

**CITY OF BULLHEAD CITY**  
**Public Works Department – Building Division**  
2355 Trane Road  
Bullhead City, AZ 86442  
Office (928) 763-0124  
Fax (928) 763-0131

**GENERAL INFORMATION**

Retain these approved plans for your permanent records. The City will destroy our copy 90 days after the project has passed final inspection and/or is issued a Certificate of Occupancy.

Do not install or construct any structures over utility company maintained service lines. Prior to doing any work call Arizona Blue Stake, Inc:

**1-800-STAKE-IT (1-800-782-5348)**

The City will be verifying the presence of blue staked lines during your first inspection.

**TEMPORARY RESTROOM AND TRASH**

**RECEPTACLES:** All construction type work for which a building and or grading permit is required shall have on site prior to commencing any work authorized by such permit issued by the city: A. Temporary restroom facilities; and B. One minimum three cubic yard trash receptacle.

**TERMITE CERTIFICATION:** For all habitable structures, prior to issuance of a Certificate of Occupancy or a Certificate of Compliance, the applicant for the building permit must submit a Certificate of Guarantee issued by a pest-control agency licensed by the Arizona Office of Pest Management. The guarantee shall indicate that the soil on the subject lot has been treated for the prevention of termite infestation.

**RIGHT-OF-WAY PERMIT:** If you are building, constructing, encroaching, or working in any City right-of-way which includes, but not limited to: streets, drainage easements, and public utility easements, you need a Right-Of-Way permit from the Engineering Department, prior to performing the work (i.e. Driveways, Sidewalks)

**UTILITIES:** Electric, Water and Gas utilities must be turned on for the final inspection.

**FINISHED FLOOR ELEVATIONS:** The top of any exterior foundation shall extend above the elevation of the street gutter at point of discharge or the inlet of an approved drainage device a minimum of 12 inches plus 2 percent. Alternate drainage methods must be reviewed and approved by the City. Lots located in a flood zone may be required to meet additional FEMA requirements.

**GRADING & DRAINAGE:** Grading is to be done per the 2006 IRC, Maintain 2:1 slopes or shallower. In areas of fill or unknown soils characteristics a soils test, made by an approved agency using an approved method, may be required. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as not to create a hazard.

**ELECTRICAL/MECHANICAL/PLUMBING**

**ALL PIPING:**

Shall be supported in such a manner as to maintain its alignment, and prevent sagging.

Shall be laid on a firm bed for its entire length.

Shall be backfilled with clean earth not to contain stones or other materials which would damage or break the piping.

**WATER LINES:**

Must be buried a minimum of 12" below grade.  
(Copper piping must be sleeved)

**SEWER LINES:**

Using Schedule 40 DWV or SDR35 piping, install 3" pipe with a minimum of 1/4" per foot fall OR 4" or larger pipe with a minimum of 1/8" per foot fall. Provide a double cleanout at the building, additional COs at 100 foot intervals and at each change of direction exceeding 135 degrees. A water test is required for inspection, fill pipe with water prior to the inspector's arrival.

**NATURAL GAS:**

Piping to be approved for conveying gas. Piping not to be buried under any structure. Plastic pipe to be buried 18" (with #18 AWG tracer wire). Metal pipe to be buried 12" (coated or wrapped) OR securely attached to structure a minimum of 6" above grade (1/2"@ 6', 3/4"-1"@ 8'). A pressure test is required for inspection, 10# for 15minutes.

**ELECTRICAL:**

UG electrical must be buried a minimum of 18" in non-metallic conduit. Exposed conduit to be schedule 80.

Do not cut electrical service boxes into braced wall panels.

The following appliances are required to have a separate 20amp circuit: Swamp Cooler and Washer. The Washer circuit may serve one additional outlet in the laundry area.

Two or more separate small appliance 20amp circuits are required in the Kitchen, breakfast room, dining room or similar area.

**Kitchen Receptacle Locations:**

Wall Counters: Counter spaces separated by range tops, refrigerators or sinks are considered a separate counter space. At each space, 12" or wider, start 1<sup>st</sup> receptacle at 24" maximum from the edge of the counter space, and the next receptacle at 48" maximum from the 1<sup>st</sup> receptacle and so on, so that no point along wall line is more than 24" from a receptacle in that space.

**Island/Peninsular Counters (Min 12"x24"):**

One receptacle is required for the space regardless of how large it is.

E3802.12. All branch circuits that supply 125-volt, single-phase, 15- and 20-ampere outlets installed in dwelling unit bedrooms shall be protected by a combination type arc-fault circuit interrupter listed and installed to provide protection of the entire branch circuit. (Exceptions may apply)

**CONVENTIONAL FRAMING Bracing Requirements EXTERIOR**

Braced wall panel at each corner and every 25' o.c., beginning a maximum of 12.5' from corner.

3/8" plywood or structural equivalent, full 4' panels. Material to be nailed per requirements for shear. See attached City shear nailing schedule.

In areas where a 4' panel will not fit, an alternate panel can be substituted. See attached City alternate panel detail.

Single story requires a minimum of 16% of the building length be braced.

Two stories require a minimum of 25% of the first story building length be braced.

Three stories require a minimum of 40% of the first story and 25% of the 2<sup>nd</sup> story building length be braced.

**INTERIOR**

Braced wall at each 35', beginning a maximum of 12.5' from exterior wall, with a 4' maximum offset.

1/2" gypsum wallboard, 48" on two faces or 96" on one face. Material to be nailed per requirements for shear. See attached City shear nailing schedule.

Braced walls to be secured with anchor bolts or "shot down" per manufacturers' specifications for shear.

May be alternately designed by an Arizona licensed registrant.

**Post & Beam Construction of Awnings & Carports: If Building Height is:**

<=12': POST BASES and CAPS must be rated for a minimum of \_\_\_\_# of uplift (\_\_\_\_sqft of awning x 10)/\_\_\_\_# of 4x4 posts.

Knee Bracing is required on all corners and every 25' along a wall line. Transverse knee bracing shall be located at each end of the building and every 25'. 12 Gauge "T" and "L" brackets are approved connectors when used in pairs and through bolted with 1/2" bolts.

OR structures may be designed by an AZ licensed registrant

>12': Building must be designed by an AZ licensed registrant

**MISCELLANEOUS:**

**FENCES AND RETAINING WALLS:**

No portion of a fence or retaining wall is to encroach into any Drainage or Public Utility Easement unless an encroachment permit is first obtained from the Engineering Division.

**BARRIERS FOR SWIMMING POOLS, SPAS, AND HOT TUBS:**

Residential pool barriers must meet the requirements of the 2006 International Residential Code, Chapter 41, Appendix G.

**RESIDENTIAL STAIRWAYS:**

Size: Minimum 36" width, Max. 7 3/4" rise, Min. 10" run  
 Headroom: Maintain minimum 6'8" clearance  
 Landings: Minimum 36" in the direction of travel  
 Handrails: If 4+ risers, 34-38" height, 1 1/4 "-2" handgrip  
 Guardrails: Min. 36" height, <4" sphere max. spacing

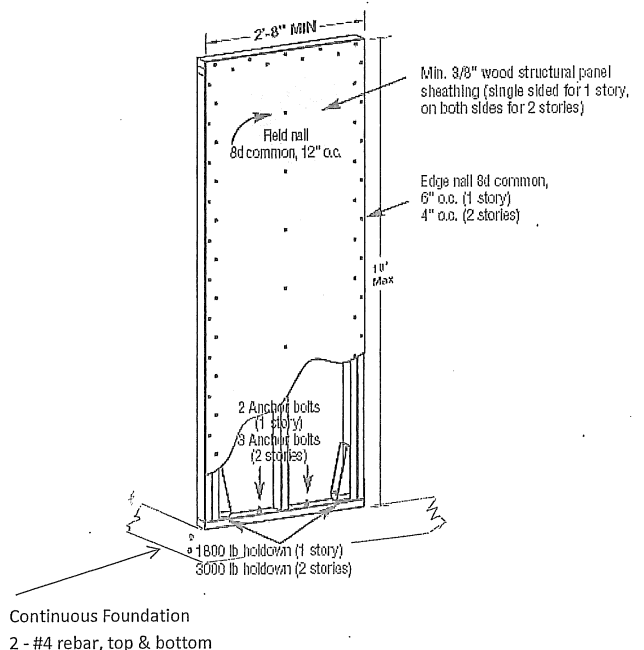
**SHEAR NAILING SCHEDULE:**

	Material	ICC#	SIZE/ STUDS	WIDTH	NAILS	EDGE, FIELD
<b>EXTERIOR</b>						
S1	PLYWOOD (APA Rated Sheathing)	NER-108	3/8" 16"OC	4' panels OK for use as 2'8" alternate panel	8d, 1 1/2" penetration	6", 12"
S2	OSB (Oriented Strand Board)	NER-124	3/8" 16"OC	4' panels OK for use as 2'8" alternate panel	8d, 1 1/2" penetration	6", 12"
S3	THERMOPLY	1439	.115 16" OC	4' panels ONLY	Large flat head No.11 galvanized roofing nails, 1 1/4" length OR No.16 galvanized staples 1" crown and 1 1/4" legs	3", 6"
S4	ENERGY BRACE	NER-298	.106 16" OC	4' panels ONLY	No.11 galvanized steel roofing nails, 1 1/4" length OR No.16 galvanized steel staples, 1" crown and 1 1/4" legs	3", 6"
S5	X-99 WOODSMAN	NER-224	7/16" 16" OC	4' panels OK for use as 2'8" alternate panel	8d 1 1/2" penetration	4", 8"
<b>INTERIOR</b>						
S6	GYPSUM WALLBOARD		1/2" 16" OC	4' on 2 faces or 8' on 1 face	5d cooler (0.085"dia., 1 5/8" long, 15/64" head) OR wallboard (0.086"dia., 1 5/8" long, 9/32" head) OR #6 drywall screws, 1 1/4"	7" 4", 16" blocked
S7	GYPSUM WALLBOARD		5/8" 16" OC	4' on 2 faces or 8' on 1 face	6d cooler (0.092"dia., 1 7/8" long, 1/4" head) OR wallboard (0.0915" dia., 1 7/8" long, 19/64" head) OR #6 drywall screws, 1 1/4"	7" 4", 12" blocked
					Interior braced walls to be secured with anchor bolts OR shot down per manufacturers schedule for shear. (HIII ICC# 1290 - 16" oc)	

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**Alternate Braced Wall Panel**

- Walls must be supported directly on a continuous foundation.
- One-story structures can use: Simpson HTT16, HDU2, or STHD10 holdowns (or equal).
- Two-story structures can use: Simpson HTT16, HDU4, or STHD10 holdowns (or equal).



Continuous Foundation  
 2 - #4 rebar, top & bottom