

**USAF Recommended Land Use Compatibility Guidelines
in Relation to APZs and Noise Zones**

Land Use		APZs			Noise Zones			
SLUCM No.	Name	CZ	APZ I	APZ II	65-69 dBA	70-74 dBA	75-79 dBA	80+ dBA
10	Residential							
11	Household units							
11.11	Single units: detached	N	N	Y ¹	A ¹¹	B ¹¹	N	N
11.12	Single units: semidetached	N	N	N	A ¹¹	B ¹¹	N	N
11.13	Single units: attached row	N	N	N	A ¹¹	B ¹¹	N	N
11.21	Two units: side-by-side	N	N	N	A ¹¹	B ¹¹	N	N
11.22	Two units: one above the other	N	N	N	A ¹¹	B ¹¹	N	N
11.31	Apartments: walk-up	N	N	N	A ¹¹	B ¹¹	N	N
11.32	Apartments: elevator	N	N	N	A ¹¹	B ¹¹	N	N
12	Group quarters	N	N	N	A ¹¹	B ¹¹	N	N
13	Residential hotels	N	N	N	A ¹¹	B ¹¹	N	N
14	Mobile home parks or courts	N	N	N	N	N	N	N
15	Transient lodgings	N	N	N	A ¹¹	B ¹¹	C ¹¹	N
16	Other residential	N	N	N ¹	A ¹¹	B ¹¹	N	N
20-30	Manufacturing							
21	Food and kindred products: manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
22	Textile mill products: manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
23	Apparel and other finished products made from fabrics, leather, and similar materials: manufacturing	N	N	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
24	Lumber and wood products (except furniture): manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
25	Furniture and fixtures: manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
26	Paper and allied products: manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
27	Printing, publishing, and allied industries	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴

Land Use		APZs			Noise Zones			
SLUCM No.	Name	CZ	APZ I	APZ II	65–69 dBA	70–74 dBA	75–79 dBA	80+ dBA
20-30	Manufacturing (continued)							
28	Chemicals and allied products: manufacturing	N	N	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
29	Petroleum refining and related industries	N	N	N	Y	Y ¹²	Y ¹³	Y ¹⁴
31	Rubber and misc. plastic products: manufacturing	N	N ²	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
32	Stone, clay, and glass products manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
33	Primary metal industries	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
34	Fabricated metal products: manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
35	Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks: manufacturing	N	N	N ²	Y	A	B	N
39	Miscellaneous manufacturing	N	Y ²	Y ²	Y	Y ¹²	Y ¹³	Y ¹⁴
40	Transportation, communications, and utilities							
41	Railroad, rapid rail transit, and street railroad transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
42	Motor vehicle transportation	N ³	Y	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
43	Aircraft transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
44	Marine craft transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
45	Highway and street right-of-way	N ³	Y	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
46	Automobile parking	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
47	Communications	N ³	Y ⁴	Y	Y	A ¹⁵	B ¹⁵	N
48	Utilities	N ³	Y ⁴	Y	Y	Y	Y ¹²	Y ¹³
49	Other transportation communications and utilities	N ³	Y ⁴	Y	Y	A ¹⁵	B ¹⁵	N
50	Trade							
51	Wholesale trade	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
52	Retail trade: building materials, hardware, and farm equipment	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴

Land Use		APZs			Noise Zones			
SLUCM No.	Name	CZ	APZ I	APZ II	65–69 dBA	70–74 dBA	75–79 dBA	80+ dBA
50	Trade (continued)							
53	Retail trade: general merchandise	N	N ²	Y ²	Y	A	B	N
54	Retail trade: food	N	N ²	Y ²	Y	A	B	N
55	Retail trade: automotive, marine craft, aircraft, and accessories	N	Y ²	Y ²	Y	A	B	N
56	Retail trade: apparel and accessories	N	N ²	Y ²	Y	A	B	N
57	Retail trade: furniture, home furnishings, and equipment	N	N ²	Y ²	Y	A	B	N
58	Retail trade: eating and drinking establishments	N	N	N ²	Y	A	B	N
59	Other retail trade	N	N ²	Y ²	Y	A	B	N
60	Services							
61	Finance, insurance, and real estate services	N	N	Y ⁶	Y	A	B	N
62	Personal services	N	N	Y ⁶	Y	A	B	N
62.4	Cemeteries	N	Y ⁷	Y ⁷	Y	Y ¹²	Y ¹³	Y ^{14,21}
63	Business services	N	Y ⁸	Y ⁸	Y	A	B	N
64	Repair services	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
65	Professional services	N	N	Y ⁶	Y	A	B	N
65.1	Hospitals, nursing homes	N	N	N	A [*]	B [*]	N	N
65.1	Other medical facilities	N	N	N	Y	A	B	N
66	Contract construction services	N	Y ⁶	Y	Y	A	B	N
67	Governmental services	N	N	Y ⁶	Y [*]	A [*]	B [*]	N
68	Educational services	N	N	N	A [*]	B [*]	N	N
69	Miscellaneous services	N	N ²	Y ²	Y	A	B	N
70	Cultural, entertainment, and recreational services							
71	Cultural activities (including churches)	N	N	N ²	A [*]	B [*]	N	N
71.2	Nature exhibits	N	Y ²	Y	Y [*]	N	N	N
72	Public assembly	N	N	N	Y	N	N	N

Land Use		APZs			Noise Zones			
SLUCM No.	Name	CZ	APZ I	APZ II	65–69 dBA	70–74 dBA	75–79 dBA	80+ dBA
70	Cultural, entertainment, and recreational services (continued)							
72.1	Auditoriums, concert halls	N	N	N	A	B	N	N
72.11	Outdoor music shell, amphitheaters	N	N	N	N	N	N	N
72.2	Outdoor sports arenas, spectator sports	N	N	N	Y ¹⁷	Y ¹⁷	N	N
73	Amusements	N	N	Y ⁸	Y	Y	N	N
74	Recreational activities (including golf courses, riding stables, water recreation)	N	Y ^{8,9,10}	Y	Y*	A*	B*	N
75	Resorts and group camps	N	N	N	Y*	Y*	N	N
76	Parks	N	Y ⁸	Y ⁸	Y*	Y*	N	N
79	Other cultural, entertainment, and recreational activities	N	Y ⁹	Y ⁹	Y*	Y*	N	N
80	Resources production and extraction							
81	Agriculture (except livestock)	Y ¹⁶	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
81.5 to 81.7	Livestock farming and animal breeding	N	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
82	Agriculture-related activities	N	Y ⁵	Y	Y ¹⁸	Y ¹⁹	N	N
83	Forestry activities and related services	N ⁵	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
84	Fishing activities and related services	N ⁵	Y ⁵	Y	Y	Y	Y	Y
85	Mining activities and related services	N	Y ⁵	Y	Y	Y	Y	Y
89	Other resources production and extraction	N	Y ⁵	Y	Y	Y	Y	Y

Source: DODI 1977, FICUN 1980, and USURA 1965

Key:

SLUCM = Standard Land Use Coding Manual, USURA.

Y = Yes – Land uses and related structures are compatible without restriction.

N = No – Land use and related structures are not compatible and should be prohibited.

Y^x = Yes with restrictions – Land use and related structures generally compatible; see notes indicated by the superscript.

N^x = No with exceptions – See notes indicated by the superscript.

NLR = Noise Level Reduction (NLR) (outdoor to indoor) to be achieved through incorporation of noise attenuation measures into the design and construction of the structures.

Key (continued):

A, B, or C = Land use and related structures generally compatible; measures to achieve NLR for A (DNL of 65–69 dBA), B (DNL of 70–74 dBA), C (DNL of 75–79 dBA) need to be incorporated into the design and construction of structures.

A*, B*, and C* = Land use generally compatible with NLR; however, measures to achieve an overall noise level reduction do not necessarily solve noise difficulties and additional evaluation is warranted. See appropriate notes below.

* = The designation of these uses as “compatible” in this zone reflects individual Federal agencies and program considerations of general cost and feasibility factors, as well as past community experiences and program objectives. Localities, when evaluating the application of these guidelines to specific situations, might have different concerns or goals to consider.

Notes:

1. Suggested maximum density of 1 to 2 dwelling units per acre, possibly increased under a Planned Unit Development where maximum lot coverage is less than 20 percent.
2. Within each land use category, uses exist where further deliberating by local authorities might be needed due to the variation of densities in people and structures. Shopping malls and shopping centers are considered incompatible use in any accident potential zone (CZ, APZ I, or APZ II).
3. The placement of structures, buildings, or aboveground utility lines in the CZ is subject to severe restrictions. In a majority of the CZs, these items are prohibited. See AFI 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning* (USAF 1994), and Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design* (DOD 2001), for specific guidance.
4. No passenger terminals and no major aboveground transmission lines in APZ I.
5. Factors to be considered: labor intensity, structural coverage, explosive characteristics, and air pollution.
6. Low-intensity office uses only. Meeting places, auditoriums, and the like are not recommended.
7. Excludes chapels.
8. Facilities must be low-intensity.
9. Clubhouse not recommended.
10. Areas for gatherings of people are not recommended.
11. (a) Although local conditions might require residential use, it is discouraged in DNL of 65–69 dBA noise zone and strongly discouraged in DNL of 70–74 dBA noise zone. The absence of viable alternative development options should be determined and an evaluation should be conducted prior to approvals indicating a demonstrated community need for residential use would not be met if development were prohibited in these zones.
(b) Where the community determines the residential uses must be allowed, measures to achieve outdoor to indoor NLR for the DNL of 65–69 dBA noise zone and the DNL of 70–74 dBA noise zone should be incorporated into building codes and considered in individual approvals.
(c) NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, and design and use of berms and barriers can help mitigate outdoor exposure, particularly from near ground level sources. Measures that reduce outdoor noise should be used whenever practical in preference to measures that only protect interior spaces.
12. Measures to achieve the same NLR as required for facilities in the DNL of 65–69 dBA noise zone must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
13. Measures to achieve the same NLR as required for facilities in the DNL of 70–74 dBA noise zone must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
14. Measures to achieve the same NLR as required for facilities in the DNL of 75–79 dBA noise zone must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
15. If noise-sensitive, use indicated NLR; if not, the use is compatible.
16. No buildings.
17. Land use is compatible provided special sound reinforcement systems are installed.
18. Residential buildings require the same NLR as required for facilities in the DNL of 65–69 dBA noise zone.
19. Residential buildings require the same NLR as required for facilities in the DNL of 70–74 dBA noise zone.
20. Residential buildings are not permitted.
21. Land use is not recommended. If the community decides the use is necessary, personnel should wear hearing protection devices.