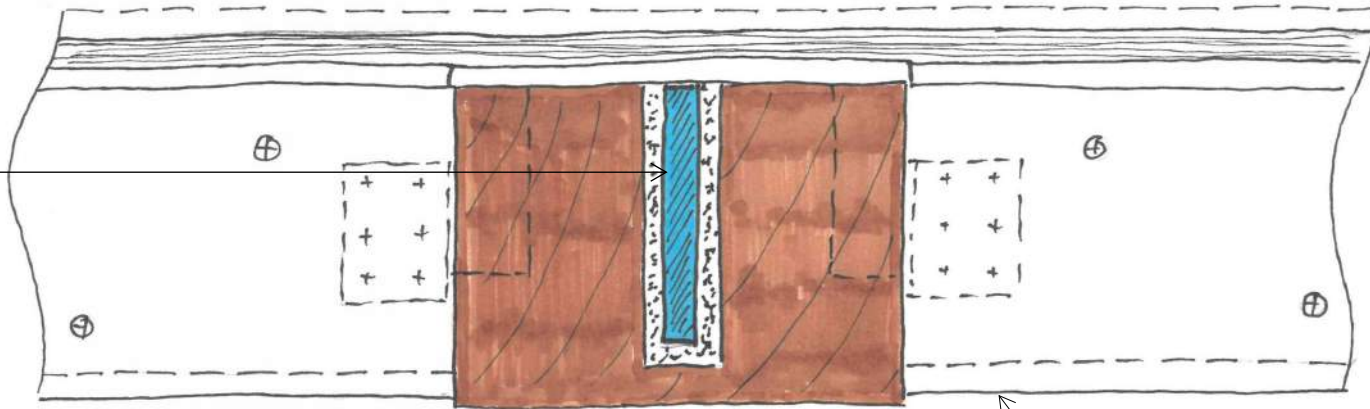
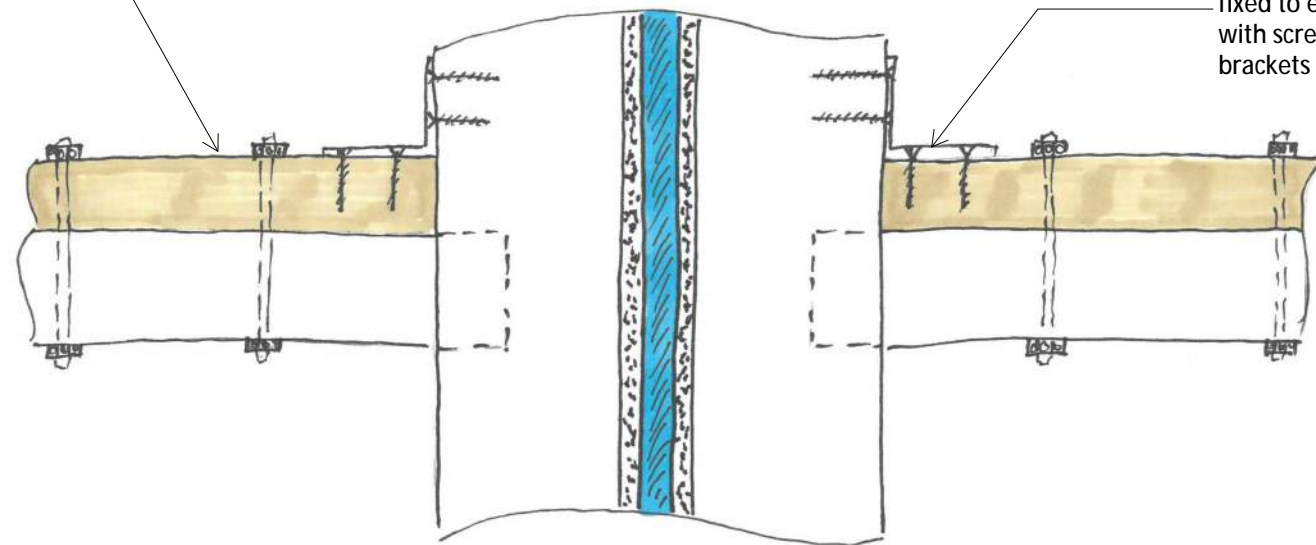


Steel strengthening plate to be resin bonded into slot cut into existing timber floor beam



Detail 4: Section of Front Floor Beam To Be Strengthened, 1:10

Existing joists to be strengthened with 200x50 C24 timber joists - bolted together at 400mm staggered c/c



Detail 5: Plan of Front Floor Beam To Be Strengthened, 1:10 Option A

Structural Strengthening Requirements:

- The existing timber floor beam can not be justified for the required residential loadings to current standards and requires strengthening
- This solution offers the least impact to the existing floor joists



Figure 4, Front Floor Beam To Be Strengthened (Indicative)

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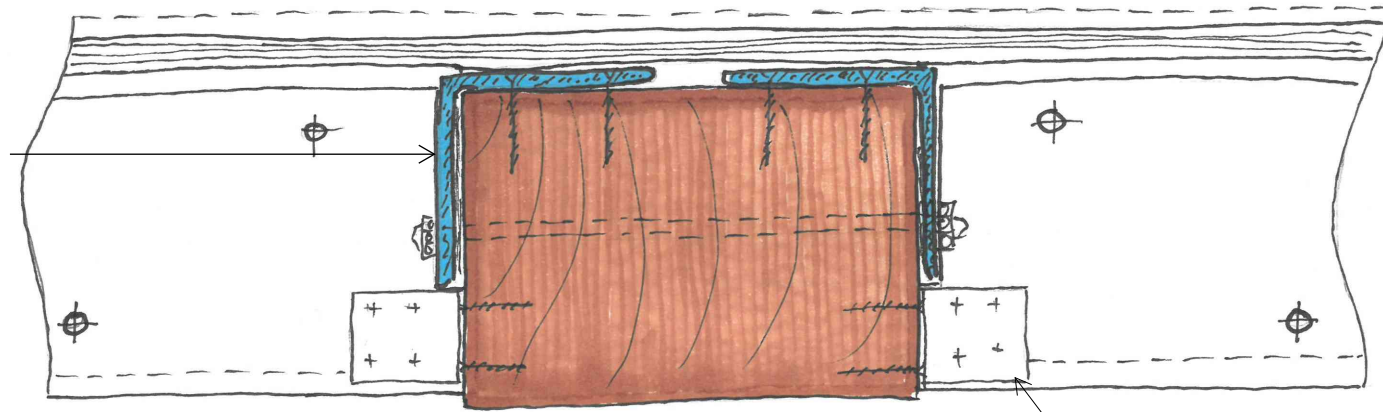
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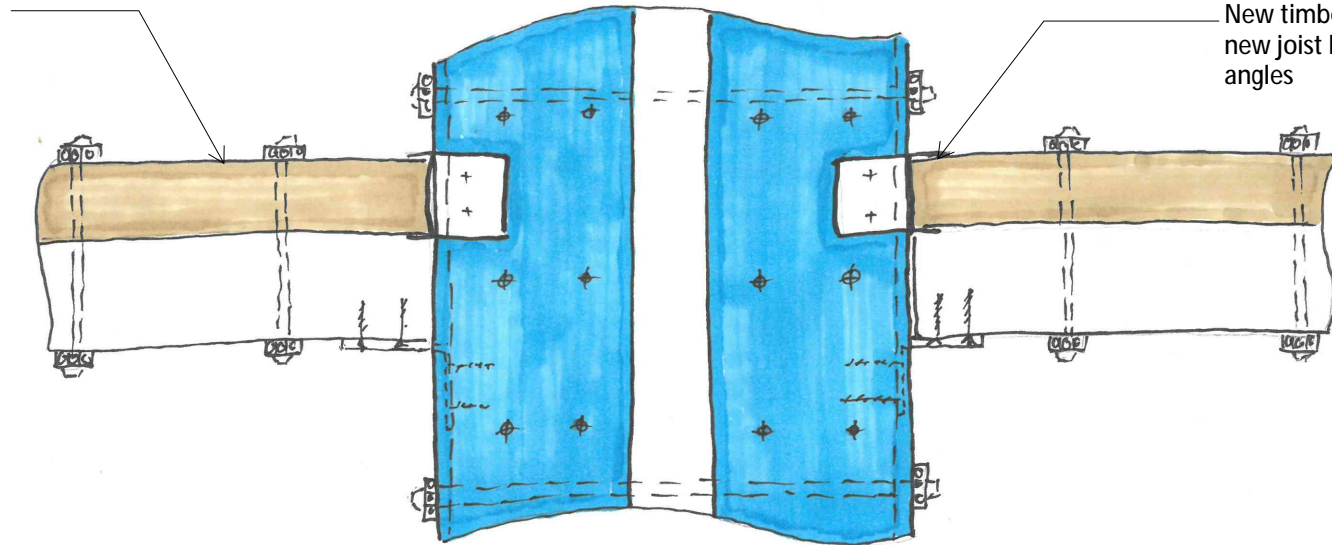
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project no		879	
sketch no		04-XX-LB-S-0001.4	
rev		01	
date		20/11/2017	
by		RK	

Steel angles to be fixed to existing timber floor beam with through bolts and screw to top of beam



Detail 7: Section of Front Floor Beam To Be Strengthened, 1:10

Existing joists to be strengthened with 200x50 C24 timber joists - bolted together at 400mm staggered c/c



Incoming floor joists to be fixed to existing timber floor beam with screw fixed brackets to allow for the existing bearing to be cut back to allow for strengthening steel angles to be installed

New timber joists to be supported on new joist hangers fixed to top of steel angles

**Detail 8: Plan of Front Floor Beam To Be Strengthened, 1:10
Option B**

Structural Strengthening Requirements:

- The existing timber floor beam can not be justified for the required residential loadings to current standards and requires strengthening
- The proposed solution offers the least impact to the existing floor beam



Figure 5, Front Floor Beam To Be Strengthened

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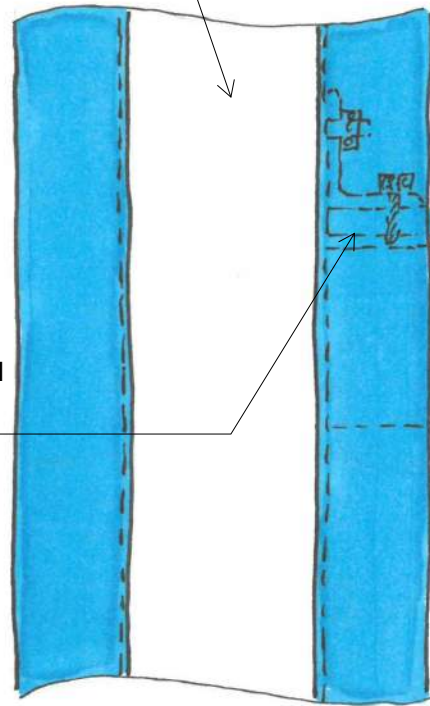
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date		20/11/2017	
by		RK	

Existing timber spine wall beams to be strengthened with pairs of PFC steel beams - through bolted to spine beam with pairs of bolts at 600mm c/c

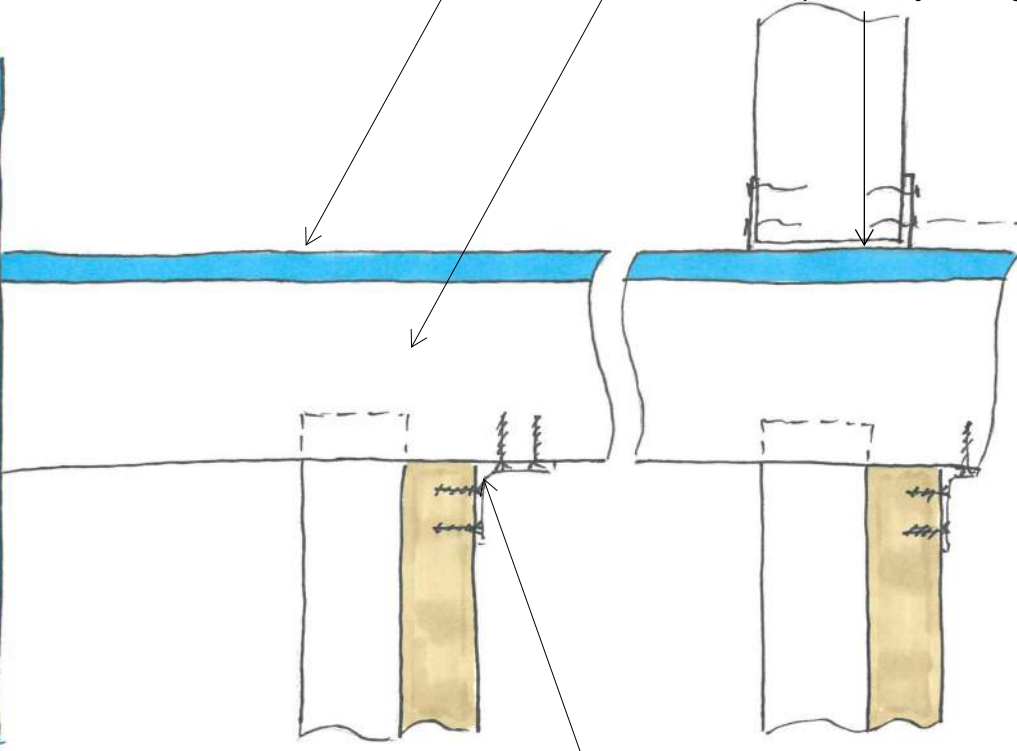
Steel plate to be supported on new steel beam - fixed with bolted angle connection



New steel plate bolted to stair side face of existing timber beam - existing finishes to be carefully removed to allow for plate to be installed

Existing timber floor & stair beam

Existing stair trimmer beam to be re-supported in steel plate with joist hanger



New timber joists to be fixed to existing floor beam with screw fixed angle brackets

Detail 6: Plan of Rear Floor/Stair Beam To Be Strengthened, 1:10

Structural Strengthening Requirements:

- The existing timber floor beam can not be justified for the required residential loadings to current standards and requires strengthening
- The staircase shows signs of settlement due to the movement of the stair wall and the supporting beam line needs to be stabilised at each level
- The proposed solution offers the least impact to the existing floor structure as the floor joists will not require cutting back and re-supporting

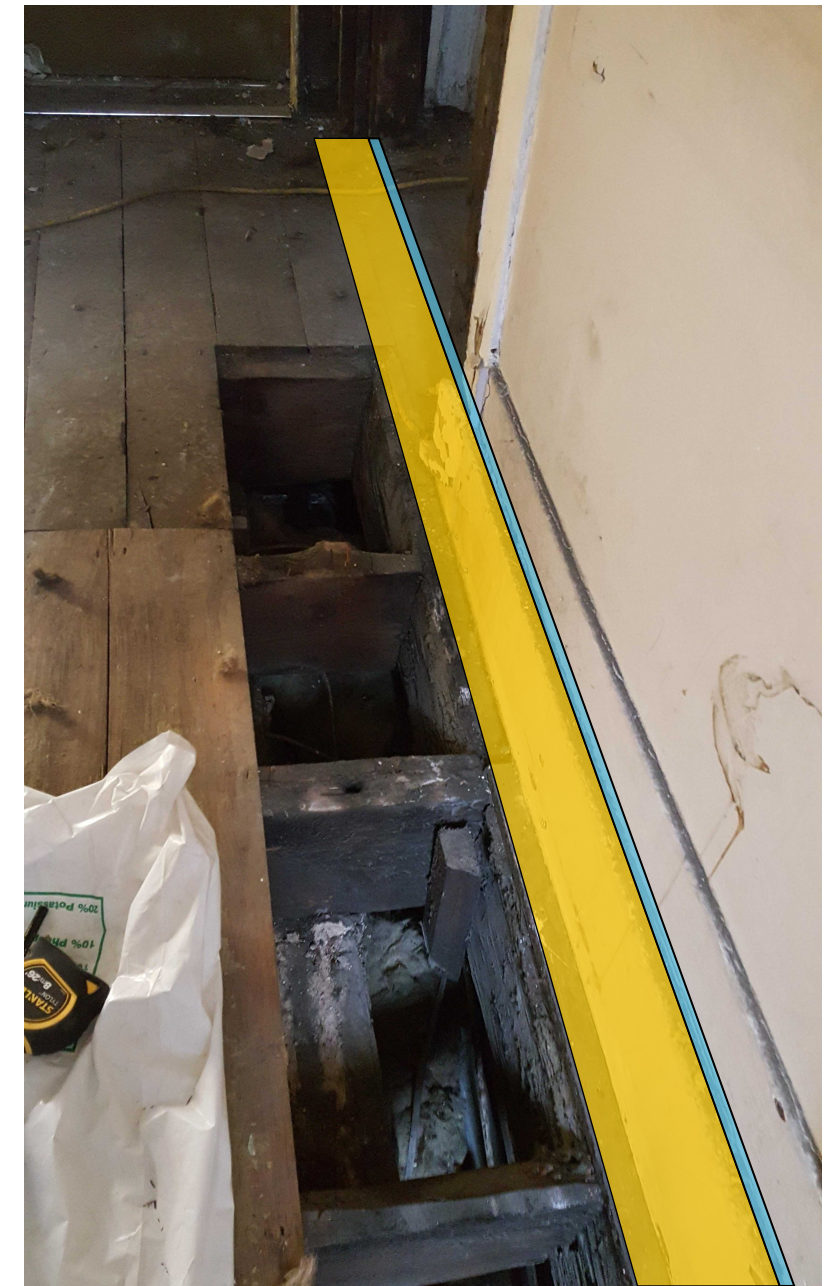


Figure 5, Rear Floor Beam To Be Strengthened (Indicative)
Note: Strengthening to opposite side of wall shown

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rev		01	
date		20/11/2017	
by		RK	