CAD File Building Elements & Layers

These are the proposed building elements included in Matterport's CAD File Add-on according to the options you select when purchasing:

- Architecture
- Furniture
- Electrical

Please Note: Items referenced below are represented only whenever clearly unobstructed, and clearly visible within scan data. All excluded elements highlighted in red.

Architecture - Standard

NOTE: The Architecture layer is a default option and would be included in all the referenced building element options as standard

Floors

Structure

- General floor assembly will not be provided as part of the 2D deliverable
- Floor Finish Material change (linework / hatching to indicate change in finish only if there is more than one finish. Majority floor finish does not require hatch to ensure plan graphics are not too busy.)

Sloped Floors

- Linework modeled for recognized slopes only
- Linework to indicate start/end of slopes and fall direction arrow

Slab Depressions

- None

Shaft Openings

- Indicated as crossed linework around perimeter of opening

Floor-Ceiling Height

- Labeled as a note in each room
- Floor to Ceiling Height (referred to as CH, where this is unknown 'N/A' should be used)

Columns

Shape & Plan Location

- General shape & location according to plan

Elevation

- Column Elevations will not be provided as part of the 2D floor plan deliverable

Sweeps, Capitals, and Cornices

- None

Structure

Beams & Castellations

- General position of beams represented as dotted line work signifying overhead
- Type of beam and castellations not represented

Ceilings

General

- Ceiling grids typically not represented
- Changes in ceiling height / soffit represented as dotted line work signifying overhead

Walls

Wall Types

- Differentiate between interior & exterior walls

Wall Assembly

- To match scan data for interior walls if scanned, otherwise generic thickness
- No wall layers of assembly

Shape & Plan Location

- General shape and location according to floor plan
- If the walls are slightly off-axis, the walls will be modeled to match scan data

Elevation

- Wall Elevations will not be provided as part of the 2D floor plan deliverable

Interior Details

- No sweeps, cornices, wall finishes, or any custom installation modeled

Doors

Shape & Plan Location

- Placed & sized accordingly, with indication of door swing.

Elevation

- Door Elevations will not be provided as part of the 2D floor plan deliverable

Windows

Shape & Plan Location

- General size and placement in plan. (Including Swings for opening lights)

Elevation

- Window Elevations will not be provided as part of the 2D floor plan deliverable

Sill Height

- Sill Height will not be provided as part of the 2D floor plan deliverable

Mullion Profiles

- Standard profiles; no creation of new profiles; standard corner and exterior mullions

Bathroom Fixtures

Toilets, Urinals & Sinks

- Standard CAD blocks in a proper location
- Sanitary fittings - Toilets, Urinals & Sinks, stalls/ cubicles, grab bars, hooks, diaper changing tables, toilet paper holder, paper towel dispenser/hand dryer
- Plumbing fixtures included as part of millwork furniture (e.g. as kitchen units), will be included in the 'Interior Furniture' add-on listed below.

Stalls

- Standard CAD blocks placed accordingly with scan captured size

MEP Elements (Not included)

- It is recommended customers looking for MEP order a [Matterport BIM file](#).
- Basic representative of overall footprint for items will only be included if they have an architectural effect on how someone would move around a particular space/room.

MEP Equipment

- MEP Equipment will not be provided as part of the 2D floor plan deliverable

MEP Ducts, Conduits, Piping

- MEP ducts, conduits, or any piping lines will not be provided as part of the 2D floor plan deliverable

Stairs

Core & Fire Stairs

- Linework to general shape and location; correct number of rise/tread shown and up arrow indicated.

Other Stairs

- Linework to general shape and location; correct number of rise/tread shown and up arrow indicated.

Railings

- Linework to general location; generic railing representation.

Roofs

General

- Roof plans will not be provided as part of the 2D floor plan deliverable

Exterior Curtain Walls

Shape & Plan Location

- General accuracy of width and location in plan.

Elevation

- Curtain Wall Elevation Height will not be provided as part of the 2D floor plan deliverable

Mullion Profiles

- Standard profiles; no creation of new profiles; standard corner and exterior mullions

Glass

- Modeled from the interior boundary with default thickness provided.

Exterior Elements & Facade

Exterior Elements

- Exterior elements that do not affect interior space are not currently included in the 2D floor plan.

Dormers & Skylights

- Dotted line work included to indicate size and location of overhead skylights in plan.

Rooms

Room Names

- Included as per the Matterport Showcase labels of space (note if labels are not included room names will be generic 'ROOM"
- Room Area
- Overall room dimensions
- Intermediate room dimensions

Furniture

Desks & Tables

Shape & Plan Location

- Model as a generic CAD block with approximate shape & standard sizes
- Placed and located as represented in the scan
- Linework not distinguishable by material

Chairs & Seating

Shape & Plan Location

- Generic CAD block specified by type & standard sizes
- Placed and located as represented in the scan
- Linework not distinguishable by material

Fixed furniture (including cupboards, kitchen units etc)

Shape & Plan Location

- Linework in plan - specified sizes, shape, and location of equipment and associated components as represented in the scan

Loose Cabinets, Countertops & Millwork

Shape & Plan Location

- Linework in plan - specified sizes, shape, and location of equipment and associated components as represented in the scan
- Plumbing fixtures included as part of millwork furniture (e.g. as kitchen units), will be included

Appliance/ Equipment

Kitchen Appliances

- Linework to represent general shape with standard sizes.
- Placed and located as represented in the scan
- Only applicable to large kitchen appliances and built-ins, not small moveable equipment on counters.

Lamps

- Linework to represent general shape with standard sizes.
- Placed and located as represented in the scan

TVS

- Linework to represent general shape with standard sizes.
- Placed and located as represented in the scan

Wall Fixtures

Signage

Artwork

Bespoke Furniture Items

Plumbing Fixtures

- Included when part of millwork furniture e.g. as kitchen units

Electrical

Alarms

- Standard 2D symbol representation; no electrical terms included

Light Fixtures

- Linework as generic with approximate size, shape & location; standard 2D symbol representation; no electrical terms included
- Includes, wall fixtures, downlighters, strip, and pendant fixtures.

Light Switches

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Power / Data Outlets

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan
- Sockets with number of connections denoted

TV Aerial Point

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Heater or Thermostat

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Telephone Point

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Extract Fans

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Heat Detectors

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Door Bell / Chime

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Kitchen Equipment Switches

- Standard 2D symbol representation; modeled only whenever clearly unobstructed, and clearly visible within scan

Radiators

- Linework to represent general shape with standard sizes.
- Placed and located as represented in the scan

CAD Layers

Layers included should be;

- MP_WALL - Walls (Including both internal and external in a single layer)
- MP_WALLPAT - Wall fill or hatch
- MP_CURTAIN_WALL - used for curtain walling
- MP_PLUMBING - including Toilets, Urinals & Sinks, bathroom cubicles and stalls
- MP_DOOR - Doors including swing
- MP_WINDOW - Windows including swings for opening lights. Note rooflights etc should still be contained in the appropriate windows layer with alternative dashed line and color
- MP_MULLION - used indicate mullions on windows
- MP_FLOOR - changes in floor finish / material (including hatching for tiled areas)
- MP_FURNITURE - Fixed and loose furniture items
- MP_ELECTRICAL - All electrical items outlined in Electrical option
- MP_MECHANICAL - large fixed MEP elements which have an impact on the layout / architecture of the space, should be included as basic representations of their overall shape / footprint.
- MP_DIMENSION - Intermediate Room Dimensions (wall to wall to extents, etc)
- MP_OVERHEAD - dashed line work representing overhead elements. Note rooflights etc should still be contained in the appropriate windows layer
- MP_DASH - used for dashed linework at floor plan level
- MP_TEXT - Room Names - Layer should include room names (only included if the customers showcase space has labels, otherwise noted as 'ROOM'), overall room dimensions, floor to ceiling height (CH) & room area included.
- MP_PAPER - Matterport drawing template
- MP_AREA - Polylines used to calculate room areas - layer turned off as standard.
- MP_STAIRS - staircases generally
- MP_RAILING - railings for ramps, staircase, balconies etc
- MP_PATTERN - used for hatching
- MP_CEILING - used for reflective ceiling plants to indicate differences in ceiling layout/buildup
- MP_MISC - layer for any remaining items
- MP_STRUC_STEEL - steel structures
- MP_STRUC_STEEL_OVERHEAD - steel structures overhead
- MP_SHORT_WALL - short walls (Pony walls)
- MP_VIEWPORT - viewport layers

- 0 - default CAD layer
- Defpoint - default CAD layer

Layer colors and line weights should be drafted using [ISO 13567 standards](#).