

GENERAL NOTES:

CODES:

DESIGN IS IN ACCORDANCE WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY THE LOCAL BUILDING DEPARTMENT.

LIVE LOADS:

ROOF.....29 PSF (SNOW, 4 PSF FOR SOLAR READY)
FLOOR.....40 PSF
DECKS.....60 PSF
LATERAL.....WIND.....EXPOSURE C-110 MPH
SEISMIC.....PER ZONE D

SITE WORK:

UNLESS A SOILS INVESTIGATION REPORT BY A LICENSED SOILS ENGINEER IS PROVIDED THE FOUNDATION DESIGN IS BASED UPON AN ASSUMED AVERAGE SOIL BEARING CAPACITY OF 1500 PSF. EXTERIOR FOOTING SHALL BEAR 18" MINIMUM BELOW FINISHED GRADE UNLESS NOTED OTHERWISE. ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED EARTH BELOW ORGANIC SURFACE SOIL. ALL BACK FILL MATERIAL SHALL BE THOROUGHLY COMPACTED. FOUNDATION VENTS SHALL NOT INTERFERE WITH OUTSIDE SOIL, AND DIRECT LOAD PATH OF COLUMNS ABOVE.

CONCRETE:

REFER TO STRUCTURAL NOTES.

INSULATION AND MOISTURE PROTECTION:

UNLESS NOTED OTHERWISE, INSULATION SHALL CONFORM TO THE WASHINGTON STATE ENERGY CODES. INSULATION BAFFLES TO MAINTAIN 1 1/2 INCH CLEAR SPACE ABOVE INSULATION. BAFFLES TO EXTEND 6 INCHES ABOVE BATT INSULATION. BAFFLES TO EXTEND 12 INCHES ABOVE LOOSE FILL INSULATION. INSULATE BEHIND BATHTUBS, SHOWERS, PARTITIONS AND CORNERS. FACE STAPLE BATT. FRICTION FIT FACED BATT. USE 4 MIL (0.004") POLYETHYLENE VAPOR BARRIER AT WALLS. USE PVA PAINT WITH A DRY CUP PERM RATING OF 0N (MAX) R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

1. EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AND ROOF AND BETWEEN WALL PANELS, OPENINGS AT PENETRATION OF UTILITY SERVICE THROUGH WALLS, FLOORS, AND ROOF, AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE, INCLUDING ACCESS PANELS INTO UNHEATED SPACES, SHALL BE SEALED, CALKED, GASKETED OR WEATHER-STRIPPED TO LIMIT AIR INFILTRATION.

2. ALL EXTERIOR DOORS, OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR INFILTRATION AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED "FIRE-RATED" AND MUST MEET THE ABOVE REQUIREMENT.

R-10 INSULATION AT ALL HEADERS, BEAMS ABOVE OPENINGS.

ALL WINDOW, AND DOOR HEADERS SHALL BE INSULATED WITH A MINIMUM OF R-10 INSULATION

VAPOR BARRIERS / GROUND COVERS:

AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN FLOOR DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILING ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND AT EXTERIOR WALLS. INSTALL STAPLED BATT WITH A PERM RATING LESS THAN ONE MAY BE INSTALLED IF THE VAPOR BARRIER IS TO THE WARM SIDE. STAPLES SHALL BE PLACED NOT MORE THAN 8 INCHES AND GAPS BETWEEN THE FACING AND THE FRAMING SHALL NOT EXCEED

A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OF EQUIVALENT SHALL BE LAID OVER THE GROUES AND ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

THE NET FREE VENTILATION AREA FOR ATTIC VENTILATION MAY BE 1/3 OF THE AREA OF THE VENTILATED SPACE PROVIDED THAT A VAPOR BARRIER HAVE A PERM RATING NOT EXCEEDING ONE IN INSTALLED ON THE WARM SIDE OF THE INSULATION.

LANDINGS AT DOORS

R311.3 FLOORS AND LANDINGS AT EXTERIOR DOORS. THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL BE NOT LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A DIMENSION OF NOT LESS THAN 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL. THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED 1 UNIT VERTICAL IN 12 UNIT HORIZONTAL (2 PERCENT).

R311.7 STAIRWAYS:

REFER TO STAIR DETAIL ON SHEET A3

R311.7.8 HANDRAILS:

HANDRAILS SHALL BE PROVIDED ON NOT LESS THAN ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS.

R311.7.8.1 HANDRAIL HEIGHT MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL BE NOT LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES.

R311.7.8.2 CONTINUITY. HANDRAILS FOR STAIRWAYS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT, FROM A POINT DIRECTLY ABOVE THE TOP RISER OF THE FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2 INCHES BETWEEN THE WALL AND THE HANDRAILS.

REFER TO STAIR DETAIL ON SHEET A3 FOR MORE INFORMATION.

R312.1 GUARDS FALL PROTECTION

R312.1.1 WHERE REQUIRED, GUARDS SHALL BE LOCATED ALONG OPEN SIDED WALKING SURFACES, INCLUDING STAIRS, RAMPS, AND LANDINGS, THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPENING SIDE. INSECT SCREENING SHALL NOT BE CONSIDERED AS A GUARD.

R312.1.2 HEIGHT. REQUIRED GUARDS AT OPEN SIDED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES, OR LANDINGS, SHALL BE NOT LESS THAN 36 INCHES IN HEIGHT AS MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE OR THE LINE CONNECTING THE LANDING EDGES OF THE TREADS.

R312.2 WINDOW FALL PROTECTION

R312.2.1 WINDOW SILLS. IN DWELLING UNITS, WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24 INCHES ABOVE THE FINISHED FLOOR AND GREATER THAN 72 INCHES ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:
1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4 INCHES DIAMETER SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN ITS LARGEST OPENED POSITION.
2. OPERABLE WINDOWS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICE THAT COMPLY WITH ASTM F 2090

R314 SMOKE ALARMS:

R314.3 LOCATIONS. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. IN EACH SLEEPING ROOM

2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

3. ON EACH ADDITIONAL STOKY OF THE DWELLING, INCLUDING BASEMENT AND HABITABLE ATTICS, IN DWELLINGS, OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT A INTERVENING DOOR BETWEEN THE ADJACENT LEVELS. A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY SECTION R314.3

R314.6 POWER SOURCE. SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R314.5 COMBINATION ALARMS

COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS.

R315 CARBON MONOXIDE ALARMS

R315.2.1 NEW CONSTRUCTION. FOR NEW CONSTRUCTION, CARBON MONOXIDE ALARMS SHALL BE PROVIDED IN DWELLING UNITS WHERE EITHER OR BOTH OF THE FOLLOWING CONDITION EXIST.

1. THE DWELLING UNIT CONTAINS A FUEL FIRED APPLIANCE.

2. THE DWELLING UNIT HAS AN ATTACHED GARAGE WITH AN OPENING THAT COMMUNICATES WITH THE DWELLING UNIT.

R315.5 POWER SOURCE. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND, WHERE PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.

R310 EMERGENCY ESCAPE AND RESCUE OPENINGS

R310.1 EMERGENCY ESCAPE AND RESCUE OPENING REQUIRED.
BASEMENT, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE NOT LESS THAN ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING, WHERE BASEMENTS CONTAIN ONE OR MORE SLEEPING ROOMS. AN EMERGENCY ESCAPE AND RESCUE OPENING SHALL BE REQUIRED IN EACH SLEEPING ROOM. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL OPEN DIRECTLY INTO A PUBLIC WAY, OR TO A YARD OR COURT THAT OPENS TO A PUBLIC WAY.

R310.2.1 MINIMUM OPENING AREA. EMERGENCY AND ESCAPE RESCUE OPENING SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET. THE NET CLEAR OPENING DIMENSIONS REQUIRED BY THIS SECTION SHALL BE OBTAINED BY THE NORMAL OPERATION OF THE EMERGENCY ESCAPE AND RESCUE OPENING FROM THE INSIDE. THE NET CLEAR HEIGHT OPENING SHALL BE NOT LESS THAN 24 INCHES AND THE NET CLEAR WIDTH SHALL BE NOT LESS THAN 20 INCHES.

R310.2.2 WINDOW SILL HEIGHT. WHERE A WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR.

R310.2.3 WINDOW WELLS. THE HORIZONTAL AREA OF THE WINDOW WELL SHALL BE NOT LESS THAN 9 SQUARE FEET. WITH THE HORIZONTAL PROJECTION AND WIDTH OF NOT LESS THAN 36 INCHES. THE AREA OF THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND RESCUE OPENINGS TO BE FULLY OPENED.

R311 MEANS OF EGRESS

R311.2 EGRESS DOOR.

NOT LESS THAN ONE EGRESS DOOR SHALL BE PROVIDED FOR EACH DWELLING UNIT. THE EGRESS DOOR SHALL BE SIDE-HINGED, AND SHALL PROVIDE A CLEAR WIDTH OF NOT LESS THAN 32 INCHES WHERE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. THE CLEAR HEIGHT OF THE DOOR OPENING SHALL BE NOT LESS THAN 78 INCHES IN HEIGHT MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOTTOM OF THE STOP.

R325 MEZZANINES

R325.2 THE CLEAR HEIGHT ABOVE AND BELOW MEZZANINE FLOOR CONSTRUCTION SHALL BE NOT LESS THAN 7 FEET.

R325.5 MEZZANINES SHALL BE OPEN AND UNOBSTRUCTED TO THE ROOM IN WHICH THEY ARE LOCATED EXCEPT FOR WALLS NOT MORE THAN 42 INCHES IN HEIGHT, COLUMNS, AND POSTS.

R1004 FACTORY BUILT FIREPLACES

R1004.1 GENERAL. FACTORY-BUILT FIREPLACES SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF THE LISTINGS. FACTORY-BUILT FIREPLACES SHALL BE TESTED IN ACCORDANCE WITH UL 127.

R1004.2 HEARTH EXTENSIONS. HEARTH EXTENSIONS OF APPROVED FACTORY-BUILT FIREPLACES SHALL BE INSTALLED IN ACCORDANCE WITH THE LISTING OF THE FIREPLACE. THE HEARTH EXTENSION SHALL BE READILY DISTINGUISHABLE FROM THE SURROUNDING FLOOR AREA. LISTED AND LABELED HEARTH EXTENSIONS SHALL COMPLY WITH UL 1618.

R1005 FACTORY-BUILT CHIMNEYS

R1005.1 LISTING. FACTORY-BUILT CHIMNEYS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED AND TERMINATED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

R1006.1 EXTERIOR AIR

R1006.1.1 FACTORY-BUILT FIREPLACE. EXTERIOR COMBUSTION AIR DUCTS FOR THE FACTORY-BUILT FIREPLACE SHALL BE LISTED COMPONENT OF THE FIREPLACE AND SHALL BE INSTALLED IN ACCORDANCE WITH THE FIREPLACE MANUFACTURER'S INSTRUCTION.

R311.6 HALLWAYS:

THE WIDTH OF HALLWAYS SHALL BE NOT LESS THAN 3 FEET

SPRINKLER SYSTEM:

RESIDENTAL SPRINKLER SYSTEM IS REQUIRED, THAT A TYPE 134 & NFPA-72 CHAPTER 29. RESIDENTAL SPRINKLER SYSTEM IS PROVIDED THROUGHOUT WITH FIRE ALARMS

M1602 RETURN AIR

M1602.2 RETURN AIR OPENINGS. RETURN AIR OPENINGS FOR HEATING, VENTILATION, AND AIR CONDITIONING SYSTEMS SHALL COMPLY ALL OF THE FOLLOWING:

1. OPENINGS SHALL NOT BE LOCATED LESS THAN 10 FEET MEASURED IN ANY DIRECTION FROM AN OPEN COMBUSTION CHAMBER OR DRAFT HOOD OF ANOTHER APPLIANCE LOCATED IN THE SAME ROOM OR SPACE.

2. THE AMOUNT OF RETURN AIR TAKEN FROM ANY ROOM OR SPACE SHALL BE NOT GREATER THAN THE FLOW RATE OF SUPPLY AIR DELIVERED TO SUCH ROOM OR SPACE.

3. RETURN AND TRANSFER OPENING SHALL BE SIZED IN ACCORDANCE WITH THE APPLIANCE OR EQUIPMENT MANUFACTURERS' INSTALLATION INSTRUCTIONS, MANUAL, D OR THE DESIGN OF REGISTERED DESIGN PROFESSIONAL.

4. RETURN AIR SHALL NOT BE TAKEN FROM A CLOSET, BATHROOM, TOILET ROOM, KITCHEN, GARAGE, MECHANICAL ROOM, BOIL ROOM, FURNACE ROOM OR UNCONDITIONED ATTIC.

M1502.4 CLOTHES DRYER:

DRYER EXHAUST DUCTS SHALL CONFORM TO THE REQUIREMENT SECTION M1502.4.1 THROUGH M1502.4.7

R302.5 DWELLING-GARAGE OPENING AND PENETRATION PROTECTION

R302.5.1 OPENING BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 1/2 INCHES IN THICKNESS, SOLID OR HONEYCOMB-CORE STEEL DOORS NOT LESS THAN 1 1/2 THICK, OR 20 MINUTE FIRE RATED DOOR, EQUIPPED WITH A SELF-CLOSING DEVICE.

PROVIDE ONE LAYER 1" GWB TYPE "X" AT CEILINGS COMMON WITH HABITABLE AREAS ABOVE
-WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, CLAD ALL SUPPORT COLUMNS, BEAMS AND WALLS WITH ONE LAYER 1" GWB.
-THE GARAGE SIDE SHALL BE SEPARATED FROM THE RESIDENCE AND ATTIC AREA WITH NO LESS THAN 1" GWB ON THE GARAGE SIDE.

OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSE SHALL NOT BE PERMITTED.

R302.5.2 DUCT PENETRATION. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL NOT HAVE OPENING INTO THE GARAGE.

R807 ATTIC ACCESS:

R807.1 THE ROUGH-FRAMED OPENING SHALL BE NOT LESS THAN 22 INCHES BY 30 INCHES AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION, WHERE LOCATED IN A WALL, THE OPENING SHALL BE NOT LESS THAN 22 INCHES WIDE BY 30 INCHES HIGH, WHERE THE ACCESS IS LOCATED IN THE CEILING, MINIMUM UNOBSTRUCTED HEAD-ROOM IN THE ATTIC SPACE SHALL BE 30 INCHES AT SOME POINT ABOVE THE ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF THE CEILING FRAMING MEMBERS.

R311.7.1 STAIR WIDTH:

STAIRWAYS SHALL NOT BE LESS THAN 36" IN CLEAR WIDTH AT ALL POINTS ABOVE THE HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4-1/2" ON EITHER SIDE OF THE STAIRWAY AND THE MINIMUM CLEAR WIDTH OF THE STAIRWAY AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL NOT BE LESS THAN 31-1/2" WHERE THE HANDRAIL IS INSTALLED ON ONE SIDE AND 27" WHERE HANDRAILS ARE INSTALLED ON BOTH SIDES.

R311.7.5.1 RISERS

THE RISER HEIGHT SHALL BE NOT MORE THAN 7 1/2 INCHES. THE RISER TO BE MEASURED VERTICALLY BETWEEN LEADING EDGES OF THE ADJACENT TREADS. THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/4 INCH.

OPEN RISERS ARE PERMITTED PROVIDED THAT THE OPENING LOCATE MORE THAN 30 INCHES, AS MEASURED VERTICALLY, TO THE FLOOR OR GRADE BELOW DO NOT PERMIT THE PASSAGE OF 4 INCHES DIAMETER SPHERE.

R311.7.5.2 TREADS

THE TREAD DEPTH SHALL BE NOT LESS THAN 10 INCHES. THE TREAD DEPTH SHALL BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT A RIGHT ANGLE TO THE TREADS LEADING EDGE. THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/4 INCH.

R311.7.10.1 SPIRAL STAIRS:

SPIRAL STAIRWAYS ARE PERMITTED, PROVIDED THAT THE CLEAR WIDTH AT AND BELOW THE HANDRAIL IS NOT LESS THAN 26 INCHES AND THE WALKLINE RADIUS IS NOT GREATER THAN 24 1/2 INCHES. EACH TREAD SHALL HAVE A DEPTH OF NOT LESS THAN 6 1/2 INCHES AT THE WALKLINE. ALL TREADS SHALL BE IDENTICAL, AND THE RISE SHALL BE NOT MORE THAN 9 1/2 INCHES. HEADROOM SHALL BE NOT LESS THAN 6 FEET 6 INCHES.

R311.7.9 ILLUMINATION:

STAIRWAYS SHALL BE PROVIDED WITH ILLUMINATION IN ACCORDANCE WITH SECTION R303.7

R308- SAFETY GLAZING

R308.4 HAZARDOUS LOCATIONS. THE LOCATIONS SPECIFIED IN SECTIONS R308.4.1 TO R.308.4.7 SHALL BE CONSIDERED TO BE SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSE OF GLAZING.

R308.4.1 GLAZING IN DOORS. GLAZING IN FIXED AND OPERABLE PANELS OF SWINGING, SLIDING, AND BIFOLD DOORS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.

R308.4.2 GLAZING ADJACENT TO DOORS. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR SHALL BE CONSIDERED A HAZARDOUS LOCATION WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE AND IT MEETS EITHER OF THE FOLLOWING CONDITIONS:

1. WHERE THE GLAZING IS WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION.
2. WHERE THE GLAZING IS ON A WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24 INCHES OF THE HINGE SIDE OF AN IN-SWINGING DOOR

R308.4.3 GLAZING IN WINDOWS. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION:

1. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18 INCHES ABOVE THE FLOOR

R308.4.5 GLAZING AND WET SURFACES. GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOLS, SAUNAS, STEM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES (1524 MM) MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION. THIS SHALL APPLY TO SINGLE GLAZING AND EACH PANE IN MULTIPLE GLAZING.

R308.4.6 GLAZING ADJACENT TO STAIRS AND RAMPS. GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES (914 MM) ABOVE THE PLANE OF THE ADJACENT WALKING SURFACES OF STAIRWAYS, LANDINGS, BETWEEN FLIGHTS OF STAIRS AND RAMPS SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION

R308.4.7 GLAZING ADJACENT TO THE BOTTOM STAIR LANDING AT THE BOTTOM OF THE STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 80 INCHES HORIZONTAL ARCH LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION.

2015 ENERGY GLAZING:

U-FACTORS OF FENESTRATION PRODUCTS (WINDOWS, DOORS AND SKYLIGHTS) SHALL BE DETERMINED IN ACCORDANCE WITH NFRC 100 BY AN ACCREDITED, INDEPENDENT LABORATORY. WINDOWS SHALL BE NFRC CERTIFIED OR USE DEFAULT GLAZE FENESTRATION VALUES, PER 303.1.3

CLIMATE ZONE	5 AND MARINE 4
FENESTRATION U-FACTOR *	0.28
SKYLIGHT D-FACTOR	0.50
GLAZED FENESTRATION SHGC **	NR
CEILING R-VALUE	49
WOOD FRAME WALL R-VALUE	21 int
Mass Wall R-Value	21/21
FLOOR R-VALUE	38
BELOW-GRADE WALL R-VALUE	10/15/21 int + TB
SLAB R-VALUE & DEPTH	10, 2 ft

OPTION	DESCRIPTION	CREDIT(S)
1a	EFFICIENT BUILDING ENVELOPE 1a	0.5
1b	EFFICIENT BUILDING ENVELOPE 1b	1.0
1c	EFFICIENT BUILDING ENVELOPE 1c	2.0
1d	EFFICIENT BUILDING ENVELOPE 1d	0.5
2a	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a	0.5
2b	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2b	1.0
2c	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2c	1.5
3a	HIGH EFFICIENT HVAC EQUIPMENT 3a	1.0
3b	HIGH EFFICIENT HVAC EQUIPMENT 3b	1.0
3c	HIGH EFFICIENT HVAC EQUIPMENT 3c	1.5
3d	HIGH EFFICIENT HVAC EQUIPMENT 3d	1.0
4	HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM	1.0
5a	EFFICIENT WATER HEATING 5a	0.5
5b	EFFICIENT WATER HEATING 5b	1.0
5c	EFFICIENT WATER HEATING 5c	1.5
5d	EFFICIENT WATER HEATING 5d	0.5
6	RENEWABLE ELECTRIC ENERGY	0.5

FOOTNOTES:

a. PROJECTS USING THIS OPTION MAY NOT USE OPTION 1a, 1b or 1c.

b. PROJECTS MAY ONLY INCLUDE CREDIT FROM ONE SPACE HEATING OPTION, 3a, 3b, 3c or 3d. WHEN A HOUSING UNIT HAS TWO PIECES OF EQUIPMENT (I.E. TWO FURNACES) BOTH MUST MEET THE STANDARD TO RECEIVE THE CREDIT.

c. PLUMBING FIXTURES FLOW RATINGS. LOW FLOW PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

- RESIDENTIAL BATHROOM LAVATORY SINK FAUCETS: MAXIMUM FLOW RATE-3.8L/MIN (1.0 GAL/MIN) WHEN TESTED IN ACCORDANCE WITH ASME A112.18.1.1CSA B125.1.
- RESIDENTIAL KITCHEN FAUCETS: MAXIMUM FLOW RATE-6.6 L/MIN (1.75 GAL/MIN) WHEN TESTED IN ACCORDANCE WITH ASME A 112.18.1CSA B125.1.
- RESIDENTIAL SHOWERHEADS: MAXIMUM FLOW RATE-6.6 L/MIN (1.75 GAL/MIN) WHEN TESTED IN ACCORDANCE WITH ASME A112.18.1.1CSA B125.1.

M1507 MECHANICAL VENTILATION

M1507.1 GENERAL. WHERE LOCAL EXHAUST OR WHOLE-HOUSE MECHANICAL VENTILATION IS PROVIDED, THE EQUIPMENT SHALL BE DESIGNED IN ACCORDANCE WITH THIS SECTION & TABLE BELOW:

DUCT TYPE	FLEX DUCT						SMOOTH-WALL DUCT									
	50	80	100	125	150	200	250	300	50	80	100	125	150	200	250	300
FAN AIRFLOW RATING (CFM @ 0.25 INCH wc) a																
Diameter b (inches)	Maximum length (feet)															
3	x	x	x	x	x	x	x	x	5	x	x	x	x	x	x	x
4	56	4	x	x	x	x	x	x	114	31	10	x	x	x	x	x
5	NL	81	42	16	2	x	x	x	NL	152	81	51	28	4	x	x
6	NL	NL	158	81	55	18	1	x	NL	NL	NL	168	112	53	25	9
7	NL	NL	NL	NL	161	78	40	19	NL	NL	NL	NL	NL	148	88	54
8 and above	NL	NL	NL	NL	NL	189	111	69	NL	NL	NL	NL	NL	NL	198	133

For SI: 1 foot = 304.8 mm

a. Fan airflow rating shall be in accordance with ANSI/AMCA 210-ANSI/ASHRAE 51

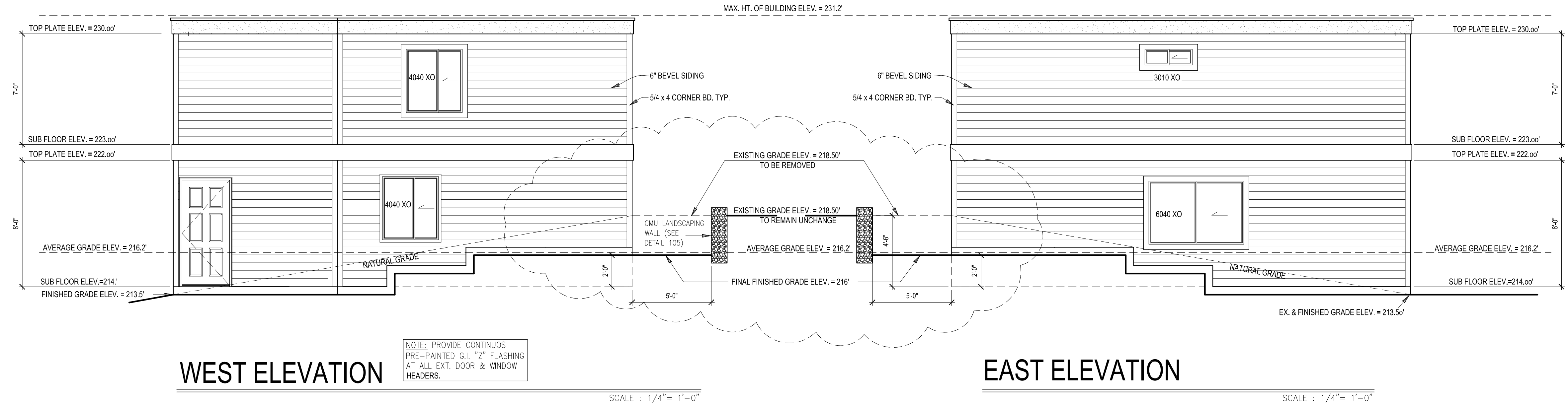
b. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.

c. This table assumes that elbows are not used. Fifteen feet of allowable duct length shall be deducted for each elbow installed in the duct run.

d. NL = no limit on duct length of this size.

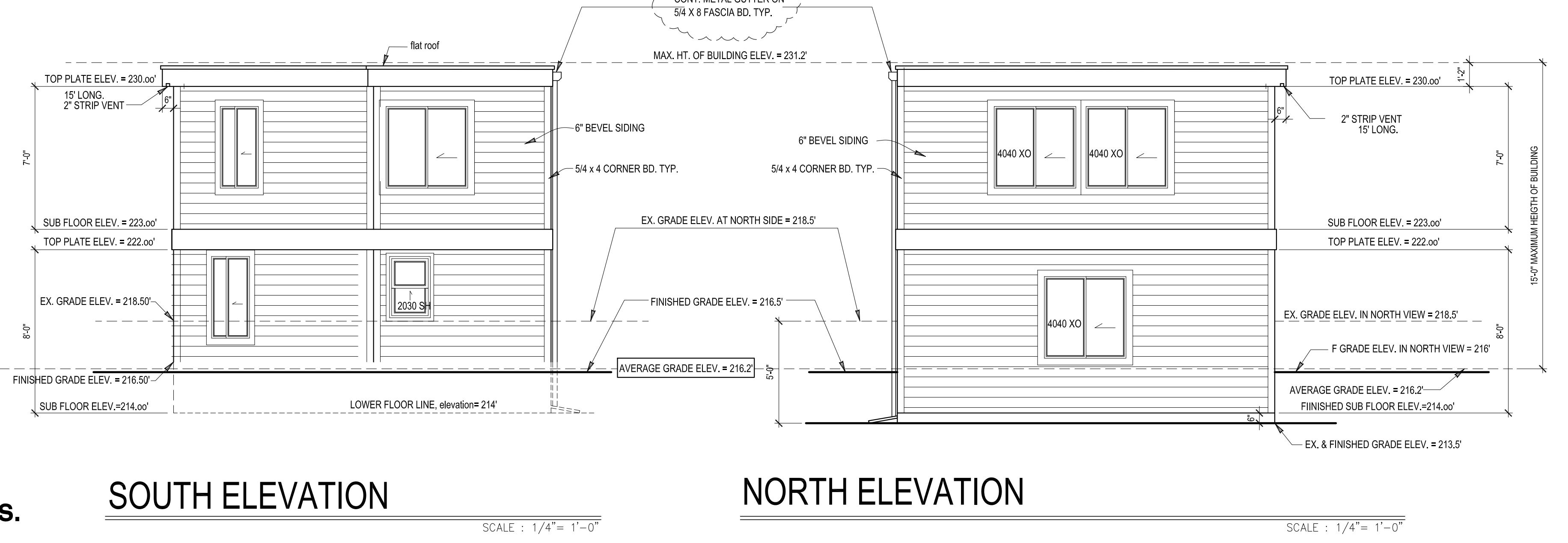
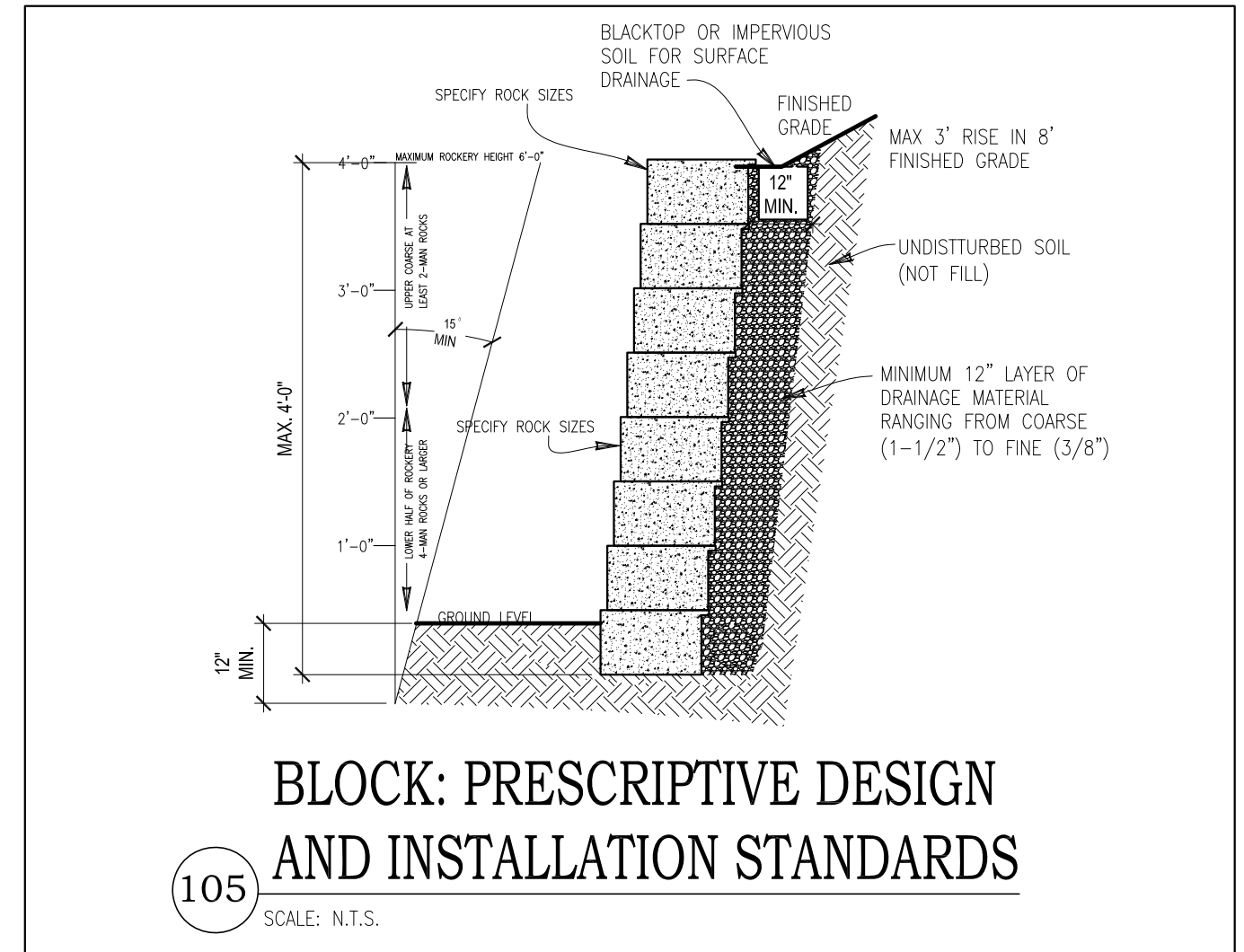
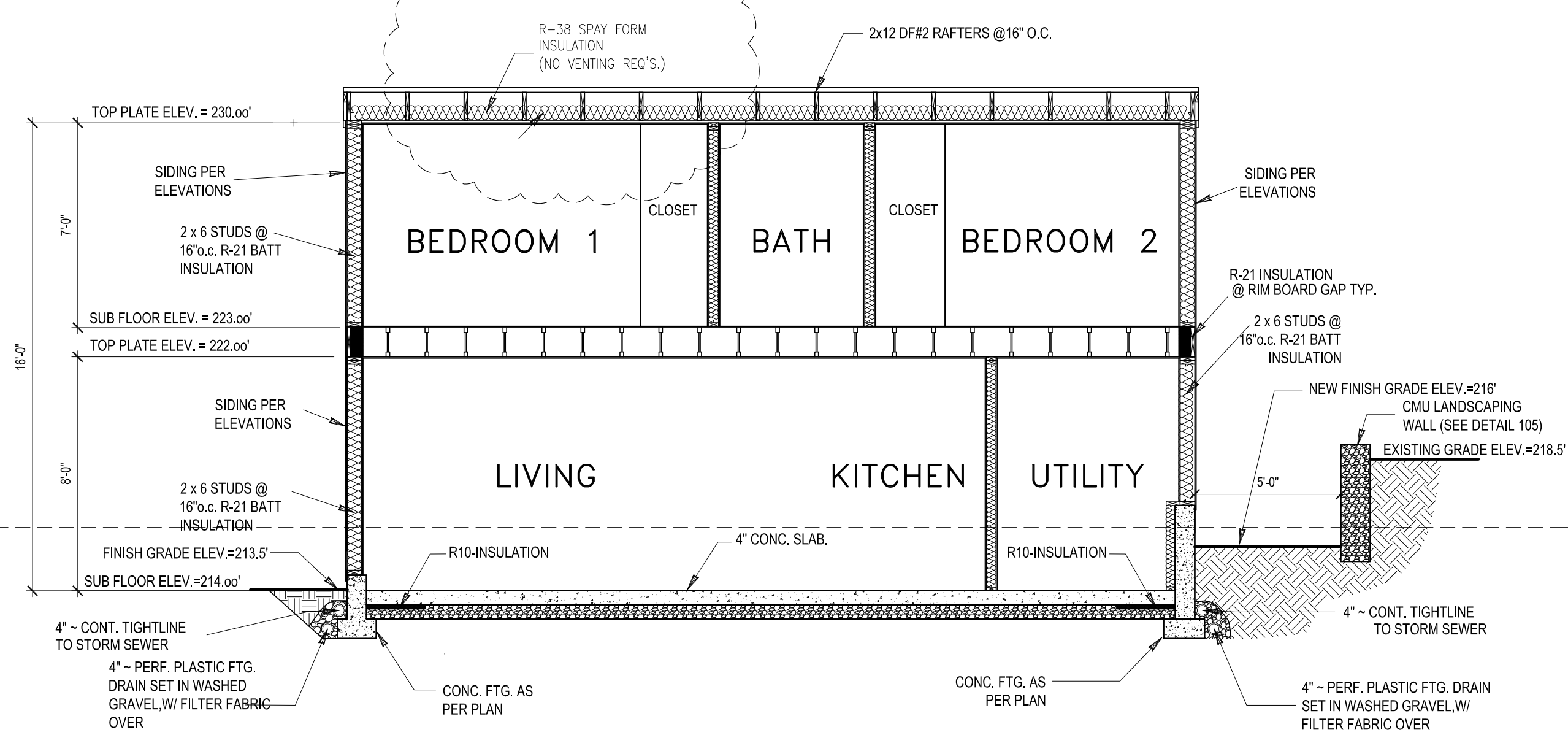
e. X = not allowed. Any length of duct of this size with assumed turns and fittings will exceed the rate pressure drop.

DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS					
	0 - 1	2 - 3	4 - 5	6 - 7	8 - 9	
	AIRFLOW IN CFM					
< 1,500	30	45	60	75	90	
1,501 - 3,000	45	60	75	90	105	
3,001 - 4,500	60	75	90	105	120	
4,501 - 6,000	75	90	105	120	135	
6,001 - 7,500	90	105	120	135	150	
> 7,500	105	120				



- VERIFY SHEAR WALL NAILING AND HOLDDOWNS ARE PER PLAN AND SCHEDULE PRIOR TO INSTALLING SIDING
- MASONRY AND WOOD FRAME CHIMNEYS ARE TO BE CONSTRUCTED PER I.R.C.
- PROVIDE GALVANIZED SHEET METAL FLASHING AND COUNTERFLASHING AT ALL ROOF / WALL INTERSECTIONS, CHIMNEYS, AND SKYLIGHTS
- PROVIDE WEATHERSTRIPPING AND FLASHING AT ALL DOORS AND WINDOWS AS REQUIRED
- CAULK ALL EXTERIOR JOINTS AND PENETRATIONS
- POST ADDRESS ON BLDG. PRIOR TO FINAL INSPECTION
- LOTS SHALL BE GRADED AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALL. SLOPE SHALL BE 6" IN FIRST 10 FT. OR DRAINS OR SWALES SHALL BE PROVIDED TO ENSURE DRAINAGE AWAY FROM STRUCTURE
- FASTENERS TO BE HOT-DIPPED GALV. STEEL, STAINLESS OR ALUM. (CORROSION RESISTANT)

NOTES:
A COPY OF THE ICC-ES REPORT FOR THE INSULATION PRODUCT MUST BE PROVIDED ON SITE FOR THE FIELD INSPECTOR.



NOTE:
REFER TO STRUCTURAL SHEETS FOR SHEAR WALL SCHEDULE AND ENGINEERING PLAN WHICH CONTAIN DETAIL REFERENCES AND/OR INSTRUCTIONS PERTAINING TO EACH SHEAR WALL INDICATED IN THIS PLAN.

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.

*** NO FIELD ALTERATIONS WILL BE AUTHORIZED UNLESS ACCOMPANIED BY REVISED DRAWINGS.**

DATE	REVISION	REV. BY:	
05-17-2021	02	T.N.	REVIEW COMMENTS
06-11-2021	03	T.N.	REVIEW COMMENTS

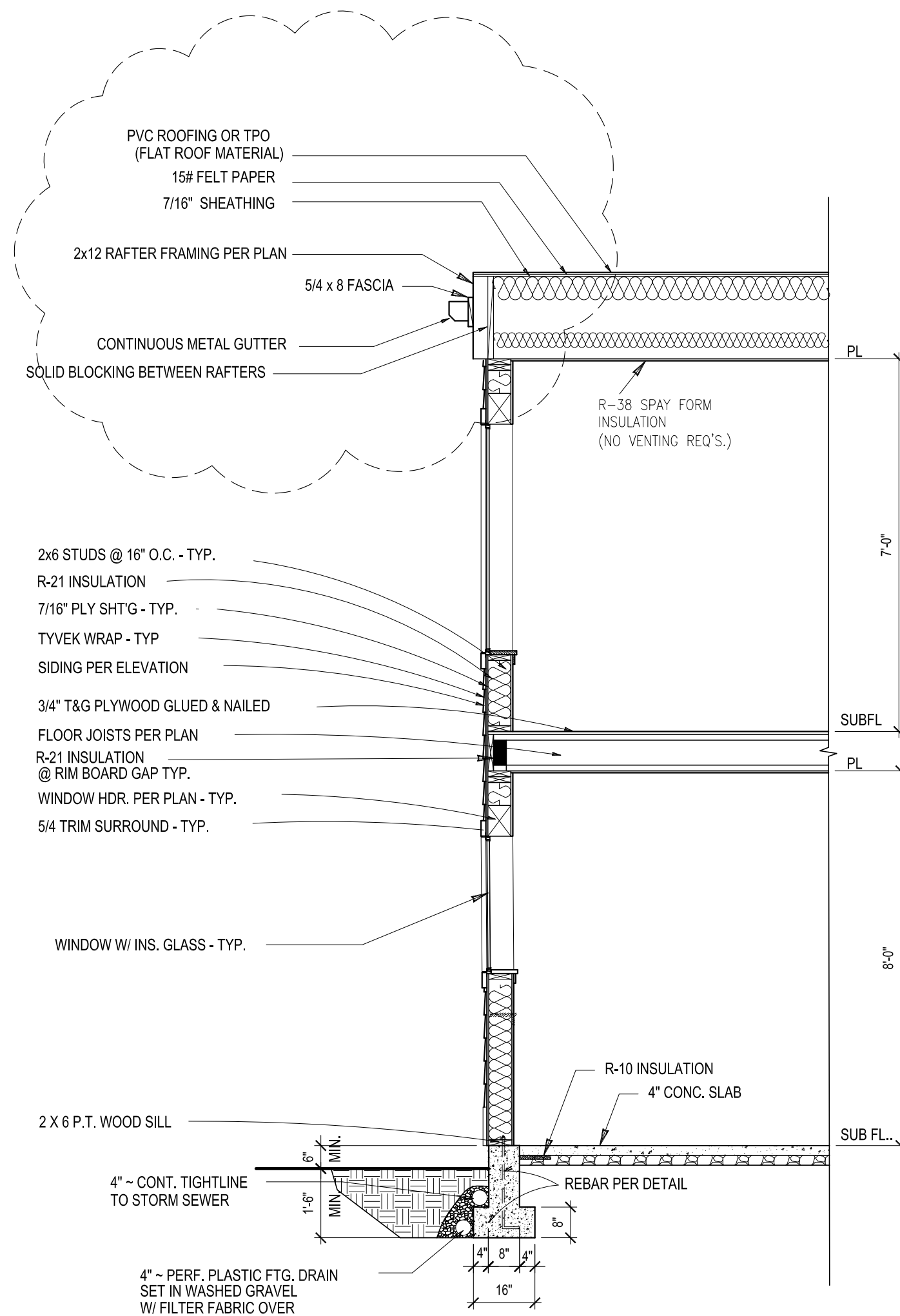
PREPARED BY:
T & L HOME DESIGN
ARCHITECTURAL-ENGINEERING-DESIGN
1721 E. 60th ST. PHONE: 253-441-1651
TACOMA, WA 98404 Email: trucwa@yahoo.com

PREPARED FOR:
YOUNG CHUNG RESIDENCE/ADU
NEW CONSTRUCTION
7002 78th AVE. SE. MERCER ISLAND 98040
PARCEL NUMBER: 252404-9217

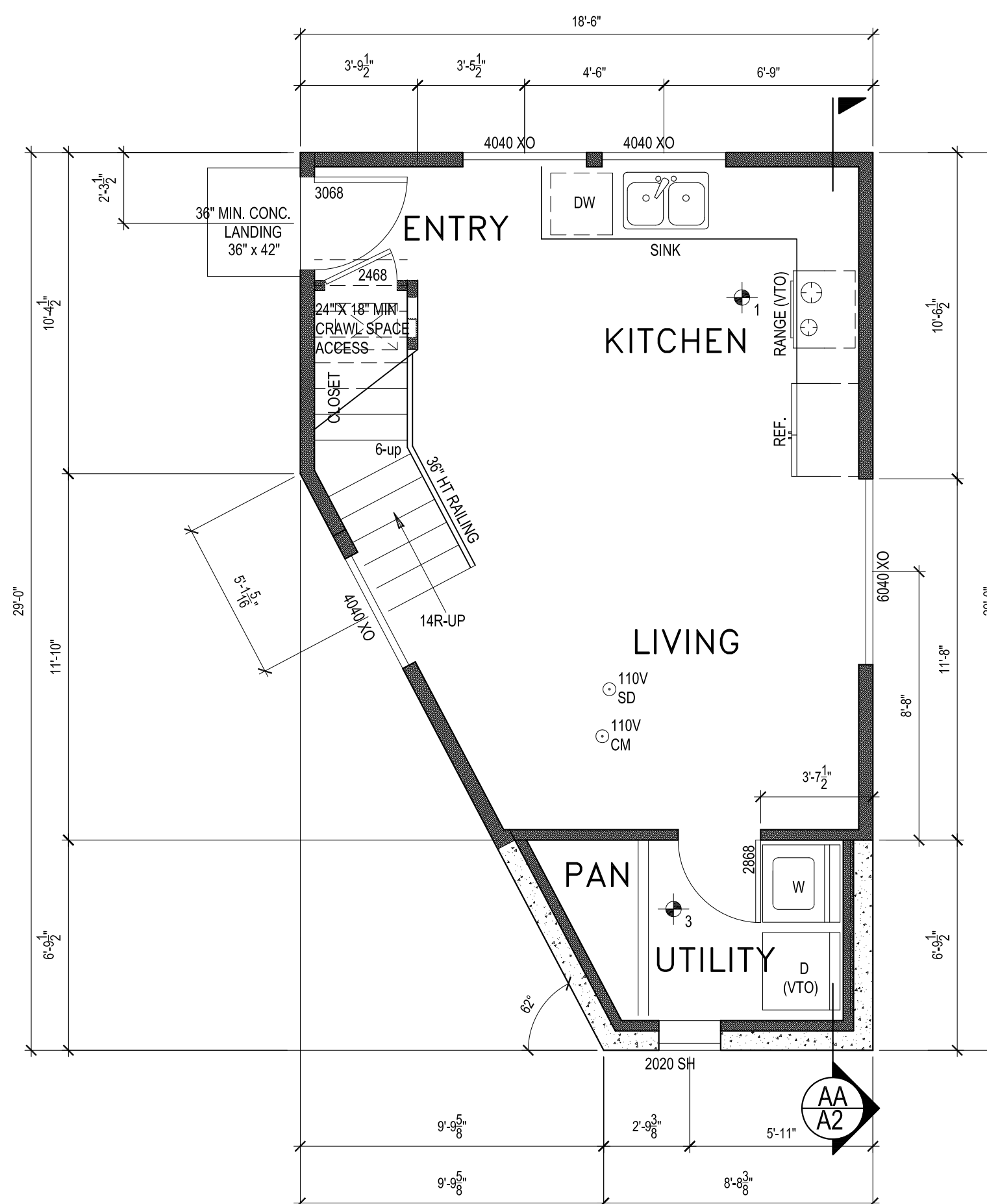
PAYMENT OF USES FEE IS DUE TO T & L HOME DESIGN PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM T & L HOME DESIGN IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN TO THE PROPERTY OF T & L HOME DESIGN.

BY: T.N.
DATE: 7-27-20
CHECKED: T.N.
SHEET # **A2**
3

Elevations
PROJECT # **TL-20-12**

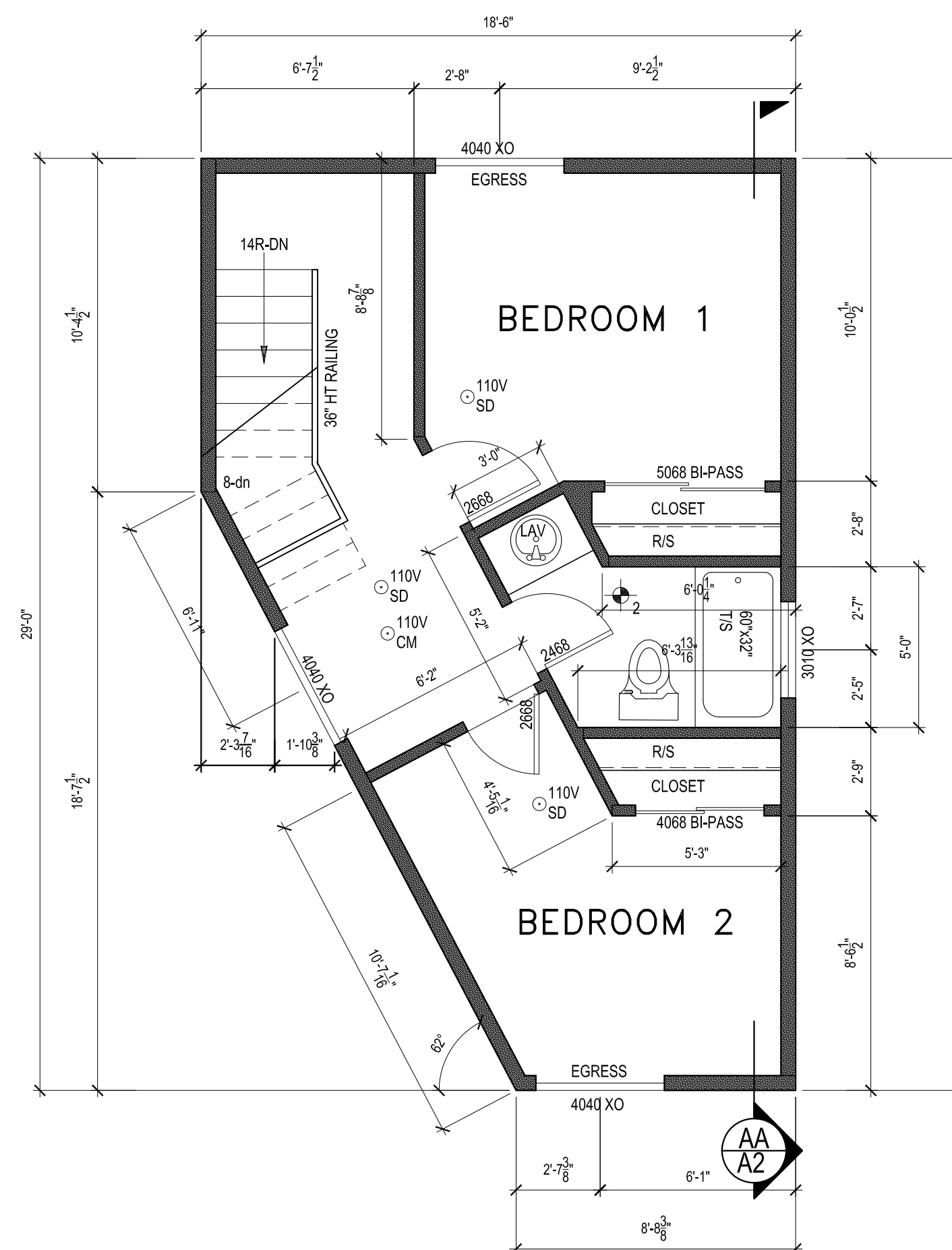


TYPICAL WALL SECTION AT HOUSE



MAIN FLOOR PLAN = 400 SF

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



UPPER FLOOR PLAN = 445 SF.

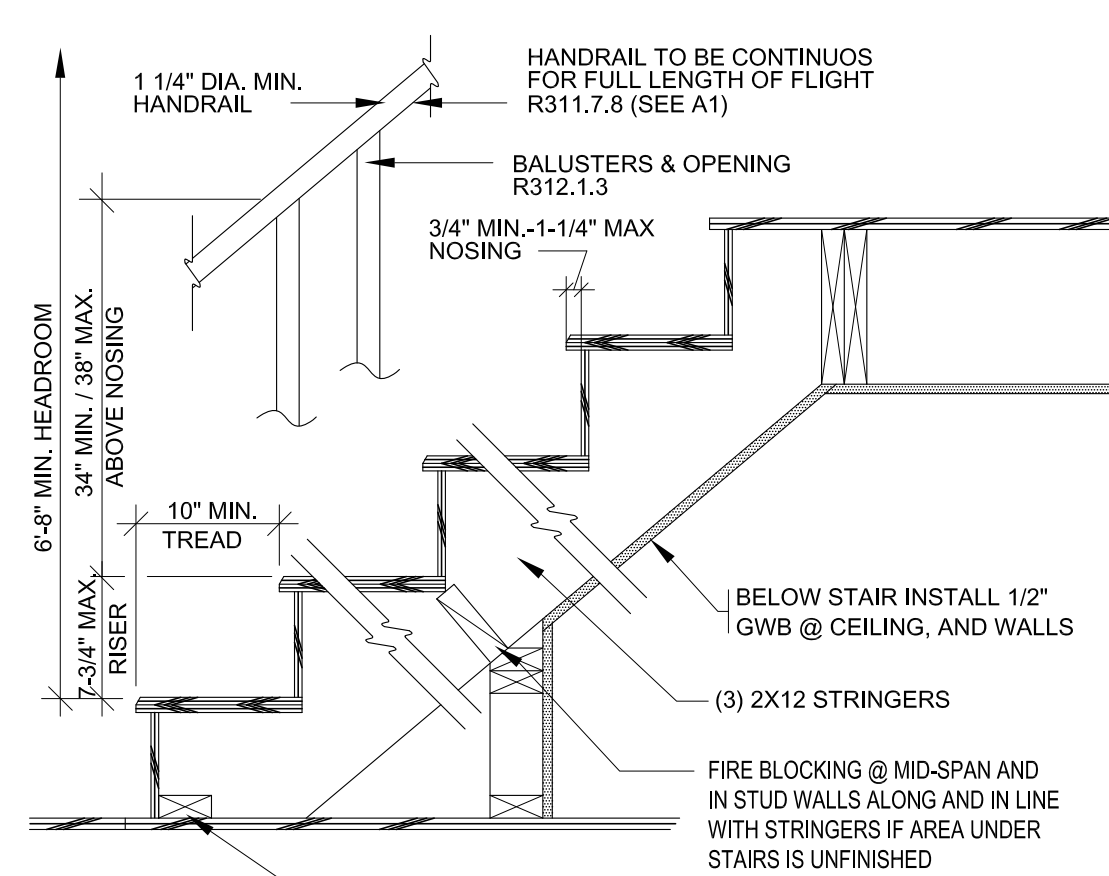
SCALE : 1/4" = 1'-0"

NOTES:
 A WRITTEN REPORT OF THE TEST RESULTS BE SIGNED BY THE TESTING PARTY AND PROVIDED TO THE BUILDING INSPECTOR. PRIOR TO CALL FOR INSPECTION: THE AIR LEAKAGE TEST RESULT SHALL BE DOCUMENTED ON THE FORM WHICH IS AVAILABLE ON-LINE AT: [HTTP://WWW.ENERGY.SVU.EDU/BUILDINGEFFICIENCY/ENERGYCODE.ASPX](http://www.energy.svu.edu/buildingefficiency/energycode.aspx). BUILDER SHALL COMPLETE AND POST AN "INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITHIN 3' OF ELECTRICAL PANEL PRIOR TO FINAL INSPECTION. PROVIDE A PROGRAMMABLE THERMOSTAT FOR THE PRIMARY SPACE CONDITIONING SYSTEM WITHIN THE DWELLING UNIT.

NOTE:
 REFER TO STRUCTURAL SHEETS FOR SHEAR WALL SCHEDULE AND ENGINEERING PLAN WHICH CONTAIN DETAIL REFERENCES AND/OR INSTRUCTIONS PERTAINING TO EACH SHEAR WALL INDICATED IN THIS PLAN.

AREA SUMMARY	
UPPER LEVEL:	400 SF.
LOWER LEVEL:	445 SF.
TOTAL:	845 SF.

LIGHTING SECTION		
(IECC/SEC R404)	A MINIMUM OF 75% OF PERMANENTLY INSTALLED LAMPS IN LIGHT ALL LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS	
LUMINAIRES PROVIDING OUTDOOR LIGHTING AND PERMANENTLY MOUNTED TO A RESIDENTIAL BUILDING OR TO OTHER BUILDING ON THE SAME LOT SHALL BE HIGH EFFICACY LUMINAIRES		
SMOKE DETECTORS		
110V SD	INSTALL SMOKE DETECTORS PER CODE, 110V/9V INTERCONNECTED	
110V CM	CARBON MONOXIDE ALARM NEW CONSTRUCTION, AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPERATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, SEE SECTION R315	
VENTILATION SCHEDULE		
MINIMUM SOURCE SPECIFIC VENTILATION CAPACITY REQ. TABLE M1507.4		
SYMBOL	ROOMS	VENTILATION CAPACITY
1	KITCHENS	100 CFM INTERMITTENT OR 25 CFM CONTINUOUS
2	BATHROOMS, TOILET ROOMS AND LAUNDRY/UTILITY ROOM	MECHANICAL EXHAUST CAPACITY OF 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS
3	WHOLE HOUSE FAN	60 CF. CONTINUOUS (WHOLE HOUSE FAN LOCATED (INSIDE LAUNDRY/UTILITY U.N.O.)



1 STAIR DETAIL
 N.T.S.
 ADDITIONAL STAIR NOTE PLEASE REFER TO SHEET A1

BASEMENT FLOOR AREA CALCULATION:

WALL SEGMENT	LENGHT x	COVERAGE=	RESULT
A	18'-6"	0 %	0 %
B	29'-0"	30.21 %	8.8 %
C	8'-8"	62.5 %	5.5 %
D	21'-1"	41.66 %	8.8 %
E	10'-5"	11.45 %	1.2 %
TOTALS	87.75'	n/a	24.3 %

EXCLUDED FROM THE GROSS FLOOR AREA = $\frac{445 \text{ sf.} \times 24.3 \%}{87.75} = 123 \text{ sf.}$

2015 STATE ENERGY CODE (WSEC)
 ENERGY CREDIT OPTION SHALL BE USE FOR THIS PROJECT.
 OPTION 5a -Kitchen Sink and Showerhead < 1.75 GPM, lavatory faucets < 1.0 GPM = 0.5 CREDITS
 OPTION 5c -Gas water heater > 0.91EF OR electric water heater > 2.0 EF = 1.0 CREDITS
 TOTAL = 1.5 CREDITS

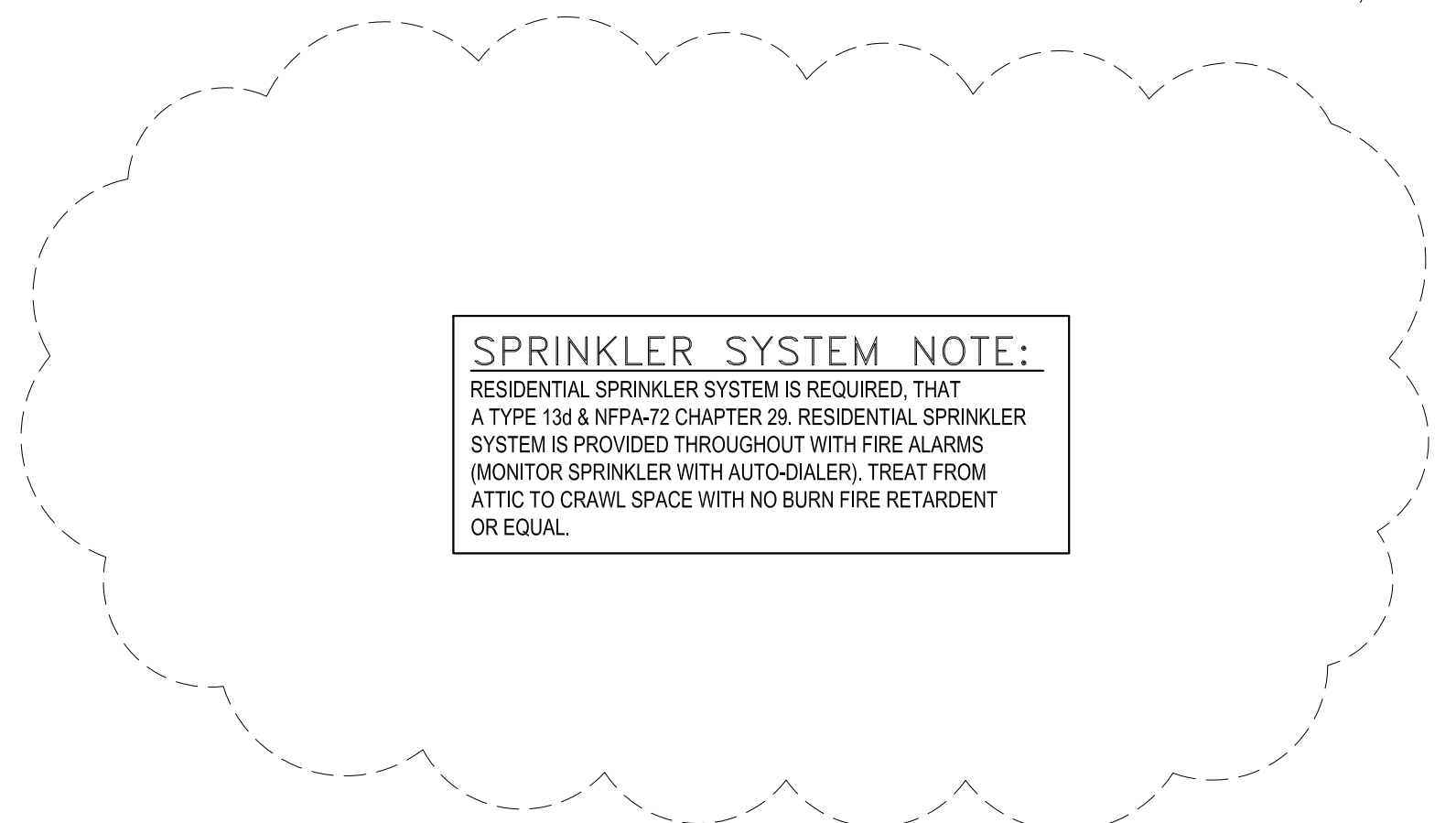
NOTE:
 HEATING EQUIPMENT SIZE FORM TO BE SUBMITTED TO INSPECTOR, SEPARATELY UPLOADED FROM PLAN SET.

NOTE:
 CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS OF PROJECT AND REPORT ANY OMISSIONS / DISCREPANCIES TO DESIGNER PRIOR TO COMMENCING WORK. DESIGNER SHALL NOT BE RESPONSIBLE FOR DISCREPANT CONDITIONS RESULTING FROM UNAUTHORIZED WORK PERFORMED BY THE CONTRACTOR.

NOTE:
 EXHAUST FAN VENTS SHALL TERMINATE OUTDOOR AND NOT IN ATTIC, SOFFITS, RIDGE VENT OR IN CRAWL SPACE. EXHAUST VENT CLEARANCES MUST BE 3 FEET FROM PROPERTY LINE 3 FEET FROM OPERABLE OPENINGS INTO THE BUILDING AND 10 FEET FROM MECHANICAL AIR INTAKE.

NOTE:
 PROVIDE A PROGRAMMABLE THERMOSTAT FOR THE PRIMARY SPACE CONDITIONING SYSTEM WITHIN THE DWELLING UNIT.

NOTE:
 BUILDER SHALL COMPLETE AND POST AN "INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITHIN 3' OF ELECTRICAL PANEL PRIOR TO FINAL INSPECTION.



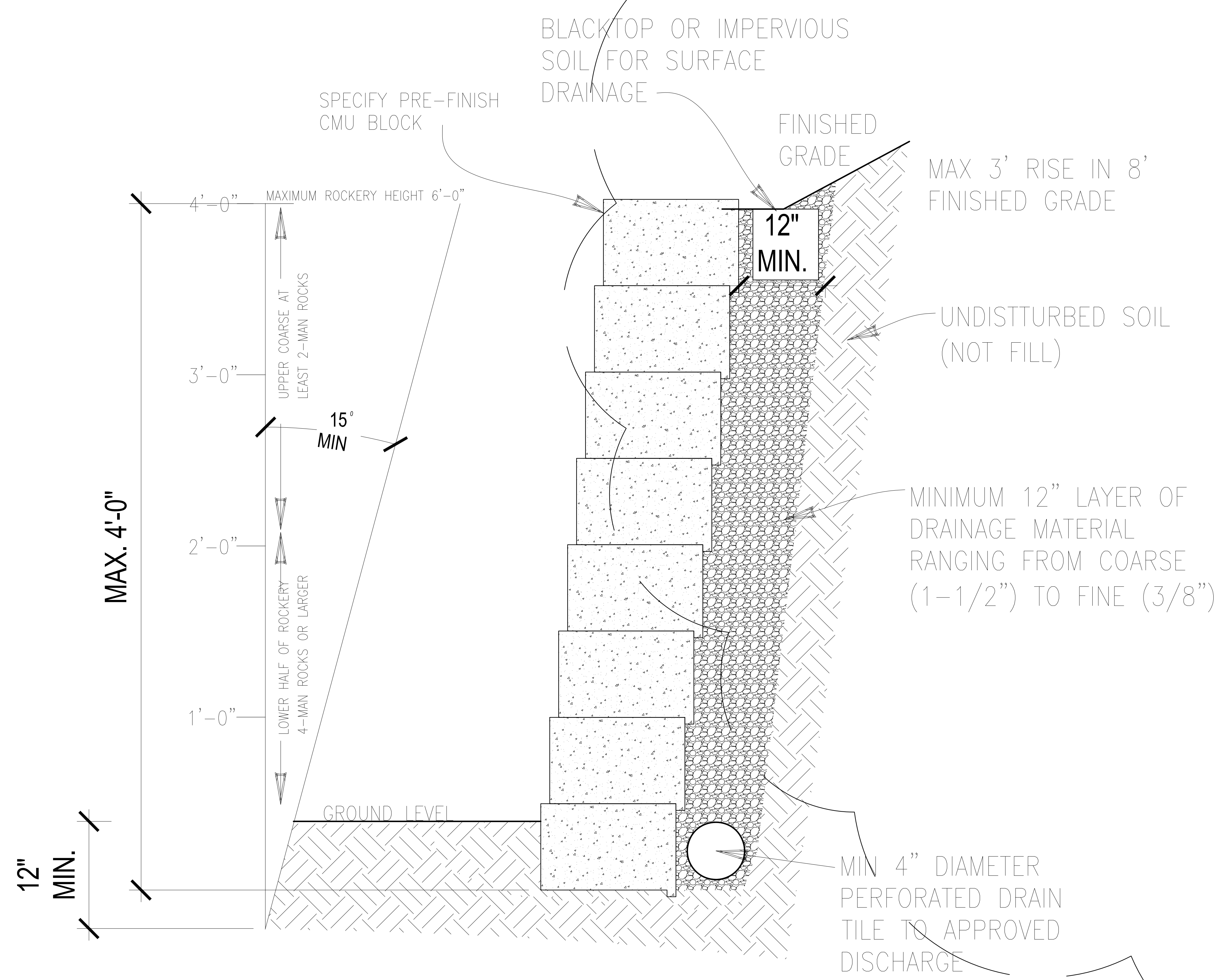
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BLOCK: PRESCRIPTIVE DESIGN AND INSTALLATION STANDARDS