# USD 320 MAMEGO MIDDLE SCHOOL SCIENCE ADDITION

1701 KAW VALLEY RD. WAMEGO, KANSAS 66547

#### CONSTRUCTION DOCUMENTS

<u>Owner:</u>

USD 320 MAMEGO 510 EAST HMY. 24 MAMEGO, KS 66547 PROJECT DESCRIPTION:

ADDITION OF 4 SCIENCE CLASSROOMMS TO AN EXISTING MIDDLE SCHOOL.

ARCHITECT:

BBN ARCHITECTS, INC. 228 POYNTZ AVE. MANHATTAN, KS 66502 TELEPHONE: (785) 776-4912

MEP ENGINEER:

ORAZEM & SCALORA ENGINEERING, P.A. 2312 ANDERSON AVE. MANHATTAN, KS 66502

# STRUCTURAL ENGINEER:

DUDLEY MILLIAMS AND ASSOCIATES, P.A. 230 S LAURA, SUITE #200 MICHITA, KS 67211

# CIVIL ENGINEER:

SMH CONSULTANTS 2017 VANESTA PL. MANHATTAN, KS 66503

#### INDEX TO DRAWINGS:

600	TITLE SHEET
GO.01	GENERAL INFORMATION
CF-100 CF-101 CF-102	CODE FOOTPRINT COVER SHEET CODE FOOTPRINT SITE PLAN CODE FOOTPRINT FIRST FLOOR PLAN
C1 C2 C3	SITE PLAN GRADING PLAN STORM PLAN AND PROFILE
5101 5102 5103 5201 5202 5203 5301 5401 5402	FOUNDATION PLAN ROOF FRAMING PLAN ROOF FRAMING PLAN GENERAL STRUCTURAL NOTES SCHEDULES AND DETAILS SCHEDULES AND DETAILS FOUNDATION SECTIONS AND DETAILS FRAMING SECTIONS AND DETAILS FRAMING SECTIONS AND DETAILS
A3.04 A3.05 A4.01 A5.01 A5.02 A6.00 A7.00	WALL SECTIONS ENLARGED PLANS DETAILS
ME101 ME102	MEP SITE PLAN PARTIAL MECH./ELEC. PLAN
M101 M201	MECHANICAL DUCTMORK PLAN MECHANICAL DETAILS AND SCHEDULES
	ELECTRICAL PLAN LIGHTING PLAN SPECIAL SYSTEMS PLAN ELECTTICAL DETAILS AND SCHEDULES
P101 P102	PLUMBING PLANS PLUMBING PLANS
LF1.02 LF1.03 LF2.01 LF2.02 LF2.03	LAB CASEMORK NOTES  LAB FURNISHING NOTES AND SCHEDULES  LAB CASEMORK TYPES  LAB CLASSROOM CASEMORK PLAN  LAB CASEMORK PLAN  LAB CASEMORK PLANS

LAB CASEMORK ELEVATIONS

LAB CASEMORK ELEVATIONS

LF3.02 LAB CASEMORK ELEVATIONS

LF3.03 LAB CASEMORK ELEVATIONS LF3.04 LAB CASEMORK ELEVATIONS LF3.05 LAB CASEMORK ELEVATIONS

LF3.07 LAB CASEMORK ELEVATIONS

LF4.01 LAB FURNISHINGS DETAILS

# GENERAL NOTES

1. GENERAL NOTES APPLY TO ALL ARCHITECTURAL DRAWINGS & DETAILS.

2. ALL WORK SHALL CONFORM WITH APPLICABLE BUILDING CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS.

3. DESIGN DOCUMENTS HAVE BEEN PREPARED DESCRIBING GENERAL REQUIREMENTS FOR WORK AT THE EXISTING SITE. IDENTIFICATION OF EXISTING CONDITIONS, SHOWN ON THE PLANS, IS BASED ON A GENERAL REVIEW OF EXISTING CONDITIONS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.

4. THE CONTRACTOR SHALL VERIFY ALL LAYOUT DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION.

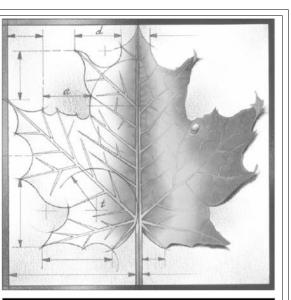
5. CONTRACTOR SHALL COORDINATE THE WORK WITH THE INSTALLATION OF ALL EQUIPMENT/TRADES SHOWN ON THE PLANS.

6. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, AND SEQUENCES OF CONSTRUCTION AND THE SAFETY OF ALL CONSTRUCTION PERSONNEL AND AUTHORIZED VISITORS TO THE PROJECT SITE.

7. WHERE DISCREPANCIES EXIST IN THE DOCUMENTS THE MOST STRINGENT SHALL APPLY.

8. PATCH, FINISH AND REPAINT ANY WALLS, FLOOR AND CEILINGS DAMAGED OR REMOVED WHILE INSTALLATION OF NEW WATER PIPING.

9. REMOVE AND DISPOSE OF ALL EXISTING FIXTURES, CASEMORK, PARTITIONS, CEILINGS, INSULATION, AND ALL OTHER FINISHES REQUIRED PRIOR TO RENOVATION MORK.



# BBN

228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



Project Number:

Date:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ADDITION

11/28/17

Project Address:

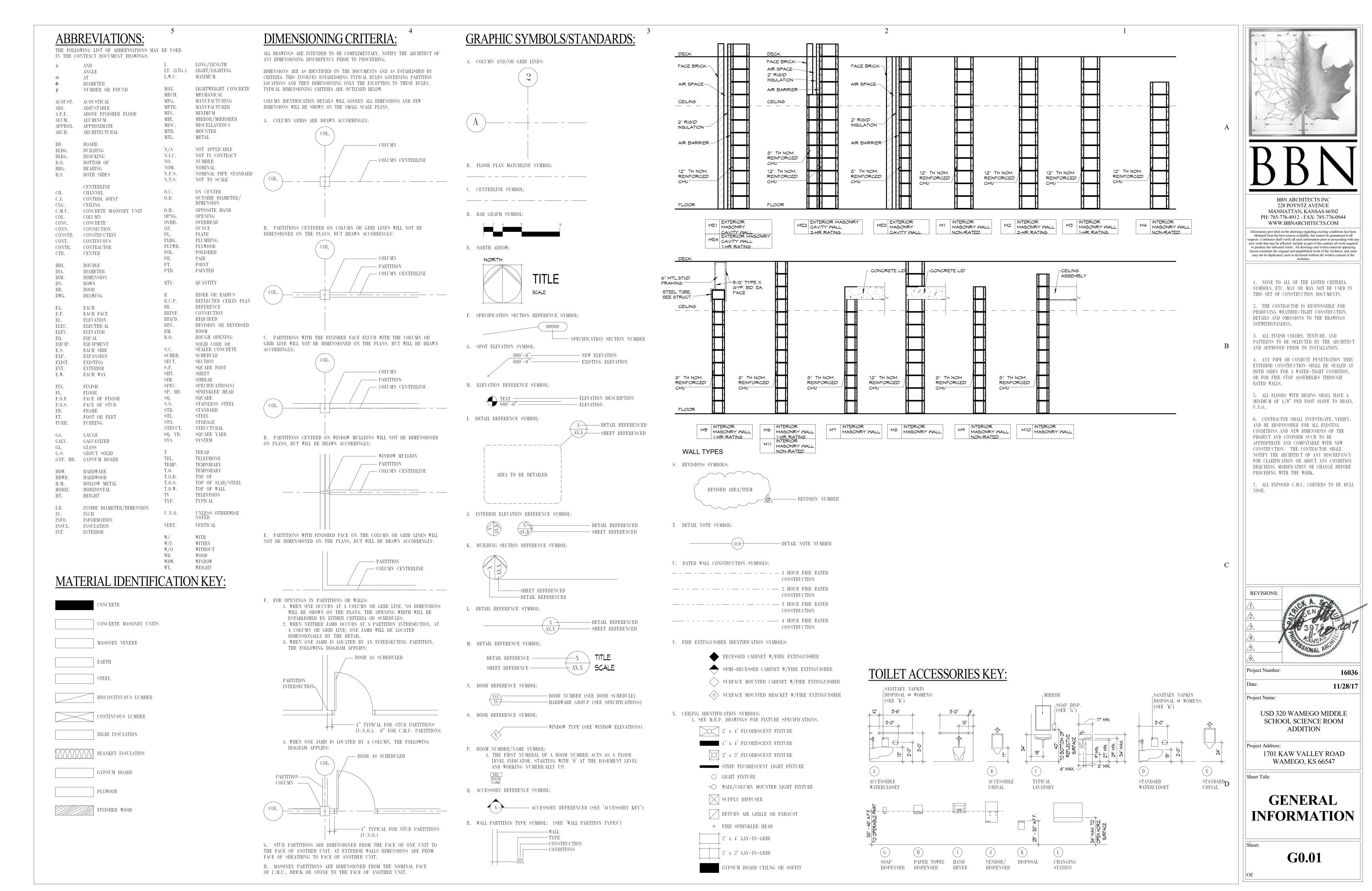
1701 KAW VALLEY RD. WAMEGO, KANSAS 66547

Sheet Title:

TITLE SHEET

G000

Of:



LOCATION: Wamego Middle School 1701 Kaw Valley Rd Wamego, KS 66547

AGENCY INFORMATION:

Unified School District 320 510 E. Highway 24 Wamego, KS 66547

RESPONDING FIRE DEPARTMENT:

Wamego City Fire Department 504 Plum St

Wamego, KS 66547

REASON FOR SUBMITTAL: New Construction / Addition / Renovation AUTHORITIES HAVING JURISDICTION:

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)

2012 - International Fire Code (IFC)

2012 - International Mechanical Code (IMC) 2012 - International Plumbing Code (IPC) 2012 - International Fuel Gas Code (IFGC)

2011 - NFPA 70 (National Electric Code) 2010 - NFPA 72 2010 - ADA Standards 2012 - International Energy Conservation Code (IECC) Kansas Fire Prevention Code 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 (Builiding 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 (reminder 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 perimter)	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 perimter)	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 perimter)	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 perimter)	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 perimter)	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 perimter)	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 perimter)	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**

Buildings A,B,C-3,D,E Type II-B Construction Type:

#### STRUCTURAL FIRE RATING

	Buildings A,B,C-3,D,E	Buildings C-1,C-2
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**

Remote Annunciator Smoke Detection: Pull Stations Backup Power: Exit Signs: Emergency Lights: Suppression - Standpipes: Suppression - Automatic: Fire Extinguishers:

Required/Provided: Required/Provided: Not Required/Not Provided Required/Provided: Required/Provided: Required/Provided: Required/Provided: Required/Provided: Not Required/Not Provided Not Required/Not Provided Required/Provided:

Existing, Standby Generator Located in building main office

Buildings A.B.C.3.D.E. Buildings C.4.C.3

HVAC system per IMC Throughout per NFPA 72 Standby Generator Standby Generator Standby Generator

Throughout per NFPA 10

#### **WATER - FLOW TESTS:**

Static:	N/A	Date:	N/A
Residual:	N/A	Location:	N/A
Elow.	NI/A		

#### **PASSIVE LIFE SAFETY SYSTEMS:**

Building E (New Addition)

No rating (IBC 1018.1, Ex. 1)

No rating (IBC 1018.1, Ex. 1)

Occupancy Separations: None (all buildings use non-separated occupancies approach) 2-hour fire walls, 90-minute doors/openings'

All Other Buildings

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\*

None (all buildings use non-separated occupancies approach) Occupancy Separations: 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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 HOUR EXIT PASSAGEWAY	1-hour Fire Barrier wall construction. No openings other than required exit doors. 1-hour door assembly.
2 2	2 HOUR EXIT PASSAGEWAY	2-hour Fire Barrier wall construction. No openings other than required exit doors. 1 1/2-hour door assembly.
1 1	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 2	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.
<b>—2—2—</b>	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 1	1 HOUR SHAFT (3 stories or less)	1-hour Fire Barrier wall construction. 1-hour door assembly. Fire/Smoke Dampers.
2 2	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.
<u>198 / 39.6"</u> 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	ROOM DESIGNATION	
	NOT IN SCOPE OF WORK	
$\otimes$	SPRINKLER STANDPIPE	N/A
<b>%</b> -	FIRE DEPARTMENT CONNECTION	N/A
FACP	FIRE ALARM CONTROL PANEL	
	FIRE DEPARTMENT KNOX BOX	
181	EXIT SIGN	

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

DITION 01 KAW VALLEY ROAD WAMEGO, KS 66547 MOO × Z Ш

SCHOOL

320 WAMEGO MIDDL

USD

LBR

**DRAWN BY:** 

11/28/17

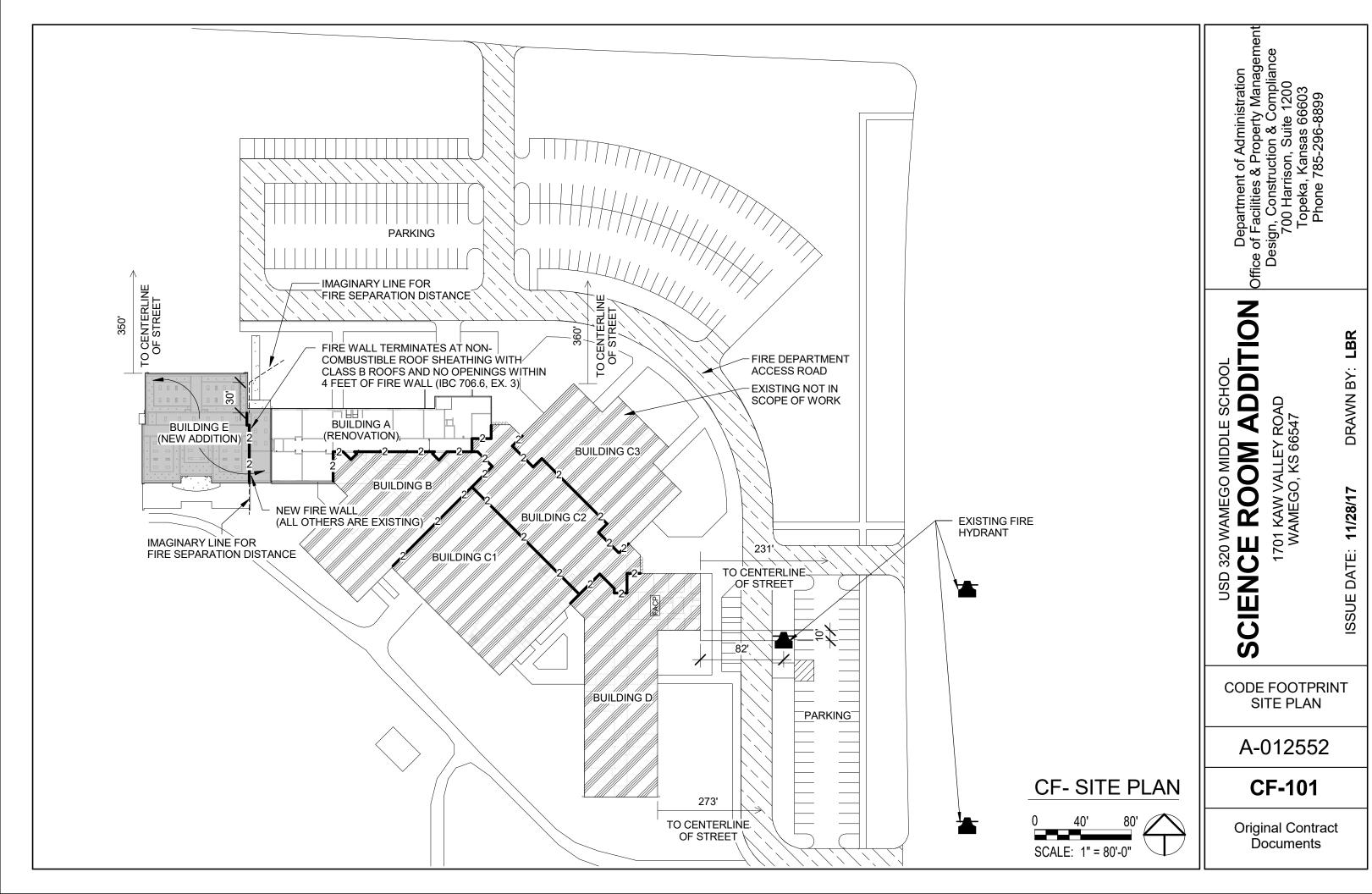
SUE DATE:

**CODE FOOTPRINT COVER SHEET** 

A-012552

**CF-100** 

**Original Contract Documents** 



#### **Room Types**

to citt i ypoo
CL = Classroom
/IR = Mechanical Room
T = Storage Room

Egress Schedule					
People Inches/ Clear					
Egressing	Person	Width	Comments		
BUILDING A					
87	0.2	5' - 7"	BUILDING A		
87	0.2	5' - 7"	BUILDING A		
85	0.2	5' - 7"	BUILDING A		
259					
BUILDING E					
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		

0.2 2' - 9" BUILDING E

Occupant Summary			
Function (per IBC Table 1004.1.2)	Area /Person	People	
Building A			
Educational - Classroom	20 SF	246	
storage and mechanical areas	300 SF	13	
		259	

Building E		
Assembly - Unconcentrated*	15 SF	101
Educational - Classroom	20 SF	308
storage and mechanical areas	300 SF	6
* Group E occupancy per IBC 1	303 1 3	415

\* Group E occupancy per IBC 303.1.3

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

**ADDITION** ROOM

DRAWN BY: LBR

ISSUE DATE: 11/28/17

1701 KAW VALLEY ROAD WAMEGO, KS 66547

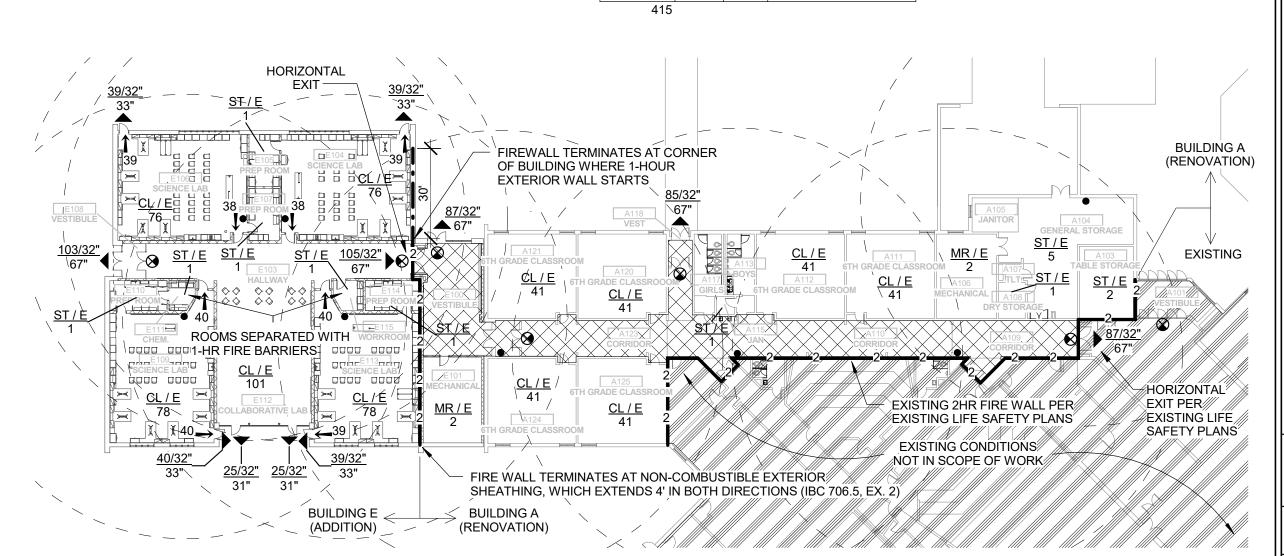
USD 320 WAMEGO MIDDLE SCHOOL

SCIENCE **CODE FOOTPRINT** FIRST FLOOR PLAN

A-012552

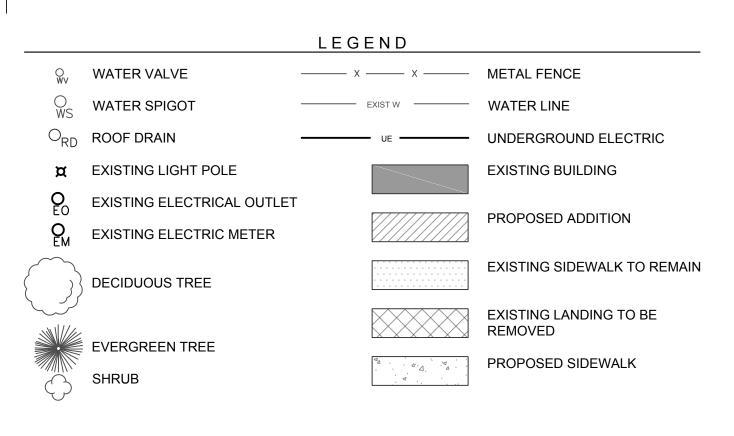
**CF-102** 

**Original Contract** Documents



# **CF-FIRST FLOOR PLAN**

SCALE: 1/32" = 1'-0"



#### NOTES

IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM APPROPRIATE REGULATORY AGENCIES (IF APPLICABLE) PRIOR TO COMMENCING THE WORK.

ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF THE PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND IN ACCORDANCE WITH REGULATIONS OF THE AUTHORITIES CONCERNED.

ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE. NO ON-SITE BURYING OF DEBRIS WILL BE ALLOWED.

ELECTRIC CITY OF WAMEGO

TELEPHONE WTC TELEPHONE SERVICE

WATER & SEWER CITY OF WAMEGO

ANDY BOECKMAN

1009 LINCOLN AVENUE WAMEGO, KS 66547 (785) 456-1000

430 LINCOLN AVENUE WAMEGO, KS 66547 (785) 456-9119

CABLE COX COMMUNICATIONS
GLENN CALHOON
931 SW HENDERSON

TOPEKA, KS 66615 (785) 215-6705

GAS KANSAS GAS SERVICE
JULIE ROBLYER
225 SETH CHILD ROAD

(785) 587-2339

MANHATTAN, KS 66502

430 LINCOLN AVENUE WAMEGO, KS 66547 (785) 456-9119

ALL HAUL SITES SELECTED FOR COLLECTION OF DEBRIS SHALL BE APPROVED BY THE OWNER/ENGINEER.

ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE OWNER.

EXISTING DRIVE LANE EXISTING CURB INLET OVERHANG WITH GUTTER (TYP.) EXISTING 15" RCP SEE ARCH. PLANS SEE STORM PLAN & PROFILE PROPOSED 5'X5' CONCRETE LANDING PROPOSED DRAIN BASIN SEE STORM PLAN & PROFILE PROPOSED 16" PVC SIDEWALK SEE STORM PLAN & PROFILE PROPOSED 5'X5' CONCRETE LANDING PROPOSED BUILDING ADDITION FFE: 1055.82 (MATCH EXISTING) FLOW LINE OF SWALE PROPOSED CONCRETE LANDING EXISTING BUILDING EXISTING CONCRETE LANDING 5.00' VEGETATED -TO BE REMOVED SWALE PROPOSED CONCRETE LANDING PROPOSED DRAIN BASIN EXISTING GRAVEL TRACKS SEE STORM PLAN & PROFILE EXISTING 15" RCP SEE STORM PLAN & PROFILE EXISTING AREA INLET

KANSAS ONE-CALL SYSTEMS, INC.

CALL BEFORE YOU DIG - DRILL - BLAST 800-344-7233 (DIG-SAFE) (316) 687-3753 (FAX)

(STO) 087-3733 (FAX)

KANSAS ONE CALL SYSTEM, INC.

The utilities as shown on this drawing were developed from the information available. This is not implied nor intended to be the complete inventory of utilities in this area. It is the clients/contractors responsibility to verify the location of all utilities (whether shown or not) and protect said utilities from any damage.

Confirmation Number 17102076.

# WARRANTY / DISCLAIMER:

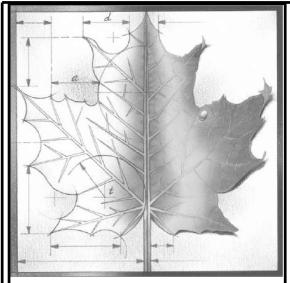
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER SMH CONSULTANTS NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE SMH CONSULTANTS INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON THE SITE.

# SAFETY NOTICE TO CONTRACTOR:

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

# CAUTION - NOTICE TO CONTRACTOR:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST THE EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.



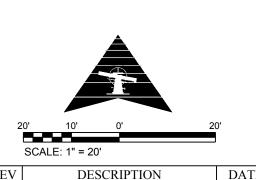
BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all spects. Contractor shall verify all such information prior to proceeding with any lew work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the







Project Number: 16036

11/13/2017

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

Project Address:

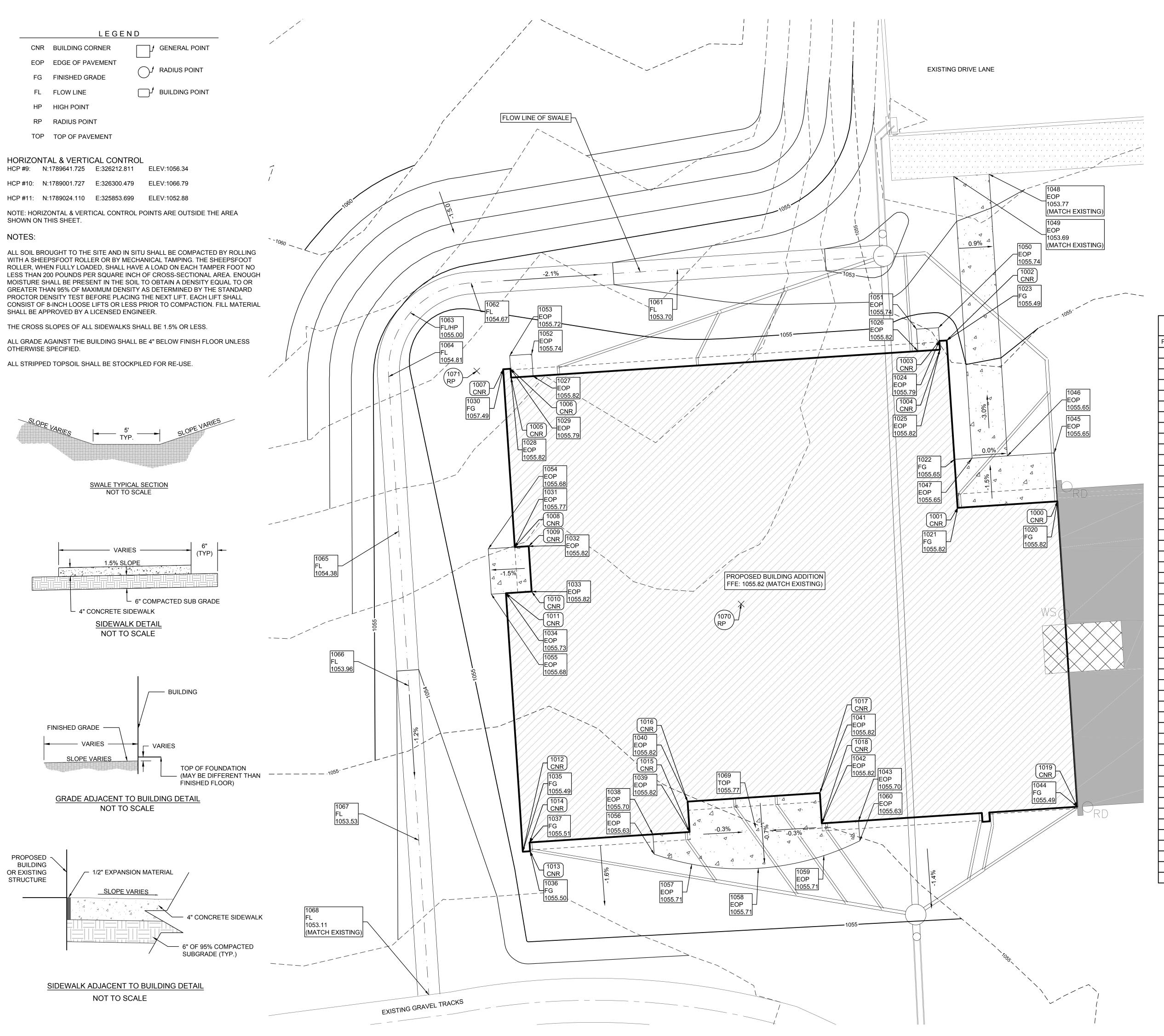
1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title:

SITE PLAN

eet:

C1



BUILDING CORNERS					
POINT#	NORTHING	EASTING	DESCRIPTION		
1000	326013.07	1789103.64	CNR		
1001	326011.60	1789081.02	CNR		
1002	326049.52	1789078.55	CNR		
1003	326049.41	1789076.89	CNR		
1004	326047.42	1789077.02	CNR		
1005	326041.10	1788979.89	CNR		
1006	326043.09	1788979.76	CNR		
1007	326042.99	1788978.10	CNR		
1008	326002.71	1788980.72	CNR		
1009	326002.91	1788983.87	CNR		
1010	325992.63	1788984.54	CNR		
1011	325992.25	1788978.72	CNR		
1012	325933.71	1788982.53	CNR		
1013	325933.82	1788984.20	CNR		
1014	325935.81	1788984.07	CNR		
1015	325938.17	1789020.32	CNR		
1016	325945.06	1789019.87	CNR		
1017	325947.01	1789049.81	CNR		
1018	325940.12	1789050.26	CNR		
1019	325943.89	1789108.14	CNR		

		00001		
	С	OORDIN	NATES	
OINT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
1020	326013.07	1789103.64	1055.82	FG
1021	326011.60	1789081.02	1055.82	FG
1022	326022.58	1789080.30	1055.65	FG
1023	326049.52	1789078.55	1055.49	FG
1024	326049.41	1789076.89	1055.79	EOP
1025	326047.42	1789077.02	1055.82	EOP
1026	326047.09	1789072.03	1055.82	EOP
1027	326041.42	1788984.88	1055.82	EOP
1028	326041.10	1788979.89	1055.82	EOP
1029	326043.09	1788979.76	1055.79	EOP
1030	326042.99	1788978.10	1057.49	FG
1031	326002.71	1788980.72	1055.77	EOP
1032	326002.91	1788983.87	1055.82	EOP
1033	325992.63	1788984.54	1055.82	EOP
1034	325992.25	1788978.72	1055.73	EOP
1035	325933.71	1788982.53	1055.49	FG
1036	325933.82	1788984.20	1055.50	FG
1037	325935.81	1788984.07	1055.51	FG
1037	325937.63	1789012.01	1055.70	EOP
1039	325938.17	1789020.32	1055.70	EOP
1039		1789020.32	1055.82	EOP
	325945.06			
1041	325947.01	1789049.81	1055.82	EOP
1042	325940.12	1789050.26	1055.82	EOP
1043	325940.66	1789058.58	1055.70	EOP
1044	325943.89	1789108.14	1055.49	FG
1045	326024.05	1789102.92	1055.65	EOP
1046	326023.36	1789092.28	1055.65	EOP
1047	326022.84	1789084.29	1055.65	EOP
1048	326087.17	1789088.13	1053.77	EOP
1049	326086.66	1789080.14	1053.69	EOP
1050	326052.41	1789076.69	1055.74	EOP
1051	326052.08	1789071.70	1055.74	EOP
1052	326046.41	1788984.55	1055.74	EOP
1053	326046.05	1788979.57	1055.72	EOP
1054	326002.32	1788974.73	1055.68	EOP
1055	325992.04	1788975.40	1055.68	EOP
1056	325933.14	1789012.30	1055.63	EOP
1057	325930.87	1789020.80	1055.71	EOP
1058	325929.94	1789035.89	1055.71	EOP
1059	325932.82	1789050.74	1055.71	EOP
1060	325936.17	1789058.87	1055.63	EOP
1061	326065.59	1789017.55	1053.70	FL
1062	326062.55	1788970.81	1054.67	FL
1063	326055.79	1788957.08	1055.00	FL/HP
1064	326041.30	1788952.15	1054.81	FL
1065	326006.30	1788954.43	1054.38	FL
1066	325971.30	1788956.71	1053.96	FL
1067	325936.30	1788958.98	1053.53	FL
1068	325901.30	1788961.26	1053.11	FL
1060	225020 15	1700001.20	1055.11	TOD

325939.15 1789035.29

325989.82

326042.60

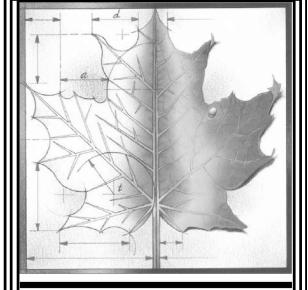
1055.77

RADIUS POINTS

POINT # NORTHING | EASTING | DESCRIPTION

1789032.00

1788972.1



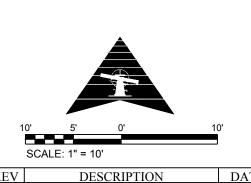
BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all espects. Contractor shall verify all such information prior to proceeding with an new work that may be affected. Include as part of the contract all work require to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the







Project Number: 16036

Date: 11/13/2017

roject Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

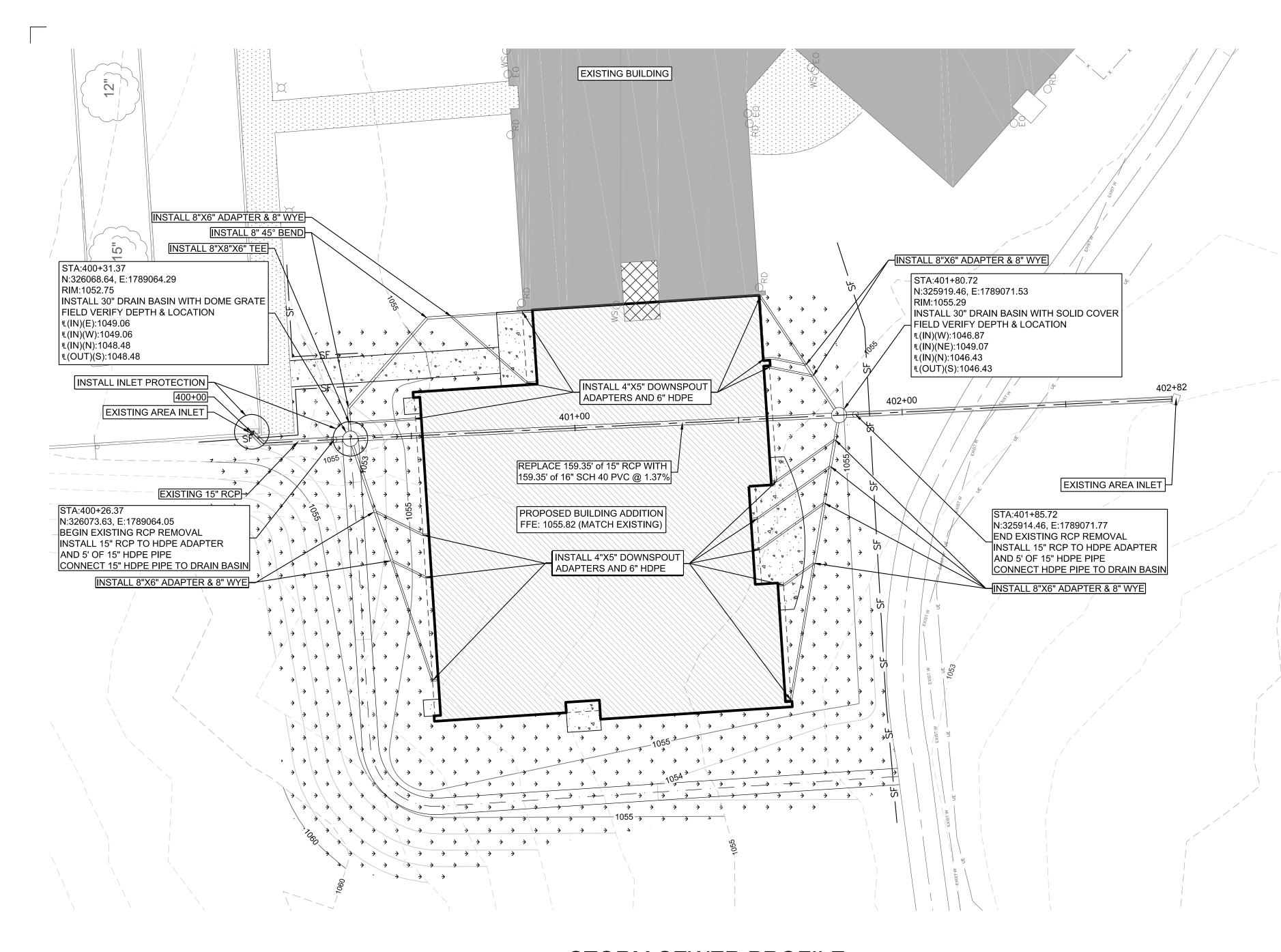
oject Address:

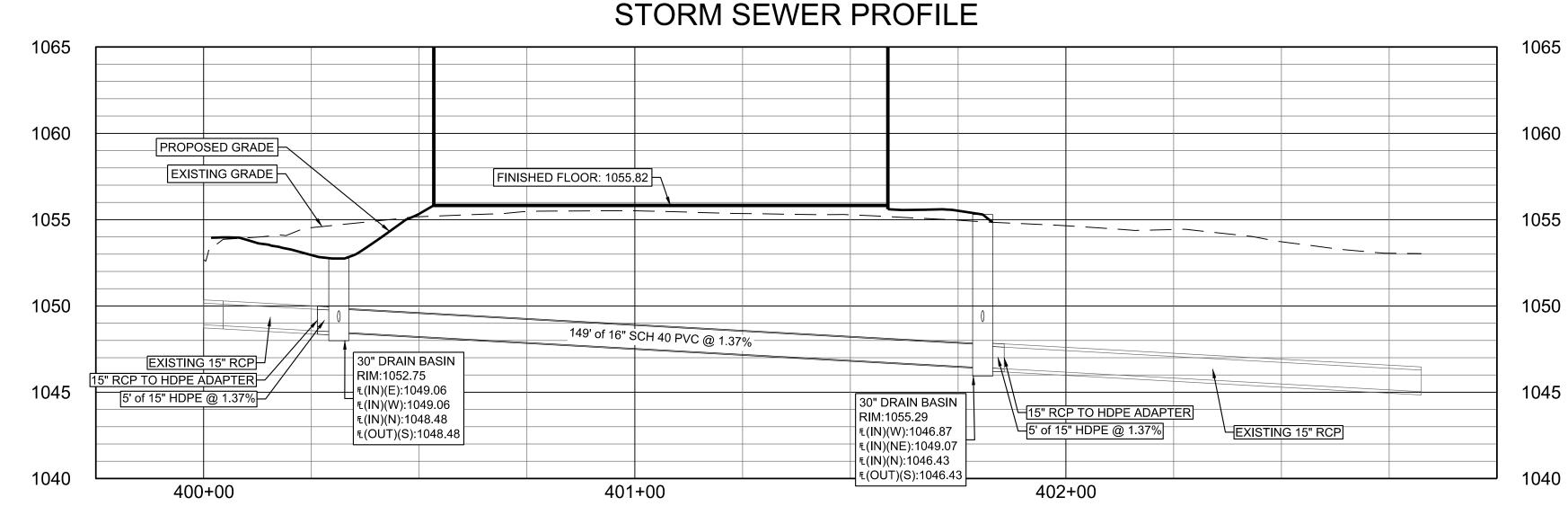
1701 KAW VALLEY ROAD WAMEGO, KS 66547

tle:

GRADING PLAN

**C2** 

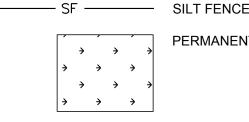




VERTICAL SCALE: 1" = 5'

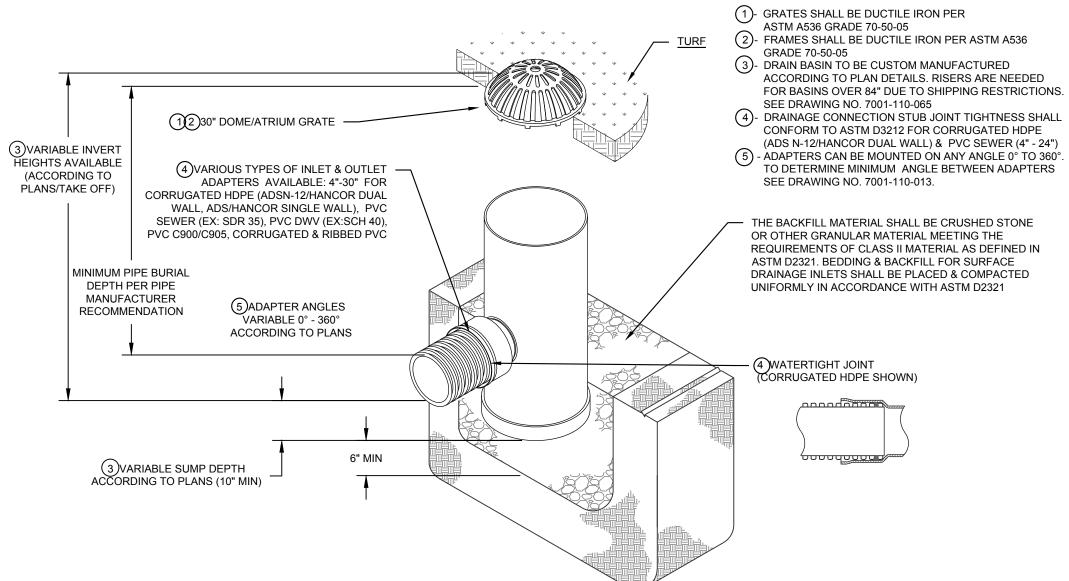
LEGEND

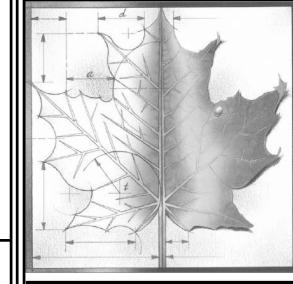
NOTE: SCHEDULE 40 PVC JOINTS SHALL BE SOLVENT WELD TYPE.



PERMANENT SEEDING

3130 VERONA AVE **BUFORD, GA 30518** PHN (770) 932-2443 NYLOPLAST 30" DRAIN BASIN: 2830AG FAX (770) 932-2490 www.nyloplast-us.com NOT TO SCALE





**BBN ARCHITECTS INC** 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

ation provided on the drawings regarding existing conditions has be cts. Contractor shall verify all such information prior to proceeding with ew work that may be affected. Include as part of the contract all work requir to produce the indicated result. All drawings and written material appearing erein constitute the original and unpublished work of the Architect, and sa may not be duplicated, used or disclosed without the written consent of th





#### SILT FENCE BARRIER

 THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT.

- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
- DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER. SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

# AREA INLET PROTECTION

PONDING HEIGHT

RUNOFF

4"X6" TRENCH WITH

COMPACTED BACKFILL

FILTER FABRIC ATTACHED

SECURELY TO UPSTREAM

SIDE OF POST

# NOTES FOR AREA INLET PROTECTION:

DETERIORATE OR DECOMPOSE DUE TO AGE OR WEATHER.

- SURROUND WIRE WRAPPED ROCK WATTLE, FILLED WITH 1½" DIA. CLEAN ROCK, AROUND AREA INLET AS SHOWN. INSURE EACH NEW WRAP DOES NOT BEGIN AND END IN THE SAME PLACE AS THE PREVIOUS.
- USE A MINIMUM OF THREE (3) WATTLES AROUND EACH INLET, STACKED AS SHOWN. WHERE CLEAN ROCK IS NOT AVAILABLE, OTHER WATTLE MATERIAL MAY BE SUBSTITUTED. SUITABLE MATERIAL WILL NOT

MATERIAL SPECIFICATION: WATTLE INLET PROTECTION SHOULD BE CONSTRUCTED OF CLEAN ROCK THAT IS FREE OF FINES SUCH AS DUST OR SEDIMENT SMALLER THAN THE WIRE MESH ENCASING. THE STAKES USED TO

ANCHOR WATTLES (WHERE POSSIBLE) SHALL BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 18" LONG. USE WIRE WRAPPED ROCK WATTLES FILLED WITH 12" CRUSHED, CLEAN ROCK (RECYCLED CONCRETE OR SAND BAGS ARE NOT ACCEPTABLE). ORGANIC MATERIAL ENCASING AND/OR FILL SUCH AS COMPOST OR FIBER OF A VEGETATION ORIGIN IS PROHIBITED BECAUSE IT BIODEGRADES READILY.

# PLACEMENT:

WOOD POST

WATTLE INLET PROTECTION SHALL BE PLACED DIRECTLY AROUND THE OPENING OF A STORM INLET AND EXTEND A MINIMUM OF 2' ON EITHER SIDE OF THE OPENING. THE WATTLE(S) SHALL LAY DIRECTLY AGAINST THE CURB. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR THE WATTLE TO OPERATE PROPERLY IN THIS LOCATION.

# PROPER INSTALLATION METHOD:

- OVER PAVED SURFACES, THE LENGTH OF THE WATTLE PLACED IN FRONT OF THE INLET OPENING SHALL BE REINFORCED WITH A 2X4 CENTERED IN THE WATTLE. THE LENGTH OF 2X4 SHALL EXTEND 3" BEYOND BOTH SIDES OF THE INLET OPENING.
- THE WATTLE SHALL BE IN CONTINUOUS CONTACT WITH CURB AND ROAD SURFACES WHEN POSSIBLE. NO DAYLIGHT SHALL BE SEEN UNDER THE WATTLE.
- THE WATTLE COVERING THE AREA DIRECTLY IN FRONT OF THE INLET WILL NOT HAVE DIRECT CONTACT WITH THE CURB BUT WILL HAVE DIRECT CONTACT WITH THE ROAD SURFACE.
- IN INSTANCES WHERE FINISHED GROUND DIRECTS FLOWS OVER THE TOP OF THE INLET, A WIRE WRAPPED ROCK WATTLE SHALL BE PLACED ON TOP OF THE INLET FOR ADDITIONAL PROTECTION FROM TOP-SIDE FLOWS.
- IF WATTLES ARE USED SUCCESSIVELY, DO NOT OVERLAP THE ENDS ON TOP OF EACH OTHER. WATTLES SHALL BE INSTALLED AND MAINTAINED IN CONFORMANCE WITH MANUFACTURERS' SPECIFICATIONS TO MEET SITE CONDITIONS AND IN ACCORDANCE WITH GOOD ENGINEERING

NOTE: THE INSTALLATION AND MAINTENANCE OF WATTLES SHALL NOT NEGATIVELY IMPACT TRAFFIC SAFETY.

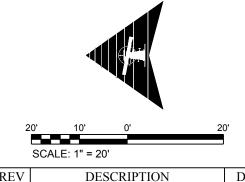
# LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

- WATTLES SHALL BE PLACED DIRECTLY IN FRONT OF THE INLET OPENING. THIS ALLOWS OVERTOPPING WATER TO FLOW DIRECTLY INTO THE INLET INSTEAD OF ONTO NEARBY SOIL CAUSING
- WHEN MULTIPLE WATTLES ARE USED IN A CONTINUOUS ROW, THE ENDS SHALL OVERLAP HORIZONTALLY SO THAT NO DAYLIGHT CAN BE SEEN AT EACH OVERLAPPING POINT. THE UPHILL END OF THE OVERLAPPING WATTLE SHALL BE PLACED ON THE FLOW SIDE OF THE DOWNHILL END OF THE OVERLAPPED WATTLE.

# INSPECTION AND MAINTENANCE:

WATTLE INLET PROTECTION SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHALL BE ADDRESSED DURING

- DOES WATER FLOW AROUND THE WATTLE? DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING WATTLES?
- ARE ANY WATTLES DISLODGED?
- ARE WATTLES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE? 5. DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE WATTLE?



roject Number: 16036

11/13/2017

roject Name:

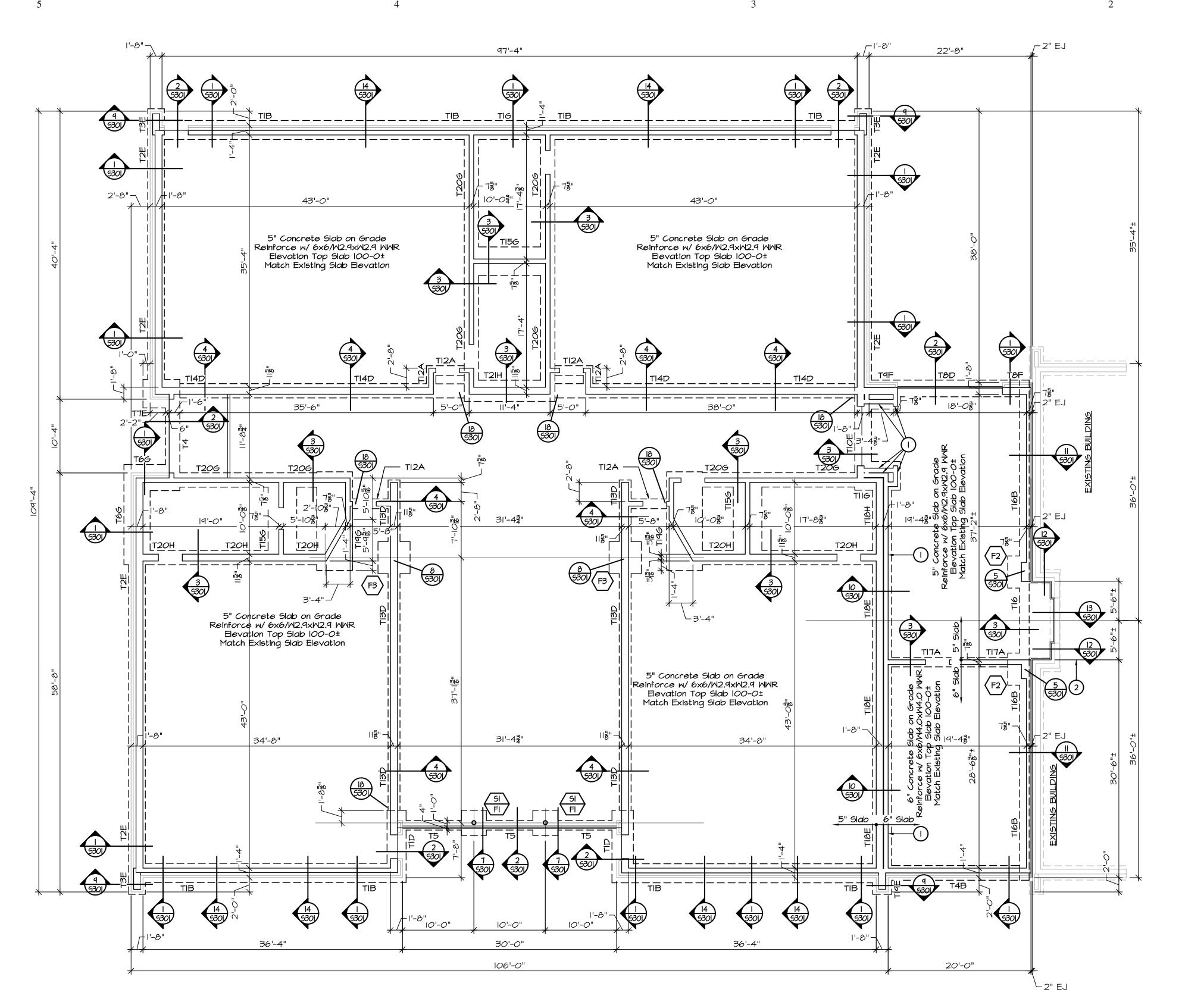
**USD 320 WAMEGO MIDDLE** SCHOOL SCIENCE ROOM **ADDITION** 

roject Address:

1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title:

**STORM PLAN** & PROFILE





#### <u>PLAN MARKS:</u>

T#X Trench Footing Mark, See Schedule on Sheet 5202

Letter Following Trench Footing Marks Indicates
Vertical Masonry Reinforcing Requirements. See
Sheet 5202 For Vertical Masonry Reinforcing
Schedule

Steel Column Mark, See Schedule on Sheet 5203

-Concrete Column and Footing Mark, See Schedule on Sheet 5202

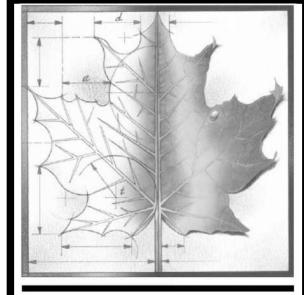
Concrete Column and Footing Mark, See Schedule on Sheet S202

# GENERAL PLAN NOTES:

- See General Structural Notes on Sheet S201 for additional notes and information.
- Dimensions on the exterior of the building are to the face of masonry veneer, concrete masonry, face of concrete slab or face of trench footing. See plans for specific relationships.
- 3. Center all column footings below steel columns. Center all trench footings below masonry walls or masonry wall and veneer, unless noted otherwise.
- 4. See Detail 15-5301 for Typical Corner Bar Detail.
- 5. See Detail 16-5301 for Typical Slab Joint Details.
- 6. See Detail 17-5301 where subgrade plumbing lines or electrical conduit occurs within 2'-0" of bottom of footing elevations.
- 7. See Detail I-5402 for Typical Masonry Control Joint Details. See Architectural for control joint locations.
- 8. See Detail 2-5202 for Typical Masonry Wall Reinforcing
- See Architectural drawings for exterior slabs and paving details. See Mechanical drawings for equipment and equipment pad details. Typical.

#### REFERENCED PLAN NOTES:

- Masonry Wall Type A, See Sheet 5202 for Vertical Masonry Reinforcing Schedule.
- 2 Face of new concrete masonry wall to align with face of existing brick veneer at door pocket.



# BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

obtained from the best sources available, but cannot be guaranteed in all espects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

/ DESC [



Project Number:

Ducingt Names

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

Project Address:

1701 KAW VALLEY ROAD WAMEGO, KS 66547

FOUNDATION
PLAN

Dudley Williams and Associates, PA 230 Laura • Suite 200 • Wichita, KS 67211-1514 316-263-7591 • www.dwase.com

\$\$ 67211-1514 e.com \$\$101

S101 in I:\17-045\17-045.05\S-1X 11/28/2017 [DEM]

22'-8" 97'-4" — 8" Concrete Slab Reinforce per Sections Elevation Top Slab 109-4 LB3 LB3 Bottom of Lintel at —— Elevation 110-8±, See Architectural LG2 8" Concrete Slab —/ Reinforce per Sections Elevation Top Slab 110-8 — 8" Concrete Slab Reinforce per Sections Elevation Top Slab 110-8

CAP SLAB FRAMING PLAN
1/8" = 1'-0"

36'-4"

20'-0"

30'-0"

106'-0"

36'-4"

### PLAN MARKS:

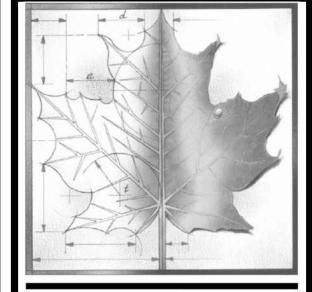
L## Lintel Mark, See Schedule on Sheet S203

### GENERAL PLAN NOTES:

- See General Structural Notes on Sheet S201 for additional notes and information.
- Dimensions on the exterior of the building are to the face of concrete masonry or masonry veneer. See plans for specific relationships.
- See sheet S203 for lintel schedule. See Architectural drawings for sizes and locations of door and window openings. See Mechanical/Electrical/Plumbing drawings for M/E/P opening sizes and locations.

### REFERENCED PLAN NOTES:

 $\bigcirc$  H558x4x $\frac{1}{4}$  tube girt at top of masonry wall per Section 22-5401.

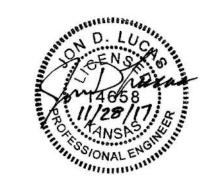


BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

DESC DAT



Project Number:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

Project Address:

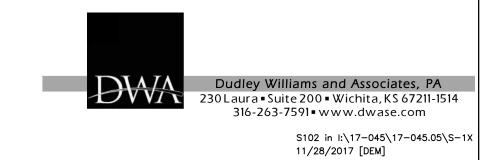
1701 KAW VALLEY ROAD WAMEGO, KS 66547

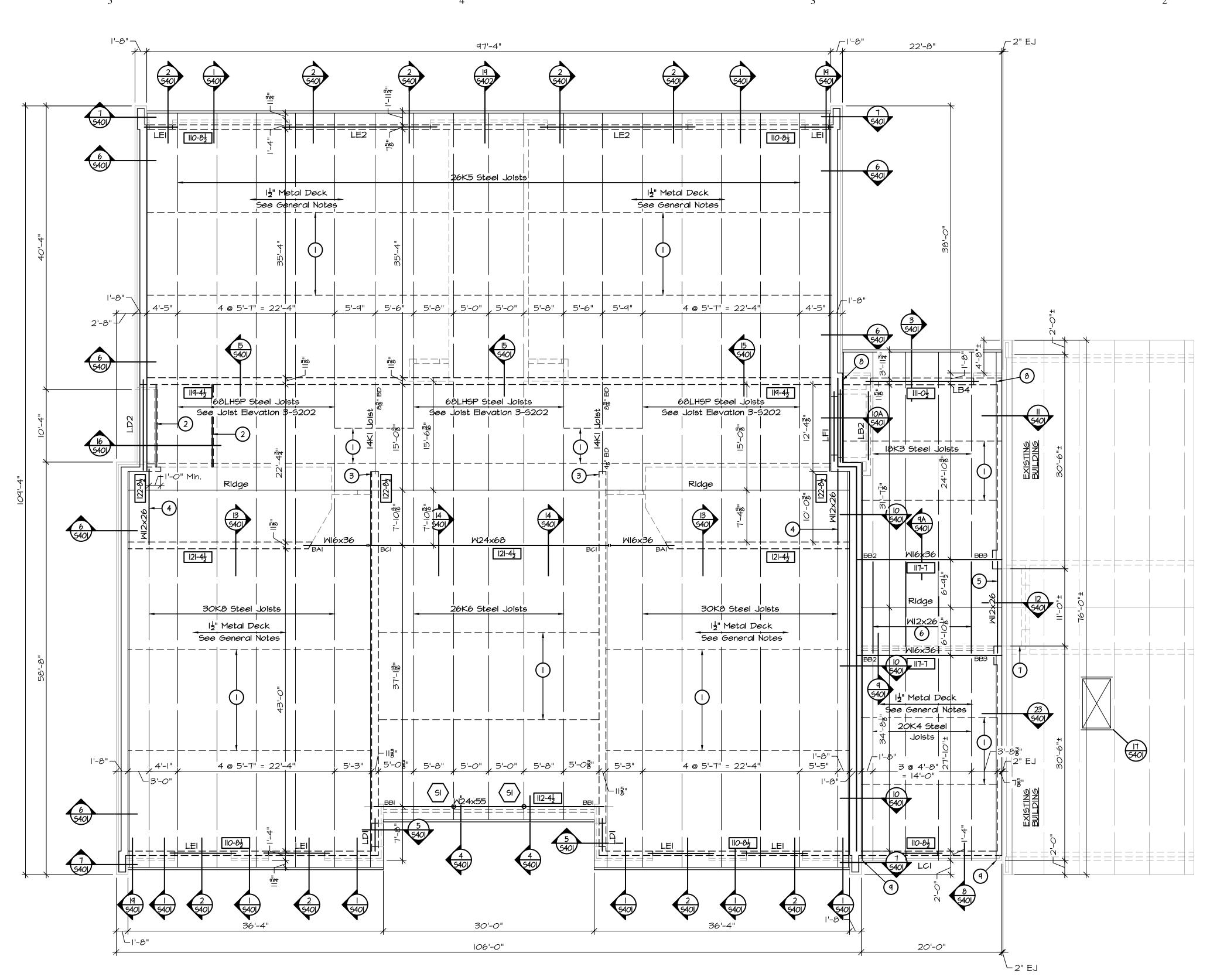
Sheet Title:

ROOF FRAMING PLAN

Sheet:

**S102** 







#### PLAN MARKS:

S# Steel Column Mark, See Schedule on Sheet 5203

XXX-X Joist Bearing Elevation/Top of Steel Beam Steel Beams Parallel to Joists Shall Match Top of Joist, Unless Noted Otherwise.

L## Lintel Mark, See Schedule on Sheet 5203

Beam Bearing Plate, See Schedule on Sheet 5203

##" BD Joist Bearing Depth

#### GENERAL PLAN NOTES:

- See General Structural Notes on Sheet S201 for additional notes and information.
- 2. Dimensions on the exterior of the building are to the face of concrete masonry or masonry veneer. See plans for specific relationships
- 3. See sheet 5203 for lintel schedule. See Architectural drawings for sizes and locations of door and window openings. See Mechanical/Electrical/Plumbing drawings for M/E/P opening sizes and locations.
- 4. See Architectural and Mechanical drawings for size and location of roof openings. Provide angle framing around all openings in metal deck, including roof drains per Detail 6-5402. Fasten metal roof deck to angle frames at openings with the specified fastener type and spacing for deck end supports.
- 5. Fabricate all K-series roof joists with end bearing depths as indicated on sections. See plan, sections, and joist elevation for additional end bearing depths. Provide minimum 2½" deep extended ends where noted and/or shown on framing plans and sections.
- miscellaneous concentrated load locations.

  7. Top of all 8" interior non-load bearing walls shall be braced to the structure above per Details 12, 13, and 14-5402, unless noted

6. See Section 9-5402 for joist reinforcing detail at concentrated

loads. See Mechanical, Eléctrical and Architectural for

- 8. See Details 7 and 8-5402 for typical bridging to masonry wall
- connections.9. See Details on Sheet S402 for typical steel framing details.

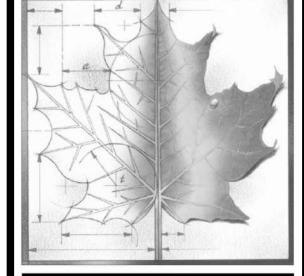
#### REFERENCED PLAN NOTES:

otherwise.

Provide horizontal and diagonal joist bridging as shown on framing plans and as per SJI specifications. Design roof joists for the wind design uplift pressures defined in the Roof Component and Cladding Minimum Wind Design Pressures Table, associated diagram, and table notes on Sheet S203. Provide a single row of horizontal bridging at the first bottom chord panel point at each end of each roof

Connect bridging to masonry walls per Details 7 or 8-5402 as

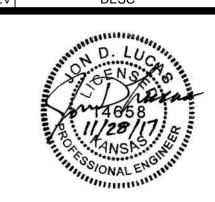
- 2) Provide HSS8x6x‡ tube girt above glazing per Detail 16-5401. Provide connection to masonry wall at each end per Detail 17-5401.
- Provide joist bearing PL½x7xII with 2-½"x0-4 headed anchor studs with top of plate at 122-8½ and II" width perpendicular to masonry wall. Joist supplier coordinate end depth with top of joist elevation and top of joist bearing plate.
- Provide splice at ridge per Detail 4-5402. Provide end bearing per Detail 3-5402 at each end of beam. Provide embed plate per Section I-5401 and 5½" end bearing at north end of beam. Provide embed plate and match joist bearing depth at south end per Section 13-5401.
- 5 Provide splice at ridge per Detail 4-5402. Provide framing connection per Detail 15-5402 at each end of beam.
- 6 Provide splice at ridge per Detail 4-5402. Provide end bearing per Detail 3-5402 at each end of beam. See Plan and Sections 9 and 22-5401 for additional notes and information.
- Tace of new concrete masonry wall to align with face of existing brick veneer at door pocket.
- 8 Extend deck support channel for full length of overhang. Provide 2 anchors at 8" o.c. adjacent to overhang. See Section IOA or II-S40I for additional anchorage requirements.
- Extend deck support angle for full length of overhang. Clip vertical leg of angle to 3" at overhang. Provide 2 anchors at 8" o.c. adjacent to overhang. See Section 10 or 23-5401 for additional anchorage requirements.



BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with an new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the



Project Number:

Duois at Names

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

Project Address:

1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title:

ROOF FRAMING PLAN

Sheet:

**S103** 

Dudley Williams and Associates, PA
230 Laura • Suite 200 • Wichita, KS 67211-1514
316-263-7591 • www.dwase.com

S103 in I:\17-045\17-045.05\S-13 11/28/2017 [DEM] Field verify all existing dimensions, elevations, and conditions. Notify the Architect for direction if the actual existing conditions differ from the conditions shown or implied on the drawlings.

Verify all dimensions and elevations with the Architectural Drawings.

See the Architectural Drawings for the exact dimensions for openings in the walls, roof, and floor systems. Verify all mechanical opening sizes and locations with the mechanical contractor.

Verify all electrical opening sizes and locations with the electrical contractor. No pipes, sleeves, or etc. shall pass through the beams or columns unless indicated on the plan.

The contractor shall design, provide, and maintain temporary bracing, shoring, quying, etc. and other methods as required to prevent any excessive loading and to stabilize the structural elements during construction. These methods shall remain in place until all members and final connections have been completed.

The foundation is designed for an allowable bearing pressure of 3000 as recommended in the Geotechnical Investigation Report prepared by GSI Engineering, Job No. 1773023C.

The building structural system is designed per the International Building Code - 2012 Edition.

The contractor shall perform all material testing and inspection requirements for compliance with the governing building code, the project specifications, the local building inspection department, and the following Structural Special Inspection Notes.

Steel joist, structural steel, and metal deck erection shall comply with OSHA Standard 29 CFR Part 1926, Subpart R and all other governing regulations. Steel joist and structural steel suppliers and fabricators shall incorporate the requirements of this standard into the materials fabricated and supplied on this project.

#### DESIGN LOADS

Seismic:

Building structure is designed for the following loads and criteria:

lisk Category:	III

Dead:	Weight of materials and construction plus weight o	of fixed service equipment
Live Load:	Roof live load: Elevated concrete cap slab live load:	20 psf (non-reducible) 100 psf

Snow: Ground snow load: Pq = 20 psfPf = 15 psfFlat-roof snow load: ASCE 7-10 Drifting snow load: Snow exposure factor: Ce = 1.0 Snow load importance factor: | = |.| Ct = 1.0 Thermal factor:

Basic wind speed (3-second qust): Vult = 120 MPH Ultimate Vasd = 93 MPH Nominal

Wind exposure category: ±0.18 Internal pressure coefficient:

#### Rooms E105, E107, E110, E111, E114, and E115 to elevated concrete cap slab

Basic wind speed (3-second qust) Mind importance factor: l = 1.00 Wind exposure category: ±0.55 Internal pressure coefficient Kzt = 1.00 Topographic factor Kd = 1.00Directionality factor l = 1.25 Seismic importance factor:

Site class: Mapped spectral response accelerations: Spectral response coefficients:

5dl = 0.0935ds = 0.169 Seismic Design Category: Equivalent lateral force Analysis procedure: Ordinary reinforced masonry shear walls Basic seismic-force resisting system:

Response modification factor: R = 2 Seismic response coefficient: Cs = 0.106

### STRUCTURAL SPECIAL INSPECTIONS

Design base shear:

The contractor shall engage one or more qualified independent testing and inspecting agencies to perform the material testing and inspection requirements as outlined in the project specifications and this section. Contractor retained

independent testing and inspection agencies are to be approved by the Architect. Testing and inspection reports shall be furnished to the Building Official, the Architect, and the Structural Engineer. Reports shall indicate that the materials tested and the work inspected are in conformance with the Contract Documents. Discrepancies shall be brought to the attention of the Contractor for correction. If the discrepancies are not corrected,

5s = 0.158

Cs x W

SI = 0.058

the discrepancies shall be reported to the Building Official, the Architect, and the Structural Engineer. The testing and inspecting agencies shall submit a final report for each type of work stating that any discrepancies noted in the testing and inspections have been corrected and that the structural work was, to the best of their knowledge, performed in conformance with the Contract Documents.

The testing and inspection program does not relieve the Contractor of any responsibility for constructing the project in

accordance with the Contract Documents and for controlling the quality of construction. The Contractor shall be responsible for the scheduling and the timely notification of the testing and inspection agencies of the need for material testing or inspections.

All work which requires testing or inspection shall be ready for testing or inspection at the time of the testing and inspecting agency's visit. No work shall be performed which would conceal items to be tested or inspected until the work has been reviewed and accepted.

The following types of work require special inspection (IBC references refer to the International Building Code edition referenced above):

# l. Inspection of fabricators shall comply with IBC Section 1704.2.5.

including member location, bracing, stiffeners, and connection types.

2. Testing and inspection of steel construction shall comply with IBC Section 1705.2, IBC Table 1705.2.2, and American Institute of Steel Construction (AISC) Specification for Structural Steel Buildings 360. (IBC 2015 change to IBC Table 1705.2.3 and add Steel Deck Institute (SDI) Standard for Quality Control and Quality Assurance for Installation of Steel Deck 2011) a. Submit material test reports, manufacturer's certifications, product data sheets, welding procedure specifications, welding personnel performance qualification records, fabricator/erector quality control manual, fabricator/erector inspector qualifications as specified. Contractor shall maintain same for review by Architect/Engineer as indicated in AISC 360

b. Submit ANS performance qualification records for personnel performing shop fabrication or field erection welding. c. Perform visual inspection of the fabricated or erected steel framing to verify compliance with the construction drawings,

d. Perform visual inspection of all shop fabrication and field erection welds. e. Perform ultrasonic inspection of all partial or complete joint penetration welds during the shop fabrication and field

erection. f. Perform continuous inspection of all fillet welds greater than 5/16" during the shop fabrication and field erection.

q. Perform visual inspection of all snug-tightened (Tupe ST) bolted connections. h. Perform visual inspection of the placement of anchor rods and embed plates in concrete and concrete masonry. Verify

diameter, grade, type, length, and embedment of anchors prior to placing concrete or grout. i. Perform visual inspection of the metal roof deck welding and/or fastener installation.

3. Testing and inspection of concrete construction shall comply with IBC Section 1705.3 and IBC Table 1705.3.

a. Perform sampling and testing of cast-in-place concrete as specified. b. Perform periodic observation of reinforcing for steel size, cover, spacing, positioning, lap lengths and locations. c. Perform inspection of concrete placement for proper procedures for transporting, placing, consolidating, and finishing of

d. Perform periodic inspection of concrete curing and protection procedures, including compliance with the hot and cold weather requirements defined in the specifications. e. Contractor shall maintain records of all batch reports and delivery tickets on each load of concrete delivered to the

project site for periodic review by the Architect/Engineer. f. Perform inspection of the reinforcing steel placement at the elevated concrete cap slabs.

4. Testing and inspection of masonry construction shall comply with the quality assurance requirements of Section 1.19 Level B (Level C at Rooms ElO5, ElO7, EllO, EllI, Ell4, and Ell5) and Table 1.19.2 (Table 1.19.3 at Rooms ElO5, ElO7, EllO, EllI, Ell4, and EII5) of the TMS 402/ACI 530/ASCE 5 and Section I.6 Level B (Level C at Rooms EIO5, EIO7, EIIO, EIII, EII4, and EII5) and Table 4 (Table 5 at Rooms EIO5, EIO7, EIIO, EIII, EII4, and EII5) of the TMS 602/ACI 530.1/ASCE 6. a. Periodically verify the proportions of site prepared mortar and grout.

b. Periodically verify the masonry construction complies with the site tolerances defined in TMS 602/ACI 530.1/ASCE 6

Section 3.3F. c. Perform periodic inspection of the mortar joint construction.

d. Perform periodic inspection of the placement of masonry units at extreme wind safe room walls. e. Perform inspection of the reinforcing steel grade, type, size, placement and positioning and the block core cleaning and

preparation. Inspections shall be provided continuously at walls at Rooms ElO5, ElO7, EllO, EllI, Ell4, and Ell5 and

periodically at all other walls f. Perform continuous inspection of the grout placement for proper consolidation, reconsolidation, and placement of the

arout lift heights. q. Verify the type, size, and location of anchors and embeds for anchorage of masonry to other construction. Verifications shall be provided continuously at extreme wind safe room walls and periodically at all other walls.

h. Observe the preparation of the mortar specimens per ASTM C780 and grout specimens per ASTM C1019 for testing and as specified. Observations shall be provided continuously at walls at Rooms E105, E107, E110, E111, E114, and E115 and periodically at all other walls.

5. Testing and inspection of the soils shall comply with IBC Section 1705.6 and IBC Table 1705.6.

a. Perform sampling, testing, and inspection of the soil tupe, exposed subgrade, moisture content, lift thickness, and compaction as specified.

b. Perform periodic testing and inspection of the soils at the foundation system bearing elevation to verify the required soil bearing capacities.

6. Testing and inspection of post-installed anchors and post-installed reinforcing bars shall comply with IBC Section 1705.I.I and IBC Table 1705.3.

a. Perform an initial post-installed anchor and reinforcing bar installation inspection for each type and size of post-installed anchor and reinforcing bar. Any change in the personnel performing the post-installed anchor or reinforcing bar installation shall require an initial installation inspection.

b. Perform periodic post-installed anchor and post-installed reinforcing bar installation inspections during the project to

verify that the anchor and reinforcing bar installations continue to be properly performed. c. Post-installed anchor and reinforcing bar installation inspections shall verify anchor/reinforcing bar type, diameter, embedment depth, spacing, adhesive type and expiration date, hole dimensions, base material, hole cleaning procedures, tightening/installation torque, maximum impact wrench torque rating, and adherence to the manufacturer's printed

d. Perform visual observation of all completed post-installed anchor and post-installed reinforcing bar installations.

#### SPECIAL REGUIREMENTS FOR ROOMS EIO5, EIO7, EIIO, EIII, EII4, AND EII5

The fabrication and erection of the indicated room's lateral and vertical load resisting structural elements and sustems must comply with the structural special inspection requirements defined in the International Building Code - 2012 Edition (IBC), the preceding structural special inspection section, and the project specifications.

The Contractor shall submit a written Contractor Statement of Responsibility from each Contractor responsible for the construction or erection of the indicated rooms structural elements and systems to the Building Official and the Architect prior to the commencement of the work. The Contractor Statement of Responsibility is to be in accordance with Section 1709 of the IBC.

The Contractor shall engage a registered design professional, as defined in Chapter 2 of the IBC, to perform periodic structural observations of the indicated rooms to comply with the requirements of Section 1704.5 of the IBC. Periodic structural observation by the registered design professional does not include or waive the responsibility for the inspection required by Section 109, 1704 or other sections of the IBC. Periodic structural observations are to be performed at significant construction stages and at the completion of the indicated room's structural system.

A structural observation is required after the placement of the reinforcing steel in the indicated rooms foundation system. A structural observation of the indicated rooms masonry wall construction is required prior to beginning grouting procedures for the first lift of masonry and periodically during the remainder of the masonry wall construction.

A structural observation is required after the placement of the reinforcing steel in the indicated rooms cast-in-place concrete slab and prior to placement of cast-in-place concrete slab. The registered design professional's periodic structural observation reports of the indicated rooms shall be furnished to the Architect, the Structural Engineer, and the Contractor by the next business day after the structural observations are completed. Structural observation reports are to identify any general conformance discrepancies brought to the attention

of the Contractor for correction. The registered design professional's final structural observation report of the indicated rooms shall be furnished to the Building Official, the Architect, the Structural Engineer, and the Contractor. The final structural observation report is to state that the structural observations have been performed and identify any general conformance discrepancies that to the best of their knowledge have not been resolved.

The Contractor shall be responsible for the scheduling and the timely notification of the registered design professional of the need for periodic structural observations. All work that requires structural observation shall be ready for observation at the time of the registered design

#### CAST-IN-PLACE CONCRETE

All concrete shall have the following minimum compressive strengths at 28-days.

Footings and Foundation Walls: 3000 psi Interior Floor Slabs: 3500 psi Elevated Concrete Cap Slabs: 4000 psi Exterior Slabs and Pavement:

All aggregate for normal weight concrete shall meet ASTM C33. Aggregates shall be proportioned such that mix design shall contáin á minimum of 50% coarse agaregates by gradation requirements set forth in ASTM C33. Coarse agaregate shall

meet No. 67 grading requirements. Exterior exposed concrete shall have from 4 to 7% entrained air. Concrete shall be in strict conformance with the current "ACI Manual of Concrete Practice".

professional's visit. No work shall be performed which would conceal items to be observed.

No aluminum shall be placed in the concrete.

Chamfer all exposed edges of the concrete 3/4" Slabs on earth shall be 5 inches thick with 6x6-W2.9xW2.9 welded wire reinforcement unless otherwise noted. Contraction joints or construction joints in slabs on grade shall be spaced to divide the slab into panels not to exceed 225 square feet. The longer dimension of each panel shall not exceed the shorter dimension by more than 20 percent. All saw-cut joints in slab on grade floors shall use an early entry dry-cutting sawing system.

Do not install saw-cut joints in elevated structural slabs on formwork. Provide concrete bases for the floor supported mechanical equipment. All shall be 4 inches thick on top of floor slabs on grade with 6x6-W2.1xW2.1 welded wire reinforcement, unless otherwise noted.

### REINFORCING STEEL

All welded wire reinforcement (WWR) shall meet ASTM AlO64. Lap splice all welded wire reinforcement the cross wire spacing plus 2 inches. Furnish all welded wire reinforcement in flat sheets. All reinforcing shall meet ASTM A615 - 60,000.

All reinforcing steel shall have adequate coverage as indicated in ACI 318 for the given exposure. Reinforcing shall be continuous and lapped a minimum of 24 inches or 36 bar diameters whichever is greater, unless otherwise

Reinforcing shall be detailed according to the ACI Detailing Manual and shall be prepared under the supervision of a professional engineer licensed to practice in the State of Kansas. Provide corner lap bars to match in size and spacing of all trench footing horizontal bars.

Fan main reinforcing around openings in the structural members. Do not field cut bars unless the Architect's approval is

Provide 2-#5, 4'-0" longer than opening dimension, on all sides of the openings in the slabs and walls. Provide 300 pounds of extra bars of various sizes to be used as directed. Include labor for placing same. Provide 3-inch slab bolster with continuous bottom plate at 4'-0" maximum centers for positioning all footing bottom bars. Provide bar supports for all bars in slabs or mat footing cast on grade at a maximum of 4'-0" in each direction. Provide bar supports for all bars in elevated slabs, beams, or joists cast on forms at a maximum of 4'-0" in each direction. Mark each bundle of the reinforcing with weatherproof tags. Welding of all reinforcing bars shall conform to AWS DI.4, "Structural Welding Code - Reinforcing Steel".

# CONCRETE MASONRY

All concrete masonry units (CMU) shall be made of lightweight concrete agaregate U.N.O., and shall meet ASTM C9O. All 6" and 8" concrete masonry units shall have a minimum compressive strenath of 1900 psi on the net area at 28-days and a net area compressive strength of masonry of 1500 psi. All 12" concrete masonry units shall have a minimum compressive strength of 2800 psi on the net area at 28-days and a net area compressive strength of masonry of 2000 psi.

All mortar for use in concrete masonry shall conform to ASTM C 270, Type S. 7 Provide vertical CMU reinforcement as indicated on the plan and sections. Bars for typical lift shall be shop cut for 4'-0" lifts plus a minimum 48 bar diameters lap. Field cut bar's for top lift and non-tupical lengths. Provide dowels from the foundation to match in size and spacing of all vertical CMU reinforcement.

Provide standard hook at the end of all vertical masonry reinforcing into top bond beam at roof bearing elevation.

Provide at least one vertical rebar at each end, side of control joints, jambs, corner, and intersection of all load bearing and exterior CMU walls. Size of rebar is to match the size of typical vertical reinforcing. If the wall does not contain any vertical CMU reinforcing, provide I-#4 vertical at the described locations.

Grout all reinforced vertical block cores and bond beams with minimum 2500 psi grout. Grout shall conform to ASTM C 476. Provide 2-#4's continuous for all bond beams unless otherwise indicated on the plan. Furnish in shop lengths and field cut. See the plans (including architectural), sections and notes for the locations.

Provide one corner bar to match each horizontal bond beam. Provide an 8-inch deep bond beam at the top of all interior and exterior CMU walls, unless detailed otherwise. Provide an  $\delta$ -inch deep bond beam at  $\delta$ '-O" o.c. vertically in all 12-inch CMU walls.

Provide horizontal joint reinforcing in all concrete masonry unit walls at 16 inches o.c. unless noted otherwise. Provide vertical masonry reinforcing galvanized bar positioners at 48 inches o.c. at each vertical reinforcing bar. Provide bar positioners to match the wall thickness, bar size, and bar position as required.

Provide masonry control joints at a maximum spacing of 24'-0" o.c. unless noted or shown otherwise. Coordinate all control joint locations with the Architect/Engineer. Control joints shall not occur below or directly adjacent to the joist, beam or lintel bearing points.

Fill all beam and joist bearing pockets in masonry walls solid with grout. Provide temporary forms on the inside or exposed face of the wall flush with the face of the wall to retain grout placement.

# STRUCTURAL STEEL

Structural steel shall meet the latest AISC "Specification for Structural Steel Buildings.

The steel fabricator and detailer shall be responsible for the design and detailing of all steel framing connections which are not explicitly detailed on the contract documents. The submitted shop drawings shall clearly show and note all shop and field bolting and welding requirements. All member loads, reactions, and moments defined on the drawings are ASD, service-load level, unless noted otherwise.

Steel framing members shall only be spliced at locations shown on the design drawings or as shown on and approved on the

shop drawings. Structural steel shop drawings shall be prepared under the supervision of a professional engineer licensed to practice in the State of Kansas.

All steel plates and shapes shall meet ASTM A36 except wide flange sections shall meet ASTM A992, Fy = 50 ksi. Structural steel tubing shall meet ASTM A500, Grade B, Fy = 46 ksi or Grade C, Fy = 50 ksi and structural piping shall meet ASTM A53, Grade B, Fu = 35 ksi. All beam and column connections shall be made with A325 (Type I) bolts and accessories. Connections shall be designed as

snuq-tightened (Tupe ST) bolted connections, unless noted otherwise. All headed studs and shear connectors shall meet ASTM AlO8 and A29, Grade 1015-1020, and AWS DI.I, Tupe B. All unheaded anchor rods shall be ASTM F1554, Grade 36 or ASTM F1554, Grade 55 (Supplement SI). All threaded steel rods shall meet ASTM A307, Grade B; ASTM F1554, Grade 36; or an approved equal or greater strength

threaded rod. All threaded rods cast in concrete or post-installed in concrete or masonry shall be thoroughly cleaned of all surface oils. Provide 3/8" plate washers above all oversized holes (hole diameters greater than 1/16" larger than anchor diameter) in the column base plates. Provide standard hole size in plate washers.

All anchor rods set in concrete shall be furnished with double nuts and shall be set with a template. Provide standard size holes for all bolts and anchors in steel framing members unless noted otherwise (1/16" larger hole than

diameter of bolt or anchor). Where oversized holes are required or desired in steel framing members to accommodate the drill bit size on post-installed anchors, provide a 3/16" thick plate washer at each post-installed anchor location with a standard hole or 1/16" larger hole than the anchor diameter in the center of the plate washer. After the anchors and the steel framing members have been installed, add the plate washer on each anchor prior to installing the nut and tightening the anchor. Áfter the anchor has been properly tightened, weld the plate washer to the steel framing member with a 3/16" fillet weld along each vertical edge

All beam's bearing on masonry directly supporting the roof framing systems shall be positively anchored to the bearing walls with anchor rods (or an equivalent method) to resist uplift forces. Provide an angle frame to support the metal deck at all openings greater than 9" x 9".

Provide an angle frame below the perimeter curb of all mechanical roof top units and around the deck openings below the mechanical units. Where the perimeter curb of the unit is perpendicular to the roof joists, provide L4x4x3/8 between the joists and below the curb. Where the perimeter curb of the unit is parallel to the roof joists, provide L4x4x3/8 between the joists at a maximum spacing of 6'-0" o.c. and provide L4x4x3/8 between the angles and below the curb. The contractor shall coordinate all mechanical unit sizes and locations.

Welding shall conform to AMS DI.I, "Structural Welding Code - Steel". All welds shall be AMS prequalified welded joints. No unauthorized welds will be accepted.

E70xx electrodes shall be used for all welding, U.N.O.. Steel lintels shall be provided over all the openings in the masonry walls, unless otherwise detailed.

exterior of the building. Show or note the locations of venting holes on the shop drawing submittal.

See Lintel Schedule for lintel requirements indicated on the drawings. Provide lintels as indicated below for openings where not indicated in the Lintel Schedule:

Span: 0'-0" to 1'-8" 1/4" plate x width of wall 1'-9" to 3'-0" 3-1/2x3-1/2x1/4 angle 3'-1" to 4'-8"4x3-1/2x5/16 angle 4'-9"to 6'-3"5x3-1/2x3/8 anale

6'-4"to 8'-0" 6x3-1/2x3/8 angle

Galvanize all steel lintels in exterior masonry walls.

8'-1" up W8x24 with 1/4" continuous plate Furnish one angle for each 4-inch width of wall. Lintels shall have a minimum of 8 inches of bearing on concrete masonry at each end.

Not all masonry openings that require lintels are shown on the structural drawings. Refer to the architectural and mechanical drawings for the size and location of additional openings in the masonry walls.

All field completed welding and bolted connections shall be reviewed and accepted by the field inspection and testing agency prior to the installation of subsequent work. Galvanized structural steel shall conform to ASTM A123 for members and ASTM A153 for connection elements. Hot-dip galvanize steel framing members as specified where specifically noted on the drawings. Provide venting relief holes as required, but locate on the bottom side or at similar non-visible locations where the members are exposed on the

Provide solid grouted masonry units below bearing of all lintels, beams, or etc. Grout block cores with 2500 psi grout.

Open web and long span joists shall meet the latest specifications of the Steel Joist Institute (SJI), and shall be fabricated by a member of the SJI

Steel joist spacing shall be as shown on the plans. Weld all joists to steel bearing, where such bearing occurs, except where bolted connections are required to comply with the governing standards or regulations.

Where joist bearing conditions require nonstandard bearing ends, joist fabricator shall provide special bearing ends as required to accommodate such conditions and the provided bearing length. Provide specially fabricated sloped end bearing on all roof joists with a roof slope greater than 1/4" per foot.

Provide erection bolts at locations per SJI specifications. Suspension of any miscellaneous items from joists shall be only at top or bottom chord panel points unless otherwise indicated. Joist fabricator shall provide joist bridging per SJI recommendations. See the plans and details for the special bridging and

Joists shall be designed by the manufacturer for uniform loads as defined in the SJI load tables. The SJI defined uniform load also applies at top chord extensions and extended ends. Where noted on the plans or details, joists shall be designed for additional special loads as indicated. Any 1/3 stress increase for short-term loadings shall not be applied to the design of

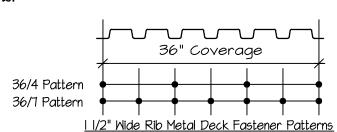
Roof joists shall be designed by the manufacturer to support a 300 pound concentrated load applied to any single top or bottom chord panel point along the length of the joist. All steel joist horizontal and diagonal bridging terminus points shall be attached to the supporting walls or the supporting framing members in an adequate manner to resist the bridging member axial force.

Where roof or floor joists top and bottom chord bridging members terminate at a perimeter steel beam, the ends of the bridging members shall field weld to the web or flanges of the steel beam with at least 2 lineal inches of minimum 1/8 inch fillet weld on each bridging member.

Where roof or floor joists top and bottom chord bridging members terminate at an interior or exterior concrete masonry block wall, the ends of the bridging members shall be attached to the face of the masonry walls per the typical bridging termination details.

METAL ROOF DECK Metal deck shall be continuous over 3 or more spans unless approved or indicated otherwise on the Structural Drawings. Metal roof deck is designed to resist diaphragm forces and shall be connected to all supports with size 12 screw fasteners, unless approved otherwise. Side laps shall be connected using size 10 screw fasteners between supports, unless noted otherwise. Deck shall be attached to all perimeter boundary members parallel with deck flutes with size 12 screw fasteners at 6" o.c., where such members occur. Deck shall be attached to all perimeter boundary members perpendicular with deck flutes with size 12 screw fasteners at each flute, where such members occur, unless noted otherwise.

Metal deck shall be 1 1/2", 22 gage wide rib deck. End lap joints shall be staggered a minimum of one joist spacing. End laps shall be fastened to supports thru both pieces with fasteners at each side lap and all flutes between (36/7 fastener pattern). Intermediate supports that occur within the field of the roof shall be fastened at each side lap and at alternate flutes between (36/4 pattern). Intermediate supports that occur within the roof corners and perimeter edge strips shall be fastened at each side lap and all flutes between (36/7 pattern). The perimeter edge strip/corner distance extends 15 feet from the perimeter edge of each individual roof plane. Side laps shall have #10 screw fasteners at a maximum spacing of 18" o.c. between supports.



# COLD-FORMED STRUCTURAL FRAMING

All cold-formed structural framing members shall be in accordance with ASTM C955 and shall have engineering properties calculated in conformance with the AISI "Specifications for the Design of Cold-Formed Steel Structural Members".

All cold-formed structural framing members shall be installed to conform with ASTM ClOOT. All cold-formed structural framing members and accessories shall have a minimum protective coating equal to G60 galvanized finish. Properly clean the welded or damaged area and apply zinc-rich paint to all areas where the galvanized finish is

All steel shall conform to one of the following ASTM Standards: ASTM A653, A875, A792, or A463. All 33 and 43 mil products shall be formed from steel with a minimum yield of 33,000 psi.

All 54, 68 and 97 mil products shall be formed from steel with a minimum yield of 50,000 psi. All stud and joist sections shall be "C" tupe sections with nominal 1-5/8" flanges and a minimum 1/2" return, unless noted otherwise.

All members shall be of depth and mil thickness as indicated on the plan and sections. The track sections shall meet or exceed the mil thickness of the stud members, unless noted otherwise. All framing components shall be cut squarely for attachment to perpendicular members.

All studs or joists used in lintels and horizontal or sloped framing members shall be un-punched, unless noted otherwise. Provide web stiffeners, connection angles, and miscellaneous hardware required to complete all the connections. Provide wall stud bridging spaced at  $\overline{4}$ '-O" maximum on centers in the exterior walls, for full height of walls, including height of

Fasten the bridging member to each stud with clip angle and screw fasteners. Install 2 screw fasteners between clip angle and stud and between clip angle and bridging member Provide deflection track at the top of all non-load bearing stud walls where the top of wall abuts the bottom of the structure. Fastening of framing components shall be with self-tapping screws or welding of sufficient size to insure the strength of the Welds shall be performed by operators qualified in accordance with Section 6.0 of the American Welding Society's "Structural

Welding Code - Sheet Metal" (AWS DI.3). Attach studs to track with a minimum of one screw per stud flange, unless otherwise noted.

#### POST-INSTALLED ANCHORS

holes greater than 10 inches in depth.

testing and inspection agency.

All post-installed anchors and post-installed reinforcing bars shall be installed per the manufacturer's printed installation instructions (MPII). All holes shall be drilled per the manufacturer's instructions with the required bit type and size to provide the minimum embedment length specified in the Structural drawings. All holes shall be cleaned prior to installing the anchor or reinforcing bar per the manufacturer's instructions with the brush and compressed air method or with the manufacturer's

proprietary drill bit and dust extraction system. The installation of all post-installed anchors and post-installed reinforcing bars shall be performed by personnel trained and certified by the American Concrete Institute/Concrete Reinforcing Steel Institute or trained by the post-installed anchor and/or adhesive manufacturer for the tupe of anchor or reinforcing bar being post-installed

Expansion anchors installed into concrete shall be Hilti Kwik Bolt TZ, Simpson Strong-Tie Strong-Bolt 2, or DeWalt Power-Stud+ SD2 wedge anchors or an approved equal. Screw anchors installed into concrete shall be Hilti Kwik HUS-EZ, Simpson Strong-Tie Titen HD, or DeWalt Screw Bolt+ screw

anchors or an approved equal. Expansion anchors installed into solid grouted masonry shall be Hilti Kwik Bolt 3 Stud Anchor or DeWalt Power-Stud+ SDI wedge anchors or an approved equal.

Screw anchors installed into solid arouted masonry shall be Hilti Kwik HUS-EZ, Simpson Strong-Tie Titen HD, or DeWalt Screw Bolt+ screw anchors or an approved equal. Adhesive anchors or reinforcing bars installed into concrete shall use Hilti HIT-HY 200 Adhesive Anchoring System or an approved equal.

Adh'esive anch'ors or reinforcina bars installed into solid arouted masonru. hollow block masonru, or brick masonru shall use Hilti HIT-HY 70 Adhesive Anchoring System or an approved equal. Adhesive anchors installed into hollow block or brick masonry shall use screen tubes. A piston plug injection procedure approved by the adhesive manufacturer shall be used for the injection of adhesive into all

Hilti HIT-RE 500 V3, DeWalt AC200+, and DeWalt Pure IIO+ are approved equal adhesive anchoring systems for adhesive anchors or reinforcing bars installed into concrete. All post-installed expansion anchors must be tightened to the anchor manufacturer's recommended installation torque The installation of all post-installed anchors and post-installed reinforcing bars shall be reviewed and accepted by the field

# SPECIAL NOTES AND REQUIREMENTS REGARDING FOUNDATION SYSTEMS AND STRUCTURAL FRAMING SYSTEMS

A. SLEEVES OR BLOCKOUTS IN TRENCH FOOTINGS I. Sleeves or blockouts IO inches or greater in any direction must be approved prior to installing in any trench footings. 2. Locate sleeves or blockouts where the edge of the opening closest to the top or bottom of the trench footing is 12

inches or greater unless specifically approved otherwise. 3. Provide 2-#4 horizontal bars above and below the trench footing openings, one bar each face. Provide one additional trench footing stirrup placed with 2 inches to 3 inches each side of the trench footing sleeve or blockout for openings areater than 6 inches

f. No sleeves or blockouts shall occur within the columns or pilasters cast integral with the trench footings. 5. Provide a minimum of 12 inches of concrete between the adjacent sleeves or blockouts unless specifically approved

6. Cored openings shall meet the same requirements as sleeved openings.

B. SLEEVES OR BLOCKOUTS IN STRUCTURAL FRAMING MEMBERS AND SLABS

I. No sleeves shall be cast in structural framing members which require the displacement of the primary reinforcing steel. 2. Sleeves or blockouts greater than 9 inches in any direction in the concrete structural slabs which are shown on the plan or have been approved shall have 2-#5 additional bars on each side of the slab opening and shall extend the bars a minimum of 2'-O" beyond the opening. The primary top and bottom slab reinforcing bars shall not be cut unless specifically approved. Adjust the bar spacing or fan reinforcing bars each side of the opening. Temperature slab reinforcing (bars perpendicular to the primary reinforcing bars) may be cut at the slab openings. 3. Cored openings shall meet the same requirements as sleeved openings.

C. MECHANICAL OR ELECTRICAL OPENINGS, SLEEVES, CONDUITS, OR CORED HOLES IN CONCRETE MASONRY WALLS

I. All lintels shall be built into the concrete masonry walls as the walls are being constructed. 2. Do not locate any masonry openings, sleeves, or cored holes directly below any joist or beam bearing plates unless

be located such that the opening and the lintel occur completely below the bond beams at the floor or roof framing member bearing elevation, unless specifically approved otherwise. 4. Locate the top of all horizontal sleeves or cored holes in the concrete masonry walls that occur below the elevated floor

3. Mechanical duct openings in the concrete masonry walls that occur below the elevated floor slabs or roof structures shall

slabs or roof structures to provide a minimum 8 inch deep bond beam lintel below the floor or roof framing member bearing elevation and above the sleeves or cored holes unless approved otherwise. 5. Locate all horizontal sleeves or cored holes in the concrete masonry walls to provide a minimum of 8 inches of concrete masonry between adjacent sleeves or cored holes which are 4"Φ or less in size and to provide 16 inches of concrete

masonry between adjacent sleeves or cored holes which are greater than 4"Φ in size, unless approved otherwise.

6. Do not place any conduit in vertically reinforced and/or grouted masonry cores, unless specifically approved otherwise. Vertical conduit may pass through hórizontal bond beams, excluding bond beam lintels and bond béam lintel bearing, unless 7. Multiple vertical conduits which exit the masonry wall horizontally at approximately the same elevation with a total width of moré than 16 inches are considered wall openings. All recesséd electrical panels in masonry walls are considered wall

Comment 5 of this section are considered openings. Provide lintel and masonry jamb reinforcing at these locations as indicated on the plans, lintel schedule, General Structural Notes, sections and details. 8. Electrical panels recessed into masonry walls shall be submitted to the Architect/Engineer for review and additional structural requirements. Submittal shall include the proposed plan location, the actual masonry rough opening dimensions, the proposed elevation at the top of the electrical panel rough opening, and the quantity and size of the conduit above and below the electrical panel.

9. Horizontal electrical conduit placed in masonry block walls shall have a maximum conduit size of 3/4 inch (0.922" maximum

openings. Multiple horizontal sleeves and cored holes at approximately the same elevation which do not comply with

outside diameter) and the installation shall comply with the subsequently defined requirements. No conduit with a conduit size greater than 3/4 inch (0.922" maximum outside diameter) shall be installed horizontally in masonry walls unless specifically approved otherwise. IO.Do not plāce any horizontal conduit in horizontal bond beams, unless specifically approved otherwise. II. Horizontal conduit within masonry walls shall be confined to the cores between the vertically reinforced and/or grouted

masonry cores to the greatest extent possible. The 8 inch deep masonry course containing the horizontal conduit shall be grouted solid for the full horizontal length of the conduit. 12.Á single 3/4 inch conduit (0.922" maximum outside diameter) may pass horizontally through a solid grouted and/or vertically reinforced core at the jamb of a wall opening where required to connect to an electrical device above or below the wall

13. Notify Architect/Engineer of any required conduit installations which do not comply with the above criteria prior to the construction of the masonry wall.

D. EMBEDS, ANCHORS AND INSERTS IN STRUCTURAL MEMBERS AND SLABS I. The general, mechanical, and electrical contractors shall be responsible for the design of all embeds, inserts, anchors, and supplemental framing systems required for the support of the architectural, mechanical, and electrical systems which are not

detailed on the structural drawings. 2. Do not hang or attach any architectural, mechanical, or electrical elements or systems from the metal deck or joist bridging unless specifically approved otherwise.

# E. ELECTRICAL CONDUIT IN STRUCTURAL MEMBERS AND SLABS

I. No conduit shall be placed in the structural members or slabs without approval from the electrical engineer and the structural engineer.

F. DIMENSIONAL AND ELEVATION CHECK AND TOLERANCE

I. As soon as possible after the completion of the noted items, the Contractor shall perform a dimensional and elevation check of the constructed items to confirm if the items have been built within an acceptable tolerance. The Contractor shall notify the Architect/Engineer for direction if the noted item have not been built within the specified tolerance.

2. The placement of all anchor rods or embeds in the concrete foundation systems for the attachment of structural steel framing systems shall be checked for accuracy in the dimensional location and elevation. The acceptable tolerance in the placement of anchor rods and embeds cast into concrete for structural steel connections shall be as defined in ACI 117, Specification for Concrete Construction and Materials and Commentary Section 2.3, and the AISC Code of Standard Practice for Steel Building and Bridges Section 7. It is recommended that the check be performed prior to delivery of the fabricated structural steel members to the site, where ever possible, so that any required modifications or adjustments to the structural members can be made as directed by the Architect/Engineer in the shop rather than in the field. Field cutting to enlarge holes or modify framing members or connecting plates or angles shall not be performed prior to receiving

direction from the Architect/Engineer. 3. The placement of all reinforcing steel bars in cast-in-place concrete shall be checked to confirm that the specified or noted concrete coverage is being maintained on the reinforcing bars and tie wires. All loose tie wires must be removed and the ends of all tie wires must be bent back into the concrete members. The reinforcing bar placement must be properly chaired or properly held in place to prohibit any displacement during the concrete placement.

# G. CONCRETE PLACEMENT LIMITATIONS

1. The maximum area of concrete slab on grade floor to placed between construction joints shall be 5000 SF, unless specifically approved otherwise.

2. The contractor shall submit for review the proposed construction joint locations in foundation walls, slab on grade floor systems, elevated concrete slab systems, mat footings, and other similar concrete elements or systems.



**BBN ARCHITECTS INC** 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

mation provided on the drawings regarding existing conditions has bee

obtained from the best sources available, but cannot be guaranteed in all Contractor shall verify all such information prior to proceeding with an

w work that may be affected. Include as part of the contract all work requir

o produce the indicated result. All drawings and written material appearing erein constitute the original and unpublished work of the Architect, and sam

may not be duplicated, used or disclosed without the written consent of the



oject Number:

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

11/28/17

WAMEGO, KS 66547

**GENERAL STRUCTURAL NOTES** 

**S201** 

Dudley Williams and Associates, PA Laura • Suite 200 • Wichita, KS 67211-1514 316-263-7591 ■ www.dwase.com

roject Name:

1701 KAW VALLEY ROAD

S201 in I:\17-045\17-045.05\S-2X [1:24] 11/28/2017 [DEM]

# VERTICAL MASONRY REINFORCING SCHEDULE

- (A) 8" Lightweight Masonry Block w/ #4 at 48" o.c. Vertical Masonry Reinforcing
- (B) 8" Lightweight Masonry Block w/ #5 at 32" o.c. Vertical Masonry Reinforcing
- © 8" Lightweight Masonry Block w/ #5 at 16" o.c. Vertical Masonry Reinforcing. Provide 8" Deep Bond Beams at 4'-0" o.c. Vertically for Full Height of Wall, Including Parapets.
- D 12" Lightweight Masonry Block w/ #5 at 48" o.c. Vertical Masonry Reinforcing. Provide 8" Deep Bond Beams at 8'-0" o.c. Vertically for Full Height of Wall.
- E) 12" Lightweight Masonry Block w/ #5 at 24" o.c. Vertical Masonry Reinforcing. Provide 8" Deep Bond Beams at 8'-0" o.c. Vertically for Full Height of Wall.
- (F) 12" Lightweight Masonry Block w/ #5 at 8" o.c. Vertical Masonry Reinforcing at Lintel Jamb per Detail 2-5203. Provide 8" Deep Bond Beams at 8'-0" o.c. Vertically for Full Height of Wall.
- 6 8" Lightweight Masonry Block w/ #5 at 8" o.c. Vertical Masonry Reinforcing. Provide 8" Deep Bond Beams at 4'-0" o.c. Vertically to Cap Slab Elevation.
- (H) 12" Lightweight Masonry Block w/ #5 at 8" o.c. Vertical Masonry Reinforcing. Provide 8" Deep Bond Beams at 4'-0" o.c. Vertically to Cap Slab Elevation.
- See Detail 2-5202 for Typical Masonry Wall Reinforcing Detail

See Details II-5402 and I-5402 for Typical Masonry Reinforcing at Lintels and Control Joints

Grout Cores at Each Vertical Bar. Provide Horizontal Joint Reinforcing Per Specifications at 16" o.c. Vertically, Unless Noted Otherwise

Provide Masonry Dowels at All Reinforced Masonry Walls to Match the Size and Spacing of the Vertical Masonry Reinforcing, U.N.O. Dowel Length Shall be Based on The Embedment and Lap Lengths as Indicated on the Typ. Masonry Dowel Details 1-5202. I. Grout solid all noted block cores and all cores with vertical reinf. bars. Grout shall attain a minimum 28 day compressive strength of 2500 psi and shall have a 8 in. to 10 in. slump range.

2. Grout shall be placed in max. 24 in.
grout lift heights and each lift height
shall be consolidated by mechanical vibration during grout placement.

3. Reconsolidate each grout lift height 5 to 15 min. after initial grout placement by mechanical vibration. Initial grout lift height shall be consolidated and reconsolidated prior to placement of additional grout lift to complete the grout pour height.

4. The grout horizontal construction joint at each pour height shall stop a min. of 1½" below a block mortar joint, except at the top of the wall or at the block coursing below bond beams, beam bearing, or other similar locations. Adjust grout level after reconsolidation at the top of walls, below bond beams, below beam bearings, or other sim. locations as required to attain the proper top of grout elevation.

 Use a small headed vibrator and only vibrate each grouted core for a few seconds during the consolidation and reconsolidation process.

6. In all block cores to be grouted, mortar shall not project more than ½" from the face of the block into the block core, Clean out the block cores of all mortar droppings or excessive mortar projections prior to starting the grouting process.

Pour Ht., See General Structural

Masonry Dowel Embedment
Length Into Foundation, See
Typical Masonry Dowel
Details 1-5202

Masonry Vertical Bar Lap
Splice Length at Each Grout

Notes and Typical Masonry
Dowel Details 1-5202

TYP. MAS. WALL REINF. DETAIL

No Scale

TRENCH FOOTING SCHEDULE

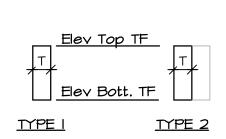
		ELEV.	ELEY.	ELEV.	DIME	NSIONS	REF.	
MARK	TYPE	BOTT	TOP	LEDGE	Т	A	SECTION	REMARKS
TI	1	96-0	99-4	-	2-8	-	1-5301	14-5301, 2-5301 at Doors/Glazing
T2	1	96-0	99-4	-	2-4	-	1-5301	
Т3	1	96-0	99-4	-	2-4	-	9-5301	
T4	1	96-0	99-4	-	2-0	-	1-5301	2-5301 at Doors/Glazing
T5	1	96-0	99-4	-	1-4	-	2-5301	7-5301
Т6	1	96-0	99-4	-	3-8	-	1-5301	
T7	1	96-0	99-4	-	4-0	-	1-5301	
Т8		96-0	99-4	-	2-4	-	1-5301	2-5301 at Doors/Glazing
ТЯ	1	96-0	99-4	-	4-0	-	1-5301 SIM	
TIO	1	96-0	99-4	-	2-4	-	10-5301	
TII	1	96-0	99-4	-	4-0	-	10-5301 SIM	
TI2	1	97-10	99-4	-	1-4	-	4-5301	
TI3	1	97-10	99-4	-	1-8	-	4-5301	
TI4	1	97-10	99-4	-	2-0	-	4-5301	
TI5	1	96-0	99-4	-	4-0	-	3-5301	
TI6	2	96-4±	99-4	-	1-4	-	11-5301	(1) 3-5301
TI7	1	96-0	99-4	-	1-4	-	3-5301	
TI8	1	96-0	99-4	-	2-8	-	10-5301	
TI9	1	96-0	99-4	-	5-0	-	3-5301	
T20	1	96-0	99-4	-	2-0	-	3-5301	
T2I	1	96-0	99-4	-	3-0	-	3-5301	

TRENCH FOOTING SCHEDULE REMARKS:

Bottom of footing to match bottom of existing footing.

#### TRENCH FOOTING SCHEDULE NOTES:

- I.) Letters following trench footing marks on foundation plans indicate concrete masonry unit and vertical masonry reinforcing, see Vertical Masonry Reinforcing Schedule. Trench footing marks which are not followed by a letter indicates no vertical masonry reinforcing is required. See Architectural for details and locations of unreinforced masonry walls.
- 2.) The scheduled trench footing width is the minimum structural width required. Where rigid insulation is required adjacent to the trench footing, increase the width of the excavation to allow for the structural width of the trench footing plus the thickness of the insulation. See Architectural drawings for locations with foundation insulation.



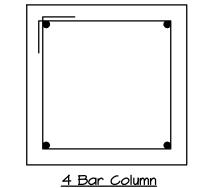
TRENCH FOOTING TYPES

CONCRETE COLUMN AND FOOTING SCHEDULE

MARK	FI	F2	F3
COLUMN SIZE		-	-
ELEV. TOP COLUMN	99-4	-	-
COLUMN VERTS.	Footing Dowels	-	-
COLUMN TIES	2	-	-
ELEY. TOP FOOTING	99-4	99-4	99-4
FOOTING SIZE	3-6×3-6×3-4	3-0×4-6×3-0±	4-6×4-6×1-6
FOOTING BARS	8-#4x3-0	3	10-#5x4-0
	4 Each Way		5 Each Way
FOOTING DOMELS	4-#7×4-0	Masonry Dowels	Masonry Dowels
	2-10 1-2		

CONCRETE COLUMN AND FOOTING SCHEDULE REMARKS:

- Provide concrete column reinforcing for a 20x20 concrete column in footing, see plan and sections. Provide coverage at ties per ACI for a formed foundation exposed to earth. Center column reinforcing below steel column.
- (2) #3 ties,  $| @ 2\frac{1}{2}|$ , | @ 3| o.c. top, remainder at | 2| o.c.
- 3 3-#5x4-0 straight north-south and 10-#5x4-2 hooked dowels east-west. 5 hooked dowels top and bottom, drill and anchor hooked bars 8" into existing footing similar to Section II-5301.



CONCRETE COLUMN DETAILS

Elevation | 12|-4½

Joist Bearing

Steel Beam Where Occurs, Eq. Eq. | Eq. | Joist Bearing

22'-4¾

| Eq. | Joist Bearing

| Eq. | Joist Bearing

| Eq. | Eq. | Live 20 psf

Design Joists to Comply with the Following Deflection Criteria:

Total Load: L/240 Live Load: L/360

Provide horizontal and diagonal joist bridging as shown on framing plans and as per SJI specifications. Design roof joists for the wind design uplift pressures defined in the Roof Component and Cladding Minimum Wind Design Pressures Table, associated diagram, and table notes on Sheet S203. Provide a single row of horizontal bridging at the first bottom chord panel point at each end of each roof joist.

LOAD DIAGRAM FOR 68LHSP JOIST

STORY

No Scale

**BBN ARCHITECTS INC** 

228 POYNTZ AVENUE MANHATTAN, KANSAS 66502

PH: 785-776-4912 - FAX: 785-776-0944

WWW.BBNARCHITECTS.COM

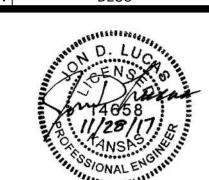
ormation provided on the drawings regarding existing conditions has been

obtained from the best sources available, but cannot be guaranteed in all spects. Contractor shall verify all such information prior to proceeding with any lew work that may be affected. Include as part of the contract all work required

to produce the indicated result. All drawings and written material appearing erein constitute the original and unpublished work of the Architect, and same

may not be duplicated, used or disclosed without the written consent of the

DESC DATE



Project Number:

Date.

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

Project Address:

t Address: 1701 KAW VALLEY ROAD WAMEGO, KS 66547

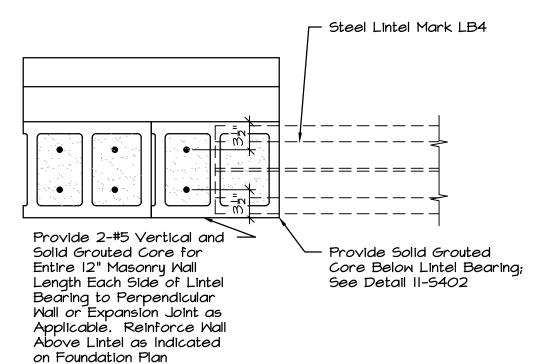
SCHEDULES
AND DETAILS

Dudley Williams and Associates, PA 230 Laura • Suite 200 • Wichita, KS 67211-1514 316-263-7591 • www.dwase.com

S202 in I:\17-045\17-045.05\S-2X [1:24] 11/28/2017 [DEM]

**S202** 

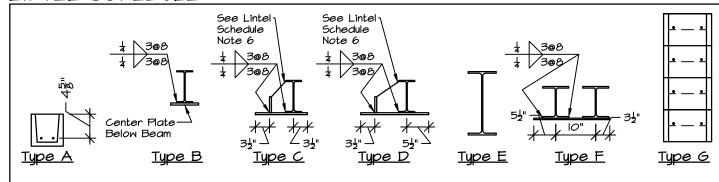
Provide I-#5 Masonry Dowels at Every Core with Vertical Reinforcing; Center Dowels in Masonry



#### TYP. LINTEL BEARING DETAIL AT LINTEL MARK LB4



LINTEL SCHEDULE



MARK	MEMBERS	TYPE	REMARKS
LAI	8" Deep Bond Beam Lintel w/ 2-#4 Cont. Bottom	А	
LBI	W8x10 w/ Bottom PL4x7	В	
LB2	W8x18 w/ Bottom PL¼x7	В	
LB3	W8x24 w/ Bottom PL√xII	В	
LB4	WI6x36 w/ Bottom PL&xII	В	2
LCI	W8×18 w/ Bottom PL½×15 & Vert. PL⅔×4	С	0
LDI	W8x24 w/ Bottom PL&x19 & Vert. PL₹x6	D	Q
LD2	W16x36 w/ Bottom PL\( \frac{1}{6}\text{x19 & Vert. PL\( \frac{3}{4}\text{x8} \)	D	
LEI	WI6x36	E	3)
LE2	WI6x36	E	4
LFI	2-W8x24 w/ Bottom PL <sup>5</sup> <sub>B</sub> x19	F	
LGI	16" Deep Bond Beam Lintel with 8-#5	6	(5)
LG2	32" Deep Bond Beam Lintel with 8-#5	G	5
LG3	32" Deep Bond Beam Lintel with 8-#5	G	(5)(6)
INTEL	SCHEDULE REMARKS.	•	· <del>··</del>

### LINTEL SCHEDULE REMARKS:

- Galvanize assembly
- Provide #4x0-10 weldable reinforcing dowels at each end and at 16" o.c. maximum between. Provide jamb reinforcing at each end of lintel per Detail 3-5202.
- Provide ₹"Фx0-6 headed anchor studs at each end and at 16" o.c. maximum between. Provide bearing, angle bracket, and anchor at each end of lintel per Detail 20-5401.
- Provide  $\frac{3}{4}$ " $\Phi \times O$ -6 headed anchor studs at each end and at 16" o.c. maximum between. Provide bearing, angle bracket, and anchor at each end of lintel per Detail 21-5401. Provide 12" of bearing at each end of lintel.
- See Detail 2-5202 for additional notes and information. Provide jamb reinforcing at each end per Detail II-5402.
- Bond beam lintels shall extend for full length of masonry wall.

#### LINTEL SCHEDULE NOTES:

- All masonry lintels are to extend 24" beyond jambs, except extend to corner at locations where corner occurs 24" or less from jamb. Provide bond beam and corner bar at perpendicular wall at corners. Grout cores solid below lintel bearing. See Detail II-5402 for additional notes and information.
- 2. Use special u-shaped bond beam lintel block units at all masonry bond beam lintels.
- 3. Properly shore all bond beam lintels during block and grout placement and all shores shall remain in place for a minimum of 7 days and until the grout has attained the specified compressive strength.
- 4. Verify size, location, and elevation of all masonry wall openings with the Architectural drawings. Verify size, location, and elevation of all mechanical wall openings with the Mechanical drawings and the mechanical contractor.
- 5. All steel lintels shall have a minimum of 8" bearing on concrete masonry at each end, unless noted otherwise. Grout cores solid below bearing. See Detail II-5402 for Typical Lintel Bearing and reinforcing conditions and Detail 10-5402 for Typical Steel Lintel conditions.
- 6. Provide  $\frac{3}{8}$ " stiffener plates at each end and at 24" o.c. maximum for openings greater than 6'-4" in width. See sections for locations where additional stiffeners may be required.
- 7. Provide 6" bearing length for lintels at locations where an 8 inch bearing length would expose the end of the lintel on inside face of the masonry wall below the ceiling elevation.
- 8. Provide lintel LAI at all openings I'-4" or less in width and located a minimum of 12" from centerline of joist bearing in 8" or 12" interior masonry bearing walls, including masonry wall supporting roof or cap slabs, see Detail 1-5203.
- 9. Provide lintel LAI at all openings 3'-4" or less in width in 8" and 12" interior non-load bearing masonry walls, unless noted otherwise.
- 10. Provide lintel LBI at all openings 6'-4" or less in width at 8" interior masonry walls and lintel LB3 at all openings 6'-4" or less in width at 12" interior masonry walls and at all openings which occur within 12" of the centerline of joist bearing locations (see Lintel Schedule Note #8), see Detail 1-203.
- II. Provide lintel LCI at all openings 6'-4" or less in width in 8" exterior masonry walls with brick veneer.
- 12. Provide lintel LDI at all openings 6'-4" or less in width in 12" exterior masonry walls with brick veneer.

Bond Beam(s) at Joist or — Deck Bearing Elevation - 41'-0" Min. -4∥'-0" Min. 4× 1'-0" Bond Beam Lintels per this Steel Lintels per This l'-4" or Less - Lintel LAI Detail at Openings in Detail at Openings in Lintel LBX at Bearing Walls to Have 16" > 1'-4" - Lintel LBX Bearing Walls to Have 32" All Openings Minimum Between Openings Minimum Between Openings Unless Specifically Unless Specifically Approved Otherwise Approved Otherwise Lintel LBX TYPICAL LINTEL REQUIREMENTS NOT SPECIFICALLY LBI at 8" Masonry INDICATED ON PLANS AT INTERIOR MASONRY WALLS SUPPORTING ROOF OR FLOOR FRAMING, INCLUDING DECK LB3 at 12" Masonry

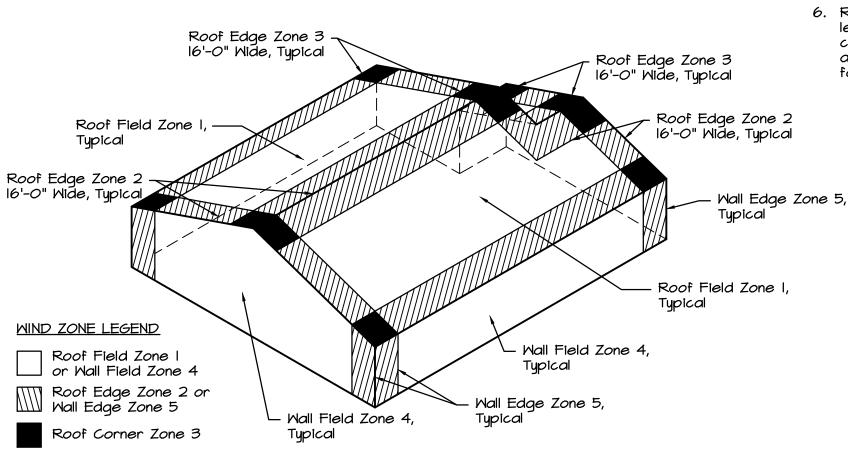
No Scale WALL COMPONENTS AND CLADDING MINIMUM WIND DESIGN PRESSURES

DETAIL

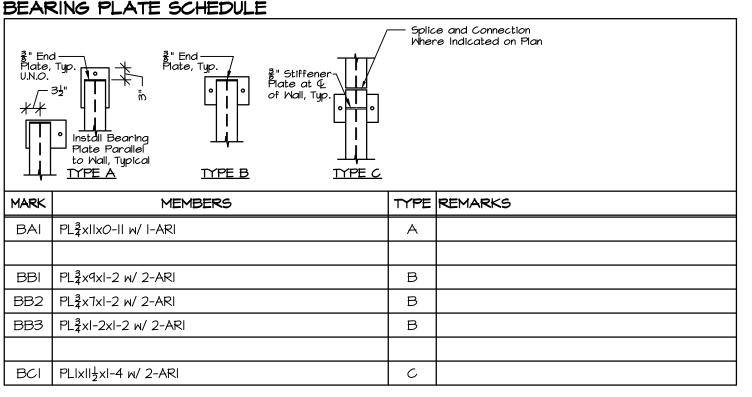
LOCATION		MALL		PARAPET						
ZONE	ZONE 4/5	ZONE 4	ZONE 5	ZON	E 4	ZONE 5				
TRIBUTARY AREA (FT <sup>2</sup> )	INWARD (PSF)	OUTWARD (PSF)	OUTWARD (PSF)	CASE A (PSF) CASE B (PSF		CASE A (PSF)	CASE B (PSF)			
10	+33.3	-36.2	-44.7	+86.5	-69.5	+111.9	-78.0			
50	+29.9	-32.7	-37.7	+73.1	-62.5	+96.6	-67.5			
100	+28.4	-31.2	-34.7	+67.4	-59.5	+90.0	-63.0			
200	+26.9	-29.7	-31.7	+65.9	-56.5	+88.5	-58.5			
500	+24.9	-27.7	-27.7	+63.9	-52.6	+86.5	-52.6			

MALL COMPONENTS AND CLADDING MINIMUM WIND DESIGN PRESSURES TABLE NOTES:

- I. Positive pressures act inward to the building envelope.
- 2. Negative pressures act outward to the building envelope.
- 3. The use of linear interpolation is permitted for tributary areas not
- 4. Wind pressures indicated in table are gross ultimate wind pressures to be used with the load combinations defined in ASCE
- 5. Tributary areas for components and cladding shall be the effective wind area as defined in the edition of the ASCE 7 referenced by the IBC edition defined in the General Structural

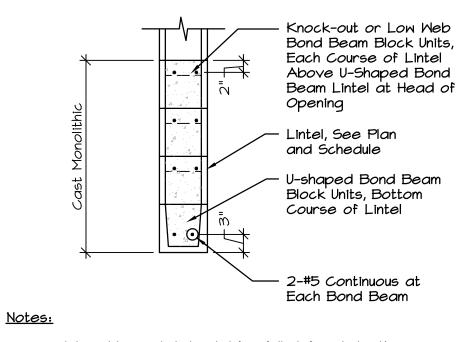


# SCHEMATIC COMPONENTS AND CLADDING WIND PRESSURE ZONES DIAGRAM



# BEARING PLATE SCHEDULE NOTES:

I.) Bolt bearing plate to masonry wall. Field weld beam to bearing plate. See Detail 5-5402.



Grout bond beam lintel solid for full defined depth in one monolithic placement. Provide horizontal joint reinf. at each course in bond

beam lintel (8" o.c.) Provide 24" bearing length on solid grouted cores at each end of lintel, see Lintel Schedule note #1 for conditions at corners, typical unless noted otherwise.

2 BOND BEAM LINTEL

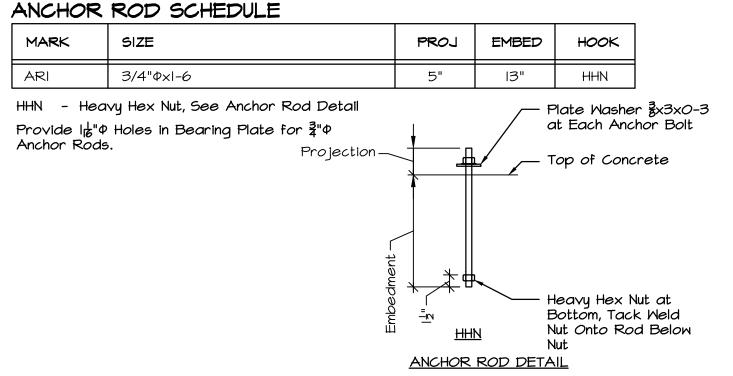
### ROOF COMPONENTS AND CLADDING MINIMUM WIND DESIGN PRESSURES

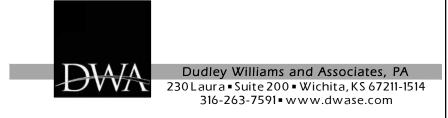
ZONE	ALL	NO	OVER	HANG		
	ZONES	ZONE I	ZONE 2	ZONE 3	ZONE 2	ZONE 3
TRIBUTARY AREA (FT²)	INWARD (PSF)	OUTWARD (PSF)	OUTWARD (PSF)	OUTWARD (PSF)	OUTWARD (PSF)	OUTWARD (PSF)
10	+19.2	-30.5	-53.1	-78.6	-62.2	-104.6
20	+17.5	-29.7	-48.9	-73.5	-62.2	-94.4
50	+15.3	-28.5	-43.3	-66.7	-62.2	-80.9
100	+13.6	-27.7	-39.0	-61.6	-62.2	-70.7

#### ROOF COMPONENTS AND CLADDING MINIMUM WIND DESIGN PRESSURE TABLE NOTES:

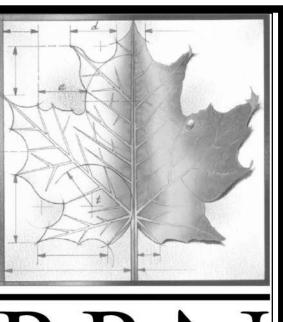
- I. Positive pressures act inward to the building envelope.
- 2. Negative pressures act outward to the building envelope.
- 3. The use of linear interpolation is permitted for tributary areas not
- 4. Wind pressures indicated in table are gross ultimate wind pressures to be used with the load combinations defined in ASCE
- 5. Tributary areas for components and cladding shall be the effective wind area as defined in the edition of the ASCE 7
- referenced by the IBC edition defined in the General Structural 6. Roof joists shall be designed for tabulated gross uplift forces less dead load. The dead load to be used in the uplift calculations shall not exceed IO psf after applying the

appropriate allowable stress design or strength design reduction





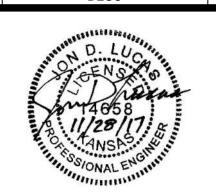
S203 in I:\17-045\17-045.05\S-2X [1:24] 11/28/2017 [DEM]



**BBN ARCHITECTS INC** 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

nation provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all sects. Contractor shall verify all such information prior to proceeding with an w work that may be affected. Include as part of the contract all work requireo produce the indicated result. All drawings and written material appearing erein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the

DESC



11/28/17 Project Name:

roject Number:

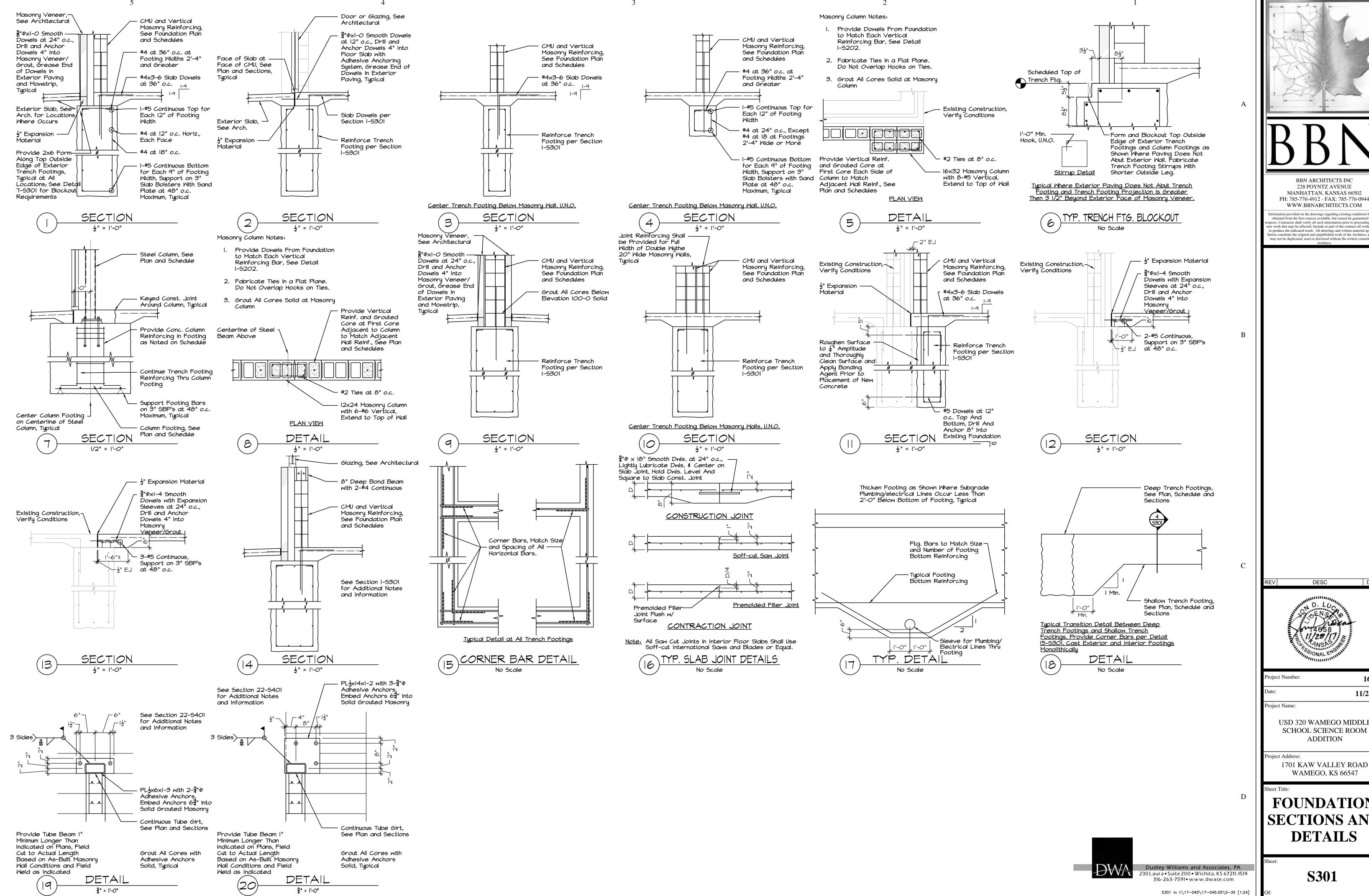
**USD 320 WAMEGO MIDDLE** SCHOOL SCIENCE ROOM ADDITION

1701 KAW VALLEY ROAD

WAMEGO, KS 66547

**SCHEDULES** AND DETAILS

**S203** 



228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

obtained from the best sources available, but cannot be guaranteed in all bects. Contractor shall verify all such information prior to proceeding with an w work that may be affected. Include as part of the contract all work required o produce the indicated result. All drawings and written material appearing erein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the

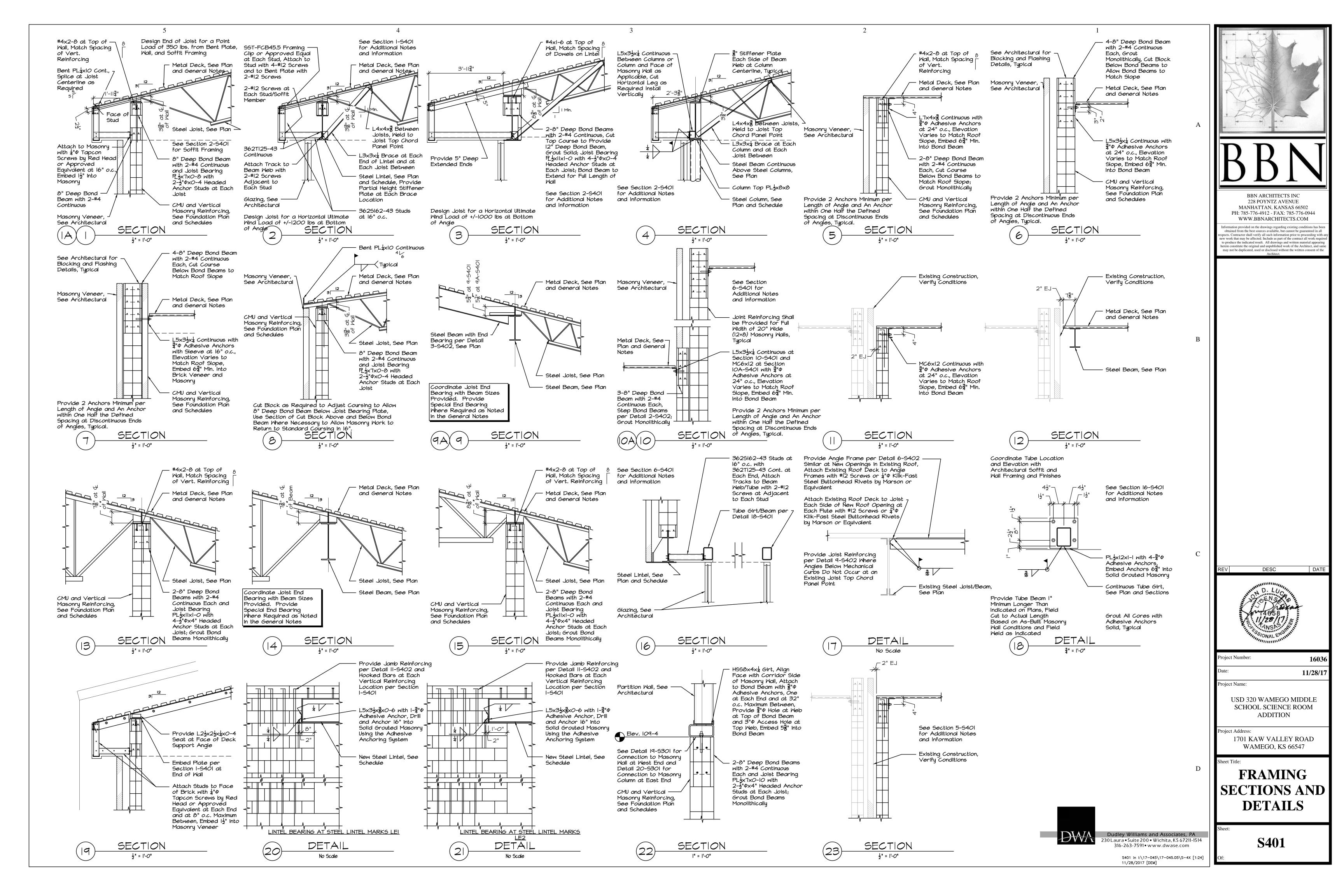
SCHOOL SCIENCE ROOM ADDITION

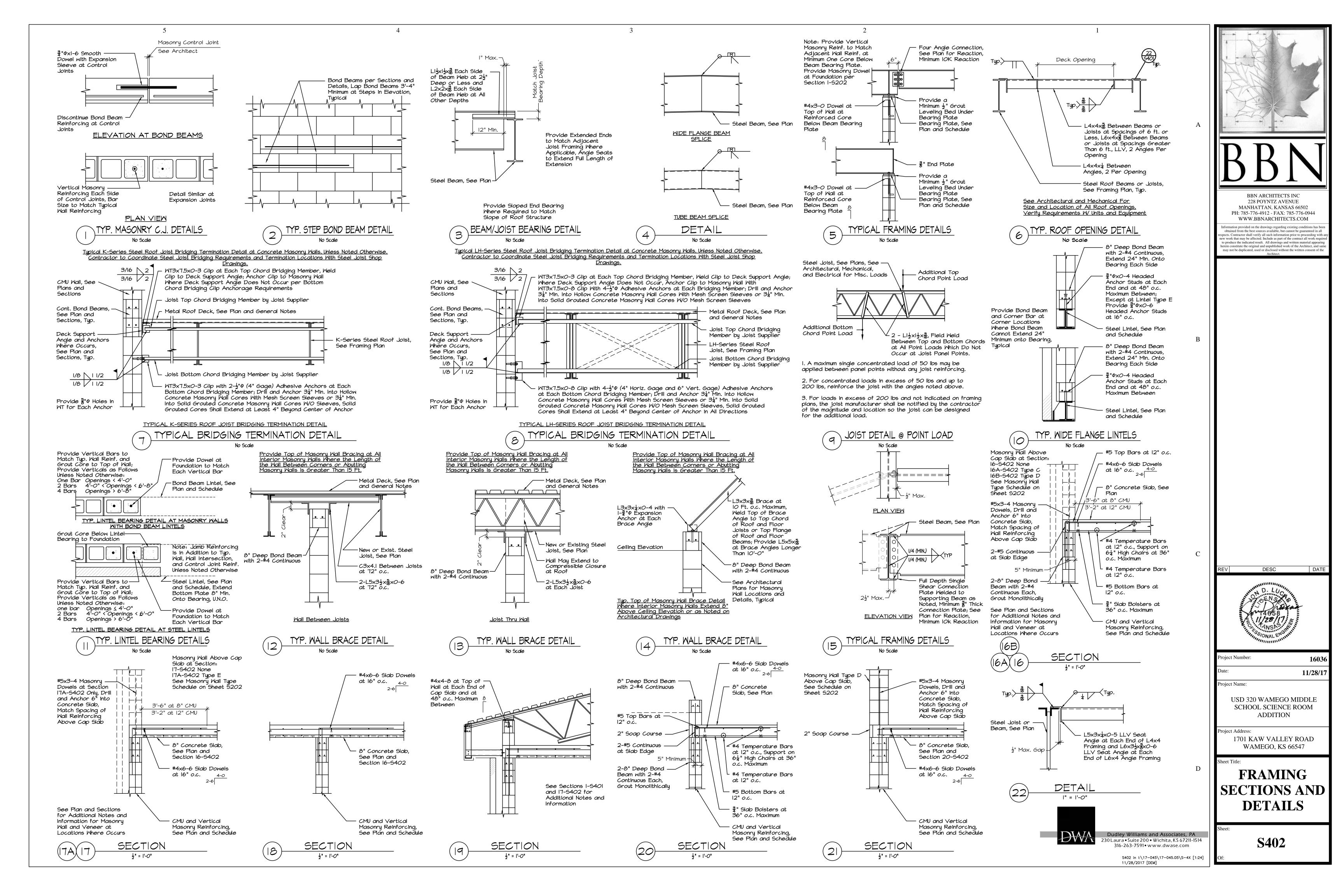
11/28/17

1701 KAW VALLEY ROAD

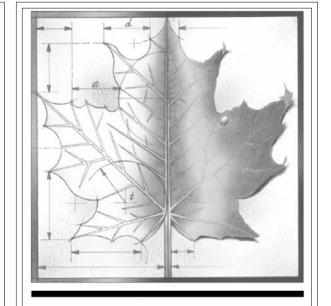
**FOUNDATION SECTIONS AND** 

11/28/2017 [DEM]





EXISTING DRIVE LANE CURB INLET EXISTING SIDEWALK 8' WIDE SIDEWALK 22' - 8" 100' - 8" -CONCRETE LANDING CONCRETE LANDING NEW SCIENCE MING ADDITION F.F.E. 1055.82=,100-0" (MATCH EXISTING) EXISTING SCHOOL EXISTING CONC. LANDING 38' - O" 36' - 4" MELL HOUSE MECHANICAL CONCRETE PAD- 6"---EXISTING GRAVEL PATH



BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

REVISIONS:

Project Number:

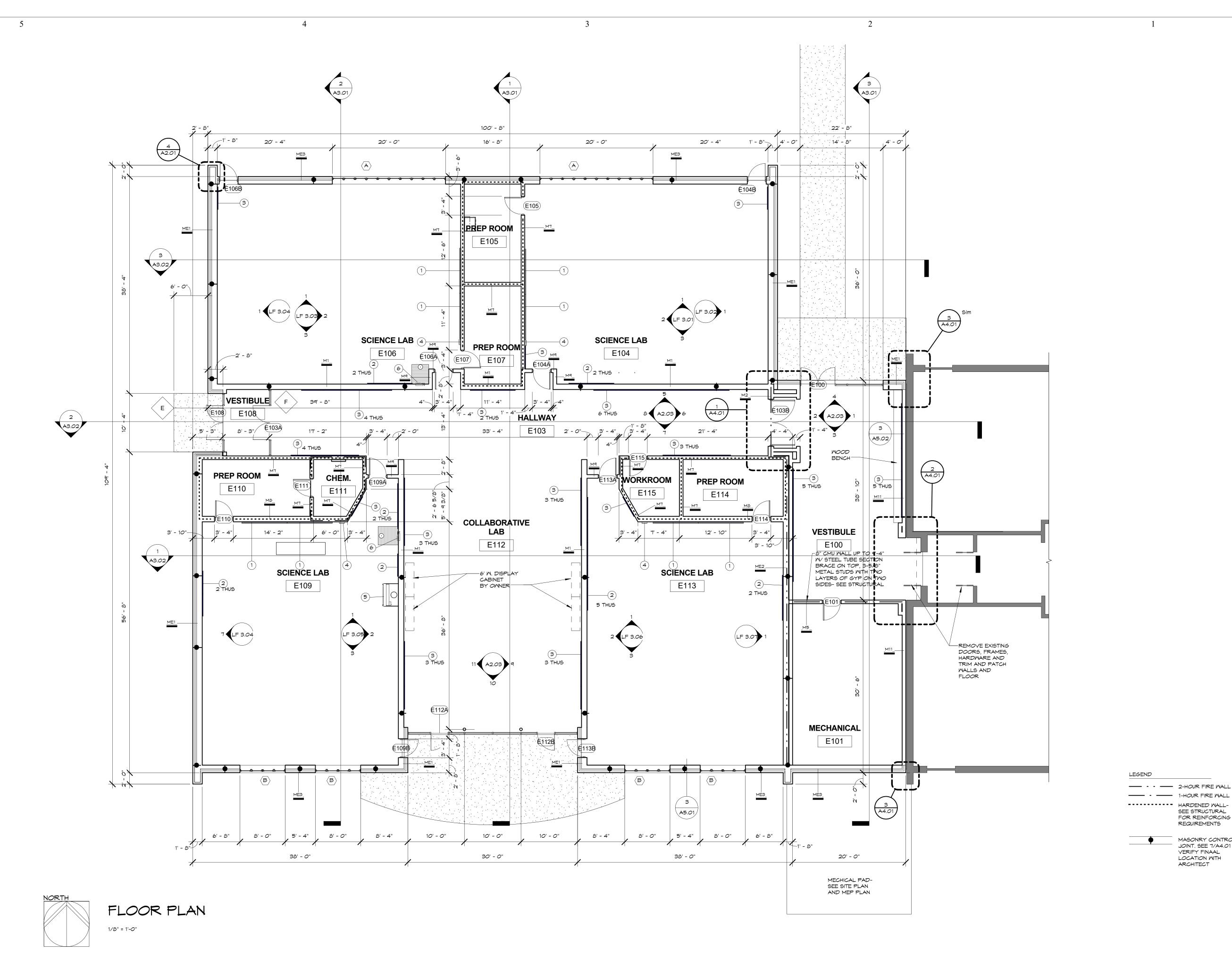
Project Name:

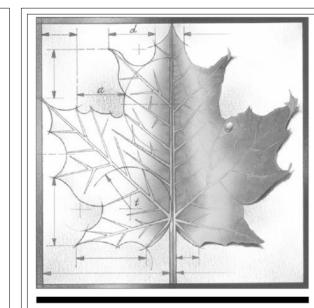
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

1701 KAW VALLEY ROAD WAMEGO, KS 66547

SITE PLAN





BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

PLAN NOTES

1) MARKER BOARD - 4' X 8'

2) 3'-8" X 4'-0" TACKABLE FABRIC-WRAPPED ACOUSTIC 3 4'-0" X 4'-0" TACKABLE FABRIC-WRAPPED ACOUSTIC

4 SEMI-RECESSED FIRE EXTINGUISHER AND CABINET

5 FUME HOOD. SEE LAB FURNISHINGS PLANS

6 SAFETY SHOWER. SEE LAB FURNISHINGS PLAN

SEE STRUCTURAL FOR REINFORCING REQUIREMENTS

MASONRY CONTROL JOINT. SEE 7/A4.01

VERIFY FINAAL

LOCATION WITH ARCHITECT

**REVISIONS:** 

Project Number:

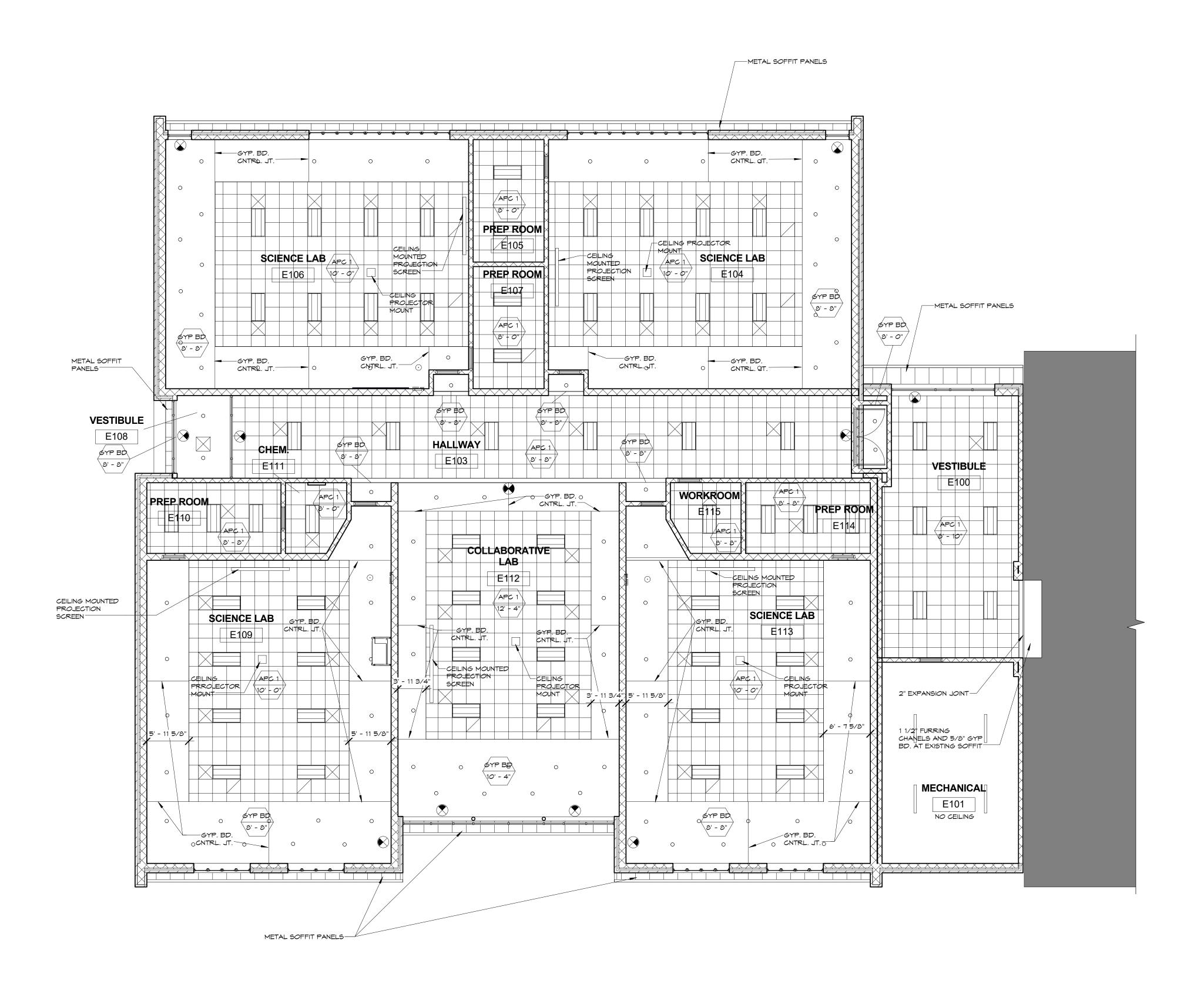
Project Name:

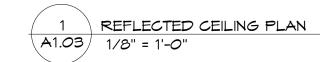
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM **ADDITION** 

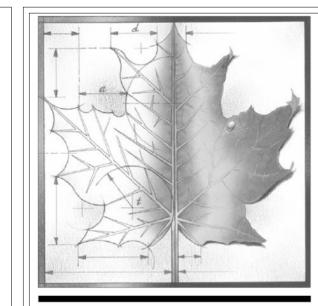
11/28/17

1701 KAW VALLEY ROAD WAMEGO, KS 66547

**FLOOR PLAN** 







# BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

.

REVISIONS:

\( \hat{\lambda} \)

\( \frac{\lambda}{\lambda} \)

Project Number:

Date:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

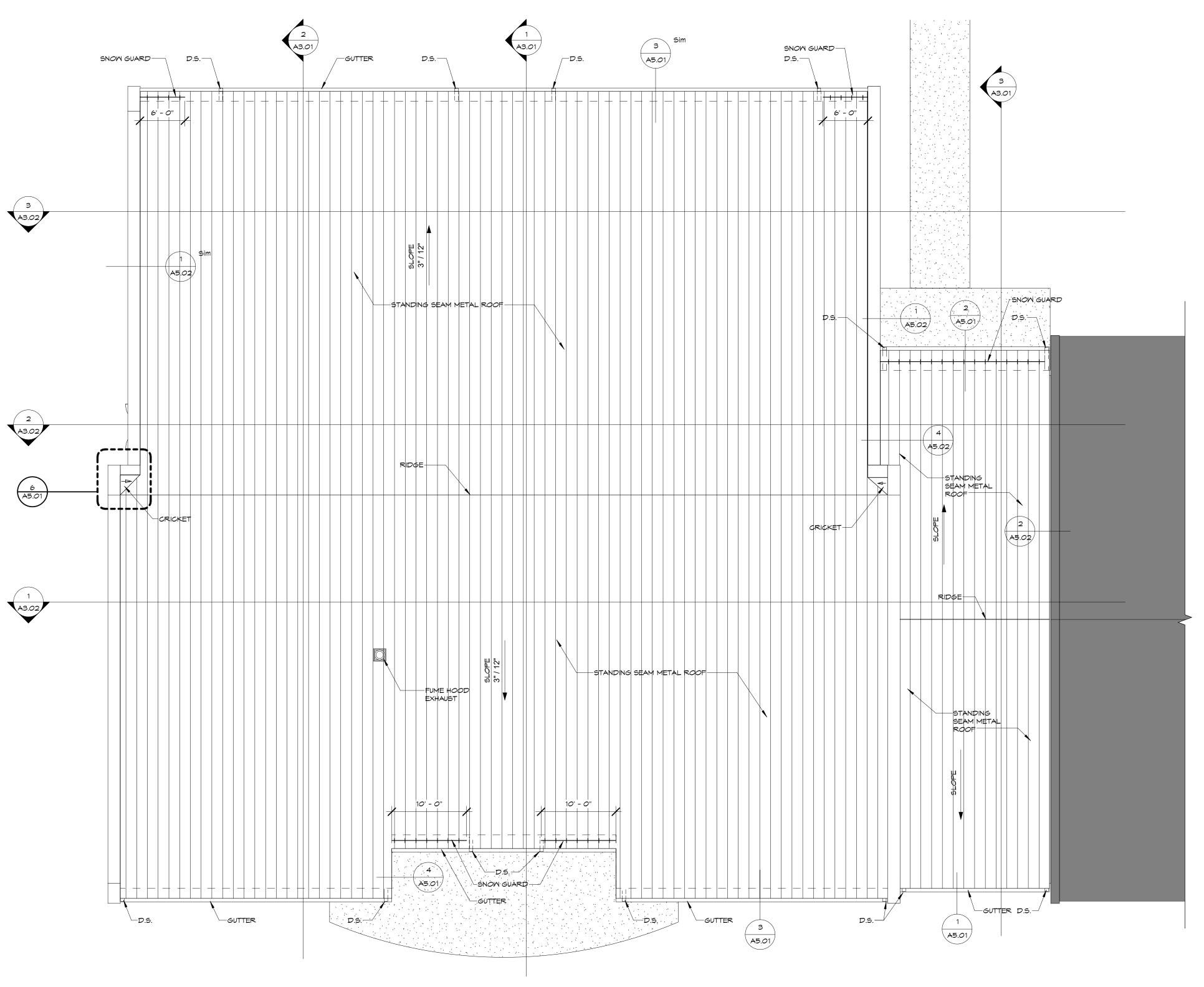
eject Address:
1701 KAW VALLEY ROAD

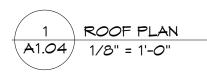
WAMEGO, KS 66547

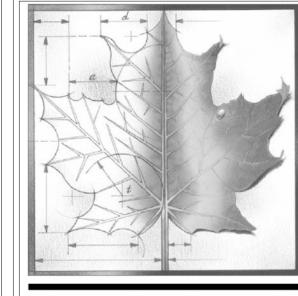
Sheet Title:

REFLECTED CEILING PLAN

Sheet:







BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

REVISIONS:

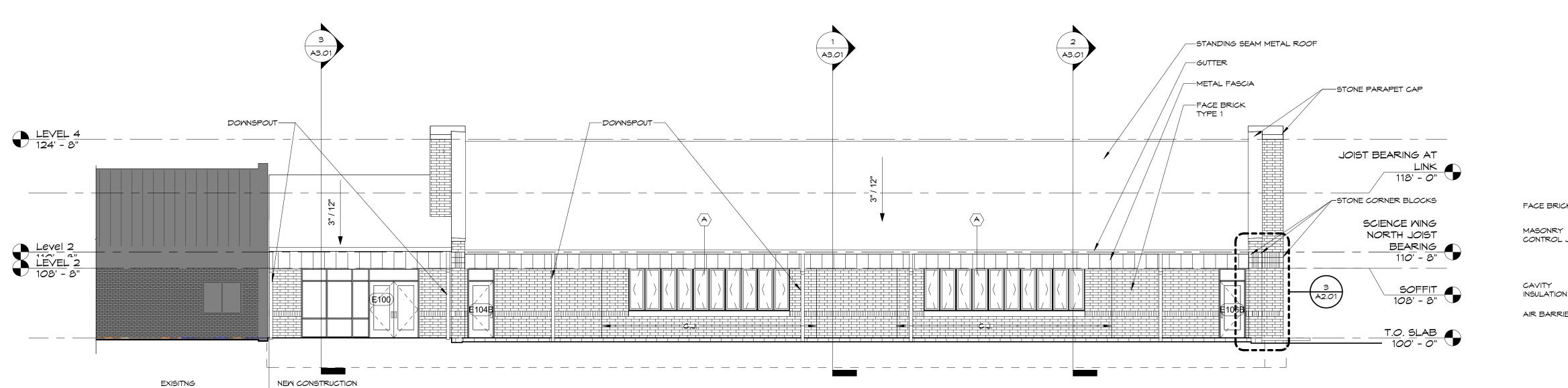
Project Number:

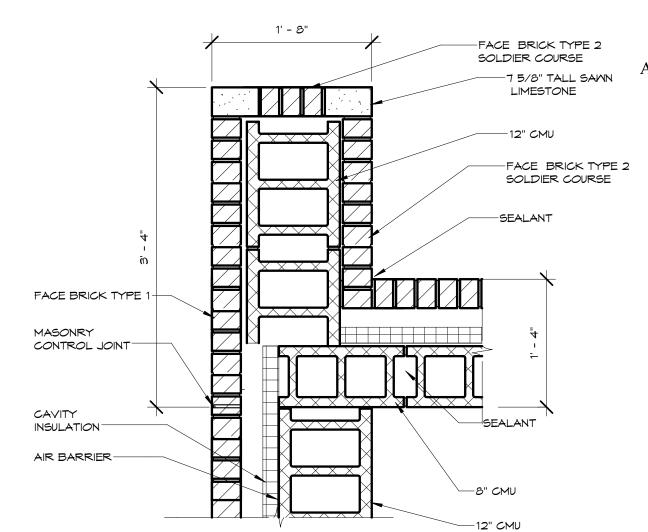
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

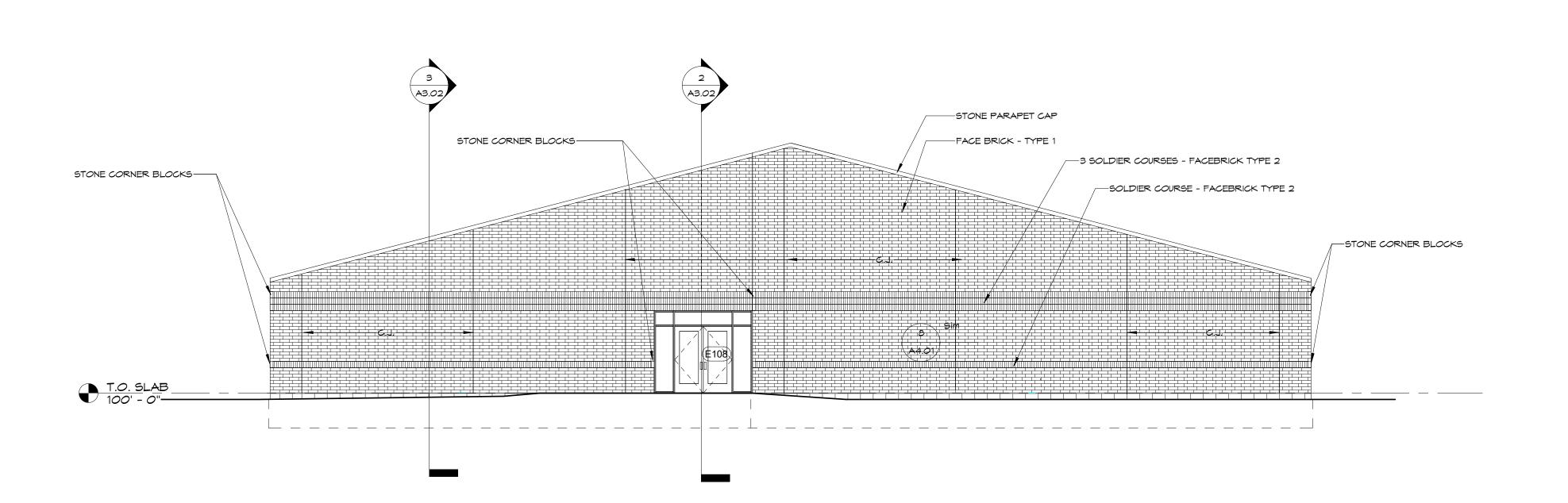
11/28/17

1701 KAW VALLEY ROAD WAMEGO, KS 66547

**ROOF PLAN** 

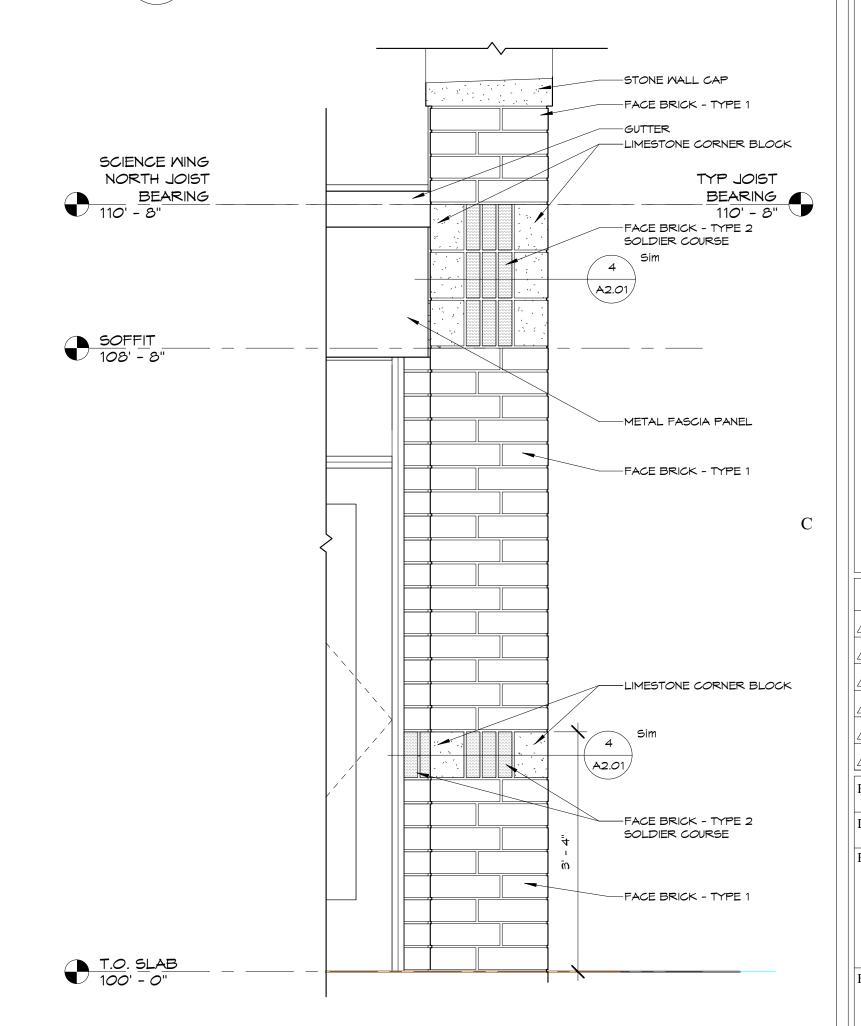






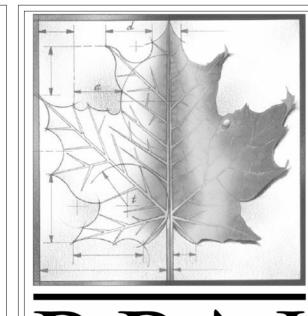
1 NORTH ELEVATION A2.01 1/8" = 1'-0"

2 MEST ELEVATION A2.01 1/8" = 1'-0"



4 SECTION DETAIL AT BELT COURSES
A2.01 1" = 1'-0"

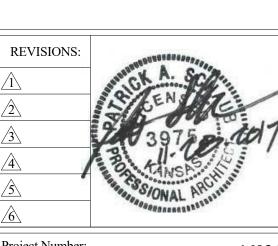
3 ELEVATION DETAIL AT SOLDIER COURSES
A2.01 3/4" = 1'-0"



BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



Project Number: 16036

Date: 11/28/17

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

roject Address:
1701 KAW VALLEY RC

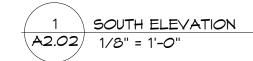
1701 KAW VALLEY ROAD WAMEGO, KS 66547

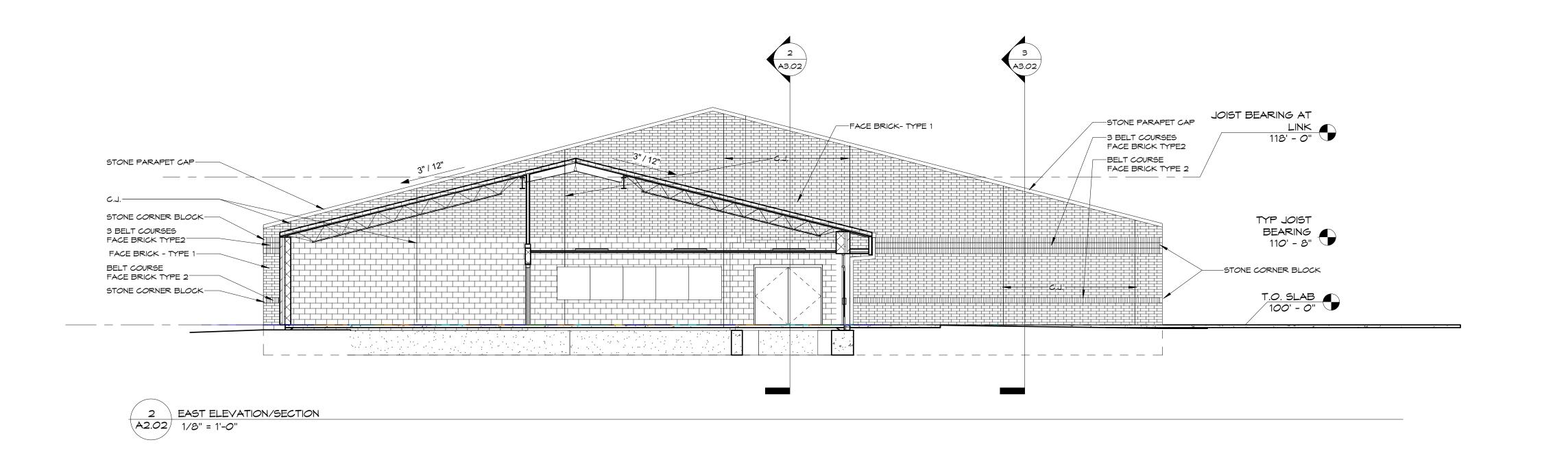
Sheet Title:

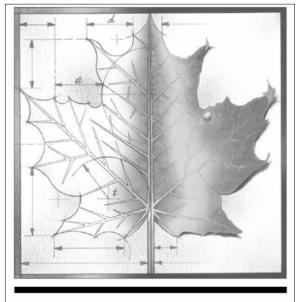
EXTERIOR ELEVATIONS

**A2.01** 

2 FUME HOOD METAL FASCIA STANDING SEAM METAL ROOF STONE PARAPET CAP —METAL FASCIA STONE CORNER BLOCKS \_\_STANDING SEAM METAL ROOF MECH LOUVER, SEE MECH. $^-$ STONE PARAPET CAP-JOIST BEARING 113' - 4" - m A5.01 STONE CORNER BLOCK TYP JOIST BEARING 110' - 8" FACE BRICK -TYPE 1 BELT COURSE - FACE BRICK TYPE 2 STONE CORNER BLOCK STONE SILL-T.O. SLAB 100' - 0" -DOMNSPOUT---DOWNSPOUT-NEW CONSTRUCTION EXISTING







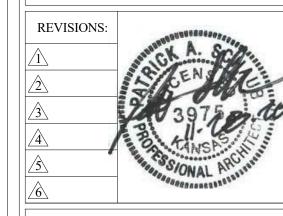
# BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

В

C



Project Number:

Date.

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

1701

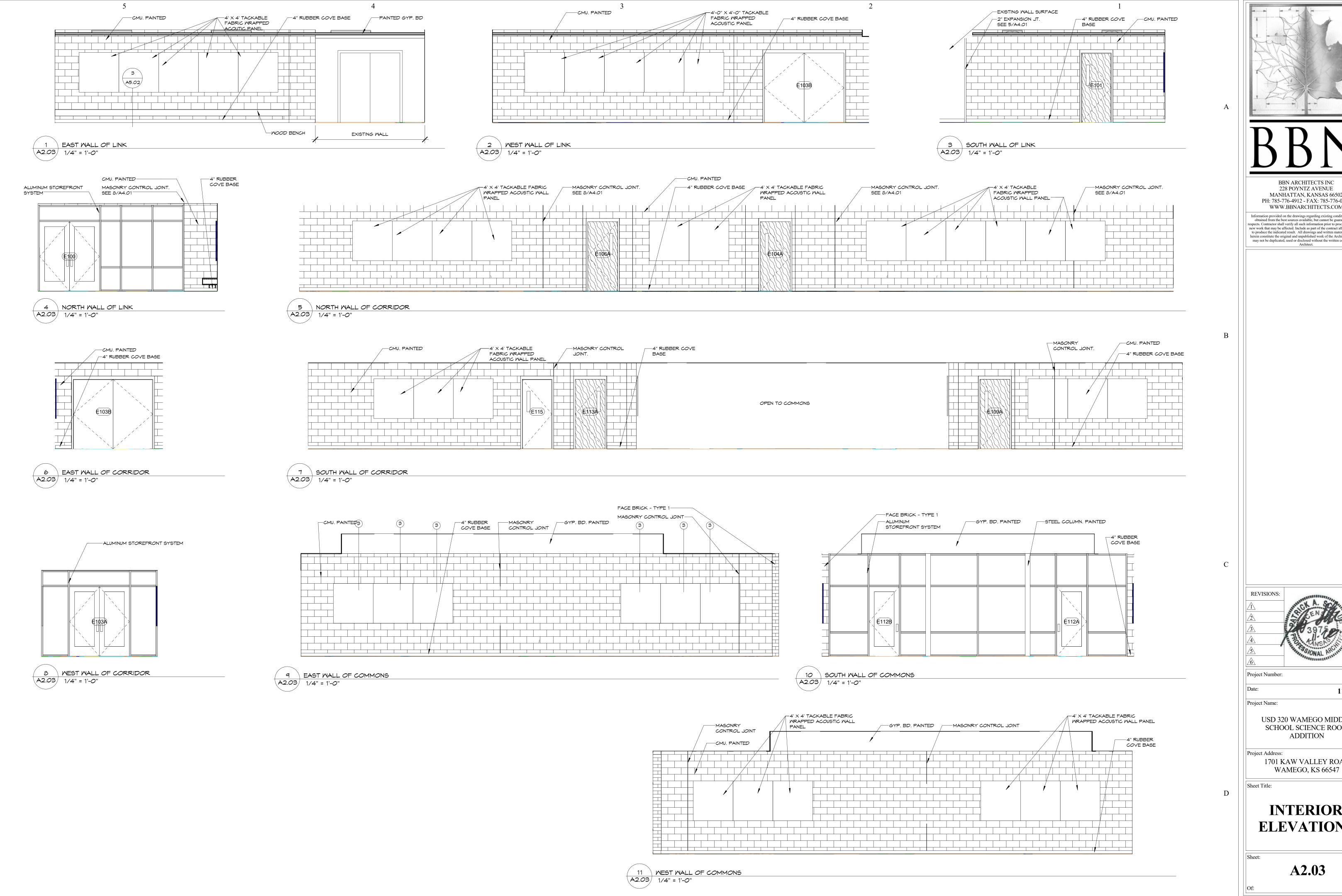
1701 KAW VALLEY ROAD WAMEGO, KS 66547

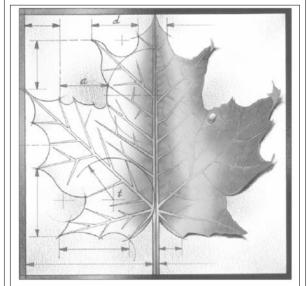
Sheet Title:

EXTERIOR ELEVATIONS

Sheet:

A2.02





BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required new Work that may be arrected. Include as part of the contract all Work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM

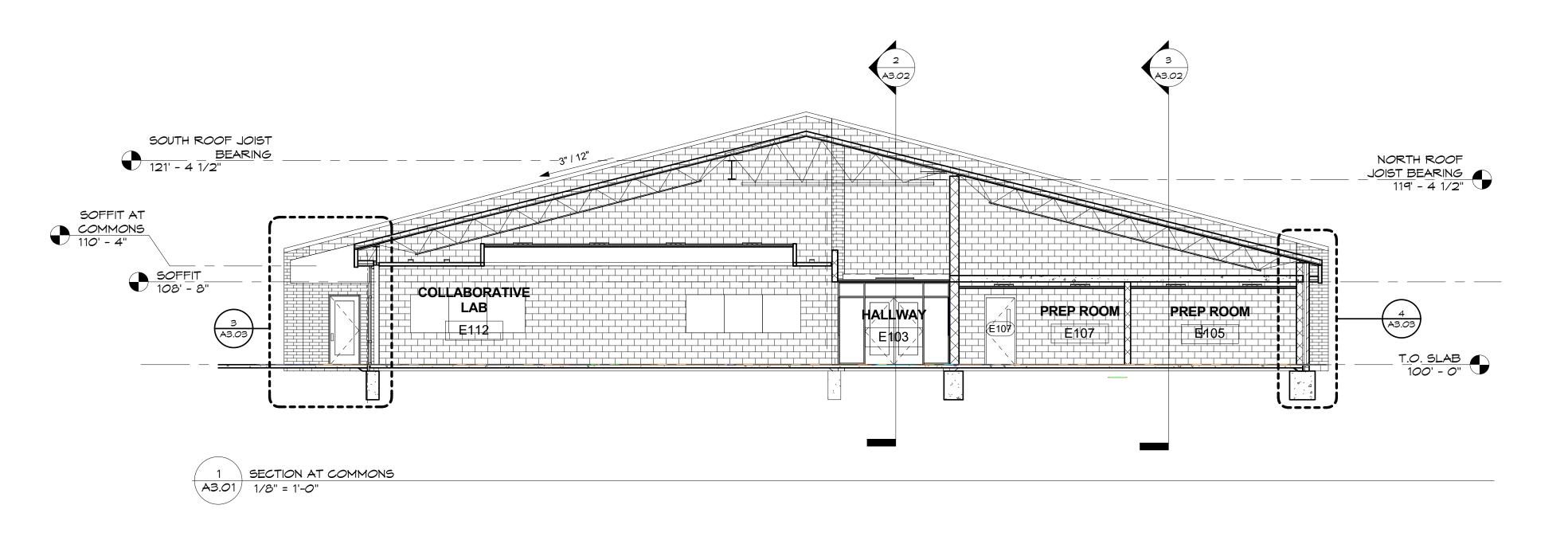
**ADDITION** 

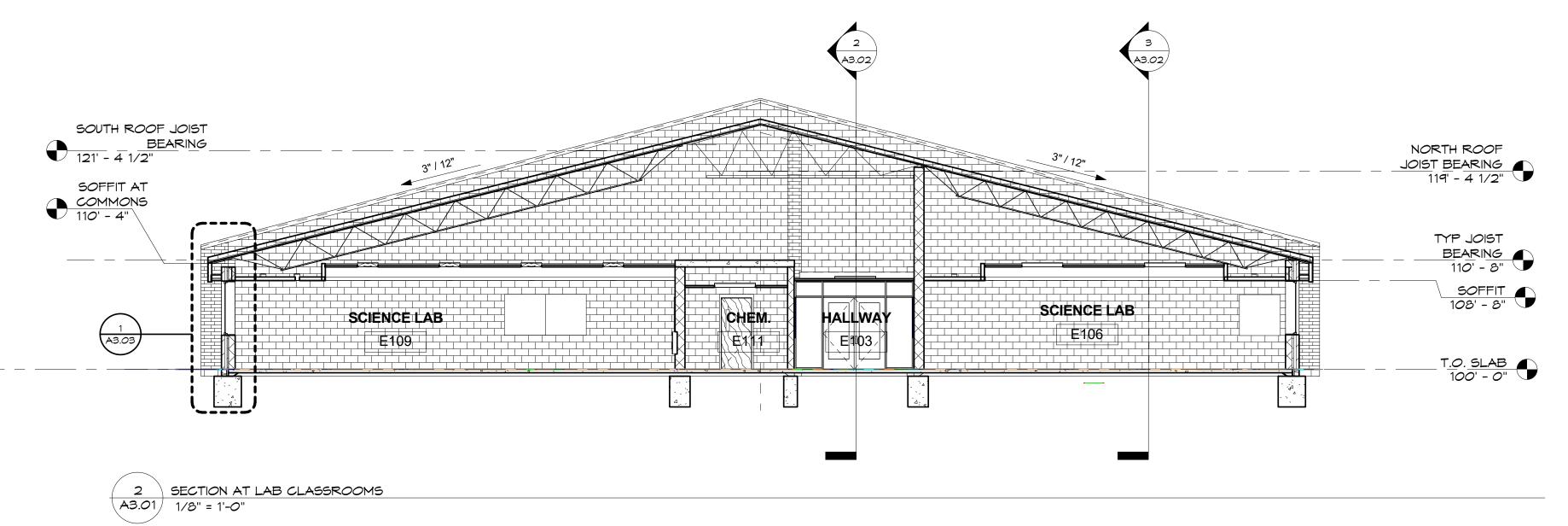
11/28/17

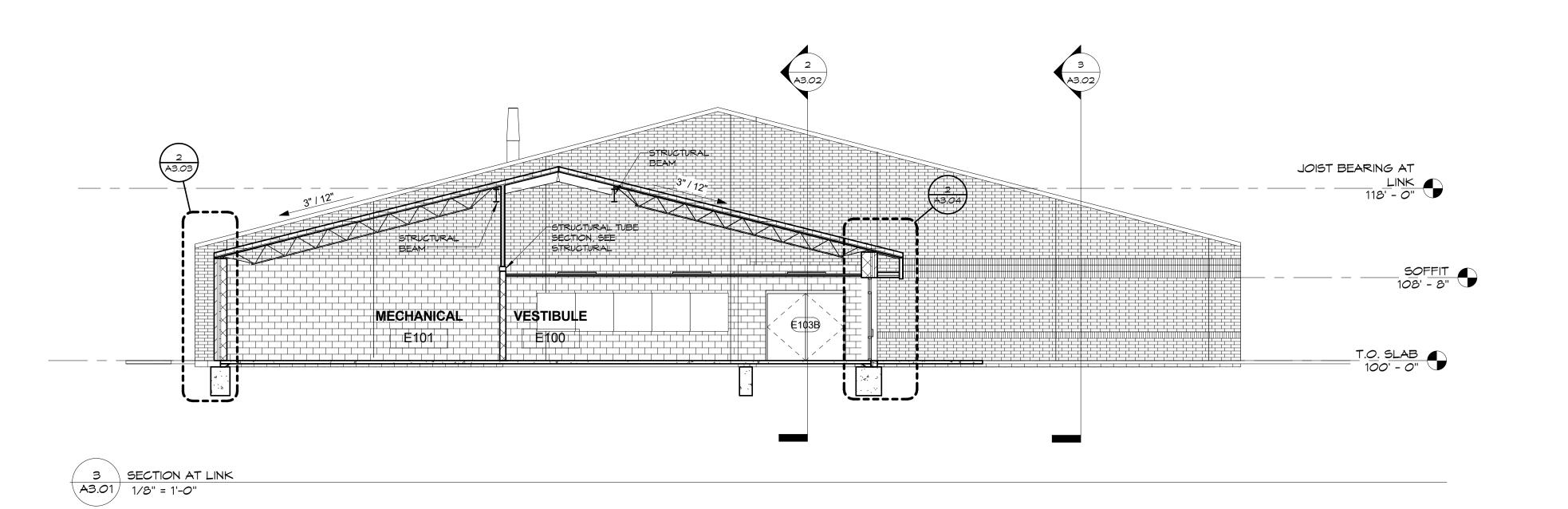
1701 KAW VALLEY ROAD

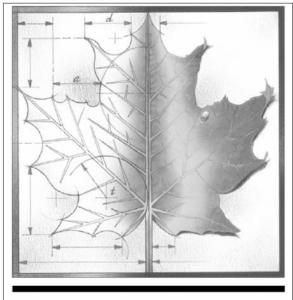
**INTERIOR ELEVATIONS** 

**A2.03** 









# BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

В

Project Number:

Project Name:

Troject Name.

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

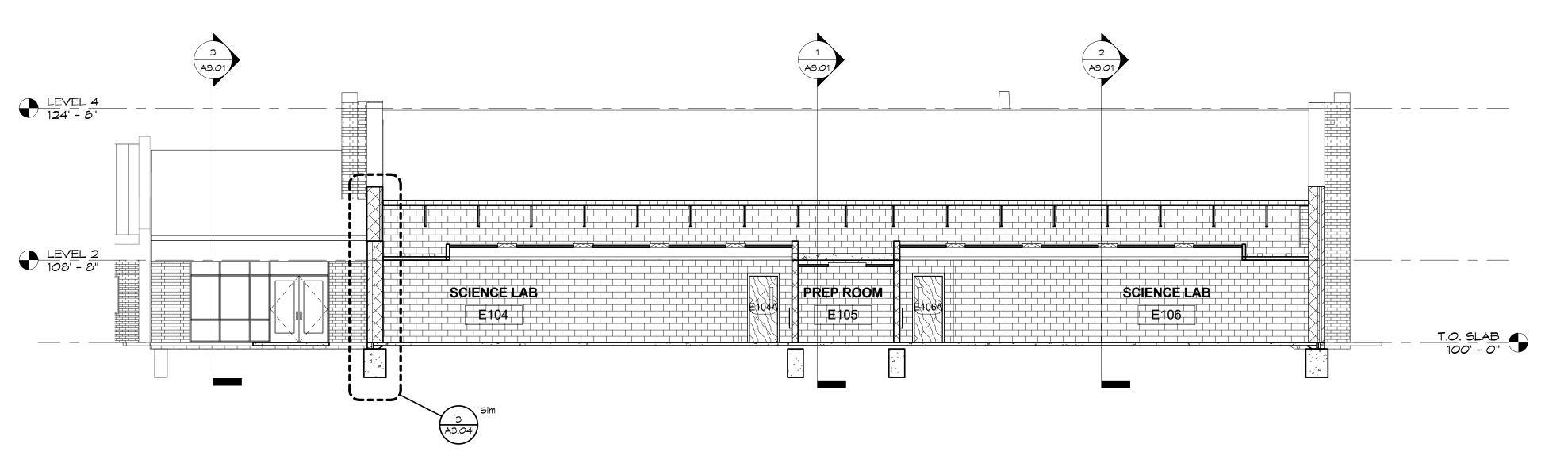
11/28/17

1701

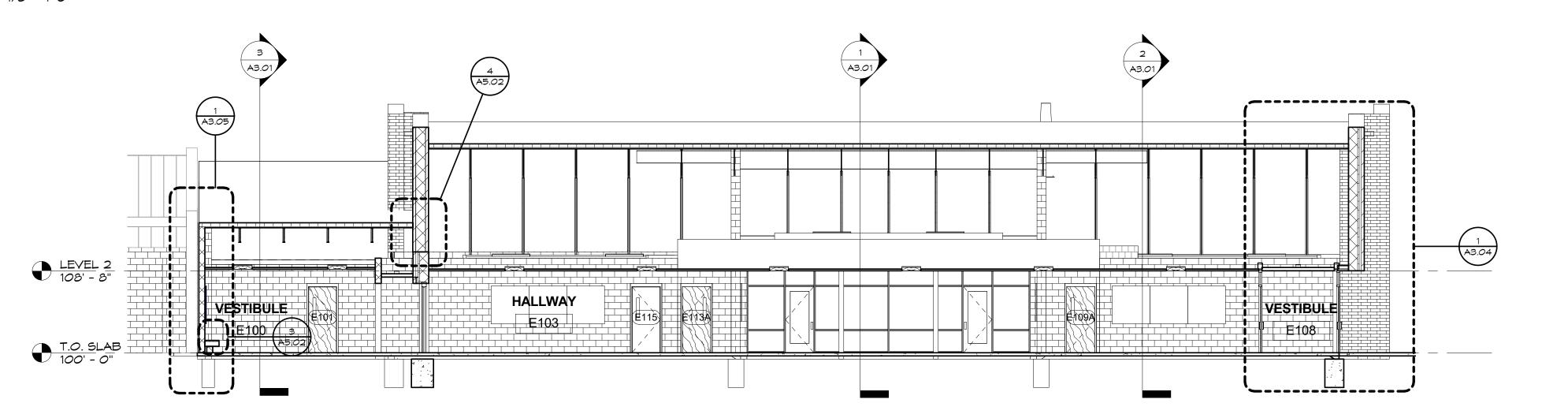
1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title:

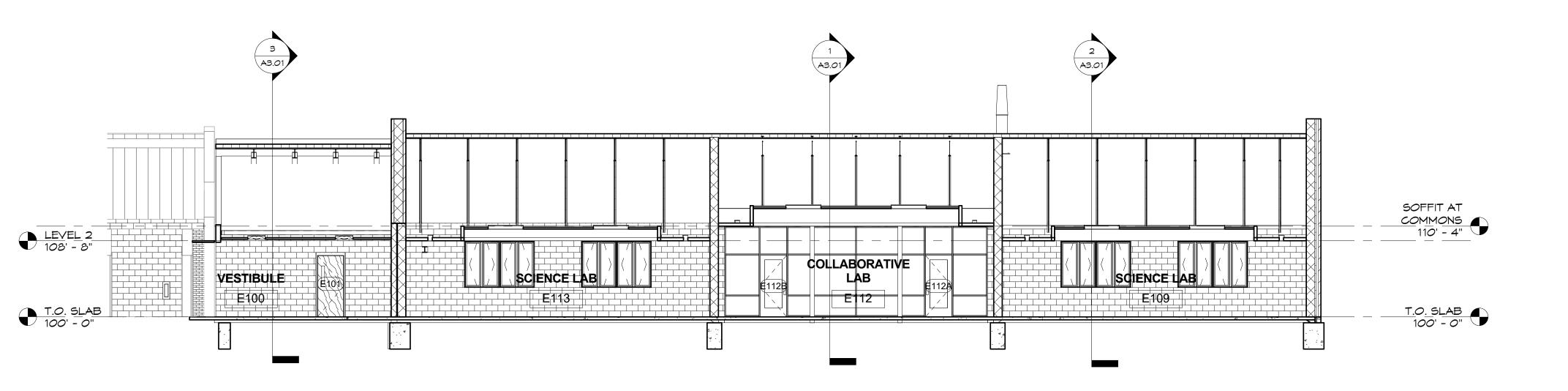
**BUILDING SECTIONS** 



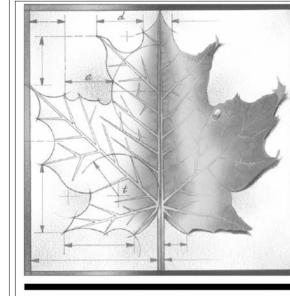
CROSS SECTION AT NORTH
CLASSROOMS
A3.02 1/8" = 1'-0"



2 SECTION AT CORRIDOR A3.02 1/8" = 1'-0"



1 CROSS SECTION AT COMMONS
A3.02 1/8" = 1'-0"



BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

Project Number:

Date:
Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

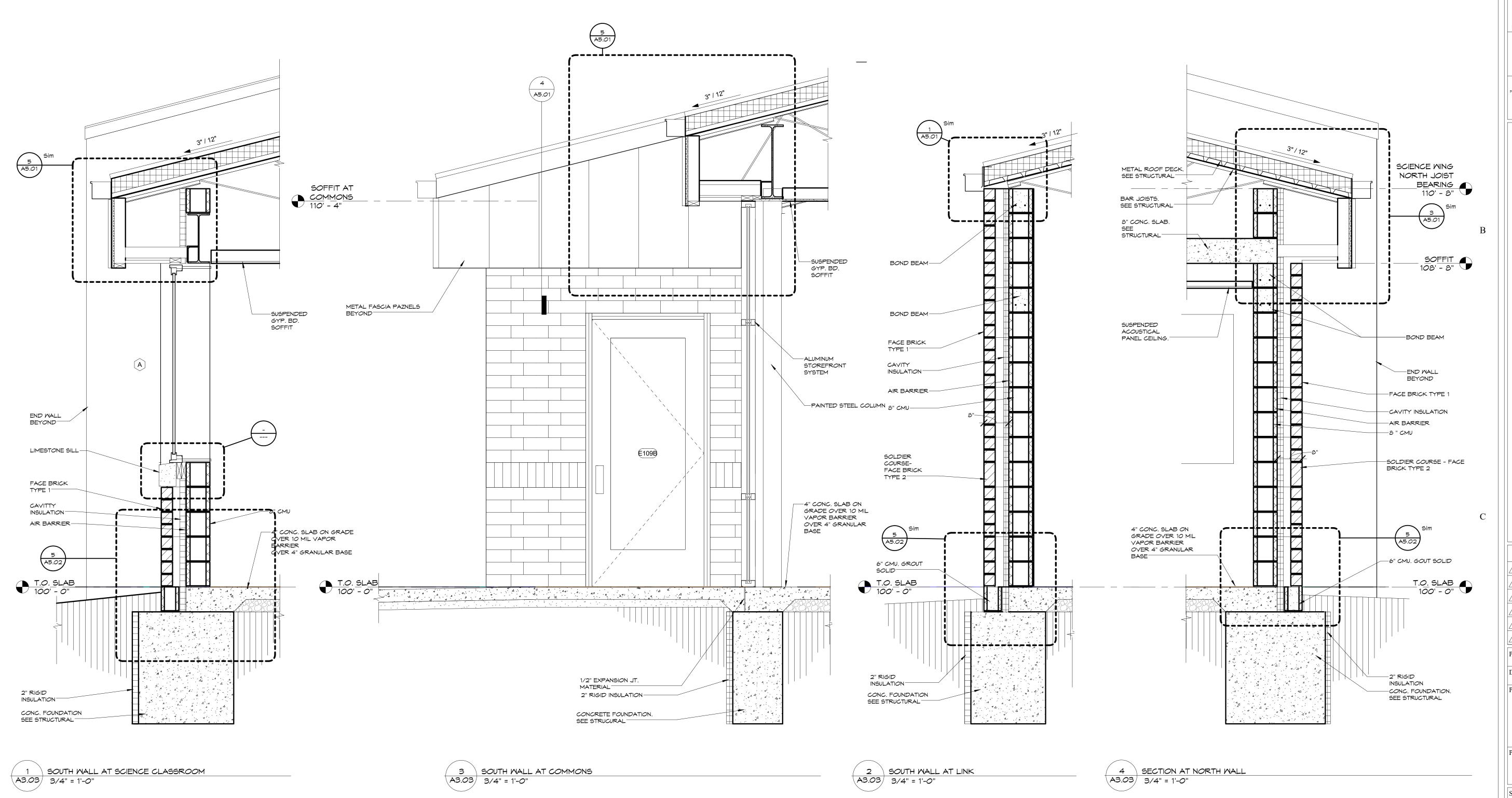
11/28/17

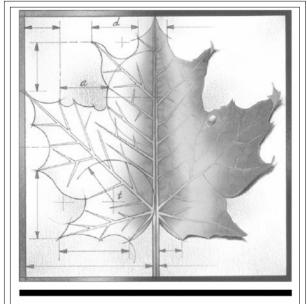
Project Address:
1701 KAW VALLEY ROAD
WAMEGO, KS 66547

Sheet Title:

BUILDING

SECTIONS

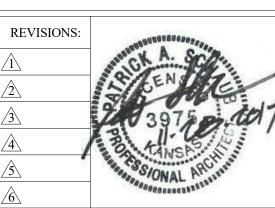




# BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



Project Number: 16036

Date: 11/28/17

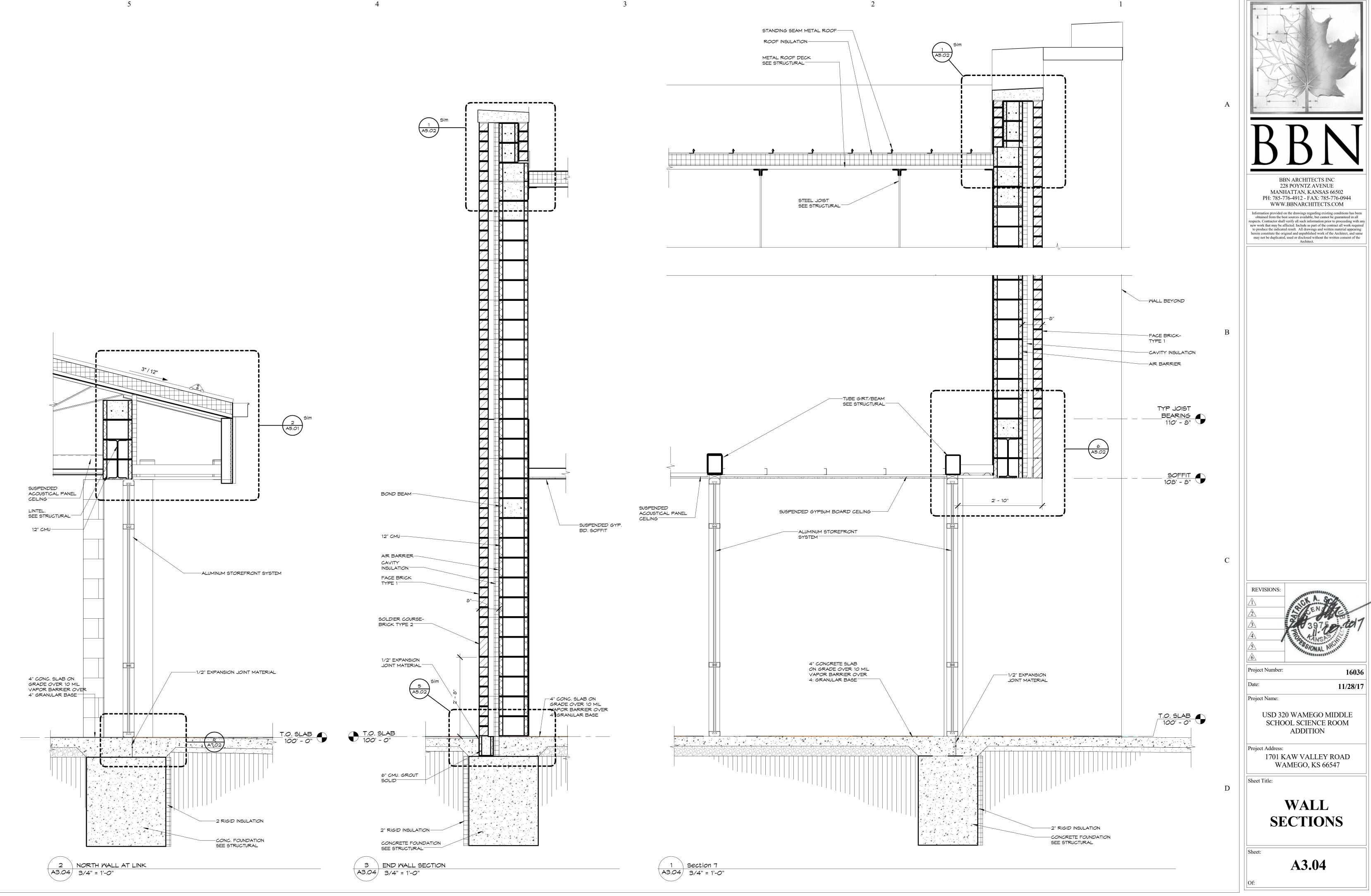
Project Name:

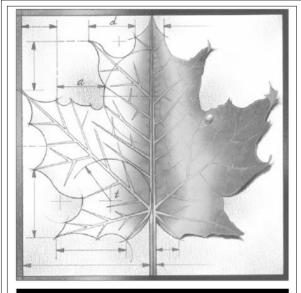
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

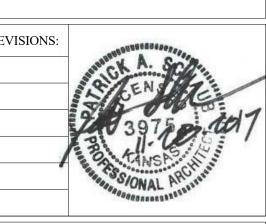
Project Address:
1701 KAW VALLEY ROAD
WAMEGO, KS 66547

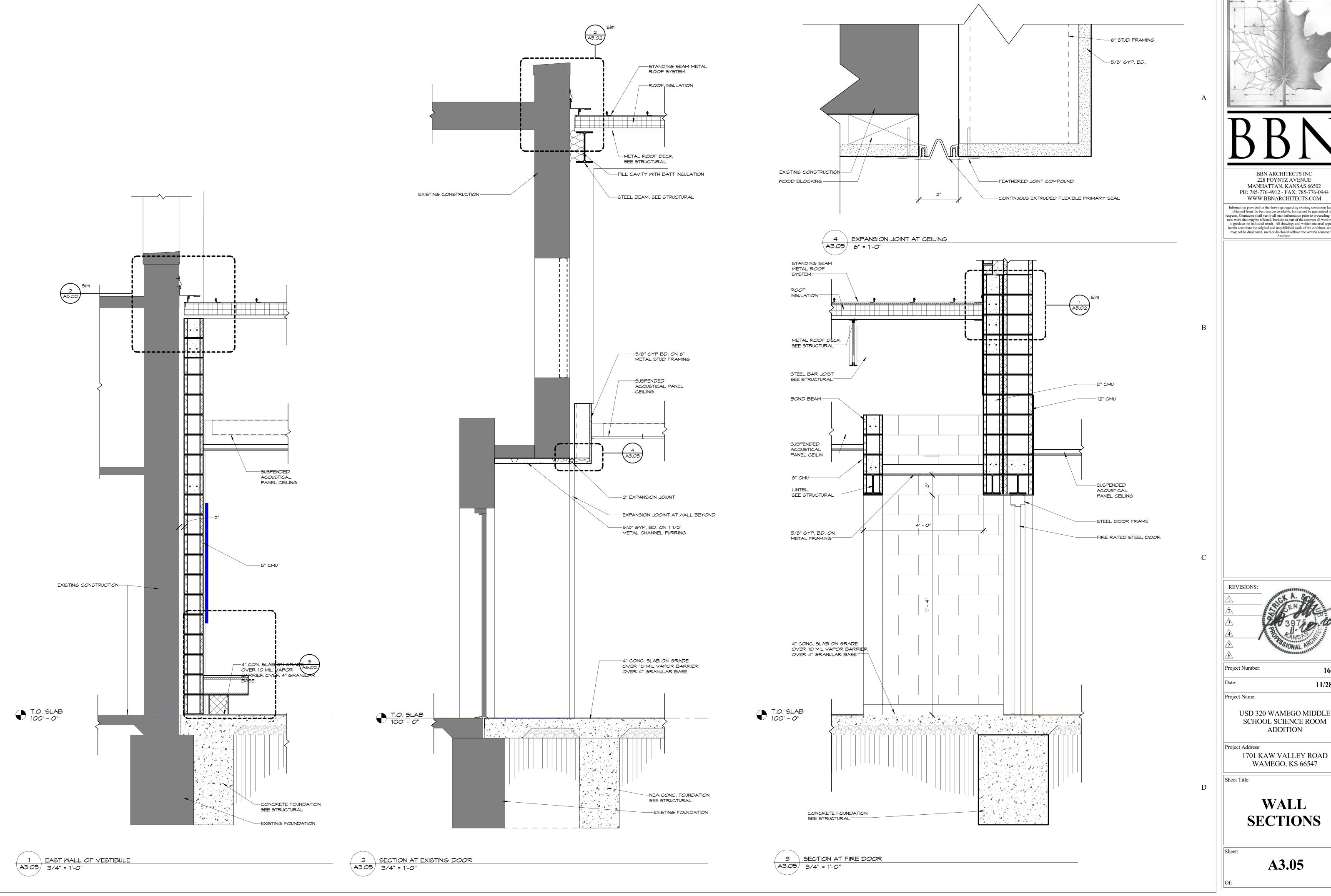
Sheet Title:

WALL SECTIONS









BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

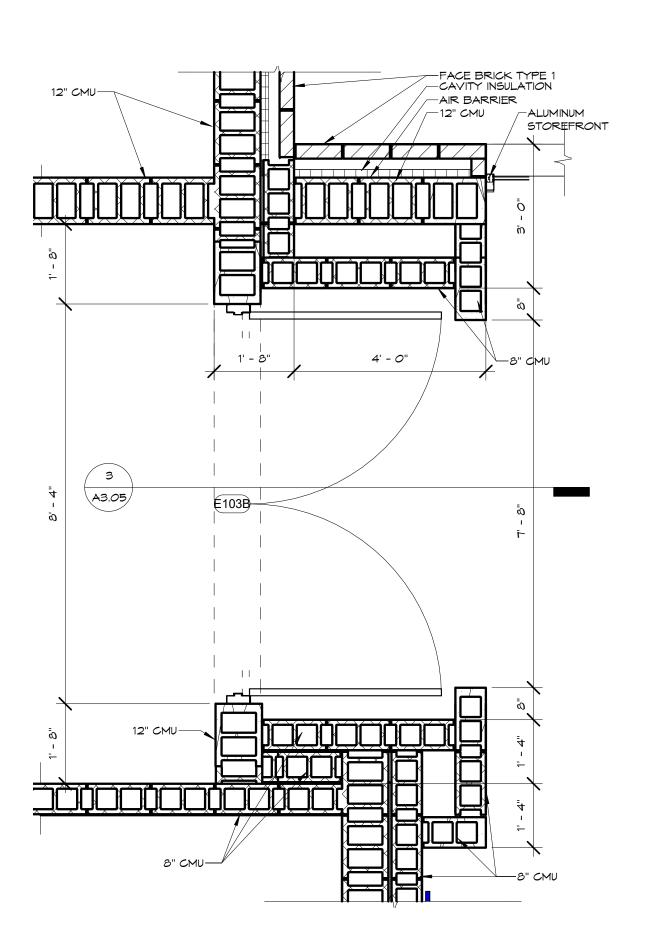
Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

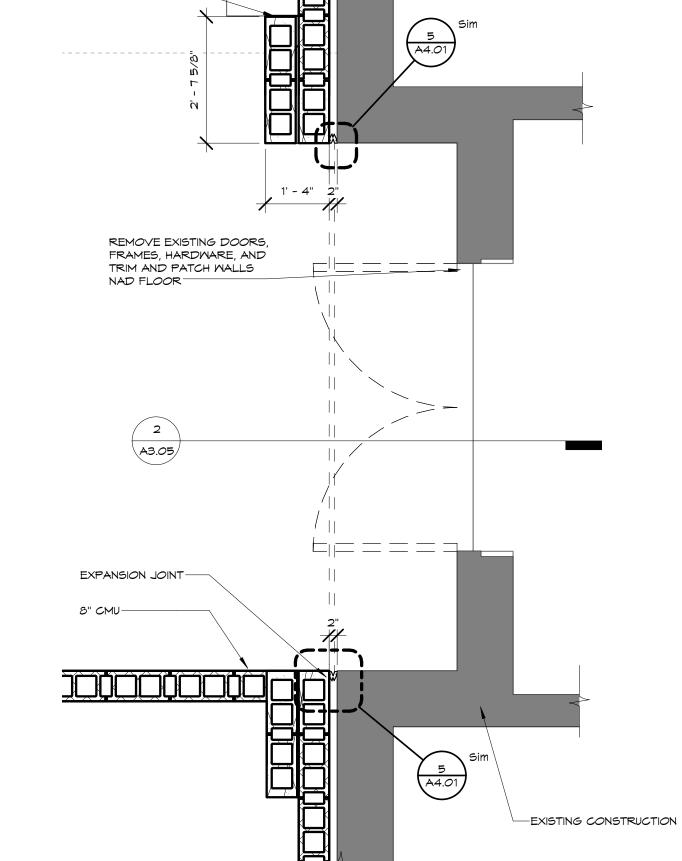
**ADDITION** 

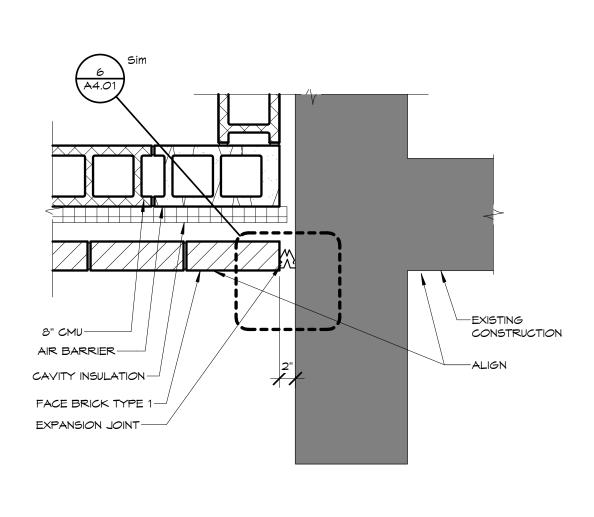
11/28/17

**WAMEGO, KS 66547** 

WALL **SECTIONS** 







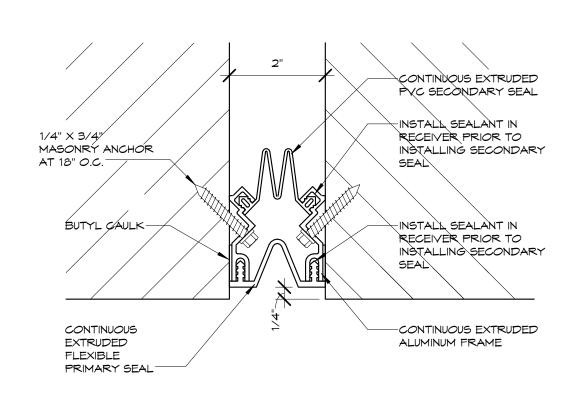
ENLARGED PLAN - EXTERIOR VERTICAL

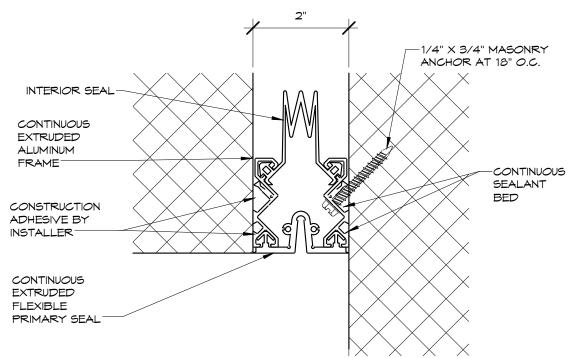
PRIMARY SEAL TO FINISH

1/8" SHORT OF BASE

CLOSURE TO ALLOM FOR

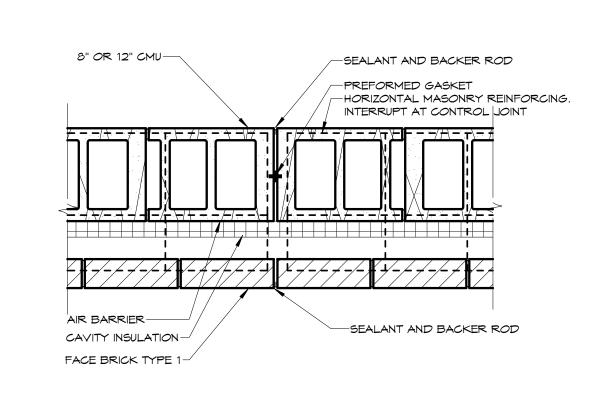






2 ENLARGED PLAN AT VESTIBULE E100 A4.01 1/2" = 1'-0"





EXPANSION JOINT IN MASONRY 5 MALL/MALL A4.01 6" = 1'-0"





3 EXPANSIO A4.01 1" = 1'-0"

SECONDARY SEAL TO FINISH WITHIN BASE CLOSURE

FIELD FORMED FLEXIBLE BASE

CLOSURE AT JOINT

EXPANSION JOINT



228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

BBN ARCHITECTS INC

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

**REVISIONS:** 

Project Number: 11/28/17

Project Name:

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

Project Address:

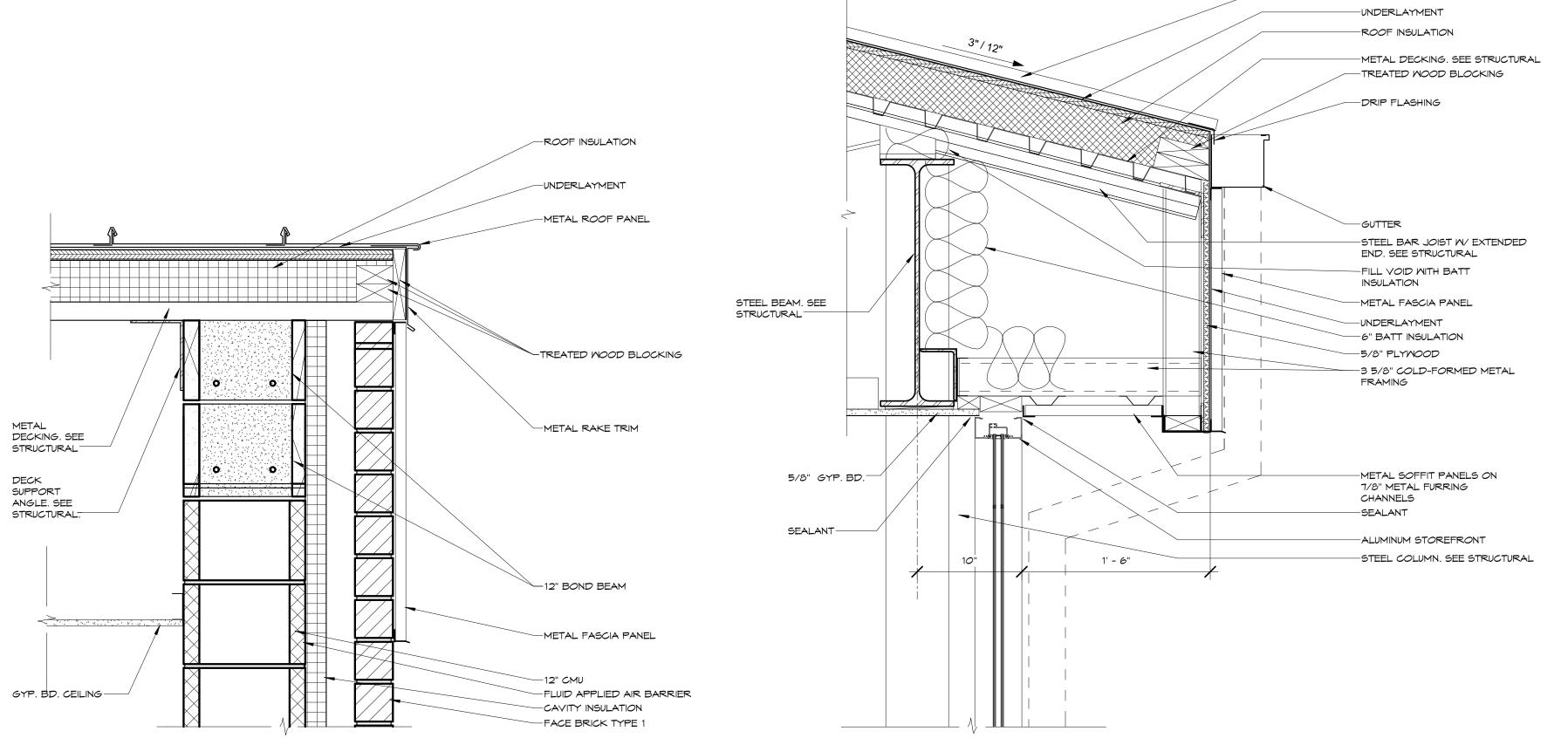
1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title:

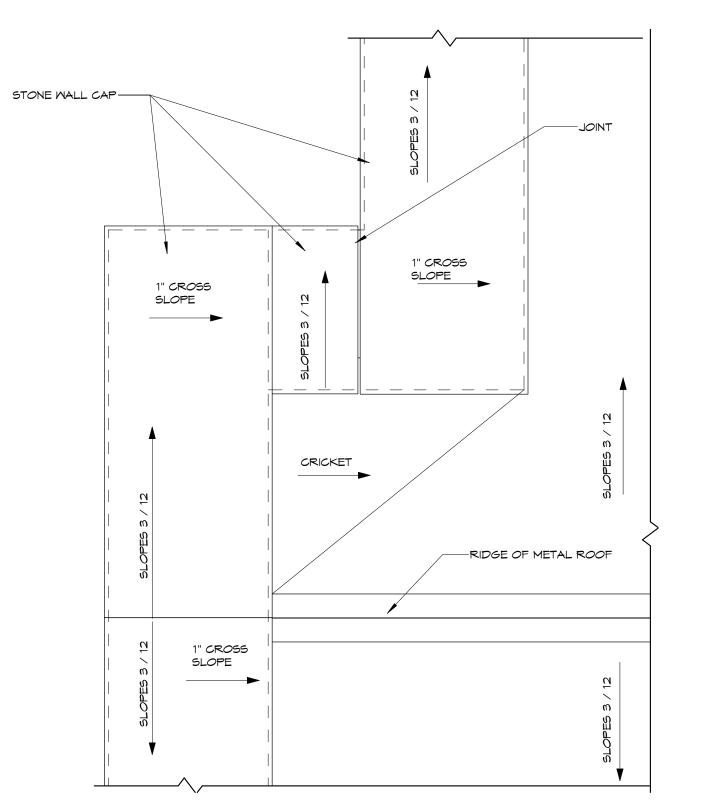
**ENLARGED PLANS** 

**A4.01** 

METAL ROOF PANELS-UNDERLAYMENT--METAL ROOF PANELS -UNDERLAYMENT -METAL ROOF PANELS ROOF INSULATION--SNOW GUARD. SEE ROOF PLAN -UNDERLAYMENT METAL DECKING. SEE STRUCTURAL-TREATED WOOD BLOCKING — -ROOF INSULATION -ROOF INSULATION —METAL DECKING. SEE STRUCTURAL  $\stackrel{}{
m TREATED}$  WOOD BLOCKING  $\stackrel{}{
m A}$ DRIP FLASHING --METAL DECKING. SEE STRUCTURAL TREATED WOOD BLOCKING -DRIP FLASHING -DRIP FLASHING -STEEL BAR JOIST W/ EXTENDED -STEEL BAR JOIST W/ EXTENDED GUTTER-END. SEE STRUCTURAL END. SEE STRUCTURAL -FILL YOID WITH BATT -FILL YOID WITH BATT INSULATION FILL YOID W/ BATT INSULATION INSULATION — -METAL FASCIA PANEL -METAL FASCIA PANEL -UNDERLAYMENT STEEL BAR JOIST W/ EXTENDED END -CAVITY INSULATION -5/8" PLYWOOD -12" CMU SEE STRUCT. -3 5/8" COLD-FORMED METAL -6" BATT INSULATION -BOND BEAM FRAMING -BOND BEAM FACE BRICK SUSPENDED ACOUSTICAL PANEL TYPE 1 CEILING -CAVITY INSULATION — FLUID APPLIED AIR BARRIER-—METAL SOFFIT PANELS ON 7/8" METAL FURRING CHANNELS —FACE BRICK TYPE 1 -METAL SOFFIT PANELS ON LINTEL. SEE STRUCTURAL 7/8" METAL FURRING CHANNELS -FLUID APPLIED AIR BARRIER -SEALANT -ALUMINUM STOREFRONT -8" CMU 7 1/2" 2' - 8" 3 ROOF EDGE AT METAL FASCIA SOUTH EAVE AT CONNECTING LINK 2 FASCIA AT ENTRY ROOF A5.01 1 1/2" = 1'-0" A5.01 1 1/2" = 1'-0" A5.01 1 1/2" = 1'-0" METAL ROOF PANELS -UNDERLAYMENT



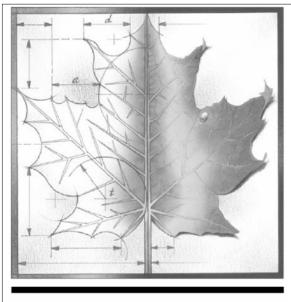




ROOF PLAN DETAIL AT OFFSET

PARAPETS

A5.01 1" = 1'-0"



BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

Date: 11/28/17
Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

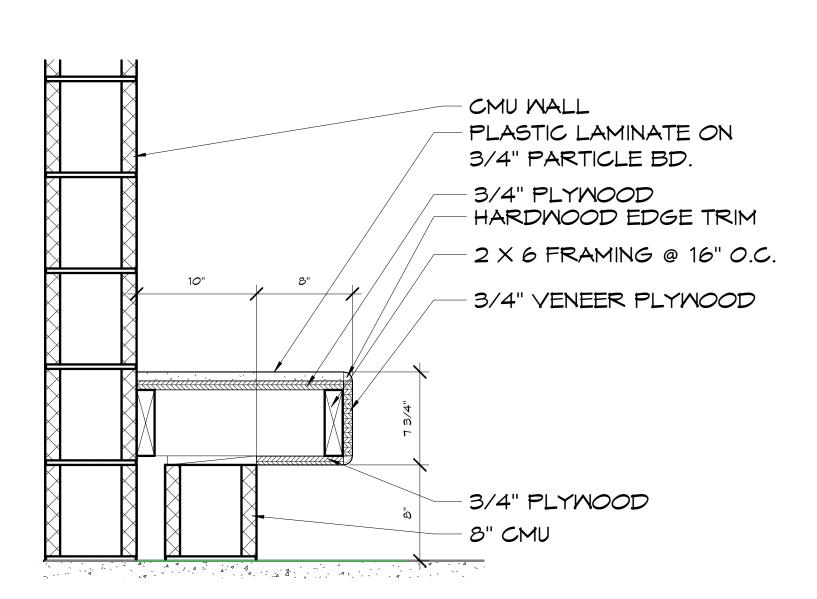
Project Address: 1701 KAW VALLEY ROAD WAMEGO, KS 66547

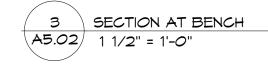
Sheet Title:

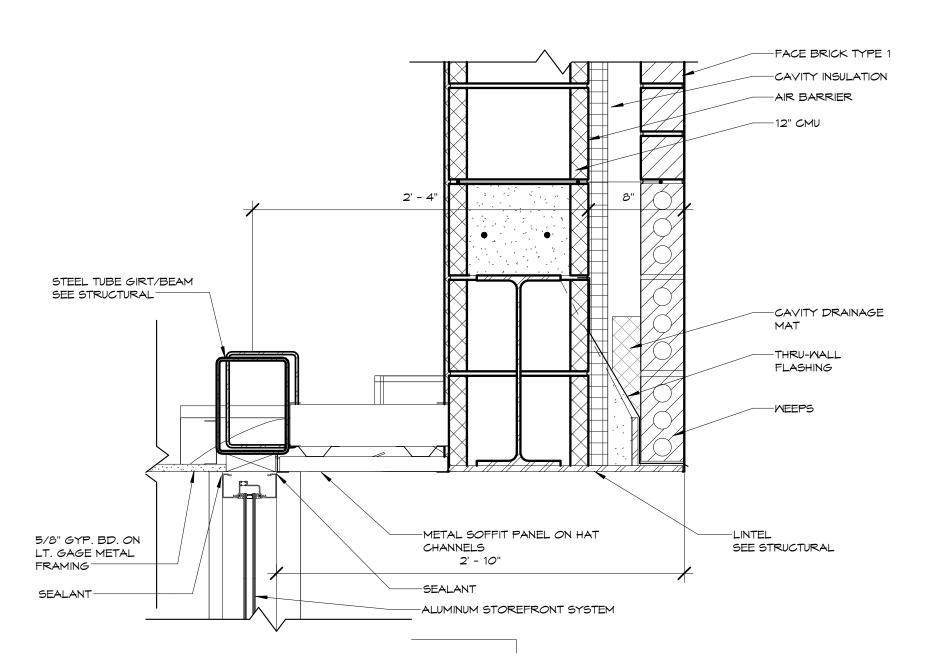
DETAILS

**A5.01** 

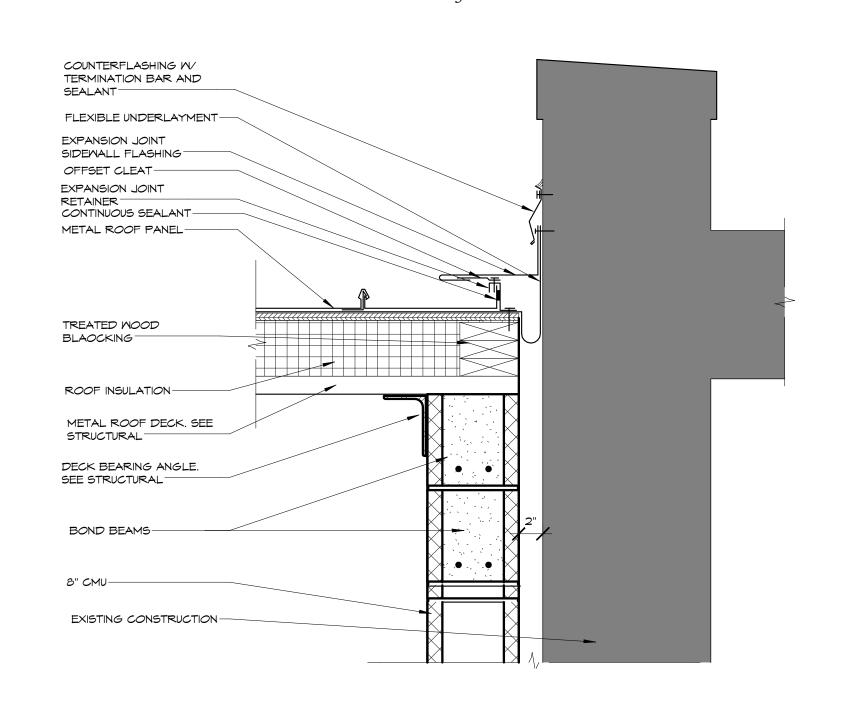
4 FASCIA AT SIDEWALL A5.01) 1 1/2" = 1'-0"







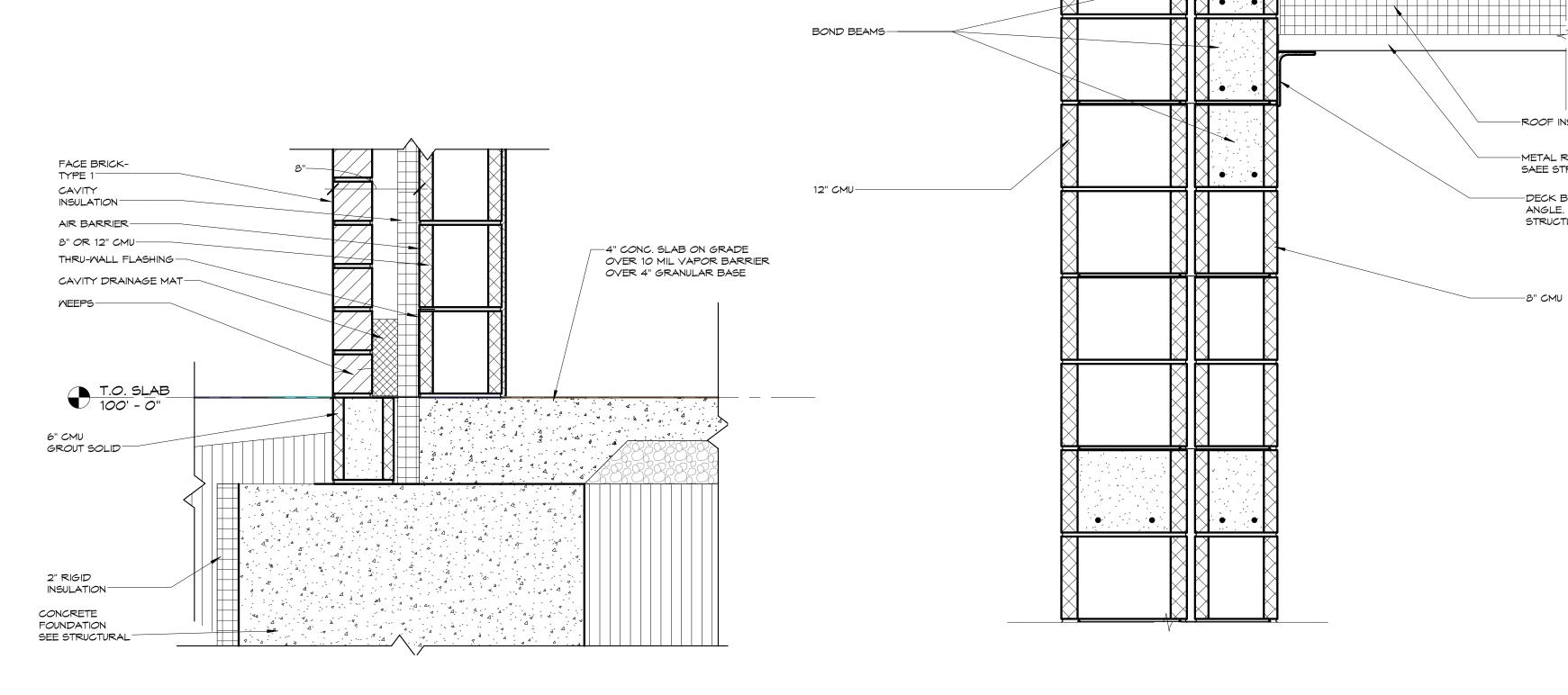






BASE FLASHING DETAIL

A5.02 1 1/2" = 1'-0"



STONE CAP-

12" CMU---

SEALANT-

SEALANT-

GROUT SOLID-

S.S DOWEL. SEAL AT PENETRATION OF FLASHING

THRU-WALL FLASHING —

REGLET AND SEALANT-

STEPPED COUNTERFLASHING.

4" MIN. ENDLAPS W/ CONT.

METAL ROOF PANEL-

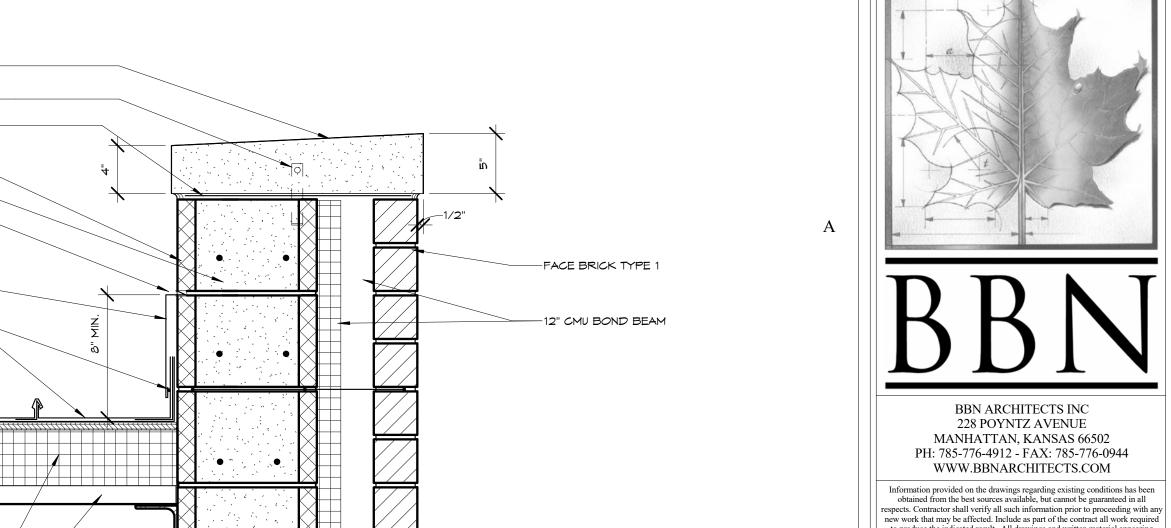
ROOF INSULATION-

METAL ROOF DECK. SEE STRUCTURAL

METAL ROOF AT NEW WALL

4 MEMBRANE ROOF AT NEW WALL A5.02 1 1/2" = 1'-0"

A5.02 1 1/2" = 1'-0"



-FLUID APPLIED AIR

-CAVITY INSULATION -FACE BRICK TYPE 1 -THRU-MALL FLASHING

-8" BOND BEAM

-MORTAR NET AND WEEPS

—STEPPED COUNTERFLASHING. 4" MIN. ENDLAPS W/ CONTINUOUS SEALANT

SEALANT

METAL ROOF PANEL

UNDERLAYMENT

-ROOF INSULATION

—METAL R*OO*F DECK. SAEE STRUCTURAL.

— DECK BEARING ANGLE. SEE STRUCTURAL

-8" CMU

BARRIER

to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

**REVISIONS:** 

Project Number: 11/28/17

Project Name: USD 320 WAMEGO MIDDLE

SCHOOL SCIENCE ROOM **ADDITION** 

Project Address: 1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title:

**DETAILS** 

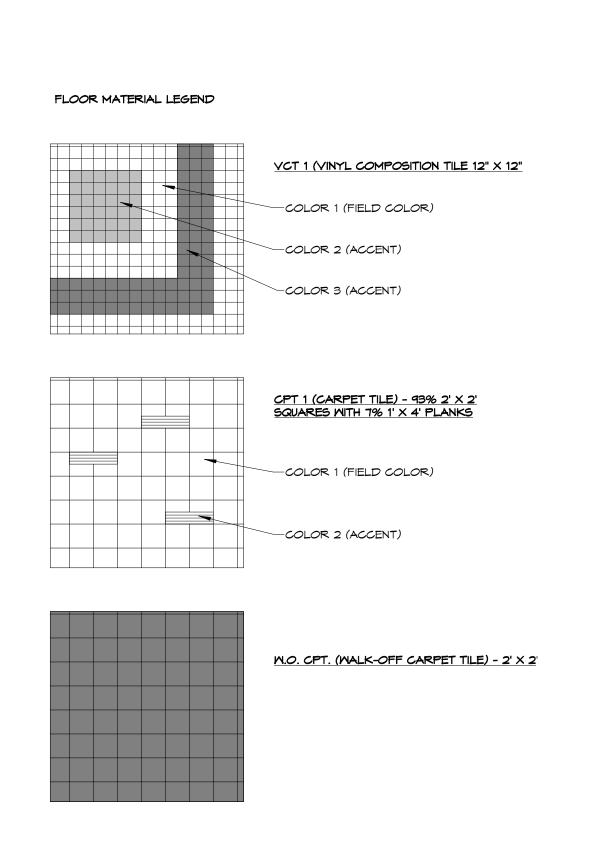
A5.02

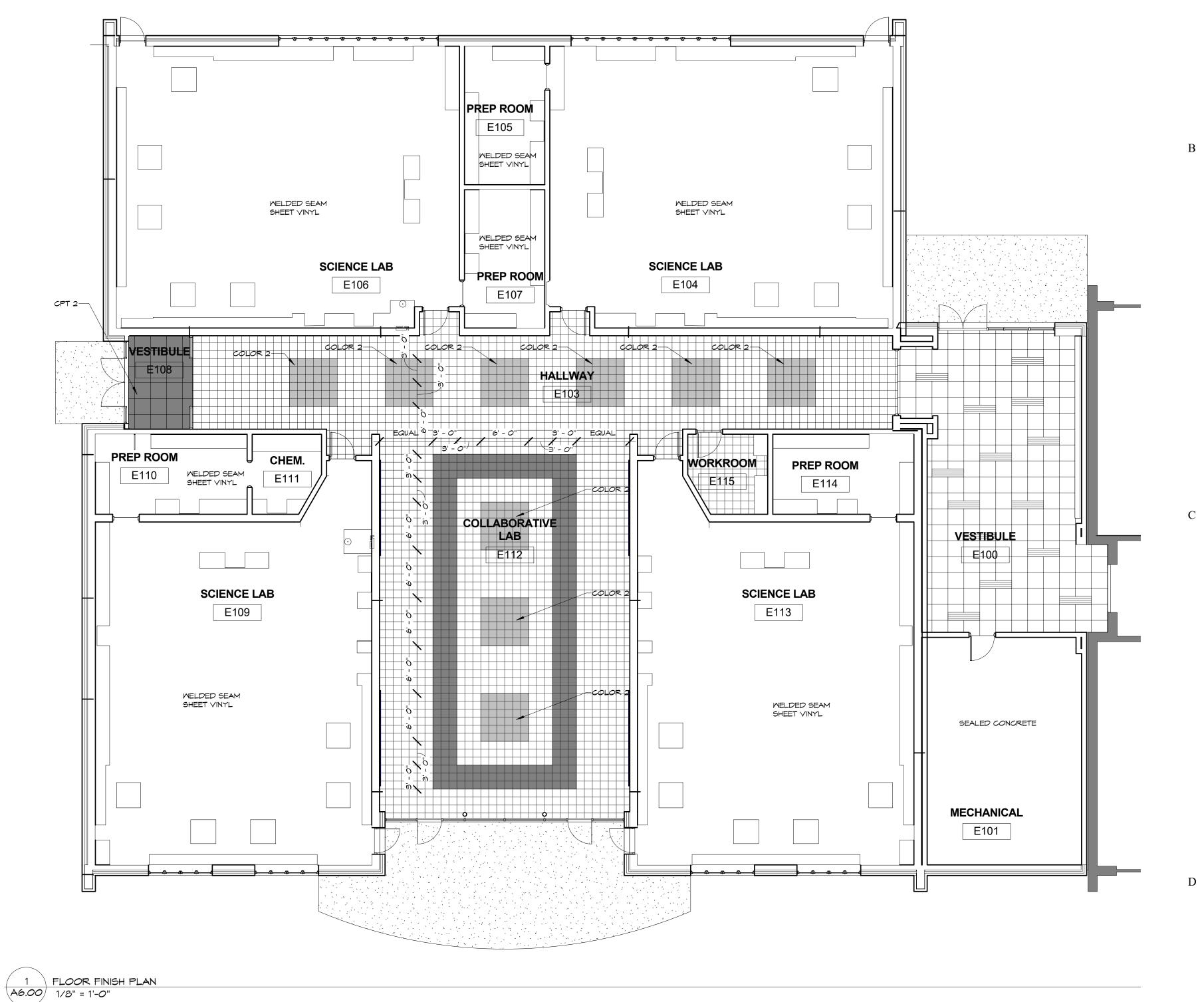
						ROON	1 FINISH SCI	HEDULE1						
		Floor	Base	No	rth	E	ast	50	outh	N	est	Ceilii	ng	
Number	Name	Finish	Finish	Material	Finish	Material	Finish	Material	Finish	Material	Finish	Finish	Height	Comments
<b>-</b> 100		<b>697</b> 1		<b></b>					<b></b>	<b></b>		1.50	- II	
E100	VESTIBULE	CPT 1	RB	CMU	PT	CMU/GYP	PT	CMU	PT	CMU	PT	APC	9' - 4"	
E101	MECHANICAL	SC	-	CMU	NF	CMU	NF	CMU	NF	CMU	NF	EXP		
E103	HALLMAY	VCT1	RB	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC	8' - 8"	
E104	SCIENCE LAB	SV	SV	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC/GYP		
E105	PREP ROOM	SV	5V	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC	8' - 0"	
E106	SCIENCE LAB	SY	5V	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC/GYP		
E107	PREP ROOM	SY	5V	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC/GYP	ප' <i>- 0</i> "	
E108	VESTIBULE	M.O.CPT	RB	CMU	PT	CMU	PT	CMU	PT	CMU	PT	GYP	ව' - ව"	
E109	SCIENCE LAB	SY	5V	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC/GYP		
E110	PREP ROOM	SV	SV	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC	ප' - ප"	
E111	CHEM.	SV	5V	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC	ප' - ප"	
E112	COLLABORATIVE LAB	VCT1	RB	-	-	CMU	PT	ASF	NF	CMU	PT	APC/GYP		
E113	SCIENCE LAB	SV	SV	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC/GYP		
E114	PREP ROOM	SV	SV	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC	ප' - ප"	
E115	MORKROOM	VCT1	RB	CMU	PT	CMU	PT	CMU	PT	CMU	PT	APC	ව' - ව"	

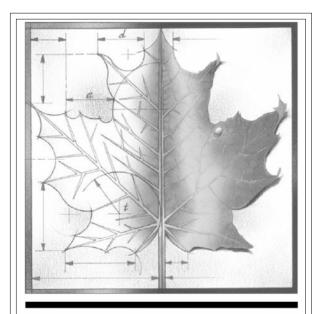
#### ROOM FINISH LEGEND

VCT1 -VINYL COMPOSITION TILE

FLOOF	R FINISH	BASE		MALL	MATERIAL	MALL	FINISH	CEILIN	<u> </u>
CPT1	-TILE CARPET	RB	- 4" RUBBER COVE BASE	EX	-EXISTING	EX	-EXISTING	GYP	-PAINTED GYPSUM BOARD
M.O. C	PT- WALK OFF CARPET			CMU	-CONCRETE MASONRY	PT	-PAINT	APC	-SUSPENDED ACOUSTICAL
	TILES	SV	- INTEGRAL SHEET		UNITS				PANEL CEILING
			VINYL			NF	-NO FINISH		
5∨	-WELDED SEAM SHEET VINYL			GYP	-GYPSUM BOARD			EXP	-EXPOSED STRUCTURE
				ASF	-ALUMINUM STOREFRONT				
SC	-SEALED CONCRETE			,	SYSTEM				



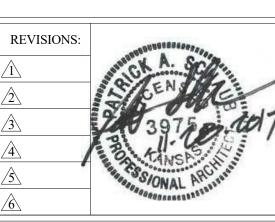




# BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



Project Number:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

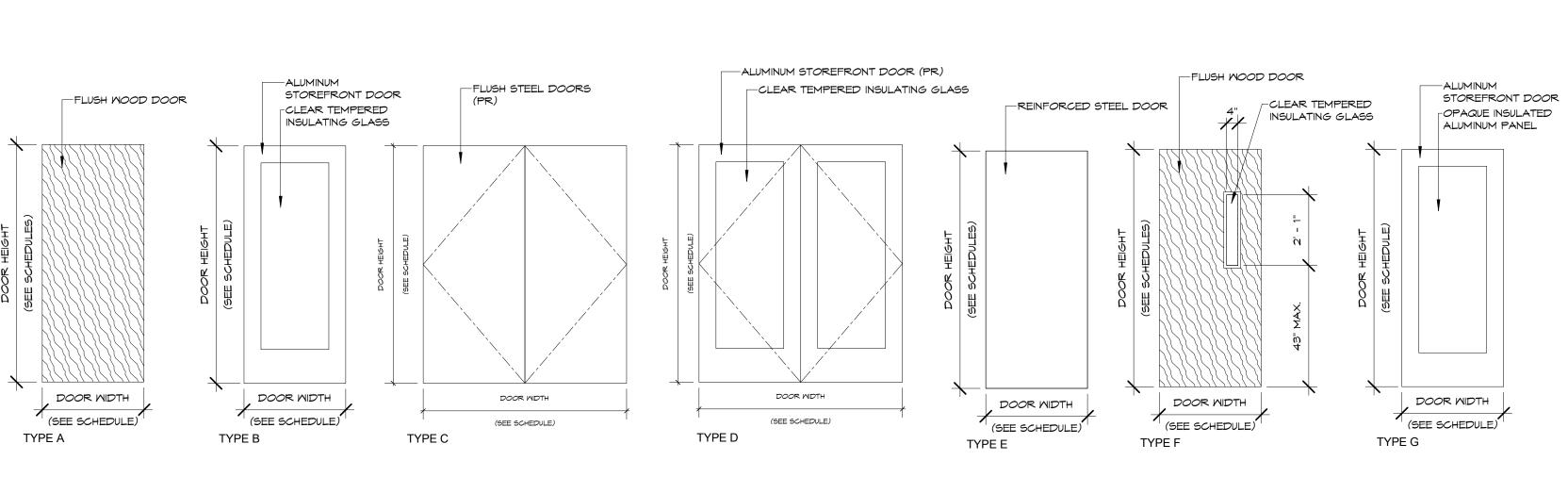
ect Address:

1701 KAW VALLEY ROAD WAMEGO, KS 66547

eet Title:

ROOM FINISH SCHEDULE

A6.00



					DOOR 8	FRAME SCHE	DULE1			
	DOO	DOOR SIZE		TYPE			DETAILS			
DOOR	WIDTH	HEIGHT	DOOR	FRAME	FIRE RATING	HEAD	JAMB	SILL	HARDWARE SET	COMMENTS
E100	6' - 0"	7' - 0"	D	6		2/A5.01	5/A7.01	6/A7.02	1.0	
E101	3' - 0"	7' - 0"	Α	1	3/4-HR	5/A7.02	8/A7.02		9.0	
E103A	6' - 0"	7' - 0"	D	5		6/A5.02 SIM	1/A7.02		2.0	
E103B	8' - 0"	7' - 0"	С	1	2-HR	4/A7.02 SIM	7/A7.02		3.0	MAGNETIC HOLD-OPEN
E104A	3' - 0"	7' - 0"	F	1		5/A7.02	8/A7.02			
E104B	3' - 0"	7' - 0"	G	2		2/A7.01	5/A7.01	6/A7.02	4.0	
E105	3' - 0"	7' - 0"	E	1		4/A7.02	7/A7.02		8.0	
E106A	3' - 0"	7' - 0"	F	1		5/A7.02	8/A7.02			
E106B	3' - 0"	7' - 0"	G	2		2/A7.01	5/A7.01	6/A7.02	4.0	
E107	3' - 0"	7' - 0"	E	1		4/A7.02	7/A7.02		8.0	
E108	6' - 0"	7' - 0"	D	4		6/A5.02	1/A7.02		1.0	
E109A	3' - 0"	7' - 0"	F	1		5/A7.02	8/A7.02			
E109B	3' - 0"	7' - 2"	G	2		2/A7.01	5/A7.01		4.0	
E110	3' - 0"	7' - 0"	E	1		4/A7.02	7/A7.02		8.0	
E111	3' - 0"	7' - 0"	Α	1	3/4-HR	4/A7.02	8/A7.02		7.0	
E112A	3' - 0"	7' - 0"	В	7		2/A5.01	1/A7.02 SIM	6/A7.02	4.0	
E112B	3' - 0"	7' - 0"	В	7		2/A5.01	1/A7.02 SIM	6/A7.02	4.0	
E113A	3' - 0"	7' - 0"	F	1		5/A7.02	8/A7.02			
E113B	3' - 0"	7' - 2"	G	2		2/A7.01	5/A7.01	6/A7.02	4.0	
E114	3' - 0"	7' - 0"	E	1		4/A7.02	7/A7.02		8.0	
E115	3' - 0"	7' - 0"	E	1	3/4-HR	4/A7.02	7/A7.02		6.0	

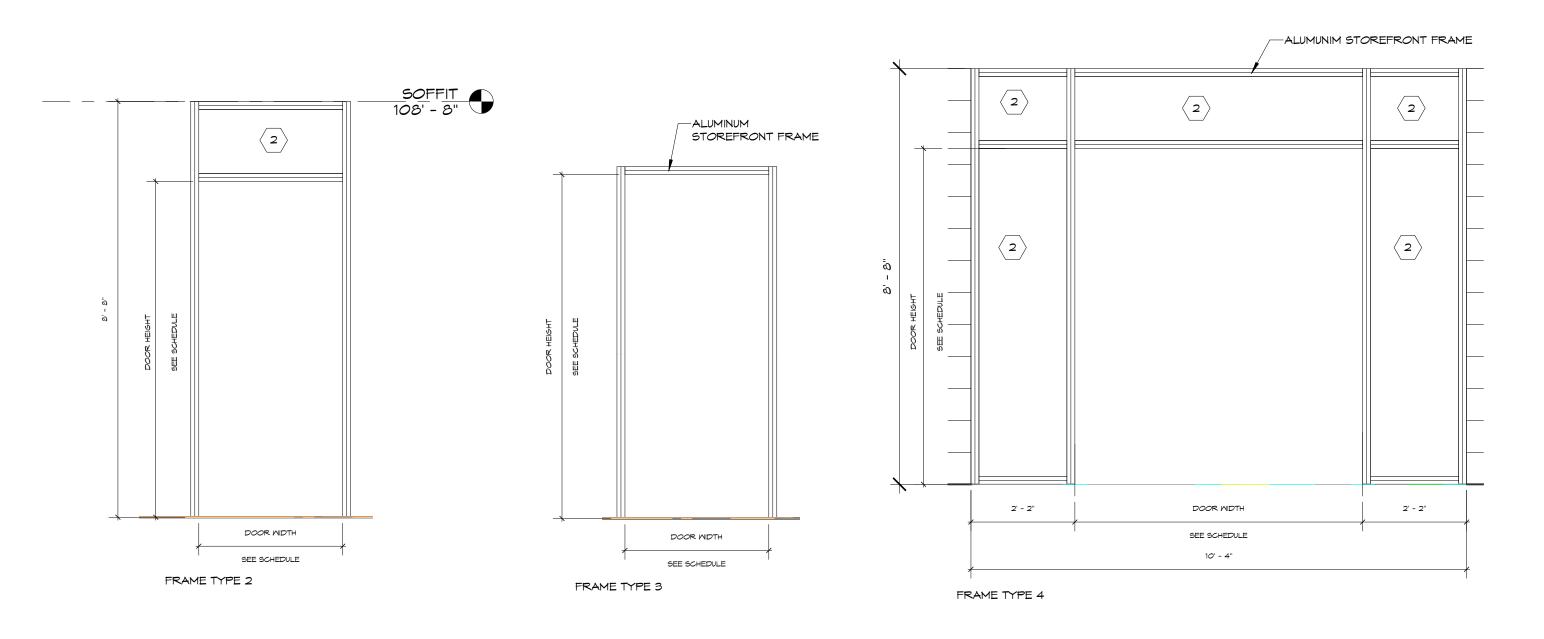
# DOOR TYPES

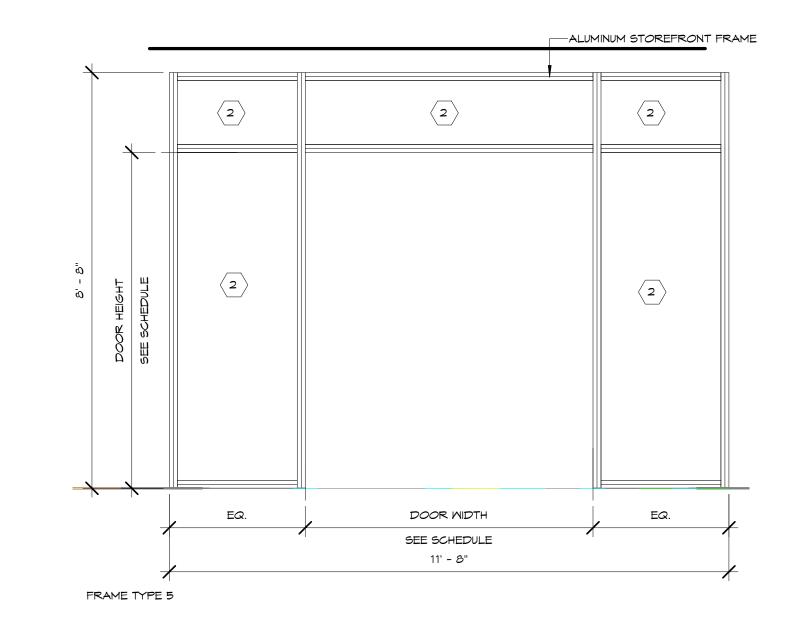
STEEL FRAME

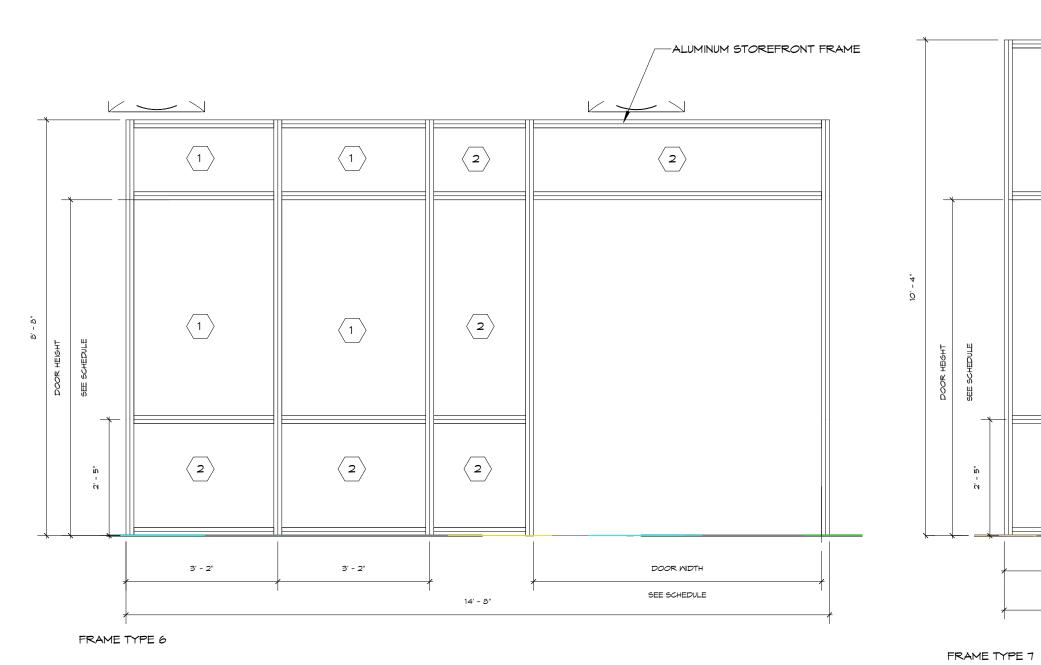
DOOR WIDTH

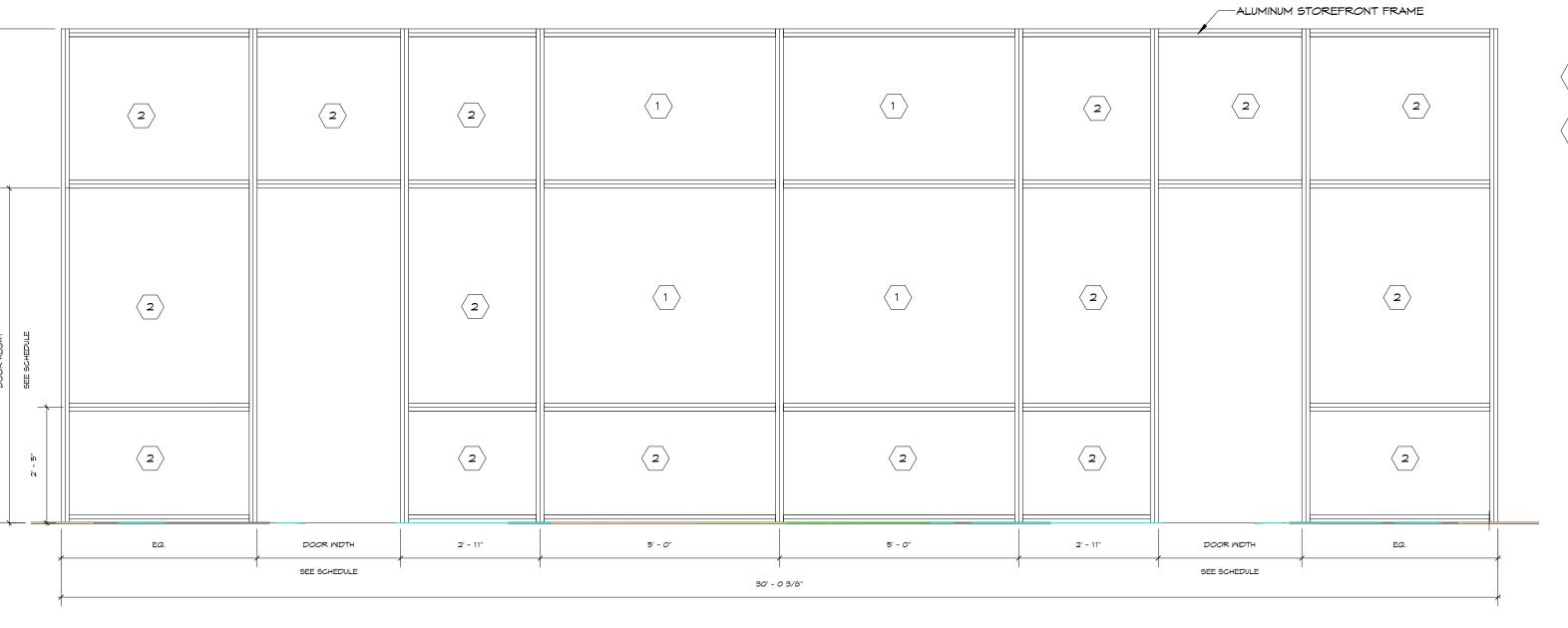
(SEE SCHEDULE)

FRAME TYPE 1



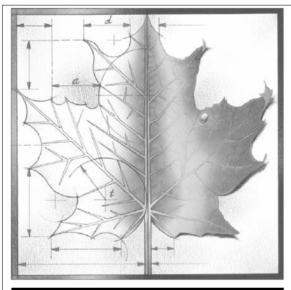






GLASS TYPES

- GLASS TYPE 2 LOM-E COATED CLEAR INSULATED GLASS WITH HEAT STRENGTHENED LITES
- GLASS TYPE 1 LOW-E COATED CLEAR INSULATING GLAS WITH FULLY TEMPERED LITES



BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

REVISIONS: Project Number:

11/28/17 Project Name:

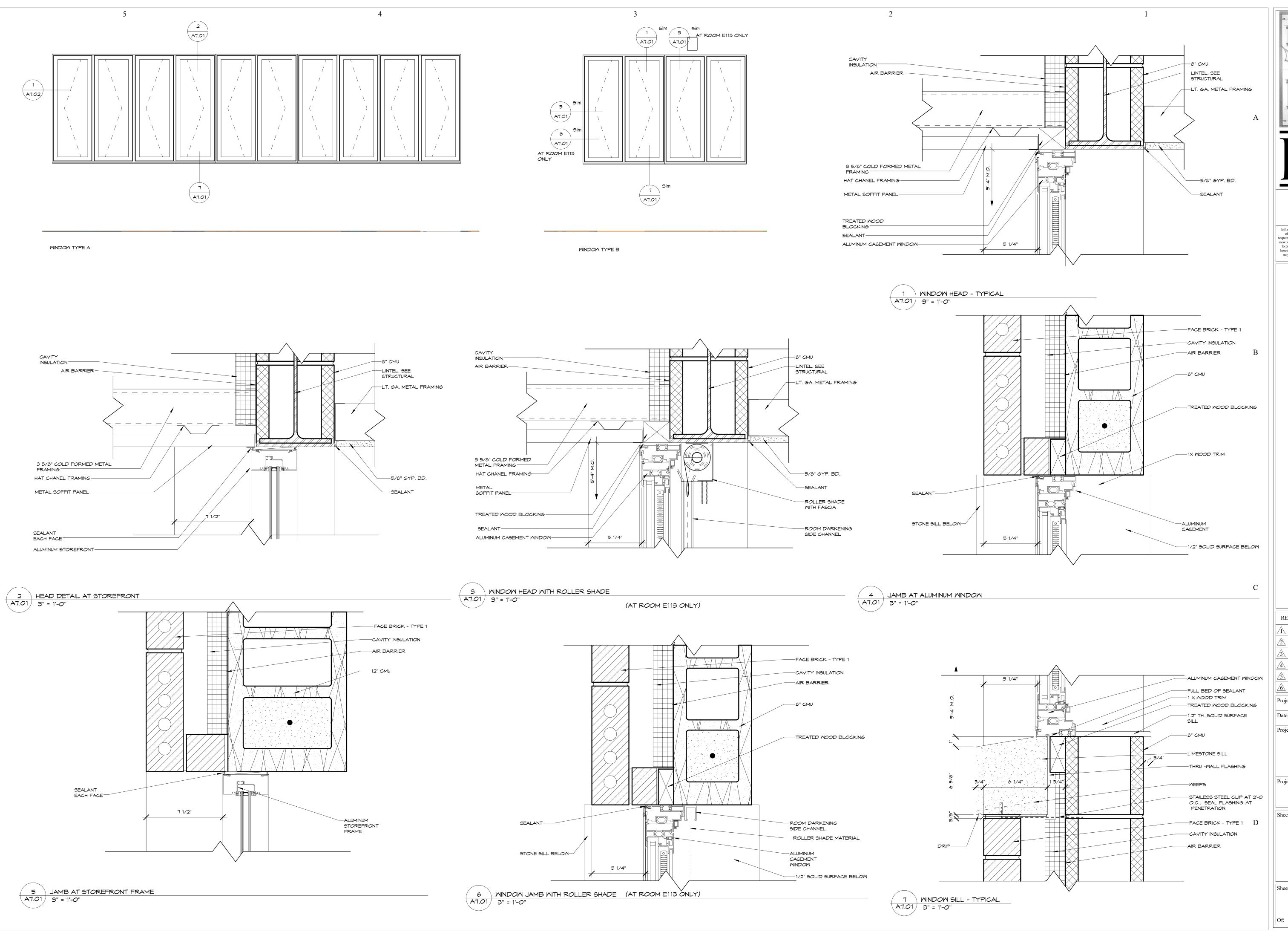
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

1701 KAW VALLEY ROAD **WAMEGO, KS 66547** 

**DOOR** SCHEDULE, TYPES, AND **DETAILS** 

 $\mathbf{A7.00}$ 

FRAME TYPES



BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

**REVISIONS:** 

Project Number: 11/28/17

Project Name:

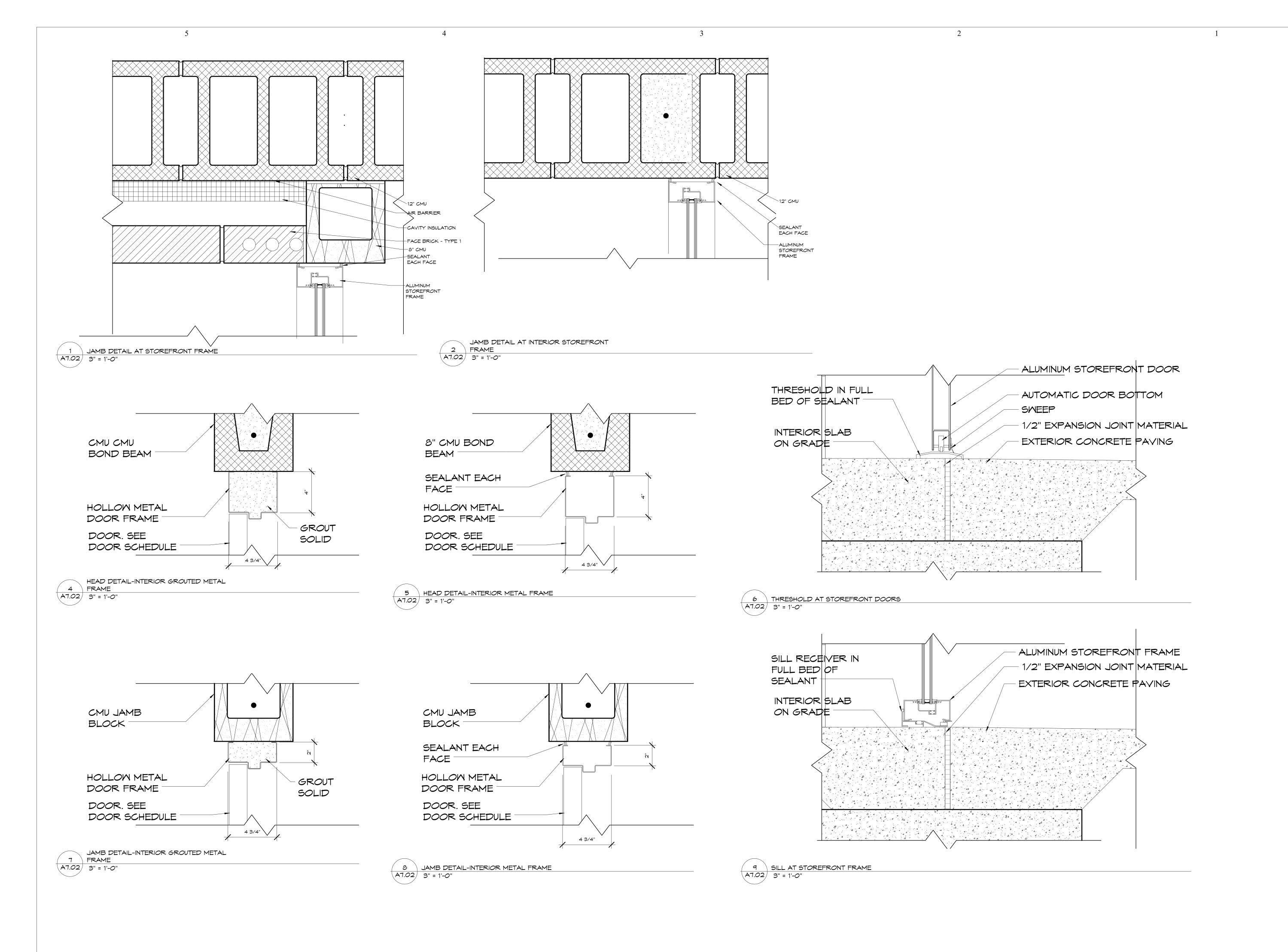
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

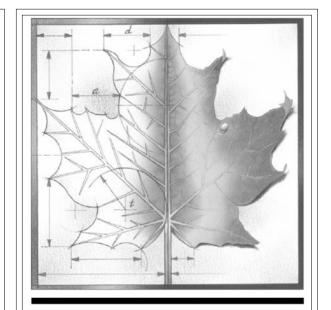
Project Address: 1701 KAW VALLEY ROAD

WAMEGO, KS 66547

WINDOW **TYPES AND DETAILS** 

**A7.01** 





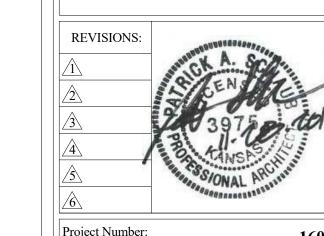
BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

]

C



Project Number:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

Project Address:

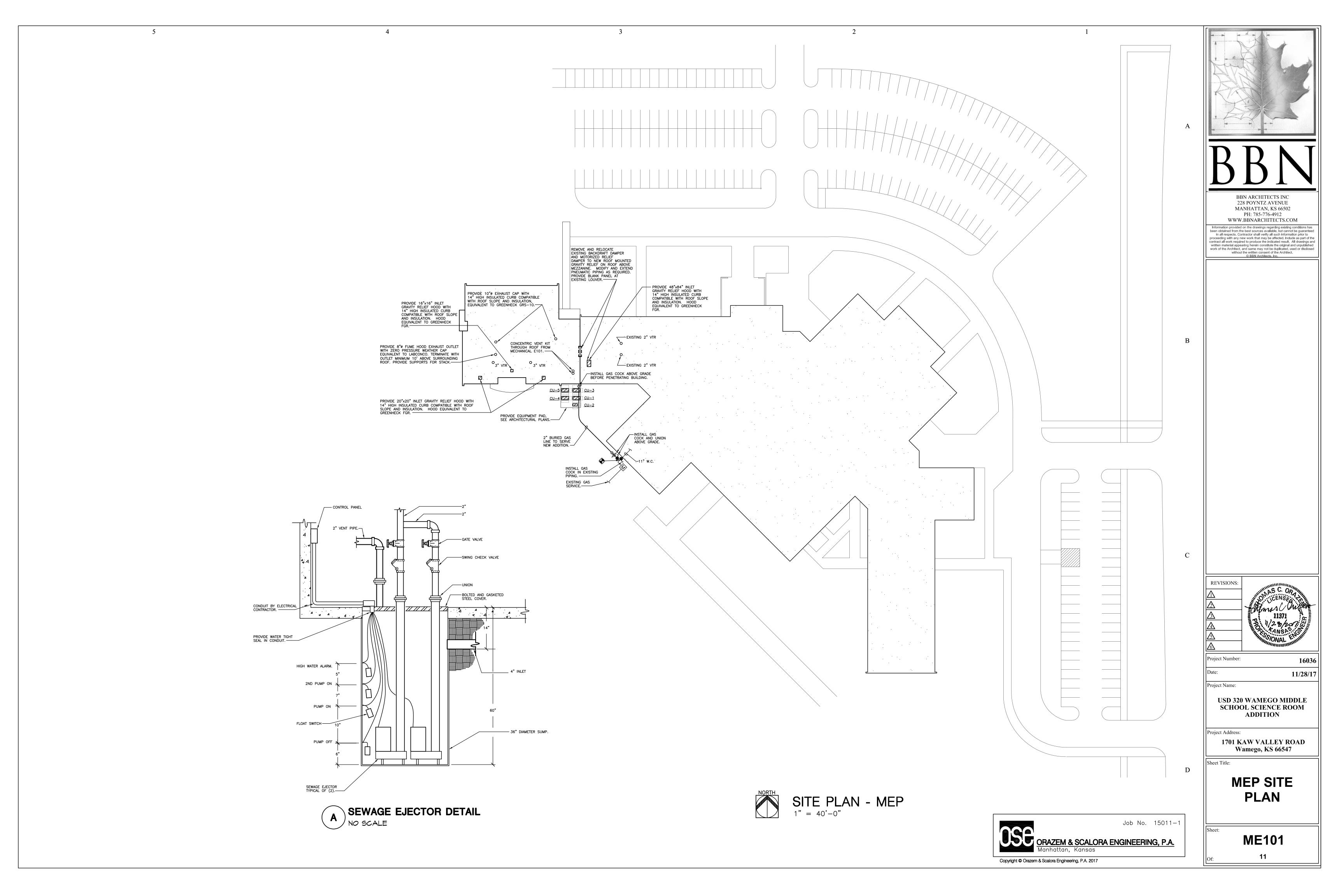
1701 KAW VALLEY F

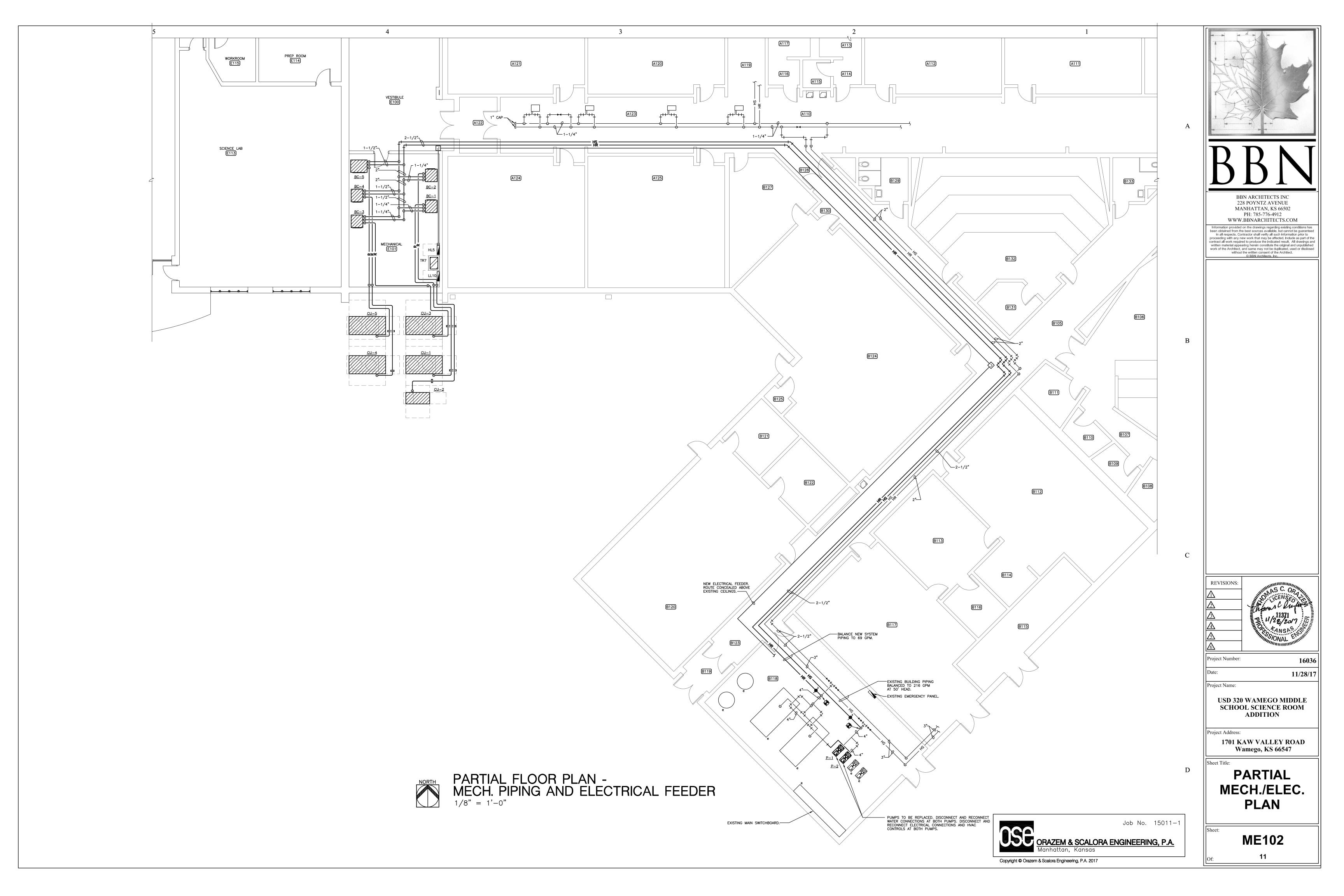
1701 KAW VALLEY ROAD WAMEGO, KS 66547

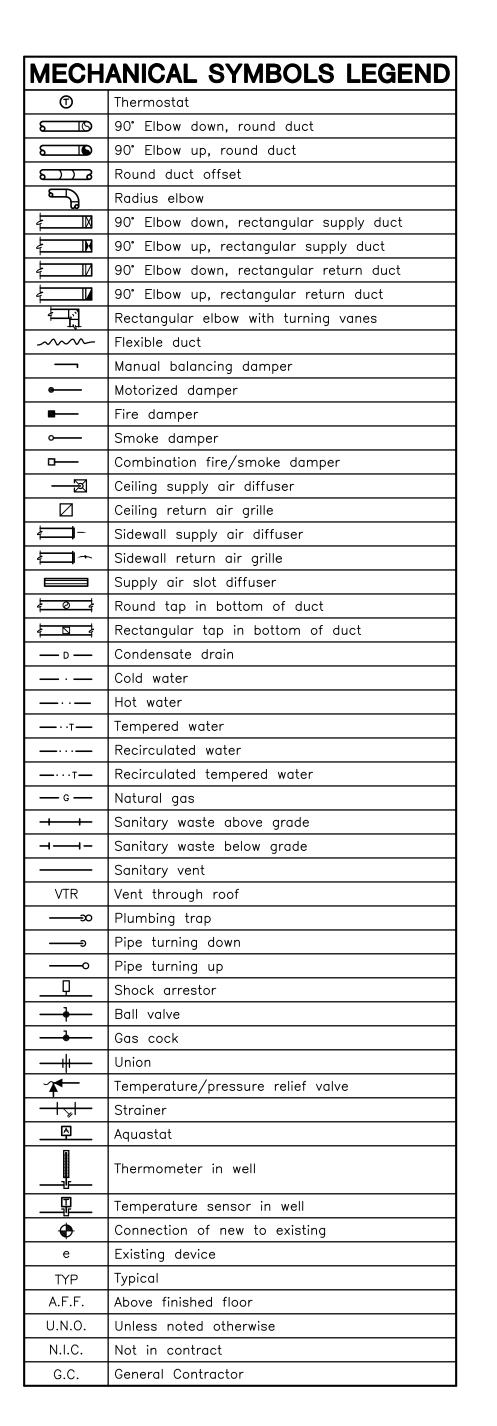
Sheet Title

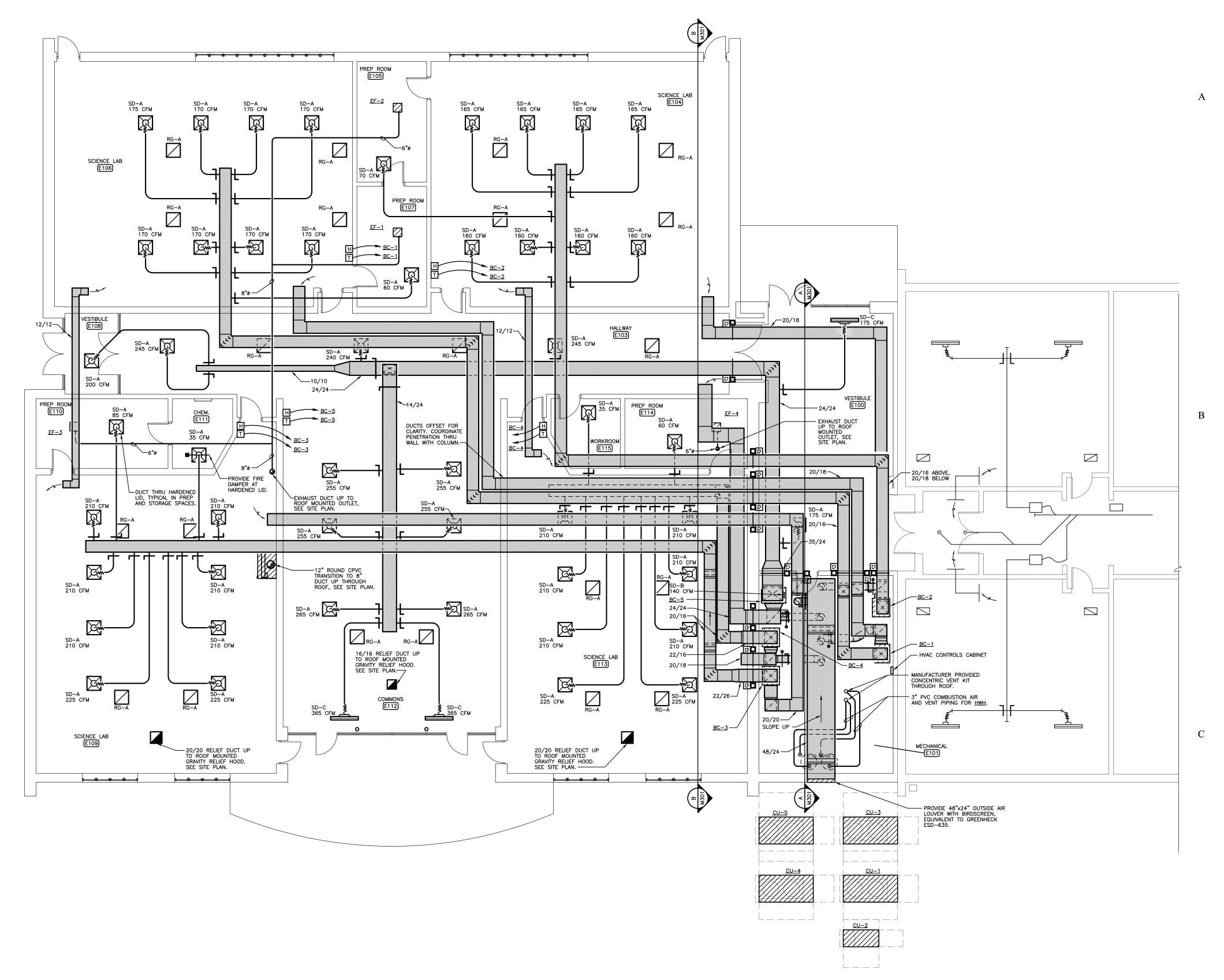
DOOR AND WINDOW DETAILS

A7.02

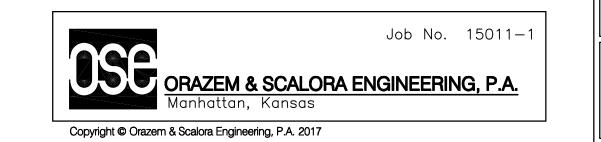


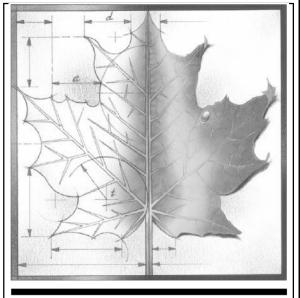










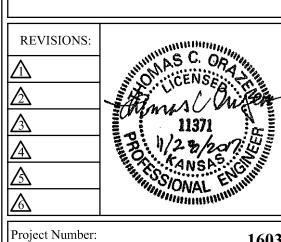


BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KS 66502
PH: 785-776-4912
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

© BBN Architects. Inc.



16036
Pate: 11/28/17
Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

roject Address:

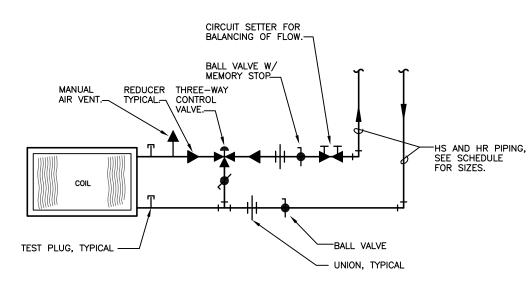
1701 KAW VALLEY ROAD Wamego, KS 66547

MECHANICAL DUCTWORK PLAN

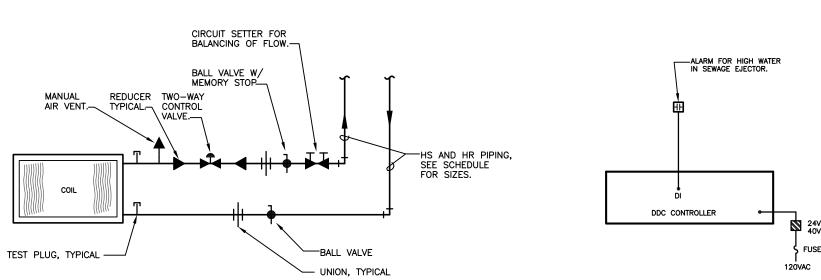
M101

ISOLATION VALVE, TYPICAL —

**END SUCTION PUMP DETAIL** NO SCALE



BC-5 HOT WATER COIL PIPING DETAIL



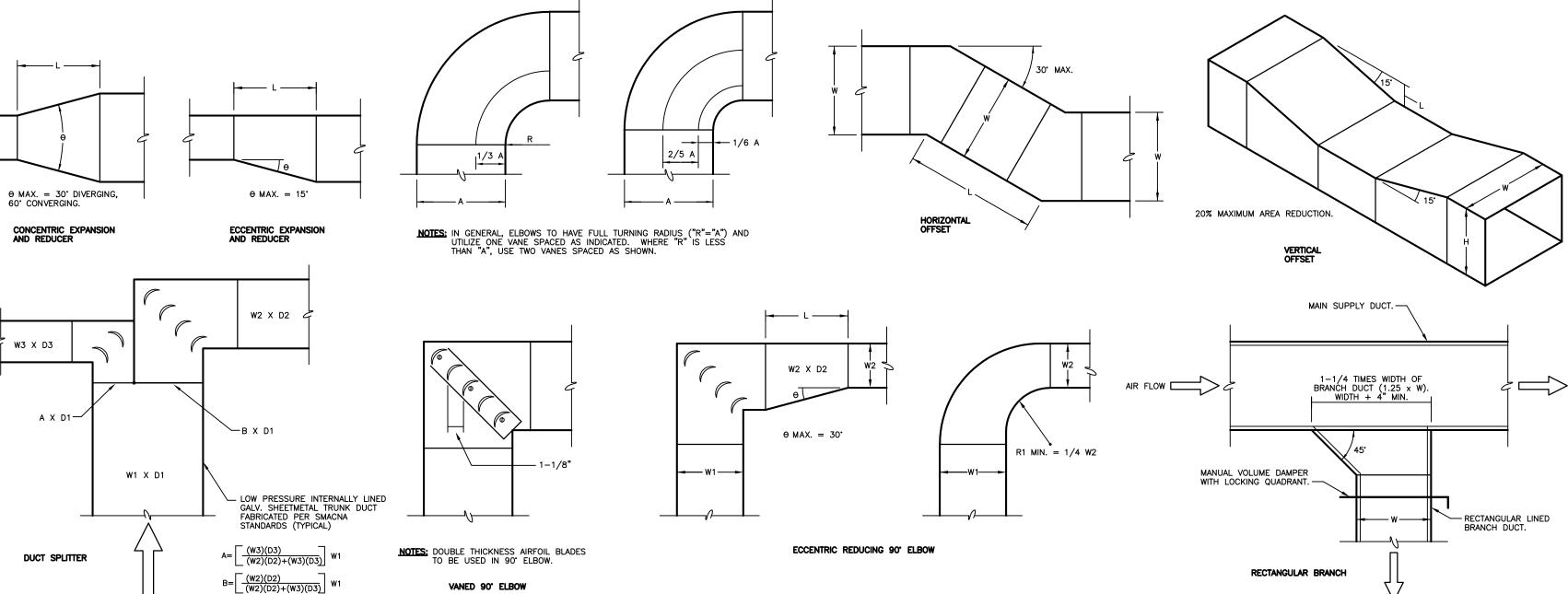
HOT WATER COIL PIPING DETAIL ( D ) NO SCALE

AIR FLOW





SPLIT BLOWER COIL UNIT



A/C SYSTEM SCHEDULE FURNACE TYPE Vertical Vertical Vertical SERVES Science Lab E106 Science Lab E104 Science Lab E113 Science Lab E109 Common / Corridor FAN CFM 1,425 1,330 1,830 1,805 3,705 ESP (INCHES) 1.25 1.25 1.25 1.25 1.25 FAN HP 1.34 1.34 1.34 1.34 4.0 VOLTS/PHASE 480/3 480/3 480/3 480/3 480/3 FULL LOAD AMPS MAX. HACR CKT. BRKR. SIZE 15 MIN. CKT. AMPS 10 MIN. O.A. CFM 630 650 630 665 625 O.A. DUCT DIA. (INCHES)
HEATING SECTION 12 12 12 HEATING TYPE Hot Water Hot Water Hot Water Hot Water Hot Water TOT. CAP. (MBH) 87.4 101.9 111.0 244.4 UNIT LAT DB (F) 100.8 99.5 90.7 95.8 99.7 ENTERING WATER TEMP (F) 160 160 160 160 160 LEAVING WATER TEMP (F) 130 130 130 130 130 MAX. PRESSURE DROP (FT) 1.2 GPM 12 25 COOLING SECTION
TYPE NET SENS. CAP. (MBH) 51.0 44.0 55.1 50.5 89.8 NET TOT. CAP. (MBH) 57.5 73.8 119.6 72.1 74.9 EAT DB/WB (F) 55.2/53.3 54.3/52.5 55.0/53.3 80/67 55.6/54.3 UNIT LAT DB/WB (F) 52.1/50.7 80/67 80/67 80/67 80/67 V3-BRB-3-0-142D-12F V3-CRB-3-0-142D-12 BASED ON ()
CONDENSING UNIT V3-BRB-3-0-142D-12F CU-5
AIR COOLED O.A. TEMP. (F) 105 105 105 105 105 REF. LINES O.D.-7/8 7/8 LIQUID (INCHES) 7/8 1-1/8 SUCTION (INCHES) 1/2 1/2 1/2 1/2 480/3 VOLT/PHASE 480/3 480/3 480/3 480/3 FULL LOAD AMPS 20 MAX. HACR CKT. BRKR. SIZE 25 40 MIN. CKT. AMPS 22 MINIMUM EER AT **OPERATING CONDITIONS** BASED ON (AAON)

PROVIDED WITH
BLOWER COIL UNIT

EQUIPMENT NOTES:

PROVIDED BY

ROOM SENSOR WITH SETPOINT ADJUSTMENT

**1.** Provide all required transitions, adapters. 2. Maintain all Manufacturer's recommended clearances.

3. Provide flexible connections at supply and return duct connections to unit. 4. Provide terminal strip for connection to Owner's building control system.

FILTER PRESSURE MONITOR-

PROVIDED BY ELECTRICAL

### **SEQUENCE OF OPERATIONS: BLOWER COIL**

1. The building automation system shall enable the Blower Coil to be occupied via its time-of-day schedule or local override button. During occupancy, the supply fan shall run continuously and the outside air damper shall open to minimum

Cooling Occupied: Mechanical Cooling 1. When the space temperature is above the cooling set point, compressor #1

shall be enabled and the variable capacity compressor will modulate to maintain space temperature set point (74F adj.). 2. If additional cooling is needed, the compressor #2 is enabled, and the variable

capacity compressor will continue to modulate to maintain space set point.

Dehumidification Mode:

1. Anytime the space humidity is above 55% rh (adj.), the unit shall enter dehumidification mode. During the dehumidification mode, compressor #1 shall be enabled and the variable capacity compressor shall modulate to maintain suction pressure. The hot gas reheat coil shall be enabled and the valve shall modulate to maintain the space temperature setpoint (70F, adj.).

1. When the space temperature is below the heating set point, the hot water valve shall modulate to maintain space temperature set point (70F adi.).

. The differential pressure switch across the filter shall be monitored by the building automation system and an alarm generated if the switch closes, indicating the filter is in need of replacement.

Unoccupied Mode: 1. During the unoccupied mode, as determined by the time-of-day schedule, the

unit fan and all heating and cooling shall be disabled and the outside air damper 2. If the night override button is depressed on the thermostat, the Blower Coil unit

will be enabled and will run for a time period of two hours (adj.). 3. Unit will maintain unoccupied setback temperatures of 65°F H / 80° C (adj.). 4. If the space temperature rises above the unoccupied cooling set point or drops below the unoccupied heating set point, the unit fan and required cooling or

heating shall be enabled. 5. The outside air damper shall remain closed during unoccupied mode.

Smoke Detection: 1. Upon detection of smoke at the return air duct smoke detector the unit shall be

EXHAUST FAN	SCHEDULE
DESIGNATION	EF-1.2.3.4
DUTY	Exhaust
AREA SERVED	See Plans
TYPE	Centrifugal Cabinet
CFM	75
EXT. S.P.("WG)	0.25
TYPE DRIVE	Direct
DESIGN HP OR (WATTS)	(50)
MOTOR RPM	700
MAX. SONES	1.1
ACCESSORIES	1,2,3
VOLTAGE/PHASE	120/1
BASED ON: (Greenheck)	SP-B110
ACCESSORY KEY:	
1 Dravida with backdraft dam	nor

**1.** Provide with backdraft damper. 2. Provide with factory mounted and wired disconnect. 3. Provide with unit-mounted solid state speed contro

PUMP SCHEDULE									
DESIGNATION	P-1	P-2							
LOCATION	Boiler Room	Boiler Room							
DUTY	Heating Hot	Heating Hot							
	Water	Water							
TYPE	Base Mount	Base Mount							
	End Suction	End Suction							
GPM	285	285							
TOTAL HEAD (FT)	55	55							
LIQUID TEMP (F)	160	160							
MOTOR HP	7.5	7.5							
MOTOR RPM	1800	1800							
VOLTAGE	480/3	480/3							
Based On: (BELL & GOSSETT)	E-1510 3BD	E-1510 3BD							
NOTES:									

FUME HOOD SCHEDULE	
DESIGNATION	<u>FH-1</u>
LOCATION	Science E109
NOMINAL LENGTH (FT)	4
CFM WITH SASH OPEN 28"	725
P.D. <b>@</b> HOOD ("w.g.)	0.15
AIR VELOCITY @ SASH (FPM)	100
EXHAUST DUCT CONNECTION(S)	(1) 12.75"
SERVICES	
ELECTRICAL	(2) 120V DUPLEX
	RECEPTACLES
COLD WATER	N/A
HOT WATER	N/A
NATURAL GAS	N/A
AIR	N/A
VACUUM	N/A
FAN TYPE	Fiberglass Fume Fan
	Centrifugal
	Direct Drive with
	Speed Controller
CFM	725
EXT. S.P. ("w.g.)	0.75
MOTOR HP	1/3
VOLTAGE/PHASE	120/1
INLET SIZE (INCHES)	12.38
OUTLET SIZE (INCHES)	12.75
BASED ON (LABCONCO)	100400042
PHYSICAL SIZE	48"x30"x59"H
NOTES:	S.72

1. See specifications for acceptable manufacturers.

I. Provide hood with sash stop kit set to limit opening to 18", Labconco catalog number 9724500. 2. Provide hood with airflow monitor kit for 120V operation, Labconco catalog

number 9743211 3. Provide hood with telescoping base stand, Labconco catalog number 3746702,

and worksurface Labconco catalog number 9500400. 4. Provide hood with prewired T8 fluorescent lights with face mounted

switch. (By Owner) 5. Fume hood ductwork shall be CPVC and shall be leak tested to ensure proper seal. All joints shall be sealed with a hard cast sealant. Leak

test shall be performed with an indicator.

	AIR DEVICE SCHEDULE
	All devices shall be supplied in white finish suitable for field painting.
<u>SD-A</u>	EH Price SMD/3P/4A steel louvered flush face diffuser, 24" square face, round
	neck, to lay into T-bar ceiling. Blow pattern is 4-way unless indicated
	otherwise.
	CFM Range Max. APD Max. NC Neck Dia.
	0-110 0.10 30 6"
	111-200 0.10 30 8"
	201-300 0.10 30 10"
	301-400 0.10 30 12"
	401-535 0.10 30 14"
	Unless noted otherwise, runouts to diffusers shall be same size as neck.
SD-B	EH Price 520D steel double deflection sidewall register with 0 degree
	horizontal front blades, $1-1/4$ " screwed flanged frame, gasketed border,
	opposed blade damper. Size as indicated on drawings.
SD-C	EH Price TBD-4 slot diffuser, 4-slot, designed to straddle the
	main T-bar with support T-bars along diffuser perimeter, 1-1/4" wide

slots, 4' long, 12" round neck, 1/4" fiberglass insulated sheetmetal

EH Price SMD/6 steel louvered flush face return grille with 12" square neck, 24" square face, gasketed frame, to install in hard ceiling.

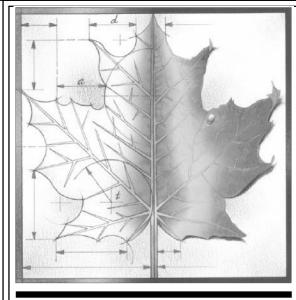
Wamego, KS 66547

Project Name:

**MECHANICAL DETAILS AND SCHEDULES** 

**M201** 

Job No. 15011-1 ORAZEM & SCALORA ENGINEERING, P.A. Copyright © Orazem & Scalora Engineering, P.A. 2017



BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KS 66502 PH: 785-776-4912 WWW.BBNARCHITECTS.COM

been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect. © BBN Architects, Inc.

**REVISIONS:** 

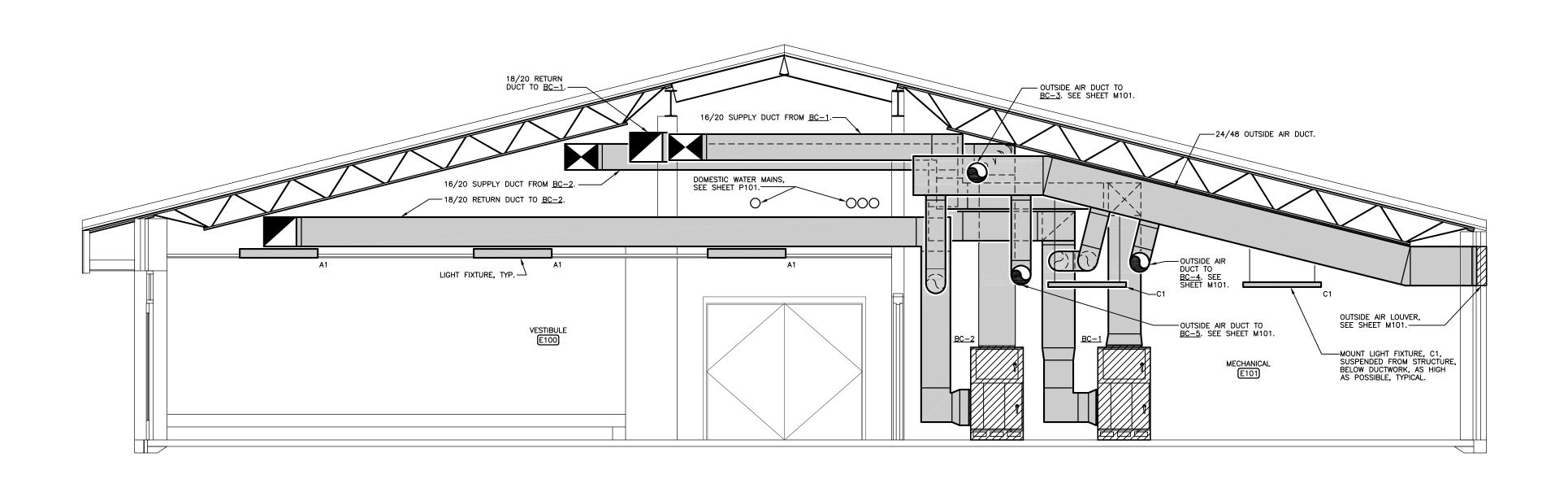
Project Number: 11/28/17

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

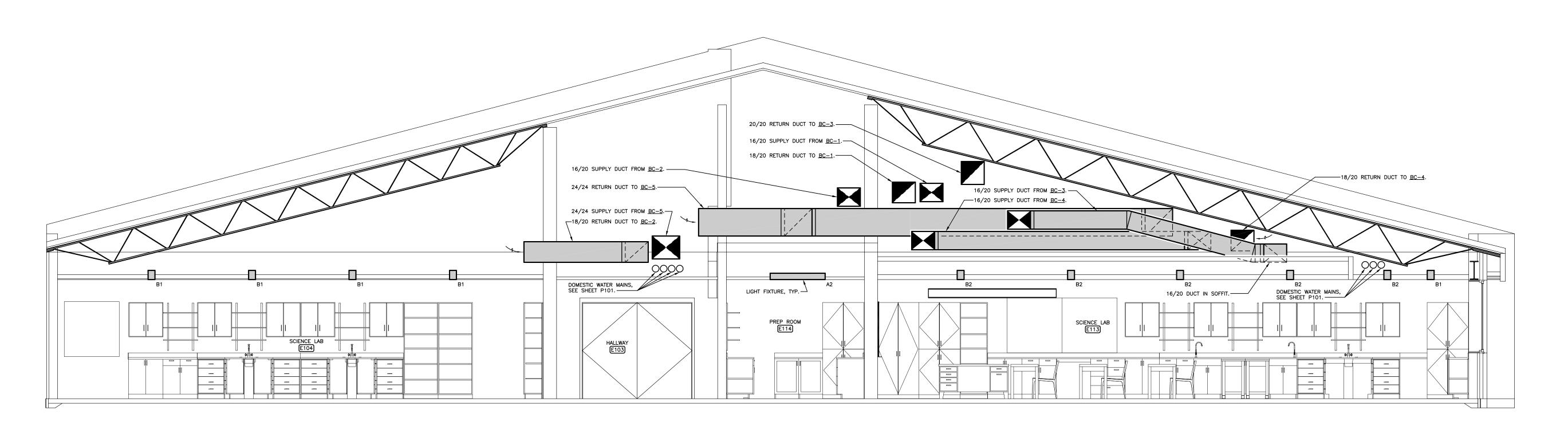
Project Address: 1701 KAW VALLEY ROAD

DUCT CONSTRUCTION DETAILS NO SCALE

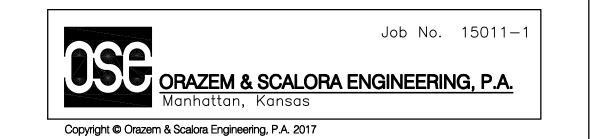
VANED 90° ELBOW

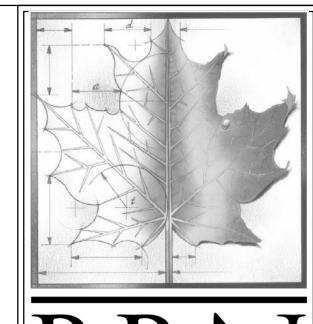










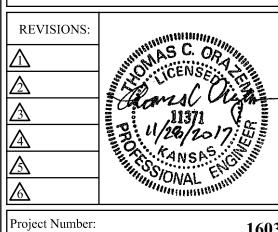


# BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KS 66502
PH: 785-776-4912
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

© BBN Architects. Inc.



 Project Number:
 16036

 Date:
 11/28/17

 Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

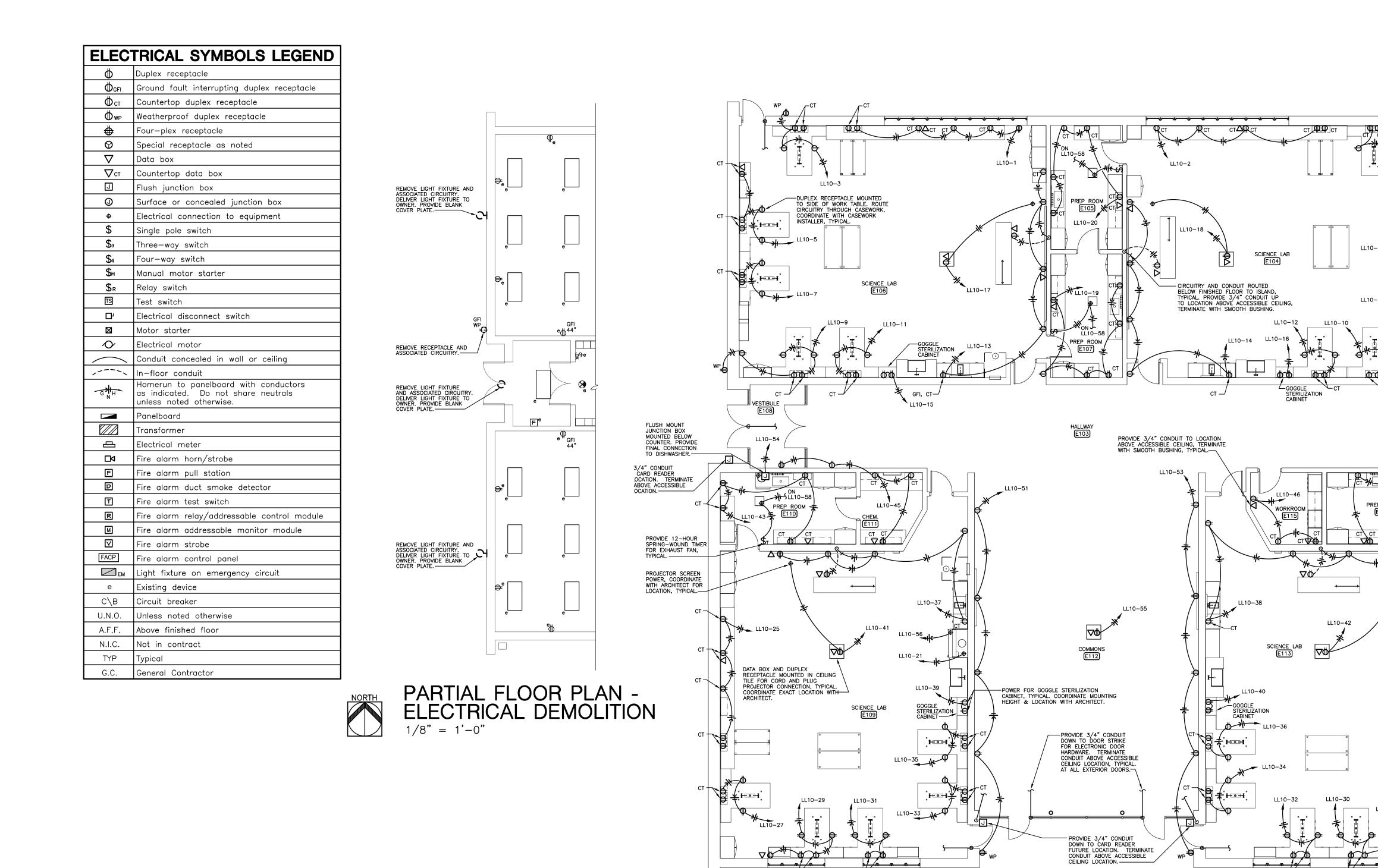
Project Address:

1701 KAW VALLEY ROAD Wamego, KS 66547

MEP

SECTIONS

M301



BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KS 66502 PH: 785-776-4912 WWW.BBNARCHITECTS.COM Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

© BBN Architects. Inc. - (2) 4" MANUFACTURER FIRE—RATED PENETRATIONS THROUGH EXISTING BUILDING WALL INTO MEZZANINE SPACE FOR DATA CABLING FROM EXISTING BUILDING, EQUIVALENT TO 3M FIRE BARRIER PASS—THROUGH DEVICES Project Number: ₩ HL5-13,15,17 Project Name:

—PROVIDE 3/4" CONDUIT DOWN TO CARD READER FUTURE LOCATION. TERMINATE CONDUIT ABOVE ACCESSIBLE CEILING LOCATION.

— PROVIDE 3/4" CONDUIT DOWN TO DOOR STRIKE FOR ELECTRONIC DOOR HARDWARE. TERMINATE CONDUIT ABOVE ACCESSIBLE CEILING LOCATION, TYPICAL. AT ALL EXTERIOR DOORS.

HL5-19,21,23 <u>BC-1</u>

HL5-14,16,18

Copyright © Orazem & Scalora Engineering, P.A. 2017

ORAZEM & SCALORA ENGINEERING, P.A.

HL5-8,10,12

BC-3

PROVIDE 480V/3P/30A NEMA 3R NON-FUSED DISCONNECT.

PROVIDE 480V/3P/60A NEMA 3R NON-FUSED DISCONNECT.

PROVIDE 480V/3P/30A NEMA 3R NON-FUSED DISCONNECT.

ADDITION FLOOR PLAN - POWER

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

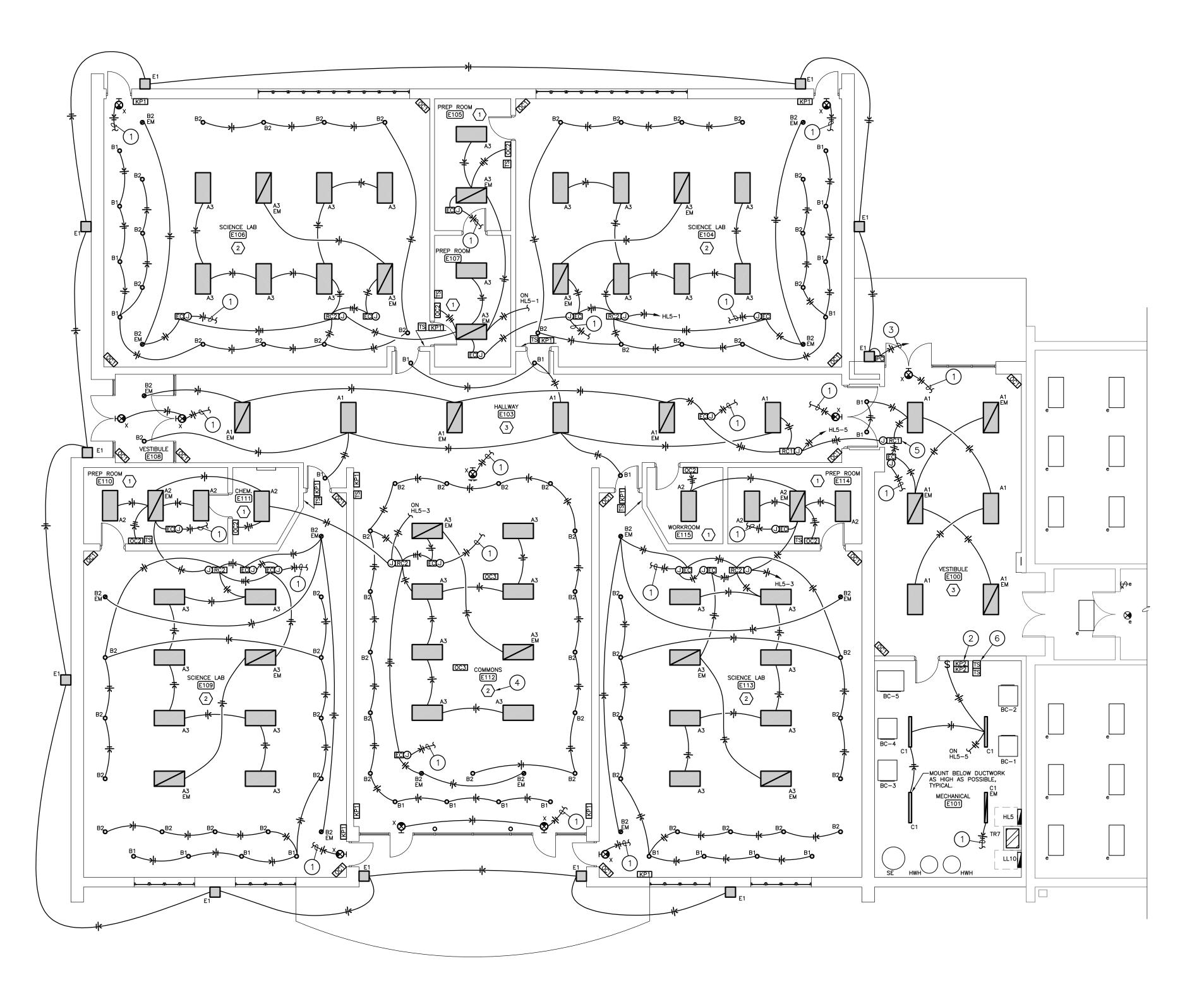
11/28/17

Project Address:

1701 KAW VALLEY ROAD Wamego, KS 66547

**ELECTRICAL PLAN** 

Job No. 15011-1 E101

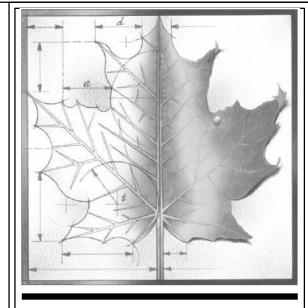




### NOTES BY SYMBOL

- 1) 2#12,#12G TO (1) NEW 20A/1P CIRCUIT BREAKER IN EMERGENCY PANEL IN BOILER ROOM B118, SEE ME102. ALL INTERIOR EMERGENCY LIGHTING IN THIS ADDITION TO BE SERVED FROM A SINGLE CIRCUIT.
- (2) KP2 FOR VESTIBULE E108 AND HALLWAY E103, AND VESTIBULE E100.
- 3 2#12,#12G TO (1) NEW 20A/1P CIRCUIT BREAKER IN EMERGENCY PANEL IN BOILER ROOM B118, SEE ME102. CIRCUIT FIXTURES THROUGH PHOTOCELL (PC) EQUIVALENT TO INTERMATIC K4221C.
- 4 LIGHTING CONTROL SEQUENCE MARK, TYPICAL. SEE SCHEDULE ON SHEET E201.
- 5 SEE TYPICAL LIGHTING CONTROL WIRING DIAGRAM A/E201, TYPICAL.
- (6) EMERGENCY LIGHTING TEST SWITCH, TYPICAL.



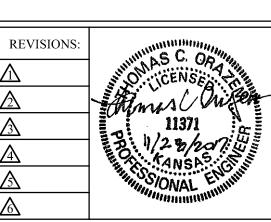


# BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KS 66502
PH: 785-776-4912
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

© BBN Architects. Inc.



Project Number: 16036

Date: 11/28/17

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

Project Address:

Sheet Title:

1701 KAW VALLEY ROAD Wamego, KS 66547

LIGHTING PLAN

E102

 $\mathbf{a}$ 

### FIRE ALARM SYSTEM NOTES

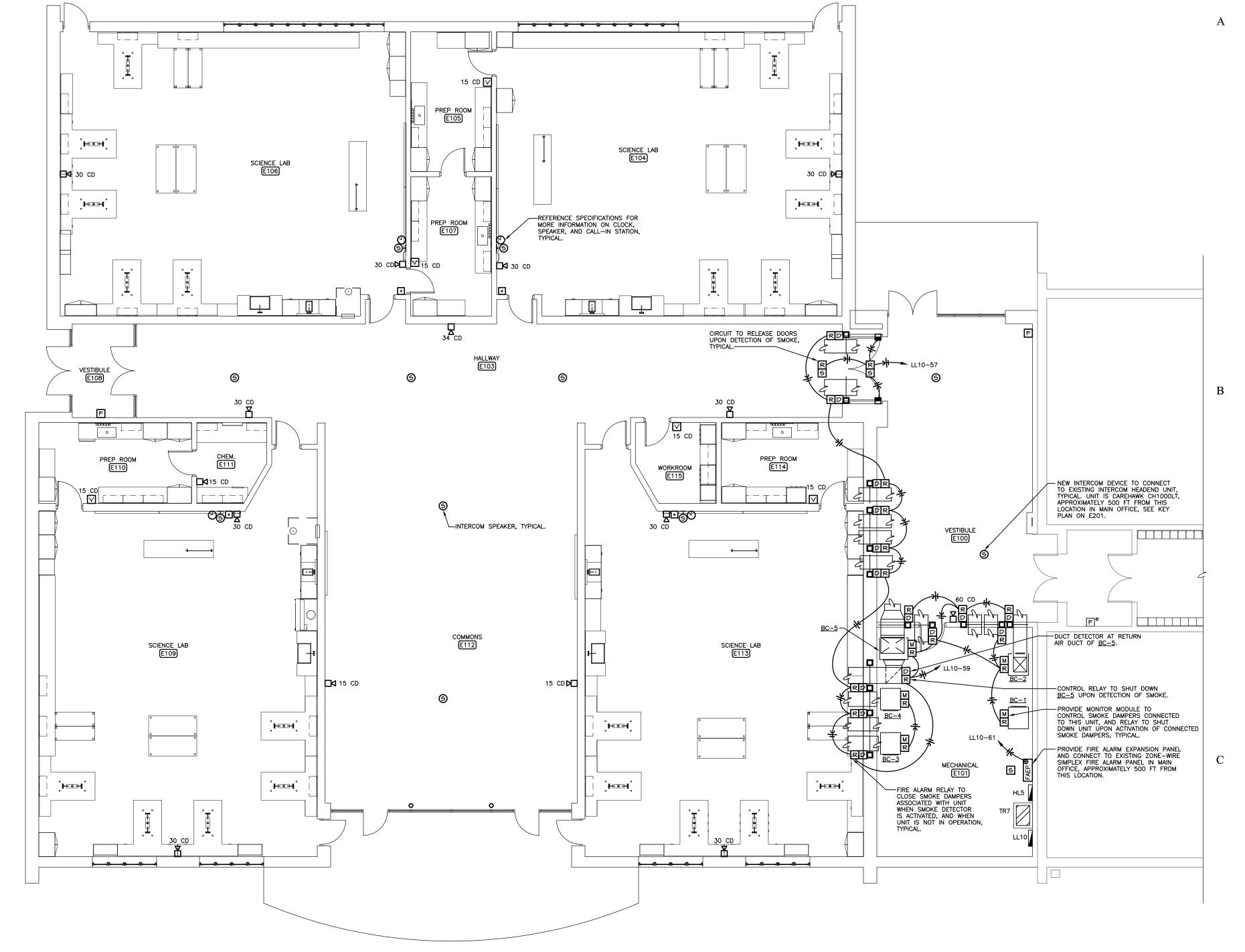
- 1. The existing building is presently equipped with a Simplex 4100 fire alarm system. The fire alarm system shall be extended to accommodate the indicated new devices.
- 2. Provide all equipment, circuitry, installation labor and programming for a complete and fully functional system in accordance with the local building codes and the supplying manufacturer's recommendations.
- 3. Equipment and accessories furnished for this system shall be the standard products of the supplying manufacturer, equivalent to the product of the Simplex Company, and shall be compatible with the existing fire alarm system. All new equipment shall be U.L. listed.
- 4. Field verify all existing circuitry and verify new circuiting requirements with equipment manufacturer. New circuitry shall be in conduit where concealed. Circuitry above accessible ceilings may be plenum rated cable.
- 5. Existing fire alarm system does not dial out to emergency services on alarm.

  Provide all necessary hardware and coordinate with telephone provider to ensure system will dial emergency services upon alarm activation.

  6. At completion of system, test all new or relocated fire alarm devices. Testing
- 6. At completion of system, test all new or relocated fire alarm devices. Testing shall be in accordance with NFPA 72, and shall be conducted in the presence of the Owner's representative, a representative of the local fire department, and a representative of the fire alarm equipment manufacturer.
- 7. When required by the Kansas State Fire Marshal's Office provide documentation including fire alarm shop drawings sealed by a Kansas licensed engineer and submit to the Kansas State Fire Marshal's Office for approval in accordance with the Kansas Fire Prevention Code.

### FIRE ALARM SYSTEM CODES OF RECORD

- 2012 INTERNATIONAL BUILDING CODE
- 2012 INTERNATIONAL FIRE CODE
- 2010 NFPA 72 NATIONAL FIRE ALARM CODE



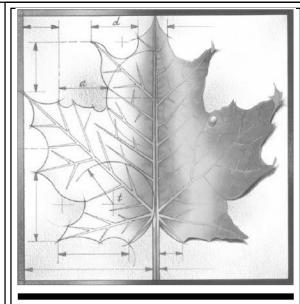


ADDITION FLOOR PLAN - SPECIAL SYSTEMS
1/8" = 1'-0"

Ι

Preliminary - Not For Construction - 11/13/17

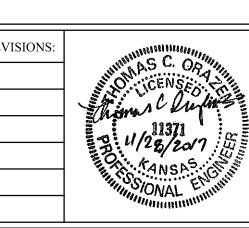




BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KS 66502 PH: 785-776-4912 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



Project Number:

Date:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

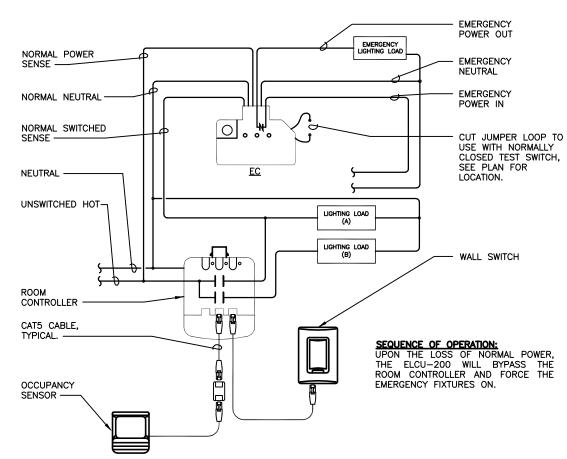
Project Address:

1701 KAW VALLEY ROAD Wamego, KS 66547

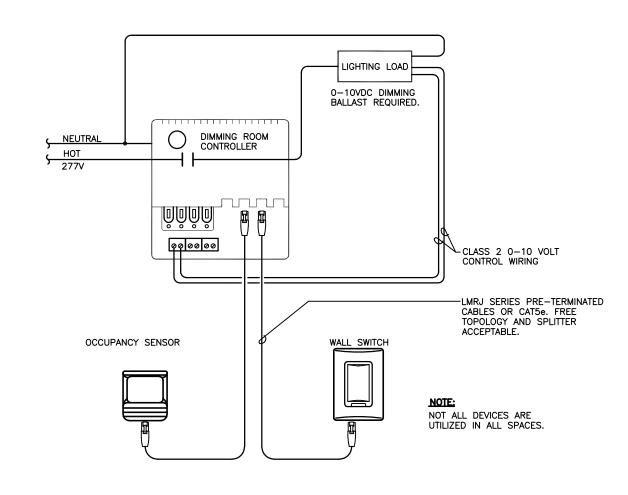
SPECIAL SYSTEMS PLAN

E103

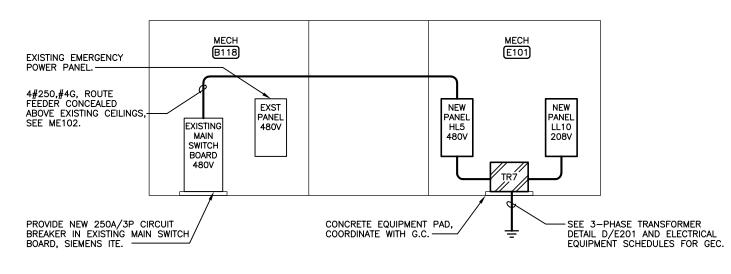
 $\frac{1}{2}$ 



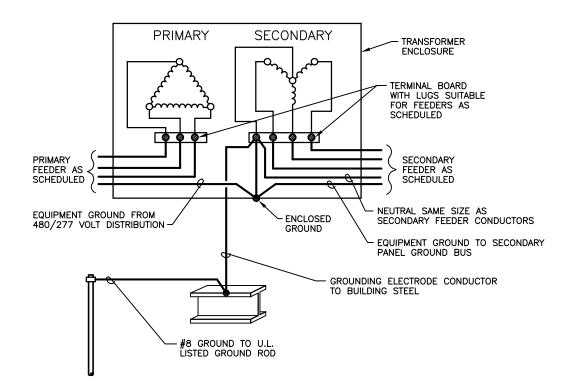
### A TYPICAL LIGHTING CONTROL WIRING DIAGRAM



## B DIMMING LIGHTING CONTROL WIRING DIAGRAM



## C PARTIAL ELECTRICAL RISER DIAGRAM



3-PHASE TRANSFORMER DETAIL

MARK	SIZE	MANUF.	DESCRIPTION	LAMP:
A1	2' x 4'		Series PT LED lay—in troffer with precision die—formed 22—gauge cold	LEDs
			rolled steel housing, diffuse ribbed acrylic shielding, highly reflective	34W
			non-glare matte white polyester powder coat bonded finish, and room-side	-
			access to electrical components without removing fixture from ceiling grid.	
			Provide with 4,000K lumen package producing 3,300 nominal lumens,	
			L70 rated for greater than 50,000 hours, with efficacy greater than	
			100 lm/W, and 0-10V dimming capability.	
A2	2' x 4'	Williams	Similar to type 'A1' except to be provided with 4,000K lumen package	LED:
,	- ' '	1111116	producing 5,800 nominal lumens, with efficacy greater than 100 lm/W,	54W
			and 0-10V dimming capability.	<b>O</b>
A3	2' x 4'	Williams	Similar to type 'A1' except to be provided with 4,000K lumen package	LEDs
, 10		Williams	producing 7,800 nominal lumens, with efficacy greater than 100 lm/W,	74W
			and 0-10V dimming capability.	/ 11
B1	6" Dia.	Halo	Series PD6 shallow lens LED downlight with 6—inch aperture, one piece	LED
υ,	x 5" D	11010	parabolic aluminum reflector, and clear specular finish. Provide fixture with	12W
	^ 5 5		4,000K lumen package producing 1,000 nominal lumens at 12 watts, and	1 4
			an electronic driver with 0—10V dimming capability.	
B2	6" Dia.	Halo	Similar to type 'B1' except to be provided with 4,000K lumen package	LED
DZ	x 5" D	Hulo	producing 1,500 nominal lumens at 18 watts, and 0—10V dimming	181
			capability.	104
C1	2-3/4" W x	Williams	Series 75L lensed LED strip fixture with 22 ga. cold rolled steel housing,	LED
0,	3-1/4" D x	Williams	all parts painted to a minimum 92% average reflectance, and 0.125" thick	56V
	48" L		acrylic frosted lens. Provide all necessary hardware to surface mount or	001
			chain hang fixture as required. Provide fixture with 4,000K lumen package	
			3,800 nominal lumens at 56 watts, an electronic driver prewired for	
			non—dimming applications, and rated for 50,000 hours at 70% lumen	
			maintenance.	
E1	16-5/8" W	Lumark	Series WP Wal-Pak LED wall pack with one-piece die-cast aluminum	LED
L'	x 10" H x	Lumark	housing, and hinged, removable die—cast aluminum door, one—piece silicone	32V
	15" D		gasket sealing the optical chamber, UL listed for wet locations, highly	JZ V
			reflective anodized aluminum reflectors, full cutoff door, and polyester	
			powder coat paint finish in color selected by Architect. Provide fixture with	
			4,000K lumen package producing 2,239 lumens at 32 watts. Mounting	
			, , ,	
			height to match exterior fixtures on existing building, coordinate with	
	10 7/4" \		Architect.	
X	12-3/4" W	Mule	Series Classic emergency powered exit light with red letters, vandal	LED
	x 8-1/2" H		resistant die—cast aluminum housing, universal chevrons, 100 ft. visibility,	2W
	2-1/4" D		all required mounting hardware, one or two faces as indicated on plans,	
			wall or ceiling mount as indicated on plans. Provide fixture for AC	
			operation only.	

NOTES:
1. All fixtures to be provided for 277 volt AC operation unless noted otherwise.
2. Coordinate mounting heights of all wall mounted fixtures with Architect prior to roughing in.
3. 'EM' fixture mark designates fixture will function in both normal and emergency operation.

		LIGHTING CONTROL DEVICE SCHEDULE	
MARK	MANUF.	DESCRIPTION	MOUNTING
OC1	Watt Stopper	LMDX—100 dual technology sensor with passive infrared and ultrasonic sensors, 40 kHz frequency ultrasonic transmission, adjustable time delay, automatic passive infrared adjustment, manual ultrasonic adjustment, 1000 sf of desktop motion coverage, 2000 sf of walking motion coverage, swivel mounting bracket. Complete installation for integration to lighting management system.	Ceiling/Wall
OC2	Watt Stopper	DSW-100 dual technology wall switch sensor with passive infrared and ultrasonic sensors, adjustable time delay, sensitivity adjustment with high/low settings for passive infrared and full variable control for ultrasonic coverage, 35' x 30' of PIR and 20' x 20' of Ultrasonic major motion coverage, and 20' x 15' of PIR and 15' x 15' of Ultrasonic minor motion coverage.	Switch Box
OC3	Watt Stopper	LMDC—100 dual technology ceiling mount occupancy sensor with passive infrared and ultrasonic technologies with 360° sensing, 40kHz frequency transmission, adjustable time delay, LCD display and pushbuttons for setting sensor and system parameters, RJ45 receptacles for cable connections, and approximately 1000 sf of motion coverage. Complete installation for integration to lighting management system.	Ceiling
RC1	Watt Stopper	LMRC-101 Series Digital On/Off room controller. Plenum-rated construction for mounting above ceiling, RJ45 receptacles for cable connections. Complete installation for integration to lighting management system.	Above Ceiling
RC2	Watt Stopper	LMRC-212 Series Digital On/Off/0-10 Volt dimming dual relay room controller. Plenum-rated construction for mounting above ceiling, RJ45 receptacles for cable connections. Complete installation for integration to lighting management system.	Above Ceiling
KP1	Watt Stopper	LMSW-105 Series 5-Button wall switch. Provide custom engraving for buttons, approve with Architect and Owner before ordering.	Switch Box
KP2	Watt Stopper	LMSW—101 Series 1—Button wall switch. Provide custom engraving for button, approve with Architect and Owner before ordering.	Switch Box
EC NOTES:	Watt Stopper	ELCU—200 lighting control unit, device wired to allow for automatic control of lighting through occupancy sensor and/or dimming device. U.L. 924 listed for use with emergency lighting, 277V operation and plenum—rated.	Above Ceiling

101ES:
1.Install occupancy sensors per manufacturer's recommendations.

MARK

2. Provide relays, power supplies, and circuitry for complete operation of sensors.

3. Set time delays — 20 minutes for classrooms, 20 minutes for commons, and 15 minutes for all other rooms with occupancy sensors.

**4.** Provide digital wireless configuration tool equivalent to Watt Stopper LMCT—100 for remote system and device

# LIGHTING CONTROL SEQUENCE SCHEDULE DESCRIPTION Single Zone with Occupancy Sensor Light fixtures in space controlled by occupancy sensor with manual on/off from pushbutton device located near door. 2-Zones with Dimming, Occupancy Sensors 2 separately controlled lighting zones in space controlled by occupancy sensor with manual on/off/dim from pushbutton device located near door. Main paddle button on 5 button keypad will control all light fixtures together on/off/dim. Individual zone control thru small buttons #2-#5. Control of zone #1 On/Raise (hold) with small button #2 on device, control of zone #1 Off/Lower (hold) with button #3 on device. Control of zone #2 On/Raise (hold) with small button #4 on device, control of zone #2 Off/Lower (hold) with

button #5 on device.

Transition Space with Occupancy Sensor

Light fixtures in space controlled by occupancy sensor with manual on/off from pushbutton device located in Mechanical E101.

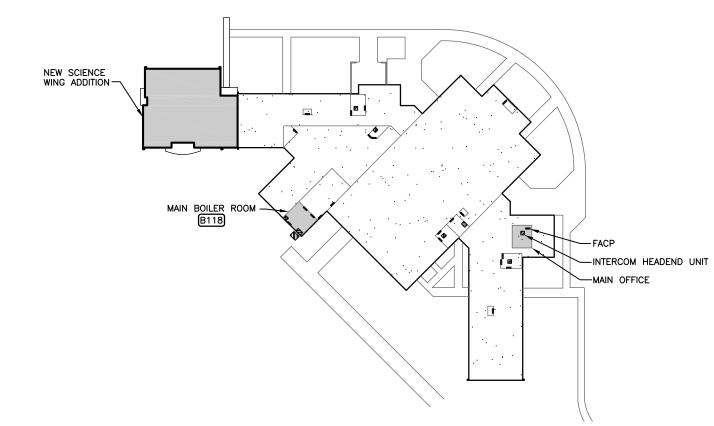
1.See floor plan for quantity and location of occupancy sensors, room controllers, and keypad devices.

## TRANSFORMERS Mark KVA Mounting Secondary Conductors GEC TR7 75 Floor 4#3/0,#6G #4

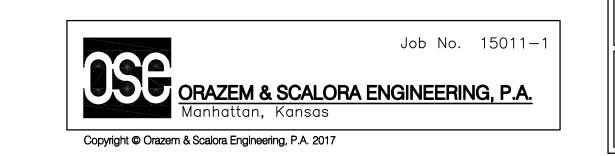
Dry type transformer for indoor installation, U.L. listed, compliant with IEEE, NEMA and ANSI standards, three phase, 60 hertz, 480 volt delta primary 208/120 volt wye secondary, (6) 2-1/2% full capacity taps, 150 degree C temperature rise, ventilated enclosure and internal vibration isolation core mounting. Provide NEC compliant signage for transformers served by remote disconnects.

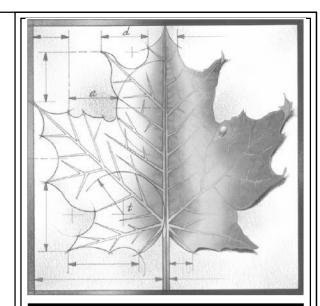
	4IVELD(			HEDULE	EATUREO.		
PANEL DESIGNATION: Panel 'HL5'	0.4				FEATURES:	- · ·	
LOCATION: Mechanical E1	31		Amps:		– Panelboard (		
<b>VOLTS:</b> 480/277		BOS	Amps:		– Equipment G		
CONFIGURATION: 3 Phase/4 Wil	re		ENCL.:	NEMA 1 -	– Equal to Squ	uare D NF	
MOUNTING: Surface  KT. Description	Conductors	C/R	CKT.	Description	n I	Conductors	C/
<b>1</b> Ltg - E104-E107	2#12,#12G	20 /1	2	Description	)II	Conductors	125
3 Ltg - E109-E115	2#12,#12G 2#12,#12G	20/1	4	Transformer TR7		3#1,#6G	120
5 Ltg - E100-E101, E103, E108, Ext.	2#12,#126	20/1	6	Trunsformer TR7		3#1,#66	I/
7 <u>- Ltg - E100-E101, E103, E108, Ext.</u>	2#12,#126	15	8				15
9 Blower Coil <u>BC-1</u>	3#12,#12G	'	10	Blower Coil <u>BC-4</u>		3#12,#12G	113
11	J# 12,# 12G	/ 3	$\frac{10}{12}$	Blower Coll BC-4		J# 12,# 12G	I/
13		25	$\frac{12}{14}$		+		25
15 Condensing Unit <u>CU-1</u>	3#12,#12G		16	Condensing Unit <u>CU</u>	1_1	3#12,#12G	123
17	J# 12,# 12G	/ 3	18	condensing offic <u>co</u>	<del>) - 4</del>	J# 12,# 12G	1/
17 19		15	20		+		15
21 Blower Coil <u>BC-2</u>	3#12,#12G	'	22	Blower Coil <u>BC-5</u>		3#12,#12G	113
21 Blower Coll <u>BC-2</u>	J# 12,# 12G	/ 3	24	plower con <u>pc-3</u>		J# 12,# 12G	1/
<u> </u>		20	26		+		40
27 Condensing Unit <u>CU-2</u>	3#12,#12G		28	Condensing Unit <u>CU</u>	1_5	3#8,#10G	1 + 0
29	J# 12,# 12G	/ 3	$\frac{20}{30}$	condensing offic <u>co</u>	<del>,</del>	J#0,#100	1/
<del>31</del>		15	32	Spare			20
33 Blower Coil <u>BC-3</u>	3#12,#12G	'	34	Spare			20
33 Blower Coil <u>BC-3</u>		/ 3	36	Spare			20
<del>37</del> ————		25	38	Space			1
39 Condensing Unit <u>CU-3</u>	3#12,#12G		40	Space			+-
41		/ 3	42	Space			+-
Spare		20/1	44	Space			<del>                                     </del>
45 Spare		20/1	46	Space			<u> </u>
47 Spare		20/1	48	Space			_
49 Space			50	Space			<u> </u>
51 Space			52	Space			<del>  -</del>
53 Space			54	Space			<del>  -</del>

PANEL DESIGNATION: Panel 'LL10'				10000 <b>FEATURES:</b>		
LOCATION: MECHANICAL	E101		Amps:		ard Construction	ļ
<b>VOLTS:</b> 120/208			Amps:		ent Ground Bus	
CONFIGURATION: 3 Phase/4 V	Vire		ENCL.:	NEMA 1 — Equal t	o Square D NQ	
MOUNTING: Surface		1 - /- 1				_
CKT. Description	Conductors	C/B	CKT.		Conductors	4
1 *Rcpt — E106 N Wall	2#12,#12G	20/1	2	*Rcpt — E104 N Wall	2#12,#12G	4
3 *Rcpt - E106 N Station	2#12,#12G	20/1	4	*Rcpt — E104 N Station	2#12,#12G	1
5 *Rcpt — E106 NW Station	2#12,#12G	20/1	6	*Rcpt — E104 NE Station	2#12,#12G	4
7 *Rcpt — E106 W Mid Station	2#12,#12G	20/1	8	*Rcpt — E104 E Mid Station		1
9 *Rcpt - E106 SW Station	2#12,#12G	20/1	10	*Rcpt — E104 SE Station	2#12,#12G	$\perp$
11 *Rcpt — E106 SE Station	2#12,#12G	20/1	12	*Rcpt — E104 SW Station	2#12,#12G	$\perp$
13 *Rcpt — E106 S — E Wall	2#12,#12G	20/1	14	*Rcpt — E104 S — W Wall	2#12,#12G	+
15 *Rcpt — E106 Goggle Cabinet	2#12,#12G	20/1	16	*Rcpt — E104 Goggle Cabine		
Rcpt — E106 Projector	2#12,#12G	20/1	18	Rcpt — E104 Projector	2#12,#12G	
<b>19</b> *Rcpt - E107	2#12,#12G	20/1	20	*Rcpt - E105	2#12,#12G	
21 Fume Hood Receptacle	2#12,#12G	20/1	22	Spare		I
HVAC Controls Cabinet	2#12,#12G	20/1	24	Spare		I
<b>25</b> *Rcpt - E109 W Wall	2#12,#12G	20/1	26	*Rcpt — E113 E Wall	2#12,#12G	Т
27 *Rcpt - E109 W Station	2#12,#12G	20/1	28	*Rcpt - E113 E Station	2#12,#12G	T
29 Rcpt - E109 SW Station	2#12,#12G	20/1	30	*Rcpt - E113 SE Station	2#12,#12G	T
31 *Rcpt — E109 S Mid Station	2#12,#12G	20/1	32	*Rcpt - E113 S Mid Station	2#12,#12G	T
*Rcpt - E109 SE Station	2#12,#12G	20/1	34	*Rcpt - E113 SW Station	2#12,#12G	T
35 *Rcpt - E109 NE Station	2#12,#12G	20/1	36	*Rcpt - E113 NW Station	2#12,#12G	T
37 *Rcpt - E109 E - N Wall	2#12,#12G	20/1	38	*Rcpt - E113 W - N Wall	2#12,#12G	T
39 Rcpt — E109 Goggle Cabinet	2#12,#12G	20/1	40	Rcpt — E113 Goggle Cabinet	2#12,#12G	T
41 Rcpt - E109 Projector	2#12,#12G	20/1	42	Rcpt - E113 Projector	2#12,#12G	Ť
<b>43</b> *Rcpt - E110	2#12,#12G	20/1	44	*Rcpt - E114	2#12,#12G	Ť
<b>45</b> *Rcpt - E111	2#12,#12G	20/1	46	*Rcpt - E115	2#12,#12G	Ť
47 Spare		20/1	48	Spare		†
49 Spare		20/1	50	Spare		十
51 Rcpt - E112 W Wall	2#12,#12G	20/1	52	Rcpt - E100, E101	2#12,#12G	†
53 Rcpt - E112 E Wall	2#12,#12G	20/1	54	**E110 Flask Scrubber	2#12,#12G	†
55 Rcpt - E112 Projector	2#12,#12G	20/1	56	**E109 Lab Hood Exhaust Fo		†
57 FA Relay - Door Hold Opens	2#12,#12G	20/1	58	Prep Room Exhaust Fans	2#12,#12G	†
59 FA Relay — Dampers, BC Units	2#12,#12G	20/1	60	Sewage Ejector Pump <u>SE</u>	2#10,#10G	†
61 FA Expansion Panel	2#12,#12G	20/1	62	*Rcpt - E101 S Wall	2#12,#12G	
63 Spare		20/1	64	Spare		+
65 Spare		20/1	66	Spare Spare		+
67 Spare		20/1	68	Spare Spare		+
69 Spare		20/1	70	Spare Spare		+
71 Spare		20/1	$\frac{70}{72}$	Spare Spare		+
* Provide GFCI protected circuit br		1 20/ 11	. / _	Spai 0		_







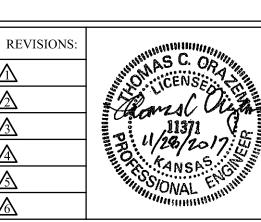


BBN

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KS 66502 PH: 785-776-4912 WWW.BBNARCHITECTS.COM

been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

© BBN Architects. Inc.



Project Number: 16036

Date: 11/28/17

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

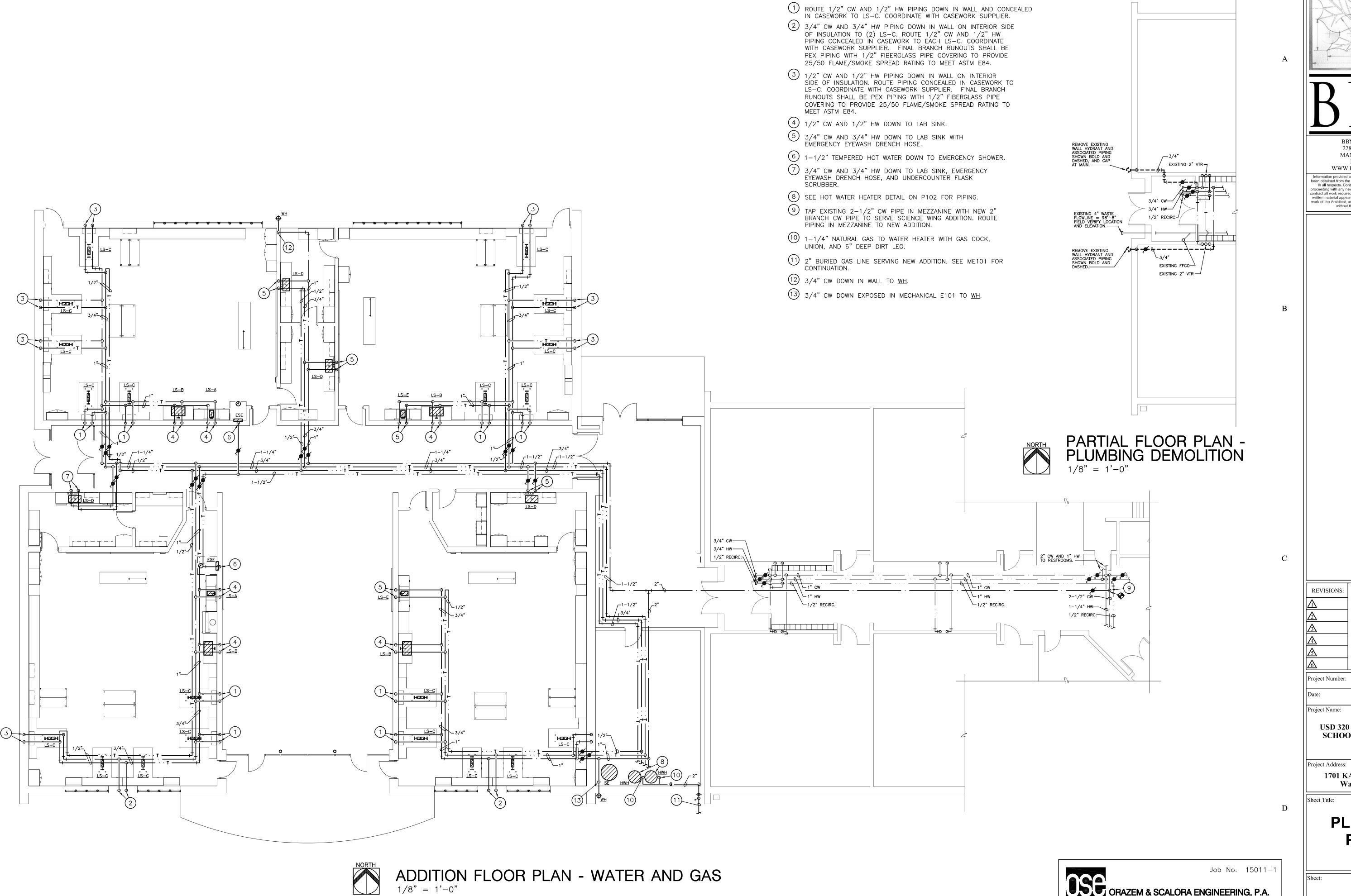
Project Address:

Project Name:

1701 KAW VALLEY ROAD Wamego, KS 66547

ELECTRICAL DETAILS AND SCHEDULES

E201



NOTES BY SYMBOLS

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KS 66502 PH: 785-776-4912 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

© BBN Architects, Inc.

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

1701 KAW VALLEY ROAD Wamego, KS 66547

**PLUMBING PLANS** 

P101

ORAZEM & SCALORA ENGINEERING, P.A.

Copyright © Orazem & Scalora Engineering, P.A. 2017

### PLUMBING EQUIPMENT SCHEDULE

General Notes

1. For fixtures marked (ADA), fixture, trim, mounting dimensions and installation shall meet the requirements of the 2010 Americans With Disabilities Act
 2. Coordinate fixture locations with Architectural plans and elevations prior to rough—in.
 3. All fixtures shall be provided with vandal resistant trim.

(ADA) Lab sink and faucet by others. Provide Dearborn supplies with stops and escutcheon plate, and Dearborn 1—1/2" cast brass P—trap with cleanout plug. Insulate water and waste piping below sink with manufactured piping covers consisting of flexible vinyl insulation with white finish and access to piping, equivalent to Handi—Lav Guard manufactured by Trubro Inc.

LS-B Lab sink and faucet by others. Provide Dearborn supplies with stops and escutcheon plate, and Dearborn 1-1/2" cast brass P-trap with cleanout plug

LS-C Lab sink and faucet by others. Provide Dearborn supplies with stops and escutcheon plate, and Dearborn 1-1/2" cast brass P-trap with cleanout plug. Two faucets provided at each sink location.

LS-D Lab sink and faucet by others. Provide Dearborn supplies with stops and escutcheon plate, and Dearborn 1-1/2" cast brass P-trap with cleanout plug. Provide with undercounter mounted tempering valve for deck mounted drench hose, equivalent to Guardian G3600LF tempering valve, 1/2" nominal hot and cold water inlet pipe tap, 1/2" mixed outlet pipe tap. Valve shall be capable of providing 2.7 gpm of

outlet pipe tap. Valve shall be capable of providing 2.7 gpm of tempered water at 10 psi pressure drop. The valve shall be constructed of bronze and non-ferrous materials. The unit shall include a built—in cold water by—pass, solid bimetal thermostat, locking temperature regulator with limit stop factory set for 90 degrees, internal check stops, and dial thermometer.

LS—E Lab sink and faucet by others. Provide Dearborn supplies with stops

(ADA)
and escutcheon plate, and Dearborn 1-1/2" cast brass P-trap with cleanout plug. Provide with undercounter mounted tempering valve for deck mounted drench hose, equivalent to Guardian G3600LF tempering valve, 1/2" nominal hot and cold water inlet pipe tap, 1/2" mixed outlet pipe tap. Valve shall be capable of providing 2.7 gpm of tempered water at 10 psi pressure drop. The valve shall be constructed of bronze and non-ferrous materials. The unit shall include a built-in cold water by-pass, solid bimetal thermostat, locking temperature regulator with limit stop factory set for 90 degrees, internal check stops, and dial thermometer. Insulate water and waste piping below sink with manufactured piping covers consisting of flexible vinyl insulation with white finish and access to piping, equivalent to Handi-Lav Guard manufactured by Trubro Inc.

NT

Striem model LB-2 neutralization tank with 2 gallon capacity,

piping, equivalent to Handi-Lav Guard manufactured by Trubro Inc.

NT

Striem model LB-2 neutralization tank with 2 gallon capacity,

4-1/2" gasketed top access port with captive hand-thread hardware,

2" pipe inlet and outlet, and built-in sewer gas trap. Unit molded from high density polyethelyene with 1/4" uniform wall thickness, and

25 lb limestone capacity. See plans for installation location. Provide complete with fully supported base. Install in a manner that unit

remains serviceable.

WH-A

Wade W-8600 non-freeze wall hydrant, cast bronze with satin bronze face, 3/4" inlet and brass casing of sufficient length to extend through walls as required to place valve inside building. Valve rod and seat washer shall be removable through the face of the hydrant. Hydrant shall be furnished complete with detachable T-handle and

integral vacuum breaker.

FS Floor sink — Wade 9140 12" square, 8" deep, cast iron with smooth porcelain acid resisting interior, double drainage flange, bottom outlet, acid resisting nickel brass grate with openings as required for indirect drains, and sediment bucket. Omit grate where not required. Use acid resistant porcelain coated cast iron where not subjected to foot traffic. Provide with ProSet Systems trap guard T25630—F. Floor sink installed in recessed floor slab, see Architectural plans.

- FWCO Wade 8560—E cleanout tee with brass threaded plug and 8480—R round stainless steel coverplate secured to plug by countersunk screw.

  FFCO Finished floor cleanout, Wade 6000—Z—1 cast iron finished floor cleanout with spigot outlet, threaded adjustable housing, flanged ferrule with bronze threaded plug and vandal proof round secured
- HWH

  A.O. Smith BTH-199 gas fired direct vent water heater, 100 gallon storage, 199 MBH natural gas input, 261 gallon per hour recovery at 90 degrees F rise.
- SE Vertical centrifugal sewage ejector pump, Weil series 2100, model 2103, duplex arrangement. 30 gpm @ 20 feet head (each pump), 2 drip—proof motors, 1/2 hp, 120 volt/1 phase, 1150 rpm, 36 in. dia. x 60 in. deep fiberglass basin. Provide pump with cover panel, automatic alternator, capacity doubler, float switches, high water alarm, basin cover and 3" NPT threaded discharge elbow & check
- Leonard #TM-520B-LF-DF-IT high-low thermostatic water mixing valve assembly for exposed piping with Type TM Thermostatic Water Mixing Valve with solid bimetal thermostat directly linked to valve porting, adjustable limit stops, color coded scale, wall support, inlet union angle strainer checkstops, outlet volume control/shutoff, pressure regulating valve with pressure gauges, Type TM Thermostatic Water Mixing Valve with solid bimetal thermostat directly linked to valve porting, assembly shall be capable of providing 29 gpm of tempered water at 10 psi pressure drop, 1.0 gpm minimum flow rate, adjustable limit stops, color coded scale, outlet volume control/shutoff, dial thermometer (range: 0 degrees F to 140 degrees F),
- IV Emergency mixing valve Haws 9202E with factory set point of 85 deg. F, 60-90 deg. F outlet temperature adjustment range, 1 gpm minimum flow rate, 45 gpm flow rate at 10 PSI pressure drop, cold water bypass upon failure of hot water, hot water shutdown upon failure of cold water, paraffin filled thermostat, inlet check stops, 1-1/4" inlets, 1-1/4" outlet.

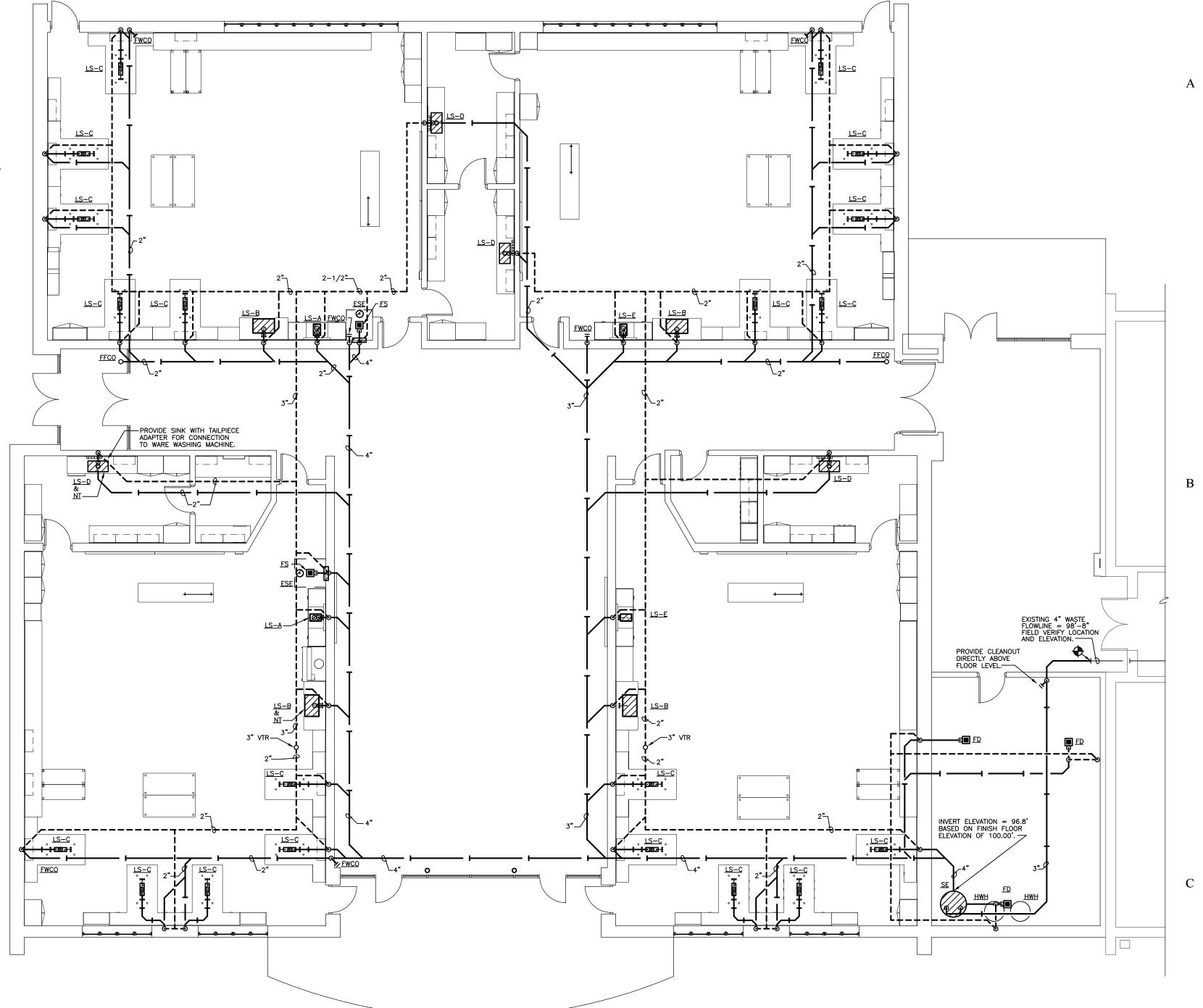
and rough bronze finish.

- HWP Hot water circulation pump, Taco #005-BF, in-line, 4GPM @ 9 ft. head, 1/35 HP, bronze body, 3250 RPM, 120 volt, 1 phase, 3/4" flanges. Provide bronze companion flanges and aquastat control.

  TEA Thermal Expansion Absorber, Amtrol ST-30V-C precharged hydropneumatic steel expansion tank with internal butyl diaphragm. 14.0 gallons total volume, 8.9 gal minimum expansion volume, 150
- psig maximum working pressure.

  ESE
  Guardian GBF2150 recessed barrier—free eye/face wash and shower safety station with ceiling mounted exposed shower head, stainless steel bar actuator with brass stay—open ball valve, pulldown eye/face wash to automatically open valve for operation. Furnished with
- ANSI—compliant identification sign.

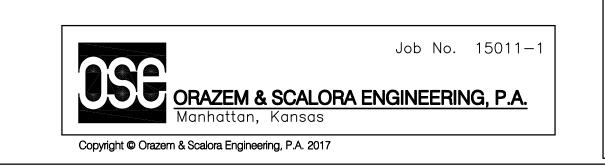
  FD Floor drain for mechanical rooms Wade 2350—27 cast iron with bottom outlet, 8" square top, square loose set grate, and removable sediment bucket. Provide with ProSet Systems trap guard T25630—F.

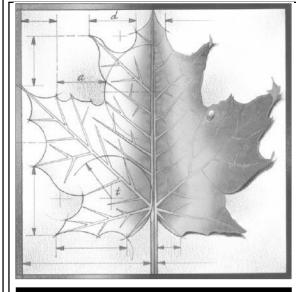




ADDITION FLOOR PLAN - WASTE AND VENT

PLUMBING FIXTURE	MINIMUM	<b>ROUGH-IN</b>	SIZE SC	HEDULE
FIXTURE/DESIGNATION	WASTE	VENT	COLD WTR.	TEMP. HOT WTR.
LAB SINK/LS-A,B,C	2"	2"	1/2"	1/2"
LAB SINK WITH EYEWASH/LS-D,E	2"	2"	3/4"	3/4"
EMERGENCY SHOWER/ESE	2"	2"		1-1/2"
WALL HYDRANT/WH-A			3/4"	
FLOOR SINK/FS	4"	2"		
FLOOR DRAIN/FD	2"	2"		



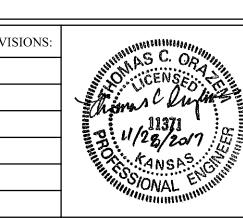


BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KS 66502
PH: 785-776-4912
WWW.BBNARCHITECTS.COM

been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings an written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

© BBN Architects. Inc.



Project Number: 16036

Date: 11/28/17

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

Project Address:

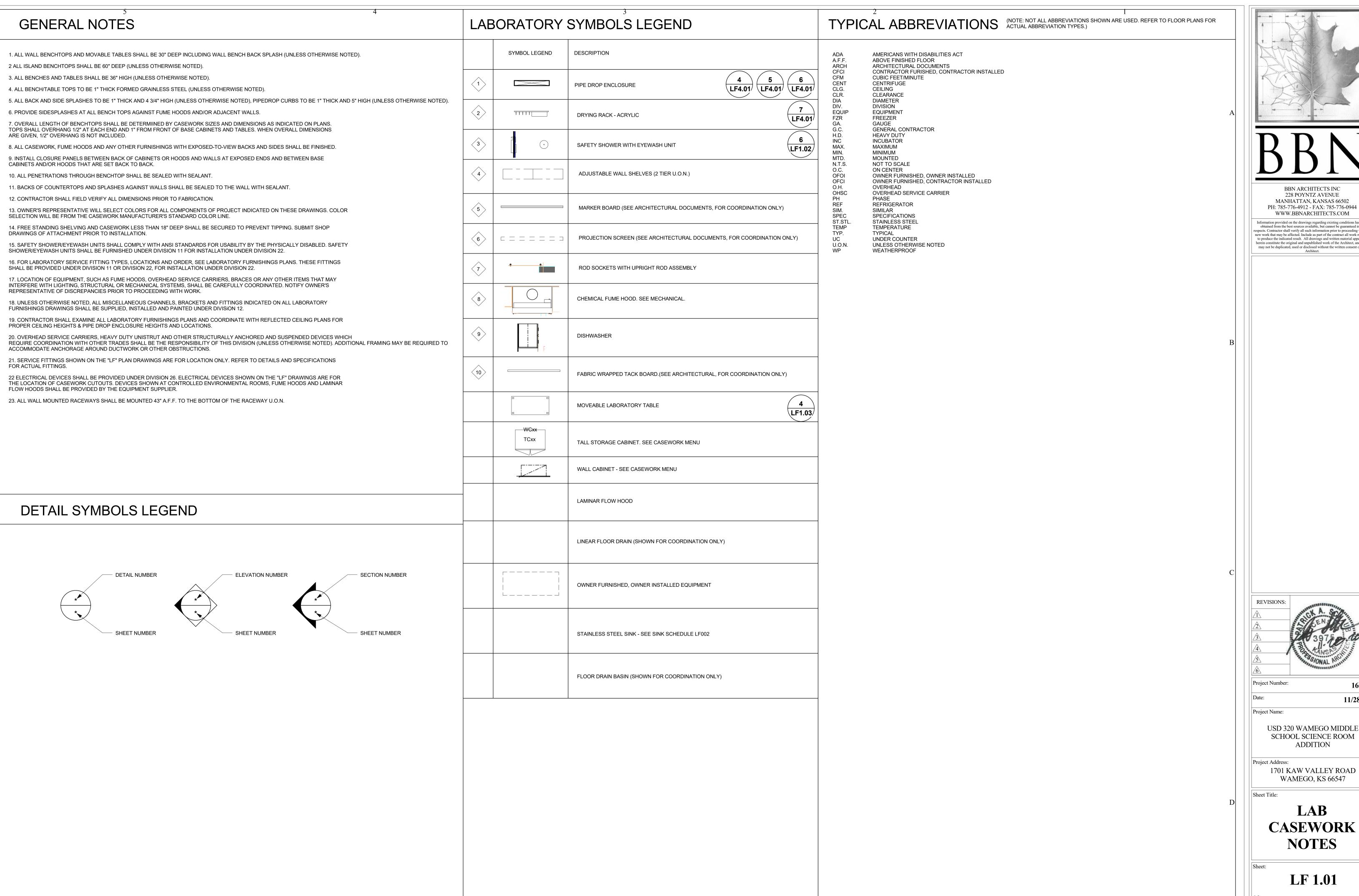
Project Name:

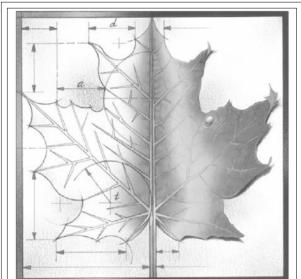
1701 KAW VALLEY ROAD Wamego, KS 66547

Sheet Tit

PLUMBING PLANS

P102





BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

Project Number:

SCHOOL SCIENCE ROOM ADDITION

11/28/17

1701 KAW VALLEY ROAD WAMEGO, KS 66547

LAB **CASEWORK NOTES** 

**LF 1.01** 

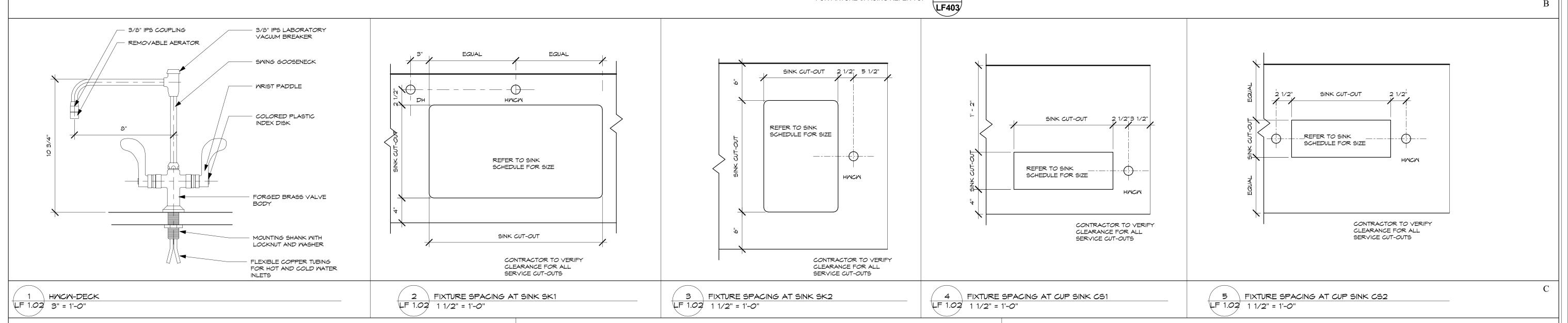
### EXHAUST EQUIPMENT SCHEDULES

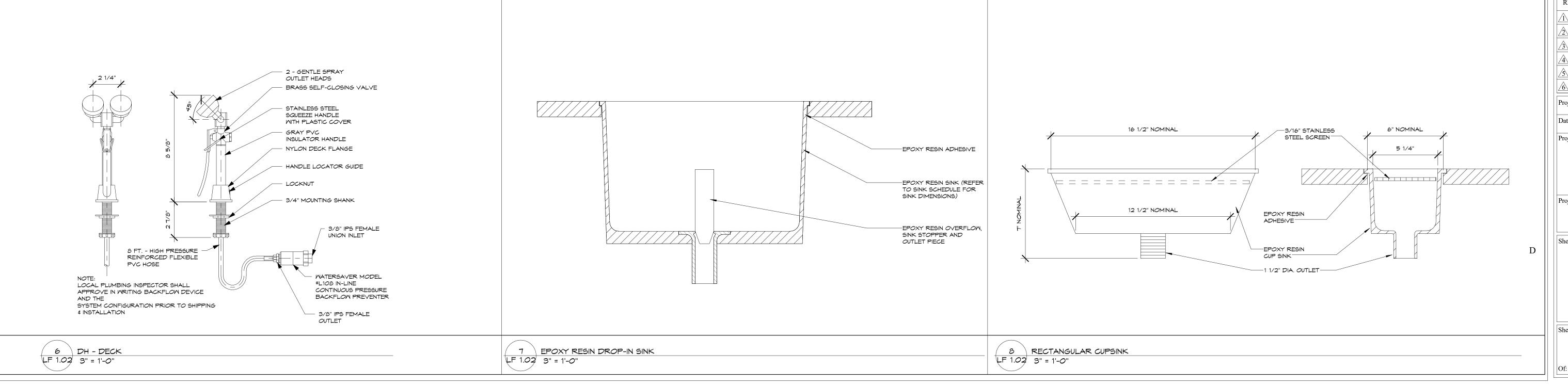
### CHEMICAL FUME HOODS

DRAWING REFERENCE	HOOD SIZE AND TYPE	TYPE OF SASH	TYPE OF SILL	NUMBER OF VERTICAL SASHES	REMARKS	1
4' CFH	4' CHEMICAL FUME HOOD	VERTICAL	AIRFOIL	1	SEE MECHANICAL PLANS AND SPECIFICATION FOR REQUIREMENTS	-

LABORA	TORY SERVICE FITTING SCHEDUL	.E		LABORATOR					
ABBREV.	FITTING TYPE	MOUNTING	NOTES	DETAIL SINK NUMBER	DESCRIPTION	OUTLET	WIDTH x DEPTH x HEIGHT (INSIDE DIMENSIONS)	REMARKS	DETAIL
HWCW	POTABLE HOT WATER / POTABLE COLD WATER	DECK AT LABORATORY SINK	<	1 LF1.02	EPOXY RESIN	SIDE	28" X 15" X 12" D	DROP-IN	7 LF1.02
SS / EW	SAFETY SHOWER / EYEWASH UNIT	WALL PULL-DOWN EYEWASI (RECESSED)	1	9 LF4.01	EPOXY RESIN	SIDE	15" X 18' X 11"D	DROP-IN	7 LF1.02
DH	DRENCH HOSE	DECK AT ADA LABORATORY	WASH-UP SINK	6 LF1.02					
				CS1	EPOXY RESIN	CENTER	6" X 14"	RECTANGULAR	8 LF1.02
				CS2	EPOXY RESIN	CENTER	6" X 18"	RECTANGULAR	8 LF1.02

FOR FIXTURE SPACING REFER TO:

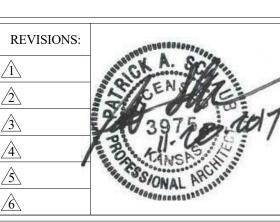






BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



11/28/17

Project Number:

Project Name:

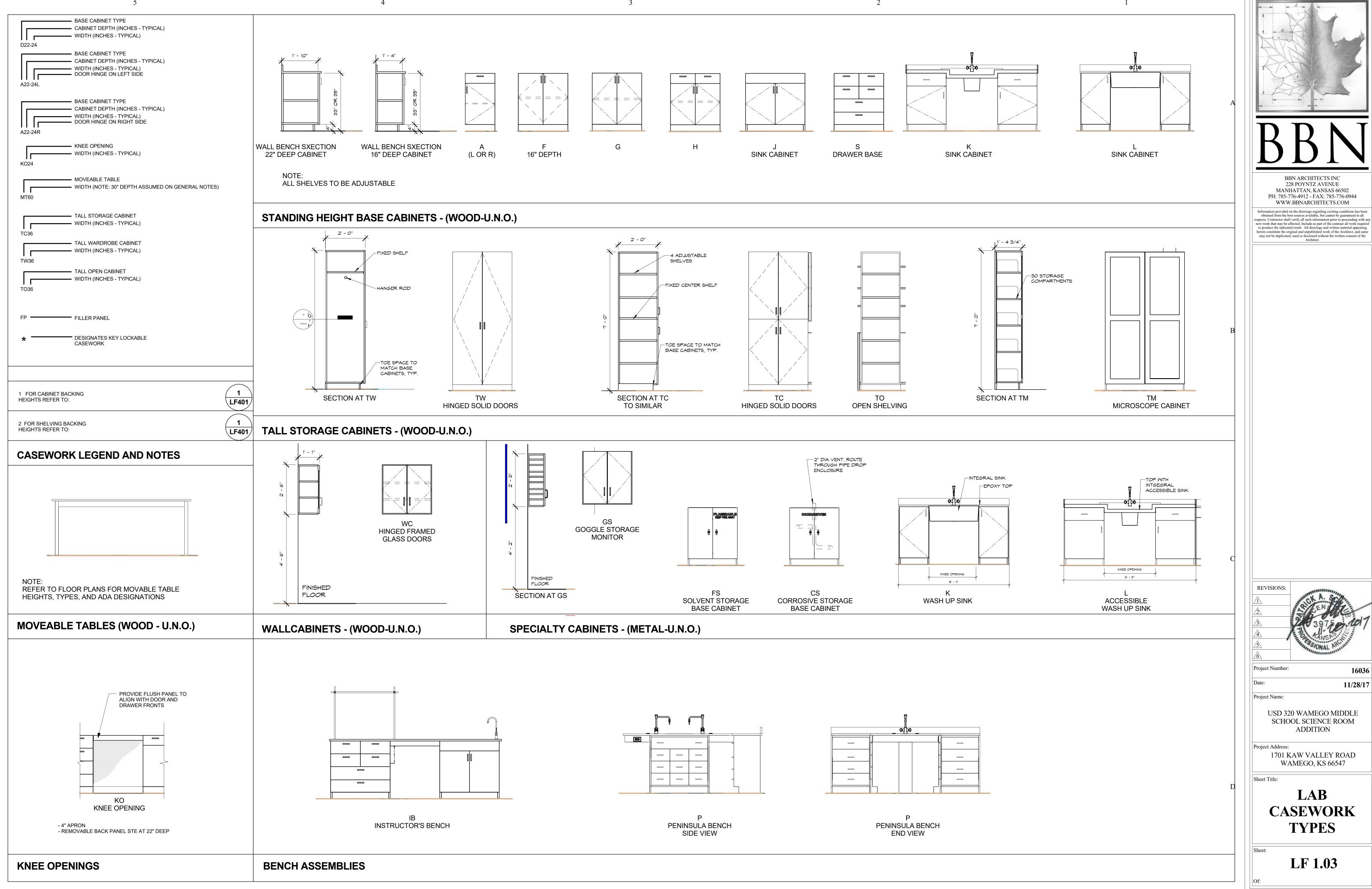
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM

ADDITION Project Address:

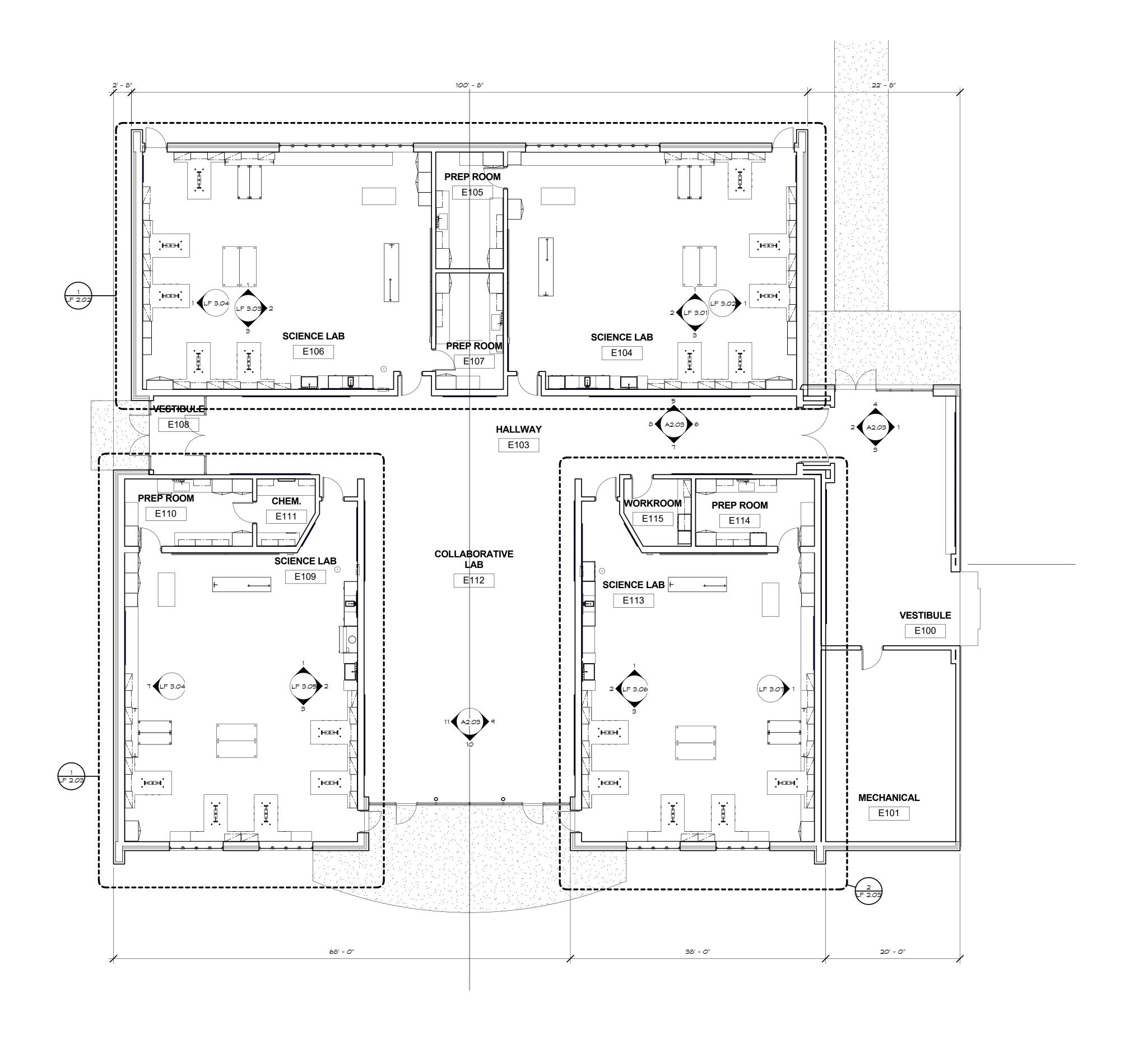
1701 KAW VALLEY ROAD WAMEGO, KS 66547

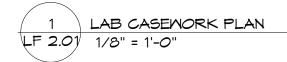
Sheet Title: LAB **FURNISHING NOTES AND SCHEDULES** 

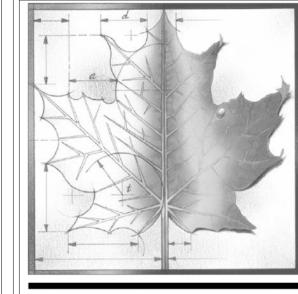
**LF 1.02** 



respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required







BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

REVISIONS:

Project Number:

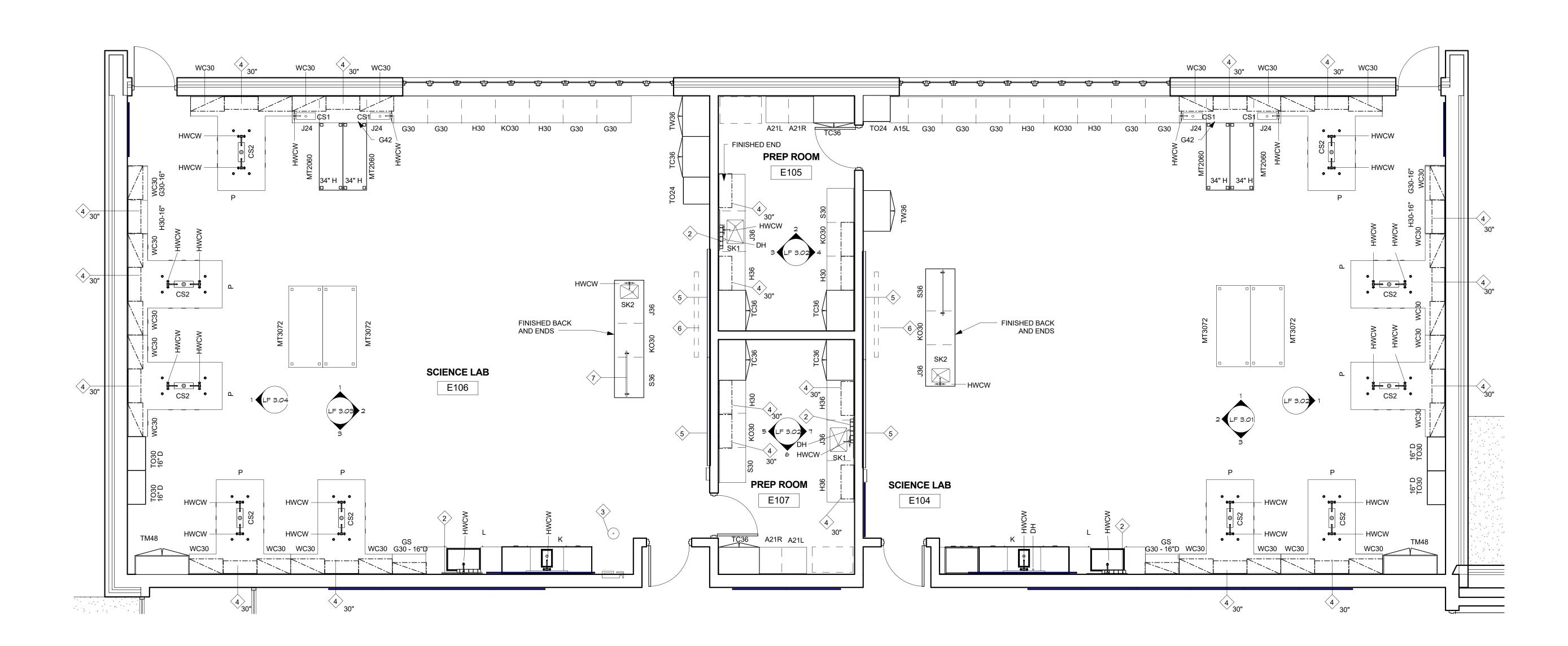
USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

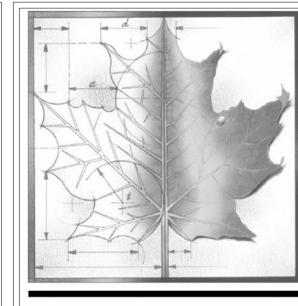
1701 KAW VALLEY ROAD WAMEGO, KS 66547

LAB **CLASSROOM CASEWORK PLAN** 

**LF 2.01** 



ENLARGED PLAN AT SCIENCE LABS E104, 1 E106 LF 2.02 1/4" = 1'-0"



## BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

Project Number:

Date.

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

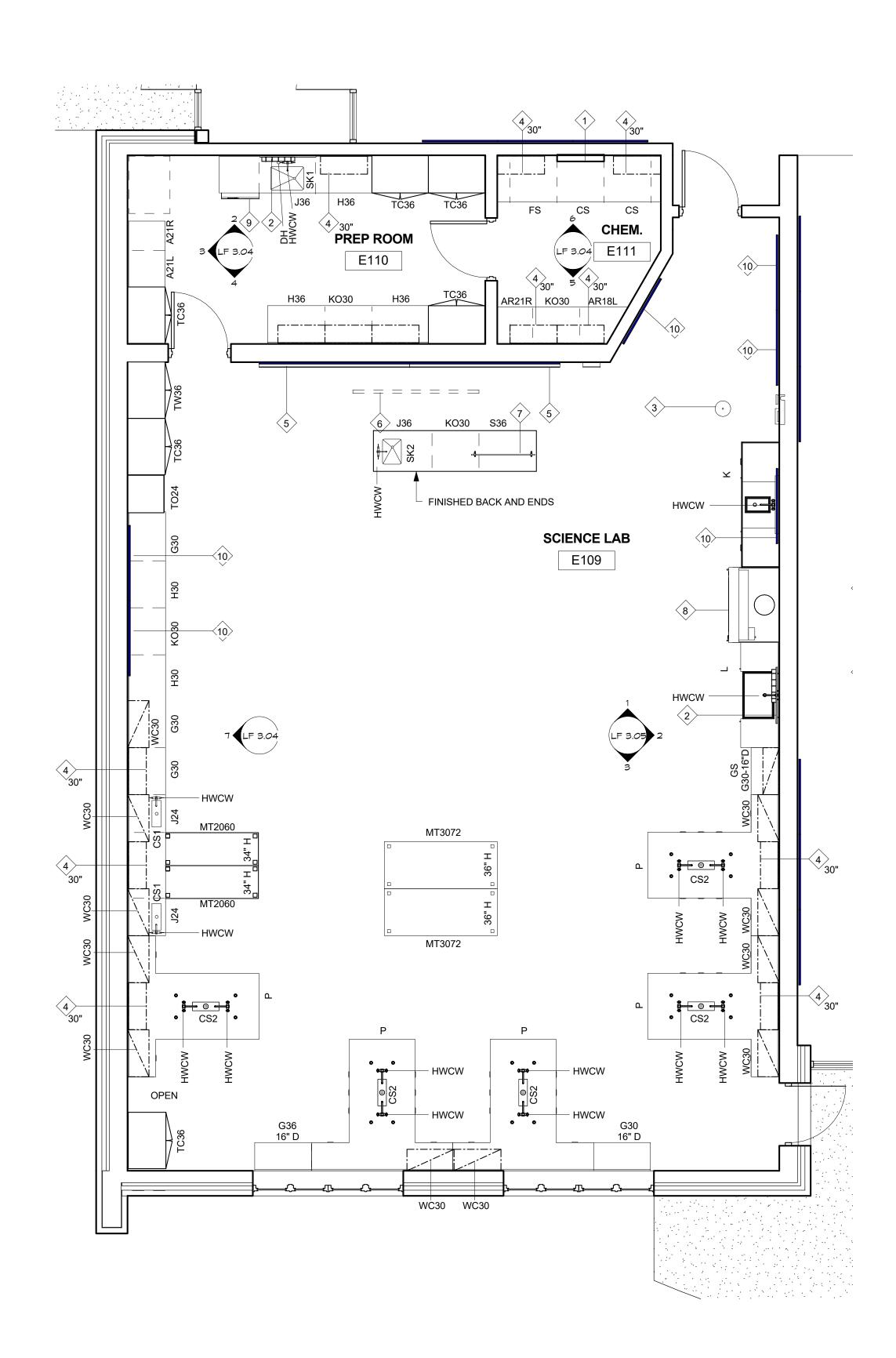
Project Address:

1701 KAW VALLEY ROAD WAMEGO, KS 66547

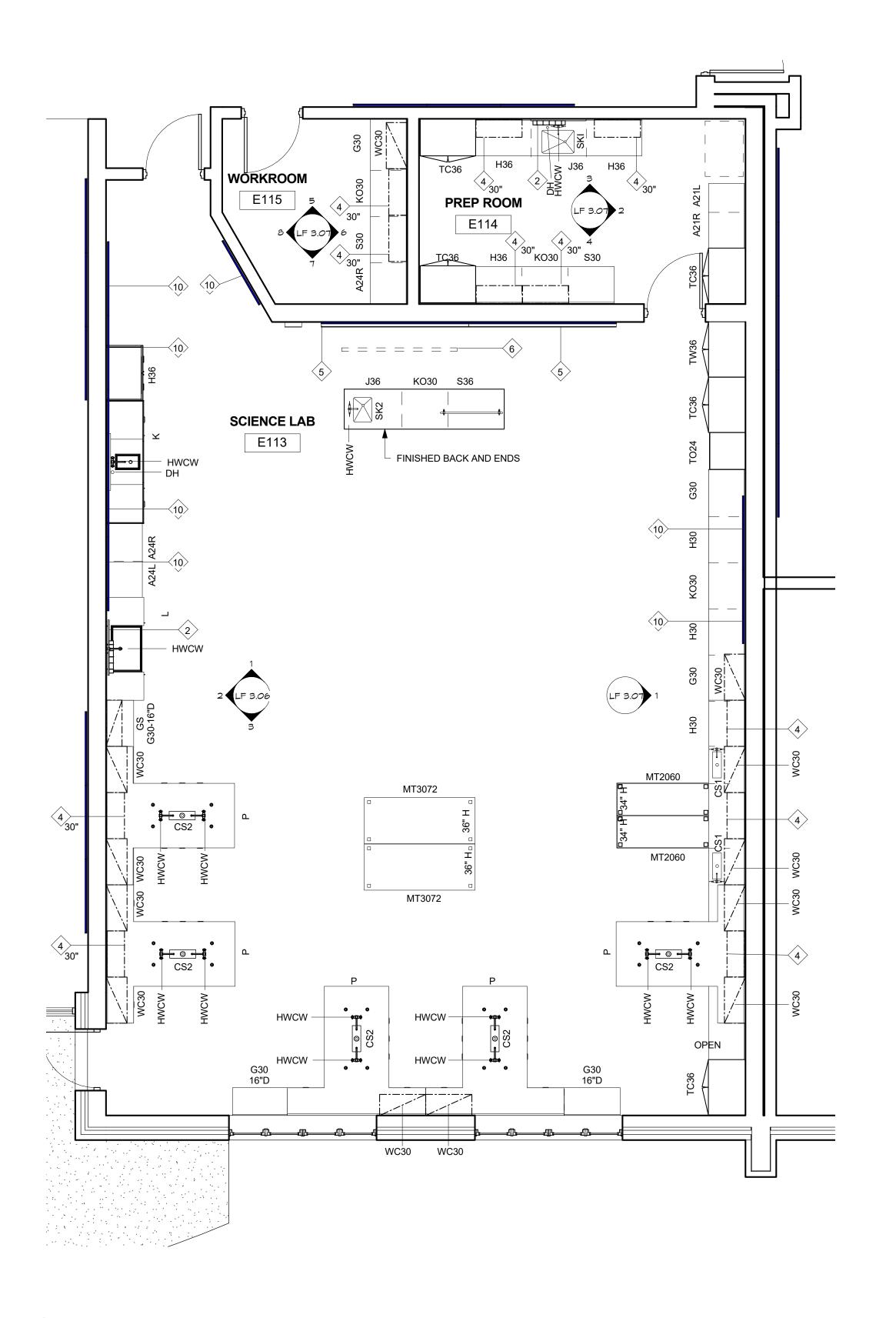
Sheet Title:

LAB CASEWORK PLAN

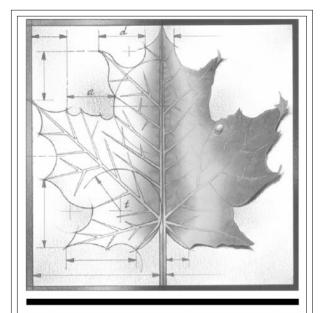
LF 2.02



1 ENLARFGED PLAN AT SCIENCE LAB E109 LF 2.03 1/4" = 1'-0"



2 ENLARGED PLAN AT SCIENCE LAB E113 LF 2.03 1/4" = 1'-0"



BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

Project Number:

Date:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

Project Addres

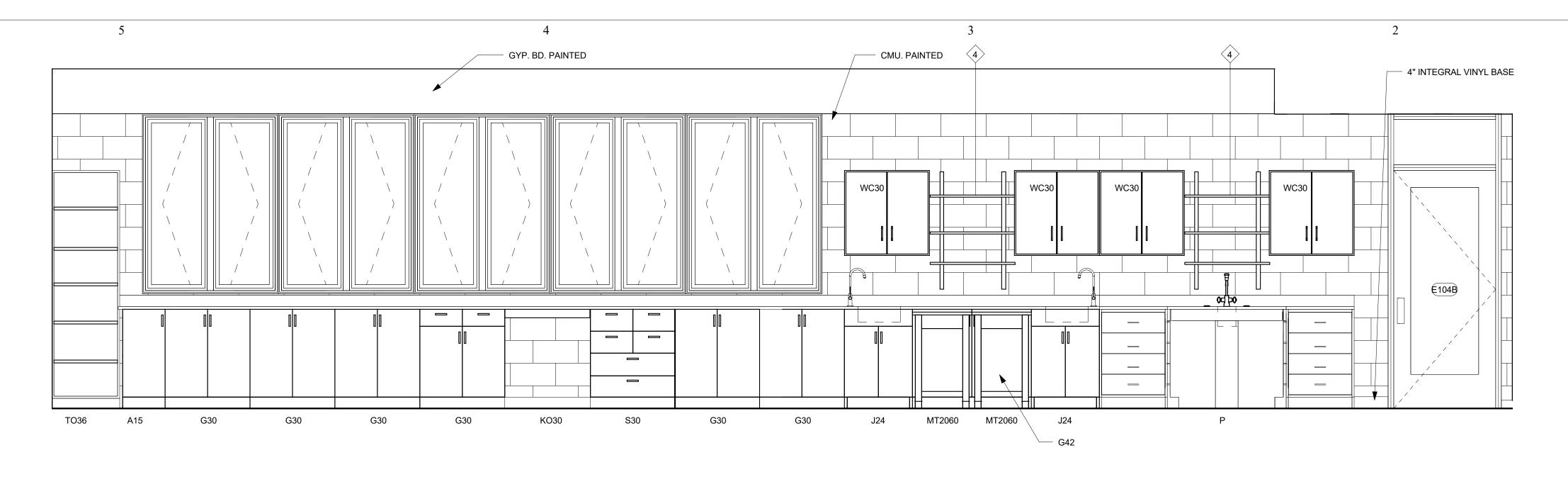
1701 KAW VALLEY ROAD WAMEGO, KS 66547

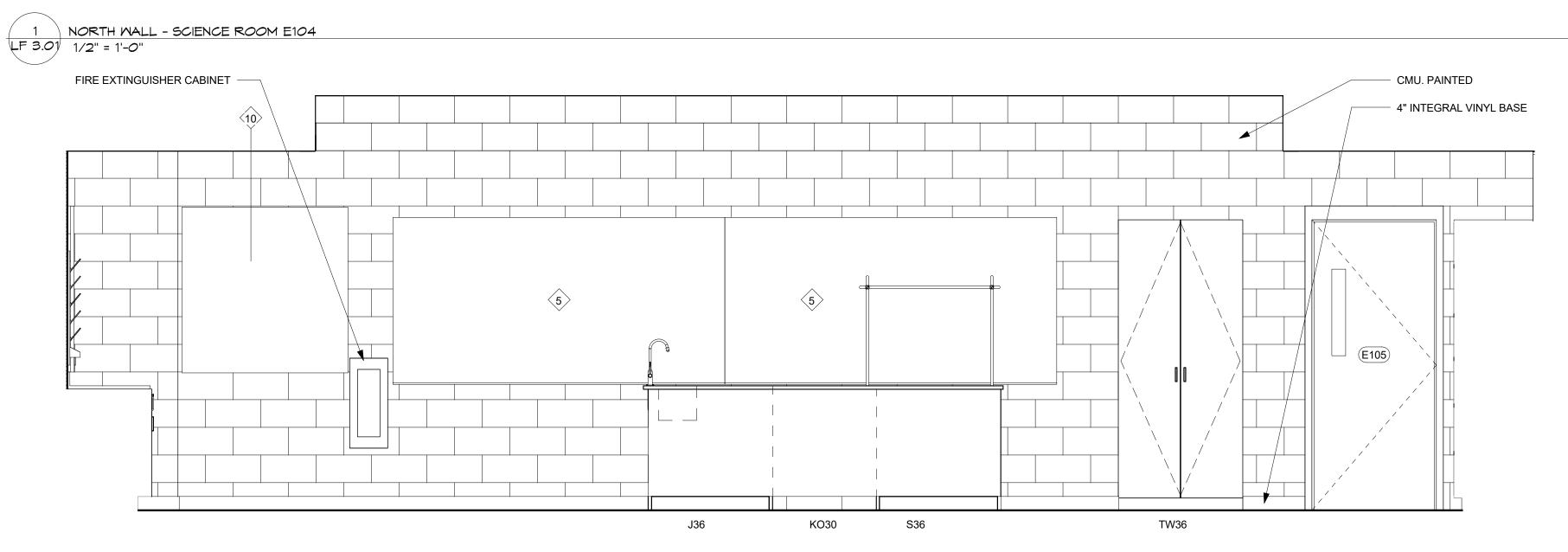
Sheet Title:

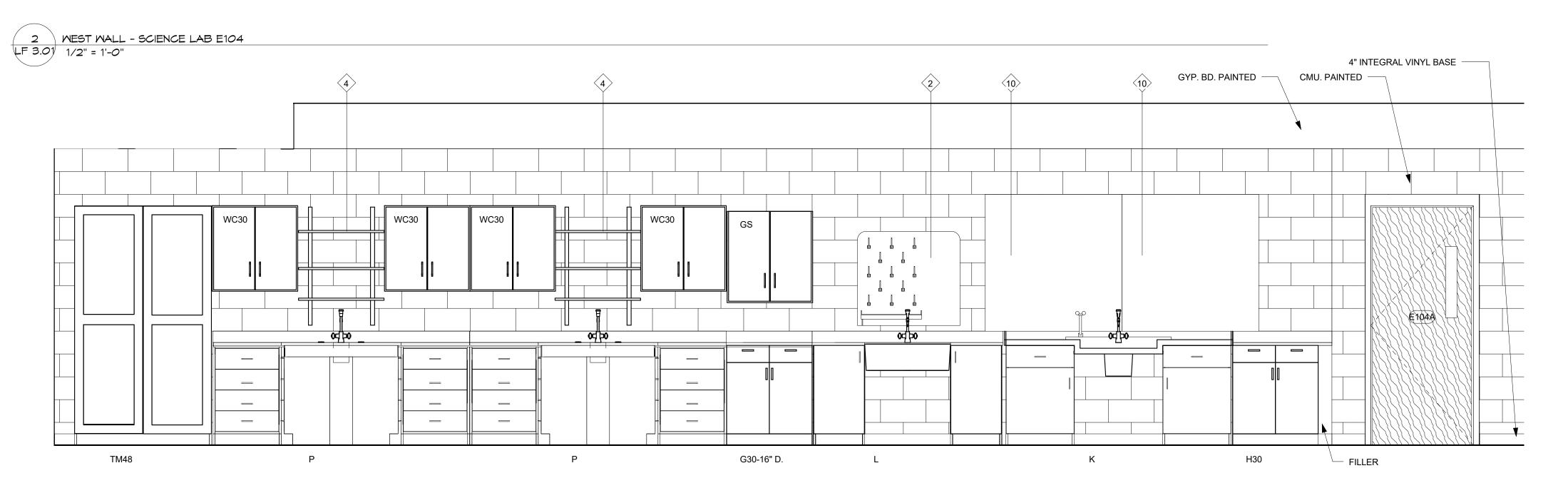
LAB CASEWORK PLANS

LF 2.03

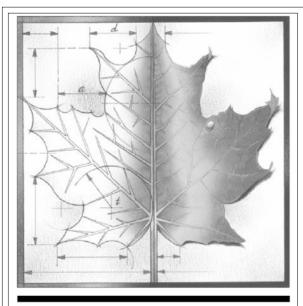
Chaota





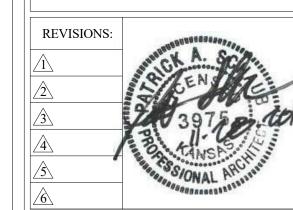


3 SOUTH WALL - SCIENCE LAB E104 LF 3.01 1/2" = 1'-0"



BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



Project Number:

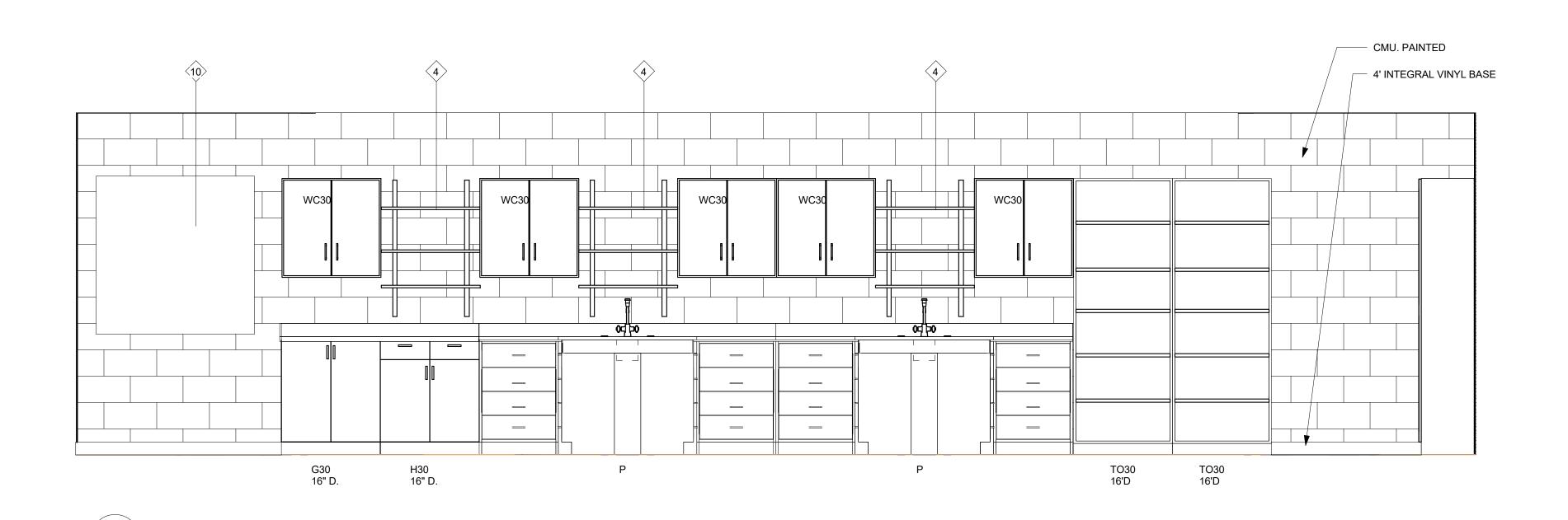
Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

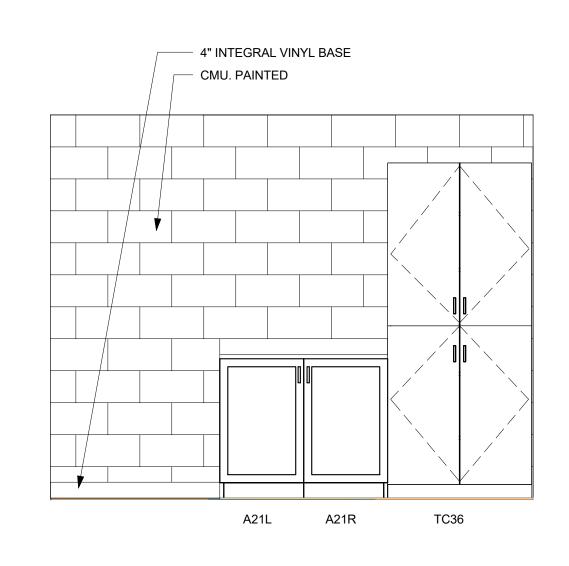
1701 KAW VALLEY ROAD WAMEGO, KS 66547

LAB **ELEVATIONS** 



CMU. PAINTED — 4' INTEGRAL VINYL BASE A21R TC36 A21L

2 NORTH WALL -PREP ROOM E105 LF 3.02 1/2" = 1'-0"



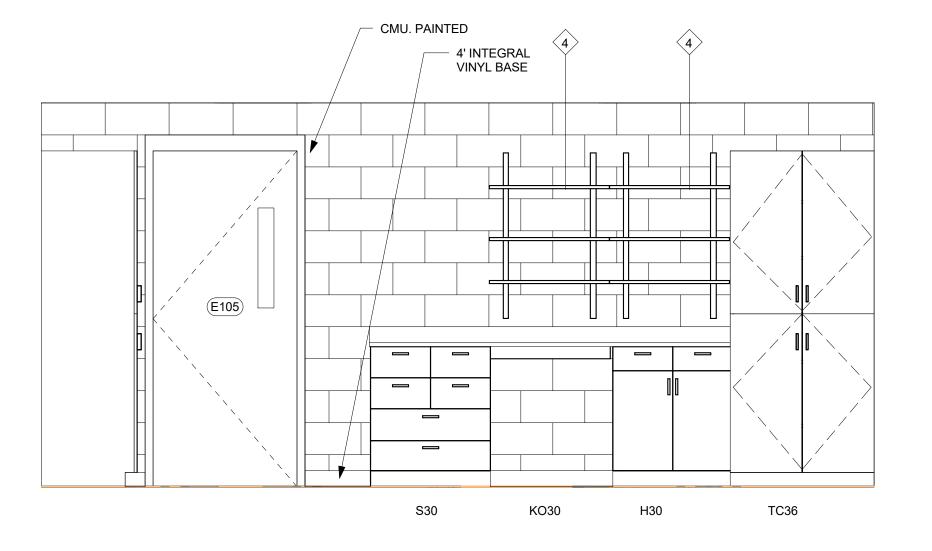
6 SOUTH WALL - PREP ROOM E107 LF 3.02 1/2" = 1'-0"

CMU. PAINTED - 4" INTEGRAL VINYL BASE TC36 TC36

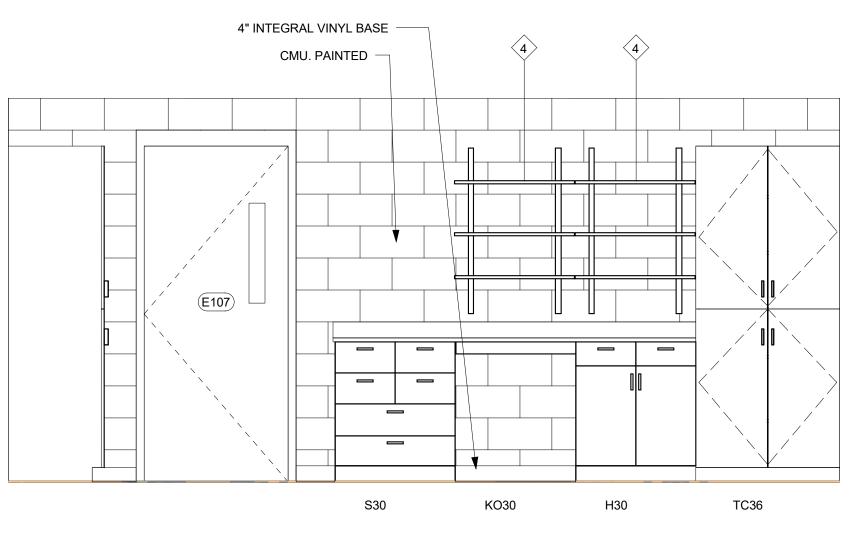
1 EAST WALL - SCIENCE LAB E104 LF 3.02 1/2" = 1'-0"

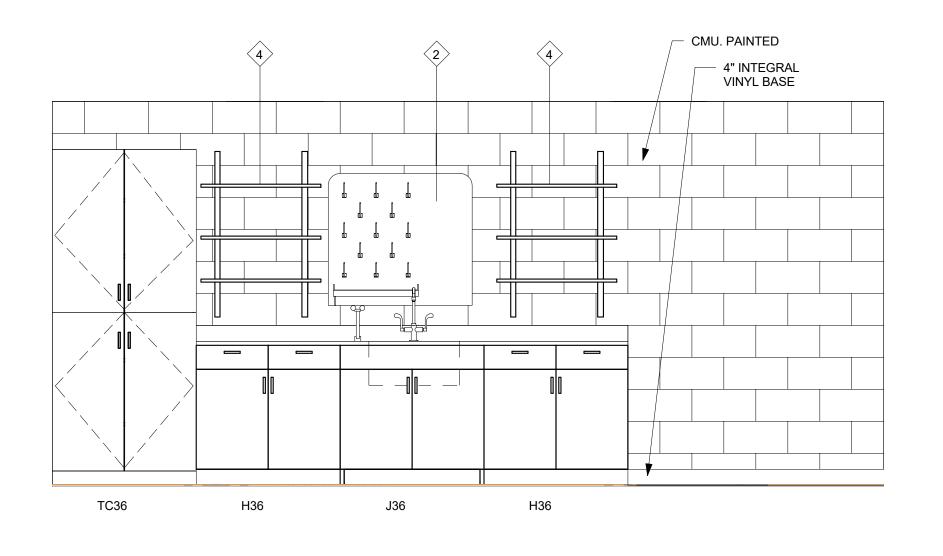
3 WEST WALL - PREP ROOM E105 LF 3.02 1/2" = 1'-0"

5 WEST WALL - PREP ROOM E107 LF 3.02 1/2" = 1'-0"



4 EAST WALL - PREP ROOM E105 LF 3.02 1/2" = 1'-0"





7 EAST WALL - PREP ROOM E107 LF 3.02 1/2" = 1'-0"

BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

REVISIONS:

Project Number:

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

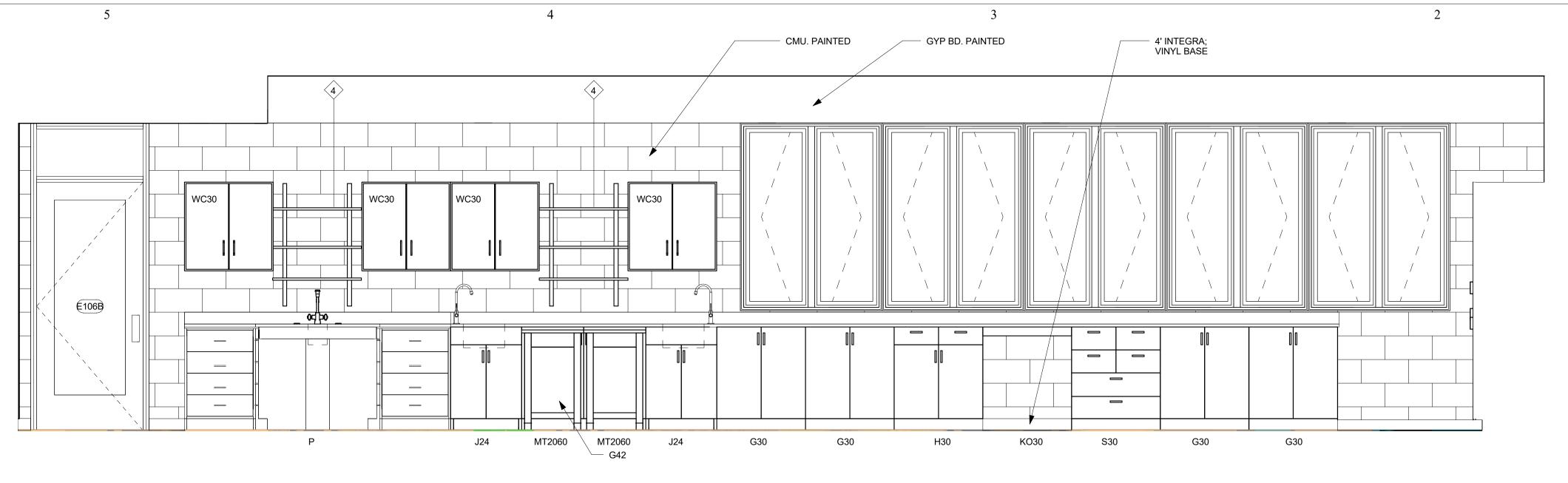
11/28/17

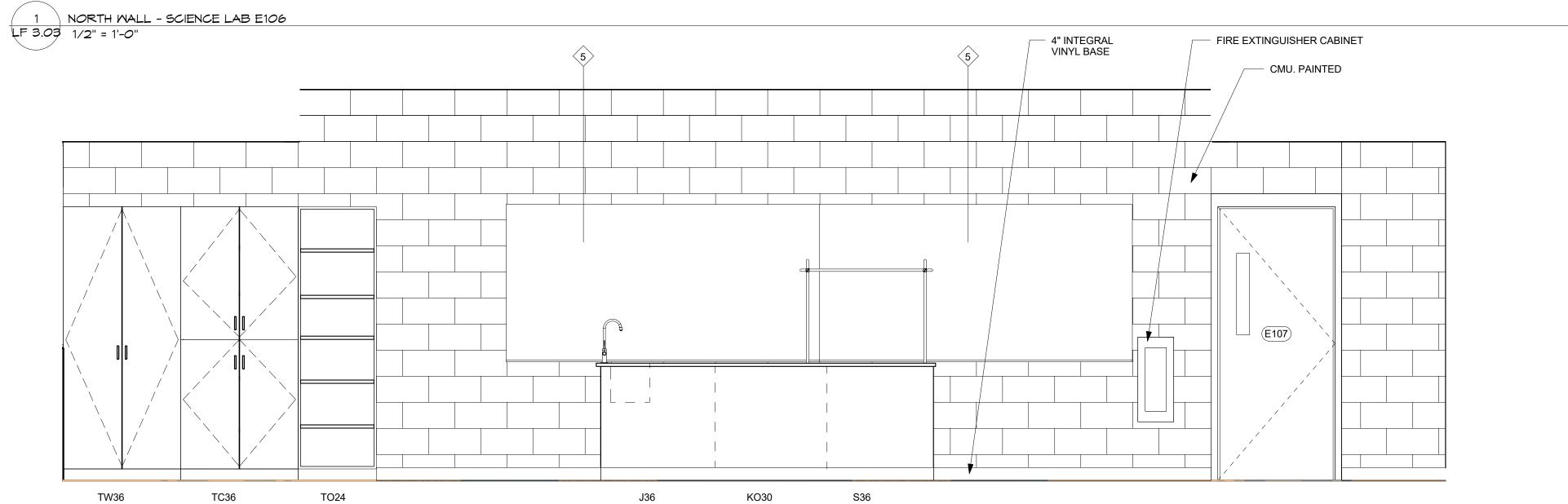
1701 KAW VALLEY ROAD

WAMEGO, KS 66547

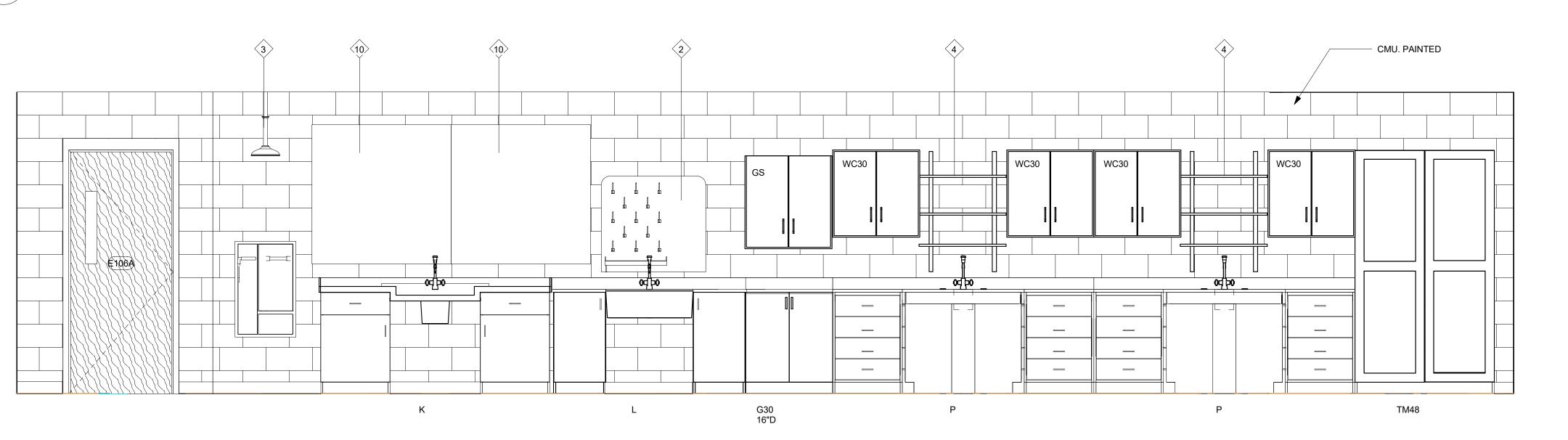
Sheet Title:

LAB **ELEVATIONS** 

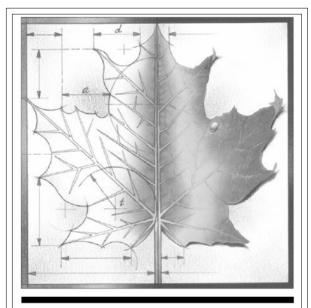




2 EAST WALL - SCIENCE LAB E106 LF 3.03 1/2" = 1'-0"

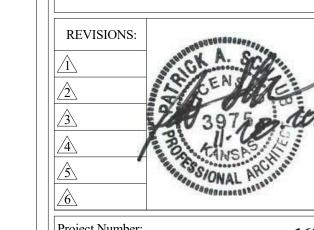






BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



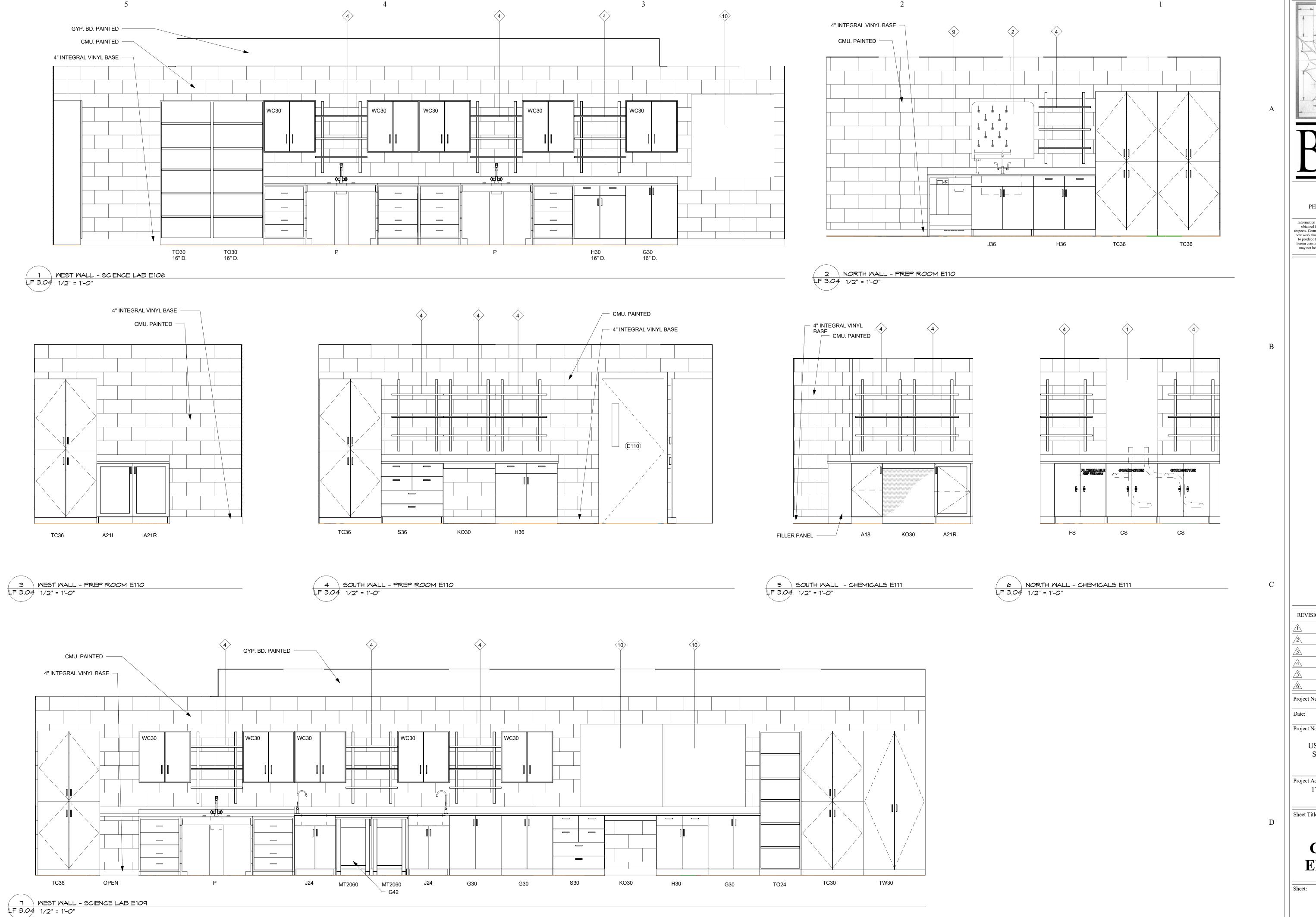
Project Number:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

1701 KAW VALLEY ROAD WAMEGO, KS 66547

LAB **ELEVATIONS** 



BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

**REVISIONS:** 

Project Number:

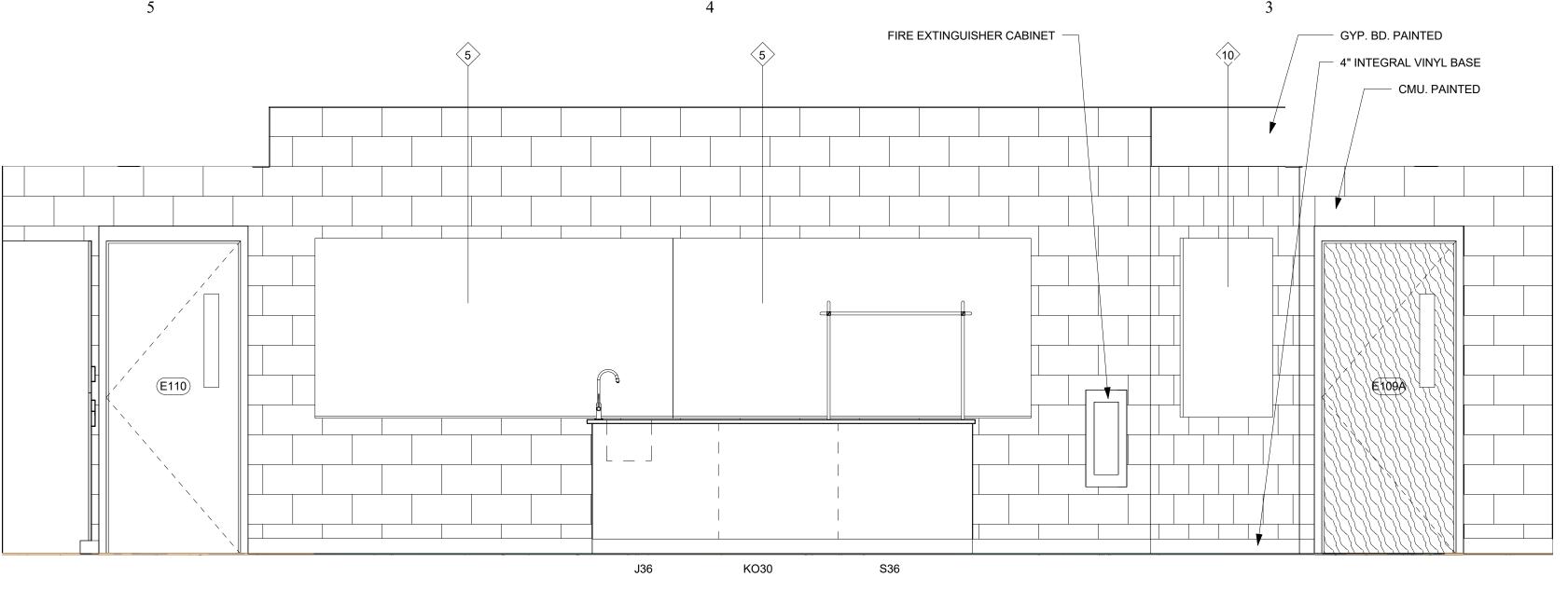
Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

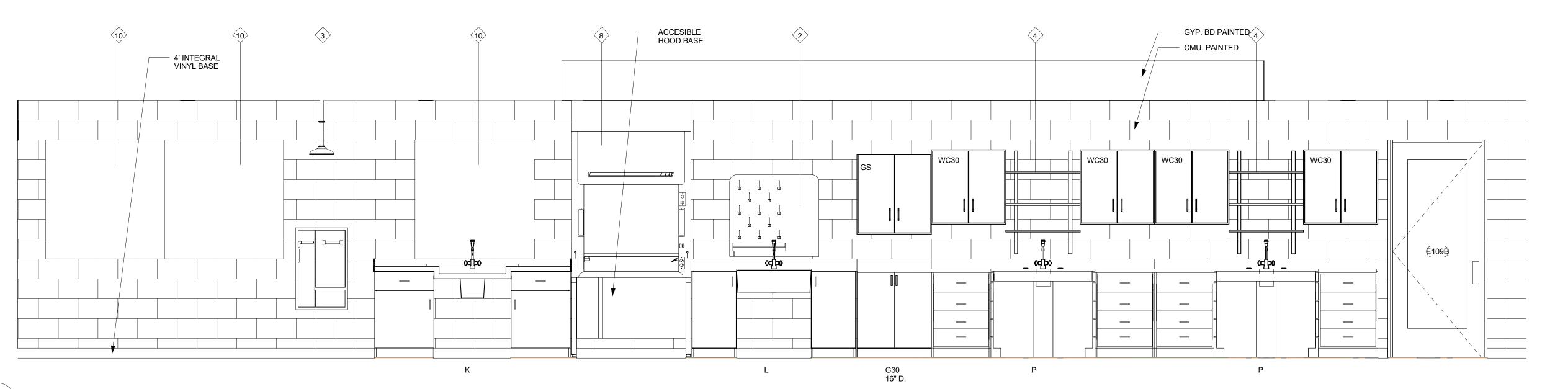
11/28/17

1701 KAW VALLEY ROAD WAMEGO, KS 66547

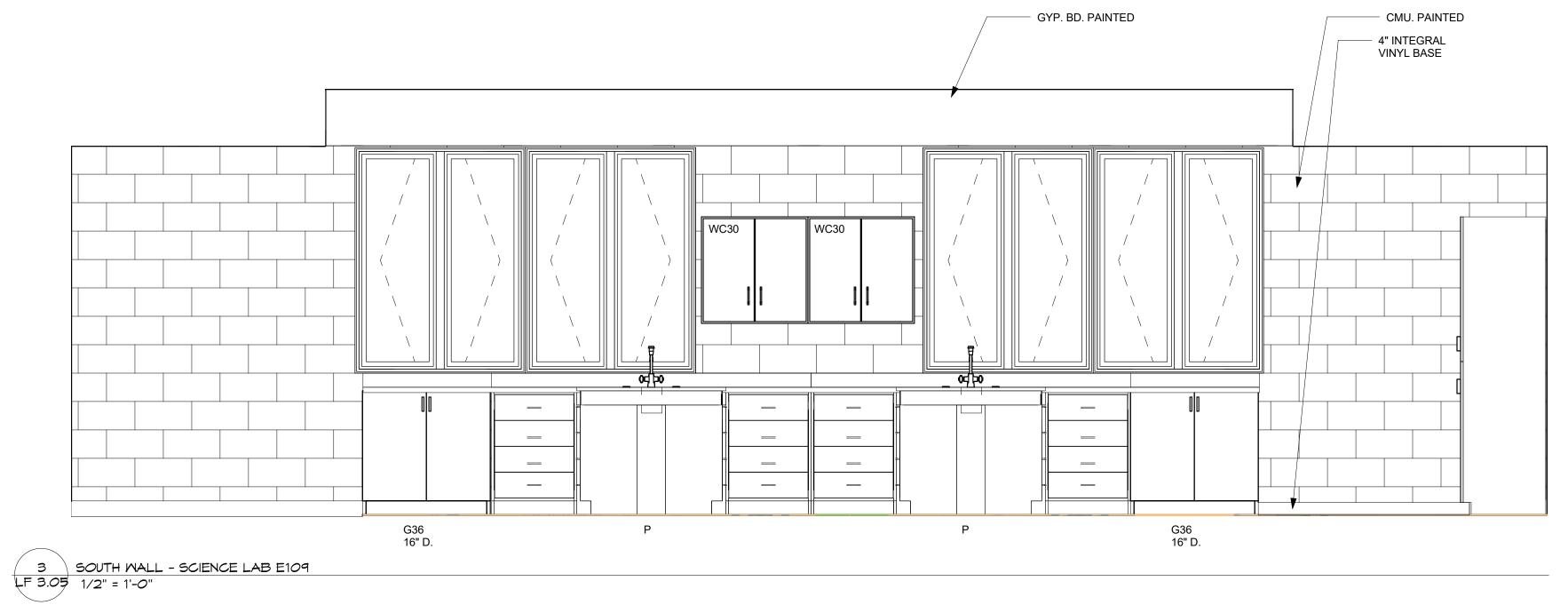
LAB **CASEWORK ELEVATIONS** 

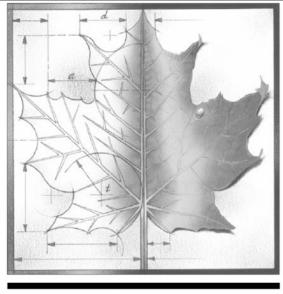


1 NORTH WALL - SCIENCE LAB E109 LF 3.05 1/2" = 1'-0"



2 EAST WALL - SCIENCE LAB E109 LF 3.05 1/2" = 1'-0"





BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

С

Project Number:

Date.

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

D : 4 A 11

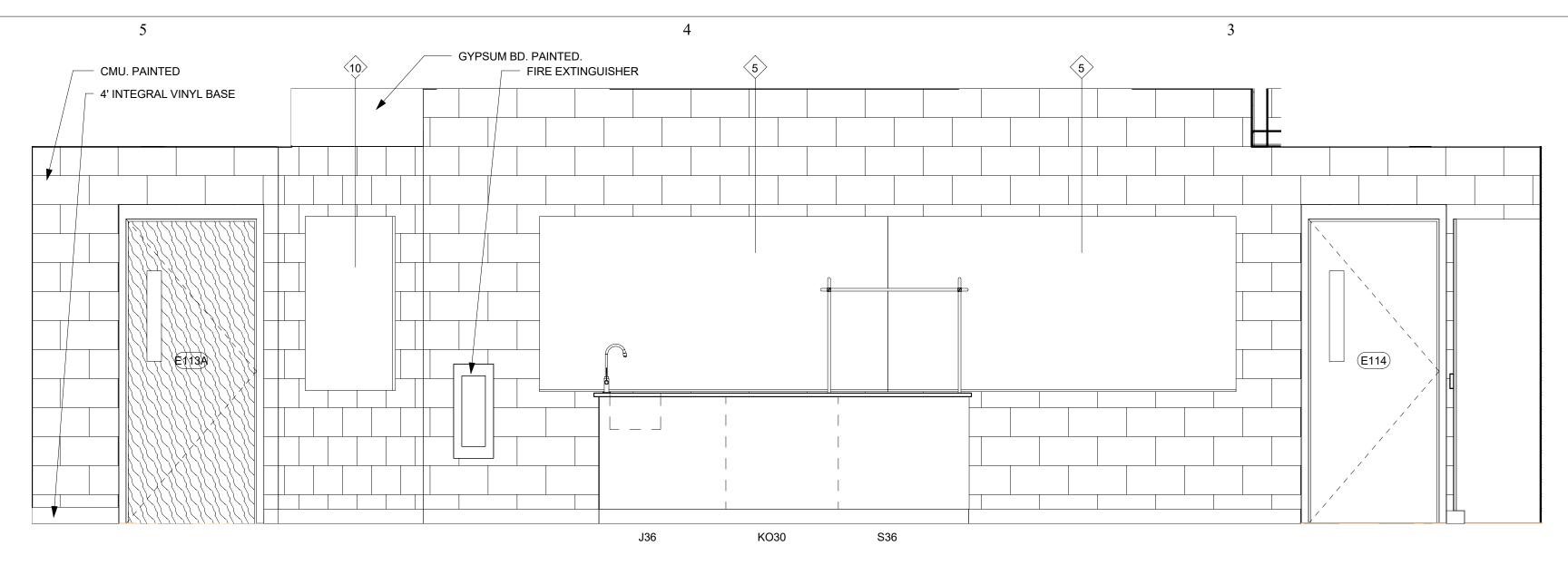
1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title:

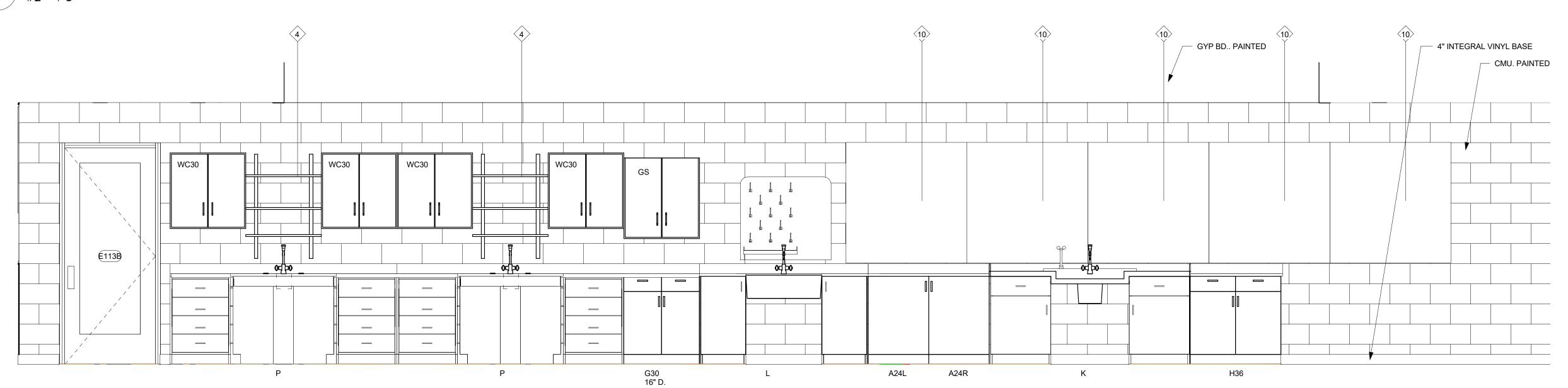
LAB CASEWORK ELEVATIONS

LF 3.05

Sheet:



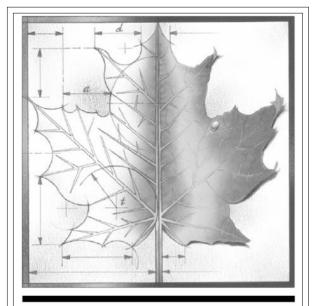
1 NORTH WALL - SCIENCE LAB E113 LF 3.06 1/2" = 1'-0"



2 WEST WALL - SCIENCE LAB E113 LF 3.06 1/2" = 1'-0"



3 SOUTH WALL - SCIENCE LAB E113 LF 3.06 1/2" = 1'-0"

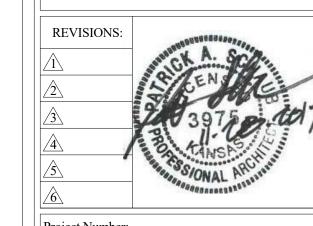


BBN

BBN ARCHITECTS INC
228 POYNTZ AVENUE
MANHATTAN, KANSAS 66502
PH: 785-776-4912 - FAX: 785-776-0944
WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.

C



Project Number:

Date.

Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

11/28/17

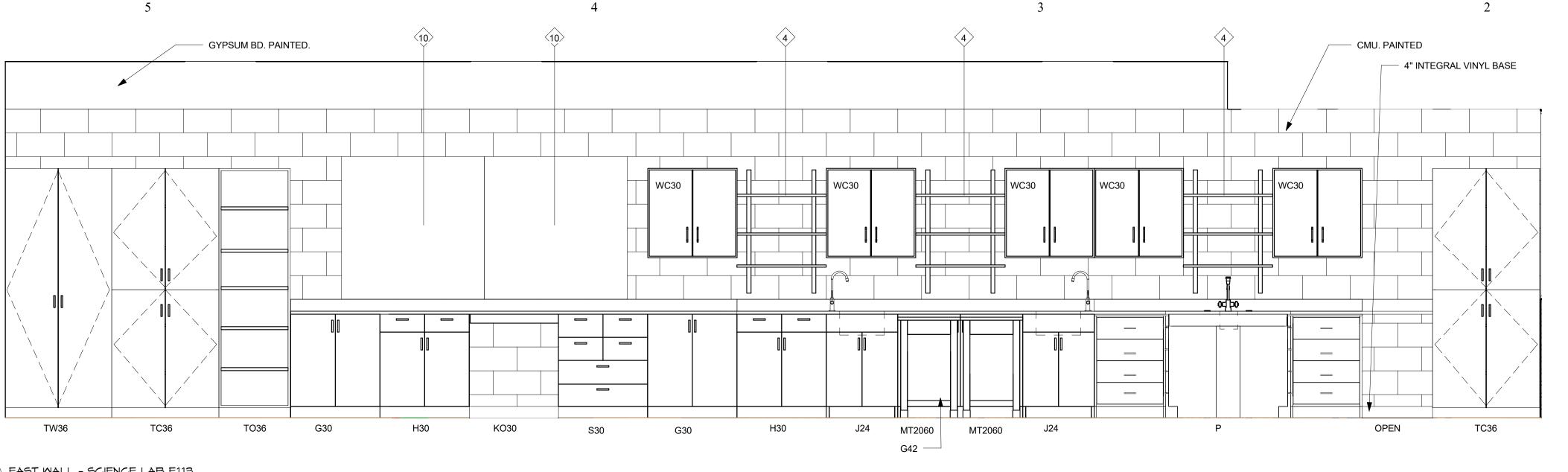
Project Addres

1701 KAW VALLEY ROAD WAMEGO, KS 66547

Sheet Title

LAB CASEWORK ELEVATIONS

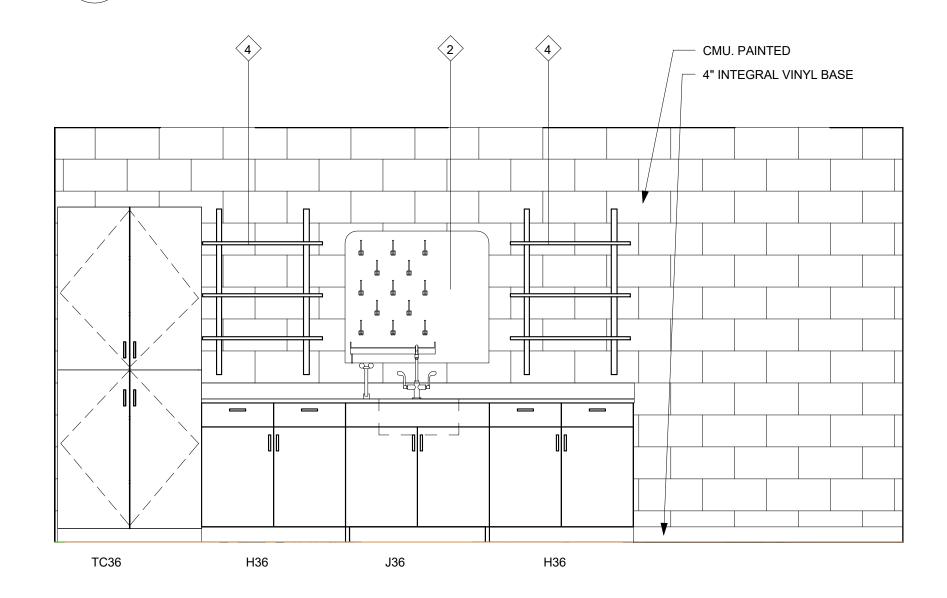
Sheet:

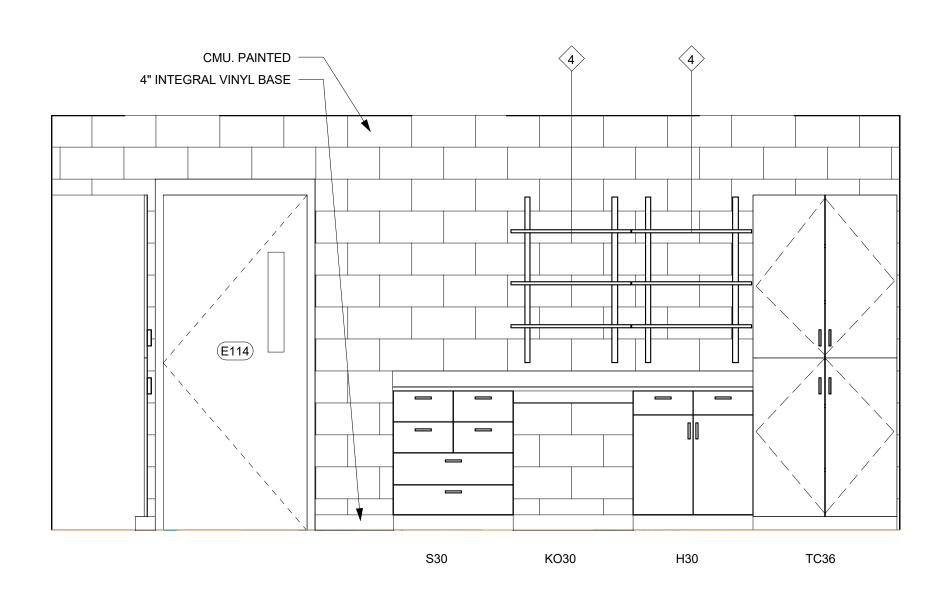


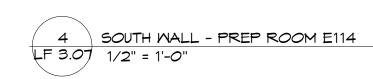
1 EAST WALL - SCIENCE LAB E113 LF 3.07 1/2" = 1'-0"

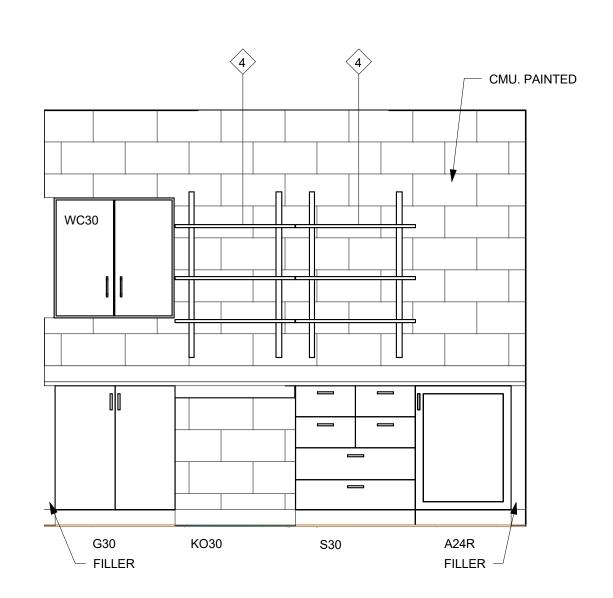
3 NORTH WALL - PREP ROOM E114 LF 3.07 1/2" = 1'-0"

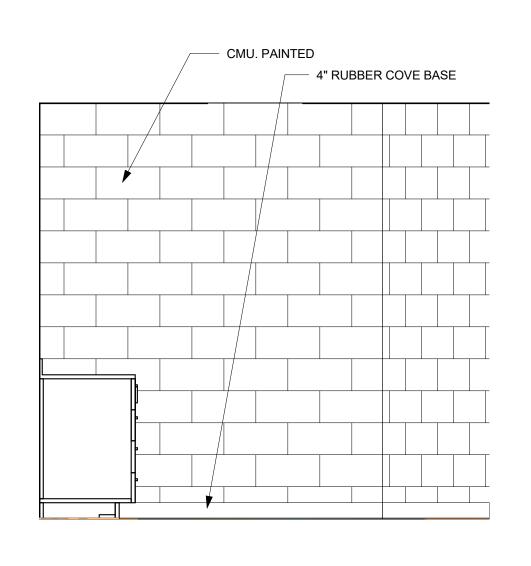
6 EAST WALL - WORK ROOM E115 LF 3.07 1/2" = 1'-0"



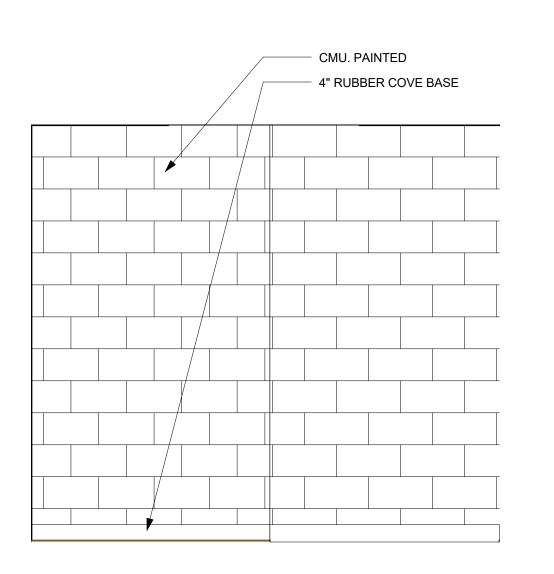




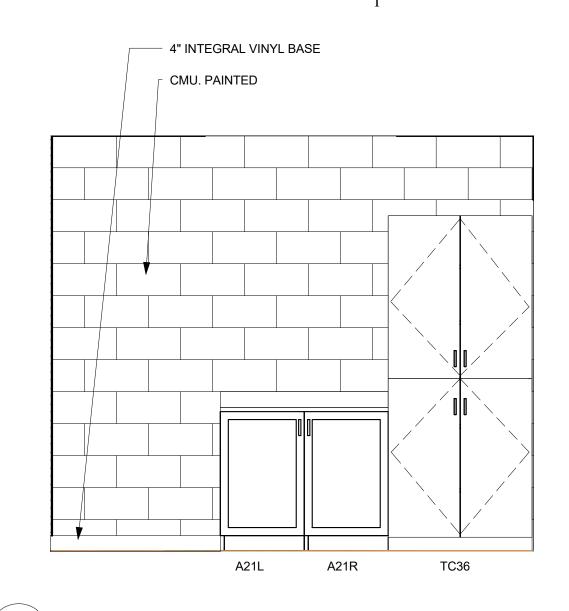




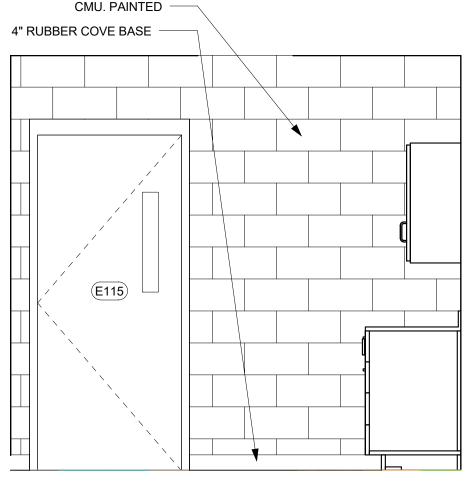




8 WEST WALL - WORK ROOM E115 LF 3.07 1/2" = 1'-0"





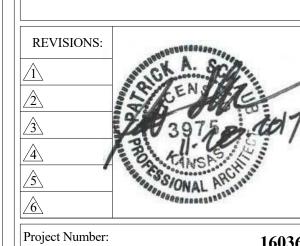






BBN ARCHITECTS INC 228 POYNTZ AVENUE MANHATTAN, KANSAS 66502 PH: 785-776-4912 - FAX: 785-776-0944 WWW.BBNARCHITECTS.COM

Information provided on the drawings regarding existing conditions has been obtained from the best sources available, but cannot be guaranteed in all respects. Contractor shall verify all such information prior to proceeding with any new work that may be affected. Include as part of the contract all work required to produce the indicated result. All drawings and written material appearing herein constitute the original and unpublished work of the Architect, and same may not be duplicated, used or disclosed without the written consent of the Architect.



11/28/17 Project Name:

USD 320 WAMEGO MIDDLE SCHOOL SCIENCE ROOM ADDITION

1701 KAW VALLEY ROAD WAMEGO, KS 66547

LAB **CASEWORK ELEVATIONS** 

