

## 10 YEAR HEALTH LIFE SAFETY SURVEY



**Pana High School**  
201 West Eighth Street  
Pana, Illinois 62557

Pana CUSD #8  
Christian County

2020  
(206EX20.400)

# DRAFT

# 10-year Safety Survey Report

## Pana High School

Pana CUSD #8

### DESCRIPTION OF EXISTING CONDITIONS

#### I. GENERAL

LOCATION: Pana High School  
201 West Eighth Street  
Pana , Illinois 62557

ENROLLMENT: Grades Served: High School Grades 9-12  
Total enrollment:  
Status of enrollment: Increasing 414

CONSTRUCTION: Type II, non-combustible

PLAN CLASSIFICATION: Plan Type "CP", multi-story with enclosed interior

PROTECTION CLASSIFICATION: Sprinklered

APPLICABLE SURVEY CODES BOCA 1996  
Illinois Plumbing Code 1998  
Illinois Accessibility Code 1997  
ASME A17.1-93-Safety Code for Elevators  
NFPA Codes, various standards and years in force in 1999  
(Refer to BOCA 1996 page 335)

MEANS OF EGRESS: Adequate in arrangement, size, and protection  
Utilizing direct exiting, corridors, and stairways

LOCAL FIRE ALARM SYSTEM: See "Private Protection"

NEAREST FIRE STATION: Approximately one mile  
Pana Fire Department  
400 East First Street  
Pana, Illinois 62557

CITY WATER: Water utility company is: City of Pana.

Fire hydrant(s) located at: Corner of 7th and Chestnut, Walnut and 7th, to the west by the Junior High on North, to the west by the Junior High on the south.

Domestic service size: 4". Location: Mechanical-315.

Fire / sprinkler service size: 6" (combined service).  
Locations: Mechanical-315.

II. CONSTRUCTION DETAILS

YEAR BUILT: 1999

HEIGHT: Two Story

AREA: Ground Floor/First Floor Area: 73,682 sf  
Second Floor Area: 63,754 sf  
Total Area: 137,436 sf

EXTERIOR WALL CONSTRUCTION: Masonry cavity wall construction  
Precast walls at gymnasium

FLOOR CONSTRUCTION: First floor: Concrete slab on grade.  
Second floor: 2.5" concrete on metal deck on steel frame and bar joists

ROOF CONSTRUCTION: EPDM membrane on rigid insulation on 1 1/2" metal deck on bar joists.  
Standing seam metal roof panels on bar joists with batt insulation

INTERIOR WALL CONSTRUCTION: Masonry CMU  
Gypsum board on Metal studs

INTERIOR FINISH: Ceilings- Acoustical tile or exposed structure  
Walls- Painted cmu/gypsum board  
Floors- Concrete, resilient tile, wood, plastic tile, and carpet

TRANSOMS AND CEILING-LEVEL  
GLASS: Fixed glazing

III. EGRESS FACILITIES

GRADE EXITS: Adequate and well arranged. Panic hardware installed and well maintained where required.

CORRIDORS: Adequate in width, height, and distance of travel.

STAIRWAYS: There are three stairways with metal pan construction with poured concrete treads separated from the remainder of the building with fire rated walls. Access to mechanical spaces use metal stair structure with metal treads

RAMPS: Ramps are utilized in two corridors to access lower levels. Each is a minimum of 3' in width and is concrete on grade.

WINDOWS: None available as secondary exits and none are required.

FIRE ESCAPE: None and none are required.

EXIT SIGNS: Illuminated exit light type: AC / DC fixtures. Some are combination.

Lamp type: Fluorescent. Located: per Life Safety Reference Drawings.

EMERGENCY LIGHTING: Fixture type: Battery packs. Power source: Batteries. Located: per Life Safety Reference Drawings.

IV. SPECIAL OCCUPANCIES

MULTI-PURPOSE ROOM/  
GYMNASIUM: These two spaces are separated from the remainder of the school with solid core wood doors and precast walls. A current bleacher inspection is on file.

BOILER ROOM, MECHANICAL  
EQUIPMENT & STORAGE  
ROOMS: These spaces are separated from the remainder of the school with masonry construction

V. UTILITIES

HEATING PLANT:

Type	Hot water.
Boiler	Two.
Inspection Certificates Posted?	Yes.
Manufacturer	Lochinvar.
Model	Crest Model FBN 2500.
Input / Output	2,500 mbh input.
Flue Type	Stainless steel.
Combustion Air	GI and stainless steel.
Pressure Relief Valves	One per boiler.
Gas Pressure Safeties	Internal.
Low Water Cut-Offs	Internal.
Emergency Gas Shutdown	Two – one at door to exterior, one at door to Multi-Purpose Room.
Backflow Preventer on Make-Up Water	None. Both systems have glycol which is manually introduced. There is a single glycol tank fed by domestic water through a check valve. Need to create an air gap.
Feedwater	N/A.
Chemical Treatment	Pot feeders.
Comments	<ul style="list-style-type: none"> <li>· Boilers have dedicated circ pumps.</li> <li>· Boilers appear new (manufactured 2016).</li> </ul>

HEAT DISTRIBUTION:

Pipe Material and Insulation	Black steel.
Pumping	A pair of base-mounted pumps for reheating a single base-mounted pump for heating.
Heating Effect	Hot air from VAV / reheat coils, air handling unit coils and classroom unit ventilators.
Spot Heating	Unit heaters, convectors.
Comments	System has glycol mixture in it.

VENTILATION:

The entire building is mechanically ventilated by air handling units and classroom unit ventilators.

Mechanical

- AHU-1, 2, 3 and 5 located in Mechanical-230.
- AHU-4 and 6 located in Mechanical Mezzanine-238.
- AHU-7 located in Mechanical-235.

Natural

Not used

Heat Recovery

No

Toilet Exhaust

Yes

Teacher's Lounge Exhaust

Yes

Kiln Exhaust

Unknown. Room locked.

Special Exhaust Systems

N/A

Vehicle Exhaust

N/A

Dust Collection

N/A

Other

N/A

Dishwasher Exhaust

Exhaust connections to dishwasher.

Range Hood Exhaust

Two hoods. One has a pair of stacked steam ovens and a steam table. This could be de-rated to a heat hood (eliminate the Ansul coverage). The other has a pair of stacked ovens, a free-standing oven and a range. Has Ansul protection.

Heat Hood Exhaust

None.

Comments

- Clothes dryers in Mechanical-315, Janitor-359, HE Prep-306.
- Ranges in Home Ec Lab-305 have exhaust hoods.
- Fume hoods in Lab-134, Lab-132.

AIR CONDITIONING:

Type

Chilled water / glycol mixture.

Chiller(s)

Carrier and McQuay packaged air-cooled chillers on grade west of Mechanical-315. There are base-mounted chiller pumps. There are three base-mounted chilled water pumps there are two VFD's for CHW system.

Location

Outside Mechanical-315.

Cooling Effect

Cold air.

Spot Cooling

At least one split system observed in Server Room.

WATER HEATER:

Location	Mechanical-315.
Manufacturer / Model	Six AO Smith Instantaneous Model ATI-520H-100.
Input / Output	199 mbh input each.
Thermostatic Mixing Valve	Yes, high-low type.
Recirculation	Yes.
Comments	•Employs two large vertical storage tanks. •System is likely oversized.
Dishwasher Booster Heater	Hatco Electric.

INCINERATOR:

None

GAS SERVICE:

Utility	Ameren.
Service Entrance Location	Outside of Mechanical Room-315.
Pipe Material	Black steel. CSST noted at water heaters.
Comments	Emergency gas shutdown in Home Ec Lab-305, Lab-134, Lab-132, Biology-130.

ELECTRICAL SYSTEM:

Utility	Ameren
Primary Location	Overhead along Eighth Street. Then underground to transformer.
Utility Transformer Location	Outside of Mechanical-315.
Electrical Service Entrance	Mechanical Room-315.
Service Voltage	277 / 480 volt, 3 phase, 4 wire.
Service Amperage	2,000 amp.
Distribution Panel	MDP in Mechanical-315. Has main switch with ground fault protection.
Wiring	Conduit.
Comments	120 / 208 volt, 3 phase, 4 wire stepdown transformer in Mechanical-315. 208 volt DP adjacent to transformer.
Classroom Lighting Type	Fluorescent.
Lighting Controls	Occupancy sensors.
Office / Corridor Lighting	Fluorescent.
Controls	Mostly occupancy sensors.
Gym Lighting	T8HO fluorescent.
Controls	Appears to be manual.
Athletic Lighting	Appears to be HID.
Exterior Lighting	Building-mounted HID wallpacks, pole-mounted HID cobra head, LED and decorative.

PLUMBING:

Meter Location	Mechanical-315. There is a backflow preventer on the domestic service.
Domestic Water Piping	Copper.
Comments	Has a B & G variable speed booster pump in Mechanical-315.
Plumbing Fixtures	Wall-hung flush valve water closets. Wall-hung auto flush valve urinals, wall-hung lavatories.
Comments	Fixtures in very good condition.
Sanitary Sewer	Gravity to City.
Drain Waste and Vent System	Cast iron above floor (return air plenums employed in this building), PVC buried.
Storm Sewer	City of Pana.
Roof Drainage	Gutters and downspouts plus scupper and downspouts. All downspouts hard-piped to underground.
Overflow	Via the gutters on sloped roof or scuppers on flat roofs.
Site Drainage	Catch basins.

VI. PRIVATE PROTECTION

FIRE ALARM SYSTEM:

System Type	Addressable.
Appears to Comply with ADA?	No.
Manufacturer	Simplex Model 4020.
Control Panel Location	Near Reception-101.
Batteries and Charger	Yes
Annunciator Location	In hallway at Entry-301.
Pullstations	Located per Safety Reference Drawings.
Alarm Devices	Located per Safety Reference Drawings.
Magnetic Hold-Opens	Located per Safety Reference Drawings.
Sprinkler Interface	Yes
Monitored?	By George Alarm, 217-525-1334.

AUTOMATIC SPRINKLERS:

Sprinkled?	Fully sprinkled.
Sprinkler Service Equipment	Mechanical-315. Has backflow preventor. Has a fire pump and a jockey pump.
Location	Exterior south wall of Mechanical-315.
Fire Department Connection	
Location	
System Type	Wet



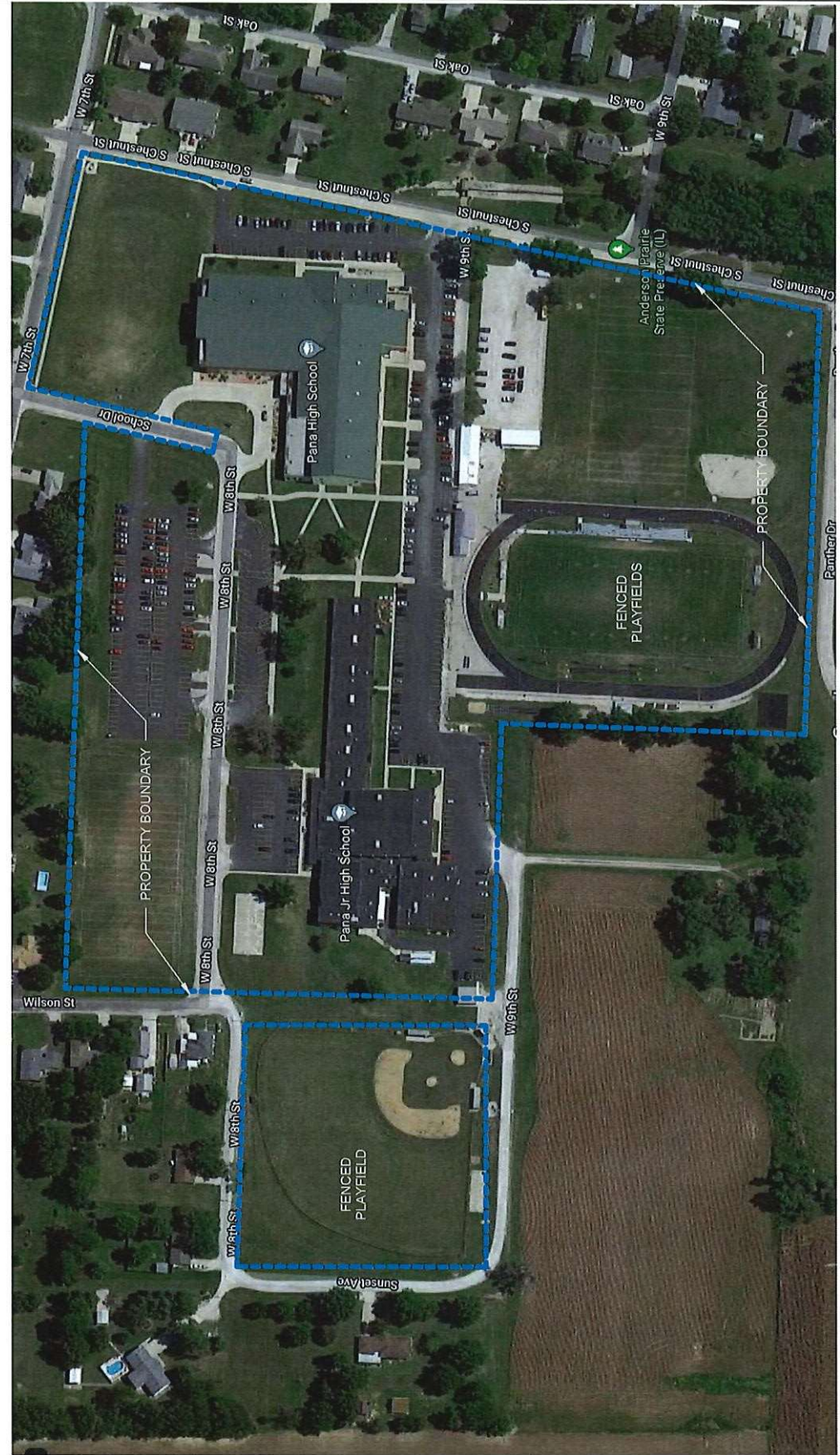
AUTOMATIC HEAT DETECTION:	
Smoke Detectors	Located per Safety Reference Drawings.
Heat Detectors	Located per Safety Reference Drawings.
Duct-Mounted Smoke Detectors	Located per Safety Reference Drawings.
Carbon Monoxide Detectors	None noted.
Sprinkler System Tie-In	Yes
STANDPIPE HOSE LINES:	
Stage	N/A
FIRE EXTINGUISHERS:	Portable fire extinguishers are located per Safety Reference Drawings.
VII. <u>SECURITY SYSTEM</u>	
Camera-Controlled Access	Vestibule-303 and Entry-101.
Security Cameras	Yes.
Security System	Yes.
VIII. <u>ENERGY CONSERVATION</u>	
Control Type	Digital.
Compressor Location	N/A
Air Dryer Location	N/A
Comments	Honeywell controls St. Louis Office.
IX. <u>ASBESTOS ABATEMENT</u>	
	There are no ACM products in the building, according to an affidavit on file at the district office.
X. <u>LEAD PAINT</u>	
	Given the date of construction it is unlikely any lead base products were used in the building.
XI. <u>PAVING</u>	
	Drives, parking lots, and sidewalks are in good condition.

SITE PLAN - PROPERTY BOUNDARY  
SAFETY REFERENCE PLAN  
PANA HIGH SCHOOL  
201 WEST 8TH STREET  
PANA, IL 62557

**BLDD**  
ARCHITECTS  
Design Firm Registration #184-000723

drawn by KTO  
checked by KAK  
date 9/18/20  
revised

sheet **C100**  
project 206EX20.400

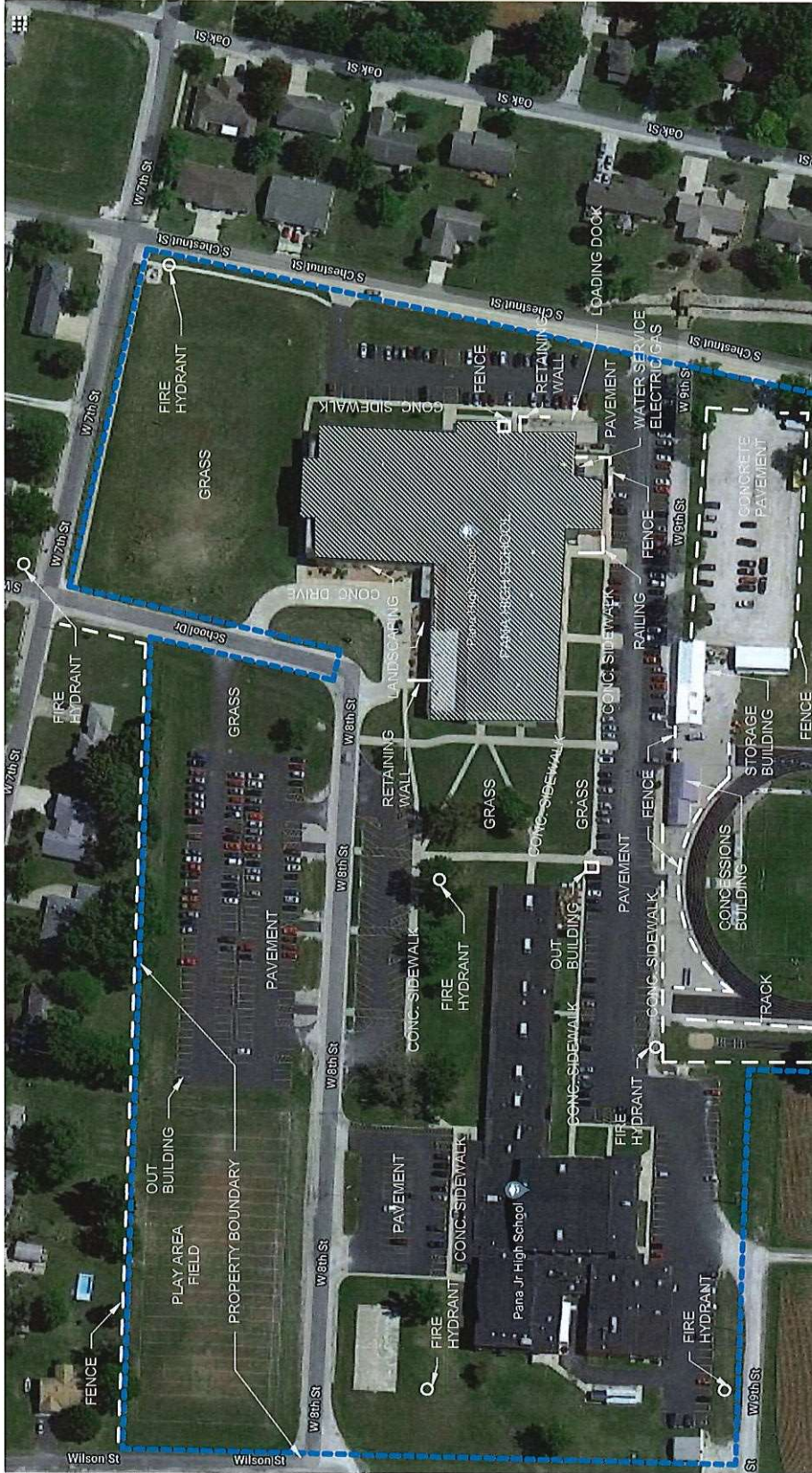


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**SITE PLAN**  
**SAFETY REFERENCE PLAN**  
 PANA HIGH SCHOOL  
 201 WEST 8TH STREET  
 PANA, IL 62557

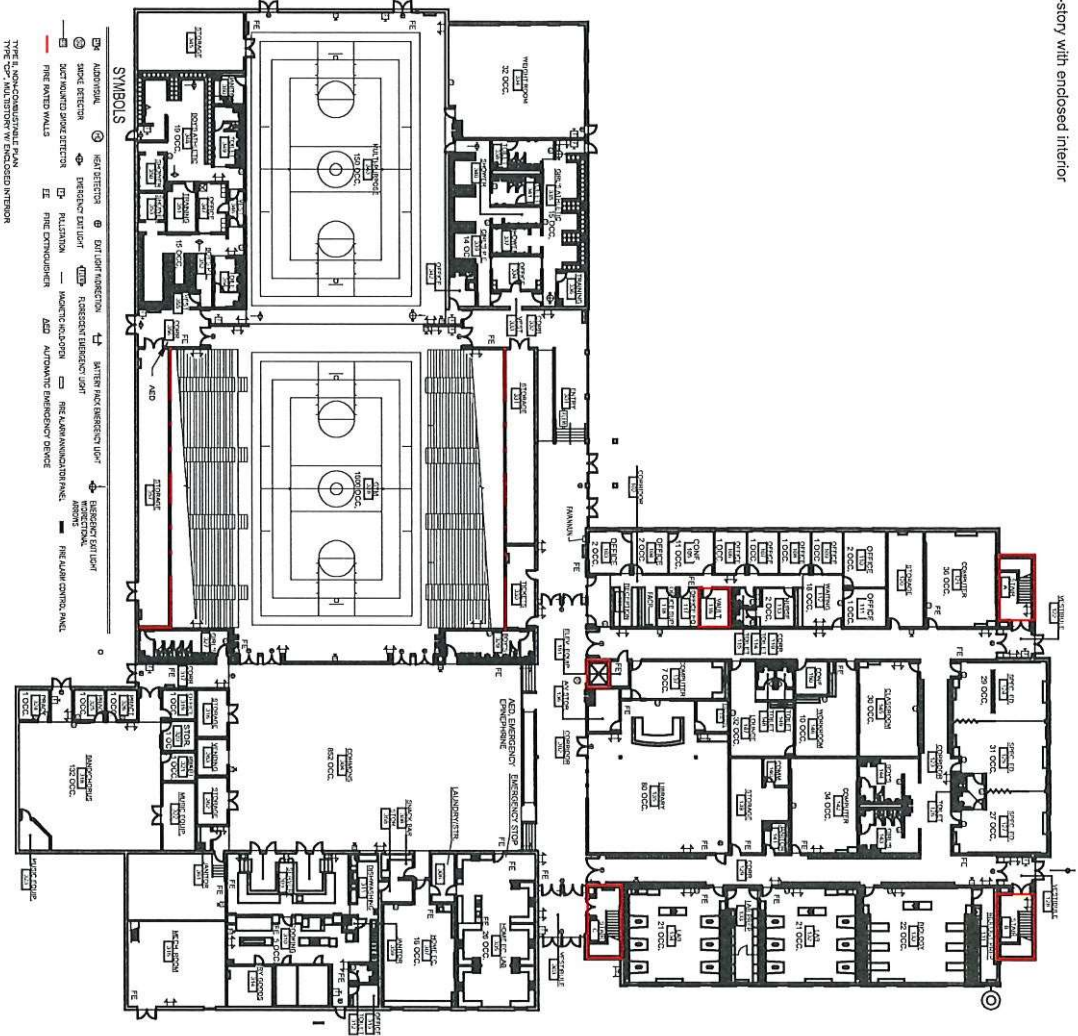


drawn by KTO  
 checked by KAK  
 date 9/18/20  
 revised



GRASS  
 PLAY AREA FIELD  
 PLAY AREA FIELD

CONSTRUCTION: Type II, non-combustible  
 PLAN CLASSIFICATION: Plan Type "CP", multi-story with enclosed interior  
 PROTECTION CLASSIFICATION: sprinklered



FIRST FLOOR PLAN  
 1" = 40'-0"

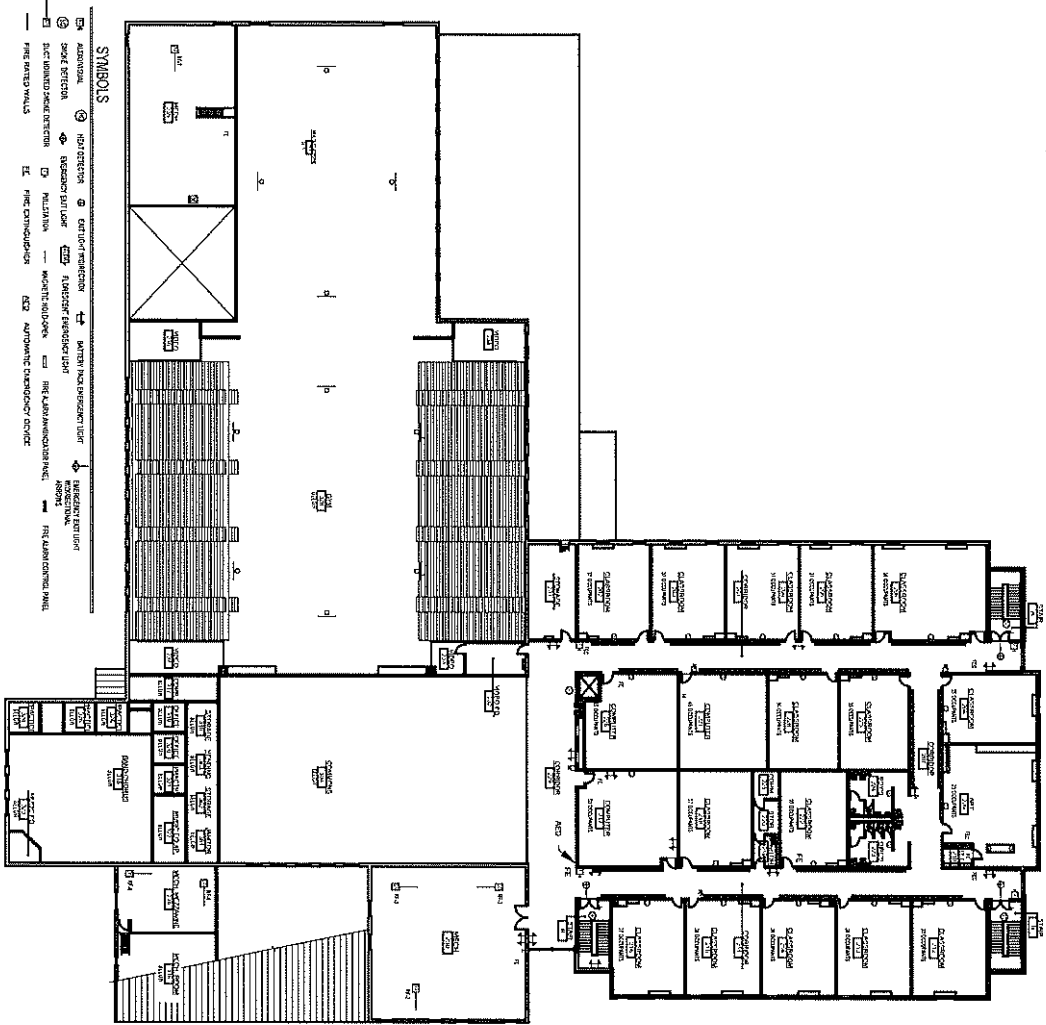
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FIRST FLOOR PLAN  
 SAFETY REFERENCE PLAN  
 PANA HIGH SCHOOL  
 201 WEST 8TH STREET  
 PANA, IL 62557

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SECOND FLOOR PLAN  
1" = 40'-0"

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SECOND FLOOR PLAN  
SAFETY REFERENCE PLAN  
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201 WEST 8TH STREET  
PANA, IL 62557

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Location/ Rm. #	Priority Code	Rule Violated	Desc. Of Violation	Recommendation to Correct	Action ID	Units of Measure	Qty.	Labor Code	Work Type	Est. Cost	Completion Date	Funding Type
Comm-140	A. Urgent	NFPA 72 Section 15.5.1.2	Missing strobe in IT office space.	install strobe.	f. Improve	ea	1	2. Contractor	a. Safety Standards	\$ 410.00	1/1/2022	F. Fire Prevention
Storage-139	A. Urgent	2006 IFC Section 1006	Missing emergency light in IT work area.	install battery pack.	f. Improve	ea	1	2. Contractor	a. Safety Standards	\$ 350.00	1/1/2022	F. Fire Prevention
Mechanical-315	A. Urgent	NFPA 72 Section 17.14.8.4	Missing pullstation at door to exterior.	install pullstation.	f. Improve	ea	1	2. Contractor	a. Safety Standards	\$ 400.00	1/1/2022	F. Fire Prevention
Kitchen-310, Mechanical-315, Home Ec-305, Lab-134, Lab-132, Biology-130, Lab 132	A. Urgent	105 ILCs 5/10-20-57	Carbon monoxide detectors not found.	install standalone, plug-in detectors.	f. Improve	ea	5	1. District	a. Safety Standards	\$ 400.00	1/1/2022	F. Fire Prevention
Multi-Purpose 343	A. Urgent	IPMC 702.1, 305.4	Over the door holder prevents the door from opening without force leading to egress issues. The flooring has detached. The existing floor system has failed. Locations of floor failure are throughout the space. The posed both a problem with egress as well as everyday activity within the room. Additionally adjacent thresholds have popped up causing additional tripping hazards	Replace method of attachment on door or relocate over the door holder. Remove existing flooring system and associated wall base around the perimeter and install low profile wood gym floor system and including wall base. Transitions will need to be installed at perimeter door openings.	f. Improve	ea	1	District	a. Safety Standards	\$ 50.00	1/1/2022	F. Fire Prevention
Office 313	A. Urgent	IPMC 304.15, 305.6	Door sticks upon egress	Adjust door to operate smoothly	c. Repair	ea	1	1. District	a. Safety Standards	\$ 100.00	1/1/2022	F. Fire Prevention
South exterior wall of Gym 328 and outside of vestibule.128	A. Urgent	IPMC 605.1	Missing cover on electrical outlet	Replace missing cover	f. Improve	ls	1	District	Safety Standards	\$ 50.00	1/1/2022	F. Fire Prevention
Storage 362	A. Urgent	IPMC 605.1	Missing plate at electrical receptacle	Install coverplate	f. Improve	ea	1	1. District	a. Safety Standards	\$ 50.00	1/1/2022	F. Fire Prevention
Band/Chorus 318	B. Required	IFC	Room is missing fire extinguisher	Provide fire extinguisher	f. Improve	ea	1	District	a. Safety Standards	\$ -	1/1/2026	O. Other Funds
Entry 301	B. Required	IPMC 304.7	Active leak at display case.	Solution requires investigation to determine the source of leak. Recommend looking at the exterior joint near the corner downspout above the roof where the two building walls meet. The display case should be opened and dried out. Damages surfaces replaced if they can not otherwise be cleaned and salvaged. The gutter may need to be removed temporarily to access joint of concern	c. Repair	ls	1	Contractor	a. Safety Standards	\$ 4,500.00	1/1/2026	F. Fire Prevention

Exterior Precast	B. Required	IPMC 304.6	Joint filler in precast at heads of windows has broken loose. This could be an additional point of water infiltration from the exterior.	Reseal joints in precast at window openings	f. Improve	Is	1	Contractor	Safety Standards	\$ 1,000.00	1/1/2026	F. Fire Prevention
Lounge 147	B. Required	IFC	Space includes cooking equipment but does not have a fire extinguisher that could be readily found	Provide fire extinguisher	f. Improve	ea	1	District	a. Safety Standards	\$ -	1/1/2026	O. Other Funds
Roof above event entrance	B. Required	IPMC 304.6	Sealant has deteriorated at stone sills, electrical receptacles, and the like immediately adjacent to roof flashing. This could lead to water infiltration through open joints. The sealant around the perimeter of the roof has become detached from the wall surface due to the paint failure at the same location	Rake out deteriorated sealant and replace. Repair painted areas where the sealant has pulled the paint away from the wall and reseal	f. Improve	Is	1	Contractor	Safety Standards	\$ 4,000.00	1/1/2026	F. Fire Prevention
Vestibule 122 and Vestibule 128 and second floor above	B. Required	IPMC 304.7, 304.6, 304.13	Evidence of water damage on ceiling tiles adjacent to corner of exterior aluminum frame.	Investigate source of water, repair, and replace ceiling tiles. Water source is likely at the joint and will require replacement of sealant at this location.	c. Repair	ea	2	District	a. Safety Standards	\$ 600.00	1/1/2026	F. Fire Prevention
Vestibule 303	B. Required	IPMC 305.6	Door binds preventing proper door closure which may also caused to delayed egress if not addressed. This occurs at the south pair of interior doors	Adjust door to operate properly.	c. Repair	ea	1	1. District	a. Safety Standards	\$ 200.00	1/1/2026	F. Fire Prevention
Exterior south wall	B. Required	IPMC 304.7	Downspout boots along the south wall have broken.	Replace broken downspout boots. This will require replacement of concrete walk immediately adjacent to downspout	c. Repair	ea	3	Contractor	a. Safety Standards	\$ 4,500.00	1/1/2026	F. Fire Prevention
Girls Athletic Locker room 335	B. Required	IAC	ADA identification is missing from sign holder indicating toilet room	Replace broken sign	f. Improve	ea	1	District	a. Safety Standards	\$ 40.00	1/1/2026	F. Fire Prevention

**Below are recommendations that could be funded using HLS but will not be added to the list in IWAS unless direction is given to do**

Corridor 302	B. Required		Evidence of water damage on ceiling tiles	Investigate source of water, repair, and replace ceiling tiles.	c. Repair	ea	2	District	a. Safety Standards	\$ 200.00	1/1/2026	F. Fire Prevention
Girls 327	B. Required		Evidence of water damage on ceiling tiles near sprinkler head	Investigate source of water, repair, and replace ceiling tiles.	c. Repair	ea	1	District	a. Safety Standards	\$ 100.00	1/1/2026	F. Fire Prevention
Vestibule 303	A. Urgent		Exterior trash can location blocks full egress from the south exterior door	Move trash can	f. Improve	ea	1	District	a. Safety Standards	\$ -	1/1/2026	O. Other Funds
Office 104, Conference 105, Office 107, Computer 121, Special Ed 124, Special Ed 127, Boys 144, Girls 143	B. Required		Evidence of water damage on ceiling tiles	Investigate source of water, repair, and replace ceiling tiles.	c. Repair	ea	8	District	a. Safety Standards	\$ 800.00	1/1/2026	F. Fire Prevention

Vestible 122/Stair A, Vestibule 128/Stair B	B. Required	Evidence of water damage on ceiling tiles along walls and above stair door	Investigate source of water, repair, and replace ceiling tiles.	c. Repair	ea	Z	District	a. Safety Standards	\$ 200.00	1/1/2026	F. Fire Prevention
Weightroom 334, Entry 301	B. Required	Evidence of roof leak is found in these rooms that appears to be directly under scupper openings in the roof.	Investigate source of water, repair, and replace ceiling tiles where they occur.	c. Repair	ls	1	Contractor	a. Safety Standards	\$ 2,000.00	1/1/2026	F. Fire Prevention
Girls Athletic Locker room 335	B. Required	Evidence of water damage on hard ceiling adjacent to access panel	Investigate source of water and repair	c. Repair	ls	1	Contractor	a. Safety Standards	\$ 1,000.00	1/1/2026	F. Fire Prevention
Corridor 356, storage 357	B. Required	Hollow metal frame has rusted/deteriorated at the exterior exit.	Remove paint/rust at base of door to determine extent of deterioration. Patch and repair frame.	c. Repair	ea	2	Contractor	a. Safety Standards	\$ 600.00	1/1/2026	F. Fire Prevention
Entry 301	B. Required	Wall base has detached in the path of egress creating a hazard	Re-attach existing wall base	f. Improve	ea	1	District	a. Safety Standards	\$ 50.00	1/1/2026	F. Fire Prevention
Video Eq 232	B. Required	VCT tile has popped up	Replace broken tile	f. Improve	ea	1	District	a. Safety Standards	\$ 20.00	1/1/2026	F. Fire Prevention







