

## GENERAL INFORMATION

<b>LOCATION:</b> Wamego Middle School 1701 Kaw Valley Rd Wamego, KS 66547	<b>AGENCY INFORMATION:</b> Unified School District 320 510 E. Highway 24 Wamego, KS 66547	<b>RESPONDING FIRE DEPARTMENT:</b> Wamego City Fire Department 504 Plum St. Wamego, KS 66547
<b>REASON FOR SUBMITTAL:</b> New Construction / Addition / Renovation		<b>AUTHORITIES HAVING JURISDICTION:</b> City of Wamego 430 Lincoln Ave., P.O. Box 86 Wamego, KS 66547

## PROJECT DESCRIPTION

Expansion and Renovation of an existing middle school. The expansion extends the existing Building A and creates a new separate building (separated from the rest of the facility with a 2-hour fire wall) and includes new science laboratories and related utility rooms. The existing school and new building are not sprinklered.

## APPLICABLE CODES

State Law establishes a minimum Life Safety and has a uniform effect throughout the state. KSA 31-133 and KSA 2003 Supp. 31-134 require that all occupied structures conform to the basic life safety requirements: A) Existing occupied buildings cannot have hazardous conditions which slow speedy exits. B) Alteration of existing buildings cannot make existing conditions worse or block exits. C) New construction and changes in use are subject to greater life safety requirements.

2012 - International Building Code (IBC)	2010 - NFPA 10
2012 - International Mechanical Code (IMC)	2011 - NFPA 70 (National Electric Code)
2012 - International Plumbing Code (IPC)	2010 - NFPA 72
2012 - International Fuel Gas Code (IFGC)	2010 - ADA Standards
2012 - International Energy Conservation Code (IECC)	Kansas Fire Prevention Code
2012 - International Fire Code (IFC)	Kansas State Boiler Code (K.S.A. 44-913 et seq)

## OCCUPANCY/STRUCTURAL CLASSIFICATION

The new building (Building E) is classified as Group E (Educational) of Type II-B construction. Refer to the following sections for Occupancy and Construction Type of the existing buildings.

The new building (Building E) is considered a single laboratory space, consisting of laboratory rooms, an open collaborative laboratory area, and prep/storage rooms serving the laboratories. The laboratory space poses a greater level of risk and is separated from the rest of the facility by 2-hour fire walls, which exceeds the minimum 1-hour fire barrier requirement of IBC Table 509. The existing portion of the school is provided with its own dedicated exits and does not exit through the new laboratory space. Any new additions in the future will also be separated from the laboratory space with minimum 1-hour fire barriers and will not exit through the laboratory space. Three hazardous materials control areas are provided for the laboratory space; two chemical storage rooms are separated from the third control area (remainder of the building) with 1-hour fire barriers per IBC Table 414.2.2. The quantity of hazardous materials stored and used in the three control areas will be maintained below the maximum allowable quantity (MAQ) per IBC Table 307.1(1).

## BUILDING HEIGHTS AND AREAS

Building	Occupancy / Construction Type*	Basic Allowable Area*	Frontage Increase*	Sprinkler Increase*	Allowable Area / Actual Area*	Allowable Height / Actual Height*	Allowable # Stories / Actual # Stories
Building A (Renovation)	Group E / Type II-B	14,500 SF	3,770 SF (51% of perimeter)	0 SF	18,270 SF / 12,500 SF	55' / 25'	2 / 1
Building B (Existing)	Group E / Type II-B	14,500 SF	1,595 SF (36% of perimeter)	0 SF	16,095 SF / 14,596 SF	55' / 25'	2 / 1
Building C-1 (Existing)	Group A-2 / Type II-A	15,500 SF	2,945 SF (44% of perimeter)	0 SF	18,445 SF / 16,679 SF	65' / 34'	3 / 2
Building C-2 (Existing)	Group A-2 / Type II-A	15,500 SF	0 SF (10% of perimeter)	0 SF	14,500 SF / 11,278 SF	65' / 34'	3 / 2
Building C-3 (Existing)	Group E / Type II-B	14,500 SF	5,365 SF (62% of perimeter)	0 SF	19,865 SF / 13,429 SF	55' / 26'	2 / 1
Building D (Existing)	Group E / Type II-B	14,500 SF	7,685 SF (78% of perimeter)	0 SF	22,185 SF / 17,938 SF	55' / 25'	2 / 1
Building E (New Addition)	Group E / Type II-B	14,500 SF	8,265 SF (82% of perimeter)	0 SF	22,765 SF / 10,075 SF	55' / 20'	2 / 1
*All buildings use non-separated occupancies approach (IBC 508.3)		*IBC Table 503	*IBC Section 506.2	*IBC Section 506.3 *No buildings provided with sprinkler system	*Ground floor areas	*Average roof height	

## GENERAL BUILDING LIMITATIONS

Construction Type:	<u>Buildings A,B,C-3,D,E</u> Type II-B	<u>Buildings C-1,C-2</u> Type II-A
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## STRUCTURAL FIRE RATING

	<u>Buildings A,B,C-3,D,E</u>	<u>Buildings C-1,C-2</u>
Structural frame including columns, girders & trusses:	0-hour	1-hour
Bearing exterior walls:	0-hour	1-hour
Bearing interior walls:	0-hour	1-hour
Nonbearing exterior walls & partitions:	0-hour	1-hour (0-hour ≥30' FSD*)
Nonbearing interior walls & partitions:	0-hour	0-hour
Floor construction including supporting beams & joists:	0-hour	1-hour
Roof construction including supporting beams & joists:	0-hour	1-hour

\*FSD = Distance measured perpendicularly out from exterior wall to nearest property line, centerline of street, or imaginary line between two buildings on the same property.

## EXIT WIDTH FACTORS:

Stairs:	0.3"/person (40 people/ft)
Doors, Level Surfaces, Ramps:	0.2"/person (60 people/ft)

## ACTIVE LIFE SAFETY SYSTEMS

Fire Alarm:	Required/Provided:	Existing, Standby Generator
FACP:	Required/Provided:	Located in building main office
Remote Annunciator Panel:	Not Required/Not Provided	
Smoke Detection:	Required/Provided:	HVAC system per IMC
Pull Stations:	Required/Provided:	Throughout per NFPA 72
Backup Power:	Required/Provided:	Standby Generator
Exit Signs:	Required/Provided:	Standby Generator
Emergency Lights:	Not Required/Not Provided	
Suppression - Standpipes:	Not Required/Not Provided	
Suppression - Automatic:	Required/Provided:	Throughout per NFPA 10
Fire Extinguishers:		

## WATER - FLOW TESTS:

Static:	N/A	Date:	N/A
Residual:	N/A	Location:	N/A
Flow:	N/A		

## PASSIVE LIFE SAFETY SYSTEMS:

**Building E (New Addition)**  
Corridors: No rating (IBC 1018.1, Ex. 1)  
Occupancy Separations: None (all buildings use non-separated occupancies approach)  
Fire Walls: 2-hour fire walls, 90-minute doors/openings\*

**All Other Buildings**  
Corridors: 1-hour fire partitions, 20-minute openings\* (doors meet smoke and draft control, no louvers)  
Enclosed Stairways: 1-hour fire barriers, 60-minute doors/openings\*  
Shafts: 1-hour fire barriers, 60-minute openings\*  
Occupancy Separations: None (all buildings use non-separated occupancies approach)  
Fire Walls: 2-hour fire walls, 90-minute doors/openings\*

\*each opening limited to 156 square feet, aggregate openings limited to 25% of width of wall

**IMPORTANT** -ANY DEVIATIONS FROM THIS DOCUMENT MAY RESULT IN THE DELAY OF ISSUING THE CERTIFICATE OF OCCUPANCY. CHANGES AFFECTING THIS CODE FOOTPRINT SHALL BE DOCUMENTED BY THE CONSULTANT AND APPROVED BY THE AHJ.

OWNER DATE

KSFM DATE

OFPM CODE COMPLIANCE COORDINATOR DATE

SYMBOL	DESCRIPTION	PROTECTIVE ELEMENTS
	EXIT - EXTERIOR	
	EXIT - INTERIOR (Assembly occ. over 50 and exits from floors.)	
	FIRE EXTINGUISHER	
	FIRE EXTINGUISHER SPACING (Show radius)	Radius Shown on floor plan.
	PROTECTED EXIT PATH	1-hour Fire Partition wall construction. 20-minute rated door assembly. Fire/Smoke dampers (smoke damper not required for 26 Ga. steel duct system serving corridor only).
	1 HOUR EXIT PASSAGEWAY	1-hour Fire Barrier wall construction. No openings other than required exit doors. 1-hour door assembly.
	2 HOUR EXIT PASSAGEWAY	2-hour Fire Barrier wall construction. No openings other than required exit doors. 1 1/2-hour door assembly.
	1 HOUR EXIT ENCLOSURE (vertical) (stairwell - 3 stories or less)	1-hour Fire Barrier wall construction. No openings other than required exit doors. 1-hour door assembly.
	2 HOUR EXIT ENCLOSURE (vertical) (stairwell - 4 stories or more)	2-hour Fire Barrier wall construction. No openings other than required exit doors. 1 1/2-hour door assembly.
	1 HOUR FIRE BARRIER (Occupancy and Incidental Use)	1-hour Fire Barrier wall construction. 3/4-hour rated door assembly. Fire Dampers.
	2 HOUR FIRE BARRIER (Occupancy)	2-hour Fire Barrier wall construction. 1 1/2-hour rated door assembly. Fire Dampers.
	2 HOUR FIRE WALL (Building Separation)	2-hour Fire Wall construction. 1 1/2-hour rated door assembly. Fire/Smoke Dampers (fire wall serves as horizontal exit).
	1 HOUR SHAFT (3 stories or less)	1-hour Fire Barrier wall construction. 1-hour door assembly. Fire/Smoke Dampers.
	2 HOUR SHAFT (4 stories or more)	2-hour Fire Barrier wall construction. 1 1/2-hour door assembly. Fire/Smoke Dampers.
	SPRINKLERED INCIDENTAL USE AREAS	Wall construction to resist the passage of smoke from floor to floor to F.R. floor/ceiling assembly. Self- or automatic-closing doors with no air transfer grilles.
	198 / 39.6" / 68" ACCUMULATED EXIT WIDTH AT REQUIRED EXIT (clear width)	Occupants / Required width / Provided width
	PUBLIC FIRE HYDRANT (show distance from building)	
	CONF. / A4 / 65 ROOM DESIGNATION	Room type / Occupancy type / Maximum Allowable occupants
	80 / 40 ROOM DESIGNATION	
	NOT IN SCOPE OF WORK	
	SPRINKLER STANDPIPE	N/A
	FIRE DEPARTMENT CONNECTION	N/A
	FIRE ALARM CONTROL PANEL	
	FIRE DEPARTMENT KNOX BOX	
	EXIT SIGN	

Department of Administration  
Office of Facilities & Property Management  
Design, Construction & Compliance  
700 Harrison, Suite 1200  
Topeka, Kansas 66603  
Phone 785-296-8899

USD 320 WAMEGO MIDDLE SCHOOL  
**SCIENCE ROOM ADDITION**

1701 KAW VALLEY ROAD  
WAMEGO, KS 66547

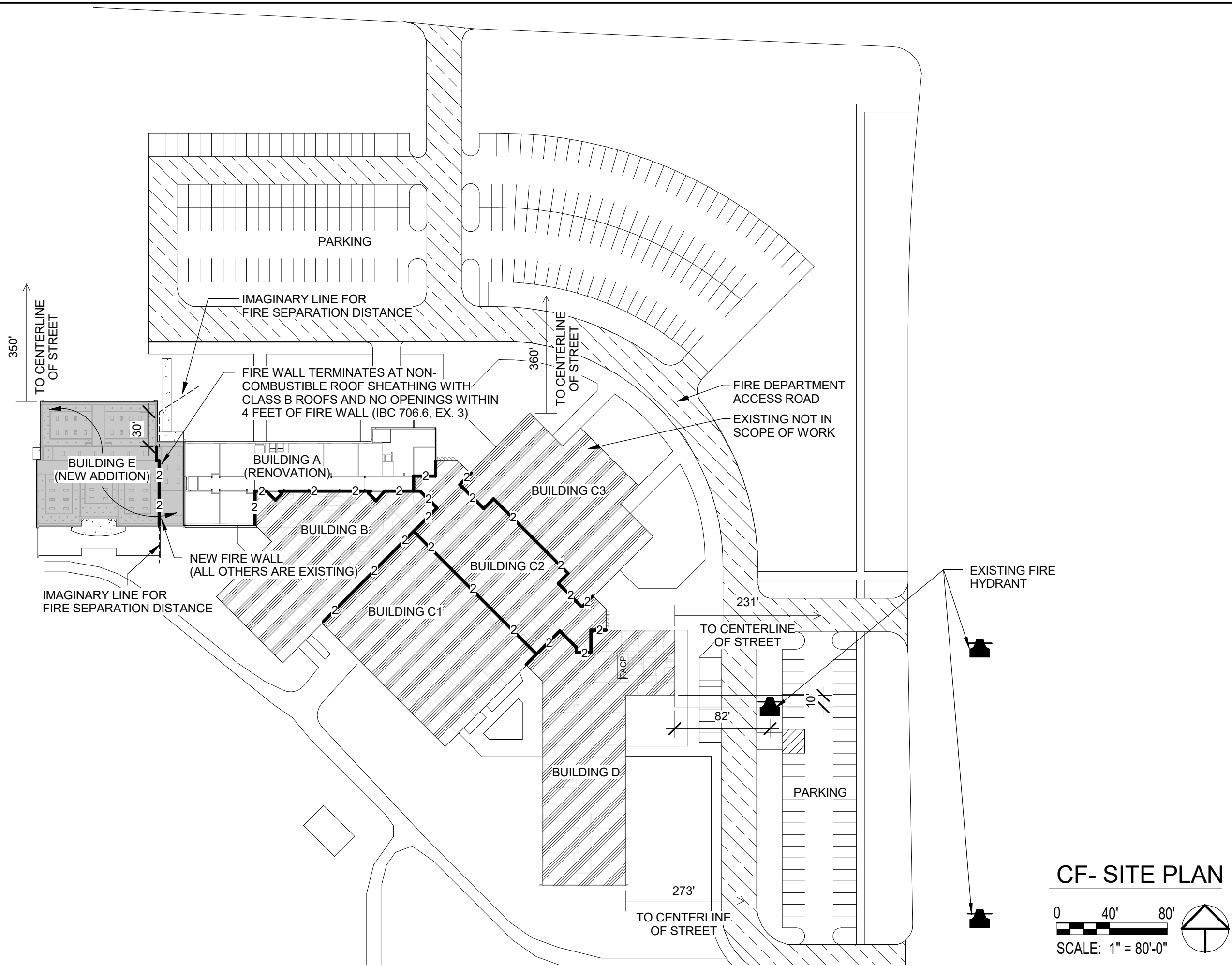
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CODE FOOTPRINT  
COVER SHEET

A-012552

**CF-100**

Original Contract  
Documents



Department of Administration  
 Office of Facilities & Property Management  
 Design, Construction & Compliance  
 700 Harrison, Suite 1200  
 Topeka, Kansas 66603  
 Phone 785-296-8899

USD 320 WAMEGO MIDDLE SCHOOL  
**SCIENCE ROOM ADDITION**  
 1701 KAW VALLEY ROAD  
 WAMEGO, KS 66547

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CODE FOOTPRINT  
 SITE PLAN

A-012552

**CF-101**

Original Contract  
 Documents

**Room Types**

CL = Classroom  
 MR = Mechanical Room  
 ST = Storage Room

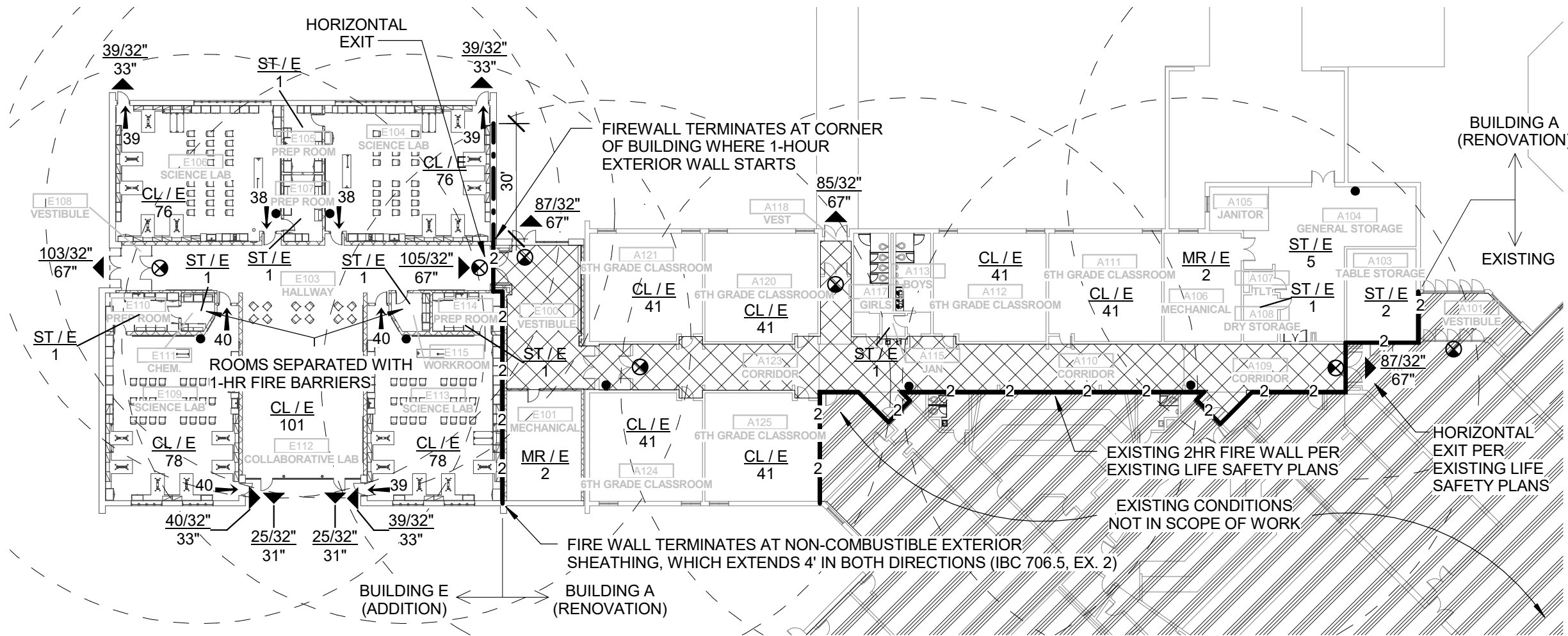
**Egress Schedule**

People Egressing	Inches/Person	Clear Width	Comments
<b>BUILDING A</b>			
87	0.2	5' - 7"	BUILDING A
87	0.2	5' - 7"	BUILDING A
85	0.2	5' - 7"	BUILDING A
259			
<b>BUILDING E</b>			
105	0.2	5' - 7"	BUILDING E
103	0.2	5' - 7"	BUILDING E
25	0.2	2' - 7"	BUILDING E
25	0.2	2' - 7"	BUILDING E
39	0.2	2' - 9"	BUILDING E
40	0.2	2' - 9"	BUILDING E
39	0.2	2' - 9"	BUILDING E
39	0.2	2' - 9"	BUILDING E
415			

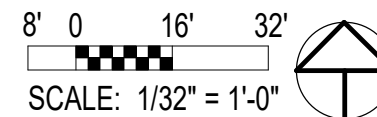
**Occupant Summary**

Function (per IBC Table 1004.1.2)	Area /Person	People
<b>Building A</b>		
Educational - Classroom	20 SF	246
storage and mechanical areas	300 SF	13
		259
<b>Building E</b>		
Assembly - Unconcentrated*	15 SF	101
Educational - Classroom	20 SF	308
storage and mechanical areas	300 SF	6
		415

\* Group E occupancy per IBC 303.1.3



**CF-FIRST FLOOR PLAN**



Department of Administration  
 Office of Facilities & Property Management  
 Design, Construction & Compliance  
 700 Harrison, Suite 1200  
 Topeka, Kansas 66603  
 Phone 785-296-8899

USD 320 WAMEGO MIDDLE SCHOOL  
**SCIENCE ROOM ADDITION**  
 1701 KAW VALLEY ROAD  
 WAMEGO, KS 66547

CODE FOOTPRINT  
 FIRST FLOOR PLAN

A-012552

**CF-102**

Original Contract  
 Documents

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