Tile Procurement, Layout and Batch Control

Ceramic, porcelain and natural-stone choices; intended use, joints, installation systems, grid quantities, carton rounding and receiving records for project buyers.



Official George Group Foshan tile display. The photograph shows a selection setting, not a completed customer project, product test or stock record.

NOVARMIA White Paper Series | Production 07 | Series reference WP-05

English edition 1.0 | October 2026

The governing decision

Order the selected tile and installation scope for a defined zone and layout. A room area, porcelain label or attractive sample cannot alone determine safe use, cut quantities or batch acceptance.

Six decisions that belong in the tile order

Decision	Why it changes the purchase
Surface and exposure	Wall, dry floor, wet floor, exterior and immersion are different use briefs.
Exact tile and finish	Body, surface, format, work size, edge and thickness must identify the actual selection.
Evidence and installation system	The test/use declaration and substrate, bond, waterproofing and movement details need compatible scope.
Appearance and batch	A sample set, design faces, shade, caliber and lot requirements control different aspects of the delivered surface.
Layout and quantity	Grid orientation, joints, perimeter conditions, openings, cuts, spares and whole-carton rounding change demand.
Commercial and physical scope	Tile-only and installed-system offers are different purchases; arrival and acceptable condition are different records.

This guide is for owners, architects, contractors, installers and procurement teams coordinating bonded tile floors and walls. It provides sourced purchasing analysis and explicitly assumed teaching calculations. Roof tiles, pedestal paving engineering and structural facade design are outside its calculation scope.

NOVARMIA is a new brand within GEORGE Group. Public group records retain their source and original brand. This publication does not create new NOVARMIA laboratory results, product certifications or customer-project outcomes. Actual contracts identify the responsible supply and installation parties.

Contents

Section	Decision
01	Read actual group records and select the material/use
02	Resolve performance evidence, size, shade and joints
03	Coordinate the installation system and layout
04	Calculate area, aligned grid positions and whole boxes
05	Normalize commercial scope and preserve batch/receipt records
06	Use the editable zone, grid and receipt worksheets
Reference	Working terms, sources and image credits

Separate the identifiers

A product code identifies the tile; a Zone ID identifies where it is specified; a revision identifies the current selection/layout; shade, caliber and lot references identify the actual supplied production groups. One product code cannot replace all of those records.

Real George tile records are a starting point for selection

Actual public record	What was read	How to use it
George Ceramic catalog [G01]	The catalog lists ceramic rustic tile 13065, 23030 and 30036 with 300 × 300 mm in their product titles.	Use the exact catalog reference to request the current model sheet, sample, intended use and batch/packing information.
George Ceramic wood-look category [G03]	The category lists 150 × 800,150 × 900,200 × 1,000 and 200 × 1,200 mm format routes.	A wood appearance is not a body classification or performance report; identify the exact product and material.
George Buildings tile selection [G02]	The current guide separates floor/wall, wet/exterior and immersion questions, with sample, quantity and packing decisions.	Organize the request by actual zone and exposure, then establish the selected model and installation scope.

The catalog titles above are verified public references, not measured work sizes or current inventory. Their individual product bodies could not be retrieved during this research; no absorption, slip, thickness, box count or certification is attributed to those model numbers here.

Broad category descriptions do not prove every listed format has the same body, finish or approved use. Keep current technical data with the exact model rather than treating a category heading as a test report.

Turn a style reference into a specification

A wood-look or marble-look request needs a selected code, body, finish, size, edge and use. A visually similar replacement must be reviewed again against those fields.

Compare ceramic, porcelain and natural stone by the use brief

Alternative	Reason to consider it	Tradeoff and conclusion
Non-porcelain ceramic wall tile	A particular glaze, relief or decorative format suits an interior wall.	Use it on a floor or outside only with evidence for that actual application; wall appearance does not establish floor performance.
Porcelain tile	A named low-absorption ceramic product offers the required design and documented use.	The body classification does not settle surface friction, freeze exposure, strength, installation or care by itself.
Natural-stone tile	The design values real geological variation and the selected stone/finish is appropriate.	Review the actual stone, finish, absorption/condition and chemical/care implications; a stone-look porcelain is a different material.

TCNA’s porcelain certification explanation ties the porcelain classification to water absorption of 0.5% or less by ASTM C373. It describes independent verification of that criterion. That is useful evidence about the body, not a complete approval for every floor, wall, pool or exterior system. [T02]

Natural Stone Institute guidance distinguishes acid-sensitive calcareous stone from siliceous stone and says impregnating sealers improve stain resistance rather than make stone stain-proof. A sealer does not turn marble into an acid-proof kitchen floor. [T07]

Resolved choice

For a wet entry, select a product/finish with the appropriate documented use and maintainable installation. For a decorative dry wall, the selected glaze and appearance may govern instead. Use conditions decide which comparison matters; porcelain is not a universal ranking above every other tile.

Absorption, surface performance and installed waterproofing are different

Evidence or property	What it answers	What it does not answer
Water absorption/body classification	The tested material’s absorption under the named method and classification basis.	Slip behavior, a leak-free assembly or every climate/application.
Product-use/slip evidence	The declared use category, test method/conditions and exact finish being evaluated.	A prediction that nobody will slip or approval for every contaminant, ramp or maintenance regime.
Wear, chemical and mechanical evidence	The particular tested characteristic and model/surface in the report.	An unlimited service life or permission to use another finish/format.
Waterproofing and installation records	The selected assembly’s continuity, interfaces and actual site checks.	A property inferred merely from buying porcelain or choosing a dense grout.

A product certificate must be matched to the current manufacturer/model, size/finish where relevant, method and intended use. An absorption statement copied from a category page is not a laboratory result for the selected lot. No GEORGE PTCA status is asserted in this publication.

A resolved evidence conflict

If the approved sample is polished but the supplied use declaration covers the textured version, keep the selection on hold. Obtain applicable evidence or select the documented finish. A common collection name cannot close the difference.

Read DCOF with the actual use category and conditions

TCNA's public DCOF FAQ distinguishes a coefficient measurement from slip resistance and slip prediction. It presents Interior Dry, Interior Wet, Interior Wet Plus, Exterior Wet and Oils/Greases categories; several rely on manufacturer declaration rather than one universal numeric threshold. It also says those five categories do not address ramps/inclines. [T01]

Project condition	Selection consequence
Dry public interior	Identify the exact declared use and how the operator will keep that intended condition.
Wet entrance or toilet room	Review the stated wet-use evidence and actual water/contamination, drainage and cleaning conditions.
Barefoot shower or pool surround	Resolve that specific exposure and declared use; do not transfer a general interior-floor result.
Exterior or oily service area	Obtain the manufacturer's actual applicable declaration and supporting selection basis.
Ramp or incline	Seek the specific project requirement and evaluation; do not treat one of the five categories as automatic ramp approval.

The product, finish, test conditions, footwear/contaminants and maintenance plan must agree. A matte label, rough feel or one coefficient does not establish a complete project safety decision.

Method boundaries

This guide relies on the actual TCNA public overview of A326.3, including its stated edition context. It does not claim to reproduce the full standard or supply conversions between DCOF and other regional slip classifications.

Nominal size, work size and caliber change the grid

Term	Purchasing meaning
Nominal size	The named format, which must not automatically be used as the exact dimension in a layout.
Work size / actual supplied dimensions	The declared or verified dimensional basis used in the selected joint/layout plan.
Caliber	A production sizing reference that must be reconciled where tiles are installed together.
Rectified edge	A manufacturing edge-finishing description, not permission for a joint-free installation.
Thickness and total build-up	Tile thickness plus the actual bond/system layers and substrate interface.

Crossville explains calibration as sorting fired tiles by finished size and rectification as mechanically finishing fired edges. It highlights caliber matching in mixed-color layouts and still recommends grout joints for rectified products. Its own sizing/joint recommendations are not adopted as GEORGE defaults. [T04]

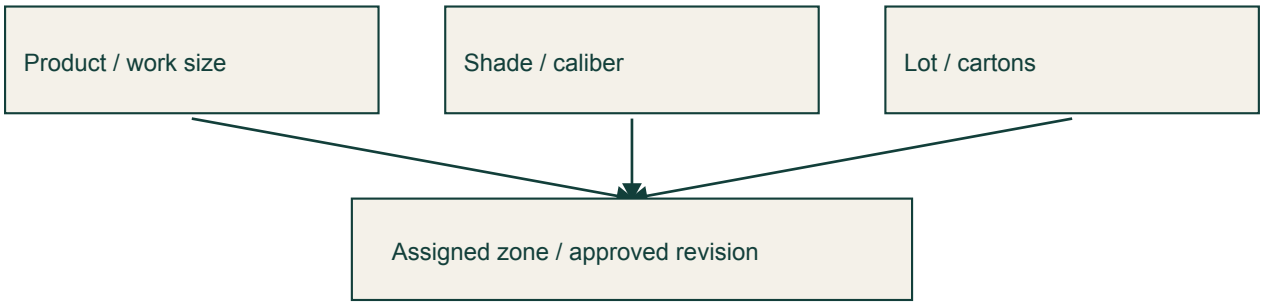
Resolve an alignment conflict

Two nominal 600 mm products with different actual dimensions can drift across a continuous grid. Either select a documented compatible size/caliber combination or revise the module/joint arrangement. Widening a single joint after delivery is not a resolved multiroom layout.

Worked module used later

The teaching calculations use an explicitly assumed 600 mm work size and 3 mm joint, not the catalog’s nominal 300 mm examples or a universal joint recommendation.

Approve a sample range and retain the batch references



A selected product/finish and accepted sample range connect to actual shade, caliber and lot references, then to the zone and revision. The arrows are record relationships, not an automatic batch-matching test.

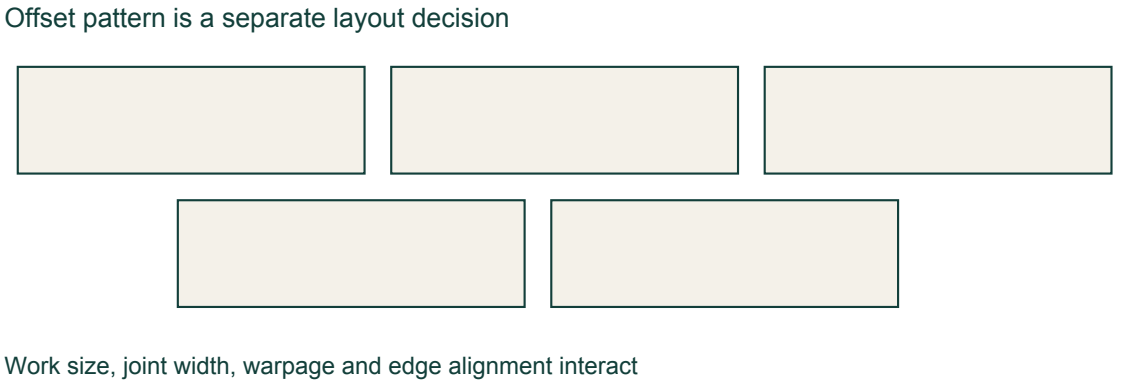
Record	What it controls
Sample set	The intended color/texture/variation and selected grout beside adjacent materials.
Design faces and orientation	Which graphics may appear and how repetition, rotation and direction are handled in the actual layout.
Shade and lot requirement	Whether adjoining zones need the agreed same production group or an accepted documented blend.
Caliber/work-size reference	The size basis needed for the selected grid and mixed-format alignment.
Spare and later-phase identity	Which retained pieces belong to which product, finish and batch, for a future inquiry or replacement.

A single sample can show a local face, but cannot demonstrate every face or the appearance of a full floor. Review representative pieces in the intended lighting, agree the appearance range and retain the actual decision. The George Buildings tile guide specifically connects model, shade/batch and representative samples to the order. [G02]

Resolve the continuity requirement

For a visually continuous room group, reserve and record the agreed batch/size basis before splitting deliveries. If a different batch is proposed later, review an actual comparison and transition plan; a matching product code alone does not establish identical appearance.

Grout joints, movement joints and lippage are separate decisions



Illustrative offset layouts and edge relationships. No depicted offset or joint width is a recommended default; the selected tile, manufacturer instructions and mock-up govern.

Daltile's large-format guidance explains why a half-length offset can place the bowed center of one tile beside a lower end of another, increasing apparent unevenness. This supports reviewing actual tile geometry, joint and pattern together. It does not establish a universal GEORGE offset or lippage tolerance. [T05]

Decision	Consequence
Grout joint	Accommodates the agreed module and actual tile geometry; edge finish alone does not eliminate it.
Movement joint	Has a specific movement/detail function and must be coordinated with the substrate and installation system.
Lippage/appearance review	Considers adjacent edges, actual substrate/tile geometry, installation and lighting.
Layout mock-up	Shows the selected offset, grout, edges and lighting before repetition.

Resolve a pattern conflict

If the desired 50% visual offset conflicts with the selected tile manufacturer's actual instructions or accepted mock-up, choose a documented alternative pattern or another tile. Leveling accessories do not replace a resolved substrate, product and layout decision. A grout joint should not be mistaken for every required movement joint.

Specify a compatible substrate, bond and finish assembly

Selected wet-area assembly: interfaces and seams matter



Tile alone does not define the complete water-management system

Schematic selected wet-area assembly: tile finish, bond layer, waterproofing and supporting substrate. Exact layers/order and compatible products belong in the actual system detail.

Layer or responsibility	Decision before tile release
Supporting substrate	Actual structural condition, plane, cracks/joints, moisture and preparation basis. Flatness and a designed drainage slope are different requirements.
Adhesive/mortar	Named product/system appropriate for tile material, size, surface, substrate and exposure.
Waterproofing or uncoupling	The required function, named product, seams, transitions and manufacturer compatibility. These functions are not interchangeable labels.
Grout, sealant and trims	Actual joint role, selected product/color, movement/interface details and care.
Installation and verification	Qualified responsibility for preparation, support/contact checks, applicable testing, protection and acceptance.

Crossville’s named installation checklist separates substrate preparation, compatible installation materials, layout/lighting, movement joints, mortar support and waterproofing checks. The read document is a 2022 manufacturer checklist for its stated porcelain scope; none of its numeric installation values is used here as a universal requirement. [T06]

Resolve the supplier boundary

If tile supply excludes substrate repair or waterproofing, allocate those tasks explicitly. A tile-only price cannot be treated as a quotation for a complete installed system.

Wet rooms and exterior zones need their own system decision

Schluter's DITRA/DITRA-XL FAQ describes waterproof matting while requiring the named system's seams and floor/wall connections to be sealed to create the waterproof assembly. This is a useful product-versus-assembly distinction, not a claim that every project must use DITRA or that tile/grout alone waterproofs a room. [T03]

Use	What must be resolved together
Shower or wet floor	Actual tile/finish use, substrate/slope, waterproofing continuity, drain/penetrations and serviceable interfaces.
Pool interior	The selected tile and full installation system must have evidence/recommendations for immersion; pool-surround suitability is a different question.
Exposed exterior	Climate including freeze/thaw where relevant, wet-use evidence, substrate/drainage, movement, compatible bond/grout and protection/maintenance.
Transition to interior	Finished levels, threshold, water management, doors, joints and the different surface selections.

Resolve the polished-outdoor request

If the desired polished selection lacks evidence for the actual exterior exposure, do not infer suitability from low absorption. Choose a documented finish/product or revise the exposure/design. Recheck the entire assembly rather than simply replacing the surface name.

System evidence

Record the actual manufacturer recommendations and responsible project detail. A single absorption or friction value cannot specify drainage, waterproofing, freeze exposure or bond performance.

Set the grid around focal lines and real boundaries

Layout choice	Tradeoff to resolve
One edge aligned	Simple setting-out can leave the final cut concentrated at the opposite edge.
Centered field	Balances edge cuts but can change individual cut widths, focal alignment and cut reuse.
Doorway or adjoining-zone alignment	Visual continuity competes with room proportions, actual dimensions and movement/transition details.
Offset, diagonal or mixed-size pattern	Requires its own repeat/cut plan; a straight rectangular grid is not that plan.
Drain, niche and opening	The actual boundary interrupts the grid and can create edge/corner pieces, slopes and penetrations.

Resolve the layout on the actual finished dimensions and selected work size/joint. A repeating decorative face should also be placed deliberately; several graphic faces do not guarantee a continuous vein.

Define the quantity basis

The companion grid calculation uses one aligned rectangular field, one orientation and one source tile per grid position, with no cut reuse. It is a transparent counting assumption. An installer’s actual cutting plan may use a different quantity if cuts can be reused or if the pattern, direction and openings require more pieces.

A quantity change needs a cause

Separate a layout-derived piece count, explicit spare pieces and carton-rounding surplus. A blanket waste percentage hides which of these changed.

Teaching area: the room and the tiled field differ

All dimensions in this worked sequence are assumed millimeters, not GEORGE product or project data. Overall room length 3,600 and width 2,800 give 3,600 × 2,800 ÷ 1,000,000 = 10.08 m². There are separate 5 mm allowances at left, right, top and bottom.

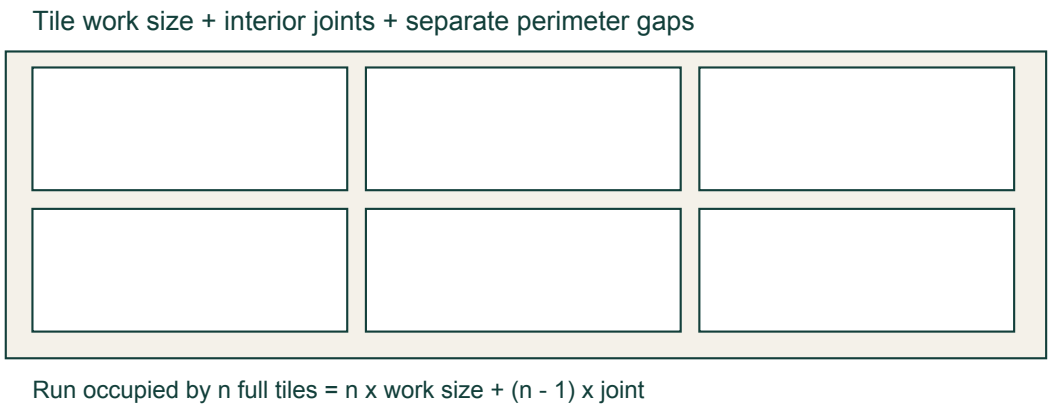
Calculation	Result
Net length = 3,600 − 5 − 5	3,590 mm
Net width = 2,800 − 5 − 5	2,790 mm
Net rectangular field area = 3,590 × 2,790 ÷ 1,000,000	10.0161 m²
Assumed single tile face = 600 × 600 ÷ 1,000,000	0.36 m²
Net field area ÷ tile face area	27.8225 tile-face areas; rounding gives 28, but this is not the grid count.

Perimeter allowances are deducted once. The selected joint is handled inside the grid formula, not subtracted again from the room or confused with tile face width. The worksheet does not verify that these assumed allowances meet the actual movement-joint detail.

Area has a narrower purpose

Area can support a scope or unit conversion discussion. It cannot determine the number of cut source tiles for a particular layout. The next page derives that count from the two axes.

Teaching grid: count the n − 1 interior joints



One aligned field uses tile work size plus interior joints, with perimeter allowances separate. The formula counts one source tile for each position and does not optimize offcuts.

For n tiles along an axis, full uncut extent = n × work size +(n − 1) × joint. The smallest count able to cover a net axis is CEILING((net axis +joint) ÷ (work size +joint)). Use the net 3,590 × 2,790 field, assumed 600 square work size and 3 mm joint.

Axis	Calculation	Count
Length	CEILING((3,590 +3) ÷ (600 +3)) = CEILING(5.9585…)	6 columns
Width	CEILING((2,790 +3) ÷ (600 +3)) = CEILING(4.6318…)	5 rows
Positions	6 × 5	30 source-tile positions

The net-area-only rounding was 28 tile-face areas; the declared grid requires 30 source tiles under the one-source-per-position assumption. That two-piece difference arises from layout, not from a claimed industry waste factor.

Joint boundary

Six 600 mm tiles with five 3 mm joints span 3,615 mm, not 3,618. Adding a joint after the final tile would misstate this field. The selected perimeter detail is separate.

Resolve the edge cuts and the rounding boundary

Assumed aligned setting-out	Derived result
Six-column uncut extent	6 × 600 +5 × 3 = 3,615 mm; excess over 3,590 is 25 mm.
Five-row uncut extent	5 × 600 +4 × 3 = 3,012 mm; excess over 2,790 is 222 mm.
One edge aligned; final column piece	3,590 − 5 × 600 − 5 × 3 = 575 mm.
One edge aligned; final row piece	2,790 − 4 × 600 − 4 × 3 = 378 mm.

These are simplified cut widths, not an approved cutting file. The corner needs both cuts; actual cutting allowances, usable edges, graphic direction and the installation detail remain in the cut plan. The workbook does not calculate these cut widths or decide offcut reuse.

Change one input at the boundary

For the same 600 work size and 3 joint, a net length of 3,615 needs exactly 6 positions. A net length of 3,616 requires 7 in this covering formula. The difference is a new position, not proof that a 1 mm sliver is a workable design. Rebalance the layout or revise the actual detail before ordering from that result.

Why the boundary matters

A one-millimeter input or work-size change can change a rounded count. That is a reason to verify the measurement and layout basis, not to hide the result with a percentage.

Openings and pattern changes need a separate cutting plan

Subtracting a door/window area from an elevation does not show which tile positions disappear completely or which become cut pieces. A small opening through one tile can remove area while still consuming that source tile. A cut edge may also be unusable elsewhere because of direction, finish or shape.

Changed condition	What must be reviewed
Door, window or niche	Actual grid intersection, reveals/returns, edge pieces and usable cut remnants.
Diagonal or herringbone	The pattern repeat, edge cuts and intended orientation; the supplied aligned-grid count is outside scope.
Two colors or mixed formats	Separate model/caliber module, pattern ratio, piece counts and box rounding for each item.
Mosaic sheets	Sheet/module dimensions and inter-sheet joints; individual tessera count is a different unit.
Steps, skirting or trims	Actual pieces, edges/corners and installation details, separately identified in the purchase.

Resolved counting decision

Use the grid tool only for its declared rectangular case. For a mixed-format or opening-heavy elevation, retain the reviewed layout/cut plan and enter the actual required items through the order records. Do not advertise a simple area or rectangle formula as a pattern optimizer.

Keep units physical

Boxes, sheets, individual tiles, linear trims and finished pieces are not interchangeable. Define what a counted piece means for every order line.

Add explicit spares, then round to whole boxes

Continue the assumed 30 source-tile grid. The buyer/installer explicitly agrees 2 additional spare pieces: planned pieces = 30 +2 = 32. The selected product's assumed pack contains 6 pieces; whole boxes = CEILING(32 ÷ 6) = 6 and order pieces = 6 × 6 = 36.

Quantity layer	Pieces	Reason
Grid positions	30	Declared one-source-tile-per-position layout assumption.
Explicit spares	2	A visible project input, not a default waste percentage.
Planned demand	32	Grid plus the explicit spares.
Box-rounding surplus	4	36 ordered minus 32 planned.
Whole-box order	36	Six assumed boxes of six.

With 4 pieces per box instead, the same 32 planned pieces require 8 boxes and exactly 32 order pieces. The packing input changes the commercial quantity without changing the room layout. Confirm the actual pieces per box and any carton-area basis for the selected product.

Record the purpose of extras

Retain the intended spare stock and its batch identity. Carton rounding is not an additional percentage to apply again, and spare pieces should not be silently duplicated across zones.

Compare complete tile and installation scopes

Scope line	Basis that needs to match
Tile	Exact code, material, size/work size, finish, edge, thickness, sample range and applicable evidence.
Quantity and price unit	Physical pieces/sheets, boxes and quoted area basis; layout allowance, spares and rounding visible.
Setting system	Substrate preparation, repair, membrane, adhesive, grout, movement/sealant joints and trims as applicable.
Execution and acceptance	Layout/mock-up, cutting, installation, relevant checks, protection, cleaning and responsible parties.
Packing and logistics	Actual cartons/pallets, batch segregation/labels, trade terms, named place and delivery exclusions.

Resolve the unequal offers

Offer A covers the selected tile in cartons; offer B also covers membrane, setting materials and installation. They are not comparable complete-system totals. Obtain a common tile-only basis or a defined installed-system basis, then list unresolved model and work differences before comparing amounts.

If one supplier quotes by nominal carton area and another by pieces, reconcile the actual packaging and agreed unit basis first. A mathematical area conversion does not prove equal physical contents or scope. No market price, saving, MOQ or lead time is inferred here.

Document capability

The workbook records product/scope references and pieces/boxes. It contains no price, freight, tax or automatic commercial-normalization calculator.

Inspect labels and preserve the actual batch on arrival

Receipt evidence	What it needs to retain
Carton and pallet identity	Product/finish, actual shade, caliber and lot references, package quantities and order line.
Visible condition	Damaged packaging, chipped/broken pieces and the agreed scope of product inspection.
Sample and size comparison	Actual selected pieces versus the agreed reference and measurement basis, with recorded observations.
Batch segregation	Which received groups are assigned to which zones/phases; mixed or unexpected labels need a decision.
Exception and disposition	Affected count, photos, actual acceptance/exclusion and correction/replacement documents.

Teaching order:36 tiles. First event receives 24 and accepts 22; second receives 12 and accepts 12. Gross received = 36; accepted = 34; acceptable shortfall = 2. A final-delivery declaration does not make the two damaged pieces acceptable. If an actual accepted two-piece replacement arrives, gross becomes 38 and accepted 36.

Retain the batch/shade/caliber reference for every event. Thirty-six acceptable pieces from an unreviewed mixed batch may still fail the appearance requirement; a count total cannot perform that comparison. The workbook records references and human review rather than reading carton labels or automatically matching lots.

Separate later events

A real replacement is a distinct physical arrival. Preserve the original damage record and actual returns/disposition documents instead of overwriting history or counting the same arrival twice.

Release the current sample, layout and system together



Official George Buildings factory-page montage showing tile manufacturing scenes. It does not establish current ownership, plant capacity or production/testing of the reader's selected tile.

Release record	Reason to hold if unresolved
Product and finish	The proposed tile differs from the sample or its applicable use evidence.
Work size, joint and layout	The delivered caliber cannot follow the agreed module or an edge cut/pattern remains unresolved.
Substrate and system	Preparation, compatibility, waterproofing or movement detail is incomplete.
Batch and quantity	Unexpected shade/lot, unconfirmed pack count or duplicated spare allowance.
Actual inspection/acceptance	The agreed observations and checks have not been performed or recorded.

A revision should identify affected zones, product/finish, grid/joint, installation system, quantity, evidence, cost and timing. Keep previous decisions retrievable. A color approval does not release a changed exterior application or waterproofing detail.

Crossville's checklist emphasizes mock-up, layout/lighting, blending and checking actual installation conditions. These are distinct tasks; a production montage or showroom sample is not proof that the reader's installation has passed them. [T06]

Protect the agreed surface

Keep the selected manufacturer's care and site-protection instructions with the handover records. Cleaning or coating changes can affect the actual surface/use decision and should not be introduced as generic finishing shortcuts.

Tile Zones: one zone, revision and reference chain

The companion XLSX has three worksheets and six work areas, with 50 input records per work area. It records floor/wall zone specifications, technical references, an aligned rectangular grid and box calculation, and physical receipts. It contains no prefilled product settings, default waste percentage or certified test result.

Worksheet / header row	Actual fields and purpose
Tile Zones / 7	Zone ID, location, Floor/Wall, product reference, specification revision, work-size/caliber, shade/lot requirement, use/performance and layout/joint references.
Tile Zones / 67	Zone ID/current revision, substrate/adhesive system, waterproofing, sample/lot review and technical evidence references; human decision, reviewer/date and actual record.

Recorded and Hold describe a user’s documented decision. Row completeness is not an approval of slip performance, waterproofing, substrate strength or installation. Keep the actual documents behind the references, including the intended-use decision for the exact finish.

Change the current basis deliberately

A new product, caliber, finish, layout or system can affect more than quantity. Renew the current zone revision and affected technical, grid and receipt/order references where the actual specification changes.

Grid & Boxes: one aligned rectangle and explicit inputs

Work area / header row	Actual function
Grid & Boxes / 7	Grid ID, zone/current revision, mm or in, overall length/width, separate left/right/top/bottom gaps, tile work length/width, joint width and measurement/size reference.
Grid & Boxes / 67	Grid ID, explicit spare pieces, pieces per box and layout/cut-plan reference; calculated net axes, columns/rows, positions, planned pieces, boxes, order pieces and unit/state.

Enter overall 3,600 × 2,800 mm, four 5 mm gaps, work 600 × 600 mm and joint 3 mm. The net field is 3,590 × 2,790; the calculation gives 6 columns and 5 rows, or 30 positions. Enter Explicit spare pieces 2 and Pieces per box 6:32 planned,6 boxes and 36 order pieces.

The formula uses n − 1 interior joints and deducts perimeter gaps once. It assumes one source tile per position, one orientation, no offcut reuse and no openings. It does not calculate edge-cut widths, balanced layouts, diagonal/staggered patterns, mixed formats or a cutting optimum.

A referenced cut plan remains necessary

The calculated count is valid only for the entered assumptions. Review the actual cut plan before turning it into an order. Each work area has 50 rows; extending the template requires formula, validation and link review.

Receipt: reconcile physical pieces and retain batch references

Work area / header row	Actual function
Receipt / 7	Order Line ID, zone/current revision, Product / lot scope reference and Purchase order reference, ordered pieces and final-delivery declaration; linked received, accepted and outstanding totals.
Receipt / 67	Unique event ID, order line/current revision, receipt date, actual batch/shade/caliber reference, received/accepted pieces, damage/exclusion reference or None, inspection reference and reviewer/date.

For the 36-piece example, enter 24 received/22 accepted and 12 received/12 accepted. It remains 36 gross received and 34 accepted, with 2 acceptable pieces outstanding. A real 2/2 replacement event makes gross 38 and accepted 36. Retain the original event, actual lot reference and disposition documents.

Use physical pieces consistently. For mosaic sheets or defined assemblies, state the counted unit in the product/scope record and reconcile package contents. The worksheet does not transform area, sheets and individual tiles into one another or certify that two recorded lot references match.

Capability boundary

This is a physical-count ledger with reference fields, not a full return/refund account, automatic batch scanner, installation sign-off or certificate validator. It does not synchronize CAD, supplier or purchase-order systems. Native Microsoft Excel has not been tested for this release; available-engine functional checks are recorded separately.

Working glossary

Term	Meaning in this book
Ceramic / porcelain	A broad fired-tile family / its absorption-based classification under the stated test basis.
Nominal / work size	Named format / stated dimensional basis used in the selected layout.
Caliber / shade / lot	Sizing reference / appearance reference / production grouping; retain the actual supplier identifiers.
Rectified / calibrated	Mechanically finished fired edges / size-sorted fired tile; neither means joint-free.
Design face	One graphic within a printed design set; it does not guarantee a continuous vein.
Grout / movement joint	Tile-field joint / a detail serving required movement; their functions must be resolved separately.
Lippage	Height difference between neighboring tile edges; actual evaluation depends on the selected installation basis.
Grid positions / planned / order pieces	Declared one-source-per-cell count / grid plus explicit spares / whole-box quantity.
Received / accepted	Physical arrivals / pieces acceptable under the recorded review.

Sources and scope notes

[G01] George Ceramic - Ceramic Tile Collections

https://georgeceramic.com/product/

Actual public catalog entries with 300 × 300 mm in their titles. Individual model bodies unavailable; no technical property, work size, box count, availability or certification inferred.

[G02] George Buildings - Porcelain & Ceramic Tiles for Your Project

https://georgebuildings.com/tiles/

Public category sourcing and order-record scope. No corporate statistics, universal performance, MOQ, lead time or product test assigned.

[G03] George Ceramic - Wood Like Tile

https://georgeceramic.com/wood-look-tile/

Public 150 × 800, 150 × 900, 200 × 1,000 and 200 × 1,200 mm format routes. Category is not an exact product body or test report. Generic property, price and absorption statements not transferred to individual models.

[G04] George Group Foshan - George Group Foshan Official Showroom

https://georgegroupfoshan.com/george-group-foshan/

Official tile-display image context. Not a completed project, current model availability or test result.

[G05] George Buildings - Factory Tour

https://georgebuildings.com/about-george/factory/0/

Official tile manufacturing montage. Asset has a 2024 media path; not independent evidence of current ownership, capacity, selected-model production or certification.

[T01] Tile Council of North America - Dynamic Coefficient of Friction — Frequently Asked Questions

https://tcnatile.com/dynamic-coefficient-of-friction-frequently-asked-questions/

Use categories, manufacturer declaration and project-condition boundaries. Public overview read, not full standard; no global numeric threshold, regional test conversion or GEORGE result asserted.

[T02] Tile Council of North America - Porcelain Certification

https://tcnatile.com/resource-center/porcelain-tile-certification/

Absorption ≤ 0.5% by ASTM C373 and independent verification of that criterion. Not slip, freeze, assembly waterproofing or universal use approval; no GEORGE PTCA status established.

[T03] Schluter Systems - Is it required to waterproof Schluter-DITRA and DITRA-XL?

https://www.schluter.com/schluter-us/en_US/faq/ditra-ditraxl-waterproof

Named matting versus sealed seams and floor/wall connections. Actual body read by independent reviewer; author retrieval partial. No universal assembly or building guarantee transferred.

[T04] Crossville Tile - Understanding the Difference Between Rectified and Calibrated Porcelain Tile

https://www.crossville.com/tile-tech/understanding-the-difference-between-rectified-and-calibrated-porcelain-tile/

Size sorting versus mechanical edge finishing; joints and caliber matching. Crossville numeric tolerances and joint recommendations are not assigned to GEORGE.

[T05] Daltile - Grout Joints for Large Format Tile

https://www.daltile.com/trend-hub/design-ideas-library/grout-joints-for-large-format-tile

Qualitative warpage, offset and lippage interaction. No universal offset, grout width or allowed lippage number adopted; not the full current ANSI installation standard.

[T06] Crossville - Installation Checklist: Porcelain Tile up to and including 24 × 48 inches

https://www.crossville.com/wp-content/uploads/2025/02/Crossville-Installation-Checklist-formerly-Crossville_InstallChkList_Porcelain_Large_Format_Tile_-edited-6-7-22.pdf

Named checklist separates preparation, compatibility, mock-up, movement, contact and membrane checks. 2022 manufacturer checklist; no numeric cure, coverage, slope, joint, test time or spare percentage transferred.

[T07] Natural Stone Institute - Care & Cleaning of Natural Stone

https://www.naturalstoneinstitute.org/consumers/care/

Calcareous/siliceous chemical distinction; sealer improves stain resistance rather than stain-proofing. No universal sealing interval, acid-proofing or selected-stone performance test.

Photo credits and evidence scope

Cover: George Group Foshan official tile showroom. Source: https://georgegroupfoshan.com/george-group-foshan/ [G04]

Production montage: George Buildings official factory gallery,original asset in a 2024 media path. Source: https://georgebuildings.com/about-george/factory/0/ [G05]

The photographs were copied unchanged from the authorized group collection and visually inspected. The collection records WebP conversion and proportional reduction without content editing. Prior publisher processing is not independently known. Display/product availability and manufacturing ownership/capacity remain outside what these images prove.

The four original diagrams explain records,layout and assembly relationships. Assumed teaching dimensions and counts are not model measurements,customer quantities,test results or approved installation drawings.