

Plan Examiner's Residential Checklist

Hamilton County, Department of Building Inspections

803 County Administration Building, 138 East Court Street
(513) 946-4550 Cincinnati, OH 45202 Fax: (513) 946-4511

Application No.: 05-0000

Project Address:

Checklist No.: 1 2 3 4

- Note: 1. The highlighted items on this checklist were either not found on the drawings or were found to be incorrect. The, "2005 Hamilton County Building Code" requires that the items on this checklist be added and/or corrected on the drawings before a plan approval may be granted. Simplify rereview by highlighting all plan changes.
2 Applications with unresolved plan review items remaining after 60 days from the date of Checklist No. 1 will expire, resulting in a voided application.
3 Applicants have the right to appeal items on Checklist No. 1 to the Board of Building Appeals. Appeals shall be filed within 30 days of the date of Checklist No. 1.

****Revised plans are reviewed on Tuesdays & Fridays only.****

Expiration Date: 03/12/05

APPLICANT INSTRUCTIONS / DEPARTMENT APPROVALS

1	Make all changes/corrections to the original drawings. See box 7. Submit 3 complete sets of revised/corrected drawings for review.
2	Surveyor shall make all changes &/or corrections (boxes 8-13 below) to the original site plan. Submit 3 revised plans with Zoning reapproval.
3	Provide a complete drawing index. All drawing sheets & attachments shall have sheet numbers & be accounted for on the index.
4	Indicate on each drawing sheet: (1) the name, address and phone no. of the building owner and building designer (2) the project address.
5	The drawings are insufficient for review. Obtain complete construction drawings by consulting with an Architect, Engineer or draftsman.
6	Architect/Engineer drawings shall have inked seal, signature & date applied to each sheet of the drawings. Architects shall also emboss.
7	Future drawings submitted for review shall be of a duplication process. Handwritten items on the plans are not permitted after duplication.

SURVEY / SITE PLAN INFORMATION REQUIRED

8	(1)The name, address & phone number of the Surveyor, property owner and builder (2) the project address (3) the date and (4) Surveyor's seal
9	Show grades at lot & bldg. corners & on the side lot lines opposite the bldg. corners. Grade shall slope 6" in 1st 10' from bldg. (3:1 max.).
10	Drive centerline slopes shall not be > 20% with 10% max. transitional slopes (min. 8' long). Show prop. topo. & center line profile of driveway.
11	Show all floor level elevations: basement, first, second, garage, etc. Show 3 ft. min. front walk / 8 ft. min. driveway & note materials of each.
12	Show / Correct site plan dimensions: foundation, attached garage, deck, porch, retaining walls, detached structures, etc.
13	Indicate the lengths, heights & locations of all retaining walls. Show exist. & proposed topography on high & low sides of all ret. walls.

FIRE SEPARATION / PROTECTION

14	Smoke detectors req'd at ea. level, outside & inside ea. sleeping room. All detectors shall be interconnected, hard-wired & battery backed-up.
15	Show 1/2" drywall covering: 1) garage (common) walls, beams, columns 2) enclosed, accessible spaces below stairs.
16	Show 5/8" Type X drywall on the garage ceiling below habitable space. Show 2" (min.) between framing & fireplace/chimney.
17	Garage floors shall slope towards a drain or main vehicle entry door. Show the destination of all garage floor drains (into sanitary sewer).
18	Show a min. 2'-6" x 6'-8" side hinged door exiting all garages. Show a 1-3/8" solid wood or metal door betw. the garage & dwelling.

FOUNDATION / STRUCTURAL (see back side)

19	Show min. design live loads: snow=20 psf, wind=90 mph, floor=40psf, garage floor=50 psf. Show assumed soil bearing cap.= 2000 psf, max.
20	Show max. deflection limits of members: floor joists/beams= L/360, roof beams= L/240, rafters w/ ceiling= L/240, rafters w/o ceiling= L/180
21	Found. wall thickness / maximum unbalanced fill: 8" / 7 ft., 10" / 8 ft. Unbal. fills exceeding 8 ft. must be engineered (calculated &/or sealed).
22	Show max. 48" of unbal. fill at step-down found. walls (walls not full height) or submit engineered found. design (calculated &/or sealed).
23	Found. thk./anchor bolt spacing betw. gar.& basem: 8"/36"oc, 10"/32"oc Show the size, spacing & embedment of anchor bolts (7" min.)
24	Show/Correct dimensions & thck. of footings: foundation wall footings, deck footings, interior column footings, thickened slabs, etc.
25	Show frost protection of footings: 30" exterior / 18" at int. crawl space. Ret. walls over 48" tall shall be engineered (calculated &/or sealed).
26	Concrete strength (psi): ftgs./int. flrs.=2500, fnd. walls=3000, ext.=4500 Found. walls, gar. floors & ext. concrete require 5%-7% air entrainment.

CONSTRUCTION STANDARDS / FRAMING

27	Show all found. & floor plans: dimen., walls, window, doors, rooms, etc. Show wall section views of ea. wall type: heights, dimen., materials, etc.
28	Show on all elevation views: dimen., fin. grade, decks, roof pitches, etc. Match the grades on the elev. views w/ the fin. grades on the site plan.
29	Wall bracing shall be provided at each wall end (within 12.5') and every 25 ft. Wall bracing shall be located not < 16% of the braced wall line.
30	Spacing of braced wall lines shall not exceed 35' in either direction unless the building's length to width ratio < 3:1, then 50' max.
31	Braced wall lines shall not jog (stagger) more than twice and each jog not to exceed 4ft. Wall bracing beyond 4 ft. is not counted.
32	Show the front porch within one, 8-1/4" riser of the door threshold. Show a landing/deck w/in two, 8-1/4" risers of other door thresholds.
33	Show inside/outside stair section: 8-1/4" riser, 9" tread, 6'-8" headroom, tread/riser/stringer materials, stringer anchorage at bottom end.
34	Show inside / outside stairway & landing illumination: deck stair, front / back porch, screened porch stair, etc.
35	Show 2-1/4" max. handrails 34"-38" abv. nosing at 3 or more risers. Terminate handrail ends at wall/post. Show 3/4" to 1-1/4" tread nosings.
36	Show guards 34"-38" above nosing at all open stairs > 30" high. Show guards 36" min. above deck/porch/floor when > 30" high.
37	Guards located along the sides of stairs shall not permit the passage of a 4-3/8" dia. object. Stair risers not to pass a 4" dia. object.
38	Balusters used along stairs shall be less than 4-3/8" apart. Balusters used to surround decks/porches shall be less than 4" apart.
39	Label the req'd emergency egress opening from each sleeping room. Show min. dimen.: height= 22", width= 20", area= 5.7 sf, sill= 44" max.
40	Label tempered glass: glazing within 24" of any door edge, glazing > 9 sf & less than 18" above the floor, glazing within 36" of a tub or shower,
41	Show minimum access: attics, 22" x 30" / crawl space, 18" x 24" Show ventilation: 1sf vent/150sf attic, 1 vent 3' from ea. crawl sp. corner.
42	Show 36" finished width: openings, hallways, peninsulas, islands, stairs Show min. door size: habit. room/basem. door=2668, bath/toilet=2468
43	Show full height firepl./chimney section: hearth/hearth exten. dimen., firepl. opening, mantel/trim thickness vs. distance to firepl. opening, etc.
44	Show min. ceiling heights: 7'-0" rooms, 6'-6" drops/soffits Identify the use of all rooms, spaces & possible sleeping rooms.
45	Show/Correct lumber size(s): door / window headers, garage, rafters, bay, roof/floor beams, ceiling/floor joists, rafter ties, ridge beam, etc.
46	Show no. of support studs under ends: door/window headers, garage, bay, ridge beam, roof/floor beams transferring loads to the foundation.
47	Show lumber species/grade/spacing: garage/bay/door/window headers rafters, rafter ties, ridge beam, roof/floor beam, ceiling/floor joists, etc.
48	Show proper stud size & spacing for ext. walls >10 ft. (balloon framed). Show valley over-framing materials. Boxes 45 & 47 are also required.
49	Show all furring & lumber within 6" of fin. grade as pressure treated. Show wall sheathing seams backed by blocking (equal to stud size).
50	Show dia., length & spacing of bolts. Show porch column anchorage. Show all exposed bolts & fasteners as galvanized, stainless steel, etc.
51	Show brick ties at 24"oc max. (horiz.) supporting no more than 2-2/3 sf & additional ties at 36" oc around all openings within 12" of the opening.
52	Show brick details: flashing & weeps (33"oc) above lintels, below sills & base course, weather resistant membrane, min. 3/4" air space.
53	Note on plans: Engineered floor/roof truss drawings with a layout sheet shall be furnished to the building inspector for the framing inspection.
54	Note on plans: All trusses shall be fastened to resist the uplift forces shown on the truss drawings, but for never less than 175 lbs.
55	Show the type & thickness of roof / wall sheathing materials. Show blocking (H-clips) at all roof sheathing seams (< 1/2" sheathing).

SEE BACK FOR ADDITIONAL COMMENTS ()

PLAN EXAMINER

DATE

01/12/05

Building Code: 2005 Hamilton County Building Code. This document may be purchased at the permit counter.

StdChkist05.xls/01-01-05

Applicant's Fax. Number: (?) ???-????

CONSTRUCTION STANDARDS / FRAMING (continued...)

MECHANICAL / ENERGY / VENTILATION

56	Show roof pitch, type of underlayment & type of roof covering materials. Asphalt shingles are not permitted on roof pitches < 2:12.
57	2 layers of underlay. (solid cemented btw. plies) req'd on pitches < 4:12. Solid cement between plies shall extend 24" min. inside the ext. wall.
58	

69	Correct/Complete line 13 on the application form involving the Btu input & output rating of the furnaces & the input rating of the water heaters.
70	Show all mechanical appliance locations: furnaces, water heaters, etc. Show drains near all air-conditioning components & water heaters.
71	Show exhaust fans in bath/shower/toilet rooms w/o operable windows. All exhaust fans must vent directly to the exterior of the home.
72	Show min. insulation R-values: roof=R-30, floor=R-19, ext. wall= R-13, slab edges= R-4, foundation walls= R-6, glazing: Uo = 0.50 max.
73	Slab edge insulation shall extend from the top of the slab, down 24". Fnd. wall insul. shall extend from top of wall to 30" below finished grade.
74	Model energy code analysis fails. Check sq. foot areas & wall types. The insulation R-values shown on the analysis must match the plans.
75	Note on plans: The manufacturer's protective cover shall be installed at the outside fireplace flue termination when < 6ft. above grade.
76	Note on the plans: All prefabricated fireplaces shall be installed per the manufacturer's installation instructions.
77	Show masonry chimney height above roof: 2 ft. higher than any portion of the bldg. within 10 ft. Show crickets at chimney & roof intersections.
78	Show the location of the sump pump required in the basement.
79	
80	
81	
82	

DECK / PORCH COMMENTS:

59	Show a full deck/porch section view: heights, floor/wall/roof materials, dimensions, connection details, height above grade, etc.
60	Show the dimen. from the door threshold down to the deck/porch floor. Show the height of deck/porch floor above fin. grade at all corners.
61	Show max. 8 ft. oc guardrail support post spacing. If > 8 ft. oc, submit calculations documenting allowable fiber stress & deflection limits.
62	Guardrail design load = a single 200 lb. concentrated load applied in any direction at any point along the top of the guardrail.
63	Show/Correct deck/porch lumber size(s): posts, floor/roof beams, rafters, rafter ties, floor/ceiling joists, ridge board, etc.
64	Show connection detail of ledger board to building: lumber size, dia./length/spacing/embedment of bolts, flashing, joist hangers, etc.
65	Show the type of wall at ledger board connect.: concrete, masonry (brick &/or block), wood frame w/ siding, wood frame w/ brick veneer.
66	Show connect. details: post to ftg., post to floor beam, side roof beams to column/house, the floor joists below porch columns at house end.
67	Show diagonal bracing betw. all posts resisting side-to-side deflection. Detail all diagonal bracing connections. See box 50.
68	Show ledger/roof beam not bearing on nor connecting to brick veneer. Show full depth solid blocking 24"oc (max.) at separated beams.

2005 HCBC Requirements for Footings & Foundations ¹

Concrete Foundation Walls ²				Concrete Spread Footings ^{4,5,7,8}					
(h) Found. Wall Height (feet)	(b) Maximum Unbal. Fill (feet)	(t) Minimum Wall Thickness (inches)	(s) ³ Maximum Anchor Bolt Spacing (inches)	(w) ⁶ Minimum Footing Width (inches)					
				Wood Frame with Brick Veneer			Wood Framed		
				1-story	2-story	3-story	1-story	2-story	3-story
5	4	6	72	12	16	24	12	12	17
	5	6	72	12	16	24	12	12	17
	6	6	72	12	16	24	12	12	17
6	4	6	72	12	16	24	12	12	17
	5	6	72	12	16	24	12	12	17
	6	8	60	12	16	24	12	12	17
7	4	6	72	12	16	24	12	12	17
	5	8	72	12	16	24	12	12	17
	6	8	60	12	16	24	12	12	17
8	4	6	72	12	16	24	12	12	17
	5	8	72	12	16	24	12	12	17
	6	8	60	12	16	24	12	12	17
9	4	6	72	12	16	24	12	12	17
	5	8	72	12	16	24	12	12	17
	6	10	60	14	16	24	14	14	17
	7	10	36	14	16	24	14	14	17
	8	10	32	14	16	24	14	14	17
	9	DR	DR	DR	DR	DR	DR	DR	DR

- DR = Design Required
- Foundation walls are based on 3000 psi concrete with 5%-7% air entrainment.
- Spacing is based on 1/2 inch diameter bolts (minimum) embedded 7 inches (minimum) into concrete, or equal.
- All spread footings are unreinforced utilizing 2500 psi concrete (no air entrainment).
- 1-Story, 2-Story and 3-Story are based upon stories above grade only.
- Spread footing widths are based on an assumed soil bearing capacity of 2000 psf.
- The horizontal projection (p) of the footing beyond the face of the foundation wall (both sides) shall not be less than 2 inches.
- The minimum footing thickness (f), in inches, shall be calculated: $f = [(w-t)/2]$. (f) shall never be less than 6 inches.

2005 HCBC Requirements for Deck Footings

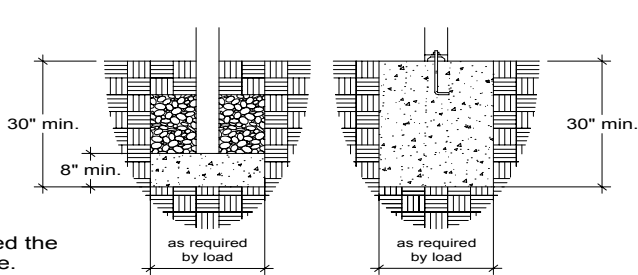
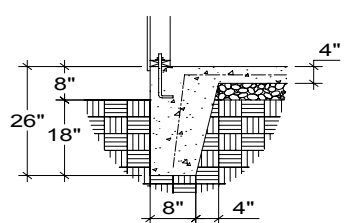
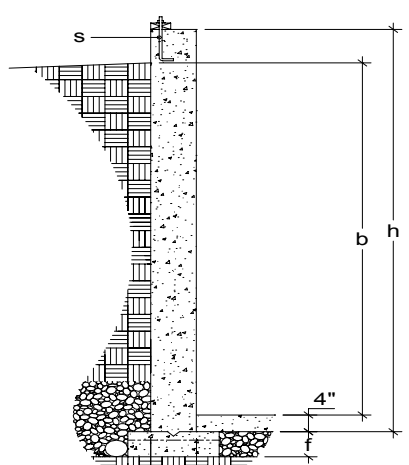
Cast-in-Place Concrete Deck Footings ^{1,2}			Maximum Tributary Floor Area Bearing on Each Post ^{3,4} (square feet)
(w) Square (inches)	(d) Diameter (inches)	(t) Thickness (inches)	
8	8	6	10
11	13	7	20
14	16	8	30
16	18	9	40
18	21	11	50
20	23	12	60
22	25	13	70
25	28	14	90
28	31	16	110
30	34	18	130

- Footings are based on a max. assumed soil bearing capacity = 2000 psf.
- Concrete compressive strength is 2500 psi (no air entrainment).
- Maximum cantilever lengths: joists = 2 ft.; beams = 1 ft.
- Design load = 50 psf (40 LL+10 DL), no roof, hot-tub or spa loads.

FOOTING & FOUNDATION

MONOLITHIC FOUNDATION ^{1,2,3}

DECK FOOTINGS



- All concrete dimensions are considered the minimum required by the building code.
- Monolithic foundations are permitted for non-habitable, detached structures of framed construction only (no masonry or masonry veneer).
- Sole plate anchorage to be 1/2" dia. bolts spaced a maximum of 72" on center with a minimum embedment of 7" into the concrete.

COLUMN FOOTINGS

