

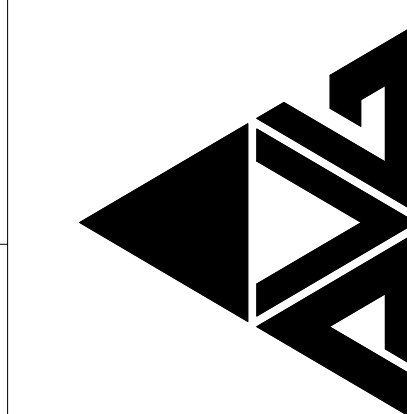
CODE INFORMATION - CONSTRUCTION DRAWINGS

MASSILLON, BUILDING DEPARTMENT
MASSILLON CITY SCHOOL DISTRICT
1 PAUL E BROWN DRIVE SE, MASSILLON, OHIO 44646
5A
NO
NEW SCHOOL BUILDING

TOTAL: 87,164 SQ. FT.

PROJECT NO
2203-2

ARCHITECTURAL VISION GROUP, LTD
ARCHITECTS • PLANNERS
23850 SPERRY DRIVE CLEVELAND, OHIO 44145



PROFESSIONAL SEAL:

CONSULTANT:

MASSILLON CITY SCHOOLS

MASSILLON CITY SCHOOLS

MASSILLON EAST ELEMENTARY PK-3

1 PAUL E BROWN DRIVE SE, MASSILLON, OHIO 44646

MASSILLON CITY SCHOOL DISTRICT MASSILLON, OHIO

[illegible]

PROJECT NO	2203-2
DRAWN BY	Author
CHECKED BY	Checke
DATE	

CODE
INFORMATION

SCALE:

SHEET NO
G-011

CODE REVIEW: 2017 OHIO BUILDING CODE INCLUDING CURRENT REFERENCED CODES

CHAPTER		CHAPTER		CHAPTER		CHAPTER	
CODES OF JURISDICTION	2017 OHIO BUILDING CODE 2017 OHIO MECHANICAL CODE 2017 OHIO PLUMBING CODE 2017 NATIONAL ELECTRICAL CODE NFPA 70-17 FIRE ALARM NFPA 72-16 2012 INTERNATIONAL ENERGY CONSERVATION CODE OR ASHRAE 90.1-2010 STANDARDS FOR ACCESSIBLE DESIGN ICC A117.1-09 INTERNATIONAL FUEL GAS CODE IFGC-15 SPRINKLERS NFPA13-16	CHAPTER 6 TYPES OF CONSTRUCTION	OBC 602.2 TYPES I AND II, TYPES I AND II CONSTRUCTION ARE THOSE TYPES OF CONSTRUCTION IN WHICH THE DESIGN ELEMENTS LISTED IN TABLE 601 ARE OF NON-COMBUSTIBLE MATERIALS, EXCEPT AS LISTED IN SECTION 603 AND ELSEWHERE IN THIS CODE. OBC TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS, TYPE IIB. PRIMARY STRUCTURAL FRAME: 0 HOURS BEARING WALLS, INTERIOR AND EXTERIOR: 0 HOURS NON-BEARING WALLS AND PARTITIONS, EXTERIOR: SEE TABLE 602. PER TABLE 602, TYPE IIB AND USE GROUP E GREATER THAN 10 FEET 0 HOURS. NON-BEARING WALLS AND PARTITIONS, INTERIOR: 0 HOURS. FLOOR CONSTRUCTION AND SECONDARY MEMBERS: 0 HOURS. ROOF CONSTRUCTION AND SECONDARY MEMBERS: 0 HOURS. OBC 603. COMBUSTIBLE MATERIALS IN TYPES I AND II CONSTRUCTION, MATERIALS SHALL COMPLY WITH OBC 603.1.	CHAPTER 10 MEANS OF EGRESS	OBC TABLE 1004.1 DESIGN OCCUPANT LOAD. DESIGN OCCUPANT LOADS ARE INDICATED ON THE CODE REVIEW PLAN USING THE FOLLOWING ALLOWANCES PER OCCUPANT UNDER OBC TABLE 1004.1.2: STORAGE, MECHANICAL, EQUIPMENT ROOMS: 1 PERSON PER 300 SF GROSS ASSEMBLY WITH FIXED SEATS (GYMNASIUM); BLEACHERS 1 PERSON PER 18" OF SEAT LENGTH PLUS PARTICIPANTS ASSEMBLY WITHOUT FIXED SEATS (CAFETERIA); TABLES AND CHAIRS 1 PERSON PER 15 SF NET*, CHAIRS ONLY 1 PERSON PER 7 SF NET*. BUSINESS AND ADMINISTRATION AREAS: 1 PERSON PER 100 SF GROSS. CLASSROOMS: 1 PERSON PER 20 SF NET*. KITCHEN: 1 PERSON PER 200 SF GROSS. LIBRARY: 1 PERSON PER 50 SF NET*. PLATFORMS: 1 PERSON PER 15 NET*. EXERCISE: 1 PERSON PER 50 SF GROSS. LOCKER ROOMS: 1 PERSON PER 50 SF GROSS. *WHERE NET AREA IS USED, THE GROSS AREA MULTIPLIED BY .85 IS USED FOR OCCUPANT LOAD THE OCCUPANT LOAD BASED ON MAXIMUM ENROLLMENT IS 1,129 (STUDENTS AND FACULTY) TO BE USED FOR THE CALCULATION OF TOTAL OCCUPANT LOAD AND PLUMBING FIXTURES PER OBC 1004.1.2 AND OBC 2902.1 IS 1,000 STUDENTS AND FACULTY. REQUEST TO USE 1,200 AS BASIS OF OCCUPANT LOAD, THIS WILL BE THE ENROLLMENT PLUS SOME ROOM TO GROW, THE ACTUAL CALCULATED OCCUPANCY IS 2,313 PEOPLE. HE AREAS SUCH AS THE GYM AND CAFETERIA ARE ALREADY INCLUDED IN THE OCCUPANCY COUNT AND THOSE SPACES ARE USED BY STUDENTS FROM OTHER AREAS OF THE BUILDING. IF THOSE SPACES HOLD A PUBLIC EVENT IT WILL BE AFTER SCHOOL HOURS WHEN THE REST OF THE BUILDING WILL NOT BE OCCUPIED. SECTION 1005 MEANS OF EGRESS SIZING OBC 1005.3.1 STAIRWAYS 0.2 INCH PER OCCUPANT SPRINKLED WITH EMERGENCY VOICE /ALARM COMMUNICATION SYSTEM, THIS WOULD PROVIDE FOR 220 OCCUPANTS PER 44" STAIRWAY. OBC 1005.3.2 OTHER EGRESS COMPONENTS 0.15 INCH PER OCCUPANT SPRINKLED WITH EMERGENCY VOICE /ALARM COMMUNICATION SYSTEM, THIS WOULD PROVIDE FOR 240 OCCUPANTS PER 36" DOOR LEAF STAIRWAY SERVED BY A CORRIDOR AT LEAST AS WIDE AS THE DOORS SERVED. OBC 1005.7.1 DOOR ENCROACHMENT. DOORS WHEN FULLY OPENED, SHALL NOT REDUCE THE REQUIRED MEANS OF EGRESS WIDTH MORE THAN 7". DOORS IN ANY POSITION SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN HALF. SECTION 1006 NUMBER OF EXITS AND EXIT ACCESS DOORWAYS OBC 1006.2.1 TWO EXITS SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD EXCEEDS 49 OR THE COMMON PATH OF TRAVEL EXCEEDS 75' PER TABLE 1006.2.1. OBC 1006.2.1.1, THREE EXITS SHALL BE PROVIDED FOR ANY SPACE WITH AN OCCUPANT LOAD 101 TO 1,000. FOUR EXITS SHALL BE PROVIDED FOR ANY SPACE WITH AN OCCUPANT LOAD GREATER THAN 1,000. SECTION 1010 PANIC AND FIRE EXIT HARDWARE OBC 1010.1.10 DOORS SERVING ROOMS OR SPACES WITH AN OCCUPANT LOAD OF 50 OR MORE IN GROUP A OR E SHALL BE PROVIDED WITH A LATCH OR LOCK SHALL HAVE PANIC HARDWARE OR FIRE EXIT HARDWARE. MAIN EXITS OF GROUP A MAY COMPLY WITH OBC 1010.1.9.3 ITEM 2 (DISTINGUISHABLE DEVICE, POSTED SIGNAGE), ELECTRICAL EQUIPMENT WORKSPACES SHALL BE PROVIDED WITH PANIC HARDWARE OF FIRE EXIT HARDWARE PER NFPA 70. SECTION 1009 ACCESSIBLE MEANS OF EGRESS. OBC 1009.1. ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS. WHERE MORE THAN ONE MEANS OF EGRESS ARE REQUIRED FROM ANY ACCESSIBLE SPACE, EACH ACCESSIBLE PORTION OF THE SPACE SHALL BE SERVED BY NOT LESS THAN TWO ACCESSIBLE MEANS OF EGRESS. OBC 1009.2 CONTINUITY AND COMPONENTS. EACH ACCESSIBLE MEANS OF EGRESS SHALL CONSIST OF ONE OR MORE OF THE NOTED COMPONENTS. 1. ACCESSIBLE ROUTES COMPLYING WITH SECTION 1104. ALL FIRST FLOOR MEANS OF EGRESS COMPLY WITH SECTION 1104. 2. INTERIOR EXIT STAIRWAYS COMPLYING WITH SECTIONS 1009.3 AND 1023. TWO INTERIOR EXIT STAIRWAYS COMPLY WITH 1009.3 AND 1023 AND TWO WAY COMMUNICATION IS PROVIDED AT THE ELEVATOR LANDING. THUS TWO ACCESSIBLE MEANS OF EGRESS ARE PROVIDED FOR THE SECOND FLOOR. 3. AN ELEVATOR COMPLYING WITH 1009.4. THE ELEVATOR WILL COMPLY WITH 1009.4	CHAPTER 11 ACCESSIBILITY	1101.2 BUILDING SHALL BE DESIGNED TO BE ACCESSIBLE IN ACCORDANCE WITH THE OBC AND ANSI A117.1 2009 AS AMENDED. BUILDING HAS BEEN DESIGNED TO COMPLY.
	CHAPTER 1 ADMINISTRATION		OBC 106 BUILDING "A" FIRST FLOOR: 36,595 SF BUILDING "B" FIRST FLOOR: 25,748 SF TOTAL FIRST FLOOR: 62,343 SF BUILDING "A" SECOND FLOOR": 29,236 SF GRAND TOTAL BUILDING: 91,579 SF DESIGN OCCUPANT LOADS ARE SHOWN ON THE CODE REVIEW PLANS. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL DESIGN LOADS, SEISMIC DESIGN CATEGORY, AND SITE CLASS.				CHAPTER 15 ROOF ASSEMBLY
	CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION		OBC 305.1 GROUP E OCCUPANCY (SEE ALSO OBC 303.1.3 A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES THAT IS ASSOCIATED WITH A GROUP E OCCUPANCY IS NOT CONSIDERED A SEPARATE OCCUPANCY). OBC 311.1.1 ACCESSORY STORAGE SPACES LESS THAN 100 SF ARE CLASSIFIED AS PART OF MAIN OCCUPANCY. SEE CHAPTER 5 FOR ACCESSORY USES.		CHAPTER 7 FIRE-RESISTANCE RATED CONSTRUCTION	OBC 706 FIRE WALLS. OBC 706.1 PORTIONS OF A BUILDING SEPARATED BY FIREWALLS SHALL BE CONSIDERED A SEPARATE BUILDING. OBC 706.4 FIRE WALLS SHALL HAVE A RATING NOT LESS THAN TABLE 706.4. PER TABLE 706.4 NOTE A, GROUP E REQUIRES A 2 HOUR FIRE RESISTANCE RATING IN TYPE II CONSTRUCTION. FIRE WALLS ARE USED TO DEFINE BUILDING AREAS WITHIN THE ALLOWABLE AREA PER OBC 506. OBC 706.5.1 WHERE THE FIREWALL INTERSECTS EXTERIOR WALLS, THE EXTERIOR WALLS WILL BE PROTECTED AS REQUIRED. SEE CODE REVIEW PLAN FOR PROTECTIONS PROVIDED. OBC 706.8 OPENINGS IN FIREWALLS SHALL BE PROTECTED IN ACCORDANCE WITH OBC 716.5. AMOUNT OF OPENINGS IS NOT LIMITED SINCE AUTOMATIC SPRINKLERS ARE INSTALLED IN ALL BUILDING AREAS. OBC 706.9 PENETRATIONS SHALL COMPLY WITH OBC 714. OBC 706.11 DUCT AND AIR TRANSFER OPENINGS SHALL COMPLY WITH OBC 717 AND ARE PERMITTED PER THE EXCEPTION SINCE THE FIREWALLS ARE NOT ON A LOT LINE. OBC SECTION 707 FIRE BARRIERS. OBC 707.3 FIRE-RESISTANCE RATING. OBC 707.3.1 SHAFT ENCLOSURES. 1 HOUR FIRE RATING CONNECTING LESS THAN 4 STORIES PER OBC 713.4. PROVIDED FOR ELEVATOR SHAFT. OBC 707.3.2 EXIT ENCLOSURES: 1 HOUR PER 1023.1.1 HOUR FIRE RATING CONNECTING LESS THAN 4 STORIES, PROVIDED FOR INTERIOR EXIT STAIRWAYS. OBC 707.3.5 HORIZONTAL EXIT. 2 HOUR FIRE RATING PER 1026.1. OBC 707.3.7 INCIDENTAL ACCESSORY OCCUPANCIES (LABS): 0 HOURS WITH SPRINKLERS. OBC 707.5.1 SUPPORTING CONSTRUCTION SHALL BE PROTECTED TO AFFORD THE REQUIRED FIRE RESISTANCE RATING. EXCEPTION, SUPPORTING CONSTRUCTION FOR INCIDENTAL USE AREAS IN TABLE 509 OF TYPE IIB CONSTRUCTION IS NOT REQUIRED TO BE FIRE RESISTANCE RATED. OBC 707.6 OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 716. OPENINGS SHALL BE LIMITED TO A MAXIMUM AGGREGATE WIDTH OF 25% OF THE LENGTH OF THE WALL WITH EXCEPTIONS. OBC 707.7 PENETRATIONS SHALL COMPLY WITH OBC 714. PENETRATIONS INTO AN EXIT ENCLOSURE SHALL COMPLY WITH OBC 1019. OBC 1023.5 AND OBC 1024.6. OBC 707.8 JOINTS SHALL COMPLY WITH SECTION 715. OBC 707.9 DUCT AND AIR TRANSFER OPENINGS SHALL COMPLY WITH SECTION 717. OBC SECTION 716 OPENING PROTECTIVE OBC 716.5 FIRE DOOR AND SHUTTER ASSEMBLIES TYPE OF ASSEMBLY FIRE DOOR/SHUTTER ASSEMBLY RATING 2 HOUR FIREWALL/FIRE BARRIER 1 1/2 HOURS 1 HOUR SHAFTS 1 HOUR	
CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY	STAGES, PLATFORMS. A PLATFORM WILL BE CONSTRUCTED IN COMPLIANCE WITH OBC 410.	CHAPTER 8 INTERIOR FINISHES	OBC 706 FIRE WALLS. OBC TABLE 803.1.1 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY GROUP E, SPRINKLERED EXIT STAIRWAYS AND PASSAGEWAYS: C CORRIDORS, EXIT ACCESS STAIRWAYS AND RAMPS: C ROOMS AND ENCLOSED SPACES: C SECTION 804 INTERIOR FLOOR FINISH, EXCEPTION: FLOOR FINISHES OF A TRADITIONAL TYPE, SUCH AS WOOD, VINYL, TERRAZZO, OR OTHER RESILIENT COVERINGS. OBC 804.4.1 MINIMUM CRITICAL RADIANT FLUX. INTERIOR FLOOR FINISH, ALL AREAS SHALL PASS THE "PILL TEST" SINCE THE BUILDING IS EQUIPPED WITH A SPRINKLER SYSTEM.		CHAPTER 28 MECHANICAL SYSTEMS	SECTION 2801.1 GENERAL - SCOPE MECHANICAL APPLIANCES, EQUIPMENT AND SYSTEMS SHALL BE CONSTRUCTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MECHANICAL CODE AND THE INTERNATIONAL FUEL AND GAS CODE.	
CHAPTER 5 GENERAL BUIDING HEIGHTS AND AREAS	SECTION 503 GENERAL BUILDING HEIGHT AND AREA LIMITATIONS, THE BUILDING HEIGHT AND AREA SHALL NOT EXCEED THE LIMITS SPECIFIED IN SECTIONS 504 AND 506 BASED ON THE TYPE OF CONSTRUCTION AND AS DETERMINED BY SECTION 602 AND OCCUPANCIES AS DETERMINED BY SECTION 302 EXCEPT AS MODIFIED HEREAFTER. SECTION 504 BUILDING HEIGHT AND NUMBER OF STORIES FOR USE GROUP E AND TYPE IIB CONSTRUCTION, FULLY SPRINKLED: TABLE 504.3 E USE-SPRINKLED 75' ALLOWED, 33'-4" MAXIMUM PROVIDED. TABLE 504.4 E USE-TYPE IIB CONSTRUCTION 3 STORIES ALLOWED, MAXIMUM 2 STORIES PROPOSED. SECTION 506 BUILDING AREA, OBC TABLE 506.2 ALLOWABLE AREA: OBC 506.2.3 SINGLE OCCUPANCY MULTI-STORY BUILDING: 43,500 SQ. FT. BUILDING "A" AREA PROVIDED: FIRST FLOOR: 36,595 SQ. FT. SECOND FLOOR: 29,236 SQ. FT. BUILDING "B" AREA PROVIDED: FIRST FLOOR: 25,748 SQ. FT. OBC 509 INCIDENTAL USE AREAS OBC TABLE 509 FURNACE ROOMS WITH EQUIPMENT OVER 400,000 BTU, OR BOILERS OVER 15 PSI OR 10 HP: 1 HOUR OR AUTOMATIC SPRINKLER SYSTEM REQUIRED. SPRINKLER SYSTEM PROVIDED. GROUP E OCCUPANCIES LABORATORIES AND VOCATIONAL SHOPS: 1 HOUR OR AUTOMATIC SPRINKLER SYSTEM REQUIRED. AUTOMATIC SPRINKLER SYSTEM PROVIDED.			CHAPTER 29 PLUMBING SYSTEMS	OBC TABLE 2902.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES AN ALTERNATE BASIS FOR DETERMINING THE NUMBER OF OCCUPANTS WHICH ACCOUNTS FOR THE PROPOSED ENROLLMENT PLUS EXPANSION IS REQUESTED. THE PROPOSED PLUMBING OCCUPANT LOAD IS 1,000: 500 MALE, 500 FEMALE. 21 UNISEX/STAFF RESTROOMS ARE DIVIDED BETWEEN MALE AND FEMALE. WATER CLOSETS MALE 1 PER 50 = 20 URINALS MAY BE SUBSTITUTED FOR TWO THIRDS OF THE REQUIRED WATER CLOSETS FEMALE 1 PER 50 = 20 12 PLUS 11 UNISEX (23 TOTAL) 12 PLUS 11 UNISEX (23 TOTAL) LAVATORIES REQUIRED 1 PER 50 = 40 PROVIDED 80 DRINKING FOUNTAINS REQUIRED 1 PER 100 = 10 PROVIDED 8 PLUS DRINKING FOUNTAIN ATTACHMENTS AT CLASSROOM LAVATORIES (38 TOTAL) AND WATER DISPENSERS ARE ALSO PROVIDED IN THE CAFETERIA PER OPC 410.4. 12 KR CR'S FOR TOTAL OCCUPANT LOAD OF 105 WITH 12 ATTACHMENTS SERVICE SINKS REQUIRED 1 PROVIDED 6 NOTE: CALCULATIONS REFLECT ALL AREAS OF THE BUILDING BEING OCCUPIED, WHEN IN REALITY THE GYM AND CAFETERIA WILL HAVE OCCUPANTS FROM OTHER PORTIONS OF THE BUILDING, NOT THEIR OWN. THE CAFETERIA NUMBERS REFLECT TABLES AND CHAIRS SINCE IT WILL MOSTLY BE USED IN THAT FUNCTION DURING "FULL OCCUPANCY". SPECIAL EVENTS IN THE CAFETERIA (PLAYS AND CONCERTS) AND IN THE MIDDLE SCHOOL GYM (SPORTING EVENTS) WILL BE AFTER NORMAL SCHOOL HOURS. (IN SCHOOL ASSEMBLIES WILL BE HELD IN THE MIDDLE SCHOOL GYM - STUDENTS AND FACULTY ALREADY ACCOUNTED FOR)		
			CHAPTER 9 FIRE PROTECTION SYSTEMS	SECTION 903 AUTOMATIC SPRINKLER SYSTEMS OBC 903.2.3 AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT ALL GROUP E OCCUPANCIES GREATER THAN 20,000 S.F. AN AUTOMATIC SPRINKLER SYSTEM IS PROVIDED. OBC 904 ALTERNATIVE AUTOMATIC FIRE EXTINGUISHING SYSTEMS. OBC 904.2.2. SYSTEM WILL BE PROVIDED AT COMMERCIAL HOOD AND DUCT SYSTEMS FOR TYPE I HOODS IN THE OMC. SECTION 906 PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN GROUP E OCCUPANCIES IN ACCORDANCE WITH NFPA 10. SECTION 907 FIRE ALARM AND DETECTION SYSTEMS. OBC 907.1.2 THE CONTRACTOR SHALL SUBMIT FIRE ALARM SHOP DRAWINGS AS REQUIRED UNDER THIS SECTION OBC 907.2.3 GROUP E, A MANUAL FIRE ALARM SYSTEM THAT ACTIVATES THE OCCUPANT NOTIFICATION SIGNAL UTILIZING AN EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM MEETING THE REQUIREMENTS OF SECTION 907.6 WILL BE PROVIDED. AUTOMATIC SPRINKLER AND SMOKE DETECTOR SYSTEMS SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM. EXCEPTION 4, MANUAL FIRE ALARM BOXES SHALL NOT BE REQUIRED IN GROUP E OCCUPANCIES WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1. THE EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM WILL ACTIVATE ON SPRINKLER FLOW, AND MANUAL ACTIVATION IS PROVIDED FROM A NORMALLY OCCUPIED LOCATION SUCH AS THE SCHOOL OFFICE. OBC 907.3.1 DUCT SMOKE DETECTORS SHALL BE CONNECTED TO THE BUILDING'S FIRE ALARM CONTROL UNIT. OBC 907.5.2.3 VISIBLE ALARM NOTIFICATION APPLIANCES SHALL BE PROVIDED IN 907.5.2.3.1 PUBLIC AND COMMON AREAS SECTION 912 FIRE DEPARTMENT CONNECTIONS OBC 912.2 FIRE DEPARTMENT CONNECTIONS TO BE PROVIDED WHERE APPROVED BY THE BUILDING OFFICIAL WITH INPUT FROM THE FIRE CHIEF. SECTION 915 CARBON MONOXIDE DETECTION OBC 915.1.1 PROVIDE CO DETECTION IN CLASSROOMS WHERE CONDITIONS UNDER OBC 915.1.2 THROUGH OBC 915.1.6 EXIST. CO DETECTION SHALL BE PROVIDED IN CLASSROOMS PER OBC 915.2.3. SECTION 916 EMERGENCY RESPONDER RADIO COVERAGE OBC 916.1 PROVIDE EMERGENCY RESPONDER RADIO COVERAGE IN ACCORDANCE WITH SECTION 10 OF THE FIRE CODE.			