

Material & Estimating Guidelines

A – Glen-Gery Thin Tech™ Support Tie Ledge Panel

(w x h)
 48" x 48" nominal (see Part C)
 16" x 48" nominal

Coverage – One panel = 16 sq. ft.
 Weight – 16 lb. per each. (1 lb. per square foot.)
 Packaging – 100 panels per skid.

B – Glen-Gery Thin Tech™ Support Tie Sizes

19/64" (7.5mm)
 3/8" (9.5mm)
 5/8" (17.1mm)

C – Glen-Gery Thin Tech™ Support Spacing

<u>Support Spacing</u>	<u>Classic Panel Size</u>	<u>Elite Panel Size</u>
2-5/8"	47-13/16" x 47-1/4"	48" x 47-1/4"
2-5/8"	15-3/4" x 47-13/16"	15-3/4" x 48"
3-1/8"	47-13/16" x 46-7/8"	48" x 46-7/8"
3-3/8"	47-13/16" x 47-1/4"	48" x 47-1/4"
4"	47-13/16" x 48"	48" x 48"
8"	47-13/16" x 48"	48" x 48"
12"	47-13/16" x 48"	48" x 48"
16"	47-13/16" x 48"	48" x 48"
24"	47-13/16" x 48"	48" x 48"

D – Pre-Bent Corner Panels

48" x 16" x 32" nominal (Right and left panels are available for 2-5/8" support spacing only.)
 Weight – 16 lbs. each.
 Packages – As needed.

E – Adhesive

29 oz. tubes
 Coverage – 16 sq. ft. per tube for Thin Brick stretchers.
 Coverage – Corner brick will require 50% more.
 Weight per tube – 3 lbs. each.
 Packaging – 12 tubes per case.

F – Pre-Blended Mortar

Standard Grey. (Colored mortars are available in pre-blended bags.)
 Coverage – 70 to 80 sq. ft. per bag. (Coverage will vary depending on brick or stone.)
 Weight per bag – 80 lbs.

G – Starter Angle

10' length
 Weight per length – 3.5 lbs. each.
 Available in 26-gauge G60 or 24-gauge stainless steel.

Note: Sheathing, flashings, trims, felt paper, caulk or sealants, fasteners must be compatible with Glen-Gery Thin Tech™ thin veneer system (see specifications).

H – Glen-Gery Thin Tech™ Air Vent – 10' Length

Weight per length – 1.5 lbs. each.

Additional Materials, Tools & Equipment:

- Screw gun, hammer, drill, or nail gun
- Coated or galvanized screws or nails
- Traditional level or laser level
- Safety glasses
- Extension cords
- Chalk line
- Utility knife
- Quart size caulking gun
- Tin snips or power shears
- Circular saw or wet saw for cutting brick or stone
- Ladders, scaffold, or jacks (OSHA approved)
- Mortar bag and tip or mortar gun, and whip
- Acid brushes
- Striker joint
- Screen with 1/4" opening to sift mortar if necessary
- Water buckets
- Sawhorse and support planks
- Brick or stone cleaner
- Mortar scoop
- Template for cutting or holding brick
- Two gallon water pail with quart measurements
- Wheelbarrow
- Shovels and hoes
- Cleaning brushes for tools only

Estimating Materials for Project

- Figure panel square footage with a 2% waste factor. This is based on square footage with openings omitted.
- Figure linear footage for doors, windows, floor lines, and or any openings when estimating for flashings, trims, or starter angles.
- Each tube of adhesive will cover 16 square feet (approximately 116 brick). Corner brick will use approximately 50% more. Use a quarter-size dab of adhesive on each end of the brick. **Never stream adhesive across any masonry product.** Larger stone will require more adhesive.

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- Flat and corner brick should be calculated using a 3% to 5% waste factor.
- Outside corner brick, multiply the linear footage by 4-1/2 brick.
- Estimate approximately 70 to 80 square feet per bag of mortar when using an 80 lb. bag of pre-mixed Portland/Lime/Latex Additive Mix (calculations based on modular size brick).
- Starter angles are 10 linear feet per angle.

Estimating Labor

Labor Estimating Guidelines Are For Thin Veneer Only

- Allow extra man hours for flashings, trims, angles and moisture barrier installations.
- One story applications up to 10 feet, using power driven nails or screws. Allow 125 square feet per man per day to install panels, brick, mortar, and clean down.
- Add 10% for every story there above.
- Allow extra time when using masonry fasteners.
- Cutting of any masonry product should be done using a wet saw or circular saw with a masonry blade. **Use protective eye wear and gloves when cutting.**
- Calculations are based on a 3-man crew.

Installation Instructions

Preparation

- Structurally sound wall; if in doubt, obtain owner or engineers approval prior to installation.
- Please note that any thin veneer will follow the contour of the wall. Furring of the wall may be required for best results. Notify the owner prior to starting work.
- Substrate will have a deflection design no greater than L/360 with corners braced, unless written consent is given by Glen-Gery Corporation.
- Corners are to be braced to meet code and design requirements in order to alleviate shrinkage, raking, settling, and movement. Walls are to be plumb within a 1/4" per 10 linear feet.
- Sheathing shall be approved type for installation and installed per manufacturers recommendations and specifications.

- Starter angles, flashings and trims in place as per detail drawings.

Layout

- Space and stop panel and veneer at building control joints.
- Control joints should be to regional specifications and not to exceed 16' spacing in walls without openings.
- Control joints should occur 2 to 4 feet from an outside corner.
- Control joints should be 3/8" wide to accommodate movement of the veneer and panel. Larger control joints may be required to accommodate building movement. These should be specified by the architect or engineer.
- The location of the horizontal control joint should occur every 1-2 stories for steel framing and every 1-story for wood framing. Control joints should be to regional building code standard, but not to exceed 24 feet in height.
- Stop panel and veneer 1/4" to 3/8" from inside corners.
- Expansion joints in the panel and veneer should be 1/4" to 3/8" away from doors, windows and unlike materials to allow for movement.
- All areas where brick or stone meets unlike products, must be caulked with a high performance caulk/sealant.
- For *Classic Panels*, install weepholes through grout. Place weepholes 24" on center at the base of the wall and above all openings.
- For the *Elite Panels*, install *Glen-Gery Thin Tech™* air vent where the panel meets the starter angle open for proper water drainage and ventilation.
- Starter angles to be installed at base, floor lines, windows and doors.
- Lowest common corner of the building is the starting point. Then level the installation corner to corner.
- Align relief support ties at corners and all points or install corner panels at outside corner.
- Adjust panel if possible so a full course fits under or over windows, doors, or openings.
- If a full course is not possible, consider rowlocks, soldiers, or trim pieces.

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Panel

- Prior to panel installation, install all trims and flashings.
- Clean if necessary, with a non-oil base cleaner. Dirt or film residue will interfere with adhesion of adhesive, and mortar.
- Panel edges to end and begin on stud or girt.
- Corner panels may be used on outside corners.
- Stagger *Glen-Gery Thin Tech™* panel joints over joints in sheathing.
- Panels are butted at edges. For optimal stress relief, a 1/16" to 1/8" gap between the sides of the panels is recommended.
- Panel should be fastened flat to wall.
- For *Elite Series*, fasten screws through the vertical channels at center working to the edges through pre-punched pilot holes. Additional screws may be necessary.
- For *Classic Series*, fasten center of panel underneath support tie and work to the edges through pre-punched pilot holes. Additional screws may be necessary.
- Fasteners should occur every square foot.
- Panel may be cut with snips, power shears, or table saw with metal blade. **Always use protective eye wear and gloves when cutting panel.**

Optional: Remove 3/8" lip at the bottom of panel at starter course and above all openings.

Fasteners

- Fasteners shall be non-corrosive type with a waffle head or flat back design.
- Fasteners shall extend into the substrate; 1" if wood or masonry, or 1/4" if metal. Use nails, screws, or masonry anchors #6 or #8.
- Fasten every square foot. 8 inches vertically, and 16 inches horizontally. Additional fasteners may be required for masonry substrates.
- When in doubt to correct fastener, contact fastener manufacturer, or Glen-Gery Corporation.

Veneer

- Veneer colors may vary in shade and texture. Mock-up panels are suggested prior to installation.
- Brick or stone should be applied from 2 to 3 skids at one time so that a blend of color ranges may be achieved.

WATER INFILTRATION BARRIER

- Barrier shall meet all building codes, project specification requirements and *Glen-Gery Thin Tech™* requirements.

FLASHINGS AND TRIMS

- Material shall meet building code and project specification guidelines.

CAULKING

- As per project specifications and building codes.

CLEANING AGENTS

- As per veneer manufacturers specifications and guidelines for installation.

STARTING POINT

- Establish master row.
- Start at the outside corner of the wall.
- Apply corner brick or stone to the wall alternating the long and short legs to maintain running bond pattern.
- Run one row of veneer the length of the wall to the next outside or inside corner, under or over window or door line with a 3/8" joint opening between veneers.
- For veneers not using corner pieces, the wall will be started with a full brick or stone for the master row, the next course is started with a half piece.
- To install brick vertically, creating a soldier course, flatten two rows of relief angles into openings, and install brick vertically into place (for 8" length units).
- Veneers should be stopped 1/4" to 3/8" from door or window trims.

CUTTING

- Score brick to 1/4" depth with masonry blade of circular or cut off saw on face of brick. Break scored pieces off with tile nippers. **Use protective eye wear and gloves when cutting.**
- Stone should be cut with a powered wet saw or circular saw with a masonry blade. **Use protective eye wear and gloves when cutting.**
- Install factory edges so as to be seen.
- If possible, grout joints should not be placed directly over panel seams or joints.

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ADHESIVE OR MASTIC

- Apply quarter-size dabs of adhesive on each back end of the brick.
- **Never stream adhesive.** This will cause a damming effect, stopping moisture from running downward.
- When applying to corner brick, apply one dab on each end of the leg, and one dab on the head of the brick.
- Too much adhesive will cause the brick to push forward away from the wall. Vent the mastic by pulling the brick away from the panel for a few seconds. Then push the brick back in place. This allows solvent to escape faster and the mastic to become tackier.
- Mastic if kept warm can be applied to brick at 20 degrees (F) and rising. Mastic in hot weather can form a film. Slide brick on panel to break surface film and achieve a good bond. In direct summer heat, mastic will most likely have to be vented to release solvent faster to allow mastic to have a tackier set.

MORTAR

Field Mix Formulas

Option 1 – 1 bag of pre-mixed Portland/Lime/Latex Additive Mix.
(Just add water.)

Option 2 – 1 part Portland Type 1; 1 part hydrated lime; 2 to 3 parts sand.

Option 3 – 1 80 lb. bag of Mortar Mix Type S; 2 to 3 parts sand.

- Screen mortar mix dry, through 1/4" screen cloth. This will stop lumps or stones from plugging the tip.
- Screen part of the wet mortar mixture through a 1/4" screen cloth into a mortar tub to eliminate lumps.
- Add additional water to screened mortar mix, if needed, so that the consistency is that of a milkshake, or so it just drips through the tip of the grout bag.
- Adding too much water will liquefy the mortar mix, not allowing for proper application.
- Fill 4 feet of horizontal joint courses first. After every fourth row, fill vertical joint. This will allow wall to dry evenly. Fill in all voids with damp mortar previously struck from wall.
- Over-fill the joint with mortar. As the mortar dries it shrinks due to water volume loss.
- When mortar becomes thumbprint dry to the touch (like wet beach sand), strike the joint with a slicker or jointer tool to pack the mortar in the joint (This will lock the mortar through *Glen-Gery Thin Tech™* support relief tie).

- Struck mortar should be dry enough to fall away clean and tooled to a dull, gritty finish, not wet and shiny.
- Upon initial set, brush excess mortar out of brick or stone face if necessary with a flat natural bristle brush. Be careful not to drag mortar out of joint or smear to wet mortar onto masonry surface.
- Setting time will depend on drying conditions. In very hot weather, dampen brick or stone to prevent rapid absorbency of moisture from mortar.
- **Do not install mortar in temperatures below 40 degrees (F).** Use only approved grout.
- **Do not use winter additives.**
- Keep brick or stone as clean as possible. This will reduce the time needed for the cleaning process.
- For *Elite Panel*, **do not fill mortar joints above starter angle** (see air vent detail).

Note: Thin hairline cracks can occur in the grout joints for several reasons including striking too early, excess water in the grout mix, too rapid of grout curing in extremely hot, dry weather, and movement of the substrate. These small cracks will not effect the performance of the product and can be minimized by striking at the appropriate time, using a proper mix, and in weather above 70 degrees (F), wetting grouted surface daily for several days following grouting so as to extend the grout tempering process. Also, avoid walls which will be subjected to impact from within due to drywall or cabinet installation within one week of grouting. Prefabricated walls systems should be allowed to set for one week following grouting for shipment.

CLEANING

- Glen-Gery Corporation recommend cleaning brick or stone between 2 and 6 days (never to exceed 10 days).
- BIA Tech Bulletin #20 offers guidelines in the cleaning of masonry products.

CAUTION: DO NOT USE ACID BASE CLEANERS. PLEASE FOLLOW THE RECOMMENDED CLEANER AS PER THE MANUFACTURERS SPECIFICATIONS.

For any questions or concerns please call 800-854-4780.

- All manufacturer approved components of the *Glen-Gery Thin Tech™ System* (see warranty) must be purchased through an authorized dealer and installed by an authorized installer for warranty to be valid.