

Passive House Construction

November 2016



Northwest area footings formed, vapor barrier is in.

Rakers, whaler for temp bracing complete.

WP and insulation at 420 Melrose West wall complete.



Vapor barrier, rebar mat for slab



Community room slab completed. Heat retention blankets being laid.



Installation of 5" insulation and CMU block is in progress



Front Facade – Pipe scaffold in place on left, Syntheon front facade studs install in progress



Syntheon install in progress





Syntheon back facade install 85% complete



Back Facade – Pipe scaffold 100% up, Syntheon 100% complete, Densglass sheathing 60% complete



Densglass and polyiso returns at windows are in progress

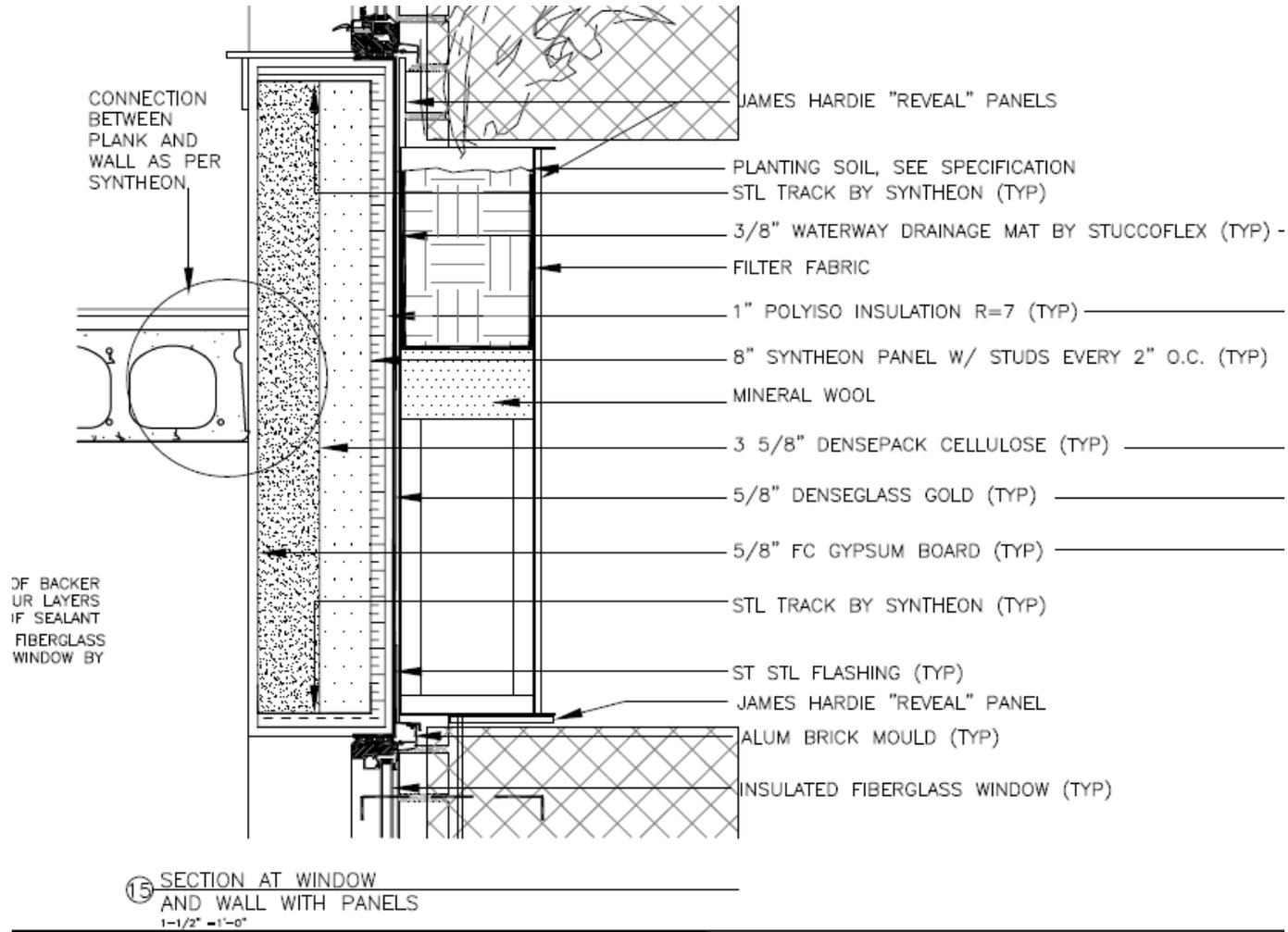


Back Facade –Densglass sheathing 95% complete, STO Gold 50% Complete

STO Gold application IN PROGRESS, photo shows mesh tape application at all corners



Melrose – Exterior Wall Detail



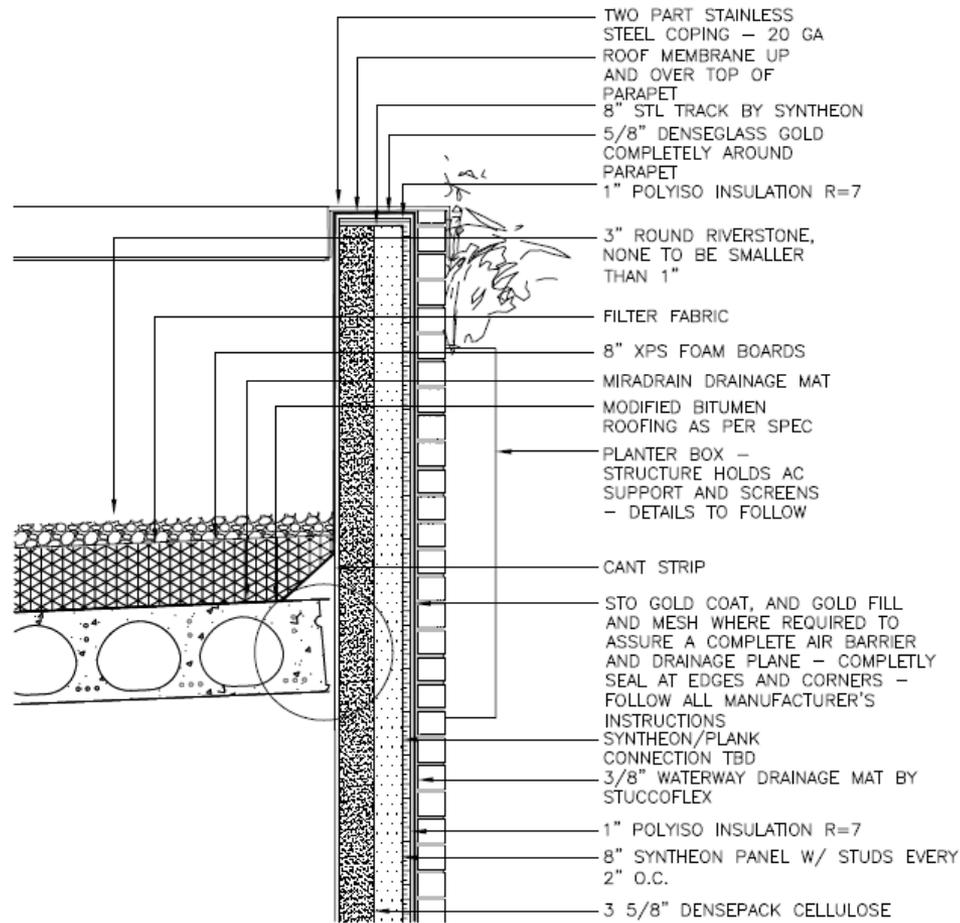


Back Facade – Brick Install – 30% Complete



Roof – Bulkhead EIFS 60% complete, 1st ply of roof and crickets 80% complete

Melrose – Roof Detail



③ PARAPET AT BRICK VENEER
3/4" = 1'-0"



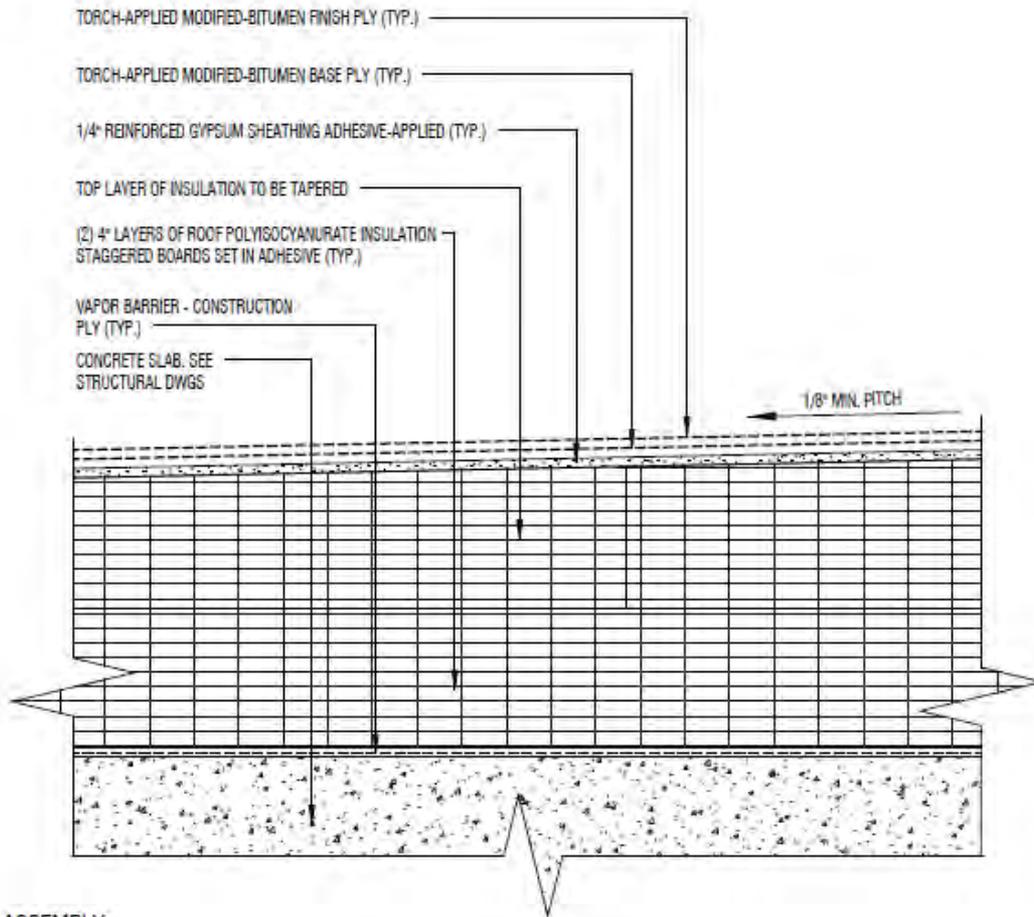
Front Facade – Front scaffold was removed.

Procida

COST COMPARISON PASSIVE VS NON PASSIVE CONSTRUCTION

ITEM / DESCRIPTION	PASSIVE HOUSE COST		NON PASSIVE HOUSE COST		COST DIFFERENTIAL (= PASSIVE - NON PASSIVE)			
<u>INSULATION - LABOR & MATERIAL</u>								
ROOF	+/- 8" TAPERED - 2 LAYERS OF 4" POLYISO	\$8.00 /SF	R-30 AVG = +/- 4" TAPERED POLYISO	\$4.00 /SF	\$4.00 /SF	X	9,000 SF = \$36,000	
EXTERIOR WALL - CAVITY	4" MINERAL WOOL	\$6.00 /SF	2"-3" POLYISO	\$4.00 /SF	\$2.00 /SF	X	55,000 SF = \$110,000	
EXTERIOR WALL - INTERIOR	4" - 6" BATT / CELLULOSE	\$4.00 /SF	NOT INSULATED	\$0.00 /SF	\$4.00 /SF	X	55,000 SF = \$220,000	
FOUNDATION	4" MINERAL WOOL	\$6.00 /SF	2" POLYISO	\$2.00 /SF	\$4.00 /SF	X	4,000 SF = \$16,000	
<u>WINDOWS - MATERIAL SUPPLY ONLY</u>								
DOUBLE PANE	U PVC & DOUBLE PANE OF GLASS	\$55.00 /SF	ALUMINUM & DOUBLE PANE OF GLASS	\$50.00 /SF	\$5.00 /SF	X	20,000 SF = \$0	
TRIPLE PANE	FIBERGLAS & TRIPLE PANE OF GLASS	\$65.00 /SF	ALUMINUM & DOUBLE PANE OF GLASS	\$50.00 /SF	\$15.00 /SF	X	20,000 SF = \$300,000	
<u>HVAC SYSTEMS - LABOR & MATERIAL</u>								
HEATING	VRF SPLIT SYSTEMS	\$17.00 /SF	BOILER PLANT & BASEBOARD RADIATION	\$9.00 /SF	\$6.00 /SF	X	144,000 SF = \$864,000	
COOLING	INCLUDED	INCL /SF	SUPPLY OF THRU WALL AC UNIT	\$2.00 /SF				
					TOTAL COST DIFFERENTIAL			\$1,546,000
					TOTAL COST DIFFERENTIAL PER SF			\$10.74
					TOTAL COST DIFFERENTIAL PER DU			\$10,105

Passive House Roof Section



1 | TYPICAL ROOF ASSEMBLY
3" = 1'-0"

Passive House Exterior Wall Section

