



## **First Congregational Church**

### **Phase 1: Critical Repairs Final Project Objectives Including Additional Scope Requests**

**January 6, 2012**

**Projected Completion Date: February 2012**

Phase 1's intent was to complete "critical repairs" to the church. As the project moved forward, there were many tasks identified as "might as well" for efficiency and the comprehension of work completed. HRI worked closely with our project liaison's and Congregation staff to ensure compliance with the evolving budget.

#### **1.0 General**

- General planning, weekly reports and updates
- Subcontractor management
- General Project Management
- Overall building assessment report, including masonry, timber frame and construction methods
- General Site Cleaning
- Site Assistance
  - Cleaned Gutters in school once since gutters repairs
  - Public tours, interaction and discussions
  - Planning future phases, design, etc.
  - Reaction to staff and user requests.

#### **2.0 Sanctuary Basement**

##### **2.1 Excavation**

- Removal of all pipes and non-essential wood elements
- Removal of heating system
- Removal and reconstruction of bulkhead
  - New concrete poured walls and removable stair treads
  - New out swing door to enter basement, weather sealed
  - New tongue and groove beaded wood bulkhead door, with silicone bulb seals and stops with small gutter grooves
- Basement excavation. Digging, supporting of church frame and walls
- Water management, drainage system and sump pump
  - During excavation, provide drainage to maintain safe workplace.
  - Attach Northwest drain and sump pump overflow to new drywell
- Reopened Balcony by providing proper supports.

##### **2.2 Masonry**

- Install Retaining walls to hold back undermined foundation walls.
- New masonry footers & columns for floor and balcony support



- New cement floor
- Repoint perimeter of basement foundation in critical spots and under new sill.
- Construct new stone sided bulkhead entry door.
- New massive concrete encapsulation of under alter roof support piers.

### **2.3 Carpentry**

- Remove loose material and reattach where possible
- Replace deteriorated sills
  - Budget based on assumption of effort. Additional funding may be necessary
- Replacement of deteriorated main 12"x12" beams, fifty feet total

### **3.0 Heating/Plumbing**

- New Sanctuary 4-zone gas heating system
  - Four alternating boilers
  - New gas service
  - Insulate Sanctuary basement heating pipes
  - Reattach existing kitchen and DeWolf room heating system, with the assumption that they will be sufficient as is.
    - Troubleshoot improper previous installation and function of existing system.
    - Replaced thermostat with web enabled thermostats
  - Replaced Sanctuary thermostat with web enabled thermostats
  - Installation of basement blower heater.
- Guiteras House
  - Heating evaluation, service and repairs
    - Replaced various boiler parts
    - Troubleshoot repairs, failures, etc.
- School
  - Respond to no heat calls
    - Rewired heating system
    - Replaced thermostats that are web enabled
- Plumbing
  - Install sump pump to new drywell
  - Install new 4" waste line to front Sanctuary bathroom.
  - Install new toilet to front Sanctuary bathroom.
  - Install, for free, new Instant Hot water heater front Sanctuary bathroom.

### **4.0 Electrical**

- New general lighting and critical electric repairs
  - New feed for exterior Northwest light through conduit
  - Repair feeds to two panels
  - Replace hundreds of feet of wiring.
- Replace heat detectors.
- Troubleshoot alarm system
- Wire boilers and thermostats



- New microphone for Pastor Dan

#### **5.0 Bell Tower**

- New copper roof, flashing and access door.
  - Access door shall be covered with copper, no hinges, just a lift off
- Wood frame repairs and full deck replacement
  - One joist and 10 feet of plate replaced
- Ladder repairs/stabilization
- Floor supports
- Bell Repairs
  - Machine new pivot points for cradle
  - New bolts where necessary
  - Powder coat black all parts that were originally painted
  - Repair and refinish in grey, bell wheel
  - Reassemble bell and parts.
  - Clapper to remain, as well as hammer
  - Bell to be cleaned, not buffed to shiny.
  - Rotate 90 degrees

#### **6.0 Roofs, Gutters & Drainage**

- Sanctuary slate roof repairs and new lead coated copper flashing
- New EDPM rubber roof and flashing
- DeWolf roof leak repairs
- Kitchen roof leak repairs
- Sunday School roof leak and gutters repairs
- Installation of two drywell systems
  - Northeast Corner for 1/2 of northeast roof, bell tower roof and sump pump
  - Northwest corner for kitchen and northwest 1/2 of main roof. Will alleviate water infiltration from under the kitchen to into the basement.

#### **7.0 DeWolf Room**

- Evaluation of basement and chronic water issues and development of solutions
- Cleaning of crawlspace, including existing "insulation wrap"
- Installation of new sump pump

#### **8.0 Guiteras House**

- General Building Assessment & Energy Audit
- Window frame repairs & repainting
- New storm windows & doors
- Door weather stripping

**Costs as of 12/30/11:                      \$521,153.21**  
**Phase 1 Projected Budget:              \$635,000.00**

#### ***Exclusions***

- Removed perimeter fence not repaired or reinstalled
- No grass seeding, just leveling
- No new downspouts, except from Bell Tower to EPDM roof.



## **First Congregational Church**

### **Phase 2 Budget Items**

Phase 2 is distinguished by items that were clearly separated from the “critical repairs” of Phase 1. While additional time was spent during Phase 1 to discuss future phases, Phase 2 required identification when clearer objectives were presented, such as the Audio/Visual, Lighting and DeWolf room radiator upgrades.

#### **General**

- Phase 2 planning **\$12,000.00**

#### **AV & Lighting**

- AV and Lighting planning with subs
  - Evelyn Audet Lighting Designer
    - Phase 1 Planning **\$2,300.00**
  - Acentech Engineering **\$12,000.00**
  - Massed Electric **\$1,500.00**

#### **DeWolf & Kitchen Plumbing and Heating**

The intent was always to reuse the existing heating pipes and radiators. The existing heating system did function previously, although HRI was not able to test the adequacy of the system during the colder days. After many observations of cold days, the room cannot sustain 70 degrees on days colder than 30 degrees. At best, it can get about 65 degrees. The issue is there are not enough radiators for the newer, cooler boiler system. The older system may have run in excess of 200-220 degrees, and the new system can only function to 185 to maintain efficiency. The heating contractor did point out the potential inadequacy from the start, although HRI’s approach was to reuse existing first, then replace if we had to. The radiators need to be replaced.

The kitchen blower heater relies on the DeWolf room to be on to get heat. Also, the blower was not installed with the air escape valve at the highest point, so the unit gets air bound very easily. The blower needs to be repiped, as well as a separate zone installed, so the bathrooms and the kitchen can be on it’s own zone.

#### **Very Rough Budget:\$20,000-28,000.00**

<b>Costs as of 12/31/11:</b>	<b>\$4,409.86</b>
<b>Total Budgeted Additional Scope:</b>	<b>\$47,800.00-\$55,800.00</b>