

**CITY OF ARCADIA
MULTIPLE FAMILY CONSTRUCTION STANDARDS
ORDINANCE NUMBER 2279**

MULTIPLE FAMILY DEFINED

A multiple family building shall be defined as one or more dwelling units located on any property in the City except the R-O, R-1 or the R-M zoned areas.

Application. Except where a more restrictive requirement in the California Building Code, State Law or City Ordinance is applicable, each provision of this Chapter shall apply to each multiple family building as defined herein.

NOISE REDUCTION STANDARDS

General. Wall and floor/ceiling assemblies separating attached multiple family dwelling units from each other and from public space shall meet the following sound transmission control standards:

Inspection. All required sound assemblies shall be inspected by the Building Official and shall remain accessible and exposed for inspection purposes until approved by the Building Official.

Plans. All required 2 inch by 6-inch plumbing walls shall be clearly identified on the building plans and all required sound assemblies, including location and extent, shall be shown on the building plans.

Airborne Sound Insulation. All such acoustically rated separating wall and floor-ceiling assemblies shall provide airborne sound insulation equal to that required to meet a sound transmission class (STC) rating of 58 based on laboratory tests as defined in ASTM E 90 and E 413. Field-tested assemblies shall meet a noise isolation class (NIC) rating of 53 for occupied units and a normalized noise isolation class (NNIC) rating of 53 for unoccupied units as defined in ASTM Standards E 336 and E 413.

EXCEPTION: Group R-1 hotel and motel occupancies shall be permitted to meet a minimum sound transmission class (STC) of 52, a noise isolation class (NIC) of 47, or a normalized noise isolation class (NNIC) of 47, as applicable.

ASTM E 597 may be used as a simplified procedure for field tests of the airborne sound isolation between rooms in unoccupied buildings. In such tests, the minimum value of D_n is 53 db for multiple family dwelling units and 47db for hotel and motel occupancies for compliance.

Entrance doors from interior corridors together with their perimeter seals shall

have STC ratings not less than 30. Such tested doors shall operate normally with commercially available seals. Solid-core wood slab doors 1 3/8 inches thick minimum or 18 gage insulated steel slab doors with compression seals all around, including the threshold, may be considered adequate without other substantiating information.

Field test of corridor walls should not include segments with doors. If such test is impractical, however, the NIC or NNIC rating for composite wall-door assembly shall not be less than 30.

Penetrations or openings for construction assemblies for piping, electrical devices, recessed cabinets, bathtubs, soffits or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings.

Impact Sound Insulation. All acoustically rated separating floor-ceiling assemblies shall provide impact sound insulation equal to that required to meet an impact insulation class (IIC) rating of 58 based on laboratory tests as defined in ASTM E 492 and E 989. Field-tested assemblies shall meet a field impact insulation class (FIIC) rating of 53 for both occupied and unoccupied units as defined in ASTM E 1007 and E 989, with the exception that the measured impact sound pressure levels shall not be normalized to a standard amount of absorption in the receiving room.

EXCEPTION: Group R-1 hotel and motel occupancies shall be permitted to meet a minimum impact insulation class (IIC) rating of 52 or a field impact insulation class (FIIC) rating of 47, as applicable.

Floor coverings may be included in the assembly to obtain the required ratings. These coverings must be retained as a permanent part of the assembly and may only be replaced by other floor coverings that provide the required impact sound insulation.

Packing of Voids. All voids surrounding water, drainage, and vent piping shall be packed with rock wool or equivalent approved sound deadening material, and all water, drainage, and vent piping shall be wrapped with an approved material at all points of contact with wood or steel framing members and strap hangers.

Plumbing Walls. Plumbing walls shall be a minimum of 2 inch by 6-inch construction.

Mechanical Equipment. All mechanical equipment shall be installed so as to reduce sound transmission to a minimum.

Separation of Facilities. Electrical, plumbing and mechanical equipment or systems serving one dwelling unit shall not serve other dwellings units, nor shall such equipment or systems be located within another dwelling unit. Recessed wall fixtures, such as medicine cabinets or electrical, telephone, television and intercom outlets, shall not be located back-to-back or in the same wall cavity.

Location of Plumbing and Ducts. Water, drainage, and vent piping and heating and air conditioning ductwork shall not be located within any wall or floor-ceiling sound assembly.

COMFORT COOLING SYSTEM

A comfort cooling system shall be provided for each multiple family dwelling unit. The comfort cooling system shall be capable of maintaining a temperature of 78 degrees Fahrenheit three feet above the floor throughout the conditioned space of the building. Water evaporative cooling systems or individual window or wall-mounted units shall not be used to meet the requirements of this Section. The location of the comfort cooling system shall be shown on the building plans.

ILLUMINATION

Public spaces of multiple family buildings including all stairs, ramps, driveways, walkways, corridors and parking areas shall be illuminated with automatic lighting capable of maintaining an intensity of one (1) footcandle of light at ground level.

EXTERIOR REQUIREMENTS

Underground Utilities. All utility conductors, cables, conduits and wiring supplying electrical, cable and telephone service to a multiple family building shall be installed underground except risers which are adjacent to and attached to a building or as otherwise approved the City Council.

Conductors, Conduit and Piping. All conductors, cables, wires, conduit and piping located outside of a building or structure and within the exterior property lines shall be installed underground except risers which are adjacent to and attached to a building or structure.

PARKING AND ACCESS AREAS

Paving. All parking, walkway, and driveway areas shall be paved with an approved material, such as concrete, asphalt, brick, or pavers.

Paving materials and methods of installation shall be shown on the building plans.

Driveway Ramps. Driveway ramps shall not exceed a maximum grade of twenty percent (20%). A 20 feet transition area shall be provided at the top of such ramp, as follows: the upper 10 feet of the transition area shall have a maximum grade of four percent (4%) and the lower 10 foot portion of the transition area shall have a maximum grade of ten percent (10%). A 15 feet transition area with a maximum grade of ten percent (10%) shall also be provided at the bottom of such ramp.

OPEN PARKING REQUIREMENTS

Marking. Open parking spaces, driving aisles, one-way traffic lanes, and turning area shall be identified by approved painted striping.

Barriers. Bump rails, curbs or other approved protective barriers shall be installed where necessary to protect buildings, walls, or fences from damage by automobiles.

GARAGE AND CARPORT REQUIREMENTS

Walls. Where concrete masonry units are used to construct Group U-1 or S-3 Occupancies, the cells shall be grouted solid to height of four (4) feet above the floor level.

Frame. Group U-1 or S-3 Occupancies of wood frame construction shall have approved protective barriers located so as to protect the finished wall coverings from damage by automobiles.

Concrete Floors. The floor of every covered parking space shall be paved with cement concrete.