

Fig. 9.11 Optimum reverberation time at 512 cycles for different types of rooms as a function of room volume.

The process and workflow that has resulted in this acoustical findings report is based on a complete review of the room drawings and images. A 3D SketchUp model specifically created for acoustical studies and optimal panel layout based on the given information.

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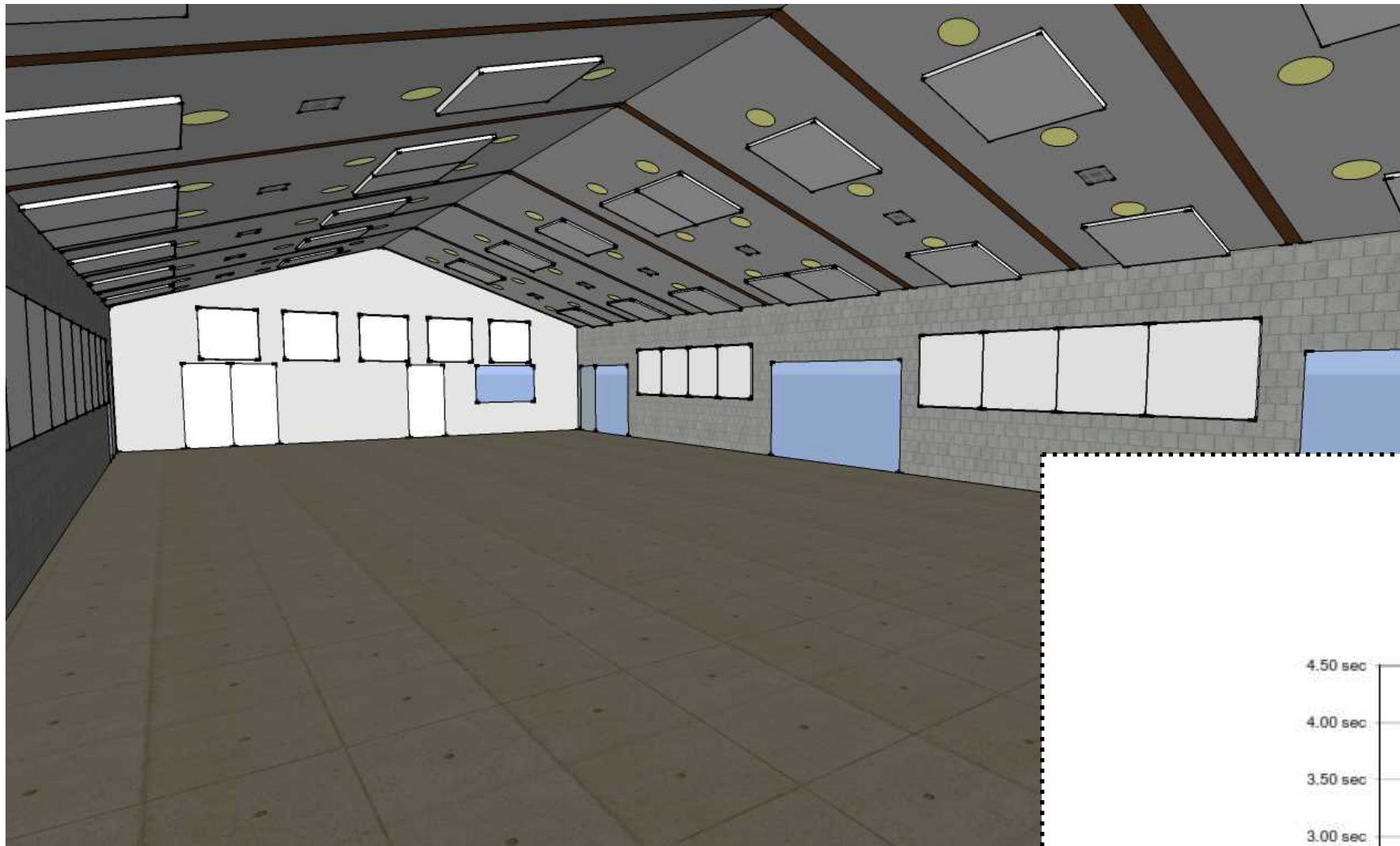
- C-1** Cover with basic goals
- A-1** Decay time findings (Global) & Materials
- A-2** Elevations North & South
- A-3** Elevations East & West
- A-4** RCP Acoustics

1
C-1
Historical chart: decay at 500Hz vs. room volume and function
Scale: NTS

Overview and Notes: Room Volume is ~45,500 cubic feet

RT60 is the time it takes sound to decay 60dB. This is always the first acoustical qualifier for type space. We target the decay time at 500Hz and cross-reference charts that have been developed over the past 100 years.

- Detail 1 shows a *historical* chart of decay time versus volume and function. By historical, the functions are relative to ~50yrs ago (meaning the upper range of music would be ideal for liturgical church/choir/organ).
- **Note 1:* The ~.85 second targeted decay time at 500Hz for this gathering space is the proper decay time range for speech function. This would be with 2/3 capacity with people in the space. Please make note of this as it will be a major topic on the next page.

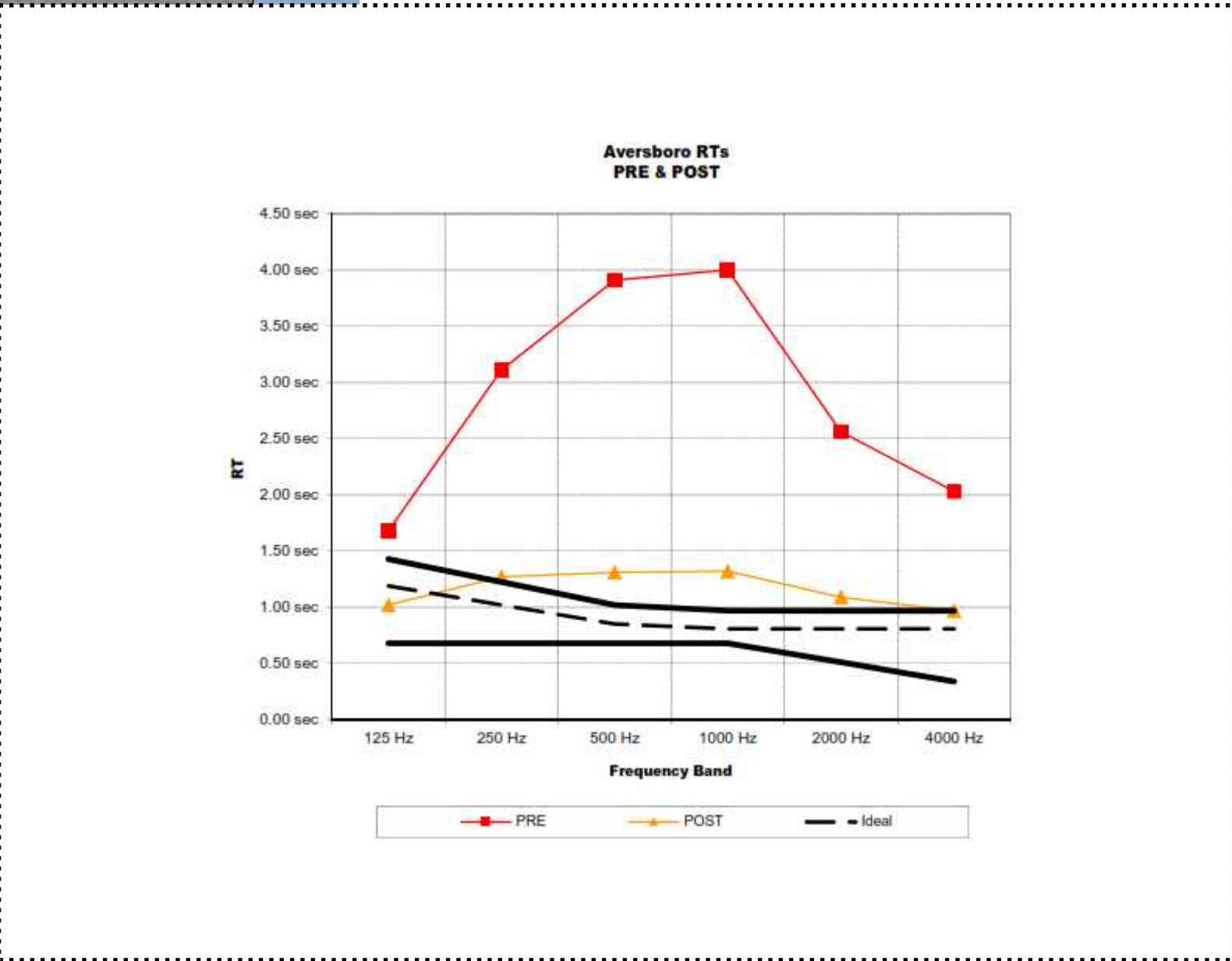


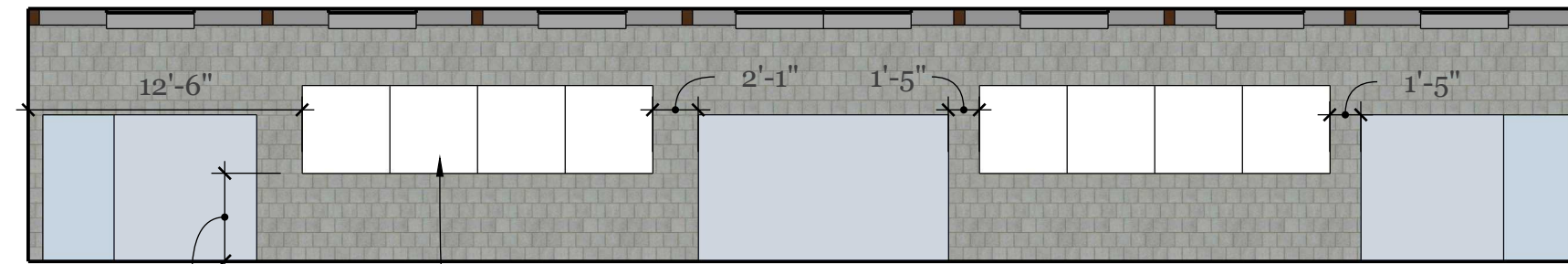
Acoustical Materials:

(64) 48" x 48" x 2" Absorption Panel.

Notes: (32) are for ceiling mount with RotoFast hangers. (21) are to be upon CMU surface and will require 1x4 wood furring prior to impaler plates. Remainder (11 panels) are to install on drywall surfaces.

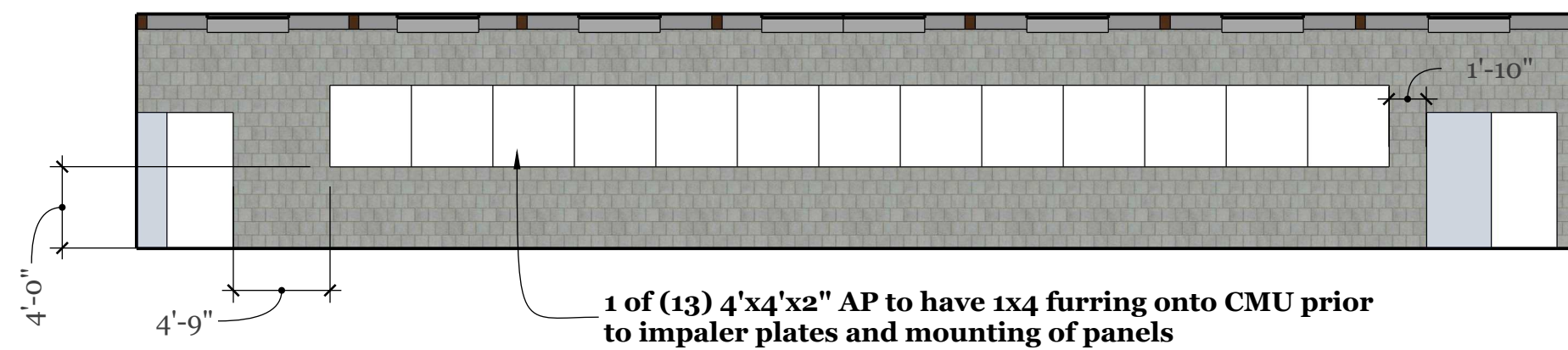
Class A fire rated rigid fiberglass with acoustical fabric covering.





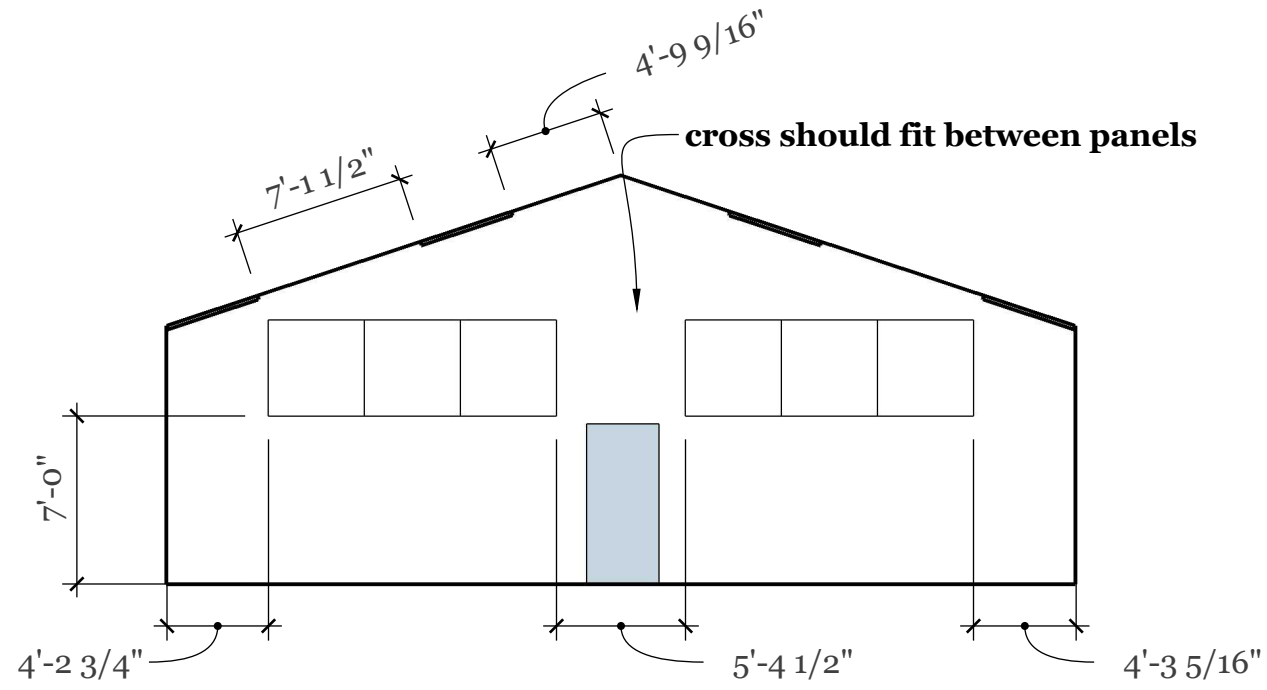
1 of (8) 4'x4'x2" AP to have 1x4 furring onto CMU prior to impaler plates and mounting of panels

1 North Wall Elevation
A2 Scale: 1/8" : 1'

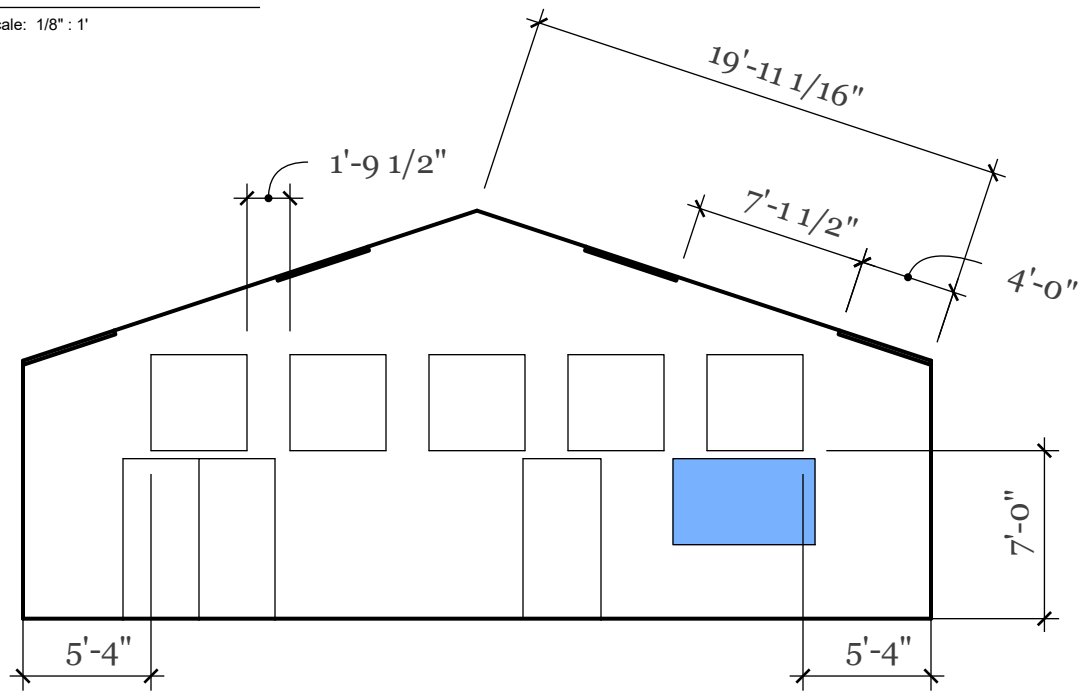


1 of (13) 4'x4'x2" AP to have 1x4 furring onto CMU prior to impaler plates and mounting of panels

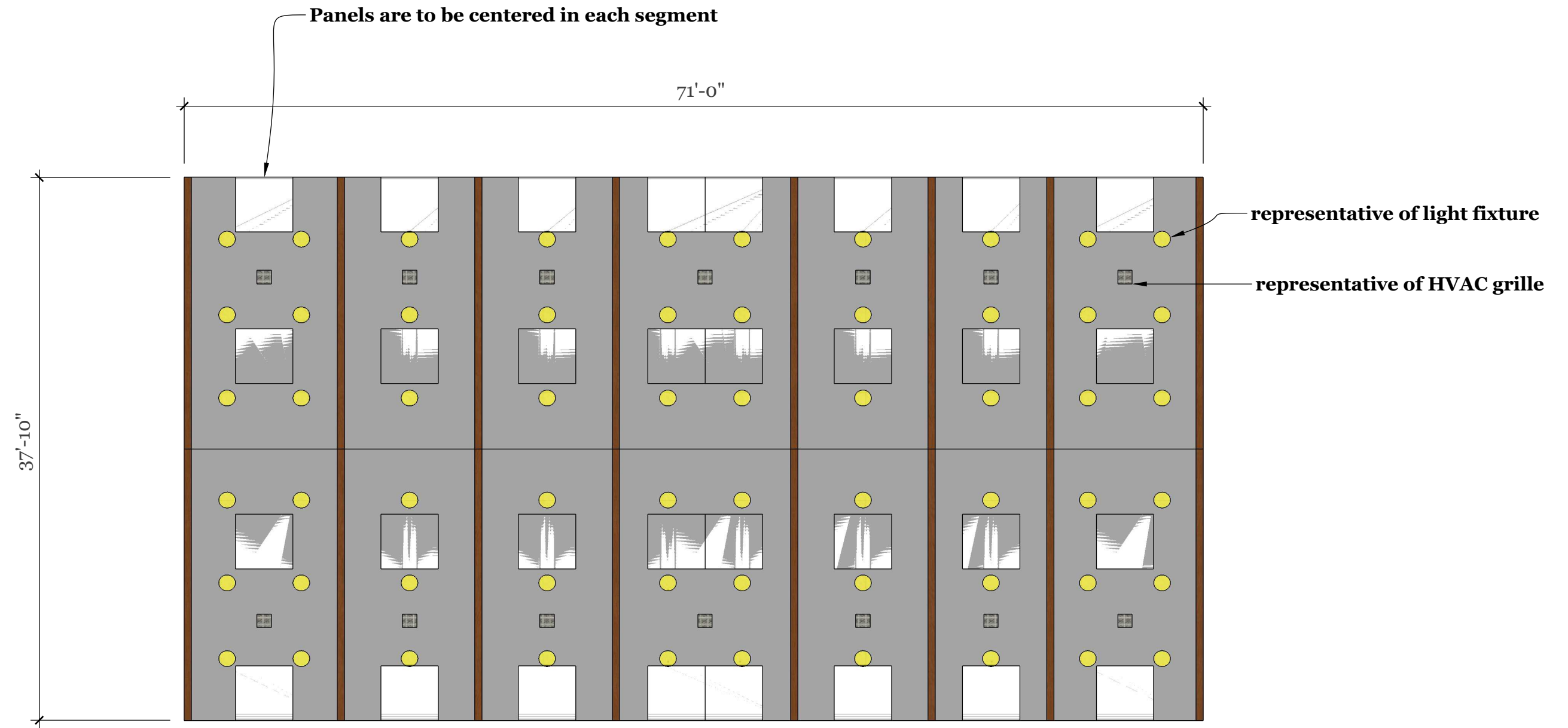
2 SOUTH Wall Elevation
A2 Scale: 1/8" : 1'



1 EAST Wall Elevation
A3 Scale: 1/8" : 1'



1 WEST Wall Elevation
A3 Scale: 1/8" : 1'



1 RCP Acoustics
 A4 Scale: 1/8"=1'