



HOMEOWNER'S BUILDING PERMIT MANUAL

AUGUST 2015
COMMUNITY DEVELOPMENT DEPARTMENT
DEVELOPMENT SERVICES DIVISION
(480) 350-4311



IMPORTANT TELEPHONE NUMBERS

FOR **ALL** COMMUNITY DEVELOPMENT DEPARTMENT **DIVISIONS**, PLEASE CALL 480-350-4311

BLUESTAKE 602-263-1100, 811, 800-782-5348

ARIZONA PUBLIC SERVICE (**APS**) 602-371-7171

SALT RIVER PROJECT (**SRP**) 602-236-8888

SOUTHWEST GAS CORPORATION (**SWG**) 602-861-1999

BUILDING INSPECTIONS REQUESTS 480-350-8072

CITY OF TEMPE INFORMATION 480-350-4311

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Introduction

This manual is designed for the City of Tempe homeowner. It is intended to:

- Identify residential construction work that requires a permit.
- Introduce residents to the unique programs provided by the City of Tempe.
- Help the homeowner by identifying the steps to obtain a building permit.
- Provide examples of plans and details that will aid the homeowner in submitting plans that meet Tempe's requirements.
- Provide clear instructions and examples for typical home improvement projects.
- Answer some of the most commonly asked building code and compliance questions.

Property lines and underground utilities

It is the responsibility of the homeowner to locate the property lines and to contact the Arizona Blue Stake Center with a request to have all underground utilities located. The Arizona Blue Stake Center can be reached at (602) 263-1100 or 811. You need to call at least two days before you dig. Visit Arizona Blue Stake for more information. <http://www.azbluestake.com/>

For some new construction projects such as room additions or accessory buildings, property lines may have to be staked and certified by a registered surveyor to avoid costly mistakes.



Useful City of Tempe Programs for the Homeowner

[Residential Building Fee Rebate Program](#): See Appendix D: [RBRP](#)

The Residential Building Fee Rebate Program provides a 100% rebate for all building safety fees on projects completed on existing single family residential properties. This includes all residential additions, alterations and home projects reviewed and permitted by the Development Services Division, Community Development Department.

Fees not eligible for rebate:

- Permits for illegal construction, unless it is to correct such
- Renewal fees
- Other permit types and their associated fees (i.e. Water & Sewer, Planning or Engineering)

[Home Improvement Planning Program](#): See Appendix E: HIPP

The HIPP program encourages reinvestment in single family residences by assisting homeowners with obtaining a building permit. HIPP provides a single point of contact to help you through the process, assists in developing conceptual design ideas compatible with your needs and home character, and provides technical information required for your permit.

Eligibility

- Single family residential properties



GET HIPP!

Improve your home – and save money



How to Obtain a Building Permit

The Development Services Permit Counter is located at 31 E. 5th Street, Tempe AZ 85281, east side of Garden Level.

Any construction requiring a permit also requires that a licensed contractor do the work, unless the owner-applicant performs the work. It is the responsibility of the homeowner or the contractor to obtain a building permit. If you own a home that you lease or rent to others, a licensed contractor is required to obtain a permit. Reference ARS 32-1121A: <http://www.azleg.gov/ars/32/01121.htm>

Project Submittal Application: <http://www.tempe.gov/home/showdocument?id=5302>

Some simple residential applications can be completed over-the-counter. For all others, it will take a maximum of ten (10) business days to review your residential remodel permit application. When applying for a permit, provide two sets of detailed plans that include:

- Project Name address, and parcel number(s)
- Description of the work
- Estimated cost of the project
- Plot (site) plan, which must show property lines, all buildings on the lot and dimensions from any new structures to related property lines. See the Maricopa County Assessor's website for assistance with this information: <http://maps.mcassessor.maricopa.gov/maps/default.aspx>
- Floor plan and building elevations if exterior modifications are made
- Structural details. Examples: footings, post to beam connections, roof framing plan, truss calculations, part numbers, or other material information
- Mechanical, plumbing, electrical plans, etc.

An Arizona registered architect or engineer must prepare the plans for:

- Manufactured roof or floor trusses
- Other structural components as determined by the plan reviewer

Zoning Ordinance Requirements

The City of Tempe Zoning and Development Code also regulates the height and location on the property for residential additions, exterior remodels and detached accessory buildings. Please ensure your project meets these regulations and contact the Planning Division at 480-350-4311 for any questions.

- *Accessory buildings* shall occupy less floor area, cover less lot area and have a use that is secondary to the primary structure(s) on the property
- *Accessory buildings* shall not be used for sleeping or living purposes, not have cooking facilities

Fees

Building permit and plan check fees are typically charged according to the valuation of your project. The valuation is estimated based on the approximate cost to have a contractor do the job, including labor and materials. All valuation adjustments are computed as part of the plan review process.—To check what your permit/plan review fee may be see our Plan review – Building permit fee table at <http://www.tempe.gov/city-hall/community-development/development-services/fees>. Certain types of projects have flat fees associated with them. Check our fee Table 2-A to see if your project is one of them.

Please note:

- Residential plan review and permit fees may be refunded if work is completed within one year of permit issuance. See the residential building fee rebate program.
- Plan review fees are due at the time you submit your plans, except projects that are flat fee based. Cash, check, or credit card accepted.
- Any project already under construction or completed without a permit *may* be charged double the permit fee.

Codes

The City of Tempe uses the following International Code Council, ICC, for residential construction.

They are available at the City Clerk's Office or on-line at <http://codes.iccsafe.org/I-Codes.html>

Tempe Building Safety Administrative and Tempe's amendments to the International Residential Code can be found at <http://www.tempe.gov/city-hall/community-development/development-services/building-codes-and-amendments>

Copies of the IRC and all the currently adopted International Construction Codes are also available at the City Clerk's office.

The amendments and other codes can be found on the City's website.

- [Tempe Building Safety Administrative Code](#)
- 2012 International Residential Code with [IRC Amendments](#)
- 2012 International Plumbing Code with [IPC Amendments](#)
- 2012 International Fuel Gas Code with [IFGC Amendments](#)
- 2011 National Electrical Code with [NEC Amendments](#)
- 2012 International Energy Conservation Code with [IECC Amendments](#)
- 2012 International Existing Building Code with [IEBC Amendments](#)
- [Zoning & Development Code](#)
- [City Code](#)

Inspections

The inspections that are required are listed on the red permit card provided when it is issued.

Tempe utilizes an Interactive Voice Response system for building inspection requests. This telephone number is (480) 350-8072. Before calling, you will need:

- Your Permit number.
- An inspection code. These are located on your red permit card.
- The Interactive Voice Response system will prompt you through the steps to:
 - Schedule or cancel an inspection.
 - Obtain inspection results.
- ACA - Accela Citizen Access is a web-based application that will be ready to use in the near future. It provides citizens on-line access to government services and information. A citizen may apply and pay for permits, schedule inspections, enter complaints and look-up information pertaining to specific permits and the permitting process.

Projects that do not require a permit

Per Tempe Building Safety Administrative Code, Section 104.2 Work Exempt from Permit, the following is a partial list for work specific to **residential construction** that would not require a permit:

For a complete listing of the exceptions for a building permit see the Tempe Building Safety Administrative Code at the included link: <http://www.tempe.gov/home/showdocument?id=8698>,

Building permits: A building permit shall **not** be required for the following:

1. Works of art not over 7 feet in height, their foundation and supporting structure, provided that no part of which is intended to be occupied or used as shelter.
2. One-story detached accessory structures, less than 200 square feet in area, used as tool and storage sheds, playhouses and similar uses.
3. Fences not more than 7 feet high.
4. Retaining walls which are not over 4 feet in height measured from the bottom of the footing to the top of the wall provided the retaining wall is not supporting a surcharge.
5. Sidewalks and driveways not more than 30 inches above grade, not over any basement or story below and not part of an accessible route.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools accessory to detached one- and two-family dwellings, which are less than 18 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.
8. Membrane and shade lattice structures, which do not exceed 200 square feet.
9. Swings and other playground equipment.
10. Window awnings supported by an exterior wall projecting not more than 54 inches from the exterior wall, are no closer than 3 feet from a property line, and do not requiring additional support.
11. Replacement roof covering, provided the replacement roof covering classification is equal to or greater than the existing roofing classification; the new roof covering does not increase the loads imposed upon the roof structural frame beyond the original design capacity and no more than two (2) full sheets or 64 square feet of roof sheathing will be replaced.
12. Listed, light-gage, pre-manufactured metal (only) patio covers and awnings. Listings must be applicable to the current edition of Tempe Building Code. Ask for documentation showing the listing provided by the manufacturer or sales office.
13. Special cases as allowed by the building official.

Electrical permits: An electrical permit shall **not** be required for the following:

1. Portable motors or other portable appliances energized by means of a cord to be connected to an approved receptacle.
2. Repair or replacement of fixed motors and appliances of the same type and rating.
3. Temporary decorative lighting.
4. Replacement of fuses, lamps sockets, luminaries, receptacles and minor maintenance or repairs.
5. Repair or replacement of any over current device of the same required capacity.

Fuel gas permits. A fuel gas permit shall **not** be required for the following:

1. Replacement of any minor part that does not alter equipment listing or make the equipment unsafe.
2. Replacement of gas water heating appliances in the same location, of equal or less BTU/CFH rating and minor modification to electrical, plumbing, and mechanical connections as necessary.
3. Replacement of gas pool and spa heating appliances in the same location of equal or less BTU/CFH rating, and minor modification to electrical, plumbing, and mechanical connections as necessary.
4. Replacement of gas air-conditioning units, direct-vented appliances, furnaces, and log lighters in the same location, of equal or less BTU/CFH, and minor modification to electrical, plumbing, and mechanical connections as necessary.

Mechanical permits: A mechanical permit shall **not** be required for the following:

1. Replacement of any minor part that does not alter equipment listing or make the equipment unsafe.
2. Self-contained refrigeration system containing 10 pounds or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.
3. Replacement of an air conditioner unit, furnace, heat pump or evaporative cooler in the same location of equal or less airflow and amperage rating and minor modification to electrical, plumbing, and mechanical connections as necessary.

Plumbing permits: A plumbing permit shall **not** be required for the following:

1. Stopping of leaks in drains, water, or vent pipe, or the clearing of drains when such work does not require the removal and replacement of pipe, fittings, valves or fixtures
2. Replacement of electric water heating appliances in the same location of equal or less amperage rating, and minor modification to electrical, plumbing, and mechanical as necessary.
3. Replacement installation of potable water conditioning or treating appliances in the same location, and minor modification to electrical, plumbing, and mechanical connections as necessary.
4. Replacement installation of solar domestic water heating appliances in the same location, and minor modification to electrical, plumbing, and mechanical connections as necessary.
5. Replacement installation of solar pool and spa heating appliances in the same location and minor modification to electrical, plumbing, and mechanical connections as necessary.

Emergency repairs

Where equipment replacements and repairs requiring a permit must be performed in an emergency situation, the emergency work may be completed *without* a permit but a permit application **shall** be submitted on the next business day.

A permit is required for a photovoltaic system, a solar hot water heating system or a solar pool heating system. A checklist is available at: <http://www.tempe.gov/home/showdocument?id=15701>

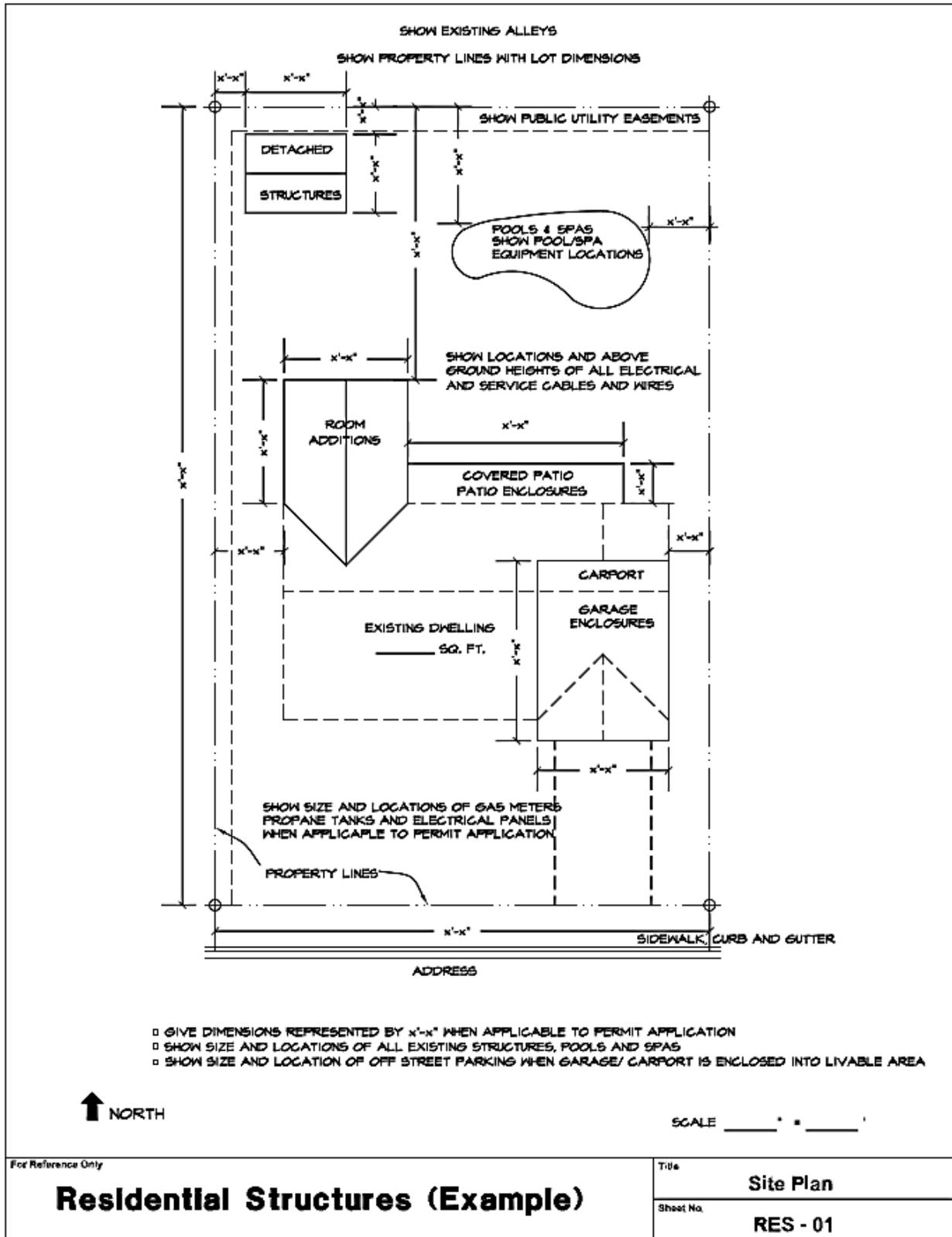
Plot Plan

A plot plan is only required on additions, detached structures, photovoltaic systems or pools. The Maricopa County Assessor's website is helpful with identifying property dimensions, lot square footage, easements and street widths: <http://maps.mcasessor.maricopa.gov/maps/default.aspx>.

A plot plan shall indicate the following:

- Location of property lines on all sides. Verify your setback dimensions with the Planning Division.
- All existing buildings on the lot or additions, including their dimensions and distances to property lines.
- Total square footage of the lot, existing buildings and proposed additions.

Note: *For new construction, property lines identification may be required by a registered surveyor. This will alleviate any confusion regarding where to place your building.*



Residential Carport to Garage Conversion: <http://www.tempe.gov/home/showdocument?id=8205>

This section applies to a building permit for a carport to garage conversion that is attached to a home. If this project is *not* attached to a home, please refer to the section on *accessory buildings*.

A garage shall be separated from the residence and its attic area by not less than one layer of ½ inch gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than one later of 5/87 inch Type “X” gypsum board or equivalent applied on the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½ inch gypsum board or equivalent. R302.6

There shall be no unprotected openings in the wall (ex: windows) or ceiling (ex: duct) between the garage and the home interior, i.e., windows, non-steel ducts, central vacuum piping, etc. Ask your inspector if you need assistance.

Any door into the dwelling from the garage must be self-closing, R302.5.1 and rated a minimum 20-minute fire rated, 1¾-inch solid wood door or solid or honeycomb core steel door not less than 1¾ inches thick.

A residential garage shall not have any opening into a room used for sleeping purposes. Smoke alarms and carbon monoxide detectors are required when performing *interior* remodeling that requires a permit. Dual (CO2 & Smoke) alarms are available and allowed. Reference R314, 315, IEBC Ch. 5-9.

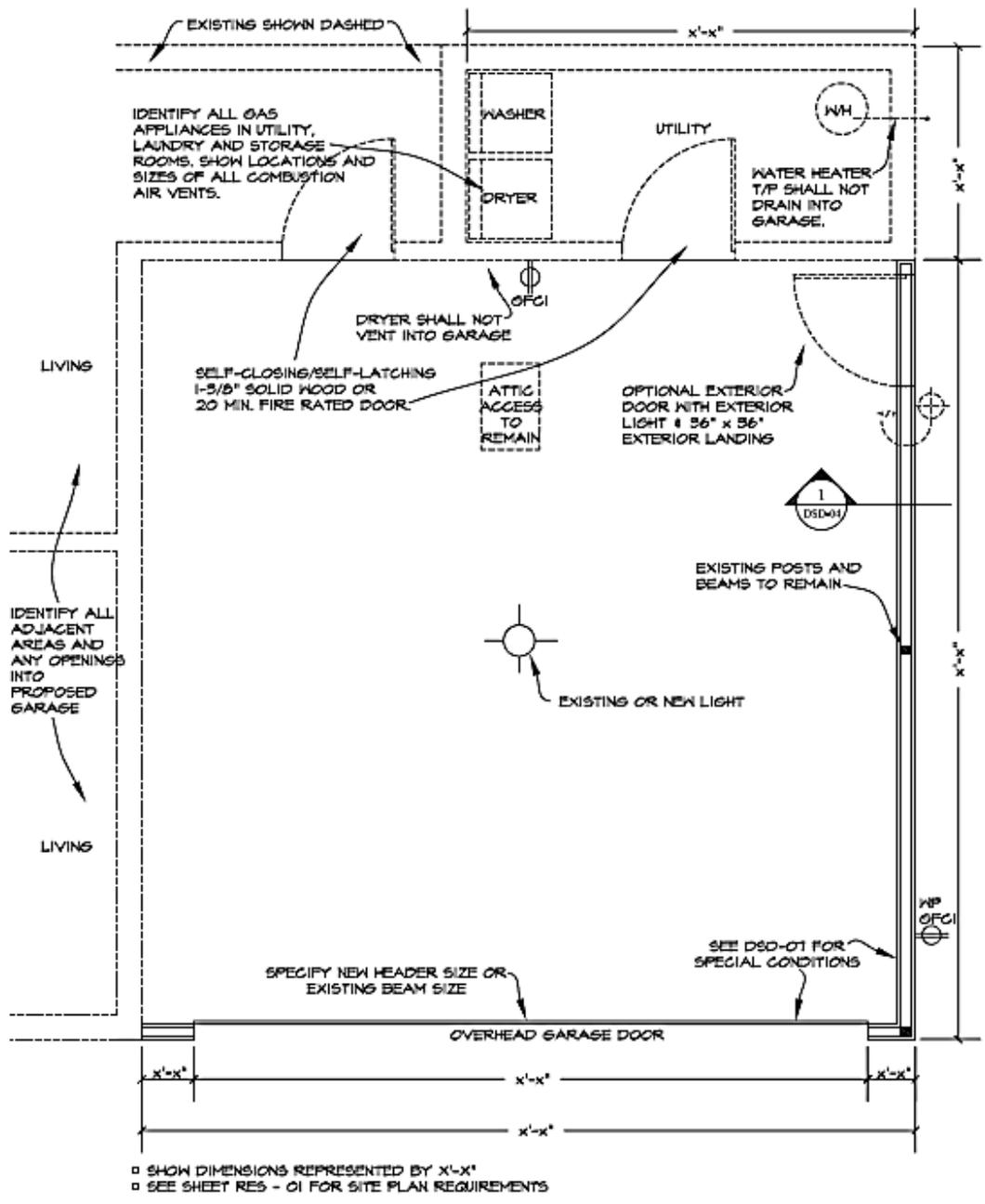
Any man door from the garage to the outside must have a landing. The width of each landing shall not be less than the door served. Every landing shall have a minimum dimension of 36 inches measured in the direction of travel. Reference R311.3.

A switched exterior light is required at the exterior side of each egress door. Reference E3903.3. A light must also be provided inside the garage and the switch must be located at the interior door. Any switches and outlets located on the exterior of a building shall be weatherproof. Reference E4001.7.

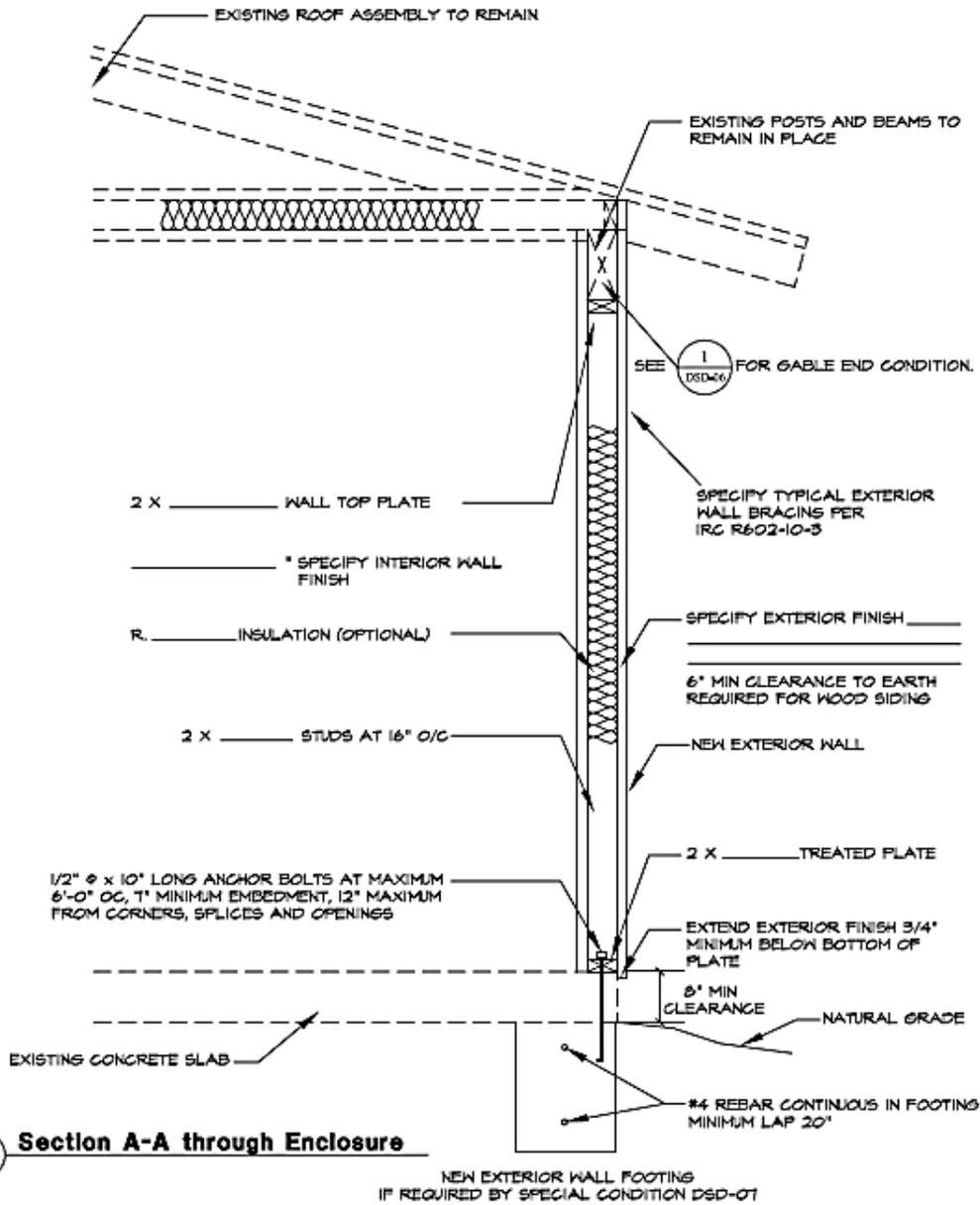
A minimum of one electrical outlet is required in a garage (in addition to any provided for laundry). All readily accessible electrical outlets shall have ground fault circuit interrupter (GFCI) protection. Reference E3902.2.

Gas water heaters, accessible from within the garage, shall be installed on a platform so any flame is at least 18 inches above the garage floor.

The garage conversion must be architecturally integrated with the existing residence. The drawings that are submitted need to clearly indicate what the wall and roof covering are on the existing residence as well as on the proposed garage.



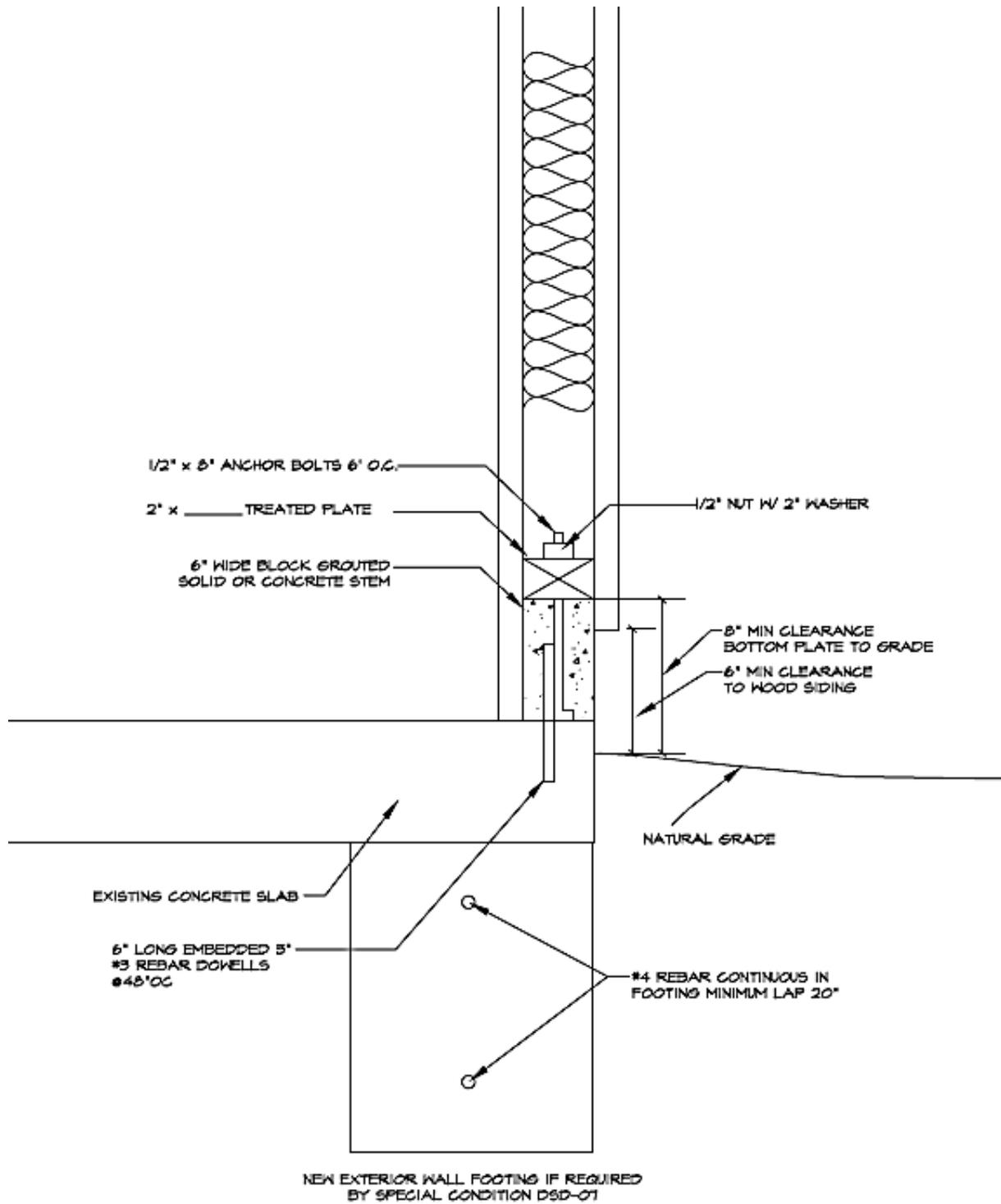
<p>For Reference Only</p> <h2 style="margin: 0;">Carport to Garage Conversion</h2>	Title	Floor Plan
	Sheet No.	DSD - 03



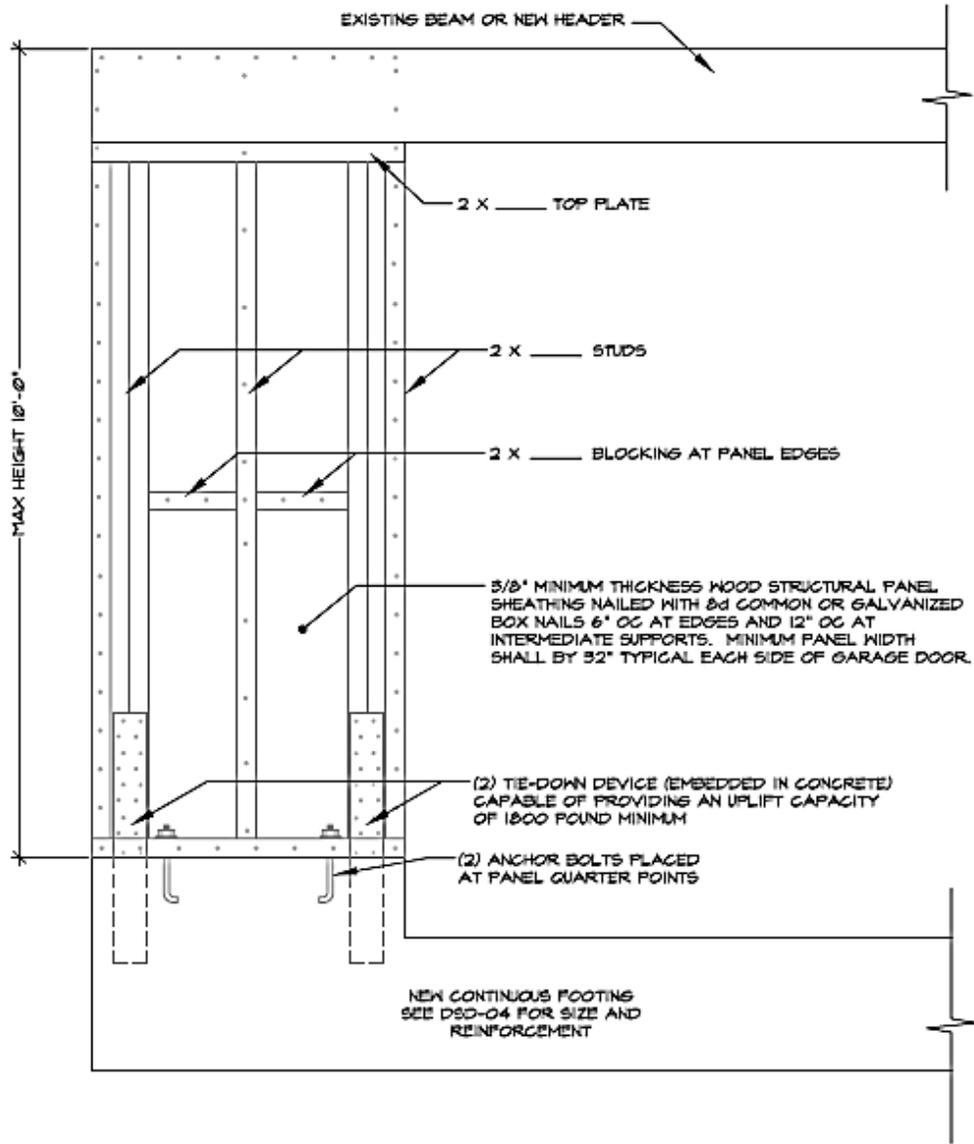
For Reference Only

Carport to Garage Conversion

Title	Typical Wall Section
Sheet No.	DSD - 04



<p>For Reference Only</p> <p>Carport to Garage Conversion</p>	<p>Title</p> <p>Alternate Stem Detail</p>
	<p>Sheet No.</p> <p>DSD - 05</p>



① TYPICAL GARAGE DOOR WALL BRACING

For Reference Only

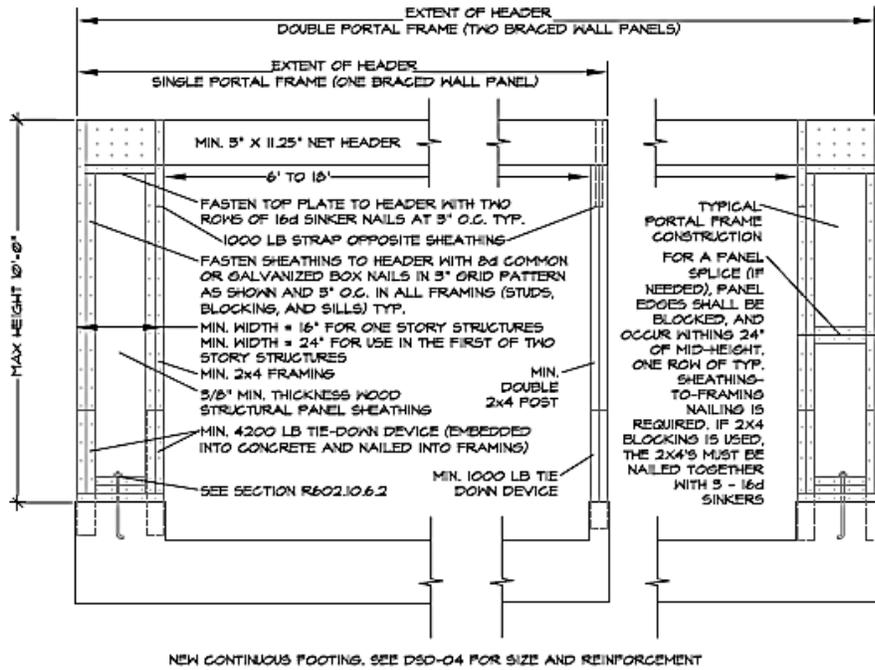
Carport to Garage Conversion

TH#

Garage Wall Bracing

Sheet No.

DSD - 08



① GARAGE DOOR WALL BRACING
ALTERNATE TO DSD-08

For Reference Only

Carport to Garage Conversion

Title
Alternate Wall Bracing

Sheet No.
DSD - 09

Carport/Garage Conversion to Livable Space: <http://www.tempe.gov/home/showdocument?id=8206>

Required Parking: On the site plan, show the location of the off-street parking for two cars (one car if house is pre-1976) on an approved surface. This space must be behind the front yard setbacks. A driveway does not constitute a legal parking space unless you have a full 18 feet between the front yard setback limit and the front of your existing carport or garage. You must provide the paved parking space prior to receiving a permit.

*The use of the driveway as the required parking spaces will require a separate submittal for a Use Permit.

Any habitable room over 70 square feet in size which is used for living, sleeping, eating or cooking must be provided with a means of supplying heating in accordance with IRC, Section R303.8.

All habitable rooms as defined above shall have receptacles installed per the Tempe Electric Code. Typically receptacles must be spaced along all wall lines no further than 12 feet on center. Circuits feeding the receptacles in bedrooms shall be protected by an AFCI circuit breaker.

Natural or artificial lighting and ventilation must be provided in the new habitable spaces and must be maintained in any adjacent spaces as required by IRC, Section R303.

Required egress from existing bedrooms may not be limited. Such egress must be directly to the outside and must be at least 5.7 square feet with a minimum height, 5.0 SF at grade, with a minimum height of 24 inches and minimum width of 20 inches. Sill height shall be no higher than 44 inches.

Gas water heaters and gas furnaces may not be located in a bedroom or bedroom closet.

Smoke detectors shall be installed in each bedroom, outside of each bedroom, and on each level as required by IRC, Section R314 and R315; this includes all existing and new bedrooms.

Some simple plans can be approved "same-day"/ over-the counter. Plans requiring a structural plan review are not eligible for "over-the-counter" review and therefore must be submitted and queued into our standard review process of approximately 10 business days.

Fences and Walls: <http://www.tempe.gov/home/showdocument?id=5317>

To positively know the location of property lines, a survey is necessary and the homeowner is responsible. It is also the responsibility of the homeowner to locate the property lines and to contact Arizona Blue Stake Center to have all underground utilities located prior to digging. The Arizona Blue Stake Center can be reached at (602) 263-1100, or 811. You need to call at least two days before you dig.

Zoning Ordinance Requirements:

- The maximum height of any freestanding wall or fence in a required front yard setback shall be four (4) feet.
- Contact the Planning Department for fence and wall requirements for residential yards.

Building Code Requirements:

- If a pool fence is being replaced, the pool area must remain secured during construction.
- The maximum fence height is 7 feet (without a permit) in rear and side yards. The maximum fence height in front yards is 4 feet.
- If you live on a street corner you must locate your fence so it does not pose as a safety hazard to pedestrians and drivers.
- A permit is required if the wall is used for retaining and is over 4 feet in height measured from the bottom of the footing to the top of the wall.
- A permit is required if a fence is to be placed on top of a retaining wall.
- 4-inch thick walls, "Dooley walls" are not an approved system to be used as retaining walls.

Regardless of height, all new fences or walls require Planning and Zoning clearance. Planning staff review and approve the fence/wall placement and type of material. Call 480.350.4331 to speak to a Planner.

For a checklist for fences and walls: <http://www.tempe.gov/home/showdocument?id=5317>

Landscaping

Residential landscaping does not require a building permit.

Electrical Permits: <http://www.tempe.gov/home/showdocument?id=5312>

Clearly indicate the size and type of conductors (wire) being used, i.e. #6 THHN. Indicate the size and type of conduit and proposed burial depth. Indicate the length of all runs above ground or through an unconditioned space such as an attic. Reference E3406 and G2411.

Provide a panel schedule showing the existing and new breakers. Load calculations may also be required. (See Appendix B at the back of this booklet for a calculation form that you can use to simplify the process.)

Provide grounding electrode conductor and grounding electrode. Reference E3603.4 and E3608.1:

- Grounding electrode shall be two (2) metallic rods driven into the earth and a minimum of 8 feet long.
- Grounding electrode conductor must terminate on rod with an acorn clamp.
- Grounding electrode conductor must be a minimum solid #4 AWG bare copper conductor.

If UFER (concrete encased grounding electrode) is provided, the previous items do not apply. The UFER shall be 20 feet of solid #4 AWG bare copper conductor in concrete with solid #4 AWG bare electrode conductor to the service entrance section. Reference NEC section 250.

Water Bond

Provide a minimum #4 AWG bare copper conductor connected with a water bond clamp to the cold water supply at an outside hose bib or at the cold water piping of the water heater. This must be readily accessible and within 5' of the water line entrance to the home.

All overhead services must have a point of attachment on the weather head mast.

All breakers inside the service panel must be compatible with the panel cover (dead front) and permanent ink must be used to label.

Gas Permits

Reference Chapter 24 of the IRC - When adding a gas line inside the residence, or attaching to an existing gas stub out, you need to:

- Provide a gas riser schematic that shows the length of all sections of the gas line, starting at the gas meter. Show all existing appliances, as well as any proposed additions.
- Provide the total BTU rating of each appliance.
- Provide each line size and line material type.
- Provide trench depth / burial depth.

Gas Bond

Provide a minimum #4 AWG bare copper conductor connected on the user side to the gas line with an approved clamp that is readily accessible.

Tests of systems shall be performed at no less than (10) pounds per square inch gauge pressure, or where approved by the building official, the piping and valves may be tested at a pressure of at least six (6) inches of mercury, measured with a manometer or slope gauge. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure, the test pressure shall be no less than sixty (60) pounds per square inch. Test duration shall not be less than fifteen (15) minutes or for welded pipe and piping carrying gas at pressures in excess of fourteen (14) inches water column pressure, the test duration shall be not less than thirty minutes. The duration of the test shall not be required to exceed 24 hours. Reference G2417.

All tests must be made through the open valve and flex line. The flex line must be capped at the appliance connection.

The use of heat fusion PE (polyethylene) plastic pipe requires a minimum 18-inch deep trench and a continuous insulated 18-gauge copper tracer wire.

All metal gas piping used in underground systems shall have factory-applied coating, and schedule 40 minimum weight. Reference G2414.4.2

Field wrapping is limited to fittings and short sections of piping, where the factory wrap has been damaged or stripped for threading or welding.

Galvanized fittings or piping is prohibited in underground systems.

Homeowner Building Permit Manual

Patio Covers: <http://www.tempe.gov/home/showdocument?id=26150>

Posts for patio covers will require a footing. The minimum footing size is 18" square and 12" below grade.

Rafters must be sized according to tables in the International Residential Code, and beams must be sized to carry the calculated roof loads. (Laminated beams may not be used in exposed locations unless they are approved for exterior use.) Reference R317.1.5.

Ledgers supporting rafters must be secured directly to existing wall framing members.

Rafters may not be attached directly to the existing fascia or to roof truss tails. They must bear on the existing wall top plate or attach directly to the house by ledger board that butts directly against vertical studs. (Any stucco or gypsum board covering the studs must be removed.) Reference R311.5.1.

Material	Minimum Slope
Asphalt Shingles	2:12
Clay Tile	2.5:12
Roll Roofing: Torch down or self-adhesive	1:12

The minimum roof slope varies depending on the type of roofing material you propose to use. The type of roofing material shall be indicated on your drawings as well as the roof slope. Reference R905. There shall be a mechanical path of load transfer from the roof to the foundation. Show all uplift rated connectors, the manufacturer and part number.

The minimum height from the finished floor to the bottom of any beam is 6 feet, 8 inches.

The drywall installed on the ceiling shall be rated for exterior use. Where the roof framing is 16 inches on center, 1/2" thick gypsum board may be used and where roof framing is 24" on center, 5/8" thick gypsum board shall be used.

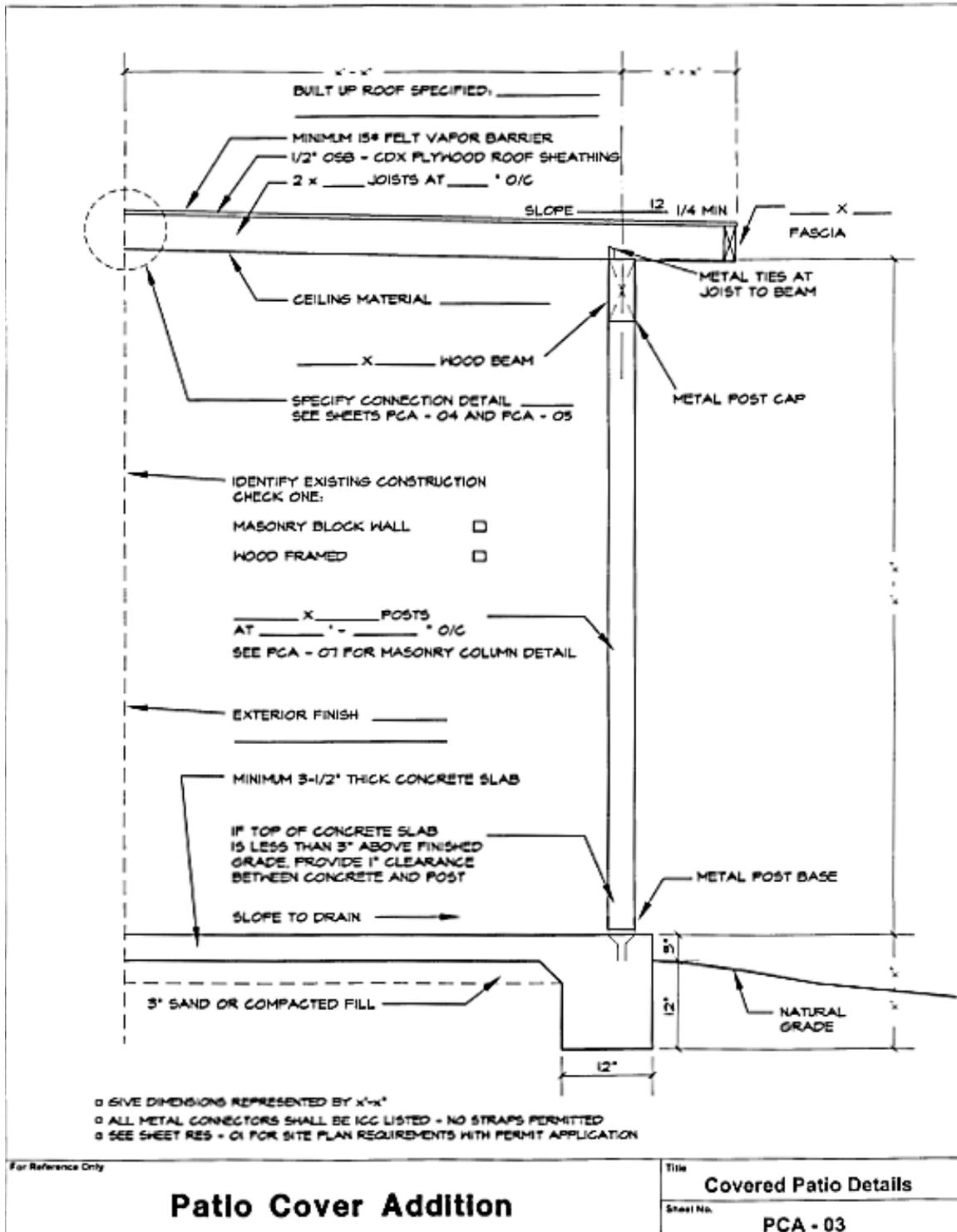
Please refer to the patio cover details on the following pages. You may copy these details and use them as part of your submittal.

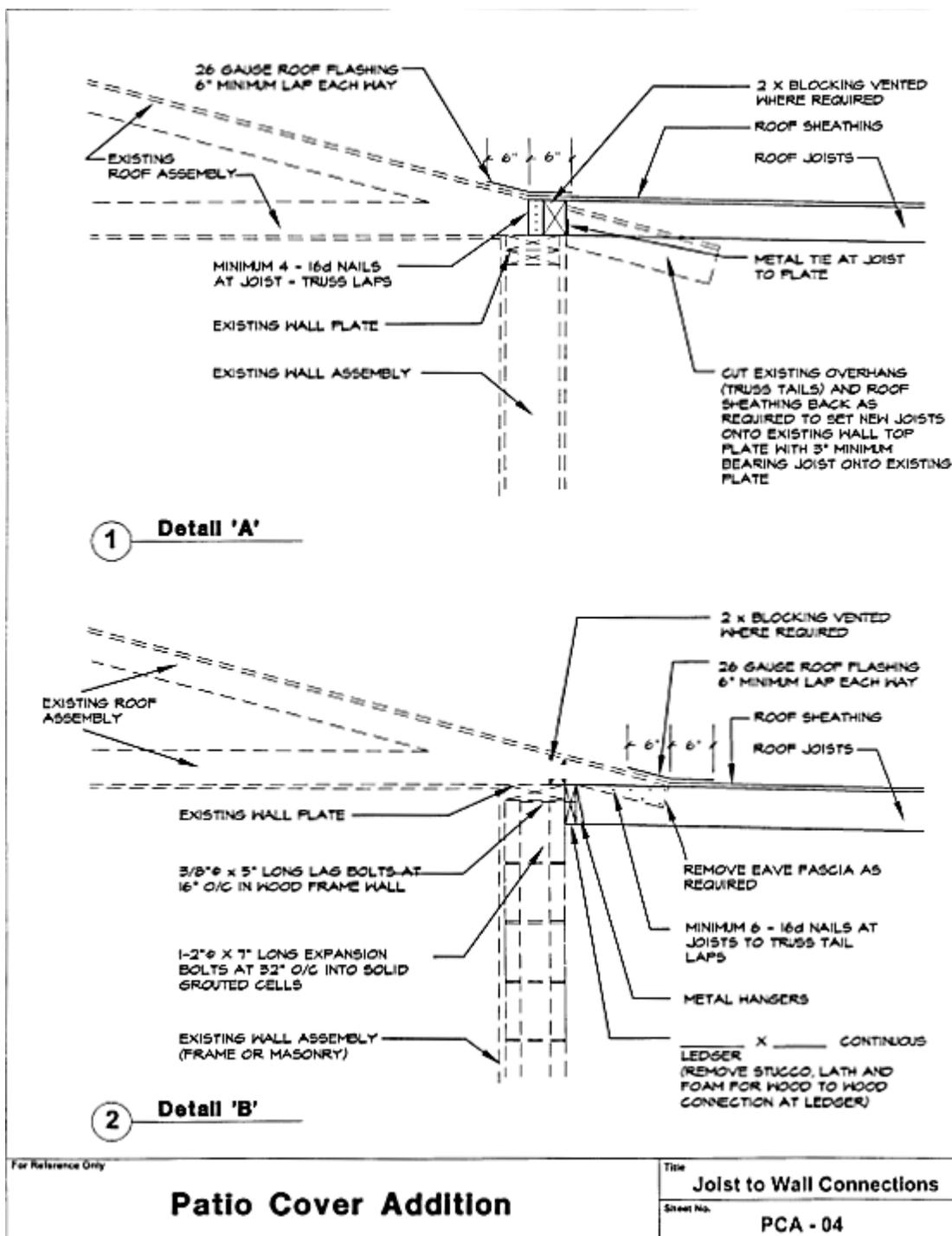
Metal patio covers shall be bonded to the pool equipotential bonding per 2011 NEC 250 and IRC E4204.2.

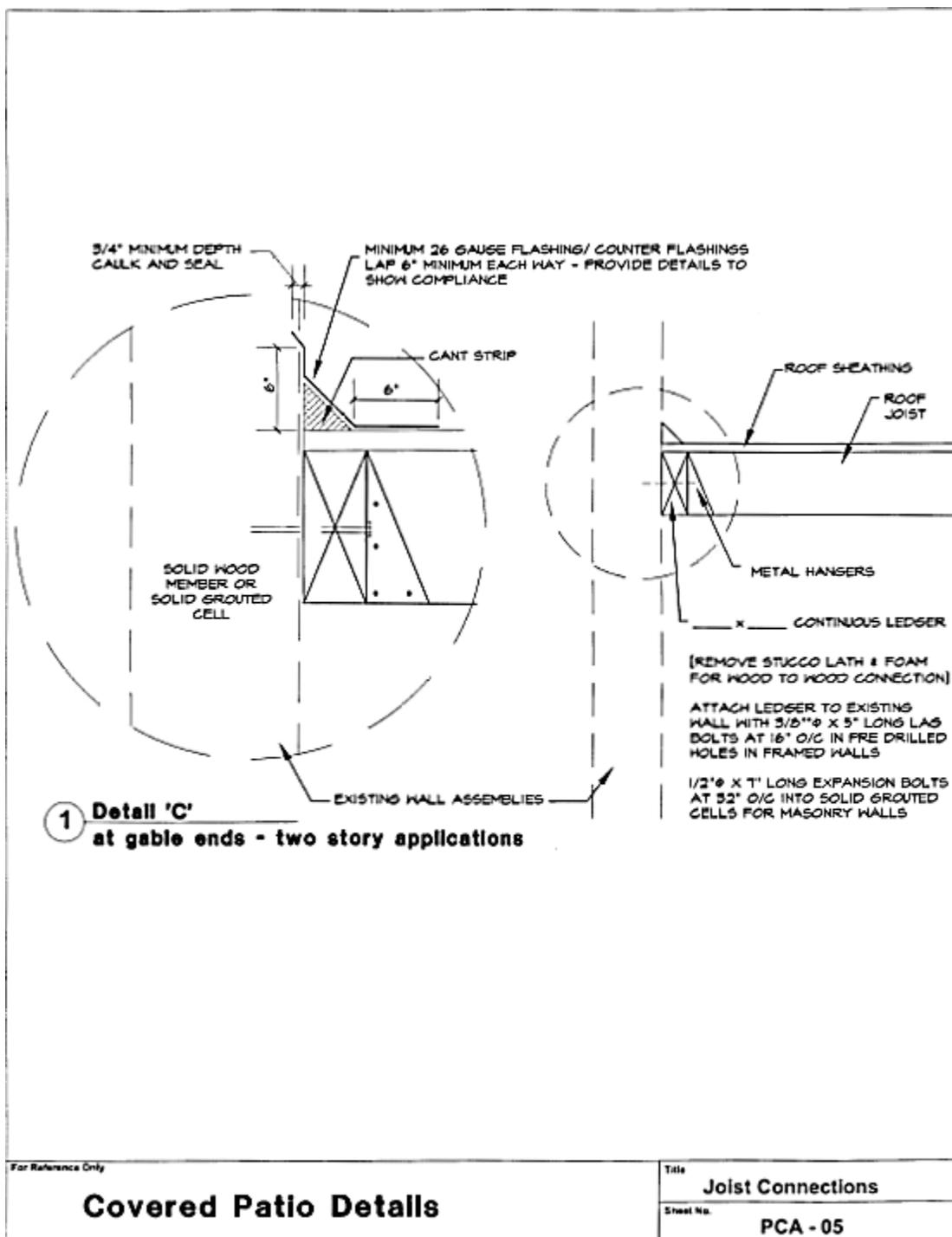
At least one GFCI receptacle outlet that is accessible while standing at grade level and located not more than 6 feet, 6 inches above grade, shall be installed outdoors at the front and back of each dwelling unit having direct access to grade.

A Use Permit, is a permit granted to a property owner or lessee to conduct a use not otherwise permitted; or the use of alternate development standards following a compatibility review. A Use Permit is required for a patio cover which may encroach into the required building setbacks for your Residential District.

If required, a Use Permit must be obtained through the Development Services/Planning Division prior to the issuance of a permit for the construction of a patio cover addition. Contact the Planning Division.



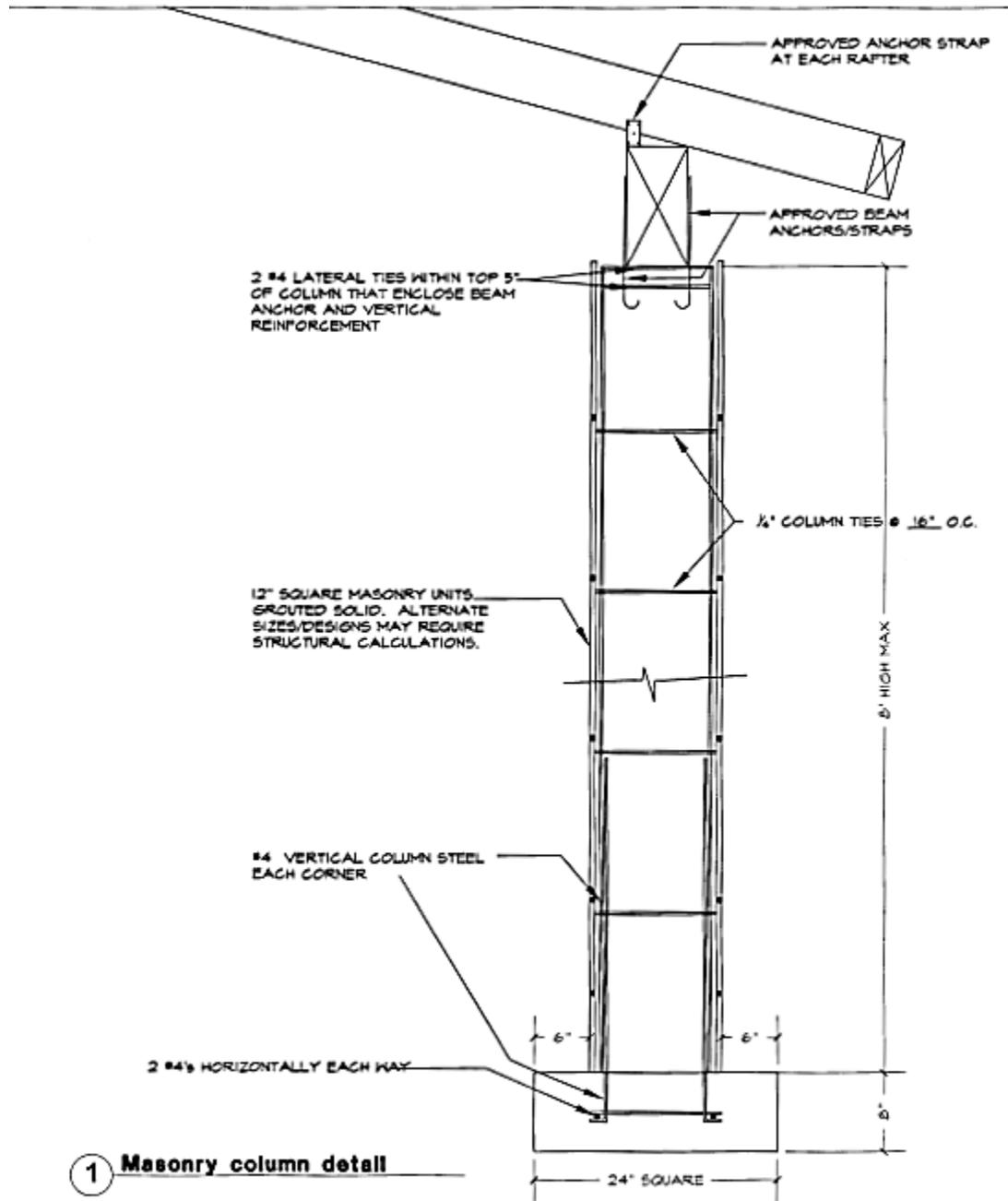




O.C. POST SPACING (FT)	MINIMUM BEAM SIZES ^a (INCHES)								a. Table is based on values for Douglas Fir/ Larch 2 or better; a roof live load of 20 psf L/S = 240 and a dead load of 20psf and mineral surfaced asphalt rolled roofing
	RAFTER SPANS (FT)								
	6	8	10	12	14	16	18	20	
4	4 x 4	4 x 4	4 x 4	4 x 4	4 x 4	4 x 4	4 x 4	4 x 4	
6	4 x 4	4 x 6	4 x 6	4 x 6	4 x 6	4 x 6	4 x 6	4 x 8	
8	4 x 6	4 x 6	4 x 6	4 x 8	4 x 8	4 x 8	4 x 8	4 x 10	
10	4 x 6	4 x 8	4 x 8	4 x 10	4 x 10	4 x 10	4 x 10	4 x 12	
12	4 x 8	4 x 10	4 x 10	4 x 10	4 x 12	4 x 12	4 x 12	4 x 14	

RAFTER SPANS (FT)	MINIMUM RAFTER SIZES ^a (INCHES)			a. Table is based on values for Douglas Fir/ Larch 2 or better; a roof live load of 20 psf L/S = 240 and a dead load of 20psf and mineral surfaced asphalt rolled roofing b. Douglas fir - larch 55 or Southern pine 55 is required for this span
	RAFTER SPACING (INCHES ON CENTER)			
	12	16	24	
10	2 x 6	2 x 6	2 x 6	
11	2 x 6	2 x 6	2 x 8	
12	2 x 6	2 x 6	2 x 8	
15	2 x 6	2 x 8	2 x 10	
14	2 x 6	2 x 8	2 x 10	
15	2 x 8	2 x 8	2 x 10	
16	2 x 8	2 x 10	2 x 12	
17	2 x 8	2 x 10	2 x 12	
18	2 x 10	2 x 10	2 x 12 ^b	
19	2 x 10	2 x 12	2 x 12 ^b	
20	2 x 10	2 x 12	2 x 12 ^b	

For Reference Only	Patio Cover Addition	Title	Rafter & Beam Sizes
		Sheet No.	PCA - 06



or Reference Only

Patio Cover Addition

Title
Masonry column detail

Sheet No.
PCA - 07

Homeowner Building Permit Manual

Accessory Buildings: <http://www.tempe.gov/home/showdocument?id=8204>

Garages, Ramadas, Storage Sheds, Workshops, Gazebos, etc.

Building Permit Required: A building permit shall be obtained prior to construction.

*Exception: One story detached accessory structures used as tool and storage sheds, playhouses and similar uses provided the floor area does not exceed 200 square feet (TAC Sec. 104.2.1 a). Please note: If a building permit is not required because of size, the zoning requirements shall still be met.

Buildings that are 25% or greater in area of the existing residence's square footage may require civil plan submittal and review. Contact Development Services – Civil Plan Review at 480.350.4311.

Zoning Ordinance Requirements:

In addition to the Building Code requirements regulating materials, construction, height and location on the property, The City of Tempe Zoning and Development Code also regulates the height and location on the property for residential detached *accessory buildings*. Please be advised that each type of lot (corner, interior or through) has its own setback requirements. The Zoning and Development Code, Part 3, Land Use, Chapter 4 defines *Accessory building* as: buildings that exceed two (200) hundred square feet in area or eight (8) feet in height and requires the following:

- *Accessory buildings* shall occupy less floor area, cover less lot area and have a use that is secondary to the primary structure(s) and use(s) on the property.
- *Accessory buildings* shall not be used for sleeping or living purposes and shall not have cooking facilities.
- *Accessory buildings* are limited to the height of the existing residence and must meet the setbacks for the district.
- A use permit is required for *accessory buildings* in the AG and all Single-Family Residential Districts

Note: If any of the above Zoning and Development Code conditions cannot be complied with, a Use Permit must be obtained through the Development Services/Planning Division **prior** to the issuance of a permit for the construction of an *accessory building*.

Contact the Planning Division at 480-350-4331 for Use Permit application information and instructions.

Remodeling

A permit is needed for remodeling work not listed as exempt from permits in this manual. Remodeling projects typically need to comply with the same requirements listed for room additions. See page 32 of this manual.

Zoning & Development Code – Chapter 4 Special Use Standards

See Appendix F

Roofing

You need to get a permit to re-roof your house only when you are:

- Replacing the old roofing material with a different material. Example, asphalt shingle with concrete tile. An engineering analysis is required to determine if the existing roof assembly will withstand the additional loads.
- Replacing the old roofing with the same material over two existing layers.

Stucco

You need to get a permit to stucco your house or accessory building:

- ***A permit is not required for a stucco system if the stucco is being directly applied (no lath) to an existing brick / block structure.***
- "One-coat" Stucco systems require a permit and inspection under all circumstances. The building inspector will need to see that the installation contractor is a licensed applicator. Provide an ICC-ES report for the one-coat stucco when applying for a permit. See <http://www.icc-es.org/>
- Other stucco systems, such as a three coat system, require a permit so that the inspectors can ensure that the lath ("chicken wire") and other components are properly installed.

Fireplaces

See amendments to the International Residential Code for fireplaces section R1007 as amended. Notwithstanding any code provision to the contrary, it shall be unlawful for anyone to construct, install, convert or alter any fireplace, stove or any other recreational or aesthetic solid fuel burning device unless such device and its installation is certified by a nationally recognized testing agency as satisfying the requirements of 40 Code of Federal Regulations, Part 60, Subpart AAA as in effect on July 1, 1990.

Civil Requirements – See Appendix G

Room Additions

A room addition is defined as any space added on to an existing home, including the enclosure of an existing covered area, such as a patio cover or carport. See page Residential Carport or Garage Conversion to Livable Space for permit requirement details.

Sleeping rooms, as well as the area outside of sleeping rooms, are required to have smoke alarms. When interior alterations, repairs or additions requiring a permit are made, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with smoke alarms located as required for new dwellings. Smoke alarms and Carbon monoxide detectors are required when performing Interior work that requires a permit, except work such as plumbing or mechanical (air conditioning). If they are not pre-existing throughout the whole house they must be added. Dual (CO2 & Smoke) alarms are available. They may be required to be interconnected if access is available. Ask your inspector. Reference R314, 315, IEBC Ch. 5-9.

Provide a complete floor plan of the room adjacent to the proposed room addition. Indicate the size of the existing room, the size and location of all exterior doors and windows. All habitable rooms shall be provided with natural light or an aggregate glazing area of not less than 8% of the floor area of such rooms. Natural ventilation shall be through windows, doors, louvers or other approved openings to the outdoor air. The openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants. The minimum area open to the outdoors shall be 4% of the floor area being ventilated.

Provide every dwelling unit with heating facilities capable of maintaining a minimum room temperature of 68°F at a point 3 feet above the floor and 2 feet from exterior walls in all habitable rooms. Portable space heaters shall not be used to achieve compliance with this requirement.

At least one wall switch controlled lighting outlet shall be installed in every habitable room and bathroom.

Receptacle outlets shall be installed so that no point along the floor line in any wall space is more than 6 feet (measured horizontally) from an outlet in that space.

All branch circuits installed in *all habitable rooms* shall be protected by an AFCI listed to provide protection of the entire branch circuit. Also, all new receptacles shall be tamper-proof except receptacles located more than 5.5 feet above the floor, receptacles that are part of a luminaire or appliance, or receptacles dedicated to refrigerators or freezers (appliances not easily moved). Reference E4002.14.

A receptacle outlet shall be installed at each kitchen wall counter space 12 inches or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 inches measured horizontally from a receptacle outlet in that space. Exception: Receptacle outlets shall not be required on a wall directly behind a range or sink. At least one receptacle outlet shall be installed at islands and peninsulas with a long dimension of 24" or greater and a short dimension of 12" or greater. All 125 volt 15 and 20 amp receptacle outlets serving kitchen countertop spaces shall have GFCI protection. GFCI shall be installed in a readily accessible location; example - not at dedicated outlet locations such as refrigerators. Reference E3901.11.

At least one wall receptacle outlet shall be installed in bathrooms. It must be located within 36 inches of the outside edge of each lavatory basin. The receptacle outlet shall be located on a wall that is adjacent to the lavatory basin location. All receptacles installed in bathrooms shall have ground-fault circuit-interrupter protection (GFCI).

Provide a panel schedule showing the existing and new breakers. Load calculations may also be required. (See Appendix B at the back of this booklet for a calculation form that you can use to simplify the process.)

Every sleeping room shall have at least one operable emergency escape and rescue opening.

- Escape windows shall have a sill height of not more than 44 inches above the floor.
- All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (5 square feet at grade level).
- The minimum net clear opening height shall be 24 inches, minimum net clear opening width shall be 20 inches.
- Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of the roof rafter shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain. Ventilating openings shall be provided with corrosion-resistant wire mesh, with 1/8-inch minimum to 1/4-inch maximum openings.

The total net free ventilating area shall be not less than to 1 to 150 of the area of the space ventilated, except that the total area is permitted to be reduced to 1 to 300, if at least 40 percent and not more than 50 percent of the required ventilating area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located no more than 3 feet below the ridge or highest point of the space, measured vertically, with the balance of the required ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation of more than 3 feet below the ridge or highest point of the space shall be permitted.

You must include roof vent calculations in your drawings for the addition.

Homeowner Building Permit Manual

Please provide a water meter work sheet if you are adding plumbing fixtures (see Appendix A for an example). This information must be on the plans, not on a separate sheet.

Any addition of conditioned space shall meet the minimum energy efficiency requirements of Chapter 11 of the International Residential Code. (Compliance with Chapter 4[RE] of International Energy Conservation Code is also acceptable.) The following are the minimum requirements from Table N1102.1 of the International Residential Code:

Windows / Skylights	U-Factor	.40 / .65
Windows / Skylights	Solar Heat Gain Coefficient	.25 / .25
Ceiling	R-Value	38
Wood Frame Wall	R-Value	13
Mass Wall	R-Value	4 / 6*
Floor **	R-Value	13

*The R-6 value is for when over ½ of the walls insulative value is provided on the interior of the building.

**This is not a slab on grade; this would be the value for a typical framed floor.

For existing buildings, see IEBC Section 507 Additions. Unaltered portions of an existing building need not comply with the IEBC requirements.

For Alterations, See IEBC Section 503, 504, & 505 Alterations, depending on the amount of work performed.

Storage Sheds

A storage shed is defined as a subordinate structure or building used primarily for storage purposes, is not taller than 7 feet with a total square footage less than 200 square feet, has no utilities (water, sewer, electrical or gas).

As defined, this structure does not require a building permit. If the storage shed exceeds the parameters defined above, it becomes an accessory building and must meet the requirements for that type of structure.

Storage shed roofs shall not drain onto adjoining properties.

Setbacks

If in doubt, check for permitting requirements and setback requirements at (480) 350.8331.

Swimming Pools and Spas

- Definition: Per the Tempe City code, a swimming pool is any body of water with a depth greater than 18 inches.
- All pools and spas require a permit, whether constructed above or below ground (other than those referenced in item 8 on page 6 of this manual).
- Pool engineering plans, stamped and sealed by an engineer, are required on all standard or custom in ground pools and spas. Plans are required on all pre-manufactured above ground pools and spas.
- Swimming pools shall not occupy any front yard nor shall the water's edge be located closer than 5 feet to any side or rear property line.
- The water's edge must be a minimum of 5 feet from the fence for all pools constructed on a lot with an offset property line and/or an offset fence.
- A pool or cool decking cannot be constructed across a property line.
- An engineered surcharge design is required for in-ground pools built closer than 5 feet to a building foundation.
- Pool equipment must be 5 feet from the water's edge.
- Prior to construction, all easements must be cleared by the utility companies.
- Any glazing within 5 feet of the water's edge where the bottom edge is less than 60 inches above grade must be safety glazed.

Pool Fences

Tempe City Code requires a 5-foot minimum perimeter fence around the property, as measured on the outside of the property. This fence may be a solid masonry or wrought iron fence. Refer to the section on fences and walls of this manual for the requirements for fences over 7 feet in height.

Pool Barriers Guidelines <http://www.tempe.gov/home/showdocument?id=5323>

Appendix G of the International Residential Code and A.R.S. 36-1681 requires a pool barrier:

- For residential pools, a 5-foot minimum wrought iron or block and wrought iron combination measured on the side of the barrier that faces away from the swimming pool (refer to Graphic A on page 34).
- Self-closing, self-latching devices on doors that open into the pool area (refer to the door and window information in the "Pool Barrier Guidelines" section).
- Window devices (refer to the door and window information in the "Pool Barrier Guidelines" section).
- Audible alarms on doors and screens (refer to the alarm information in the "Pool Barrier Guidelines" section).
- Approved lockable or latchable hard cover for spas that comply with ASTM F 1346.
- Approved key-operated, motorized safety cover that complies with ASTM F 1346.

Gates and Doors

- All pedestrian access gates in a pool barrier shall be self-closing and self-latching and must open outward from the pool. Gate latches shall be located not less than 54 inches above finished grade or shall otherwise be made inaccessible from the outside by small children.
- All exterior hinged or sliding doors leading from a dwelling unit, bedroom, garage or storage room directly into a swimming pool enclosure shall be self-closing or shall be equipped with audible alarms. Hinged doors shall open away from the pool area.

Self-closing devices shall consist of one of the following:

- Spring loaded hinges.
- Pneumatic closures (without stops).
- Approved sliding glass door closures.

Latching mechanisms shall consist of one of the following:

- Passage lock located 54 inches above the finished floor.
- Double cylinder gate latch installed at any height, provided the door is not required for emergency egress.
- Sliding glass door latches shall be located 54 inches above the finished floor.
- Alarms shall produce an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. The alarm deactivation has to be 54" above finish floor.
- Pet doors to the pool area are not allowed.

Windows

All windows facing on a swimming pool enclosure shall be equipped with a latching device.

For emergency escape or rescue windows, the latching device shall be located not less than 54 inches above the finished floor.

For all other operable dwelling unit or garage windows, the latching device shall consist of one of the following:

- A keyed lock that prevents opening the window more than 4 inches.
- A screwed-in-place wire mesh screen.
- A latching device located not less than 54 inches above the finished floor.

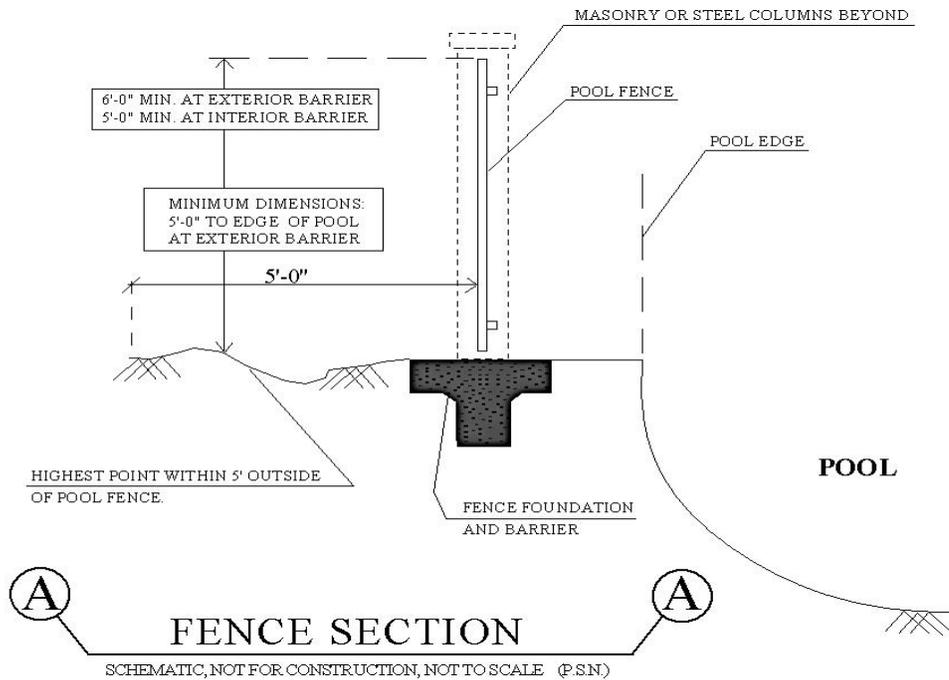
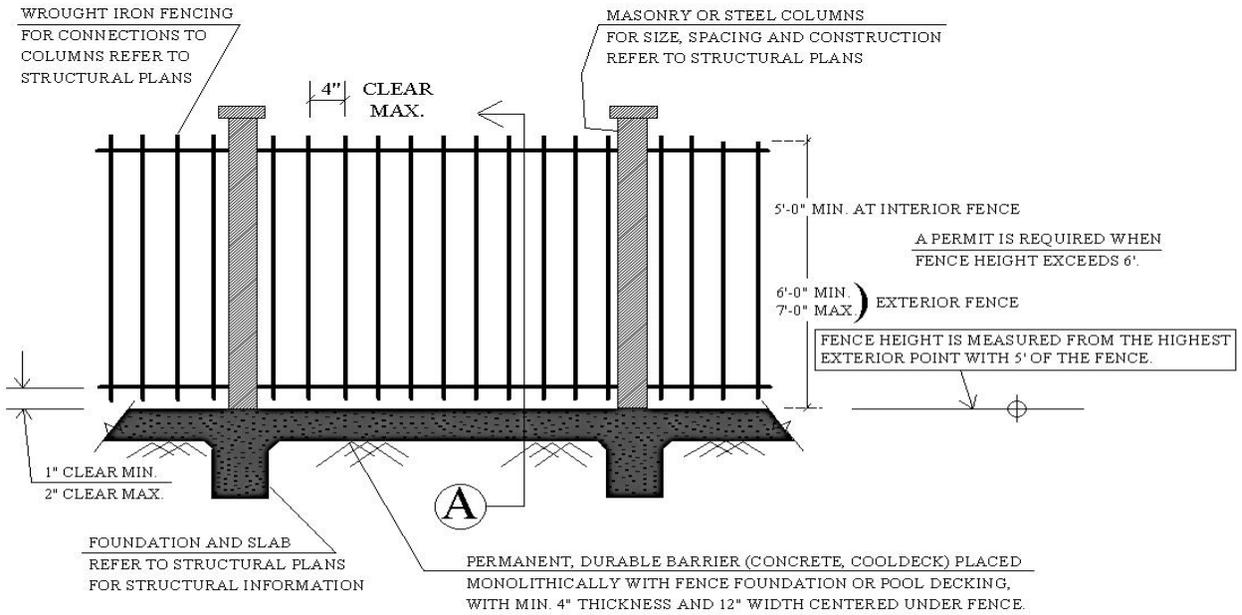
Above Ground Swimming Pools

All above ground pools, with non-climbable sides not less than 48 inches high above the finished grade, may be located on a single-family residential property without requiring an interior fence, wall or barrier between the pool and the dwelling. Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier that meets the requirements of an in ground pool. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter sphere.

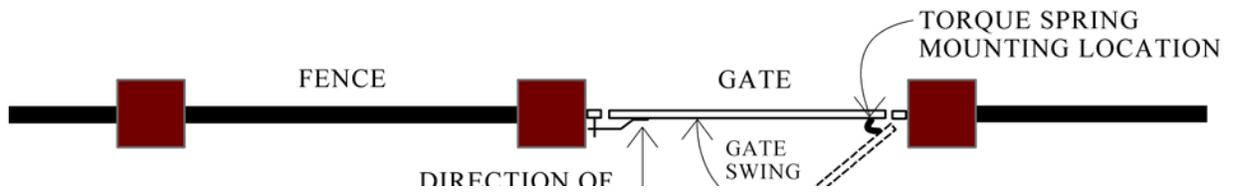
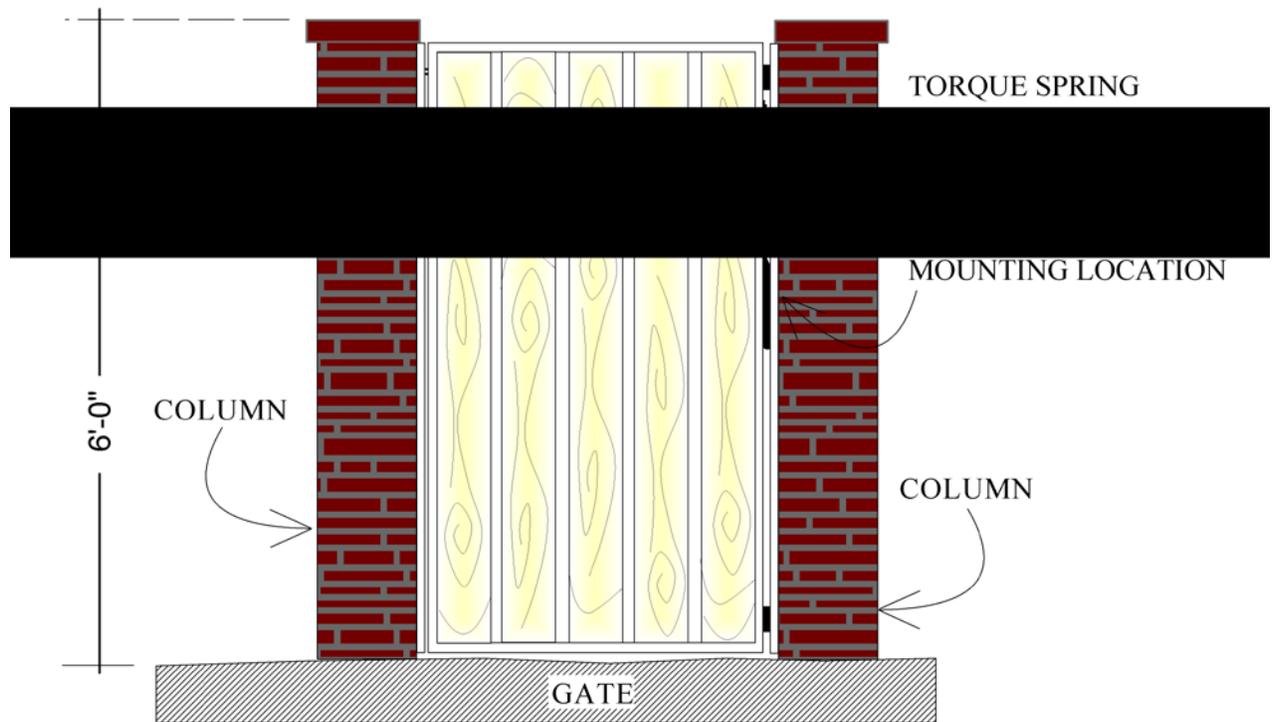
Entrapment Avoidance

Suction outlets shall be designed to produce circulation throughout the pool or spa. Single outlet systems, such as automatic vacuum cleaner systems, or other such multiple suction outlets whether isolated by valves or otherwise shall be protected against user entrapment.

Graphic A



Graphic B



Homeowner Building Permit Manual

Required Inspections: <http://www.tempe.gov/home/showdocument?id=5325>

This section lists the minimum inspections required by the City Tempe. Refer to your permit card.

An inspector will visit the property and leave written approval or a correction notice. The building inspector must approve all work before construction can proceed to the next level. All work to be inspected must be accessible and exposed.

Type of Inspection	Request Inspection When:
1. Footings	All forms, reinforcing steel and UFER ground are in place. An additional inspection is required for stems poured separately. Reinforcing steel, UFER, forms and accessories are in place, but not covered.
2. Stem wall	Forms are aligned and staked, grade pins installed and reinforcing steel is in place.
3. Plumbing (groundwork)	The under-floor building drain is installed, shaded and under pressure test, but not covered.
4. Water piping (groundwork)	All under-floor water piping is installed, but not covered.
5. Building sewers (the sewer piping connecting the building with the private sewer or the public sewer)	Pipes are installed, shaded and properly supported, but not covered.
6. Water service (the water yard piping from the City water meter to the building)	Pipes are installed and under pressure, but not covered.
7. Strap and shear	All shear panels and mechanical fasteners are installed, but not covered.
8. Rough electrical	All rough-in electrical is installed, but not covered
9. Rough plumbing, upper level drainage	All rough-in plumbing is installed and under pressure test, but not covered. Tubs are filled to flood rim.
10. Rough heating and ventilation	All rough-in mechanical work is installed, but not covered. (Groundwork – request inspection when ductwork is installed, but not covered).
11. Framing	The building is “dried in” and all framing members, gussets, shear panels, anchors and all plumbing, mechanical and electrical rough-ins are in place, but not covered.
12. Wallboard	The wallboard is installed and nailed, but not filled or taped.
13. Lath inspection	All substrate wire mesh and trim are installed and ready to receive stucco, but not covered.

Type of Inspection	Request Inspection When:
14. Electric (groundwork)	The conduit is installed, but not covered.
15. Final Inspection	The building is completed to the requirements of the approved plans, specification and the City of Tempe Codes.

INSTRUCTIONS FOR PROJECT APPLICATION

Project Information – Required on all submittals.

Name: Project Name, Subdivision Name, Plan of Development, etc. (Ex: Orchid House, Smith Residence, Arts Center Addition).

Address: Site address, suite number, and assessor's parcel number (Note: If a vacant lot or new building without a specific address assigned, please contact the City of Tempe Engineering Division at (480) 350-8300 in order to obtain a site address. Applications cannot be processed without a site specific address.)

Proposed Use: Specify if single-family residence, office, medical office, retail, school, restaurant, carport, office/warehouse, manufacturing, 68 unit apartment, 72 unit hotel, etc.

Existing Zoning: Zoning at the time of application.

Legal Description: Provide a complete legal description of the property on which permitted work will be done. If legal description is too long for space provided, attach a separate sheet with legal description.

Description of Work: A brief description of the work being done, with examples as follows:

Planning - Site Plan Review, Use Permit, Variance, Zoning/Amendment, PADs, General Plan Amendment, Development Plan Review, Signage, Subdivision/Condo, etc.

Building Safety – New Office/Warehouse Building, New SFR, Tenant Improvement, Interior Remodel, Addition to Existing Residence, Prefabricated Carport, Construction due to Fire Damage, Conversion of Garage or Carport to Living Space, etc.

Engineering - On-site storm water retention, curb cuts, water & sewer work in the right-of-way, etc.

Fire – Installation of fuel tanks, spray paint booths, hazardous material review, fire sprinklers, fire alarm, etc.

Applicant Information – Required on all submittals

The name, address, email, telephone and fax information of the individual to be contacted for questions, and notification of project status.

All applications must be accompanied by the required number of plans, submittal materials, and correct fee (dependent upon type of submittal).

Please see our website at www.tempe.gov for applications, submittal information, fees and checklists. If you do not have internet access, please contact us at (480) 350-8341.

Time Limitation of Application – Tempe Administrative Code (Section 104.15)

An application for a permit for any proposed work shall be valid for a period of one year from the date of filing. The building official is not authorized to grant any extension of time.

Exceptions:

1. Prior to the date of expiration of any application that has not been approved for the issuance of permits, an applicant may submit a written request for one time extension of a one-hundred eighty (180) days. The request must explain the justifiable cause for the delay and include a proposed plan submittal schedule for completion of the plan review process. If the request for extension is approved, the applicant must submit a new project submittal application form along with a renewal fee equal to twenty-five percent (25%) of the original calculated plan review fee. The renewal fee must be paid no later than thirty (30) business days after the original expiration date or the original application shall expire. Additional plan review fees may apply as prescribed in Table 1-A Building Permit Fees Item 4 of other fees. Additionally, all permits must be issued and permit fees paid prior to the end of the one-hundred eighty (180) day extension date.

2. Prior to the date of expiration of any application that has been approved for the issuance of permits, but for which a permit has not been issued, the applicant may request a one time extension of one-hundred eighty (180) days. The request must explain the justifiable cause for the delay. If the request for extension is approved, the applicant must submit a new project submittal application along with a renewal fee equal to ten percent (10%) of the original calculated plan review fee. The renewal fee must be paid no later than thirty (30) days after the original expiration date or the original application shall expire. Additionally, all permits must be issued and permit fees paid prior to the end of the one-hundred eighty (180) day extension date.

(FPN): Exceptions one and two above may not be combined.

Time Limitation of Application – Engineering Submittals (Tempe City Code Appx. A, Chapter 29-19)

An application for a permit for any proposed work shall be valid for a period of one year from date of filing.

Exception: Prior to the date of expiration of any application that has been approved for the issuance of permits, but for which all of the permits have not been issued, the applicant shall pay 25% of the original plan review fees, within 30 days of the plan review expiration date, to extend the plan review approval for an additional 6 months. If the 25% plan review renewal fee is not paid within thirty (30) days of expiration, and the permits are not issued on or before the 6 month extension date, the plan review will expire and all of the permits will be voided.

Time Limitation of Application – 2008 International Fire Code (Section 105.2.3)

An application for a permit for any proposed work or operation shall be deemed to have been abandoned one year after the date of filing. The fire code official is not authorized to grant any extension of time.

Exceptions:

1. Prior to the date of expiration of any application that has not been approved for the issuance of permits, an applicant may submit a written request for one time extension of a ninety (90) days. The request must explain the justifiable cause for the delay and include a proposed plan submittal schedule for completion of the plan review process. If the request for extension is approved, the applicant must submit a new project submittal application form along with a renewal fee equal to thirty-five percent (35%) of the original calculated fire permit fee. The renewal fee must be paid no later than thirty (30) business days after the original expiration date or the original application shall expire. Additionally, all permits must be issued and permit fees paid prior to the end of the ninety (90) day extension date.

2. Prior to the date of expiration of any application that has been approved for the issuance of permits, but for which a permit has not been issued, the applicant may request a one time extension of one-hundred eighty (180) days. The request must explain the justifiable cause for the delay. If the request for extension is approved, the applicant must submit a new project submittal application along with a renewal fee equal to ten percent (10%) of the original calculated fire permit fee. The renewal fee must be paid no later than thirty (30) business days after the original expiration date or the original application shall expire. Additionally, all permits must be issued and permit fees paid prior to the end of the one-hundred eighty (180) day extension date.

3. (FPN): Exceptions one and two above may not be combined.

Planning Submittals are Subject to Dissemination to the Public
Please see reverse to complete Application

Homeowner Building Permit Manual

Appendix B

Water Meter Worksheet

Fixture	Number	Value	Total
Water Closet (tank type)		x 2.2	
Shower Stall		x 1.4	
Bathtub (with/without overhead shower head)		x 1.4	
Lavatory		x 0.7	
Kitchen Sink		x 1.4	
Dishwasher		x 1.4	
Hose Bibs (count all)		x 2.5	
Laundry or Utility Sink		x 1.4	
Automatic Clothes Washer		x 1.4	
If you use a full bath group, do not count the individual fixtures.			
Full Bath Group (with/without shower head or shower stall)		x 3.6	
Half Bath Group (water closet and lavatory)		x 2.6	
Kitchen Group (dishwasher and sink with/without garbage grinder)		x 2.5	
Laundry Group (clothes washer standpipe and laundry tub)		x 2.5	
Total Fixture Units			

Total developed length of the water line from the water meter to the furthest water-using fixture unit. (**Note:** this is usually the hose bib at the rear of the home).

Total distance: _____ feet

Indicate the size of the existing water meter and supply size.

Meter size _____

Supply size _____

Note: for a room addition, please include both the existing and new on this sheet.

Homeowner Building Permit Manual

Appendix C

Electrical Load Calculation Worksheet

OPTIONAL CALCULATION – EXISTING DWELLING UNIT. NEC SECTION 220.83/IRC E3602.2.

For a dwelling unit having the total connected load served by a single 3-wire, 120/240 volt set of service entrance or feeder conductors with an ampacity of 100 or greater.

LIVABLE SQUARE FOOTAGE _____ SF @ 3= _____ VA

SMALL APPLIANCE CIRCUITS (2 minimum) _____ @ 1500 = _____

LAUNDRY CIRCUIT (Required in new dwelling: 1500) = _____

ELECTRIC DRYER (Nameplate rating or 5,000) = _____

ELECTRIC RANGE (Nameplate rating or 12,000) = _____

COOKTOP & OVEN (Nameplate rating or 6,000 each) = _____

MICROWAVE OVEN (Dedicated circuit: 1200) = _____

DISHWASHER (W or W/O) Disposer on circuit: 1500) = _____

DISPOSER (Separate dedicated circuit: 720) = _____

ELECTRIC WATER HEATER (Nameplate or 4,500) = _____

OTHER _____

SUBTOTAL = _____ VA

FIRST 10 KVA @100% = 10,000

REMAINDER @ 40% = _____

SUBTOTAL = _____ VA

DIVIDED BY 240 V = _____ AMPS

AIR CONDITIONING = _____ AMPS

POOL PUMP = _____ AMPS

TOTAL = _____ AMPS

REQUIRED SERVICE _____ AMPS

Appendix D: <https://www.tempe.gov/home/showdocument?id=23712>

The Program

The program provides 100% rebate on fees paid for permits on projects for single family residential properties in the City of Tempe.



To qualify for this program, the improvements must be completed and receive a final building inspection approval within one year of permit issuance.

The rebate includes all residential additions, alterations, and home projects normally reviewed and permitted by the Development Services Division.

Eligible Projects Include:

- Room additions
- Building alterations
- Patio Covers
- In-ground Pools
- Landscape Work
- Plumbing, Electrical & Mechanical alterations
- Other qualifying projects



Potential Savings

- 200 sq. ft. building addition: \$400
- Backyard Patio cover: \$150
- New Custom Pool: \$250
- Bathroom Remodel: \$300
- Typical Patio Enclosure: \$500
- Enclosed Entry: \$100
- Typical Kitchen Remodel: \$375

Fees Not Eligible for Rebate

- Permits issued for illegal construction, unless used to correct such.
- Renewal fees
- Other permit types (i.e. Water & Sewer, Planning, or Engineering)

Revised 9/21/15

How to Apply for a Rebate

- Make sure your project receives a FINAL inspection approval within one year of permit issuance.
- Fill out a Rebate Application located on our web page at: <http://www.tempe.gov/city-hall/community-development/development-services/applications-forms> or at the Development Services Counter.
- Submit your rebate application in person, by mail, fax, or email to: elizabeth_guzzo@tempe.gov
- Allow 4 to 6 weeks for processing.

Please contact us at 480-350-4311 if you have any questions or require additional information.



City of Tempe
Development Services

P.O. Box 5002
31 East Fifth Street
Tempe, AZ 85280

(480) 350-4311
Fax: (480) 350-8677



Community
Development
Department
Development Services
Division



Appendix E:

GET STARTED!

-  www.tempe.gov/hipp
-  480-350-8331
-  hipp@tempe.gov



GET HIPP!
Improve your home – and save money



City of Tempe
Community Development
31 E. Fifth Street, E. Garden Level
Tempe, Arizona 85281
www.tempe.gov/hipp
480-350-8331





with Tempe's Home Improvement Planning Program



EVER THOUGHT ABOUT...

- Remodeling your kitchen?
- Expanding your master bedroom to create a master suite – with a larger closet and master bath?
- Adding on a “mother-in-law suite”?
- Enclosing your carport to create more living space – or that garage you’ve always wanted?




BEFORE AFTER

...BUT FELT OVERWHELMED BY THE PROCESS OR DIDN'T KNOW WHERE TO START?
Relax! Tempe's Home Improvement Planning Program (HIPP) encourages residential improvements by providing homeowners with:

- An ombudsman – a single point of contact to help you through the process (think of it as your personal HIPPster)
- Design ideas – assistance developing conceptual design ideas compatible with your needs and your home's character
- Technical information – helpful documents and information, including:
 - Aerial of property
 - Setbacks/zoning process
 - Standard details

- Probable upgrades – help identifying probable upgrades that may be required with your project (e.g., water meter, electrical)
- VIP Treatment – Got your plans ready? Skip to the head of the line to get your plans checked at our counter.
- Save Money – full rebate of plan check and building permit fees for eligible applicants

HIPP BENEFITS THE COMMUNITY BY:

- Facilitating and encouraging reinvestment in neighborhoods
- Increasing property values
- Improving the appearance of neighborhoods
- Improving quality of life
- Keeping residents in Tempe
- Providing more lifestyle and living options

ELIGIBILITY:

- Only single-family residential properties are eligible
- Homes must be owner-occupied – not rental properties
- Homes must be at least 20 years old
- To qualify for a rebate on plan check and building permit fees, you must also pass a final inspection from the City of Tempe within one year of their building permit issuance and fill out a Residential Improvement Rebate application

Appendix F Zoning & Development Code

Appendix F



ZONING & DEVELOPMENT CODE
CHAPTER 4 - SPECIAL USE STANDARDS

Development Services Division

31 E. Fifth Street Tempe, AZ 85281

for additional information, please contact us at *Tempe 311* -- **480.350.4311**
tempe.gov/city-hall/community-development/development-services

Section 3-401 Accessory Buildings, Uses and Structures.

A. Applicability. *Accessory buildings, uses and structures shall be incidental to the principal use. They must occupy less floor area, cover less lot area, and have a use that is secondary to the primary structure(s) and use(s) on the property. Buildings, structures (e.g., fence, carport, deck, etc.), and uses may all function as "accessory," subject to the provisions below.*

B. Accessory Uses. *Accessory buildings may be used for home occupations in reference to Section 3-412.*

C. Accessory Building. *Buildings that exceed two hundred (200) s.f. in area or eight (8) feet in height are accessory buildings (e.g., freestanding garages, large sheds, workshops, etc.). Such buildings are permitted in the single-family residential districts, subject to the following:*

1. Use. *Accessory buildings shall not be used as a dwelling, except where permitted as guest quarters.*

2. Setback.

a. *Accessory buildings shall not be located in the required front yard and street side yard building setbacks. Such buildings shall be setback at least three (3) feet from all side and rear property lines. An additional one (1) foot setback is required for every additional foot in height above nine (9) feet, up to fifteen (15) feet in height. This requirement may be reduced to the minimum setback standards required in the district, subject to approval of a Use Permit Standard, pursuant to Section 6-308;*

b. *Accessory buildings in the AG district shall comply with the setback standards required in the district;*

c. *When adjacent to a dedicated public alley, the side and rear yard setbacks for an accessory building shall be measured from the midpoint of the alley; and*

d. *Accessory buildings shall comply with required separation for applicable building codes.*

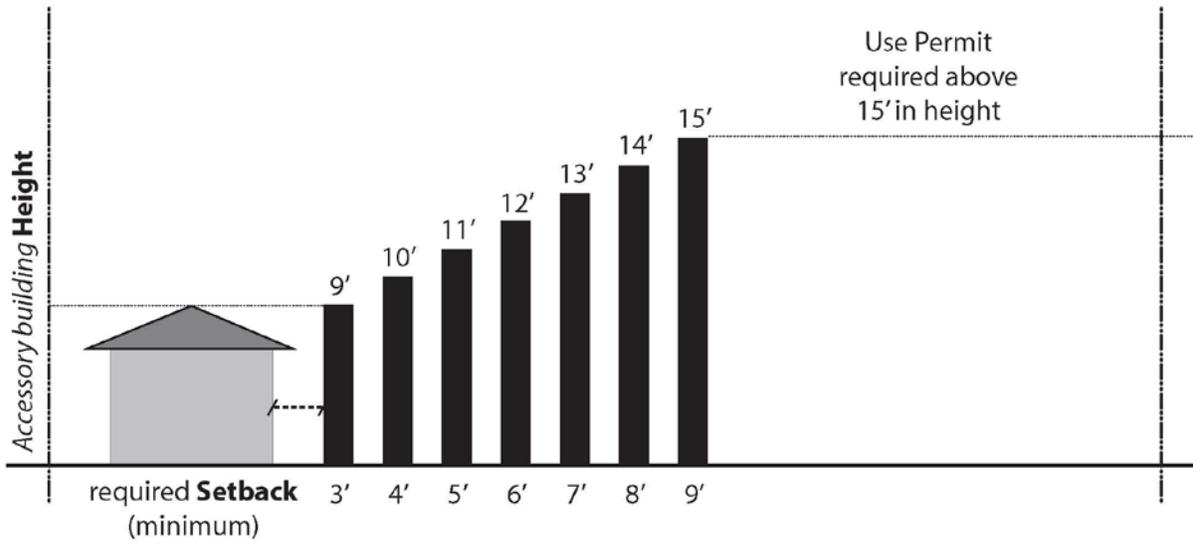
3. Height.

a. *The maximum allowed building height shall be fifteen (15) feet. Additional height may be permitted up to the maximum height allowed in the district, subject to approval of a Use Permit Standard, pursuant to Section 6-308; and*

b. *In the AG district, accessory buildings may be erected to the maximum allowed height in the district.*



Section 3-401 Accessory Buildings, Uses and Structures.



Appendix G Civil Requirements

SINGLE-FAMILY RESIDENTIAL IMPROVEMENTS

The owner of a single-family residence may need to apply for a Single Family Residential (SFR) permit if improvements to the residence or lot affect existing drainage or volume of storage for storm water retention. There are various conditions as explained in the next few paragraphs that would affect the requirement for a SFR permit. The volume of storage for storm water retention would be based on the amount required for the lot when the subdivision was originally platted. The detail for typical grading for single family lots is shown in Figure 1. A SFR permit would also be issued for driveway or sidewalk modifications/improvements.

The floor area of expansion to the residence and/or accessory structure(s) is less than or equal to twenty-five percent (25%) of the floor area of the original permitted building and accessory structure(s) and the area of expansion does not affect existing drainage retention areas. For this condition, the owner may apply for an exception to the SFR permit by submitting a Declaration of a Minor Modification. This declaration states that the modification will not reduce the existing onsite storm water retention capacity and will not alter the grading or drainage of the property. The declaration form is shown in Figure 2 and is available at the Development Services front counter.

The floor area of expansion to the residence and/or accessory structure(s) is less than or equal to twenty-five percent (25%) of the floor area of the original permitted building and accessory structure(s) and the area of expansion DOES affect existing drainage retention areas. For this condition, a SFR permit is required and the amount of storm water retention needed is the replacement of the retention volume lost.

The floor area of expansion to the residence and/or accessory structure(s) is greater than twenty-five percent (25%) of the floor area of the original permitted building and accessory structure(s). Existing single-family homeowners shall submit a Grading & Drainage plan for review/approval and obtain a SFR permit only when the original permitted floor area is cumulatively increased by at least 25%. When a Grading & Drainage plan is required it shall be prepared, sealed and signed by an Arizona licensed professional engineer; submitted and approved for a SFR permit. In addition, a signed and sealed as built plan must be provided to the City by the design Engineer/Surveyor certifying the grades and finished floor elevation.

For installation of a swimming pool, a Declaration of Minor Modification may be required. For swimming pool construction, the declaration affirms that all excavated materials from the swimming pool will be removed from the property and all landscape features remaining after completion of the pool construction will not affect existing drainage retention. If the swimming pool construction alters or fills the surface of the lot for on-lot retention, then a SFR permit is required. For this condition, the amount of storm water retention needed is the replacement of the retention volume lost.

Submittal of a Grading and Drainage Plan: The **SFR Permit** is for on-lot grading, drainage, driveway and sidewalk improvements. The **SFR Permit** acts as a **Drainage Permit** for single family improvements. A grading and drainage plan would need to comply with the requirements of the section 'Typical Plan Criteria for All Engineering Submittals'. For any work within the street or alley right-of-way (typically driveways, sidewalks, sewer services, water services), existing single-family homeowners are required to submit plans to the City's Engineering Division for review and approval and appropriate permits issued for such work.

Other Permits for Single Family Residential Improvements: If the proposed improvements affect the paving of the street, then a **Paving Permit** is required. If the proposed improvements are for a new water service to the home, upgrade of water service meter, hydrants, installation/ modification of water mains, or abandonment of water facilities, then a **Water Permit** is required. An associated **Water/ Sewer (WATSEW) Permit** may be required for upgrades to a water meter service. A **Sewer Permit** is required for all sewer service connections, repairs, or replacements for the portion of the sewer service that is in the street right of way or in the alley. An **Underground Fire Permit** is required for a new fire line connection to the water main.

Homeowner Building Permit Manual

Drainage Design Criteria and Requirements: The following is the Drainage Design Criteria and Requirements for improvements or renovations on Existing Single-Family Residential lots. New Residential Subdivisions, New Single Family Lot Development, Commercial Developments and Industrial Developments shall be designed in accordance with the “Drainage Design Criteria and Requirements” section of this manual.

There are two methods accepted by the Engineering Division for calculating required retention volume for improvements to single-family homes. Both methods use the following formula:

$$V = (P \div 12) * A * C$$

V = Volume required to retain (cubic feet).

P = Precipitation Depth (in inches) of storm water required to be retained.

A = Total area of lot (in square feet) plus any additionally required areas. For some subdivisions, the additionally required areas include one-half of the street fronting onto the lot.

C = Coefficient of Non-Absorption.

METHOD 1: Tempe’s standard method of calculating onsite storm water retention uses the formula above with the following data:

Where, P = 2.4 inches (based on the 100-year, 1-hour storm event) C = 0.95

$$V = (2.4 \div 12) * A * (0.95)$$

METHOD 2: The City allows the usage of the **Drainage Design Manual, Volume I, for Flood Control District of Maricopa County** (Fourth Edition, Chapter 3, Rational Method) as an alternative method for determining required retention volume. This method determines the volume based on a 100-year 2-hour storm event, which has a precipitation depth (P) of **2.2 inches**. This method also has different Coefficient of Non-Absorption (C) values that vary by the size of the lot and the approximate percentage of the lot covered with improvements (house, decking, driveway, sidewalks, etc., i.e. anything other than undeveloped land). For single-family lots, Tables 3.2 and 3.3 of the County Drainage Design Manual for determining Coefficients of Non-Absorption will be interpreted as follows:

Coefficients Non-Absorption for Single-Family Lots			
	Lot Size 20% or Less	Lot Coverage	Improvements
20% to 39%	Lot Coverage	Improvements	40% or More
Lot Coverage	Improvements	6,000 to 12,000	square feet
0.60 0.71 0.82	12,000 to 40,000	square feet	0.53 0.56 0.60
Over 40,000	square feet	0.41 0.47 0.53	

$$V = (2.2 \div 12) * A * C$$

Retention of the 100-year 1-hour storm event (or 100-year 2-hour for Method 2) on property outside the public rights-of-way is required. The rare exception to the onsite retention requirement above includes only properties in the Alternative Retention Criteria Area (ARCA) where retention of the 2-year 1-hour storm event is required in this case the precipitation depth, P = 0.9 inch. In no event shall a drainage permit be issued unless the drainage plan has been approved by the City Engineer and establishes that storm water runoff from the lot, plot or parcel of land will not adversely impact other property or City infrastructure. Refer to Section 12-57 of the Tempe City Code for defined areas of ARCA or see Figure 3 of this manual for visual location of ARCA.

Method of Storage:

Individual lot storage shall consist of providing adequate surface storage volume for the lot, plot or parcel of land using either Method 1 or Method 2 as described above. Storage volume shall include adjacent alleys storm water run-off. A maximum depression of 1-foot is allowed for single-family lots; use maximum 4:1 side slopes. Finish floor elevations for single-family residences are to be a minimum of 14” above outfall of lot per Figure 1.

Design Requirements for the retention basin:

- Retention volume must be disposed of in 36 hours.
- Basins *greater* than 1.0' in depth *will* require a dual-chamber drywell or
- Other approved disposal mechanism.
- Basins *less* than 1.0' in depth *may* require a dual-chamber drywell or other
- Approved disposal mechanism.
- Maximum allowable design dissipation rate for drywell is 0.10 CFS unless
- substantiated by percolation test then after applying a reduction factor of
- 50%, a maximum rate of 0.25 CFS may be used.

