



# **Lutheran Church of Honolulu 2012-2013 Mission Campaign**

## **Hörmann Courtyard Cover**



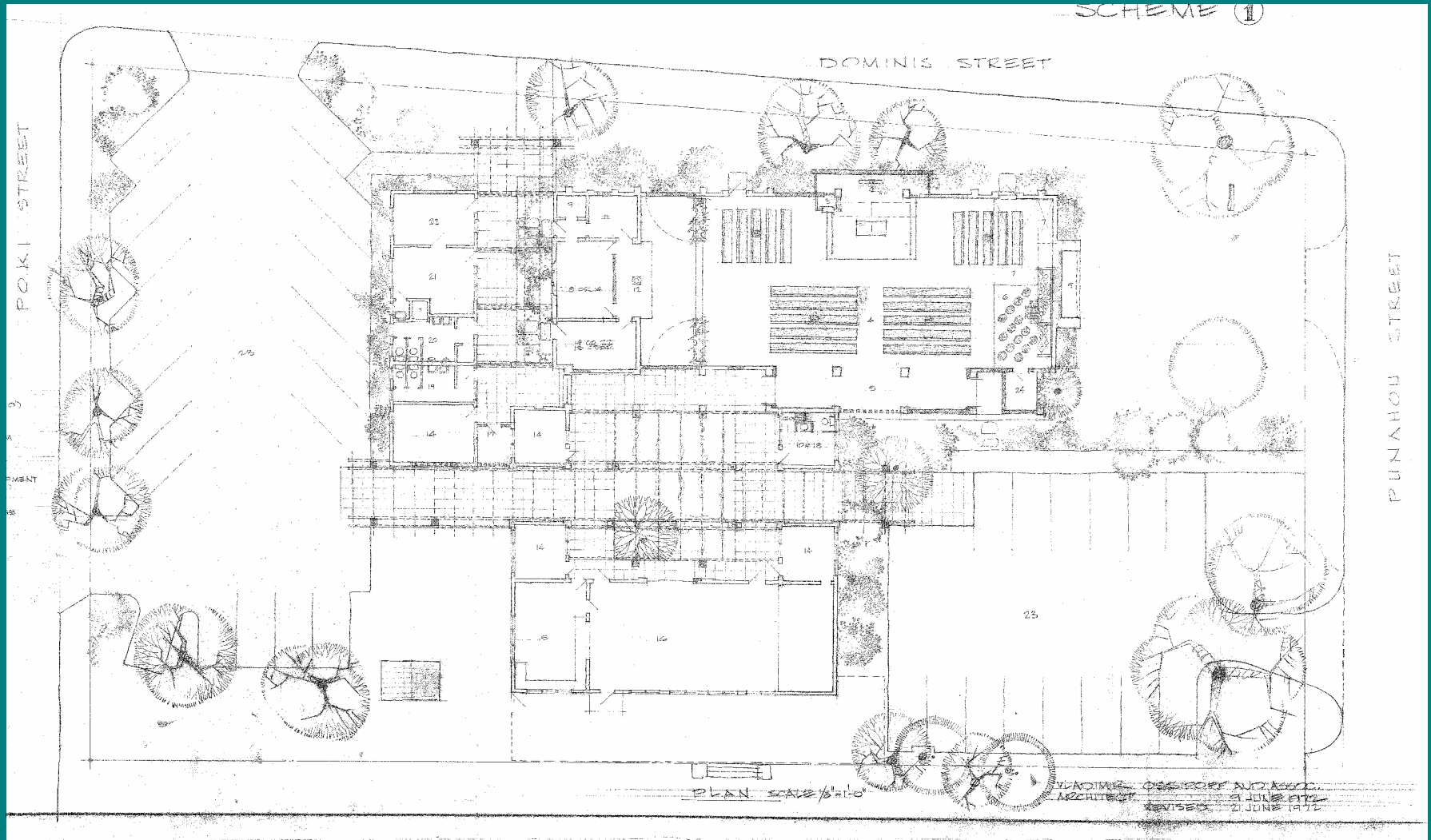
# Performance Criteria

1. Provide shelter from sun and rain.
2. Maintain opening to let rain in.
3. Maintain views of the sky, steeple, and trees.
4. Avoid casting shadow on solar panels.
5. Maintain good ventilation.
6. Avoid greenhouse effect.
7. High reflectivity / avoid heat absorption.
8. Easily maintained and cleaned.

# Performance Criteria

9. Require no major building modifications.
10. No new support posts.
11. Be reusable if/when additional stories are added to the building.
12. Meet requirements for wind and seismic load.
13. Meet fire code requirements.
14. Have a long-term warranty.
15. Cost at or under budget [\$30k - \$35k]

# Hörmann Courtyard



# Roof Systems

1. Aluminum and Poly Carbonate
2. Cable-tensioned Fabric
3. Aluminum Frame and Fabric
4. Retractable Fabric Awning
5. Trellis / Louvered Roof
6. Standard Roofing



# Aluminum & Poly Carbonate



*KunkelWorks*

# Aluminum & Poly Carbonate



*KunkelWorks*



# Aluminum & Poly Carbonate



*KunkelWorks*

# Cable-tensioned Fabric



*Skyshades Hawaii*



# Cable-tensioned Fabric



*Skyshades Hawaii*

# Cable-tensioned Fabric



*Skys Shades Hawaii*



# Aluminum Frame & Fabric



*Tropical Js*

# Aluminum Frame & Fabric



*Tropical Js*

# Aluminum Frame & Fabric



*Tropical Js*



# Retractable Fabric Awning



*All Island Rollshutter*



# Retractable Fabric Awning



*All Island Rollshutter*

# Retractable Fabric Awning



*All Island Rollshutter*



# Trellis / Louvered Roof



*Equinox Hawaii*

# Trellis / Louvered Roof



*Equinox Hawaii*



# Trellis / Louvered Roof



*Equinox Hawaii*

# Trellis / Louvered Roof



*Building Contractor*



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# Roof Systems



1. Aluminum and Poly Carbonate



2. Cable-tensioned Fabric

# Roof Systems



3. Aluminum Frame and Fabric



4. Retractable Fabric Awning

# Roof Systems



5. Trellis / Louvered Roof



6. Standard Structural Roofing



# Courtyard Modifications

- Resurface concrete flooring
- Labyrinth design
- Tree
- Fountain
- Downspout water pots / planter pots

