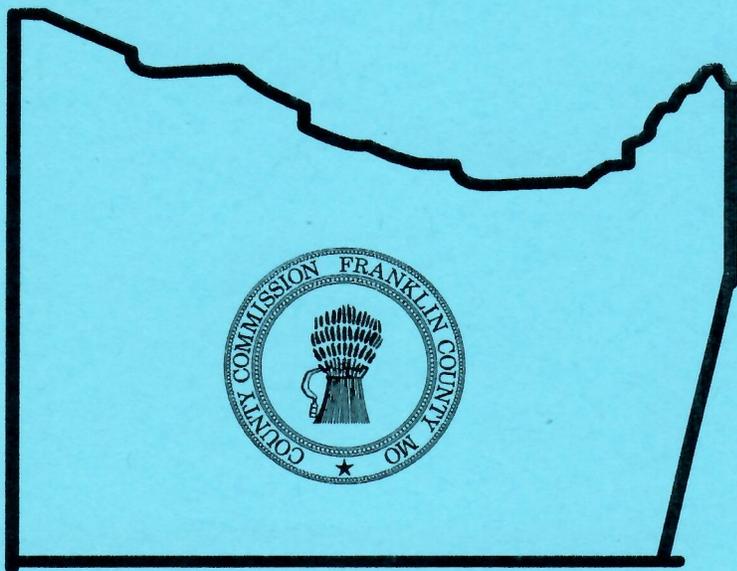


Building in Franklin County



Inspection Guidelines

Franklin County Building Department
400 E. Locust St. Room 006
Union, MO 63084

FOR RESIDENTIAL 1 & 2 FAMILY

Inspections MUST be scheduled by 3 p.m. the previous working day before you need them!

636-583-6384

Office hours are 8:00 am to 4:30 p.m. Mon. - Fri.

The Inspectors are in the office from 8:00 a.m. to 8:30 a.m. and from 4:00 p.m. to 4:30 p.m. It is during those times that you will be able to speak with your inspector regarding a specific inspection or code question.

Please review your plans and additional information that is contained with your permit!

***INFORMATION IN THIS BOOKLET IS A GUIDELINE AND SUBJECT TO CHANGE WITHOUT NOTICE.

The following checklists are included to give the applicant an idea what items the building inspectors will be checking. They are written for the inspector's use and may not be clear to everyone who reads the list. Should any material presented cause questions or be unclear, please call the office at 636-583-6384 for more information.

The checklists included are revised from time to time and included only to give the permittee an idea of what is being checked. The inspectors will use the current checklist available.

You will have several inspections to schedule depending upon the purpose of your building permit.

New construction, additions, alterations

Footing Inspection
Foundation Wall Inspection
Suspended Concrete Floor (where applicable)
Under Floor Plumbing
Rough Framing
Rough Electric
Rough Plumbing
Waterline (if applicable)
Fireplace chase (if applicable)
Electric Trench
Electric Service
Deck and Porch Piers
Drywall Inspection
Septic System Inspection
Occupancy Inspection
Final Inspection

Other Inspections

Mobile Home Inspections
Pole Buildings
Swimming Pools
Accessory Buildings
Mechanical
Electrical
Plumbing
Site Inspections
Deck

REINSPECTION FEE

If a list is given to the owner or contractor and the inspector returns for reinspection and items on the list are not corrected, a mandatory \$25.00 reinspection fee will be imposed and paid for *before any further inspections can be completed. No exceptions.*

LOCATION OF RESIDENCE MARKED

Premises Identification. Approved numbers, addresses or Emergency Numbering System (ENS) number shall be provided for all new buildings in such a position as to be plainly visible and legible from the street or road fronting the property. R321.1

**FOOTING
INSPECTION CHECK LIST**

PERMIT # _____

PERMITTEE: _____

	<u>Approved</u>	<u>Disapproved</u>
Report on shot hole and approved fill (R401)	<input type="checkbox"/>	<input type="checkbox"/>
Soil condition sufficient to accommodate all loads (R401 & R403).....	<input type="checkbox"/>	<input type="checkbox"/>
Setbacks per Planning & Zoning	<input type="checkbox"/>	<input type="checkbox"/>
Width and depth of footing per submitted approved plans (Table 403.1 ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
Required steel in place 3" above bottom of footing (403.1 ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
Workmanship, square, and etc.....	<input type="checkbox"/>	<input type="checkbox"/>
Pier pads per approved plan.	<input type="checkbox"/>	<input type="checkbox"/>
Adequate depth for frost protection (1809.5)	<input type="checkbox"/>	<input type="checkbox"/>
All footings formed up unless dug by backhoe.....	<input type="checkbox"/>	<input type="checkbox"/>
Masonry fireplace footing min 12" thick (R403.1).....	<input type="checkbox"/>	<input type="checkbox"/>
Sleeve for sewer pipe.....	<input type="checkbox"/>	<input type="checkbox"/>
Footings free of mud, roots, loose dirt, water & all foreign debris (R403.1)	<input type="checkbox"/>	<input type="checkbox"/>
Vertical rods with 8" hooks on job site next to forms (can be floated in)(403.1).....	<input type="checkbox"/>	<input type="checkbox"/>
24"X 24" minimum vertical tied in place for electric ground	<input type="checkbox"/>	<input type="checkbox"/>
Below 25 degree F or above 105 degree F (1905.12.1 & 1905.13.1 ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
Bottom of footing shall not have a slope exceeding one unit in ten units 10% slope (R403.1.5)	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

	Wet	Moist	Dry	Frozen
Weather Condition.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Note: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error.]

The above items must be corrected:

Please call (636)583-6384 for a re-inspection when correction(s) have been completed.

Inspection Date _____ By _____

Re-Inspection Date _____ By _____

Typical Footing/Foundation Section

Scale: NOT TO SCALE

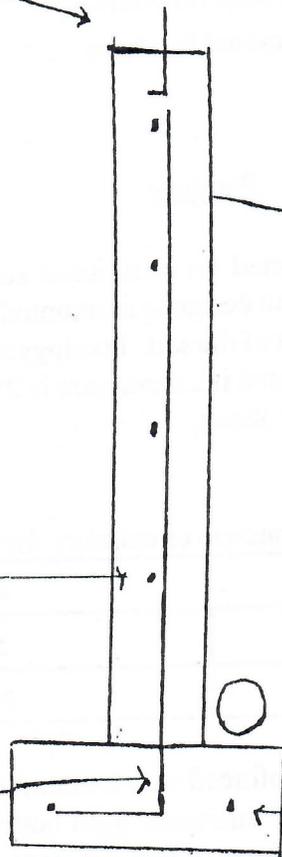
1/2" X 10" with 7" into concrete minimum
Anchor Bolts spaced as per code
and 2 Bolts per sill board.

WALLS LESS THAN 4 FEET
Vertical #4 bars 48" O.C.
Horizontal #4 bars 24" O.C.
MINIMUM

WALLS 4 FEET - 9 FEET
#4 Bars @ 2'
cntrs each way.
Minimum 5 Rows **Horizontal**
in 8' to 9' Pour

* 8" L-shaped hook
can be floated
in footing.

2 - #4 bars continuous
thru footing minimum



Finish Grade

Bituminous Coating
below grade.

Remove all ties prior to
application of Bituminous
Coating, surface prep per
coating manufacturer.

Tied in Place
3" from bottom of footing.

ALL RODS MUST BE TIED IN PLACE

FOOTING Inspection Guidelines

1. Approved plans must be on job site.
2. If hole is blasted, need Soil Consultant report.
3. Footing sized according to approved plans.
4. Required steel tied in 3" above bottom of footing.
5. Vertical steel with 8" hooks bent and by footing. (Can be floated in.)
6. Proper size sleeve for sewer pipe.
7. Footing free of mud, roots, loose dirt, water and debris.
8. Temperature 25 Degrees Fahrenheit or above but not to exceed 105 Degrees Fahrenheit.
9. Pier pads approved size, formed, with steel if required.
10. Frost protection at walk out and all required locations.
11. All footings on stable ground.

Footings

General All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, which shall be of sufficient design to accommodate all loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed or engineered fill. No concrete shall be poured if temperature is 25 degrees Fahrenheit or below or if temperature is 105 degrees Fahrenheit or above.

Minimum Size Footing

Minimum width and thickness of concrete or masonry footings (inches):

1 Story	20" wide x 8" thick
2 Story	20" wide x 8" thick
3 Story	24" wide x 10" thick

Note: All load bearing footings must be reinforced with a minimum of 2 #4 rebar continuous and tied in place. Spaced evenly and placed 3" minimum from bottom of footing. In addition, as a minimum 1 #4 vertical rebar shall be placed 2 foot on center, placed in the center of the footing/foundation wall. The vertical rebar shall have an 8" L-shaped hook, as measured from the outside edge of the hook, to the end of the hook. The vertical bar hooked end shall be embedded in the footing 4" to 5", with 16" rebar rising above the footing. These can be floated in. All rebar shall be 40 grade minimum.

GUIDELINES DO NOT REFLECT ALL ASPECTS OF ACTUAL INSPECTION.

**FOUNDATION WALLS
INSPECTION CHECK LIST**

PERMIT # _____

PERMITTEE : _____

	<u>Approved</u>	<u>Disapproved</u>
Approved plans on job site	<input type="checkbox"/>	<input type="checkbox"/>
Meets dimensions on plans	<input type="checkbox"/>	<input type="checkbox"/>
Required steel in place per approved plan	<input type="checkbox"/>	<input type="checkbox"/>
Vertical 3"-5" above top of wall attached to marked Stub vertical for electric grounding	<input type="checkbox"/>	<input type="checkbox"/>
Verticals 24" o/c if wall is over 4' tall; Under 4' tall 48" o/c attached (R404.1.1(1) ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
Foundation wall servicing a crawlspace must have 18x24 access (R408.4)	<input type="checkbox"/>	<input type="checkbox"/>
Foundation wall servicing a crawlspace must have adequate cross ventilation (R408.1)	<input type="checkbox"/>	<input type="checkbox"/>
Wall setting on footing properly	<input type="checkbox"/>	<input type="checkbox"/>
Workmanship square and etc.	<input type="checkbox"/>	<input type="checkbox"/>
Foundation bolts proper size & length 1/2 bolts 7" into foundation (R403.1.6)	<input type="checkbox"/>	<input type="checkbox"/>
Footing clean inside forms (no mud, leaves, ice or any foreign debris)	<input type="checkbox"/>	<input type="checkbox"/>
Retaining walls with over 48" unbalanced fill per registered design	<input type="checkbox"/>	<input type="checkbox"/>
Pier pads per approved plans (if not already poured w/footing) ...	<input type="checkbox"/>	<input type="checkbox"/>
Any wall over 9' per design (ordinance R404.1.1(1))	<input type="checkbox"/>	<input type="checkbox"/>
Proper pouring temperature 25 degree F min. 105 degree F max. (Ordinance 1905.12 & 1905.13)	<input type="checkbox"/>	<input type="checkbox"/>
All basements require an emergency escape/window or door per Ordinance R-310	<input type="checkbox"/>	<input type="checkbox"/>

Weather Condition..... Wet Moist Dry Frozen

[Note: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error.]

The above items must be corrected:

Please call (636)583-6384 for a re-inspection when correction(s) have been completed.

Inspection Date _____ By _____

Re-Inspection Date _____ By _____

Table R404.1.1 (1)

Reinforced Concrete and Masonry Foundation Walls

Max. Wall Height	Min. Vertical / Horizontal Reinforcement size and spacing for 8", 10", and 12" Walls in All Soil Classes
4 ft.	Vert.- #4 @ 4 ft. O.C. Horiz.- #4 @ 2 ft. O.C.
8 ft.	Vert.- #4 @ 2 ft. O.C. Horiz.- #4 @ 2 ft. O.C. (Min. 4)
9 ft.	Vert.- #4 @ 2 ft. O.C. Horiz.- #4 @ 2 ft. O.C.
9 ft. – 10 ft.	Design Required. – (Franklin County cover design for a 9' – 10' wall may be used or a Sealed Design from a "Missouri Registered Design Professional may be submitted.)
Over 10 ft.	Design Required.

- Note: a) Mortar shall be type M or S and masonry shall be laid in running bond.
 b) Reinforcement shall be grade 40 min. Reinforcement shall be placed @ 3" from the inside face.
 c) Vertical rebar shall extend to within 6" from the top of the foundation wall.
 d) Wall height is measured from the top of balance fill to top wall.

Foundation Drainage

Drains shall be provided around all concrete or masonry foundations that retain earth and enclose habitable spaces, or usable spaces (R405.1), located below grade. Drainage tile, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system.

Foundation Damp Proofing

Foundation walls that retain earth and enclose habitable or usable spaces located below grade shall be damp proofed from the top of the footing to the finished grade.

Crawl Space

The under floor space between the bottom of the floor joist and the earth under any building (except space occupied by a basement or cellar) shall be provided with ventilation openings.

Franklin County requires a 6 mi. vapor barrier with granular fill and cover. (R408.1.1 Amendments)

Access

A minimum access opening of 18 inches by 24 inches shall be provided to the under floor space.

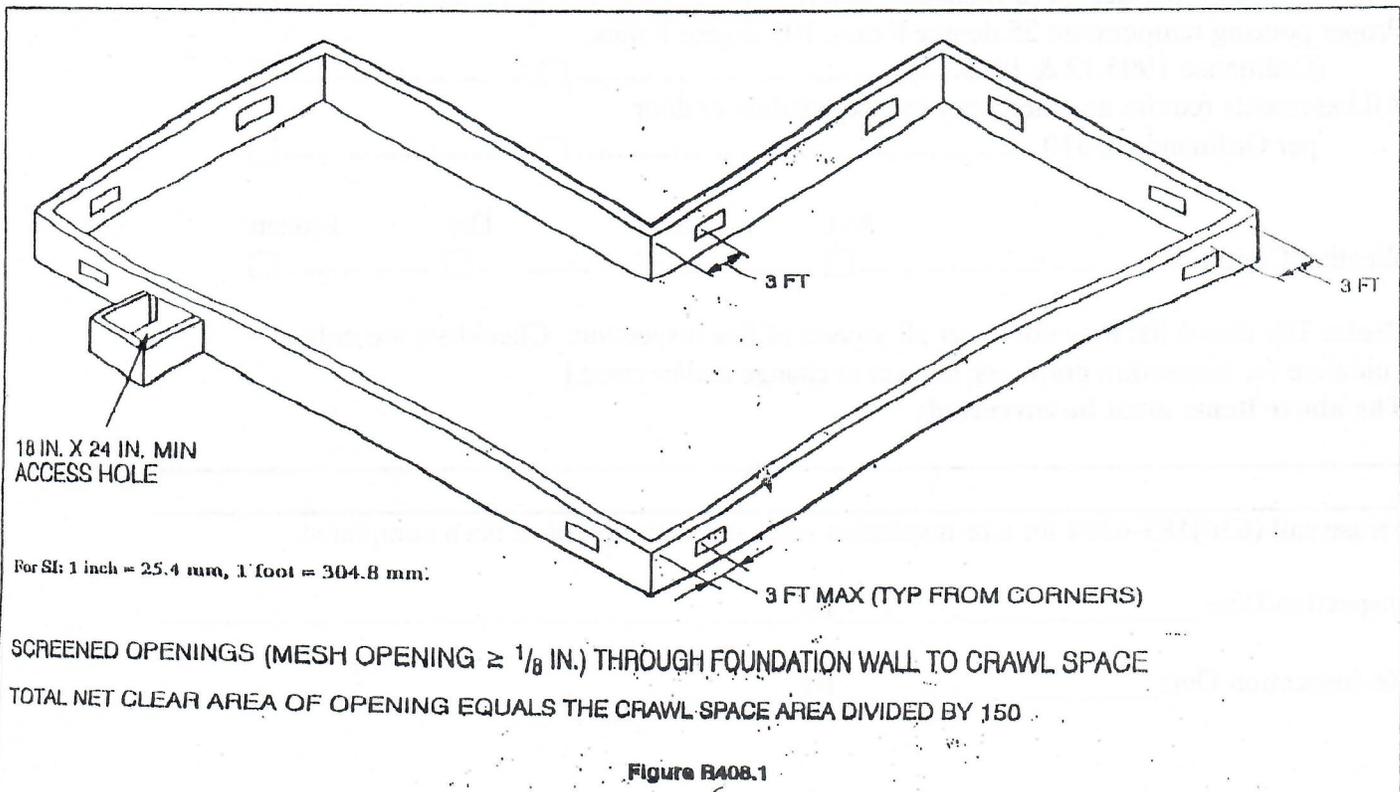


Figure R408.1

**UNDERFLOOR PLUMBING
INSPECTION CHECKLIST**

PERMIT # _____

PERMITTEE: _____

<u>BUILDING DRAINAGE SYSTEM</u>	<u>Approved</u>	<u>Disapproved</u>
Proper sleeve location and size (P2603.5)	<input type="checkbox"/>	<input type="checkbox"/>
Proper separation of water service and building drain (where applicable)(P2905.4.2).....	<input type="checkbox"/>	<input type="checkbox"/>
Main building drain size (DFU, P3005.4.2)	<input type="checkbox"/>	<input type="checkbox"/>
Pipe material (ASTM)(P-3002 & P3002.1 Ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
Fitting material (ASTM)(P-3002 & P3002.3 Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
Joints and connections(P3003)	<input type="checkbox"/>	<input type="checkbox"/>
Proper fittings used for change of directions(P3005.1)	<input type="checkbox"/>	<input type="checkbox"/>
Design of branch systems(P3005)	<input type="checkbox"/>	<input type="checkbox"/>
Size of branch systems (DFU) (P3005.4.2)	<input type="checkbox"/>	<input type="checkbox"/>
Design of vent system (Chapter 31).....	<input type="checkbox"/>	<input type="checkbox"/>
Size of vent system (Chapter 31).....	<input type="checkbox"/>	<input type="checkbox"/>
Proper support to all pipe (P2605.1).....	<input type="checkbox"/>	<input type="checkbox"/>
Proper slope of horizontal pipe (P3005.3).....	<input type="checkbox"/>	<input type="checkbox"/>
Sump pit and connections(P3007).....	<input type="checkbox"/>	<input type="checkbox"/>
Garage and outside drains not connected to sewer (Franklin County Ordinance: Sewage Tanks).....	<input type="checkbox"/>	<input type="checkbox"/>
Basement bathroom must have separate dry vent 2" min. (P3108).....	<input type="checkbox"/>	<input type="checkbox"/>
No cellular core pvc allowed under floor (Table P3002.2 Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
Building sewer at point of exit must have 12" to 24" of cover (P3001.2 & 305.6.1 Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
Approved traps installed(Chapter 32).....	<input type="checkbox"/>	<input type="checkbox"/>

System Test - Water (10' head on plastic for 15 minutes, P2503.4)

Air (copper 50# min P2503.7)(plastic 5# P2503.5.1 for 15 minutes
.....

[**Note:** The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error.]

The above items must be corrected:

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Inspection Date _____ By _____

Re-Inspection Date _____ By _____

2" minimum vent off bathroom group in basement.

No sanitary tees under floor.

Minimum 2" PVC for under floor plumbing. Recommended.

Franklin County Code prohibits the use of air admittance valves in new construction. May be used in additions on approval of Building Official.

Water Heaters

Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that combustion air will not be taken from the living space. Direct-vent water heaters are not required to be installed within an enclosure.

Water Heater Sizing Chart

FUEL	GAS	ELECT.	OIL									
(1 to 1 1/2 baths)	1 Bedroom			2 Bedrooms			3 Bedrooms			4 Bedrooms		
Storage (gal)	20	20	30	30	30	30	30	40	30	***	***	***
Input (Btu/h or kw)	27K	2.5	70K	36K	3.5	70K	36K	4.5	70K	***	***	***
Draw (Gph)	43	30	89	60	44	89	60	58	89	***	***	***
Recovery (Gph)	23	10	59	30	14	59	30	18	59	***	***	***
(2 to 2 1/2 baths)	2 Bedrooms			3 Bedrooms			4 Bedrooms			5 Bedrooms		
Storage (gal)	30	40	30	40	50	30	40	50	30	50	66	30
Input (Btu/h or kw)	36K	4.5	70K	36K	5.5	70K	38K	5.5	70K	47K	5.5	70K
Draw (Gph)	60	58	89	70	72	89	72	72	89	90	88	89
Recovery (Gph)	30	18	59	30	22	59	32	22	59	40	22	59
(3 to 3 1/2 baths)	3 Bedrooms			4 Bedrooms			5 Bedrooms			6 Bedrooms		
Storage (gal)	40	50	30	50	66	30	50	66	30	50	80	40
Input (Btu/h or kw)	38K	5.5	70K	38K	5.5	70K	47K	5.5	70K	50K	5.5	70K
Draw (Gph)	72	72	89	82	88	89	90	88	89	92	102	99
Recovery (Gph)	32	22	59	32	22	59	40	22	59	42	22	59

NOTE: Storage capacity, input and the recovery requirements indicated in the table are typical and may vary with each individual manufacturer. Any combinations of these requirements to produce the 1-hour draw stated will be satisfactory. Recovery is based on 100° F water temperature rise.

Exception: #1 Other types of heaters than those listed above may be used if the recovery rate is equal to above chart.

ROUGH-IN WALL PLUMBING INSPECTION CHECKLIST

PERMIT #: _____

PERMITTEE: _____

	Approved	Disapproved
BUILDING DRAINAGE SYSTEM		
1. No wires on PVC & no metal straps on dissimilar metal pipes (i.e. galvanized on copper)(P2605.1).....	<input type="checkbox"/>	<input type="checkbox"/>
2. Double santees not allowed on clothes washer (P3005.1.1).....	<input type="checkbox"/>	<input type="checkbox"/>
3. Double santees not allowed on toilets unless 18" from fitting (P3005.1)	<input type="checkbox"/>	<input type="checkbox"/>
4. No S traps allowed (P3201.5).....	<input type="checkbox"/>	<input type="checkbox"/>
5. Proper trap size (P3201.7).....	<input type="checkbox"/>	<input type="checkbox"/>
6. Main soil stack design	<input type="checkbox"/>	<input type="checkbox"/>
7. Main soil stack size min. one cont. 3" vent (DFU, P3102.1 Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
8. Pipe material (P3002).....	<input type="checkbox"/>	<input type="checkbox"/>
9. Fitting material (P3002.3)	<input type="checkbox"/>	<input type="checkbox"/>
10. Joints and connections (P3003)	<input type="checkbox"/>	<input type="checkbox"/>
11. Proper fittings for change of directions (Table P3005.1)	<input type="checkbox"/>	<input type="checkbox"/>
12. Cleanouts design and location (P3005.2)	<input type="checkbox"/>	<input type="checkbox"/>
13. Cleanout sizes (P3005.2.9).....	<input type="checkbox"/>	<input type="checkbox"/>
14. Drain pan required under furnace or water heater where leakage could cause damage (P2801.5)	<input type="checkbox"/>	<input type="checkbox"/>
15. Design of branch systems.....	<input type="checkbox"/>	<input type="checkbox"/>
16. Size of branch systems (DFU, P3005.4.2).....	<input type="checkbox"/>	<input type="checkbox"/>
17. Distance of trap to vent (P3105.1 Table).....	<input type="checkbox"/>	<input type="checkbox"/>
18. Size of vent systems (P3102.3)	<input type="checkbox"/>	<input type="checkbox"/>
19. Proper shower valves (P2708.3).....	<input type="checkbox"/>	<input type="checkbox"/>
20. Main vent size and location (3102.1)	<input type="checkbox"/>	<input type="checkbox"/>
21. Individual vent locations and sizes (P3102.2, P3113).....	<input type="checkbox"/>	<input type="checkbox"/>
22. Proper stand pipe heights 18" min. 42" max. (P2706.2)	<input type="checkbox"/>	<input type="checkbox"/>
23. Proper protections of pipings any pipe within 1 1/2"(P2603.2.1)	<input type="checkbox"/>	<input type="checkbox"/>
24. Proper slope of horizontal piping (P3005.3)	<input type="checkbox"/>	<input type="checkbox"/>
25. Proper support of all piping (P2605.1 Table).....	<input type="checkbox"/>	<input type="checkbox"/>
26. No wet venting allowed from floor to floor (3108).....	<input type="checkbox"/>	<input type="checkbox"/>
27. No vent through roof less than 2" (Franklin County Ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
28. Vent terminals through roof proper distance with proper flashing (P3103.1 & 904.1 Ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
29. Pipe not reduced before cleanout (P3005.1.7).....	<input type="checkbox"/>	<input type="checkbox"/>
30. Accessibility of cleanouts (P3005.2.5).....	<input type="checkbox"/>	<input type="checkbox"/>
31. No plastic piping in cold air returns	<input type="checkbox"/>	<input type="checkbox"/>
32. 2" dry vent off basement bath	<input type="checkbox"/>	<input type="checkbox"/>
33. System test – Water <input type="checkbox"/> Air <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Air admittance valves only on approval of Building Official (P3114.3).....	<input type="checkbox"/>	<input type="checkbox"/>

WATER DISTRIBUTION SYSTEM		
35. Material (P2905)	<input type="checkbox"/>	<input type="checkbox"/>
36. Design (P2903).....	<input type="checkbox"/>	<input type="checkbox"/>
37. Main service valve (P2903.9.1).....	<input type="checkbox"/>	<input type="checkbox"/>
38. Shut off valve on cold side of water heater (P2903.9.2)	<input type="checkbox"/>	<input type="checkbox"/>
39. Valves type and location (P2903.9.1 through P2903.9.3)	<input type="checkbox"/>	<input type="checkbox"/>
40. Shut offs (2903.9.3).....	<input type="checkbox"/>	<input type="checkbox"/>
41. Installation (P2903)	<input type="checkbox"/>	<input type="checkbox"/>
42. Proper sizing of water lines (P2903.7)	<input type="checkbox"/>	<input type="checkbox"/>
43. System test – Water <input type="checkbox"/> Air <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. Copper water service pipe 10' past building or 5' past overdig, whichever is greater	<input type="checkbox"/>	<input type="checkbox"/>
45. Water hammer arrestors on quick closing valves (per manufacturer's specs) P2903.5.....	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error.

The above items must be corrected:

Please call (636)583-6384 for a re-inspection when correction(s) have been completed

insp. Date _____ By _____ Re-insp. Date _____ By _____

venting required

Fuel burning appliances shall be vented to the outside in accordance with their listing and label and manufacturer's installation instructions except appliances listed and labeled for non-vented use. Venting systems shall consist of approved chimneys or vents, or venting assemblies that are integral parts of labeled appliances.

Ranges and Ovens

Free standing or built-in ranges shall have a vertical clearance above the cooking top of not less than 30 inches to unprotected combustible material.

Plumbing

Water Service Pipe Per Table 2904.5

P2904.4. Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table 2904.4.1. Water service pipe or tubing, installed underground and outside structure, shall have a minimum working pressure rating of 160 psi at 73 degrees Fahrenheit (1100kPa at 23 degrees Celsius). Type "K" copper tubing shall be installed from inside of foundation to 10' from building foundation or 5' beyond over dig whichever is greater.

Under Concrete Slabs

Inaccessible water distribution piping under slabs shall be copper water tube minimum Type K, brass, ductile iron pressure pipe, all to be installed with approved fittings or bends. The minimum pressure rating tubing installed under the slabs shall be 100 psi at 180 degrees Fahrenheit.

Main Vent Stack

Every building shall have a main vent a minimum of 3 inches in diameter that is either a vent stack or a stack vent. Such vent shall run undiminished in size and as directly as possible from the building drain through to the open air above the roof. All other vents should be no less than 2 inches in diameter.

Inspections and Testing

All plumbing systems shall be tested with water or air. Water test shall be to the drainage and vent system either in its entirety, or in sections. All openings shall be tightly closed except the highest opening, and the system shall be filled with water to the point of overflow. No section shall be tested with less than a 10-foot head of water. Water shall be kept in the system for at least 15 minutes before inspection starts. An Air Test on a drainage or vent system shall be made by forcing air into the system until there is a uniform gauge pressure of 5 psi in the gauge. The air shall be kept in the system for at least 15 minutes.

2009 International Residential Code

ROUGH-IN FRAMING INSPECTION CHECKLIST

ERMIT #: _____

PERMITTEE: _____

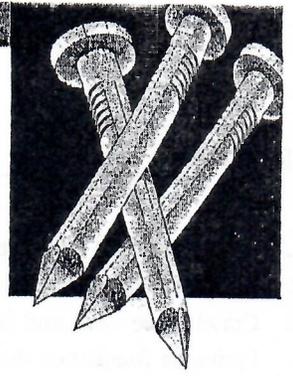
	<u>Approved</u>	<u>Disapproved</u>
1. Pressure treated sills or plates (R319 Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
2. Foundation anchors, bolts, washers and nuts (403.1.6).....	<input type="checkbox"/>	<input type="checkbox"/>
3. Crawl space vents and access if applicable (R408).....	<input type="checkbox"/>	<input type="checkbox"/>
4. Perimeter foundation drain (R405).....	<input type="checkbox"/>	<input type="checkbox"/>
5. Support post not poured in floor must be bolted (R407.3).....	<input type="checkbox"/>	<input type="checkbox"/>
6. Beams installed per plans.....	<input type="checkbox"/>	<input type="checkbox"/>
7. Floor joist proper size and spaced (Table R502.3.1(2) R502.3.1(1)).....	<input type="checkbox"/>	<input type="checkbox"/>
8. Double floor joist where required (R502.4).....	<input type="checkbox"/>	<input type="checkbox"/>
9. Proper cantilever of joists (Table R502.3.3(1) Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
10. Lateral support of floor joist (R502.7).....	<input type="checkbox"/>	<input type="checkbox"/>
11. Minimum clear width of stairways [36"] (R311.7.1).....	<input type="checkbox"/>	<input type="checkbox"/>
12. Stair landings the proper size (R311.7.5).....	<input type="checkbox"/>	<input type="checkbox"/>
13. 6'8" minimum headroom on all stairways (R311.7.2).....	<input type="checkbox"/>	<input type="checkbox"/>
14. Stair riser, treads and stringers proper size (R311.7.4.1, R311.7.4.2).....	<input type="checkbox"/>	<input type="checkbox"/>
15. Stud size & spacing (Table R602.3.1).....	<input type="checkbox"/>	<input type="checkbox"/>
16. Multiple studs under girder truss and etc.....	<input type="checkbox"/>	<input type="checkbox"/>
17. Wall sheathing (Table R602.3(3)) and sheathing paper (Table R703.4).....	<input type="checkbox"/>	<input type="checkbox"/>
18. Headers properly sized (Table R502.5(1)).....	<input type="checkbox"/>	<input type="checkbox"/>
19. Fire stopping & fireblocks where required (R302.11).....	<input type="checkbox"/>	<input type="checkbox"/>
20. Minimum on 36" exit door (R311).....	<input type="checkbox"/>	<input type="checkbox"/>
21. Emergency escape & rescue openings (R310).....	<input type="checkbox"/>	<input type="checkbox"/>
22. Safety glass where required (R308.4).....	<input type="checkbox"/>	<input type="checkbox"/>
23. Wind bracing as required (R602.10 / R802.10.3).....	<input type="checkbox"/>	<input type="checkbox"/>
24. Stick framed roof (R802).....	<input type="checkbox"/>	<input type="checkbox"/>
25. Truss design per manufacturer where required (R502.11 & R802.10).....	<input type="checkbox"/>	<input type="checkbox"/>
26. Gable ends of structure braced.....	<input type="checkbox"/>	<input type="checkbox"/>
27. Hurricane clips installed if applicable (R802.10.5 Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
28. Roof sheathing required (R803).....	<input type="checkbox"/>	<input type="checkbox"/>
29. Roofing applied correctly (R905).....	<input type="checkbox"/>	<input type="checkbox"/>
30. Attic ventilation as required (R806).....	<input type="checkbox"/>	<input type="checkbox"/>
31. Access to attics 22"x30" with 30" headroom (R807).....	<input type="checkbox"/>	<input type="checkbox"/>
32. Framing of fireplace (Chapter 10).....	<input type="checkbox"/>	<input type="checkbox"/>
33. Garage floor sloped to drain or overhead door adjacent floor per code requirements (R309.2 Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
34. All visible nailing (Table 602.3(1)-(2)).....	<input type="checkbox"/>	<input type="checkbox"/>
35. Drywall backing (R702.3.2).....	<input type="checkbox"/>	<input type="checkbox"/>
36. Flashing where required (R703.8).....	<input type="checkbox"/>	<input type="checkbox"/>
37. Joist hangers where required (R502.6).....	<input type="checkbox"/>	<input type="checkbox"/>
38. Cutting and notching in wood construction (R502.8).....	<input type="checkbox"/>	<input type="checkbox"/>
39. 7' minimum headroom in all rooms and basement (R305.1).....	<input type="checkbox"/>	<input type="checkbox"/>
40. Workmanship per code.....	<input type="checkbox"/>	<input type="checkbox"/>
41. Screw protection as needed (M1502.5).....	<input type="checkbox"/>	<input type="checkbox"/>
42. Other.....	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error.

the above items must be corrected:

Please call (636)583-6384 for a re-inspection when correction(s) have been completed

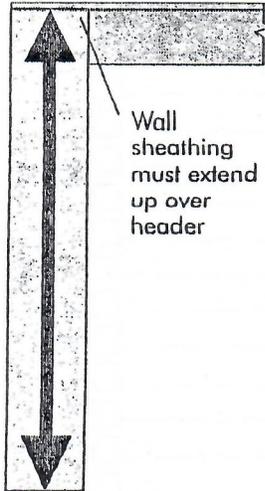
Insp. Date _____ By _____ Re-insp. Date _____ By _____



APA NARROW WALL BRACING METHOD FRAMING TIPS

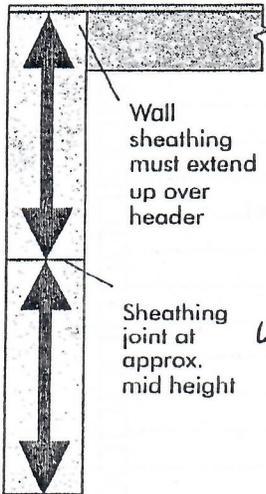
The APA Narrow Wall Bracing Method is a simple, site-built solution that allows builders to construct segments as narrow as 16 inches next to window and door openings. Be sure to check for these essential details when constructing the APA Narrow Wall Bracing Method around garage openings.

For complete information on the APA Narrow Wall Bracing method and its applications in locations other than the garage, please see APA publication *Narrow Walls That Work*, Form D420.



Wall sheathing must extend up over header

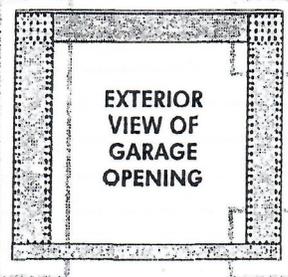
OR



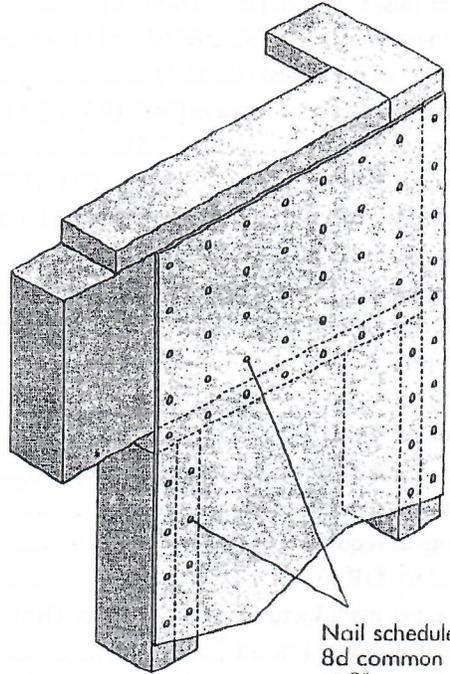
Wall sheathing must extend up over header

Sheathing joint at approx. mid height

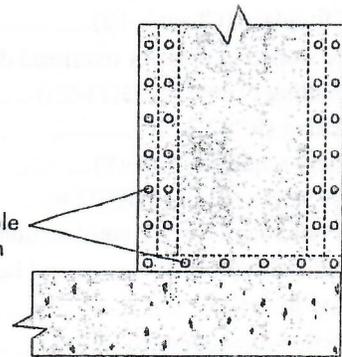
WITHIN 2' OF ϕ OF WALL HT



EXTERIOR VIEW OF GARAGE OPENING

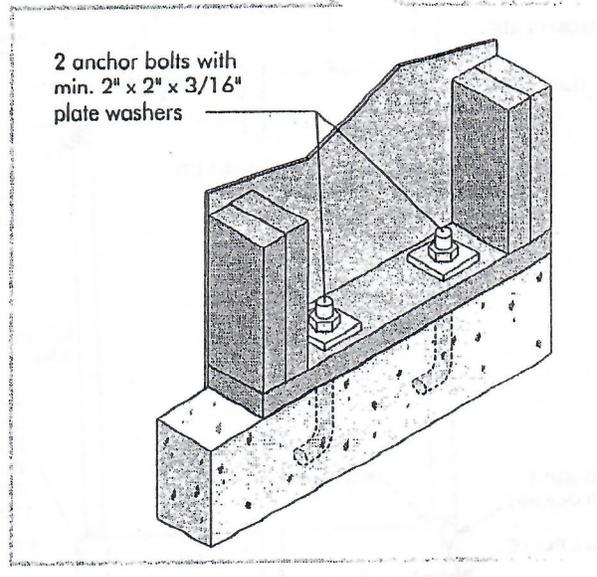
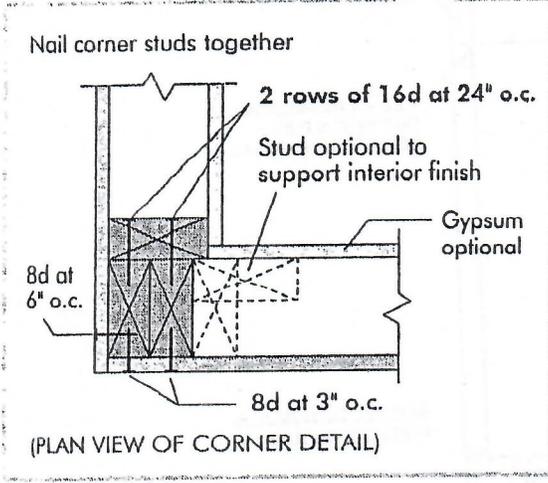
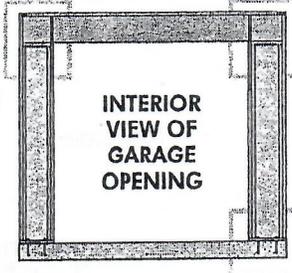
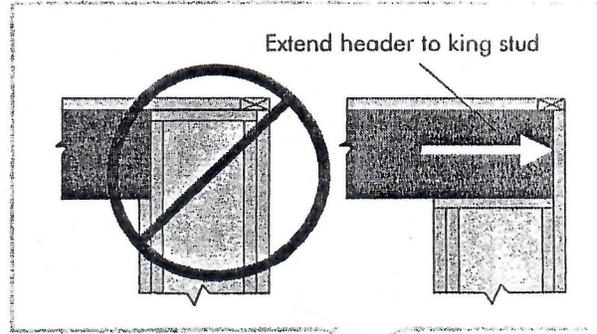
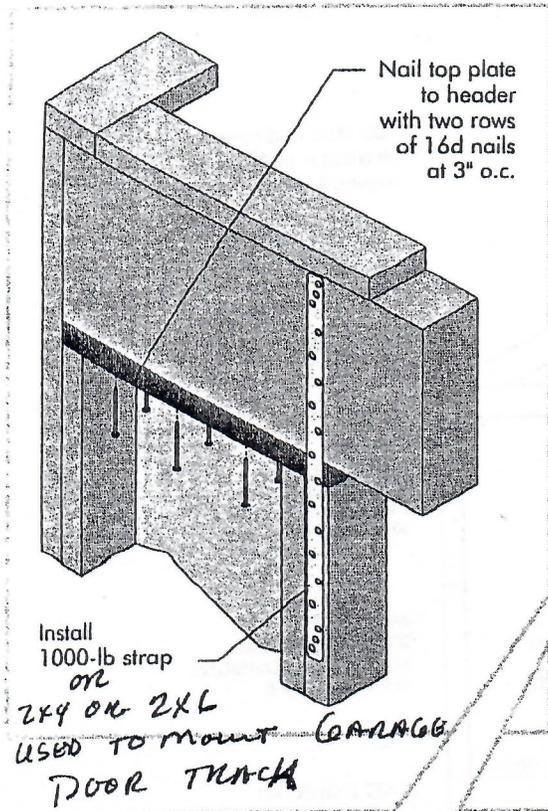


Nail schedule 8d common at 3" o.c.



Nail schedule 8d common at 3" o.c.

APA NARROW WALL BRACING METHOD FRAMING TIPS



802.10.5 Ordinance
Hurricane straps are
required on all trusses

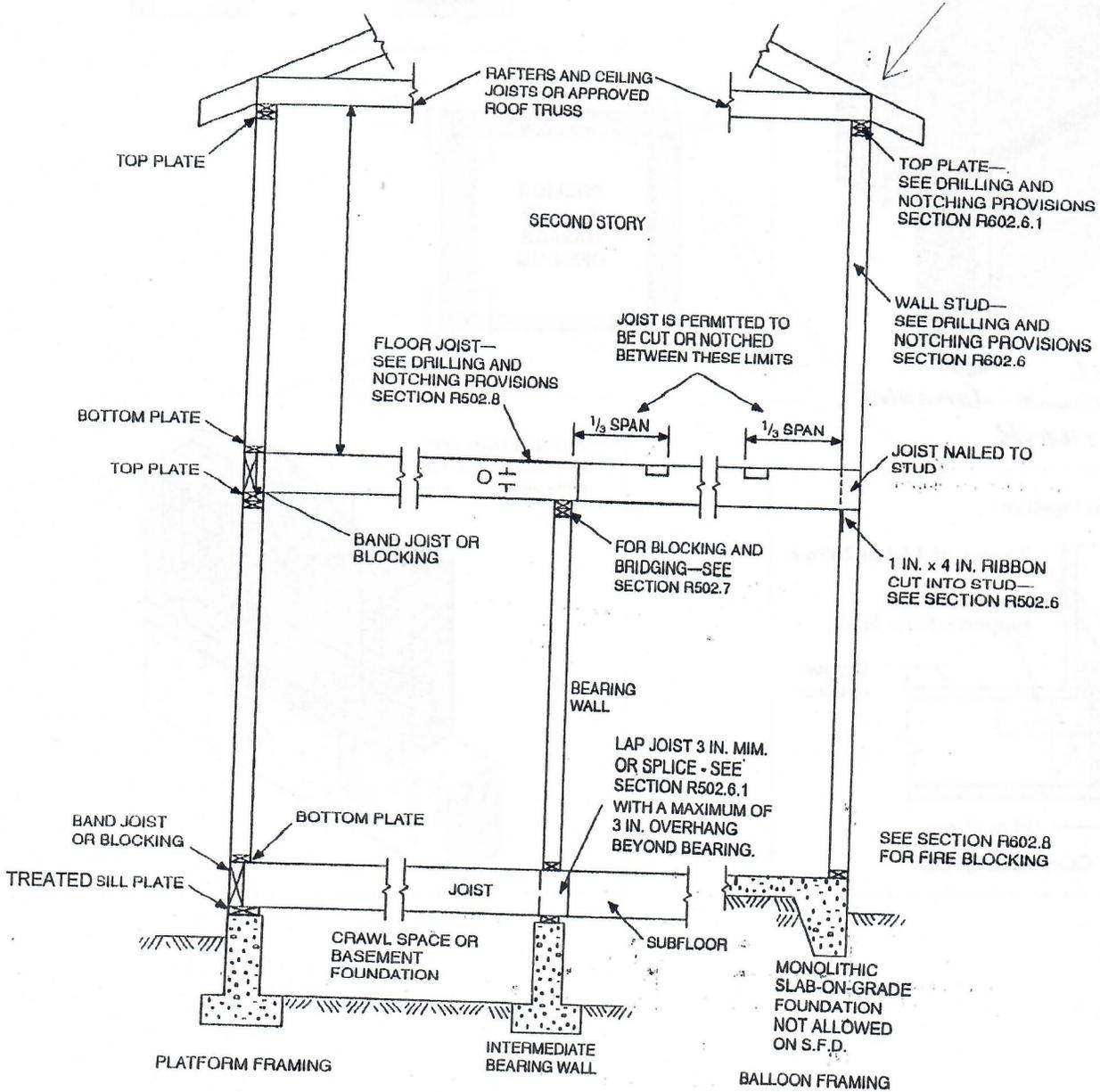


FIGURE R602.3(1)
TYPICAL WALL, FLOOR AND ROOF FRAMING

For SI: 1 inch = 25.4 mm.

Wall Construction

Requirements

Wall construction shall be capable of accommodating all loads imposed according to design criteria.

Identification

Load-bearing dimension lumber for studs, plates and headers shall be identified by a grade mark of a lumber grading or inspection agency that has been approved by an accreditation body that complies with DOC PS 20.

Drilling and Notching Studs

Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Studs in non-bearing partitions may be notched to a depth not to exceed 40% of a single stud width.

Fire Blocking Required

Fire blocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and the roof space. Fire blocking shall be provided in the following locations:

- a. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling level and floor level at 10 foot intervals both horizontal and vertical. Batts or blankets of mineral or glass fiber or other approved non-rigid materials may be allowed as fire blocking in walls constructed using parallel rows of studs or staggered studs.
- b. At all interconnections between concealed vertical and horizontal spaces such as soffits, drop ceilings and cove ceilings.
- c. In concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs.
- d. At openings around vents, pipes, and ducts at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion.
- e. Fire blocking of chimneys and fireplaces.
- f. Fire blocking of cornices of a two-family dwelling is required at the line of dwelling unit separation.
- g. Fire blocking required in garage on house side at midpoint.

Roof-Ceiling Construction

Identification and Grade

Load bearing dimension lumber for rafters, trusses and ceiling joists shall be identified by a grade mark of a lumber grading or inspection agency that has been approved by an accredited body that complies with DOC PS 20.

Design and Construction

Roof ceilings shall be designed and constructed in accordance with the provisions of the *International Residential Code*.

Truss Design Drawings

Truss design drawings, prepared in conformance with the International Residential Code, shall be provided to the building official and approved prior to installation.

Chimneys & Fireplaces

Masonry Chimneys

Masonry chimneys shall be supported on foundations of solid masonry or concrete at least 12 inches thick and at least 6 inches beyond each side of the exterior dimensions of the chimney.

Listed Materials

Listed materials used as flue linings shall be installed in accordance with the terms of their listings and manufacturer's instructions.

Masonry Chimney Cleanout Openings

Cleanout openings shall be provided within 6 inches of the base of each flue within every masonry chimney.

Chimney Fire-Blocking

All spaces between chimney and floor and ceilings through which chimneys pass shall be fire-blocked with noncombustible material securely fastened in place.

Factory Built Chimneys and Fireplaces

Factory built chimneys and fireplaces shall be listed and labeled and shall be installed and terminated in accordance with the manufacturer's installation instructions.

Un-Vented Gas Log Heaters

An un-vented gas log heater shall not be installed in a factory built fireplace unless the fireplace system has been specifically tested, listed and labeled for such use in accordance with UL 127.

Exterior Air Supply

Factory built or masonry fireplaces shall be equipped with an exterior air supply to assure proper fuel combustion unless the room is mechanically ventilated and controlled so that the indoor air pressure is neutral or positive.

Minimum Size:

Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (821 sq. in.)

Exception: The minimum net clear opening for emergency escape and rescue grade floor openings shall be 5 square feet (720 sq. in.). {Note! Window sill cannot be more than 44 inches above the finished grade and floor inside to meet this exception.}

Minimum dimensions:

The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). When you have a minimum height or width of net clear opening, the other dimension must be greater than the minimum height or width to meet the required egress area (opening). The net clear opening dimensions shall be the result of the smallest openings. These are dependent on style of window.

Minimum height from floor:

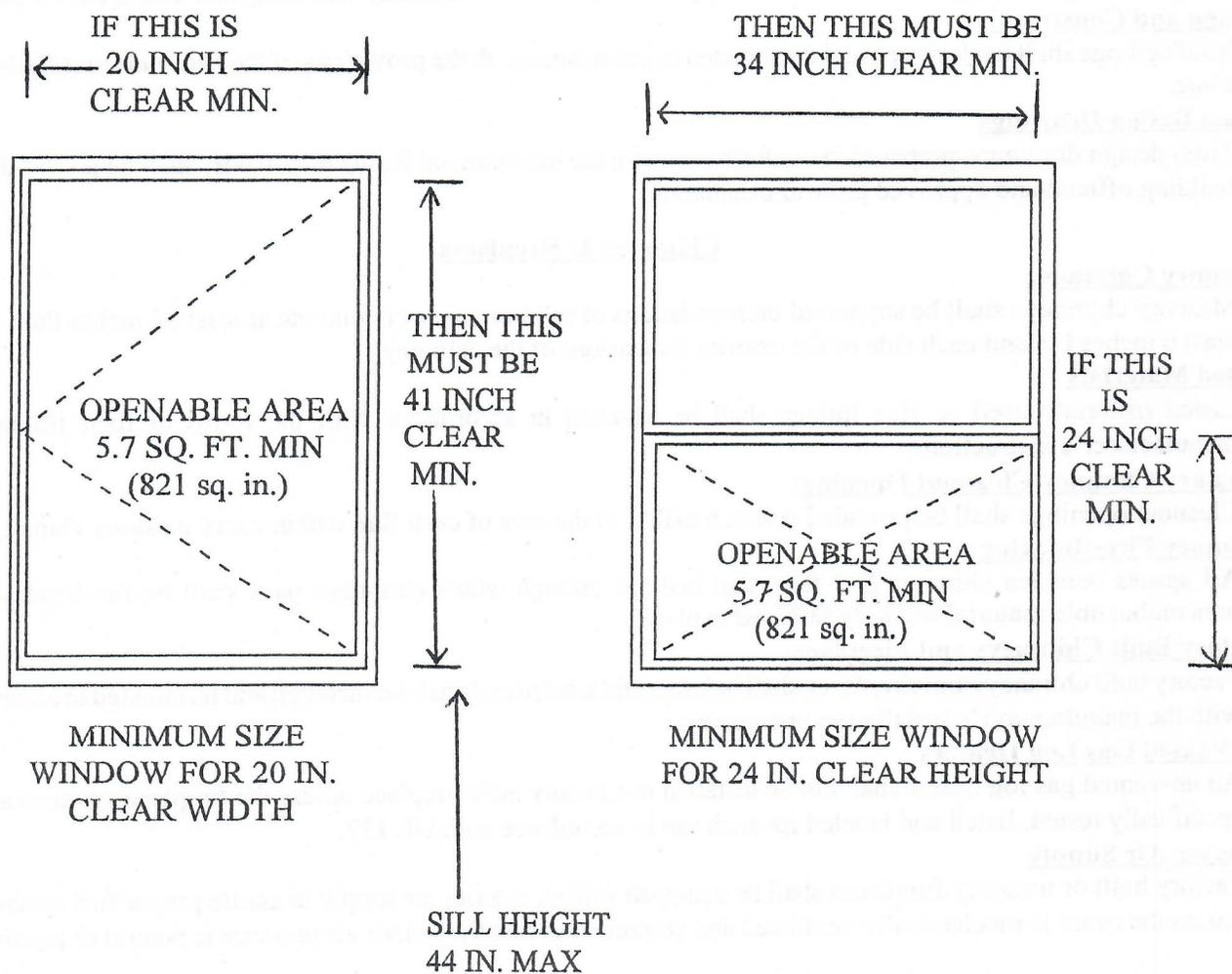
Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches measured from the floor.

Operational constraints:

Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

Bars, grills, and covers:

Bars, grills, covers or similar devices are not permitted to be placed over emergency escape and rescue windows.



Garages and Carports

Opening protection

Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid core wood doors no less than 1 3/8 in thickness or a 20 minute labeled fire-rated door.

Duct Penetration

Ducts in the garage and ducts penetrating the walls or ceilings are not allowed to be left exposed. They must be covered with the same material covering the walls and ceiling. Opening from the duct work into the garage is not allowed.

Separation required

Windows are not allowed in the separation wall. Doors in this wall must be 1 3/8's solid core door or 20 minimum fire-rated door. Glass panels cannot be in the door. The garage shall be separated from the residence and its attic area by not less than 1 layer of 5/8's Type X gypsum board applied to the garage side. Drywall seams must be taped and covered with joint compound, and nail heads covered with joint compound. Garage door brackets must be installed over the drywall. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than 5/8's inch Type X gypsum board or equivalent. Section R309.3; Garage floor surfaces shall be of approved noncombustible material. The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.

Carports

Carports must be open on at least two sides. Carport floor surfaces shall be of approved noncombustible material. Carports not open on at least two sides shall be considered a garage and must comply with the provisions of this section for garages.

Exception: Asphalt surfaces shall be permitted at ground level in carports.

The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway. R309.4

Attic Access

In buildings with combustible ceilings or roof construction, an attic access opening shall be provided to attic areas that exceed 30 square feet and have a vertical height of 30 inches or greater.

Attic spaces

An opening not less than 22 inches by 30 inches shall be provided to any attic area having a clear height of over 30 inches. A 30 inch minimum clear headroom in the attic space shall be provided at or above the access opening. Where complete access is not obtained throughout the attic additional attic access shall be required by the code official.

Closets

Attic access's are not to be located in any closet unless the attic access is readily accessible in a walk-in closet. When access is located in closet area the access must be centrally located.

Attic trim in Garage

Minimum thickness of trim is required to be 2" material.

Habital Rooms in Basements

All basements require a method of egress besides interior basement steps.
If bedrooms are in basement, egress is required from each bedroom.
As per IRC 310.1 Emergency Escape and Rescue Openings.

General Mechanical System Requirements

Appliances in Attics

Attics containing appliances requiring access shall be provided with an opening and a clear and unobstructed passageway large enough to allow removal of the largest appliance. A lighting fixture controlled by a switch located at the required passageway opening and a receptacle outlet shall be provided near the appliance location

Appliance Clearance

Appliances shall be installed with the clearance from unprotected combustible material as indicated on the appliance label and in the manufacturer's installation instructions.

Clothes Dryer Exhaust

Dryer exhaust systems shall be independent of all other systems, shall convey the moisture to the outdoors and shall terminate on the outside of the building. Exhaust duct terminations shall be in accordance with the dryer manufacturer's installation instructions. Screens shall not be installed at the duct termination. Exhaust ducts shall not be connected with sheet metal screws or fastening means which extend into the duct. Exhaust ducts shall be equipped with a back draft damper. Exhaust ducts shall be constructed of minimum 0.016-inch thick rigid metal ducts, having smooth interior surfaces with joints running in the direction of air flow. Flexible transition ducts used to connect the dryer to the exhaust duct system shall be limited to single lengths, not to exceed 8 feet in length and shall be tested and labeled in accordance with UL 2158A. Transition ducts shall not be concealed within construction.

M1501.3 Length Limitation. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620mm) from the dryer location to the wall or roof termination. The maximum length of the duct shall be reduced 2.5 feet (762 mm) for each 45 - degree (0.79 rad) bend and 5 feet (1524 mm) for each 90 - degree (1.6 rad) bend. The maximum length of the exhaust duct does not include the transition duct.

Exception: Where the make and model of the clothes dryer to be installed is known and the manufacturer's installation instructions for such dryer are provided to the building official, the maximum length of the exhaust duct, including any transition duct, shall be permitted to be in accordance with the dryer manufacturer's installation instructions.

NOTE: Franklin County will require a cleanout if over length limitation. Call for details.

Exits

R-311.4.1 Exit door required:

Not less than one exit door conforming to this chapter shall be provided from each dwelling unit. The required exit door shall provide for direct access from the habitable portions of the dwelling to the exterior without requiring travel through a garage.

R-311.4.4 Type of lock or latch:

All egress doors shall be readily open-able from the side from which egress is to be made without the use of a key or special knowledge or effort.

R-311.4.2 Type and size:

The required exit door shall be a side hinged door not less than 3 feet in width and 6 feet 8 inches in height.

R-311.3 Hallways:

The minimum width of a hallway shall be not less than 3 feet. Finished Dimension.

Stairways

R-303.6 Stairway illumination:

All interior and exterior stairways shall be provided with a means to illuminate the stairs, including the landing.

R-303.6.1 Light activation:

The control for activation of the required interior stairway lighting shall be accessible at the top and bottom of each stair without traversing any step of the stair. The illumination of exterior stairs shall be controlled from the inside of the dwelling unit. There shall be a wall switch at each floor level to control stair lighting where the stairway has 6 or more risers.

Exception: Lights that are continuously illuminated or automatically activated.

STAIRWAYS

R-311.5.1 Width of stairs

Stairs shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrail shall not project more than 4 ½ inches on either side of the stairway and the minimum clear width of the stairway at or below the handrail height, including treads and landings, shall not be less than 31 ½ inches where a handrail is install on one side and 27 inches where handrails are provided on both sides.

R-311.5.3 Treads and risers

The maximum riser height shall be 7 ¾ inches and the minimum tread depth shall be 10 inches. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inches.

R-311.5.3 Profile

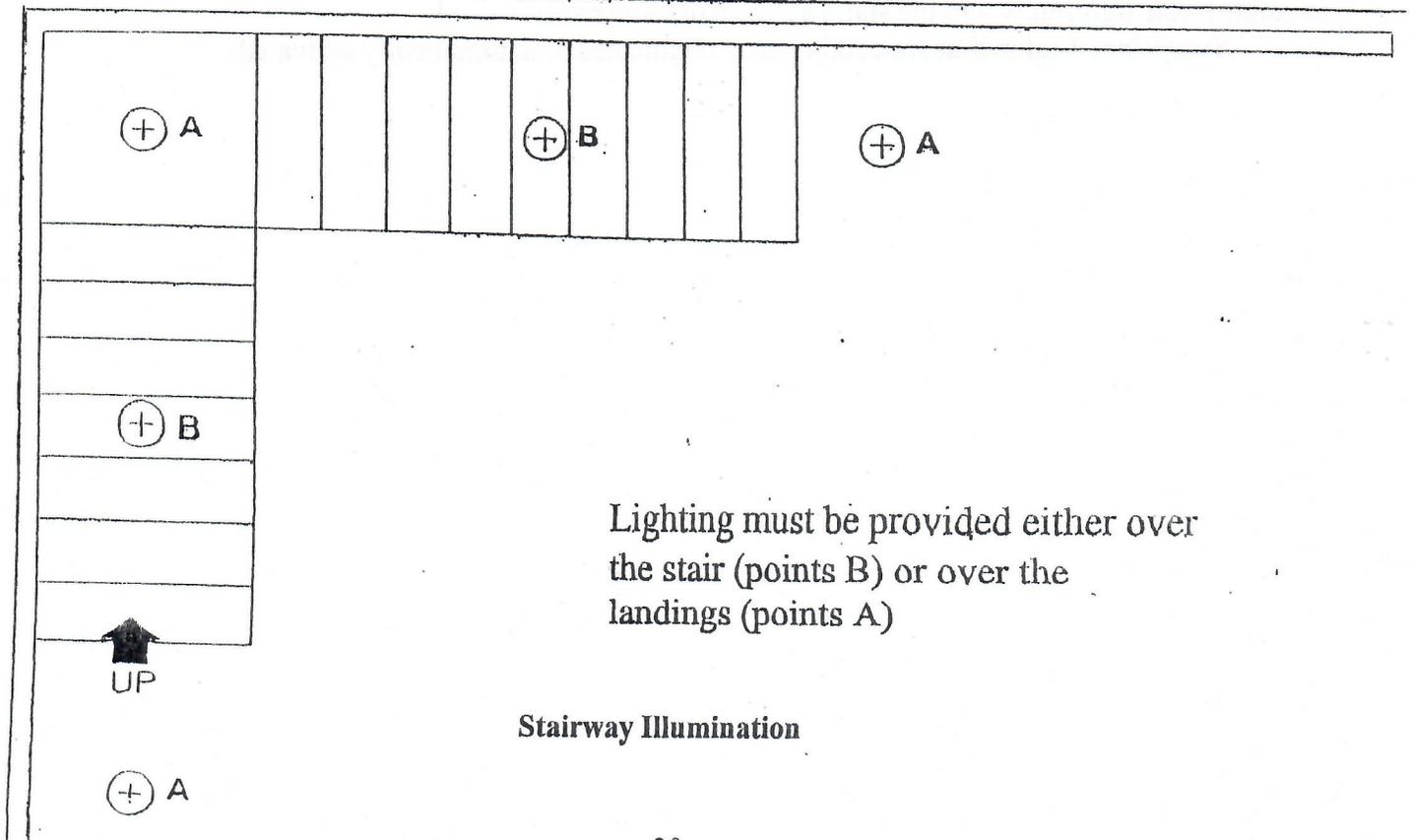
The radius of curvature of the leading edge of the tread shall be no greater than 9/16 inch. A nosing not less than ¾ inch but not more than 1 ¼ inches shall be provided on stairway with solid risers.

R-311.5.2 Headroom

The minimum headroom in all parts of the stairway shall be not less than 6 feet, 8 inches measured vertically from the sloped plane adjoining the tread nosing or from the floor surface of the landing or platform

R-303.6 Illumination

All stairs shall be provided with illumination.



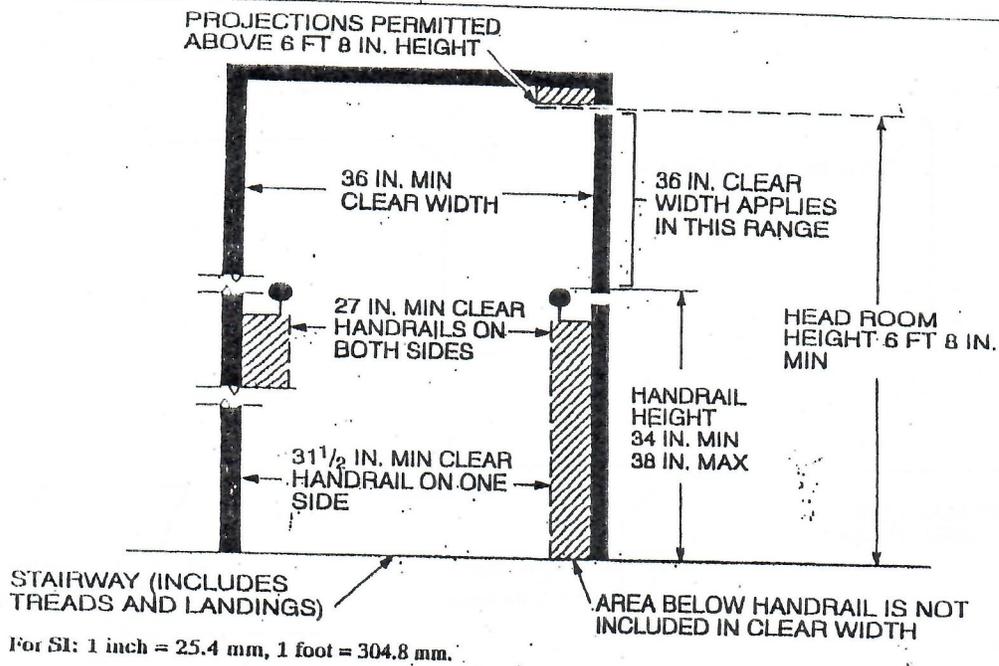
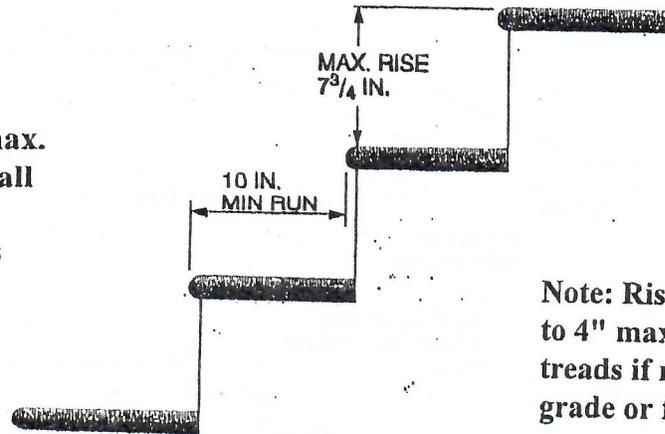


Figure R311.5.1
STAIRWAY CLEARANCES

3/4" min. - 1 1/4" max. nosing required on all stairs with solid or limited risers unless tread depth is 11" or greater.



For SI: 1 inch = 25.4 mm.

Figure R311.5.3.1(1)
CONVENTIONAL STAIRWAY

Deck and outside stairway with 4 or more risers required to have a handrail which meets the requirements of section 311.5.6 in the IRC.

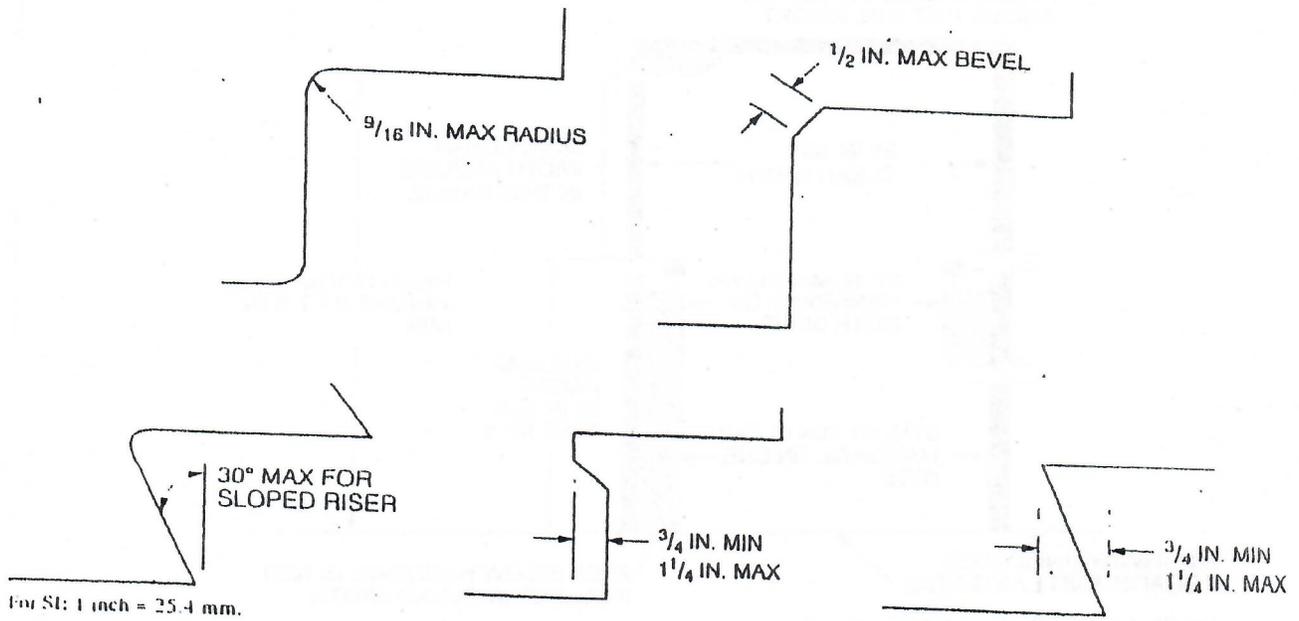
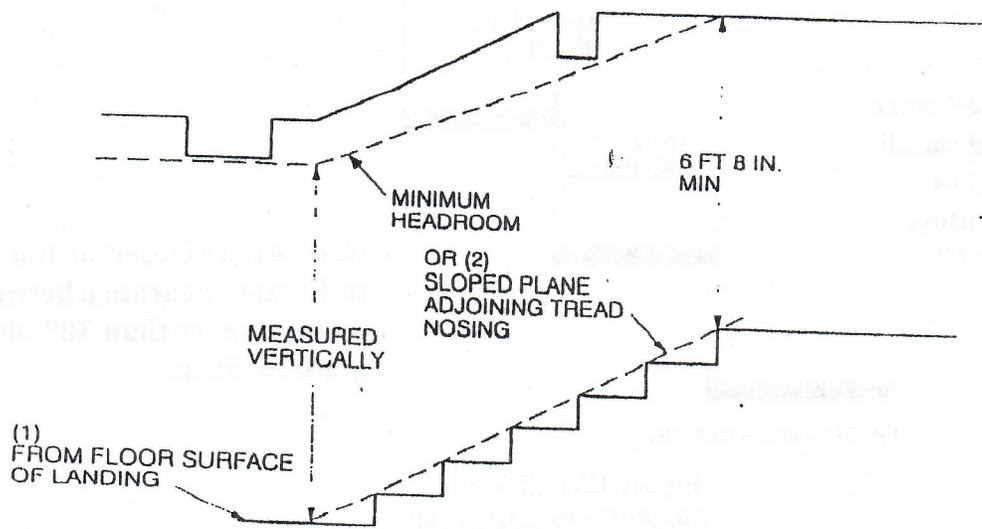


Figure R311.5.3
TREAD PROFILE



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Figure R311.5.2
MINIMUM HEADROOM

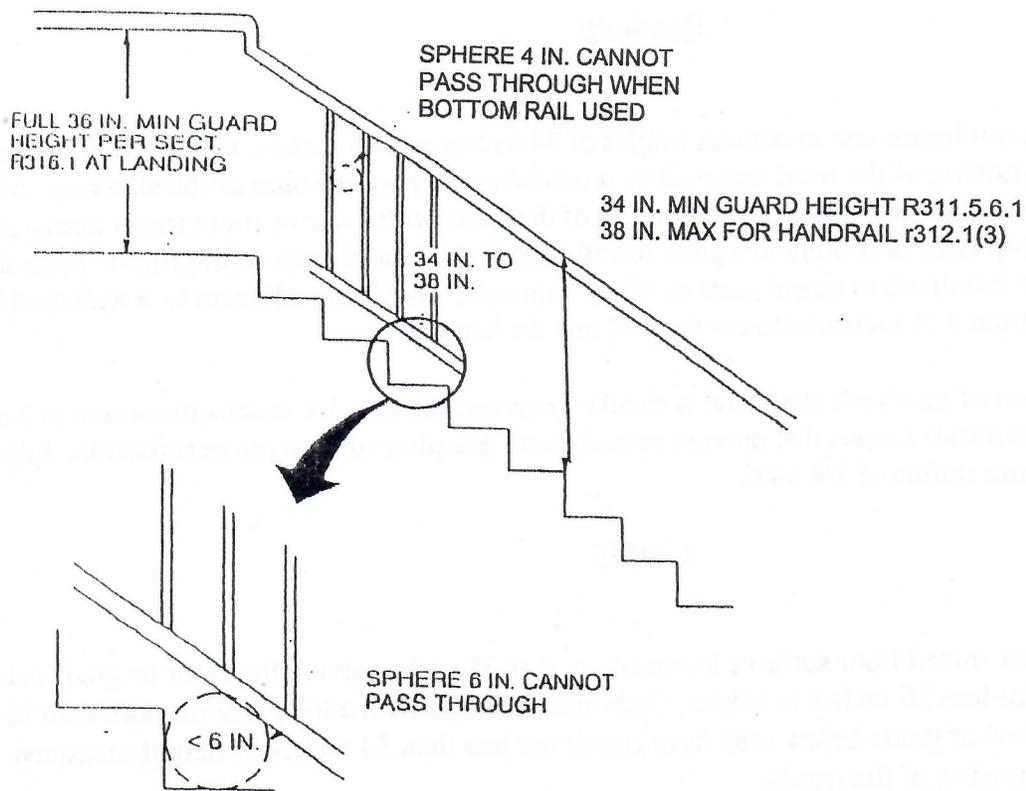


FIGURE R312.2
GUARD REQUIREMENTS

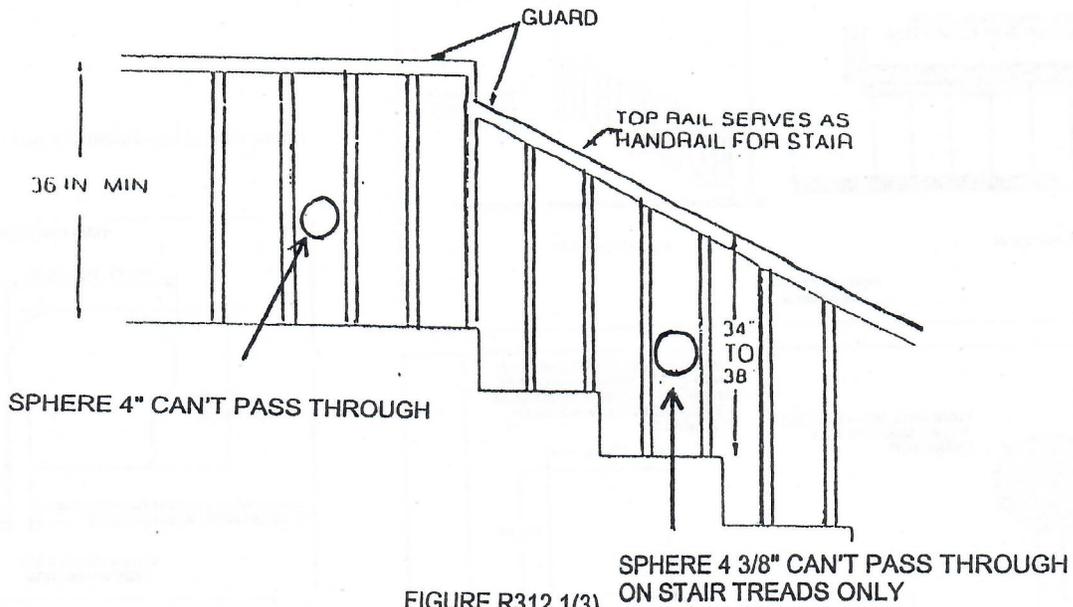


FIGURE R312.1(3)
STAIRWAY GUARD

Landings

R311.5.4 Landing for stairways

There shall be a floor or landing at the top and bottom of each stairway. Exception: At the top of an interior flight of stairs, provided a door does not swing over the stairs.

R311.4.3 Landing at doors

There shall be a floor or landing on each side of each exterior door. Exception: At the exterior side of the sliding doors.

R311.4.3 Size

The width of each landing shall not be less than the stairway or door served. Every landing shall have a minimum dimension of 36 inches measured in the direction of travel

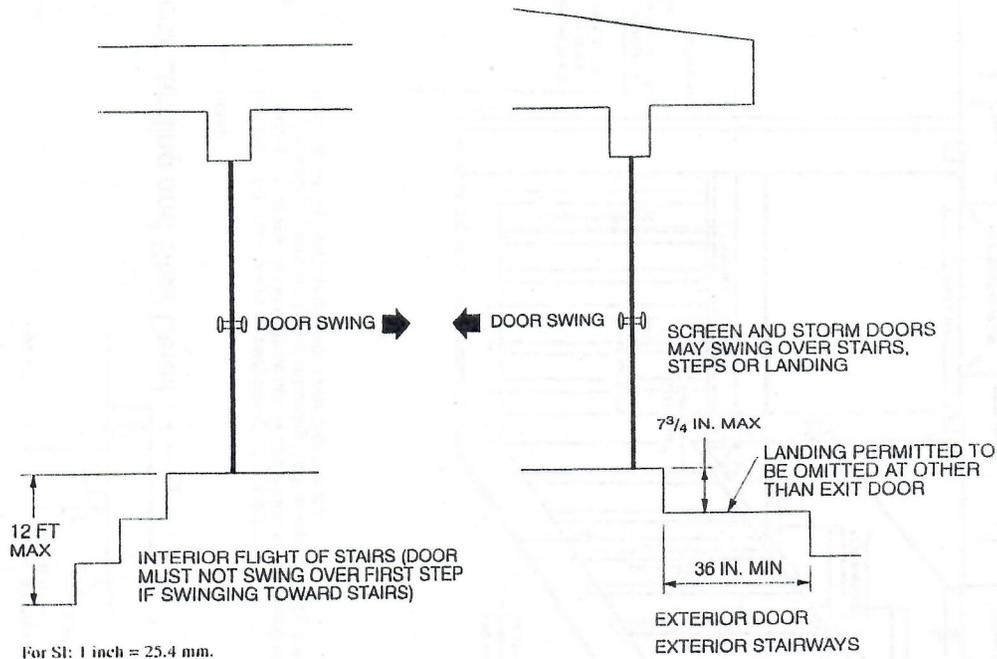


Figure R311.5.4
LANDINGS AT DOORS

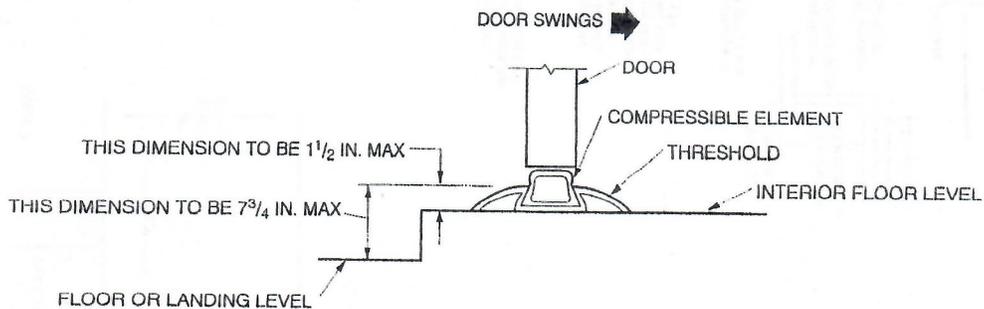
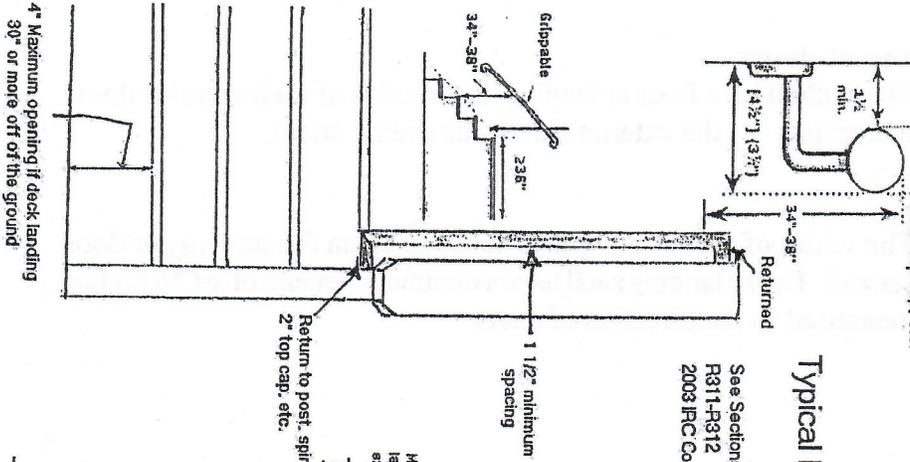


Figure R311.4.3
THRESHOLD HEIGHTS

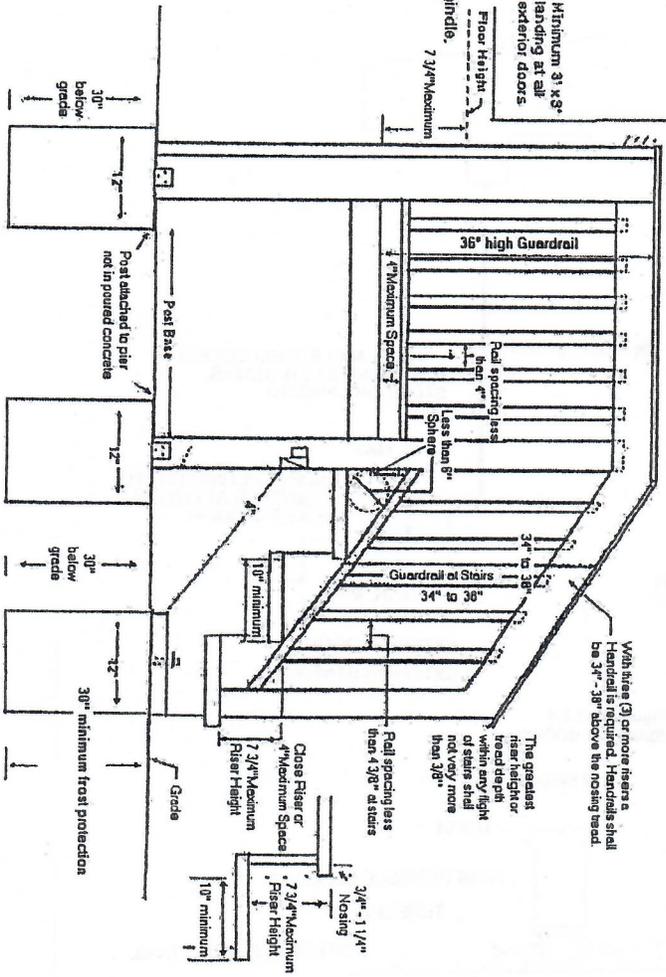
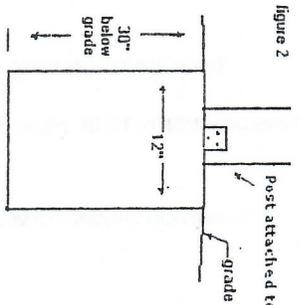
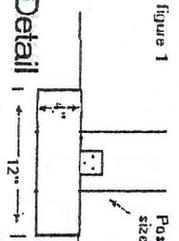
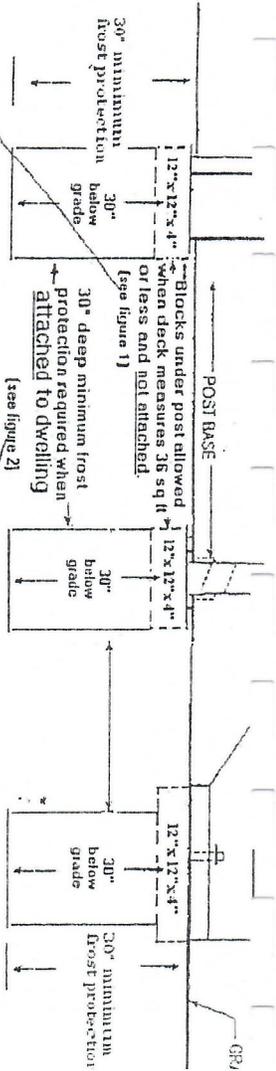
Ends shall return to wall, post, spindle, or 2" top cap, etc.



Typical Deck Landing and Stair Detail

See Sections :
R311-R312
2003 IRC Code

Notes:
Landing or Floor is required on each side of exterior doors.
Landing Size at least same width as door or stair if serves x 36" length minimum.
Guardrail not required when Deck or Landing is 50" or less off final grade.
Handrail not required on stairs with fewer than 3 risers.



** LANDINGS OR DECKS REQUIRED BY EACH DOOR OF A MANUFACTURED HOME SET ON PIERS, PADS OR RUNNERS.

Information in the following section taken from the 2009 IRC is prefixed by the letter "E" such as E3508; all other code numbers are taken from the 2008 National Electric Code.

	Page #	IRC	NEC
G. E. Clamps	27	E3511.1	250-115
	28		
Panels	29	E3305.4	240-24(E)
	30	E3305 E3305.4	240-24(A) 240-24(D)
	31	E3306	312
GFCI Outlets	33	E3802.3	210.52(E)
Kit. GFCI receptacle spacing & location	35	E3801.4	210.52(C)
Outlet location	36	E3801.2.1	210.52(A)(1)
		E3801.10	210.52(H)
Bathrooms	38	E3801.6	210.8(A)(1) 210.52(C) thru (D)
	41	E3603.4 E3903.10	210.11(C)(3) 410.4(D)
Laundry	42	E3603.3	210.11(C)(2)
Bends	43	E3702.5	336.24
Single Gang Boxes	43	E3805.3.1 & .2	314.17(C)

ELECTRICAL SERVICE INSPECTION CHECKLIST

2009 IRC /2008 NEC

PERMIT # _____ PERMITTEE: _____

		<u>Approved</u>	<u>Disapproved</u>
AMEREN REG. 1.	Meter base mounting height - AMEREN guideline Overhead - 3' min to 5'6" max center of glass Underground - 3' min to 5'6" max center of glass CT cabinet 1'6" min to 6' max bottom of cabinet.	<input type="checkbox"/>	<input type="checkbox"/>
AMEREN REG. 2.	Expansion coupling on utility conduit under base (300.5 (J)FPN)	<input type="checkbox"/>	<input type="checkbox"/>
AMEREN REG. 3.	Conduit strapped within 3' of box and at approved distance for type of conduit (NEC table 352.30(A)).....	<input type="checkbox"/>	<input type="checkbox"/>
AMEREN REG. 4.	Long sweep 90 on utility line at meter base – AMEREN REG.....	<input type="checkbox"/>	<input type="checkbox"/>
AMEREN REG. 5.	Long sweep 90 or flex at pole or transformer – AMEREN REG.....	<input type="checkbox"/>	<input type="checkbox"/>
	6. Proper trench depth 24" cover for direct burial cable 18" for SCH 40 PVC conduit (Table E3803.1).....	<input type="checkbox"/>	<input type="checkbox"/>
E3306.8	7. Oxidation paste on aluminum conductors (Table E3406.8)	<input type="checkbox"/>	<input type="checkbox"/>
E3605.1	8. Proper sizing of conductors for service size (Table E3603.1)	<input type="checkbox"/>	<input type="checkbox"/>
	9. Bushings required on all conduit and cable connections(300.4 (F) 352.46).....	<input type="checkbox"/>	<input type="checkbox"/>
E3406.7	10. All wires including ground wire in same cable raceway or conduit as conductors if over 6'	<input type="checkbox"/>	<input type="checkbox"/>
E3407.1	11. Neutral wire identified or marked with white tape	<input type="checkbox"/>	<input type="checkbox"/>
	12. Ground wire ran without a splice and terminated in approved terminals (250.64C).....	<input type="checkbox"/>	<input type="checkbox"/>
	13. Proper size ground wire on service (Table 3603.1)	<input type="checkbox"/>	<input type="checkbox"/>
E3405	14. Proper work space at panel with 6' 6" working height	<input type="checkbox"/>	<input type="checkbox"/>
E405.3	15. Clean work space above panel – no other mechanicals run in work space	<input type="checkbox"/>	<input type="checkbox"/>
	16. All residential panels and subpanels required to have main disconnect breaker (E3706.3 Franklin County Ordinance).....	<input type="checkbox"/>	<input type="checkbox"/>
E3608	17. Service bonded to all available and approved grounding electrodes. Type of electrodes used _____	<input type="checkbox"/>	<input type="checkbox"/>
	18. For sub panel is ground and neutral bar isolated (408.40).....	<input type="checkbox"/>	<input type="checkbox"/>
E3609.2	19. Bonding screw installed properly.....	<input type="checkbox"/>	<input type="checkbox"/>
E601.6.2	20. All disconnecting means for service in same location.....	<input type="checkbox"/>	<input type="checkbox"/>
E4001.3	21. Main breaker not upside down.....	<input type="checkbox"/>	<input type="checkbox"/>
	22. Outside disconnect required if panel is located more than 5' from point of entrance (E3601.6.2 Franklin County Ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
E4002.9	23. GFI receptacle installed for construction use. In use cover installed where applicable.....	<input type="checkbox"/>	<input type="checkbox"/>
E3404.8	24. All boxes and cabinets fastened properly.....	<input type="checkbox"/>	<input type="checkbox"/>
225.33	25. No more than 6 disconnecting means without a main disconnect (non-residential)	<input type="checkbox"/>	<input type="checkbox"/>
E4001.6	26. Max height of breakers 6' 7"	<input type="checkbox"/>	<input type="checkbox"/>
E3906.4	27. All unused opening closed properly.....	<input type="checkbox"/>	<input type="checkbox"/>
E3406.9	28. Conductors not cut down or altered	<input type="checkbox"/>	<input type="checkbox"/>
E3601.3	29. Conductors supplying add'l bldg shall not run through interior of another bldg.....	<input type="checkbox"/>	<input type="checkbox"/>
E3610.3	30. If EMT used to encase grounding electrode proper bonding is required	<input type="checkbox"/>	<input type="checkbox"/>

OVERHEAD SERVICE

A.	Proper height to drip loop (E3604.3, NEC 230-24, E3604.2.2, 230-38 AMEREN REG D-23)	<input type="checkbox"/>	<input type="checkbox"/>
B.	2" or larger rigid pipe if wire supported on pipe (AMEREN/FC ORD.)	<input type="checkbox"/>	<input type="checkbox"/>
C.	Proper guying if mast extends over 42" above roof (AMEREN REG).....	<input type="checkbox"/>	<input type="checkbox"/>
D.	Clearance from doors and windows (E3604).....	<input type="checkbox"/>	<input type="checkbox"/>
E.	Proper drip loop (AMEREN /Franklin County Ordinance.)	<input type="checkbox"/>	<input type="checkbox"/>

UNDERGROUND SERVICE

UE	Proper sizing of conduit. UE 2 1/2 for 200 amp under 200'; 3" over 200' & for 320 - 400 amp	<input type="checkbox"/>	<input type="checkbox"/>
	Customer owned; pipe size as per Table E3904.6(10) 100 amp 1 1/4"; 200 amp 2"; 400 amp 3"	<input type="checkbox"/>	<input type="checkbox"/>

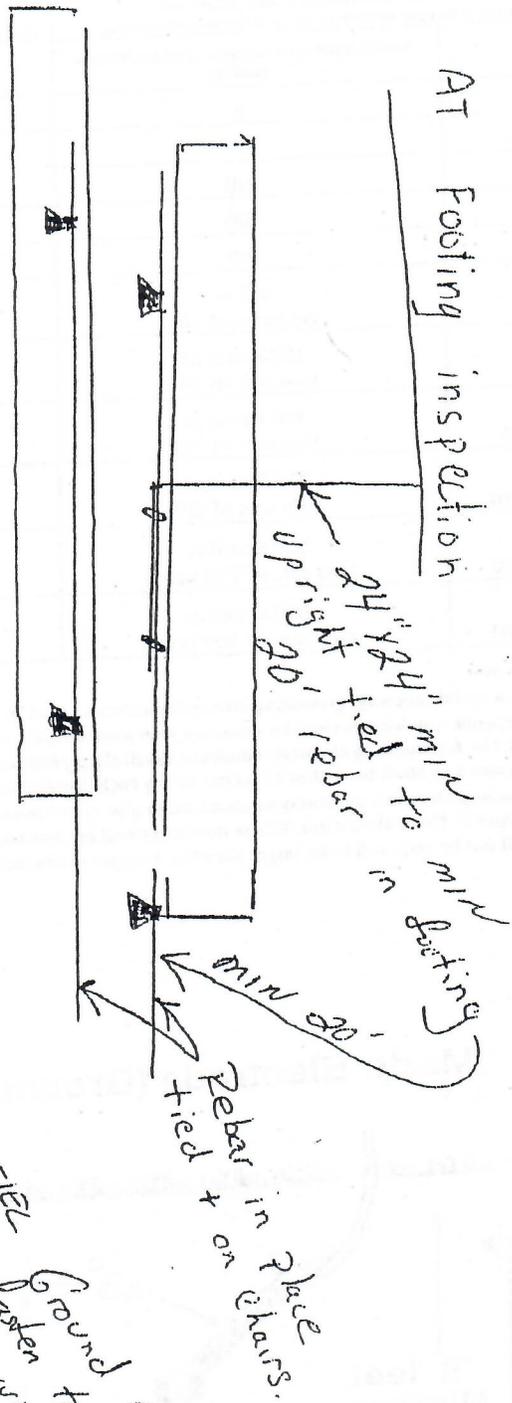
[Note: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error.]
Please call (636)583-6384 for a re-inspection when correction(s) have been completed.

Inspection Date: _____ By _____

Re-Inspection Date: _____ By _____

GROUNDING TO FOUNDATION

2009 IRC SEC E3608



NOTES:

- 1) Upright should be as near to EEL Service as possible
- 2) Uprights that are tied in place will be marked with green by the inspectors at inspection time.

EEL will not
Ground clamp
Ground to rebar
EEL Service inspection

AT Foundation inspection

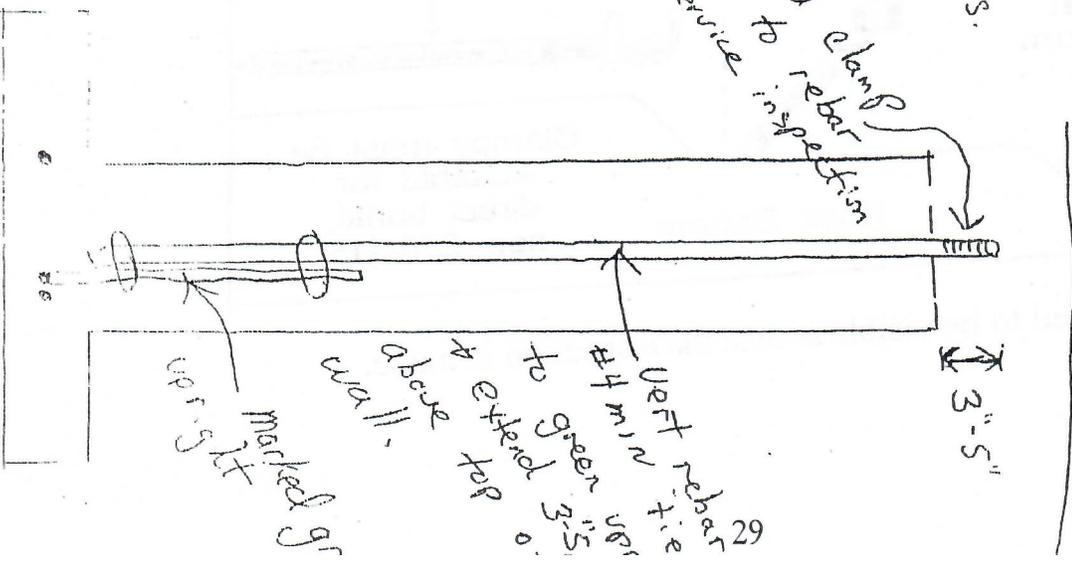


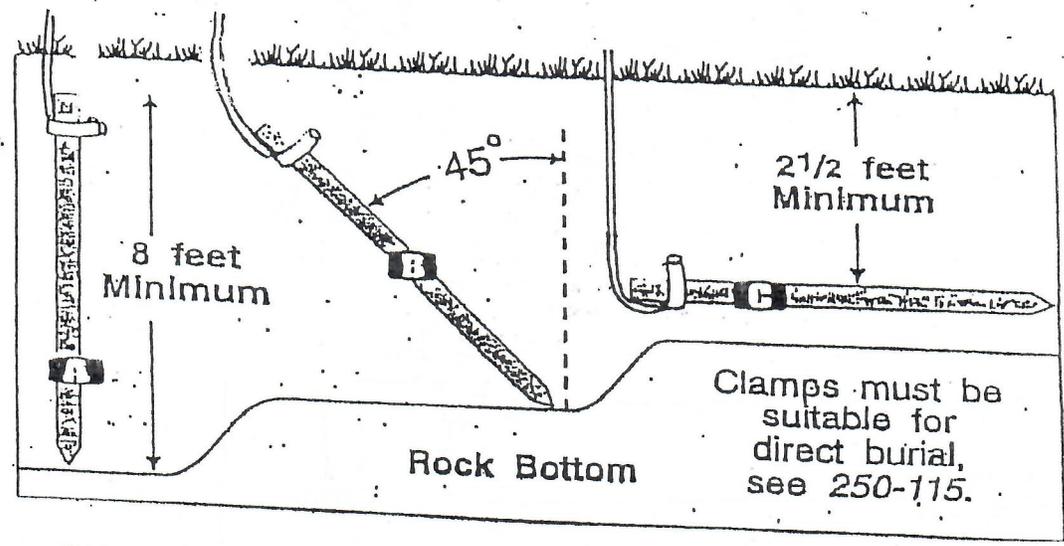
TABLE E3503.1
SERVICE CONDUCTOR AND GROUNDING ELECTRODE CONDUCTOR SIZING

CONDUCTOR TYPES AND SIZES—THHW, THW, THWN, USE, XHHW (Parallel sets of 1/0 and larger conductors are permitted in either a single raceway or in separate raceways)		ALLOWABLE AMPACITY Maximum load (amps)	MINIMUM GROUNDING ELECTRODE CONDUCTOR SIZE ^a	
Copper (AWG)	Aluminum and copper-clad aluminum (AWG)		Copper (AWG)	Aluminum (AWG)
4	2	100	8 ^b	6 ^c
3	1	110	8 ^b	6 ^c
2	1/0	125	8 ^b	6 ^c
1	2/0	150	6 ^c	4
1/0	3/0	175	6 ^c	4
2/0	4/0 or two sets of 1/0	200	4 ^d	2 ^d
3/0	250 kcmil or two sets of 2/0	225	4 ^d	2 ^d
4/0 or two sets of 1/0	300 kcmil or two sets of 3/0	250	2 ^d	1/0 ^d
250 kcmil or two sets of 2/0	350 kcmil or two sets of 4/0	300	2 ^d	1/0 ^d
350 kcmil or two sets of 3/0	500 kcmil or two sets of 250 kcmil	350	2 ^d	1/0 ^d
400 kcmil or two sets of 4/0	600 kcmil or two sets of 300 kcmil	400	1/0 ^d	3/0 ^d

For SI: 1 inch = 25.4 mm.

- a. Where protected by a metal raceway, grounding electrode conductors shall be electrically bonded to the metal raceway at both ends.
- b. No. 8 grounding electrode conductors shall be protected with metal conduit or nonmetallic conduit.
- c. Where not protected, No. 6 grounding electrode conductors shall closely follow a structural surface for physical protection. The supports shall be spaced not more than 24 inches on center and shall be within 12 inches of any enclosure or termination.
- d. Where the sole grounding electrode system is a ground rod or pipe as covered in Section E3508.2, the grounding electrode conductor shall not be required to be larger than No. 6 copper or No. 4 aluminum. Where the sole grounding electrode system is the footing steel as covered in Section E3508.1.2, the grounding electrode conductor shall not be required to be larger than No. 4 copper conductor.

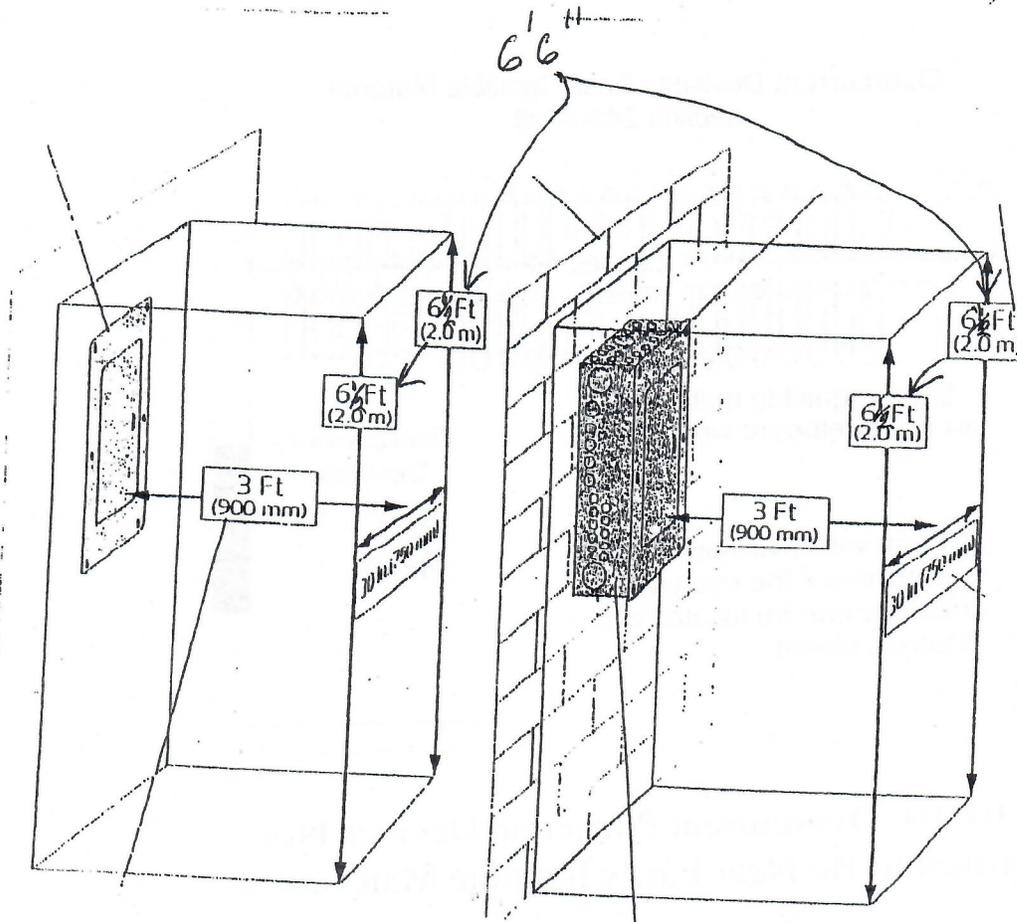
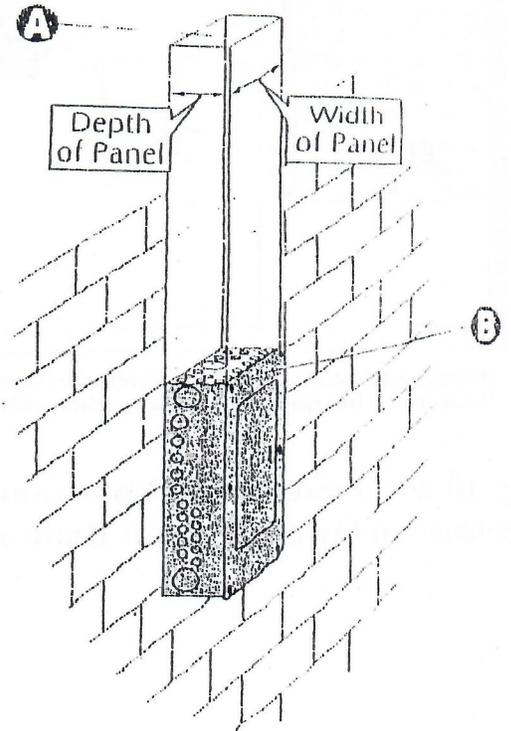
Made Electrode (Ground Rod) Installations

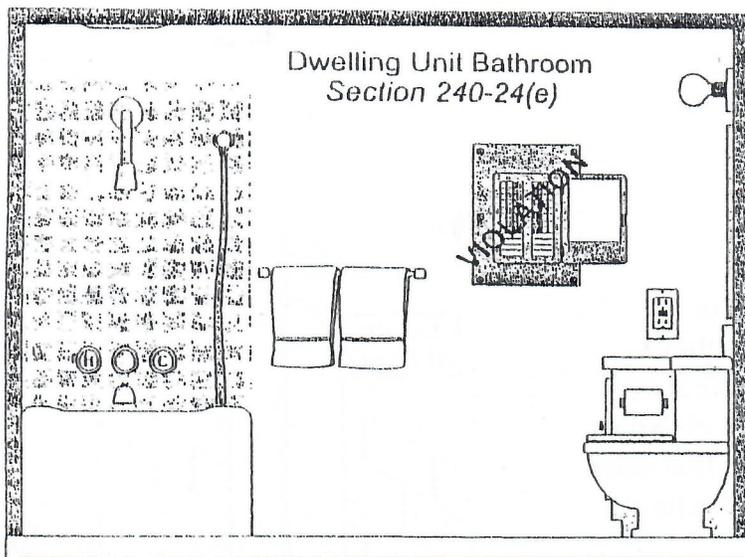


Clamps need to be visible at time the inspection is made.

Dedicated Space

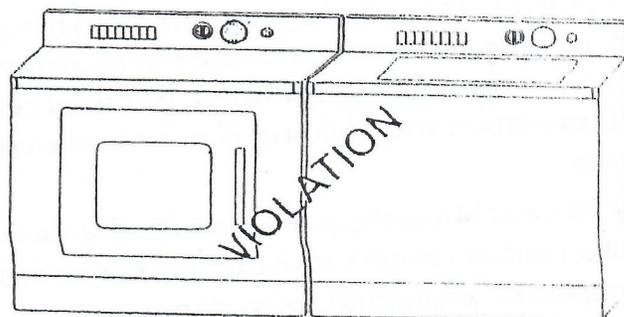
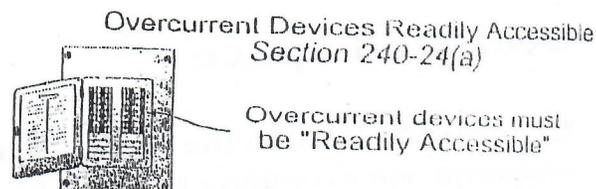
- Ⓐ The space equal to the width and depth of the equipment and extending from the floor to a height of 6 ft (1.8 m) above the equipment or to the structural ceiling, whichever is lower, must be dedicated to the electrical system. A dropped, suspended, or similar ceiling, that does not strengthen the building is not considered a structural ceiling
- Ⓑ All switchboards, panelboards, distribution boards, and motor control centers must be located in dedicated spaces and must be protected from damage





Overcurrent devices are not permitted in dwelling unit bathrooms. This includes the guest room bathrooms of hotels and motels.

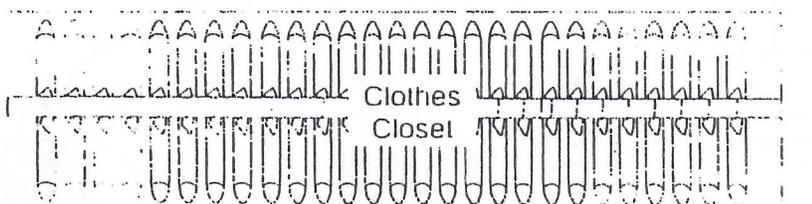
Fig. 10-20 Overcurrent Protection Devices Not Permitted in Dwelling Unit Bathrooms



Accessible, Readily: (Article 100 Definition): Means capable of being reached without the use of ladders or climbing over or moving obstacles.

Fig. 10-16 Overcurrent Devices Must Be Readily Accessible

Overcurrent Devices - Easily Ignitable Material Section 240-24(d)



Easily ignitable material is not in panelboard work space.

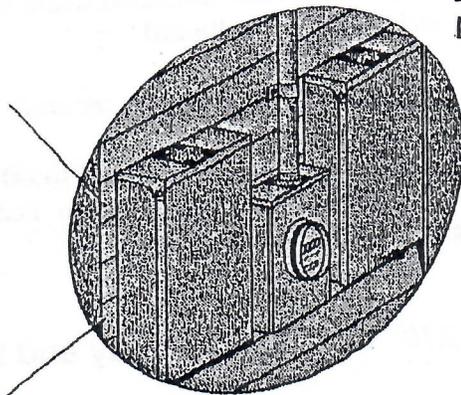
Check with you inspector to determine if the overcurrent devices can be located in a clothes closet.

Overcurrent Devices

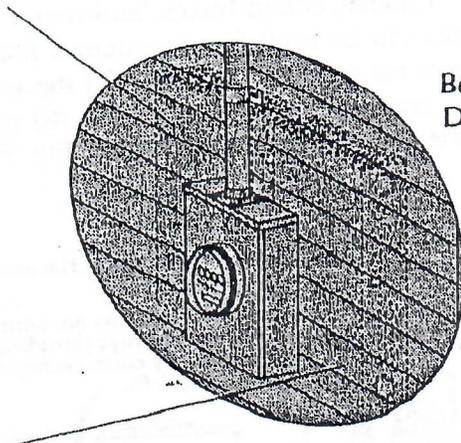
Work Space

Fig. 10-19 Overcurrent Protection Devices Not Permitted to Be Near Easily Ignitable Material

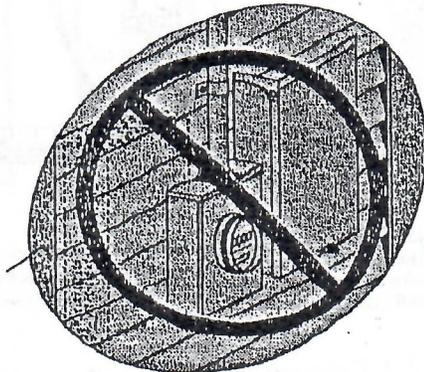
Grouping of Service Disconnects



Both Service Disconnects on the Outside

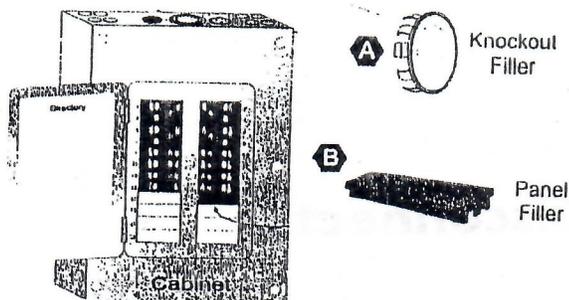


Both Service Disconnects on the Inside



One Service Disconnect on the Outside, One Service Disconnect on the Inside

Unused Openings In Enclosures Section 373-4



Unused openings in enclosures must be closed with a fitting that gives protection equivalent to that of the wall of the enclosure. Also see 110-12(a) and 370-18.

Fig. 32-2 Unused Openings in Enclosures Must Be Properly Closed or Sealed

312-A Unused Openings

Unused openings in enclosures must be closed with a protection fitting equivalent to that of the wall of the enclosure [110-12(a) and 370-18], Fig. 32-2.

312-C Cables

(c) Cables. Where cable is used, each cable shall be secured to the cabinet or cutout box.

312-C Exception Cables are not required to be secured if the cables enter a nonflexible raceway not less than 18 inches, or more than 10 feet long that enters the top of a surface-mounted enclosure, if, Fig. 32-3:

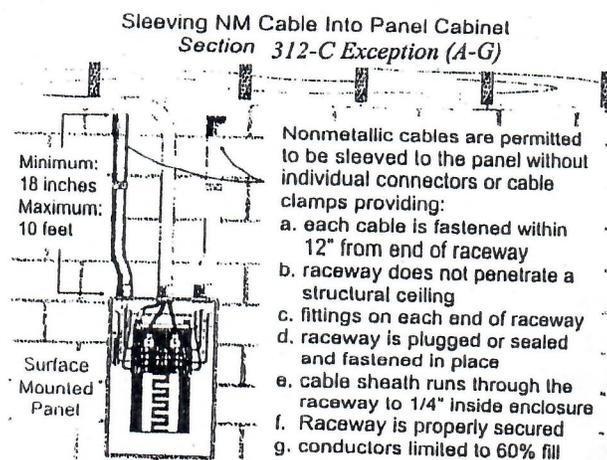


Fig. 32-3 Sleeving NM Cable into Panel Cabinet

The following are the conditions of the Exception

(a) Each cable is fastened within 12 inches from the end of the raceway

(b) The raceway does not penetrate a structural ceiling

(c) Fittings are provided on each end of the raceway to protect the cables from abrasion

(d) The raceway is sealed or plugged and fastened in place

(e) Nonmetallic-sheathed cable extends at least 1/4 inch into the panelboard

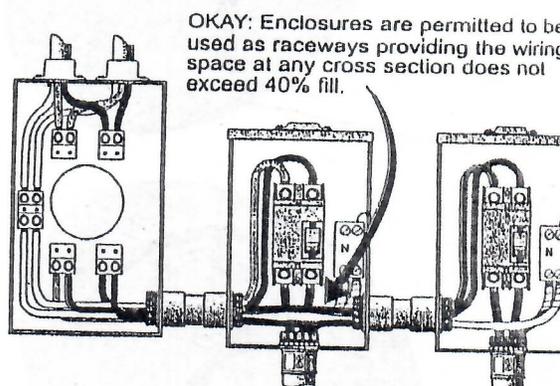
(f) Raceway is properly secured

(g) Conductor fill is limited to 60 percent of the raceway cross-sectional area in accordance with Table 1 of Chapter 9.

312.10 Used for Raceway and Splices

Cabinet, cutout boxes, and meter socket enclosures can be used for conductors feeding through where the conductors do not fill the wiring space at any cross-section to more than 40 percent of the cross-sectional area of the space, Fig. 32-4.

Cabinet and Cutout Box as Raceway Section 312



Note: Section 230-7 prohibits other conductors in the same raceway with service conductors. It does not prohibit service conductors with other conductors in cabinets and cutout boxes.

Fig. 32-4 Cabinets and Cutout Boxes Can Be Used as a Raceway

ROUGH-IN ELECTRICAL INSPECTION CHECKLIST

ERMIT #: _____

PERMITTEE: _____

	Approved	Disapproved
1. Outside receptacle front & back of home at grade G.F.C.I. for outside receptacles(E3901.7, E3902, E4002)	<input type="checkbox"/>	<input type="checkbox"/>
2. Outdoor lighting at the exterior side of entrances or exits (E3903.3).....	<input type="checkbox"/>	<input type="checkbox"/>
3. G.F.C.I. receptacles for kitchen counter tops (Chapter 39).....	<input type="checkbox"/>	<input type="checkbox"/>
4. Location of kitchen counter top receptacles(Chapter 39 E3901.1 to E3901.4.3).....	<input type="checkbox"/>	<input type="checkbox"/>
5. Provisions for island receptacle as needed (E3901.4.2 & E3901.4.3)	<input type="checkbox"/>	<input type="checkbox"/>
6. Two small appliance circuits in kitchen (E3901.3).....	<input type="checkbox"/>	<input type="checkbox"/>
7. Electric range & oven(4 wires)(E3607.3.1).....	<input type="checkbox"/>	<input type="checkbox"/>
8. Receptacles outlet location (Chapter 39).....	<input type="checkbox"/>	<input type="checkbox"/>
9. Outlet in hallways over 10' (E3901.10).....	<input type="checkbox"/>	<input type="checkbox"/>
10. Habitable rooms lighting (E3903)	<input type="checkbox"/>	<input type="checkbox"/>
11. Smoke detectors (R314).....	<input type="checkbox"/>	<input type="checkbox"/>
12. Dedicated receptacle circuit required for each bathroom (E3901.6 & E3902.1)	<input type="checkbox"/>	<input type="checkbox"/>
13. Stairway lighting (E3903.3 & R303.6).....	<input type="checkbox"/>	<input type="checkbox"/>
14. 3 way switches on stairs lighting (R303.6.1).....	<input type="checkbox"/>	<input type="checkbox"/>
15. Basement lighting (E3903.4).....	<input type="checkbox"/>	<input type="checkbox"/>
16. Basement outlets (Chapter 38, E3802.5, E3901.9, E3902.5).....	<input type="checkbox"/>	<input type="checkbox"/>
17. Wire installed for water heater, electric furnace & AC	<input type="checkbox"/>	<input type="checkbox"/>
18. Laundry circuit dedicated appliance (E3603.3, E3703.3, E3901.5).....	<input type="checkbox"/>	<input type="checkbox"/>
19. Dryer wired in 3 wire with ground (10 AWG)(250.140).....	<input type="checkbox"/>	<input type="checkbox"/>
20. Workmanship per code (110.12).....	<input type="checkbox"/>	<input type="checkbox"/>
21. Proper box for ceiling fan(E4101.6 & E3905.9).....	<input type="checkbox"/>	<input type="checkbox"/>
22. No boxes or wiring run vertical in cold air returns (300.22).....	<input type="checkbox"/>	<input type="checkbox"/>
23. No wiring allowed unprotected in garage and basement walls (E3802.2.1)	<input type="checkbox"/>	<input type="checkbox"/>
24. Run boards along wire in attic within 6' of access (E3702.2.1, E3802.2).....	<input type="checkbox"/>	<input type="checkbox"/>
25. All wires fasten per code (E3905.3.2 & 334.30)	<input type="checkbox"/>	<input type="checkbox"/>
26. No more than 2 wires on 2x4 without use of stack-it bracket (300.4).....	<input type="checkbox"/>	<input type="checkbox"/>
27. Screw protection for all wires bonded or fastened within 1 ¼ of face of any framing member (300.4).....	<input type="checkbox"/>	<input type="checkbox"/>
28. Bending radius of NM cable 5 times diameter radius (E3802.5).....	<input type="checkbox"/>	<input type="checkbox"/>
29. Box fill not exceed per code (E3905.13.1)	<input type="checkbox"/>	<input type="checkbox"/>
30. Proper grounding of metal boxes (E3905.2).....	<input type="checkbox"/>	<input type="checkbox"/>
31. Boxes provided for all exterior lights and receptacles.....	<input type="checkbox"/>	<input type="checkbox"/>
32. Light at all attic accesses (E3903.4)	<input type="checkbox"/>	<input type="checkbox"/>
33. No receptacles within 5' of tub (410-57; 680-71 Ordinance, E4002.11, Franklin County Ordinance)	<input type="checkbox"/>	<input type="checkbox"/>
34. Low voltage and line voltage not in same holes or boxes (725.136).....	<input type="checkbox"/>	<input type="checkbox"/>
35. No surface fixture in tub or shower (E4003.11)	<input type="checkbox"/>	<input type="checkbox"/>
36. Whirlpool tub motor and heater if equipped on separate dedicated 20 amp circuits (E4209.1)	<input type="checkbox"/>	<input type="checkbox"/>
37. Whirlpool tub motor and heater if equipped properly grounded (E4209.4)	<input type="checkbox"/>	<input type="checkbox"/>
38. Connectors required in all metal boxes (E3906.3).....	<input type="checkbox"/>	<input type="checkbox"/>
39. All unused openings in boxes closed (E3906.4).....	<input type="checkbox"/>	<input type="checkbox"/>
40. Bushing or fitting on open ends of conduit where romex enters; to protect against abrasion (E3905.1.2).....	<input type="checkbox"/>	<input type="checkbox"/>
41. Clearance to lights in closet (E4003.12).....	<input type="checkbox"/>	<input type="checkbox"/>
42. Other	<input type="checkbox"/>	<input type="checkbox"/>

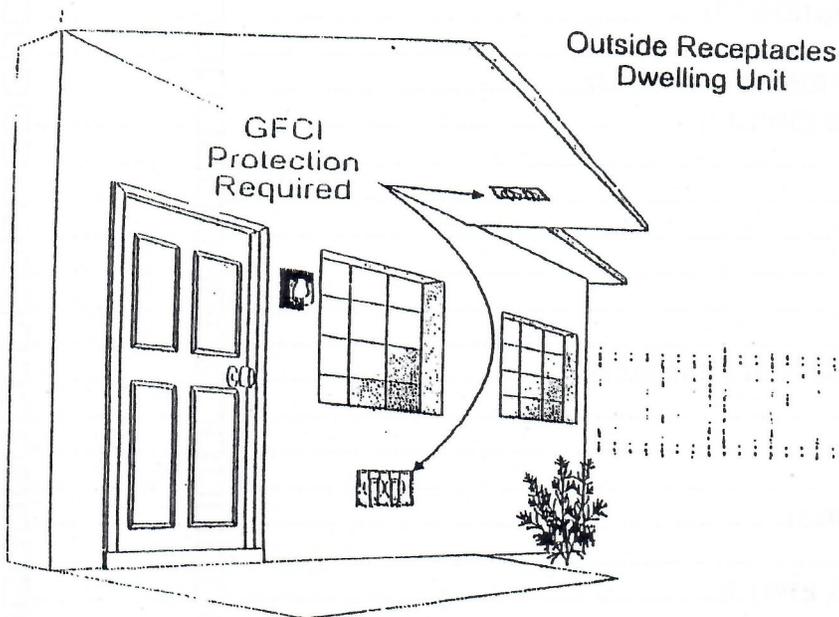
NOTE: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change /or error.}

e above items must be corrected:

ase call (636)583-6384 for a re-inspection when correction(s) have been completed

isp. Date _____ By _____

Re-insp. Date _____ By _____



All 125 volt 15 and 20 ampere receptacles installed outside of a dwelling unit require GFCI protection. This includes receptacles over 6 feet 6 inches above grade.

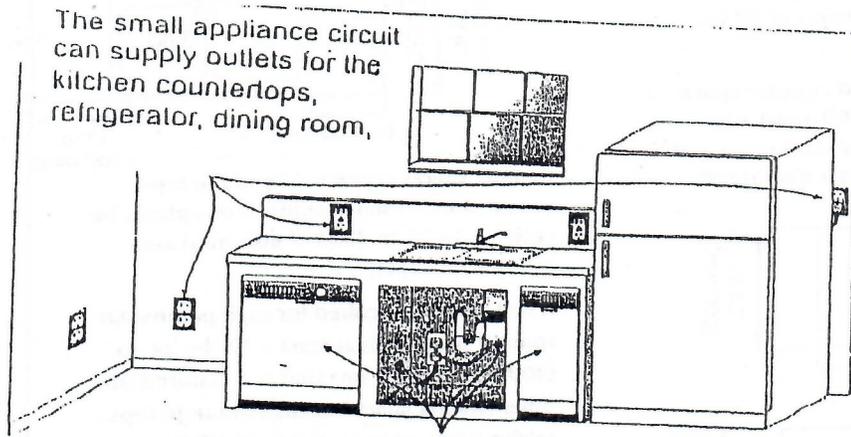
Outside Receptacles – Dwelling Unit 210.52(E)

Outside receptacles when installed in wet locations must have an in use cover.
Sec. E4002.10

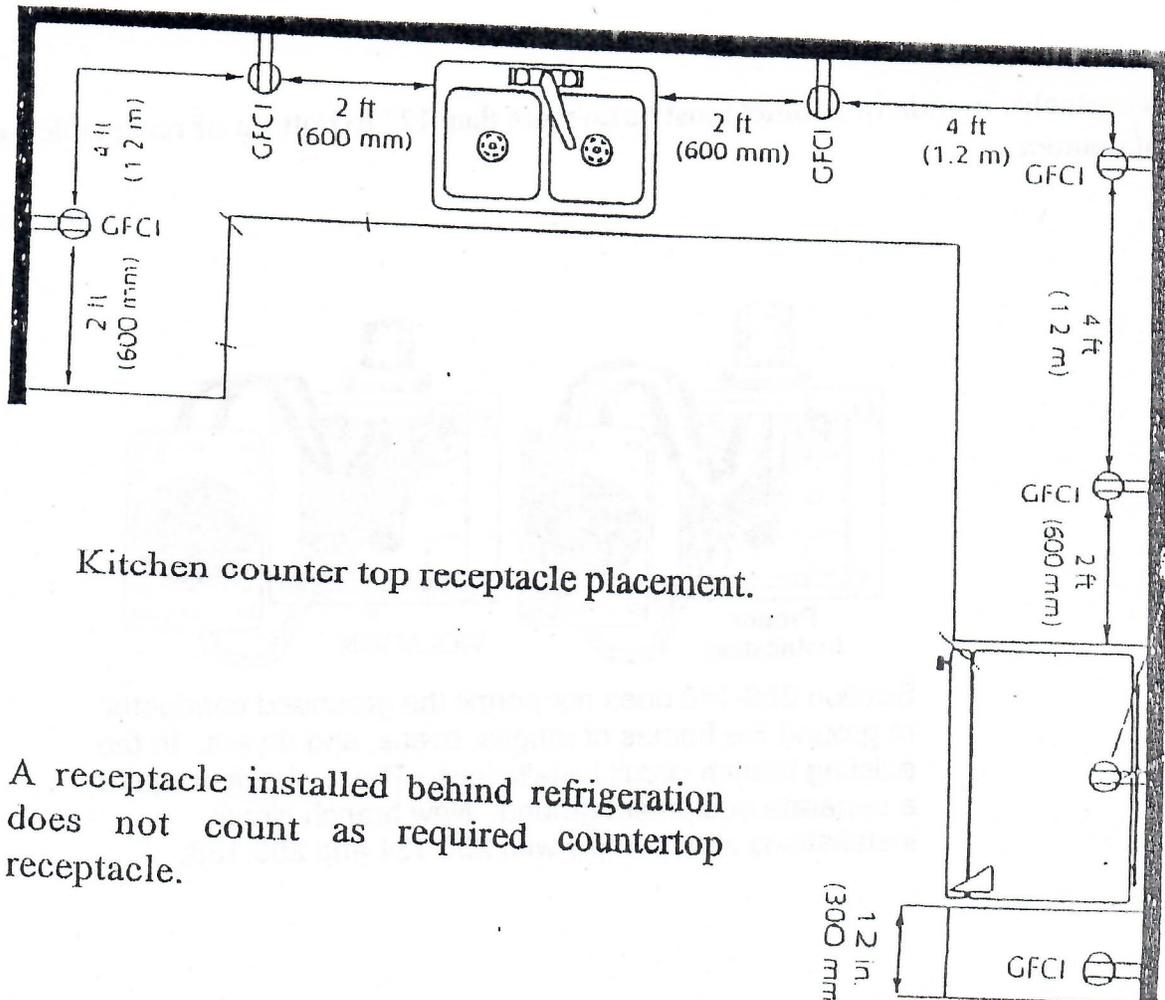
(2) Garage and Accessory Building Receptacles. All 125 volt, 15 and 20 amp receptacles installed in garages and in grade-level portions of unfinished or finished accessory buildings used for storage or work areas shall have ground-fault circuit-interrupter protection.

NOTE: At least one receptacle must be installed in each attached garage, and in each detached garage with electric power [210-52(g)]. The *Code* does not require a receptacle to be installed in accessory buildings, but if a 125 volt, 15 or 20 ampere receptacle is installed, then it shall be GFCI protected.

A minimum of two (2) small appliance 20 amp circuits are required for kitchen counter top receptacles.



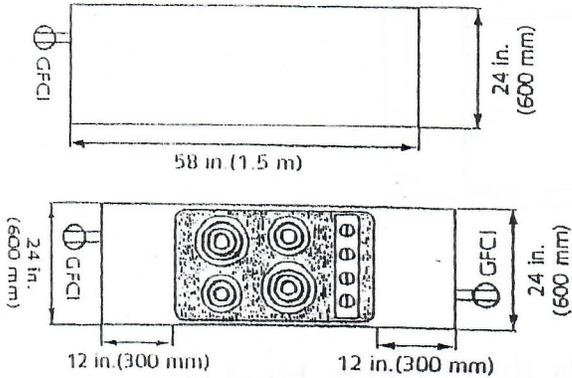
Small appliance circuit cannot supply disposals, dishwashers, hood fans, lighting outlets, other appliances or outdoor receptacles.



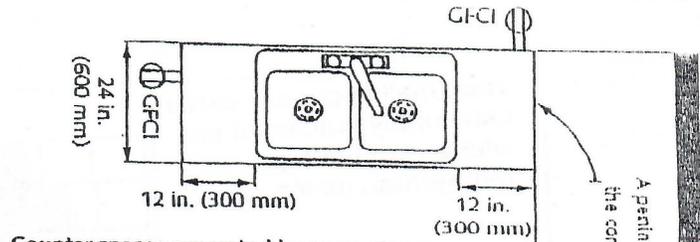
Island Receptacle Placement

At least one receptacle outlet shall be installed at each island counter space with a long dimension of 24 in. (600 mm), or more, and a short dimension of 12 in. (300 mm) or more >>210.52(C)(2)<<.

A receptacle is required for each island counter space with at least a 12- by 24-in. (300- x 600-mm) area that is separated from other counter space because of range tops, refrigerators, or sinks >>210.52(C)(2)<<.

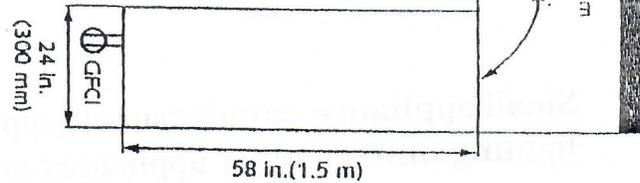


Peninsular Receptacle Placement

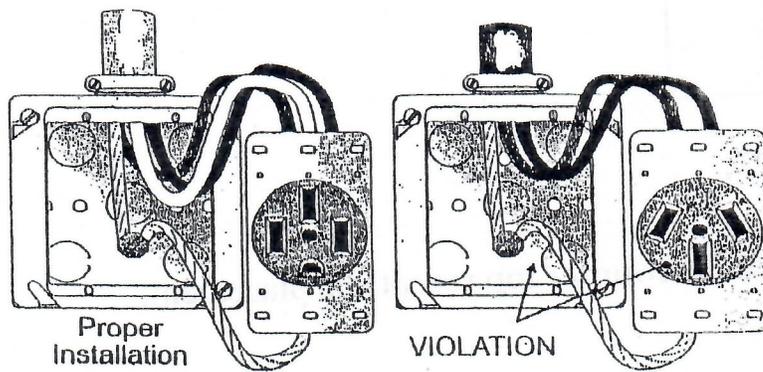


Counter spaces separated by range tops, refrigerators, or sinks require a receptacle for each 12- by 24-in. (300- x 600-mm) area >>210.52(C)(4)<<.

A receptacle is required for each peninsular counter space with at least a 12- by 24-in. (300- x 600-mm) area that is separated from other counter space because of range tops, refrigerators, or sinks >>210.52(C)(3)<<.



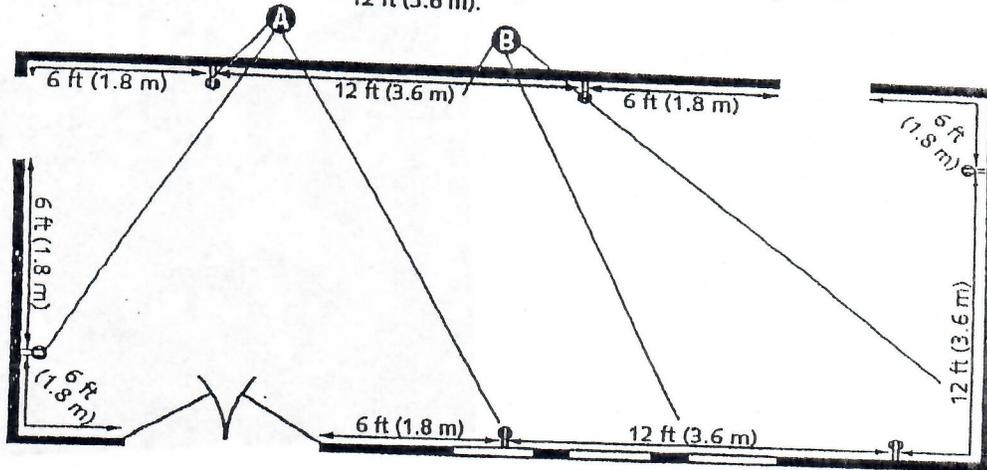
All receptacles in side of cabinet must be no more than 12" to bottom of receptacle from top of counter.



Section 250-140 does not permit the grounded conductor to ground the frames of ranges, ovens, and dryers. In the existing branch circuit installations. These circuits require a separate equipment ground. New branch circuit installations shall comply with 250.134 and 250.138.

Receptacle Placement

- A** Receptacles shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6 ft (1.8 m), from a receptacle outlet $\gg 210.52(A)(1)\ll$.
- B** The maximum distance between receptacles is 12 ft (3.6 m).

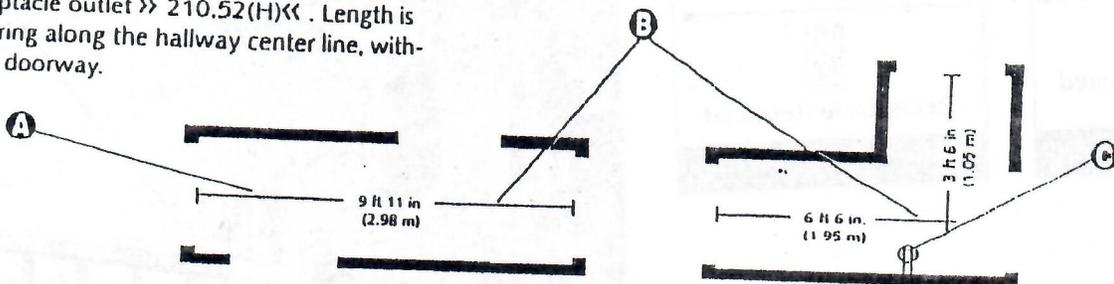


Hallway Receptacle Placement

Receptacles in hallways are not subject to the general provisions for placement determined by wall space.

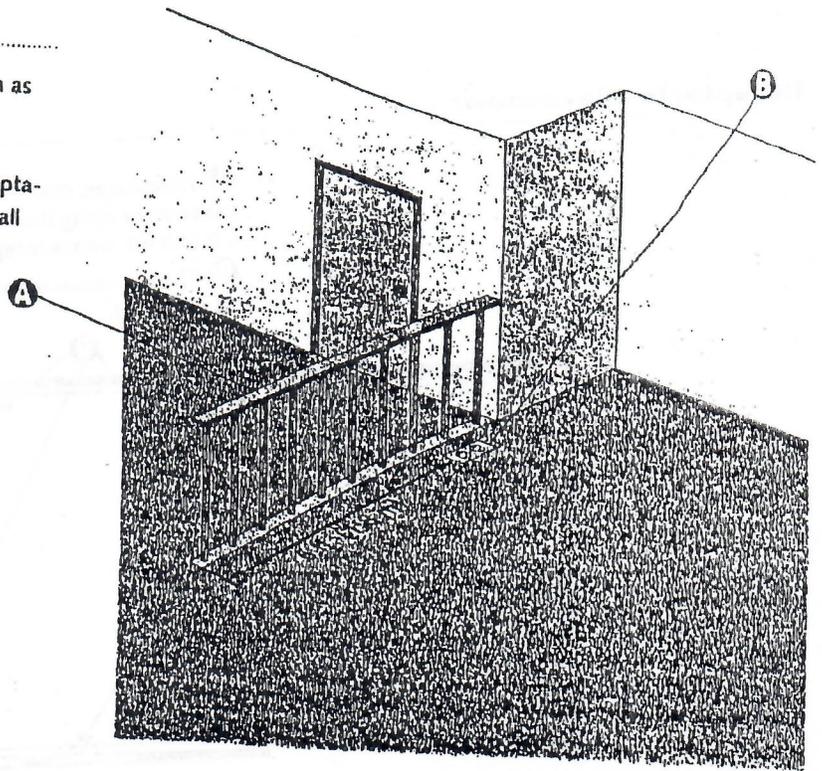
- A** If length is less than 10 ft (3.0 m), no receptacle is required.
- B** Hallways measuring 10 ft (3.0 m) or more in length must have at least one receptacle outlet $\gg 210.52(H)\ll$. Length is determined by measuring along the hallway center line, without passing through a doorway.

- C** If length is 10 ft (3.0 m) or more, a receptacle is required.

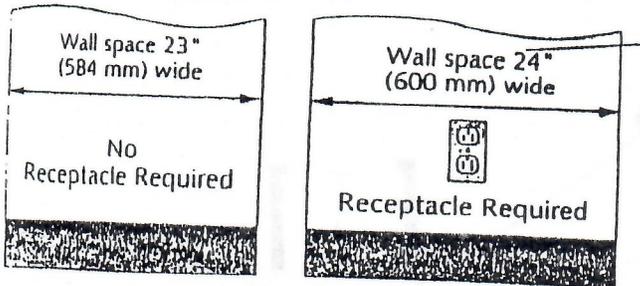


Fixed Room Dividers

- Ⓐ The space afforded by fixed room dividers, such as railings or freestanding bar-type counters, shall be counted as wall space » 210.52(A)(2)(3) «.
- Ⓑ Receptacle outlets in floors are permitted. Receptacles located more than 18 in. (450 mm) from the wall (or room divider), may not be counted as required receptacles » 210.52(A)(3) «.

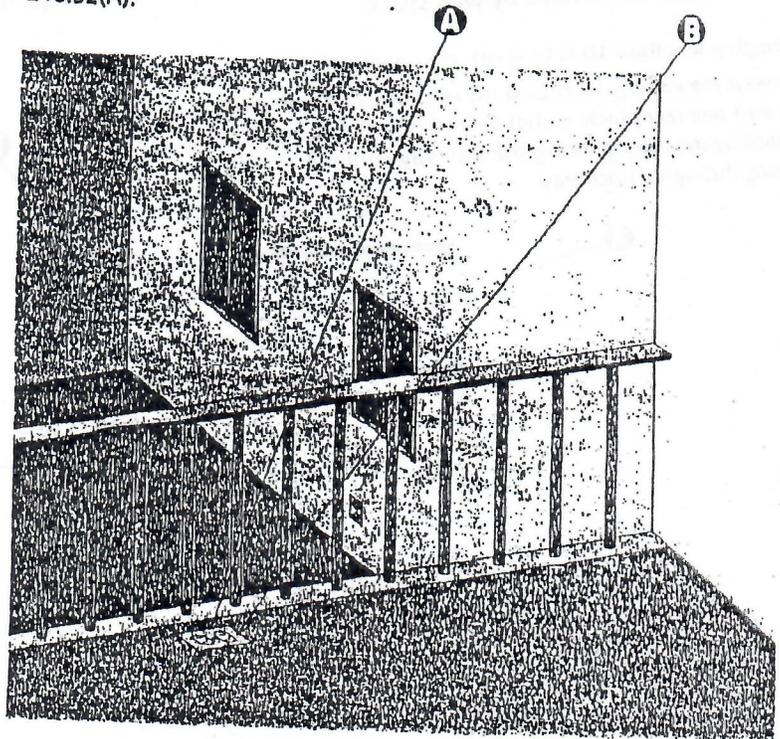


Wall space 24" or wider requires a receptacle.



Balcony Handrail

- Ⓐ Receptacle floor boxes must be listed specifically for the type of floor in which it is installed » 314.27(C) «.
- Ⓑ A floor receptacle may be required if a balcony handrail is longer than 6 ft (1.8 m) and the area is one listed in 210.52(A).



BATHROOMS

Bathroom "Area"

The general provisions for receptacle placement by wall space do not apply to bathrooms.

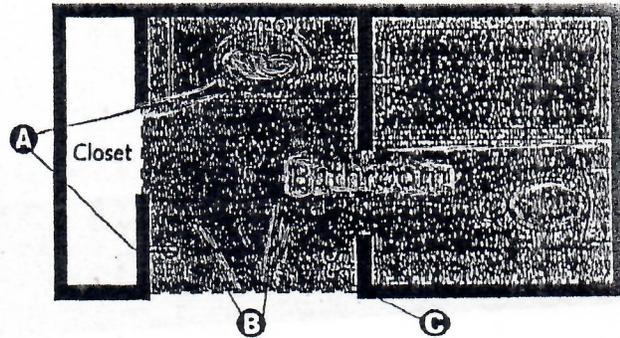
- A** GFCI protection for personnel is required for every 125-volt receptacle located in the bathroom area » 210.8(A)(1) «.
- B** Bathroom Definition: An area including a basin (lavatory or sink) with one or more of the following: a toilet, a tub, or a

shower » Article 100—Definitions «. A bathroom is an area—not necessarily a single room.

- C** One or more lighting outlets, controlled by a wall switch, are required in bathrooms » 210.70(A)(1) «.

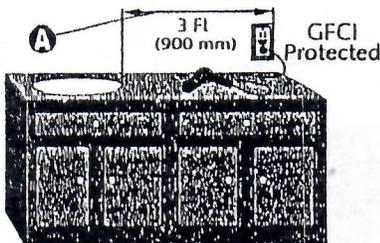
NOTE

Service disconnecting means shall not be located in bathrooms » 230.70(A)(2) «. Overcurrent devices, other than supplementary overcurrent protection, shall not be installed in bathrooms » 240.24(B) «. Supplementary overcurrent protection is not branch-circuit overcurrent protection. It is an additional overcurrent protection usually installed within luminaires (light fixtures), appliances, and other equipment. It is not required that supplementary overcurrent protection be readily accessible » 240.10 «.



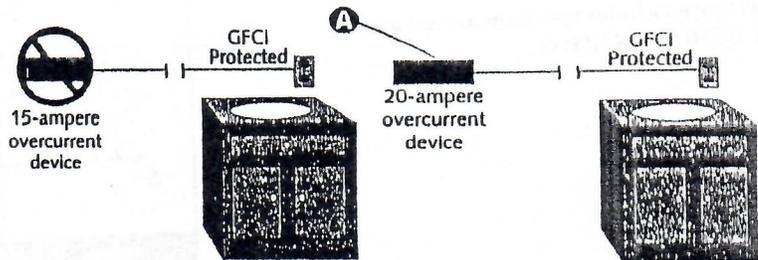
Receptacle Within 36 In. of Sink

- A** At least one wall receptacle shall be located within 36 in. (900 mm) of the outside edge of each basin (lavatory or sink) » 210.52(D) «.



Bathroom Branch-Circuit Rating

- A** Bathroom receptacle outlets shall be supplied by at least one 20-ampere branch-circuit. » 210.11(C)(3) «.



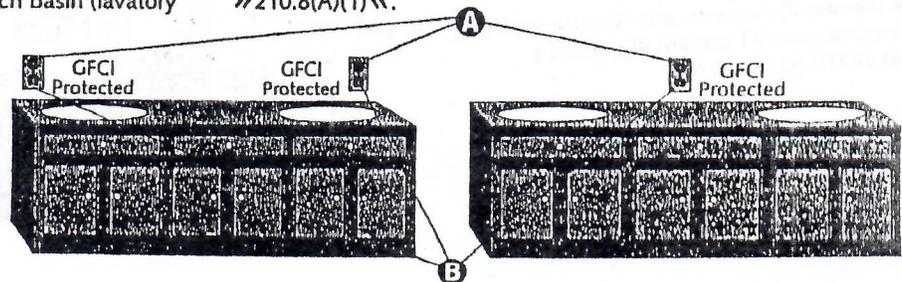
Bathroom Receptacles

Receptacles are not permitted in a face-up position in countertops or similar work surfaces » 406.4(E) «.

- A** At least one wall receptacle shall be located within 36 in. (900 mm) of the outside edge of each basin (lavatory or sink) » 210.52(D) «.

- B** Receptacles may have an individual rating of either 15 or 20 amperes, but must be supplied from a 20-ampere branch-circuit » 210.11(C)(3) «. GFCI protection for personnel is required for all bathroom receptacles » 210.8(A)(1) «.

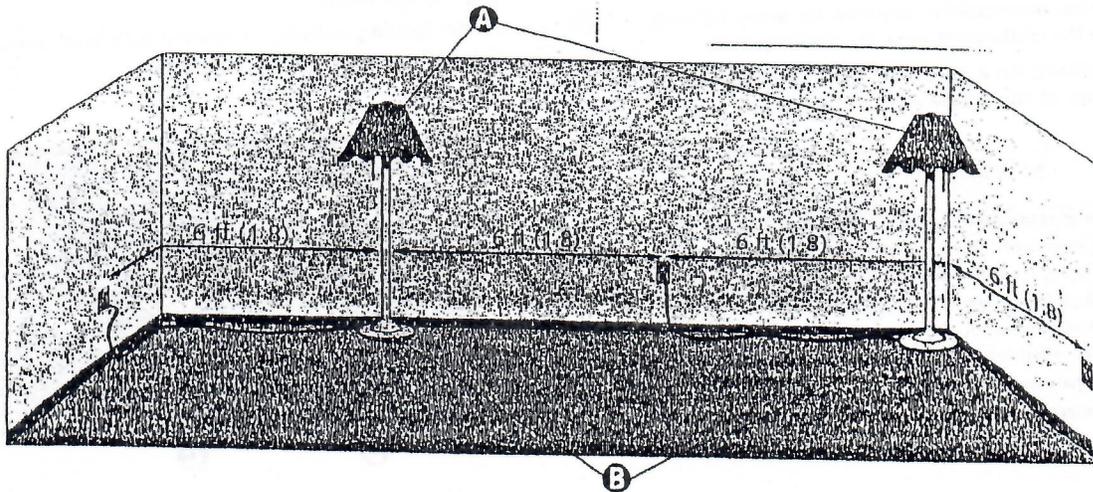
CAUTION The receptacle outlet must be located on a wall that is adjacent to the basin location » 210.52(D) «.



Maximum Distance to a Receptacle

A An easy way to understand the placement of dwelling receptacles is to imagine having a floor lamp with a 6-ft cord. Anywhere this lamp is placed around the wall, there should be a receptacle within reach, without using an extension cord. Even when placed beside a door opening, an outlet should be within reach. If the lamp is placed next to a wall that is at least 24 in. wide, an outlet should be available within that wall space.

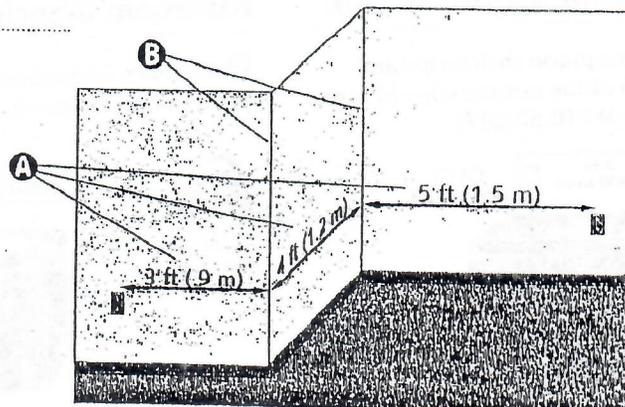
B The maximum distance to any receptacle, along the floor line, measured horizontally, shall be 6 ft (1.8 m) » 210.52(A)(1) «.



Space Measured Around Corners

A The maximum distance between receptacles, along the floor line, measured horizontally, shall be 12 ft (3.6 m) » 210.52(A)(1) «.

B Wall space includes space measured around corners » 210.52(A)(2)(1) «.

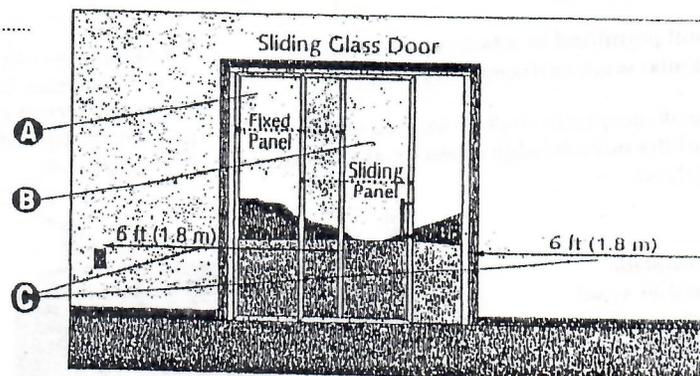


Fixed Panels

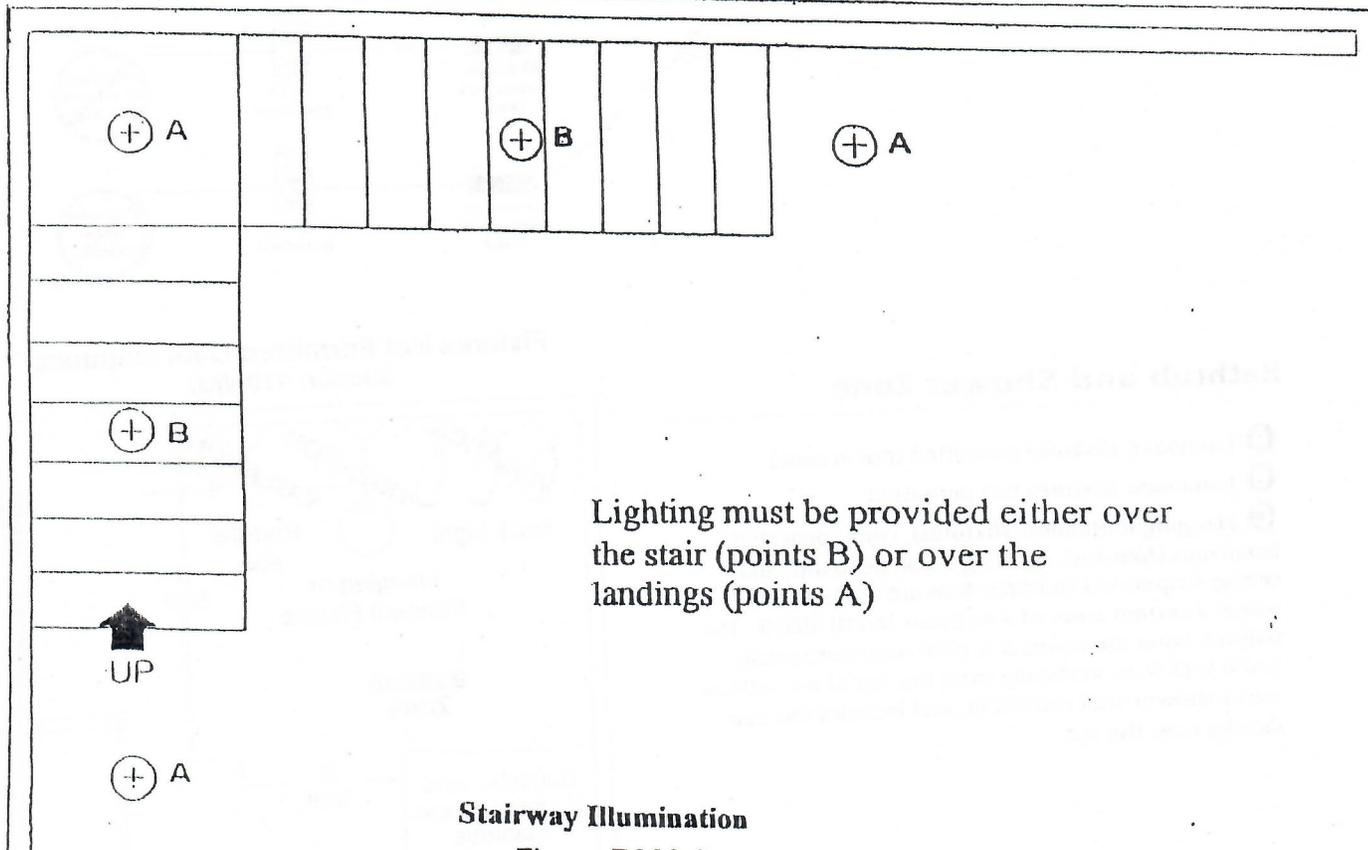
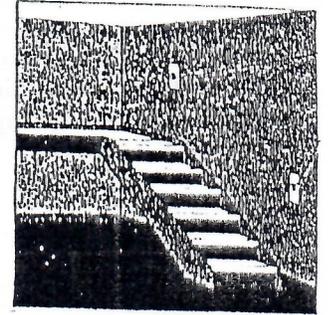
A Glass door fixed panels in exterior walls are counted as wall space » 210.52(A)(2)(2) «.

B Sliding panels in exterior walls are not counted as wall space » 210.52(A)(2)(2) «.

C The maximum distance to any receptacle, along the floor line, measured horizontally, shall be 6 ft (1.8 m) » 210.52(A)(1) «.



Where lighting outlets are installed in interior stairways, there shall be a wall switch at each floor level to control lighting where the stairway has six or more risers. E3803.3 of IRC 2003



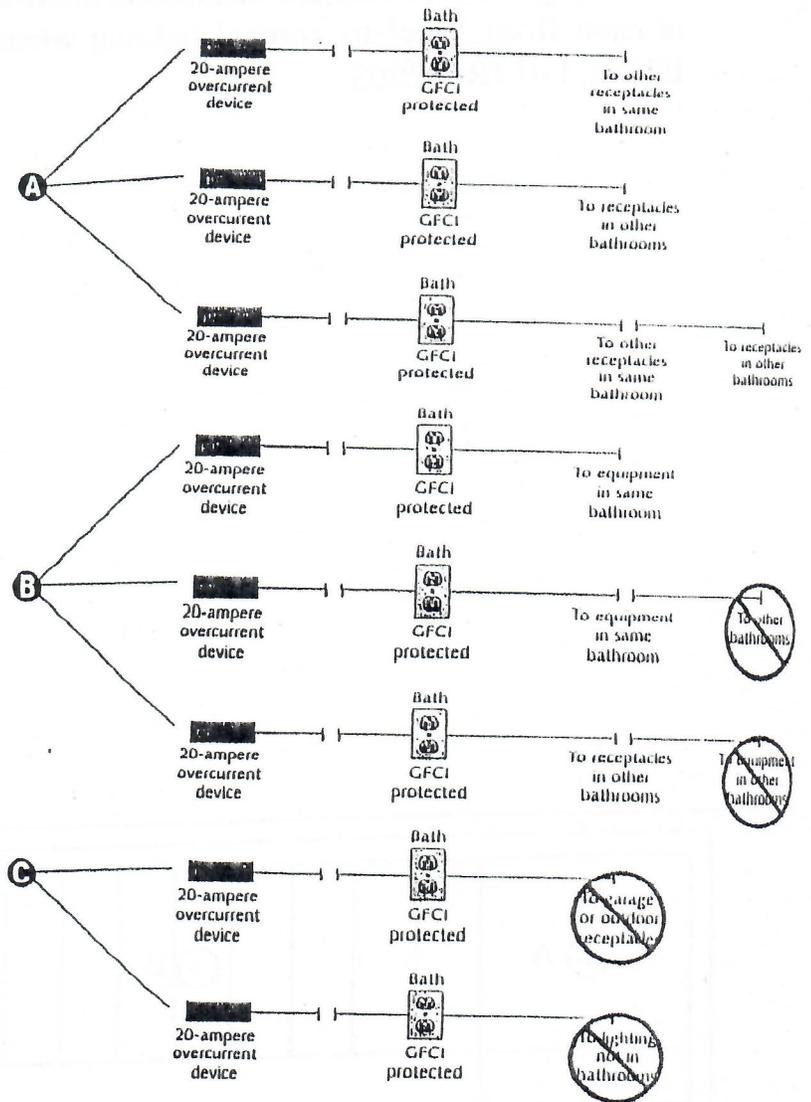
Stairway Illumination
Figure R303.6

Bathroom

A A branch-circuit providing power to a bathroom receptacle may also provide power to other bathroom receptacles, whether in the same bathroom, or in different bathrooms » 210.11(C)(3) «.

B A branch-circuit providing power to a bathroom receptacle may also provide power to other equipment, such as lighting and exhaust fans, but only within the same bathroom » 210.11(C)(3) Exception «. If this is done, however, that branch-circuit cannot be used to provide power to any other bathrooms.

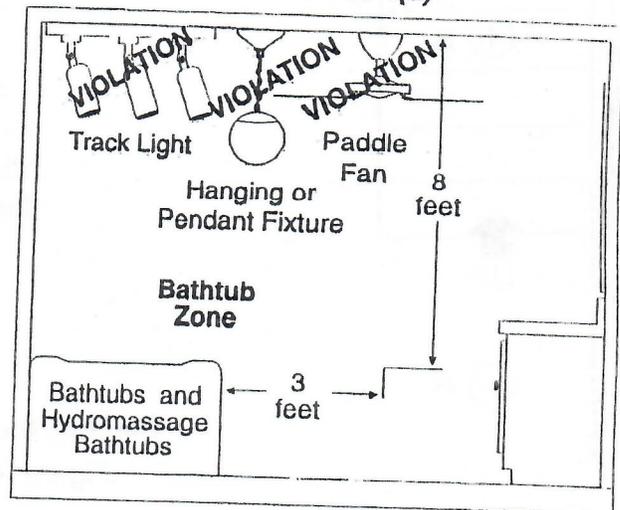
C A branch-circuit providing power to bathroom receptacles cannot provide power to any receptacle or lighting outside of bathrooms » 210.11(C)(3) «.



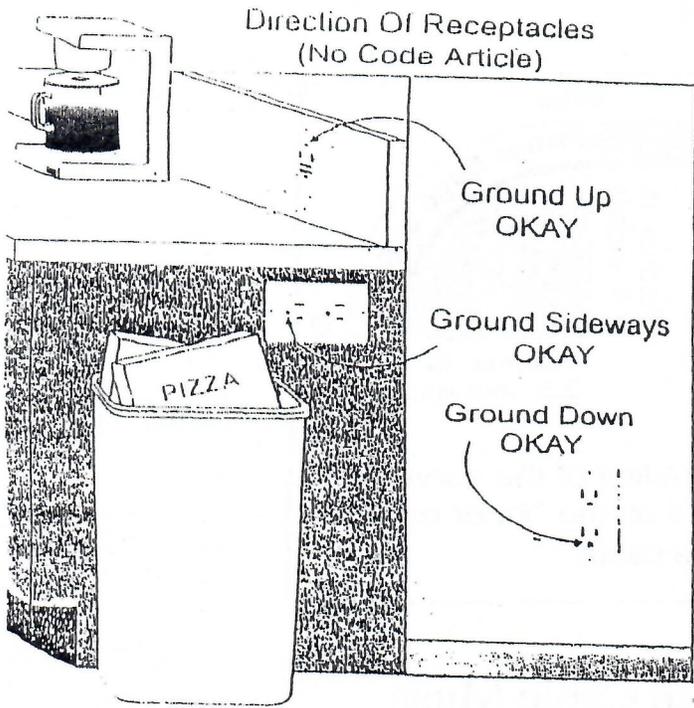
Bathtub and Shower Zone

- A** Luminaire (fixture) permitted (not in zone)
- B** Luminaire (fixture) not permitted
- C** Hanging luminaires (fixtures), cord-connected luminaires (fixtures), lighting track, pendants, and ceiling-suspended (paddle) fans are *not* permitted within a certain zone of a bathtub » 410.4(D) «. The bathtub zone measures 3 ft (900 mm) horizontally and 8 ft (2.5 m) vertically from the top of the bathtub rim or shower stall threshold, and includes the area directly over the tub.

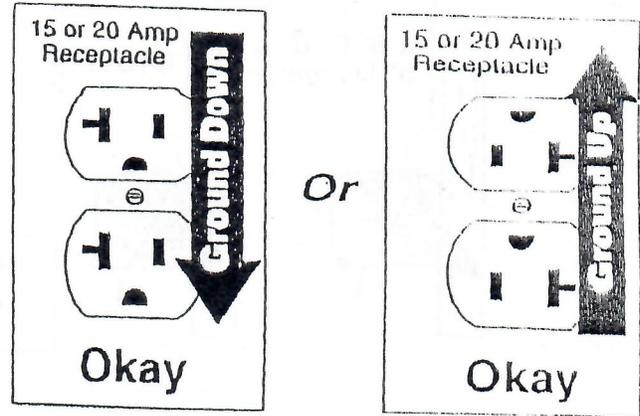
Fixtures Not Permitted Over Bathtubs Section 410-4(d)



Hanging or pendant fixtures, track lighting, or paddle fans are not permitted in the "Bathtub Zone." Only surface or recessed mounted fixtures can be mounted in this area.



Installation Of Receptacles Section 210-7



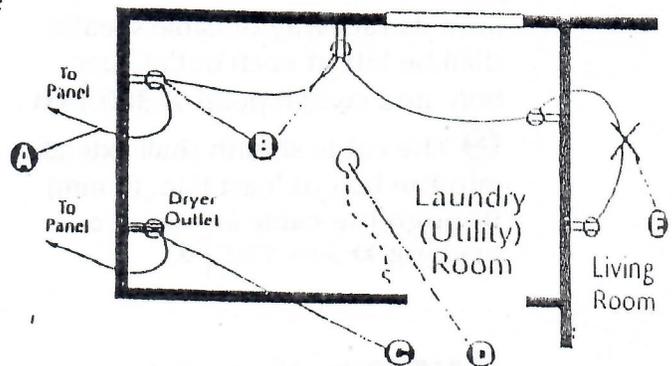
Direction of Receptacles

E 12

Laundry Receptacle

Receptacles and Lighting

- A Laundry receptacle outlet(s) must be fed from a 20-ampere branch-circuit >>210.11(C)(2) <<.
- B Multiple receptacles are permitted on the laundry circuit as long as all of the outlet(s) are within the laundry area >>210.11(C)(2) <<.
- C A 240-volt receptacle outlet for a clothes dryer is not a requirement (the dryer could be a gas dryer).
- D Utility rooms require a lighting outlet >>210.70(A)(3) <<.
- E Receptacle outlet(s) outside of the laundry area are not permitted on a laundry circuit >>210.11(C)(2) <<.



Bedroom Receptacle

E-3802.11; All branch circuits that supply 125-volt, single-phase, 15- and 20-ampere receptacles installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit.

Nonmetallic Sheathed Cable - Bending Radius Section 336-24

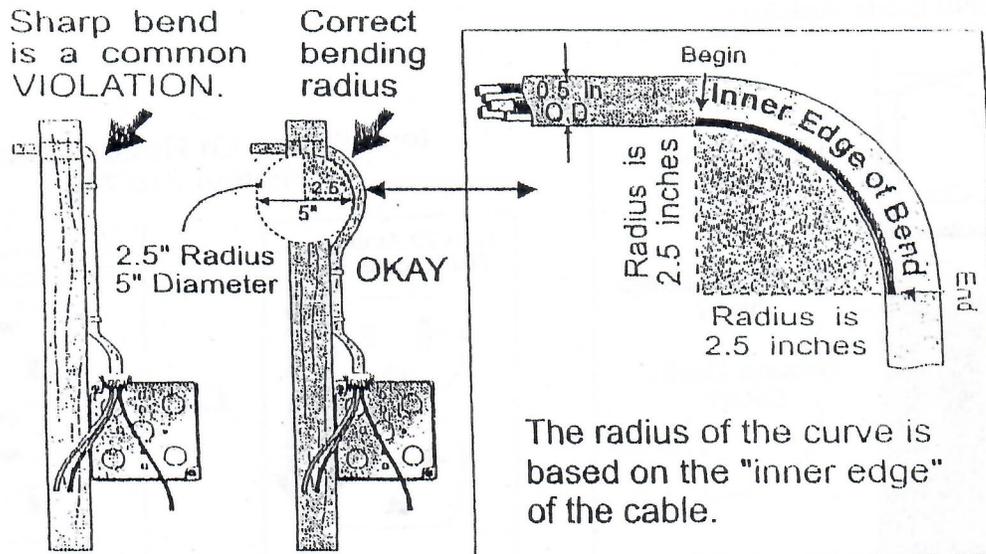


Fig. 20-3 Nonmetallic Sheathed Cable Must Be Carefully Bent

Single-Gang Nonmetallic Boxes

- A** Nonmetallic-sheathed cable not fastened to the box must be secured within 8 in. (200 mm) of the box » 314.17(C) Exception «.
- B** At least 6 in. (150 mm) of free conductor (measured from the point in the box where it emerges from its raceway or cable sheath) shall be left at each outlet, junction, and switch point » 300.14 «.
- C** The cable sheath shall extend into the box at least ¼ in. (6 mm) through the cable knockout or opening » 314.17(C) «.

CAUTION All permitted wiring methods must be secured to the box, unless the exception in 314.17(C) has been met.

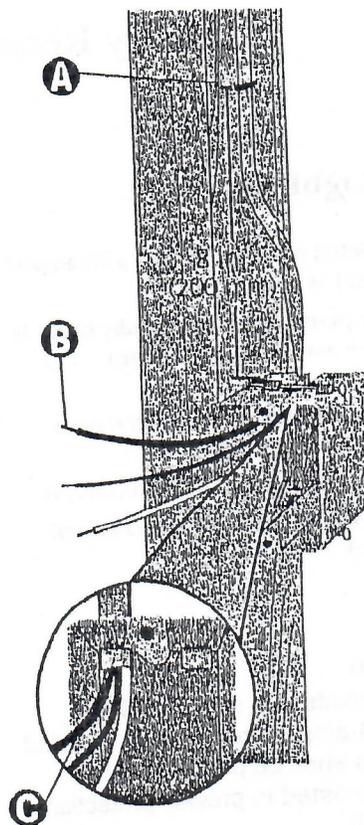


TABLE E3805.12.1
MAXIMUM NUMBER OF CONDUCTORS IN METAL BOXES*

BOX DIMENSIONS (Inches trade size and type)	MAXIMUM CAPACITY (cubic inches)	MAXIMUM NUMBER OF CONDUCTORS**						
		No. 18	No. 16	No. 14	No. 12	No. 10	No. 8	No. 6
4 x 1 1/4 round or octagonal	12.5	8	7	6	5	5	4	2
4 x 1 1/2 round or octagonal	15.5	10	8	7	6	6	5	3
4 x 2 1/8 round or octagonal	21.5	14	12	10	9	8	7	4
4 x 1 1/4 square	18.0	12	10	9	8	7	6	3
4 x 1 1/2 square	21.0	14	12	10	9	8	7	4
4 x 2 1/8 square	30.3	20	17	15	13	12	10	6
4 11/16 x 1 1/4 square	25.5	17	14	12	11	10	8	5
4 11/16 x 1 1/2 square	29.5	19	16	14	13	11	9	5
4 11/16 x 2 1/8 square	42.0	28	24	21	18	16	14	8
3 x 2 x 1 1/2 device	7.5	5	4	3	3	3	2	1
3 x 2 x 2 device	10.0	6	5	5	4	4	3	2
3 x 2 x 2 1/4 device	10.5	7	6	5	4	4	3	2
3 x 2 x 2 1/2 device	12.5	8	7	6	5	5	4	2
3 x 2 x 2 3/4 device	14.0	9	8	7	6	5	4	2
3 x 2 x 3 1/2 device	18.0	12	10	9	8	7	6	3
4 x 2 1/8 x 1 1/2 device	10.3	6	5	5	4	4	3	2
4 x 2 1/8 x 1 3/8 device	13.0	8	7	6	5	5	4	2
4 x 2 1/8 x 2 1/8 device	14.5	9	8	7	6	5	4	2
3 3/4 x 2 x 2 1/2 masonry box/gang	14.0	9	8	7	6	5	4	2
3 3/4 x 2 x 3 1/2 masonry box/gang	21.0	14	12	10	9	8	7	4

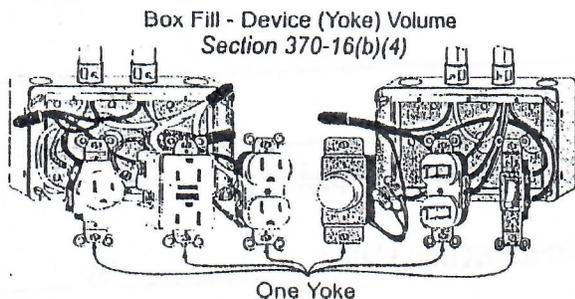
For SI: 1 inch = 25.4 mm, 1 cubic inch = 16.4 cm³.

* Where no volume allowances are required by Sections E3805.12.2.2 through E3805.12.2.5.

E3805.12.2 Box fill calculations. The volumes in Section E3805.12.2.1 through Section E3805.12.2.5, as applicable, shall be added together. No allowance shall be required for small fittings such as locknuts and bushings.

E3805.12.2.1 Conductor fill. Each conductor that originates outside the box and terminates or is spliced within the box shall be counted once, and each conductor that passes through the box without splice or termination shall be counted once. The conductor fill, in cubic inches, shall be computed using Table E3805.12.2.1. A conductor, no part of which leaves the box, shall not be counted.

Exception: An equipment grounding conductor or not more than four fixture wires smaller than No. 14, or both, shall be permitted to be omitted from the calculations where such conductors enter a box from a domed fixture or similar canopy and terminate within that box.



Each individual yoke (strap) counts as a two conductor volume, based on the largest conductor connected on that device.

TABLE E3805.12.2.1
VOLUME ALLOWANCE REQUIRED PER CONDUCTOR

SIZE OF CONDUCTOR (AWG)	FREE SPACE WITHIN BOX FOR EACH CONDUCTOR (cubic inches)
No. 18	1.50
No. 16	1.75
No. 14	2.00
No. 12	2.25
No. 10	2.50
No. 8	3.00
No. 6	5.00

For SI: 1 cubic inch = 16.4 cm³.

E3805.12.2.4 Device or equipment fill. For each yoke or strap containing one or more devices or equipment, a double volume allowance in accordance with Table E3805.12.2.1 shall be made for each yoke or strap based on the largest conductor connected to a device(s) or equipment supported by that yoke or strap.

E3805.12.2.5 Equipment grounding conductor fill. Where one or more equipment grounding conductors or equipment bonding jumpers enters a box, a single volume allowance in accordance with Table E3805.12.2.1 shall be made based on the largest equipment grounding conductor or equipment bonding jumper present in the box.

Franklin County Building Dept Drywall Checklist

Permit #: _____

Name on Permit: _____

OK NO/GO

1. 5/8" Fire Rated (Type X) drywall on common Wall & Ceiling of Attached Garage*
* If 5/8" Type X not installed on Ceiling, a Firewall of 5/8" Type X must extend to Roof Sheathing.
& Steel Support Posts & Beams wrapped for Fire Protection where required.
2. 5/8" fire rated (Type X) drywall over pull down stairs in attached garage.
3. Drywall Fastened to Code* Field Requirements (chart):

	Ceilings:	Walls:
1/2" drywall w/nails	7" O.C. 6 in Field -	8" O.C. 5 in Field
1/2" drywall w/screws	12" O.C. 3 in Field -	16" O.C. 2 in Field
5/8" drywall w/nails	7" O.C. 6 in Field -	8" O.C. 5 in Field
5/8" drywall w/screws	12" O.C. 3 in Field -	16" O.C. 2 in Field
1/2" or 5/8" w/adhesive -nails	16" O.C. 2 in Field -	16" O.C. 2 in Field
1/2" or 5/8" w/adhesive -screws	16" O.C. 2 in Field -	24" O.C. 1 in Field

*Note! All drywall needs to be Fastened One (1) at each edge plus the Field Requirements.
All Spacing figured for stud Walls 16" O.C. Ceiling joists 24" O.C. & 48" wide drywall.

4. Green Board (M.R. Board) required around tubs & showers not on ceilings**
** 1/2" Green Board (on ceilings) requires framing members 12" on center (O.C.)
& 5/8" Green Board (on ceilings) requires framing members 16" on center (O.C.)
5. Brown Board installed where drywall will be exposed to the Weather ie: Ext Porch Ceiling
6. Gypsum Board can be applied at right angles or parallel to framing members.
7. Joints staggered by at least one (1) framing space.
8. Basement walkout Load Bearing wall must be drywalled.
9. Fireplace Chase Drywalled to Code:

Woodburner- 5/8" Fire Rated Type X complete Fireplace Chase to Roof. Fire Collar each Ceiling Level
w/ Corners & Seams Caulked or Taped.

Gas Fireplace- Fireblocked w/Lid at Ceiling. Insulation Shield Around Pipe in Attic minimum 16" High.
Note! Exterior Walls of All Gas Fireplace Chases must be Insulated & Drywalled
w/ Corners & Seams Caulked or Taped.

10. Other: _____

The above items must be corrected: _____

Please call (636) 583-6384 for a re-inspection when corrections have been completed.

Inspection Date : _____ By _____

Re-Inspection Date : _____ By _____

TEMPORARY OCCUPANCY & OCCUPANCY INSPECTION CHECKLIST (2009 IRC)

ERMIT #: _____ PERMITTEE: _____

Those items listed with OCCUPANCY next to them are not required for a TEMPORARY OCCUPANCY but must be completed for an OCCUPANCY.

	Approved	Disapproved
1. Finish exterior wall covering (R703.1).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
2. Roof ventilation (R806.1).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
3. Garage drywall taped (R302.6).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
4. Fire door between garage and house (R302.5).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
5. Attic access in garage trimmed with 2x4.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
6. Pull down attic access stairs in garage covered with 5/8" firecode.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
7. Framing & fastening of decks, railings & steps per code, or approved guardrails installed where allowed; (R311.3, R311.7.7, R312, Franklin County Ordinance).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
8. Handrails, guardrails inside & outside (R311.7.7, R312).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
9. Chimney & fireplace (Chapter 10).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
10. Framing & fireplace (Chapter 10).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
11. Hearth extension proper size for fireplace (R1001.10).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
12. Cutting & notching in wood construction (R502.8.1).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
13. No doors swing over stairs (R-311).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
14. Light fixtures in closets have proper clearance (E4003.12).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
15. G.F.I.'s where required (E3902).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
16. Carbon monoxide detectors installed (R315).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
17. All switches grounded (E4001.11.1).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
18. All switches, receptacle & covers installed (E3906.9).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
19. Flex cords on disposal/dishwasher as per E4101.3.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
20. All horizontal wiring below 84" protected.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
21. Smoke detectors wired in series & working with battery backup (R314.4).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
22. Light fixtures installed or blank cover on box (if specialty light on back order) (E3906.9).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
23. Panel board circuit identification (E3706.2).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
24. Exterior electric lights, w/p GFI outlets etc. (E3903.3).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
25. Screen on combustion air vents or per manufacturer's specifications.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
26. Vacuum breaker hose bibb (P2902.3.2).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
27. Drain pan under water heater where water leakage could cause damage (P2801.5).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
28. Water heater pressure relief pipe (P2803.6.1).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
29. Furnace & hot water heater vent connection (Chapter 24).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
30. Identification of gas lines (G2412.5).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
31. Gas pressure tests results in file (G2417) GAS CONTRACTOR # _____.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
32. Metal flex or transition duct not to exceed 8ft. (G2439.5.4).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
33. Clothes dryer exhaust (G2439, M1502).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
34. Finished mechanical.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
35. Sewer system covered & aerator motor installed.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
36. One working bathroom.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
37. Working kitchen.....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
38. In use covers installed (E4002.9).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
39. Location of residence identified and marked (R319.1).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>
40. Tamper proof receptacles installed (E4002.14).....	TEMP OCC <input type="checkbox"/>	<input type="checkbox"/>

TEMPORARY OCCUPANCY APPROVED Insp. Date _____ By _____ Re-insp. Date _____ By _____

41. Gutters or grading (Sec. R401.3).....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
42. Outside flashing & caulking (Sec. R703).....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
43. Deck and/or landing to exterior door(s) (R3113, Franklin County Ordinance).....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
44. Footing under deck post (Sec. R403).....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
45. Beam pockets filled (R502.9).....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
46. Floor covering & all trim installed.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
47. Insulation of band board.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
48. All doors hung and hardware installed.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
49. Closet shelves and poles installed.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
50. Finished plumbing.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
51. A.C. unit installed and wired with approved disconnect (Chapter 14).....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
52. Finished electric.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
53. Kitchen complete.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
54. All baths complete.....	OCCUPANCY <input type="checkbox"/>	<input type="checkbox"/>
55. All other inspections required, approved and completed.....	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error. **The above items must be corrected:** _____
 Please call (636)583-6384 for a re-inspection when correction(s) have been completed.

OCCUPANCY APPROVED Insp. Date _____ By _____ Re-insp. Date _____ By _____

Attics and Crawlspace

If foam plastic (Styrofoam) is used in any structure, it shall be protected against ignition by one of the following methods:

- a. 1 1/2 inch thick mineral fiber insulation.
- b. 3/8 inch gypsum board or equivalent.
- c. 1/4 in. thick plywood, particleboard, or hardboard.
- d. Corrosion resistant steel having a base metal thickness of .016 inch.

No matter which method is used, it must be installed in a manner that the foam plastic (Styrofoam) is not exposed. The protective covering shall be consistent with the requirements for the type of construction.

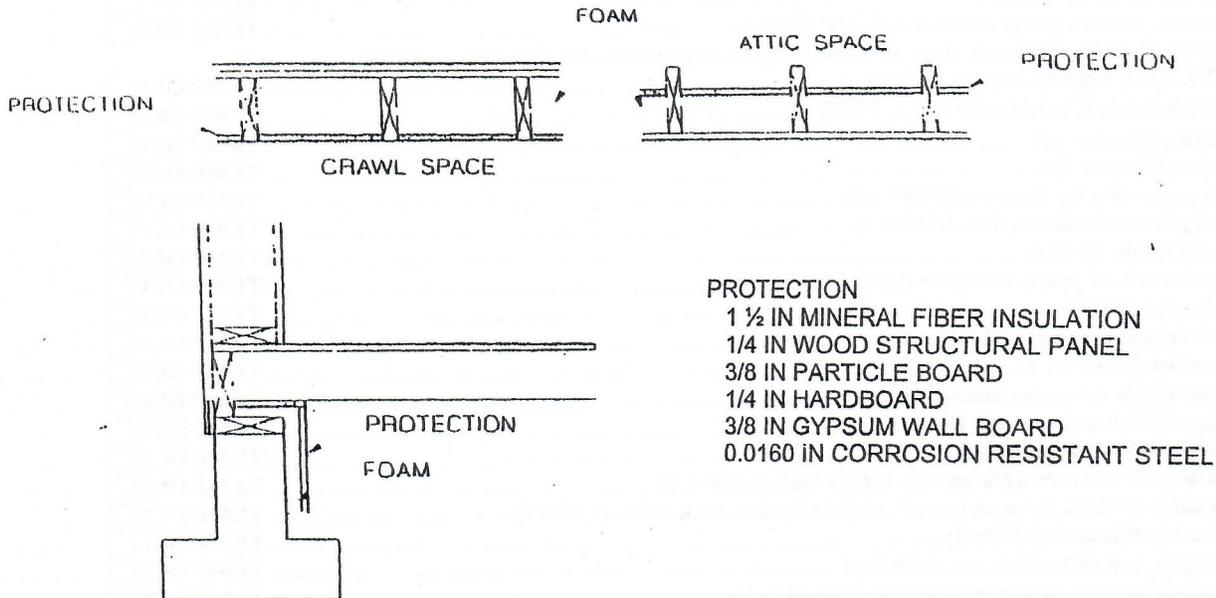


Figure R314

FOAM PLASTIC, ATTIC AND CRAWL SPACES

Protection Against Decay

Location Required

In areas subject to decay damage the following locations shall require the use of an approved species and grade of lumber (pressure preservative treated lumber.)

- a. Wood joists or the bottom of a wood structural floor when 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.
- b. All sills or plates that rest on concrete or masonry slabs and exterior walls.
- c. Sills and sleepers on concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.
- d. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than 0.5 inch on tops, sides, and ends.
- e. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches from the ground.
- f. 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.

All wood in contact with the ground and that supports permanent structures intended for human occupancy shall be approved pressure preservative treated wood suitable for ground contact use.

Smoke Alarms

Groups R-2, R-3, R-4 and 1-1

Single and multiple-station smoke alarms shall be installed in the following locations. This system would be required in lieu of any monitored system. All detectors must be AC/DC with battery backup and each unit must be sound.

1. Outside each sleeping area on the ceiling and within (10) feet of each bedroom door.
2. Within each room used for sleeping purposes. Where sleeping rooms' ceilings slope is greater than one (1) foot rise in eight (8) foot rise horizontal, the upper edge of the smoke detector shall be located within 3 feet of the highest point of the ceiling.
3. In each story within a dwelling unit, including basements and cellars but not including crawl spaces and uninhabitable attics.
4. Additional smoke alarms may be required by the Code Official where necessary for adequate safety due to additional walls or ventilation system.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner the actuation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72,

Carbon Monoxide Alarms

A carbon monoxide alarm is required outside each bedroom in the immediate vicinity in dwellings that have an attached garage and/or fuel-fire appliances. R315

Power Source

In new construction, the required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery.

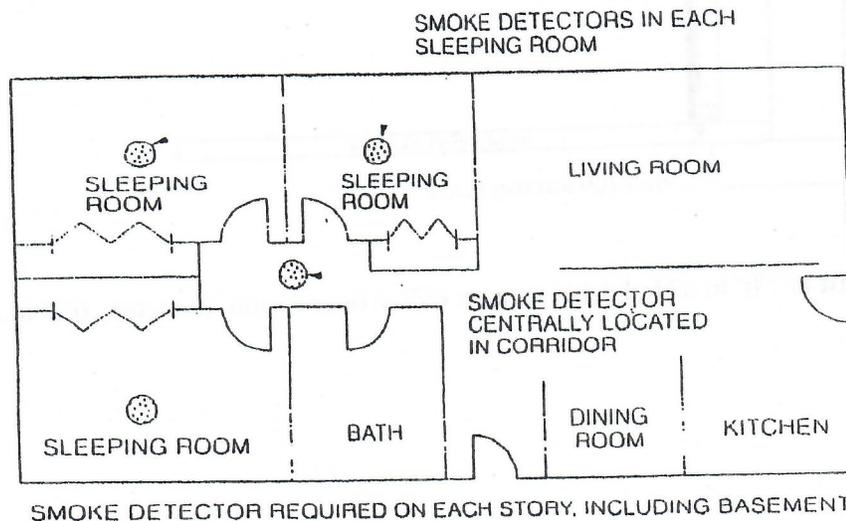
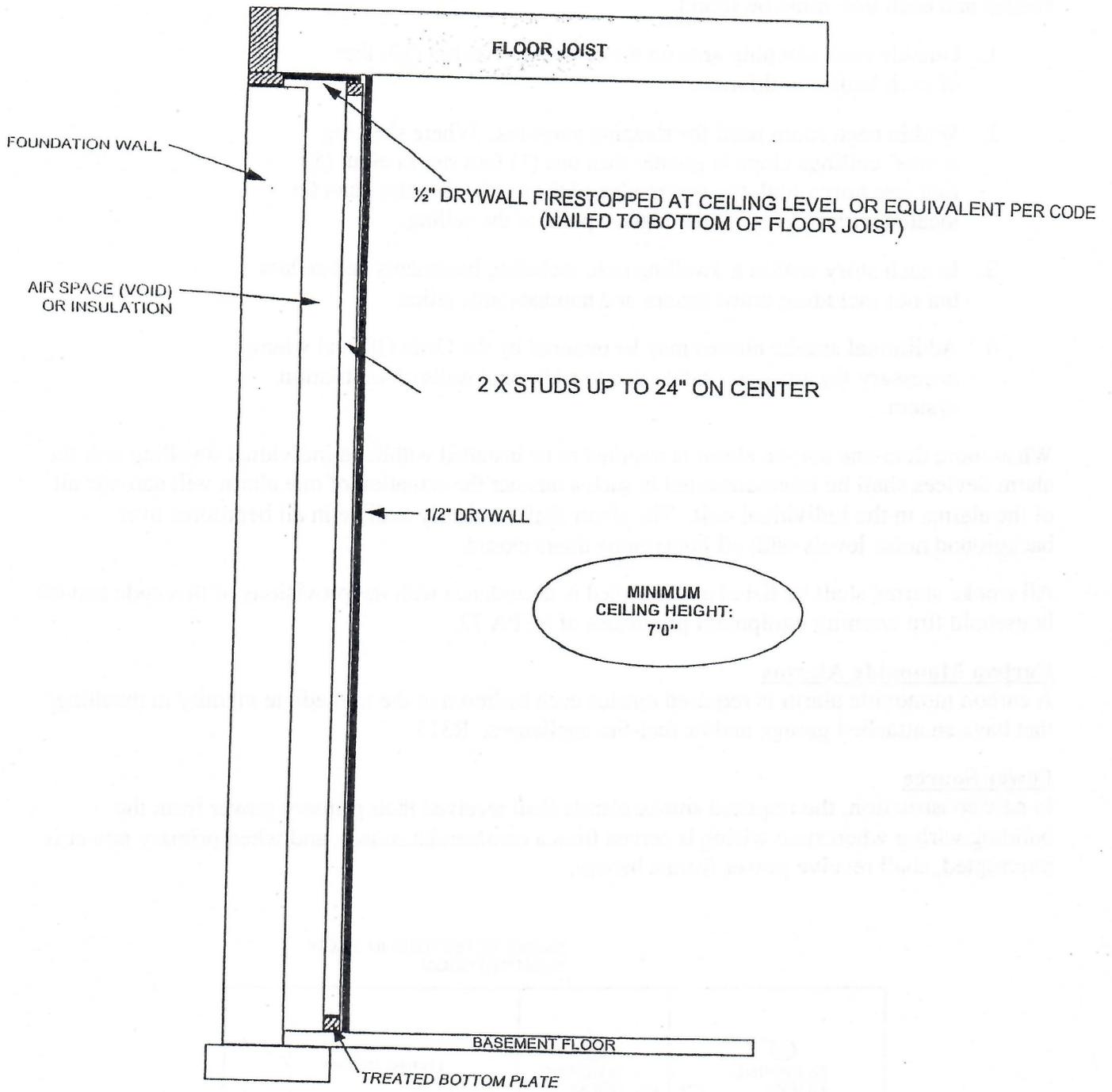


Figure R313
LOCATION OF SMOKE DETECTORS

FINISHING YOUR BASEMENT DOES REQUIRE A PERMIT

TYPICAL WALL SECTION



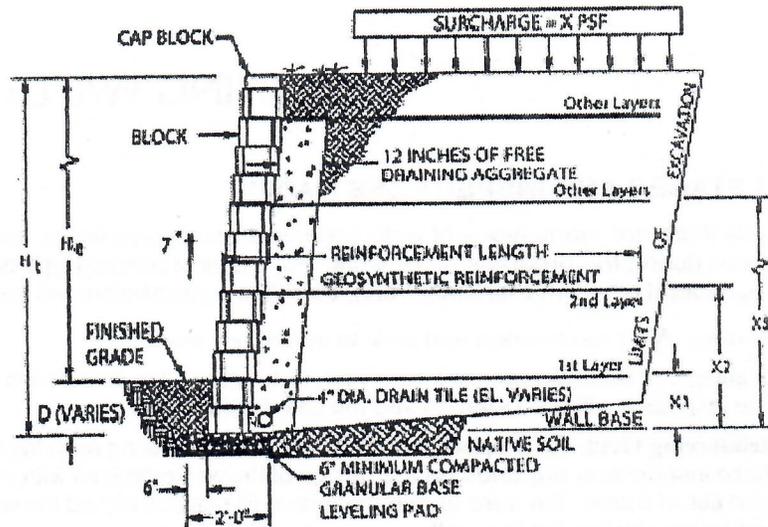
The minimum ceiling height is 7'0" in all habitable spaces; 6'6" at beams and ductwork, 6'8" in stairwell.

RETAINING WALLS

INTERNATIONAL BUILDING CODE 1610.2 — RETAINING WALLS

Retaining walls shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift.

Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning.



A permit is required for a retaining wall whenever the wall exceeds four (4') feet in height, measured from grade at the bottom of the wall to the top of the wall.

WHAT INFORMATION IS NEEDED TO APPLY FOR A PERMIT?

Two copies of a plot plan showing the location of the wall on the property. This plan should also show the location of driveways, sidewalks, patios, decks, pools and other structures or paving relative to the proposed wall. Guardrails may be required on walls near some of these structures.

Two copies of engineered plans for the type of wall being installed. Sometimes these plans can be obtained from the material supplier.

Plans may need to be sealed by a Missouri Licensed Professional Engineer or Architect, depending on the size and complexity of the proposed project or if the wall supports a surcharge such as a driveway.

R404.1.3 Design required. A design in accordance with accepted engineering practice shall be provided for concrete or masonry foundation walls when any of the following conditions exist:

1. Walls are subject to hydrostatic pressure from groundwater.
2. Walls supporting more than 48 inches (1219mm) of unbalanced backfill that do not have permanent lateral support at the top and bottom.

DOES THE WALL HAVE TO BE INSPECTED?

Yes, inspections will be made at various stages of the walls construction and these inspections will be marked on a building permit card issued with the building permit. These inspections must be called in and work may not proceed to the next stage until the inspector has signed off on the permit card.

RETAINING WALLS

AT WHAT STAGES ARE INSPECTIONS MADE?

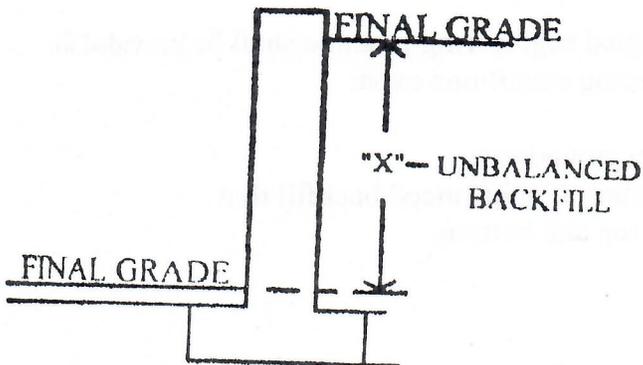
Obviously there are many types of walls (railroad tie, landscape timber, block, concrete), and all require multiple inspections during the progress of the work. For the most common type of wall construction (block retaining walls made by several different manufacturers), the following inspections will be made:

1. **Footing:** After excavation and prior to setting any blocks.
2. **Drainage:** After drainage rock has been installed and the drainpipe is installed but before the pipe is covered. The inspector will also want to see the filter fabric in place.
3. **Reinforcing Grid:** An inspection is required before covering each layer of reinforcing grid. The number of these inspections depends on the design of the wall submitted with the permit application, but is usually every third tier of block. Be sure to use the proper fill material behind the wall (rock or soil) and compact it as specified by the design for the wall.
4. **Final Inspection:** A final inspection must be made when the wall is complete and all disturbed areas are revegetated. This inspection must be completed before the permit expiration date, which is usually 6 months from the date the permit is issued. Failure to get this inspection before the permit expires will cause the escrow to be forfeited and a new permit will have to be obtained.

If there is a walking surface within two (2') feet of the top of a retaining wall, a guardrail will be required.

ARE THERE ANY OTHER FACTORS THAT MAY AFFECT PERMIT ISSUANCE OR WALL CONSTRUCTION?

Yes, there can be many other factors, probably too numerous to cover fully, but one of the more important factors would be soil condition. The plan examiner may require a soils report at the time the application is reviewed or by the inspector on site based on observed soil conditions. Certain kinds of soil may require special considerations such as special drainage, backfill materials and compaction.



Retaining walls per Sec.404.1.3

*IF "x" = 48" or greater then a sealed design is required.

*IF "x" = less than 48" then a sealed design is NOT required

Franklin County Building Department Septic System Checklist

Permit #: _____

Name on Permit: _____

	<u>OK</u>	<u>NO/GO</u>	
1 Alternative System plan from Registered Design Professional.	_____	_____	
2 Check that field is located in Perc/Soil Test Area.	_____	_____	
3 Property Lines marked (if close to septic area).	_____	_____	
4 Distance between well head and tank at least 100 feet.	_____	_____	
5 Distance between tank & basement 15 ft minimum.	_____	_____	
6 Distance between well head and drainfield at least 100 feet.	_____	_____	
7 Distance from property lines to drainfield (10 ft) / lagoon (75ft).	_____	_____	
8 Check setbacks from springs, cisterns, creeks, lakes	_____	_____	
9 Shallow drainfield has sufficient wooded area for absorption.	_____	_____	
10 Tank properly sized to number of bedrooms.	_____	_____	
11 Access to tank above finished grade (risers).	_____	_____	
12 Schedule 40 PVC past the over digs of the tank.	_____	_____	
13 Cleanout every 100 feet from house to tank.	_____	_____	
14 Aerator motor, pumps, alarms operating.	_____	_____	
15 Aerator motor, pumps, & alarms wired UF (Underground Feeder).	_____	_____	
16 Distribution/Splitter Box level, properly installed & adjusted w/access above grade.	_____	_____	
17 Supply trenches properly sloped.	_____	_____	
18 Trenches installed with the contour of slope.	_____	_____	
19 Pipes proper size & connected securely	_____	_____	
20 Bottom of lateral trench excavation to proper depth & level.	_____	_____	
21 Length of Runs, depth and width as specified.	_____	_____	
22 Clean gravel above & below perforated pipe and straw.	_____	_____	
23 Landblocks at the end of each lateral (bentonite if necessary)	_____	_____	
24 Type of rock and depth of soil where applicable.	_____	_____	
25 Curtain drain /diversion terrace minimum 10 feet above drainfield area.	_____	_____	
26 Curtain drain depth as specified on design.	_____	_____	
27 Lagoons - fence, gate, signs.	_____	_____	
28 Lagoons - splash block & overflow pipe installed.	_____	_____	
29 Lagoons - trees removed within 50' of waters edge.	_____	_____	
30 Lagoons - 100' from residence it serves (min) & 200' from nearest existing residence.	_____	_____	
31 System installed according to approved plans on site.	_____	_____	
32 Condition of Soil (circle one)	wet	moist	dry
33 Weather Conditions (circle one)	wet	moist	dry
34 Other: _____			

Sewer Installed by: _____

Tank Size: _____ Length & Type of Drainfield: _____ LF of _____

The above items must be corrected: _____

Please call (636) 583-6384 for a re-inspection when corrections have been completed.

Inspection Date : _____ By _____

Re-Inspection Date : _____ By _____

BLDGFORM 495(02-2007)

Franklin County Building Department
The County of Franklin On-Site Sewage Disposal Systems Ordinance and Regulations
 (Adopted November 27, 2007 and Effective Date January 1, 2008)

**Sewer Site
 for
 Homeowners as Installers**

Permit # _____ Property Owner _____

		APPROVED	DISAPPROVED
1.	Proper distance from property line, buildings, system staked out, etc.	<input type="checkbox"/>	<input type="checkbox"/>
2.	Proper distance from well.	<input type="checkbox"/>	<input type="checkbox"/>
3.	Location per soil or perc test.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Go over size and type of tank.	<input type="checkbox"/>	<input type="checkbox"/>
5.	Distribution box must be above first lateral (or will back-flow into distribution box.) Explain.	<input type="checkbox"/>	<input type="checkbox"/>
6.	Proper drop before you start drainfield below tank.	<input type="checkbox"/>	<input type="checkbox"/>
7.	No trees to be removed unless sawed off. (<i>No dozing trees out allowed</i>)	<input type="checkbox"/>	<input type="checkbox"/>
8.	Type of system being installed:	<input type="checkbox"/>	<input type="checkbox"/>

No white rock in laterals. No coil pipe in laterals (coil sock pipe in curtain drain only ok)

9.	Go over with depth and type of rock and size of rock.	<input type="checkbox"/>	<input type="checkbox"/>
10.	Laterals laid out with the contour of the ground.	<input type="checkbox"/>	<input type="checkbox"/>
11.	Go over depth of drainfield.	<input type="checkbox"/>	<input type="checkbox"/>
12.	Go over landblocks (if landblocks are not done correctly, bentonite will be required)	<input type="checkbox"/>	<input type="checkbox"/>
13.	Go over type wiring, alarm, pump, etc. if required on this system.	<input type="checkbox"/>	<input type="checkbox"/>
14.	Do not dig if soil is too wet.	<input type="checkbox"/>	<input type="checkbox"/>
15.	If you choose a plastic tank, must bed and backfill w/sand or fine rock	<input type="checkbox"/>	<input type="checkbox"/>
16.	If SB-2 is used, stripe to top (required).	<input type="checkbox"/>	<input type="checkbox"/>
17.	If B-gravel is used, must cover rock with straw or typar paper. Total 12" of rock req. 6" below and 4" around & 2" cover over pipe.	<input type="checkbox"/>	<input type="checkbox"/>
18.	Schedule 40 in & out of tank onto overdig min 2' required.	<input type="checkbox"/>	<input type="checkbox"/>
19.	Must have access to all compartments of tank above grade. Also access to distribution boxes.	<input type="checkbox"/>	<input type="checkbox"/>
20.	If curtain drain is required, go over depth, location, (Usually min.10' above field) w/4" sock pipe, clean white rock allowed 1 1/2" to 2 1/2" or B-gravel (no minus rock)	<input type="checkbox"/>	<input type="checkbox"/>
21.	Cleanout required every 100' in line from house to tank.	<input type="checkbox"/>	<input type="checkbox"/>
22.	Schedule 35 from distribution box to laterals min.	<input type="checkbox"/>	<input type="checkbox"/>
23.	If lagoon is used, go over fence, gate, sign requirements.	<input type="checkbox"/>	<input type="checkbox"/>
24.	Lagoon must be 200' from any existing residence.	<input type="checkbox"/>	<input type="checkbox"/>
25.	Lagoon must be 100' from home.	<input type="checkbox"/>	<input type="checkbox"/>
26.	Lagoon must have a septic tank prior to lagoon.	<input type="checkbox"/>	<input type="checkbox"/>
27.	Lagoon must have a cleanout between tank and lagoon.	<input type="checkbox"/>	<input type="checkbox"/>
28.	Lagoon must be 50' from stream or lake.	<input type="checkbox"/>	<input type="checkbox"/>
29.	Trees must be back 50' from water's edge / lagoon setback 75' from property line.	<input type="checkbox"/>	<input type="checkbox"/>
30.	Recommend to stop at office and pickup lagoon specs.	<input type="checkbox"/>	<input type="checkbox"/>
31.	All alternate systems must be engineered and put in exactly as designed.	<input type="checkbox"/>	<input type="checkbox"/>

Owner's signature (*that will be the installer and present at site inspection*): _____

Date: _____

Inspector's signature: _____

Date: _____

**2009 International Residential Code
MECHANICAL INSPECTION CHECKLIST**

ERMIT #: _____

PERMITTEE: _____

	<u>Approved</u>	<u>Disapproved</u>
1. Attic access for mechanical large enough (M1305.1.3).....	<input type="checkbox"/>	<input type="checkbox"/>
2. Crawlspace access for mechanical large enough(M1305.1.4)	<input type="checkbox"/>	<input type="checkbox"/>
3. 24" walkway for attic furnace (M1305.1.3).....	<input type="checkbox"/>	<input type="checkbox"/>
4. Trusses designed to accept load of furnace.....	<input type="checkbox"/>	<input type="checkbox"/>
5. Clothes dryer exhaust (G2439 (614), M1502).....	<input type="checkbox"/>	<input type="checkbox"/>
6. Metal flex or transition duct < 8' (G2439 (614), M1502).....	<input type="checkbox"/>	<input type="checkbox"/>
7. Screw protection for dryer vent (M1502.4.2)	<input type="checkbox"/>	<input type="checkbox"/>
8. Fireplace type and specifications (Chapter 10).....	<input type="checkbox"/>	<input type="checkbox"/>
9. Fireplace venting (Gas/Wood).....	<input type="checkbox"/>	<input type="checkbox"/>
10. Gas valve for appliance <6' and in same room (G2420(409)).....	<input type="checkbox"/>	<input type="checkbox"/>
11. Combustion air needed for solid fuel and gas.....	<input type="checkbox"/>	<input type="checkbox"/>
12. Combustion air adequate & proper location	<input type="checkbox"/>	<input type="checkbox"/>
13. Insulation shield on flue vents (G2426.4(502.4))	<input type="checkbox"/>	<input type="checkbox"/>
14. Furnace & water heater venting.....	<input type="checkbox"/>	<input type="checkbox"/>
15. Gas appliance elevated ignition source in garage 18" minimum (G2408.2(305.3), M1307.3)	<input type="checkbox"/>	<input type="checkbox"/>
16. Gas appliance protected in garage (G2408.3(305.5), M1307.3.1).....	<input type="checkbox"/>	<input type="checkbox"/>
17. Gas piping material type (G2414(403)).....	<input type="checkbox"/>	<input type="checkbox"/>
18. Drain pan under HVAC equipment (where damage could occur) (M1411).....	<input type="checkbox"/>	<input type="checkbox"/>
19. Return air size, location & flashing (M1602)	<input type="checkbox"/>	<input type="checkbox"/>
20. Disconnect in sight of equipment or lockout breaker	<input type="checkbox"/>	<input type="checkbox"/>
21. Electrical bonding between duct work and furnace	<input type="checkbox"/>	<input type="checkbox"/>
22. Proper support for flex duct	<input type="checkbox"/>	<input type="checkbox"/>
23. Gas line identification (G2412.5(401.5)).....	<input type="checkbox"/>	<input type="checkbox"/>
24. Range hood type and exhaust (M1503)	<input type="checkbox"/>	<input type="checkbox"/>
25. No duct openings in garage.....	<input type="checkbox"/>	<input type="checkbox"/>
26. Shut off on cold water side of hot water heater	<input type="checkbox"/>	<input type="checkbox"/>
27. Screen on combustion air or manufacturer's specifications (PMI).....	<input type="checkbox"/>	<input type="checkbox"/>
28. Other	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: The above list may not cover all aspects of this inspection. Checklists are only a guideline for inspection purposes; subject to change and/or error.

The above items must be corrected:

Please call (636)583-6384 for a re-inspection when correction(s) have been completed

Resp. Date _____ By _____

Re-insp. Date _____ By _____

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