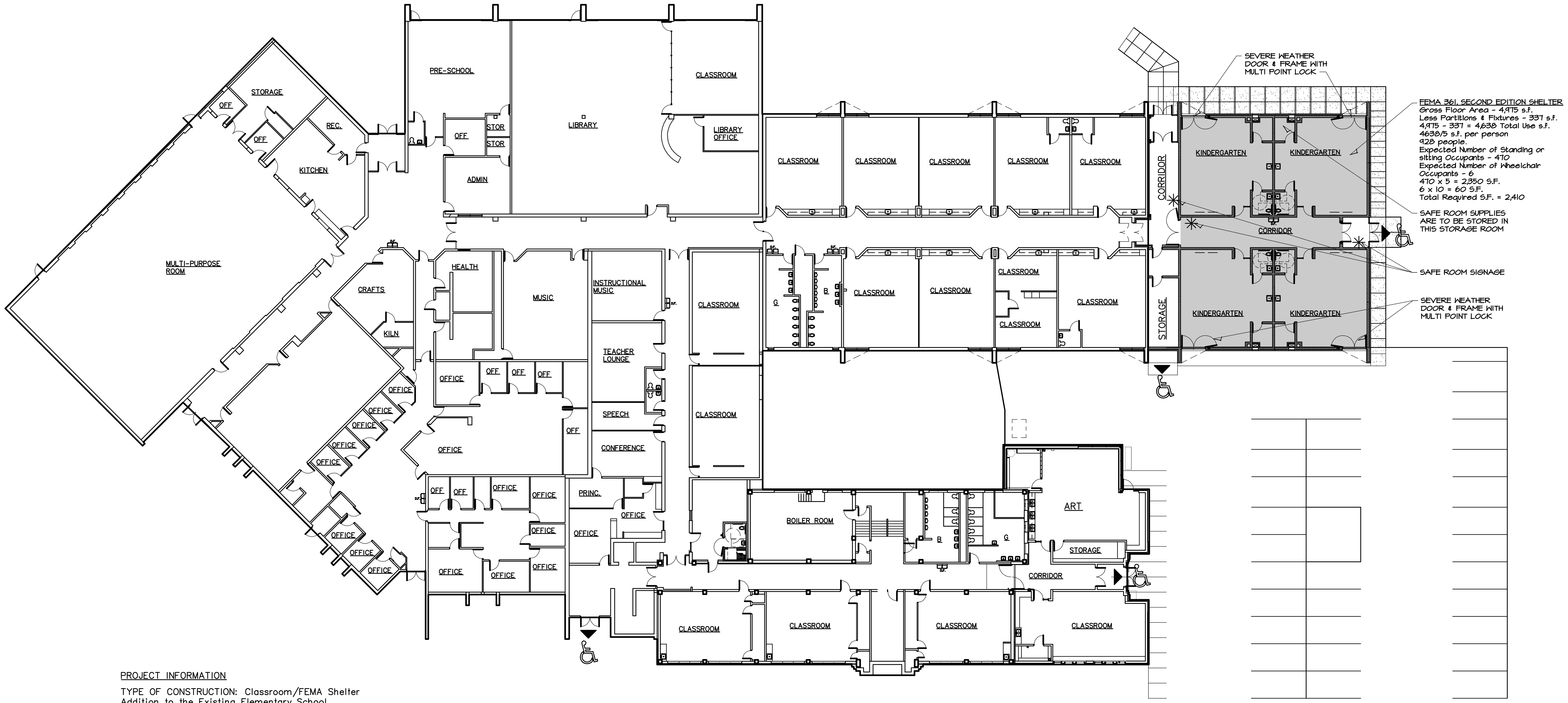


A SAFE ROOM LOCATION PLAN
SCALE: 1" = 20'-0"
NORTH

PROJECT INFORMATION

TYPE OF CONSTRUCTION: Classroom/FEMA Shelter Addition to the Existing Elementary School
DESCRIPTION: Community Safe Room
LOCATION: 1749 South Martinson
COUNTY: Sedgwick
CITY: Wichita
OWNER: Unified School District #259
USE: Education, Elementary School

CODE COMPLIANCE

FEMA 361, 2nd Edition 2008
IBC,
ICC-500, 2008
Local Permit Obtained

SAFE ROOM INFORMATION

TYPE: Tornado
NUMBER OF EGRESS POINTS: 2
DURATION:
GROSS AREA: 4,975 s.f.
NON-OCCUPIABLE AREA: 337
USEABLE AREA: 4,638 s.f.
MAX. OCCUPANCY: 476
WHEELCHAIR BOUND: 6
BEDRIDDEN: 0
OCCUPANCY PROPOSED:
TOTAL REQUIRED AREA: 2,410
ROOF LIVE LOAD:

WIND HAZARD

DESIGN METHODOLOGY: FEMA 361-2nd Edition 2008
ICC-500
SAFE ROOM DESIGN WIND ZONE: IV
SAFE ROOM DESIGN WIND SPEED: 250 mph (3-sec gust)
DESIGN EXPOSURE CATEGORY: C
ENCLOSURE CLASSIFICATION:
DIRECTIONAL FACTOR (kd): 1.0
IMPORTANCE FACTOR (I): 1.0
INTERNAL PRESSURE COEFFICIENT (GCpi): ±.55
TOPOGRAPHIC EFFECTS (Kzt): 1.0
DEBRIS IMPACT CRITERIA:
MISSILE SIZE: 15 lb. 2x4
HORIZ. MISSILE SPEED: 100 mph
VERT. MISSILE SPEED: 67 mph

FLOOD HAZARD

SFHA: Yes
FIRM PANEL NO.: 0335E
FLOOD ZONE: Zone X
BASE FLOOD ELEV. (1% CHANCE OF ANNUAL EXCEEDANCE): 1287.6
0.2% CHANCE OF ANNUAL EXCEEDANCE ELEV.: 1287.6 (Profiles state that all flood elevations from 0.2% to 10% are the same)
LOWEST FLOOR FFE: 1295.2
LOWEST FLOOR FFE. (M&E): 1295.2
DATUM: NAVD 88

WALLS/OPENINGS/DOOR ASSEMBLIES/WINDOW & WINDOW ASSEMBLIES

WALL CONST.: Reinforced masonry (8"CMU w/#6 bars each cell, fully grouted)
ROOF CONST.: 8" reinforced concrete deck

SYSTEM TEST METHOD FOR TORNADO:
ICC-500, Sec. 804
RESULT: Pass
GLAZING TEST METHOD: No
RESULTS: N/A
OPENING PROTECTION: Yes
TEST METHOD: ICC-500, Sec. 306 & 804
RESULT: Pass

SOIL COVERAGE: No

AUTHORITY HAVING JURISDICTION: Sedgwick Co.
DATE RESULTS SUBMITTED:

OTHER HAZARDS

NEHRP COMPLIANCE:
OTHER: Safe room is designed to withstand damage from collapse of adjacent school structure.

ITEMS THAT REQUIRE SPECIAL INSPECTIONS
1. Structural Inspection for FEMA Footings
2. Structural Inspection CMU Walls for Shelter
3. Structural Inspection on Safe Room Roof

MECHANICAL/VENTILATION/ELECTRICAL

VENTILATION METHOD: Passive
TOTAL VENTING AREA: s.f.
VENTING AREA PER OCCUPANT: 6 Sq. In.
LIGHTING:
OPENING PROTECTION: Yes
METHOD OF PROTECTION EQUIPMENT:
WIND FORCES: ICC-500
DEBRIS IMPACT: ICC-500
FLOODING: N/A
SEISMIC: N/A
MAN MADE: N/A

ADA REQUIREMENTS

Safe room is accessible to individuals with disabilities. It is located on ground level.

TOILETS

Four (4) toilets are provided within the classroom/safe room.
Toilets are ADA accessible.

SIGNAGE

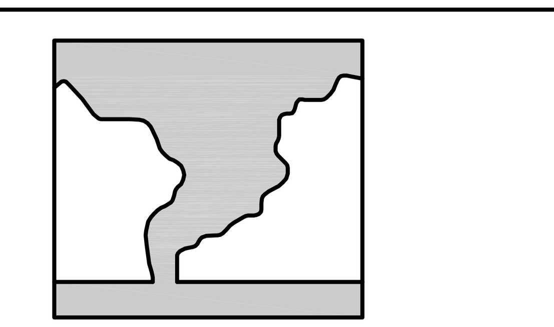
SAFE ROOM DIRECTIONAL SIGN: Inside room at each door, one outside of main door.

LEGEND

▲ Exit
Accessible Exit
✳ Safe Room Sign Location

1'-6" Minimum

1' Minmum



TORNADO SAFE ROOM

250 mph safe room design wind speed (3-second gust)
Missile Impact Resistance:
15 lbs. 2x4 @100 mph (horizontal)
15 lbs. 2x4 @67 mph (vertical)
Safe room manufacture/builder ____________

1 SIGN DETAIL
SCALE: N.T.S.

ARCHITECTS

HAMNEY & ASSOCIATES, ARCHITECTS
1726 South Hillside, Wichita, Kansas, 67211
Phone (316) 683-8965
Fax (316) 684-1441

STANLEY ELEMENTARY SCHOOL
WICHITA PUBLIC SCHOOLS
PHASE 3- PROJECT # 10-25030
WICHITA, KANSAS
UNIFIED SCHOOL DISTRICT #259

WICHITA PUBLIC SCHOOLS

DRAWINGS ISSUED

NO.	DATE	ITEM ISSUED
5	5/13/10	ISSUED FOR BIDS
4	4/16/10	100% REVIEW
3	3/26/10	50% REVIEW
2	3/11/10	DESIGN DEVELOPMENT
1	2/16/10	SCHEMATIC REVIEW

COMPUTER DRAWING
FEMA.DWG

DATE: MAY 13, 2010	
DRAWN BY:	CHECKED BY:
JP, BS, TH, SF	MRH

SHEET
FEMA-1
OF SHEETS