DESIGN CRITERIA

FLOOR = 40# L.L. 20# D.L. ALL AREAS

ATTIC FLOOR = 30# L.L. 10# D.L. ATTIC ONLY UN-OCCUPPIED WALL = 20# P.S.F. OR ACTUAL LOAD WALL = 60# P.L.F. OR ACTUAL LOAD

CEILING = 20# L.L. 10# D.L. ROOF SLOPES OVER 3" IN 12"

ROOF = 30# L.L. 15# D.L. ALL SLOPES CATHEDRAL = 30# L.L. 15# D.L. ALL SLOPES

EXT. DECK = 100# L.L. 35# D.L. EXTERIOR (INCLUDES 25 PSF FOR PAVERS) BALCONY = 100# L.L. 10# D.L. EXTERIOR

LATERAL LOAD = 20# P.S.F. MAIN WIND FORCE RESISTING SYSTEM (WIND) = 25# P.S.F. AT CORNER & CLADDING COMPONENTS

INT. STAIRS = 40# L.L. 10# D.L. INTERIOR

STRUCTURAL FRAMING LUMBER

FLOOR JOISTS, CEILING JOISTS, HEADERS, AND RAFTERS IN-GRADE BASE VALUE (USE NO MULTIPLIERS AGAINST BASE VALUE)

GRADE # SP #2 OR BETTER

SPECIES CANADIAN

CANADIAN BASE E=1.4 X 10⁶

REQUIRED CRIPPLES		
REQUIRED CRIPPLES	CONVENTIONAL	MICRO LAM. / FLITCH
SPANS < 8 FEET	1 CRIPPLE	2 CRIPPLES
SPANS > 8 FEET	2 CRIPPLES	3 CRIPPLES

MECHANICAL NOTES:

1. ALL FURNACES TO BE MIN. 90% EFFICIENT WITH VENT & INTAKE (2) PIPE SYSTEM, EQUIPPED W/HUMIDIFIER & DEHUMIDIFICATION. PROVIDE MAKE-UP ARE DIRECTLY FROM OUTSIDE. PROVIDE

- SUFFICIENT INTAKE OF COMBUSTION AIR

 2. ALL DUCT PENETRATIONS IN MECH. ROOM WALLS
 & CEILINGS TO BE SEALED & FIRE CAULKED.

 3. REFER TO HVAC GENERAL NOTES FOR ADDITIONAL
- REQUIREMENTS.

 4. PROVIDE SHUT-OFF SWITCH FOR ALL FURNACES

 5. PROVIDE DRAIN PAN WITH A WATER-LEVEL
 MONITORING DEVICE INSTALLED INSIDE THE
 PRIMARY DRAIN PAN TO SHUT OFF THE
 EQUIPMENT SERVED IN THE EVENT THE PRIMARY
- DRAIN BECOMES RESTRICTED.

 6. PROVIDE 30" X 30" CLEAR ACCESS SPACE AT SERVICE SIDE OF APPLIANCE

APPLIANCE AND EQUIPMENT NOTE:
ALL EQUIPMENT AND APPLIANCES, INCLUDING
THE AIR CONDITIONERS, WATER HEATERS, AND
FURNACES, SHALL BE INSTALLED IN
ACCORDANCE WITH THEIR LISTINGS AND THE
MANUFACTURERS' INSTALLATION INSTRUCTIONS.
A COPY OF THE MANUFACTURERS' INSTALLATION
INSTRUCTIONS MUST BE PROVIDED ON SITE
FOR EACH INSPECTION.

FRAMING NOTES:

- 1. FLOOR FRAMING INDICATED ON THIS SHEET IS MEANT TO BE DIAGRAMMATIC ONLY. EXACT JOIST COUNT AND LOCATIONS TO BE DETERMINED IN THE FIELD OR BY JOIST MANUFACTURER OR SHOP DRAWINGS.
- 2. ALL CRIPPLES AND POSTS SUPPORTING BEAMS, HEADERS, CONCENTRATED LOADS, ETC. SHALL BE FULL WIDTH OF MEMBER SUPPORTED AND SHALL BE CONTINUOUS DOWN TO TOP / STEEL BEAM OR TOP / FOUNDATION WALL.
- 3. DOUBLE UP FLOOR JOISTS UNDER ALL PARALLEL PARTITIONS AND BATH TUBS.4. JOISTS FRAMING INTO THE SIDE OF A WOOD GIRDER SHALL BE SUPPORTED BY APPROVED FRAMING ANCHORS OR ON LEDGER STRIPS NOT LESS THAN NOMINAL 2" BY 2"
- 5. FLOOR LOADS ARE DESIGNED FOR 40# L.L. & 20# D.L. FLOORS ARE NOT DESIGNED FOR THICKER THAN 3/8" INTERIOR STONE. PRIOR TO INSTALL, ALL STONE SHOULD BE REVIEWED FOR DEFLECTION REQUIREMENTS BY CONTRACTOR FOR STONE INDUSTRY STANDARD REQUIREMENTS.
- 6. ALL CORNERS TO HAVE A MIN. OF THREE STUDS.
- 7. ALL HEADERS SPANNING OPENINGS ABOVE DOORS, WINDOWS, ETC. SHALL BE THE TYPE, SIZE AND QUANTITY INDICATED ON THE PLAN WHERE NOT INDICATED ON THE PLAN, SIZE AS FOLLOWS: TYPICAL HEADER = (2) 2X12, U.N.O.; BUILT UP COLUMN = (3) STUD POST TO MATCH STUD DEPTH, WITH (2) JACK AND (1) KING POST, U.N.O. ALL POSTS MUST BEAR DIRECTLY ON LOAD BEARING WALLS, POSTS BELOW, OR BEAMS TO TRANSFER TO
- FOUNDATION. BLOCK DOWN THROUGH FLOOR OR WALL CAVITIES WHERE NECESSARY

 8. ALL HEADERS SHALL BE DROPPED BELOW THE FRAMING BEING SUPPORTED UNLESS
- NOTED OTHERWISE ON THE PLANS.

 9. HEADERS AND GIRDERS FOR EXTERIOR WALLS SHALL BE PROVIDED PER THE
- REQUIREMENTS OF THE CHICAGO BUILDING CODE.

 10. WHERE POSTS AND BEAM OR GIRDER CONSTRUCTION IS USED TO SUPPORT FLOOR FRAMING, POSITIVE CONNECTIONS SHALL BE PROVIDED TO ENSURE AGAINST UPLIFT AND LATERAL DISPLACEMENT.
- 11. WALL BRACING SHALL BE PROVIDED PER THE REQUIREMENTS OF THE CHICAGO BUILDING CODE.
- 12. WHERE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL)
 HEADERS HAVE BEEN INDICATED, IT SHALL BE CLEARLY UNDERSTOOD THAT ABSOLUTELY
 NO SUBSTITUTIONS SHALL BE PERMITTED.
- 13. ALL WOOD CUTTING AND NOTCHING TO FOLLOW THE CHICAGO BUILDING CODE, REFERENCE GENERAL NOTES SHEET, SECTION "ROUGH CARPENTRY" FOR ADDITIONAL INFORMATION & REQUIREMENTS.
- 14. ALL PENETRATIONS BETWEEN LEVELS AND ROOF SPACE AS WELLS AS SOFFITS, DROPPED CEILINGS, CHIMNEYS, FIREPLACES, ETC.. SHALL BE FIRESTOPPED PER THE CHICAGO BUILDING CODE.
- 15. ALL WOOD CUTTING AND NOTCHING TO FOLLOW THE CHICAGO BUILDING CODE. WHEN CUTTING OF WALL PLATES EXCEEDS ½, REINFORCE WALL WITH 24 GA. METAL ANGLES.

 16. PROVIDE PRESSURE PRESERVATIVE TREATED WOOD, WOLMANIZED, MATERIAL AT ALL LOCATIONS WHERE WOOD CARPENTER FRAMING COMES IN CONTACT WITH CONCRETE.
- 17. ALL FASTENERS AND CONNECTORS IN CONTACT WITH TREATED WOOD SHALL BE HOT DIPPED GALVANIZED, SILICON BRONZE, STAINLESS, OR EQUAL IN CORROSION RESISTANCE. THIS APPLIES TO ALL ITEMS LESS THAN 1/2" IN THICKNESS OR DIAMETER (INCLUDING NAILS AND SCREWS).
- 18. WIND UPLIFT CLIPS ARE REQUIRED PER CODE FOR RAFTER TO WALL CONNECTIONS WHERE THE ROOF RAFTER DOES NOT INTERSECT & IS NOT FASTENED TO THE CEILING JOIST AT THE TOP WALL PLATE CONNECTION. A CONTINUOUS LOAD PATH SHALL BE PROVIDED TO TRANSMIT THE UPLIFT FORCES FROM THE RAFTER TIES TO THE FOUNDATION.
- 19. PROVIDE 2X12 @ 24" O.C. LADDER FRAMING WHERE JOISTS RUN PARALLEL TO FOUNDATION WALL, PER CODE.
- 20. INTERIOR WALLS PROVIDE 3 1/2" BATT INSULATION FOR SOUND ATTENUATION AT POWDER, BATH, LAUNDRY, SUMP & EJECTOR PIT INTERIOR WALLS, CEILINGS, AND FLOORS WHERE INTERIOR ROOMS OR HALLS ARE ADJACENT, ABOVE OR BELOW. ALSO PROVIDE IN WALLS AROUND PLUMBING VERTICAL DRAIN PIPES.

STAIR AND HANDRAIL/GUARDRAIL NOTES:

- 1. RISER HEIGHT NOT TO EXCEED 8" OF RISE.
- 2. TREAD WIDTH NOT TO BE LESS THEN 9" NOSE TO NOSE.

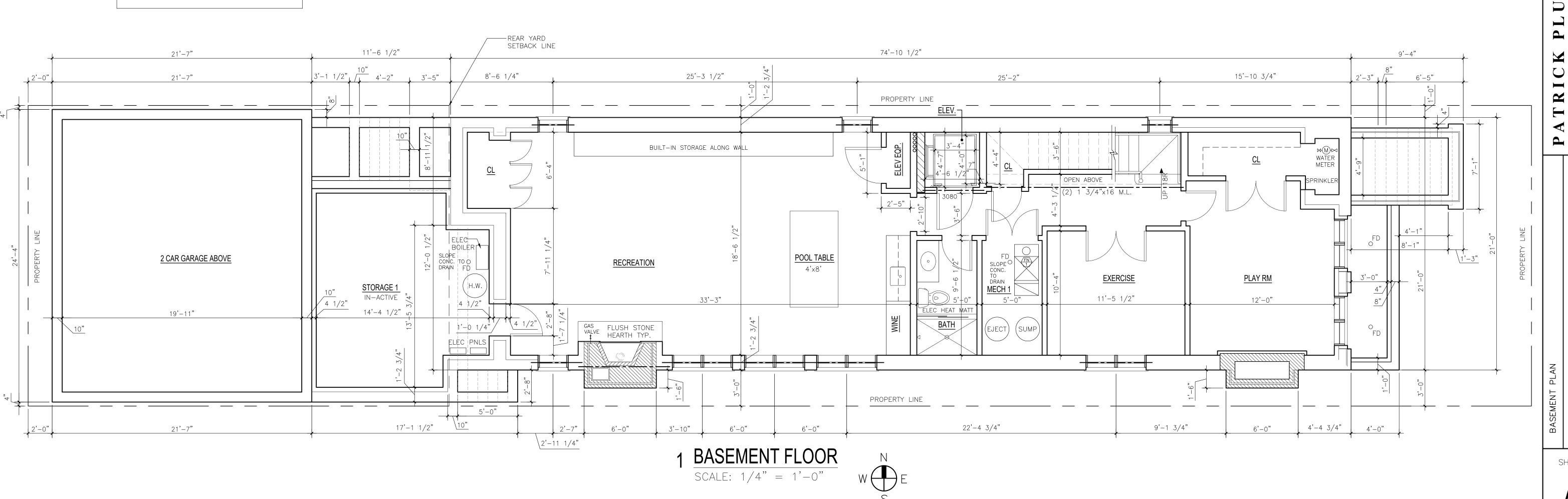
 3. MINIMUM HEAD ROOM OF 6'-8" VERT. FROM TREAD NOSE.
- 4. THE RADIUS AT THE NOSING SHALL BE NO GREATER THAN 9/16". NOSING TO BE 3/4" TO 1 1/4" ON STAIRWAYS WITH SOLID RISERS. THERE SHALL BE NO GREATER THAN 3/8" VARIATION BETWEEN NOSING LENGTHS BETWEEN TWO STORIES, INCLUDING THE NOSING AT THE LEVEL OF FLOORS AND LANDINGS. BEVELING OF NOSINGS SHALL NOT EXCEED 1/2".
- 5. STAIR WINDER TREADS SHALL HAVE A MIN. TREAD DEPTH OF 6" AT ANY POINT & SHOULD HAVE A MIN. TREAD DEPTH OF 10" MEASURED AS ABOVE AT A POINT 12" FROM THE SIDE WHERE THE TREADS ARE NARROWER.
- 6. ALL HANDRAILS TO BE CONTINUOUS AND MAINTAIN A HEIGHT OF 34" TO 38" A.F.F. & GUARDRAIL 36" A.F.F.
- 7. HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1 1/4" AND NOT GREATER THAN 2". IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4" AND NOT GREATER THAN 6 1/4" WITH A MAXIMUM CROSS SECTION OF DIMENSION OF 2 1/4". EDGES SHALL HAVE A MINIMUM RADIUS OF 0.01"
- 8. BALUSTERS OR ORNAMENTAL CLOSURES MUST BE OF A DESIGN, WHICH WILL NOT ALLOW A 4" SPHERE TO PASS THROUGH, HORIZONTAL RAILS OR OTHER PATTERNS WITH A LADDER EFFECT ARE NOT PERMITTED.
- 9. DESIGN TO RESIST A VERTICAL & HORIZONTAL THRUST OF 50 LBS./ FT APPLIED AT TOP
- OF RAILING OR A CONCENTRATED LOAD OF 200 LBS. IN ANY DIRECTION.

 10. PROVIDE AT LEAST ONE CONTINUOUS, GRASPABLE HANDRAIL 1 1/4" TO 2" AT EACH CONTINUOUS RUN OF TREADS WITH (4) FOUR OR MORE RISERS AT INTERIOR AND EXTERIOR. RETURN END OF HANDRAILS TO WALL OR NEWEL POST, MINIMUM CLEARANCE OF 1 1/2" BETWEEN WALL AND HANDRAIL IS REQUIRED.
- 11. PROVIDE GUARDRAILS REQUIRED FOR INTERIOR AND EXTERIOR SURFACES 30" OR MORE ABOVE FLOOR. PORCHES, BALCONIES, DECKS OR EXTERIOR RAISED FLOOR SURFACES 8 FEET OR MORE ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE A 36" HIGH GUARDRAIL, FOR A SINGLE FAMILY RESIDENCE.
- 12. UNDER—STAIR PROTECTION & ENCLOSED SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER—STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 5/8" GYP. BD. & FIRE STOPPED

MECHANICAL/PLUMBING NOTES:

- 1. ALL EQUIPMENT AND APPLIANCES, INCLUDING THE AIR CONDITIONERS, WATER HEATERS, AND FURNACES, SHALL BE INSTALLED IN ACCORDANCE WITH THEIR LISTINGS AND THE MANUFACTURERS' INSTALLATION INSTRUCTIONS. A COPY OF THE MANUFACTURERS' INSTALLATION INSTRUCTIONS MUST BE PROVIDED ON SITE FOR EACH INSPECTION.
- 2. FIREPLACES TO HAVE AN APPROVED DAMPER, A NON COMBUSTIBLE HEARTH 20" IN FRONT & 12" ON SIDES OF OPENING; MIN. 2" CLEARANCE FROM COMBUSTIBLE CONSTRUCTION; FIREPLACE SHALL CONFORM TO LOCALLY ADOPTED CODES AND AMENDMENTS.
- 3. WATER, SOIL, AND WASTE PIPES SHALL NOT BE INSTALLED OUTSIDE OF BUILDING, IN ATTICS OR CRAWL SPACES, CONCEALED IN OUTSIDE WALLS, OR IN ANY OTHER PLACE SUBJECTED TO FREEZING TEMPERATURE UNLESS ADEQUATE PROVISIONS IS MADE TO PROTECT SUCH PIPES FROM FREEZING BY INSULATION AND HEAT.

NOTE: ALL FLOOR FRAMING TO BE DESIGN/BUILD BY LICENSED TRUSS MANUFACTURER'S ENGINEER. CENTER RECT. OPENING IN ALL TRUSSES & ALIGN OPENING FOR MECH. CHASE.



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