



City of Phoenix

BOARD UP/SECUREMENT SPECIFICATIONS

All unoccupied structures within the City of Phoenix must be secured to the following specifications. Structures which will be secured for 90 days or less may use either Option A or B. Structures secured for more than 90 days must be secured in accordance with Option B for openings visible from the street (Phoenix City Code 39-6A7).

Option A- Short Term (Less Than 90 Days) Securement Specifications

Carriage Bolt Method:

- **General Application** All Plywood should be a minimum of $\frac{3}{4}$ " exterior glue, construction grade, (NO OSB) Plywood should be painted with a good quality exterior paint that matches the exterior. Openings that require more than a 4' X 8' sheet shall be secured with 2 sheets spliced together as shown in Diagram B. Plywood must overlap 4" on all four sides unless there is a protruding sill at the bottom, then the bottom edge of the Plywood should sit on that sill Secure with $\frac{3}{8}$ carriage bolts with washers and double nuts on the interior. (Purpose of the double nut is to secure against one another). On the exterior, use washers $\frac{1}{4}$ "larger than the bolt size. Install carriage bolts as close to the corners as possible. Openings that are 3'X3' or less may be secured with one 2" X 4" board and two carriage bolts. Avoid tightening to tight to prevent crushing the interior wall surface.
- **Casement Style windows** (windows that swing out from the side of the frames) must have the whole opening covered. Covering one or two panes will not be accepted. If only one pane is broken the BOARDING WITH SCREWS method can be used to cover the entire opening.
- **Sliding windows** should be opened as far as possible to permit the carriage bolts to pass through the window opening. The sliding sash may often be lifted out of the track and stored inside the building.
- **Fixed glass windows** require reverting to the Boarding with Screws method below.
- **Doors:** If the door(s) are functional and lock that is sufficient, however if the door is missing or the locking mechanism does not work, a temporary plywood door with an accessible entrance with lock and key will be required. It may be necessary to install a temporary 2"x4" frame to attach to the plywood door. All other non-functioning doors should be boarded the same as the window openings.
- **Refer to Diagrams A, B & C**

Boarding with Screws:

- Insert $\frac{3}{4}$ " plywood into the exterior of the window opening for a close fit and secure with a minimum 1 $\frac{1}{2}$ " drywall, deck or sheet metal screws.
- Cut plywood so it completely inserts into the window opening (including any radius arch at the top of the window opening) and set the screws every 8" to 10".
- Screws are to be set into the wooden window frame or wood lintel and/or only, **not** into brick masonry, concrete or adobe. Screwing into mortar joints would be acceptable if there is no wooden material available.

Doorways/Other Openings:

- Doorway openings should be boarded to the same requirements as window openings one entry doorway should be an accessible entrance with lock and key.
- Security Door may be necessary if there are no doors that can be locked. This is shown in Diagram C. Use 6" extra heavy hinges and fasten to the jamb with 1 ½ screws. Place strap of hinge on the exterior and secure with carriage bolts by placing the nuts on the interior side. Use a 8" X 12" flat strap fastened to the door stop and jamb with 3 inch lag bolts. If the door jamb is loose and has a removable stop, remove the stop and nail the jamb with 1 6 cut nails that are located so that a new stop will cover the nails. If more support is needed, attach a 4' length of 2" X 4" in place of door jamb. Cut a slot in the plywood just large enough for the Tee Strap leg, reinforce both outer edges of the slot with flat straps (Minimum size 1" X 8"), and fasten with carriage bolts.
- Other openings that permit entrance into or under the building must also be boarded. This may include, but is not limited to crawl space access, large vents, basement and cellars doors and windows, Arcadia door, Gable ends, side mount air conditioning openings and Doggie doors. Most of these can be secure by covering with Plywood and applying screws every 8" to 10" inches.

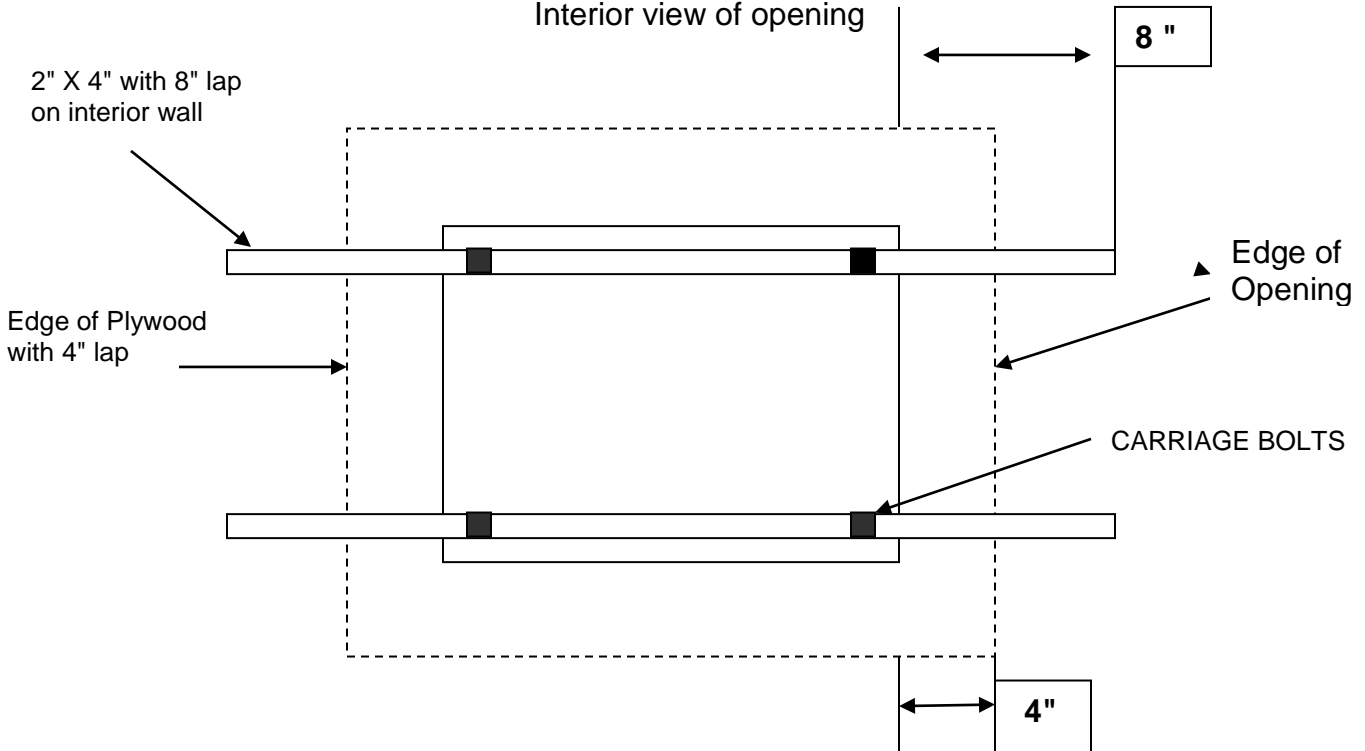
No trespassing signs should also be posted and an authority to arrest form should be on file with the City of Phoenix Police Department

General Considerations:

- All first and second story windows must be boarded. Windows above two stories should ALSO be boarded if these openings/windows are not weather tight.
- If boards cannot be inserted into the window openings because of security bars, carefully remove the bars and board the openings as indicated above. Then security bars should be stored inside the building.
- **Use caution when installing plywood into the window openings.** It should fill the entire opening, and should be secured snugly (but not overly tight) against the building, but the bolts should not be overly tight because this can actually damage building exteriors/frame building.
- Evaluate whether any patching of the roof is needed at same time so that building is entirely weather tight and vandal-free.
- Once completed, schedule an inspection by the Neighborhood Preservation Inspector so that the work can be inspected and the violations signed off on.

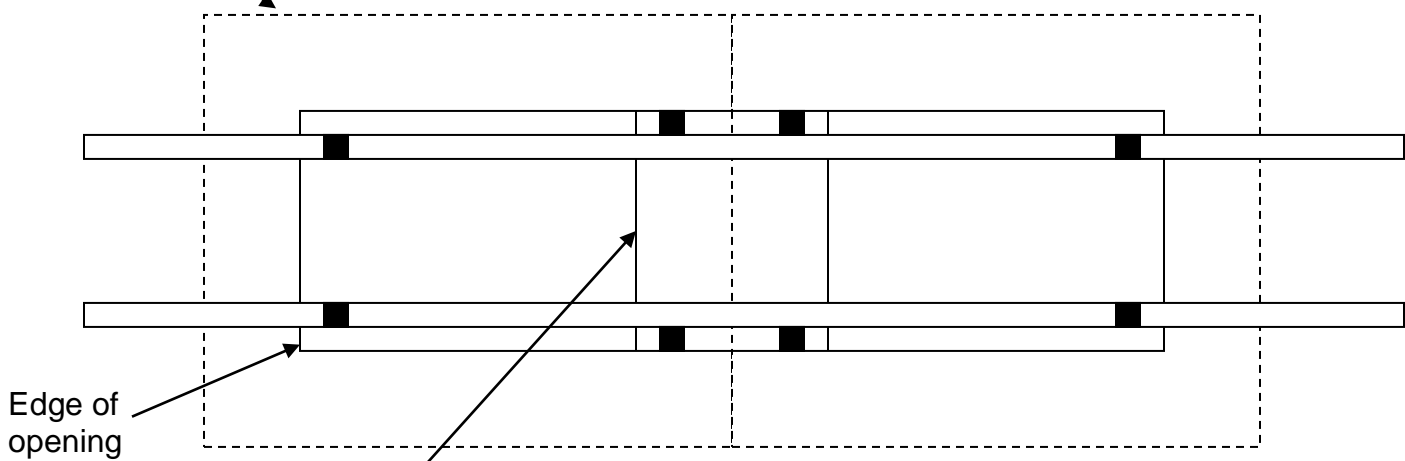
EXHIBIT "A"

DIAGRAM "A"
Interior view of opening



2 sheets of plywood on exterior

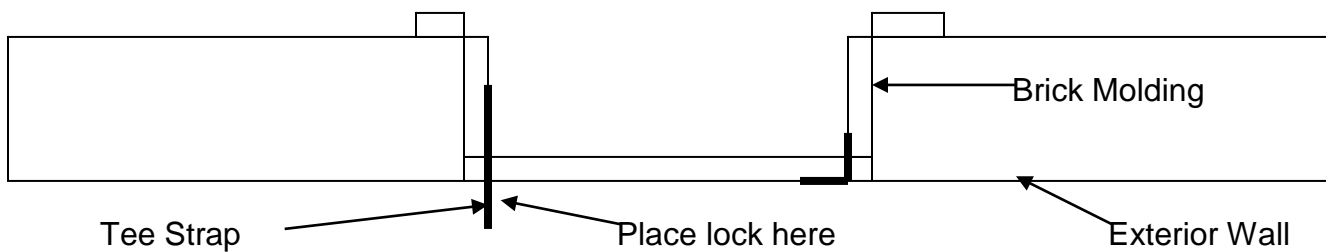
DIAGRAM "B"
Interior view of opening



12" wide piece of 3/4 " plywood with 4 1/4 " carriage bolts fastening 2 sheets of plywood together, place on interior side of plywood.

DIAGRAM "C"

Over head view of front door



Option B- Long Term (More Than 90 Days) Securement Specifications Utilizing Polycarbonate Material

***1 Carriage Bolt Method:**

- **General Application** All Polycarbonate material shall be a minimum thickness of .220. Openings that require more than a 4' X 8' sheet shall be secured with 2 sheets spliced together as shown in Diagram B. Polycarbonate should be cut to the outer edge of the window frame. Self tapping screws with security heads may be required if bowing occurs. If the window is inset the Polycarbonate should be inset as well to the outer edge of the window frame. Secure with 3/8 carriage bolts with washers and double nuts and washers on the interior. (Purpose of the double nut is to secure against one another). Install carriage bolts as close to the corners as possible.
- **Casement Style windows** (windows that swing out from the side of the frames) must have the entire opening covered. Covering individual panes will not be accepted. If only one pane is broken the SECURE WITH SCREWS method can be used to cover the entire opening. Material will need to be notched at the corners to accommodate the hinges.
- **Sliding windows** should be opened as far as possible to permit the carriage bolts to pass through the window opening. The sliding sash may often be lifted out of the track and stored inside the building.
- **Fixed glass windows** require reverting to the Securing with Screws method below.
- **Glass Patio Doors:** If the doors are functional and can be locked that is sufficient however if the door is missing glass or the glass is broken then the Carriage Bolt Method General Application applies.

Secure with Screws:

- Insert minimum .220 thickness Polycarbonate into the exterior of the window opening for a close fit and secure with a minimum 1 1/2" drywall, deck or sheet metal screws secure top.
- Cut the Polycarbonate to completely insert into the window opening to the outer edge of the window frame (including any radius arch at the top of the window opening) and set the screws every 8" to 10".
- Screws are to be set into the wood window frame or wood lintel only, **not** into brick masonry, concrete or adobe. Screwing into mortar joints will be acceptable if there is no wood material available or if authorized by the City of Phoenix under unique circumstances.
- If covers cannot be inserted into the window openings because of security bars, carefully remove the bars and secure the openings as indicated above. Security bars should be placed inside the building.

DIAGRAM "A" POLYCARBONATE

Interior view of opening

2" X 4" with 8" lap
on interior wall. 2X4
shall be painted
black

8"

Edge of
Polycarbonate

Window Frame or
Edge of Opening

Carriage Bolts

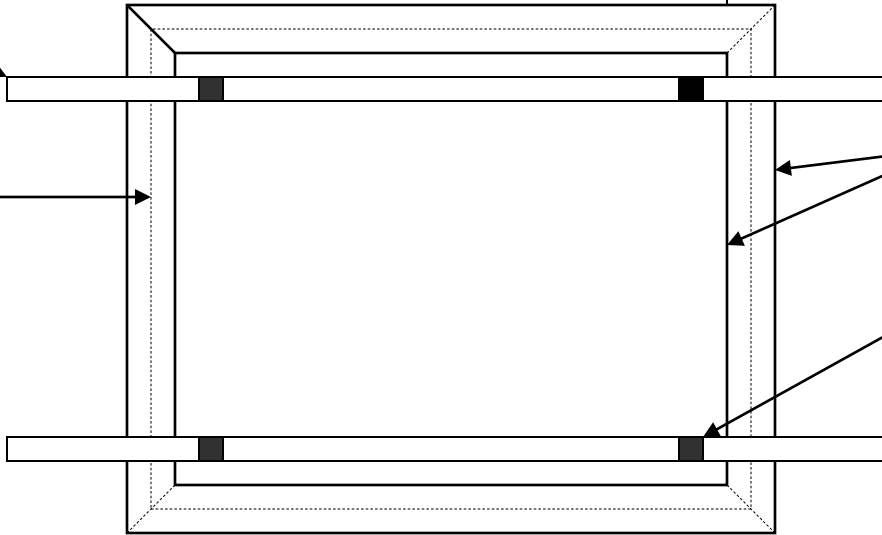
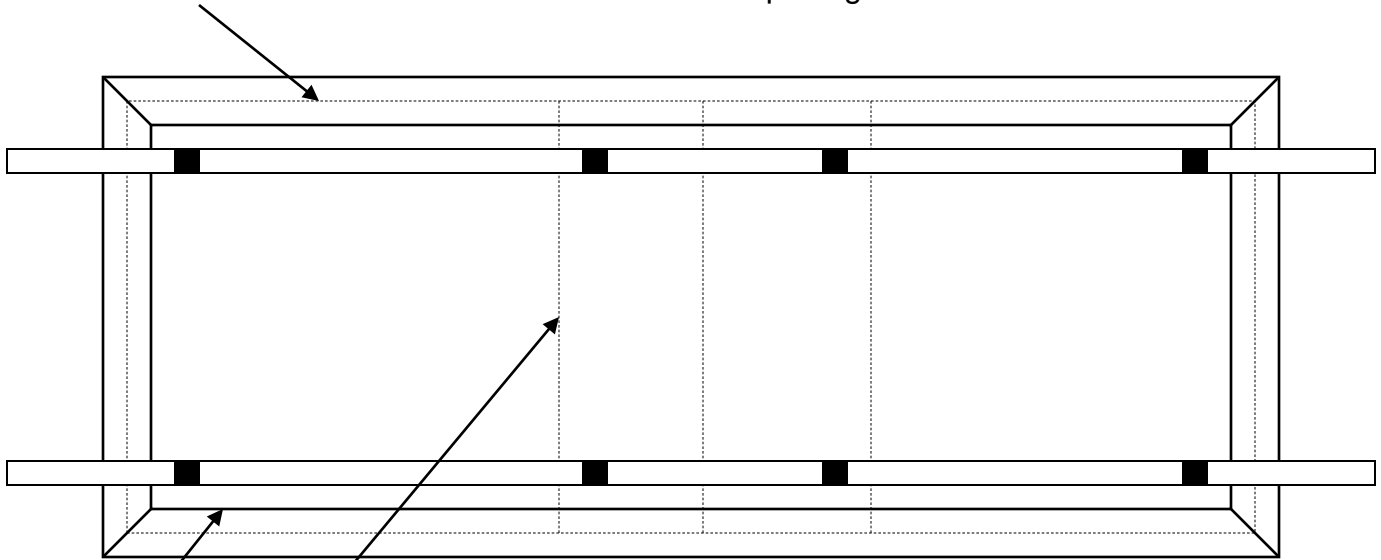


DIAGRAM "B" POLYCARBONATE

Interior view of opening

2 sheets of Polycarbonate
on exterior



Edge of
opening

12" wide piece of Polycarbonate with 4 1/4 " carriage bolts fastening 2
sheets of material together, placed on interior side of Polycarbonate.