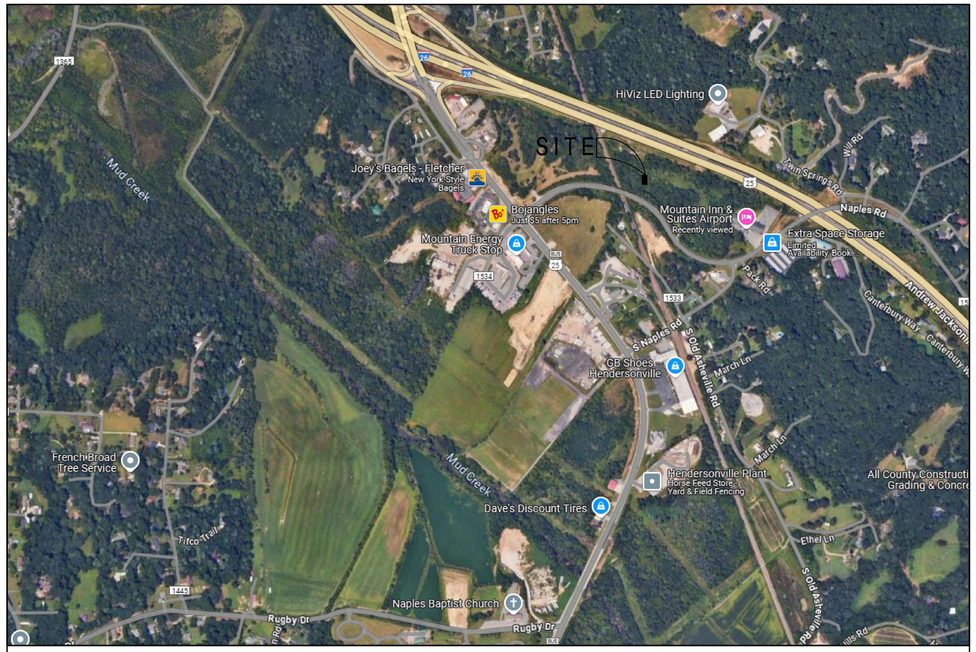
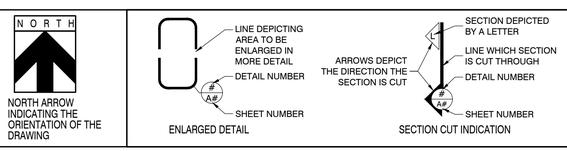
GENERAL ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
ACOUS.	ACOUSTICAL
ADJ.	ADJUSTABLE
ALUM.	ALUMINUM
&	AND
<	ANGLE
ARCH.	ARCHITECTURAL
@	AT
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
CAB.	CABINET
CEM.	CEMENT
CL.	CENTERLINE
CER.	CERAMIC
CLG.	CEILING
CLKG.	CAULKING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
C.M.U.	CONCRETE MASONRY UNIT
CONT.	CONTINUOUS
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DR.	DOOR
DBL.	DOUBLE
DN.	DOWN
DS.	DOWNSPOUT
DWG.	DRAWING
(E)	EXISTING
E.P.	ELECTRICAL PANELBOARD
EA.	EACH
ELEV.	ELEVATION
ELEC.	ELECTRICAL
EMER.	EMERGENCY
EQ.	EQUAL
E.W.C.	ELECTRIC WATER COOLER
F.E.	FIRE EXTINGUISHER
F.O.	FACE OF
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUDS
F/F	FINISH TO FINISH
F.R.	FIRE RETARDANT
F.S.	FULL SIZE
FIN.	FINISH
FL.	FLOOR
FLUOR.	FLUORESCENT
FT.	FOOT, FEET
F.V.	FIELD VERIFY
G.B.	GRAB BAR
G.C.	GENERAL CONTRACTOR
GA.	GAUGE
G.F.R.C.	GLASS FIBER REINFORCED CEMENT
GL.	GLASS
GYP.	GYPSUM
H.C.	HOLLOW CORE
H.M.	HOLLOW METAL
HC.	HANDICAPPED
HDWD.	HARDWOOD
HORIZ.	HORIZONTAL
HGT.	HEIGHT
HR.	HOUR
H.T.	HANGER-TIGHT UNIT
HVAC	HEATING, VENTILATION, AIR CONDITIONING
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
JT.	JOINT
LAM.	LAMINATE
LT.	LIGHT
MIR.	MIRROR
MAX.	MAXIMUM
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC	MISCELLANEOUS
MTL.	METAL
N.	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
(N)	NEW
NO.	NUMBER
NOM.	NOMINAL
OPNG.	OPENING
OPP.	OPPOSITE
P.LAM.	PLASTIC LAMINATE
PL.	PLATE
PLAS.	PLASTER
PLYWD.	PLYWOOD
PR.	PAIR
PT.	POINT
#	POUND OR NUMBER
R.	RISER
RAD.	RADIUS
REQ'D.	REQUIRED
RESIL.	RESILIENT
RM.	ROOM
R.O.	ROUGH OPENING
S.	SOUTH
S.C.	SOLID CORE
S.S.	STAINLESS STEEL
SCHED.	SCHEDULE
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
SUSP.	SUSPENDED
T.C.	TIME CLOCK
T.O.	TOP OF
TEL.	TELEPHONE
THK.	THICK
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W.	WEST
W/	WITH
W/C	WATER CLOSET
W/O	WITHOUT
W/R	WATER RESISTANT
WD.	WOOD
WT.	WEIGHT



LOCATION MAP - 399 NAPLES RD.- SEE CIVIL

SYMBOLS AND GRAPHICS



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CORNELIUS, NC 28031
ph: 704-997--7072

WGLA ENGINEERING PLLC -
NC FIRM LIC. NO. P-1342 (CIVIL)
724 5TH AVE. WEST
HENDERSONVILLE, NC 28729
ph: 828-687--7177

BUILDING CODE ANALYSIS INFORMATION:

TOTAL GROSS AREA UNDER ROOF: 47,404.5 SF. (TABLE 506.2 GROUP R-2 12,000 S13R SPRINKLED MAX AREA ALLOWABLE)

AREA INCREASE MODIFICATION: (SECTION 506.2.3, EQUATION 5-2) AREA=[12,000+(12,000X0.75)]X3=63,000 SF. WHICH IS GREATER THAN 47,404.5 SF.
LARGEST FLOOR 14,195.5 SF. WHICH IS LESS THAN 21,000 SF.

BUILDING HEIGHT: ±49'-0" (TABLE 504.3 R2 60' S13R' SPRINKLED MAX. ALLOWABLE)

NUMBER OF STORIES: 3 ABOVE GRADE + 1 WALKOUT BASEMENT (TABLE 504.4 R2 S13R SPRINKLED ALLOWABLE STORIES ABOVE GRADE 4)

CONSTRUCTION TYPE: VA, S13R SPRINKLED ONE STORY (1 HR RATINGS REQ. TABLE 601 EXCEPT INTERIOR NON BEARING WALLS)

OCCUPANCY GROUP: RESIDENTIAL R2 - 28 UNITS

FIRE RATINGS FOR BUILDING ELEMENTS REQUIRED- 1 HR (TABLE 601)

FIRE SEPARATION RATINGS FOR EXTERIOR WALLS REQUIRED- 0 HR W/SEPARATION DISTANCE OF 30' OR GREATER. (TABLE 602)

CODE INFORMATION:

COUNTY JURISDICTION: HENDERSON

STATE JURISDICTION: NORTH CAROLINA

APPLICABLE CODES: N.C.B.C. 2018 BUILDING, PLUMBING, MECHANICAL, ENERGY CONSERVATION, FIRE PREVENTION CODES

SHEET INDEX

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341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Building 3 - 28 units
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 05/02/25
PROJECT #: 22105
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SHEET #:
CS-1

BASEMENT WINDOW SCHEDULE

No.	TYPE	W x H	R. O. W x H	OPER.	MATERIAL	SILL	REMARKS	EGRESS
B01	DOUBLE SINGLE HUNG	(2) 36" X 60"	72" X 60"	XX	VINYL/GLS.	@ 3'-0" A.F.F.	(2) PANE TEMPERED GLASS	EGRESS

BASEMENT EXTERIOR DOOR SCHEDULE

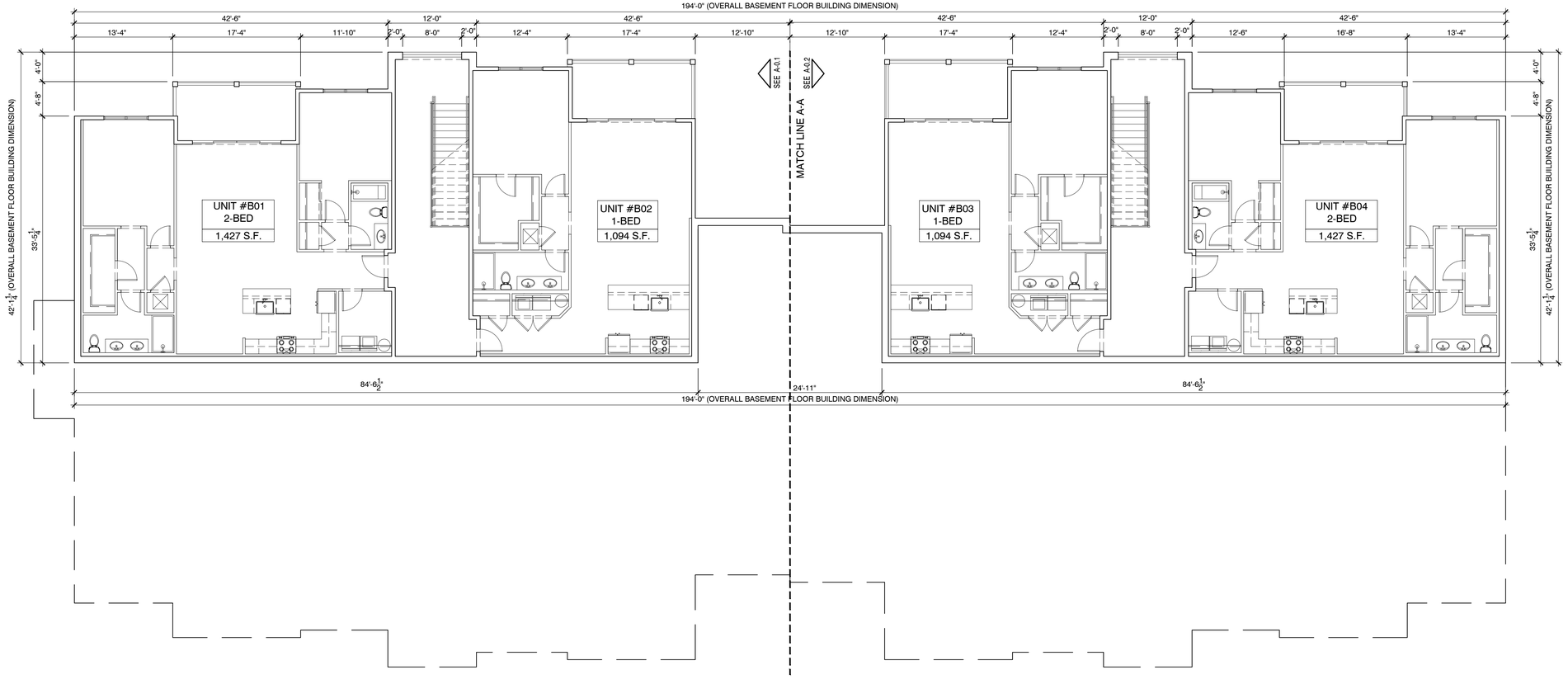
No.	TYPE	Wx H	R. O. W. x H.	OPER.	MATER.	SILL	REMARKS	EGRESS
B01	SLDG. GLS. DOOR	12'-0" X 8'-0"	144" X 96"	XXXX	VINYL/GLS.	MTWS	TEMP. GLASS	EGRESS
B02	FRONT DOOR	3'-0" X 6'-8"	40" X 80"	X	HOLLOW METAL	MTWS		EGRESS

BASEMENT INTERIOR DOOR SCHEDULE

No.	TYPE	W x H	MATER.	SILL	REMARKS
B03	SINGLE DR.	2'-8"X6'-8"	WOOD	-	-
B04	SINGLE DR.	2'-8"X6'-8"	WOOD	-	LOUVERED AT A/C CLOSET
B05	SINGLE DR.	2'-6"X6'-8"	WOOD	-	-
B06	DOUBLE DR.	(2) 2'-8"X6'-8"	WOOD	-	-
B07	BI-FOLD DR.	(2) 2'-6"X6'-8"	WOOD	-	-

BASEMENT AREA CALCULATION

UNIT #	# OF BED.	TYPE	UNIT AREA	BALCONY AREA	TOTAL UNIT'S AREA	TOTAL UNIT'S AREA	COMMON AREA	TOTAL FLR. GROSS AREA
B01	2	-	1,408 S.F.	132 S.F.	1,540 S.F.	2,755 S.F.	412 S.F.	6,368 S.F.
B02	1	-	1,081 S.F.	134 S.F.	1,215 S.F.			
B03	1	-	1,081 S.F.	134 S.F.	1,215 S.F.	2,755 S.F.	412 S.F.	
B04	2	-	1,408 S.F.	132 S.F.	1,540 S.F.			



OVERALL BASEMENT FLOOR PLAN

NORTH

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

1

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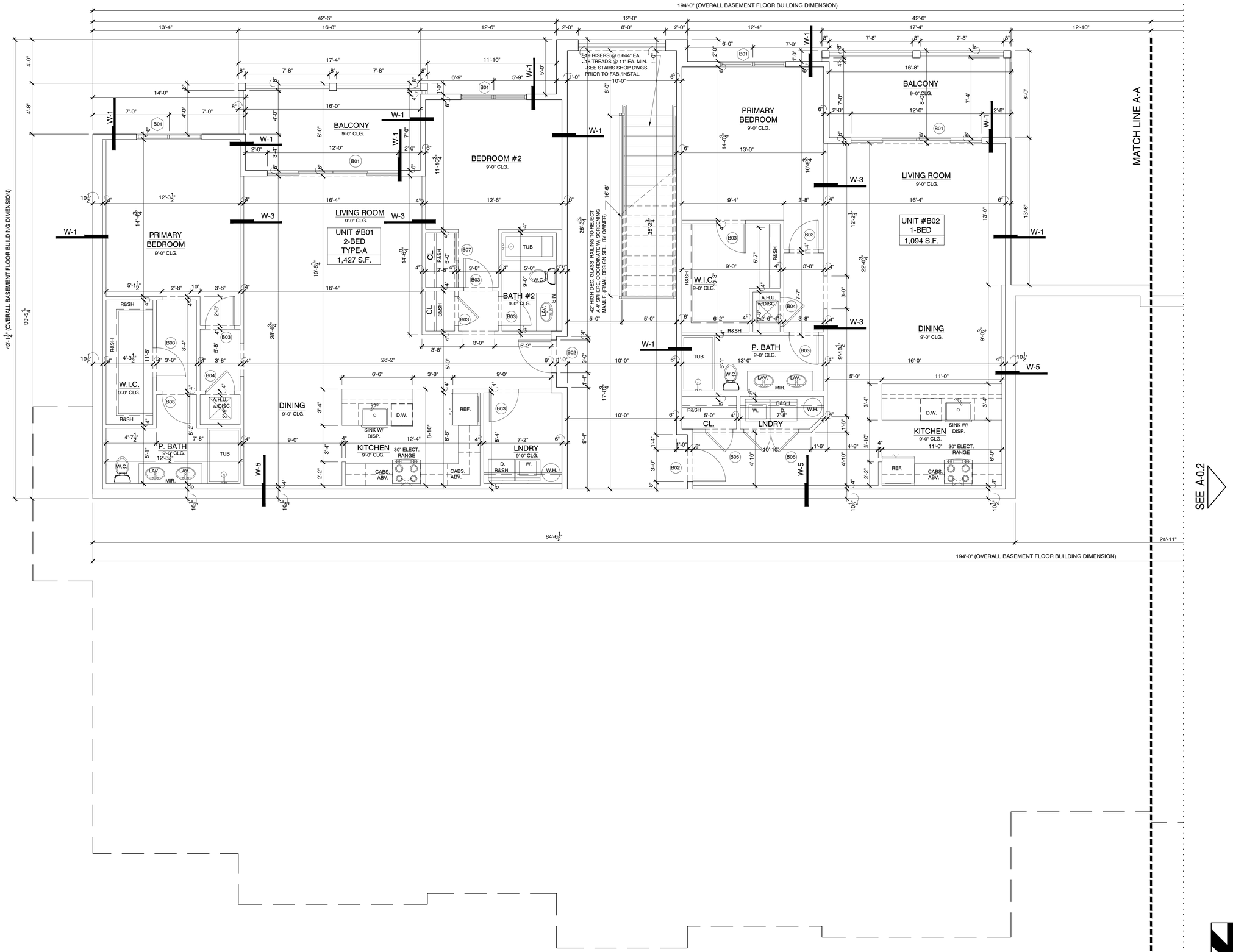

PARTIAL BASEMENT FLOOR PLAN 1

NORTH

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

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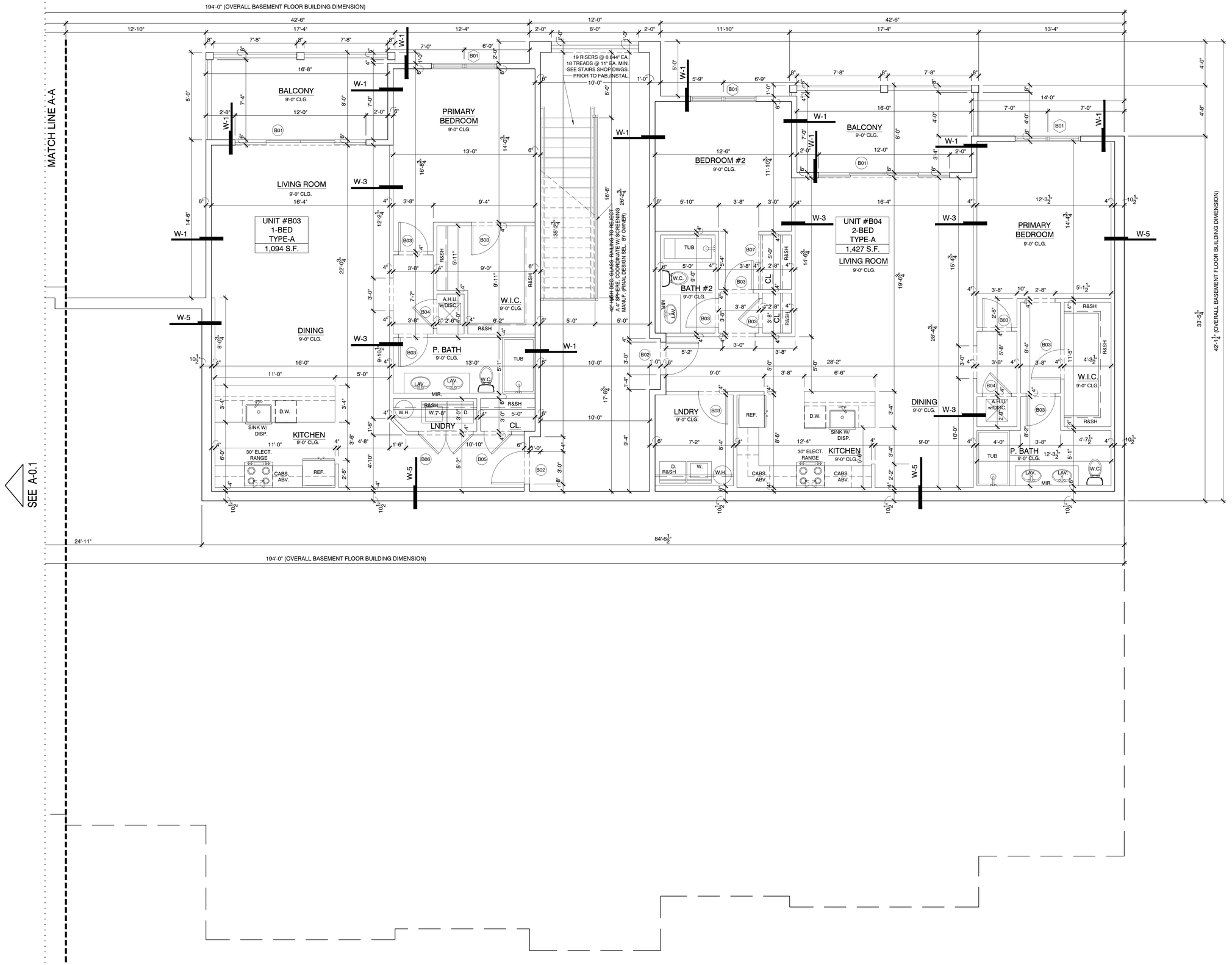

PARTIAL BASEMENT FLOOR PLAN 1

NORTH

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

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FIRST FLOOR WINDOW SCHEDULE

No.	TYPE	W x H	R. O. W x H	OPER.	MATERIAL	SILL	REMARKS	EGRESS
101	DOUBLE SINGLE HUNG	(2) 36" X 60"	72" X 60"	XX	VINYL/GLS.	@ 3'-0" A.F.F.	(2) PANE TEMPERED GLASS	EGRESS
102	SINGLE HUNG	36" X 60"	36" X 60"	XX	VINYL/GLS.	@ 3'-0" A.F.F.	(1) PANE TEMPERED GLASS	EGRESS

FIRST FLOOR EXTERIOR DOOR SCHEDULE

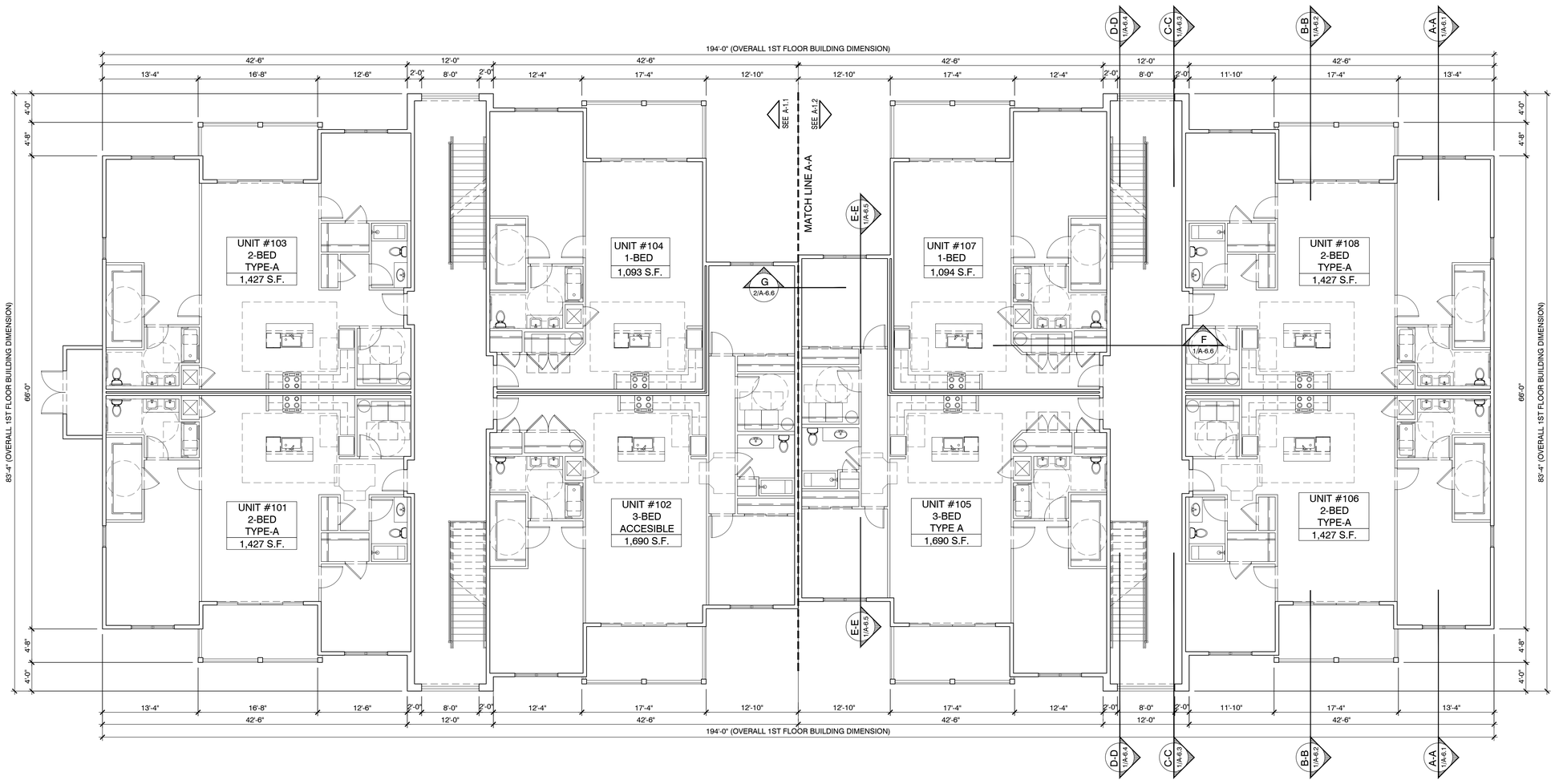
No.	TYPE	Wx H	R. O. W. x H.	OPER.	MATER.	SILL	REMARKS	EGRESS
101	SLDG. GLS. DOOR	12'-0" X 8'-0"	144" X 96"	XXXX	VINYL/GLS.	MTWS	TEMP. GLASS	EGRESS
102	FRONT DOOR	3'-0" X 6'-8"	40" X 80"	X	HOLLOW METAL	MTWS		EGRESS
102a	STORAGE DR.	(2)3'-0" X 8'-0"	72" X 96"	X	HOLLOW METAL			

FIRST FLOOR INTERIOR DOOR SCHEDULE

No.	TYPE	W x H	MATER.	SILL	REMARKS
103	SINGLE DR.	3'-0"X6'-8"	WOOD	-	-
104	SINGLE DR.	2'-8"X6'-8"	WOOD	-	LOUVERED AT A/C CLOSET
105	SINGLE DR.	2'-6"X6'-8"	WOOD	-	-
106	DOUBLE DR.	(2)3'-0"X6'-8"	WOOD	-	-
107	BI-FOLD DR.	(2)3'-0"X6'-8"	WOOD	-	-
108	SINGLE DR.	2'-0"X6'-8"	WOOD	-	-

FIRST FLOOR AREA CALCULATION

UNIT #	# OF BED.	TYPE	UNIT AREA	BALCONY AREA	TOTAL UNIT'S AREA	TOTAL UNIT'S AREA	COMMON AREA	TOTAL FLR. GROSS AREA
101	2	A	1,427 S.F.	132 S.F.	1,559 S.F.			
102	3	ACCESIBLE	1,690 S.F.	134 S.F.	1,824 S.F.	6,169 S.F.	749.5 S.F.	
103	2	A	1,427 S.F.	132 S.F.	1,559 S.F.			
104	1	-	1,093 S.F.	134 S.F.	1,227 S.F.			14,195.5 S.F.
105	3	A	1,690 S.F.	134 S.F.	1,824 S.F.			
106	2	A	1,427 S.F.	132 S.F.	1,559 S.F.	6,170 S.F.	749.5 S.F.	
107	1	-	1,094 S.F.	134 S.F.	1,228 S.F.			
108	2	A	1,427 S.F.	132 S.F.	1,559 S.F.			



NORTH

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

OVERALL FIRST FLOOR PLAN 1

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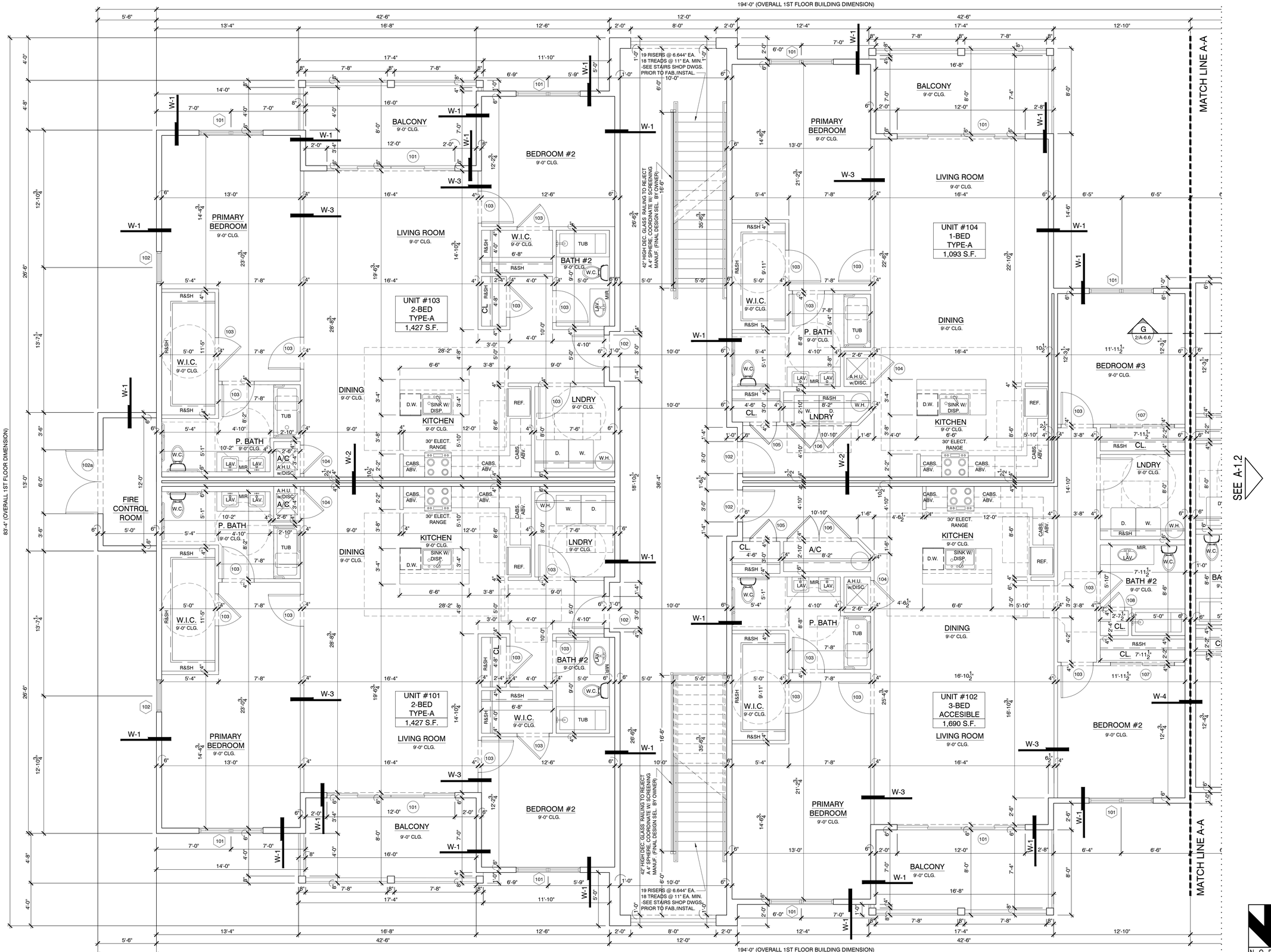

PARTIAL FIRST FLOOR PLAN

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

1

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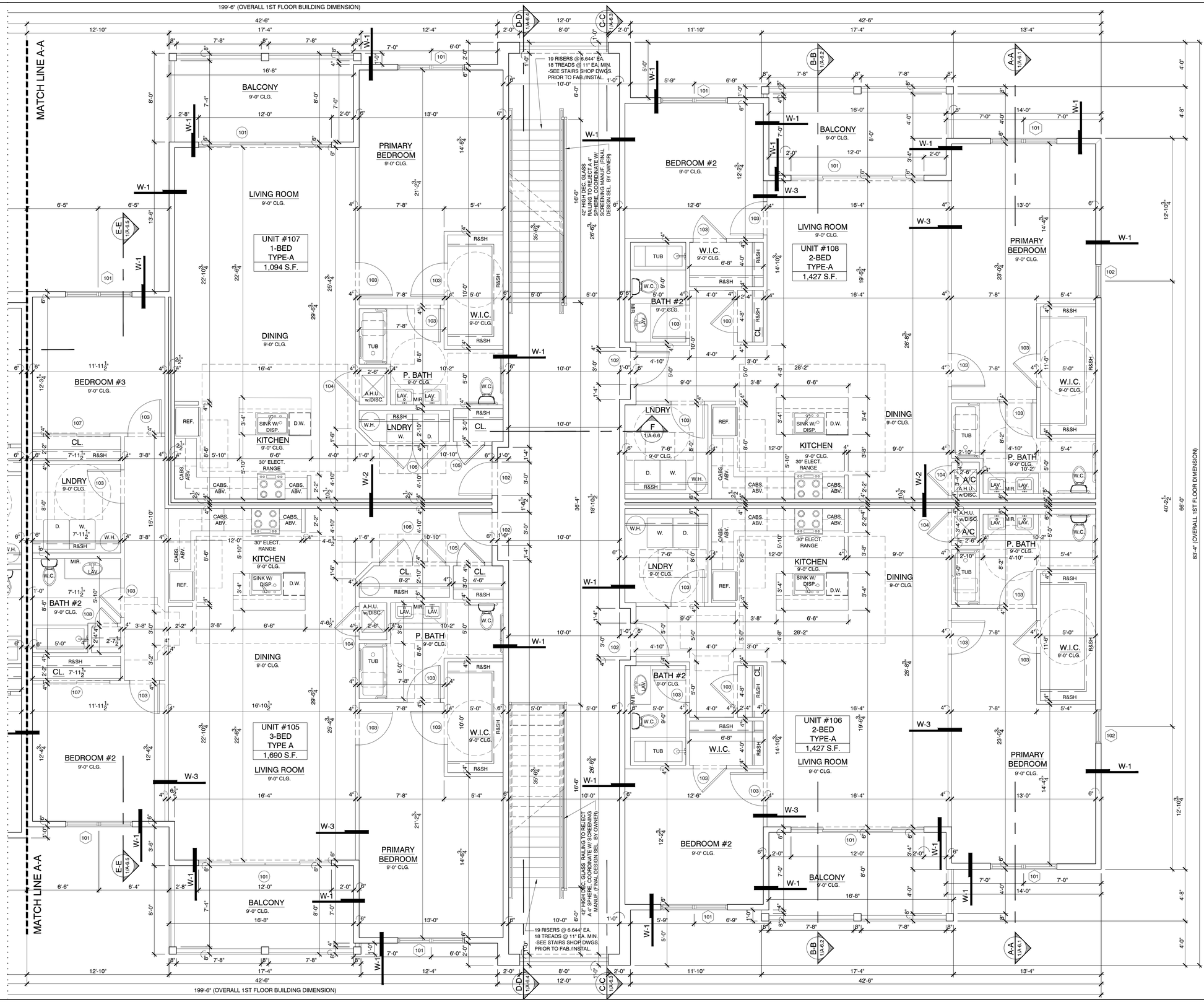

PARTIAL FIRST FLOOR PLAN

NORTH

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

1

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PARTIAL FIRST FLOOR PLAN.
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A-1.2

SECOND FLOOR WINDOW SCHEDULE

No.	TYPE	W x H	R. O. W x H	OPER.	MATERIAL	SILL	REMARKS	EGRESS
201	DOUBLE SINGLE HUNG	(2) 36" X 60"	72" X 60"	XX	VINYL/GLS.	@ 3'-0" A.F.F.	(2) PANE TEMPERED GLASS	EGRESS
202	SINGLE HUNG	36" X 60"	36" X 60"	XX	VINYL/GLS.	@ 3'-0" A.F.F.	(1) PANE TEMPERED GLASS	EGRESS
203	FIXED	24" X 24"	24" X 24"	O	VINYL/GLS.	@ 6'-0" A.F.F.	(1) PANE TEMPERED GLASS	

SECOND FLOOR EXTERIOR DOOR SCHEDULE

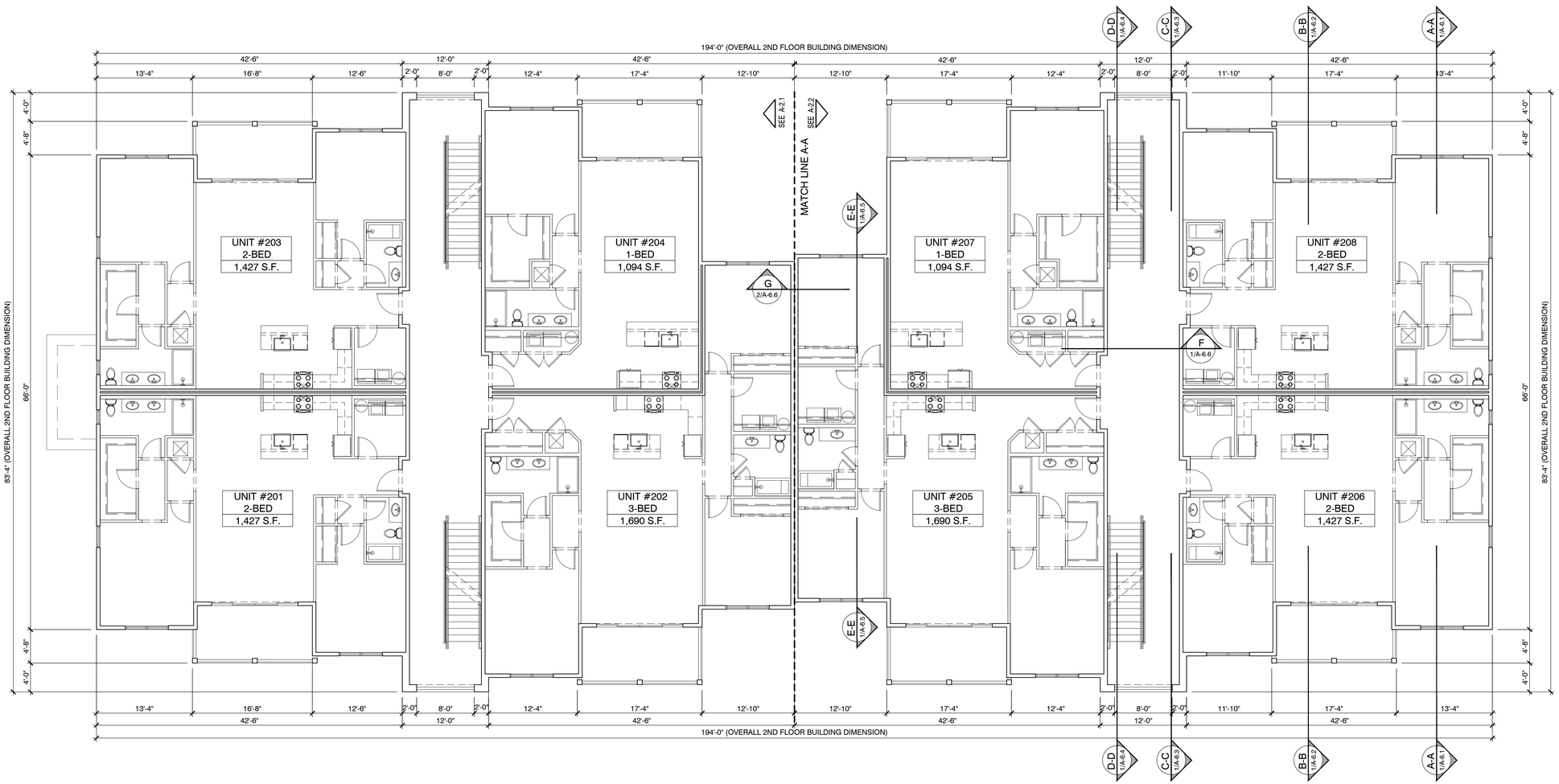
No.	TYPE	Wx H	R. O. W. x H.	OPER.	MATER.	SILL	REMARKS	EGRESS
201	SLDG. GLS. DOOR	12'-0" X 8'-0"	144" X 96"	XXXX	VINYL/GLS.	MTWS	TEMP. GLASS	EGRESS
202	FRONT DOOR	3'-0" X 6'-8"	40" X 80"	X	HOLLOW METAL	MTWS		EGRESS

SECOND FLOOR INTERIOR DOOR SCHEDULE

No.	TYPE	W x H	MATER.	SILL	REMARKS
203	SINGLE DR.	2'-8"X6'-8"	WOOD	-	-
204	SINGLE DR.	2'-8"X6'-8"	WOOD	-	LOUVERED AT A/C CLOSET
205	SINGLE DR.	2'-6"X6'-8"	WOOD	-	-
206	DOUBLE DR.	(2) 2'-6"X6'-8"	WOOD	-	-
207	BI-FOLD DR.	(2) 2'-6"X6'-8"	WOOD	-	-
208	SINGLE DR.	2'-0"X6'-8"	WOOD	-	-

SECOND FLOOR AREA CALCULATION

UNIT #	# OF BED.	TYPE	UNIT AREA	BALCONY AREA	TOTAL UNIT'S AREA	TOTAL UNIT'S AREA	COMMON AREA	TOTAL FLR. GROSS AREA
201	2	-	1,427 S.F.	132 S.F.	1,559 S.F.	6,170 S.F.	749.5 S.F.	14,124 S.F.
202	3	-	1,690 S.F.	134 S.F.	1,824 S.F.			
203	2	-	1,427 S.F.	132 S.F.	1,559 S.F.			
204	1	-	1,094 S.F.	134 S.F.	1,228 S.F.			
205	3	-	1,690 S.F.	134 S.F.	1,824 S.F.	6,170 S.F.	749.5 S.F.	
206	2	-	1,427 S.F.	132 S.F.	1,559 S.F.			
207	1	-	1,094 S.F.	134 S.F.	1,228 S.F.			
208	2	-	1,427 S.F.	132 S.F.	1,559 S.F.			



OVERALL SECOND FLOOR PLAN

N O R T H

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

1

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OVERALL 2ND FLOOR PLAN.
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A-2.0

194'-0" (OVERALL 2ND FLOOR BUILDING DIMENSION)

83'-4" (OVERALL 2ND FLOOR DIMENSION)

MATCH LINE A-A

SEE A-2.2

MATCH LINE A-A

UNIT #203
2-BED
1,427 S.F.

UNIT #204
1-BED
1,094 S.F.

UNIT #201
2-BED
1,427 S.F.

UNIT #202
3-BED
1,690 S.F.

19 RISERS @ 6.644" EA.
18 TREADS @ 11" EA. MIN.**
SEE STAIRS SHOP DWGS.
PRIOR TO FAB./INSTAL.

42" HIGH DEC GLASS RAILING TO REJECT
A 4" SPHERE, COORDINATE W/ SCREENING
MANUF. (FINAL DESIGN SEL. BY OWNER)

NORTH

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

NAGY ARCHITECTURE PLLC
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NAGY ARCHITECTURE PLLC
1388 NW 2nd Avenue, St. #4A
Boca Raton, Florida 33432
Mob: 561-289-1634
Tel: 561-549-1986

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Building 3 - 28 units
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 05/02/25
PROJECT #: 22105
DRAWN BY: GAN , LBN
CHECKED BY: GAN

DWG DECRIPTION :
PARTIAL 2ND FLOOR PLAN.
ISSUE FOR REVIEW ONLY NOT
ISSUE FOR BUILDING PERMIT.

SHEET #:
A-2.1

194'-0" (OVERALL 2ND FLOOR BUILDING DIMENSION)

MATCH LINE A-A

SEE A-2.1

BALCONY 9'-0" CLG.

PRIMARY BEDROOM 9'-0" CLG.

LIVING ROOM 9'-0" CLG.
UNIT #207
1-BED
1,094 S.F.

DINING 9'-0" CLG.

BEDROOM #3 9'-0" CLG.

LNDRY 9'-0" CLG.

KITCHEN 9'-0" CLG.

W.I.C. 9'-0" CLG.

P. BATH 9'-0" CLG.

19 RISERS @ 6.644" EA.
18 TREADS @ 11" EA. MIN.
SEE STAIRS SHOP DWGS.
PRIOR TO FAB./INSTAL.

42" HIGH DEC. GLASS RAILING TO REJECT
A 4" SPHERE; COORDINATE W/ SCREENING
MANUF. (FINAL DESIGN SEL. BY OWNER)

BEDROOM #2 9'-0" CLG.

LIVING ROOM 9'-0" CLG.
UNIT #208
2-BED
1,427 S.F.

BATH #2 9'-0" CLG.

DINING 9'-0" CLG.

KITCHEN 9'-0" CLG.

LNDRY 9'-0" CLG.

P. BATH 9'-0" CLG.

PRIMARY BEDROOM 9'-0" CLG.

W.I.C. 9'-0" CLG.

UNIT #205
3-BED
1,690 S.F.

UNIT #206
2-BED
1,427 S.F.

83'-4" (OVERALL 2ND FLOOR DIMENSION)

194'-0" (OVERALL 2ND FLOOR BUILDING DIMENSION)

PARTIAL SECOND FLOOR PLAN

NORTH

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

1

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THIRD FLOOR WINDOW SCHEDULE

No.	TYPE	W x H	R. O. W x H	OPER.	MATERIAL	SILL	REMARKS	EGRESS
301	DOUBLE SINGLE HUNG	(2) 36" X 60"	72" X 60"	XX	VINYL/GLS.	@ 3'-0" A.F.F.	(2) PANE TEMPERED GLASS	EGRESS
302	SINGLE HUNG	36" X 60"	36" X 60"	XX	VINYL/GLS.	@ 3'-0" A.F.F.	(1) PANE TEMPERED GLASS	EGRESS
303	FIXED	24" X 24"	24" X 24"	O	VINYL/GLS.	@ 6'-0" A.F.F.	(1) PANE TEMPERED GLASS	

THIRD FLOOR EXTERIOR DOOR SCHEDULE

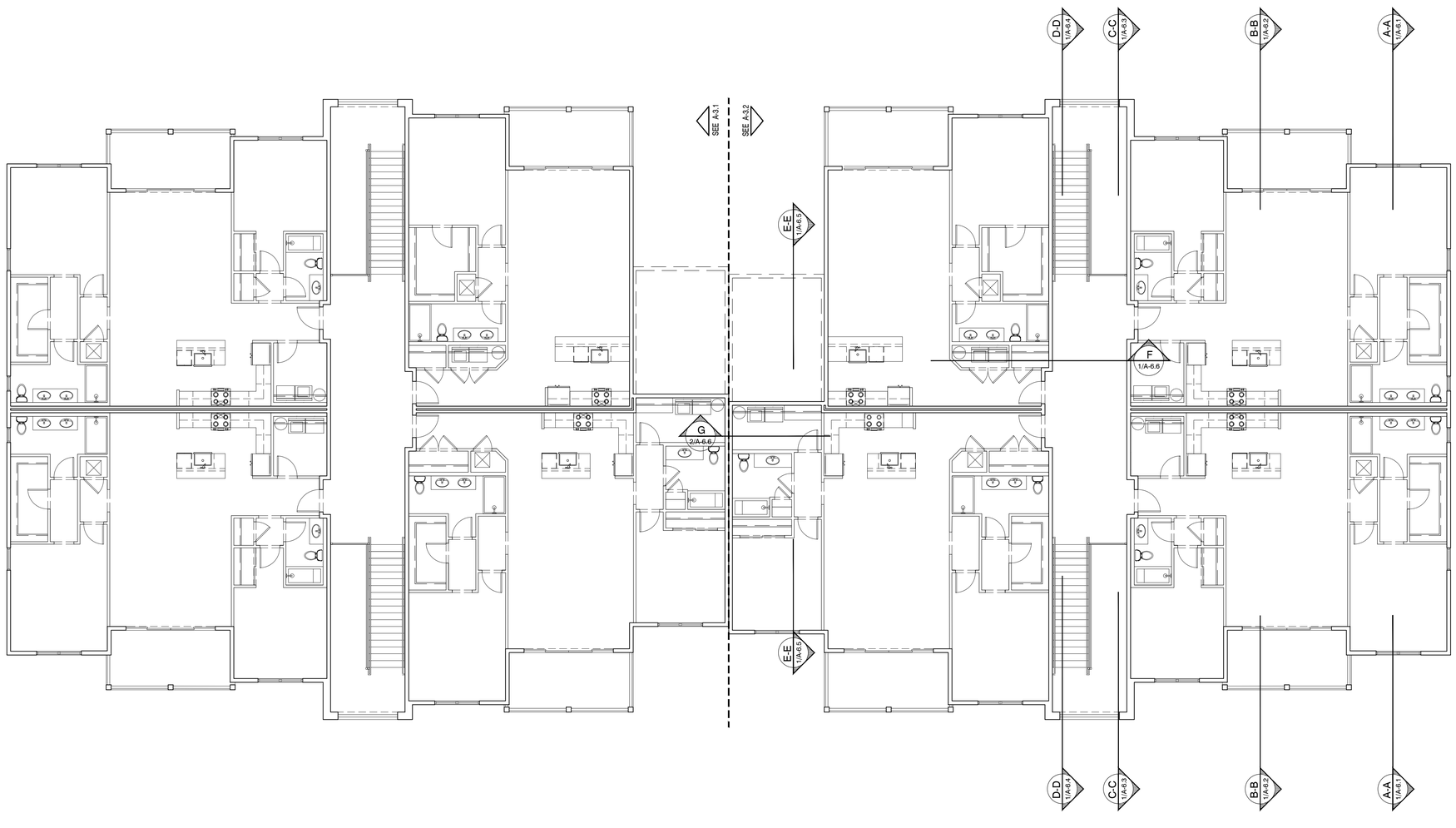
No.	TYPE	Wx H	R. O. W. x H.	OPER.	MATER.	SILL	REMARKS	EGRESS
301	SLDG. GLS. DOOR	12'-0" X 8'-0"	144" X 96"	XXXX	VINYL/GLS.	MTWS	TEMP. GLASS	EGRESS
302	FRONT DOOR	3'-0" X 6'-8"	40" X 80"	X	HOLLOW METAL	MTWS		EGRESS

THIRD FLOOR INTERIOR DOOR SCHEDULE

No.	TYPE	W x H	MATER.	SILL	REMARKS
303	SINGLE DR.	2'-8"X6'-8"	WOOD	-	-
304	SINGLE DR.	2'-8"X6'-8"	WOOD	-	LOUVERED AT A/C CLOSET
305	SINGLE DR.	2'-6"X6'-8"	WOOD	-	-
306	DOUBLE DR.	(2)2'-6"X6'-8"	WOOD	-	-
307	BI-FOLD DR.	(2) 2'-6"X6'-8"	WOOD	-	-
308	SINGLE DR.	2'-0"X6'-8"	WOOD	-	-

THIRD FLOOR AREA CALCULATION

UNIT #	# OF BED.	TYPE	UNIT AREA	BALCONY AREA	TOTAL UNIT'S AREA	TOTAL UNIT'S AREA	COMMON AREA	TOTAL FLR. GROSS AREA
301	2	-	1,427 S.F.	132 S.F.	1,559 S.F.	5,977 S.F.	383 S.F.	12,717 S.F.
302	2	-	1,496 S.F.	134 S.F.	1,630 S.F.			
303	2	-	1,427 S.F.	132 S.F.	1,559 S.F.			
304	1	-	1,095 S.F.	134 S.F.	1,229 S.F.			
305	2	-	1,496 S.F.	134 S.F.	1,630 S.F.	5,977 S.F.	383 S.F.	
306	2	-	1,427 S.F.	132 S.F.	1,559 S.F.			
307	1	-	1,095 S.F.	134 S.F.	1,229 S.F.			
308	2	-	1,427 S.F.	132 S.F.	1,559 S.F.			



NORTH

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

OVERALL THIRD FLOOR PLAN 1

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A-3.0

194'-0" (OVERALL 3RD FLOOR BUILDING DIMENSION)

83'-4" (OVERALL 3RD FLOOR DIMENSION)

MATCH LINE A-A

SEE A-3.2

UNIT #303
2-BED
1,427 S.F.

UNIT #304
1-BED
1,095 S.F.

UNIT #301
2-BED
1,427 S.F.

UNIT #302
2-BED
1,496 S.F.

PRIMARY BEDROOM
9'-0" CLG.

BEDROOM #2
9'-0" CLG.

LIVING ROOM
9'-0" CLG.

DINING
9'-0" CLG.

KITCHEN
9'-0" CLG.

BALCONY
9'-0" CLG.

P. BATH
9'-0" CLG.

BATH #2
9'-0" CLG.

LNDRY
9'-0" CLG.

19 RISERS @ 6.644" EA.
18 TREADS @ 11" EA. MIN.
-SEE STAIRS SHOP DWGS. PRIOR TO FAB./INSTAL.

42" HIGH DEC. GLASS RAILING TO REJECT A 4" SPHERE. COORDINATE W/ SCREENING MANUF. (FINAL DESIGN SEL. BY OWNER)

PARTIAL THIRD FLOOR PLAN

NORTH

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

1

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194'-0" (OVERALL 3RD FLOOR BUILDING DIMENSION)

MATCH LINE A-A

SEE A-3.1

MATCH LINE A-A

UNIT #307
1-BED
1,095 S.F.

UNIT #305
2-BED
1,496 S.F.

UNIT #308
2-BED
1,427 S.F.

UNIT #306
2-BED
1,427 S.F.

LIVING ROOM 9'-0" CLG.
DINING 9'-0" CLG.
KITCHEN 9'-0" CLG.
LNDRY 9'-0" CLG.
BALCONY 9'-0" CLG.
PRIMARY BEDROOM 9'-0" CLG.
BEDROOM #2 9'-0" CLG.
BATH #2 9'-0" CLG.
P. BATH 9'-0" CLG.
W.I.C. 9'-0" CLG.

19 RISERS @ 6.644" EA.
18 TREADS @ 11" EA. MIN.
SEE STAIRS SHOP DWGS.
PRIOR TO FAB./INSTAL.

42" HIGH DEC. GLASS RAILING TO REJECT
A 4" SPHERE, COORDINATE W/ SCREENING
MANUF. (FINAL DESIGN SEL. BY OWNER)

194'-0" (OVERALL 3RD FLOOR BUILDING DIMENSION)

83'-4" (OVERALL 3RD FLOOR DIMENSION)

NORTH

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

PARTIAL THIRD FLOOR PLAN 1

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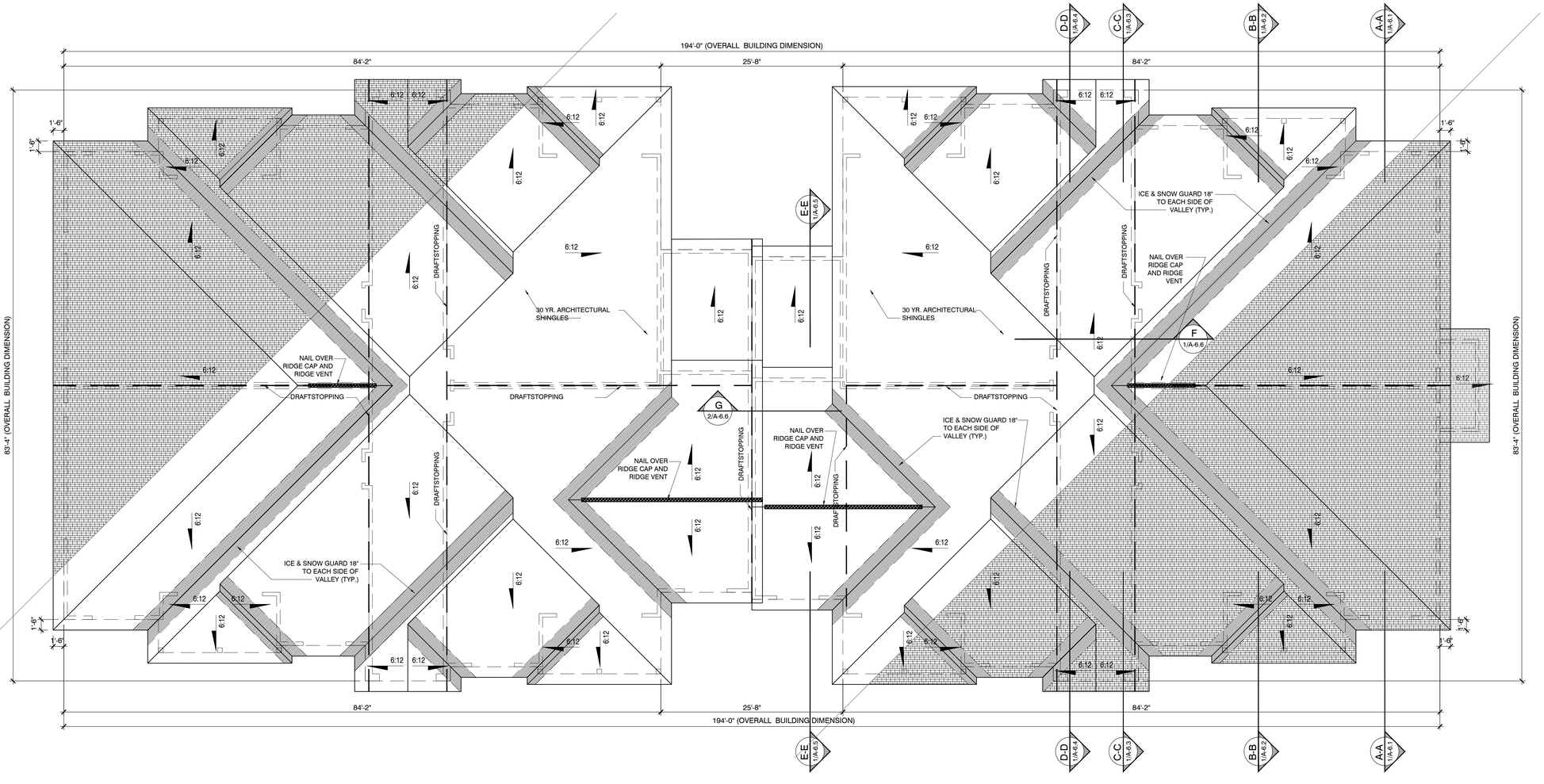

ROOF PLAN

NORTH

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

1

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ROOF PLAN.
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A-4.0

EXTERIOR FINISHES

1 COMPOSITE LAP SIDING

- MANUFACTURER - LP SMARTSIDE - VERIFY WITH OWNER.
- CEDAR TEXTURE 76 SERIES LAP.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL PLAIN). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIAL.

2 COMPOSITE LAP PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

2a BATTENS (LOCATED AT 16" O.C. JOINTS IN FIBER CEMENT PANEL SIDING)

- MANUFACTURER - 2-1/ 2" LP SMARTSIDE 190 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

3 COMPOSITE SKIRT BOARD TRIM

- MANUFACTURER - 11.25" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

4 42" HIGH ALUM. GUARDRAIL & BALUSTERS TO REJECT A 4" SPHERE (FINAL DESIGN SEL. BY OWNER)

5 BALCONY COLUMNS

- 6X6 PT WOOD COLUMS.
- COLOR: PAINT WHITE TO MATCH WINDOW TRIMS

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

7 WINDOW & CORNER TRIM

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

8 COMPOSITE CLADDING

- MANUFACTURER - NICHIHA BRICK SERIES.
- COLOR AND STYLE - PLYMOUTH BRICK.
- INSTALL PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- G.C. SHALL SUMMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

9 BELT LINE TRIM BOARD

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 540 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

10 ROOFING

- MANUFACTURER - ATLAS ROOFING, PINNACLE HP - HIGH PERFORMANCE
- ARCHITECTURAL SHINGLE - SIGNATURE GOLD SERIES SHINGLE.
- ASPHALT COMPOSITION SHINGLES.
- ARCHITECTURAL SHINGLE, CLASS C UL RATING.
- 130 MPH WIND RESISTANCE WARRANTY, 35 YEAR LIMITED WARRANTY.
- COLOR: WEATHERED WOOD.

11 COMPOSITE PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL). VERIFY COLOR WITH OWNER.

12 BREEZEWAY INTERIOR - COMPOSITE PANEL SIDING (HIDDEN)

- LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (NICKLE GAP (7.88").
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS (VERTICAL).
- COLOR: LIGHT GREEN - VERIFY WITH OWNER.

13 "Z" FLASHING

- COLOR: PAINT - TO MATCH ADJACENT SURFACE.

14 FASCIA BOARD

- BREAK METAL FASCIA - VERIFY WITH OWNER.
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

14a EAVE SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE PANEL VENTED SOFFIT.
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

14b BREEZEWAY SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE NON VENTED. (76 SERIES).
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

FRIEZE BOARD

15 - LP SMARTSIDE 7.21" (540 SERIES).
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

NOTE:

GUTTERS AND DOWNSPOUTS (NOT SHOWN FOR CLARITY)

- SHALL BE PROVIDED AND INSTALLED WITH SIZES CONFORMING TO THE LATEST INTERNATIONAL PLUMBING CODE W/ NC AMENDMENTS.
DOWNSPOUTS SHALL CONNECT TO AN UNDERGROUND DRAIN LINE AND EXTEND TO DRAIN INLET OR TO DAYLIGHT. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON UNDERGROUND DRAIN LINES. - PAINT WHITE.

-CONNECT ALL DOWNSPOUTS TO COMMON COLLECTOR LINE (TYP.) - SEE CIVIL PLANS.

- INSTALL CORNER GUARD AT 90° GUTTER CORNERS TO PREVENT OVERSPILL AT ROOF VALLEYS.

EXTERIOR DOORS

- COLOR: SHERWIN WILLIAMS LIGHT - SW 6191 CONTENTED/ DARK - SW 6192 COASTAL PLAIN.

EXHAUST AND VENT HOODS

- PAINT ALL BATH FAN AND DRYER VENT HOODS TO MATCH ADJACENT SURFACES.

PARTIAL FRONT ELEVATION | SCALE: 1/4" = 1'-0" | 1

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EXTERIOR FINISHES

1 COMPOSITE LAP SIDING

- MANUFACTURER - LP SMARTSIDE - VERIFY WITH OWNER.
- CEDAR TEXTURE 76 SERIES LAP.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL PLAIN). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIAL.

2 COMPOSITE LAP PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

2a BATTENS (LOCATED AT 16" O.C. JOINTS IN FIBER CEMENT PANEL SIDING)

- MANUFACTURER - 2-1/ 2" LP SMARTSIDE 190 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

3 COMPOSITE SKIRT BOARD TRIM

- MANUFACTURER - 11.21" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

4 42" HIGH ALUM. GUARDRAIL & BALUSTERS
TO REJECT A 4" SPHERE (FINAL DESIGN SEL. BY OWNER)

5 BALCONY COLUMNS

- 6X6 PT WOOD COLUMS.
- COLOR: PAINT WHITE TO MATCH WINDOW TRIMS

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
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6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

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7 WINDOW & CORNER TRIM

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- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

8 COMPOSITE CLADDING

- MANUFACTURER - NICHIHA BRICK SERIES.
- COLOR AND STYLE - PLYMOUTH BRICK.
- INSTALL PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- G.C. SHALL SUMMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

9 BELT LINE TRIM BOARD

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 540 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

10 ROOFING

- MANUFACTURER - ATLAS ROOFING, PINNACLE HP - HIGH PERFORMANCE
- ARCHITECTURAL SHINGLE - SIGNATURE GOLD SERIES SHINGLE.
- ASPHALT COMPOSITION SHINGLES.
- ARCHITECTURAL SHINGLE, CLASS C UL RATING.
- 130 MPH WIND RESISTANCE WARRANTY, 35 YEAR LIMITED WARRANTY.
- COLOR: WEATHERED WOOD.

11 COMPOSITE PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL). VERIFY COLOR WITH OWNER.

12 BREEZEWAY INTERIOR - COMPOSITE PANEL SIDING (HIDDEN)

- LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (NICKLE GAP (7.88").
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS (VERTICAL).
- COLOR: LIGHT GREEN - VERIFY WITH OWNER.

13 "Z" FLASHING

- COLOR: PAINT - TO MATCH ADJACENT SURFACE.

14 FASCIA BOARD

- BREAK METAL FASCIA - VERIFY WITH OWNER.
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

14a EAVE SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE PANEL VENTED SOFFIT.
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

14b BREEZEWAY SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE NON VENTED. (76 SERIES).
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

15 FRIEZE BOARD

- LP SMARTSIDE 7.21" (540 SERIES).
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

NOTE:

GUTTERS AND DOWNSPOUTS (NOT SHOWN FOR CLARITY)

- SHALL BE PROVIDED AND INSTALLED WITH SIZES CONFORMING TO THE LATEST INTERNATIONAL PLUMBING CODE W/ NC AMENDMENTS.
DOWNSPOUTS SHALL CONNECT TO AN UNDERGROUND DRAIN LINE AND EXTEND TO DRAIN INLET OR TO DAYLIGHT. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON UNDERGROUND DRAIN LINES. - PAINT WHITE.

-CONNECT ALL DOWNSPOUTS TO COMMON COLLECTOR LINE (TYP.) - SEE CIVIL PLANS.

- INSTALL CORNER GUARD AT 90° GUTTER CORNERS TO PREVENT OVERSPILL AT ROOF VALLEYS.

EXTERIOR DOORS

- COLOR: SHERWIN WILLIAMS LIGHT - SW 6191 CONTENTED/ DARK - SW 6192 COASTAL PLAIN.

EXHAUST AND VENT HOODS

- PAINT ALL BATH FAN AND DRYER VENT HOODS TO MATCH ADJACENT SURFACES.

PARTIAL FRONT ELEVATION | SCALE: 1/4" = 1'-0" | 1

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SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Building 3 - 28 units
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 05/02/25
PROJECT #: 22105
DRAWN BY: GAN , LBN
CHECKED BY: GAN

DWG DECRIPTION :
PARTIAL FRONT ELEVATION
ISSUE FOR REVIEW ONLY NOT ISSUE FOR BUILDING PERMIT.

SHEET #:
A-5.2

EXTERIOR FINISHES

1 COMPOSITE LAP SIDING

- MANUFACTURER - LP SMARTSIDE - VERIFY WITH OWNER.
- CEDAR TEXTURE 7in SERIES LAP.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL PLAIN). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIAL.

2 COMPOSITE LAP PANEL SIDING
- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

2a BATTENS (LOCATED AT 16" O.C. JOINTS IN FIBER CEMENT PANEL SIDING)

- MANUFACTURER - 2-1/ 2" LP SMARTSIDE 190 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

3 COMPOSITE SKIRT BOARD TRIM

- MANUFACTURER - 11.21" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

4 42" HIGH ALUM. GUARDRAIL & BALUSTERS TO REJECT A 4" SPHERE (FINAL DESIGN SEL. BY OWNER)

5 BALCONY COLUMNS

- 6X6 PT WOOD COLUMS.
- COLOR: PAINT WHITE TO MATCH WINDOW TRIMS

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
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7 WINDOW & CORNER TRIM

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

8 COMPOSITE CLADDING

- MANUFACTURER - NICHIHA BRICK SERIES.
- COLOR AND STYLE - PLYMOUTH BRICK.
- INSTALL PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- G.C. SHALL SUMMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

9 BELT LINE TRIM BOARD

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 540 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

10 ROOFING

- MANUFACTURER - ATLAS ROOFING, PINNACLE HP - HIGH PERFORMANCE
- ARCHITECTURAL SHINGLE - SIGNATURE GOLD SERIES SHINGLE.
- ASPHALT COMPOSITION SHINGLES.
- ARCHITECTURAL SHINGLE, CLASS C UL RATING.
- 130 MPH WIND RESISTANCE WARRANTY, 35 YEAR LIMITED WARRANTY.
- COLOR: WEATHERED WOOD.

11 COMPOSITE PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL). VERIFY COLOR WITH OWNER.

12 BREEZEWAY INTERIOR - COMPOSITE PANEL SIDING (HIDDEN)

- LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (NICKLE GAP (7.88").
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS (VERTICAL).
- COLOR: LIGHT GREEN - VERIFY WITH OWNER.

13 "Z" FLASHING

- COLOR: PAINT - TO MATCH ADJACENT SURFACE.

14 FASCIA BOARD

- BREAK METAL FASCIA - VERIFY WITH OWNER.
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

14a EAVE SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE PANEL VENTED SOFFIT.
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

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- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE NON VENTED. (76 SERIES).
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

15 FRIEZE BOARD
- LP SMARTSIDE 7.21" (540 SERIES).
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- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

NOTE:

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-CONNECT ALL DOWNSPOUTS TO COMMON COLLECTOR LINE (TYP.) - SEE CIVIL PLANS.

- INSTALL CORNER GUARD AT 90° GUTTER CORNERS TO PREVENT OVERSPILL AT ROOF VALLEYS.

EXTERIOR DOORS

- COLOR: SHERWIN WILLIAMS LIGHT - SW 6191 CONTENTED/ DARK - SW 6192 COASTAL PLAIN.

EXHAUST AND VENT HOODS

- PAINT ALL BATH FAN AND DRYER VENT HOODS TO MATCH ADJACENT SURFACES.

RIGHT SIDE ELEVATION | SCALE: 1/4" = 1'-0" | 1

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EXTERIOR FINISHES

1 COMPOSITE LAP SIDING

- MANUFACTURER - LP SMARTSIDE - VERIFY WITH OWNER.
- CEDAR TEXTURE 76 SERIES LAP.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL PLAIN). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIAL.

2 COMPOSITE LAP PANEL SIDING
- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

2a BATTENS (LOCATED AT 16" O.C. JOINTS IN FIBER CEMENT PANEL SIDING)

- MANUFACTURER - 2-1/ 2" LP SMARTSIDE 190 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

3 COMPOSITE SKIRT BOARD TRIM

- MANUFACTURER - 11.21" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

4 42" HIGH ALUM. GUARDRAIL & BALUSTERS
TO REJECT A 4" SPHERE (FINAL DESIGN SEL. BY OWNER)

5 BALCONY COLUMNS

- 6X6 PT WOOD COLUMS.
- COLOR: PAINT WHITE TO MATCH WINDOW TRIMS

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
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- MANUFACTURER - LP SMARTSIDE.
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- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
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7 WINDOW & CORNER TRIM

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

8 COMPOSITE CLADDING

- MANUFACTURER - NICHIHA BRICK SERIES.
- COLOR AND STYLE - PLYMOUTH BRICK.
- INSTALL PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- G.C. SHALL SUMMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

9 BELT LINE TRIM BOARD

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 540 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

10 ROOFING

- MANUFACTURER - ATLAS ROOFING, PINNACLE HP - HIGH PERFORMANCE
- ARCHITECTURAL SHINGLE - SIGNATURE GOLD SERIES SHINGLE.
- ASPHALT COMPOSITION SHINGLES.
- ARCHITECTURAL SHINGLE, CLASS C UL RATING.
- 130 MPH WIND RESISTANCE WARRANTY, 35 YEAR LIMITED WARRANTY.
- COLOR: WEATHERED WOOD.

11 COMPOSITE PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL). VERIFY COLOR WITH OWNER.

12 BREEZEWAY INTERIOR - COMPOSITE PANEL SIDING (HIDDEN)

- LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (NICKLE GAP (7.88").
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS (VERTICAL).
- COLOR: LIGHT GREEN - VERIFY WITH OWNER.

13 "Z" FLASHING

- COLOR: PAINT - TO MATCH ADJACENT SURFACE.

14 FASCIA BOARD

- BREAK METAL FASCIA - VERIFY WITH OWNER.
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

14a EAVE SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE PANEL VENTED SOFFIT.
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
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- CEDAR TEXTURE NON VENTED. (76 SERIES).
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15 FRIEZE BOARD
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NOTE:

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-CONNECT ALL DOWNSPOUTS TO COMMON COLLECTOR LINE (TYP.) - SEE CIVIL PLANS.

- INSTALL CORNER GUARD AT 90° GUTTER CORNERS TO PREVENT OVERSPILL AT ROOF VALLEYS.

EXTERIOR DOORS

- COLOR: SHERWIN WILLIAMS LIGHT - SW 6191 CONTENTED/ DARK - SW 6192 COASTAL PLAIN.

EXHAUST AND VENT HOODS

- PAINT ALL BATH FAN AND DRYER VENT HOODS TO MATCH ADJACENT SURFACES.

PARTIAL REAR ELEVATION — SCALE: 1/4" = 1'-0" — 1

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EXTERIOR FINISHES

1 COMPOSITE LAP SIDING

- MANUFACTURER - LP SMARTSIDE - VERIFY WITH OWNER.
- CEDAR TEXTURE 76 SERIES LAP.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL PLAIN). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIAL.

2 COMPOSITE LAP PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

2a BATTENS (LOCATED AT 16" O.C. JOINTS IN FIBER CEMENT PANEL SIDING)

- MANUFACTURER - 2-1/ 2" LP SMARTSIDE 190 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

3 COMPOSITE SKIRT BOARD TRIM

- MANUFACTURER - 11.21" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

4 42" HIGH ALUM. GUARDRAIL & BALUSTERS
TO REJECT A 4" SPHERE (FINAL DESIGN SEL. BY OWNER)

5 BALCONY COLUMNS

- 6X6 PT WOOD COLUMS.
- COLOR: PAINT WHITE TO MATCH WINDOW TRIMS

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
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7 WINDOW & CORNER TRIM

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

8 COMPOSITE CLADDING

- MANUFACTURER - NICHIHA BRICK SERIES.
- COLOR AND STYLE - PLYMOUTH BRICK.
- INSTALL PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- G.C. SHALL SUMMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

9 BELT LINE TRIM BOARD

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 540 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

10 ROOFING

- MANUFACTURER - ATLAS ROOFING, PINNACLE HP - HIGH PERFORMANCE
- ARCHITECTURAL SHINGLE - SIGNATURE GOLD SERIES SHINGLE.
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11 COMPOSITE PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
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- CEDAR TEXTURE PANEL SIDING (NICKLE GAP (7.88").
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS (VERTICAL).
- COLOR: LIGHT GREEN - VERIFY WITH OWNER.

13 "Z" FLASHING

- COLOR: PAINT - TO MATCH ADJACENT SURFACE.

14 FASCIA BOARD

- BREAK METAL FASCIA - VERIFY WITH OWNER.
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

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EXTERIOR FINISHES

1 COMPOSITE LAP SIDING

- MANUFACTURER - LP SMARTSIDE - VERIFY WITH OWNER.
- CEDAR TEXTURE 76 SERIES LAP.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL PLAIN). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIAL.

2 COMPOSITE LAP PANEL SIDING
- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

2a BATTENS (LOCATED AT 16" O.C. JOINTS IN FIBER CEMENT PANEL SIDING)

- MANUFACTURER - 2-1/ 2" LP SMARTSIDE 190 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.

3 COMPOSITE SKIRT BOARD TRIM

- MANUFACTURER - 11.21" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

4 42" HIGH ALUM. GUARDRAIL & BALUSTERS
TO REJECT A 4" SPHERE (FINAL DESIGN SEL. BY OWNER)

5 BALCONY COLUMNS

- 6X6 PT WOOD COLUMS.
- COLOR: PAINT WHITE TO MATCH WINDOW TRIMS

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 CONTENTED). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

6 FRONT AND REAR GABLES & ACCENT UPPER ENTRY WALLS

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: LIGHT GREEN (6191 CONTENTED). VERIFY COLOR WITH OWNER.
- G.C. SHALL SUBMIT SAMPLES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

7 WINDOW & CORNER TRIM

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 440 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

8 COMPOSITE CLADDING

- MANUFACTURER - NICHIHA BRICK SERIES.
- COLOR AND STYLE - PLYMOUTH BRICK.
- INSTALL PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- G.C. SHALL SUMMIT SAMPLES FOR OWNERS REVIEW AND APPROVAL PRIOR TO PLACING ORDER FOR THE MATERIALS.

9 BELT LINE TRIM BOARD

- MANUFACTURER - 3-1/ 2" LP SMARTSIDE 540 SERIES.
- CEDAR TEXTURE SHAKES 38 SERIES.
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

10 ROOFING

- MANUFACTURER - ATLAS ROOFING, PINNACLE HP - HIGH PERFORMANCE
- ARCHITECTURAL SHINGLE - SIGNATURE GOLD SERIES SHINGLE.
- ASPHALT COMPOSITION SHINGLES.
- ARCHITECTURAL SHINGLE, CLASS C UL RATING.
- 130 MPH WIND RESISTANCE WARRANTY, 35 YEAR LIMITED WARRANTY.
- COLOR: WEATHERED WOOD.

11 COMPOSITE PANEL SIDING

- MANUFACTURER - LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (38 SERIES NO GROOVE)
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: DARK GREEN (6192 COASTAL). VERIFY COLOR WITH OWNER.

12 BREEZEWAY INTERIOR - COMPOSITE PANEL SIDING (HIDDEN)

- LP SMARTSIDE.
- CEDAR TEXTURE PANEL SIDING (NICKLE GAP (7.88").
- INSTALL SIDING PER MFG. SPECIFICATIONS AND RECOMMENDATIONS (VERTICAL).
- COLOR: LIGHT GREEN - VERIFY WITH OWNER.

13 "Z" FLASHING

- COLOR: PAINT - TO MATCH ADJACENT SURFACE.

14 FASCIA BOARD

- BREAK METAL FASCIA - VERIFY WITH OWNER.
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

14a EAVE SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE PANEL VENTED SOFFIT.
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.
- COLOR: WHITE. VERIFY COLOR WITH OWNER.

14b BREEZEWAY SOFFIT (NOT SHOWN)

- LP SMARTSIDE (38 SERIES).
- CEDAR TEXTURE NON VENTED. (76 SERIES).
- INSTALL SOFFIT PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

15 FRIEZE BOARD
- LP SMARTSIDE 7.21" (540 SERIES).
- CEDAR TEXTURE PANEL (38 SERIES)
- COLOR: WHITE - VERIFY WITH OWNER.
- INSTALLATION PER MFG. SPECIFICATIONS AND RECOMMENDATIONS.

NOTE:

GUTTERS AND DOWNSPOUTS (NOT SHOWN FOR CLARITY)

- SHALL BE PROVIDED AND INSTALLED WITH SIZES CONFORMING TO THE LATEST INTERNATIONAL PLUMBING CODE W/ NC AMENDMENTS.
DOWNSPOUTS SHALL CONNECT TO AN UNDERGROUND DRAIN LINE AND EXTEND TO DRAIN INLET OR TO DAYLIGHT. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON UNDERGROUND DRAIN LINES. - PAINT WHITE.

-CONNECT ALL DOWNSPOUTS TO COMMON COLLECTOR LINE (TYP.) - SEE CIVIL PLANS.

- INSTALL CORNER GUARD AT 90° GUTTER CORNERS TO PREVENT OVERSPILL AT ROOF VALLEYS.

EXTERIOR DOORS

- COLOR: SHERWIN WILLIAMS LIGHT - SW 6191 CONTENTED/ DARK - SW 6192 COASTAL PLAIN.

EXHAUST AND VENT HOODS

- PAINT ALL BATH FAN AND DRYER VENT HOODS TO MATCH ADJACENT SURFACES.

LEFT SIDE ELEVATION | SCALE: 1/4" = 1'-0" | 1

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Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Building 3 - 28 units
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 05/02/25
PROJECT #: 22105
DRAWN BY: GAN , LBN
CHECKED BY: GAN

DWG DECRIPTION :
LEFT SIDE ELEVATION
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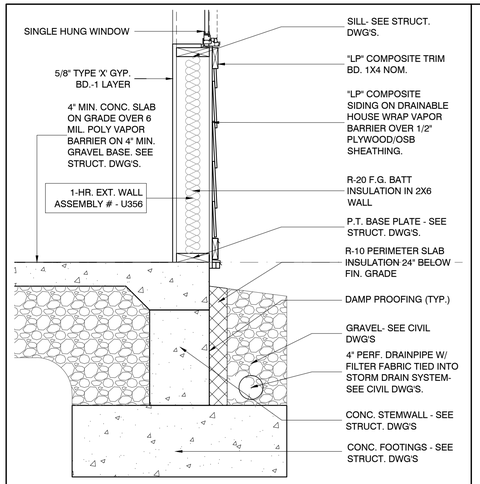
SHEET #:
A-5.6



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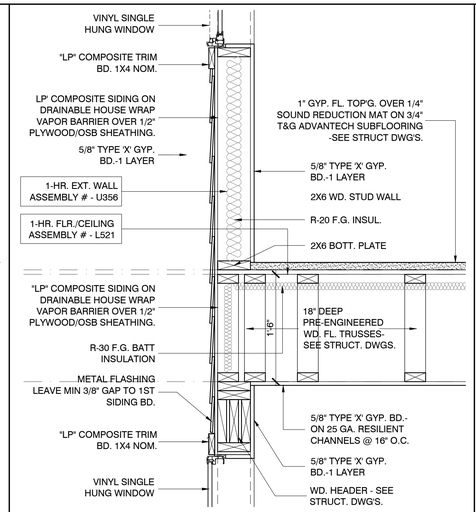

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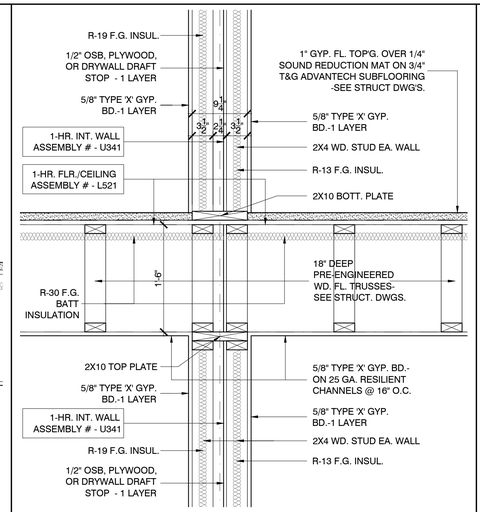

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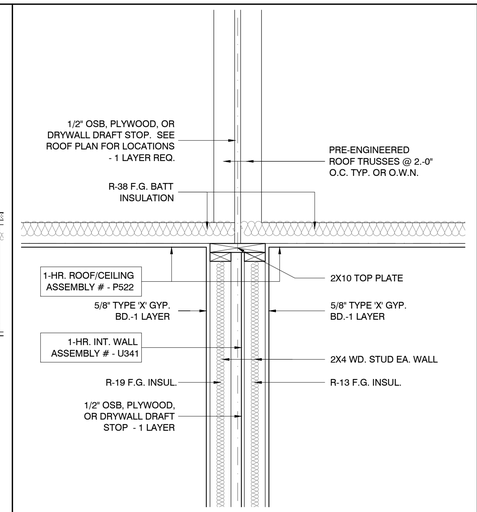

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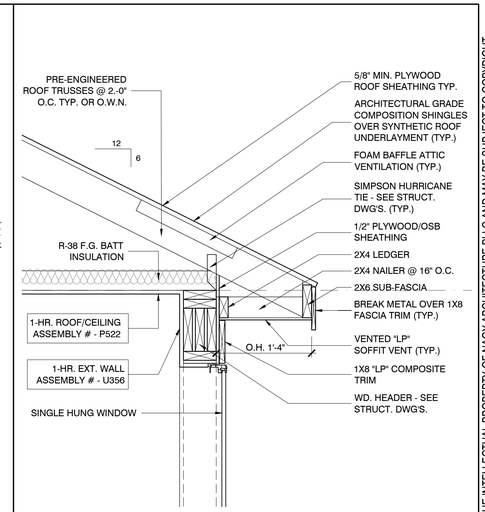

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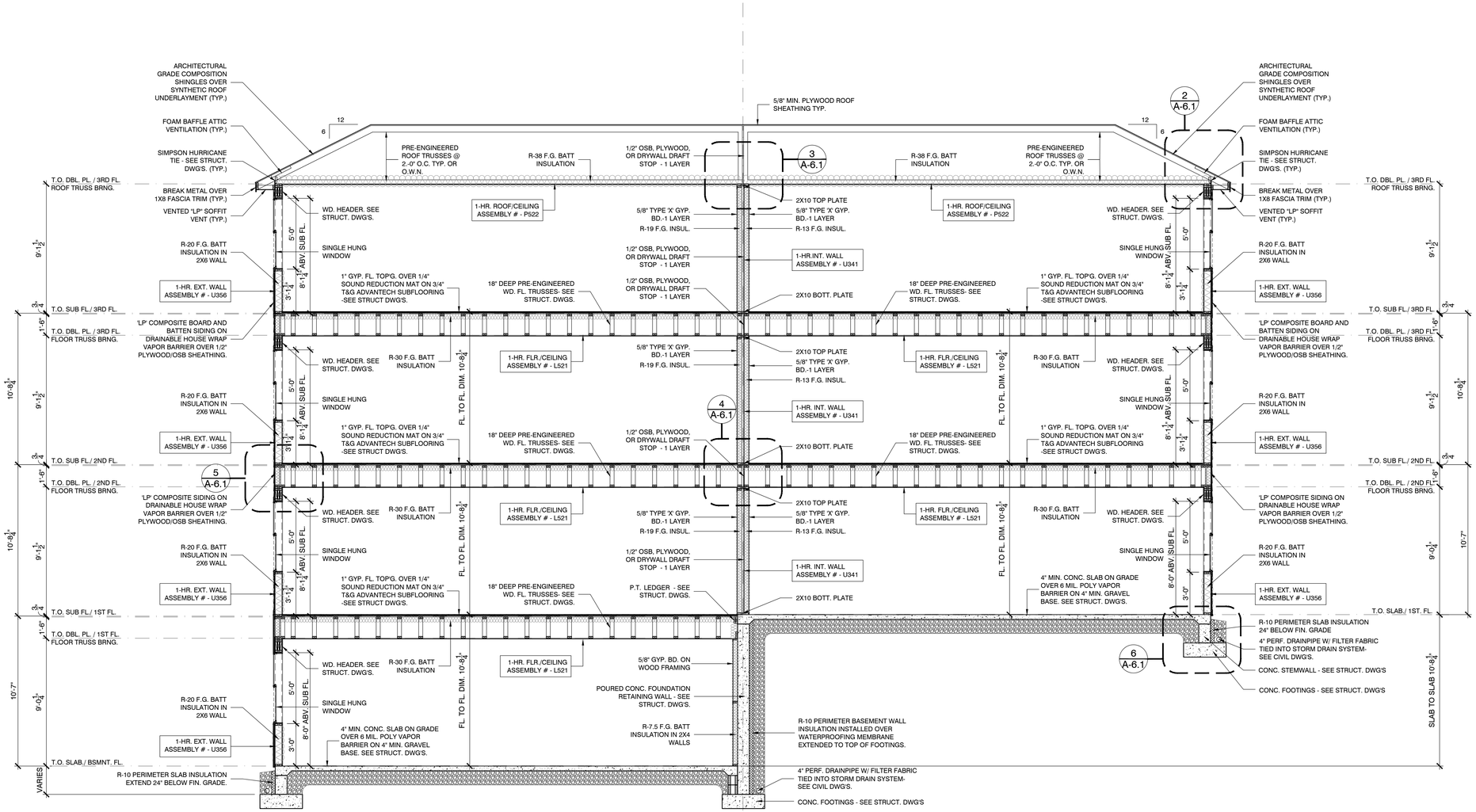

BUILDING SECTION "A-A" | SCALE: 1/4" = 1'-0" | 1

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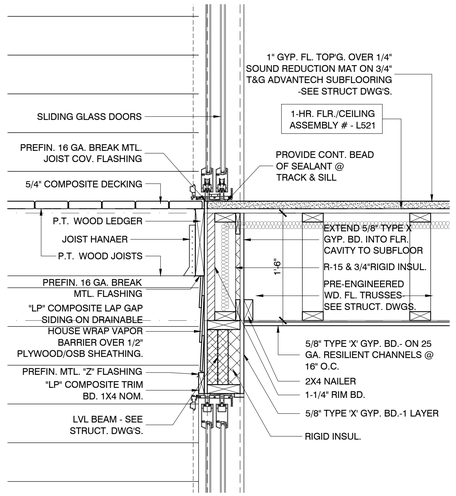

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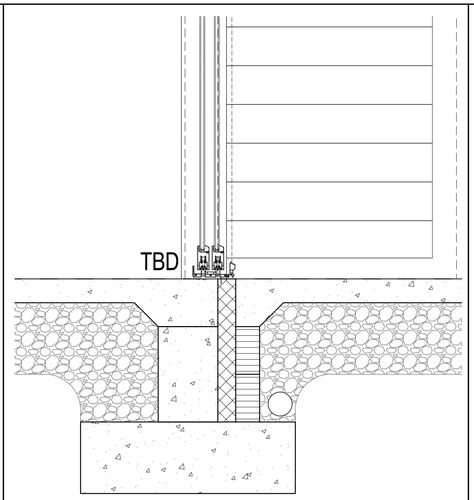

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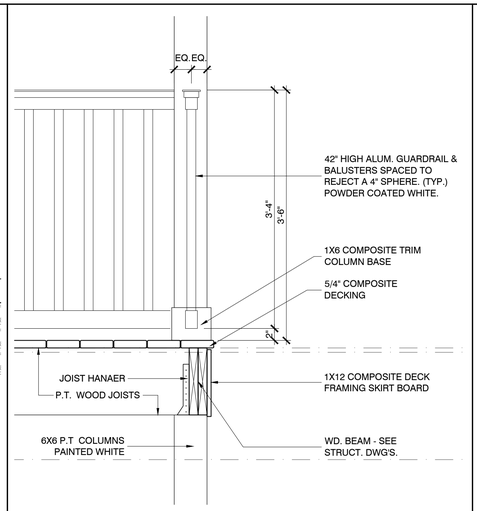

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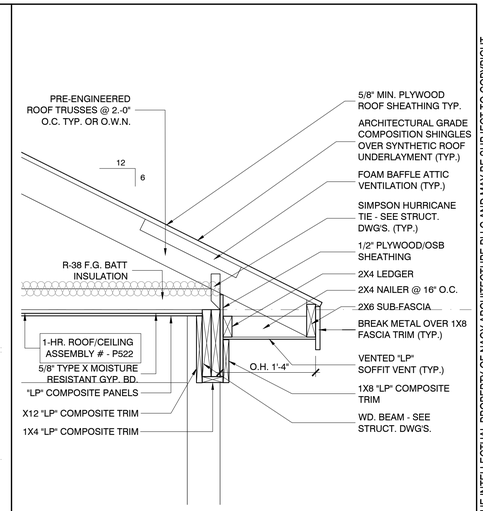

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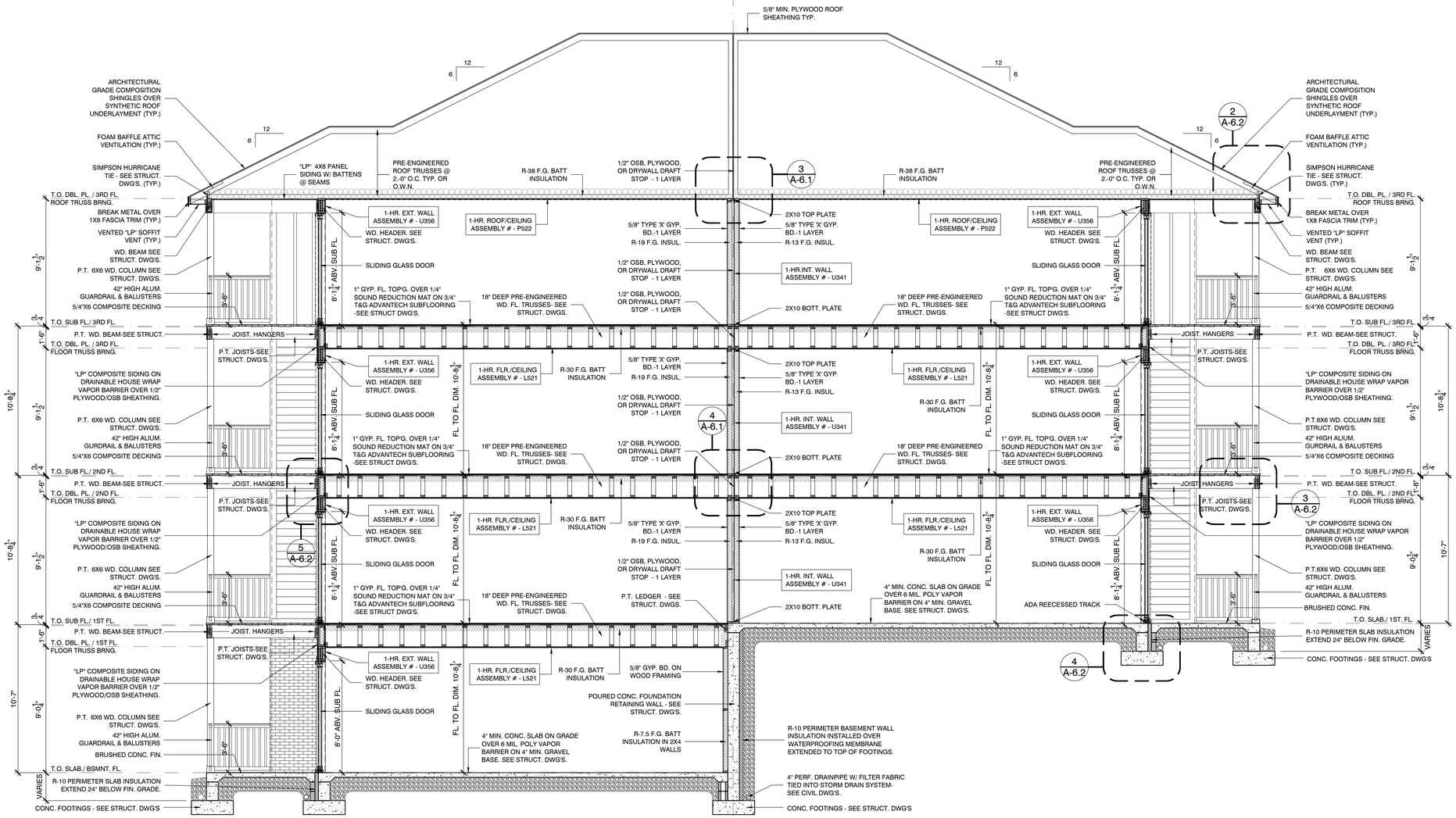

BUILDING SECTION "B-B" | SCALE: 1/4" = 1'-0" | 1

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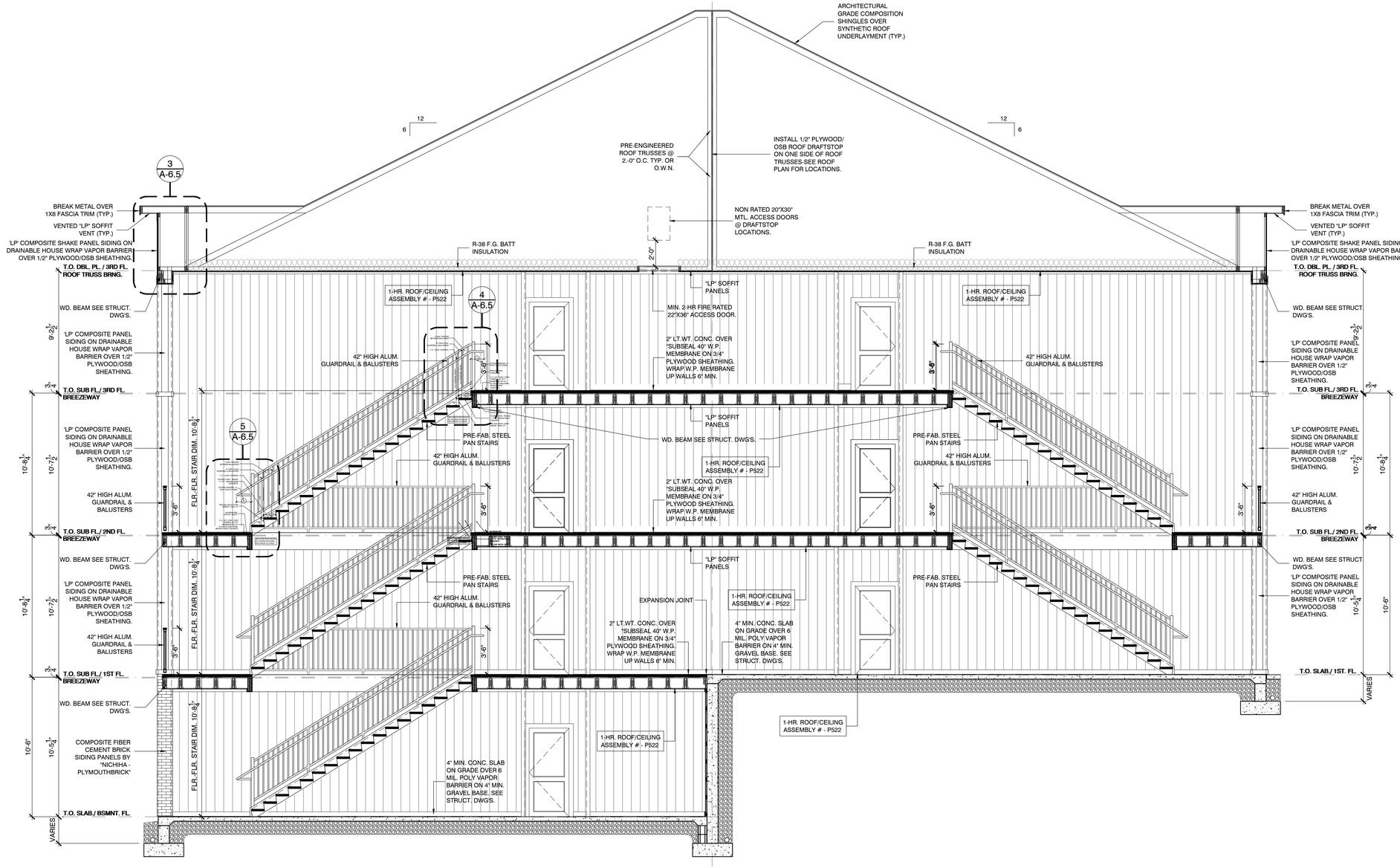
SHEET #:
A-6.2



BUILDING SECTION "C-C"

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

1

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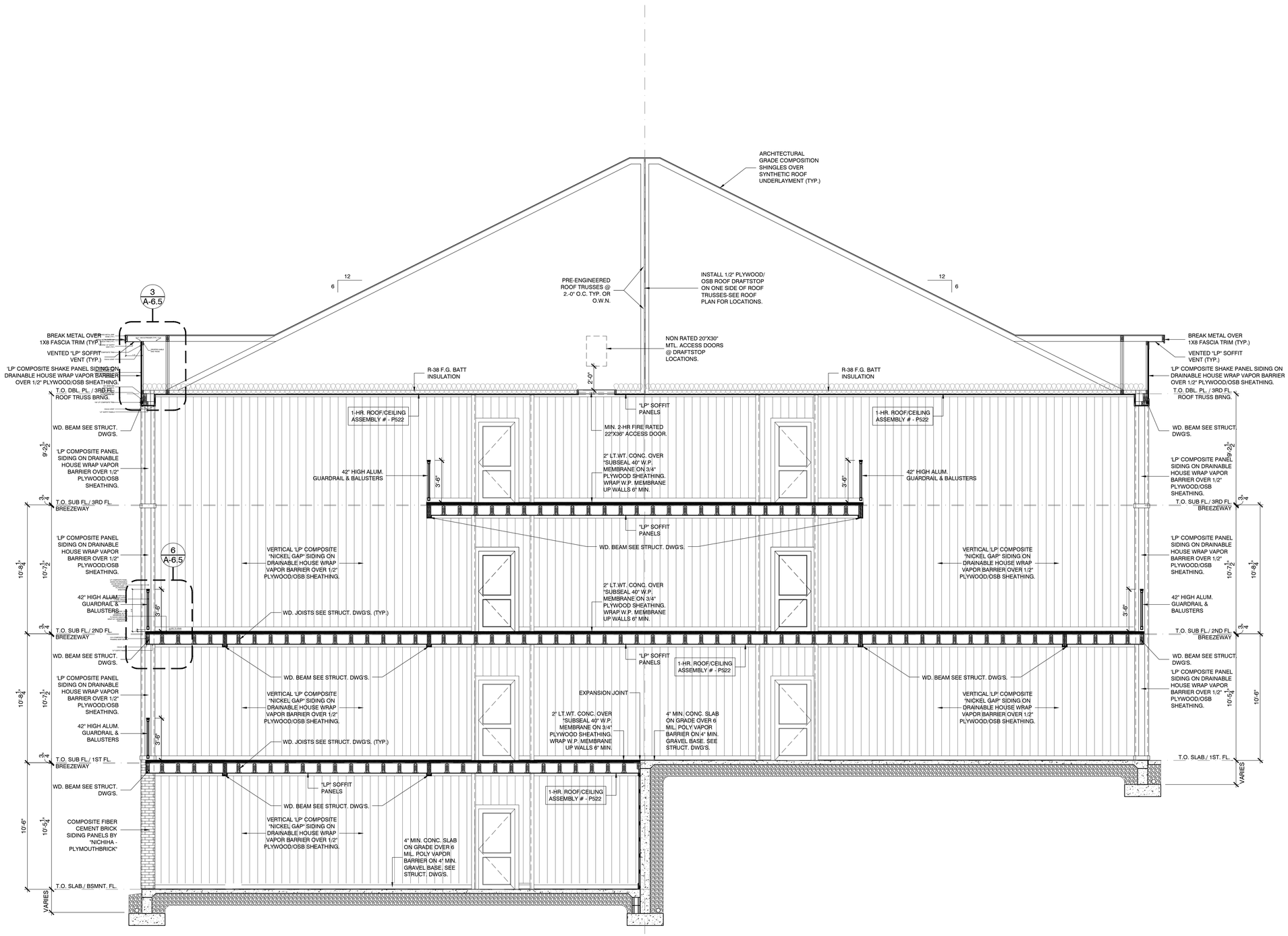
A-6.3



BUILDING SECTION "D-D" | SCALE: 1/4" = 1'-0" | 1

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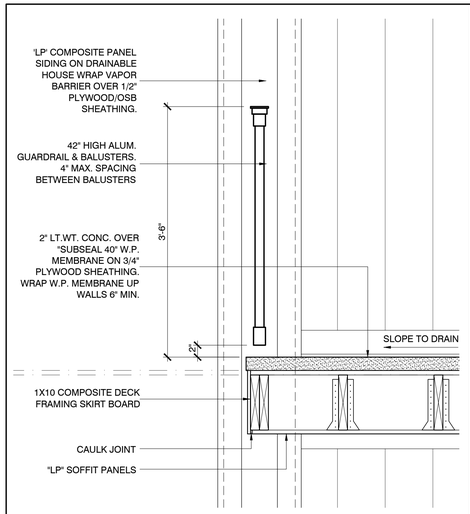
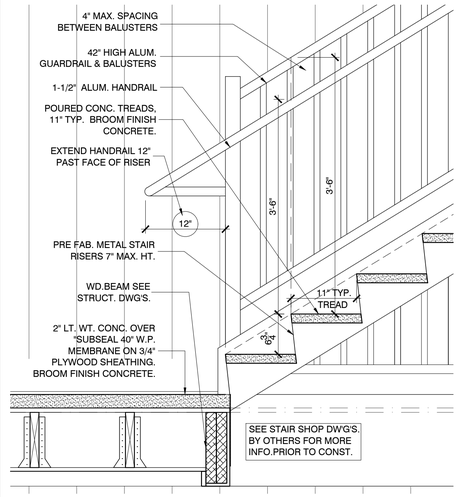


SECTION DETAIL | SCALE: 1" = 1'-0" | 6



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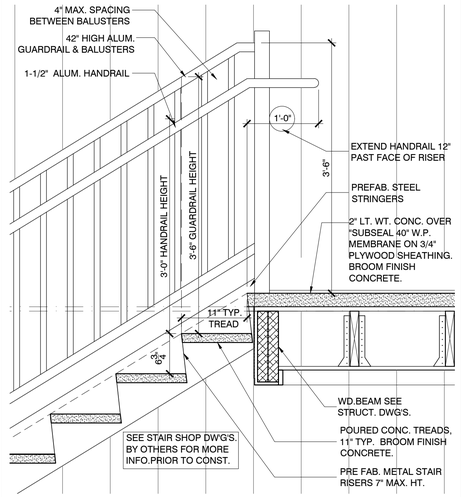

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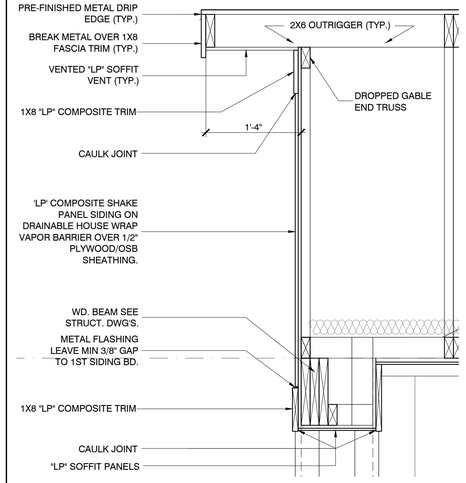

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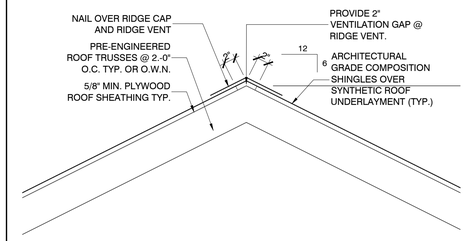

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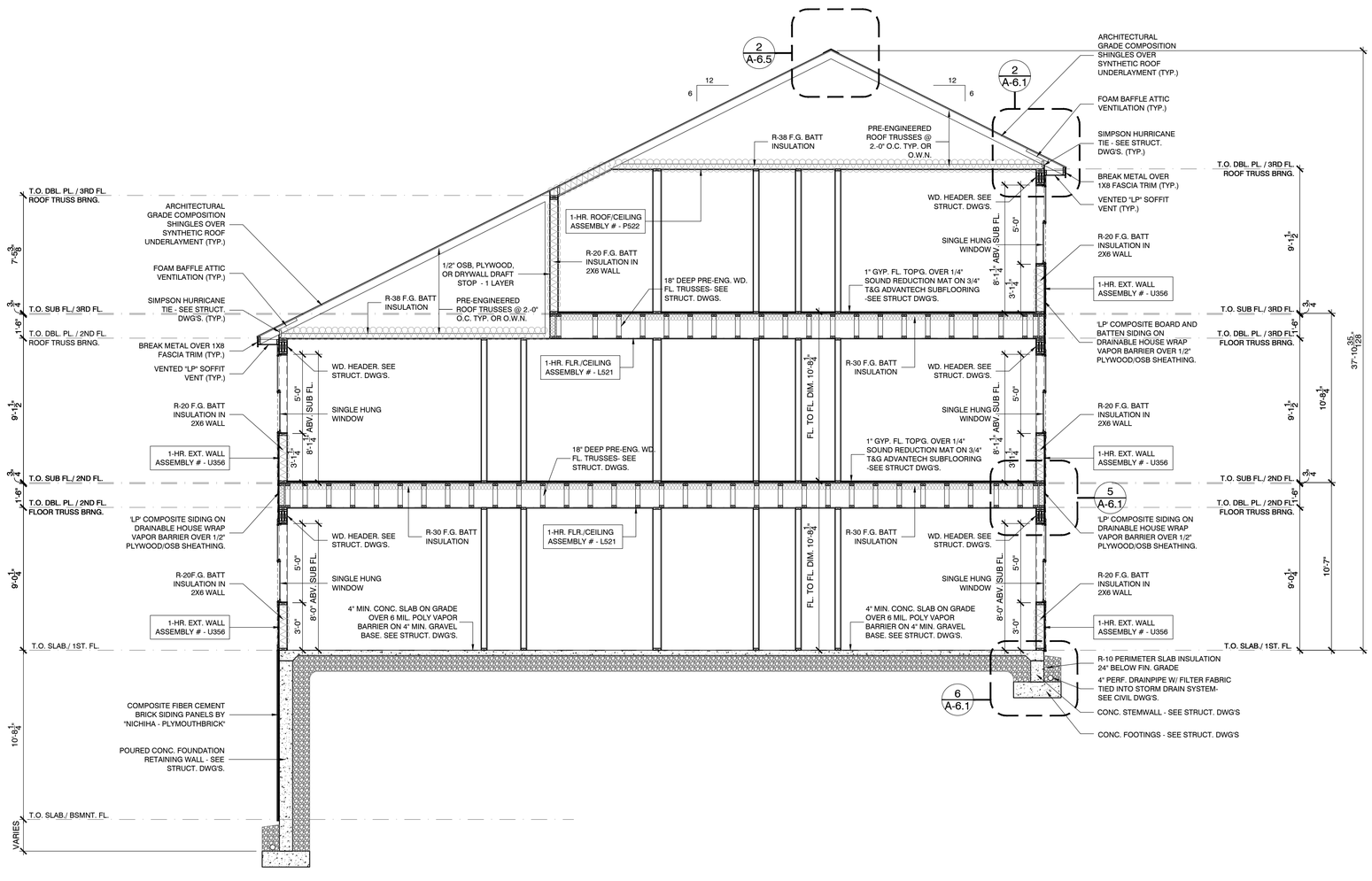

BUILDING SECTION "E-E" | SCALE: 1/4" = 1'-0" | 1

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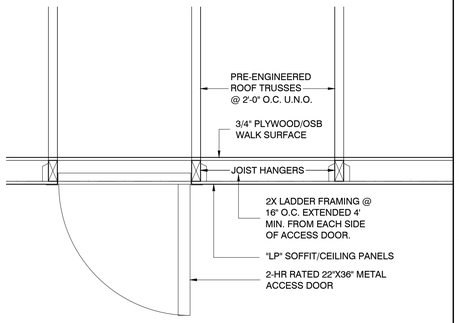

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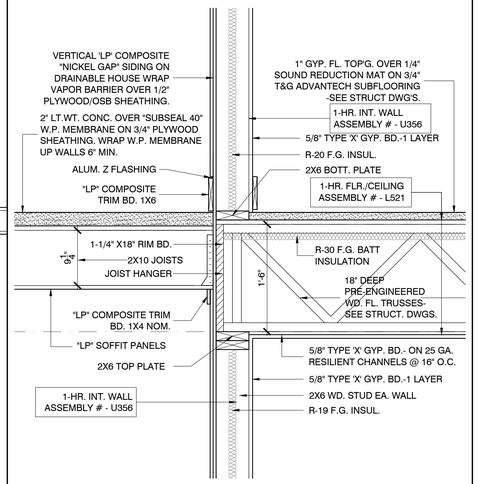

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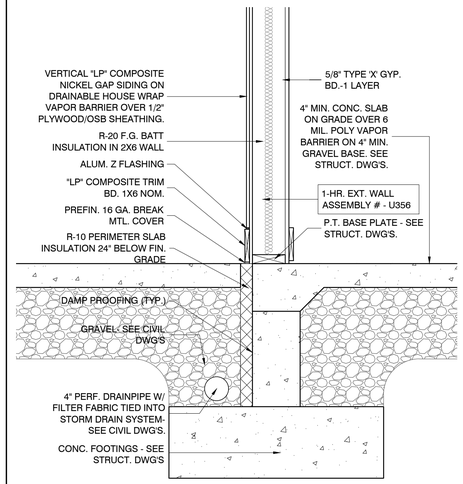

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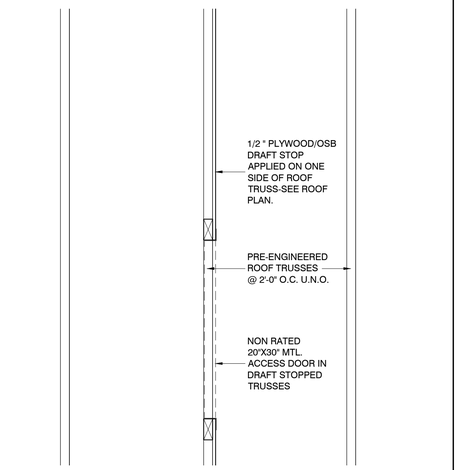

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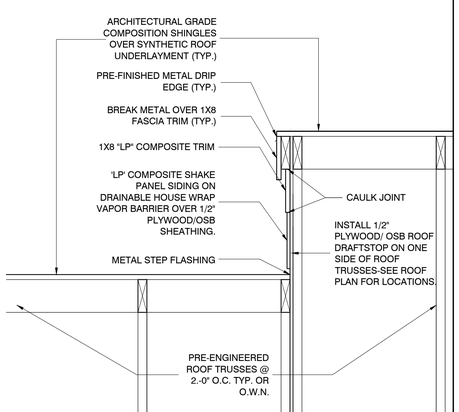

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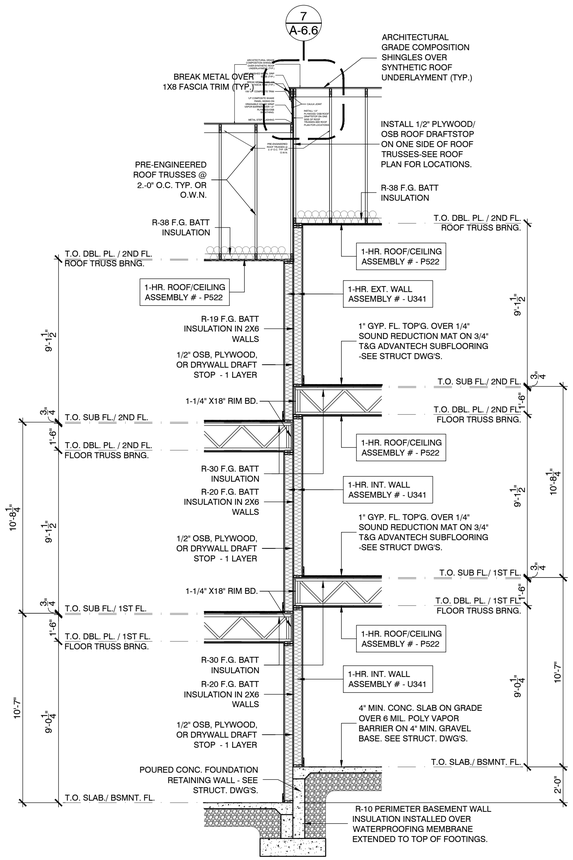
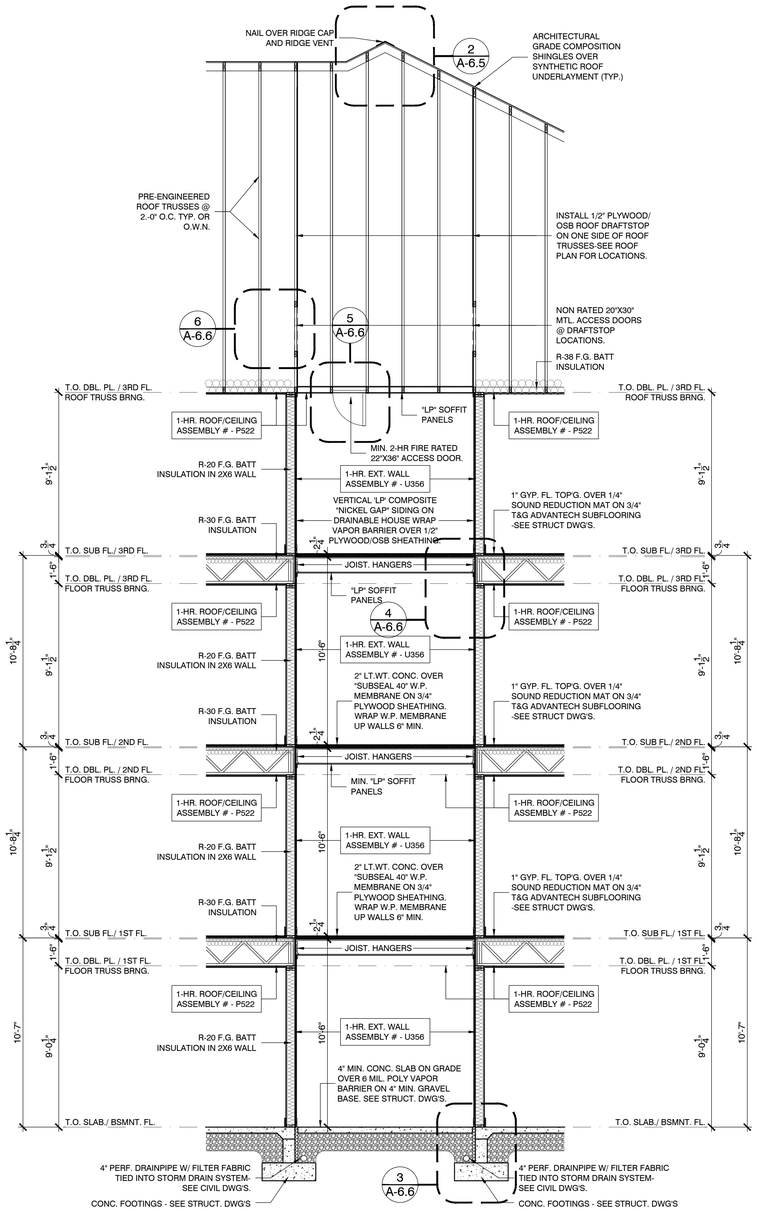


PARTIAL BUILDING SECTION "G" | SCALE: 1/4" = 1'-0" | 2



PARTIAL BUILDING SECTION "F" | SCALE: 1/4" = 1'-0" | 1

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A-6.6

STRUCTURAL ABBREVIATIONS

ABBREV.	DEFINITION	ABBREV.	DEFINITION
A.B.	anchor bolts	HOF	horizontal outer face
ABV	above	HK	hook
ADDNL	additional	HORZ	horizontal
AFF	above finished floor	IF	inner face
ALT	alternate	INT	interior
ARCH	architectural	JT	joint
B, BOT	bottom	K	kips (1000 lbs)
B/xxx	bottom of xxx	L, LEN	length
BAL.	balance	LAT	lateral
BB	bond beam	LBS	pounds
BCX	bottom chord extension	LE	left end
BL	brick ledge	LLH	long leg horizontal
BLDG	building	LLO	long leg outstanding
BLW	below	LLV	long leg vertical
BM	beam	LONG	longitudinal
BRG	bearing	MAS	masonry
BRK	brick	MAX	maximum
BTWN	between	MECH	mechanical
CJ	const., control joint	MFR	manufacturer
CLR	clear	MIN	minimum
CMU	conc. masonry unit	MTL	metal
COL	column	NOM	nominal
CONC	concrete	OC, O/C	on center
CONN	connection	OF	outer face, opp. face
CONST	construction	OH	opposite hand
CONT	continuous	OPP	opposite
CTR	center	OPNG	opening
DBA	deformed bar anchor	PC	precast
DET,DTL	detail	PL	plate
DIM	dimension	RE	right end
DWGS	drawings	REF	Reference
DWL	dowel	REINF	reinforcement
EA	each	REQD	required
EE	each end	RET	retaining
EF	each face	SOG	slab on grade
EFF	effective	SC	slip critical
EJ	expansion joint	SCHED	schedule
EL,ELEV	elevation	SECT	section
EOC	edge of concrete	SL	slab
EOD	edge of deck	SPA	spacing
EOM	edge of masonry	STFNR	stiffener
EOS	edge of slab	STL	steel
ES	each side	SUPPL	supplier
EW	each way	T	top
EXIST	existing	T/xxx	top of xxx
EXP	expansion	TCX	top chord extension
EXT	exterior, extension	THK	thick, thickness
FK	Foot-Kips	TRAN	transverse
FL, FLR	floor	TYP	typical
FOB	face of brick	UNO	unless noted otherwise
FOM	face of masonry	VERT	vertical
FOS	face of stud	VIF	verify in field
FP	full penetration	W	wide, width
FT	foot, feet	WWF	welded wire fabric
FTG	footing		
GB	grade beam		
GEN	general		
HEF	horizontal each face		
HIF	horizontal inner face		

1.0 GENERAL NOTES:

1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.
3. THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE.THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES,AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.
6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
7. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION IS THE CONTRACTORS SOLE RESPONSIBILITY AND SHALL NOT EXCEED THE SAFE LOAD - CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADINGS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE "DESIGN CRITERIA NOTES". DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACING IS IN PLACE.
8. ALL ASTM AND OTHER REFERENCES ARE PER THE LATEST EDITIONS OF THESE STANDARDS, UNLESS OTHERWISE NOTED.
9. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL, AND SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH OTHER TRADES. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE CONTRACTORS APPROVAL STAMP, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS. THE ENGINEER'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS.THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC. ALL SUBMITTALS INCLUDING CONCRETE MIX DESIGNS, CMU SPECS, ETC. MUST BE DATED AND NO MORE THAN ONE (1) YEAR OLD.
10. SUBMIT SHOP DRAWINGS IN THE FORM OF THREE PRINTS.IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.CONTRACTOR SHALL PROVIDE IN HIS SCHEDULE FOR SHOP DRAWING REVIEW AND RETURN TIME, A MINIMUM OF FIFTEEN (15) WORKING DAYS IN THE STRUCTURAL ENGINEER'S OFFICE.AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:

A. CONCRETE MIX DESIGN(S).
B. REINFORCING STEEL SHOP DRAWINGS INCLUDING ELEVATED SLABS.
C. PRE-MANUFACTURED WOOD SYSTEM/TRUSS SHOP DRAWINGS WITH CALCULATIONS.
OTHER SUBMITTALS MAY BE REQUIRED PER THE "SCHEDULE OF SPECIAL INSPECTIONS" OR THE SEPARATE NOTES CONTAINED HEREIN.

11. UNLESS OTHERWISE INDICATED, ALL ITEMS NOTED TO BE DEMOLISHED SHALL BECOME THE CONTRACTOR'S PROPERTY AND BE REMOVED FROM THE SITE.
12. CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.
13. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.
14. FIREPROOFING OF STRUCTURAL ELEMENTS IS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR FIRE RATING REQUIREMENTS, MATERIALS AND METHODS.
15. THE CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER, CLEARLY AND EXPLICITLY IN WRITING, OF ANY DEVIATION OR SUBSTITUTION OF REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS NOT RELIEVED OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS BY VIRTUE OF THE STRUCTURAL ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS CLEARLY AND EXPLICITLY INFORMED THE STRUCTURAL ENGINEER IN WRITING OF ANY DEVIATIONS OR SUBSTITUTIONS AT TIME OF SUBMISSION, AND THE STRUCTURAL ENGINEER HAS GIVEN WRITTEN APPROVAL FOR THE SPECIFIC DEVIATIONS OR SUBSTITUTIONS.
16. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER. CORRECTIONS OR WRITTEN INTERPRETATIONS SHALL BE ISSUED BEFORE AFFECTED WORK MAY PROCEED.
17. IF THE CONTRACTOR CANNOT CONSTRUCT ANY PORTION OF THE WORK IDENTIFIED IN THE DRAWINGS IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS,THEN THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE WORK. WORK THAT DOES NOT COMPLY WITH THE DRAWINGS MAY REQUIRE REMOVAL, TESTING, OR ENGINEERING EVALUATION AT THE CONTRACTOR'S EXPENSE.
18. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.
19. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER CONTRACT, SHOP, FABRICATION, OR OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.

2.0 DESIGN CRITERIA NOTES:

1. THE PRIMARY DESIGN STANDARDS AND/OR CRITERIA INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

GENERAL:	BLDG CODE (N.C.B.C.2018, AS AMENDED, ASCE 7-10)
CONCRETE:	ACI 318
MASONRY:	ACI 530
STRUCTURAL STEEL	AISC 341
STEEL JOISTS / GIRDERS	SJI
METAL DECK	SDI
COLD - FORMED METAL	NAS

2. DESIGN GRAVITY SUPER IMPOSED DEAD LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS (SELF WEIGHT OF STRUCTURE IS NOT INCLUDED):

ROOF	20 PSF MAX.	10 PSF MIN.
FLOORS - TYPICAL	15 PSF	
PARTITION ALLOWANCE	0 PSF	

3. DESIGN GRAVITY LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:

SLAB ON GRADE..200 PSF

ROOF, TYPICAL..20 PSF MIN.
STAIRS...100 PSF
APARTMENT/CORRIDOR..40 PSF
BALCONY...60 PSF

FLOOR LIVE LOAD REDUCTION PER N.C.B.C. HAS BEEN UTILIZED. ROOF LIVE LOAD REDUCTION PER N.C.B.C HAS BEEN UTILIZED.

4. DESIGN LATERAL LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
WIND LOADS PER ASCE7-10:

BASIC WIND SPEED (3 SECOND GUST)	115 MPH
RISK CATEGORY	II
WIND EXPOSURE	B
HEIGHT 'h'	50.3ft.
INTERNAL PRESSURE COEFFICIENT "GCpi"	+/- 0.18

COMPONENTS & CLADDING PRESSURES (PSF):

		TRIBUTARY AREA (FT^2)		
	ZONE	A ≤ 10	A = 50	A ≥ 100
WALLS	ZONE 4 (-)	-29.9	-27.0	-25.8
	ZONE 5 (-)	-36.9	-31.2	-28.7
	ZONE 4&5(+)	+27.6	+24.7	+23.4
ROOF	ZONE 1 (-)	-34.6	-31.3	-29.9
	ZONE 2 (-)	-41.6	-35.1	-32.2
	ZONE 3 (-)	-72.0	-57.3	-50.9
	ALL ZONES (+)	+16.0	+16.0	+16.0

NOTES:
* CORNER & EDGE ZONES SHALL EXTEND 10'-8"FROM BUILDING EDGES.
* "+" INDICATES POSITIVE AND "-" NEGATIVE PRESSURE (SUCTION).

NET ROOF SUCTION 12 PSF

WING MAIN WIND FORCE RESISTING SYSTEM	NORTH/SOUTH LIGHT FRAME SHEAR WALLS	EAST/WEST LIGHT FRAME SHEAR WALLS
WIND BASE SHEAR "Vo"	148 KIPS	55 KIPS

SEISMIC LOADS PER N.C.B.C. 2018:	
SITE CLASS	D (ASSUMED)
SHORT PERIOD DESIGN SPECTRAL RESPONSE "Sds"	0.308g
1-SECOND PERIOD DESIGN SPECTRAL RESPONSE "Sd1"	0.169g
SEISMIC USE GROUP	II
IMPORTANCE FACTOR "Ie"	1.0
SEISMIC DESIGN CATEGORY	C

WING SEISMIC FORCE RESISTING SYSTEM	NORTH/SOUTH LIGHT FRAME SHEAR WALLS	EAST/WEST LIGHT FRAME SHEAR WALLS
SEISMIC BASE SHEAR "Vo"	88 KIPS	88 KIPS

5. DESIGN SNOW LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
DRIFTING SNOW LOADS PER ASCE 7-10 : NONE WHERE "Pg" IS LESS THAN 10 PSF

50 YEAR GROUND SNOW LOAD "Pg"	15 PSF
EXPOSURE FACTOR "Ce"	1.0
THERMAL FACTOR "Ct"	1.0
IMPORTANCE CATEGORY CLASSIFICATION	II
IMPORTANCE FACTOR "Is"	1.0
Pf	10.5 PSF (ASCE 7-05, EQ. 7-1)
NET FLAT ROOF SNOW LOAD "Pf"	10.5 PSF

6. THIS STRUCTURE HAS BEEN DESIGNED WITH "SAFETY FACTORS" IN ACCORDANCE WITH GENERALLY ACCEPTED PRINCIPLES OF STRUCTURAL ENGINEERING. THE FUNDAMENTAL NATURE OF THE "SAFETY FACTOR" IS TO COMPENSATE FOR UNCERTAINTIES IN THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL BUILDING COMPONENTS. IT IS INTENDED THAT "SAFETY FACTORS" BE USED SO THAT THE LOAD CARRYING CAPACITY OF THE STRUCTURE DOES NOT FALL BELOW THE DESIGN LOAD AND THAT THE BUILDING WILL PERFORM UNDER DESIGN LOAD WITHOUT DISTRESS. WHILE THE USE OF "SAFETY FACTORS" IMPLIES SOME EXCESS CAPACITY BEYOND DESIGN LOAD, SUCH EXCESS CAPACITY CANNOT BE ADEQUATELY PREDICTED AND SHALL NOT BE RELIED UPON.
7. BUILDING SHALL NOT BE USED AS AN EMERGENCY SHELTER.
8. 2018 NORTH CAROLINA EXISTING BUILDING CODE REFERENCES PER CHAPTER 34, EXISTING STRUCTURES, SECTION 3401.5 ALTERATIONS. BUILDING ALTERATIONS SHALL COMPLY WITH SECTION 403 OF THE 2015 INTERNATIONAL EXISTING BUILDING CODE :

A. SECTION 403.1:
PROPOSED ALTERATION SHALL BE SUCH THAT THE EXISTING BUILDING OR STRUCTURE WILL BE NO LESS CONFORMING TO THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE THAN THE BUILDING PRIOR TO THE ALTERATIONS.
B. SECTION 403.3:
THE EXISTING GRAVITY LOAD CARRYING STRUCTURAL ELEMENTS DUE TO ALTERATIONS OF THE STRUCTURE SHALL NOT CAUSE ANY INCREASE OF MORE THAN 5 PERCENT TO EXISTING STRUCTURAL ELEMENTS, THEREFORE ADDITIONAL STRENGTHENING OF GRAVITY LOAD CARRYING ELEMENT SHALL NOT BE REQUIRED.
C. SECTION 403.4:
ANY ALTERATIONS TO EXISTING STRUCTURAL ELEMENTS CARRYING LATERAL LOADS SHALL NOT DECREASE THE CAPACITY OF ANY EXISTING LATERAL LOAD CARRYING STRUCTURAL ELEMENT.
D. SECTION 403.6:
THE EXISTING BUILDING'S EXTERIOR MASONRY WALL ARE REINFORCED SUCH THAT NO EVALUATION OF THE EXISTING WALL ANCHORAGE AT THE ROOF LINE IS REQUIRED TO SEISMIC FORCES.
E. SECTION 403.7:
EXISTING MASONRY PARAPETS ARE REINFORCED SUCH THAT NO ADDITIONAL BRACES ARE REQUIRED TO RESIST OUT OF PLANE SEISMIC FORCES.

3.0 DEFERRED SUBMITTAL NOTES:

1. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
2. IN NO CASE SHALL REPRODUCTION OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD. CONTRACTOR SHALL PROVIDE IN HIS SCHEDULE FOR SHOP DRAWING REVIEW AND RETURN TIME, A MINIMUM OF FIFTEEN (15) WORKING DAYS IN THE STRUCTURAL ENGINEER'S OFFICE.
3. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL, AND SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH OTHER TRADES. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE CONTRACTORS APPROVAL STAMP, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
4. ALL SHOP DRAWINGS AND CALCULATIONS FOR DELEGATED DESIGN REQUIRING AN ENGINEER'S SEAL SHALL BE SEALED PRIOR TO SUBMISSION FOR REVIEW. IF SHOP DRAWINGS AND OTHER SUBMITTALS DO NOT BEAR THE DELEGATED ENGINEER'S SEAL, THEY WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
5. WHERE NOTED SEALED DRAWINGS OR CALCULATIONS ARE REQUIRED TO BE SEALED AND SIGNED BY A LICENSED STRUCTURAL ENGINEER IN THE PROJECT STATE. NOTE THAT PLACEMENT OR LAYOUT PLANS FOR TRUSSES AND JOISTS DO NOT REQUIRE ENGINEERS SEAL
6. THE ENGINEER OR RECORD'S (EOR) REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS.THE EOR REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC. ALL SUBMITTALS INCLUDING CONCRETE MIX DESIGNS, CMU SPECS, ETC. MUST BE DATED AND NO MORE THAN ONE (1) YEAR OLD.
7. AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:.

A. CONCRETE MIX DESIGN(S).
B. REINFORCING STEEL SHOP DRAWINGS
C. PRE-MANUFACTURED WOOD SYSTEM/TRUSS SHOP DRAWINGS WITH CALCULATIONS.
J. OTHER SUBMITTALS MAY BE REQUIRED PER THE "SCHEDULE OF SPECIAL INSPECTIONS" OR THE SEPARATE NOTES CONTAINED HEREIN.

8. ANY SHOP DRAWINGS WITH LANGUAGE LIMITING REVIEWER RESPONSES SUCH AS BUT NOT LIMITED TO THE FOLLOWING WILL NOT BE REVIEWED AND WILL BE RETURNED. NO EXCEPTIONS.
   A. "RESPONSES SUCH AS "GC TO VERIFY" OR "ARCH TO VERIFY" ARE NOT ACCEPTABLE ANSWERS"
   B" CLOUDS MARKED IN ...... MANNER WILL BE CONSIDERED NOT ADDRESSED"
9. SHOP DRAWINGS SHALL NOT BE USED AS RFI'S AND ARE TO BE CONSIDERED COMPLETELY SEPARATE SUBMITTALS.

4.0 SITE PREPARATION NOTES:

1. WITHIN AN AREA A MINIMUM OF 5 FEET BEYOND THE BUILDING LIMITS,EXCAVATE A MINIMUM OF 3' OF EXISTING SOIL. REMOVE ALL ORGANICS.PAVEMENT,ROOTS, DEBRIS AND OTHERWISE UNSUITABLE MATERIAL.
2. THE SURFACE OF THE EXPOSED SUBGRADE SHALL BE INSPECTED BY PROBING OR TESTING TO CHECK FOR POCKETS OF SOFT OR UNSUITABLE MATERIAL. EXCAVATE UNSUITABLE SOIL AS DIRECTED BY THE GEOTECHNICAL ENGINEER / TESTING AGENCY.
3. PROOF-ROLL THE SURFACE OF THE EXPOSED SUBGRADE WITH A LOADED TANDEM AXLE DUMP TRUCK.REMOVE ALL SOILS WHICH PUMP OR DO NOT COMPACT PROPERLY AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.
4. FILL ALL EXCAVATED AREAS WITH APPROVED CONTROLLED FILL. PLACE IN 8 INCH LOOSE LIFTS AND COMPACT TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D - 698.
5. ALL CONTROLLED FILL MATERIAL SHALL BE A SELECT GRANULAR MATERIAL FREE FROM ALL ORGANICS OR OTHERWISE DELETERIOUS MATERIAL WITH NOT MORE THAN 20% BY WEIGHT PASSING A NO. 200 SIEVE (CLASSIFIED AS SC, SM, SP OR BETTER IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM) AND WITH A PLASTICITY INDEX NOT EXCEEDING 6%.
6. PROVIDE FIELD DENSITY TESTS FOR EACH 3,000 S.F. OF BUILDING AREA FOR EACH LIFT OF CONTROLLED FILL.

5.0 FOUNDATION NOTES: (TYP)

1. FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT BY BLE CORP, DATED 03/31/2025
2. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS ". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305.COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60, UNLESS OTHERWISE NOTED.
4. SEE "CAST-IN-PLACE CONCRETE NOTES" FOR MINIMUM CONCRETE COVER REQUIREMENTS, AND CONCRETE ELEMENT PROPERTIES.
5. ALL REINFORCING MARKED CONTINUOUS (CONT.) ON THE PLANS AND DETAILS SHALL BE LAPPED LTS AT SPLICES UNLESS OTHERWISE NOTED.SEE EMBEDMENT & LAP SPLICE SCHEDULE.
6. NO UNBALANCED BACKFILLING SHALL BE DONE AGAINST FOUNDATION WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING,EITHER BY TEMPORARY BRACING OR BY PERMANENT CONSTRUCTION.
7. PRIOR TO COMMENCING ANY FOUNDATION WORK, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATING WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES. STRUCTURAL ENGINEER MUST BE NOTIFIED IF FOOTINGS ARE LOWERED MORE THAN 2 FEET RELATIVE TO THAT WHICH IS SHOWN.
8. UNLESS OTHERWISE NOTED, THE CENTERLINES OF COLUMN FOUNDATIONS SHALL BE LOCATED ON COLUMN CENTERLINES.
9. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE - DRAINING GRANULAR BACKFILL FULL HEIGHT OF WALL. PROVIDE VERTICAL CONTROL JOINTS NOT TO EXCEED 25 FEET O.C. NOR 3 TIMES THE WALL HEIGHT. MAXIMUM LENGTH OF WALL POURS SHALL NOT EXCEED 50 FEET IN ANY SINGLE POUR.
10. BOTTOM OF EXTERIOR FOUNDATIONS SHALL BEAR AT A MINIMUM DEPTH OF 1'-6" BELOW FINAL GRADE FOR FROST PROTECTION.
11. ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 2500 PSF. ALL FOOTINGS SHALL BEAR ON UNDISTURBED, FIRM NATURAL SOIL OR COMPACTED FILL. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY PRIOR TO POURING FOUNDATION CONCRETE.
12. TOP OF FOOTING ELEVATION SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAXIMUM AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE. STRUCTURAL ENGINEER MUST BE NOTIFIED IF FOOTINGS ARE LOWERED MORE THAN 2 FEET RELATIVE TO THAT WHICH IS SHOWN.
13. WHERE FOOTING EXCAVATIONS MUST REMAIN OPEN OVERNIGHT OR IF RAINFALL BECOMES IMMINENT WHILE BEARING SOILS ARE EXPOSED, A 2" TO 4" THICK MUD MAT OF UNREINFORCED LEAN (f'c = 2000psi) CONCRETE SHALL BE PLACED ON THE BEARING SOILS BEFORE PLACEMENT OF THE FOOTING REINFORCING.

6.0 SLAB ON GRADE NOTES:

1. PROVIDE CONCRETE SLABS OVER A VAPOR BARRIER PER ARCHITECT DRAWINGS AND 4" OF POROUS FILL. CONCRETE SLABS SHALL HAVE A MAXIMUM SLUMP OF 5 INCHES, USING TYPE 1 CEMENT.
2. ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-185. LAP ADJOINING PIECES AT LEAST ONE FULL MESH.
3. ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR MATERIAL WITH 100% PASSING A 1-1/2" SIEVE AND NO MORE THAN 5% PASSING A NO. 4 SIEVE. POROUS FILL SHALL BE COMPACTED TO 95% MAX. DRY DENSITY PER ASTM D-698.
4. SLAB JOINTS SHALL BE FILLED WITH APPROVED MATERIAL. THIS SHOULD TAKE PLACE AS LATE AS POSSIBLE, PREFERABLY 4 TO 6 WEEKS AFTER THE SLAB HAS BEEN CAST. PRIOR TO FILLING, REMOVE ALL DEBRIS FROM THE SLAB JOINTS, THEN FILL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AS FOLLOWS: 6" SLABS - FILL WITH EPOXY RESIN OTHER SLABS - FILL WITH FIELD MOLDED OR ELASTOMERIC SEALANT
5. UNLESS OTHERWISE APPROVED, ALL SLAB REINFORCEMENT SHALL BE SECURED INTO POSITION WITH PLASTIC TIPPED OR STAINLESS STEEL BAR SUPPORTS. BRICK OR OTHER MASONRY ARE NOT PERMITTED FOR USE AS SUPPORTS.
6. WALKWAYS AND OTHER EXTERIOR SLABS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. SEE THE SITE PLAN AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, ELEVATIONS,JOINTING DETAILS AND FINISH DETAILS. PROVIDE 4" WALKS REINFORCED WITH 6X6 - W1.4XW1.4 WWF UNLESS OTHERWISE NOTED.
7. SLABS TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+/- 1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
8. SLABS NOT PERMANENTLY EXPOSED TO WEATHER SHALL NOT BE AIR ENTRAINED AND ENTRAPPED AIR SHALL BE LIMITED TO 3%.
9. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305 COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
10. IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE (OR CHECKERBOARD) PATTERN. THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET. THE MAXIMUM SPACING OF CONTROL JOINTS SHALL BE 3 TIMES THE SLAB THICKNESS IN FEET.
(EXAMPLE 4" SLAB X 3 = 12'-0" CJ SPACING TYPICAL)
11. THE USE OF POLYPROPYLENE FIBERS (IN LIEU OF WELDED WIRE FABRIC) IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.
12. SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF DEPRESSED SLAB AREAS AND DRAINS. SLOPE SLAB TO DRAINS WHERE SHOWN.
13. THE FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 301, TYPE A.

7.0 POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD (E.O.R.) PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S). PROVIDE SPECIAL INSPECTIONS AS REQUIRED BY THE ANCHOR'S EVALUATION REPORT (ICC-ES ESR OR IAPMO-UES CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY. CALL SIMPSON STRONG-TIE AT (800) 999-5099.
2. FOR ANCHORING INTO CRACKED AND UN-CRACKED CONCRETE:

A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.2 AND / OR ICC-ES AC193 FOR CRACKED AND UN-CRACKED CONCRETE. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "STRONG-BOLT 2" (ICC-ES ESR-2713)
2. SIMPSON STRONG-TIE "TITEN HD", "TITEN HD-RD" & "TITEN HD-CS" (ICC-ES ESR-2713)
3. SIMPSON STRONG-TIE "STAINLESS STEEL TITEN HD" (IAPMO-UES ER-493)
4. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-UES ER-712)

B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI355.4 AND ICC-ES AC308 FOR CRACKED AND UN-CRACKED CONCRETE. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS. HOLES SHALL BE DRY AT THE TIME OF INSTALLATION. ACI355-4 TEMPERATURE CATEGORY 'B' ASSUMED IN DESIGN. PRIOR TO INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS RESISTING SUSTAINED TENSION LOADS, INSTALLERS ARE REQUIRED TO BE CERTIFIED IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM AND MUST BE CONTINUOUSLY INSPECTED. PRE-APPROVED PRODUCTS INCLUDE:
1. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "SET-3G" (ICC-ES ESR-4057)
2. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
3. THREADED ROD & REBAR AS ANCHOR ELEMENTS - SIMPSON STRONG-TIE "AT-XP" (IAPMO-UES ER-263)
4. POST INSTALLED REINFORCING BARS USING THE ACI318 DEVELOPMENT LENGTH PROVISION - SIMPSON STRONG-TIE "SET-3G" (ICC-ES ESR-4057)
5. POST INSTALLED REINFORCING BARS USING THE ACI318 DEVELOPMENT LENGTH PROVISION - SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)

C. SIMPSON STRONG-TIE CLEAN DXS DUST EXTRACTION SYSTEM IN APPROVED FOR USE WITH THE PRODUCTS LISTED ABOVE TO DRILL AND CLEAN HOLES.

3. FOR ANCHORING INTO GROUT-FILLED CONCRETE MASONRY UNITS.

A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC01 (EXPANSION ANCHORS) OR ICC-ES AC106 (SCREW ANCHORS) PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "STRONG-BOLT 2" (IAPMO-UES ER-240)
2. SIMPSON STRONG-TIE "WEDGE-ALL" (ICC-ES ESR-1396)
3. SIMPSON STRONG-TIE "TITEN HD" & "STAINLESS STEEL TITEN HD" (ICC-ES ESR-1056)
4. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-UES ER-716)

B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH (ICC-ES AC58) PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "SET-XP" (IAPMO-UES ER-265)
2. SIMPSON STRONG-TIE "AT-XP" (IAPMO-UES ER281)
3. SIMPSON STRONG-TIE "ET-HP" (IAPMO-UES ER241)

4. FOR ANCHORING INTO HOLLOW CONCRETE MASONRY UNITS
A. MECHANICAL ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC106 FOR PERFORMANCE IN HOLLOW CONCRETE MASONRY. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "STAINLESS STEEL TITEN HD" (ICC-ES ESR-1056)
2. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-UES ER-716)

B. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC58 FOR PERFORMANCE IN HOLLOW CONCRETE MASONRY USING MANUFACTURER'S RECOMMENDED SCREEN TUBES. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "SET-XP" (IAPMO-UES ER-265)
2. SIMPSON STRONG-TIE "AT-XP" (IAPMO-UES ER-281)

5. FOR ANCHORING INTO UN-REINFORCED MASONRY
A. ADHESIVE ANCHORS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC60 FOR PERFORMANCE IN UN-REINFORCED MASONRY CONFIGURATIONS A, B, AND C. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "ET-HP" (ICC-ES ER-3638)

6. FOR ANCHORING LOW VELOCITY AND THREADED STUDS INTO CONCRETE, MASONRY AND STEEL

A. POWDER-ACTUATED FASTENERS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "POWDER-ACTUATED FASTENERS" (ICC-ES ESR-2138)

B. GAS-ACTUATED FASTENERS - SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
2. SIMPSON STRONG-TIE "GAS ACTUATED FASTENERS" (ICC-ES ESR-2811)

8.0 CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE MIXES SHALL BE DESIGNED PER ACI 301 CHAPTER 3, USING PORTLAND CEMENT CONFORMING TO ASTM C-150 OR C-595,AGGREGATE CONFORMING TO ASTM C-33, AND ADMIXTURES CONFORMING TO ASTM C-494, C-1017, C-618,C-989 AND C-260. CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C-94.
2. CONCRETE SHALL CONFORM TO THE FOLLOWING COMPRESSIVE STRENGTH, SLUMP AND UNIT WEIGHT RATIO REQUIREMENTS:

ELEMENT	MIN. f'c (28 DAYS)	SLUMP*	UNIT WEIGHT
CONCRETE NOT NOTED	3000 PSI	2" TO 4"	145 PCF
FOOTINGS	3000 PSI	2" TO 4"	145 PCF
SLABS-ON-GRADE	3000 PSI	2" TO 4"	145 PCF

*AT CONTRACTOR'S OPTION. AN APPROVED ADMIXTURE MAY BE USED TO PRODUCE FLOWABLE CONCRETE. MAXIMUM SLUMP SHALL NOT EXCEED 10 INCHES. THE CONTRACTOR SHALL SUBMIT TEST RESULTS OF THE PROPOSED CONCRETE MIXES ALONG WITH THE MANUFACTURER'S TECHNICAL DATA FOR APPROVAL PRIOR TO POURING CONCRETE.

3. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS". HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305. COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
4. WATER REDUCING ADMIXTURE SHALL BE USED IN ALL CONCRETE.
5. AIR ENTRAINING ADMIXTURE IN ACCORDANCE WITH ACI 301 TABLE 3.4.1 SHALL BE USED IN ALL CONCRETE EXPOSED TO FREEZING AND THAWING DURING CONSTRUCTION AND/OR SERVICE CONDITIONS.
6. WATER/CEMENT RATIO SHALL NOT EXCEED 0.50 FOR ANY CONCRETE SUBJECTED TO FREEZING/ THAWING.
7. ALL PUMPED CONCRETE SHALL HAVE A WATER/CEMENT RATIO LESS THAN 0.50 AND SHALL CONTAIN A HIGH RANGE WATER REDUCING ADMIXTURE (SUPERPLASTICIZER).
8. IN NO CASE SHALL A WATER/CEMENT RATIO EXCEED THE FOLLOWING:

f'c 3000 PSI 0.60 MAX. w/c RATIO

9. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 U.N.O. - EXCEPT THAT REINFORCING WHICH IS REQUIRED TO BE WELDED SHALL CONFORM TO ASTM A706. ALL WELDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH AWS D1.4. EPOXY COATED REINFORCING SHALL CONFORM TO ASTM A-775.
10. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A-185.
11. ALL REINFORCING STEEL SHALL BE SET AND TIED IN PLACE PRIOR TO POURING OF CONCRETE. DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER.
12. REINFORCING STEEL, INCLUDING HOOKS AND BENDS, SHALL BE DETAILED IN ACCORDANCE WITH ACI 315. ALL REINFORCING STEEL INDICATED AS BEING CONTINUOUS (CONT) SHALL BE LAPPED "LTS" PER EMBEDMENT AND LAP SPLICE SCHEDULE UNLESS OTHERWISE NOTED.
13. UNLESS OTHERWISE NOTED, THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

A.	CONCRETE EXPOSED TO EARTH OR WEATHER:	
	#6 THROUGH #18 BARS	- 2"
	#5 BAR, W31 OR D31 WIRE & SMALLER	- 1 1/2"
B.	CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
	SLABS, WALLS & JOISTS	
	#14 AND #18 BARS	- 1 1/2"
	#11 BAR AND SMALLER	- 3/4"
	BEAMS AND COLUMNS	
	PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	- 1 1/2"
	SHELLS, FOLDED PLATE MEMBERS	
	#6 BAR AND LARGER	- 3/4"
	#5 BAR, W31 OR D31 WIRE AND SMALLER	- 1/2"
C.	CONCRETE CAST AGAINST EARTH	- 3"

14. BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO INSURE MINIMUM CONCRETE COVER AND PLACEMENT. BAR SUPPORTS SHALL BE PLASTIC TIPPED OR STAINLESS STEEL.
15. ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
16. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH DOCUMENTATION THAT ALL MATERIALS CONFORM TO THE QUALITY STANDARDS SPECIFIED IN THE GENERAL BUILDING CODE.
17. IN ORDER TO AVOID CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE PATTERN.THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR SHALL BE LIMITED TO 80 FEET.
18. FORMWORK SHALL REMAIN IN PLACE UNTIL CONCRETE HAS OBTAINED AT LEAST 90% OF ITS 28 DAY COMPRESSIVE STRENGTH.THE CONTRACTOR SHALL PROVIDE ALL SHORING AND RE-SHORING.
19. CONSTRUCTION JOINTS, REQUIRED TO FACILITATE CONSTRUCTION, ARE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND MAY REQUIRE ADDITIONAL REINFORCING. SUCH JOINTS SHALL BE CLEARLY DETAILED ON THE SHOP DRAWINGS AND ALL REINFORCING SHALL PASS CONTINUOUSLY THROUGH THE JOINT.
20. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, REGLETS, WASHES, MASONRY ANCHORS, BRICK LEDGE ELEVATIONS, SLAB DEPRESSIONS AND MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGELS, ETC.
21. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES.WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301.
22. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR UNDERFLOOR, PERIMETER AND OTHER DRAINS AND FOR SLEEVES,OUTLET BOXES, CONDUIT, ANCHORS, ETC. THE VARIOUS TRADES ARE RESPONSIBLE FOR THEIR ITEMS.
23. FILL SLABS, NOT SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE REINFORCED WITH A MINIMUM OF 6X6-W1.4XW1.4 WWM UNLESS NOTED OTHERWISE ON OTHER DRAWINGS OR IN THE SPECIFICATIONS.
24. REINFORCING BARS SHALL BE WELDED ONLY WHERE SHOWN ON THE STRUCTURAL DRAWINGS AND WELDS SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE - REINFORCING STEEL" (AWS D1.4). NO OTHER REINFORCING MAY BE WELDED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. TACK WELDING OF ANY REINFORCING IS STRICTLY PROHIBITED.
25. ALL REINFORCING TERMINATING AT THE TOPS OF THE COLUMNS AND PILASTERS SHALL BE HOOKED, U.N.O.
26. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER A MINIMUM OF 48 HOURS PRIOR TO ALL CONCRETE POURS IN ORDER TO PERMIT REINFORCING STEEL REVIEW IF REQUIRED BY THE STRUCTURAL ENGINEER.

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Orchards
PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
GENERAL NOTES

SHEET #:
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9.0 PLYWOOD/GYPBOARD SHEATHING TO WOOD NOTES:

1. ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS.
2. ALL ROOF PANEL SHEATHING SHALL BE 7/16" (NOM.) TYPE CDX, EXP. 1 APA RATED 24/16 SHEATHING. SUITABLE EDGE SUPPORT SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING, UNLESS OTHERWISE NOTED CONNECT ROOF SHEATHING WITH 6d COMMON NAILS AT 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS.
3. ALL FLOOR SHEATHING SHALL BE 19/32" (NOM.) APA RATED STURD-I-FLOOR, @ 16" O.C. EXP. 1, WITH TONGUE AND GROOVE EDGE. UNLESS OTHERWISE NOTED CONNECT FLOOR SHEATHING WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS. FIELD-GLUE USING ADHESIVES MEETING APA SPECIFICATIONS AFG-01, APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. ALL WALL PANEL SHEATHING, INCLUDING DESIGNATED SHEAR WALLS, SHALL BE 7/16" (NOM.) TYPE CDX, EXP. 1 APA RATED 24/16 SHEATHING. UNLESS OTHERWISE INDICATED, CONNECT WALL SHEATHING WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS. SEE SHEAR WALL SCHEDULE FOR FASTENING REQUIREMENTS.
5. INSTALL ALL PLYWOOD SHEATHING WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS. ALLOW 1/8" SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.
6. ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF PNUEMATIC NAIL GUNS MAY BE USED PROVIDED (1) NAIL IS INSTALLED FOR EVERY OVERDRIVEN NAIL (THOSE SUNK > 1/8" INTO SHEATHING). THE USE OF STAPLES IS PROHIBITED.
7. ALL EXTERIOR WALLS SHALL BE SHEATHED ON BOTH FACES WITH GYP-BOARD SHEATHING (SEE ARCH. DWGS. FOR THICKNESS) AND CONNECTED WITH 5d COOLER NAILS SPACED 7" O/C AT SUPPORTED PANEL EDGES AND INTERMEDIATE SUPPORTS.
8. PROVIDE 2x BLOCKING AT UNSUPPORTED PANEL EDGES AS FOLLOWS: ROOFS AND FLOORS - ONLY WHERE INDICATED ON PLAN WALLS - PER THE SHEAR WALL SCHEDULE ON SHEET S1.2.

10.0 WOOD FRAMING NOTES:

1. ALL WOOD FRAMING MATERIAL SHALL BE SURFACED DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALLOWABLE STRESS REQUIREMENTS OF ALL MATERIAL SHALL BE IN ACCORDANCE WITH THE U RATING AS NOTED BELOW
2. ALL STUD AND WALL FRAMING SHALL BE EITHER OF THE FOLLOWING:
   A. NO. 2 GRADE SOUTHERN YELLOW PINE (SYP)
   B. NO. 2 GRADE SPRUCE-PINE-FIR (SPF)
3. ALL JOIST, RAFTER & MISC. FRAMING SHALL BE NO. 2 GRADE, SOUTHERN PINE. PROVIDE FULL-DEPTH (OR METAL) BRIDGING AT MIDSPAN AND AT A MAXIMUM SPACING OF 8' -0" O/C IN BETWEEN.
4. ALL FRAMING EXPOSED TO THE WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS. WHERE POSSIBLE, ALL CUTS AND HOLES SHOULD BE COMPLETED BEFORE TREATMENT. CUTS AND HOLES DUE TO ON-SITE FABRICATION SHALL BE BRUSHED WITH 2 COATS OF COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2% METALLIC COPPER IN SOLUTION (PER AWPA STD. M4).
5. THE CONTRACTOR SHALL CAREFULLY SELECT LUMBER TO BE USED IN LOADBEARING APPLICATIONS. THE LENGTH OF SPLIT ON THE WIDE FACE OF 2" NOMINAL LOADBEARING FRAMING SHALL BE LIMITED TO LESS THAN 1/2 OF THE WIDE FACE DIMENSION. THE LENGTH OF SPLIT ON THE WIDE FACE OF 3" (NOMINAL) AND THICKER LUMBER SHALL BE LIMITED TO 1/2 OF THE NARROW FACE DIMENSION.
6. ALL NAILING NOT OTHERWISE INDICATED SHALL BE IN ACCORDANCE WITH THE "NAILING SCHEDULE" ON SHEET S1.1. NAILING SHALL NOT BE OVERDRIVEN.
7. PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS WHICH RUN PARALLEL WITH JOISTS AND UNDER ALL CONCENTRATED LOADS FROM FRAMING ABOVE.
8. PROVIDE HEADER BEAMS OF THE SAME SIZE AS JOISTS OR RAFTERS TO FRAME AROUND OPENINGS IN THE PLYWOOD DECK UNLESS OTHERWISE INDICATED.
9. STRUCTURAL STEEL PLATE CONNECTORS SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND BE 1/4" THICK UNLESS OTHERWISE INDICATED. BOLTS CONNECTING WOOD MEMBERS SHALL BE PER ASTM A-307 AND BE 3/4" DIAMETER UNLESS OTHERWISE INDICATED. PROVIDE WASHERS FOR ALL BOLT HEADS AND NUTS IN CONTACT WITH WOOD SURFACES.
10. BOLT HOLES SHALL BE CAREFULLY CENTERED AND DRILLED NOT MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. BOLTED CONNECTIONS SHALL BE SNUGGED TIGHT BUT NOT TO THE EXTENT OF CRUSHING WOOD UNDER WASHERS.
11. PREFABRICATED "MICRO-LAM" LUMBER HEADERS AND BEAMS SHALL BE AS MANUFACTURED BY "TRUSS JOIST MacMILLAN CORP.", BOISE, IDAHO OR APPROVED EQUAL. MICRO-LAM MATERIAL SHALL BE 2.0E, SOUTHERN PINE. DO NOT CUT OR NOTCH MICRO-LAM MATERIAL WITHOUT THE MANUFACTURER'S APPROVAL.
12. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY "SIMPSON STRONG-TIE COMPANY", (TEL 800-999-5099), OR APPROVED EQUAL. INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS. ALL STEEL SHALL HAVE A MINIMUM THICKNESS OF 0.04 INCHES (PER ASTM A446, GRADE A) AND BE GALVANIZED (COATING G60).
13. HOLES AND NOTCHES DRILLED OR CUT INTO WOOD FRAMING SHALL NOT EXCEED THE REQUIREMENTS OF N.C.B.C. 2018.
14. ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE HOT DIP GALVANIZED.

11.0 PRE-ENGINEERED WOOD TRUSS NOTES:

1. WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE FOLLOWING LOADS:

A: MINIMUM GRAVITY LOADING:

	ROOF TRUSSES	FLOOR TRUSSES
TOP CHORD LIVE LOAD:	20 PSF	40 PSF
DEAD LOAD:	8 PSF	15 PSF
BOTTOM LIVE LOAD:	———	———
DEAD LOAD:	10 PSF	5 PSF

B: WIND LOADING CASE: (PER N.C.B.C. 2002, SECTION 1609.8) SEE 'DESIGN CRITERIA NOTES' FOR WIND COMPONENT CRITERIA

TOP CHORD LOADING: ON THE SURFACE AREA

NET UPLIFT: P = (TOP CHORD DL X .67) + Pv X 1 X Kh X (GCpi) WITH Gp PER BOCA FIG. 1609.8.1(2)

BOTTOM CHORD LOADING: ON THE SURFACE AREA

NET UPLIFT: P = (BOTTOM CHORD DL X .67) + Pv X 1 X Kh X (GCpi) WITH Gpi AS NOTED HEREIN

2. WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION OF THE NATIONAL FOREST PRODUCTS ASSOCIATION. THE DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES OF THE TRUSS PLATE INSTITUTE AND N.C.B.C 2303.4
3. WOOD MATERIALS SHALL BE SOUTHER PINE, DOUGLAS FIR OR LARCH AND SHALL BE KILN DRIED AND USED AT 19% MAXIMUM MOISTURE CONTENT. PROVIDE GRADE NO. 2 OR AS REQUIRED TO SATISFY STRESS REQUIREMENTS.
4. CONNECTOR PLATES SHALL BE NOT LESS THAN 0.036 INCHES (20 GAUGE) IN COATED THICKNESS, SHALL MEET OR EXCEED ASTM GRADE A OR HIGHER AND SHALL BE HOT DIPPED GALVANIZED ACCORDING TO ASTM A-525 (COATING G60). MINIMUM STEEL YIELD STRESS SHALL BE 33,000 PSI.
5. TRUSSES SHALL BE FABRICATED IN A PROPERLY EQUIPPED MANUFACTURING FACILITY OF A PERMANENT NATURE. TRUSSES SHALL BE MANUFACTURED BY EXPERIENCED WORKMEN, USING PRECISION CUTTING, JIGGING AND PRESSING EQUIPMENT UNDER THE REQUIREMENTS IN QUALITY CONTROL STANDARD QST-88 OF THE TRUSS PLATE INSTITUTE.
6. SECONDARY BENDING STRESSES IN TRUSS TOP AND BOTTOM CHORDS DUE TO DEAD, LIVE AND WIND LOADS SHALL BE CONSIDERED IN THE DESIGN. LOAD DURATION FACTORS SHALL BE PER THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".
7. WOOD TRUSSES SHALL BE ERECTED IN ACCORDANCE WITH THE TRUSS MANUFACTURER'S REQUIREMENTS. THIS WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED CONTRACTOR. TRUSS ERECTION BY AN INEXPERIENCED OR NON-QUALIFIED CONTRACTOR CAN RESULT IN CONSTRUCTION COLLAPSE AND/OR SERIOUS INJURY AND DAMAGE.
8. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION AND PERFORMANCE OF THE TRUSSES. THE GUIDELINES SET FORTH BY THE TRUSS PLATE INSTITUTE PUBLICATION "HIB-91, COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES" SHALL BE A MINIMUM REQUIREMENT.
9. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED,DRILLED NOR OTHERWISE ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
10. SUBMIT COMPLETE SHOP DRAWINGS FOR ALL WOOD TRUSSES SHOWING MEMBER SIZES, SPECIES, GRADE, MOISTURE CONTENT, SPAN, CAMBER, DIMENSIONS, CHORD PITCH, BRACING REQUIREMENTS AND LOADINGS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN _____.
11. SEE THE "SCISSOR TRUSS NOTE" FOR ADDITIONAL REQUIREMENTS.

12.0 LAMINATED VENEER LUMBER (LVL) NOTES:

1. SUBMIT MANUFACTURER'S DESCRIPTIVE LITERATURE INDICATING MATERIAL COMPOSITION, THICKNESS, DIMENSIONS, LOADING AND FABRICATION DETAILS.
2. SUBMIT MANUFACTURER'S LITERATURE INDICATING INSTALLATION DETAILS. INCLUDE LOCATIONS AND DETAILS OF BEARING, BLOCKING, BRIDGING AND CUTTING FOR WORK BY OTHERS.
3. LVL BASIS OF DESIGN IS PER 2.0E GP LAM HAVING THE FOLLOWING PROPERTIES.
   A. QUALIFIED TO ASTM D 5456 BY APA- THE ENGINEERED WOOD ASSOCIATION.
   B. MODULUS OF ELASTICITY E = 2.0 x 10 PSI
   C. SHEAR MODULUS OF ELASTICITY G = 0.125 x 10 PSI
   D. FLEXURAL STRESS Fb = 2,900 PSI
   E. HORIZONTAL SHEAR Fv = 285 PSI
   F. COMPRESSION PERP. TO GRAIN Fc = 845 PSI
4. DELIVER MATERIALS TO THE JOB SITE IN MANUFACTURER'S ORIGINAL PACKAGING, CONTAINERS AND BUNDLES WITH MANUFACTURER'S IDENTIFICATION INTACT AND LEGIBLE.
5. STORE AND HANDLE MATERIALS TO PROTECT AGAINST CONTACT WITH DAMP AND WET SURFACES, EXPOSURE TO WEATHER, BREAKAGE AND DAMAGE. PROVIDE AIR CIRCULATION UNDER COVERING AND AROUND STACKS OF MATERIALS.
6. EXCEPT FOR CUTTING TO LENGTH, GP LAM LVL BEAMS AND HEADERS SHALL NOT BE CUT, DRILLED OR NOTCHED, EXCEPT AS NOTED IN MANUFACTURER'S LITERATURE.
7. PROVIDE GP LAM LVL BEAMS AND HEADERS WHERE INDICATED ON DRAWINGS USING HANGERS AND ACCESSORIES SPECIFIED.
8. INSTALL GP LAM LVL BEAMS AND HEADERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

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Orchards PROPERTIES

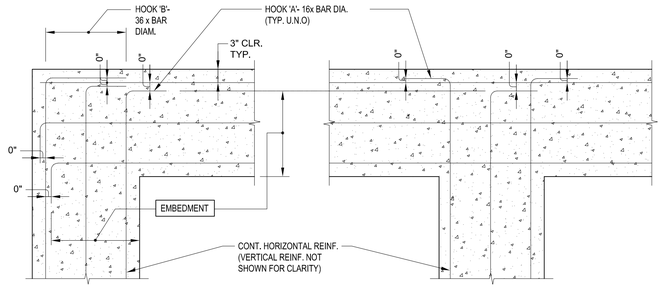
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

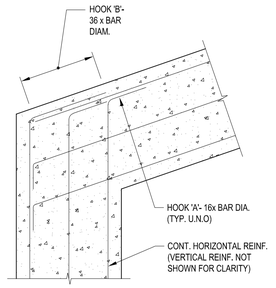
DWG DECRIPTION :
GENERAL NOTES

SHEET #:
S-0.01



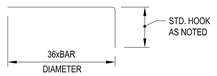
@ FOOTING CORNERS

@ FOOTING INTERSECTIONS



@ FOOTING NON-ORTHOGONAL CORNERS

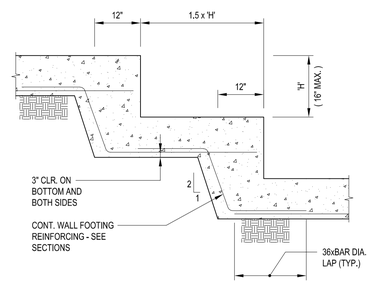
NOTES:
1. HOOK 'A' MAY BE OMMITTED IF 'EMBEDMENT' IS MORE THAN LTE PER SCHEDULE.
2. DOWELS MAY BE USED IN LIEU OF HOOKING CONTINUOUS BARS AS SHOWN.
3. THE DETAIL IS SHOWN FOR A MULTIPLE LINE OF REINFORCING. DETAIL IS SIMILAR FOR A SINGLE LINE.



OPTIONAL DOWEL

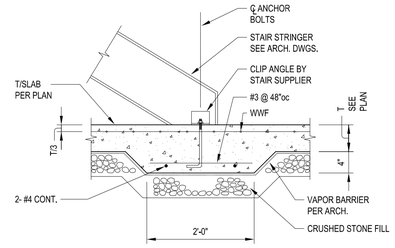
SCALE: 3/4" = 1'-0"

1 TYP. STRIP FOOTING CORNER INTERSECTION & NON-ORTHOGONAL



NO SCALE

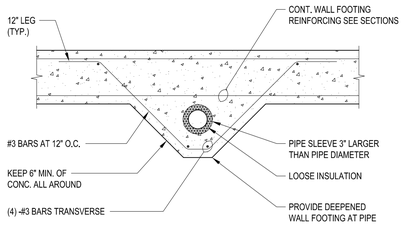
2 STEPPED FOOTING



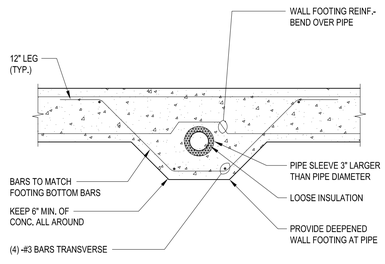
NOTE: EXTEND THICKENED SLAB BETWEEN STAIR STRINGERS AND 1'-0" BEYOND EACH.

AT STAIR STRINGER

3 TYP. THICKENED SLAB DETAIL



TOP OF SLEEVE DOES NOT INTERRUPT REINFORCING

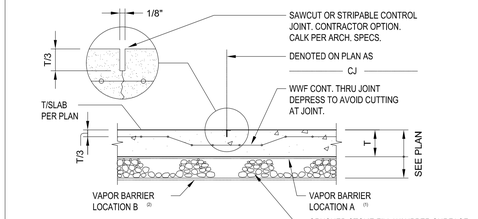


TOP OF SLEEVE INTERRUPTS BOTTOM REINFORCING

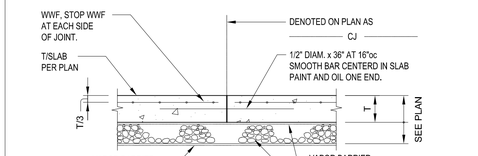
NOTE: THESE DETAILS DO NOT APPLY IF THE TOP OF THE PIPE IS MORE THAN 4" BELOW BOTTOM OF WALL FOOTING

NO SCALE

4 TYP. STRIP FOOTING CORNER INTERSECTION & NON-ORTHOGONAL



TYPICAL SLAB CONTRACTION JOINT

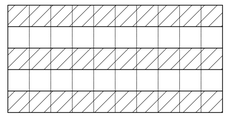


TYPICAL SLAB CONSTRUCTION JOINT

NOTES

1) VAPOR BARRIER LOCATION A APPLIES WHEN SLAB IS PLACED WITH OUT WATER TIGHT ROOFING SYSTEM IN PLACE

2) VAPOR BARRIER LOCATION B APPLIES WHEN SLAB IS PLACED WITH WATER TIGHT ROOFING SYSTEM IN PLACE



RECOMENDED SLAB PLACING SEQUENCE DETAIL

NO SCALE

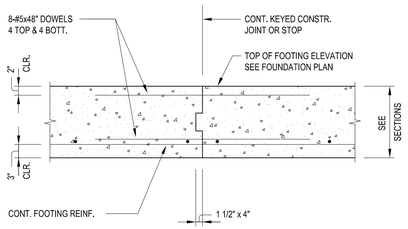
5 TYP. SLAB CONSTRUCTION/ CONTROL JOINT

WALL FOOTING SCHEDULE			Fp = 2000 psf
MARK	SIZE (LxWxD)	REINFORCING	REMARKS
WF1	2'-6"x1'-0"	(3) - #5 CONT BOTT. #5 @ 14" O.C.	
WF2	2'-6"x1'-0"	(3) - #5 TOP & BOTT #5 @ 13" O.C. T & B	

TYPE (WF1) TYPE (WF2)

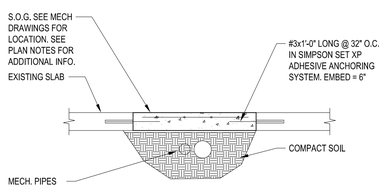
NO SCALE

6 WALL FOOTING SCHEDULE



NO SCALE

7 TYP. FOOTING CONST. JOINT



NO SCALE

8 TYP. TRENCH DETAIL

F_Y = 60,000 PSI F_C = 3,000 PSI — CYLINDER STRENGTH

BAR SIZE	COMPRESSION		TENSION EMBEDMENT LENGTH (IN)				TENSION LAP SPLICE LENGTH - CLASS B, (IN)			
	EMBEDMENT LENGTH (IN.)	LAP SPLICE LENGTH (IN.)	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
			CATEGORY		CATEGORY		CATEGORY		CATEGORY	
			I	II	I	II	I	II	I	II
#3	9	12	22	33	17	25	29	43	23	33
#4	11	15	29	43	22	33	38	56	29	43
#5	14	19	36	54	28	42	47	71	37	55
#6	17	23	43	65	33	50	56	85	43	65
#7	20	27	63	94	48	72	82	123	63	94
#8	22	30	72	107	55	83	94	140	72	108
#9	25	34	81	121	62	93	106	158	81	121
#10	28	39	91	136	70	105	119	177	91	137
#11	31	43	101	151	78	116	132	197	102	151
NOTATION	LCE	LCS	LTE				LTS			

CATEGORY	COVER	CLEAR SPACING	REMARKS
I	≥ db	≥ db	BEAM STIRRUPS OR COLUMN TIES THROUGHOUT DEVELOPMENT LENGTH CODE MINIMUM
I	≥ db	≥ 2db	
II	OTHER CASES		

NOTES: FOR EMBEDMENT & SPLICE SCHEDULES

1. THE CATEGORY OF THE REINFORCEMENT FOR DETERMINING THE EMBEDMENT & SPLICE LENGTHS SHALL BE OBTAINED FROM THE BOTTOM TABLE. (db = BAR DIAMETER)
2. THE SCHEDULE TO THE LEFT APPLIES FOR NORMAL WEIGHT CONCRETE.
3. TENSION LAP SPLICE LENGTH CATEGORIES I,II ARE BASED ON ACI CLASS 'B' CONDITIONS. LESSER LENGTHS MAY BE ACCEPTABLE, BUT ONLY IF:
   (a) THE AREA OF REINFORCEMENT PROVIDED IS AT LEAST TWICE THAT REQ'D BY ANALYSIS OVER THE ENTIRE LENGTH OF THE SPLICE
   AND
   (b) ONE-HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THE REQUIRED LAP LENGTH. THE CONTRACTOR CAN REQUEST SUCH REDUCTION BY INDICATING THE FOLLOWING:
   A. WHERE THIS SIZE AND NUMBER OF TIES OR SPIRALS PERMITS THE REDUCTION OF LAP LENGTH, THOSE BARS SHALL BE INDICATED ON THE DETAILS.
   B. WHERE COMPUTED STRESS VALUES PERMIT THE REDUCTION OF LAP LENGTH, COMPUTATIONS SHALL BE SUBMITTED FOR REVIEW.
   C. THE APPLICATION SECTION OF THE ACI CODE, PERMITTING THE LESSER SPLICE LENGTH, SHALL BE INDICATED ON THE SUBMITTED MATERIAL.
4. USE TENSION LAP SPLICE LENGTH (L.T.S.) AT ALL SPLICE LOCATIONS NOT SPECIFICALLY DETAILED UNLESS INDICATED OTHERWISE ON PLANS OR DETAILS.
5. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
6. WHERE BARS OF DIFFERENT SIZE ARE TO BE SPLICED, THE SPLICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGEST BAR.
7. FOR BUNDLED BARS INCREASE EMBEDMENT & SPLICE LENGTHS BY 20% FOR 3-BAR BUNDLE AND BY 33% FOR 4-BAR BUNDLE. IN DETERMINING THE CATEGORY OF BUNDLE REINF., TREAT THE BUNDLE AS A SINGLE BAR WITH A DIAMETER DERIVED FROM THE EQUIVALENT TOTAL AREA.
8. FOR TENSION SPLICING OF #14 BARS USE MECHANICAL COUPLERS. MECHANICAL COUPLERS MUST DEVELOP A MINIMUM OF 125% OF SPECIFIED YIELD STRENGTH (fy)OF BAR.
9. WHEN REINFORCING BARS ARE EPOXY-COATED, THE VALUE FOR TENSION EMBEDMENT AND LAP SPLICE LENGTHS FOR TOP BARS SHALL BE INCREASED BY 30% AND THE VALUES FOR THE OTHER BARS SHALL BE INCREASED BY 50%
10. SPLICE LENGTHS SHALL BE DIMESIONED AT ALL LOCATIONS ON ALL SHOP DRAWINGS.

EMBEDMENT AND LAP SPLICE SCHEDULE

JDH STRUCTURAL ENGINEERS, PLLC
19545 GREENTREE WAY, SUITE B
CORNELIUS, NORTH CAROLINA 28031
phone 704.997.7072 fax 980.312.6520
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NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.00

WALL STUD SCHEDULE

MARK	LEVEL	STUDS	SPACING
W1	B - ROOF (NOTES: HI,IS)	2 x 6 SPF NO. 2	24" O.C.
W2	B - 1	(3)2 x 4 SPF NO. 2	24" O.C.
	1 - 3	(2)2 x 4 SPF NO. 2	24" O.C.
	3 - ROOF	2 x 4 SPF NO. 2	24" O.C.
W3	1 - ROOF	2 x 4 SPF NO. 2	24" O.C.

NOTES:
1. 2x6 STUDS WITH SAME SPECIES AND GRADE CAN BE SUBSTITUTED FOR 2x4 STUDS WHERE INDICATED ON ARCH DWGS. TO ACCOMMODATE M.E.P. CHASES, ETC.
2. SPF DENOTES SPRUCE-PINE-FIR.
3. BRACE AT 1/3 POINTS.
4. BRACE AT MID-POINT.
5. NO ADDITIONAL BRACING REQUIRED WHERE WALL TYPE IS WITHIN A SHEAR WALL.

1 WALL STUD SCHEDULE

FASTENING REQUIREMENTS FOR MULTIPLE MEMBERS

PIECES IN MEMBER	MAX. SPAN	NAILED 16d COMMON	MAX. SPAN	NAILED 16d COMMON
2	20'	2 ROWS AT 12" oc	20'	2 ROWS AT 24" oc STAGGER AT 12"
	30'	3 ROWS AT 12" oc	40'-6"	2 ROWS AT 12" oc
3	15'	2 ROWS AT 12" oc	15'	2 ROWS AT 24" oc STAGGER AT 12"
	22'-6"	3 ROWS AT 12" oc	30'	2 ROWS AT 12" oc
4	-	N / A	13'-6"	2 ROWS AT 24" oc STAGGER AT 12"
	-	N / A	27'	2 ROWS AT 12" oc

NOTES:
1. TOP AND BOTTOM ROWS OF CONNECTORS SHALL BE 2" FROM EDGE
2. BOLT HOLES ARE TO BE THE SAME DIAMETER AS THE BOLT. EVERY BOLT MUST BOLT HOLES ARE EXTEND THROUGH THE FULL THICKNESS OF THE MEMBER. USE WASHERS UNDER HEAD AND NUT. CARRIAGE BOLTS MAY BE USED, BUT THE OUTERMOST OF THE HEAD MAY NOT BE DRAWN IN BEYOND FLUSH WITH THE OUTSIDE FACE OF THE LVL MEMBER.
3. FOR THREE-PIECE MEMBER, SPECIFIED NAILING IS FROM EACH SIDE.
4. FOUR-PLY MEMBERS, REGARDLESS OF DEPTH, MUST BE BOLTED.

MULTIPLE MEMBERS

2 FASTENING REQUIREMENTS

TYP. WOOD HEADER SCHEDULE

2x4 STUD WALLS

WALL STUDS	ROUGH OPENING WIDTH "W"	SIZE	JAMB STUDS	
			JACKS	KINGS
2x4	"W" ≦ 3'-0"	(2) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	SINGLE
2x4	3'-0" < "W" < 6'-0"	(2) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	DOUBLE
2x4	6'-0" < "W" < 9'-0"	(2) 2x10 w/ 1/2" PLYWOOD PL	DOUBLE	DOUBLE
2x4	9'-0" < "W" < 12'-0"	(2) 1 3/4" X 11" LVL	DOUBLE	TRIPLE
2x4	12'-0" > "W"	SEE SECTIONS	—	—

TYP. WOOD HEADER SCHEDULE

2x6 STUD WALLS

WALL STUDS	ROUGH OPENING WIDTH "W"	SIZE	JAMB STUDS	
			JACKS	KINGS
2x6	"W" ≦ 3'-0"	(3) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	SINGLE
2x6	3'-0" < "W" < 6'-0"	(3) 2x8 w/ 1/2" PLYWOOD PL	SINGLE	DOUBLE
2x6	6'-0" < "W" < 9'-0"	(3) 2x10 w/ 1/2" PLYWOOD PL	DOUBLE	DOUBLE
2x6	9'-0" < "W" < 12'-0"	(3) 1 3/4" X 11" LVL	DOUBLE	TRIPLE
2x6	12'-0" > "W"	SEE SECTIONS	—	—

NOTE:
SEE "LOOSE LINTEL" SCHEDULE FOR BRICK SHELF ANGLES

3 WOOD HEADER SCHEDULE

JOIST SCHEDULE

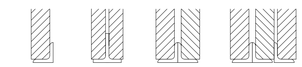
MARK	MEMBER	SPACING
J1	2 x 10 SPF NO.2	16" OC

NOTES:
1. WHERE DOUBLE JOISTS ARE REQUIRED, PROVIDE "TYPICAL POST" AT EACH END. SEE POST SCHEDULE ON S1.00 SERIES SHEETS.
2. 2x8 BLOCKING OR 2x12 BLOCKING @ 6'-0" O.C. MAX AS BRIDGING.

4 JOIST SCHEDULE

STEEL LINTEL SCHEDULE

CLEAR OPENING	ONE ANGLE FOR EA. 4" FOR 4", 8" & 12" WALLS	6" WALL	10" WALL	MIN. BRG.
0'-8" TO 3'-4"	L 3 1/2 x 3 1/2 x 1/4	WT 5 x 6	(2) L 4 x 4 x 1/4	4"
3'-4" TO 5'-4"	L 4 x 3 1/2 x 1/4 (LLV)	WT 5 x 6	(2) L 4 x 4 x 5/16	6"
5'-4" TO 7'-4"	L 5 x 3 1/2 x 5/16 (LLV)	WT 7 x 11	(2) L 6 x 4 x 1/4 (LLV)	8"
7'-4" TO 10'-0"	L 6 x 3 1/2 x 5/16 (LLV)	WT 7 x 13	(2) L 6 x 4 x 5/16 (LLV)	8"



NOTES:
1. WHERE LINTELS BEAR ON HOLLOW MASONRY UNITS FILL ALL CORES UNDER BEARING WITH GROUT FROM BOTTOM OF LINTEL TO 16" MIN. BELOW LINTEL.
2. THESE LINTELS ARE NOT DESIGNED FOR LINTELS THAT CARRY FLOOR LOAD.
3. ALL LINTELS ARE GALVANIZED UNLESS NOTED OTHERWISE.

5 STEEL LINTEL SCHEDULE

WOOD BEAM SCHEDULE

MARK	SIZE	POST
B1	(2)2x12 SPF NO.2	SEE PLAN
B2	(2)1-3/4x11-7/8 LVL (2.0E)	SEE PLAN
B3	(3)1-3/4x14 LVL (2.0E)	SEE PLAN
B4	(2)2x10 SPF NO.2	SEE PLAN
B5	(3)1-3/4x11-7/8 LVL (2.0E)	SEE PLAN

NOTES:
1. SEE WALL OPENING SCHEDULE. TYPICAL FOR OPENING FRAMING NOT SPECIFICALLY NOTED ON THE PLANS.
2. SEE TYPICAL POST SCHEDULE & ELEVATION ON S1.00 SERIES SHEETS
3. IF NO POST IS SHOWN ON PLAN, USE (2) WALL STUDS UNDER BEAM

6 WOOD BEAM SCHEDULE

WOOD HEADER SCHEDULE

MARK	SIZE	JACKS	KINGS
H1	(3)1-3/4x9-1/4 LVL (2.0E)	TRIPLE	DOUBLE
H2	(3)2x12 SPF NO.2	DOUBLE	DOUBLE

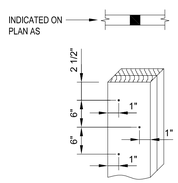
NOTES:
1. SEE WALL OPENING SCHEDULE. TYPICAL FOR OPENING FRAMING NOT SPECIFICALLY NOTED ON THE PLANS.

7 WOOD HEADER SCHEDULE

NAIL FASTENER SCHEDULE

CONNECTION, LOCATION	NAIL	NUMBER OR SPACING
BAND JOIST TO SILL OR TOP PLATE, TOE NAIL	8d	6" o.c.
JOIST TO BAND JOIST, FACE NAIL	16d COMMON	3
JOIST TO SILL OR GIRDER, TOE NAIL	8d COMMON	3
BRIDGING TO JOIST, TOE NAIL EACH END	8d COMMON	2
LEDGER STRIP	16d COMMON	3 AT EACH JOIST
1x6 OR LESS SUBFLOOR TO EACH JOIST, FACE NAIL	8d COMMON	2
OVER 1x6 SUBFLOOR TO EACH JOIST, FACE NAIL	8d COMMON	3
2-INCH SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	16d COMMON	2
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d COMMON	16" O.C.
TOP OR SOLE PLATE TO STUD, END NAIL	16d COMMON	2
STUD TO SOLE PLATE, TOE NAIL	8d COMMON	4
DOUBLED STUDS, FACE NAIL	10d COMMON	24" O.C.
DOUBLED TOP PLATES, FACE NAIL	10d COMMON	16" O.C.
TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	16d COMMON	2
CONTINUOUS HEADER, TWO PIECES	16d COMMON	16" O.C. ALONG EDGE
CEILING JOISTS TO PLATE, TOENAIL	8d COMMON	3
CONTINUOUS HEADER TO STUD, TOENAIL	8d COMMON	4
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	16d COMMON	3
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	16d COMMON	3
RAFTER TO PLATE, TOE NAIL	8d COMMON	3
1-INCH BRACE TO EACH STUD AND PLATE, FACE NAIL	8d COMMON	2
WIDER THAN 1x8 SHEATHING TO EACH BEARING, FACE NAIL	8d COMMON	3
BUILT-UP CORNER STUDS	16d COMMON	24" O.C.
BUILT-UP GIRDER OR BEAMS, THREE MEMBERS	20d COMMON	32" O.C. TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
2" PLANKS, AT EA. BEARING	16d COMMON	2
COLLAR TIE TO RAFTER, FACE NAIL	10d COMMON	3
JACK RAFTER TO HIP, TOE NAIL OR FACE NAIL	10d COMMON 16d COMMON	3 2
ROOF RAFTER TO 2-by RIDGE BEAM, TOE NAIL OR FACE NAIL	16d COMMON 16d COMMON	2 2
JOIST TO BAND JOIST, FACE NAIL	16d COMMON	3

8 NAIL FASTENER SCHEDULE

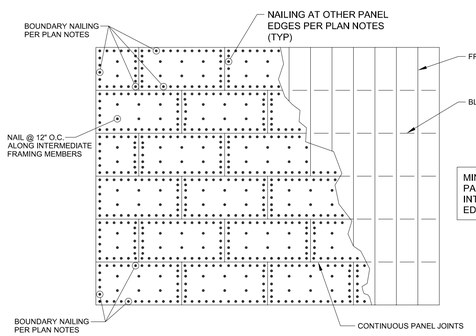


WOOD POST SCHEDULE

POST		CONNECTION	
MARK	SIZE	BASE	CAP
P1	6x6 SPF NO. 2	PBS66	CC64/ECC64
P2	5.25x5.25 PSL 2.0E	PBS66	CC64/ECC64
P3	(3)2x6 SPF NO. 2		
P4	HSS3-1/2x3-1/2x3/16		
P5	4x4 SPF NO. 2	PBS44	CC44/ECC44
P6	3.5x3.5 PSL 2.0E	PBS44	CC44/ECC44
P7	3.5x5.25 PSL 2.0E	PBS46	CC46
P8	(3)2x4 SPF NO. 2		

ALL POSTS SHALL BE SPRUCE PINE FIR- NO. 2 OR BETTER
USED TO BUILD UP STUDS SHALL BE 10d COMMON WIRE NAILS
W/ MINIMUM DIAMETER= 0.148 IN. AND MINIMUM LENTGH= 3 IN.
SEE NAILING SCHEDULE BELOW

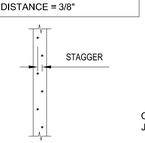
9 POST SCHEDULE



DECKING LAYOUT @ BLOCKED DIAPHRAGMS

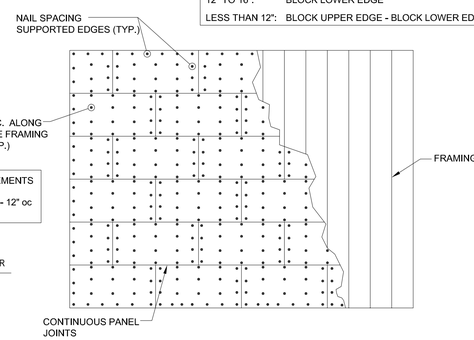
NOTES:
1. BOUNDARY NAILING SHALL INCLUDE NAILING OVER LENGTH OF SHEAR WALLS
2. BOUNDARY NAILING SHALL INCLUDE NAILING ALONG ALL CONTINUOUS PANEL JOINTS
3. BOUNDARY NAILING SHALL INCLUDE NAILING ENTIRE PERIMETER OF DECKING
4. SPACE PANELS 1/8" MINIMUM FOR PANEL EXPANSION (ENDS AND EDGES)

MINIMUM NAILING REQUIREMENTS
PANEL ENDS - 6" oc
INTERMEDIATE SUPPORTS - 12" oc
EDGE DISTANCE = 3/8"



STAGGER FASTENERS TO MINIMIZE WOOD SPLITTING PARALLEL TO WOOD GRAIN

NARROW ROOF SHEATHING PANEL REQUIREMENTS:
IF WOOD SHEATHING PANEL IS:
16" TO 24": PROVIDE 2 CLIPS LOWER EDGE - BLOCK LOWER EDGE
12" TO 16": BLOCK LOWER EDGE
LESS THAN 12": BLOCK UPPER EDGE - BLOCK LOWER EDGE



DECKING LAYOUT @ UNBLOCKED DIAPHRAGMS

NOTES:
1. SUPPORTED EDGE NAILING SHALL INCLUDE NAILING OVER LENGTH OF SHEAR WALLS
2. SUPPORTED EDGE NAILING SHALL INCLUDE NAILING ENTIRE PERIMETER OF DECKING
3. SPACE PANELS 1/8" MINIMUM FOR PANEL EXPANSION (ENDS AND EDGES)

NTS

10 TYPICAL DECKING LAYOUT DETAILS

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19545 GREENTREE WAY, SUITE B
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phone 704.997.7072 fax 980.312.6520
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SIGNATURE:

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The orchards at Naples Road, LLC
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Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
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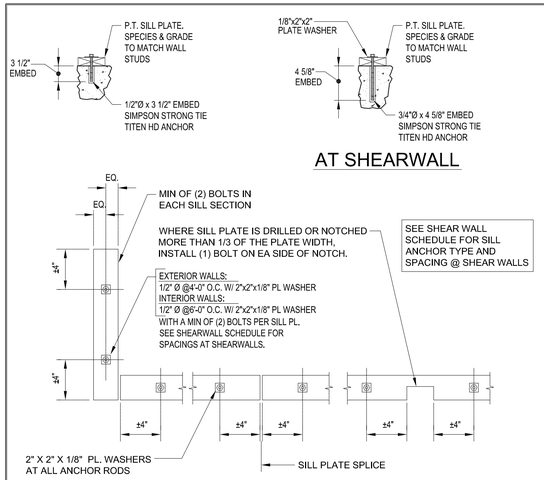
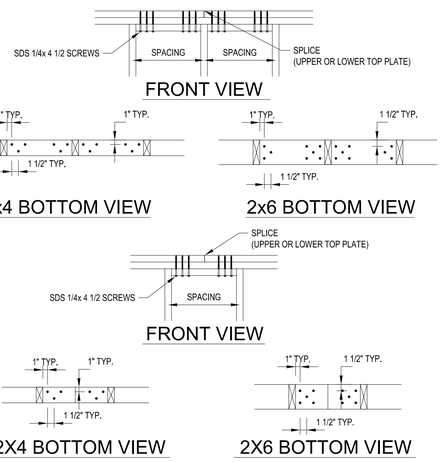
CHECKED BY:

DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.01

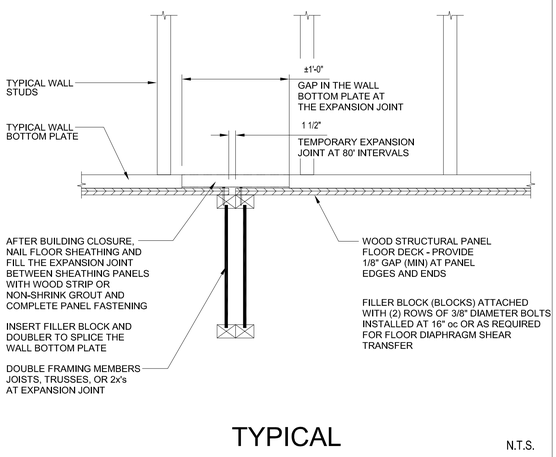


1 TYP. SILL PLATE BOLTING @ S.O.G.



N.T.S.

5 TOP PLATE SPLICE DETAILS



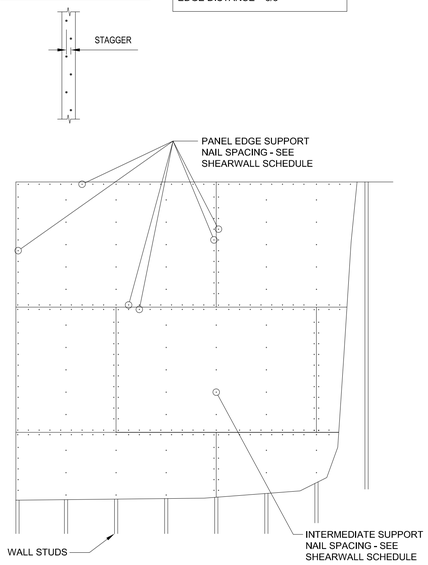
TYPICAL

N.T.S.

6 FLOOR EXPANSION JOINT

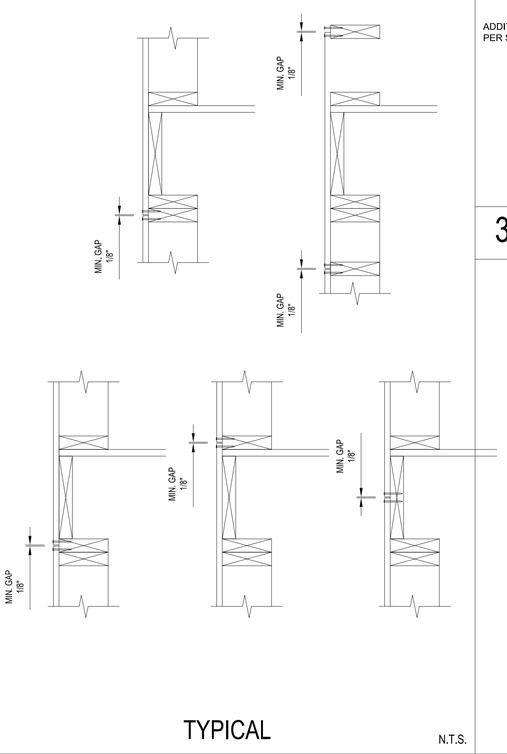
STAGGER FASTENERS TO MINIMIZE WOOD SPLITTING PARALLEL TO WOOD GRAIN

MINIMUM NAILING REQUIREMENTS
PANEL ENDS - 6" oc
INTERMEDIATE SUPPORTS - 12" oc
EDGE DISTANCE = 3/8"



TYPICAL SHEARWALL

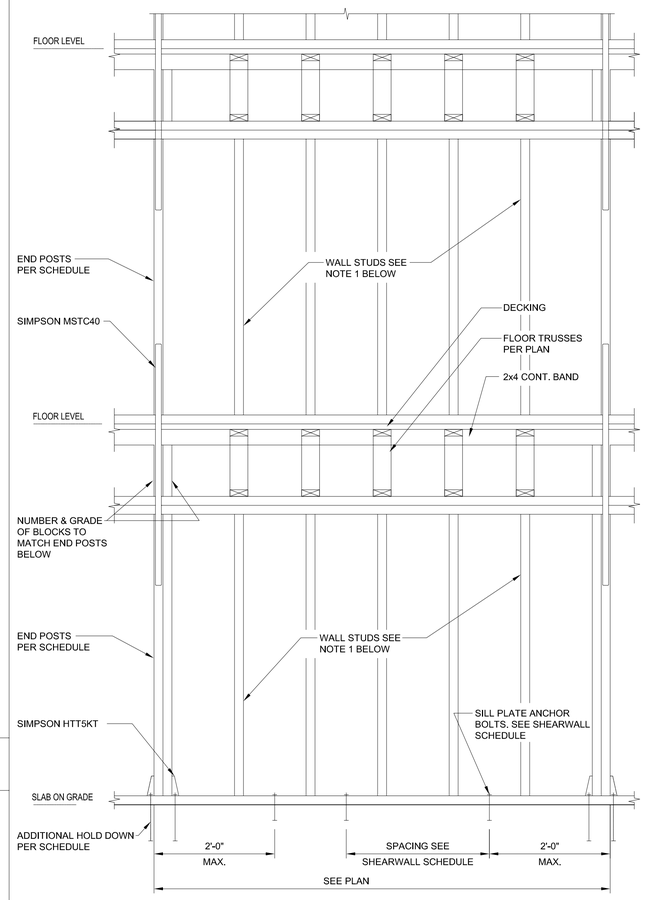
2 PANEL NAILING / SCREWING



TYPICAL

N.T.S.

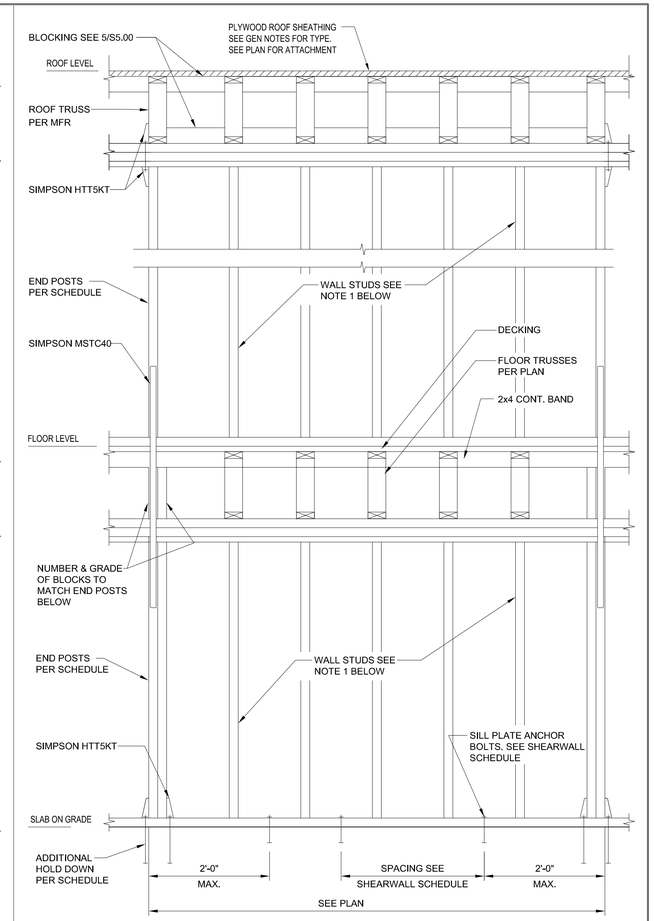
7 STORY TO STORY SHEATHING



NOTES:
1. WALL STUDS PER SCHEDULE SEE PLAN
2. WHERE OCCURS, THICKEN SLAB OR FOOTING AS REQUIRED AT HOLDDOWN LOCATIONS TO MAINTAIN ANCHOR EMBEDMENT AS INDICATED ON SCHEDULE.

NTS

3 SW1 & SW2 ELEVATION



NOTES:
1. WALL STUDS PER SCHEDULE. SEE PLAN.
2. WHERE OCCURS, THICKEN SLAB OR FOOTING AS REQUIRED AT HOLDDOWN LOCATIONS TO MAINTAIN ANCHOR EMBEDMENT AS INDICATED ON SCHEDULE.

NTS

4 SW3 ELEVATION

SHEAR WALL SCHEDULE

MARK	FLOOR	PANEL TYPE SEE ARCH ASSEMBLY	# OF PANELS (NOTE #3)	PANEL NAILING			BLOCKING REQUIRED (NOTE #4)	END POST (NOTE #2)	SILL PLATE ANCHORING
				NAIL SIZE	EDGE SUPPORT NAIL SPACING	INTERMEDIATE SUPPORT NAIL SPACING			
SW-1	B - 3	7/16" PLYWOOD	SINGLE	8d	4" O.C.	12" O.C.	YES	(2)2x6 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @32" O.C.
	3 - Roof	7/16" PLYWOOD	SINGLE	8d	6" O.C.	12" O.C.	YES	(2)2x6 SPF NO.2	
SW-2	B - 3	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(4)2x4 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @32" O.C.
	3 - Roof	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(3)2x4 SPF NO.2	
SW-3	B - 3	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(4)2x4 SPF NO.2	3/4" Ø x 4 5/8" EMBED TITEN HD @32" O.C.
	3 - Roof	5/8" GYP.	SINGLE	6d COOLER	6" O.C.	6" O.C.	YES	(3)2x4 SPF NO.2	

NOTES:
1. SEE 8/S1.2 FOR PERFORATED SHEAR WALL ELEVATON.
2. END POST HOLD DOWN, USE SIMPSON HTT4 W/ 5/8"Ø KWIK BOLT 3 (EMBED = 4")
3. "SINGLE" INDICATES PLYWOOD SHEATHING ON ONE SIDE OF WALL STUDS.
4. ALL FOUR SIDES OF EACH PANEL MUST BE CONTINUOUSLY BLOCKED (TYPICAL

NTS

8 SHEARWALL SCHEDULE

JDH STRUCTURAL ENGINEERS, PLLC
19545 GREENTREE WAY, SUITE B
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phone 704.997.7072 fax 980.312.6520
http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

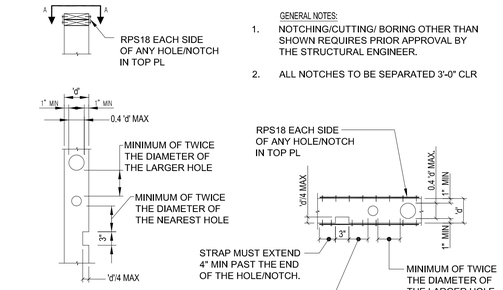
PROJECT:
The Orchards at Naples Road Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.02



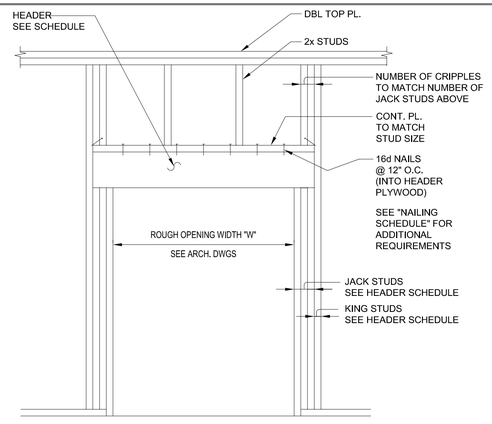
GENERAL NOTES:

1. NOTCHING/CUTTING/ BORING OTHER THAN SHOWN REQUIRES PRIOR APPROVAL BY THE STRUCTURAL ENGINEER.
2. ALL NOTCHES TO BE SEPARATED 3'-0" CLR

NOTCHING OR BORING

N.T.S.

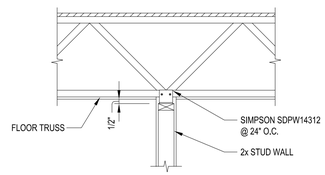
1 BEARING & SHEAR WALL STUDS



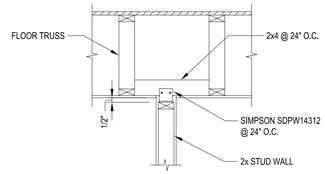
DOOR AND WINDOW ELEVATIONS

N.T.S.

2 FRAMED OPENINGS



@ WALL PERPENDICULAR TO FLOOR TRUSS



@ WALL PARALLEL TO FLOOR TRUSS

INTERNATIONAL BUILDING CODE 2018: SECTION 2304.3.3
WOOD WALLS AND BEARING PARTITIONS SHALL NOT SUPPORT MORE THAN TWO FLOORS AND A ROOF UNLESS AN ANALYSIS SATISFACTORY TO THE BUILDING OFFICIAL SHOWS THE SHRINKAGE OF THE WOOD FRAMING WILL NOT HAVE ADVERSE EFFECTS ON THE STRUCTURE OR ANY P,M,E SYSTEMS OR OTHER EQUIPMENT

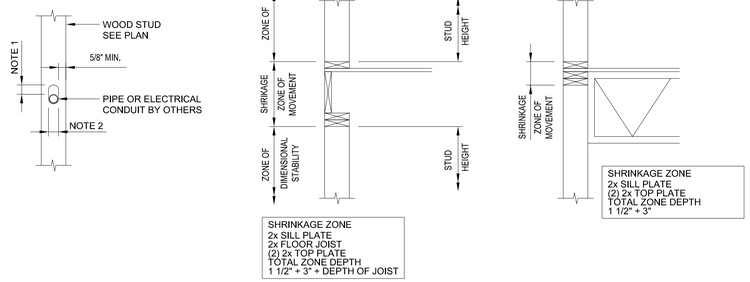
$S = C * D * (M_f - M_i)$

S = SHRINKAGE
C = DIMENSIONAL CHANGE COEFFICIENT (FROM WOOD HANDBOOK; CONSERVATIVELY, THE WORST CASE OF C_T IS TYPICALLY USED)
D_i = CROSS SECTIONAL DIMENSION OF WOOD SUBJECT TO SHRINKAGE (SHRINKAGE ZONE)
M_f = FINAL WOOD MC
M_i = INITIAL WOOD MC

NOTE: 1
TOTAL ACCUMULATED ANTICIPATED SHRINKAGE AT LEVEL - SEE SCHEDULE

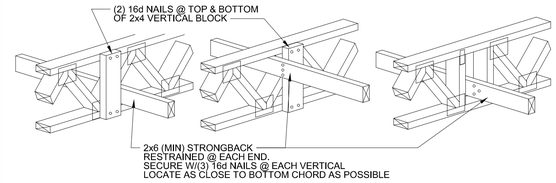
NOTE: 2
MAX OPENING IN BEARING OR EXTERIOR STUD:
2x4 STUD: 1 1/2"
2x6 STUD: 2 1/4"

WOOD SHRINKAGE SCHEDULE	
FLOOR LEVEL	ANTICIPATED SHRINKAGE
ROOF	N/A
3RD FLOOR	0.561 In
2ND FLOOR	0.378 In
1ST FLOOR	0.187 In



N.T.S.

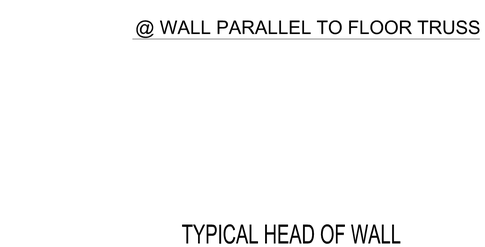
3 WOOD SHRINKAGE DETAIL



STRONGBACKS SPACED AT 10'-0" (MAX) ARE REQUIRED TO MAINTAIN CERTAIN FIRE ASSEMBLIES.
STRONGBACKS ARE RECOMMENDED TO MINIMIZE VIBRATION

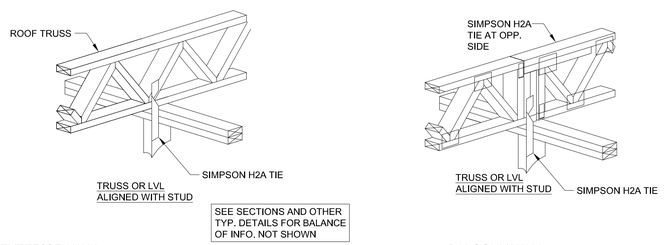
FLOOR TRUSS

4 STRONG BACK DETAILS



N.T.S.

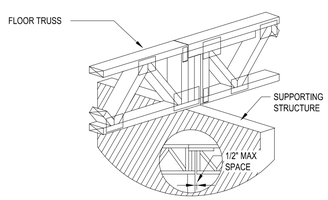
8 DETAIL AT PERFORATED SHEARWALL OPENINGS



TYPICAL

N.T.S.

6 ROOF TRUSS TO WALL UPLIFT DETAILS



AT INTERIOR SUPPORT (BOTTOM BEARING)

(OPTIONAL PIGGY-BACK DETAIL)

TYPICAL

N.T.S.

7 FLOOR TRUSS BEARING DETAIL

JDH STRUCTURAL ENGINEERS, PLLC
19545 GREENTREE WAY, SUITE B
CORNELIUS, NORTH CAROLINA 28031
phone 704.997.7072 fax 980.312.6520
http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

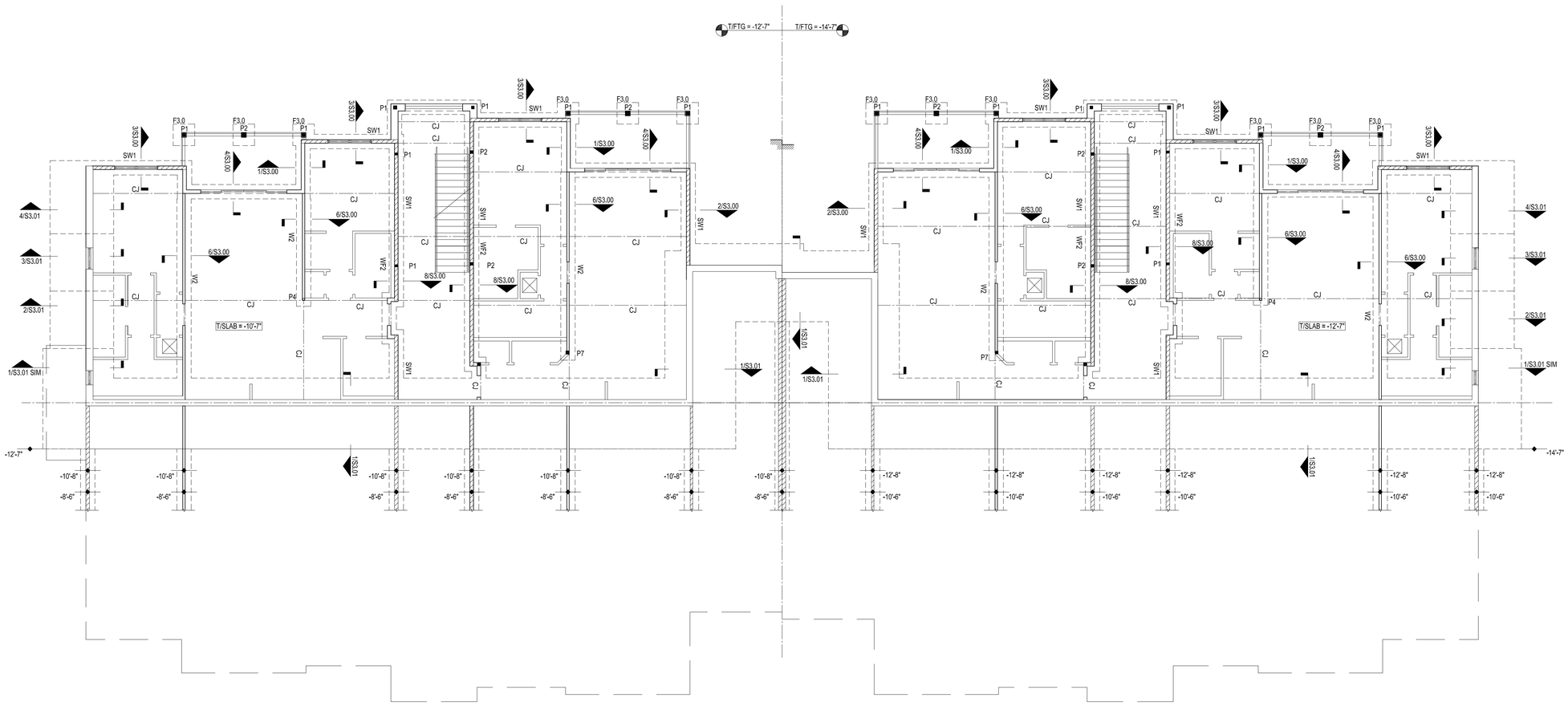
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
TYPICAL DETAILS

SHEET #:
S-1.03



BASEMENT FOUNDATION PLAN

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

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* — INDICATES SHEAR WALL LOCATION AND LABEL
4. W* — INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " — INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " — INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " — INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

FOUNDATION PLAN NOTES:

1. ELEVATIONS FOR FOOTINGS, SLABS, STEEL, WALLS, FLOORS, ELEVATOR PITS, ETC. ARE REFERENCED + OR - FROM DATUM ELEVATION SEE SHEET S2.02 (I.E. T/SL +2'-6", T/W -5'-3", T/STL -6 1/4", ETC.).

2. T/FTG ELEVATIONS SHOWN ON PLAN ARE FOR STRIP AND SPREAD FOOTINGS. T/FTG ELEVATION AROUND PERIMETER SHALL BE -2'-0" U.N.O. WITH FOOTING STEPS SHOWN IN RELATIVE LOCATIONS, SEE S1.00 SERIES SHEETS " TYPICAL DETAILS " FOR FOOTING STEP AND SPACING REQUIREMENTS.

3. TYPICAL SLAB ON GRADE (S.O.G.) IS 4" NORMAL WEIGHT CONCRETE REINFORCED WITH 6x6-W1.4xW1.4 WWF (FLAT SHEETS) ON 6" CRUSHED STONE BASE. SEE ARCHITECTURAL DRAWINGS FOR VAPOR BARRIER REQUIREMENTS. SEE S2.00 FOR SLAB CONTROL JOINT LAYOUT.

4. SUPPORT WWF AT 1" FROM TOP OF S.O.G. WITH SAND PLATES (CHAIRS WITH PLATE BASES) OR OTHER ACCEPTABLE DEVICES. BRICKS ARE NOT PERMITTED.

5. NO UNDERCUTTING AND BACKFILLING IS PERMITTED UNDER ANY FOOTING DUE TO HIGH ALLOWABLE BEARING PRESSURES USED IN FOOTING DESIGN. LEAN CONCRETE (f'c= 2000psi) OR FOOTING CONCRETE SHALL BE USED TO "BACKFILL" ANY OVEREXCAVATION.

6. CONTRACTOR SHALL SHORE ALL WALLS RECEIVING BACKFILL ON ONLY ONE SIDE OR RECEIVING UNEQUAL LEVELS OF BACKFILL ON OPPOSITE SIDES, UNLESS NOTED OTHERWISE IN THE DETAILS. ANY WALLS FOR WHICH SHORING IS INDICATED AS REQUIRED IN THE PLANS OR DETAILS SHALL BE SHORED REGARDLESS OF BACKFILL CONDITIONS.

7. MASONRY SHOWN ON STRUCTURAL DRAWINGS DEFINES ONLY THE EXTENT AND REQUIREMENTS OF MASONRY UTILIZED FOR STRUCTURAL PURPOSES (I.E. BEARING WALLS, SHEAR WALLS, RETAINING WALLS, FOUNDATION WALLS, COLUMNS, ETC.).

8. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.

9. ALL STUDS TO ALIGN W/ TRUSSES

10. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.

11. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON- STRUCTURAL MASONRY.

12. SEE S1.00 SERIES SHEETS FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.

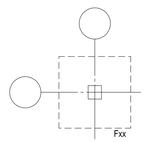
13. SEE S1.00 SERIES SHEETS FOR FOOTING SCHEDULE.

14. SEE S1.00 SERIES SHEETS FOR COLUMN SCHEDULE AND BASE PLATE DETAILS.

15. ALL STRUCTURAL WALLS SHOWN ARE TYPE " W1 " U.N.O.

16. FOOTINGS ARE NOTED ON PLAN WITH THE FOLLOWING DESIGNATIONS:

Fxx = FOOTING MARK PER SCHEDULE ON S1.00



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phone 704.997.7072 fax 980.312.6520
http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

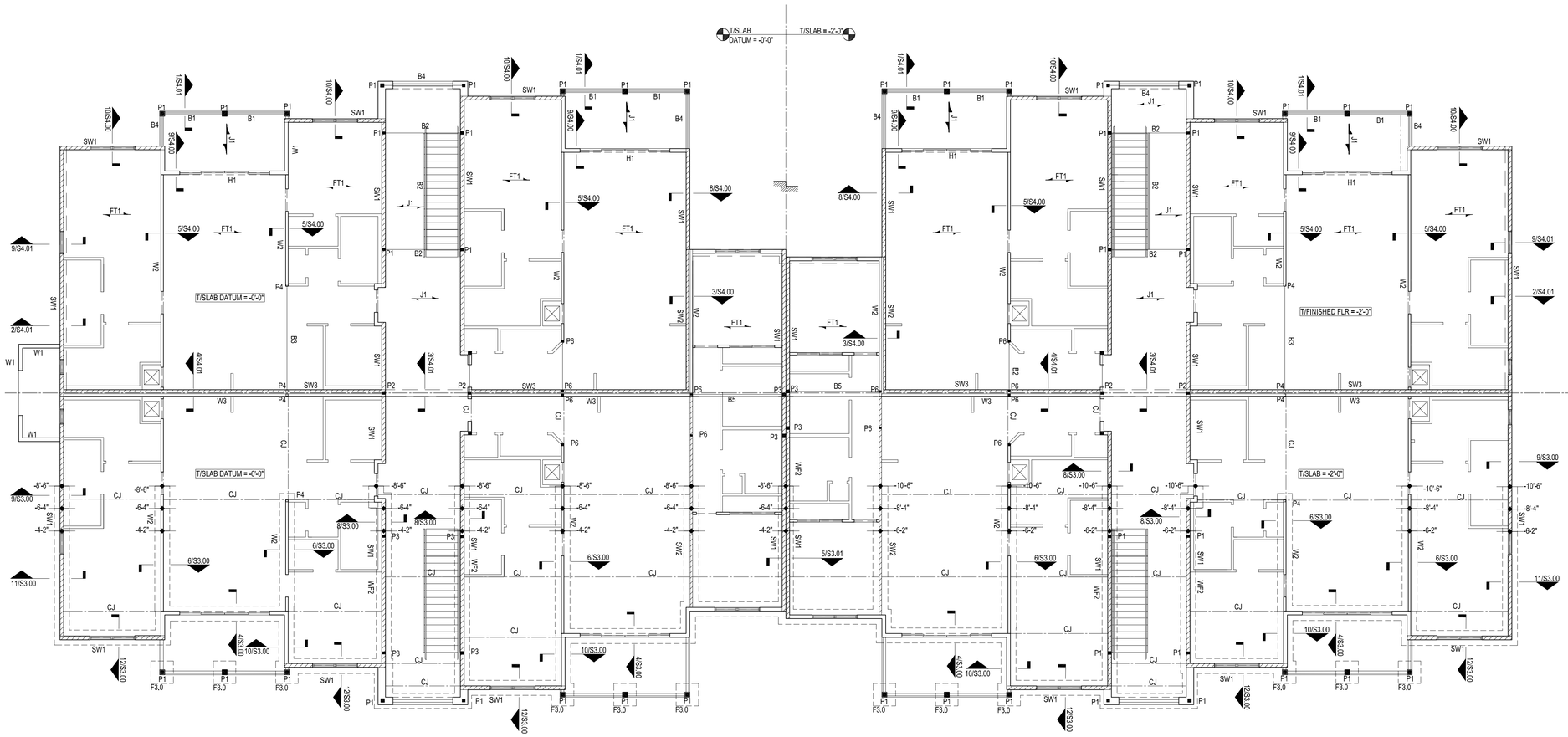
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
BUILDING 3 BASEMENT FOUNDATION PLAN

SHEET #:
S-2.01B



FIRST FLOOR FOUNDATION & FRAMING PLAN

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

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* INDICATES SHEAR WALL LOCATION AND LABEL
4. W* INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1,00 SERIES SHEETS
12. " RJx " INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

FOUNDATION PLAN NOTES:

1. T/SL DATUM ELEVATION IS 0'-0". ELEVATIONS FOR FOOTINGS, SLABS, STEEL, WALLS, FLOORS, ELEVATOR PITS, ETC. ARE REFERENCED + OR - FROM DATUM ELEVATION (I.E. T/SL +2'-6", T/W -5'-3", T/STL -6 1/4", ETC.).

2. T/FTG ELEVATIONS SHOWN ON PLAN ARE FOR STRIP AND SPREAD FOOTINGS. T/FTG ELEVATION AROUND PERIMETER SHALL BE -2'-0" U.N.O. WITH FOOTING STEPS SHOWN IN RELATIVE LOCATIONS. SEE S1.00 SERIES SHEETS " TYPICAL DETAILS " FOR FOOTING STEP AND SPACING REQUIREMENTS.

3. TYPICAL SLAB ON GRADE (S.O.G.) IS 4" NORMAL WEIGHT CONCRETE REINFORCED WITH 6x6-W1.4xW1.4 WWF (FLAT SHEETS) ON 6" CRUSHED STONE BASE. SEE ARCHITECTURAL DRAWINGS FOR VAPOR BARRIER REQUIREMENTS. SEE S2.00 FOR SLAB CONTROL JOINT LAYOUT.

4. SUPPORT WWF AT 1" FROM TOP OF S.O.G. WITH SAND PLATES (CHAIRS WITH PLATE BASES) OR OTHER ACCEPTABLE DEVICES. BRICKS ARE NOT PERMITTED.

5. NO UNDERCUTTING AND BACKFILLING IS PERMITTED UNDER ANY FOOTING DUE TO HIGH ALLOWABLE BEARING PRESSURES USED IN FOOTING DESIGN. LEAN CONCRETE (f'c= 2000psi) OR FOOTING CONCRETE SHALL BE USED TO "BACKFILL" ANY OVEREXCAVATION.

6. CONTRACTOR SHALL SHORE ALL WALLS RECEIVING BACKFILL ON ONLY ONE SIDE OR RECEIVING UNEQUAL LEVELS OF BACKFILL ON OPPOSITE SIDES, UNLESS NOTED OTHERWISE IN THE DETAILS. ANY WALLS FOR WHICH SHORING IS INDICATED AS REQUIRED IN THE PLANS OR DETAILS SHALL BE SHORED REGARDLESS OF BACKFILL CONDITIONS.

7. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.

8. ALL STUDS TO ALIGN W/ TRUSSES

9. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS

10. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.

11. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON- STRUCTURAL MASONRY.

12. SEE S1.00 SERIES SHEETS FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.

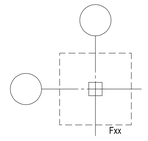
13. SEE S1.00 SERIES SHEETS FOR FOOTING SCHEDULE.

14. SEE S1.00 SERIES SHEETS FOR COLUMN SCHEDULE AND BASE PLATE DETAILS.

15. ALL STRUCTURAL WALLS SHOWN ARE TYPE " W1 " U.N.O.

16. FOOTINGS ARE NOTED ON PLAN WITH THE FOLLOWING DESIGNATIONS:

Fxx = FOOTING MARK PER SCHEDULE OB S1.00



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Luis Graef: President

Orchards PROPERTIES

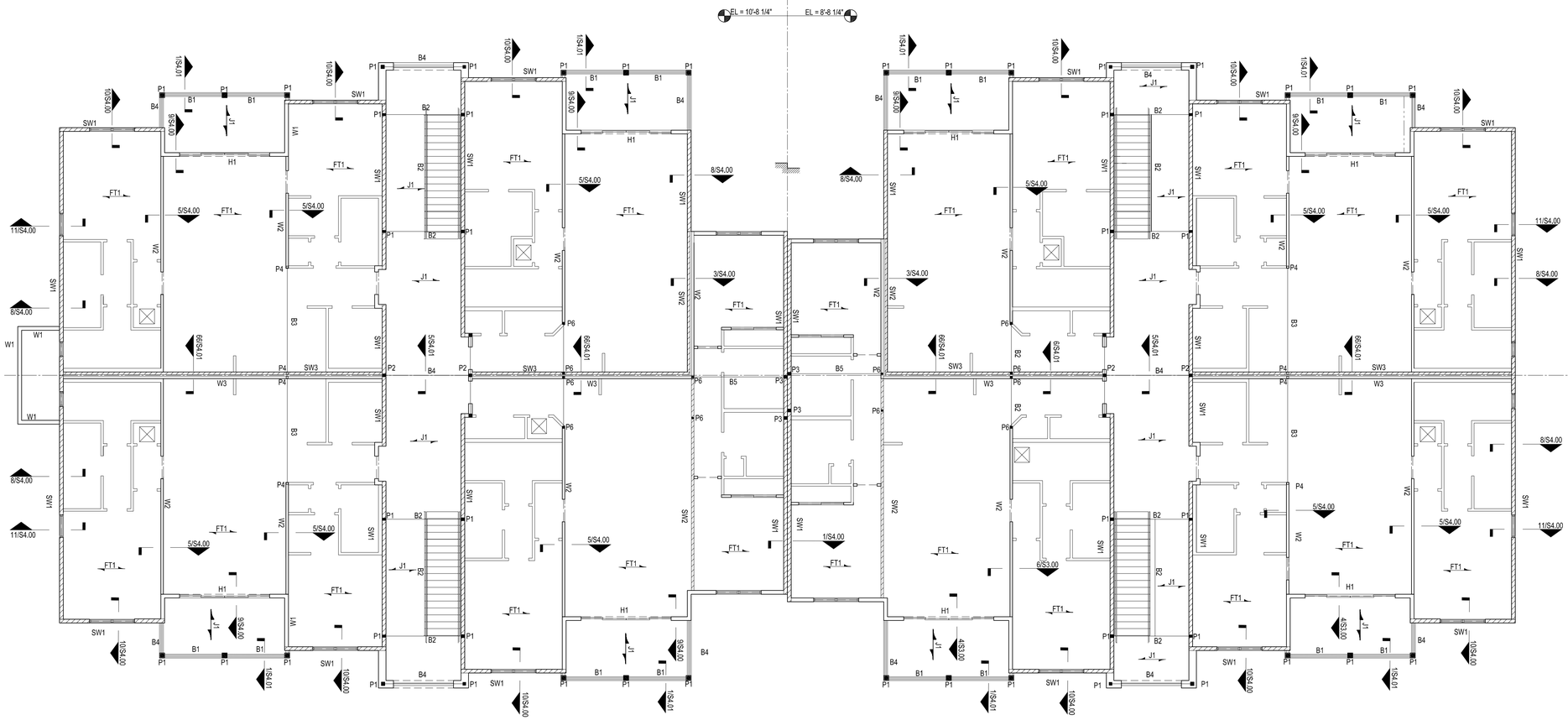
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
BUILDING 3 FIRST FLOOR FOUNDATION & FRAMING PLAN

SHEET #:
S-2.02



SECOND FLOOR FRAMING PLAN

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

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* — INDICATES SHEAR WALL LOCATION AND LABEL
4. W* — INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " — INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " — INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " — INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

FLOOR FRAMING PLAN NOTES:

1. SEE PLAN FOR FINISHED FLOOR ELEVATIONS FROM DATUM ELEVATION, U.N.O. ON PLAN AS (+X'-X") OR (-X'-X") AS REFERENCED FROM NOMINAL DATUM.
2. WOOD TRUSS FABRICATOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. WHERE AVAILABLE, DIMENSIONS AND LOCATIONS FOR OPENINGS ARE SHOWN ON THE LOWEST LEVEL ON WHICH THE OPENING FIRST OCCURS AND ON SUBSEQUENT LEVELS WHERE DIMENSIONS OR LOCATIONS VARY.
4. SHEATH REMAINING LENGTH OF WALL (BEYOND MIN. SHEAR WALL LENGTH AS PER SCHEDULE) WITH EQUIVALENT NON-SHEAR WALL SHEATHING THICKNESS AND GWB PER ARCH. DWGS. ATTACH NON-SHEAR WALL SHEATHING WITH 10d NAILS @ 16" O.C.
5. TYPICAL FLOOR DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
6. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
7. SEE S1.00 SERIES SHTS. FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
8. SEE S1.00 SERIES SHTS. FOR SHEAR WALL INFORMATION.
9. SEE S1.00 SERIES SHEETS FOR WOOD JOIST AND ALL BEAM SCHEDULES.
10. SEE S1.00 SERIES SHEETS FOR BEARING WALL SCHEDULES.
11. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.
12. ALL STRUCTURAL WALLS SHOWN ARE TYPE "W1" U.N.O.
13. SEE 3/S1.03 FOR TYPICAL DECKING LAYOUT DETAILS, USE UNBLOCKED DIAPHRAGM U.N.O. USE BLOCKED DIAPHRAGM FOR SHADED AREA.
    USE 10d NAILS WITH 2" BOUNDARY SPACING IN BOTH DIRECTIONS.
14. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.
15. SWX — INDICATES SHEARWALL LOCATION AND LABEL
16. ALL STUDS TO ALIGN W/ TRUSSES
17. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS
18. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.

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NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

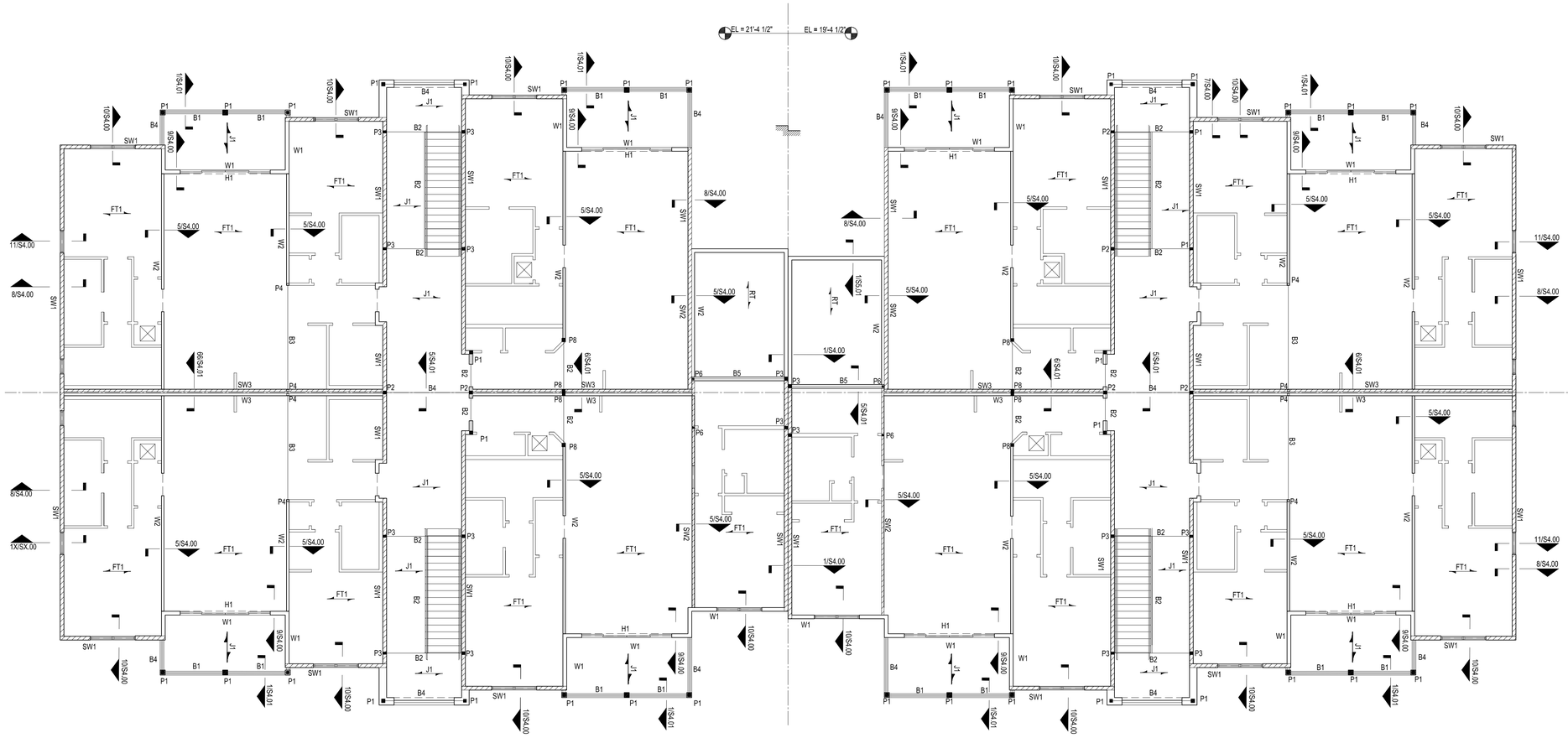
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
BUILDING 3 SECOND FLOOR FRAMING PLAN

SHEET #:
S-2.03



THIRD FLOOR FRAMING PLAN

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

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* — INDICATES SHEAR WALL LOCATION AND LABEL
4. W* — INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. " Jx " INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. " Bx " INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. " RJx " INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL. SEE S1.05 FOR SCHEDULE AND DETAIL.

FLOOR FRAMING PLAN NOTES:

1. SEE PLAN FOR FINISHED FLOOR ELEVATIONS FROM DATUM ELEVATION, U.N.O. ON PLAN AS (+X'-X") OR (-X'-X") AS REFERENCED FROM NOMINAL DATUM.
2. WOOD TRUSS FABRICATOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. TYPICAL ROOF DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
4. WHERE AVAILABLE, DIMENSIONS AND LOCATIONS FOR OPENINGS ARE SHOWN ON THE LOWEST LEVEL ON WHICH THE OPENING FIRST OCCURS AND ON SUBSEQUENT LEVELS WHERE DIMENSIONS OR LOCATIONS VARY.
5. SHEATH REMAINING LENGTH OF WALL (BEYOND MIN. SHEAR WALL LENGTH AS PER SCHEDULE) WITH EQUIVALENT NON-SHEAR WALL SHEATHING THICKNESS AND GWB PER ARCH. DWGS, ATTACH NON-SHEAR WALL SHEATHING WITH 10d NAILS @ 16" O.C.
6. TYPICAL FLOOR DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
7. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
8. SEE S1.00 SERIES SHTS. FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
9. SEE S1.00 SERIES SHTS. FOR SHEAR WALL INFORMATION.
10. SEE S1.00 SERIES SHEETS FOR WOOD JOIST AND ALL BEAM SCHEDULES.
11. SEE S1.00 SERIES SHEETS FOR BEARING WALL SCHEDULES.
12. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF COLUMN OR CENTERLINE OF WALL U.N.O.
13. ALL STRUCTURAL WALLS SHOWN ARE TYPE "W1" U.N.O.
14. SEE 3/S1.03 FOR TYPICAL DECKING LAYOUT DETAILS, USE UNBLOCKED DIAPHRAGM U.N.O. USE BLOCKED DIAPHRAGM FOR SHADED AREA.
    USE 10d NAILS WITH 2" BOUNDARY SPACING IN BOTH DIRECTIONS.
15. INDICATES WOOD POST LABEL. SEE S1.05 FOR SCHEDULE AND DETAIL.
16. SWX — INDICATES SHEARWALL LOCATION AND LABEL
17. ALL STUDS TO ALIGN W/ TRUSSES
18. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS
19. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.

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NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

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341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

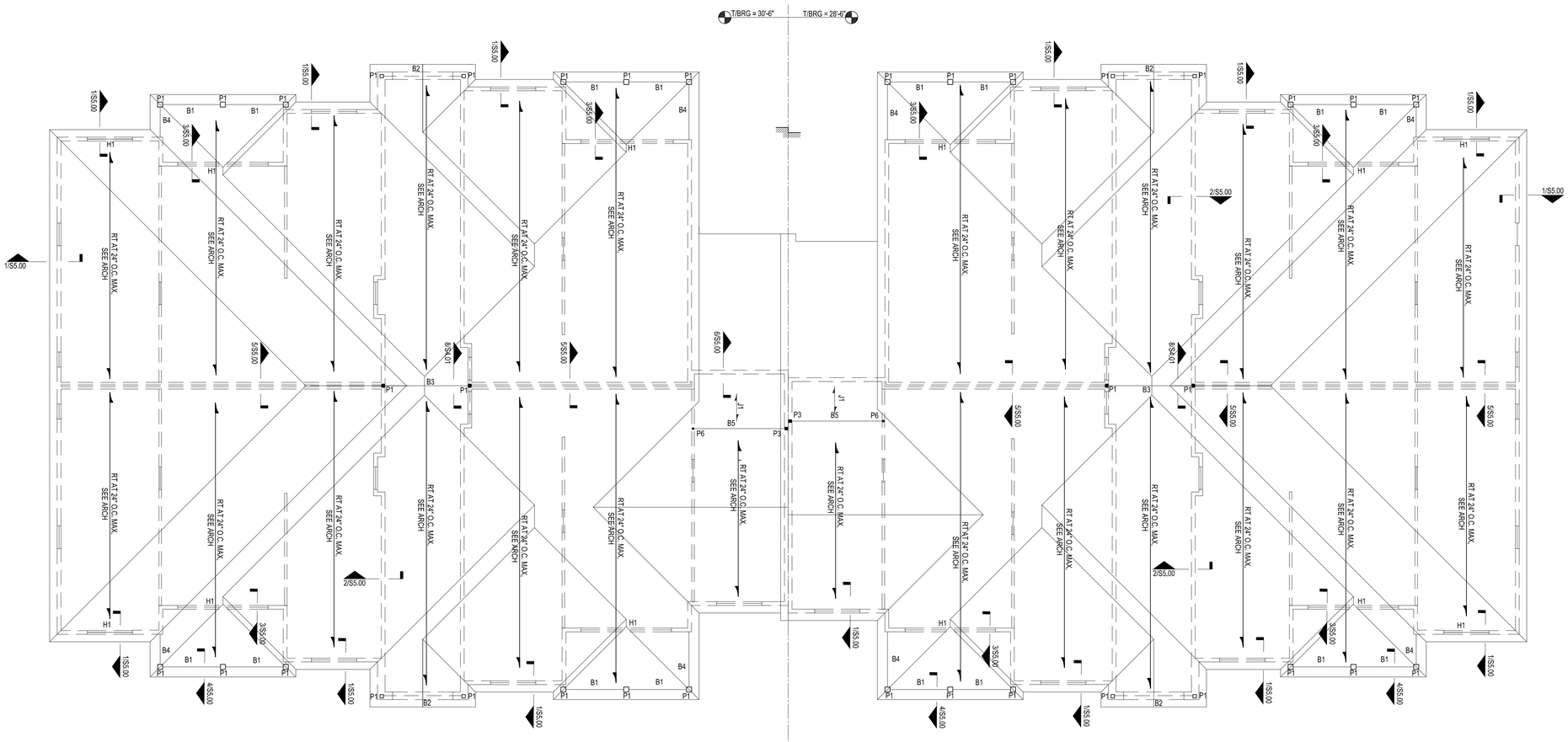
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
BUILDING 3 THIRD
FLOOR FRAMING PLAN

SHEET #:
S-2.04



ROOF FRAMING PLAN

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

LEGEND:

1. INDICATES STEP IN FOOTING
2. INDICATES STEP IN FLOOR SLAB OR ROOF STRUCTURE
3. SW* INDICATES SHEAR WALL LOCATION AND LABEL
4. W* INDICATES LOAD BEARING WALL AND LABEL
5. INDICATES NON-STRUCTURAL WALL
6. INDICATES LOAD BEARING WALL BELOW
7. INDICATES WALL OPENING
8. INDICATES WALL OPENING BELOW
9. INDICATES DIRECTION OF FLOOR OR ROOF FRAMING
10. "Jx" INDICATES FLOOR JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
11. "Bx" INDICATES WOOD BEAM LABEL. SEE WOOD BEAM SCHEDULE ON S1.00 SERIES SHEETS
12. "RJx" INDICATES ROOF JOIST LABEL. SEE JOIST SCHEDULE ON S1.00 SERIES SHEETS
13. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.

ROOF FRAMING PLAN NOTES:

1. SEE PLAN FOR TRUSS BEARING ELEVATIONS FROM DATUM ELEVATION, U.N.O. ON PLAN AS (+X'-X") OR (-X'-X") AS REFERENCED FROM NOMINAL DATUM.
2. WOOD TRUSS FABRICATOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONAL INFORMATION.
3. TYPICAL ROOF DECK OVER WOOD SUPPORT SHALL BE 3/4" TONGUE AND GROOVED EXPOSURE 1, OSB OR PLYWOOD SHEATHING. ATTACH PER GENERAL NOTES ON S1.00 SERIES SHEETS, WOOD FRAMING NOTES U.N.O. ON DRAWINGS.
4. WHERE AVAILABLE, DIMENSIONS AND LOCATIONS FOR OPENINGS ARE SHOWN ON THE LOWEST LEVEL ON WHICH THE OPENING FIRST OCCURS AND ON SUBSEQUENT LEVELS WHERE DIMENSIONS OR LOCATIONS VARY.
5. SHEATH REMAINING LENGTH OF WALL (BEYOND MIN. SHEAR WALL LENGTH AS PER SCHEDULE) WITH EQUIVALENT NON-SHEAR WALL SHEATHING THICKNESS AND GWB PER ARCH. DWGS. ATTACH NON-SHEAR WALL SHEATHING WITH 10d NAILS @ 16" O.C.
6. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND DRAWINGS OF OTHER DISCIPLINES FOR LOCATIONS AND DIMENSIONS OF OPENINGS, DEPRESSIONS, AND NON-STRUCTURAL MASONRY.
7. SEE S1.00 SERIES SHTS. FOR "GENERAL NOTES" AND FOR "TYPICAL DETAILS". TYPICAL DETAILS ARE GENERALLY NOT CUT ON PLANS BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS. WHERE TYPICAL DETAILS ARE CUT IN PLAN, THE INTENT IS TO ILLUSTRATE THE TYPE OF CONDITION AT WHICH THAT DETAIL IS INTENDED TO APPLY RATHER THAN EVERY OCCURRENCE OF THAT DETAIL.
8. SEE S1.00 SERIES SHTS. FOR SHEAR WALL INFORMATION.
9. SEE S1.00 SERIES SHEETS FOR WOOD JOIST AND ALL BEAM SCHEDULES.
10. SEE S1.00 SERIES SHEETS FOR BEARING WALL SCHEDULES.
11. DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF WALL U.N.O.
12. W1 TYP U.N.O., WF1 TYP U.N.O., SEE 8/S-1.02 FOR SHEARWALLS W/ OPENINGS.
13. SEE 3/S1.03 FOR TYPICAL DECKING LAYOUT DETAILS, USE UNBLOCKED DIAPHRAGM U.N.O.
14. INDICATES WOOD POST LABEL, SEE S1.05 FOR SCHEDULE AND DETAIL.
15. MAU-1 AND MAU-2 DENOTES ROOF TOP UNITS, SEE MECH. DRAWINGS FOR LOCATION AND EQUIPMENT WEIGHT. JOIST SUPPLIER TO DESIGN TO SUIT. SEE S1.00 FOR ROOF LOADS.
16. SEE 1/S1.05 FOR WALL OPENINGS
17. ALL STUDS TO ALIGN W/ TRUSSES
18. FT1 INDICATES 18" DEEP FLOOR TRUSS @ 24" O.C. BY OTHERS

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NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
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Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

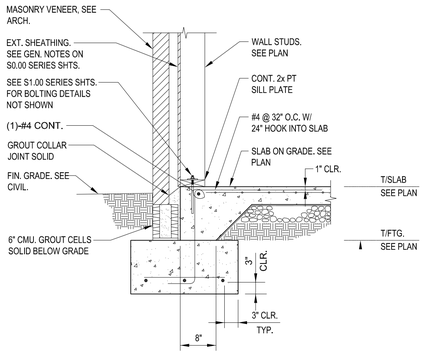
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
BUILDING 3 ROOF FRAMING PLAN

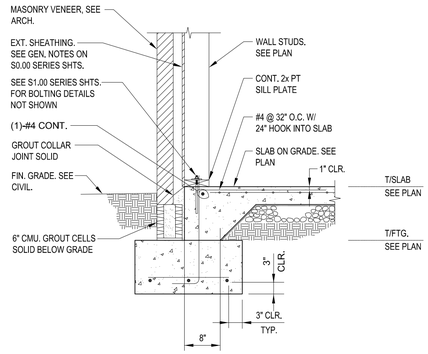
SHEET #:
S-2.05



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

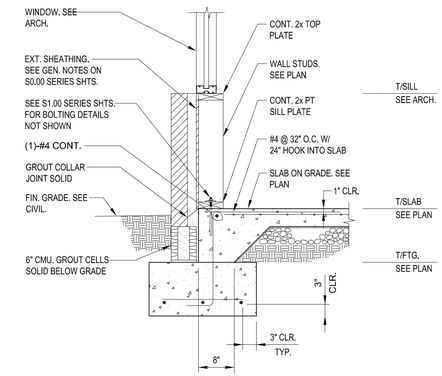
1 TYP. PERIMETER BRICK WALL



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

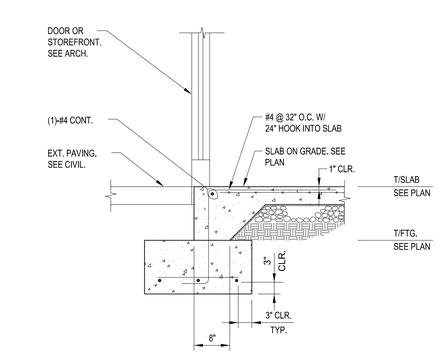
2 TYP. EXTERIOR SHEAR WALL



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

3 TYP. PERIMETER BRICK AT WINDOW



SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

4 TYP. PERIMETER AT OPENING

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

5 PERIMETER BRICK WALL AT INTERIOR WALL

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

6 TYPICAL LOAD BRG. INTERIOR WALL

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

7 TYPICAL LOAD BRG. DEMISING WALL

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

8 TYP. INTERIOR WALL AT SHEAR WALL

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

9 EXTERIOR WALL AT STEPPED FOOTING

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

10 TYP. PERIMETER BRICK WALL

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

11 TYP. EXTERIOR SHEAR WALL

SEE FOOTING SCHEDULE FOR FOOTING INFORMATION

SCALE: 3/4" = 1'-0"

12 TYP. PERIMETER BRICK AT WINDOW

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NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
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341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

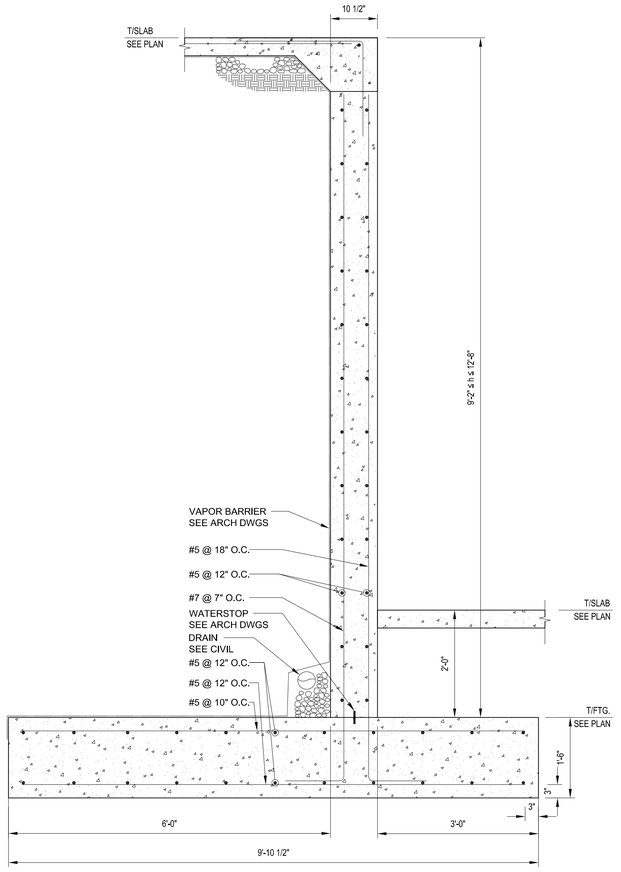
PROJECT:
The Orchards at Naples Road Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

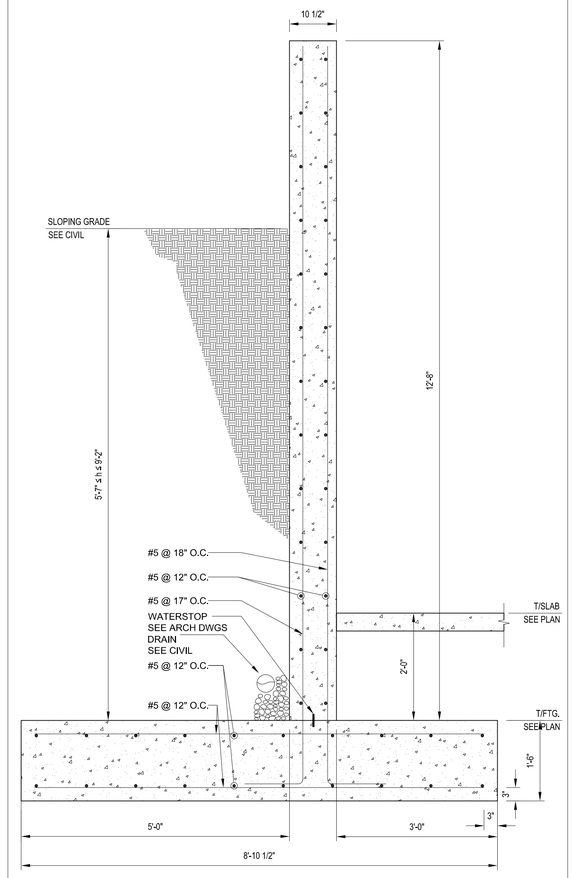
DWG DECRIPTION :
FOUNDATION SECTIONS

SHEET #:
S-3.00



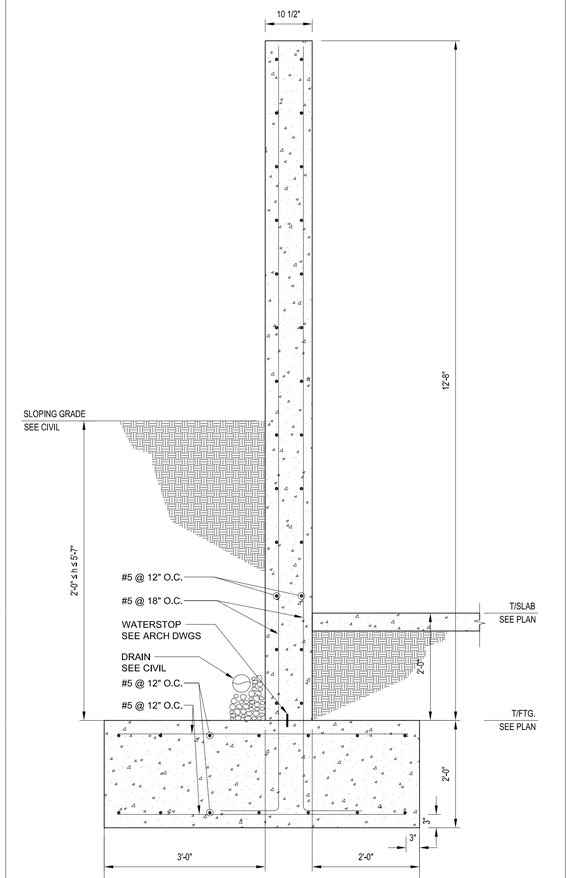
SCALE: 3/4" = 1'-0"

1 RETAINING WALL 1



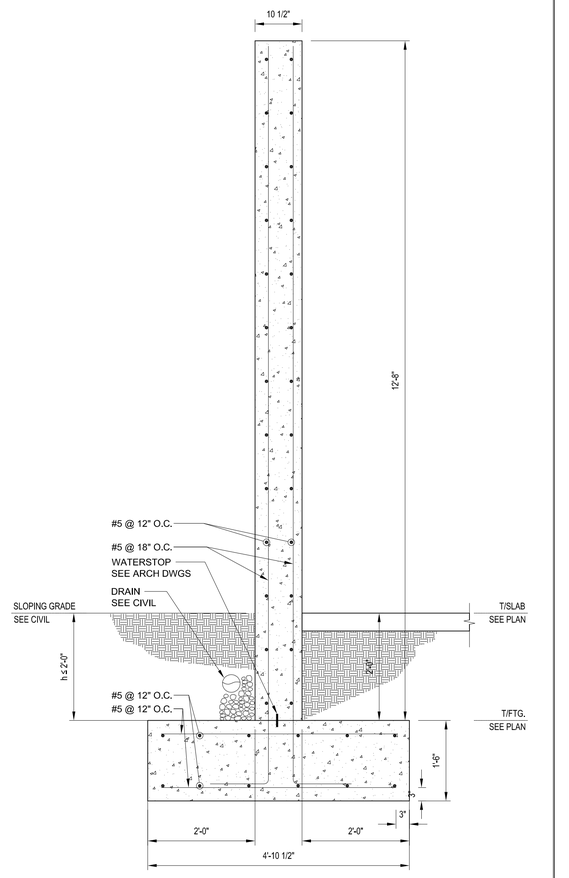
SCALE: 3/4" = 1'-0"

2 RETAINING WALL 2



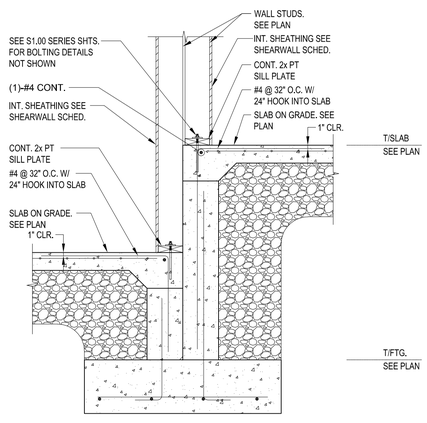
SCALE: 3/4" = 1'-0"

3 RETAINING WALL 3



SCALE: 3/4" = 1'-0"

4 RETAINING WALL 4



SCALE: 3/4" = 1'-0"

5 FOUNDATION WALL SECTION

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NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
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Luis Graef: President

Orchards PROPERTIES

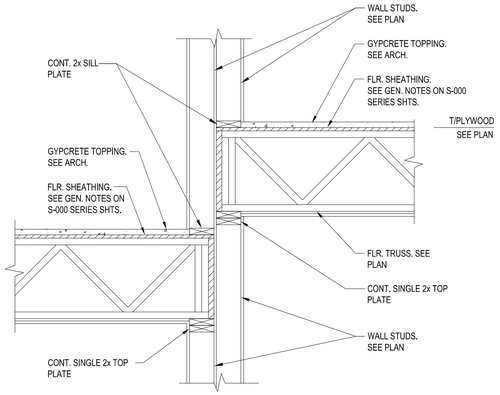
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

DWG DECRIPTION :
FOUNDATION
SECTIONS

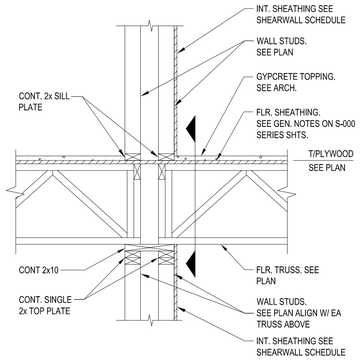
SHEET #:
S-3.01

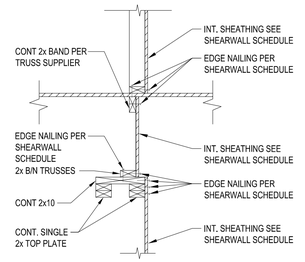


SCALE: 3/4" = 1'-0"

1 TYP. LOAD BRG. DEMISING WALLS

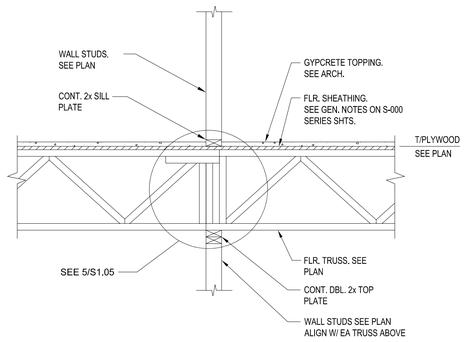
2





SCALE: 3/4" = 1'-0"

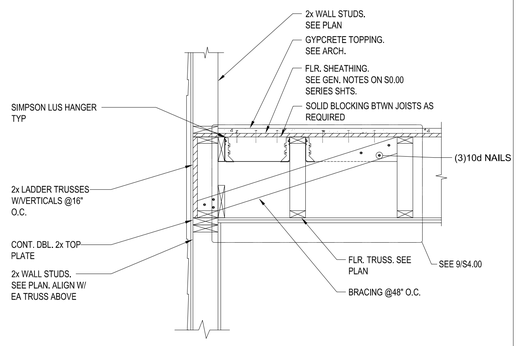
3 TYP. LOAD BRG. DEMISING WALLS



SCALE: 3/4" = 1'-0"

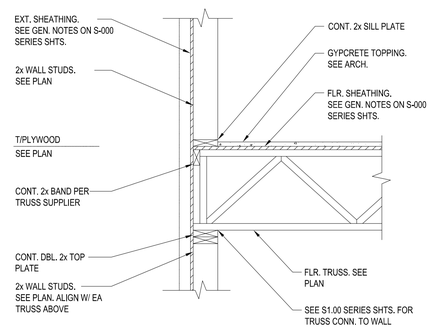
5 TYP. INTERIOR LOAD BRG. WALLS

6



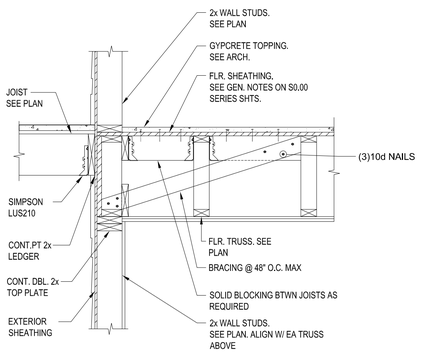
SCALE: 3/4" = 1'-0"

7 PERIMETER WALL



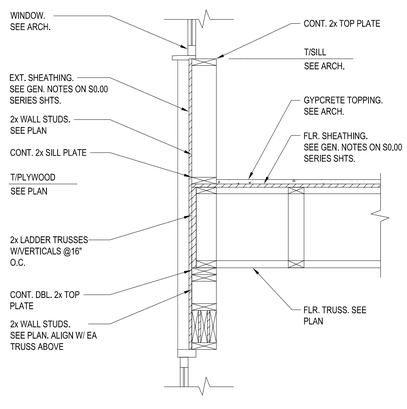
SCALE: 3/4" = 1'-0"

8 PERIMETER WALL



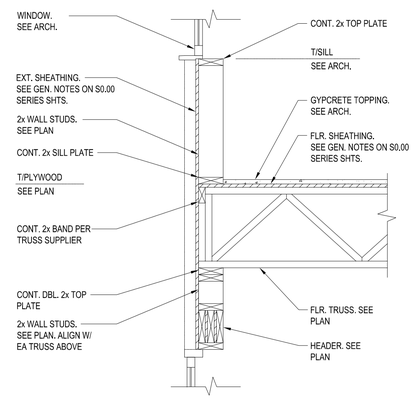
SCALE: 3/4" = 1'-0"

9 BALCONY SECTION



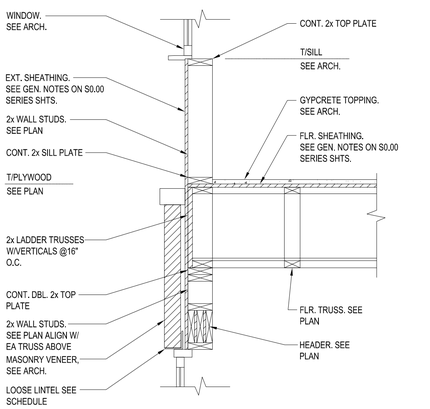
SCALE: 3/4" = 1'-0"

10 PERIMETER WALL



SCALE: 3/4" = 1'-0"

11 PERIMETER WALL



SCALE: 3/4" = 1'-0"

12 PERIMETER WALL AT WINDOW

JDH STRUCTURAL ENGINEERS, PLLC
19545 GREENTREE WAY, SUITE B
CORNELIUS, NORTH CAROLINA 28031
phone 704.997.7072 fax 980.312.6520
http://jdhengineers.com
NC CERTIFICATE OF LICENSURE # P-1593

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

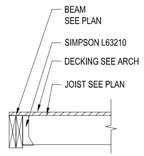
PROJECT:
The Orchards at Naples Road Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 09/27/24
PROJECT #: 22105
DRAWN BY:
CHECKED BY:

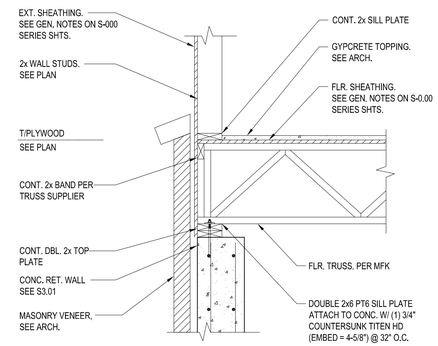
DWG DECRIPTION :
FLOOR FRAMING
SECTIONS

SHEET #:
S-4.00



SCALE: 3/4" = 1'-0"

1 TYPICAL DECK FRAMING



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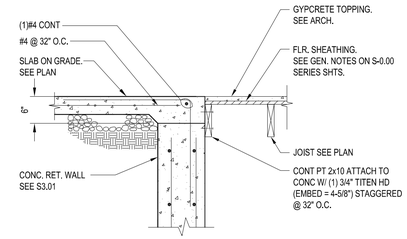
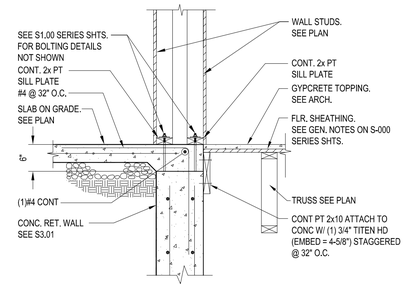
2 SECTION



SCALE: 3/4" = 1'-0"

3 SECTION



SCALE: 3/4" = 1'-0"

4 SECTION

SCALE: 3/4" = 1'-0"

5 FRAMING SECTION

SCALE: 3/4" = 1'-0"

6 SECTION

SCALE: 3/4" = 1'-0"

8 FRAMING SECTION

SCALE: 3/4" = 1'-0"

9 SECTION

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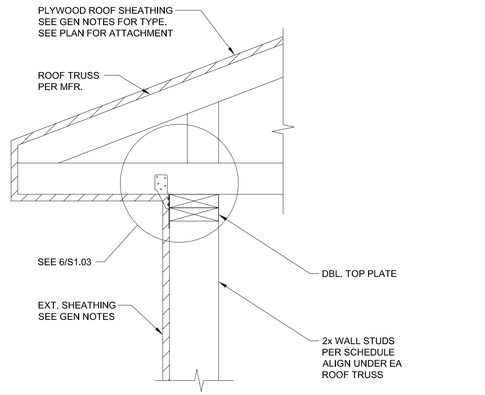
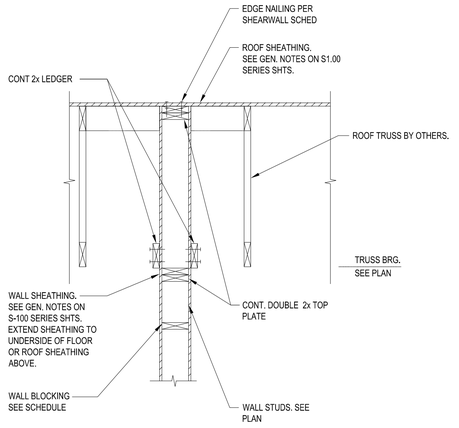


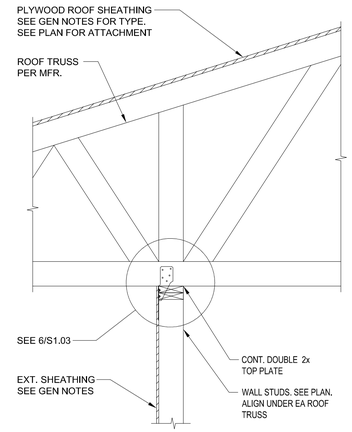
SCALE: 3/4" = 1'-0"

1 TYPICAL TRUSS BEARING



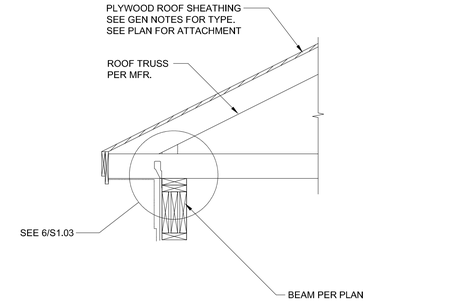
SCALE: 3/4" = 1'-0"

2 INTERIOR SHEAR WALL



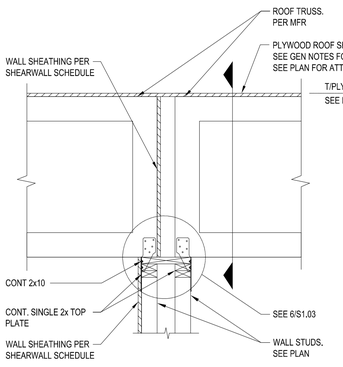
SCALE: 3/4" = 1'-0"

3 INTERIOR TRUSS BEARING

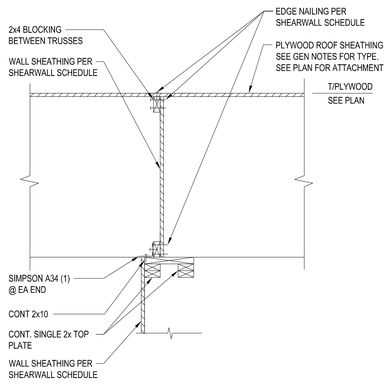


SCALE: 3/4" = 1'-0"

4 TRUSS BEARING ON BEAM



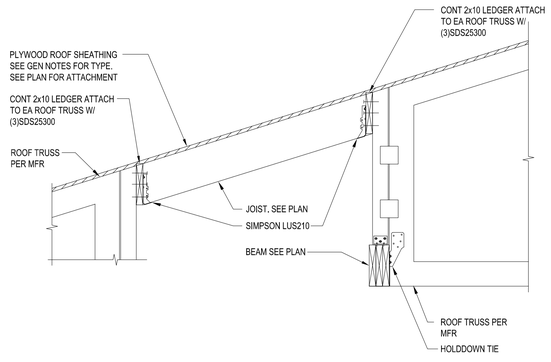
TYP. AT STUDS & TRUSSES



TYP. INBETWEEN STUDS & TRUSSES

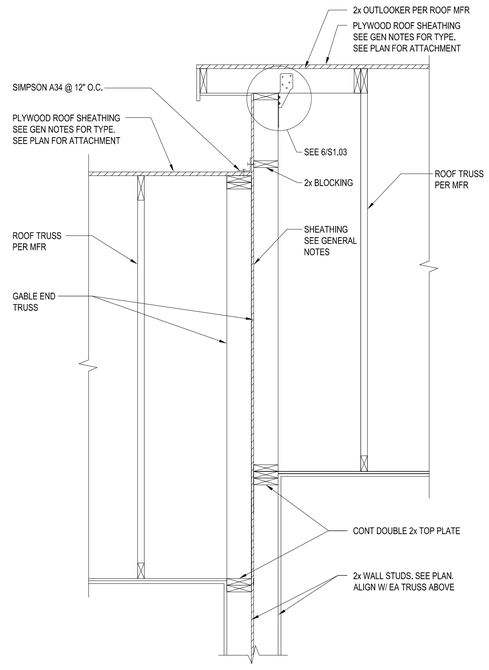
SCALE: 3/4" = 1'-0"

5 TRUSS BEARING SECTION DETAIL



SCALE: 3/4" = 1'-0"

6 ROOF TRUSS SECTION



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7 ROOF TRUSS SECTION

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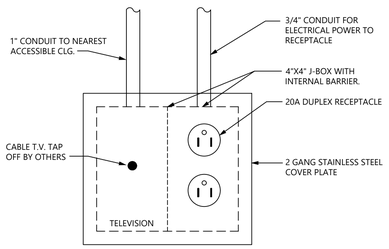
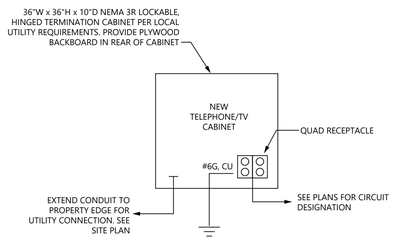


NO SCALE

① TYPICAL TELEVISION OUTLET DETAIL



NOTES:

1. E.C. SHALL COORDINATE WITH LOCAL TELEPHONE COMPANY TO BRING NEW TELEPHONE SERVICE TO SITE
2. PROVIDE 1"C WITH PULL STRING TO EACH TENANT SPACE. SEE ELECTRICAL FLOOR PLANS FOR MORE INFORMATION.
3. THIS DETAIL IS TYPICAL OF BOTH TELECOM AND TV CABINETS. PROVIDE (1) FOR EACH SERVICE. COORDINATE WITH OWNER ON REQUIREMENTS.

NO SCALE

② TYPICAL TELEPHONE/TV RISER DIAGRAM

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	LUMENS	CCT	WATTS	DRIVER	VOLTAGE	MANUFACTURER	MODEL	REMARKS
A	6" ROUND SURFACE MOUNTED DOWNLIGHT	1,000	3000K	15W	INTEGRAL LED DRIVER	120V	PRESCOLITE	LBSD-RD	MATTE WHITE FINISH FIELD SELECTABLE LUMENS SWITCHABLE CCT
B	BREEZEWAY EXTERIOR WALL LIGHT	546	3000K	12.5W	INTEGRAL LED DRIVER	120V	LIGHTWAY	MENW-600-LED-F	VERIFY FINISH WITH ARCHITECT WET LOCATION LISTED
C	6"Wx12"H EXTERIOR PATIO LIGHT	1,000	3500K	12W	INTEGRAL LED DRIVER	120V	LIGHTWAY	MENW-600-LED-F	VERIFY FINISH WITH ARCHITECT WET LOCATION LISTED
D	4 FT. LED STRIP	5,000	3500K	42W	INTEGRAL LED DRIVER (STANDARD 0-10V DIMMING)	UNIV	COOPER	SNX	PROVIDE CHAIN FOR PENDANT MOUNTING PROVIDE WIRE GUARD LENSED DLC LISTED
E1	EXTERIOR EMERGENCY BATTERY EGRESS LIGHT AIMABLE	-	3500K	2W	INTEGRAL LED DRIVER	120V	EXIT LIGHT CO.	EL-LWET	TEST SWITCH PROVIDED SEALED 90 MINUTE BATTERY WHITE
E2	EXTERIOR EMERGENCY BATTERY EGRESS LIGHT AND EXIT COMBO	-	3500K	3W	INTEGRAL LED DRIVER	120V	EXIT LIGHT CO.	WLFCOMBO	TEST SWITCH PROVIDED SEALED 90 MINUTE BATTERY WET LOCATION LISTED RATED FOR OUTDOOR USE WHITE HOUSING, RED LETTERING

NOTES:

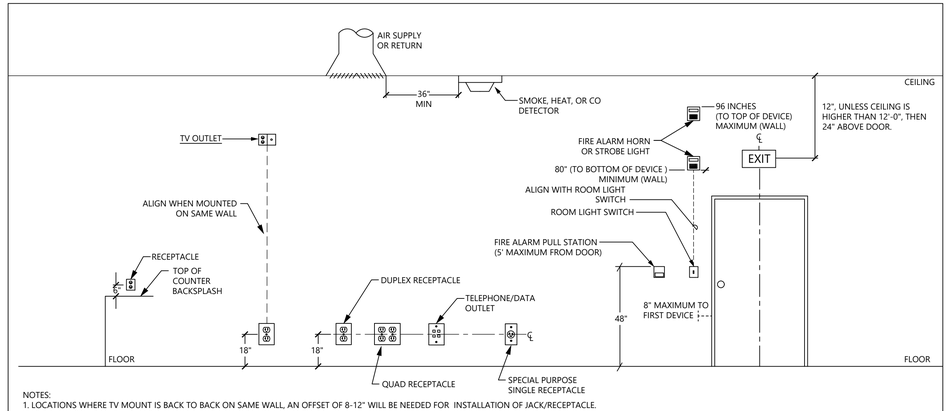
1	ALL FIXTURES SHALL BE LED UNLESS OTHERWISE SPECIFIED. COLOR TEMPERATURE SHALL BE 3500K UNLESS OTHERWISE NOTED.
2	LED DRIVERS SHALL BE PROVIDED AS PER MANUFACTURER RECOMMENDATIONS.
3	COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS.
4	FIXTURES IN FIRE RATED CEILING SHALL BE PROVIDED WITH FIRE RATED TENTS AS REQUIRED.
5	SUSPEND ALL FOUR CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.
6	FIXTURES WITH EMERGENCY BATTERY PACKS SHALL BE SUPPLIED WITH 1100 LUMEN INVERTERS.
7	PROVIDE INTEGRAL SURGE PROTECTION ON ALL EXTERIOR LED DRIVER FIXTURE TYPES.
8	DIMMING OF FIXTURES SHALL BE WITH A SWITCH AS RECOMMENDED BY THE DRIVER MANUFACTURER. COORDINATE COMPATABILITY OF ALL SWITCHES WITH APPROVED FIXTURES PRIOR TO ORDERING.
9	THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.
10	DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.
11	NO SUBSTITUTIONS WILL BE ALLOWED DUE TO LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.
12	ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILTY OF THE CONTRACTOR.
13	FIXTURES TO BE INSTALLED IN CEILINGS, INDICATED ON ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH CEILING SURFACE, SHALL BE IC RATED BY MANUFACTURER.
14	LED DRIVERS LOCATED IN UNCONDITIONED SPACES SHALL BE RATED FOR 90 DEGREES F.
15	PROVIDE 90 MINUTE EMERGENCY BATTERY BACK UP. EMERGENCY BACK UP SHALL BE BASED ON TYPE OF FIXTURE, LED DRIVER, BALLAST, ETC. EMERGENCY BACKUP SHALL BE DUAL INPUT FOR BOTH SWITCHING AND CHARGING. PROVIDE UNSWITCHED "HOT" FROM LOCAL CIRCUIT UNLESS OTHERWISE INDICATED ON PLANS. PROVIDE WITH INDICATOR LIGHT. INSTALL LED INDICATOR ON LIGHT FIXTURE UNLESS DECORATIVE. DECORATIVE FIXTURES SHALL HAVE INDICATOR PLACED AT LOCAL CEILING. BODINE, PHILLIPS, POWER SENTRY OR EQUAL.
16	CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIAL FOR UP TO (3) ADDITIONAL EXIT SIGNS AND (5) ADDITIONAL EMERGENCY BUGEYE FIXTURES AS REQUIRED BY LOCAL AHJ.

DEVICES AND PATHWAYS

	CONDUIT AND/OR WIRING SYSTEM CONCEALED BEHIND WALL OR ABOVE CEILING.
	CONDUIT AND/OR WIRING SYSTEM CONCEALED IN SLAB, UNDER SLAB, OR UNDERGROUND.
	CIRCUIT HOMERUN TO PANEL CALLED OUT ON PLANS, EACH ARROWHEAD REPRESENTS (1) CIRCUIT.
	DUPLEX RECEPTACLE MOUNTED 18"AFF UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR TYPE AND EQUALS.
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER OR AT HEIGHT NOTED. MOUNT 48" TO CENTER OF DEVICE IF NO HEIGHT NOTED AND/OR NOT SHOWN AT A COUNTER TOP.
	QUAD RECEPTACLE, (2) 5-20R DUPLEX RECEPTACLES.
WH	QUAD RECEPTACLE FOR ELECTRIC WATER COOLER. EXACT LOCATION SHALL BE COORDINATED WITH PLUMBING CONTRACTOR. PROVIDE CIRCUIT WITH GFI (CLASS-A 6mA, PERSONNEL) BREAKER.
GFI	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. NEMA 5-20R.
GFIB	DUPLEX RECEPTACLE WITH GFI AT BREAKER. NEMA 5-20R. REFER TO PANEL SCHEDULES.
WPGFI	WEATHERPROOF AND GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. COVER BASED ON INTERMATIC #WP1020 (CLEAR).
J	JUNCTION BOX. 4" SQUARE BOX WITH SINGLE GANG OPENING AND PLASTER RING, UNLESS NOTED OTHERWISE.
J	WALL MOUNTED JUNCTION BOX. 4" SQUARE BOX WITH SINGLE GANG OPENING AND PLASTER RING, UNLESS NOTED OTHERWISE. BOX SHALL BE RECESSED IN WALL WITH NOT EXPOSED CONDUIT, UNLESS NOTED OTHERWISE.
	SPECIAL RECEPTACLE; SEE PLANS FOR TYPE.
TV	TV POWER AND DATA CONNECTION, SEE DETAIL. MOUNT 72"AFF UNLESS NOTED OTHERWISE.
	SIX GANG FLUSH MOUNTED FLOOR BOX WITH ACCESSIBLE COVER FOR POWER AND COMMUNICATIONS. PROVIDE FIVE NEMA 5-20R DUPLEX RECEPTACLES AND ONE COMM. PLATE WITH PROVISION FOR SIX RJ45 CAT6 JACKS. EQUAL TO WIREMOLD RFB6E-OG-8CT. ARCHITECT TO SELECT FINISH. STUB FROM BOX ONE CONCEALED 1 1/4" ROUTED TO WHICHEVER IS NEAREST, BB, J-HOOKS, OR CABLE TRAY. EQUALS: HUBBELL, THOMAS & BETTS, OR SPECIFICATION EQUAL.

LIGHTING

	LED LIGHTING FIXTURE. SEE FIXTURE SCHEDULE. SUSPEND FOUR CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.
	LED STRIP FIXTURE.
	LED LIGHTING FIXTURE.
	WALL MOUNTED LED LIGHTING FIXTURE.
	LED DOWNLIGHT WITH AN EMERGENCY BATTERY DRIVER. BASED ON 1100 LUMEN INVERTER (SEE SCHEDULE FOR FIXTURE LUMEN MAXIMUM.)
EX1	EXIT LIGHT WITH ARROWS AND NUMBERS OF FACES AS INDICATED ON PLANS. 90 MIN BATTERY BACKUP. SEE LIGHTING FIXTURE SCHEDULE.
	EXTERIOR EMERGENCY FIXTURE WITH EMERGENCY DRIVER. PROVIDE 1100 LUMEN INVERTER RATED FOR 90 MINUTE OPERATION. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.
E1	EMERGENCY BUGEYE FIXTURE. PROVIDE BATTERY BACKUP RATED FOR 90 MINUTE OPERATION. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.
E2	EMERGENCY BUGEYE FIXTURE/EXIT SIGN COMBO FIXTURE. PROVIDE BATTERY BACKUP RATED FOR 90 MINUTE OPERATION. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.
S	SINGLE POLE SWITCH, 20 AMP, 120/277 VOLT, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
S_3	THREE WAY SWITCH, 20 AMP, 120/277 VOLT, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
S_D	INDICATES BI-LEVEL SWITCHING/DIMMING. SWITCHES DIM FIXTURES 100/50/0, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
S_{OC}	WALLBOX OCCUPANCY SWITCH. PIR TECHNOLOGY, AUTO-ON, 120/277V RATED. COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.



NOTES:
1. LOCATIONS WHERE TV MOUNT IS BACK TO BACK ON SAME WALL, AN OFFSET OF 8-12" WILL BE NEEDED FOR INSTALLATION OF JACK/RECEPTACLE.
2. DEVICES ABOVE COUNTER TOPS SHALL BE A MAXIMUM OF 48" TO TOP OF DEVICE.

NO SCALE

③ MOUNTING HEIGHTS OF DEVICES - ELEVATION

LOW VOLTAGE (PATHWAYS ONLY)

	TELE/DATA OUTLET ABOVE COUNTER OR HEIGHT SPECIFIED. 1" EC TO ABOVE NEAREST ACCESSIBLE CEILING FOR J-HOOK SYSTEM OR TO LOCAL CABLE TRAY (WITHIN 6") AS APPLICABLE WITH PULL STRING. 4" SQUARE BOX WITH A SINGLE-GANG OPENING AND PLASTER RING.
	TELE/DATA OUTLET. 1" EC TO ABOVE NEAREST ACCESSIBLE CEILING FOR J-HOOK SYSTEM OR TO LOCAL CABLE TRAY (WITHIN 6") AS APPLICABLE WITH PULL STRING. 4" SQUARE BOX WITH A SINGLE-GANG OPENING AND PLASTER RING.
WAP	ABOVE CEILING, STRUCTURE MOUNTED JUNCTION BOX FOR WIRELESS ACCESS LOW VOLTAGE CABLING. 4" SQUARE BOX WITH A TWO-GANG OPENING. STUB 1" EC FROM BOX TO J-HOOKS OR CABLETRAY ABOVE ACCESSIBLE CEILING. PROVIDE CABLING, TERMINATIONS, AND FACEPLATE PER SPECIFICATIONS.

FIRE ALARM

FACP	FIRE ALARM CONTROL PANEL WITH LOCAL SMOKE DETECTOR
RA	FIRE ALARM REMOTE ANNUNCIATOR. PROVIDE BOX AS REQUIRED PER MANUFACTURER RECOMMENDATION. PROVIDE 1"C CONDUIT FOR CABLING.
F	FIRE ALARM MANUAL STATION. PROVIDE PROTECTION DEVICE.
	CEILING MOUNTED SMOKE DETECTOR. FA VENDOR PROVIDED.
	CEILING MOUNTED HEAT DETECTOR.
CO	CEILING MOUNTED CARBON MONOXIDE DETECTOR.
	DUCT MOUNTED SMOKE DETECTOR. FURNISHED AND CONNECTED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR. CUTTING OF DUCT, INSTALLATION OF DETECTOR, AND DETERMINATION OF SAMPLING TUBE LENGTH SHALL BE THE MECHANICAL CONTRACTOR. PROVIDE REMOTE INDICATING LIGHT WITH EACH DETECTOR.
SB	DETECTOR WITH SOUNDER BASE (SB).
MC	MULTI-CRITERIA DETECTOR (SMOKE/CO/HEAT).
15CD	ADA COMPLIANT WALL MOUNT FIRE ALARM HORN WITH STROBE LIGHT, 15CD UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
15CD	ADA COMPLIANT WALL MOUNT FIRE ALARM STROBE LIGHT, 15CD UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
15CD	ADA COMPLIANT CEILING MOUNTED FIRE ALARM HORN STROBE LIGHT, 15cd, UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
15CD	ADA COMPLIANT CEILING MOUNTED FIRE ALARM STROBE LIGHT, 15cd, UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.

ELECTRICAL EQUIPMENT

	FUSED HEAVY DUTY DISCONNECT SWITCH. NUMERALS INDICATE SWITCH RATING/FUSE SIZE. NEMA 1 ENCLOSURE, UNLESS OTHERWISE NOTED.
GB	PLYWOOD TELEPHONE BACKBOARD WITH TELECOMMUNICATIONS GROUNDING BAR. REFER TO TELECOMMUNICATIONS RISER DIAGRAM FOR DETAILS.
	PANELBOARD. REFER TO POWER RISER DIAGRAM AND PANEL SCHEDULES FOR DETAILS. TOP OF PANEL AT 6'-6" AFF.
	MOTOR RATED SWITCH WITH OVERLOAD PROTECTION.

2018 NORTH CAROLINA ENERGY CONSERVATION CODE

COMMERCIAL ENERGY EFFICIENCY - ELECTRICAL SUMMARY

C401 METHOD OF COMPLIANCE

- ■ 2018 NCECC CHAPTER 4
- ☐ NC SPECIFIC COMCHECK PROVIDED
- ☐ N/A BASED ON PROJECT SCOPE
- ☐ ASHRAE 90.1-2013

C406 ADDITIONAL EFFICIENCY PACKAGE OPTIONS

- ☐ C406.1.1 EFFICIENT MECH EQUIPMENT
- ☐ C406.1.4 ON-SITE RENEWABLE ENERGY
- ■ C406.1.2 REDUCED LTG DENSITY
- ☐ C406.1.5 DEDICATED OA SYSTEM
- ☐ C406.1.3 ENHANCED DIGITAL LTG CNTLS
- ☐ C406.1.6 HI-EFF SERVICE WTR HTG
- ☐ NOT APPLICABLE BASED ON PROJECT SCOPE

C408 - SYSTEM COMMISSIONING:

- ☐ BUILDING IS LESS THAN 10,000 SQUARE FEET AND IS EXEMPT FROM THE SYSTEM COMMISSIONING REQUIREMENTS OF SECTION C408.
- ■ BUILDING IS GREATER THAN 10,000 SQUARE FEET AND REQUIRES SYSTEM COMMISSIONING PER SECTION C408.

C405.2 - LIGHTING CONTROLS (MANDATORY REQUIREMENTS):

- ■ LIGHTING SYSTEMS ARE PROVIDED WITH CONTROLS AS REQUIRED PER SECTION C405.2, EXCEPT WHERE EXEMPT.
- ☐ NOT APPLICABLE

C405.3 - EXIT SIGNS (MANDATORY REQUIREMENTS);

- ■ INTERNALLY ILLUMINATED EXIT SIGNS DO NOT EXCEED 5 WATTS PER SIDE.
- ☐ NOT APPLICABLE

C405.4 - INTERIOR LIGHTING POWER REQUIREMENTS (PRESCRIPTIVE) (NON-EXEMPT):

- ☐ NOT APPLICABLE PER 2018 NCECC C503.1, EXCEPTION 2.G.

C405.4.1 - TOTAL CONNECTED INTERIOR LIGHTING POWER:

12,410 WATTS SPECIFIED

25 % REDUCTION OF SPECIFIED VS. ALLOWED (APPLICABLE IF C406.1.2 IS SELECTED)

C405.4.2 - TOTAL ALLOWABLE INTERIOR LIGHTING POWER:

METHOD OF COMPLIANCE:

- ■ BUILDING AREA METHOD
- ☐ SPACE-BY-SPACE METHOD

16,468 WATTS ALLOWED

C405.5.1 - EXTERIOR BUILDING LIGHTING POWER (NON-EXEMPT):

- ☐ NOT APPLICABLE

TOTAL CONNECTED EXTERIOR LIGHTING POWER:

970 WATTS SPECIFIED

TOTAL ALLOWABLE EXTERIOR LIGHTING POWER:

2,110 WATTS ALLOWED

C405.6 - ELECTRICAL ENERGY CONSUMPTION (DWELLING UNITS);

- ☐ SEPARATE ELECTRICAL METERING HAS BEEN PROVIDED FOR EACH DWELLING UNIT IN GROUP R-2 BUILDINGS.
- ■ NOT APPLICABLE

C405.7 - ELECTRICAL TRANSFORMERS (MANDATORY REQUIREMENTS):

- ☐ ELECTRICAL TRANSFORMERS HAVE BEEN SPECIFIED TO MEET MINIMUM EFFICIENCY REQUIREMENTS PER C405.7, EXCEPT WHERE EXEMPT.
- ■ NOT APPLICABLE

C405.8 - ELECTRICAL MOTORS (MANDATORY REQUIREMENTS):

- ■ ELECTRICAL MOTORS HAVE BEEN SPECIFIED TO MEET MINIMUM EFFICIENCY REQUIREMENTS PER C405.8, EXCEPT WHERE EXEMPT.
- ☐ NOT APPLICABLE

ABBREVIATIONS

+42"	DIMENSION INDICATES HEIGHT ABOVE FINISHED FLOOR AT WHICH CENTER OF DEVICE IS TO MOUNTED. SEE PLANS.
3R	NEMA 3R
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLER UNIT
C.B.	CIRCUIT BREAKER
EC	EMPTY CONDUIT WITH PULL CORD
E.C.	ELECTRICAL CONTRACTOR
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
FACP	FIRE ALARM CONTROL PANEL
FPN	FUSE PER NAMEPLATE
LC	LIGHTING CONTACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
U.G.	UNDERGROUND
WP	WEATHERPROOF
S.E.	SERVICE ENTRANCE
EM	EMERGENCY FIXTURE WITH BATTERY OR GEN. BACK-UP
ER	EXISTING ITEM RELOCATED TO THIS LOCATION.
RL	EXISTING ITEM TO BE RELOCATED.
RM	EXISTING ITEM TO REMAIN.
RP	EXISTING ITEM TO BE REPLACED.
RV	EXISTING ITEM TO BE REMOVED.
Isc	RMS SYMMETRICAL SHORT CIRCUIT CURRENT
AIC	AMPERE INTERRUPTING CAPACITY (EQUIPMENT RATING)

EMERGENCY RESPONDER RADIO COVERAGE

THE ELECTRICAL CONTRACTOR SHALL INCLUDE A SEPARATE LINE ITEM IN HIS BID PROVISIONS FOR THE EMERGENCY RESPONDER RADIO COVERAGE AS REQUIRED PER SECTION 510 EMERGENCY RESPONDER RADIO COVERAGE (ERRC) FOR NEW BUILDINGS. BUILDING SHALL BE TESTED UPON COMPLETION OF CONSTRUCTION AND ADDITIONAL EQUIPMENT PROVIDED AS NEEDED. ALL BUILDINGS SHALL HAVE RADIO COVERAGE FOR EMERGENCY RESPONDERS WITHIN THE BUILDING BASED UPON EXISTING COVERAGE LEVELS FO THE PUBLIC SAFETY COMMUNICATIONS SYSTEM OF THE JURISDICTION AT THE EXTERIOR OF THE BUILDING. THIS SECTION SHALL NOT REQUIRE IMPROVEMENT OF THE EXISTING PUBLIC SAFETY COMMUNICATION SYSTEM.

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- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ELECTRICAL COVER SHEET

SHEET #:
E-01

WILDE #: 24-125

1. GENERAL:

A. THE WORK COVERED BY THESE SPECIFICATIONS CONSISTS OF FURNISHING ALL LABOR, EQUIPMENT, MATERIAL,S AND SUPPLIES AS NECESSARY FOR THE COMPLETE AND SATISFACTORY OPERATING ELECTRICAL SYSTEMS AS SHOWN ON THE PLANS.

B. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, NFPA, STATE BUILDING CODE, AND ANY OTHER LOCAL REQUIREMENTS THAT MAY APPLY.

C. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL ELECTRICAL PERMITS AND INSPECTION FEES.

D. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC. OR BY A STATE APPROVED THIRD PARTY TESTING AGENCY FOR THE USE INTENDED WHERE A STANDARD FOR SUCH MATERIALS AND USE EXISTS. ALL ITEMS OF THE SAME TYPE AND RATING SHALL BE IDENTICAL AND OF THE SAME MANUFACTURER.

E. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CATALOG DATA IN ELECTRONIC FORMAT (PDF) FOR ALL ELECTRICAL ITEMS IN THE SCOPE OF WORK, INCLUDING, BUT NOT LIMITED TO, RACEWAYS, BOXES, FITTINGS, CONDUCTORS, LUMINAIRES, LAMPS, BALLASTS, WIRING DEVICES, SAFETY SWITCHES, DISCONNECTS, TRANSFORMERS, PANELBOARDS, SWITCHBOARDS, FIRE ALARM, TELECOMMUNICATIONS, ETC. FOR APPROVAL AS APPLICABLE FOR THE PROJECT. ONE COMPLETE SET OF APPROVED SUBMITTALS SHALL BE MAINTAINED AT THE JOB SITE.

F. ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT TO COMPLY WITH THE BASIS OF DESIGN, INCLUDING PROVIDING MAINTENANCE ACCESS, CLEARANCE, CONDUIT, WIRING, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, METHODS, ETC., SHALL BE INCLUDED IN THE ORIGINAL BASE BID. NO ADDITIONAL COSTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT WILL BE APPROVED AFTER BIDS HAVE BEEN ACCEPTED AND ALL COSTS WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. CREDITS SHALL BE GIVEN TO THE OWNER WHERE SUCH EQUIPMENT AND METHODS RESULT IN LESS EXPENSE TO THE CONTRACTOR.

G. ONE COMPLETE SET OF THE LATEST CONSTRUCTION PLANS OF ALL TRADES SHALL BE MAINTAINED AT THE JOB SITE. IN ADDITION, ALL ADDENDUMS, BULLETINS, AND/OR SKETCHES SHALL BE INCORPORATED INTO THE ON-SITE CONSTRUCTION PLANS AS THE JOB PROGRESSES.

H. COMPLETELY ADEQUATE HOUSING SHALL BE PROVIDED FOR ALL MATERIALS STORED ON JOB SITE. ONLY CONDUIT MAY BE STORED OUTSIDE, BUT NOT IN CONTACT WITH THE GROUND.

I. THE CONDUIT AND NEUTRAL SYSTEM SHALL BE GROUNDED AT THE MAIN SERVICE EQUIPMENT. GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED PER NEC 250.

J. PROVIDE AN INTERSYSTEM BONDING TERMINATION DEVICE AT THE MAIN ELECTRICAL SERVICE PER NEC 250.94.

K. WIRING SHALL BE TESTED FOR CONTINUITY AND GROUNDS BEFORE BEING ENERGIZED. FAULTY WIRING SHALL BE REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER.

L. PROVIDE ALL CUTTING AND PATCHING FOR INSTALLATION OF WORK AND REPAIR ANY DAMAGE DONE.

M. THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS (UNLESS OTHERWISE NOTED), EXCEPT FOR CONTROL WIRING FOR EQUIPMENT NOT PROVIDED BY THE ELECTRICAL CONTRACTOR. CONTROL WIRING FOR SUCH EQUIPMENT SHALL BE PROVIDED BY THE RESPECTIVE DISCIPLINE.

N. ALL ELECTRICAL JUNCTION BOXES, SWITCHGEAR, CABLING, VOICE/DATA OUTLETS, LOW VOLTAGE CABINETS, EMERGENCY RECEPTACLES, ETC. SHALL BE LABELED ACCORDING TO PANEL/RACK AND CIRCUIT NUMBER.

O. UPON COMPLETION OF WORK, CONTRACTOR SHALL PRESENT ENGINEER WITH CERTIFICATE OF APPROVAL FROM LOCAL INSPECTOR AND/OR AUTHORITY HAVING JURISDICTION BEFORE WORK WILL BE APPROVED FOR FINAL PAYMENT.

P. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR EFFECTIVE THE DATE THE PROJECT IS ACCEPTED BY THE OWNER. ANY IMPERFECT MATERIALS OR WORKMANSHIP SHALL BE REPLACED WITHOUT ADDED COST TO THE PROJECT.

Q. IT SHALL NOT BE THE INTENT OF ISSUED PLANS AND/OR SPECIFICATIONS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE ELECTRICAL CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL NECESSARY ITEMS FOR A COMPLETE AND OPERATING SYSTEM.

R. THE WORD "PROVIDE" MEANS THAT THIS CONTRACTOR SHALL FURNISH, FABRICATE, ERECT, CONNECT, AND COMPLETELY INSTALL SYSTEMS IN PROPER OPERATING CONDITION. ALL LABOR, PRODUCT OPTIONS, ACCESSORIES AND INCIDENTAL MATERIALS REQUIRED SHALL BE INCLUDED AS PART OF THIS WORK TO COMPLETE THE INSTALLATION.

S. THE WORD "CONNECT" MEANS THAT THIS CONTRACTOR SHALL PROVIDE (SEE DEFINITION ABOVE) ALL DISCONNECTING MEANS, OVERCURRENT PROTECTION AND WIRING REQUIRED TO PLACE THE EQUIPMENT AND SYSTEMS IN PROPER OPERATING CONDITION AND TO COMPLY WITH CODE REQUIREMENTS.

T. CONTRACTOR SHALL COORDINATE THE ROUGH-IN OF ALL OUTLET LOCATIONS WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS, AND MILLWORK SHOP DRAWINGS PRIOR TO ROUGH-IN.

U. ELECTRICAL CONTRACTOR SHALL NOT SCALE PLANS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, UNLESS OTHERWISE NOTED.

V. CONTRACTOR SHALL TEST ALL "LIFE SAFETY" EQUIPMENT AND SYSTEMS FOR PROPER FUNCTION AND OPERATION. UPON SUCCESSFUL COMPLETION OF TESTS, CONFIRMATION SHALL BE SENT TO THE ENGINEER OF RECORD IN THE FORM OF A LETTER STATING THE TESTS PERFORMED, THE RESULTS, AND THE DATE TESTS WERE SUCCESSFULLY COMPLETE. "LIFE SAFETY" EQUIPMENT AND SYSTEMS CONSIST OF THOSE AS SPECIFIED IN THE STATE BUILDING CODE, THE NATIONAL ELECTRICAL CODE (NEC), NFPA 101, AND ANY OTHER LOCAL REQUIREMENTS THAT MAY APPLY.

W. IF DURING THE COURSE OF WORK, THE CONTRACTOR DISCOVERS A PROBLEM WITH THE PERFORMANCE OF THE INSTALLATION RELATIVE TO THE PLANS AND SPECIFICATIONS, THE NEC, OR OTHER CODES OR REQUIREMENTS, THE CONTRACTOR SHALL IMMEDIATELY BRING THE PROBLEM TO THE ATTENTION OF THE ARCHITECT AND/OR ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK.

X. WHERE THERE ARE CONFLICTS BETWEEN THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL BRING THE ISSUE TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK OR ORDERING ANY MATERIALS. NO ADDITIONAL COSTS SHALL BE WARRANTED WITHOUT A CHANGE TO THE PROJECT SCOPE.

Y. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PROVIDING TEMPORARY POWER AND LIGHTING FOR ALL TRADES. AT NO TIME SHALL EXISTING BUILDING POWER SYSTEMS BE UTILIZED WITHOUT WRITTEN PERMISSION FROM THE OWNER.

Z. COORDINATE LOCATION AND REQUIREMENTS FOR ELECTRICAL SERVICE WITH THE POWER COMPANY. WHERE MORE THAN ONE SERVICE IS SUPPLIED TO A BUILDING, PROVIDE IDENTIFICATION AT EACH SERVICE PER NEC 230-2(E).

AA. COORDINATE LOCATION AND REQUIREMENTS FOR TELEPHONE SERVICE WITH THE TELEPHONE COMPANY.

AB. THE CONTRACTOR SHALL PROVIDE A MINIMUM TWO WEEK NOTICE FOR ANY PLANNED UTILITY OUTAGES. WRITTEN AUTHORIZATION FROM THE OWNER SHALL BE PROVIDED PRIOR TO ANY OUTAGE. ALL PLANNED UTILITY OUTAGES SHALL BE COORDINATED WITH THE OWNER TO OCCUR DURING NON-OPERATING TIMES, INCLUDING NIGHTS, WEEKENDS AND HOLIDAYS. ALL PLANNED UTILITY OUTAGES SHALL INCLUDE PROVISIONS FOR PROPER BACK-UP OF ALL LIFE-SAFETY SYSTEMS AND INCLUDE AN APPROVED FIRE-WATCH PROGRAM AS REQUIRED BY THE LOCAL FIRE MARSHALL.

2. RACEWAY:

A. CONDUIT SHALL BE MANUFACTURED BY ALLIED, WHEATLAND, REPUBLIC CONDUIT, WESTERN TUBE, OR APPROVED EQUIVALENT.

B. FOR INTERIOR WORK, CONDUIT SHALL BE ZINC COATED EMT EXCEPT WHERE NOT PERMITTED BY CODE. USE SCHEDULE 40 PVC BELOW CONCRETE SLAB, IN DUCTBANKS, AND FOR EXTERIOR WORK WHERE NOT SUBJECT TO DAMAGE. USE IMC WHERE SUBJECT TO PHYSICAL DAMAGE.

C. EMT FITTINGS SHALL BE COMPRESSION GLAND TYPE, OF MALLEABLE STEEL. CONNECTORS SHALL HAVE INSULATED THROATS. CAST, SET SCREW, OR INDENTER TYPE FITTINGS ARE NOT ACCEPTABLE. ALL FITTINGS FOR EMT SHALL BE MADE OF STEEL.

D. ALL RACEWAY SHALL BE RUN CONCEALED, UNLESS OTHERWISE NOTED. FISH ALL NEW OUTLETS IN EXISTING WALLS, WHERE POSSIBLE. ALL RUNS SHALL BE NEAT AND SQUARE.

E. LOW VOLTAGE CABLING NOT SPECIFIED TO BE INSTALLED IN CONDUIT, SHALL BE INSTALLED IN A CABLE TRAY SYSTEM OR J-HOOK SYSTEM CONSISTING OF MINIMUM 2" DIAMETER HOOKS LOCATED ON 3'-0" CENTERS IN ALL ACCESSIBLE CEILINGS. WHERE THERE ARE INACCESSIBLE CEILINGS, PROVIDE CONDUIT FOR ENTIRE LENGTH OF INACCESSIBILITY.

F. RACEWAYS USED FOR LOW VOLTAGE SYSTEMS SUCH AS TELECOMMUNICATIONS, FIRE ALARM, SECURITY, CCTV, CONTROLS, AND SIMILAR CONDUITS ABOVE THE CEILING AND BACKBOARD(S) SHALL BE PROVIDED WITH INSULATED THROAT BUSHINGS AT EACH CONDUIT TERMINATION. THESE BUSHINGS SHALL BE BE INSTALLED PRIOR TO PULLING LOW-VOLTAGE CABLES.

G. RACEWAY PENETRATIONS THROUGH FLOOR SLABS AND FIRE-RATED WALLS SHALL BE FILLED WITH IMPERVIOUS, NON-SHRINK GROUT SUFFICIENTLY TIGHT TO PREVENT THE TRANSFER OF SMOKE, WATER, AND DUST. ROOF PENETRATIONS SHALL BE WITHIN THE EQUIPMENT ROOF CURB.

H. SUPPORT ALL CONDUIT WITH STRAPS AND CLAMPS.

I. ALL CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES, WHETHER EXPOSED OR NOT AND SUPPORTED FROM STRUCTURE AND PROPERLY SECURED.

J. WHERE CONDUITS PASS THROUGH A BUILDING EXPANSION JOINT, PROVIDE GALVANIZED EXPANSION FITTINGS WITH BONDING JUMPERS.

K. MINIMUM CONDUIT SIZE SHALL BE 3/4" FOR INTERIOR WORK, 1" FOR EXTERIOR WORK.

L. PROVIDE MINIMUM 210# TEST NYLON PULL CORD AND NYLON BUSHINGS IN ALL EMPTY RACEWAYS.

M. LIQUID-TIGHT METAL CONDUIT SHALL ONLY BE USED FOR FINAL CONNECTIONS TO EQUIPMENT AND ALL OTHER ROTATING AND VIBRATING EQUIPMENT, MAXIMUM LENGTH OF 3'-0".

N. FLEXIBLE METAL CONDUIT, MINIMUM SIZE 3/8", SHALL ONLY BE USED FOR FINAL CONNECTION TO LIGHTING FIXTURES, MAXIMUM LENGTH OF 6'-0".

O. PROVIDE PULL BOXES, SUCH THAT NO SINGLE CONDUIT RUN HAS BENDS IN EXCESS OF 360°. PULL BOXES SHALL BE SUITABLE AND APPROVED FOR THE INTENDED USE. WHERE CONDUITS PASS UNDER PAVED AREAS, THEY SHALL BE RGS.

P. ALL CONDUIT BENDS/ELBOWS EMERGING FROM UNDERGROUND SHALL BE IMC AND SHALL EXTEND A MINIMUM OF 18" BELOW GRADE.

Q. ALL UNDERGROUND RACEWAYS SHALL BE THOROUGHLY COATED WITH TWO COATS OF ASPHALTUM BITUMASTIC.

R. ALL CONDUITS INSTALLED UNDERGROUND OR IN CONCRETE SHALL HAVE JOINTS MADE WATERTIGHT BY USE OF POLYETRA-FLUOROETHYLENE TAPE.

S. THE USE OF AC OR NM CABLE IS NOT PERMITTED.

T. MC CABLE MAY ONLY BE UTILIZED WHERE PERMITTED BY CODE AND IT SHALL ONLY BE ALLOWED WHERE CONCEALED BEHIND HARD WALLS AND HARD CEILINGS. MC CABLE SHALL NOT BE EXPOSED.

3. OUTLET BOXES:

A. JUNCTION AND PULL BOXES SHALL BE CODE GAUGE GALVANIZED STEEL. ACCEPTED MANUFACTURERS SHALL BE STEEL CITY (THOMAS & BETTS), RACO, CROUSE-HINDS, APPLETON (EMERSON), OR APPROVED EQUIVALENT.

B. OUTLET BOXES SHALL NOT BE MOUNTED BACK TO BACK IN COMMON WALLS.

C. ATTACH EMT WITH CONNECTORS HAVING INSULATED THROAT.

D. ATTACH BOXES TO STUD WORK USING CADDY BAR STRAPS THAT CONNECT TO TWO ADJACENT STUDS TO PREVENT TWISTING OF BOX IN WALL.

E. ALL OUTLET BOXES (INCLUDING TELEPHONE, CABLE TV, AND COMPUTER) SHALL HAVE COVER PLATES, BLANK IF NOT USED.

F. ALL EXTERIOR BOXES SHALL BE WATER-TIGHT.

4. CONDUCTORS:

A. CONDUCTORS SHALL BE MANUFACTURED BY SOUTHWIRE (SIMPULL), ENCORE (SUPERSLICK), UNITED COPPER (SLK), CERRO (SLP), OR APPROVED EQUAL, "PRE-LUBRICATED" BY THE MANUFACTURER.

B. ALL CONDUCTORS SHALL BE COPPER, RATED 75° C WET/DRY EXCEPT WHERE OTHERWISE NOTED OR REQUIRED BY U.L. OR OTHER CODES.

C. ALL CONDUCTORS SHALL BE SINGLE INSULATED CONDUCTOR, THHN/THWN-2. SIZES #10 AWG AND SMALLER SHALL BE SOLID, SIZES #8 AWG AND LARGER SHALL BE STRANDED.

D. BRANCH CIRCUITS SHALL NOT BE SMALLER THAN #12 AWG. CONTROL WIRING MAY BE #14 AWG.

E. CONDUCTORS SHALL BE COLOR CODED BLACK/RED/BLUE FOR 120/208 VOLT SYSTEMS AND BROWN/ORANGE/YELLOW FOR 277/480 VOLT SYSTEMS FOR A, B, AND C PHASES, RESPECTIVELY. NEUTRAL SHALL BE WHITE FOR 120/208 VOLT SYSTEMS AND NATURAL GRAY FOR 277/480 VOLT SYSTEMS. GROUND CONDUCTOR SHALL BE GREEN ON ALL SYSTEMS. ALL CONDUCTOR SIZES SHALL HAVE COLOR-CODED INSULATION. THE USE OF COLORED TAPE ON LARGER WIRE SIZES SHALL NOT BE ALLOWED.

F. INSULATION SHALL BE DUAL RATED TYPE THHN/THWN-2 FOR FEEDERS AND BRANCH CIRCUITS. FIXTURE TAPS SHALL BE #12 THHN/THWN-2 IN FLEX WITH GREEN #12 AWG GROUNDING CONDUCTOR.

G. ALL CONDUCTORS SHALL BE IN CONDUIT.

H. WIRING TO LIGHTING FIXTURES SHALL BE AS REQUIRED BY UL LABEL.

I. MULTI-WIRE BRANCH CIRCUITS SHALL NOT BE ALLOWED, UNLESS EXPLICITLY INDICATED ON THE DRAWINGS. WHERE EXPLICITLY INDICATED ON THE DRAWINGS:

  1) ALL 20A MULTI-WIRE RECEPTACLE CIRCUITS SHALL UTILIZE A #10 AWG NEUTRAL CONDUCTOR.

  OR

  2) ONLY WHERE PERMITTED UNDER "RACEWAYS", MC CABLE ASSEMBLIES CAN BE AFC "SUPER NEUTRAL" OR EQUAL, UNLESS OTHERWISE INDICATED ON THE DRAWINGS. WHERE MULTI-WIRE BRANCH CIRCUITS ARE EXPLICITLY INDICATED ON THE DRAWINGS, THEY SHALL BE INSTALLED PER NEC 210.4. MEANS SHALL BE PROVIDED TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES IN ADDITION TO OTHER REQUIREMENTS PER NEC 210.4.

J. JOINTS IN #10 AWG AND SMALLER SHALL BE MADE UP WITH CRIMPED CONNECTORS WITH INSULATING CAPS (NO TAPE) OR WIRENUTS (MAXIMUM OF 3 CONDUCTORS UNDER ANY CONNECTOR OR WIRENUT). LARGER WIRE SHALL USE SPLIT BOLTS OR BOLTED CLAMPS.

K. ALL WIRING LUGS THROUGHOUT THE PROJECT, INCLUDING, BUT NOT LIMITED TO, BREAKERS, PANELBOARD/SWITCHBOARD LUGS, SAFETY SWITCH LUGS, MOTOR STARTER LUGS, TRANSFORMERS LUGS, WIRING DEVICE TERMINALS, AND ALL EQUIPMENT LUGS/TERMINALS SHALL BE RATED FOR USE WITH 75 DEGREE INSULATED CONDUCTORS AT THEIR 75 DEGREE AMPACITY AND SHALL BE SIZED AND SELECTED TO MATCH THE CONDUCTOR SIZE AND MATERIAL.

L. CIRCUIT JOINTS SHALL NOT BE MADE ON DEVICE TERMINALS.

M. WIRE WITHIN PANELBOARDS SHALL BE NEATLY TRAINED, SQUARED, BUNCHED, AND TAGGED.

N. ALL SYSTEM FURNITURE CONNECTIONS SHALL COMPLY WITH NEC 605.

O. GROUND ALL EQUIPMENT PER NEC ARTICLE 250. BOND WHERE CONDUITS ENTER ENCLOSURES THROUGH CONCENTRIC KNOCKOUTS. ALL FLEX, INCLUDING FIXTURE TAPS, SHALL INCLUDE GREEN GROUNDING CONDUCTOR, #12 AWG MINIMUM. PROVIDE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT AND FOR EACH CIRCUIT, SIZED PER NEC 250-122.

P. ALL CONDUCTORS INSTALLED IN VERTICAL RACEWAYS SHALL BE SUPPORTED AT INTERVALS AS REQUIRED PER NEC 300-19.

Q. THE ELECTRICAL CONTRACTOR SHALL FOLLOW AND APPLY THE TABLE BELOW, REGARDLESS WHAT THE PANEL SCHEDULE INDICATES, FOR SIZING ALL 120V & 277V, 20 AMP BRANCH CIRCUITS (COPPER CONDUCTORS) TO ALLOW A MAXIMUM OF 3% VOLTAGE DROP FROM THE CIRCUIT BREAKER TO THE FIRST DEVICE ON THE BRANCH CIRCUIT AND ACHIEVE A MAXIMUM OF 5% VOLTAGE DROP ACROSS THE ENTIRE BRANCH CIRCUIT:

VOLTAGE	CONDUCTOR LENGTH *	BRANCH CIRCUIT
120	0' - 50'	#12
120	51' - 90'	#10
120	91' - 140'	#8
120	141' - 225'	#6

* - THE LENGTH IS MEASURED FROM THE CIRCUIT BREAKER TO THE FIRST DEVICE WHICH THE BRANCH CIRCUIT SERVES. WHERE THE DISTANCE EXCEEDS ABOVE, CONSULT WITH THE ENGINEER.

5. WIRING DEVICES:

A. WIRING DEVICES SHALL BE SPECIFICATION GRADE, MINIMUM, EQUAL TO COOPER QUALITY INDICATED BELOW OR AS MANUFACTURED BY HUBBELL, LEGRAND-PASS & SEYMOUR, LEVITON, OR APPROVED EQUAL, UNLESS OTHERWISE NOTED:

SWITCHES (120/277V) SHALL BE AS FOLLOWS:

SINGLE-POLE 20 AMP	COOPER AH1221
DOUBLE-POLE 20 AMP	COOPER AH1222
THREE-WAY 20 AMP	COOPER AH1223
FOUR-WAY 20 AMP	COOPER AH1224
SINGLE-POLE-PILOT 20 AMP	COOPER AH1221PL
DOUBLE-POLE-PILOT 20 AMP	COOPER AH1222PL
THREE-WAY-PILOT 20 AMP	COOPER AH1223PL
SINGLE-POLE-KEY 20 AMP	COOPER AH1221L
DOUBLE-POLE-KEY 20 AMP	COOPER AH1222L
THREE-WAY-KEY 20 AMP	COOPER AH1223L
FOUR-WAY-KEY 20 AMP	COOPER AH1224L

DUPLEX RECEPTACLES SHALL HAVE A NYLON FACE AND SHALL BE AS FOLLOWS:

15 AMP DUPLEX	COOPER 5252
20 AMP DUPLEX	COOPER 5352
15 AMP DUPLEX GFCI	COOPER SGF15F
20 AMP DUPLEX GFCI	COOPER SGF20F
15 AMP DUPLEX TAMPER	COOPER TR5262
20 AMP DUPLEX TAMPER	COOPER TR5362
15 AMP DUPLEX GFCI-TAMPER	COOPER TRSGF15F
20 AMP DUPLEX GFCI-TAMPER	COOPER TRSGF20F

THE PART NUMBERS ABOVE ARE FOR WIRING DEVICE TYPE ONLY. SEE BELOW FOR WIRING DEVICE COLOR AND PLATE MATERIAL/COLOR.

B. SEE MOUNTING HEIGHT ELEVATION DETAIL FOR STANDARD MOUNTING HEIGHTS OF ALL DEVICES, UNLESS OTHERWISE NOTED.

C. THE COLOR OF ALL WIRING DEVICES (SWITCHES AND RECEPTACLES) SHALL BE AS DIRECTED BY THE ARCHITECT, UNLESS OTHERWISE NOTED. ALL COVER PLATES SHALL BE 302 STAINLESS STEEL. COVER PLATES IN MASONRY WALLS SHALL BE JUMBO SIZE.

D. EACH DUPLEX RECEPTACLE INDICATED TO BE ON A DEDICATED CIRCUIT SHALL BE 20 AMP TYPE.

E. ADJACENT DEVICES SHALL HAVE A COMMON WALL PLATE.

F. WEATHERPROOF COVERS SHALL BE "WHILE-IN-USE" SO PLUGS MAY BE INSTALLED WITHOUT COMPROMISING THE WP FUNCTION. COOPER #WIU-2 DOUBLE-GANG WITH CLEAR COVER OR APPROVED EQUAL.

G. A MAXIMUM OF 10 GENERAL PURPOSE RECEPTACLES SHALL BE ON EACH BRANCH CIRCUIT.

H. DIMMERS SHALL BE LINEAR SLIDE, PRESENT ON/OFF, SQUARE LAW DIMMING, W/RFI FILTERING AND VOLTAGE COMPENSATION CIRCUITING.

I. ALL WALL MOUNTED OCCUPANCY/VACANCY SENSORS/SWITCHES SHALL BE INSTALLED WITH AN EQUIPMENT GROUNDING CONDUCTOR.

J. GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.8, INSTALLED IN A READILY ACCESSIBLE LOCATION. WHERE A DEVICE LOCATION IS NOT ACCESSIBLE, THE GFCI PROTECTION SHALL BE PROVIDED WITH THE BREAKER SERVING THE DEVICE.

K. ALL GFCI RECEPTACLES SHALL HAVE AUTO-MONITORING / SELF-TEST FUNCTION AND REVERSE LINE-LOAD MISFIRE FUNCTION AND MEET ALL REQUIREMENTS OF UL 943 (LATEST EDITION).

L. TAMPER-RESISTANT RECEPTACLES SHALL BE PROVIDED FOR ALL AREAS PER NEC 406.12, INCLUDING DWELLING UNITS, GUEST ROOMS, GUEST SUITES AND COMMON AREAS OF HOTELS AND MOTELS, CHILD-CARE FACILITIES, PRESCHOOL AND ELEMENTARY EDUCATION FACILITIES, BUSINESS OFFICES/CORRIDORS/WAITING ROOMS AND THE LIKE IN CLINICS/MEDICAL/DENTAL OFFICES AND OUTPATIENT FACILITIES, ASSEMBLY OCCUPANCIES INCLUDING PLACES OF AWAITING TRANSPORTATION/GYMNASIUMS/SKATING RINKS/AUDITORIUMS, AND DORMITORIES/STUDENT HOUSING.

6. SUPPORTS:

A. ALL EQUIPMENT SHALL BE ADEQUATELY SUPPORTED FROM STRUCTURE.

B. INSERTS IN MASONRY SHALL BE LEAD OR FIBER IN DRILLED HOLES, OR CAST IN PLACE.

C. NAILS OR POWDER ACTUATED FASTENERS SHALL NOT BE USED.

D. EMT/IMC/RGS SUPPORTS SHALL BE A MAXIMUM OF 8'-0" APART AND A MAXIMUM OF 3'-0" FROM BOXES.

E. LIGHTING FIXTURES MOUNTED IN OR ON CEILING SHALL BE SUPPORTED FROM STRUCTURE VIA 12 GAUGE STEEL WIRE. PROVIDE A MINIMUM OF FOUR WIRES, ONE ATTACHED TO EACH CORNER OF LAY-IN FIXTURES. RECESSED DOWNLIGHT FIXTURES SHALL BE SUPPORTED THE SAME. DO NOT SUPPORT RACEWAY OR FIXTURES FROM CEILING GRID OR DUCT WORK. USE U.L. LISTED GRID CLIPS ON ALL LAY-IN FIXTURES.

8. TELECOMMUNICATIONS:

A. FURNISH A COMPLETE TELEPHONE CONDUIT SYSTEM AS INDICATED ON THE DRAWINGS.

B. TELECOMMUNICATION OUTLETS SHALL CONSIST OF A 4" SQUARE DEEP BOX WITH SINGLE GANG PLASTER RING. PROVIDE BLANK PLATE WITH KNOCKOUTS FOR OUTLETS, AS PERMANENT COVERS WILL BE PROVIDED BY A SEPARATE INSTALLER.

C. PROVIDE MINIMUM 1" RACEWAY, UNLESS OTHERWISE NOTED, FROM EACH BOX TO ABOVE NEAREST ACCESSIBLE CEILING SPACE FOR J-HOOK SYSTEM OR TO CABLE TRAY AS APPLICABLE. PROVIDE MINIMUM 210# TEST NYLON PULL CORD AND NYLON BUSHINGS IN ALL EMPTY RACEWAYS.

D. PROVIDE RACEWAYS FOR ALL EXTERIOR AND/OR EXPOSED LOCATIONS.

E. PROVIDE GROUNDING FOR ALL TELEPHONE/DATA SYSTEMS AND EQUIPMENT PER REQUIREMENTS AND SPECIFICATIONS PROVIDED BY THE OWNERS DESIGNATED VENDOR.

F. ALL LOW-VOLTAGE CABLING SHALL BE PLENUM-RATED.

G. CONTRACTOR SHALL FURNISH AND INSTALL A #6 AWG GREEN INSULATED COPPER WIRE IN CONDUIT FROM THE MAIN ELECTRICAL GROUNDING BAR TO TELECOMMUNICATIONS GROUNDING BUS BAR.

H. PROVIDE MOUNTING BACKBOARDS FOR COMMUNICATIONS EQUIPMENT. BACKBOARDS SHALL BE OF 3/4" TYPE AC, EXTERIOR PLYWOOD, PAINTED BOTH SIDES AND ALL EDGES WITH 2 COATS OF GRAY FLAME RETARDANT PAINT.

I. VERIFY SITE LOCATION OF TELEPHONE SERVICES WITH APPROPRIATE VENDOR, PRIOR TO SUBMITTING BID. TELEPHONE SERVICE CONDUITS SHALL BE PROVIDED TO THE PROPERTY LINE OR POINT AS DIRECTED BY THE LOCAL UTILITY.

9. LIGHTING FIXTURES:

A. TYPES AND MANUFACTURERS ARE SCHEDULED ON THE PLANS. EQUIVALENT FIXTURES BY OTHERS MAY BE SUBMITTED ONLY AS INDICATED ON THE PLANS AND ARE SUBJECT TO THE APPROVAL OF THE OWNER AND ENGINEER.

B. ALL FIXTURES SHALL BE U.L. LISTED AND LABELED.

C. LAMPS SHALL BE GENERAL ELECTRIC, PHILIPS, OR OSRAM/SYLVANIA EXCEPT WHERE OTHERWISE NOTED IN THE LIGHTING FIXTURE SCHEDULE OR OTHERWISE NOTED. ALL FIXTURES SHALL BE EQUIPPED WITH LAMPS.

D. BALLASTS SHALL BE AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE OR AS OTHERWISE NOTED.

E. ALL FIXTURES SHALL BE PROVIDED FOR PROPER VOLTAGE BASED ON THE CIRCUIT ASSIGNMENT INDICATED ON THE PLANS.

F. CATALOG NUMBERS ARE FOR GENERAL IDENTIFICATION OF FIXTURES ONLY. ALL RELATED PARTS, SUCH AS PLASTER RINGS, JUNCTION BOXES, LOUVERS, SHIELDS, MOUNTING STEMS, CANOPIES, CONNECTORS, STRAPS, NIPPLES, HARDWARE, ACCESSORIES, ETC., TO FIT THEM PROPERLY TO THE CONSTRUCTION, SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTRACTOR SHALL PROVIDE SUITABLE TRIM AND APPURTENANCES TO MOUNT FIXTURES IN TYPE OF CEILING OR WALL AS SPECIFIED IN ARCHITECTURAL FINISH SCHEDULES REGARDLESS OF CATALOG NUMBER GIVEN.

G. ALL FIXTURES SHALL BE GROUNDED PER THE NEC.

H. FIXTURES CONNECTED WITH FLEX TO THE RIGID RACEWAY PORTION OF THE WIRING SYSTEM SHALL CARRY A GREEN BONDING JUMPER WITHIN THE FLEX. THE JUMPER SHALL BE FASTENED TO BOTH THE FIXTURE AND THE RACEWAY SYSTEM WITH A STEEL CITY "G" CLIP OR APPROVED EQUIVALENT. PHASE AND GROUND CONDUCTORS RUN IN FLEX SHALL BE #12 AWG MINIMUM. MAXIMUM FLEX LENGTH SHALL BE 6'-0".

I. SURFACE-MOUNTED FLUORESCENT FIXTURES INSTALLED ON COMBUSTIBLE MATERIAL SHALL BE MOUNTED AT LEAST 1/4" FROM THE SURFACE OF THE MATERIAL, EXCEPT FOR FIXTURES WHICH ARE PLAINLY MARKED AS U.L. APPROVED FOR MOUNTING DIRECTLY TO SUCH SURFACES.

J. MOUNT ALL FIXTURES PLUMB AND SQUARE WITH ROWS ALIGNED.

K. FLUORESCENT LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS WITHER INTEGRAL OR EXTERNAL TO EACH LUMINAIRE PER NEC 410.130(G).

L. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF FIXTURES.

M. CONTRACTOR SHALL COORDINATE FIXTURE TYPE AND TRIM WITH CEILING CONSTRUCTION AND ADJUST ACCORDINGLY WITHOUT ADDITIONAL EXPENSE.

N. ALL LIGHTING FIXTURES SHALL BE THERMALLY PROTECTED PER THE NEC.

O. FIXTURES IN CONTACT WITH INSULATION SHALL BE IC RATED.

P. FOR RECESSED LIGHTING FIXTURES IN FIRE RATED CEILINGS, PROVIDE A MANUFACTURER APPROVED AND LISTED FIRE RATED COVER/ASSEMBLY OVER THE FIXTURE TO MAINTAIN THE INTEGRITY OF THE CEILING FIRE RATING. ANY LIGHTING FIXTURES INSTALLED UNDER THE FIRE RATED CAP SHALL BE SUITABLE FOR THE INSTALLATION.

10. LIGHTING CONTROLS:

A. FURNISH AND INSTALL WHERE SHOWN AN ELECTRONIC TIME CONTROLLER AS MANUFACTURED BY TORK (NSI), PARAGON, INTERMATIC, OR APPROVED EQUAL. CONTACTS SHALL BE SPST OR AS INDICATED, RATED 120/277V AT 20A BALLAST LOAD, AND MINIMUM 30,000 SWITCHING CYCLES. PROVIDE WITH THE NUMBER OF CHANNELS INDICATED (MINIMUM 2 CHANNELS) OR AS REQUIRED TO MEET THE INTENT OF THE DRAWINGS. EACH CHANNEL SHALL BE INDIVIDUALLY PROGRAMMABLE WITH 128 ON-OFF OPERATIONS PER WEEK PLUS FOUR SEASONAL SCHEDULES TO MODIFY THE BASIC PROGRAM AND A HOLIDAY SCHEDULE THAT OVERRIDES THE WEEKLY OPERATION. THE CONTROLLER SHALL BE PROVIDED WITH A PHOTOELECTRIC SENSOR, ASTRONOMIC DIAL, AND A BATTERY BACKED-UP, NON-VOLITILE MEMORY FOR SCHEDULES AND TIME CLOCK.

B. LIGHTING CONTACTORS SHALL SWITCH LOADS AT THE VOLTAGE AND AMPERE RATING INDICATED AND SHALL HAVE THE NUMBER OF POLES INDICATED ON THE DRAWINGS OR AS REQUIRED. THE CONTACTOR AND CONTACTS SHALL BE CONTINUOUSLY RATED FOR THE LOAD SERVED, INCLUDING TUNGSTEN FILAMENT, INDUCTIVE, AND HIGH-INRUSH BALLAST LOADS.

C. ALL LIGHTING CONTACTORS SHALL BE ELECTRICALLY HELD AND BE INSTALLED IN A NEMA 1 ENCLOSURE, UNLESS OTHERWISE NOTED.

11. EQUIPMENT IDENTIFICATION:

A. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT SUPPLIED FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO, WIRING TROUGHS, SAFETY SWITCHES, DISCONNECTS, TRANSFORMERS, PANELBOARDS, SWITCHBOARDS, ETC. NAMEPLATE SHALL INDICATE THE DEVICE NAME, SYSTEM VOLTAGE (VOLTAGE/PHASE/WIRE), AND UPSTREAM DEVICE AND CIRCUIT. PROVIDE NAMEPLATES FOR CIRCUIT BREAKERS IN SWITCHGEARS, SWITCHBOARDS AND DISTRIBUTION PANELS.

B. NAMEPLATE COLORS SHALL BE AS FOLLOWS:

120/208V EQUIPMENT	BLUE SURFACE WITH WHITE CORE
FIRE ALARM SYSTEM	BRIGHT RED SURFACE WITH WHITE CORE
SECURITY SYSTEMS	BURGUNDY SURFACE WITH WHITE CORE
TELEPHONE SYSTEMS	ORANGE SURFACE WITH WHITE CORE
DATA SYSTEMS	BROWN SURFACE WITH WHITE CORE
TV SYSTEMS	PURPLE SURFACE WITH WHITE CORE
PAGING SYSTEMS	WHITE SURFACE WITH BLACK CORE

C. NAMEPLATES UP TO 8 SQUARE INCHES SHALL NOT BE LESS THAN 1/16" THICK. NAMEPLATES LARGER THAN 8 SQUARE INCHES SHALL NOT LESS THAN 1/8" THICK.

D. LETTERING HEIGHT SHALL BE 1/2" MINIMUM.

E. NAMEPLATES SHALL BE ATTACHED WITH SELF-DRILLING/SELF-TAPPING SCREWS, EXCEPT RIVETS SHALL BE USED WHERE END OF SCREW IS NOT PROTECTED. QUANTITY AS FOLLOWS:

UP TO 5 SQUARE INCHES:	2 SCREWS.
5 TO 12 SQUARE INCHES:	4 SCREWS.
ABOVE 12 SQUARE INCHES:	6 SCREWS.

12. DISCONNECTS:

A. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE IN NEMA 1 ENCLOSURES, UNLESS OTHERWISE NOTED, FUSED OR NON-FUSED AS INDICATED. SWITCHES SHALL HAVE REJECTION-TYPE FUSE CLIPS. SWITCHES SHALL BE BY EATON, SQUARE-D, GENERAL ELECTRIC, OR APPROVED EQUAL. WHERE FED FROM A LOAD CENTER, GENERAL-DUTY SWITCHES SHALL BE PERMITTED.

B. FUSES LESS THAN 60A SHALL BE CLASS RK5, DUAL-ELEMENT, TIME-DELAY WITH INDICATION

C. FUSES GREATER THAN 60A SHALL BE CLASS J, DUAL-ELEMENT, TIME-DELAY WITH INDICATION.

D. A SET OF 3 SPARE FUSES OF EACH SIZE AND TYPE SHALL BE FURNISHED TO THE OWNER

13. PANELBOARDS:

A. PANELBOARDS SHALL BE PROVIDED AS MANUFACTURED BY EATON, SQUARE-D, GENERAL ELECTRIC, OR APPROVED EQUAL. ALL NEW EQUIPMENT FOR THE PROJECT SHALL BE BY THE SAME MANUFACTURER. LOAD CENTER TYPE PANELBOARDS SHALL BE USED WHERE THE PANELBOARD SERVES A DWELLING UNIT.

B. ALL BUSSING, INCLUDING NEUTRAL AND GROUND, SHALL BE COPPER.

C. ALL BREAKERS SHALL BE AUTOMATIC THERMAL-MAGNETIC TYPE MOLDED CASE BOLT-ON TYPE, CALIBRATED FOR 40 DEGREE C, OR AMBIENT COMPENSATION, UNLESS OTHERWISE NOTED.

D. PANELS SHALL BE FULLY RATED (AIC). NO SERIES AIC RATINGS ARE ALLOWED.

E. PANELS SHALL HAVE FULL SIZE EQUIPMENT GROUNDING BARS AND NEUTRAL BARS, EXCEPT WHERE INDICATED TO BE 200%.

F. ALL PANELBOARD AND BREAKER LUGS SHALL BE SIZED AND RATED PER THE CONDUCTOR SIZE AND MATERIAL.

G. LIGHTING AND APPLIANCE PANELS (100A-600A) SHALL HAVE FRONT ACCESSIBLE HINGED DOOR-IN-DOOR COVERS WITH DEAD FRONT, SHALL BE 20" WIDE MINIMUM WITH MINIMUM 4" WIDE WIRING GUTTERS.

H. DISTRIBUTION PANELS (600A-1200A) SHALL HAVE FRONT ACCESSIBLE DEAD FRONT COVERS.

I. PROVIDE HANDLE LOCK-ON DEVICES FOR ALL CIRCUIT BREAKERS CONNECTED TO EMERGENCY, EXIT, NIGHT LIGHTING, FIRE ALARM, TELEPHONE BOARDS, AND SECURITY SYSTEMS.

J. BREAKERS USED FOR SWITCHING SHALL BE SWITCHING DUTY (SWD) RATED.

K. BREAKERS USED FOR HEATING, AIR-CONDITIONING AND/OR REFRIGERATION SHALL BE HACR RATED.

L. GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.8, INSTALLED IN A READILY ACCESSIBLE LOCATION. WHERE A DEVICE LOCATION IS NOT ACCESSIBLE, THE GFCI PROTECTION SHALL BE PROVIDED WITH THE BREAKER SERVING THE DEVICE.

M. ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) PROTECTION SHALL BE PROVIDED FOR ALL LOCATIONS PER NEC 210.12, INSTALLED IN A READILY ACCESSIBLE LOCATION. THIS INCLUDES ALL 120V, 15A AND 20A BRANCH CIRCUITS IN DWELLING UNITS, DORMITORY/STUDENT HOUSING UNITS AND HOTEL/MOTEL GUEST ROOMS/SUITES AS DEFINED BY THE NEC.

N. ALL OVERCURRENT DEVICES WHICH COMPRISE THE EMERGENCY SYSTEM OR LEGALLY REQUIRED STANDBY SYSTEM SHALL BE SELECTIVELY COORDINATED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE MANUFACTURER DOCUMENTATION INDICATING COMPLIANCE WITH THE SELECTIVE COORDINATION REQUIREMENTS PER THE NEC.

O. ALL PANELBOARDS SHALL HAVE METAL DIRECTORY FRAME. FOR EACH PANELBOARD, PROVIDE TYPED CIRCUIT DIRECTORY PER NEC 408.4. SPARE CIRCUIT BREAKERS SHALL BE LABELED SPARE AND IN THE OFF POSITION.

P. ALL CIRCUIT BREAKERS RATED 1200A OR HIGHER, OR CAPABLE OF BEING RATED 1200A OR HIGHER (I.E. ADJUSTABLE LONG-TIME PICKUP OR REPLACEABLE TRIP/RATING PLUG), SHALL BE PROVIDED WITH AN ENERGY-REDUCING MAINTENANCE SWITCH WITH LOCAL STATUS INDICATOR PER NEC 240.87(B).

15. FIRE ALARM SYSTEM:

N. SYSTEM SHALL BE A CENTRALIZED, ANALOG, ADDRESSABLE, FULLY ELECTRONICALLY SUPERVISED (INCLUDING AUXILIARY SYSTEMS INTERCONNECT WIRING) SYSTEM LISTED BY UL IN COMPLIANCE WITH ALL APPLICABLE NFPA 72 AND OTHER STANDARDS AS WELL AS THE AMERICAN'S WITH DISABILITIES ACT (ADA). ALL FINAL CONNECTIONS, TESTING AND ADJUSTMENTS SHALL BE PERFORMED BY OR UNDER DIRECT SUPERVISION OF AN AUTHORIZED FACTORY REPRESENTATIVE. SYSTEM SHALL BE SIMPLEX, NOTIFIER, SIEMENS, OR APPROVED EQUAL AS ACCEPTED BY THE ENGINEER. SYSTEM SHALL HAVE A 24HR MINIMUM BATTERY BACKUP.

O. INITIATING DEVICE ACTIVATION SHALL CAUSE OPERATION OF THE PROPER ALARM CIRCUIT IN THE CONTROL PANEL, AND OPERATE ALL AUDIBLE AND VISUAL INDICATING ALARMS. ALL AIR HANDLING UNITS SHALL BE STOPPED UPON ANY ALARM INPUT. EACH AIR HANDLER UNIT SHALL BE PROVIDED WITH A SYSTEM CONTROLLED RELAY TO EFFECT SHUTDOWN. ALL ALARM DEVICES AND LAMPS SHALL CONTINUE TO OPERATE UNTIL THE INITIATING DEVICE IS RESET. SUBSEQUENT ALARMS SHALL RESOUND THE SYSTEM. AN AUDIBLE AND VISUAL SIGNAL SHALL INDICATE SYSTEM TROUBLE. THE CONTROL PANEL SHALL PROVIDE FOR ACTIVATING A UL LISTED CENTRAL STATION SIGNAL FOR NOTIFYING THE FIRE DEPARTMENT.

P. MANUAL STATIONS SHALL BE NON-CODED, WITH DUAL-ACTION PULL AND KEY TYPE RESET, SEMI-FLUSH MOUNTED. COMBINATION LIGHT AND HORN SIGNALS SHALL BE FLUSH MOUNTED. WIRING SHALL BE IN CONDUIT AS PREVIOUSLY SPECIFIED, #14 AWG MINIMUM, THHN. ALL J-BOXES USED FOR THE FIRE ALARM SYSTEM SHALL BE PAINTED RED.

Q. SPRINKLER SYSTEM TAMPER SWITCHES SHALL BE CONNECTED INTO A COMMON ZONE WHICH SHALL DISTINGUISH BETWEEN A CONDUIT FAULT AND A CLOSED VALVE. A CLOSED VALVE SHALL BE INDICATED AS AN ALARM CONDITION, BUT WILL NOT ACTIVATE THE AUDIO-VISUAL DEVICES AND SHALL CAUSE A SUPERVISORY SIGNAL TO BE TRANSMITTED TO THE CENTRAL STATION.

R. CONDUCTORS SHALL BE PLENUM-RATED AND INSTALLED IN CONDUIT AND INSTALLED IN COMPLIANCE WITH NFPA 70, ARTICLE 760; IN ADDITION TO WIRING METHODS 300.4.

S. ALL FIRE ALARM WIRING SHALL BE CLASS B.

T. PROVIDE ALL REQUIRED MODULES, POWER EXTENDERS, PROGRAMMING, ETC. FOR A COMPLETE AND OPERATIONAL SYSTEM.

U. SUBMIT FIRE ALARM SHOP DRAWINGS CONSISTING OF PRODUCT DATA, TO THE ENGINEER AND FOR APPROVAL.

V. FILL OUT NFPA 72 CERTIFICATION REPORT AND SUBMIT TO ENGINEER AND AUTHORITY HAVING JURISDICTION.

W. WARRANTY - ALL WORK PERFORMED AND ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS AND SHALL REMAIN SO FOR A PERIOD OF AT LEAST TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY THE PROFESSIONAL ENGINEER AND/OR OWNER. THE FULL COST OF MAINTENANCE, LABOR, AND MATERIALS REQUIRED TO CORRECT ANY DEFECT DURING THIS TWO YEAR PERIOD SHALL BE IMMEDIATELY CORRECTED AT NO ADDITIONAL COST TO THE OWNER. ANY DEFECTS THAT RENDER THE SYSTEM INOPERATIVE SHALL BE REPAIRED WITHIN 24 HOURS OF THE OWNER NOTIFYING THE CONTRACTOR. OTHER DEFECTS SHALL BE REPAIRED WITHIN 48 HOURS OF THE OWNER NOTIFYING THE CONTRACTOR.

X. AUDIBLE DEVICES WITHIN SLEEPING ROOMS SHALL PROVIDE A SQUARE WAVE 520HZ TONE COMPATIBLE WITH NFPA 72 18.4.5.3.

Y. PROVIDE ALL REPROGRAMMING AND/OR REWORK AND/OR REPLACEMENT OF EXISTING FIRE ALARM PANEL AS REQUIRED.

16. FIRE STOPPING:

A. ALL PENETRATIONS OF RATED ASSEMBLIES SHALL BE SEALED WITH RATED MATERIALS MEETING ASTM E-814.

B. PROVIDE FIRESTOPPING DEVICE(S) OR SYSTEM(S) WHICH HAVE BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814. INSTALL THE DEVICE(S) OR SYSTEM(S) IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE THE APPROPRIATE DEVICE(S) OR SYSTEM(S) WITH AN 'F' RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.

C. DEVICE(S) AND/OR SYSTEM(S) SHALL BE BY HILTI, 3M OR EQUIVALENT.

17. SEISMIC:

A. THE ELECTRICAL CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR PROVIDING SEISMIC SUPPORT AND BRACING OF ELECTRICAL COMPONENTS TO RESIST THE EFFECTS OF EARTHQUAKES ON THE ELECTRICAL SYSTEM AS WELL AS ANY REQUIRED SPECIAL INSPECTIONS BASED ON THE SPECIFIC GEOGRAPHIC LOCATION AS REQUIRED. THE SEISMIC RESTRAINTS AND SPECIAL INSPECTIONS SHALL MEET ALL APPLICABLE STATE AND LOCAL BUILDING CODE REQUIREMENTS AS WELL AS ASCE-7 REQUIREMENTS.

18. ELECTRICAL COORDINATION WITH OTHER TRADES:

A. THE ELECTRICAL CONTRACTOR SHALL CONNECT AND/OR PROVIDE FINAL CONNECTIONS TO ALL EQUIPMENT SUPPLIED BY OTHERS APPLICABLE TO THE PROJECT, INCLUDING BUT NOT LIMITED TO, MECHANICAL, PLUMBING, FIRE PROTECTION AND SUPPRESSION, OWNER FURNISHED, KITCHEN, LABORATORY, ETC. UNLESS OTHERWISE NOTED.

B. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONNECTIONS PRIOR TO ROUGH-IN USING APPROVED CATALOG SHEETS AND SHOP DRAWINGS.

C. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANUAL MOTOR STARTER SWITCHES, DISCONNECT SWITCHES, RECEPTACLES, ETC. TO MECHANICAL AND PLUMBING EQUIPMENT. ALL STARTERS, OTHER THAN MANUAL STARTER SWITCHES, SHALL BE PROVIDED BY OTHERS, BUT INSTALLED BY THE ELECTRICAL CONTRACTOR.

D. ALL DISCONNECT SWITCHES AND FUSE SIZES SHALL BE COORDINATED WITH SHOP DRAWINGS PRIOR TO ORDERING OR INSTALLING. ANY EQUIPMENT INSTALLED INCORRECTLY BECAUSE OF LACK OF COORDINATION WILL BE REMOVED AND INSTALLED CORRECTLY AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR.

E. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT RUNS AND LIGHT FIXTURE LOCATIONS ABOVE THE CEILING WITH OTHER TRADES PRIOR TO INSTALLATION.

F. ALL DUCT SMOKE DETECTORS SHALL BE PROVIDED AND CONNECTED BY THE ELECTRICAL CONTRACTOR, BUT INSTALLED BY THE MECHANICAL CONTRACTOR.

G. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY OUTLETS FOR HEAT TAPE CONNECTIONS FOR MECHANICAL SYSTEMS. PROVIDE CLASS B (30mA) GFCI PROTECTION ON THE BREAKER SUPPLYING THE HEAT TAPE.

H. THE ELECTRICAL CONTRACTOR SHALL PROVIDE 120V POWER AT EACH HVAC UNIT HAVING A CONTROLS POWER SUPPLY. CIRCUIT(S) SHALL BE DEDICATED 20A SERVING A MAXIMUM OF 10 HVAC UNITS PER CIRCUIT. COORDINATE ALL LOCATIONS WITH THE MECHANICAL CONTRACTOR.

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SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards
PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

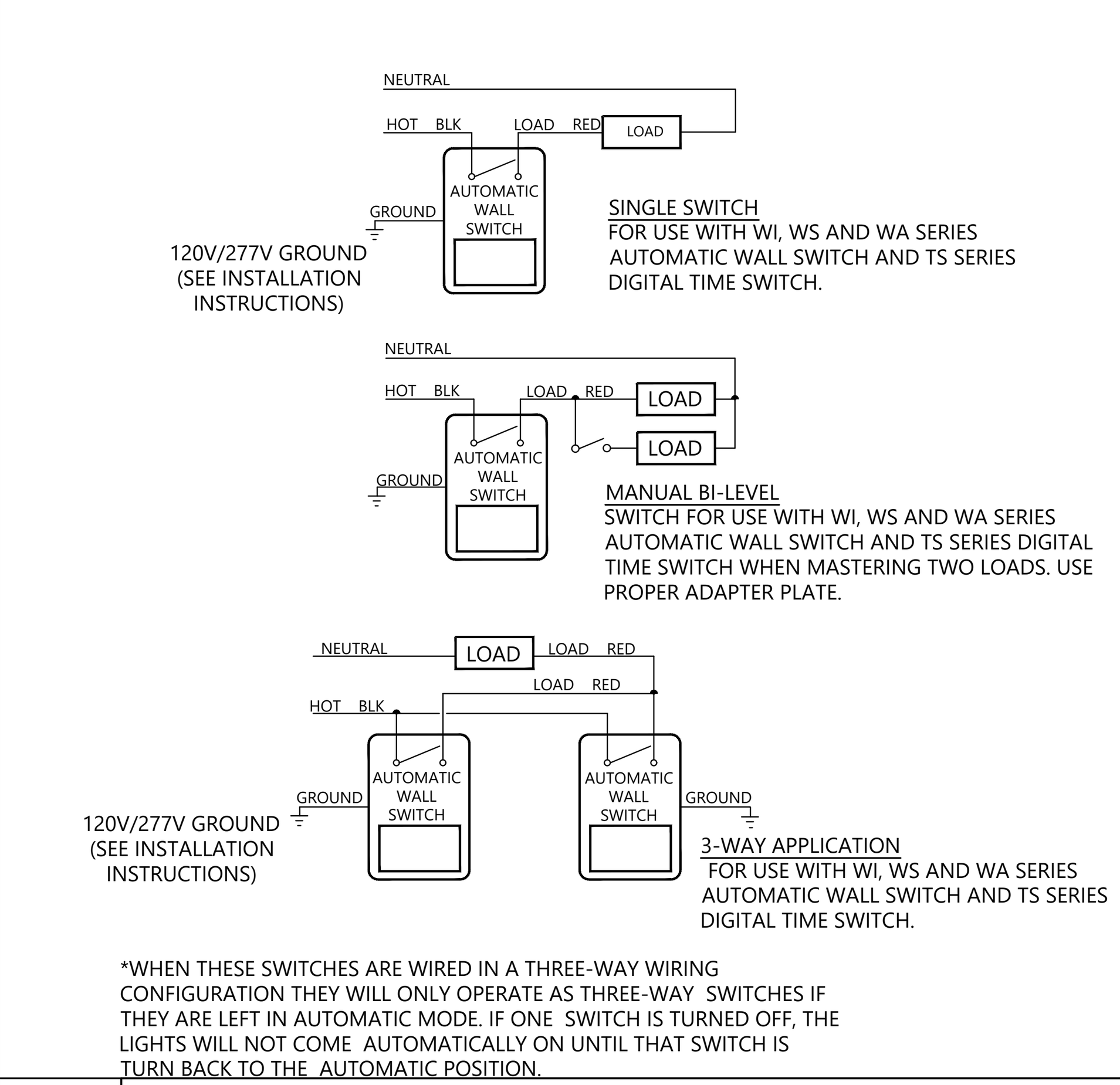
#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ELECTRICAL
SPECIFICATIONS

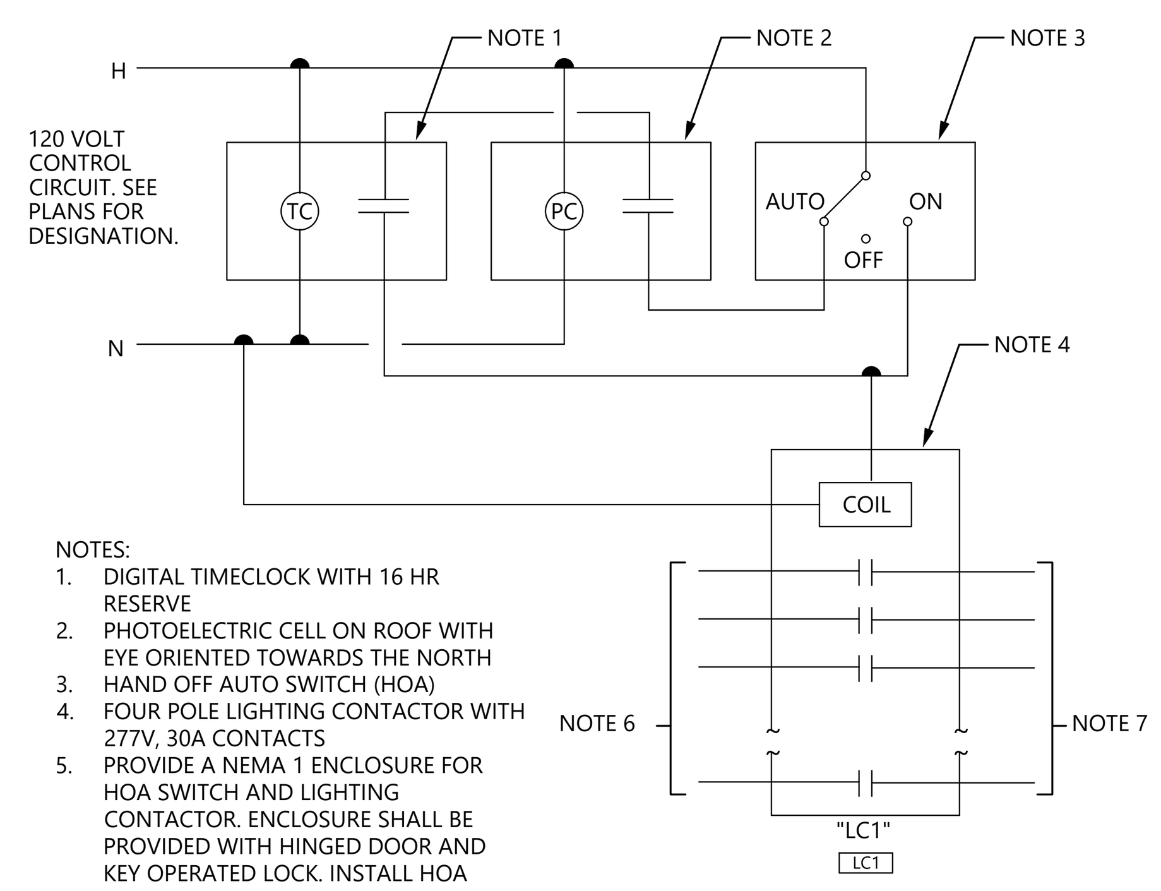
SHEET #:
E-02

WILDE #: 24-125



NO SCALE

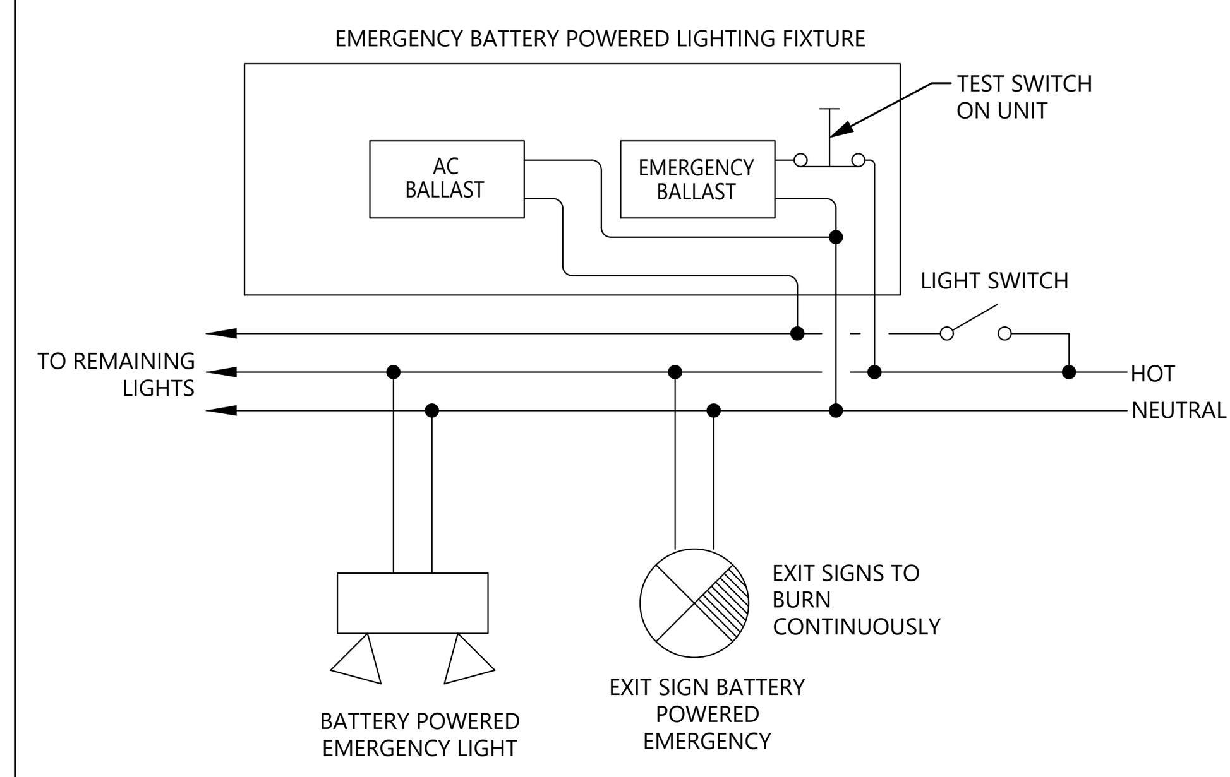
① SINGLE POLE OCC. SENSOR SWITCH



NOTES:
1. DIGITAL TIMECLOCK WITH 16 HR RESERVE
2. PHOTOELECTRIC CELL ON ROOF WITH EYE ORIENTED TOWARDS THE NORTH
3. HAND OFF AUTO SWITCH (HOA)
4. FOUR POLE LIGHTING CONTACTOR WITH 277V, 30A CONTACTS
5. PROVIDE A NEMA 1 ENCLOSURE FOR HOA SWITCH AND LIGHTING CONTACTOR. ENCLOSURE SHALL BE PROVIDED WITH HINGED DOOR AND KEY OPERATED LOCK. INSTALL HOA SWITCH ON FRONT COVER.
6. LIGHTING CIRCUITS FROM PANELBOARDS.
7. LIGHTING CIRCUITS TO BLDG/SITE, SEE PLANS.

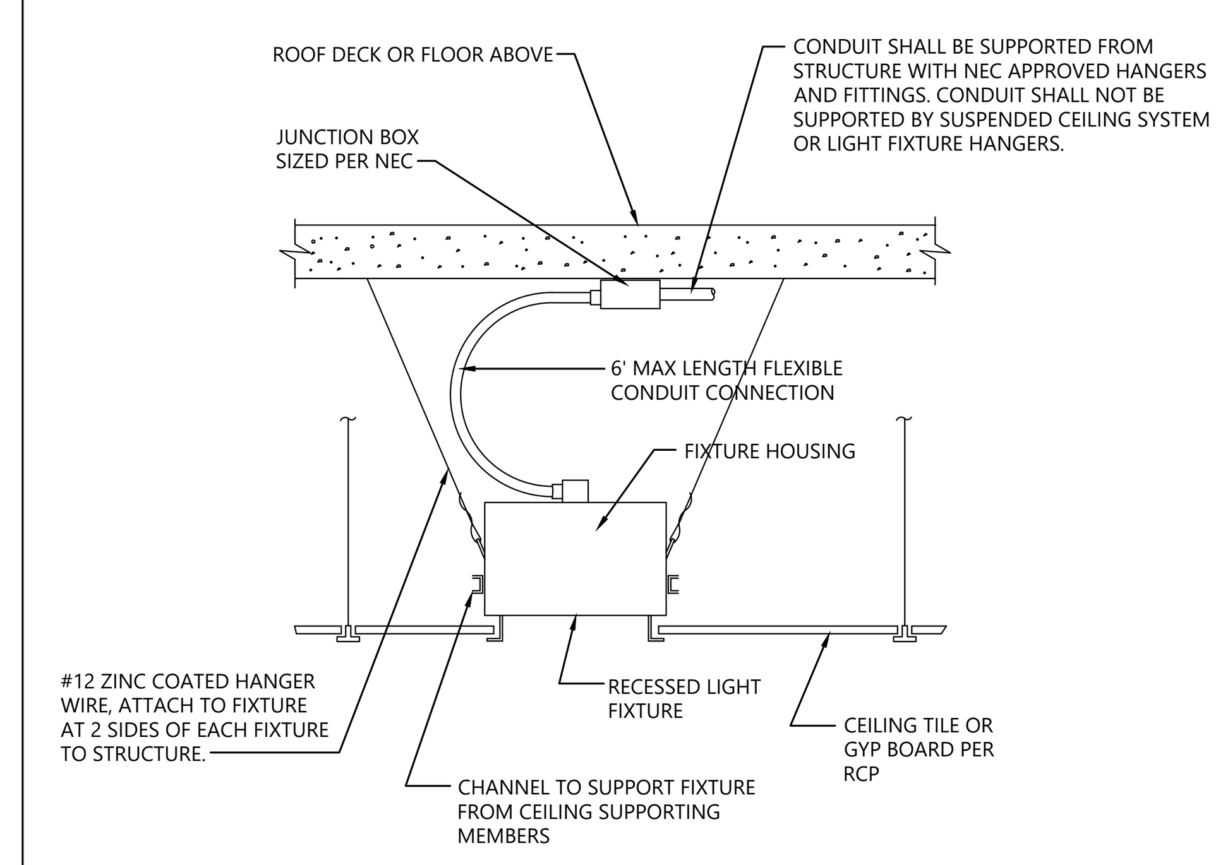
NO SCALE

② EXTERIOR LIGHTING CONTROL DIAGRAM



NO SCALE

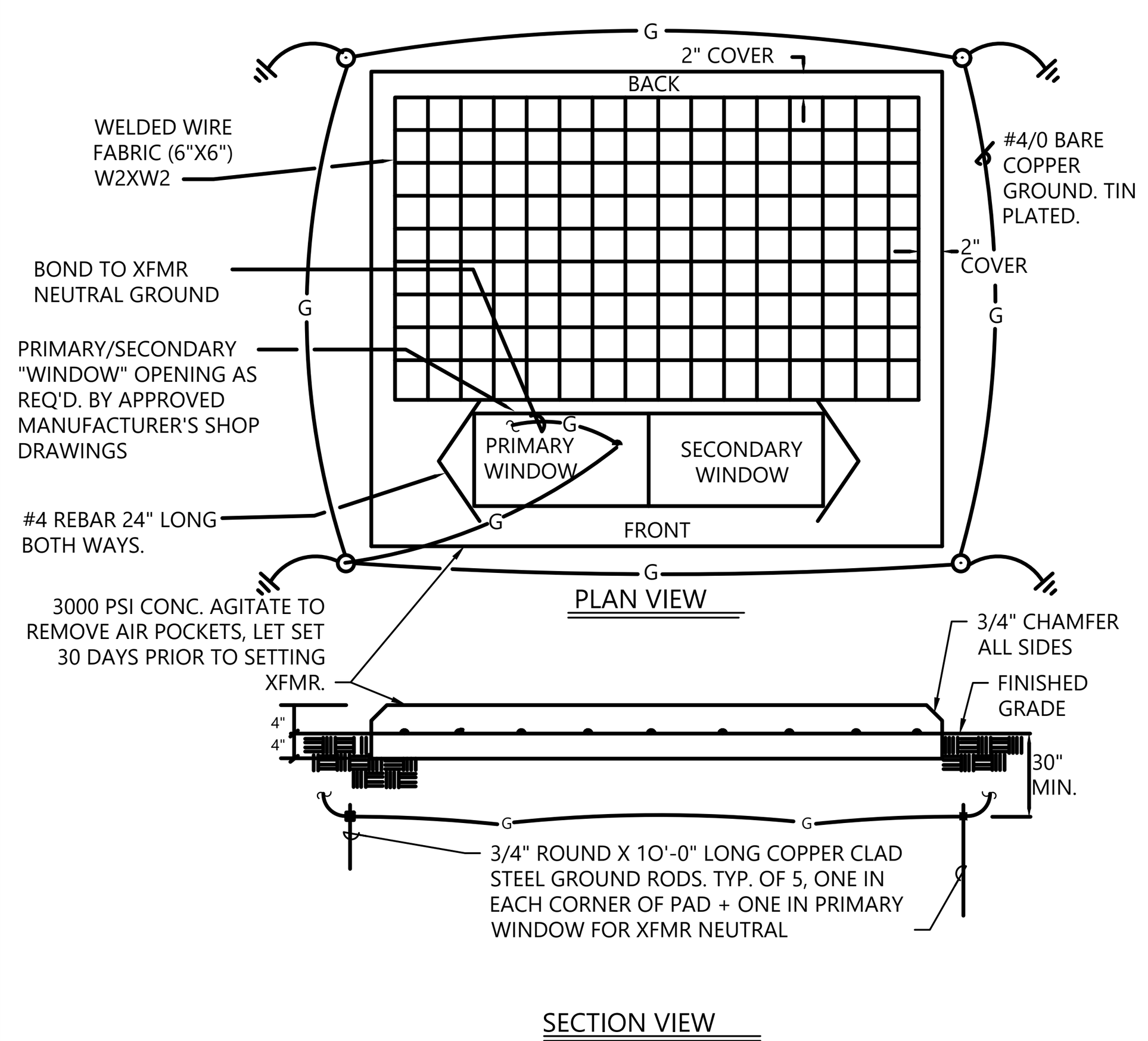
③ SWITCHED EMERGENCY LIGHTING WIRING



NOTES:
1. WHERE ROOF DECKING IS THE IS THE ALLOWABLE SUPPORT STRUCTURE, AND PATHWAY SYSTEM IS NOT IMC OR RMC, THE MINIMUM DISTANCE FROM ROOF DECKING SHALL BE 1.5" FOR ALL BOXES AND CONDUIT.

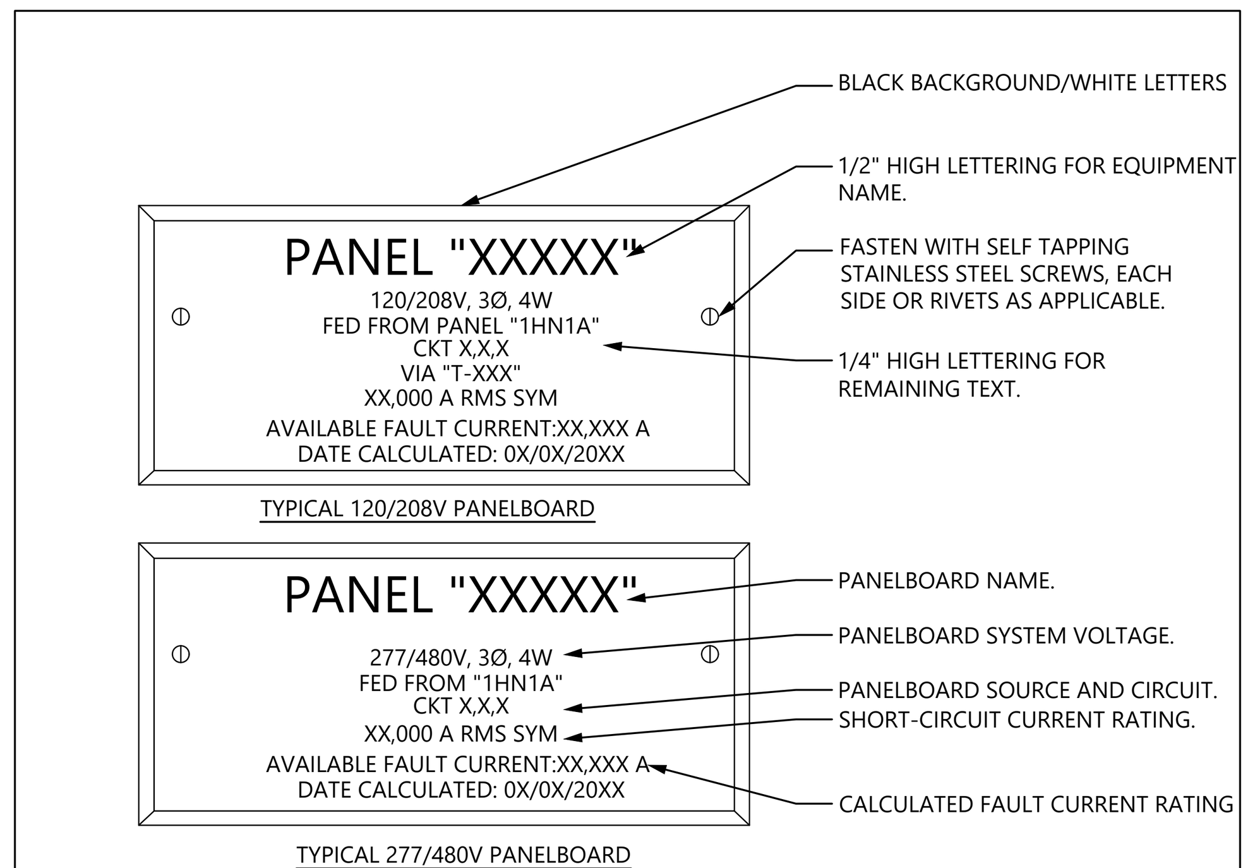
NO SCALE

④ TYPICAL RECESSED DOWN LIGHT FIXTURE INSTALLATION DIAGRAM



NO SCALE

⑤ TRANSFORMER PAD DETAIL

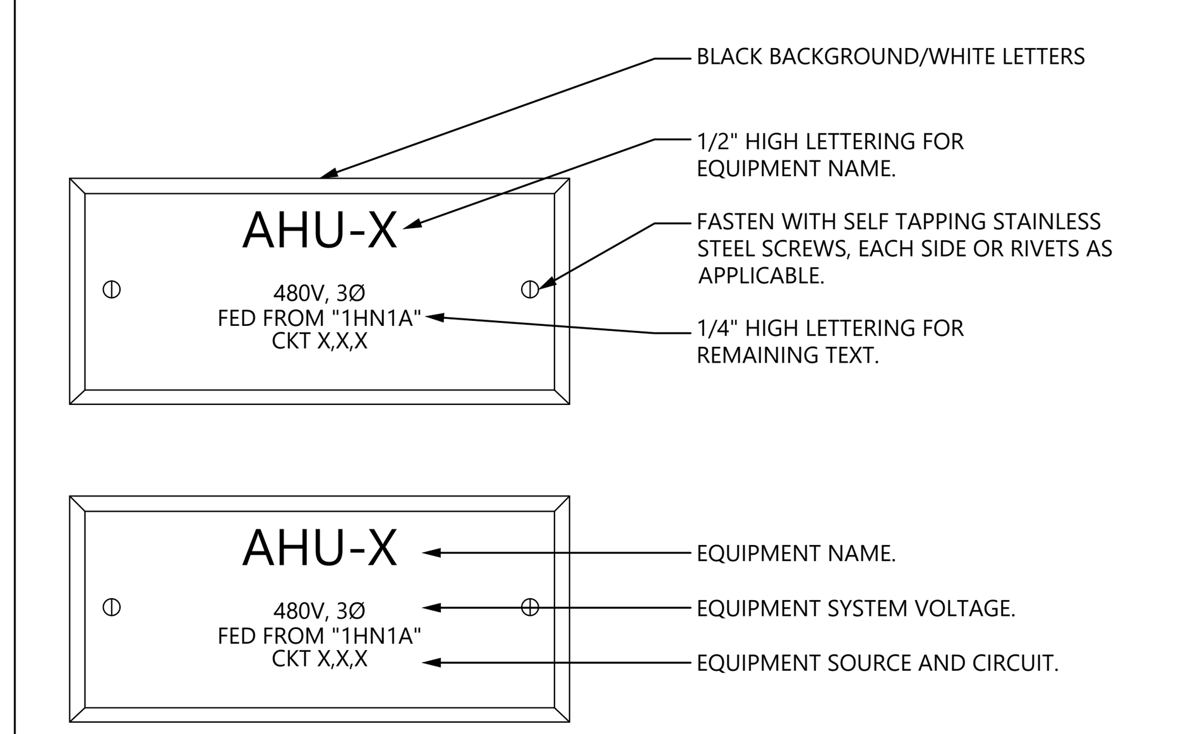


PANELBOARD NAMEPLATES

NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS, COLORS, ETC.
2. PROVIDE SHORT-CIRCUIT CURRENT RATING AND AVAILABLE FAULT CURRENT ON EACH NON-DWELLING SERVICE EQUIPMENT NAMEPLATE.

NO SCALE

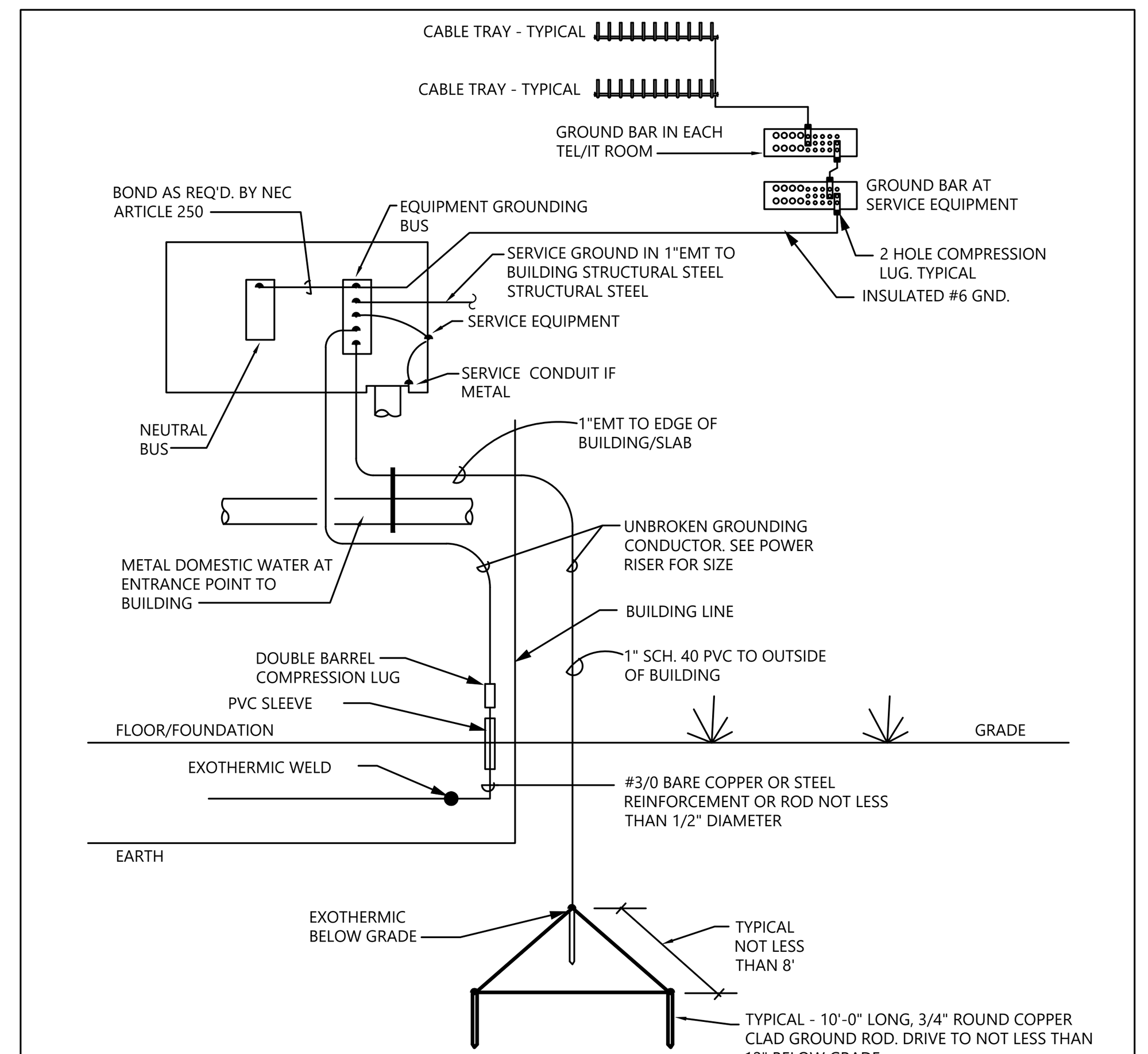
⑥ TYPICAL NAMEPLATE DIAGRAM



EQUIPMENT NAMEPLATES

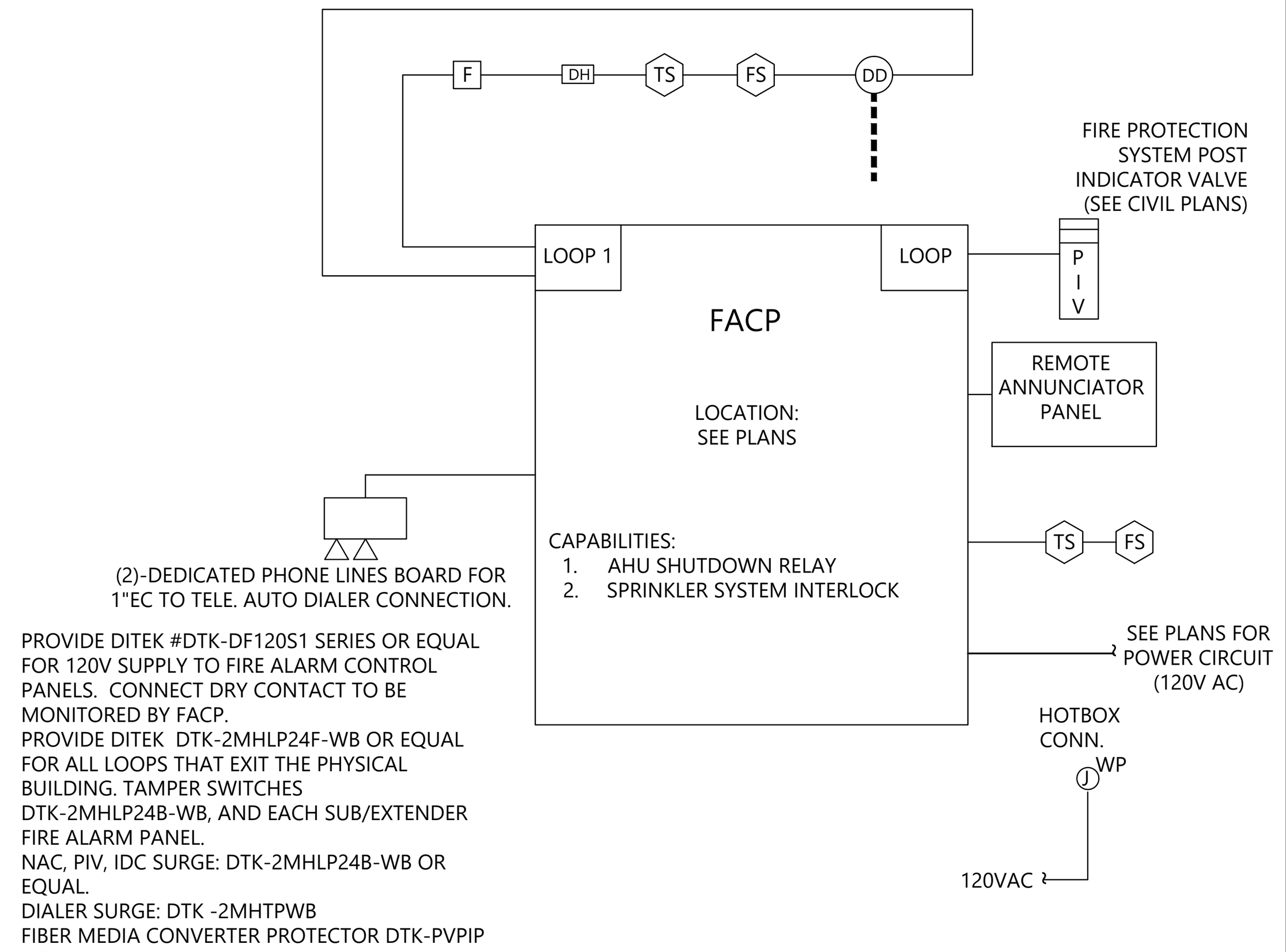
NO SCALE

⑦ EQUIPMENT NAMEPLATE DIAGRAM



NO SCALE

⑧ SERVICE GROUND DIAGRAM



1. FACP SHALL BE FULLY ANALOG ADDRESSABLE.
2. FACP SHALL BE CONNECTED TO A UL APPROVED CENTRAL STATION.
3. ZONE PER NFPA 72, 2013 AND MANUFACTURER'S RECOMMENDATIONS WITH NO ONE ZONE EXCEEDING 15,000 S.F. PER FLOOR.
4. COORDINATE QUANTITY AND LOCATIONS OF DEVICES WITH CONTRACT DRAWINGS.
5. LOCATE FIRE ALARM PULL STATION WITHIN 5' OF THE EXIT DOOR.
6. LOCATE SMOKE/HEAT DETECTOR WITHIN 5' OF THE FA EQUIPMENT (FACP, FATC).
7. LOCATION OF CEILING MOUNTED SMOKE/HEAT DETECTOR SHALL BE FIELD COORDINATED PRIOR TO ROUGH IN. THE DETECTOR SHALL BE A MINIMUM OF 2' AWAY FROM LIGHT FIXTURE AND A MINIMUM OF 3' AWAY FROM AIR DISTRIBUTION DEVICES.
8. ACTIVATION OF AN ALARM ZONE SHALL CAUSE ALL AIR HANDLING EQUIPMENT TO SHUT DOWN (ALL DAMPERS, AIR HANDLERS AND EXHAUST FANS MUST STOP).
9. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS, QUANTITIES, REQUIREMENTS, ETC. OF ALL FLOW, PRESSURE, & TAMPER SWITCHES, RISER ALARM BELLS, ETC. WITH FIRE PROTECTION CONTRACTOR PRIOR TO BID AND INSTALLATION.
10. ALL VISUAL DEVICES WITHIN THE SAME AREA SHALL BE SYNCHRONIZED. IT SHALL BE A THREE BEAT TEMPORAL PATTERN.
11. FIRE ALARM CABLING SHALL BE PLENUM RATED.
12. PROVIDE MULTI-TEMPORAL SOUNDING CAPABILITY AT ALL AUDIO DEVICES FOR EMERGENCY NOTIFICATION FOR NON VOICE SYSTEMS COMPONENTS.
13. THE FIRE ALARM SYSTEM MANUFACTURER SHALL PROVIDE NOTIFICATION APPLIANCE CIRCUIT (NAC) POWER EXTENDERS AS REQUIRED. E.C. SHALL PROVIDE IN BASE BID OF PROJECT FOR A MINIMUM OF (1) NAC AND ASSOCIATED CIRCUITING PER BUILDING.
14. THE DUCT SMOKE DETECTORS SHALL COMPLY WITH IFC 907.12.
15. THE CIRCUIT FEEDING THE FIRE ALARM PANEL IS DEDICATED FOR THE FIRE ALARM ONLY. BREAKER SHALL BE PROVIDED WITH A HANDLE LOCK-ON DEVICE, LABEL "FIRE ALARM CIRCUIT" AND SHALL BE RED.
16. PROVIDE REMOTE LIGHT FOR DUCT SMOKE DETECTOR ON CEILING WHERE UNIT IS ABOVE CEILING.
17. CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIAL FOR UP TO (2) DUCT DETECTORS. (5) ANNUNCIATION DEVICES, (2) SMOKE DETECTORS AND (2) PULL STATIONS 100' FROM LOCAL PANEL (IN WALL) AS REQUIRED BY LOCAL AHJ/ENGINEER.
18. CONTRACTOR RESPONSIBLE FOR SHOP DRAWINGS AS REQUIRED BY LOCAL AHJ.
19. DUCT DETECTORS SHALL BE VERIFIED WITH THE MECHANICAL DRAWINGS FOR QUANTITY AND LOCATION. TOTAL QUANTITY MINIMUM SHALL BE BASED ON BOTH MECHANICAL SCHEDULES AND MECHANICAL PLAN LOCATIONS AND ELECTRICAL PLANS. WHEN DEVICE QUANTITIES (ELECTRICAL VS. MECHANICAL) ARE IN CONFLICT, PROVIDE THE GREATER QUANTITY OF DETECTORS.

NO SCALE

⑨ FIRE ALARM RISER DIAGRAM

FIRE ALARM SYSTEM MATRIX

	BUILDING SYSTEM OUTPUTS																CENTRAL COMM				
	ACTIVATE COMMON ALARM SIGNAL INDICATOR	ACTIVATE AUDIBLE ALARM SIGNAL	ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTIVATE AUDIBLE SUPERVISORY INDICATOR	ACTIVATE COMMON TROUBLE SIGNAL INDICATOR	ACTIVATE AUDIBLE TROUBLE SIGNAL	ACTIVATE GENERAL EVACUATION SIGNAL	DISPLAY CHANGE OF STATUS	ACTIVATE EXTERNAL HORNS/STROBES	TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION	RETURN ELEVATOR TO ALTERNATE FLOOR	RETURN ELEVATOR TO FIRST FLOOR	SHUNT TRIP AFTER ELEV. REACHES DESIGNATED FLOOR	SHUT DOWN RESPECTIVE HVAC	SHOW CHANGE OF STATUS ON ANNUNCIATOR	SHOW CHANGE OF STATUS ON CENTRAL PANEL	TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION
MANUAL FIRE ALARM PULL BOXES	●	●					●	●	●	●							●	●	●		
BUILDING SMOKE DETECTOR	●	●					●	●	●	●							●	●	●		
DUCT SMOKE DETECTOR			●	●				●			●					●	●	●		●	
SPRINKLER WATER FLOW	●	●					●	●	●	●						●	●	●	●		
SPRINKLER TAMPER			●	●				●			●						●	●		●	
NOTIFICATION DEVICE SHORT CIRCUIT					●	●		●				●					●	●			
OPEN CIRCUIT					●	●		●				●					●	●			●
GROUND FAULT					●	●		●				●					●	●			●
FIRE ALARM A.C. POWER FAILURE					●	●		●				●					●	●			●
FIRE ALARM SYSTEM LOW BATTERY					●			●				●					●	●			●

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Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

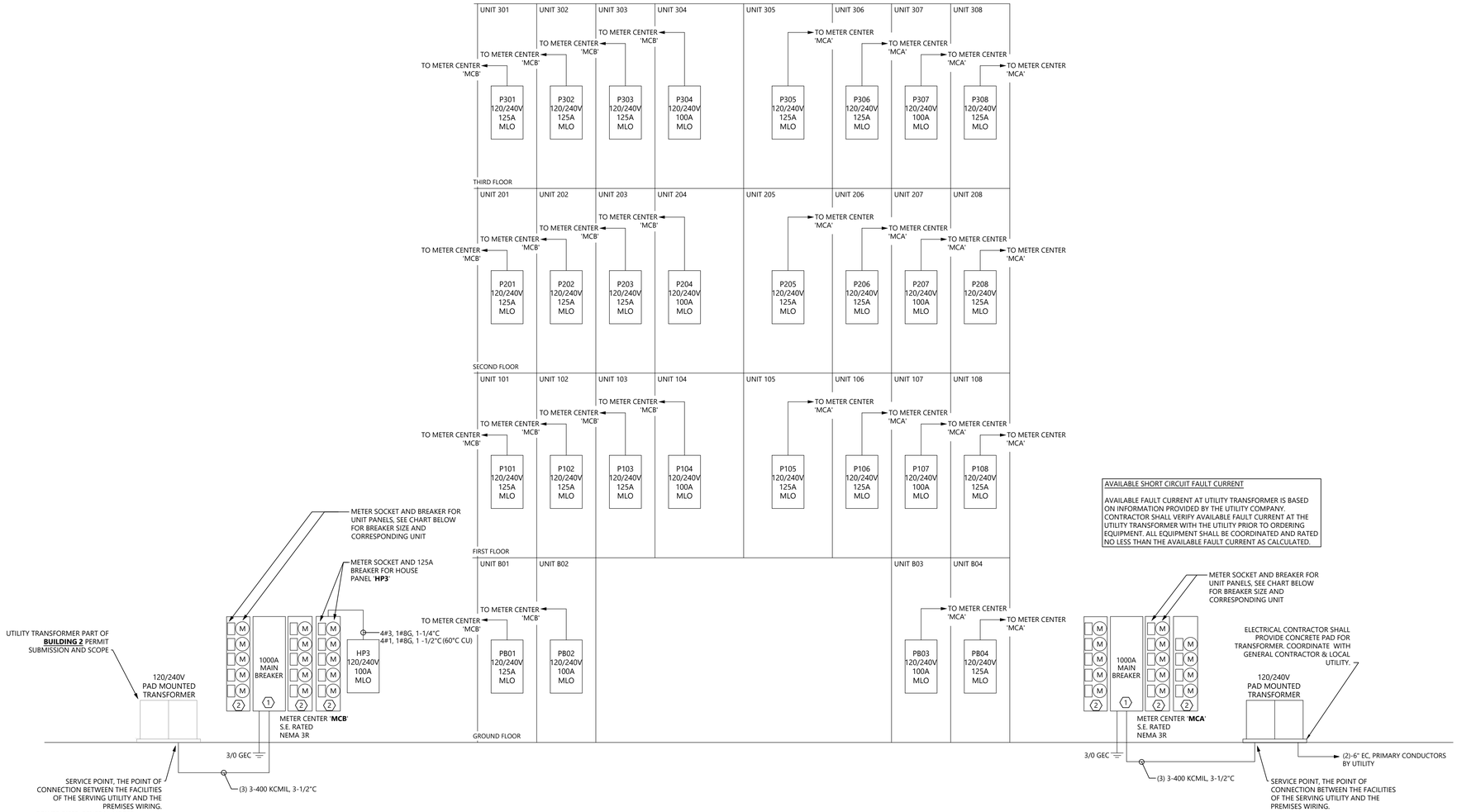
#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ELECTRICAL DETAILS

SHEET #:
E-03

WILDE #: 24-125



AVAILABLE SHORT CIRCUIT FAULT CURRENT

AVAILABLE FAULT CURRENT AT UTILITY TRANSFORMER IS BASED ON INFORMATION PROVIDED BY THE UTILITY COMPANY. CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT AT THE UTILITY TRANSFORMER WITH THE UTILITY PRIOR TO ORDERING EQUIPMENT. ALL EQUIPMENT SHALL BE COORDINATED AND RATED NO LESS THAN THE AVAILABLE FAULT CURRENT AS CALCULATED.

POWER RISER GENERAL NOTES:

A. ALL FEES ASSOCIATED WITH UTILITY COMPANY COORDINATION, INCLUDING PURCHASE/LEASE OF UTILITY TRANSFORMER, TRANSFORMER PRIMARY FEES, PAD, AND ALL ADMINISTRATIVE FEES SHALL BE INCLUDED AS PART OF THE E.C. CONTRACT.

B. RISER LAYOUT SHOWN IS DIAGRAMMATIC IN NATURE ONLY AND DOES NOT REPRESENT ACTUAL INSTALL LAYOUT. E.C. SHALL COORDINATE ALL EQUIPMENT LAYOUTS, CONDUIT/FEEDER ROUTINGS, ETC. LAYOUT SHOWN IN THIS RISER SHALL NOT REPRESENT THE ACTUAL INSTALL OF ANY EQUIPMENT SHOWN.

C. POWER RISER SHOWN TYPICAL FOR BUILDING 3

D. TABLES SHOWN ON THIS SHEET ARE TYPICAL FOR BUILDING 3

E. FEEDERS SHOWN BASED ON COPPER. ALUMINUM SHALL BE ACCEPTED BY ENGINEER WITH WRITTEN APPROVAL BY OWNER.

(##) KEYED NOTES:

1. SERVICE ENTRANCE, NEMA 3R LISTED CIRCUIT BREAKER WITH INTEGRAL SURGE PROTECTION, 120/240V 1-PHASE, AMPERAGE AS SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LIMIT THE MAXIMUM AVAILABLE FAULT DUTY FOR ALL 200A AND 400A SELF CONTAINED SERVICE TO A MAGNITUDE NOT EXCEEDING 22,000 AMPS (22 KA) SYMMETRICAL. VERIFICATION OF THE APPROPRIATE TIME CURRENT CHARACTERISTIC (TCC) CURVE SETTINGS SHALL BE PROVIDED.
2. NEMA 3R METER CENTER, 225A MAXIMUM CB, 120/240V 1-PHASE. COORDINATE WITH UTILITY PRIOR TO ORDERING NUMBER OF METER SOCKETS AS SHOWN. COORDINATE SIZE OF METER UNITS AND BREAKER WITH PROPER LUGS FOR CONNECTIONS.

1 POWER RISER DIAGRAM - BUILDING 3 (28-UNIT BLDG)

NOT TO SCALE

BUILDING 3 - METER CENTER **MCA**				
UNIT #	FLOOR	UNIT TYPE	SERVICE BREAKER SIZE (AMPS)	FEEDER SIZE (COPPER)
B03	BASEMENT	1 BDRM TYPE-A	100	SEE FEEDER TABLE
B04	BASEMENT	2 BDRM TYPE-A	125	
105	FIRST	3 BDRM TYPE-A	125	
106	FIRST	2BDRM TYPE-A	125	
107	FIRST	1 BDRM TYPE-A	100	
108	FIRST	2 BDRM TYPE-A	125	
205	SECOND	3 BDRM	125	
206	SECOND	2 BDRM	125	
207	SECOND	1 BDRM	100	
208	SECOND	2 BDRM	125	
305	THIRD	2 BDRM	125	
306	THIRD	2 BDRM	125	
307	THIRD	1 BDRM	100	
308	THIRD	2 BDRM	125	

BUILDING 3 - METER CENTER **MCB**				
UNIT #	FLOOR	UNIT TYPE	SERVICE BREAKER SIZE (AMPS)	FEEDER SIZE (COPPER)
B01	BASEMENT	2 BDRM TYPE-A	125	SEE FEEDER TABLE
B02	BASEMENT	1 BDRM	100	
101	FIRST	2 BDRM TYPE-A	125	
102	FIRST	3 BDRM ACCESSIBLE	125	
103	FIRST	2 BDRM TYPE-A	125	
104	FIRST	1 BDRM TYPE-A	100	
201	SECOND	2 BDRM	125	
202	SECOND	3 BDRM	125	
203	SECOND	2 BDRM	125	
204	SECOND	1 BDRM	100	
301	THIRD	2 BDRM	125	
302	THIRD	2 BDRM	125	
303	THIRD	2 BDRM	125	
304	THIRD	1 BDRM	100	

DEMAND LOADS: METER CENTER 'MCA'

	NUMBER OF UNITS		UNIT KVA		TOTAL KVA
2 BEDROOM UNIT	8		40.92		327.37
1 BEDROOM UNIT	4		38.11		152.45
3 BEDROOM UNIT	2		42.07		84.14

TOTAL # OF UNITS	14		
		TOTAL:	564.0 KVA
WITH DEMAND FACTOR (PER NEC 220.84)		40%	225.6 KVA
		TOTAL:	225.6 KVA
		VOLTAGE OF SERVICE:	240 V
		SERVICE PHASE:	1 PH
		TOTAL AMPACITY:	939.9 A

DEMAND LOADS: METER CENTER 'MCB'

	NUMBER OF UNITS		UNIT KVA		TOTAL KVA
2 BEDROOM UNIT	8		40.92		327.37
1 BEDROOM UNIT	4		38.11		152.45
3 BEDROOM UNIT	2		42.07		84.14

TOTAL # OF UNITS	14		
		TOTAL:	564.0 KVA
WITH DEMAND FACTOR (PER NEC 220.84)		40%	225.6 KVA
		PANEL 'HP1':	6.7 KVA
		TOTAL:	232.3 KVA
		VOLTAGE OF SERVICE:	240 V
		SERVICE PHASE:	1 PH
		TOTAL AMPACITY:	967.8 A

RESIDENTIAL FEEDER SIZING TABLE, COPPER CONDUCTORS (240V, 1-PHASE, 3-WIRE)

SERVICE RATING (AMPS)	MAXIMUM DISTANCE						
	0 - 150'	151' - 175'	176' - 200'	201' - 225'	226' - 250'	251' - 275'	276' - 300'
100	3#3, 1#8G, 1"C	3#2, 1#6G, 1-1/4"C	3#1, 1#4G, 1-1/4"C		3#1/0, 1#4G, 1-1/2"C		3#2/0, 1#3G, 1-1/2"C
110	3#2, 1#6G, 1-1/4"C		3#1, 1#4G, 1-1/4"C	3#1/0, 1#3G, 1-1/2"C		3#2/0, 1#2G, 1-1/2"C	
125	3#1, 1#6G, 1-1/4"C		3#1/0, 1#4G, 1-1/2"C		3#2/0, 1#4G, 1-1/2"C		3#3/0, 1#3G, 2"C
150	3#1/0, 1#6G, 1-1/2"C		3#2/0, 1#4G, 1-1/2"C		3#3/0, 1#4G, 2"C	3#4/0, 1#3G, 2"C	
175	3#2/0, 1#6G, 1-1/2"C		3#3/0, 1#4G, 2"C		3#4/0, 1#4G, 2"C	3-250, 1#3G, 2"C	3-300, 1#2G, 2-1/2"C
200	3#3/0, 1#6G, 2"C			3#4/0, 1#4G, 2"C	3-250, 1#4G, 2"C	3-300, 1#3G, 2-1/2"C	3-350, 1#2G, 2-1/2"C

NOTE:
1. THIS TABLE SHALL TAKE PRECEDENCE OVER ANY FEEDERS LISTED IN PANEL SCHEDULES, RISERS AND/OR PLANS. VOLTAGE DROP IS A FUNCTION OF DISTANCE, WHICH IS DETERMINED BY THE CONTRACTOR'S ROUTING IN THE FIELD DURING CONSTRUCTION.
2. CONSULT ENGINEER FOR FEEDERS GREATER THAN 300' IN LENGTH.
3. CONDUIT SIZING IS BASED ON "THHN", "THWN", "THWN-2" TYPE CONDUCTORS IN EMT CONDUIT.
4. CONDUCTOR SIZES BASED ON COPPER CONDUCTORS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL LUG REQUIREMENTS FOR WIRE SIZE, COUNTS, AND TYPE.

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CHECKED BY: JK

DWG DECRIPTION :
POWER RISER DIAGRAM - BUILDING 3

SHEET #:
E-04

WILDE #: 24-125

NEW PANEL: HP3

VOLTAGE: 120/ 240
PHASE / WIRE: 1φ/ 3W
AMPS: 100
AIC: 22,000

MOUNTING: SURFACE
MAIN: LUGS ONLY

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.90	12	20	REC - GENERAL	1	●		2	EXTERIOR LIGHTING	20	8	0.50
0.72	10	20	REC - GENERAL	3		●	4	FACP (NOTE #8)	20	10	1.00
1.08	8	20	REC - GENERAL	5	●		6	IRRIGATION CONTROLS	20	10	1.00
1.08	6	20	REC - GENERAL	7		●	8	FIRE ALARM BELL (NOTE #8)	20	10	0.50
1.08	6	20	REC - GENERAL	9	●		10	LIGHTING CONTACTOR LC-1	20	12	0.10
1.00	12	20	TELECOM CABINET	11		●	12	ECUH-1	20	10	1.00
		20	SPARE	13	●		14			10	1.00
		20	SPARE	15		●	16	SPARE	20		
		20	SPARE	17	●		18	SPARE	20		
			SPACE ONLY	19		●	20	SPACE ONLY			
			SPACE ONLY	21	●		22	SPACE ONLY			
			SPACE ONLY	23		●	24	SPACE ONLY			
				25	●		26				
				27		●	28				
				29	●		30				
				31		●	32				
				33	●		34				
				35		●	36				
				37	●		38				
				39		●	40				
				41	●		42				
5.9					SUB TOTALS						5.1

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE
LIGHTS	0.5	1.25	0.6	CONNECTED
HEATING	2.0	1.00	2.0	L1= 5.7 kVA 47.2 AMPS
COOLING	0.0	1.00	0.0	L2= 5.3 kVA 44.2 AMPS
VENTILATION	0.0	1.00	0.0	
MOTORS	0.0	1.00	0.0	DEMAND
KITCHEN	0.0	0.65	0.0	L1- 5.8 kVA 48.2 AMPS
REC. (1st 10kVA)	4.9	1.00	4.9	L2- 5.3 kVA 44.2 AMPS
REC. (>10kVA)	0.0	0.50	0.0	
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%
MISC.	3.6	1.00	3.6	L1= 7.2 kVA 60.3 AMPS
SPARE	0.0	1.00	0.0	L2= 6.6 kVA 55.2 AMPS

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PANEL SHALL BE NEMA 3R RATED.
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.

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DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
PANEL SCHEDULE - HOUSE PANEL

SHEET #:
E-05

WILDE #: 24-125

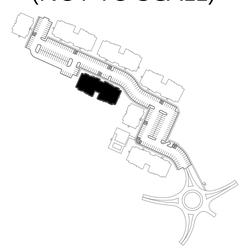
SITE PLAN NOTES:

1. UTILITY TRANSFORMER. COORDINATE EXACT LOCATION WITH LOCAL UTILITY AND CIVIL PLAN.
2. PROVIDE (2)-6" CONDUIT FROM PAD MOUNTED TRANSFORMER TO DESIGNATED POINT AT EDGE OF PROPERTY FOR LOCAL POWER UTILITY USE. CONDUIT LOCATION, SIZE, AND BENDING RADIUS SHALL BE COORDINATED WITH UTILITY BEFORE INSTALLATION. PULLBOXES AS REQUIRED BY CODE/LOCAL UTILITY. E.C. TO PROVIDE UP TO 150' OF ADDITIONAL (2)-6" CONDUIT AND COMPLETE INSTALLATION BASED ON UTILITY COORDINATION.
3. PROVIDE (2)-4" CONDUIT FROM MAIN TELECOM/INTERNET BOX TO PROPERTY LINE FOR TELEPHONE AND INTERNET SERVICE. CONDUIT LOCATION, SIZE, AND BENDING RADIUS SHALL BE COORDINATED WITH UTILITY BEFORE INSTALLATION.E.C. TO PROVIDE UP TO 150' OF ADDITIONAL (2)-4" CONDUIT AND COMPLETE INSTALLATION BASED ON UTILITY COORDINATION.
4. ALL LOW VOLTAGE CONDUIT RUNS SHALL HAVE HAND HOLES/PULL BOXES SUPPLIED AT 150' INTERVALS UNLESS OTHERWISE INDICATED BY LOCAL UTILITY. MINIMUM SIZE SHALL BE 36" X 36".
5. POST INDICATOR VALVE, 3/4" TO FACP INDICATED ON PLANS. COORDINATE EXACT LOCATION WITH CIVIL PLANS.
6. UTILITY TRANSFORMER PART OF **BUILDING 2** PERMIT SUBMISSION AND SCOPE.

1 ELECTRICAL SITE PLAN - BUILDING 3

1/16"=1'-0"

KEY PLAN
(NOT TO SCALE)



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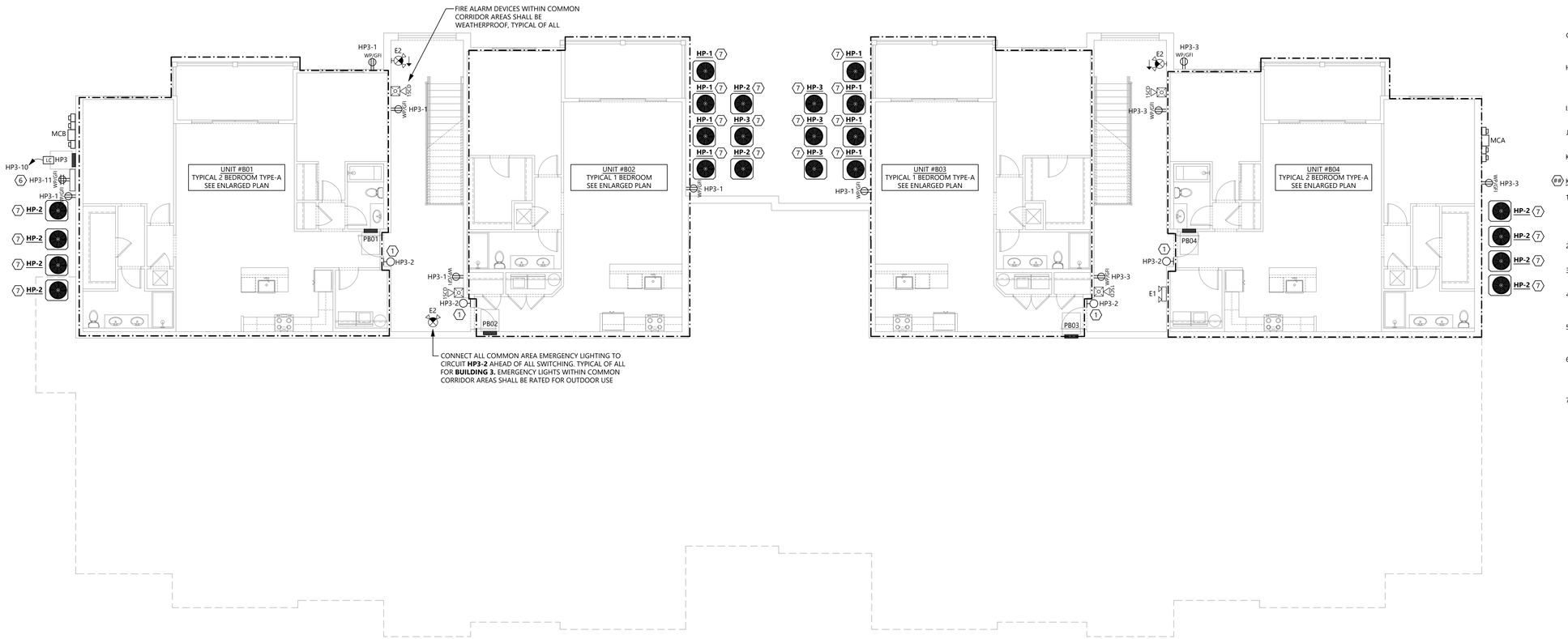
DWG DECRIPTION :
ELECTRICAL SITE PLAN - BUILDING 3

SHEET #:
E-10

WILDE #: 24-125



1 OVERALL PLAN - BUILDING 3 (28-UNIT BLDG) - BASEMENT LEVEL

1/8"=1'-0"

GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.

B. ALL CONDUIT SHALL BE CONCEALED BEHIND WALLS AND ABOVE CEILINGS. NO EXPOSED CONDUIT PERMITTED.

C. MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.

D. LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.

E. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.

F. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.

G. PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.

H. COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.

I. ALL 15A AND 20A RECEPTACLES IN COMMON AREAS SHALL BE TAMPER RESISTANT.

J. SMOKE/HEAT DETECTORS SHALL NOT BE LOCATED WITHIN 3' OF MECHANICAL AIR TERMINALS AND DIFFUSERS.

K. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.

(##) KEYED NOTES (ALL MAY NOT BE ON THIS SHEET):

1. WALL SCONCE (FIXTURE TAG 'B') AT EACH APARTMENT ENTRY DOOR. REFER TO ENLARGED UNIT PLANS. COORDINATE EXACT LOCATION IN FIELD WITH ARCHITECT. ROUTE THROUGH LIGHTING CONTACTOR FOR ASSOCIATED BUILDING. CONTACTOR TO BE LOCATED ADJACENT TO BUILDING HOUSE PANEL. SEE LIGHTING CONTACTOR DETAIL.
2. COORDINATE FACP LOCATION WITH FIRE RISER, IRRIGATION CONTROLS, ETC. WITHIN UTILITY ROOM.
3. POWER FOR IRRIGATION CONTROLS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
4. ALL QUANTITIES, LOCATIONS, ETC. OF TAMPER AND FLOW SWITCHES SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
5. FIRE ALARM BELL. COORDINATED EXACT QUANTITY, LOCATION, REQUIREMENTS, ETC. WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
6. MAIN TELECOM CABINET FOR BUILDING. PROVIDE 36"x36" NEMA 3R CABINET AND (2)-4"C FROM CABINET TO MAIN PROPERTY LINE AND CONNECTION TO UTILITY. PROVIDE WP/GFI QUAD RECEPTACLE WITHIN CABINET, CONNECT TO CIRCUIT SHOWN ON PLANS.
7. COORDINATE WITH M.C. FOR WHICH UNIT EACH HEAT PUMP IS ASSOCIATED WITH. SIZE FEEDERS TO ACCOMMODATE VOLTAGE DROP PER NEC. SEE ENLARGED UNIT PLAN AND PANEL SCHEDULE FOR CIRCUIT DESIGNATION, DISCONNECT SIZE, ETC.

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DWG INFO :
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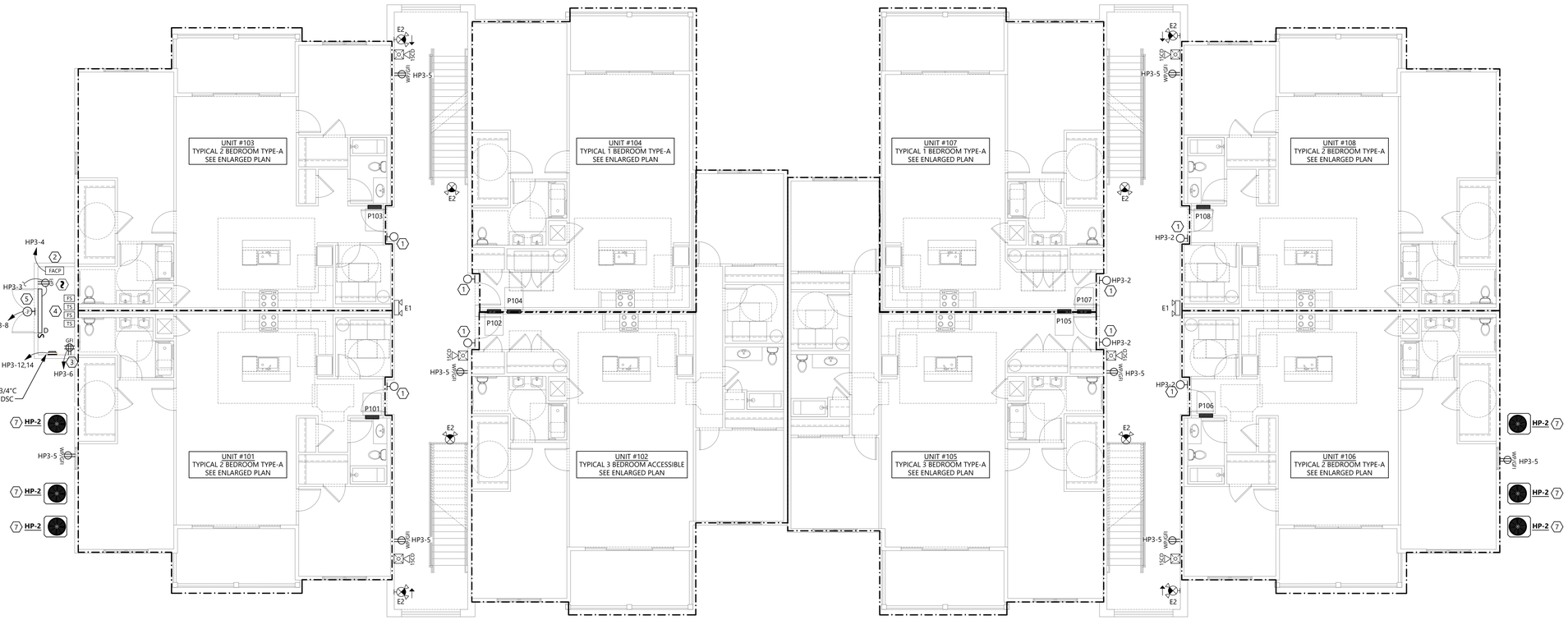
DWG DECRIPTION :
OVERALL ELECTRICAL PLAN - BASEMENT - BUILDING 3

SHEET #:
E-21

WILDE #: 24-125

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - OVERALL PLAN

		EQUIPMENT CHARACTERISTICS							DISCONNECT SWITCH				
TAG	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	KW	FLA	MCA	MOCP	FEEDER	SIZE	POLE	FUSE	NEMA	NOTES
ECUH-1	ELECTRIC WALL HEATER	240	1	2.00	-	-	20	3#12,1#12G,3/4"C	30	2	20	1	1
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												



1 OVERALL PLAN - BUILDING 3 (28-UNIT BLDG) - FIRST FLOOR

1/8"=1'-0"

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C. MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.

D. LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.

E. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.

F. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.

G. PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.

H. COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.

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DWG INFO:
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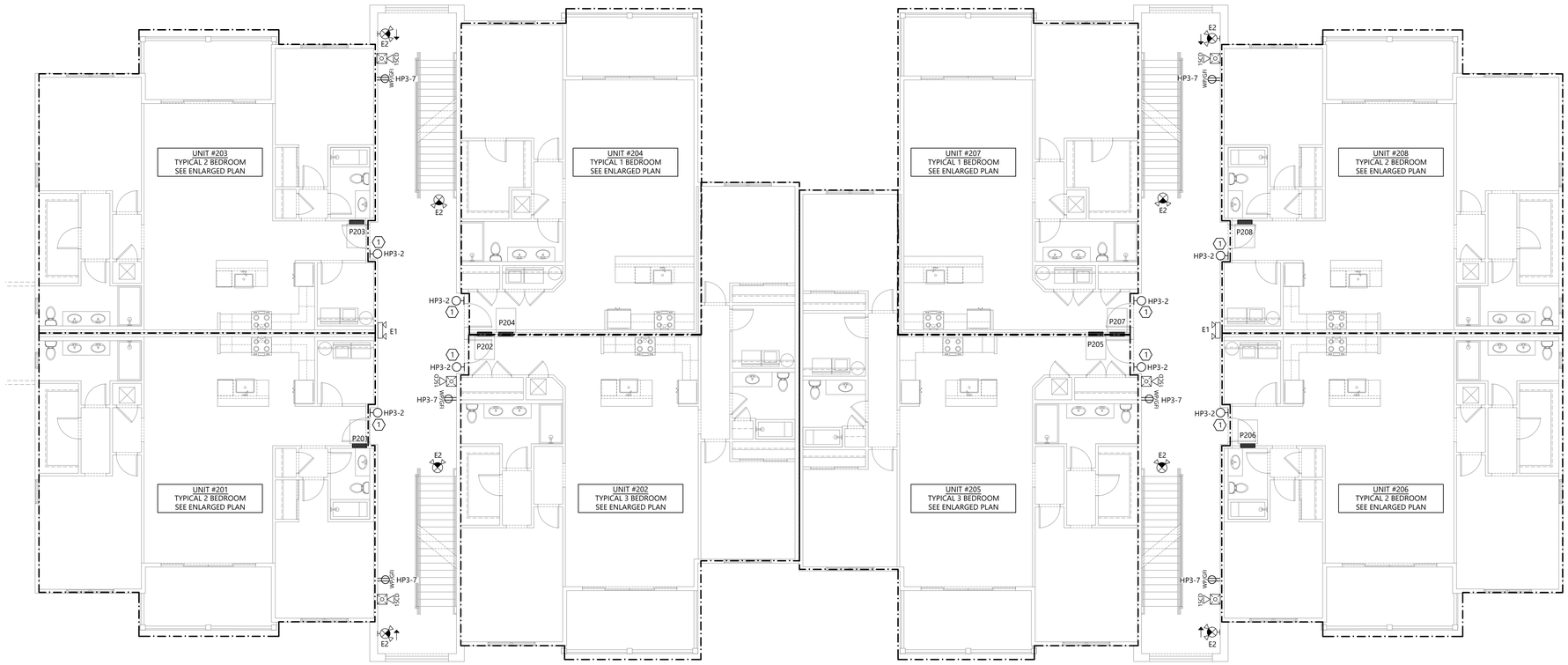
DWG DESCRIPTION:
OVERALL ELECTRICAL PLAN - FIRST FLOOR - BUILDING 3

SHEET #:
E-22

WILDE #: 24-125



1 OVERALL PLAN - BUILDING 3 (28-UNIT BLDG) - SECOND FLOOR

1/8"=1'-0"

GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.

B. ALL CONDUIT SHALL BE CONCEALED BEHIND WALLS AND ABOVE CEILINGS. NO EXPOSED CONDUIT PERMITTED.

C. MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.

D. LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.

E. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.

F. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.

G. PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.

H. COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.

I. ALL 15A AND 20A RECEPTACLES IN COMMON AREAS SHALL BE TAMPER RESISTANT.

J. SMOKE/HEAT DETECTORS SHALL NOT BE LOCATED WITHIN 3' OF MECHANICAL AIR TERMINALS AND DIFFUSERS.

K. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.

(##) KEYED NOTES (ALL MAY NOT BE ON THIS SHEET):

1. WALL SCONCE (FIXTURE TAG 'B') AT EACH APARTMENT ENTRY DOOR. REFER TO ENLARGED UNIT PLANS. COORDINATE EXACT LOCATION IN FIELD WITH ARCHITECT. ROUTE THROUGH LIGHTING CONTACTOR FOR ASSOCIATED BUILDING. CONTACTOR TO BE LOCATED ADJACENT TO BUILDING HOUSE PANEL. SEE LIGHTING CONTACTOR DETAIL.
2. COORDINATE FACP LOCATION WITH FIRE RISER, IRRIGATION CONTROLS, ETC. WITHIN UTILITY ROOM.
3. POWER FOR IRRIGATION CONTROLS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
4. ALL QUANTITIES, LOCATIONS, ETC. OF TAMPER AND FLOW SWITCHES SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
5. FIRE ALARM BELL. COORDINATED EXACT QUANTITY, LOCATION, REQUIREMENTS, ETC. WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
6. MAIN TELECOM CABINET FOR BUILDING. PROVIDE 36"x36" NEMA 3R CABINET AND (2)-4"C FROM CABINET TO MAIN PROPERTY LINE AND CONNECTION TO UTILITY. PROVIDE WP/GFI QUAD RECEPTACLE WITHIN CABINET, CONNECT TO CIRCUIT SHOWN ON PLANS.
7. COORDINATE WITH M.C. FOR WHICH UNIT EACH HEAT PUMP IS ASSOCIATED WITH. SIZE FEEDERS TO ACCOMMODATE VOLTAGE DROP PER NEC. SEE ENLARGED UNIT PLAN AND PANEL SCHEDULE FOR CIRCUIT DESIGNATION, DISCONNECT SIZE, ETC.

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- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

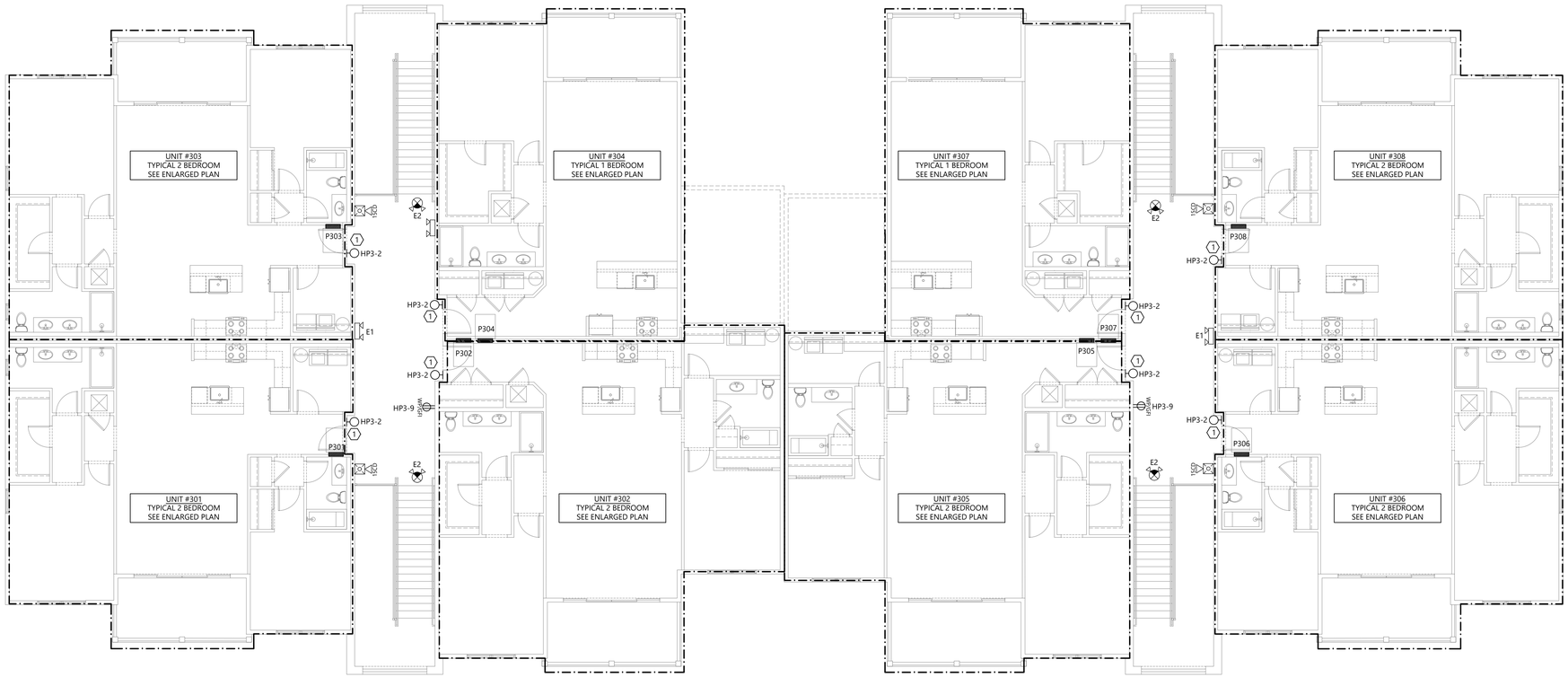
#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
OVERALL ELECTRICAL PLAN - SECOND FLOOR - BUILDING 3

SHEET #:
E-23

WILDE #: 24-125



1 OVERALL PLAN - BUILDING 3 (28-UNIT BLDG) - THIRD FLOOR

1/8"=1'-0"

GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.

B. ALL CONDUIT SHALL BE CONCEALED BEHIND WALLS AND ABOVE CEILINGS. NO EXPOSED CONDUIT PERMITTED.

C. MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.

D. LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.

E. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.

F. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.

G. PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.

H. COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.

I. ALL 15A AND 20A RECEPTACLES IN COMMON AREAS SHALL BE TAMPER RESISTANT.

J. SMOKE/HEAT DETECTORS SHALL NOT BE LOCATED WITHIN 3' OF MECHANICAL AIR TERMINALS AND DIFFUSERS.

K. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.

(##) KEYED NOTES (ALL MAY NOT BE ON THIS SHEET):

1. WALL SCONCE (FIXTURE TAG 'B') AT EACH APARTMENT ENTRY DOOR. REFER TO ENLARGED UNIT PLANS. COORDINATE EXACT LOCATION IN FIELD WITH ARCHITECT. ROUTE THROUGH LIGHTING CONTACTOR FOR ASSOCIATED BUILDING. CONTACTOR TO BE LOCATED ADJACENT TO BUILDING HOUSE PANEL. SEE LIGHTING CONTACTOR DETAIL.
2. COORDINATE FACP LOCATION WITH FIRE RISER, IRRIGATION CONTROLS, ETC. WITHIN UTILITY ROOM.
3. POWER FOR IRRIGATION CONTROLS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
4. ALL QUANTITIES, LOCATIONS, ETC. OF TAMPER AND FLOW SWITCHES SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
5. FIRE ALARM BELL. COORDINATED EXACT QUANTITY, LOCATION, REQUIREMENTS, ETC. WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
6. MAIN TELECOM CABINET FOR BUILDING. PROVIDE 36"x36" NEMA 3R CABINET AND (2)-4"C FROM CABINET TO MAIN PROPERTY LINE AND CONNECTION TO UTILITY. PROVIDE WP/GFI QUAD RECEPTACLE WITHIN CABINET, CONNECT TO CIRCUIT SHOWN ON PLANS.
7. COORDINATE WITH M.C. FOR WHICH UNIT EACH HEAT PUMP IS ASSOCIATED WITH. SIZE FEEDERS TO ACCOMMODATE VOLTAGE DROP PER NEC. SEE ENLARGED UNIT PLAN AND PANEL SCHEDULE FOR CIRCUIT DESIGNATION, DISCONNECT SIZE, ETC.

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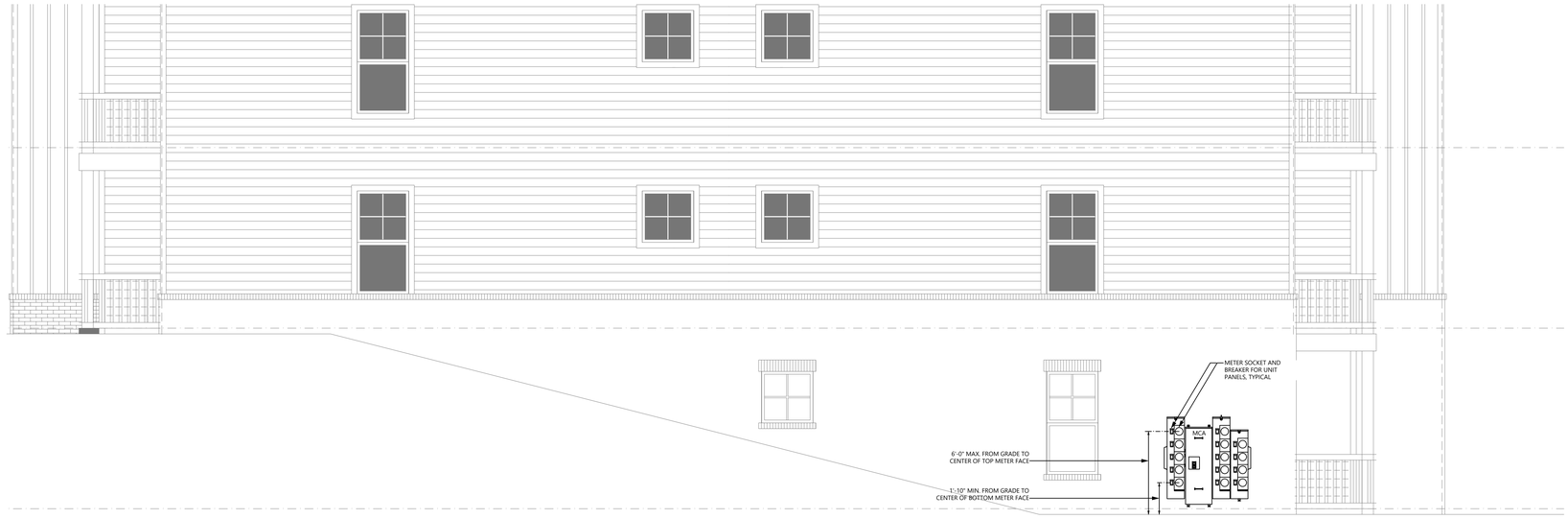
#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
OVERALL ELECTRICAL PLAN - THIRD FLOOR - BUILDING 3

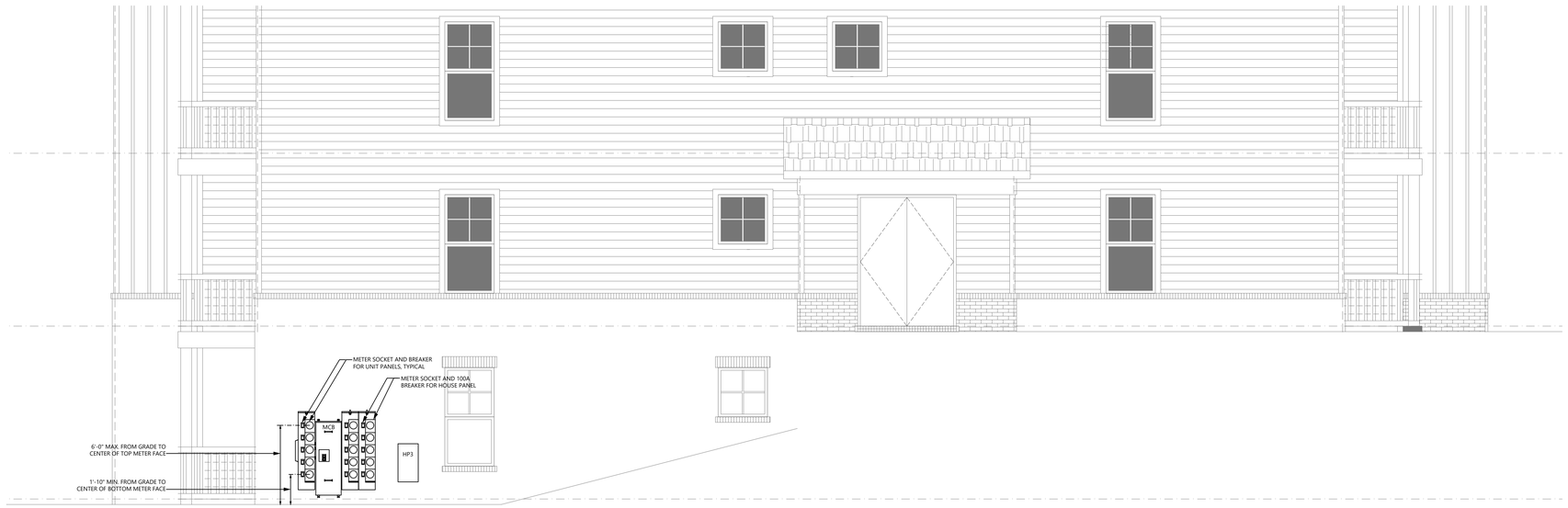
SHEET #:
E-24

WILDE #: 24-125



1 PARTIAL PLAN EAST ELEVATION - BUILDING 3 (28-UNIT BUILDING)

1/4"=1'-0"



2 PARTIAL PLAN WEST ELEVATION - BUILDING 3 (28-UNIT BUILDING)

1/4"=1'-0"

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DWG DECRIPTION :
PARTIAL ELEVATIONS - BUILDING 3

SHEET #:
E-31

WILDE #: 24-125

TYPICAL PANEL SCHEDULE FOR **1 BEDROOM** UNITS

NEW PANEL: 1-BDRM

VOLTAGE: 120/ 240 — MOUNTING: FLUSH
PHASE / WIRE: 1φ/ 3W
AMPS: 100 — MAIN: LUGS ONLY
AIC: 10,000

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00
0.00	12	20	REC - BEDROOM	11		●	12			6	0.00
0.00	12	20	BATHROOM	13	●		14	AIR HANDLER	20	12	0.00
0.00	12	20	BEDROOM FAN	15		●	16			12	0.00
0.00	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	15	8	0.00
0.00	12	20	WASHER (NOTE #7)	19		●	20			8	0.00
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00
0.00	12	20	TELECOM BOX	23		●	24			10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00
0.00		20	SPARE	27		●	28			6	0.00
0.00		20	SPARE	29	●		30	SPARE	20		0.00
				31		●	32				
				33	●		34				
				35		●	36				
				37	●		38				
				39		●	40				
				41	●		42				
0.0			SUB TOTALS								0.0

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE	
LIGHTS	0.0	1.25	0.0	CONNECTED	(NOTE #10)
HEATING	0.0	1.00	0.0	L1= 0.0 kVA — 0.0 AMPS	
COOLING	0.0	1.00	0.0	L2= 0.0 kVA — 0.0 AMPS	
VENTILATION	0.0	1.00	0.0		
MOTORS	0.0	1.00	0.0	DEMAND	(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1- 0.0 kVA — 0.0 AMPS	
REC. (1st 10kVA)	0.0	1.00	0.0	L2- 0.0 kVA — 0.0 AMPS	
REC. (>10kVA)	0.0	0.50	0.0		
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%	(NOTE #10)
MISC.	0.0	1.00	0.0	L1= 0.0 kVA — 0.0 AMPS	
SPARE	0.0	1.00	0.0	L2= 0.0 kVA — 0.0 AMPS	

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

TYPICAL LOAD SUMMARY FOR **1 BEDROOM** & **1 BEDROOM TYPE-A** UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION
UNIT / SUITE: 1BDRM, 1BDRM TYPE-A **(Optional Calculation)**

Voltage (L-L):	240	Volts
Phase:	1	
Floor Area:	1094	Sq Ft

Project Name:	Naples Road Apartments
Project #:	24-125
By:	Matt Lewis
Date:	3/13/2025

LOAD		kVA	QTY	kVA	NOTES
General Lighting Load		3.28	1	3.28	3 VA/SF
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt
Electric Range		8.00	1	8.00	
Clothes Dryer		5.00	1	5.00	
A/C and Cooling	(240V)	3.63	1	3.63	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".
HP Compressor	(240V)	2.19	0	0.00	
Strip Heat	(240V)	2.00	0	0.00	
Electric Space Heat	(240V)	0.00	0	0.00	
Elec Thermal / Other	(240V)	0.00	0	0.00	
Water Heater	(240V)	9.60	1	9.60	
Water Heater	(120V)	1.50	0	0.00	
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal
Microwave		1.50	1	1.50	
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
TOTAL CONNECTED LOAD FOR UNIT				38.11	kVA

DEMAND LOAD (PHASE)			DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%	10.00	kVA	Gen Ltg, Small Appliance, Laundry	7.78	
Remaining @ 40%	9.7928	kVA	1st 3 kVA @ 100%	3.00	kVA
A/C & Cooling @ 100%	3.63	kVA	> 3 kVA to 120 kVA @ 35%	1.67	kVA
HP Compressor @ 100%	0.00	kVA	> 120 kVA @ 25%	0.00	kVA
HP Strip Heat @ 65%	0.00	kVA	Remaining L-N Loads @ 100%	4.10	kVA
Electric Space Heat @ 65%	0.00	kVA	Dryer Load @ 70%	3.50	kVA
Electric Space Heat @ 40%	0.00	kVA	Range Load @ 70%	4.48	kVA
Electric Thermal & Other Heating	0.00	kVA	Unbalanced load > 200A @ 70%	0.00	kVA
TOTAL DEMAND LOAD (PHASE)	23.42	kVA	TOTAL DEMAND LOAD (NEUTRAL)	16.75	kVA
	97.60	AMPS		69.81	AMPS

Quantity of 15A general lighting circuits (w/ AFCI-P) = 2	AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.
OR	
Quantity of 20A general lighting circuits (w/ AFCI-P) = 2	

NOTES:

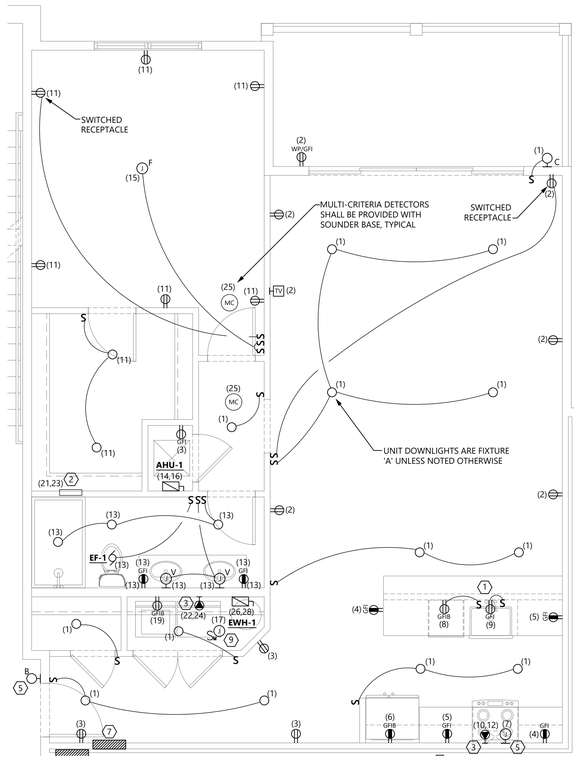
1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 1 BEDROOM UNITS

		EQUIPMENT CHARACTERISTICS							DISCONNECT SWITCH				
TAG	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	KW	FLA	MCA	MOCP	FEEDER	SIZE	POLE	FUSE	NEMA	NOTES
AHU-1	1 BEDROOM AIR HANDLER	240	1	-	-	16.8	20	3#12,1#12G,3/4"C	30	2	20	1	1
HP-1	1 BEDROOM HEAT PUMP	240	1	-	-	11.4	15	NOTE 3	30	2	15	3R	1,3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2

NOTES:

1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS
3	WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP



NOTE: HEAT PUMP DISCONNECT SHOWN HERE FOR CLARITY ONLY. REFER TO OVERALL PLANS FOR HEAT PUMP LOCATION. COORDINATE EXACT LOCATION WITH M.C. PRIOR TO ROUGH-IN

ENLARGED UNIT PLAN SYMBOLS LIST	
(J)V	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
(MC)	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
(F)	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL VIA SWITCH SHOWN ON PLANS
○	6" SURFACE MOUNTED DOWNLIGHT. 1,200 LUMENS. 3000K, 120V. BASED ON HALO 'SMD6'. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
(J)F	CEILING FAN RATED JUNCTION BOX, CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
(DB) H	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DB) HS	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DB) V	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE	

1 ENLARGED UNIT PLAN - 1 BEDROOM

1/4"=1'-0"

GENERAL NOTES:

A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
C. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
D. COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E. ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
F. OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
G. ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
H. RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
I. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117I.1 SECTION 308. COORDIANTE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

(##) KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
3. SPECIAL RECEPTACLE. EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
4. IN **ACCESSIBLE** UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL, SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
8. COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

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DRAWN BY: MFL
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DWG DECRIPTION :
ENLARGED UNIT PLAN - 1 BEDROOM

SHEET #:
E-41

WILDE #: 24-125

TYPICAL PANEL SCHEDULE FOR **1 BEDROOM TYPE-A** UNITS

NEW PANEL: 1-BDRM TYPE-A

VOLTAGE: 120/ 240 — MOUNTING: FLUSH
PHASE / WIRE: 1φ/ 3W
AMPS: 100 — MAIN: LUGS ONLY
AIC: 10,000

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00
0.00	12	20	REC - BEDROOM	11		●	12			6	0.00
0.00	12	20	REC - BATHROOM	13	●		14	AIR HANDLER	20	12	0.00
0.00	12	20	BEDROOM FAN	15		●	16			12	0.00
0.00	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	15	8	0.00
0.00	12	20	WASHER (NOTE #7)	19		●	20			8	0.00
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00
0.00	12	20	TELECOM BOX	23		●	24			10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00
0.00		20	SPARE	27		●	28			6	0.00
0.00		20	SPARE	29	●		30	SPARE	20		0.00
				31		●	32				
				33	●		34				
				35		●	36				
				37	●		38				
				39		●	40				
				41	●		42				
0.0			SUB TOTALS								0.0

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE	
LIGHTS	0.0	1.25	0.0	CONNECTED	(NOTE #10)
HEATING	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS
COOLING	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS
VENTILATION	0.0	1.00	0.0		
MOTORS	0.0	1.00	0.0	DEMAND	(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1- 0.0 kVA	0.0 AMPS
REC. (1st 10kVA)	0.0	1.00	0.0	L2- 0.0 kVA	0.0 AMPS
REC. (>10kVA)	0.0	0.50	0.0		
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%	(NOTE #10)
MISC.	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS
SPARE	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

TYPICAL LOAD SUMMARY FOR **1 BEDROOM** & **1 BEDROOM TYPE-A** UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION
UNIT / SUITE: 1BDRM, 1BDRM TYPE-A **(Optional Calculation)**

Voltage (L-L):	240	Volts	Project Name: Naples Road Apartments
Phase:	1		Project #: 24-125
Floor Area:	1094	Sq Ft	By: Matt Lewis
			Date: 3/13/2025

LOAD		kVA	QTY	kVA	NOTES
General Lighting Load		3.28	1	3.28	3 VA/SF
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt
Electric Range		8.00	1	8.00	
Clothes Dryer		5.00	1	5.00	
A/C and Cooling	(240V)	3.63	1	3.63	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".
HP Compressor	(240V)	2.19	0	0.00	
Strip Heat	(240V)	2.00	0	0.00	
Electric Space Heat	(240V)	0.00	0	0.00	
Elec Thermal / Other	(240V)	0.00	0	0.00	
Water Heater	(240V)	9.60	1	9.60	
Water Heater	(120V)	1.50	0	0.00	
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal
Microwave		1.50	1	1.50	
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
TOTAL CONNECTED LOAD FOR UNIT				38.11	kVA

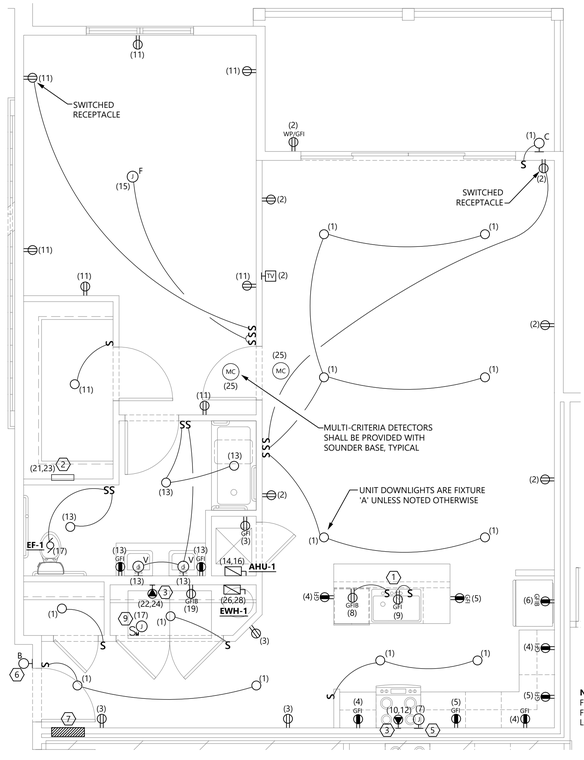
DEMAND LOAD (PHASE)			DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%	10.00	kVA	Gen Ltg, Small Appliance, Laundry	7.78	
Remaining @ 40%	9.7928	kVA	1st 3 kVA @ 100%	3.00	kVA
A/C & Cooling @ 100%	3.63	kVA	> 3 kVA to 120 kVA @ 35%	1.67	kVA
HP Compressor @ 100%	0.00	kVA	> 120 kVA @ 25%	0.00	kVA
HP Strip Heat @ 65%	0.00	kVA	Remaining L-N Loads @ 100%	4.10	kVA
Electric Space Heat @ 65%	0.00	kVA	Dryer Load @ 70%	3.50	kVA
Electric Space Heat @ 40%	0.00	kVA	Range Load @ 70%	4.48	kVA
Electric Thermal & Other Heating	0.00	kVA	Unbalanced load > 200A @ 70%	0.00	kVA
TOTAL DEMAND LOAD (PHASE)	23.42	kVA	TOTAL DEMAND LOAD (NEUTRAL)	16.75	kVA
	97.60	AMPS		69.81	AMPS

Quantity of 15A general lighting circuits (w/ AFCI-P) = **2**
OR
Quantity of 20A general lighting circuits (w/ AFCI-P) = **2**

AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.

NOTES:

1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire



NOTE: HEAT PUMP DISCONNECT SHOWN HERE FOR CLARITY ONLY. REFER TO OVERALL PLANS FOR HEAT PUMP LOCATION. COORDINATE EXACT LOCATION WITH M.C. PRIOR TO ROUGH-IN

1 ENLARGED UNIT PLAN - 1 BEDROOM TYPE-A

1/4"=1'-0"

GENERAL NOTES:

A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
C. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
D. COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E. ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
F. OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
G. ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
H. RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
I. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

(##) KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
3. SPECIAL RECEPTACLE: EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
4. IN **ACCESSIBLE** UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL, SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
8. COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

ENLARGED UNIT PLAN SYMBOLS LIST

(J)V	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
(MC)	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL VIA SWITCH SHOWN ON PLANS
	6" SURFACE MOUNTED DOWNLIGHT. 1,200 LUMENS. 3000K, 120V. BASED ON HALO 'SMD6'. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
(J)F	CEILING FAN RATED JUNCTION BOX, CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
DB	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
DB S	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
DB V	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.

NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 1 BEDROOM UNITS

		EQUIPMENT CHARACTERISTICS							DISCONNECT SWITCH				
TAG	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	KW	FLA	MCA	MOCP	FEEDER	SIZE	POLE	FUSE	NEMA	NOTES
AHU-1	1 BEDROOM AIR HANDLER	240	1	-	-	16.8	20	3#12,1#12G,3/4"C	30	2	20	1	1
HP-1	1 BEDROOM HEAT PUMP	240	1	-	-	11.4	15	NOTE 3	30	2	15	3R	1,3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2

NOTES:

1. COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.
2. FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS
3. WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP

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- PRELIMINARY - NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ENLARGED UNIT PLAN - 1 BEDROOM TYPE-A

SHEET #:
E-42

WILDE #: 24-125

TYPICAL PANEL SCHEDULE FOR **2 BEDROOM** UNITS

NEW PANEL: 2-BDRM

VOLTAGE: 120/ 240 — **MOUNTING:** FLUSH
PHASE / WIRE: 1φ/ 3W
AMPS: 125 — **MAIN:** LUGS ONLY
AIC: 10,000

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00
0.00	12	20	REC - MASTER BEDROOM	11		●	12			6	0.00
0.00	12	20	MASTER BATHROOM	13	●		14	AIR HANDLER	25	10	0.00
0.00	12	20	FAN - MASTER BEDROOM	15		●	16			10	0.00
0.00	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	20	8	0.00
0.00	12	20	WASHER (NOTE #7)	19		●	20			8	0.00
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00
0.00	12	20	TELECOM BOX	23		●	24			10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00
0.00	12	20	REC - BEDROOM #2	27		●	28			6	0.00
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20		
0.00	12	20	FAN - BEDROOM #2	31		●	32	SPARE	20		
		20	SPARE	33	●		34	SPARE	20		
		20	SPARE	35		●	36	SPARE	20		
		20	SPARE	37	●		38	SPARE	20		
		20	SPARE	39		●	40	SPARE	20		
		20	SPARE	41	●		42	SPARE	20		
0.0			SUB TOTALS								0.0

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE			
LIGHTS	0.0	1.25	0.0	CONNECTED			(NOTE #10)
HEATING	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS		
COOLING	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS		
VENTILATION	0.0	1.00	0.0				
MOTORS	0.0	1.00	0.0	DEMAND			(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1- 0.0 kVA	0.0 AMPS		
REC. (1st 10kVA)	0.0	1.00	0.0	L2- 0.0 kVA	0.0 AMPS		
REC. (>10kVA)	0.0	0.50	0.0				
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%			(NOTE #10)
MISC.	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS		
SPARE	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS		

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

TYPICAL LOAD SUMMARY FOR **2 BEDROOM, 2 BEDROOM TYPE-A,** & **2 BEDROOM ACCESSIBLE** UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION
UNIT / SUITE: 2 BDRM, 2BDRM TYPE-A, 2BDRM ACCESSIBLE **(Optional Calculation)**

Voltage (L-L):	240	Volts	Project Name: Naples Road Apartments
Phase:	1		Project #: 24-125
Floor Area:	1427	Sq Ft	By: Matt Lewis
			Date: 3/13/2025

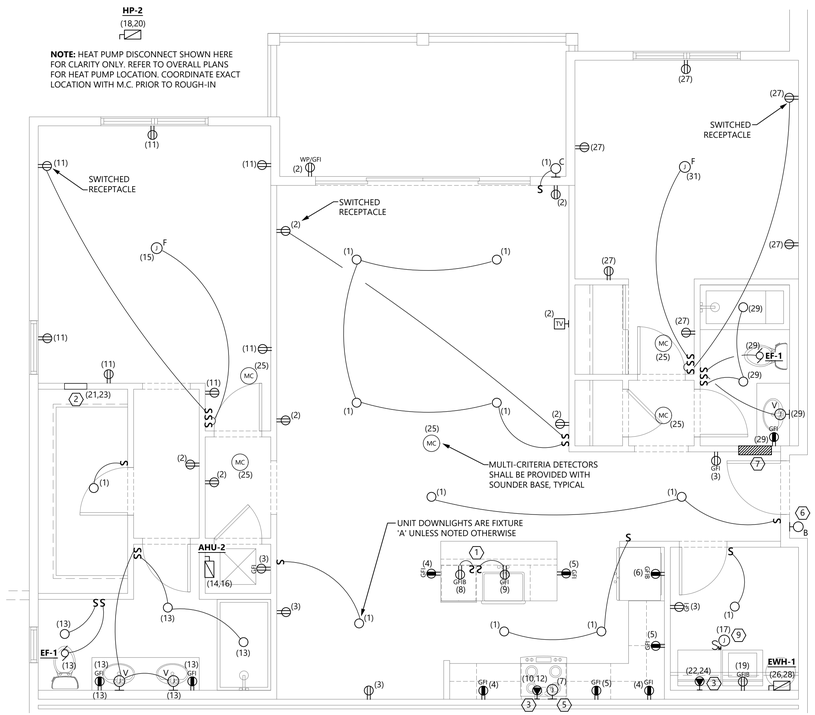
LOAD		kVA	QTY	kVA	NOTES
General Lighting Load		4.28	1	4.28	3 VA/SF
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt
Electric Range		8.00	1	8.00	
Clothes Dryer		5.00	1	5.00	
A/C and Cooling	(240V)	5.44	1	5.44	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".
HP Compressor	(240V)	2.65	0	0.00	
Strip Heat	(240V)	2.00	0	0.00	
Electric Space Heat	(240V)	0.00	0	0.00	
Elec Thermal / Other	(240V)	0.00	0	0.00	
Water Heater	(240V)	9.60	1	9.60	
Water Heater	(120V)	1.50	0	0.00	
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal
Microwave		1.50	1	1.50	
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances indivdually where applicable.
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
TOTAL CONNECTED LOAD FOR UNIT				40.92	kVA

DEMAND LOAD (PHASE)			DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%	10.00	kVA	Gen Ltg, Small Appliance, Laundry	8.78	
Remaining @ 40%	10.1924	kVA	1st 3 kVA @ 100%	3.00	kVA
A/C & Cooling @ 100%	5.44	kVA	> 3 kVA to 120 kVA @ 35%	2.02	kVA
HP Compressor @ 100%	0.00	kVA	> 120 kVA @ 25%	0.00	kVA
HP Strip Heat @ 65%	0.00	kVA	Remaining L-N Loads @ 100%	4.10	kVA
Electric Space Heat @ 65%	0.00	kVA	Dryer Load @ 70%	3.50	kVA
Electric Space Heat @ 40%	0.00	kVA	Range Load @ 70%	4.48	kVA
Electric Thermal & Other Heating	0.00	kVA	Unbalanced load > 200A @ 70%	0.00	kVA
TOTAL DEMAND LOAD (PHASE)	**25.63**	**kVA**	**TOTAL DEMAND LOAD (NEUTRAL)**	**17.10**	**kVA**
	106.80	**AMPS**		**71.26**	**AMPS**

Quantity of 15A general lighting circuits (w/ AFCI-P) = **3** OR Quantity of 20A general lighting circuits (w/ AFCI-P) = **2**	AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.

NOTES:

1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire



1 ENLARGED UNIT PLAN - 2 BEDROOM

1/4"=1'-0"

ENLARGED UNIT PLAN SYMBOLS LIST

J_V	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
MC	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
EF	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL VIA SWITCH SHOWN ON PLANS
	6" SURFACE MOUNTED DOWNLIGHT. 1,200 LUMENS. 3000K, 120V. BASED ON HALO 'SMD6'. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
J_F	CEILING FAN RATED JUNCTION BOX. CONNECT TO CIRCUIT SHOWN PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
DB	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
DB_S	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
DV	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.

NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE

GENERAL NOTES:

A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
C. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
D. COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E. ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
F. OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
G. ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
H. RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
I. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

(##) KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
3. SPECIAL RECEPTACLE. EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
4. IN **ACCESSIBLE** UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL. SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
8. COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 2 BEDROOM UNITS

		EQUIPMENT CHARACTERISTICS							DISCONNECT SWITCH				
TAG	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	KW	FLA	MCA	MOCP	FEEDER	SIZE	POLE	FUSE	NEMA	NOTES
AHU-2	1 BEDROOM AIR HANDLER	240	1	-	-	24.9	25	3#10,1#10G,1"C	30	2	25	1	1
HP-2	1 BEDROOM HEAT PUMP	240	1	-	-	13.8	20	NOTE 3	30	2	20	3R	1,3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2

NOTES:

1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS
3	WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP

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- PRELIMINARY - NOT FOR CONSTRUCTION

SIGNATURE:

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The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ENLARGED UNIT PLAN - 2 BEDROOM

SHEET #:
E-43

WILDE #: 24-125

TYPICAL PANEL SCHEDULE FOR **2 BEDROOM TYPE-A** UNITS

NEW PANEL: 2-BDRM TYPE-A

VOLTAGE: 120/ 240
PHASE / WIRE: 1φ/ 3W
AMPS: 125
AIC: 10,000
MOUNTING: FLUSH
MAIN: LUGS ONLY

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00
0.00	12	20	REC - MASTER BEDROOM	11		●	12			6	0.00
0.00	12	20	MASTER BATHROOM	13	●		14	AIR HANDLER	25	10	0.00
0.00	12	20	FAN - MASTER BEDROOM	15		●	16			10	0.00
0.00	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	20	8	0.00
0.00	12	20	WASHER (NOTE #7)	19		●	20			8	0.00
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00
0.00	12	20	TELECOM BOX	23		●	24			10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00
0.00	12	20	REC - BEDROOM #2	27		●	28			6	0.00
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20		
0.00	12	20	FAN - BEDROOM #2	31		●	32	SPARE	20		
		20	SPARE	33	●		34	SPARE	20		
		20	SPARE	35		●	36	SPARE	20		
		20	SPARE	37	●		38	SPARE	20		
		20	SPARE	39		●	40	SPARE	20		
		20	SPARE	41	●		42	SPARE	20		
0.0			SUB TOTALS								0.0

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE			
LIGHTS	0.0	1.25	0.0	CONNECTED			(NOTE #10)
HEATING	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS		
COOLING	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS		
VENTILATION	0.0	1.00	0.0				
MOTORS	0.0	1.00	0.0	DEMAND			(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1- 0.0 kVA	0.0 AMPS		
REC. (1st 10kVA)	0.0	1.00	0.0	L2- 0.0 kVA	0.0 AMPS		
REC. (>10kVA)	0.0	0.50	0.0				
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%			(NOTE #10)
MISC.	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS		
SPARE	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS		

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

TYPICAL LOAD SUMMARY FOR **2 BEDROOM, 2 BEDROOM TYPE-A,** & **2 BEDROOM ACCESSIBLE** UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION
UNIT / SUITE: 2 BDRM, 2BDRM TYPE-A, 2BDRM ACCESSIBLE **(Optional Calculation)**

Voltage (L-L):	240	Volts	Project Name: Naples Road Apartments
Phase:	1		Project #: 24-125
Floor Area:	1427	Sq Ft	By: Matt Lewis
			Date: 3/13/2025

LOAD		kVA	QTY	kVA	NOTES
General Lighting Load		4.28	1	4.28	3 VA/SF
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt
Electric Range		8.00	1	8.00	
Clothes Dryer		5.00	1	5.00	
A/C and Cooling	(240V)	5.44	1	5.44	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".
HP Compressor	(240V)	2.65	0	0.00	
Strip Heat	(240V)	2.00	0	0.00	
Electric Space Heat	(240V)	0.00	0	0.00	
Elec Thermal / Other	(240V)	0.00	0	0.00	
Water Heater	(240V)	9.60	1	9.60	
Water Heater	(120V)	1.50	0	0.00	
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal
Microwave		1.50	1	1.50	
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
TOTAL CONNECTED LOAD FOR UNIT				40.92	kVA

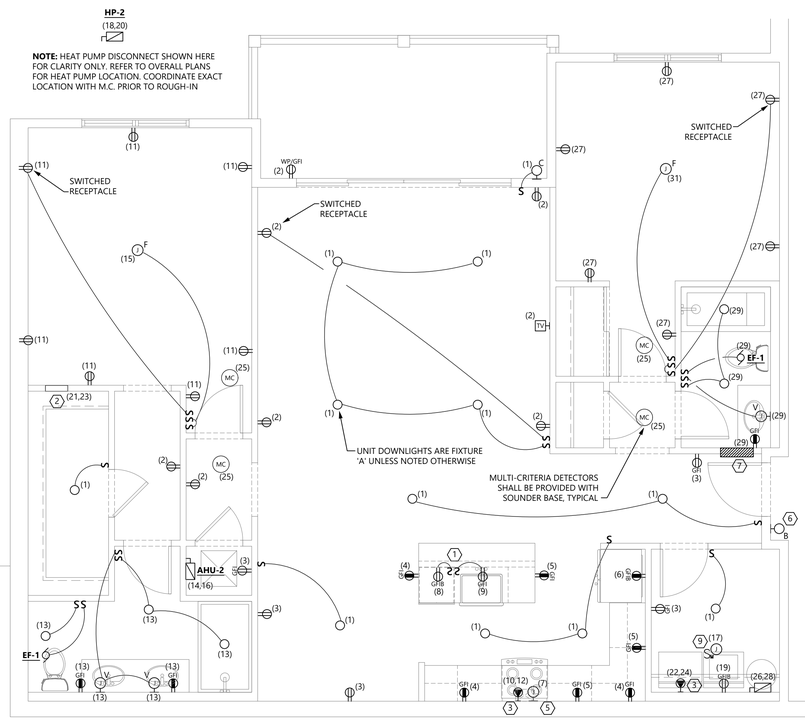
DEMAND LOAD (PHASE)			DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%	10.00	kVA	Gen Ltg. Small Appliance, Laundry	8.78	
Remaining @ 40%	10.1924	kVA	1st 3 kVA @ 100%	3.00	kVA
A/C & Cooling @ 100%	5.44	kVA	> 3 kVA to 120 kVA @ 35%	2.02	kVA
HP Compressor @ 100%	0.00	kVA	> 120 kVA @ 25%	0.00	kVA
HP Strip Heat @ 65%	0.00	kVA	Remaining L-N Loads @ 100%	4.10	kVA
Electric Space Heat @ 65%	0.00	kVA	Dryer Load @ 70%	3.50	kVA
Electric Space Heat @ 40%	0.00	kVA	Range Load @ 70%	4.48	kVA
Electric Thermal & Other Heating	0.00	kVA	Unbalanced load > 200A @ 70%	0.00	kVA
TOTAL DEMAND LOAD (PHASE)	25.63	kVA	TOTAL DEMAND LOAD (NEUTRAL)	17.10	kVA
	106.80	AMPS		71.26	AMPS

Quantity of 15A general lighting circuits (w/ AFCI-P) = **3**
OR
Quantity of 20A general lighting circuits (w/ AFCI-P) = **2**

AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.

NOTES:

1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire



1 ENLARGED UNIT PLAN - 2 BEDROOM TYPE-A
1/4"=1'-0"

ENLARGED UNIT PLAN SYMBOLS LIST

(I)V	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
(MC)	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL VIA SWITCH SHOWN ON PLANS
	6" SURFACE MOUNTED DOWNLIGHT. 1,200 LUMENS. 3000K, 120V. BASED ON HALO 'SMD6'. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
(I)F	CEILING FAN RATED JUNCTION BOX, CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
DB	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
DBS	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
DBV	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.

NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE

GENERAL NOTES:

A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
C. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
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I. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDIANTE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

(##) KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
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6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL. SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
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9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 2 BEDROOM UNITS

		EQUIPMENT CHARACTERISTICS							DISCONNECT SWITCH				
TAG	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	KW	FLA	MCA	MOCP	FEEDER	SIZE	POLE	FUSE	NEMA	NOTES
AHU-2	1 BEDROOM AIR HANDLER	240	1	-	-	24.9	25	3#10,1#10G,1"C	30	2	25	1	1
HP-2	1 BEDROOM HEAT PUMP	240	1	-	-	13.8	20	NOTE 3	30	2	20	3R	1,3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2

NOTES:

1. COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.
2. FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS
3. WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP

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Luis Graef: President

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The Orchards at Naples Road
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#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ENLARGED UNIT PLAN - 2 BEDROOM TYPE-A

SHEET #:
E-44

WILDE #: 24-125

TYPICAL PANEL SCHEDULE FOR **3 BEDROOM** UNITS

NEW PANEL: 3-BDRM

VOLTAGE: 120/ 240 — **MOUNTING:** FLUSH
PHASE / WIRE: 1φ/ 3W
AMPS: 125 — **MAIN:** LUGS ONLY
AIC: 10,000

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1			2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3			4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5			6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7			8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9			10	RANGE	50	6	0.00
0.00	12	20	REC - MASTER BEDROOM	11			12			6	0.00
0.00	12	20	REC - MASTER BATHROOM	13			14	AIR HANDLER	30	10	0.00
0.00	12	20	FAN - MASTER BEDROOM	15			16			10	0.00
0.00	12	20	DRYER BOOSTER FAN	17			18	HEAT PUMP	25	8	0.00
0.00	12	20	WASHER (NOTE #7)	19			20			8	0.00
0.00	12	20	TELECOM BOX	21			22	DRYER	30	10	0.00
0.00	12	20	TELECOM BOX	23			24			10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25			26	WATER HEATER	50	6	0.00
0.00	12	20	REC - BEDROOM #2	27			28			6	0.00
0.00	12	20	BATHROOM #2	29			30	SPARE	20		0.00
0.00	12	20	FAN - BEDROOM #2	31			32	REC - BEDROOM #3	20	12	
0.00	12	20	FAN - BEDROOM #3	33			34	SPARE	20		
		20	SPARE	35			36	SPARE	20		
		20	SPARE	37			38	SPARE	20		
		20	SPARE	39			40	SPARE	20		
		20	SPARE	41			42	SPARE	20		
0.0			SUB TOTALS								0.0

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE	
LIGHTS	0.0	1.25	0.0	CONNECTED	(NOTE #10)
HEATING	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS
COOLING	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS
VENTILATION	0.0	1.00	0.0		
MOTORS	0.0	1.00	0.0	DEMAND	(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1- 0.0 kVA	0.0 AMPS
REC. (1st 10kVA)	0.0	1.00	0.0	L2- 0.0 kVA	0.0 AMPS
REC. (> 10kVA)	0.0	0.50	0.0		
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%	(NOTE #10)
MISC.	0.0	1.00	0.0	L1= 0.0 kVA	0.0 AMPS
SPARE	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

TYPICAL LOAD SUMMARY FOR **3 BEDROOM, 3 BEDROOM TYPE-A,** & **3 BEDROOM ACCESSIBLE** UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION
UNIT / SUITE: 3BDRM, 3BDRM TYPE-A, 3BDRM ACCESSIBLE **(Optional Calculation)**

Voltage (L-L):	240	Volts	Project Name: Naples Road Apartments
Phase:	1		Project #: 24-125
Floor Area:	1716	Sq Ft	By: Matt Lewis
			Date: 3/13/2025

LOAD		kVA	QTY	kVA	NOTES
General Lighting Load		5.15	1	5.15	3 VA/SF
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt
Electric Range		8.00	1	8.00	
Clothes Dryer		5.00	1	5.00	
A/C and Cooling	(240V)	5.72	1	5.72	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".
HP Compressor	(240V)	3.26	0	0.00	
Strip Heat	(240V)	2.00	0	0.00	
Electric Space Heat	(240V)	0.00	0	0.00	
Elec Thermal / Other	(240V)	0.00	0	0.00	
Water Heater	(240V)	9.60	1	9.60	
Water Heater	(120V)	1.50	0	0.00	
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal
Microwave		1.50	1	1.50	
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances indivdually where applicable.
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
TOTAL CONNECTED LOAD FOR UNIT				42.07	kVA

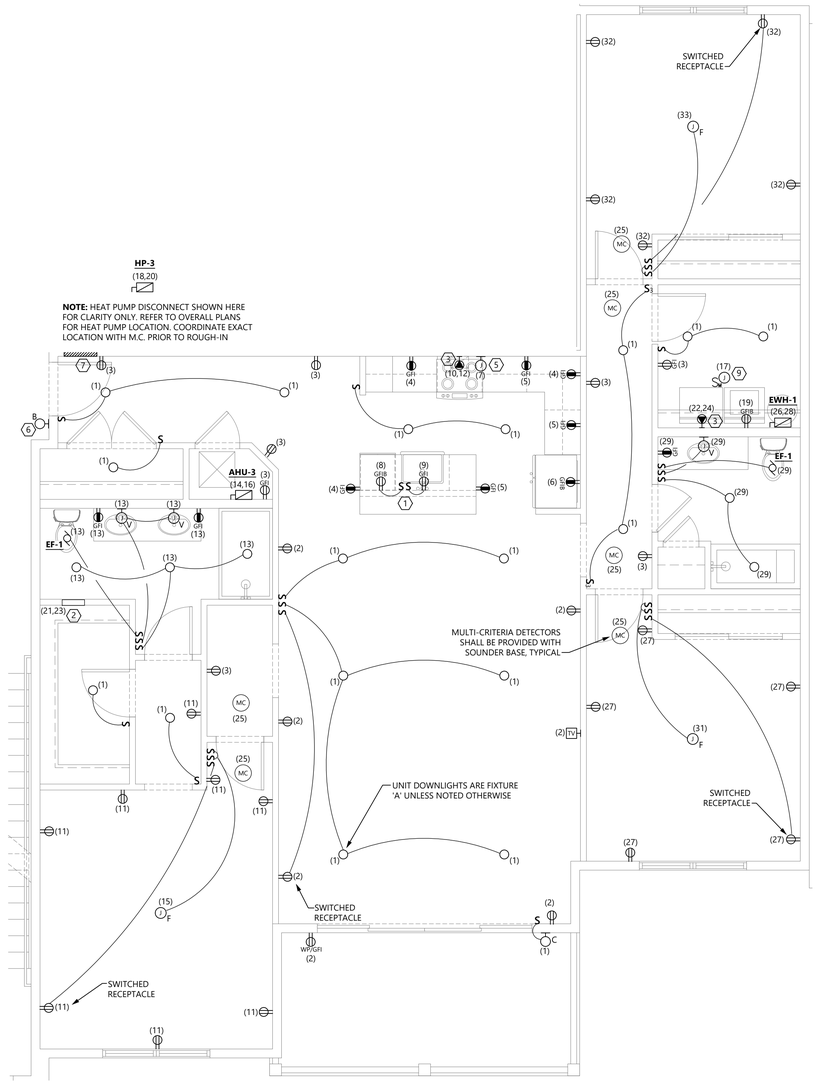
DEMAND LOAD (PHASE)			DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%	10.00	kVA	Gen Ltg, Small Appliance, Laundry	9.65	
Remaining @ 40%	10.5392	kVA	1st 3 kVA @ 100%	3.00	kVA
A/C & Cooling @ 100%	5.72	kVA	> 3 kVA to 120 kVA @ 35%	2.33	kVA
HP Compressor @ 100%	0.00	kVA	> 120 kVA @ 25%	0.00	kVA
HP Strip Heat @ 65%	0.00	kVA	Remaining L-N Loads @ 100%	4.10	kVA
Electric Space Heat @ 65%	0.00	kVA	Dryer Load @ 70%	3.50	kVA
Electric Space Heat @ 40%	0.00	kVA	Range Load @ 70%	4.48	kVA
Electric Thermal & Other Heating	0.00	kVA	Unbalanced load > 200A @ 70%	0.00	kVA
TOTAL DEMAND LOAD (PHASE)	26.26	kVA	TOTAL DEMAND LOAD (NEUTRAL)	17.41	kVA
	109.41	AMPS		72.53	AMPS

Quantity of 15A general lighting circuits (w/ AFCI-P) = 3
OR
Quantity of 20A general lighting circuits (w/ AFCI-P) = 3

AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.

NOTES:

1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire



1 ENLARGED UNIT PLAN - 3 BEDROOM

1/4"=1'-0"

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 3 BEDROOM UNITS

		EQUIPMENT CHARACTERISTICS							DISCONNECT SWITCH				
TAG	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	KW	FLA	MCA	MOCP	FEEDER	SIZE	POLE	FUSE	NEMA	NOTES
AHU-3	1 BEDROOM AIR HANDLER	240	1	-	-	26.4	30	3#10,1#10G,1"C	30	2	30	1	1
HP-3	1 BEDROOM HEAT PUMP	240	1	-	-	17	25	NOTE 3	30	2	25	3R	1,3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2

NOTES:

1. COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.
2. FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS
3. WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP

ENLARGED UNIT PLAN SYMBOLS LIST

(J)V	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
(MC)	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL VIA SWITCH SHOWN ON PLANS
	6" SURFACE MOUNTED DOWNLIGHT, 1,200 LUMENS, 3000K, 120V. BASED ON HALO 'SMD6'. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
(J)F	CEILING FAN RATED JUNCTION BOX, CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
(DB)	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DB)S	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DV)	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.

NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE

GENERAL NOTES:

A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
C. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
D. COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E. ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
F. OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
G. ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
H. RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
I. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDIANTE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

(##) KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
3. SPECIAL RECEPTACLE. EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
4. IN **ACCESSIBLE** UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL. SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
8. COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

Wilde engineering
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NC Firm License No. P-2182

- PRELIMINARY - NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ENLARGED UNIT PLAN - 3 BEDROOM

SHEET #:
E-45

WILDE #: 24-125

TYPICAL PANEL SCHEDULE FOR **3 BEDROOM TYPE-A** UNITS

NEW PANEL: 3-BDRM TYPE-A

VOLTAGE: 120/ 240 — MOUNTING: FLUSH
PHASE / WIRE: 1φ/ 3W
AMPS: 125 — MAIN: LUGS ONLY
AIC: 10,000

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00
0.00	12	20	REC - MASTER BEDROOM	11		●	12			6	0.00
0.00	12	20	MASTER BATHROOM	13	●		14	AIR HANDLER	30	10	0.00
0.00	12	20	FAN - MASTER BEDROOM	15		●	16			10	0.00
0.10	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	25	8	0.00
0.00	12	20	WASHER (NOTE #7)	19		●	20			8	0.00
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00
0.00	12	20	TELECOM BOX	23		●	24			10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00
0.00	12	20	REC - BEDROOM #2	27		●	28			6	0.00
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20		
0.00	12	20	FAN - BEDROOM #2	31		●	32	REC - BEDROOM #3	20	12	
0.00	12	20	FAN - BEDROOM #3	33	●		34	SPARE	20		
		20	SPARE	35		●	36	SPARE	20		
		20	SPARE	37	●		38	SPARE	20		
		20	SPARE	39		●	40	SPARE	20		
		20	SPARE	41	●		42	SPARE	20		
0.1			SUB TOTALS								0.0

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE	
LIGHTS	0.0	1.25	0.0	CONNECTED	(NOTE #10)
HEATING	0.0	1.00	0.0	L1= 0.1 kVA	0.8 AMPS
COOLING	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS
VENTILATION	0.0	1.00	0.0		
MOTORS	0.1	1.00	0.1	DEMAND	(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1- 0.1 kVA	0.8 AMPS
REC. (1st 10kVA)	0.0	1.00	0.0	L2- 0.0 kVA	0.0 AMPS
REC. (>10kVA)	0.0	0.50	0.0		
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%	(NOTE #10)
MISC.	0.0	1.00	0.0	L1= 0.1 kVA	1.0 AMPS
SPARE	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

TYPICAL LOAD SUMMARY FOR **3 BEDROOM, 3 BEDROOM TYPE-A,** & 3 **BEDROOM ACCESSIBLE** UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION
UNIT / SUITE: 3BDRM, 3BDRM TYPE-A, 3BDRM ACCESSIBLE **(Optional Calculation)**

Voltage (L-L):	240	Volts	Project Name: Naples Road Apartments
Phase:	1		Project #: 24-125
Floor Area:	1716	Sq Ft	By: Matt Lewis
			Date: 3/13/2025

LOAD		kVA	QTY	kVA	NOTES
General Lighting Load		5.15	1	5.15	3 VA/SF
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt
Electric Range		8.00	1	8.00	
Clothes Dryer		5.00	1	5.00	
A/C and Cooling	(240V)	5.72	1	5.72	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".
HP Compressor	(240V)	3.26	0	0.00	
Strip Heat	(240V)	2.00	0	0.00	
Electric Space Heat	(240V)	0.00	0	0.00	
Elec Thermal / Other	(240V)	0.00	0	0.00	
Water Heater	(240V)	9.60	1	9.60	
Water Heater	(120V)	1.50	0	0.00	
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal
Microwave		1.50	1	1.50	
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
TOTAL CONNECTED LOAD FOR UNIT				42.07	kVA

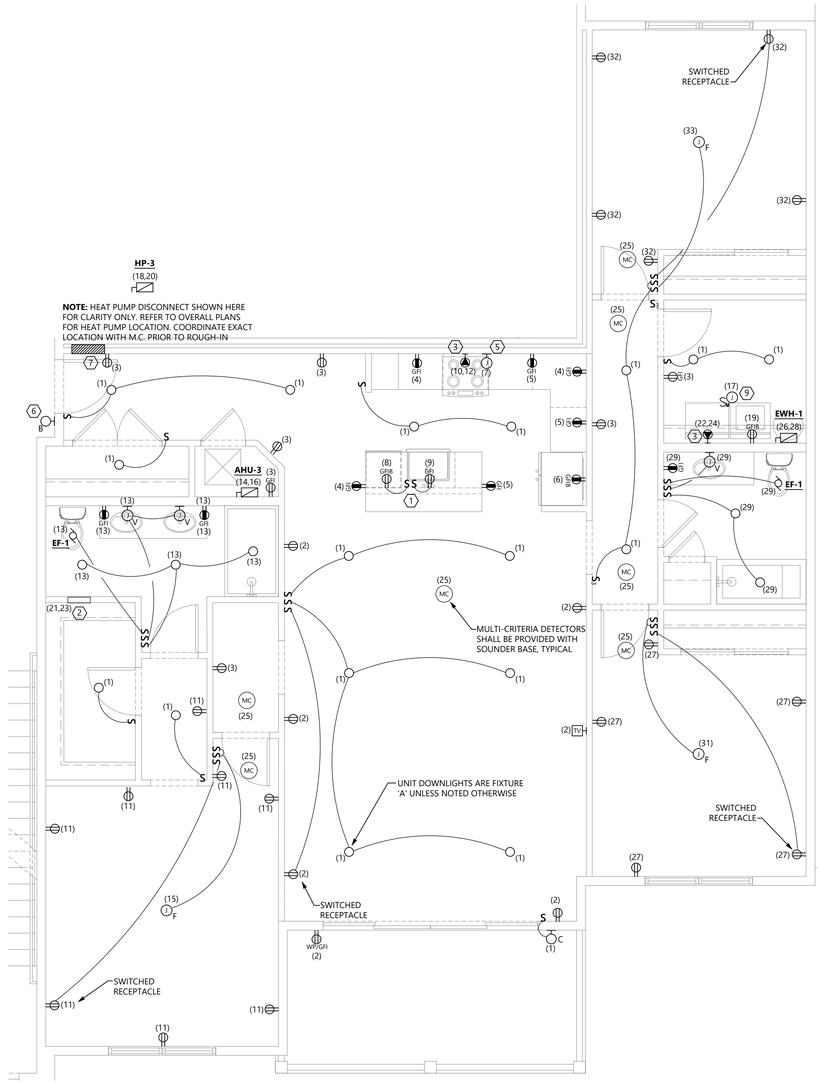
DEMAND LOAD (PHASE)			DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%	10.00	kVA	Gen Ltg, Small Appliance, Laundry	9.65	
Remaining @ 40%	10.5392	kVA	1st 3 kVA @ 100%	3.00	kVA
A/C & Cooling @ 100%	5.72	kVA	> 3 kVA to 120 kVA @ 35%	2.33	kVA
HP Compressor @ 100%	0.00	kVA	> 120 kVA @ 25%	0.00	kVA
HP Strip Heat @ 65%	0.00	kVA	Remaining L-N Loads @ 100%	4.10	kVA
Electric Space Heat @ 65%	0.00	kVA	Dryer Load @ 70%	3.50	kVA
Electric Space Heat @ 40%	0.00	kVA	Range Load @ 70%	4.48	kVA
Electric Thermal & Other Heating	0.00	kVA	Unbalanced load > 200A @ 70%	0.00	kVA
TOTAL DEMAND LOAD (PHASE)	26.26	kVA	TOTAL DEMAND LOAD (NEUTRAL)	17.41	kVA
	109.41	AMPS		72.53	AMPS

Quantity of 15A general lighting circuits (w/ AFCI-P) = 3
OR
Quantity of 20A general lighting circuits (w/ AFCI-P) = 3

AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.

NOTES:

1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire



1 ENLARGED UNIT PLAN - 3 BEDROOM TYPE-A

1/4"=1'-0"

ENLARGED UNIT PLAN SYMBOLS LIST	
(V)	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
(MC)	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL VIA SWITCH SHOWN ON PLANS
	6" SURFACE MOUNTED DOWNLIGHT. 1,200 LUMENS. 3000K, 120V. BASED ON HALO 'SMD6'. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
(F)	CEILING FAN RATED JUNCTION BOX, CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
(DB)	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DB) S	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DB)	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE	

GENERAL NOTES:

A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
C. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
D. COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E. ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
F. OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
G. ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
H. RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
I. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDIANTE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

(#) KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
3. SPECIAL RECEPTACLE. EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
4. IN **ACCESSIBLE** UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL, SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
8. COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 3 BEDROOM UNITS

		EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCP	FEEDER	DISCONNECT SWITCH				
TAG	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	NOTES
AHU-3	1 BEDROOM AIR HANDLER	240	1	-	-	26.4	30	3#10,1#10G,1"C	30	2	30	1	1
HP-3	1 BEDROOM HEAT PUMP	240	1	-	-	17	25	NOTE 3	30	2	25	3R	1,3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2

NOTES:

1. COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.
2. FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS
3. WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP

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MECHANICAL, ELECTRICAL & P.J.BEING
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- PRELIMINARY - NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: MFL
CHECKED BY: JK

DWG DECRIPTION :
ENLARGED UNIT PLAN - 3 BEDROOM TYPE-A

SHEET #:
E-46

WILDE #: 24-125

TYPICAL PANEL SCHEDULE FOR **3 BEDROOM ACCESSIBLE** UNITS

NEW PANEL: 3-BDRM ACCESSIBLE

VOLTAGE: 120/ 240 — **MOUNTING:** FLUSH
PHASE / WIRE: 1φ/ 3W
AMPS: 125 — **MAIN:** LUGS ONLY
AIC: 10,000

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00
0.00	12	20	REC - MASTER BEDROOM	11		●	12			6	0.00
0.00	12	20	MASTER BATHROOM	13	●		14	AIR HANDLER	30	10	0.00
0.00	12	20	FAN - MASTER BEDROOM	15		●	16			10	0.00
0.10	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	25	8	0.00
0.00	12	20	WASHER (NOTE #7)	19		●	20			8	0.00
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00
0.00	12	20	TELECOM BOX	23		●	24			10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00
0.00	12	20	REC - BEDROOM #2	27		●	28			6	0.00
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20		0.00
0.00	12	20	FAN - BEDROOM #2	31		●	32	REC - BEDROOM #3	20	12	
0.00	12	20	FAN - BEDROOM #3	33	●		34	SPARE	20		
		20	SPARE	35		●	36	SPARE	20		
		20	SPARE	37	●		38	SPARE	20		
		20	SPARE	39		●	40	SPARE	20		
		20	SPARE	41	●		42	SPARE	20		
0.1			SUB TOTALS								0.0

LOAD (kVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE	
LIGHTS	0.0	1.25	0.0	CONNECTED	(NOTE #10)
HEATING	0.0	1.00	0.0	L1= 0.1 kVA	0.8 AMPS
COOLING	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS
VENTILATION	0.0	1.00	0.0		
MOTORS	0.1	1.00	0.1	DEMAND	(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1- 0.1 kVA	0.8 AMPS
REC. (1st 10kVA)	0.0	1.00	0.0	L2- 0.0 kVA	0.0 AMPS
REC. (>10kVA)	0.0	0.50	0.0		
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%	(NOTE #10)
MISC.	0.0	1.00	0.0	L1= 0.1 kVA	1.0 AMPS
SPARE	0.0	1.00	0.0	L2= 0.0 kVA	0.0 AMPS

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

TYPICAL LOAD SUMMARY FOR **3 BEDROOM, 3 BEDROOM TYPE-A,** & 3 **BEDROOM ACCESSIBLE** UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION
UNIT / SUITE: 3BDRM, 3BDRM TYPE-A, 3BDRM ACCESSIBLE **(Optional Calculation)**

Voltage (L-L):	240	Volts	Project Name: Naples Road Apartments
Phase:	1		Project #: 24-125
Floor Area:	1716	Sq Ft	By: Matt Lewis
			Date: 3/13/2025

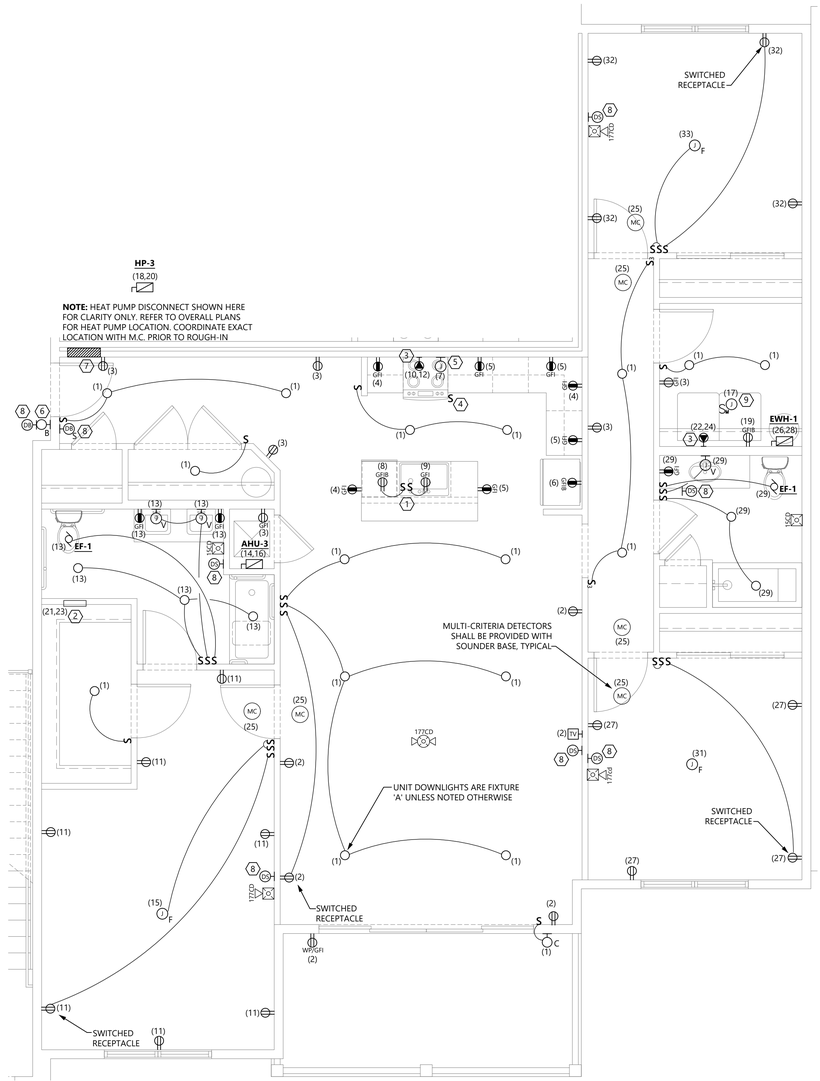
LOAD		kVA	QTY	kVA	NOTES
General Lighting Load		5.15	1	5.15	3 VA/SF
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt
Electric Range		8.00	1	8.00	
Clothes Dryer		5.00	1	5.00	
A/C and Cooling	(240V)	5.72	1	5.72	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".
HP Compressor	(240V)	3.26	0	0.00	
Strip Heat	(240V)	2.00	0	0.00	
Electric Space Heat	(240V)	0.00	0	0.00	
Elec Thermal / Other	(240V)	0.00	0	0.00	
Water Heater	(240V)	9.60	1	9.60	
Water Heater	(120V)	1.50	0	0.00	
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal
Microwave		1.50	1	1.50	
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
		0.00	0	0.00	
TOTAL CONNECTED LOAD FOR UNIT				42.07	kVA

DEMAND LOAD (PHASE)			DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%	10.00	kVA	Gen Ltg, Small Appliance, Laundry	9.65	
Remaining @ 40%	10.5392	kVA	1st 3 kVA @ 100%	3.00	kVA
A/C & Cooling @ 100%	5.72	kVA	> 3 kVA to 120 kVA @ 35%	2.33	kVA
HP Compressor @ 100%	0.00	kVA	> 120 kVA @ 25%	0.00	kVA
HP Strip Heat @ 65%	0.00	kVA	Remaining L-N Loads @ 100%	4.10	kVA
Electric Space Heat @ 65%	0.00	kVA	Dryer Load @ 70%	3.50	kVA
Electric Space Heat @ 40%	0.00	kVA	Range Load @ 70%	4.48	kVA
Electric Thermal & Other Heating	0.00	kVA	Unbalanced load > 200A @ 70%	0.00	kVA
TOTAL DEMAND LOAD (PHASE)	26.26	kVA	TOTAL DEMAND LOAD (NEUTRAL)	17.41	kVA
	109.41	AMPS		72.53	AMPS

Quantity of 15A general lighting circuits (w/ AFCI-P) = 3 OR Quantity of 20A general lighting circuits (w/ AFCI-P) = 3	AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.

NOTES:

1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire



1 ENLARGED UNIT PLAN - 3 BEDROOM ACCESSIBLE

1/4"=1'-0"

ENLARGED UNIT PLAN SYMBOLS LIST	
(V)	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
(MC)	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL VIA SWITCH SHOWN ON PLANS
	6" SURFACE MOUNTED DOWNLIGHT. 1,200 LUMENS. 3000K, 120V. BASED ON HALO 'SMD6'. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
(J)F	CEILING FAN RATED JUNCTION BOX, CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
(DB)	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DB)S	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
(DB)	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE	

GENERAL NOTES:

A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
C. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
D. COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
E. ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
F. OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
G. ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
H. RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
I. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDIANTE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

(#) KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
3. SPECIAL RECEPTACLE. EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
4. IN **ACCESSIBLE** UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL, SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
8. COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 3 BEDROOM UNITS

TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS VOLTAGE	PHASE	KW	FLA	MCA	MOCP	FEEDER	DISCONNECT SWITCH SIZE	POLE	FUSE	NEMA	NOTES
AHU-3	1 BEDROOM AIR HANDLER	240	1	-	-	26.4	30	3#10,1#10G,1"C	30	2	30	1	1
HP-3	1 BEDROOM HEAT PUMP	240	1	-	-	17	25	NOTE 3	30	2	25	3R	1,3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2

NOTES:

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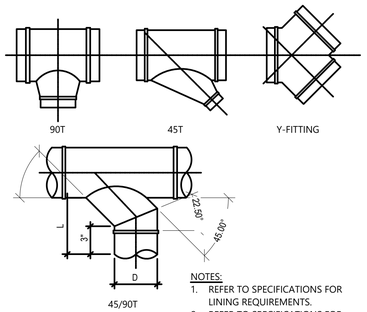
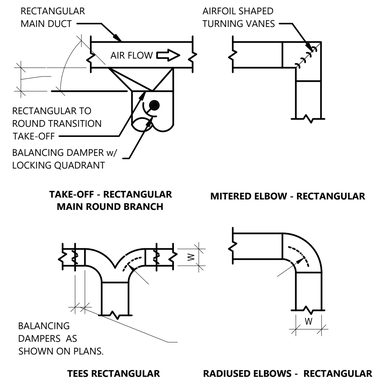


NOTES:
1. REFER TO SPECIFICATIONS FOR LINING REQUIREMENTS.
2. REFER TO SPECIFICATIONS FOR DOUBLE WALL CONSTRUCTION

NO SCALE

1 ROUND DUCT FITTINGS DETAIL



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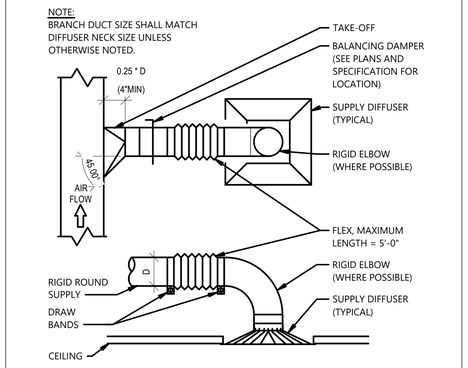
2 RECTANGULAR DUCT FITTINGS DETAIL



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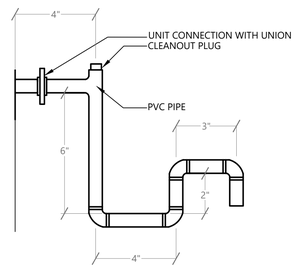
3 ROUND BRANCH DUCT TAKE-OFF DETAIL



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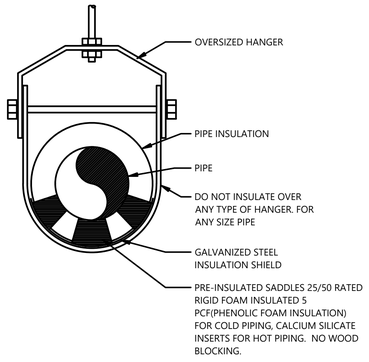
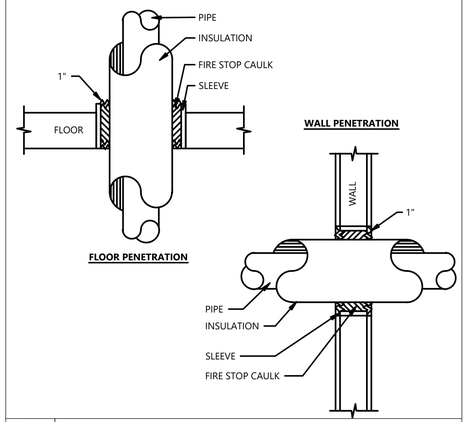
4 DRAIN CONNECTION DETAIL



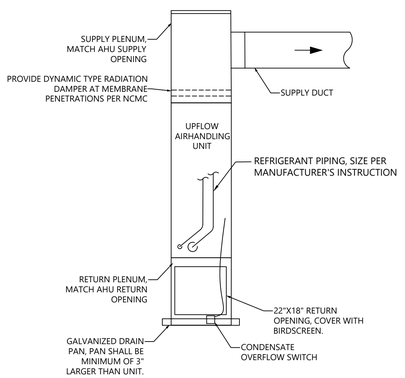
NO SCALE

5 TYPICAL PIPE HANGER DETAIL



NO SCALE

6 PIPE PENETRATION DETAILS



NO SCALE

7 APARTMENT AHU DETAIL

Building Code - 2018 North Carolina NCBC

Prescriptive ☐ Energy Cost Budget	2018 NCECC
Thermal Zone	3A
winter dry bulb	18°F
summer dry bulb	94°F
Interior design conditions	
winter dry bulb	70°F
summer dry bulb	75°F
relative humidity	50%RH
Building heating load	530.4 MBH
Building cooling load	440.4 MBH
Mechanical Space Conditioning System	
Unitary description of unit	1.5-TON x8, 2-TON x16, 2.5-TON x4 DX SPLITS
heating efficiency (HSPF)	7.5, 7.5, 7.8
cooling efficiency (SEER2)	14.5, 14.3, 15.2
heat output of unit	18, 24, 30 MBH
cooling output of unit	18, 24, 30 MBH
Equipment schedules with motors (mechanical systems)	N/A
motor horsepower	SEE EQUIPMENT SCHEDULES
number of phases	SEE EQUIPMENT SCHEDULES
minimum efficiency	SEE EQUIPMENT SCHEDULES
motor type	SEE EQUIPMENT SCHEDULES
# of poles	SEE EQUIPMENT SCHEDULES

MECHANICAL GENERAL NOTES

1. COMPLY WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
2. DUCTWORK IS PERMITTED TO BE ABOVE ELECTRICAL EQUIPMENT ONLY IF IT IS INSTALLED OUTSIDE OF THE DEDICATED ELECTRICAL SPACE DEFINED AS THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE ELECTRICAL EQUIPMENT AND EXTENDING FROM THE FLOOR TO A HEIGHT OF 6'-0" ABOVE THE EQUPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER IS LOWER. DUCTWORK INSTALLED ABOVE ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH PROTECTION TO AVOID DAMAGE FROM CONDESATION, LEAKS, BREAKS, ETC. REFER TO THE NEC FOR EXACT DEFINITION OF DEDICATED ELECTRICAL SPACE.
3. ALL ISOLATION VALVES, EQUIPMENT, CONTROLS, ETC. REQUIRING ACCESS/SERVICE SHALL BE INSTALLED WITHIN 18" OF THE CEILING FOR EASY ACCESSIBILITY. LOCATIONS SHALL BE INDICATED ON THE CEILING GRID PER THE SPECIFICATIONS.
4. ANY DEVICE REQUIRING A THERMOSTAT FOR CONTROL SHALL BE FURNISHED WITH A THERMOSTAT WHETHER INDICATED ON THE DRAWINGS OR NOT.
5. COORDINATE EXACT THERMOSTAT LOCATION WITH OWNER PRIOR TO INSTALLATION. STANDARD DEFAULT: INSTALL THE TOP OF ALL THERMOSTATS, SENSORS, AND SWITCHES AT 4'-0" ABOVE FINISHED FLOOR. DEVICES ON A PERIMETER WALL SHALL BE MOUNTED ON A FOAM-FILLED ELECTRICAL BOX, WITH ALL GAPS BETWEEN BOX AND WALL SEALED TO PREVENT INFILTRATION.
6. PROVIDE ALL MISCELLANEOUS STEEL AND ITEMS REQUIRED FOR THE PROPER INSTALLATION OF ALL PIPE, SHEET METAL AND EQUIPMENT.
7. COORDINATE FLOOR, WALL & ROOF PENETRATIONS ETC. WITH ARCHITECTURAL/STRUCTURAL TRADES. FIRESTOP SHALL BE PROVIDED IN HOLES AND PENETRATIONS IN RATED ASSEMBLIES. ALL PIPING, DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED.
8. EQUIPMENT OPERATED DURING CONSTRUCTION SHALL USE FILTERED MEDIA TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING COILS, DUCTWORK SYSTEMS, AIR TERMINALS ETC. AT COMPLETION OF CONSTRUCTION, MECHANICAL CONTRACTOR SHALL CLEAN ALL SYSTEMS WITH ALL CONTROL DEVICES WIDE OPEN AND REMOVE ANY REMAINING DEBRIS PRIOR TO TEST AND BALANCING. MECHANICAL CONTRACTOR SHALL REPLACE ALL FILTRATION WITH NEW FILTERS AT COMPLETION OF CONSTRUCTION. ANY DUCTWORK, AIR TERMINALS, AND/OR OTHER EQUIPMENT UPSTREAM OF FILTRATION SHALL BE CLEANED THOROUGHLY OF CONSTRUCTION DEBRIS BEFORE HANDING OVER TO OWNER.
9. ALL MECHANICAL EQUIPMENT SHALL BE U.L. LISTED AND LABELED AS A COMPLETE PACKAGE, NOT THROUGH INDIVIDUAL COMPONENTS OR PARTS. PROVIDE REQUIRED 3RD PARTY FIELD UL LISTING SERVICES AS REQUIRED TO COMPLY.
10. UPON PROJECT COMPLETION, THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER INSTALLATION INFORMATION INCLUDING RECORD SUBMITTALS (WITH ANY SUBMITTAL REVIEW COMMENTS ADDRESSED) AND O&M MANUALS FOR EACH PIECE OF EQUIPMENT INCLUDING ALL SELECTED OPTIONS, THE NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY, FULL CONTROL SYSTEM O&M AND CALIBRATION INFORMATION INCLUDING WIRING DIAGRAMS, SCHEMATICS, FULL SEQUENCE OF OPERATION, AND PROGRAMMED SETPOINTS. IN ADDITION, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO HIRE A REGISTERED DESIGN PROFESSIONAL TO COMMISSION THE INSTALLED SYSTEM AND PROVIDE THE OWNER AND CODE REVIEWER A SEALED STATEMENT OF SYSTEM COMMISSIONING.
11. PROVIDE A ONE YEAR WARRANTY FOR ALL WORK PERFORMED BEGINNING ON THE DAY THE SYSTEM IS COMPLETELY OPERATIONAL AND ACCEPTABLE BY THE OWNER.

SHEET METAL GENERAL NOTES

1. STANDARD DUCTWORK SHALL BE GALVANIZED OR ALUMINUM SHEET METAL CONSTRUCTED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS. ALL CONCEALED SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK SHALL BE WRAPPED WITH 2" THICK DUCT WRAP WITH VAPOR BARRIER. INSULATION (INCLUDING FLEXIBLE DUCT INSULATION) SHALL HAVE A MINIMUM INSTALLED R-VALUE OF 6.0.
2. ALL DUCTWORK SHALL BE SEALED PER THE REQUIREMENTS OF THE STATE MECHANICAL CODE. SEAL LOW PRESSURE SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST DUCTWORK FOR POSITIVE/NEGATIVE 2" PRESSURE CLASS, SMACNA SEAL CLASS A, SMACNA LEAKAGE CLASS 4.
3. NOT ALL REQUIRED OFFSETS AND FITTINGS ARE INDICATED ON DRAWINGS, BUT SHALL BE PROVIDED. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR CLEARANCES. SIGNIFICANT ALTERATIONS TO DUCT ROUTING SHALL BE APPROVED BY ARCHITECT/ENGINEER BEFORE PROCEEDING IN ORDER TO ENSURE ADEQUATE STATIC PRESSURE IS AVAILABLE.
4. DUCTWORK LAYOUT HAS BEEN DESIGNED TO MINIMIZE SOUND TRANSMISSION. ALL FITTINGS SHALL BE PROVIDED AS INDICATED.
5. WATERTIGHT CONCRETE CURBS SHALL BE PROVIDED AROUND ELEVATED FLOOR SLAB PENETRATIONS
6. UNLESS OTHERWISE NOTED, ALL DUCTWORK ABOVE CEILING OR EXPOSED IS OVERHEAD AND AS HIGH AS POSSIBLE TO THE UNDERSIDE OF THE STRUCTURE, WITH SPACE FOR INSULATION WHERE REQUIRED. DUCTWORK AND ASSOCIATED COMPONENTS SHALL CLEAR DOORS AND WINDOWS.
7. PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS CONNECTED TO MECHANICAL EQUIPMENT THAT REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE NOTED.
8. RADIUS ELBOWS SHALL HAVE CENTERLINE RADIUS OF CURVATURE 1.5 TIMES THE DUCT DIAMETER OR WIDTH IN THE PLANE OF TURN. WHERE SQUARE (MITERED) ELBOWS ARE SHOWN, INSTALL TURNING VANES.
9. DUCTWORK SIZES ARE INSIDE CLEAR DIMENSIONS. DUCTS CONNECTED TO EQUIPMENT SHALL EQUAL EQUIPMENT CONNECTION SIZE UNLESS NOTED OTHERWISE.
10. MAXIMUM LENGTH ON FLEXIBLE DUCT SHALL BE 5'-0", UNLESS OTHERWISE NOTED ON DETAILS OR SPECIFICATIONS.
11. THE MECHANICAL CONTRACTOR SHALL BALANCE ALL MECHANICAL SYSTEMS TO THE PERFORMANCE SPECIFICATIONS INDICATED ON PLANS AND PROVIDE THE ENGINEER WITH THREE COPIES OF A COMPLETE TEST AND BALANCE REPORT. THE REPORT IS TO BE ISSUED A MINIMUM OF TWO WEEKS PRIOR TO PROJECT COMPLETION. THE TEST AND BALANCE REPORT WILL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER. ANY ADDITIONAL TESTING, ADJUSTING AND BALANCING REQUIRED (AT ENGINEER'S REQUEST) AFTER REVIEW OF THE INITIAL REPORT SHALL BE PROVIDED AT NO ADDITIONAL COST. TESTING AND BALANCING CONTRACTOR TO CONFIRM FILTERS ARE CLEAN, AND FREE OF DEBRIS PRIOR TO BEGINNING WORK. THE MECHANICAL CONTRACTOR SHALL REPLACE ANY DIRTY FILTERS, AS NEEDED. TEST AND BALANCE REPORT TO BE COMPLETED BY AN INDEPENDENT, CERTIFIED TEST AND BALANCE CONTRACTOR.

HVAC PIPING GENERAL NOTES

1. CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 PVC PIPE (OR TYPE 'L' HARD DRAWN COPPER WHEN IN PLENUM) AND FITTINGS. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED. CONDENSATE DRAINS SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION. MINIMUM DRAIN SIZE SHALL BE 3/4". CONDENSATE LINE SHALL BE SLOPED AS REQUIRED BY CODE.
2. ALL REFRIGERANT PIPE SHALL BE NITROGENIZED ACR COPPER TUBE. SIZE, INSULATE, AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING INSULATION EXPOSED OUTDOORS SHALL BE COVERED WITH AN OUTER ALUMINUM JACKET.
3. PROVIDE UNIONS, FLANGES OR COUPLINGS AT CONNECTION TO ALL VALVES AND EQUIPMENT. DO NOT USE DIRECT WELDED OR THREADED CONNECTIONS TO VALVES, EQUIPMENT OR OTHER APPARATUS.
4. PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
5. MECHANICAL CONTRACTOR SHALL PROVIDE PRE-PRINTED COLOR-CODED PIPE LABELS WITH 1-1/2" HIGH LETTERING INDICATING SERVICE AND FLOW DIRECTION. ALL PIPING TO MATCH EXISTING FACILITIES STANDARD (IF APPLICABLE). OTHERWISE, PIPE LABELS SHALL MATCH THE FOLLOWING: REFRIGERANT PIPING: YELLOW BACKGROUND, BLACK LETTERING. NATURAL GAS PIPING: YELLOW BACKGROUND, BLACK LETTERING

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
T	THERMOSTAT / TEMP SENSOR (4'-0" AFF TO TOP)
	SUPPLY GRILLE
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	CEILING RADIATION DAMPER
	MVD (MANUAL VOLUME DAMPER)
X-1 YY"xZZ" XXX CFM-X	DIFFUSER TAG NECK SIZE AIRFLOW-(TYPICAL QUANTITY)
AHU	AIR HANDLING UNIT
HP	HEAT PUMP
EF	EXHAUST FAN
ECUH	ELECTRIC CABINET UNIT HEATER
DB	DRYER BOOSTER FAN

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Luis Graef: President

Orchards PROPERTIES

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Apartment Complex
Hendersonville, North Carolina

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DWG INFO:
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DRAWN BY: RS
CHECKED BY: JK

DWG DECRIPTION :
MECHANICAL COVER SHEET

SHEET #:
M-00

WILDE #: 24-125

INDOOR UNIT SPLIT SYSTEM SCHEDULE

MARK	NOTES	INDOOR UNIT DATA								ELECTRICAL DATA				WEIGHT
		MFR	MODEL NO.	NOM. CAP. (MBH)	SUPPLY AIR FAN SA (CFM)	SUPPLY AIR FAN OA (CFM)	SUPPLY AIR FAN ESP (IN. W.C.)	FLA	HP	ELECTRIC HEATER (KW)	VOLTAGE/PH	MCA (A)	MOCP (A)	(LBS)
AHU-1	1-7	GOODMAN	AWST18	18	600	-	0.2	2.6	1/3	3	230/1	18.9	20	84
AHU-2	1-7	GOODMAN	AWST24	24	800	-	0.3	2.6	1/3	5	230/1	28.3	30	84
AHU-3	1-7	GOODMAN	AWST30	30	1000	-	0.3	3.8	1/2	5	230/1	29.8	30	109

NOTES:

1 **FACTORY DISCONNECT.**
2 **PROVIDE 7-DAY PROGRAMMABLE CONTROLS W/ STANDARD WALL THERMOSTAT.**
3 **MERV-8 PRIMARY FILTERS -** THROW-AWAY TYPE.
4 **REFRIGERANT LINESET** - SIZE, INSULATE, & ROUTE PIPING PER MANUFACTURER'S INSTRUCTIONS. PENETRATE THRU WALL SEALED WEATHERTIGHT.
5 **SECONDARY CONDENSATE OVERFLOW DRAIN PAN** WITH **UL 508 WATER LEVEL DETECTION DEVICE** (EC TO PROVIDE SEPARATE CIRCUIT) TO SHUTOFF EQUIPMENT UPON ACTIVATION.
6 **PROVIDE WALL MOUNT BRACKET.**
7 **PROVIDE FILTER RACK.**

OUTDOOR UNIT SPLIT SYSTEM SCHEDULE

MARK	NOTES	OUTDOOR UNIT DATA										WEIGHT
		MFR	MODEL NO.	REFRIG. TYPE	REFRIG. COOLING PERFORMANCE NOM. CAP. (MBH)	REFRIG. COOLING PERFORMANCE SEER2	REFRIG. HEATING PERFORMANCE NOM. CAP (MBH)	REFRIG. HEATING PERFORMANCE HSPF2	ELECTRICAL DATA VOLTAGE/PH	ELECTRICAL DATA MCA	ELECTRICAL DATA MOCP	(LBS)
HP-1	1-3	GOODMAN	GLZS4MA18	R32	18	14.5	18	7.5	230/1	11.4	15	175
HP-2	1-3	GOODMAN	GLZS4MA24	R32	24	14.3	24	7.5	230/1	13.8	20	175
HP-3	1-3	GOODMAN	GLZS4MA30	R32	30	15.2	30	7.8	230/1	17	25	189

NOTES:

1 **PROVIDE 4" CONCRETE HOUSEKEEPING PAD.**
2 **EC TO PROVIDE ELECTRICAL DISCONNECT.**
3 **SCROLL COMPRESSOR.**

FAN SCHEDULE

MARK	NOTES	MANUFACTURER	MODEL NO.	SERVICE	LOCATION	FAN DATA TYPE	FAN DATA AIRFLOW (CFM)	FAN DATA RPM	FAN DATA ESP (IN. W.C.)	FAN DATA MOTOR DATA (HP)	ELECTRICAL DATA VOLTS	ELECTRICAL DATA PHASE	ELECTRICAL DATA MCA (A)	ELECTRICAL DATA MOCP (A)	WEIGHT (LBS)
EF-1	1-5	BROAN	XB50	EXHAUST	APARTMENT BATHROOMS	CEILING MOUNT	50	-	0.1	5.1W	115	1	-	-	12.5
DBF-1	1, 2, 4-12	FANTECH	DEDPV705	DRYER EXHAUST	APARTMENT	INLINE	150	2600	0.2	78W	120	1	-	-	23

NOTES:

1 FACTORY MOUNTED DISCONNECT.
2 GRAVITY OPERATED DAMPER.
3 PROVIDE RADIATION DAMPER.
4 EC TO PROVIDE WALL SWITCH.
5 FAN SHALL RUN CONTINUOUSLY WHILE BUILDING IS OCCUPIED.
6 UL705 CERTIFIED.
7 EC TO PROVIDE OUTLET WITHIN 4' OF FAN.
8 PLUG TYPE DISCONNECT.
9 UL705 CERTIFIED.
10 PRESSURE SWITCH, THERMAL SHUTDOWN, LED WARNING PANEL.
11 LOCATE WARNING PANEL ABOVE DRYER IN VISIBLE LOCATION.
12 MC SHALL PROVIDE PERMANENT LABEL INDICATING TOTAL EQUIVALENT LENGTH .

ELECTRIC UNIT HEATER SCHEDULE

MARK	NOTES	MANUFACTURER	MODEL NO.	MOUNTING	ELECTRICAL DATA CAPACITY (KW)	VOLTS	PHASE	AMPS
ECUH-1	1-5	QMARK	CWH1202DSF	WALL	2	240	1	8.3

NOTES:

1 FACTORY MOUNTED DISCONNECT AND THERMOSTAT.
2 PROVIDE SUMMER TIME SWITCH.
3 PROVIDE SEMI-RECESSED MOUNTING FRAME.
4 MOUNT HEATER @ 24" A.F.F.
5 U.L. LISTED.

AIR TERMINAL SCHEDULE (GRILLES, REGISTERS AND DIFFUSERS)

MARK	NOTES	MANUFACTURER	MODEL NO.	AIR TERMINAL TYPE	NECK SIZE Ø (IN.)	FACE SIZE (CFM)	MATERIAL	MAX APD (IN. W.C.)	MAX NC
SG-1	1-4	PRICE	540	RESIDENTIAL SUPPLY GRILLE	SEE PLANS	12"x4"	STEEL	0.10	25
SG-2	1-4		540	RESIDENTIAL SUPPLY GRILLE	SEE PLANS	10"x4"	STEEL		
TG-1	1-3		530	RESIDENTIAL RETURN GRILLE	SEE PLANS	14"x8"	STEEL		

1 BEDROOM NATURAL VENTILATION CALCULATIONS (402.2 NCMC 2018)

ROOM	SF	REQUIRED SF @ 4% OPENINGS	PROVIDED OPENINGS SF
PRIMARY BEDROOM	288	12	36
LIVING/DINING ROOM	578	23	96
TOTAL	866	35	132

2 BEDROOM NATURAL VENTILATION CALCULATIONS (402.2 NCMC 2018)

ROOM	SF	REQUIRED SF @ 4% OPENINGS	PROVIDED OPENINGS SF
PRIMARY BEDROOM	269	11	54
BEDROOM #2	212	8	36
LIVING/DINING ROOM	562	22	96
TOTAL	1043	42	186

3 BEDROOM NATURAL VENTILATION CALCULATIONS (402.2 NCMC 2018)

ROOM	SF	REQUIRED SF @ 4% OPENINGS	PROVIDED OPENINGS SF
PRIMARY BEDROOM	222	9	36
BEDROOM #2	169	7	36
BEDROOM #3	169	7	36
LIVING/DINING ROOM	639	26	96
TOTAL	1199	48	204

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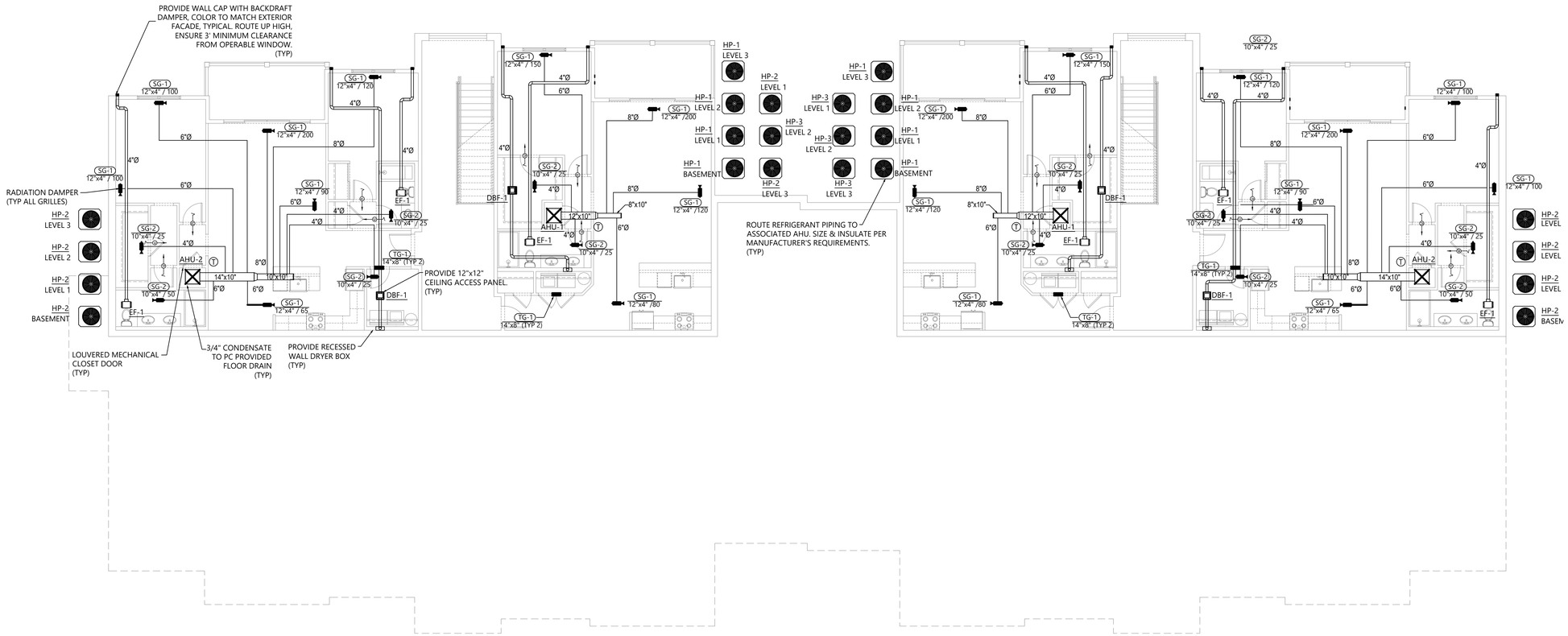
DWG DECRIPTION :
MECHANICAL SCHEDULES

SHEET #:
M-01

WILDE #: 24-125



1 MECHANICAL PLAN - BUILDING 3 (28 UNIT BUILDING) - BASEMENT

1/8"=1'-0"

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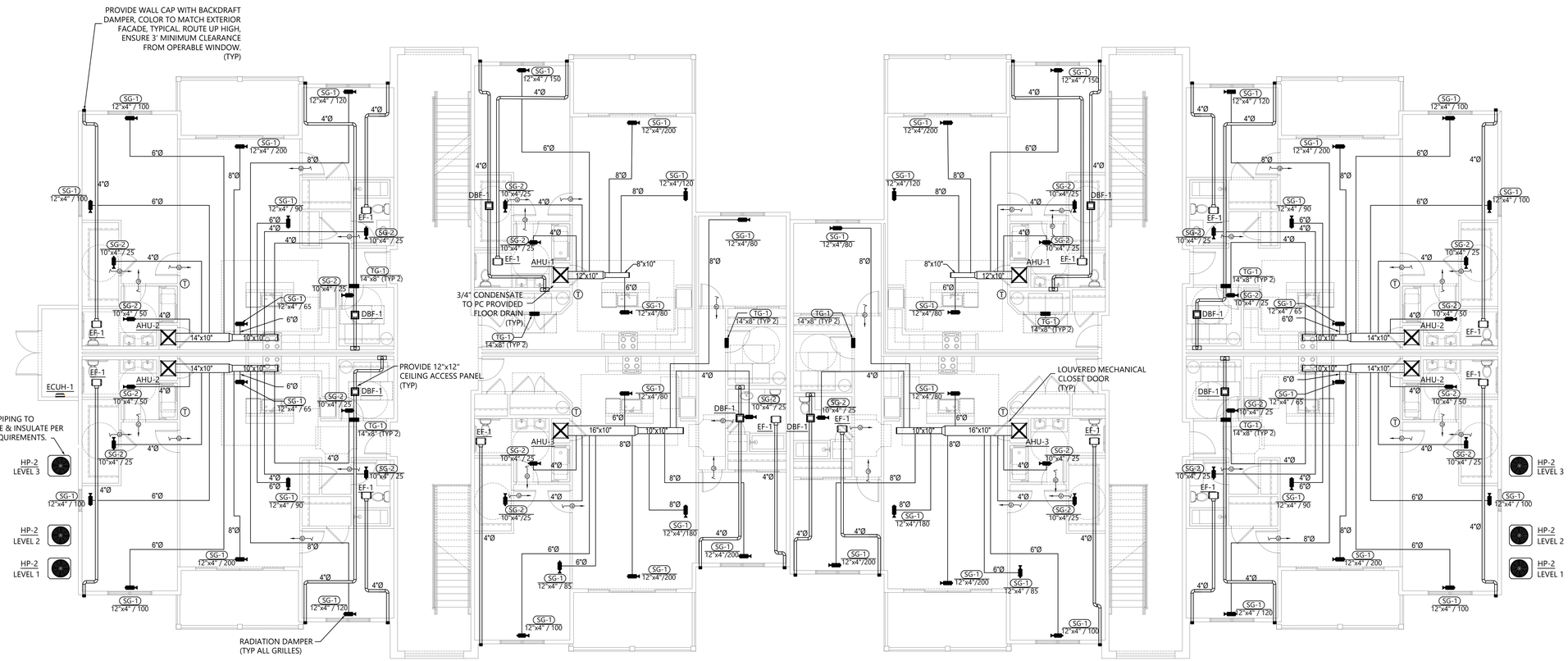
DWG DECRIPTION :
MECHANICAL PLAN - BASEMENT - BUILDING 3

SHEET #:
M-1

WILDE #: 24-125



1 MECHANICAL PLAN - BUILDING 3 (28 UNIT BUILDING) - FIRST FLOOR

1/8"=1'-0"

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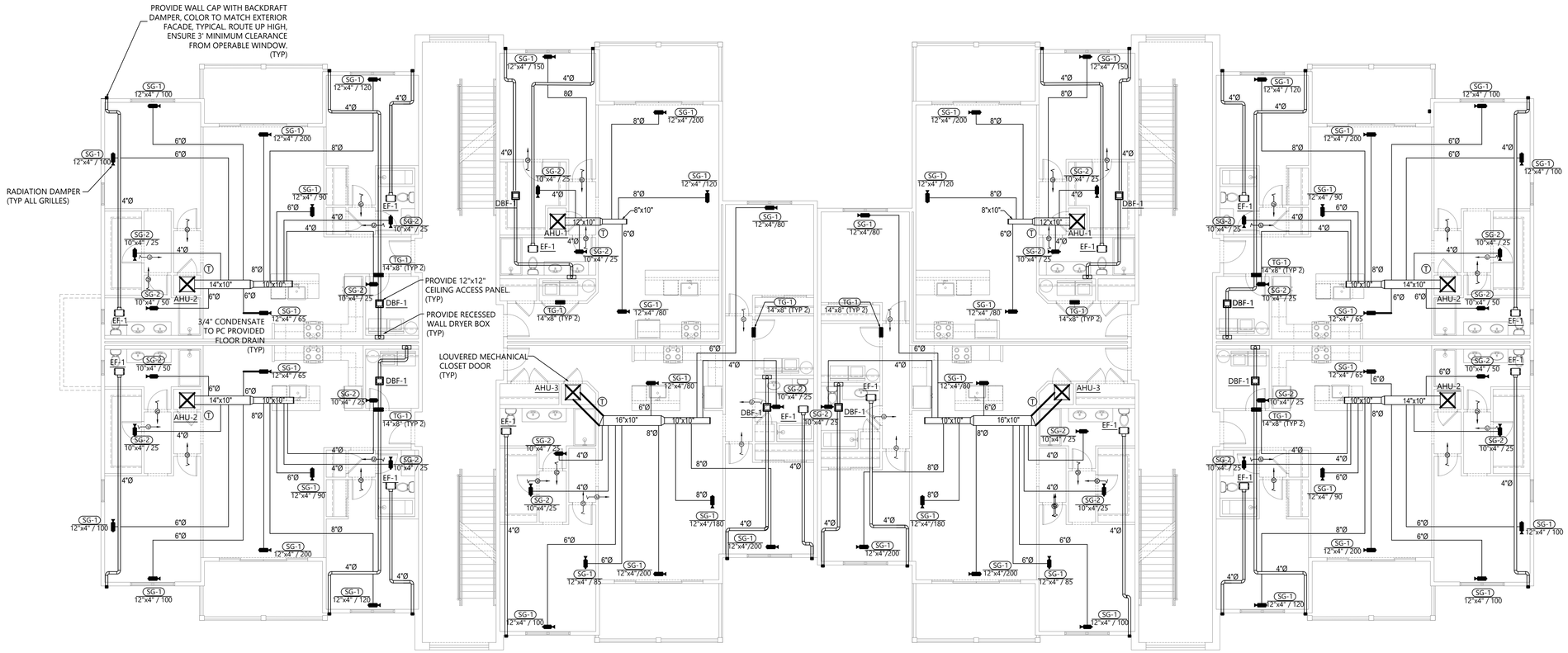
DWG DECRIPTION :
MECHANICAL PLAN - FIRST FLOOR - BUILDING 3

SHEET #:
M-2

WILDE #: 24-125



1 MECHANICAL PLAN - BUILDING 3 (28 UNIT BUILDING) - SECOND FLOOR

1/8"=1'-0"

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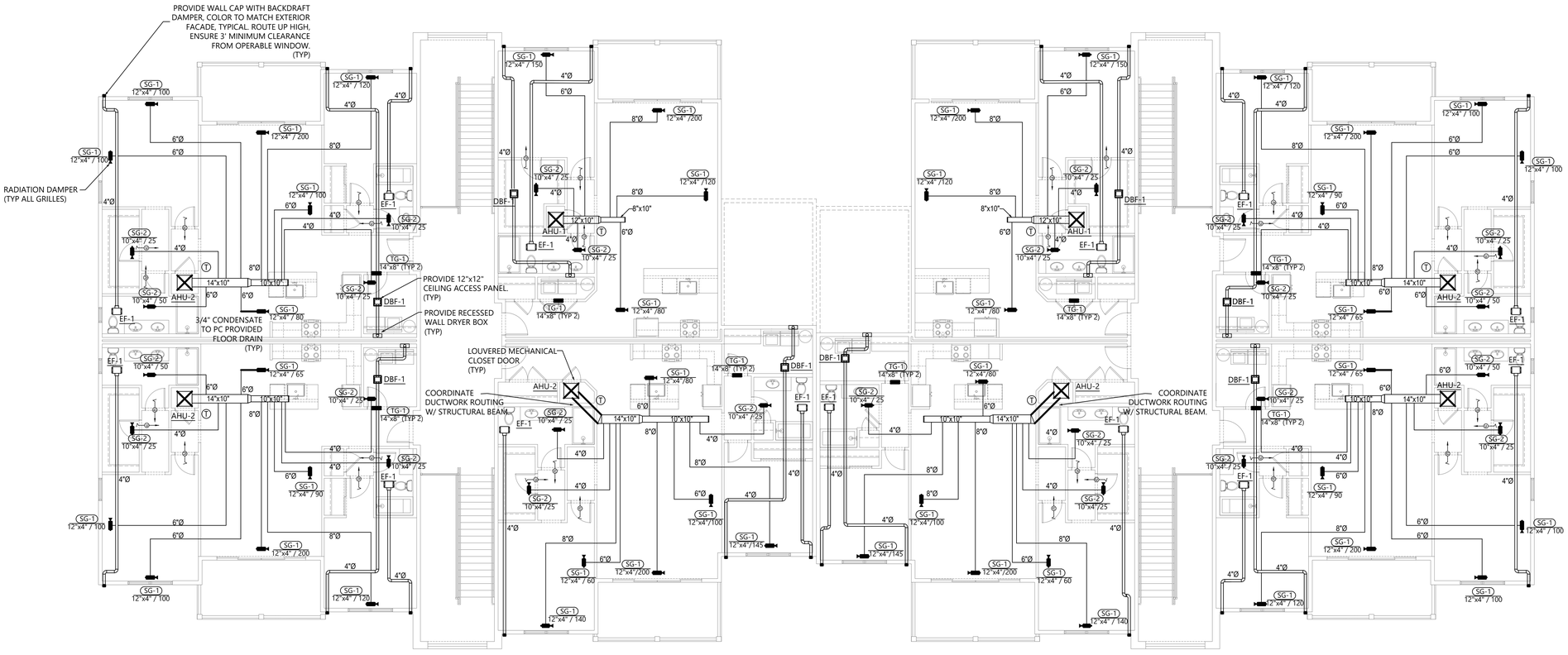
DWG DECRIPTION :
MECHANICAL PLAN - SECOND FLOOR - BUILDING 3

SHEET #:
M-3

WILDE #: 24-125



1 MECHANICAL PLAN - BUILDING 3 (28 UNIT BUILDING) - THIRD FLOOR

1/8"=1'-0"

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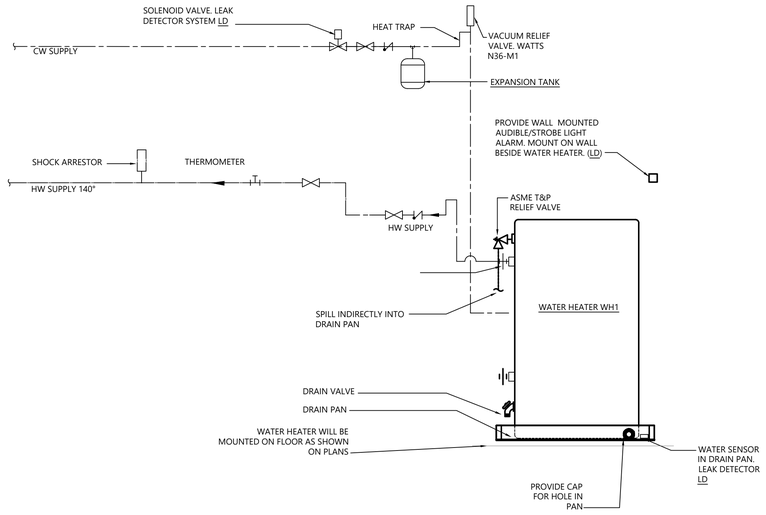
DWG DECRIPTION :
MECHANICAL PLAN - THIRD FLOOR - BUILDING 3

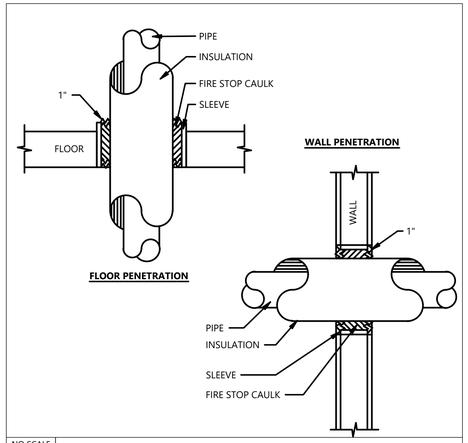
SHEET #:
M-4

WILDE #: 24-125



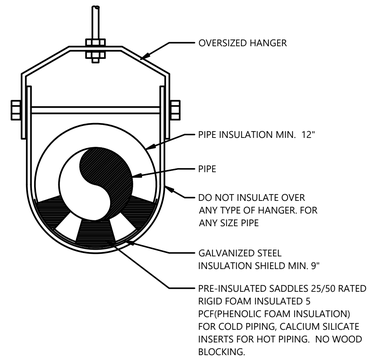
NO SCALE

1 TYPICAL WATER HEATER DETAIL



NO SCALE

2 PIPE PENETRATION DETAILS



NO SCALE

3 TYPICAL PIPE HANGER DETAIL

PLUMBING LEGEND

NEW PIPING	ABBR	DESCRIPTION
	CW	COLD WATER PIPING
	HW	HOT WATER PIPING
	HWR	HOT WATER RETURN PIPING
	W	SANITARY WASTE PIPING
	V	SANITARY VENT PIPING
D	D	DRAIN
	-	ELBOW DOWN
	-	ELBOW UP
	-	PIPE CONTINUES
	-	BALL VALVE
	CV	CHECK VALVE
	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
	YCO	YARD CLEAN OUT
	HB	HOSE BIBB/WALL HYDRANT
SA-#	SA	SHOCK ARRESTOR - SUFFIX INDICATES PDI SIZE
	-	THERMOMETER
	-	PRESSURE GAUGE

ADDITIONAL ABBREVIATIONS

ABV	ABOVE	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LAV	LAVATORY
AFG	ABOVE FINISHED GRADE	MBH	1,000 BTUH
BAS	BUILDING AUTOMATION SYSTEM	MFG	MANUFACTURER
BEL	BELOW	MH	MOUNTING HEIGHT
BFF	BELOW FINISHED FLOOR	PH	PHASE
BTUH	BRITISH THERMAL UNIT / HOUR	PSI	POUNDS PER SQUARE INCH
CFH	CUBIC FEET PER HOUR	SF	SQUARE FEET
CLG	CEILING	SFU	SUPPLY FIXTURE UNITS
CONT	CONTINUATION	T&P	TEMPERATURE AND PRESSURE
DFU	DRAINAGE FIXTURE UNIT (WASTE)	TYP	TYPICAL
DN	DOWN	UR	URINAL
(E)	EXISTING	VB	VACUUM BREAKER
EX	EXISTING	VLV	VALVE
FFE	FINISHED FLOOR ELEVATION	VTR	VENT THRU ROOF
FIN	FINISH	WC	WATER COLUMN
FL	FLOOR	EC	ELECTRICAL CONTRACTOR
FR	FROM	GC	GENERAL CONTRACTOR
FU	FIXTURE UNITS	MC	MECHANICAL CONTRACTOR
GPC	GALLONS PER CYCLE (METERING)	PC	PLUMBING CONTRACTOR
GPF	GALLONS PER FLUSH		
GPM	GALLONS PER MINUTE		
HP	HORSE POWER		
INV	INVERT ELEVATION		

PLUMBING MATERIALS AND NOTES

DOMESTIC WATER PIPING:

1. DOMESTIC WATER PIPING AND JOINTS ABOVE GRADE: PROVIDE TYPE 'L' HARD DRAWN SEAMLESS COPPER TUBING (ASTM B 88) AND CAST COPPER ALLOY FITTINGS (ASME B16.18). JOINTS 2" AND SMALLER SHALL BE LEAD FREE 95-5 TIN/SILVER SOLDER JOINTS (ASTM B 32).
2. STERILIZE THE DOMESTIC WATER SYSTEM IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
3. INSULATE DOMESTIC WATER PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH GLASS FIBER INSULATION HAVING A VAPOR BARRIER AND JACKET. PIPE INSULATION SHALL HAVE A CONDUCTIVITY NOT EXCEEDING 0.27 BTUH x SQ. FT. FOLLOW SCHEDULE BELOW:

SERVICE TYPE	PIPE SIZES	INSULATION THICKNESS
DOMESTIC HOT WATER & CIRCULATION	1/2" - 1-1/2"	1"
DOMESTIC HOT WATER & CIRCULATION	1-1/2" - 4"	1-1/2"
DOMESTIC COLD WATER	1/2" - 1-1/4"	1/2"
DOMESTIC COLD WATER	1-1/2" - 4"	1"

4. DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 255) METHOD AND SHALL BE PLENUM RATED. PROVIDE PVC JACKET FOR EXPOSED PIPING IN MECHANICAL ROOMS. INSULATION SHALL BE CONTINUOUS AT ALL HANGERS. PROVIDE GALVANIZED STEEL SHIELD BETWEEN PIPE HANGER AND INSULATION.
5. PROVIDE TWO-PIECE, BRONZE OR BRASS BODY, FULL PORT, 600 PSI WOG, BALL TYPE SHUT-OFF VALVES WITH BLOW-OUT PROOF STEMS AND ADJUSTABLE PACKING GLANDS. VALVES SHALL BE LEAD FREE PER NSF 61, ANNEX G REQUIREMENTS. INSTALL VALVES IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS.
6. PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER PIPING IS CARRIED ON TRAPEZE HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH DISSIMILAR OTHER METALS.
7. PROTECT COPPER PIPING AGAINST CONTACT WITH ALL MASONRY. WHERE COPPER IS SLEEVED THROUGH MASONRY, PROVIDE COPPER OR RED BRASS SLEEVES. WHERE COPPER MUST BE CONCEALED IN OR AGAINST MASONRY PARTITIONS, PROVIDE A HEAVY COATING OF ASPHALTIC ENAMEL ON THE COPPER PIPING AND 15# ASPHALT SATURATED FELT BETWEEN THE PIPING AND THE MASONRY PARTITION.
8. DOMESTIC WATER SUPPLY PIPING SHALL BE TESTED AND PROVED WATERTIGHT UNDER A WATER PRESSURE OF NO LESS THAN THE WORKING PRESSURE OF THE SYSTEM, OR AN AIR TEST OF NO LESS THAN ONE-HUNDRED (100) PSI. THIS PRESSURE SHALL BE HELD FOR AT LEAST FIFTEEN (15) MINUTES. WATER USED IN TESTING SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.

SANITARY WASTE / VENT PIPING:

1. SANITARY WASTE BELOW GRADE: PROVIDE SCHEDULE 40 PVC PIPE AND SOCKET FITTINGS (ASTM D 2665) WITH SOLVENT WELD JOINTS (ASTM D2855). FOAM CORE PVC PIPE IS NOT APPROVED.
2. SANITARY WASTE/VENT ABOVE GRADE: PROVIDE SERVICE WEIGHT CAST IRON NO-HUB PIPE AND FITTINGS (CISPI 301) WITH NEOPRENE GASKET AND STAINLESS STEEL CLAMP JOINTS (CISPI 310).
3. SLOPE SANITARY WASTE PIPING AT 1/4" PER FOOT MINIMUM FOR PIPING 2-1/2" AND SMALLER AND 1/8" PER FOOT MINIMUM FOR PIPING 3" AND LARGER UNLESS NOTED OTHERWISE.
4. WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS PIPING, REMOVABLE P-TRAPS, MATCHING STOPS AND ESCUTCHEONS FOR ALL LAVATORIES.
5. SANITARY WASTE AND VENT SYSTEMS SHALL BE TESTED AND PROVED WATER TIGHT UNDER A HEAD PRESSURE OF NO LESS THAN 10 FT. THIS PRESSURE SHALL BE HELD FOR A PERIOD OF NO LESS THAN 15 MINUTES.
6. INSULATE MECHANICAL ROOM FLOOR DRAIN BODIES, P-TRAP AND HORIZONTAL DRAIN PIPING ABOVE GRADE WITH 1" THICK GLASS FIBER INSULATION WITH VAPOR BARRIER AND JACKET.

PLUMBING GENERAL NOTES

GENERAL REQUIREMENTS:

1. PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA STATE PLUMBING CODE AND WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
2. SCOPE: PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL PLUMBING SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES.
3. PERMITS: APPLY AND PAY FOR ALL NECESSARY PERMITS, FEES AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION. ACREAGE CHARGES, FACILITIES CHARGES AND BOND PROPERTY ASSESSMENTS ARE NOT TO BE CONSTRUED TO BE A PART OF THIS CONTRACT.
4. WARRANTY: PROVIDE A ONE YEAR WARRANTY, FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER, FOR ALL PLUMBING MATERIALS AND EQUIPMENT.
5. COORDINATE ALL PLUMBING PIPING LOCATIONS, ROUGH-IN LOCATIONS AND EQUIPMENT LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES. FINAL PIPING AND EQUIPMENT LOCATIONS SHALL BE A CODE COMPLIANT INSTALLATION FOR ALL TRADES.
6. FIELD VERIFY PROPER OPERATION OF EXISTING SYSTEMS BEFORE STARTING CONSTRUCTION. NOTIFY THE ARCHITECT / ENGINEER OF RECORD OF ANY PROBLEMS OR DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS AND/OR ANY POTENTIAL PROBLEMS OBSERVED BEFORE CONTINUING WORK IN THE EFFECTED AREAS.
7. WHERE DISCREPANCIES ARE FOUND IN THE DRAWINGS AND SPECIFICATIONS THE MORE STRINGENT SHALL APPLY. CONTACT ENGINEER FOR CLARIFICATION.
8. ALL PIPING SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA.
9. ALL VALVES, BACKFLOW PREVENTERS, BOOSTER PUMPS, ETC. SERVING THE DOMESTIC WATER SYSTEM SHALL MEET LEAD FREE STANDARDS PER ANSI/NSF 372 AND NSF 61, ANNEX G.
10. CUT WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF PLUMBING WORK. ALL CUTTING SHALL BE HELD TO A MINIMUM. PATCH AND FINISH SURFACES TO MATCH ADJOINING SURFACES.
11. PLUMBING PLANS SHALL NOT BE SCALED. REFERENCE THE ARCHITECTURAL PLANS FOR ALL LOCATIONS OF PLUMBING FIXTURES, WALLS, DOORS, WINDOWS, ETC.
12. PLUMBING PIPING AND SPECIALTIES SHALL BE LOCATED CONCEALED IN WALLS, PARTITIONS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE. PLUMBING PIPING IN EXPOSED AREAS SHALL BE RUN TIGHT TO UNDERSIDE OF STRUCTURE. PROVIDE ACCESS DOORS FOR CONCEALED SPECIALTIES.
13. DO NOT INSTALL PLUMBING PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL PLUMBING PIPING SHOWN IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
14. PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
15. ATTACH HANGERS TO STRUCTURE, HANGERS SHALL NOT ATTACH TO THE DECK.
16. PROVIDE ACCESS DOORS FOR VALVES, WATER HAMMER ARRESTORS, TRAP PRIMERS, ETC. CONCEALED IN MASONRY WALLS, GYPBOARD WALLS AND/OR CEILINGS THAT WILL REQUIRE MAINTENANCE ACCESS.
17. CORE DRILL THROUGH MASONRY (CMU BLOCK) WALLS FOR ALL PIPE PENETRATIONS. WHEN DRILLING OPENINGS FOR INSULATED PIPES THE OPENING'S DIAMETER SHALL BE LARGE ENOUGH FOR PIPE INSULATION TO REMAIN CONTINUOUS PASSING THROUGH THE OPENING. SEAL WATER TIGHT. PROVIDE ESCUTCHEONS IN EXPOSED FINISHED AREAS.
18. PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO: PLUMBING FIXTURES, DOMESTIC WATER SYSTEM, SANITARY WASTE AND VENT SYSTEM, NATURAL GAS SYSTEM.

PLUMBING FIXTURES AND EQUIPMENT:

1. PROVIDE COMPLETE PLUMBING FIXTURES AND EQUIPMENT. INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, ETC.
2. PLUMBING FIXTURES AND EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.
3. NO PRIVATE LABELED MATERIALS WILL BE ACCEPTED AS EQUALS TO PRODUCTS SPECIFIED HEREIN.
4. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SUBSTITUTIONS TO SPECIFIED PLUMBING FIXTURES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO: PROVIDING MAINTENANCE ACCESS, CLEARANCE, PIPING, ELECTRICAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, BUILDING ALTERATIONS, ETC. AND ANY MODIFICATIONS TO ASSOCIATED MECHANICAL, ELECTRICAL OR PLUMBING SYSTEMS REQUIRED BY THE EQUIPMENTS INSTALLATION INSTRUCTIONS. ALL COSTS ASSOCIATED WITH SUBSTITUTIONS SHALL BE INCLUDED IN THE ORIGINAL BASE BID.

PLUMBING FIXTURE SCHEDULE

TAG		MANUFACTURER	MODEL	WATER CONSUMPTION	FINISH	ADA	MOUNTING	CONNECTION	OPERATION	ACCESSORIES	RUNOUT PIPE SIZE				COMMENTS
											CW	HW	W	V	
WATER CLOSET	WC-1 BOWL	AMERICAN STANDARD	COLONY 3/250D.104	1.28 GPF EPA "WATERSENSE"	WHITE VITREOUS CHINA	YES	FLOOR	TANK	MANUAL	SEAT: BEMIS LUSTRA K4650	3/4"	-	3"	2"	-
LAVATORY	LAV-1 BOWL	AMERICAN STANDARD	RELIANT DROP-IN/0476228	-	WHITE VITREOUS CHINA	YES	DROP IN	4" CENTERS	FAUCET	-	1/2"	1/2"	1-1/4"	1-1/4"	-
	LAV-1 FAUCET	KOHLER	BELLERA/K-27378-4N	.5 GPM EPA "WATERSENSE"	POLISHED CHROME	YES	DECK	4" CENTERS	MANUAL	ASSE 1070 THERMOSTATIC MIXING VALVE					-
KITCHEN SINK	SK-1 BOWL	KOHLER	STACCATO/K-3362-1	-	STAINLESS STEEL	YES	DROP IN	SINGLE HOLE	FAUCET	-	-	-	1-1/2"	1-1/2"	-
	SK-1 FAUCET	KOHLER	CRUE/K-22972	1.5 GPM EPA "WATERSENSE"	POLISHED CHROME	YES	DECK	SINGLE HOLE	MANUAL	-	1/2"	1/2"	-	-	-
SHOWER	SH-1 FAUCET	KOHLER	PURIST/K-22170-G	1.75 GPM EPA "WATERSENSE"	POLISHED CHROME	-	WALL	-	MANUAL	PRESSURE BALANCED SHOWER VALVE	1/2"	1/2"	2"	1-1/2"	-
WALL CLEANOUT	WCO	ZURN	Z1446	-	CAST IRON	-	WALL	-	MANUAL	-	-	-	4"	2"	-
FLOOR DRAIN	FD-1	ZURN	Z415B	-	CAST IRON	-	FLOOR	-	-	-	-	-	4"	2"	-

ELECTRIC TANK WATER HEATER SCHEDULE

Tag	Service	Location	HEATING INPUT (kW)	Volt/Ph	Mfg/Model #	Gallons	Notes
EWH-1	LAUNDRY CLOSET	ON FLOOR	9.6kW	240V/1ph	BRADFORD WHITE/ENS50T-6	50	-

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Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: JS
CHECKED BY: JK

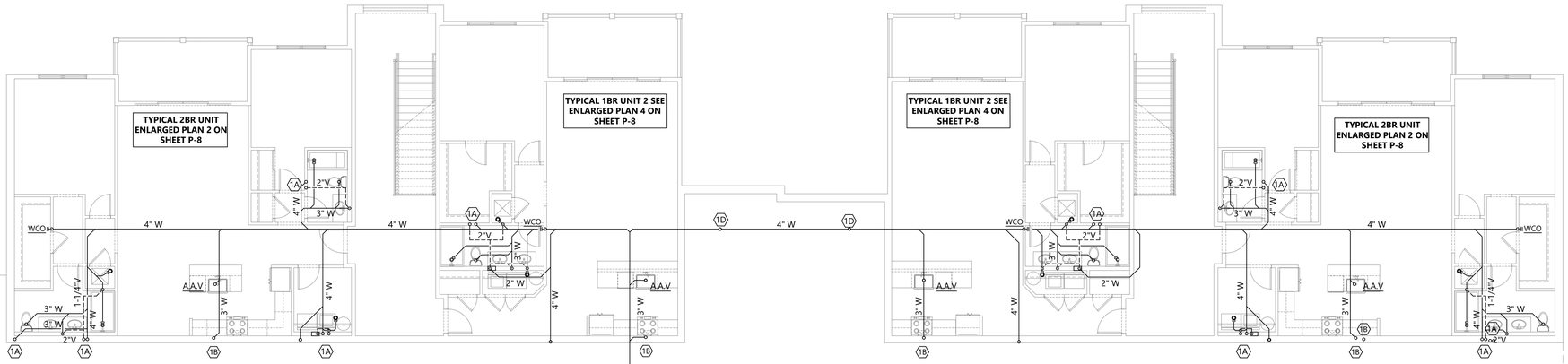
DWG DECRIPTION :
PLUMBING COVER SHEET

SHEET #:
P-00

WILDE #: 24-125

KEY NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF
1B. 2" DRAIN RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF
1D. 4" UP TO FIRST FLOOR



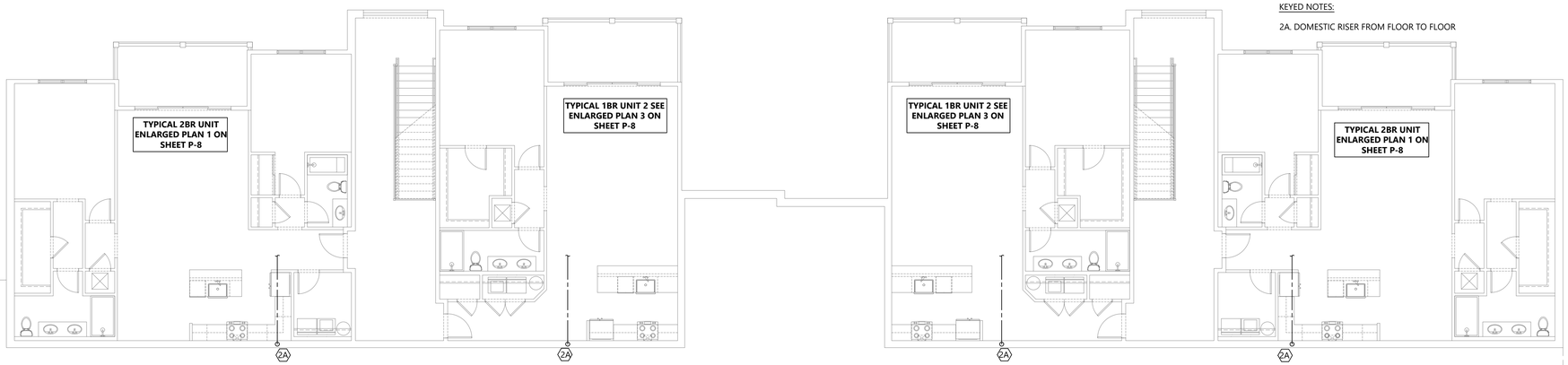
SEE CIVIL PLAN FOR SANITARY PIPING CONTINUATION

YCO

1 PLUMBING SANITARY PLAN BLDG 3 BASEMENT
1/8"=1'-0"

KEYED NOTES:

2A. DOMESTIC RISER FROM FLOOR TO FLOOR



2 PLUMBING SUPPLY PLAN BLDG 3 BASEMENT
1/8"=1'-0"

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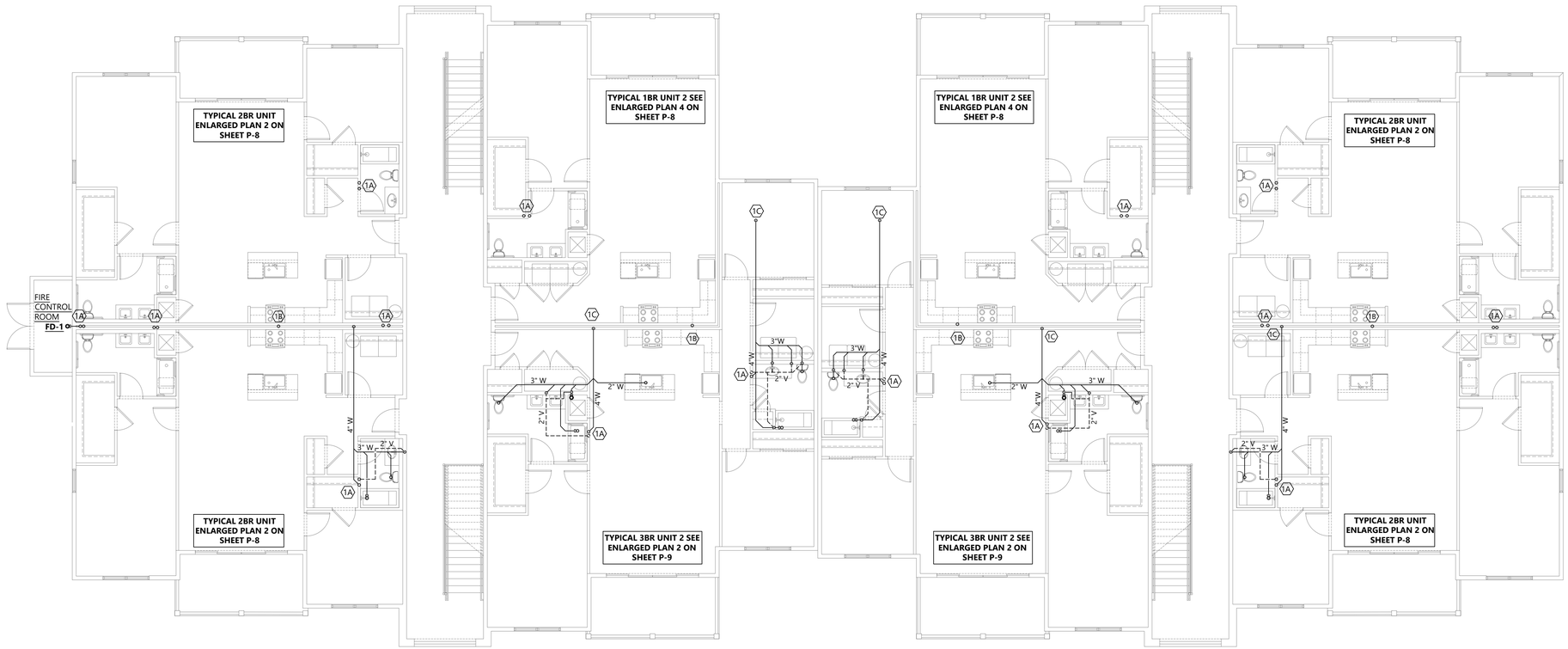
DWG DECRIPTION :
PLUMBING PLAN BLDG 3 BASEMENT

SHEET #:
P-1

WILDE #: 24-125



KEYED NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF
1B. 2" DRAIN RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF
1C. 4" DRAIN DOWN TO BASEMENT

2 PLUMBING SANITARY PLAN BLDG 3 FIRST FLOOR

1/8"=1'-0"

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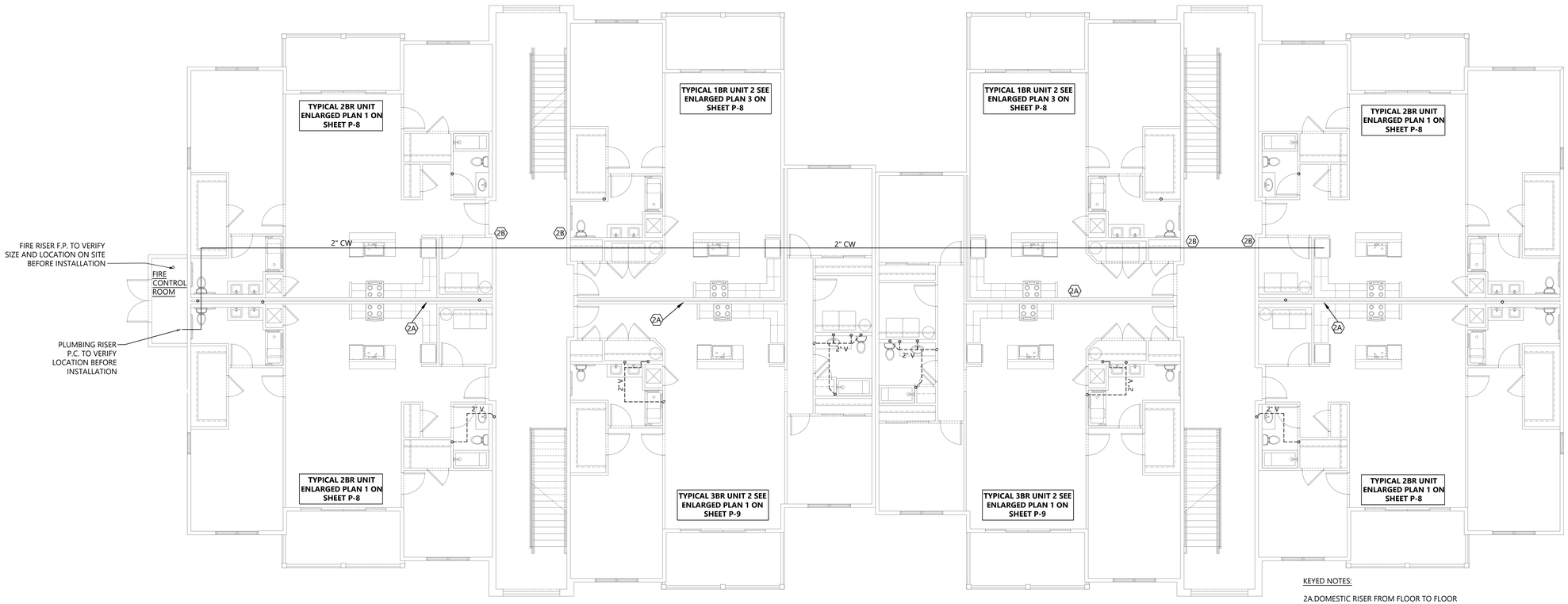
DWG DECRIPTION :
PLUMBING SANITARY PLAN BLDG 3 FIRST FLOOR

SHEET #:
P-2

WILDE #: 24-125



KEYED NOTES:

2A.DOMESTIC RISER FROM FLOOR TO FLOOR
2B. HEAT TRACE USED FOR PIPING CROSSING OVER OPEN BREEZEWAY

2 PLUMBING SUPPLY PLAN BLDG 3 FIRST FLOOR

1/8"=1'-0"

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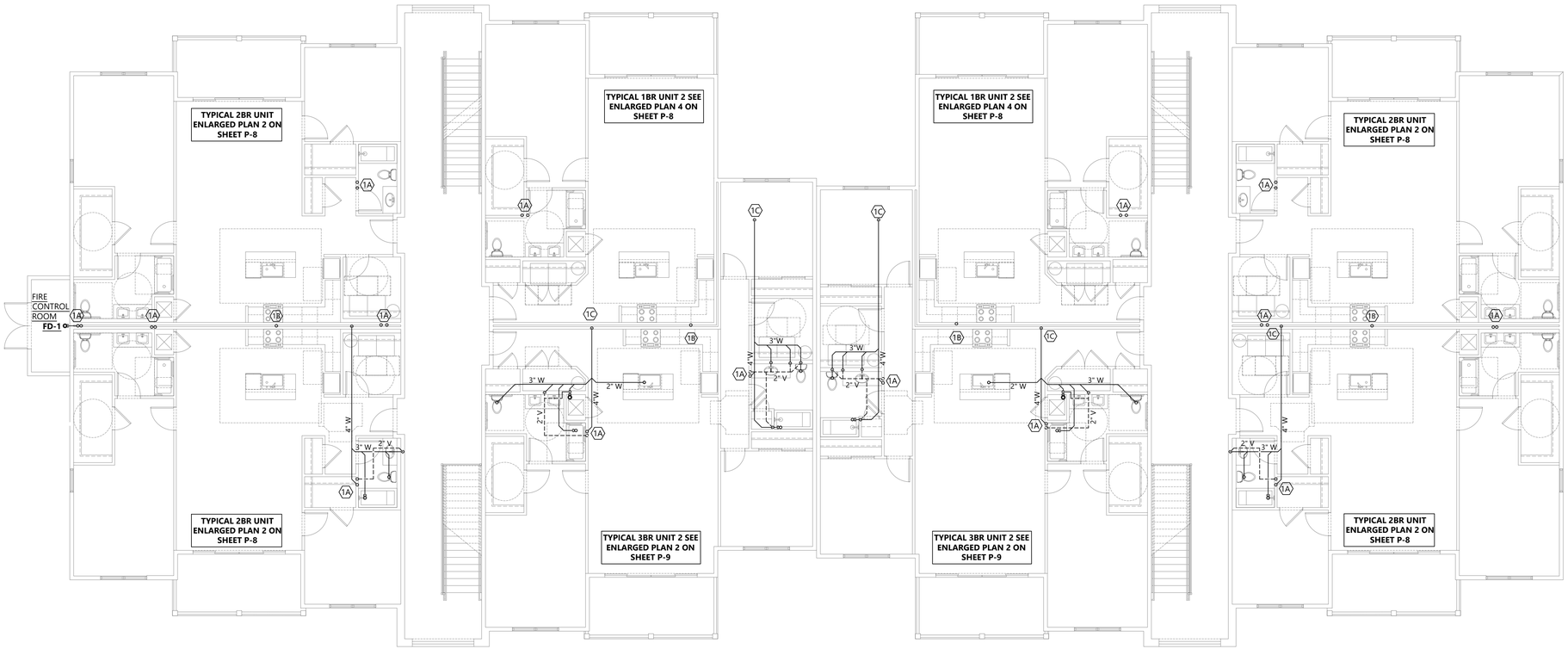
DWG DECRIPTION :
PLUMBING SUPPLY PLAN BLDG 3 FIRST FLOOR

SHEET #:
P-3

WILDE #: 24-125



KEYED NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF
1B. 2" DRAIN RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF
1C. 4" DRAIN DOWN TO BASEMENT

2 PLUMBING SANITARY PLAN BLDG 3 SECOND FLOOR

1/8"=1'-0"

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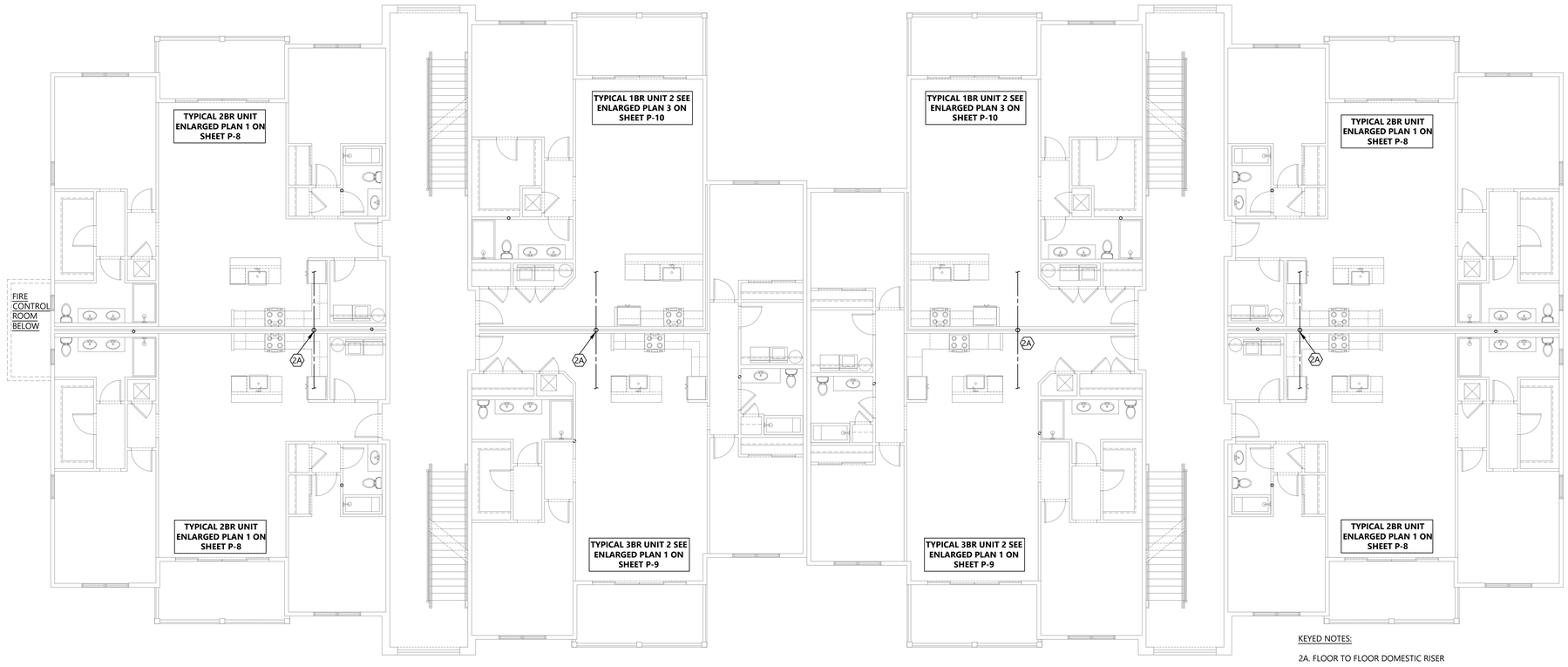
DWG DECRIPTION :
PLUMBING SANITARY PLAN BLDG 3 SECOND FLOOR

SHEET #:
P-4

WILDE #: 24-125



KEYED NOTES:

2A. FLOOR TO FLOOR DOMESTIC RISER

2 PLUMBING SUPPLY PLAN BLDG 3 SECOND FLOOR

1/8"=1'-0"

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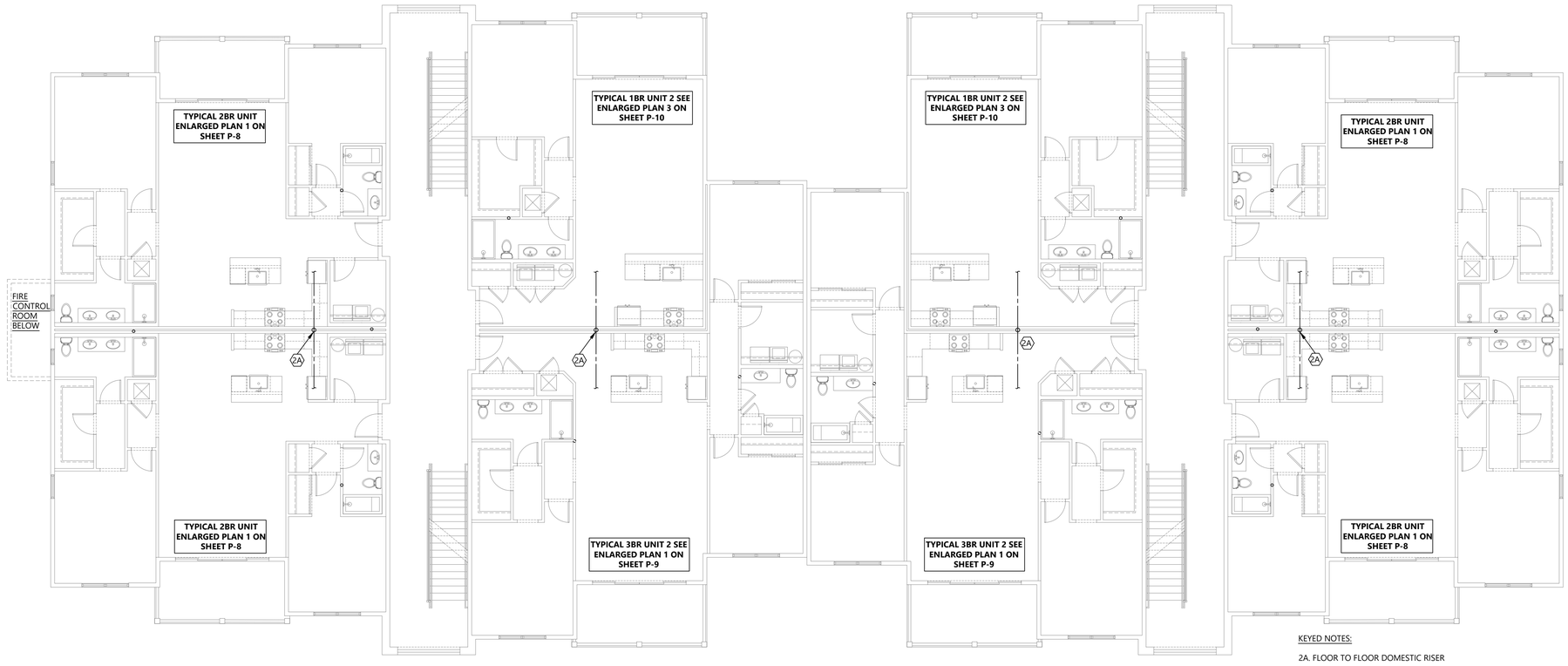
DWG DECRIPTION :
PLUMBING SUPPLY PLAN BLDG 3 SECOND FLOOR

SHEET #:
P-5

WILDE #: 24-125



KEYED NOTES:

2A. FLOOR TO FLOOR DOMESTIC RISER

2 PLUMBING SUPPLY PLAN BLDG 3 THIRD FLOOR

1/8"=1'-0"

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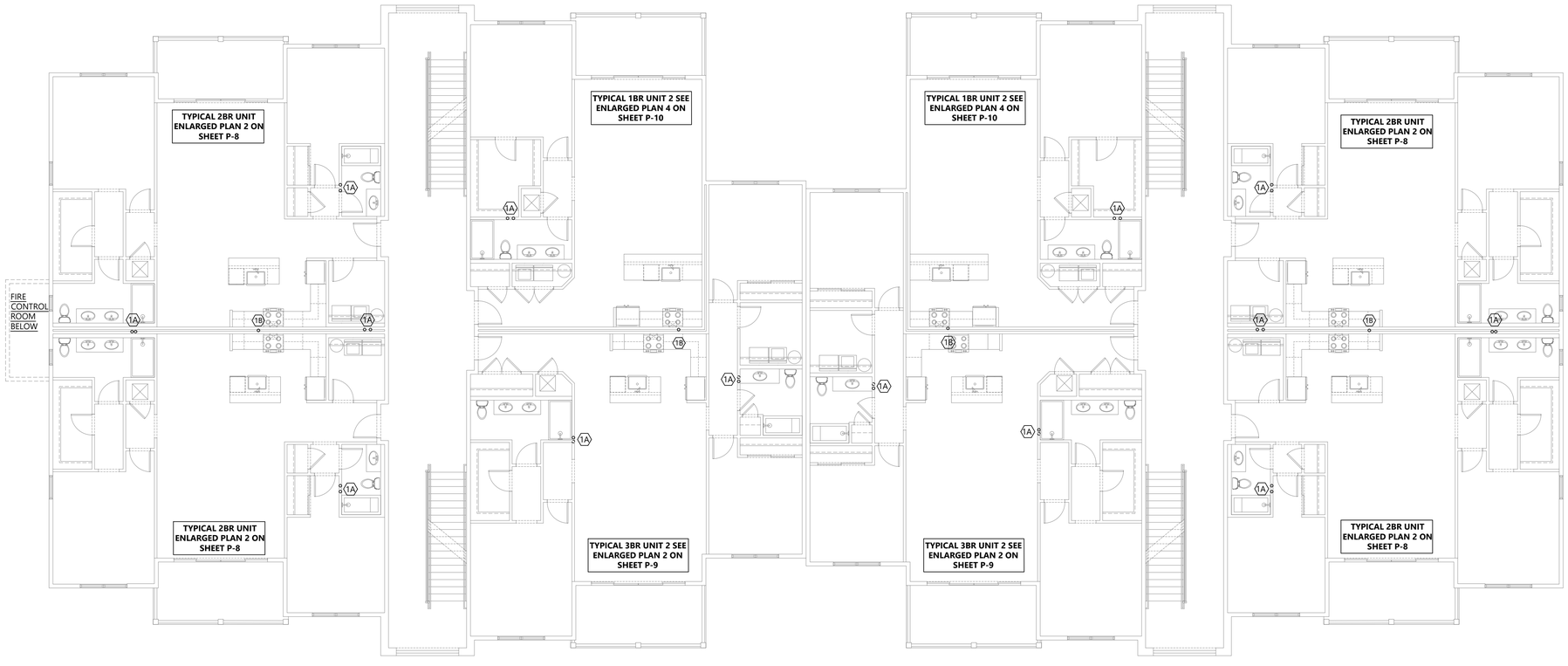
DWG DECRIPTION :
PLUMBING SUPPLY PLAN BLDG 3 THIRD FLOOR

SHEET #:
P-6

WILDE #: 24-125



KEYED NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF
1B. 2" DRAIN RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF

2 PLUMBING SANITARY PLAN BLDG 3 THIRD FLOOR

1/8"=1'-0"

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DWG DECRIPTION :
PLUMBING SANITARY PLAN BLDG 3 THIRD FLOOR

SHEET #:
P-7

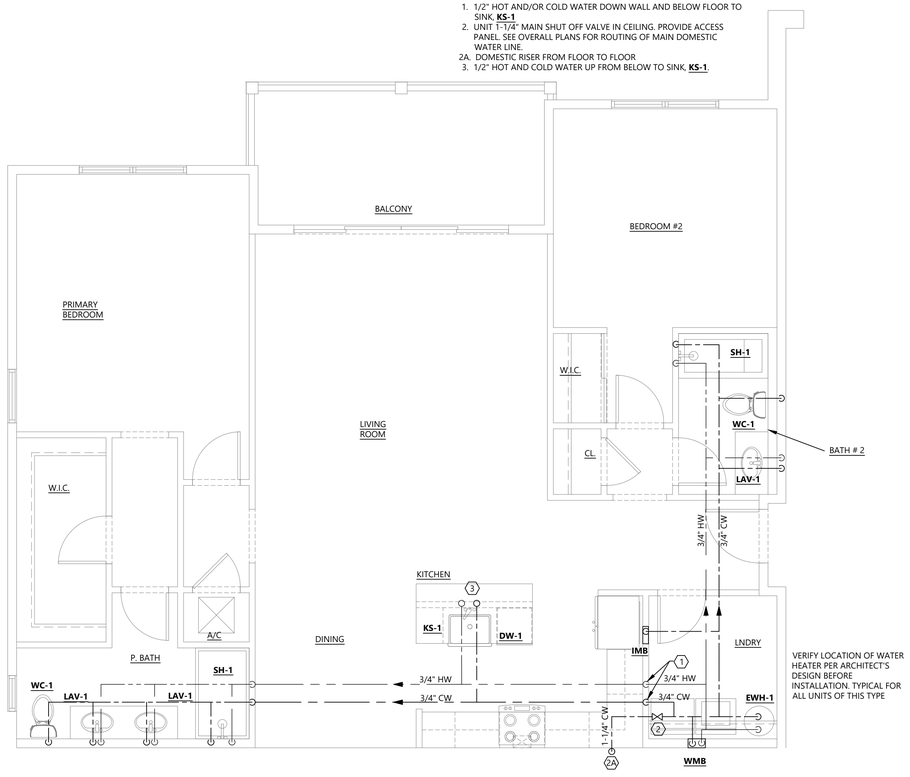
WILDE #: 24-125

KEYED NOTES:

1. 1/2" HOT AND/OR COLD WATER DOWN WALL AND BELOW FLOOR TO SINK, **KS-1**
2. UNIT 1-1/4" MAIN SHUT OFF VALVE IN CEILING. PROVIDE ACCESS PANEL. SEE OVERALL PLANS FOR ROUTING OF MAIN DOMESTIC WATER LINE.

2A. DOMESTIC RISER FROM FLOOR TO FLOOR

3. 1/2" HOT AND COLD WATER UP FROM BELOW TO SINK, **KS-1**.

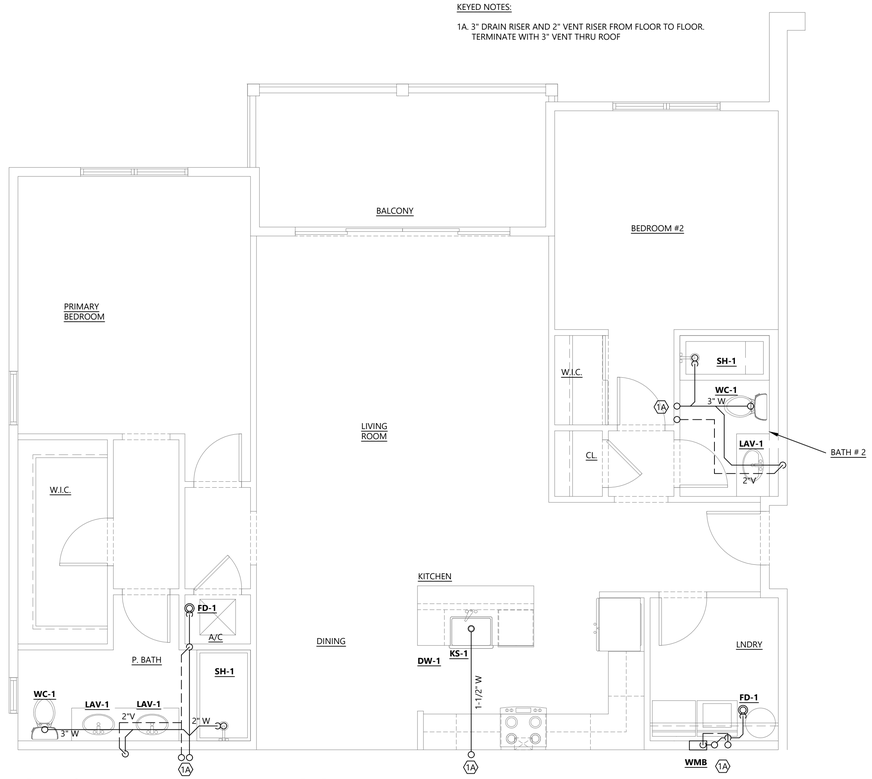


1 TYPICAL 2BR UNIT PLUMBING SUPPLY PLAN

1/4"=1'-0"

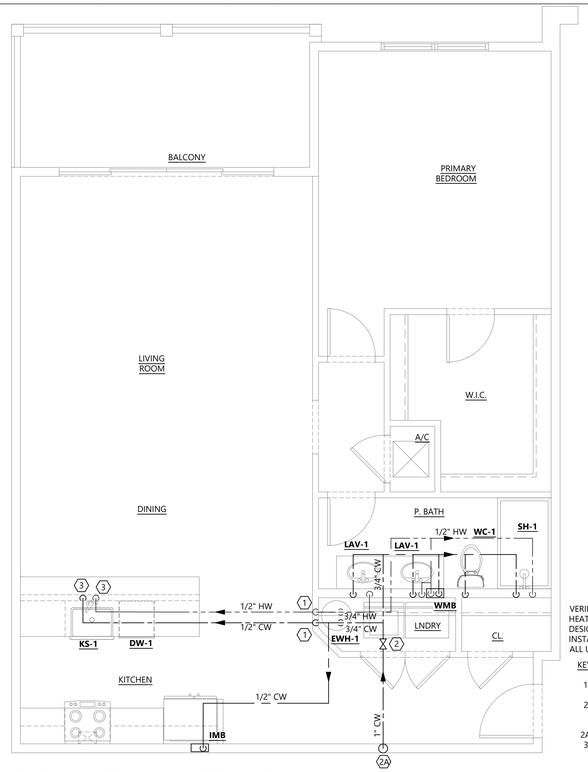
KEYED NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF



2 TYPICAL 2BR UNIT PLUMBING SANITARY PLAN

1/4"=1'-0"



VERIFY LOCATION OF WATER HEATER PER ARCHITECT'S DESIGN BEFORE INSTALLATION. TYPICAL FOR ALL UNITS OF THIS TYPE

KEYED NOTES:

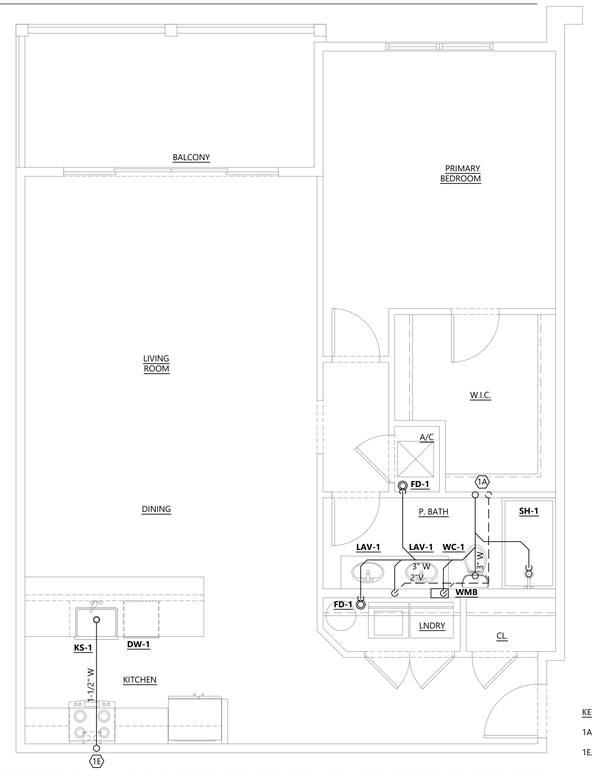
1. 1/2" HOT AND/OR COLD WATER DOWN WALL AND BELOW FLOOR TO SINK, **KS-1**
2. UNIT 1-1/4" MAIN SHUT OFF VALVE IN CEILING. PROVIDE ACCESS PANEL SEE OVERALL PLANS FOR ROUTING OF MAIN DOMESTIC WATER LINE.

2A. DOMESTIC RISER FROM FLOOR TO FLOOR

3. 1/2" HOT AND COLD WATER UP FROM BELOW TO SINK, **KS-1**.

3 TYPICAL 1 BR UNIT PLUMBING SUPPLY PLAN

1/4"=1'-0"



KEYED NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF

1E. 1-1/2" DRAIN FROM FLOOR TO FLOOR

4 TYPICAL 1 BR UNIT PLUMBING SANITARY PLAN

1/4"=1'-0"

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DWG INFO :
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DRAWN BY: JS
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DWG DECRIPTION :
ENLARGED UNIT PLANS

SHEET #:
P-8

WILDE #: 24-125

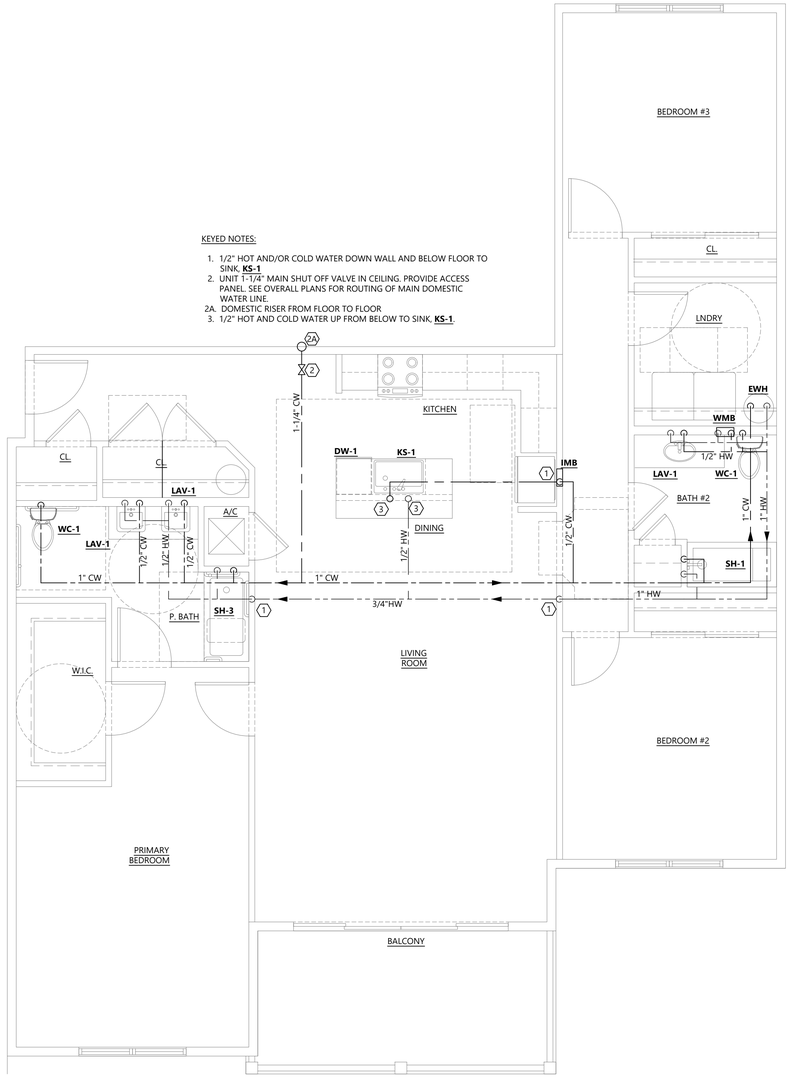
KEYED NOTES:

1. 1/2" HOT AND/OR COLD WATER DOWN WALL AND BELOW FLOOR TO SINK, **KS-1**
2. UNIT 1-1/4" MAIN SHUT OFF VALVE IN CEILING. PROVIDE ACCESS PANEL. SEE OVERALL PLANS FOR ROUTING OF MAIN DOMESTIC WATER LINE.

2A. DOMESTIC RISER FROM FLOOR TO FLOOR

3. 1/2" HOT AND COLD WATER UP FROM BELOW TO SINK, **KS-1**.

VERIFY LOCATION OF WATER HEATER PER ARCHITECT'S DESIGN BEFORE INSTALLATION. TYPICAL FOR ALL UNITS OF THIS TYPE

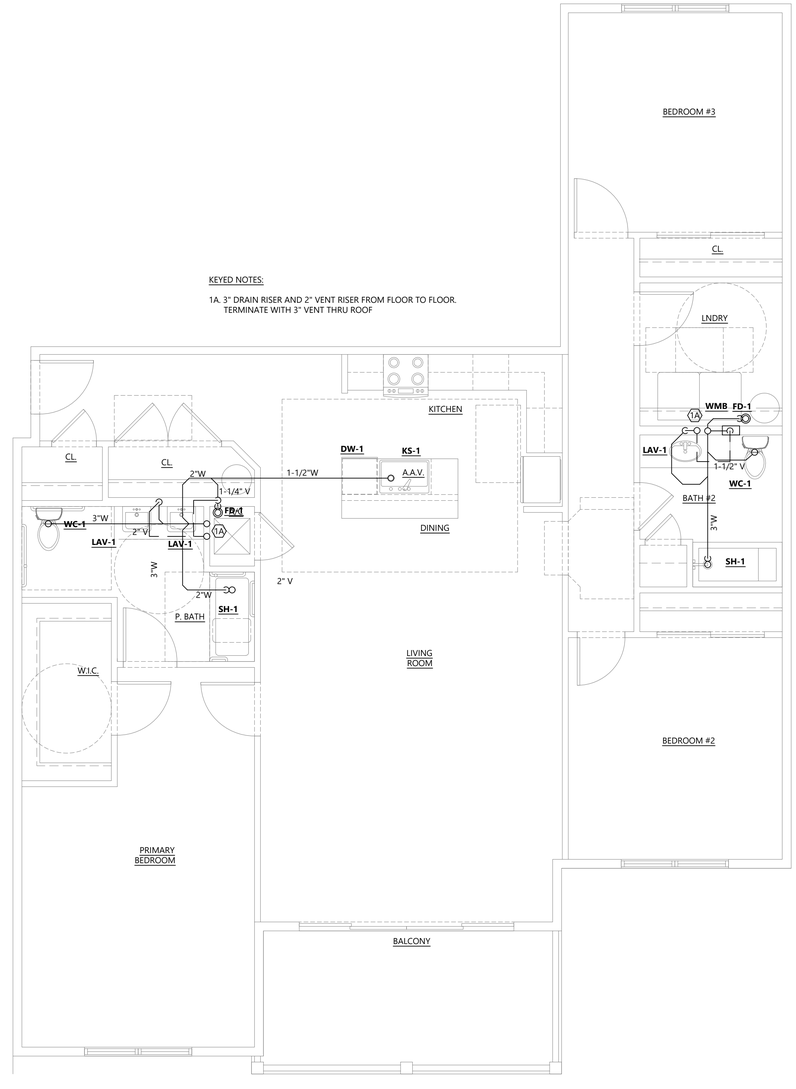


1 TYPICAL 3BR UNIT PLUMBING SUPPLY PLAN

1/4"=1'-0"

KEYED NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF



2 TYPICAL 3BR PLUMBING SANITARY PLAN

1/4"=1'-0"

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CHECKED BY: JK

DWG DECRIPTION :
ENLARGED UNIT PLANS

SHEET #:
P-9

WILDE #: 24-125

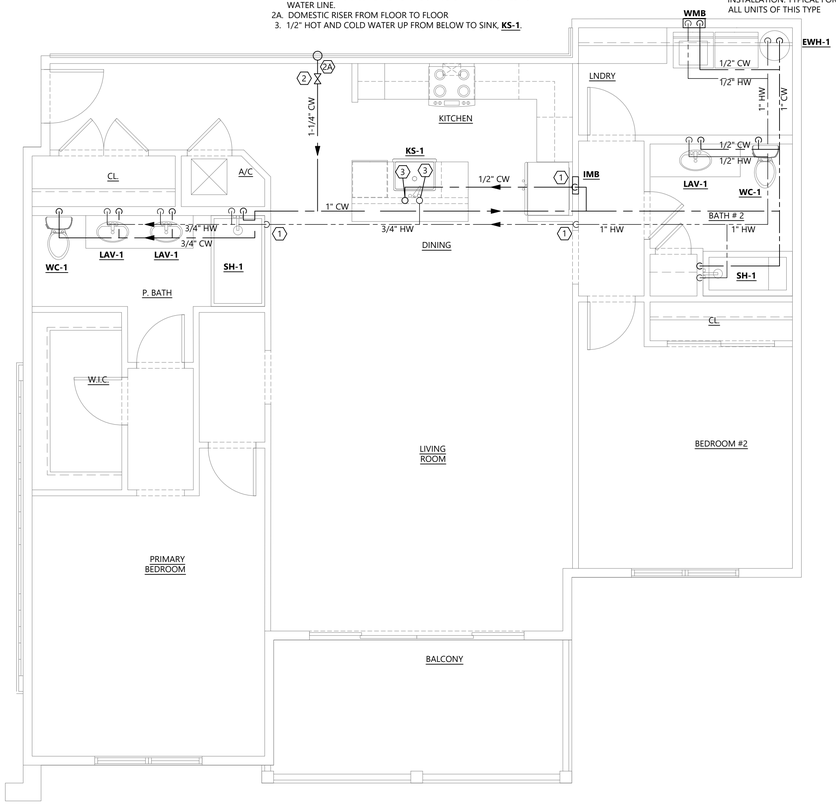
KEYED NOTES:

1. 1/2" HOT AND/OR COLD WATER DOWN WALL AND BELOW FLOOR TO SINK, **KS-1**
2. UNIT 1-1/4" MAIN SHUT OFF VALVE IN CEILING. PROVIDE ACCESS PANEL. SEE OVERALL PLANS FOR ROUTING OF MAIN DOMESTIC WATER LINE.

2A. DOMESTIC RISER FROM FLOOR TO FLOOR

3. 1/2" HOT AND COLD WATER UP FROM BELOW TO SINK, **KS-1**.

VERIFY LOCATION OF WATER HEATER PER ARCHITECT'S DESIGN BEFORE INSTALLATION. TYPICAL FOR ALL UNITS OF THIS TYPE

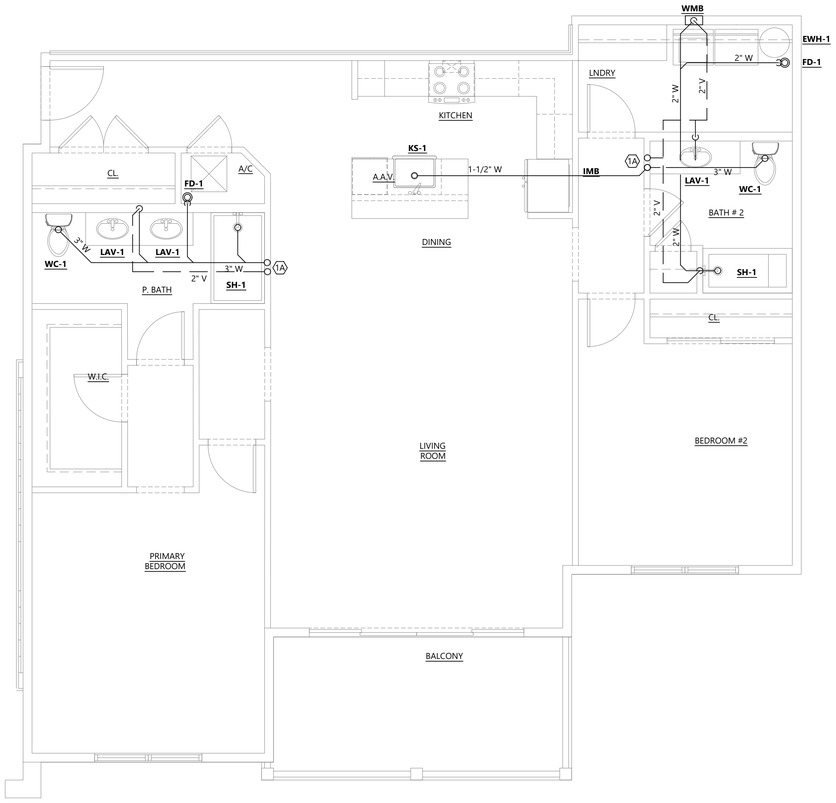


1 TYPICAL 2BR UNIT LEVEL 3 PLUMBING SUPPLY PLAN

1/4"=1'-0"

KEYED NOTES:

1A. 3" DRAIN RISER AND 2" VENT RISER FROM FLOOR TO FLOOR. TERMINATE WITH 3" VENT THRU ROOF



2 TYPICAL 2BR UNIT LEVEL 3 PLUMBING SANITARY PLAN

1/4"=1'-0"

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- PRELIMINARY - NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: JS
CHECKED BY: JK

DWG DECRIPTION :
ENLARGED UNIT PLANS

SHEET #:
P-10

WILDE #: 24-125

SPRINKLER DESIGN CRITERIA

OCCUPANCY	HAZARD	REMOTE AREA	HOSE STREAM	MAX HEAD COVERAGE	REMARKS
LIGHT HAZARD	0.10 GPM/SF	1500 SF	100 GPM	225 SF/HD	QR RESIDENTIAL SPRINKLERS THROUGHOUT

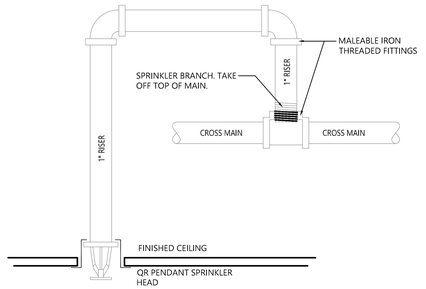
1. SPRINKLER CONTRACTOR SHALL VERIFY FINISH OF ESCUTCHEON/FACEPLATE WITH ARCHITECT/OWNER.
2. SPRINKLER HEADS SHALL MATCH OWNER STANDARDS.
3. ESCUTCHEONS SHALL BE COMPATIBLE WITH MAKE AND MODEL OF HEAD TYPES.
4. ESCUTCHEONS SHALL BE INSTALLED TO ACCOUNT/ADJUST FOR CEILING TILE DEFLECTION.

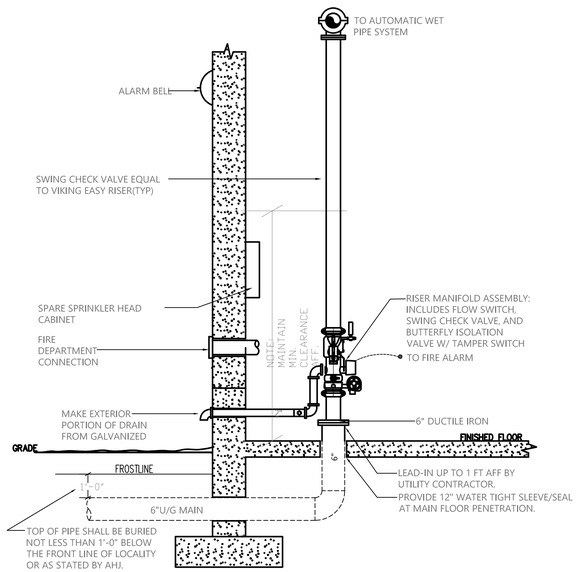
GENERAL PROJECT NOTES:

1. MOUNT SPRINKLERS WITHIN CENTER OF A.C.T.
2. SPRINKLERS SHALL BE A MINIMUM 4" FROM WALLS/OBSTRUCTION.
3. SPRINKLERS SHALL BE INSTALLED A MINIMUM OF 6'-0" APART.
4. SOFFITS ARE TO BE SPRINKLED, UNLESS ARE APPLICABLE TO EXEMPTION PER NFPA 8.6.5.1.2
5. PROVIDE ADDITIONAL FIRE SPRINKLERS, AS MAY BE DIRECTED BY FIRE MARSHALL, AT NO ADDITIONAL COST TO OWNER.
6. PROVIDE UPRIGHT HEADS WITHIN OPEN CEILINGS.
7. PROVIDE SEMI RECESSED HEADS WITHIN A.C.T. CEILINGS.
8. PROVIDE CONCEALED HEADS WITHIN GYPSUM CEILINGS.
9. COORDINATE SPRINKLERS WITH LIGHTING/RCP, MECHANICAL, AND ALL OTHERS TRADES WITHIN PLANE OF CEILING.

Scope of Work:

PROJECT CONSISTS OF INSTALLING NEW WET SPRINKLER SYSTEM THROUGHOUT APARTMENT BUILDING.





DEFERRED SUBMISSION

THE FIRE PROTECTION DRAWINGS AND SPECIFICATIONS WITHIN THE WILDE ENGINEERING DOCUMENT SET ARE PERFORMANCE BASED AND INTENDED TO CONVEY SCOPE OF THE WORK. THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL AS A DEFERRED SUBMITTAL TO THE LOCAL AHJ SHOP DRAWINGS AND HYDRAULIC CALCULATIONS INDICATING THE SPRINKLER SYSTEM LAYOUT, INCLUDING FINAL HEAD LOCATIONS AND MAIN/LEADER PIPING SIZING. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE THESE DOCUMENTS SEALED BY A LICENSED FIRE PROTECTION ENGINEER.

FIRE PROTECTION SPECIFICATIONS

A. FIRE PROTECTION CONTRACTOR TO PROVIDE DESIGN AND INSTALLATION FOR NEW FIRE SPRINKLER SYSTEMS FOR NEW APARTMENTS BUILDINGS. FIRE PROTECTION SYSTEMS SHALL BE HYDRAULICALLY CALCULATED AND DESIGNED. FIRE PORTECTION CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL NECESSARY EQUIPMENT INCLUDING PIPE, FITTINGS,, VALVES AND ACCESSORIES. FIRE PROTECTION CONTRACTOR SHALL PROVIDE HYDRAULIC CALCULATIONS, DESIGN OF SPRINKLER SYSTEMS, TESTING, MATERIAL AND LABOR FOR COMPLETE FIRE PROTECTION SYSTEM.

B. SPRINKLER SYSTEMS SHALL BE DESIGNED TO MEET STANDARDS OF NFPA 13R 2013ED. THE DESIGN SHALL ALSO MEET THE REQUIREMENTS OF THE OWNER'S INSURANCE COMPANY AND THE LOCAL AUTHORITY HAVING JURISDICTIONS.

C. SUBCONTRACTOR SHALL PROVIDE COPIES OF DESIGN CALCULATIONS, DRAWINGS AND ALL SUBMITTAL DATA TO ALL AUTHORITY HAVING JURISDICTIONS, OWNER'S INSURANCE COMPANY AND ARCHITECT. FIRE PROTECTION CONTRACTOR TO PROVIDE COPIES OF MATERIAL DATA AND TEST CERTIFICATES FOR ABOVE GROUND PIPING STARTING AT 1'-0" ABOVE FINISHED FLOOR AT LEAD IN LOCATIONS TO AUTHORITY HAVING JURISDICTION, OWNER AND ENGINEER OF RECORD AS RECORD OF COMPLETION.

D. OPERATION AND MAINTENANCE MANUALS TO BE PROVIDED TO THE OWNER BY THE FIRE PROTECTION CONTRACTOR.

E. FIRE PROTECTION CONTRACTOR TO PROVIDE TRAINING FOR OWNER TO FAMILIARIZE THEMSELVES WITH BASIC FUNCTION OF THE FIRE SPRINKLER SYSTEMS, LOCATION OF RISER, MAINTENANCE REQUIREMENTS PER NFPA 25, EMERGENCY CONTACTS AND SHUT OFF VALVE LOCATIONS.

F. ALL PIPE INSIDE THE UNITS WILL BE FIRE RATED CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE ASME B1.20.1, ASTM F441. ALL FITTINGS WILL BE CHLORINATED POLYVINYL CHLORIDE ASTM F439. THESE FITTINGS AND PIPE WILL BE JOINED BY SOLVENT CEMENT FOR ASTM F493. ALL CPVC PIPE AND CPVC FITTINGS TO BE UL/FM LISTED AND APPROVED.

G. GATE VALVES WILL BE MADE OF AN IRON BODY, BRONZE TRIM, RISING OUTSIDE SCREW AND YOKE WITH SOLID WEDGE UL/FM LISTED AND APPROVED.

H. SPRINKLER HEADS: PROVIDE 155° QUICK RESPONSE RESIDENTIAL SPRINKLERS IN THE PENDENT POSITION WITHIN THE UNITS ON THE LOWER FLOORS AND SIDEWALL SPRINKLERS ON THE TOP FLOOR OF ALL BUILDINGS. PROVIDE 155° DRY SIDEWALL SPRINKLERS IN ALL BREEZEWAYS IN ALL BUILDING TYPES.

I. FIRE PROTECTION CONTRACTOR TO INSTALL PIPING IN ACCORDANCE WITH NFPA 13R 2013 ED. SEAL PIPING AND SLEEVE PENTRATIONS TO ACHIEVE FIRE RESISTANCE TO FIRE SEPARATION AS REQUIRED.

FIRE PROTECTION CRITERIA

A. NEW CONSTRUCTION IS 7 MULTI STORY APARTMENT BUILDINGS VARYING IN SIZE WITH A NEW WET SPRINKLER SYSTEM DESIGNED PER NFPA-13R 2013 ED. CPVC SPRINKLER PIPE WILL BE RAN WITHIN THE TRUSSES BETWEEN FLOORS WITH THE SPRINKLER HEADS BEING FED FROM THIS PIPE. THE SITE IS LOCATED IN HENDERSONVILLE, NC.

B. FIRE SPRINKLER ACCEPTANCE TESTING SHALL BE PROVIDED PER NFPA-13R 2013 ED.

C. SPRINKLER SYSTEM FOR THE BUILDING SHALL BE WET PIPE SPRINKLER SYSTEM, DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA-13R 2013 ED.

D. THESE APARTMENT BUILDINGS WILL BE DESIGNED FOR LH OCCUPANCY PER NFPA-13R 2013ED. SPRINKLERS WILL BE RESIDENTIAL SPRINKLERS WITH SPRINKLER SPACING PER SPRINKLER SPECIFICATION SHEETS USED IN DESIGN. FIRE PROTECTION CONTRACTOR WILL BE A FULLY AUTOMATIC FIRE SPRINKLER SYSTEM AND WILL BE RESPONSIBLE FOR PROVIDING HYDRAULIC CALCULATIONS FOR THE FIRE SPRINKLER SYSTEM.

E. STRUCTURAL SUPPORT AND STRUCTURAL OPENINGS FOR THE FIRE PROTECTION SYSTEM INCLUDING LIVE AND DEAD LOADS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER. CPVC PIPE WILL BE LOCATED WITH A WALL CAVITY IN THE UNIT. ALL PENETRATIONS THRU STRUCTURAL MEMBERS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER PRIOR TO CORING OR SUPPORTING TO ENSURE PROPER WEIGHT DISTRIBUTION AND TO AVOID WEAKENED STRUCTURE. ALL FIRE PROTECTION PIPING PENETRATIONS SHALL BE PROPERLY SEALED WITH APPROVED FIRE RATED CAULK.

F. FIRE PROTECTION CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING SEISMIC BRACING OF THE FIRE PROTECTION MAIN PIPING AND BRANCH LINE PIPE WILL BE SUPPLIED IF APPLICABLE.

G. SPRINKLERS IN BATHROOMS 55 SQFT AND SMALLER ARE PERMITTED TO BE OMITTED PER NFPA 13R 2013ED.SECTION 6.6.2. SPRINKLERS IN CLOTHES CLOSETS, LINEN CLOSETS AND PANTRIES ARE PERMITTED TO BE OMITTED PER NFPA 13-R 2013ED. SECTION 6.6.3. SPRINKERS ARE PERMITTED TO BE OMITTED IN CLOSETS ON BALCONIES PER NFPA 13-R 2013 ED. SECTION 6.6.7

H. PENDENT SPRINKLERS SHALL BE LOCATE AT LEAST 3FT FROM CEILING FANS AND LIGHT FIXTURES PER NFPA 13R- 2013 ED. SECTION 6.4.6.3.4.1. SIDEWALL SPRINKLERS SHALL BE LOCATED AT LEAST 5FT FROM CEILING FANS AND LIGHT FIXTURES PER NFPA 13R-2013 ED. SECTION 6.4.6.3.5.1

FIRE PROTECTION GENERAL NOTES

A. ALL WORK TO BE PERFORMED BY A FIRE PROTECTION CONTRACTOR LICENSED IN THE STATE OF NORTH CAROLINA AND IS CAPABLE OF HANDLING THE WORK OF THE SIZE AND SCOPE INDICATED ON THE PLANS. ALL WORK SHALL BE PERFORMED BY OTHERS. ALL WORK SHALL BE NEAT AND PROFESSIONAL, AND SHALL MEET ALL SAFETY REQUIREMENTS SPECIFIED BY CODE OR RECOMMENDED MANUFACTURER.

B. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. CLEARANCES SHALL BE MAINTAINED AND EQUIPMENT SHALL BE INSTALLED TO ALLOW FOR EASE OF SERVICE.

C. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NORTH CAROLINA STATE BUILDING CODES AND WITH REQUIREMENTS OF ALL LOCAL AUTHORITY HAVING JURISDICTIONS.

D. THE FIRE PROTECTION CONTRACTOR SHALL WARRANTY ALL OF THEIR WORK TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS, STARTING AT THE DATE WHEN THE SYSTEM IS DETERMINED TO BE PUT INTO SERVICE AND COMPLETE. IF DURING THE WARRANTY PERIOD ANY PORTION OF THE SYSTEM(S) IS FOUND TO BE DEFECTIVE, THE FIRE PROTECTION CONTRACTOR SHALL REPAIR OR REPLACE THAT PORTION OF THE SYSTEM IN A TIMELY MANNER AND AT NO EXPENSE TO THE OWNER. THIS WARRANTY SHALL BE IN ADDITION TO ANY MANUFACTURER'S WARRANTY.

E. THE FIRE PROTECTION CONTRACTOR SHALL PREPARE AND SUBMIT A SET OF NFPA SHOP DRAWINGS SHOWING THE PIPE ROUTES, HANGER LOCATIONS AND PLACEMENT OF SPRINKLERS. THESE DRAWINGS SHALL INDICATE REMOTE AREAS AND DENSITIES ALONG WITH SPACING OF THE SPRINKLER HEADS WITHIN THE BUILDING. THE DRAWINGS SHALL CROSS REFERENCE NODES AND PIPES USED TO PREPARE HYDRAULIC CALCULATIONS. THE HYDRAULIC CALCULATIONS SHALL BE PERFORMED AND BASED ON THE PREPARED DRAWINGS BY THE FIRE PROTECTION CONTRACTOR. THE HYDRAULIC CALCULATIONS SHALL PROVE THE WATER PRESSURES AND FLOWS AT THE SITE ARE SUFFICIENT TO MEET SPRINKLER REQUIREMENTS.

F. PIPE AND EQUIPMENT SUPPORTS AND HANGERS SHALL MEET LOCAL SEISMIC REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE AND NFPA STANDARDS. SEISMIC CALCULATIONS SHALL BE PERFORMED TO DETERMINE THE TYPE OF SEISMIC BRACES AND RESTRAINTS THAT SHALL BE USED FOR THE SPRINKLER SYSTEM IF APPLICABLE.

G. REFER TO PLUMBING PLANS FOR RISER ROOM LOCATIONS AND BUILDING LAYOUTS

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- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The Orchards at Naples Road, LLC
341 N Main Street
Hendersonville, NC 28792
Luis Graef: President

Orchards PROPERTIES

PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO :
ISSUE DATE: 4/11/25
PROJECT #: 22105
DRAWN BY: JS
CHECKED BY: JK

DWG DECRIPTION :
FIRE PROTECTION COVER SHEET BLDG 3

SHEET #:
FP-00

WILDE #: 24-125