



ROOF DISCOVERY REPORT

Client: Mr. Phil Jaurez
Faith United Church of Christ

Facility: Faith United Church of Christ
575 Richmond Road
Richmond Heights, Ohio 44143



Year Built: 1958 / 1964

Subject: Steep Slope Roof Evaluation

Date of Inspection: June 11, 2013

Inspected By: Dan Jackson

Report Date: June 17, 2013



INTRODUCTION

Technical Assurance, Inc. (TA) has been retained by Faith United Church of Christ to provide professional roof Discover and Plan Consulting Services for the Faith United Church of Christ located at 575 Richmond Road, Richmond Heights, Ohio.

In an effort to provide appropriate repair and restoration recommendations for the Faith United Church of Christ building we make certain that our recommendations do not take away from the intended aesthetics of the structure. Beyond any aesthetical concern, our goal is to ensure that this structure will remain structurally sound and continue to perform at a sustainable level for years to come. To this end, bid documents can be developed during TA Solve Phase – Design through Bid Services directing that the repairs are appropriate and correct to ensure that the building will perform properly into the future.

Reporting includes the following:

- Narrative description of existing conditions.
- Photographic documentation.
- Budget estimate.

Report Definitions and Clarifications:

Report date – Date the report was completed.

Updated – Date the report was amended.

Condition Rating:

- *Excellent* – No problems with the building component studied and all materials are in excellent condition and performing well.
- *Good* – Limited or minor problems associated with the building component.
- *Fair* – Building component is aging and in need of maintenance, repair or comprehensive maintenance.
- *Poor* – Building components are failing, materials are at or nearing the end of their life cycle, and replacement or major restoration work needs to be scheduled.
- *Failed* – Building components have substantially failed and materials are not performing as intended. Building system requires replacement in whole or part.



EVALUATION REPORT

BACKGROUND

On June 4th, 7th and 11th Technical Assurance Inc. conducted a roof evaluation of Faith United Church of Christ building located at 575 Richmond Road in Richmond Heights, Ohio. This is a multi-level brick and stone masonry structure. The Sanctuary and Pre School utilize a steep slope cement tile roof. The entrance to the Sanctuary and Parlor utilizes a low slope modified bitumen roof. The evaluation consisted of primarily visual observations and quantification with some exploratory work. The original Sanctuary was constructed in 1958 and additions were added in 1964. According to reports and visual observations, roof leaks have been concentrated to one area of the new Sanctuary.

CONDITION

The overall condition of the Faith United Church of Christ building envelope is fair with certain components in a poor condition. The cement tile roof is in poor condition with the gutters and downspouts in failed condition. The roof deck is generally found in fair condition and the underlayment is in poor condition.

Although not included as part of this inspection, it was noted that the brick masonry appears to be in fair condition with some tuck pointing maintenance, and minor rebuild work required as part of a long term maintenance program.

OBSERVATIONS

- **Cement Roof Tile System:** The cement roof tiles are in poor condition. The tiles exhibit signs of surface wear and several are cracked through the tile. The issues of more concern are the securement or attachment of the cement tiles and the condition of the underlayment sheet. The ferrous metal nails used to secure the cement tiles to the roof exhibit deterioration and corrosion (rust) to some degree. In some instances the nail was completely rusted away and no longer serving the intended purpose of holding the tile in place.
- **Underlayment:** The asphalt saturated underlayment sheet is dried out and is not lying flat as originally intended. This condition causes ridges to form and allows a point of entry of precipitation as well as displacing the unsecured cement roof tile.
- **Gutter System:** There are two types of gutter systems in use on the building. The most prevalent is a six (6) inch residential box style gutter mechanically attached to the fascia board with spikes and ferrules. The other is a four (4) inch residential half round style gutter mechanically attached to the fascia board with hangers. Due to the amount of vegetation around the site, the gutters retain a large quantity of debris and appear to overflow resulting in water migration to the fascia board. This condition



has resulted in multiple areas of the fascia board becoming rotted and not being able to support the gutter in a manner as to allow for proper drainage of rain water. The displacement of the gutter has also created a condition where water is wicking back to the soffit allowing the soffit to become damaged.

- Roof Deck: On the Sanctuary there is an area that the steep slope wood deck has started to rot. This area is not widespread but should be addressed as soon as possible.
- Soffit: The soffit at the preschool is in fair condition however, the bird and insect screen that is used for venting has dry rotted allowing birds to enter the soffit/attic space.
- Entrance/Parlor: The modified bitumen roof system is in fair condition. It appears that the entrance was added to the Parlor area at a later date. There is a large amount of ponding water which should be addressed. If this is not corrected the roof membrane will deteriorate and no longer provide weather protection.
- Basement Stairwell: This area is prone to retaining a large amount of water due to run off of two roof areas draining into an undersized gutter and lack of a properly installed diverter at that area.

SUMMARY

The cement tile roof has served its intended purpose for nearly fifty years. Because of the deteriorated condition of the underlayment and the lack of securement, it should be removed and replaced with either new lightweight cement tile or dimensional shingles. The gutters and downspouts will also need to be replaced at this time. All fascia boards will need to be replaced in order to securely attach the new gutter. The Pre-School area shows the most evidence of damaged soffit. The soffit in this area also exhibits deterioration of the bird and insect screen that also serves as soffit venting to the interior attic space.

While the low slope modified bitumen roof is not currently leaking, the ponding water will eventually cause the roof to fail. It is recommended that this roof be replaced to complete the roof replacement program at one time.

Vegetation should also be trimmed to allow adequate air circulation around the building.

A preventative maintenance program should be considered to ensure the components perform for the life of the new system.



RECOMMENDATIONS

We recommend that the Owner budget for a complete roof system and component replacement as soon as funding allows.

Once this roof system is replaced, a systematic preventative maintenance program, if routinely followed, can be easily accomplished with little effort. The results, however, can be of far greater value. Based on the lifecycle cost of your roof, the money spent on providing routine maintenance will be only a fraction of what is saved by eliminating replacement costs due to neglect. Implementing the program requires the building owner's personnel or a qualified individual to assign, understand and administer the program on an ongoing basis. Technical Assurance has years of experience and can develop, maintain, and implement the proper preventative maintenance program on this roof.

ESTIMATED PROBABLE COST OF CONSTRUCTION:

The estimated replacement budget for the Faith United Church of Christ:

- Remove the existing cement tile roof and replace with asphalt shingles
- @ the Sanctuary \$ 57,936.00
- @ the Pre School \$ 108,005.00
- Remove the existing cement tile roof and replace with concrete tile
- @ the Sanctuary \$ 68,503.00
- @ the Pre School \$ 127,704.00
- Remove existing gutters and replace with Kynar steel gutters \$ 6,700.00
- Remove existing fascia board and replace \$ 4,200.00
- Remove deteriorated soffit and replace with Kynar aluminum soffit \$ 2,200.00
- Remove the existing flat roof system and replace with Modified Bitumen \$ 21,600.00

Note: A 15% contingency fee should also be included to the estimated probable cost of construction. These budgets do not include consulting design fees, nor project management fees.

NEXT STEPS

- Review the report and schedule a meeting with Technical Assurance to discuss the findings.



Photo 1 – Area of rotted wood deck on Sanctuary roof.



Photo 1 – Rotted wood deck. Cement tile has split with lack of deck support.



Photo 2 – Fascia board that has rotted and no longer can support the gutter. The gutter is severely dislodged from fascia board.



Photo 4- Fascia board has rotted and can no longer support the gutter.



Photo 3 – Gutters are filled with debris and not draining properly.



Photo 4 – Soffit with deterioration. This board should be replaced with the roofing project.



