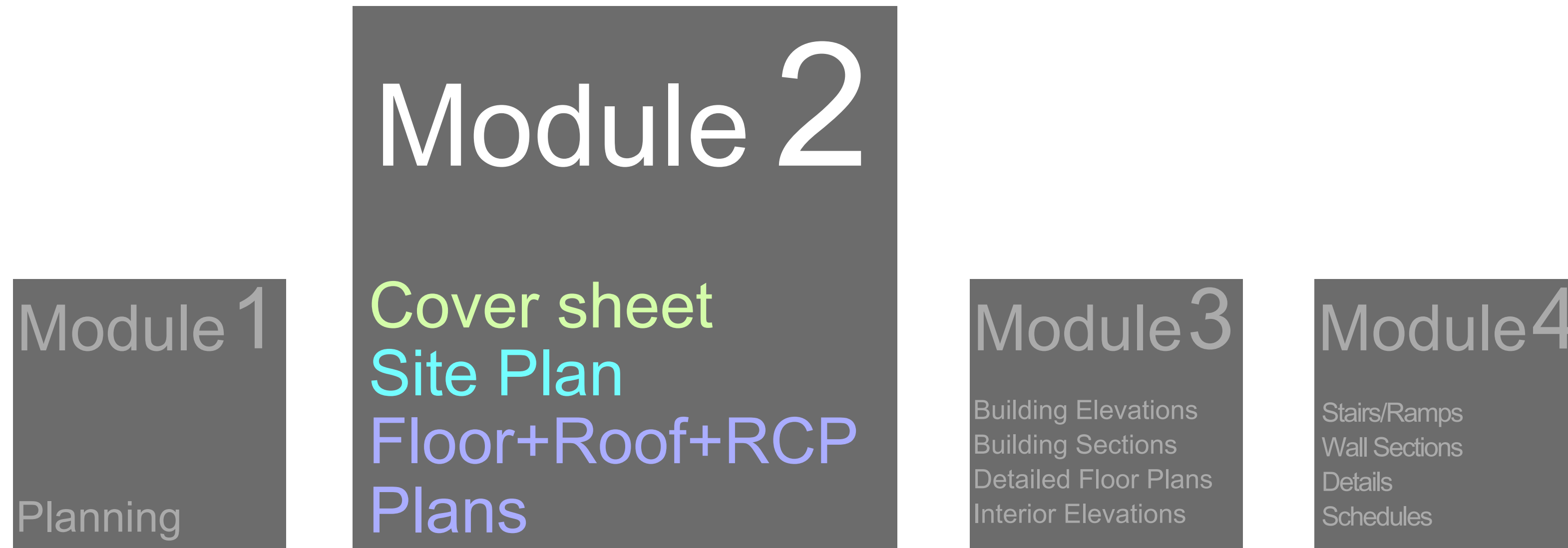


PRODUCTION OF A CONSTRUCTION DRAWING SET

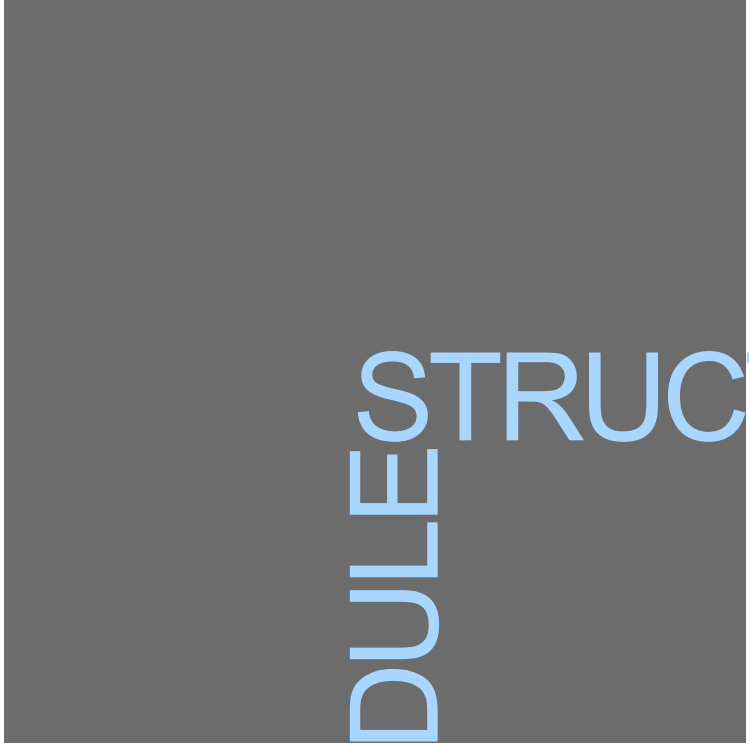


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PRODUCTION OF A CONSTRUCTION DRAWING SET



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MODULE STRUCTURE

1. **Introduction**, drawing types for the module
2. **Content** of each drawing type, building up process
3. **Common errors** and omissions with possible solutions
4. **Check list** as a tool to review the work
5. **Bibliography** as a guide to research more in depth

CONSTRUCTION
DOCUMENTS
DRAWINGS
SERIES

A8
WALL
SECTIONS

A5
DETAILED
FLOOR
PLANS

A2
FLOOR
+ ROOF +RCP
PLANS

A10
SCHEDULES

A7
STAIRS
RAMPS

A4
BUILDING
SECTIONS

A1
SITE
PLAN

A9
DETAILS

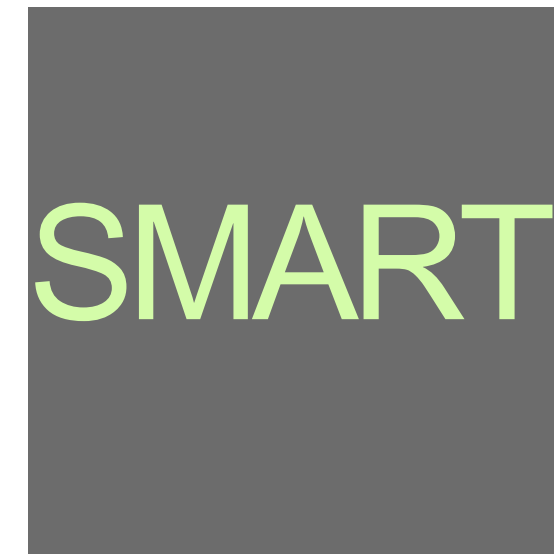
A6
INTERIOR
ELEVATIONS

A3
BUILDING
ELEVATIONS

A0
COVER
SHEET

scale

Full Scale 1:1



- **Missing** drawings from Index list
- **Incomplete** symbols
- **Coordinate** with all consultants drawings list
- **Check** all architectural drawings to add complete used symbols list.

CHECK LIST

- ☐ • Confirm all **consultants** are listed
- ☐ • Confirm all **consultants drawings list** (numbers and names)
- ☐ • Coordinate **abbreviation list** with specifications
- ☐ • Coordinate all used **symbols** are listed
- ☐ • Fill out completely **OBC Matrix**

Scales:

1"=20'-0"

1"=40'-0"

1"=80'-0"

1:250

1:500

1:1000



- *Information* from other disciplines is duplicated or *missing*
- *Coordinate* with civil, mechanical, landscape, and any other discipline as necessary to avoid repetition or lack of information.

CHECK LIST

- ☐ • Note stating data taken from [survey](#) plan
- ☐ • Project [Location](#) (small-scale partial map)
- ☐ • Site boundaries, Dimensions/ orientation of [property lines](#), Angles at intersections)
- ☐ • Right-of-way, [Easements](#)
- ☐ • Zoning [set back](#) lines
- ☐ • [Benchmark](#) with actual (geodetic) elevation and assumed (convenience) elevation used for specific project/usually designated 100m
- ☐ • [Existing Conditions](#), Levels/ elevations, Ditches/swales/water courses/ponds, Catch basins/fire hydrants/maintenance access covers, Existing buildings/fences/ poles, pavings, vegetation
- ☐ • [Borehole](#) location as required
- ☐ • Building [footprint](#)
- ☐ • [Grading](#)/earthwork
- ☐ • [Landscaping](#)
- ☐ • [Site works](#), Pavings, Sidewalks/curbs/ ramps, Concrete pads, Oil tanks, Surface water drainage, Septic tank, Well as required, Proposed levels, Fencing/walls/ garbage enclosure, [Site servicing](#) (coordinate with civil)
- ☐ • [Zoning](#) and Building code data
- ☐ • Site [details](#) as required
- ☐ • Project [North](#) and True North
- ☐ • [Fire access route](#)

Scales:

$1/4'' = 1'-0''$

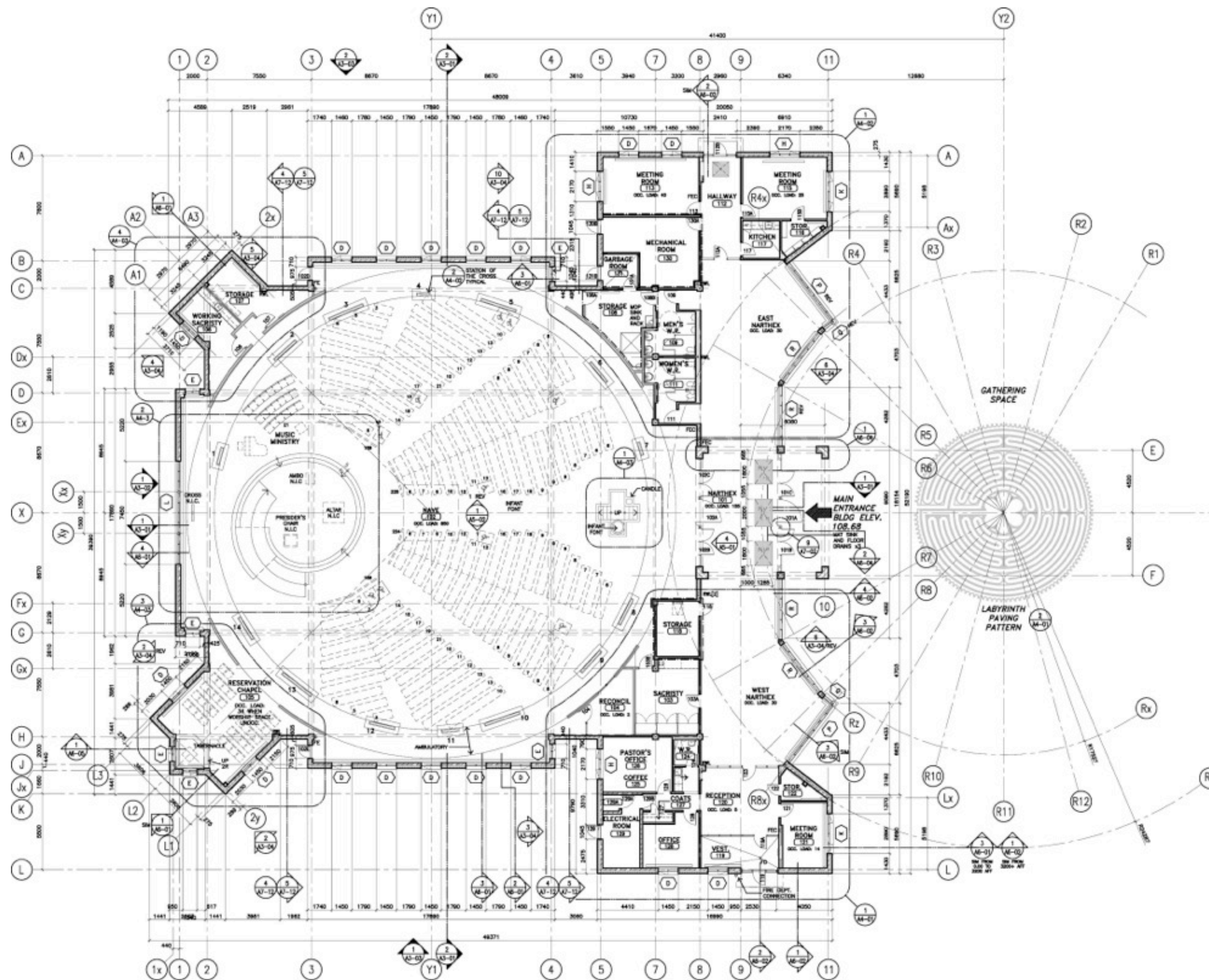
$1/8'' = 1'-0''$

$1/16'' = 1'-0''$

1:50

1:100

1:200



- Structural elements, **Grid** lines with reference symbols and Grid dimensions
- **Envelope walls**, doors, windows
- **Interior walls**, hidden/partial walls, doors, windows, structural members
- Changes in Floors Levels and Materials, Floor slopes, Depressions, Trenches, **Stairs**, Ramps, Expansion joints
- Mechanical, Electrical, **Washrooms**, Millwork
- **Fire rating**
- **Envelope dimensions**
- **Interior dimensions**, Annotations
- **Cross References**

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A2 FLOOR PLANS

scale

1/4"=1'-0" 1:50 1/8"=1'-0" 1:100 1/16"=1'-0" 1:200



- **Grids** are inaccurate
- Grid **dimensions** are **not rounded**
- **Mixed** dimensions standards
- **Overcrowded drawings** with repeated dimensions and notes
- **Grids** should be created with coordinates 0,0 or project coordinates
- Rationalize the structure base in order to have **even and rounded dimensions** and grid orthogonally correct
- Define one **dimension standards** to use at all drawings
- **Dimension once** what is strictly necessary.

CHECK LIST

- ☐ • **Set up Grid** and Grid dimensions
- ☐ • Envelope wall + Structure **alignment** at all floors
- ☐ • Interior partitions, Doors and windows, Hidden elements
- ☐ • Finish **floor level**
- ☐ • **Ramp/Stairs** with up/down arrows
- ☐ • **Mechanical/** supply and return air grilles
- ☐ • **Electrical/** receptacles, Switches, Fixtures
- ☐ • **Plumbing fixtures/**Toilet partitions as required
- ☐ • **Outlines of cabinet work** Kitchen, Bathroom, Closets including rod and shelf/shelves
- ☐ • **Fire Separations** and ratings as required if key plan not used
- ☐ • **Exits** and Exit calculations as required if key plan not used
- ☐ • **Dimensions** on envelope and interior partitions, Location of Windows, Doors and openings
- ☐ • **Annotations/**Wall assembly types, Room Numbers and Names, Cross-hatching/shading to differentiate between existing and new if required
- ☐ • **Cross References** to building sections, Enlarged plans, Wall sections, and Details

Scales:

$1/4'' = 1'-0''$

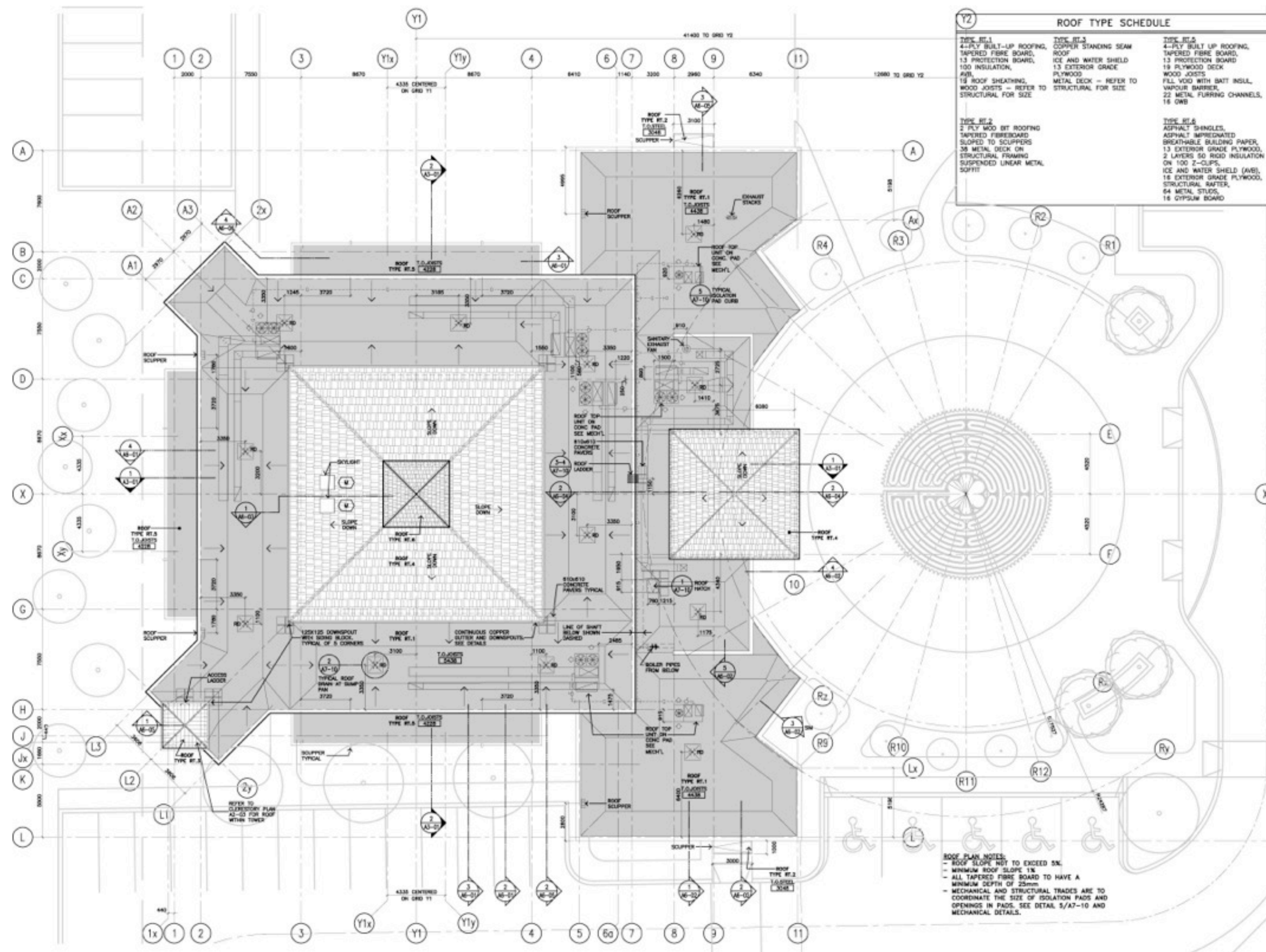
$1/8'' = 1'-0''$

$1/16'' = 1'-0''$

1:50

1:100

1:200



- **Grid** lines with reference symbols and Grid dimensions
- **Roof outlines** and parapets
- **Shading and hatching** to differentiate roofs, Slopes
- **Drains**, scuppers, sumps, gutters, roof pads, curbs, anchors, ladders, guard rails, roof walkways, access hatches
- Roof-mounted **mechanical/electrical equipment**, Vent chimneys
- Site context
- **Dimensions** only to items requiring precise locations
- **Cross References** and Annotations

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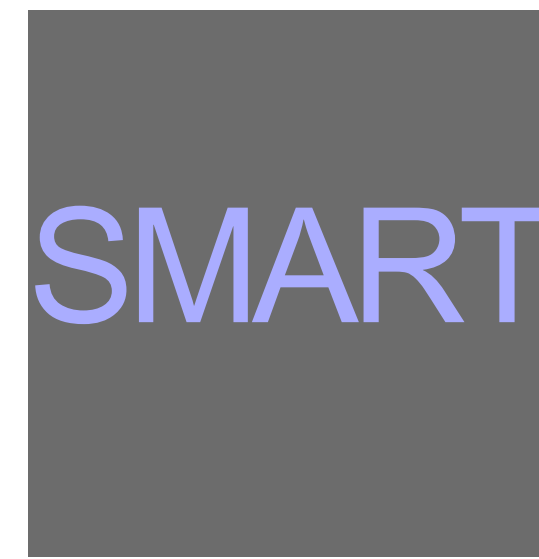
A2 ROOF PLANS

scale

1/4"=1'-0" 1:50 1/8"=1'-0" 1:100 1/16"=1'-0" 1:200



- **Missing slopes** so to set up the perimeter highest point is impossible
- **Poor coordination** with mechanical for openings and equipment location
- **Missing Crickets** at mounting curbs for roof top equipment



- **Coordinate** with Mechanical to add slopes at all roof locations
- **Coordinate** with Mechanical to add openings and equipment location
- **Coordinate** with Mechanical to add crickets at all mounting curbs.

CHECK LIST

- ☐ • Same **orientation as floor plans**
- ☐ • **Grid** and Grid dimensions
- ☐ • Confirm **roof levels** and check they are clearly noted on the plan
- ☐ • Coordinate with mechanical location for all **Roof drains**, Sumps, Scuppers, Gutters
- ☐ • Coordinate with **Mechanical** Slopes, Roof mounted equipment, Openings and Vents.
- ☐ • Roof pads, **Curbs**, Anchors, Ladders, Guard Rails as Required
- ☐ • **Parapets**, Low Rise Walls, Screens
- ☐ • **Access hatches**, Skylights
- ☐ • **Vents**, Chimneys
- ☐ • **Roof** Walkways
- ☐ • Site **Context**
- ☐ • **Annotations**/Roof assembly types, Slopes arrows and percentage, Cross-hatching/shading to differentiate between existing and new if required
- **Cross References** to building sections, Wall sections and details

Scales:

$1/4'' = 1' - 0''$

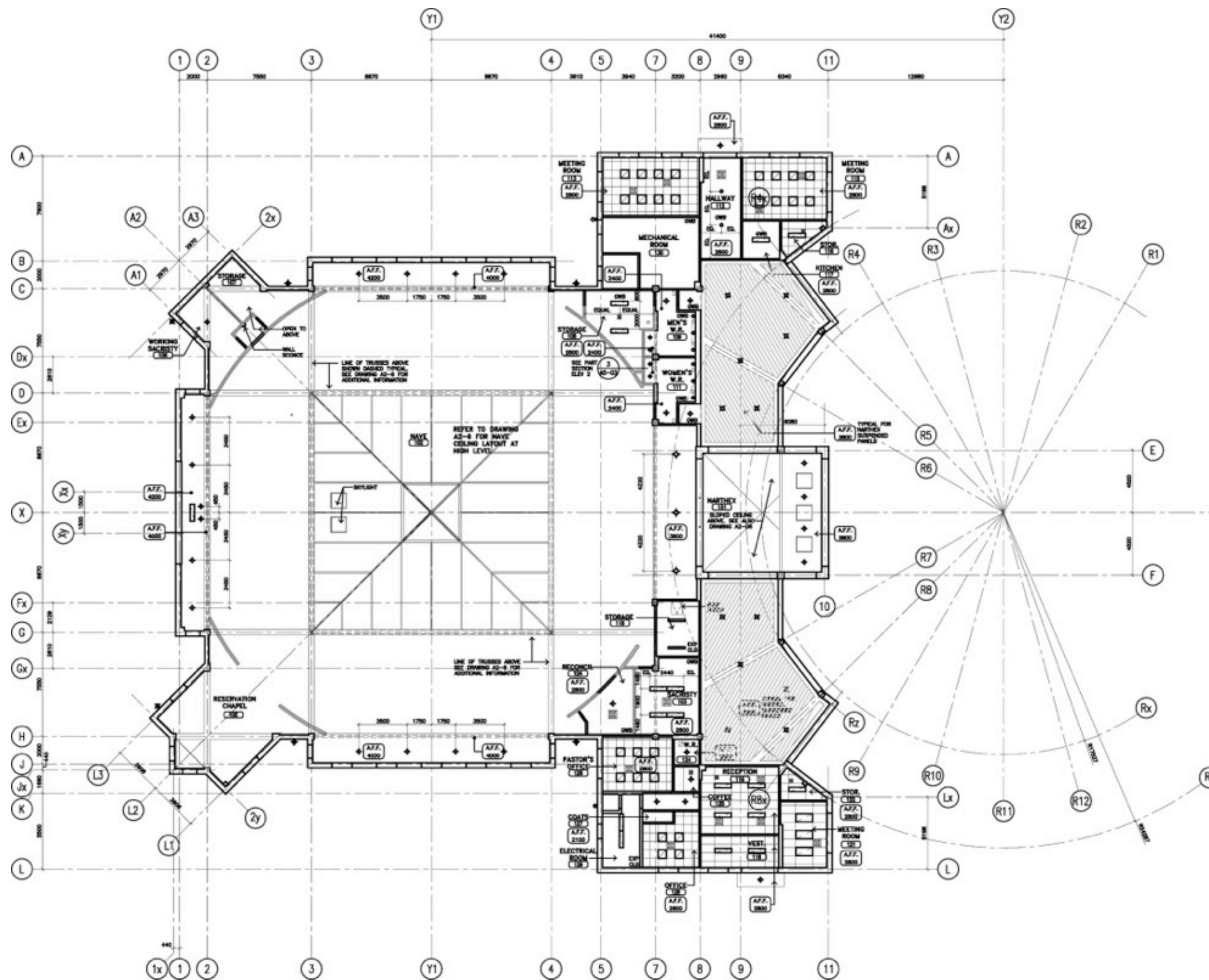
$1/8'' = 1' - 0''$

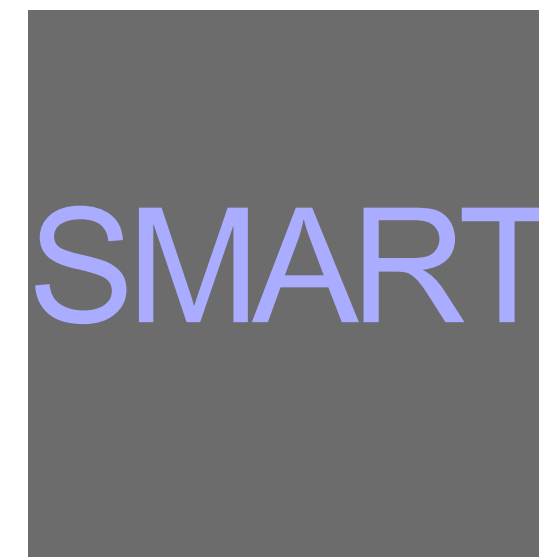
$1/16'' = 1' - 0''$

1:50

1:100

1:200





- **Poor Coordination** with M.E.P.
- Envelope wall is missing so ceiling layout **patterns do not align** with curtain wall mullions
- Coordinate with **consultants** to add all information needed
- **Make sure** all architectural elements are in place to design and set up ceiling layouts and patterns.

CHECK LIST

- ☐ • Same **orientation as floor plans**
- ☐ • **Grid** and Grid dimensions
- ☐ • **Layout of Ceilings**, Bulkheads
- ☐ • Confirm **ceiling levels** and check they are clearly noted on the plan
- ☐ • **Light Fixtures**, Check specifications and make sure room above ceiling meets fixtures specifications for installation
- ☐ • Coordinate with **mechanical** location for all Supply diffusers, Return air grills, Heat/Smoke detectors, Carbon monoxide detectors, Sprinkler heads
- ☐ • **Legend** showing symbols if not shown on cover sheet
- ☐ • **Dimensions**
- ☐ • **Annotations**/Celing types, Room names, Room numbers
- ☐ • **Cross References** to building sections, Wall sections and details

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GOOGLE MAPS

bibliography



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MAY 2012

This series is intended to clarify architectural working drawings production and development and the slides represent a compressed summary of the complete version of a working drawing set. For a more detailed guide, a review of the Canadian Handbook of Practice for Architects is highly recommended.

67 Lombard Street, Toronto Ontario, M5C 1M2, Canada. phone: 416.864.0404. e.mail: mail@arcad.on.ca