

CODE ANALYSIS FOR NEW CONSTRUCTION (2007 KBC)

OCCUPANCY GROUP: B EDUCATION (304)
 CONSTRUCTION TYPE: 3B, UNPROTECTED ORDINARY
 NUMBER OF STORIES: THREE, PLUS BASEMENT
 APPROXIMATE AREAS:
 BASEMENT 11,695 SF
 1ST FLOOR 46,294 SF
 2ND FLOOR 41,798 SF
 3RD FLOOR 12,098 SF
 TOTAL 112,115 SF

(ALLOWED UP TO FOUR STORIES AND 65,360 SF PER TABLE 503.)

OCCUPANCY LOAD (1004.1.1):

BASEMENT: 11,695 GSF / 100 PER OCC. = 117
 1ST FLOOR: 46,294 GSF / 100 PER OCC. = 508
 2ND FLOOR: 41,798 GSF / 100 PER OCC. = 389
 3RD FLOOR: 12,098 GSF / 100 PER OCC. = 116
 BUILDING TOTAL 1130

PLUMBING FIXTURES:

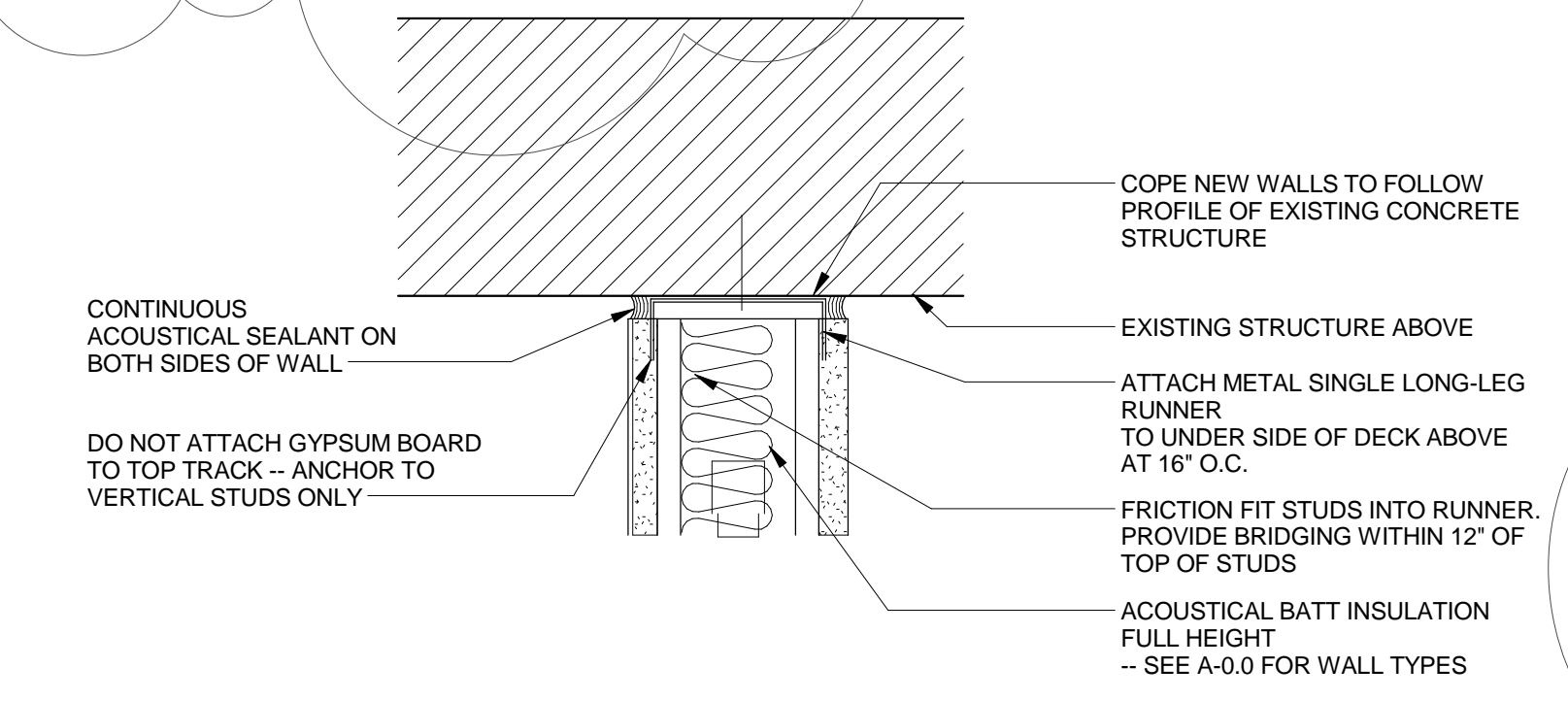
WATER CLOSETS FOR MEN: 565 OCC. / 50 = 12 REQ. (9 PROVIDED + 6 URINALS)
 WATER CLOSETS FOR WOMEN: 565 OCC. / 25 = 23 REQ. (18 PROVIDED, PLUS SEVEN UNISEX RESTROOMS)
 LAVATORIES FOR MEN: 565 / 50 = 12 REQ. (10 PROVIDED, PLUS SEVEN UNISEX LAVATORIES)
 LAVATORIES FOR WOMEN: 565 OCC. / 50 = 12 REQ. (11 PROVIDED, PLUS SEVEN UNISEX LAVATORIES)
 DRINKING FOUNTAINS: 1130 OCC. / 75 = 15 REQ. (15 PROVIDED)

EGRESS COMPONENTS (TABLE 1003.2.3)

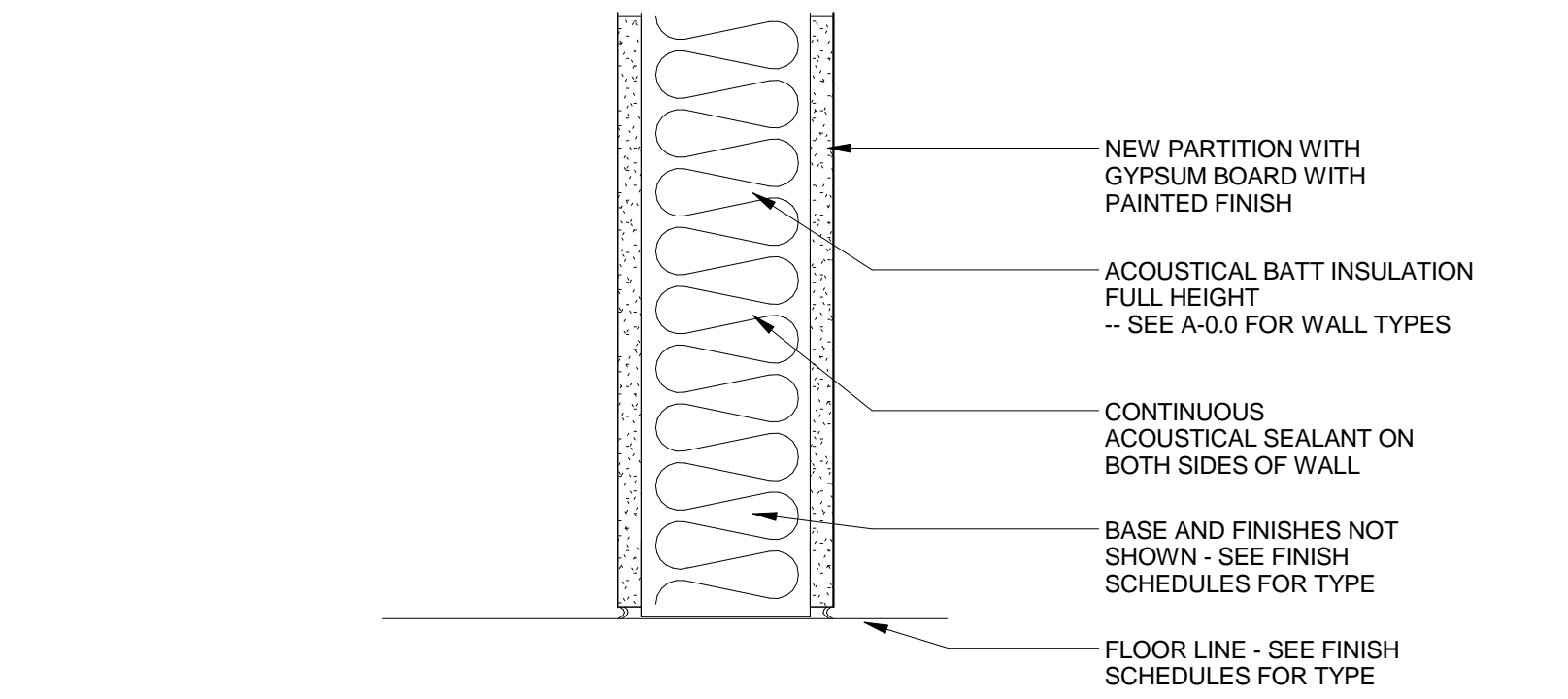
	REQUIRED	ACTUAL
FIRST FLOOR	(463 OCCUPANTS)	
NUMBER OF EXITS (TABLE 1019.1)	2	3
EGRESS DOORS	463 x 0.2 = 92.6 inches	216 inches
EGRESS CORRIDORS	463 x 0.2 = 92.6 inches	216 inches

FIRE-RESISTANCE RATINGS REQUIREMENTS (TABLE 601)

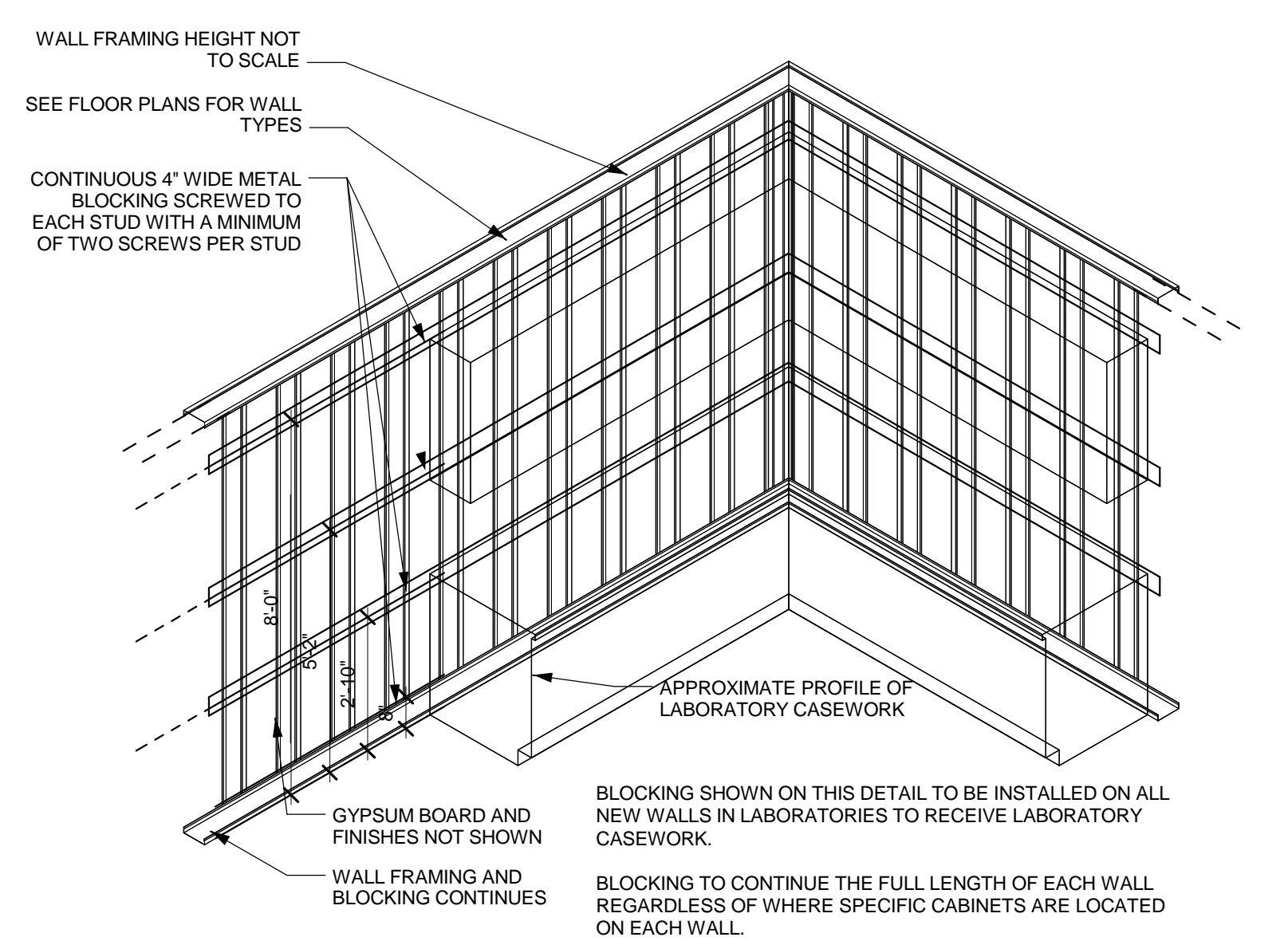
BUILDING ELEMENTS	HOURS
STRUCTURAL FRAME	
INCLUDING COLUMNS, GIRDERS, TRUSSES (EXCLUDES DIAGONAL BRACING FOR WIND LOADS)	0
BEARING WALLS (PER TABLE 602)	
EXTERIOR	2
INTERIOR	0
NON BEARING WALLS AND PARTITIONS	
EXTERIOR (BASED ON FIRE SEPARATION DISTANCE GREATER THAN 30 FEET PER TABLE 602)	0
INTERIOR	0
FLOOR CONSTRUCTION	
INCLUDING METAL DECK, SUPPORTING BEAM, AND JOIST	0
ROOF CONSTRUCTION	
INCLUDING METAL DECK, SUPPORTING BEAM, AND JOIST	0
SPECIAL CONDITIONS	
STORAGE ROOMS OVER 100 SF (PER 508.2.2)	SMOKE TIGHT
SHAFT ENCLOSURES (PER 707.4)	2
CORRIDOR FIRE RESISTANCE PER TABLE 1017.1	0



4 TYPICAL DETAIL @ TOP OF NEW WALLS
 A-0.0b/ 3" = 1'-0"



5 TYPICAL DETAIL @ BASE OF NEW WALLS
 A-0.0b/ 3" = 1'-0"



3 TYPICAL DETAIL @ LABORATORY CASEWORK BLOCKING
 A-0.0b/ 12" = 1'-0"

WALL TYPES

WALL SCHEDULE

WALL TYPES	PLAN DETAIL	DESCRIPTION	HEIGHT	FIRE RATING	HEAD OF WALL JOINT SYSTEM
1A		ONE LAYER 5/8" GYPSUM WALLBOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM	FULL HEIGHT		
1B		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 5/8" PLYWOOD, WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO ONE SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. WITH ONE LAYER OF 5/8" GYPSUM WALLBOARD OR TILE BACKERBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO THE OPPOSITE SIDE WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C.	WALL FULL HEIGHT, PLYWOOD TO 8' A.F.F.		
1C		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 5/8" PLYWOOD WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO EACH SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C.	WALL FULL HEIGHT, PLYWOOD TO 8' A.F.F.		
1D		ONE LAYER 5/8" GYPSUM WALLBOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM - PROVIDE ACOUSTICAL BATT INSULATION FULL HEIGHT.	FULL HEIGHT	NON-RATED, STC-40	
1E		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 5/8" PLYWOOD, WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO ONE SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. WITH ONE LAYER OF 5/8" GYPSUM WALLBOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO THE OPPOSITE SIDE WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM - PROVIDE ACOUSTICAL BATT INSULATION FULL HEIGHT.	WALL FULL HEIGHT, PLYWOOD TO 8' A.F.F.		
1F		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 5/8" PLYWOOD WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO EACH SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C.	WALL FULL HEIGHT, PLYWOOD TO 8' A.F.F.		
1G		ONE LAYER 5/8" GYPSUM WALLBOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAX	FULL HEIGHT		
1H		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 5/8" PLYWOOD, WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO ONE SIDE OF 3 5/8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAX	FULL HEIGHT		
2A		ONE LAYER 5/8" GYPSUM WALLBOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 6" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM	FULL HEIGHT		
2B		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 5/8" PLYWOOD, WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO ONE SIDE OF 6" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. WITH ONE LAYER OF 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO THE OPPOSITE SIDE WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C.	WALL FULL HEIGHT, PLYWOOD TO 8' A.F.F.		
2D		ONE LAYER 5/8" GYPSUM WALLBOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 6" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM - PROVIDE ACOUSTICAL BATT INSULATION FULL HEIGHT.	FULL HEIGHT		
2E		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 5/8" PLYWOOD, WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO ONE SIDE OF 6" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. WITH ONE LAYER OF 5/8" GYPSUM WALLBOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO THE OPPOSITE SIDE WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM - PROVIDE ACOUSTICAL BATT INSULATION FULL HEIGHT.	WALL FULL HEIGHT, PLYWOOD TO 8' A.F.F.		
2G		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 6" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAX. - WALL TO EXTEND 6" ABOVE HIGHEST ADJACENT CEILING. STUD GAUGE VARIES WITH WALL HEIGHT - SEE SPECIFICATIONS	FULL HEIGHT		
3A		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C.	FULL HEIGHT		
3E		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE OF 5/8" PLYWOOD, WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C., APPLIED TO ONE SIDE OF 8" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. WITH ONE LAYER OF 5/8" GYPSUM BOARD OR TILE BACKER BOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO THE OPPOSITE SIDE WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM - PROVIDE ACOUSTICAL BATT INSULATION FULL HEIGHT.	FULL HEIGHT		
4A		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO ONE SIDE 7/8" METAL HAT CHANNELS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAX.	FULL HEIGHT		
4B		ONE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES OR PARALLEL TO EACH SIDE OF 2 1/2" METAL STUDS @ 16" O.C. WITH 1" TYPE "S" DRYWALL SCREWS @ 12" O.C. MAXIMUM	FULL HEIGHT		