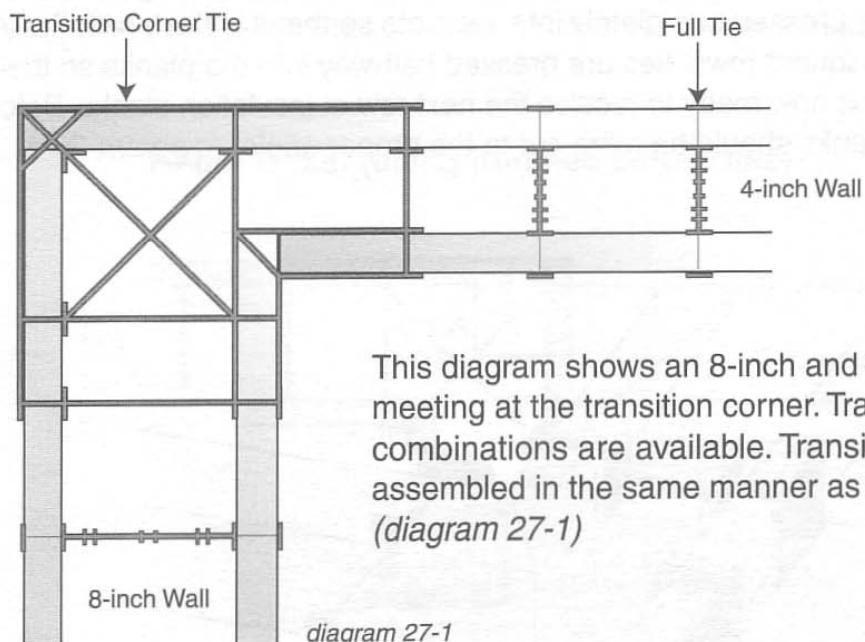


27 Transition Corners

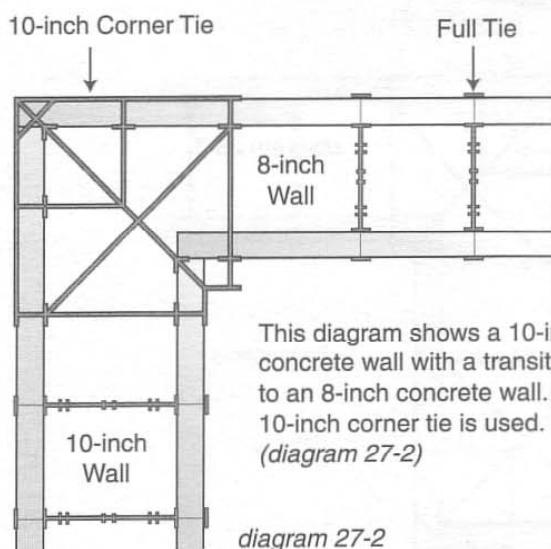
Transition corners may be appropriate for below-grade projects which are in sloping ground conditions where some of the concrete walls will be totally below-grade while others are "walk-out" walls. Changing the wall thicknesses is normally done at the project's corners with the use of a transition corner tie.



This diagram shows an 8-inch and 4-inch concrete wall meeting at the transition corner. Transition ties for other combinations are available. Transition corners are assembled in the same manner as standard 90° corners. (diagram 27-1)

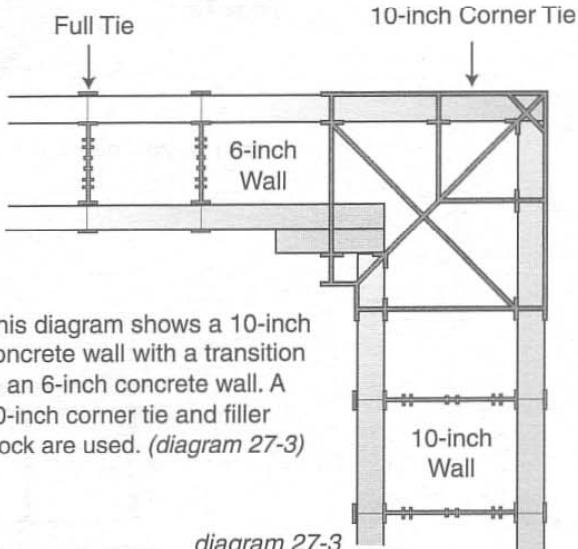
diagram 27-1

Using Standard 90° Corner Tie for Transition Corner



This diagram shows a 10-inch concrete wall with a transition to an 8-inch concrete wall. A 10-inch corner tie is used. (diagram 27-2)

diagram 27-2



This diagram shows a 10-inch concrete wall with a transition to an 6-inch concrete wall. A 10-inch corner tie and filler block are used. (diagram 27-3)

diagram 27-3

28

Winter Projects

After pouring concrete in cold weather, a temporary blanket of insulation should be laid over the exposed concrete at the top of the form. Keep in place for at least 72 hours. Because of the high insulating value of the form walls, this protection from cold temperatures is all that's needed. (*diagram 28-1*)

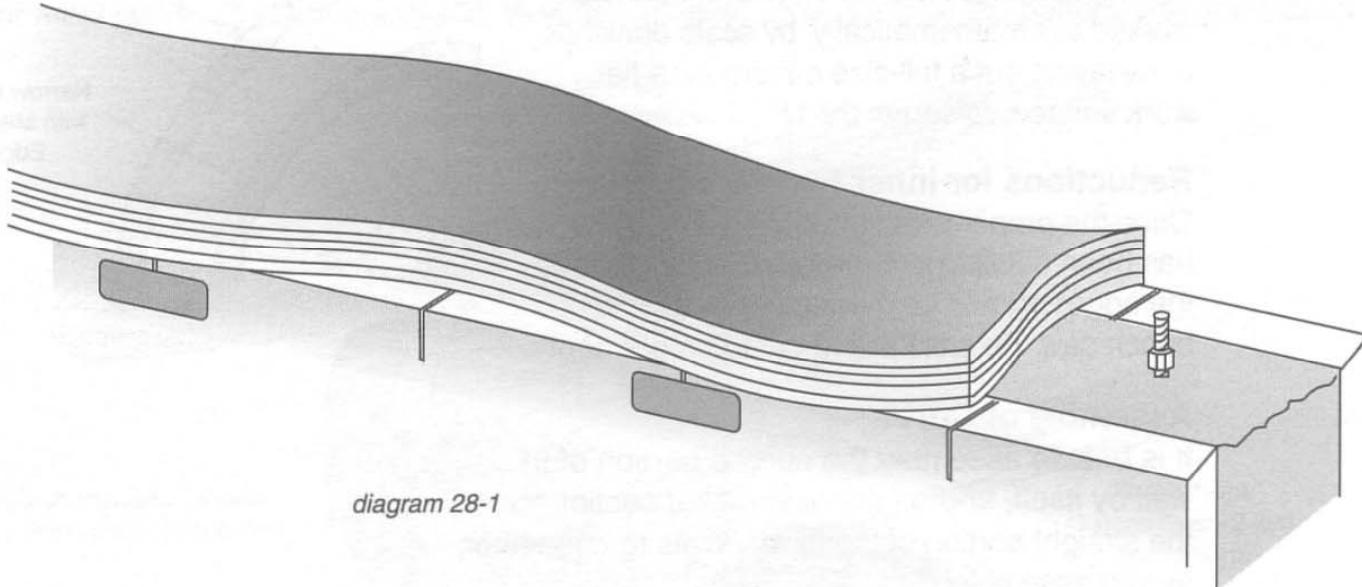


diagram 28-1

Concrete Additives

Winter temperatures may force the concrete supplier to include additives to the concrete so it will not freeze during delivery and placement. Hot water may be used in the mixture during mild winter conditions. Anti-freezing agents may be added to the mixture during more severe conditions.

Delays

If it will be several hours or days before concrete is placed in an assembled form, it should be covered at the top to avoid accumulating snow or ice inside the form. Accumulations of snow or ice must be removed before concrete placement. If left in place, it could cause major voids at the bottom of the wall.

29

Radius Walls

Curved wall forms are produced by assembling the 8-inch wide planks of insulation vertically, similar to the staves in a wooden barrel. The result is that the curve is broken down into 8-inch wide flat sections on the outside of the curve and specialty cut, narrower sections on the inside of the curve. (*diagram 29-1*)

Determining Radius

The radius of the curve is determined by the width of the inner planks of insulation. Deciding how narrow these planks should be, can be worked out mathematically, by scale drawings or by laying out a full-size pattern on a flat work surface. (*diagram 29-1*)

Reductions for Inner Form Wall

Once the proper width for the inner wall planks has been determined, they should be trimmed the edges should be mitre-cut with a table or bench saw. Tie slots are re-cut to proper depth.

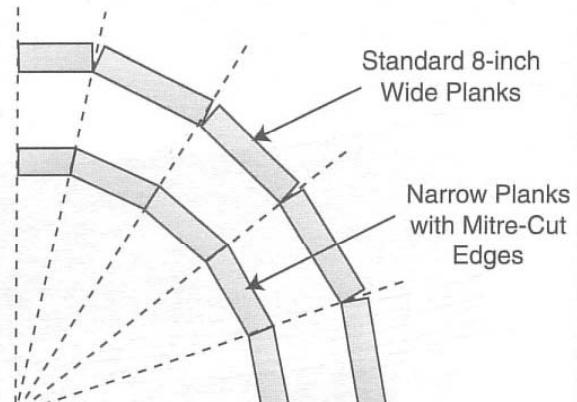


diagram 29-1

Assembly of Curve

It is best to assemble the curved portion of the wall by itself, adding the assembled section to the straight portion of the form. Points to remember, as you assemble:

- Ties will be inserted sideways
- Half ties must be used at top and bottom as with a typical form.
- Walls over 4-feet tall should include steel in-wall bracing.

Steel Strapping Brace

Steel strapping is mounted around the outside of the curve and anchored. This is done by stretching the strapping taut and anchoring it to the forming tie pads on the straight section of the form. For best results, strapping should be stretched using standard tensioner and locked with standard strapping seals. If these tools are not available, pliers can be used to achieve proper tension on the strapping. (*diagram 29-2*)

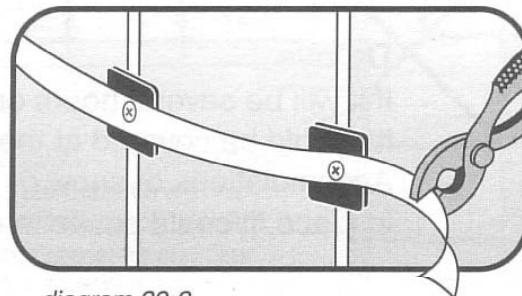


diagram 29-2

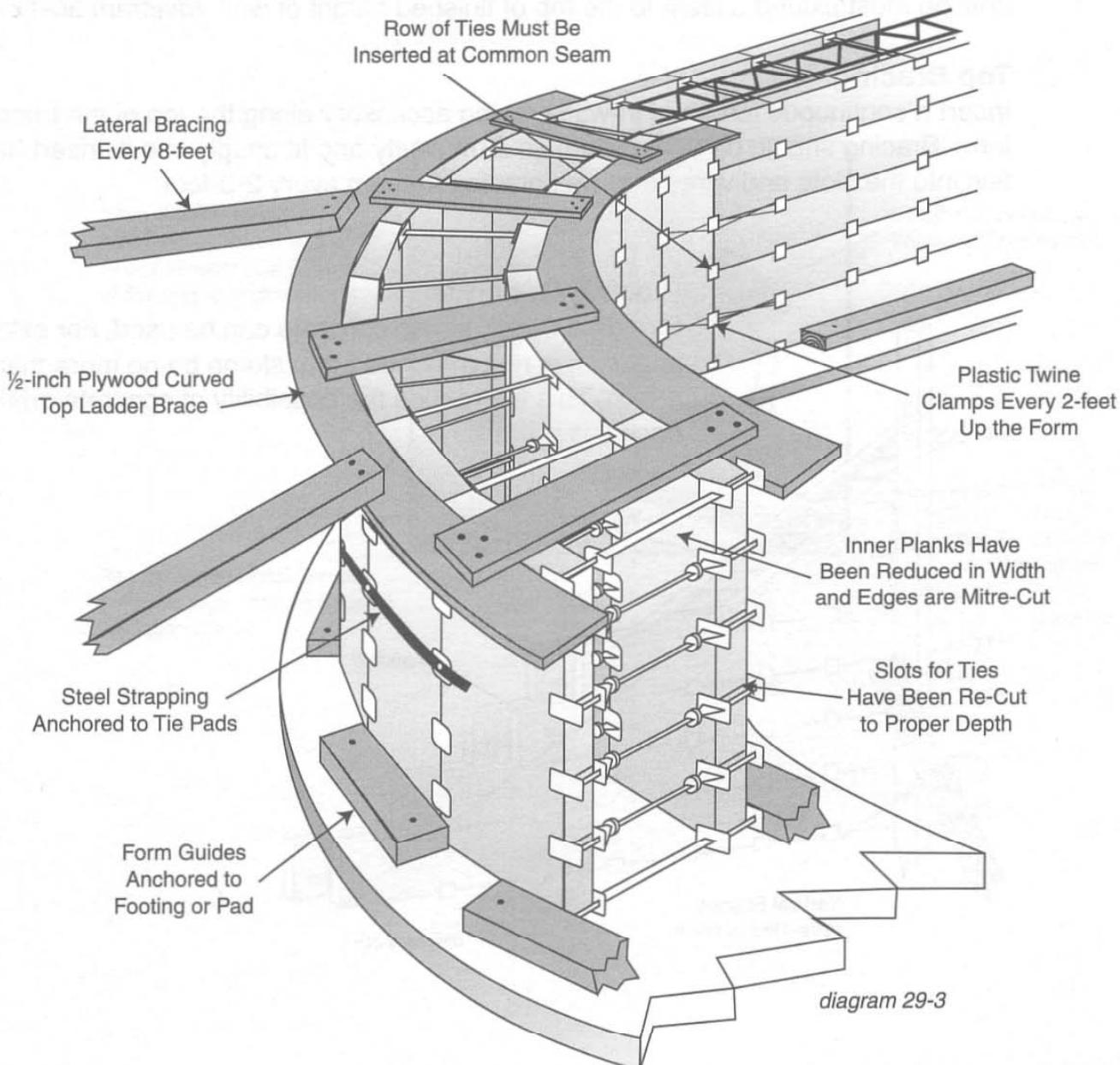
Radius Walls *continued*

Bracing

Once assembly is completed, move the form into position. Adjust the form for proper alignment and anchor the form guides at the footing. A top ladder brace is constructed by using two pieces of 1/2-inch plywood which has been cut to match the inner and outer form wall. Each piece of plywood should be approximately 6-inches wide. 1x2 lumber is used to anchor the pieces together. A ladder brace is put in position at top of form. (*diagram 29-3*)

Clamping & Anchoring

The curved ladder brace must be securely anchored to the ladder braces on the rest of the form. Plastic twine is used to clamp the curved section to the rest of the form at the common seam. For most curves, it is not necessary to install an inner form guide at the bottom. (*diagram 29-3*)



30

Sloped (Raked) Forms

When constructing entire buildings, the top of the concrete form may be sloped (raked) at the gable ends of the walls. This can also occur at the top of a retaining wall which is sloped because of landscaping. This unique feature can be assembled and poured along with the conventional portion of the walls.

Assemble Forms Beyond Trim Line

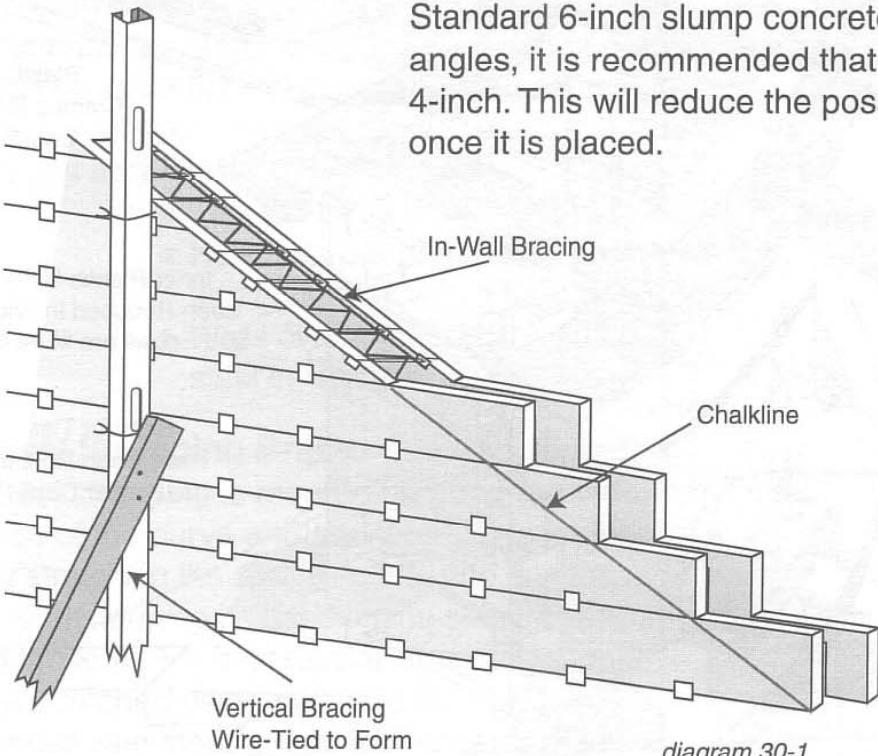
Once forms have been assembled beyond their trim point, snap a chalkline along the form wall and trim form with a hand saw. Where necessary, cut new slots in the insulation approximately 8-inches apart to accommodate half ties. Exterior vertical bracing must extend a least to the top of finished height of wall. (*diagram 30-1*)

Top Bracing

Insert a continuous length of in-wall bracing accessory along the top of the trimmed form. Bracing should be same width as form cavity and fit snugly into it. Insert half ties into the slots and wire-tie in-wall bracing to them every 2-3-feet.

Placing Concrete

Standard 6-inch slump concrete can be used. For extreme angles, it is recommended that slump be no more than 4-inch. This will reduce the possibility of concrete drifting, once it is placed.



31

Arched Openings

Blockouts for roundtop and eyebrow windows can be formed by first cutting the opening in the form walls with a saw, then anchoring lengths of 2x4 wood studs into the opening along the curve of the blockout. Studs should be spaced without gaps between them. Each length is anchored with 3-inch drywall screws and plastic washers on both sides of the form. After installing a dimensional lumber lintel at the bottom of the opening, insert a single piece of 3/4-inch plywood or 2-inch insulation, cut to match the opening. This should fit snugly so it will keep the blockout properly aligned. This piece is removed after concrete placement. (diagram 31-1)

