

From: Bill Goodenough <BGoodenough@ecww.org>
Subject: St. James estimates
Date: September 20, 2011 5:52:17 PM PDT
To: Terry Kylo <terry@terrykylo.com>
Cc: Joan Anthony <JAnthony@ecww.org>, Greg Rickel <GRickel@ecww.org>

1 Attachment, 118 KB

Terry – Continuing where we left off:

August 18, 2011 – Rick Oehmcke of PCS was OK with the proposed design – see detail A attached.
September 20, 2011 – Chad checked his steel quote. Was concerned about the bell tower steel framing that will require more detail and we need to add cushion.

Here is the estimate :

\$70,000 (rounder up the 69,207)

8,000 cushion

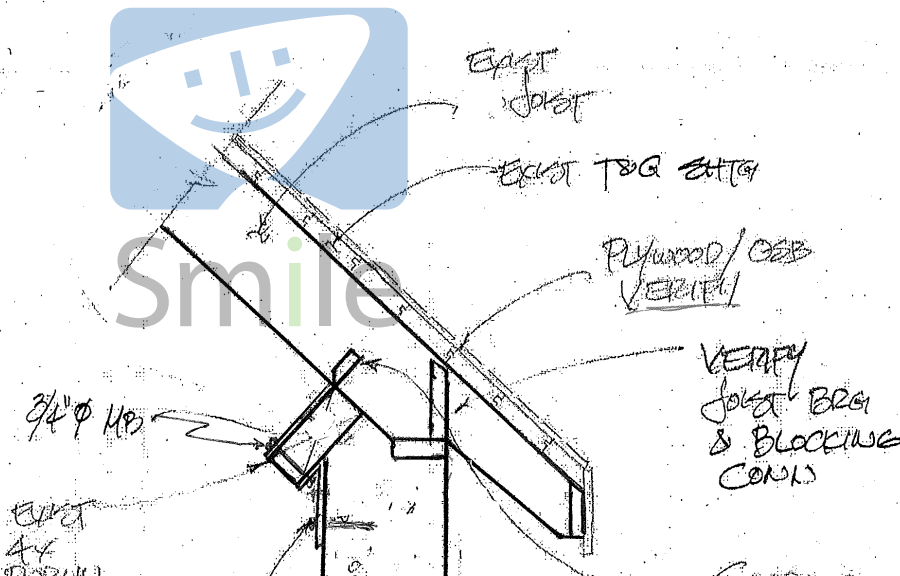
Plus sales tax (78,000 x 9.5%) and round off to \$85,000 look reasonable to Chad Fisher.

Bill

Bill Goodenough
Board of Directors Representative for Property
Diocese of Olympia
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Project: St James Episcopal Church Job No: 11-238
Subject: Item #1 & 2 Sheet 2 of Name: (D)
Originating Office: Seattle Tacoma Date: 9/11/11
216-1-11





Smile



5/16/11

Bill Goodenough
Board of Directors Representative for property
Diocese of Olympia
P.O. Box 12126
Seattle, WA 98102

RE: **St James, Sedro Woolley
Structural Repairs**

Bill,

Our estimate to construct structural repairs for St. James Episcopal Church in Sedro Woolley is **\$69,207.00** plus sales tax. Our estimate is based on our discussions, site visit and structural evaluation report by PCS Structural solutions dated March 11, 2011.

Enclosed please find out scope of work further defining our estimate inclusions and exclusions. Please note that we are not including the floor sheathing or roof sheathing as called out. In my discussion with Rick of PCS, I explained to him that the floor appeared to have a double layer of sheathing (one laterally and one diagonal) and the roof appeared to have OSB sheathing installed prior to its last roofing installation. He is of the opinion that if this is the case there is a good argument that the floor or roof sheathing would not be needed, although he would like further verification of this before final approval.

I would like to review the logistics of detail "A" prior to construction as I am not sure that this detail can actually be constructed as drawn. In order to get the bolts thru the 4x member I have assumed the 4x member would need to be removed and re-installed. A bit of brainstorming would be helpful in this to see if we could come up with an alternate detail to avoid a lot of electrical removal and re-install.

I would also like to point out that the bell tower steel framing will require more detailing to insure that it is adequately supported the way the engineer expects it to be. I have assumed a 3" x 3" x ¼" angle on the four sides bolted to the concrete walls and steel roof structure at 4' on center.

Should you have any questions please give me a call.

Respectively,




Chad Fisher

St James Episcopal Church

Structural Repairs

Scope of Work

General

- Supervision Layout and safety
- Scaffolding and misc. equipment rental
- Cleanup

Basement Concrete Foundation

- See below

Basement Diaphragm Connection

- Remove ceiling tiles and trim, etc to install joist blocking, connectors and continuous angle bolted to wall per detail "B"
- Reinstall ceiling tiles
- *Does not include new Plywood Floor sheathing (Engineer is re-evaluating)*
- *Painting by owner*

Roof Sheathing

No-Sheathing provided as Engineer is re-evaluating (it appears sheathing is installed under roofing)

Trusses

- Install wall connectors to 4x per detail "A"
- Install truss connectors per detail "C"
- *Painting by owner*

Tower

- Install tower "Collar Tie" per description

Foundation Cracks

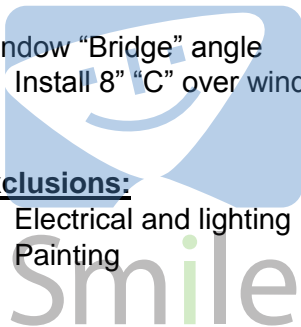
- Clean crack in northeast mechanical room and epoxy inject

Window "Bridge" angle

- Install 8" "C" over window at one location in organ equipment room

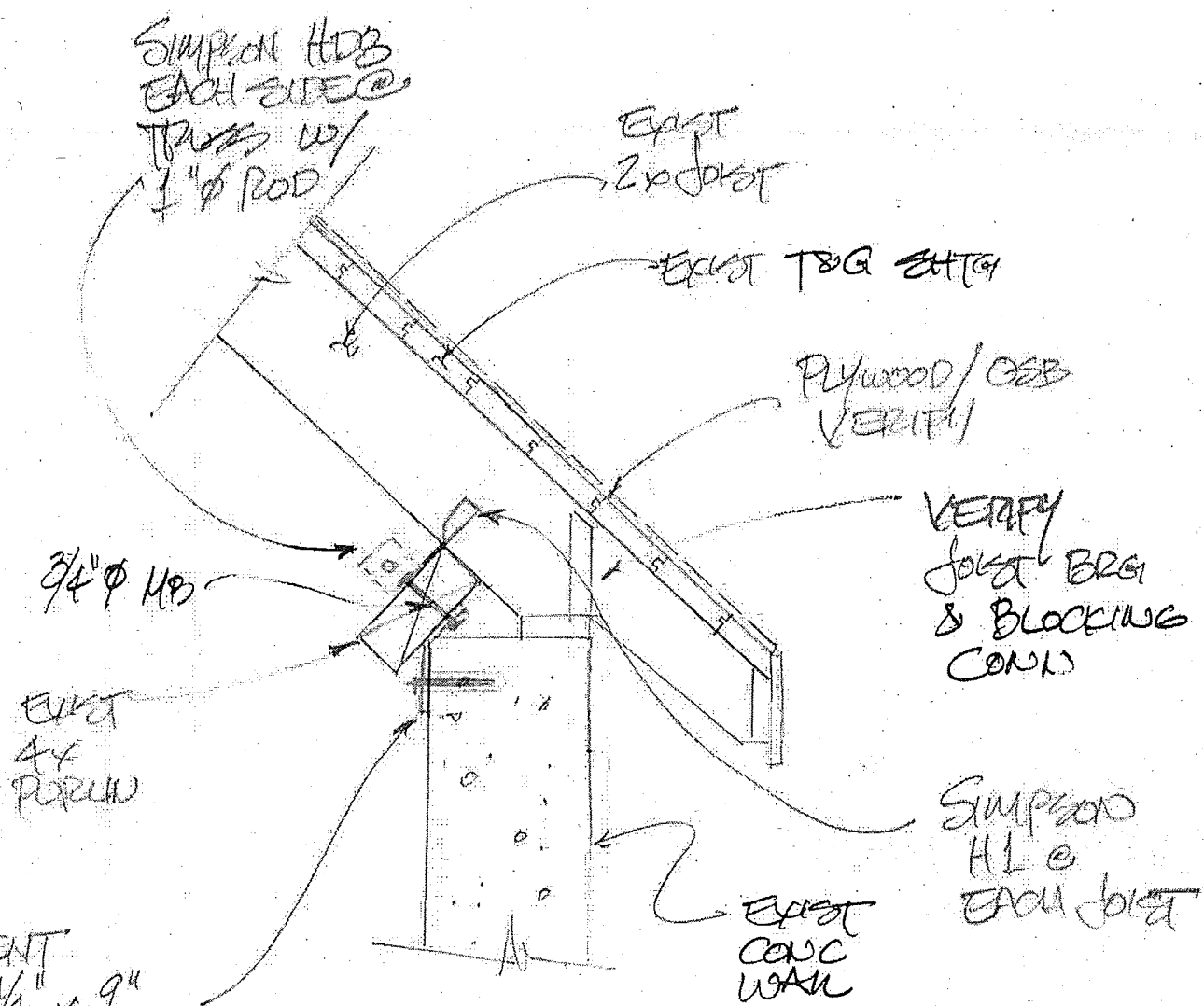
Exclusions:

- Electrical and lighting remove and re-install
- Painting



**STRUCTURAL EVALUATION FOR
ST. JAMES EPISCOPAL CHURCH
SEDRO-WOOLLEY, WA**

STRUCTURAL RECOMMENDATIONS		
Item	Structural Concern	Recommendation
1	Concrete bearing walls that are dependent on the diaphragm for lateral support for out-of-plane forces are not adequately anchored. In a major earthquake, there is potential for the floor and roof to separate from the wall if not adequately tied together.	Provide positive anchorage between the concrete walls and the roof structure with drilled in anchors and steel straps nailed to the floor and roof framing and sheathing (see Sketch A and B).
2	Diaphragm connections to exterior concrete shear walls are deficient. The absence of a positive connection between the diaphragm and shear walls is a gap in the lateral load path that will limit the ability of the diaphragm to transfer lateral forces to the shear walls.	Provide shear connections consisting of metal clips, blocking and edge nailing at floor and roof to wall connections (see Sketch A and B).
3	Capacity of the existing wood roof and diaphragms are deficient. The concern is with the overall strength of the building during an earthquake.	Sheath existing roof and floor decking with plywood sheathing to increase the lateral shear strength of the building.
4	The existing roof trusses are supported on either unreinforced or lightly reinforced concrete plinths/butresses that are integral with the walls. Without proper anchorage, there is potential for the truss to lose support in a seismic event. Additionally, the existing truss does not appear to have adequate capacity in the connections to transfer gravity loads.	Provide a post or steel bracket to support the vertical load as a redundant load path. Add gusset plates to existing connections to provide adequate capacity (see Sketch C).
5	The upper portion steeple in the bell tower at the main entry appears to be steel framed and may not have an adequate connection to the concrete wall.	Verify the existing connection and provide steel anchors into the top of the concrete wall as required.
6	Several large cracks are exposed on the interior of the basement area in the north and northeast walls. It was reported that numerous cracks existed in the exterior wall but were patched cosmetically with stucco and paint.	All crack over 1/8" in width should be epoxy injected for repair and lateral continuity in the wall.



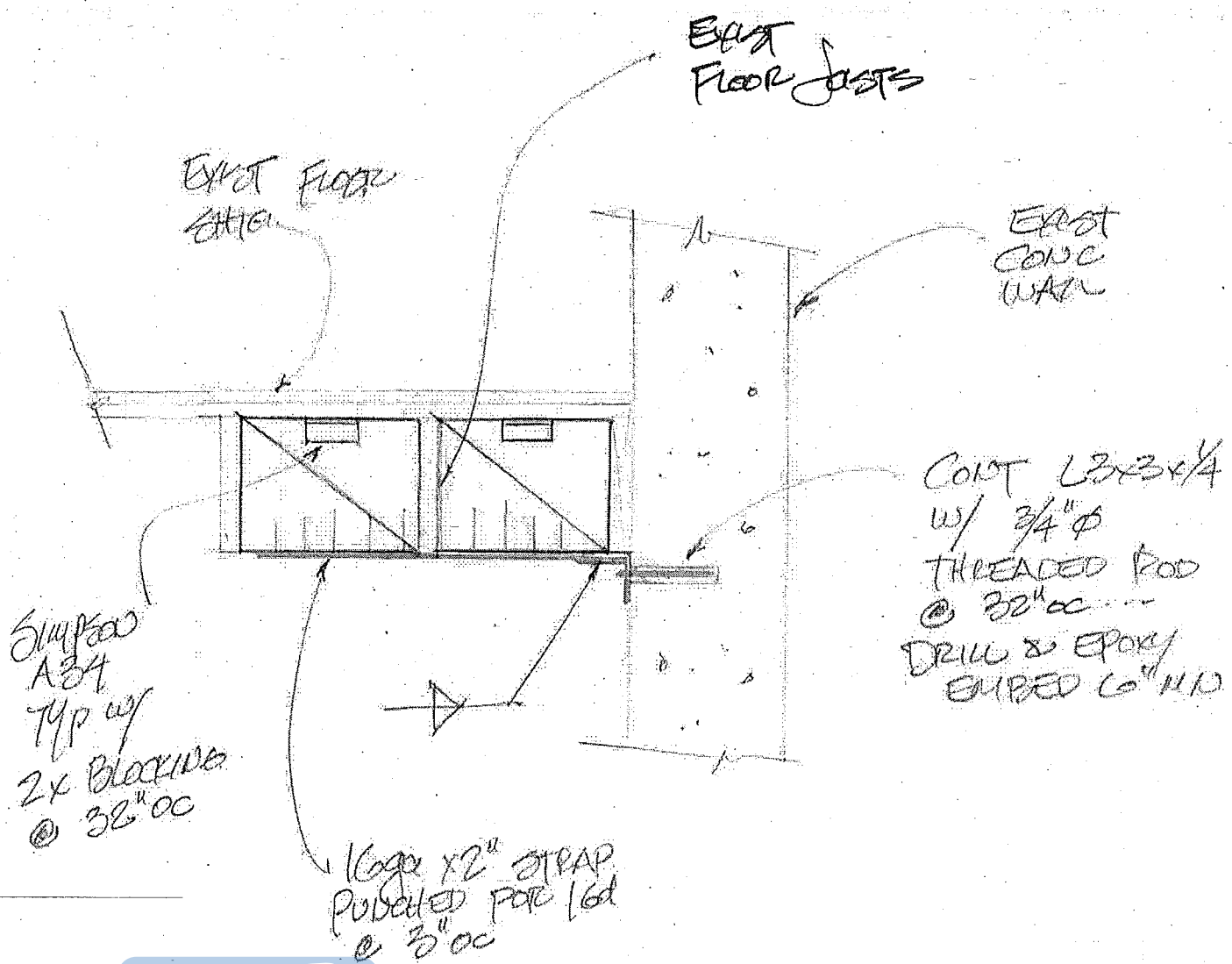
BENT
 R 1/4" x 9"
 w/(2) 3/4" φ THREADED
 RODS - EPOXY EMBED 6" INTO
 @ 32" ON (TYP)

NOTE: PROVIDE
 SIMILAR CONN @
 NORTH & SOUTH
 WALL w/ NEW
 BRACKING

(A) DETAIL
 1" = 11'-0"



Project: ST. JAMES EPISCOPAL CHURCH Job No: 11-228
Subject: FLOOR 1 & 2 Sheet 3 of _____ Name: (Signature)
Originating Office: Seattle Tacoma Date: 3.11.11



(B) DETAIL
1" = 1'-0"