Residential Carport to Garage Conversion
CARPORT TO GARAGE CONVERSION

Definitions:

Carport
A structure primarily used for parking vehicles, which is open on at least two (2) sides.

Garage
A structure primarily used for parking vehicles which is not open on at least two (2) sides.

Building Permit Required: The Tempe Administrative Code as adopted by the City of Tempe requires that a building permit be obtained before converting a carport to a garage.

Building Permit Requirements:

Permit Application
Completed applications must include:

[ ] Project name and address
[ ] Applicant’s name and phone number
[ ] Description of work
[ ] Proposed “use” of building
[ ] Estimated cost of project
[ ] Applicant’s signature

Construction Plans (See examples)
Two (2) sets provided by applicant must include:
Examples with fill-in information maybe used as some of the required plan sheets.

[ ] Site Plan (dimensioned) 8-1/2” x 11” copy showing the existing location, size and setbacks and reference to existing site specifics, i.e., property lines, existing residence, pool, etc.

[ ] Floor plan (dimensioned) showing overall building size, existing and proposed room locations, existing and proposed new window(s)/door(s) size/location(s). Note existing and proposed electrical outlet(s)/light(s) locations.

[ ] Sections/Details of the existing walls, columns, beams and the proposed new walls specifying materials and existing roof framing system/roof slope.
Removal of existing columns and/or beams will require additional Construction Drawings providing any/all structural details and connections, i.e., footing type/size/depth, wall to footing connection and wall size/type for plan review.

General Requirements

1. All receptacles, unless dedicated to a specific appliance, shall be GFCI protected. There shall be at least one GFCI receptacle in the garage. If no GFCI receptacle exists on the front exterior of the house, one shall be installed in a weatherproof box.

2. 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 layer of 5/8 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.
General Requirements

3. There shall be no unprotected openings in the wall or ceiling between the garage and the home interior, i.e., windows, non-steel ducts, central vacuum piping, etc. (Openings may be protected with fire shutters, fire dampers, or other tested and listed products. Ask your inspector for some help in this area, if you are unsure how to handle your specific situation.)

4. Between the garage and the interior of the house, any door shall be self-closing, tight-fitting, solid wood door with a 1-3/8 inches minimum thickness, or you may install a self-closing, tight fitting door having a fire protection rating of not less than 20 minutes. (This door shall be listed by an independent testing laboratory and shall have a label stating its fire rating, affixed to the door.)

5. Any man-door to the exterior shall have an exterior light, controlled by a switch, and a landing at least 3’x3’. If the door swings out over the landing, a step greater than 1.5” is not allowed.

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

7. Smoke detectors shall be installed in each bedroom, outside of each bedroom, and on each level as required by IRC, Section R313.1; this includes all existing and new bedrooms.
SHOW EXISTING ALLEYS
SHOW PROPERTY LINES WITH LOT DIMENSIONS
SHOW PUBLIC UTILITY EASEMENTS

POOLS & SPAS
SHOW POOL/SPA EQUIPMENT LOCATIONS

SHOW LOCATIONS AND ABOVE GROUND HEIGHTS OF ALL ELECTRICAL AND SERVICE CABLES AND WIRES

ROOM ADDITIONS

COVERED PATIO
PATIO ENCLOSURES

EXISTING DWELLING
SQ. FT.

CARPORT
GARAGE ENCLOSURES

SHOW SIZE AND LOCATIONS OF GAS METERS, PROPANE TANKS AND ELECTRICAL PANELS WHEN APPLICABLE TO PERMIT APPLICATION

PROPERTY LINES

SIDEWALK, CURB AND GUTTER

ADDRESS

- GIVE DIMENSIONS REPRESENTED BY x'-x" WHEN APPLICABLE TO PERMIT APPLICATION
- SHOW SIZE AND LOCATIONS OF ALL EXISTING STRUCTURES, POOLS AND SPAS
- SHOW SIZE AND LOCATION OF OFF STREET PARKING WHEN GARAGE/ CARPORT IS ENCLOSED INTO LIVABLE AREA

NORTH

SCALE _____" = ____'

Residential Structures (Example)
EXISTING SHOWN DASHED

IDENTIFY ALL GAS
APPLIANCES IN UTILITY,
LAUNDRY AND STORAGE
ROOMS. SHOW LOCATIONS AND
SIZES OF ALL COMBUSTION
AIR VENTS.

WASHER

DRYER

UTILTY

WATER HEATER
T/P SHALL NOT
DRAIN INTO
GARAGE.

SFCI

DRYER SHALL NOT
VENT INTO GARAGE

SELF-CLOSING/SELF-LATCHING
1-3/8" SOLID WOOD OR
20 MIN. FIRE RATED DOOR.

ATTIC
ACCESS
TO
REMAIN

OPTIONAL EXTERIOR
DOOR WITH EXTERIOR
LIGHT # 36" X 36"
EXTERIOR LANDING

EXISTING POSTS AND
BEAMS TO REMAIN

EXISTING OR NEW LIGHT

SPECIFY NEW HEADER SIZE OR
EXISTING BEAM SIZE

OVERHEAD GARAGE DOOR

SHOW DIMENSIONS REPRESENTED BY X'-X"
SEE SHEET RES - 01 FOR SITE PLAN REQUIREMENTS

For Reference Only

Carport to Garage Conversion
Title
Floor Plan
Sheet No.
DSD - 03
Section A-A through Enclosure

For Reference Only

Carport to Garage Conversion

Title

Typical Wall Section

Sheet No.

DSD - 04
① WALL AT GABLE END CONDITION

EXISTING ROOF ASSEMBLY

TRUSS CLIP AT 24" O/C

BOTTOM CORD OF GABLE TRUSS

EXISTING BEAM

DOUBLE 2X TOP PLATE

WALL PER 1 DSD-04
A footing and wall bracing is required along the hatched wall line.

Existing House

Patio Enclosure

Carport Enclosure

* If this dimension is greater than 4', a footing and wall bracing will be required as indicated along the hatched [ ] wall lines.

For Reference Only

Title: Special Conditions

Sheet No: DSD - 07

Carport to Garage Conversion
EXISTING BEAM OR NEW HEADER

2 X TOP PLATE

2 X STUDS

2 X BLOCKING AT PANEL EDGES

3/8" MINIMUM THICKNESS WOOD STRUCTURAL PANEL SHEATHING NAILED WITH 8D COMMON OR GALVANIZED BOX NAILS 6" OC AT EDGES AND 12" OC AT INTERMEDIATE SUPPORTS. MINIMUM PANEL WIDTH SHALL BE 92" TYPICAL EACH SIDE OF GARAGE DOOR.

(2) TIE-DOWN DEVICE (EMBEDDED IN CONCRETE) CAPABLE OF PROVIDING AN UPLIFT CAPACITY OF 1800 POUND MINIMUM

(2) ANCHOR BOLTS PLACED AT PANEL QUARTER POINTS

NEW CONTINUOUS FOOTING SEE DSD-04 FOR SIZE AND REINFORCEMENT

1 TYPICAL GARAGE DOOR WALL BRACING
EXTENT OF HEADER
DOUBLE PORTAL FRAME (TWO BRACED WALL PANELS)

EXTENT OF HEADER
SINGLE PORTAL FRAME (ONE BRACED WALL PANEL)

MIN. 3" X 11.25" NET HEADER
6' TO 18'

FASTEN TOP PLATE TO HEADER WITH TWO ROUNDS OF 16d SINKER NAILS AT 3" O.C. TYP.
1000 LB STRAP OPPOSITE SHEATHING

FASTEN SHEATHING TO HEADER WITH 8d COMMON OR GALVANIZED BOX NAILS IN 3" GRID PATTERN AS SHOWN AND 3" O.C. IN ALL FRAMING (STUDS, BLOCKING, AND SILLS) TYP.

MIN. WIDTH = 16' FOR ONE STORY STRUCTURES
MIN. WIDTH = 24' FOR USE IN THE FIRST OF TWO STORY STRUCTURES
MIN. 2x4 FRAMING
3/8" MIN. THICKNESS WOOD STRUCTURAL PANEL SHEATHING
MIN. 2x4 POST
MIN. 4200 LB TIE-DOWN DEVICE (EMBEDDED INTO CONCRETE AND NAILED INTO FRAMING)

SEE SECTION R602.10.6.2 MIN. 1000 LB TIE DOWN DEVICE

TYPICAL PORTAL FRAME CONSTRUCTION
FOR A PANEL SPLICE (IF NEEDED), PANEL EDGES SHALL BE BLOCKED, AND OCCUR WITHIN 24" OF MID-HEIGHT.
ONE ROW OF TYP. SHEATHING-TO-FRAMING NAILING IS REQUIRED. IF 2x4 BLOCKING IS USED, THE 2x4'S MUST BE NAILED TOGETHER WITH 3 - 16d SINKERS

NEW CONTINUOUS FOOTING. SEE DSD-04 FOR SIZE AND REINFORCEMENT

① GARAGE DOOR WALL BRACING
ALTERNATE TO DSD-08

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