

EXISTING PLAN OF  
SINGLE FAMILY RESIDENCE  
ADDRESS: 216 Hutton St,  
Gaithersburg, MD 20877  
ELEVATIONS

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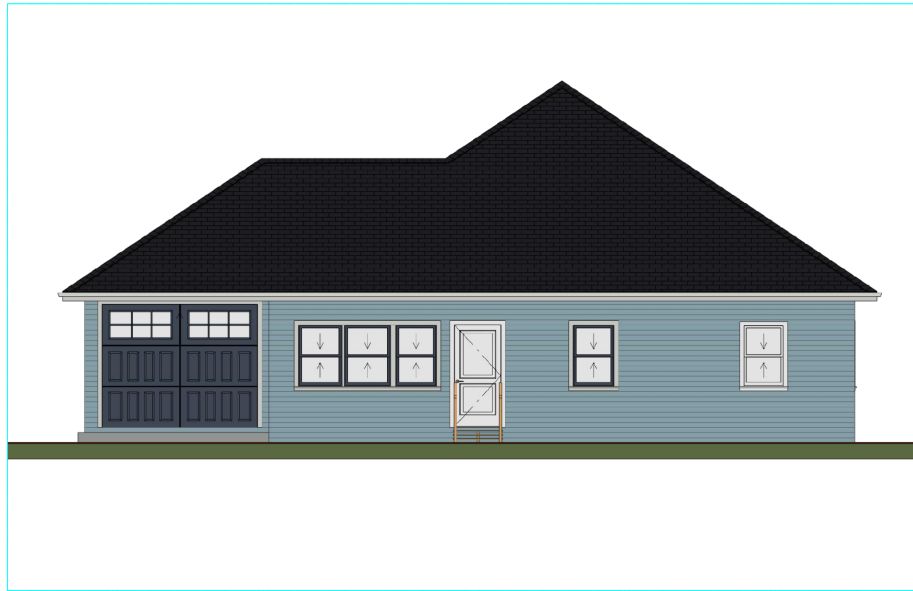
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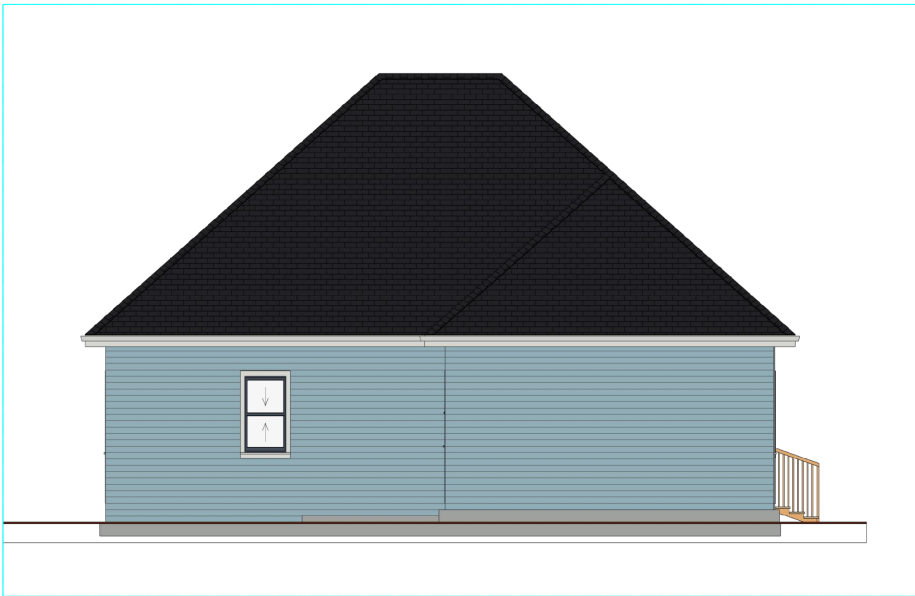
1 FRONT ELEVATION PLAN



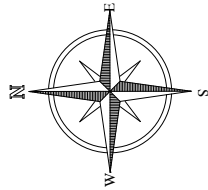
1 RIGHT ELEVATION PLAN



1 REAR ELEVATION PLAN



1 LEFT ELEVATION PLAN



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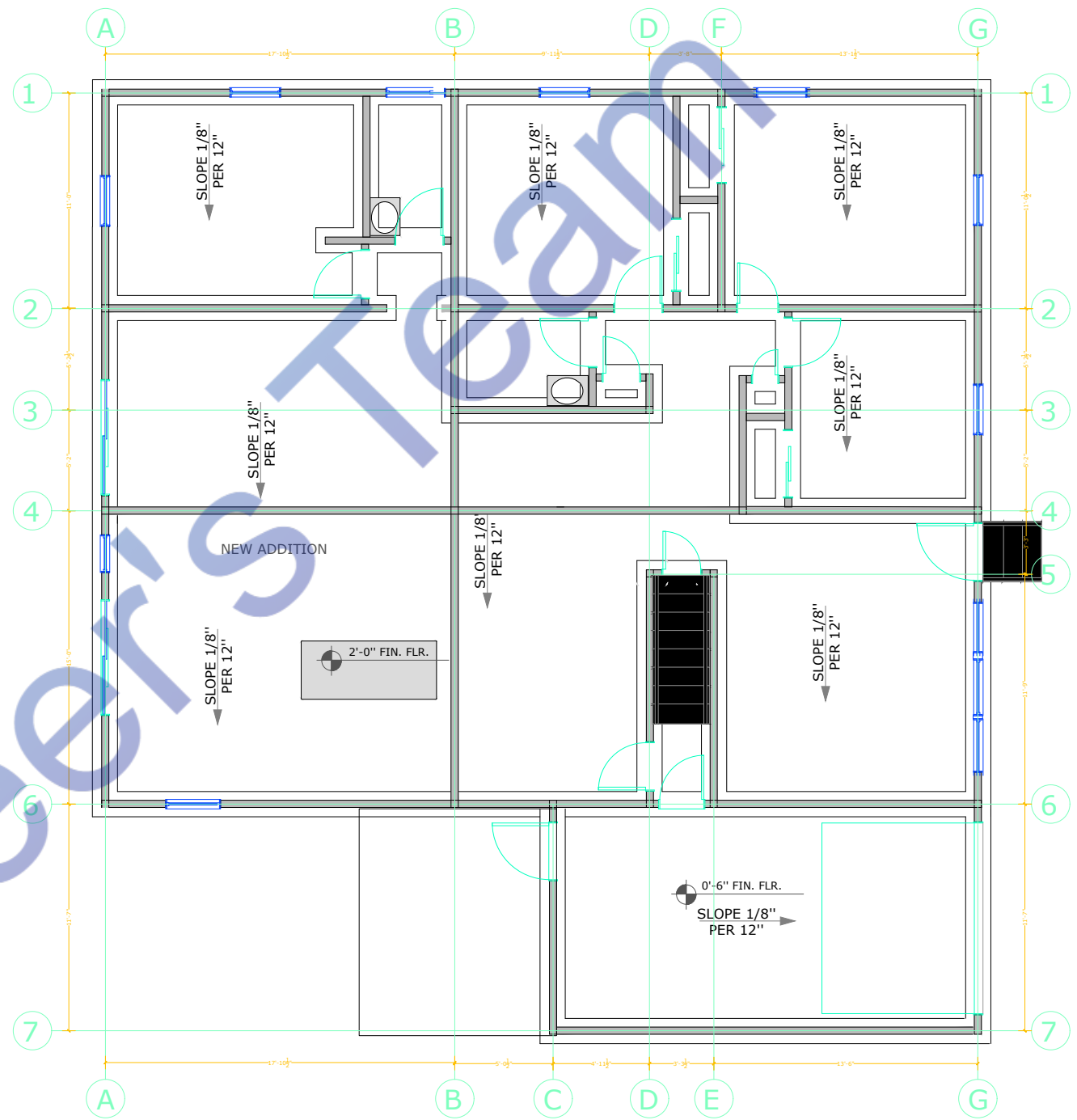
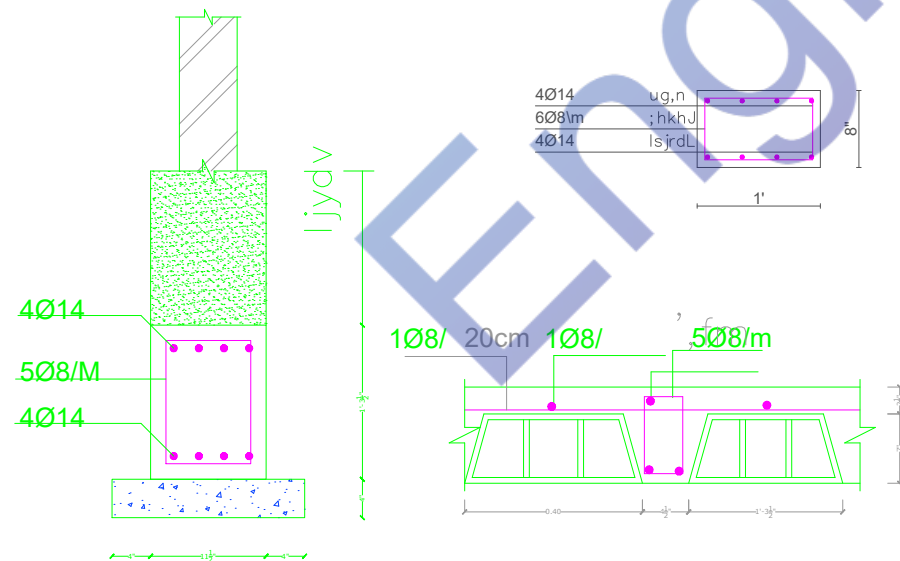
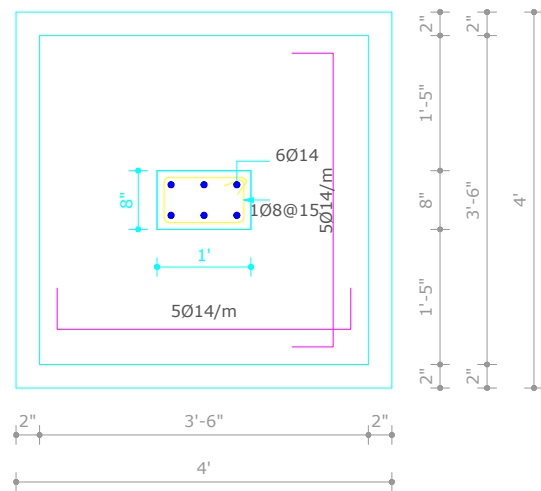
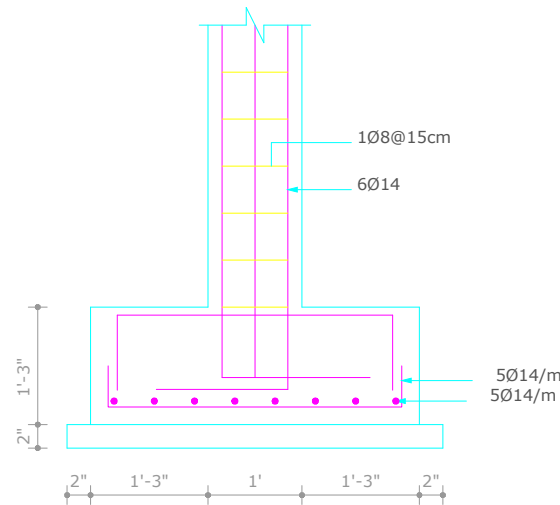
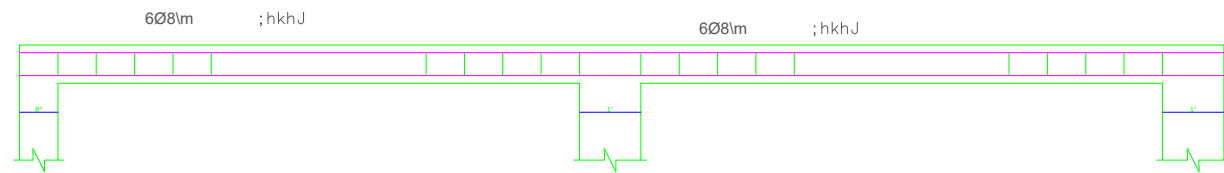
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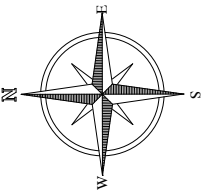
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FOUNDATION PLAN



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WINDOW SCHEDULE										160MPH (3 SECOND GUST) = 124 FASTEST MILE ENCLOSED STRUCTURE, WINDBORNE DEBRIS REGION			
KEY	SIZE	TYPE	OPENING SIZE	MANUFACTURER	MODEL OR SERIES	ZONE 4 5	ACTUAL APPLIED WIND PRESSURE	MANUF. MAX DESIGN PRESSURE		IMPACT PROTECTION	BUCK DETAIL		
⬡													
⬡													
⬡													
⬡													
DOOR SCHEDULE										160MPH (3 SECOND GUST) = 124 FASTEST MILE ENCLOSED STRUCTURE, WINDBORNE DEBRIS REGION			
KEY	SIZE	TYPE	OPENING SIZE	MANUFACTURER	MODEL OR SERIES	ZONE 4 5	ACTUAL APPLIED WIND PRESSURE	MANUF. MAX DESIGN PRESSURE		IMPACT PROTECTION	BUCK DETAIL		
⬡	3680	SWING	36"X80"	MASONITE INTERNATIONAL		4							
⬡	3080	SGD	30"X80"			4							
⬡	7280	SLIDING	72"X80"			4							
IMPACT RESISTANT COVERING MATERIAL													
MATERIAL				MANUFACTURER		APPROVED MODEL, SERIES, OR DESIGNATION							
						IMPACT RESISTANT GLAZING						N/A	
ROOF COVERING MATERIAL													
MATERIAL				MANUFACTURER		APPROVED MODEL, SERIES, OR DESIGNATION							
SHINGLE ROOFING				CERTANTEED CORPORATION ROOFING		CERTANTEED ASPHALT SHINGLES 3-TAB, 4-TAB STRIP (NO-CUT-OUTS) LAMINATED AND ARCHITECTURAL ASPHALT ROOFING SHINGLES							
ROOFING UNDERLAYMENT				CERTANTEED CORPORATION ROOFING		ROOF RUNNER SYNTHETIC ROOFING UNDERLAYMEN							
1. ASPHALT SHINGLES SHALL BE IN COMPLIANCE W IRC 2019, SEC. 1507.2 & R905.2 2. CLAY AND CONCRETE TILES SHALL BE IN COMPLIANCE W/ ORBC 2020, SEC. 1507.3 & R905.3 3. METAL ROOFING SHALL BE IN COMPLIANCE W/ IRC 2020, SEC. 1507.4 & R905.4													
SOFFIT COVERING MATERIAL													
SOFFIT SHALL COMPLY W R301.9 OF THE 2019 INTERNATIONAL RESIDENTIAL CODE 7TH EDITION. CONTRACTOR TO PROVIDE IRC APPROVAL & INSTALLATION CUT SHEETS PRODUCT BEING USED.													

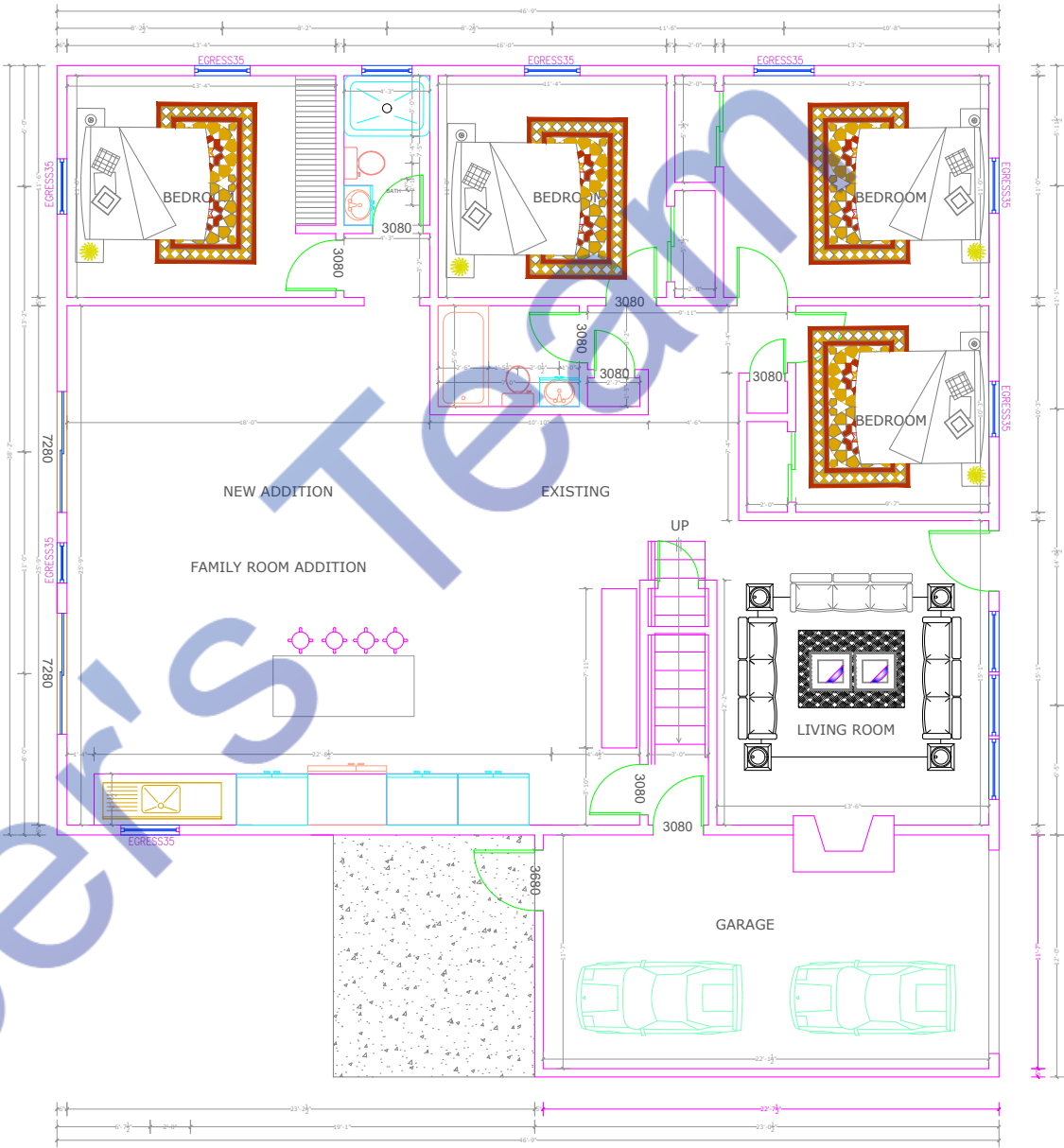
GARAGE NOTES:

1. OPENING FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1-3/8 INCHES (35 MM) IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1-3/8 INCHES THICK, OR 20-MINUTE FIRE-RATED DOORS, PER FBC 2020 SEC. R302.5

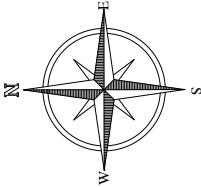
2. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE (0.48 MM) SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE GARAGE,

3. THE GARAGE SHALL BE SEPARATED AS REQUIRED BY TABLE R302.6 OF THE 2020 FBC. OPENINGS IN GARAGE WALLS SHALL COMPLY WITH SECTION R302.5 OF THE 2020 FBC. ATTACHMENT OF GYPSUM BOARD SHALL COMPLY WITH TABLE R10235 OF THE 2020 FBC. THE WALL SEPARATION PROVISIONS OF TABLE R302.6 SHALL NOT APPLY TO GARAGE WALLS THAT ARE PERPENDICULAR TO ADJACENT DWELLING UNIT WALL.

PER TABLE R302.6 FOR DWELLING-GARAGE SEPARATION, GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2-INCH (12.7MM) GYPSUM BOARD APPLIED TO THE GARAGE SIDE. A GARAGE BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8-INCH (15.9MM) TYPE "X" GYPSUM BOARD OR EQUIVALENT WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2-INCH (12.TMM) GYPSUM BOARD OR EQUIVALENT.



FLOOR PLANS



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NOTE:

ENGINEER OF RECORD SHALL REVIEW THE TRUSS LAYOUT PRIOR TO TRUSS FABRICATION AND COMMENCEMENT OF CONSTRUCTION.

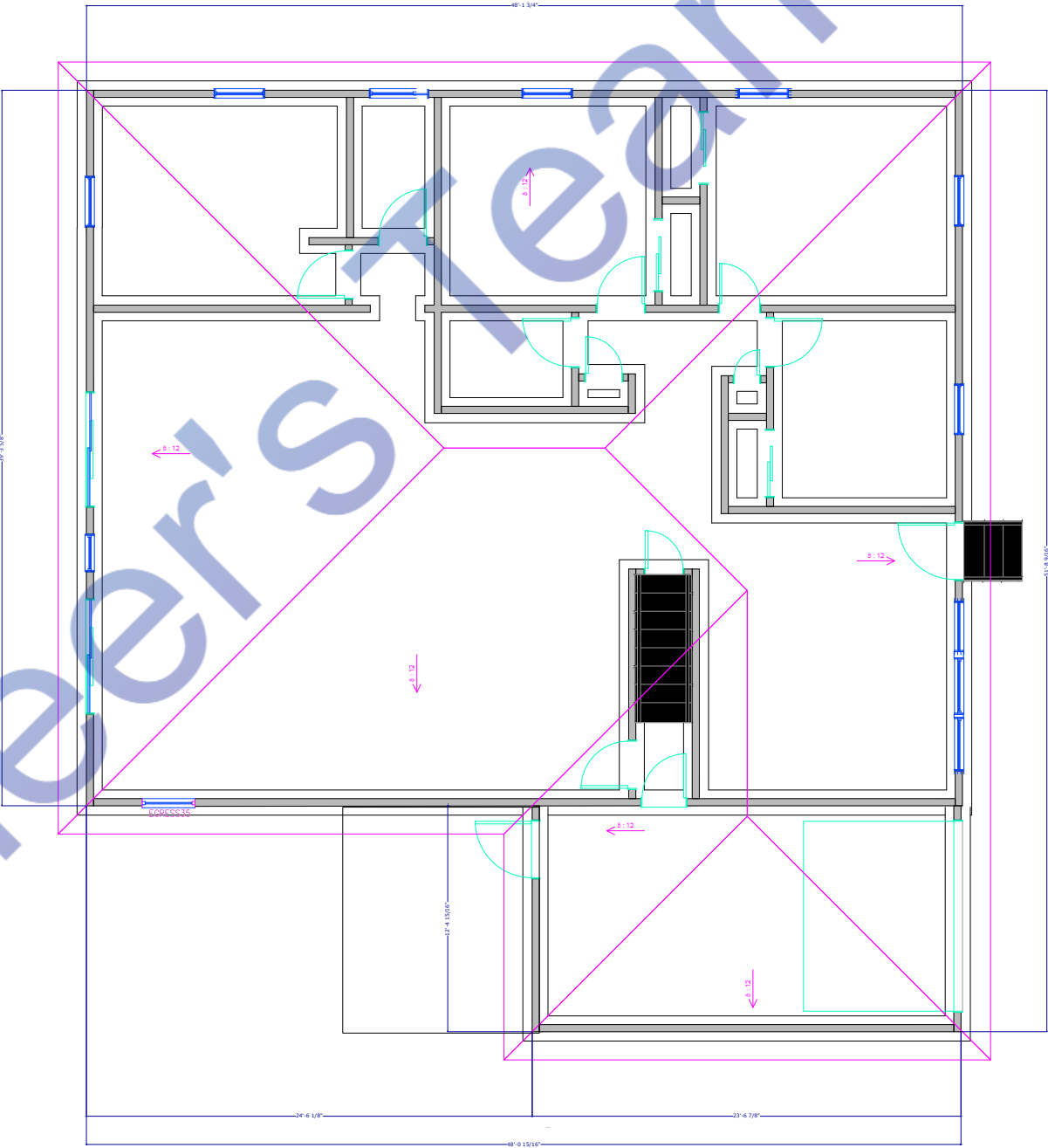
NOTE:

TRUSS CONNECTOR SCHEDULE IS BASED ON THE TRUSS LAYOUT PROVIDED BY XXXX, JOB NO. XXXX DATED XX/XX/XXXX.  
TRUSS CONNECTOR SCHEDULE BASED ON TRUSS LAYOUT BEARING AND UPLIFT REACTIONS (UNITS IN LBS)

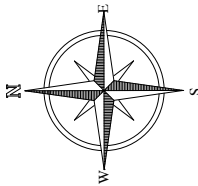
TRUSS CONNECTOR SCHEDULE BASED ON TRUSS LAYOUT BEARING AND UPLIFT REACTIONS (UNITS IN LBS)

TRUSS I.D.				
TYPICAL WINDLOAD CONNECTORS AND FASTENING SCHEDULE				
	USP	SIMPSON	DESCRIPTION	FASTENERS
1	DTC	HETAL20	EMBEDDED TRUSS/RAFTER ANCHOR W SEAT PLATE	(14) 0.148 X 1-1/2"
2	TA22	HETA20	EMBEDDED TRUSS/RAFTER ANCHOR W	(10) 10d x 1-1/2"
3	SPH4	SPH4	TOP/BOTT. PLATE ANCHORS	(10) 10d
4	RTI6A	HIOA	HURRICANE CLIP	(9) 10d - (8) 10d
5	MTW24C	HTS24	WOOD TO WOOD CONNECTION TWIST STRAP	(14) 10d
6	DX2-TZ	HD3B	ANCHOR DOWN	2)56"MB (1) 6" AB
7	MSTA24	MSTA24	TRUSS/RAFTER TIES	(18) 10d
8	SHA6	N/A	MAS. UPLIFT CONNECTOR	(2) 4"MB (4) 1/2"AB
9	HTW20	HTS20	TRUSS ANCHOR, HIGH UPLIFT	(24) 10d x 1-1/2"
10	RTI6-2	HIOA-2	HURRICANE CLIP (2-PLY)	(24) 10d x 1-1/2"
11	TDX5	-	ANCHOR DOWN	(2) MB - (1) AB
12	PA23	PA23	PURLIN ANCHOR	(18) 16d

TYPE		DESIGN PRESSURE	TOTAL NET FREE AREA (SQ-FT)	APPROVED MODEL, SERIES, OR DESIGNATION	STATE OF MARYLAND PRODUCT APPROVAL NO.
RIDGE VENT	GAF	N/A -215	14.1 PER FT	LOW PROFILE ATTIC RIDGE VENT	MR 6267.1
RIDGE VENT	GAF	N/A N/A	21.5 PER FT	GAF MASTER FLOW RIDGE VENT (ARIOCH)	MR 5027.1



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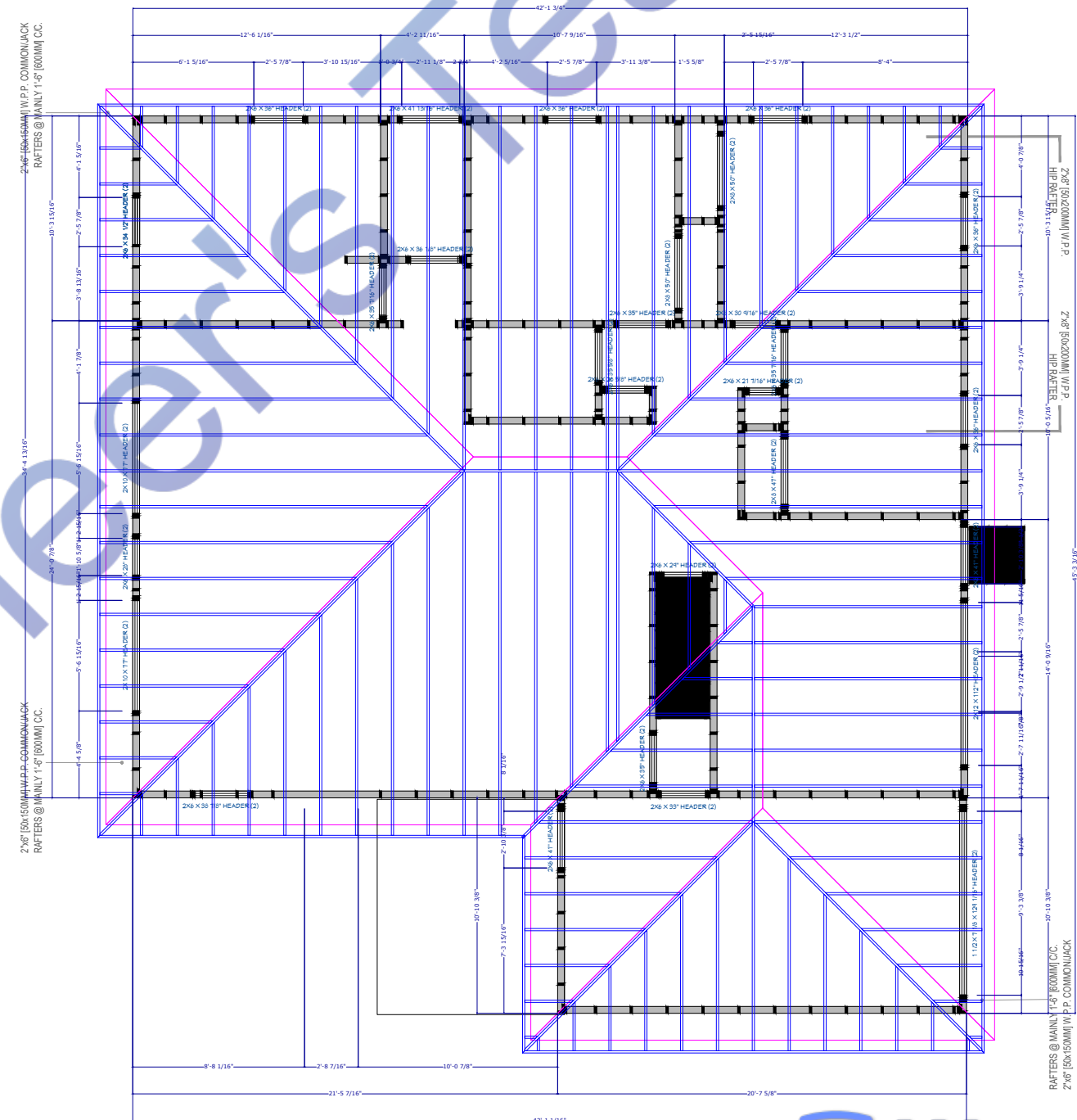
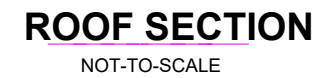
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Watermarkly

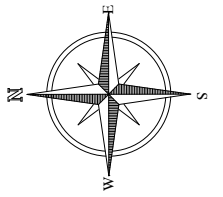


LSTA18 STRAP - PLACE AT INSIDE OF FASCIA BOARD



## FRAMING DETAIL

## ROOF FRAMING PLAN



## ROOF FRAMING PLAN

DATE: 05/05/2024

## ELECTRICAL NOTES

1. ALL CIRCUITS, OTHER THAN 6.F.I, THAT SUPPLY 125-VOLT, SINGLE PHASE, IS AND 20 AMPERE RECEPTACLE OUTLETS SHALL BE PROTECTED BY AND ARC-FAULT CIRCUIT INTERRUPTER ALL 125-VOLT, SINGLE PHASE 12 AND 20 AMPERE RECEPTACLE OUTLETS SHALL BE TAMPER RESISTANT

2. A LIGHTING FIXTURE WITH RECEPTACLE OUTLET, CONTROLLED BY A SWITCH LOCATED AT THE PASSAGENAY OPENING, SHALL BE PROVIDED SO AS TO LIGHT THE PASSAGEWAY AND SERVICE AREA AND INSTALLED IN ACCORDANCE WITH CHAPTER 33 OF THE 2020 FLORIDA MECHANICAL CODE.

3. SMOKE DETECTORS SHALL BE INSTALLED AS PER 2000 FBC AND NFPA 12 CHAPTER 2 2.UL SMOKE DETECTORS BHALL BE LINE VOLTAGE W/ BATTERY BACK-UP TO BE INSTALLED INSIDE EACH SLEEPING ROOM AND IN THE IMMEDIATE OUTSIDE AREA OF EACH SLEEPING ROOM BE ALLOWED IN BACEMENT IF THE FOLLOWING CONDITIONS ARE AIR-HANDLING UNITS SHALL

MET















A DEVICE IS INSTALLED TO ALERT THE OWNER OR SHUT THE UNIT DOWN WHEN THE CONDENSATION DRAIN IS NOT WORKINGS PROPERLY. THE BACEMENT ACCESS OPENING IS OF SUFFICIENT SIZE TO REPLACE THE AIR HANDLER NOTICE IS POSTED ON THE ELECTRIC SE SERVICE PANEL INDICATING TO THE HOMEOWNER THAT THE AIR HANDLER IS LOCATED IN THE BACEMENT, SAID NOTICE SHALL BE IN ALL CAPITALS, IN 16 POINT TYPE, WITH THE TITLE AND FIRST PARAGRAPH IN BOLD. SERVICE IND

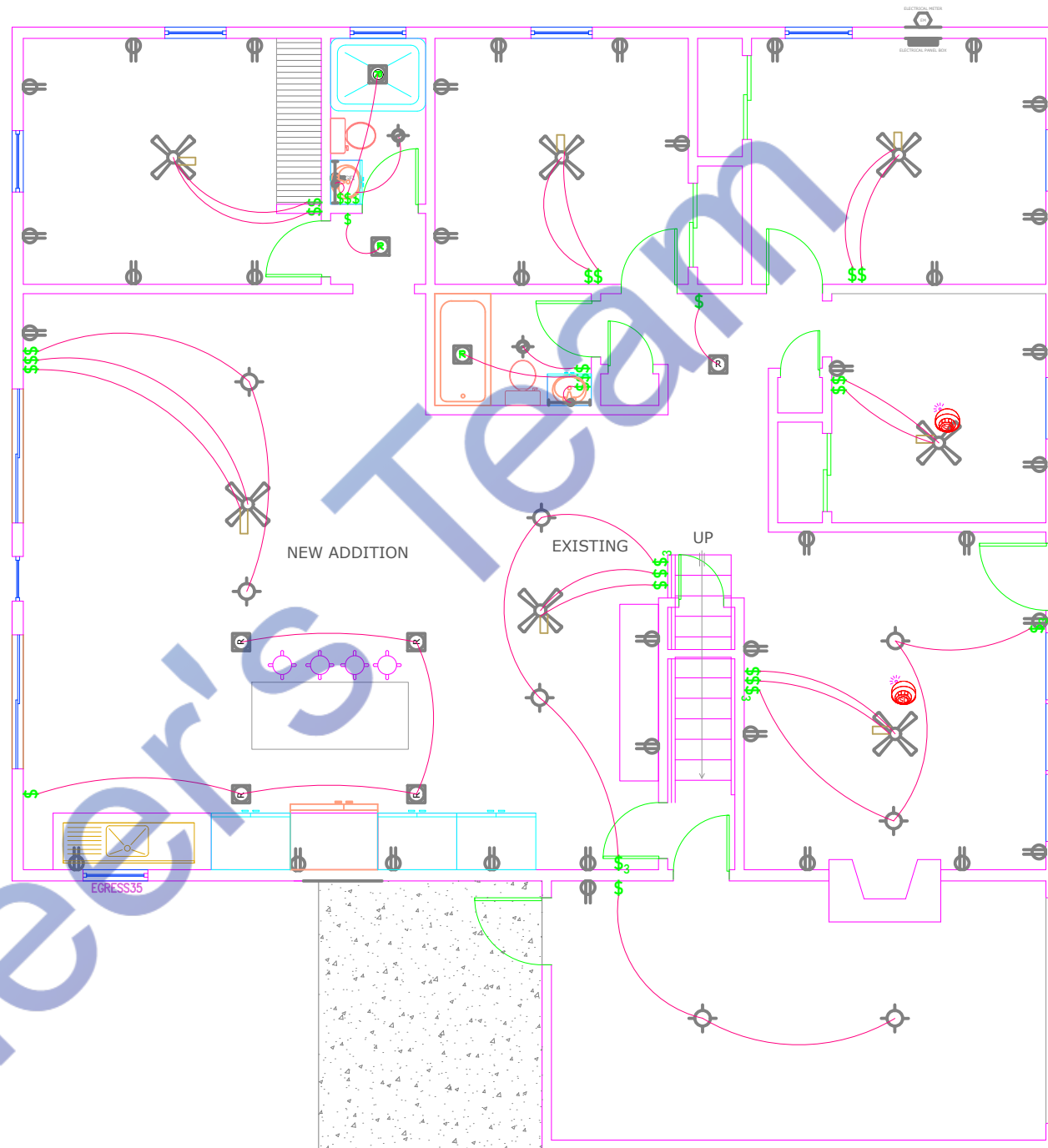
THE SERVICE PANEL OF THE EQUIPMENT IS LOCATED WITHIN 8 FEET (2438 MM) OF AN BACEMENT ACCESS.

"NOTICE TO HOMEOWNER, A PART OF YOUR AIR CONDITIONING SYSTEM, THE AIR HANDLER IS LOCATED IN THE BACEMENT, FOR PROPER, EFFICIENT AND ECONOMIC OPERATION OF THE AIR CONDITIONING SYSTEM, YOU MUST ENSURE THAT REGULAR MAINTENANCE IS PERFORMED YOUR AIR CONDITIONING SYSTEM IS EQUIPPED WITH ONE OR BOTH OF THE FOLLOWING

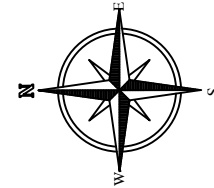
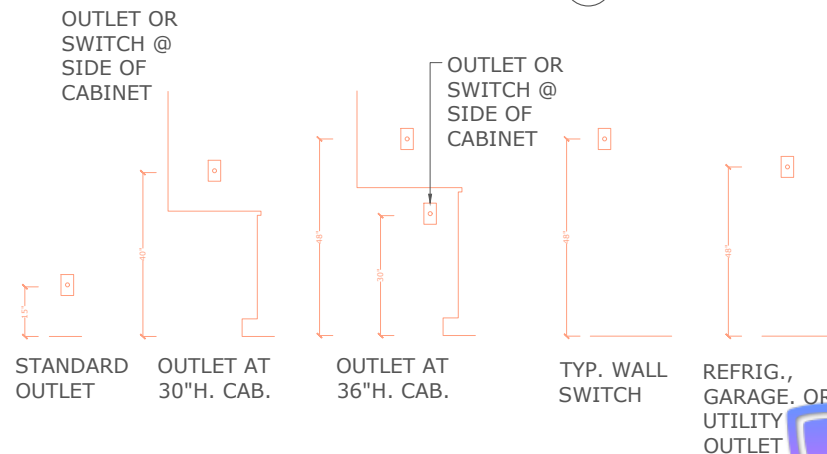
A DEVICE THAT WILL ALERT YOU WHEN THE CONDENSATION DRAIN IS NOT WORKING PROPERLY OR A DEVICE THAT WILL SHUT THE SYSTEM DOWN WHEN THE CONDENSATION DRAIN IS NOT WORKING. TO LIMIT POTENTIAL DAMAGE TO YOUR HOME AND TO AVOID DISRUPTION OF SERVICE, IT IS RECOMMENDED THAT YOU ENSURE PROPER WORKING ORDER OF THESE DEVICES BEFORE EACH SEASON OF PEAK OPERATION"

## ELECTRICAL LEGEND

	LIGHT FIXTURE, CEILING MOUNT		SINGLE POLE DECORA SWITCH @ 48" A.F.F. (TYPICAL) U.O.N.
	LIGHT FIXTURE, WALL MOUNT		THREE WAY TOGGLE SWITCH, @ 48 A.F.F. U.O.N.
	RECESSED ENERGY EFFICIENT BULB		ELECTRICAL PANEL BOX
	EXHAUST FAN W/LIGHT		TELEVISION SATELLITE W/ TELEPHONE OUTLET
	DUPLEX RECEPTACLE @ 16" A.F.F U.O.N		SMOKE DETECTOR
	DUPLEX RECEPTACLE GROUND FAULT		CEILING FAN WITH BRACE AND LIGHTING KIT
	DUPLEX RECEPTACLE 220 VOLT		VANITY LED LIGHT FIXTURE



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Watermarkly

ELECTRICAL PANEL NEW														
LOAD SERVED	CKT #	TYPE	BKR TRIP	WIRE SIZE	PHASE A	PHASE B	PHASE A	WIRE SIZE	BKR TRIP	TYPE	CKT #	LOAD SERVED		
HVAC UNIT- 5.5 TONS	1		30	#10	10550	0	400	#14	20		2	KITCHEN REFRIGERATOR		
	3		30	#10	0	10550	200	#14	20		4	KITCHEN AND DINING LIGHT		
RANGE/STOVE	5		20	#12	1000	0	1100	#12	20		6	TOASTER		
KITCHEN ELECTRIC OVEN	7		30	#10	2000	0	800	#14	20		8	COFFEE MAKER		
MIXER/JUICER	9		20	#12	700	0	1500	#10	30		10	AIR FRYER		
TOTAL VA PHASE				14,250	10,550	4,000				28,800				
											28,800			
TOTAL VOLT-AMPS											28,800			
DIVIDE TOTAL VOLT-AMPS BY SYSTEM VOLTAGE (PHASE)							125		AMPS		230.4			
TOTAL CONNECTED LOAD (AMPS)										AMPS		230.4		
TOTAL CONNECTED LOAD (AMPS)										@ 125%		288		
MAIN TYPE AND AMPERE RATING										288 ~ 300 AMP MCB				
EEDER SIZE – SEE RISER DIAGRAM PANEL F														

NEW HOME PLAN				
NEC ART 125 LOAD ANALYSIS - 200 AMPs 125/240 VOLT 3 PHASE 4 WIRE ELECTRICAL SERVICE				
ITEM	CONN. LOAD (VA)	DEMAND F.	DEMAND LOAD (WATTS)	TOTAL (AMPS)
LIGHTING	800	125%	1000	
WATER HEATERS	0	100%	0	
KITCHEN EQUIPMENT	7100	65%	4615	
DINNING EQUIPMENT	500	65%	325	
HVAC LOADS	21100	100%	21100	
SUB-TOTAL			27040	
LARGEST MOTOR	0	125%	0	
TOTAL @ 220/240V/3PH	28900		27040	41 ~ 50

1

E200

PANEL SCHEDULE & SERVICE CALCULATION

Material	
Name	Watt
110V ELECTRICAL DUPLEX RECEPTACLE WATERPROOF/110V DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER	20W
CEILING FAN WITH LIGHT AND REMOTE	55W
CEILING VENTILATION BATHROOM EXHAUST FAN WITH LED LIGHT	50W
VANITY LIGHT FIXTURES ADJUSTABLE BATHROOM LED LIGHT	22W
4 INCH ULTRA THIN LED RECESSED CEILING LED LIGHT	10W

NOTE:  
Existing electrical service was only 100A.  
After calculation we received a new estimator, which is 200A MCB or MCCB.  
An additional 100 amp circuit breaker must be added for new addition space (new kitchen and dining). So, the new electrical service will be 100A to 200A.



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GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE CODES AND REGULATIONS.
2. THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATION OF WORK. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO COMPLETE THE WORK.
3. CONTRACTOR SHALL THOROUGHLY EXAMINE PREMISES AND OBSERVE ALL CONDITIONS AND CIRCUMSTANCES UNDER WHICH THE WORK SHALL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR ERRORS OR NEGLIGENCE IN THIS RESPECT.
4. CONTRACTOR SHALL REVIEW AND COORDINATE THE INSTALLATION OF THE NEW SYSTEM. NO WORK SHALL BE PERFORMED PRIOR TO THE CONTRACTOR OBTAINING EXACT FIELD DIMENSIONS OF THE BUILDING STRUCTURE, CEILINGS, SHAFT SPACE, EXISTING DUCT SYSTEMS TO REMAIN, ETC. WHICH MAY AFFECT THE INSTALLATION OF THE NEW SYSTEMS.
5. THE CONTRACTOR SHALL FULLY COORDINATE WORK WITH OTHER TRADES TO ASSURE ALL WORK CAN BE PROPERLY INSTALLED.
6. ALL SPECIFIED EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. COMBUSTIBLE AND TOXIC MATERIALS (I.E.-PVC PIPING) SHALL NOT BE INSTALLED IN AIR PLENUMS. THE CONTRACTOR SHALL ONLY INSTALL APPROVED AND CODE COMPLIANT MATERIALS IN AIR PLENUMS AND CEILING PLENUMS.
8. COORDINATE LOCATION AND HEIGHT OF ALL THERMOSTATS WITH ARCHITECT AND OWNER.
9. ALL DUCTWORK SHALL BE INSTALLED AS HIGH AS POSSIBLE. COORDINATE INSTALLATION OF ALL SUPPLY, RETURN & EXHAUST, REGISTERS, GRILLES, AND DIFFUSERS WITH LIGHTING FIXTURES, SPRINKLER HEADS AND SMOKE DETECTORS. ALL HVAC SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE INTERNATIONAL MECHANICAL CODE, 2003.

AIR HANDLING UNIT SCHEDULE

AIR HANDLING UNIT SCHEDULE												
MARK	MFR MODEL NO.	TONS	TOTAL CFM	MIN. O.A. CFM	H.P.	VOLTS	Pp/ HRZ	MOTOR FLA	STATIC	REF	PSIG	REMARKS
** AHU-1 **	Carrier, Model: #48TFD007 S11 HV Serial #: 3408G50091	6	2989	1600	EXISTING HVAC UNIT BY LANDLORD, WITH FEATURES AS SHOWN, AND CORRESPONDING CONDENSER							
FEATURES: 1. MANUFACTURER STANDARD ECONOMIZER PACKAGE.7. NOT USED 2. LOW AMBIENT MECHANICAL COOLING TO 0F. 3. CRANKCASE HEATER. 4. LOW-VOLTAGE ANTI-START LOCKOUT. 5. FILTERS IN AC SIDE. 6. BAROMETRIC RELIEF DAMPER TO RELIEVE 90% OF MAXIMUM OUTSIDE AIR @ 0.25" WG STATIC PRESSURE. FOR 8.5 TON UNIT PROVIDE POWER EXHAUST FAN 12. EVAPORATOR FREEZESTAT. 13. COOLING CAPACITY BASED ON 67F WB & 80F DB AIR 14. ELECTRONIC PROGRAMMABLE THERMOSTATS. 15. PROVIDE MOISTURE MISER DEHUMIDIFICATION PACKAGE 16. DUCT DETECTORS ON RETURN DUCT TO STOP FANS AND SIGNAL ALARM. ENTERING FAN UNIT AND 95F DB AIR ENTERING OUTDOOR UNIT.												

HVAC NOTES

1. ALL DUCTWORK AND CEILING PENETRATIONS SHALL BE COORDINATED WITH EXISTING STRUCTURAL JOISTS AND BEAMS. PROVIDE OFFSETS IN PIPES AND DUCTS TO AVOID CUTTING OF BEAMS AND JOISTS.

4. ALL FLEXIBLE DUCT BRANCH LINES AND BRANCH TAKEOFFS SHALL BE THE SAME SIZE AS THE INLET OF THE DIFFUSER TO WHICH THEY CONNECT. THE MAXIMUM LENGTH OF FLEXIBLE DUCT BETWEEN BRANCH DUCTS AND DIFFUSERS IS FIVE FEET. FLEXIBLE DUCTWORK SHALL BE RUN WITH SMOOTH BENDS SO AS TO NOT RESTRICT AIR FLOW.

6. PROVIDE INSULATION FOR SUPPLY, RETURN, EXHAUST, AND OUTSIDE AIR DUCTS LOCATED IN CEILING PLENUMS AND OTHER CONCEALED, NONCONDITIONED SPACES. THE INSULATION SHALL BE 1" THICK GLASS FIBER WITH FOIL VAPOR BARRIER. PROVIDE RIGID BOARD INSULATION FOR DUCTWORK EXPOSED TO PUBLIC VIEW.

7. PROVIDE 3M FIRE BARRIER CP 25WB CAULK AROUND ALL PIPE AND DUCT PENETRATIONS THROUGH FIRE RATED WALLS AND FLOOR SLABS.

8. ALL EXPOSED DUCTWORK SHALL BE "HARD PIPED" AND NEATLY INSTALLED PLUMB AND SQUARE.

9. EXHAUST LOUVERS / FANS MUST NOT BE LOCATED WITHIN TEN FEET OF ANY INTAKE LOUVER ON THE EXTERIOR WALL.

UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL HAVE ALL AIR SYSTEMS BALANCED TO INDICATED FLOW RATES BY A CERTIFIED "AABC" BALANCING CONTRACTOR.

EXHAUST FAN SCHEDULE

MARK	SERVING	CFM	SP	WATTS HP	RPM	VOLTAGE	MAKE MODEL	NOTES	FAN TYPE
EF-1	RESTROOM	80	.25"	.167	975	120/60/1	COOK 100ACEB		IN-LINE
EF-2	LAUNDRY ROOM	80	.25"	.167	975	120/60/1	COOK 100ACEB		IN-LINE
NOTES 1. COMPLETE W/BACKDRAFT DAMPER. 2. PROVIDE THERMOSTATIC CONTROL DEVICES 3. INTERLOCK TO OPERATE WHENEVER RTU'S OPERATE. 4. MAINTAIN A MINIMUM CLEARANCE OF 10'-0" FROM ALL INTAKE AIR FANS AND ALL ROOF TOP UNITS OUTSIDE AIR INTAKE OPENINGS.									

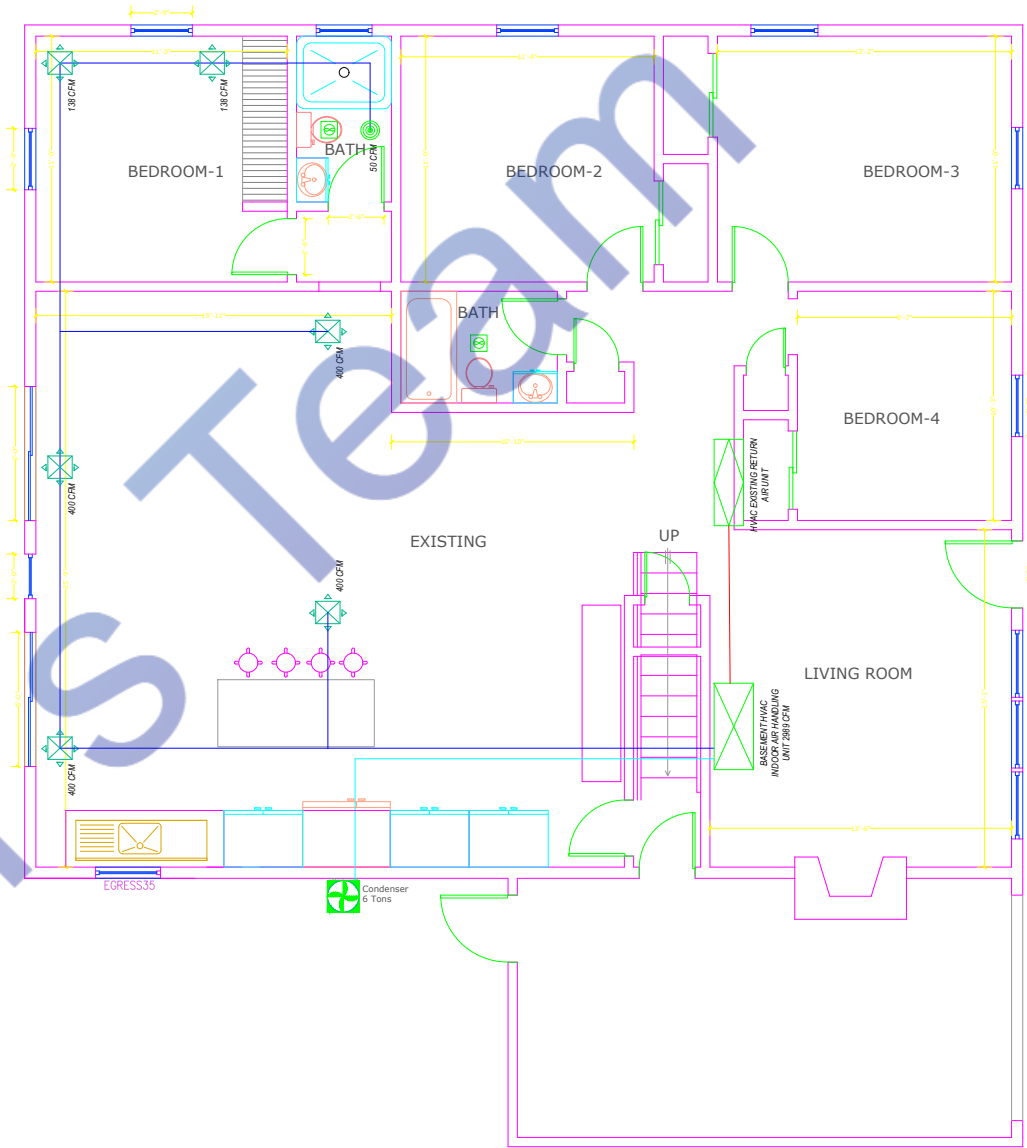
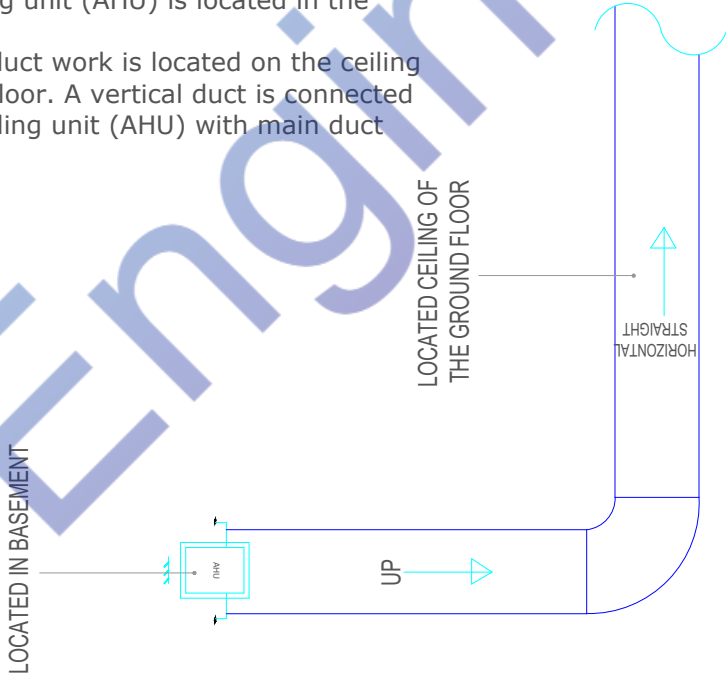
AIR DISTRIBUTION DEVICE SCHEDULE

MARK	DESCRIPTION NECK SIZE	MOUNTING	MANUFACTURER CATALOG NO. TITUS	MATERIAL	FINISH	ACCESSORIES REMARKS
D-1	SUPPLY DIFFUSER	LAY-IN	TMS	STEEL	WHITE	24"x24" MODULE FRAME TYPE 3 OPPOSED BLADE DAMPER
D-2	24" x 24"	LAY-IN	TMS	ALUMINUM	WHITE	24"x24" PERFORATED GRID FRAME TYPE 3 OPPOSED BLADE DAMPER

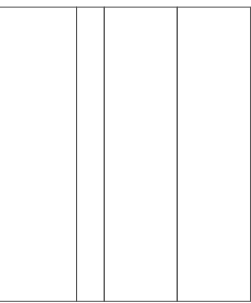
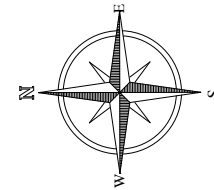
Note:

The air handling unit (AHU) is located in the basement.

And the main duct work is located on the ceiling of the ground floor. A vertical duct is connected to the air handling unit (AHU) with main duct work.



HVAC PLAN



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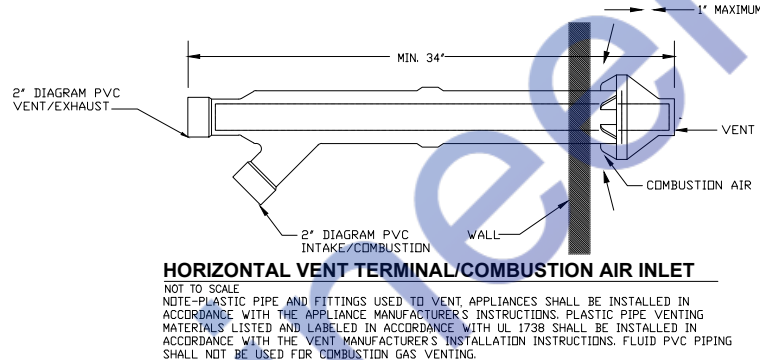
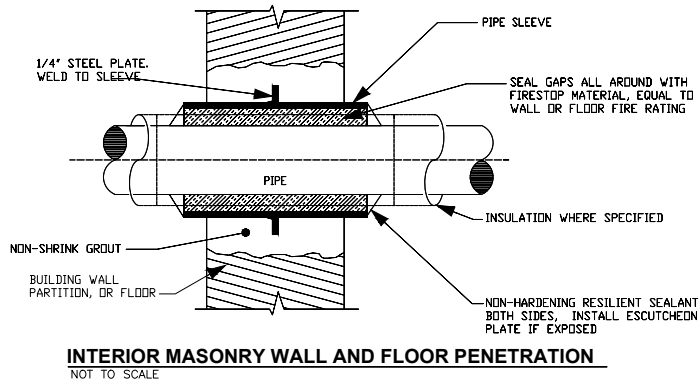
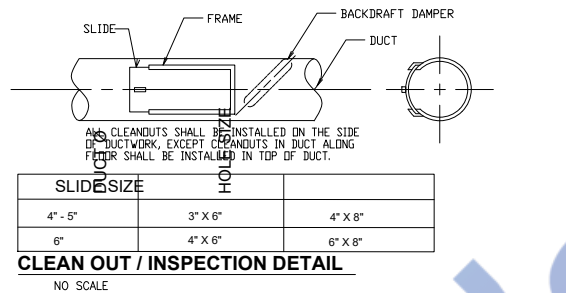
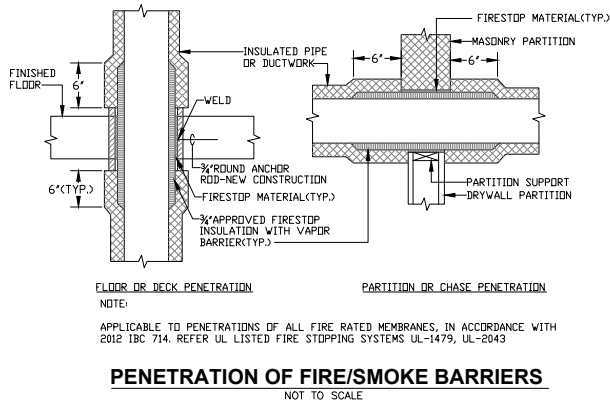
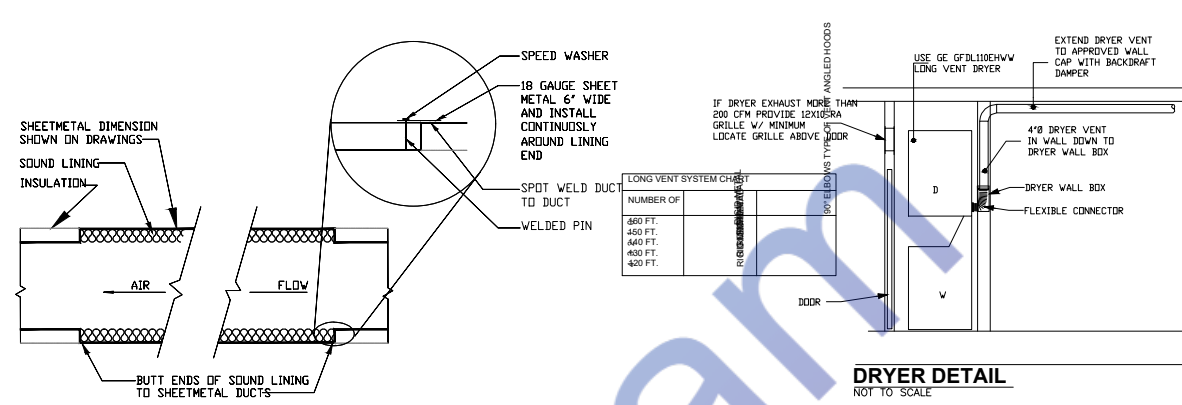
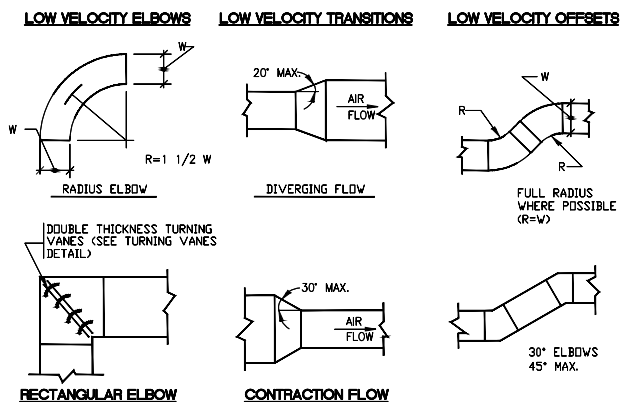
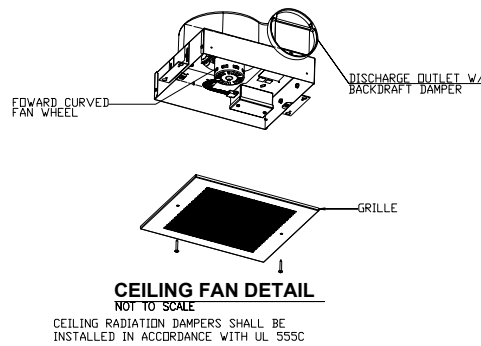
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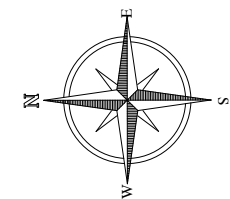
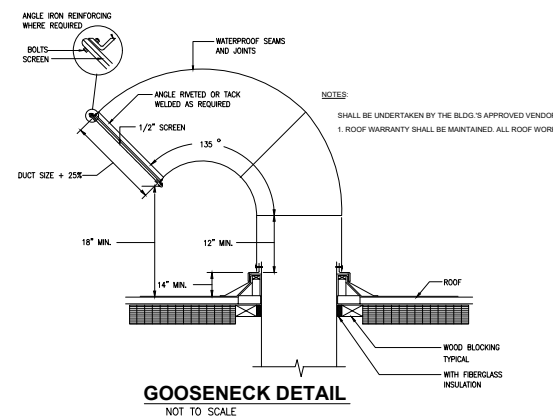
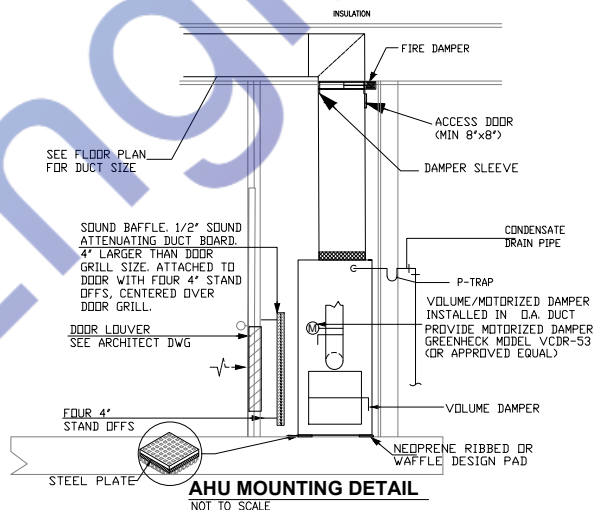
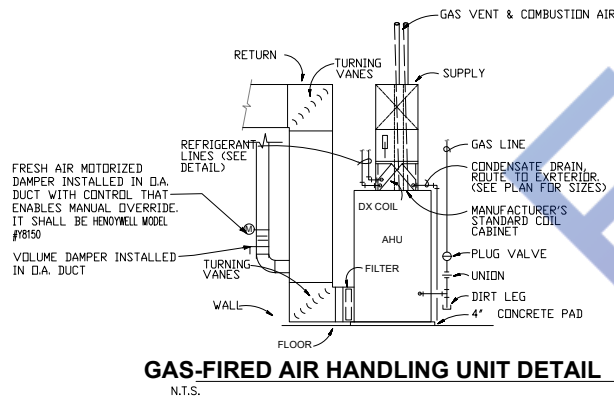
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RESIDENTIAL GRILLES & REGISTERS SCHEDULE							
DESIG	TYPE (REFER TO DETAILS)	SERVICE	AIR FLOW RANGE (CFM)	NOMINAL SIZE/ DESCRIPTION (INCH)	INLET/ NECK SIZE (IN)	BASIS OF DESIGN/REMARKS	
A	REGISTER	SA	0-50	6x4	4"	300RL, BORDER TYPE A	
B	REGISTER	SA	51-100	6x6 OR 10x4	6"	300RL, BORDER TYPE A	
C	REGISTER	SA	101-150	10x6	7"	300RL, BORDER TYPE A	
D	REGISTER	SA	151-200	12x6	8"	300RL, BORDER TYPE A	
E	REGISTER	SA	201-250	14x6	9"	300RL, BORDER TYPE A	
F	RG	RA/EA	0-100	6x6	6x6	350RL, BORDER TYPE A	
G	RG	RA/EA	101-200	8x8	8x8	350RL, BORDER TYPE A	
H	RG	RA/EA	201-300	10x10	10x10	350RL, BORDER TYPE A	
I	RG	RA/EA	301-450	12x12	12x12	350RL, BORDER TYPE A	
J	RG	RA/EA	451-600	14x14	14x14	350RL, BORDER TYPE A	
K	RG	RA/EA	601-800	16x16	16x16	350RL, BORDER TYPE A	
L	RG	RA/EA	801-1100	18x18	18x18	350RL, BORDER TYPE A	
M	RG	RA/EA	1101-1300	20x20	20x20	350RL, BORDER TYPE A	
N	RG	RA/EA	1301-1600	22x22	22x22	350RL, BORDER TYPE A	

NOTES:  
1. REFER TO ARCHITECT DRAWINGS FOR TYPE OF CEILING.  
2. MODEL NUMBERS IN "BASIS OF DESIGN" ARE TITUS.  
3. PROVIDE HEAVY DUTY FRAME AND CORE WHERE MOUNTED IN FLOORS.  
4. PROVIDE WITH FIRE DAMPER FOR UL LISTED CEILING.  
5. PROVIDE ROUND TO SQUARE ADAPTOR BOOT.



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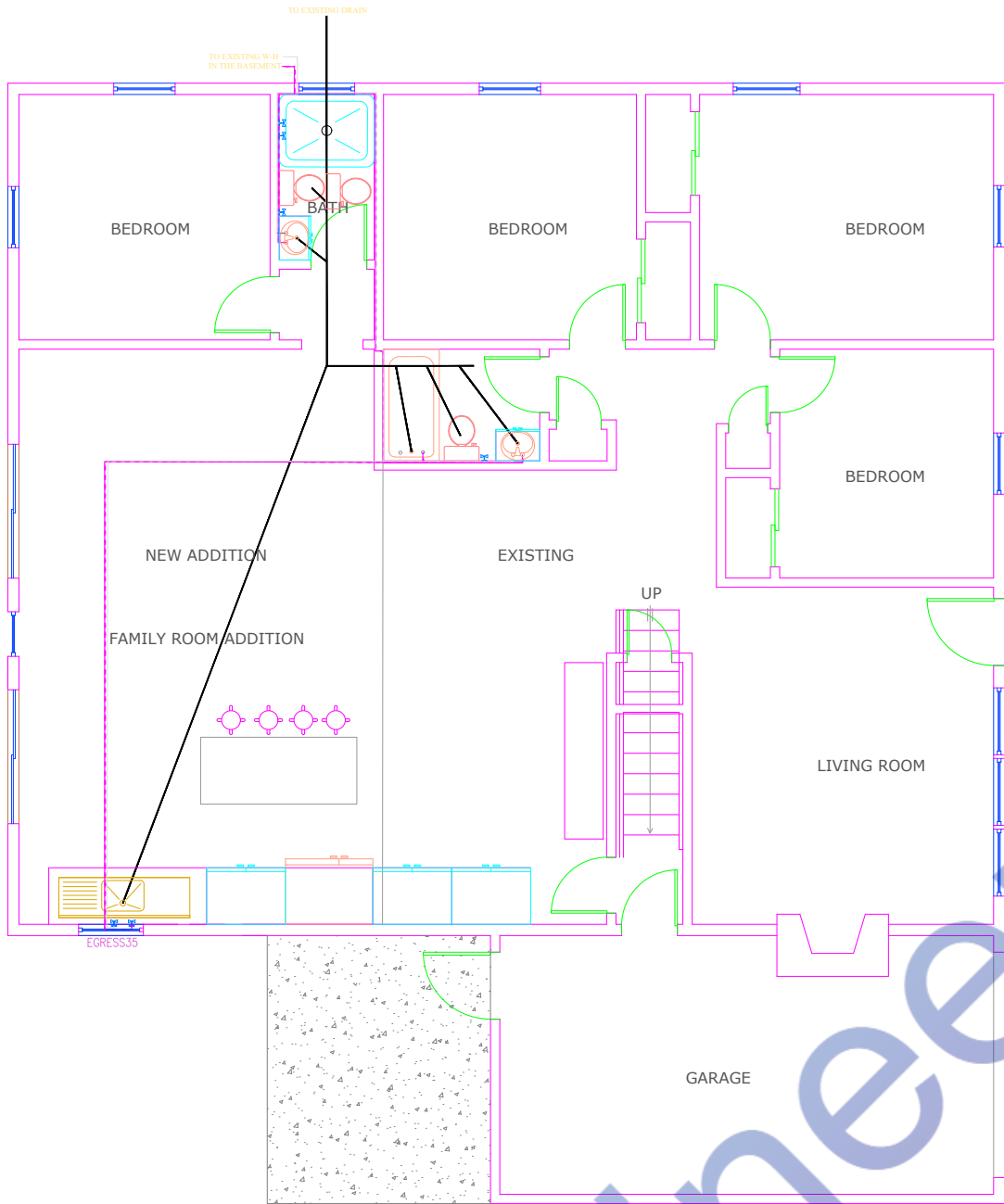
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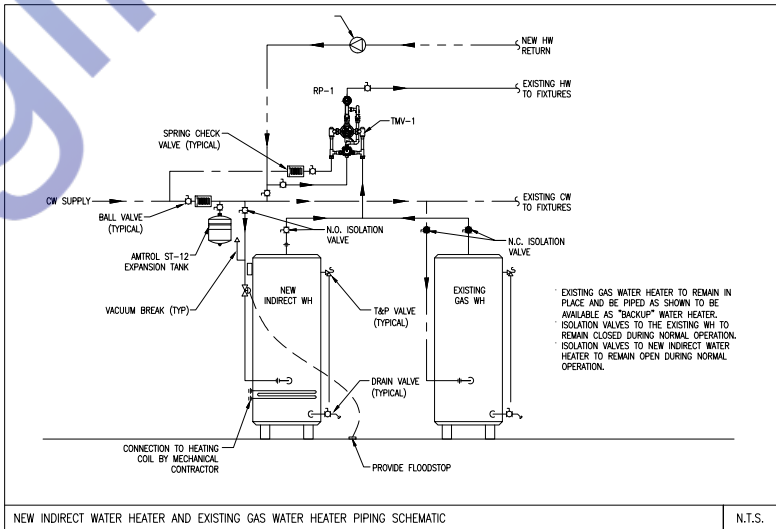
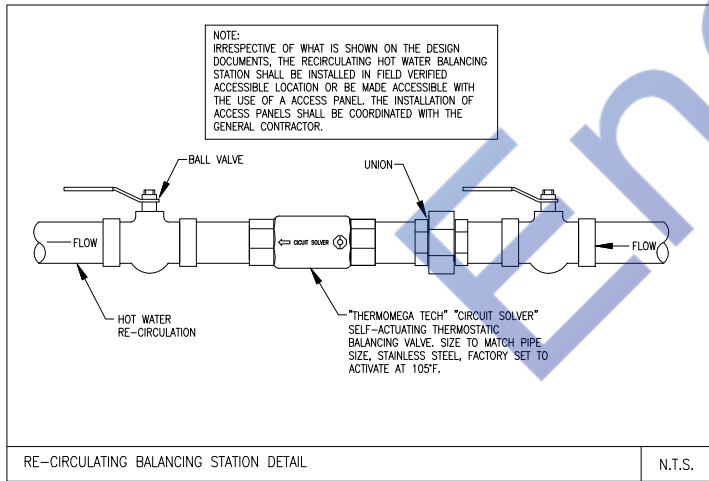
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Watermarkly H2



PLUMBING PLAN



### SCHEDULE OF WATER HEATER

DESIGNATION	NAME	LOCATION	DESCRIPTION
WH-1	INDIRECT WATER HEATER	AS NOTED	"TRIANGLE TUBE" SMART 120, 120 GALLON INDIRECT WATER HEATER, 300 MBH BOILER OUTPUT AT 180° WATER, 400 GPH RECOVERY @90° RISE

### SCHEDULE OF MIXING VALVE

DESIGNATION	NAME	LOCATION	DESCRIPTION
TMV	THERMOSTATIC MIXING VALVE	AS NOTED	"LEONARD" TM-420B-LF-DT THERMOSTATIC HI-LO MIXING VALVE, 3/4" INLET/OUTLETS, 49GPM MAX FLOW @10PSI DROP, 1GPM MIN FLOW

### SCHEDULE OF CIRCULATOR PUMPS

DESIGNATION	NAME	LOCATION	DESCRIPTION
RP-1	HW RECIRC. PUMP	AS NOTED	"GRUNDFOS" ALPHA 15-55SF 4" GPM @ 14' HD; 1/8 HP, 120/1/60, 45W MAX, COMPLIANT WITH NSF161

- FOR EXACT LOCATION OF PLUMBING FIXTURES SEE ARCHITECTURAL DRAWINGS.
- EXAMINE ALL CONTRACT DRAWINGS, GENERAL CONDITIONS AND SPECIFICATIONS WHICH MAY AFFECT THE WORK.
- ALL PLUMBING WORK MUST BE COORDINATED WITH ALL OTHER TRADES BEFORE PROCEEDING WITH INSTALLATION.
- CHECK INVERT ELEVATIONS OF ALL OUTSIDE UTILITIES BEFORE INSTALLING ANY UNDERGROUND.
- NO CHANGES ARE TO BE MADE IN PLUMBING LAYOUT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.
- NO PIPING SHALL RUN EXPOSED IN FINISHED AREAS.
- IRRESPECTIVE OF WHAT IS IDENTIFIED ON THE DRAWINGS, ALL PLUMBING SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE LOCAL AND STATE PLUMBING CODES.
- ROUGH-IN DIMENSIONS OF TOILET FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR.
- INSTALL ALL HOT AND COLD WATER PIPING AS PER SPECIFICATIONS.
- INSTALL SHUTOFF VALVES ON ALL BRANCH SUPPLY LINES AND AT THE BASE OF HOT AND COLD WATER RISERS.
- ALL ACCESS PANELS SHALL BE BY GENERAL CONTRACTOR. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING THEIR LOCATIONS.
- INSTALL ALL FLOOR CLEANOUTS TO CLEAR EQUIPMENT.
- THE PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND CHARGES IN CONNECTION WITH THEIR WORK.
- THE PLUMBING CONTRACTOR SHALL PROVIDE WATERTIGHT SLEEVES FOR ALL PIPES PASSING THROUGH BASEMENT WALLS.
- INSTALL CLEANOUTS AT THE BASE OF ALL SANITARY STACKS.
- INSTALL ALL HORIZONTAL RUNS OF PIPING AS HIGH AS POSSIBLE, PITCH ALL WATER PIPING TO DRAIN, PROVIDE DRAW OFFS AT ALL LOW POINTS.
- PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO OUTSIDE UTILITIES AS NEEDED.
- IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR WORK THAT MAY HAVE BEEN AVOIDED BY EXAMINING THE EXISTING PIPING ARRANGEMENTS.
- PRIOR TO COMMENCEMENT OF WORK AND UPON COMPLETION OF PIPING INSTALLATION, THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A VIDEO INSPECTION OF THE EXISTING AND NEWLY INSTALLED WASTE LINES SERVING THE BUILDING. THE PLUMBING CONTRACTOR SHALL PROVIDE THE BUILDING OWNER A DIGITAL OR VIDEO TAPED COPY OF THE INSPECTION FINDINGS.
- NO ADDITIONAL COMPENSATION WILL BE CONSIDERED FOR CHANGES REQUIRED DUE TO LACK OF ADHERENCE TO THE LOCAL AND STATE PLUMBING CODES.

#### GENERAL NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXISTING PIPING SERVING FIXTURES AND/OR CONNECTIONS TO EQUIPMENT WHICH ARE SHOWN ON PLAN TO BE REMOVED.
- FIELD VERIFY POINTS OF NEW CONNECTION TO EXISTING PRIOR TO PERFORMING WORK AND PURCHASING MATERIALS.
- ALL DEMOLITION WORK SHALL BE PERFORMED IN A SAFE AND ACCEPTABLE MANNER TO THE A/HU AND BUILDING OWNER.
- ALL DRAINAGE AND VENT PIPING REMOVAL SHALL BE PERFORMED SUCH THAT NO "DEAD ENDS" EXIST WHEN DEMOLITION IS COMPLETE.
- REMOVE ALL PORTIONS OF PIPING EXPOSED DURING DEMOLITION INCLUDING BUT NOT LIMITED TO WATER, SANITARY WASTE, CONDENSATE WASTE, SANITARY VENT, AND FUEL GAS PIPING. ANY EXPOSED PIPING NOT REQUIRED TO STAY IN OPERATION SHALL HAVE THE EXPOSED PORTION REMOVED AND OPEN ENDS CUT, CAPPED, AND MADE SAFE.
- REMOVE SINKS, TRIM, AND ALL PIPING SERVING SINKS AS NOTED ON PLAN.
- REMOVE LAVATORIES, LAVATORY TRIM, AND ALL PIPING SERVING LAVATORIES AS NOTED ON PLAN.
- REMOVE WATER CLOSETS, WATER CLOSET TRIM, AND ALL PIPING SERVING WATER CLOSET AS NOTED ON PLAN.
- REMOVE EXISTING DOMESTIC HOT WATER GENERATION SYSTEM AND ALL ANCILLARY COMPONENTS.
- THE CONTRACTOR SHALL NOT CONSIDER DEMOLITION NOTES AND PLAN TO BE ALL INCLUSIVE. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR WORK THAT MAY HAVE BEEN AVOIDED BY EXAMINING THE EXISTING PIPING ARRANGEMENTS.

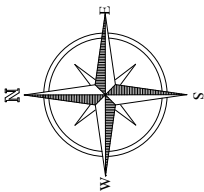
#### GENERAL DEMOLITION NOTES

## PLUMBING LEGEND

- BALL VALVE (BV)
- GATE VALVE (GV)
- MIXING VALVE (MV)
- FLOOR CLEAN OUT (FCO)
- FLOOR DRAIN (FD)
- HUB DRAIN (HD)
- FLOOR SINK (FS)
- PIPE TURNING UP
- PIPE TURNING DOWN
- EXISTING PIPE
- NEW PIPE

## LINES TYPE LEGEND

	COLD WATER LINE (CW)
	HOT WATER LINE (HW)
	SEWER LINE (S)



EXISTING PLAN OF  
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PLUMBING PLAN

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## ACCESSIBILITY NOTES

- THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOM FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATING THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
- RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15" ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
- ALL ACCESSIBILITY NOTES COMPLY WITH ICC/ANSI A117.1 1998
- DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (i.e. LEVER-OPERATED, PUSH-TYPE, U-SHAPED) MOUNTED NO HIGHER THAN 48" ABOVE THE FLOOR.
- GRAB BARS REQUIRED FOR ACCESSIBILITY SHALL BE 1.25"-1.50" IN DIAMETER WITH 1.5" CLEAR SPACE BETWEEN THE BAR AND THE WALL.
- WATER CLOSET LEVER HANDLE SHALL BE ON THE CLEAR FLOOR SPACE SIDE.
- HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER ACCESSIBLE LAVATORIES AND SINKS.
- ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (i.e. LEVER-OPERATED, PUSH-TYPE, ELECTRONICALLY CONTROLLED.)
- THE WATER CLOSET IS REQUIRED TO BE IN A CORNER OF A ROOM ADJACENT TO A WALL. EIGHTEEN INCHES SHALL BE PROVIDED FROM THE CENTERLINE OF THE WATER CLOSET TO THE ADJACENT WALL.
- MIRROR MOUNTED ABOVE SINKS SHALL HAVE BOTTOM EDGE OF THE REFLECTING SURFACE 38" MAXIMUM ABOVE THE FLOOR.

## PLUMBING GENERAL NOTES

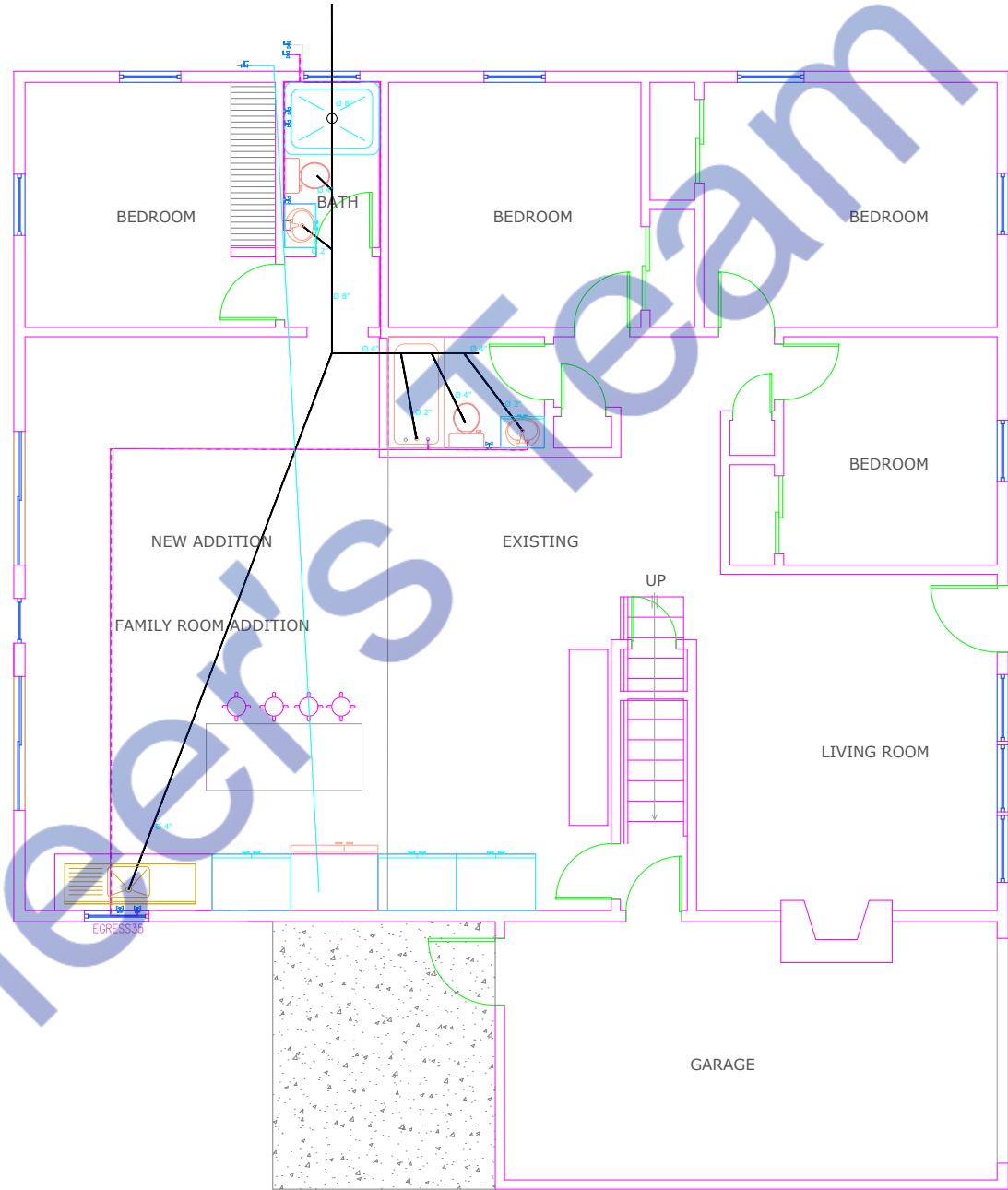
- A. CONTRACTOR TO VERIFY SIZE AND LOCATION OF SANITARY SEWER/VENT AND COLD/HOT WATER PIPES PRIOR TO STARTING WORK.
- B. EXISTING UTILITIES AND EQUIPMENT NOT SHOWN OR NOT SHOWN TO BE REPLACED SHALL REMAIN IN SERVICE DURING CONSTRUCTION.
- C. CONTRACTOR SHALL STORE AND PROTECT ALL EQUIPMENT THAT IS BEING RELOCATED. CONTRACTOR SHALL REPLACE ALL DAMAGED EQUIPMENT AT CONTRACTOR'S EXPENSE.
- D. MIRROR, PAPER TOWEL DISPENSER, AND SOAP DISPENSER TO BE PLACED AFTER WALL IS FINISHED WITH TILES. SEAL AROUND MIRROR, PAPER TOWEL DISPENSER, AND SOAP DISPENSER WITH CAULK.

## PLUMBING LEGEND

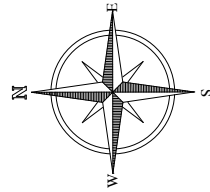
- BALL VALVE (BV)
- GATE VALVE (GV)
- MIXING VALVE (MV)
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- FLOOR DRAIN (FD)
- HUB DRAIN (HD)
- FLOOR SINK (FS)
- PIPE TURNING UP
- PIPE TURNING DOWN
- EXISTING PIPE
- NEW PIPE

## LINES TYPE LEGEND

	COLD WATER LINE (CW)
	HOT WATER LINE (HW)
	SEWER LINE (S)



PLUMBING PLAN



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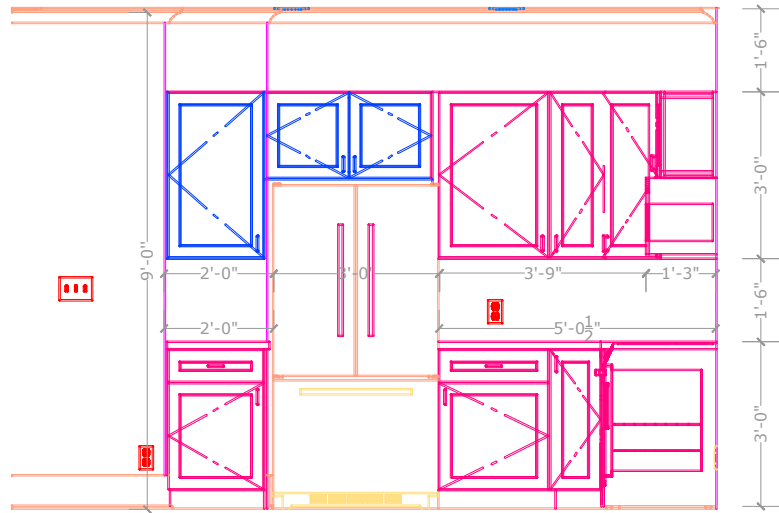
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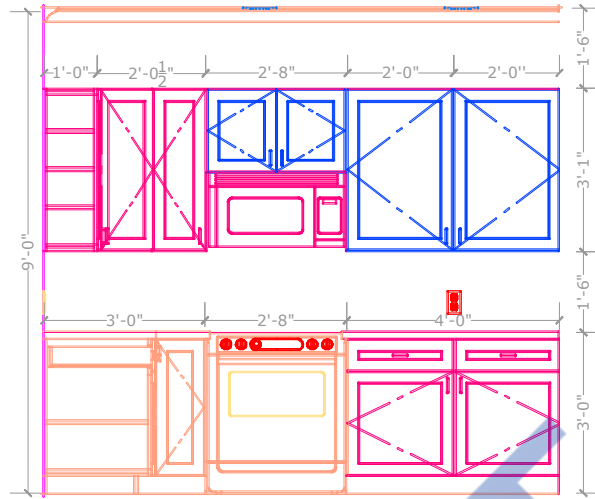
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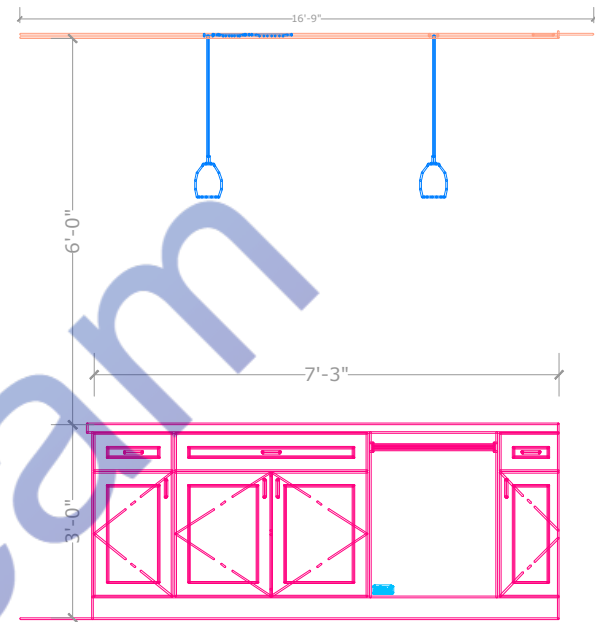




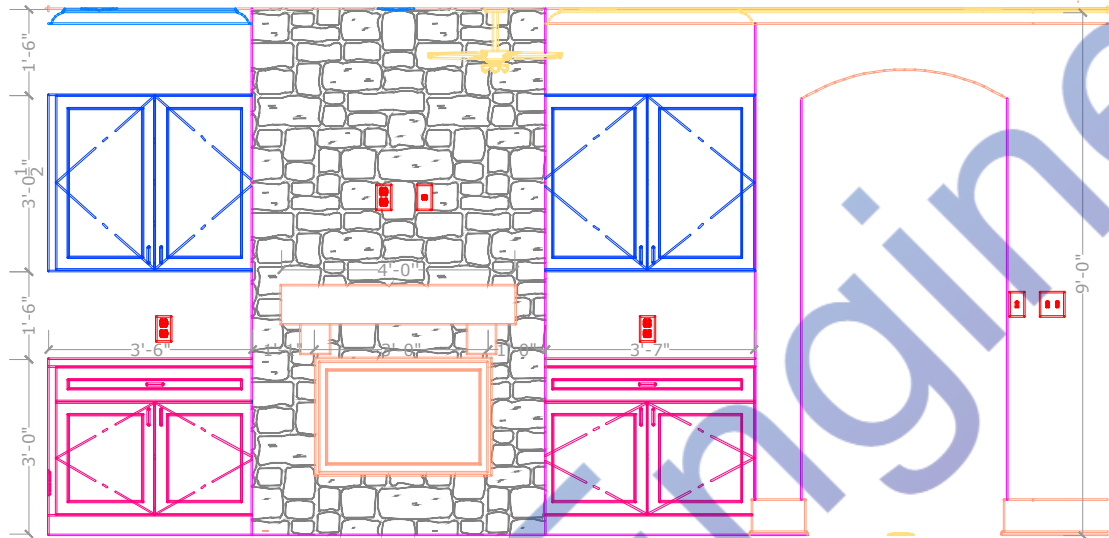
KITCHEN 1



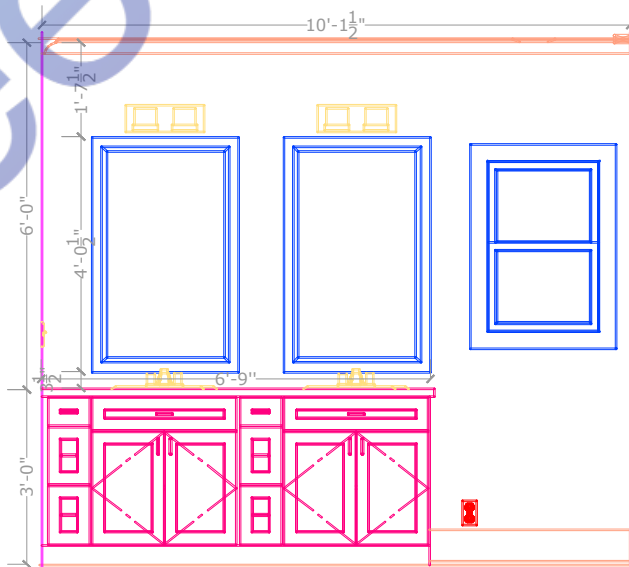
KITCHEN 2



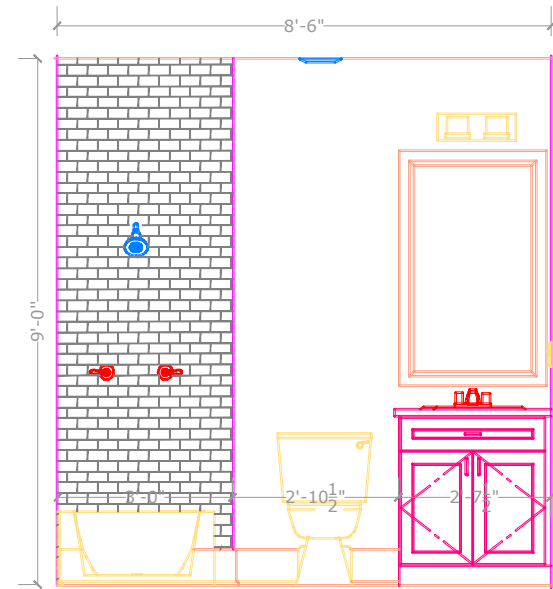
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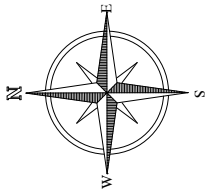
LIVING ROOM 1



MASTER 1



BATH 1



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