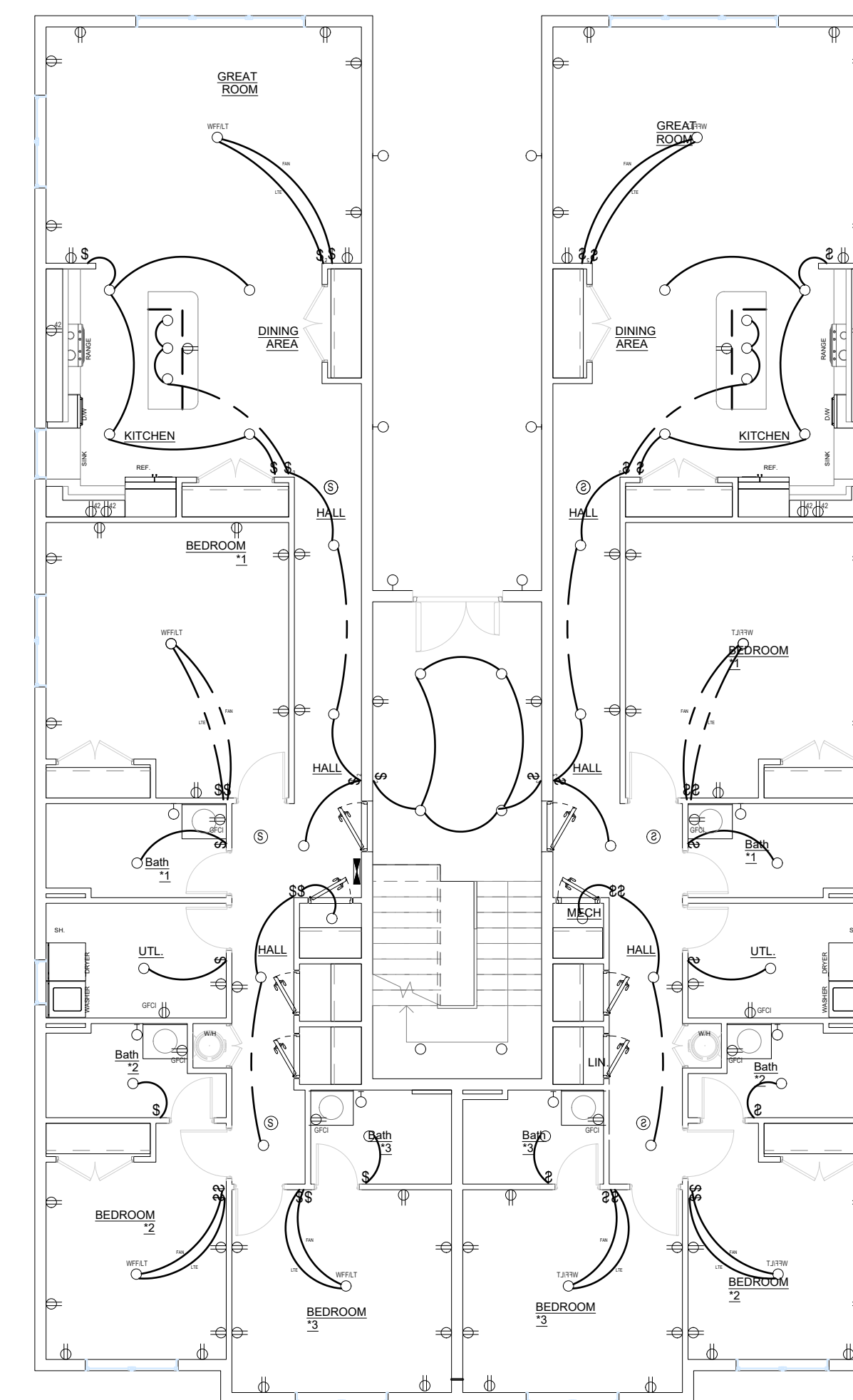
Project FLOOR FRAMING PLANS	Sheet A-04
Date 8/16/2024	
Scale As Noted	



① THIRD FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"



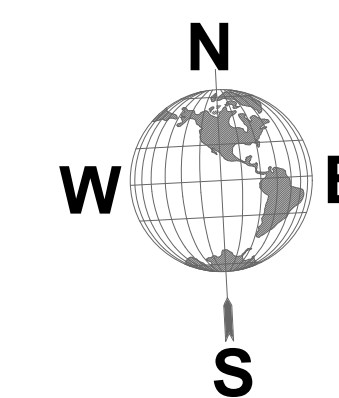
② SECOND FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"



③ FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

REFLECTED CEILING PLANS

GENERAL NOTES



ELECTRICAL SYMBOLS

Ⓢ SINGLE POLE SWITCH	Ⓞ DRILING MOUNTED LAMP
Ⓢ DOUBLE POLE SWITCH	Ⓞ WALL MOUNTED LAMP
Ⓢ THREE POLE SWITCH	Ⓞ CEILING RECESSED FUTURE
Ⓢ DIMMER SWITCH	Ⓞ EVERALL FUTURE
Ⓞ SINGLE OUTLET	Ⓞ PULL CHAIN
Ⓞ DUPLEX OUTLET	Ⓞ TRACK LIGHT SYSTEM
Ⓞ SHIMMER/DUPLEX	Ⓞ DIMMER INDICATED
Ⓞ 220V OUTLET	Ⓞ FLOOD LIGHT EXT.
Ⓞ QUAD OUTLET	Ⓞ EMERGENCY LIGHT
Ⓞ TELEVISION	Ⓞ FLOURESCENT LAMP
Ⓞ SMOKE DETECTOR	Ⓞ DIMMER INDICATED
Ⓞ ELECTRICAL PANEL	Ⓞ WIRE FOR FAN ONLY
Ⓞ EXHAUST FAN	Ⓞ WIRE FOR FAN WITH LIGHT
Ⓞ THERMOSTAT	Ⓞ WATERPROOF OUTLET
Ⓞ INTERCOM	Ⓞ GROUND FAULT CIRCUIT
Ⓞ DOOR BELL BULBION	Ⓞ INTERFERER
Ⓞ DISCONNECT	Ⓞ ARC FAULT CIRCUIT
Ⓞ ELECTRICAL METER	Ⓞ INTERFERER
	Ⓞ OUTLET HEIGHT
	Ⓞ ABOVE FLOOR
	Ⓞ GARAGE DOOR
	Ⓞ ORDER

NOTE:
ALL SMOKE DETECTORS TO BE LINKED TOGETHER SO AS TO SOUND SIMULTANEOUSLY WHEN ONE IS TRIGGERED.

NOTE:
ALL OUTLET SHALL BE TAMPER-RESISTANT

NOTE:
PLANS COMPLY WITH THE 2017 NORTH CAROLINA RESIDENTIAL BUILDING CODE, 2019 NFPA 70 AND NEC

No.	REVISION/ISSUE	Date



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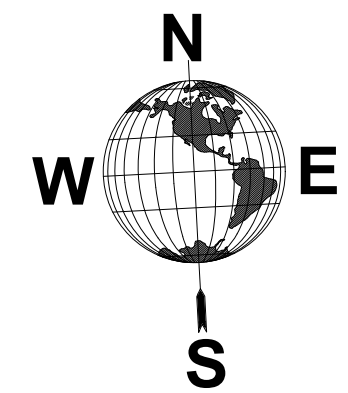
Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

Project REFLECTED CEILING PLANS	Sheet A-05
Date 8/16/2024	
Scale 1/8" = 1'-0"	



1 SOUTH ELEVATION
3/8" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

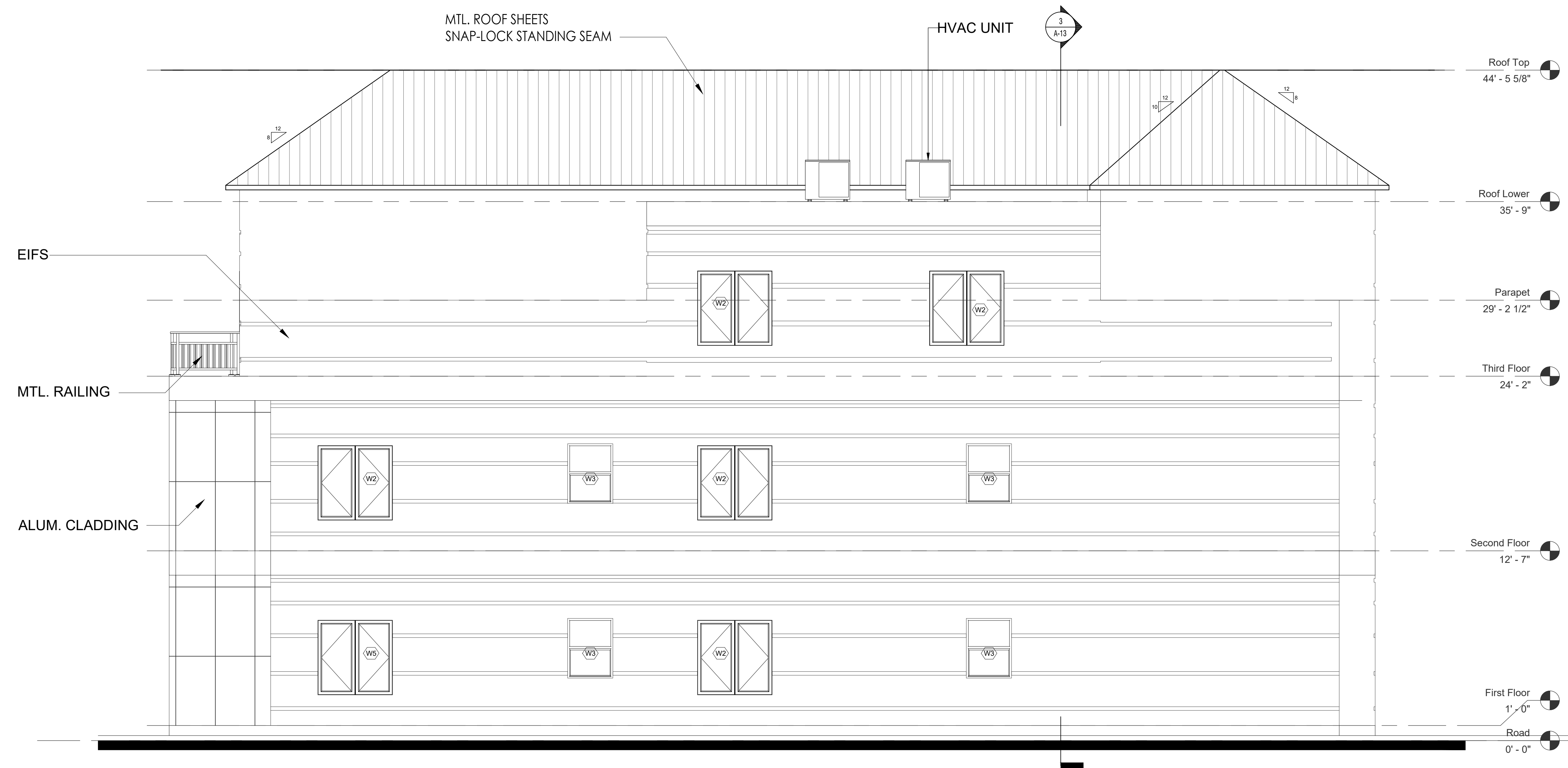


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Firm Name and Address

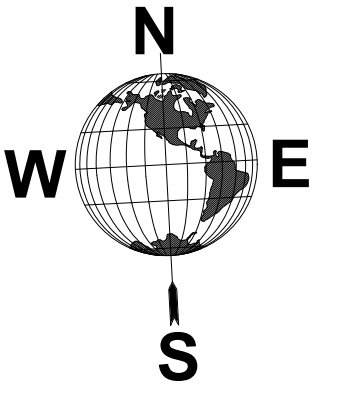
Project Name and Address
TRYON APARTMENTS
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 RALEIGH, NC 27603

Project	SOUTH ELEVATION	Sheet	A-06
Date	8/16/2024		
Scale	3/8" = 1'-0"		



1 EAST ELEVATION
1/4" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date



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Firm Name and Address

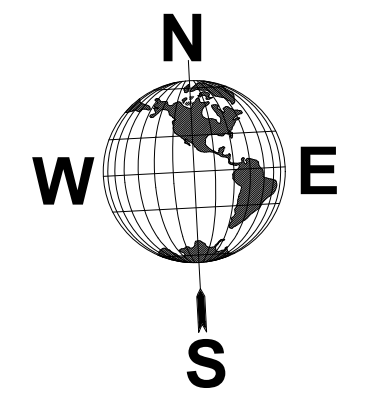
Project Name and Address
TRYON APARTMENTS
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 RALEIGH, NC 27603

Project	EAST ELEVATION	Sheet	A-07
Date	8/16/2024		
Scale	1/4" = 1'-0"		



1 NORTH ELEVATION
3/8" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

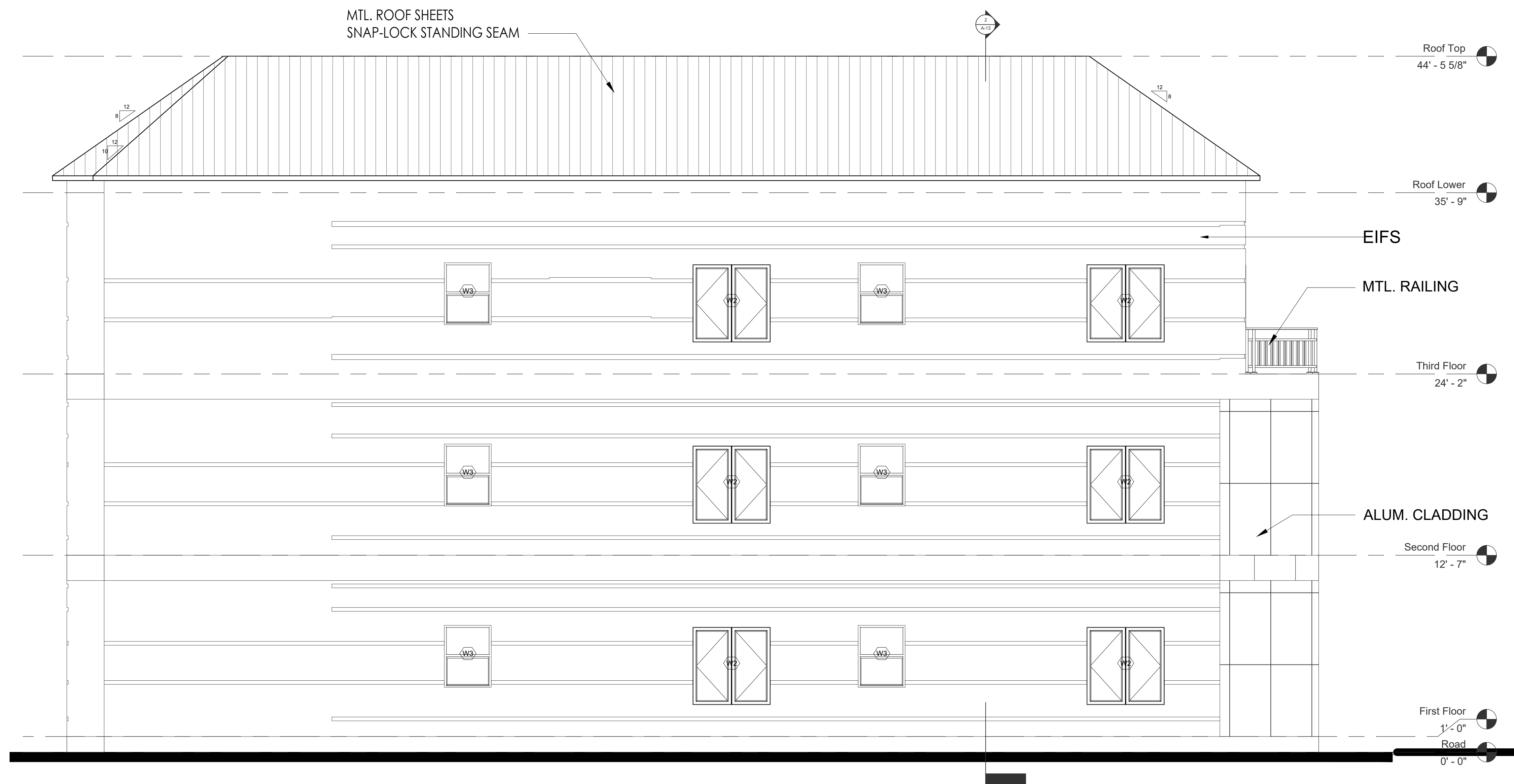


Firm Name and Address
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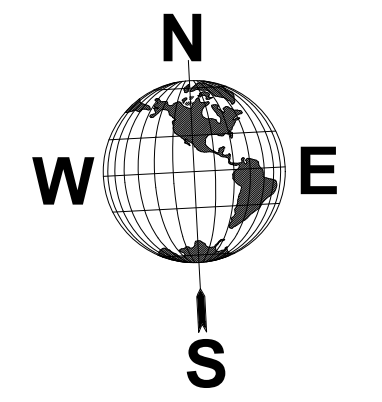
Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

Project	NORTH ELEVATION	Sheet	A-08
Date	8/16/2024		
Scale	3/8" = 1'-0"		



4 WEST ELEVATION
1/4" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

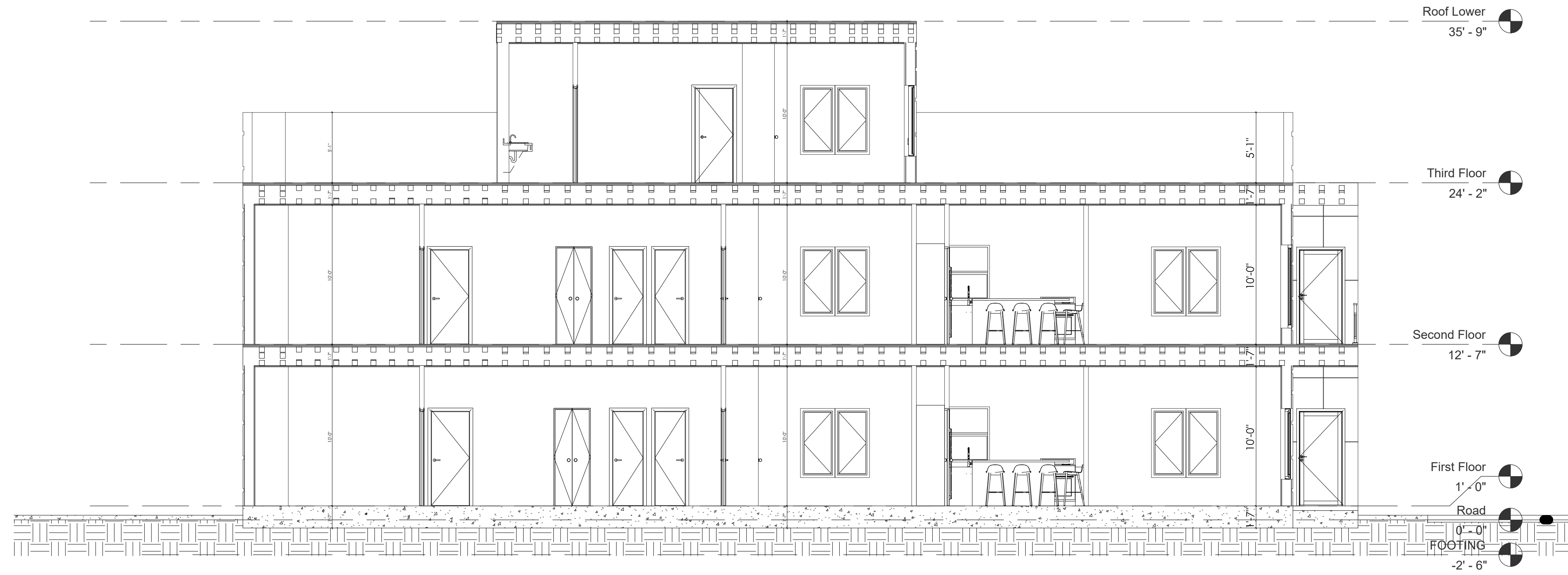


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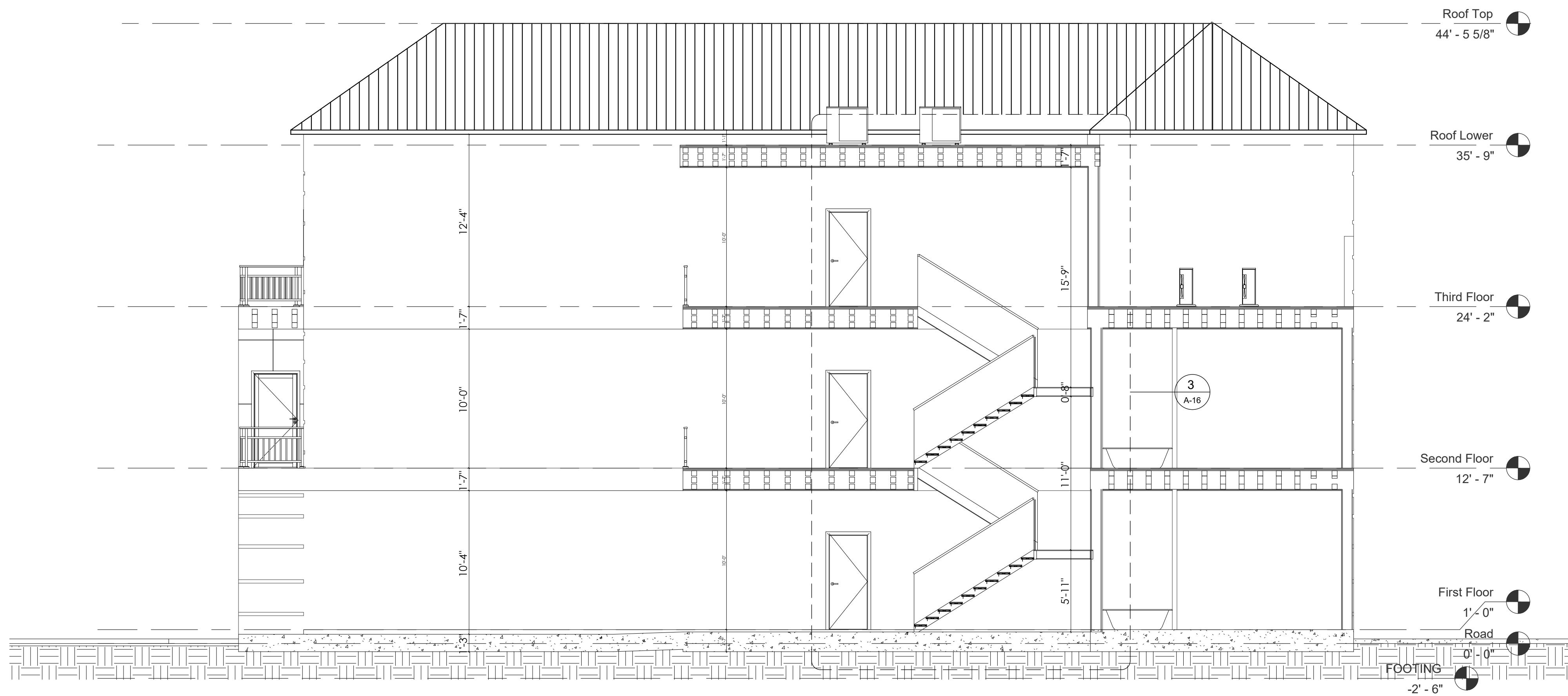
Firm Name and Address

Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

Project	WEST ELEVATION	Sheet	A-09
Date	8/16/2024		
Scale	1/4" = 1'-0"		

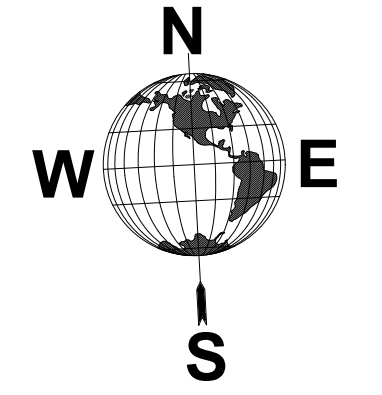


1 SEC 1-1
3/16" = 1'-0"



2 SEC 2-2
3/16" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

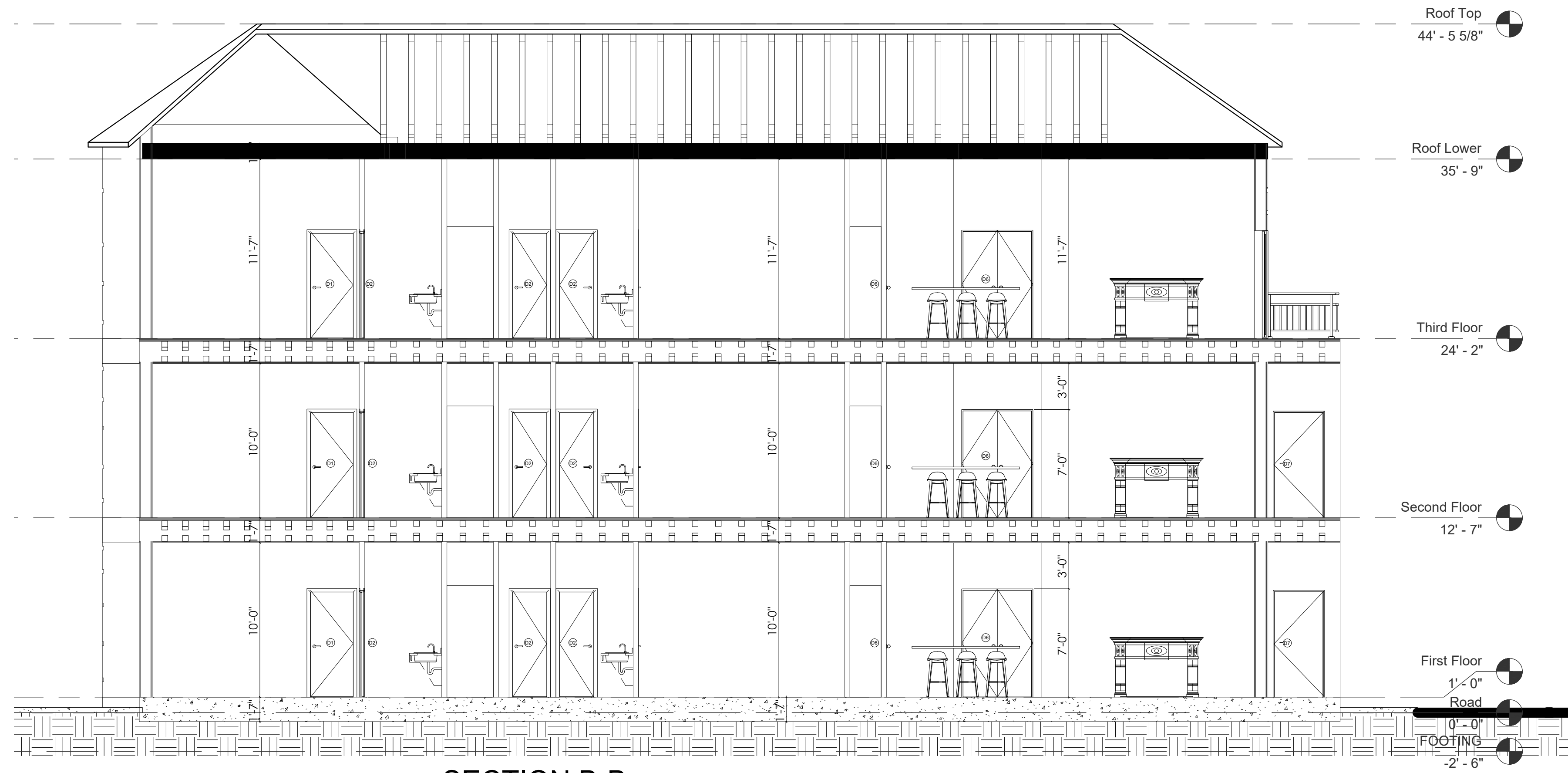


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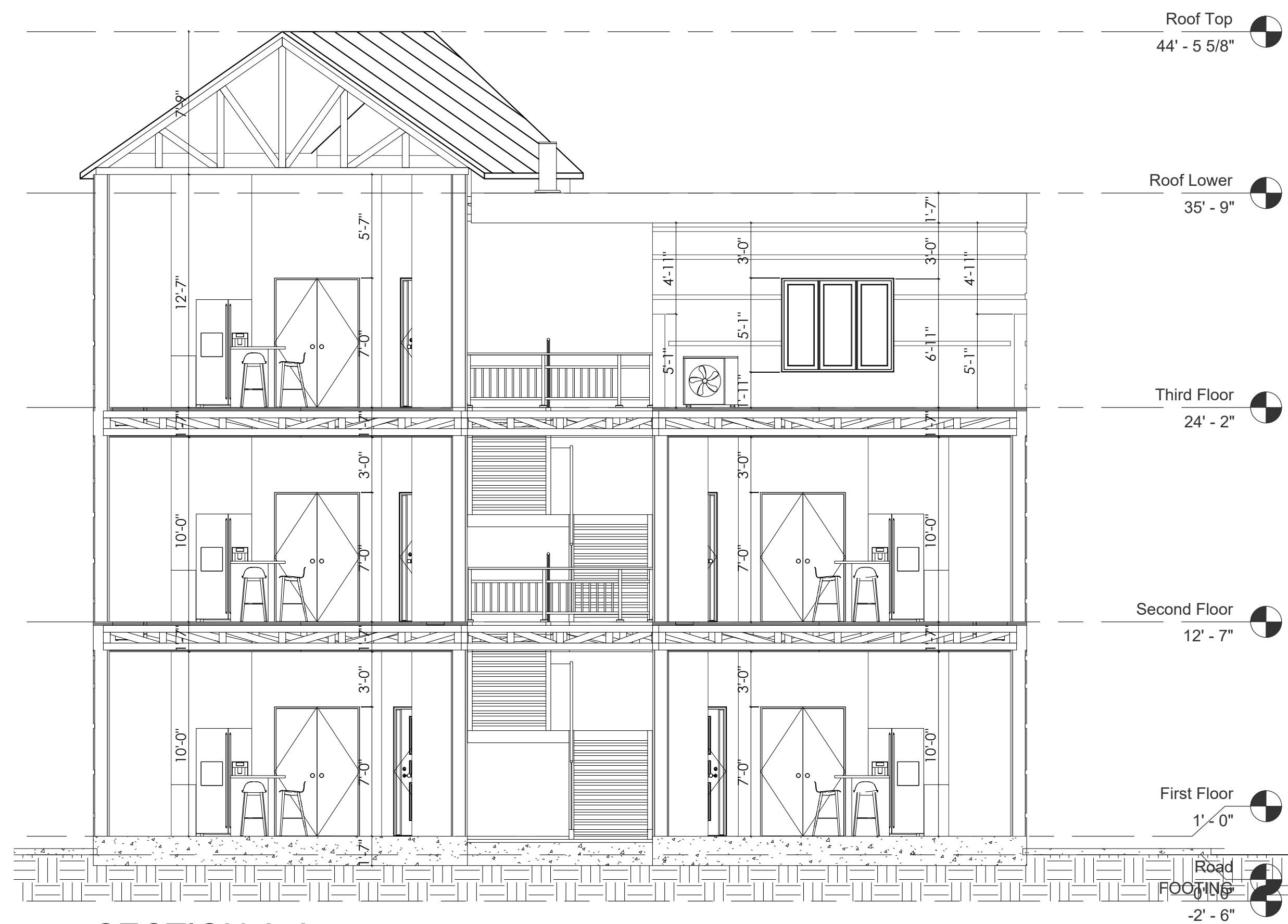
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Project Name and Address
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 RALEIGH, NC 27603

Project	SECTIONS	Sheet
Date	8/16/2024	A-10
Scale	3/16" = 1'-0"	



3 SECTION B-B
3/16" = 1'-0"

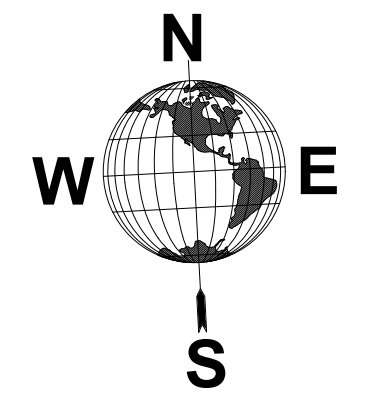


2 SECTION A-A
3/16" = 1'-0"



3 SECTION B-B
3/16" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

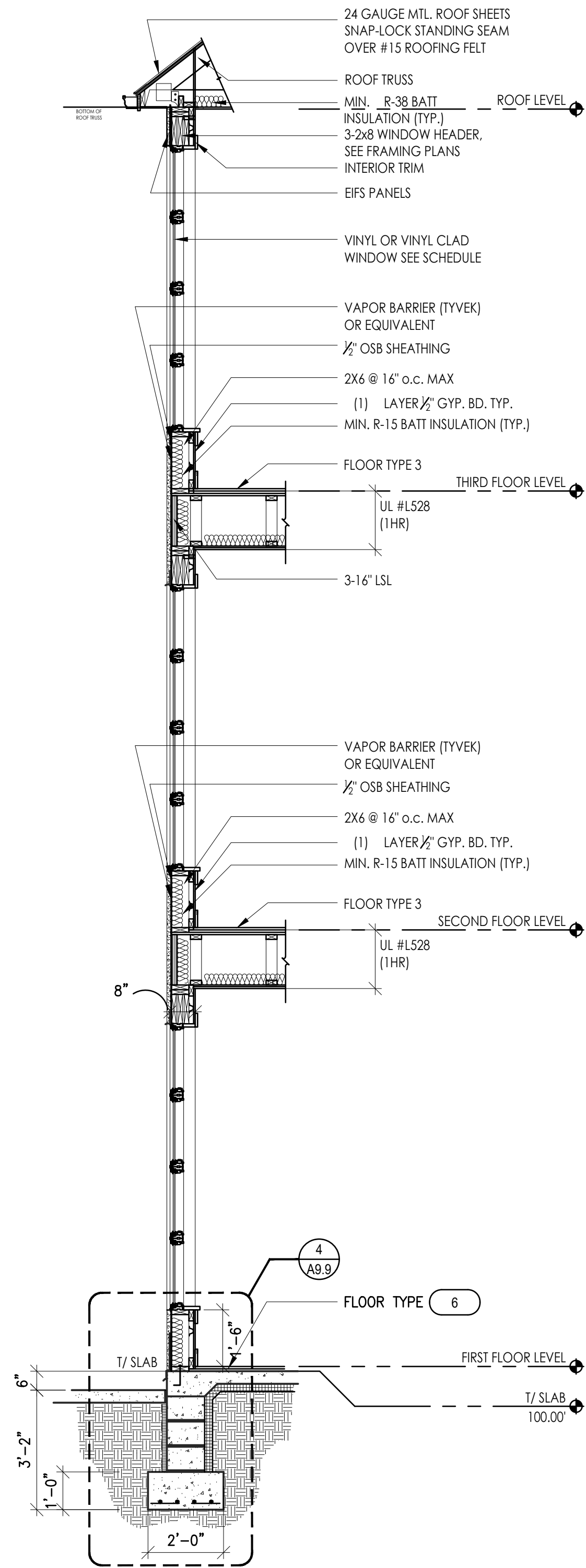


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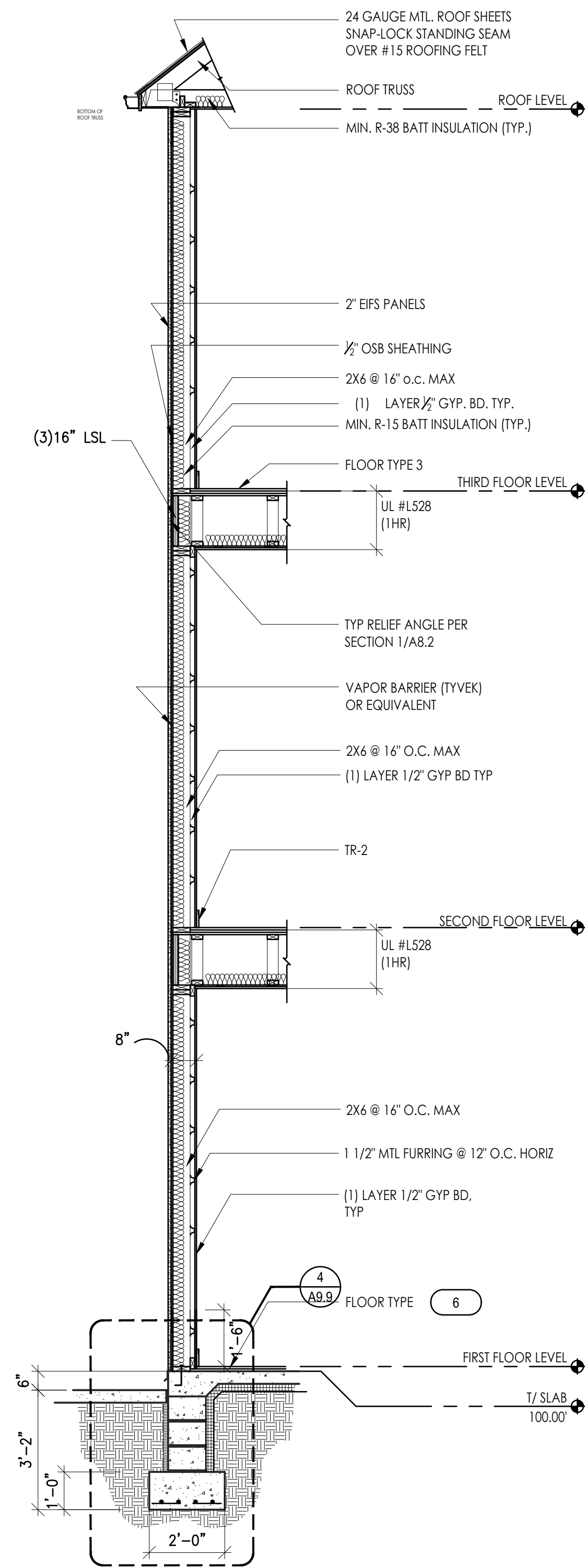
Firm Name and Address

Project Name and Address
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 RALEIGH, NC 27603

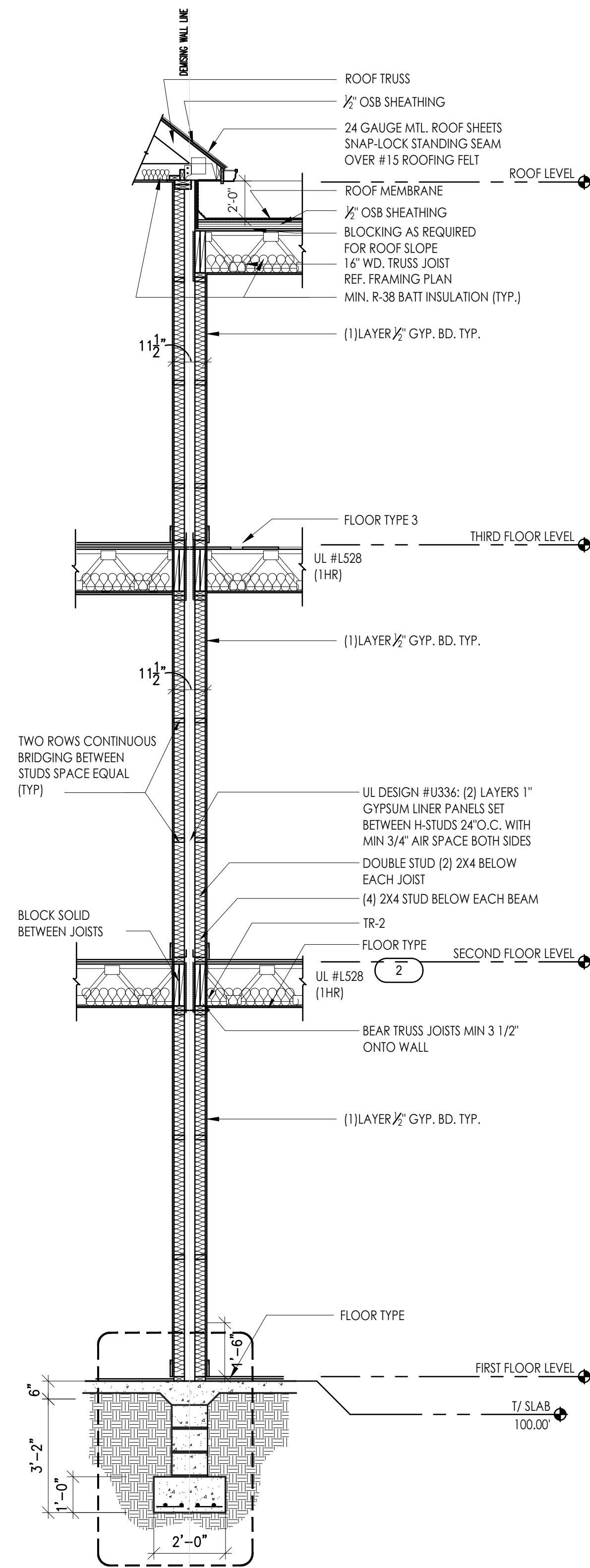
Project	SECTIONS	Sheet
Date	8/16/2024	A-11
Scale	3/16" = 1'-0"	



1 WALL SECTION
 3/8" = 1'-0"
 (0329-DE10-H)



2 WALL SECTION
 3/8" = 1'-0"
 (0329-DE10-H)

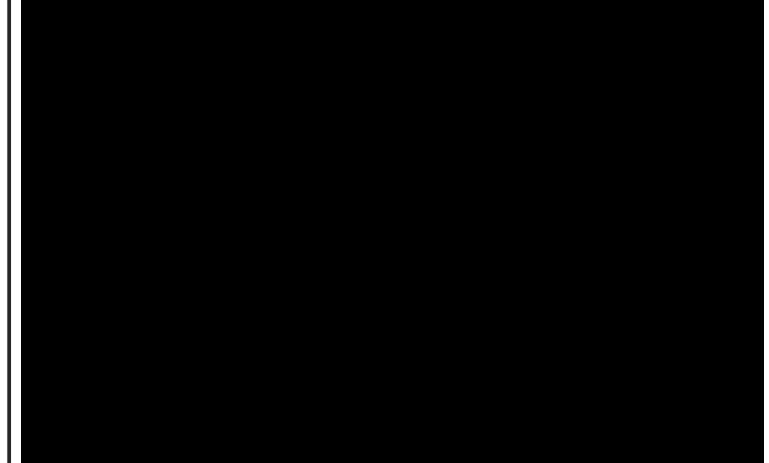


3 WALL SECTION
 3/8" = 1'-0"
 (0329-DE01-H)

No.	REVISION/ISSUE	Date

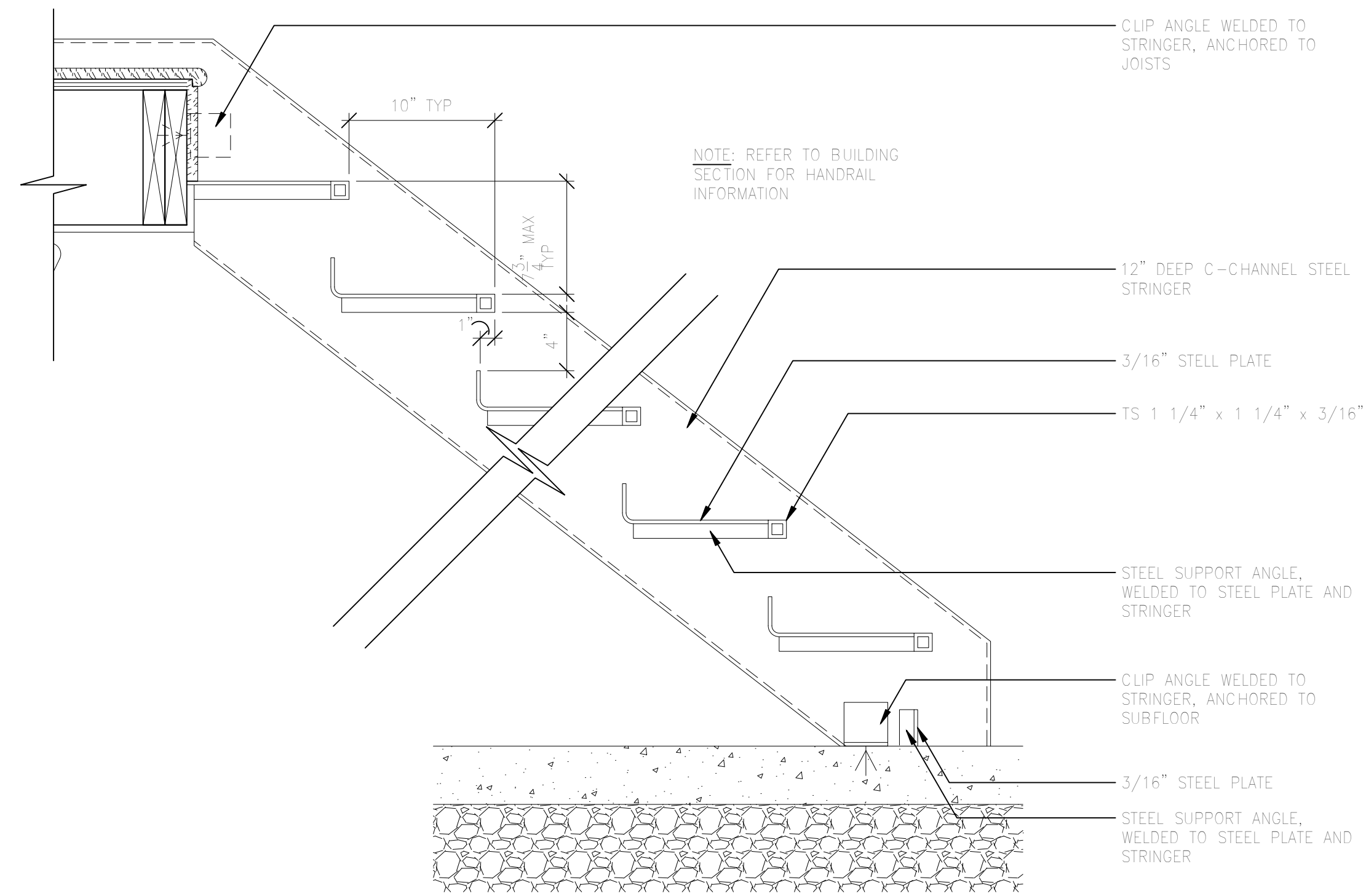


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Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

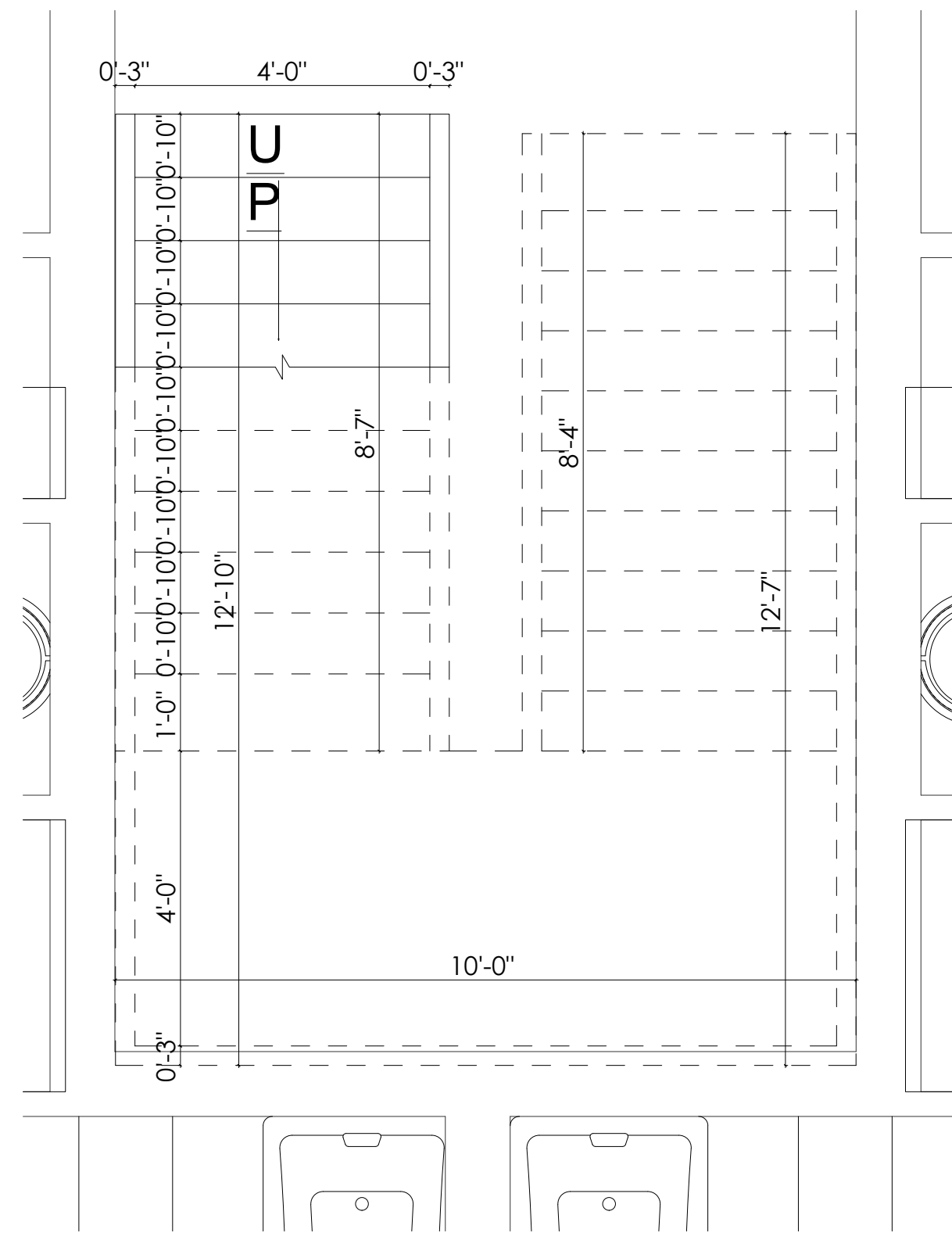
Project	Sheet
WALL SECTIONS	A-12
Date	8/16/2024
Scale	As Noted



2 TYPICAL SECTION THROUGH EXTERIOR METAL STAIR

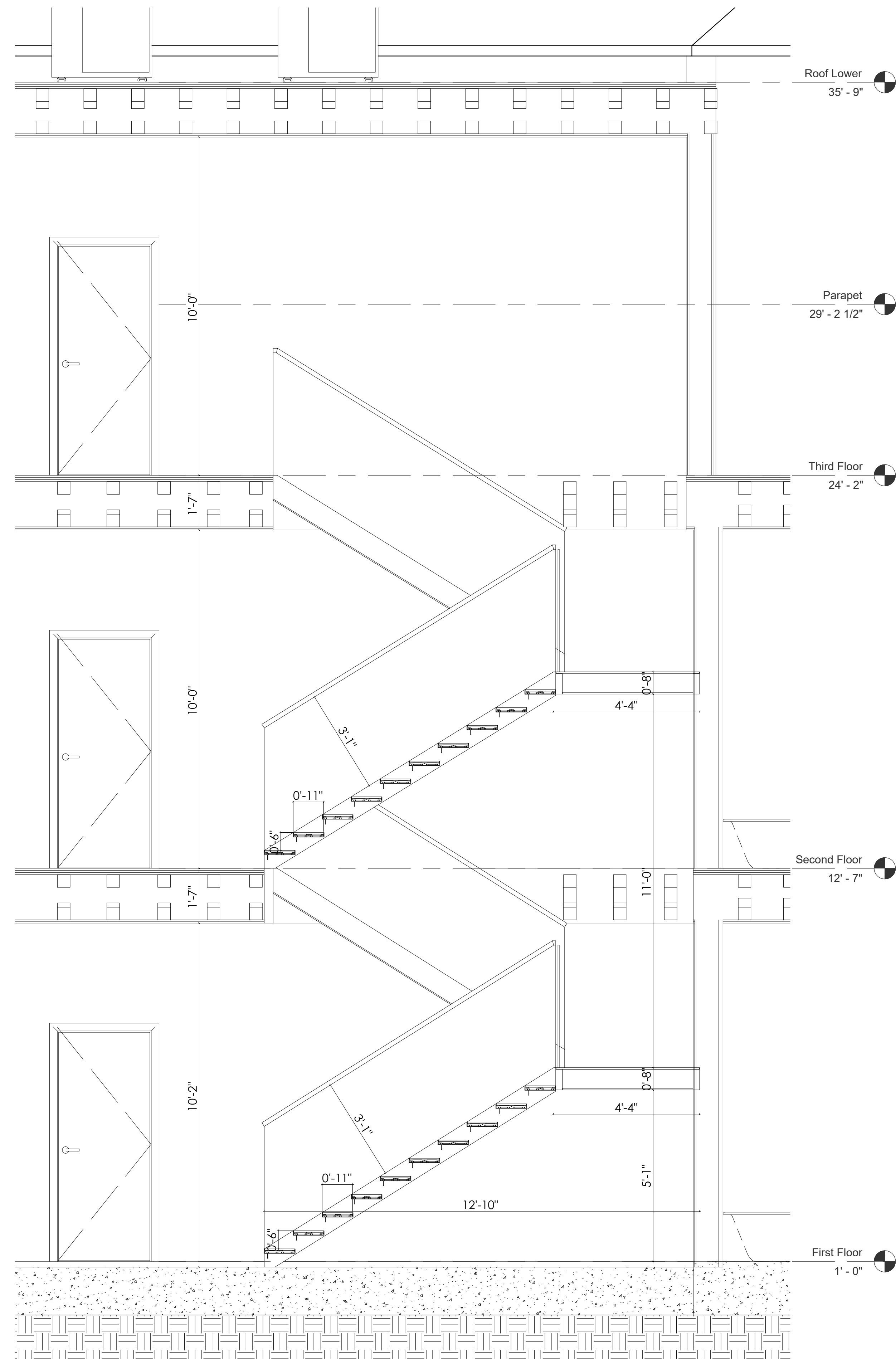
1 1/2" = 1'-0"

(0329-DE40-0)



2 STAIR PLAN

1/2" = 1'-0"



3 STAIR SECTION

1/2" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

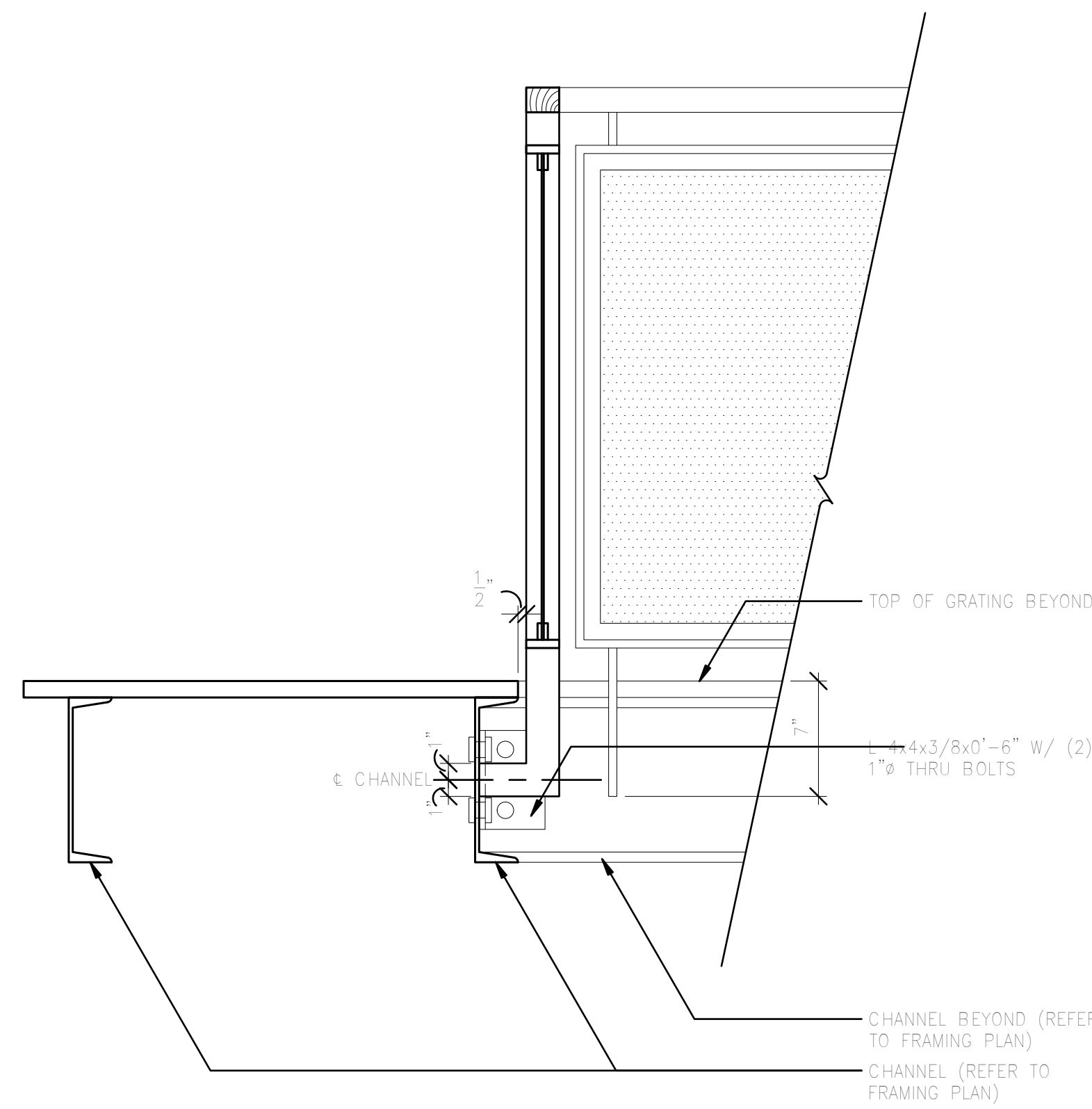


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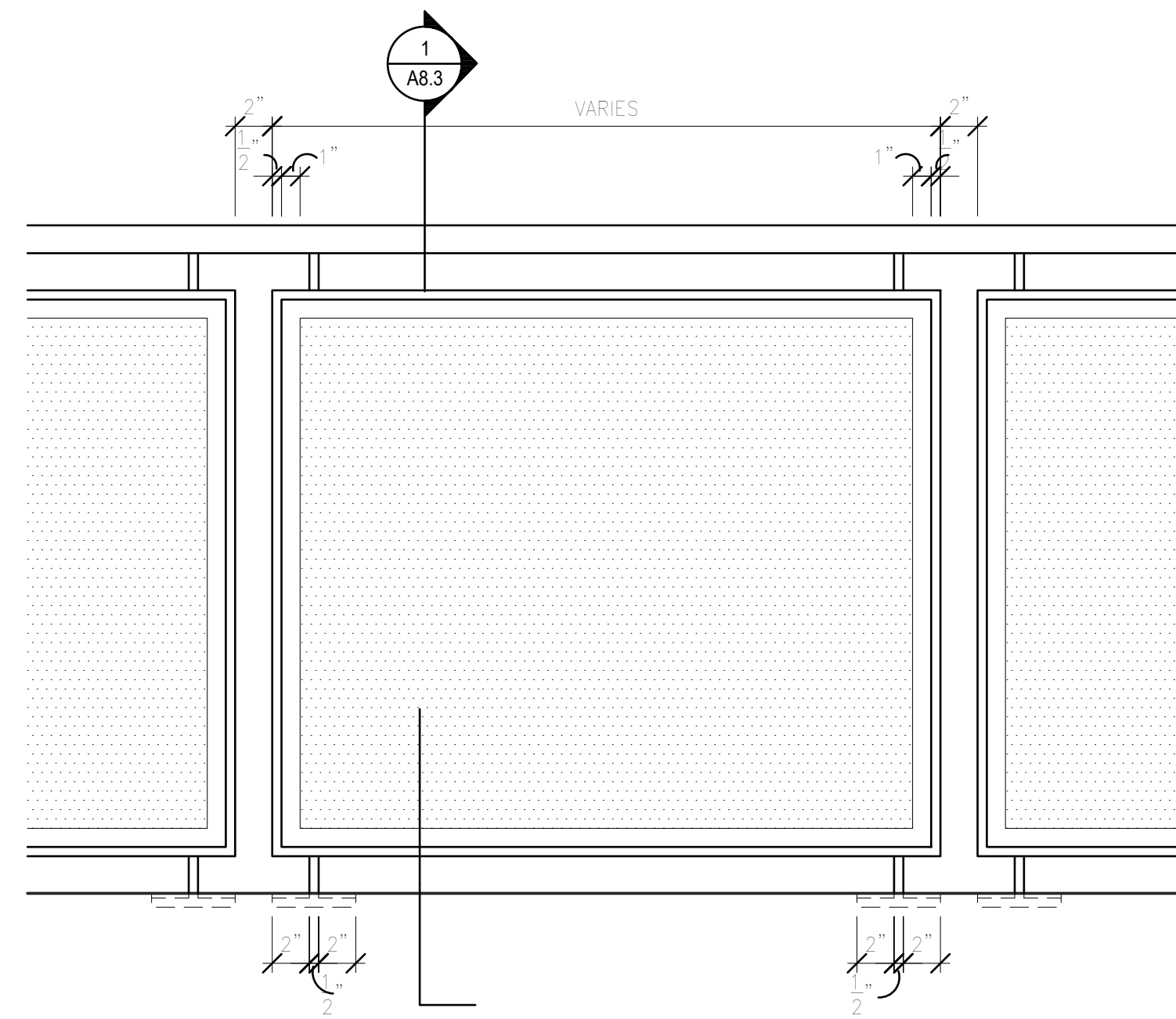
Firm Name and Address

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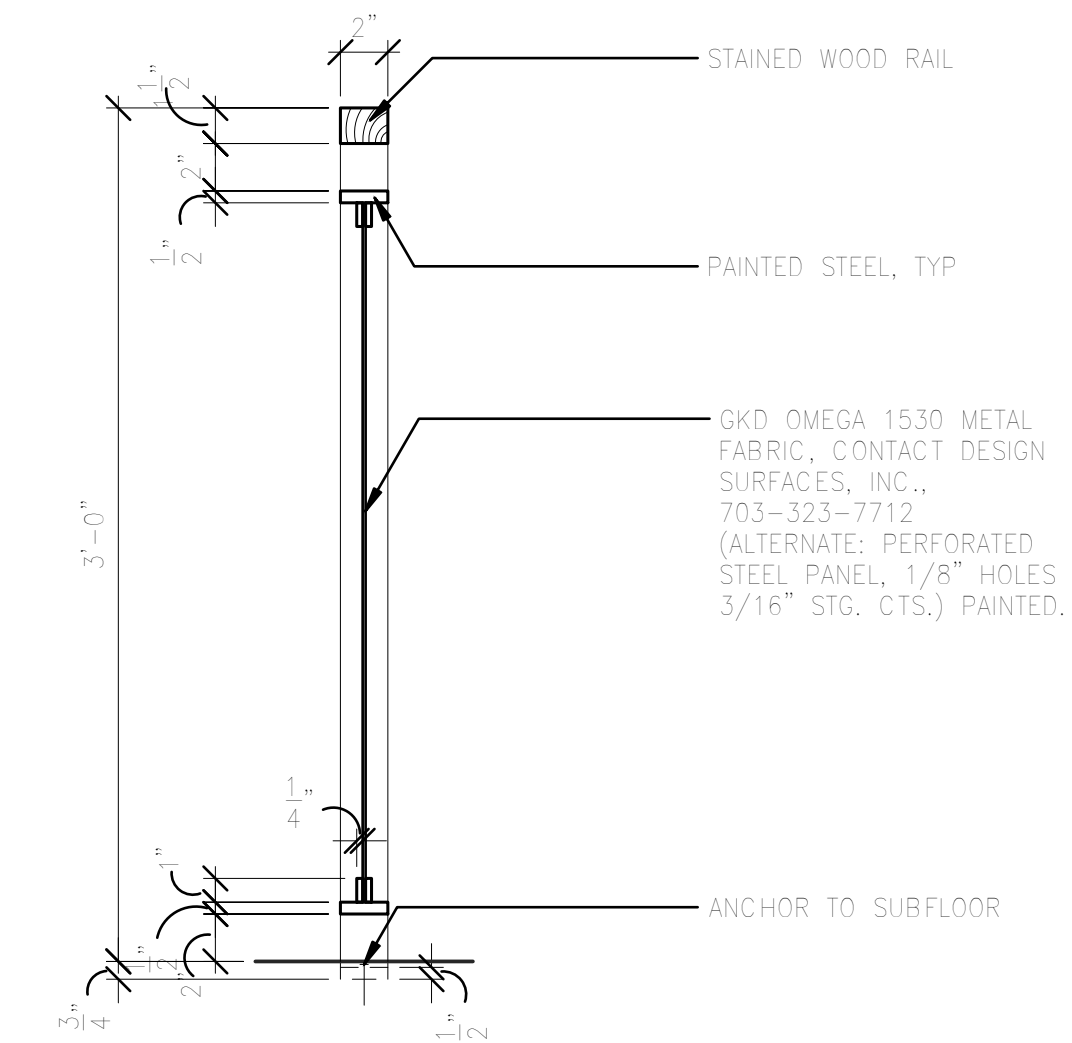
Project STAIR DETAILS	Sheet A-13
Date 8/16/2024	
Scale As indicated	



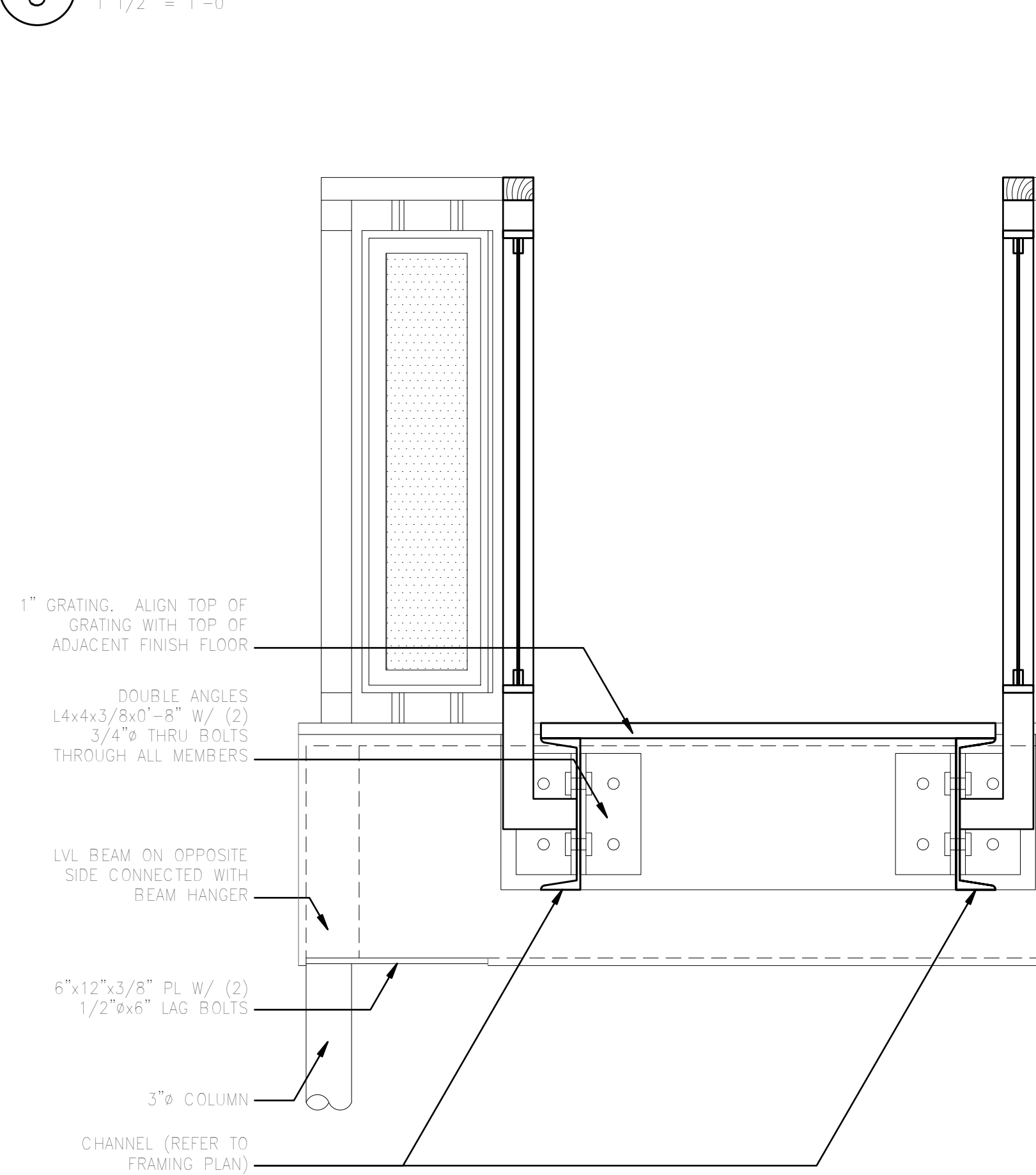
3 SECTION THROUGH CATWALK
1 1/2" = 1'-0"



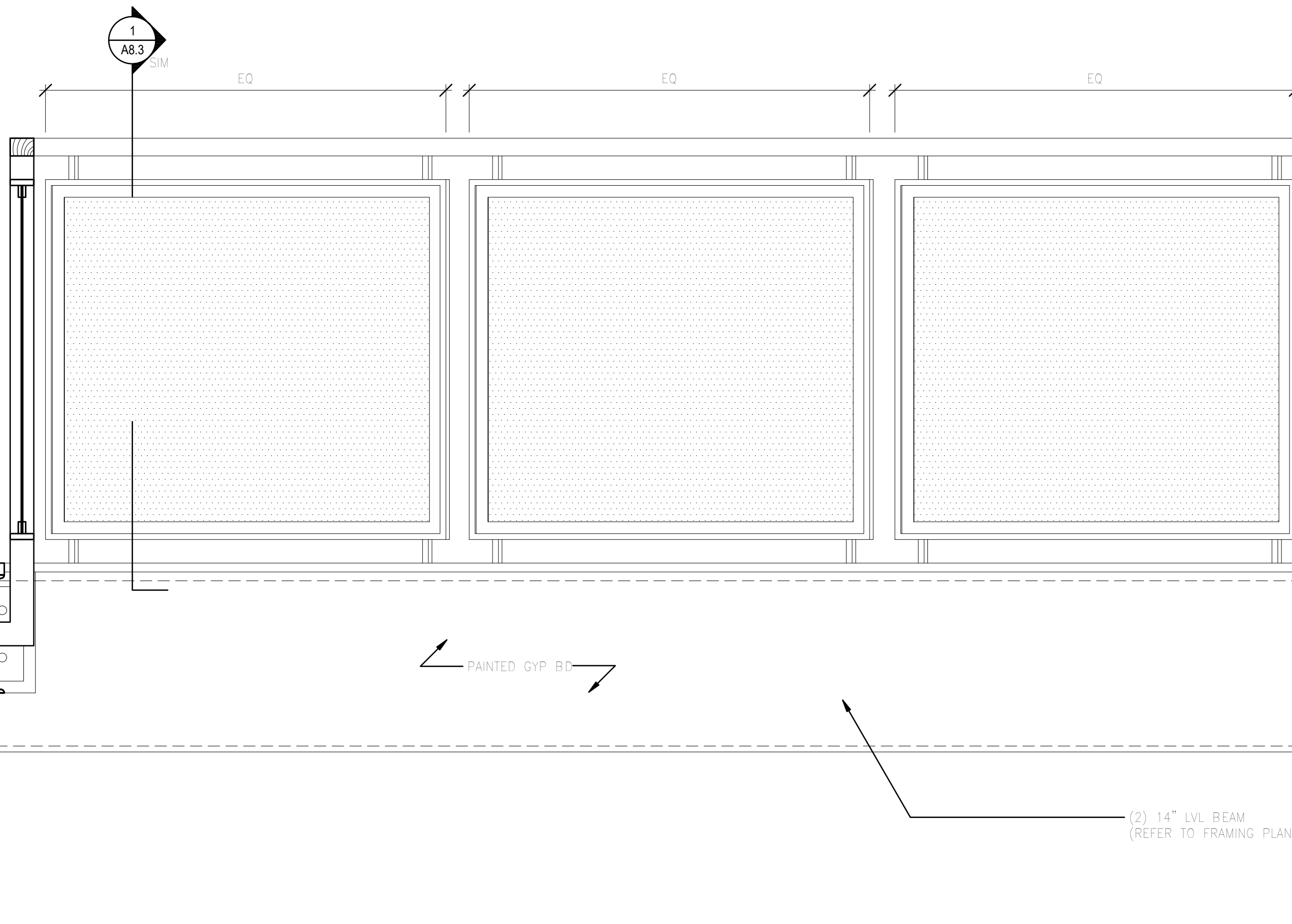
2 TYPICAL HANDRAIL ELEVATION
1 1/2" = 1'-0"



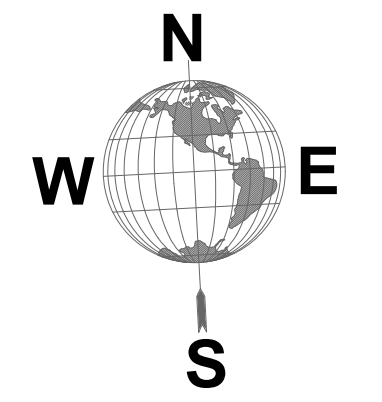
1 TYPICAL HANDRAIL SECTION
1 1/2" = 1'-0"



4 SECTION THROUGH CATWALK
1 1/2" = 1'-0"



GENERAL NOTES



No.	REVISION/ISSUE	Date

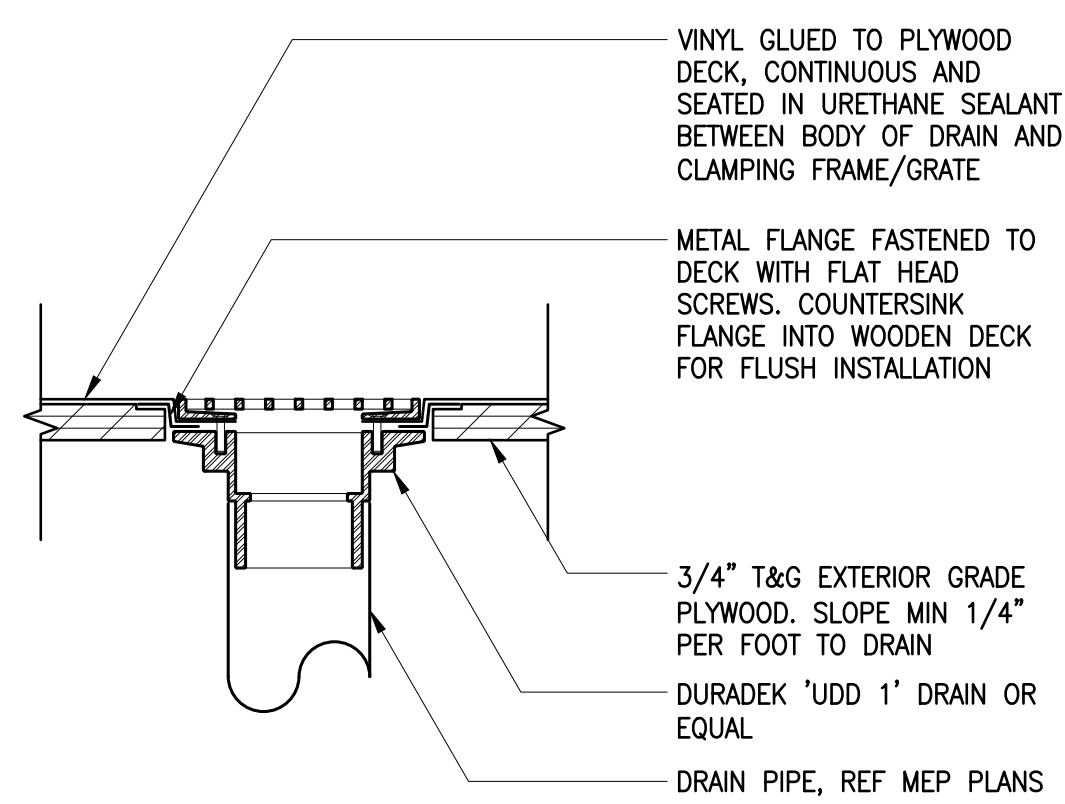


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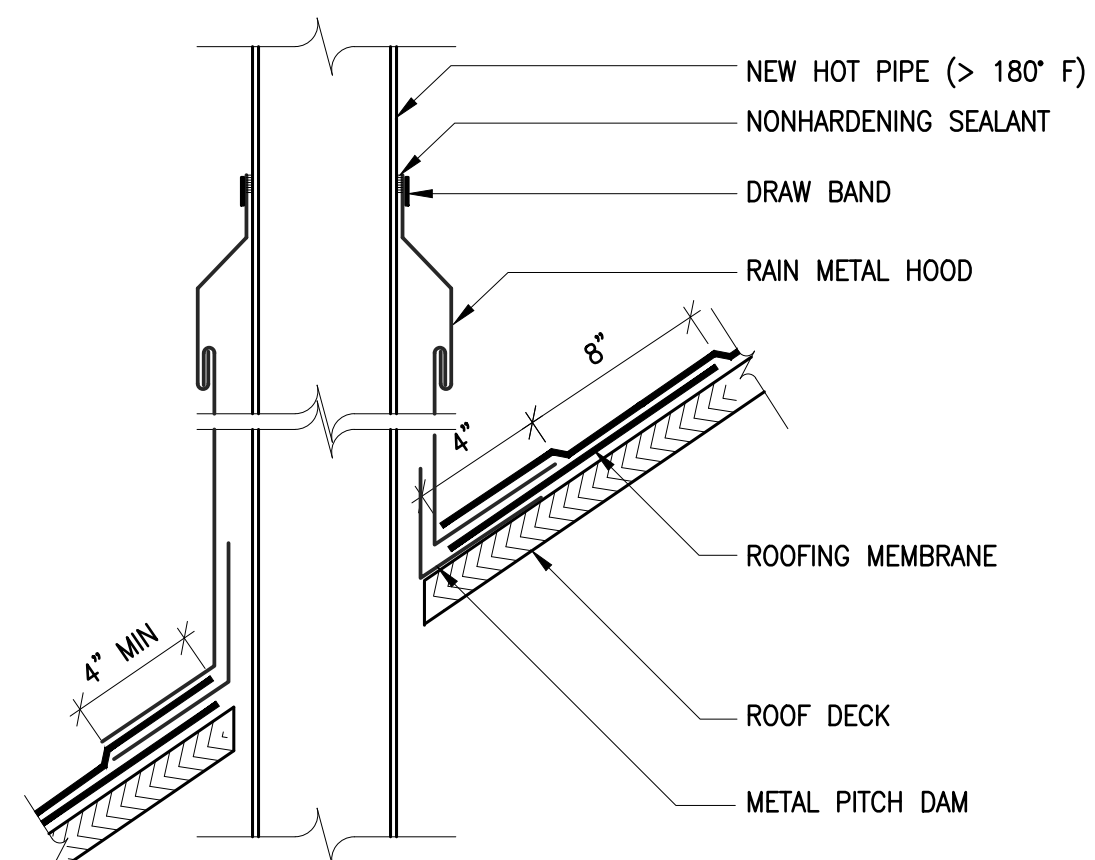
Firm Name and Address

Project Name and Address
DURHAM APARTMENTS BUILDING
 3015 TRYON ROAD
 RALEIGH, NC 27603

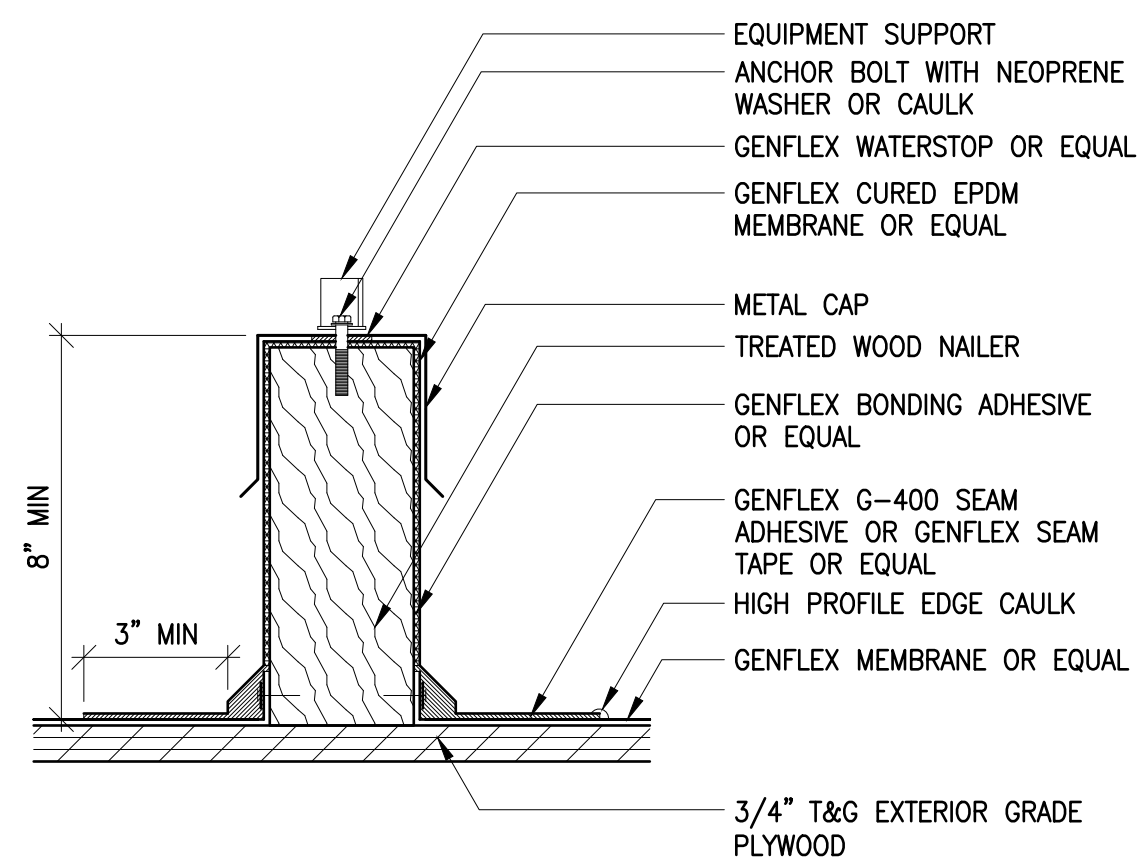
DATE	SHEET
NAME HANDRAIL DETAILS	Sheet
Date 8/16/2024	A-14
Scale 1 1/2" = 1'-0"	



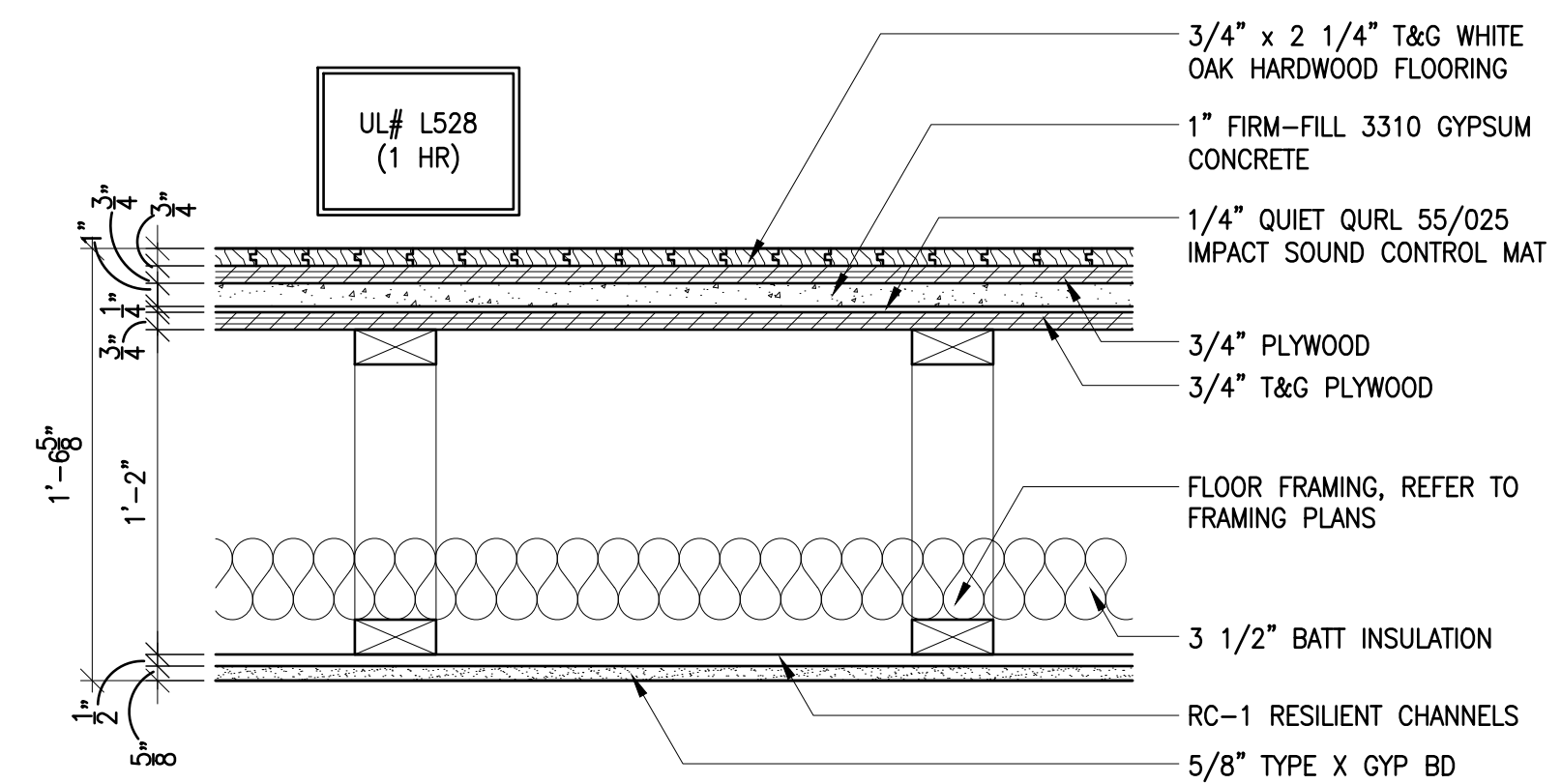
1 SECTION @ ROOF DRAIN
3" = 1'-0" (0329-DE28-C)



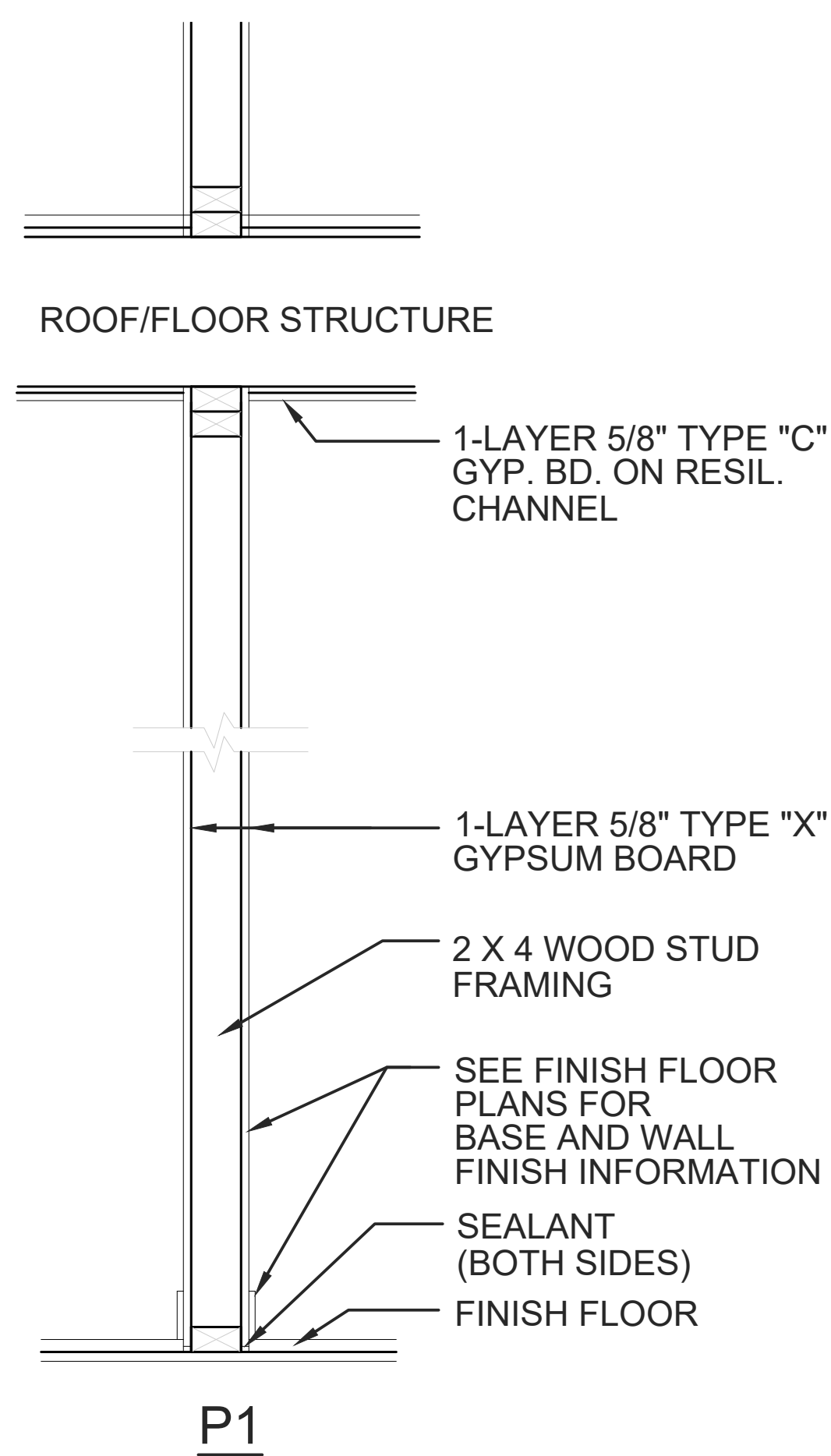
2 TYP HOT PIPE THRU ROOF DETAIL
3" = 1'-0" (0371/SDE12-C)



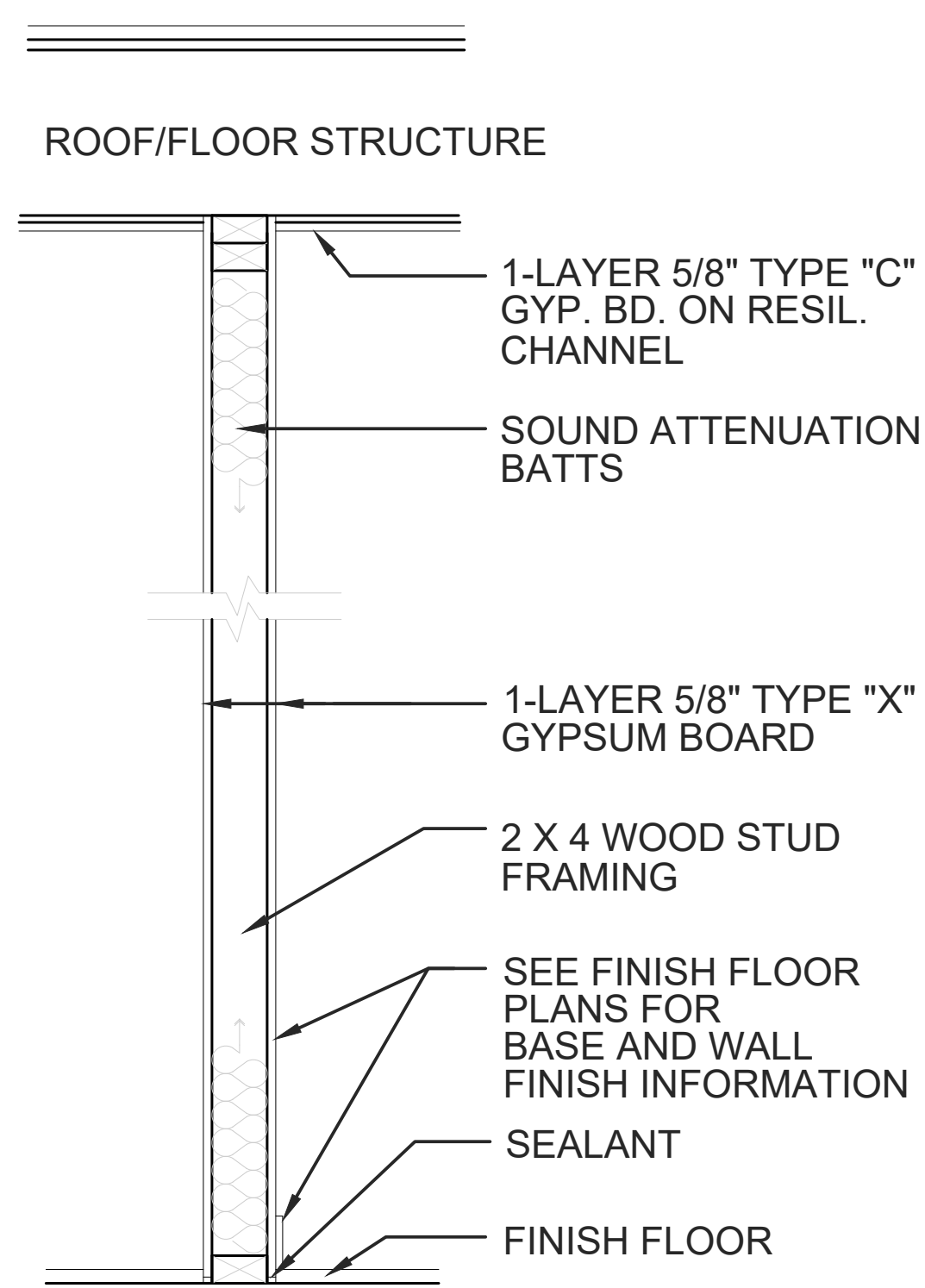
3 SECTION
3" = 1'-0" (0329-DE24-C)



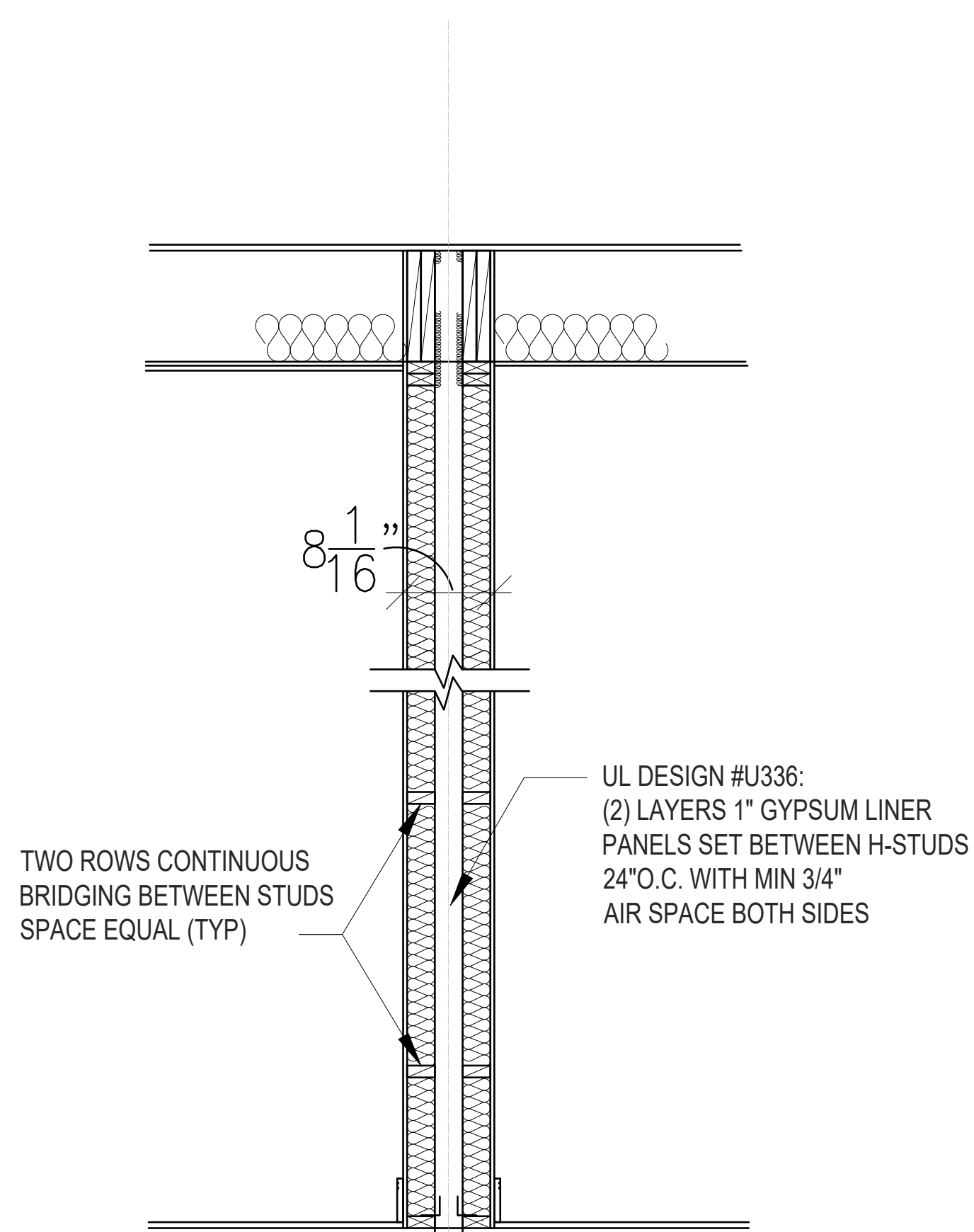
4 FLOOR TYPE 3
1 1/2" = 1'-0" (0329-DE15-D)



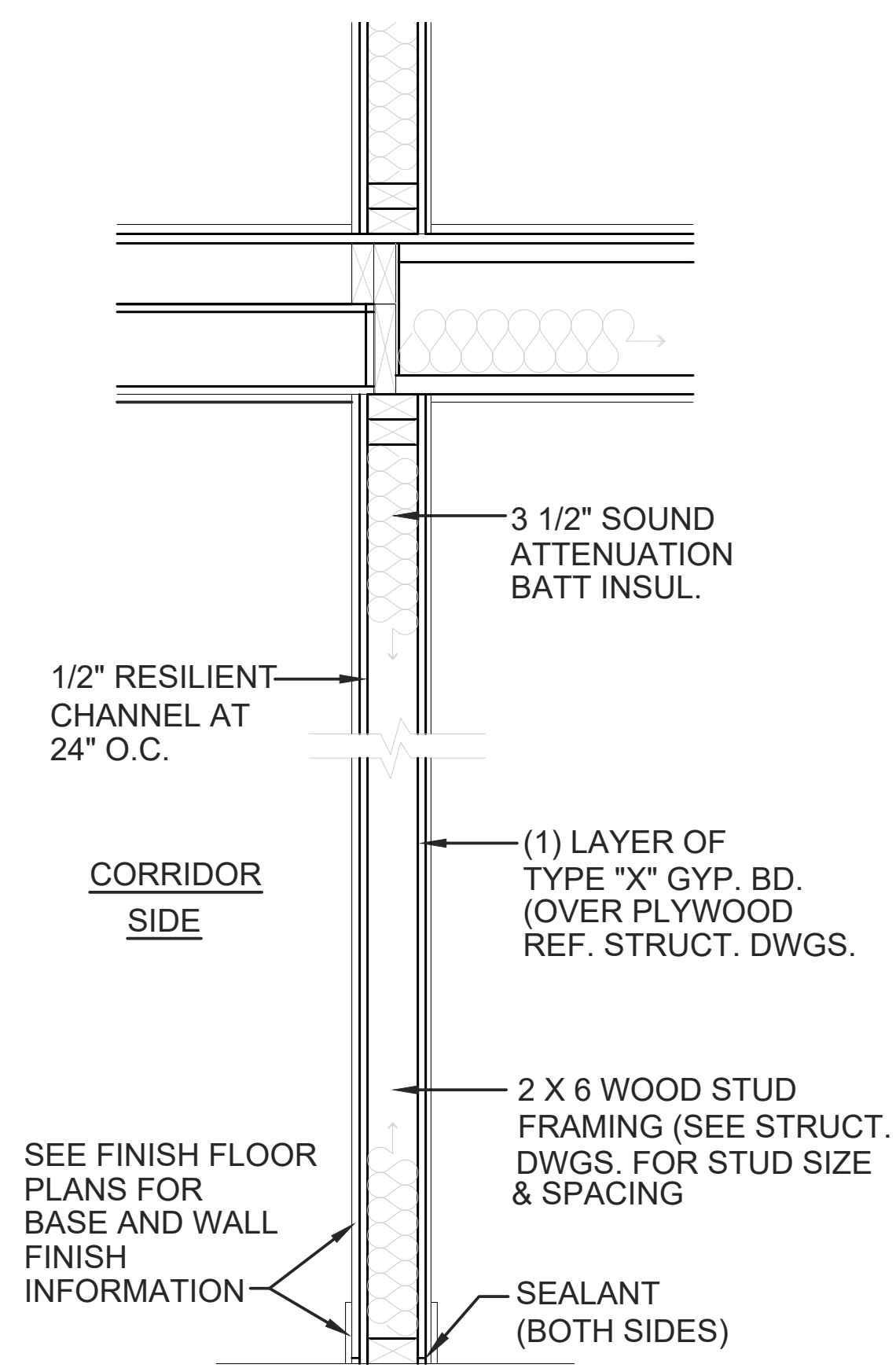
P1



P2



P3



P4/5

5 WALL TYPES
N.T.S.

GENERAL NOTES

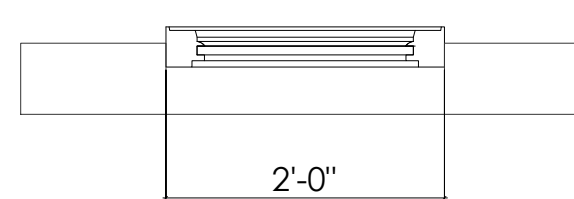
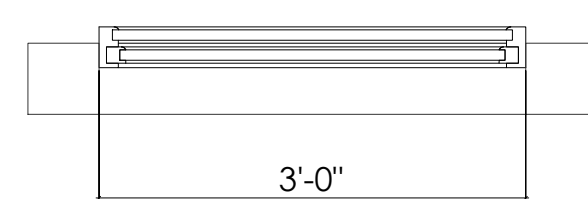
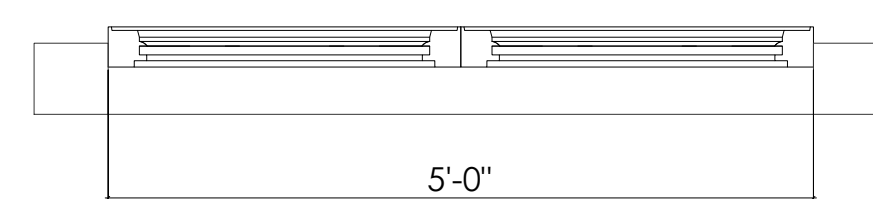
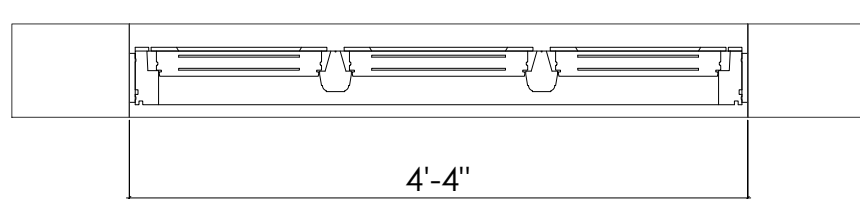
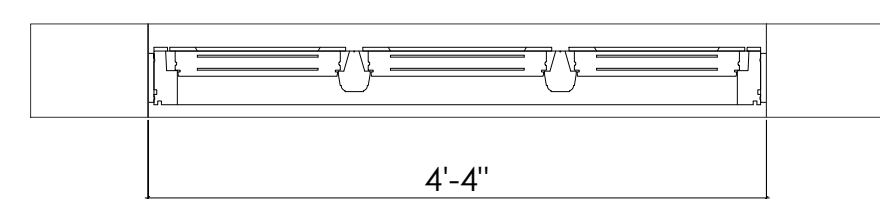
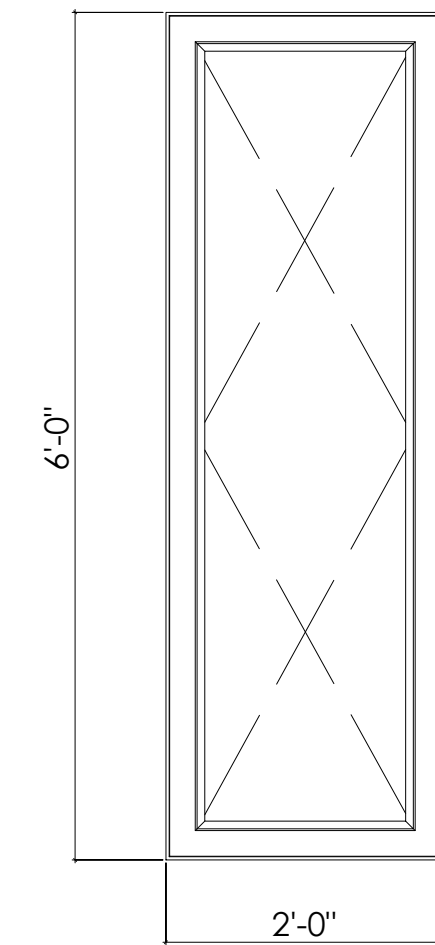
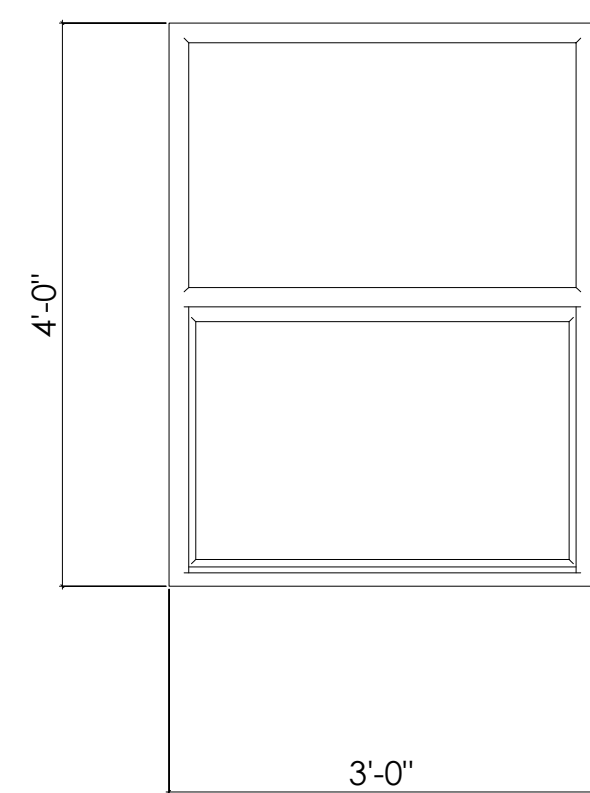
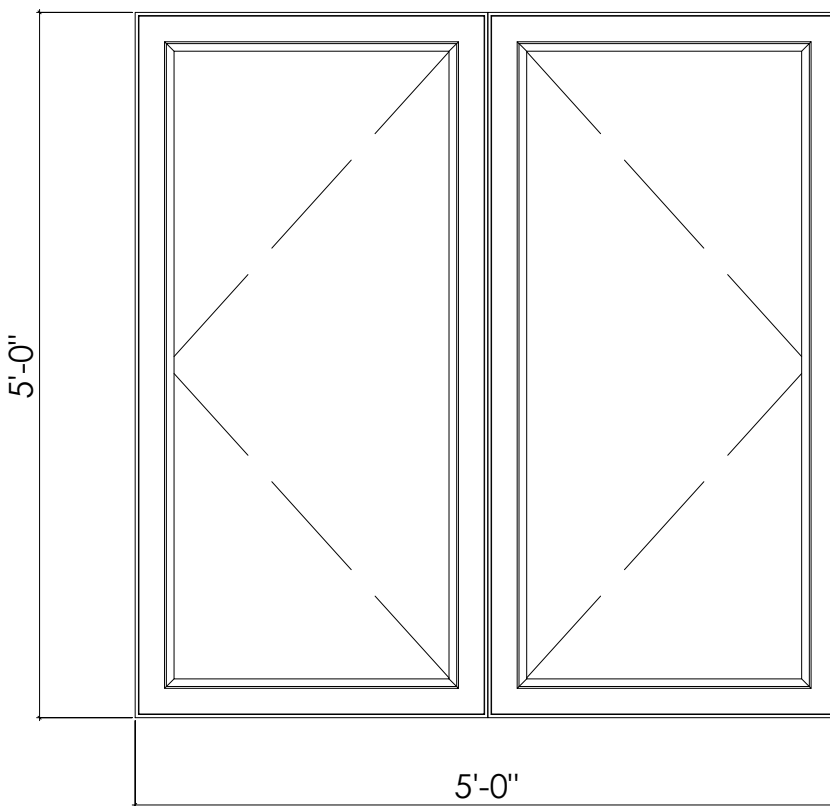
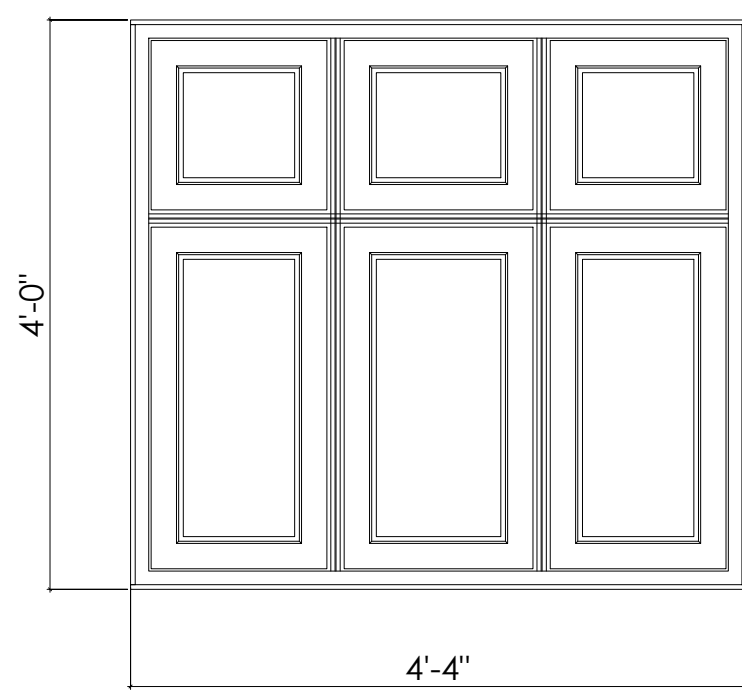
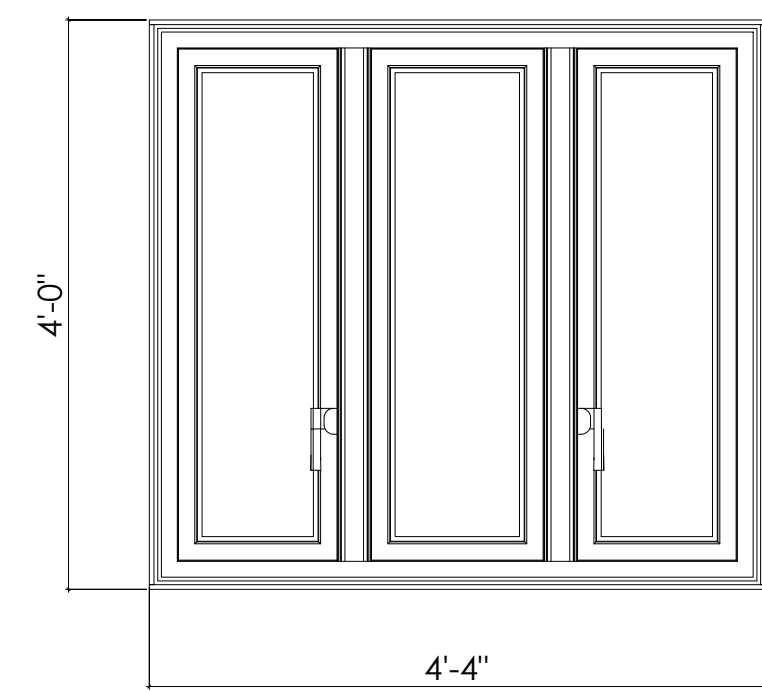
No.	REVISION/ISSUE	Date



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Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

Project	Sheet
WALL TYPES & DETAILS	A-15
Date	8/16/2024
Scale	As Noted



W

W

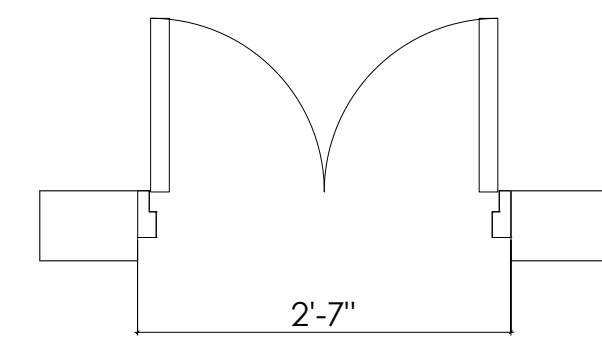
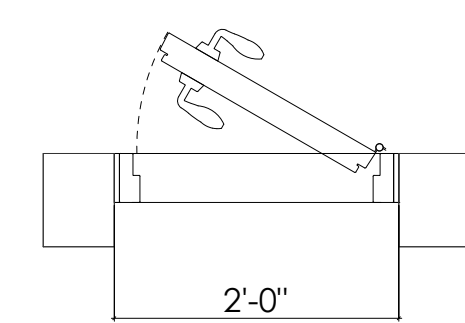
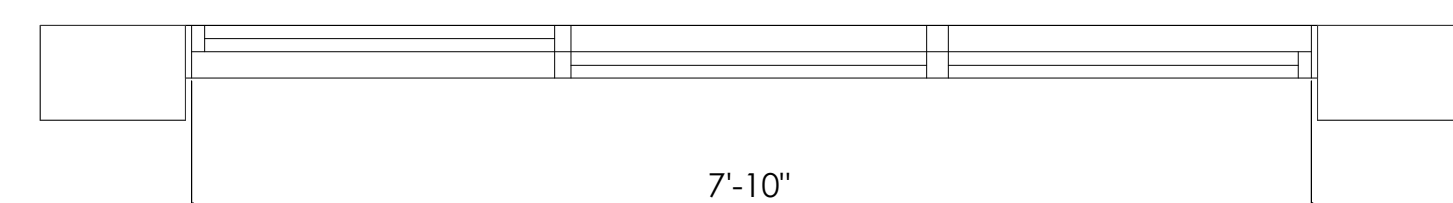
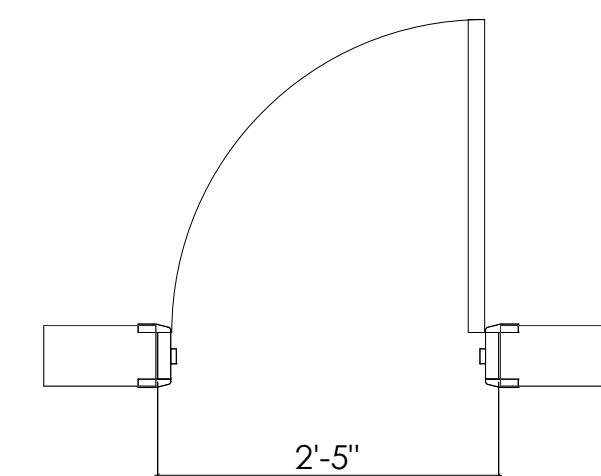
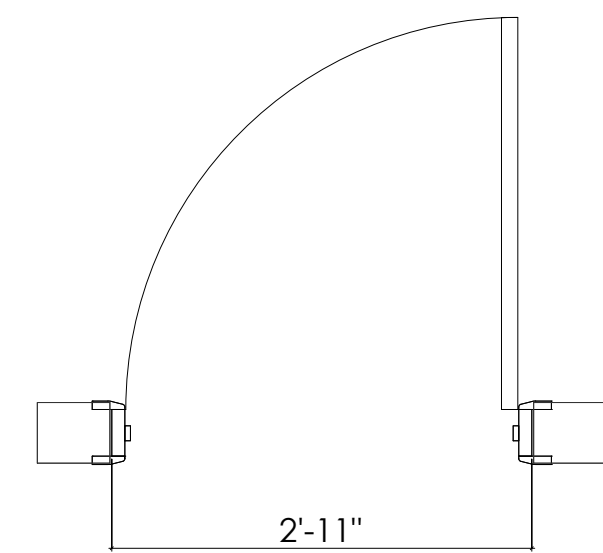
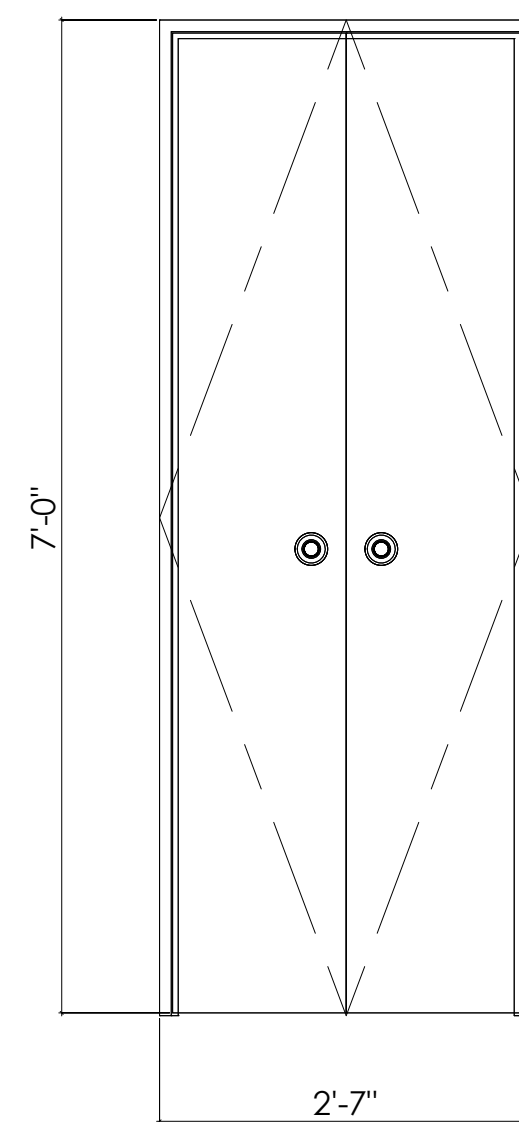
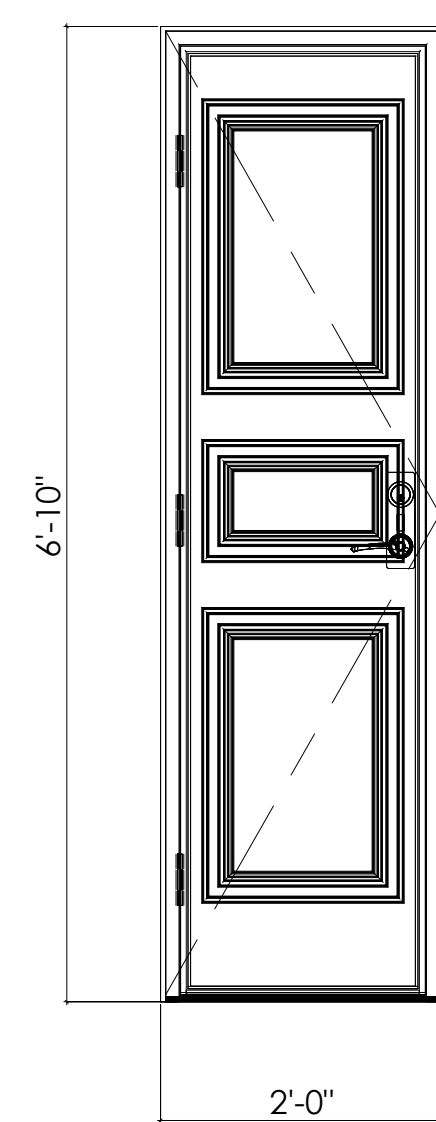
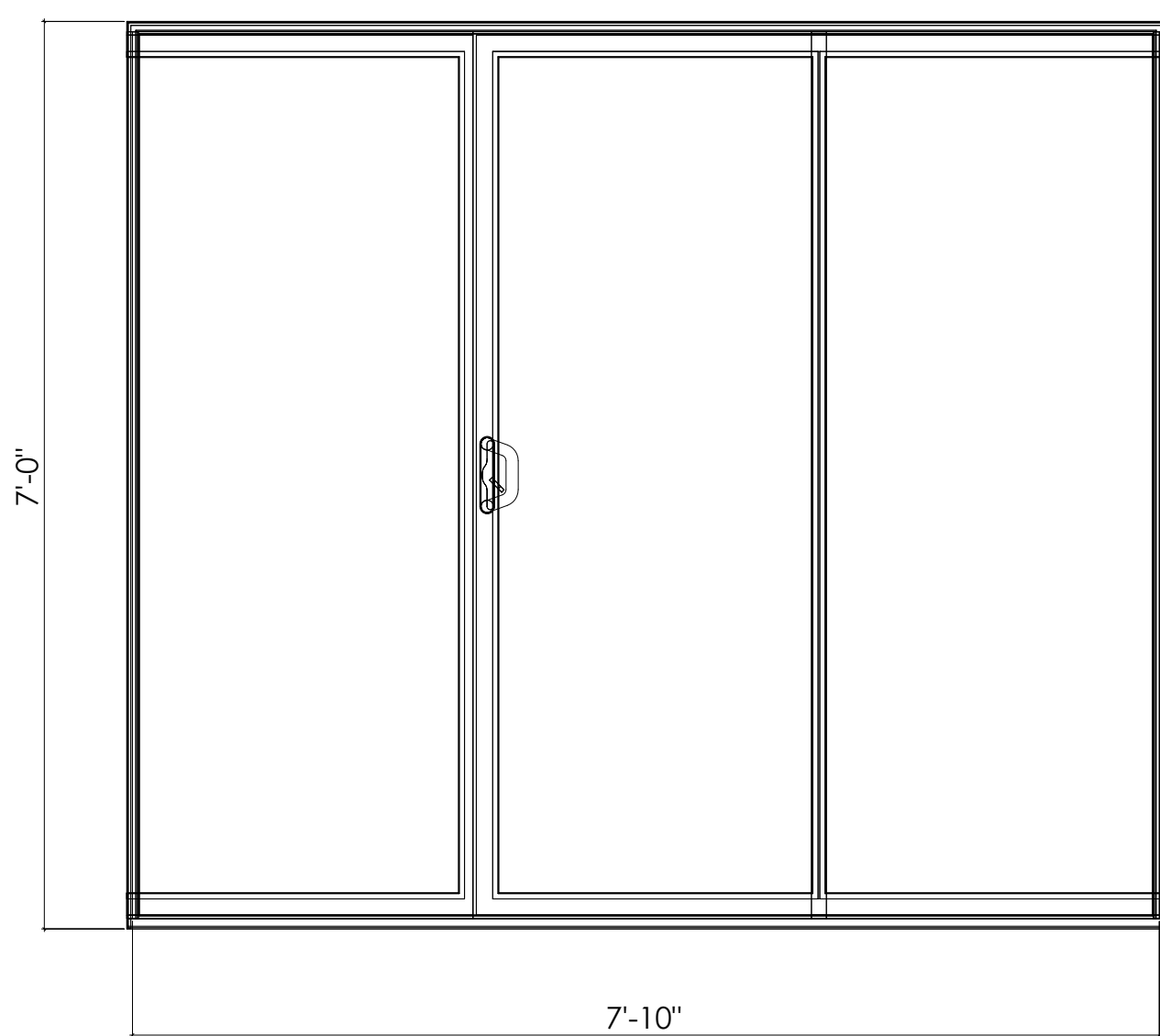
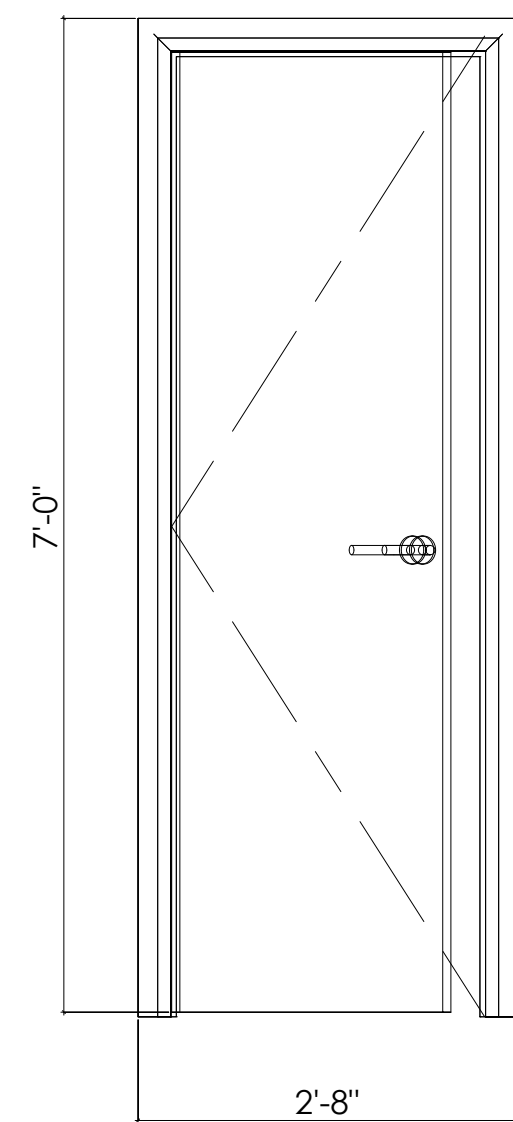
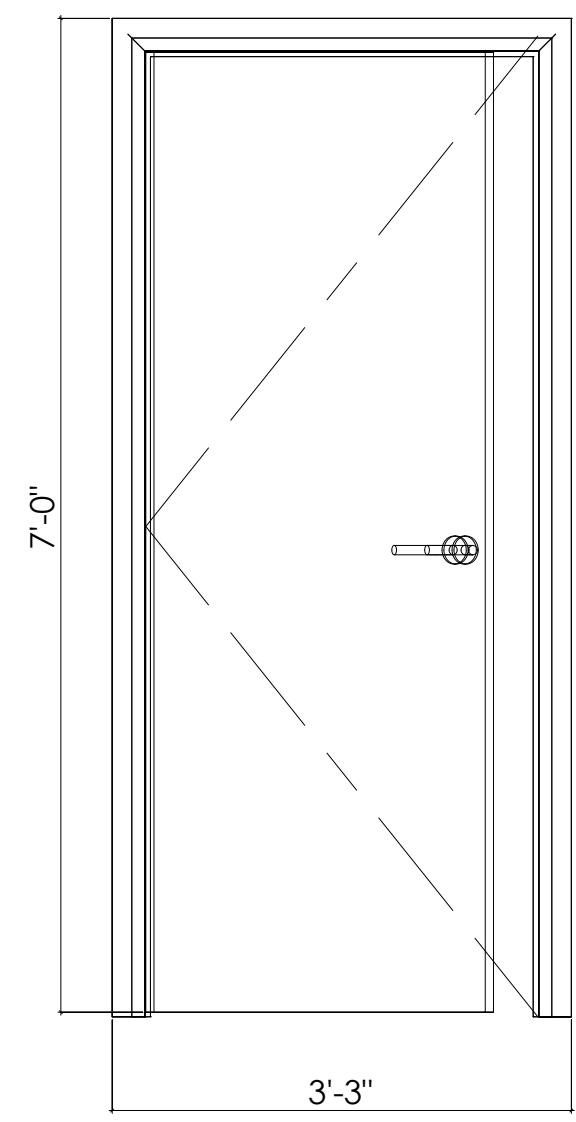
W3

W

W

Window Schedule					
Type Mark	Type	Width	Height	Sill Height	Description
W1	Window - Type 1	6' - 0"	5' - 0"	1' - 10 7/8"	
W1: 8					
W2	Window - Type 5	4' - 11 1/2"	4' - 11 1/2"	2' - 0 5/8"	
W2: 21					
W3	Window type 3	3' - 0"	3' - 11 1/2"	3' - 1 3/4"	
W3: 10					
W4	Window type 4	1' - 11 1/2"	5' - 11 1/2"	1' - 2"	
W4: 6					
W5	Window Type 2	4' - 11 1/2"	4' - 11 1/2"	2' - 0 5/8"	
W5: 1					
Grand total: 46					

WINDOW
3/4" = 1'-0"



D
4

D
5

D

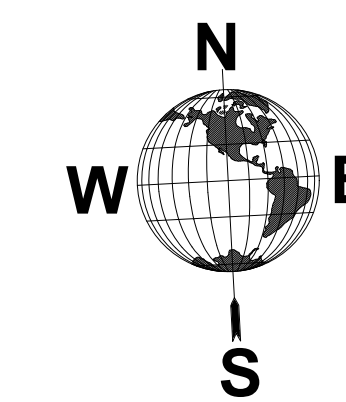
D
4

D
7

Door Schedule				
Type Mark	Type	Width	Head Height	Description
D1	Room Door	2' - 9 1/16"	6' - 9"	
D1: 22				
D2	Toilets Door	2' - 2 3/8"	6' - 9"	
D2: 21				
D3	T D4	7' - 11 1/2"	6' - 11 1/2"	Aluminum Doors
D3: 1				
D4	Closet Door	2' - 7 1/8"	6' - 11 5/8"	
D4: 15				
D5	Closet Door 2	2' - 7 1/2"	7' - 0"	
D5: 5				
D6	Closet Door 3	4' - 7 1/8"	6' - 11 7/8"	
D6: 21				
D7	Terrace Door	3' - 2 13/16"	0' - 0"	
D7: 4				
Grand total: 89				

DOORS
3/4" = 1'-0"

GENERAL NOTES



No.	REVISION/ISSUE	Date

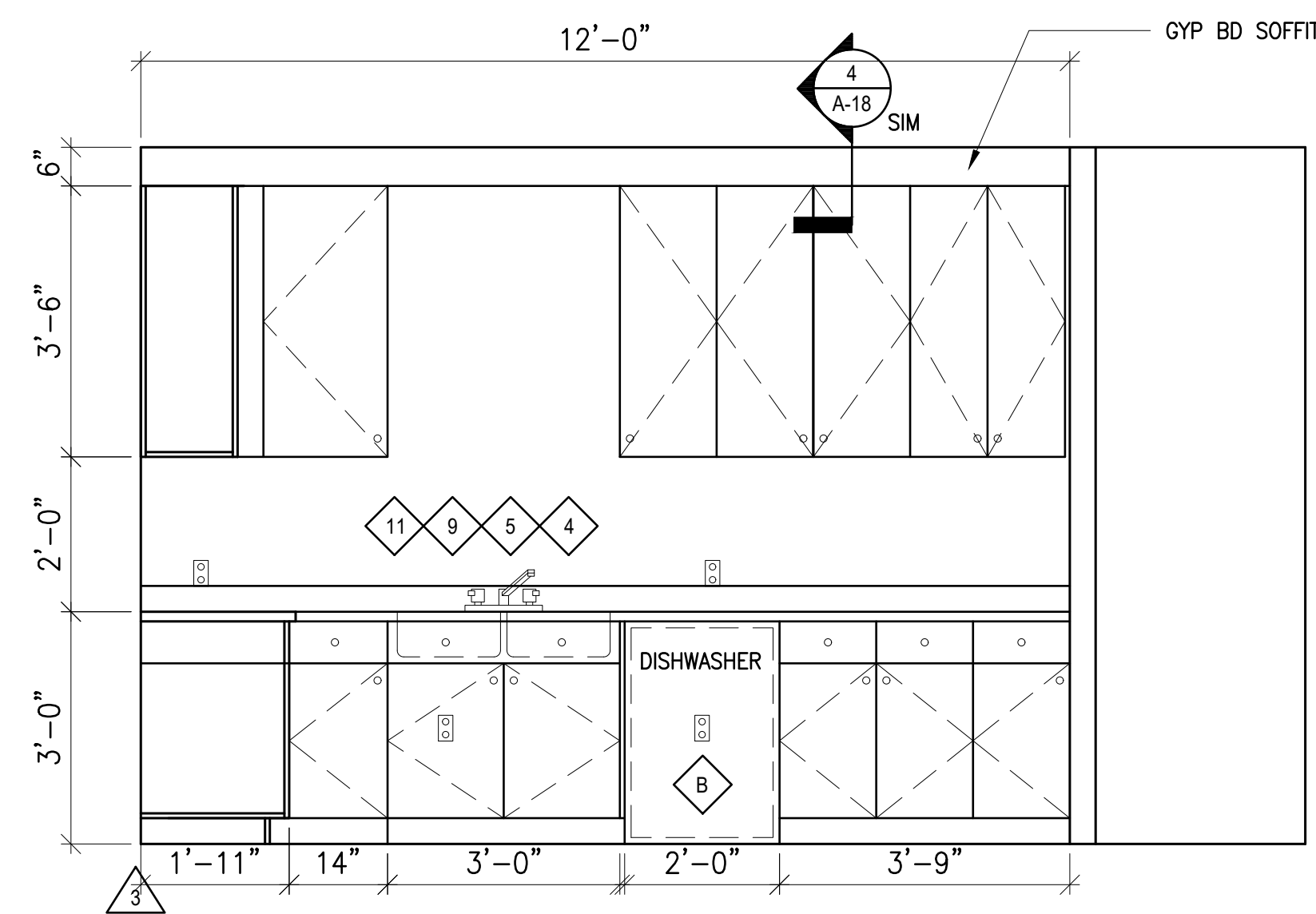


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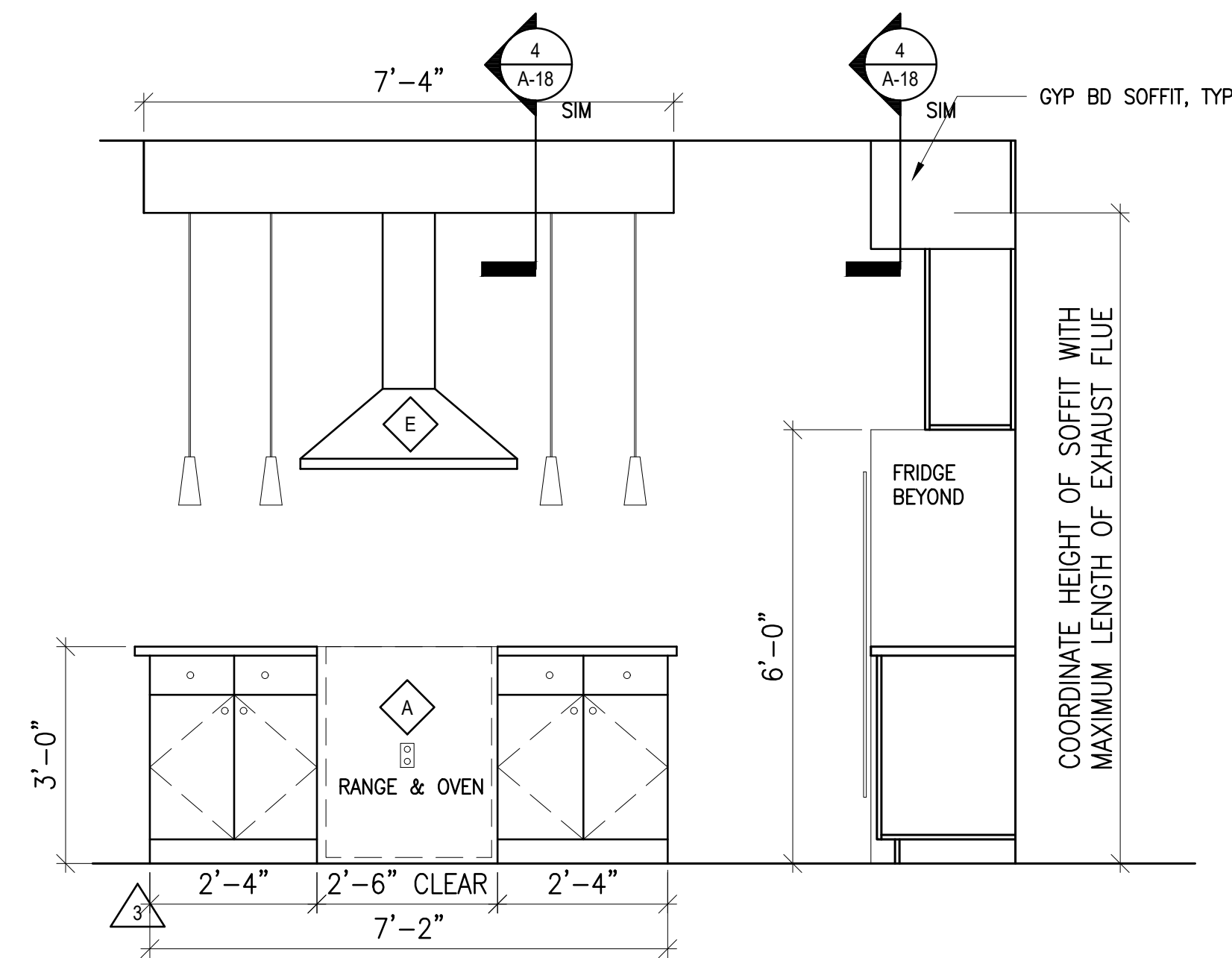
Firm Name and Address

Project Name and Address
TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

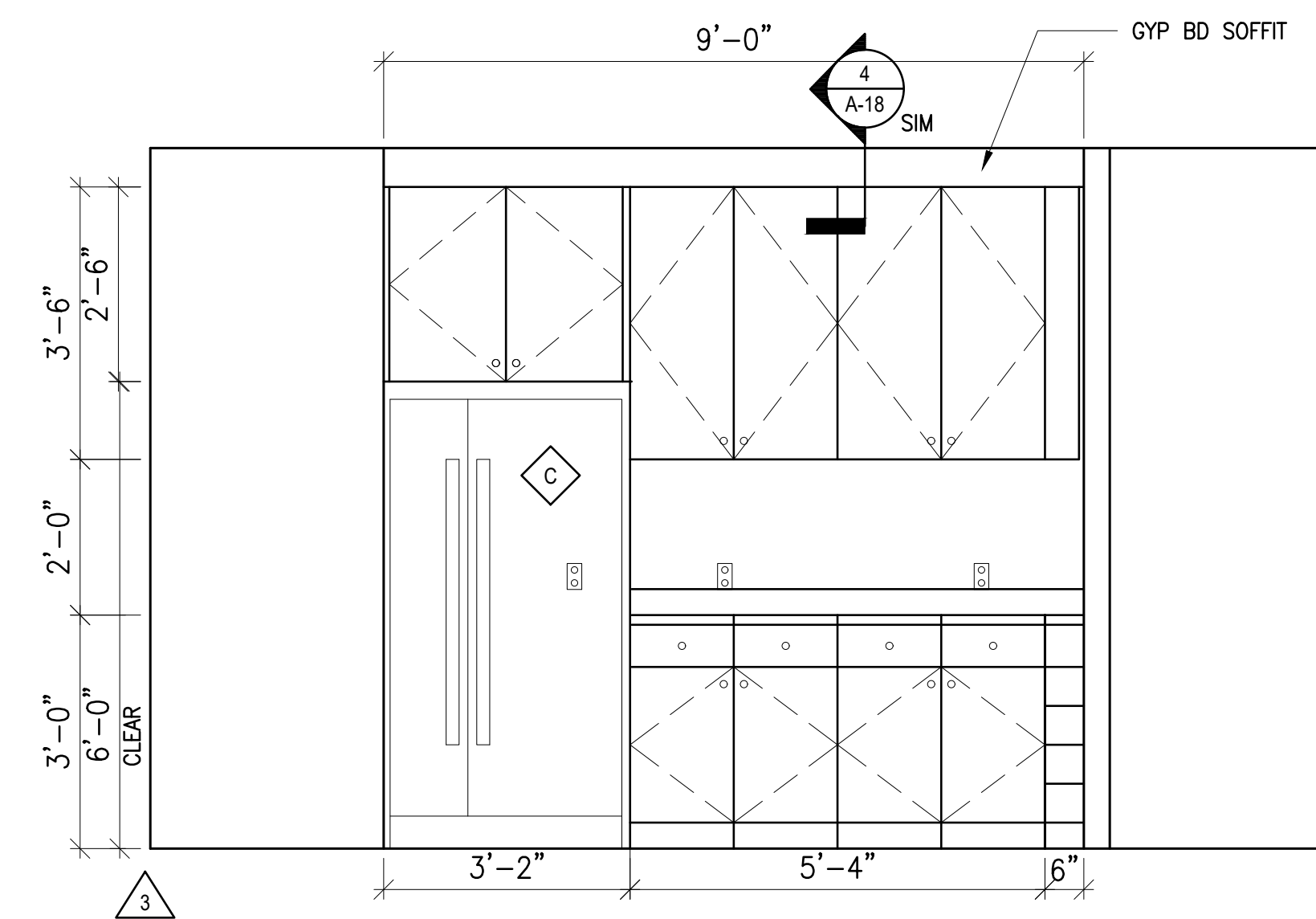
Project	Sheet
DOORS/WINDOWS	A-16
Date	8/16/2024
Scale	3/4" = 1'-0"



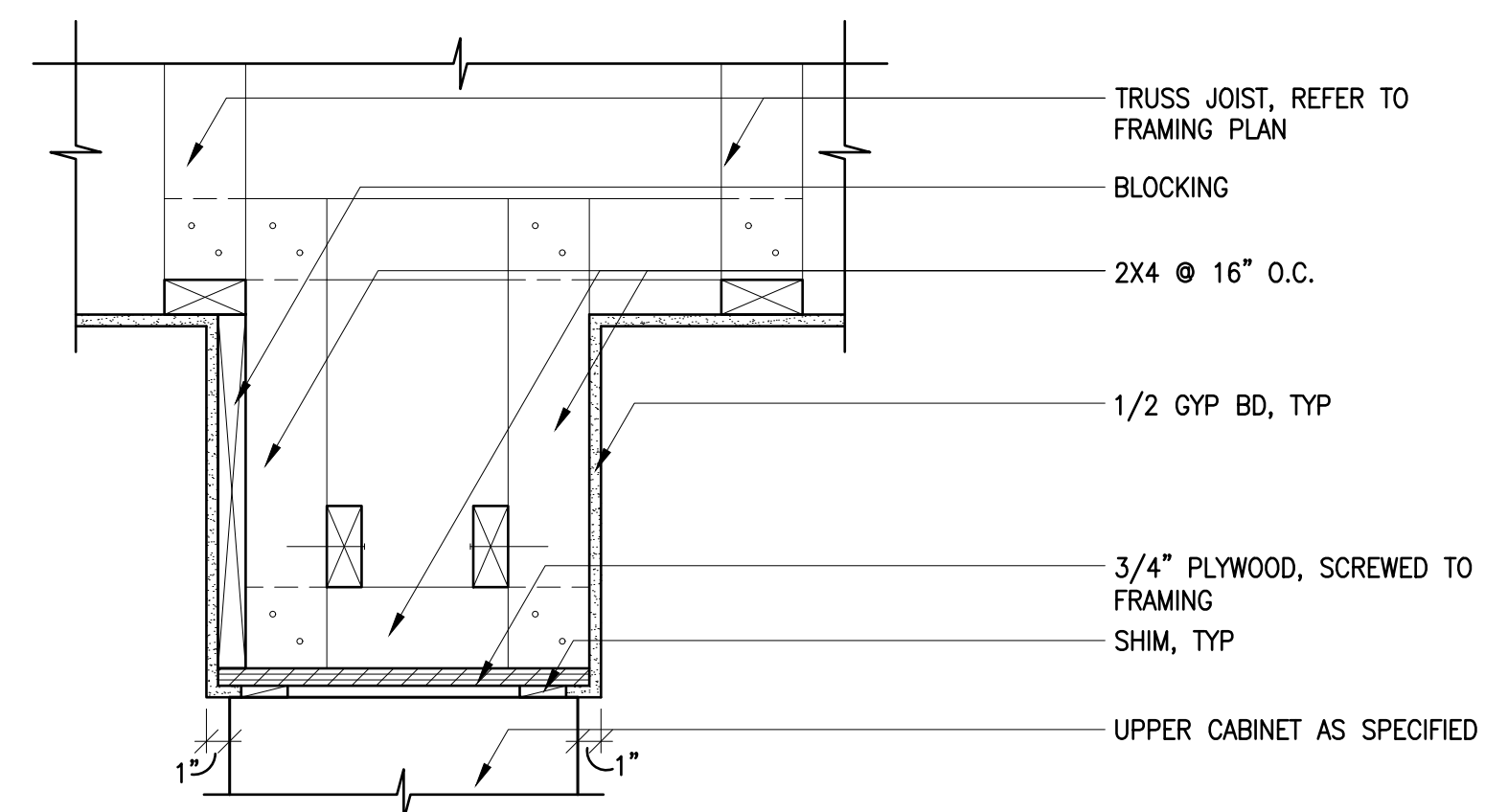
1 KITCHEN INTERIOR ELEVATION A
 1/2" = 1'-0" (0329-IE02-G)



2 KITCHEN INTERIOR ELEVATION C
 1/2" = 1'-0" (0329-IE02-G)



3 KITCHEN INTERIOR ELEVATION B
 1/2" = 1'-0" (0329-IE02-G)



4 SECTION THROUGH SOFFIT
 1 1/2" = 1'-0" (0329-DE99-D)

GENERAL NOTES

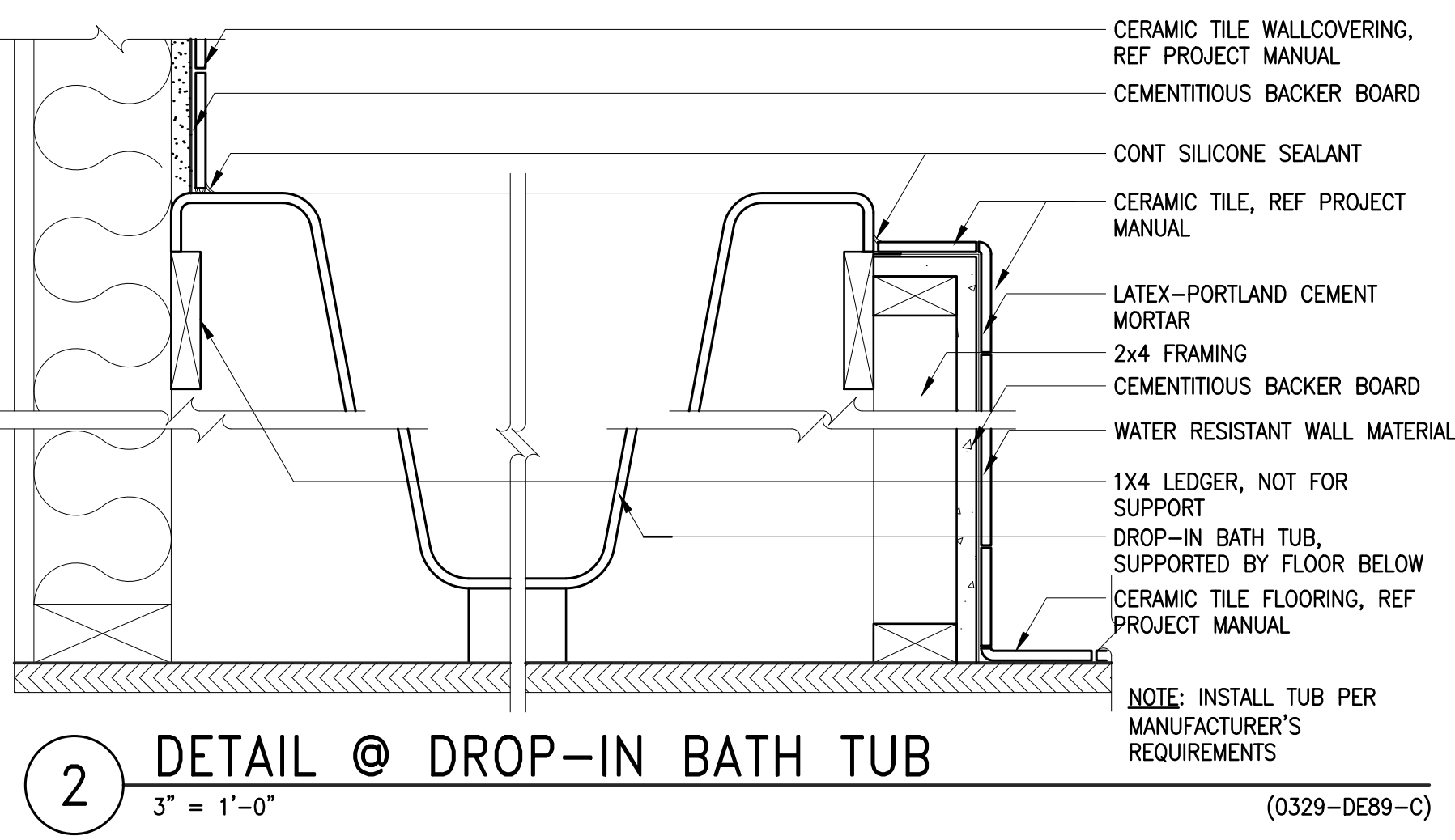
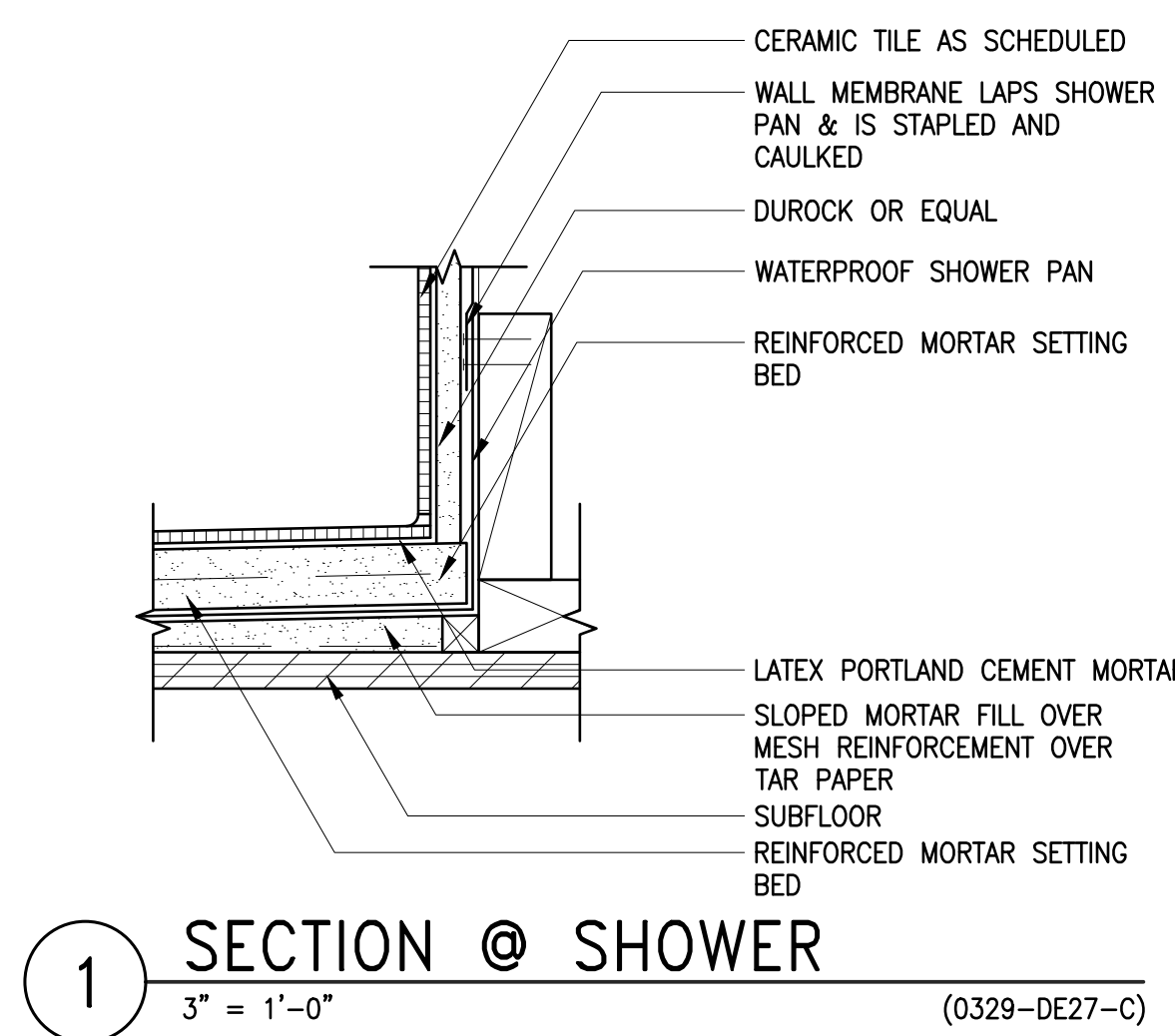
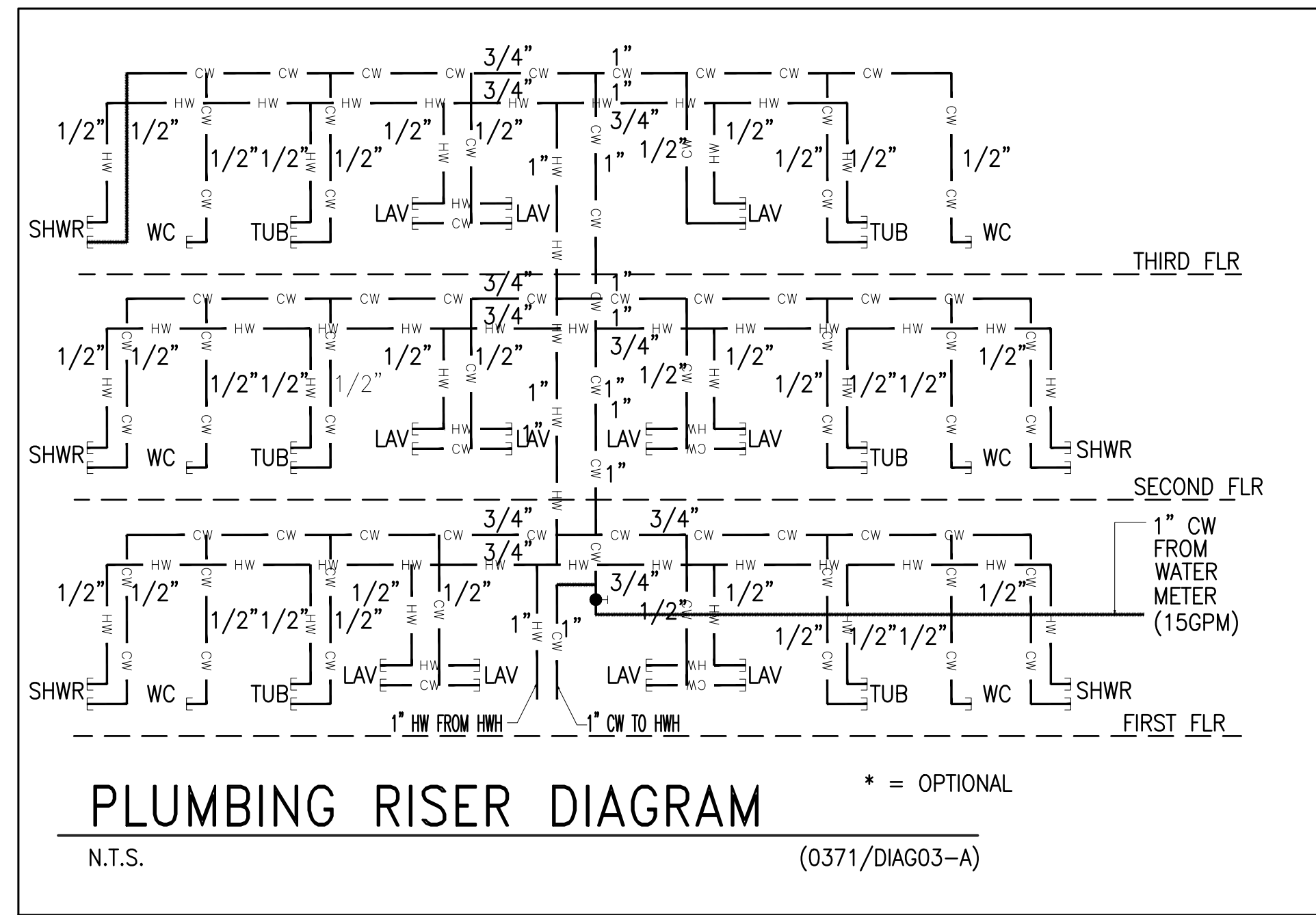
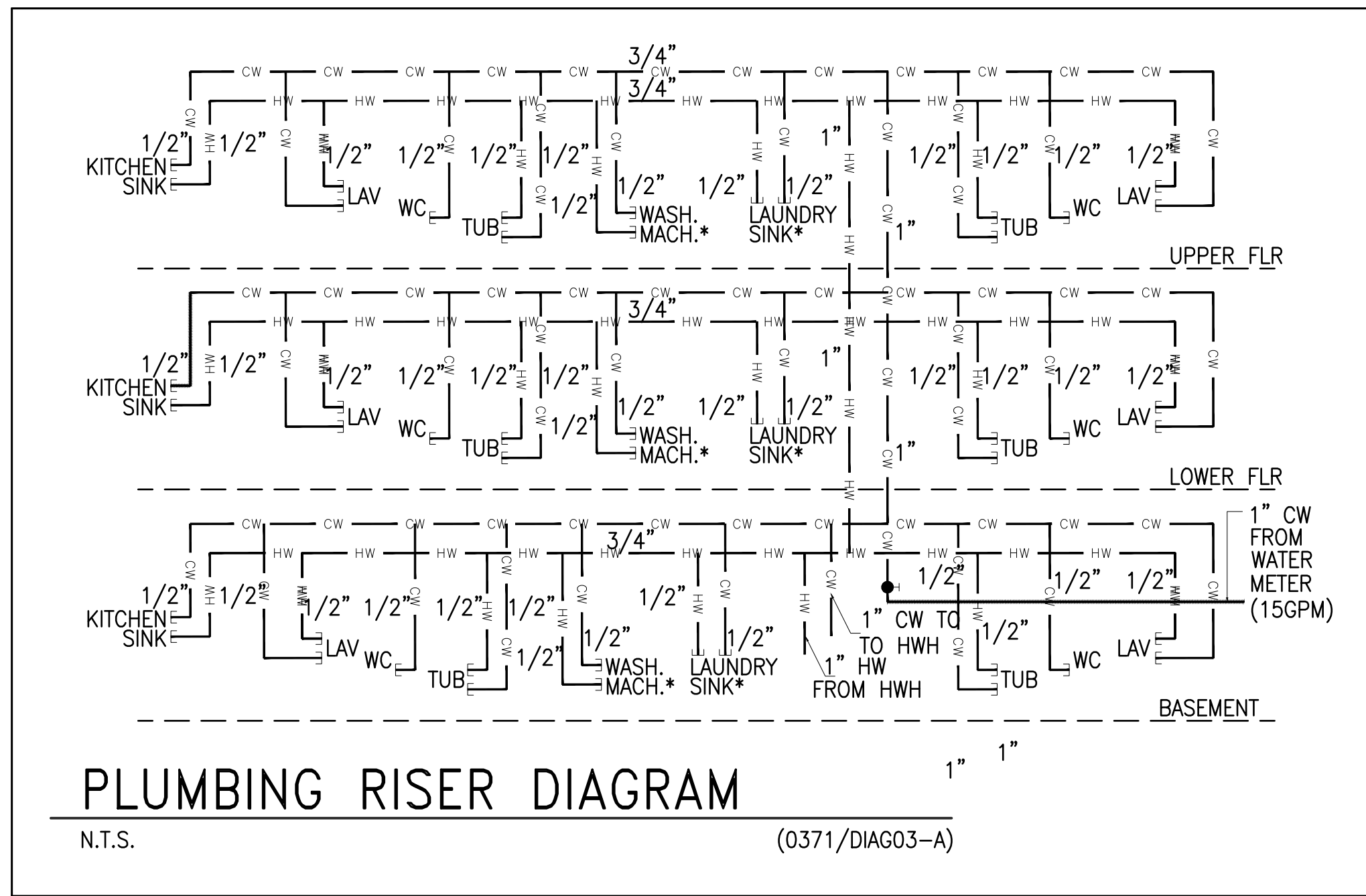
No.	REVISION/ISSUE	Date



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Project Name and Address
TRAYON APARTMENTS
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 RALEIGH, NC 27603

Project KITCHEN INTERIOR ELEVATIONS	Sheet A-17
Date 8/16/2024	
Scale As Noted	



PLUMBING FIXTURE & ACCESSORY SCHEDULE
(0323/SCHPL-A)

KEY	ITEM	KEY	ITEM
1	BATHTUB	9	DISPOSAL
2	LAVATORY	10	SHOWER
3	TOILET	11	WATER FILTER
4	SINK	12	TOWEL BAR
5	FAUCET (KITCHEN)	13	TOILET PAPER DISPENSER
6	FAUCET (LAVATORY)	14	MEDICINE CABINET
7	FAUCET (BATH)	15	MIRROR (LARGE)
8	FAUCET (SHOWER)	16	MIRROR (SMALL)

NOTE: SEE PROJECT MANUAL FOR ALL SPECIFICATIONS

EQUIPMENT SCHEDULE

KEY	ITEM
A	RANGE
B	DISHWASHER
C	REFRIGERATOR
D	MICROWAVE
E	RANGE HOOD
F	UNITIZED WASHER/DRYER
G	ELECTRIC FIREPLACE

NOTE: SEE PROJECT MANUAL FOR ALL SPECIFICATIONS

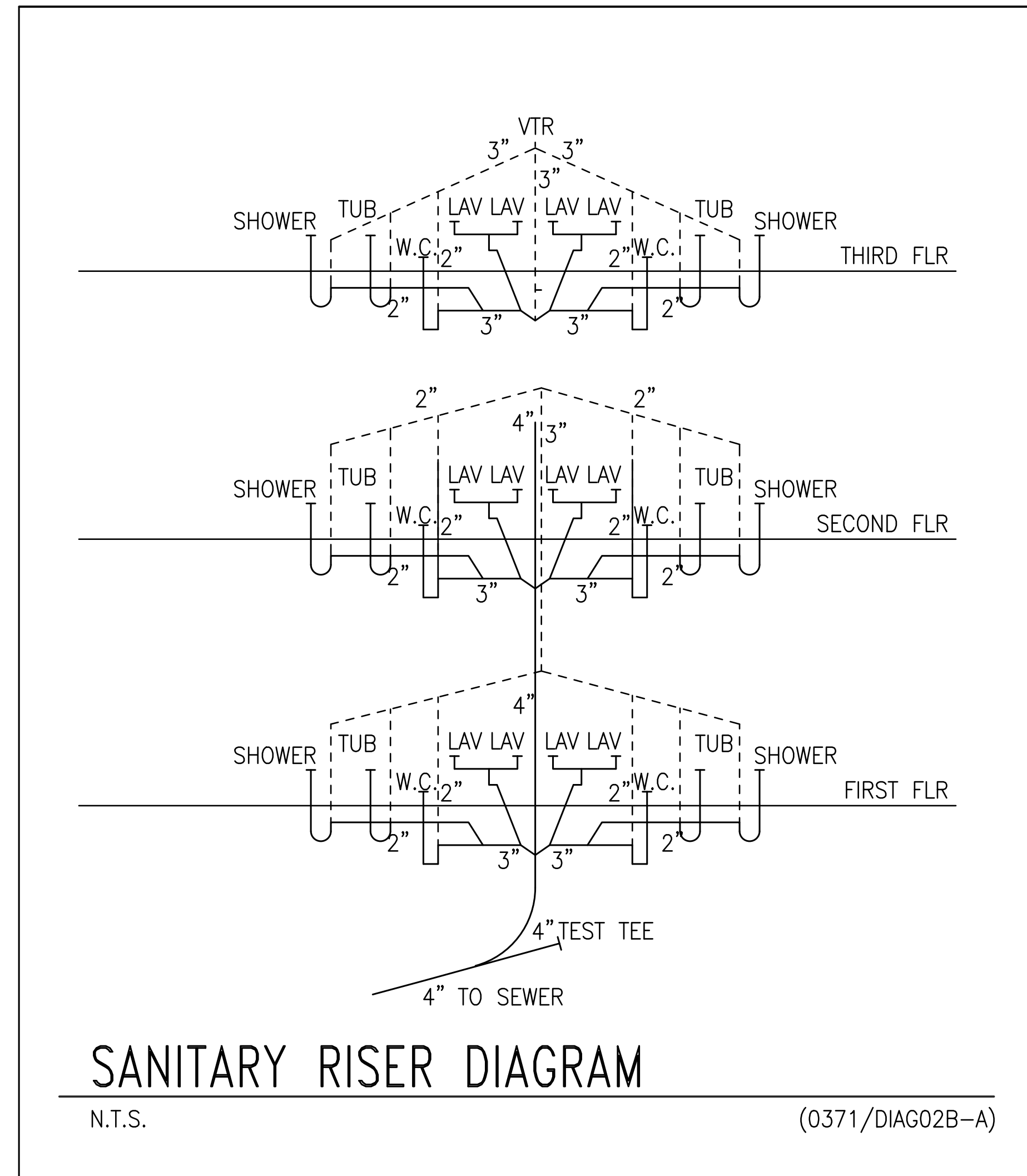
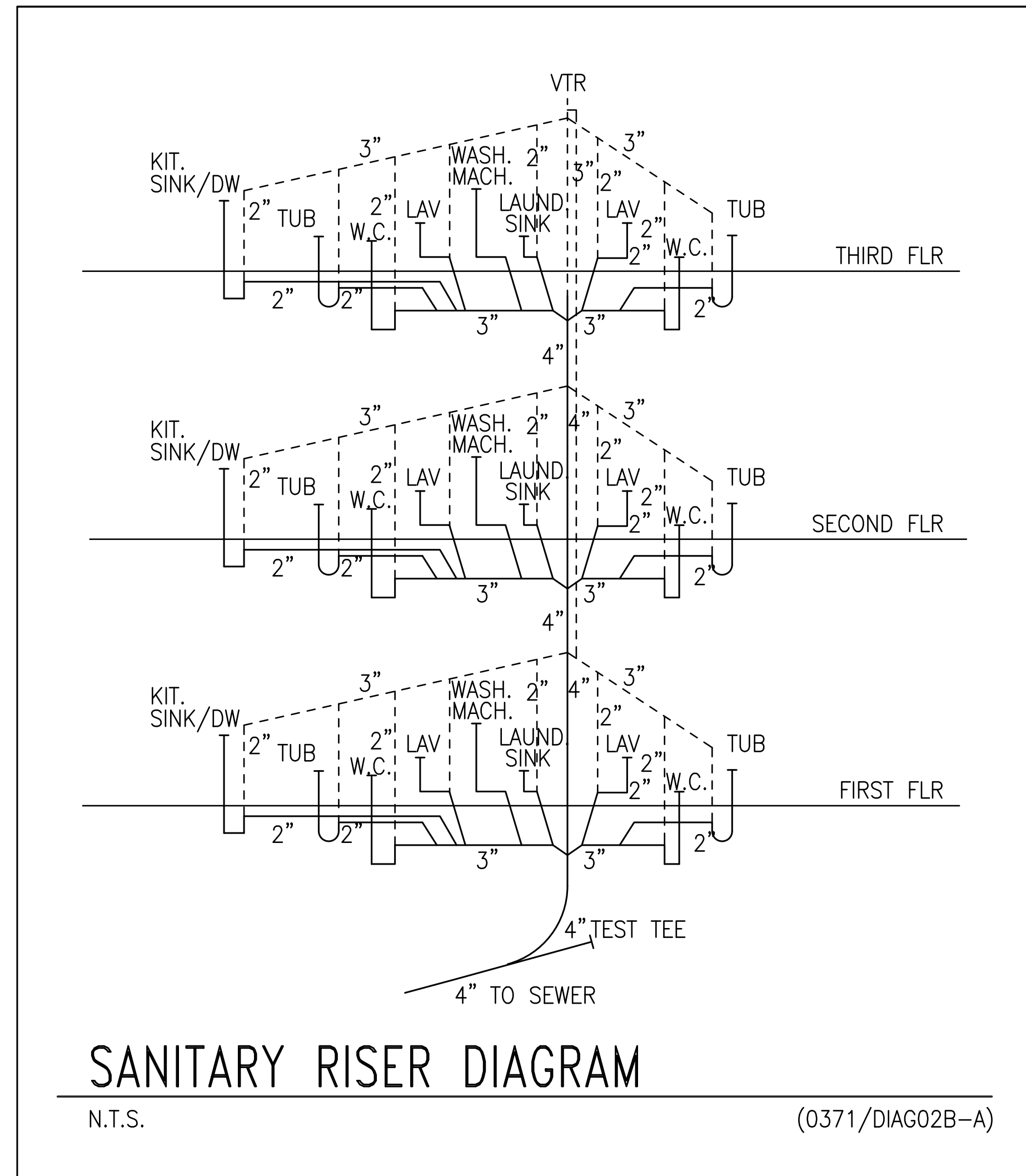
GENERAL NOTES

No.	REVISION/ISSUE	Date

IWAN
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Project Name and Address
TRYON APARTMENTS
3015 TRYON ROAD
RALEIGH, NC 27603

Project PLUMBING RISER DIAGRAM	Sheet P-1
Date 8/16/2024	
Scale As Noted	



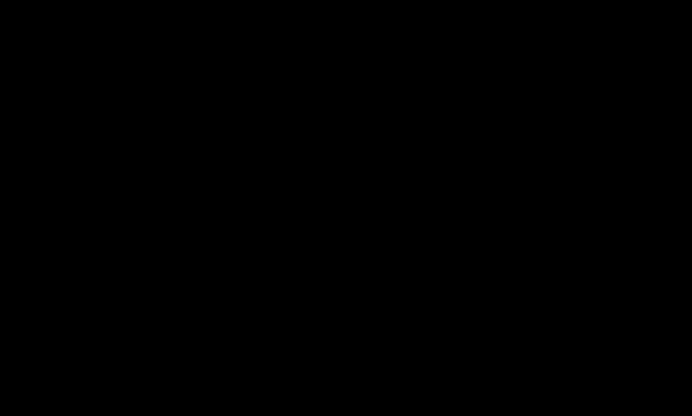
GENERAL NOTES

No.	REVISION/ISSUE	Date



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Project Name and Address

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Project SANITARY DIAGRAM	Sheet
Date 8/16/2024	P-2
Scale As Noted	

A S001	GENERAL NOTES
	<ol style="list-style-type: none"> 1. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2018 EDITION. 2. DESIGN GRAVITY LOADS ARE AS FOLLOWS : SUPERIMPOSED DEAD LOADS • SUPERIMPOSED LOADS 20 PSF LIVE LOADS • ROOM 40 PSF • ROOF 30 PSF 3. WIND PRESSURES ARE : • ULTIMATE DESIGN WIND SPEED, VULT 115 MILES PER HOUR • NOMINAL DESIGN WIND SPEED, VASD 90 MILES PER HOUR • IMPORTANCE FACTOR, 'I' 1.0 • WIND EXPOSURE CATEGORY B 4. SNOW LOADS ARE : • TERRAIN CATEGORY B • SNOW EXPOSURE FACTOR, 'CE' 1.0 • THERNAL FACTOR, 'CT' 1.0 • SNOW LOAD IMPORTANCE FACTOR, 'I' 1.0 • GROUND SNOW LOAD 30 PSF • FLAT ROOF SNOW LOAD 21 PSF 4. SEISMIC LOADS ARE AS PER SECTION 1613.0 OF THE INTERNATIONAL BUILDING CODE. • SHORT PERIOD RESPONSE ACCELERATION, 'SDS' 0.126 • ONE SECOND PERIOD RESPONSE ACCELERATION, 'SD1' 0.08 • SEISMIC USE GROUP I • SITE CLASS D • SEISMIC IMPORTANCE FACTOR 1.0 • BASE STRUCTURAL SYSTEM BEARING WALL SYSTEM • BASIC SEISMIC-FORCE-RESISTING SYSTEM SHEAR WALLS • RESPONSE MODIFICATION COEFFICIENT, 'RA' 6.5 5. THE STRUCTURE HAS BEEN DESIGNED FOR IN-SERVICE LOADS ONLY. THE METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION. 6. CONTRACTOR SHALL VERIFY ALL THE FLOOR AND ROOF OPENINGS WITH LATEST ARCHITECTURAL AND MEP DRAWINGS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT.

B S001	FOUNDATION AND SLAB ON GRADE
	<ol style="list-style-type: none"> 1. FOUNDATION IS DESIGNED FOR AN ASSUMED ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF. 2. FOUNDATION WALLS ARE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE OF 45 PSF. 3. ALL FOUNDATION SUBGRADE SHALL BE INSPECTED AND APPROVED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. 4. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED HERE SHALL BE REPORTED TO THE ARCHITECT AND STRUCTURAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED. 5. CONCRETE SHALL NOT BE PLACED OVER FROZEN SOIL. 6. CENTERLINE OF FOOTING SHALL MATCH THE CENTERLINE TO COLUMNS U.N.O. 7. EXTERIOR FOOTING SHALL BE PLACED AT LEAST 2'-8" BELOW GRADE. 8. SLAB-ON-GRADE SHALL BE 5 INCH THICK, REINFORCED WITH 4X6-W1.4XW1.4, PLACED ON 6 MIL. POLYETHYLENE SHEET OVER 4 INCH WASHED CRUSHED STONE U.N.O.. 9. SLAB-ON-GRADE SHALL HAVE ISOLATION JOINTS AT EACH COLUMN AS SHOWN IN TYPICAL DETAIL. SLAB-ON-GRADE SHALL HAVE CONSTRUCTION JOINT OR CONTROL JOINT AT A MAXIMUM SPACING OF 15 FEET.

C S001	CONCRETE COVER FOR REINFORCEMENT
	<ol style="list-style-type: none"> 1. MINIMUM CONCRETE COVER PROTECTION FOR REINFORCING BARS AND WIRE MESH SHALL BE AS FOLLOWS: • FOOTINGS 3 INCH • SLAB-ON-GRADE 2 INCH (TOP)

D S001	CONCRETE
	<ol style="list-style-type: none"> 1. ALL CONCRETE CONSTRUCTION INCLUDING DETAILING, FABRICATION, PLACEMENT OF REINFORCING, MIXING, HANDLING, PLACING, FINISHING, AND CURING SHALL CONFORM TO: • ACI-301 "STRUCTURAL CONCRETE FOR BUILDINGS" • ACI-315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" • ACI-318 "ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". 2. ALL CONCRETE SHALL BE NORMAL WEIGHT CONFORMING TO C94. CONCRETE SHALL HAVE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: • FOOTINGS 3000 PSI • FOUNDATION WALLS 3000 PSI • SLAB-ON-GRADE 3500 PSI 3. NORMAL WEIGHT COARSE AGGREGATE AND NATURAL FINE SAND AGGREGATE SHALL CONFORM TO ASTM C33. MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4 INCH. 4. ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED WITH 6% AIR. ALL OTHER CONCRETE SHALL BE AIR ENTRAINED WITH 4% AIR. 5. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN FOR EACH CONCRETE STRENGTH SHOWN IN CONSTRUCTION DOCUMENT FOR STRUCTURAL ENGINEER'S APPROVAL. THE CONCRETE MIX DESIGN SHALL BE PREPARED UNDER THE SUPERVISION OF PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. THE SUBMITTED CONCRETE MIX DESIGN SHALL INCLUDE CONCRETE STRENGTH, SLUMP, AIR ENTRAINMENT, AGGREGATES, AND ADMIXTURE. 6. OWNER SHALL RETAIN THE SERVICES OF A TESTING AGENCY TO PROVIDE TESTING OF CONCRETE INCLUDING COMPRESSIVE STRENGTH, TEMPERATURE, SLUMP, AND AIR ENTRAINMENT. TESTING AGENCY SHALL SUBMIT REPORTS TO ARCHITECT AND STRUCTURAL ENGINEER FOR THEIR REVIEW AND APPROVAL. 7. ALL CONCRETE WORK INCLUDING PLACEMENT OF REINFORCING BARS, AND FORMWORK ETC. SHALL BE INSPECTED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION.

E S001	TIMBER FRAMING
	<ol style="list-style-type: none"> 1. DIMENSIONAL LUMBER FOR POSTS, BEAMS AND JOISTS SHALL BE SPRUCE PINE FIR NO.1/NO.2 OR APPROVED EQUAL WITH THE FOLLOWING MINIMUM PROPERTIES: Fb = 875 PSI, E = 1,400,000 PSI, Fc = 1150 PSI, Fv = 140 PSI. 2. WALL TOP PLATES AND SILL PLATES SHALL BE SOUTHERN PINE NO. 2 WITH THE FOLLOWING MINIMUM PROPERTIES: Fb = 1500 PSI, E = 1,600,000 PSI, Fv = 90 PSI. 3. WALL STUDS SHALL BE SPRUCE PINE FIR NO.1/NO.2 OR APPROVED EQUAL WITH THE FOLLOWING MINIMUM PROPERTIES: Fb = 875 PSI, E = 1,400,000 PSI, Fc = 1150 PSI, Fv = 70 PSI. 4. PARALAM BEAMS/POSTS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2900 PSI, Fv = 290 PSI, Fc(PERP) = 650 PSI, Fc(PARALLEL) = 2500 PSI, E = 2,000,000 PSI. 5. FRAMING LUMBER SHALL HAVE 19% MAXIMUM MOISTURE CONTENT. 6. UNLESS SHOWN OTHERWISE, PROVIDE DOUBLE 2X10 HEADERS OVER OPENINGS IN BEARING WALLS UP TO 6'-0" AND DOUBLE 2X12 HEADERS UP TO 10'-0". 7. ROOF SHEATHING SHALL BE 1/2" EXTERIOR GRADE PLYWOOD SHEATHING OR OSB AND SHALL BE ATTACHED TO RAFTERS OR ROOF TRUSSES WITH 8D COMMON NAILS SPACED NO MORE THAN 8" OC. PROVIDE PLYWOOD CLIPS SPACED NO MORE THAN 12" O.C. EXCEPT ON ROOFS TO RECEIVE FINISH METAL. 8. PROVIDE DIAGONAL LET-IN BRACING, 12 GAUGE DIAGONAL STRAPS OR PLYWOOD SHEATHING AT ALL CORNERS OF EXTERIOR WOOD-FRAMED WALLS. U.N.O. 9. JOISTS OR TRUSSES RUNNING PARALLEL TO MASONRY WALLS SHALL BE ANCHORED TO THE WALLS WITH 3/16"x2" STEEL STRAP ANCHORS AT 4'-0" OC, TOP AND BOTTOM, OR APPROVED ALTERNATIVE. 10. WOOD JOISTS AND BEAMS SHALL NOT BE CUT OR DRILLED UNLESS SO AUTHORIZED BY THE ENGINEER. 11. LUMBER IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED AGAINST DECAY. 12. ALL HARDWARE AND FASTENERS FOR PRESSURE TREATED LUMBER SHALL BE STAINLESS STEEL OR TRIPLE ZINC G-185 GALVANIZED. 13. PROVIDE DOUBLE JOISTS BELOW NON-BEARING PARTITIONS PARALLEL TO JOISTS, U.N.O. 14. PROVIDE APPROVED HEAVY DUTY FRAMING ANCHORS AT ALL BEAM CONNECTIONS NOT DIRECTLY OVER BEARING WALLS OR COLUMNS AS MANUFACTURED BY TECO, SIMPSON, ETC. 15. PROVIDE APPROVED WOOD POST BASE ASSEMBLIES AS REQUIRED AT BEARING CONDITIONS. 16. PROVIDE END SEALER AND CUT BEAMS OF ALL LUMBER TO BE UTILIZED BELOW GRADE OR IN CONTACT WITH MSY, CONCRETE OR GRADE. 17. ALL GIRDERS AND BEAMS TO BE SUPPORTED BY (2)2X6 STUDS ALL THE WAY TILL FOUNDATION U.N.O.

F S001	WOOD TRUSSES
	<ol style="list-style-type: none"> 1. SHALL BE DESIGNED TO RESIST ANTICIPATED DEAD LOADS, LIVE LOADS AND ANY MECHANICAL EQUIPMENT LOADS INDICATED ON THE DRAWINGS. 2. TRUSSES SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENING". 3. FLOOR TRUSSES SHALL BE DESIGNED SUCH THAT THE CALCULATED LIVE LOAD DEFLECTION IS LIMITED TO SPAN/480. 4. SHOP DRAWINGS INCLUDING AN ERECTIONS PLAN AND DETAILS INDICATING DIMENSIONS, FORCES, LUMBER SIZES, GRADES, CONNECTOR SIZES AND PROPERTIES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION. 5. SEE MECHANICAL DRAWINGS FOR ROOF EQUIPMENT. 6. CONTRACTOR SHALL ADEQUATELY BRACE TRUSSES UNTIL SHEATHING IS IN PLACE AND ROOF SYSTEM IS STABILIZED AGAINST EXTERIOR FORCES. BRACE OPEN WEB JOISTS AS PER MANUFACTURERS SPECIFICATIONS.

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REVISIONS		
NO.	DESCRIPTION	DATE
	PERMIT SET	08-24-23

DRAWING TITLE

STRUCTURAL NOTES

DRAWING INFORMATION	
SCALE	AS NOTED
DATE	08-20-23
DRAWN BY	D.G.
PROJECT NUMBER	D2329

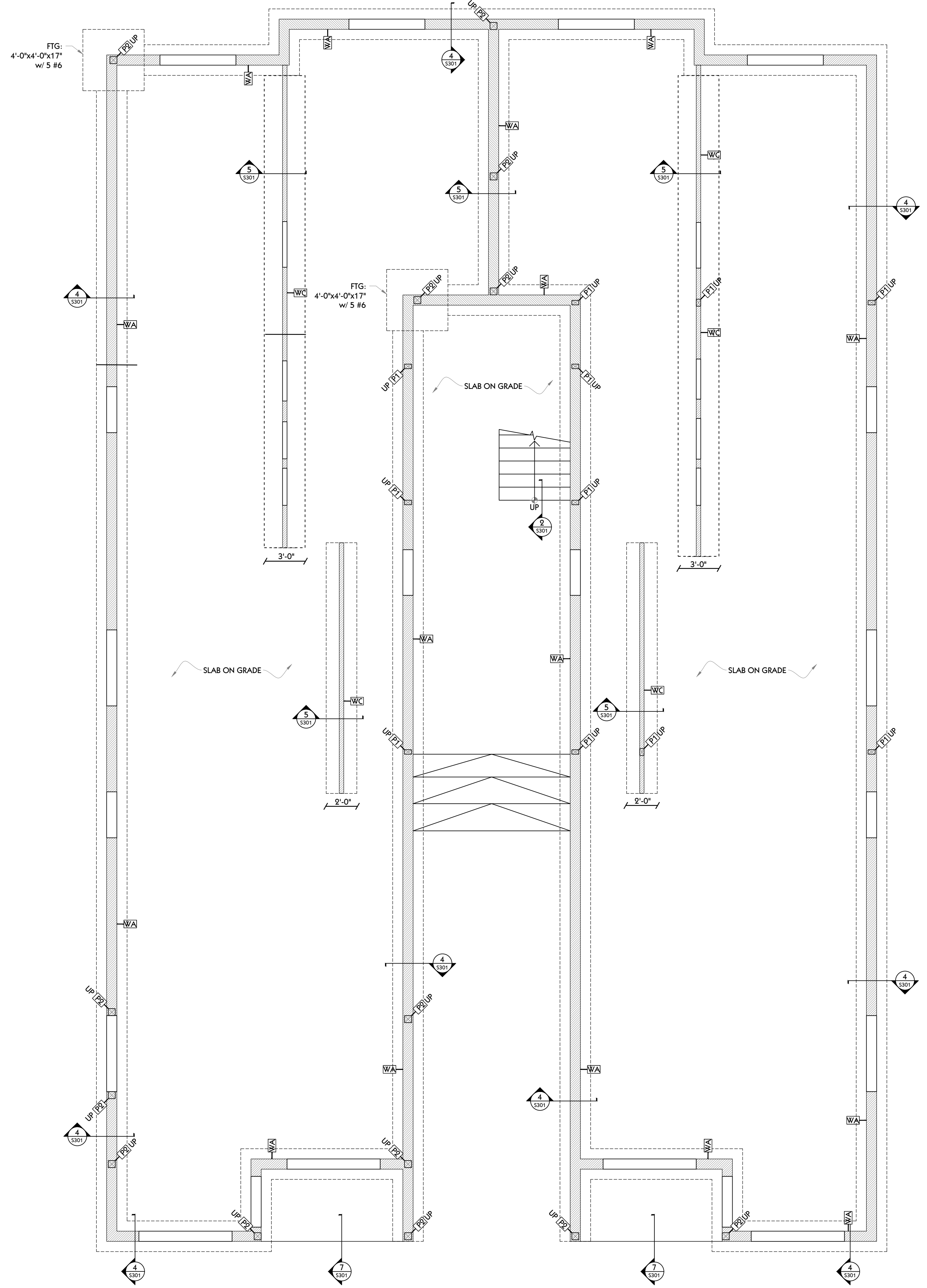
S001

DRAWING NUMBER

FRAMING KEY	
	INDICATES WALL TYPE
	INDICATES FOOTING TYPE
	INDICATES POST TYPE

- PLAN NOTES**
- SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB. SLOPE SLAB PER ARCHITECTURAL DRAWINGS TO FLOOR DRAINS VERIFY DRAIN LOCATIONS AND SLAB ELEVATIONS WITH ARCHITECTURAL AND PLUMBING DRAWINGS.
 - TOP OF FOUNDATION SHALL BE 1'-0" BELOW TOP OF SLAB UNLESS OTHERWISE NOTED.
 - SLAB SHALL BE 5" THICK, 3,000 PSI NORMAL WEIGHT CONCRETE, REINFORCED WITH 4x6-10/10 WWM, ON 6 MIL. POLYETHYLENE SHEET OVER 6 INCH WASHED CRUSHED STONE U.N.O.
 - COORDINATE EXACT SIZE AND LOCATION OF DEPRESSIONS, OPENINGS, FOLDS ETC. WITH ARCHITECTURAL AND MEP DRAWINGS.
 - COORDINATE EXACT LOCATION OF PLUMBING SLEEVES, FLOOR DRAINS, ELECTRICAL SLEEVES AND DUCT OPENINGS WITH ARCHITECTURAL AND MEP DRAWINGS.
 - SEE ARCH. FOR TOP OF SUBFLOOR ELEVATION.
 - CENTERLINE OF FOUNDATION SHALL BE CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED.
 - COORDINATE LOCATIONS OF ALL FLOOR PENETRATIONS WITH THE ARCHITECTURAL AND M/E/P DRAWINGS. ADDITIONAL POST SUPPORTS SHALL BE PROVIDED AS SHOWN OR AS DEEMED NECESSARY DURING THE SHOP DRAWING APPROVAL PROCESS.
 - REFER TO SHEET S201 FOR FRAMING SCHEDULES ASSOCIATED WITH MARKS ON PLAN.
 - CONTRACTOR TO COORDINATE LAYOUT OF FLOOR FRAMING AND WALL STUDS SUCH THAT THESE ELEMENTS ALIGN WHERE REQUIRED. SEE WALL SCHEDULE FOR INFORMATION.
 - PROVIDE POST CAPS AS REQUIRED.

- GEOTECHNICAL INSPECTOR/ CONTRACTOR TO ENSURE THAT MINIMUM SOIL BEARING PRESSURE IS EQUAL 1500 PSF PRIOR CONSTRUCTION OF FOUNDATIONS.
 - CONTRACTOR TO PROVIDE 6" COMPACTED GRANULAR BASE COURSE BELOW ALL FOUNDATIONS.



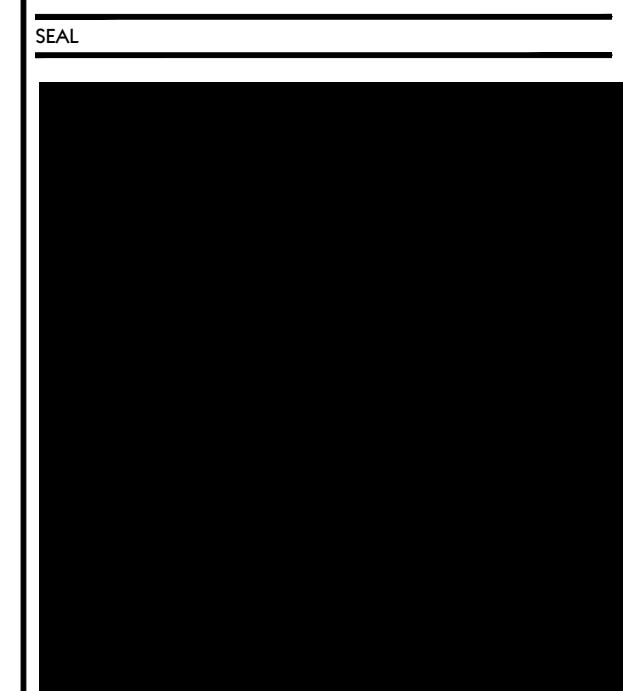
1 FIRST FLOOR FOUNDATION PLAN
 S101 1/4" = 1'-0"

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 1ST FLOOR
 FOUNDATION PLAN

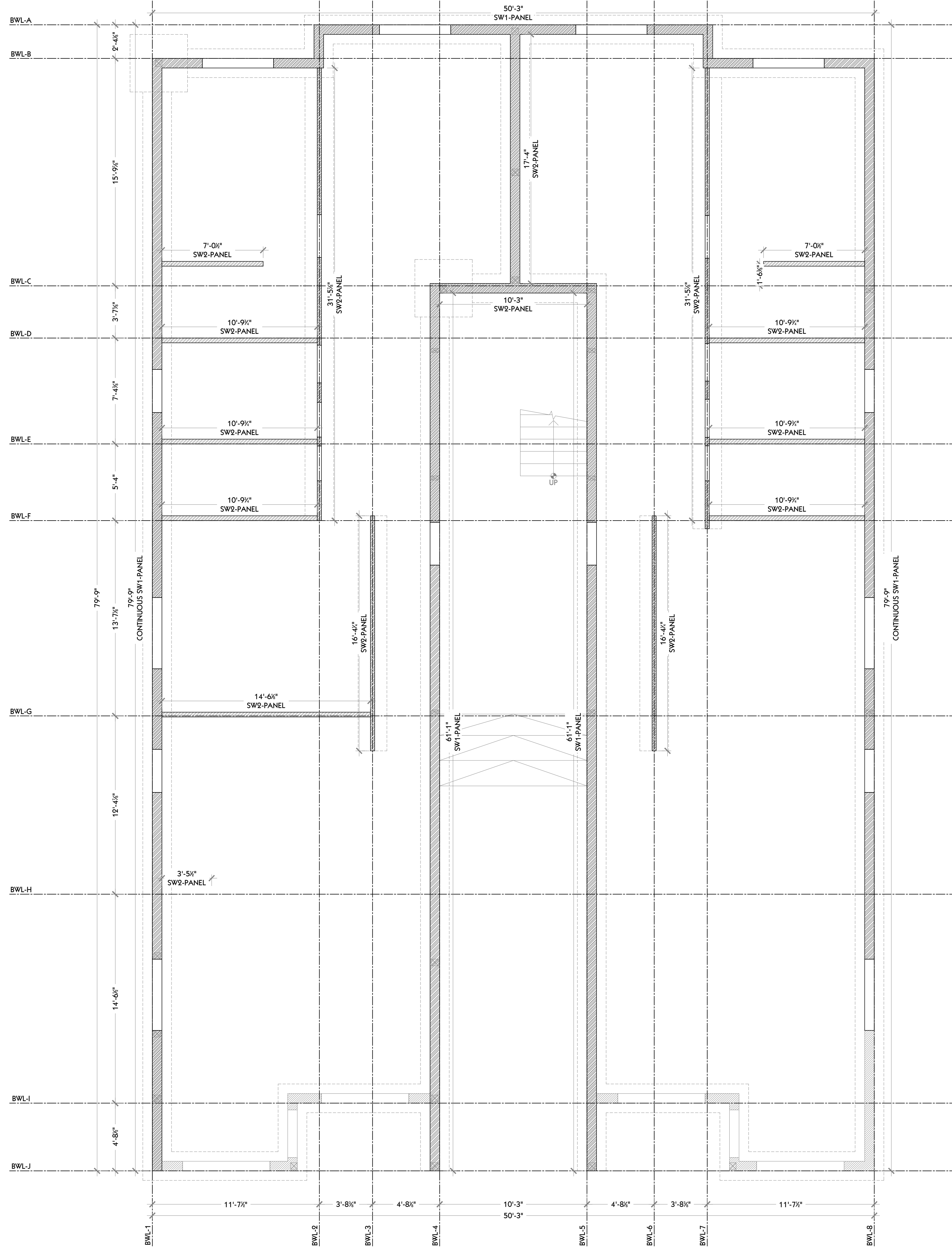
DRAWING INFORMATION	
SCALE	AS NOTED
DATE	08-20-23
DRAWN BY	D.G.
PROJECT NUMBER	D2329

S101

DRAWING NUMBER

FRAMING KEY	
	INDICATES SHEAR WALL LENGTH & TYPE
	INDICATES BRACE WALL LINE

- PLAN NOTES:**
- REPRESENTS WALLS THAT SHALL BE CONSTRUCTED AS A SHEAR WALL. REFER TO THE SHEAR WALL SCHEDULE ON SHEET S201 FOR SHEATHING AND NAILING DETAILS.
 - ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED, SEE NOTE 5 IN THE SHEAR WALL SCHEDULE.
 - FOR SHEAR WALL DETAILS INCLUDING HOLD DOWNS REFER TO SHEET S501



1 1ST FLOOR PLAN
S101S 1/4" = 1'-0"

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1ST FLOOR
WIND BRACING PLAN

DRAWING INFORMATION	
SCALE	AS NOTED
DATE	08-20-23
DRAWN BY	D.G.
PROJECT NUMBER	D2329

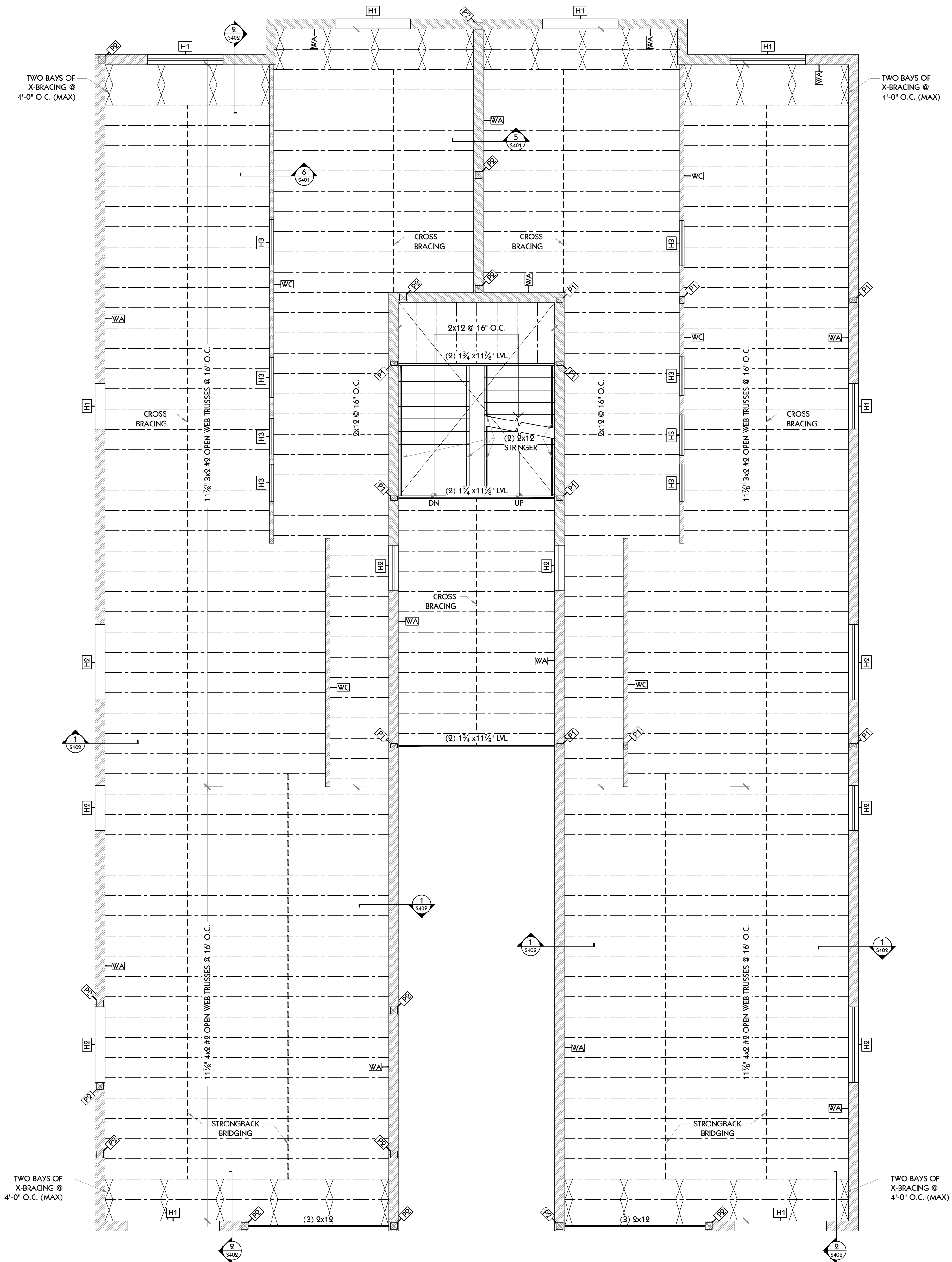
S101S

DRAWING NUMBER

FRAMING KEY	
	INDICATES WALL TYPE
	INDICATES HEADER TYPE
	INDICATES POST TYPE

PLAN NOTES

- SEE ARCH. FOR TOP OF SUBFLOOR ELEVATION.
- TYPICAL SUBFLOOR DECK CONSTRUCTION SHALL BE 3/4" TONGUE AND GROOVE PLYWOOD SHEATHING ATTACHED TO THE FLOOR FRAMING U.O.N. THE SHEATHING SHALL BE GLUED AND SCREWED (OR NAILED W/RING-SHANK NAILS AT 8" O.C.
- FLOOR FRAMING SHALL BE DIMENSIONAL LUMBER AND OPEN WEB TRUSSES AS SHOWN ON PLAN. LOCATIONS SHOWN ON PLAN ARE FOR INFORMATIONAL PURPOSES ONLY. GC SHALL BE RESPONSIBLE FOR COORDINATING ALL FRAMING LOCATIONS WITH THE M/E/P DRAWINGS SUCH THAT CONFLICTS WITH DUCTWORK AND PLUMBING ARE AVOIDED.
- COORDINATE EXACT SIZE AND LOCATION OF DEPRESSIONS, OPENINGS, FOLDS ETC. WITH ARCHITECTURAL AND MEP DRAWINGS.
- SEE ARCH. FOR TOP OF SUBFLOOR ELEVATION.
- COORDINATE LOCATIONS OF ALL FLOOR PENETRATIONS WITH THE ARCHITECTURAL AND M/E/P DRAWINGS. ADDITIONAL POST SUPPORTS SHALL BE PROVIDED AS SHOWN OR AS DEEMED NECESSARY DURING THE SHOP DRAWING APPROVAL PROCESS.
- REFER TO SHEET S201 FOR FRAMING SCHEDULES ASSOCIATED WITH MARKS ON PLAN.
- CONTRACTOR TO COORDINATE LAYOUT OF FLOOR FRAMING AND WALL STUDS SUCH THAT THESE ELEMENTS ALIGN WHERE REQUIRED. SEE WALL SCHEDULE FOR INFORMATION.
- PROVIDE POST CAPS AS REQUIRED.



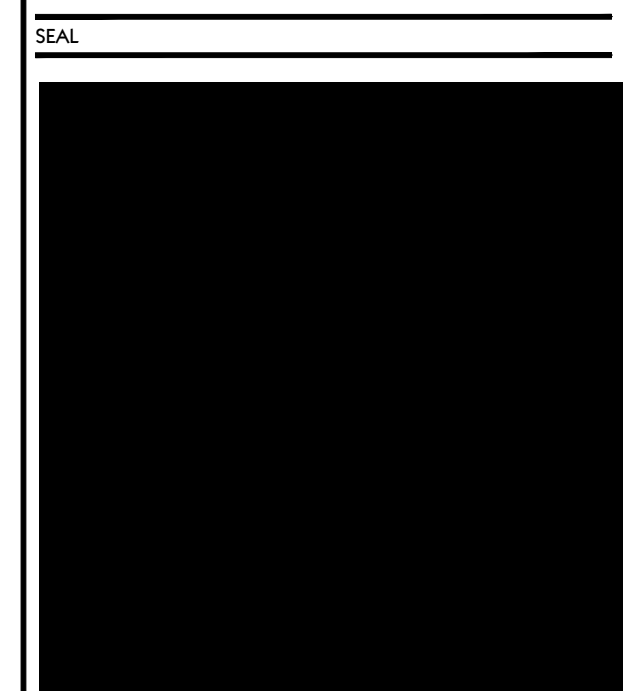
1 2ND FLOOR FRAMING PLAN
S102 1/4" = 1'-0"

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2ND FLOOR FRAMING PLAN

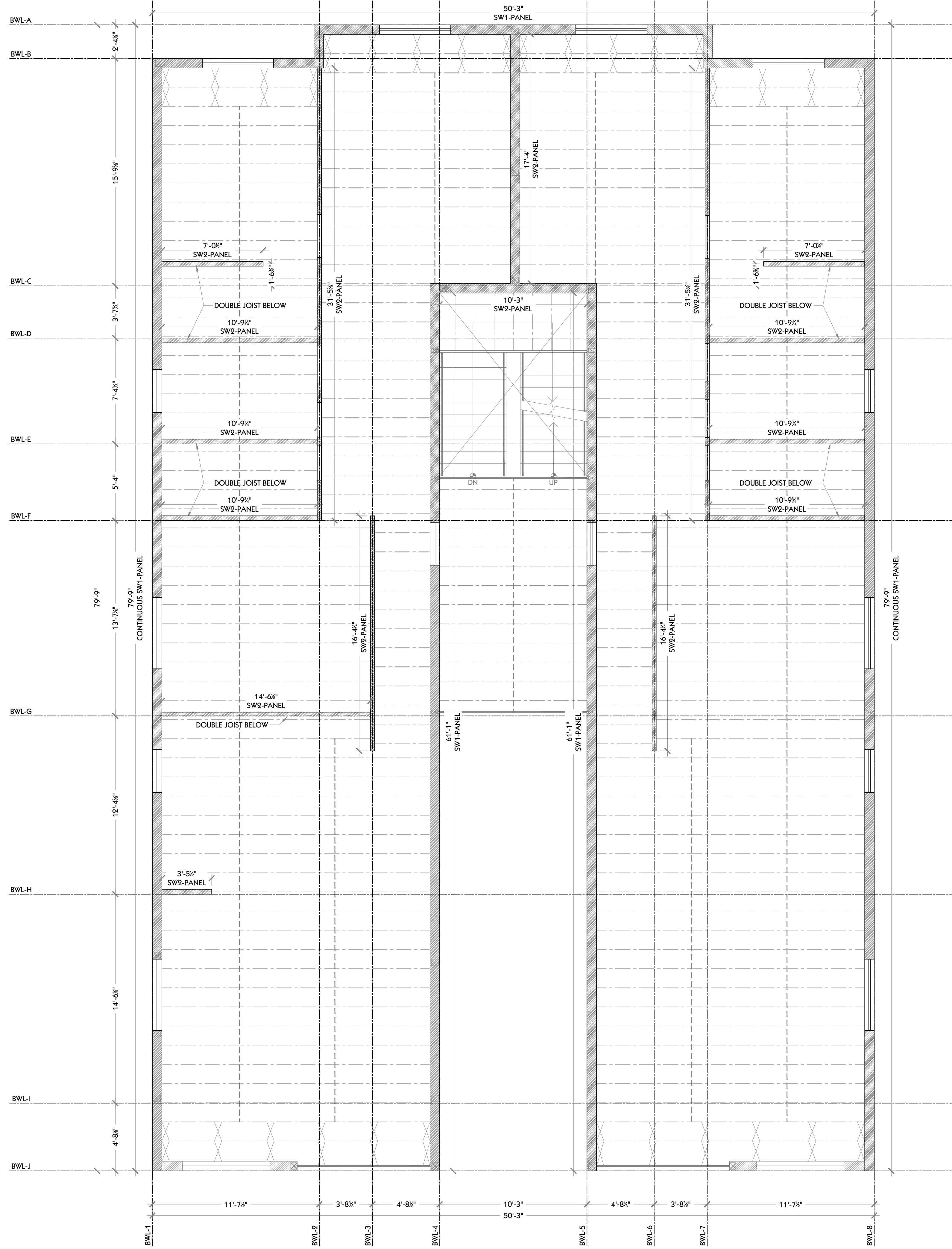
DRAWING INFORMATION	
SCALE	AS NOTED
DATE	08-20-23
DRAWN BY	D.G.
PROJECT NUMBER	D2329

S102

DRAWING NUMBER

FRAMING KEY	
	INDICATES SHEAR WALL LENGTH & TYPE
	INDICATES BRACE WALL LINE

- PLAN NOTES:**
- REPRESENTS WALLS THAT SHALL BE CONSTRUCTED AS A SHEAR WALL. REFER TO THE SHEAR WALL SCHEDULE ON SHEET S201 FOR SHEATHING AND NAILING DETAILS.
 - ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED, SEE NOTE 5 IN THE SHEAR WALL SCHEDULE.
 - FOR SHEAR WALL DETAILS INCLUDING HOLD DOWNS REFER TO SHEET S501



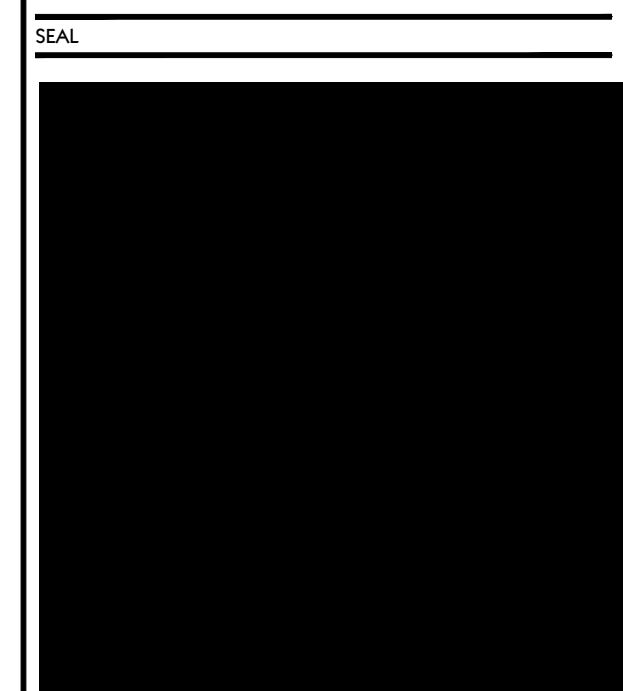
1 2ND FLOOR PLAN
S102S 1/4" = 1'-0"

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**2ND FLOOR
WIND BRACING PLAN**

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DRAWN BY	D.G.
PROJECT NUMBER	D2329

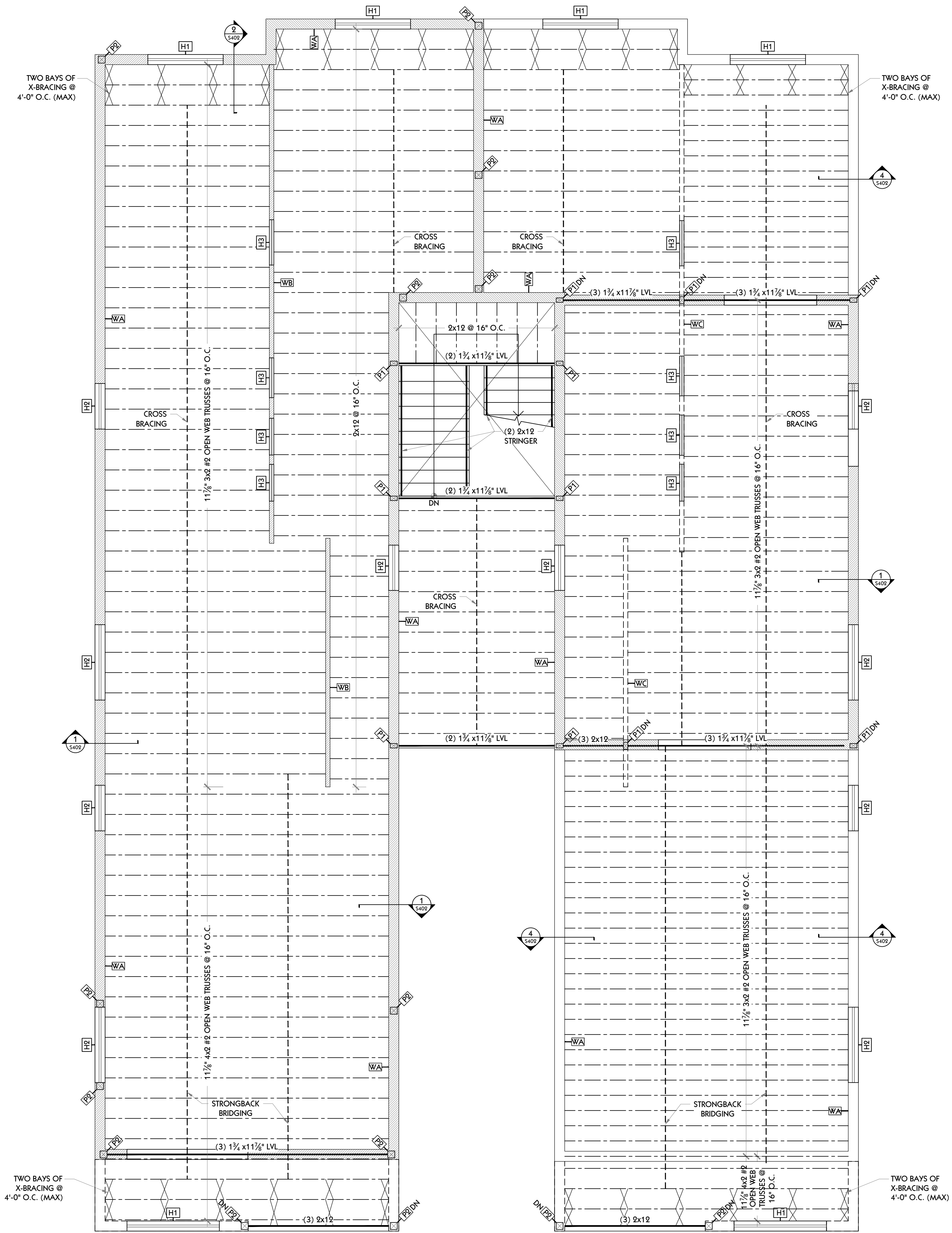
S102S

DRAWING NUMBER

FRAMING KEY	
	INDICATES WALL TYPE
	INDICATES HEADER TYPE
	INDICATES POST TYPE

PLAN NOTES

- SEE ARCH. FOR TOP OF SUBFLOOR ELEVATION.
- TYPICAL SUBFLOOR DECK CONSTRUCTION SHALL BE 3/4" TONGUE AND GROOVE PLYWOOD SHEATHING ATTACHED TO THE FLOOR FRAMING U.O.N. THE SHEATHING SHALL BE GLUED AND SCREWED (OR NAILED W/RING-SHANK NAILS AT 8" O.C.
- FLOOR FRAMING SHALL BE DIMENSIONAL LUMBER AND OPEN WEB TRUSSES AS SHOWN ON PLAN. LOCATIONS SHOWN ON PLAN ARE FOR INFORMATIONAL PURPOSES ONLY. GC SHALL BE RESPONSIBLE FOR COORDINATING ALL FRAMING LOCATIONS WITH THE M/E/P DRAWINGS SUCH THAT CONFLICTS WITH DUCTWORK AND PLUMBING ARE AVOIDED.
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- PROVIDE POST CAPS AS REQUIRED.



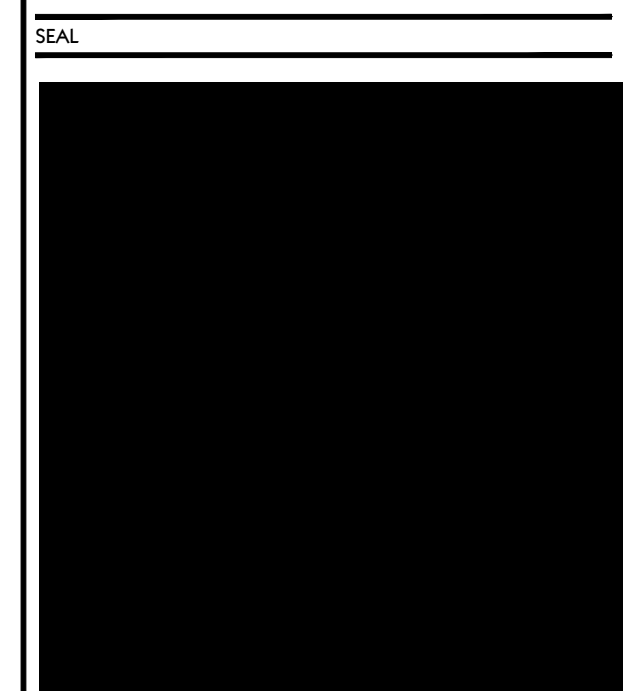
1 3RD FLOOR FRAMING PLAN
S103 1/4" = 1'-0"

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DRAWING TITLE
3RD FLOOR FRAMING PLAN

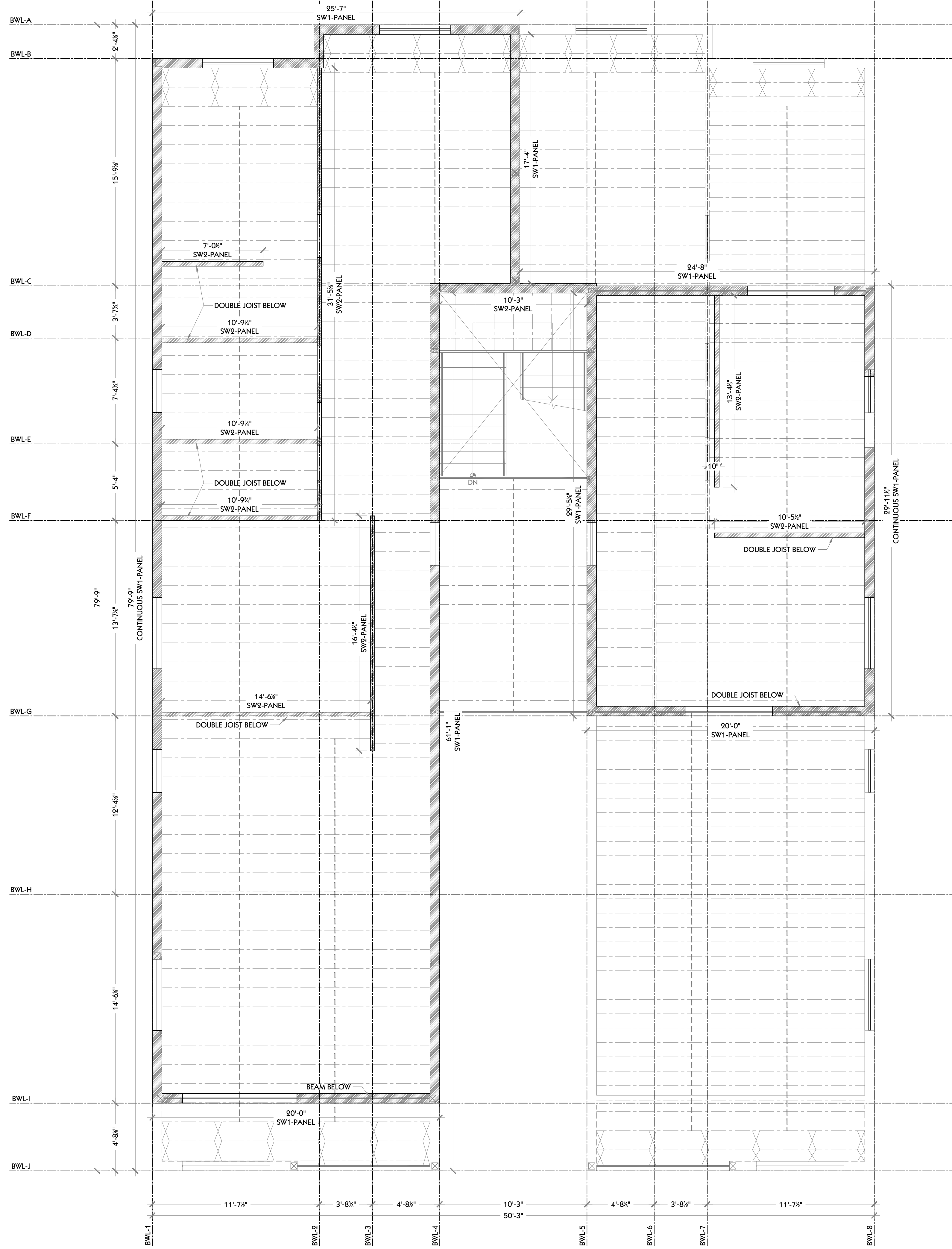
DRAWING INFORMATION	
SCALE	AS NOTED
DATE	08-20-23
DRAWN BY	D.G.
PROJECT NUMBER	D2329

S103

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FRAMING KEY	
	INDICATES SHEAR WALL LENGTH & TYPE
	INDICATES BRACE WALL LINE

- PLAN NOTES:**
- REPRESENTS WALLS THAT SHALL BE CONSTRUCTED AS A SHEAR WALL. REFER TO THE SHEAR WALL SCHEDULE ON SHEET S201 FOR SHEATHING AND NAILING DETAILS.
 - ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED, SEE NOTE 5 IN THE SHEAR WALL SCHEDULE.
 - FOR SHEAR WALL DETAILS INCLUDING HOLD DOWNS REFER TO SHEET S501

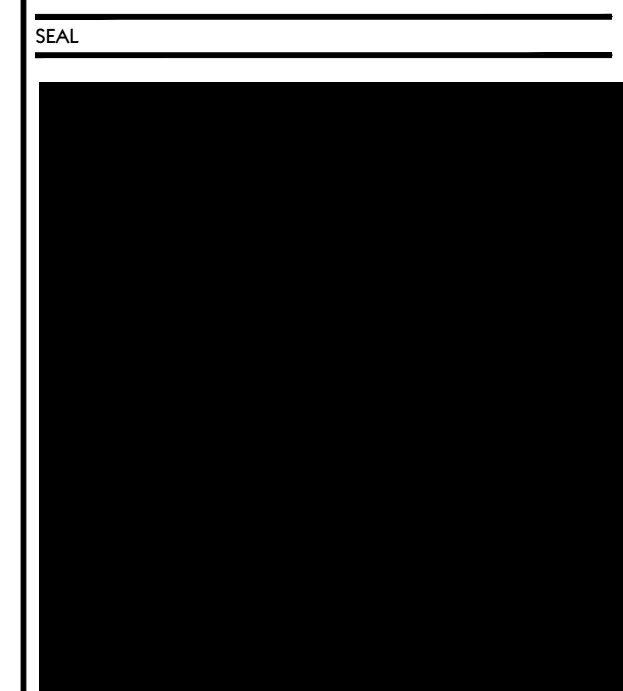


1 3RD FLOOR PLAN
S103S 1/4" = 1'-0"

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TRYON APARTMENTS BUILDING
3015 TRYON RD
RALEIGH, NC 27603

REVISIONS		
NO.	DESCRIPTION	DATE

DRAWING TITLE

3RD FLOOR
WIND BRACING PLAN

DRAWING INFORMATION	
SCALE	AS NOTED
DATE	08-20-23
DRAWN BY	D.G.
PROJECT NUMBER	D2329

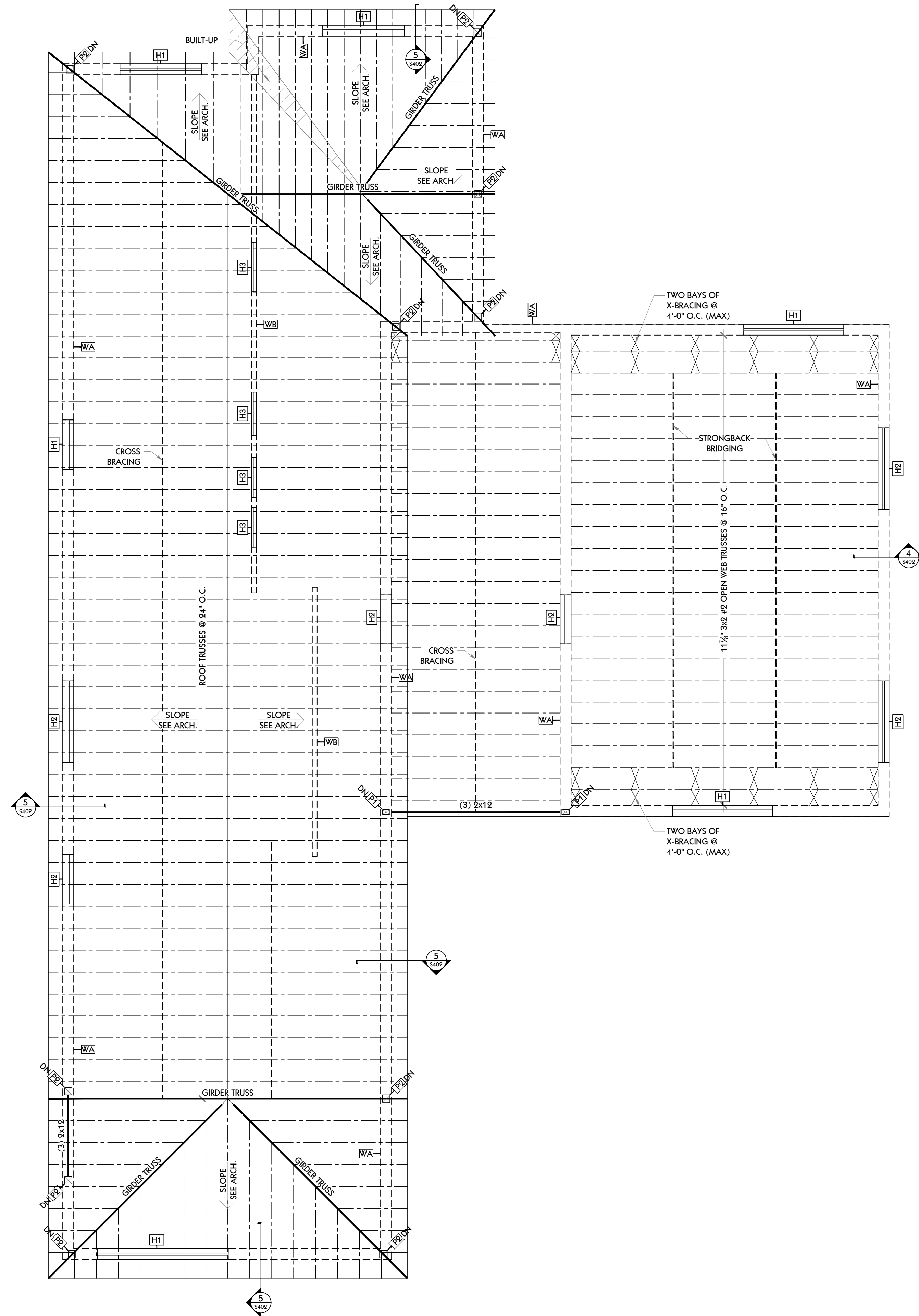
S103S

DRAWING NUMBER

FRAMING KEY	
	INDICATES WALL TYPE
	INDICATES HEADER TYPE
	INDICATES POST TYPE

PLAN NOTES

- SEE ARCH. FOR TOP OF SUBFLOOR ELEVATION.
- TYPICAL SUBFLOOR DECK CONSTRUCTION SHALL BE 3/4" TONGUE AND GROOVE PLYWOOD SHEATHING ATTACHED TO THE FLOOR FRAMING U.O.N. THE SHEATHING SHALL BE GLUED AND SCREWED (OR NAILED W/RING-SHANK NAILS AT 8" O.C.
- FLOOR FRAMING SHALL BE DIMENSIONAL LUMBER AND OPEN WEB TRUSSES AS SHOWN ON PLAN. LOCATIONS SHOWN ON PLAN ARE FOR INFORMATIONAL PURPOSES ONLY. GC SHALL BE RESPONSIBLE FOR COORDINATING ALL FRAMING LOCATIONS WITH THE M/E/P DRAWINGS SUCH THAT CONFLICTS WITH DUCTWORK AND PLUMBING ARE AVOIDED.
- COORDINATE EXACT SIZE AND LOCATION OF DEPRESSIONS, OPENINGS, FOLDS ETC. WITH ARCHITECTURAL AND MEP DRAWINGS.
- SEE ARCH. FOR TOP OF SUBFLOOR ELEVATION.
- COORDINATE LOCATIONS OF ALL FLOOR PENETRATIONS WITH THE ARCHITECTURAL AND M/E/P DRAWINGS. ADDITIONAL POST SUPPORTS SHALL BE PROVIDED AS SHOWN OR AS DEEMED NECESSARY DURING THE SHOP DRAWING APPROVAL PROCESS.
- REFER TO SHEET S201 FOR FRAMING SCHEDULES ASSOCIATED WITH MARKS ON PLAN.
- CONTRACTOR TO COORDINATE LAYOUT OF FLOOR FRAMING AND WALL STUDS SUCH THAT THESE ELEMENTS ALIGN WHERE REQUIRED. SEE WALL SCHEDULE FOR INFORMATION.
- PROVIDE POST CAPS AS REQUIRED.



1 ROOF FRAMING PLAN
S104 1/4" = 1'-0"

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ROOF FRAMING PLAN

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WALL SCHEDULE	
MARK	WALL CONSTRUCTION
WA	2x6 @ 16" OC
WB	2x4 @ 16" OC
WC	2x4 @ 12" OC

HEADER SCHEDULE		
MARK	HEADER SIZE	KING/JACK STUDS
H1	(3) 2x8	1K + 1J
H2	(3) 2x12	2K + 2J
H3	(2) 2x12	2K + 2J

NOTES:

- JACK AND KING STUD PROPERTIES SHALL MATCH THOSE OF ADJACENT WALL STUDS. SEE STRUCTURAL NOTES FOR MINIMUM SILL PLATE PROPERTIES.
- J - DENOTES NUMBER OF JACK STUDS (ALL JACK STUDS SHALL CONTINUE TO FOUNDATION).
- K - DENOTES NUMBER OF FULL-HEIGHT KING STUDS. PROVIDE MIN. (2) 2x6 SILL AT ALL EXTERIOR WALLS, U.O.N.
- SEE PLAN FOR LOCATIONS AT WHICH POSTS ARE SPECIFIED IN LIEU OF JACK STUDS AS NOTED IN SCHEDULE ABOVE.

POST SCHEDULE	
MARK	POST CONSTRUCTION
P1	4x6 WOOD POST
P2	6x6 WOOD POST

SHEAR WALL SCHEDULE					
MARK	TYPE	APPLIED TO WALL ON	NAIL	MAX FASTENER SPACING AT PANEL EDGES (INCHES)	NOTE
SW1	7/16" SHEATHING 5/8" GYPSUM BOARD	EXTERIOR	6d COOLER	4	PROVIDE BLOCKING AT EDGES
		INTERIOR	6d COOLER	4	PROVIDE BLOCKING AT EDGES
SW2	5/8" GYPSUM BOARD	BOTH SIDES	6d COOLER	4	PROVIDE BLOCKING AT EDGES

NOTES:

- FRAMING SHALL BE HEAVY FIR OR HIGHER 'G'.
- ALL SHEAR WALL PANELS MUST BE SHEATHED FULL WALL HEIGHT & WITH LONG DIMENSION VERTICAL.
- NAILS SHALL BE COMMON OR GALVANIZED BOX, GALVANIZED NAILS SHALL BE HOT DIPPED OR TUMBLER.
- FOR PROPERTIES OF COOLER NAILS, SEE ASTM C 514.
- DRYWALL SCREWS ARE PERMITTED TO BE SUBSTITUTED FOR THE 6d COOLER NAILS LISTED ABOVE. 1 1/2" TYPE S OR W.
- PROVIDE FLOOR TRUSS UNDER EACH SHEAR WALL PANEL.
- WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" OC ON EITHER SIDE PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. OR FRAMING SHALL BE 3" NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
- SHEAR WALLS MARKED AS CONTINUOUS SHEATHING: NEED TO PROVIDE CONTINUOUS SHEATHING ALONG THE WHOLE LENGTH OF WALL. BRACING MATERIAL NEEDS TO BE PLACED AT BRACED WALL PANELS AS WELL AS ALL OTHER AREAS INCLUDING ABOVE AND BELOW WINDOWS AND ABOVE DOORS.

FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER (A,B,C,D)	SPACING OF FASTENERS	
JOIST TO SILL OR GIRDER, TOE NAIL	3-8d	-	
1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	9-8d 2 STAPLES, 1 1/2"	-	
5" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	9-16d	-	
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d	16" OC	
TOP OR SOLE PLATE TO STUD, END NAIL	9-16d	-	
STUD TO SOLE PLATE, TOE NAIL	3-8d OR 2-16d	-	
DOUBLE STUDS, FACE NAIL	10d	24" OC	
DOUBLE TOP PLATES, FACE NAIL	10d	24" OC	
SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANELS	3-16d	16" OC	
DOUBLE TOP PLATES, MINIMUM 48-INCH OFFSET OF END JOINTS, FACE NAIL IN LAPPED AREA	8-16d	-	
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	3-8d	-	
RIM JOIST TO TOP PLATE, TOE NAIL	8d	6" OC	
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS, FACE NAIL	2-10d	-	
BUILT-UP HEADER, TWO PIECES WITH 1/2" SPACER	16d	16" OC ALONG EACH EDGE	
CONTINUED HEADER, TWO PIECES	16d	16" OC ALONG EACH EDGE	
CEILING JOISTS TO PLATE, TOE NAIL	3-8d	-	
CONTINUOUS HEADER TO STUD, TOE NAIL	4-8d	-	
CEILING JOIST, SHOVE OVER PARTITIONS, FACE NAIL	3-10d	-	
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3-10d	-	
RAFTER TO PLATE, TOE NAIL	9-16d	-	
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	9-8d 2 STAPLES, 1 1/2"	-	
1" x 6" SHEATHING TO EACH BEARING, FACE NAIL	9-8d 2 STAPLES, 1 1/2"	-	
1" x 8" SHEATHING TO EACH BEARING, FACE NAIL	9-8d 3 STAPLES, 1 1/2"	-	
WIDER THAN 1" x 8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d 4 STAPLES, 1 1/2"	-	
BUILT-UP CORNER STUDS	10d	24" OC	
BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	10d	NAIL EACH LAYER AS FOLLOWS: 32" OC AT TOP AND BOTTOM AND STAGGERED. TWO NAILS AT ENDS AT EACH SPLICE.	
5" PLANKS	9-16d	AT EACH BEARING	
ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS: TOE NAIL FACE NAIL	4-16d 3-16d	-	
RAFTER TIES TO RAFTER, FACE	3-8d	-	

DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER (B,C,D,E)	SPACING OF FASTENERS	
		EDGES (INCHES) (I)	INTERMEDIATE SUPPORTS (INCHES) (C,E)
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, AND PARTICLE BOARD WALL SHEATHING TO FRAMING			
3/4" - 1/2"	6d COMMON NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF)	6	12
1 1/2" - 1"	8d COMMON NAIL	6	12
1 1/2" - 1 1/4"	10d COMMON NAIL OR 8d DEFORMED NAIL	6	12
OTHER WALL SHEATHING (h)			
1/2" REGULAR CELLULOSIC FIBERBOARD SHEATHING	1 1/2" GALVANIZED ROOFING NAIL 6d COMMON NAIL STAPLE 16GA, 1 1/2" LG	3	6
1/2" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 1/2" GALVANIZED ROOFING NAIL 8d COMMON NAIL STAPLE 16GA, 1 1/2" LG	3	6
3/8" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1 1/2" GALVANIZED ROOFING NAIL 8d COMMON NAIL STAPLE 16GA, 1 1/2" LG	3	6
1/2" GYPSUM SHEATHING	1 1/2" GALVANIZED ROOFING NAIL, 6d COMMON NAIL, STAPLE GALVANIZED, 1 1/2" LG; 1 1/2" SCREWS, TYPE W OR S.	4	8
3/8" GYPSUM SHEATHING	1 1/2" GALVANIZED ROOFING NAIL, 8d COMMON NAIL, STAPLE GALVANIZED, 1 1/2" LG; 1 1/2" SCREWS, TYPE W OR S.	4	8
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
3/4" AND LESS	6d DEFORMED NAIL OR 8d COMMON NAIL	6	12
3/4" - 1"	8d DEFORMED NAIL OR 8d COMMON NAIL	6	12
1 1/2" - 1 1/4"	8d DEFORMED NAIL OR 10d COMMON NAIL	6	12

- A. ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED.
- B. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 3/16" INCH ON DIAMETER CROWN WIDTH.
- C. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER.
- D. 4'-0"x8'-0" OR 4'-0"x9'-0" PANELS SHALL BE APPLIED VERTICALLY.
- E. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE _____.
- F. FOR REGIONS HAVING BASIC WIND SPEED OF 110 MPH OR GREATER, 8d DEFORMED NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48-INCH DISTANCE FROM GABLE END WALLS. IF MEAN ROOF HEIGHT IS MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM.
- G. FOR REGIONS HAVING BASIC WIND SPEED OF 100 MPH OR LESS, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER. WHEN BASIC WIND SPEED IS GREATER THAN 80 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES AND GABLE END WALLS; AND 4 INCHES ON CENTER TO GABLE END WALL FRAMING.
- H. GYPSUM SHEATHING SHALL CONFORM TO ASTM C79 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO EITHER AHA 194-1 OR ASTM C 208.
- I. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL ROOF PLANE PERIMETERS. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS SHALL NOT BE REQUIRED EXCEPT AT INTERSECTION OF ADJACENT ROOF PLANES. FLOOR AND ROOF PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.

ALTERNATE ATTACHMENTS			
NOMINAL MATERIAL THICKNESS (INCHES)	DESCRIPTION (A,B) OF FASTENER AND LENGTH (INCHES)	SPACING (C) OF FASTENERS	
		EDGES (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, AND PARTICLE BOARD WALL SHEATHING TO FRAMING			
3/8"	0.097 - 0.099 NAIL 1 1/2"	6	12
	STAPLE 15 GA. 1 1/2"		
3/4"	0.097 - 0.099 NAIL 1 1/2"	6	12
	STAPLE 16 GA. 1 1/2"	4	10
1 1/4" AND 1 1/2"	0.097 - 0.099 NAIL 1 1/2"	6	12
	STAPLE 15 GA. 1 1/2"	3	6
1 1/2" AND 1 3/4"	0.113 NAIL 1 1/2"	6	12
	STAPLE 15 AND 16 GA. 1 1/2"	3	6
1 3/4" AND 1 1/2"	0.097 - 0.099 NAIL 1 1/2"	6	12
	STAPLE 14 GA. 1 1/2"	5	10
1"	0.097 - 0.099 NAIL 1 1/2"	3	6
	STAPLE 16 GA. 2"	4	8
1"	0.113 NAIL 2 1/2"	5	10
	STAPLE 14 GA. 2"	4	8
1"	0.113 NAIL 2 1/2"	4	8
	STAPLE 15 GA. 2"	3	6
HARDBOARD (F)			
0.200	1 1/2" LONG RING-GROOVED UNDERLAYMENT NAIL	6	6
	4d CEMENT-COATED SINKER NAIL	6	6
	STAPLE 18 GA., 1/2" LONG (PLASTIC COATED)	3	6
PARTICLEBOARD			
1/2"	4d RING-GROOVED UNDERLAYMENT NAIL	3	6
	STAPLE 18 GA., 1/2" LONG, 1/4" CROWN	3	6
3/8"	6d RING-GROOVED UNDERLAYMENT NAIL	6	10
	STAPLE 16 GA., 1 1/2" LONG, 1/2" CROWN	3	6
3/4"	6d RING-GROOVED UNDERLAYMENT NAIL	6	10
	STAPLE 16 GA., 1 1/2" LONG, 1/2" CROWN	3	6

A. NAIL IS A GENERAL DESCRIPTION AND MAY BE T-HEAD, MODIFIED ROUND HEAD OR ROUND HEAD.

B. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 1/16" INCH ON DIAMETER EXCEPT AS NOTED.

C. NAILS OR STAPLES SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR GREATER. NAILS OR STAPLES SHALL BE SPACED AT NOT MORE THAN 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR FLOORS.

D. FASTENERS SHALL BE PLACED IN A GRID PATTERN THROUGHOUT THE BODY OF THE PANEL.

E. FOR 5-PLY PANELS, INTERMEDIATE NAILS SHALL BE SPACED NOT MORE THAN 12 INCHES ON CENTER EACH WAY.

F. HARDBOARD UNDERLAYMENT SHALL CONFORM TO ANSI/AHA A135.4.

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01	PERMIT SET	08-24-23

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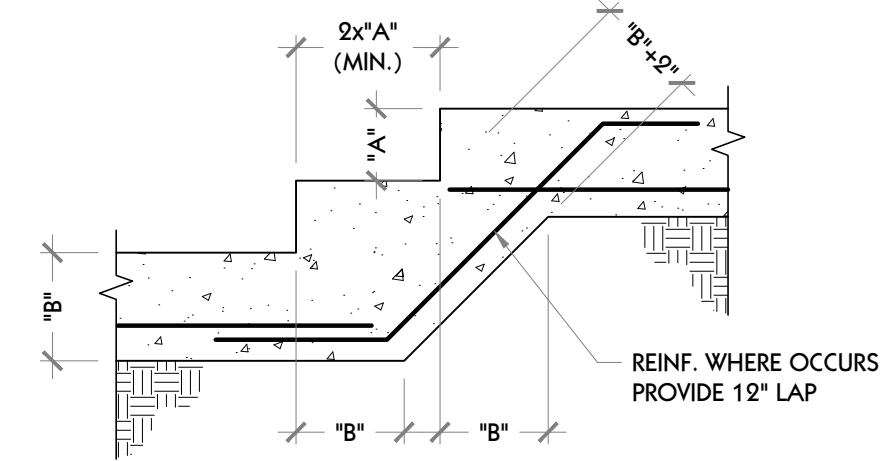
DRAWING INFORMATION

SCALE	AS NOTED
DATE	08-20-23
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PROJECT NUMBER	D2399

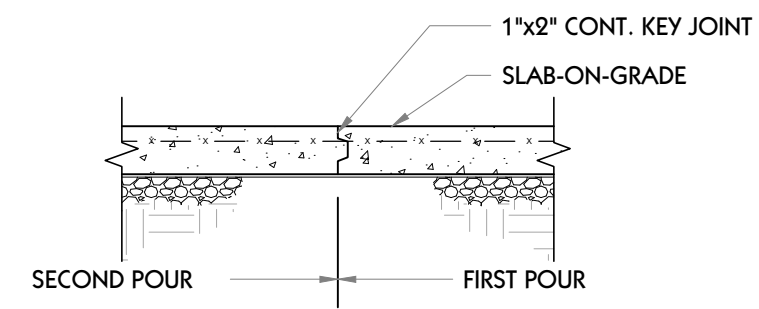
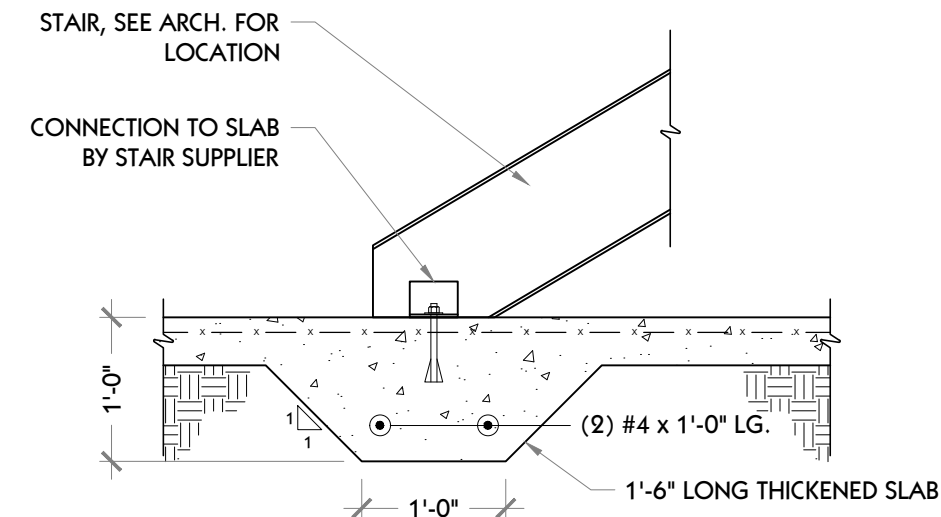
SCHEDULES

DRAWING NUMBER

S201

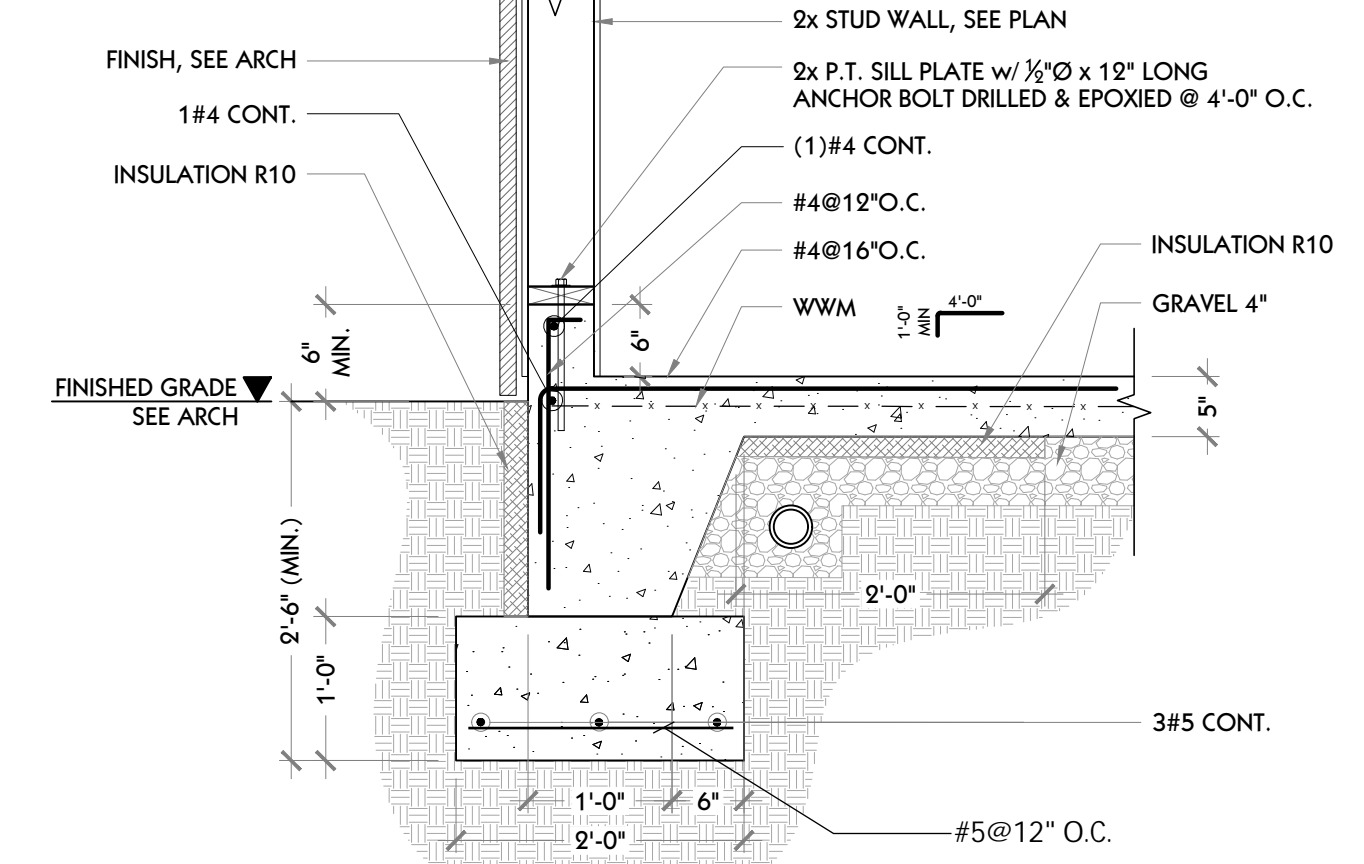
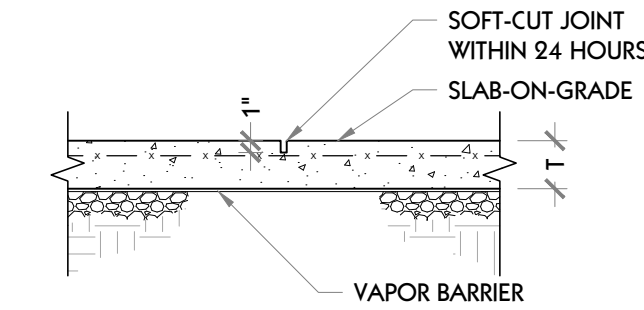


A = STEP DEPTH (24" MAX), SEE PLAN
 B = FOOTING DEPTH, SEE WALL FOOTING SECTION



NOTE: CONSTRUCTION JOINTS SHALL BE SPACED AT INTERVALS OF 15'-0" TO 40'-0" POURING IN ALTERNATE PANELS, NOT EXCEEDING 600 SQ. FT.

TYPICAL CONSTRUCTION JOINT DETAIL

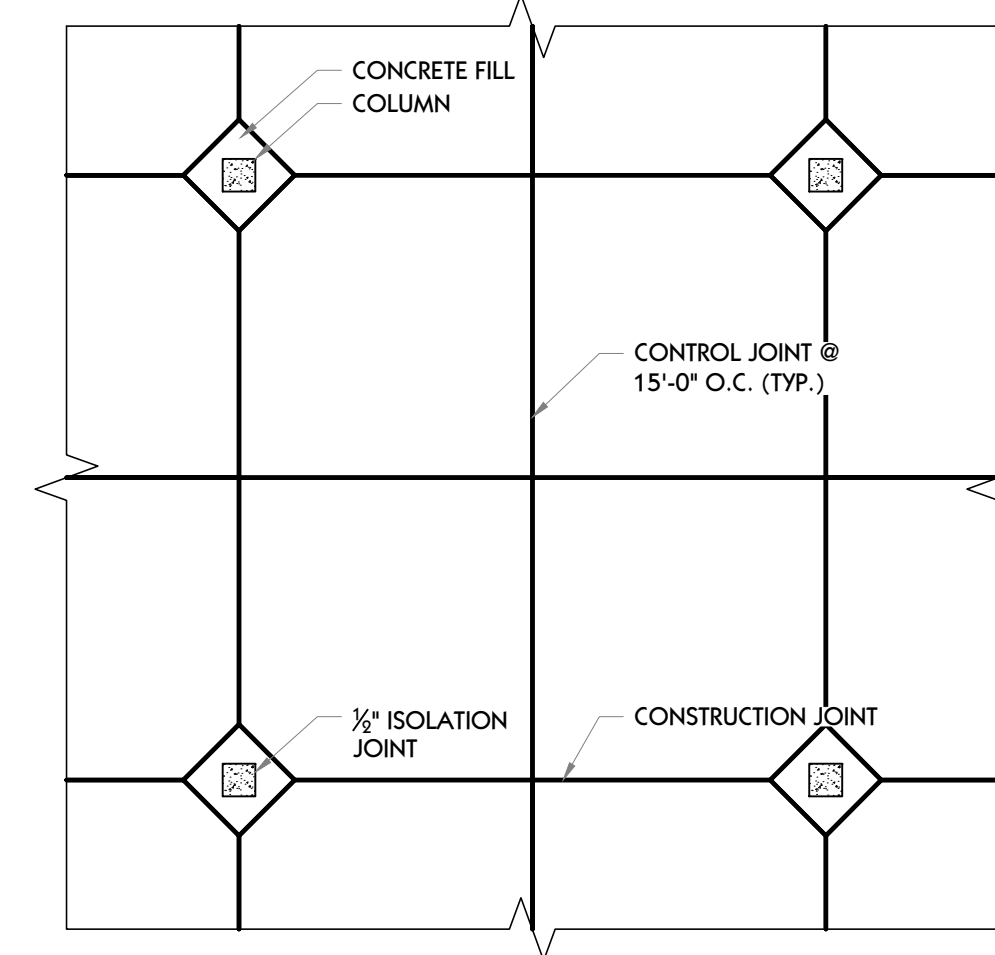
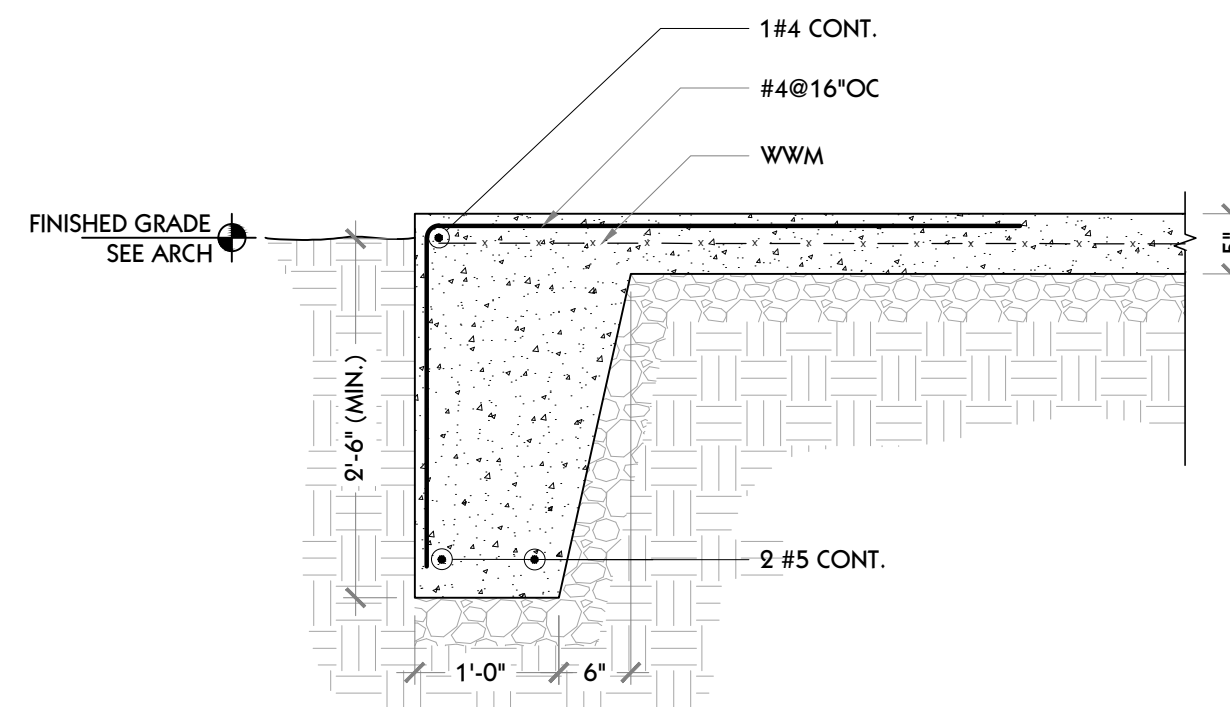
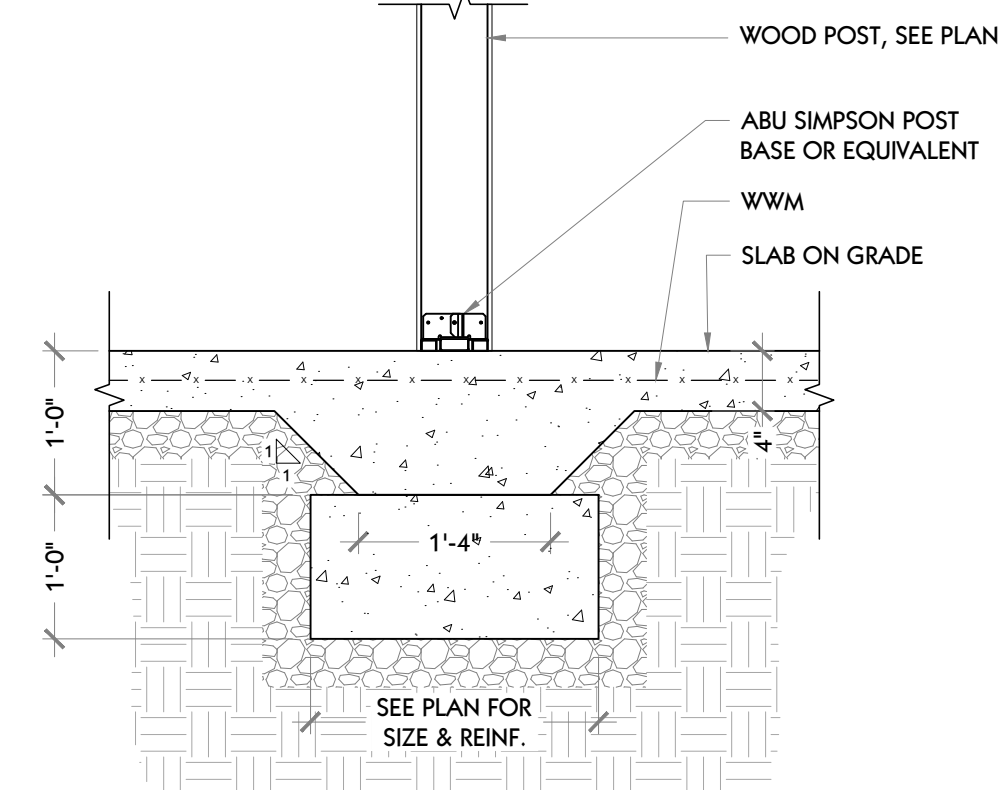
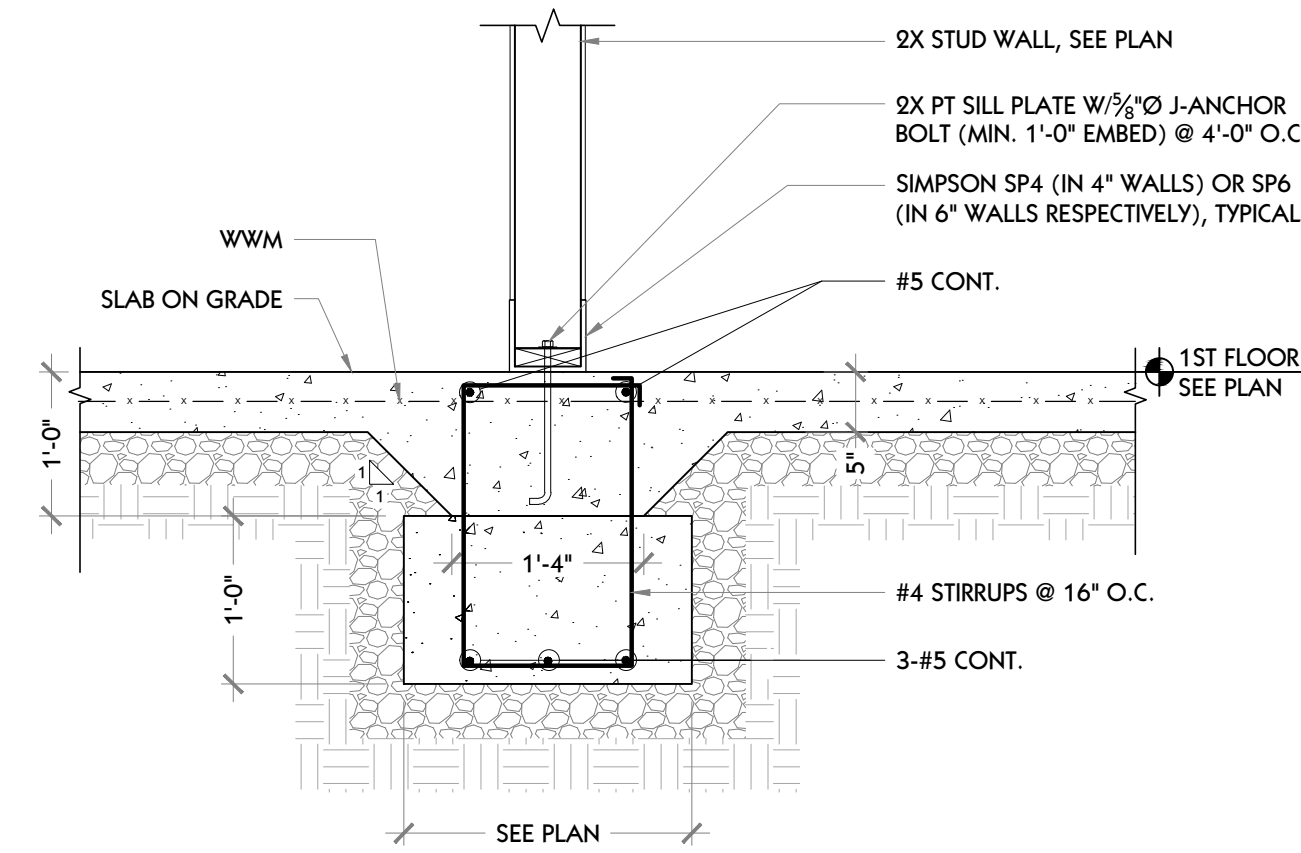


1 S301 STEPPED FOOTING TYPICAL DETAIL SCALE NOT TO SCALE

2 S301 STAIR BASE TYPICAL DETAIL SCALE 3/4" = 1'-0"

3 S301 SLAB - ON - GRADE JOINT DETAILS SCALE NOT TO SCALE

4 S301 EXTERIOR WALL FOUNDATION TYPICAL DETAIL SCALE NOT TO SCALE

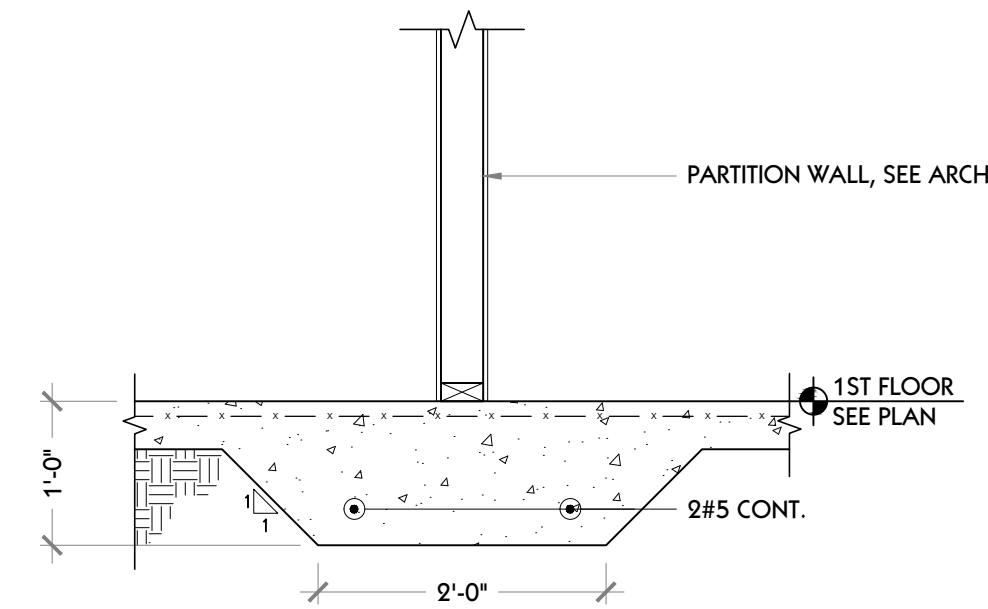


5 S301 INTERIOR WALL FOUNDATION TYPICAL DETAIL SCALE 3/4" = 1'-0"

6 S301 WOOD POST BASE/FTG TYPICAL DETAIL SCALE 3/4" = 1'-0"

7 S301 DOWNTURNED SLAB TYPICAL DETAIL SCALE 3/4" = 1'-0"

8 S301 SLAB-ON-GRADE TYPICAL DETAIL SCALE NOT TO SCALE




NOTE: SEE ARCHITECTURAL DRAWING, FOR EXACT LOCATION OF PARTITION WALLS

9 S301 TYPICAL THICKENED SLAB DETAIL FOR PARTITION WALLS SCALE 3/4" = 1'-0"

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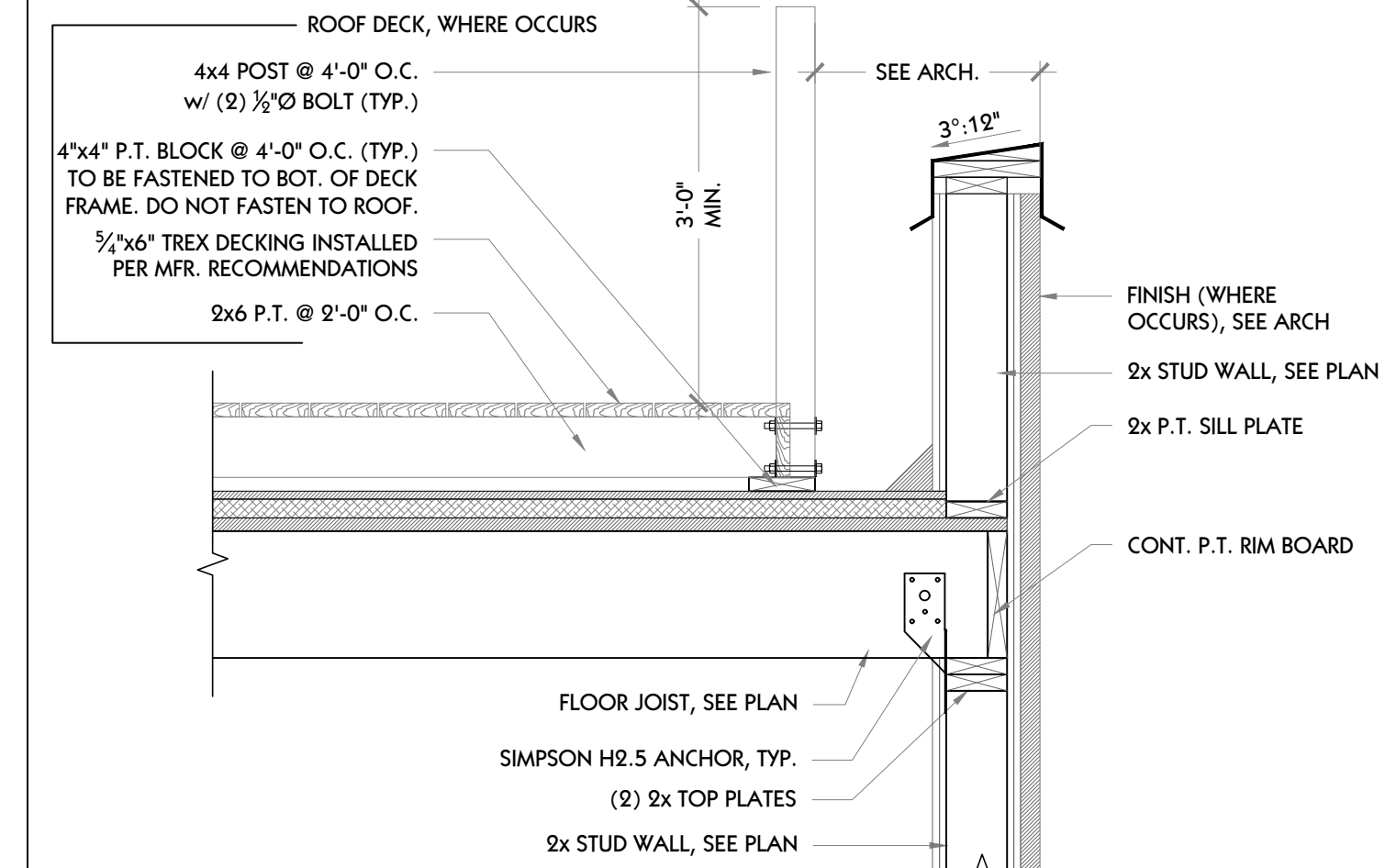
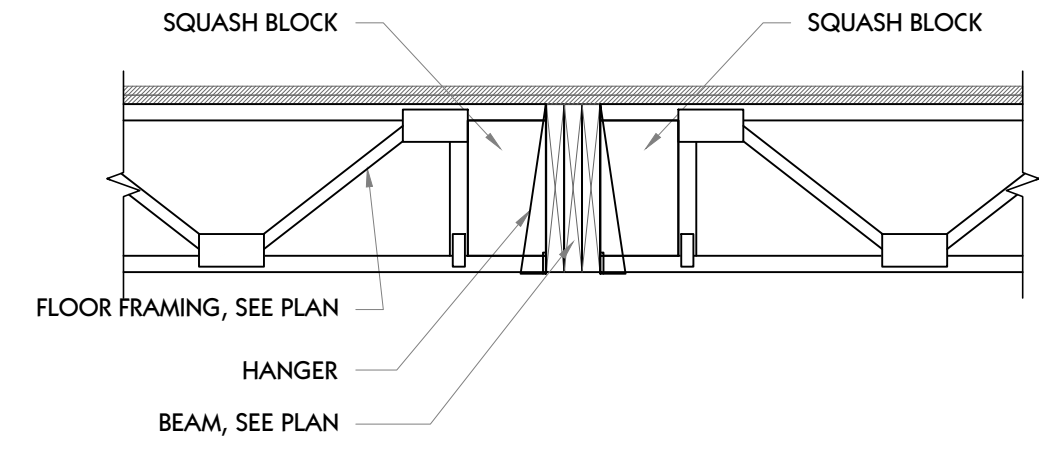
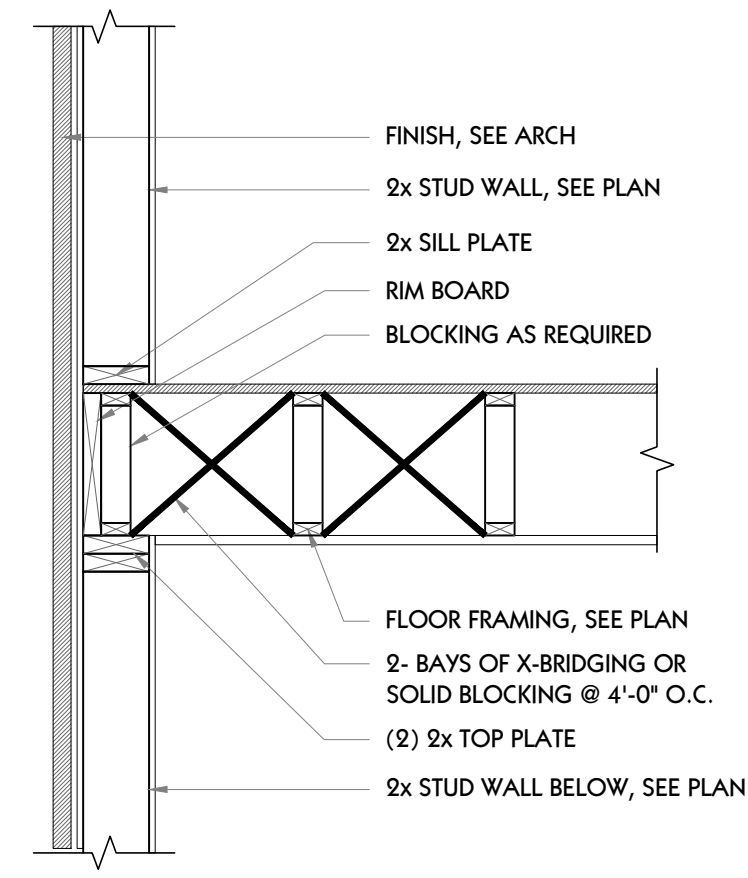
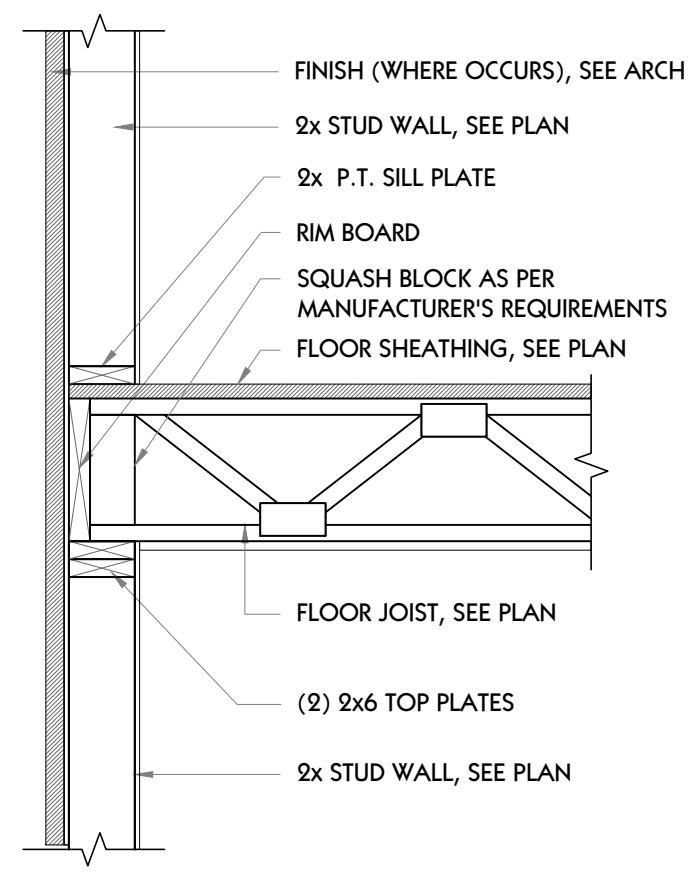
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SECTIONS & DETAILS

SCALE	AS NOTED
DATE	08-20-23
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PROJECT NUMBER	D2329

S301

DRAWING NUMBER



1
S402 PERPENDICULAR JOIST ON END BEARING WALL TYPICAL DETAIL

SCALE
3/4" = 1'-0"

2
S402 PARALLEL JOIST ON END WALL TYPICAL DETAIL

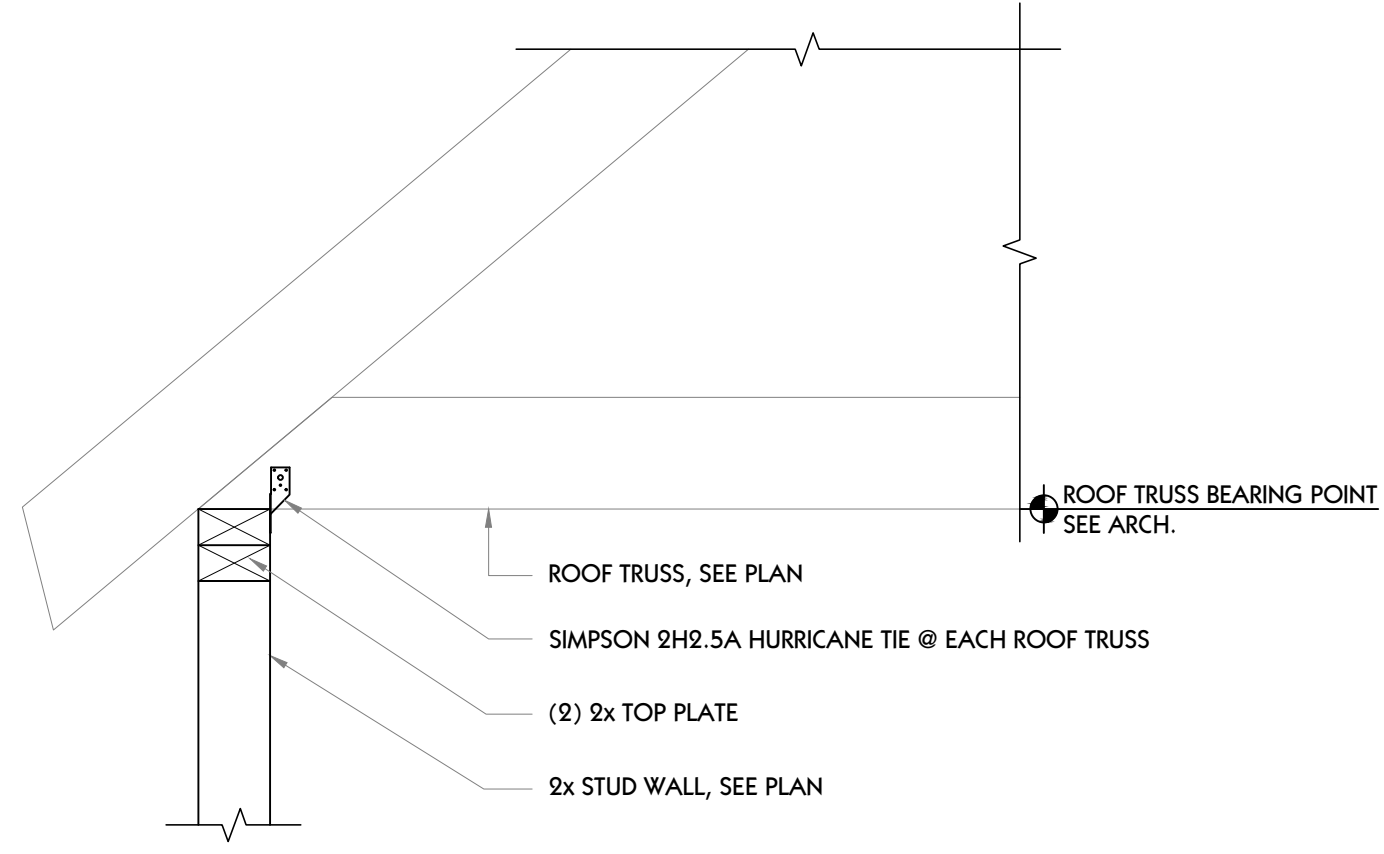
SCALE
3/4" = 1'-0"

3
S402 JOISTS TO LVL BEAM TYPICAL DETAIL

SCALE
3/4" = 1'-0"

4 SECTION

SCALE
3/4" = 1'-0"



5
S402 SECTION

SCALE
3/4" = 1'-0"

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SEAL

TRYON APARTMENTS BUILDING
3015 TRYON RD
RALEIGH, NC 27603

REVISIONS		
NO.	DESCRIPTION	DATE

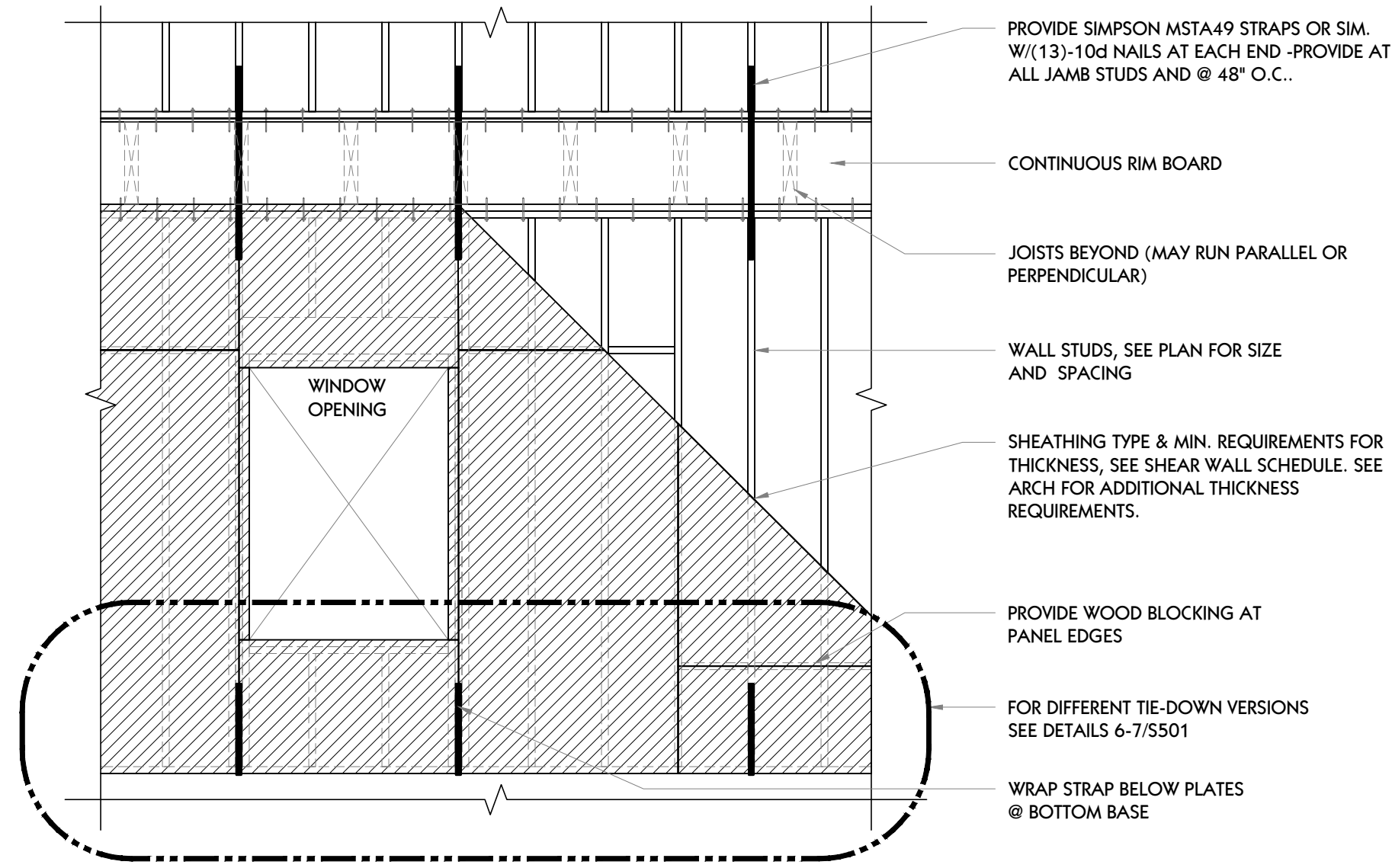
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SECTIONS & DETAILS

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DATE	08-00-03
DRAWN BY	D.G.
PROJECT NUMBER	D2399

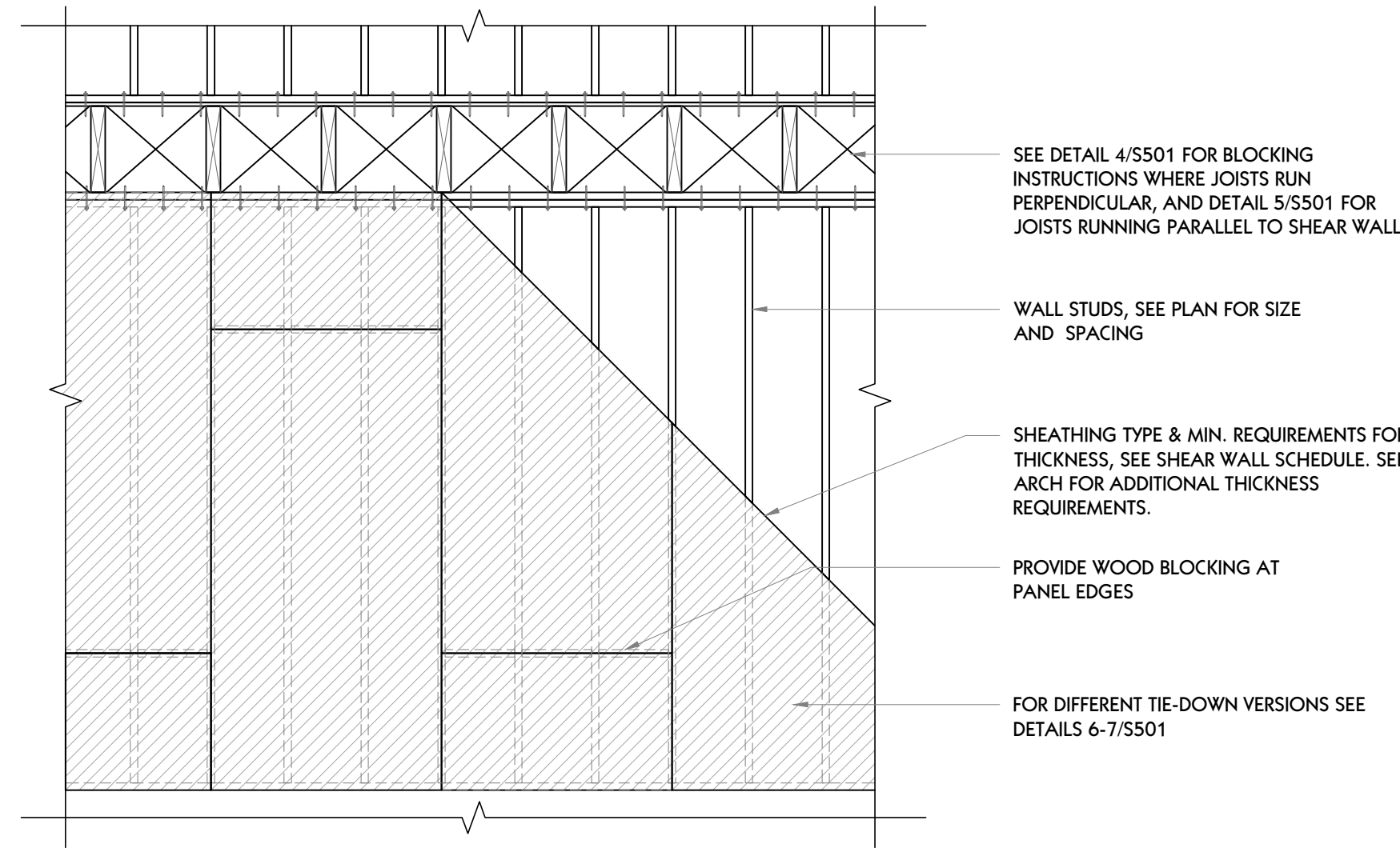
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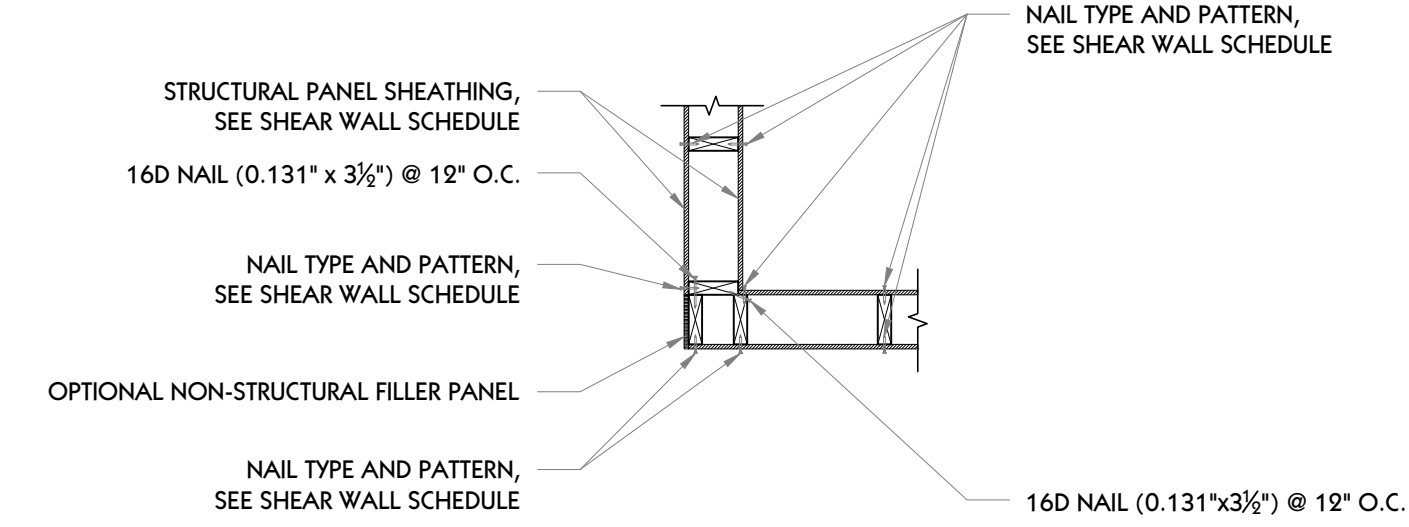
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NOT TO SCALE



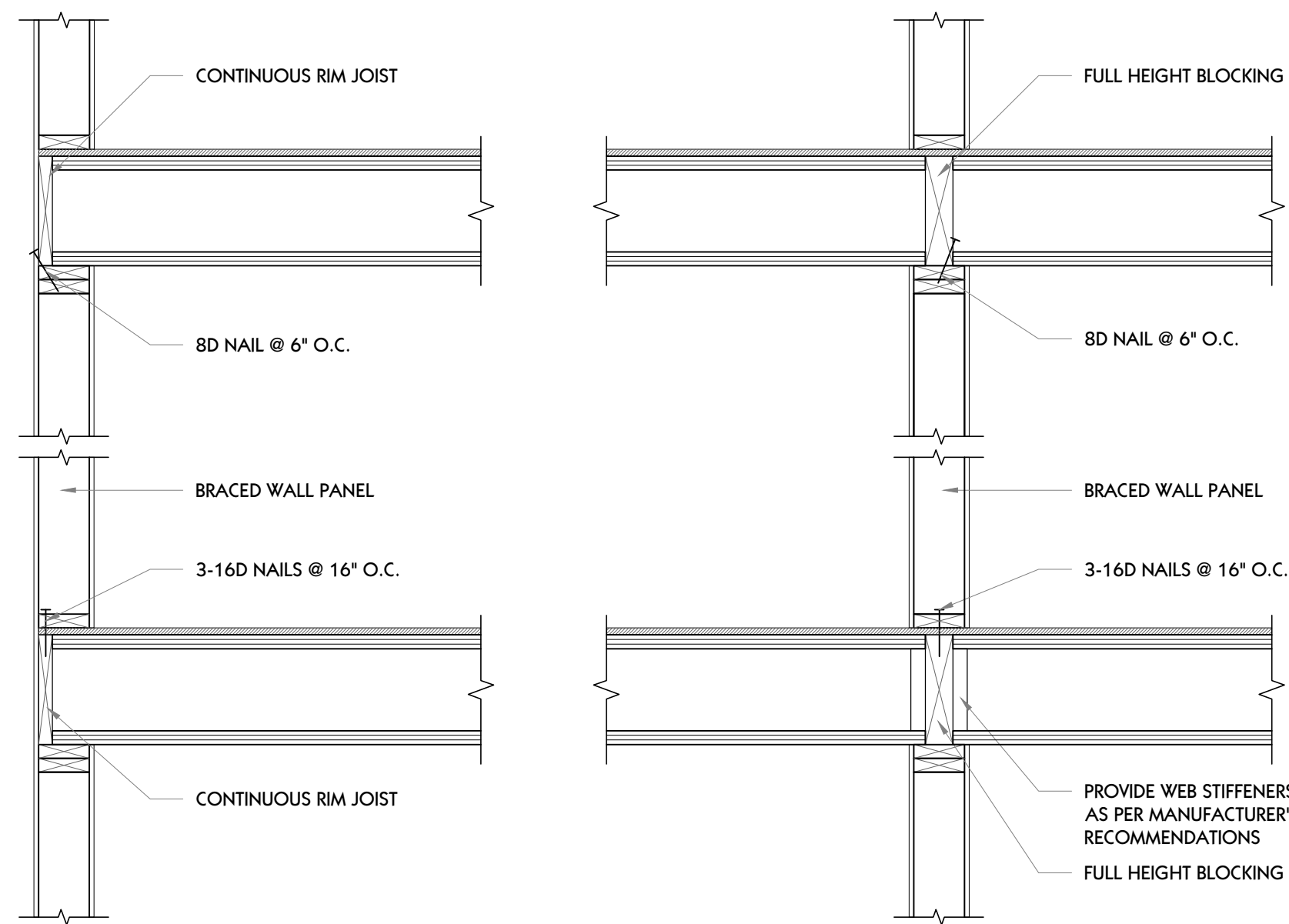
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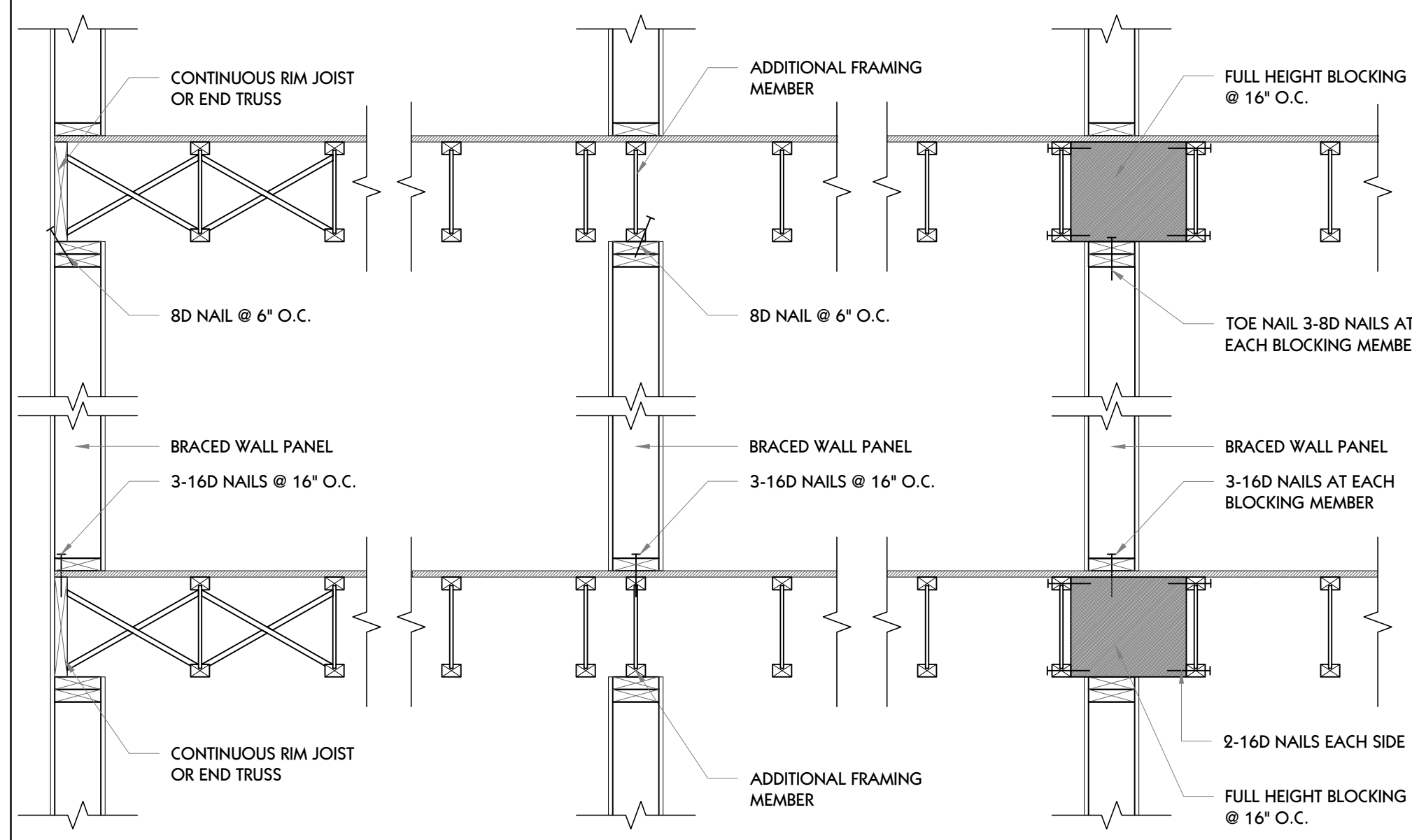
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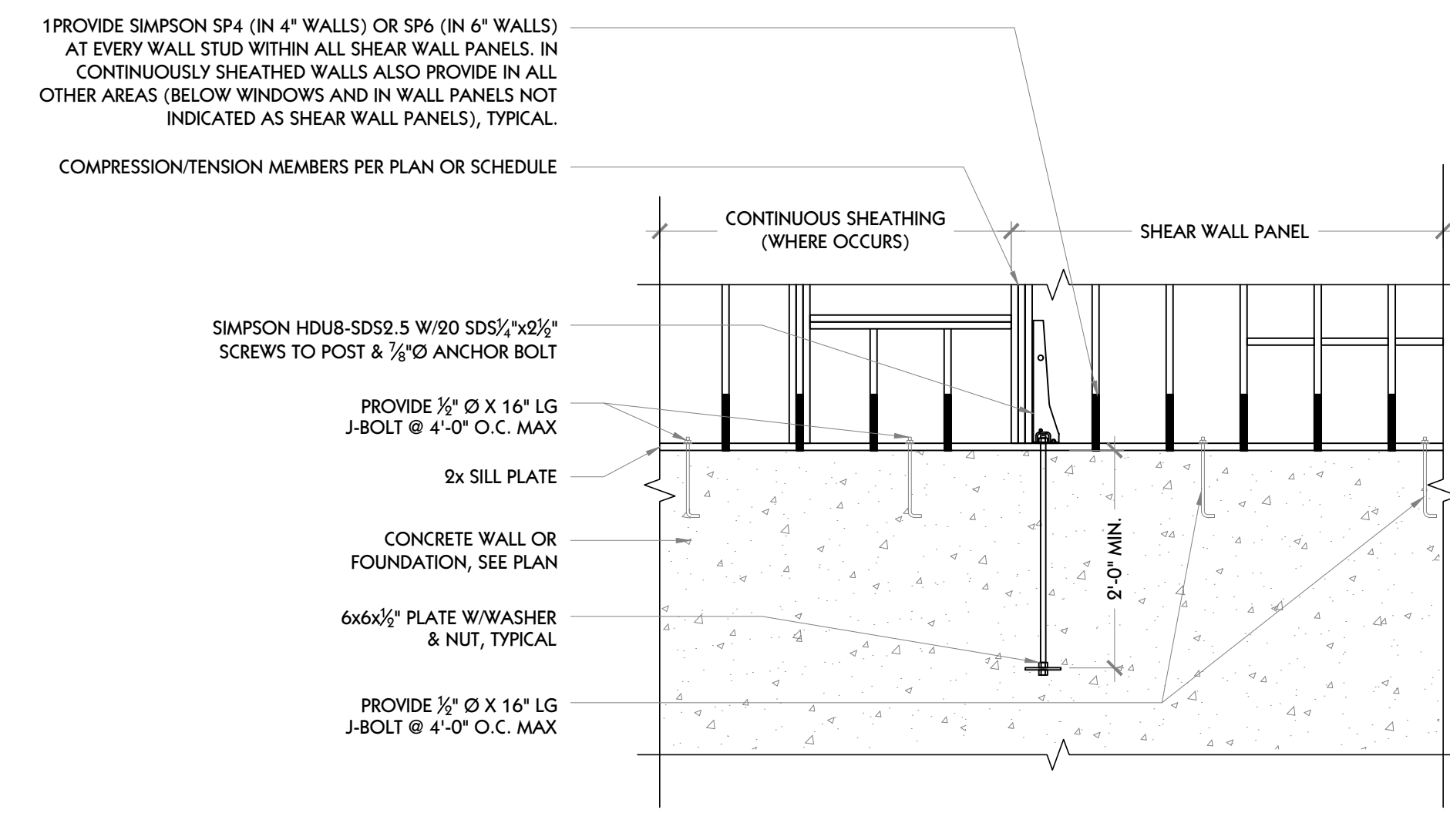
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S501 BRACED WALL PANEL CONNECTION PERPENDICULAR TO FLOOR/CEILING FRAMING

SCALE
NOT TO SCALE



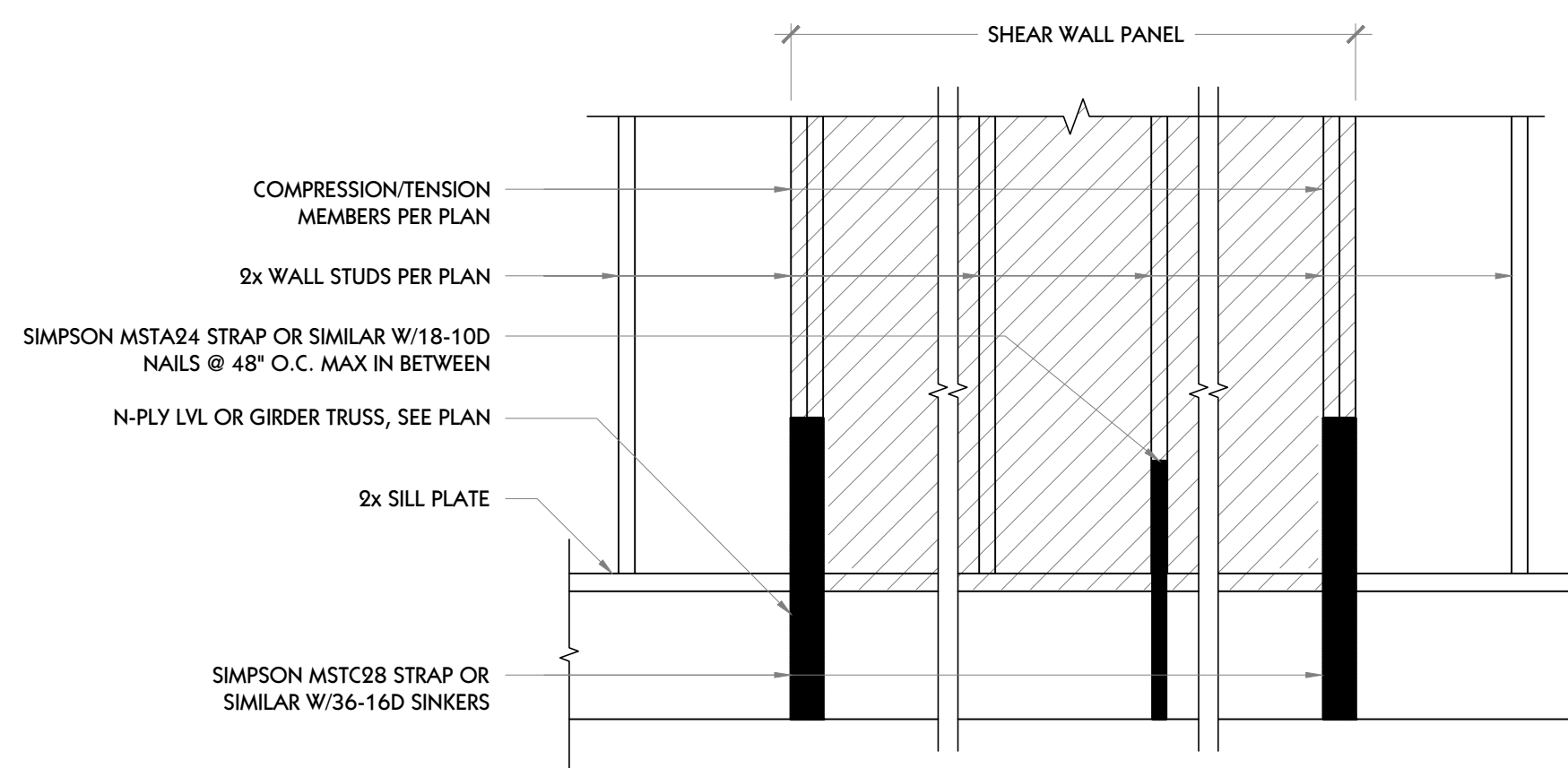
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S501 BRACED WALL PANEL CONNECTION PARALLEL TO FLOOR/CEILING FRAMING

SCALE
NOT TO SCALE



6
S501 TYPICAL HOLD-DOWN DETAIL FOR SHEAR WALLS OVER CMU/CONCRETE

SCALE
NOT TO SCALE



7
S501 TYPICAL HOLD-DOWN OVER WOOD BEAM

SCALE
NOT TO SCALE

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SEAL

TRYON APARTMENTS BUILDING
3015 TRYON RD
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NO.	DESCRIPTION	DATE
	PERMIT SET	08-24-23

DRAWING TITLE

TYPICAL SHEAR WALL DETAILS

SCALE	AS NOTED
DATE	08-20-23
DRAWN BY	D.G.
PROJECT NUMBER	D2329

S501

DRAWING NUMBER

ELECTRICAL SPECIFICATIONS

- WORK TO INCLUDE ALL DEMOLITION, FURNISHING AND INSTALLING ALL ELECTRICAL SYSTEMS AND EQUIPMENT AS SHOWN ON THE PLANS AND AS SPECIFIED HEREIN.
- THE CONTRACTOR SHALL EXAMINE THE DRAWINGS, AND THE JOB SITE AND FULLY INFORM HIMSELF OF ALL EXISTING CONDITIONS AND WORK REQUIRED BY THE DRAWINGS BEFORE SUBMITTING HIS BID. WAIVER OF RESPONSIBILITY OR REQUEST FOR ADDITIONAL PAYMENT BASED ON LACK OF KNOWLEDGE OF CONDITIONS AT THE SITE WILL NOT BE ACCEPTED OR CONSIDERED.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, LOCAL JURISDICTION REQUIREMENTS, AND LOCAL CODE REQUIREMENTS.
- ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR TRADE PERMITS REQUIRED FOR ELECTRICAL WORK.
- ALL ELECTRICAL EQUIPMENT SHALL BEAR THE UNDERWRITER'S LABORATORIES LABEL.
- PROVIDE SHOP DRAWINGS FOR THE FOLLOWING ITEMS:
 - LIGHTING FIXTURES, SWITCHES, RECEPTACLES, PANELBOARDS, AND DISCONNECT SWITCHES. SEE SPECIFICATIONS FOR ADDITIONAL REQUIRED ITEMS
- ALL EQUIPMENT SUCH AS PANELBOARDS, AND DISCONNECTS SWITCHES TO BE AS MANUFACTURED BY GENERAL ELECTRIC, SQUARE-D, CUTLER-HAMMER OR SIEMENS.
- PROVIDE TEMPORARY SERVICE AS NECESSARY FOR LIGHTING AND POWER EQUIPMENT (DRILLS, SAWS, ETC.). VERIFY TEMPORARY REQUIREMENTS WITH GENERAL CONTRACTOR. TEMPORARY LIGHTING AND POWER SHALL MEET OSHA REQUIREMENTS AND LOCAL CODES.
- ADVANCE NOTICE TO BE GIVEN TO THE OWNER BEFORE COMMENCEMENT OF WORK, WHETHER OR NOT AN OUTAGE IS REQUIRED.
- ALL CIRCUITRY, EQUIPMENT, DEVICES, ETC., TO BE NEW UNLESS SPECIFICALLY NOTED ON THE PLANS
- THE FOLLOWING TERMINOLOGY AND MEANINGS WILL BE USED IN THESE SPECIFICATIONS:
 - PANELBOARDS "EQUIPPED SPACE" OR "SPACE": INCLUDE ALL NECESSARY BUS, DEVICE SUPPORTS AND CONNECTIONS FOR INSERTION OF A FUTURE DEVICE.
 - "PROVIDE": FURNISH AND INSTALL.
- FINAL TESTING: AT THE TIME OF FINAL INSPECTION AND TEST, ALL CONNECTIONS AT PANELBOARDS, DEVICES AND EQUIPMENT, AND ALL SPICES MUST BE COMPLETED. EACH BRANCH CIRCUIT AND ITS RESPECTIVE CONNECTED EQUIPMENT MUST TEST FREE OF SHORT CIRCUITS. UPON COMPLETION OF THE WORK, CLEAN AND POLISH ALL EXPOSED SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

SWITCHES, RECEPTACLES & OUTLETS

- PRIOR TO INSTALLATION OF ANY TELEPHONE, TV AND RECEPTACLE OUTLETS, THIS CONTRACTOR SHALL VERIFY ITS FINAL LOCATION WITH THE ARCHITECT AND /OR OWNER REP. THE ARCHITECT MAY, AT HIS OPTION, RELOCATE ANY DEVICE WITHIN 5 FEET FROM THE LOCATION SHOWN ON THE DRAWINGS AT NO CHARGE TO THE OWNER.
- WHERE TWO OR MORE DEVICES OF THE SAME VOLTAGE ARE SHOWN TOGETHER ON THE PLANS, A GANGED PLATE SHALL BE USED. DEVICES OF DIFFERENT VOLTAGES SHALL BE SEPARATED HORIZONTALLY BY 6" AND SHALL BE HORIZONTALLY OR VERTICALLY ALIGNED.
- ALL RECEPTACLES, TELEPHONE, AND DATA OUTLETS SHOWN ON A WALL BACK TO BACK SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY.
- WALL PLATES SHALL BE AS SELECTED BY THE ARCHITECT.
- COORDINATE LIGHT SWITCHES SHOWN ON DRAWINGS WITH DOOR SWINGS. LOCATE LIGHT SWITCH ON LOCK SIDE OF DOOR. UDN ON DRAWINGS

LIGHTING FIXTURES

- COORDINATE LOCATIONS OF LIGHTING FIXTURES WITH SPRINKLERS, MECHANICAL EQUIPMENT AND ARCHITECTURAL CEILING PLAN. LAYOUT ON PLANS IS APPROXIMATE, ADJUST AND COORDINATE LIGHTING FIXTURES IN FIELD PER ARCHITECT'S CEILING PLAN.
- LIGHTING FIXTURE TYPES SHALL BE COMPATIBLE WITH INSTALLATION COORDINATE ALL FIXTURE TYPES WITH ARCHITECT PRIOR TO ORDERING FIXTURES. PROVIDE ALL MOUNTING ATTACHMENTS FOR A COMPLETE INSTALLATION.
- ALL NEW LIGHTING FIXTURES SHALL BE INSTALLED COMPLETE WITH LAMPS. SEE PLANS FOR SPECIFIC REQUIREMENTS.

DISCONNECT SWITCHES

- LOCATE DISCONNECT SWITCH FOR MECHANICAL AND PLUMBING EQUIPMENT TO PERMIT SERVICING OF EQUIPMENT. PROVIDE FUSES IF REQUIRED BY MANUFACTURER OF EQUIPMENT FOR UL APPROVAL. CHECK MOTORS FOR PROPER ROTATION. CONNECT CONDUCTORS AS REQUIRED BY MANUFACTURER.

UTILITY COORDINATION

- COORDINATE ELECTRICAL SERVICE AND INSTALLATION OF NEW SERVICES WITH UTILITY COMPANY.
- COORDINATE INSTALLATION OF NEW TELEPHONE SERVICE WITH THE LOCAL TELEPHONE COMPANY.
- COORDINATE INSTALLATION OF CABLE TV SERVICE WITH THE LOCAL CABLE TV COMPANY.
- COORDINATE INTERNET SERVICE WITH OWNER SELECTED VENDOR.

BRANCH CIRCUITRY

- ALUMINUM CONDUIT IS NOT PERMITTED.
- ALL CIRCUITRY RUNS ARE DIAGRAMMATIC. THE CONTRACTOR TO DETERMINE IN FIELD THE MOST SUITABLE ROUTES.
- MINIMUM SIZE CONDUIT TO BE 3/4".
- NONMETALLIC CONDUIT IS NOT TO BE USED FOR BRANCH CIRCUIT WORK ABOVE GRADE.
- CIRCUITRY TO BE INSTALLED CONCEALED IN FINISHED AREAS.
- CIRCUITRY TO BE INSTALLED TIGHT TO THE UNDERSIDE OF THE FLOOR SLAB ABOVE IN A NEAT WORKMANLIKE MANNER. ALL RUNS TO BE PARALLEL OR PERPENDICULAR TO BUILDING WALLS.
- PROVIDE ALL EMPTY RACEWAYS WITH A DRAG WIRE. EMPTY RACEWAYS 2" OR LARGER IN SIZE TO HAVE A MAXIMUM OF 3-90 DEGREE BENDS.
- MAKE FINAL CONNECTION TO ALL MOTORS AND VIBRATING EQUIPMENT WITH FLEXIBLE CONDUIT, MAXIMUM 6'-0" LENGTH
- ALL CONDUIT/CABLE PENETRATIONS OF EXTERIOR WALLS, FIRE RATED WALLS AND FIRE RATED FLOORS, TO BE CAULKED AND SEALED WATERTIGHT. SEALS FOR FIRE RATED PENETRATIONS TO BE SEALED WITH UL LISTED PUTTY TYPE SEALING COMPOUND.
- PROVIDE HACR TYPE CIRCUIT BREAKERS FOR ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT

INDOOR BRANCH CIRCUITRY

- NM CABLE IS PERMITTED TO SERVE RECEPTACLE AND OTHER EQUIPMENT LOADS IN UNITS, WHERE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- METAL CLAD CABLE (MC CABLE) IS PERMITTED TO SERVE RECEPTACLES AND OTHER EQUIPMENT LOAD. METAL CLAD CABLE (MC) IS PERMITTED IN CONCEALED AREAS SUCH AS CEILING SPACE AND FINISHED WALL AREAS ONLY. INSTALLATION OF CABLE TYPE TO BE APPROVED BY THE AUTHORITY HAVING JURISDICTION
- ALL INDOOR WIRING TO BE INSTALLED IN GALVANIZED EMT FLEXIBLE CABLE OR HEAVY WALL GALVANIZED RIGID STEEL, EXCEPT AS NOTED
- EXPOSED RACEWAYS TO BE INSTALLED PARALLEL/PERPENDICULAR TO WALL, CEILING ETC, SO AS TO BE AS NEAR AS POSSIBLE FOR THE PARTICULAR LOCATION

OUTDOOR BRANCH CIRCUITRY

- ALL CONDUIT SERVING LIGHTING RECEPTACLES AND EQUIPMENT LOCATED ON THE EXTERIOR OF THE BUILDING SHALL BE HEAVY WALL GALVANIZED RIGID STEEL CONDUIT.
- OUTDOOR FEEDER CONDUIT SHALL BE HEAVY WALL GALVANIZED RIGID STEEL.
- RACEWAY FOR UNDERGROUND INCOMING ELECTRICAL AND TELEPHONE SERVICE SHALL BE PVC SCHEDULE 40.
- LIQUID-TITE, MAXIMUM LENGTH 6'-0"

WIRE AND CABLE

- ALL WIRING INSULATION TO BE THHN-THWN.
- ALL WIRING SHALL BE COLOR CODED THROUGHOUT.
- ALL CONDUCTORS SHALL BE COPPER, MINIMUM NO. 12-EXCEPT CONTROL CONDUCTOR AND LIGHTING TAPS AS PERMITTED BY N.E.C. CONDUCTORS FOR SWITCHING LIGHTS SHALL NOT BE CONSIDERED CONTROL CONDUCTORS. TYPE THW OR EQUIVALENT FOR HEATERS OR OTHER UL LISTED DEVICES RATED AT 75 DEG. F. SUPPLY FEED.
- ALL RECEPTACLES, LIGHTING FIXTURES, MOTORS, ETC., SHALL BE GROUNDED.
- INSTALL MULTIPLE HOMERUNS TO ALTERNATELY NUMBERED PANELBOARD CIRCUITS (i.e. 1, 3, 5) SERVING LIGHTING, GENERAL RECEPTACLES, AND MOTORS.
- ALL 120 VOLT. CIRCUIT HOMERUNS OVER 100 LINEAR FEET TO BE A MINIMUM OF #10 CONDUCTORS UNLESS OTHERWISE INDICATED ON THE PLANS.
- FEEDERS TO UNIT PANELBOARDS TO BE ALUMINUM CONDUCTORS, SERVICE ENTRANCE RATED SE, SHALL BE INSTALLED IN ACCORDANCE WITH 230.6, 230.7, AND PARTS II, III, AND IV OF ARTICLE 230

PANELBOARDS

- BEFORE ORDERING PANELBOARDS, COORDINATE ALL MOTOR CIRCUIT BREAKER TRIPS WITH MECHANICAL EQUIPMENT MANUFACTURER'S REQUIREMENTS. COORDINATE CONDUCTOR SIZE WITH ACTUAL MOTORS AND OTHER MECHANICAL AND ARCHITECTURAL EQUIPMENT FURNISHED BEFORE INSTALLING CIRCUITRY. ALL PANELBOARDS TO HAVE COMMON KEYS LOCKS. PROVIDE A MINIMUM OF TWO KEYS PER PANEL. PANELBOARDS TO BE COMPLETE WITH COVER AND TRIM AND SHALL CONTAIN A GROUND BUS.
- SURFACE MOUNTED PANELBOARD CABINETS TO BE INSTALLED ON AN APPROVED STEEL FRAMEWORK TO DISTRIBUTE THE WEIGHT EVENLY TO THE WALL OR FLOOR AND TO PROVIDE A 1-INCH AIR SPACE BETWEEN WALL AND CABINET.
- RECESSED PANELBOARDS, INSTALL ONE 3/4" CONDUIT FROM TOP OF PANEL 6" INTO CEILING SPACE FOR EVERY 3 SPARE CIRCUIT BREAKERS OR SPACES. PANELBOARDS IN UNITS MUST BE COMPLETELY RECESSED AND BE PROVIDED WITH A FLUSH MANUFACTURER COVER
- PROVIDE ARC-FAULT CIRCUIT INTERRUPTER PROTECTION ON ALL BRANCH CIRCUITS SUPPLYING 125-VOLT, 15-AND 20-AMPERE OUTLETS IN ALL DWELLING UNITS.

GENERAL ELECTRICAL NOTES

- ALL ELECTRICAL MATERIALS AND EQUIPMENT INSTALLED IN LOCATION EXPOSED TO MOISTURE OR THE ELEMENTS SHALL BE WEATHERPROOF- WHETHER OR NOT SHOWN AND NOTED.
- ALL 120 VOLT BRANCH CIRCUITS EXTENDING 100 OR MORE FEET (200 FEET FOR 208V OR ABOVE) IN LENGTH FROM THAT CIRCUIT'S PANEL C/B, TO THE LAST DEVICE OR CONNECTION ON THE RUN, SHALL BE PROVIDED WITH CONDUCTORS OF A.W.G. AMPACITY RATING MINIMUM ONE SIZE LARGER THAN THE AMPACITY OF THAT CIRCUIT'S C/B SIZE. i.e. 20A. C/B, 30A. WIRE SIZE, ETC., WHETHER OR NOT SHOWN AND NOTED
- PROVIDE SEPARATE INSULATED GREEN GROUND CONDUCTOR WITH THE BRANCH CIRCUIT OR FEEDER WIRING FOR ALL SINGLE OR THREE PHASE CIRCUITS, WHETHER OR NOT SHOWN AND NOTED
- PROVIDE ALL CONDUITS FOR COMMUNICATIONS WITH CAT 5 DATA/TELEPHONE CABLE, COORDINATE WITH OWNER FOR FINAL CONNECTIONS IN BASEMENT TELEPHONE ROOM.
- ALL DISCONNECT SWITCHES SHALL BE HEAVY DUTY, 240 VOLT RATED, NEMA 1 IN DRY LOCATIONS, NEMA 3R WHERE INSTALLED IN ANY LOCATION EXPOSED TO THE ELEMENTS. WHERE NUMBERS ARE SHOWN ADJACENT TO SYMBOL (i.e. 60/50 FIRST NO= SWITCH SIZE SECOND NO= FUSE (GENERALLY K5 CLASS)). NF = NEB FUSE TYPE DISCONNECT SWITCH UNLESS OTHERWISE REQUIRED BY MECHANICAL EQUIPMENT WITH "FUSE ONLY PROTECTION". FOR THIS SITUATION, CONTRACTOR SHALL PROVIDE FUSED DISCONNECT SWITCH WITH FUSES AS RECOMMENDED BY EQUIPMENT SUPPLIERS.
- PROVIDE 3/4" x 8'-0" HIGH PLYWOOD BACKBOARD FOR TELEPHONE EQUIPMENT. LOCATION OF BACKBOARD SHALL BE DETERMINED IN FIELD OR AS SHOWN ON DRAWINGS.
- THIS CONTRACTOR SHALL EXTEND WIRE TO ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AND MAKE FINAL AND COMPLETE CONNECTIONS TO SAME. BEFORE ROUGHING-IN OUTLETS, THE LOCATION AND TYPE OF OUTLET SHALL BE VERIFIED FROM SHOP DRAWINGS OF THE EQUIPMENT. ALL OUTLETS AND CONNECTIONS TO EQUIPMENT SHALL BE MADE FROM THE WALLS EXCEPT WHERE SPECIAL FLOOR OUTLETS ARE INDICATED. PROVIDE A FLUSH JUNCTION BOX IN THE WALL BENEATH THE OPERATING LEVEL OF THE EQUIPMENT AND CONNECT TO THE EQUIPMENT WITH FLEXIBLE CONDUIT. DO NOT RUN ANY CONDUIT EXPOSED. EQUIPMENT HAVING BUILT-IN SWITCHES SHALL BE COMPLETELY WIRED AS REQUIRED. PLUGS AND CORDS ON THE EQUIPMENT SHALL BE REPLACED, SHORTENED OR LENGTHENED AS REQUIRED BY THIS CONTRACTOR TO SUIT THE OUTLETS FURNISHED. PROVIDE A SEPARATE GROUND WIRE AND CONNECTION FOR ALL EQUIPMENT. THE CONTRACTOR SHALL COORDINATE TO INSURE THAT EACH PIECE OF EQUIPMENT IS SUITABLE FOR THE VOLTAGE CHARACTERISTIC AT THE POINT OF CONNECTION.
- ELECTRICAL CONTRACTOR SHALL INSTALL ALL MOTOR STARTERS/CONTROLLERS SHOWN OR NOT SHOWN ON THE PLANS. PROVIDE DISCONNECT SWITCHES AS INDICATED ON THE PLANS OR AS REQUIRED. DO NOT INSTALL MOTOR STARTERS/CONTROLLERS SHOWN OR NOT SHOWN IN THE CEILING SPACES, UNLESS OTHERWISE APPROVED.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL TELE/CATV/ OUTLET BOXES AND CONDUIT IN LOCATIONS AS SHOWN ON THE DRAWINGS. WHETHER SHOWN OR NOT SHOWN ON ELECTRICAL DRAWINGS. PROVIDE SLEEVES AS REQUIRED AND FIRE SEAL SLEEVES AFTER ALL CABLES ARE INSTALLED.
- ALL 125-VOLT, SINGLE PHASE, 15- AND 20 AMPERE RECEPTACLES OVER COUNTERTOPS IN KITCHENS MUST BE GFI PROTECTED REGARDLESS OF PLACEMENT AND/OR DISTANCE FROM THE SINK. WHERE RECEPTACLES INSTALLED WITHIN 6' (MEASURED HORIZONTALLY) OF A SINK, SHALL BE GFCI TYPE (WHETHER OR NOT SHOWN AND NOTED).
- PROVIDE TOGGLE SWITCH FOR FAN CONTROL AND ALL ASSOCIATED INTERLOCK/INTERCONNECTIONS. VERIFY EXACT LOCATION OF CONNECTION AND SWITCH LOCATION IN FIELD.
- CONTRACTOR TO VERIFY THE SPECIAL SINGLE RECEPTACLES NEMA CONFIGURATION REQUIRED BY EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
- ALL CONDUIT AT THE EXTERIOR OF THE BUILDING SHALL COMPLY WITH 358.10 (C) FOR CORROSION PROTECTION; THAT CONDUIT BE SEALED WHERE IT ENTERS THE BUILDING OR ENTERS REFRIGERATED SPACES (AW NEC 300.7 AND THAT) CIRCUIT CONDUCTORS SHALL BE SUITABLE FOR INSTALLATION IN WET LOCATION PER NEC 300.9.
- ALL TERMINATIONS OF CONDUCTORS 100A OR LESS SHALL COMPLY WITH NEC 110.14 (C) (1) (a).
- CIRCUITS PROPOSED AT THE ROOF COMPLY WITH NEC 310.15 (B) (2) (C).
- CONTRACTOR SHALL PROVIDE LABELS FOR DISCONNECTS COMPLYING WITH NEC 110.22 & 408.4. RELATIVE TO PANEL BOARD CIRCUIT DIRECTORY ENTRIES. SUFFICIENT DESCRIPTION SHALL BE GIVEN TO DETERMINE THE LOAD SERVED BY THE CIRCUIT. THIS DESCRIPTION SHALL BE UNIQUE AND ALLOW THE CIRCUIT TO BE DISTINGUISHED FROM ALL OTHER CIRCUITS SERVED BY THE PANEL.
- CONTRACTOR SHALL COMPLY WITH NEC 110.14 (C)(1) & (2).
- CONTRACTOR SHALL CONFIRM THAT THE CONSTRUCTION DOCUMENTS ARE COORDINATED WITH MECHANICAL AND PLUMBING DISCIPLINES AND COMPLIANCE WITH NEC 110.26(F) IS ACHIEVED. CONFIRM SERVICE EQUIPMENT MOUNTING LOCATION PROVIDES COMPLIANCE WITH NEC 110.26(A), (D), (E), & (F)(2).
- CONTRACTOR SHALL COMPLY WITH 300.5(B), 300.7(A), 300.9, & 310.8(C) AS REQUIRED.
- ALL LUMINAIRES SHALL BE SUPPORTED IN ACCORDANCE WITH NEC 410.30 & 410.36
- ALL NON-LOCKING, 125V, 15 & 20A RECEPTACLES INSTALLED IN ALL AREAS IDENTIFIED IN NEC 210.52 TO BE LISTED TAMPER RESISTANT RECEPTACLES. SEE NEC 406.12.

ELECTRICAL SYMBOLS

	JUNCTION BOX. MOUNT AS SHOWN ON PLANS. SIZE AS REQUIRED.	
	SWITCH	
	THREE-WAY SWITCH	
	FOUR-WAY SWITCH	
	RHEOSTAT	
	SPEAKER CONTROL PANEL	
	CONNECTION FOR CEILING EXHAUST FAN	
	MOTOR CONNECTION	
	BRANCH CIRCUIT WIRING CONCEALED IN SLAB OR UNDERGROUND	
	BRANCH CIRCUIT HOMERUN TO PANELBOARD. NUMBER OF ARROWS DENOTE NUMBER OF CIRCUITS. NUMBER OF HASH MARKS DENOTE NUMBER OF WIRES WHEN MORE THAN TWO. TICK MARK INDICATES GROUND CONDUCTOR. SEE PANEL SCHEDULE FOR WIRE SIZE.	
	CONDUIT UP	
	CONDUIT DOWN	
	DISCONNECT SWITCH SIZE AS REQUIRED TO BE FUSED UNLESS OTHERWISE NOTED. 60/50 NUMERAL INDICATES SWITCH/ FUSE SIZE.	
	DUPLEX OUTLET	
	SWITCHED DUPLEX OUTLET	
	GFI DUPLEX OUTLET	
	GFI DUPLEX OUTLET (WEATHERPROOF)	
	FLOOR MTD. DUPLEX OUTLET	
	FLOOR MTD. SWITCHED DUPLEX OUTLET	
	CEILING MTD. DUPLEX OUTLET	
	220V. OUTLET	
	AUDIO SYSTEM SPEAKER JACK	
	DUPLEX RECEPTACLE 120 VOLT, 20 AMPS, 18' AFF UDN	
	GFCI TYPE, WP= WEATHERPROOF COVER	
	X = CIRCUIT NUMBERS INDICATE HOMERUN TO APARTMENT PANELS UNLESS OTHERWISE INDICATED (TYPICAL)	
	GROUND AS PER LOCAL AND NATIONAL ELECTRIC CODES	
	ELECTRIC SERVICE PANEL	

LIGHTING FIXTURE SCHEDULE								
SYMBOL	DESCRIPTION	LOCATION	MANUFACTURER	MODEL #	FINISH	WATTS	LUMENS	NOTES
	CEILING MOUNTED LAMP	PLAN	TBD	TBD	TBD	TBD	TBD	
	WALL MOUNTED GLOBE	PLAN	TBD	TBD	TBD	TBD	TBD	
	CEILING RECESSED FIXTURE	PLAN	TBD	TBD	TBD	TBD	TBD	
	WIRE FOR FAN ONLY	PLAN	TBD	TBD	TBD	TBD	TBD	
	WIRE FOR FAN WITH LIGHT	PLAN	TBD	TBD	TBD	TBD	TBD	
	EMERGENCY LIGHT	PLAN	TBD	TBD	TBD	TBD	TBD	

LIGHTING FIXTURE SCHEDULE NOTES:

- ALL LIGHTING FIXTURES TO BE APPROVED BY THE ARCH/ OWNER PRIOR TO ORDERING AND INSTALLING.
- ARCHITECT TO SELECT COLOR OF LIGHTING FIXTURES
- REFER TO ARCHITECTURAL REFLECTED CEILING AND ELEVATION PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS.
- A MINIMUM OF 85 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS OR A MINIMUM OF 85 PERCENT OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL CONTAIN ONLY HIGH EFFICACY LAMPS.
- IC-RATED RECESSED LIGHTING FIXTURES SEALED AT HOUSING/INTERIOR FINISH AND LABELED TO INDICATE ≤ 2.0 CFM LEAKAGE AT 75 PA.
- RECEPTACLES AS INDICATED AND WHERE REQUIRED BY CODE.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO:

2017 NEC NATIONAL ELECTRICAL CODE

GENERAL NOTES

No.	REVISION/ISSUE	Date



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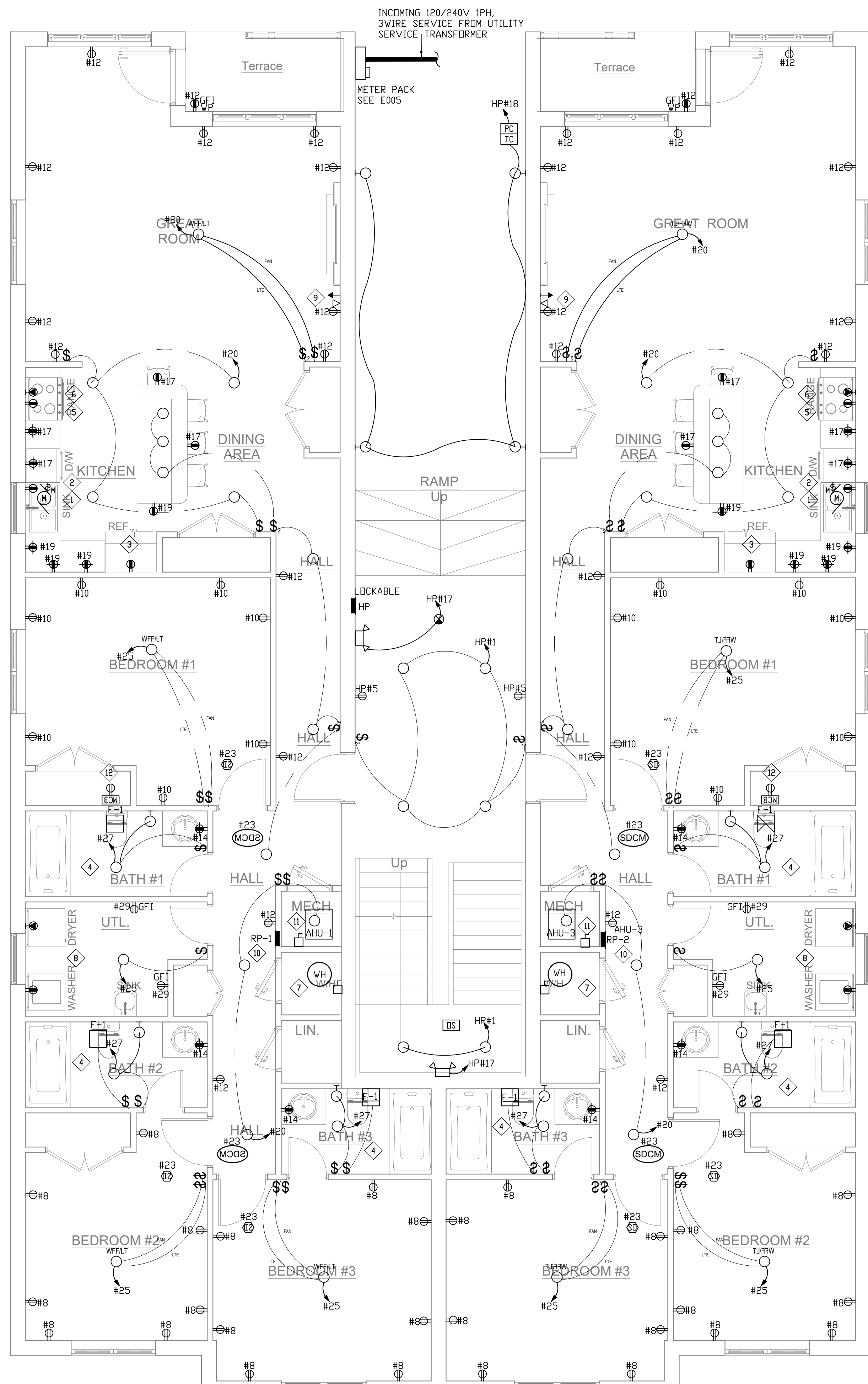
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Project Name and Address
TRYON APARTMENTS BUILDING
 3015 Tryon Rd
 Raleigh, NC 27603

SHEET NAME ELECTRICAL COVER SHEET	Sheet
Date 7/7/2023	E000
Scale As Noted	

UNIT #1

UNIT #2



INCOMING 120/240V 1PH,
3WIRE SERVICE FROM UTILITY
SERVICE TRANSFORMER

METER PACK
SEE E005

GENERAL NOTES:

- A. REFER TO DRAWING E000, E003 & E004 FOR SPECIFICATION, POWER RISER DIAGRAM & PANEL SCHEDULES.
- B. ALL 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPE RE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY ANY OF THE MEANS DESCRIBED IN NEC 2017 210.12(A) (1) THROUGH (6) AND 210.12(B).
- C. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS, QUANTITY AND POWER REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT.
- D. REFER TO PLUMBING DRAWINGS FOR LOCATIONS, QUANTITY AND POWER REQUIREMENTS FOR ALL PLUMBING EQUIPMENT.
- E. COORDINATE WITH THE OWNER FOR FINAL LIGHTING SWITCH LOCATIONS. TYPICAL THROUGHOUT PLAN.
- F. NO BACK TO BACK OUTLET INSTALLATION IS ALLOWED. ALL OUTLET SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 210-52 OF NEC.
- G. PROVIDE TAMPER-RESISTANT OUTLETS IN ALL UNITS. EXCEPT RECEPTACLES LOCATED MORE THAN 5-1/2 FT ABOVE THE FLOOR.
- H. CONNECT LIGHTING FIXTURES LABEL 'EW', EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS LIGHTING TO THE UNSWITCHED LEG OF LIGHTING CIRCUIT. TYPICAL THROUGHOUT PLAN.
- I. ALL CEILING MOUNTED SMOKE DETECTOR IN APARTMENTS TO BE 120VAC WITH BATTERY BACKUP AND SHALL BE INTERCONNECTED TO OTHERS IN THE SAME APARTMENT. SMOKE DETECTOR AND CARBON MONOXIDE SHALL BE INSTALLED NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINING A SHOWER OR TUB. IT SHALL NOT BE LOCATED IN DIRECT AIRFLOW, OR CLOSER THAN 3 FT FROM AIR SUPPLY DIFFUSER OR RETURN AIR OPENING. IT SHALL NOT BE INSTALLED WITHIN 10 FEET OF COOKING APPLIANCES UNLESS THEY ARE SPECIFICALLY LISTED FOR THAT LOCATION. BETWEEN 10 AND 20 FEET FROM THE COOKING APPLIANCE, EITHER A PHOTOELECTRIC SMOKE ALARM OR A SMOKE ALARM EQUIPPED WITH AN ALARM-SILENCING MEANS IS PERMITTED.
- J. RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE AIR TIGHT, IC RATED, AND SEALED TO THE DRYWALL. FOR FIRE RATED CEILING, RECESSED LUMINARIES SHALL BE LISTED FOR INSTALLATION IN THE FIRE RATED FLOOR-CEILING/ROOF-CEILING ASSEMBLY OR PROVIDE 1-HR FIRE RATED UL LISTED ENCLOSURE. SEE DETAIL DN E005.
- K. ALL 15- AND 20-AMPERE, 125- AND 250-VOLT NONLOCKING RECEPTACLES USED IN WET & DAMP LOCATIONS SHALL BE A LISTED WEATHER-RESISTANT TYPE PER NEC 406.9 (A) & (B).
- L. ALL 15- AND 20-A, 120-V BRANCH CIRCUITS THAT SUPPLY OUTLETS (INCLUDING RECEPTACLE, LIGHTING, AND OTHER OUTLETS) IN THE HABITABLE SPACES EXCEPT WHERE GFCI REQUIRED SHALL BE AFCI PROTECTED. (NEC 2017 210.12.J)
- M. ALL ELECTRICAL BOXES PENETRATING FIRE-RESISTANCE RATED CEILING MEMBRANES MUST MEET THE REQUIREMENTS OF THE 2015 DCBC CHAPTER 7 FOR PENETRATING ITEMS. SEE DETAIL DN E005.

DRAWING NOTES

- 1. DISPOSAL- 120 VOLT, 1/2 HP, MANUAL MOTOR STARTER SWITCH. CONNECT TO RP*/15, COORDINATE WITH ARCHITECT FOR LOCATION.
- 2. DISHWASHER RECEPTACLE UNDER SINK, CONNECT TO RP*/13. THE DISHWASHER RECEPTACLE MUST BE ACCESSIBLE & GFI UNDER THE SINK) OR, IF HARDWIRED, MUST HAVE A DISCONNECT CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
- 3. RECEPTACLE FOR REFRIGERATOR, MH 3'-0" AFF CONNECT TO RP*/11, COORDINATE WITH ARCHITECT FOR LOCATION.
- 4. EXHAUST FAN F-1, COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATION. CONNECT TO RP*/22. PROVIDE RADIATION DAMPERS IN BATHROOM EXHAUST FANS MATCHING CEILING FIRE RATING. REFER TO E0003 FOR DENTALS.
- 5. PROVIDE RECEPTACLE IN CABINET FOR MICROWAVE IF REQUIRED. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT PROVIDED. SEE ARCHITECTURAL ELEVATIONS. CONNECT TO RP*/21.
- 6. GAS RANGE, CONNECT TO RP*/29 PROVIDE A RANGE RECEPTACLE WITH MATCHING CORD & PLUG MOUNTED 24" A.F.F.
- 7. ELECTRIC WATER HEATER, 240V, 1#, PROVIDE WITH 1-30A DISCONNECT. CONNECT TO RP*/16,18, COORDINATE WITH PLUMBING DRAWINGS FOR LOCATION.
- 8. GFI RECEPTACLE FOR WASHER/DRYER, CONNECT DRYER TO RP*/2,4 AND WASHER TO CIRCUIT RP*/6, COORDINATE WITH ARCHITECT FOR LOCATION AND REQUIREMENT.
- 9. COORDINATE WITH THE ARCHITECT FOR RECEPTACLES, TELEPHONE, TV OUTLET, AND LIGHTING SWITCH COVER PLATES. TYPICAL THROUGHOUT PLAN.
- 10. ELECTRICAL PANEL, REFER TO E003 FOR PANEL SCHEDULE
- 11. AHU-** COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATION AND UNIT NUMBER, PROVIDE DISCONNECT, FUSE PER REQUIRE BY MANUFACTURER. CONNECT TO RP*/5,7.
- 12. LOCATION OF APARTMENT MULTI MEDIA CABINET. (REFER TO OWNER TELECOM FOR REQUIREMENTS). RUN (1) CAT5E & (1) RG-6 COAX BETWEEN EACH CABINET & TELECOM BACKBOARD. CONNECT TO RP*/9.

GENERAL NOTES

No.	REVISION/ISSUE	Date



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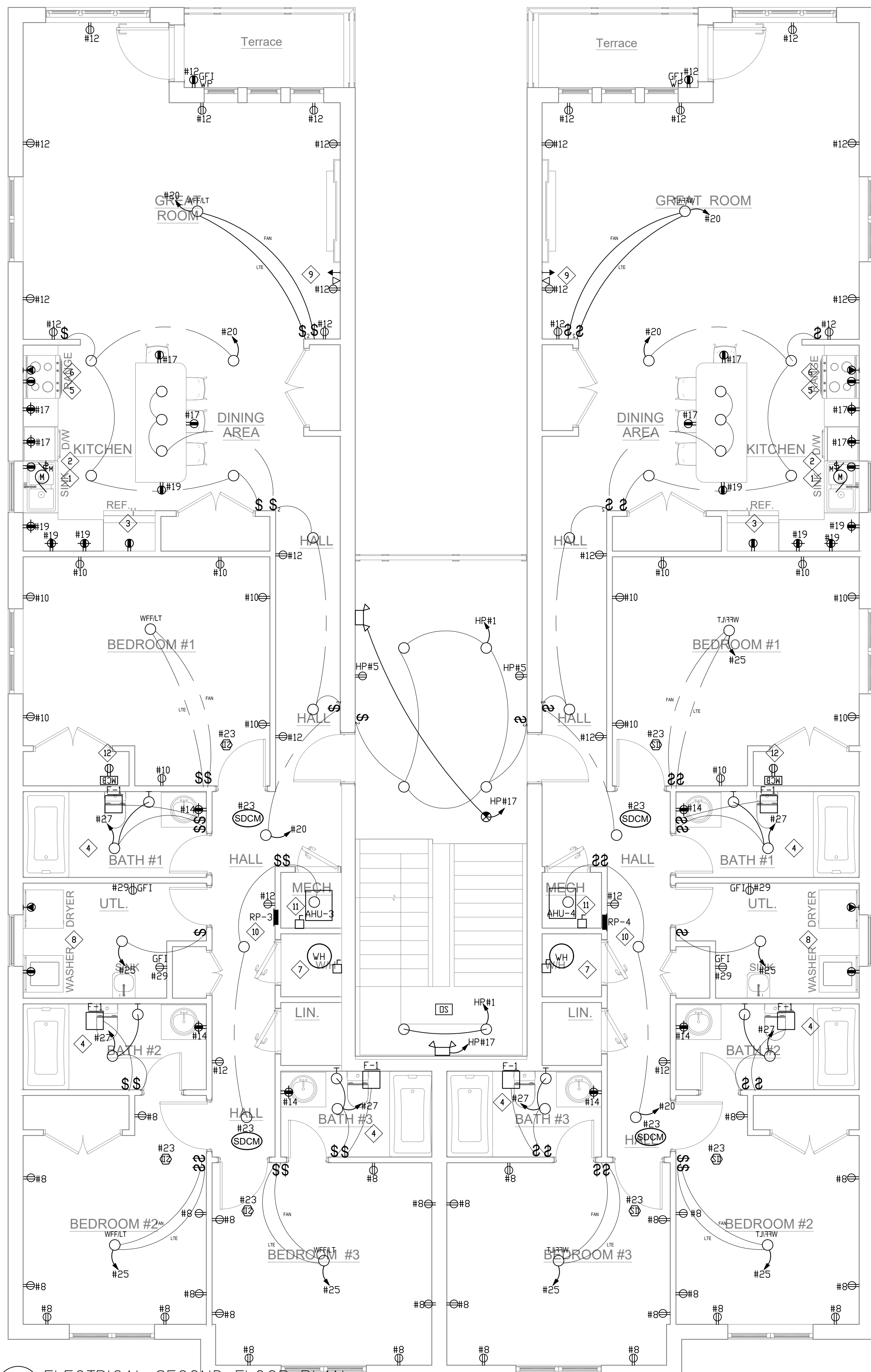
Project Name and Address
TRYON APARTMENTS BUILDING
 3015 Tryon Rd
 Raleigh, NC 27603

SHEET NAME ELECTRICAL FLOOR PLAN	Sheet
Date 7/7/2023	E001
Scale As Noted	

1 ELECTRICAL FIRST FLOOR PLAN
 SCALE: 1/4"=1'-0"

UNIT #3

UNIT #4



1 ELECTRICAL SECOND FLOOR PLAN
SCALE: 1/4"=1'-0"

GENERAL NOTES:

- A. REFER TO DRAWING E000, E003 & E004 FOR SPECIFICATION, POWER RISER DIAGRAM & PANEL SCHEDULES.
- B. ALL 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY ANY OF THE MEANS DESCRIBED IN NEC 2017 210.12(A) (1) THROUGH (6) AND 210.12(B).
- C. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS, QUANTITY AND POWER REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT.
- D. REFER TO PLUMBING DRAWINGS FOR LOCATIONS, QUANTITY AND POWER REQUIREMENTS FOR ALL PLUMBING EQUIPMENT.
- E. COORDINATE WITH THE OWNER FOR FINAL LIGHTING SWITCH LOCATIONS. TYPICAL THROUGHOUT PLAN.
- F. NO BACK TO BACK OUTLET INSTALLATION IS ALLOWED. ALL OUTLET SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 210-52 OF NEC.
- G. PROVIDE TAMPER-RESISTANT OUTLETS IN ALL UNITS. EXCEPT RECEPTACLES LOCATED MORE THAN 5-1/2 FT ABOVE THE FLOOR.
- H. CONNECT LIGHTING FIXTURES LABEL 'EW', EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS LIGHTING TO THE UNSWITCHED LEG OF LIGHTING CIRCUIT. TYPICAL THROUGHOUT PLAN.
- I. ALL CEILING MOUNTED SMOKE DETECTOR IN APARTMENTS TO BE 120VAC WITH BATTERY BACKUP AND SHALL BE INTERCONNECTED TO OTHERS IN THE SAME APARTMENT. SMOKE DETECTOR AND CARBON MONOXIDE SHALL BE INSTALLED NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINING A SHOWER OR TUB. IT SHALL NOT BE LOCATED IN DIRECT AIRFLOW OR CLOSER THAN 3 FT FROM AIR SUPPLY DIFFUSER OR RETURN AIR OPENING. IT SHALL NOT BE INSTALLED WITHIN 10 FEET OF COOKING APPLIANCES UNLESS THEY ARE SPECIFICALLY LISTED FOR THAT LOCATION. BETWEEN 10 AND 20 FEET FROM THE COOKING APPLIANCE, EITHER A PHOTOELECTRIC SMOKE ALARM OR A SMOKE ALARM EQUIPPED WITH AN ALARM-SILENCING MEANS IS PERMITTED.
- J. RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE AIR TIGHT, IC RATED, AND SEALED TO THE DRYWALL. FOR FIRE RATED CEILING, RECESSED LUMINARIES SHALL BE LISTED FOR INSTALLATION IN THE FIRE RATED FLOOR-CEILING/ROOF-CEILING ASSEMBLY OR PROVIDE 1-HR FIRE RATED UL LISTED ENCLOSURE. SEE DETAIL ON E005.
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- L. ALL 15- AND 20-A, 120-V BRANCH CIRCUITS THAT SUPPLY OUTLETS (INCLUDING RECEPTACLE, LIGHTING, AND OTHER OUTLETS) IN THE HABITABLE SPACES EXCEPT WHERE GFCI REQUIRED SHALL BE AFCI PROTECTED. [NEC 2017 210.12.]
- M. ALL ELECTRICAL BOXES PENETRATING FIRE-RESISTANCE RATED CEILING MEMBRANES MUST MEET THE REQUIREMENTS OF THE 2015 IBC CHAPTER 7 FOR PENETRATING ITEMS. SEE DETAIL ON E005.

DRAWING NOTES

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- 3. RECEPTACLE FOR REFRIGERATOR, MH 3'-0" AFF CONNECT TO RP*/11, COORDINATE WITH ARCHITECT FOR LOCATION.
- 4. EXHAUST FAN F-1, COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATION. CONNECT TO RP*/22. PROVIDE RADIATION DAMPERS IN BATHROOM EXHAUST FANS MATCHING CEILING FIRE RATING. REFER TO E003 FOR DENTALS.
- 5. PROVIDE RECEPTACLE IN CABINET FOR MICROWAVE IF REQUIRED. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT PROVIDED. SEE ARCHITECTURAL ELEVATIONS. CONNECT TO RP*/21.
- 6. GAS RANGE, CONNECT TO RP*/29 PROVIDE A RANGE RECEPTACLE WITH MATCHING CORD & PLUG MOUNTED 24" A.F.F.
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- 10. ELECTRICAL PANEL, REFER TO E003 FOR PANEL SCHEDULE.
- 11. AHU-** COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATION AND UNIT NUMBER, PROVIDE DISCONNECT, FUSE PER REQUIRE BY MANUFACTURER. CONNECT TO RP*/5,7.
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GENERAL NOTES

No.	REVISION/ISSUE	Date

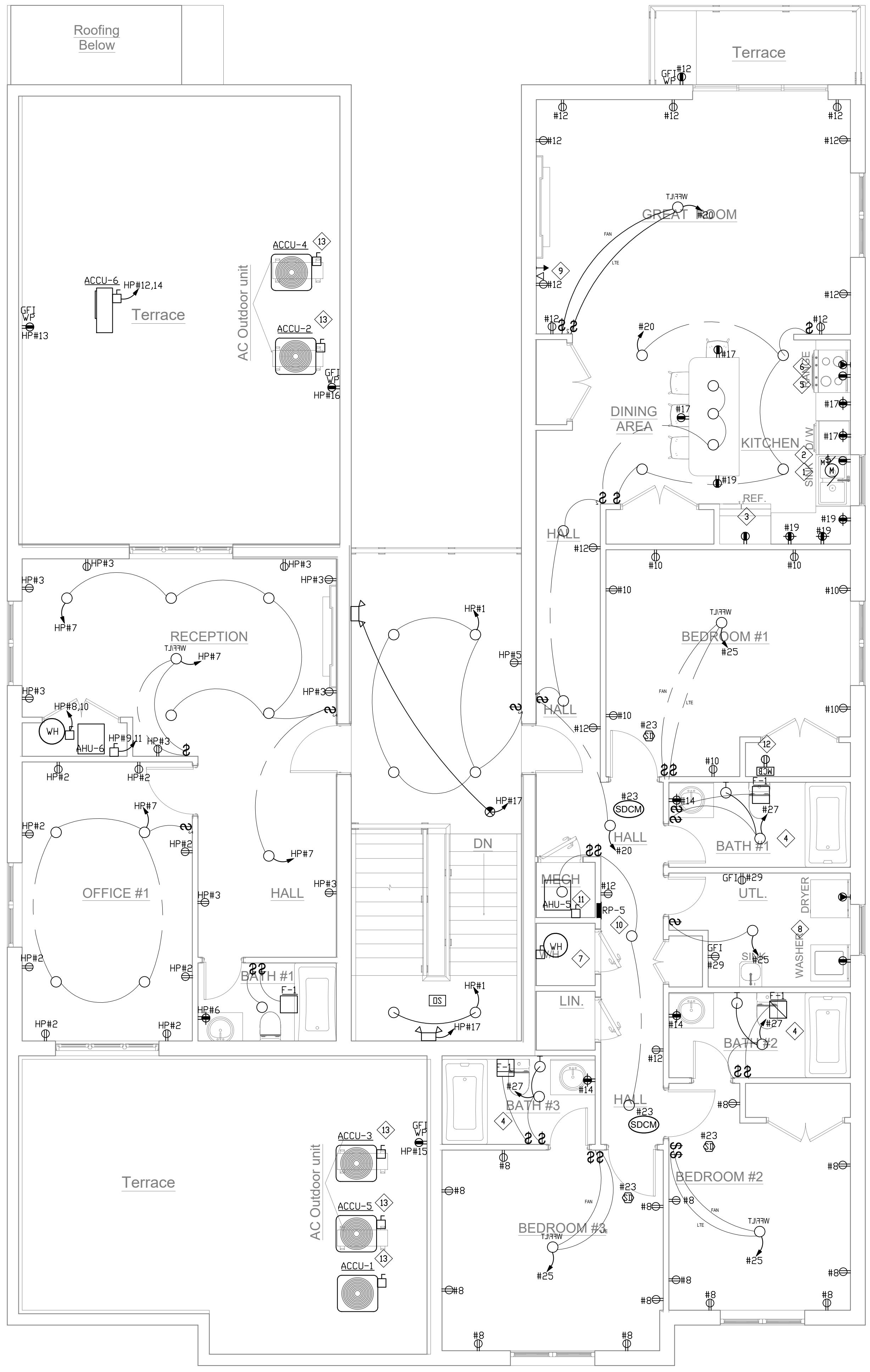


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 3015 Tryon Rd
 Raleigh, NC 27603

SHEET NAME ELECTRICAL FLOOR PLAN	Sheet
Date 7/7/2023	E002
Scale As Noted	



GENERAL NOTES:

- A. REFER TO DRAWING E000, E003 & E004 FOR SPECIFICATION, POWER RISER DIAGRAM & PANEL SCHEDULES.
- B. ALL 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, BENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY ANY OF THE MEANS DESCRIBED IN NEC 2017 210.12(A) (1) THROUGH (6) AND 210.12(B).
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- M. ALL ELECTRICAL BOXES PENETRATING FIRE-RESISTANCE RATED CEILING MEMBRANES MUST MEET THE REQUIREMENTS OF THE 2015 IBC CHAPTER 7 FOR PENETRATING ITEMS. SEE DETAIL ON E005.

DRAWING NOTES

- 1. DISPOSAL: 120 VOLT, 1/2 HP. MANUAL MOTOR STARTER SWITCH. CONNECT TO RP*/15, COORDINATE WITH ARCHITECT FOR LOCATION.
- 2. DISHWASHER RECEPTACLE UNDER SINK. CONNECT TO RP*/13. THE DISHWASHER RECEPTACLE MUST BE ACCESSIBLE & GFCI (UNDER THE SINK) OR, IF HARDWIRED, MUST HAVE A DISCONNECT CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
- 3. RECEPTACLE FOR REFRIGERATOR, MH 3'-0" AFF. CONNECT TO RP*/11, COORDINATE WITH ARCHITECT FOR LOCATION.
- 4. EXHAUST FAN F-1, COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATION. CONNECT TO RP*/22. PROVIDE RADIATION DAMPERS IN BATHROOM EXHAUST FANS MATCHING CEILING FIRE RATING. REFER TO E003 FOR DENTALS.
- 5. PROVIDE RECEPTACLE IN CABINET FOR MICROWAVE IF REQUIRED. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT PROVIDED. SEE ARCHITECTURAL ELEVATIONS. CONNECT TO RP*/21.
- 6. GAS RANGE, CONNECT TO RP*/29 PROVIDE A RANGE RECEPTACLE WITH MATCHING CORD & PLUG MOUNTED 24" A.F.F.
- 7. ELECTRIC WATER HEATER, 240V, 1Ø, PROVIDE WITH 1-30A DISCONNECT. CONNECT TO RP*/16,18, COORDINATE WITH PLUMBING DRAWINGS FOR LOCATION.
- 8. GFI RECEPTACLE FOR WASHER/DRYER, CONNECT DRYER TO RP*/2,4 AND WASHER TO CIRCUIT RP*/6, COORDINATE WITH ARCHITECT FOR LOCATION AND REQUIREMENT.
- 9. COORDINATE WITH THE ARCHITECT FOR RECEPTACLES, TELEPHONE, TV OUTLET, AND LIGHTING SWITCH COVER PLATES. TYPICAL THROUGHOUT PLAN.
- 10. ELECTRICAL PANEL, REFER TO E003 FOR PANEL SCHEDULE.
- 11. AHU-** COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATION AND UNIT NUMBER, PROVIDE DISCONNECT, FUSE PER REQUIRE BY MANUFACTURER. CONNECT TO RP*/7,5.
- 12. LOCATION OF APARTMENT MULTI MEDIA CABINET. (REFER TO OWNER TELECOM FOR REQUIREMENTS). RUN (1) CAT5E & (1) RG-6 CDAX BETWEEN EACH CABINET & TELECOM BACKBOARD. CONNECT TO RP*/9.
- 13. PROVIDE 30A/2P/240V NEMA 3R DISCONNECT SWITCH AND CONNECT CONDENSING UNIT. UTILIZE FLEXIBLE LIQUID TIGHT CONDUIT BETWEEN DISCONNECT AND CONDENSING UNIT. COORDINATE LOCATION WITH MECHANICAL CONTRACTORS. CONNECT TO RP*/1,3.

GENERAL NOTES		
No.	REVISION/ISSUE	Date



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Project Name and Address
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 3015 Tryon Rd
 Raleigh, NC 27603

SHEET NAME	ELECTRICAL FLOOR PLAN	Sheet
Date	7/7/2023	E003
Scale	As Noted	

1 ELECTRICAL THIRD FLOOR PLAN
 SCALE: 1/4"=1'-0"

Worksheet using the NEC Optional Calculation for a 5-FAMILY Dwelling
(Based on NEC 220.84)

- This optional calculation may be used for a three family dwelling or more if all of the following conditions are met
- (1.) No dwelling unit is supplied by more than one feeder.
 - (2.) Each dwelling unit is equipped with electric cooking equipment.
 - (3.) Each dwelling unit is equipped with either electric space heating or air conditioning, or both.

STEP 1
(Required loads for dwelling units)

	sq. ft. @ 3 watts sq. ft (Total all units)	21975	watts
7325	Small Appliance Circuits @ 1500 watts ea.	15000	watts
10	(Minimum is 2 per unit)		
5	Laundry Circuit(s) @ 1500 watts ea. (Minimum is 1 per unit)	7500	watts
		44475	watts

STEP 2

TOTAL QTY	List All Appliance Loads (Nameplate Ratings in watts) (Volts X Amps = Watts):	TOTAL of ALL units	watts
5	Ranges, Cooktops, Ovens 8000	40000	watts
5	Electrical Water Heaters 5500	27500	watts
5	Electric Clothes Dryers - See * 5000	25000	watts
5	Refrigerators 1200	6000	watts
5	Dishwasher 1200	6000	watts
5	Disposals 800	4000	watts
5	MICROWAVE 1500	7500	watts
		116000	watts

(* Electric dryers use 5000 watts each or nameplate ratings, total of all units)

Conditions: Single family dwelling, heating load is larger than air-conditioning load. **UNIT-3**
(Heat Pump and/or Electric Space Heating)
(Based on NEC 220.82)

Added Loads (less HVAC)

	sq. ft. @ 3 watts sq. ft	4395	watts
2	Small Appliance Circuits @ 1500 watts ea. (Minimum 2)	3000	watts
1	Laundry Circuit(s) @ 1500 watts ea. (Minimum is 1)	1500	watts
5500	Elect Water Heater	5500	watts
5000	Clothes Dryer	5000	watts
8000	Electric Range	8000	watts
1200	Refrigerator	1200	watts
1200	DISHWASHER	1200	watts
800	Disposal	800	watts
1500	Microwave Oven	1500	watts
		32095	watts

Service Demand

General Load:

First 10kw of Total Calculated Load (less HVAC) @ 100%	10000	watts
Remainder of Total Calculated Load (less HVAC) @ 40%	8838	watts
Total General Load	18838	watts

HVAC Load:

240	Nameplate Heat Pump Compressor load @ 100%	3360	watts
14	(Volts X Amps = Watts)		
7680	Nameplate Electric Space Heating Load @ 65%	4992	watts
	(Nameplate Rating in watts X .65) ((NEC 220.82 (C)(4)(5)))		
		8352	watts

Total General Load	+	Total HVAC Load	=	Calculated Service Load
18838	watts	8352	watts	27190

Calculated Service Load	÷	Service Voltage	=	Minimum Service Ampacity
27190	watts	240	volts	113.29

REV. NO.	CONDUCTOR SIZE	CIRCUIT DESCRIPTION	KVA A	KVA B	DEVICE AMP/POLE	DEVICES	DEVICES	KVA A	KVA B	CIRCUIT DESCRIPTION	CONDUCTOR SIZE	REV. NO.
2#10+1#10G(CU)	ACCU-X		1.68		25/2	1	2	30/2	2.50	DRYER	3#10+1#10G(CU)	
2#8+1#10G(CU)	AHU-X		3.84	3.84	45/2	5	6	20/1	1.50	WASHER	2#12+1#12G(CU)	
						7	8	20/1	1.20	RECEPT BEDROOM	2#12+1#12G(CU)	
						9	10	20/1	1.00	RECEPT BEDROOM	2#12+1#12G(CU)	
						11	12	20/1	1.50	RECEPT LIVING/CORRIDOR	2#12+1#12G(CU)	
						13	14	20/1	0.80	BATHROOM GFI	2#12+1#12G(CU)	
						15	16	20/1	2.25	ELECT WATER HEATER	2#10+1#10G(CU)	
						17	18	20/1	2.25			
						19	20	20/1	0.50	LIVING/CORRIDOR LIGHTS	2#12+1#12G(CU)	
						21	22	20/1	0.25	EXHAUST FAN	2#12+1#12G(CU)	
						23	24			SPACE		
						25	26			SPACE		
						27	28	50/2	4.00	ELECTRIC RANGE	3#6+1#10G(CU)	
						29	30		4.00			
TOTAL KVA/PHASE:			PHASE A		22.9	PHASE B		21.7				
TOTAL AMPS/PHASE:			PHASE A		191	PHASE B		181				
TOTAL CONNECTED LOAD (KVA):			44.6									
TOTAL CONNECTED CURRENT (AMPS):			188.0									
TOTAL DEMAND CURRENT (AMPS):			111.6									

NOTES:

PANELBOARD SCHEDULE

REV. NO.	CONDUCTOR SIZE	CIRCUIT DESCRIPTION	KVA A	KVA B	DEVICE AMP/POLE	DEVICES	DEVICES	KVA A	KVA B	CIRCUIT DESCRIPTION	CONDUCTOR SIZE	REV. NO.
2#12+1#12G(CU)	STAIR / CORRIDOR LIGHTS		1.00		20/1	1	2	20/1	1.20	OFFICE-RECEP	2#12+1#12G(CU)	
2#12+1#12G(CU)	RECEPTION-RECEP		1.20		20/1	3	4	20/1	1.20	HALL-RECEP	2#12+1#12G(CU)	
2#12+1#12G(CU)	CORRIDOR-RECEP		1.20		20/1	5	6	20/1	0.36	BATHROOM GFI	2#12+1#12G(CU)	
2#12+1#12G(CU)	OFFICE-LIGHTS		1.00		20/1	7	8	35/2	2.75	WELECTRIC WATER HEATER	3#8+1#10G(CU)	
2#12+1#12G(CU)	AHU-6		0.12		15/1	9	10		2.75			
						11	12	15/1	1.54	ACCU-6	2#12+1#12G(CU)	
2#12+1#12G(CU)	CONV-RECEP		0.25		20/1	13	14		1.54			
2#12+1#12G(CU)	CONV-RECEP		0.25		20/1	15	16	20/1	0.25	CONV-RECEP	2#12+1#12G(CU)	
						17	18					
						19	20					
						21	22					
						23	24					
TOTAL KVA/PHASE:			PHASE A		8.3	PHASE B		8.3				
TOTAL AMPS/PHASE:			PHASE A		69	PHASE B		69				
TOTAL CONNECTED LOAD (KVA):			16.6									
TOTAL CONNECTED CURRENT (AMPS):			69.2									
TOTAL DEMAND CURRENT (AMPS):			41.5									

NOTES:

Elect. Permit No.

- Compute the HVAC load and enter the **LARGER** of these air-conditioning or space heating loads.

ENTER TOTAL OF ALL UNITS:

○	Air Conditioning Load (Volts X Amps = Watts)		watts
○	(Combined nameplate ratings of ALL A/C compressors plus ALL blower motors)		
	OR		
○	Electric Space Heating Load (Volts X Amps = Watts)		watts
○	(ALL central electric furnaces, electric baseboard heaters, ceiling radiant heat, etc.)		
	OR		
	Heat Pump with Central Electric Furnace (Volts X Amps = Watts)	41760	watts
STEP 4	(Combined nameplate ratings of ALL heat pump compressors plus ALL electric furnaces)		
	Total HVAC Load (all units)	41760	watts

Enter total of all loads as determined by Steps 1 through 3 **202235 watts**

Compute the minimum size service required:

STEP 5	Total Watts (from step 5)	÷	Service Voltage	=	Total Amps
	202235	watts	÷	240	volts
					842.65 amps
Multiply Total Amps by 0.45 =					
	Total Amps	*	0.45 percent (45%)	=	Dwelling Units Demand Amps
	842.65	amps	*	0.45	
					379.19 amps

Enter "House Loads" in amperes: **50.00 amps**
(House Loads, if any, shall be calculated in accordance with Part III of NEC 220)

Compute the minimum size service required:

Dwelling Units Demand Amps	+	House Load Amps	=	Minimum Service Ampacity
379.19	amps	+	50.00	
				429.19 amps

GENERAL NOTES

No.	REVISION/ISSUE	Date



Firm Name and Address
IWAN
 IWAN ARCHITECTURE CONSULTANTS, PLLC
 361 OSMOSIS DR., SW
 PALM BAY, FL 32908
 WWW.IWANCONSULT.COM

Firm Name and Address
 MEP ENGINEER:
JKE
 KK ENGINEERING, LLC
 8850 COLUMBIA 100 PARK WAY, SUITE 316
 COLUMBIA MD 21045
 C: 443-393-1000
 www.kkedesign.com.com

Project Name and Address
TRYON APARTMENTS BUILDING
 3015 Tryon Rd
 Raleigh, NC 27603

SHEET NAME ELECTRICAL PANELS
 Date 7/7/2023
 Scale As Noted
 Sheet E004

GENERAL NOTES

No.	REVISION/ISSUE	Date
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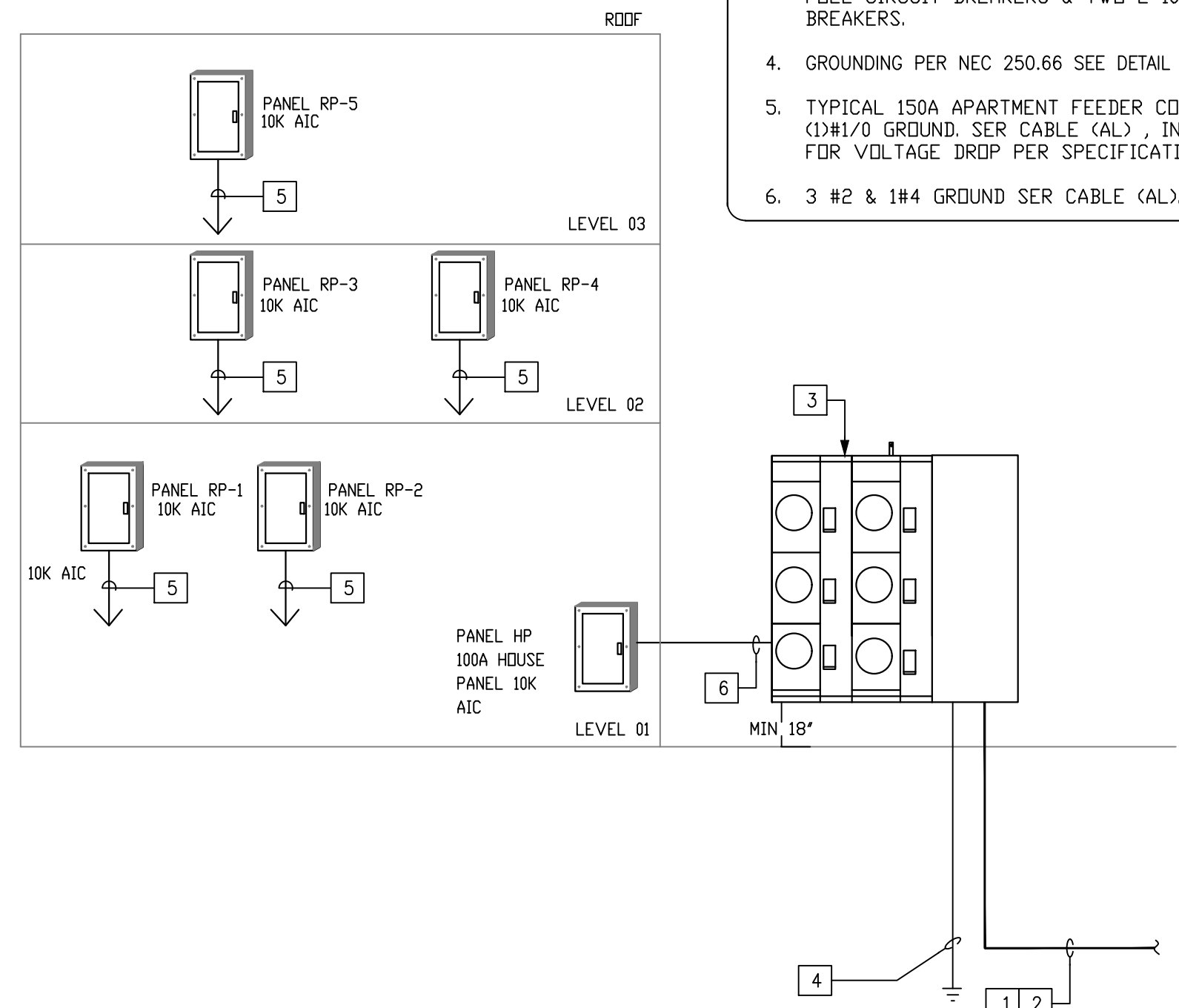
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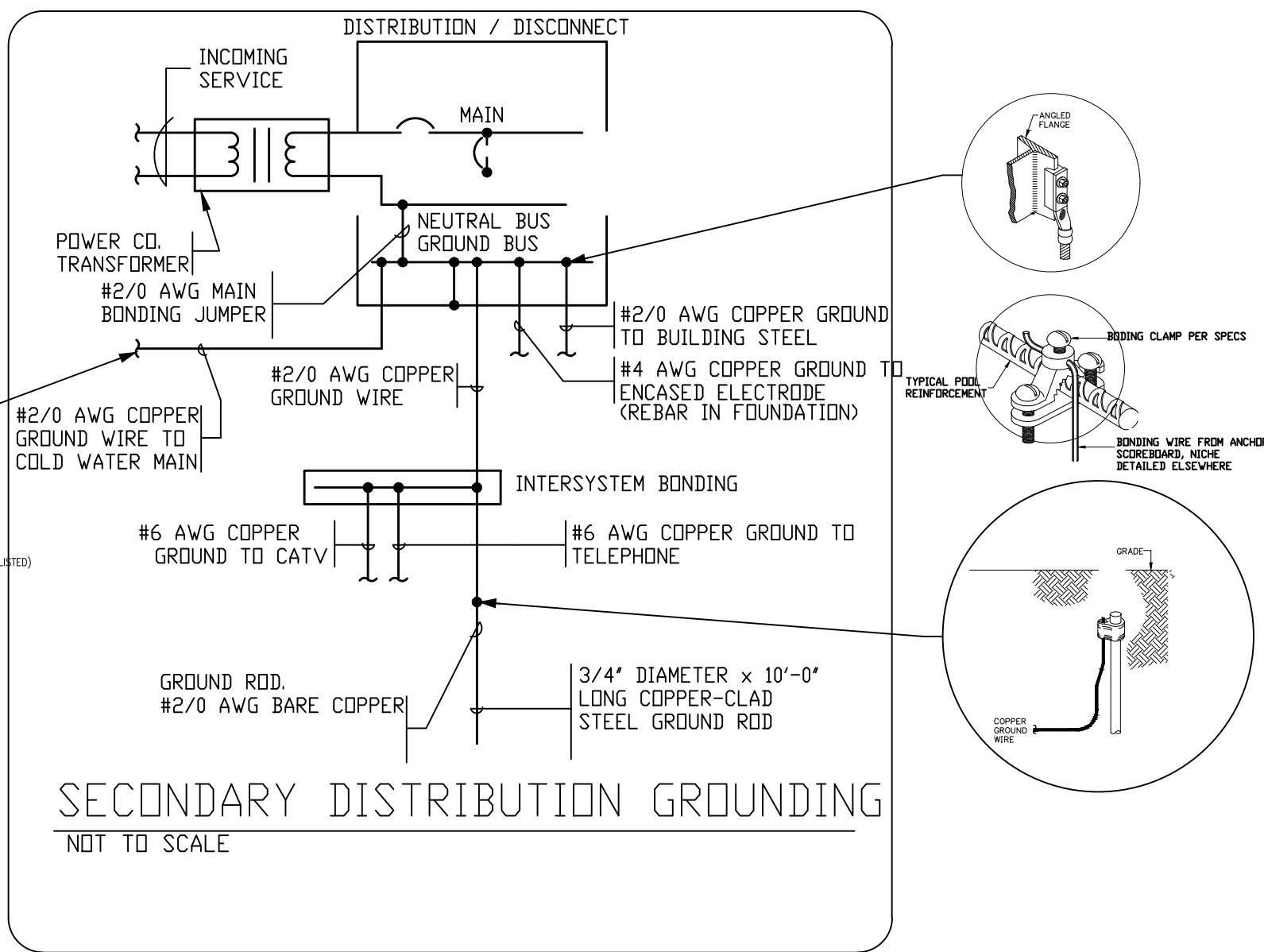
Project Name and Address
TRYON APARTMENTS BUILDING
 3015 Tryon Rd
 Raleigh, NC 27603

SHEET NAME	ELECTRICAL PANELS	Sheet
Date	7/7/2023	E005
Scale	As Noted	

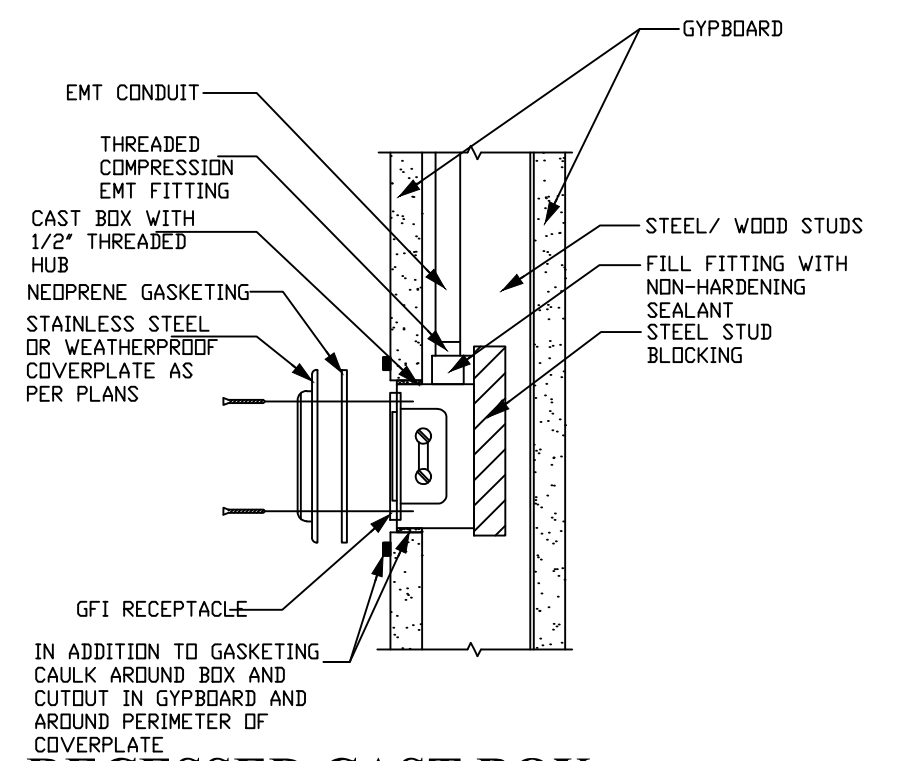
- RISER DIAGRAM NOTES**
- SERVICE ENTRANCE FEEDERS FROM UTILITY COMPANY VAULT. FEEDERS TO BE PROVIDED BY PEPCO. INCOMING SERVICE SIZE 3-600 KCML (CU).
 - DUCT BANK, COORDINATE WITH UTILITY DWG FOR EXACT LOCATION AND QUANTITY OF CONDUITS REQUIRED BY UTILITY COMPANY STANDARDS. INSTALL DUCTBANK FROM TRANSFORMER TO MAIN ELECT RM.
 - 600 AMP, 120V/240V, 1 PH, 3W, NEMA 3R, 65K AIC, UTILITY COMPANY APPROVED METER PACK, WITH DF TOTAL 5-150 A, 2 POLE CIRCUIT BREAKERS & TWD 2-100A, 2 POLE CIRCUIT BREAKERS.
 - GROUNDING PER NEC 250.66 SEE DETAIL ON THIS PAGE.
 - TYPICAL 150A APARTMENT FEEDER CONSISTS OF (3)#3/0 & (1)#1/0 GROUND SER CABLE (AL). INCREASE CONDUCTOR SIZES FOR VOLTAGE DROP PER SPECIFICATIONS.
 - 3 #2 & 1#4 GROUND SER CABLE (AL).



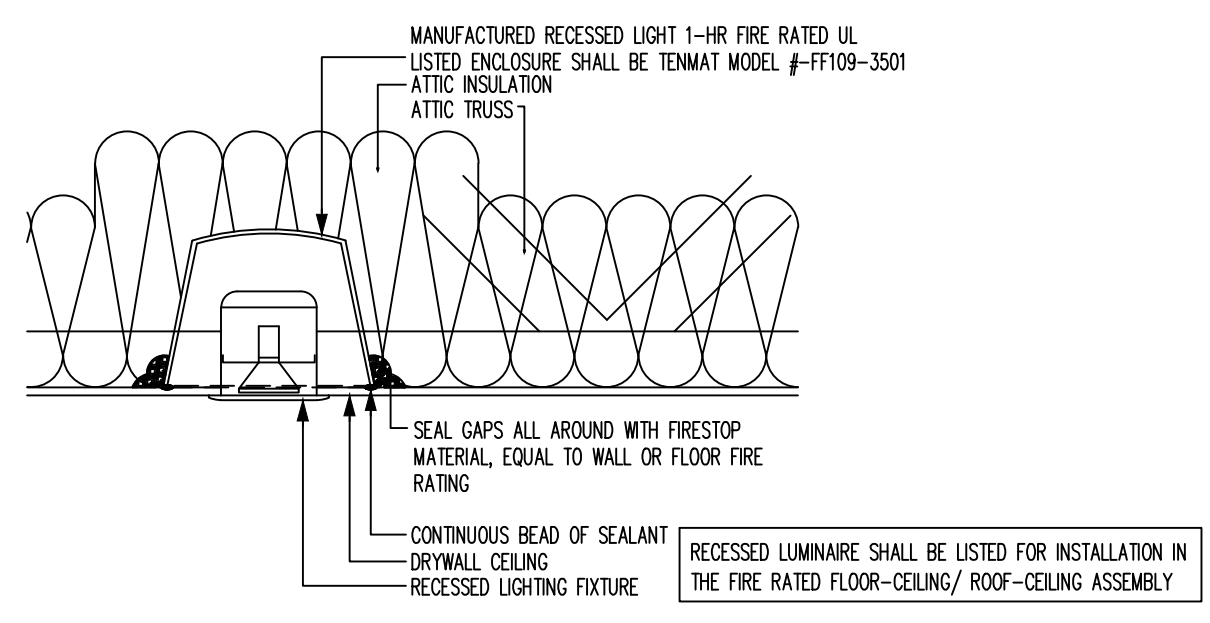
PANEL AIC RATING IS PRELIMINARY CALCULATED BASED ON PRELIMINARY FAULT CURRENT INFO OBTAINED FROM UTILITY CO. THE MAXIMUM FAULT CURRENT MUST BE CALCULATED PRIOR TO PANEL PURCHASE. CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRIC UTILITY AT SITE PROVIDE MAX THE MAXIMUM FAULT CURRENT CALCULATIONS. PANELS AIC RATING SHALL COMPLY WITH NEC 2014 ARTICLE 110.10 AND 110.9



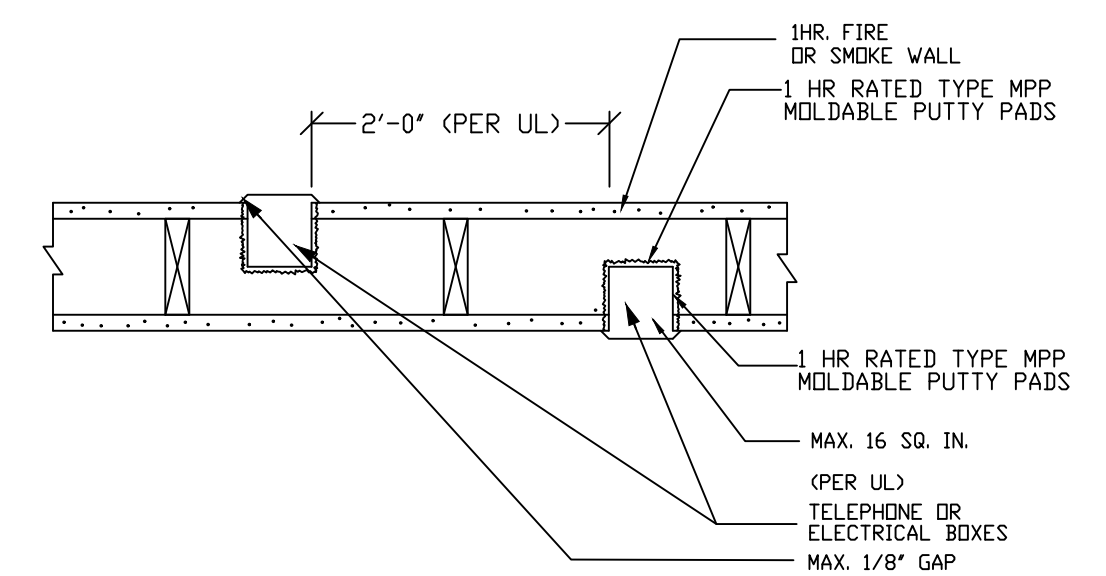
SECONDARY DISTRIBUTION GROUNDING
NOT TO SCALE



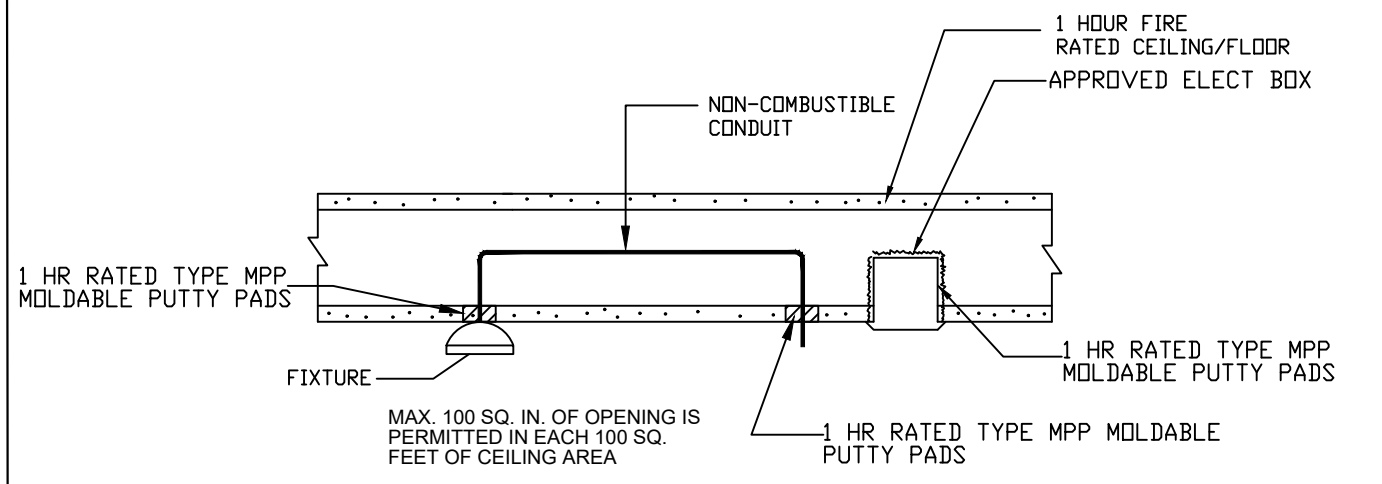
RECESSED CAST BOX INSTALLATION DETAIL
NTS



AIR SEALING AT RECESSED LIGHTING IN CEILING
NTS

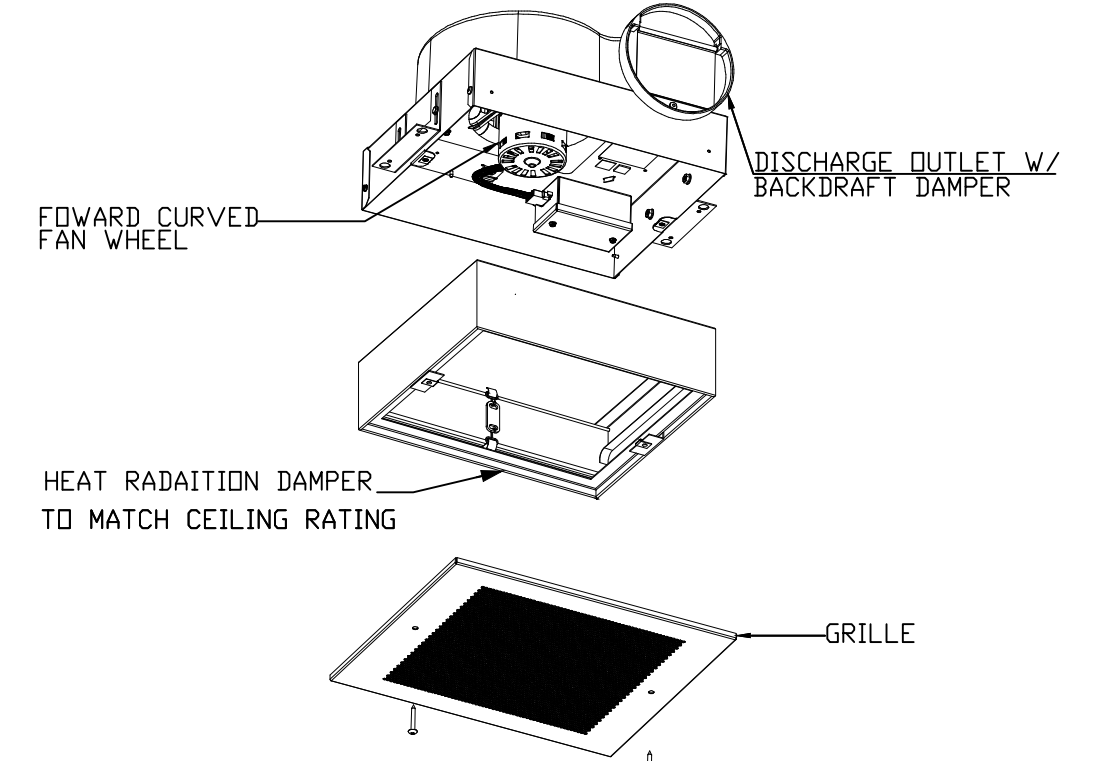


ADJACENT ELECTRICAL BOXES
NOT TO SCALE



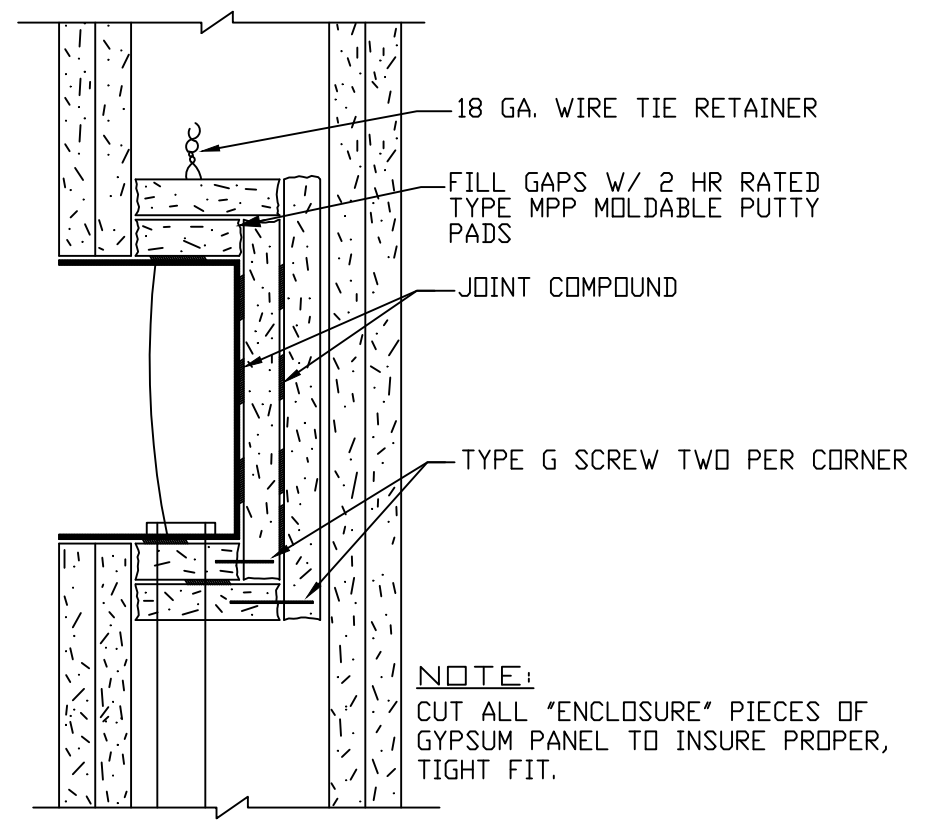
PROTECTION OF CEILING MEMBRANE OF FIRE RATED FLOOR / CEILING ASSEMBLY
NOT TO SCALE

HORIZONTAL MEMBRANE PENETRATIONS
 PENETRATIONS OF MEMBRANES THAT ARE PART OF A HORIZONTAL ASSEMBLY SHALL COMPLY WITH SECTION 714.4.1.1 OR 714.4.1.2. WHERE FLOOR/CEILING ASSEMBLIES ARE REQUIRED TO HAVE A FIRE-RESISTANCE RATING, RECESSED FIXTURES SHALL BE INSTALLED SUCH THAT THE REQUIRED FIRE RESISTANCE WILL NOT BE REDUCED.

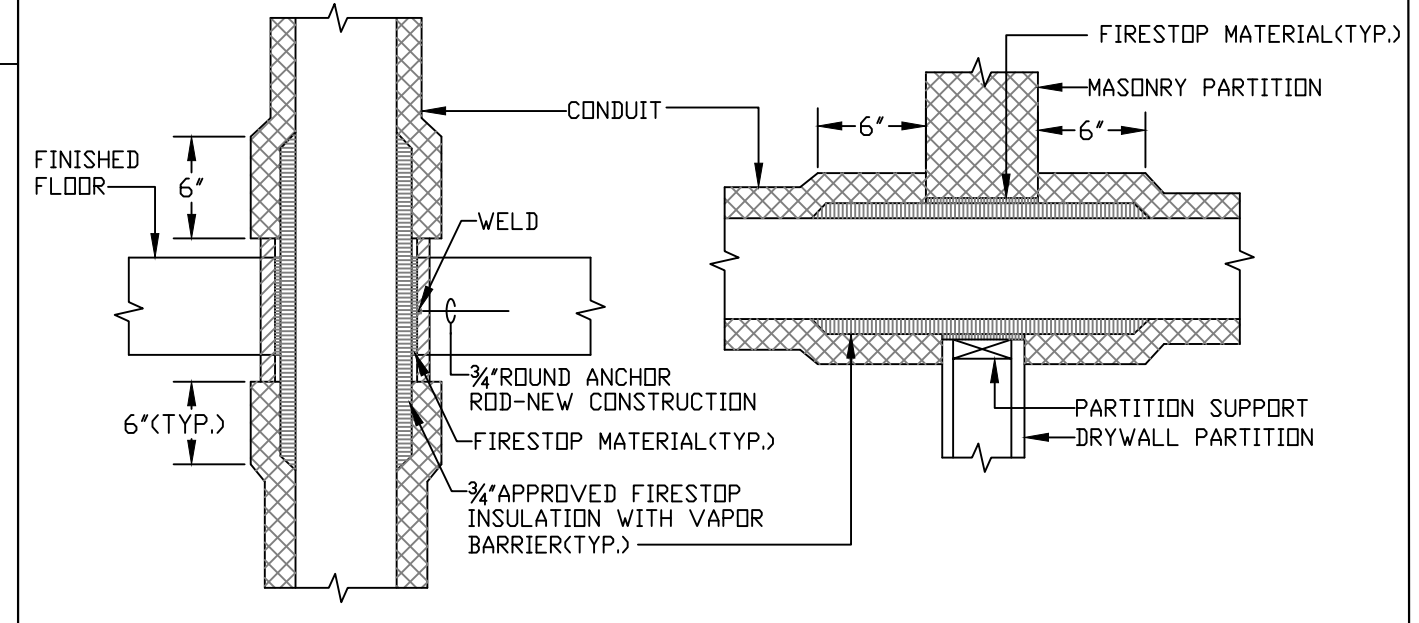


CEILING FAN DETAIL
NOT TO SCALE

CEILING RADIATION DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH UL 555C



2 HOUR-SIDED BOX ENCLOSURE
NOT TO SCALE



FLOOR OR DECK PENETRATION **PARTITION OR CHASE PENETRATION**

NOTE:
 APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH 2012 IBC 714. REFER UL LISTED FIRE STOPPING SYSTEMS UL-1479, UL-2043

PENETRATION OF FIRE/SMOKE BARRIERS
NOT TO SCALE

GENERAL:

- A. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO:
 - 2018 IBC INTERNATIONAL BUILDING CODE
 - 2018 IMC INTERNATIONAL MECHANICAL CODE
 - 2018 IECC INTERNATIONAL ENERGY CODE
- B. HEATING AND COOLING EQUIPMENT SHALL BE SIZED PER ACCA MANUAL S BASED ON LOADS CALCULATED PER ACCA MANUAL J. THE INTERIOR DESIGN TEMPERATURE USED FOR HEATING AND COOLING LOAD CALCULATION SHALL BE MINIMUM OF 72 DEG. FAHRENHEIT FOR HEATING AND MINIMUM OF 75 DEG. FAHRENHEIT FOR COOLING.
- C. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO EXAMINE THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS, AND SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING WORK AND SHALL NOTIFY ARCHITECT AND/OR ENGINEER IF A CONDITION EXISTS WHICH PREVENTS THE CONTRACTOR FROM ACCOMPLISHING THE INTENT OF THE DRAWINGS.
- D. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL WORK AND MATERIALS TO ACCOMPLISH THE INTENT OF THE PLANS. PLANS INDICATE THE EXTENT, GENERAL CHARACTER AND LOCATION OF WORK DIAGRAMMATICALLY ONLY. WORK INDICATED BY HAVING MINOR DETAILS NOT SHOWN, SHALL BE FURNISHED COMPLETE, BY THIS CONTRACTOR, TO PERFORM THE FUNCTION INTENDED.
- E. ALL WORK AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ALL CODES HAVING JURISDICTION AND TO BE STRICTLY OBSERVED.
- F. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER AND/OR HIS DULY AUTHORIZED REPRESENTATIVE.
- G. CONTRACTOR SHALL NOT CORE DRILL CONCRETE SLABS FOR ANY SLEEVES, INSERTS OR FOR ANY REASON WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE STRUCTURAL ENGINEER AND THE OWNER.
- H. ALL WORK AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND THE CONTRACTOR SHALL PROVIDE A NEW SET OF FILTERS IN ALL HVAC EQUIPMENT AT THE TIME OF SUBSTANTIAL COMPLETION PLUS ONE ADDITIONAL SET FOR ALL HVAC EQUIPMENTS. TO BE READY FOR THE USE OF THE OWNER BEFORE FINAL INSPECTION AND APPROVAL BY THE ARCHITECT AND/OR HIS REPRESENTATIVE.
- I. THE CONTRACTOR SHALL LAY OUT HIS WORK WITH THAT OF ALL OTHER TRADES AND BE RESPONSIBLE FOR ALL MEASUREMENTS, HE SHALL NOTIFY ARCHITECT AND/OR ENGINEER IF A CONDITION EXISTS WHICH PREVENTS WORK TO BE INSTALLED IN ACCORDANCE WITH THE INTENT OF THESE DRAWINGS.
- J. ALL MATERIAL SHALL BE NEW (UNLESS NOTED OTHERWISE ON THE DRAWINGS) AND SHALL BE OF FIRST QUALITY. THE QUALITY OF WORKMANSHIP SHALL BE THE FINEST AND HIGHEST OBTAINABLE IN EACH PARTICULAR TRADE. WORKMANSHIP SHALL BE ACCEPTABLE TO THE OWNER AND HIS DECISION AS TO ACCEPTABLE QUALITY IS FINAL. UNACCEPTABLE WORK SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- K. IN AREAS WHERE IT IS NECESSARY TO CUT FLOORS, WALLS AND CEILINGS, THIS CONTRACTOR SHALL DO ALL CUTTING AND REPLACEMENT. BEFORE ANY CUTTING OR PATCHING, CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE OWNER.
- L. ALL FIXTURES AND EQUIPMENT SHALL BE CONNECTED AND MADE READY FOR USE UNLESS OTHERWISE NOTED.
- M. PROVIDE FLUSH MOUNTED SUITABLE BACKBOX AT 48" AFF. TO CENTERLINE OF EACH THERMOSTAT.
- N. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT ALL SYSTEMS AND EQUIPMENT SUPPLIED SHALL BE COMPATIBLE WITH THE EXISTING BASE BUILDING SYSTEMS AND EQUIPMENT.

MECHANICAL NOTES:

- 1. CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS AND LOCATIONS OF EQUIPMENT AND PRIOR TO ANY DUCTWORK FABRICATION. CONTRACTOR SHALL SUBMIT FOR APPROVAL, SHOP DRAWINGS ON ALL NEW WORK AND EQUIPMENT PRIOR TO FABRICATION AND INSTALLATION, INCLUDING EQUIPMENT'S SPECS AND DUCTWORK LAYOUT AND SOUND ISOLATION DEVICES.
- 2. PROPER MOUNTINGS FOR ALL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE INSTALLED BY THIS CONTRACTOR. PROVIDE APPROVED TYPE VIBRATION DAMPENING MEDIA WHEREVER CALLED FOR BY THE MANUFACTURER BETWEEN EQUIPMENT AND THE FLOOR OR CEILING. ISOLATORS SHALL BE MASON INDUSTRIES OR APPROVED EQUAL AND/OR AS NOTED ON DETAILS. SEE VIBRATION ISOLATION SCHEDULE.
- 3. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO INSTALL THE HEATING, VENTILATION AND AIR CONDITIONING SYSTEM SO AS TO INSURE QUIET OPERATION. NO VIBRATION OR SOUND SHALL BE TRANSMITTED TO THE BUILDING STRUCTURE OR OCCUPIED AREAS. THE DECISION OF THE ENGINEER AS TO QUIETNESS OF THE SYSTEM AND EQUIPMENT SHALL BE FINAL. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO CORRECT OR REPLACE ANY NOISY SYSTEMS OR EQUIPMENT AS REQUIRED.
- 4. PHYSICAL DIMENSIONS AS WELL AS COOLING, HEATING CAPACITIES AND ELECTRICAL CHARACTERISTICS OF SUBMITTED UNITS SHALL MATCH THAT OF SPECIFIED EQUIPMENT. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL COSTS DUE TO CHANGES RELATED TO SUBSTITUTED EQUIPMENT.
- 5. COORDINATE WITH ELECTRICAL CONTRACTOR TO INSURE N.E.C. REQUIRED CLEARANCES FROM DUCTWORK, PIPING, ETC ARE MAINTAINED AROUND ELECTRICAL EQUIPMENT (PANEL BOARDS, SWITCHBOARDS, DISCONNECTS, ETC.)
- 6. CONTRACTOR SHALL REFER TO THE ELECTRICAL DRAWINGS FOR THE PROPER ELECTRICAL CHARACTERISTICS FOR ALL MOTORS, HEATERS, AND ALL OTHER ELECTRICAL DEVICES FURNISHED BY THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL REQUIRED ELECTRICAL CONNECTIONS AND CIRCUITS, ETC. REQUIRED FOR MECHANICAL EQUIPMENT, HEATERS, CONTROLS, ETC.
- 7. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY DUCT ACCESSORIES; SUCH AS VOLUME DAMPERS, FIRE DAMPERS, TURNING VANES, DUCT HARDWARE, DUCT ACCESS DOORS, FLEXIBLE CONNECTIONS, AND CEILING ACCESS DOORS. THE DUCTWORK SHALL COMPLY WITH SMACNA DUCT CONSTRUCTION STANDARDS. COORDINATE INSTALLATION OF DUCT ACCESSORIES WITH OTHER WORK.
- 8. PROVIDE FLEXIBLE DUCT CONNECTIONS WHEREVER DUCTWORK CONNECTIONS TO VIBRATION ISOLATED EQUIPMENT. CONSTRUCT FLEXIBLE CONNECTIONS OF NEOPRENE-COATED FLAMEPROOF FABRIC CRIMPED INTO DUCT FLANGES FOR ATTACHMENT TO DUCT AND EQUIPMENT. MAKE AIRTIGHT JOINT. PROVIDE ADEQUATE JOINT FLEXIBILITY TO ALLOW FOR THERMAL, AXIAL, TRANSVERSE, AND TORSIONAL MOVEMENT, AND ALSO CAPABLE OF ABSORBING VIBRATIONS OF CONNECTED EQUIPMENT.
- 9. RECTANGULAR DUCTWORK: ALL DUCTWORK SHALL CONFORM TO THE RECOMMENDED CONSTRUCTION FOR LOW AND MEDIUM PRESSURE DUCTWORK AS APPROVED BY THE SHEETMETAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION. SEAL CLASS "A" FOR ALL DUCTWORK. ALL DUCTS SHALL BE MADE OF THE BEST GRADE GALVANIZED SHEET STEEL. THE GAUGE OF THE SHEET STEEL AND DUCT SUPPORTS SHALL CONFORM TO SMACNA STANDARDS. EXPOSED ROUND DUCT SHALL BE SPIRAL LOCKSEAM OR LONGITUDINAL WELDED SEAM AS MANUFACTURED BY UNITED MCGILL SHEET METAL COMPANY. MODELS UNISEAL, UNICADT, OR LONGITUDINAL SEAM. DUCTWORK SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING PRESSURE CLASSES

- DUCTWORK DOWNSTREAM OF AIR HANDLING UNITS - 2" WG.
- TOILET EXHAUST SYSTEM DUCTWORK - 2" WG.
- OUTSIDE AIR SYSTEM DUCTWORK - 2" WG.
- RELIEF AIR SYSTEM DUCTWORK - 2" WG.
- RETURN AIR SYSTEM DUCTWORK - 2" WG.
- RETURN AIR ELBOWS AT AHU ROOMS - 1"

- 10. FLEXIBLE DUCT: SHALL BE SUPPLIED AND INSTALLED FOR CONNECTIONS BETWEEN LOW PRESSURE MAIN AIR SUPPLY DUCTS AND CEILING DIFFUSERS AND LINEAR DIFFUSERS. FLEXIBLE DUCT TO BE SMOOTH INTERIOR WITH NO SPIRAL SEAM FOR LOW PRESSURE DROP. DUCT SHALL MEET NFPA 90A AND 90B AND UL-181 CLASS 1 AIR DUCT AND SHALL WITHSTAND TEMPERATURES OF 0 DEGREES F TO 250 DEGREES F AND PRESSURE OF 6" WG. WITHOUT LEAKAGE. DUCT SHALL BE GENFLEX WITH 1" INSULATION AND VAPOR BARRIER TYPE IMPR OR APPROVED EQUAL.
- 11. FLEXIBLE DUCT: PROVIDE INSULATED UL LISTED CLASS 1 DUCT COMPLYING WITH NFPA 90A, FLEX MASTER, THERMAFLEX, WIRE MOLD OR CLEVAFLX.
- 12. AIR DEVICES
 - A. PROVIDE TITUS AIR DEVICES AS INDICATED ON PLANS AND SCHEDULED EQUAL TO THE FOLLOWING TITUS MODEL NUMBERS WITH #25 WHITE FINISH. NO SUBSTITUTIONS SHALL BE CONSIDERED OR PERMITTED.
 - B. PROVIDE REGISTERS WITH DAMPERS.
 - C. SUPPORT ALL AIR DEVICES INDEPENDENT OF CEILING GRID SYSTEM.
 - D. ADJUST ALL PATTERN CONTROLLERS OR INSTALL BLOW CLIPS TO PROVIDE DISCHARGE PATTERN INDICATED.
 - E. PROVIDE AIR DEVICES AS FOLLOWS:

DESIGN	DEVICE	TITUS MODEL	FRAME TYPE
CR	SUPPLY REGISTER	272FL	--
ER	EXHAUST REGISTER	350RL	--

- 13. INSULATE (DA) AND SUPPLY AIR DUCTWORK (WHERE LOCATED IN UNCONDITIONED SPACES) WITH GLASS FIBER 2" THICK, 1.5 LB./FT³ DENSITY DUCT WRAP, MIN R-6 FACED WITH A REINFORCED ALUMINUM FOIL KRAFT WITH VAPOR BARRIER FACING AND A 2" TAPING FLANGE. CERTAINTED CUT WRAP OR EQUIVALENT. SUPPLY AIR DUCTWORK WHERE LOCATED OUTSIDE OF THE BUILDING STRUCTURE SHALL BE LINED WITH 2-1/2" THICK DUCT LINER BOARD MIN R-8. SUPPLY & RETURN DUCTS LOCATED IN ATTICS SHALL BE INSULATED TO A MINIMUM OF R-8 MORE THAN 3" R-6 LESS THAN 3" IN DIAMETER. SUPPLY & RETURN DUCTS IN OTHER PORTION OF THE BUILDING SHALL BE INSULATED TO A MINIMUM OF R-6. WHERE IS MORE THAN 3" DIAMETER OR GREATER, R-4.2 WHERE LESS THAN 3 INCHES IN DIAMETER. RETURN AIR DUCTS AND PLENUMS, AIR HANDLERS AND FILTER BOXES SHALL BE INSULATED AND SEALED.

- 14. CONDENSATE DRAIN PIPING: SCHEDULE 40, CPVC PIPE AND FITTINGS: ASTM F 441/F 441M, WITH PLAIN ENDS FOR SOLVENT-CEMENTED JOINTS WITH ASTM F 438, SOCKET-TYPE FITTINGS. PITCH AT MINIMUM 1 PERCENT SLOPE. PROVIDE MINIMUM 2 INCH DEEP TRAP AT EACH A/C UNIT. INSULATE WITH 1/2 INCH THICK INSULATION.
- 15. DUCTWORK EXPOSED ON ROOF SHALL BE ALUMINUM CONSTRUCTION W/ WATER PROOF SEAMS & JOINTS.
- 16. PROVIDE AUTOMATIC TEMPERATURE CONTROL SYSTEMS TO AFFECT COMPLETE, OPERATING SYSTEMS. PROGRAMMABLE THERMOSTAT. MOUNT NEST THERMOSTATS AT 60" AFF. VIF LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. THERMOSTATS LOCATED IN ACCESSIBLE UNITS SHALL BE LOCATED AT A MAX 48" AAF PER ANSI 117.1, 308. OPERATING TEMPS: 32F TO 104F. THERMOSTATIC CONTROLS HAVE A 5 DEGREE F DEADBAND HEATING 1, 2 AND 3 STAGES. COOLING 1 AND 2 STAGES. HEAT PUMP WITH AUXILIARY AND EMERGENCY HEAT.
- 17. PROVIDE REQUIRED ATC POWER CONNECTIONS TO CIRCUIT BREAKER PANELS.
- 18. DEMONSTRATE SYSTEM OPERATION TO OWNER.
- 19. PROVIDE AUTO./ GRAVITY DAMPERS INSTALL ON ALL EXHAUSTS AND PROVIDE MOTORIZED DAMPER ON ALL FRESH AIR INTAKES.
- 20. PROVIDE 18 GAUGE GALVANIZED SHEET METAL SLEEVES FOR ALL PIPE AND DUCT PENETRATIONS THROUGH CONCRETE FLOORS AND MASONRY WALLS. PACK VOID SPACE WITH FIRE PROOF INSULATION AND /OR NOTED IN DETAILS.
- 21. OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR THE WORK.
- 22. PERFORM THE WORK IN ACCORDANCE WITH ALL APPLICABLE LOCAL & NATIONAL CODES.
- 23. DUCTWORK DIMENSION SHOWN ON DRAWINGS ARE SHEETMETAL DIMENSIONS. NET FREE AREA SHALL BE SHEETMETAL DIMENSIONS LESS THE LINEAR THICKNESS ON LINED DUCTWORK.
- 24. BALANCE DAMPERS: SHALL BE INSTALLED WHERE INDICATED AND/OR REQUIRED FOR PROPER BALANCING OF SYSTEM.
- 25. INSTALL ALL DUCTWORK WITHIN BULKHEAD/ABOVE CEILING AND HOLD TIGHT TO UNDERSIDE OF RATED CEILING ABOVE UNLESS OTHERWISE INDICATED. SPIRAL DUCT SHALL BE INSTALLED WITH CONCENTRIC.
- 26. ALL RETURN AIR DUCT OPENINGS ABOVE CEILING SHALL BE COVERED WITH 1/2" MESH SCREEN.
- 27. CHANGES TO DUCT DUE TO FIELD CONDITIONS SHALL BE MADE ONLY IF THE DUCT SIZE FREE AREA IS MAINTAINED AND SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.

28. FLEXIBLE CONNECTORS:

- A. PROVIDE FLEXIBLE CONNECTORS AT THE INLET AND OUTLET CONNECTION FOR EACH FAN AND AIR HANDLING UNIT.
- B. EACH FLEXIBLE CONNECTOR SHALL ALLOW 1" OF FREE MOVEMENT AND SHALL BE COMPLETELY AIR TIGHT.
- C. PROVIDE NEOPRENE COATED GLASS FABRIC MATERIAL, MINIMUM 30 OZ. PER SQUARE YARD.
- D. CONTRACTOR SHALL BRACE DUCTWORK (AS REQUIRED) AT ALL FLEXIBLE CONNECTORS TO ENSURE THAT DUCTWORK IS KEPT IN ALIGNMENT.

- 29. TURNING VANES: PROVIDE SINGLE THICKNESS TURNING VANES OF GALVANIZED STEEL IN ALL MITERED ELBOWS 30° OR GREATER.
- 30. LEAKAGE:

- A. ALL DUCT JOINTS SHALL BE SEALED WITH HARD CAST 601. SPIRAL DUCTWORK JOINTS AND FITTINGS SHALL BE SEALED WITH UNITED MCGILL SEALER.

B. TESTING IS PERFORMED BY USING TEST EQUIPMENT TO VERIFY HOW MUCH LEAKAGE EXISTS IN THE DUCTWORK. THIS DUCT LEAKAGE SHALL BE VERIFIED BY EITHER OF THE FOLLOWING ; A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL.

1-A POST CONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT 25PA DIFFERENTIAL PRESSURE.

2-ROUGH IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT 25PA DIFFERENTIAL PRESSURE. IF THE AIR HANDLER IS NOT INSTALLED AT TIME OF TEST, TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA.

EXCEPTIONS: THE TOTAL LEAKAGE TEST IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE. DUCTS LOCATED IN CRAWL SPACES DO NOT QUALIFY FOR THIS EXCEPTIONS.

- C. PERFORM ALL TESTING AFTER THE SEALS HAVE CURED COMPLETELY AND BEFORE COVERING WITH INSULATION OR CONCEALING IN MASONRY.
- D. AIR HANDLERS SHALL HAVE A MANUFACTURER'S DESIGNATION FOR AIR LEAKAGE OF NO MORE THAN 2 PERCENT OF THE DESIGN AIR FLOW RATE WHEN TESTED IN ACCORDANCE WITH ASHRAE 193.
- E. WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL PRIOR TO FINAL ENERGY CODE COMPLIANCE SIGN-OFF.
- 31. SCOPE:
 - A. AN INDEPENDENT CONTRACTOR WITH NEBB OR AABC CERTIFICATION SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES AND PERFORM ALL OPERATIONS REQUIRED FOR COMPLETE BALANCING OF THE AIR SYSTEMS AND RELATED WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN.
 - B. BALANCING SHALL NOT BE PERFORMED UNTIL ALL MECHANICAL EQUIPMENT IS PROPERLY INSTALLED AND IS 100% OPERATIONAL. ALL TEMPERATURE CONTROLS ARE INSTALLED AND CALIBRATED AND ALL SYSTEMS ARE CLEANED.
 - C. IT IS THE INTENT OF THIS SPECIFICATION TO INSURE THAT THE ENTIRE PROJECT IS SUBSTANTIALLY COMPLETE SO THAT ALL COMPONENTS OF ALL MECHANICAL SYSTEMS CAN BE PUT INTO NORMAL OPERATION WITH ALL WINDOWS AND DOORS CLOSED AND WORK IN A PIECEMEAL FASHION.

32. QUALITY ASSURANCE: SUBMIT TO OWNER THREE (3) COPIES OF BALANCING AND TESTING RECORDS OF TESTS SPECIFIED HEREIN SHOWING THE AIR DISTRIBUTION SYSTEMS HAVE BEEN BALANCED AND ARE DELIVERING SPECIFIED QUANTITIES.

33. EACH PIECE OF EQUIPMENT SHALL BE IDENTIFIED AS TO LOCATION, SERVICE, MANUFACTURER AND MODEL NUMBER. THIS INFORMATION SHALL BE RECORDED AND INCLUDED IN THE FINAL BALANCE REPORT.

34. AFTER ADJUSTMENTS ARE COMPLETE, THE AIR CONDITIONING, HEATING, AND VENTILATING SYSTEMS SHALL BE TESTED, AND THE FOLLOWING INFORMATION RECORDED AND INCLUDED IN THE FINAL BALANCE REPORT:

- A. AIR DEVICES:
 - (1) EACH AIR DEVICE SHALL BE IDENTIFIED AS TO LOCATION AND SERVICE.
 - (2) SIZE, TYPE AND MANUFACTURER OF AIR DEVICES LISTED.
 - (3) REQUIRED CFM AND TEST RESULTANT CFM EACH AIR DEVICE.

35. AFTER THE SYSTEMS HAVE BEEN BALANCED AND ALL ADJUSTMENTS COMPLETED, RUN A SIX HOUR TEST ON BOTH HEATING AND COOLING CYCLE TO DETERMINE IF SYSTEM IS RESPONDING TO TEMPERATURE CONTROLS. THERMOSTAT SETTING, THERMOSTAT TEMPERATURE READING, AND AN INDEPENDENT TEMPERATURE MEASUREMENT AT THE THERMOSTAT SHALL BE RECORDED AT EACH THERMOSTAT.

36. BUILDING CAVITIES SHALL NOT USED AS DUCTS OR PLENUMS.

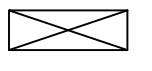
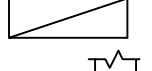
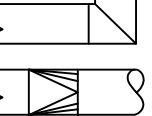
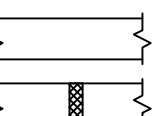
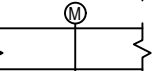
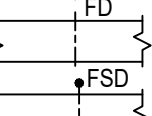
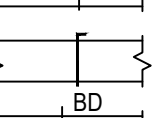
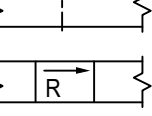
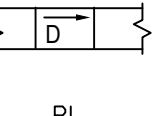

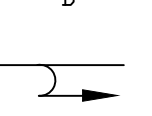
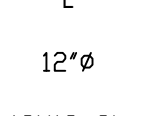
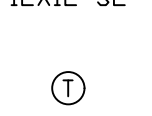


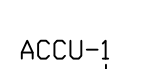
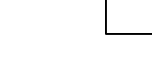
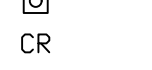
37. DUCT LINING SHALL BE 1" THICK SEMI-RIGID, COATED, GLASS FIBER BONDED BOARD, 3 LB. DENSITY. WHERE DUCTWORK ACOUSTICALLY LINED, ADDITIONAL INSULATION IS NOT REQUIRED ON THE EXTERIOR SURFACE. CERTAINTED UL TRALITE DUCT LINER OR EQUIVALENT.

38. OBTAIN ALL PERMITS AND UPON COMPLETION OF WORK, PRESENT THE OWNER WITH A CERTIFICATE OF FINAL INSPECTION FROM LOCAL AUTHORITY.

39. REFRIGERANT PIPING SHALL BE INSULATED WITH 1" FOAMED PLASTIC OF CLOSED CELL STRUCTURE, 'K' VALUE OF < 0.27 MAXIMUM AT 75 F. MAXIMUM WATER VAPOR TRANSMISSION RATING OF 0.20 PERM. APPLY WITH EDGES TIGHTLY BUTTED. SEAL JOINTS WITH VAPOR BARRIER TAPE OR SEALER. WHERE INSULATION IS LOCATED OUTDOOR, THE INSULATION SHALL BE PROTECTED FROM WEATHER AT ALL TIMES AND BE APPLIED DURING TIMES WHEN WEATHER IS CLEAR. PROTECT UNFINISHED INSULATION BY COVERING WITH WEATHERPROOF MATERIAL. INSULATION SHALL BE CONTINUOUS THROUGH THE WALLS. REFRIGERANT PIPING RUN FROM CHASE TO ROOF EQUIPMENT SHALL BE NEATLY SUSPENDED AND SUPPORTED ON UNTRUSTED DR WITH OTHER SUPPORTS TO BUILDING STRUCTURE AND SHALL NOT BE ATTACHED TO ROOF OR SEAL ON ROOF W/O INTERMEDIATE WD OR METAL BLOCKING AND A SECONDARY ROOF MEMBRANE PROTECTIVE SHEET SUPPLIED BY ROOF MEMBRANE MANUFACTURER. INSULATION SHALL BE AP ARMAFLEX WITH SELF-SEALING JOINT. PROVIDE ULTRAVIOLET RESISTANCE FINISH ON EXTERIOR ARMAFLEX INSULATION OR APPROVED EQUAL. REFRIGERANT SUCTION LINE: INSULATION WITH 3/4 INCH ARMAFLEX MATERIAL. EXPOSED HVAC INSULATION SHALL BE PROTECTED. REFRIGERATION PIPING SHALL BE INSULATED WITH R-3 DR GRATER.

40. ALL MECH. VENT. SYSTEM FANS NOT PART OF TESTED & LISTED HVAC EQUIPMENT SHALL MEET EFFICACY AND AIR FLOW REQUIREMENTS. PROVIDE MIN. 80 CFM BATHROOM EXHAUST FANS AND MIN. 100 CFM AT KITCHEN EXHAUST FANS.

SYMBOL LIST

-  DUCT UNDER POSITIVE PRESSURE
-  DUCT UNDER NEGATIVE PRESSURE
-  SQUARE ELBOW WITH TURNING VANES
-  ROUND TO RECTANGULAR TRANSITION
-  NEW DUCTWORK
-  FLEXIBLE CONNECTION
-  MOTORIZED DAMPER
-  FIRE DAMPER
-  FIRE / SMOKE COMBINATION DAMPER
-  BALANCING DAMPER
-  BACKDRAFT DAMPER
-  DUCT INCLINED RISE IN DIRECTION OF FLOW
-  DUCT INCLINED DROP IN DIRECTION OF FLOW
- RL REFRIG. PIPE-LIQUIDE
- RS REFRIG. PIPE-SUCTION
- D CONDENSATE DRAIN
-  PIPE SLOPE DIRECTION
-  LOUVERED DOOR
- 12"Ø INDICATES ROUND DUCT DIA. (INCHES)
- 12X12-SL 1" SOUND LINED DUCT - SHEET METAL DIMENSION SHOWN
-  THERMOSTAT
-  SWITCH
- AHU-1 DESIGNATION FOR AIR HANDLING UNIT
- UNIT TYPE#1
- ACCU-1 DESIGNATION FOR AIR COOLED CONDENSING UNIT
- UNIT TYPE
-  FLOOR DRAIN
- CR CEILING REGISTER
- TR TOP REGISTER
- BDD BOTTOM OF DUCT ELEVATION
- BE BOTTOM OF EQUIPMENT ELEVATION

SPLIT SYSTEM HEATPUMP AHU-1~5

INDOOR UNIT(AHU-X)TRANE VERTICAL AIR HANDLING UNIT MODEL 'GAMS80A24M3I' INTEGRAL ELECTRICAL HEATER 800 CFM @ 0.5" E.S.P., UNIT SHALL PRODUCE 24 MBH TOTAL AND 18 MBH SENSIBLE COOLING CAPACITY @ ARI STANDARDS. HEATPUMP HEATING CAPACITY SHALL PRODUCE 24 MBH @ 47° F AMBIENT TEMP. ELECTRIC HEATER SHALL BE UL LABELED AND FACTORY PREWIRED.

- 1. FAN MOTOR 1/2 HP
- 2. 240 VOLTS, 1 PHASE
- 3. ELECTRIC HEATER- 7.68 KW
- 4. MCA/ MDP = 44/45

PROVIDE ELECTRONIC WATER DETECTION DEVICE W/ ALARM IN CONDENSATION DRAIN PAN INTERLOCKED TO SHUTDOWN AIR HANDLING UNIT

INDOOR UNIT ACCESSORIES: PROVIDE SOUND LINED RETURN AIR PLENUM. OUTDOOR UNIT (ACCU-X) TRANE MODEL 'ATV96024H1' TO HAVE TOTAL CAPACITY OF 24 MBH WITH 40° SST

- 1. COMPRESSOR 1 @ 10.9 LRA
- 2. FAN 1 @ 1/8 HP
- 3. 240 VOLTS, 1 PHASE
- 4. MCA 14
- 5. MDCP 25

OR APPROVED EQUAL

- OUTDOOR UNIT ACCESSORIES: TIME DELAY RELAY
- EVAPORATOR FREEZE THERMOSTAT
- ISOLATION RELAY
- LIQUID SOLENOID VALVE
- THERMOSTATIC EXPANSION VALVE
- LOW/HI-PRESSURE SWITCH

SPLIT SYSTEM HEAT PUMP AHU-6

INDOOR UNIT(AHU-X)DAIKIN VERTICAL AIR HANDLING UNIT MODEL 'FDMQ12RVJU' 450 CFM @ 0.5" E.S.P., UNIT SHALL PRODUCE 12 MBH TOTAL AND 9 MBH SENSIBLE COOLING CAPACITY @ ARI STANDARDS. HEATPUMP HEATING CAPACITY SHALL PRODUCE 14 MBH @ 47° F AMBIENT TEMP.

- 1. 240 VOLTS, 1 PHASE

PROVIDE ELECTRONIC WATER DETECTION DEVICE W/ ALARM IN CONDENSATION DRAIN PAN INTERLOCKED TO SHUTDOWN AIR HANDLING UNIT

INDOOR UNIT ACCESSORIES: PROVIDE SOUND LINED RETURN AIR PLENUM. OUTDOOR UNIT (ACCU-X) VARIABLE SPEED COMPRESSOR. DAIKIN MODEL 'RX12RMVJU9' TO HAVE TOTAL CAPACITY OF 12 MBH WITH 40° SST

- 1. 240 VOLTS, 1 PHASE
- 2. MCA 12.8
- 3. MDCP 15

OR APPROVED EQUAL

- OUTDOOR UNIT ACCESSORIES: TIME DELAY RELAY
- EVAPORATOR FREEZE THERMOSTAT
- ISOLATION RELAY
- LIQUID SOLENOID VALVE
- THERMOSTATIC EXPANSION VALVE
- LOW/HI-PRESSURE SWITCH

FAN SCHEDULE

NO.	AREA SERVED	FAN TYPE	CFM/WATT @0.1" SP	CFM	S.P. INCH	MAX. RPM	DRIVE	MOTOR		CONTROL INTERLOCK	BASIS OF DESIGN
								H.P.-(WATTS)	VOLTS/PH		
F-1	TOILET ROOMS	CEILING	3.8	80	0.25	1000	DIRECT	(31)	120V/1Ø	WALL SWITCH	PANASONIC FV081VFL5

NOTES: 1. ALL TOILET EXHAUST FANS SHALL BE FURNISHED WITH LIGHT, & FACTORY INSTALLED THREE SPEED SWITCH FOR BALANCING.

GENERAL NOTES

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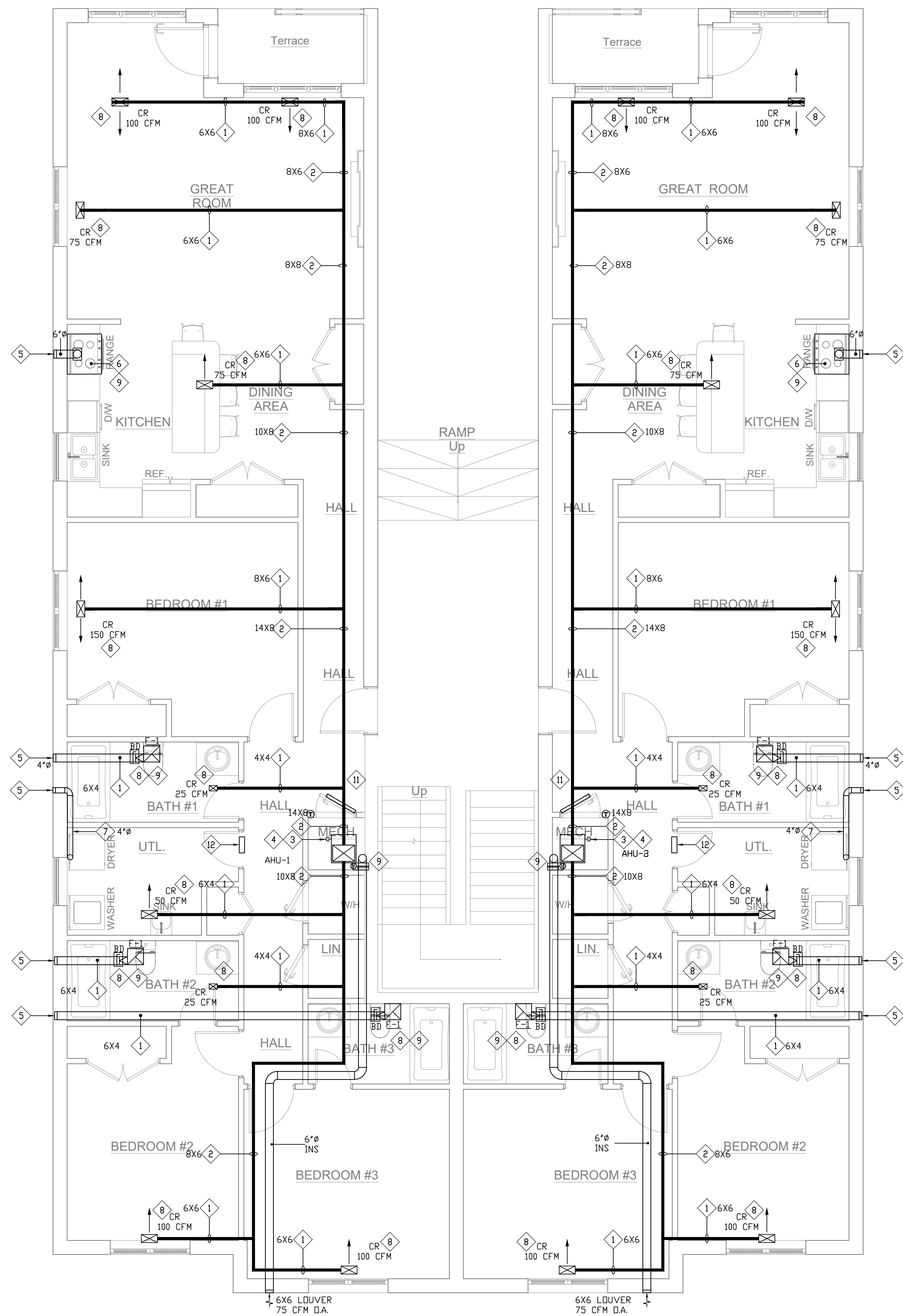


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TRYON APARTMENTS BUILDING
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 Raleigh, NC 27603

SHEET NAME	MECHANICAL COVER SHEET	Sheet
Date	7/7/2023	M000
Scale	As Noted	



1 MECHANICAL FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"

OUTDOOR VENTILATION AIR
 FLOOR AREAS VENTILATION ARE PROVIDED IN ACCORDANCE WITH IMC 2018.
 DESIGN DATA:
 Ez=0.8 Vbz/Ez = Vot
 AHU-1, AHU-2
 PRIVATE DWELLINGS (LIVING AREAS)
 PER IMC 2018, VENT. RATE = 15 CFM / PERSON
 OCCUPANT DENSITY = FIRST BEDROOM : 2, EACH ADDITIONAL BEDROOM: 1
 NUMBER OF ROOMS PER UNIT = 3 ROOMS
 TOTAL OCCUPANCY PER UNIT = 4 PEOPLE
 VENT RATE = 15 CFM/PERSON X 4 PEOPLE = 60 CFM
 Vbz = 60 CFM
 Vot=Vbz/Ez 60 / 0.8 = 75 CFM

GENERAL NOTES:

- A. REFER TO DRAWING M000 & M004 FOR SYMBOLS, ABBREVIATIONS, SCHEDULES & SPECIFICATIONS & DETAILS.
 - B. COORDINATE WITH ARCHITECT/DOWNER FOR EXACT LOCATION OF AIR DEVICES IN CEILING.
 - C. PROVIDE ELECTRONIC WATER DETECTION DEVICE W/ ALARM IN CONDENSATION DRAIN PAN INTERLOCKED TO SHUTDOWN AIR HANDLING UNIT.
 - D. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT MOUNTED AT 48" AFF.
 - E. HVAC REGISTER BOOTS THAT PENETRATE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE SUBFLOOR OR DRYWALL.
 - F. PROVIDE MOTORIZED DAMPER FOR OUTDOOR AIR INTAKES SHALL BE PROVIDED WITH CLASS IA MOTORIZED DAMPERS WITH A MAXIMUM LEAKAGE RATE OF 4 CFM/FT² AT 10 INCH WATER GAUGE (W.G.) WHEN TESTED IN ACCORDANCE WITH AMCA 500D. PROVIDE BACKDRAFT (GRAVITY) DAMPER FOR BATHROOM, KITCHEN EXHAUST FANS. SHALL HAVE A LEAKAGE OF 40 CFM/FT² AT 10 INCH WATER GAUGE (W.G.) WHEN TESTED IN ACCORDANCE WITH AMCA 500D. THE DAMPER SHALL BE ACCESSIBLE & AUTOMATICALLY SHUT WHEN NOT IN USE.
 - G. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY DUCT ACCESSORIES, SUCH AS VOLUME DAMPERS, FIRE DAMPERS, TURNING VANES, DUCT HARDWARE, DUCT ACCESS DOORS, FLEXIBLE CONNECTIONS, AND CEILING ACCESS DOORS. THE DUCTWORK SHALL COMPLY WITH SMACNA DUCT CONSTRUCTION STANDARDS. COORDINATE INSTALLATION OF DUCT ACCESSORIES WITH OTHER WORK.
 - H. REFRIGERANTS LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS. REFRIGERANTS PIPING PENETRATIONS OF FIRE-RESISTANCE RATED MEMBRANES MUST BE PROPERLY SEALED.
 - I. DRYER & KITCHEN EXHAUST DUCTS THAT PENETRATE FIRE RATED ASSEMBLY SHALL BE CONSTRUCTED OF STEEL HAVING A MINIMUM WALL THICKNESS OF 0.0187 INCHES (NO. 26 GAGE).
- ◇ **DRAWING NOTES**
1. RUN DUCTWORK BETWEEN JOISTS.
 2. RUN DUCTWORK IN DROP CEILING/ BULKHEAD.
 3. 3/4" CONDENSATE DRAIN SPILL OUTSIDE OVER SPLASH BLOCK. PROVIDE WITH P-TRAP.
 4. INSTALL, SIZE, AND ROUTE REFRIGERATION PIPING AS RECOMMENDED BY SPLIT SYSTEM MANUFACTURER. REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TEMPER-RESISTANT CAPS OR SHALL BE OTHERWISE SECURED TO PREVENT UNAUTHORIZED ACCESS, IN COMPLIANCE WITH IRC SECTION M1411.6.
 5. WALL CAP MATCHING DUCT SIZE. EXHAUST OPENING SHALL BE PROTECTED WITH CORROSION RESISTANCE SCREENS, LOUVERS OR GRILLES IN ACCORDANCE WITH IRC SECTION 1502.3 EXHAUST CAP SHALL BE INSTALL 3 FT AWAY FROM PROPERTY LINE AND OPERABLE/NON-OPERABLE OPENING INTO THE BUILDINGS.
 6. RANGE HOOD, EXHAUST RATES, SHALL BE AT A RATE OF 100 CFM INTERMITTENT OR 25 CFM CONTINUOUS. COORDINATE REQUIREMENTS FOR KITCHEN EXHAUST WITH PRODUCTS SELECTED IN OWNER'S EQUIPMENT SELECTION. EXHAUST HOOD SYSTEMS CAPABLE OF EXHAUSTING IN EXCESS OF 400 CFM SHALL BE PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. RANGE HOOD SHALL HAVE MINIMUM EFFICACY 2.8 CFM/WATT.
 7. DRYER EXHAUST DUCTWORK ROUTING AND CONFIGURATION SHALL MEET DRYER MANUFACTURER INSTALLATION REQUIREMENT & IN-ACCORDANCE TO IRC SECTION 504.6.
 8. PROVIDE RADIATION DAMPERS IN CEILING REGISTERS, DUCT PENETRATION & BATHROOM EXHAUST FANS MATCHING CEILING FIRE RATING.
 9. PROPOSED LOCATION OF BACK DRAFT DAMPER FOR BATHROOM EXHAUST AND KITCHEN HOOD AND MOTORIZED DAMPER FOR O.A. DUCT. PROVIDE AN ACCESS PANEL AT DRY WALL CEILING & INSPECTION DOOR AT TO DUCT. SEE DETAIL ON M004.
 10. PROTECT DUCT PENETRATION OF THE FIRE RATED ASSEMBLIES WITH AN APPROVED FIRESTOP MATERIALS (3M FIRE PROTECTION PRODUCTS-TYPE CP-25WB+ CAULK, FB-3000WT SEALANT, OR APPROVED EQUAL). SEE PENETRATION OF FIRE/SMOKE BARRIERS DETAIL ON THE ATTACHED MECHANICAL DETAIL M003.
 11. RETURN AIR DOOR LOUVER MIN 50% FREE AREA. REFER TO ARCHITECT FOR SIZE.
 12. 12X12 TRANSFER GRILLE.

GENERAL NOTES

No.	REVISION/ISSUE	Date

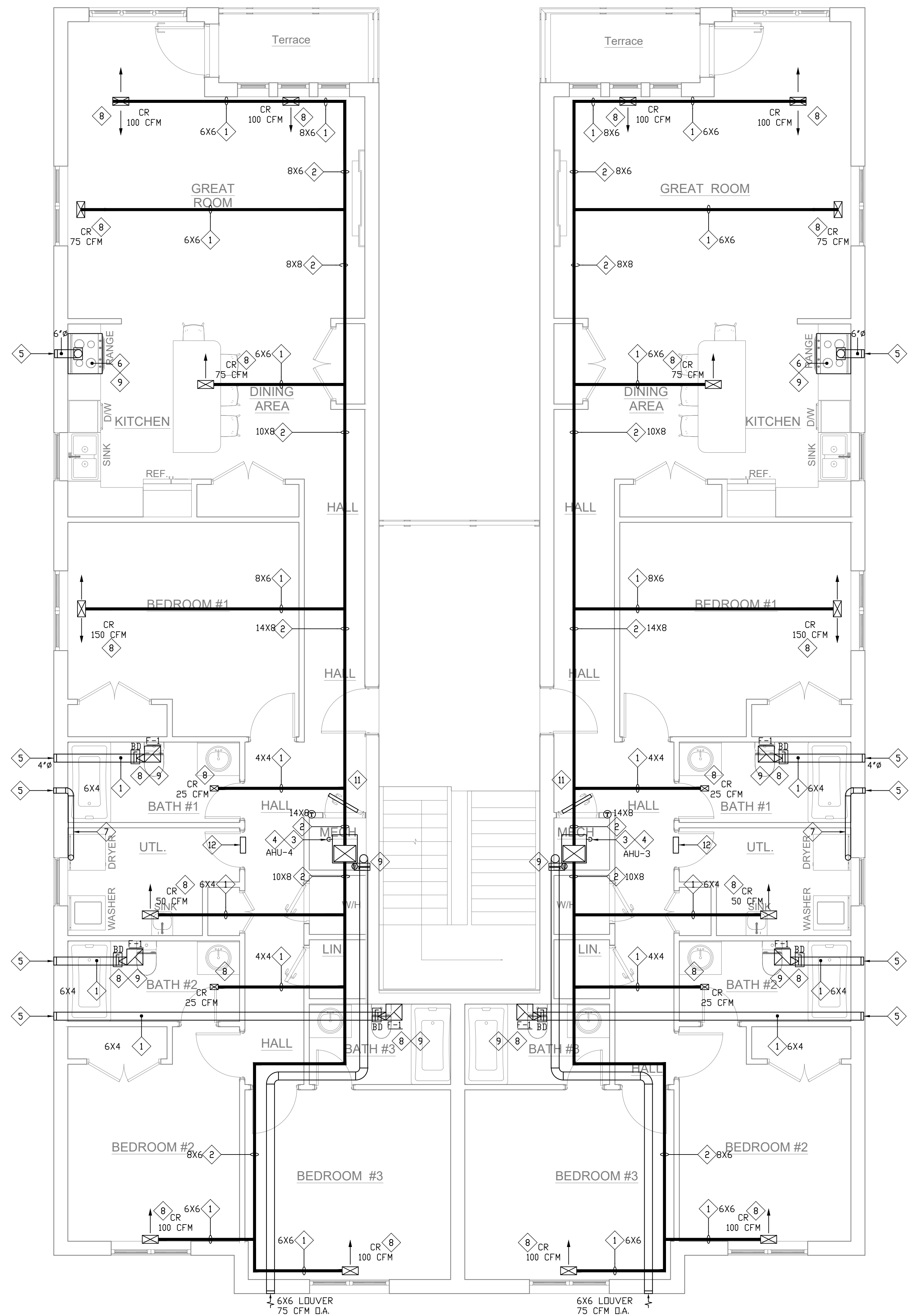


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 WWW.KKDESIGN.COM.COM

Project Name and Address
TRYON APARTMENTS BUILDING
 3015 Tryon Rd
 Raleigh, NC 27603

SHEET NAME MECHANICAL FLOOR PLAN	Sheet
Date 7/7/2023	M001
Scale As Noted	



OUTDOOR VENTILATION AIR
 FLOOR AREAS VENTILATION ARE PROVIDED IN ACCORDANCE WITH IMC 2018.
 DESIGN DATA:
 Ez=0.8 Vbz/Ez = Vot
 AHU-3 , AHU-4
 PRIVATE DWELLINGS (LIVING AREAS)
 PER IMC 2018, VENT. RATE = 15 CFM / PERSON
 OCCUPANT DENSITY = FIRST BEDROOM : 2, EACH ADDITIONAL BEDROOM: 1
 NUMBER OF ROOMS PER UNIT = 3 ROOMS
 TOTAL OCCUPANCY PER UNIT = 4 PEOPLE
 VENT RATE = 15 CFM/PERSON X 4 PEOPLE = 60 CFM
 Vbz = 60 CFM
 Vot=Vbz/Ez 60 / 0.8 = 75 CFM

GENERAL NOTES:

- A. REFER TO DRAWING M000 & M004 FOR SYMBOLS, ABBREVIATIONS, SCHEDULES & SPECIFICATIONS & DETAILS.
- B. COORDINATE WITH ARCHITECT/DOWNER FOR EXACT LOCATION OF AIR DEVICES IN CEILING.
- C. PROVIDE ELECTRONIC WATER DETECTION DEVICE W/ ALARM IN CONDENSATION DRAIN PAN INTERLOCKED TO SHUTDOWN AIR HANDLING UNIT.
- D. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT MOUNTED AT 48" AFF.
- E. HVAC REGISTER BOOTTS THAT PENETRATE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE SUBFLOOR OR DRYWALL.
- F. PROVIDE MOTORIZED DAMPER FOR OUTDOOR AIR INTAKES SHALL BE PROVIDED WITH CLASS IA MOTORIZED DAMPERS WITH A MAXIMUM LEAKAGE RATE OF 4 CFM/FT² AT 10 INCH WATER GAUGE (W.G.) WHEN TESTED IN ACCORDANCE WITH AMCA 500D. PROVIDE BACKDRAFT (GRAVITY) DAMPER FOR BATHROOM, KITCHEN EXHAUST FANS. SHALL HAVE A LEAKAGE OF 40 CFM/FT² AT 10 INCH WATER GAUGE (W.G.) WHEN TESTED IN ACCORDANCE WITH AMCA 500D. THE DAMPER SHALL BE ACCESSIBLE & AUTOMATICALLY SHUT WHEN NOT IN USE.
- G. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY DUCT ACCESSORIES, SUCH AS VOLUME DAMPERS, FIRE DAMPERS, TURNING VANES, DUCT HARDWARE, DUCT ACCESS DOORS, FLEXIBLE CONNECTIONS, AND CEILING ACCESS DOORS. THE DUCTWORK SHALL COMPLY WITH SMACNA DUCT CONSTRUCTION STANDARDS. COORDINATE INSTALLATION OF DUCT ACCESSORIES WITH OTHER WORK.
- H. REFRIGERANTS LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS. REFRIGERANTS PIPING PENETRATIONS OF FIRE-RESISTANCE RATED MEMBRANES MUST BE PROPERLY SEALED.

DRAWING NOTES

1. RUN DUCTWORK BETWEEN JOISTS.
2. RUN DUCTWORK IN DROP CEILING/ BULKHEAD.
3. 3/4" CONDENSATE DRAIN SPILL OUTSIDE OVER SPLASH BLOCK. PROVIDE WITH P-TRAP.
4. INSTALL, SIZE, AND ROUTE REFRIGERATION PIPING AS RECOMMENDED BY SPLIT SYSTEM MANUFACTURER. REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TEMPER-RESISTANT CAPS OR SHALL BE OTHERWISE SECURED TO PREVENT UNAUTHORIZED ACCESS, IN COMPLIANCE WITH IRC SECTION M1411.6.
5. WALL CAP MATCHING DUCT SIZE. EXHAUST OPENING SHALL BE PROTECTED WITH CORROSION RESISTANCE SCREENS, LOUVERS OR GRILLES IN ACCORDANCE WITH IRC SECTION 1502.3 EXHAUST CAP SHALL BE INSTALL 3 FT AWAY FROM PROPERTY LINE AND OPERABLE/NON-OPERABLE OPENING INTO THE BUILDINGS.
6. RANGE HOOD, EXHAUST RATES, SHALL BE AT A RATE OF 100 CFM INTERMITTENT OR 25 CFM CONTINUOUS. COORDINATE REQUIREMENTS FOR KITCHEN EXHAUST WITH PRODUCTS SELECTED IN OWNER'S EQUIPMENT SELECTION. EXHAUST HOOD SYSTEMS CAPABLE OF EXHAUSTING IN EXCESS OF 400 CFM SHALL BE PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. RANGE HOOD SHALL HAVE MINIMUM EFFICACY 2.8 CFM/WATT.
7. DRYER EXHAUST DUCTWORK ROUTING AND CONFIGURATION SHALL MEET DRYER MANUFACTURER INSTALLATION REQUIREMENT & IN-ACCORDANCE TO IRC SECTION 504.6.
8. PROVIDE RADIATION DAMPERS IN CEILING REGISTERS, DUCT PENETRATION & BATHROOM EXHAUST FANS MATCHING CEILING FIRE RATING.
9. PROPOSED LOCATION OF BACK DRAFT DAMPER FOR BATHROOM EXHAUST AND KITCHEN HOOD AND MOTORIZED DAMPER FOR O.A. DUCT. PROVIDE AN ACCESS PANEL AT DRY WALL CEILING & INSPECTION DOOR AT TO DUCT. SEE DETAIL ON M004.
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11. RETURN AIR DOOR LOUVER MIN 50% FREE AREA. REFER TO ARCHITECT FOR SIZE.
12. 12X12 TRANSFER GRILLE.

GENERAL NOTES

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 3015 Tryon Rd
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SHEET NAME MECHANICAL FLOOR PLAN	Sheet
Date 7/7/2023	M002
Scale As Noted	

1 MECHANICAL SECOND FLOOR PLAN
 SCALE: 1/4"=1'-0"

OUTDOOR VENTILATION AIR
 FLOOR AREAS VENTILATION ARE PROVIDED IN ACCORDANCE WITH IMC 2018.
 DESIGN DATA:
 $Ez=0.8 Vbz/Ez = Vot$
 AHU-5
 PRIVATE DWELLINGS (LIVING AREAS)
 PER IMC 2018, VENT. RATE = 15 CFM / PERSON
 OCCUPANT DENSITY = FIRST BEDROOM : 2, EACH ADDITIONAL BEDROOM: 1
 NUMBER OF ROOMS PER UNIT = 3 ROOMS
 TOTAL OCCUPANCY PER UNIT = 4 PEOPLE
 VENT RATE = 15 CFM/PERSON X 4 PEOPLE = 60 CFM
 $Vbz = 60 CFM$
 $Vot=Vbz/Ez \quad 60 / 0.8 = 75 CFM$

GENERAL NOTES:

- A. REFER TO DRAWING M000 & M004 FOR SYMBOLS, ABBREVIATIONS, SCHEDULES & SPECIFICATIONS & DETAILS.
- B. COORDINATE WITH ARCHITECT/OWNER FOR EXACT LOCATION OF AIR DEVICES IN CEILING.
- C. PROVIDE ELECTRONIC WATER DETECTION DEVICE W/ ALARM IN CONDENSATION DRAIN PAN INTERLOCKED TO SHUTDOWN AIR HANDLING UNIT.
- D. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT MOUNTED AT 48" AFF.
- E. HVAC REGISTER BOOTS THAT PENETRATE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE SUBFLOOR OR DRYWALL.
- F. PROVIDE MOTORIZED DAMPER FOR OUTDOOR AIR INTAKES SHALL BE PROVIDED WITH CLASS IA MOTORIZED DAMPERS WITH A MAXIMUM LEAKAGE RATE OF 4 CFM/FT² AT 10 INCH WATER GAUGE (W.G.) WHEN TESTED IN ACCORDANCE WITH AMCA 5000. PROVIDE BACKDRAFT (GRAVITY) DAMPER FOR BATHROOM, KITCHEN EXHAUST FANS. SHALL HAVE A LEAKAGE OF 40 CFM/FT² AT 1.0INCH WATER GAUGE (W.G.) WHEN TESTED IN ACCORDANCE WITH AMCA 5000. THE DAMPER SHALL BE ACCESSIBLE & AUTOMATICALLY SHUT WHEN NOT IN USE.
- G. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY DUCT ACCESSORIES SUCH AS VOLUME DAMPERS, FIRE DAMPERS, TURNING VANES, DUCT HARDWARE, DUCT ACCESS DOORS, FLEXIBLE CONNECTIONS, AND CEILING ACCESS DOORS. THE DUCTWORK SHALL COMPLY WITH SMACNA DUCT CONSTRUCTION STANDARDS. COORDINATE INSTALLATION OF DUCT ACCESSORIES WITH OTHER WORK.
- H. REFRIGERANTS LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS. REFRIGERANTS PIPING PENETRATIONS OF FIRE-RESISTANCE RATED MEMBRANES MUST BE PROPERLY SEALED.
- I. DRYER & KITCHEN EXHAUST DUCTS THAT PENETRATE FIRE RATED ASSEMBLY SHALL BE CONSTRUCTED OF STEEL HAVING A MINIMUM WALL THICKNESS OF 0.0187 INCHES (NO. 26 GAUGE).

DRAWING NOTES

1. RUN DUCTWORK BETWEEN JOISTS.
2. RUN DUCTWORK IN DROP CEILING/ BULKHEAD.
3. 3/4" CONDENSATE DRAIN SPILL OUTSIDE OVER SPLASH BLOCK. PROVIDE WITH P-TRAP.
4. INSTALL, SIZE, AND ROUTE REFRIGERATION PIPING AS RECOMMENDED BY SPLIT SYSTEM MANUFACTURER. REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TEMPER-RESISTANT CAPS OR SHALL BE OTHERWISE SECURED TO PREVENT UNAUTHORIZED ACCESS, IN COMPLIANCE WITH IRC SECTION M411.6.
5. WALL CAP MATCHING DUCT SIZE. EXHAUST OPENING SHALL BE PROTECTED WITH CORROSION RESISTANCE SCREENS, LOUVERS OR GRILLES IN ACCORDANCE WITH IRC SECTION 1502.3 EXHAUST CAP SHALL BE INSTALL 3 FT AWAY FROM PROPERTY LINE AND OPERABLE/NON-OPERABLE OPENING INTO THE BUILDINGS.
6. RANGE HOOD, EXHAUST RATES, SHALL BE AT A RATE OF 100 CFM INTERMITTENT OR 25 CFM CONTINUOUS. COORDINATE REQUIREMENTS FOR KITCHEN EXHAUST WITH PRODUCTS SELECTED IN OWNER'S EQUIPMENT SELECTION. EXHAUST HOOD SYSTEMS CAPABLE OF EXHAUSTING IN EXCESS OF 400 CFM SHALL BE PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. RANGE HOOD SHALL HAVE MINIMUM EFFICACY 2.8 CFM/WATT.
7. DRYER EXHAUST DUCTWORK ROUTING AND CONFIGURATION SHALL MEET DRYER MANUFACTURER INSTALLATION REQUIREMENT & IN-ACCORDANCE TO IRC SECTION 504.6.
8. PROPOSED LOCATION OF BACK DRAFT DAMPER FOR BATHROOM EXHAUST AND KITCHEN HOOD AND MOTORIZED DAMPER FOR OA. DUCT, PROVIDE AN ACCESS PANEL AT DRY WALL CEILING & INSPECTION DOOR AT TO DUCT. SEE DETAIL ON M004.
9. PROTECT DUCT PENETRATION OF THE FIRE RATED ASSEMBLIES WITH AN APPROVED FIRESTOP MATERIALS (GM FIRE PROTECTION PRODUCTS- TYPE CP-25WB+ CAULK, FB-3000WT SEALANT, OR APPROVED EQUAL). SEE PENETRATION OF FIRE/SMOKE BARRIERS DETAIL ON THE ATTACHED MECHANICAL DETAIL M003.
10. RETURN AIR DOOR LOUVER MIN 50% FREE AREA. REFER TO ARCHITECT FOR SIZE.
11. 12X12 TRANSFER GRILLE.

GENERAL NOTES		
No.	REVISION/ISSUE	Date

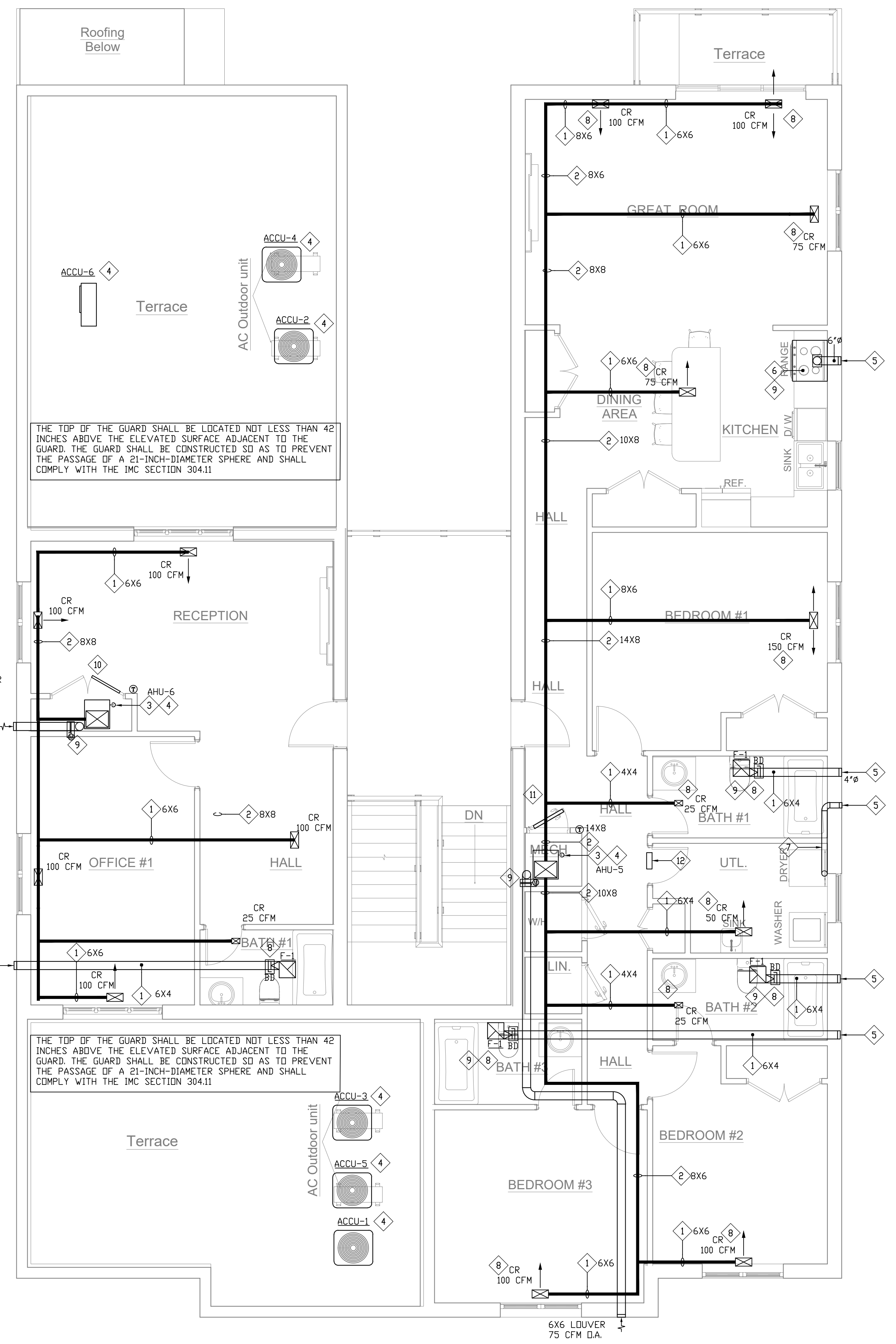


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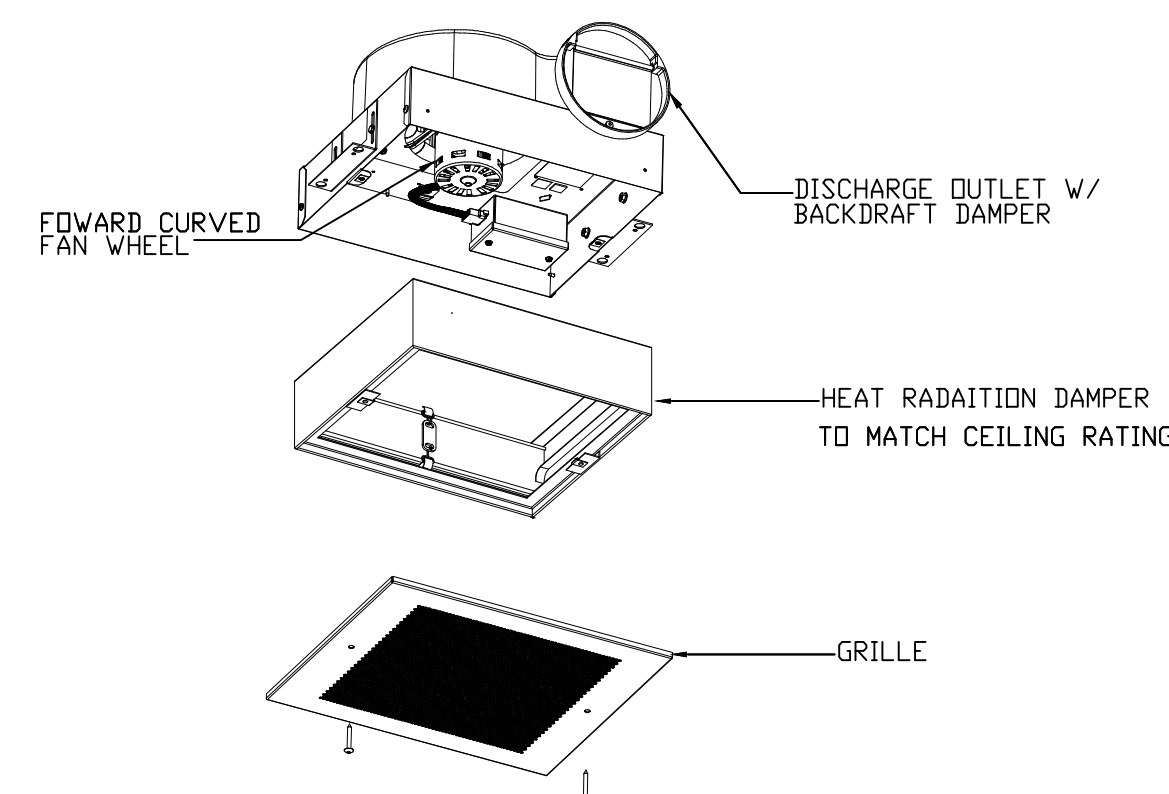
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SHEET NAME	MECHANICAL FLOOR PLAN	Sheet
Date	7/7/2023	M003
Scale	As Noted	

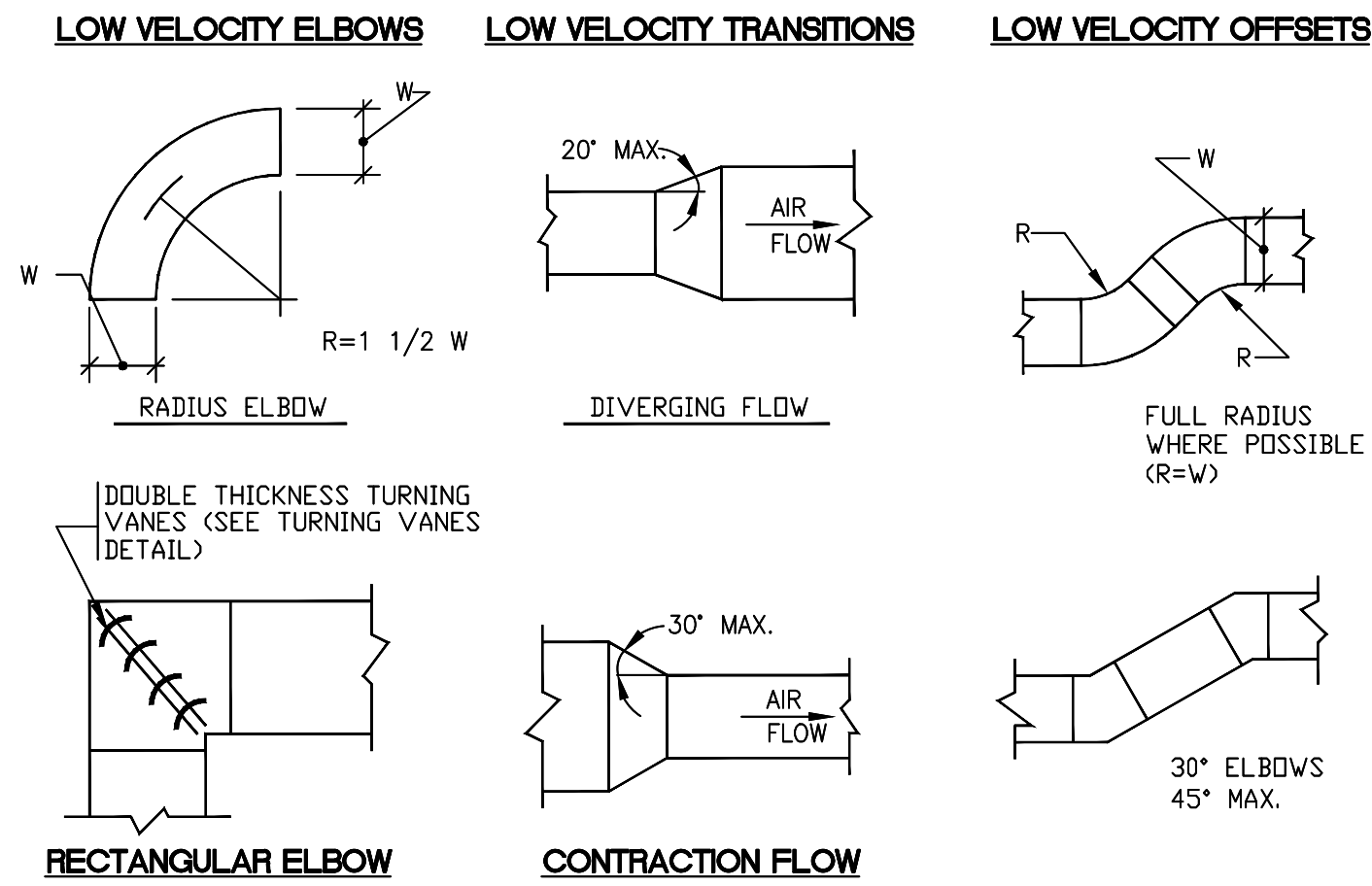


1 MECHANICAL THIRD FLOOR PLAN
 SCALE: 1/4"=1'-0"



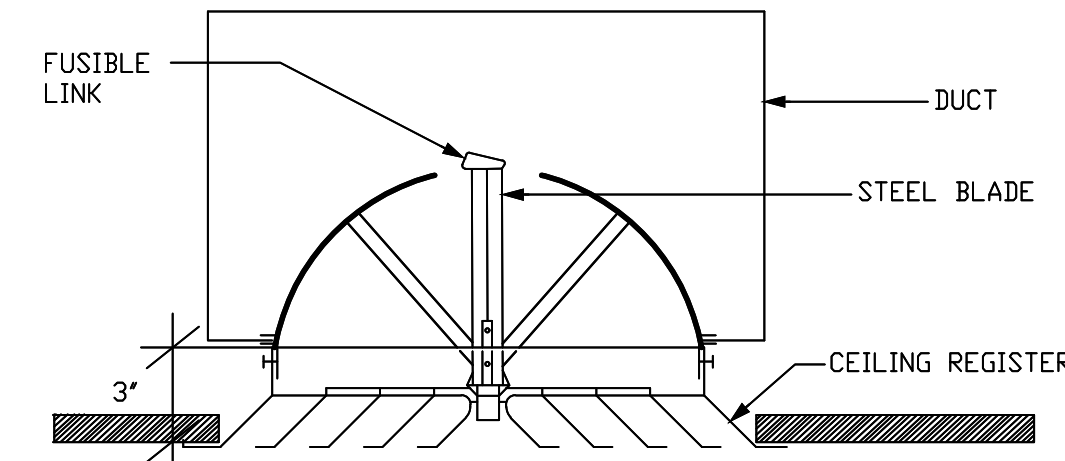
CEILING FAN DETAIL

NOT TO SCALE
CEILING RADIATION DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH UL 555C



LOW VELOCITY TRANSITIONS, OFFSETS AND ELBOWS

NOT TO SCALE

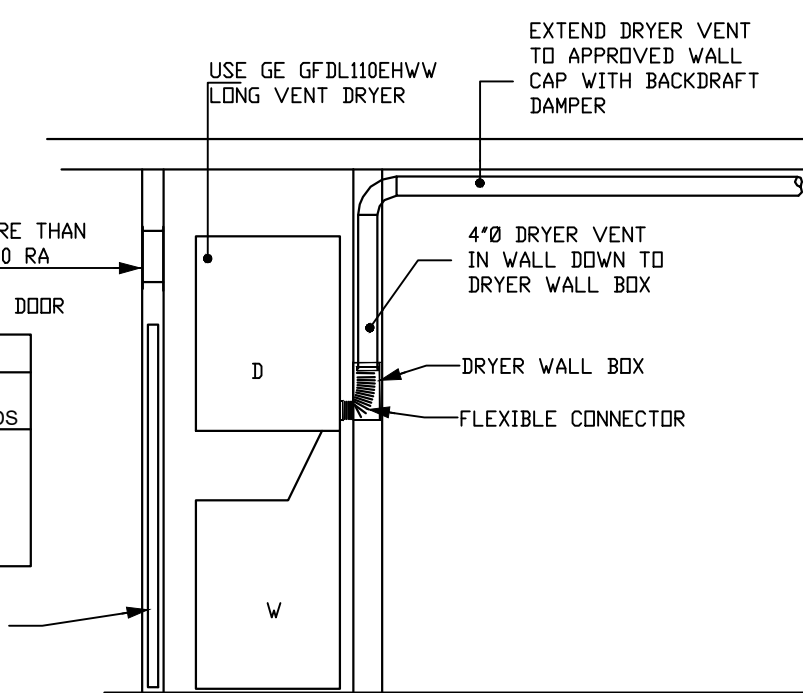


DAMPER DETAIL

CEILING RADIATION DAMPERS SHALL BE TESTED IN ACCORDANCE WITH UL555C. APPROVED CEILING RADIATION DAMPER SHALL BE INSTALLED AT THE CEILING LINE. CEILING RADIATION DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH UL 555C AND CONSTRUCTED IN ACCORDANCE WITH THE DETAILS LISTED IN A FIRE-RESISTANCE-RATED ASSEMBLY.

LONG VENT SYSTEM CHART

NUMBER OF 90° ELBOWS	TYPE OF VENT	ANGLED HOODS
0	RIGID METAL	160 FT.
1	RIGID METAL	150 FT.
2	RIGID METAL	140 FT.
3	RIGID METAL	130 FT.
4	RIGID METAL	120 FT.



DRYER DETAIL

NOT TO SCALE

DRYER SPECS

EXHAUST DUCT VENT PIPE FOR CLOTHES DRYERS SHALL BE SHEET METAL AND HAVE A SMOOTH INTERIOR FINISH AND SHALL BE MINIMUM OF 4\"/>

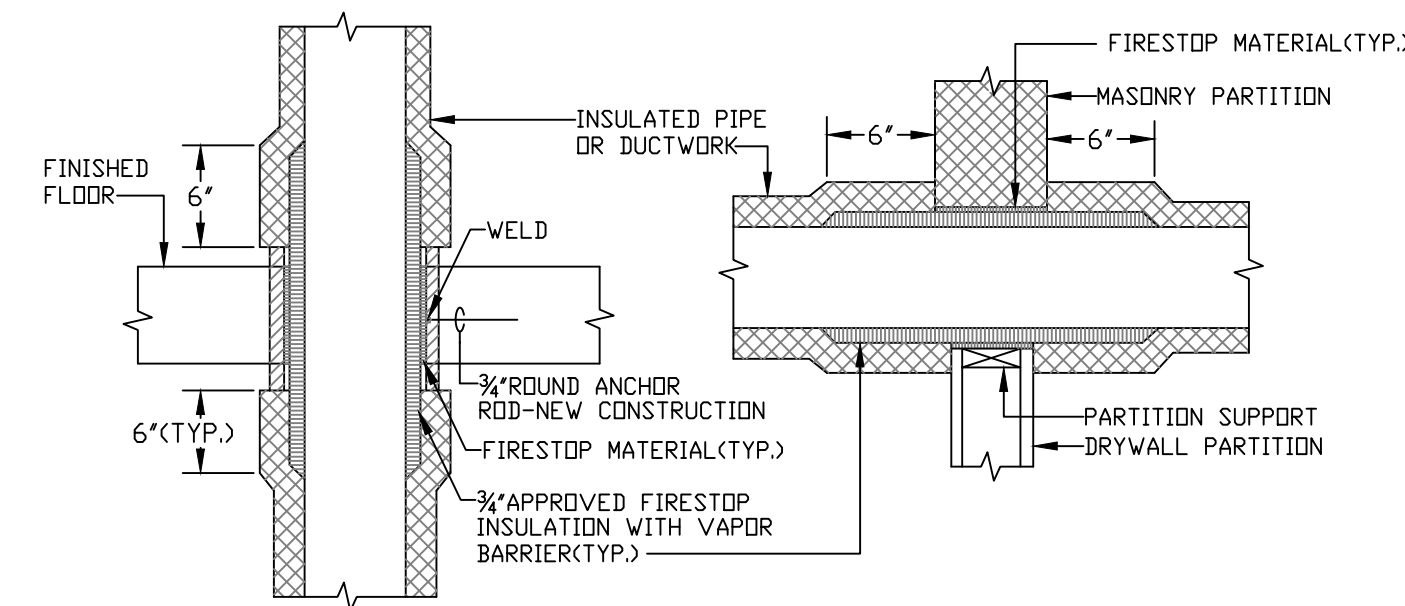
DRYER EXHAUST DUCT SHALL TERMINATE IN WALL AT A DRYER WALL BOX. THE BOX SHALL HAVE A CONNECTION IN THE VERTICAL POSITION FOR FLEXIBLE CONNECTOR TO DRYER COLLAR.

CLEAN-OUT OF THE DRYER VENT EXHAUST SYSTEM CAN BE ACCOMPLISHED BY REMOVING THE FLEXIBLE CONNECTOR AND REMOVING ANY EXCESS DRYER LINT.

THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE DETERMINED BY THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

WHERE THE EXHAUST DUCT IS CONCEALED WITHIN THE BUILDING CONSTRUCTION, THE EQUIVALENT LENGTH OF THE EXHAUST DUCT SHALL BE IDENTIFIED ON A PERMANENT LABEL OR TAG. THE LABEL OR TAG SHALL BE LOCATED WITHIN 6 FEET (1829 MM) OF THE EXHAUST DUCT CONNECTION.

PROTECTIVE SHIELD PLATES SHALL BE PLACED WHERE NAILS OR SCREWS FROM FINISH OR OTHER WORK ARE LIKELY TO PENETRATE THE CLOTHES DRYER EXHAUST DUCT. SHIELD PLATES SHALL BE PLACED ON THE FINISHED FACE OF ALL FRAMING MEMBERS WHERE THERE IS LESS THAN 1 1/4 INCHES (32 MM) BETWEEN THE DUCT AND THE FINISHED FACE OF THE FRAMING MEMBER. PROTECTIVE SHIELD PLATES SHALL BE CONSTRUCTED OF STEEL, HAVE A THICKNESS OF 0.062 INCH (1.6 MM) AND EXTEND A MINIMUM OF 2 INCHES (51 MM) ABOVE SOLE PLATES AND BELOW TOP PLATES.



FLOOR OR DECK PENETRATION

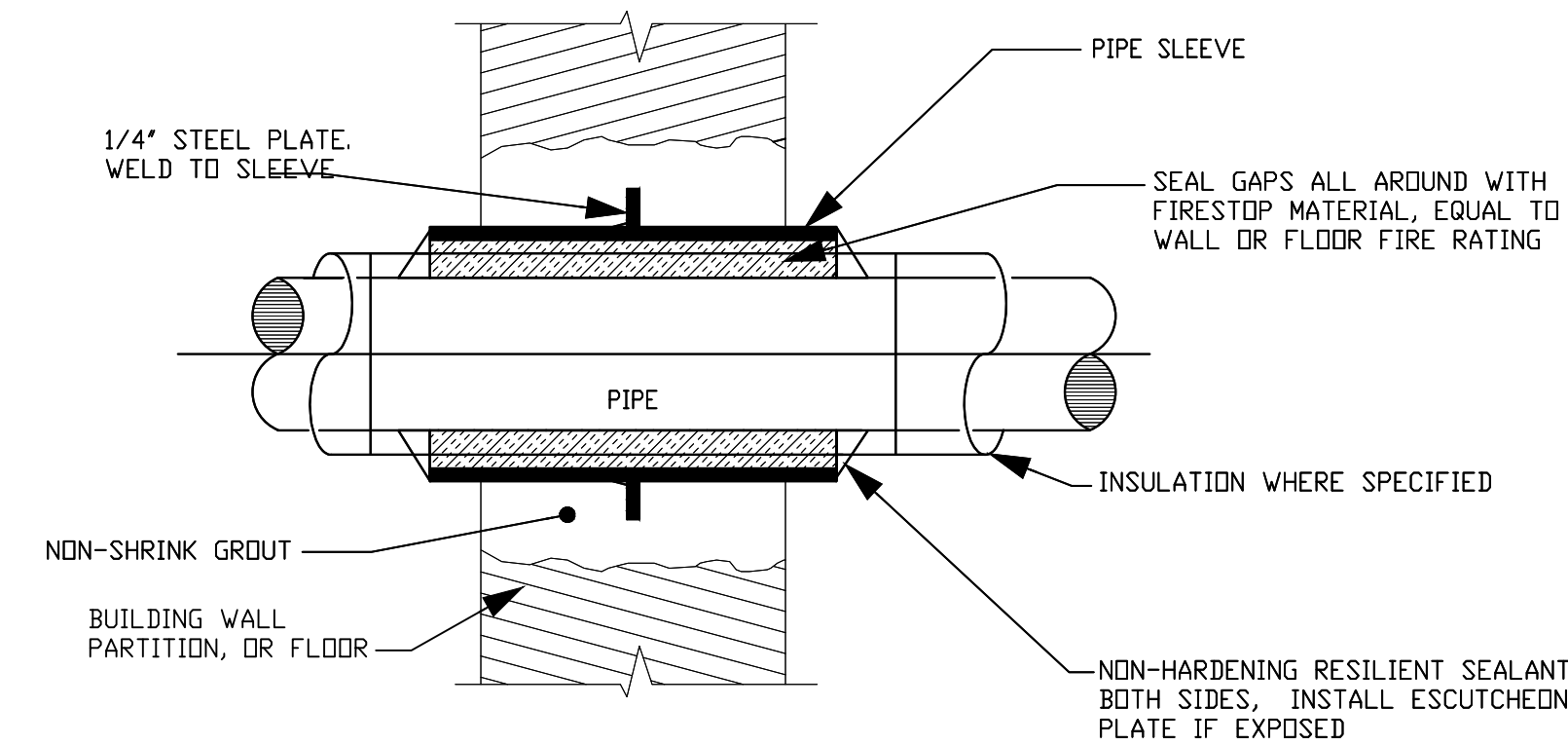
PARTITION OR CHASE PENETRATION

NOTE:

APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH 2012 IBC 714. REFER UL LISTED FIRE STOPPING SYSTEMS UL-1479, UL-2043

PENETRATION OF FIRE/SMOKE BARRIERS

NOT TO SCALE



INTERIOR MASONRY WALL AND FLOOR PENETRATION

NOT TO SCALE

BUILDING THERMAL ENVELOPE

TESTING THE BUILDING OR DWELLING UNIT SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE OF LESS THAN OR EQUAL TO 3 AIR CHANGES PER HOUR AT A PRESSURE OF 0.2 INCHES W.G. (50 PA). TESTING SHALL BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2 INCHES W.G. (50PA). WHERE REQUIRED BY THE CODE OFFICIAL, TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING THERMAL ENVELOPE. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH A METHOD APPROVED BY THE CODE OFFICIAL INCLUDING, BUT NOT LIMITED TO, AN APPROVED SAMPLING PROTOCOL. DURING TESTING:

1. EXTERIOR WINDOWS AND DOORS, FIREPLACE AND STOVE DOORS SHALL BE CLOSED, BUT NOT SEALED, BEYOND THE INTENDED WEATHERSTRIPPING OR OTHER INFILTRATION CONTROL MEASURES;
2. DAMPERS INCLUDING EXHAUST, INTAKE, MAKEUP AIR, BACKDRAFT AND FLUE DAMPERS SHALL BE CLOSED, BUT NOT SEALED BEYOND INTENDED INFILTRATION CONTROL MEASURES;
3. INTERIOR DOORS, IF INSTALLED AT THE TIME OF THE TEST, SHALL BE OPEN;
4. EXTERIOR DOORS FOR CONTINUOUS VENTILATION SYSTEMS AND HEAT RECOVERY VENTILATORS SHALL BE CLOSED AND SEALED;
5. HEATING AND COOLING SYSTEMS, IF INSTALLED AT THE TIME OF THE TEST, SHALL BE TURNED OFF; AND
6. SUPPLY AND RETURN REGISTERS, IF INSTALLED AT THE TIME OF THE TEST, SHALL BE FULLY OPEN.

GENERAL NOTES

No.	REVISION/ISSUE	Date



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SHEET NAME MECHANICAL DETAILS	Sheet
Date 7/7/2023	M004
Scale As Noted	

PLUMBING

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE GOVERNING CODES AND REGULATIONS. WHERE ANY PORTION OF THE SYSTEM SHOWN IS NOT IN ACCORDANCE WITH ALL APPLICABLE LAWS, ORDINANCES, REGULATIONS OR CODES, THIS CONTRACTOR SHALL MAKE ALL CHANGES REQUIRED BY THE ENFORCING AUTHORITIES IN A MANNER APPROVED BY THE ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.
2. THIS CONTRACTOR SHALL ORDER AND OBTAIN ALL NECESSARY TESTS, PERMITS AND CERTIFICATES OF APPROVAL AND PAY ANY REQUIRED FEES FOR IT.
3. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL EQUIPMENT, FIXTURES AND MATERIALS SHALL BE NEW AND SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. EQUIPMENT CAPACITIES AND MANUFACTURER MODEL NUMBERS ARE INDICATED ON THE DRAWINGS.
8. ALL EQUIPMENT REQUIRING ELECTRIC POWER SHALL BE SUITED FOR USE WITH THE POWER TO BE SUPPLIED. SEE ELECTRICAL DRAWINGS. ALL ELECTRICAL REQUIREMENTS SHALL BE COORDINATED WITH THE ELECTRICAL CONTRACTOR.
9. THIS CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH THE GENERAL CONTRACTOR FOR THE EXACT LOCATION OF CHASES, FURRING SPACES, DROPPED CEILINGS, STRUCTURE PENETRATIONS, PAINTING, ETC.
10. THIS CONTRACTOR SHALL INSTRUCT THE OWNER IN THE OPERATION AND MAINTENANCE OF ALL COMPONENTS OF THE INSTALLATION. A ONE YEAR SERVICE CONTRACT SHALL BE INCLUDED AS PART OF THIS WORK.
11. CORE DRILLING SHALL NOT BE DONE UNTIL THE AREA TO BE DRILLED IS X-RAYED AND WRITTEN APPROVAL IS OBTAINED FROM THE PROJECT STRUCTURAL ENGINEER AND OWNER.

BASIC MATERIALS AND METHODS

1. ALL PIPING CONNECTIONS TO EQUIPMENT SHALL BE MADE WITH GROUND JOINT UNIONS.
2. ALL HOT WATER AND TEMPERED WATER PIPING FROM THE SOURCE OF HOT WATER TO THE FIXTURES MUST NOT EXCEED 50 FEET IN LENGTH.
3. PIPE HANGER AND SUPPORTS: CLEVIS OR SPLIT RING TYPE SPACING AND ROD SIZE AS RECOMMENDED IN MSSSP-69, MECHANICAL CODE AND IN ACCORDANCE WITH INDUSTRY PRACTICE. SELECT TO FIT AROUND BARE PIPE OR AROUND INSULATION WITH INSULATION SADDLE/SHEILD FOR INSULATED PIPING. HANGERS FOR COPPER PIPE SHALL BE COPPER OR COPPER PLATED. BAND IRON HANGERS SHALL NOT BE USED. HANGERS AND ACCESSORIES SHALL BE F&M CORPORATION OR APPROVED EQUAL.
4. PIPE SUPPORTS: SUPPORTS TO BE PROVIDED IN ACCORDANCE WITH APPLICABLE CODES AND IN ACCORDANCE WITH INDUSTRY PRACTICE. STEEL RISER CLAMPS WITH PLASTIC COATING OR COPPER PLATED OR COPPER PIPES. F & M CORPORATION OR EQUAL. PIPING SPECIALTIES

1. PROVIDE FACTORY FABRICATED PIPING SPECIALTIES OF TYPES RECOMMENDED BY MANUFACTURERS FOR SERVICES INDICATED.
2. PROVIDE ESCUTCHEON PLATES WHEREVER PIPES PASS THROUGH WALLS, FLOORS OR CEILINGS, OUTSIDE DIAMETER TO COVER COMPLETELY PIPE PENETRATION HOLE DR PIPING SLEEVE, NICKEL OR CHROME FINISH FOR EXPOSED AREAS, PRIME PAINT FINISH FOR CONCEALED AREAS.
3. UNIONS: PROVIDE DIELECTRIC UNIONS AT CONNECTIONS BETWEEN FERROUS AND NON-FERROUS PIPING. EPCO, STOCKHAM OR EQUAL.

INSULATION

1. PROVIDE INSULATION FOR PIPING, AND EQUIPMENT OF TYPES AND THICKNESS SPECIFIED HEREIN. INSULATION SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50. INSTALL INSULATION IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. A CONTINUOUS VAPOR BARRIER SHALL BE PROVIDED ON ALL COLD WATER PIPING AND COLD AIR DUCTWORK. INSULATION SHALL BE ARMSTRONG, CERTAINTEED, OWENS-CORNING OR JOHNS-MANVILLE.
2. PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DAMAGE, INCLUDING THAT DUE TO SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE AND WIND, AND SHALL PROVIDE SHIELDING FROM SOLAR.
3. INSULATE ALL HOT WATER PIPE WITH A MINIMUM THERMAL RESISTANCE (R-VALUE) OF R-3.

FOR AUTOMATIC-CIRCULATING HOT WATER AND HEAT-TRACED SYSTEMS, PIPING SHALL BE INSULATED WITH NOT LESS THAN 1 INCH OF INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER INCH/H X FT² X°F.

PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DAMAGE, INCLUDING THAT DUE TO SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE AND WIND, AND SHALL PROVIDE SHIELDING FROM SOLAR PIPING.

1. INSTALL PIPE TUBE AND FITTINGS IN ACCORDANCE WITH INDUSTRY PRACTICE WHICH WILL ACHIEVE PERMANENTLY LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT PIPING FAILURE. TEST PIPING FOR LEAKAGE. REPAIR PIPING SYSTEMS SECTIONS WHICH FAIL TEST BY DISASSEMBLY AND RE-INSTALLATION, USING NEW MATERIALS TO THE EXTENT REQUIRED TO OVERCOME LEAKAGE. UNDER NO CIRCUMSTANCES USE CHEMICALS, STOP-LEAK COMPOUNDS, MASTICS, TAPES OR OTHER TEMPORARY REPAIR METHODS.
2. ALL SANITARY PIPING SHALL BE SLOPED AS NOTED ON PLANS. WHERE NOT NOTED, SLOPE PIPING AT MINIMUM REQUIRED BY CODE.
3. ALL PIPING SHOWN ON THE FLOOR PLANS SHALL BE LOCATED ABOVE THE CEILING OR INSIDE CHASES UNLESS OTHERWISE NOTED.
4. STORM, WASTE AND VENT PIPING SHALL BE SERVICE WEIGHT NO-HUB CAST IRON PIPE AND FITTINGS CISPI 301, HUB & SPIGOT SOIL PIPE AND FITTINGS ASTM A-74, GALVANIZED STEEL PIPE WITH DRAINAGE PATTERN SCREWED GALVANIZED CAST IRON FITTINGS ANSI/ASTM A-74 OR DWV COPPER WITH WROUGHT COPPER FITTINGS, ASTM B306, OR SCHEDULE 40 PVC.
5. DOMESTIC WATER PIPING SHALL BE TYPE "L" HARD-DRAWN TEMPER, WROUGHT COPPER FITTINGS, NON-LEAD SOLDERED JOINTS WITH NON-CORROSIVE FLUX, ANSI B-88.

CLEANOUTS:

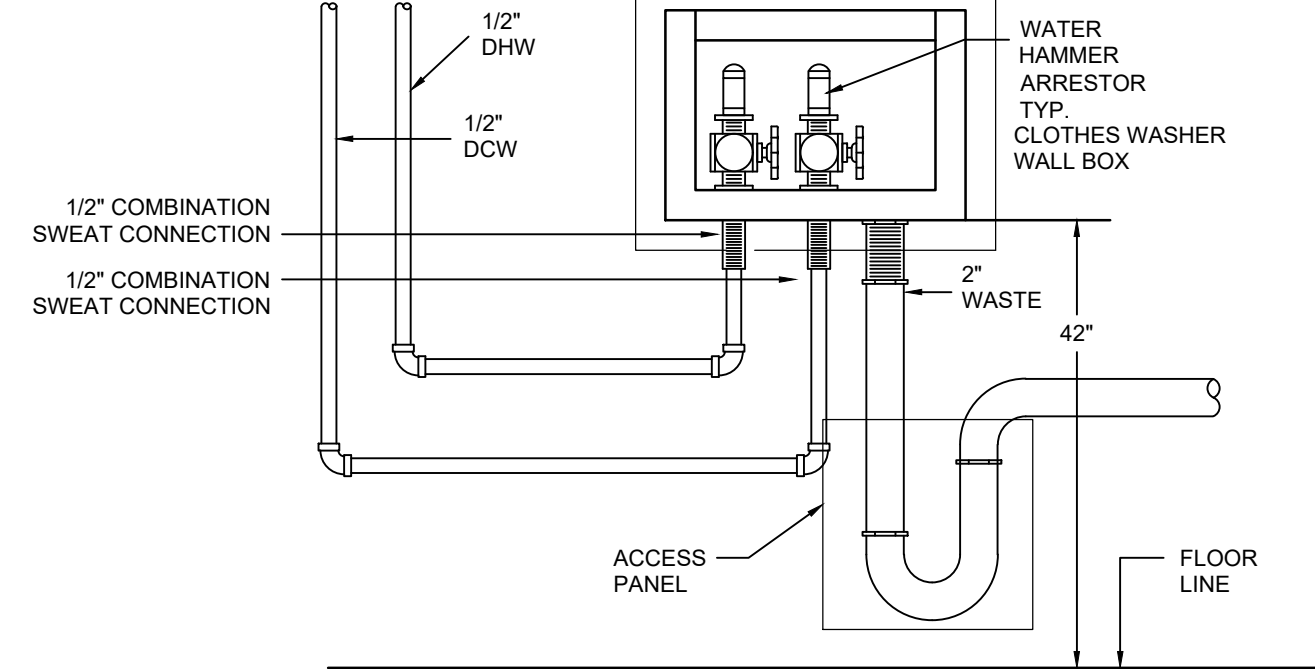
1. CLEANOUTS SHALL BE INSTALLED NOT MORE THAN 50 FT. APART IN HORIZONTAL DRAINAGE LINES. A CLEANOUT SHALL BE PROVIDED AT THE BASE OF EACH VERTICAL WASTE, SOIL STACK, OR RAINLEADER. THERE SHALL BE A CLEANOUT AT THE JUNCTION OF THE SANITARY BUILDING DRAINS AND BUILDING SEWERS, AND THE STORM AND BUILDING SEWERS.
2. CLEANOUTS ON CONCEALED PIPING SHALL BE EXTENDED THROUGH AND TERMINATE FLUSH WITH THE FINISHED WALL OR FLOOR WITH ACCESS COVER OF SUFFICIENT SIZE TO PERMIT REMOVAL OF THE CLEANOUT PLUG. CLEANOUTS SHALL NOT BE INSTALLED IN AREAS OF FLOORS TO RECEIVE TERRAZZO, CERAMIC TILE OR STONE FINISH.
3. CLEANOUTS SHALL BE INSTALLED SO THAT THE CLEANOUT OPENS IN THE DIRECTION OF THE DRAINAGE LINE OR AT RIGHT ANGLES THERE TO.
4. CLEANOUTS SHALL BE OF THE SAME NOMINAL SIZE AS THE PIPES THEY SERVE UP TO 4" AND NOT LESS THAN ONE NOMINAL PIPE SIZE SMALLER FOR LARGER PIPE.
5. A FIXTURE TRAP OR A FIXTURE WITH INTEGRAL TRAP, READILY REMOVABLE WITHOUT DISTURBING CONCEALED PIPING, MAY BE ACCEPTED AS A CLEANOUT EQUIVALENT.
6. CLEANOUTS SHALL BE "ZURN", "JAY R. SMITH", "WADE", OR "JOSAM".

- A. EXPOSED CONCRETE FLOOR: Z-1400-HB
- B. KITCHEN FLOORS: ZN-1400
- C. TILE FLOORS: ZN-1400-X
- D. CARPETED FLOORS: ZN-1400-CM
- E. FINISHED FLOORS: ZN-1400
- F. FINISHED WALLS: Z-1445-1468 ACCESS COVER AND PLUG.
- G. EXPOSED PIPING: Z-1445
- H. EXTERIOR (CONCRETE): Z-1449

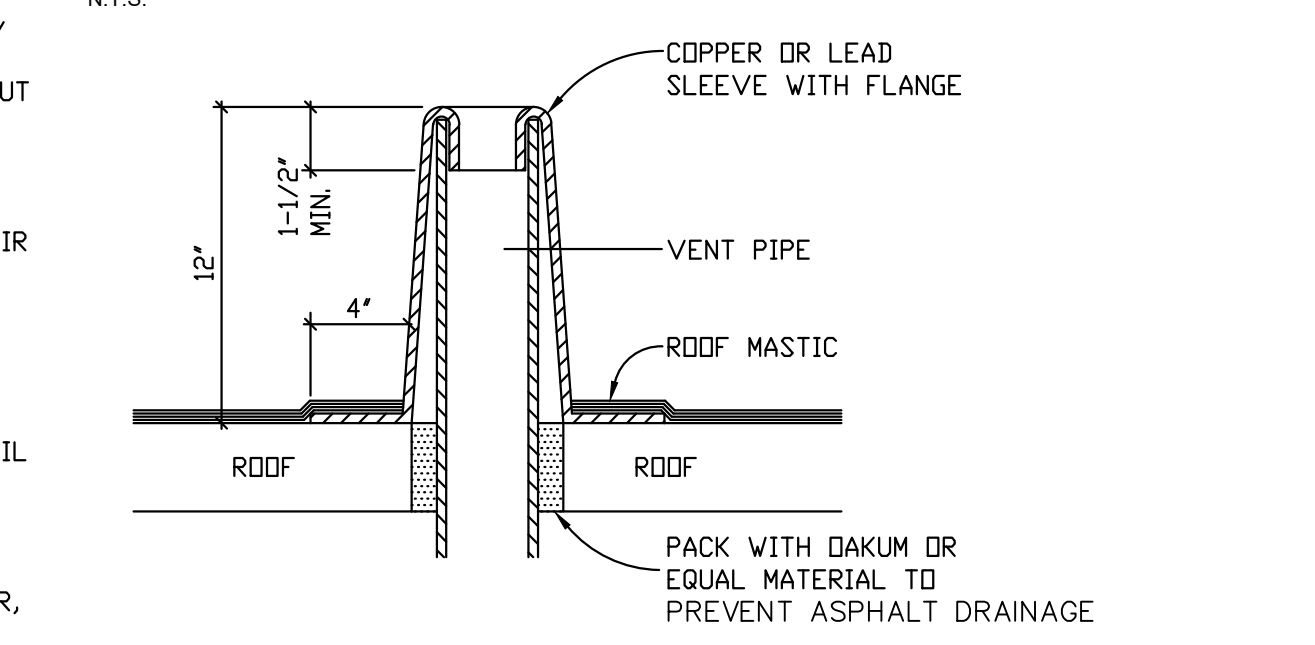
7. LOCATE CLEANOUTS IN ACCESSIBLE LOCATIONS WHEREVER POSSIBLE, ABOVE SUSPENDED CEILINGS ETC. IF LOCATED ABOVE OR BEHIND DRYWALL CEILINGS, PROVIDE STEEL ACCESS PANELS DIRECTLY IN FRONT OF VALVES. PROVIDE CHROME PLATED BRASS COVER PLATES FOR CLEANOUTS LOCATED WITHIN DRYWALL PARTITIONS. LOCATIONS MUST BE COORDINATED AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION OF PIPING SYSTEM. VALVES

1. GATE VALVES, 2-INCH AND SMALLER: MSS SP-80; CLASS 125. BODY AND BONNET OF ASTM B 62 CAST BRONZE, WITH THREADED OR SOLDER ENDS, SOLID DISC, COPPER-SILICON ALLOY STEM, BRASS PACKING GLAND, "TEFLON" IMPREGNATED PACKING, AND MALLEABLE IRON HANDWHEEL. PROVIDE CLASS 150 VALVES MEETING THE ABOVE AND MALLEABLE IRON HANDWHEEL. PROVIDE CLASS 150 VALVES MEETING THE ABOVE WHERE SYSTEM PRESSURE REQUIRES. DO NOT USE SOLDER END VALVES FOR HOT WATER HEATING OR STEAM PIPING APPLICATIONS.
2. BALL VALVES: 2-PIECE, BRONZE BODY, BLOW-OUT PROOF STEM, METAL BALL, TEFLON SEAL RING, SCREWED OR SOLDERED ENDS, 400 LB. WOG, NIBCO OR STOCKHAM.
2. PROVIDE VALVES FOR THE FOLLOWING SERVICES:
 - a. DOMESTIC WATER 1" AND LARGER - GATE VALVE
 - b. DOMESTIC WATER SMALLER THAN 1" - BALL VALVE
4. LOCATE VALVES IN ACCESSIBLE LOCATIONS WHEREVER POSSIBLE, ABOVE SUSPENDED CEILINGS ETC. IF LOCATED ABOVE OR BEHIND DRYWALL CEILINGS OR WALLS, PROVIDE STEEL ACCESS PANELS DIRECTLY IN FRONT OF VALVES. LOCATION MUST BE COORDINATED AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION OF PIPING SYSTEM.

UTILITY WALL BOX FOR CLOTHES WASHER



UTILITY WALL BOX FOR CLOTHES WASHER
N.T.S.

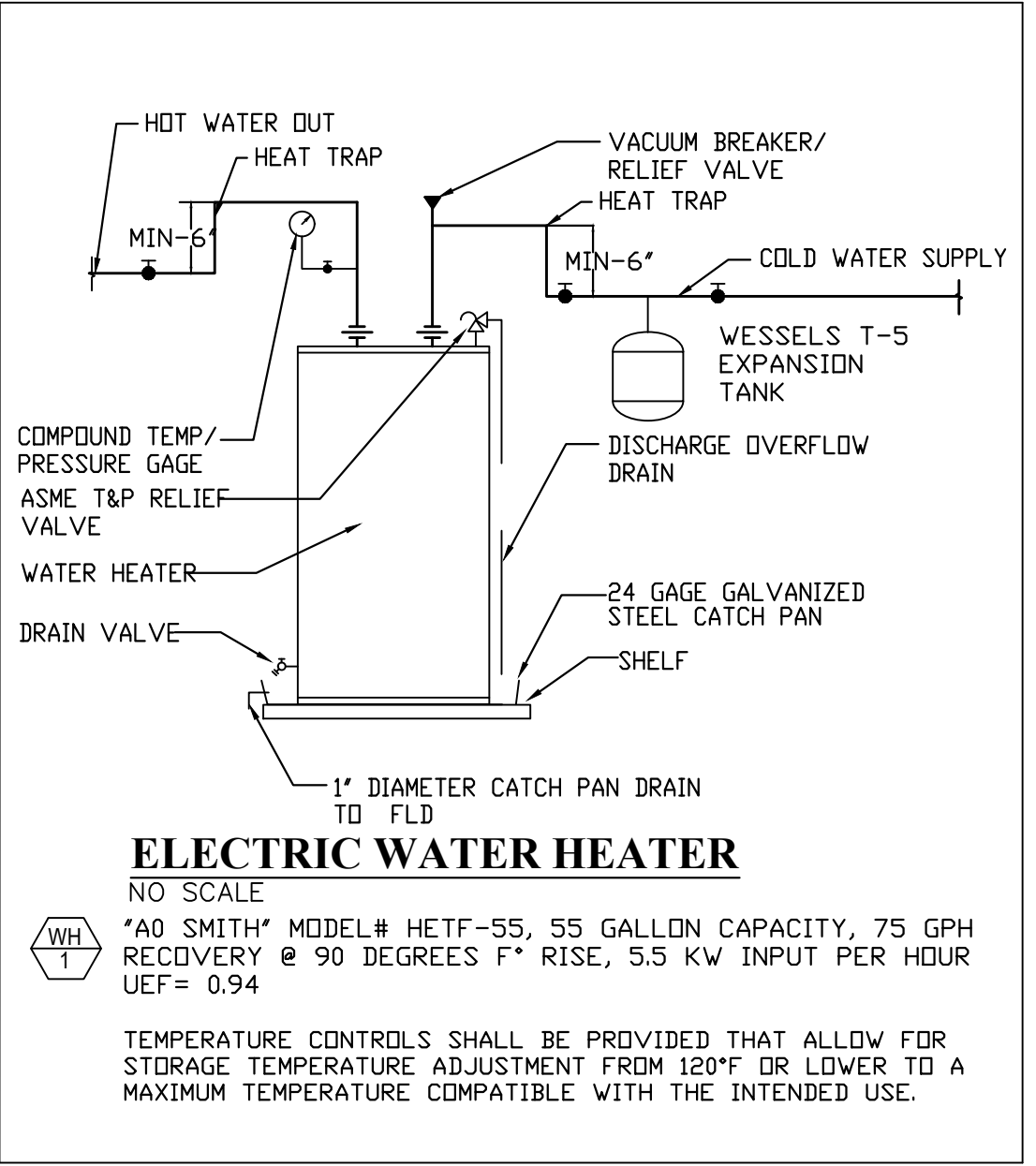


VENT THRU ROOF DETAIL
SCALE: NTS

FIXTURES

1. FIXTURES, FITTINGS, TRIM AND ACCESSORIES SHALL BE SAME MANUFACTURERS TO THE EXTENT POSSIBLE.
2. BARRIER FREE STANDARDS: COMPLY WITH APPLICABLE ANSI STANDARDS PERTAINING TO PLUMBING FIXTURES AND SYSTEMS INCLUDING ANSI A 117.1 STANDARD PERTAINING TO PLUMBING FIXTURES FOR THE HANDICAPPED. COMPLY WITH THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT". FIXTURES DESIGNATED BARRIER FREE ARE INTENDED TO BE "USABLE BY PHYSICALLY HANDICAPPED PEOPLE". FIXTURES FOR USE BY HANDICAPPED PEOPLE SHALL BE INSTALLED IN ACCORDANCE WITH ANSI A 117.1.
3. ENERGY CONSERVATION CODE COMPLIANCE: COMPLY WITH LOCAL AUTHORITY STANDARDS FOR PLUMBING FIXTURE FLOW CONTROLS. WHERE NO CODE OR STANDARD IS IN USE, USE THE CURRENT 2012 IECC. WHEN A SPECIFIED DEVICE IS MORE RESTRICTIVE THAN THE LOCAL STANDARDS, THE SPECIFIED DEVICE SHALL BE INSTALLED EXCEPT WHERE PROHIBITED.
4. SUBMIT MANUFACTURER'S SPECIFICATIONS FOR PLUMBING FIXTURES AND TRIM, INCLUDING CATALOG LITERATURE AND MANUFACTURER'S NAME OF EACH FIXTURE TYPE AND TRIM ITEM FURNISHED, ROUGH-IN DIMENSIONED DRAWINGS, FIXTURE CARRIERS, AND INSTALLATION INSTRUCTIONS. PROPOSED SUBSTITUTIONS SHALL BE INDICATED AND DRAWINGS, CATALOG LITERATURE, OR OTHER DATA SHALL BE FURNISHED FOR COMPARISON.
5. FIXTURES SHALL BE WHITE EXCEPT WHERE INDICATED OTHERWISE OR WHERE FIXTURE IS PROVIDED IN A MANUFACTURED FINISH.
6. EXPOSED METAL FITTINGS, TRIM, AND ACCESSORIES SHALL HAVE POLISHED CHROME PLATED FINISH.
7. SUPPLIES: PROVIDE A STOP ON EACH WATER SUPPLY TO EACH FIXTURE. PROVIDE ACCESS PANELS FOR CONCEALED STOPS.
8. TRAPS: PROVIDE A TRAP ON EACH FIXTURE, EXCEPT WHERE FIXTURE SPILLS OVER A PROPERLY TRAPPED DRAIN OR OTHER RECEPTOR. ALL SINK AND LAVATORY TRAPS SHALL BE CHROME PLATED OR BRASS SWIVEL PATTERN WITH CLEANOUT. ALL TUBING DRAINS SHALL BE MINIMUM 17 GAUGE THICKNESS CHROME PLATED METAL.
9. ESCUTCHEONS: PROVIDE DEEP PATTERN ESCUTCHEONS FOR SUPPLIES AND TRAPS WHERE ROUGH-IN PIPING WOULD BE VISIBLE USING STANDARD ESCUTCHEONS.

PLUMBING FIXTURE CONNECTION SCHEDULE						
ITEM	DESCRIPTION	WASTE	H.W.	C.W.	MAX FLOW RATE	REMARKS
VC	WATER CLOSET	3'	-	1/2"	1.28 GALLONS PER FLUSHING CYCLE	FLOOR MOUNTED/TANK TYPE WATERSENSE LABELED
LAV	LAVATORY,	1-1/2'	1/2"	1/2"	1.5 GPM @ 60PSI	COUNTER TOP WATERSENSE LABELED
BT	BATHTUB	2'	1/2"	1/2"	2.0 GPM AT 80PSI	WITH ANTI-SCALD PRESSURE BALANCING CONTROLS WATERSENSE LABELED
SH	SHOWER,	2'	1/2"	1/2"	2.0 GPM AT 80PSI	WITH ANTI-SCALD PRESSURE BALANCING CONTROLS WATERSENSE LABELED
KS	KITCHEN SINK	1-1/2'	1/2"	1/2"	2.5 GPM AT 60PSI	COUNTER TOP
CW	CLOTHES WASHER	2'	1/2"	1/2"		WASHER SUPPLY AND DRAIN BOX
FD	FLOOR DRAIN	2'	-	-		WITH TRAP PRIMER
LT	LAUNDRY TUB	2'	1/2"	1/2"		
HB	HOSE BIB	-	-	1/2"		INTEGRATED VACUUM BREAKER
BS	BAR SINK	1-1/2'	1/2"	1/2"		COUNTER TOP WATERSENSE LABELED

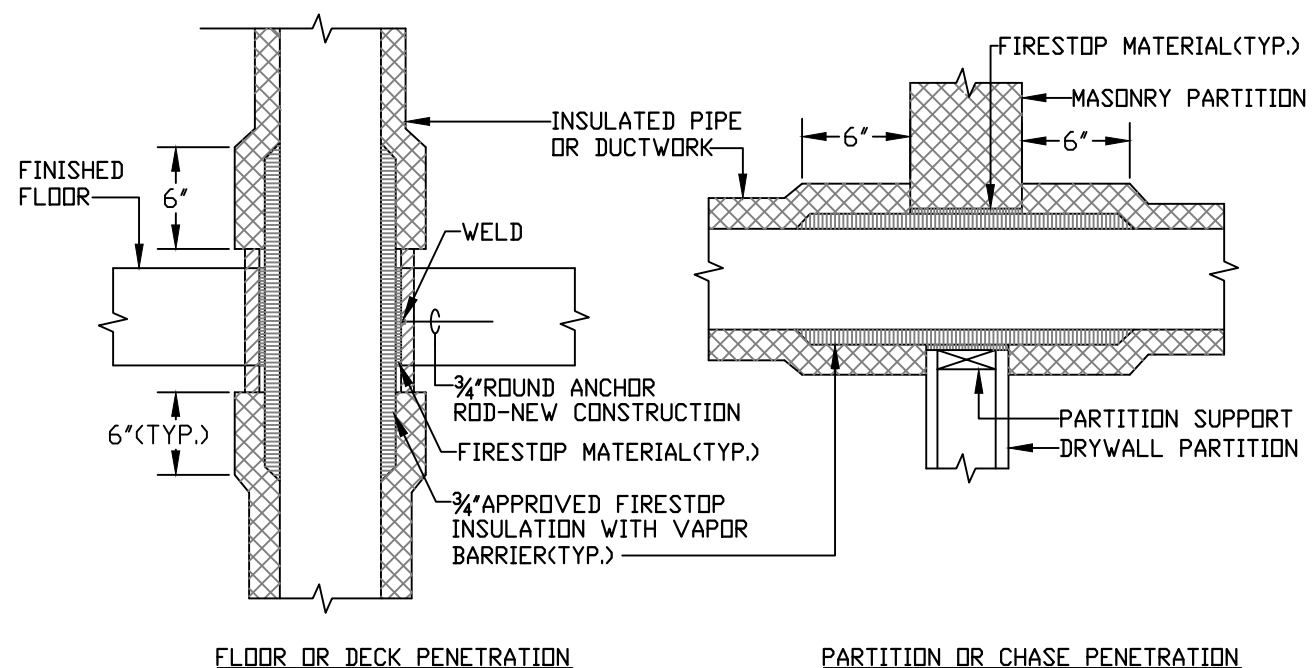


ELECTRIC WATER HEATER
NO SCALE

AO SMITH MODEL# HETF-55, 55 GALLON CAPACITY, 75 GPH RECOVERY @ 90 DEGREES F° RISE, 5.5 KW INPUT PER HOUR UEF = 0.94

TEMPERATURE CONTROLS SHALL BE PROVIDED THAT ALLOW FOR STORAGE TEMPERATURE ADJUSTMENT FROM 120°F OR LOWER TO A MAXIMUM TEMPERATURE COMPATIBLE WITH THE INTENDED USE.

PLUMBING LEGEND		
THIS LEGEND IS A MASTER OF PLUMBING SYMBOLS AND IS NOT INTENDED TO BE A SPECIFICATION OF PRODUCTS FOR THIS PROJECT		
SYMBOL	DESCRIPTION	ABBREVIATION
---	SOIL/WASTE PIPE	SP/WP
---	STORM PIPE	ST
---	VENT PIPE	VP
---	COLD WATER PIPE	CW
---	HOT WATER PIPE	HW
○	BALL VALVE	
⊘	CHECK VALVE	
⊘	GAS COCK	
⊘	UNION	
⊘	CLEANOUTS	CO
⊘	SHOCK ABSORBER	SA
⊘	WALL HYDRANT/HOSE BIBB	WH/HB
⊘	WET STACK	WS
⊘	RAIN LEADER	RL
⊘	FLOOR DRAIN	FLD
⊘	OPEN DRAIN	OD
⊘	SIDEWALL SPRINKLER	SPKR
⊘	BACK FLOW PREVENTER	BFP
⊘	EXTEND AND CONNECT TO EXISTING PIPE OF EQUAL OR LARGER SIZE. LOCATE IN FIELD AND VERIFY INVERTS PRIOR TO EXCAVATIONS FOR NEW PIPING SYSTEM	



NOTE:
APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101 REFER TO SPECIFICATIONS SECTION 07270, FIRE STOPPING SYSTEMS.

PENETRATION OF FIRE/SMOKE BARRIERS
NOT TO SCALE

PLUMBING GENERAL NOTES

1. PLUMBING SYSTEM
 - A. ALL PLUMBING WORK SHALL BE PERFORMED PER REQUIREMENTS OF LOCAL CODES AND REGULATIONS.
 - B. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LIMITS OF WORK AND BUILDING STANDARDS.
 - C. COORDINATE WORK WITH ALL OTHER TRADES AND INSPECT EXISTING CONDITIONS PRIOR TO BEGINNING INSTALLATION.
 - D. SCHEDULE WITH THE OWNER TEMPORARY SHUT-OFF SERVICES TO PUBLIC/OTHER AREAS.
 - E. INSTALL AND CONCEAL ALL WASTE, VENT AND WATER PIPING BETWEEN FLOOR AND CEILING OR WITHIN PARTITIONS AND/OR WALLS.
 - F. CONTRACTOR SHALL IDENTIFY THE EXACT LOCATION, AND SIZE OF EXISTING PLUMBING PIPING AND STACKS, BEFORE THE START OF WORK.

STORM DRAINAGE NOTES:
STORM DRAINS AND PIPING SYSTEM SIZED FOR A MAXIMUM RATE OF RAINFALL OF 3.2" PER HOUR FOR A ONE HOUR DURATION AND A ONE HUNDRED YEAR RETURN PERIOD. CONVENTIONAL ROOF DRAINAGE AT 0.0333 GPM PER SQ. FT.

SPRINKLER SYSTEM NOTES:

1. PROVIDE AND INSTALL FOR ENTIRE BUILDING, INCL. MECHANICAL AND ELECTRICAL ROOMS, A FULLY AUTOMATIC WET TYPE SPRINKLER SYSTEM, HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA 13R AND ALL CODES, LAWS AND REGULATIONS GOVERNING THE CONSTRUCTION OF THIS BUILDING. COORDINATE SPRINKLER MAINS AND BRANCHES WITH LIGHTS, DUCTS, PIPES AND STRUCTURAL MEMBERS. SPRINKLER SYSTEM IS A DESIGN/BUILD CONTRACT.
2. COORDINATE CROSS-OVERS AND PARALLEL PIPING SYSTEMS SO THAT SPRINKLER PIPE REMAINS AS HIGH AS POSSIBLE.
3. FINAL METHOD OF SPRINKLER PIPING PATTERN SHOULD TAKE INTO ACCOUNT MAXIMUM SYSTEM ELEVATIONS AS WELL AS HYDRAULIC CALCULATIONS, LOCAL CODE REQUIREMENTS, AND PIPING ECONOMIES.
4. COORDINATE WITH ELECTRICAL CONTRACTOR TO ENSURE COMPLIANCE WITH N.E.C. ARTICLES 110 AND 384 FOR CLEARANCES AROUND ELECTRICAL DISTRIBUTION EQUIPMENT (PANELBOARDS, SWITCHBOARDS, DISCONNECTS, ETC.). LOCATE PIPING IN FIELD AS REQUIRED TO ASSURE COMPLIANCE REGARDLESS OF WHERE PIPING IS SHOWN ON PLANS.
5. PIPING SHALL BE BLACK STEEL OR PLASTIC. BLACK STEEL SHALL BE SCHEDULE 40 PIPE WITH CLASS 125 CAST-IRON THREADED OR GROOVED FITTINGS. PLASTIC PIPE SHALL BE CHLORINATED POLYVINYL CHLORIDE (CPVC) CONFORMING TO ASTM F442/F442M, 175 PSI RATING AND LISTED IN UL FIRE PROTECTION DIR FOR USE IN WET PIPE SPRINKLER SYSTEMS.
6. SPRINKLER HEADS SHALL BE UL LISTED FOR THEIR INTENDED APPLICATIONS. USE QUICK RESPONSE HEADS WHEREVER APPLICABLE
7. SPRINKLER DESIGN SHOULD TAKE INTO ACCOUNT ALL OTHER PROPOSED INSTALLATIONS TO AVOID CONFLICT.

GENERAL NOTES

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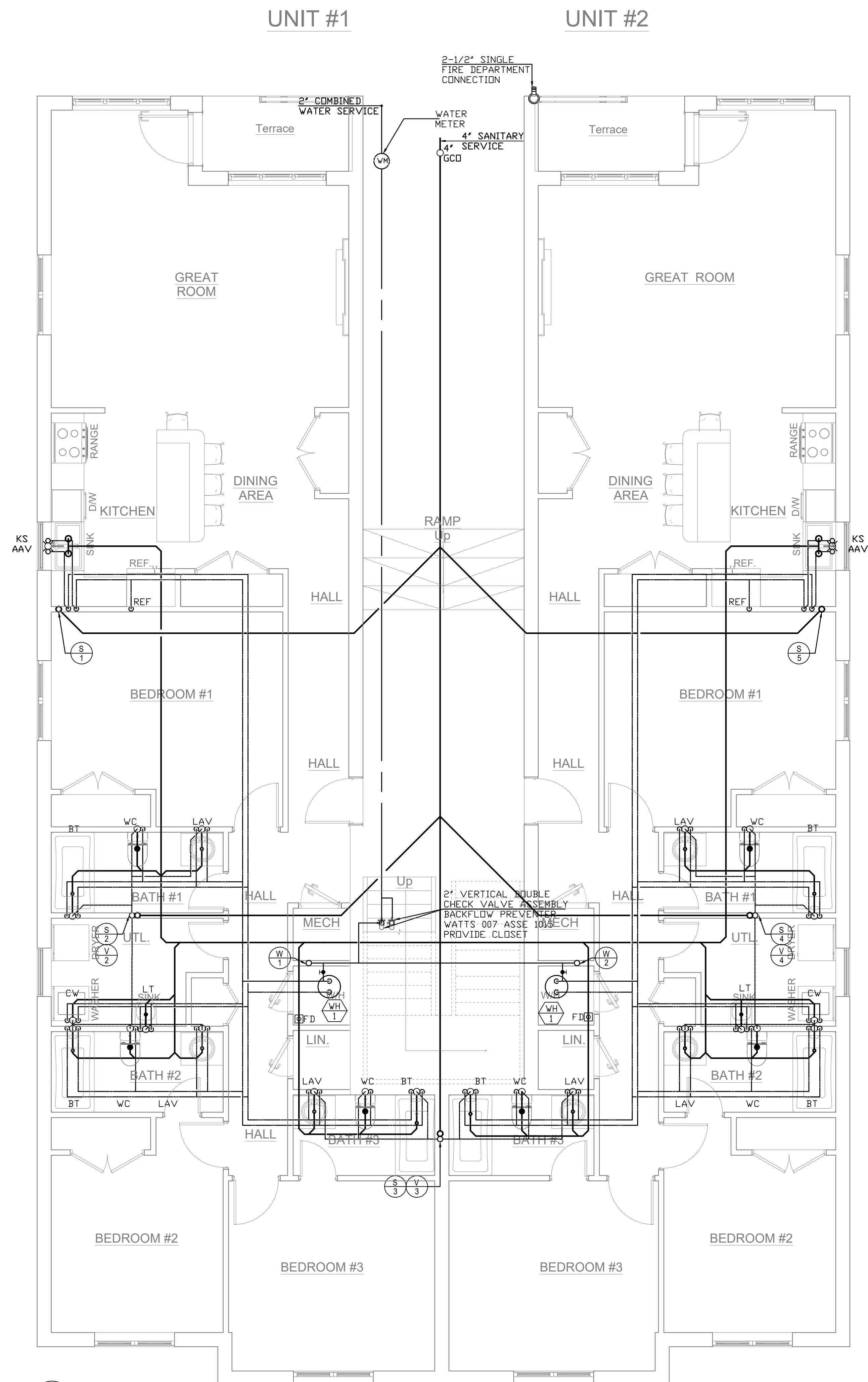


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SHEET NAME PLUMBING COVER SHEET	Sheet
Date 7/7/2023	P000
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1 PLUMBING FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"

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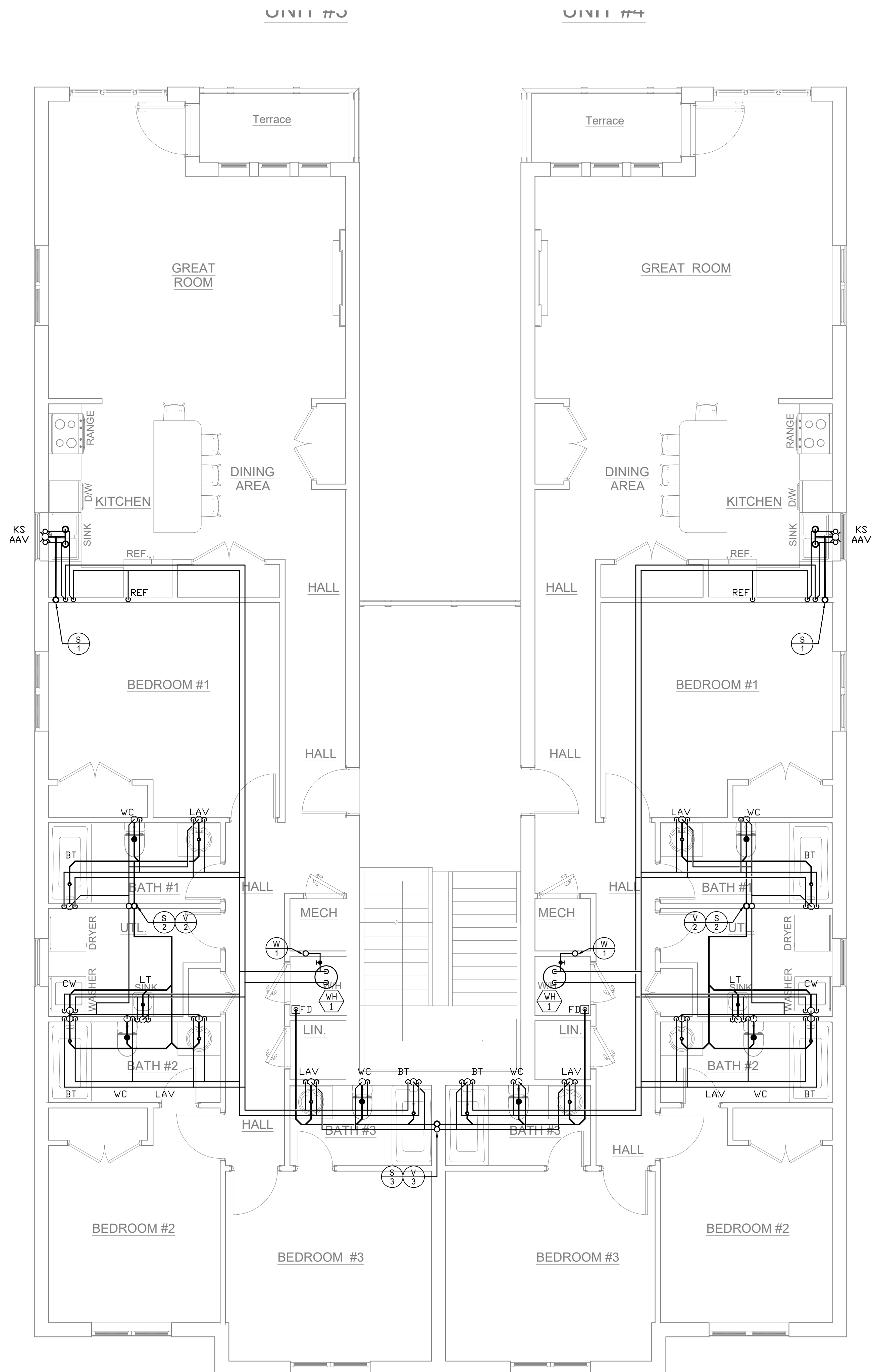


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1 PLUMBING SECOND FLOOR PLAN
SCALE: 1/4"=1'-0"

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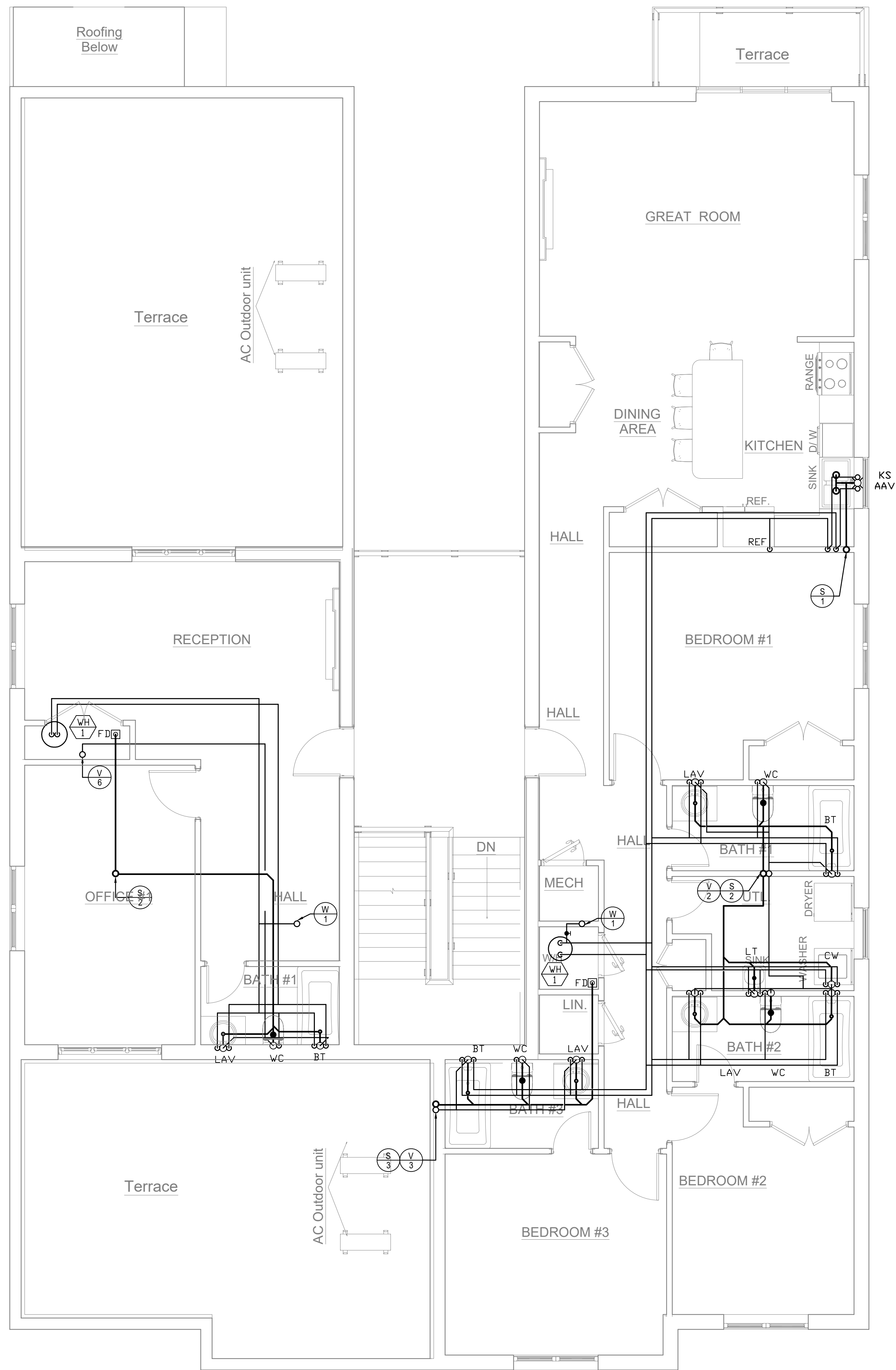


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SHEET NAME PLUMBING FLOOR PLAN	Sheet P002
Date 7/7/2023	
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1 PLUMBING THIRD FLOOR PLAN
SCALE: 1/4"=1'-0"

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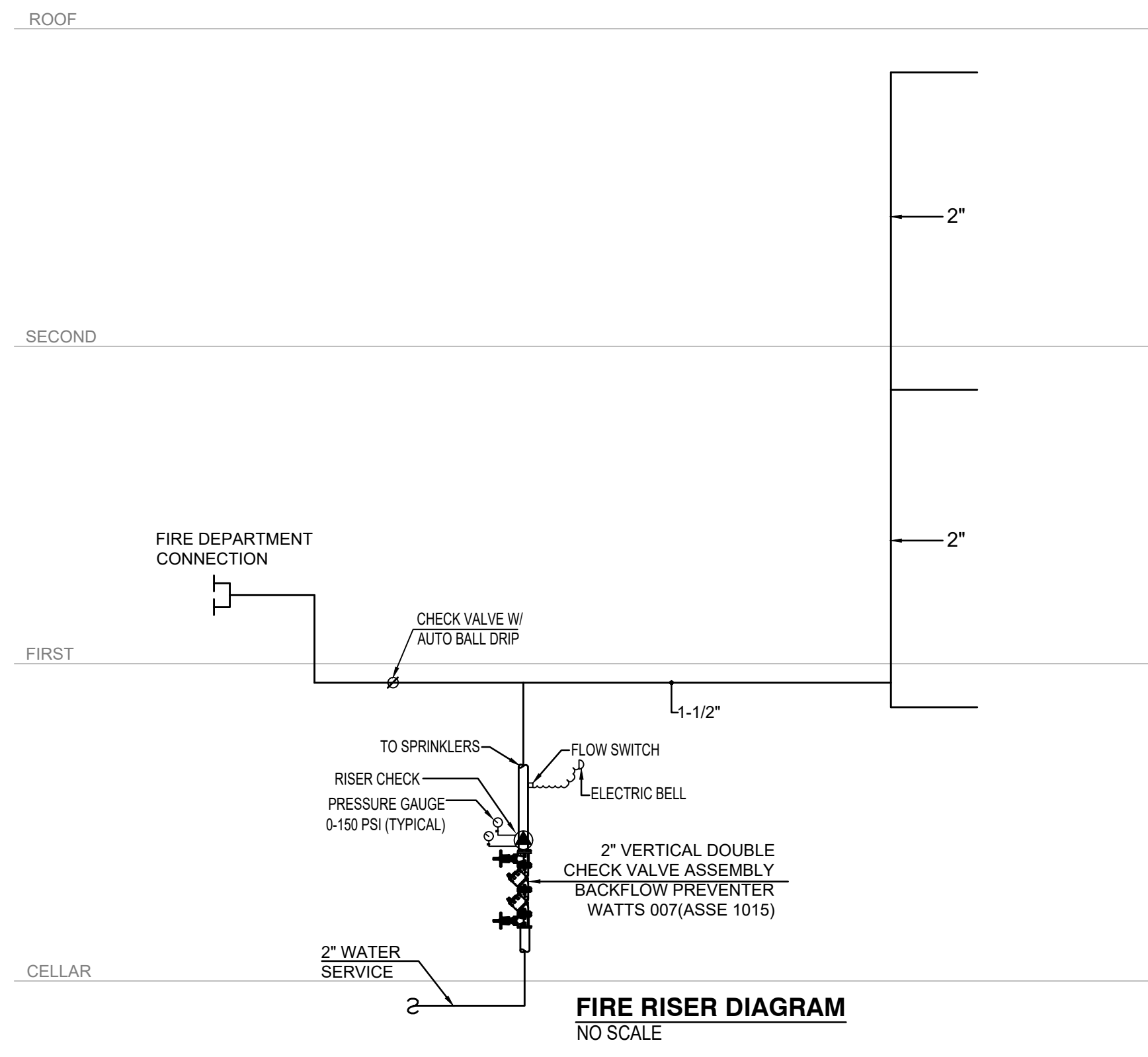
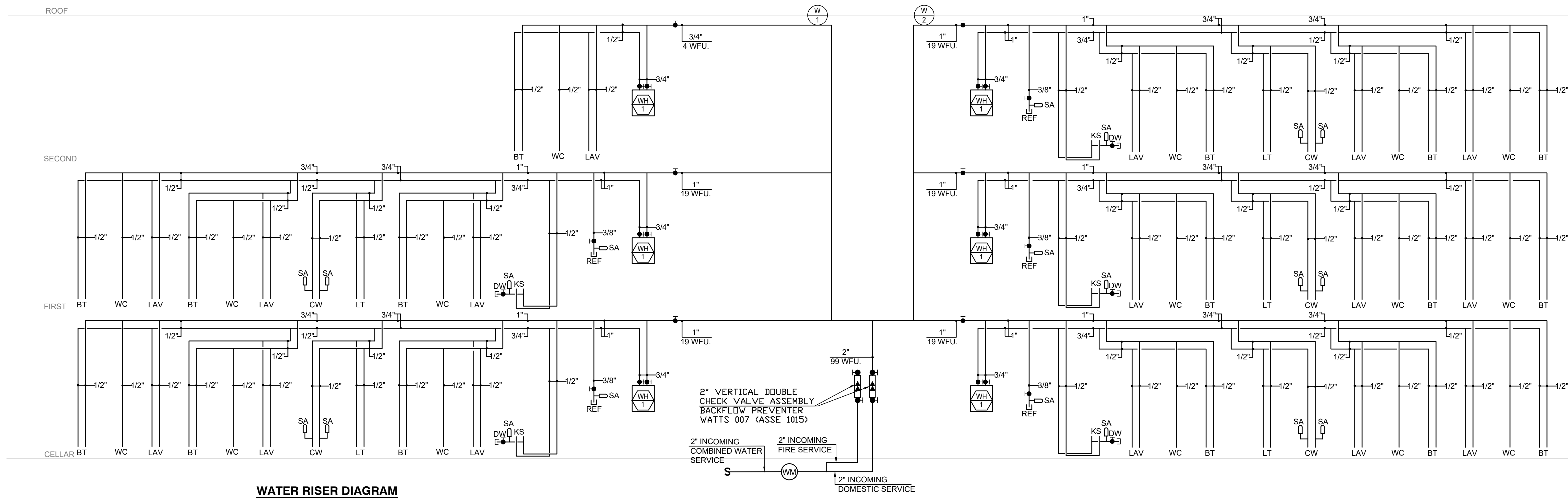


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DISINFECTION OF POTABLE WATER SYSTEM
GENERAL: NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. THE METHOD TO BE FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY OR WATER PURVEYOR HAVING JURISDICTION OR, IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE DESCRIBED IN EITHER AWWA C651 OR AWWA C652, OR AS DESCRIBED IN THIS SECTION. THIS REQUIREMENT SHALL APPLY TO "ONSITE" OR "IN-PLANT" FABRICATION OF A SYSTEM OR TO A MODULAR PORTION OF A SYSTEM.

1. THE PIPE SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT THE POINTS OF OUTLET.
2. THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/ CHLORINE SOLUTION CONTAINING NOT LESS THAN 50 PARTS PER MILLION (50 MG/L) OF CHLORINE, AND THE SYSTEM OR PART THEREOF SHALL BE VALVED OFF AND ALLOWED TO STAND FOR 24 HOURS; OR THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/ CHLORINE SOLUTION CONTAINING NOT LESS THAN 200 PARTS PER MILLION (200 MG/L) OF CHLORINE AND ALLOWED TO STAND FOR 3 HOURS.
3. FOLLOWING THE REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
4. THE PROCEDURE SHALL BE REPEATED WHERE SHOWN BY A BACTERIOLOGICAL EXAMINATION THAT CONTAMINATION REMAINS.

INDIVIDUAL SHOWER AND TUBSHOWER COMBINATION VALVES SHALL BE BALANCED-PRESSURE, THERMOSTATIC OR COMBINATION BALANCED-PRESSURE / THERMOSTATIC VALVES THAT CONFORM TO THE REQUIREMENTS OF ASSE 1016 OR ASME A112.1016/CSA B125.16 AND SHALL BE INSTALLED AT THE POINT OF USE.

A WATER-HAMMER ARRESTOR SHALL BE INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER-HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WATER-HAMMER ARRESTORS SHALL CONFORM TO ASSE1010.

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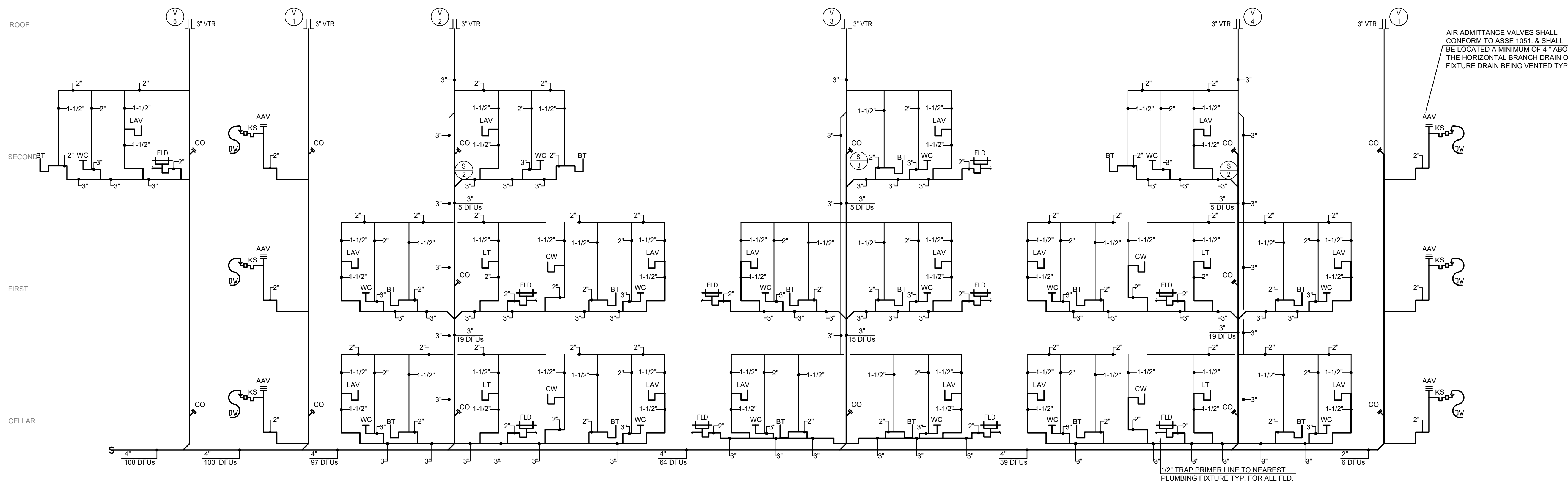
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Scale	As Noted	

GENERAL NOTES

ALL TRAPS INSTALLED IN FLOOR/CEILING (TUB AND SHOWER) AND WALL (CLOTHES WASHING MACHINE) SPACES SHALL NOT BE OF THE SLIP JOINT TYPE OR SHOW PROPER ACCESS TO THE TRAP

AIR ADMITTANCE VALVES SHALL CONFORM TO ASSE 1051. & SHALL BE LOCATED A MINIMUM OF 4" ABOVE THE HORIZONTAL BRANCH DRAIN OR FIXTURE DRAIN BEING VENTED TYP.



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Water Line	C-01





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Sewer Line	C-02



WATER UTILITY GENERAL NOTES

1. ALL WATER MAINS, LATERALS AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH FACETTVILLE PWC STANDARDS.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE FOR ALL WATER OUTAGES.
4. CONSTRUCTION STAKING IS REQUIRED FOR ALL PWC WATER AND SEWER UTILITY INSTALLATIONS. CUT SHEETS, SIGNED AND SEALED BY A N.C. PLS. SHALL BE PROVIDED TO THE PWC WATER RESOURCES ENGINEERING DEPARTMENT AND THE CONTRACTOR IN ADVANCE OF CONSTRUCTION FOR PWC WATER AND SEWER UTILITIES.
5. CONTRACTOR SHALL MAINTAIN A COPY OF THE SIGNED AND SEALED CUT SHEET ON THE JOB SITE. CONSTRUCTION ON PWC WATER AND SEWER UTILITIES CANNOT BEGIN UNTIL THE CONTRACTOR POSSESSES ON SITE, A SIGNED AND SEALED CUT SHEET FROM THE PROFESSIONAL LAND SURVEYOR.
6. ALL NEW WATER AND SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE TESTED AND/OR DISINFECTED IN ACCORDANCE WITH FACETTVILLE PWC STANDARDS PRIOR TO PLACING INTO SERVICE.
7. CONTRACTOR SHALL COORDINATE TESTING AND INSPECTION WITH THE FACETTVILLE PWC PROJECT COORDINATOR.
8. CONTRACTOR SHALL REPAIR ALL WATER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT IMMEDIATELY ALL WATER MAIN AND LATERAL BREAKS TO THE PWC PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH PWC STANDARDS. CONTRACTOR SHALL NOT OPERATE PWC WATER MAIN VALVES WITHOUT PWC APPROVAL AND SHALL COORDINATE ALL VALVE CLOSINGS WITH PWC.
9. THE CONTRACTOR SHALL NOT USE HOUSE HOSE BIBBS OR ANY OTHER METHOD OF BLOW OFF WHICH ALLOWS DOMESTIC WATER CONTAINING SEDIMENTS OR HIGH LEVELS OF CHLORINE TO PASS THRU RESIDENTS METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING DIRTY WATER TO ENTER RESIDENTS' PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CLOTHING, CLOGGED SCREENS, ETC.
10. TRANSFER OF WATER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:
 - A. INSTALL, TEST AND STERILIZE NEW MAIN AND LATERALS. LATERALS SHALL BE INSTALLED 18" INSIDE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY PWC.
 - B. TRANSFER EXISTING METER TO NEW METER BOX AND THE NEW WATER LATERAL TO EXISTING DOMESTIC SERVICE UTILIZING BRASS FITTINGS. SAME METER NUMBER SHALL BE INSTALLED ON SAME ADDRESS AND/OR CUSTOMER. BLOW OFF SERVICE AT HOSE BIBB ON HOUSE ONLY AFTER METER HAS BEEN TRANSFERRED.
 - C. AFTER ALL SERVICES ARE TRANSFERRED TO THE NEW SYSTEM, SHUT OFF VALVE ON EXISTING SYSTEM AND ABANDON EXISTING MAINS IN ACCORDANCE WITH PWC STANDARDS.
 - D. CONTRACTOR SHALL SUPPLY NEW METER BOXES AND DISPOSE OF EXISTING METER BOXES.

11. CONTRACTOR SHALL ABANDON ("KILL-OUT") ANY EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED BY EXISTING OR ANY PORTION THEREOF UNTIL WATER SERVICE IS RESTORED. THIS PENALTY WILL BE DEDUCTED FROM THE CONTRACTOR'S PAY APPLICATION OR BE BILLED DIRECTLY TO THE CONTRACTOR. THE PENALTY MAY BE WAIVED FOR CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL, AS DETERMINED BY THE FACETTVILLE PUBLIC WORKS COMMISSION. THE PWC PROJECT COORDINATOR AND/OR PROJECT ENGINEER RESERVE THE RIGHT TO CANCEL OR POSTPONE THE OUTAGE AT ANY GIVEN TIME, IF DEEMED NECESSARY.
12. ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH PWC REQUIREMENTS.
13. ALL WORK ON PWC WATER UTILITIES (MAINS, LATERALS, ETC.) SHALL BE PERFORMED BY A LICENSED UTILITY CONTRACTOR. THE FACETTVILLE PUBLIC WORKS COMMISSION SHALL OBSERVE AND APPROVE ALL WORK ON PWC WATER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH PWC REQUIREMENTS.

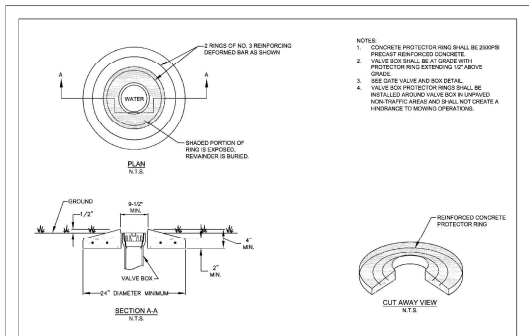
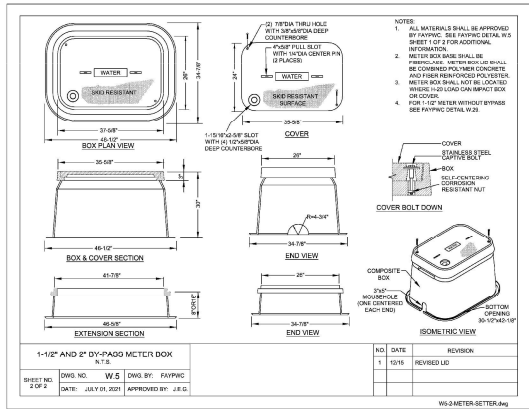
14. SEPARATION REQUIREMENTS:
 - A. **LATERAL SEPARATION OF SEWERS AND WATER MAINS:** WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWER MAIN LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT LATERAL SEPARATION - IN WHICH CASE:
 - i. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL; OR
 - ii. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER MAIN LATERAL WITH THE WATER MAIN LOCATED ON ONE SIDE ON A BENCH OF UNDISTURBED EARTH AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL.
 - B. **CROSSING A WATER MAIN OVER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAIN LATERAL, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND SEWER MAIN LATERAL SHALL BE DUCTILE IRON IN ACCORDANCE WITH PWC REQUIREMENTS.
 - C. **CROSSING WATER MAIN UNDER A SEWER:** WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN LATERAL, BOTH THE WATER MAIN AND THE SEWER MAIN LATERAL SHALL BE DUCTILE IRON IN ACCORDANCE WITH FACYPWC REQUIREMENTS. A FULL JOINT OF DUCTILE IRON PIPE SHALL BE INSTALLED ON THE WATER MAIN CENTERED AT THE POINT OF CROSSING.
 - D. **CROSSING STORM DRAINAGE LINES:** A MINIMUM OF 12 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A WATER LINE CROSSING OVER A STORM DRAINAGE LINE UNLESS DUCTILE IRON PIPE IS USED. IN ADDITION, THREES AND A HALF (3.5) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN OR IT SHALL BE DUCTILE IRON. IF DUCTILE IRON PIPE IS USED THEN TWO AN A HALF (2.5) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN AND A MINIMUM OF 4 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND THE STORM DRAINAGE LINE. WHERE A WATER MAIN CROSSES UNDER A STORM DRAINAGE LINE THE MINIMUM OF TWELVE (12) INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED AND THE WATER MAIN SHALL BE DUCTILE IRON FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.

16. **WATER OUTAGES:** THE CONTRACTOR SHALL SCHEDULE A COORDINATION MEETING WITH THE PWC PROJECT COORDINATOR AND PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO ANY PLANNED WATER OUTAGE. THE COORDINATION MEETING SHALL BE CONDUCTED PRIOR TO ANY NOTICES BEING ISSUED. ADDITIONALLY, THE CONTRACTOR SHALL LOCATE (VERTICALLY AND HORIZONTALLY) ANY UTILITIES WITHIN THE WORK AREA, IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS. THE LOCATION OF ALL UTILITIES WITHIN THE WORK AREA SHALL BE DETERMINED PRIOR TO THE COORDINATION MEETING. ANY CONFLICTS WITH THE PENDING WORK AND THE EXISTING UTILITIES SHALL BE IDENTIFIED AND A PLAN FOR RESOLVING ANY CONFLICTS SHALL BE PRESENTED. THE PURPOSE OF THIS COORDINATION MEETING IS TO ENSURE THAT THE CONTRACTOR HAS A GOOD UNDERSTANDING OF THE REQUIREMENTS RELATED TO THE PENDING OUTAGE, VERIFY THAT THERE ARE NO UTILITY CONFLICTS THAT WILL PREVENT THE WORK FROM BEING COMPLETED. ALL EQUIPMENT IS IN GOOD WORKING ORDER, ALL EQUIPMENT IS FUNCTIONAL, ALL MATERIALS ARE ON SITE, ALL NECESSARY TOOLS ARE ON SITE, DISCUSS ANY NECESSARY CONTINGENCY PLANS, AND ANY OTHER ITEMS NECESSARY TO ENSURE THAT THE FACETTVILLE PUBLIC WORKS COMMISSION HAS CONFIDENCE THAT THE WORK CAN BE ACCOMPLISHED WITHIN THE GIVEN TIME PERIOD. SHOULD, FOR ANY REASON, THE FACETTVILLE PUBLIC WORKS COMMISSION DEEM THAT THE CONTRACTOR IS NOT PREPARED FOR THE PROPOSED OUTAGE, THE OUTAGE NOTIFICATIONS WILL NOT BE DISTRIBUTED AND THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. THE FACETTVILLE PUBLIC WORKS COMMISSION WILL PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR OF THIS DECISION. NO ADDITIONAL CONTRACT TIME WILL BE GRANTED FOR THIS DELAY. SHOULD THE CONTRACT TIME EXPIRE WITHIN THAT TWO (2) WEEK PERIOD, THE FACETTVILLE PUBLIC WORKS COMMISSION RESERVES THE RIGHT TO ASSESS LIQUIDATED DAMAGES, AS OUTLINED IN THESE CONTRACT DOCUMENTS.

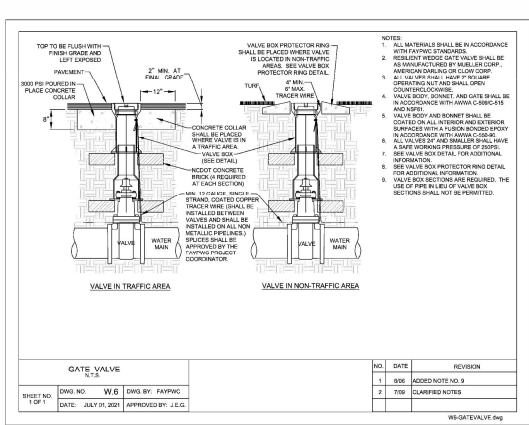
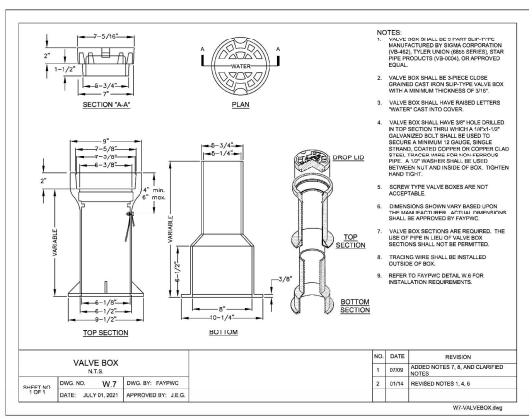
ONCE THE WATER OUTAGE NOTIFICATIONS HAVE BEEN ISSUED, A FOLLOW-UP COORDINATION MEETING WITH THE PWC PROJECT COORDINATOR AND PROJECT ENGINEER SHALL BE HELD A MINIMUM OF 24 HOURS PRIOR TO THE SCHEDULED PURPOSE OF THIS MEETING IS TO VERIFY THAT THE CONTRACTOR IS PREPARED TO PROCEED WITH THE OUTAGE, AND THAT ALL EQUIPMENT, MATERIALS, TOOLS, AND ALL OTHER INCIDENTALS ARE ON THE PROJECT SITE AND FUNCTIONING. IF FOR ANY REASON THE FACETTVILLE PUBLIC WORKS COMMISSION DEEMS THAT THE CONTRACTOR IS NOT PREPARED, THE OUTAGE SHALL BE POSTPONED AND ALL CUSTOMERS IMMEDIATELY NOTIFIED OF THE CANCELLATION. THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. NO ADDITIONAL CONTRACT TIME WILL BE GRANTED FOR THIS DELAY. SHOULD THE CONTRACT TIME EXPIRE WITHIN THAT TWO (2) WEEK PERIOD, THE FACETTVILLE PUBLIC WORKS COMMISSION RESERVES THE RIGHT TO ASSESS LIQUIDATED DAMAGES, AS OUTLINED IN THESE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL COMPLETE THE REQUIRED WORK AND RESTORE WATER SERVICE WITHIN THE GIVEN TIME PERIOD FOR THE OUTAGE. IF THE FACYPWC PROJECT COORDINATOR DETERMINES THAT THE CONTRACTOR WILL NOT RESTORE WATER SERVICE WITHIN THE APPROVED TIMEFRAME, THE FACYPWC PROJECT COORDINATOR WILL DIRECT THE CONTRACTOR ON HOW TO RESUME WATER SERVICE. THE CONTRACTOR SHALL ADDRESS TO ALL PWC UTILITIES SERVED BY THE PWC PROJECT COORDINATOR.

SHOULD THE CONTRACTOR FAIL TO COMPLETE THE WORK WITHIN THE ALLOWED TIME, THE FACETTVILLE PUBLIC WORKS COMMISSION SHALL ASSESS A PENALTY OF \$500 PER 15-MINUTE INTERVAL OR ANY PORTION THEREOF UNTIL WATER SERVICE IS RESTORED. THIS PENALTY WILL BE DEDUCTED FROM THE CONTRACTOR'S PAY APPLICATION OR BE BILLED DIRECTLY TO THE CONTRACTOR. THE PENALTY MAY BE WAIVED FOR CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL, AS DETERMINED BY THE FACETTVILLE PUBLIC WORKS COMMISSION. THE PWC PROJECT COORDINATOR AND/OR PROJECT ENGINEER RESERVE THE RIGHT TO CANCEL OR POSTPONE THE OUTAGE AT ANY GIVEN TIME, IF DEEMED NECESSARY.



VALVE BOX PROTECTOR RING		N.T.S.	
SHEET NO. 1 OF 1	DWG. NO. W-8	DWG. BY: FAYPWC	DATE: JULY 01, 2021
APPROVED BY: J.E.G.		REVISION:	
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GATE VALVE		N.T.S.	
SHEET NO. 1 OF 1	DWG. NO. W-6	DWG. BY: FAYPWC	DATE: JULY 01, 2021
APPROVED BY: J.E.G.		REVISION:	
		NO.	DATE
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		2	1000

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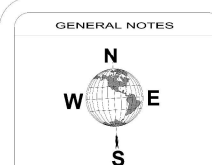
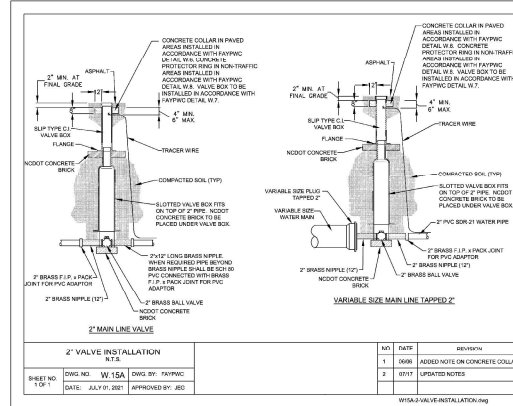
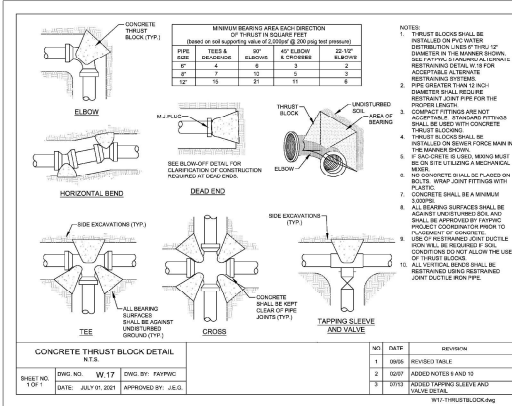


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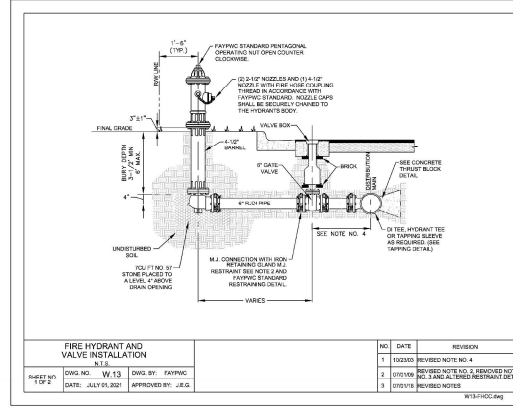
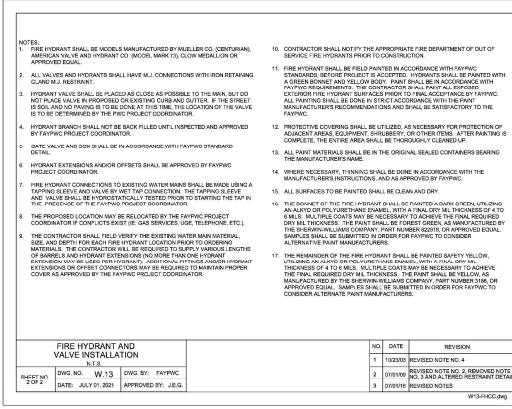
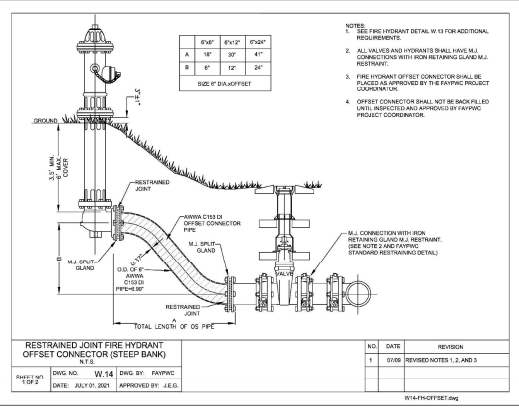
General Details		NO.		DATE		REVISION	

C-04



GENERAL NOTES

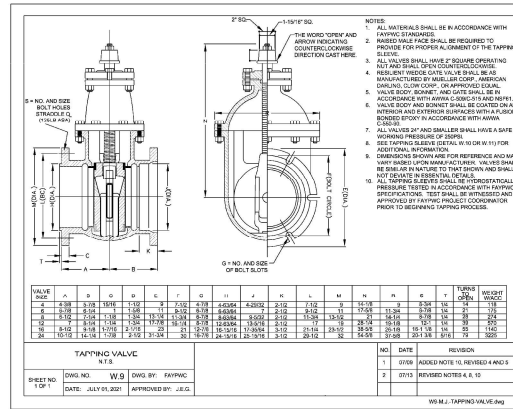
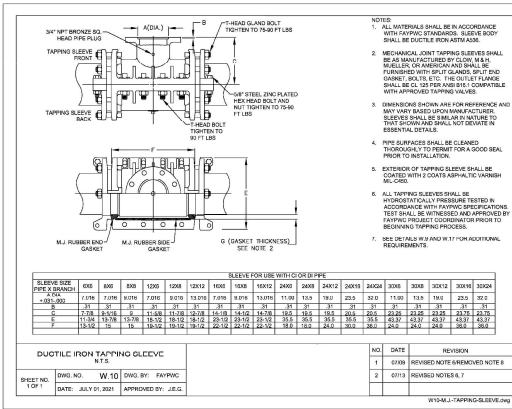
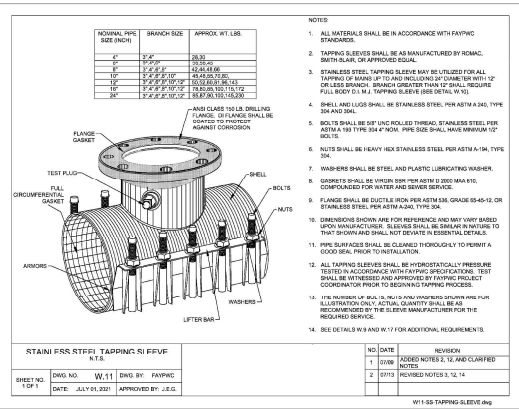
CONCRETE COLLAR IN PAVED AREAS SHALL BE INSTALLED ACCORDANCE WITH FAWPIC DETAIL W-7. PROTECT ON ROAD IN NON TRAFFIC AREAS ACCORDANCE WITH FAWPIC DETAIL W-7. VALVE BOX TO BE INSTALLED IN ACCORDANCE WITH FAWPIC DETAIL W-7.



No. REVISION/ISSUE D906



IWAN ARCHITECTURE CONSULTANTS, PLLC
361 OSMOSIS DR., SW
PALM BAY, FL 32908
WWW.IWANCONSULT.COM



Project Name Address

TRYPON ATRIUMS
3015 TRYON ROAD
RALEIGH, NC 27603

General Details

C-05

GENERAL NOTES



No. REVISION/ISSUE Date



Firm Name and Address
IWAN
 IWAN ARCHITECTURE CONSULTANTS, PLLC
 361 OSMOSIS DR., SW
 PALM BAY, FL 32908
 WWW.IWANCONSULT.COM

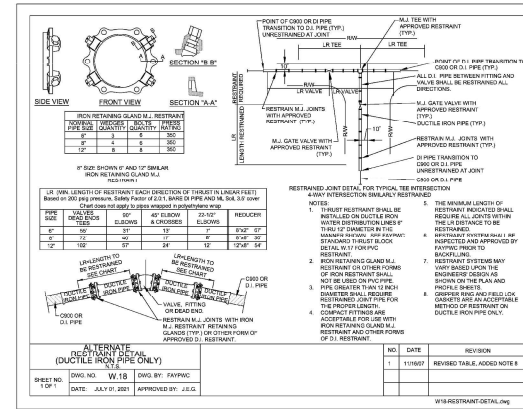
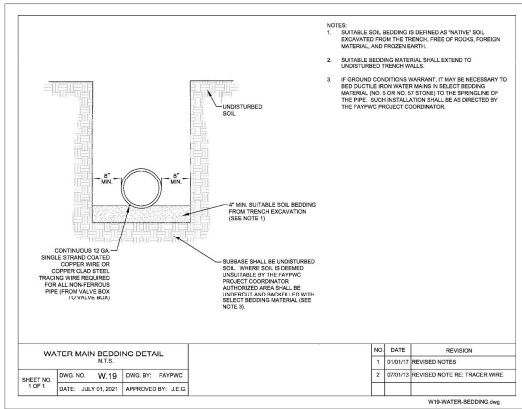
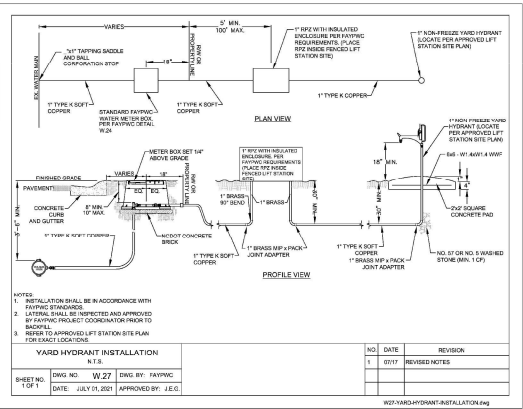
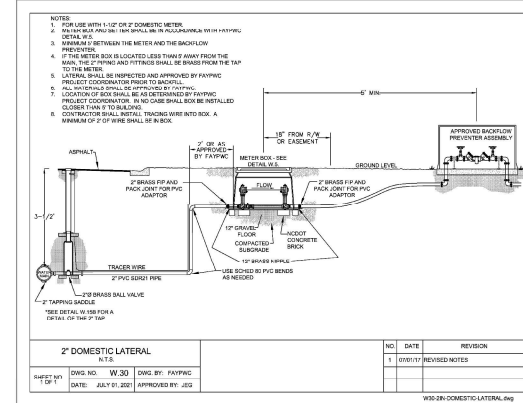
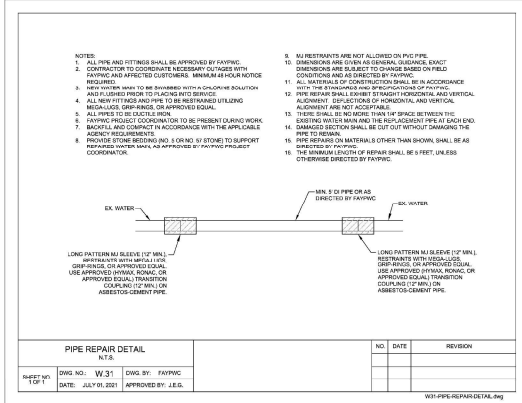
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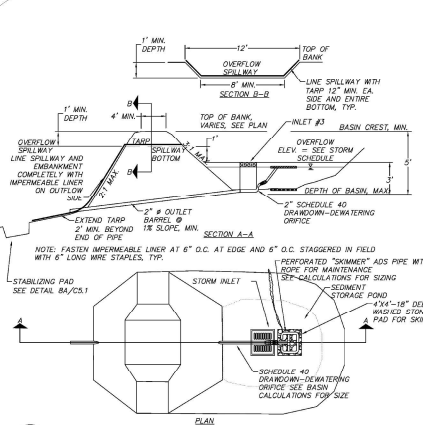
Project Name and Address

TRYON APARTMENTS
 3015 TRYON ROAD
 RALEIGH, NC 27603

General Details

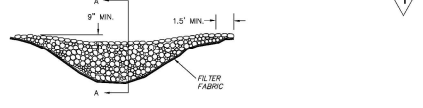
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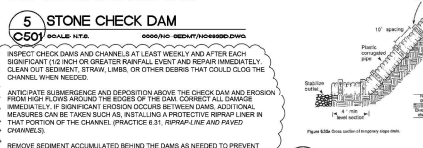
1 SEDIMENT BASIN DETAIL
C501 SCALE: NTS

NOTES:
1. PROVIDE Baffles (3 ea.) WITH THE SKIMMER BASIN TO CREATE A CURTAIN FLOW.
2. INSPECT, CLEAN AND PROPERLY MAINTAIN THE EXCAVATED BASIN AFTER EVERY STORM UNTIL THE CONTAINING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED TO PROVIDE SATISFACTORY BASIN EFFICIENCY. REMOVE SEDIMENT WHEN THE VOLUME OF THE BASIN HAS BEEN REDUCED BY ONE-FIFTH (1/5) SHOWN AS INDICATED MATERIAL, EVENLY OVER THE SURROUNDING LAND AREA OR STOCKPILE AND STABILIZE IT APPROPRIATELY.



5 STONE CHECK DAM
C501 SCALE: NTS

NOTES:
1. INSPECT CHECK DAMS AT LEAST 24 HOURS AFTER EACH SIGNIFICANT 1/2" OR GREATER RAINFALL EVENT AND REPAIR IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADJACENT DAMS CAN BE TIED TOGETHER AS INSTALLED A PROTECTIVE RIPRAP LINE IN THAT PORTION OF THE CHANNEL. (PRACTICE 6.31, RIPRAP LINE AND RAISED CHANNELS).
2. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO DOWNSTREAM VEGETATION, ALLOW THE DOWNSTREAM TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT UNDESIRABLE FLOW FROM CARBONING SEDIMENT OVER THE DAM AND TRENCHES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.
REFERENCES: RUNOFF CONSERVATION MEASURES 6.31, DAMBANKS, DRAINAGE AND EROSION CONTROL, 6.31, RIPRAP-LINED CHANNELS



6 TEMPORARY SLOPE DRAIN
C501 SCALE: NTS

MAINTENANCE:
1. INSPECT TEMPORARY SLOPE DRAIN AT LEAST 24 HOURS AFTER EACH SIGNIFICANT 1/2" OR GREATER RAINFALL EVENT AND REPAIR IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADJACENT DAMS CAN BE TIED TOGETHER AS INSTALLED A PROTECTIVE RIPRAP LINE IN THAT PORTION OF THE CHANNEL. (PRACTICE 6.31, RIPRAP LINE AND RAISED CHANNELS).
2. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO DOWNSTREAM VEGETATION, ALLOW THE DOWNSTREAM TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT UNDESIRABLE FLOW FROM CARBONING SEDIMENT OVER THE DAM AND TRENCHES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.
REFERENCES: RUNOFF CONSERVATION MEASURES 6.31, DAMBANKS, DRAINAGE AND EROSION CONTROL, 6.31, RIPRAP-LINED CHANNELS

TEMPORARY SEEDING FOR LATE WINTER AND EARLY SPRING
SEEDING MATURE: RYE (ORANGE)
SPEEDS: 120
RATE (LB/ACRE): 50
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD RECOMMENDATIONS FOR ROADS AND STRUCTURES

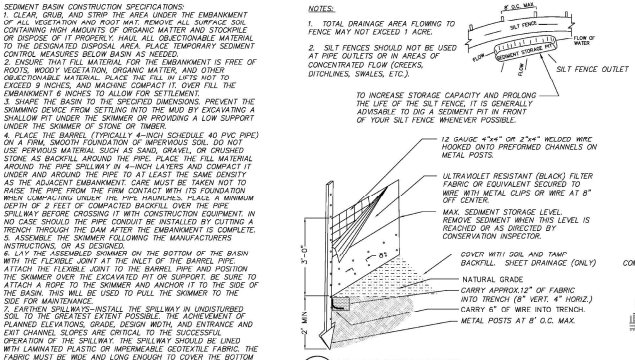
TEMPORARY SEEDING FOR SUMMER
SEEDING MATURE: GERMAN MILLET
SPEEDS: 40
RATE (LB/ACRE): 40
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD RECOMMENDATIONS FOR ROADS AND STRUCTURES

TEMPORARY SEEDING FOR FALL
SEEDING MATURE: RYE (ORANGE)
SPEEDS: 120
RATE (LB/ACRE): 40
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD RECOMMENDATIONS FOR ROADS AND STRUCTURES

10 SEEDBED PREPARATION
C501 SCALE: NTS

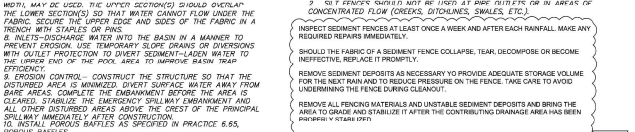
11 WINTER AND EARLY SPRING
C501 SCALE: NTS

12 TEMPORARY SEEDING FOR SUMMER
C501 SCALE: NTS



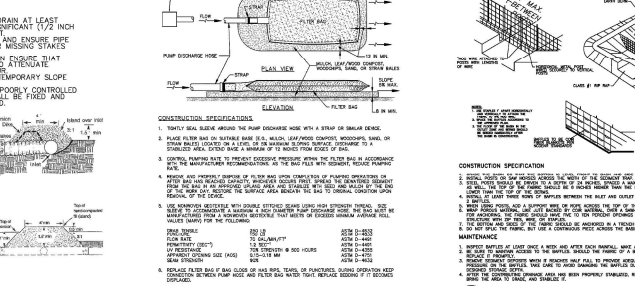
3 TEMPORARY SILTS DITCH
C501 SCALE: NTS

NOTES:
1. TOTAL DRAINAGE AREA FLOWING TO FENCE MAY NOT EXCEED 1 ACRE.
2. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (DRENCHES, DITCHES, SWALES, ETC.).
3. TO INCREASE STORAGE CAPACITY AND PROLONG THE LIFE OF THE SILT FENCE, IT IS GENERALLY ADVISABLE TO DIG A SEWERAGE IN FRONT OF YOUR SILT FENCE WHENEVER POSSIBLE.



2 SILT FENCE DETAIL
C501 SCALE: NTS

NOTES:
1. TOTAL DRAINAGE AREA FLOWING TO FENCE MAY NOT EXCEED 1 ACRE.
2. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (DRENCHES, DITCHES, SWALES, ETC.).
3. TO INCREASE STORAGE CAPACITY AND PROLONG THE LIFE OF THE SILT FENCE, IT IS GENERALLY ADVISABLE TO DIG A SEWERAGE IN FRONT OF YOUR SILT FENCE WHENEVER POSSIBLE.



7 FILTER BAG
C501 SCALE: NTS

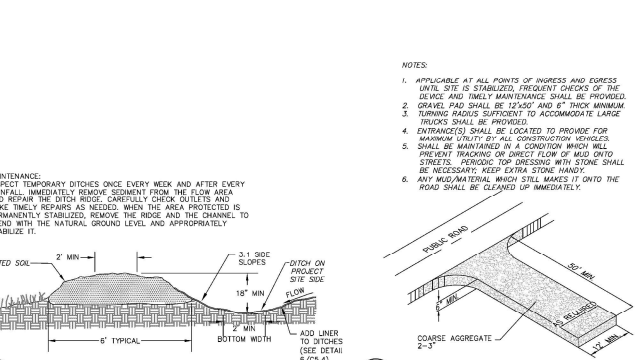
CONSTRUCTION SPECIFICATIONS:
1. TRAP FILTER BAG HAS A MINIMUM 1/2" DIA. HOLES. APPROXIMATE HOLES SHOULD BE SPACED AT 12" ON CENTER.
2. TRAP FILTER BAG HAS A MINIMUM 1/2" DIA. HOLES. APPROXIMATE HOLES SHOULD BE SPACED AT 12" ON CENTER.
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9 PIPE CULVERT OUTLET PROTECTION FOR DEFINED CHANNEL
C501 SCALE: NTS

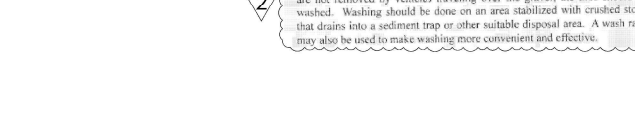
13 TEMPORARY SEEDING FOR FALL
C501 SCALE: NTS

14 TABLE 6.11H SEEDING NO. 3P
C501 SCALE: NTS



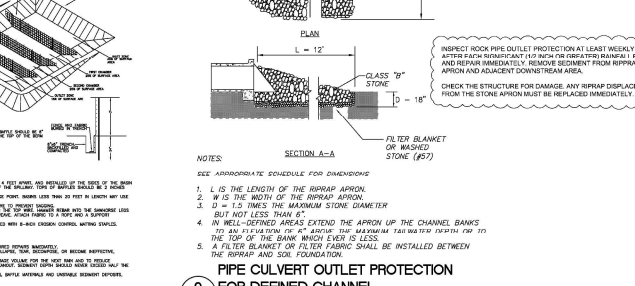
4 TEMPORARY CONSTRUCTION ENTRANCE/EXIT
C501 SCALE: NTS

NOTES:
1. APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE SHALL BE PROVIDED.
2. GRAVEL PAD SHALL BE 12" x 36" x 6" THICK MINIMUM.
3. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS SHALL BE PROVIDED.
4. ENTRANCES SHALL BE LOCATED TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
5. SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD INTO STREETS. PERIODIC TOP DRESSING WITH STONE SHALL BE NECESSARY. KEEP EXTRA STONE HANDY.
6. ANY MISAPPROPRIATE, UNSUITABLE MARKS IF ON THE ROAD SHALL BE CLEANED UP IMMEDIATELY.



8 POROUS Baffles
C501 SCALE: NTS

NOTES:
1. TOTAL DRAINAGE AREA FLOWING TO FENCE MAY NOT EXCEED 1 ACRE.
2. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (DRENCHES, DITCHES, SWALES, ETC.).
3. TO INCREASE STORAGE CAPACITY AND PROLONG THE LIFE OF THE SILT FENCE, IT IS GENERALLY ADVISABLE TO DIG A SEWERAGE IN FRONT OF YOUR SILT FENCE WHENEVER POSSIBLE.



9 PIPE CULVERT OUTLET PROTECTION FOR DEFINED CHANNEL
C501 SCALE: NTS

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TEMPORARY SEEDING FOR LATE WINTER AND EARLY SPRING
SEEDING MATURE: RYE (ORANGE)
SPEEDS: 120
RATE (LB/ACRE): 50
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD RECOMMENDATIONS FOR ROADS AND STRUCTURES

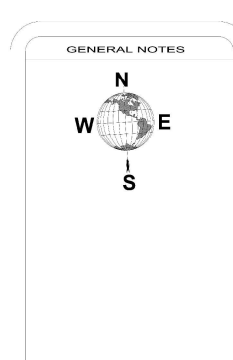
TEMPORARY SEEDING FOR SUMMER
SEEDING MATURE: GERMAN MILLET
SPEEDS: 40
RATE (LB/ACRE): 40
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD RECOMMENDATIONS FOR ROADS AND STRUCTURES

TEMPORARY SEEDING FOR FALL
SEEDING MATURE: RYE (ORANGE)
SPEEDS: 120
RATE (LB/ACRE): 40
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD RECOMMENDATIONS FOR ROADS AND STRUCTURES

10 SEEDBED PREPARATION
C501 SCALE: NTS

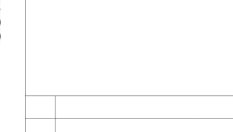
11 WINTER AND EARLY SPRING
C501 SCALE: NTS

12 TEMPORARY SEEDING FOR SUMMER
C501 SCALE: NTS



10 SEEDBED PREPARATION
C501 SCALE: NTS

NOTES:
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11 WINTER AND EARLY SPRING
C501 SCALE: NTS

NOTES:
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2. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (DRENCHES, DITCHES, SWALES, ETC.).
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12 TEMPORARY SEEDING FOR SUMMER
C501 SCALE: NTS

CONSTRUCTION SPECIFICATIONS:
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13 TEMPORARY SEEDING FOR FALL
C501 SCALE: NTS

14 TABLE 6.11H SEEDING NO. 3P
C501 SCALE: NTS

14 TABLE 6.11H SEEDING NO. 3P
C501 SCALE: NTS