RE-ROOF OF MISSION SAN LUIS CHURCH





Aaron Marc Company 496 SW ring CT, Lake City FL	
2-23-18	n/a
	Mission San Luis church re-roof
DRAWN BY Nicholas J. Rimert	DESCRIPTION Sheet Description
а	
01	



attach 2x4 SYP#2 PT to existing 4" die log purlins with TimberLoc 4" wood screws Model #FMTLOK04 . for 2x4 stringers occurring over existing log rafters use 10' TimberLoc screws



Attach 1x4 SYP PT purlins to 2x4 stringers with (3) .113x2.37" hot dipped galvanized ring shank nails.













Mark Disosway, P.E.

163 SW Midtown Place, Suite 103, Lake City, FL 32056, (386) 754-5419

Aaron Nickelson Global Innovation, LLC

RE: THE CHURCH AT MISSION SAN LUIS, Tallahassee, FL

Scope of work: Local Product Approval, for job listed above.

I calculated the attachment of new stringers and purlins to install Endureed faux thatch roofing replacing natural thatch. Existing church framing is on plans for Renker Eich Parks Architects, Project No. 0126A, Stamped 11-18-03 by John Parks.

Worst case Component and Cladding Wind Pressure = **-40 psf** based on FBC 6thEd, 1609.6 Alternate All Heights Method, Design Wind Speed, Vasd = 93 mph, Vult = 120 mph, Wind Exposure = C, Risk Category II, Internal Pressure Coefficient, Cpi = n/a enclosed, Ridge Roof Ht 46ft, Pitch 12:12, Cnet = +0.92 / -1.7 (Zone 3, 12:12, overhang, ASCE7 Figure 30.4-2C). Component and Cladding Wind Pressure worst case = Pnet = $0.00256 \times V^2 \times Kz \times Cnet \times Kzt = .00256 \times 120^{-2} \times 1.07 \times -1.7 \times 1.0 = 67 psf ULT \times .6 =$ **40psf ASD**.

Attach 2x4 SYP#2 PT at 24"OC to existing 4"min dia log purlins at 16"OC with TimberLOK 4 in. Wood Screw Model# FMTLOK04. For 2x4 stringers occurring over existing log rafters use 10" TimberLOK screws. Allowable wind uplift = 200 lb/screw head pull thru / 16"OC / 24"OC = **75psf ASD**

Attach 1x4 southern pine PT purlins to 2x4 stringers with 3 - .113x2.37" hot dip galvanized ring shank nails. Allowable wind uplift = 3 * 72 lb/nail / 8"OC / 24"OC = **163 psf ASD**. Note: 1x4 SYP are not structurally graded and should be visually selected on site to avoid structural defects.

Based upon this report new 1x4 purlins and 2x4 SYP#2 stringers attached to existing roof log purlins are in compliance with ASCE 7-16 and 2017 FBC 6th Ed requirements for wind resistance.

29 Jan 2018 Mark Disosway, PE

Florida Registered Professional Engineer

Cc Aaron Nickelson, Global Innovation, LLc