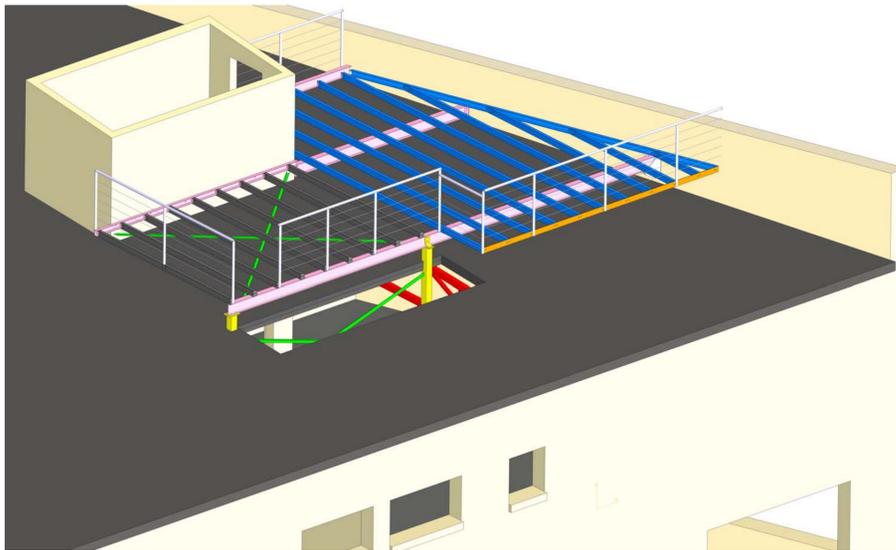
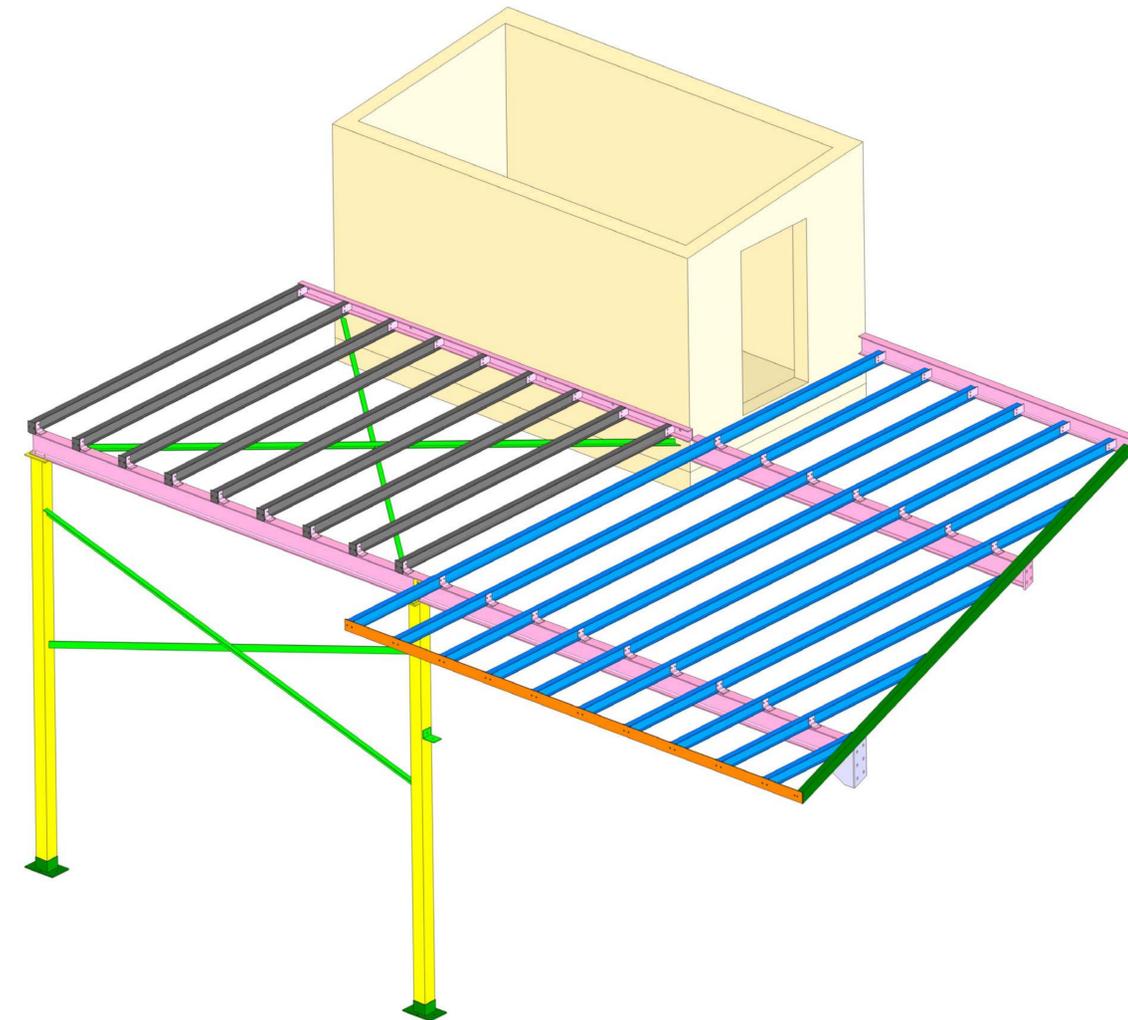
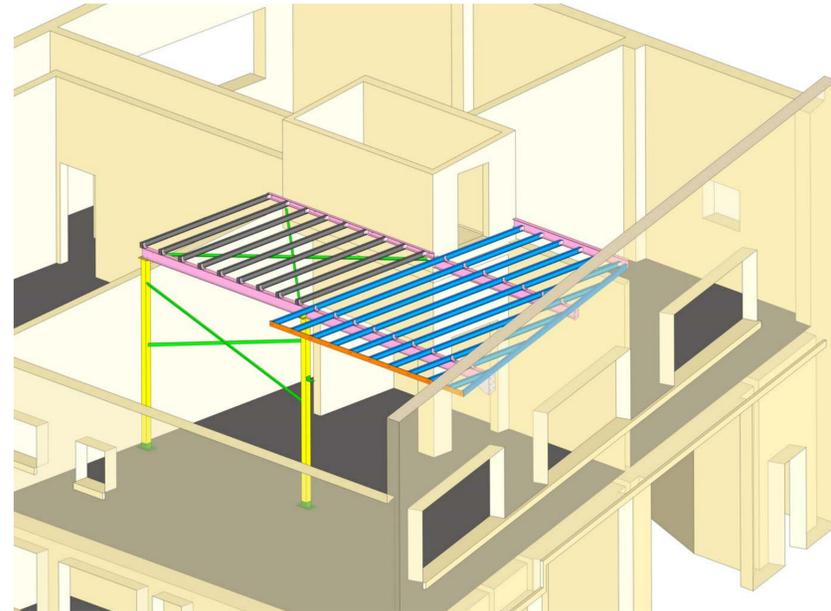
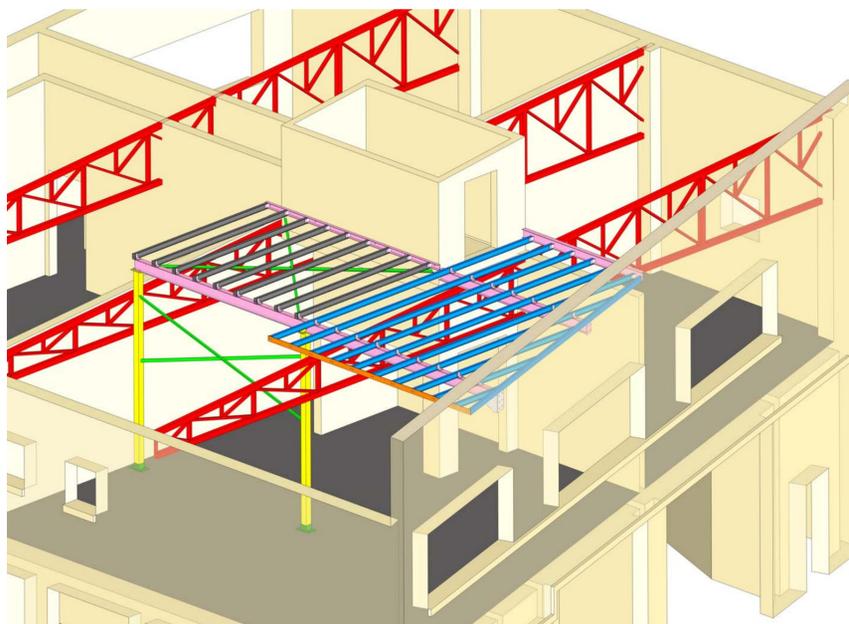
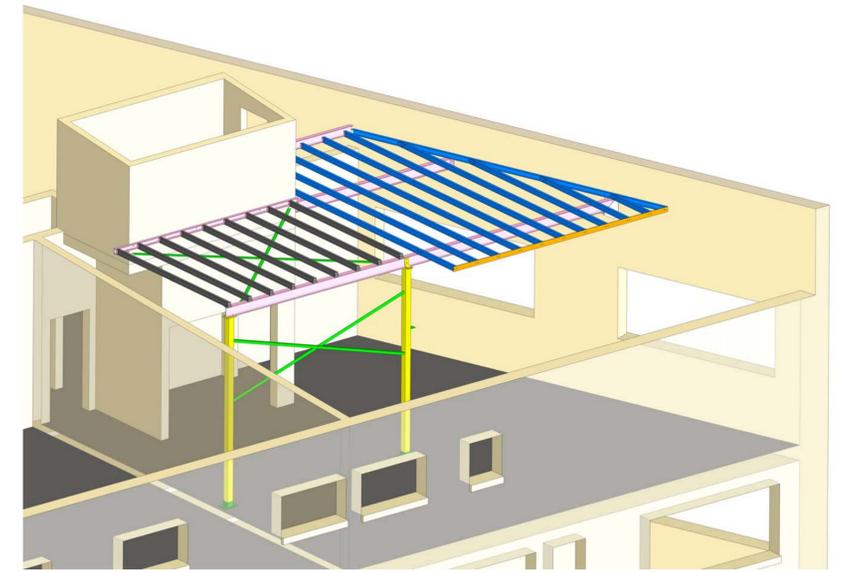
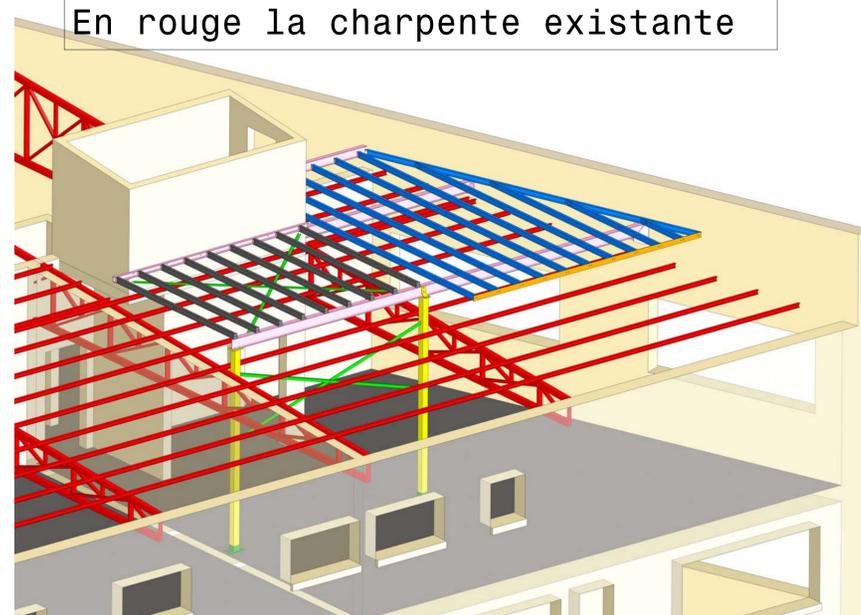


# 1 - STRUCTURE SITUATION GENERALE

Montage au dessus de la toiture



En rouge la charpente existante

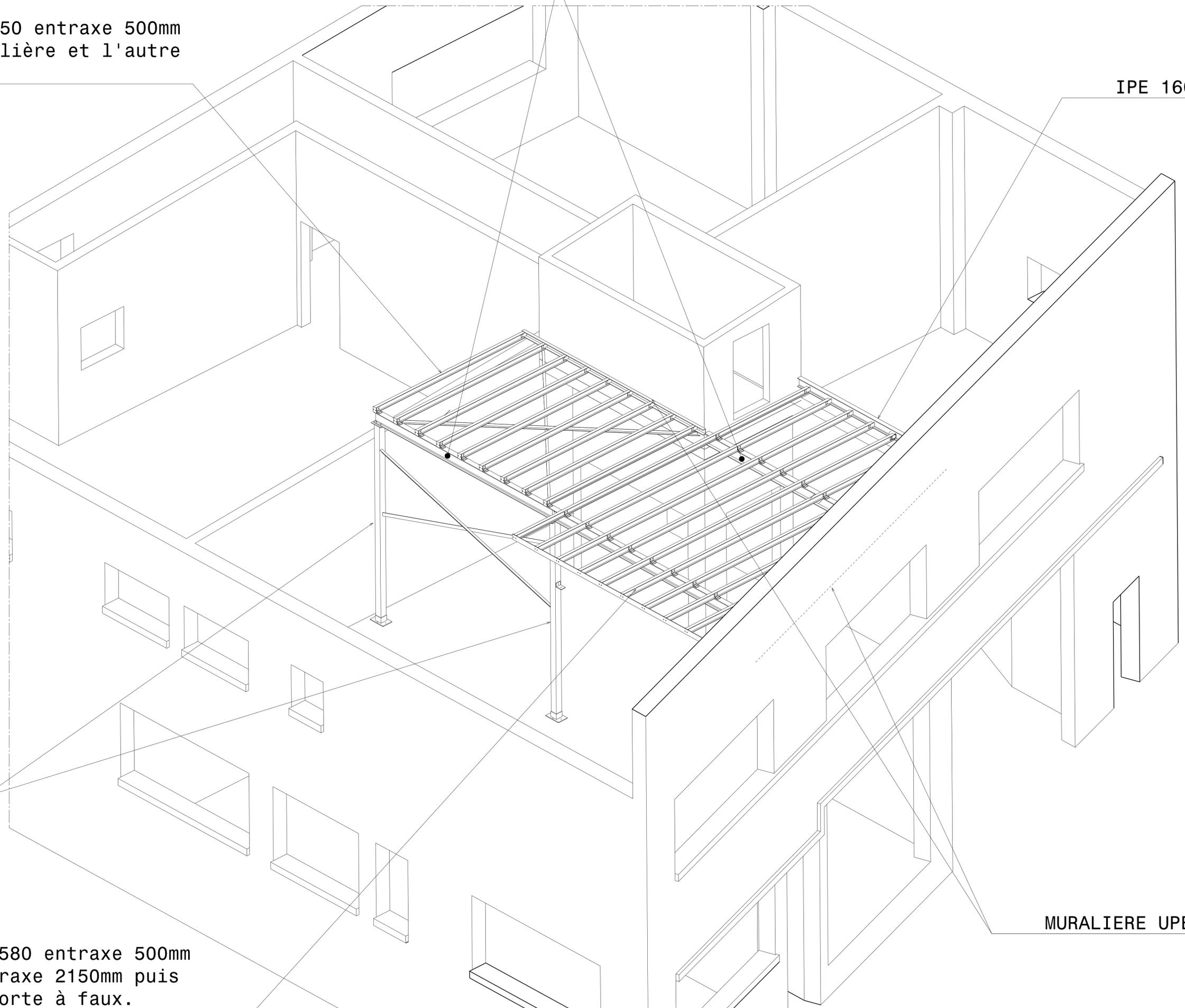


## 2 - STRUCTURE VUE D'ENSEMBLE

9x IPE 100 longueur 3250 entraxe 500mm  
Fixés un coté sur muralière et l'autre  
sur IPE200

IPE 200mm fixés sur poteaux et boulonnés au mur de facade

IPE 160

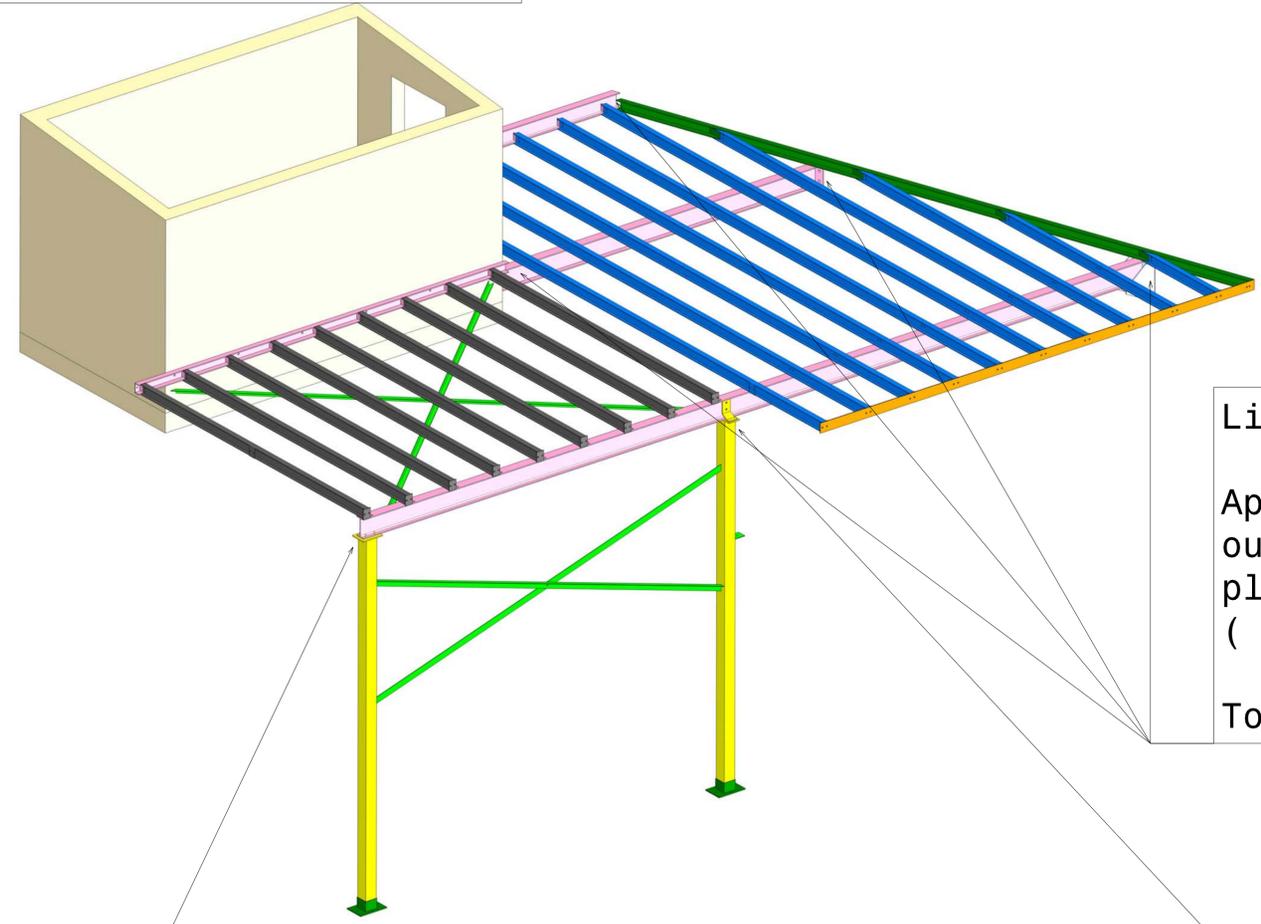


2 POTEAUX 120x120 ep4  
hauteur 3900mm

8x IPE 100 longueur 6580 entraxe 500mm  
Portés sur IPE200 entraxe 2150mm puis  
3250mm et 1000mm en porte à faux.

MURALIERE UPE 100

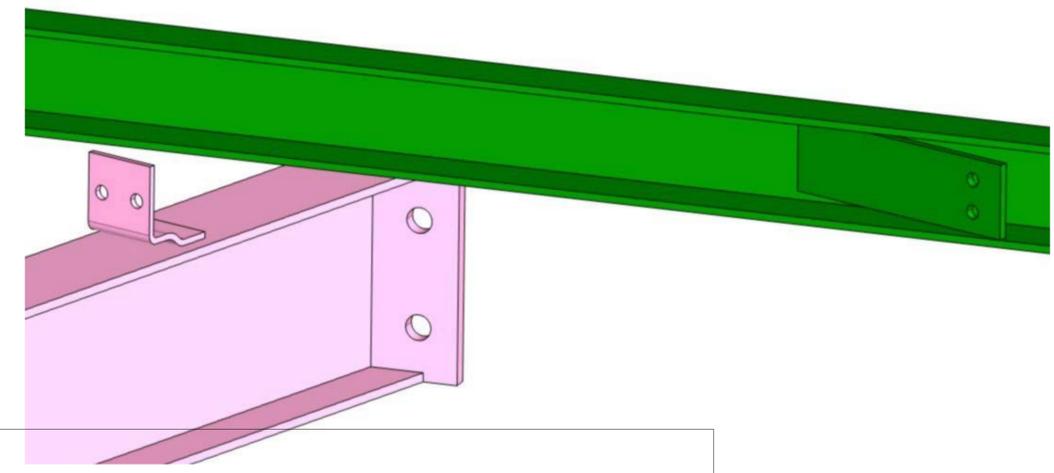
3 - DETAIL : IPE 200



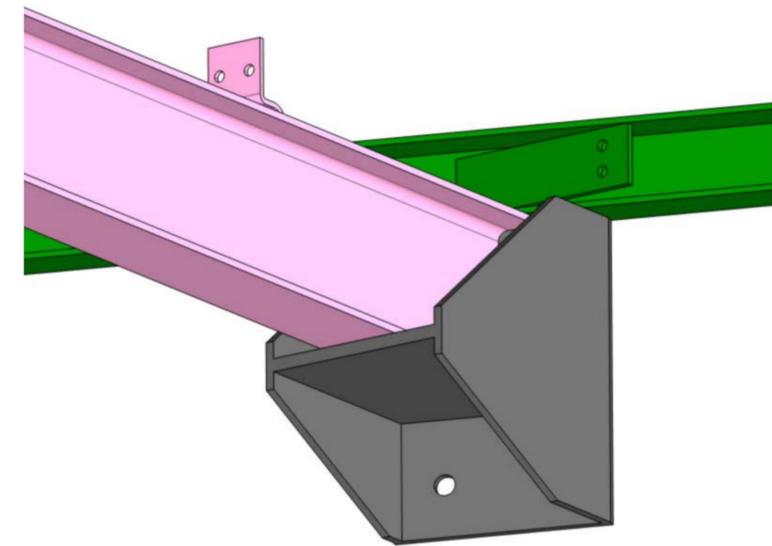
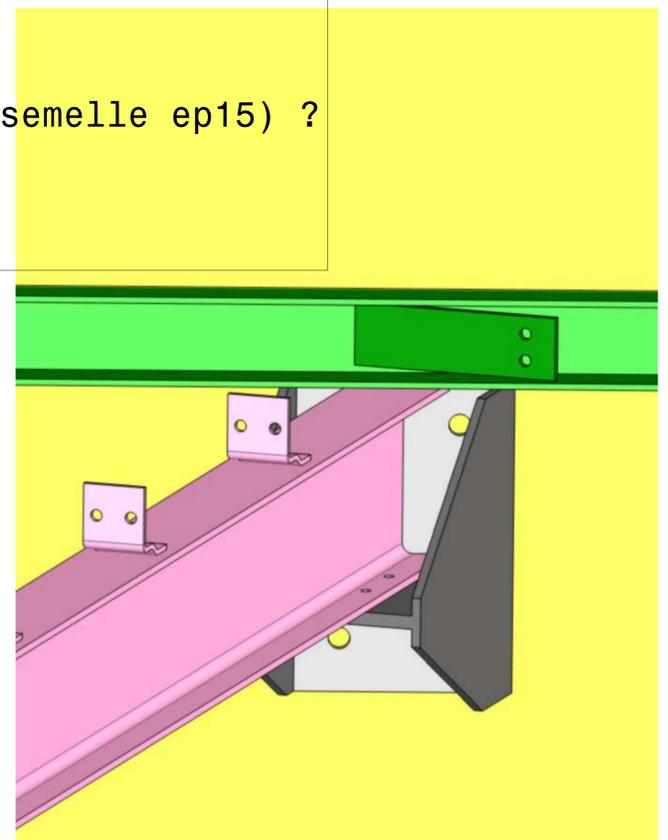
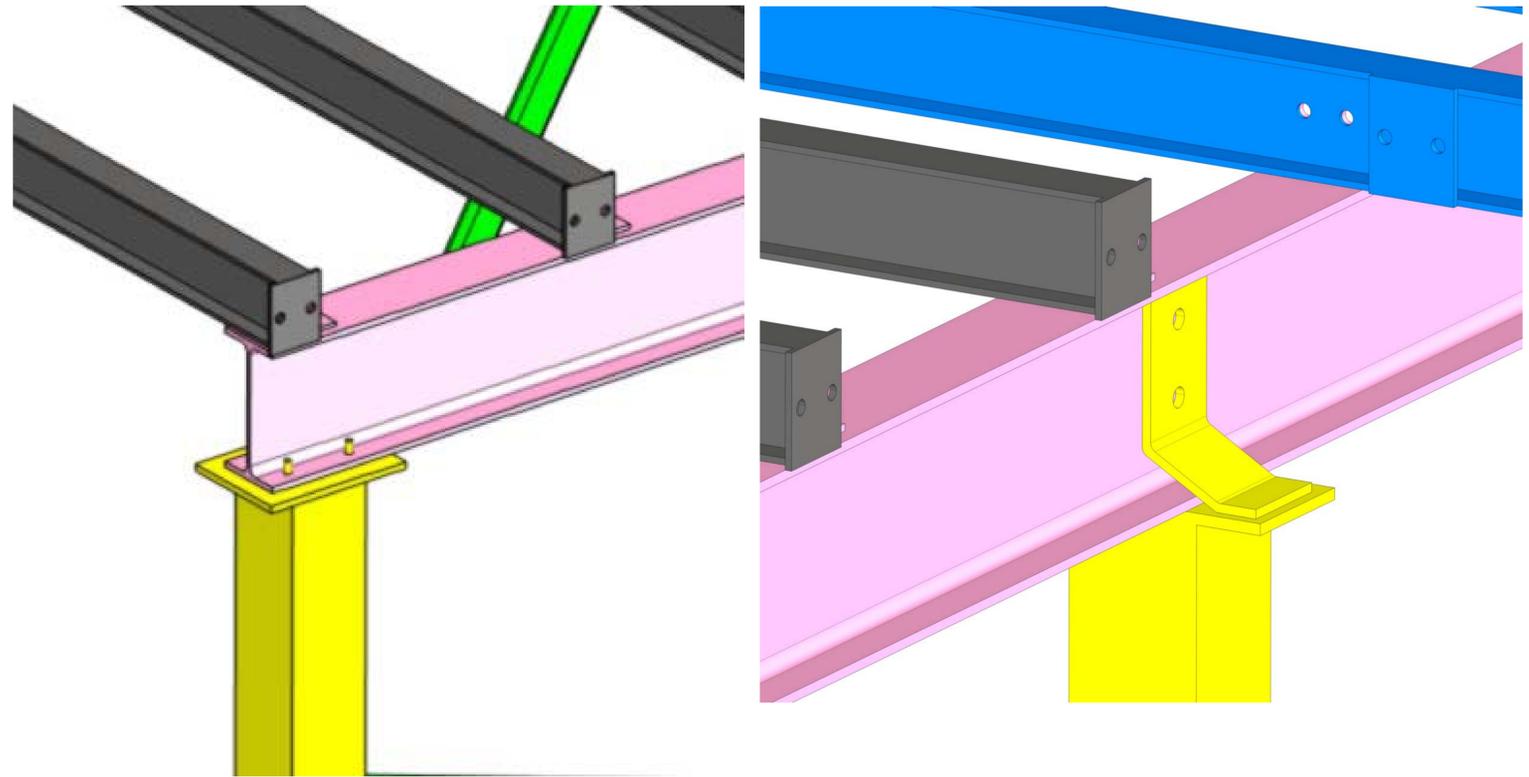
Liaison IPE 200 / MUR

Appui fixe par platine ep15 soudée à l'IPE  
ou  
plus mobile en passant par un sabot (ep10 semelle ep15) ?  
( IPE200 visé par 4xM12 sur le sabot )

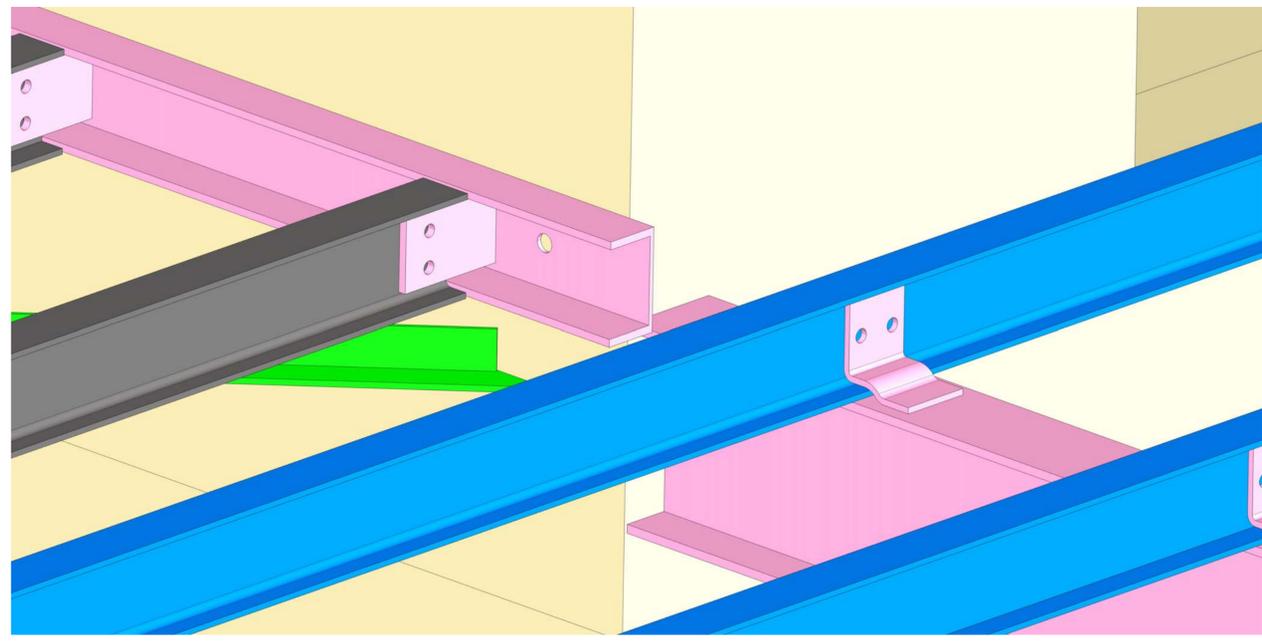
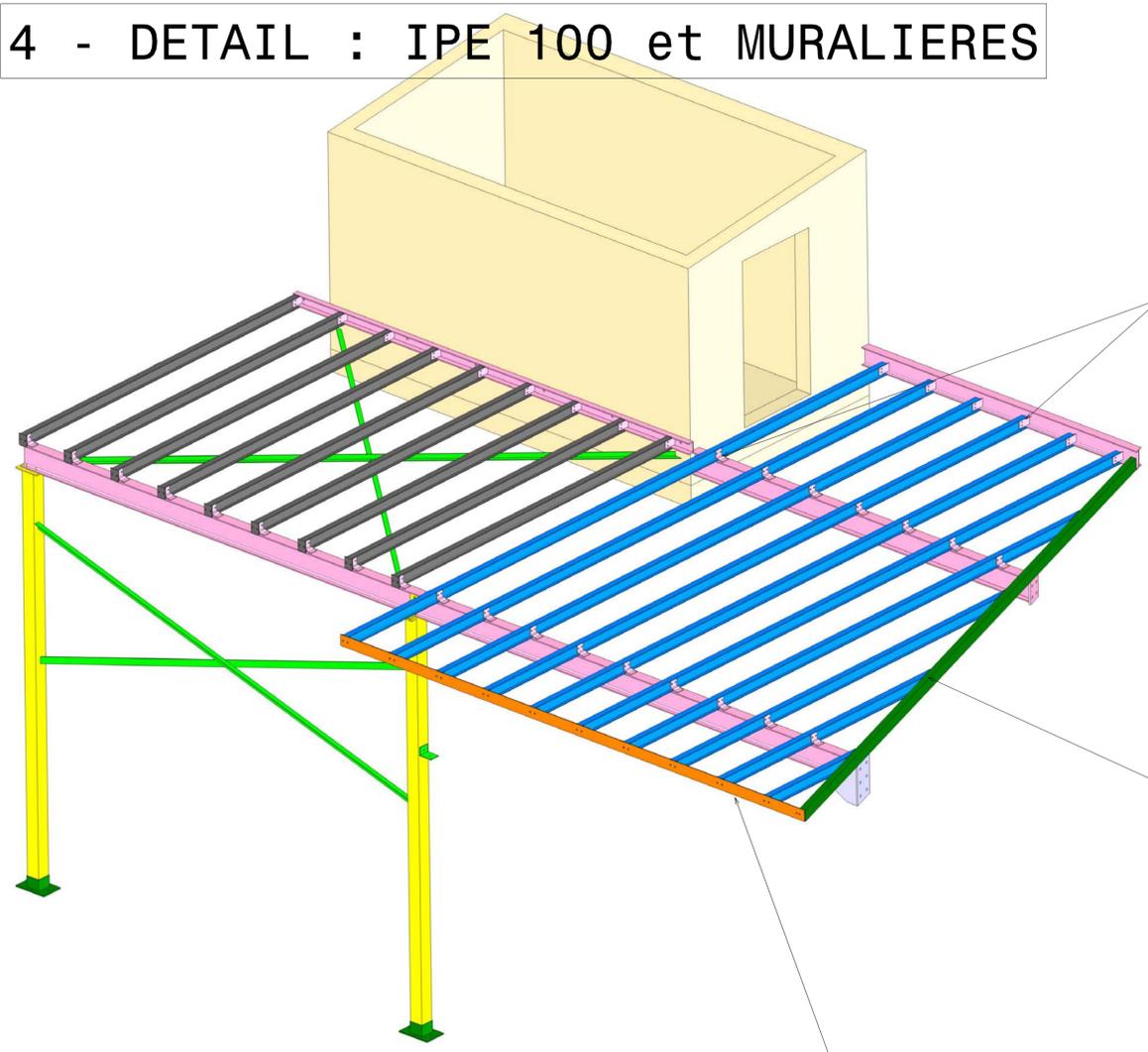
Tout est boulonné au mur par M24.



Liaison IPE200 / POTEAU  
Par 2 échantignoles ou boulonnage sur platine ?

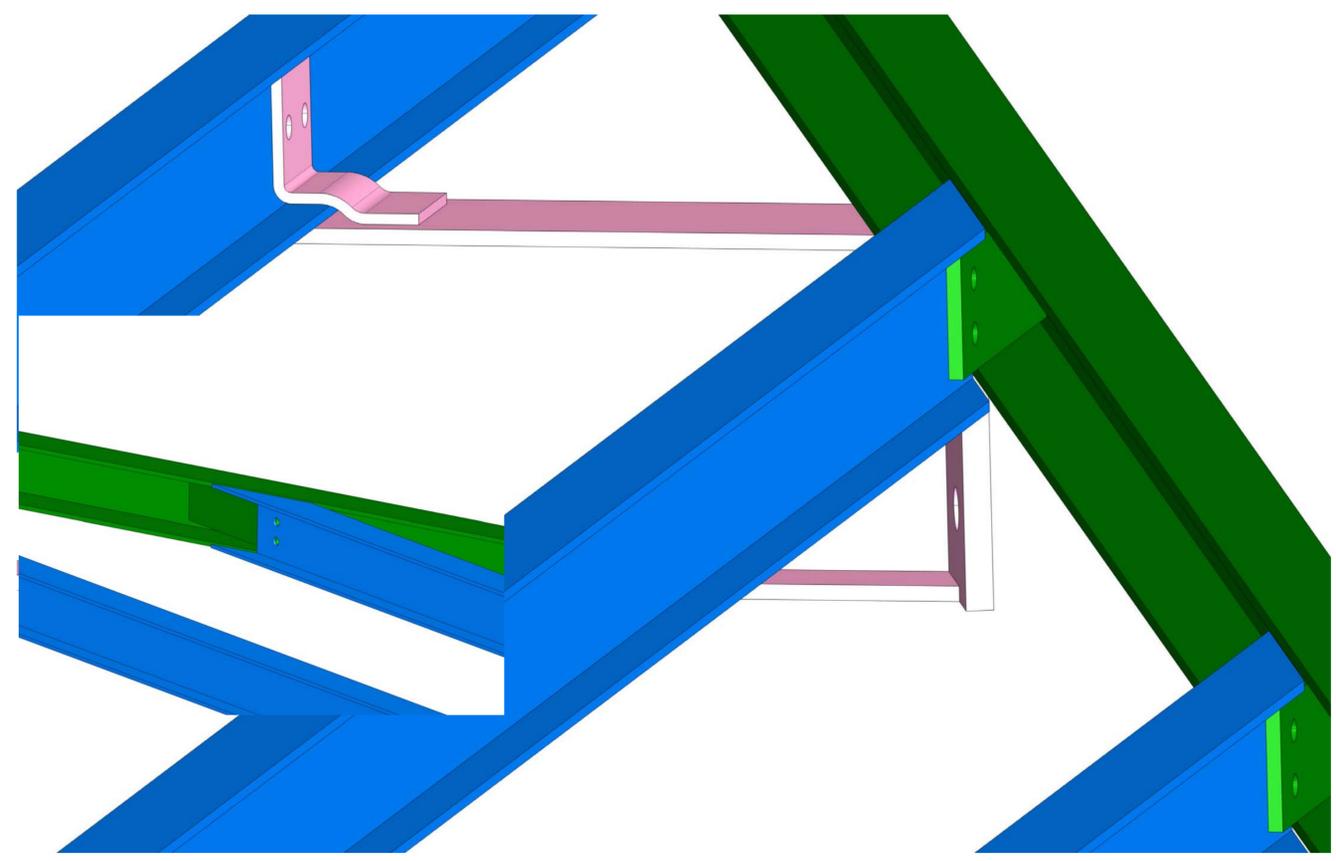
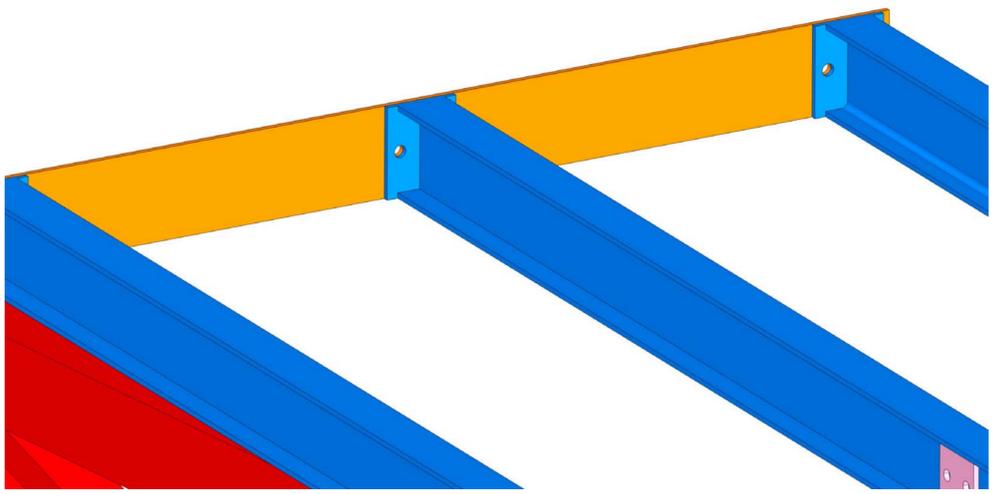


4 - DETAIL : IPE 100 et MURALIERES

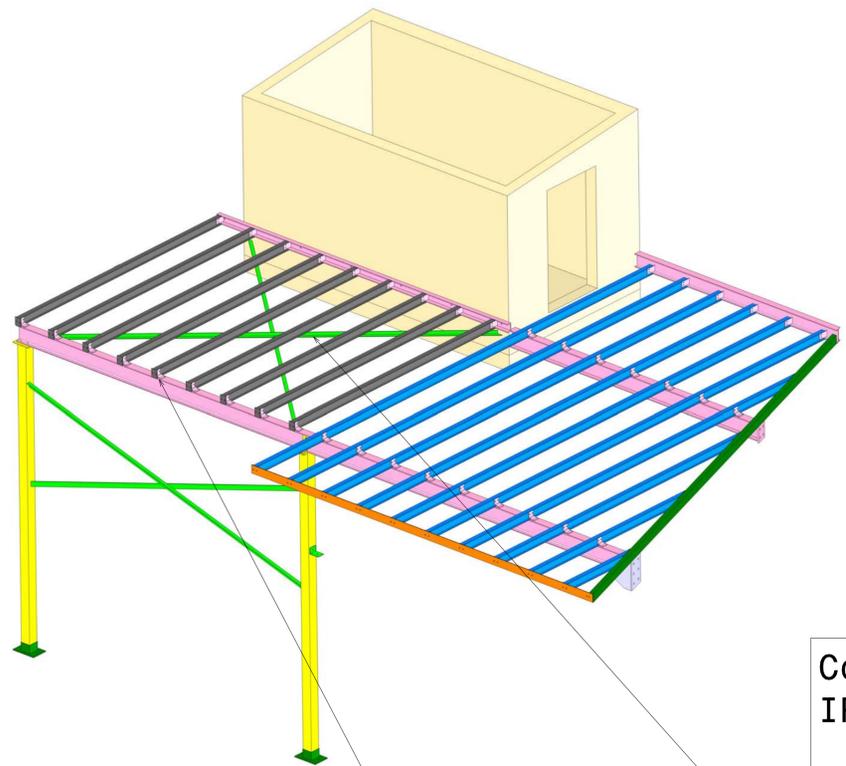


Muralières UPE 100 boulonné M20 directement au mur.  
IPE 100 boulonnés M12 sur échantignoies ep6 au sommier.  
IPE 100 boulonnés M12 sur platines ep8 aux muralières.

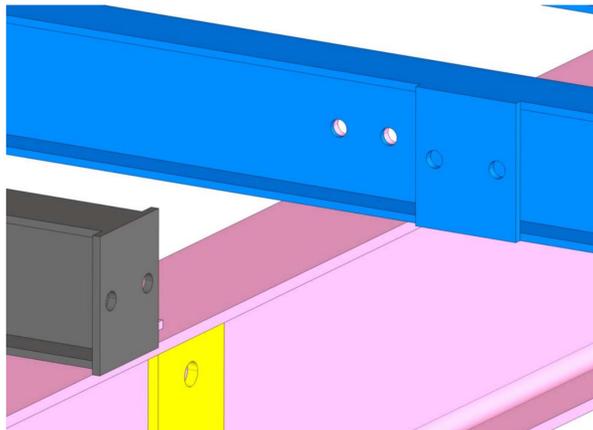
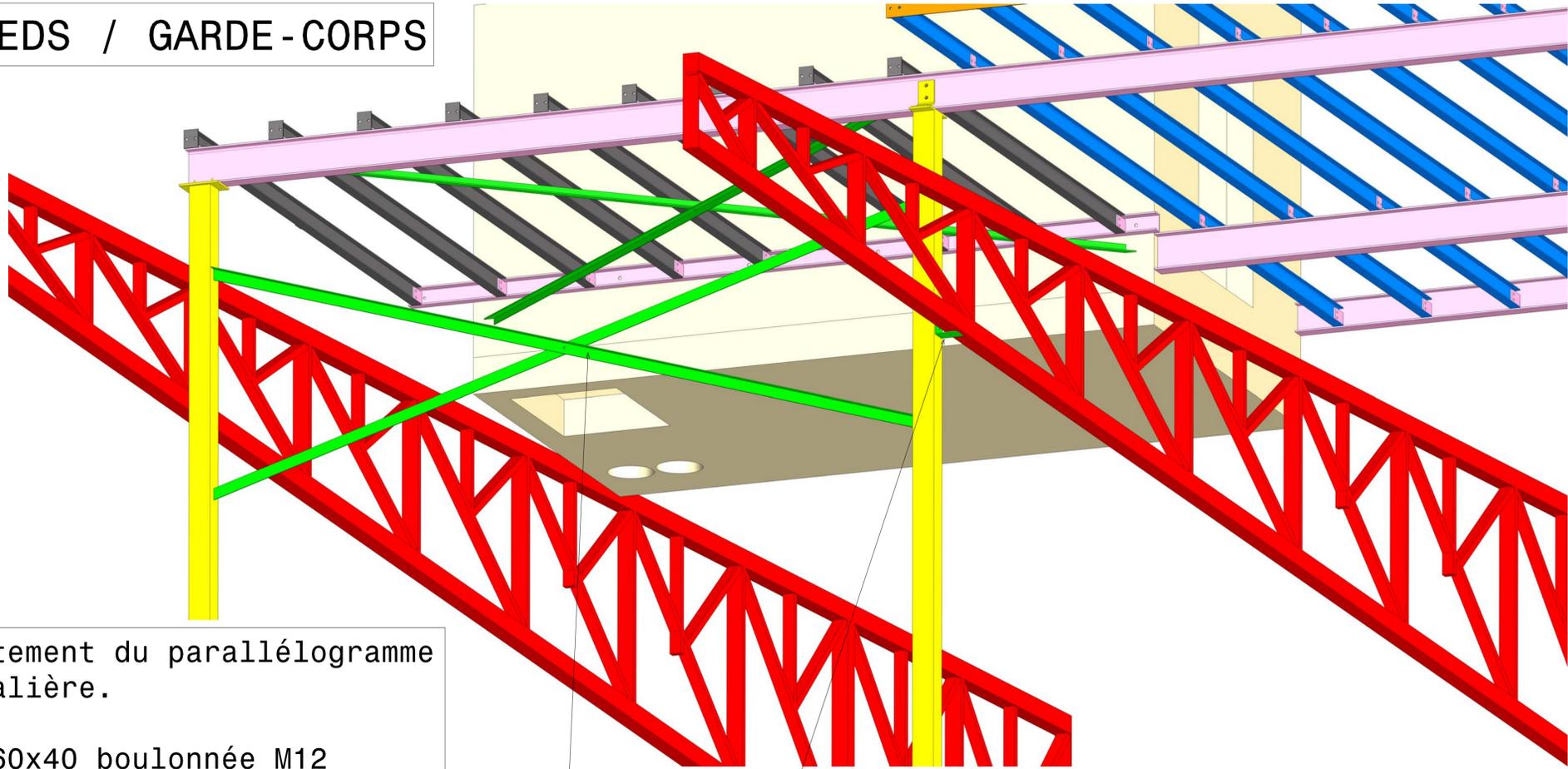
Liaison des extrémités des IPE 100 (console)  
Reprise de flexion par un plat 6mm ?



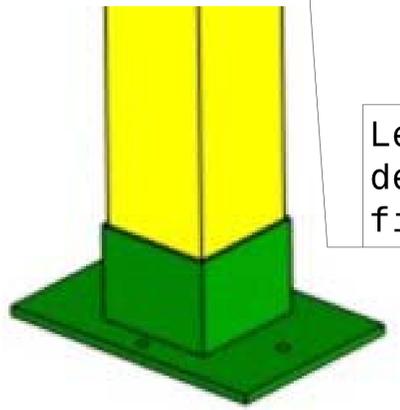
5 - DETAIL : CONTREVENTEMENT / PIEDS / GARDE-CORPS



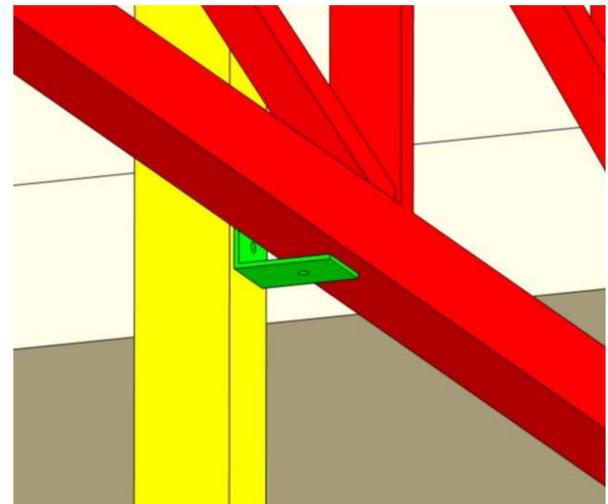
Contreventement du parallélogramme  
IP200 Muralière.  
Cornière 60x40 boulonnée M12



Ancrage des garde-corps par  
platinas ep6 / M12

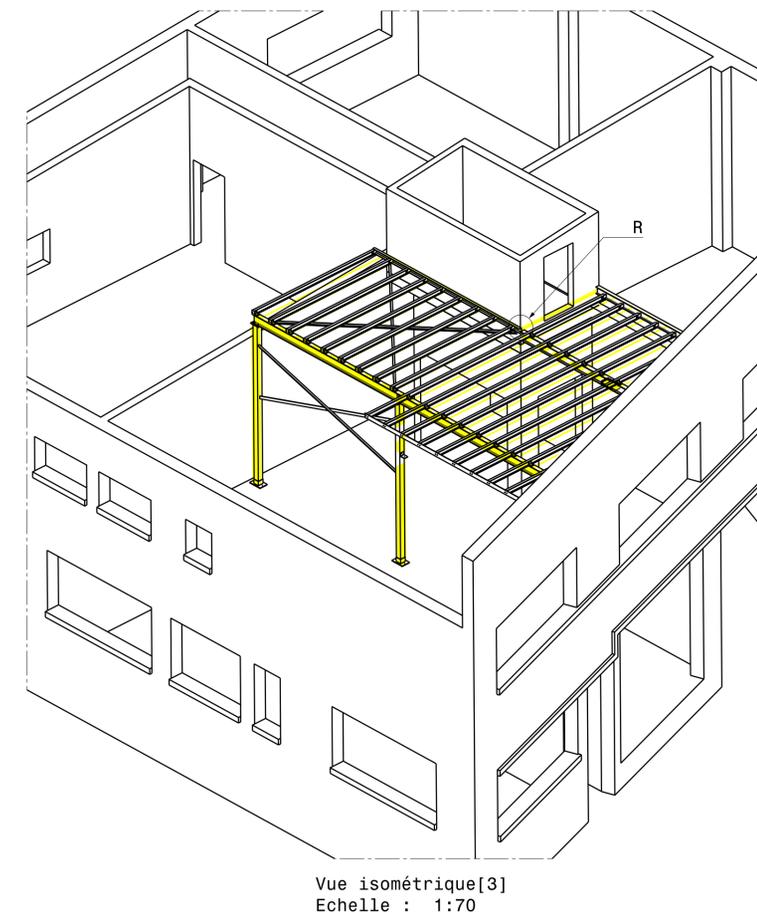
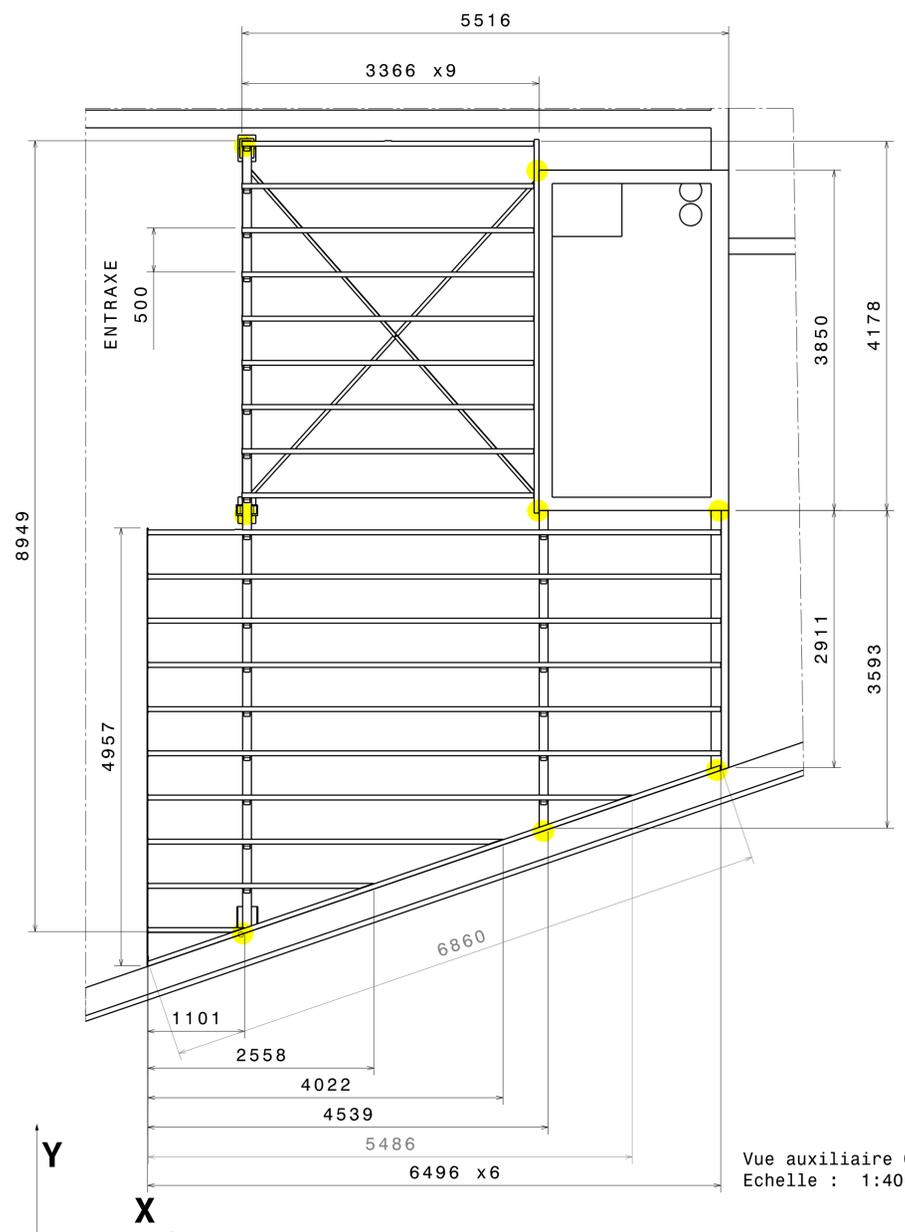
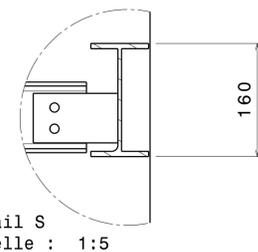
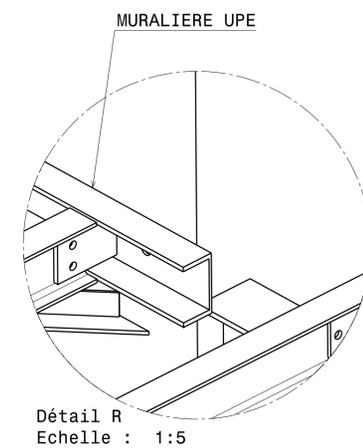
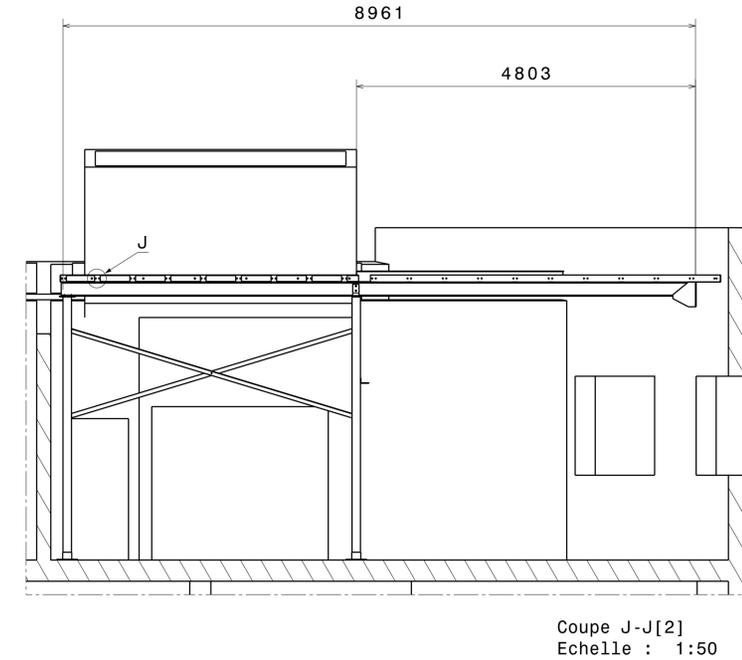
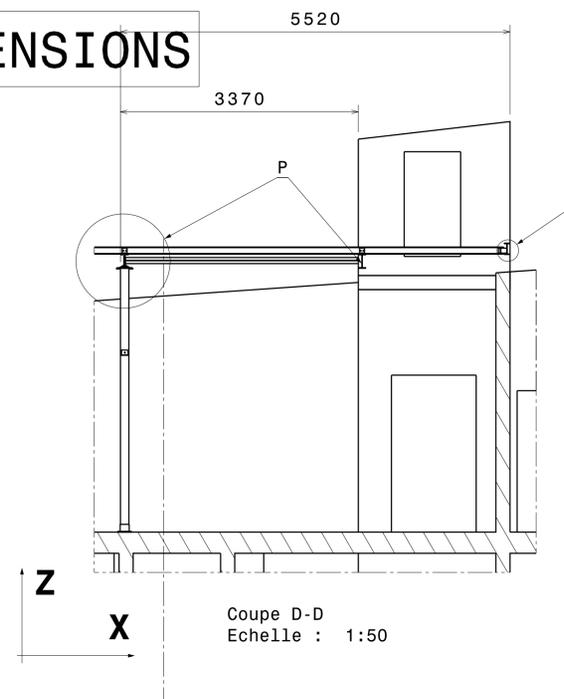
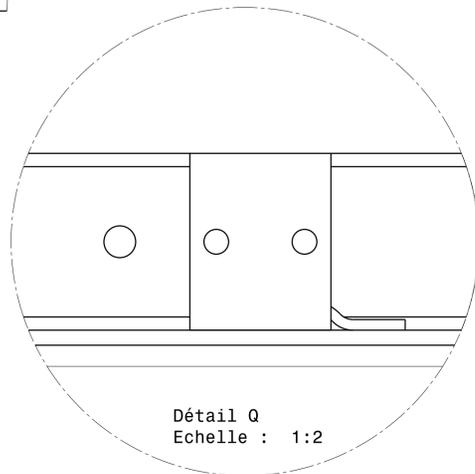
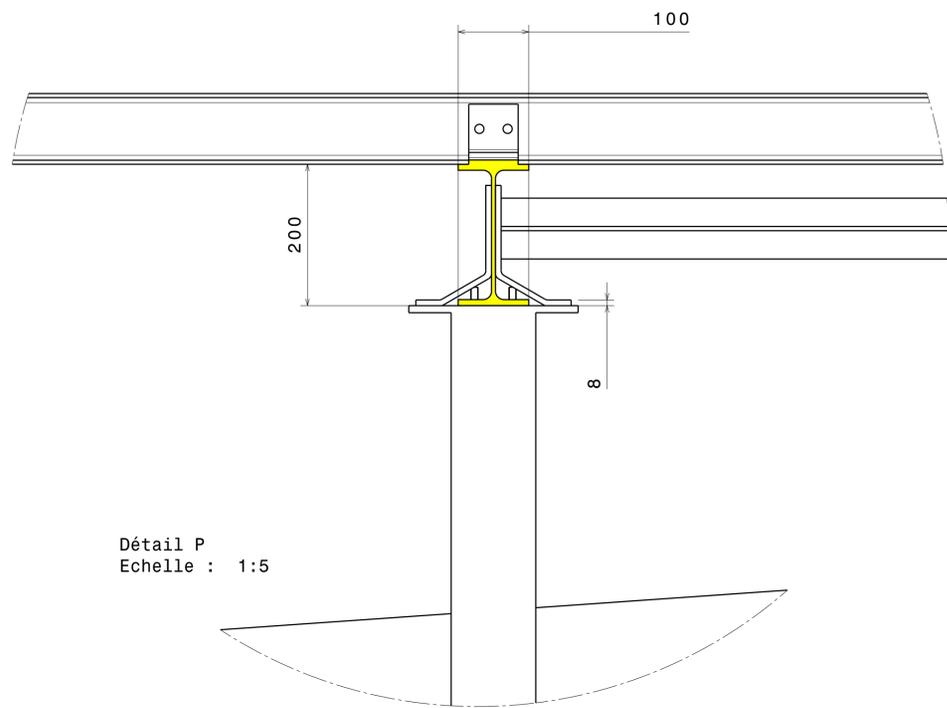


Les poteaux son insérés dans  
des fourreaux (semelle ep10)  
fixés au sol.



Contreventement des poteaux 120x120 ep4 par  
équerres de fixation sur les fermes de toiture  
existantes. ( à 2500mm du sol )  
Et / Ou ??? croix de saint André entre poteaux.

# 6 - STRUCTURE DIMENSIONS



PROFIL	LONGUEUR mm	Qt	tarif /m	Tarif total	Kg/m	Masse totale	
IPE 200	8976	1				228	
	3521	1				89	
<b>tot IPE200</b>	<b>12.5 m</b>		<b>119</b>	<b>1492</b>	<b>25.41</b>	<b>317</b>	<b>317</b>
<b>IPE 160</b>	<b>2.9 m</b>	<b>1</b>				<b>47</b>	<b>47</b>
IPE 100	3366	9				31	
	6500	6				60	
	5486	1				58	
	4533	1					
	4022	1					
	2558	1					
1101	1						
<b>tot IPE100</b>	<b>87 m</b>		<b>35</b>	<b>2975</b>	<b>9.13</b>	<b>794</b>	<b>794</b>
UPE 100	3850	1				46	
	6860	1					
<b>tot UPE100</b>	<b>10.71 m</b>		<b>47</b>	<b>564</b>	<b>17</b>	<b>182</b>	
CARRE 120x120x4	3950	2				56	
<b>tot CARRE</b>	<b>7,9 m</b>		<b>47</b>	<b>357</b>	<b>14.2</b>	<b>112</b>	
<b>TOTAL</b>				<b>5388</b>		<b>1349 Kg</b>	<b>1158 kg</b>