

SITE PLAN NOTES

1. POOLS REQUIRE SEPARATE APPROVAL AND PERMIT.
2. POOLS SHALL NOT BE EMPTIED OR BACKWASHED INTO WASHES, STREETS, NAOS, SCENIC CORRIDORS, ON TO AN ADJACENT LOT, OR TRACT OF LAND. (ZO SEC. 6.1100.B; AND DS&PM 2-2.501.D.4.c).
3. A GUESTHOUSE SHALL NOT EXTEND A GROSS FOOTPRINT SIZE GREATER THAN 50% OF THE FOOT PRINT SIZE OF THE PRINCIPAL BUILDING. (ZO SEC. 5.012.A.6.b AND SEC. 5.102.A.6.b
4. TEMPORARY / SECURITY FENCING THAT IS REQUIRED OR OPTIONALLY PROVIDED SHALL BE ACCORDANCE WITH THE ZONING ORDINANCE AND THE DESIGN STANDARDS AND POLICIES MANUAL. (ZO SEC. 7.700 AND SEC. 6.1071.A.6, AND DS&PM 1-1.407)
5.A REGISTERED SURVEYOR SHALL STAKE AND ROPE OR FENCE THE NAOS' EASEMENT IN ACCORDANCE WITH THE SITE PLAN AND THE EASEMENT LEGAL DESCRIPTION.

NOTE

ALL MECHANICAL EQUIPMENT (AIR CONDITIONER, POOL EQUIPMENT, ETC.) SHALL BE SCREENED A MINIMUM OF ONE (1) FOOT HIGHER THAN THE HIGHEST PORTION OF THE EQUIPMENT, AND SHALL BE COMPATIBLE WITH THE ADJACENT MAIN BUILDING.
POOL SECURED FROM UNWANTED ACCESS AND APPROVED THROUGH SEPARATE PERMIT.

CONSTRUCTION NOTES

- 1 EXISTING CONTOUR LINE.
2 INSTALL NEW BUILDING. PLAN#6791-24-1
3 EXISTING 6" DIP WATER LINE
4 Existing 5/8" water meter being increased to 1".
5 EXISTING AC PAVEMENT TO REMAIN.
6 EDGE OF PAVEMENT.
7 INSTALL NEW CONC. DRIVE WAY. PLAN#6791-24-1
8 EXISTING 6' CMU WALL TO REMAIN. PLAN#6791-24-1
9 EXISTING SITE WALL TO BE REMOVED. PLAN#6791-24-1.
10 INSTALL NEW 12' RV GATE. (6' HT). PLAN#6791-24-1
11 INSTALL NEW 10' RV GATE. (6' HT). PLAN#6791-24-1
12 40'X10' CLASS A RV PARKING. PLAN#6791-24-1
13 INSTALL NEW 4' RV. GATE.(6' HT). PLAN#6791-24-1
14 NEW ELEC. SERVICE PANEL 400A. PLAN#6791-24-1
15 AC UNIT LOCATIONS.
16 GAS METER.
17 EXISTING HOME TO BE DEMOLISHED -FINISH FLOOR SLAB TO REMAIN.
18 INSTALL NEW 4' MAIN GATE. (6' HEIGHT).
19 EXISTING POOL TO BE REMOVED.
20 OVERHEAD ELECTRIC TO BE BURIED TO NEW 400AMP SERVICE.
21 FUTURE POOL - SEPARATE SUBMITTAL -
22 21' X 18' PROPOSED RAMADA. PLAN#6791-24
23 29'X29' PROPOSED GUEST HOUSE. PLAN#6791-24
24 GUEST HOUSE SUB- PANEL. PLAN#6791-24
25 INSTALL NEW 6' CMU WALL. (581 LF)
26 TRENCHES (3) 3' X 68' PRESBY AES:
27 SEPTIC SYSTEM MCO# OW-25-00110
28 EXISTING WATER LINE TO REMAIN.
29 EXISTING 1½" WATER LINE SERVICE TO REMAIN.
30 NEW 1" WATER LINE TO BE USED FOR GUEST HOUSE WATER SERVICE.
31 DRIVEWAY TO SUPPORT 83,000 LBS.

NOTE:

NO NATIVE PLANTS TO BE DISTURBED.

ABBREVIATIONS

- CL - CENTER LINE
FG - FINISH GROUND (UNPAVED)
FL - FLOW LINE
FS - FINISH SURFACE (PAVED)
GB - GRADE BREAK
PL - PROPERTY LINE
PUE - PUBLIC UTILITY EASEMENT

BUILDING CODES

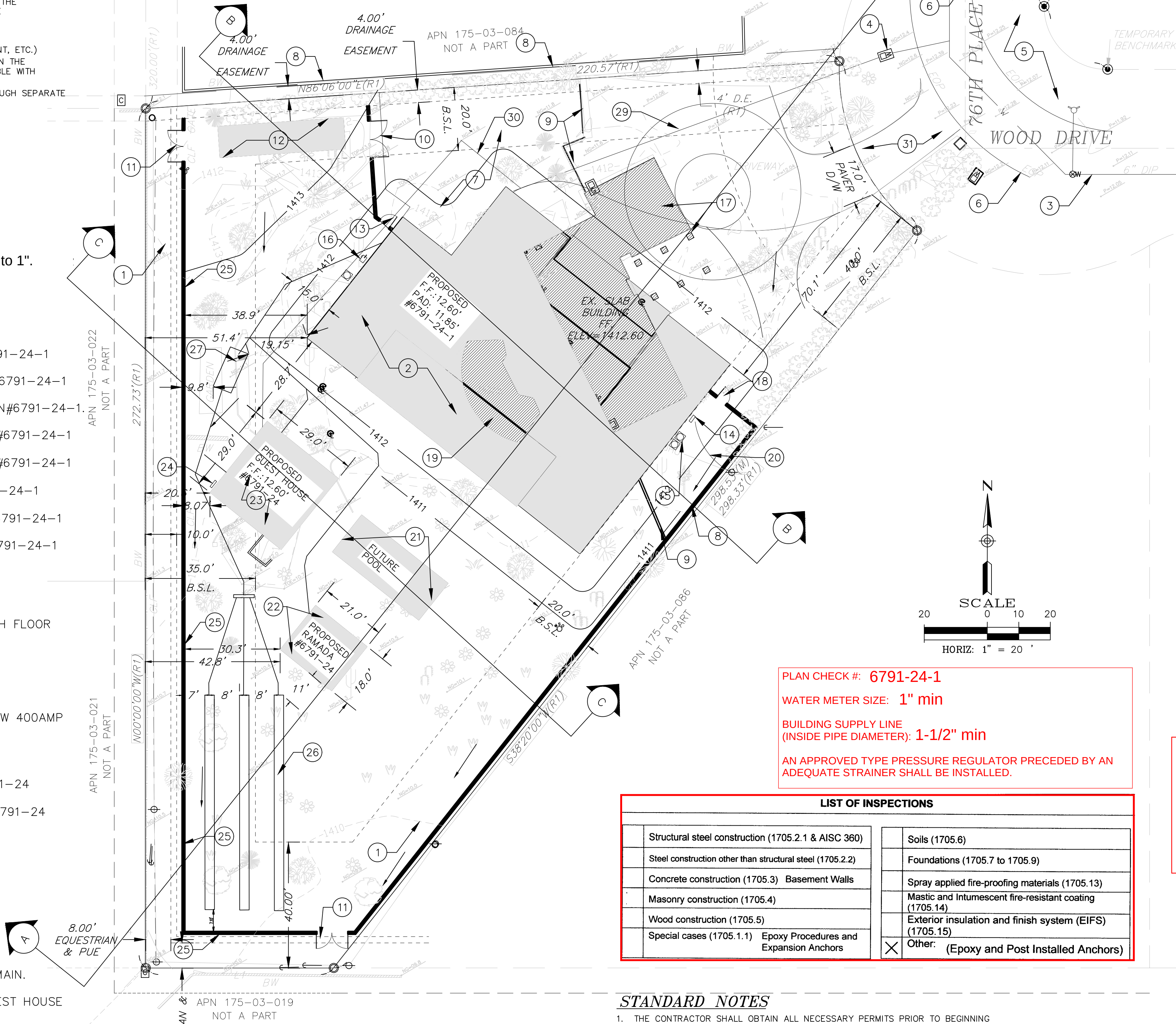
2015 International Fire Code
2015 International Building Code
2015 International Residential Code
2015 International Mechanical Code
2015 International Plumbing Code
2015 International Fuel Gas Code
2015 International Energy Conservation Code
2015 International Existing Building Code
2015 International Green Construction Code
Only mandatory for new buildings receiving zoning bonuses
2014 National Electric Code

EARTHWORK QUANTITIES

THE QUANTITIES LISTED BELOW ARE APPROXIMATE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF THE QUANTITIES AND BASE HIS BID ON HIS OWN ESTIMATE. PAYMENT WILL BE MADE IN ACCORDANCE WITH CONTRACT FOR WORK ACTUALLY COMPLETED.

CUT 0 CY
FILL 10 CY

GRADING & DRAINAGE PLAN
FOR HOUSE ADDITION
13202 N 76TH PL SCOTTSDALE 85260
APN: 175-03-085



PLAN CHECK #: 6791-24-1
WATER METER SIZE: 1" min
BUILDING SUPPLY LINE
(INSIDE PIPE DIAMETER): 1-1/2" min
AN APPROVED TYPE PRESSURE REGULATOR PRECEDED BY AN ADEQUATE STRAINER SHALL BE INSTALLED.

LIST OF INSPECTIONS

Structural steel construction (1705.2.1 & AISC 360)	Soils (1705.6)
Steel construction other than structural steel (1705.2.2)	Foundations (1705.7 to 1705.9)
Concrete construction (1705.3) Basement Walls	Spray applied fire-proofing materials (1705.13)
Masonry construction (1705.4)	Mastic and Intumescent fire-resistant coating (1705.14)
Wood construction (1705.5)	Exterior insulation and finish system (EIFS) (1705.15)
Special cases (1705.1.1) Epoxy Procedures and Expansion Anchors	Other: (Epoxy and Post Installed Anchors)

STANDARD NOTES

1. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING PERMITS AND RENEWAL OF LAPSED PERMITS.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS FOR INSPECTION AND TESTING.
4. THE CONTRACTOR SHALL NOTIFY THE INSPECTING AGENCY(S) 24 HOURS PRIOR TO CONSTRUCTION. CONSTRUCTION CONCEALED WITHOUT THE REQUIRED INSPECTION SHALL BE SUBJECT TO EXPOSURE AT THE CONTRACTOR'S EXPENSE.

ENGINEER'S CERTIFICATION:

THE FINISHED FLOOR ELEVATION(S) AND/OR FLOOD PROOFING ELEVATION(S) ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDE PROTECTION FROM FLOODING CAUSED BY A ONE-HUNDRED YEAR STORM, AND ARE IN ACCORDANCE WITH CITY OF SCOTTSDALE REVISER CODE, CHAPTER 37 -- FLOODPLANS ORDINANCE.

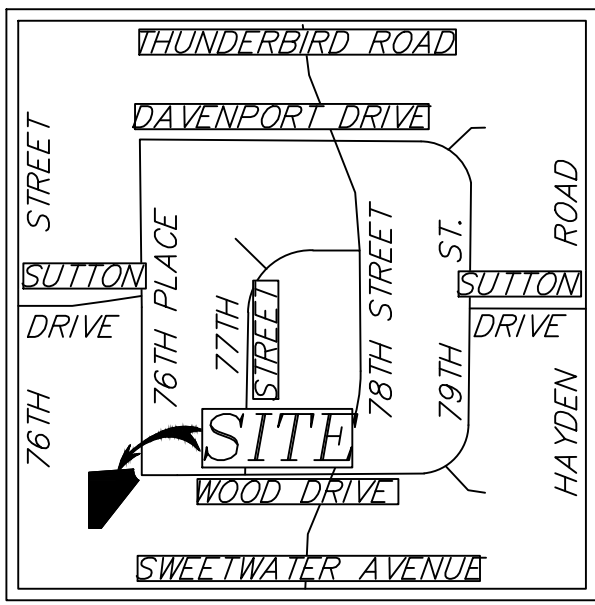
FLOOD INSURANCE RATE MAP (FIRM)

FEMA BLOCK						
COMMUNITY #	PANEL # DATE	SUFFIX	DATE OF FIRM (INDEX DATE)	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE, USE DEPTH)	
045012	04013C1760L MAP # 4013	L	02/8/2024	X	N/A	
	10/16/2013					

THE LOWEST FLOOR ELEVATION(S) AND/OR FLOODPROOFING ELEVATION(S) ON THIS PLAN ARE SUFFICIENTLY HIGH TO PROVIDE PROTECTION FROM FLOODING CAUSED BY A ONE-HUNDRED YEAR STORM, AND ARE IN ACCORDANCE WITH CITY OF SCOTTSDALE REVISED CODE, CHAPTER 37 - FLOODPLAIN AND STORMWATER REGULATION.

CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
THIS DOES NOT AUTHORIZE VIOLATIONS OF ANY
CODE OR ORDINANCE

CITY APPROVED PLANS ARE TO REMAIN
ON THE JOB SITE AT ALL TIMES DURING
COURSE OF CONSTRUCTION



VICINITY MAP
NTS

ENGINEER

SAIF ENGINEERING LLC
8011 S AVENIDA DEL YAQUI
GUADALUPE, AZ 85283
RAAD SALIH, P.E.
(602) 628-3565
(602) 497-4216 FAX

OWNER/DEVELOPER

TORNEANU PETER
12031 N SUNDOWN DR SCOTTSDALE
AZ USA 85260
DEED NO. # 211240614

SITE INFORMATION

LOT AREA: 46,158 SQ.FT.
APN: 175-03-085
ADDRESS: 13202 N 76TH PL SCOTTSDALE 85260
SUBDIVISION: PARADISE VALLEY RANCHOS 2
ZONING: R1-35
OS: 32-46

PROJECT DATA

LOT NET AREA = 46,158 SQ.FT./1.06 ACRES
GROSS AREA = 47,658 SQ.FT.

UTILITY SERVICE

WATER: CITY OF SCOTTSDALE
SEWER: CITY OF SCOTTSDALE
FIRE PROTECTION: CITY OF SCOTTSDALE
ELECTRICITY: ARIZONA PUBLIC SERVICE
TELEPHONE: US WEST
GAS: ARIZONA PUBLIC SERVICE
CABLE TV: TCI CABLE

SITE DATA

PROPOSED MAIN LIVING AREA: 5300 SQ. FT. (UNDER SEPARATE PERMIT)
PROPOSED GARAGE AREA: 1010 SQ. FT. (UNDER SEPARATE PERMIT)
PROPOSED COVERED PATIOS AREA: 1695 SQ. FT. (UNDER SEPARATE PERMIT)
PROPOSED RAMADA AREA: 378 SQ. FT. (UNDER SEPARATE PERMIT)
PROPOSED GUEST HOUSE/CASITA AREA: 841 SQ. FT.

TOTAL AREA UNDER ROOF: 9224 SQ. FT.
LOT COVERAGE: 9224 SF. / 46,156 SQ. FT. = 20% OK

BENCHMARK CERTIFICATION

I HEREBY CERTIFY THAT ALL ELEVATIONS REPRESENTED ON THIS PLAN ARE BASED ON NAVD 1988 AND MEET THE FEMA BENCHMARK MAINTENANCE (BMM) CRITERIA.

LEGAL DESCRIPTION

WARRANTY DEED #2024-0268029, MCR
LOT 119, PARADISE VALLEY RANCHOS NO. 2 ACCORDING TO BOOK 93 OF MAPS, PAGE 8, RECORDS OF MARICOPA COUNTY, ARIZONA.

PROJECT DESCRIPTION

EXISTING HOUSE TO BE DEMOLISHED AND EXISTING FLOOR SLAB TO REMAIN. INSTALL NEW RESIDENCE BUILDING, ADU BUILDING, NEW RAMADA, REMOVE EXISTING POOL AND INSTALL NEW 6' CMU WALL WITH RV GATE.

BENCHMARK:

FOUND 3" CITY OF SCOTTSDALE BRASS CAP IN HANDHOLE AT THE INTERSECTION OF SWEETWATER AVENUE AND 76TH STREET.

ELEVATION= 1406.94 (NAVD88) DATUM

TEMPORARY BENCHMARK:

FOUND REBAR WITH CAP STAMPED "RLS 35694"
ASAM #5

ELEVATION= 1412.81 (NAVD88) DATUM

BASIS OF BEARING:

S00°00'00"E ALONG THE EAST RIGHT OF WAY LINE OF 76TH PLACE AS MEASURED BETWEEN MONUMENTS NUMBERED 1, AND 2 SHOWN HEREON AND DESCRIBED UNDER MONUMENT NOTES. ALSO SHOWN ON THE FINAL PLAT FOR PARADISE VALLEY RANCHOS NO. 2 PER BOOK 93 OF MAPS, PAGE 8, MCR.

CERTIFICATION

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AND SURVEY MONUMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR DATE

REGISTRATION NUMBER

SPRINKLER SYSTEM REQUIRED IN THIS
BUILDING BEFORE APPROVAL BY
SCOTTSDALE FIRE DEPARTMENT

DEFERRED SUBMITTAL FOR
PREMANUFACTURED TRUSS
DESIGNS

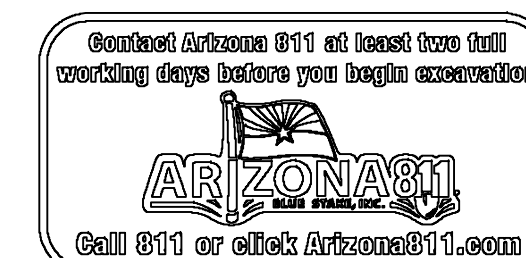
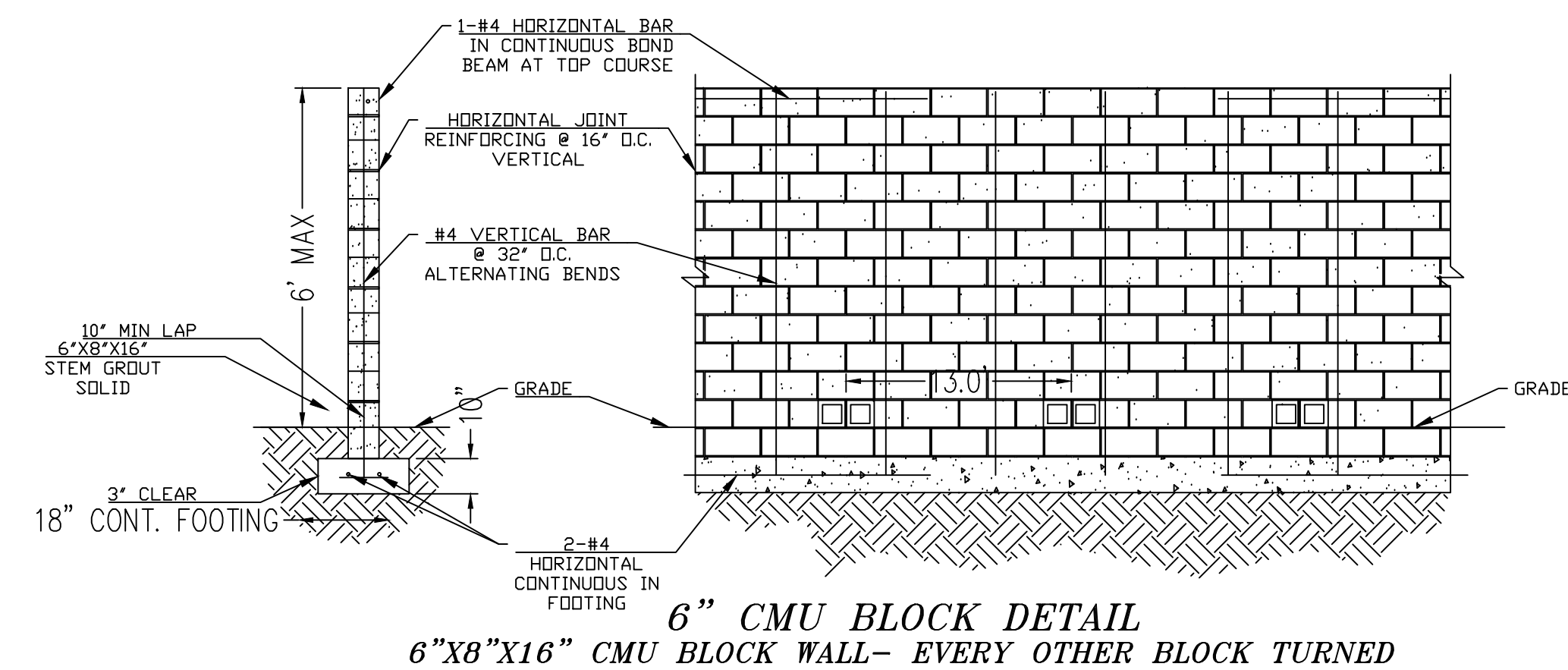
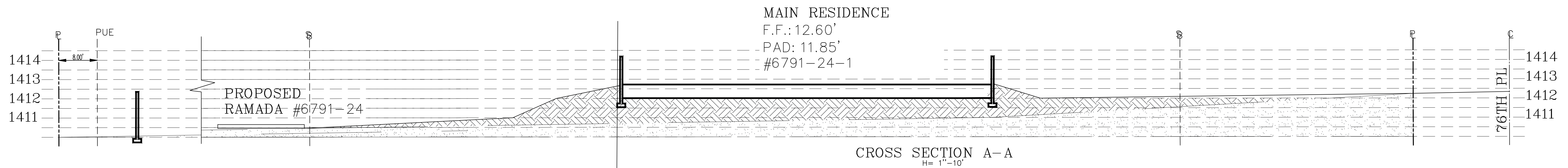
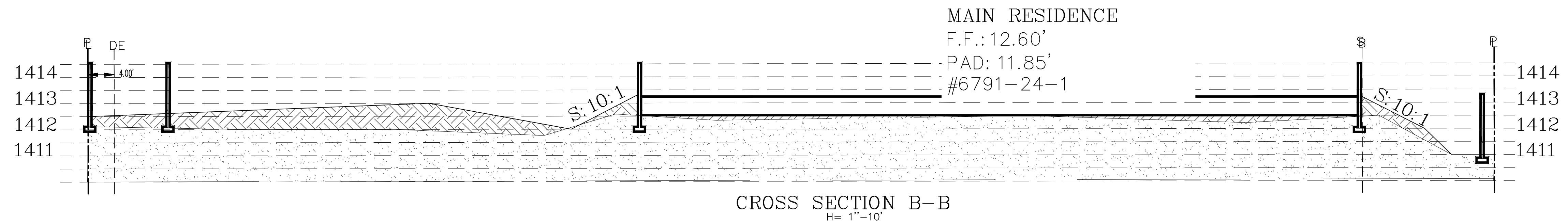
BUILDING PLAN
APPROVED
BY CITY OF SCOTTSDALE PLAN REVIEW

6791-24-1 Mirel Cristian 04/11/2025
PLAN CHECK NO. REVIEWER DATE

CONSTRUCTION AND INSTALLATION SHALL BE IN
ACCORDANCE WITH THIS PLAN AND ANY AND ALL
DEVIATIONS WILL REQUIRE REAPPROVAL

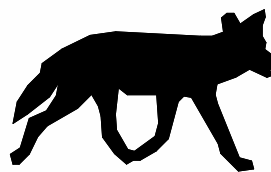
PROJECT MANAGER:	DESIGN BY: R.M.S.	DRAWN BY: N.S.Q.	CHECKED BY: R.M.S.	DATE:	BY:
SAIF ENGINEERING L.L.C.	SAIF ENGINEERING L.L.C.	SAIF ENGINEERING L.L.C.	SAIF ENGINEERING L.L.C.	SAIF ENGINEERING L.L.C.	SAIF ENGINEERING L.L.C.
Engineering, Surveying & Construction Administration	Engineering, Surveying & Construction Administration	Engineering, Surveying & Construction Administration	Engineering, Surveying & Construction Administration	Engineering, Surveying & Construction Administration	Engineering, Surveying & Construction Administration
230 W BASELINE RD SUIT 104	230 W BASELINE RD SUIT 104	230 W BASELINE RD SUIT 104	230 W BASELINE RD SUIT 104	230 W BASELINE RD SUIT 104	230 W BASELINE RD SUIT 104
Phoenix, Arizona 85018, Tel: 954-2661 Fax: (602) 954-9666	Phoenix, Arizona 85018, Tel: 954-2661 Fax: (602) 954-9666	Phoenix, Arizona 85018, Tel: 954-2661 Fax: (602) 954-9666	Phoenix, Arizona 85018, Tel: 954-2661 Fax: (602) 954-9666	Phoenix, Arizona 85018, Tel: 954-2661 Fax: (602) 954-9666	Phoenix, Arizona 85018, Tel: 954-2661 Fax: (602) 954-9666
EXPIRES 09/30/26	EXPIRES 09/30/26	EXPIRES 09/30/26	EXPIRES 09/30/26	EXPIRES 09/30/26	EXPIRES 09/30/26
GRADING AND DRAINAGE PLAN FOR HOUSE ADDITION	GRADING AND DRAINAGE PLAN FOR HOUSE ADDITION	GRADING AND DRAINAGE PLAN FOR HOUSE ADDITION	GRADING AND DRAINAGE PLAN FOR HOUSE ADDITION	GRADING AND DRAINAGE PLAN FOR HOUSE ADDITION	GRADING AND DRAINAGE PLAN FOR HOUSE ADDITION
13202 N 76TH PL SCOTTSDALE 85260 APN#175-03-085	13202 N 76TH PL SCOTTSDALE 85260 APN#175-03-085	13202 N 76TH PL SCOTTSDALE 85260 APN#175-03-085	13202 N 76TH PL SCOTTSDALE 85260 APN#175-03-085	13202 N 76TH PL SCOTTSDALE 85260 APN#175-03-085	13202 N 76TH PL SCOTTSDALE 85260 APN#175-03-085
PLAN#6791-24-1	PLAN#6791-24-1	PLAN#6791-24-1	PLAN#6791-24-1	PLAN#6791-24-1	PLAN#6791-24-1
SCALE: 1"=20'	SCALE: 1"=20'	SCALE: 1"=20'	SCALE: 1"=20'	SCALE: 1"=20'	SCALE: 1"=20'
SECTION: 14 TNSHP: 3N RANGE: 4E	SECTION: 14 TNSHP: 3N RANGE: 4E	SECTION: 14 TNSHP: 3N RANGE: 4E	SECTION: 14 TNSHP: 3N RANGE: 4E	SECTION: 14 TNSHP: 3N RANGE: 4E	SECTION: 14 TNSHP: 3N RANGE: 4E
JOB NO.:	JOB NO.:	JOB NO.:	JOB NO.:	JOB NO.:	JOB NO.:
SHEET OF C2	SHEET OF C2	SHEET OF C2	SHEET OF C2	SHEET OF C2	SHEET OF C2

CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
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13202 N. 76TH PLACE
SCOTTSDALE, AZ



APN: 175-03-085



CUSTOM PROJECT

EDUCATE CAPITAL
LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085



ALL PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW COMPLETE SCOPE OF WORK REQUIRED FOR ALL NEW INSTALLATIONS OR FINISHES. INFORMATION CONTAINED ON THESE SHEETS ARE SUGGESTIONS ONLY. REFER TO SPEC SHEET FOR EXACT TYPE & LOCATION OF FIXTURES. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY DESIGNER OF ANY CONFLICTS. INFORMATION ON THESE SHEETS MAY HAVE BEEN GATHERED AND COMPILED FOR DESIGNER FROM OTHER SOURCES. EVERY EFFORT WAS MADE TO ENSURE ACCURACY OF THIS DRAWING AND DATA HOWEVER NO GUARANTEE IS GIVEN OR IMPLIED AS TO ACCURACY OF SAID DATA.

REVISIONS

NO	DESCRIPTION	DATE
PROJECT NAME		
ISSUE		
DATE		

COVER SHEET
SHEET TITLE

SCOTTSDALE - LIGHTING NOTES SEC. 5.106

1. THE HEIGHT OF ANY LIGHT FIXTURE OR ILLUMINATION SOURCE SHALL NOT EXCEED 20 FEET.
2. THE LIGHT EMITTING ELEMENT AND REFLECTING DEVICE OF ALL LIGHTING OR ILLUMINATION UNITS SHALL BE HOODED OR SHIELDED SO THAT IT IS NOT VISIBLE FROM ANY ADJACENT LOT OR REAL PROPERTY.
3. LIGHTS OR ILLUMINATING UNITS SHALL NOT BE DIRECT LIGHT, EITHER DIRECTLY OR THROUGHT A REFLECTING DEVICE, UPON ANY ADJACENT REAL PROPERTY.
4. LIGHTING OTHER THAN THE ABOVE MENTIONED CRITERIA SHALL REQUIRE A USE PERMIT.

VICINITY MAP



FLOOD INSURANCE RATE MAP (FIRM) INFO

COMMUNITY NUMBER	COMMUNITY MAP NUMBER	PANEL NO.	PANEL NO.	SUFFIX	FIRM INDEX DATE	FIRM ZONE	BASE FLOOD ELEVATION (AO ZONE, USE DEPTH)
045012	04013C	1760	10/04/2013	L	2/08/24	X	N/A

(CITY) (COUNTY)

CLIMATIC & GEOGRAPHICAL DESIGN CRITERIA

ROOF SNOW LOAD	WIND SPEED (M.P.H.)	SEISMIC DESIGN CRITERIA	SUBJECT TO DAMAGE FROM				WINTER DESIGN TEMP.	FLOOD HAZARDS
0	115 MPH (ULTIMATE) 90 MPH (ASD)	B	WEATHERING NEGUGIBLE	FROST LINE DEPTH FINAL GRADE	TERMITE MODERATE TO HEAVY	DECAY NONE TO SLIGHT	34 DEGREES	D

TABLE R301.2(2)

BUILDING CODES

ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES WITH CITY AMENDMENTS:

2021 INTERNATIONAL BUILDING CODE (I.B.C.)
(ORD. #4550 RESOLUTION #12498)
2021 INTERNATIONAL RESIDENTIAL CODE (I.R.C.)
(ORD. #4575 RESOLUTION #12499)
2021 INTERNATIONAL PLUMBING CODE (I.P.C.)
2021 UNIFORM PLUMBING CODE (U.P.C.)
2021 INTERNATIONAL MECHANICAL CODE (I.M.C.)
2021 INTERNATIONAL FUEL GAS CODE (I.F.G.C.)
2021 INTERNATIONAL EXISTING BUILDING CODE (I.E.B.C.)
2021 INTERNATIONAL ENERGY CONSERVATION CODE (I.E.C.C.)
2020 NATIONAL ELECTRICAL CODE (N.E.C.)
2021 INTERNATIONAL FIRE CODE (I.F.C.)
(ORD. #4562 RESOLUTION #12583)

SHEET INDEX

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A5 ROOF PLAN
A6 BUILDING ELEVATIONS
A6.1 BUILDING ELEVATIONS
A7 BUILDING SECTIONS
A9 3D VIEWS
A9.1 3D VIEWS
A10 GENERAL CONSTRUCTION NOTES

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SD1 FOOTING DETAILS
S2 FRAMING PLAN
S3 SHEAR WALL LAYOUT
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GSN GENERAL STRUCTURAL NOTES

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E1 ELECTRICAL DIAGRAM / CALCS
E2 ELECTRICAL SCHEDULE

PROPERTY INFORMATION

OWNER: EDUCATE CAPITAL LLC
CONTACT: EDDIE LACK
ADDRESS: 13202 N. 76TH PLACE
SCOTTSDALE, AZ 85260
PARCEL NUMBER: 175-03-085
MCR #: 093-08
QS #: 32-46
DESCRIPTION: PARADISE VALLEY RACHOS 2
LOT #: 119
LOT AREA: 46,156 SQ. FT.
ZONING: R1-35
FEMA: ZONE X

PROPOSED MAIN LIVING AREA: 5300 SQ. FT.
PROPOSED GARAGE AREA: 1010 SQ. FT.
PROPOSED COVERED PATIOS AREA: 1695 SQ. FT.
PROPOSED RAMADA AREA: 378 SQ. FT. (SEPERATE PERMIT)
PROPOSED ADU/CASITIA AREA: 841 SQ. FT. (SEPERATE PERMIT)

TOTAL AREA UNDER ROOF: 9224 SQ. FT.

LOT COVERAGE: 9224 SF. / 46,156 SQ. FT. = 20% OK

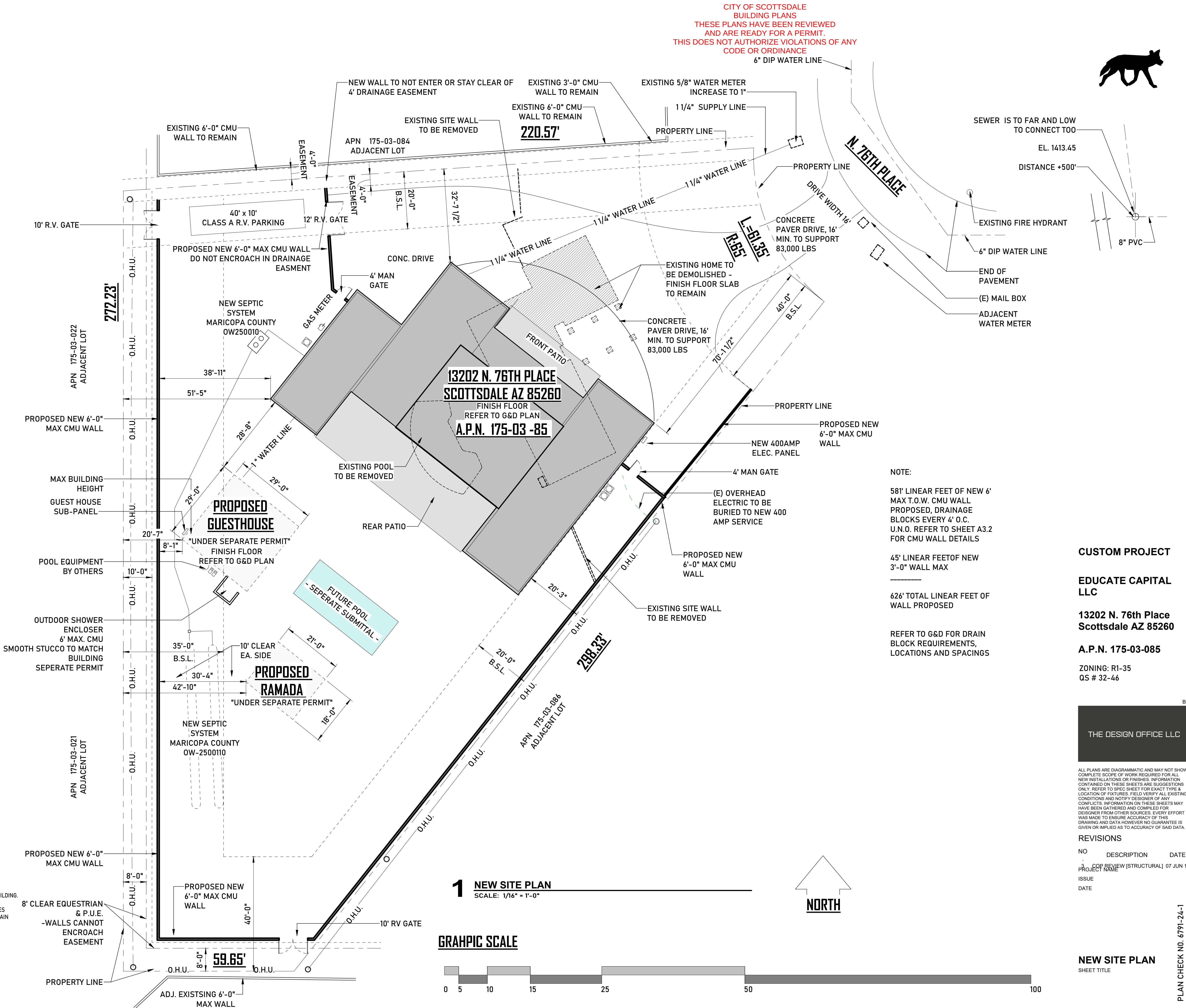
GENERAL SITE PLAN NOTES

1. DEVELOPMENT AND USE OF THIS SITE WILL CONFORM WITH ALL APPLICABLE CODES AND ORDINANCES.
2. THIS PROJECT IS LOCATED IN THE CITY OF PHOENIX WATER SERVICES AREA AND HAS BEEN DESIGNATED AS HAVING AN ASSURED WATER SUPPLY.
3. ALL NEW OR RELOCATED UTILITIES WILL BE PLACED UNDERGROUND.
4. STRUCTURES AND LANDSCAPING WITHIN A TRIANGLE MEASURED BACK 10' FROM THE PROPERTY LINE AND 20' ALONG THE PROPERTY LINE ON EACH SIDE OF DRIVEWAYS ENTRANCES WILL BE MAINTAINED AT A MAXIMUM HEIGHT OF 3'.
5. STRUCTURES AND LANDSCAPING WITHIN A TRIANGLE MEASURING 33' X 33' ALONG THE PROPERTY LINES WILL BE MAINTAINED AT A MAXIMUM HEIGHT OF 3'.
6. ANY LIGHTING WILL BE PLACED SO AS TO DIRECT LIGHT AWAY FROM ADJACENT RESIDENTIAL DISTRICTS AND WILL NOT EXCEED ONE-FOOT CANDLE AT THE PROPERTY LINE. NO NOISE, ODOR, OR VIBRATION WILL BE EMITTED AT ANY LEVEL EXCEEDING THE GENERAL LEVEL OF NOISE, ODOR, OR VIBRATION EMITTED BY USES IN THE AREA OUTSIDE OF THE SITE.
7. OWNERS OF PROPERTY ADJACENT TO PUBLIC RIGHTS-OF-WAY WILL HAVE THE RESPONSIBILITY FOR MAINTAINING ALL LANDSCAPING LOCATED WITHIN THE RIGHTS-OF-WAY, IN ACCORDANCE WITH APPROVED PLAN.
8. THE EXISTING STRUCTURES MUST COMPLY WITH THE CHANGE OF OCCUPANCY PROVISIONS IN THE PHOENIX CONSTRUCTION CODE PRIOR TO USE.
9. AFTER FINAL APPROVAL THE PROJECT WILL BE INSPECTED FOR ZONING COMPLIANCE DURING CONSTRUCTION AND PRIOR TO OCCUPANCY. THE APPLICANT IS TO NOTIFY PDD PRIOR TO THE OCCUPANCY TO ARRANGE FOR INSPECTIONS. CALL 262-6981 AND REQUEST A DESIGN REVIEW INSPECTION.
10. ALL ROOFTOP EQUIPMENT AND SATELLITE DISHES SHALL BE SCREENED TO THE HEIGHT OF THE TALLEST EQUIPMENT.
11. ALL SERVICE AREAS SHALL BE SCREENED TO CONCEAL TRASH CONTAINERS, LOADING DOCKS, TRANSFORMERS, BACKFLOW PREVENTERS, AND OTHER MECHANICAL OR ELECTRICAL EQUIPMENT FROM EYE LEVEL ADJACENT TO ALL PUBLIC STREETS.
12. BARBED, RAZOR, OR CONCERTINA WIRE (OR SIMILAR) SHALL NOT BE USED ON THIS SITE WHERE VISIBLE FROM PUBLIC STREETS OR ADJACENT RESIDENTIAL AREAS.
13. ALL SIGNAGE REQUIRES A SEPARATE REVIEW AND PERMIT.
14. SMOKE, GAS, AND ODOR EMISSIONS SHALL COMPLY WITH REGULATION III OF THE MARICOPA COUNTY AIR POLLUTION CONTROL RULES AND REGULATIONS.
15. THE DISPOSAL OF ALL WASTE MATERIALS SHALL COMPLY WITH TITLE 9, CHAPTER 9, ARTICLES 18 AND 4 OF THE HAZARDOUS WASTE REGULATIONS AS ADOPTED BY THE ARIZONA HEALTH DEPARTMENT.
16. THE AVERAGE NOISE LEVEL, MEASURED AT THE PROPERTY LINE, SHALL NOT EXCEED 44 DB (DN) WHEN MEASURED ON "A WEIGHTED" SOUND LEVEL METER AND ACCORDING TO THE PROCEDURES OF THE ENVIRONMENTAL PROTECTION AGENCY.
17. EXPLOSIVE OR HAZARDOUS PROCESSES (IF APPLICABLE): CERTIFICATIO SHALL BE PROVIDED BY PHOENIX FIRE DEPARTMENT PREVENTION BUREAU THAT ALL MANUFACTURING, STORAGE AND WASTE PROCESSES ON THE SITE SHALL MEET SAFETY AND ENVIRONMENTAL STANDARDS AS ADMINISTERED BY THE BUREAU.
18. ALL NEW SANITARY SEWER LINES WITHIN THE SITE SHALL BE PRIVATE PLUMBING LINES SUBJECT TO THE PHOENIX PLUMBING CODE OR THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AQUIFER PROTECTION PROGRAM (APP) GENERAL PERMIT 4.01 IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODE TITLE 18, CHAPTER 9, SECTION E301 (AAC R18-9-E301) WHICHEVER IS APPLICABLE.
19. THE SANITARY SEWER COLLECTION SYSTEM WITHIN THIS PROJECT WILL BE A PRIVATE SYSTEM, OWNED AND MAINTAINED BY THE PROPERTY OWNER(S) OR ASSOCIATION. THE SYSTEM WILL BE REVIEWED AND INSPECTED BY THE BUILDING SAFETY SECTION OF THE PLANNING AND DEVELOPMENT SERVICES DEPARTMENT.
20. ALL ON-SITE WATER LINES, SHALL BE PRIVATE PLUMBING LINES SUBJECT TO THE PHOENIX PLUMBING CODE.
21. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE OR OTHER APPROVED POINT OF COLLECTION THAT DOES NOT CREATE A HAZARD.
22. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET. (2012 IRC R401.3)

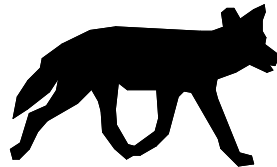
SITE PLAN NOTES - SCOTTSDALE - NON ESL

1. POOLS REQUIRE SEPARATE APPROVAL & PERMIT.
2. POOL SHALL NOT BE EMPTIED OR BACK WASHED INTO WASHES, STREETS, ONTO AN ADJACENT LOT, OR TRACT OF LAND. (DS&PM 2-2.501(A.4.C))
3. ALL MECHANICAL EQUIPMENT (AIR CONDITIONER, POOL EQUIPMENT, ETC) SHALL BE SCREEDED A MIN. 1'-0" ABOVE THE HIGHEST PORTION OF THE EQUIPMENT FROM ALL SIDES AND SHALL BE COMPATIBLE WITH THE ADJACENT BUILDING. SHOW LOCATION OF EQUIPMENT ON SITE PLAN.
4. A GUESTHOUSE SHALL NEVER BE OFFERED FOR RENT. (ZO SEC. 5.012(A.5.C AND SEC. 5.102(A.6.C))
5. A GUESTHOUSE SHALL NOT EXCEED A GROSS FOOTPRINT SIZE GREATER THAT 50% OF THE FOOT PRINT SIZE OF THE PRINCIPAL BUILDING. (ZO SEC. 5.012(A.6.B AND SEC. 5.102(A.5.B))
6. ANY PROPOSED MODIFICATIONS TO NATURAL WATERCOURSES AND ALL WALLS AND FENCES CROSSING NATURAL WATERCOURSES SHALL BE DESIGNED IN ACCORDANCE WITH THE STANDARDS AND POLICIES SPECIFIED IN CHAPTER 37 (DRAINAGE AND FLOODPLAIN ORDINANCE OF THE SCOTTSDALE REVISED CODE.
7. TEMPORARY / SECURITY FENCING THAT IS REQUIRED OR IS OPTIONALLY PROVIDED SHALL BE IN ACCORDANCE WITH THE ZONING ORDINANCE AND THE DESIGN STANDARDS AND POLICIES MANUAL. (ZO SEC.7.700; DS&PM 1-1.407)

NO NATIVE PLANTS TO BE DISTURBED



CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
THIS DOES NOT AUTHORIZE VIOLATIONS OF ANY
CODE OR ORDINANCE



NOTE:

581' LINEAR FEET OF NEW 6' MAX T.O.W. CMU WALL PROPOSED, DRAINAGE BLOCKS EVERY 4' O.C. U.N.O. REFER TO SHEET A3.2 FOR CMU WALL DETAILS

45' LINEAR FEET OF NEW 3'-0\" WALL MAX

626' TOTAL LINEAR FEET OF WALL PROPOSED

REFER TO G&D FOR DRAIN BLOCK REQUIREMENTS, LOCATIONS AND SPACINGS

CUSTOM PROJECT

EDUCATE CAPITAL LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085

ZONING: R1-35
QS # 32-46



ALL PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW COMPLETE SCOPE OF WORK REQUIRED FOR ALL NEW INSTALLATIONS OR FINISHES. INFORMATION CONTAINED ON THESE SHEETS ARE SUGGESTIONS ONLY. REFER TO SPEC SHEET FOR EXACT TYPE & LOCATION OF FIXTURES. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY DESIGNER OF ANY CONFLICTS. INFORMATION ON THESE SHEETS MAY HAVE BEEN GATHERED AND COMPILED FOR DESIGNER FROM OTHER SOURCES. EVERY EFFORT WAS MADE TO ENSURE ACCURACY OF THIS DRAWING AND DATA HOWEVER NO GUARANTEE IS GIVEN OR IMPLIED AS TO ACCURACY OF SAID DATA.

REVISIONS

NO	DESCRIPTION	DATE
3	COP REVIEW (STRUCTURAL)	07 JUN 19
2	PROJECT NAME	
1	ISSUE	
	DATE	

NEW SITE PLAN

SHEET TITLE

A1

13. All products listed by an Evaluation Service Report (ESR) shall be installed per the report and the manufactures written instructions. Product substitutions shall also be listed by an ESR.
14. Provide Fire Sprinkler System per Scottsdale Fire Code (IRC R313 amended).
15. Separate permits required: pools, spas, fences, site walls, retaining walls, and gas storage tanks.
16. Foundation & Footing depth shall be a minimum of 18 inches **below grade** (or per property soil report), provide a minimum of 3-inch clearance between Rebar and soil. (R403.1 amended).
17. Doors between the garage and residence shall be self-closing minimum 1 3/8” thick solid core or 20-minute fire rated. (R302.5.1).
18. Wood sill plates shall be pressure treated or decay resistant. Exterior sill plates shall bear a minimum of 6 inches above finish grade. (R317.1).
19. Gypsum board applied to a ceiling shall be 1/2” when framing members are 16” o.c. or 5/8” when framing members are 24” o.c. or use labeled **1/2” sag-resistant gypsum ceiling board**. (Table R702.3.5 (d)).
20. Showers and tub-shower combinations shall be provided with individual control valves of the pressure balance or thermostatic mixing valve type. (P2708.4).
21. Shower area walls shall be finished with a smooth, hard non-absorbent surface, such as ceramic tile, to a height of not less than 72 inches above the drain inlet. Cement, fiber-cement, or glass mat gypsum backers installed in accordance with manufacturers’ recommendations shall be used as backers for wall tile in tub and shower areas and wall panels in shower areas. (R702.4.2).
22. Storage-tank type water heaters shall be installed with a drain pan and drain line. (P2801.6).
23. Provide roof/attic ventilation unless insulation is applied directly to underside of the roof-sheathing, or the depth is 24 inches or less between the ceiling and bottom of roof sheathing. (R806.1 Amended).
24. Provide Minimum R-3 insulation on hot water pipes. (N1103.5.2).
25. Supply and return ducts located outside conditioned space shall be insulated to a minimum **R-8**. Ducts and air handlers located completely within the continuous air barrier and within the building thermal envelope are exempt from insulation. (N1103.3.1 and N1103.3.2).
26. Exhaust air from kitchens, bathrooms and toilet rooms shall be exhausted directly to the outdoors, not recirculated, or discharged indoors. (M1505.4.4 amended).
27. Exhaust fans in bathrooms with a shower or tub shall be provided with a delay timer or humidity/condensation control sensor. Exhaust fans shall be switched separately from lighting systems. (R303.3).
28. Provide a wall mounted GFCI protected receptacle outlet within 36” of a bathroom or powder room lavatory. (E3901.6).
29. Receptacles serving kitchen countertops installed in bathrooms, garages, unfinished accessory buildings, outdoors and located within 6 feet of sinks shall have GFCI protection for personnel. (E3902).
30. All branch circuits that supply 15- and 20-ampere outlets installed in kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreations rooms, closets, hallways, laundry areas and similar rooms or areas shall be protected by a combination type arc-fault circuit interrupter (**AFCI**) installed to provide protection of the branch circuit. (E3902.12).
31. General purpose 15- and 20-ampere receptacles shall be listed **tamper-resistant**. (E4002.14).
32. Provide interconnected and hardwired **Smoke Alarms** in new and existing areas of home. (R314).
33. Approved **Carbon Monoxide Alarms**, hardwired and interconnected, shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units within which fuel-fired appliances are installed and in dwelling units that have attached garages. (R315).
34. Recessed luminaires installed in the building thermal envelope shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering. (N1102.4.5).
35. Provide illumination with wall switches for stairways when there are 6 or more risers. (R303.7).
36. Receptacle outlets shall be installed so that no point along the floor line in any wall space is more than 6 feet, measured horizontally, from an outlet in that space, including any wall space 2 feet or more in width. (E3901.2).
37. Provide a minimum of two 20-amp small appliance branch circuits for the kitchen/dining/breakfast. (E3703.2).
38. Provide outside combustion air to all indoor fireplaces per manufactures specifications. (R1006.1).
39. At least one thermostat shall be provided for each separate heating and cooling system. (N1103.1).

City of Scottsdale
THE FOLLOW CODES APPLY TO ONE- AND TWO-FAMILY DWELLINGS

2021 INTERNATIONAL BUILDING CODE	(ORD #4550, resolution #12498)
2021 INTERNATIONAL RESIDENTIAL CODE	(ORD #4575, resolution #12499)
2021 INTERNATIONAL FIRE CODE	(ORD #4562, resolution #12583)

NOTES 1-12 REFLECT 2021 CODE UPDATES

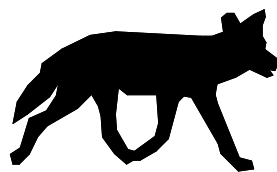
1. *Doors and **windows** shall be separated from the swimming pool/spa, by an approved pool barrier. IPSC 305.4.
2. ***Plumbing fixtures** shall comply with the following conservation requirements: Lavatory faucets: 1.5 gal/minute; Shower heads: 2.0 gal/minute; **Kitchen faucet: 1.8 gal/minute**; water closets: 1.28 gal/flush. (Table P2903.2. amended).
3. *A **demand-controlled hot water circulation system** shall be provided in accordance with Section N1103.5.1.1 amended.
4. ***Cool/light reflective coated roofs**. Roof solar reflectance and thermal emittance for roof slopes less than 2:12. Three-year-aged solar reflectance index (SRI) of 64, Three-year-aged solar reflectance of 0.55 and a three-year aged thermal emittance of 0.75 over conditioned and non-conditioned spaces. N1102.6 amended.
5. *The building thermal envelope shall comply with climate zone 2. Energy compliance shall be demonstrated by UA trade-off (REScheck) **OR** performance (REM/Rate, ERI, HERS) compliance path **OR** by the following prescriptive values (Table N1102.1.3):
Prescriptive minimum R-values: (*Ceiling=R-49) / (Walls=R-13).
Prescriptive maximum Window Fenestration values: (U-Factor=0.40) / (SHGC=0.25).
6. ***Exterior lighting** over 30 watts shall include an automatic shut-off. (N1104.3).
7. *All permanently installed lighting fixtures shall contain only **high-efficacy** lamps. (N1104.1).
8. *All permanently installed **interior lighting** fixtures shall be controlled with either a **dimmer**, an **occupant sensor control** or other control such as an automatic timer shut-off switch. Exceptions include bathrooms and hallways. (N1104.2).
9. *E3606.5 **Surge protection**. All electrical services supplying one- and two-family dwelling units shall be provided with a surge protective device (SPD) installed in accordance with Sections E3606.5.1 through E3606.5.3.
10. ***Electric Vehicle Charging Capacity**. Reserve electrical service panel space for a full size 2-pole circuit breaker labeled “Future EV Charging”. A raceway shall be installed from the electrical service panel to a location within the garage, where it shall terminate in a junction box or outlet and be labeled “Future EV Charging”.
11. ***Solar-Ready Zones – RB103**. Minimum 10% of roof area but not less than 300 sq. ft. free and clear of obstructions including mechanical equipment and vents. Provide electrical pathway for conduit run from solar-ready zone to electrical service panel with reserved space for 2-pole circuit breaker. Capped roof penetration sleeve shall be provided on roofs with a slope of 1 in 12 or less.
12. ***The following three notes are applicable to New Construction only** (BPI certified professionals are approved for testing air leakage in existing buildings, otherwise RESNET professionals are approved for new and existing):

1. *The building shall be provided with a whole-house mechanical ventilation system that meets the requirements of Section M1505. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating. (N1103.6).
2. *The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding five air changes per hour for detached dwelling units and seven air changes per hour for attached dwelling units. Testing shall be conducted in accordance with ASTM E 779 or ASTM E 1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by an approved third party (RESNET certified). A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope. (N1102.4.1.2).
3. *Ducts, air handlers, and filter boxes shall be sealed in accordance with N1103.3.4. Joints and seams shall comply with Section M1601.4.1. Ducts shall be pressure tested to determine leakage by one of the following methods (N1103.3.5):

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer’s air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.

2. Post-construction test: Total leakage shall be measured with a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer’s air handler enclosure. Registers shall be taped or otherwise sealed during the test.

A written report of the results shall be signed by the party conducting the test and provided to the code official prior to the Final Building Inspection.



CUSTOM PROJECT

EDUCATE CAPITAL
LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085

BY

THE DESIGN OFFICE LLC

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REVISIONS

NO	DESCRIPTION	DATE
PROJECT NAME		
ISSUE		
DATE		

NOTES

SHEET TITLE

GENERAL NOTES

1. ALL PRODUCTS LISTED BY ICC/NER NUMBERS SHALL BE INSTALLED PER THE REPORT AND MANUFACTURER'S WRITTEN INSTRUCTIONS. PRODUCT SUBSTITUTIONS FOR PRODUCTS LISTED SHALL ALSO HAVE AN ICC APPROVED EVALUATION REPORT OR BE APPROVED.
2. EXTERIOR WALL BOTTOM SILL PLATES, SHALL BE PRESSURE TREATED OR EQUAL, AND SHALL BEAR/EXTEND MINIMUM 6 INCHES ABOVE FINISH GRADE.
3. MISC. SITE STRUCTURES: POOLS, SPAS, FENCES, SITE WALLS, RETAINING WALLS, AND GAS STORAGE TANKS REQUIRE SEPARATE PERMITS.
4. ALL DOTS TO BE ONE-SIDE FROM THE INSIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE.
5. DOORS LEADING INTO HOUSE FROM GARAGE SHALL BE SELF-CLOSING AND TIGHT FITTING WITH GASKETS AND SWEEP.
6. EXTERIOR WALL PENETRATIONS BY PIPES, DUCTS OR CONDUCITS SHALL BE CALLED.
7. IF BATT INSULATION IS USED IN LIEU OF SPRAVES, PROVIDE ROOF ATTIC VENTILATION.
8. MINIMUM INSULATION SHALL BE MINIMUM INSULATION OF R38 CEILINGS AND R21 WALLS.
9. LINER SHALL BEAR AN APPROVED GRADING STAMP.
10. FIRE BLOCKING SHALL COMPLY WITH CODE AND BE MAXIMUM 10 FT. O.C. HORIZONTAL AND VERTICAL.
11. GYPSUM BOARD APPLIED TO A CEILING SHALL BE 1/2" WHEN FRAMING MEMBERS ARE 16" O.C. OR 5/8" WHEN FRAMING MEMBERS ARE 24" O.C. OR USE 1/2" SAG-RESISTANT GYPSUM CEILING BOARD.
12. SHOWER AREA WALLS SHALL BE FINISHED WITH A SMOOTH, HARD NON-ABSORBENT SURFACE, SUCH AS CERAMIC TILE, TO A HEIGHT OF NOT LESS THAN 72 INCHES ABOVE THE DRAIN INLET.
13. WATER-RESISTANT GYP BD SHALL NOT BE USED OVER A VAPOR RETARDER, IN AREAS OF HIGH HUMIDITY OR ON CEILINGS WHERE THE FRAME SPACES EXCEEDS 17" O.C. FOR 1/2" GYPSUM, AND 16" O.C. FOR 5/8" GYP.
14. PLUMBING FIXTURES SHALL COMPLY WITH THE FOLLOWING CONSERVATION REQUIREMENTS: WATER CLOSERS - TANK TYPE - 1.6 GAL. FLUSH SHOWER HEADS - 2.5 GAL./MIN. FAUCETS - 2.2 GAL./MIN. PROVIDE AERATOR.
15. WATER TREATMENT SYSTEMS SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF TO PREVENT CONTINUOUS FLOW WHEN NOT IN USE.
16. PROVIDE AN EXPANSION TANK AT THE WATER HEATER IF A BACK FLOW PREVENTOR IS OR WILL BE INSTALLED AT THE WATER LINE OR AT THE METER.
17. SHOWERS AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE.
18. DOMESTIC DOWNSHOWERING MACHINES CONNECTED TO A DISPOSER SHALL HAVE THE DISCHARGE INSTALLED AS HIGH AS POSSIBLE, NOT LOWER THAN 7" ABOVE THE FLOOD RIM OF THE SINK.
19. REGISTERS, DIFFUSERS AND GRILLES SHALL BE MECHANICALLY FASTENED TO RIGID SUPPORTS OR STRUCTURAL MEMBERS ON AT LEAST TWO OPPOSITE SIDES IN ADDITION TO BEING CONNECTED TO THE DUCTWORK THEY SERVE.
20. THE CLOTHES DRYER SHALL BE PROVIDED WITH A 4-INCH DIAMETER EXHAUST DUCT TO THE EXTERIOR AND SHALL NOT EXCEED A TOTAL LENGTH OF 25 FEET, UNLESS AN ENGINEERED DUCT SYSTEM IS PROVIDED. THE DUCT SHALL TERMINATE NOT LESS THAN 3 FEET FROM A PROPERTY LINE OR FROM OPENINGS INTO A BUILDING.
21. PROVIDE C-RATED RECESSED LIGHT FIXTURES INSTALLED IN INSULATED CEILINGS.
22. TEXTURES LOCATED IN DAMP OR WET LOCATIONS SHALL BE "LISTED" TO BE SUITABLE FOR SUCH LOCATIONS.
23. PROVIDE GFCI PROTECTION FOR RECEPTACLES WITHIN 6' OF ALL LAVATORIES, SINKS AND BASINS.
24. PROVIDE GFCI PROTECTED RECEPTACLES AT ALL EXTERIOR, BATHROOM, BATHROOM, AND GARAGE LOCATIONS.
25. PROVIDE A WALL-MOUNTED GFCI PROTECTED RECEPTACLE OUTLET WITHIN 34" OF A BATHROOM OR POWDER ROOM LAVATORY.
26. ALL CIRCUITS SUPPLYING RECEPTACLE OUTLETS IN BEDROOMS SHALL BE AFCI PROTECTED ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE-PHASE, 15-, AND 20-AMPERE OUTLETS INSTALLED IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DEN, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
27. RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6' MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, INCLUDING ANY WALL SPACE TWO FEET OR MORE IN WIDTH.
28. BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY AT LEAST ONE 2-AMP BRANCH CIRCUIT. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
29. PROVIDE A SEPARATE 20-AMP CIRCUIT TO THE LAUNDRY.
30. PROVIDE A MINIMUM OF TWO 20-AMP SMALL APPLIANCE BRANCH CIRCUITS FOR THE KITCHEN/DINING/BREAKFAST. THE TWO OR MORE 20-AMP SMALL APPLIANCE BRANCH CIRCUITS SHALL HAVE NO OTHER OUTLETS, EXCEPT THE RECEPTACLE INSTALLED SOLELY FOR ELECTRIC SUPPLY TO A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
31. PROVIDE A CONCRETE CROSSED GROUNDING OF NOT LESS THAN 2 FEET IN A BARE CORNER.
32. RECEPTACLE OUTLETS FOR RANGES AND CLOTHES DRYER SHALL BE A 3-POLY WITH GROUND TYPE, FOUR-WIRE, GROUNDING TYPE FLEXIBLE CORDS WILL BE REQUIRED FOR CONNECTION OF RANGES AND CLOTHES DRYERS. THE BONDING JUMPER SHALL NOT BE CONNECTED BETWEEN THE NEUTRAL TERMINAL AND THE FRAME OF THE APPLIANCE.
33. PROVIDE A CONCRETE CROSSED GROUNDING OF NOT LESS THAN 2 FEET IN A BARE CORNER.
34. PROVIDE BONDING TO THE WATER PIPING, GAS AND METAL BUILDING SYSTEMS.
35. ALL METAL PIPING SYSTEMS, METAL PARTS OF ELECTRICAL EQUIPMENT, AND PUMP MOTORS ASSOCIATED WITH THE HYDRO MASSAGE TUB SHALL BE BONDED TOGETHER USING A COPPER BONDING JUMPER, INSULATED, COVERED OR BARE, NOT SMALLER THAN NO. 8 SOLID METAL PARTS OF LISTED EQUIPMENT INCORPORATING AN APPROVED SYSTEM OF DOUBLE INSULATION AND PROVIDING A MEANS FOR GROUNDING INTERNAL NON-ACCESSIBLE, NON-CURRENT-CARRYING METAL PARTS SHALL NOT BE BONDED.

SCOTTSDALE GENERAL NOTES

1. ALL PRODUCTS LISTED BY AN EVALUATION SERVICE REPORT (ESR) SHALL BE INSTALLED PER THE REPORT AND THE MANUFACTURER'S WRITTEN INSTRUCTIONS. PRODUCT SUBSTITUTIONS SHALL ALSO BE LISTED BY AN ESR.
2. PROVIDE FIRE SPRINKLER SYSTEM PER SCOTTSDALE FIRE CODE (R 303.1 AMENDED).
3. SEPARATE PERMITS REQUIRED: POOLS, SPAS, FENCES, SITE WALLS, RETAINING WALLS, AND GAS STORAGE TANKS.
4. FOUNDATION & FOOTING DEPTH SHALL BE A MINIMUM OF 16 INCHES BELOW W GRADE (PER PROPERTY SOIL REPORT). PROVIDE A MINIMUM OF 3 INCH CLEARANCE BETWEEN REBAR AND SOIL. (R403.1 AMENDED)
5. DOORS BETWEEN THE GARAGE AND RESIDENCE SHALL BE SELF-CLOSING MINIMUM 1 3/8" THICK SOLID CORE OR 20 MINUTE FIRE RATED. (R202.3)
6. EXTERIOR WALL PENETRATIONS BY PIPES, DUCTS OR CONDUCITS SHALL BE SEALED. (R703.1)
7. WOOD SILL PLATES SHALL BE PRESSURE TREATED OR DECAL-RESISTANT. EXTERIOR SILL PLATES SHALL BEAR A MINIMUM OF 6 INCHES ABOVE FINISH GRADE. (R307.3)
8. GYPSUM BOARD APPLIED TO A CEILING SHALL BE 1/2" WHEN FRAMING MEMBERS ARE 16" O.C. OR 5/8" WHEN FRAMING MEMBERS ARE 24" O.C. OR USE LABELED 1/2" SAG-RESISTANT GYPSUM CEILING BOARD. (TABLE R702.3.3 (D))
9. SHOWERS AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE. (P708.4)
10. SHOWER AREA WALLS SHALL BE FINISHED WITH A SMOOTH, HARD NON-ABSORBENT SURFACE, SUCH AS CERAMIC TILE, TO A HEIGHT OF NOT LESS THAN 72 INCHES ABOVE THE DRAIN INLET. CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS SHALL BE USED AS BACKERS FOR WALL TILE IN TUBS AND SHOWER AREAS AND WALL PANELS IN SHOWER AREAS. (R702.4)
11. PLUMBING FIXTURES SHALL COMPLY WITH THE FOLLOWING CONSERVATION REQUIREMENTS: WATER CLOSERS - TANK TYPE 1.36 GAL. FLUSH SHOWER HEADS - 2.0 GPM SINKS - 2.2 GPM LAVATORY - 1.5 GPM (TABLE R702.2 AMENDED)
12. STORAGE-TANK TYPE WATER HEATERS SHALL BE INSTALLED WITH A DRAIN PAN AND DRAIN LINE. (P7801.4)
13. A DEMAND-CONTROLLED HOT WATER CIRCULATION SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH AMENDED SECTION N102.3.1.1 AND N102.3.1.2.
14. PROVIDE ROOF/ATTIC VENTILATION UNLESS INSULATION IS APPLIED DIRECTLY TO UNDERSIDE OF ROOF SHEATHING OR THE DIMENSION IS 24 INCHES OR LESS BETWEEN THE CEILING AND BOTTOM OF ROOF SHEATHING. (R604.1 AMENDED)
15. THE BUILDING THERMAL ENVELOPE SHALL COMPLY WITH CLIMATE ZONE 7, ENERGY COMPLIANCE LABEL BE DEMONSTRATED BY UA TRADEOFF (RESHECK) OR PERFORMANCE (REM/RATE) COMPLIANCE PATH OR BY THE FOLLOWING PRESCRIPTIVE VALUES (TABLE N 102.1.2):
 - A. PRESCRIPTIVE MINIMUM R-VALUES: - CEILING-48 R-38 - / WALLS-13 R-13 -
 - B. PRESCRIPTIVE MAXIMUM WINDOW PENETRATION VALUES: - U-FACTOR-0.40 - / SHGC-0.25 -
16. PROVIDE MINIMUM R-3 INSULATION ON HOT WATER PIPES. (N102.3.3)
17. SUPPLY AND RETURN DUCTS IN ATTICS SHALL BE INSULATED TO A MINIMUM R-8. DUCTS IN OTHER PORTIONS OF THE BUILDING SHALL BE INSULATED TO MINIMUM R-4. DUCTS AND AIR HANDLERS LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE ARE EXEMPT. (N102.3.1)
18. REGISTERS, DIFFUSERS AND GRILLES SHALL BE MECHANICALLY FASTENED TO RIGID SUPPORTS OR STRUCTURAL MEMBERS ON AT LEAST TWO OPPOSITE SIDES.
19. EXHAUST AIR FROM BATHROOMS, KITCHENS AND TOILET ROOMS SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS, NOT RECIRCULATED OR DISCHARGED INDOORS. (M102.2 AMENDED)
20. EXHAUST FANS IN BATHROOMS WITH A SHOWER OR TUB SHALL BE PROVIDED WITH A DELAY TIMER OR HUMIDITY/CONDENSATION CONTROL SENSOR. EXHAUST FANS SHALL BE SWITCHED SEPARATELY FROM LIGHTING SYSTEMS. (R303.3)
21. PROVIDE A WALL MOUNTED GFCI PROTECTED RECEPTACLE OUTLET WITHIN 34" OF A BATHROOM OR POWDER ROOM LAVATORY. (E301.4)
22. RECEPTACLES SERVING KITCHEN COUNTERTOPS INSTALLED IN BATHROOMS, GARAGES, UNFINISHED ACCESSORY BUILDINGS, OUTDOORS AND LOCATED WITHIN 6 FEET OF SINKS SHALL HAVE GFCI PROTECTION FOR PERSONNEL. (E302)
23. ALL BRANCH CIRCUITS THAT SUPPLY 15- AND 20-AMPERE OUTLETS INSTALLED IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARS, LIBRARIES, DEN, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSET, HALLWAYS, LAUNDRY AREAS AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER (AFCI) INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. (E301.2)
24. GENERAL PURPOSE 15- AND 20-AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT. (E402.1a)
25. PROVIDE SMOKE ALARMS IN NEW AND EXISTING AREAS OF HOME. (R314)
26. APPROVED CARBON MONOXIDE ALARMS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED AND IN DWELLING UNITS WITH HAVE ATTACHED GARAGES. (R315)
27. A MINIMUM OF 90 PERCENT OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL CONTAIN ONLY HIGH-EFFICACY LAMPS. (N104.1 AMENDED)
28. RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE (C-RATED AND LABELED AS HAVING AN AIR LEAKAGE RATE NOT MORE THAN 2.0 CFM. ALL RECESSED LUMINAIRES SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND THE INTERIOR WALL OR CEILING COVERING. (N102.4.5)
29. PROVIDE ILLUMINATION WITH WALL SWITCHES FOR STAIRWAYS WHEN THERE ARE 4 OR MORE RISERS. (R303.3)
30. RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET, MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, INCLUDING ANY WALL SPACE 2 FEET OR MORE IN WIDTH. (E301.2)
31. PROVIDE A MINIMUM OF TWO 20-AMP SMALL APPLIANCE BRANCH CIRCUITS FOR THE KITCHEN/DINING/BREAKFAST. (E303.3)
32. BOTH METAL PIPING SYSTEMS AND GROUNDED METAL PARTS IN CONTACT WITH THE CIRCULATING WATER ASSOCIATED WITH A HYDRO MASSAGE TUB SHALL BE BONDED TOGETHER USING AN INSULATED, COVERED, OR BARE SOLID COPPER BONDING JUMPER NOT SMALLER THAN #8WG. (E409)
33. PROVIDE OUTSIDE COMBUSTION AIR TO ALL INDOOR FIREPLACES WITH AIR INTAKE LOCATED NOT HIGHER THAN THE FIREBOX. (R1004.3)
34. AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM. (N102.3)

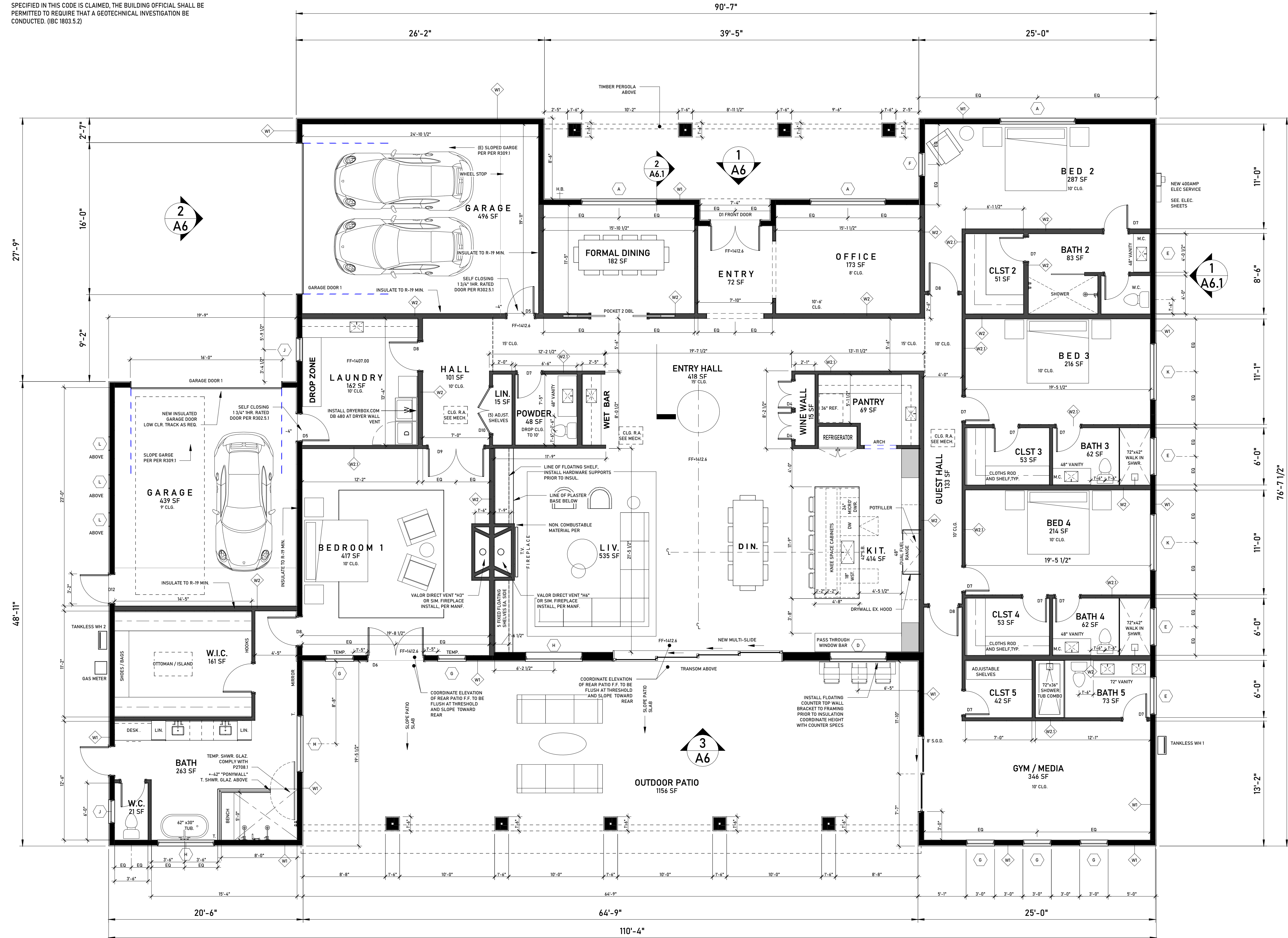
THE FOLLOWING THREE NOTES ARE APPLICABLE TO NEW CONSTRUCTION ONLY (BY CERTIFIED PROFESSIONALS ARE APPROVED FOR TESTING AN LEAKAGE IN EXISTING BUILDINGS. OTHERWISE RESNET PROFESSIONALS ARE APPROVED FOR NEW AND EXISTING).

35. THE BUILDING SHALL BE PROVIDED WITH A WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM THAT MEETS THE REQUIREMENTS OF SECTION M102. OUTDOOR AIR INTAKES AND EXHAUSTS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING. (N 102.4)
36. THE BUILDING OR DWELLING UNIT SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING FIVE AIR CHANGES PER HOUR FOR DETACHED DWELLING UNITS AND SEVEN AIR CHANGES PER HOUR FOR ATTACHED DWELLING UNITS. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM E 779 OR ASTM E 1827 AND REPORTED AT A PRESSURE OF 0.2 INCH W.G. (0.054 Pa). TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY (RESNET CERTIFIED). A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING THERMAL ENVELOPE. (N102.4.2 AMENDED)
37. DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED IN ACCORDANCE WITH N103.3.2. JOINTS AND SEAMS SHALL COMPLY WITH SECTION M101.4.1. DUCTS SHALL BE PRESSURE TESTED TO DETERMINE LEAKAGE BY ONE OF THE FOLLOWING METHODS (N103.3.3):
 - A. ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 PA) ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE IF INSTALLED AT THE TIME OF THE TEST. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.
 - B. POST-CONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE MEASURED WITH A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25 PA) ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

EXCEPTION: A DUCT LEAKAGE TEST SHALL NOT BE REQUIRED WHERE THE DUCTS AND AIR HANDLERS ARE LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE. A WRITTEN REPORT OF THE RESULTS SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL PRIOR TO THE BUILDING FINAL.

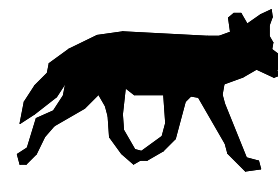
ADDITIONAL NOTES

1. ALL DOORS AND WINDOWS ACCESSING THE POOL AREA MUST COMPLY WITH IRC A5 105.1 - POOL BARRIERS - AMENDED, IRC R308.4 ITEM 9, AND CITY OF PHOENIX POOL BARRIER ORDINANCE.
2. WHERE THE CLASSIFICATION, STRENGTH OR COMPRESSIBILITY OF THE SOIL IS IN DOUBT OR WHERE A LOAD-BEARING VALUE SUPERIOR TO THAT SPECIFIED IN THIS CODE IS CLAIMED, THE BUILDING OFFICIAL SHALL BE PERMITTED TO REQUIRE THAT A GEOTECHNICAL INVESTIGATION BE CONDUCTED. (BC 1803.5.2)



1 NEW FLOOR PLAN
SCALE: 3/16" = 1'-0"

CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
THIS DOES NOT AUTHORIZE VIOLATIONS OF ANY
CODE OR ORDINANCE



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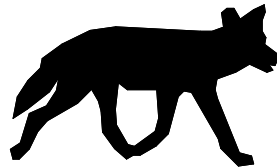
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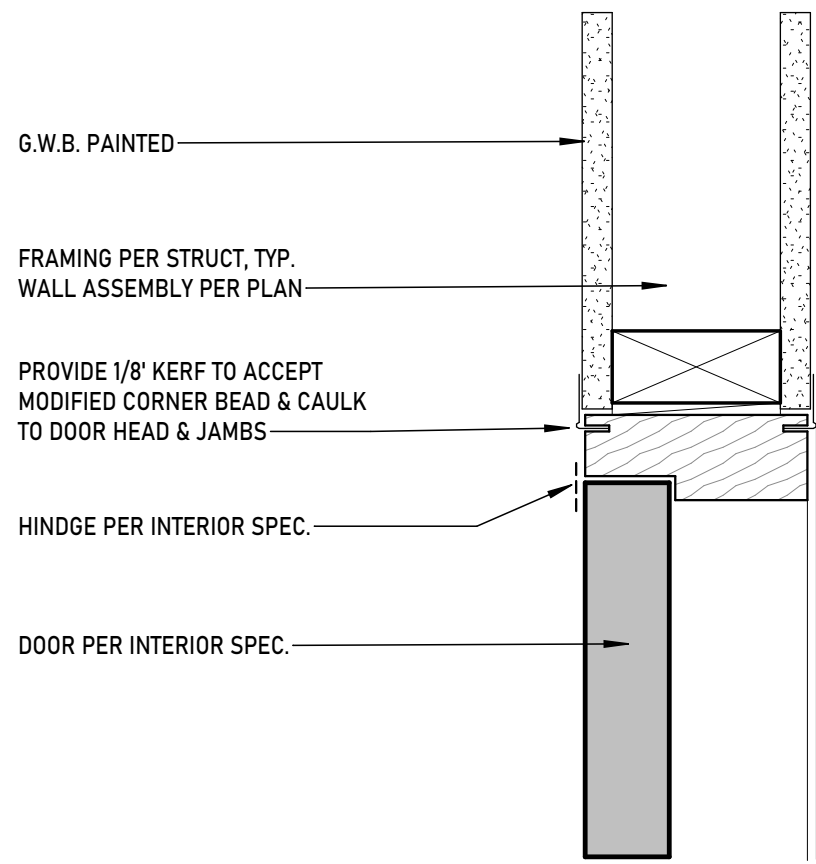
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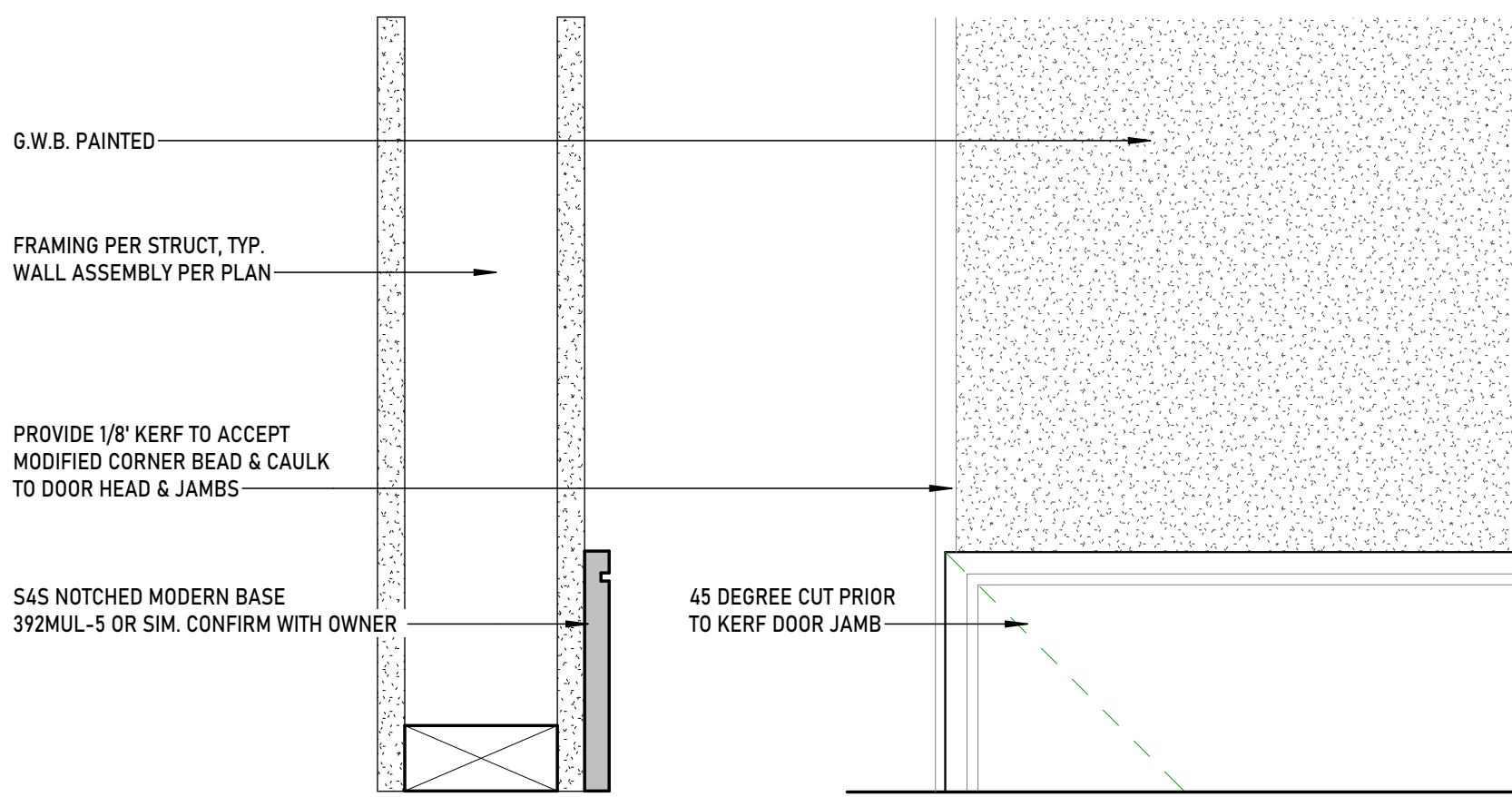
FLOOR PLAN
SHEET TITLE



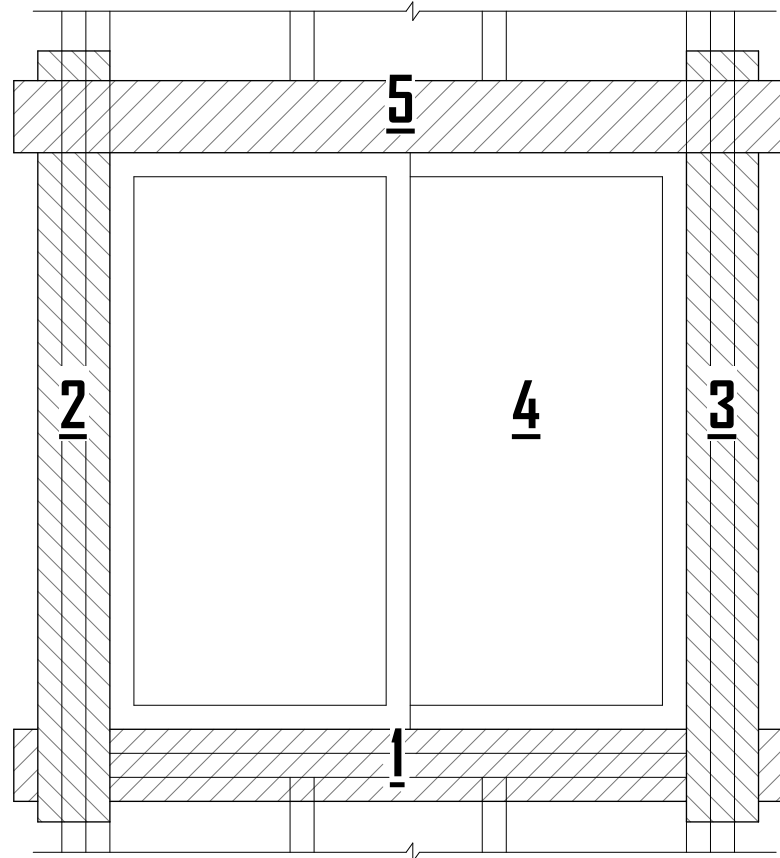
- ALL DOOR HINGES SHALL BE SQUARE or MINIMAL RADIUS.
- ALL INTERIOR DOOR HINGES TO BE **EMTEK 94014** U.N.O.
- HARDWARE: TO BE DETERMINED BY OWNER
- DOOR PULLS: TO BE DETERMINED BY OWNER
- LOCKING CYLINDER: TO BE DETERMINED BY OWNER
- DOORS SHALL BE PRIMED / PAINT READY. COLOR: T.B.D. BY OWNER
- GLAZING USED IN DOORS, SHOWER PANELS, TB ENCLOSURES, ADJACENT TO ENTRY DOORS, WITHIN 18" OF FLOOR, SUBJECT TO HUMAN IMPACT AND WITHING 24" ARC OF DOOR SHALL BE TEMPERED OR LAMINATED GLASS (IBC 2406).
- WINDOWS SHALL BE INSULATED GLASS AND HAVE LOW-E COATING. U-FACTOR MAX. 0.40 AND SHGC MAX. 0.65.
- WINDOWS SHALL BE ALUMINUM FRAME, COLOR T.B.D. BY OWNER.
- CONTRACTOR TO FIELD VERIFY ALL OPENINGS AND CORRECT ANY DEVIATIONS FROM SPECIFIED FRAMING TOLERANCES PRIOR TO PLACING WINDOW ORDER.
- CONTACTOR TO VERIFY ALL MEASUREMENTS, HEIGHTS, DISTANCES AND CLEARANCES IN THE FIELD PRIOR TO COMMENCEMENT OF WORK.



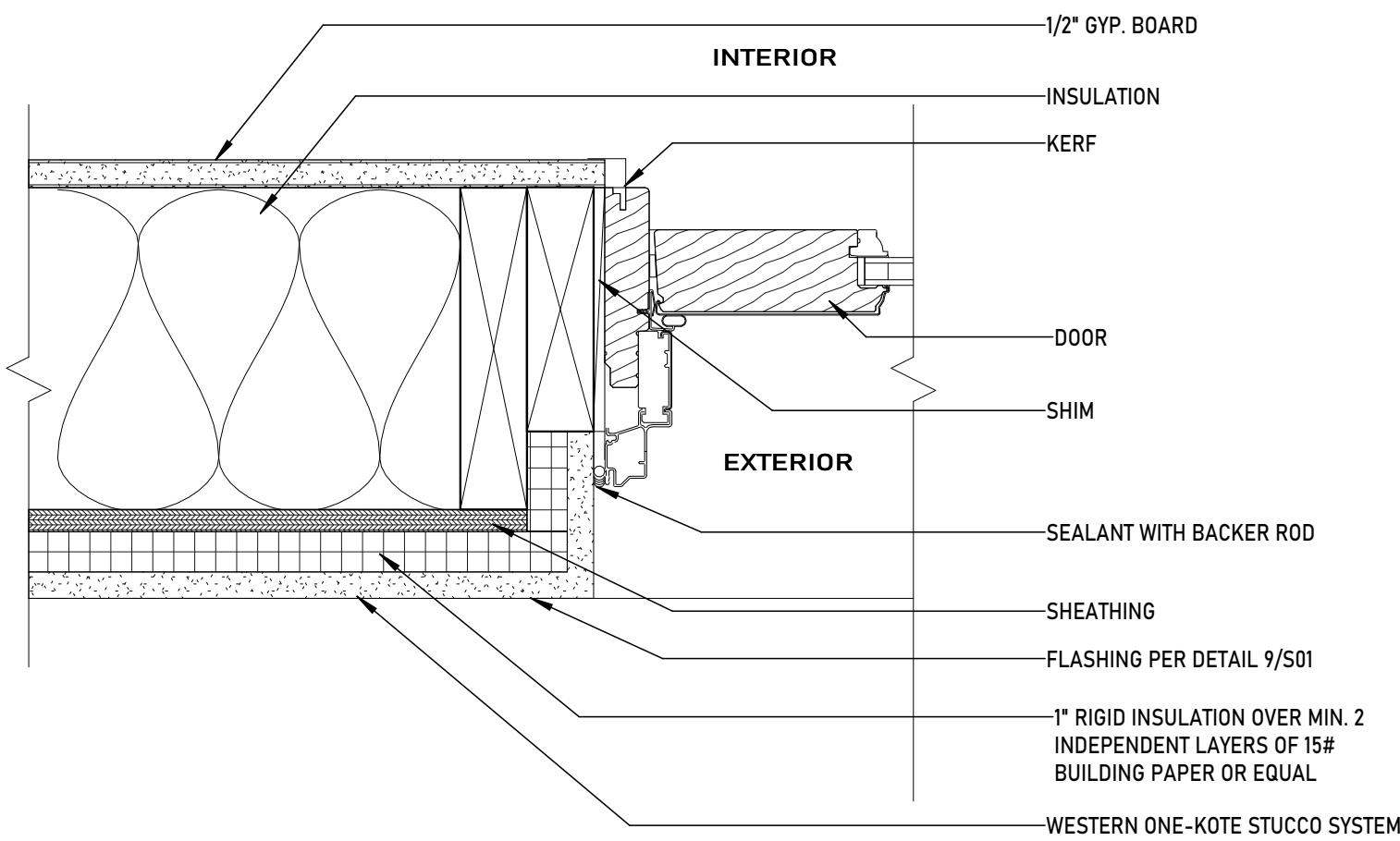
5 TYP. KERF INT. DOOR JAMB
SCALE: 3" = 1'-0"



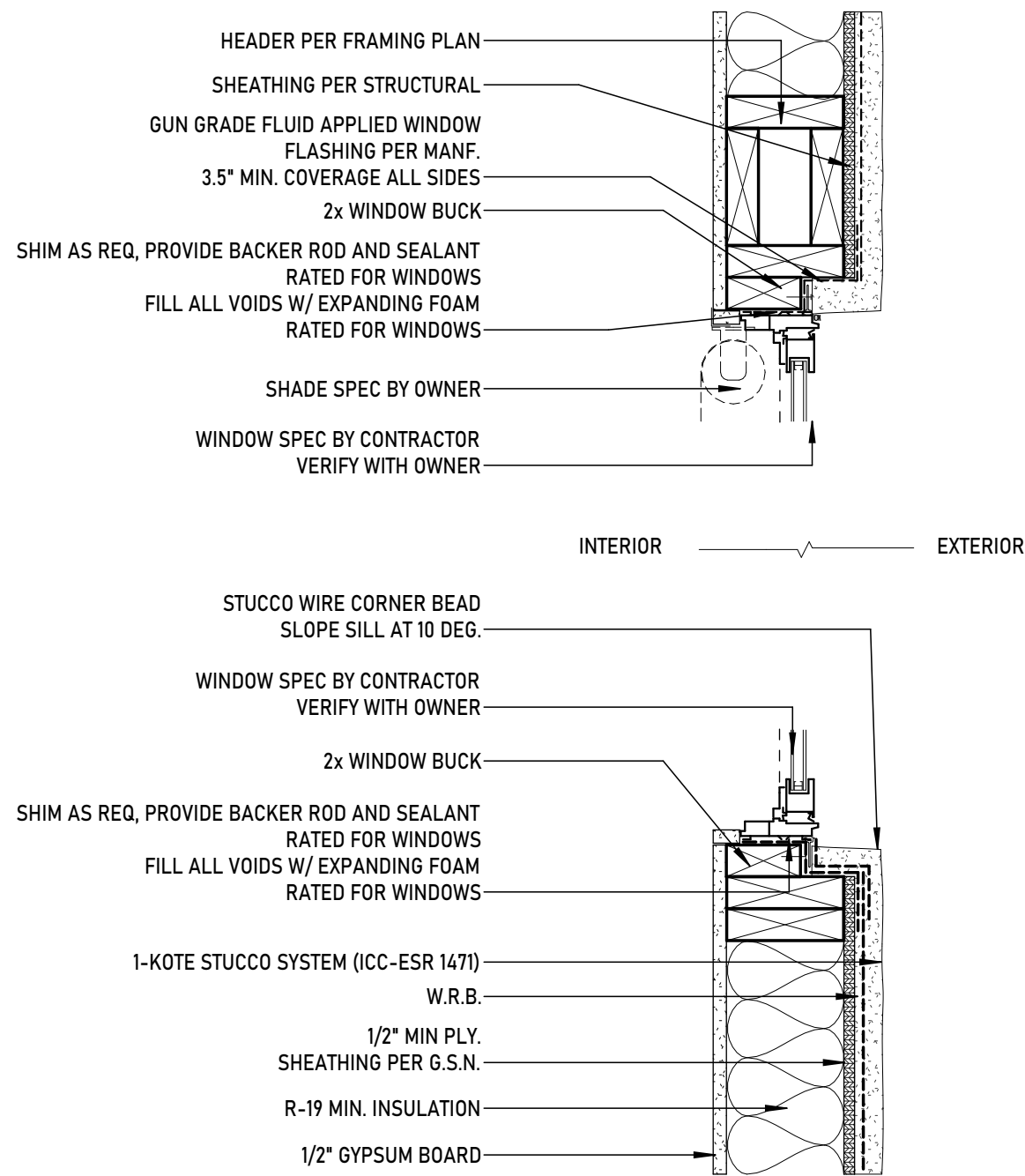
4 TYP. BASEBOARD DETAIL
SCALE: 3" = 1'-0"



3 TYP. WINDOW FLASHING
SCALE: 1" = 1'-0"



2 TYP. EXT. DOOR JAMB/HEAD
SCALE: 3" = 1'-0"



1 TYPICAL WINDOW DETAIL
SCALE: 1 1/2" = 1'-0"

WINDOW SCHEDULE

Type Mark	Count	Rough Opening		Manufacturer	Model	Comments	Finish
		Width	Height				
A	3	8'-0"	6'-0"	T.B.D.	DBLE CASEMENT OR SLIDING	DBLE CASEMENT OR SLIDING	<varies>
D	1	6'-0"	5'-0"	T.B.D.	BI - FOLD / HOPPER / MULTI-SLIDE		BLACK - BRONZE ANNO.
E	4	4'-0"	1'-6"	T.B.D.	FIXED	COORDINATE WITH VANITY MIRROR	BLACK
F	1	2'-6"	4'-0"	T.B.D.	CASEMENT		BLACK
G	5	3'-0"	5'-0"	T.B.D.	CASEMENT	TEMPERED	BLACK
H	3	6'-0"	5'-0"	T.B.D.	DOUBLE CASEMENT	TEMPERED	BLACK
J	2	2'-6"	2'-6"	T.B.D.	AWNING		BLACK
K	2	6'-0"	4'-6"	T.B.D.	DOUBLE CASEMENT OR SLIDING		BLACK
L	14	1'-6"	1'-6"	T.B.D.	FIXED	CLEAR STORY & GARAGE	BLACK
Y	2	2'-0"	2'-0"	VELUX	FS	SKY LIGHT	WHITE

DOOR SCHEDULE

TYPE MARK	QTY	UNIT HEIGHT	UNIT WIDTH	Type Comments	REMARKS	Operation
8' S.G.D.	1	8'-0"	8'-0"			
D1 FRONT DOOR	1	8'-0"	5'-4"	ENTRY IRON & GLASS DOOR WITH SIDELIGHTS V.I.F. R.O.	HARDWARE BY INTERIORS	V.I.F.
D4	2	8'-0"	3'-0"	GLASS & IRON WINE DOOR, TYPE TO BE VERIFY BY INTERIORS	HARDWARE BY INTERIORS	V.I.F.
D5	2	8'-0"	3'-0"	GARAGE ENTRY - 1 3/8 MIN. 20 MIN RATED SELF CLOSING SELF LATCHING	HARDWARE BY INTERIORS	V.I.F.
D6	1	8'-0"	6'-0"	EXTERIOR FRENCH DOOR TO MATCH NANA DOOR	HARDWARE BY INTERIORS	V.I.F.
D7	13	8'-0"	2'-8"	30" INTERIOR DOOR	HARDWARE BY INTERIORS	V.I.F.
D8	5	8'-0"	3'-2"	36" INTERIOR DOOR	HARDWARE BY INTERIORS	V.I.F.
D9	1	8'-0"	6'-0"	INTERIOR DOUBLE FRENCH OWNER SUITE ENTRY	HARDWARE BY INTERIORS	V.I.F.
D10	1	8'-0"	5'-0"	INTERIOR DOUBLE FRENCH LINEN	HARDWARE BY INTERIORS	V.I.F.
D12	2	8'-1"	3'-2"	GARAGE UTILITY MAN DOOR		
GARAGE DOOR 1	2	8'-0"	16'-0"	GARAGE DOOR - INSULATED SMOOTH 5 PANEL	HARDWARE BY INTERIORS	
NEW MULTI-SLIDE	1	8'-0"	18'-0"			
POCKET 2 DBL	1	8'-0"	6'-0"	INTERIOR CONVERGING POCKET - HDPOCKETDOORS.COM FRAME WALL 6"		
POCKET 4	1	8'-1"	3'-5 1/2"			

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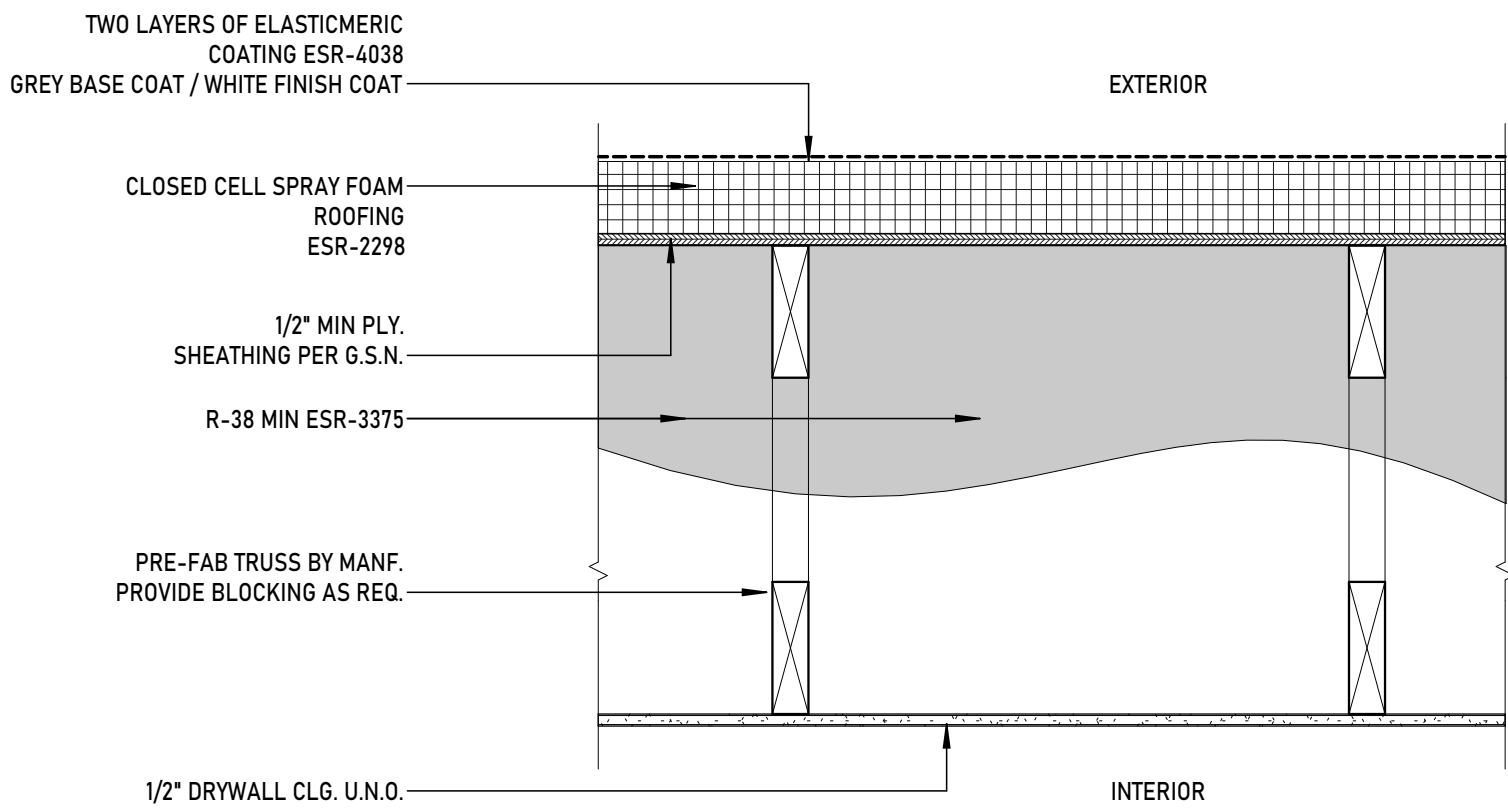
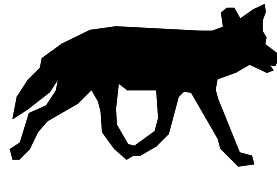
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WINDOW & DOOR

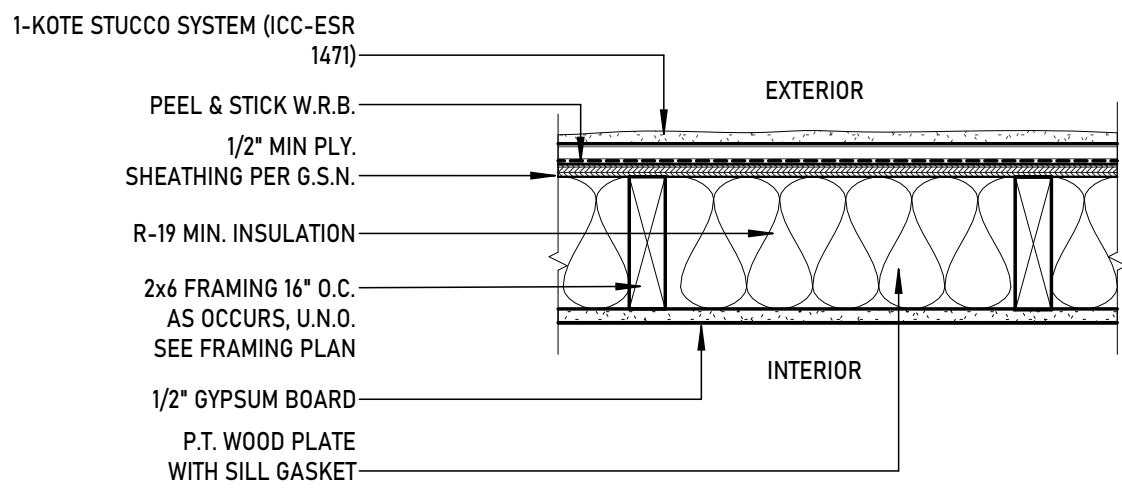
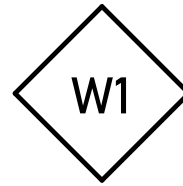
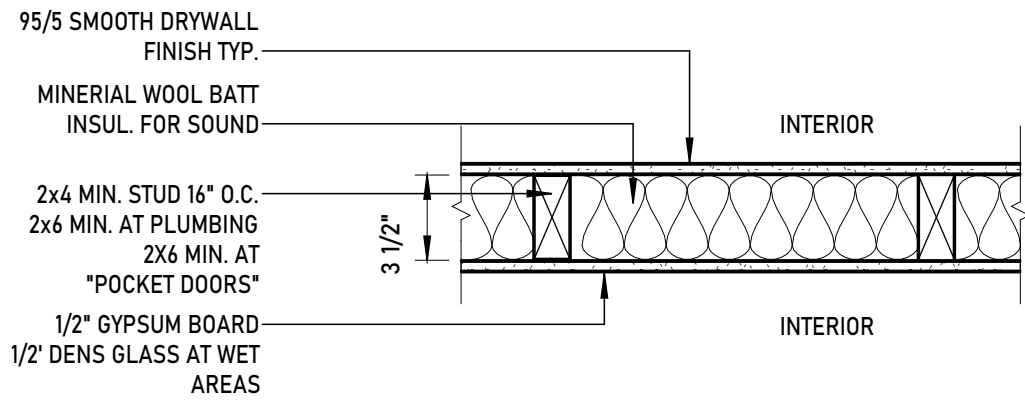
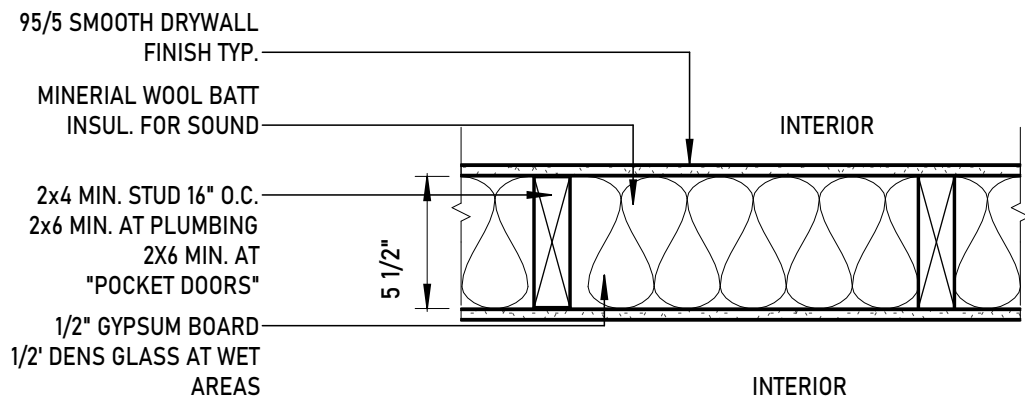
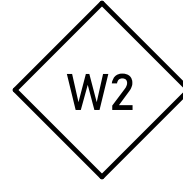
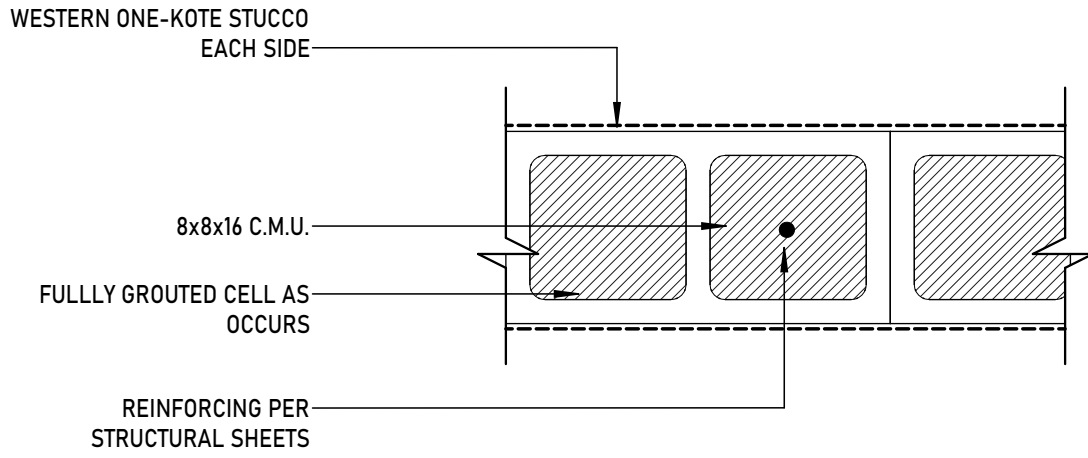
SHEET TITLE



2 TYPICAL ROOF TYPES
SCALE: 1 1/2" = 1'-0"

ROOF ASSEMBLY

ROOF ASSEMBLY



1 TYPICAL WALL TYPES
SCALE: 1 1/2" = 1'-0"

NEW WALL TYPES



NEW EXTERIOR WALLS:
2x6 STUD FRAMING @ 16" O.C.
1/2" PLYWOOD SHEATHING
R-19 MIN. INSULATION
1-KOTE STUCCO SYSTEM
1/2" GWB INTERIOR FINISH



NEW EXTERIOR WALLS:
2x6 STUD FRAMING @ 16" O.C.
1/2" PLYWOOD SHEATHING
R-19 MIN. INSULATION
1-KOTE STUCCO SYSTEM
EACH SIDE



NEW INTERIOR WALLS:
2x4 STUD FRAMING @ 24" O.C.
1/2" GWB INTERIOR FINISH (EACH SIDE)



NEW INTERIOR LOAD BEARING WALLS:
2x6 STUD FRAMING @ 16" O.C.
1/2" GWB INTERIOR FINISH (EACH SIDE)



TEMPERED SHOWER GLASS PER INTERIORS
HARDWARE PER INTERIORS

CUSTOM PROJECT

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ASSEMBLIES

SHEET TITLE



ELEVATION

Annotations for Elevation:

- L D.C. MAX.
- 8"X16"X4" CMU
- #9 GAUGE LADDER TYPE HORIZ. JOINT REINFORCEMENT @ S.V. D.C.
- 2-#5 REBAR IN GROUTED CELL AT PILASTER
- FINISH GRADE
- 8"X10" CONTINUOUS CONC. FTG. BEYOND
- #4 CONT.
- CONCRETE
- 12"
- 2'-6"

SECTION

Annotations for Section:

- 6'-0" MAX.
- 2'-6"
- MIN. LAP
- 10"
- 12"

WALL DESIGN OPTIONS

OPTION	L	Sv	d
A	8'-4"	8"	4'
B	8'-0"	16"	3'-6"

CROSS SECTION AT PILASTER

MATERIALS

- CMU: $f_m = 1500$ psi
- NORMAL WEIGHT
- MORTAR: ASTM TYPE S
- GROUT: $f_c = 2000$ psi
- REINFORCING: $f_y = 40,000$ psi
- CONCRETE: 2500psi
- HORIZONTAL JOINT REINFORCEMENT: $f_y = 80,000$ psi

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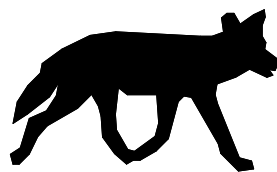
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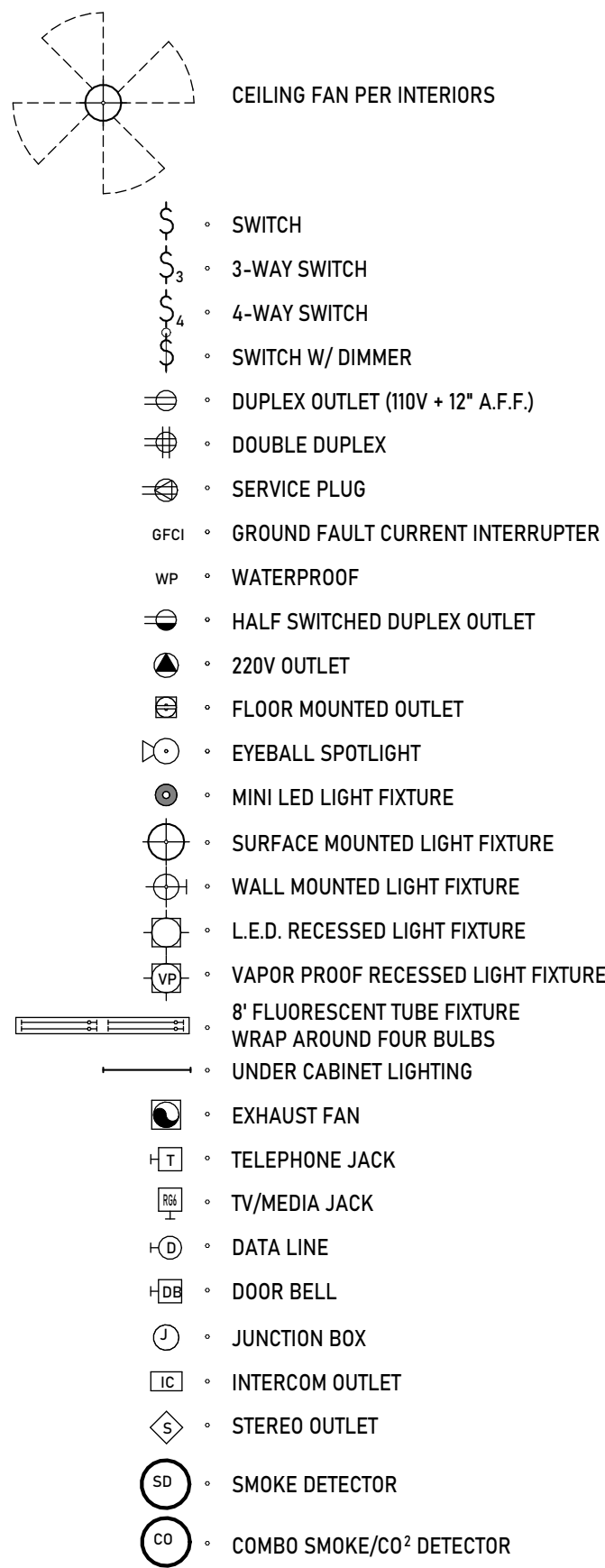
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A3.2

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ELECTRICAL SYMBOLS LEGEND



NOTE:

CONTRACTOR TO COORDINATE ALL FIXTURE LOCATIONS, AMOUNTS, TYPES, FINAL LOCATION, MOUNTING HEIGHTS, AND FINISHES WITH INTERIOR DESIGNER / OWNER

NOTE:

POWER & LIGHTING PLAN SHOWN FOR CODE CONFORMANCE & REFERENCE ONLY. VERIFY LOCATION OF ALL LIGHTS, SWITCHES, & RECEPTACLES w/ OWNER PRIOR TO INSTALLATION.

ELECTRICAL NOTES

NOTE:

SEE E.1 & E.2 ELECTRICAL SHEETS FOR DIAGRAMS, CALCULATIONS & SCHEDULES, TYP.

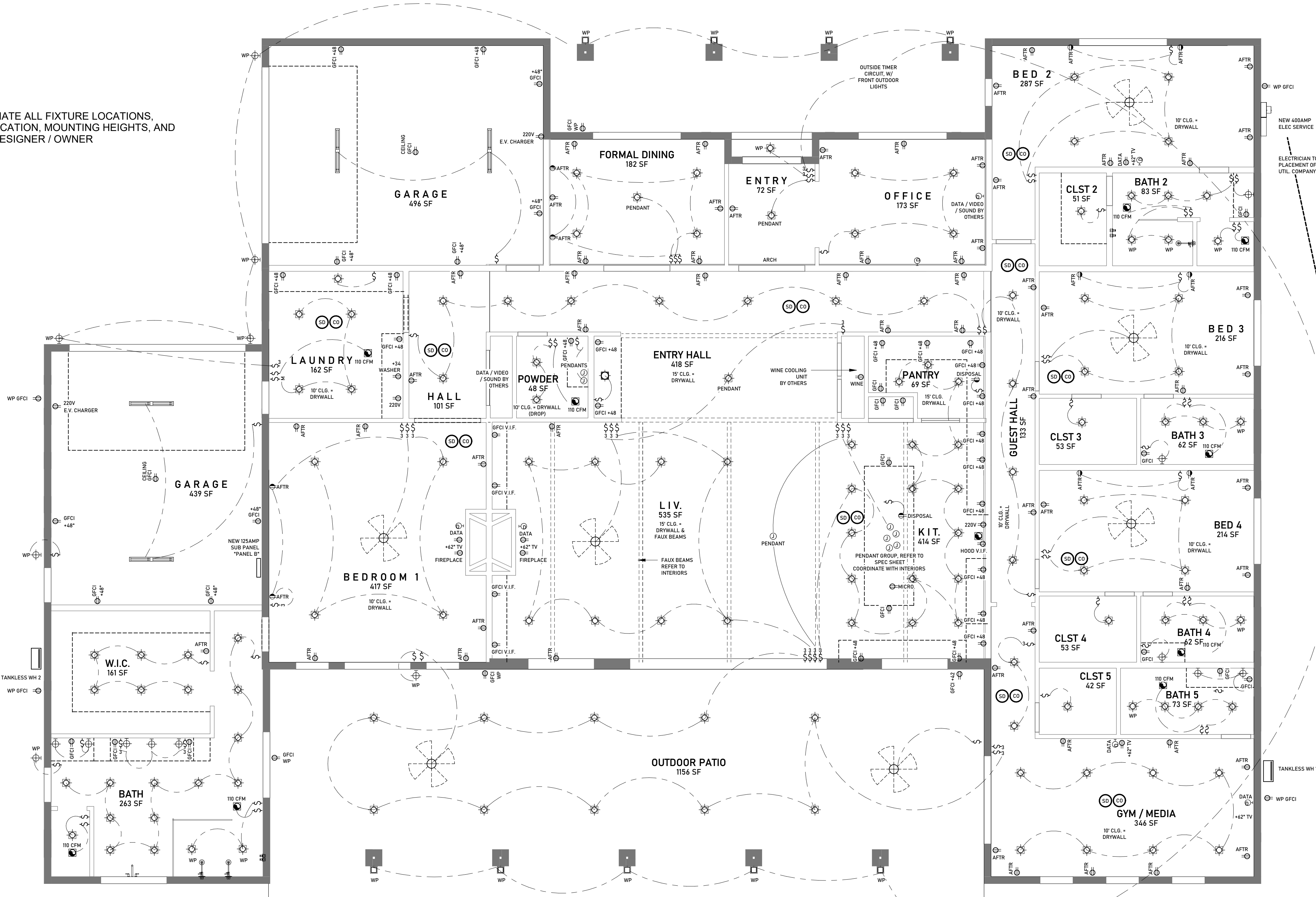
- ALL ELECTRICAL WORKS SHALL CONFORM TO APPLICABLE LOCAL CODES, THE INTERNATIONAL RESIDENTIAL CODE 2018 EDITION, AND THE NATIONAL ELECTRICAL CODE 2017 EDITION.
- CONTRACTOR TO VERIFY THE EXACT LOCATION FOR OUTLETS, SWITCHES, CABLE, DATA, PHONE, AUDIO, ETC. WITH OWNER.
- PROVIDE ONE SMOKE DETECTOR IN EACH ROOM AND ONE IN EACH CORRIDOR ACCESSING BEDROOMS. CONNECT SMOKE DETECTORS TO HOUSE POWER AND INTERCONNECT SMOKE DETECTORS SO THAT WHEN ANY ONE IS TRIPPED, THEY ALL WILL SOUND, PROVIDE BATTERY BACKUP FOR ALL UNITS.
- CARBON MONOXIDE DETECTORS ARE TO BE INSTALLED IN EACH CORRIDOR ACCESSING BEDROOMS, CARBON MONOXIDE DETECTORS TO BE HARDWIRED AND INTER-CONNECTED.
- CIRCUITS SHALL BE VERIFIED WITH HOME OWNER PRIOR TO WIRE INSTALLATION.
- FINAL SWITCHES FOR TIMERS AND DIMMERS SHALL BE VERIFIED WITH HOME OWNER.
- FIXTURES TO BE SELECTED BY HOME OWNER.
- ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE OUTLETS INSTALLED IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATIONS ROOMS, CLOSETS, HALLWAYS AND SIMILAR ROOMS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. (E3902.12)
- ELECTRICAL RECEPTACLES IN BATHROOMS, KITCHENS AND GARAGES SHALL BE GFCI PER NATIONAL ELECTRICAL CODE REQUIREMENTS.
- GROUND FAULT CIRCUIT INTERRUPTERS (GFCI) SHALL BE USED ON ALL WIRING IN EXTERIOR OUTLETS.
- GROUNDING TO COMPLY WITH NEC AND THE USER GROUNDS SHALL BE INCLUDED IN THE FOUNDATION AND SHALL BE CONNECTED TO THE ELECTRICAL SERVICE DISCONNECT.
- ALL 125-VOLT, 15- AND 20-AMPERE RECEPTACLE OUTLETS SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
- SERVICE ENTRANCE CONDUCTORS ENTERING OR ON THE EXTERIOR OF THE STRUCTURE SHALL BE INSULATED.
- PROVIDE (2) 20AMP (MIN.) SMALL APPLIANCE BRANCH CIRCUITS AND ARE LIMITED TO SUPPLYING WALL AND COUNTER SPACE OUTLETS (NOTE THEY CANNOT SERVE OUTSIDE PLUGS, RANGE HOODS, GARAGE DISPOSALS, DISHWASHERS OR MICROWAVES - ONLY THE REQUIRED COUNTERTOP/WALL OUTLETS MAY INCLUDE THE REFRIGERATOR) AS PER NEC.
- LIGHT SWITCHES SHALL BE MOUNTED AT 3'-3" ABOVE FINISH FLOOR, UNLESS LUTRON "SNOW WHITE" FINISH.
- A RECEPTACLE SHALL BE INSTALLED ON BOTH SIDES OF AN APPLIANCE OR PLUMBING FIXTURE MOUNTING WITHIN A COUNTER TOP, THIS SHALL INCLUDE OPEN ENDED ISLAND CONFIGURATION.
- ALL FIXTURES TO BE INSTALLED OUTSIDE, OR IN WET OR DAMP LOCATIONS INSIDE, SHALL BE UL LISTED FOR SUCH LOCATIONS.
- CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL FIXTURES WITH OWNER, PRIOR TO FINAL INSTALLATION, SPECIFIC FIXTURE TYPES TO BE DIRECTLY WITH OWNER.
- ALL EXTERIOR SWITCHES AND WALL PLATES TO BE PROTECTED WITH WEATHERPROOF COVERING.
- INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE PROVIDED TO THE FIELD INSPECTOR AT TIME OF INSPECTION.
- ALL PHONE LINES TO BE (2) CATEGORY 5 TWISTED PAIR LINES AND CABLE LINES ARE TO BE HOME RUN TO BOX IN RESIDENCE.
- EXTERIOR LIGHT FIXTURES SHALL BE PROTECTED BY A GFCI AND MEET THE FOLLOWING REQUIREMENTS: RECESSED FIXTURES WITH A GLASS OR PLASTIC LENS AND NON-METALLIC OR ELECTRICALLY ISOLATED TRIM TO BE SUITABLE FOR USE IN DAMP LOCATIONS.
- ART SPOT LIGHTS SHALL BE RECESSED SQUARE BOXES IN CEILING.
- A MINIMUM OF 90% OF NEWLY INSTALLED LIGHTING TO BE HIGH EFFICACY.

2 REFLECTED CEILING PLAN

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

NOTE:

SMOKE DETECTORS & CO2 DETECTORS MUST BE 3' AWAY FROM CEILING FANS PER NFPA 72 29.11.3.4(9)



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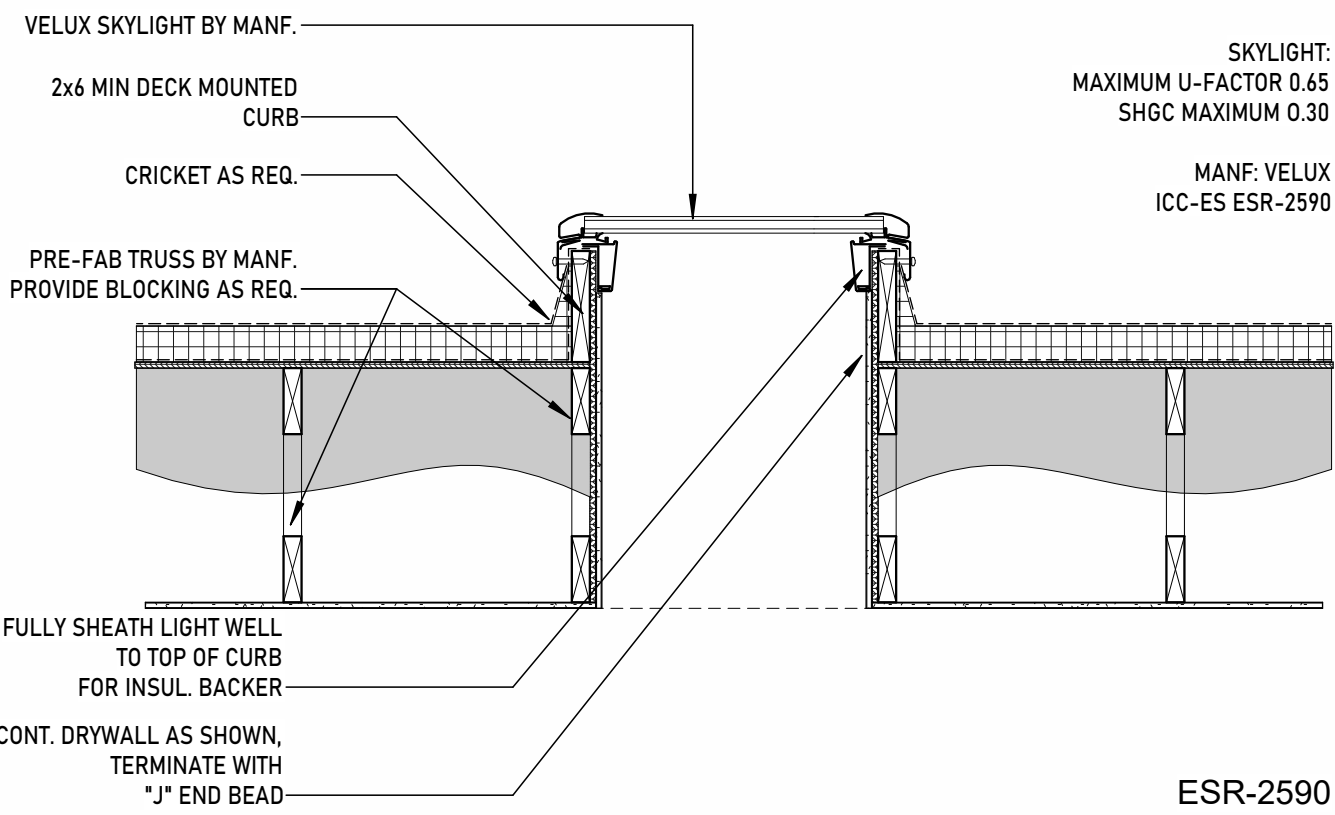
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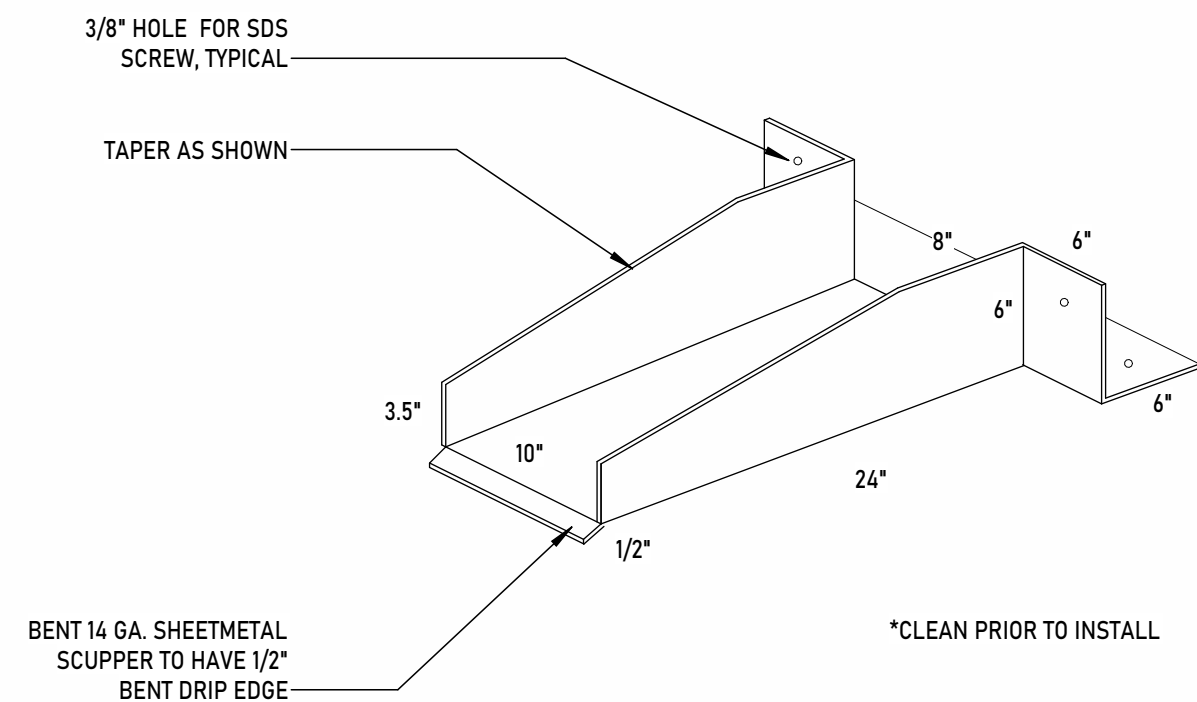
A4

GENERAL ROOF PLAN NOTES

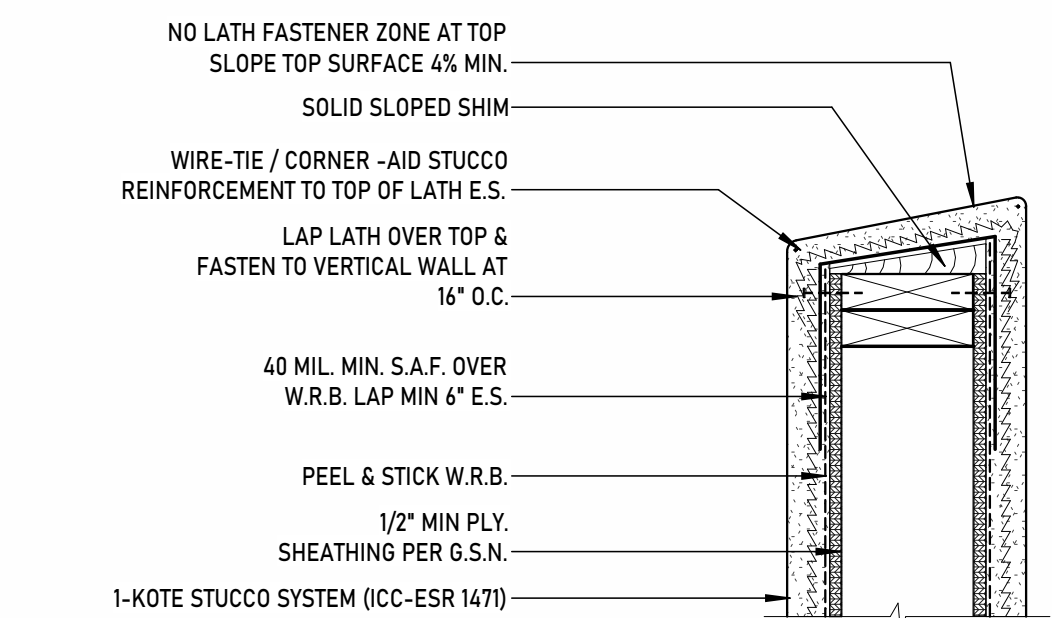
1. ALL ROOFING SURFACES TO SLOPE 1/4" VERTICAL PER 1' - 0" HORIZONTAL MINIMUM, UNLESS NOTED OTHERWISE.
2. FOAM ROOF SURFACE SLOPE IS ACHIEVED WITH TAPERED INSULATION & SLOPING STRUCTURE.
3. REFER TO THIS SHEET FOR TYPICAL ROOF DETAILS.
4. ALL ROOF TOP MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT SHOWN FOR INFORMATION ONLY. REFERENCE MECHANICAL, ELECTRICAL AND PLUMBING DOCUMENTS AND SPECIFICATIONS FOR SPECIFIC DESIGN INFORMATION.
5. PROVIDE WALKWAY PROTECTION TO MAJOR MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT AS REQUIRED TO PROVIDE SERVICE ACCESS. WALKWAY PROTECTION IS INDICATED AS A GENERAL LAYOUT AND MAY NOT SHOW ALL FINAL LOCATIONS OF ALL EQUIPMENT.
6. EXISTING ROOFS TO REMAIN, UNLESS NOTED OTHERWISE, REFER TO DEMO PLAN.
7. CUT & REPAIR EXISTING ROOF AS REQUIRED AT LOCATIONS WHERE NEW ROOF INTERSECTS OR OVERLAPS.
8. PROVIDE CRICKET(S) AND/OR OVERFRAMING AS INDICATED ON PLANS.
9. PROVIDE FLASHING & DRIP EDGE AT ALL NEW ROOF ASSEMBLIES.(TYP)
10. PROVIDE S.A.F. SADDLES AT JUNCTION OF WALLS TO LAP MIN. 6" AT FREE STANDING CORNERS, T-INTERSECTIONS, L-INTERSECTIONS, INSIDE CORNERS, OUTSIDE CORNERS, VERTICAL OFFSETS, TYPICAL.



2 TYPICAL CURB MOUNT SKYLIGHT
SCALE: 3/4" = 1'-0"



3 TYPICAL SCUPPER DETAIL
SCALE: 1" = 1'-0"



NOTE: PROVIDE S.A.F. (ESR 2018) SADDLES AT JUNCTION OF WALLS TO LAP MIN. 4" AT FREE STANDING CORNERS, T-INTERSECTIONS, L-INTERSECTIONS, INSIDE CORNERS, OUTSIDE CORNERS, VERTICAL OFFSETS, TYPICAL.

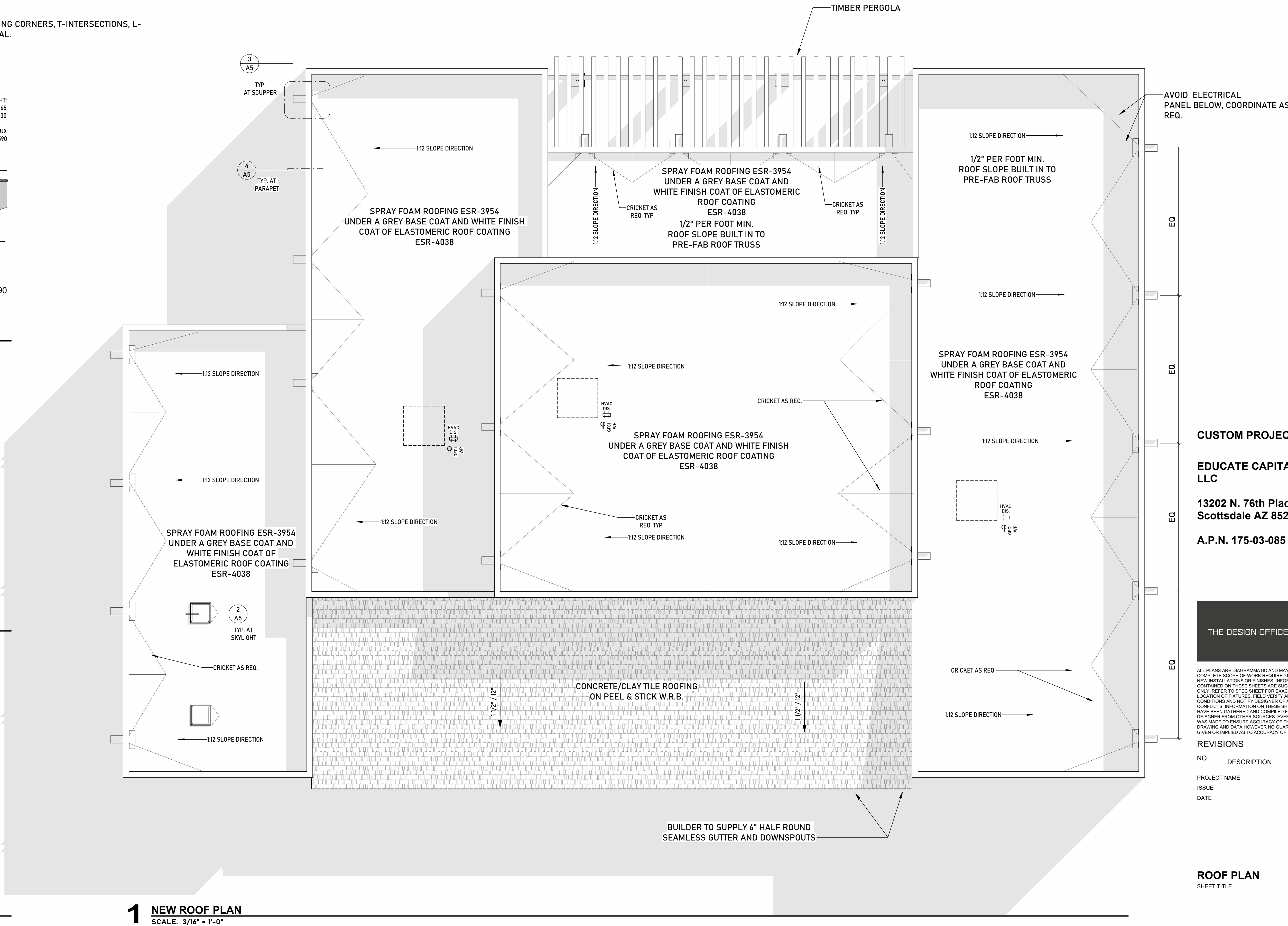
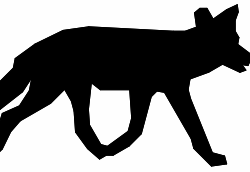
4 TYPICAL PARAPET DETAIL
SCALE: 1 1/2" = 1'-0"

ENERGY EFFICIENCY DATA

GLAZING -	MAX U-FACTOR: 0.40
SKYLIGHTS -	MAX U-FACTOR: 0.65
DOORS -	MAX U-FACTOR: 0.83
	MAX SHGC: 0.25

* COMPLY WITH N1102.6 AMENDED: #4:
COOL / LIGHT REFLECTIVE COATED ROOFS.
Roof solar reflectance and thermal emittance for roof slopes less than 2:12. Three-year-aged solar reflectance index (SRI) of 64, Three-year-aged solar reflectance of 0.55 and a three-year aged thermal emittance of 0.75 over conditioned and non-conditioned spaces. N1102.6 amended.

CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
THIS DOES NOT AUTHORIZE VIOLATIONS OF ANY
CODE OR ORDINANCE



CUSTOM PROJECT

EDUCATE CAPITAL
LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085

BY
THE DESIGN OFFICE LLC

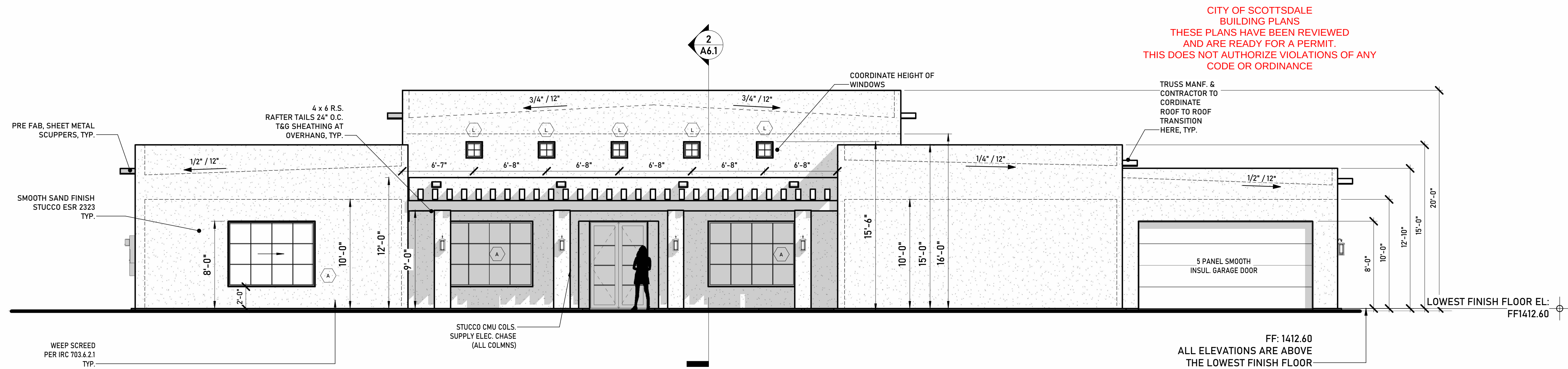
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REVISIONS

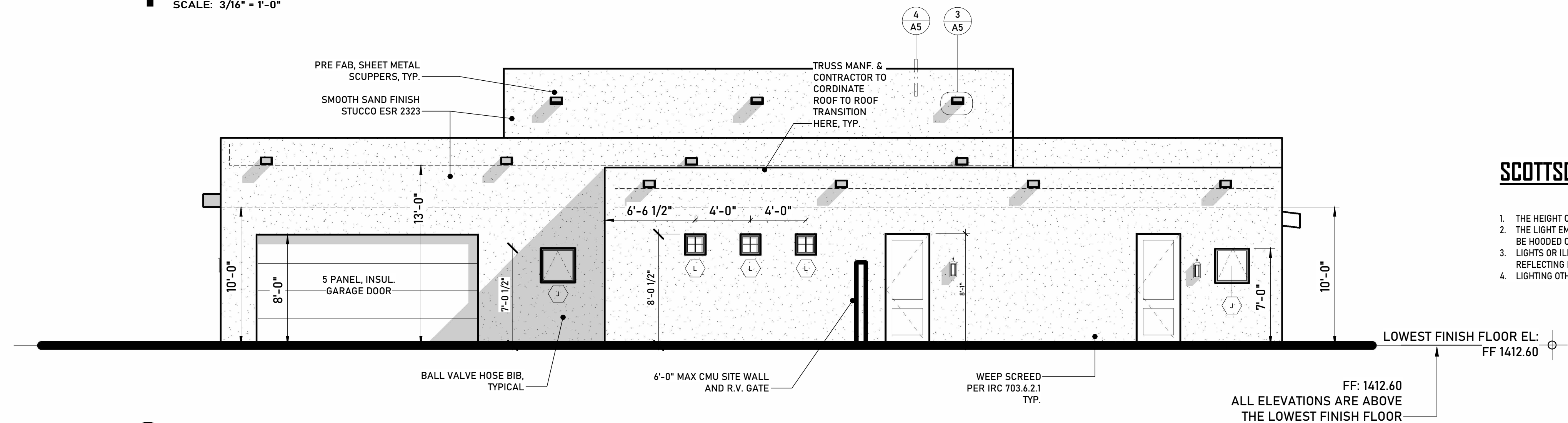
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PROJECT NAME	ISSUE	DATE

ROOF PLAN
SHEET TITLE

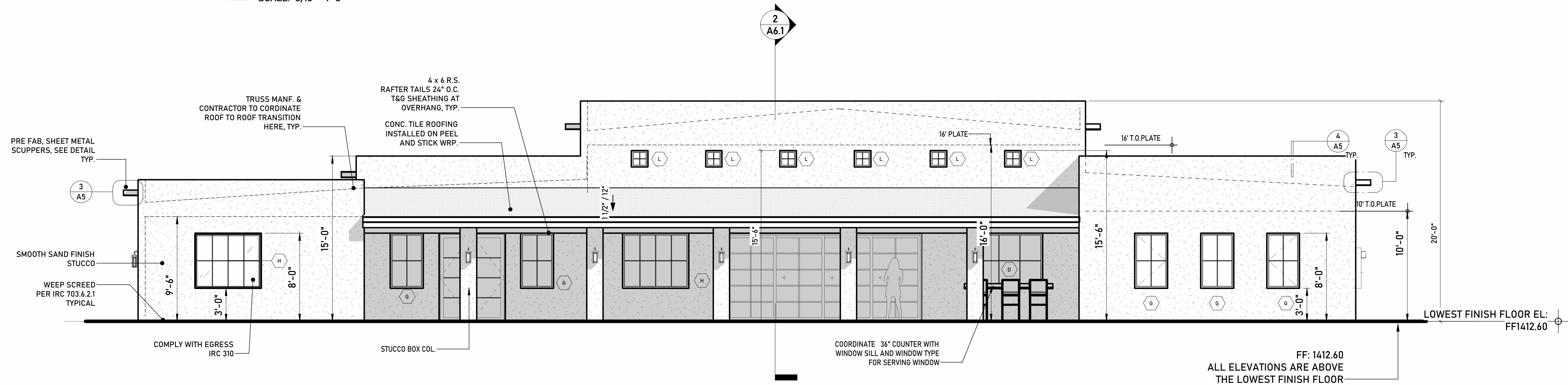
A5



1 BUILDING ELEVATION - WEST
SCALE: 3/16" = 1'-0"

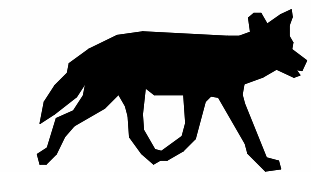


2 BUILDING ELEVATION - SOUTH
SCALE: 3/16" = 1'-0"



3 BUILDING ELEVATION - EAST
SCALE: 3/16" = 1'-0"

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SCOTTSDALE - LIGHTING NOTES SEC. 5.106

1. THE HEIGHT OF ANY LIGHT FIXTURE OR ILLUMINATION SOURCE SHALL NOT EXCEED 20 FEET.
2. THE LIGHT EMITTING ELEMENT AND REFLECTING DEVICE OF ALL LIGHTING OR ILLUMINATION UNITS SHALL BE HOODED OR SHIELDED SO THAT IT IS NOT VISIBLE FROM ANY ADJACENT LOT OR REAL PROPERTY.
3. LIGHTS OR ILLUMINATING UNITS SHALL NOT BE DIRECT LIGHT, EITHER DIRECTLY OR THROUGH A REFLECTING DEVICE, UPON ANY ADJACENT REAL PROPERTY.
4. LIGHTING OTHER THAN THE ABOVE MENTIONED CRITERIA SHALL REQUIRE A USE PERMIT.

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REVISIONS

NO	DESCRIPTION	DATE

BUILDING
ELEVATIONS

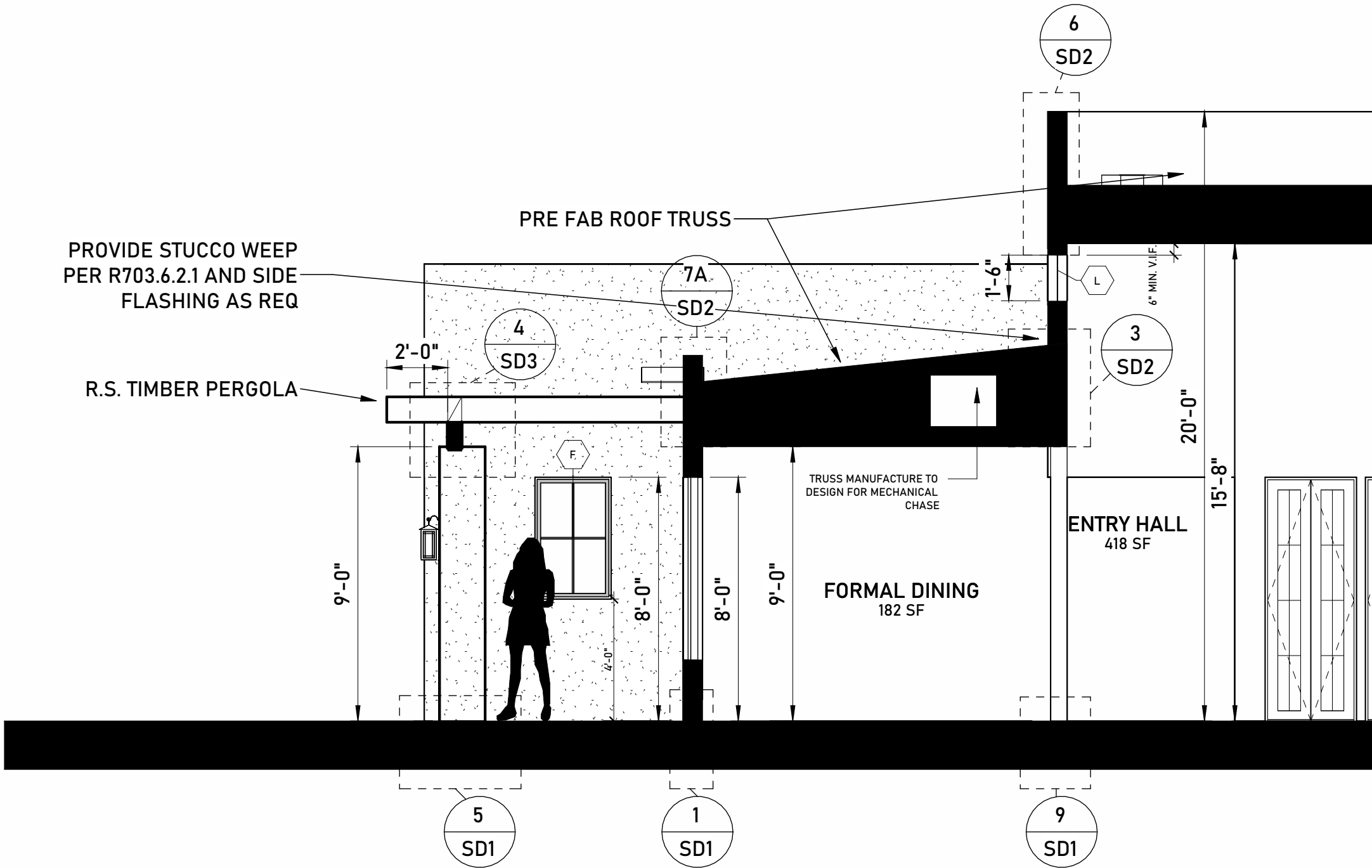
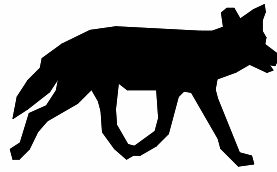
ARCHITECTURAL ELEVATIONS
APPROVED
BY THE CITY OF SCOTTSDALE PLANNING DEPARTMENT

6791-24-1
PLAN CHECK NO.
APPROVED BY
DATE
04/11/2025

CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH
THIS PLAN AND ANY AND ALL DEVIATIONS WILL REQUIRE REAPPROVAL

PLAN CHECK NO. 6791-24-1

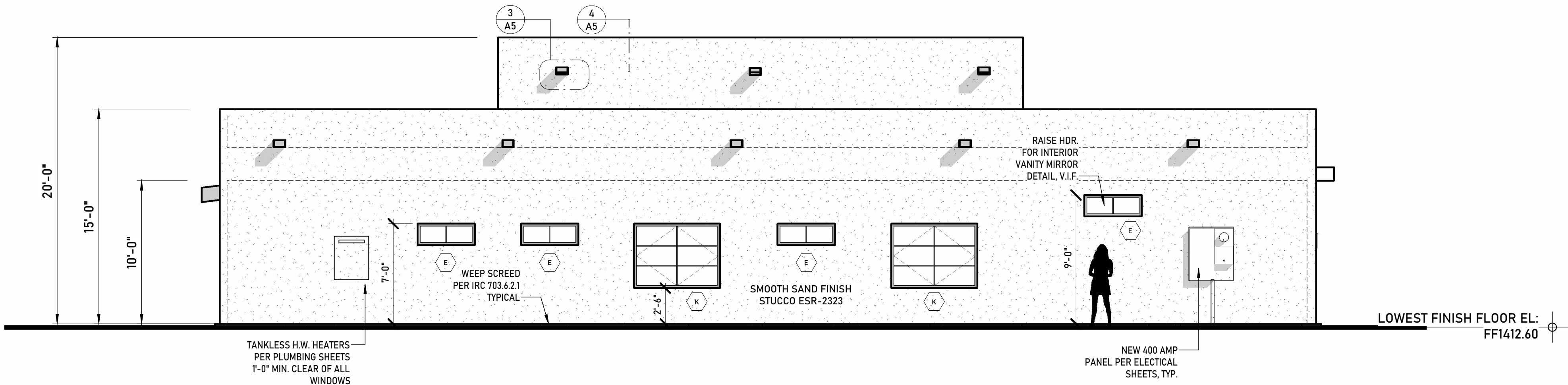
A6



2 SECTION AT ENTRY
SCALE: 1/4" = 1'-0"

SCOTTSDALE - LIGHTING NOTES SEC. 5.106

1. THE HEIGHT OF ANY LIGHT FIXTURE OR ILLUMINATION SOURCE SHALL NOT EXCEED 20 FEET.
2. THE LIGHT EMITTING ELEMENT AND REFLECTING DEVICE OF ALL LIGHTING OR ILLUMINATION UNITS SHALL BE HOODED OR SHEILDED SO THAT IT IS NOT VISIBLE FROM ANY ADJACENT LOT OR REAL PROPERTY.
3. LIGHTS OR ILLUMINATING UNITS SHALL NOT BE DIRECT LIGHT , EITHER DIRECTLY OR THROUGHT A REFLECTING DEVICE, UPON ANY ADJACENT REAL PROPERTY.
4. LIGHTING OTHER THAN THE ABOVE MENTIONED CRITERIA SHALL REQUIRE A USE PERMIT.



1 BUILDING ELEVATION - NORTH
SCALE: 3/16" = 1'-0"

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NO	DESCRIPTION	DATE

BUILDING
ELEVATIONS

ARCHITECTURAL ELEVATIONS
APPROVED
BY THE CITY OF SCOTTSDALE PLANNING DEPARTMENT

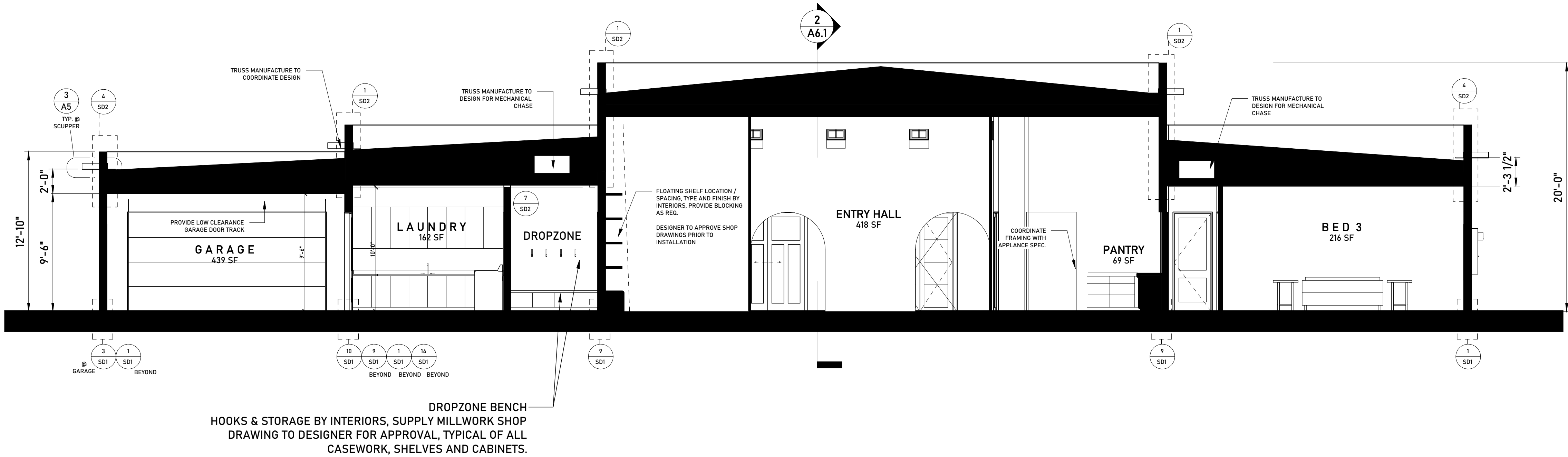
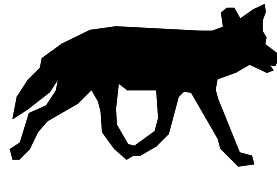
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PLAN CHECK NO.

APPROVED BY

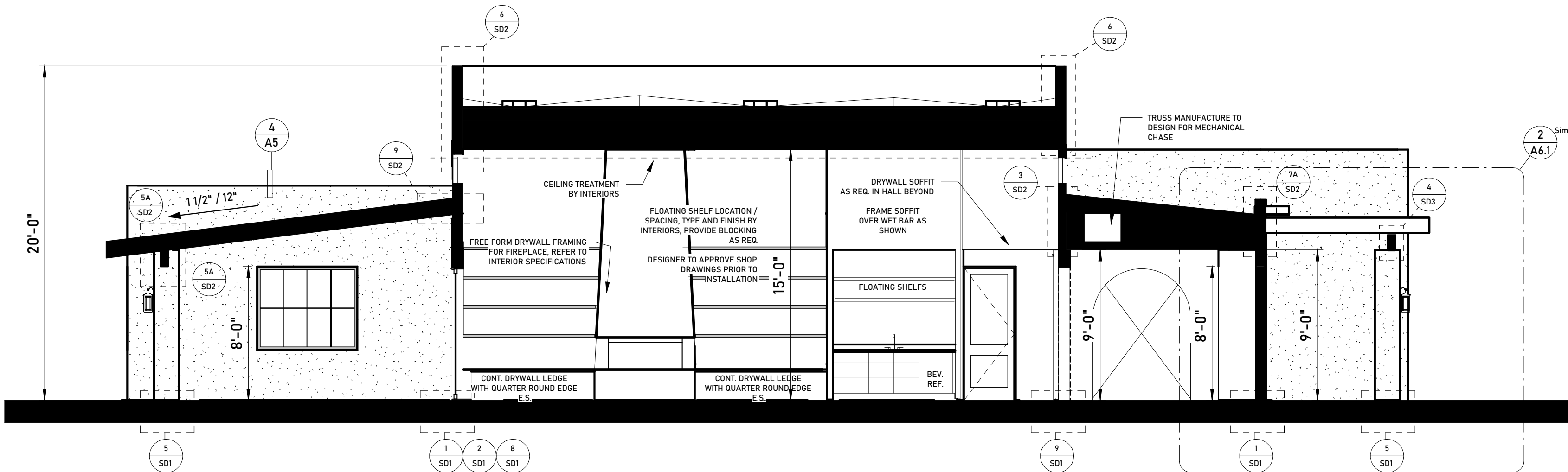
04/11/2025
DATE

CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND ANY AND ALL DEVIATIONS WILL REQUIRE REAPPROVAL

A6.1



2 BUILDING SECTION B
SCALE: 3/16" = 1'-0"



1 BUILDING SECTION A
SCALE: 3/16" = 1'-0"

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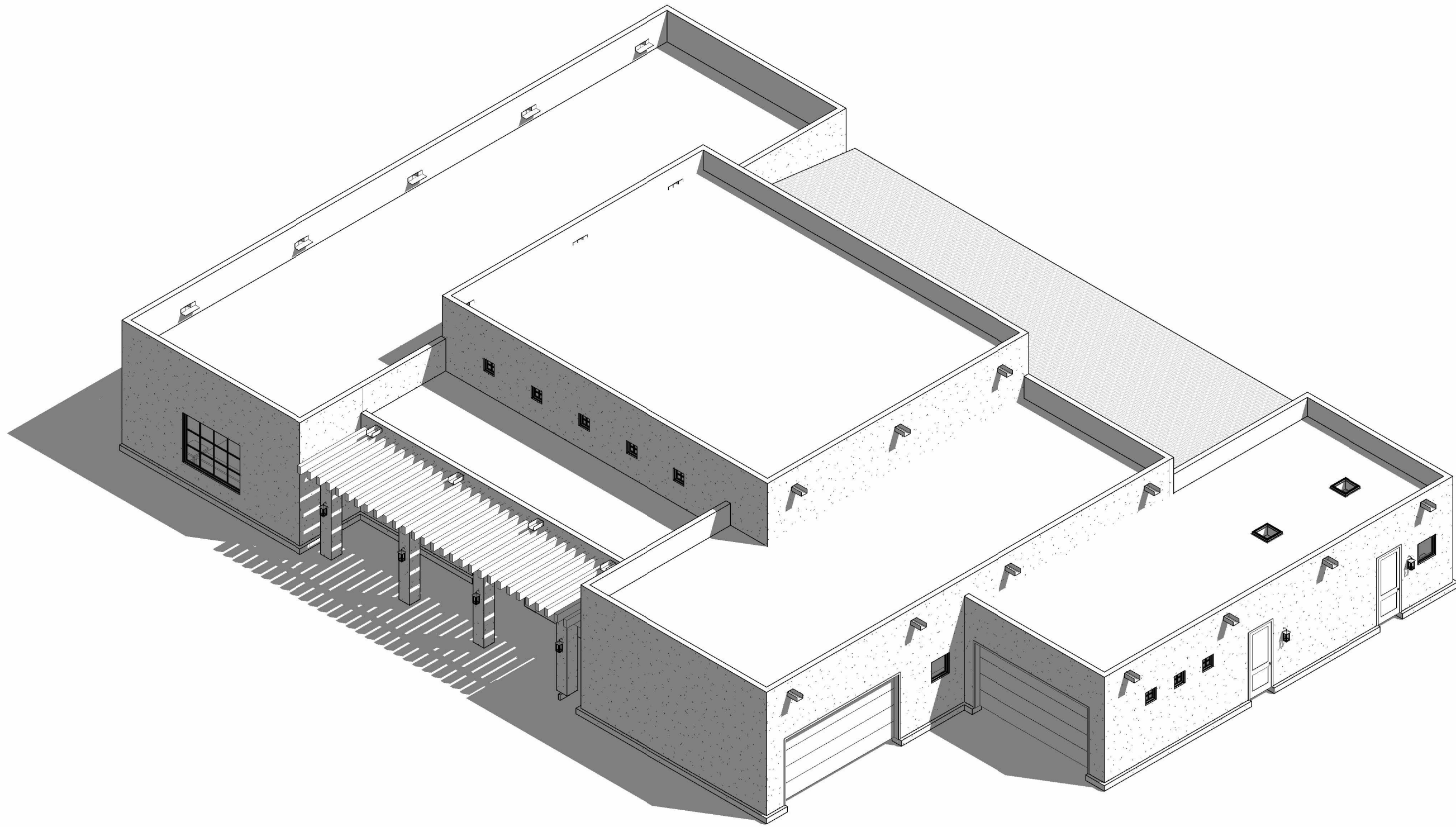
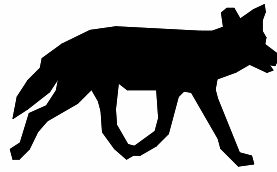
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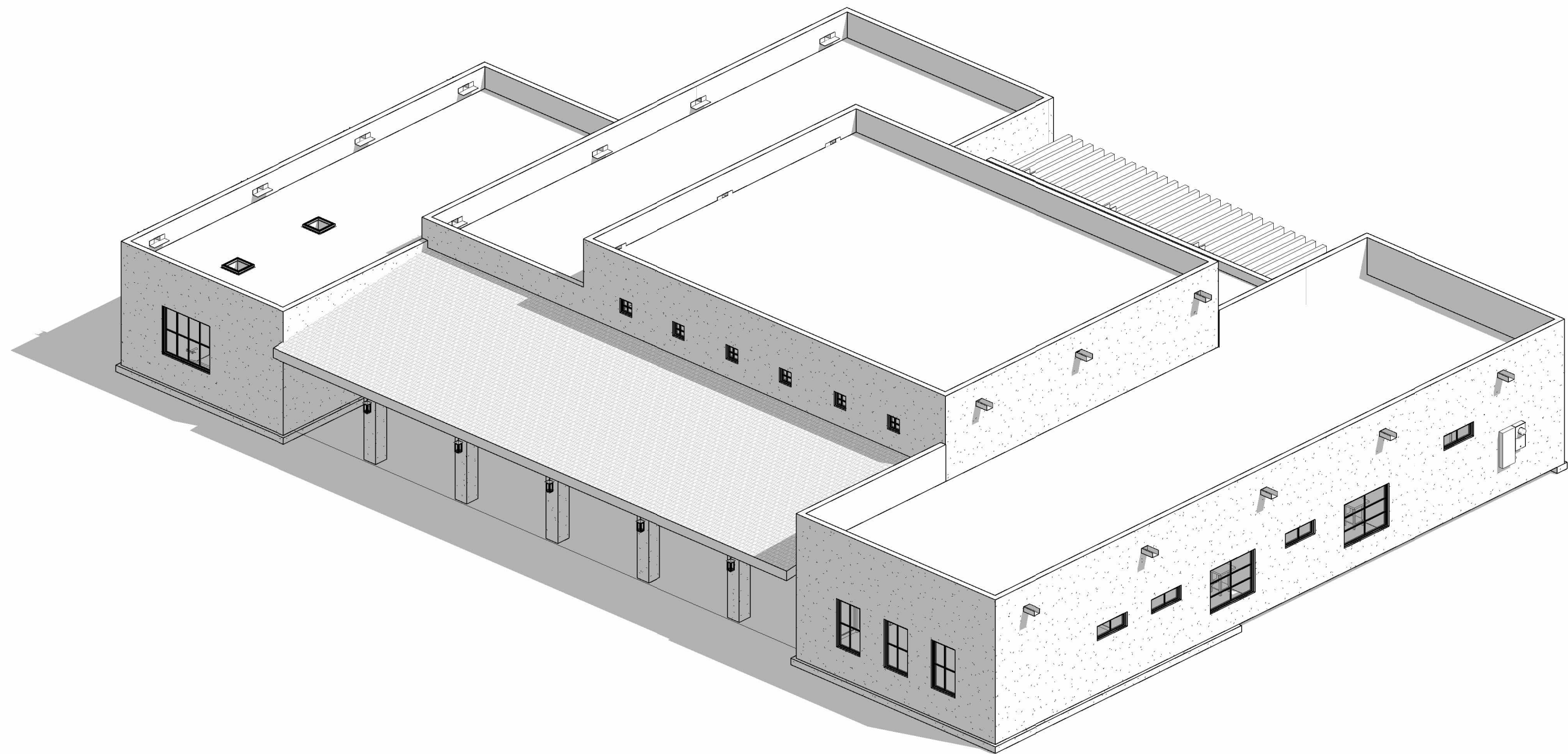
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NO	DESCRIPTION	DATE
1	PROJECT NAME	
2	ISSUE	
3	DATE	

BUILDING SECTIONS
SHEET TITLE

CITY OF SCOTTSDALE
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2 FRONT BIRDS EYE VIEW
SCALE:



1 REAR BIRDS EYE VIEW
SCALE:

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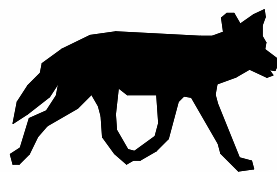
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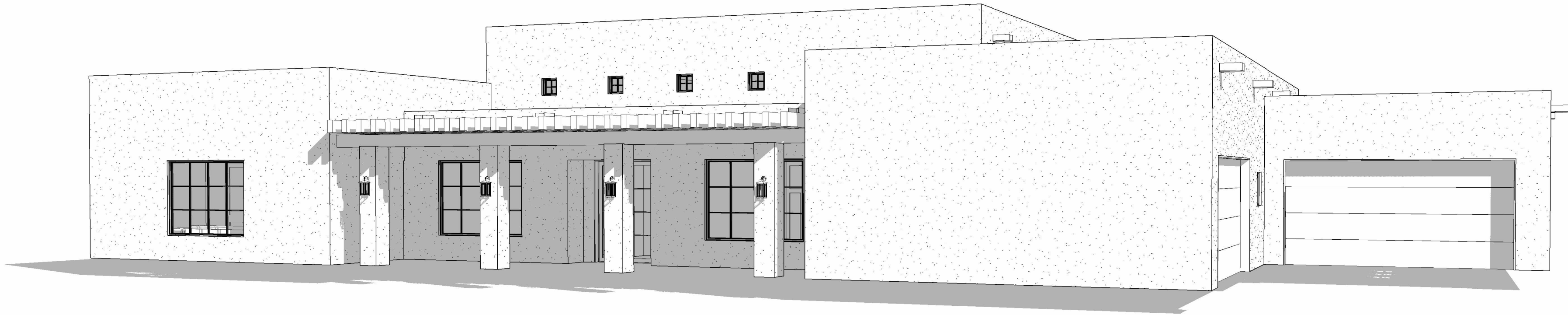
REVISIONS

NO	DESCRIPTION	DATE
	PROJECT NAME	
	ISSUE	
	DATE	

3D VIEWS
SHEET TITLE



3 FRONT - PERSPECTIVE B
SCALE:



2 FRONT - PERSPECTIVE A
SCALE:



1 REAR PERSPECTIVE
SCALE:

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	ISSUE	
	DATE	

3D VIEWS

SHEET TITLE

GENERAL SPECIFICATIONS

CONCRETE

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO ACI 318. ALL DETAILING, FABRICATION, ACCESSORIES, AND PLACEMENT OF REINFORCING SHALL CONFORM TO THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES. CONCRETE SHALL BE NORMAL WEIGHT GRAY CONCRETE AND DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. ALL SLABS ON GRADE SHALL BEAR ON 4" COMPACTED GRANULAR FILL WITH 6 X 6 WWF CONFORMING TO ASTM A185, 6" SPLICES TYPICAL. INTERIOR SLABS SHALL HAVE 6 MIL. POLYETHYLENE VAPOR BARRIER. LAP ALL REINFORCING BARS A LENGTH OF 30 BAR DIMENSIONS, MINIMUM TYPICAL. PROVIDE LAPPED CORNER BAR @ EACH CONTINUOUS REINFORCING. ALL CONSTRUCTION JOINTS ARE TO BE ROUGH SURFACE AND CLEARED BEFORE THE NEXT POUR. NO HORIZONTAL CONSTRUCTION JOINTS PERMITTED IN FOUNDATION WALLS. PROVIDE EXPANSION JOINTS WHERE REQUIRED BY LOCAL CODES. CONTROL JOINTS IN CONCRETE SLABS SHALL BE LOCATED SO THAT THE MAXIMUM AREA WITHIN JOINTS IS 600 S.F., AND THE RATION OF SIDE DIMENSIONS IS NO MORE THAN 2:1.

STEEL

ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL. ALL STRUCTURAL STEEL FOR BEAMS AND PLATES SHALL COMPLY WITH ASTM A 615 GRADE 60. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES. ALL BUTT WELDS SHALL BE FULL PENETRATION. MINIMUM SIZE OF FILLET WELDS SHALL CONFORM TO AISC SPECIFICATIONS.

WOOD

ALL WOOD FRAMING AND MATERIALS SHALL COMPLY WITH THE NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. U.N.O., ALL FRAMING LUMBER SHALL BE HEM FIR #2, SOUTHERN PINE #2, OR EQUAL. LUMBER FOR 2x4 OR 2x6 STUD PARTITIONS SHALL BE STUD-GRADE. ALL EXTERIOR STUD WALLS ARE TO BE CONSTRUCTED OF EITHER 2x4 OR 2x6 STUDS @ 16" O.C. U.N.O. ALL STUD WALLS TALLER THAN 9'-0" ARE TO BE BLOCKED AT THIRD POINTS. ALL HEADERS AND BEAMS ARE TO BE SUPPORTED BY BUILT-UP FRAMING LUMBER OR COLUMNS CONTINUOUS TO THE FOUNDATION. ALL KNEE-WALL CONSTRUCTION TO BE DIAGONALLY-BRACED AT 4'-0" O.C. MINIMUM. ANY STRUCTURAL MEMBERS NOT INDICATED ON THE PLAN ARE TO BE SIZED BY THE CONTRACTOR. ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED LUMBER. ALL TRUSSES (IF REQUIRED) TO BE ENGINEERED AND CONSTRUCTED BY A TPI MEMBER TRUSS MANUFACTURER. INSTALL TEMPORARY AND PERMANENT BRIDGING PER TRUSS MANUFACTURER'S RECOMMENDATION. ASSUMED SOIL BEARING CAPACITY: 1500 PSF (VERIFY SOIL CAPACITY ON SITE)

FIRE WARNING

PROVIDE MINIMUM OF ONE SMOKE DETECTOR PER FLOOR.

SMOKE DETECTORS ARE TO BE PROVIDED ABOVE DOOR AT EACH SLEEPING ROOM.

CONNECT SMOKE DETECTORS TO HOUSE POWER AND INSTALL INTERCONNECTED.

PROVIDE BATTERY BACKUP FOR ALL UNITS.

SOUND INSULATION

PROVIDE SOUND INSULATION IN ALL WALL BETWEEN BATHROOMS AND ADJACENT ROOMS.

ELECTRICAL NOTES

ELECTRICAL RECEPTACLES SHALL BE NO MORE THAN 12 FEET APART INCLUDING ANY WALL 2 FEET OR WIDER (EXCEPT BATHROOMS AND UTILITY ROOMS). RECEPTACLES INSTALLED WITHIN 6 FEET HORIZONTALLY OF THE KITCHEN SINK, IN BATHROOMS, GARAGES, OUTDOORS, OR IN LAUNDRY ROOMS SHALL HAVE GROUND FAULT CIRCUIT INTERRUPT PROTECTION. EXTERIOR LIGHT FIXTURES SHALL BE PROVIDED AT ALL DOORS TO THE EXTERIOR. SWITCHES SHALL BE PROVIDED NEAR DOORS CONTROLLING OUTDOOR LIGHT FIXTURES. PRE-WIRE FOR PHONE AND TV. REINFORCE ALL CEILING MOUNTED LIGHTS, FIXTURES AND DEVICES. OUTLETS, SWITCH BOXES AND DEVICES ON EXTERIOR WALLS SHALL BE INSTALLED WITH SEALANT, GASKETS, AND FLASHING AS REQUIRED. EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS OR AUTOMATIC DAMPERS. ELECTRICAL LIGHTING FIXTURES IN CLOTHES CLOSET SHALL BE INSTALLED WITH A MINIMUM OF 18 INCHES CLEARANCE TO COMBUSTIBLE MATERIALS. FIXTURES SHALL BE VERTICALLY CLEAR TO FLOOR OR RECESSED. INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE PROVIDED TO THE FIELD INSPECTOR AT TIME OF INSPECTION.

PLUMBING NOTES

FIXTURES:		
WATER CLOSET	1.6 GALLONS PER FLUSH, MAX.	
SHOWERHEADS	2.5 GPM MAX	
LAV. FAUCETS	2.2 GPM MAX	
SINK FAUCETS	2.2 GPM MAX	

WATER USAGE LABELS SHALL BE LEFT ON PLUMBING FIXTURES UNTIL FINAL INSPECTION HAS BEEN DONE SO THAT PROOF OF WATER USAGE COMPLIANCE CAN BE VERIFIED BY THE BUILDING DEPARTMENT. SHOWERS AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE HANDLE TYPE. POSITION STOPS SHALL BE PROVIDED AND SHALL BE ADJUSTED PER MANUFACTURER'S INSTRUCTIONS TO DELIVER A MAXIMUM MIXED WATER SETTING OF 120 DEGREES. THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A SUITABLE CONTROL. WATER HEATER SHALL BE PROVIDED WITH A TEMPERATURE AND PRESSURE RELEASE VALVE HAVING A FULL-SIZED DRAIN OF GALVANIZED STEEL OR HARD-DRAWN COPPER TO THE OUTSIDE OF THE BUILDING WITH THE END OF THE PIPE NOT MORE THAN 2 FEET OR LESS THAN 6 INCHES ABOVE THE GRADE, POINTING DOWNWARD.

MISCELLANEOUS

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY SURVEYS NEEDED TO LOCATE EXISTING SITE UTILITY SERVICES AND SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING THE DISCONNECTION OF EXISTING SERVICES AND THE RECOMMENDATION OF NEW SERVICES AND SYSTEMS. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY BUILDING PERMITS PRIOR TO COMMENCEMENT OF WORK. FOUNDATION WALLS ARE NOT TO BE BACKFILLED UNTIL HOUSE IS COMPLETELY FRAMED AND ROOF OF STRUCTURE IS IN PLACE. BACKFILL SHALL BE FREE OF DELETERIOUS MATERIAL AND SHALL HAVE A MINIMUM OF 90% STANDARD PROCTOR DENSITY. BOTTOM OF FOOTINGS TO BE BELOW FROST DEPTH. PROVIDE TERMITE PROTECTION. PREFABRICATED FIREPLACES AND FLUES ARE TO BE U.L. APPROVED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. ALL MATERIALS, SUPPLIES AND EQUIPMENT ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND AS PER LOCAL CODES AND REQUIREMENTS. INSTALL 1/2" DRYWALL ON INTERIOR WALLS AND CEILINGS, UNO. INSTALL 1/2" WATER-RESISTANT DRYWALL AROUND SHOWER AND TUBS, MIN. 6'-0" ABOVE FINISHED FLOOR. INSTALL 5/8" "TYPE-X" GWB ON GARAGE WALLS AND CEILINGS. THE CONTRACTOR IS RESPONSIBLE THAT ALL MECHANICAL AND ELECTRICAL SYSTEMS ARE DESIGNED AND INSTALLED PER APPLICABLE CODES. ALL SUBCONTRACTORS SHALL BE RESPONSIBLE TO COORDINATE WITH THE GENERAL CONTRACTOR AS WELL AS OTHER TRADES AS NECESSARY. THE GENERAL CONTRACTOR WILL COORDINATE WITH THE OWNER REGARDING FINAL LOCATION OF FIXTURES AND COMPONENTS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD. RESIDENCE REQUIRES FIRE SPRINKLER DESIGN PER CITY OF PHOENIX STANDARDS. SEALED ENGINEERING DRAWINGS BY FIRE PROTECTION INSTALLER WILL BE PROVIDED BY THE GC TO THE CITY ON A DEFERRED BASIS AFTER RELEASE OF THIS BUILDING PERMIT.

ADDITIONAL NOTES

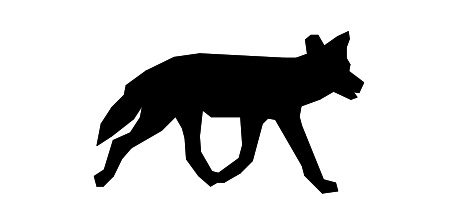
- VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR INCONSISTENCIES.
- VERIFY IN FIELD ALL EXISTING CONDITIONS SHOWN ON THE DRAWINGS. FIELD VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL AND PLUMBING WITH APPROPRIATE TRADES.
- THE DRAWINGS REPRESENT THE COMPLETED, FINISHED STRUCTURE. PROVIDE ALL MEASURES NECESSARY TO PROTECT THE UNFINISHED STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, GUYING, AND SHORING FOR LOADS IMPOSED DURING CONSTRUCTION, ETC.
- ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL AND SIGNATURE OF AN ENGINEER REGISTERED IN THE STATE OF ARIZONA.
- DETAILS ON THE DRAWINGS ARE TYPICAL. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. TYPICAL DETAILS NOT REFERENCED ON THE DRAWINGS SHALL APPLY WHERE APPLICABLE, U.N.O.

GENERAL CONSTRUCTION NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD. SCALE DRAWINGS AT HIS/HER OWN RISK.
- WINDOW & DOOR SIZES SHOWN ARE FOR DESIGN PURPOSES ONLY. ACTUAL WINDOW & DOOR SIZES SHALL BE FRAMED & SET PER MFG. SPECIFICATIONS. MAKE & MODEL NUMBERS SHALL BE CALLED OUT PER SUPPLIER'S AND/OR OWNER'S SPECIFICATIONS. WINDOWS TO BE DUAL-PANED (U.N.O.).
- ALL EXTERIOR HEADERS SHALL BE AT LEAST 6'-8" A.F.F., U.N.O.
- ALL EXTERIOR DOORS SHALL BE AT LEAST 1-3/4" THICK.
- ALL GLASS DOORS, GLASS WITHIN 24" OF DOORS & WITHIN 18" OF FLOORS, GLASS SUBJECT TO HUMAN IMPACT, ETC. SHALL BE SAFETY TEMPERED.
- BEDROOM WINDOWS SHALL HAVE MAX 44" HIGH SILL & MIN. NET CLEAR OPENINGS OF 20" IN WIDTH & 24" IN HEIGHT W/ MIN. CLEAR OPENING OF 5.7 FEET.
- LANDINGS NO MORE THAN 7.75" LOWER THAN THRESHOLD FOR IN-SWINGING DOORS, & NO MORE THAN 11/2" FOR OUT-SWINGING & ENTRY DOORS. EXTERIOR LANDINGS TO BE 3'-0 DEEP MIN.
- PROVIDE A DUST BARRIER TO PROTECT ANY PORTIONS OF THE HOUSE, DUCTWORK, ETC. NOT BEING AFFECTED BY THIS PROJECT.
- REMOVE FINISHES AS NECESSARY FOR NEW AND EXISTING WALL FACES TO ALIGN.
- PROVIDE SHORING AND BRACING AS REQUIRED TO SUPPORT THE EXISTING STRUCTURE DURING DEMOLITION AND CONSTRUCTION.
- REMOVE GYPSUM BOARD AND REPLACE AS REQUIRED FOR FLUSH TRANSITION BETWEEN NEW AND EXISTING WALLS.
- ALL EXISTING FINISHED FLOORING SHALL BE REMOVED AS INDICATED. FLOOR SLAB SHALL REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO VERIFY THE EXTENT OF WORK, SITE CONDITIONS, ETC.
- DEMOLITION WORK IS NOT LIMITED TO WORK SHOWN, IT SHALL ALSO INCLUDE ANY WORK NECESSARY TO ALLOW FOR NEW AND NOT LIMITED TO STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, SITE WORK, ARCHITECTURAL FINISH WORK, ETC.
- EXTERIOR WALL BOTTOM SILL PLATES, SHALL BE PRESSURE TREATED OR EQUAL, AND SHALL BEAR/EXTEND MINIMUM 6 INCHES ABOVE FINISH GRADE.
- ALL EXITS TO BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE.
- EXTERIOR WALL PENETRATIONS BY PIPES, DUCTS OR CONDUITS SHALL BE CAULKED.
- IF BATT INSULATION IS USED IN LEIU OF SPRAYED, PROVIDE ROOF ATTIC VENTILATION.
- INSULATION SHALL BE A MINIMUM OF R38 CEILINGS AND R21 WALLS.
- LUMBER SHALL BEAR AN APPROVED GRADING STAMP.
- FIRE BLOCKING SHALL COMPLY WITH CODE AND BE MAXIMUM 10 FT. O.C., HORIZONTAL AND VERTICAL.
- GYPSUM BOARD APPLIED TO A CEILING SHALL BE 1/2" WHEN FRAMING MEMBERS ARE 16" O.C. OR 5/8" WHEN FRAMING MEMBERS ARE 24" O.C. OR USE 1/2" SAG-RESISTANT GYPSUM CEILING BOARD.
- SHOWER AREA WALLS SHALL BE FINISHED WITH A SMOOTH, HARD NON-ABSORBENT SURFACE, SUCH AS CERAMIC TILE, TO A HEIGHT OF NOT LESS THAN 72 INCHES ABOVE THE DRAIN INLET.
- WATER-RESISTANT GYP BD SHALL NOT BE USED OVER A VAPOR RETARDER, IN AREAS OF HIGH HUMIDITY OR ON CEILINGS WHERE THE FRAME SPACING EXCEEDS 12" O.C. FOR 1/2" GYPSUM, AND 16" O.C. FOR 5/8" GYP.SHOWERS TO BE FINISHED WITH FIBER-CEMENT, FIBER-MAT REINFORCED CEMENTITIOUS BACKER, GLASS MAT GYPSUM BACKERS, OR FIBER REINFORCED GYPSUM BACKERS TO MIN. HEIGHT OF 72" ABOVE DRAIN W/ TEMPERED GLASS ENCLOSURES.
- PROVIDE THERMOSTATIC MIXING VALVE OR INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE AT ALL SHOWERS PER I.P.C.
- WATER HEATERS & FURNACES TO BE I.E.C.C. CERTIFIED. WATER HEATERS TO HAVE PRESSURE & TEMPERATURE RELIEF DEVICES & DISCHARGE TO OUTSIDE.
- PROVIDE COMBUSTION AIR FOR FUEL BURNING APPLIANCES.
- WATER HEATERS SHALL BE STRAPPED WITHIN THE UPPER & LOWER 1/3 OF THE HEATER. STRAPS SHALL BE LOCATED A MIN. OF 4" FROM ANY CONTROLS. WATER HEATER TO BE ON PLATFORM 18" MIN. A.F.F.
- OPENINGS AROUND GAS VENTS, DUCTS & PIPING @ EACH FLOOR SHALL BE FIRE STOPPED.
- PROVIDE AC/DC SMOKE DETECTORS WITHIN EACH SLEEPING ROOM & CENTRALLY LOCATED IN CORRIDORS OR AREAS GIVING ACCESS TO EACH SLEEPING AREA. ALL DETECTORS TO BE INTERCONNECTED (TYPICAL).
- PLUMBING FIXTURES SHALL COMPLY WITH THE FOLLOWING CONSERVATION REQUIREMENTS: WATER CLOSETS -TANK TYPE -1.6 GAL./FLUSH SHOWER HEADS - 2.5 GAL./MIN. FAUCETS - 2.2 GAL./MIN, PROVIDE AERATOR.
- WATER TREATMENT SYSTEMS SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF TO PREVENT CONTINUOUS FLOW WHEN NOT IN USE.
- PROVIDE AN EXPANSION TANK AT THE WATER HEATER IF A BACK FLOW PREVENTER IS OR WILL BE INSTALLED AT THE WATER LINE OR AT THE METER.
- SHOWERS AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE.
- DOMESTIC DISHWASHING MACHINES CONNECTED TO A DISPOSER SHALL HAVE THE DISCHARGE INSTALLED AS HIGH AS POSSIBLE, NOT LOWER THAN 2" ABOVE THE FLOOD RIM OF THE SINK.
- REGISTERS, DIFFUSERS AND GRILLES SHALL BE MECHANICALLY FASTENED TO RIGID SUPPORTS OR STRUCTURAL MEMBERS ON AT LEAST TWO OPPOSITE SIDES IN ADDITION TO BEING CONNECTED TO THE DUCTWORK THEY SERVE.
- THE CLOTHES DRYER SHALL BE PROVIDED WITH A 4-INCH DIAMETER EXHAUST DUCT TO THE EXTERIOR AND SHALL NOT EXCEED A TOTAL LENGTH OF 35 FEET, UNLESS AN ENGINEERED DUCT SYSTEM IS PROVIDED. THE DUCT SHALL TERMINATE NOT LESS THAN 3 FEET FROM A PROPERTY LINE OR FROM OPENINGS INTO A BUILDING.
- PROVIDE IC-RATED RECESSED LIGHT FIXTURES INSTALLED IN INSULATED CEILINGS.
- FIXTURES LOCATED IN DAMP OR WET LOCATIONS SHALL BE "LISTED" TO BE SUITABLE FOR SUCH LOCATIONS.
- PROVIDE GFCI PROTECTED RECEPTACLES AT ALL EXTERIOR, BATHROOM, AND GARAGE LOCATIONS.
- PROVIDE GFCI PROTECTED RECEPTACLE OUTLET WITHIN 36" OF ALL LAVATORIES, SINKS, AND BASINS.
- ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE OUTLETS INSTALLED IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
- RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAT 6' MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, INCLUDING ANY WALL SPACE TWO FEET OR MORE IN WIDTH.
- BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY AT LEAST ONE 2-AMP BRANCH CIRCUIT. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
- PROVIDE A SEPARATE 20-AMP CIRCUIT TO THE LAUNDRY.
- PROVIDE A MINIMUM OF TWO 20-AMP SMALL APPLIANCE BRANCH CIRCUITS FOR THE KITCHEN/DINING/BREAKFAST.
- THE TWO OR MORE 20-AMP SMALL APPLIANCE BRANCH CIRCUITS SHALL HAVE NO OTHER OUTLETS, EXCEPT THE RECEPTACLE INSTALLED SOLELY FOR ELECTRIC SUPPLY TO AN ELECTRICAL CLOCK IN THE KITCHEN/DINING/BREAKFAST AREAS OR RECEPTACLES FOR SUPPLEMENTAL EQUIPMENT AND LIGHTING FOR GAS-FIRED RANGES, OVENS, OR COUNTER-MOUNTED UNITS.
- RECEPTACLE OUTLETS FOR RANGES AND CLOTHES DRYER SHALL BE A 3-POLE WITH GROUND TYPE. FOUR-WIRE, GROUNDING TYPE FLEXIBLE CORDS WILL BE REQUIRED FOR CONNECTION OF RANGES AND CLOTHES DRYERS. THE BONDING JUMPER SHALL NOT BE CONNECTED BETWEEN THE NEUTRAL TERMINAL AND THE FRAME OF THE APPLIANCE.

GENERAL CONTRACTOR'S NOTES

- CONTRACTOR SHALL THOROUGHLY EXAMINE AND SATISFY HIMSELF/HERSELF AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL VERIFY AT THE SITE ALL MEASUREMENTS AND CONDITIONS AFFECTING HIS/HER WORK, AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE SAME.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS BY TAKING FIELD MEASUREMENTS IF NECESSARY.
- PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED.
- BEFORE COMMENCING WORK, CHECK ALL LINES AND LEVELS INDICATED AND SUCH OTHER WORK TO VERIFY THAT IT HAS BEEN PROPERLY COMPLETED. SHOULD THERE BE ANY DISCREPANCIES, THE OWNER IS TO BE NOTIFIED FOR CORRECTION AND/OR RESOLUTION PRIOR TO COMMENCEMENT OF ANY RELATED WORK.
- CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO NOT INTERFERE UNDULY WITH THE NEIGHBORS, ETC. AND SHALL MAKE HIMSELF AWARE OF ANY LOCAL RESTRICTIONS ON CONSTRUCTION OPERATIONS.
- MECHANICAL, PLUMBING, & ELECTRICAL:EXAMINATION OF SERVICES TO SITE BY CONTRACTOR PRIOR TO CONNECTION OR TYING INTO IS REQUIRED. IN ANY CASE WHERE A NEW LINE TIES INTO OR EXTENDS AN EXISTING LINE WITHIN THE LIMITS OF WORK, THE CONTRACTOR SHALL EXAMINE THE ENTIRE LINE AS IT IS FEASIBLE, OR ARRANGE FOR THE PROPER AGENCIES TO DO SO. NOTIFY OWNER OF ANY DEFECTS PRIOR TO TYING INTO LINES. (SEE ADDITIONAL NOTES WHERE APPLICABLE)
- ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR SHALL SCALE PLANS AT HIS/HER OWN RISK.
- ALL CONDITIONS NOT SPECIFICALLY DETAILED ON DRAWINGS SHALL BE SIMILAR TO THOSE SHOWN OR IMPLIED.
- THE CONSTRUCTION DOCUMENTS ARE PROVIDED TO ILLUSTRATE THE DESIGN AND GENERAL TYPE OF CONSTRUCTION DESIRED AND IMPLY HIGH QUALITY CONSTRUCTION, MATERIAL, AND WORKMANSHIP THROUGHOUT.
- ALL WORK SHALL CONFORM AND SHALL BE IN CONFORMANCE TO ALL REQUIREMENTS OF THE 2015 INTERNATIONAL RESIDENTIAL CODE, AS WELL AS CITY OF SCOTTSDALE AMENDMENTS & ADOPTED ORDINANCES.
- ALL GLASS SHALL CONFORM WITH HUMAN IMPACT AS PER THE IRC.
- UNLESS OTHERWISE NOTED, ALL FASTENERS AND NAILING SHALL BE AS PER THE IRC.
- PROVIDE SECURITY DEVICES AS REQUIRED BY THE CITY OR COUNTY, AS WELL AS ANY SECURITY DEVICES SPECIFICALLY REQUESTED BY THE OWNER.
- USE WATER RESISTANT GYPSUM BOARD AT ALL "WET" LOCATIONS.
- CONTRACTOR SHALL INSTALL R-13 WALL INSULATION AND R-38 ROOF INSULATION AS REQ'D BY THE IRC UNLESS OTHERWISE NOTED.
- ALL INSULATION TO BE FORMALDEHYDE-FREE FIBERGLASS INSULATION AND INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR SHALL COMPLETE IC-1'INSULATION INSTALLATION CERTIFICATE' AND PROVIDE OWNER WITH ALL MANUFACTURER'S MANUAL FOR EQUIPMENT, SPECIFICALLY DETAILING EFFICIENT OPERATION AND MAINTENANCE REQUIREMENTS.
- CONTRACTOR SHALL VERIFY AND ENSURE THAT ALL APPLIANCES AND FIXTURES MEET SPECIFIED REQUIREMENTS AS PER CODES WHERE APPLICABLE.
- CONTRACTOR SHALL VERIFY AND ENSURE THAT ALL PROPER HEIGHT, WIDTH, AND DEPTH CLEARANCES ARE IN CONFORMITY AS PER THE IRC (& ADA IF REQ'D).
- DEFERRED SUBMITTALS SHALL FIRST BE SUBMITTED TO THE PROJECT CONSULTANT FOR REVIEW AND COORDINATION. FOLLOWING COMPLETION OF THAT REVIEW AND COORDINATION, A SUBMITTAL SHALL BE MADE TO THE CITY OF SCOTTSDALE FOR REVIEW AND APPROVAL. THAT SUBMITTAL SHALL INCLUDE A LETTER STATING THAT THE REVIEW AND COORDINATION HAS BEEN PERFORMED AND COMPLETED, AND PLANS AND CALCULATIONS FOR THE DEFERRED ITEMS ARE FOUND TO BE ACCEPTABLE (E.G. WITH REGARD TO GEOMETRY, LOAD CONDITIONS, ETC.) WITH NO EXCEPTIONS, AS PER THE IRC.



CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
THIS DOES NOT AUTHORIZE VIOLATIONS OF ANY
CODE OR ORDINANCE

CUSTOM PROJECT

EDUCATE CAPITAL LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085



ALL PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW COMPLETE SCOPE OF WORK REQUIRED FOR ALL NEW INSTALLATIONS OR FINISHES. INFORMATION CONTAINED ON THESE SHEETS ARE SUGGESTIONS ONLY. REFER TO SPEC SHEET FOR EXACT TYPE & LOCATION OF FIXTURES. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY DESIGNER OF ANY CONFLICTS. INFORMATION ON THESE SHEETS MAY HAVE BEEN GATHERED AND COMPILED FOR DESIGNER FROM OTHER SOURCES. EVERY EFFORT WAS MADE TO ENSURE ACCURACY OF THIS DRAWING AND DATA HOWEVER NO GUARANTEE IS GIVEN OR IMPLIED AS TO ACCURACY OF SAID DATA.

REVISIONS

NO	DESCRIPTION	DATE
	PROJECT NAME	
	ISSUE	
	DATE	

GENERAL NOTES
SHEET TITLE

STRUCTURAL NOTES

IN ACCORDANCE WITH INTERNATIONAL RESIDENTIAL CODE 2021

GENERAL :

WHERE SPECIFIC INSTRUCTIONS IN THESE SPEC'S REQUIRE THAT A PARTICULAR PRODUCT AND/OR MATERIAL(S) BE INSTALLED AND/OR APPLIED BY AN APPROVED APPLICATOR OF THE MANUFACTURER, IT SHALL BE THE SUBCONTRACTOR'S RESPONSIBILITY TO ENSURE THE WORK BE DONE BY AN APPROVED APPLICATOR.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS UNLESS GENERAL STRUCTURAL NOTES ARE MORE STRINGENT. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND SHALL NOTIFY THIS OFFICE OF ANY VARIATIONS FROM THE DIMENSIONS OR CONDITIONS SHOWN ON THE DRAWINGS.

TYPICAL DETAILS MAY NOT NECESSARILY BE PUT ON THE PLANS, BUT APPLY UNLESS NOTED OTHERWISE.

CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES, SPECIFICATIONS AND ALL APPLICABLE CODES, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN. THIS OFFICE MUST BE NOTIFIED IN WRITING OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

ANY STRUCTURAL DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF AN ENGINEER REGISTERED IN THE STATE OF THE PROPOSED CONSTRUCTION.

ALL PRODUCTS LISTED BY I.C.C./A.E.R. NUMBER(S) SHALL BE INSTALLED PER THE REPORT AND MANUFACTURER'S WRITTEN INSTRUCTIONS. PRODUCT SUBSTITUTION(S) FOR PRODUCT(S) LISTED SHALL ALSO HAVE I.C.C. APPROVED EVALUATION REPORT(S) OR BE APPROVED AND LISTED BY OTHER NATIONALLY RECOGNIZED TESTING AGENCIES.

THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION, SUCH MEASURES WILL INCLUDE, BUT NOT BE LIMITED TO BRACING AND SHORING. THE PROJECT ARCHITECT OR THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS OR METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND PROGRAMS RELATING THERETO.

DESIGN LOADS :

ROOF LIVE LOAD = 20 P.S.F. (PITCHED), 20 P.S.F (FLAT)
ROOF DEAD LOAD = 20 P.S.F. (PITCHED), 15 P.S.F (FLAT)

WIND LOAD = Vult 115 mph, EXPOSURE C
= Vmax 90 mph (APPLICABLE PER SEC. 1609.1.1)

SEISMIC DESIGN CATEGORY B

SITE WORK :

FINISH GRADE SHALL SLOPE 5% FOR A DISTANCE OF 10 FEET TO AN APPROVED WATER DISPOSAL AREA.

FOUNDATIONS :

FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE SOIL REPORT PREPARED BY ARIZONA ANALYTICAL INSPECTION & TESTING, REPORT NUMBER 2201317 DATED APRIL 6, 2022. ALLOWABLE SOIL BEARING PRESSURE IS 1500 P.S.F. WITH BOTTOM OF FOOTING TO BE MINIMUM 1.5 FEET BELOW FINISHED GRADE OVER MINIMUM 1.0 FEET OF ENGINEER CERTIFIED COMPACTED FILL.

ALL RECOMMENDATIONS IN THE GEO-TECHNICAL REPORT (IF APPLICABLE) TAKE PRECEDENCE OVER ANY AND ALL GENERAL STRUCTURAL NOTES CONTAINED HEREIN.

PRIOR TO ANY BACK FILLING, ALL BASEMENT OR FOUNDATION WALLS ARE TO BE ADEQUATELY BRACED SO AS TO PREVENT EXCESSIVE PRESSURES DURING CONSTRUCTION, BACK FILLING AND COMPACTION. ALL BRACING TO REMAIN IN POSITION UNTIL MASONRY AND/OR CONCRETE REACHES FULL DESIGN STRENGTH.

REINFORCED CONCRETE :

(THESE NOTES DO NOT APPLY TO POST TENSION OR PRE-STRESSED CONCRETE) DESIGNS BASED ON 2500 P.S.I., HOWEVER, MIX DESIGNED AS FOLLOWS:

MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH:
FOUNDATIONS = 3,000 P.S.I., TYPE II CONCRETE
WALKS, DRIVES AND EXTERIOR SLABS = 3,000 P.S.I.
MAXIMUM SLUMP = 4½"

ALL PROCEDURES, PLACEMENT, FORM WORK, LAP ETC. TO CONFORM WITH LATEST A.C.I. STANDARDS. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THE SLABS ON GRADE NEED TO BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS, ETC.

ALL CONCRETE SLABS ON GRADE SHALL BE BOUNDED BY CONSTRUCTION JOINTS (KEYED OR SAW CUT) SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 400 SQUARE FEET. KEYED CONSTRUCTION JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING. ALL OTHER JOINTS MAY BE SAW CUT OR MAY USE "ZIP-STRIPS".

STEEL ROOF DECKING :

DECK SHALL BE 1½" DEEP, 36" WIDE, 20 GAGE PAINTED STEEL, WITH MINIMUM YIELD STRESS OF 38 KSI, WITH MINIMUM S = 0.235 IN² AND I = 0.216 IN⁴ PER FOOT OF WIDTH. DECK SHALL BE ERECTED IN ACCORDANCE OF MANUFACTURER'S RECOMMENDATIONS AS 3 SPAN MINIMUM AND SHALL BE ATTACHED FOR A MINIMUM DIAPHRAGM SHEAR CAPACITY OF 544 PLF USING THE FOLLOWING MINIMUM ATTACHMENTS.

WELD DECK TO SUPPORTING MEMBERS WITH (4) ½"Ø or ¾" x 1" PUDDLE WELDS PER SHEET AT ENDS, END LAPS AND AT INTERMEDIATE SUPPORTS, AND AT 12" O.C. AT PERIMETER BEAMS AND OPENING EDGES RUNNING PARALLEL TO THE DECK. SEAM ATTACHMENT SHALL BE BUTTON PUNCHES AT 24" O.C.

REINFORCEMENT :

ASTM A615 (Fy = 60,000 P.S.I.) LATEST ACI CODE AND DETAILING MANUAL APPLY.

UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE CLEAR CONCRETE COVER PROVIDED FOR REINFORCEMENT SHALL BE :
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH : 3"

EXPOSED TO EARTH OR WEATHER:
(1) NO. 6 AND LARGER : 2"
(2) NO. 5 AND SMALLER : 1½"

NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND (SLABS & WALLS) : ¾"

BEAMS, GIRDERS, COLUMNS, PRIMARY REINFORCEMENT TIES STIRRUPS, SPIRALS : 1½"

UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE SHALL BE CLASS "B" TENSION LAP SPLICES 40 BAR DIAMETER MINIMUM. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH. ALL SPLICE LOCATIONS SUBJECT TO APPROVAL. PROVIDE BENT CORNER BARS TO MATCH LAP AND WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS. REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE.

MASONRY VENEER SHALL BE ANCHORED WITH A MINIMUM OF ONE 22 GA. GALVANIZED METAL ANCHOR FOR EACH TWO SQUARE FEET OF WALL AREA.

STRUCTURAL STEEL :

ALL STRUCTURAL STEEL SHALL BE ASTM A992 (Fy = 50 KSI). ALL CHANNELS, ANGLES, AND PLATES SHALL BE ASTM A36 (Fy = 36 KSI). ALL TUBE STEEL SHALL BE ASTM A500 (Fy = 46 KSI). ALL BOLTS SHALL BE ASTM A307, UNLESS NOTED OTHERWISE. ALL CONSTRUCTION PER LATEST AISC HANDBOOK. ALL EXPANSION AND EPOXY BOLTS TO HAVE ICC RATING FOR MATERIAL INTO WHICH INSTALLATION TAKES PLACE. ALL BOLTS, ANCHOR BOLTS, EXPANSION BOLTS, ETC. SHALL BE INSTALLED WITH STEEL WASHERS AT SLOTTED HOLES IN STEEL SECTIONS. ALL WELDS SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWING OR NOTES. CERTIFICATES SHALL THOSE ISSUED BY AN ACCEPTED TESTING AGENCY. ALL WELDING DONE BY E70 SERIES LOW HYDROGEN RODS UNLESS NOTED OTHERWISE. FOR GRADE 60 REINFORCING BARS, USE E90 SERIES. ALL WELDING PER LATEST AMERICAN WELDING SOCIETY STANDARDS, (EXCEPT STEEL JOISTS SHALL COMPLY WITH SJI STANDARDS). THESE DRAWINGS DO NOT DISTINGUISH BETWEEN SHOP AND FIELD WELDS, THE CONTRACTOR MAY SHOP WELD OR FIELD WELD AT HIS/HER DISCRETION. SHOP WELDS AND FIELD WELDS SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW. WHEN STRUCTURAL STEEL IS FURNISHED TO A SPECIFIED MINIMUM YIELD POINT GREATER THAN 36 KSI, THE ASTM OR OTHER SPECIFICATION DESIGNATION SHALL BE INCLUDED NEAR THE ERECTION MARK ON EACH SHIPPING ASSEMBLY OR IMPORTANT CONSTRUCTION COMPONENT, OVER ANY SHOP COAT OF PAINT, PRIOR TO SHIPMENT FROM FABRICATOR'S PLANT.

STRUCTURAL LUMBER :

THE WESTERN WOOD PRODUCTS ASSOCIATION OR WEST COAST LUMBER INSPECTION GRADING (MUST COMPLY WITH LATEST ADOPTED N.D.S. STANDARDS)

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF SAWN LUMBER.

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF AGENCY. ALL LUMBER SHALL BEAR AN APPROVED GRADING STAMP.

JOISTS AND HEADERS :

ALL STRUCTURAL FRAMING MEMBERS SHALL BE DFL-2 OR BETTER WITH THE FOLLOWING MINIMUM VALUES, UNLESS OTHERWISE NOTED:

Fb = 875 P.S.I.
Ft (PARALLEL TO GRAIN) = 575 P.S.I.
Fc (PERP. TO GRAIN) = 625 P.S.I.
Fc (PARALLEL TO GRAIN) = 1300 P.S.I.
Fv = 95 P.S.I.
E = 1,600,000 P.S.I.

TIMBERS :

ALL STRUCTURAL FRAMING MEMBERS SHALL BE DFL-1 OR BETTER WITH THE FOLLOWING MINIMUM VALUES, UNLESS OTHERWISE NOTED:

Fb = 1200 P.S.I.
Ft (PARALLEL TO GRAIN) = 825 P.S.I.
Fc (PERP. TO GRAIN) = 625 P.S.I.
Fc (PARALLEL TO GRAIN) = 1000 P.S.I.
Fv = 95 P.S.I.
E = 1,600,000 P.S.I.

STUDS AND POSTS :

ALL STUDS & POSTS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
MEMBER E psi (MIN.) SPECIES AND GRADE
POSTS 4x4, 4x6 1,600,000 DFL-2
POSTS 6x6, 6x8 1,600,000 DFL-1
STUDS 2x4, 3x4, 2x6 1,200,000 HEM-FIR-2 OR BETTER

INTERIOR BEARING WALLS 2x AT 16" O.C. U.N.O.

INTERIOR NON-BEARING WALLS 2x AT 24" O.C. U.N.O.

(FOR STUD SPACING AT 24" O.C., THREE-PLY PLYWOOD OR EQUAL WALL SHEATHING SHALL BE APPLIED WITH LONG DIMENSION ACROSS STUDS TO CONFORM WITH TABLE 602.3(3))

GENERAL :

ALL LUMBER SHALL BE PROPERLY STORED OFF GROUND AND ADEQUATELY PROTECTED FROM THE ELEMENTS.

CONTRACTOR SHALL VERIFY THAT ALL FRAMING LUMBER HAS APPROPRIATE AGENCY STAMPS.

CONTRACTOR SHALL SUPERVISE LUMBER SUPPLIER WHILE OFF LOADING LUMBER MATERIAL TO PREVENT DAMAGE, SPLITTING AND / OR BREAKING OF ANY MATERIAL.

FRAMING CONNECTORS NOTED ARE MANUFACTURED BY SIMPSON STRONG TIE COMPANY, INC. SIMPSON STRONG TIE CONNECTORS ARE SPECIFICALLY REQUIRED TO MEET THE STRUCTURAL CALCULATIONS OF THESE PLANS. BEFORE SUBSTITUTING ANOTHER BRAND THE CONTRACTOR SHALL CONFIRM THE LOAD CAPACITY BASED ON RELIABLE PUBLISHED TESTING DATA OR CALCULATIONS FROM THE SUBSTITUTION BRAND COMPANY, PRIOR TO THEIR USE.

ALL LUMBER (INCLUDING POSTS, BEAMS AND LAMINATED LUMBER) EXPOSED TO THE ELEMENTS SHALL BE PRESSURE TREATED PER I.R.C. 2021. ALL FASTENERS FOR PRESSURE TREATED LUMBER SHALL BE AS PER I.R.C. 2021.

PROVIDE DIAGONAL LET IN BRACING AT ALL EXTERIOR CORNERS AT MAXIMUM 25' O.C. USE ¾" PLYWOOD OR EQUAL SHEAR PANEL WHERE LET IN BRACING IS NOT APPLICABLE.

NON STRUCTURAL FIRE STOPPING AND / OR DRAFT STOPPING ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS AND ARE PER THE ARCHITECTURAL DRAWINGS.

GLU-LAM BEAMS :

GLU-LAM BEAMS SHALL HAVE THE FOLLOWING PROPERTIES:
Fb = 2,400 P.S.I.
Fv = 265 P.S.I.
Fc (PERP) = 650 P.S.I. (COMB. SYM. 24FV8)
E = 1,800,000 P.S.I.

BEAMS CANTILEVERED OVER SUPPORTS SHALL HAVE THE SPECIFIED MINIMUM PROPERTIES TOP AND BOTTOM. (COMB. SYM. 24FV8)

ALL BEAMS SHALL BE FABRICATED USING WATERPROOF GLUE.

FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS.

BEAMS TO BEAR AITC STAMP AND CERTIFICATE AND GRADE STAMP. CAMBER AS SHOWN ON DRAWINGS.

SILL PLATE :

ALL INTERIOR AND EXTERIOR WALL SILL PLATES TO CONCRETE FOUNDATION WALLS SHALL BE PRESSURE TREATED WITH MINIMUM 2x4 MEMBERS, AND ANCHORED USING ½" DIAMETER ANCHOR BOLTS AT 4'-0" O.C. (MAXIMUM) OR AS SHOWN ON THE DRAWINGS, WHICHEVER IS LESS. THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION SHALL TEST ANY ANCHORING METHOD. SUBSTITUTION. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER IN WRITING DESCRIBING IN DETAIL THE ALTERNATIVE ANCHORING METHOD. MINIMUM BOLTS EMBEDDED SHALL NOT BE LESS THAN 7", WITH A MINIMUM OF TWO ANCHOR BOLTS PER SECTION OF SILL PLATE, AND SHALL BE PLACED 12 INCHES OR LESS THAN SEVEN BOLT DIAMETERS FROM THE END OF EACH SECTION OF SILL PLATE PER I.R.C. 2021.

SHEATHING :

ALL PLYWOOD SHALL CONFIRM TO APA STAND. PSI AND PRP 108 EXPOSURE 1.

ICC APPROVED ORIENTED STRAND BOARD MAY BE USED IN PLACE OF PLYWOOD (PRP 108).

ALL PLYWOOD SHALL BE OF THE FOLLOWING THICKNESS, AND SHALL BE NAILED WITH COMMON NAILS AS FOLLOWS:

	THICKNESS	EDGE NAILING	INTERIM NAILING
ROOF	½"	8d AT 6" O.C.	8d AT 12" O.C. (U.N.O.)
FLOOR	¾"	10d AT 6" O.C.	10d AT 12" O.C. (U.N.O.)
WALL	¾"	8d AT 6" O.C.	8d AT 12" O.C. (U.N.O.)

DEFERRED SUBMITTAL :

SHOP DRAWING SUBMITTALS REQUIRED BY THESE GENERAL STRUCTURAL NOTES WHICH CONTAIN DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER OTHER THAN THE ENGINEER OF RECORD, SHALL BE SUBMITTED DURING CONSTRUCTION TO THE CITY FIELD INSPECTOR FOR REVIEW. THE DOCUMENTS WILL BE FIRST REVIEWED BY THE ENGINEER OF RECORD AND DETERMINED TO BE IN CONFORMANCE WITH THE BUILDING DESIGN. THESE DEFERRED SUBMITAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

SPECIAL INSPECTIONS:

PER THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, SPECIAL INSPECTIONS ARE REQUIRED FOR STRUCTURAL ITEMS SUCH AS:

- EPOXY PROCEDURES
- EXPANSION BOLTS

ALL PROCEDURES LISTED ABOVE REQUIRE CONSTANT ON-SITE STRUCTURAL SUPERVISION EXCEPT STRUCTURAL WELDING WHICH CAN BE DONE WHEN ALL WELDING IS COMPLETE AND PRIOR TO COVERING UP ANY WELDED ITEMS.

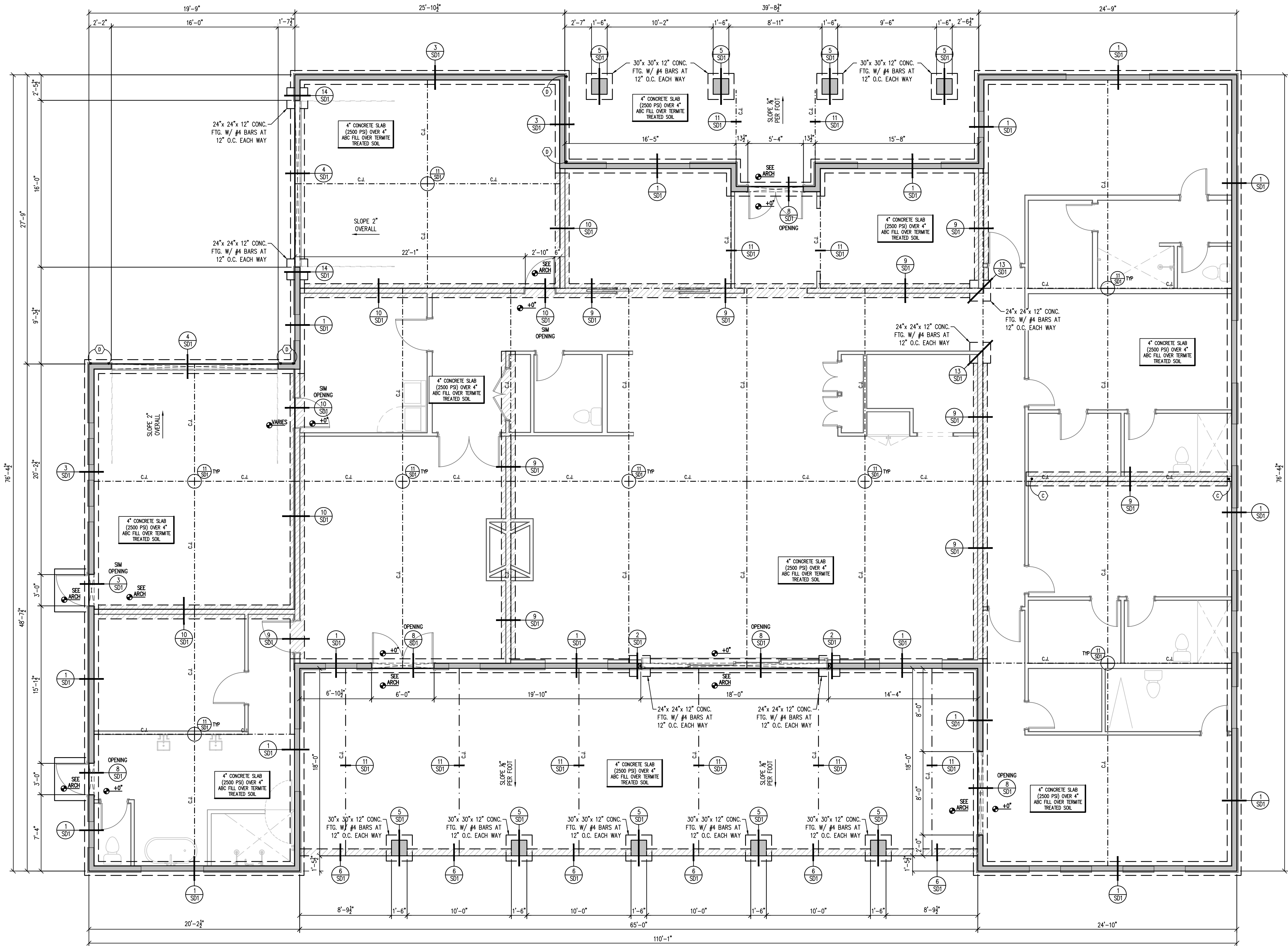
THE INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR THE INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

TABLE R602.3(1) - CONTINUED FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER (a,b,c)	SPACING AND LOCATION
ROOF			
1	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	4-8d BOX (2½" x 0.113") OR 3-8d COMMON (2½" x 0.131") OR 3-10d BOX (3" x 0.128) OR 3-3" x 0.131" NAILS	TOE NAIL
2	CEILING JOISTS TO TOP PLATE	4-8d BOX (2½" x 0.113") OR 3-8d COMMON (2½" x 0.131") OR 3-10d BOX (3" x 0.128) OR 3-3" x 0.131" NAILS	PER JOIST, TOE NAIL
3	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS [SEE SECTIONS R802.3.1, R802.3.2 AND TABLE R802.5.(9)]	4-10d BOX(3" x 0.128") OR 3-16d COMMON (3½" x 0.162") OR 4-3" x 0.131" NAILS	FACE NAIL
4	CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER (HEEL JOINT) [SEE SECTIONS R802.3.1, R802.3.2 AND TABLE R802.5.(9)]	TABLE 802.5.(9)	FACE NAIL
5	COLLAR TIE TO RAFTER, FACE NAIL OR 1½"x20 GAGE RIDGE STRAP	4-10d BOX(3" x 0.128") OR 3-10d COMMON (3½" x 0.148") OR 4-3" x 0.131" NAILS	FACE NAIL EACH RAFTER
6	RAFTER OR ROOF TRUSS TO PLATE	3-16d BOX (3½" x 0.135") OR 3-10d COMMON (3½" x 0.148") OR 4-10d BOX (3" x 0.128) OR 4-3" x 0.131" NAILS	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS
7	ROOF RAFTERS TO RIDGE, VALLEY OR HP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d BOX (3½" x 0.135") OR 3-10d COMMON (3½" x 0.148") OR 4-10d BOX (3" x 0.128) OR 4-3" x 0.131" NAILS	TOE NAIL
		3-16d BOX (3½" x 0.135") OR 2-16d COMMON (3½" x 0.162") OR 3-10d BOX (3" x 0.128) OR 3-3" x 0.131" NAILS	END NAIL
WALL			
8	STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON (3½" x 0.162") OR 10d BOX (3" x 0.128") OR 3" x 0.131" NAILS	24" O.C. FACE NAIL. 16" O.C. FACE NAIL.
9	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACE WALL PANELS)	16d BOX (3½" x 0.135") OR 3" x 0.131" NAILS 16d BOX (3½" x 0.162")	12" O.C. FACE NAIL. 16" O.C. FACE NAIL.
10	BUILT-UP HEADER (2" TO 2" HEADER WITH ½" SPACER)	16d COMMON (3½" x 0.162") 16d BOX (3½" x 0.135")	16" O.C. EACH EDGE OF FACE NAIL. 12" O.C. EACH EDGE OF FACE NAIL.
11	CONTINUOUS HEADER TO STUD	5-8d BOX(2½" x 0.113") OR 4-8d COMMON (2½" x 0.131") OR 4-10d BOX (3" x 0.128")	TOE NAIL
12	TOP PLATE TO TOP PLATE	16d COMMON (3½" x 0.162") OR 10d BOX (3" x 0.128") OR 3" x 0.131" NAILS	16" O.C. FACE NAIL. 12" O.C. FACE NAIL.
13	DOUBLE TOP PLATE SPLICE FOR SD0a-A-D2 WITH SEISMIC BRACED WALL LINE SPACING < 25'	8-16d COMMON (3½" x 0.162") OR 12-16d BOX (3½" x 0.135) OR 12-10d BOX (3" x 0.128) OR 12-3" x 0.131" NAILS	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
	DOUBLE TOP PLATE SPLICE SD0a D0a D1, OR D2; AND BRACED WALL LINE SPACING < 25'	12-16d (3½" x 0.135)	
14	BOTTOM PLATE TO JOIST, RM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3½" x 0.162") 16d BOX (3" x 0.128") OR 3" x 0.131" NAILS	16" O.C. FACE NAIL. 12" O.C. FACE NAIL.
15	BOTTOM PLATE TO JOIST, RM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS)	3-16d BOX (3½" x 0.135") OR 2-16d COMMON (3½" x 0.162") OR 4-3" x 0.131" NAILS	3 EACH 16" O.C. FACE NAIL 2 EACH 16" O.C. FACE NAIL 4 EACH 16" O.C. FACE NAIL
		4-8d BOX (2½" x 0.113") OR 3-8d BOX (3½" x 0.135") OR 4-8d COMMON (2½" x 0.131") OR 4-10d BOX (3" x 0.128) OR 4-3" x 0.131" NAILS	TOE NAIL
16	TOP OR BOTTOM PLATE TO STUD	3-16d BOX (3½" x 0.135") OR 2-16d COMMON (3½" x 0.162") 3-10d BOX (3" x 0.128") OR 3-3" x 0.131" NAILS	END NAIL
17	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d BOX (3" x 0.128") OR 2-16d COMMON (3½" x 0.162") OR 3-3" x 0.131" NAILS	FACE NAIL
18	1" BRACE TO EACH STUD AND PLATE	3-8d BOX (2½" x 0.113") OR 2-8d COMMON (2½" x 0.131") 2-10d BOX (3" x 0.128") OR 2 STAPLES 14"	FACE NAIL
19	1" x 6" SHEATHING TO EACH BEARING	3-8d BOX (2½" x 0.113") OR 2-8d COMMON (2½" x 0.131") 3-10d BOX (3" x 0.128") OR 2 STAPLES, 1 CROWN, 16 GA. 15½"	FACE NAIL
20	1" x 8" AND WIDER SHEATHING TO EACH BEARING WIDER THAN 1" x 8"	3-8d BOX (2½" x 0.113") OR 3-8d COMMON (2½" x 0.131") 3-10d BOX (3" x 0.128") OR 3 STAPLES, 1 CROWN, 16 GA. 15½"	FACE NAIL

TABLE R602.3(1) - CONTINUED FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER (a,b,c)	SPACING AND LOCATION
FLOOR			
21	JOIST TO SILL, TOP PLATE OR GIRDER	4-8d BOX (2½" x 0.113") OR 3-8d COMMON (2½" x 0.131") OR 3-10d BOX (3" x 0.128) OR 3-3" x 0.131" NAILS	TOE NAIL
22	RM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2½" x 0.113") OR 8d COMMON (2½" x 0.131") OR 10d BOX (3" x 0.128) OR 3-3" x 0.131" NAILS	4" O.C. FACE NAIL. 6" O.C. FACE NAIL.
23	1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2½" x 0.113") OR 2-8d COMMON (2½" x 0.131") OR 3-10d BOX (3" x 0.128) OR 2 STAPLES, 1" CROWN, 16 GA. 15½"	FACE NAIL
24	2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3½" x 0.135") OR 2-16d COMMON (3½" x 0.162")	BLIND AND FACE NAIL
25	2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	3-16d BOX (3½" x 0.135") OR 2-16d COMMON (3½" x 0.162")	AT EACH BEARING FACE NAIL
26	BAND OR RM JOIST TO JOIST	3-16d COMMON (2½" x 0.162") OR 4-10d BOX (3" x 0.128") OR 4-3" x 0.131" NAILS OR 4-3" x 16GA STAPLES, ¾" CROWN	END NAIL
27	BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	20d COMMON (4" x 0.92") OR 3-16d BOX (3½" x 0.135") OR 2-16d COMMON (3½" x 0.162") AND 2-20d COMMON (4" x 0.92") OR 3-10d BOX (3" x 0.128") OR 3-3" x 0.131" NAILS OR	NAIL EACH LAYER AS FOLLOWS: 32" O.C. AT TOP AND BOTTOM AND STAGGERED 24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES FACE NAIL AT ENDS AND AT EACH SPLICE
28	LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	4-16d BOX (3½" x 0.135") OR 3-16d BOX (3½" x 0.162") OR 4-10d BOX (3" x 0.128") OR 4-3" x 0.131" NAILS	AT EACH JOIST OR RAFTER, FACE NAIL
29	BRIDGING TO JOIST	2-10d BOX (3" x 0.128") OR	EACH END, TOE NAIL
TABLE R602.3(1) - CONTINUED FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENERS (b,c,d,e)	SPACING OF FASTENERS EDGES (INCHES) INTERMEDIATE SUPPORTS (c,e) (INCHES)
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND WALL SHEATHING TO FRAMING, AND PARTICLEBOARD WALL SHEATHING TO FRAMING			
30	¾" - 1½"	6d COMMON (2"x0.113") (SUBFLOOR, WALL)(J) 8d COMMON (2½"x0.131) NAIL (ROOF)(J)	6 12 (f)
31	1½" - 1"	8d COMMON NAIL (2½"x0.131")	6 12 (f)
32	1½" - 1½"	10d COMMON (3"x0.148") NAIL OR 8d (2½"x0.131") DEFORMED NAIL	6 12
OTHER WALL SHEATHING (h)			
33	½" REGULAR CELLULOSIC FIBERBOARD SHEATHING	1½" GALVANIZED ROOFING NAIL, ¾" CROWN OR 1" CROWN STAPLE 16 ga., 1 ½" LONG.	3 6
34	¾" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	1½" GALVANIZED ROOFING NAIL, ¾" CROWN OR 1" CROWN STAPLE 16 ga., 1 ½" LONG.	3 6
35	½" GYPSUM SHEATHING(d)	1½" GALVANIZED ROOFING NAIL, STAPLE GALVANIZED, 1½" LONG, 1½" SCREWS, TYPE W OR S	7 7
36	¾" GYPSUM SHEATHING(d)	1½" GALVANIZED ROOFING NAIL, STAPLE GALVANIZED, 1½" LONG, 1½" SCREWS, TYPE W OR S	7 7
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING			
37	¾" AND LESS	6d DEFORMED (2" x 0.120") NAIL OR 8d COMMON (2½" x 0.131) NAIL	6 12
38	¾" - 1"	8d COMMON (2½" x 0.131") NAIL OR 8d DEFORMED (2½" x 0.120) NAIL	6 12
39	1½" - 1½"	10d COMMON (3" x 0.148") NAIL OR 8d DEFORMED (2½" x 0.120) NAIL	6 12

FOR SJI: 1 INCH = 25.4 mm, 1 FOOT = 304.8 mm, 1 MILE PER HOUR = 0.447 m/s, 1 KSI = 6,895 MPa.
a. NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS, EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 ksi (551 MPa) FOR SHANK DIAMETER OF 0.192 INCH (20d COMMON NAIL), 90 ksi (620 MPa) FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 ksi (689 MPa) FOR SHANK DIAMETERS OF 0.142 INCH OR LESS.
b. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM ¾" ON DIAMETER CROWN WIDTH.
c. NAILS SHALL BE SPACED AT NO MORE THAN 6" O.C. AT ALL SUPPORTS WHERE SPANS ARE 48" OR GREATER.
d. 4'-0" x 8'-0" OR 4'-0" x 8'-0" PANELS SHALL BE APPLIED

CITY OF SCOTTSDALE
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SHEARWALL PLAN

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

FOUNDATION NOTES

- REFER TO STRUCTURAL NOTES PAGE FOR MATERIAL SPECIFICATIONS AND ADDITIONAL REQUIREMENTS NOT LISTED BELOW.
- ALL CONSTRUCTION AND FOUNDATION WORK SHALL COMPLY WITH THE LATEST ADOPTED VERSION OF ALL APPLICABLE BUILDING CODES.
- VERIFY ALL FOUNDATION DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- ALL WOOD PLATES THAT ANCHOR TO THE FOUNDATION SHALL BE PRESSURE TREATED OR FOUNDATION REDWOOD.
- COORDINATE FOUNDATION PLAN WITH SHEARWALL PLAN FOR LOCATION OF HOLD-DOWNS AND SHEAR WALL ANCHOR BOLT SPACING.
- CONTRACTOR TO PLACE CONTROL JOINTS AS INDICATED ON THE FOUNDATION PLAN WHERE APPLICABLE (MAX 200 SQ. FT.).
- NEW FINISH FLOOR TO BE FLUSH WITH EXISTING FINISH FLOOR.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR ANY EXTERIOR SLAB OR SIDEWALK WORK NOT SHOWN ON THESE DRAWINGS.
- TYPICAL ANCHOR BOLT 3/4" x 10" LONG OR SIMPSON MASA AT 32" O.C. UNLESS NOTED OTHERWISE ON PLAN. ALL WOOD SILL PLATES SHALL BE PRESSURE TREATED AND HAVE A MIN. OF 2 ANCHOR BOLTS PER PLATE. ANCHOR BOLTS SHALL BE LOCATED NOT LESS THAN 6" NOR MORE THAN 12" FROM END OF PLATE OR AT PLATE SPICE. ANCHORS USED FOR HOLD-DOWNS SHALL NOT BE CONSIDERED IN PLACING ANCHOR BOLTS. REFER TO SHEAR WALL LAYOUT PLAN FOR THE SPACING OF ANCHOR BOLTS AT THE LOCATION OF SHEAR PANELS.

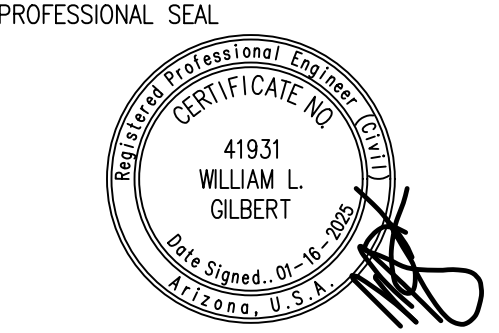
HOLD-DOWN SCHEDULE		
MARK	TYPE	DESCRIPTION
B	STR100	USE STR100 (WITH (28) 16d SINKER NAILS)
C	HTT-5	USE HTTS (WITH (28) 10d SINKER NAILS) 5/8" STRONG-BOLT 2 WITH 5-8" EMBED (ESP. #0037)
D	STR104	USE STR104 (WITH (38) 16d SINKER NAILS)

NOTES:
ALL HOLD-DOWNS SHALL BE ATTACHED TO DOUBLE FULL HEIGHT STUD (AWL).
* USE CARBON STEEL FOR STRONG-BOLT 2 AND SPECIAL INSPECTION REQ. ONLY WHEN SPECIFIED (ESP-3037)
** SEE DETAIL 12/301 FOR RETROFIT HOLD-DOWN APPLICATION
*** #4 REBAR REQUIRED FOR HOLD-DOWNS INSTALLED AT RAISED CURB LOCATIONS ONLY.
INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

CUSTOM RESIDENCE

13202 N. 76th PLACE
SCOTTSDALE, ARIZONA 85260

Gilbert Structural LLC
414 East Southern Ave
Tempe, Arizona 85282
Office (480) 398-8144



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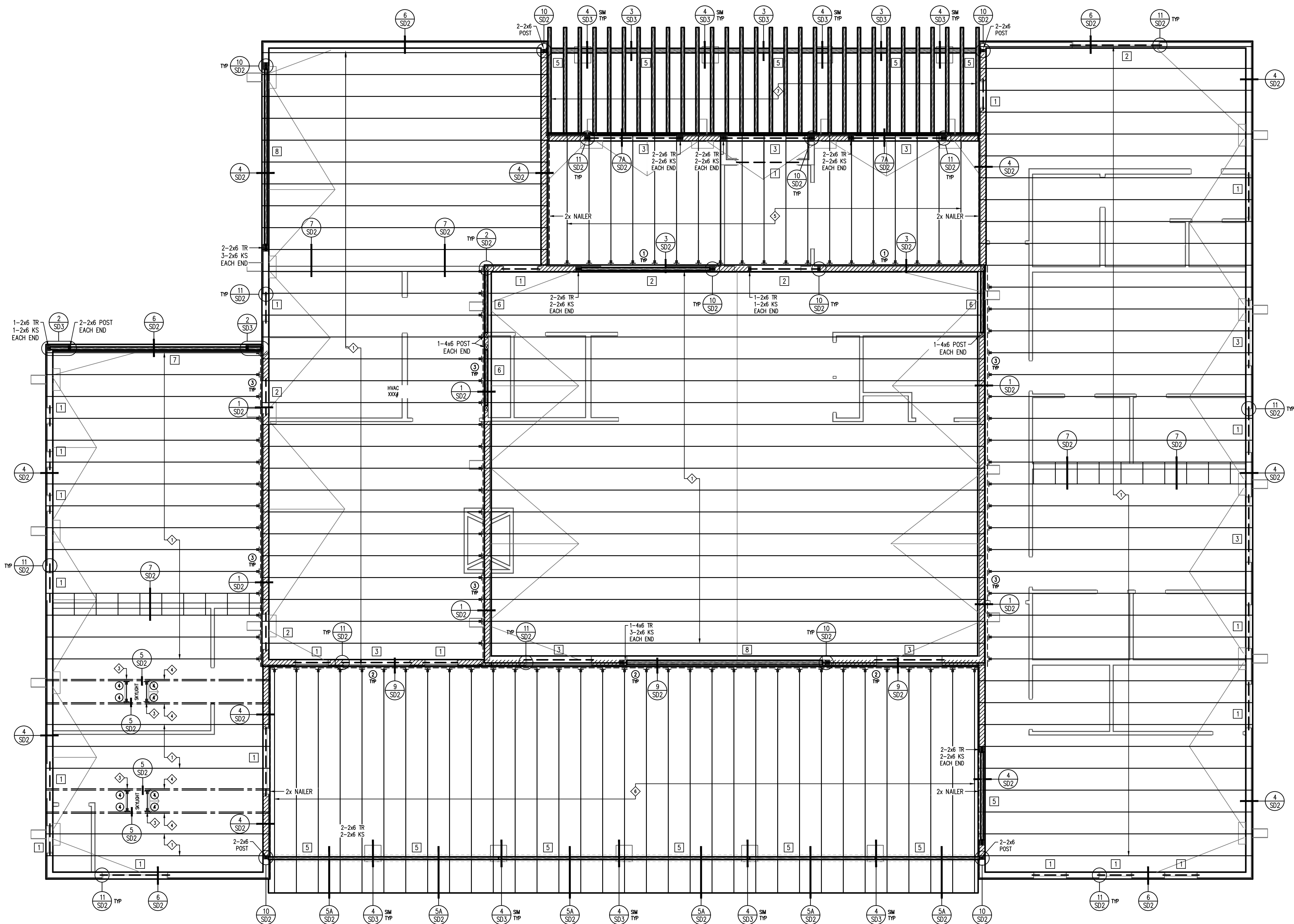
SHEET TITLE:

SHEARWALL LAYOUT

SHEET NUMBER:

S1.0

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LEGEND:	
	BEARING WALL
	2-2x POST (U.N.O.)

HANGER SCHEDULE	
①	LUS26
②	LRU210Z
③	LUS210
④	LUS210-2

BEAM SCHEDULE	
①	(2) 2x6 DFL #2 OR 4x6
②	(2) 2x8 DFL #2 OR 4x8
③	(2) 2x10 DFL #2 OR 4x10
④	(2) 2x12 DFL #2 OR 4x12
⑤	(1) 3/8" x 9" GLB
⑥	(1) 3/8" x 10 1/2" GLB
⑦	(1) 3/8" x 12" GLB
⑧	(1) 5/8" x 13 1/2" GLB

TRUSS SCHEDULE	
①	TAPERED TOP CHORD FLAT ROOF TRUSSES AT 24" O.C.
②	MONO ROOF TRUSSES AT 24" O.C.
③	BOX GIRDER TRUSS
④	TAPERED TOP CHORD FLAT GIRDER TRUSS
⑤	MONO TRUSSES AT 24" O.C.
⑥	2x12 RAFTERS AT 24" O.C.
⑦	4x6 RAFTERS AT 24" O.C.

- FRAMING NOTES**
- REFER TO STRUCTURAL NOTES PAGE FOR MATERIAL SPECIFICATIONS AND ADDITIONAL REQUIREMENTS NOT LISTED BELOW.
 - ALL FRAMING AND ANCHORING SHALL COMPLY WITH THE LATEST ADOPTED VERSION OF THE BUILDING CODE.
 - EXTERIOR WALLS TO BE 2x STUDS AT 16" O.C., TYPICAL, U.N.O.
 - INTERIOR BEARING WALLS TO BE 2x STUDS AT 16" O.C., U.N.O.
 - INTERIOR PARTITION WALLS TO BE 2x STUDS AT 24" O.C., TYPICAL, U.N.O.
 - ALL POSTS TO BE 2-2x THE WALL THICKNESS, U.N.O.
 - SINGLE TRIMMER IS TO BE PROVIDED UNDER THE ENDS OF ALL BEAMS AND HEADERS, U.N.O.
 - ALL JOISTS SHALL BEAR A MINIMUM OF 2" ON ALL BEAMS OR WALL PLATES. PROVIDE H2.5T TIE AT EACH TRUSS ALONG INTERIOR BEARING WALLS.
 - METAL CONNECTORS, HANGERS AND TIES TO BE "SIMPSON STRONG-TIE" OR APPROVED EQUAL.
 - ALL ROOF TRUSSES SHALL BE AT 24" O.C. U.N.O.
 - ALL TRUSSES AND STRUCTURAL MEMBERS SHALL BE BRACED, BLOCKED AND SUPPORTED AT ALL TIMES DURING CONSTRUCTION.
 - TRUSS MANUFACTURER TO COORDINATE WITH MECHANICAL AND ARCHITECTURAL DRAWINGS FOR EXACT WEIGHT AND LOCATION OF MECHANICAL EQUIPMENT.
 - SEE MECHANICAL AND ARCHITECTURAL PLANS FOR LOCATIONS OF SOFFITS AND LOWERED SOFFITS.
 - PROVIDE BLOCK-OUTS IN ROOF FOR FIREPLACE FLUES, PLUMBING, ETC. VERIFY LOCATIONS OF FIREPLACE FLUES PRIOR TO CONSTRUCTION.
 - PROVIDE CROSS BLOCKING AND 1/2" PLYWOOD BACKING AT ALL CEILING FAN LOCATIONS.
 - REFER TO ARCHITECTURAL FLOOR AND/OR ROOF PLANS FOR ATTIC ACCESS LOCATIONS AND CODE REQUIREMENTS.
 - PROVIDE 2x BLOCKING AT ALL HIP AND RIDGES FOR PANEL EDGE NAILING. REFER TO ENGINEERING SPECIFICATIONS.
 - PROVIDE SIMP. STCT CLIP AT ALL TRUSSES TO EXTERIOR NON-BEARING WALLS.
 - SIMPSON H2.5T OR RSP4 NOT REQUIRED AT TOP OR BOTTOM PLATE CONNECTIONS IF OSB IS INSTALLED AT THAT LOCATION.
 - 16-GAUGE 1 1/2" LONG (1/2" CROWN) STAPLES MAY BE USED IN LIEU OF 8d NAILS FOR ROOF SHEATHING CONNECTIONS. SAME SPACING APPLIES TO BOTH 8d NAILS AND 16-GAUGE STAPLES.
 - GIRDER TRUSS POST REQUIREMENTS:
 - SINGLE PLY GIRDER TRUSS - USE 1-2x (WALL THICKNESS) U.N.O.
 - TWO PLY GIRDER TRUSS - USE 2-2x (WALL THICKNESS) U.N.O.
 - THREE PLY GIRDER TRUSS - USE 3-2x (WALL THICKNESS) U.N.O.

FRAMING PLAN

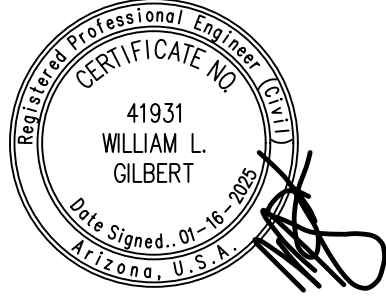
SCALE: 3/16"=1'-0"

CUSTOM RESIDENCE

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SCOTTSDALE, ARIZONA 85260

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Tempe, Arizona 85282
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PROFESSIONAL SEAL



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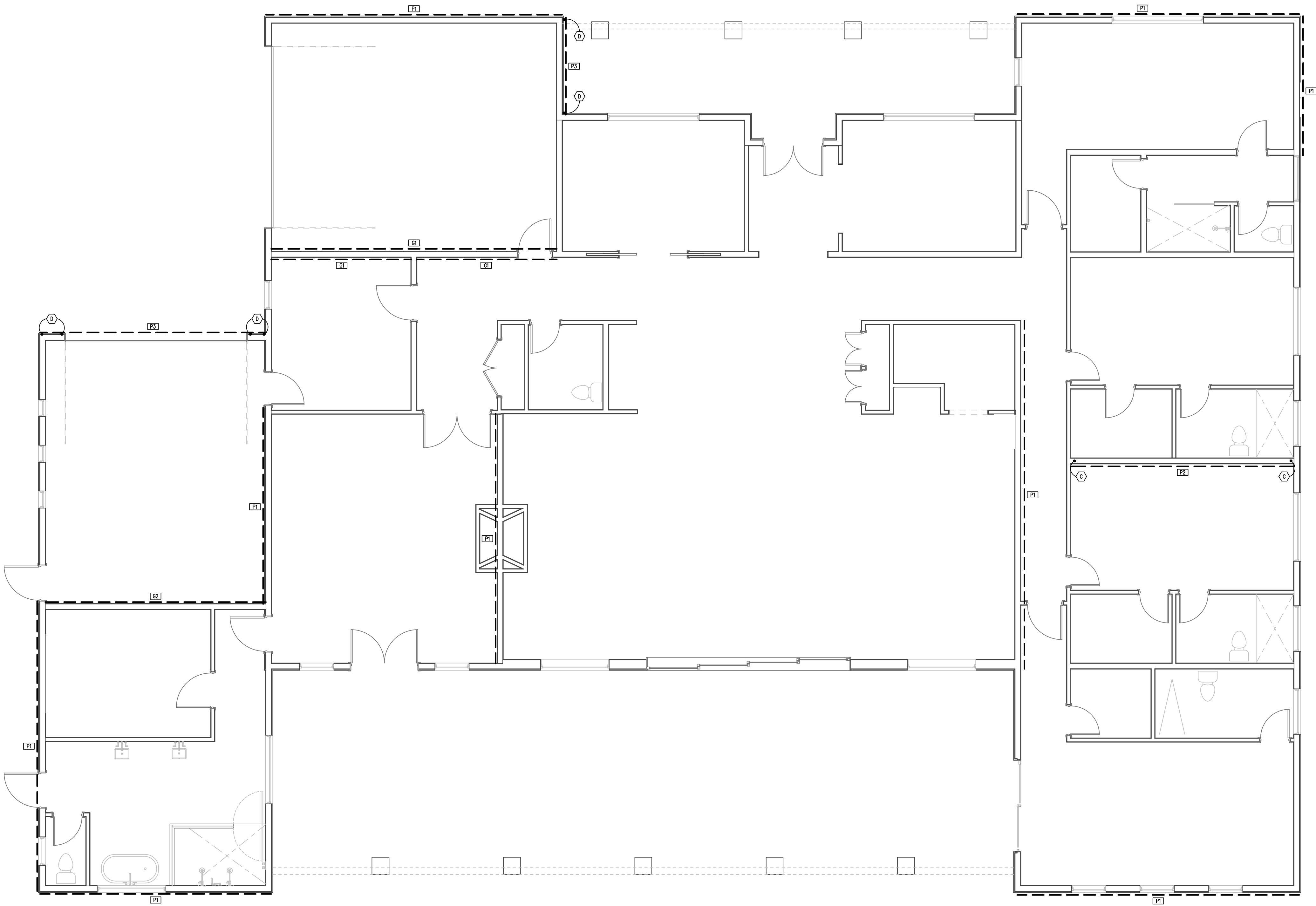
SHEET TITLE:

FRAMING LAYOUT

SHEET NUMBER:

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SHEARWALL PLAN

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

HOLDOWN SCHEDULE		
MARK	TYPE	DESCRIPTION
B	STD10	USE STD10 [WITH (28) 16d SINKER NAILS]
C	HIT-5	USE HTTS [WITH (26) 10d SINKER NAILS] 3/4"Ø STRONG-BOLT 2 WITH 5-1/8" EMBED (ESR #3037)
D	STD14	USE STD14 [WITH (38) 16d SINKER NAILS]
NOTES: ALL HOLDOWNS SHALL BE ATTACHED TO DOUBLE FULL HEIGHT STUD (MIN.) * USE CARBON STEEL FOR STRONG-BOLT 2 AND SPECIAL INSPECTION REQ. ONLY WHEN SPECIFIED (ESR-3037) ** SEE DETAIL 12/SD1 FOR RETROFIT HOLDOWN APPLICATION *** #4 REBAR REQUIRED FOR HOLDOWNS INSTALLED AT RAISED CURB LOCATIONS ONLY. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.		

SHEATHING SCHEDULE		
MARK	DESCRIPTION	
G1	1/2" G.W.B. w/ 5d COOLER NAILS AT 7" O.C. EDGES AND FIELD (UNBLOCKED) (EXTERIOR) :1/2" X 10" ANCHOR BOLTS AT 48" O.C. (INTERIOR) :HILTI PINS AT 9" O.C.	
G2	1/2" G.W.B. w/ 5d COOLER NAILS AT 7" O.C. EDGES AND FIELD (BLOCKED) (EXTERIOR) :1/2" X 10" ANCHOR BOLTS AT 48" O.C. (INTERIOR) :HILTI PINS AT 9" O.C.	
P1	3/4" PLYWOOD/OSB w/8d AT 6" O.C. EDGES /12" O.C. FIELD (BLOCKED) (EXTERIOR): 1/2" X 10" ANCHOR BOLTS AT 32" O.C. (INTERIOR): 1/2"Ø SIMP. STRONG-BOLT 2 A.B. AT 32" O.C. (EMBED 23/4" MIN. ESR-3037)	
P2	3/4" PLYWOOD/OSB w/8d AT 4" O.C. EDGES /12" O.C. FIELD (BLOCKED) (EXTERIOR): 1/2" X 10" ANCHOR BOLTS AT 24" O.C. (INTERIOR): 1/2"Ø SIMP. STRONG-BOLT 2 A.B. AT 24" O.C. (EMBED 23/4" MIN. ESR-3037)	
P3	3/4" PLYWOOD/OSB w/8d AT 3" O.C. EDGES /12" O.C. FIELD (BLOCKED) (EXTERIOR): 1/2" X 10" ANCHOR BOLTS AT 16" O.C. (INTERIOR): 1/2"Ø SIMP. STRONG-BOLT 2 A.B. AT 16" O.C. (EMBED 23/4" MIN. ESR-3037)	
*		

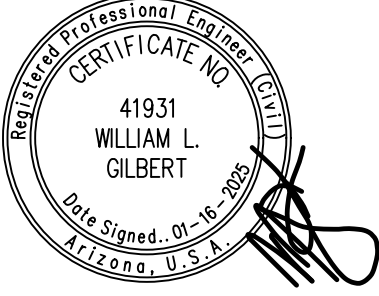
ALL SHEARWALLS TO HAVE DOUBLE TOP PLATES AND 2x STUDS AT 16" O.C. - U.N.O.
* FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER, AND NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED LESS THAN 3" O.C.
** USE CARBON STEEL FOR STRONG-BOLT 2 AND SPECIAL INSPECTION REQ. ONLY WHEN SPECIFIED. (ESR-3037)
*** AS AN ALTERNATE TO WET-SET ANCHOR BOLTS AND STRONG-BOLT 2 ANCHORS, SIMPSON TITEN-HD ANCHOR BOLTS MAY BE USED PROVIDED THE SAME SPACING IS ADHERED TO AS STATED IN THE SCHEDULE ABOVE. THE ANCHORS SHALL BE 1/2" x 5" WITH A MINIMUM EMBEDMENT OF 31/2" (ESR-2713).
**** AS AN ALTERNATE TO 5d COOLER NAILS, #6 11/4" TYPE 'W' DRYWALL SCREWS MAY BE USED. AS AN ALTERNATE TO 6d COOLER NAILS, #6 11/4" TYPE 'W' DRYWALL SCREWS MAY BE USED. SAME SPACING APPLIES PER SCHEDULE.

CUSTOM RESIDENCE

13202 N. 76th PLACE
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Gilbert Structural LLC
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Tempe, Arizona 85282
Office (480) 398-8144

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DATE: 8.30.2024

SHEET TITLE:

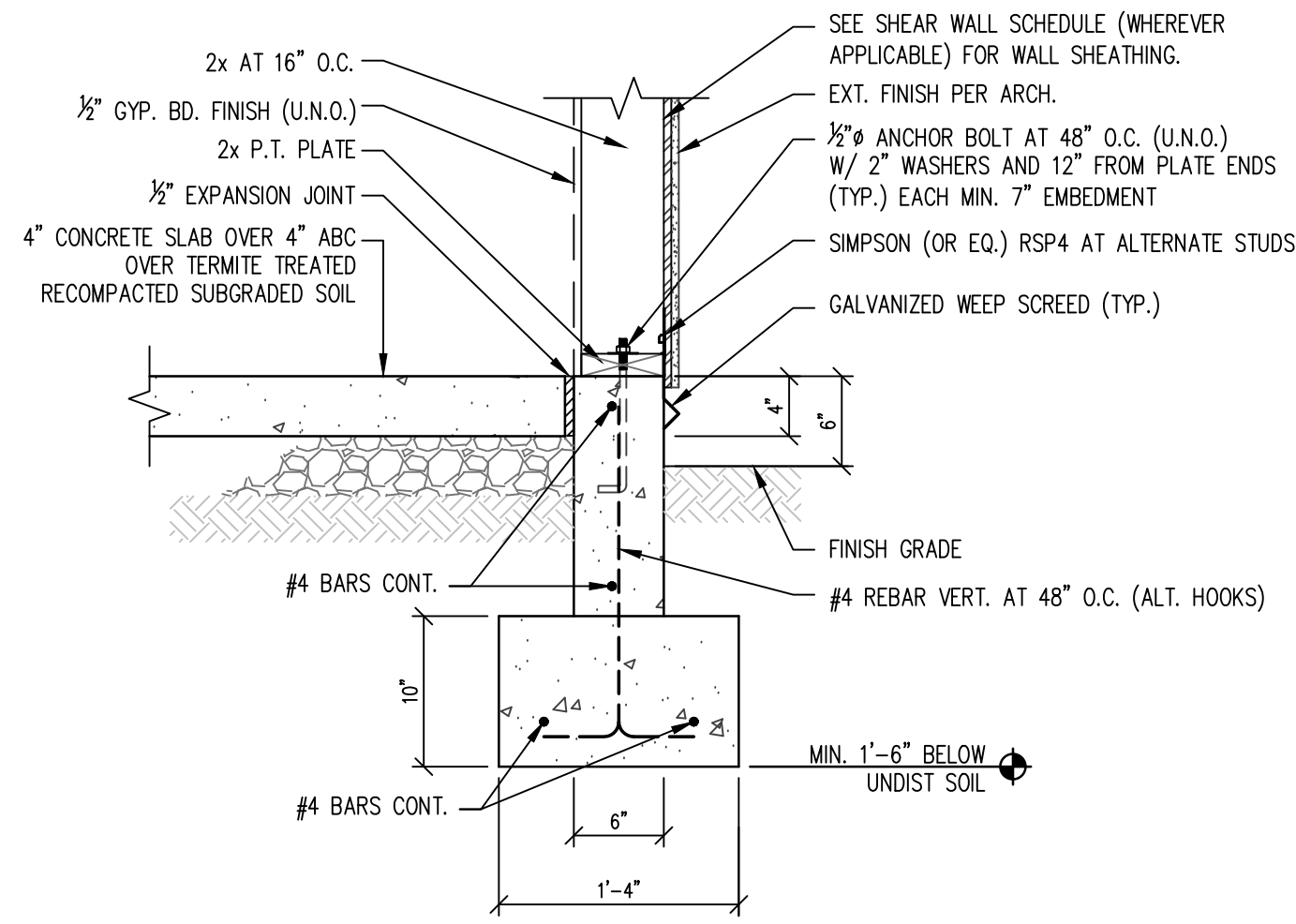
SHEARWALL LAYOUT

SHEET NUMBER:

S3.0

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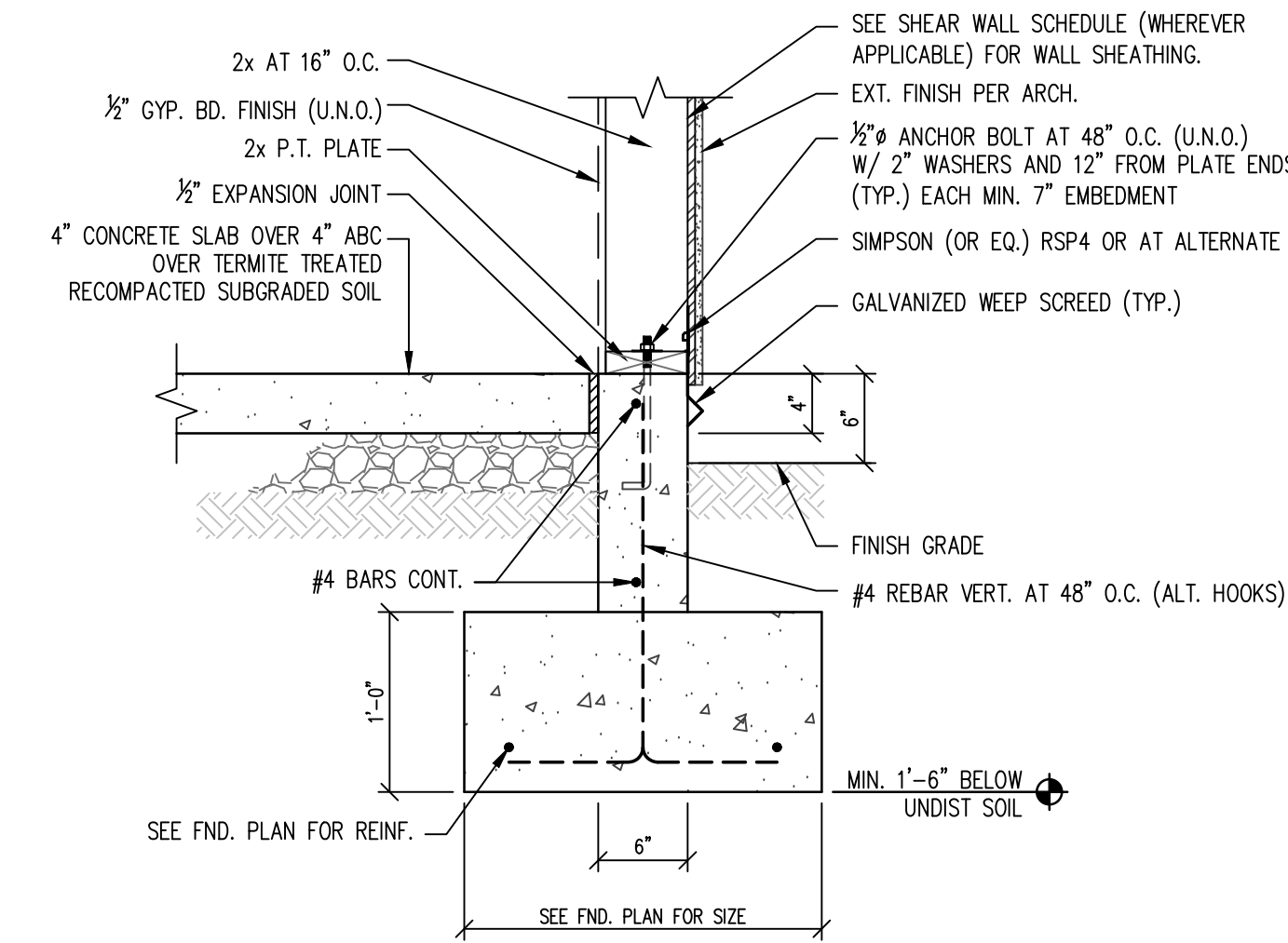
NOTE:
SIMPSON MASA MAY BE USED
IN LIEU OF 1/2" ANCHOR BOLTS



1 EXTERIOR WALL AND FOOTING

SCALE: 1"=1'-0"

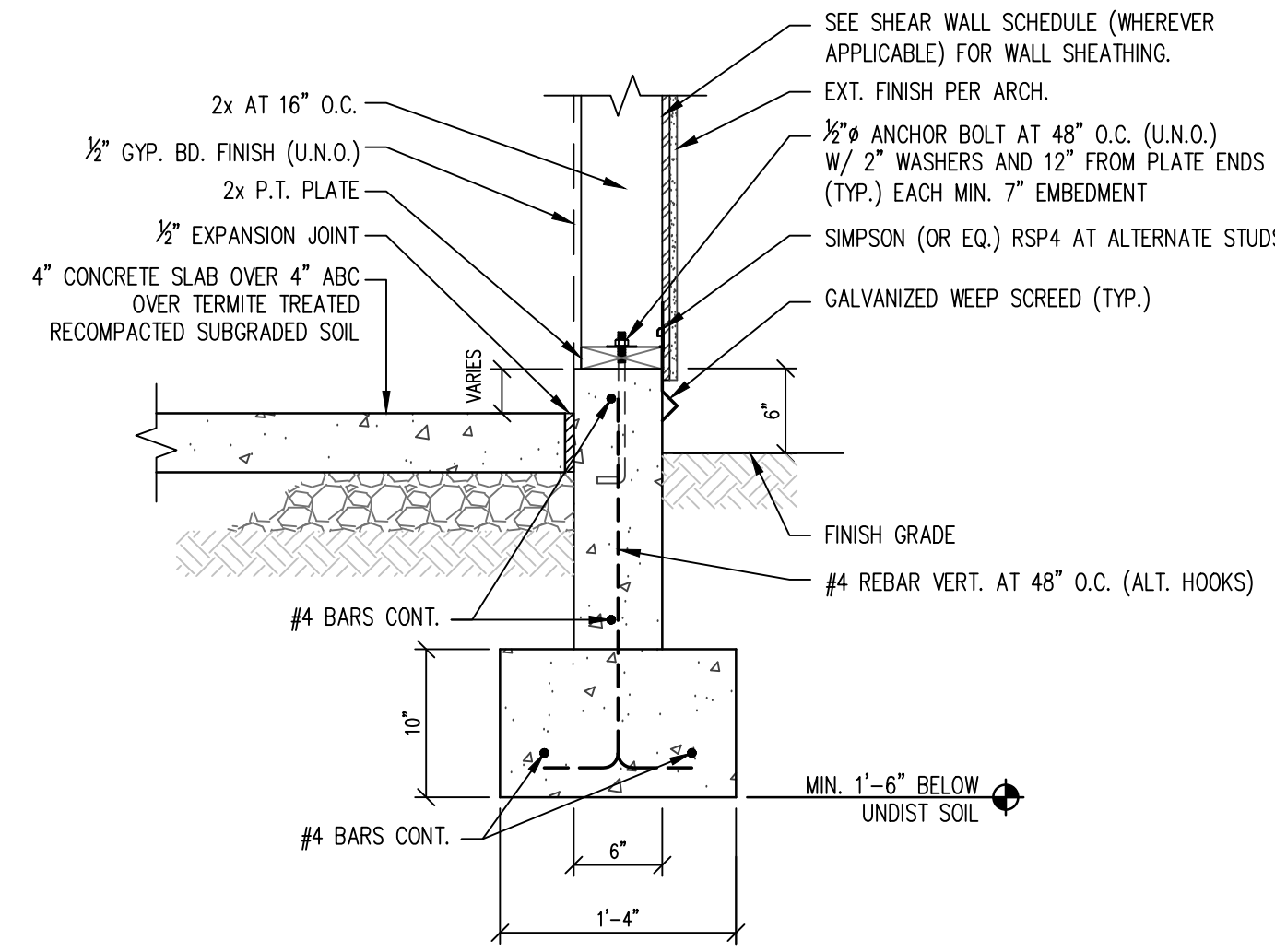
NOTE:
SIMPSON MASA MAY BE USED
IN LIEU OF 1/2" ANCHOR BOLTS



2 EXTERIOR WALL AT POST

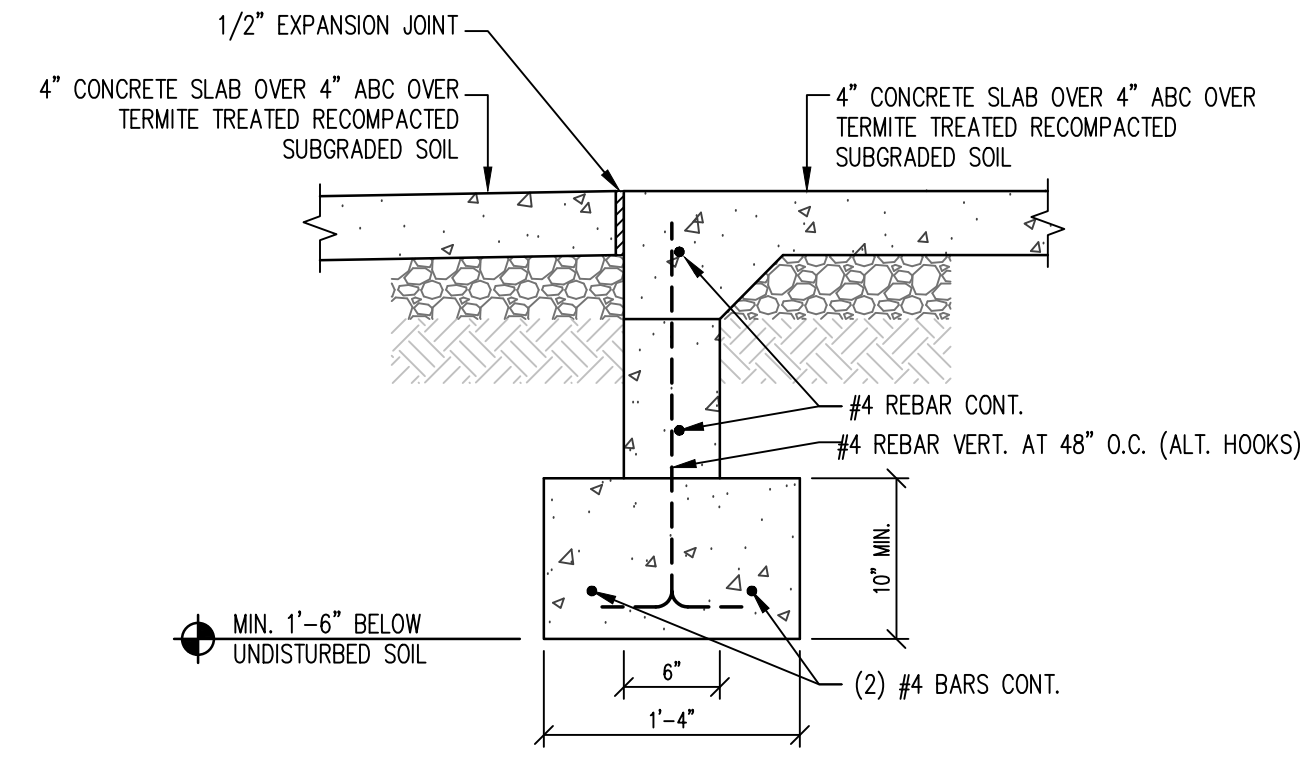
SCALE: 1"=1'-0"

NOTE:
SIMPSON MASA MAY BE USED
IN LIEU OF 1/2" ANCHOR BOLTS



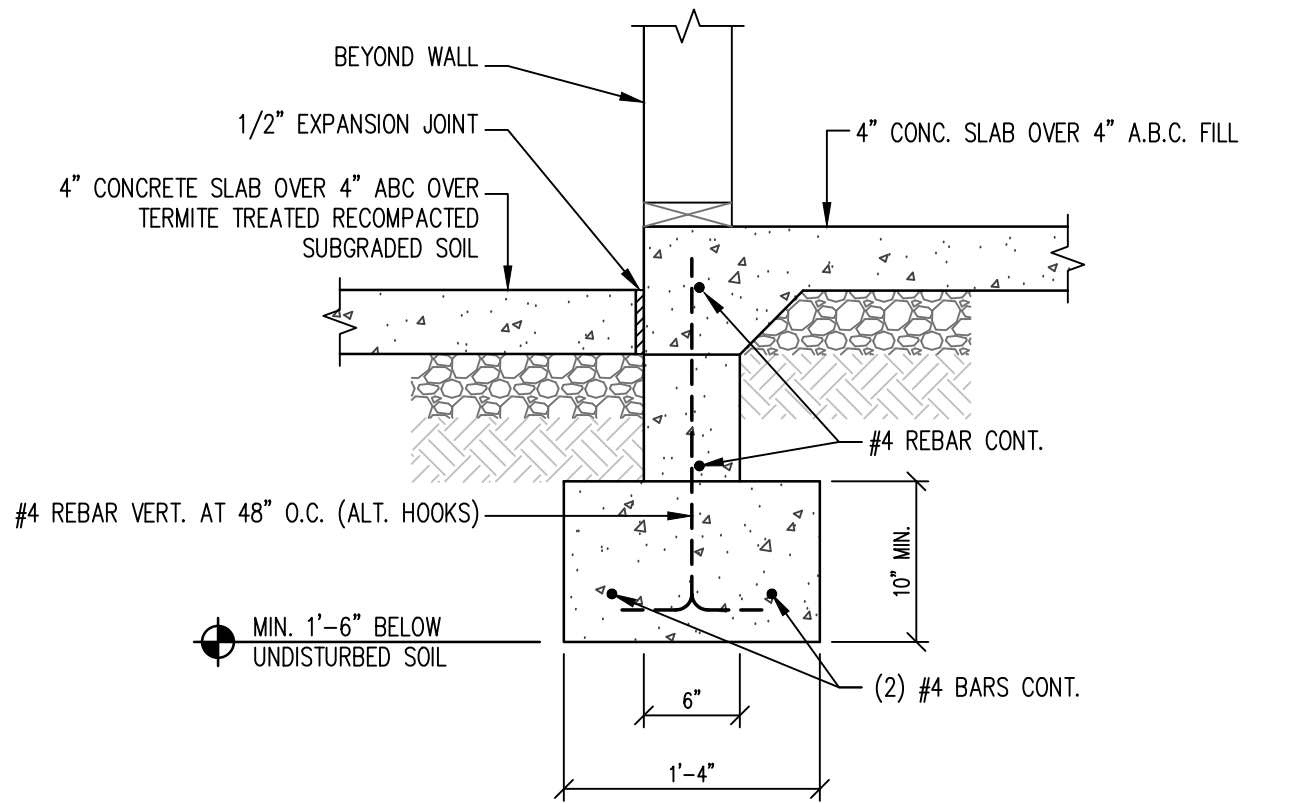
3 EXTERIOR WALL AT GARAGE

SCALE: 1"=1'-0"



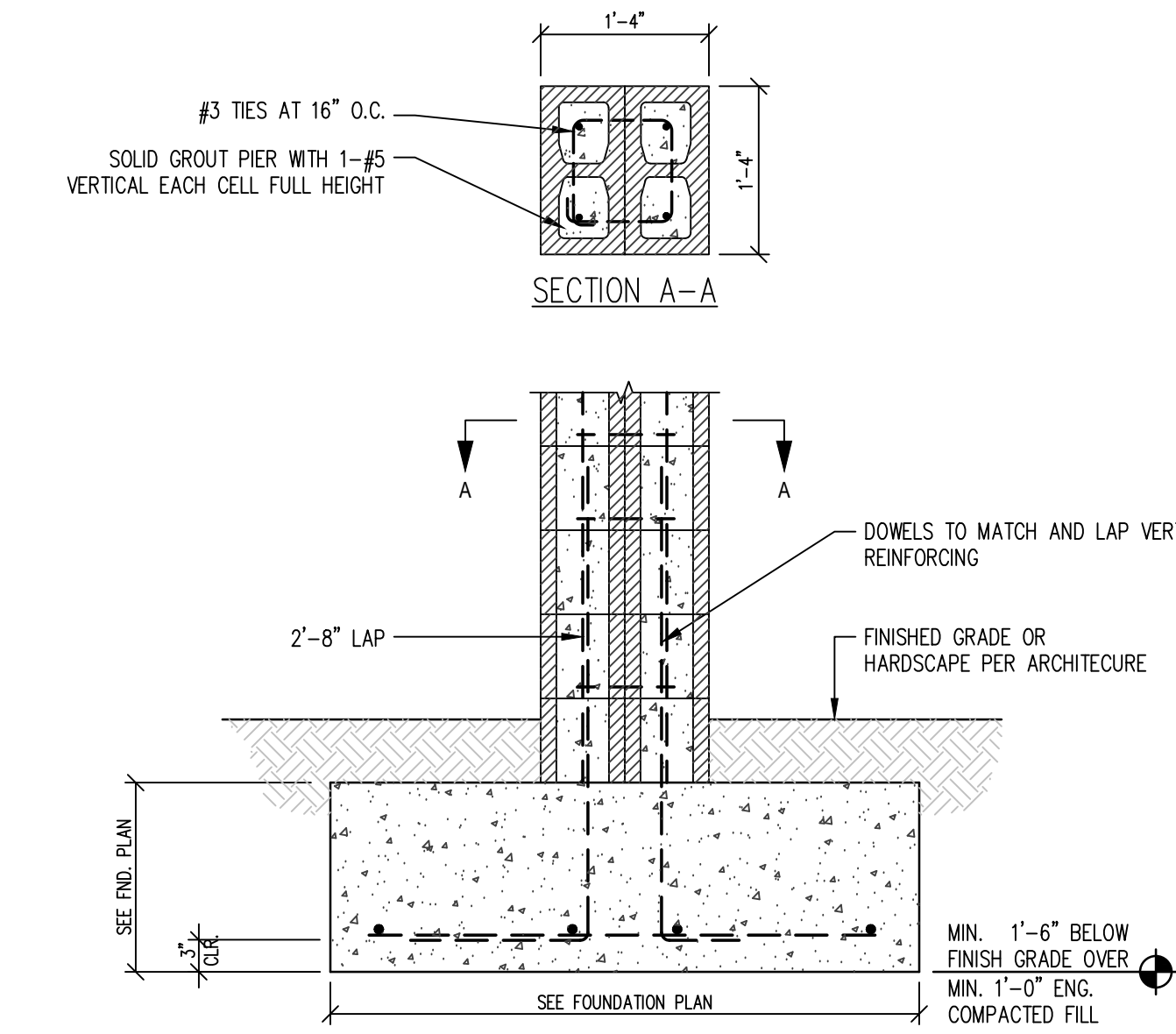
4 SLAB AT GARAGE DOOR

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



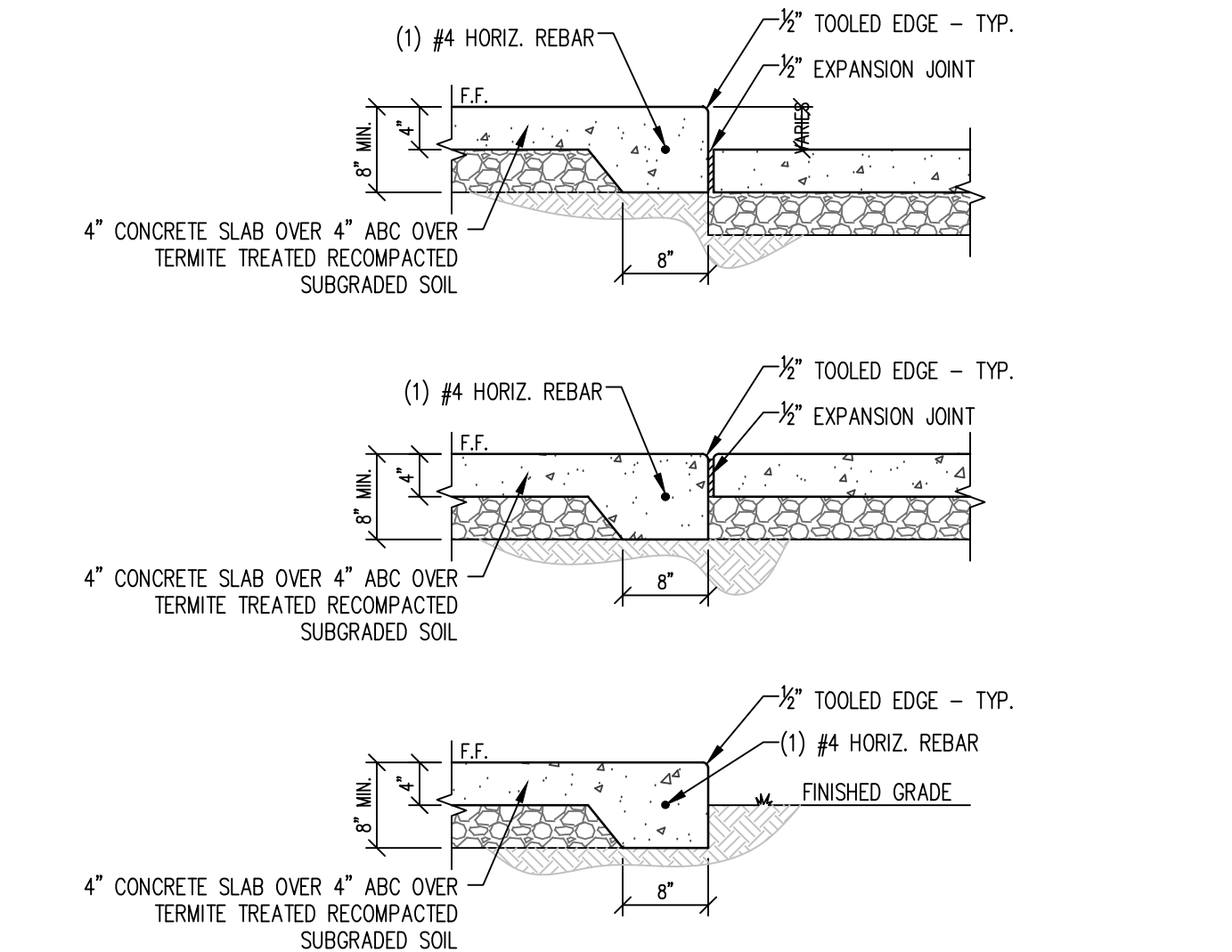
5 TYP. DEPRESSED STEM AT OPENING

SCALE: 1"=1'-0"



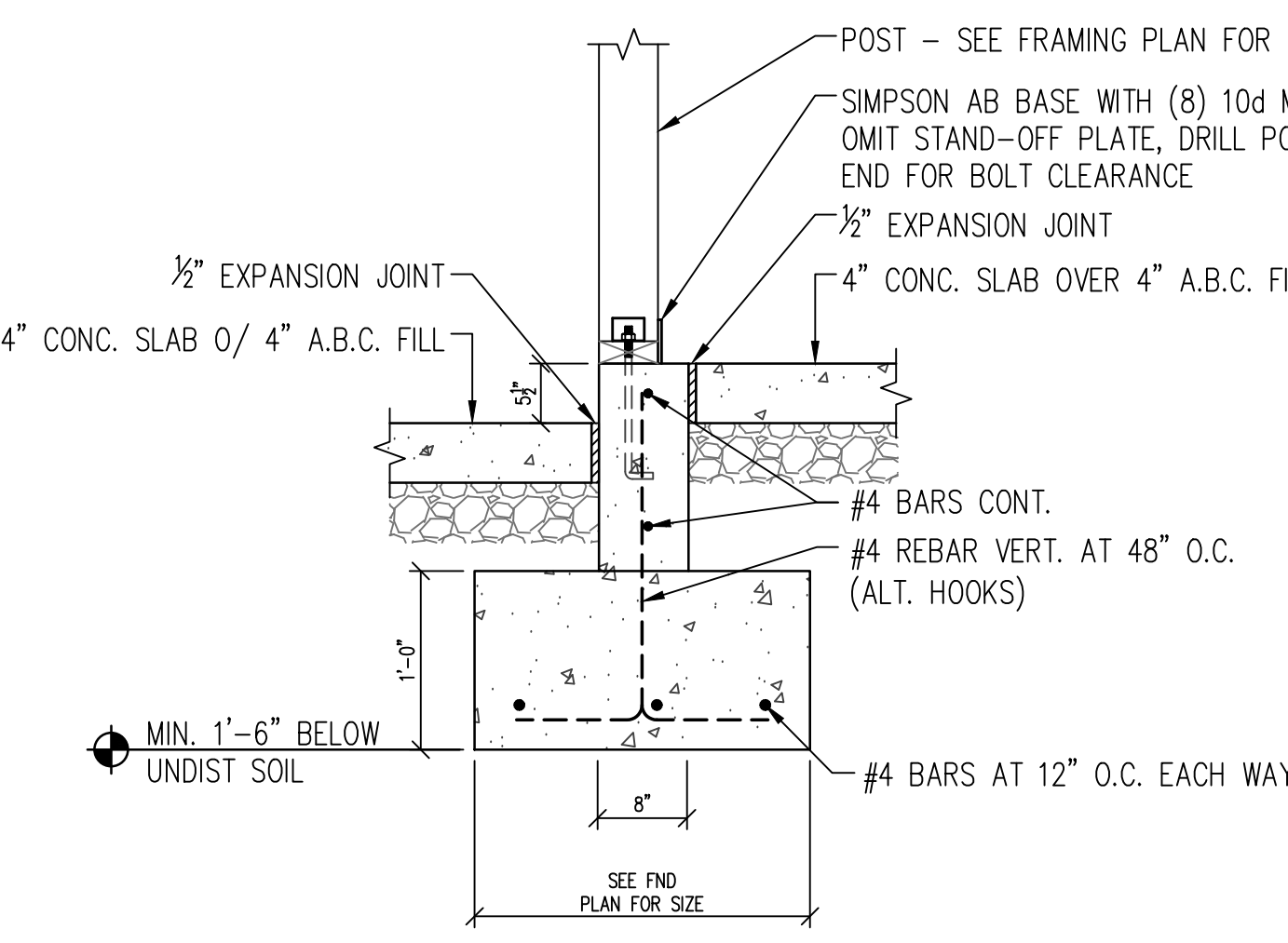
6 CMU COLUMN AND FOOTING

SCALE: 1"=1'-0"



7 TYP. POST FOOTING AT STEP DOWN SLAB

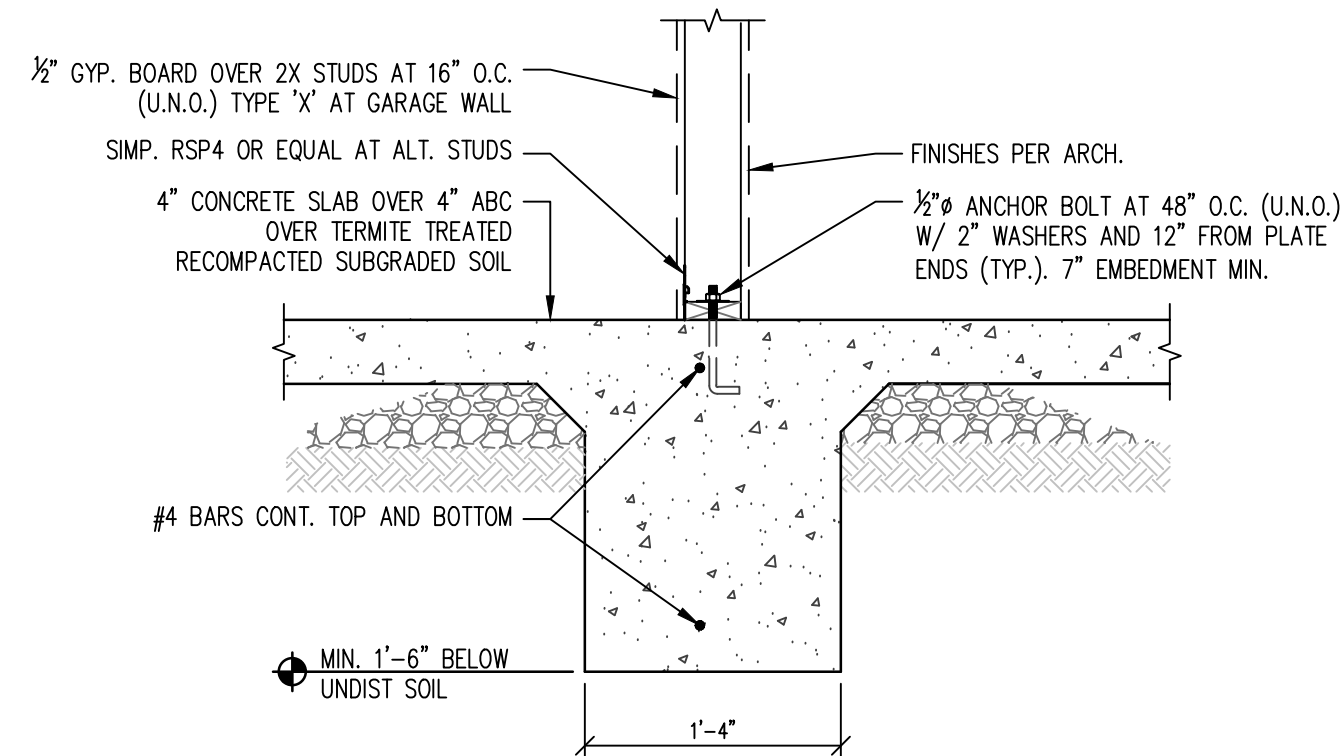
SCALE: 1"=1'-0"



8 CONTROL JOINT DETAIL

NOT TO SCALE

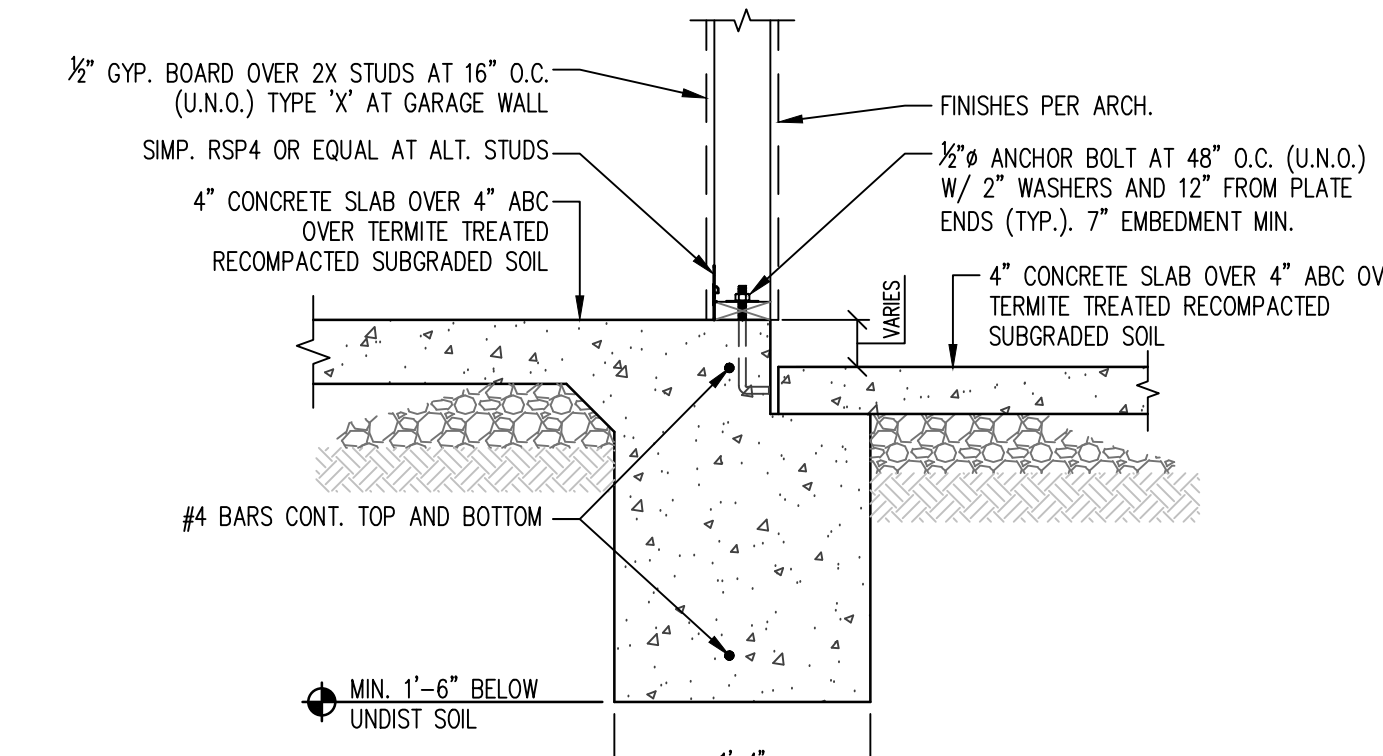
NOTE:
REBAR SHALL BE A MIN. 3" ABOVE
BOTTOM OF FOOTING WHERE APPLICABLE



9 INTERIOR BEARING WALL FOOTING

SCALE: 1"=1'-0"

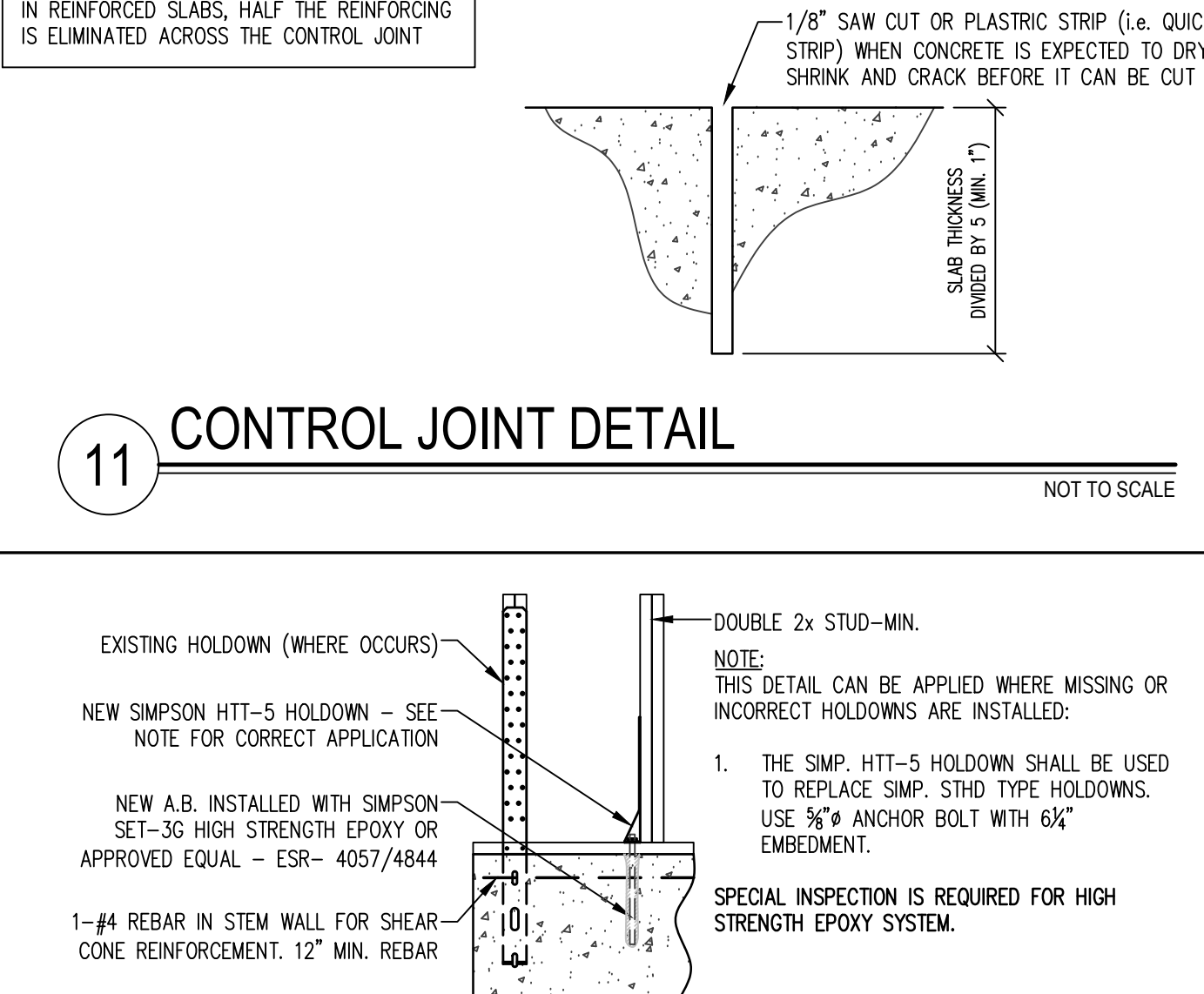
NOTE:
REBAR SHALL BE A MIN. 3" ABOVE
BOTTOM OF FOOTING WHERE APPLICABLE



10 INTERIOR BEARING WALL
FOOTING AT TURNDOWN SLAB

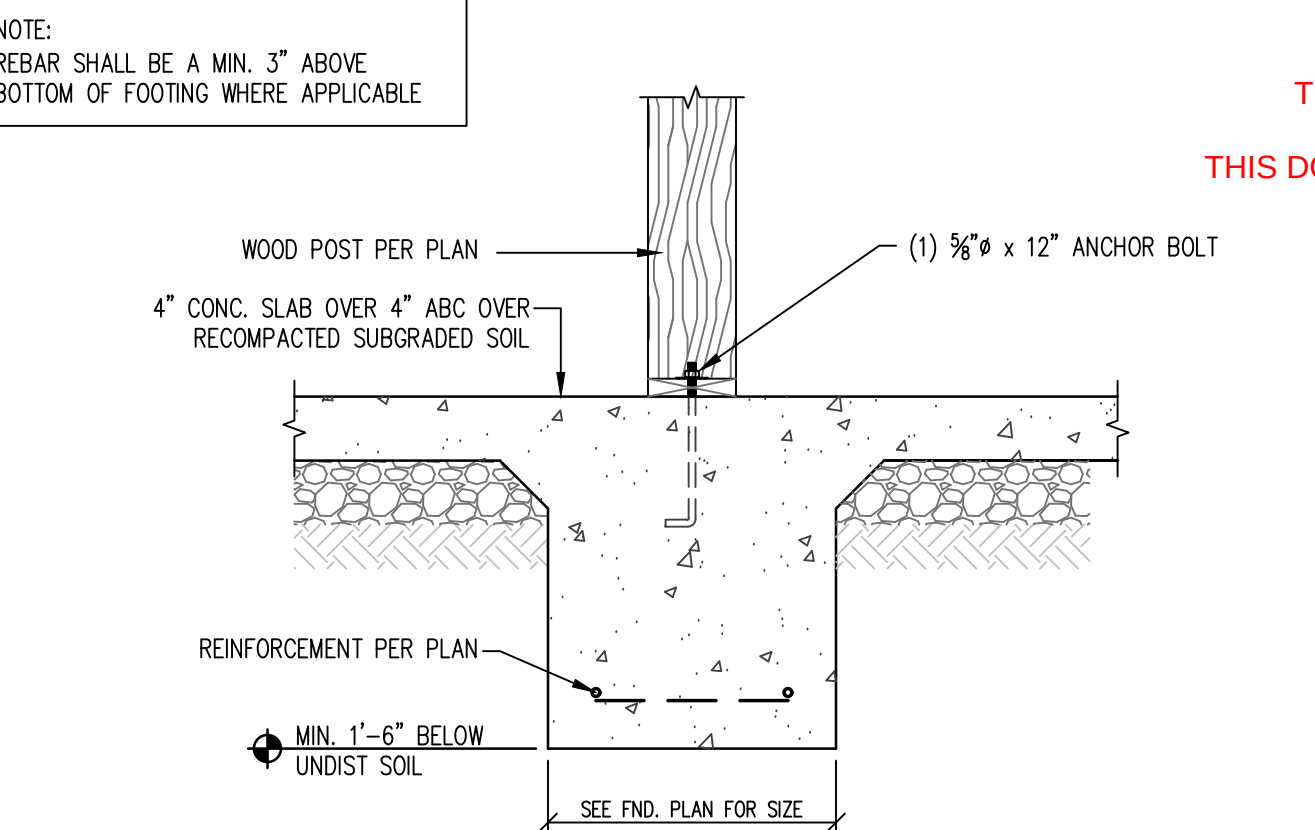
SCALE: 1"=1'-0"

NOTE:
IN REINFORCED SLABS, HALF THE REINFORCING
IS ELIMINATED ACROSS THE CONTROL JOINT



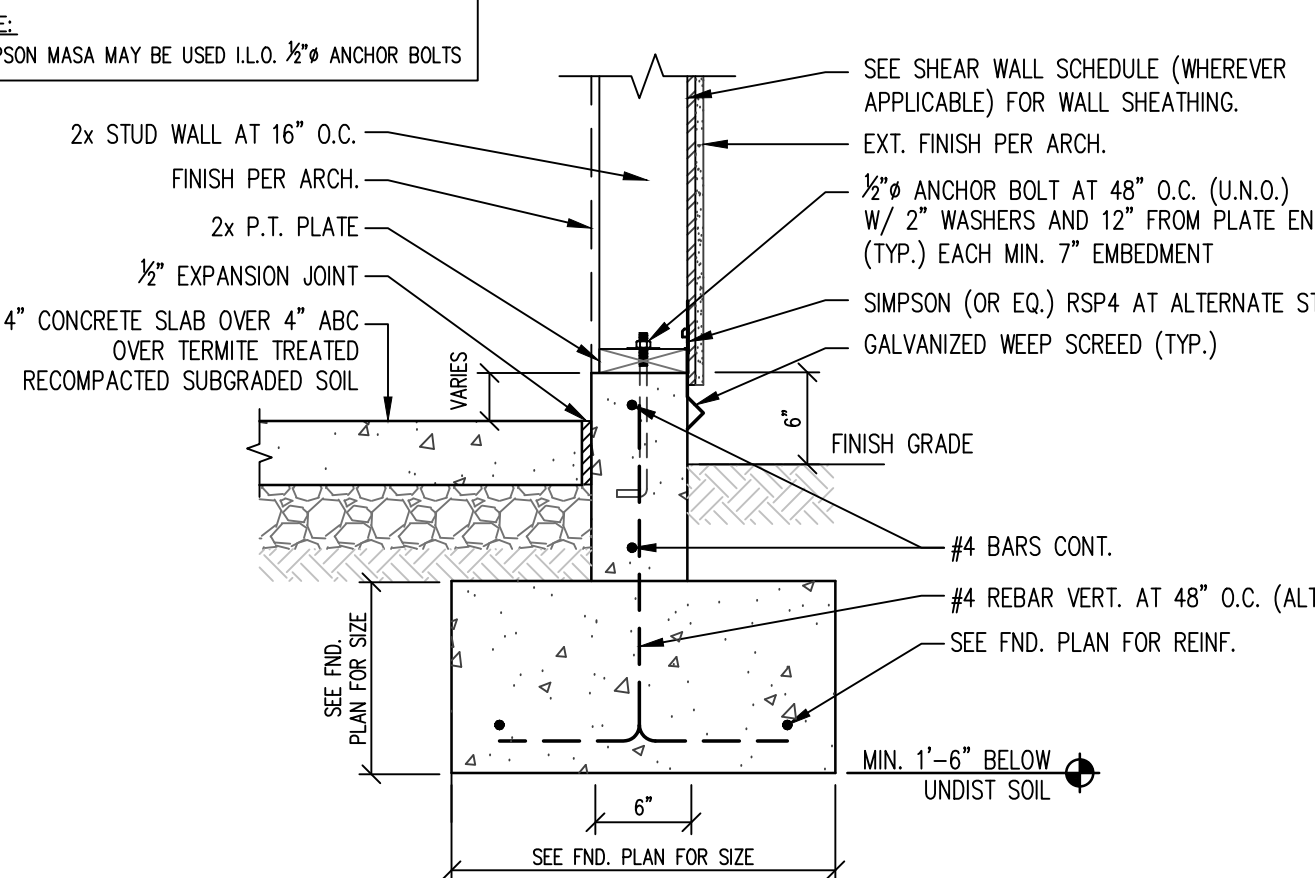
11 HOLDOWN RETROFIT DETAIL

NOT TO SCALE



12 INTERIOR POINT LOAD BEARING FOOTING

SCALE: 1"=1'-0"



13 EXTERIOR WALL POST FTG. AT GARAGE

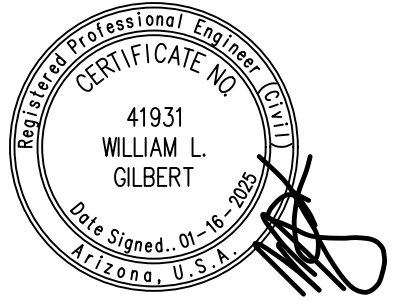
SCALE: 1"=1'-0"

CUSTOM RESIDENCE

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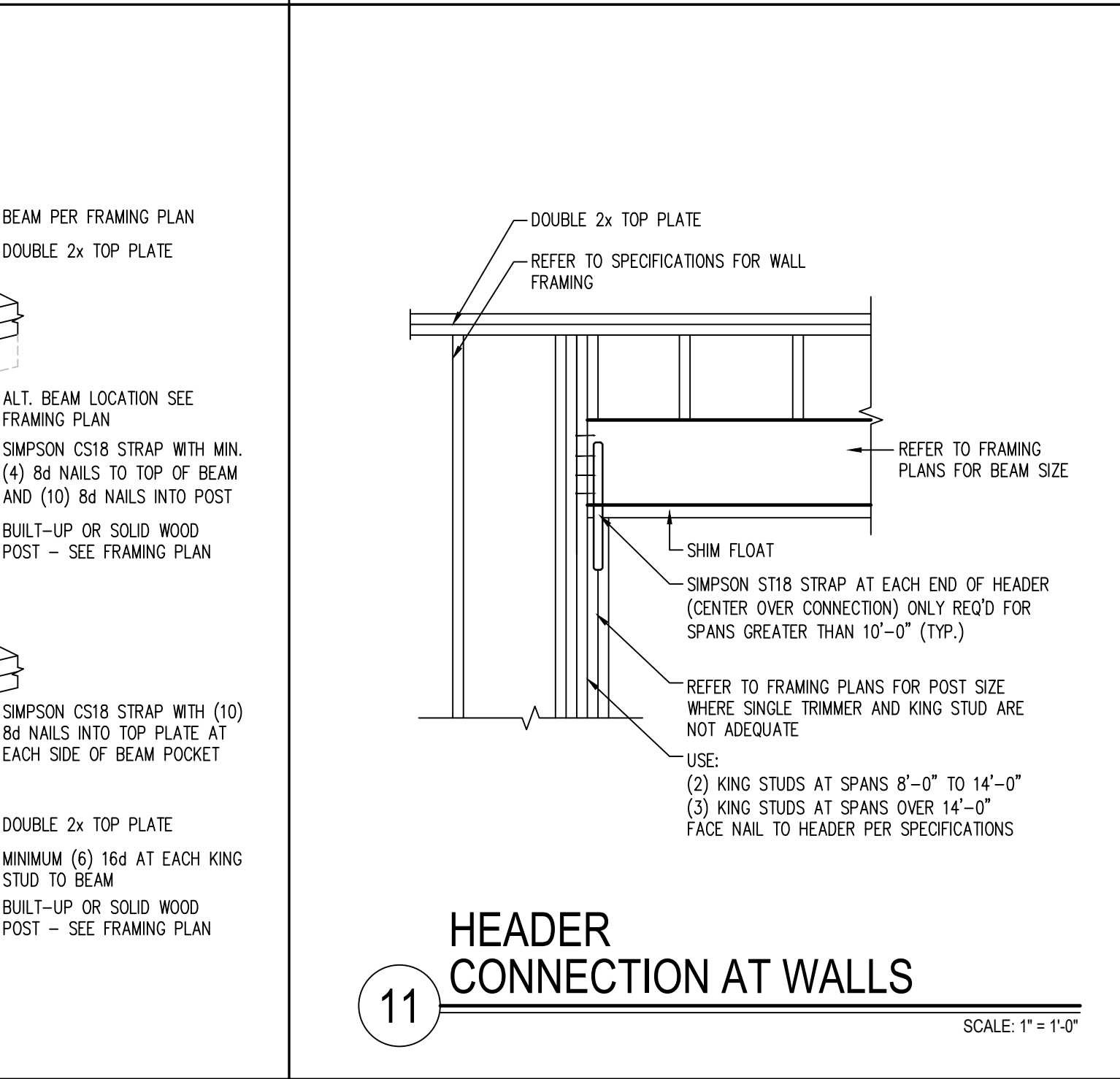
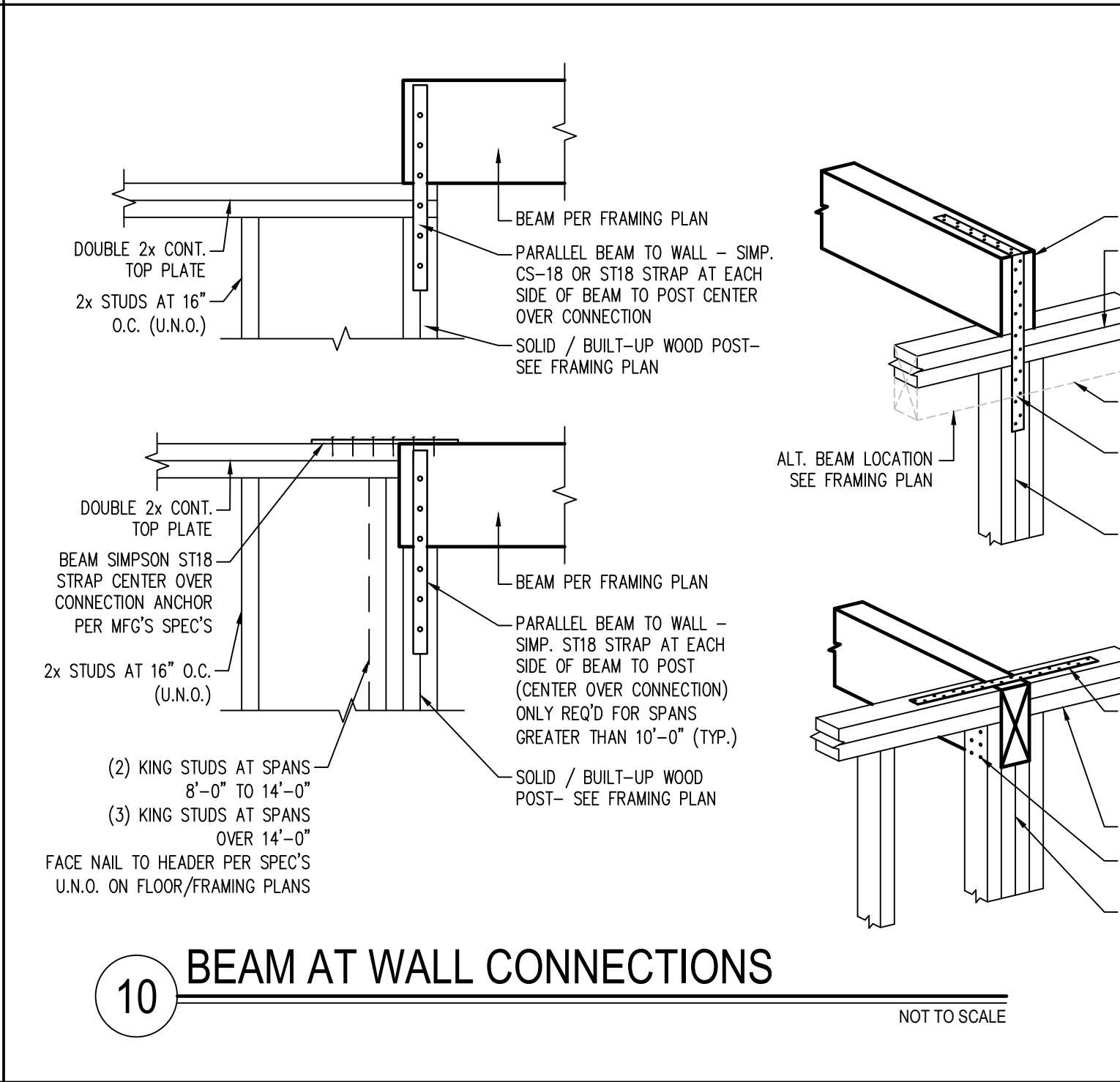
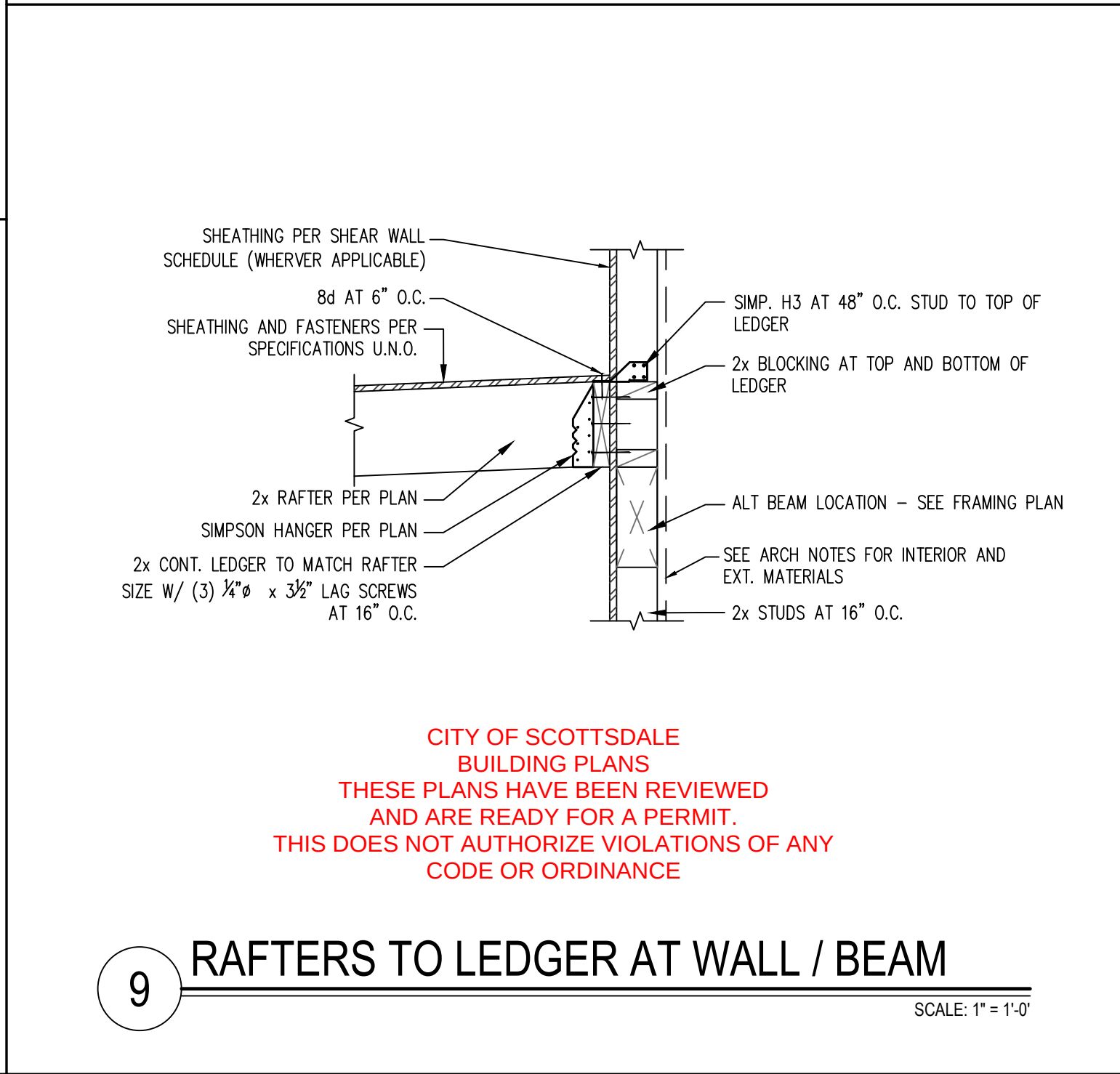
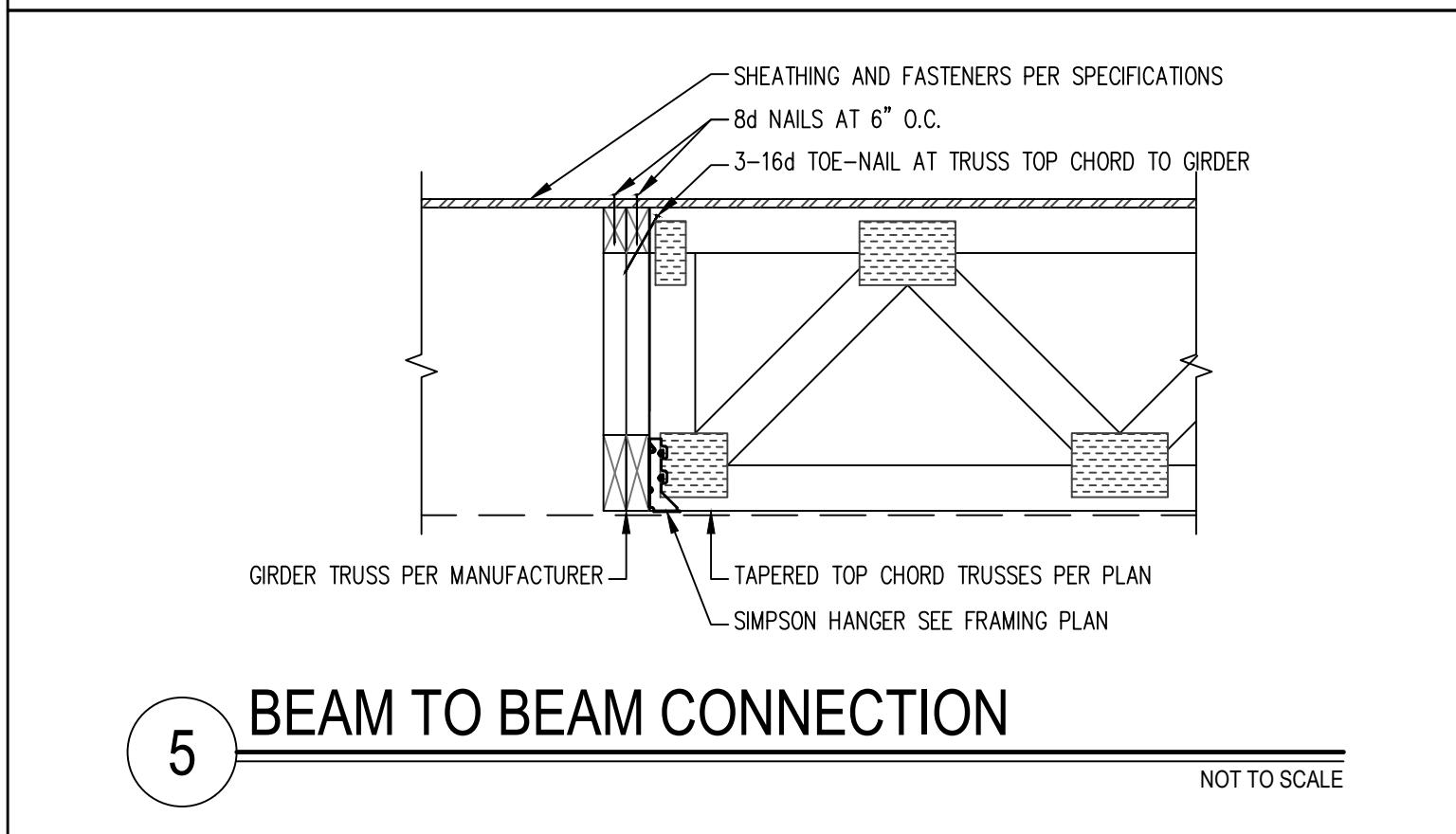
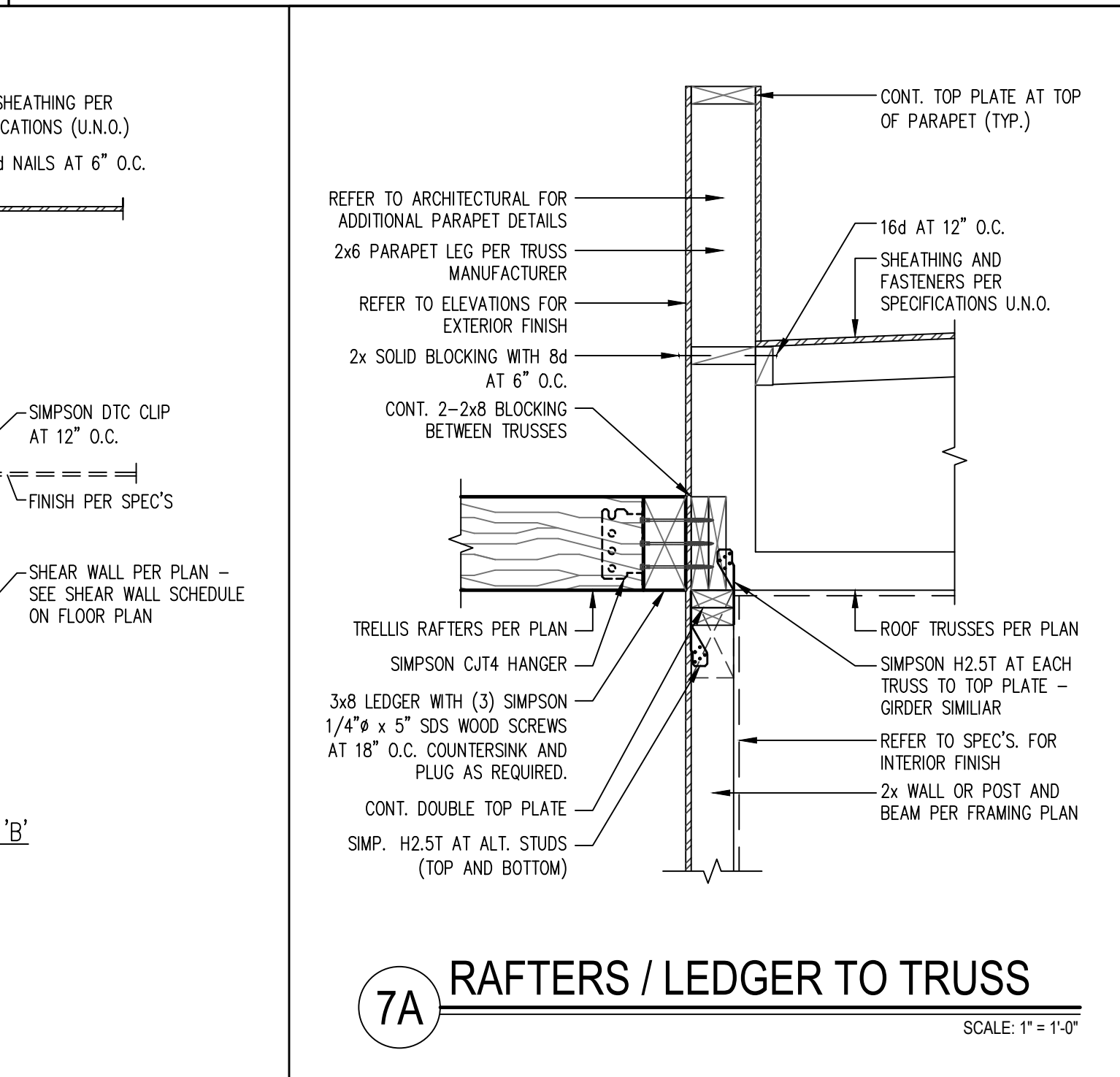
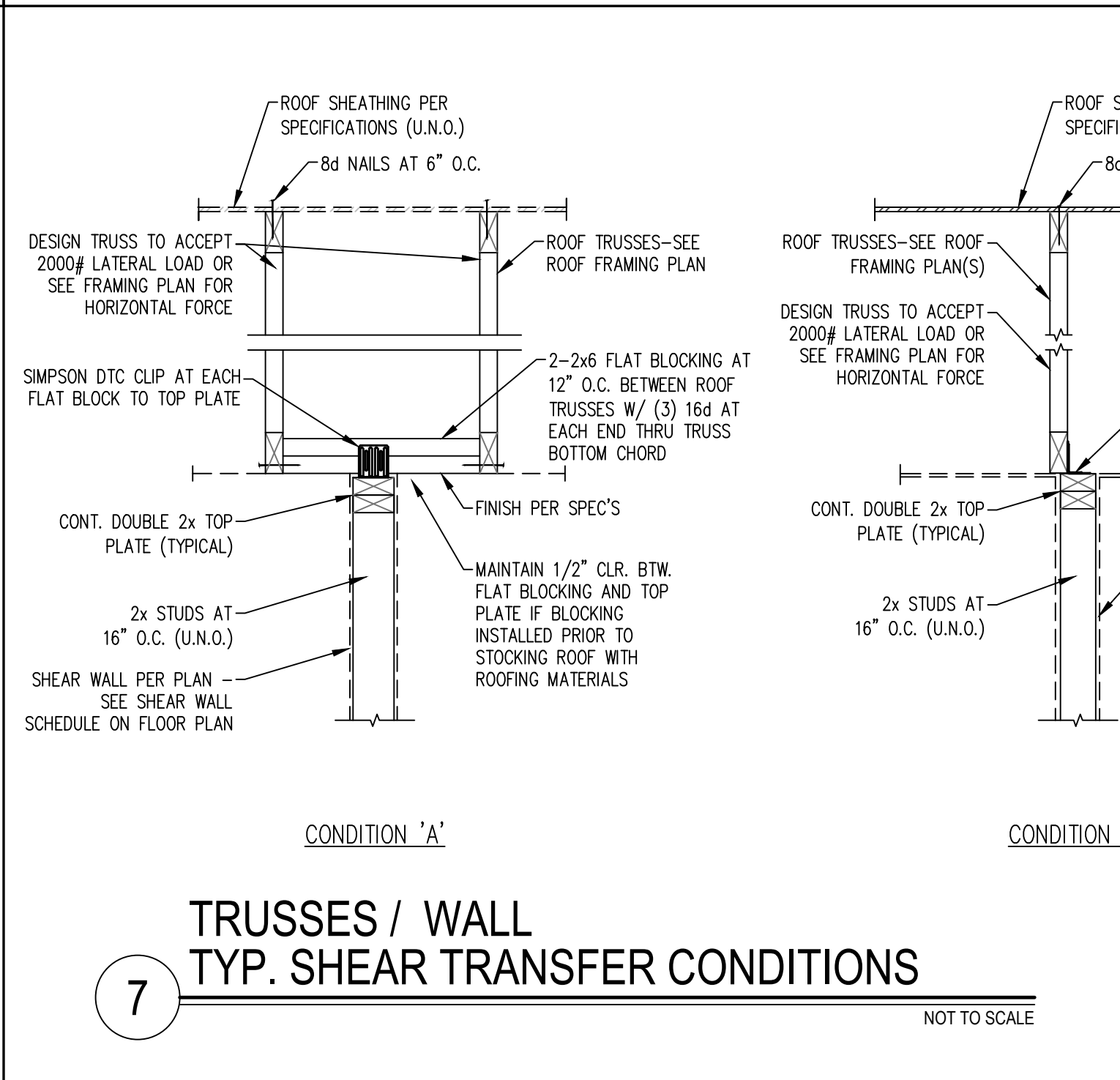
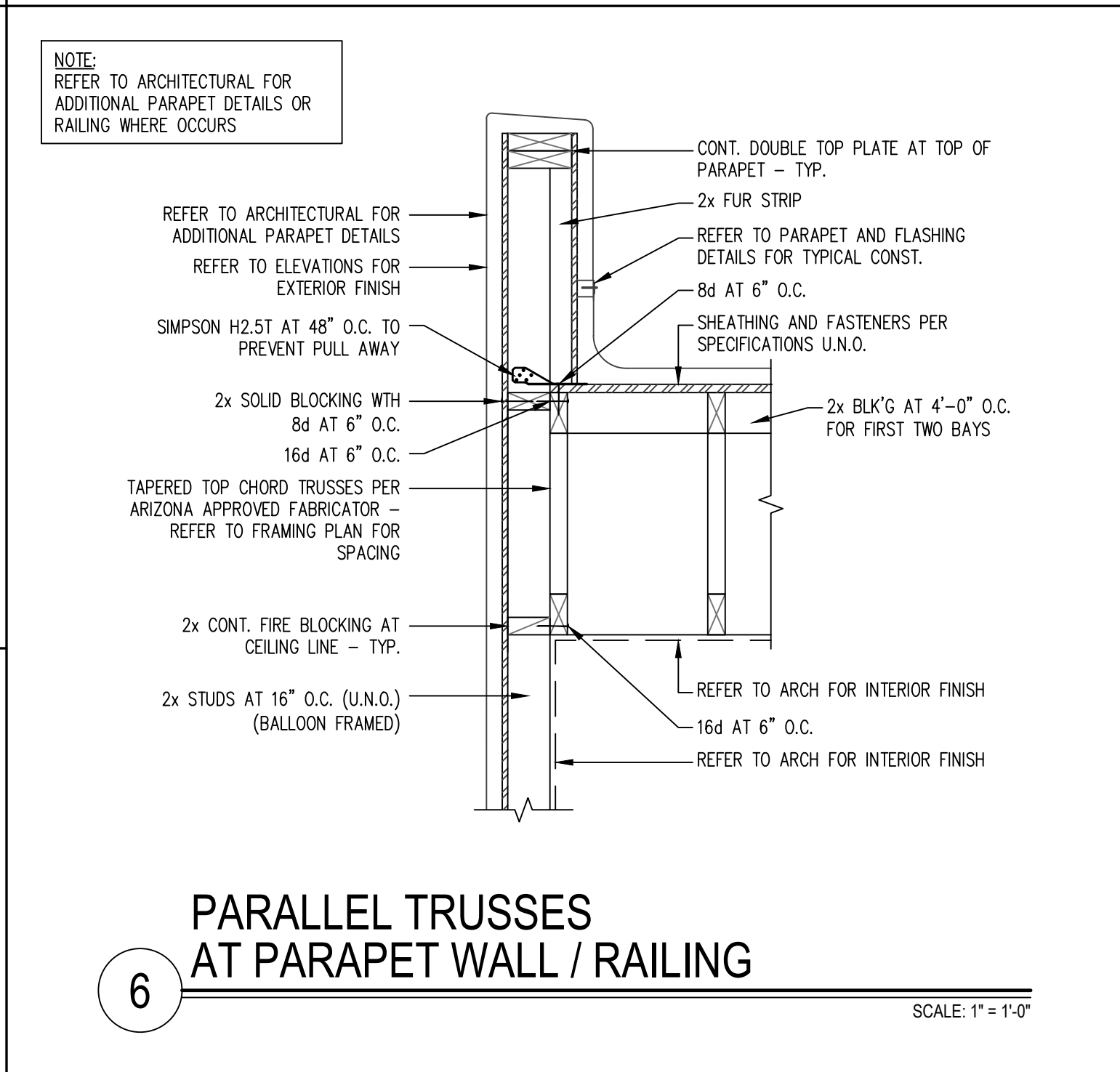
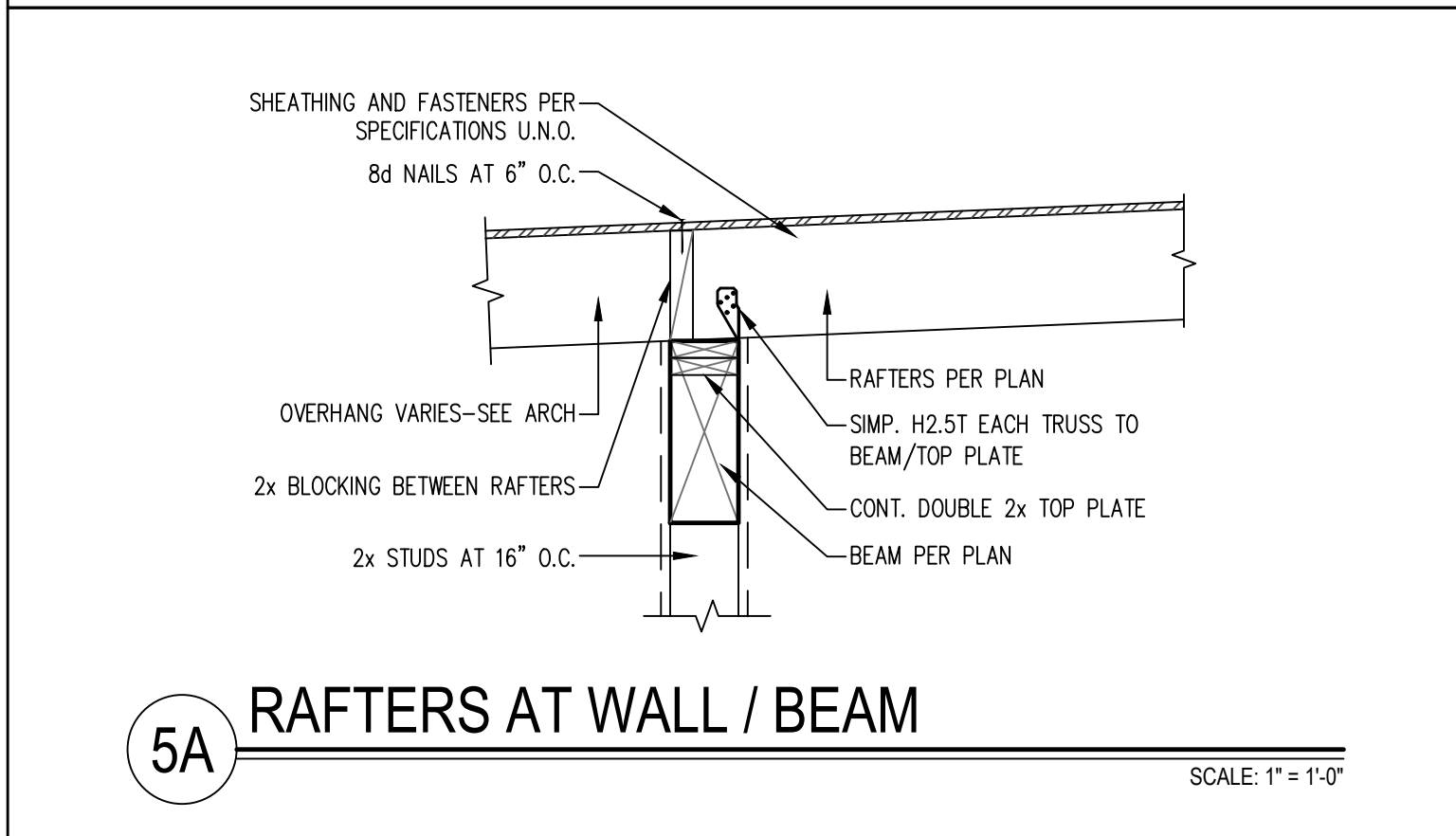
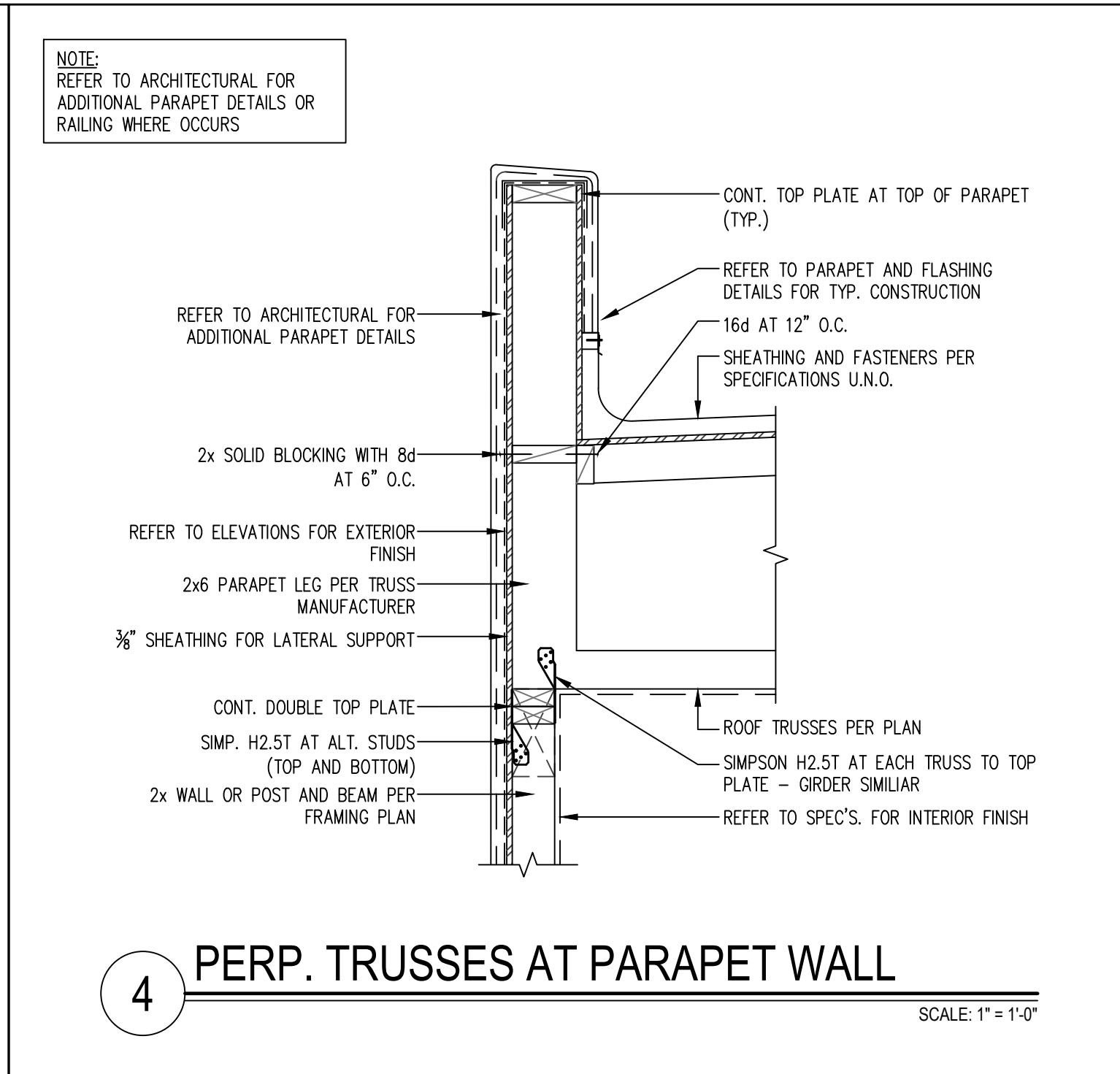
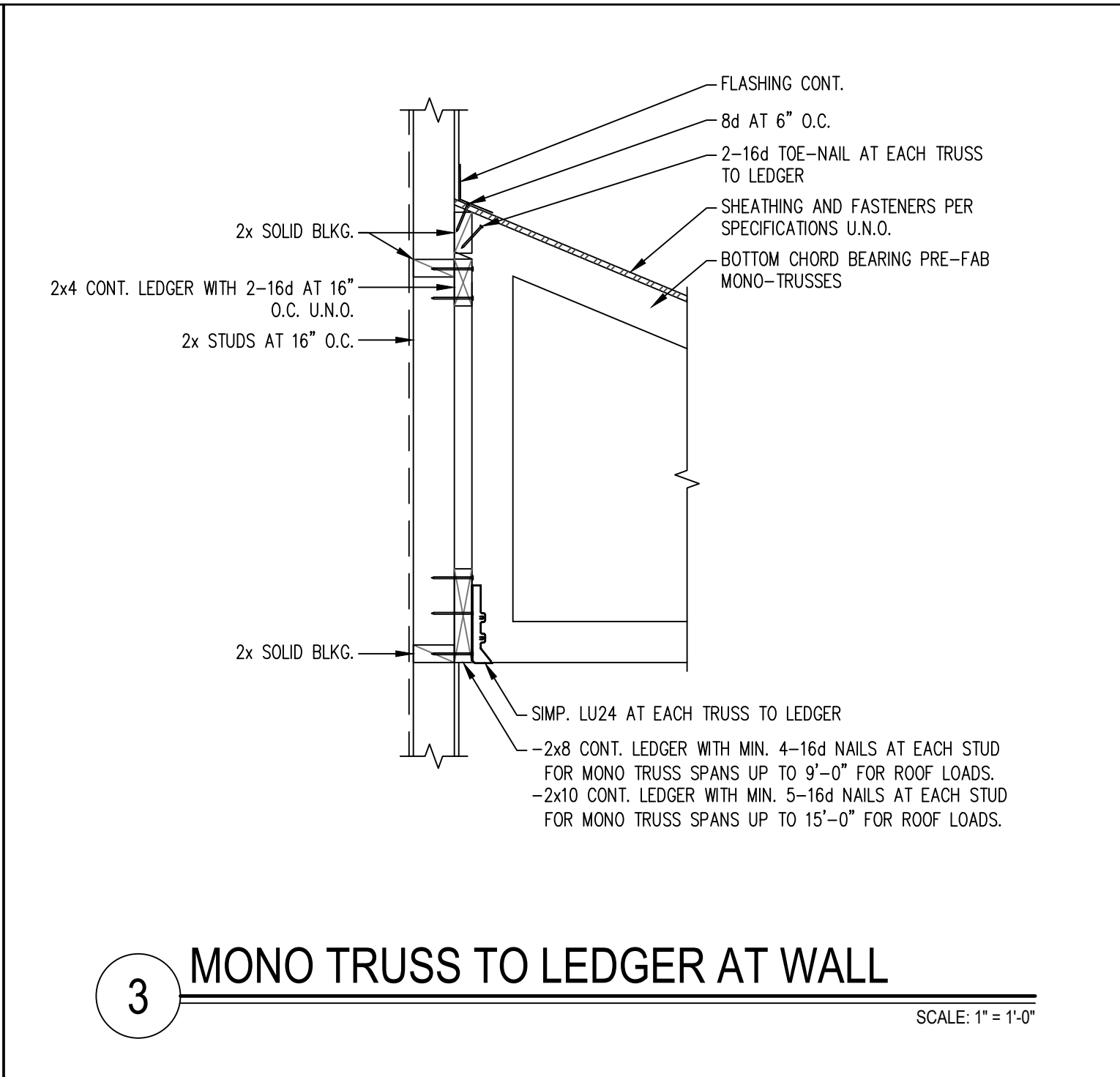
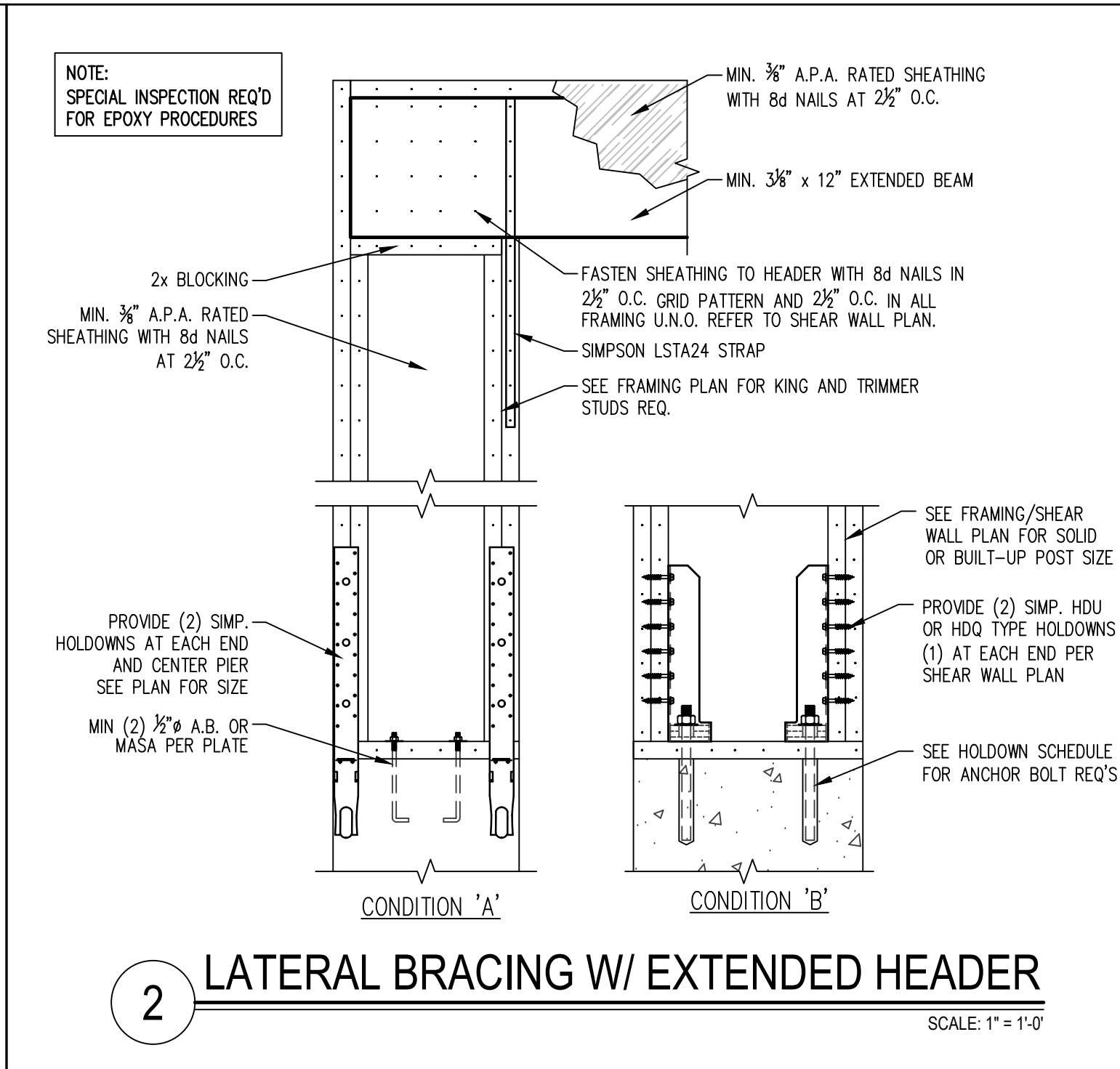
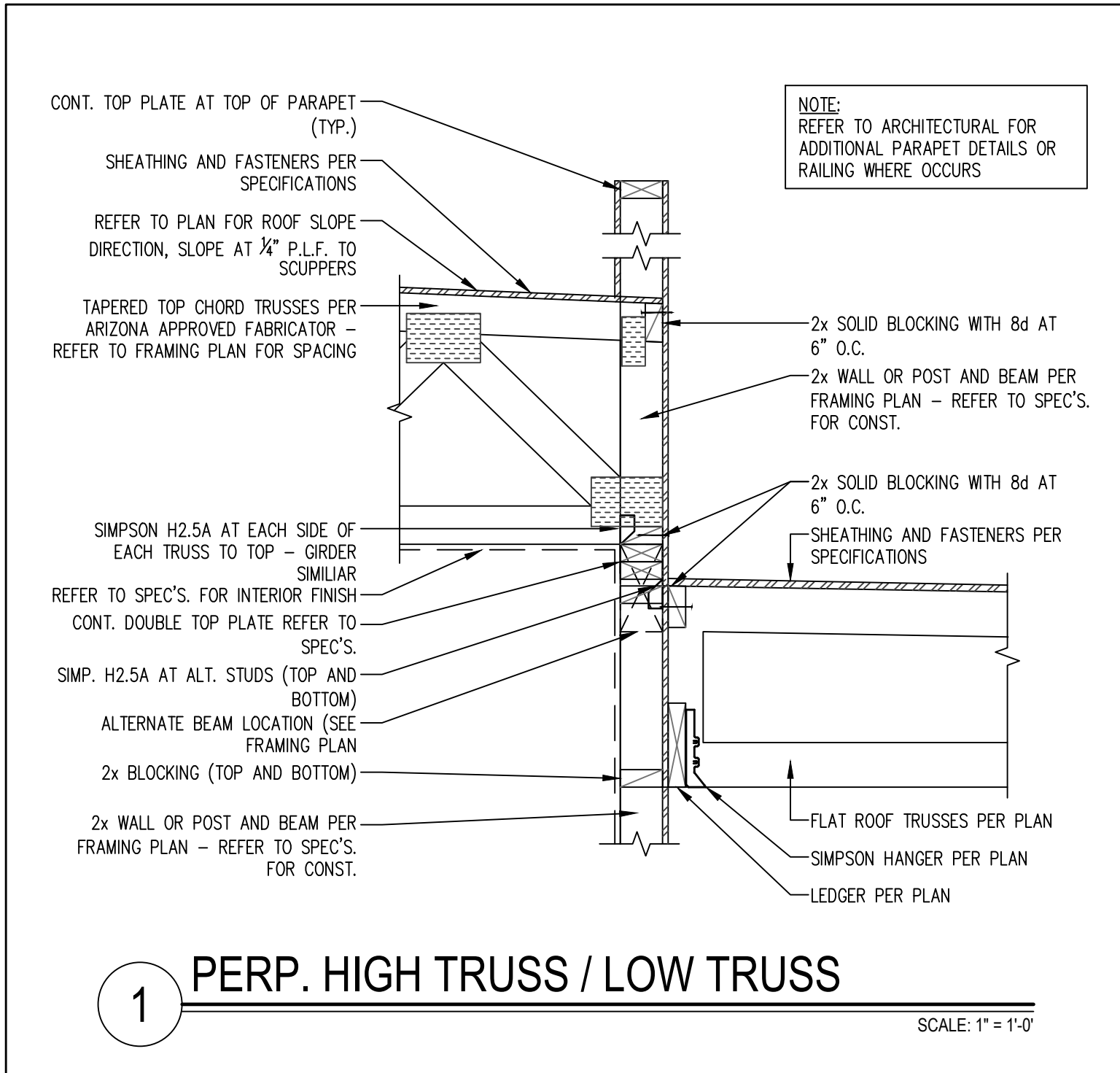
DATE: 8.30.2024

SHEET TITLE:

STRUCTURAL DETAILS

SHEET NUMBER:

SD1



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Office (480) 398-8144

PROFESSIONAL SEAL

41931
WILLIAM L. GILBERT
Date Signed: 09-16-2025
Arizona, U.S.A.

REVISIONS

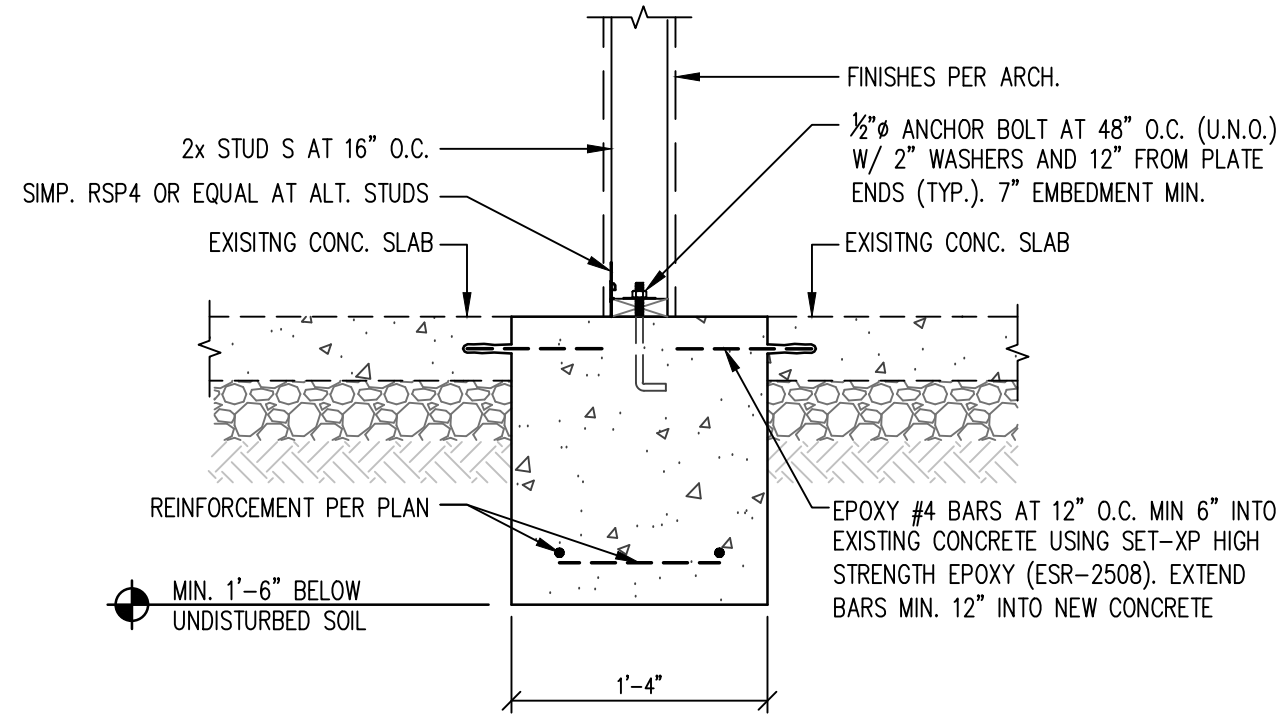
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DATE: 8.30.2024

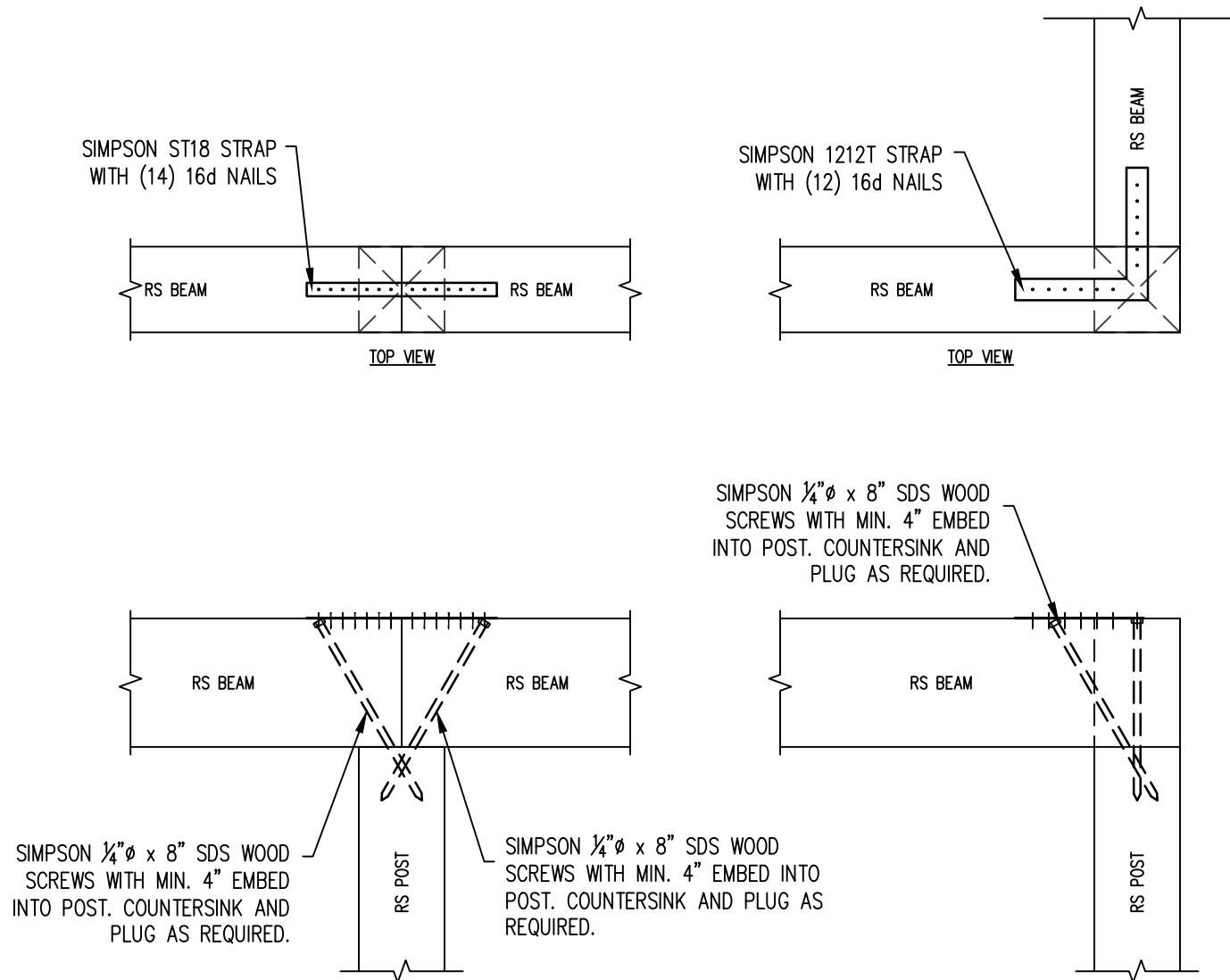
SHEET TITLE: STRUCTURAL DETAILS

SHEET NUMBER: SD2

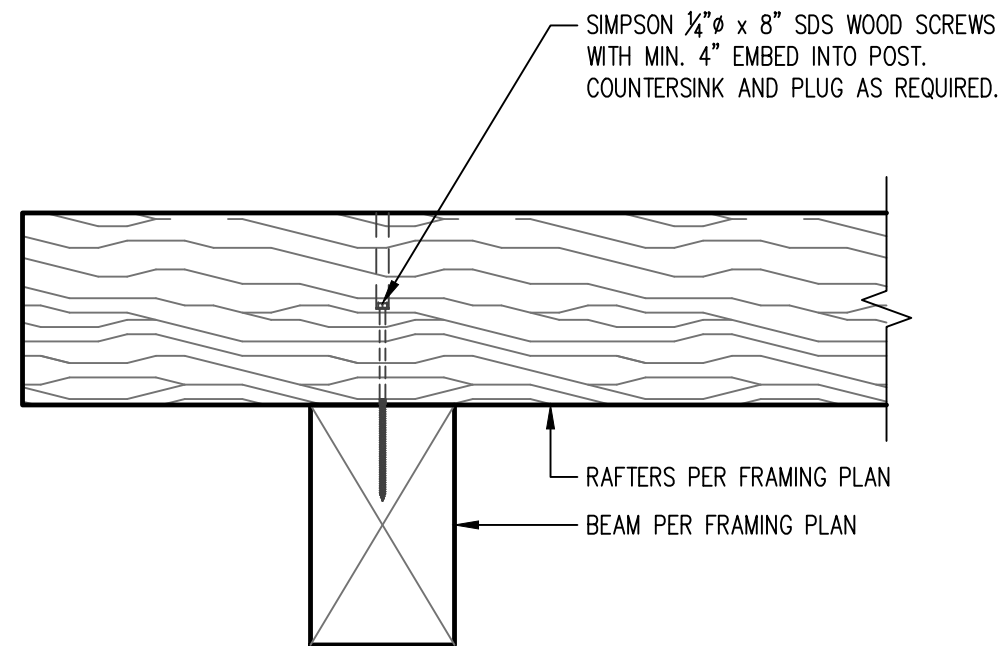
NOTE:
REBAR SHALL BE A MIN. 3" ABOVE
BOTTOM OF FOOTING WHERE APPLICABLE



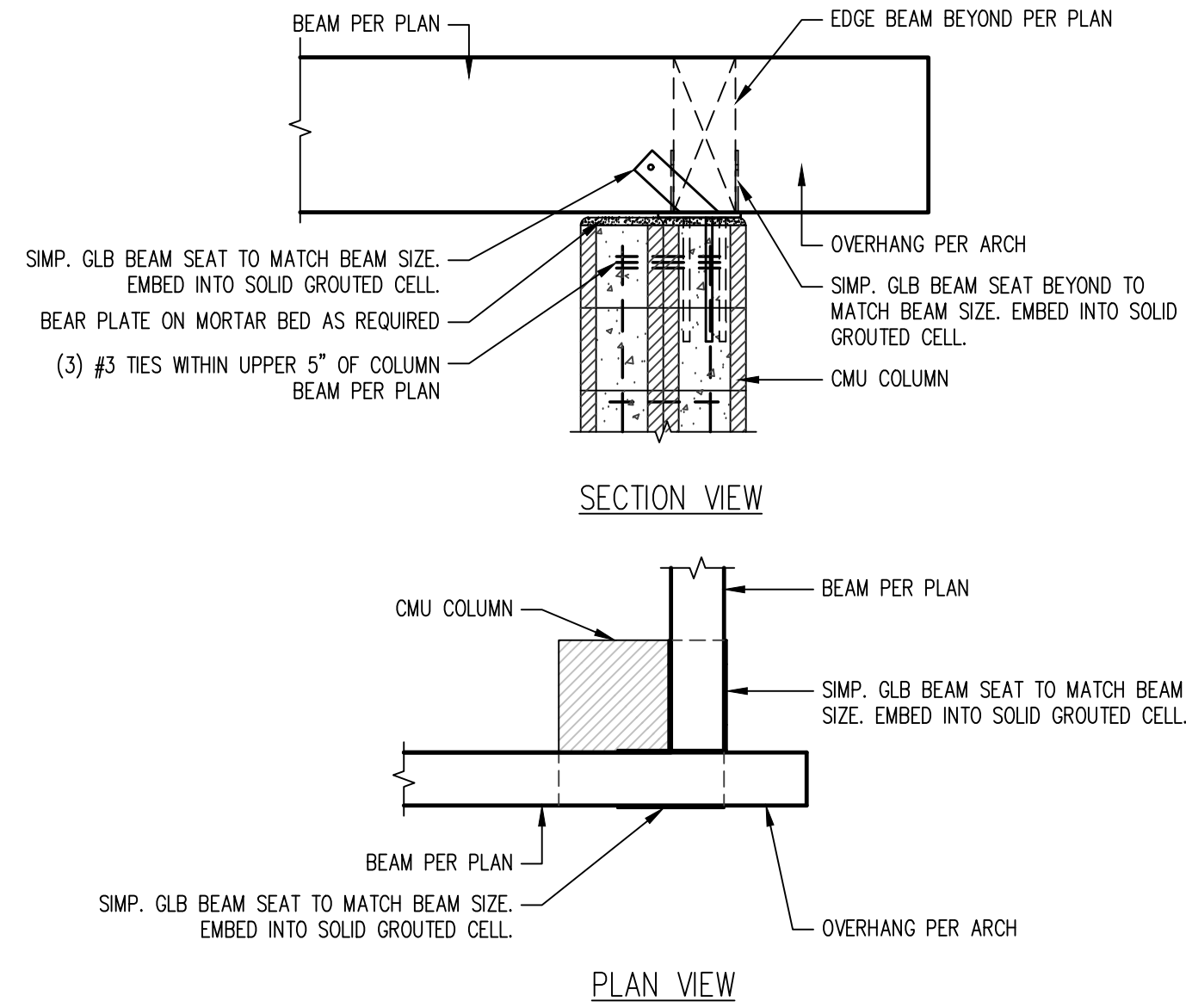
1 CUT-IN INTERIOR BEARING WALL FOOTING
NOT TO SCALE



2 TYPICAL BEAM / POST CONNECTION
NOT TO SCALE



3 TYP. PATIO TRELLIS RAFTERS TO BEAM
SCALE: 1" = 1'-0"



4 BEAM AT COLUMN CONNECTION
SCALE: 3/4" = 1'-0"

5 NOT USED
NOT TO SCALE

6 NOT USED
NOT TO SCALE

7 NOT USED
NOT TO SCALE

8 NOT USED
NOT TO SCALE

9 NOT USED
NOT TO SCALE

10 NOT USED
NOT TO SCALE

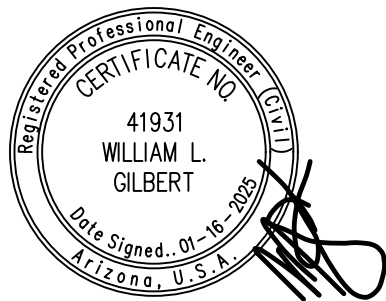
11 NOT USED
NOT TO SCALE

12 NOT USED
NOT TO SCALE

CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
THIS DOES NOT AUTHORIZE VIOLATIONS OF ANY
CODE OR ORDINANCE

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DATE: 8.30.2024

SHEET TITLE:

STRUCTURAL DETAILS

SHEET NUMBER:

SD3

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GENERAL

- THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR THEIR INDIVIDUAL SECTIONS OF WORK. THE WORD "WORK" SHALL MEAN ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION, AND ANY OTHER INCIDENTAL ITEMS OR SERVICES OBVIOUSLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY MENTIONED OR SHOWN.
- ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE GENERAL CONSTRUCTION SPECIFICATION ARE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND EFFECT AS IF PRINTED HERE IN FULL.
- THE WORD "PROVIDE" SHALL MEAN FURNISH AND INSTALL, MAKE ALL FINAL CONNECTIONS, AND LEAVE IN AN APPROVED OPERATING CONDITION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE APPLICABLE BUILDING, MECHANICAL, PLUMBING, AND ELECTRICAL CODES, AND FEDERAL, STATE, AND LOCAL REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING: WORKMEN'S IDENTIFICATION AND SAFETY, FIRE PROTECTION, CONTRACTOR'S LIABILITY INSURANCE, SAFETY BARRICADES, WARNING SIGNS, AND TRASH REMOVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL FEES AND OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL DRAWINGS FOR THE BUILDING, AND FOR OTHER TRADES, AND SHALL COORDINATE THE WORK WITH ALL OTHER TRADES, INCLUDING, BUT NOT LIMITED TO, THE CONSTRUCTION DOCUMENTS, SHOP DRAWINGS, ETC. FOR ALL GENERAL CONSTRUCTION, STRUCTURAL, MECHANICAL, AND ELECTRICAL AND SPECIALTY CONTRACTOR WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF MATERIAL INTO THE BUILDING AS PLANNED, WITHOUT INTERFERENCE WITH OTHER WORK, AND SHALL MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH OTHER TRADES, TO PROVIDE ACCESS AND FOR THE PROPER EXECUTION OF THE WORK.
- DRAWINGS ARE DIAGRAMMATIC, SMALL SCALE, AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. CERTAIN COMPONENTS, APPURTENANCES, AND RELATED SPECIALTIES ARE NOT SHOWN, AND SHALL BE PROVIDED. IT IS THE INTENT OF THE DRAWING AND SPECIFICATIONS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND ROUTING OF PIPES AND DUCTWORK, ETC. INDICATED ON DRAWINGS MAY REQUIRE MODIFICATION DUE TO UNFORESEEN CONDITIONS AND REQUIRED ON SITE REVISIONS DURING CONSTRUCTION. (SEE ALSO "BIDDING")
- ALL WORK REQUIRED FOR IDENTICAL ITEMS SHOWN ON THE DRAWINGS SHALL BE PROVIDED ALTHOUGH EACH SPECIFIC IDENTICAL ITEM MAY NOT BE SHOWN IN DETAIL- OR CALLED OUT.
- THE CONTRACTOR SHALL PROVIDE (5) COPIES OF SUBMITTALS AT ONE TIME, BOUND IN A NEAT & ORDERLY MANNER. PARTIAL OR UNMARKED SUBMITTALS WILL NOT BE ACCEPTED. SUBMITTALS SHALL INCLUDE ALL EQUIPMENT, MATERIALS, AND DEVICES FOR REVIEW BY THE ENGINEER. WORK SHALL NOT START UNTIL ALL REVIEWS HAVE BEEN COMPLETED AND THE ITEMS TO BE PROVIDED ARE ACCEPTABLE. ALL MATERIALS AND EQUIPMENT SHALL BE COMMONLY USED ACCEPTABLE GRADES IN THE CONSTRUCTION INDUSTRY AND SHALL BEAR THE "U.L.", ASME, AMCA, OR OTHER LABEL WHEN APPLICABLE.
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY THE ARCHITECT WITH COMPLETE SETS OF AS-BUILT DOCUMENTS ACCURATELY SHOWING THE MATERIALS AND EQUIPMENT AS INSTALLED.
- ALL MATERIALS AND WORKMANSHIP TO BE GUARANTEED FOR A MINIMUM OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. REFRIGERATION COMPRESSORS SHALL BE GUARANTEED FOR A MINIMUM OF FIVE YEARS FROM DATE OF OWNER'S ACCEPTANCE. IN ADDITION, THE CONTRACTOR SHALL GUARANTEE THAT THE INSTALLATION, WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTOR'S INSTRUCTIONS, WILL DEVELOP CAPACITY AND CHARACTERISTICS INDICATED OR SPECIFIED AND WILL FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS, AND SHOULD THE INSTALLATION IN ANY WAY FAIL TO DO SO, THE CONTRACTOR WILL, WITHOUT DELAY AND WITHOUT COST TO THE OWNER, PROVIDE WHATEVER ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR IS NECESSARY TO CORRECT THE FAULT AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
- CONTRACTOR SHALL CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK. ANY DEVIATIONS OR PROBLEMS SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW.

SPECIFICATIONS

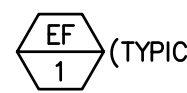
- PROVIDE BASE AND COUNTER FLASHING FOR ITEMS PENETRATING THE ROOF- COORDINATE WITH ARCHITECTURAL REQUIREMENTS.
- CONTRACTOR TO FURNISH AND INSTALL ALL STARTERS, WIRING, CONTROLS, DEVICES AND ALL CONDUIT, FOR A COMPLETE AND OPERABLE SYSTEM.
- ALL WORK SHOWN IS NEW, UNLESS NOTED AS EXISTING.
- MAINTAIN OCCUPANCY AND FIREWALL SEPARATION INTEGRITY AS REQUIRED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF ALL OCCUPANCY/FIREWALL SEPARATIONS AND SPECIFIC DETAILS FOR CONSTRUCTION. PROVIDE ALL NECESSARY FIRE DAMPERS, ACCESS DOORS, AND CAULKING, ETC. FOR APPROVED INSTALLATION.
- BIDDING**

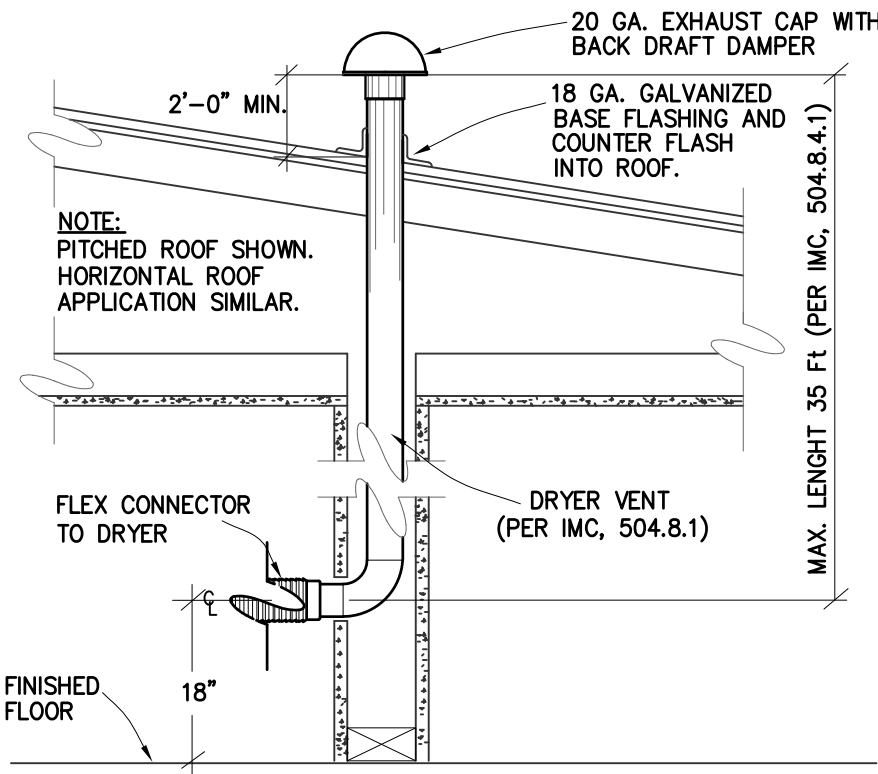
SUBMISSION OF A BID PROPOSAL, DIRECTLY OR INDIRECTLY BY THE CONTRACTOR FOR THIS WORK, SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE AND UNDERSTANDS THE CONDITIONS THAT MAY AFFECT THE PERFORMANCE OF THE WORK. CONTRACTOR IS EXPECTED TO CONTACT ARCHITECT FOR ANY PARTICULAR PROBLEMS AND CLEAR UP ANY POSSIBLE MISUNDERSTANDING BEFORE BID IS SUBMITTED. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF THE CONTRACT DOCUMENTS AND THE WORK TO BE ACCOMPLISHED.
- BASE PROPOSAL ON MANUFACTURERS NAMED, UNLESS "OR EQUAL" IS INDICATED.
- EXECUTION**
 - THE CONTRACTOR SHALL PROVIDE ALL SLEEVES, OPENINGS, CUTTING, AND PATCHING NECESSARY FOR THE INSTALLATION OF THE WORK. CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES REQUIRED AND PAID BY THE CONTRACTOR REQUIRING THE WORK COMPLETE.
 - THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HANDLING OF MATERIALS AND EQUIPMENT, AND THE NECESSARY PROTECTION FOR MATERIALS AND EQUIPMENT.
 - TOOLS AND EQUIPMENT WILL BE STORED IN OWNER DESIGNATED AREAS ONLY.
 - THE CONTRACTOR WILL PROTECT THE WORK AND MATERIAL AGAINST DIRT, THEFT, INJURY, OR DAMAGE UNTIL ACCEPTED BY OWNER. ALL WORK SHALL BE TURNED OVER TO OWNER CLEAN AND IN PERFECT CONDITION, READY FOR SATISFACTORY SERVICE.
 - PIPES AND/OR CONDUITS PASSING THROUGH WALL, FLOORS, AND PARTITIONS SHALL BE PROVIDED WITH SLEEVES, EXCEPT AS PROHIBITED BY U.L. LISTING. SLEEVES PASSING THROUGH WATER PROOFING OR DAMP PROOFING SHALL BE WATER TIGHT. PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE PROOFED WITH MATERIAL APPROVED AND AS DEFINED FOR THE RATING OF THE STRUCTURE AND U.L. LISTED.
 - EACH CONTRACTOR SHALL PROVIDE ALL FOUNDATIONS, HANGERS, AND SUPPORTS FOR ALL EQUIPMENT SUPPLIED AND/OR INSTALLED UNDER THEIR WORK. ANY EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH VIBRATION ISOLATION.
 - ALL EQUIPMENT SHALL BE PROVIDED WITH FACTORY FINISH. ALL REQUIRED PAINTING WILL BE PERFORMED UNDER THE GENERAL CONSTRUCTION SECTION OF THE SPECIFICATIONS
 - WHERE PIPES OR CONDUITS PASS THROUGH WALLS, FLOORS, OR CEILINGS IN FINISHED AREAS, THEY SHALL BE FURNISHED WITH CHROME PLATED ESCUTCHEON PLATES.
 - AT THE CONCLUSION OF THE JOB, EACH PIECE OF EQUIPMENT, VALVE, SWITCH, STARTER, PANEL, PIPE LINE, CONDUIT, ETC., SHALL BE CLEARLY IDENTIFIED WHETHER EXPOSED OR CONCEALED, COVERED OR UNCOVERED, IN ACCORDANCE WITH OSHA AND ANSI REGULATIONS. IDENTIFY PIPES NEAR EACH VALVE WITH "BRANDY-PERMA CODE PIPE TAPE" OR T. & B. WESTLINE "TEL-A-PIPE" INDICATING DIRECTION OF FLOW, SERVICE ZONE, AND SIZE. TAPE SHALL BE APPLIED TO PIPE, CONDUIT, OR COVERING. VALVES, CONTROLS, AND DAMPERS SHALL BE IDENTIFIED BY 2-INCH LAQUERED BRASS TAGS WITH STAMPED LETTERS FASTENED WITH "S" HOOKS OR CHAINS. EQUIPMENT IS TO BE IDENTIFIED AS TO FUNCTION AND PURPOSE BY MEANS OF PERMANENTLY ATTACHED LAMINATED PHENOLIC NAMEPLATES WITH BEVELED EDGES AND WHITE LETTERS ON BLACK BACKGROUND.
 - AT THE CONCLUSION OF THE WORK, ALL EQUIPMENT AND SYSTEMS SHALL BE CAREFULLY BALANCED, ADJUSTED, AND TESTED TO PROVIDE BALANCED, QUIET-OPERATING, STABLE AND SAFE SYSTEMS. DEMONSTRATE OPERATION OF ALL SYSTEMS TO THE OWNER'S DESIGNATED REPRESENTATIVE.

HVAC

- PIPE INSULATION- ALL REFRIGERANT AND CHILLED WATER SHALL BE INSULATED WITH 1-1/2", (2" ON EXTERIOR USE), THICK PREFORMED FIBERGLASS INSULATION. PROVIDE ALL SERVICE JACKET. PROVIDE METAL JACKET IN EXPOSED AREAS, I.E.: EXTERIOR.
 - ALL DUCTWORK TO BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE SMACNA MANUAL ENTITLED "HVAC DUCT CONSTRUCTION STANDARDS- METAL AND FLEXIBLE". SUPPLY AND RETURN AIR DUCTWORK SHALL BE GALVANIZED METAL EXCEPT WHERE OTHERWISE INDICATED. ALL ELBOWS SHALL BE FULL INSIDE RADIUS THROAT. WHERE SQUARE ELBOWS ARE REQUIRED DUE TO CONSTRUCTION LIMITS, ELBOWS SHALL BE FITTED WITH DOUBLE-FACED TURNING VANES. KITCHEN HOOD EXHAUST DUCTWORK SHALL BE WITHOUT TURNING VANES AND CONSTRUCTED PER NFPA 96 (INCLUDING ENCLOSURE).
 - PROVIDE OPPOSED BLADE BALANCING DAMPERS AT EACH SUPPLY AIR CONNECTING TO MAIN DUCTS AND WHEREVER NECESSARY TO FACILITATE AIR BALANCING OF THE DUCT SYSTEM.
 - ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, AND CONNECTIONS IN DUCTWORK MUST BE SECURELY SEALED USING WELDMENTS; MECHANICAL FASTENERS WITH SEALS, GASKETS OR MASTICS; MESH AND MASTICS SEALING SYSTEMS; OR TAPES. TAPES AND MASTICS MUST BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A AND SHALL BE MARKED "181A-P" FOR PRESSURE SENSITIVE TAPE, "181A-M" FOR MASTIC OR "181A-H" FOR HEAT-SENSITIVE TAPE. TAPES AND MASTICS USED TO SEAL FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED "181B-FX" FOR PRESSURE-SENSITIVE TAPE OR "181B-M" FOR MASTIC. UNLISTED DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.
 - AIR DUCTS MUST BE INSULATED TO THE FOLLOWING LEVELS:
 - SUPPLY AND RETURN AIR DUCTS FOR CONDITIONED AIR LOCATED IN UNCONDITIONED SPACES (SPACES NEITHER HEATED NOR COOLED) MUST BE INSULATED WITH A MINIMUM OF R-6. UNCONDITIONED SPACES INCLUDE ATTICS, CRAWL SPACES, UNHEATED BASEMENTS, AND UNHEATED GARAGES.
 - SUPPLY AND RETURN AIR DUCTS AND PLENUMS MUST BE INSULATED TO A MINIMUM OF R-8 WHEN LOCATED OUTSIDE THE BUILDING.
 - WHEN DUCTS ARE LOCATED WITHIN EXTERIOR COMPONENTS (e.g., FLOORS OR ROOFS), MINIMUM R-8 INSULATION IS REQUIRED ONLY BETWEEN THE DUCT AND THE BUILDING EXTERIOR.
 - LINE ALL RECTANGULAR DUCTWORK WITH 1" THICK, 1 1/2 LB DENSITY DUCT LINER. LINING SHALL BE APPLIED TO DUCTWORK WITH FIRE RESISTIVE ADHESIVES, FOSTER 85-10 OR EQUAL, AND COPPER OR CADMIUM PLATED MECHANICAL FASTENERS, GRAHAM, OMARK, OR EQUAL.
 - FLEXIBLE DUCTWORK, WHERE INDICATED ON THE DRAWINGS, SHALL BE INSULATED WITH PLASTIC VAPOR BARRIER AT INTERIOR AND EXTERIOR, STEEL WIRE COIL REINFORCED. JOINTS SHALL BE BAND-CLAMPED AND TAPE SEALED TO MAINTAIN INTEGRITY OF VAPOR BARRIER. FLEXIBLE DUCT RUNS SHALL BE LIMITED TO 6' OF FLEX DUCT EACH RUNOUT. INSTALLATION SHALL BE SUPPORTED TO ELIMINATE SAGS. TURNS IN FLEXIBLE DUCT SHALL NOT EXCEED ONE EQUIVALENT FULL- RADIUS ELBOW PER 6' RUNOUT.
 - BALANCE ALL EQUIPMENT, DIFFUSERS, AND GRILLES TO OBTAIN THE AIR QUANTITIES AS SHOWN ON PLANS. CONTRACTOR SHALL PROVIDE (5) FIVE BOUND COPIES OF A CERTIFIED TEST AND BALANCE REPORT WITH FORMS CONTAINING INFORMATION INDICATED IN SCHEDULES. SUBMIT REPORT TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PROJECT CLOSEOUT.
- COPY OF AIR BALANCE REPORT TO MECH. INSPECTOR FOR FINAL APPROVAL.
- PROVIDE FLEXIBLE DUCT CONNECTORS ON INLET AND OUTLET OF ALL AIR MOVING EQUIPMENT, INCLUDING EXHAUST FANS AND FAN COIL UNITS.
 - REFER TO DRAWING SCHEDULE(S) FOR EQUIPMENT REQUIREMENTS.
 - ALL EQUIPMENT TO BE COMPLETELY SCREENED BY EXISTING PARAPET WALL.

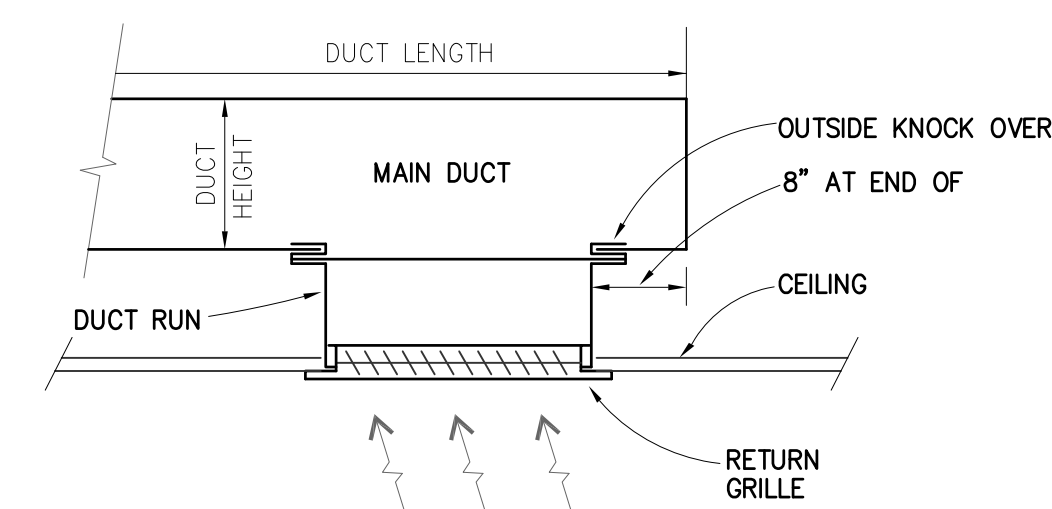
UNIT MARK		PACKAGED ROOFTOP UNIT SCHEDULE																
NUMBER																		
MARK	TOTAL CFM	FAN RPM	OUTSIDE AIR CFM	E.S.P. H ₂ O	SEER/AFUE	ELECTRICAL				TEMPERATURES		COOLING		GAS HEATING	MANUFACTURER/ MODEL NUMBER OR EQUAL	OPER. WEIGHT	HVAC TYPE	NOTES
						VOLTAGE	PHASE	MCA	MOCP	DB/WB (°F)	TOTAL CAPACITY MBH	SENSIBLE CAPACITY MBH	CAPACITY MBH					
RTU 1	1,870	HIGH	80	0.5	16.0/81.0	230	1	44.8	60	76.9/60.2	46.1	46.1	90.0	CARRIER 48VG-B60090	520	GAS HEATING/ ELECTRIC COOLING	1, 2, 3, 4, 5, 6	
RTU 2	1,870		60							76.6/59.3	46.1	46.1	90.0					
RTU 3	1,480		40			230	1	29.6	45	76.4/59.6	32.0	32.0	60.0	CARRIER 48VG-B42060	455			
RTU 4	1,010		70		15.0/8.5	208/230	1	19.3	30	78.1/60.1	17.7	17.7	-	CARRIER 50VR-A24	356			HEAT PUMP
NOTES																		
1. PROVIDE ROOF CURB BY UNIT MANUFACTURER.																		
2. PROVIDE UNIT WITH BIRDSCREEN AND BACKDRAFT DAMPER ON O/A INTAKE.																		
3. PROVIDE UNIT WITH THROW-AWAY FILTERS.																		
4. PROVIDE AND INSTALL PROGRAMMABLE THERMOSTAT W/ LOCKING COVER, LOCATION INDICATED ON PLANS. PROVIDE ALL CONTROL WIRING, CONDUIT, TRANSFORMERS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.																		
5. PROVIDE MECHANICAL EQUIPMENT RESTRAINT AS REQUIRED BY LOCAL CODE.																		
6. PROVIDE WITH HONEYWELL RTH221B PROGRAMMABLE THERMOSTAT.																		

UNIT MARK NUMBER		EXHAUST FAN SCHEDULE											
MARK	AIR FLOW (CFM)	STATIC PRESSURE	TYPE	DRIVE	RPM	ELECTRICAL				MANUFACTURER/ MODEL # OR EQUAL	NOTES		
						VOLTS	PHASE	AMPS	HP				
 1 (TYPICALLY 10)	50 EACH	0.125"	CEILING	DIRECT	808	120	1	0.3	–	GREENHECK A50–90–VG	1, 2, 3		
NOTES													
1. INSTALL PER MANUFACTURER'S INSTRUCTIONS.													
2. PROVIDE W/INTEGRAL GRILLE, BACKDRAFT DAMPER, BIRDSCREEN, AND FAN SPEED CONTROL.													
3. PROVIDE SEPARATE SWITCH FOR FAN CONTROL.													



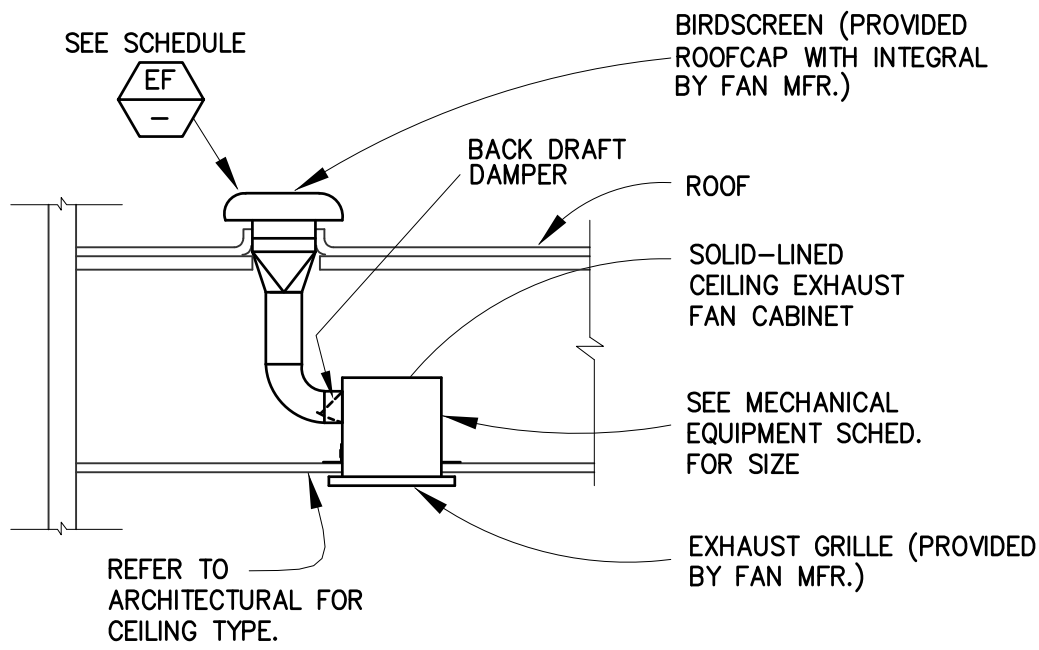
CLOTHES DRYER VENT THRU ROOF

NO SCALE



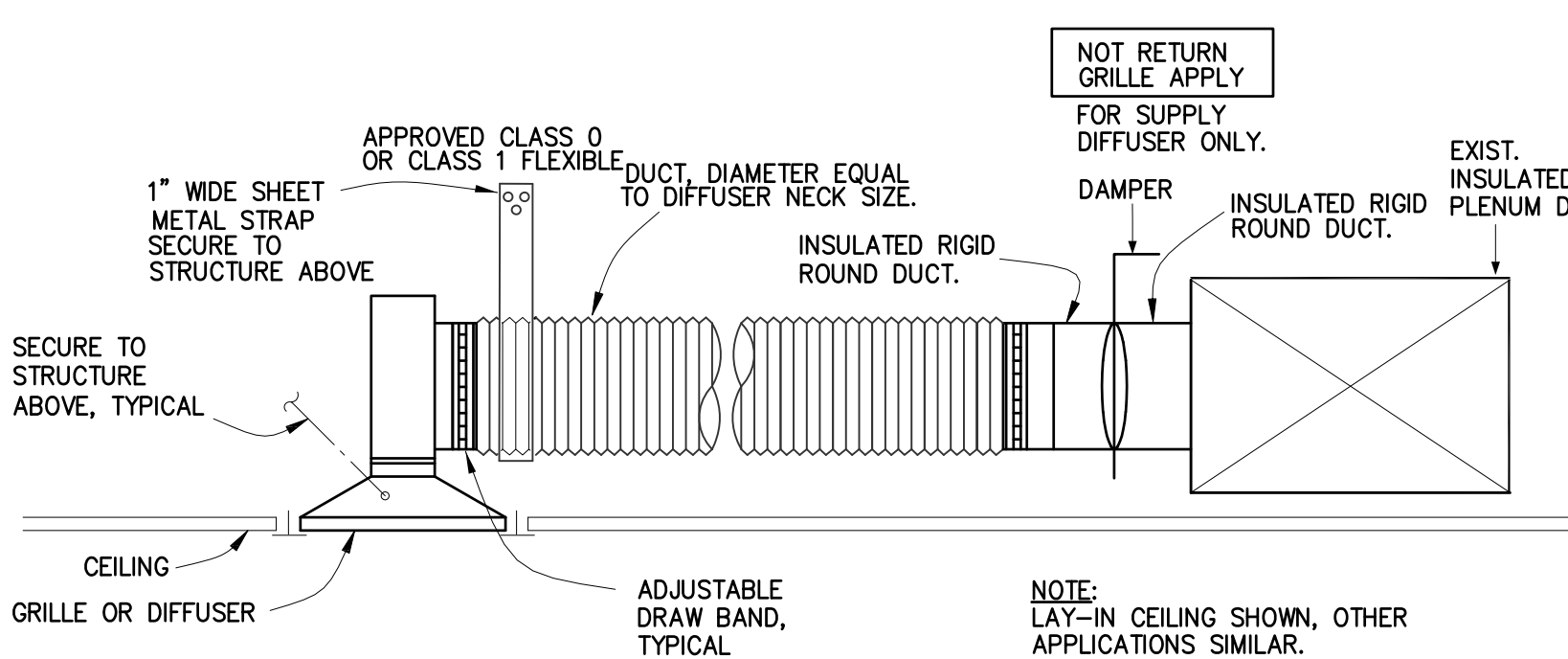
RETURN GRILLE DETAIL

SCALE: NTS



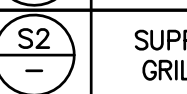
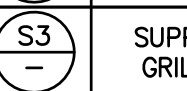
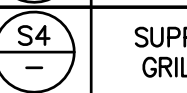
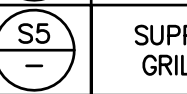
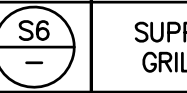
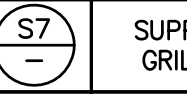
CEILING EXHAUST FAN DETAIL

SCALE: NTS



CEILING DIFFUSER DETAIL

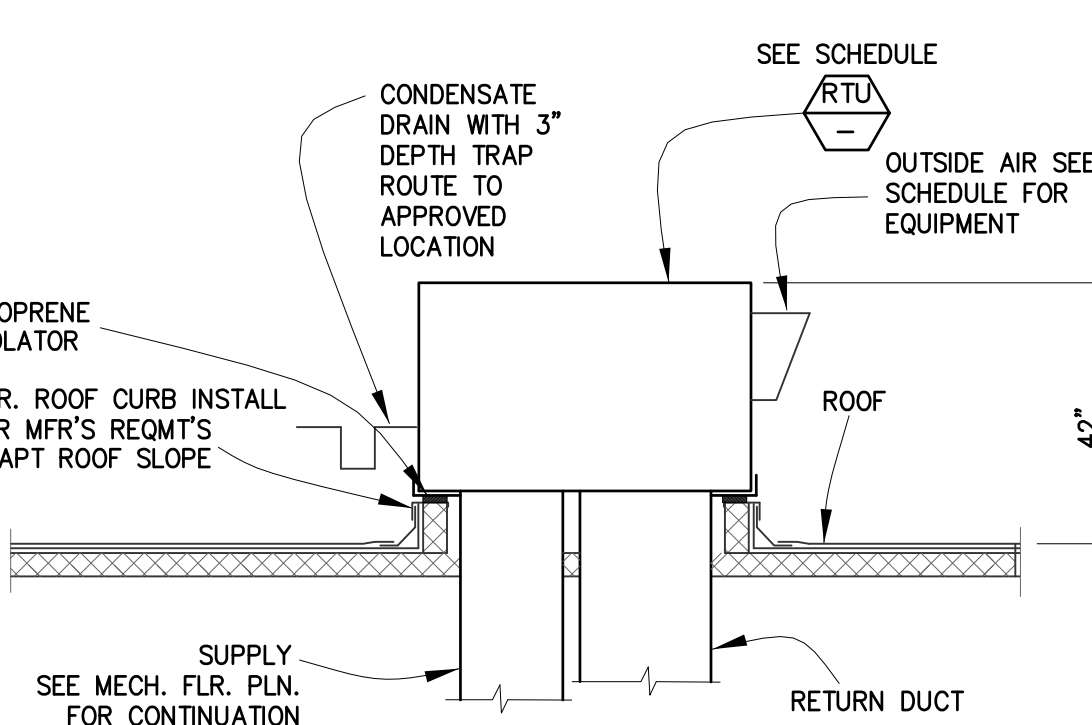
SCALE: NTS

DIFFUSER AND GRILLE SCHEDULE						
DIFFUSER MARK		CFM				
MARK	TYPE	RUNOUT SIZE	NECK SIZE	PANEL SIZE	MANUFACTURER/ MODEL NUMBER OR EQUAL	NOTES
 S1	SUPPLY GRILLE	10"ø	10"x10"	12"x12"	TITUS 250-AA	1, 2, 3, 4, 5
 S2	SUPPLY GRILLE	8"ø	8"x8"	10"x10"	TITUS 250-AA	1, 2, 3, 4, 5
 S3	SUPPLY GRILLE	6"ø	6"x6"	8"x8"	TITUS 250-AA	1, 2, 3, 4, 5
 S4	SUPPLY GRILLE	14"x6"	14"x6"	16"x8"	TITUS 300RS	1, 2, 5
 S5	SUPPLY GRILLE	6"x6"	6"x6"	8"x8"	TITUS 300RS	1, 2, 3, 5
 S6	SUPPLY GRILLE	10" OVAL 2 FT (LENGTH)	1.5" SLOT WIDTH 2-SLOT 10" INLET		TITUS FT-20	1, 2, 3, 5
 S7	SUPPLY GRILLE	8" OVAL 2 FT (LENGTH)	1.5" SLOT WIDTH 2-SLOT 8" INLET		TITUS FT-20	1, 2, 3, 5
 R1	RETURN GRILLE	40"x20"	40"x20"	42"x22"	TITUS 350RLF1	1, 5
 R2	RETURN GRILLE	20"x20"	20"x20"	22"x22"	TITUS 350RLF1	1, 5
 R3	RETURN GRILLE	12"ø	12"x12"	14"x14"	TITUS 350RLF1	1, 5
 R4	RETURN GRILLE	10"ø	10"x10"	12"x12"	TITUS 350RLF1	1, 5
 R5	RETURN GRILLE	14"ø	14"x14"	16"x16"	TITUS 350RLF1	1, 5
 TG	TRANSFER GRILLE	10"ø	10"x10"	12"x12"	TITUS 350RL	1, 5
NOTES						
1. COORDINATE LOCATIONS WITH ARCHITECTURAL AND ELECTRICAL PLANS.						
2. PROVIDE WITH BALANCING DAMPER.						
3. PROVIDE SUITABLE FRAME FOR CEILING/WALL TYPE, COORDINATE W/ARCH. PLANS.						
4. PROVIDE 4-WAY THROW UNLESS INDICATED OTHERWISE ON PLANS. (1-W = 1-WAY, 2-W = 2-WAY, 3-W = 3-WAY)						
5. MAXIMUM NC RATING SHALL NOT EXCEED 34.						

CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
THIS DOES NOT AUTHORIZE VIOLATIONS OF ANY
CODE OR ORDINANCE

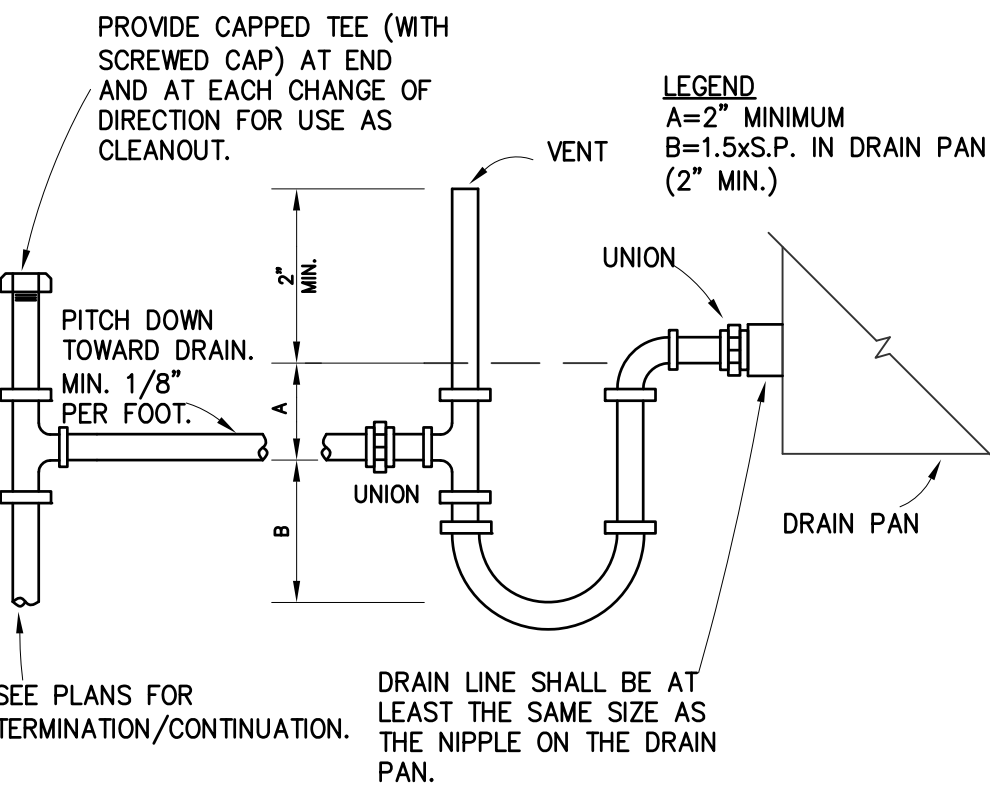
ROOF TOP UNIT MOUNTING DETAIL
WITH TYPICAL CONDENSATE DRAIN

SCALE: NTS



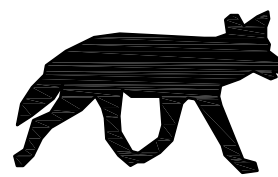
CONDENSATE DRAIN TRAP

NO SCALE



CEILING EXHAUST FAN DETAIL

SCALE: NTS



CUSTOM RESIDENCE

FOR EDUCATE
CAPITAL LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085

THE DESIGN OFFICE LLC

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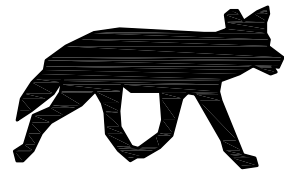
REVISIONS

NO	DESCRIPTION	DATE

MECHANICAL
SPECIFICATIONS,
SCHEDULES AND
DETAILS

SHEET TITLE

CITY OF SCOTTSDALE
BUILDING PLANS
THESE PLANS HAVE BEEN REVIEWED
AND ARE READY FOR A PERMIT.
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CODE OR ORDINANCE



KEY NOTES:

- 1 NEW ROOF TOP PACKAGE (ELECTRIC COOLING/GAS HEATING) UNIT LOCATION. FOR INSTALLATION REFER TO DETAILS 1 & 2/M-1. FOR MODEL INFORMATION AND OUTSIDE AIR BALANCE REFER TO SCHEDULE ON SAME SHEET.
- 2 CEILING MOUNTED EXHAUST FAN. ROUTE E/A DUCT THRU ROOF TO EXTERIOR. PROVIDE ROOF MOUNTED BACK DRAFT DAMPER. FOR MODEL REFER TO SCHEDULE ON M-1 AND FOR INSTALLATION TO DETAIL 3 ON SAME SHEET.
- 3 ORIGINAL SUPPLY/RETURN AIR PLENUM DUCTS DOWN FROM RTU AND ROUTE AS SHOWN.
- 4 TYPICAL CEILING MOUNTED SUPPLY/RETURN DIFFUSER INSTALLATION. REFER TO DETAIL 4/M-1.
- 5 TYPICAL DUCT MOUNTED RETURN GRILLE INSTALLATION. REFER TO DETAIL 5/M-1.
- 6 MAKE-UP AIR TRANSFER GRILLE LOCATION. REFER TO DIFFUSER AND GRILLE SCHEDULE ON M-1 SHEET FOR MORE INFORMATION.
- 7 1/2" UNDERCUT DOOR.
- 8 4" DRYER VENT LINE TO EXTERIOR. PROVIDE ROOF/WALL JACK AND PAINT TO MATCH ADJACENT SURFACE. FOR INSTALLATION REFER TO DETAIL 6/M-1.
- 9 RESIDENTIAL TYPE OF KITCHEN HOOD, TO BE EXHAUSTED DIRECTLY TO THE OUTDOORS. CONTRACTOR TO PROVIDE KITCHEN HOOD EXHAUST FAN THAT SHALL BE EQUAL OR LESS THAN 400 CFM IN SIZE.
- 10 3/4" CONDENSATE LINE ROUTES TO LAV TRAP TAIL PIECE OR OTHER APPROVED LOCATION AS PER IRC, M1411.3. MAINTAIN MINIMUM 1/8" PER FT SLOPE ON ALL CONDENSATE LINES.
- 11 PROGRAMMABLE THERMOSTAT HONEYWELL, MODEL TH8321 TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS. IF ALTERNATE THERMOSTAT MODEL IS USED, TEMPERATURE SENSOR QUANTITY AND LOCATION MAY NEED TO BE MODIFIED.
- 12 INDOOR TEMPERATURE SENSORS. WITH WIRELESS CONNECTION, HONEYWELL, MODEL C7189R TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS.

GENERAL NOTES:

1. REFER TO DIFFUSER AND GRILLE SCHEDULE FOR ANY UNMARKED RUNOUT SIZES.
2. COORDINATE EXACT LOCATIONS OF DIFFUSERS AND GRILLES WITH LIGHTING AND ARCHITECTURAL PLANS.
3. COORDINATE EXACT ROUTING OF DUCTWORK WITH ALL TRADES. ROUTING SHOWN IS SCHEMATIC ONLY.
4. VENT PIPING AND DUCTS THRU ROOF SHALL MAINTAIN MINIMUM 10'-0" CLEAR OF ALL O/A INTAKES.
5. DUCT INSULATION AND SEALING SHALL COMPLY WITH REQUIREMENTS FROM IECC, SECTIONS R403.3.1 & R403.3.2.
6. SEAL ALL ROOF PENETRATIONS WATER TIGHT.
7. FURNISH AND INSTALL ECONOMIZER HOOD WITH MANUAL DAMPER (TO RTU-1,2,3) AND BALANCE OSA AS PER SCHEDULE ON M-1.
8. COORDINATE EXACT MOUNTING LOCATION OF T'STATS WITH ARCHITECTURAL PLANS. INSTALL T-STATS AT 48"A.F.F. INSTALL T-STATS PER LATEST ADA REQUIREMENTS.
9. MATERIAL FOR CONDENSATE LINE: TYPE "M" COPPER TUBING OR PVC.
10. IMC & IECC 2021 USED.

CUSTOM RESIDENCE

FOR EDUCATE
CAPITAL LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085

THE DESIGN OFFICE LLC

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REVISIONS

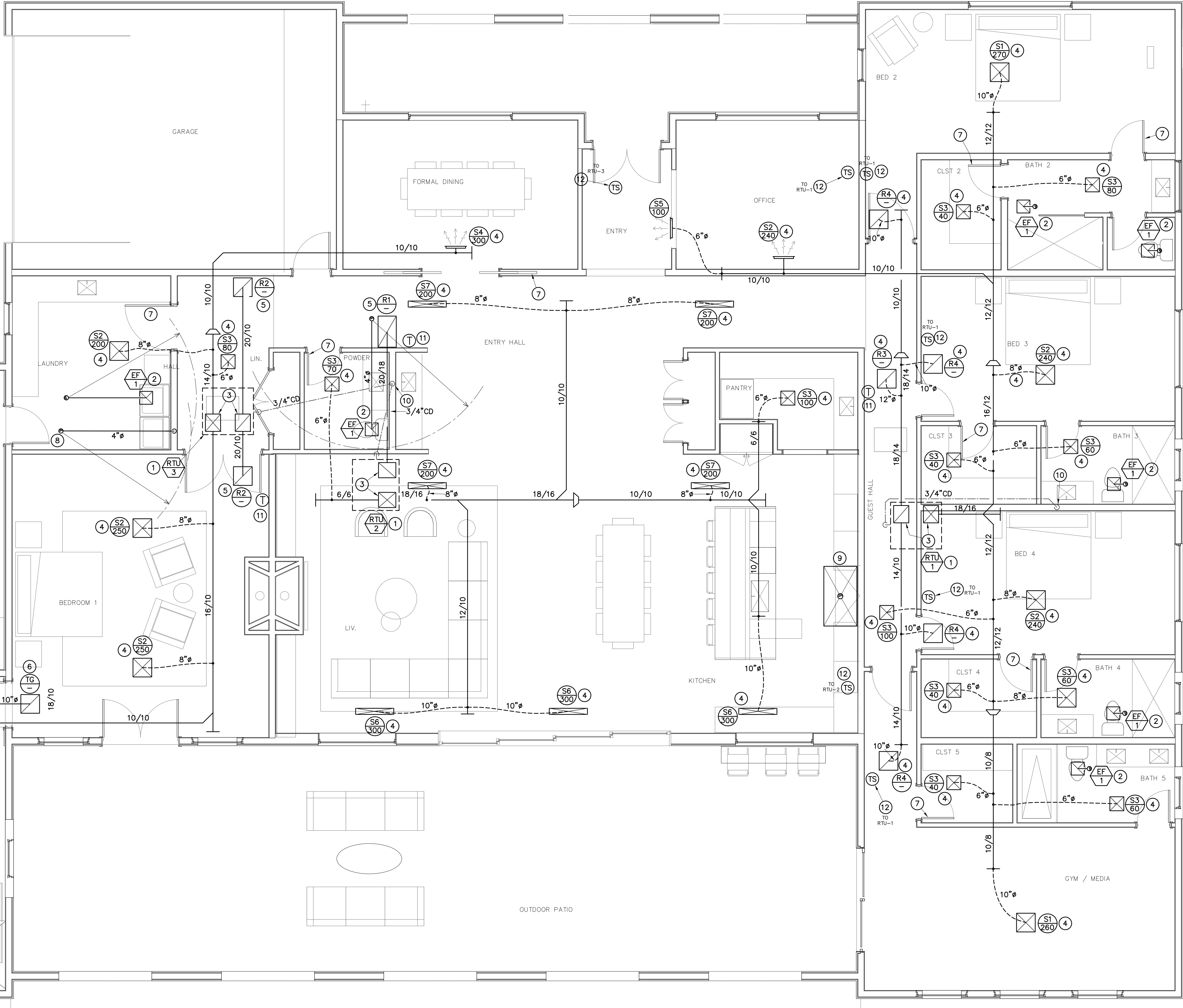
NO	DESCRIPTION	DATE
-	-	-
PROJECT NAME	ISSUE	
DATE	DATE	

MECHANICAL FLOOR
PLAN
MAIN HOUSE

SHEET TITLE

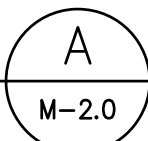
M2.0

MIN. VENTILATION AIR CALCULATIONS
CFM = 0.01 x TOTAL SF + 7.5 x (BED RM NUMBER + 1)
RTU-1 O.S.A. AMOUNT = 0.01 x 1,815 + 7.5 x 4 = 48 CFM PROVIDED 80 CFM O.S.A.
RTU-2 O.S.A. AMOUNT = 0.01 x 1,580 + 7.5 x 1 = 23 CFM PROVIDED 60 CFM O.S.A.
RTU-3 O.S.A. AMOUNT = 0.01 x 1,380 + 7.5 x 2 = 29 CFM PROVIDED 40 CFM O.S.A.
IRC 2021, SECTION M1505.4.3; EQUATION 15-1



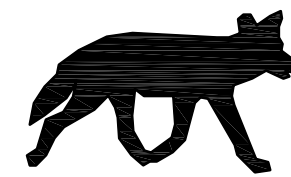
MECHANICAL FLOOR PLAN
MAIN HOUSE

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



MECHANICAL - PLUMBING - ENERGY ANALYSIS
VOICE: (602) 758-6088
EMAIL: ENGRS@MGMECH.COM
WWW.MGMECH.COM
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ENGINEER. THERE SHALL BE NO DEVIATION FROM
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JOB NUMBER: MG24-91

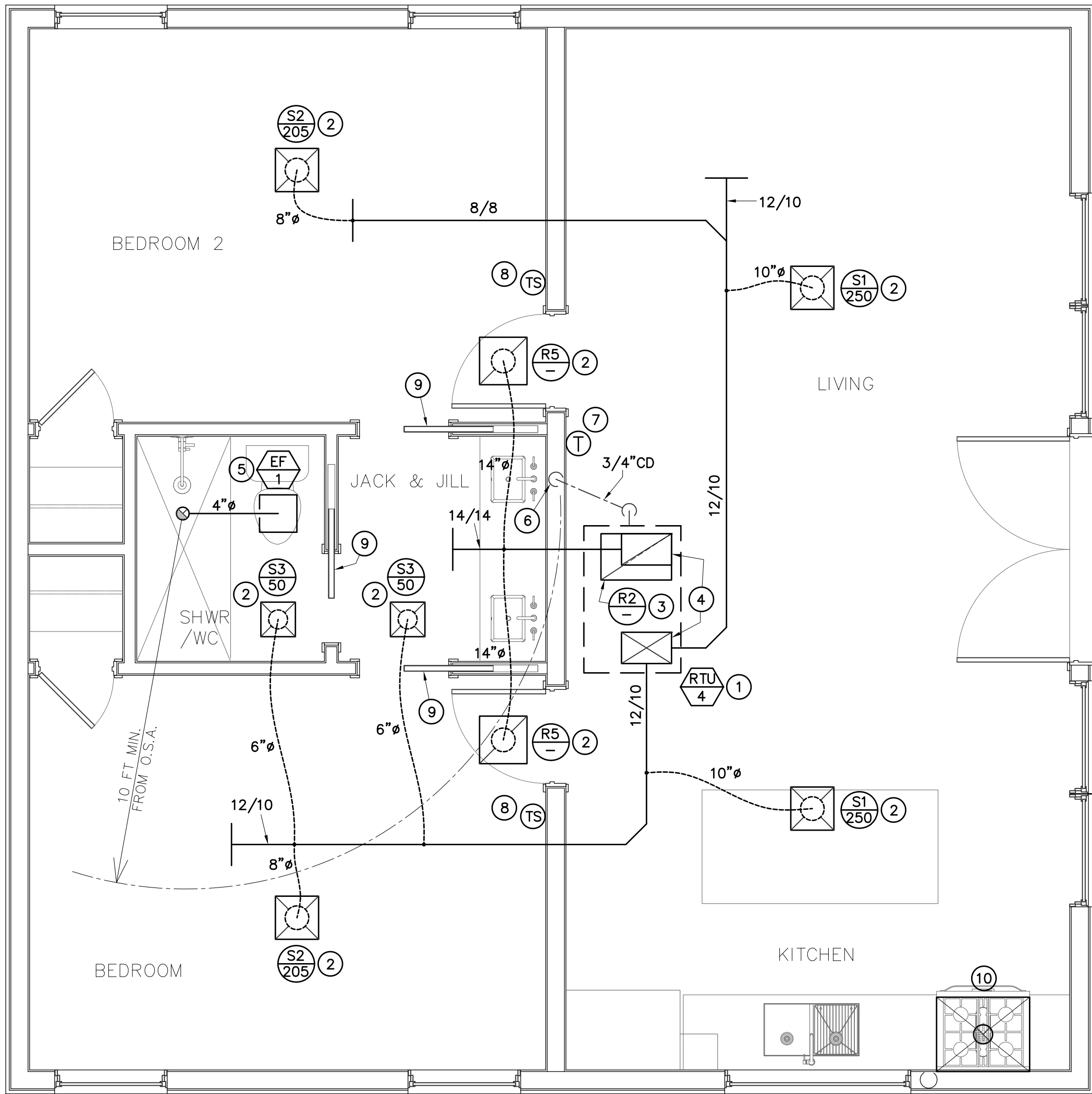


KEY NOTES:

1. ROOF TOP PACKAGE (HEAT PUMP) UNIT LOCATION. FOR INSTALLATION REFER TO DETAILS 1 & 2/M-1 AND AS PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. FOR MODEL INFORMATION AND OUTSIDE AIR BALANCE REFER TO SCHEDULE ON SAME SHEET.
2. CEILING MOUNTED FLEX DUCT SUPPLY/RETURN DIFFUSER INSTALLATION. FOR MODEL INFORMATION REFER TO DIFFUSER AND GRILLE SCHEDULE ON M-1 SHEET. FOR INSTALLATION REFER TO DETAIL 4 ON THE SAME SHEET.
3. CEILING MOUNTED RETURN PLENUM MOUNTED RIGID DUCT RETURN GRILLE INSTALLATION. FOR MODEL INFORMATION REFER TO DIFFUSER AND GRILLE SCHEDULE ON M-1 SHEET.
4. ORIGINAL SUPPLY/RETURN AIR PLENUM DUCTS DOWN FROM RTU AND ROUTE AS SHOWN.
5. CEILING MOUNTED EXHAUST FAN. ROUTE E/A DUCT THRU ROOF TO EXTERIOR. PROVIDE ROOF MOUNTED BACK DRAFT DAMPER. FOR MODEL INFORMATION REFER TO SCHEDULE ON M-1 AND FOR INSTALLATION TO DETAIL 3 ON THE SAME SHEET.
6. 3/4" CONDENSATE LINE ROUTE TO LAV TRAP TAIL PIECE. MAINTAIN CD LINES SLOPE 1/8" PER FT. REFER TO IMC, 307.2.1.
7. PROGRAMMABLE THERMOSTAT HONEYWELL, MODEL TH8321 TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS. IF ALTERNATE THERMOSTAT MODEL IS USED, TEMPERATURE SENSOR QUANTITY AND LOCATION MAY NEED TO BE MODIFIED.
8. INDOOR TEMPERATURE SENSORS, WITH WIRELESS CONNECTION, HONEYWELL, MODEL C7189R TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS.
9. 1/2" UNDERCUT DOOR.
10. RESIDENTIAL TYPE OF KITCHEN HOOD, TO BE EXHAUSTED DIRECTLY TO THE OUTDOORS. CONTRACTOR TO PROVIDE KITCHEN HOOD EXHAUST FAN THAT SHALL BE EQUAL OR LESS THAN 400 CFM IN SIZE. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS

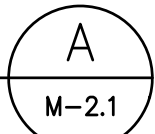
GENERAL NOTES:

1. REFER TO DIFFUSER AND GRILLE SCHEDULE FOR ANY UNMARKED RUNOUT SIZES.
2. COORDINATE EXACT LOCATIONS OF DIFFUSERS AND GRILLES WITH LIGHTING AND ARCHITECTURAL PLANS.
3. COORDINATE EXACT ROUTING OF DUCTWORK WITH ALL TRADES. ROUTING SHOWN IS SCHEMATIC ONLY.
4. VENT PIPING AND DUCTS THRU ROOF/WALL SHALL MAINTAIN MINIMUM 10'-0" CLEAR OF ALL O/A INTAKES.
5. DUCT INSULATION AND SEALING SHALL COMPLY WITH REQUIREMENTS FROM IECC, SECTIONS R403.3.3 & R403.3.4.
6. SEAL ALL ROOF PENETRATIONS WATER TIGHT.
7. FURNISH AND INSTALL OUTSIDE AIR HOOD (TO RTU-4) AND BALANCE OSA AS PER SCHEDULE ON M-1.
8. COORDINATE EXACT MOUNTING LOCATION OF T'STATS WITH ARCHITECTURAL PLANS. INSTALL T-STATS AT 48"A.F.F. INSTALL T-STATS PER LATEST ADA REQUIREMENTS.
9. MATERIAL FOR CONDENSATE LINE:
 - TYPE "M" COPPER TUBING (OUTSIDE THE BUILDING ENVELOPE)
 - PVC TUBING (INSIDE THE BUILDING ENVELOPE)
10. IRC & IECC 2021 USED.



MECHANICAL FLOOR PLAN
CASITA

SCALE: 3/8" = 1' - 0"



MIN. VENTILATION AIR
CALCULATIONS

$CFM = 0.01 \times \text{TOTAL SF} + 7.5 \times (\text{BED RM NUMBER} + 1)$

RTU-1
O.S.A. AMOUNT = $0.01 \times 770 + 7.5 \times 3 = 30$ CFM
PROVIDED 70 CFM O.S.A.

IRC 2021, SECTION M1505.4.3; EQUATION 15-1

DUCT SIZING NOTE

IF CONFLICTIONS OCCUR REGARDING SUPPLY/RETURN DUCT ROUTING DUE TO SIZE AND ARCHITECTURAL LIMITATIONS, CONTRACTOR MAY ALTER DUCT DIMENSIONS BUT SHALL KEEP THE TOTAL CROSS SECTIONAL AREA OF THE DUCT THE EQUAL TO WHAT IS SHOWN ON PLANS.

CONTRACTOR SHALL TAKE MEASURES TO MAINTAIN AN ASPECT RATIO (LENGH/WIDTH) AS CLOSE TO 1 AS POSSIBLE, BUT ASPECT RATIO FROM 1 - 2.5 IS ACCEPTABLE.

ASPECT RATIO MAY NOT EXCEED 2.5.

MECHANICAL - PLUMBING - ENERGY ANALYSIS



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JOB NUMBER: MG24-91

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CAPITAL LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085

THE DESIGN OFFICE LLC

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LOCATION OF FIXTURES. FIELD VERIFY ALL EXISTING
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REVISIONS

NO DESCRIPTION DATE

PROJECT NAME

ISSUE

DATE

MECHANICAL FLOOR
PLAN
CASITA

SHEET TITLE

M2.1



Project 13202 N 76th Place Residence

Energy Code: 2021 IECC
Location: Scottsdale, Arizona
Construction Type: Single-family
Project Type: New Construction
Conditioned Floor Area: 5,545 ft2
Climate Zone: 2 (1366 HDD)
Permit Date:
Permit Number:
All Electric: false
Is Renewable: false
Has Charger: false
Has Battery: false
Has Heat Pump: true

Construction Site: 13202 N 76th Place
Scottsdale, Arizona 85260
Owner/Agent: Brock O'Neill
The Design Office LLC
13802 N. Scottsdale Rd. Suite 151-121
Scottsdale, Arizona 85254
602-578-8706
Designer/Contractor: Bojan Grbic
MG Engineering LLC
Phoenix, Arizona 85032
602-758-6088
engrs@mgmech.com

Mechanical Equipment

Description	Fuel type	Efficiency
Air Conditioner		16 SEER
Air Conditioner		16 SEER
Furnace		81 AFUE
Furnace		81 AFUE
Air Conditioner		16 SEER
Furnace		81 AFUE
Heat Pump		8.5 HSPF, 15 SEER

BOJAN GRBIC, PE

Bojan Grbic

9-9-2024

Project Title: 13202 N 76th Place Residence
Data filename: Report date: 09/09/24
Page 1 of 8

Additional Efficiency Package(s)

Required: 0 Proposed: 0

Project Title: 13202 N 76th Place Residence
Data filename: Report date: 09/09/24
Page 2 of 8



Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2, 403.8 [PR3] ¹	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
302.1, 403.7 [PR2] ²	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr _____ Cooling: Btu/hr _____ SEE SCHEDULE ON M-1 SHEET	Heating: Btu/hr _____ Cooling: Btu/hr _____	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Foundation Inspection	Complies?	Comments/Assumptions
403.9 [FO12] ²	Snow and ice-melting system controls installed to shut off system when pavement temperature > 50F and no precipitation.	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement is not applicable.

Additional Comments/Assumptions:

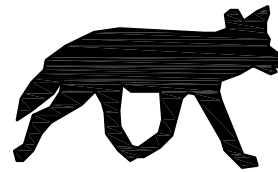
Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
405.2 [FR25] ¹	All requirements of Table R405.2 are met and the building envelope levels of efficiency >= 2009 IECC envelope efficiency.	R-38	R-_____	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.3.7 [FR15] ¹	Building cavities are not used as ducts or plenums.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.4 [FR17] ²	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to ≥R-3.	R-3	R-_____	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.4.1 [FR24] ¹	Protection of insulation on HVAC piping.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.3.5 [FI27] ¹	Ducts are pressure tested in accordance with ANEIR/RESNET/IECC 380 or ASTM E1554 to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	4 cfm/100 ft ²	cfm/100 ft ²	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.3.6 [FI4] ¹	Duct tightness test result of ≤4 cfm/100 ft2 across the system or ≤3 cfm/100 ft2 without air handler @ 25 Pa. Duct tightness ≤8 cfm/100 ft2 for ducts within thermal envelope. For rough-in tests, verification may need to occur during Framing Inspection.	4 cfm/100 ft ²	cfm/100 ft ²	☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.3.4.1 [FI24] ¹	Air handler leakage designated by manufacturer at ≤2% of design air flow.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.7 [FI5] ¹	Heating and cooling equipment type and capacity as per plans.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.1.1 [FI9] ²	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.1.2 [FI10] ²	Heat pump supplementary heat controls to prevent supplemental heat when heat pump compressor can serve the heating load.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement is not applicable.
403.5.1 [FI11] ²	Circulating service hot water systems have automatic or accessible manual controls.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.2 [FI26] ¹	Hot water boilers supplying heat through one- or two-pipe heating systems have automatic outdoor setback control to lower boiler water temperature based on outdoor temperature, indoor temperature or water temperature sensing.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement is not applicable.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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CUSTOM RESIDENCE

FOR EDUCATE
CAPITAL LLC

13202 N. 76th Place
Scottsdale AZ 85260

A.P.N. 175-03-085



ALL PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW COMPLETE SCOPE OF WORK REQUIRED FOR ALL NEW INSTALLATIONS OR FINISHES. INFORMATION CONTAINED ON THESE SHEETS ARE SUGGESTIONS ONLY. REFER TO SPEC SHEET FOR EXACT TYPE & LOCATION OF FIXTURES. FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY DESIGNER OF ANY CONFLICTS. INFORMATION ON THESE SHEETS MAY HAVE BEEN GATHERED AND COMPILED FOR DESIGNER FROM OTHER SOURCES. EVERY EFFORT WAS MADE TO ENSURE ACCURACY OF THIS DRAWING AND DATA HOWEVER NO GUARANTEE IS GIVEN OR IMPLIED AS TO ACCURACY OF SAID DATA.

REVISIONS

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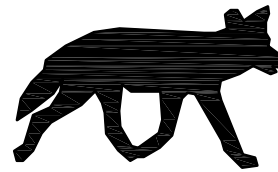
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ENGINEER. THERE SHALL BE NO DEVIATION FROM
THESE DRAWINGS OR ANY ACCOMPANYING
SPECIFICATIONS WITHOUT WRITTEN CONSENT OF
THE ENGINEER.

JOB NUMBER: MG24-91

IECC,
ENERGY COMPLIANCE

SHEET TITLE

M3.0



Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.5.1.1 [F128] ¹	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermosyphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.5.1.2 [F129] ²	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.5.3 [F131] ²	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement is not applicable.
403.6.2 [F125] ²	All mechanical ventilation system fans meet efficacy and air flow limits per Table R403.6.2.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.6.3 [F133] ²	Mechanical ventilation systems tested and verified to meet the minimum flow rates required by Section R403.6.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
403.5.1.1.1 [F132] ²	Demand recirculation water systems have automatic controls to start pump when hot water is requested.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
404.1 [F16] ¹	100% of permanent fixtures have high efficacy lamps.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
404.1.2 [F123] ¹ 	Fuel gas lighting systems have no continuous pilot light.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Exception: Requirement is not applicable.
404.1.1 [F135] ¹ 	Exterior lighting for multifamily buildings shall comply with Section C405.4.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

☐ 1 High Impact (Tier 1) ☐ 2 Medium Impact (Tier 2) ☐ 3 Low Impact (Tier 3)

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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
404.2 [F136] ¹ 	Permanent interior lighting shall be controlled with either a dimmer, occupancy sensor or other control built into the fixture.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
404.3 [F137] ¹ 	Exterior lighting >= 30 watts shall have the following controls: manual on/off switch with automatic shut-off, automatic shut-off in daylight hours, and controls that override automatic shutoff that returns to automatic control within 24 hours.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.
303.3 [F118] ¹	Manufacturer manuals for mechanical and water heating systems have been provided.			☐ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

☐ 1 High Impact (Tier 1) ☐ 2 Medium Impact (Tier 2) ☐ 3 Low Impact (Tier 3)

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CUSTOM RESIDENCE

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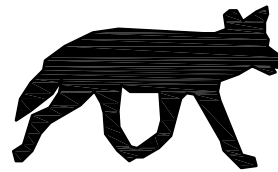
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JOB NUMBER: MG24—91

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SHEET TITLE

M3.1



SPECIFICATIONS

GENERAL

- THE CONTRACTOR SHALL PROVIDE THE WORK SHOWN ON THE DRAWINGS AND SPECIFIED FOR THEIR INDIVIDUAL SECTIONS OF WORK. THE WORD "WORK" SHALL MEAN ALL LABOR, TRANSPORTATION, MATERIAL, EQUIPMENT, TOOLS, INSTALLATION, SUPERVISION, AND ANY OTHER INCIDENTAL ITEMS OR SERVICES OBVIOUSLY NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE COMPLETE SYSTEMS, WHICH SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY MENTIONED OR SHOWN.
- ALL GENERAL CONDITIONS, SPECIAL REQUIREMENTS OR GENERAL REQUIREMENTS OF THE GENERAL CONSTRUCTION SPECIFICATION ARE PART OF THIS SPECIFICATION AND HAVE THE SAME FORCE AND EFFECT AS IF PRINTED HERE IN FULL.
- THE WORD "PROVIDE" SHALL MEAN FURNISH AND INSTALL, MAKE ALL FINAL CONNECTIONS, AND LEAVE IN AN APPROVED OPERATING CONDITION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE APPLICABLE UNIFORM BUILDING, MECHANICAL, PLUMBING, AND ELECTRICAL CODES, AND FEDERAL, STATE, AND LOCAL REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING: WORKMEN'S IDENTIFICATION AND SAFETY, FIRE PROTECTION, CONTRACTOR'S LIABILITY INSURANCE, SAFETY BARRICADES, WARNING SIGNS, AND TRASH REMOVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING ALL FEES AND OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL DRAWINGS FOR THE BUILDING, AND FOR OTHER TRADES, AND SHALL COORDINATE THE WORK WITH ALL OTHER TRADES, INCLUDING, BUT NOT LIMITED TO, THE CONSTRUCTION DOCUMENTS, SHOP DRAWINGS, ETC. FOR ALL GENERAL CONSTRUCTION, STRUCTURAL, MECHANICAL, AND ELECTRICAL AND SPECIALTY CONTRACTOR WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF MATERIAL INTO THE BUILDING AS PLANNED, WITHOUT INTERFERENCE WITH OTHER WORK, AND SHALL MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH OTHER TRADES, TO PROVIDE ACCESS AND FOR THE PROPER EXECUTION OF THE WORK.
- DRAWINGS ARE DIAGRAMMATIC, SMALL SCALE, AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. CERTAIN COMPONENTS, APPURTENANCES, AND RELATED SPECIALTIES ARE NOT SHOWN, AND SHALL BE PROVIDED. IT IS THE INTENT OF THE DRAWING AND SPECIFICATIONS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. DO NOT SCALE DRAWINGS. ARRANGEMENT OF EQUIPMENT AND ROUTING OF PIPES AND DUCTWORK, ETC. INDICATED ON DRAWINGS MAY REQUIRE MODIFICATION DUE TO UNFORESEEN CONDITIONS AND REQUIRED ON SITE REVISIONS DURING CONSTRUCTION. (SEE ALSO "BIDDING")
- ALL WORK REQUIRED FOR IDENTICAL ITEMS SHOWN ON THE DRAWINGS SHALL BE PROVIDED ALTHOUGH EACH SPECIFIC IDENTICAL ITEM MAY NOT BE SHOWN IN DETAIL- OR CALLED OUT.
- THE CONTRACTOR SHALL PROVIDE (5) COPIES OF SUBMITTALS AT ONE TIME, BOUND IN A NEAT & ORDERLY MANNER. PARTIAL OR UNMARKED SUBMITTALS WILL NOT BE ACCEPTED. SUBMITTALS SHALL INCLUDE ALL EQUIPMENT, MATERIALS, AND DEVICES FOR REVIEW BY THE ENGINEER. WORK SHALL NOT START UNTIL ALL REVIEWS HAVE BEEN COMPLETED AND THE ITEMS TO BE PROVIDED ARE ACCEPTABLE. ALL MATERIALS AND EQUIPMENT SHALL BE COMMONLY USED ACCEPTABLE GRADES IN THE CONSTRUCTION INDUSTRY AND SHALL BEAR THE "U.L.", ASME, AMCA, OR OTHER LABEL WHEN APPLICABLE.
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUPPLY THE ARCHITECT WITH COMPLETE SETS OF AS-BUILT DOCUMENTS ACCURATELY SHOWING THE MATERIALS AND EQUIPMENT AS INSTALLED.
- ALL MATERIALS AND WORKMANSHIP TO BE GUARANTEED FOR A MINIMUM OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. REFRIGERATION COMPRESSORS SHALL BE GUARANTEED FOR A MINIMUM OF FIVE YEARS FROM DATE OF OWNER'S ACCEPTANCE. IN ADDITION, THE CONTRACTOR SHALL GUARANTEE THAT THE INSTALLATION, WHEN OPERATED IN ACCORDANCE WITH THE CONTRACTOR'S INSTRUCTIONS, WILL DEVELOP CAPACITY AND CHARACTERISTICS INDICATED OR SPECIFIED AND WILL FULFILL EACH AND EVERY REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS, AND SHOULD THE INSTALLATION IN ANY WAY FAIL TO DO SO, THE CONTRACTOR WILL, WITHOUT DELAY AND WITHOUT COST TO THE OWNER, PROVIDE WHATEVER ADDITIONAL EQUIPMENT, MATERIAL, AND LABOR IS NECESSARY TO CORRECT THE FAULT AND COMPLY WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
- CONTRACTOR SHALL CHECK AND VERIFY ALL SIZES, DIMENSIONS, AND CONDITIONS BEFORE STARTING ANY WORK. ANY DEVIATIONS OR PROBLEMS SHALL BE TRANSMITTED TO THE ENGINEER FOR REVIEW.

- PROVIDE BASE AND COUNTER FLASHING FOR ITEMS PENETRATING THE ROOF- COORDINATE WITH ARCHITECTURAL REQUIREMENTS.
- CONTRACTOR TO FURNISH AND INSTALL ALL STARTERS, WIRING, CONTROLS, DEVICES AND ALL CONDUIT, FOR A COMPLETE AND OPERABLE SYSTEM.
- ALL WORK SHOWN IS NEW, UNLESS NOTED AS EXISTING.
- MAINTAIN OCCUPANCY AND FIREWALL SEPARATION INTEGRITY AS REQUIRED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF ALL OCCUPANCY/FIREWALL SEPARATIONS AND SPECIFIC DETAILS FOR CONSTRUCTION. PROVIDE ALL NECESSARY FIRE DAMPERS, ACCESS DOORS, AND CAULKING, ETC. FOR APPROVED INSTALLATION.

BIDDING

- SUBMISSION OF A BID PROPOSAL, DIRECTLY OR INDIRECTLY BY THE CONTRACTOR FOR THIS WORK, SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE AND UNDERSTANDS THE CONDITIONS THAT MAY AFFECT THE PERFORMANCE OF THE WORK. CONTRACTOR IS EXPECTED TO CONTACT ARCHITECT FOR ANY PARTICULAR PROBLEMS, AND CLEAR UP ANY POSSIBLE MISUNDERSTANDING BEFORE BID IS SUBMITTED. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF THE CONTRACT DOCUMENTS AND THE WORK TO BE ACCOMPLISHED.

- BASE PROPOSAL ON MANUFACTURERS NAMED, UNLESS "OR EQUAL" IS INDICATED.

EXECUTION

- THE CONTRACTOR SHALL PROVIDE ALL SLEEVES, OPENINGS, CUTTING, AND PATCHING NECESSARY FOR THE INSTALLATION OF THE WORK. CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES REQUIRED AND PAID BY THE CONTRACTOR REQUIRING THE WORK COMPLETE.
- THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HANDLING OF MATERIALS AND EQUIPMENT, AND THE NECESSARY PROTECTION FOR MATERIALS AND EQUIPMENT.
- TOOLS AND EQUIPMENT WILL BE STORED IN OWNER DESIGNATED AREAS ONLY.
- THE CONTRACTOR WILL PROTECT THE WORK AND MATERIAL AGAINST DIRT, THEFT, INJURY, OR DAMAGE UNTIL ACCEPTED BY OWNER. ALL WORK SHALL BE TURNED OVER TO OWNER CLEAN AND IN PERFECT CONDITION, READY FOR SATISFACTORY SERVICE.
- PIPES AND/OR CONDUITS PASSING THROUGH WALL, FLOORS, AND PARTITIONS SHALL BE PROVIDED WITH SLEEVES, EXCEPT AS PROHIBITED BY U.L. LISTING. SLEEVES PASSING THROUGH WATER PROOFING OR DAMP PROOFING SHALL BE WATER TIGHT. PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE PROOFED WITH MATERIAL APPROVED AND AS DEFINED FOR THE RATING OF THE STRUCTURE AND U.L. LISTED.
- EACH CONTRACTOR SHALL PROVIDE ALL FOUNDATIONS, HANGERS, AND SUPPORTS FOR ALL EQUIPMENT SUPPLIED AND/OR INSTALLED UNDER THEIR WORK. ANY EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH VIBRATION ISOLATION.
- ALL EQUIPMENT SHALL BE PROVIDED WITH FACTORY FINISH. ALL REQUIRED PAINTING WILL BE PERFORMED UNDER THE GENERAL CONSTRUCTION SECTION OF THE SPECIFICATIONS
- WHERE PIPES OR CONDUITS PASS THROUGH WALLS, FLOORS, OR CEILINGS IN FINISHED AREAS, THEY SHALL BE FURNISHED WITH CHROME PLATED ESCUTCHEON PLATES.
- AT THE CONCLUSION OF THE JOB, EACH PIECE OF EQUIPMENT, VALVE, SWITCH, STARTER, PANEL, PIPE LINE, CONDUIT, ETC., SHALL BE CLEARLY IDENTIFIED WHETHER EXPOSED OR CONCEALED, COVERED OR UNCOVERED, IN ACCORDANCE WITH OSHA AND ANSI REGULATIONS. IDENTIFY PIPES NEAR EACH VALVE WITH "BRANDY-PERMA CODE PIPE TAPE" OR T. & B. WESTLINE "TEL-A-PIPE" INDICATING DIRECTION OF FLOW, SERVICE ZONE, AND SIZE. TAPE SHALL BE APPLIED TO PIPE, CONDUIT, OR COVERING. VALVES, CONTROLS, AND DAMPERS SHALL BE IDENTIFIED BY 2-INCH LAQUERED BRASS TAGS WITH STAMPED LETTERS FASTENED WITH "S" HOOKS OR CHAINS. EQUIPMENT IS TO BE IDENTIFIED AS TO FUNCTION AND PURPOSE BY MEANS OF PERMANENTLY ATTACHED LAMINATED PHENOLIC NAMEPLATES WITH BEVELED EDGES AND WHITE LETTERS ON BLACK BACKGROUND.
- AT THE CONCLUSION OF THE WORK, ALL EQUIPMENT AND SYSTEMS SHALL BE CAREFULLY BALANCED, ADJUSTED, AND TESTED TO PROVIDE BALANCED, QUIET-OPERATING, STABLE AND SAFE SYSTEMS. DEMONSTRATE OPERATION OF ALL SYSTEMS TO THE OWNER'S DESIGNATED REPRESENTATIVE.

PLUMBING

- DOMESTIC WATER PIPING

PEX, CPVC, OR TYPE "L" HARD TEMPER COPPER, WROUGHT FITTINGS, LEAD-FREE SOLDERED (ABOVE GROUND). (PER ORDINANCE OF AUTHORITY HAVING JURISDICTION).

PEX, PVC, CPVC OR TYPE "L" HARD TEMPER COPPER UNDER GROUND.

NOTE: DI-ELECTRIC FITTINGS SHALL BE USED WHEREVER DISSIMILAR METALS ARE JOINED. ALL UNDERGROUND/SLAB COPPER PIPING SHALL BE SLEEVED.

- CONDENSATE DRAIN PIPING:

PVC, ABS, PEX, CPVC OR TYPE "M" HARD TEMPER COPPER, WROUGHT FITTINGS.

- SANITARY, WASTE, VENT, AND STORM WATER PIPING

ABS IAMP0 (1S 11-87) OR PVC IAMP0 (1S 9-90) FOR DRAIN WASTE & VENT PIPING & FITTINGS EXCEPT ON STRUCTURES OVER 3 STORIES OR WHERE PROHIBITED BY LOCAL CODE.

- PLUMBING FIXTURES

PROVIDE CP ANGLE STOPS TO EACH PLUMBING FIXTURE. PROVIDE SHUT-OFF VALVES WITH UNIONS TO ALL OTHER PLUMBING FIXTURES (SUCH AS WATER HEATER) TO FACILITATE ISOLATION FOR REPAIR.

ALL PLUMBING FIXTURES SHALL COMPLY WITH WATER CONSERVATION CODE OF AUTHORITY HAVING JURISDICTION..

DISINFECT ALL POTABLE WATER SYSTEMS IN ACCORDANCE WITH PLUMBING CODE AND/OR AWWA STANDARD. PROVIDE WRITTEN CONFIRMATION TO OWNER'S REPRESENTATIVE THAT THIS WORK HAS BEEN COMPLETED.

- GAS PIPING

SCHEDULE 40 BLACK STEEL, THREADED MALLEABLE FITTINGS INSIDE, AND GALVANIZED FITTINGS AND PIPE WHERE EXPOSED. PROVIDE ISOLATION VALVES AT ALL EQUIPMENT.

SUPPORT PIPING FROM ROOF ON 4 X 4 REDWOOD RUNNERS AT 8'-0" O.C. (MAX), AND AT EVERY CHANGE OF DIRECTION. USE UNISTRUT "U" STRAPS BOLTED TO RUNNERS.

PLASTIC PIPE SHALL BE INSTALLED OUTDOORS UNDERGROUND ONLY. PLASTIC PIPE SHALL NOT BE USED WITHIN OR UNDER ANY BUILDING OR SLAB OR BE OPERATED AT PRESSURES GREATER THAN 100 PSIG (689 kPa) FOR NATURAL GAS.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANUFACTURER/ MODEL	ROUGH-IN SIZES					REMARKS
			CW	HW	SAN	VENT	GAS	
WC	WATER CLOSET	BY OWNER	1/2"	-	3"	2"	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED. MAX. FLOW : 1.6 GAL./FLUSH
LAV	LAVATORY	BY OWNER	1/2"	1/2"	2"	1-1/2"	-	SELF RIMMING LAVATORY OWNER SUPPLIED AND CONTRACTOR INSTALLED. MAX. FLOW : 2.2 GPM
SHWR	SHOWER	BY OWNER	1/2"	1/2"	2"	1 1/2"	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED. MAX. FLOW : 2.5 GPM
BT	BATH TUB	BY OWNER	1/2"	1/2"	2"	1 1/2"	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED. MAX. FLOW : 2.5 GPM
KS	KITCHEN SINK	BY OWNER	1/2"	1/2"	2"	1-1/2"	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED. MAX. FLOW : 2.2 GPM
CLW	CLOTHES WASHER	BY OWNER	1/2"	1/2"	2"	1 1/2"	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED.
S-1	LAUNDRY SINK	BY OWNER	1/2"	1/2"	2"	1-1/2"	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED. MAX. FLOW : 2.2 GPM
HS	HAND SINK	BY OWNER	1/2"	1/2"	2"	1-1/2"	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED. MAX. FLOW : 2.2 GPM
REF	REFRIGERATOR	BY OWNER	1/2"	-	-	-	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED.
HB	HOSE BIBB	BY OWNER	1/2"	-	-	-	-	OWNER SUPPLIED AND CONTRACTOR INSTALLED.

WASTE CALCULATION

MARK	DESCRIPTION	QUANTITY	UNITS PER FIXTURE	TOTAL
WC + LAV + SHWR(BT)	FULL-BATH GROUP	5	5.0	25.0
WC + LAV	HALF-BATH GROUP	1	4.0	4.0
KS + DW	KITCHEN GROUP (KS + DW)	1	2.0	2.0
CLW + S-1	LAUNDRY GROUP (CLW + S-1)	1	3.0	3.0
KS	KITCHEN SINK	1	2.0	2.0
SHWR	SHOWER	1	2.0	2.0
LAV	LAVATORY	3	1.0	3.0
HS	HAND SINK	2	2.0	4.0
TOTAL:				45.0

(IRC 2021 CODE, TABLES: P3004.1)

WATER FIXTURE UNIT SIZING		
PIPE SIZE	PIPE GPM	FLUSH TANKS (FU)
1/2"	4.0	1.5
3/4"	10.0	5.5
1"	22.0	25.2
1 1/4"	38.0	80.0

(IRC 2021 CODE, TABLE: AP103.3(3); FIGURE: AP103.3(3))

WATER CALCULATION

DEVELOP. LENGTH TO FURTHEST FIXTURE : 355 FT.
EQUIVALENT LENGTH OF RUN: E.L.R. = 1.2 x 355 = 426 FT.
PRESSURE IN MAIN: 60 PSI
TOTAL FIXTURE UNITS: 49.8 FU
TOTAL FLOW: 29 GPM
LOSS DUE TO ELEVATION (12 FEET): 5.2 PSI
LOSS DUE TO SPECIAL PLUMBING FIXTURE: 10 PSI
RESIDUAL PRESSURE: 44.8 PSI
ALLOWABLE FRICTION LOSS PER 100 FT.: 100 X 44.8 / 426 = 10.5 PSI

WATER FIXTURE UNITS

MARK	DESCRIPTION	QUANTITY	UNITS PER FIXTURE			TOTAL
			HOT	COLD	COMBINED	
WC + LAV + SHWR(BT)	FULL-BATH GROUP	5	1.5	2.7	3.6	18.0
WC + LAV	HALF-BATH GROUP	1	1.5	2.5	2.6	2.6
LAV	LAVATORY	3	0.5	0.5	0.7	2.1
KS	KITCHEN SINK	1	1.0	1.0	1.4	1.4
SHWR	SHOWER	1	1.0	1.0	1.4	1.4
KS + DW	KITCHEN GROUP (KS + DW)	1	1.9	1.0	2.5	2.5
CLW + S-1	LAUNDRY GROUP (CLW + S-1)	1	1.8	1.8	2.5	2.5
HS	HAND SINK	2	1.0	1.0	1.4	2.8
REF/ICE	REFRIG/ICE MAKER	2	-	1.0	1.0	2.0
HB	HOSE BIBB	5	-	2.5	2.5	12.5
TOTAL:						49.8

* 1" WATER METER TO BE USED. MAX. FLOW RATING50 GPM
1 1/4" WATER SERVICE PIPE TO BE USED.

(IRC 2021 CODE, TABLES: P2903.6; P2903.6(1))

PLAN CHECK #: 6791-24-1

WATER METER SIZE: 1" min

BUILDING SUPPLY LINE
(INSIDE PIPE DIAMETER) 1-1/2" min

AN APPROVED TYPE PRESSURE REGULATOR PRECEDED BY AN ADEQUATE STRAINER SHALL BE INSTALLED.

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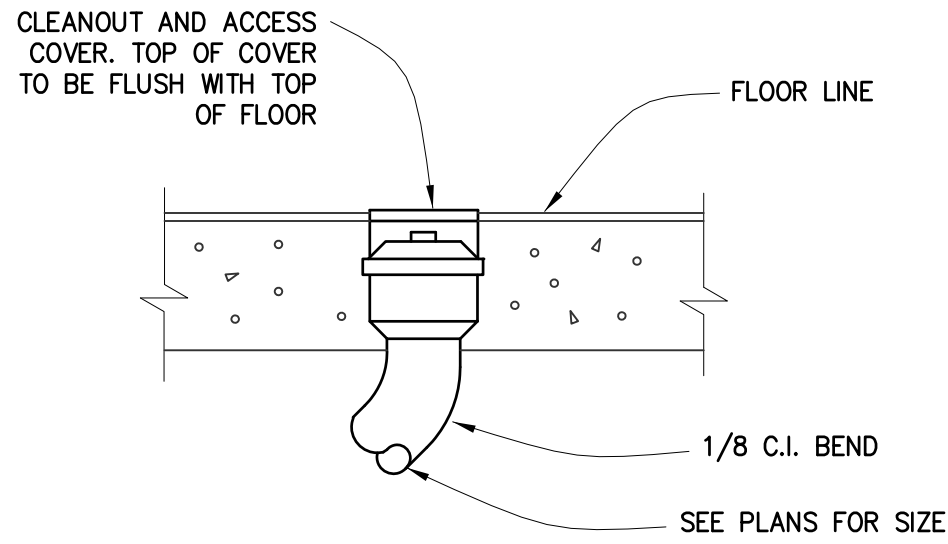
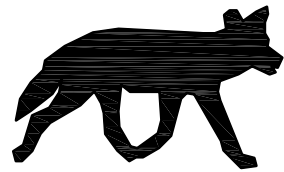
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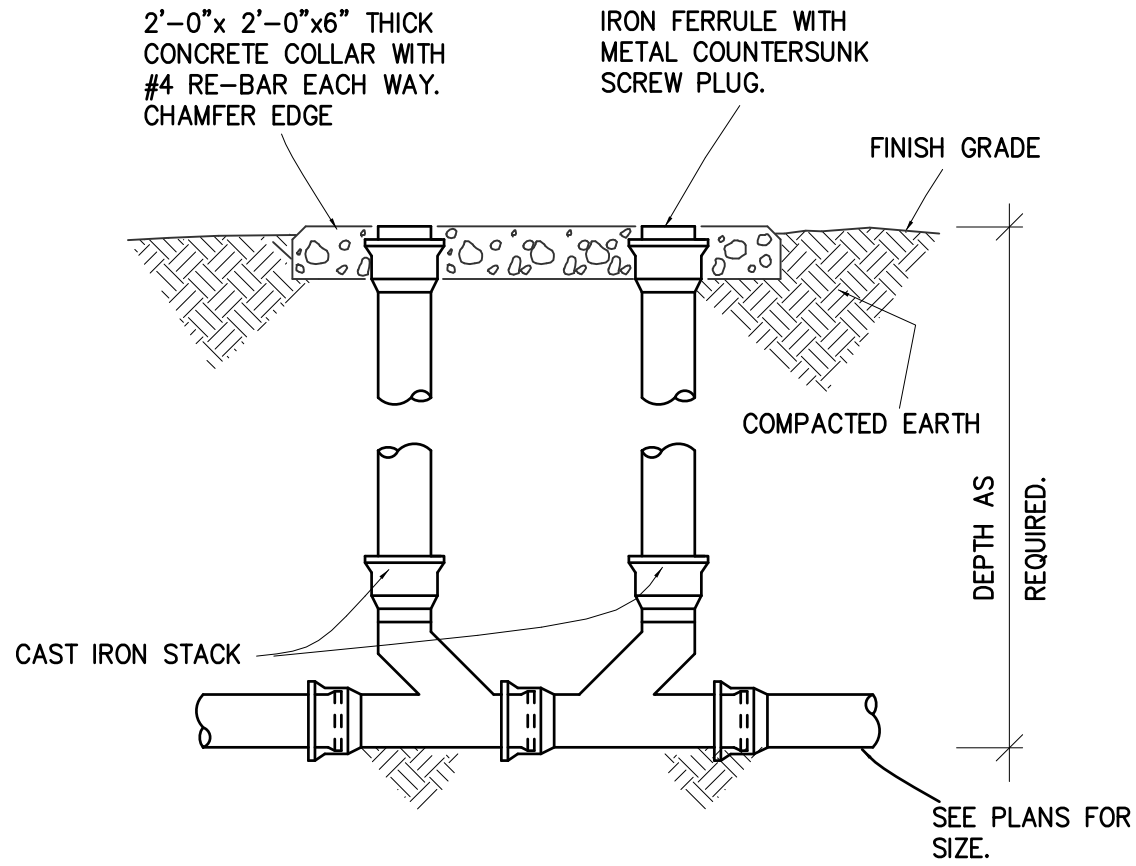
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PLUMBING
SPECIFICATIONS
AND SCHEDULES
SHEET TITLE

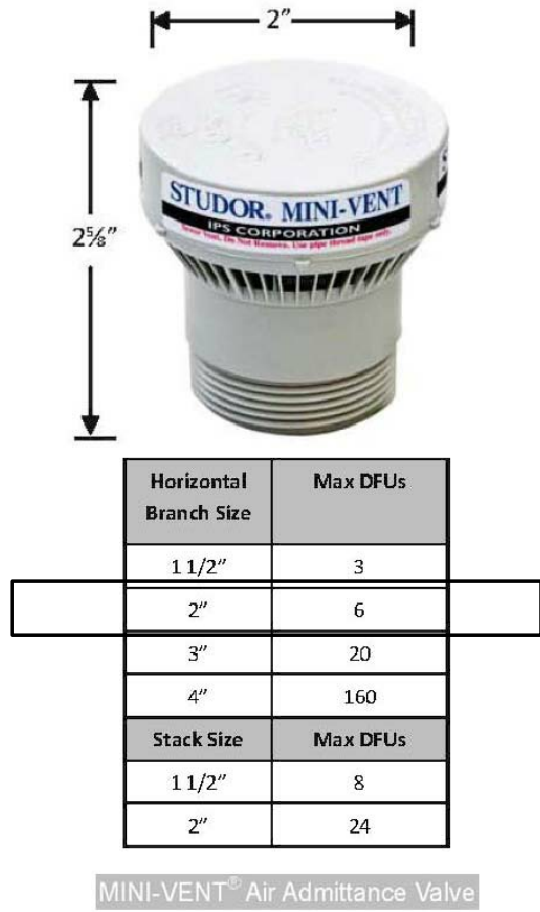
P1.0



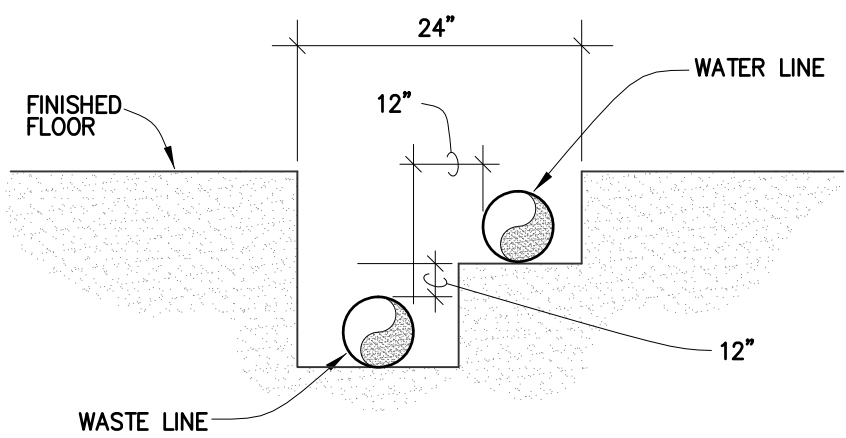
GRADE CLEANOUT (GCO) 6
SCALE: NONE P-1.1



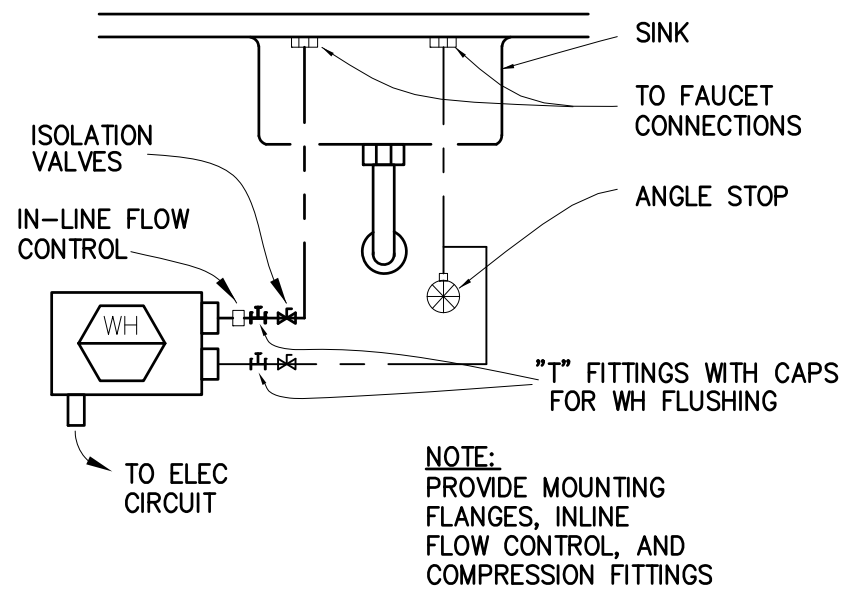
2-WAY CLEANOUT DETAIL 7
NO SCALE P-1.1



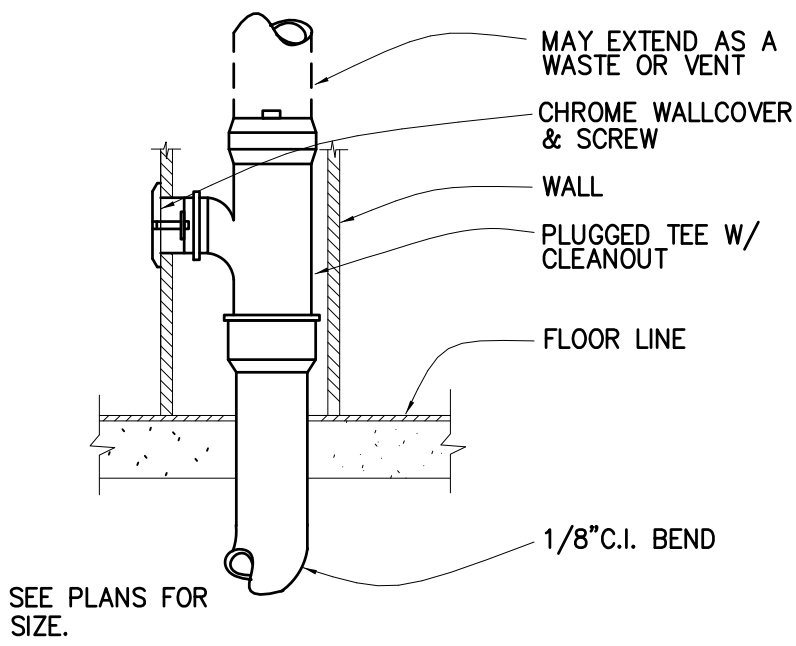
STUDOR VENT DETAIL 8
SCALE: NTS P-1.1



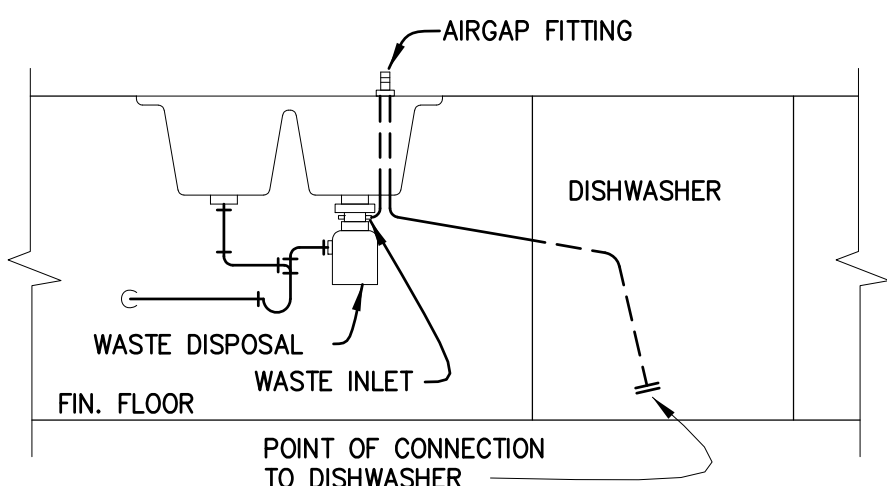
SEWER/WATER – UNDERGROUND INSTALLATION DETAIL 9
NO SCALE P-1.1



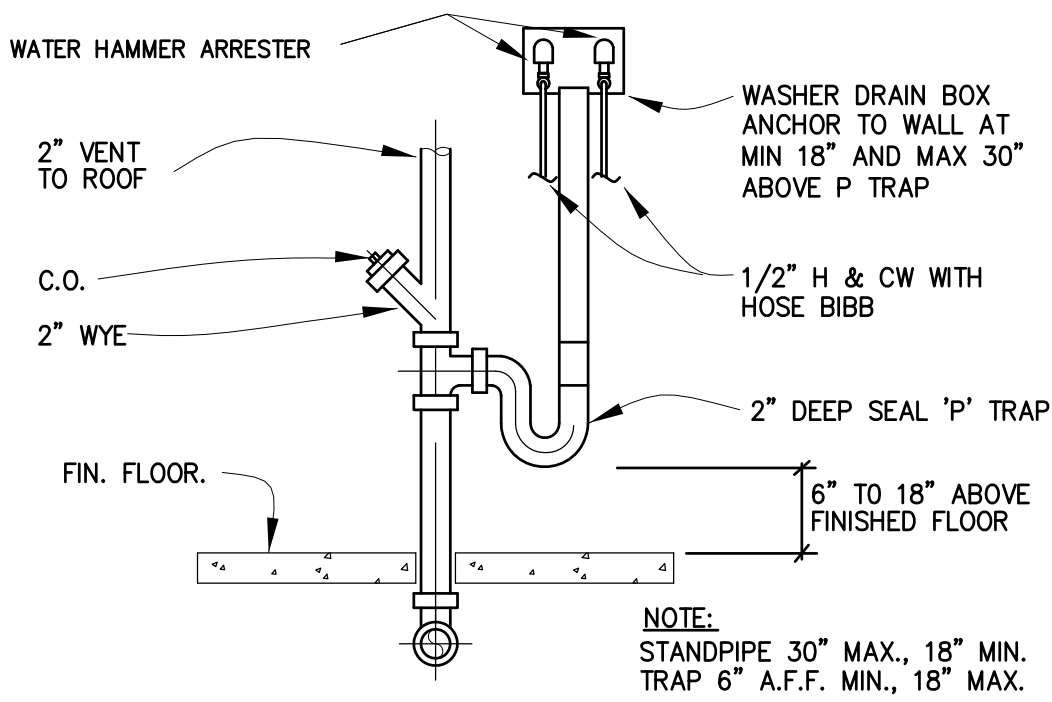
INSTANTANEOUS WH DETAIL 10
NO SCALE P-1.1



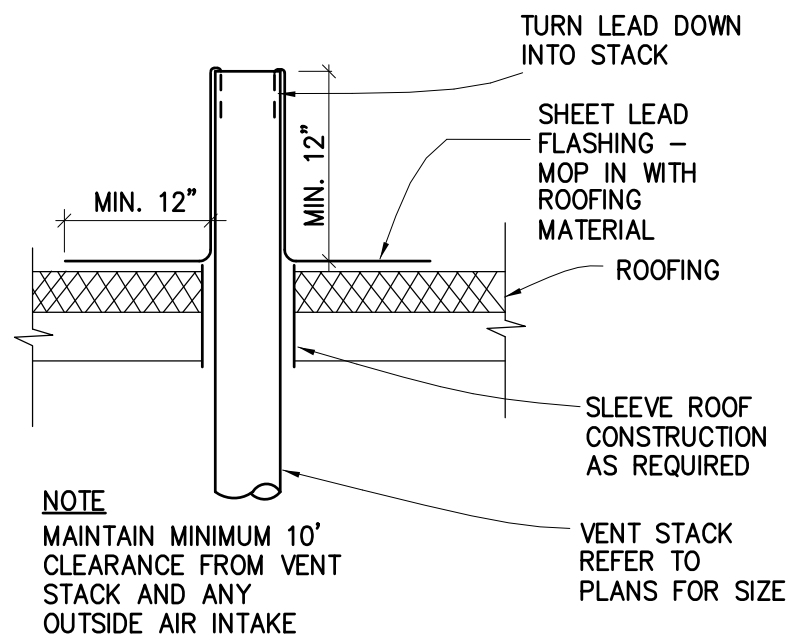
WALL CLEANOUT DETAIL 1
NO SCALE P-1.1



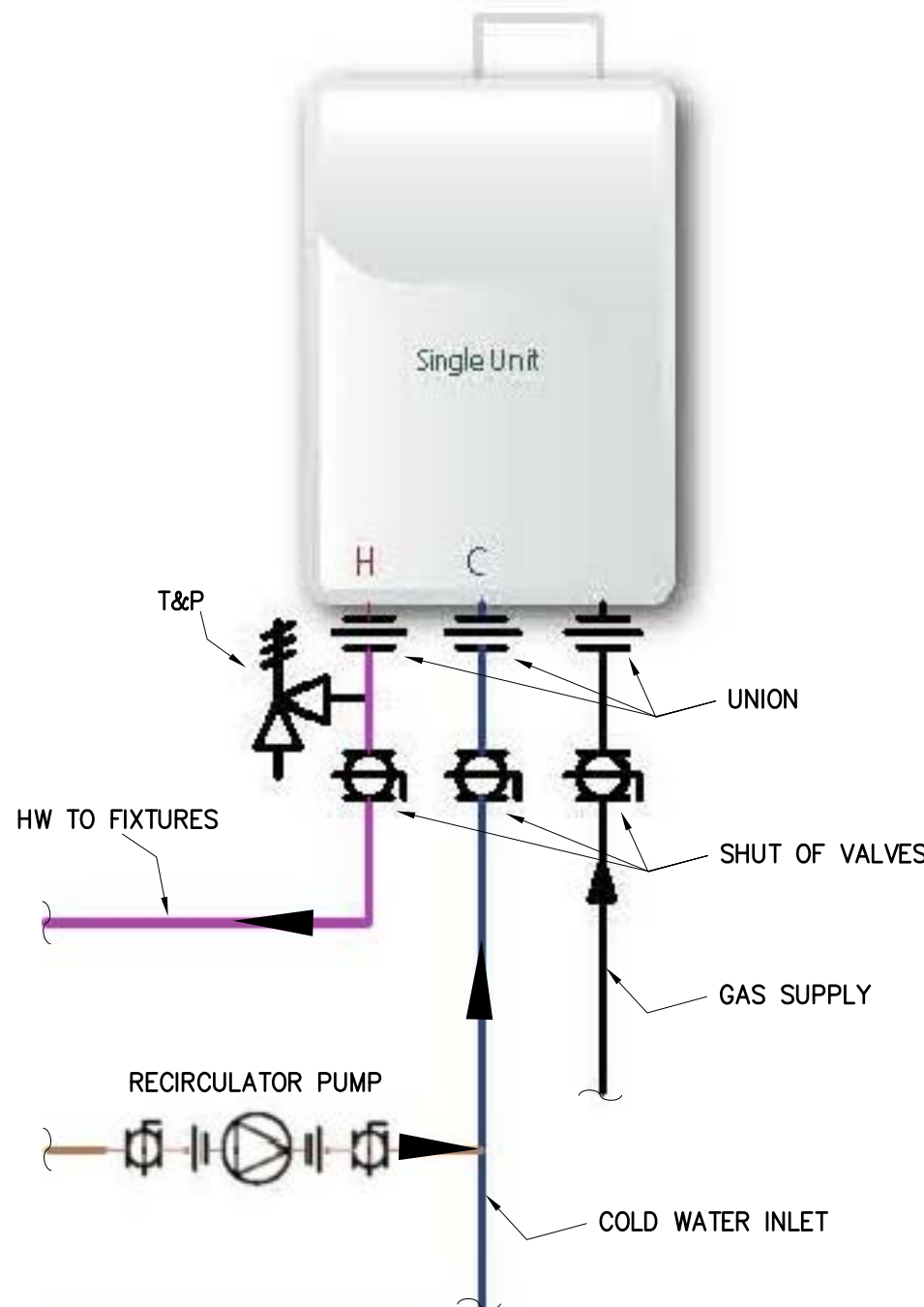
KITCHEN SINK/DISHWASHER SANITARY 2
SCALE: NONE P-1.1



CLOTHES WASHER STANDPIPE 3
SCALE: NONE P-1.1



VENT THRU ROOF DETAIL 4
NO SCALE P-1.1



GAS TANKLESS WATER HEATER DETAIL 5
NO SCALE P-1.1

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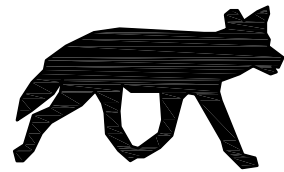
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PLUMBING DETAILS

SHEET TITLE

P1.1

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GENERAL NOTES:

- COORDINATE EXACT ROUTING OF HOT/COLD WATER, VENT AND SAN. PIPING WITH ALL TRADES, ROUTING SHOWN IS SCHEMATIC ONLY.
- VENT PIPING THRU ROOF SHALL MAINTAIN 10'-0" CLEAR OF ALL O/A DUCTS.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR ANY UNMARKED RUN OUT SIZES.
- WASTE PIPING SHALL SLOPE:
 - 1/8 INCH PER FOOT FOR PIPING 3 AND 4" IN SIZE.
 - 1/4 INCH PER FOOT FOR PIPING UP TO 2 1/2" IN SIZE.
- MATERIALS:
 - FOR WATER ABOVE GROUND (DISTRIBUTION PIPE): CPVC, PEX OR TYPE "L" COPPER TUBING.
 - FOR WATER BELOW GROUND (BUILDING SUPPLY PIPE): CPVC, PEX OR TYPE "L" COPPER TUBING.
 - FOR SANITARY WASTE - PVC, SCH. 40,
 - FOR SANITARY VENT - PVC, SCH. 40,
 - FOR GAS ABOVE GROUND: BLACK STEEL, SCH. 40,
 - FOR GAS OUTDOOR UNDERGROUND ONLY: POLYETHYLENE PLASTIC PIPE.
- INSULATIONS:
 - HOT WATER PIPES SHALL BE INSULATED WITH 1" INSULATION THICKNESS AS PER IRC 2021, CHAPTER 11, N1103.5.2.
- FOR WATER, WASTE AND GAS CALCULATION, IRC 2021 USED.

KEY NOTES:

- 1 1/4" COLD WATER LINE UP TO CEILING SPACE AND ROUTE AS SHOWN ON PLAN. FOR WATER CALCULATIONS REFER TO P-1.0 SHEET.
- WALL CLEAN OUT. REFER TO DETAIL 1/P-1.1.
- TANKLESS GAS WATER HEATER LOCATION. FOR INSTALLATION, REFER TO DETAILS 5/P-1.1 SHEET. FOR MODEL REFER TO SCHEDULE ON SAME SHEET.
- CLOTHES WASHER LOCATION. FOR CLOTHES WASHER STANDPIPE REFER TO DETAIL 3/P-1.1.
- DISHWASHER LOCATION. REFER TO DETAIL 2/P-1.1.
- STUDOR MINI-VENT. REFER TO DETAIL 8/P-1.1.
- 1/2" CW/HW ROUTE UNDERNEATH FLOOR TO KITCHEN SINK.
- GRADE CLEAN OUT. REFER TO DETAIL 6/P-1.1.
- 2-WAY CLEAN-OUT. REFER TO DETAIL 7/P-1.1.
- FOR CONTINUATION SEE P-2.1 SHEET.
- GAS METER LOCATION.
- 2 1/2" GAS LINE UP TO ATTIC SPACE AND ROUTE AS SHOWN ON THE PLAN.

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PLUMBING FLOOR PLAN

SHEET TITLE

P2



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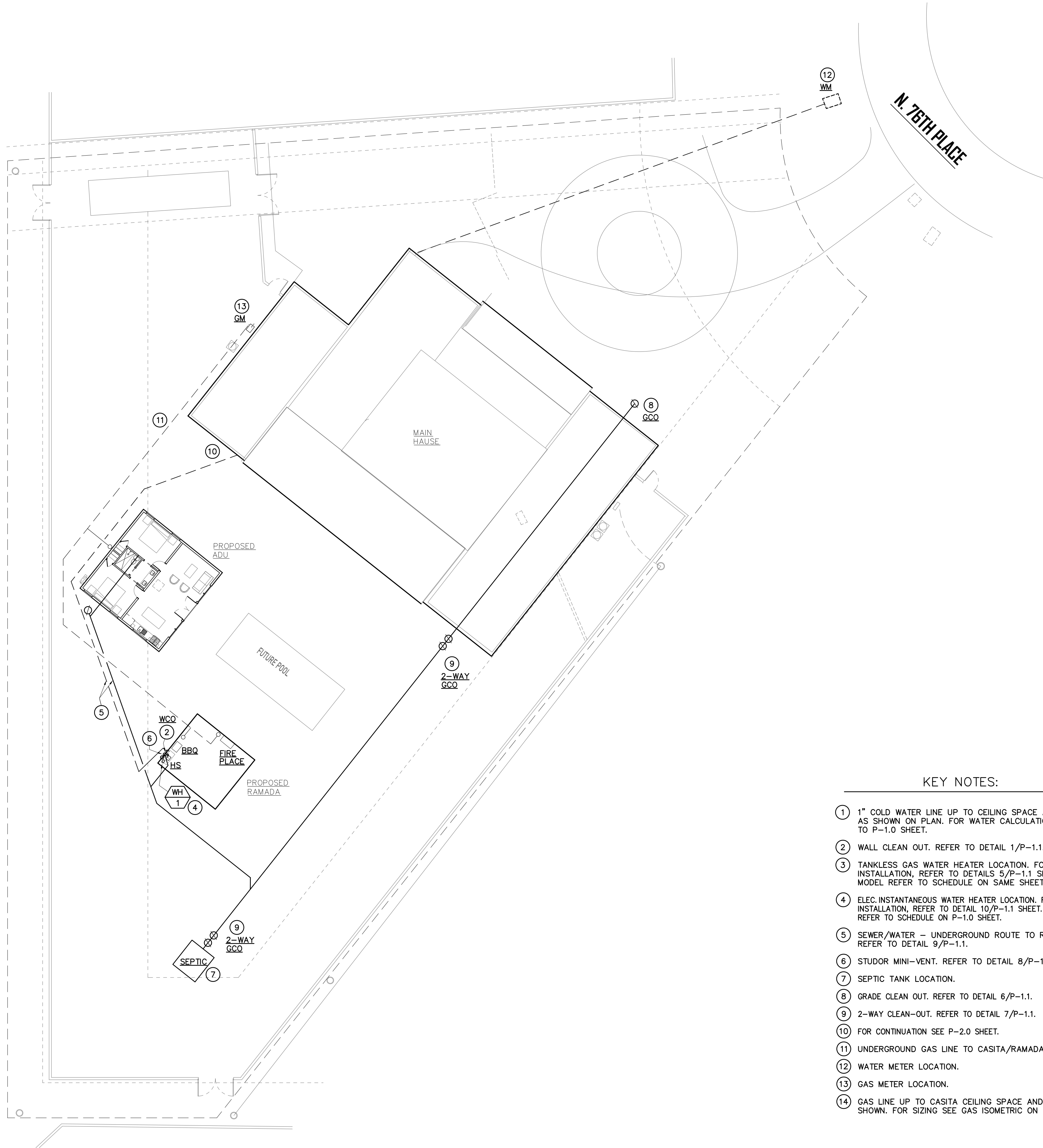
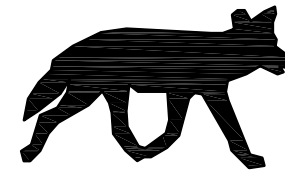
PLUMBING FLOOR PLAN

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

A

P-2

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SITE PLAN

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

B

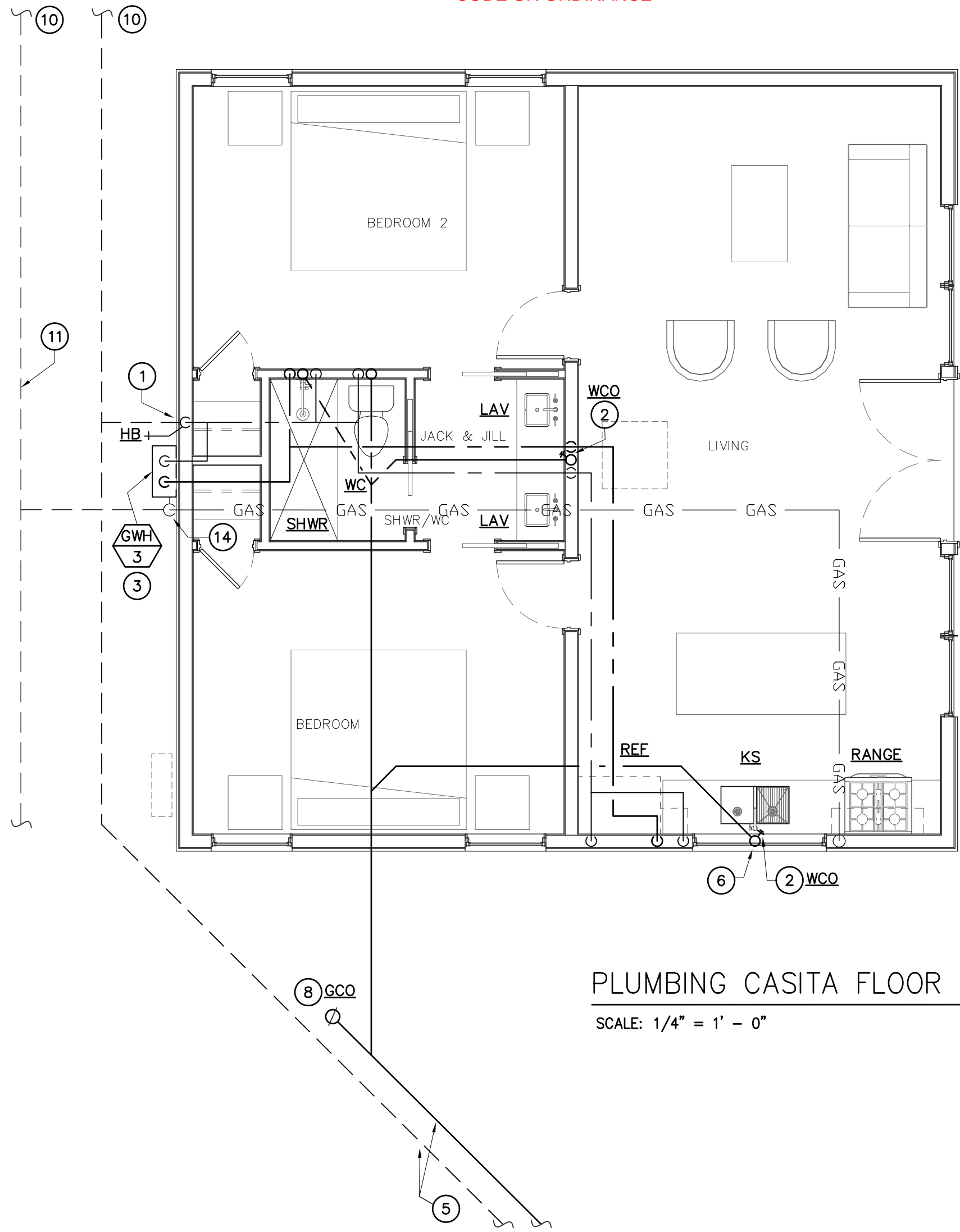
P-2.1

KEY NOTES:

- 1" COLD WATER LINE UP TO CEILING SPACE AND ROUTE AS SHOWN ON PLAN. FOR WATER CALCULATIONS REFER TO P-1.0 SHEET.
- WALL CLEAN OUT. REFER TO DETAIL 1/P-1.1.
- TANKLESS GAS WATER HEATER LOCATION. FOR INSTALLATION, REFER TO DETAILS 5/P-1.1 SHEET. FOR MODEL REFER TO SCHEDULE ON SAME SHEET.
- ELEC. INSTANTANEOUS WATER HEATER LOCATION. FOR INSTALLATION, REFER TO DETAIL 10/P-1.1 SHEET. FOR MODEL REFER TO SCHEDULE ON P-1.0 SHEET.
- SEWER/WATER - UNDERGROUND ROUTE TO RAMADA. REFER TO DETAIL 9/P-1.1.
- STUDOR MINI-VENT. REFER TO DETAIL 8/P-1.1.
- SEPTIC TANK LOCATION.
- GRADE CLEAN OUT. REFER TO DETAIL 6/P-1.1.
- 2-WAY CLEAN-OUT. REFER TO DETAIL 7/P-1.1.
- FOR CONTINUATION SEE P-2.0 SHEET.
- UNDERGROUND GAS LINE TO CASITA/RAMADA.
- WATER METER LOCATION.
- GAS METER LOCATION.
- GAS LINE UP TO CASITA CEILING SPACE AND ROUTE AS SHOWN. FOR SIZING SEE GAS ISOMETRIC ON P-3.0 SHEET.

GENERAL NOTES:

- COORDINATE EXACT ROUTING OF HOT/COLD WATER, VENT AND SAN. PIPING WITH ALL TRADES, ROUTING SHOWN IS SCHEMATIC ONLY.
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 - FOR SANITARY WASTE - PVC, SCH. 40,
 - FOR SANITARY VENT - PVC, SCH. 40,
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 - FOR GAS OUTDOOR UNDERGROUND ONLY: POLYETHYLENE PLASTIC PIPE.
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- FOR WATER, WASTE AND GAS CALCULATION, IRC 2021 USED.



PLUMBING CASITA FLOOR PLAN

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

A

P-2.1

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PLUMBING CASITA
FLOOR PLAN,
SITE PLAN

SHEET TITLE

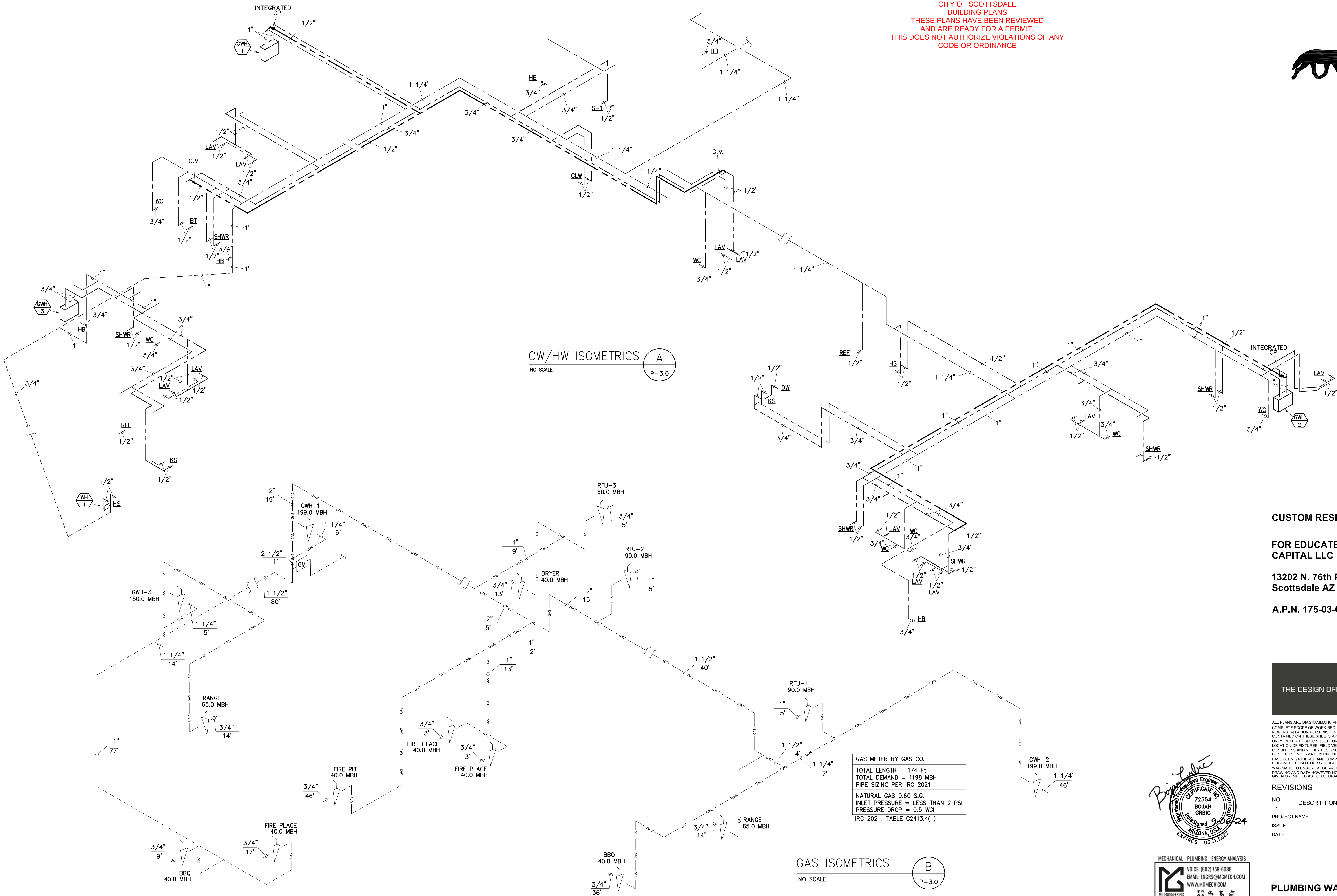
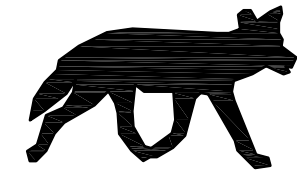
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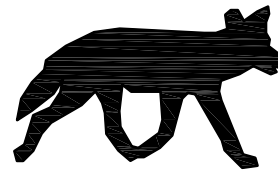
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PLUMBING WATER AND
GAS ISOMETRICS

SHEET TITLE

P3.0

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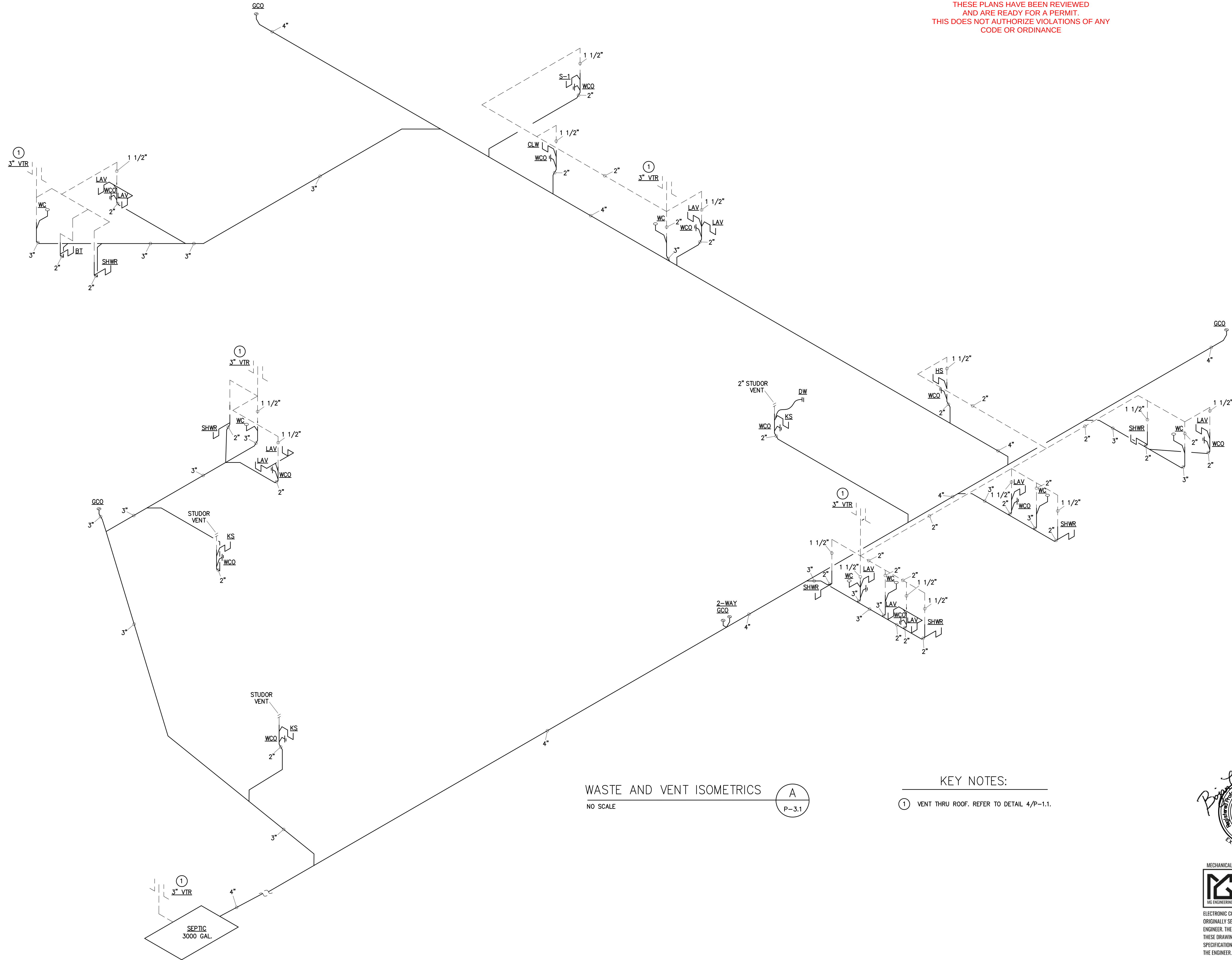
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PLUMBING WASTE
ISOMETRIC

SHEET TITLE

P3.1



WASTE AND VENT ISOMETRICS

NO SCALE

A
P-3.1

KEY NOTES:

- ① VENT THRU ROOF. REFER TO DETAIL 4/P-1.1.



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WATER HEATER: 240V-10 PROVIDE 30A/2P NF DISCONNECT SWITCH AT UNIT. HOMERUN TO BE PER WIRE SIZING NOTES THIS SHEET.

OVEN/RANGE OR DOUBLE OVEN: PROVIDE 125/250V-3 WIRE + GROUND RECEPTACLE TO MATCH UNIT FURNISHED. HOMERUN TO BE PER WIRE SIZING NOTES THIS SHEET.

COUNTERTOP RANGE OR SINGLE OVEN: PROVIDE 125/250V-3 WIRE + GROUND RECEPTACLE TO MATCH UNIT FURNISHED. HOMERUN TO BE PER WIRE SIZING NOTES THIS SHEET.

RANGE, OVEN, DRYER, AND WATER HEATER ARE SHOWN AS ELECTRIC, 220V. IF GAS APPLIANCES ARE SUPPLIED, ELECTRICAL CONTRACTOR SHALL PROVIDE A DEDICATED CIRCUIT AND 120V RECEPTACLE FOR EACH.

CONDENSING UNIT: VERIFY REQUIREMENTS WITH UNIT FURNISHED. PROVIDE WP 250V/ 2P DISCONNECT SWITCH FUSED PER UNIT NAMEPLATE. WIRE SIZE TO MATCH CIRCUIT BREAKER SIZE IN PANEL SCHEDULE. SEE WIRE SIZE NOTES. DISCONNECTS SHOULD BE LOCATED TO PROVIDE 36" MINIMUM WORKING CLEARANCE IN FRONT OF SWITCH, FOR 30" WIDE PER NEC 110-26. PROVIDE GFCI RECEPTACLE IN WP IN USE ENCLOSURE WITHIN 25' OF UNIT.

AIR HANDLER: VERIFY SIZE AND VOLTAGE WITH ACTUAL UNIT FURNISHED CONNECTION AND DISCONNECT MEANS SHALL BE PROVIDED PER UNIT UL LISTING. PROVIDE MAINTENANCE RECEPTACLE AT UNIT.

A LIGHTING OUTLET AND MAINTENANCE RECEPTACLE SHALL BE INSTALLED AT ANY ATTIC MOUNTED AIR HANDLING UNIT. THE LIGHTING OUTLET SHALL BE CONTROLLED BY A SWITCH LOCATED AT THE ATTIC ENTRANCE PER NEC 210-10(g).

A RECEPTACLE OUTLET SHALL BE PROVIDED ADJACENT TO THE BASIN IN EACH BATHROOM PER NEC 210-52. BATHROOM RECEPTACLES SHALL BE ON A 20 AMP CIRCUIT. SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS PER NEC 210-11(c.3).

LIGHTING FIXTURES SHALL BE RATED FOR THEIR INSTALLATION LOCATION (i.e. THERMAL PROTECTION, IC RATING, DAMP PROOF, ALL EXTERIOR FIXTURES SHALL BE WET OR DAMP LOCATION LABELED TO MATCH INSTALLATION PER NEC 410-4. RECESSED CEILING FIXTURES TO BE PROVIDED WITH AIRTIGHT SEAL BY THE MANUFACTURER PER ASTM E283.

ALL PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE UTILIZE HIGH EFFICACY LAMP. ALL INTERIOR LIGHTS SHALL CONTROLLED BY DIMMERS, OR OCCUPANCY SENSORS, OR AUTOMATIC SHUT OFF TIMERS. EXCEPTIONS SHALL INCLUDE BATHROOMS AND HALLWAYS. ALL EXTERIOR LIGHTS OVER 30 WATTS SHALL INCLUDE AN AUTOMATIC SHUTOFF

ALL 120/240V CIRCUITS MUST BE RUN WITH GROUND WIRE (4 WIRE). SUPPLY 4 WIRE RECEPTACLES (PER NEC 250-140).

ALL BRANCH CIRCUITS THAT SUPPLY 125V-10, 15- AND 20- AMPERE OUTLETS INSTALLED IN FAMILY ROOMS, LAUNDRY ROOMS, KITCHEN, DINING ROOMS, LIVING ROOMS, PARLORES, LIBRARIES, DEN, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY AN ARC FAULT CIRCUIT INTERRUPTER. C/B SHALL BE COMBINATION TYPE.

SMOKE DETECTORS SHALL BE INSTALLED IN EACH SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. WHEN THE DWELLING UNIT HAS MORE THAN ONE STORY AND IN DWELLINGS WITH BASEMENTS, A DETECTOR SHALL BE INSTALLED ON EACH STORY AND IN THE BASEMENT. IN DWELLING UNITS WHERE A STORY OR BASEMENT IS SPLIT INTO TWO OR MORE LEVELS, THE SMOKE DETECTOR SHALL BE INSTALLED ON THE UPPER LEVEL, EXCEPT THAT WHEN THE LOWER LEVEL CONTAINS A SLEEPING AREA A DETECTOR SHALL BE INSTALLED ON EACH LEVEL. WHEN SLEEPING ROOMS ARE ON AN UPPER LEVEL, THE DETECTOR SHALL BE PLACED AT THE CEILING OF THE UPPER LEVEL IN CLOSE PROXIMITY TO THE STAIRWAY. IN DWELLING UNITS WHERE THE CEILING HEIGHT OF A ROOM OPEN TO THE HALLWAY SERVING THE BEDROOMS EXCEEDS THAT OF THE HALLWAY BY 24 INCHES OR MORE, SMOKE DETECTORS SHALL BE INSTALLED IN THE HALLWAY AND IN THE ADJACENT ROOM. SMOKE DETECTORS SHALL BE PERMANENTLY WIRED 120 VOLT WITH BATTERY BACKUP, AND INTERCONNECTED SO ALL UNITS WILL ACTIVATE UPON ANY UNIT IN ALARM.

RECEPTACLE OUTLETS SHALL BE PROVIDED SO THAT NO POINT ALONG THE FLOOR LINES OF AN UNBROKEN WALL TWO OR MORE FEET IN LENGTH IS MORE THAN SIX FEET FROM AN OUTLET WITHIN THAT WALL SPACE PER NEC 210-52(g).

PROVIDE AT LEAST ONE RECEPTACLE OUTLET IN HALLWAYS TEN OR MORE FEET IN LENGTH PER NEC 210-52.

AT LEAST ONE RECEPTACLE OUTLET AT FRONT AND ONE RECEPTACLE AT REAR ACCESSIBLE AT GRADE LEVEL SHALL BE PROVIDED ON THE EXTERIOR PER NEC 210-52.

RECEPTACLE OUTLETS SHALL BE PROVIDED AT EACH KITCHEN COUNTER SPACE WIDER THAN 12 INCHES AND SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24 INCHES FROM A RECEPTACLE OUTLET PER NEC 210-52.

ISLAND OR PENINSULA COUNTER TOPS 12 INCHES OR WIDER SHALL HAVE AT LEAST ONE OUTLET FOR EACH FOUR FEET OF COUNTER TOP PER NEC 210-52.

ALL RECEPTACLE OUTLETS IN BATHROOMS, GARAGES, OR CARPORTS AT GRADE LEVEL AND WITHIN SIX FEET OF SINKS SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTING PROTECTION PER NEC 210-8.

TWO OR MORE 20 AMP SMALL APPLIANCE CIRCUITS SHALL BE PROVIDED TO SERVE THE KITCHEN, BREAKFAST ROOM AND DINING ROOM. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS PER NEC 210-52.

AT LEAST ONE 20 AMP BRANCH CIRCUIT SHALL BE INSTALLED TO SERVE THE LAUNDRY ROOM AND THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS PER NEC 210-11(c.2).

OUTLET BOXES IN THE WALL BETWEEN THE DWELLING AND THE GARAGE SHALL BE METAL OR UL APPROVED FIRE RESISTIVE PLASTIC. OUTLET BOXES IN THE GARAGE CEILING SHALL BE METAL.

CEILING FANS SHALL BE MOUNTED IN OUTLET BOXES THAT ARE UL LISTED APPROVED FOR CEILING FAN SUPPORT PER NEC 314-21(d)

CONTRACTOR SHALL PROVIDE PANEL DIRECTORY INDICATING SPECIFIC CIRCUIT USE AND LOCATION, DISTINGUISHING EACH CIRCUIT FROM OTHERS PER IRC CODE.

ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL CODE, (N.E.C.), AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND AMENDMENTS.

ALL RECEPTACLES SHALL BE TAMPER RESISTANT PER NEC 406.12

PROVIDE CARBON MONOXIDE DETECTORS WITH AUDIBLE NOTIFICATION AT ALL

SCOTTSDALE
2020 NEC
2021 IBC
2021 IRC

1. 15 AMP BRANCH CIRCUIT
2#12, #14 GROUND
2. 20 AMP BRANCH CIRCUIT
2#12, #12 GROUND
3. 4500 WATT WATER HEATER
2#10, #10 GROUND
4. 5000 WATT DRYER
3#10, #10 GROUND
5. 6000 WATT OVEN, WATER
HEATER OR COUNTERTOP RANGE
3#10, #10 GROUND
6. 9600 WATT RANGE/OVEN
3#8, #10 GROUND
7. 12000 WATT RANGE/OVEN
OR DOUBLE OVEN
3#6, #10 GROUND
8. BRANCH CIRCUITS
BASED ON C/D SIZE
1/2" 2#14, #14 GROUND
2" 2#12, #12 GROUND
3" 2#10, #10 GROUND
4" 2#8, #10 GROUND
5" 2#6, #10 GROUND
6" 2#4, #10 GROUND
9. ALL WIRE SHALL BE COPPER
ALUMINUM WIRE WILL BE
ALLOWED WHERE
APPROVED BY OWNER AND
INCREASED IN SIZE PER NEC
AND:
100A = #1/0 AL., 1 1/2" C
150A = #3/0 AL., 2" C
200A = 250 KCMIL AL., 2 1/2" C

ALL SERVICES SUPPLYING ONE AND TWO FAMILY DWELLING UNITS SHALL BE PROVIDED WITH A SURGE PROTECTIVE DEVICE (SPD) INSTALLED IN ACCORDANCE WITH SECTIONS E36-6.5.1 THROUGH E3606.5.3 (NEW ELECTRICAL PANELS) IN LIEU OF SPD DEVICE IN EACH SERVICE A SPD DEVICE SHALL BE INSTALLED IN EACH PANEL FED FROM SERVICE MAIN DISCONNECT DEVICE

1. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR INSTALLATION OF A DUAL POLE CIRCUIT BREAKER FOR FUTURE SOLAR ELECTRIC AND SHALL BE LABELED AS SUCH.
2. SOLAR READY ZONES- RBO103, MINIMUM 10% OF ROOF AREA BUT NOT LESS THAN 300SF FREE AND CLEAR OF OBSTRUCTIONS INCLUDING MECHANICAL EQUIPMENT AND VENTS. PROVIDE ELECTRICAL PATHWAY WITH 2" CONDUIT RUN FROM SOLAR READY ZONE TO ELECTRICAL SERVICE PANEL WITH RESERVED SPACE FOR 2 POLE CIRCUIT BREAKER. CAPPED ROOF PENETRATION SLEEVE SHALL BE PROVIDED ON ROOFS WITH A SLOPE OF 1 IN 12 OR LESS

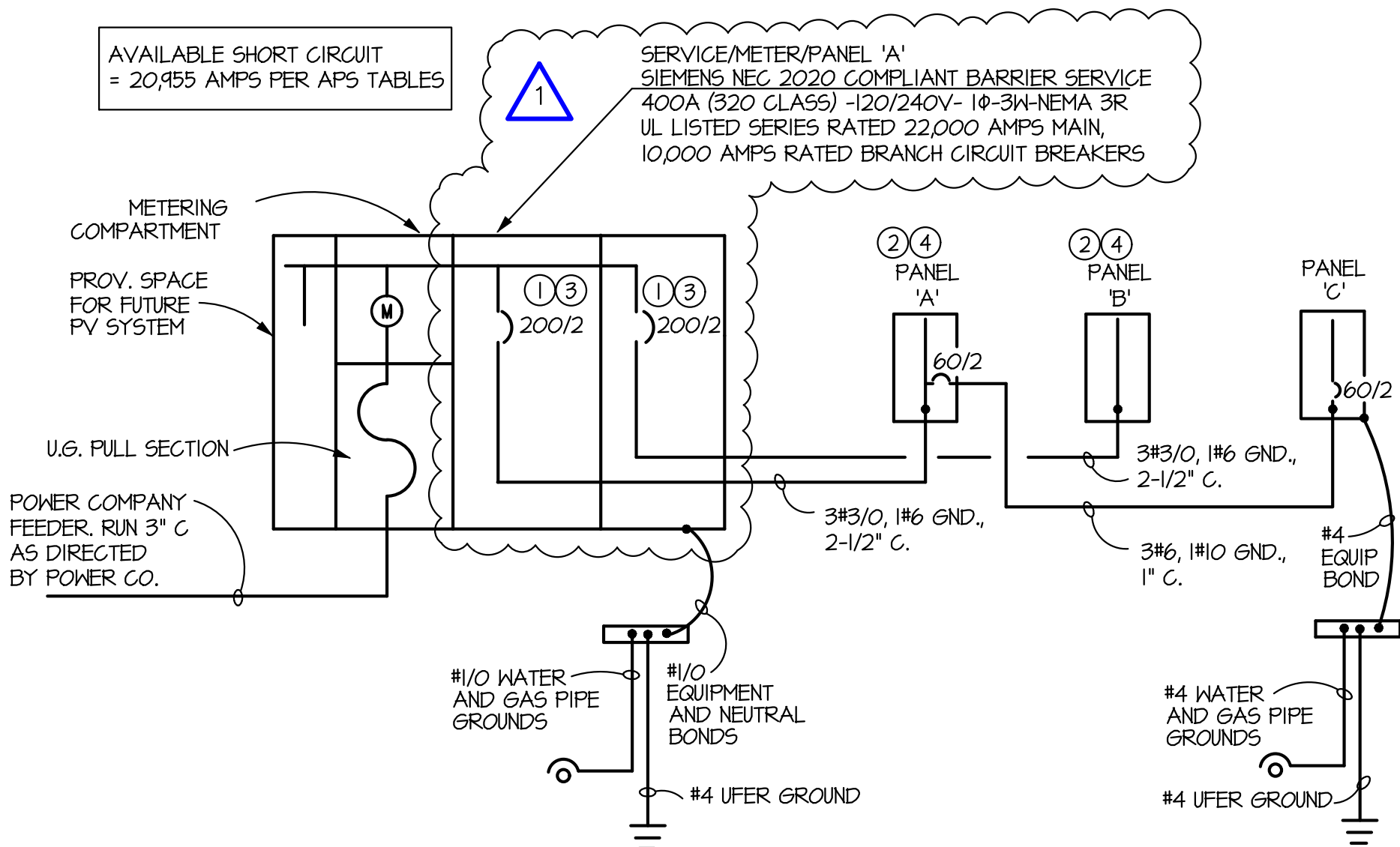
I. PROVIDE ELECTRICAL SERVICE PANEL CAPACITY AND BREAKER SPACE FOR A FULL SIZE 2 POLE CIRCUIT BREAKER LABELED " FUTURE EV CHARGING" A RACEWAY SHALL BE INSTALLED FROM THE ELECTRICAL SERVICE (OR OTHER DESIGNATED) PANEL TO A LOCATION WITHIN THE GARAGE WHERE IT SHALL TERMINATE IN A JUNCTION BOX OR OUTLET AND BE LABELED " FUTURE EV CHARGING"

LIVABLE SQUARE FEET TOTAL		=	5324
LIGHTING PER SF	@	3	VA
APPLIANCE CIRCUITS	(4	@ 1500	VA) = 15972 VA
SINGLE OVEN	(1	@ 6000	VA) = 6000 VA
COUNTERTOP RANGE (GAS)	(1	@ 500	VA) = 500 VA
MICROWAVE	(1	@ 1500	VA) = 1500 VA
MICROWAVE DRAWER	(1	@ 1500	VA) = 1500 VA
EXHAUST HOOD	(1	@ 1200	VA) = 1200 VA
DISHWASHER/DISPOSER	(1	@ 1500	VA) = 1500 VA
REFRIG/FREEZER	(3	@ 1500	VA) = 4500 VA
LAUNDRY CIRCUIT	(1	@ 1500	VA) = 1500 VA
WASHER	(1	@ 1500	VA) = 1500 VA
DRYER (ELECTRIC)	(1	@ 5000	VA) = 5000 VA
WATER HEATER (ELECTRIC)	(1	@ 4500	VA) = 4500 VA
GAS INSTA-HOT	(2	@ 0	VA) = 0 VA
RECIRC PUMP	(2	@ 250	VA) = 500 VA
WATER SOFTENER	(1	@ 500	VA) = 500 VA
CAR CHARGER	(48	Ax 100	%) = 11520 VA
ELECTRIC FIREPLACE	(1	@ 2400	VA) = 2400 VA
GARAGE DOOR OPENER	(3	@ 1176	VA) = 3528 VA
SUBTOTAL "OTHER LOAD"			= 69620 VA

FIRST 10000 VA @100 %	=	10000 VA
REMAINING VA @ 40 %	=	23848 VA
<u>TOTAL "OTHER LOAD"</u>	=	<u>33848 VA</u>

CONDENSING UNIT (4 TON)	: 23.6	FLA ×	230 V-1ϕ ×	1.25 =	6785 VA
CONDENSING UNIT (4 TON)	: 23.6	FLA ×	230 V-1ϕ ×	1.00 =	5428 VA
CONDENSING UNIT (3 TON)	: 16.1	FLA ×	230 V-1ϕ ×	1.00 =	3703 VA
CONDENSING UNIT (2 TON)	: 10.9	FLA ×	230 V-1ϕ ×	1.00 =	2507 VA
AIR HANDLER (4 TON)	: 19.6	FLA ×	230 V-1ϕ ×	1.00 =	2254 VA
AIR HANDLER (3 TON)	: 9.8	FLA ×	230 V-1ϕ ×	1.00 =	2254 VA
AIR HANDLER (3 TON)	: 7.2	FLA ×	230 V-1ϕ ×	1.00 =	1656 VA
AIR HANDLER (2 TON)	: 7.2	FLA ×	230 V-1ϕ ×	1.00 =	1656 VA
TOTAL A/C LOAD				=	26243 VA

"OTHER LOAD"	=	33848 VA
ASSUMED POOL PANEL LOAD UNDER SEPARATE PERMIT	=	12000 VA
A/C LOAD	=	26243 VA
TOTAL LOAD	=	72091 VA
72091 VA / 240V	=	300.4 A



NTS

1. PRIOR TO ORDERING SERVICE, ENSURE SERVICE ENTRANCE IS PRE APPROVED BY SERVING UTILITY COMPANY.
2. IF SEPARATE PV SYSTEM SECTION IS NOT AVAILABLE, PROVIDE (2) BLANK SPACES IN PANEL 'A' AND LABEL AS "SPACE FOR FUTURE PV PROVISIONS".

1. SYSTEM SHOWN IS A TWO TIER SERIES RATED SYSTEM 22/10K. MANUFACTURER SHALL PROVIDE A UL LISTED PANEL TO MATCH THIS RATING.
2. MOTOR SHORT CIRCUIT CONTRIBUTION IS LESS THAN 1% OF SYSTEM SHORT CIRCUIT AMPS.
3. NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE DESIGN ELECTRICAL ENGINEER AND THE ELECTRICAL INSPECTOR

- ① PROVIDE A SERVICE MAIN DISCONNECT LABELED "EMERGENCY DISCONNECT, SERVICE DISCONNECT" PER NEC 230.05
- ② PROVIDE SERVICE ENTRANCE TYPE 1 OR 2 SURGE PROTECTION DEVICE AT MAIN PANELS PER NEC 230.67
- ③ PERMANENT LABEL READING "THESE DEVICES ARE PART OF A RATED SYSTEM WITH DOWNSTREAM PANELS 22/10K, 20,455 AMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENT REQUIRED"
- ④ PROVIDE A PERMANENT LABEL READING "CAUTION- SERIES RATED SYSTEM 22/10K, 20,455 AMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED"
- ⑤ PROVIDE A PERMANENT LABEL READING "CAUTION- SERIES RATED SYSTEM 35/10K, 24,771 AMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED"
- ⑥ PROVIDE A PERMANENT LABEL READING "CAUTION- SERIES RATED SYSTEM 35/10K, 17,515 AMPS AVAILABLE. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED"

PANELS A & B ARE NEXT TO SES, 20,955 AMPS AVAILABLE

PANEL C

$$F = \frac{2 \times 50 \times 20,955}{2430 \times 240} = 3.59$$
$$M = 0.22$$
$$I_{sc} = 4576 \text{ AMPS}$$

FAULT CURRENT CALCS.



SEAL:



NEW RESIDENCE AT:

**13202 N. 76TH PLACE
SCOTTSDALE, ARIZONA**

REVISIONS:		
#	DESCRIPTION	DATE
1	CITY COMMENTS	11.19.24
2		
3		

SS PROJECT #: 24-054

DATE: 08/11/2024

SCALE: AS NOTED

SHEET TITLE:

ELECTRICAL DETAILS

SHEET NUMBER:

E1.0

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PANELBOARD				A				SCHEDULE			
MANS: 200A MLO				LOAD-VA				LOCATION: AT SES			
VOLTAGE: 120 / 240V 1ø 3W				MOUNTING: SURFACE				MIN. A.I.C.: SERIES RATED 22/10K			
TYPE: NEMA 3R											
CIRCUIT DESCRIPTION	BKR.	CIR. NO.	Ø A	Ø B	CIR. NO.	BKR.		CIRCUIT DESCRIPTION			
BEDROOM 2	20	1			20	1		2 CAR GARAGE LIGHTS			
BATH 2	3				20	3		1 CAR GARAGE LIGHTS/RCPTS			
BEDROOM 3	5				20	5		2 CAR GARAGE DOORS 1 & 2			
BATH 3	7				20	7		1 CAR GARAGE DOOR			
OFFICE	9				60	9		CAR CHARGER			
ENTRY/HALL	11				12	2					
FORMAL DINING/APPL CKT 1	13				20	13		SPARE			
HALL POWDER ROOM	15				20	15		EXTERIOR LIGHTS			
LAUNDRY CKT	17				20	17		EXTERIOR RCPTS			
WASHER	19				20	19		LANDSCAPE CIRCUIT			
DRYER	30	21			60	30		PANEL C			
	23				24	2					
SPARE	20	25			60	20		POOL PANEL			
SPARE	20	27			28	2		UNDER SEPARATE PERMIT			
SPACE	1				30	3		CU-3			
	31				32	2					
	33				34	15		AH-3			
	35				36	2					
WATER SOFTENER	20	37			38	30		NEC 230.67 SPD			
RECIRC PUMPS 1 & 2	20	39			40	2					
	41				42						
TOTAL LOAD PER PHASE:								HIP	/	=	AMPS

PANEL A LOAD CALCULATIONS									
LIVABLE SQUARE FEET TOTAL				=	2447				
LIGHTING PER SF									
APPLIANCE CIRCUITS	(1	@	3	VA	=	7341 VA			
MICROWAVE	(1	@	1500	VA)	=	1500 VA			
REFRIG/FREEZER	(1	@	1500	VA)	=	1500 VA			
LAUNDRY CIRCUIT	(1	@	1500	VA)	=	1500 VA			
WASHER	(1	@	1500	VA)	=	1500 VA			
DRYER (ELECTRIC)	(1	@	5000	VA)	=	5000 VA			
WATER HEATER (ELECTRIC)	(1	@	4500	VA)	=	4500 VA			
GAS INSTA-HOT	(2	@	0	VA)	=	0 VA			
RECIRC. PUMP	(2	@	250	VA)	=	500 VA			
WATER SOFTENER	(1	@	500	VA)	=	500 VA			
CAR CHARGER	(48	Ax	100	%)	=	11520 VA			
GARAGE DOOR OPENER	(3	@	1176	VA)	=	3528 VA			
SUBTOTAL "OTHER LOAD"					=	40389 VA			
FIRST 10000 VA @100 %					=	10000 VA			
REMAINING VA @ 40 %					=	12156 VA			
TOTAL "OTHER LOAD"					=	22156 VA			
AIR CONDITIONING LOAD:									
CONDENSING UNIT (3 TON) : 16.1 FLA x 230 V-1Φ x 1.00 = 3703 VA									
CONDENSING UNIT (2 TON) : 10.9 FLA x 230 V-1Φ x 1.00 = 2507 VA									
AIR HANDLER (3 TON) : 7.2 FLA x 230 V-1Φ x 1.00 = 1656 VA									
AIR HANDLER (2 TON) : 7.2 FLA x 230 V-1Φ x 1.00 = 1656 VA									
TOTAL A/C LOAD					=	9522 VA			
"OTHER LOAD"					=	22156 VA			
ASSUMED POOL PANEL LOAD UNDER SEPARATE PERMIT					=	12000 VA			
A/C LOAD					=	9522 VA			
TOTAL LOAD					=	43678 VA			
						43678	VA / 240V	=	182.0 A

PANELBOARD				B				SCHEDULE			
MANS: 200A MLO				LOAD-VA				LOCATION: NEXT TO SES			
VOLTAGE: 120 / 240V 1ø 3W				MOUNTING: SURFACE				MIN. A.I.C.: SERIES RATED 22/10K			
TYPE: NEMA 3R											
CIRCUIT DESCRIPTION	BKR.	CIR. NO.	Ø A	Ø B	CIR. NO.	BKR.		CIRCUIT DESCRIPTION			
MASTER BATH CKT 1	20	1			20	1		BEDROOM 4			
MASTER BATH CKT 2	20	3			4			BATH 4			
BEDROOM 1	20	5			6			BATH 5			
ELECTRIC FIREPLACE	30	7			8			GYM/MEDIA ROOM CKT 1			
	2				10			GYM/MEDIA ROOM CKT 2			
SPARE	20	11			12			SPARE			
LIVING ROOM	1	13			14			SPARE			
PANTRY/APPL CKT 2		15			16			SPACE			
PANTRY REFRIG		17			18			SPACE			
DINING ROOM/APPL CKT 3		19			20			SPACE			
KIT ISLAND/APPL CKT 4		21			22			CU-1			
KIT OVEN	40	23			24	2		CU-2			
	2	25			26	40					
KIT GAS RANGE	20	27			28	2					
MICROWAVE DRAWER	1	29			30			AH-1			
EXHAUST HOOD		31			32	2					
DISHWASHER/DISPOSER		33			34	20		AH-2			
KIT REFRIG		35			36	2					
OUTDOOR PATIO CKT 1		37			38	30		NEC 230.67 SPD			
OUTDOOR PATIO CKT 2		39			40	2					
		41			42						
TOTAL LOAD PER PHASE:								HIP	/	=	AMPS

PANEL B LOAD CALCULATIONS									
LIVABLE SQUARE FEET TOTAL				=	2877				
LIGHTING PER SF		@	3	VA	=	8631 VA			
APPLIANCE CIRCUITS	(3	@	1500	VA)	=	4500 VA			
SINGLE OVEN	(1	@	6000	VA)	=	6000 VA			
COUNTERTOP RANGE (GAS)	(1	@	500	VA)	=	500 VA			
MICROWAVE DRAWER	(1	@	1500	VA)	=	1500 VA			
EXHAUST HOOD	(1	@	1200	VA)	=	1200 VA			
DISHWASHER/DISPOSER	(1	@	1500	VA)	=	1500 VA			
REFRIG/FREEZER	(2	@	1500	VA)	=	3000 VA			
ELECTRIC FIREPLACE	(1	@	2400	VA)	=	2400 VA			
SUBTOTAL "OTHER LOAD"					=	29231 VA			
FIRST 10000 VA @100 %					=	10000 VA			
REMAINING VA @ 40 %					=	7692 VA			
TOTAL "OTHER LOAD"					=	17692 VA			
AIR CONDITIONING LOAD:									
CONDENSING UNIT (4 TON)					:	23.6	FLA ×	230 V-1Φ × 1.00 =	5428 VA
CONDENSING UNIT (4 TON)					:	23.6	FLA ×	230 V-1Φ × 1.00 =	5428 VA
AIR HANDLER (4 TON)					:	9.8	FLA ×	230 V-1Φ × 1.00 =	2254 VA
AIR HANDLER (4 TON)					:	9.8	FLA ×	230 V-1Φ × 1.00 =	2254 VA
TOTAL A/C LOAD					=	15364 VA			
"OTHER LOAD"					=	17692 VA			
A/C LOAD					=	15364 VA			
TOTAL LOAD					=	33056 VA			
						33056	VA / 240V	=	137.7 A

PANELBOARD				C		SCHEDULE			
MINS: 60A MCB				LOAD-VA		LOCATION: CASITA EXTERIOR WALL			
VOLTAGE: 120 / 240V 1ø 3W						MOUNTING: SURFACE			
TYPE: NEMA 3R						MIN. A.I.C.: 10,000			
CIRCUIT DESCRIPTION	BKR.	CIR. NO.	Ø A	Ø B	CIR. NO.	BKR.	CIRCUIT DESCRIPTION		
BEDROOM 2	20	1			20	1	CASITA EXTERIOR LIGHTS/RCPTS		
J&j BATH CKT 1	1	3			4	15	CASITA WATER HEATER		
J&j BATH CKT 2					6	2			
BEDROOM 1		7			8	15	CASITA CU		
LIVING ROOM CKT 1		9			10	2			
LIVING ROOM CKT 2		11			12	15	CASITA AH		
LIVING ROOM REFRIG		13			14	2			
LIVING ROOM MW		15			16		SPACE		
SPARE		17			18				
SPARE		19			20				
SPARE		21			22				
SPARE		23			24				
TOTAL LOAD PER PHASE:						10ø	/	=	AMPS