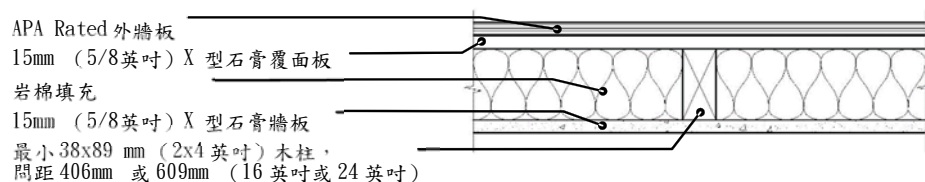


附錄六 國外常用木構造牆壁、樓地板和屋頂系統

木構造牆壁、樓地板和屋頂系統，美國 International Code Council 出版之 2006 International Building Code 第 7 章第 720 節表 720.1 (2) 及表 720.1 (3) 列有相關規定，需再經檢討以符合我國法令規定，方可於我國使用，如欲參照所列系統設計施工，應經中央主管建築機關認可。

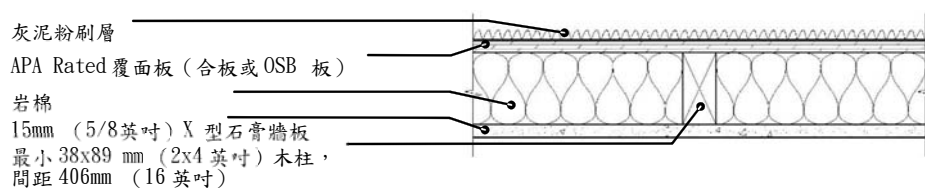
依據美國 APA 「Fire Rated Systems - Design/Construction Guide」經防火時效實驗驗證通過的承重牆壁、樓板及天花板構造，舉例如下，採用仍須經中央主管建築機關認可：

附圖六-1 具 1 小時防火時效之承重外牆構造



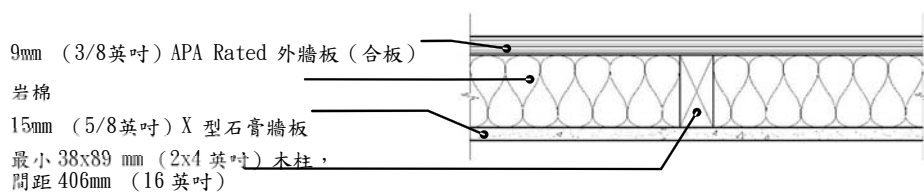
(a)

(參考：1997 Union Building Code Tab. No. 7-B, 1999 Standard Building Code sec. 701.5.2)



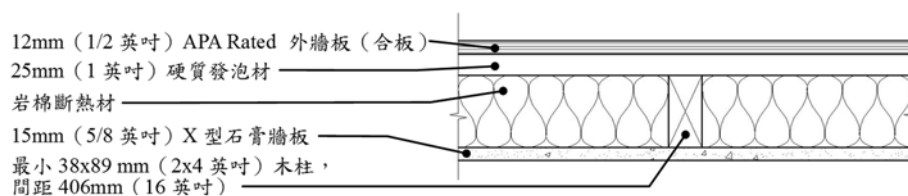
(b)

(參考：2003 International Building Code Table 720.1(2), sec. 2.2.2 of ICC Evaluation Service Inc., Report No.ER-1952)



(c)

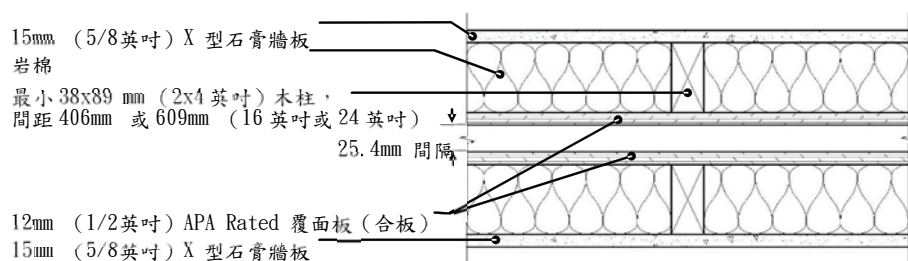
(參考：Section 721-6 of International Residential Code, Section 709.6.2.4 of the International Building Code, Section 6.2 of Guidelines for Determining Fire Resistance Ratings of Building Building Elements (BOCA International, Inc./1994/))



(d)

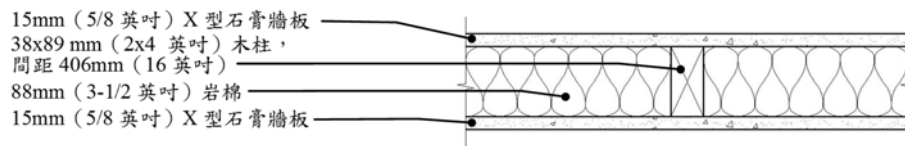
(參考：UL design No. U326, U330 (如圖), U335 (如圖), Underwriters Laboratory Inc. (U.L.) Fire Resistance Directory)

附圖六-2 具 1 小時防火時效之室內承重牆

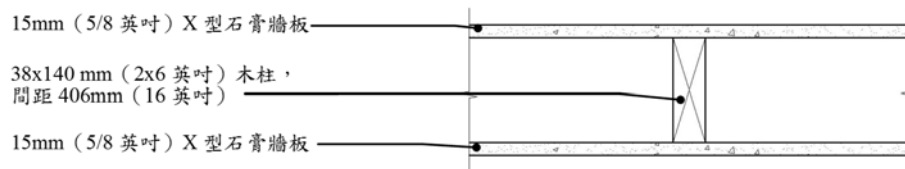


(a)

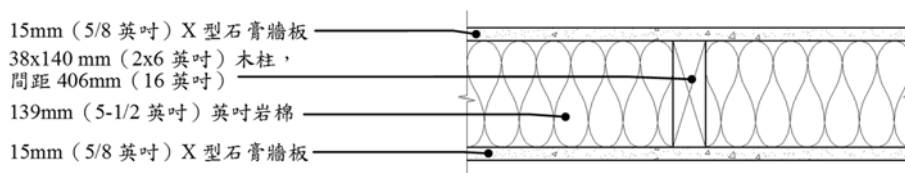
(參考：UL design No. U339, U341 (如圖) Underwriters Laboratory Inc. (U.L.) Fire Resistance Directory)



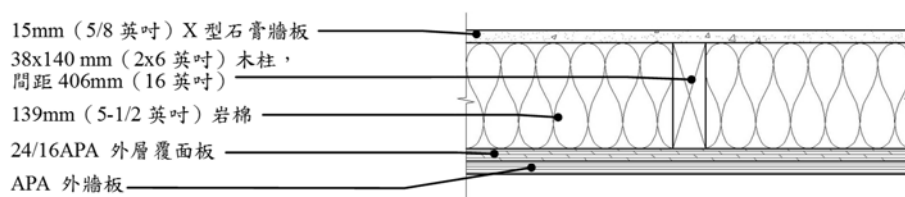
(b)



(c)

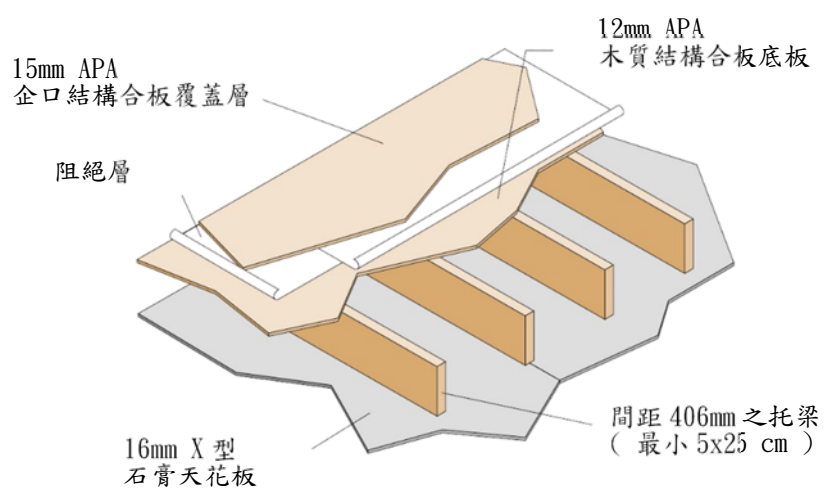


(d)

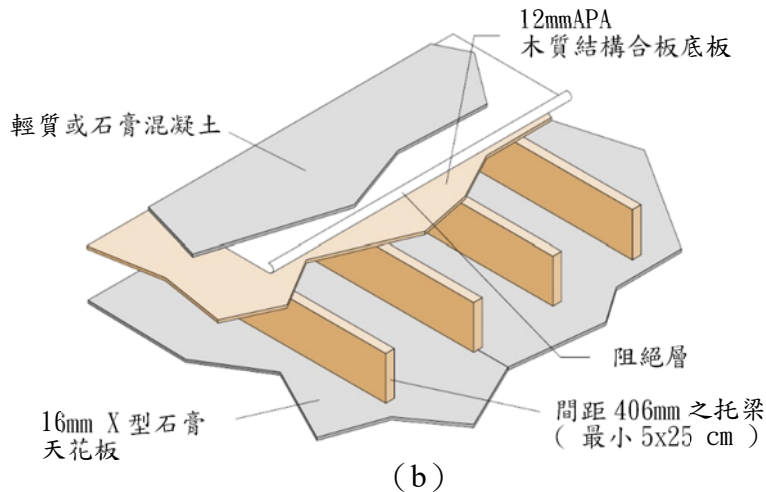


(e)

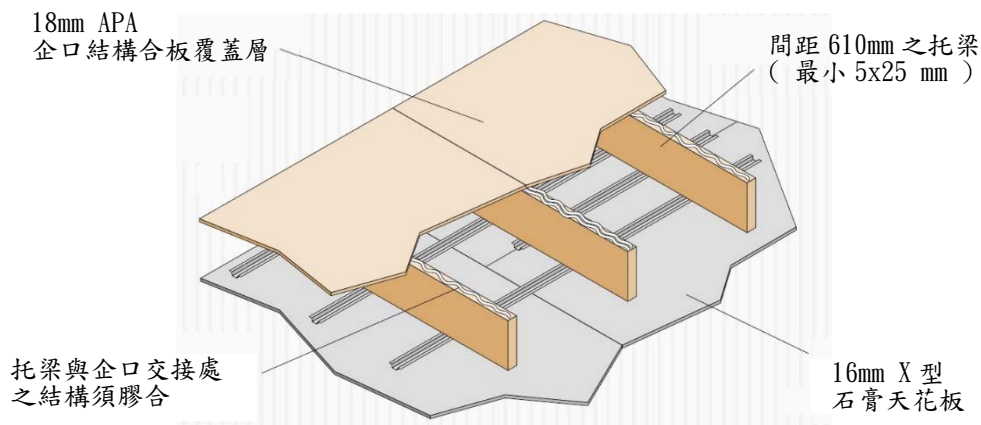
附圖六-3 具1小時防火時效之樓板及天花板構造



(a)



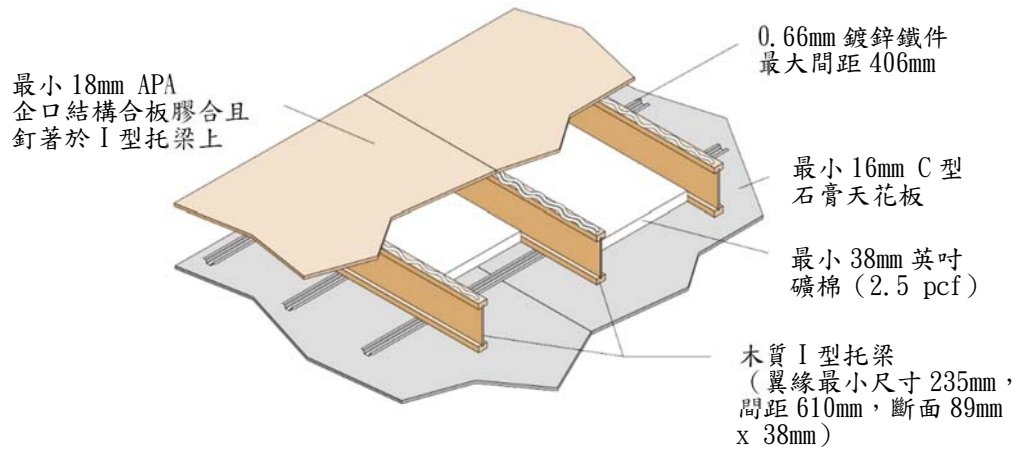
(參考：Underwriters Laboratory U.L. Design Nos. L001, L003, L004, L005, L006, L201, L202, L206, L209, L210, L211 (2 hr), L212, L501, L502, L503, L505 (2 hr), L511 (2 hr), L512, L514, L515, L516, L519, L522, L523, L525, L526, L533, L535, L536 (2 hr), L537, L541 (2 hr) and L545. Also see U.L. Design Nos. L524 with steel joists spaced 24" o.c., L521 with wood trusses spaced 24" o.c. and L549 with steel trusses spaced 48" o.c.)



(參考：Underwriters Laboratory U.L. Design No. L513. Also see U.L. Design Nos. L504 for stressed-skin panel (5/8" APA RATED STURD-I-FLOOR or SHEATHING plywood with joists spaced 12" o.c.); L507 for 5/8" APA RATED STURD-I-FLOOR plywood with joists spaced 16" o.c.; L508 for 1-1/8" APA RATED STURD-I-FLOOR plywood with joists spaced 48" o.c.; and L539, L540 with joists spaced 16" or 24" o.c. and separate ceiling assembly (for modular housing units). Also see U.L. Design Nos. L524 and L543 with steel joists spaced 19.2" or 24" o.c. (L543 with separate ceiling assembly).)

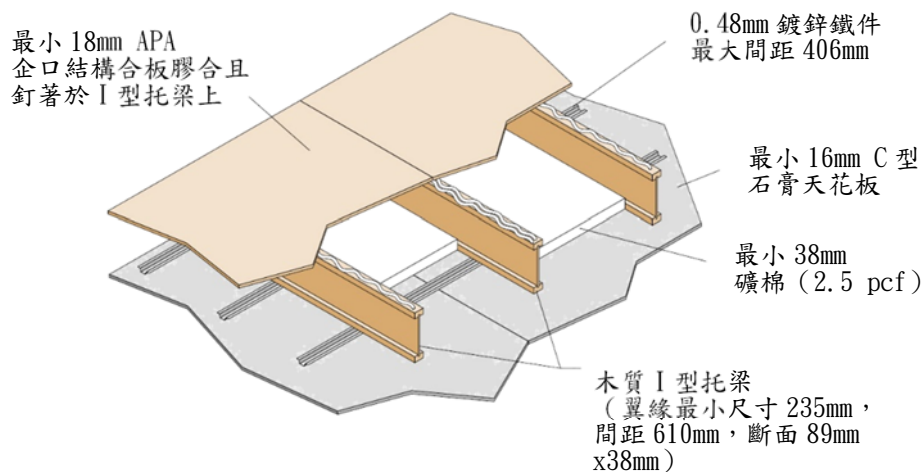
單層 I 型托梁或桁架樓板系統

(參考：U.L. Design Nos. L528, L529, L534, L542 and L548 with trusses or L544 with I-joists spaced 24" o.c. maximum. Also see GA File No.FC5512 for generic, nonproprietary truss assembly.)



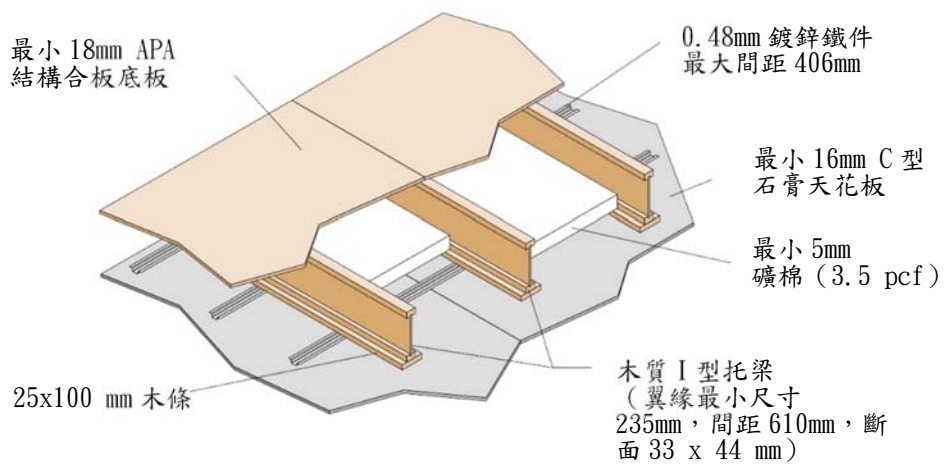
(d)

(更多細節參考：AF&PA DCA 3 Assembly WIJ-1.1)



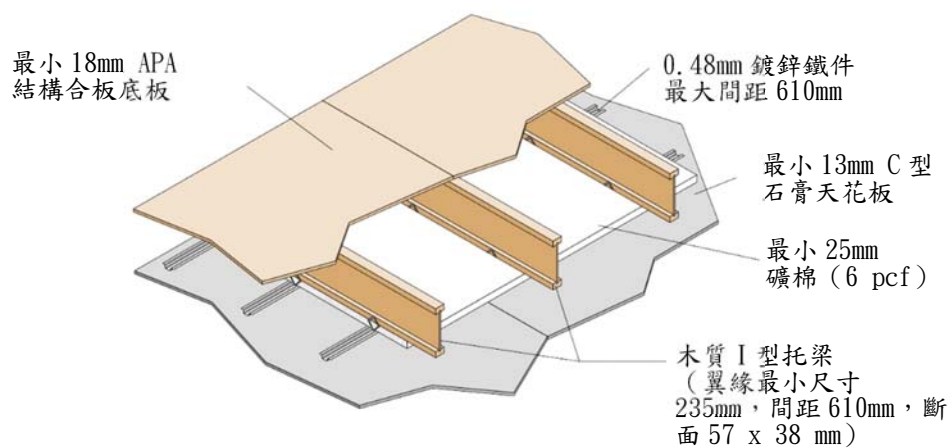
(e)

(更多細節參考：AF&PA DCA 3, Assembly WIJ-1.2)



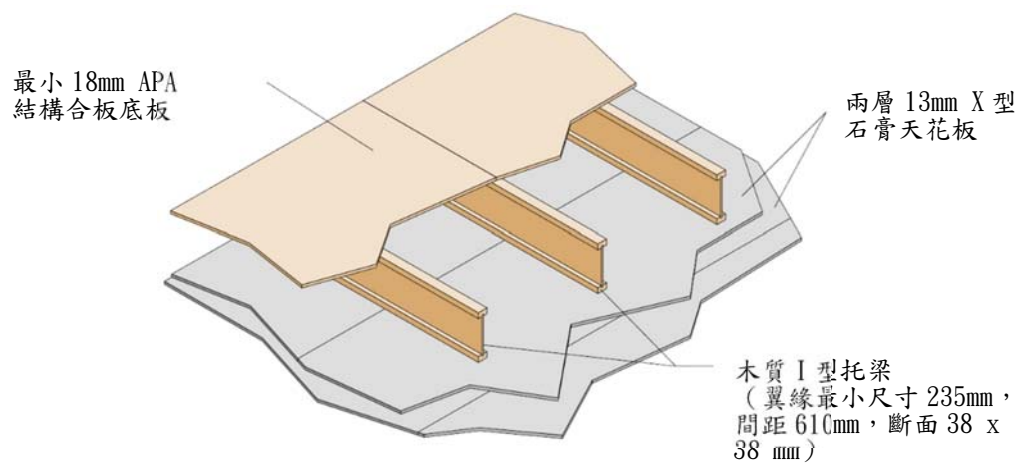
(f)

(更多細節參考：2003 IBC Table 720.1(3), Item No. 24-1.1)



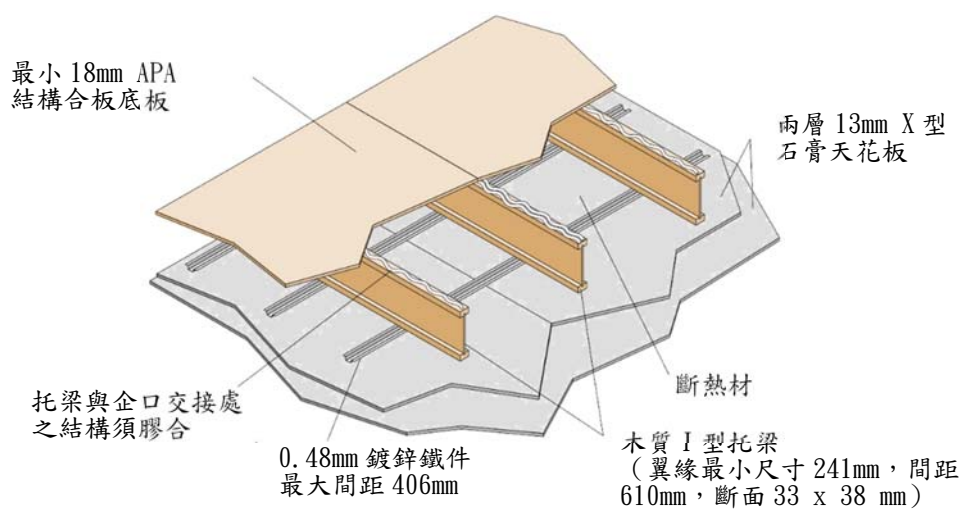
(g)

(更多細節參考：AF&PA DCA 3, Assembly WIJ-1.4)



(h)

(更多細節參考：AF&PA DCA 3, Assembly WIJ-1.5)



(i)

(更多細節參考：AF&PA DCA 3, Assembly WIJ-1.6)

第九·三點附錄七特殊耐火級石膏板耐火性能試驗特定要求

1.適用範圍

本附錄適用於特殊耐火級石膏板耐火性能試驗特定要求。

2.引用標準

下列標準因本附錄所引用，成為本標準之一部分。下列引用標準適用最新版。

CNS 4458 石膏板

CNS 12514-1 建築物構造構件耐火試驗法—第 1 部：一般要求事項。

CNS 12514-8 建築物構造構件耐火試驗法—第 8 部：非承重垂直區劃構件特定要求

ASTM C 1396/C 1396M – 06 Standard Specification for Gypsum Board¹。

3.試體準備

3.1 一般

依 CNS 12514-8 及下列規定組構。

3.2 耐火性 60 分鐘，應以符合 CNS 4458 之石膏板，厚度為 15mm 以上($\frac{5}{8}$ in 或 15.9mm)，

寬度為 1220mm（或 48in），應用於深 92mm × 寬 35mm × 厚 0.8mm 之非承重牆

壁輕鋼架之間柱（或深 $3\frac{5}{8}$ in 與符合 ASTM C645）二面之單層覆蓋板。間柱中心

間距為 610mm，應使用釘長 25mm（或 1in）螺釘，間距 203mm（或 8in）固定

於石膏板邊緣，間距 305mm（或 12in）固定於石膏板中央間柱。石膏板接合處

應平行並且固定於間柱上，並與間柱相對之板材位置交錯。

4. 試驗法及試驗結果表示

4.1 應符合 CNS 12514-8 之規定，或符合 ASTM C1396 (第 4.4.節或附錄 X1)規定及依 ASTM E119 進行試驗。