

Appendix G

City of Modesto Noise Policies

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Noise Policies, City of Modesto

Noise Mitigation Policies: Baseline Development Area





All development projects located within the Baseline Developed Area (and Redevelopment Area) are required to incorporate the mitigation measures listed below into the project.

- a) The City of Modesto shall require noise-reducing construction practices to be implemented as conditions of approval for development projects where substantial construction-related noise impacts would be likely to occur (e.g. where construction would include extended periods of pile driving, where construction would occur over an unusually long period, or where noise-sensitive uses like homes and schools would be in the immediate vicinity, etc.). The city should consider potential mitigation measures, including, but not limited to, the following:
 - (1) Construction equipment and vehicles should be equipped with properly operating mufflers according to the manufacturers' recommendations. Air compressors and pneumatic equipment should be equipped with mufflers, and impact tools should be equipped with shrouds or shields.
 - (2) Other proposed uses: the noise/land use compatibility guidelines (i.e., those noise levels which are "conditionally acceptable," "normally Unacceptable," or "clearly unacceptable,") shown in Table G-1 and the most recent noise contours for the City shown in Figure VII-1 of the City's Urban Area General Plan.
- b) During City review of a proposed project consistent with the updated General Plan, the City of Modesto shall use the following guidelines to decide whether to require additional study and/or mitigation:
 - (1) Single family Residential uses: the L_{dn} 65 contour, as depicted on the most recent noise contours for the City, shown in Figure VII-1 of the City's Urban Area General Plan.

- (2) Other proposed uses: the noise/land use compatibility guidelines (i.e., those noise levels which are “conditionally acceptable,” “normally Unacceptable,” or “clearly unacceptable,”) shown in Table G-1 and the most recent noise contours for the City shown in Figure VII-1 of the City’s Urban Area General Plan.
- c) For new single-family residential development within the L_{dn} 65 contour, the City of Modesto shall require developers to demonstrate that the proposed development will incorporate measures to reduce noise impacts to a less-than-significant level, as follows:
- (1) Where feasible and consistent with General Plan policy, incorporate setbacks and/or locate less-sensitive uses between a noise source and noise-sensitive uses.
 - (2) Provide (to the extent feasible and consistent with General Plan policy) berms, barriers, or other techniques to shield noise-sensitive uses.
 - (3) Incorporate construction techniques to achieve an interior noise limit of 45 L_{dn} (these potential techniques are presented in CCR Title 24 standards).
- d) The City of Modest shall use the most recent noise contour map to implement the requirements of Noise Insulation Standards contained in Title 24 of the California Code of Regulations. (Title 24 applies to multi-family housing, not single family.) Title 24 also specifies minimum values for the sound insulation afforded by interior partitions separating different dwelling units from each other and from interior common space.
- e) For proposed non-residential uses, where noise mitigation is deemed necessary for new developments to meet the exterior noise land use compatibility guidelines (Table G-1), the City of Modesto shall require developers to demonstrate that the proposed development will incorporate measures to reduce noise impacts to a less-than-significant level, as follows:
- (1) Where feasible and consistent with General Plan policy, incorporate setbacks and/or locate less-sensitive uses between a noise source and noise-sensitive uses.
 - (2) Provide (to the extent feasible and consistent with General Plan policy) berms, barriers, or other techniques to shield noise-sensitive uses from noise sources.
 - (3) Incorporate construction techniques to achieve an interior noise limits. One source that can be used for such specifications is the “recommended Maximum Interior Noise Level Criteria for Intermittent Noise,” Table 2 in *Noise Insulation Problems in Buildings* (Paul S. Veneklasen & Associates 1973).

Table G-1. State Land Use Compatibility Standards for Community Noise Environment

Land Use Category	Community Noise Exposure - L_{dn} or CNEL (db)						
	50	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Multi-Family	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Transient Lodging – Motels, Hotels	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arenas, Outdoor Spectator Sports	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable

	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development generally should not be undertaken.

Source: California Governor’s Office of Planning and Research 1998.

- f) With road extension, widening and upgrade projects, the City of Modesto shall implement, as feasible, techniques to minimize noise impacts on adjacent uses. Potentially available techniques may include:
 - (1) widened right-of-way;
 - (2) depressed roadway alignments;
 - (3) earthen berms or earthen/wall combination;
 - (4) walls; and
 - (5) acoustical retrofitting to affected parties.
- g) In recognition of the conservative methodology used to develop the noise contours shown on Figure VII-1 of the City's Urban Area General Plan, builders, developers (for private development projects) and the City (for Capital projects) shall be allowed to demonstrate that detailed noise studies and/or mitigation are not necessary because future noise levels would be substantially less than depicted on Figure VII-1 due to, for example, natural shielding (eg., from intervening topographical features or man-made structures) of a site or inapplicability of assumptions used in the development of the noise contours shown in Figure VII-1 of the City's Urban Area General Plan [Table G-2].
- h) The City of Modest shall limit trucking to specific routes, times and speeds that minimize adverse effects to sensitive land uses such as schools and residential areas.
- i) To address noise impact related to operation of the Airport, the City shall continue with noise abatement measures related to the airport operations (included in the Airport's approved FAR Part 150 Program) including curfews, ground runup suppressers, prohibition of operations of some aircraft types at certain hours of the day, land acquisition to prevent development in noise impacted areas, use of appropriate zoning and implementation of sound insulation programs in the aircraft noise impacted area.
- j) Proponents of new heliports where projected noise impacts from helicopter operations would exceed 65 L_{dn} at the nearest residential uses should utilize the latest FAA helicopter modeling tools and noise assessment criteria.

Noise Mitigation Policies – Planned Urbanizing Area

- a) The Focused EIR for each Comprehensive Planning District shall include a Noise Analysis prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics. Noise

mitigation measures shall be “used as a guide for establishing a pattern of land uses...that minimizes the exposure of [present and future] community residents to excessive noise.” (Section 65302(f), Government Code.) The noise contours developed by the Noise Analysis shall be used to determine the land use pattern appropriate within the Comprehensive Plan. For example, noise from a freeway or expressway might indicate the need for sound barriers, or for non-residential uses adjacent to the noise source.

All Noise Mitigation Policies adopted for the Baseline Developed Area apply equally to the Planned Urbanizing Area.

Table G-2. Noise Contour Development Assumptions from City of Modesto Urban Area General Plan

Traffic Assumptions						
Facility	# of Lanes	Speed	Peak-Hour Volume ¹	Vehicle Mix Percentage		
				Autos	Medium Trucks	Heavy Trucks
Expressway						
Class A	6	55	7,200	94	3	3
Class B	6	50	6,000	94	3	3
Class C	6	45	4,800	94	3	3
Arterial						
Principal	6	45	4,800	97	2	1
Minor	4	45	3,200	98	2	0

Noise Contour Distances:

Facility	Distance to L _{dn} Contour from Centerline (feet) ²			
	75 L _{dn}	70 L _{dn}	65 L _{dn}	60 L _{dn}
Class A	120	250	550	1,200
Class B	90	200	430	920
Class C	70	150	320	690
Arterial				
Principal	50	120	250	540
Minor	40	80	170	360

Note:

1. Peak-Hour volume reflects the noisiest hour of the day which reflects Level of Service C conditions (i.e., approximately 80% of lane capacity).
2. Estimated using the FHWA Highway Traffic Noise Prediction Model as adjusted to reflect CALVENO reference noise levels. The L_{dn} was assumed to equal the peak-hour noise level. Estimates reflect an attenuation rate of 4.5 per doubling of distance

Source: City of Modesto 1995

