

GENERAL NOTES
INTERNATIONAL RESIDENTIAL CODE

FOUNDATION NOTES

1. FOUNDATIONS:

- A.) All imposed loads as established by Section R301 shall be accommodated by the foundation and such loads transmitted to the supporting soil. (Section R401.2)
- B.) Fill soils that support footings and foundations shall be designed, installed and tested in accordance with accepted engineering practice (2000H/S.F.). (Section R401.2)
- C.) Lots shall be graded so as to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches within the first 10 feet. (Section R401.3)
- D.) A complete geotechnical evaluation shall be performed or the loadbearing values in Table R401.4.1 shall be assumed. (Section R401.4.1)
- E.) If this area is likely to have expansive, compressible, shifting or other unknown soil characteristics, the building official shall determine whether to require a soil test for this location. (Section R401.4)
- F.) The top or subsoil are compressible or shifting and shall be removed to a depth and width sufficient to assure stable moisture content in each active zone. (Section R401.5)
- G.) Soils that meet all four of the conditions under Section R403.1.8.1 are considered expansive soils. Foundations and floor slabs for buildings located on expansive soils shall be designed in accordance with Section 1805.8 or the International Building Code. (Section 403.1.8)

MATERIALS

2. CONCRETE:

- A.) Concrete shall have a minimum specified compressive strength as shown in Table R402.2 (Section R402.2)
- B.) Concrete subject to weathering (Table R301.2(1)) shall be air entrained as specified in Table R402.2. (Section R402.2)
- C.) Concrete mixtures for garage and support slabs and exterior locations that will be exposed to deicing chemicals shall not have maximum weight of fly ash, silica fume, slag or other pozzolans that exceed the percentage of total weight of cementitious materials. (Section R402.2)
- D.) Cements shall be of the types allowed by ACI 318 and ASTM C 1157 (Section R402.2)

3. WOOD

- A.) All lumber and plywood shall be treated in accordance with AWPAC22 and bear the label of an accredited agency showing 0.60 retention. (Section R402.1.2)
- B.) Fasteners used below grade (or used in knee wall construction) shall be of type 304 or 316 stainless steel. Fasteners used above grade shall be of type 304 or 316 stainless steel, silicon bronze, copper, hot-dipped galvanized (zinc coated) steel nails, or hot-tumbled galvanized (zinc coated) steel nails. Electrogalvanized steel nails and galvanized (zinc coated) steel staples shall not be permitted (Section R402.1.1)

4. FOOTINGS:

- A.) All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations or other approved structural systems. (Section R403.1)
- B.) The braced wall panels at exterior walls of all buildings and all required interior braced wall panels in buildings with plan dimensions greater than 50 feet in seismic design categories D1 and D2 shall be supported by continuous footings. (Section R403.1.2)
- C.) Footings shall be supported on undisturbed natural soils or engineered fill. (Section R403.1)
- D.) Minimum sizes for concrete and masonry footings shall be as set forth in Table 403.1 and Figure R403.1(1). (Section R403.1.1)
- E.) Spread footings shall be at least 6 inches in thickness. (Section R403.1.1)
- F.) Masonry stemwalls without solid grout and vertical reinforcing are not permitted in Seismic Design Categories D1 and D2. (Section R403.1.3)

5. SEISMIC REINFORCING:

- A.) Minimum reinforcement for concrete and masonry footings shall be provided in Seismic Design Categories D1 and D2. In detached one and two family dwellings which are three stories or less in height and constructed with stud bearing walls, plain concrete footings without longitudinal reinforcement are permitted. (Section R403.1.3)
- B.) In Seismic Design Categories D1 and D2 where a construction joint is created between a concrete footing and a concrete or grouted masonry stem wall, a minimum of one No. 4 bar shall be provided at not more than four feet on center. The vertical bars shall extend to 3 inches clear of the bottom of the footing and have a standard hook. (Section R403.1.3)

6. MINIMUM DEPTH:

- A.) Except for frost-protected footings constructed in accordance with Section R403.3 and footings and foundations erected on solid rock, all exterior footings and foundation systems shall extend below the frost line specified in Table R301.2(1). (Section R403.1.4)
- B.) All exterior foundations shall be placed at least 12 inches below undisturbed ground. (Section R403.1.4)
- C.) In Seismic Design Categories D1 and D2, interior footings supporting bearing or bracing walls and cast monolithically with a slab on grade shall extend to a depth of not less than 18 inches below the top of the slab. (Section R403.1.4)

7. SLOPE:

- A.) Footings shall be stepped where it is necessary to change the elevation of the top surface of the footings or where the slope of the bottom surface of the footing exceeds one unit vertical in ten units horizontal (10-percent slope). (Section R403.1.5)

8. FOUNDATION ANCHORAGE:

- A.) Wood sole plate at exterior walls on monolithic slabs, wood sill plate and braced wall wood sill plate or Trex vent-a-sill, shall be anchored to the foundation with anchor bolts spaced a maximum of six feet on center, and within 12 inches from the ends of each plate section. (Section R403.1.6)
- B.) Foundation anchor bolts shall be at least ½ inch in diameter and shall extend a minimum of 7 inches into masonry or concrete. A nut and washer shall be tightened on each bolt to the plate. (Section R403.1.6)
- C.) Interior bearing wall sole plates on monolithic slab foundations shall be positively anchored with approved fasteners. (Section R403.1.6)
- D.) In Seismic Design Categories D1 and D2, sole plates of bearing walls, interior braced wall lines and all exterior walls shall be anchored with ½ inch in diameter anchor bolts, extending at least 7 inches into masonry or concrete, located within 12 inches from the ends of each plate section and at a maximum of 4 feet spacing. Plate washers a minimum of 2 inches by 2 inches by 3/16 inch thick shall be used on each bolt. (Section R403.1.6.1)
- E.) In Seismic Design Categories D1 and D2 the additional anchorage requirements of Section R602.11.1 shall apply for wood framing. (Section R403.1.6)
- F.) Wood sill plates shall be a minimum of 2-inch by 4-inch nominal lumber. (Section R404.3)
- G.) Braced wall line sills shall have plate washers, a minimum of 1/4 inch by 2 inches by 2 inches in size provided between the foundation sill plate and the nut. (Section R602.11.1)
- H.) Braced wall lines in Seismic Design Categories D1 and D2 shall have sills for braced wall lines anchored to concrete or masonry foundations in accordance with Sections R403.1.6 and R602.11. (Section R602.11.1)
- I.) The placement of buildings and structures on or adjacent to slopes steeper than 1 unit vertical in 3 units horizontal (33.3-percent slope) shall be in accordance with section R403.1.7.

9. FOUNDATION WALLS

- A.) Concrete, concrete masonry and clay masonry foundation walls shall comply with Section R404.1.1.
- B.) Concrete, concrete masonry and clay masonry foundation walls in Seismic Design Categories D1 and D2 shall comply with (Section R404.1.1)
- C.) A design in accordance with accepted engineering practice shall be provided for concrete or masonry foundation walls when such walls are subject to hydrostatic pressure from ground water, or supporting more than 48 inches of unbalanced backfill that do not have permanent lateral support at the top and bottom. (Section R404.1.3)
- D.) Plain concrete and plain masonry foundation walls located in Seismic Design Categories D1 and D2 shall comply with Section R404.1.4.
- E.) Foundation wall thickness based on wall supported shall be in accordance with Section R404.1.5. (Section R404.1.5)
- F.) Foundation walls shall extend above the finished grade adjacent to the foundation a minimum of 4 inches where masonry veneer is used and a minimum of 6 inches elsewhere. (Section R404.1.6)
- G.) Insulating Concrete Form Foundation Walls (ICF)

10. FOUNDATION DRAINAGE

- A.) Concrete or masonry foundations that retain earth and enclose habitable or usable spaces located below grade shall have drains provided in accordance with Section R405.1.
- B.) Wood foundations enclosing habitable or usable space located below grade shall be adequately drained in accordance with section 405.2.

11. FOUNDATION WATERPROOFING AND DAMP-PROOFING

- A.) In areas where high water table or other severe soil-water conditions are known to exist, exterior foundation walls that retain earth and enclose habitable or usable space located below grade shall be waterproofed. (Section R406.2)
- B.) Foundation wall waterproofing shall be with a membrane extending from the top of the footing to the finished grade, with materials as specified in Section R406.2. Except where required to be waterproofed, foundation walls that retain earth and enclose habitable or usable spaces located below grade shall be dampproofed. (Section R406.1)
- C.) Dampproofing, where required, shall be installed with materials and as required in Section R406.1.

12. UNDERFLOOR SPACE

- A.) Under-floor spaces other than basements, cellars, or those covered under exceptions to section R408.2, shall be provided with ventilation openings through foundation walls, exterior walls or Vented Sill Plates. (Section R408.1)
- B.) A net ventilation area of not less than 1 square foot for each 150 square feet underfloor space area shall be provided. (Section R408.2)

GLAZING NOTES

- A.) Type and thickness of glass shall be specified in accordance with Section R308.1

- B.) Louvered window or жалousies shall be specified in accordance with Section R308.2.

- C.) Glazing in the following locations shall be of safety glazing conforming to the human impact loads of Section R308.3 (see exceptions). (Section R308.4)
1. Side-hinged doors except жалousies.
2. Fixed and sliding panels of sliding door assemblies and panels in sliding and bifold closet door assemblies.
3. Storm doors
4. Doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers and in any portion of a building wall enclosing these compartments where the bottom edge of the glazing is less than 60 inches measured vertically above any standing or walking surface.
5. Fixed or operable vertical panels adjacent to a door where the nearest vertical edge is within a 24-inch arc of the door in a closed position and whose bottom edge is less than 60 inches above the floor or walking surface.
6. Individual fixed or operable panel, other than those described in Items 5 and 6 above, that meet all of the following conditions:
- a. Exposed area of an individual pane greater than 9 square feet.
- b. Bottom edge less than 18 inches above the floor.
- c. Top edge greater than 36 inches above the floor.
- d. One or more walking surfaces within 36 inches horizontally of the glazing.
7. Railings regardless of area or height above a walking surface including structured baluster panels and nonstructural in-fill panels.
8. Walls and fences used as the barrier for indoor and outdoor swimming pools, hot tubs and spas when:
- a. The bottom edge of the pool or spa is less than 60 inches above a walking surface and 60 inches horizontally of the water's edge. (This shall apply to single glazing and all panels in multiple glazing)
9. Walls enclosing stairway landings or within 60 inches of the top and bottom of stairways where the bottom edge of the glass is less than 60 inches above the walking surface.

- D.) Skylights and sloped glazing shall comply with Section R308.6.

- E.) Site built windows shall comply with Section R308.5.

- F.) Exterior windows and glass doors shall conform to the provisions of Section R613 and the following:

1. Exterior windows and doors shall be designed to resist the design wind loads specified in Table R301.2(2) and adjusted for height and exposure per Table R301.2(3). (Section R613.2)

- G.) Windows and glass doors shall be anchored in accordance with the published manufacturer's recommendations. (Section R613.5.1)

- H.) Anchorage of exterior windows shall conform to Section R613.5.2.

WOOD & MOISTURE NOTES

- A.) The following locations subject to decay damage as established by Figure R301.2(7) require the use of an approved species and grade of lumber, preservatively treated or decay resistant in accordance with Section R323.1:
1. Wood joists or the bottom of a wood structural floor closer than 18 inches or wood girders when closer than 12 inches to exposed ground in crawlspaces or unexcavated area located within the periphery of the building foundation.
2. All sills or plates that rest on concrete or masonry exterior walls and are less than 8 inches from exposed ground.
3. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.
4. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than 0.5 inch on tops, sides and ends.
5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches from the ground.
6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.

- B.) Wood in contact with the ground that supports permanent structures for human occupancy shall conform to Section R323.1.1.

- C.) Wood structural members including supports for buildings, balconies, porches or similar permanent building appearances subject to weather without adequate protection shall comply with Section R323.1.2 when required by the building official.

TUB & SHOWER NOTES:

- A.) Every dwelling unit shall be provided with a water closet, lavatory, and a bathtub or shower. (Section R306.1)
- B.) Every dwelling unit shall be provided with a kitchen area and each kitchen shall be provided with a sink. (Section R306.2)
- C.) Plumbing fixtures are required to be connected to a sanitary sewer or to an approved sewage disposal system. (Section R306.3)
- D.) Kitchen sinks, lavatories, bathtubs, showers, bidets, laundry tubs and washing machine outlets shall be provided with hot and cold water and connected to an approved water supply. (Section R306.4)
- E.) Toilet, bath and shower fixtures shall be spaced as per Figure R307.2 (Section R307.1)
- F.) All glazing, including windows within 70" of drain inlet, shall be safety glass.
- G.) Walls shall be waterproofed to a min. 70" above drain inlet.
- H.) Limit shower floor to 2.5 G.P.M.
- I.) Fire block between all studs

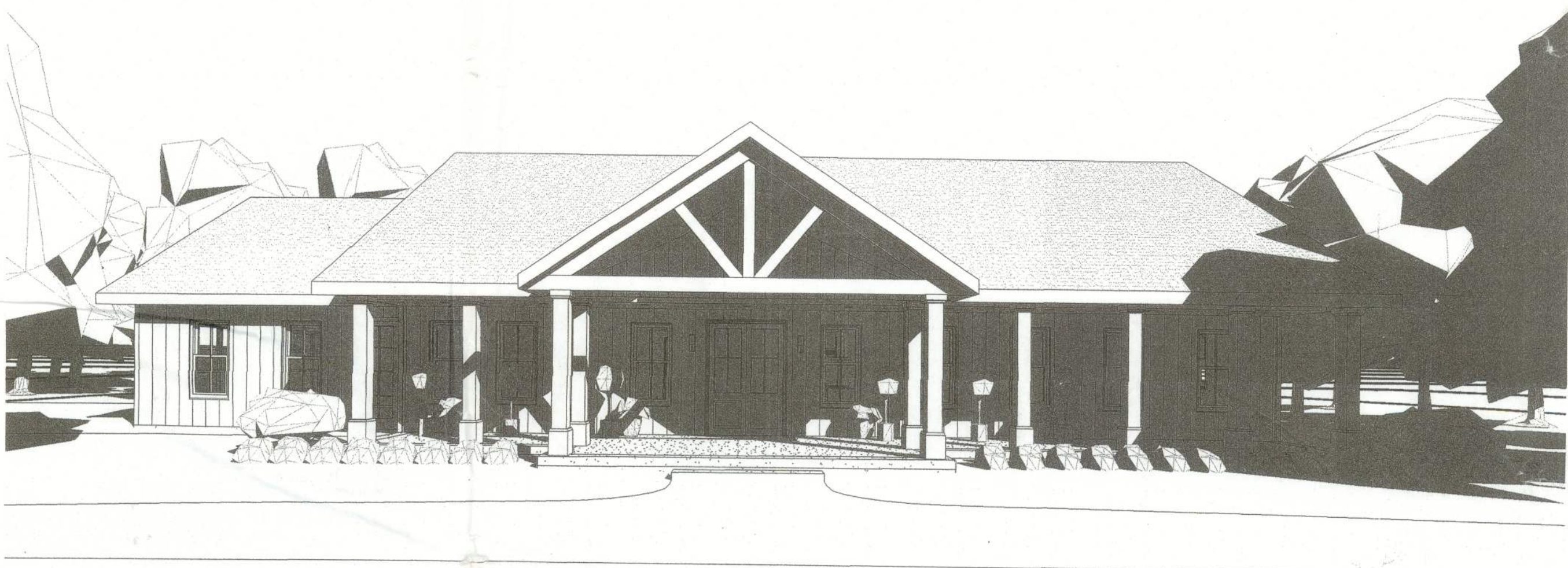
Factory-Built Fireplaces

- A.) Factory-built fireplaces shall be listed and labeled and must be installed in accordance with the conditions of the listing. (Section R1004.1)
- B.) Hearth extensions shall be installed in accordance with the factory-built fireplace listing and be readily distinguishable from the surrounding floor area. (Section R1004.2)
- C.) Decorative shrouds shall not be installed at the termination of chimneys of factory-built fireplaces except where listed and labeled for such use. (Section R1004.3)
- D.) An unvented gas log heater shall not be installed in a factory-built fireplace unless the fireplace system is listed for such use. (Section R1004.4)
- E.) Exterior Air Supply on Factory-built or masonry fireplaces shall be provided with an exterior air supply in accordance with Section R1005.

SMOKE ALARMS

- A.) Single- and multiple-station smoke alarms shall be installed in the following locations: (Section R317.1)
1. Each sleeping room
2. Outside of each sleeping area in the immediate vicinity of the bedrooms
3. On each additional story of the dwelling, including basements and cellars but not including crawl spaces any uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
- B.) Smoke alarms shall be interconnected as indicated in Section R317.1
- C.) The power source for smoke alarms shall comply with Section R317.2.

MODERN HOUSE DESIGN



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Modern House DESIGN

approved for the owner by :

approved for the architect by : Architect

ISSUE : CONCEPT DESIGN DRAWING Issue Date

REVISIONS :

#	Description:	Date:
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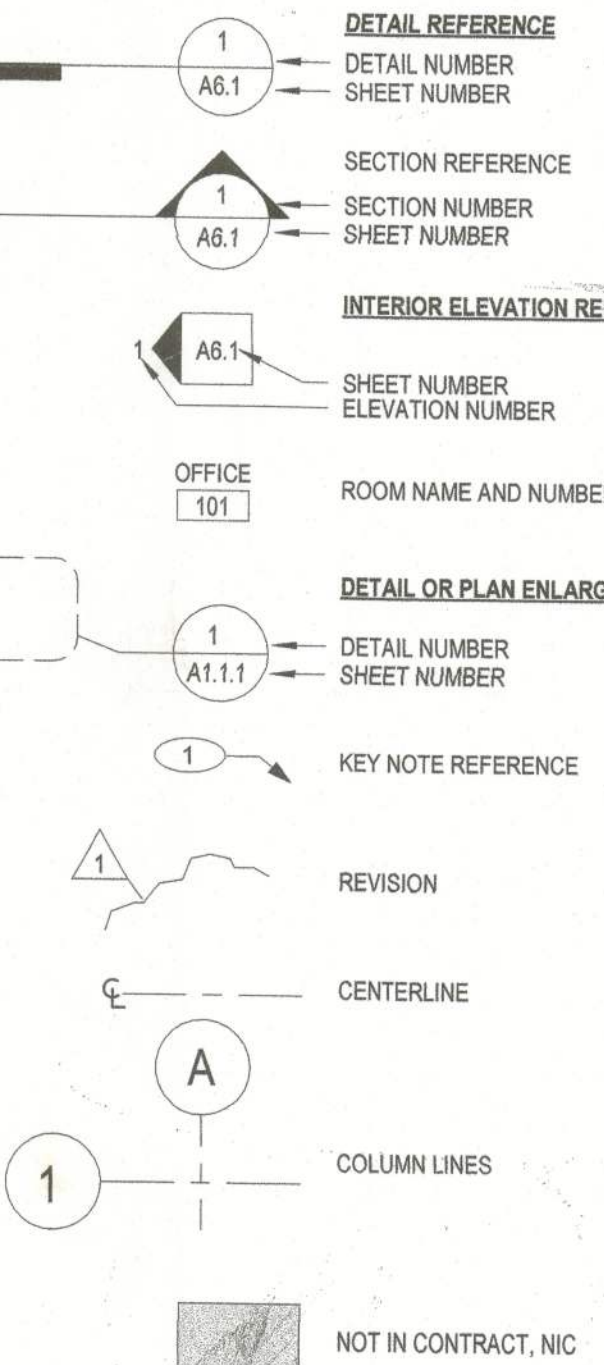
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PROJECT LEGEND



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project number : Project Number

GENERAL NOTES

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