

**ARCHITECHNICS, INC.**  
**510 MAINE STREET**  
**QUINCY, ILLINOIS 62301**

PROJECT NO. : 5998, 6003A, 6003B, 6004, 6036

**ADDENDUM NO.:** 1  
ISSUED: 3/26/2021

Project: 2021 Capital Improvements  
RALLS COUNTY R-II SCHOOL DISTRICT  
21622 HIGHWAY 19  
CENTER, MO 63436

This addendum becomes a part of the bidding and contract documents and modifies the drawings and specifications dated March 5, 2021. Acknowledge receipt of this addendum by noting such on the Contractor's Proposal (Bid) Form.

FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION

ITEM	DESCRIPTION
<b><u>Substitutions</u></b>	
1.0 Spec.Section 08 5413 Fiberglass Windows	Andersen Fibrex windows are an approved product substitution.
2.0 Spec.Section 08 7100 Door Hardware	Dorma closers are an approved product substitution.
3.0 Spec.Section 10 5113 Metal Lockers	Republic Lockers is an approved product manufacturer.
4.0 Spec.Section 10 5113 Metal Lockers	Lockers MFG is an approved product manufacturer.
5.0 Spec.Section 10 5300 Hanger Rod Supported Canopies	Lawrence Fabric and Metal Structures is an approved product manufacturer.
6.0 Spec.Section 13 1250 Pre-Eng. Wood Frame Building	Stockade Buildings is an approved product manufacturer.
7.0 Spec.Section 23 7400 Packaged Outdoor HVAC Equipment	Trane is an approved product manufacturer.
8.0 Spec.Section 23 8126 Mini Split Heat Pump Systems	Mitsubishi and Daikin are approved product manufacturers.
9.0 Spec.Section 26 5000 Lighting Fixtures	Williams, Halo, Cooper, and Mule are approved product manufacturers.
10.0 Spec.Section 32 1823.39 Synthetic Track Surfacing	Stockmeier Urethanes Stobitan SC is an approved product substitution.

### **Clarify**

11.0	Spec.Section 13 1250 Pre-Engineered Wood Framed Bldg	Wood member size and spacing is the sole responsibility of the building manufacturer to decide. Sizes and spacing of members on the drawings and the spec are recommendations and can be deviated from, provided the loading requirements are met.
12.0	Project 5998 Interior Renovation	Toilets can remain in place during resinous flooring prep and installation
13.0	Project 6004 Asbestos Abatement	"3 stage decon" is confirmed as a requirement of the project.

### **Specifications**

14.0	Section 00 1113 Ad for Bids	Replace	Replace with attached revised section. Approx sf of abatement revised. Completion date for project 6003B New Field Building revised. Liquidated damages for 6003B New Field Building omitted.
15.0	Section 0 4113 Bid Form	Replace	Replace with attached revised section. Corrected typo in 1.3.A.6.
16.0	Section 00 4322 Unit Prices Form	Replace	Replace with attached revised section. Corrected typo in 1.3.E.1.
17.0	Section 00 4323 Alternates Form	Replace	Replace with attached revised section. Added alternate bids D-2 and E-4.
18.0	Section 01 2100 Allowances	Replace	Replace with attached revised section. Corrected allowance for F-3 in 3.1.H.
19.0	Section 01 3100 Proj. Mgmt and Coord.	Replace	Replace with attached revised section. Omitted Section 1.5 Coordination Drawings.
20.0	Section 03 3000 Cast In Place Concrete	Replace	Replace with attached revised section. Omitted Article 2.1C regarding Alkali Silica Reaction.
21.0	Section 08 1316 Sectional Doors	Replace	Replace with attached revised section. Revised section 2.3 for steel doors.
22.0	Section 13 1250 Pre-eng. Wood Frame Buildings	Replace	Replace with attached section. 2.4.G; H; I - revised or added.
23.0	Section 32 1823.39 Track Surface	Replace	Replace with attached revised section. Added 2.1.B: color.
24.0	Sheet AB-1 Asbestos Abatement	Replace	Replace with attached revised sheet. Added one room to scope.
25.0	Sheet AB-2 Asbestos Abatement	Replace	Replace with attached revised sheet. Revised tile size in legend.

**Drawings - Project 5998**

26.0	Sheet AD101 Senior High Demo	Replace	Replace with attached revised sheet. Door stops in asbestos abatement areas to remain. If removed during abatement, they need to be salvaged and reinstalled. VCT in Classroom 231 to be removed during asbestos abatement. Ceiling to remain, light fixtures and ceiling fan (if applicable) to be removed.
27.0	Sheet A101 Senior High Floor Plan	Replace	Replace with attached revised sheet. Existing walls, specifically non-masonry substrates, to be patched and repaired prior to new paint. Classroom 231 to receive new flooring and paint.
28.0	Sheet A102 Cafeteria, Lockers and Music Plan	Replace	Replace with attached revised sheet. Existing walls, specifically non-masonry substrates, to be patched and repaired prior to new paint.
29.0	Sheet A103 Senior High RCP	Replace	Replace with attached revised sheet. Coordinate new acoustic ceilings with window shades on exterior windows. See details on A201. Install blocking at clerestory windows in classrooms for the installation of new acoustic ceilings. Classroom 231 to receive new ceiling and light fixtures. Ceiling heights in classrooms 135,153,223,and 224 to be 10'-6". Coordinate height of new acoustic ceilings in Classroom 232 and 233 with existing ceiling mounted conduit. See additional notes regarding electrical equipment.
30.0	Sheet A104	Replace	Replace with attached revised sheet. See additional note regarding HVAC duct patching. Added emergency light fixtures.
31.0	Sheet A201 Elevations, Sections and Details	Replace	Replace with attached revised sheet. Detail 9/A201 provides details on the blocking at the clerestory windows. Details 10-12/A201 provides details on the coordination between the new acoustic ceilings and window shades.

**Drawings - Project 6003A**

32.0	Sheet C101 Project 6003A	Replace	Replace with attached revised sheet. Extent of gravel demo revised.
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**Drawings - Project 6003B**

33.0	Sheet G000 Project 6003B	Replace	Replace with attached revised sheet. CMU walls omitted from schedule. Added alternate bid D-2.
34.0	Sheet C101 Project 6003B	Replace	Replace with attached revised sheet. Added note for installing electrical circuit to existing light pole.
35.0	Sheet S101 Foundation Plan	Replace	Replace with attached revised sheet. Added information for alt bid D-2.
36.0	Sheet S102 Roof Framing Plan	Replace	Replace with attached revised sheet. Added information for alt bid D-2.
27.0	Sheet S301 Concrete Details	Replace	Replace with attached revised sheet. Added information for alt bid D-2.
28.0	Sheet A100 Project 6003B	Replace	Replace with attached revised sheet. CMU walls revised. Added note for floor finish. Roof notes revised. Wall detail and notes revised. Added detail 11/A100
39.0	Sheet A101 Project 6003B	Add	Add attached revised sheet. Added alternate bid D-2 section.
40.0	Sheet P200 Project 6003B	Replace	Replace with attached revised sheet. Added note regarding vacuum breaker.

**Drawings - Project 6036**

41.0	Sheet G000 Project 6036	Replace	Replace with attached revised sheet. Updated window 02 size. Added alternate bid E-4.
42.0	Sheet S101 Foundation Plan	Replace	Replace with attached revised sheet. Added information for alt bid E-4.
43.0	Sheet S102 Roof Framing Plan	Replace	Replace with attached revised sheet. Added information for alt bid E-4.
44.0	Sheet S401 Framing Details	Replace	Replace with attached revised sheet. Added information for alt bid E-4.
45.0	Sheet A100 Project 6036	Replace	Replace with attached revised sheet. Added note for floor finish. Roof notes revised. Wall detail and notes revised.
46.0	Sheet A200 Project 6036	Add	Add attached revised sheet. Roof notes revised. Added alternate bid E-4 section.

Attachments: Plan Holder Lists; Pre Bid Meeting Attendance Lists; Section 00 1113; 00 4113; 00 4322; 00 4323; 01 2100; 01 3100; 03 3000; 08 3613; 13 1250; 32 1823.39; AB-1; AB-2; 5998-AD101; 5998-A101; 5998-A102; 5998-A103; 5998-A104; 5998-A201; 6003A-C101; 6003B-G000; 6003B-C101; 6003B-S101; 6003B-S102; 6003B-S301; 6003B-A100; 6003B-A101; 6003B-P200; 6036-G000; 6036-S101; 6036-S102; 6036-S401; 6036-A100; 6036-A200



# RECORD OF PLANS AND SPECIFICATIONS

PAGE NO. One

NAME OF PROJECT

Interior Renovations

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 5998 DATE BIDS DUE Thursday, April 08, 2021 DEPOSIT \$50.00

TIME AND PLACE OF LETTING

3:00 PM Architechnics, Inc

510 Maine Street - Floor 10, Quincy, IL

\*\*\* Indicates Potential Bidding Contractor

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Architect	#1				
Owner	#2				
*** Trotter General Contracting, Inc 900 Doran Drive Macomb, IL 61455 309-836-5040 Fax: 309-836-3756 troyleander@icloud.com	D	3/12/2021			
Moore's Floors 2516 W. Schneidman DR Quincy, IL 62305 217 223-9924 Fax: 217 223-9880 m.moore@moorefloors.us	D	3/12/2021			
*** Schwada Builders, Inc. PO Box 487 Shelbina, MO 63468 573-588-4079 Fax: 573-588-7605 bschwada@yahoo.com	D	3/12/2021			
*** Freise Construction 17 Reckamp Road Old Monroe, MO 63369 636-661-5176  Bids@FreiseConstruction.com	D	3/12/2021			
The Builders' Association 3632 West Truman Boulevard Jefferson City, MO 65109 573-893-3307  jeffcity@buildersassociation.com	D	3/12/2021			
*** Bleigh Construction PO Box 957 Hannibal, MO 63401 573-221-2247 Fax 573-221-4331 lvannatta@bleigh.com	D	3/12/2021			
Meyer Electric Co. Inc. 3513 N. Ten Mile Dr. Jefferson City, MO 65109 573 893-2335 Fax: 573 893-3686 office@meyerelectric.net	D	3/15/2021			
Tri-County Electrical Contractors 27469 Florida Rd. Center, MO 63436 573 565-3469 Fax: 574-565-0037 pbarnes@tricountyelectrical.com	D	3/15/2021			

**ARCHITECHNICS**

510 MAINE STREET, QUINCY, IL 217-222-0554 FAX 217-223-3361

# **RECORD OF PLANS AND SPECIFICATIONS**

PAGE NO. Two

NAME OF PROJECT

Interior Renovations

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 5998

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Jansen Electric 4421 N. 60th Street Quincy, IL 62305 217-223-4016 Fax 217-223-8046 jansen@adams.net	#3	3/16/2021			
Construct Connect 3825 Edwards Road, STE. 800 Cincinnati, OH 45209 800-364-2059 gwen.tanghal@constructconnect.com	D	3/16/2021			
Precision Mechanical Group Inc 922 Main St Keokuk, IA 52632 217-357-1843 eric@precisionmechanicalgroupinc.com	D	3/16/2021			
RJI Sales 221 Chesterfield Industrial Blvd Chesterfield, MO 63005 636-532-1050 Fax: 636-532-5464 norman.rhea@rji-sales.com	D	3/17/2021			
Thermal Mechanics Inc. 715 Goddard Ave. Chesterfield, MO 63005 636-532-1110 Fax: 636-532-7318 MaryBeth.Mueller@tmi-stl.com	D	3/17/2021			
St. Louis Lighting Group 7414 Manchester Rd Maplewood, MO 63143 314-292-8971 Victor@stlouislightinggroup.com	D	3/17/2021			
Lighting Associates 3216 S. Brentwood Blvd Webster Groves, MO 63119 314-606-6412 pk@laiweb.net	D	3/17/2021			
P & D Electric 1401 County Road 425 Hannibal, MO 63401 573-406-1231 Fax 573-406-1261 dsbaker@pdelectricinc.com	D	3/17/2021			
ePlan 3338 Brown Station Rd. Columbia, MO 65202 573-814-1765 Fax: 573-814-1726 eplan@eplanbidding.com	D	3/18/2021			
Marold Electric Co. 129 S 10th Quincy, IL 62301 217-222-6267 Fax: 217-222-6289 maroldelectric@comcast.net	D & #4	3/23/2021			

# RECORD OF PLANS AND SPECIFICATIONS

PAGE NO. Three

NAME OF PROJECT

Interior Renovations

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 5998

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Fishco Group 8721 Mackenzie St. Louis Mo 63123 314-865-5100 Fax: 314-865-0051 franka@fishcorep.com	D	3/24/2021			
*** Heimer Construction Co. 6811 Co Rd 344 Taylor, MO 63471 573-769-5515 Fax: 573-769-5516 darinh@heimerconstruction.com	D	3/16/2021			

# RECORD OF PLANS AND SPECIFICATIONS

PAGE NO. One

NAME OF PROJECT

Track and Field Renovations

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6003A DATE BIDS DUE Thursday, April 08, 2021 DEPOSIT \$50.00

TIME AND PLACE OF LETTING

3:00 PM Architechnics, Inc

510 Maine Street - Floor 10, Quincy, IL

\*\*\* Indicates Potential Bidding Contractor

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Architect	#1				
Owner	#2				
The Builders' Association 3632 West Truman Boulevard Jefferson City, MO 65109 573-893-3307 jeffcity@buildersassociation.com	D	3/12/2021			
*** Bleigh Construction PO Box 957 Hannibal, MO 63401 573-221-2247 Fax 573-221-4331 lvannatta@bleigh.com	D	3/12/2021			
Meyer Electric Co. Inc. 3513 N. Ten Mile Dr. Jefferson City, MO 65109 573 893-2335 Fax: 573 893-3686 office@meyerelectric.net	D	3/15/2021			
Tri-County Electrical Contractors 27469 Florida Rd. Center, MO 63436 573 565-3469 Fax: 574-565-0037 pbarnes@tricountyelectrical.com	D	3/15/2021			
Jansen Electric 4421 N. 60th Street Quincy, IL 62305 217-223-4016 Fax 217-223-8046 jansen@adams.net	#3	3/16/2021			
Byrne & Jones Sports 11745 Rear Lackland St. Louis, MO 63146 314-567-6145 Fax: 314-567-1828 btaulbee@byrneandjones.com	D	3/16/2021			
Mid-America Sports Construction 1621 E Summit St Lees Summit, MO. 64081 816.524.0010 816.524.0150 estimating@mid-america-golf.com	D	3/16/2021			
Musco Sports Lighting 100 1st Avenue W Oskaloosa, IA 52577 844-232-6157 800-374-6402 bid.center@musco.com	D	3/16/2021			

# **RECORD OF PLANS AND SPECIFICATIONS**

PAGE NO. Two

NAME OF PROJECT

Track and Field Renovations

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6003A

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Precision Mechanical Group Inc 922 Main St Keokuk, IA 52632 217-357-1843 eric@precisionmechanicalgroupinc.com	D	3/16/2021			
St. Louis Lighting Group 7414 Manchester Rd Maplewood, MO 63143 314-292-8971 Victor@stlouislightinggroup.com	D	3/17/2021			
Lighting Associates 3216 S. Brentwood Blvd Webster Groves, MO 63119 314-606-6412 pk@laiweb.net	D	3/17/2021			
Construct Connect 3825 Edwards Road, STE. 800 Cincinnati, OH 45209 800-364-2059 gwen.tanghal@constructconnect.com	D	3/17/2021			
P & D Electric 1401 County Road 425 Hannibal, MO 63401 573-406-1231 Fax 573-406-1261 dsbaker@pdelectricinc.com	D	3/17/2021			
Fisher Tracks, Inc 1192 Wall St Boone, IA 50036 515-432-3191 amiller@fishertracks.com	D	3/17/2021			
Barton Electric Inc. 247 IL-160 Trenton, IL 62293 618-654-6626 bartone@bartonelectricinc.com	D	3/17/2021			
All Purpose Erectors 1112 Starlifter Dr Lebanon, IL 62254 618-537-7777 rrobertson@allpurposeerectors.com	D	3/18/2021			
ePlan 3338 Brown Station Rd. Columbia, MO 65202 573-814-1765 Fax: 573-814-1726 eplan@eplanbidding.com	D	3/18/2021			
D&L Excavating, Inc. 1958 Hwy 104 Liberty, IL 62347 217 645-3701 Fax: 217 645-3692 dlexcavatinginc@yahoo.com	D	3/22/2021			

# **RECORD OF PLANS AND SPECIFICATIONS**

PAGE NO. Three

NAME OF PROJECT

Track and Field Renovations

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6003A

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Midwest Tennis & Track Co. 22 S Main St #2 Denison, IA 51442 712-263-3554  nichole@midwesttennisandtrack.com	D	3/23/2021			
Marold Electric Co. 129 S 10th Quincy, IL 62301 217-222-6267 Fax: 217-222-6289 maroldelectric@comcast.net	D & #4	3/23/2021			
Fishco Group 8721 Mackenzie St. Louis Mo 63123 314-865-5100 Fax: 314-865-0051 franka@fishcorep.com	D	3/24/2021			
George Lee Jr. Construction 600 Carter Hannibal, MO 63401 573-248-6968  georgewleejr@gmail.com	#5				

# RECORD OF PLANS AND SPECIFICATIONS

PAGE NO. One

NAME OF PROJECT

New Field Building for

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6003B DATE BIDS DUE Thursday, April 08, 2021 DEPOSIT \$50.00

TIME AND PLACE OF LETTING

3:00 PM Architechnics, Inc

510 Maine Street - Floor 10, Quincy, IL

\*\*\* Indicates Potential Bidding Contractor

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Architect	#1				
Owner	#2				
*** Trotter General Contracting, Inc 900 Doran Drive Macomb, IL 61455 309-836-5040 Fax: 309-836-3756 troyleander@icloud.com	D	3/12/2021			
*** Schwada Builders, Inc. PO Box 487 Shelbina, MO 63468 573-588-4079 Fax: 573-588-7605 bschwada@yahoo.com	D	3/12/2021			
*** Freise Construction 17 Reckamp Road Old Monroe, MO 63369 636-661-5176  Bids@FreiseConstruction.com	D	3/12/2021			
Keck Heating & A/C 431 State Street Quincy, IL 62301 217-223-5325 Fax 217-223-8325 keckhvac@keckheatingandair.com	D	3/12/2021			
The Builders' Association 3632 West Truman Boulevard Jefferson City, MO 65109 573-893-3307  jeffcity@buildersassociation.com	D	3/12/2021			
*** Bleigh Construction PO Box 957 Hannibal, MO 63401 573-221-2247 Fax 573-221-4331 lvannatta@bleigh.com	D	3/12/2021			
Meyer Electric Co. Inc. 3513 N. Ten Mile Dr. Jefferson City, MO 65109 573 893-2335 Fax: 573 893-3686 office@meyerelectric.net	D	3/15/2021			
Tri-County Electrical Contractors 27469 Florida Rd. Center, MO 63436 573 565-3469 Fax: 574-565-0037 pbarnes@tricountyelectrical.com	D	3/15/2021			

**ARCHITECHNICS**

510 MAINE STREET, QUINCY, IL 217-222-0554 FAX 217-223-3361

# **RECORD OF PLANS AND SPECIFICATIONS**

PAGE NO. Two

NAME OF PROJECT

New Field Building for

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6003B

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Jansen Electric 4421 N. 60th Street Quincy, IL 62305 217-223-4016 Fax 217-223-8046 jansen@adams.net	#3	3/16/2021			
Byrne & Jones Sports 11745 Rear Lackland St. Louis, MO 63146 314-567-6145 Fax: 314-567-1828 btaulbee@byrneandjones.com	D	3/16/2021			
Precision Mechanical Group Inc 922 Main St Keokuk, IA 52632 217-357-1843 eric@precisionmechanicalgroupinc.com	D	3/16/2021			
RJI Sales 221 Chesterfield Industrial Blvd Chesterfield, MO 63005 636-532-1050 Fax: 636-532-5464 norman.rhea@rji-sales.com	D	3/17/2021			
Thermal Mechanics Inc. 715 Goddard Ave. Chesterfield, MO 63005 636-532-1110 Fax: 636-532-7318 MaryBeth.Mueller@tmi-stl.com	D	3/17/2021			
St. Louis Lighting Group 7414 Manchester Rd Maplewood, MO 63143 314-292-8971 Victor@stlouislightinggroup.com	D	3/17/2021			
Lighting Associates 3216 S. Brentwood Blvd Webster Groves, MO 63119 314-606-6412 pk@laiweb.net	D	3/17/2021			
P & D Electric 1401 County Road 425 Hannibal, MO 63401 573-406-1231 Fax 573-406-1261 dsbaker@pdelectricinc.com	D	3/17/2021			
Adams County Glass 2408 W. Schneidman Dr Quincy, IL 62305 217-221-9840 Fax: 217-221-9841 acginc04@gmail.com	D	3/18/2021			
ePlan 3338 Brown Station Rd. Columbia, MO 65202 573-814-1765 Fax: 573-814-1726 eplan@eplanbidding.com		3/18/2021			



# RECORD OF PLANS AND SPECIFICATIONS

PAGE NO. Two

NAME OF PROJECT

New Field Building for

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6003B

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Marold Electric Co. 129 S 10th Quincy, IL 62301 217-222-6267 Fax: 217-222-6289 maroldelectric@comcast.net	D & #4	3/23/2021			
Fishco Group 8721 Mackenzie St. Louis Mo 63123 314-865-5100 Fax: 314-865-0051 franka@fishcorep.com	D	3/24/2021			
*** Heimer Construction Co. 6811 Co Rd 344 Taylor, MO 63471 573-769-5515 Fax: 573-769-5516 darinh@heimerconstruction.com	D	3/16/2021			

# **RECORD OF PLANS AND SPECIFICATIONS**

PAGE NO. One

NAME OF PROJECT

Asbestos Abatement at Mark Twain Jr/Sr High School

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6004 DATE BIDS DUE Thursday, April 08, 2021 DEPOSIT \$50.00

TIME AND PLACE OF LETTING

3:00 PM Architechnics, Inc

510 Maine Street - Floor 10, Quincy, IL

\*\*\* Indicates Potential Bidding Contractor

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Architect	#1				
Owner	#2				
Midwest Service Group 560 Turner Blvd St Peters, MO 63376 636-926-7800  celliott@maa-stl.com	D	3/12/2021			
The Builders' Association 3632 West Truman Boulevard Jefferson City, MO 65109 573-893-3307  jeffcity@buildersassociation.com	D	3/12/2021			
*** Bleigh Construction PO Box 957 Hannibal, MO 63401 573-221-2247 Fax 573-221-4331 lvannatta@bleigh.com	D	3/12/2021			
AC Environmental 1742 State St Granite City, IL 62040 618-288-8960  dustin@acenviro.com	D	3/15/2021			
Construct Connect 3825 Edwards Road, STE. 800 Cincinnati, OH 45209 800-364-2059  gwen.tanghal@constructconnect.com	D	3/16/2021			

# RECORD OF PLANS AND SPECIFICATIONS

PAGE NO. One

NAME OF PROJECT

Ag Building Addition

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6036

DATE BIDS DUE

Thursday, April 08, 2021

DEPOSIT

\$50.00

TIME AND PLACE OF LETTING

3:00 PM Architechnics, Inc510 Maine Street - Floor 10, Quincy, IL

\*\*\* Indicates Potential Bidding Contractor

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Architect	#1				
Owner	#2				
*** Trotter General Contracting, Inc 900 Doran Drive Macomb, IL 61455 309-836-5040 Fax: 309-836-3756 troyleander@icloud.com	D	3/12/2021			
*** Schwada Builders, Inc. PO Box 487 Shelbina, MO 63468 573-588-4079 Fax: 573-588-7605 bschwada@yahoo.com	D	3/12/2021			
*** Freise Construction 17 Reckamp Road Old Monroe, MO 63369 636-661-5176  Bids@FreiseConstruction.com	D	3/12/2021			
The Builders' Association 3632 West Truman Boulevard Jefferson City, MO 65109 573-893-3307  jeffcity@buildersassociation.com	D	3/12/2021			
*** Bleigh Construction PO Box 957 Hannibal, MO 63401 573-221-2247 Fax 573-221-4331 lvannatta@bleigh.com	D	3/12/2021			
Meyer Electric Co. Inc. 3513 N. Ten Mile Dr. Jefferson City, MO 65109 573 893-2335 Fax: 573 893-3686 office@meyerelectric.net	D	3/15/2021			
Tri-County Electrical Contractors 27469 Florida Rd. Center, MO 63436 573 565-3469 Fax: 574-565-0037 pbarnes@tricountyelectrical.com	D	3/15/2021			
Jansen Electric 4421 N. 60th Street Quincy, IL 62305 217-223-4016 Fax 217-223-8046 jansen@adams.net	#3	3/16/2021			

# **RECORD OF PLANS AND SPECIFICATIONS**

PAGE NO. Two

NAME OF PROJECT

Ag Building Addition

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6036

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Precision Mechanical Group Inc 922 Main St Keokuk, IA 52632 217-357-1843 eric@precisionmechanicalgroupinc.com	D	3/16/2021			
RJI Sales 221 Chesterfield Industrial Blvd Chesterfield, MO 63005 636-532-1050 Fax: 636-532-5464 norman.rhea@rji-sales.com	D	3/17/2021			
Thermal Mechanics Inc. 715 Goddard Ave. Chesterfield, MO 63005 636-532-1110 Fax: 636-532-7318 MaryBeth.Mueller@tmi-stl.com	D	3/17/2021			
St. Louis Lighting Group 7414 Manchester Rd Maplewood, MO 63143 314-292-8971 Victor@stlouislightinggroup.com	D	3/17/2021			
Lighting Associates 3216 S. Brentwood Blvd Webster Groves, MO 63119 314-606-6412 pk@laiweb.net	D	3/17/2021			
P & D Electric 1401 County Road 425 Hannibal, MO 63401 573-406-1231 Fax 573-406-1261 dsbaker@pdelectricinc.com	D	3/17/2021			
Adams County Glass 2408 W. Schneidman Dr Quincy, IL 62305 217-221-9840 Fax: 217-221-9841 acginc04@gmail.com	D	3/18/2021			
ePlan 3338 Brown Station Rd. Columbia, MO 65202 573-814-1765 Fax: 573-814-1726 eplan@eplanbidding.com	D	3/18/2021			
Construct Connect 3825 Edwards Road, STE. 800 Cincinnati, OH 45209 800-364-2059 gwen.tanghal@constructconnect.com	D	3/23/2021			
Marold Electric Co. 129 S 10th Quincy, IL 62301 217-222-6267 Fax: 217-222-6289 maroldelectric@comcast.net	D & #4	3/23/2021			

# RECORD OF PLANS AND SPECIFICATIONS

PAGE NO. Three

NAME OF PROJECT

Ag Building Addition

RALLS COUNTY RII 2021 CAPITAL PROJECTS

PROJECT NO. 6036

CONTRACTOR NAME ADDRESS/PHONE/EMAIL	COPY NO.	DATE RECEIVED	DATE RETURNED	DEPOSIT RECEIVED	DEPOSIT RETURNED
Fishco Group 8721 Mackenzie St. Louis Mo 63123 314-865-5100 Fax: 314-865-0051 franka@fishcorep.com	D	3/24/2021			
*** Heimer Construction Co. 6811 Co Rd 344 Taylor, MO 63471 573-769-5515 Fax: 573-769-5516 darinh@heimerconstruction.com	D	3/16/2021			

# ARCHITECHNICS

architects • engineers • interior designers

## ATTENDANCE RECORD

Client: Ralls County School District

Project Name: 2021 Capital Projects

Project Number: 5998; 6003A; 6003B; 6004; 6036

Meeting Description: Pre Bid Meeting

Date: 03/23/2021

Time: 9:00 am

### Attendants

Name & Title	Representing	Email	Phone
Jerome Martin Oper Mgr	P&D Electric	jmartin@pdelectricinc.com	573-248-7700
Paul Mudd Sr Est.	P&D Electric	pmudd@pdelectricinc.com	573-406-1231
Danny Thomas	Bleigh Const	dthomas@bleigh.com	573-822-2008
BILL RYAN	S&S HEATING	@CNSHEATCOOL@GMAIL	636-397-4238
TODD STYCH	MUSCO LIGHTING	TODD.STYCH@MUSCO.COM	844-232-6157
G.W. Dimmitt	Schwada Builders	dimmitt.schwada.builders@psch.com	660-346-0817
BRUCK REED / PM	HELMER CONSTRUCTION	BRUCKR@HELMERCONSTRUCTION.COM	573-406-2605
Isaac Miller	Architechnics	imiller@architechnicsinc.com	217-222-0554
Rick Carver	Brown Electric	rickc@BrownElectric.net	
Robby Robertson	All Purpose Erectors	rrobertson@allpurposeerectors.com	314-618-8699

architects • engineers • interior designers

## Project Number: 5998; 6003A; 6003B; 6004; 6036

Time: 9:00 am

[illegible]

# ARCHITECHNICS

architects • engineers • interior designers

## ATTENDANCE RECORD

Client: Ralls County School District

Project Name: 2021 Capital Projects

Project Number: 5998; 6003A; 6003B; 6004; 6036

Meeting Description: Pre Bid Meeting

Date: 03/23/2021

Time: 9:00 am

### Attendants

Name & Title	Representing	Email	Phone
JACQUES REYNOLDS	ARCHITECHNICS	jreynolds@architechnicsinc.com	217.222.0554
Bob Anderson	ARST	arsiforeman3@gmail.com	573-257-0048
Tim Scott	Midwest Service Group	tscott@maq-stl.com	636-875-2106
Donny Thomason	AC Environmental	Dustin@acenviro.com	(618) 2888960
JOE BLUMES	HANKINS	SHANKINS@WEBBANDSTL.COM	314-426-7030
Alicia Weiman	Bleigh Constr.	aweiman@bleigh.com	217-440-3638
Margan Miles	Architechnics	mmiles@architechnics.com	
Roger Ingram	Ingram Plumbing	ingramplumbing@sbcglobal.net	573-321-5257
Carl Wilmes	Freize Construction	Bids@FreizeConstruction.com	636-661-5776
Katie Pruitt	Five Oaks Associates	admin@FiveOaksassociates.com	573-682-1314
Gary E. Dorr	Five Oaks Associates	"	"



architects • engineers • interior designers

## Project Number: 5998; 6003A; 6003B; 6004; 6036

Time: 9:00 am

## Phone

John Blegh	Blegh Construction	jblegh@blegh.com	573-221-2247
Charson Gardner	Kiser & Silfy Jr.	cgardner@kiserandsons.com	270-985-5100
Mike Crochin	Byrnu And Son's Cons.	mike@ByrnuAndSons.com	314-610-2463

**DOCUMENT 00 1113  
ADVERTISEMENT FOR BIDS**

**1.1 PROJECT INFORMATION**

- A. Notice to Bidders: Qualified bidders may submit bids for project as described in this Document. Submit bids according to the Instructions to Bidders.
- B. Project Identification: Ralls County RII School District 2021 Capital Projects.
  - 1. Project Location: Mark Twain Jr/Sr High School, 21622 Highway 19, Center, Missouri 63436.
- C. Owner: Center, Missouri.
  - 1. Owner's Representative: Tara Lewis, Superintendent.
- D. Architect: Architechnics, Inc, 510 Maine - 10th Floor, Quincy, Illinois 62301.
- E. General contractor bids will be received for the following projects:
  - 1. Base Bid A - Phase 1 Asbestos Abatement at Mark Twain Jr/Sr High School - Architechnics, Inc Project Number 6004.
    - a. Approximately 9000 sf of abatement of floor tile and mastic.
    - b. This project can begin on May 24, 2021 and Work Area #1 must be completed by June 4, 2021. Work Area #2 must be completed by June 14, 2021
    - c. Liquidated damages of \$250.00/day will apply to this project.
  - 2. Base Bid B - Phase 1 Interior Renovations at Mark Twain Jr/Sr High School - Architechnics, Inc Project Number 5998.
    - a. New flooring, SAT ceilings, lighting, some metal stud and drywall ceiling work, lockers, paint, etc in existing high school.
    - b. This project can begin on June 4, 2021 and must be completed by August 20, 2021.
    - c. Liquidated damages of \$1000.00/day will apply to this project.
  - 3. Base Bid C - Track and Field Renovations at Mark Twain Jr/Sr High School - Architechnics, Inc Project Number 6003A
    - a. Demo of existing gravel track and concrete curbs, new asphalt track with sports surface, replacement of field lighting poles and lights, new field structures, new concrete walks and pads, new fencing.
    - b. This project can begin on immediately upon award and must be completed by August 20, 2021.
    - c. Liquidated damages of \$1000.00/day will apply to this project.
  - 4. Base Bid D - New Field Building for Ralls County RII School District - Architechnics, Inc Project Number 6003B.
    - a. Approximately 3200 sf pre-engineered wood framed building with metal siding and metal liner panels, metal liner panel ceilings, standing seam metal roof, doors and windows, overhead coiling counter door, concrete foundations, slabs, and walks, plumbing, mechanical and electrical work.
    - b. This project can begin on immediately upon award and must be completed by December 31, 2021.
  - 5. Base Bid E - Ag Building Addition for Ralls County RII School District - Architechnics, Inc Project Number 6036.
    - a. Approximately 4400 sf pre-engineered wood framed building with metal siding and metal liner panels, metal liner panel ceilings, standing seam metal roof, doors and

- windows, overhead door, concrete foundations, slabs, and walks, mechanical and electrical work
- b. This project can begin on immediately upon award and must be completed by December 31, 2021.
- 6. Base Bid F - Combined Bid for Phase 1 Interior Renovations (5998), New Field Building (6003B) and Ag Building Addition (6036)
  - a. Milestone completion dates must be met according to the information above.
  - b. Liquidated damages will apply according to the information above.
  - c. Combined bid amount DOES NOT have to be mathematical total of Base Bids B + D + E.

## **1.2 BID SUBMITTAL AND OPENING**

- A. Owner will receive sealed lump sum bids until the bid time and date at the location given below. Owner maintains the right to waive informalities or irregularities. Owner will consider bids prepared in compliance with the Instructions to Bidders issued by Owner, and delivered as follows:
  - 1. Bid Date: April 8, 2021. .
  - 2. Bid Time: 3:00 pm , local time.
  - 3. Location: Architechnics, Inc , 510 Maine - 10th Floor , Quincy, IL 62301 .
- B. Bids will be thereafter publicly opened and read aloud.

## **1.3 BID SECURITY**

- A. Bid security shall be submitted with each bid in the amount of 5 percent of the bid amount FOR EACH BID OFFERED INCLUDING THE COMBINED BID. No bids may be withdrawn for a period of 60 days after opening of bids. Owner reserves the right to reject any and all bids and to waive informalities and irregularities.

## **1.4 PROJECT INTRODUCTION REVIEW MEETING**

- A. An online meeting for all bidders will be held on March 16, 2021 and March 25, 2021 at 4:00 pm, local time, to explain the bid categories and project scopes. Prospective prime bidders should request information from the architect and a link will be sent.

## **1.5 PREBID MEETING**

- A. Prebid Meeting: See Document 002513 "Prebid Meetings."
- B. Prebid Meeting: A Prebid meeting for all bidders will be held at Mark Twain High School Cafeteria on March 23, 2021 at 9:00 am , local time. Prospective prime bidders are requested to attend.

## **1.6 DOCUMENTS**

- A. Printed Procurement and Contracting Documents: Obtain after March 5, 2021 , by contacting the Architect. Documents will be provided to prime bidders only; only complete sets of documents will be issued.

1. Deposit: \$100.00 for each project.
  2. Shipping: Additional shipping charges will apply.
- B. Online Procurement and Contracting Documents: Obtain access after March 5, 2021, by contacting the Architect. Online access will be provided to all registered bidders and suppliers.
1. Non-Refundable Cost: \$50.00 for each project.
  2. Contractors and Vendors are solely responsible for ensuring that all drawing sheets and full Project Manuals have been downloaded by checking the Index of Drawings on the Title page of the drawings, the List of Drawing Sheets in the Project Manual, and the Table of Contents in the Project Manual. Notify the Architect immediately if there are discrepancies.

**1.7 TIME OF COMPLETION AND LIQUIDATED DAMAGES**

- A. Successful bidder shall begin the Work on receipt of the Notice to Proceed and shall complete the Work within the Contract Time. Work is subject to liquidated damages.

**1.8 BIDDER'S QUALIFICATIONS**

- A. Bidders must be properly licensed under the laws governing their respective trades and be able to obtain insurance and bonds required for the Work. A Performance Bond, separate Labor and Material Payment Bond, and Insurance in a form acceptable to Owner will be required of the successful Bidder.

**1.9 NOTIFICATION**

- A. This Advertisement for Bids document is issued by Ralls County RII School District .

**END OF DOCUMENT 00 1113**

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**DOCUMENT 00 4113**  
**BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)**

**1.1 BID INFORMATION**

- A. Bidder: \_\_\_\_\_.
- B. Project Name: Ralls County RII School District 2021 Capital Projects.
- C. Project Location: 21622 Highway 19, Center, Missouri 63436.
- D. Owner: Ralls County RII School District.
- E. Architect: Architechnics Inc.
- F. Architect Project Number: 6069 .

**1.2 CERTIFICATIONS AND BASE BID** - Indicate "No Bid" on the amount line of bids below where no bid is being submitted.

- A. **Base Bid, Bid A - Phase 1 Asbestos Abatement at Mark Twain Jr/Sr High School (6004):** Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Architechnics, Inc. and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

- 1. \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_).
- 2. The above amount includes the allowances specified in section 01 2100 Allowances.

- B. **Base Bid B - Phase 1 Interior Renovations at Mark Twain Jr/Sr High School (5998):** Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Architechnics, Inc. and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

- 1. \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_).
- 2. The above amount may be modified by amounts indicated by the Bidder on the attached Document 004322 "Unit Prices Form" and Document 004323 "Alternates Form."
- 3. The above amount includes the allowances specified in section 01 2100 Allowances.

- C. **Base Bid, Bid C - Track and Field Renovations at Mark Twain Jr/Sr High School (6003A):** Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Architechnics, Inc. and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_).
2. The above amount may be modified by amounts indicated by the Bidder on the attached Document 004322 "Unit Prices Form" and Document 004323 "Alternates Form."
3. The above amount includes the allowances specified in section 01 2100 Allowances.

- D. **Base Bid, Bid D - New Field Building for Ralls County RII School District (6003B):** Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Architechnics, Inc. and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_).
2. The above amount may be modified by amounts indicated by the Bidder on the attached Document 004322 "Unit Prices Form" and Document 004323 "Alternates Form."
3. The above amount includes the allowances specified in section 01 2100 Allowances.

- E. **Base Bid, Bid E - Ag Building Addition for Ralls County RII School District (6036):** Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Architechnics, Inc. and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_).
2. The above amount may be modified by amounts indicated by the Bidder on the attached Document 004322 "Unit Prices Form" and Document 004323 "Alternates Form."
3. The above amount includes the allowances specified in section 01 2100 Allowances.

- F. **Base Bid, Bid F - Combined Bid for Phase 1 Interior Renovations (5998), New Field Building (6003B) and Ag Building Addition (6036):** Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Architechnics, Inc. and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_).
2. The above amount may be modified by amounts indicated by the Bidder on the attached Document 004322 "Unit Prices Form" and Document 004323 "Alternates Form."
3. The above amount includes the allowances specified in section 01 2100 Allowances.

### 1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 10 days after a written Notice of Award, if offered within 60 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the amount of five percent (5%) of the Base Bid amount above:

1. Base Bid A \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_).
2. Base Bid B \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)
3. Base Bid C \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)
4. Base Bid D \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)
5. Base Bid E \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)
6. Base Bid F \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_)

- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

### 1.4 TIME OF COMPLETION

- A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Architect, and shall substantially complete the Work according to the dates listed in the Advertisement for Bids

**1.5 ACKNOWLEDGEMENT OF ADDENDA**

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:
1. Addendum No. 1, dated \_\_\_\_\_.
  2. Addendum No. 2, dated \_\_\_\_\_.
  3. Addendum No. 3, dated \_\_\_\_\_.
  4. Addendum No. 4, dated \_\_\_\_\_.

**1.6 BID SUPPLEMENTS**

- A. The following supplements are a part of this Bid Form and are attached hereto.
1. Bid Form Supplement - Alternates.
  2. Bid Form Supplement - Unit Prices.
  3. Bid Form Supplement - Allowances.
  4. Bid Form Supplement - Bid Bond Form (AIA Document A310-2010).

**1.7 CONTRACTOR'S LICENSE**

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

**1.8 SUBMISSION OF BID**

- A. Respectfully submitted this \_\_\_\_ day of \_\_\_\_\_, 2021 .
- B. Submitted By: \_\_\_\_\_ (Name of bidding firm or corporation).
- C. Authorized Signature: \_\_\_\_\_ (Handwritten signature).
- D. Signed By: \_\_\_\_\_ (Type or print name).
- E. Title: \_\_\_\_\_ (Owner/Partner/President/Vice President).
- F. Street Address: \_\_\_\_\_.
- G. City, State, Zip: \_\_\_\_\_.
- H. Phone: \_\_\_\_\_.

**END OF DOCUMENT 00 4113**



**DOCUMENT 00 4322**  
**UNIT PRICES FORM**

**1.1 BID INFORMATION**

- A. Bidder: \_\_\_\_\_.
- B. Project Name: Ralls County RII School District 2021 Capital Projects.
- C. Project Location: Center, Missouri 63459.
- D. Owner: Ralls County RII School District.
- E. Architect: Architechnics Inc.
- F. Architect Project Number: 6069 .

**1.2 BID FORM SUPPLEMENT**

- A. This form is required to be attached to the Bid Form.
- B. The undersigned Bidder proposes the amounts below be added to or deducted from the Contract Sum on performance and measurement of the individual items of Work and for adjustment of the quantity given in the Unit-Price Allowance for the actual measurement of individual items of the Work.
- C. Unit price categories are described in the Contract Documents and scheduled in Section 01 2200 "Unit Prices."

**1.3 UNIT PRICES**

- A. Unit-Price No. 1: Removal of unsatisfactory soil and replacement with satisfactory soil material.
  - 1. Project 6003A\_\_\_\_\_ dollars (\$\_\_\_\_\_) per unit.
  - 2. Project 6003B\_\_\_\_\_ dollars (\$\_\_\_\_\_) per unit.
  - 3. Project 6036\_\_\_\_\_ dollars (\$\_\_\_\_\_) per unit.

B. Unit-Price No. 2: Rock excavation and replacement with satisfactory soil material.

1. Project 6003A \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.
2. Project 6003B \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.
3. Project 6036 \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.

C. Unit-Price No. 3: Cutting and replacement of exterior concrete sidewalks.

1. Project 6003A \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.
2. Project 6003B \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.
3. Project 6036 \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.

D. Unit-Price No. 4: Gravel excavation and replacement with satisfactory soil material.

1. Project 6003B \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.

E. Unit-Price No. 5: (2) 2" lifts of asphalt paving.

1. Project 6036 \_\_\_\_\_ dollars (\$ \_\_\_\_\_)  
per unit.

1.4 SUBMISSION OF BID SUPPLEMENT

- A. Respectfully submitted this \_\_\_\_ day of \_\_\_\_\_, 2021 .
- B. Submitted By: \_\_\_\_\_ (Insert name of bidding firm or corporation).
- C. Authorized Signature: \_\_\_\_\_ (Handwritten signature).
- D. Signed By: \_\_\_\_\_ (Type or print name).
- E. Title: \_\_\_\_\_ (Owner/Partner/President/Vice President).

**END OF DOCUMENT 00 4322**

**DOCUMENT 00 4323  
ALTERNATES FORM**

**1.1 BID INFORMATION**

- A. Bidder: \_\_\_\_\_.
- B. Project Name: Ralls County RII School District 2021 Capital Projects.
- C. Project Location: 21622 Highway 19, Center, Missouri 63436.
- D. Owner: Ralls County RII School District.
- E. Architect: Architechnics Inc.
- F. Architect Project Number: 6069.

**1.2 BID FORM SUPPLEMENT**

- A. This form is required to be attached to the Bid Form.
- B. Indicate "No Bid" on the amount line of bids below where no alternate bid price is being submitted.

**1.3 DESCRIPTION**

- A. The undersigned Bidder proposes the amount listed below be added to or deducted from the Base Bid if particular alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.
- B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."
- C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."
- D. The Bidder shall be responsible for determining from the Contract Documents the affects of each alternate on the Contract Time and the Contract Sum.
- E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 60 days of the Notice of Award unless otherwise indicated in the Contract Documents.
- F. Acceptance or non-acceptance of any alternates by the Owner shall have no affect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

#### 1.4 SCHEDULE OF ALTERNATES

- A. Alternate No. B-1 : Provide LVT in lieu of VCT for Project 5998 :
1. ADD\_\_\_\_ DEDUCT\_\_\_\_ NO CHANGE\_\_\_\_ NOT APPLICABLE\_\_\_\_.
  2. \_\_\_\_\_Dollars (\$\_\_\_\_\_).
- B. Alternate Bid D-1: Provide exposed fastener metal roofing system in lieu of standing seam metal for project 6003B.
1. ADD\_\_\_\_ DEDUCT\_\_\_\_ NO CHANGE\_\_\_\_ NOT APPLICABLE\_\_\_\_.
  2. \_\_\_\_\_Dollars (\$\_\_\_\_\_).
- C. Alternate Bid D-2: Provide price for conventional stick-framed wood construction option for project 6003B.
1. ADD\_\_\_\_ DEDUCT\_\_\_\_ NO CHANGE\_\_\_\_ NOT APPLICABLE\_\_\_\_.
  2. \_\_\_\_\_Dollars (\$\_\_\_\_\_).
- D. Alternate Bid E-1: Provide exposed fastener metal roofing system in lieu of standing seam metal for project 6036.
1. ADD\_\_\_\_ DEDUCT\_\_\_\_ NO CHANGE\_\_\_\_ NOT APPLICABLE\_\_\_\_.
  2. \_\_\_\_\_Dollars (\$\_\_\_\_\_).
- E. Alternate Bid E-2: Provide and install air conditioning for existing shop in project 6036.
1. ADD\_\_\_\_ DEDUCT\_\_\_\_ NO CHANGE\_\_\_\_ NOT APPLICABLE\_\_\_\_.
  2. \_\_\_\_\_Dollars (\$\_\_\_\_\_).
- F. Alternate Bid E-3: Provide and install air conditioning for new shop in project 6036.
1. ADD\_\_\_\_ DEDUCT\_\_\_\_ NO CHANGE\_\_\_\_ NOT APPLICABLE\_\_\_\_.
  2. \_\_\_\_\_Dollars (\$\_\_\_\_\_).
- G. Alternate Bid E-4: Provide price for conventional stick-framed wood construction option for project 6036.
1. ADD\_\_\_\_ DEDUCT\_\_\_\_ NO CHANGE\_\_\_\_ NOT APPLICABLE\_\_\_\_.
  2. \_\_\_\_\_Dollars (\$\_\_\_\_\_).

**1.5 SUBMISSION OF BID SUPPLEMENT**

- A. Respectfully submitted this \_\_\_\_ day of \_\_\_\_\_, 2021 .
- B. Submitted By: \_\_\_\_\_(Insert name of bidding firm or corporation).
- C. Authorized Signature: \_\_\_\_\_(Handwritten signature).
- D. Signed By: \_\_\_\_\_(Type or print name).
- E. Title: \_\_\_\_\_(Owner/Partner/President/Vice President).

**END OF DOCUMENT 00 4323**

**SECTION 01 2100  
ALLOWANCES**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Lump-sum allowances.
  - 2. Contingency allowances.
- C. Related Requirements:
  - 1. Section 01 2200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.

**1.2 DEFINITIONS**

- A. Allowance is a quantity of work or dollar amount established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

**1.3 LUMP-SUM ALLOWANCES**

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, if applicable, freight , and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

**1.4 CONTINGENCY ALLOWANCES**

- A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation , taxes (if applicable), insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit.

- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION**

**3.1 SCHEDULE OF ALLOWANCES**

- |    |               |      |   |
|----|---------------|------|---|
| A. | Allowance No. | A-1: | Contingency Allowance for project 6004: Include the sum of \$5000.00.                         |
| B. | Allowance No. | B-1: | Contingency Allowance for project 5998: Include the sum of \$40,000.00.                       |
| C. | Allowance No. | C-1: | Contingency Allowance for project 6003A: Include the amount of \$25,000.00                    |
| D. | Allowance No. | D-1: | Contingency Allowance for project 6003B: Include the sum of \$15,000.00.                      |
| E. | Allowance No. | D-2: | Lump Sum Allowance for project 6003B - Exterior Signage: Include the sum of \$7,500.00.       |
| F. | Allowance No. | E-1: | Contingency Allowance for project 6036: Include the sum of \$20,000.00.                       |
| G. | Allowance No. | E-2: | Lump Sum Allowance for project 6036 - Exterior Signage: Include the sum of \$2,500.00.        |
| H. | Allowance No. | E-3: | Lump Sum Allowance for project 6036 - Dust Collection System: Include the sum of \$20,000.00. |
| I. | Allowance No. | F-1: | Contingency Allowance for Combined Bid: Include the sum of \$75,000.00                        |
| J. | Allowance No. | F-2: | Lump Sum Allowance for Combined Bid - Exterior Signage: Include the sum of \$10,000.00.       |
| K. | Allowance No. | F-3: | Lump Sum Allowance for Combined Bid - Dust Collection System: Include the sum of \$20,000.00. |

**END OF SECTION 01 2100**

**SECTION 01 3100  
PROJECT MANAGEMENT AND COORDINATION**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.
  - 3. RFIs.
  - 4. Digital project management procedures.
  - 5. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.
- C. Related Requirements:
  - 1. Section 01 3200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
  - 2. Section 01 7300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Section 01 7700 "Closeout Procedures" for coordinating closeout of the Contract.

**1.2 DEFINITIONS**

- A. BIM: Building Information Modeling.
- B. RFI: Request for Information. Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

**1.3 INFORMATIONAL SUBMITTALS**

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
  - 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
  - 2. Number and title of related Specification Section(s) covered by subcontract.
  - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.



1. Post copies of list in project meeting room, in temporary field office, and in prominent location in built facility. Keep list current at all times.

#### **1.4 GENERAL COORDINATION PROCEDURES**

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
  1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
  1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- D. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
  1. Project name.
  2. Project number.
  3. Date.
  4. Name of Contractor.
  5. Name of Architect.
  6. RFI number, numbered sequentially.
  7. RFI subject.
  8. Specification Section number and title and related paragraphs, as appropriate.
  9. Drawing number and detail references, as appropriate.
  10. Field dimensions and conditions, as appropriate.
  11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  12. Contractor's signature.
  13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
    - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

- E. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Architect.
  - 1. Attachments shall be electronic files in PDF format.
- F. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
  - 1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  - 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.
  - 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 01 2600 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- G. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log monthly . Include the following:
  - 1. Project name.
  - 2. Name and address of Contractor.
  - 3. Name and address of Architect.
  - 4. RFI number including RFIs that were returned without action or withdrawn.
  - 5. RFI description.
  - 6. Date the RFI was submitted.
  - 7. Date Architect's response was received.
  - 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
  - 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.
- H. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

## **1.5 DIGITAL PROJECT MANAGEMENT PROCEDURES**

- A. Use of Architect's Digital Data Files: Digital data files of Architect's BIM model and CAD drawings will be provided by Architect for Contractor's use during construction.
  - 1. Digital data files may be used by Contractor in preparing coordination drawings, Shop Drawings, and Project record Drawings.

2. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Contract Drawings.
  3. The following digital data files will be furnished for each appropriate discipline:
    - a. Floor plans.
    - b. Reflected ceiling plans.
- B. PDF Document Preparation: Where PDFs are required to be submitted to Architect, prepare as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
  2. Name file with submittal number or other unique identifier, including revision identifier.
  3. Certifications: Where digitally submitted certificates and certifications are required, provide a digital signature with digital certificate on where indicated.

## **1.6 PROJECT MEETINGS**

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of 10 working days prior to meeting.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
1. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Responsibilities and personnel assignments.
    - b. Tentative construction schedule.
    - c. Phasing.
    - d. Critical work sequencing and long lead items.
    - e. Designation of key personnel and their duties.
    - f. Lines of communications.
    - g. Use of web-based Project software.
    - h. Procedures for processing field decisions and Change Orders.
    - i. Procedures for RFIs.
    - j. Procedures for testing and inspecting.
    - k. Procedures for processing Applications for Payment.
    - l. Distribution of the Contract Documents.
    - m. Submittal procedures.
    - n. Sustainable design requirements.
    - o. Preparation of Record Documents.
    - p. Use of the premises and existing building.
    - q. Work restrictions.

- r. Working hours.
  - s. Owner's occupancy requirements.
  - t. Responsibility for temporary facilities and controls.
  - u. Procedures for moisture and mold control.
  - v. Procedures for disruptions and shutdowns.
  - w. Construction waste management and recycling.
  - x. Parking availability.
  - y. Office, work, and storage areas.
  - z. Equipment deliveries and priorities.
  - aa. First aid.
  - bb. Security.
  - cc. Progress cleaning.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other sections and when required for coordination with other construction.
- 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
  - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. Contract Documents.
    - b. Options.
    - c. Related RFIs.
    - d. Related Change Orders.
    - e. Purchases.
    - f. Deliveries.
    - g. Submittals.
    - h. Sustainable design requirements.
    - i. Review of mockups.
    - j. Possible conflicts.
    - k. Compatibility requirements.
    - l. Time schedules.
    - m. Weather limitations.
    - n. Manufacturer's written instructions.
    - o. Warranty requirements.
    - p. Compatibility of materials.
    - q. Acceptability of substrates.
    - r. Temporary facilities and controls.
    - s. Space and access limitations.
    - t. Regulations of authorities having jurisdiction.
    - u. Testing and inspecting requirements.
    - v. Installation procedures.
    - w. Coordination with other work.
    - x. Required performance results.
    - y. Protection of adjacent work.
    - z. Protection of construction and personnel.
  - 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  - 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.

5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Progress Meetings: Conduct progress meetings at regular intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
  - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
    - 1) Review schedule for next period.
  - b. Review present and future needs of each entity present, including the following:
    - 1) Interface requirements.
    - 2) Sequence of operations.
    - 3) Resolution of BIM component conflicts.
    - 4) Status of submittals.
    - 5) Status of sustainable design documentation.
    - 6) Deliveries.
    - 7) Off-site fabrication.
    - 8) Access.
    - 9) Site use.
    - 10) Temporary facilities and controls.
    - 11) Progress cleaning.
    - 12) Quality and work standards.
    - 13) Status of correction of deficient items.
    - 14) Field observations.
    - 15) Status of RFIs.
    - 16) Status of Proposal Requests.
    - 17) Pending changes.
    - 18) Status of Change Orders.
    - 19) Pending claims and disputes.
    - 20) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
  - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

**END OF SECTION 01 3100**

**SECTION 03 3000  
CAST-IN-PLACE CONCRETE**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. Section Includes:
  - 1. Cast-in-place concrete, including concrete materials, mixture design, placement procedures, and finishes.
- B. Related Requirements:
  - 1. Section 03 1000 "Concrete Forming and Accessories" for form-facing materials, form liners, insulating concrete forms, and waterstops.
  - 2. Section 03 2000 "Concrete Reinforcing" for steel reinforcing bars and welded-wire reinforcement.
  - 3. Section 31 2000 "Earth Moving" for drainage fill under slabs-on-ground.
  - 4. Section 32 1313 "Concrete Paving" for concrete pavement and walks.

**1.3 DEFINITIONS**

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash, slag cement, other pozzolans, and silica fume; materials subject to compliance with requirements.
- B. Water/Cement Ratio (w/cm): The ratio by weight of water to cementitious materials.

**1.4 ACTION SUBMITTALS**

- A. Product Data: For each of the following.
  - 1. Portland cement.
  - 2. Fly ash.
  - 3. Aggregates.
  - 4. Admixtures:
    - a. Include limitations of use, including restrictions on cementitious materials, supplementary cementitious materials, air entrainment, aggregates, temperature at time of concrete placement, relative humidity at time of concrete placement, curing conditions, and use of other admixtures.
  - 5. Vapor retarders.
  - 6. Floor and slab treatments.
  - 7. Curing materials.
  - 8. Joint fillers.

9. Repair materials.

B. Design Mixtures: For each concrete mixture, include the following:

1. Mixture identification.
2. Minimum 28-day compressive strength.
3. Durability exposure class.
4. Maximum w/cm.
5. Calculated equilibrium unit weight, for lightweight concrete.
6. Slump limit.
7. Air content.
8. Nominal maximum aggregate size.
9. Steel-fiber reinforcement content.
10. Synthetic micro-fiber content.
11. Indicate amounts of mixing water to be withheld for later addition at Project site if permitted.
12. Include manufacturer's certification that permeability-reducing admixture is compatible with mix design.
13. Include certification that dosage rate for permeability-reducing admixture matches dosage rate used in performance compliance test.
14. Intended placement method.
15. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

## **1.5 INFORMATIONAL SUBMITTALS**

A. Material Certificates: For each of the following, signed by manufacturers:

1. Cementitious materials.
2. Admixtures.
3. Curing compounds.
4. Floor and slab treatments.
5. Bonding agents.
6. Adhesives.
7. Vapor retarders.
8. Semirigid joint filler.
9. Joint-filler strips.

B. Material Test Reports: For the following, from a qualified testing agency:

1. Portland cement.
2. Fly ash.
3. Aggregates.

C. Field quality-control reports.

## **1.6 QUALITY ASSURANCE**

- A. Ready-Mixed Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.



1. Manufacturer certified in accordance with NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. Field Quality Control Testing Agency Qualifications: An independent agency, qualified in accordance with ASTM C1077 and ASTM E329 for testing indicated.
  1. Personnel conducting field tests shall be qualified as an ACI Concrete Field Testing Technician, Grade 1, in accordance with ACI CPP 610.1 or an equivalent certification program.

## **1.7 DELIVERY, STORAGE, AND HANDLING**

- A. Comply with ASTM C94/C94M and ACI 301.

## **1.8 FIELD CONDITIONS**

- A. Cold-Weather Placement: Comply with ACI 301 and ACI 306.1 and as follows.
  1. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
  2. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
  3. Do not use frozen materials or materials containing ice or snow.
  4. Do not place concrete in contact with surfaces less than 35 deg F, other than reinforcing steel.
  5. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- B. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1, and as follows:
  1. Maintain concrete temperature at time of discharge to not exceed 95 deg F.
  2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

## **PART 2 - PRODUCTS**

### **2.1 CONCRETE, GENERAL**

- A. ACI Publications: Comply with ACI 301 unless modified by requirements in the Contract Documents.

### **2.2 CONCRETE MATERIALS**

- A. Source Limitations:
  1. Obtain all concrete mixtures from a single ready-mixed concrete manufacturer for entire Project.
  2. Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant.

3. Obtain aggregate from single source.
  4. Obtain each type of admixture from single source from single manufacturer.
- B. Cementitious Materials:
1. Portland Cement: ASTM C150/C150M, Type I/II , gray .
  2. Fly Ash: ASTM C618, Class C or F.
- C. Normal-Weight Aggregates: ASTM C33/C33M, Class 3M coarse aggregate or better, graded. Provide aggregates from a single source.
1. Maximum Coarse-Aggregate Size: 1 inch nominal.
  2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- D. Air-Entraining Admixture: ASTM C260/C260M.
- E. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride .
1. Water-Reducing Admixture: ASTM C494/C494M, Type A.
  2. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
  3. Plasticizing and Retarding Admixture: ASTM C1017/C1017M, Type II.
- F. Water and Water Used to Make Ice: ASTM C94/C94M, potable

## 2.3 VAPOR RETARDERS

- A. Sheet Vapor Retarder, Class A: ASTM E1745, Class A ; not less than 10 mils thick. Include manufacturer's recommended adhesive or pressure-sensitive tape.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Fortifiber Building Systems Group.
    - b. Stego Industries, LLC.
    - c. W.R. Meadows, Inc.

## 2.4 CURING MATERIALS

- A. Water: Potable or complying with ASTM C1602/C1602M.
- B. Clear, Waterborne, Membrane-Forming, Curing and Sealing Compound: ASTM C1315, Type 1, Class A.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Dayton Superior.
    - b. Euclid Chemical Company (The); an RPM company.
    - c. W.R. Meadows, Inc.

## **2.5 RELATED MATERIALS**

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber .
- B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A shore durometer hardness of 80 in accordance with ASTM D2240.
- C. Bonding Agent: ASTM C1059/C1059M, Type II, nonredispersible, acrylic emulsion or styrene butadiene.

## **2.6 CONCRETE MIXTURES, GENERAL**

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.
  - 1. Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.
- B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
  - 1. Fly Ash or Other Pozzolans: 25 percent by mass.
- C. Admixtures: Use admixtures in accordance with manufacturer's written instructions.
  - 1. Use water-reducing high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
  - 2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
  - 3. Use water-reducing admixture in pumped concrete, .

## **2.7 CONCRETE MIXTURES**

- A. Class A : Normal-weight concrete used for footings, grade beams, and tie beams.
  - 1. Exposure Class: ACI 318 F0 S0 W0 C0 .
  - 2. Minimum Compressive Strength: 4000 psi at 28 days.
  - 3. Maximum w/cm: 0.50 .
  - 4. Slump Limit: 5 inches , plus or minus 1 inch .
  - 5. Air Content:
    - a. Minimum Air Content: 3.0 percent, plus or minus 1.5 percent.
  - 6. Limit water-soluble, chloride-ion content in hardened concrete to 1.00 percent by weight of cement.
- B. Class B : Normal-weight concrete used for foundation walls.
  - 1. Exposure Class: ACI 318 F1 S0 W0 C0 .
  - 2. Minimum Compressive Strength: 4000 psi at 28 days.
  - 3. Maximum w/cm: 0.45 .
  - 4. Slump Limit: 5 inches , plus or minus 1 inch .
  - 5. Air Content:
    - a. Exposure Class F1: 4.5 percent, plus or minus 1.5 percent at point of delivery for concrete containing 1-inch nominal maximum aggregate size .

6. Limit water-soluble, chloride-ion content in hardened concrete to 1.00 percent by weight of cement.
- C. Class C : Normal-weight concrete used for interior slabs-on-ground.
1. Exposure Class: ACI 318 F0 S0 W0 C0 .
  2. Minimum Compressive Strength: 4000 psi at 28 days.
  3. Maximum w/cm: 0.45 .
  4. Minimum Cementitious Materials Content: 520 lb/cu. yd. .
  5. Air Content:
    - a. Do not use an air-entraining admixture or allow total air content to exceed 3 percent for concrete used in trowel-finished floors.
  6. Limit water-soluble, chloride-ion content in hardened concrete to 1.00 percent by weight of cement.
- D. Class D : Normal-weight concrete used for exterior retaining walls, sidewalks and pavement.
1. Exposure Class: ACI 318 F1 S0 W0 C1 .
  2. Minimum Compressive Strength: 4000 psi at 28 days.
  3. Maximum w/cm: 0.45 .
  4. Air Content:
    - a. Exposure Class F1: 4.5 percent, plus or minus 1.5 percent at point of delivery for concrete containing 1-inch nominal maximum aggregate size .
  5. Limit water-soluble, chloride-ion content in hardened concrete to 0.30 percent by weight of cement.

## **2.8 CONCRETE MIXING**

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete in accordance with ASTM C94/C94M, and furnish batch ticket information.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Verification of Conditions:
1. Before placing concrete, verify that installation of concrete forms, accessories, and reinforcement, and embedded items is complete and that required inspections have been performed.
  2. Do not proceed until unsatisfactory conditions have been corrected.

### **3.2 PREPARATION**

- A. Provide reasonable auxiliary services to accommodate field testing and inspections, acceptable to testing agency, including the following:
1. Daily access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.

3. Secure space for storage, initial curing, and field curing of test samples, including source of water and continuous electrical power at Project site during site curing period for test samples.
4. Security and protection for test samples and for testing and inspection equipment at Project site.

### **3.3 INSTALLATION OF EMBEDDED ITEMS**

- A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.
  1. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
  2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of ANSI/AISC 303.
  3. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.

### **3.4 INSTALLATION OF VAPOR RETARDER**

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder in accordance with ASTM E1643 and manufacturer's written instructions.
  1. Install vapor retarder with longest dimension parallel with direction of concrete pour.
  2. Face laps away from exposed direction of concrete pour.
  3. Lap vapor retarder over footings and grade beams not less than 6 inches, sealing vapor retarder to concrete.
  4. Lap joints 6 inches and seal with manufacturer's recommended tape.
  5. Terminate vapor retarder at the top of floor slabs, grade beams, and pile caps, sealing entire perimeter to floor slabs, grade beams, foundation walls, or pile caps.
  6. Seal penetrations in accordance with vapor retarder manufacturer's instructions.
  7. Protect vapor retarder during placement of reinforcement and concrete.
    - a. Repair damaged areas by patching with vapor retarder material, overlapping damages area by 6 inches on all sides, and sealing to vapor retarder.

### **3.5 JOINTS**

- A. Construct joints true to line, with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Coordinate with floor slab pattern and concrete placement sequence.
  1. Install so strength and appearance of concrete are not impaired, at locations indicated on Drawings or as approved by Architect.
  2. Place joints perpendicular to main reinforcement.
    - a. Continue reinforcement across construction joints unless otherwise indicated.
    - b. Do not continue reinforcement through sides of strip placements of floors and slabs.
  3. Form keyed joints as indicated. Embed keys at least 1-1/2 inches into concrete.
  4. Locate joints for beams, slabs, joists, and girders at third points of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.

5. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
  6. Space vertical joints in walls as indicated on Drawings . Unless otherwise indicated on Drawings, locate vertical joints beside piers integral with walls, near corners, and in concealed locations where possible.
  7. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
  8. Use epoxy-bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- C. Control Joints in Slabs-on-Ground: Form weakened-plane control joints, sectioning concrete into areas as indicated. Construct control joints for a depth equal to at least one-fourth of concrete thickness as follows:
1. Grooved Joints: Form control joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of control joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
  2. Sawed Joints: Form control joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random cracks.
- D. Doweled Joints:
1. Install dowel bars and support assemblies at joints where indicated on Drawings.
  2. Lubricate or asphalt coat one-half of dowel bar length to prevent concrete bonding to one side of joint.
- E. Dowel Plates: Install dowel plates at joints where indicated on Drawings.

### **3.6 CONCRETE PLACEMENT**

- A. Before placing concrete, verify that installation of formwork, reinforcement, embedded items, and vapor retarder is complete and that required inspections are completed.
1. Immediately prior to concrete placement, inspect vapor retarder for damage and deficient installation, and repair defective areas.
  2. Provide continuous inspection of vapor retarder during concrete placement and make necessary repairs to damaged areas as Work progresses.
- B. Notify Architect and testing and inspection agencies 24 hours prior to commencement of concrete placement.
- C. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect in writing, but not to exceed the amount indicated on the concrete delivery ticket.
1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.
- D. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301, but not to exceed the amount indicated on the concrete delivery ticket.

1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.
- E. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.
1. If a section cannot be placed continuously, provide construction joints as indicated.
  2. Deposit concrete to avoid segregation.
  3. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
  4. Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 301.
    - a. Do not use vibrators to transport concrete inside forms.
    - b. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer.
    - c. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity.
    - d. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
- F. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
1. Do not place concrete floors and slabs in a checkerboard sequence.
  2. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
  3. Maintain reinforcement in position on chairs during concrete placement.
  4. Screed slab surfaces with a straightedge and strike off to correct elevations.
  5. Level concrete, cut high areas, and fill low areas.
  6. Slope surfaces uniformly to drains where required.
  7. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface.
  8. Do not further disturb slab surfaces before starting finishing operations.

### 3.7 FINISHING FORMED SURFACES

A. As-Cast Surface Finishes:

1. ACI 301 Surface Finish SF-1.0: As-cast concrete texture imparted by form-facing material.
  - a. Patch voids larger than 1-1/2 inches wide or 1/2 inch deep.
  - b. Remove projections larger than 1 inch.
  - c. Tie holes do not require patching.
  - d. Surface Tolerance: ACI 117 Class D.
  - e. Apply to concrete surfaces not exposed to public view .
2. ACI 301 Surface Finish SF-2.0: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams.
  - a. Patch voids larger than 3/4 inch wide or 1/2 inch deep.
  - b. Remove projections larger than 1/4 inch.
  - c. Patch tie holes.
  - d. Surface Tolerance: ACI 117 Class B.
  - e. Locations: Apply to concrete surfaces exposed to public view, .

### **3.8 FINISHING FLOORS AND SLABS**

- A. Comply with ACI 302.1R recommendations for screeding, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Trowel Finish:
  - 1. After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel.
  - 2. Continue troweling passes and restraighen until surface is free of trowel marks and uniform in texture and appearance.
  - 3. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
  - 4. Do not add water to concrete surface.
  - 5. Do not apply hard-troweled finish to concrete, which has a total air content greater than 3 percent.
  - 6. Apply a trowel finish to surfaces exposed to view .
  - 7. Finish surfaces to the following tolerances, in accordance with ASTM E1155, for a randomly trafficked floor surface:
    - a. Slabs on Ground:
      - 1) Finish and measure surface so gap at any point between concrete surface and an unleveled, freestanding, 10-ft.- long straightedge resting on two high spots and placed anywhere on the surface does not exceed 3/16 inch .
- C. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and locations indicated on Drawings.
  - 1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.
  - 2. Coordinate required final finish with Architect before application.

### **3.9 INSTALLATION OF MISCELLANEOUS CONCRETE ITEMS**

- A. Filling In:
  - 1. Fill in holes and openings left in concrete structures after Work of other trades is in place unless otherwise indicated.
  - 2. Mix, place, and cure concrete, as specified, to blend with in-place construction.
  - 3. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

### **3.10 CONCRETE CURING**

- A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
  - 1. Comply with ACI 301 and ACI 306.1 for cold weather protection during curing.
  - 2. Comply with ACI 301 and ACI 305.1 for hot-weather protection during curing.
  - 3. Maintain moisture loss no more than 0.2 lb/sq. ft. x h before and during finishing operations.



B. Curing Unformed Surfaces: Comply with ACI 308.1 as follows:

1. Begin curing immediately after finishing concrete.
2. Interior Concrete Floors:
  - a. Floors to Receive Floor Coverings Specified in Other Sections: Contractor has option of the following:
    - 1) Absorptive Cover: As soon as concrete has sufficient set to permit application without marring concrete surface, install prewetted absorptive cover over entire area of floor.
      - a) Lap edges and ends of absorptive cover not less than 12-inches.
      - b) Maintain absorptive cover water saturated, and in place, for duration of curing period, but not less than seven days.
    - 2) Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive.
      - a) Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
      - b) Cure for not less than seven days.
  - b. Floors to Receive Curing and Sealing Compound:
    - 1) Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller in accordance with manufacturer's written instructions.
    - 2) Recoat areas subjected to heavy rainfall within three hours after initial application.
    - 3) Repeat process 24 hours later, and apply a second coat. Maintain continuity of coating, and repair damage during curing period.

**3.11 TOLERANCES**

- A. Conform to ACI 117.

**3.12 JOINT FILLING**

- A. Prepare, clean, and install joint filler in accordance with manufacturer's written instructions.
1. Defer joint filling until concrete has aged at least one month(s).
  2. Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.
- C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches deep in formed joints.
- D. Overfill joint, and trim joint filler flush with top of joint after hardening.

**3.13 CONCRETE SURFACE REPAIRS**

- A. Defective Concrete:
1. Repair and patch defective areas when approved by Architect.
  2. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

- B. Patching Mortar: Mix dry-pack patching mortar, consisting of 1 part portland cement to 2-1/2 parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.
- C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
  - 1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch in any dimension to solid concrete.
    - a. Limit cut depth to 3/4 inch.
    - b. Make edges of cuts perpendicular to concrete surface.
    - c. Clean, dampen with water, and brush-coat holes and voids with bonding agent.
    - d. Fill and compact with patching mortar before bonding agent has dried.
    - e. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
  - 2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement, so that, when dry, patching mortar matches surrounding color.
    - a. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching.
    - b. Compact mortar in place and strike off slightly higher than surrounding surface.
  - 3. Repair defects on concealed formed surfaces that will affect concrete's durability and structural performance as determined by Architect.
- D. Repairing Unformed Surfaces:
  - 1. Test unformed surfaces, such as floors and slabs, for finish, and verify surface tolerances specified for each surface.
    - a. Correct low and high areas.
    - b. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
  - 2. Repair finished surfaces containing surface defects, including spalls, popouts, honeycombs, rock pockets, crazing, and cracks in excess of 0.01 inch wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
  - 3. After concrete has cured at least 14 days, correct high areas by grinding.
  - 4. Correct localized low areas during, or immediately after, completing surface-finishing operations by cutting out low areas and replacing with patching mortar.
    - a. Finish repaired areas to blend into adjacent concrete.
  - 5. Correct other low areas scheduled to receive floor coverings with a repair underlayment.
    - a. Prepare, mix, and apply repair underlayment and primer in accordance with manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
    - b. Feather edges to match adjacent floor elevations.
  - 6. Correct other low areas scheduled to remain exposed with repair topping.
    - a. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch to match adjacent floor elevations.
    - b. Prepare, mix, and apply repair topping and primer in accordance with manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
  - 7. Repair defective areas, except random cracks and single holes 1 inch or less in diameter, by cutting out and replacing with fresh concrete.
    - a. Remove defective areas with clean, square cuts, and expose steel reinforcement with at least a 3/4-inch clearance all around.
    - b. Dampen concrete surfaces in contact with patching concrete and apply bonding agent.

- c. Mix patching concrete of same materials and mixture as original concrete, except without coarse aggregate.
  - d. Place, compact, and finish to blend with adjacent finished concrete.
  - e. Cure in same manner as adjacent concrete.
- 8. Repair random cracks and single holes 1 inch or less in diameter with patching mortar.
  - a. Groove top of cracks and cut out holes to sound concrete, and clean off dust, dirt, and loose particles.
  - b. Dampen cleaned concrete surfaces and apply bonding agent.
  - c. Place patching mortar before bonding agent has dried.
  - d. Compact patching mortar and finish to match adjacent concrete.
  - e. Keep patched area continuously moist for at least 72 hours.
- E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- F. Repair materials and installation not specified above may be used, subject to Architect's approval.

### **3.14 FIELD QUALITY CONTROL**

- A. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare testing and inspection reports.
- B. Testing Agency: Engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.
  - 1. Testing agency shall be responsible for providing curing container for composite samples on Site and verifying that field-cured composite samples are cured in accordance with ASTM C31/C31M.
  - 2. Testing agency shall immediately report to Architect, Contractor, and concrete manufacturer any failure of Work to comply with Contract Documents.
  - 3. Testing agency shall report results of tests and inspections, in writing, to Owner, Architect, Contractor, and concrete manufacturer within 48 hours of inspections and tests.
    - a. Test reports shall include reporting requirements of ASTM C31/C31M, ASTM C39/C39M, and ACI 301, including the following as applicable to each test and inspection:
      - 1) Project name.
      - 2) Name of testing agency.
      - 3) Names and certification numbers of field and laboratory technicians performing inspections and testing.
      - 4) Name of concrete manufacturer.
      - 5) Date and time of inspection, sampling, and field testing.
      - 6) Date and time of concrete placement.
      - 7) Location in Work of concrete represented by samples.
      - 8) Date and time sample was obtained.
      - 9) Truck and batch ticket numbers.
      - 10) Design compressive strength at 28 days.
      - 11) Concrete mixture designation, proportions, and materials.
      - 12) Field test results.
      - 13) Information on storage and curing of samples before testing, including curing method and maximum and minimum temperatures during initial curing period.
      - 14) Type of fracture and compressive break strengths at seven days and 28 days.

- C. Batch Tickets: For each load delivered, submit three copies of batch delivery ticket to testing agency, indicating quantity, mix identification, admixtures, design strength, aggregate size, design air content, design slump at time of batching, and amount of water that can be added at Project site.
  
- D. Inspections:
  - 1. Headed bolts and studs.
  - 2. Verification of use of required design mixture.
  - 3. Concrete placement, including conveying and depositing.
  - 4. Curing procedures and maintenance of curing temperature.
  - 5. Verification of concrete strength before removal of shores and forms from beams and slabs.
  - 6. Batch Plant Inspections: On a random basis, as determined by Architect.
  
- E. Concrete Tests: Testing of composite samples of fresh concrete obtained in accordance with ASTM C 172/C 172M shall be performed in accordance with the following requirements:
  - 1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.
    - a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
  - 2. Slump: ASTM C143/C143M:
    - a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
    - b. Perform additional tests when concrete consistency appears to change.
  - 3. Slump Flow: ASTM C1611/C1611M:
    - a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
    - b. Perform additional tests when concrete consistency appears to change.
  - 4. Air Content: ASTM C231/C231M pressure method, for normal-weight concrete; .
    - a. One test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
  - 5. Concrete Temperature: ASTM C1064/C1064M:
    - a. One test hourly when air temperature is 40 deg F and below or 80 deg F and above, and one test for each composite sample.
  - 6. Unit Weight: ASTM C567/C567M fresh unit weight of structural lightweight concrete.
    - a. One test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
  - 7. Compression Test Specimens: ASTM C31/C31M:
    - a. Cast and laboratory cure two sets of four 6-inch by 12-inch or 4-inch by 8-inch cylinder specimens for each composite sample.
  - 8. Compressive-Strength Tests: ASTM C39/C39M.
    - a. Test one set of two laboratory-cured specimens at seven days and one set of two specimens at 28 days.
    - b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
  - 9. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
  - 10. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive

- strength by more than 500 psi if specified compressive strength is 5000 psi, or no compressive strength test value is less than 10 percent of specified compressive strength if specified compressive strength is greater than 5000 psi.
11. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
  12. Additional Tests:
    - a. Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
    - b. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42/C42M or by other methods as directed by Architect.
      - 1) Acceptance criteria for concrete strength shall be in accordance with ACI 301 section 1.6.6.3.
  13. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
  14. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.
- F. Measure floor and slab flatness and levelness in accordance with ASTM E1155 within 48 hours of completion of floor finishing and promptly report test results to Architect.

### **3.15 PROTECTION**

- A. Protect concrete surfaces as follows:
1. Protect from petroleum stains.
  2. Diaper hydraulic equipment used over concrete surfaces.
  3. Prohibit vehicles from interior concrete slabs.
  4. Prohibit use of pipe-cutting machinery over concrete surfaces.
  5. Prohibit placement of steel items on concrete surfaces.
  6. Prohibit use of acids or acidic detergents over concrete surfaces.

**END OF SECTION 03 3000**

**SECTION 08 3613  
SECTIONAL DOORS**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section includes electrically operated insulated sectional doors.

**1.2 ACTION SUBMITTALS**

- A. Product Data: For each type and size of sectional door and accessory.
  - 1. Include construction details, material descriptions, dimensions of individual components, profile door sections, and finishes.
  - 2. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.
- B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
  - 1. Include plans, elevations, sections, and mounting details.
  - 2. Include details of equipment assemblies. Indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
  - 3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
  - 4. Include diagrams for power, signal, and control wiring.

**1.3 QUALITY ASSURANCE**

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

**PART 2 - PRODUCTS**

**2.1 MANUFACTURERS, GENERAL**

- A. Source Limitations: Obtain sectional doors from single source from single manufacturer.
  - 1. Obtain operators and controls from sectional door manufacturer.

**2.2 PERFORMANCE REQUIREMENTS**

- A. General Performance: Sectional doors shall comply with performance requirements specified without failure due to defective manufacture, fabrication, installation, or other defects in construction and without requiring temporary installation of reinforcing components.

## 2.3 DOOR ASSEMBLY

- A. Steel Sectional Door: Sectional door formed with hinged sections and fabricated according to DASMA 102 unless otherwise indicated.
  - 1. **Manufacturers:** Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Overhead Door Corporation.
- B. Operation Cycles: Door components and operators capable of operating for not less than 20,000 . One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.
- C. Track Configuration: High-lift track.
- D. Weatherseals: Fitted to bottom and top and around entire perimeter of door.
- E. Windows: , with square corners, and spaced apart the approximate distance as indicated on Drawings; in row(s) at height indicated on Drawings; installed with glazing of the following type:
  - 1. Tinted, Tempered glass: manufacturer's standard, bronze color to match existing.
- F. Roller-Tire Material: Manufacturer's standard.
- G. Locking Devices: Equip door with slide bolt for padlock .
- H. Counterbalance Type: Torsion spring .
- I. Electric Door Operator:
  - 1. Usage Classification: Heavy duty, 25 or more cycles per hour and more than 90 cycles per day .
  - 2. Operator Type: Manufacturer's standard for door requirements .
  - 3. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use.
  - 4. Motor Exposure: Interior, clean, and dry .
  - 5. Emergency Manual Operation: Chain type.
  - 6. Obstruction-Detection Device: Automatic electric sensor edge on bottom section .
    - a. Sensor Edge Bulb Color: As selected by Architect from manufacturer's full range .
  - 7. Control Station: Interior-side mounted .
  - 8. Other Equipment: .
- J. Door Finish:
  - 1. Factory Prime Finish: Manufacturer's standard color.
  - 2. Finish of Interior Facing Material: Match finish of exterior section face .

## 2.4 MATERIALS, GENERAL

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

## 2.5 STEEL DOOR SECTIONS

- A. Exterior Section Faces and Frames: Zinc-coated (galvanized), cold-rolled, commercial steel (CS) sheet, complying with ASTM A 653/A 653M, with indicated zinc coating and thickness.
  - 1. Fabricate section faces from single sheets to provide sections not more than 24 inches high and of indicated thickness. Roll horizontal meeting edges to a continuous, interlocking, keyed, rabbeted, shiplap, or tongue-in-groove weather-resistant seal, with a reinforcing flange return.
  - 2. For insulated doors, provide sections with continuous thermal-break construction, separating the exterior and interior faces of door.
- B. Section Ends and Intermediate Stiles: Enclose open ends of sections with channel end stiles formed from galvanized-steel sheet not less than 0.064-inch- nominal coated thickness and welded to door section. Provide intermediate stiles formed from not less than 0.064-inch- thick galvanized-steel sheet, cut to door section profile, and welded in place. Space stiles not more than 48 inches apart.
- C. Reinforce bottom section with a continuous channel or angle conforming to bottom-section profile.
- D. Provide reinforcement for hardware attachment.
- E. Board Thermal Insulation: Insulate interior of steel sections with door manufacturer's standard polystyrene or polyurethane board insulation, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, according to ASTM E 84; or with glass-fiber-board insulation. Secure insulation to exterior face sheet. Enclose insulation completely within steel sections and the interior facing material, with no exposed insulation.
- F. Interior Facing Material: Zinc-coated (galvanized), cold-rolled, commercial steel (CS) sheet, complying with ASTM A 653/A 653M, with indicated thickness.
- G. Fabricate sections so finished door assembly is rigid and aligned, with tight hairline joints and free of warp, twist, and deformation.

## 2.6 TRACKS, SUPPORTS, AND ACCESSORIES

- A. Tracks: Manufacturer's standard, galvanized-steel track system of configuration indicated, sized for door size and weight, designed for lift type indicated and clearances indicated on Drawings, Provide complete system including brackets, bracing, and reinforcement to ensure rigid support of ball-bearing roller guides for required door type, size, weight, and loading.
  - 1. Galvanized Steel: ASTM A 653/A 653M, minimum G60 zinc coating.
  - 2. Slope tracks at an angle from vertical or design tracks to ensure tight closure at jambs when door unit is closed.
  - 3. Track Reinforcement and Supports: Galvanized-steel members to support track without sag, sway, and vibration during opening and closing of doors. Slot vertical sections of track spaced 2 inches apart for door-drop safety device.
    - a. For Vertical Track: Continuous reinforcing angle attached to track and attached to wall with jamb brackets .
    - b. For Horizontal Track: Continuous reinforcing angle from curve in track to end of track, attached to track and supported at points by laterally braced attachments to overhead structural members.



- B. Weatherseals: Replaceable, adjustable, continuous, compressible weather-stripping gaskets of flexible vinyl, rubber, or neoprene fitted to bottom and top of sectional door unless otherwise indicated.

## **2.7 HARDWARE**

- A. General: Heavy-duty, corrosion-resistant hardware, with hot-dip galvanized, stainless-steel, or other corrosion-resistant fasteners, to suit door type.
- B. Hinges: Heavy-duty, galvanized-steel hinges of not less than **0.079-inch-** nominal coated thickness at each end stile and at each intermediate stile, according to manufacturer's written recommendations for door size. Attach hinges to door sections through stiles and rails with bolts and lock nuts or lock washers and nuts. Use rivets or self-tapping fasteners where access to nuts is impossible. Provide double-end hinges where required, for doors more than **16 feet** wide unless otherwise recommended by door manufacturer.
- C. Rollers: Heavy-duty rollers with steel ball-bearings in case-hardened steel races, mounted with varying projections to suit slope of track. Extend roller shaft through both hinges where double hinges are required. Provide **3-inch-** diameter roller tires for **3-inch-** wide track and **2-inch-** diameter roller tires for **2-inch-** wide track.
- D. Push/Pull Handles: Equip each push-up operated or emergency-operated door with galvanized-steel lifting handles on each side of door, finished to match door.

## **2.8 LOCKING DEVICES**

- A. Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on single-jamb side, operable from inside only.
- B. Chain Lock Keeper: Suitable for padlock.
- C. Safety Interlock Switch: Equip power-operated doors with safety interlock switch to disengage power supply when door is locked.

## **2.9 COUNTERBALANCE MECHANISM**

- A. Torsion Spring: Counterbalance mechanism consisting of adjustable-tension torsion springs fabricated from steel-spring wire complying with ASTM A 229/A 229M, mounted on torsion shaft made of steel tube or solid steel. Provide springs designed for number of operation cycles indicated.
- B. Cable Drums and Shaft for Doors: Cast-aluminum or gray-iron casting cable drums mounted on torsion shaft and grooved to receive door-lifting cables as door is raised. Mount counterbalance mechanism with manufacturer's standard ball-bearing brackets at each end of torsion shaft. Provide one additional midpoint bracket for shafts up to **16 feet** long and two additional brackets at one-third points to support shafts more than **16 feet** long unless closer spacing is recommended by door manufacturer.
- C. Cables: Galvanized-steel, multistrand, lifting cables with cable safety factor of at least 5 to 1 .

- D. Cable Safety Device: Include a spring-loaded steel or spring-loaded bronze cam mounted to bottom door roller assembly on each side and designed to automatically stop door if either lifting cable breaks.
- E. Bracket: Provide anchor support bracket as required to connect stationary end of spring to the wall and to level the shaft and prevent sag.
- F. Bumper: Provide spring bumper at each horizontal track to cushion door at end of opening operation.

## **2.10 ELECTRIC DOOR OPERATORS**

- A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and "operation cycles" requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.
  - 1. Comply with NFPA 70.
  - 2. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6; with NFPA 70, Class 2 control circuit, maximum 24-V ac or dc.
- B. Usage Classification: Electric operator and components capable of operating for not less than number of cycles per hour indicated for each door.
- C. Door-Operator Type: Unit consisting of electric motor, gears, pulleys, belts, sprockets, chains, and controls needed to operate door and meet required usage classification.
  - 1. Trolley: Trolley operator mounted to ceiling above and to rear of door in raised position and directly connected to door with drawbar.
  - 2. Jackshaft, Center Mounted: Jackshaft operator mounted on the inside front wall above door and connected to torsion shaft with an adjustable coupling or drive chain.
  - 3. Jackshaft, Side Mounted: Jackshaft operator mounted on the inside front wall on right or left side of door and connected to torsion shaft with an adjustable coupling or drive chain.
- D. Motors: Reversible-type motor with controller (disconnect switch) for motor exposure indicated.
  - 1. Electrical Characteristics:
    - a. Phase: Single phase .
    - b. Volts: 208 V.
    - c. Hertz: 60.
  - 2. Motor Size: Minimum size as indicated. If not indicated, large enough to start, accelerate, and operate door in either direction from any position, at a speed not less than **8 in./sec.** and not more than **12 in./sec.** , without exceeding nameplate ratings or service factor.
  - 3. Operating Controls, Controllers (Disconnect Switches), Wiring Devices, and Wiring: Manufacturer's standard unless otherwise indicated.
  - 4. Coordinate wiring requirements and electrical characteristics of motors and other electrical devices with building electrical system and each location where installed.
  - 5. Use adjustable motor-mounting bases for belt-driven operators.
- E. Limit Switches: Equip motorized door with adjustable switches interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.

- F. Obstruction Detection Device: External entrapment protection consisting of indicated automatic safety sensor capable of protecting full width of door opening. Activation of device immediately stops and reverses downward door travel.
  - 1. Photoelectric Sensor: Manufacturer's standard system designed to detect an obstruction in door opening without contact between door and obstruction.
    - a. Self-Monitoring Type: Designed to interface with door operator control circuit to detect damage to or disconnection of sensing device. When self-monitoring feature is activated, door closes only with sustained pressure on close button.
  - 2. Electric Sensor Edge: Automatic safety sensor edge, located within astragal or weather stripping mounted to bottom section. Contact with sensor activates device. Connect to control circuit using manufacturer's standard take-up reel or self-coiling cable.
    - a. Self-Monitoring Type: Four-wire configured device designed to interface with door-operator control circuit to detect damage to or disconnection of sensor edge.
  - 3. Pneumatic Sensor Edge: Automatic safety sensor edge, located within astragal or weather stripping mounted to bottom bar. Contact with sensor activates device.
- G. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure, push-button control labeled "Close."
  - 1. Interior-Mounted Units: Full-guarded, surface-mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure.
  - 2. Exterior-Mounted Units: Full-guarded, standard-duty, surface-mounted, weatherproof type, NEMA ICS 6, Type 4 enclosure, key operated.
- H. Emergency Manual Operation: Equip electrically powered door with capability for emergency manual operation. Design manual mechanism so required force for door operation does not exceed 25 lbf .
- I. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.
- J. Motor Removal: Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency manual operation.
- K. Audible and Visual Signals: Audible alarm and visual indicator lights in compliance with regulatory requirements for accessibility.

## 2.11 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM/NOMMA's "Metal Finishes Manual for Architectural and Metal Products (AMP 500-06)" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## **2.12 STEEL AND GALVANIZED-STEEL FINISHES**

- A. Factory Prime Finish: Manufacturer's standard primer, compatible with field-applied finish. Comply with coating manufacturer's written instructions for cleaning, pretreatment, application, and minimum dry film thickness.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for substrate construction and other conditions affecting performance of the Work.
- B. Examine locations of electrical connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.2 INSTALLATION**

- A. Install sectional doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.
- B. Tracks:
  - 1. Fasten vertical track assembly to opening jambs and framing, spaced not more than **24 inches** apart.
  - 2. Hang horizontal track assembly from structural overhead framing with angles or channel hangers attached to framing by welding or bolting, or both. Provide sway bracing, diagonal bracing, and reinforcement as required for rigid installation of track and door-operating equipment.
- C. Accessibility: Install sectional doors, switches, and controls along accessible routes in compliance with regulatory requirements for accessibility.

### **3.3 ADJUSTING**

- A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.
- B. Lubricate bearings and sliding parts as recommended by manufacturer.
- C. Adjust doors and seals to provide weather-resistant fit around entire perimeter.
- D. Touch-up Painting: Immediately after welding galvanized materials, clean welds and abraded galvanized surfaces and repair galvanizing to comply with ASTM A 780/A 780M.

**3.4 DEMONSTRATION**

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain sectional doors.

**END OF SECTION 08 3613**

**SECTION 13 1250  
PRE-ENGINEERED WOOD FRAMED BUILDING**

**PART 1 - GENERAL**

**1.1 WORK INCLUDES**

A. Base Bid:

1. General Contractor Provide:
2. Pre-Engineered factory and field fabricated Timber Column Structure, Wood Frame Structure.
3. Prefinished metal roofing and siding panels.
4. Prefinished metal trim items.
5. Prefinished soffits and ridge vent.
6. Prefinished gutters and downspouts.
7. Attic insulation and Wall insulation.

**1.2 REFERENCED STANDARDS**

A. Preservative Treated Lumber

1. American Wood Preservers Bureau (AWPB)
  - a. Commodity Specification C2.
    - 1) Use Category System: User Specification for treated wood.
  - b. 1. UC4B (ground contact or fresh water).
  - c. Treated item shall bear the quality mark of an independent testing agency or service certified by the AWPB to inspect preservative-treated wood.
2. Federal Specification TT-W-571-J

B. Framing Lumber

1. Lumber Grading Rules and Wood Species:
  - a. National Design Specification for Wood Construction, current edition
  - b. Northeastern Lumber Manufacturer's Association, Inc. (NELMA)
  - c. Southern Pine Inspection Bureau (SPIB): Southern Pine.
  - d. West Coast Lumber Inspection Bureau (WCLIB): Douglas Fir.
  - e. Western Wood Products Association (WWPA): Douglas Fir and Ponderosa Pine.

C. Wood Trusses.

1. All lumber used in the design of wood trusses must be kiln dried and graded in accordance with the current grading rules. Design stresses allowed are those listed in the current editions of the respective Lumber Association's grading rules.
2. The design of wood members must be in accordance with the formulas published in the current edition of the National Design Specification for Wood Construction.
3. Light metal toothed connector plates and joint design must conform to specifications as set out in the current edition of the TRUSS PLATE INSTITUTE Design Specification for Metal Plate Connected Wood Trusses.
  - a. Connector plates shall be fabricated from ASTM 653, Grade A, No. 18 and No. 20 gauge steel sheets galvanized with a G60 or better, metallic zinc coating.

4. Truss members and joints must be designed in accordance with the current edition of TPI-2002. All truss designs must be accompanied by complete and accurate shop drawings and contain the following information:
  - a. Slope or depth, span and spacing of the truss.
  - b. Heel bearing height.
  - c. Design loading to include:
    - 1) Top chord live load
    - 2) Top chord dead load
    - 3) Bottom chord dead load
    - 4) Concentrated loads and their points
  - d. Adjustments to lumber and plate design values for conditions of use.
  - e. Plate type, thickness of gauge, and size.
  - f. Lumber size, species and grade for each member.

### **1.3 SYSTEM DESCRIPTION**

- A. Refer to the Project Drawings for the following items and/or include the following:

1. Clear span
2. Bay spacing of 6'-0" o.c. or less
3. Primary framing
  - a. Columns
  - b. Trusses
  - c. Wind bracing
4. Secondary framing
  - a. Perimeter baseboards
  - b. Wall girts
  - c. Purlins
  - d. Overhang rafters and fascia
  - e. Ancillary blocking, furring and grounds as required
5. Roof Covering
  - a. Prefinished ribbed metal panels
  - b. Insulation System
6. Wall Covering
  - a. Prefinished ribbed metal panels
7. Insulation and Liner Package
  - a. Wall Insulation
  - b. Ceiling Insulation
  - c. Vapor Retarder

### **1.4 DESIGN REQUIREMENTS**

- A. Roof design loads

1. Top Chord Live Load: See Structural Drawings
2. Top Chord Dead Load: See Structural Drawings (Does not include purlins or other miscellaneous framing as required by wood building manufacturer)
3. Bottom Chord Dead Load: See Structural Drawings.
4. Bottom Chord Point Loads: As required by building manufacturer.
5. Unbalanced Snow Loads: Standard for area

- B. Wind load

1. 1. 115 MPH (V3s), Exposure "C"
- C. Roof and wall system shall be able to withstand the imposed loads with maximum allowable deflection of  $L/180$ .
- D. Assembly shall permit movement of components without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects.
- E. Size and fabricate wall and roof system to be free of distortion or defects that would be detrimental to appearance or performance.

## **1.5 SUBMITTALS**

- A. Submit to Architect / Engineers.
- B. Provide 3 sets of the following bearing the seal of a Professional Engineer registered in the State of Missouri.
  1. Complete and detailed shop and erection drawings showing size and location of each part and component, certifying that the building design meets specified roof and wind loading requirements.
  2. Truss Engineering analysis and design data, include the following:
    - a. Axial forces and bending moments for each member.
    - b. Basic plate design value.
    - c. Design analysis of each joint showing that proper plates have been used.
  3. Manufacturer's standard color chart for owner to choose from.

## **1.6 PROJECT RECORD DOCUMENTS**

- A. Submit record documents from field notes to Architect / Engineer.
- B. Accurately record actual locations of concealed utilities and mechanical systems.

## **1.7 QUALITY ASSURANCE**

- A. Building System Requirements:
  1. Fabricate members in accordance with standard industry practices.
  2. Provide building components either manufactured, marketed, or approved by a single specified building manufacturer.
  3. Be, or subcontract erection to, a firm approved or franchised by a specific manufacturer.
  4. Structural component design to be under the direct supervision of a Licensed Professional Engineer, licensed in the State of Missouri.
- B. Regulatory Requirements:
  1. Building Code: As per Section 01 4100



**1.8 QUALIFICATIONS**

- A. Manufacturer shall have a minimum of ten years documented experience in the manufacture and erection of this type of structure.
- B. Design structural components under direct supervision of a Structural Engineer or Architect experienced in design of this work and licensed in the State of Illinois.
- C. Employ adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are familiar with the specified requirements and methods needed for proper performance of the work.
- D. Contractor shall be responsible for all materials, whether furnished by himself or a subcontractor, and proper storage of the same.

**1.9 REGULATORY REQUIREMENTS**

- A. Contractor shall be responsible for compliance with all applicable building codes and/or ordinances covering the work.
- B. Cooperate with regulatory agency or authority to provide data as requested.

**1.10 PRE CONSTRUCTION MEETING**

- A. Shall be established by the Architect / Engineer and Owner, and attendance by the Contractor is mandatory.

**1.11 FIELD MEASUREMENTS**

- A. Verify that field measurements are as on shop drawings.

**1.12 DELIVERY, STORAGE AND HANDLING**

- A. Deliver and store prefabricated components (trusses, columns, steel sheeting and other items) so that they will not be damaged or deformed.
- B. Stack materials on platforms, pallets or other structures covered with tarpaulins or other suitable weathertight ventilated covering. Handle and store structural parts in a manner that will avoid deforming members or subjecting parts to excessive stresses.
- C. Store roofing and siding panels so that water will drain freely.
- D. Do not store panels in contact with other materials which may cause staining or discoloration.

**1.13 PROJECT CONDITIONS**

- A. Coordination

1. Fit carpentry work to other work, scribe and cope as required for an accurate fit. Correlate location of furring, nailers, blocking, grounds and similar supports to allow for attachment of other work.

#### **1.14 CERTIFICATIONS**

- A. In order for bidder's proposal to be considered, the following certifications shall be required:

1. Certification of sheet steel supplier stating:
  - a. Minimum thickness of metallic coated steel IN INCHES.
  - b. Identification of all metallic coatings.
  - c. Coating weight range.
  - d. Verification that material supplied is in conformance with the applicable ASTM standard as stated in the technical specifications.
2. Certification of paint supplier stating:
  - a. Generic chemistry of topcoat.
  - b. Trade name of topcoat.
  - c. Percentage of Polyvinylidene Fluoride in resin.
3. Certification of sheet steel coater stating:
  - a. Nominal paint film thickness IN MILS.
4. Certification of treated lumber supplier stating:
  - a. Preservative type
  - b. Preservative retention in pounds per cubic foot of wood.
  - c. Depth of assay zone.
  - d. Treatment is in accordance with AWPA standard C2 and Federal Specification TT-W-005721J.
  - e. Verification that warranty meets or exceeds the requirements stated in the technical specification.

#### **1.15 WARRANTY**

- A. The Building Manufacturer shall supply a warranty to the Owner which shall provide that the manufacturer will:
1. For a period of five (5) years:
    - a. Absorb repair or replacement costs, including material and labor, if any preservative treated lumber fails due to decay or insect attack.
    - b. Repair, or at its discretion, replace free of charge the building framework, including and roofing and/or siding panels, if directly damaged by snow loads.
  2. For a period of twenty (20) years to repaint free of charge:
    - a. Any Kynar coated panel on which corrosion due to pollutants in the atmosphere has resulted in red rust.
    - b. Any panel on which under conditions of normal weathering chalking has occurred in excess of 8 units (ASTM D4212 method "A").
    - c. Any panel on which under conditions of normal weathering color change has occurred in excess of 5 units (ASTM D-2244).
    - d. Any roofing or siding panel on which the paint has separated from the panels due to checking or peeling.
  3. For a period of five (5) years:
    - a. Repair, or at its discretion, replace free of charge the building framework, including roofing and/or siding panels, if directly damaged by wind loads, unless damage is caused by flying or falling objects.
    - b. Repair any roof leaks due to defects in materials or workmanship.
  4. For a period of one (1) year:

- a. Repair other building parts that prove to be defective in materials or workmanship.
5. The Manufacturer shall NOT be liable for damage due to deterioration caused by interior chemical vapor and/or dust, damage by flying or falling objects, or collateral damage to interior walls, ceiling, partitions, overhead doors, equipment and/or contents, or cost of preparation of the site.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS – BUILDING SYSTEM**

- A. Approved Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  1. Morton Buildings, Inc.
  2. Wick Buildings
  3. Lester Building Systems
  4. Cleary Buildings

### **2.2 MATERIALS – FRAMING**

- A. Columns (Built on Concrete foundation)
  1. Factory fabricated from minimum 3 ply No. 1 or better SYP.
  2. Provide factory installed blocking on outside face of column between nailers.
- B. Wood Trusses
  1. Lumber
    - a. Top Chord: No. 1 or better SYP
    - b. Bottom Chord: 1950 MSR or Better SPF
    - c. Webs: No.1 or better SYP
  2. Trusses shall be constructed of surfaced lumber, smooth and free of all cracks, checks, and blemishes.
  3. Plates: Connector plates shall be fabricated from ASTM 653, Grade A, or better, 18 and 20 Steel gauge steel sheets with a G60, or better, metallic (zinc) coating.
  4. Design and fabricate trusses and connections to withstand snow and wind loads and all dead loads.
  5. Fabricate trusses in plant, using mechanical or hydraulic fixtures as required to bring members into contact. Install plates in accordance with manufacturer's instructions.
- C. Baseboards
  1. 2" x 8" No.2 or better SYP with 1/2" x 3/4" notch in top
  2. Pressure treated with a wood preservative to a retention commensurate with applicable AWPA standards and kiln dried after treating to 19% maximum moisture content.
  3. The preservative shall penetrate 100% of the sapwood.
- D. Wall Girts
  1. First nailer above baseboard: 2" x 6" No. 2 or better SPF with 1/2" x 3/4" notch in bottom.
  2. Balance nailers shall be: 2" x 4" 2100 MSF or better SPF.

3. Overhang top nailer: 2" x 6" No. 2 or better SPF.
- E. Purlins and truss ties
  1. 2" x 4" No. 2 or better SPF.
- F. Overhang framing.
  1. Provide factory fabricated rafter frames.
  2. Provide 2" x 6" No. 2 or better SPF factory beveled fascia boards.
- G. Wind Bracing
  1. 2"x6" No. 2 or better SPF from endwall column to first truss back.
- H. Framing around openings
  1. 2"x4" No. 2 or better SPF around personnel doors
  2. 2"x6" No. 3 or better SPF around overhead door openings.
- I. Headers
  1. Provide built-up headers as required for a proper installation.
- J. Incidental framing
  1. 2" x 4" and/or 2" x 6" No. 2 or better SPF
- K. Interior framing
  1. 2" x 4" No. 2 or better SPF.

## **2.3 MATERIALS – PREFINISHED METALS**

- A. Roofing panels
  1. Panel substrate shall be .019" minimum thickness commercial quality 26 gauge steel sheet with an AZ55 Aluminum / Zinc (Galvalume) coating (ASTM A792).
  2. The weather side of the panel shall receive a nominal one mil Polyurethane primer and a nominal one mil topcoat of 70% Polyvinylidene Fluoride Resin (\*KYNAR 500 / HYLAR 5000) to achieve a total paint film thickness of one half mil.
  3. The non-weather side paint system shall consist of a two coat finish with a total nominal thickness of one half mil.
  4. Install end panel rib closures.
- B. Siding panels
  1. Panel substrate shall be .019" minimum thickness commercial quality 26 gauge steel sheet with a G90 (Zinc) coating (ASTM A525).
  2. The weather side of the panel shall receive a nominal two tenths mil Polyurethane primer and a nominal eight tenths mil topcoat of 70% Polyvinylidene Fluoride Resin (\*KYNAR 500 / HYLAR 5000) to achieve a total nominal paint film thickness of one mil.
  3. The non-weather side paint system shall consist of a two coat finish with a total nominal thickness of one half mil.

- C. Metal Trim items/Baseboard – Metal Flashing “Z” trim
  - 1. Die-formed steel from the same quality material as the siding panels.
- D. Ridge Vent
  - 1. Prefinished aluminum ridge vent or vent caps, see roof plans.
  - 2. Install end panel rib closures with tape sealer.
- E. Gutters and downspouts
  - 1. Provide 6” O.G. (style “K”) .030 minimum thickness 3004 H36 tempered aluminum alloy gutters on both sides of building. Gutters shall be finished with KYNAR 500 / HYLAR 5000 paint system with a total nominal thickness of one mil on the visible side.
  - 2. Silicone sealant and silicone rubber gaskets shall be used at laps to maintain leak prevention and to relieve stress due to thermal movement.
  - 3. Provide 5” x 5” downspout with appropriate elbows and conductor bands as shown on drawings.
- F. Soffits:
  - 1. Prefinished aluminum perforated soffit.
    - a. Provide solid soffit for end overhangs.
    - b. Provide perforated soffits for vented side overhangs.

## **2.4 MATERIALS - OTHER**

- A. Column sockets
  - 1. Fabricate socket from minimum 4 gauge hot rolled steel.
  - 2. Factory paint socket to inhibit corrosion.
- B. Socket fasteners
  - 1. 1/2" diameter x 10" galvanized "J" bolts cast 8" into concrete foundation.
  - 2. 1/2" diameter Machine bolts to secure column to socket.
  - 3. Ancillary washers and nuts.
- C. Corner bracing
  - 1. Provide 1 1/2" wide high tensile steel strapping in all unobstructed corners in an "X" configuration.
- D. Roofing and siding fasteners
  - 1. EPDM washered, painted, center drive stainless steel screws for ribbed steel panels.
- E. Closure strips
  - 1. Closed cell foam.
- F. Sealant
  - 1. Paintable silicone

- G. Insulation – refer to wall sections
- H. Vapor retarder – refer to wall sections and specification section 07 2600.
- I. Snow guards
  - 1. Provide manufacturer standard continuous snow guards.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify site conditions.
- B. Verify that mechanical and electrical utilities are in correct positions.

#### **3.2 ERECTION – FRAMING - GENERAL**

- A. Erect framing in accordance with manufacturers established construction procedures.
- B. Make all components and building plumb, square, straight and true to lines.
- C. Provide adequate temporary bracing to assure structure remains plumb and square until permanent bracing is installed.
- D. Altering of structural members will not be permitted.

#### **3.3 ERECTION - FRAMING**

- A. Column (if built on Concrete Foundation)
  - 1. Attach steel column socket to the concrete foundation with plated "J" bolts, washers and nuts per building design requirements.
  - 2. Attach the column to the column socket with thru bolts and 20d galv. R.R. nails as required by design.
- B. Baseboards (if built on Concrete Foundation)
  - 1. Install 2"x 8" treated plank, sealed to the concrete foundation with pre-compressed Ultra-Seal, using manufacturer recommended fasteners.
- C. Wall girts
  - 1. Install 2" x 6" notched nailer to receive OSB panel.
  - 2. Install 2" x 4" nailers at 32" o.c.
  - 3. Install 2" x 6" overhang nailer at the top.
- D. Trusses
  - 1. Set trusses in plane with the center member of the upper column using lifting methods as approved by the manufacturer.

2. When properly positioned, install two ½" diameter machine bolts and manufacturer recommended 20d ring shank nails through two of the upper column laminates and the truss heel.
3. Brace trusses as recommended by manufacturer.

E. Purlins

1. Install 2" x 4" purlins at 24" o.c., and attach to trusses with 60d ring shank nails.

F. Truss ties

1. Install 2" x 4" truss ties at locations recommended by manufacturer.
2. Truss ties shall run from endwall to endwall.

G. Wind bracing and Knee Bracing

1. Install 2" x 6" angled bracing at locations recommended by manufacturer.

H. Incidental framing

1. Install 2" x 4" or 2" x 6" blocking as required according to building manufacturers recommendations.

I. Interior framing :Walls:

1. Install 2" x 4" baseboard at 4" above grade and case in metal trims
2. Install 2" x 4" horizontal stripping at 16" o.c.
3. Install 2" x 4" vertical blocks at 48" o.c. (interior panel edges) Ceiling
4. Install 2" x 4" stripping frames @ 16" o.c.

J. Interior framing : Ceilings:

1. Install 2" x 4" stripping frames @ 16" o.c.

K. Headers and Framing around openings

1. As detailed on Drawings, and/or as specified herein. Follow manufacturer's recommendations.

### **3.4 ERECTION – PREFINISHED METALS - GENERAL**

- A. Install prefinished metal parts in accordance with manufacturers established construction procedures.
- B. Make all components plumb, square, straight and true to lines.
- C. Exercise care when cutting prefinished materials to ensure cuttings do not remain on finished surface, all field cuts shall be "shear" cuts, not "rotary" cuts.
- D. Install fasteners properly. Do not under or over drive.
- E. Install all components to assure freedom from rattles, noise due to thermal movement and wind whistles.

### **3.5 ERECTION – PREFINISHED METALS**

- A. Roofing panels
  - 1. Install panels perpendicular to supports, aligned straight with end fascias.
  - 2. Fasten panels to purlins with stainless steel screws centered in high portion of rib.
- B. Siding panels
  - 1. Install panels perpendicular to supports, aligned level and plumb.
  - 2. Fasten panels to wall girts with stainless steel screws centered in high portion of rib.
- C. Baseboards – Metal Flashing “Z” Trim
  - 1. Install perpendicular to supports, aligned level and plumb.
  - 2. Fasten panels to columns and baseboards with galvanized or coated steel screws centered.
- D. Metal Trim items
  - 1. Install trim items at the base, wainscot transition, skybelt transition, corners, top of steel siding, fascias, gables and ridge using appropriate screw fasteners.
- E. Vent-A-Ridge/Ridge Vent
  - 1. Install over ridge trim using screw fasteners.
  - 2. Insure that a minimum of 2” clear throat opening is maintained.
- F. Soffits
  - 1. Install soffits to interlock with trim items at top of steel siding and at fascias.
  - 2. Use solid soffit at end overhang.
  - 3. Use a combination of solid and perforated soffits to provide balanced ventilation at side overhangs.
- G. Gutters and downspouts
  - 1. Install gutters with manufacturer’s standard hangers.
  - 2. Silicone sealant and silicone rubber gaskets shall be used at laps to maintain leak prevention and to relieve stress due to thermal movement.
- H. Filler Strips/End Panel Rib Closures
  - 1. Provide closed cell foam filler strips at the end of the roofing panels.
  - 2. Provide closures at top of roofing panel at ridge vent as detailed on Drawings.

### **3.6 TOLERANCES**

- A. Framing Members
  - 1. 1/4” from level
  - 2. 1/8” from plumb
- B. Siding and roofing



1. 1/8" from true position

**END OF SECTION 13 1250**

## **SECTION 32 1823.39 - SYNTHETIC RUNNING TRACK SURFACING**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. The contractor shall furnish all materials, labor, tools, and equipment necessary for the installation of the synthetic track surface and line markings on all areas detailed in the contract drawings.
- B. Related Sections include the following:
  - 1. 32 1216 Asphalt Paving - Track base for track surface
- C. Documents required with bid: Contractor must submit samples of track material, product data sheets, reference list, and certified track builder qualifications. Surfacing contractor must have someone on staff with the certification, striper's certification will not qualify as acceptable.

#### **1.2 CODES AND STANDARDS**

- A. Codes and standards follow the current guidelines set forth by the National Federation of State High School Associations (NFHS), the National Collegiate Athletic Association (NCAA) and the International Association of Athletics Federations (IAAF). The NFHS rules shall be enforced where differences between the three associations are noted.

#### **1.3 SUBMITTALS**

- A. Submit one (1 ) set of manufacturer's product data sheets including installation guidelines and maintenance instructions on bid day.
- B. Submit one (1 ) representative track samples in the color of surfacing to be installed on bid day.
- C. Submit one (1) copy of reference list of installed tracks with bid documents. Contractor must have built 10 tracks within a 50 mile radius of this project.
- D. Provide a letter stating that the surfacing contractor has reviewed the asphalt specification and accepts the specification as correct. Furthermore, the surfacing contractor shall provide a letter after checking the asphalt accepting it for synthetic surface installation. Should areas be found that do not meet specifications, they shall be repaired or replaced by the asphalt contractor prior to the synthetic surfacing contractor issuing its letter of acceptance.
- E. Submit evidence that the synthetic surfacing contractor is a current member of the American Sports Builders Association (ASBA).
- F. Submit evidence with the bid form that confirms the synthetic surfacing contractor is/has a minimum of two certified track builders on staff recognized by the American Sports Builders Association (ASBA). Striper will not be allowed as an equal.

#### **1.4 WARRANTY**

- A. Provide a Three (3) Year Warranty against faulty workmanship and materials for the synthetic surface. The warranty period shall commence at final completion of the surfacing.
- B. A one (1) Year Warranty shall be provided for the line markings.

#### **1.5 QUALITY ASSURANCE**

- A. Provide a certificate of accuracy from a registered engineer or land surveyor that the track measures 400 meters in all lanes from start to finish.
- B. Provide, as a part of the Warranty, documents stating that the materials applied conform to the manufacturer's specifications and that the material will not separate from the asphalt or concrete base, blister, bubble, fade, crack or wear excessively during the life of the warranty.
- C. The materials will not foam, thus causing air bubbles and reduce the life expectancy of the surface.
- D. The synthetic surfacing contractor and owner will annually walk and inspect the synthetic surface during the life of the warranty. Warranty issues will be repaired and for non-warranty items a method for correction will be presented.
- E. The synthetic surfacing contractor shall maintain a clean and orderly job site. All excess materials shall be removed from the construction area and properly disposed of. Scrap shall be removed in the same manner.
- F. The synthetic surfacing contractor shall employ a certified track builder.

### **PART 2 - PRODUCTS**

#### **2.1 SYNTHETIC SURFACING**

- A. The synthetic surfacing shall be a 13 mm thick, permeable, structural spray system, with a paved in place rubber granule and polyurethane binder base layer. Two coats of a mixture of colored polyurethane and EPDM rubber granules are structurally sprayed onto the base to form a textured finish.
- B. Color shall be black.

#### **2.2 PREQUALIFIED PRODUCTS**

- A. APT – Spurtan BS
- B. Champion SP – Byrne & Jones

## 2.3 PROPERTIES

A. <u>PHYSICAL PROPERTY</u>	<u>REQUIREMENT</u>
1. Water permeability	permeable
2. Relative abrasion resistance	DIN 18035/6 1.30
3. Spike resistance	DIN 18035/6 Class 1
4. Max. indentation when loaded	DIN 18035/6 5.7 mm
5. Remaining indentation	DIN 18035/6 0.4 mm
6. Sliding coefficient – dry/leather	DIN 18035/6 0.68
7. Sliding coefficient - wet/leather	DIN 18035/6 0.50
8. Standard deformation – 0°C	DIN 18035/6 0.70 mm
9. Standard deformation – 20°C	DIN 18035/6 0.90 mm
10. Standard deformation – 40°C	DIN 18035/6 1.00 mm
11. Force Reduction - 23°C	IAAF 39%
12. Flammability behavior	DIN 51960 Class 1
13. Tensile Strength – standard climate	DIN 50014 0.69 N/mm
14. Tensile Strength - combined climate	DIN 53387 0.72 N/mm <sup>2</sup>
15. Elongation at break – standard climate	DIN 50014 69
16. Elongation at break – combined climate	DIN 53387 72 %
17. E-Module – standard climate	DIN 50014 2.53 N/mm <sup>2</sup>
18. E-Module – combined climate	DIN 53387 2.72 N/mm <sup>2</sup>
(combined climate is heat, humidity and UV)	
<ul style="list-style-type: none"> <li>all technical figures given are taken from the related test reports and refer to the main products. Therefore, depending on the substrate and application conditions, or in the case of using alternative products, results may vary.</li> </ul>	

## 2.4 SYSTEM COMPONENTS

- A. A. Polyurethane Primer – shall be single component designed specifically for priming concrete prior to installation of polyurethane coating. Primer is used for priming cured polyurethane prior to the application of a new coating, when necessary.
- B. Polyurethane Binder– shall be a single component, 100% polyurethane, moisture curing, middle viscosity polyurethane binding agent based on MDI/TDI. The level of the tolylene diisocyanate monomer is very low, less than ½ of 1%. Importantly the binder contains no solvents and no extenders (plasticiser).
- C. C. Polyurethane Structural Spray – a two component spray coating that is mixed 1 part w/w red polyurethane to 2 parts polyurethane binder by weight.
- D. D. SBR Rubber – SBR rubber granules shall be recycled black rubber that is processed and graded to 1-3 mm in size containing no fiber or metal and contains less than 4% dust.
- E. E. EPDM Rubber – EPDM colored virgin rubber granules that are processed and graded to 0.5 – 1.5 mm in size unless otherwise specified. The rubber shall contain a minimum of 20% EPDM and be approved by the resin manufacturer. The specific density shall be 1.60 +/- 0.08 and Shore A hardness of 60.
- F. F. EPDM rubber dust is a residual product made from the excess granules listed in E above. The material is 0.0 – 0.5 mm in size.

## **PART 3 - EXECUTION**

### **3.1 ASPHALT AND CONCRETE PREPARATION**

- A. It is the responsibility of the asphalt-paving contractor to provide documentation that the paving meets those requirements set forth for asphalt paving. Additionally, the asphalt is to cure for a minimum of 28 days prior to synthetic surfacing being applied. Asphalt compaction tests are to be provided showing a compaction of 95% or greater. The asphalt will be checked with a 10 foot straight edge in all directions. Those areas not in conformance will be repaired and/or replaced by the paving contractor. Flooding the asphalt surface to locate irregularities is highly recommended.
- B. All concrete work is to cure for a minimum of 30 days. No curing agents are to be used. Any concrete flat work such as run ups etc will be checked as in 3.1.A.
- C. All areas to receive synthetic surfacing are to be clean and free of any loose particles or foreign substances such as dirt, oil, grease, etc.
- D. Asphalt shall be installed by laser controlled equipment. Laser screed is not considered laser controlled.

### **3.2 INSTALLATION OF CHAMPION SP SURFACING**

- A. Primer - All asphalt and concrete is primed using either a mixture polyurethane binder and solvent such as butyl acetate (1:1 w/w. Application rate is approximately 0.28 lbs/sy. Only the area to be covered within the working day should be primed to ensure a good bond to the base.
- B. Base Layer – The base layer is a mixture of 1-3 mm SBR black rubber granules mixed in a mechanical mixer with polyurethane binder. The materials are mixed until homogeneous. Mixing ratio is 100 parts rubber to 20 parts polyurethane. The prepared rubber and polyurethane is then paved in place using a heated mechanical screed paver, specially designed for this work, to an approximate depth of 10 mm using a minimum of 16.5 lbs/sy of mixed material.
- C. Structural Spray Coat (two applications) – is spray applied with air and volume controlled spray equipment. Care is to be taken so as to provide an even surface without streaking. This is accomplished by reversing direction of application for the second spray coat. Total spray application rates for the system shall be between 3.7 to 4.0 lbs/sy depending on product used.
- D. All methods for mixing of products are to be approved by the above mentioned manufactureres and can be found on their Technical Data Sheet (TDS)
- E. All labor shall be full time employees of the surfacing contractor.

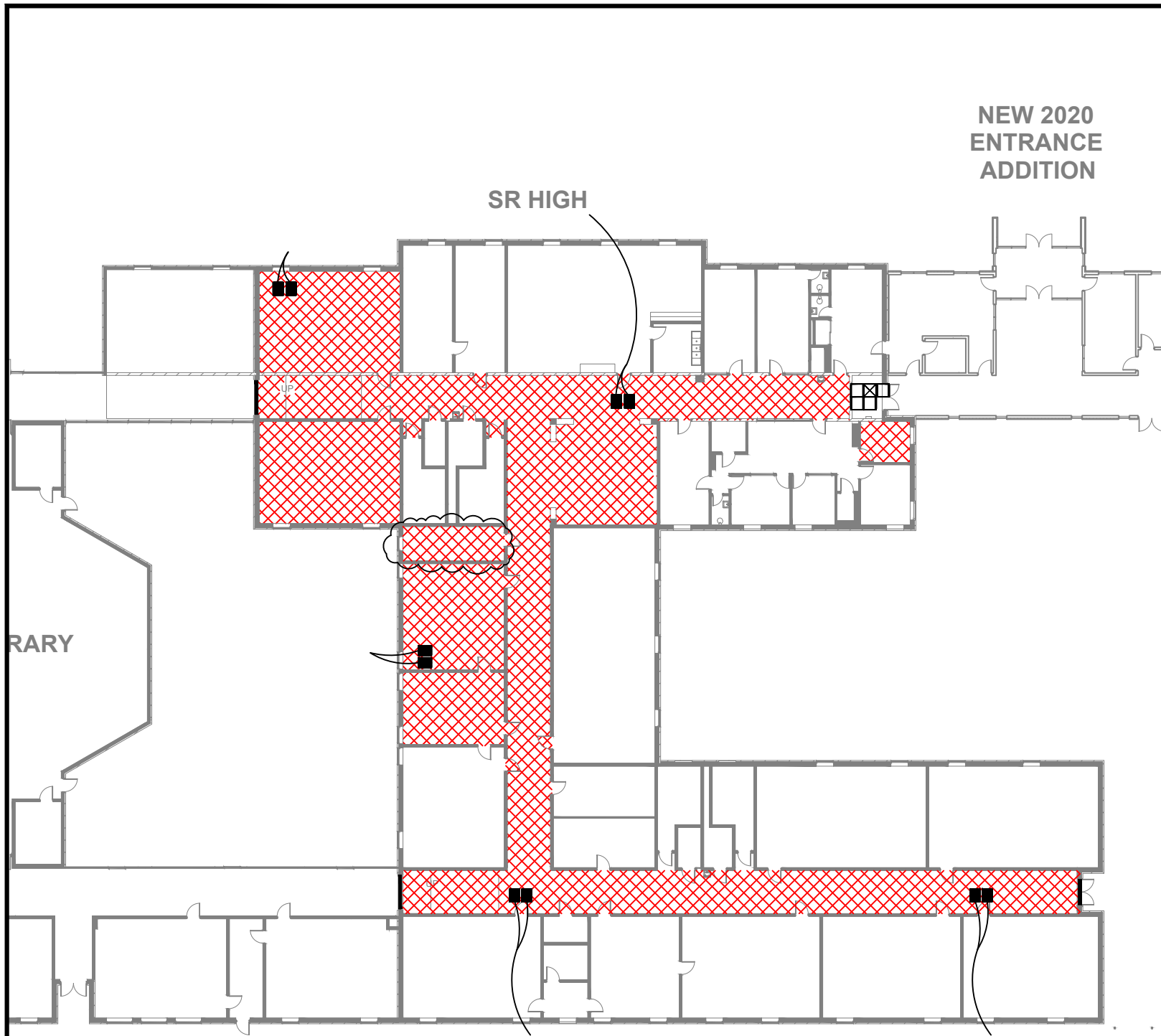
### **3.3 LINE MARKINGS**

- A. All line marking paint is to be approved by the synthetic surfacing manufacturer.
- B. All markings will be in accordance to the desires of the owner. See 1.3.A.

**3.4 SPECIFIC SLOPES**

- A. Track oval – running direction 0.1 %; lateral slope 2.0 % max. NFHS, 1% NCAA and IAAF.
- B. D areas (high jump) – towards cross bar 1 % downward
- C. Run ups same as oval unless located in the “D”.

**END OF SECTION 32 1823.39**



1 WORK AREA #1 ASBESTOS ABATEMENT PLAN  
AB-2 SCALE: 1" = 32'-0"

GENERAL ABATEMENT NOTES:

\*FOR ALL SHEETS

1. ALL ASBESTOS ABATEMENT WORK SHALL CONFORM TO ALL APPLICABLE EPA, OSHA, AND MDNR RULES AND REGULATIONS.
2. ABATEMENT CONTRACTOR SHALL VERIFY JOB/FIELD CONDITIONS AND MEASUREMENTS. VERIFY ALL QUANTITIES, DIMENSIONS AND LOCATIONS AS INDICATED ON THESE DRAWINGS AND SPECIFICATIONS AND MAKE ANY FURTHER MEASUREMENTS AND COUNTS FOR THE ACCURATE PROSECUTION OF WORK.
3. ABATEMENT CONTRACTOR SHALL USE ENOUGH NEGATIVE AIR MACHINES TO ENSURE A CHANGE OF AIR AT LEAST EVERY 15 MINUTES IN EACH NEGATIVE PRESSURE ENCLOSURE SYSTEM. ALL NEGATIVE AIR MACHINES SHALL BE EXHAUSTED TO THE EXTERIOR OF THE BUILDING. THE NEGATIVE PRESSURE ENCLOSURE SYSTEM SHALL BE KEPT UNDER NEGATIVE PRESSURE THROUGHOUT THE PERIOD OF ITS USE. THE NEGATIVE PRESSURE ENCLOSURE SYSTEM SHALL HAVE A MINIMUM OF -0.02 COLUMN INCHES OF WATER PRESSURE DIFFERENTIAL MAINTAINED AS EVIDENCED BY MANOMETRIC MEASUREMENTS.
4. ABATEMENT CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CARPET, FLOOR TILE, FLOOR TILE MASTIC AS ASBESTOS CONTAINING MATERIAL INSIDE A FULL CONTAINMENT AS SHOWN AND DISPOSE OF ALL AS ASBESTOS CONTAINING MATERIAL.
5. ALL CLEARANCE SAMPLES SHALL BE CONDUCTED USING AGGRESSIVE METHODS. THE CLEARANCE SAMPLES WILL BE SUBMITTED FOR ANALYSIS BY PHASE CONTRAST MICROSCOPY (PCM) TO AN ACCREDITED LABORATORY.
6. ABATEMENT CONTRACTOR SHALL STOP REMOVAL FLUSH WITH EDGES OF FLOOR MOUNTED UNIT VENTS, FAN COILS, CASEWORK AND ANY PARTITION WALLS THAT HAVE BEEN ADDED.
7. ABATEMENT CONTRACTOR SHALL REMOVE ANY VINYL BASE AND DISPOSE OF AS NON-ASBESTOS WASTE.
8. ABATEMENT CONTRACTOR SHALL INSTALL CRITICAL BARRIERS OVER ANY WINDOWS, HVAC COMPONENTS AND ALL OTHER ITEMS LEFT IN PLACE.
9. ABATEMENT CONTRACTOR SHALL DE-ENERGIZE ALL POWER AND ALL HVAC COMPONENTS.
10. ABATEMENT CONTRACTOR SHALL PROVIDE SPLASH GUARDS A MINIMUM OF 4' FROM FLOOR.
11. USING AGENCY SHALL REMOVE ALL MOVEABLE EQUIPMENT FOR THE WORK AREA PRIOR TO THE START OF ABATEMENT ACTIVITIES.
12. DESIGN SPECIFIES MANUAL REMOVAL METHODS ONLY.

KEYED NOTES:

\*FOR THIS SHEET ONLY

- LOCATION OF ASBESTOS CONTAINING 9"x9" FLOOR TILE AND FLOOR TILE MASTIC. (APPROX. 7,700 SQ. FT.)
- LOCATION OF NEGATIVE AIR MACHINE VENTED TO THE EXTERIOR
- LOCATION OF 2 STAGE LOAD-OUT
- LOCATION OF 3 STAGE DECONTAMINATION UNIT
- LOCATION OF HARD BARRIER

SCHEDULE:

\*FOR THIS SHEET ONLY

WORK AREA #1  
START: 5/24/2021  
FINISH: 6/04/2021

REVISIONS		
NO.	DATE	REMARKS
1	03/23/21	ADDENDUM

DRAWN APK	PREPARED APK
TRACED	APPROVED BEF
CHECKED APK	APPROVED BAS



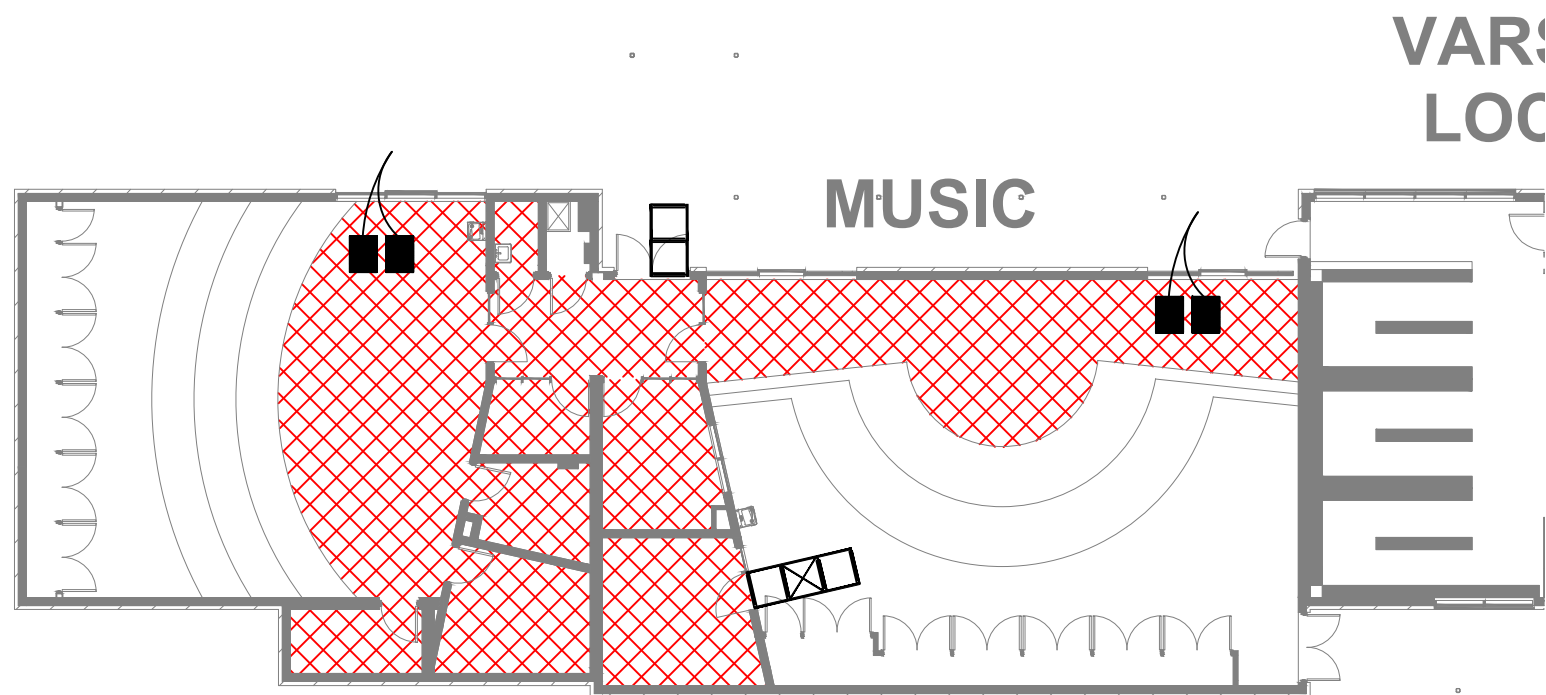
**FARMER ENVIRONMENTAL SERVICES, LLC**

108 EMERALD HILLS DRIVE  
EDWARDSVILLE, IL 62025

PHONE: 618.656.6988  
FAX: 618.656.8353

WORK AREA #1 ASBESTOS ABATEMENT PLAN
RALLS COUNTY R-II SCHOOL DISTRICT
21622 HIGHWAY 19
CENTER, MISSOURI 63436

PROJECT NO. 2101-038
DATE 02/18/21
SHEET NO. AB-1
01 OF 02 SHEETS



### GENERAL ABATEMENT NOTES:






\*FOR ALL SHEETS

1. ALL ASBESTOS ABATEMENT WORK SHALL CONFORM TO ALL APPLICABLE EPA, OSHA, AND MDNR RULES AND REGULATIONS.
2. ABATEMENT CONTRACTOR SHALL VERIFY JOB/FIELD CONDITIONS AND MEASUREMENTS. VERIFY ALL QUANTITIES, DIMENSIONS AND LOCATIONS AS INDICATED ON THESE DRAWINGS AND SPECIFICATIONS AND MAKE ANY FURTHER MEASUREMENTS AND COUNTS FOR THE ACCURATE PROSECUTION OF WORK.
3. ABATEMENT CONTRACTOR SHALL USE ENOUGH NEGATIVE AIR MACHINES TO ENSURE A CHANGE OF AIR AT LEAST EVERY 15 MINUTES IN EACH NEGATIVE PRESSURE ENCLOSURE SYSTEM. ALL NEGATIVE AIR MACHINES SHALL BE EXHAUSTED TO THE EXTERIOR OF THE BUILDING. THE NEGATIVE PRESSURE ENCLOSURE SYSTEM SHALL BE KEPT UNDER NEGATIVE PRESSURE THROUGHOUT THE PERIOD OF ITS USE. THE NEGATIVE PRESSURE ENCLOSURE SYSTEM SHALL HAVE A MINIMUM OF  $-0.02$  COLUMN INCHES OF WATER PRESSURE DIFFERENTIAL MAINTAINED AS EVIDENCED BY MANOMETRIC MEASUREMENTS.
4. ABATEMENT CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CARPET, FLOOR TILE, FLOOR TILE MASTIC AS ASBESTOS CONTAINING MATERIAL INSIDE A FULL CONTAINMENT AS SHOWN AND DISPOSE OF ALL AS ASBESTOS CONTAINING MATERIAL.
5. ALL CLEARANCE SAMPLES SHALL BE CONDUCTED USING AGGRESSIVE METHODS. THE CLEARANCE SAMPLES WILL BE SUBMITTED FOR ANALYSIS BY PHASE CONTRAST MICROSCOPY (PCM) TO AN ACCREDITED LABORATORY.
6. ABATEMENT CONTRACTOR SHALL STOP REMOVAL FLUSH WITH EDGES OF FLOOR MOUNTED UNIT VENTS, FAN COILS, CASEWORK AND ANY PARTITION WALLS THAT HAVE BEEN ADDED.
7. ABATEMENT CONTRACTOR SHALL REMOVE ANY VINYL BASE AND DISPOSE OF AS NON-ASBESTOS WASTE.
8. ABATEMENT CONTRACTOR SHALL INSTALL CRITICAL BARRIERS OVER ANY WINDOWS, HVAC COMPONENTS AND ALL OTHER ITEMS LEFT IN PLACE.
9. ABATEMENT CONTRACTOR SHALL DE-ENERGIZE ALL POWER AND ALL HVAC COMPONENTS.
10. ABATEMENT CONTRACTOR SHALL PROVIDE SPLASH GUARDS A MINIMUM OF 4' FROM FLOOR.
11. USING AGENCY SHALL REMOVE ALL MOVEABLE EQUIPMENT FOR THE WORK AREA PRIOR TO THE START OF ABATEMENT ACTIVITIES.
12. DESIGN SPECIFIES MANUAL REMOVAL METHODS ONLY.

1 WORK AREA #2 ASBESTOS ABATEMENT PLAN  
AB-3 SCALE: 1" = 16'-0"

### KEYED NOTES:

\*FOR THIS SHEET ONLY

-  LOCATION OF 12"x12" FLOOR TILE AND ASBESTOS CONTAINING FLOOR TILE MASTIC. (APPROX. 1,600 SQ. FT.)
-  LOCATION OF NEGATIVE AIR MACHINE VENTED TO THE EXTERIOR
-  LOCATION OF 2 STAGE LOAD-OUT
-  LOCATION OF 3 STAGE DECONTAMINATION UNIT
-  LOCATION OF HARD BARRIER

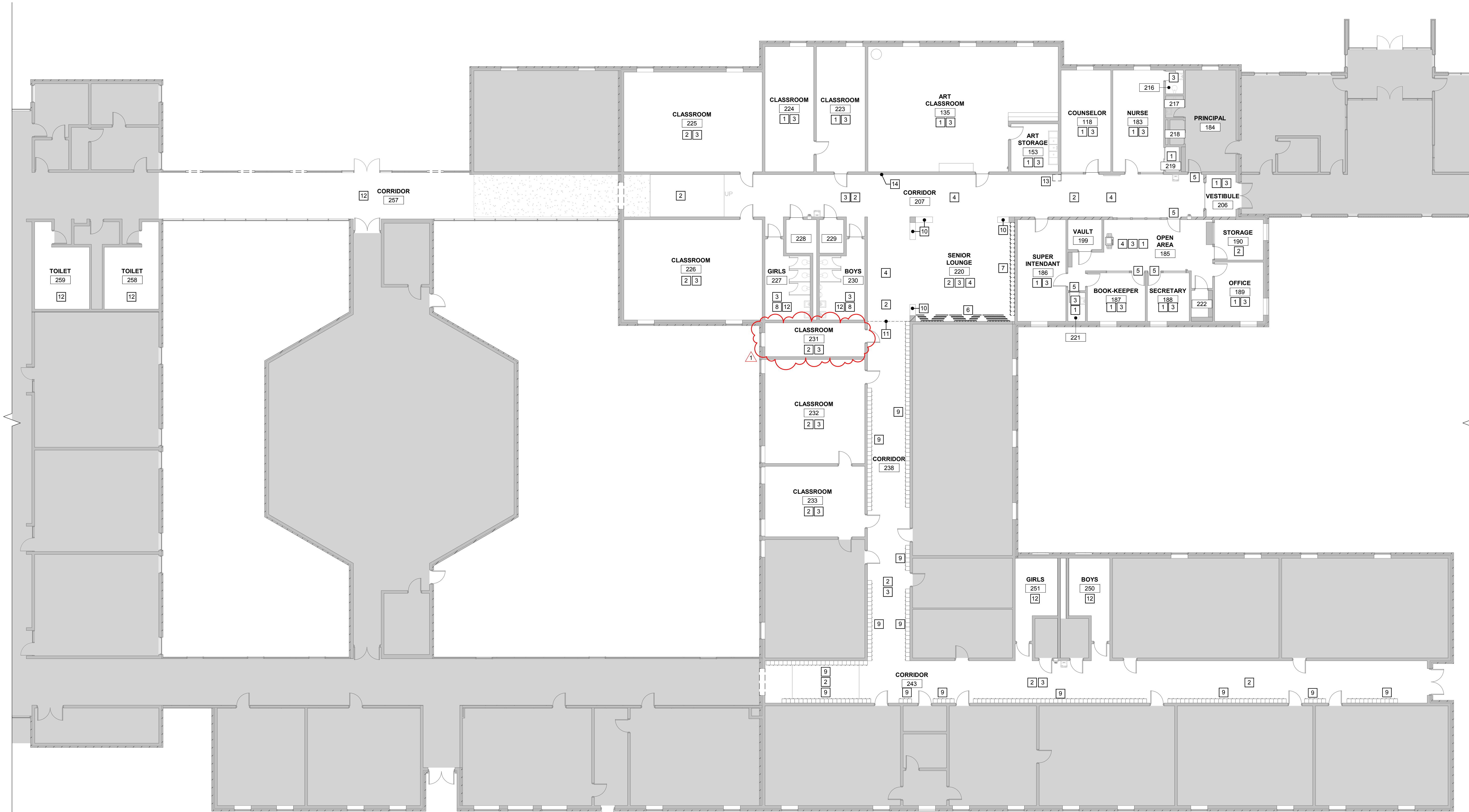
### SCHEDULE:

\*FOR THIS SHEET ONLY

WORK AREA #2  
START: 6/07/2021  
FINISH: 6/14/2021

REVISIONS			DRAWN APK	PREPARED APK		 <b>FARMER ENVIRONMENTAL SERVICES, LLC</b> 108 EMERALD HILLS DRIVE EDWARDSVILLE, IL 62025 PHONE: 618.656.6988 FAX: 618.656.8353	WORK AREA #2 ASBESTOS ABATEMENT PLAN		PROJECT NO. 2101-038
NO.	DATE	REMARKS					RALLS COUNTY R-II SCHOOL DISTRICT		DATE 02/18/21
1	03/23/21	ADDENDUM	TRACED	APPROVED BEF			21622 HIGHWAY 19		SHEET NO.
			CHECKED APK	APPROVED BAS			CENTER, MISSOURI 63436		AB-2
									02 OF 02 SHEETS

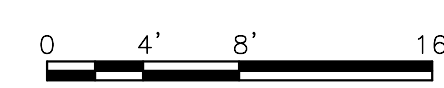




NOT IN CONTRACT

1 SENIOR HIGH - DEMO PLAN

SCALE: 3/32" = 1'-0"



REFER TO ED101 FOR E CEILING DEMO

KEYED NOTES - SENIOR HIGH DEMO

- 1 REMOVE EXISTING FLOORING AND RESILIENT BASE, IF APPLICABLE. CERAMIC BASE TO REMAIN. SEE INTERIOR DRAWINGS FOR NEW FINISH SPECIFICATION.
- 2 EXISTING VCT FLOORING REMOVED DURING ASBESTOS ABATEMENT UNDER SEPARATE CONTRACT. SEE FLOOR PLAN FOR NEW FINISH SPECIFICATION. EXISTING FLOOR MOUNTED DOOR STOPS TO REMAIN. IF REMOVAL DURING FLOORING DEMO IS REQUIRED, SALVAGE AND REINSTALL.
- 3 EXISTING CEILING TO REMAIN. LIGHTING AND CEILING FAN (IF APPLICABLE) TO BE REMOVED. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 4 ALL EXISTING WALL ACCESSORIES (BULLETIN BOARDS, PLAQUES, DISPLAY UNITS, POSTERS, CLOCKS, ETC.) TO BE REMOVED BY OWNER PRIOR TO CONSTRUCTION. CONTRACTOR TO REMOVE ASSOCIATED WALL ANCHORS AND PATCH PRIOR TO NEW FINISHES.
- 5 SIGNAGE MOUNTED ON DOOR FRAME TO BE REMOVED.
- 6 COMPOSITE DISPLAY TO BE REMOVED BY OWNER PRIOR TO CONSTRUCTION.
- 7 LOCKERS, PLATFORM BASE, AND CERAMIC TILE BASE TO BE REMOVED BY CONTRACTOR. SALVAGE AND RETURN LOCKERS TO OWNER.
- 8 REMOVE SINK FAUCETS, PAPER TOWEL DISPENSER, SOAP DISPENSER, AND WALL MIRROR. SEE FLOOR PLAN FOR ADDITIONAL INFORMATION.
- 9 EXISTING LOCKERS AND CERAMIC BASE TO REMAIN. SEE FLOOR PLAN FOR NEW BASE INFORMATION.
- 10 WOOD TOPS ON PARTIAL HEIGHT WALLS TO BE REMOVED.
- 11 REMOVE EXPANSION JOINT COVERS ON FLOOR AND WALLS. EXISTING CEILING COVER TO REMAIN.
- 12 GRIND EXISTING RESINOUS FLOORINGS DOWN TO FLAKE LAYER. SEE SHEET A101 FOR NEW SYSTEM DETAILS. COORDINATE PROCESS WITH STONHARD.
- 13 REMOVE WALL MOUNTED MAILBOX.
- 14 WALL MOUNTED EQUIPMENT AND TECHNOLOGY TO BE REMOUNTED ON NEW PARTITION. SEE FLOOR PLAN.

OWNER:  
BALLS COUNTY R-II  
SCHOOL DISTRICT  
21622 HIGHWAY 19,  
CENTER, MISSOURI 63436

RALLS COUNTY R-II SCHOOL DISTRICT  
**PHASE I - INTERIOR RENOVATIONS AT  
MARK TWAIN JUNIOR/SENIOR HIGH  
SCHOOL**  
21622 HIGHWAY 19, CENTER, MISSOURI 63436

BIDDING PHASE

NOT FOR  
CONSTRUCTION  
ISSUE DATE: 03/05/2021

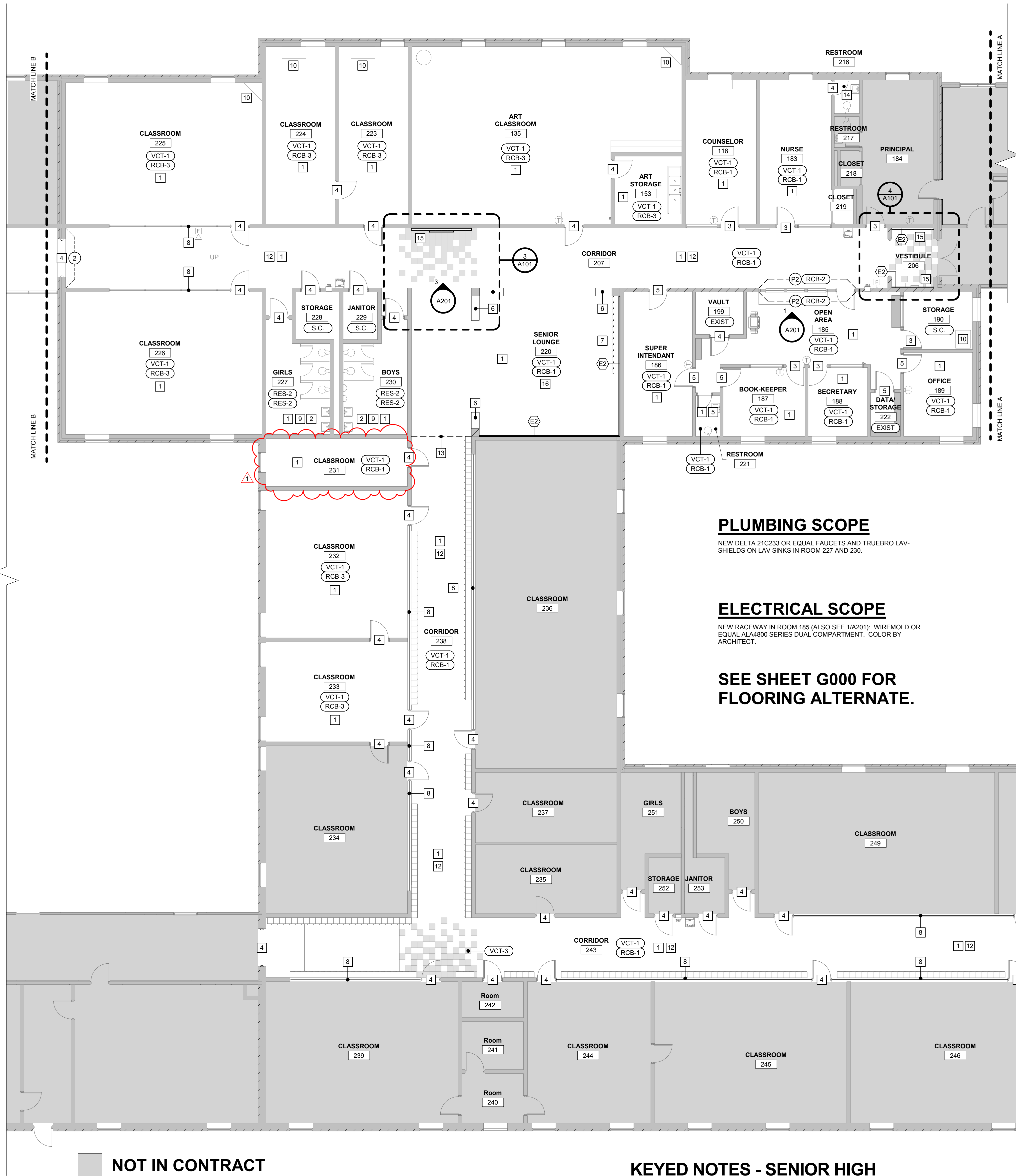
REVISIONS		
NO.	Date	Description
1	3/26/21	ADD: 01

PROJECT NUMBER: 5998

SENIOR HIGH  
DEMO PLAN

DWG. NO.  
**AD101**





NOT IN CONTRACT

## 1 SENIOR HIGH - FINISH PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

## KEYED NOTES - SENIOR HIGH

- ALL WALLS TO BE PAINTED (P1) UNLESS NOTED OTHERWISE WITH ACCENT PAINT. GLAZED CMU/BRICK WALLS TO BE PAINTED (P1). SEE SPEC FOR PREP INFORMATION. ALL EXPOSED ELECTRICAL, MECHANICAL, PLUMBING ITEMS TO BE PAINTED TO MATCH THE WALL. WALLS TO BE PATCHED AND REPAIRED PRIOR TO NEW PAINT.
- NEW MIRRORS, PAPER TOWEL DISPENSER, SOAP DISPENSER, AND FAUCETS. SEE SPEC AND DRAWINGS FOR ADDITIONAL INFORMATION.
- EXISTING WOOD DOOR AND FRAME TO BE CLEANED, REPAIRED, AND RESTAINED.
- EXISTING PAINTED DOOR AND FRAME TO RECEIVE NEW PAINT (P4).
- EXISTING WOOD DOOR FRAME TO RECEIVE NEW PAINT (P1). WOOD DOOR TO REMAIN AS IS, CLEAN.
- PLASTIC LAMINATE (PL-1) COUNTERTOP WITH MATCHING PVC EDGE BAND, SEE SPEC. ALIGN WITH EDGES OF BRICK HALF WALL BELOW.
- NEW 12" WIDE, 2-TIER METAL LOCKERS, SEE SPEC.
- INSTALL OPAQUE FILM ON ALL CLERESTORY WINDOWS. SEE CEILING SECTIONS ON SHEET A201.
- GRIND EXISTING RESINOUS FLOORING DOWN TO FLAKE LAYER. INSTALL NEW RESINOUS FLOORING FLAKE LAYER WITH CLEAR URETHANE COATING ON TOP. SEE INTERIOR FINISH SPECIFICATIONS ON THIS SHEET. COORDINATE WITH STONHARD.
- MECHANICAL EQUIPMENT TO REMAIN, PAINT ALL VISIBLE AREAS.
- ELECTRICAL EQUIPMENT TO REMAIN, PAINT ALL VISIBLE AREAS.
- GYP. CEILING, SOFFIT, AND BULKHEAD LOCATED IN CORRIDOR TO BE PAINTED (P4) ON ALL VISIBLE SIDES. SEE REFLECTED CEILING PLAN.
- EXPANSION JOINT TO BE MAINTAINED. REPLACE FLOOR PLATE WITH BALCO EXP-TILE OR SIMILAR. REPLACE WALL PLATES WITH BALCO 6TW-SURFACE MOUNT OR SIMILAR.
- EXISTING FLOORING, CEILING, LIGHTING, AND PLUMBING FIXTURES TO REMAIN. WALLS TO RECEIVE NEW PAINT (P1).
- ALL EXISTING WALL MOUNTED ITEMS TO BE RE-MOUNTED TO NEW PARTITION. SEE ELEVATION FOR DETAILS.
- ACCENT VCT IN SENIOR LOUNGE AREA TBD, PENDING FINAL DESIGN OF THE LOUNGE.

## 2 JUNIOR HIGH - FINISH PLAN

SCALE: 1/16" = 1'-0"

0 8' 16' 32'

## 3 CORRIDOR 207 FLOORING

SCALE: 1/4" = 1'-0"

0 2' 4' 8'

## 4 VESTIBULE 206 FLOORING

SCALE: 1/4" = 1'-0"

0 2' 4' 8'

## INTERIOR FINISH SPECIFICATIONS

<b>ACOUSTICAL CEILING TILE</b> <b>ACT-1 (MAIN)</b> MFG: ARMSTRONG STYLE: FINE FISSURED STYLE # 1732 EDGE: 15/16" ANGLED REGULAR SIZE: 24" X 24" COLOR: WHITE GRID: PRELUDE XL, 15/16", WHITE	<b>PLASTIC LAMINATE</b> <b>PL-1 (RECEPTION)</b> MFG: WILSONART STYLE: VAPOR STRANDZ STYLE # 4939K-18	<b>RCB-3</b> MFG: TARKETT COLOR: 24 GREY HAZE SIZE: 4" COVE BASE REP: ADAM GLASER 314.405.0147
<b>ACT-2 (SHOWERS)</b> MFG: ARMSTRONG STYLE: CERAMAGAURD STYLE # 607 EDGE: 15/16" SQUARE SIZE: 24" X 24" COLOR: WHITE GRID: PRELUDE PLUS XL ALUMINUM 15/16", WHITE	<b>PL-2 (RECEPTION)</b> MFG: WILSONART STYLE: CLASSIC LINEN STYLE # 4945-38	<b>VINYL COMPOSITION TILE</b> <b>VCT-1 (MAIN)</b> MFG: ARMSTRONG STYLE: STANDARD EXCELON COLOR: 59234 SILK SIZE: 12"X12" INSTALL: STRAIGHT GRID, QUARTER TURN REP: NANCY WASER 636.448.9409
<b>PAINT</b> <b>P1 (MAIN)</b> MFG: SHERWIN WILLIAMS COLOR: REPOSE GRAY NO: SW 7015	<b>PL-3 (LOCKER RM COUNTERS)</b> MFG: WILSONART STYLE: COSMIC STRANDZ STYLE # 4941K-18	<b>VCT-2 (LIGHT BLUE)</b> MFG: ARMSTRONG STYLE: STANDARD EXCELON COLOR: 51932 LUNAR BLUE SIZE: 12"X12" INSTALL: STRAIGHT GRID, QUARTER TURN REP: NANCY WASER 636.448.9409
<b>P2 (BLUE)</b> MFG: SHERWIN WILLIAMS COLOR: RALLS COUNTY MASTERPIECE NOTE: CUSTOM BLUE	<b>RES-2 (RECOAT EXISTING)</b> MFG: STONHARD STYLE: TECTOP LF COLOR: TBD REP: ROB LENTZ 574.228.4388	<b>VCT-3 (BRIGHT BLUE)</b> MFG: ARMSTRONG STYLE: STANDARD EXCELON COLOR: 51620 MARINA BLUE SIZE: 12"X12" INSTALL: STRAIGHT GRID, QUARTER TURN REP: NANCY WASER 636.448.9409
<b>P3 (CEILING)</b> MFG: SHERWIN WILLIAMS COLOR: GREEK VILLA NO: SW 7551	<b>RUBBER COVE BASE</b> <b>RCB-1</b> MFG: TARKETT COLOR: 24 GREY HAZE SIZE: 6" COVE BASE REP: ADAM GLASER 314.405.0147	<b>RCB-2</b> MFG: TARKETT COLOR: 70 BLUEST SIZE: 6" COVE BASE REP: ADAM GLASER 314.405.0147
<b>P4 (DOORS + MISC)</b> MFG: SHERWIN WILLIAMS COLOR: DORIAN GRAY NO: SW 7017		

## FINISH PLAN LEGEND

- FLOOR MATERIAL
- WALL BASE
- FLOORING INSTALLATION DIRECTION
- ACCENT WALL SYSTEM/ FINISH
- CEILING SPECIFICATION (SEE RCP FOR TAGS) ALL ACOUSTICAL CEILINGS TO BE ACT-1 U.N.O.

## ABBREVIATIONS

- ACT ACOUSTIC CEILING TILE
- CH CABINET HARDWARE
- LVT LUXURY VINYL TILE
- MFG MANUFACTURER
- P PAINT
- PL PLASTIC LAMINATE
- RCB RUBBER COVE BASE
- SC SEALED CONCRETE
- VCT VINYL COMPOSITION TILE

## FLOORING TRANSITION DETAILS

NOTE: FLOOR TRANSITIONS SHALL OCCUR AT THE CENTERLINE OF DOOR LEAF, UNLESS OTHERWISE NOTED.

VCT TO SEALED CONCRETE

JOHNSONITE SLT-24-T

VCT S.C.

VCT TO RESINOUS

SCHLUTER SCHIENE

SATIN ANODIZED ALUMINUM

VCT RESINOUS

BUILD UP RESINOUS

FLOORING TO

TRANSITION TO VCT

OWNER:  
RALLS COUNTY R-4  
SCHOOL DISTRICT  
21622 HIGHWAY 19,  
CENTER, MISSOURI 63436

## BIDDING PHASE

NOT FOR  
CONSTRUCTION

ISSUE DATE: 03/05/2021

REVISIONS

NO. Date Description

1 3/26/21 ADD 01

PROJECT NUMBER: 5998

## SENIOR HIGH FLOOR PLAN

DWG. NO.

A101





NOT IN CONTRACT

## 1 BASKETBALL LOCKER ROOM - FINISH PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

### KEYED NOTES - BASKETBALL

- NEW COUNTERTOP, SEE ELEVATION. NEW SINK, SEE PLUMBING DRAWINGS. NEW TOILET ACCESSORIES, SEE ELEVATION AND SPECS.
- NEW TOILET PARTITIONS, SEE SPEC.
- EXISTING SHOWER SEAT TO BE PAINTED (P4).
- INTEGRAL RESINOUS BASE ON WALLS INDICATED WITH DASHED LINE. SEE BASE DETAIL, THIS SHEET.
- ALL WALLS TO BE PAINTED (P1) UNLESS NOTED OTHERWISE WITH ACCENT PAINT. ALL EXPOSED ELECTRICAL, MECHANICAL, PLUMBING ITEMS TO BE PAINTED TO MATCH THE WALL. WALLS TO BE PATCHED AND REPAIRED PRIOR TO NEW PAINT.
- NEW BENCHES, SEE SPEC.
- EXISTING PAINTED DOOR AND FRAME TO BE REPAINTED (P4).
- WOOD DOOR TO REMAIN AS IS, FRAME TO BE REPAINTED (P1).
- INTERIOR OF ROOM TO REMAIN AS IS.
- NEW SHOWER CURTAIN, SEE SPEC. EXISTING SHOWER SEAT TO BE PAINTED (P4).
- NEW SHOWER CURTAIN AND GRAB BARS, SEE SPEC. EXISTING SHOWER SEAT TO BE PAINTED (P4).
- WINDOW FRAME TO BE PAINTED (P1) ON BOTH SIDES.

## PLUMBING SCOPE

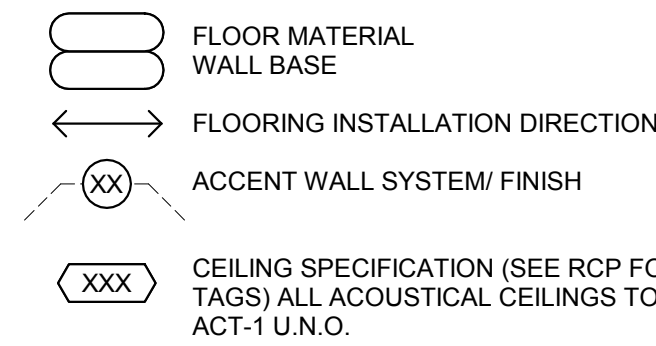
NEW LAVS KOHLER OR EQUAL K2196 DROP IN LAVS WITH DELTA  
OR EQUAL 21C233 FAUCET IN ROOMS 118 AND 121:

SEE SHEET G000 FOR  
FLOORING ALTERNATE.

## INTERIOR FINISH SPECIFICATIONS

<b>ACOUSTICAL CEILING TILE</b> <b>ACT-1 (MAIN)</b> MFG: ARMSTRONG STYLE: FINE FISSURED STYLE #: 1732 EDGE: 15/16" ANGLED TEGULAR SIZE: 24" X 24" COLOR: WHITE GRID: PRELUDE XL, 15/16", WHITE	<b>PLASTIC LAMINATE</b> <b>PL-1 (RECEPTION)</b> MFG: WILSONART STYLE: VAPOR STRANDZ STYLE #: 4939K-18  <b>PL-2 (RECEPTION)</b> MFG: WILSONART STYLE: CLASSIC LINEN STYLE #: 4943-38  <b>PL-3 (LOCKER RM COUNTERS)</b> MFG: WILSONART STYLE: COSMIC STRANDZ STYLE #: 4941K-18	<b>RCB-3</b> MFG: TARKETT COLOR: 24 GREY HAZE SIZE: 4" COVE BASE REP: ADAM GLASER 314.405.0147  <b>VINYL COMPOSITION TILE</b> <b>VCT-1 (MAIN)</b> MFG: ARMSTRONG STYLE: STANDARD EXCELON COLOR: 69234 SILK SIZE: 12"X12" INSTALL: STRAIGHT GRID, QUARTER TURN REP: NANCY WASER 636.448.9409  <b>VCT-2 (LIGHT BLUE)</b> MFG: ARMSTRONG STYLE: STANDARD EXCELON COLOR: 51932 LUNAR BLUE SIZE: 12"X12" INSTALL: STRAIGHT GRID, QUARTER TURN REP: NANCY WASER 636.448.9409  <b>VCT-3 (BRIGHT BLUE)</b> MFG: ARMSTRONG STYLE: STANDARD EXCELON COLOR: 51820 MARINA BLUE SIZE: 12"X12" INSTALL: STRAIGHT GRID, QUARTER TURN REP: NANCY WASER 636.448.9409
<b>ACT-2 (SHOWERS)</b> MFG: ARMSTRONG STYLE: CERAMAGAARD STYLE #: 607 EDGE: 15/16" SQUARE SIZE: 24" X 24" COLOR: WHITE GRID: PRELUDE PLUS XL, ALUMINUM, 15/16", WHITE	<b>RES-1 (NEW RESINOUS)</b> MFG: STONHARD STYLE: STONTEC ERF COLOR: TBD REP: ROB LENTZ 574.228.4388  <b>RES-2 (RECOAT EXISTING)</b> MFG: STONHARD STYLE: TECTOR UF COLOR: TBD REP: ROB LENTZ 574.228.4388  <b>RUBBER COVE BASE</b> <b>RCB-1</b> MFG: TARKETT COLOR: 24 GREY HAZE SIZE: 6" COVE BASE REP: ADAM GLASER 314.405.0147  <b>RCB-2</b> MFG: TARKETT COLOR: 70 BLUEST SIZE: 6" COVE BASE REP: ADAM GLASER 314.405.0147	
<b>PAINT</b> <b>P1 (MAIN)</b> MFG: SHERWIN WILLIAMS COLOR: REPOSE GRAY NO: SW 7015  <b>P2 (BLUE)</b> MFG: SHERWIN WILLIAMS COLOR: RALLS COUNTY MASTERPIECE NOTE: CUSTON BLUE  <b>P3 (CEILING)</b> MFG: SHERWIN WILLIAMS COLOR: GREEK VILLA NO: SW 7551  <b>P4 (DOORS + MISC)</b> MFG: SHERWIN WILLIAMS COLOR: DORIAN GRAY NO: SW 7017		

## FINISH PLAN LEGEND

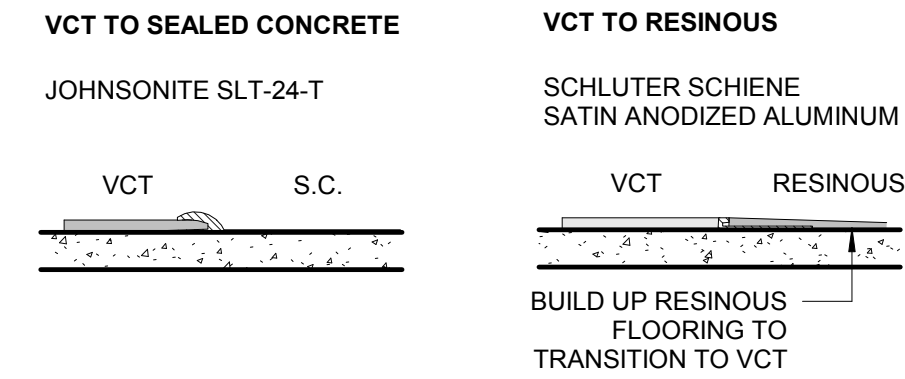


## ABBREVIATIONS

ACT	ACOUSTIC CEILING TILE
CH	CABINET HARDWARE
LVT	LUXURY VINYL TILE
MFG	MANUFACTURER
P	PAINT
PL	PLASTIC LAMINATE
RCB	RUBBER COVE BASE
SC	SEALED CONCRETE
VCT	VINYL COMPOSITION TILE

## FLOORING TRANSITION DETAILS

NOTE: FLOOR TRANSITIONS SHALL OCCUR AT THE CENTERLINE OF DOOR LEAF, UNLESS OTHERWISE NOTED.



## 2 MUSIC AND FOOTBALL LOCKERS - FINISH PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

### KEYED NOTES - MUSIC AND FOOTBALL

- WOOD PANELING ABOVE TO REMAIN AS IS.
- ALL WALLS TO BE PAINTED (P1) UNLESS NOTED OTHERWISE WITH ACCENT PAINT. ALL EXPOSED ELECTRICAL, MECHANICAL, AND PLUMBING ITEMS TO BE PAINTED TO MATCH THE WALL. EXISTING PAINTED DOOR AND FRAME TO RECEIVE NEW PAINT (P2). EXISTING GLAZED CMU BASE TO REMAIN, CLEAN THROUGHOUT. WALLS TO BE PATCHED AND REPAIRED PRIOR TO NEW PAINT.
- NEW PLUMBING FIXTURES, SEE PLUMBING DRAWINGS. NEW TOILET ROOM ACCESSORIES, SEE SPEC.
- EXISTING SHOWER UNIT TO REMAIN AS IS.
- RESINOUS SYSTEM TO BE APPLIED ON FLOOR, ON ALL SIDES OF CONCRETE THRESHOLD, IN TRENCH DRAINS, AND ON VERTICAL CONCRETE PORTION OF THE WALL.
- NEW 24" WIDE BY 24" DEEP ATHLETIC LOCKERS AND BENCHES, SEE SPEC.
- EXISTING WOOD DOORS TO REMAIN. SAND, PATCH, AND STAIN.
- SAND, PATCH, AND REPAINT WOOD DOOR, WOOD FRAME, AND WOOD TRIM AROUND DOORS. PAINT COLOR TO BE (P2).
- EXISTING CONCRETE RISERS TO REMAIN AS IS.

## PLUMBING SCOPE

DEMO EXISTING CW AND HW PIPING AND FIXTURES FLUSH WITH WALL AND EXTEND NEW PIPING FROM ABOVE CEILING TO (8) NEW BRADLEY WS-1WCA OR WILLOUGHBY CWMS EXPOSED SHOWER SYSTEM WITH THERMOSTATIC MIXING VALVE, SOAP DISH, DELUXE SHOWER HEAD, AND VERTICAL SHROUD TO 9'-0".

OWNER:  
RALLS COUNTY R-1  
SCHOOL DISTRICT  
21622 HIGHWAY 19,  
CENTER, MISSOURI 63436

## BIDDING PHASE

### NOT FOR CONSTRUCTION

ISSUE DATE: 03/05/2021

#### REVISIONS

NO.	Date	Description
1	3/26/21	ADD: 01

PROJECT NUMBER: 5998

## CAFETERIA, LOCKERS & MUSIC FLOOR PLANS

DWG. NO.

**A102**



## REFLECTED CEILING PLAN LEGEND

(REFER TO ELECTRICAL PLANS FOR ADDITIONAL SYMBOLS.)

- ACOUSTIC CEILING REFER TO FINISH SPECIFICATIONS
- 2X2 LED LAY-IN FIXTURE
- 1X4 AND 1X2 SURFACE MOUNT FIXTURE
- HVAC GRILLES - SEE MECHANICAL DRAWINGS
- SMOKE DETECTOR
- HEAT DETECTOR
- SPEAKER
- OCCUPANCY SENSOR
- SPRINKLER HEAD, SEE FIRE PROTECTION DWGS
- CEILING TYPE, SEE FLOOR PLANS FOR INTERIOR FINISH SPECIFICATIONS. CEILING TO BE ACT-1 UNLESS NOTED OTHERWISE.

## ELECTRICAL SCOPE

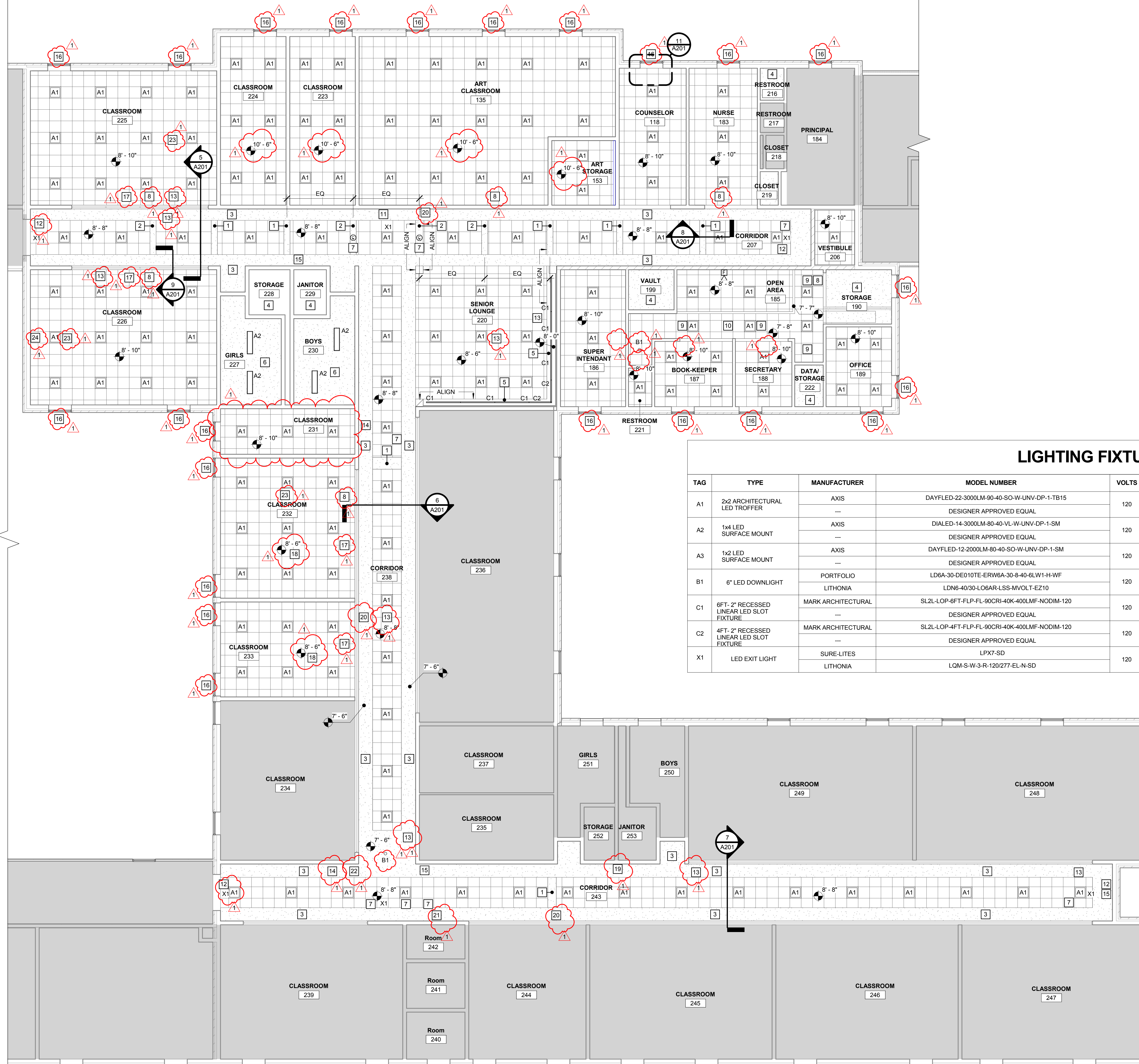
MODIFY EXISTING CIRCUITS AS REQUIRED TO FEED NEW LIGHT FIXTURES IN NEW CEILING AND RELOCATE DEVICES AS REQUIRED. SEE NOTES BELOW.

## LIGHTING FIXTURE SCHEDULE

TAG	TYPE	MANUFACTURER	MODEL NUMBER	VOLTS	LAMPS/LUMENS	COLOR TEMP	FINISH	COMMENTS
A1	2x2 ARCHITECTURAL LED TROFFER	AXIS	DAYFLED-22-3000LM-90-40-SO-W-UNV-DP-1-TB15 DESIGNER APPROVED EQUAL	120	LED: 3,000 LUMEN ---	4,000 K	WHITE	FIXTURE A1E SHALL HAVE EMERGENCY KIT
A2	1x4 LED SURFACE MOUNT	AXIS	DIALED-14-3000LM-80-40-VL-W-UNV-DP-1-SM DESIGNER APPROVED EQUAL	120	LED: 3,000 LUMEN ---	4,000 K	WHITE	FIXTURE A2E SHALL HAVE EMERGENCY KIT
A3	1x2 LED SURFACE MOUNT	AXIS	DAYFLED-12-2000LM-80-40-SO-W-UNV-DP-1-SM DESIGNER APPROVED EQUAL	120	LED: 2,000 LUMEN ---	4,000 K	WHITE	
B1	6" LED DOWNLIGHT	PORTFOLIO LITHONIA	LD6A-30-DE010TE-ERW6A-30-8-40-6LW1-H-WF LDN6-40/30-L06AR-LSS-MVOLT-EZ10	120	LED: 3,000 LUMEN LED: 3,000 LUMEN	4,000 K	STANDARD	
C1	6FT- 2" RECESSED LINEAR LED SLOT FIXTURE	MARK ARCHITECTURAL	SL2L-LOP-6FT-FLP-FL-90CRI-40K-400LMF-NODIM-120 DESIGNER APPROVED EQUAL	120	LED: 2,400 LUMEN ---	4,000 K	WHITE	
C2	4FT- 2" RECESSED LINEAR LED SLOT FIXTURE	MARK ARCHITECTURAL	SL2L-LOP-4FT-FLP-FL-90CRI-40K-400LMF-NODIM-120 DESIGNER APPROVED EQUAL	120	LED: 1,600 LUMEN ---	4,000 K	WHITE	
X1	LED EXIT LIGHT	SURE-LITES LITHONIA	LPX7-SD LQM-S-W-3-R-120/277-EL-N-SD	120	LED ---	N/A	WHITE	CEILING, WALL, OR END MOUNTED, FIELD-CONFIGURABLE SINGLE OR DOUBLE FACE, UNIVERSAL ARROWS

## KEYED NOTES - SENIOR HIGH RCP

- GWB CEILING, SOFFIT, AND BULKHEAD INSTALLED AT 8'-3" AFF. 3-5/8" METAL STUDS WITH 5/8" GWB ON FINISHED SIDE AND BOTTOM. FRAMED AROUND EXISTING PIPE AND/OR CONDUIT. SEE DETAIL 10/A201.
- GWB CEILING, SOFFIT, AND BULKHEAD INSTALLED AT 8'-3" AFF. 3-5/8" METAL STUDS WITH 5/8" GWB ON FINISHED SIDE AND BOTTOM. NO EXISTING UTILITIES ON INTERIOR. FOR AESTHETIC CONSISTENCY ONLY.
- GWB CEILING, SOFFIT, AND BULKHEAD INSTALLED AT 7'-6" AFF. 3-5/8" METAL STUDS WITH 5/8" GWB ON FINISHED SIDE AND BOTTOM. FRAMED AROUND EXISTING PIPE AND/OR CONDUIT. SEE ASSOCIATED SECTION ON A201.
- EXISTING CEILING AND LIGHTING TO REMAIN AS IS.
- GWB CEILING, SOFFIT, AND BULKHEAD INSTALLED AT HEIGHT INDICATED. 3-5/8" METAL STUDS WITH 5/8" GWB ON FINISHED SIDE AND BOTTOM.
- EXISTING CEILING TO BE PATCHED, REPAIRED, AND PAINTED (P3). ALL EXPOSED CONDUITS, DUCTS, ETC TO BE PAINTED TO MATCH CEILING. NEW LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS.
- MODIFY EXISTING WIRING AS REQUIRED AND RELOCATE EXISTING CAMERA TO NEW CEILING.
- MODIFY EXISTING WIRING AS REQUIRED AND RELOCATE WIRELESS ACCESS POINT TO NEW CEILING.
- INSTALL NEW 24X24 ALUMINUM AGG CRATE RA GRILLE IN NEW CEILING.
- MODIFY EXISTING DUCT AS REQUIRED AND INSTALL EXISTING SA DIFFUSER IN NEW CEILING.
- SEE DETAIL 3/A201 FOR ELECTRICAL WORK IN THIS AREA.
- MODIFY WIRING AS REQUIRED AND RELOCATE EXISTING OCCUPANCY SENSOR TO NEW CEILING.
- MODIFY WIRING, SURFACE RACEWAY AND JUNCTION BOX AS REQUIRED AND RELOCATE EXISTING FIRE ALARM DEVICE BELOW NEW CEILING.
- MODIFY WIRING AS REQUIRED AND RELOCATE EXISTING MESSAGE BOARD BELOW NEW CEILING.
- MODIFY WIRING AS REQUIRED AND RELOCATE EXISTING EMERGENCY LIGHT BELOW NEW CEILING.
- SEE SHEET A201 FOR COORDINATION OF NEW ACOUSTIC CEILING AND WINDOW SHADE INSTALLATION. WINDOW SHADE PROVIDED AND INSTALLED UNDER SEPARATE CONTRACT. COORDINATE WITH WINDOW SHADE SUPPLIER AND ARCHITECT.
- INSTALL BLOCKING ON INTERIOR OF CLERESTORY WINDOW FOR NEW ACOUSTIC CEILING. SEE DETAIL 9/A201.
- COORDINATE CEILING HEIGHT WITH EXISTING CONDUIT.
- COMPLETELY REMOVE EXISTING ABANDONED SPEAKER AND WIRING.
- EXTEND WIRING AS REQUIRED AND RELOCATE EXISTING BULL HORN SPEAKER TO SIDEWALL OF NEW SOFFIT.
- REMOVE EXISTING LIGHT AND MODIFY/EXTEND CIRCUIT TO SERVE NEW CORNELL OR EQUAL LED-101 INDICATOR LIGHT IN SIDEWALL OF NEW SOFFIT.
- MODIFY WIRING AS REQUIRED AND RELOCATE EXISTING ALERT SYSTEM PANEL BELOW NEW CEILING.
- MODIFY EXISTING NEARBY RECESSED RECEPTACLE INSTALL SURFACE JUNCTION BOX AND RECEPTACLE AND EXTEND CONDUIT EXPOSED CLEAR OF MARKER BOARDS AND SMART BOARDS TO ABOVE CEILING AND OVER TO NEW CEILING MOUNTED RECEPTACLE WITH T-BAR SUPPORT BRACKET FOR EXISTING PROJECTOR.
- REMOVE EXISTING PROJECTOR SCREEN AND BRACKETS.

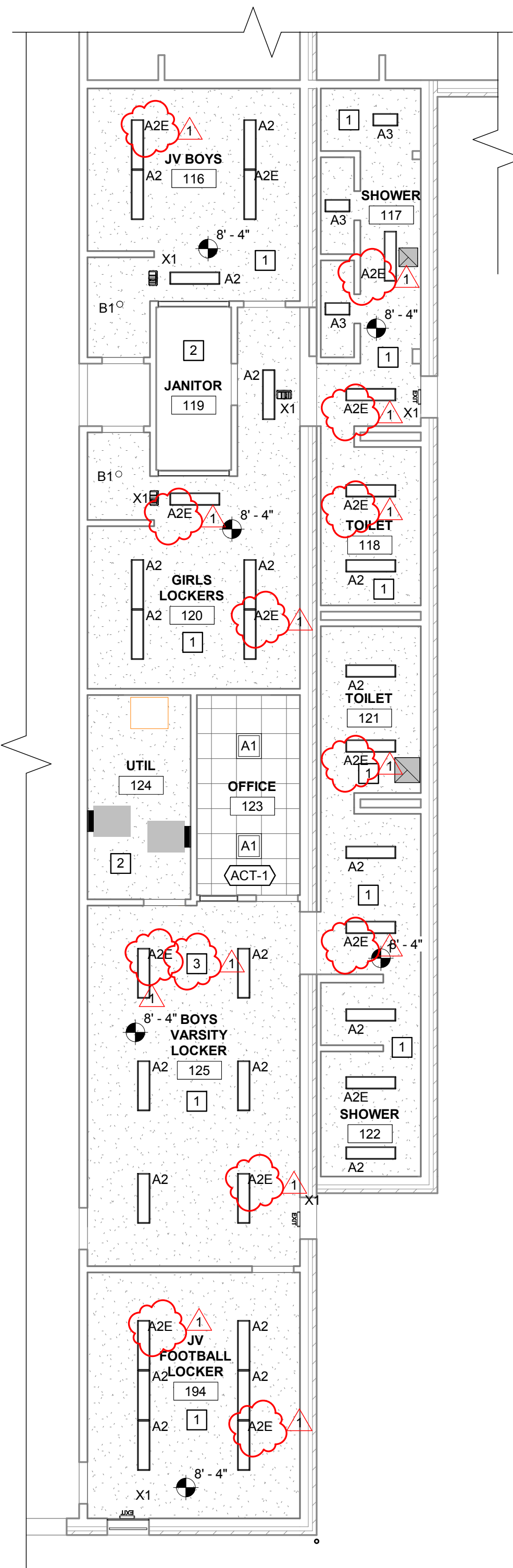


NOT IN CONTRACT

## 1 SENIOR HIGH REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"  
0 4' 8' 16'





**KEYED NOTES - BASKETBALL RCP**

- 1 EXISTING CEILING TO BE PATCHED, REPAIRED, AND PAINTED (P3). ALL EXPOSED CONDUITS, DIFFUSERS, ACCESS PANELS, DUCTS, ETC TO BE PAINTED TO MATCH CEILING. NEW LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS.
- 2 EXISTING CEILING AND LIGHTING TO REMAIN AS IS.
- 3 MECHANICAL CONTRACTOR INSTALL 10" WIDE, 20 GA SHEET METAL PATCH AT 3 LOCATIONS ALONG EXISTING DUCT.

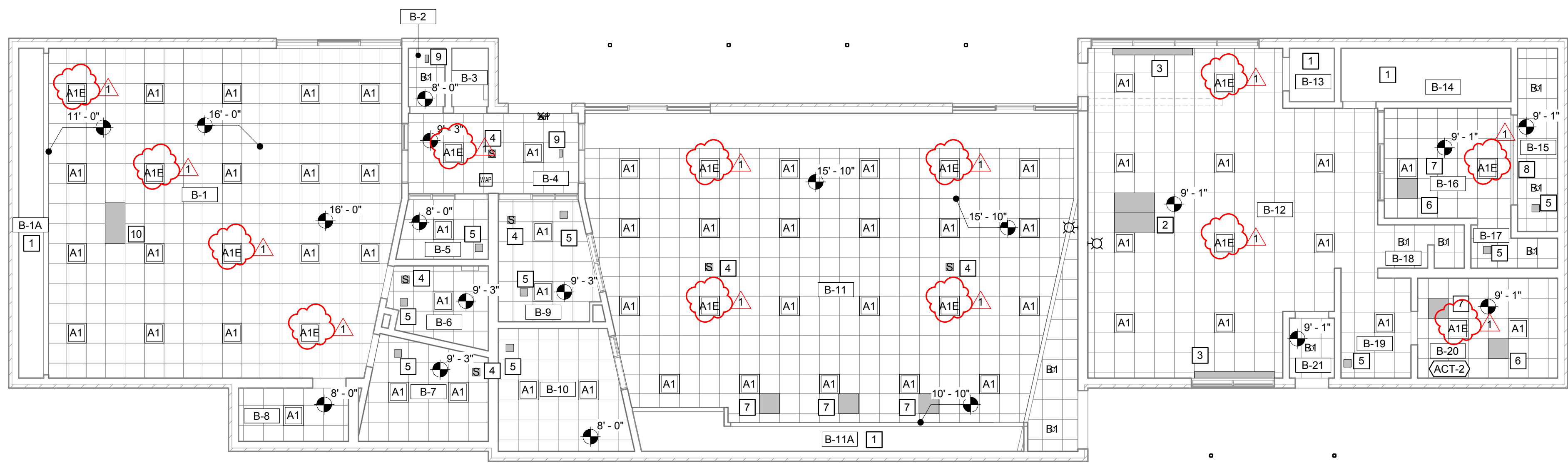
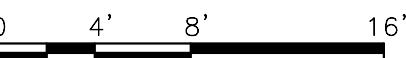
**REFLECTED CEILING PLAN LEGEND**

(REFER TO ELECTRICAL PLANS FOR ADDITIONAL SYMBOLS)

- ACOUSTIC CEILING REFER TO FINISH SPECIFICATIONS
- 2X2 LED LAY-IN FIXTURE
- 1X4 AND 1X2 SURFACE MOUNT FIXTURE
- HVAC GRILLES - SEE MECHANICAL DRAWINGS
- SMOKE DETECTOR
- HEAT DETECTOR
- SPEAKER
- OCCUPANCY SENSOR
- SPRINKLER HEAD, SEE FIRE PROTECTION DWGS
- CEILING TYPE, SEE FLOOR PLANS FOR INTERIOR FINISH SPECIFICATIONS. CEILING TO BE ACT-1 UNLESS NOTED OTHERWISE.

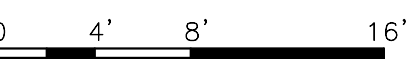
**1 BASKETBALL LOCKER ROOM RCP**

SCALE: 1/8" = 1'-0"



**2 MUSIC AND FOOTBALL LOCKERS RCP**

SCALE: 1/8" = 1'-0"



**ARCHITECTURAL, MECHANICAL, AND ELECTRICAL KEYED NOTES - MUSIC AND LOCKER RCP**

- 1 EXISTING CEILING AND LIGHTING TO REMAIN AS IS.
- 2 MODIFY EXISTING DUCT AS REQUIRED AND INSTALL (2) NEW 24X48 EGG CRATE RA GRILLES IN NEW CEILING.
- 3 CLEAN EXISTING LINEAR DIFFUSER AND MODIFY DUCT AS REQUIRED TO RELOCATE TO NEW CEILING.
- 4 MODIFY EXISTING SPEAKER WIRE AS REQUIRED AND INSTALL NEW BOGEN OR EQUAL CS1EZ CEILING SPEAKER WITH T86 TBAR BRACKET.
- 5 MODIFY EXISTING DUCT AS REQUIRED AND INSTALL NEW 12X12 ALUMINUM SA DIFFUSER WITH 4 WAY THROW IN NEW CEILING.
- 6 MODIFY EXISTING DUCT AS REQUIRED AND INSTALL NEW 24X24 ALUMINUM SA DIFFUSER WITH 4 WAY THROW IN NEW CEILING.
- 7 MODIFY EXISTING DUCT AS REQUIRED AND INSTALL NEW 24X24 ALUMINUM EGG CRATE RA GRILLE IN NEW CEILING.
- 8 MODIFY CIRCUIT AS REQUIRED AND RELOCATE HEAT DETECTOR TO NEW CEILING.
- 9 CLEAN EXISTING SA DIFFUSER, MODIFY EXISTING DUCT AS REQUIRED AND RELOCATE TO NEW CEILING.
- 10 MODIFY EXISTING DUCT AS REQUIRED AND INSTALL NEW 24X48 ALUMINUM SA DIFFUSER WITH 4 WAY THROW IN NEW CEILING.

**ELECTRICAL SCOPE**

MODIFY EXISTING CIRCUITS AS REQUIRED TO FEED NEW LIGHT FIXTURES IN NEW CEILING. SEE NOTES ABOVE.

**MECHANICAL SCOPE**

MODIFY EXISTING DUCT AS REQUIRED TO FEED NEW DIFFUSERS AND GRILLES IN NEW CEILING. SEE NOTES ABOVE.

OWNER:  
RALLS COUNTY R-4  
SCHOOL DISTRICT  
21622 HIGHWAY 19,  
CENTER, MISSOURI 63436

RALLS COUNTY R-4 SCHOOL DISTRICT  
**PHASE I - INTERIOR RENOVATIONS AT  
MARK TWAIN JUNIOR/SENIOR HIGH  
SCHOOL**  
21622 HIGHWAY 19, CENTER, MISSOURI 63436

**BIDDING PHASE**

**NOT FOR  
CONSTRUCTION**  
ISSUE DATE: 03/05/2021

REVISIONS		
NO.	Date	Description
1	3/26/21	ADD 01

PROJECT NUMBER: 5998

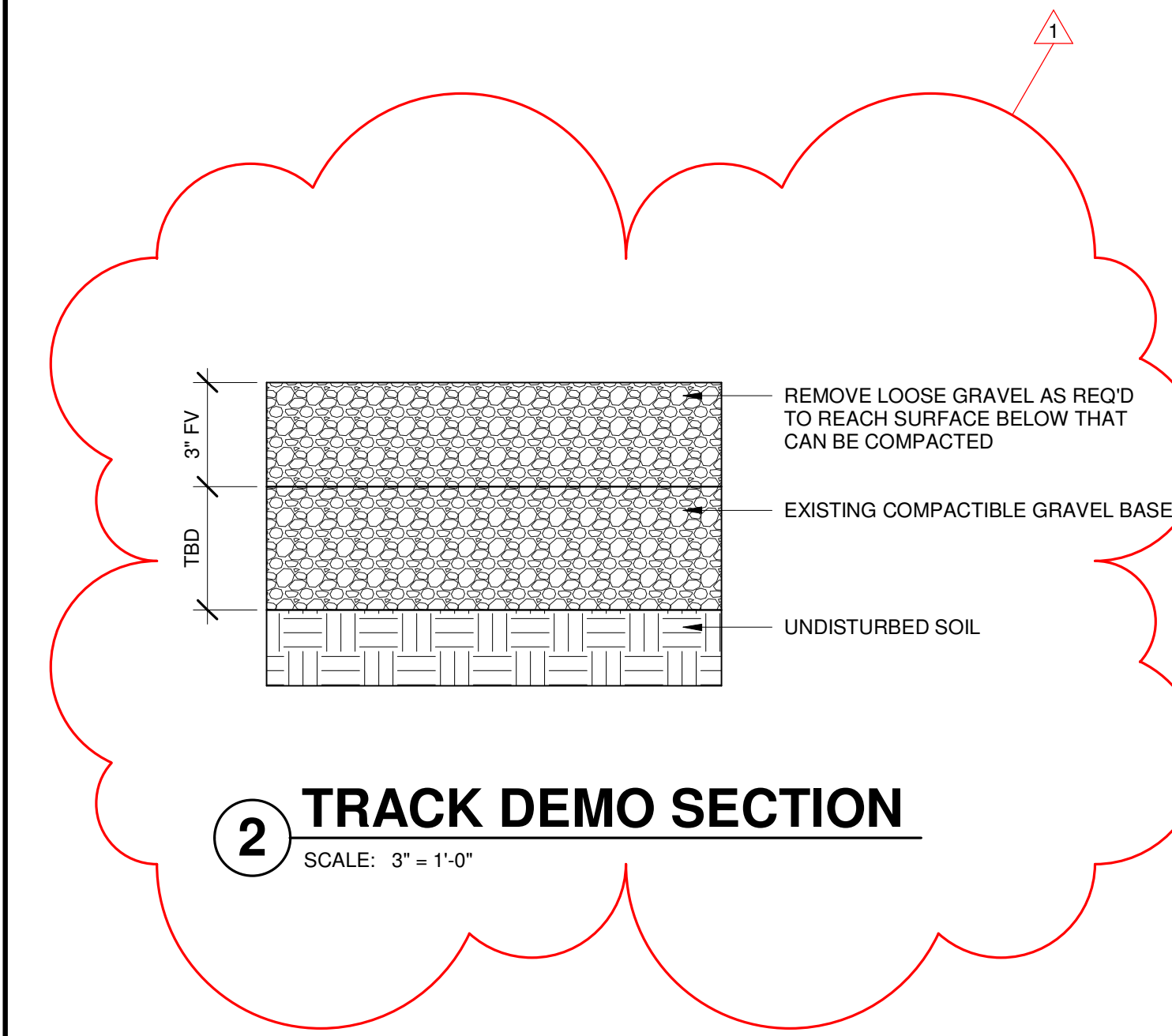
**LOCKER  
ROOMS AND  
MUSIC RCP**

DWG. NO.  
**A104**

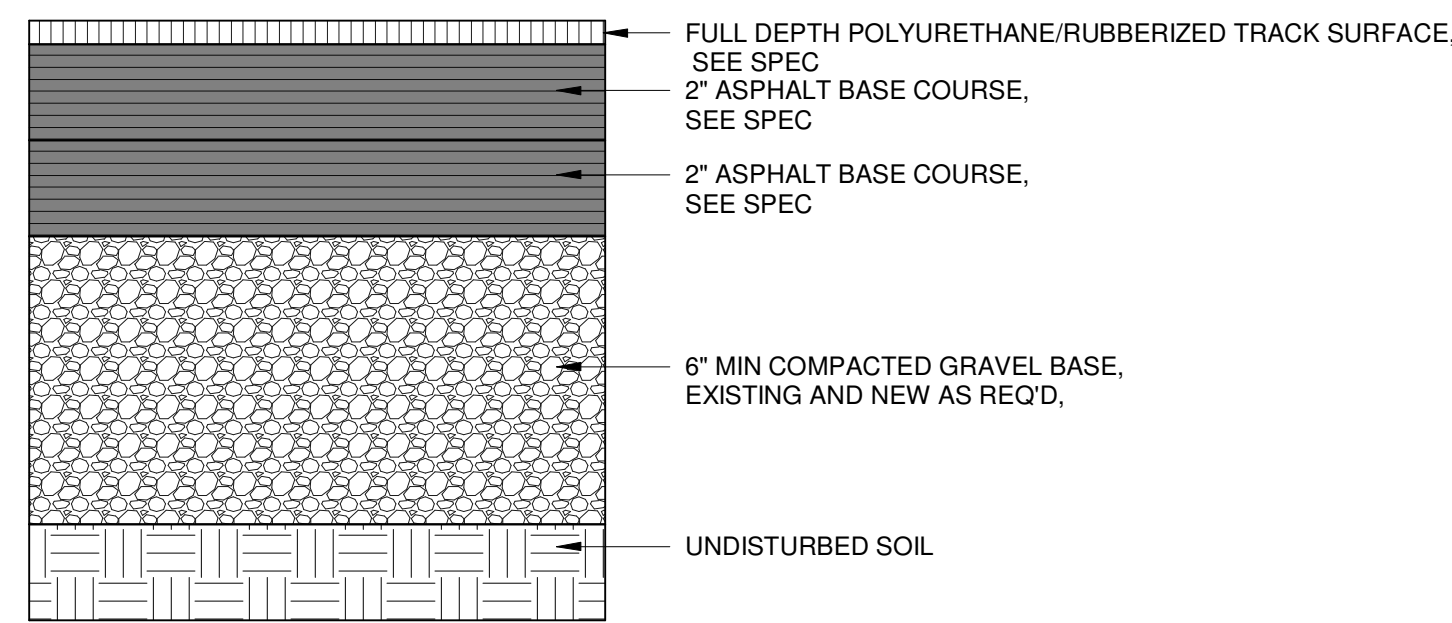






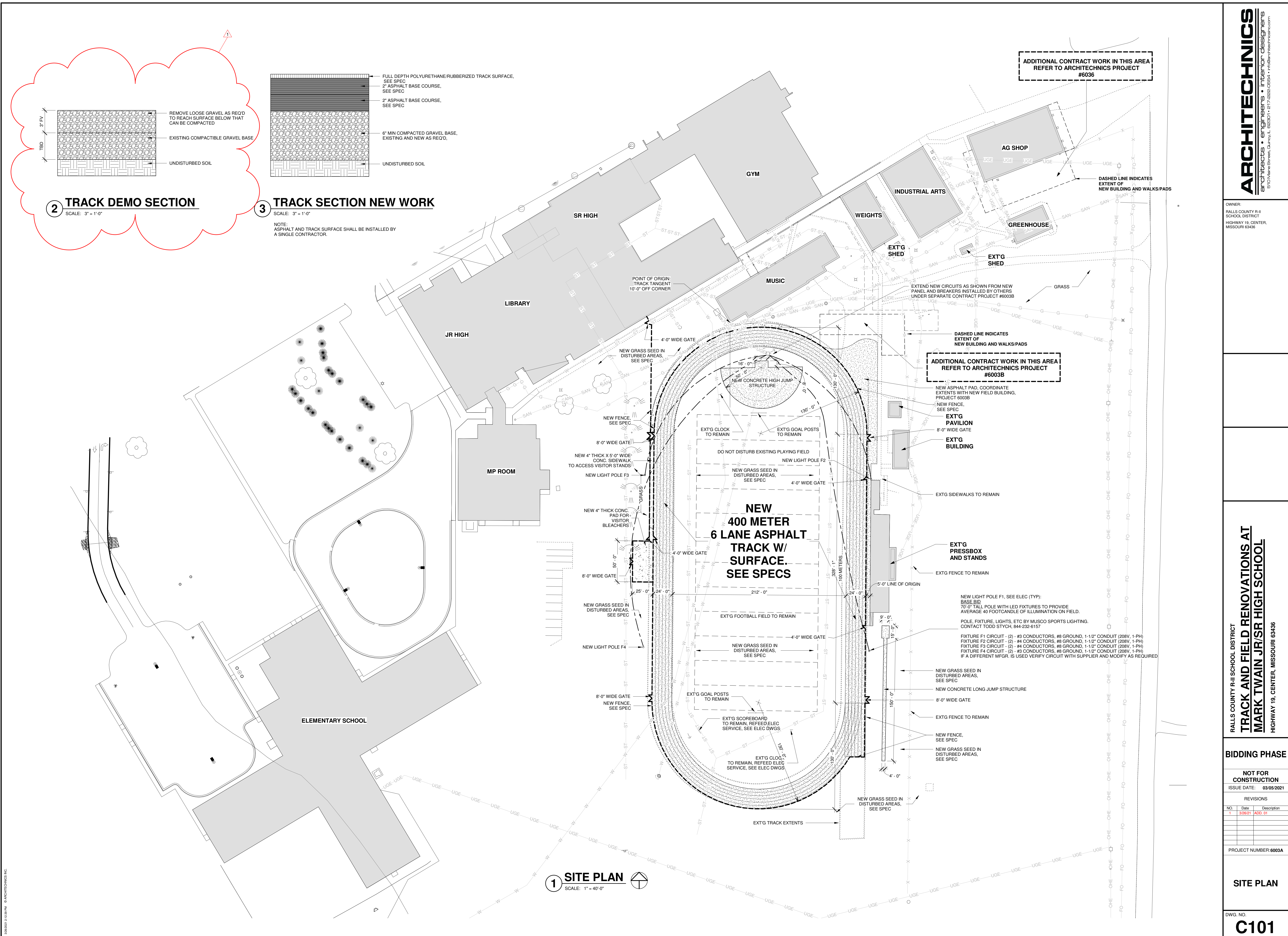


**2 TRACK DEMO SECTION**  
SCALE: 3" = 1'-0"



**3 TRACK SECTION NEW WORK**  
SCALE: 3" = 1'-0"

NOTE:  
ASPHALT AND TRACK SURFACE SHALL BE INSTALLED BY  
A SINGLE CONTRACTOR.



**1 SITE PLAN**  
SCALE: 1" = 40'-0"

REVISIONS		
NO.	Date	Description
1	3/2/21	ADD 01



NEW FIELD BUILDING

# RALLS COUNTY R-II SCHOOL DISTRICT

21622 HIGHWAY 19  
CENTER, MO 63436

ISSUED FOR BIDDING  
03/05/2021

ARCHITECT OF RECORD:

**ARCHITECHNICS**  
architects • engineers • interior designers

CONTACT PERSON: JACQUES REYNOLDS  
PROJECT NO. 5730  
STATE OF MISSOURI  
ENGINEERING DESIGN FIRM 2014009673  
ARCHITECTURAL DESIGN FIRM 2014009673

### APPLICABLE CODES

INTERNATIONAL BUILDING CODE 2015

### GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS.
- ANY DISCREPANCIES BETWEEN STATED AND EXISTING CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT.
- DISCREPANCIES OR CONFLICTS BETWEEN SPECIFICATIONS AND DRAWINGS SHALL BE MADE KNOWN TO THE ARCHITECT FOR CLARIFICATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THOSE AREAS TO REMAIN UNDISTURBED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS, AS PER THE WRITTEN SPECIFICATIONS, TO MAINTAIN SAFETY AT THE CONSTRUCTION SITE. HE IS SOLELY RESPONSIBLE FOR SAFETY MEASURES. THE CONTRACTOR IS ALSO SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND TECHNIQUES REGARDING EXECUTION OF THE WORK.
- THE CONTRACTOR SHALL CONFORM TO ALL LOCAL AND STATE CODES AND RECEIVE LOCAL AND STATE APPROVAL WHERE NECESSARY PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS AND PAY ALL LEGAL FEES. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY, AND STATE BUILDING LAWS, ORDINANCES, OR REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, CAUSED BY HIMSELF, HIS SUBCONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
- THE CONTRACTOR MUST UNDERSTAND THAT THE WORK IS ENTIRELY AT HIS RISK UNTIL SAME IS ACCEPTED, AND HE WILL BE HELD RESPONSIBLE FOR ITS SAFETY.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY TEMPORARY MEASURES FOR THE PROTECTION OF THE WORK, INCLUDING BARRICADES, WARNING SIGNS, LIGHTS, ETC.

### ALTERNATES

- ALTERNATE BID D-1: PROVIDE EXPOSED FASTENER METAL ROOFING SYSTEM IN LIEU OF STANDING SEAM METAL ROOFING.
- ALTERNATE BID D-2: PROVIDE CONVENTIONAL STICK FRAMED CONSTRUCTION IN LIEU OF PRE-ENGINEERED WOOD FRAMED CONSTRUCTION.

### WALL / PARTITION TYPES

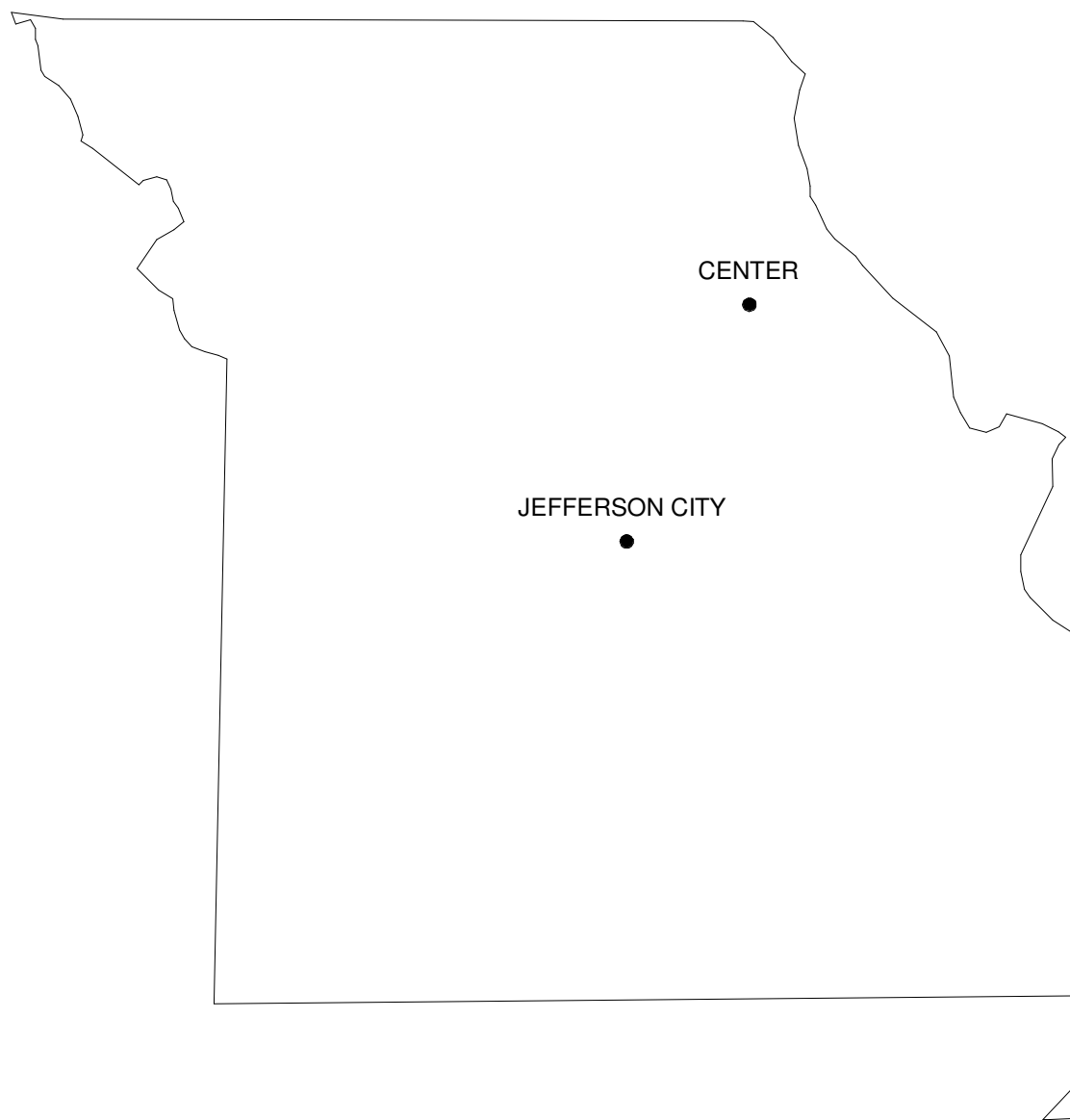
<b>EXTERIOR</b>	EXPOSED FASTENER EXTERIOR MTL PANEL 2x WOOD PURLIN CONT. AIR BARRIER UNFACED INSUL. MIN R-20 BUILT UP WOOD POST 2x WOOD PURLIN CONT. VAPOR BARRIER EXPOSED FASTENER EXTERIOR MTL PANEL	NOTES: 1. 1 HOUR FIRE RATED ASSEMBLY - U465 2. WALL EXTENDS TO FRAMING ABOVE
<b>INTERIOR</b>	EXPOSED FASTENER EXTERIOR MTL PANEL 2x WOOD PURLIN CONT. AIR BARRIER UNFACED INSUL. MIN R-20 BUILT UP WOOD POST 2x WOOD PURLIN CONT. VAPOR BARRIER EXPOSED FASTENER EXTERIOR MTL PANEL	NOTES: 1. 1 HOUR FIRE RATED ASSEMBLY - U465 2. WALL EXTENDS TO FRAMING ABOVE
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<b>INTERIOR</b>	EXPOSED FASTENER INTERIOR MTL PANEL 1x WOOD PURLIN 2x 4 WOOD STUD WALL 1x WOOD PURLIN EXPOSED FASTENER INTERIOR MTL PANEL	NOTES: 1. WALL EXTENDS TO FRAMING ABOVE 2. TYPE E SIM EXCEPT FRP ON ONE SIDE ONLY
<b>EXTERIOR</b>	EXPOSED FASTENER EXTERIOR MTL PANEL 2x WOOD PURLIN CONT. AIR BARRIER UNFACED INSUL. MIN R-20 BUILT UP WOOD POST 2x WOOD PURLIN CONT. VAPOR BARRIER EXPOSED FASTENER EXTERIOR MTL PANEL	NOTES: 1. WALL EXTENDS TO FRAMING ABOVE 2. TYPE E SIM EXCEPT FRP ON ONE SIDE ONLY
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**GENERAL WALL / PARTITION NOTES:**

- DIMENSIONS SHOWN ARE ACTUAL.
- OTHER EXTERIOR WALL CONDITIONS MAY OCCUR AT HIGHER ELEVATIONS. REFER TO BUILDING AND/OR INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.
- REFER TO SPEC SECTION 04 2000 AND STRUCTURAL DRAWINGS FOR CMU REINFORCING SIZE, SPACING, BOND BEAM LOCATIONS, UNLIT TYPES ETC FOR MASONRY WALLS.
- SEE SPECIFICATIONS AND FINISH SCHEDULE FOR APPLICATION OF FINISHES AND FINISH REQUIREMENTS.

### INDEX OF DRAWINGS

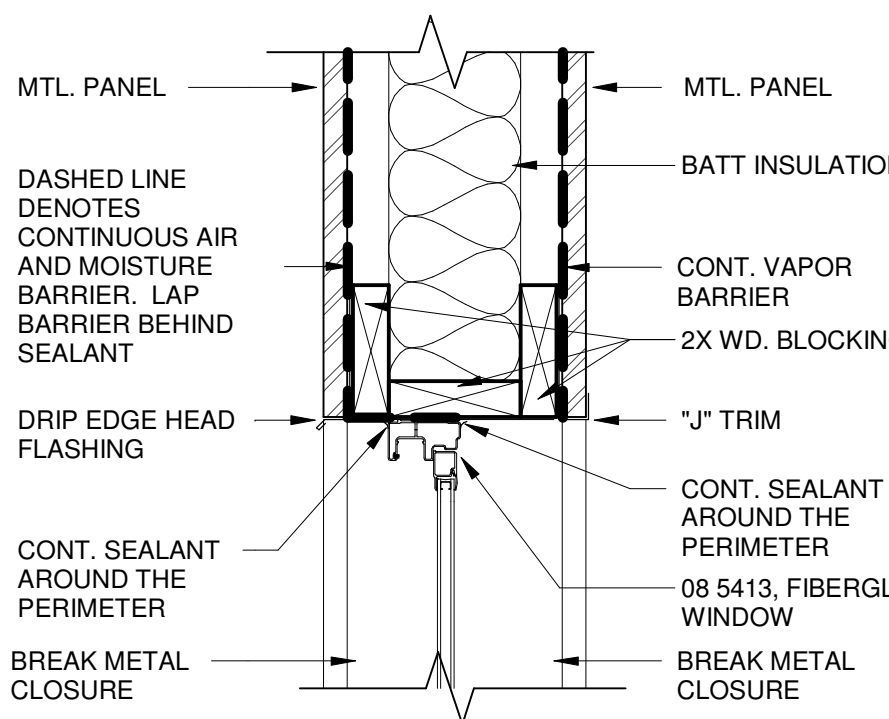
TITLE	TITLE
G000	SURVEY
G001	
CIVIL	
C100	SITE DEMO
C101	SITE PLAN
STRUCTURAL	
S001	STRUCTURAL NOTES
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ELECTRICAL	
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### 4 STATE OF MISSOURI

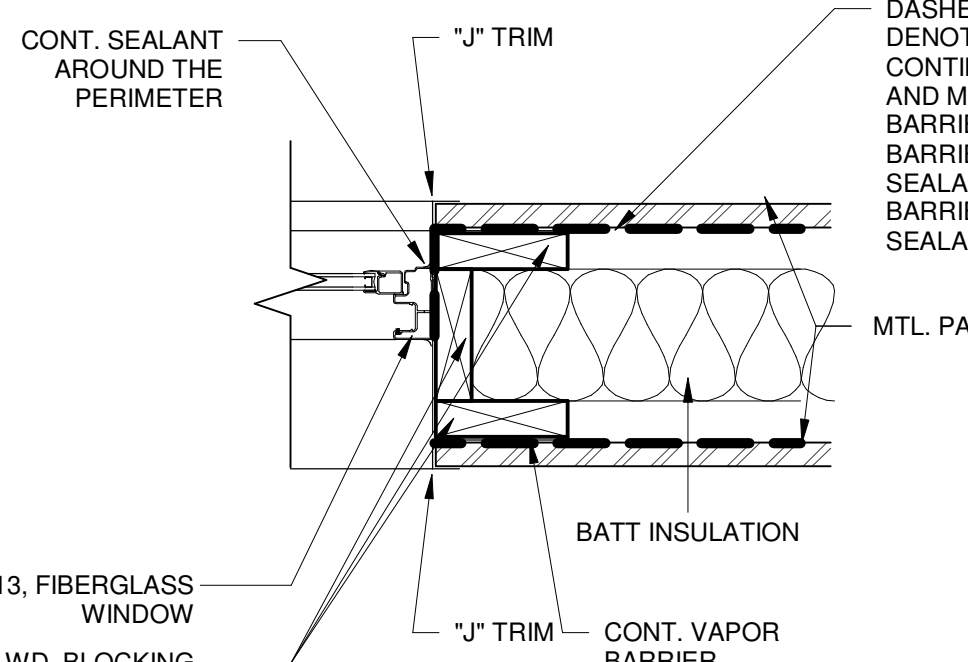


AERIAL PHOTO AREA OF WORK



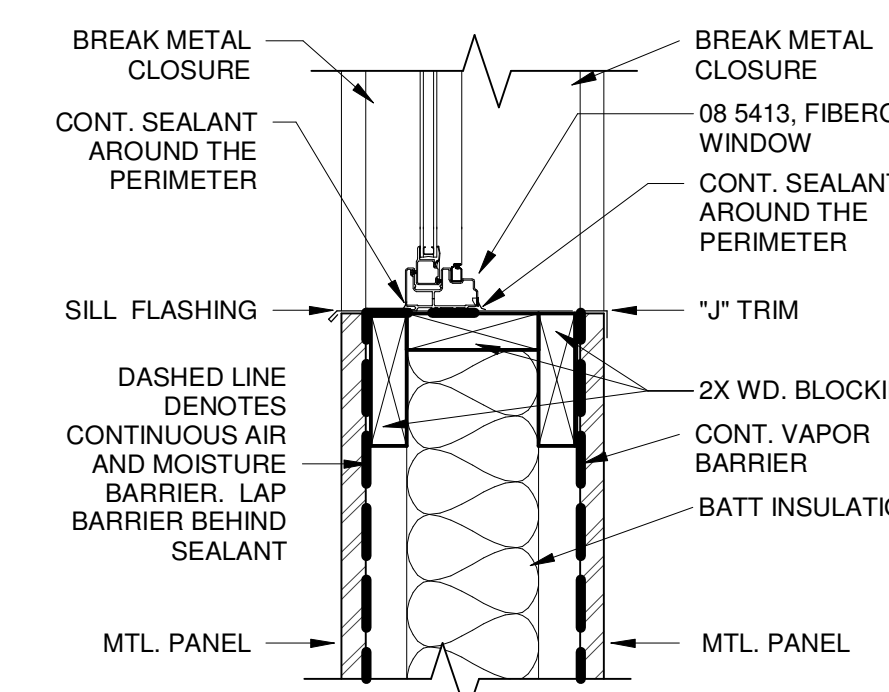
### 11 WINDOW HEAD

SCALE: 1 1/2" = 1'-0"



### 12 WINDOW JAMB

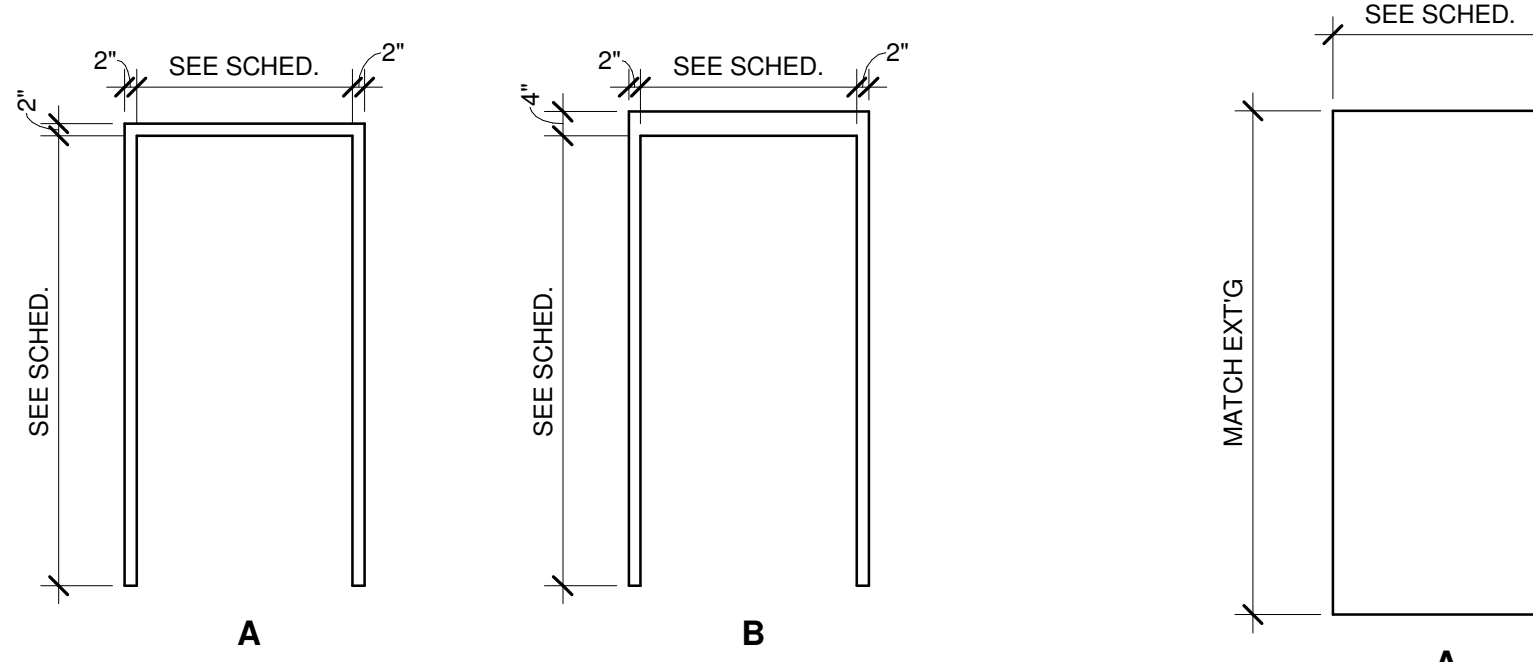
SCALE: 1 1/2" = 1'-0"



### 13 WINDOW SILL DETAIL

SCALE: 1 1/2" = 1'-0"

DOOR SCHEDULE												
WT	SIZE			DOOR FIN.	TYPE	FRAME				THRESHOLD	HDWE GROUP	REMARKS
	W.	H.	TH.	MAT'L		MAT'L	FIN.	TYPE	HEAD	JAMB		
100	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
101	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
101A	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
101B	8'-0"	4'-0"	3"	MTL	PAINT	N/A	BY MFR	PAINT	N/A	9/G000	10/G000	BY MFR
102	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
103	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
104	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
105	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
106	6'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
107	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
108	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC
108A	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1B/G000	7/G000	8/G000	N/A
109	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1B/G000	7/G000	8/G000	N/A
110	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC



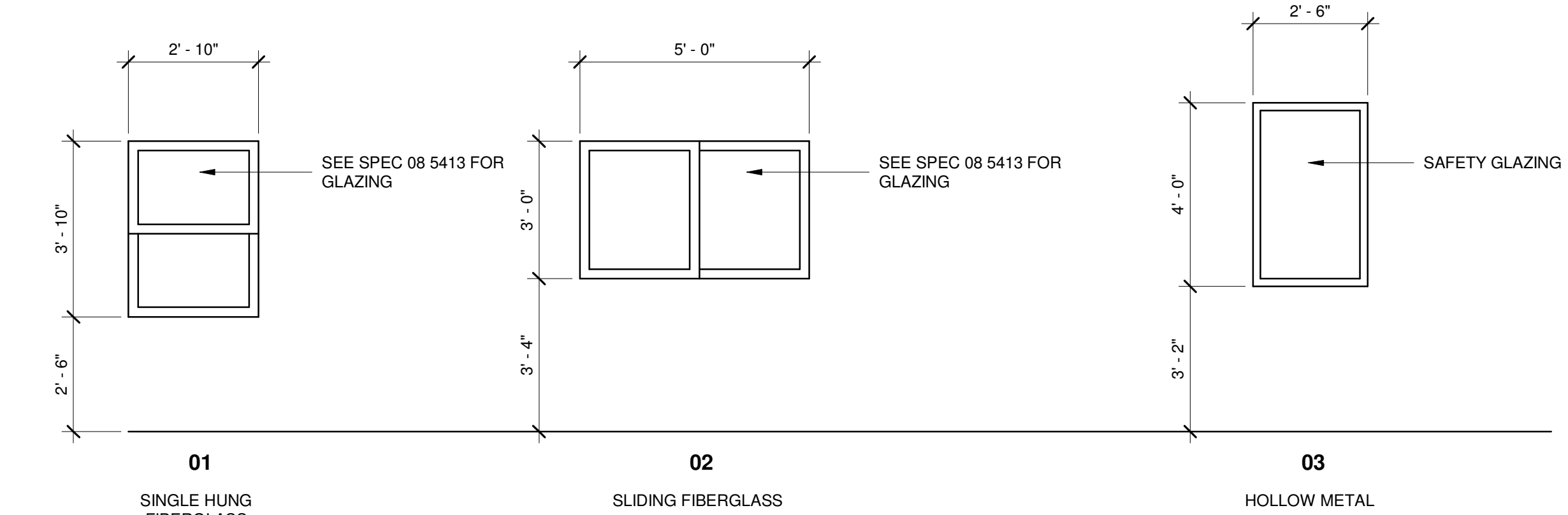
### 1 DOOR FRAME TYPES

SCALE: 3/8" = 1'-0"

### 2 DOOR TYPES

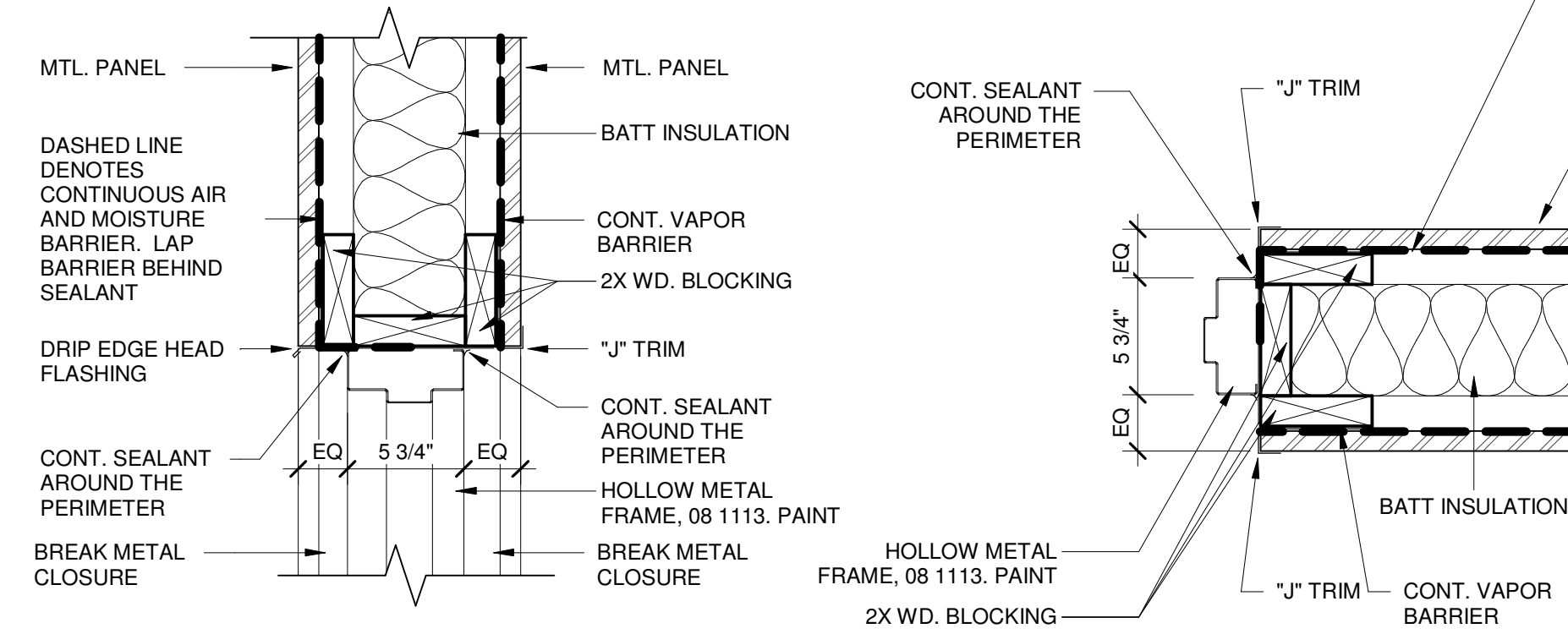
SCALE: 3/8" = 1'-0"

WINDOW SCHEDULE									
TYPE	R.O.		FINISH	HEAD	JAMB	SILL	Glazing THICKNESS	SILL HEIGHT	HEAD HEIGHT
	WIDTH	HEIGHT							
01	2'-10"	3'-10"	PREFIN	11/G000	12/G000	13/G000	see spec 08 5413	2'-6"	6'-4"
01	2'-10"	3'-10"	PREFIN	11/G000	12/G000	13/G000	see spec 08 5413	2'-6"	6'-4"
02	5'-0"	3'-0"	PREFIN	11/G000	12/G000	13/G000	see spec 08 8000	3'-4"	6'-4"
03	2'-6"	4'-0"	PAINT	10/A100	10/A100 SIM	10/A100 SIM	see spec 08 8000	3'-2"	7'-2"



### 3 WINDOW TYPES

SCALE: 3/8" = 1'-0"



### 5 DOOR HEAD

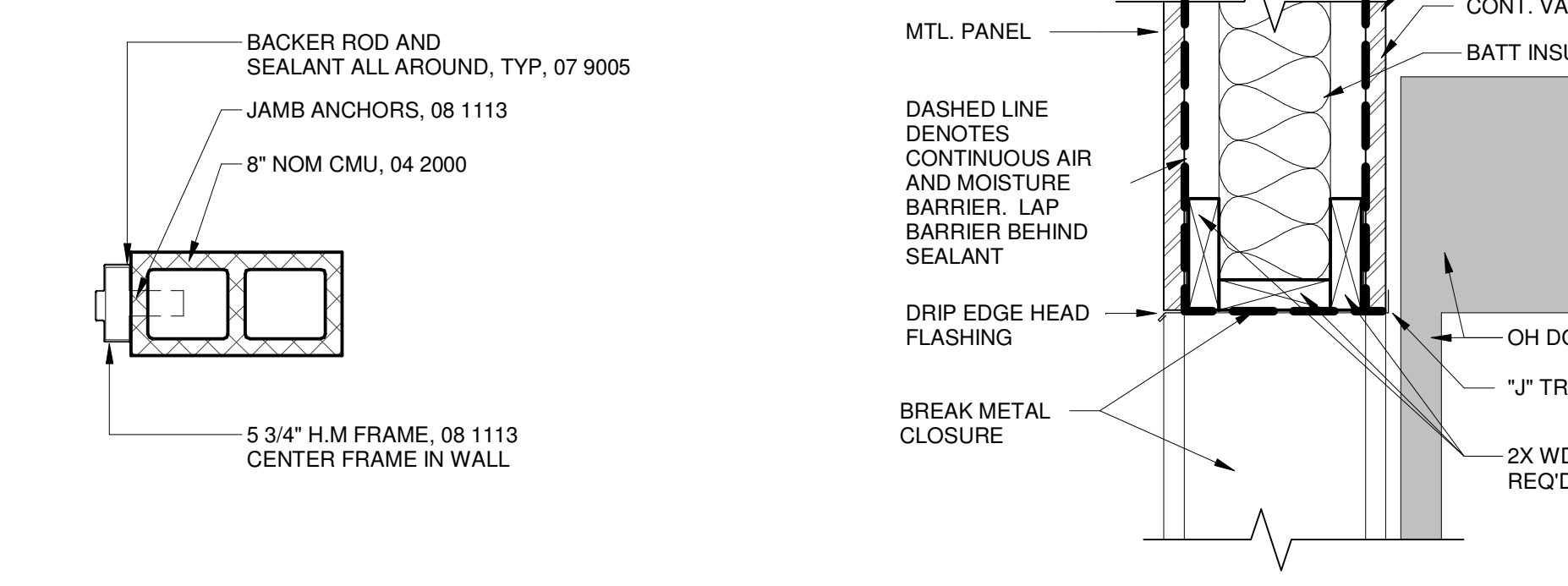
SCALE: 1 1/2" = 1'-0"

### 6 DOOR JAMB

SCALE: 1 1/2" = 1'-0"

### 7 DOOR HEAD

SCALE: 1" = 1'-0"



### 8 DOOR JAMB

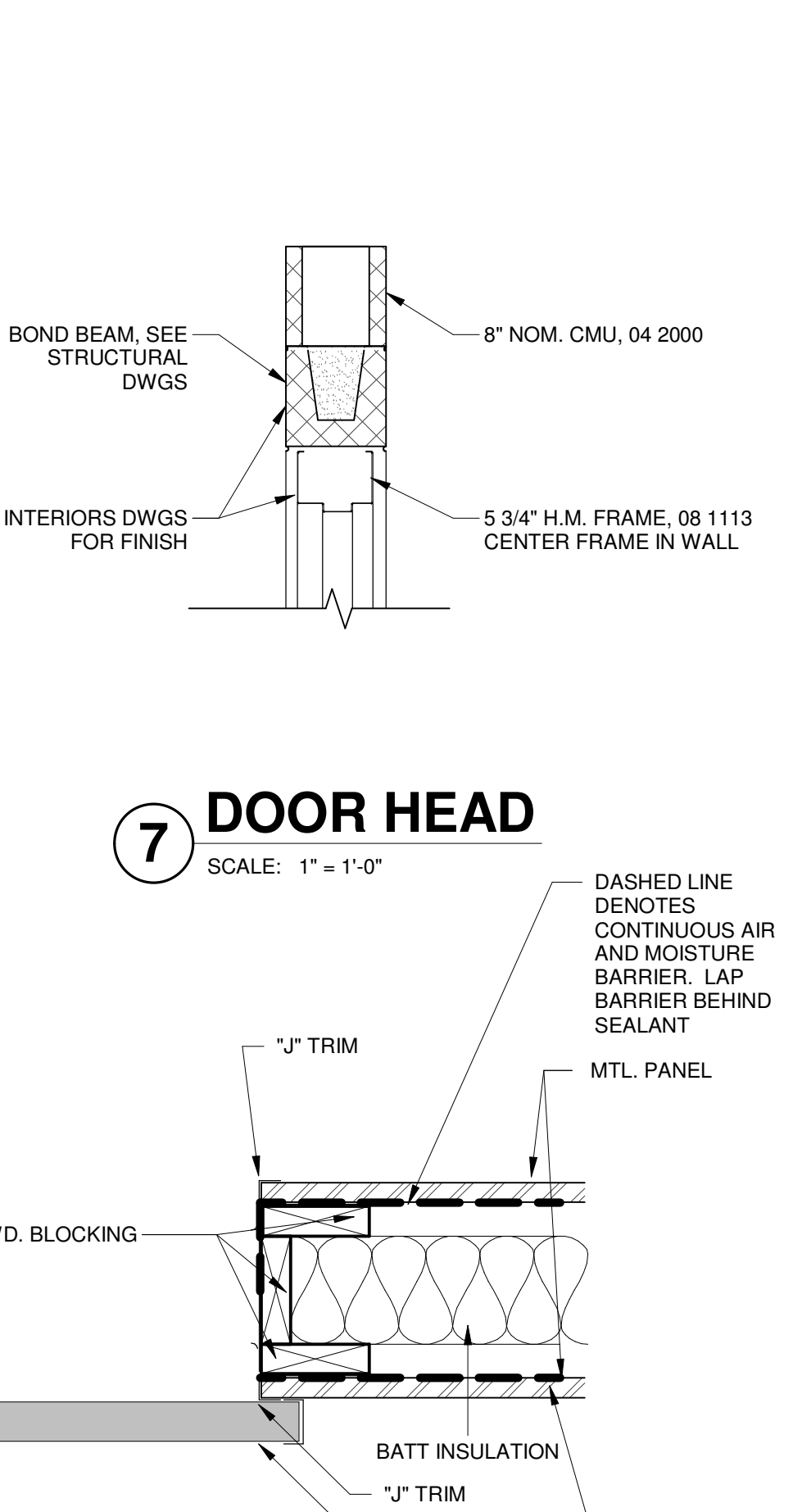
SCALE: 1" = 1'-0"

### 9 OH DOOR HEAD

SCALE: 1 1/2" = 1'-0"

### 10 OH DOOR JAMB

SCALE: 1 1/2" = 1'-0"



### DOOR HARDWARE SETS

REFER TO SPEC 08 7100

01	HINGES 1 1/2 PR CLOSER PUSH/PULL DEADBOLT (KEYED BOTH SIDES) SILENCERS	626 MATCH 626
02	HINGES 1 1/2 PR ENTRANCE LOCKSET OH STOP OR WALL STOP SILENCERS	626
03	HINGES 1 1/2 PR OFFICE LOCKSET WALL STOP SILENCERS	626
04	HINGES 1 1/2 PR CLOSER PUSH/PULL WALL STOP SILENCERS	626 MATCH 626

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SCHOOL DISTRICT  
21622 HIGHWAY 19  
CENTER, MO 63436



RALLS COUNTY R-II SCHOOL DISTRICT  
**NEW FIELD BUILDING**  
21622 HIGHWAY 19  
CENTER, MO 63436

### BIDDING PHASE

#### NOT FOR CONSTRUCTION

ISSUE DATE: 03/05/21

#### REVISIONS

NO.	Date	Description
1	3/2/21	ADD 01

PROJECT NUMBER: 6003B

### TITLE

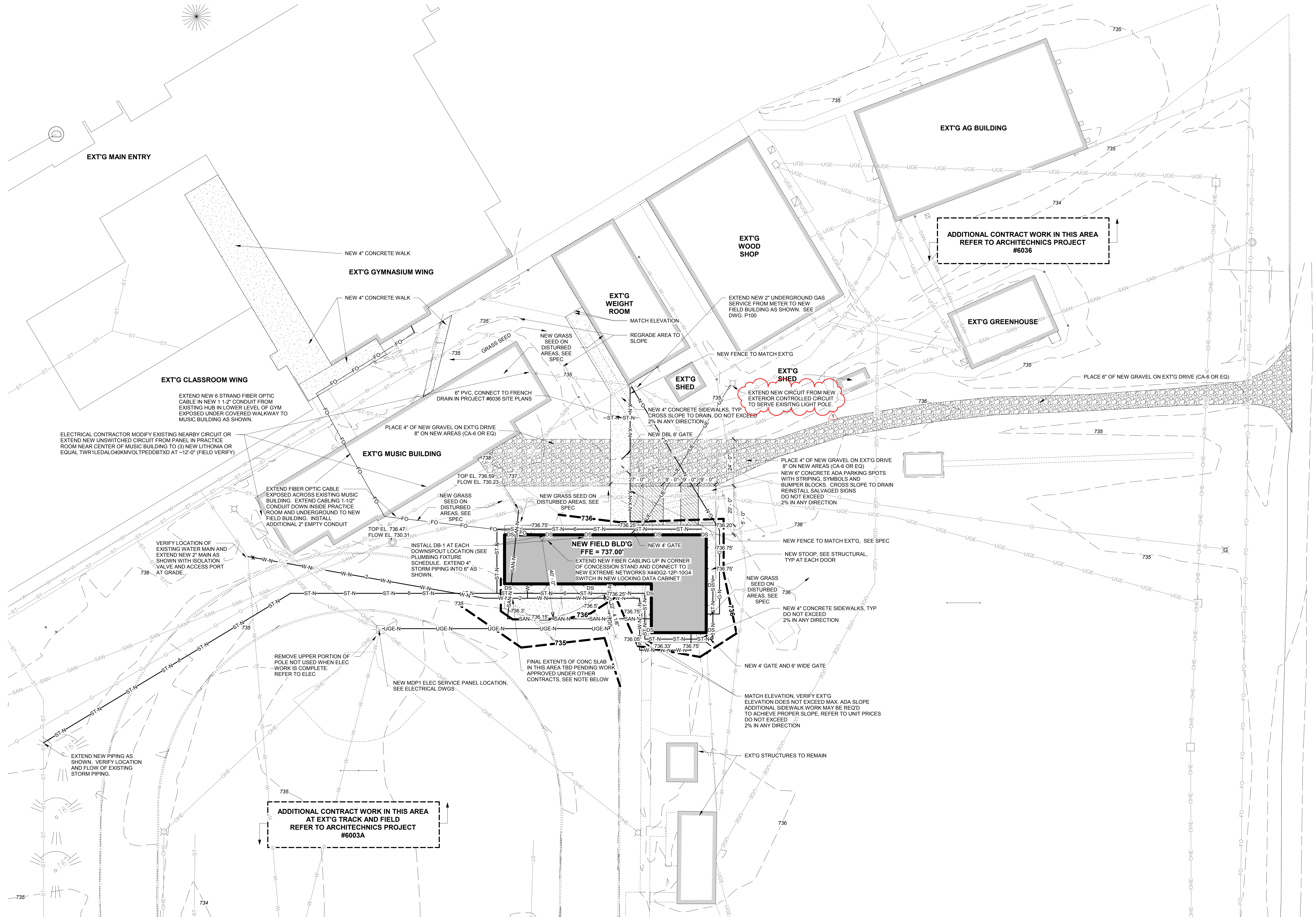
DWG. NO.

**G000**



REVISIONS		
NO.	Date	Description
1	3/26/21	ADD: 01

3/26/21 2:58 PM 0 ARCHITECHNICS, INC.



**1 SITE PLAN**  
SCALE: 1" = 20'-0"  
0 10' 20' 40'



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REVISIONS

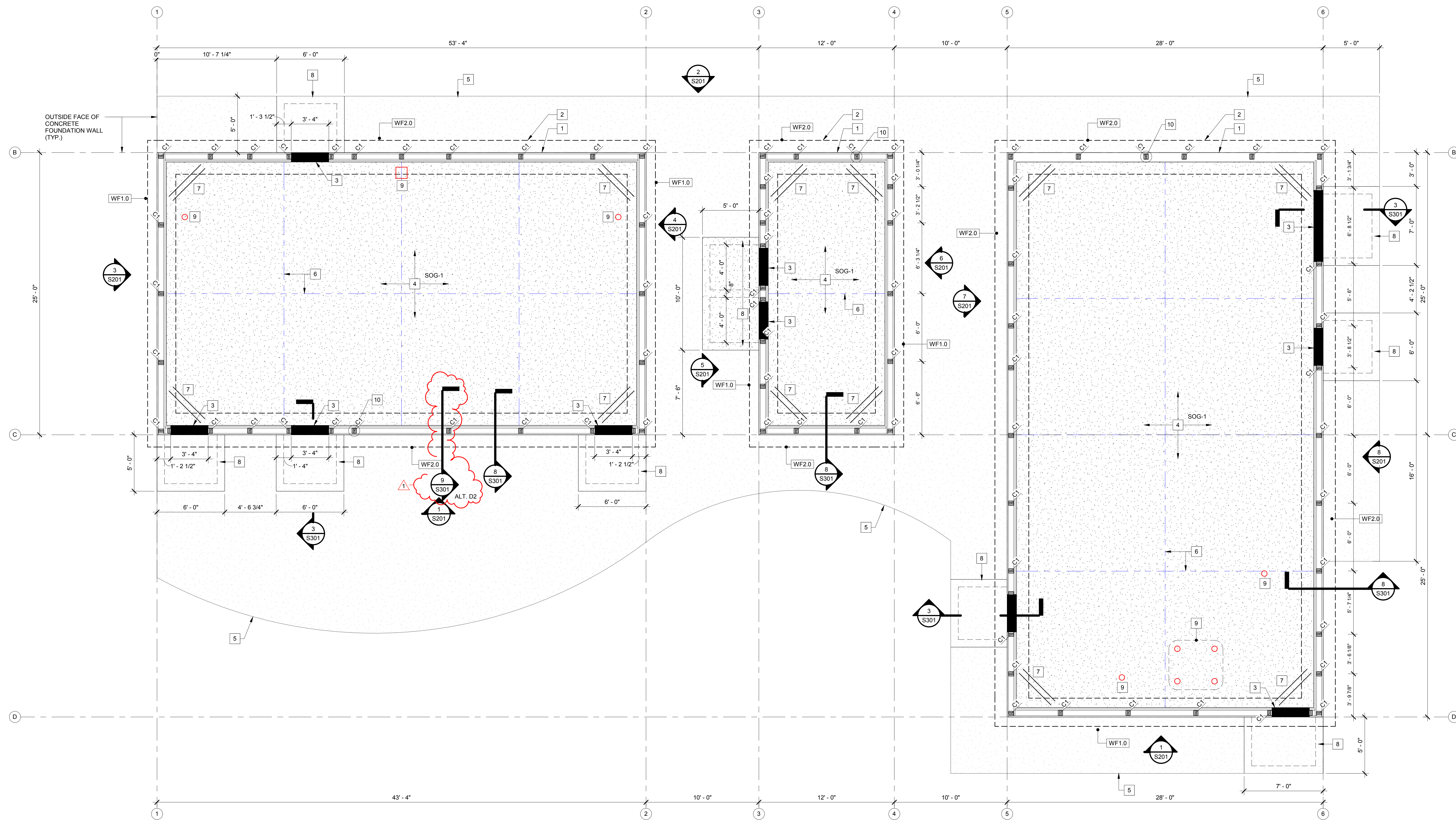
NO.	Date	Description
1	3/26/21	ADD: 01

PROJECT NUMBER: 6003B

FOUNDATION  
PLAN

DWG. NO.

S101



1 MAIN LEVEL FOUNDATION PLAN  
SCALE: 1/4" = 1'-0"



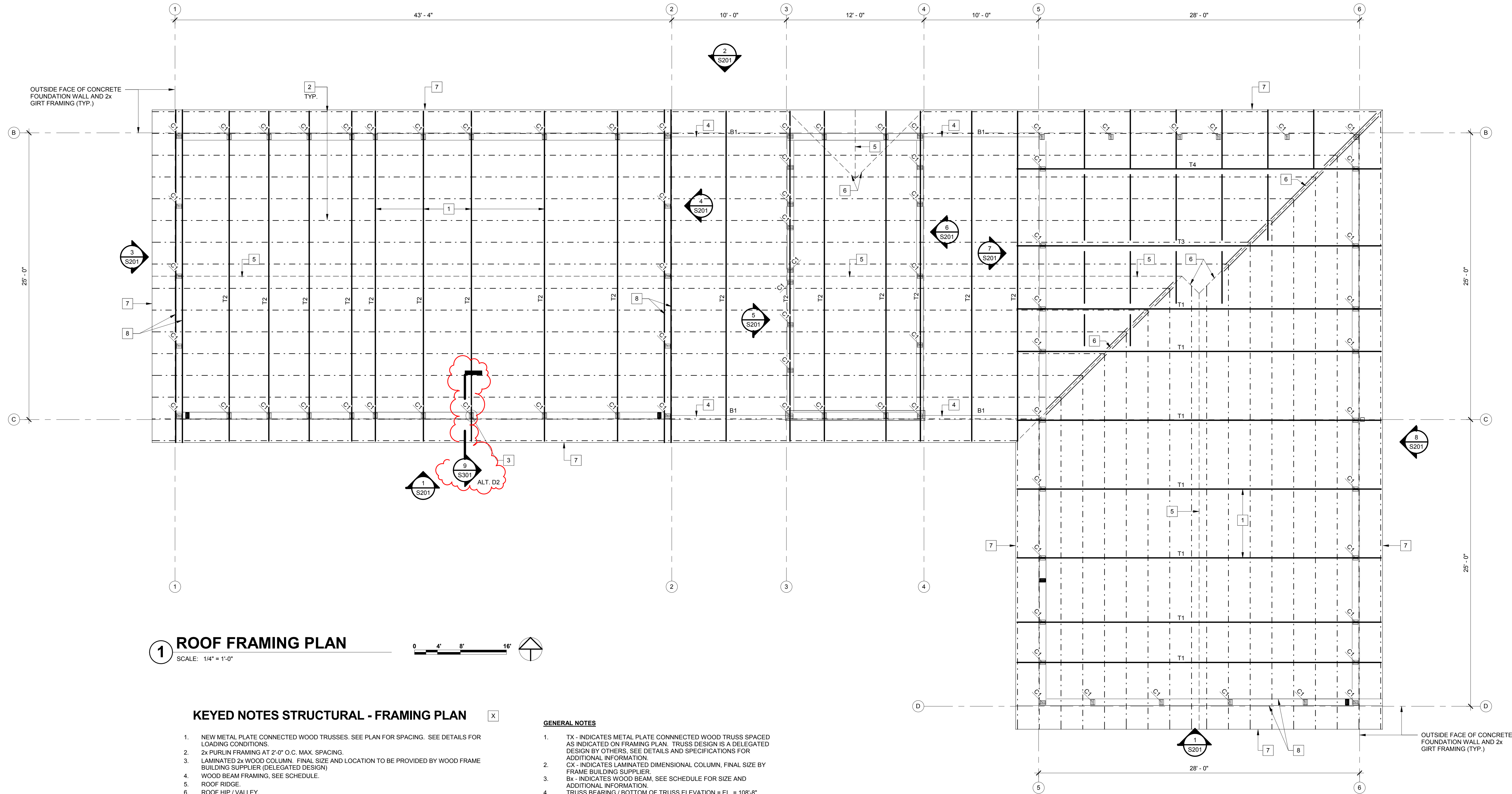
KEYED NOTES STRUCTURAL FOUNDATION PLAN

- CAST IN PLACE CONCRETE WALL FOOTING
- CAST-IN-PLACE CONCRETE FOUNDATION WALL
- CONCRETE SLAB TRANSITION AT ENTRANCE
- NEW 5" THICK CONCRETE SLAB-ON-GRADE CONSTRUCTION, SEE GENERAL NOTES AND DETAILS FOR ADDITIONAL INFORMATION
- 5" THICK EXTERIOR CONCRETE SLAB-ON-GRADE CONSTRUCTION, SEE SITE PLAN FOR ADDITIONAL INFORMATION
- SLAB-ON-GRADE CONTROL / CONSTRUCTION JOINTS, SEE DETAILS FOR ADDITIONAL INFORMATION
- (2) #4 REINFORCING BARS AT CORNER / REENTRANT CORNER, PLACE BARS AT MID-DEPTH OF SLAB-ON-GRADE
- CAST-IN-PLACE CONCRETE STOOP SLAB AND FOUNDATION WALL
- FLOOR DRAIN LOCATION, SEE PLUMBING AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION (SLOPE, ELEVATION)
- LAMINATED WOOD COLUMN, FINAL SIZE TO BE PROVIDED BY FRAME BUILDING SUPPLIER (DELEGATED DESIGN)

GENERAL NOTES

- TOP OF CONCRETE SLAB-ON-GRADE = EL. = 100'-0"
- SOG-1 - INDICATES 5" THICK CAST-IN-PLACE CONCRETE SLAB-ON-GRADE WITH (1) LAYER OF 6x6 W2.1 W.W.F. LOCATED AT MID-DEPTH OF THE SLAB. SEE DETAILS FOR VAPOR BARRIER AND COMPACTED FILL REQUIREMENTS
- WF1.0 - INDICATES CAST-IN-PLACE CONCRETE WALL FOOTING, SEE SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION
- C1 - INDICATES LAMINATED 2x WOOD COLUMN, FINAL SIZE AND LOCATION TO BE PROVIDED BY WOOD FRAME BUILDING SUPPLIER (DELEGATED DESIGN)
- SLOPE INTERIOR SLAB-ON-GRADE CONSTRUCTION TO FLOOR DRAINS / FLOOR SINKS AS INDICATED ON ARCHITECTUTRAL DRAWINGS
- SLOPE EXTERIOR SLAB-ON-GRADE CONSTRUCTION AS INDICATED ON SITE PLAN

3/26/2021 4:25:10 PM ARCHITECHNICS, INC.



# 1 ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

## KEYED NOTES STRUCTURAL - FRAMING PLAN

1. NEW METAL PLATE CONNECTED WOOD TRUSSES. SEE PLAN FOR SPACING. SEE DETAILS FOR LOADING CONDITIONS.
2. 2x PURLIN FRAMING AT 2'-0" O.C. MAX. SPACING.
3. LAMINATED 2x WOOD COLUMN. FINAL SIZE AND LOCATION TO BE PROVIDED BY WOOD FRAME BUILDING SUPPLIER (DELEGATED DESIGN).
4. WOOD BEAM FRAMING. SEE SCHEDULE.
5. ROOF RIDGE.
6. ROOF HIP / VALLEY.
7. EDGE OF STANDING SEAM ROOF.
8. 2x RAKE FRAMING.

## GENERAL NOTES

1. TX - INDICATES METAL PLATE CONNECTED WOOD TRUSS SPACED AS INDICATED ON FRAMING PLAN. TRUSS DESIGN IS A DELEGATED DESIGN BY OTHERS. SEE DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. CX - INDICATES LAMINATED DIMENSIONAL COLUMN. FINAL SIZE BY FRAME BUILDING SUPPLIER.
3. Bx - INDICATES WOOD BEAM. SEE SCHEDULE FOR SIZE AND ADDITIONAL INFORMATION.
4. TRUSS BEARING / BOTTOM OF TRUSS ELEVATION = EL. = 108'-8"

OWNER:  
RALLS COUNTY R-II  
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RALLS COUNTY R-II SCHOOL DISTRICT  
**NEW FIELD BUILDING**

21622 HIGHWAY 19  
CENTER, MO 63436

## BIDDING PHASE

### NOT FOR CONSTRUCTION

ISSUE DATE: 03/05/21

### REVISIONS

NO.	Date	Description
1	3/26/21	ADD: 01

PROJECT NUMBER: 6003B

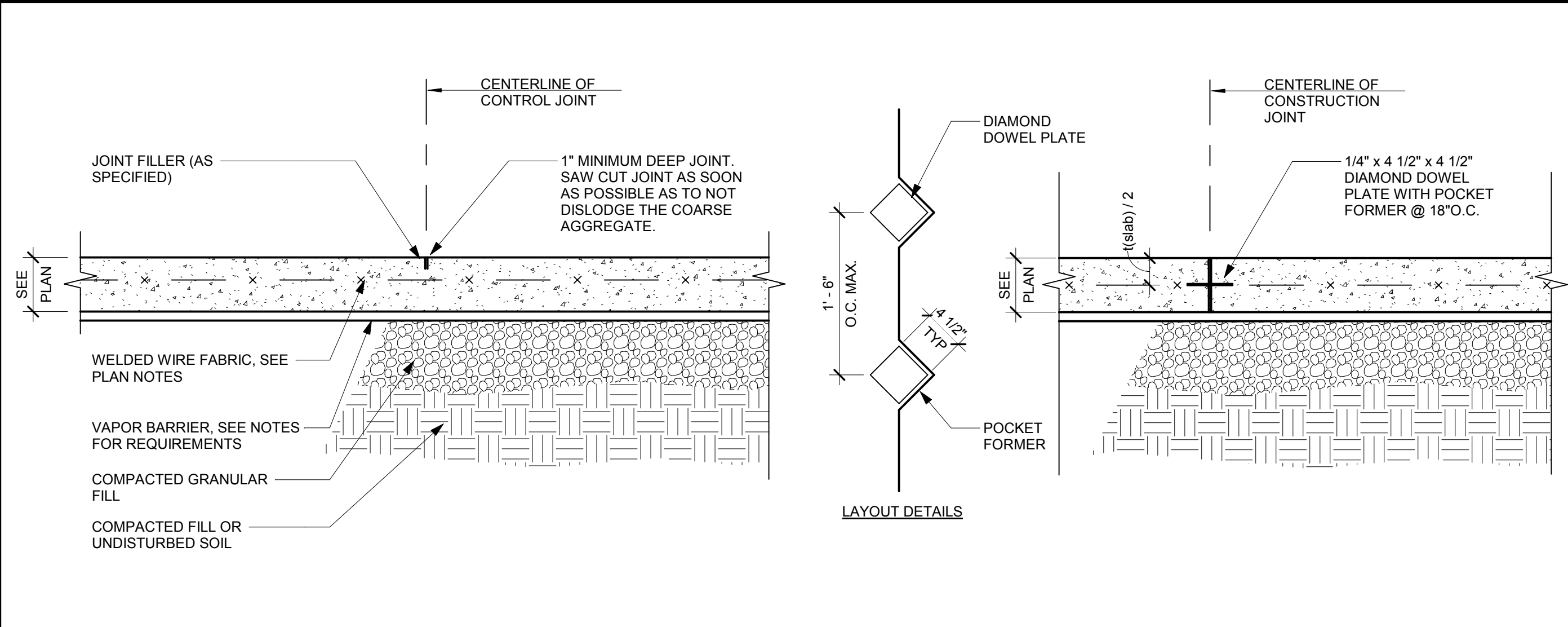
## ROOF FRAMING PLAN

DWG. NO.

**S102**

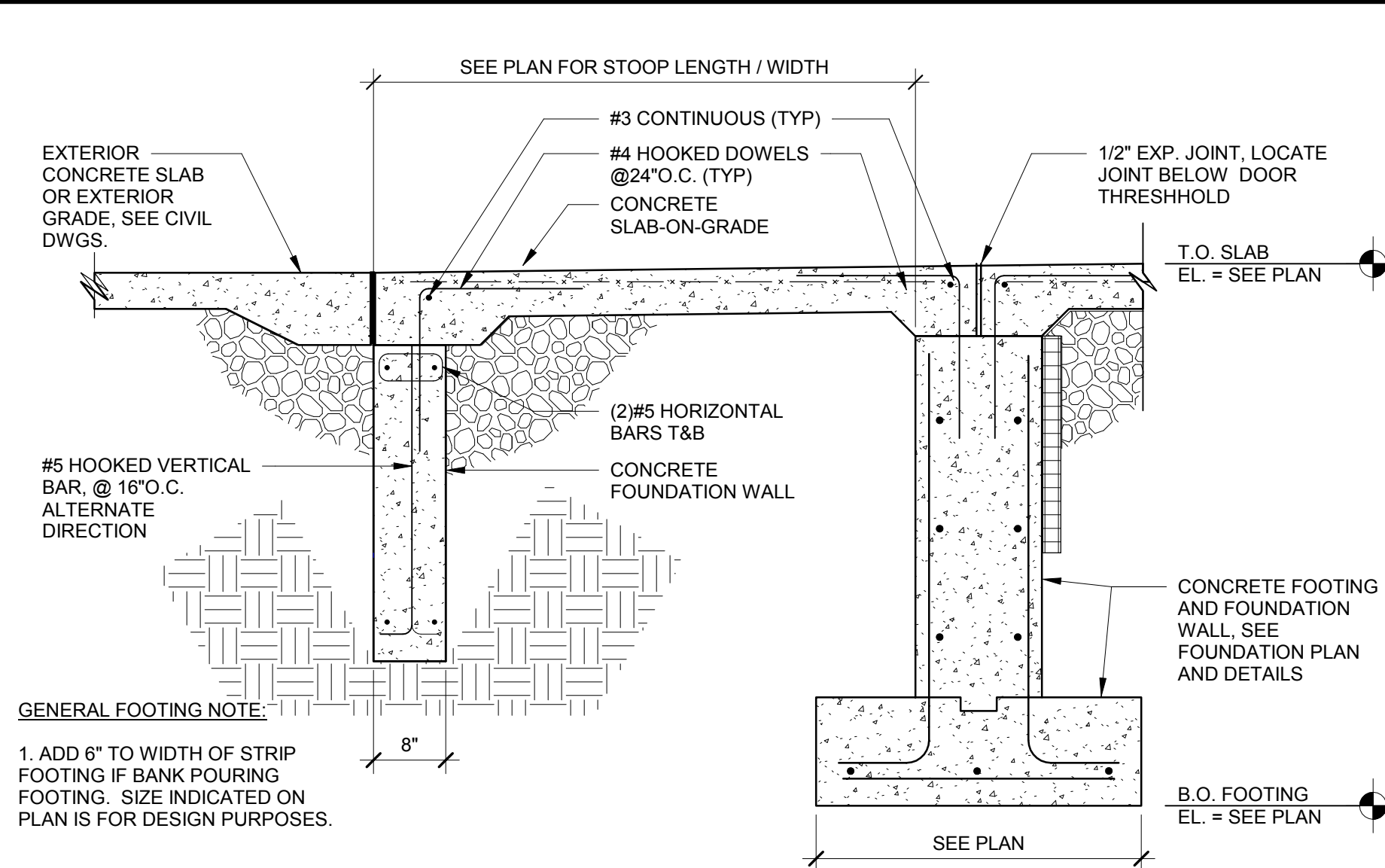
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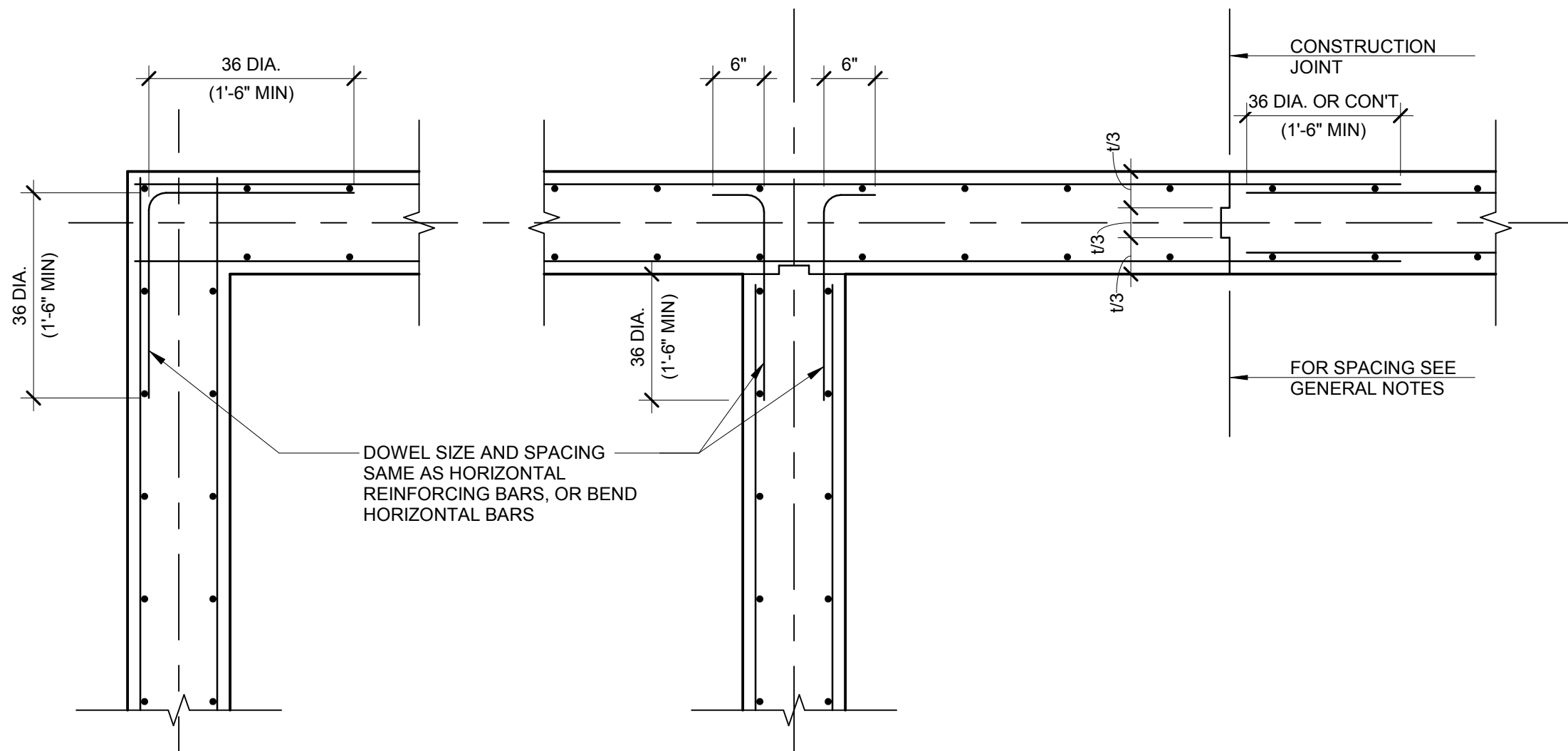


**1 TYPICAL SLAB-ON-GRADE DETAIL**  
SCALE: 1" = 1'-0"

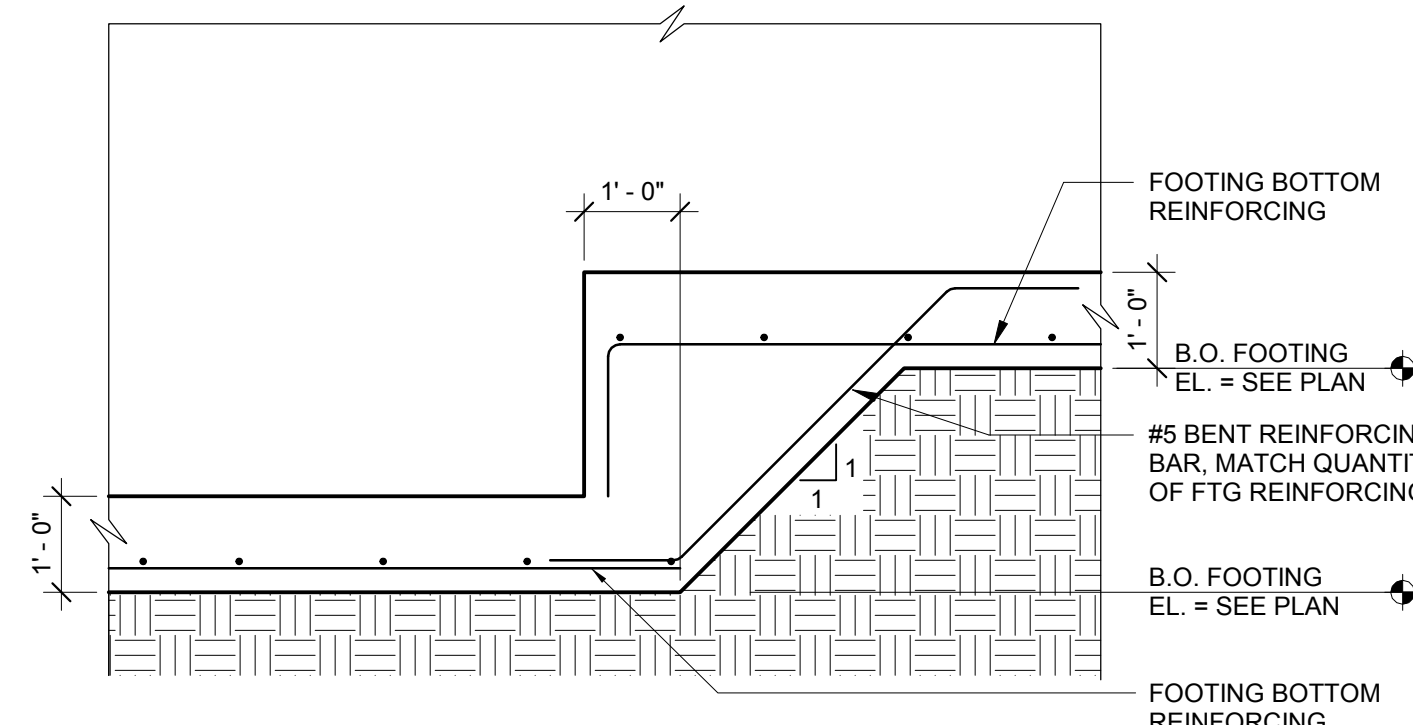
**2 TYPICAL SLAB-ON-GRADE DETAIL**  
SCALE: 1" = 1'-0"



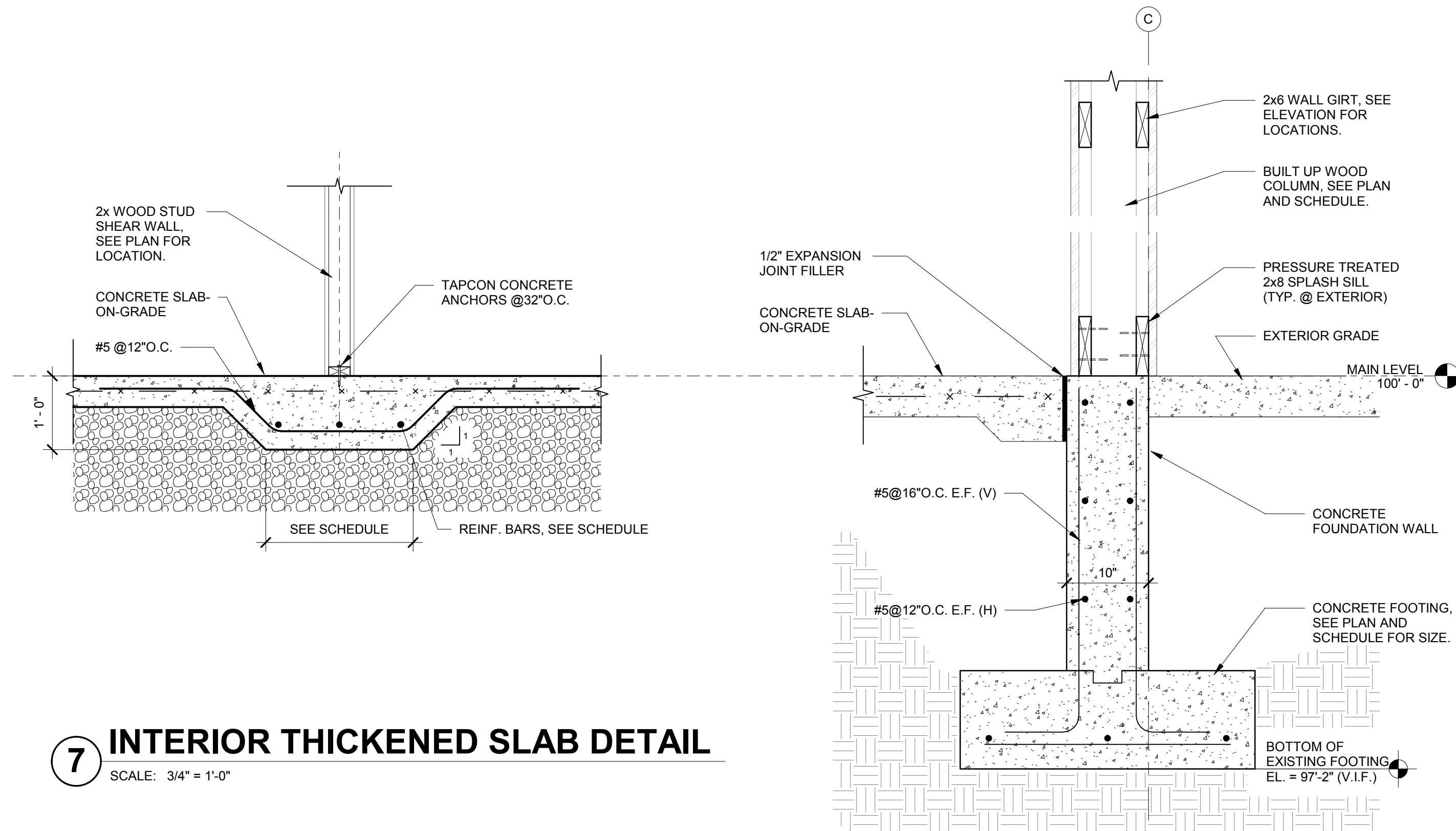
**3 CONCRETE STOOP FOUNDATION**  
SCALE: 3/4" = 1'-0"



**5 TYP. CONC. WALL CORNER, INTERSECTION AND CONSTRUCTION JOINT DETAILS**  
SCALE: 3/4" = 1'-0"



**6 STEPPED FOOTING DETAIL**  
SCALE: 1/2" = 1'-0"



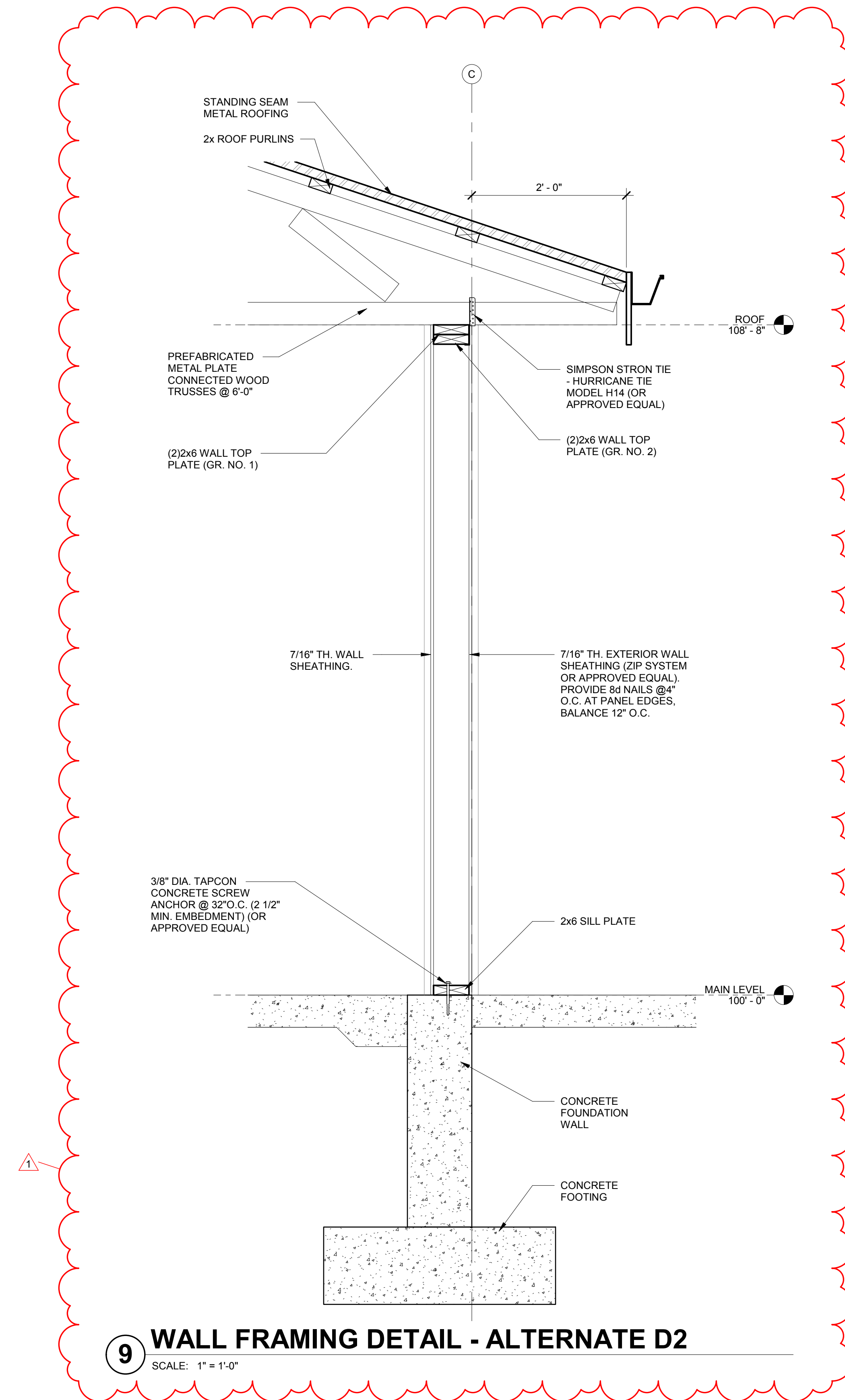
**7 INTERIOR THICKENED SLAB DETAIL**  
SCALE: 3/4" = 1'-0"

**8 TYPICAL FOUNDATION WALL DETAIL**  
SCALE: 1" = 1'-0"

FOOTING SCHEDULE						ISOLATED FTGS. $f_{bearing} = 1,500 \text{ psf}$
FOOTING MARK	WIDTH - W (FT)	LENGTH - L (FT)	THICKNESS (FT)	BOTTOM REINFORCING	TOP REINFORCING	WALL FTGS. $f_{bearing} = 1,200 \text{ psf}$
WF1.0	2'-6"	-	1'-0"	(4)#5 CONT (LONG.) #5 @ 12" O.C. (TRANS.)	-	
WF2.0	3'-0"	-	1'-0"	(4)#6 CONT (LONG.) #6 @ 12" O.C. (TRANS.)	-	

GENERAL FOOTING NOTES:  
1. ADD 6" TO WIDTH AND LENGTH OF FOOTING IF BANK POURING FOOTING. SIZE INDICATED ABOVE IS FOR DESIGN PURPOSES.  
2. BOTTOM OF FOOTING ELEVATIONS NOTED ABOVE ARE UNLESS OTHERWISE NOTED ON FOUNDATION PLANS OR DETAILS.

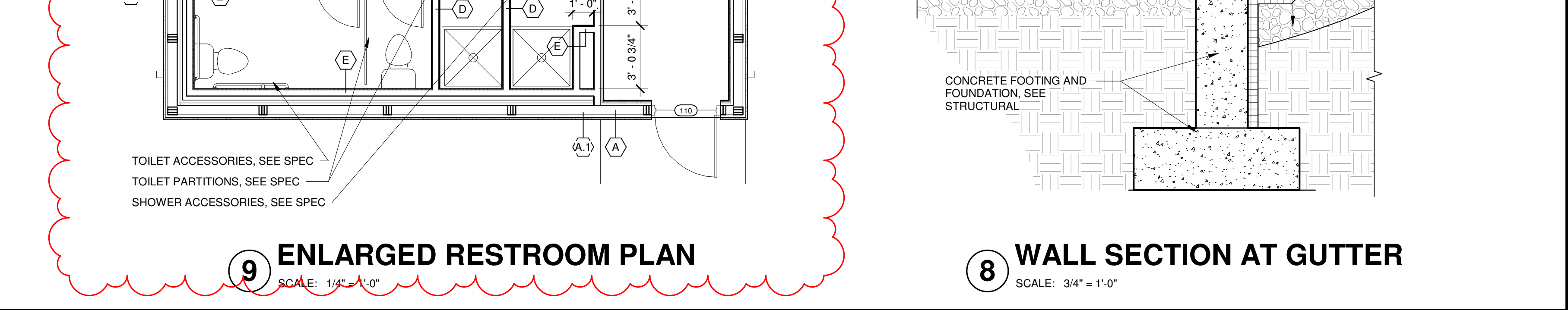
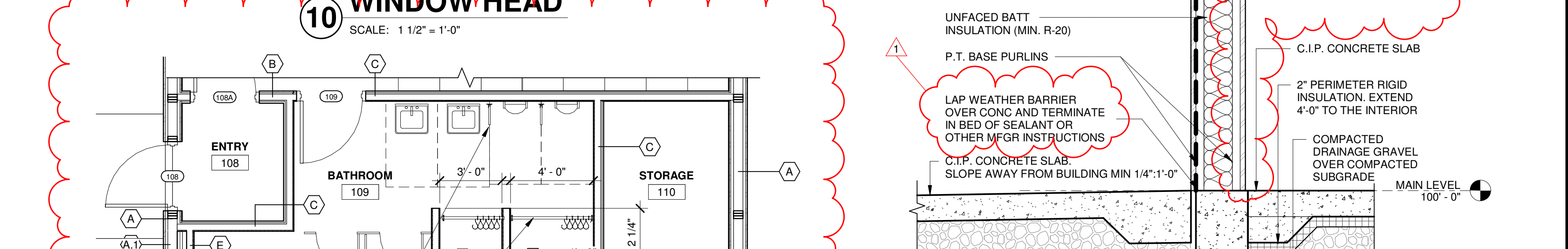
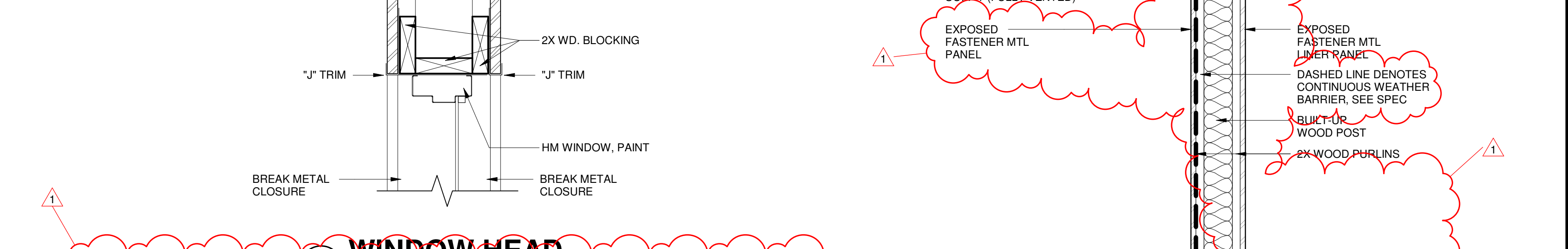
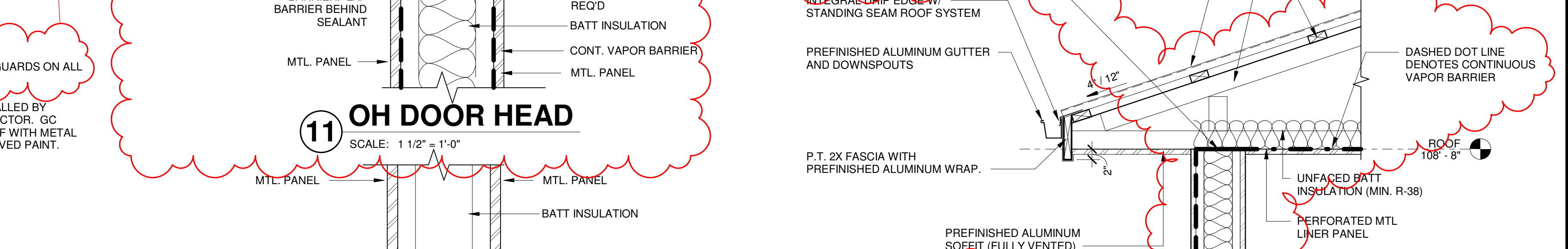
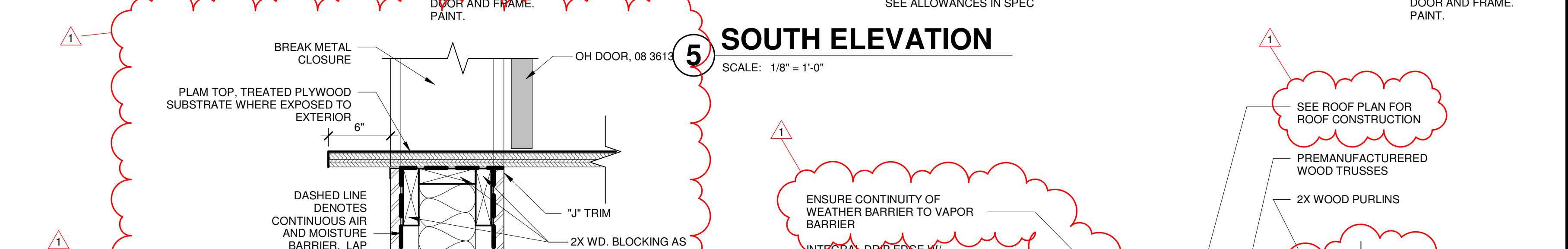
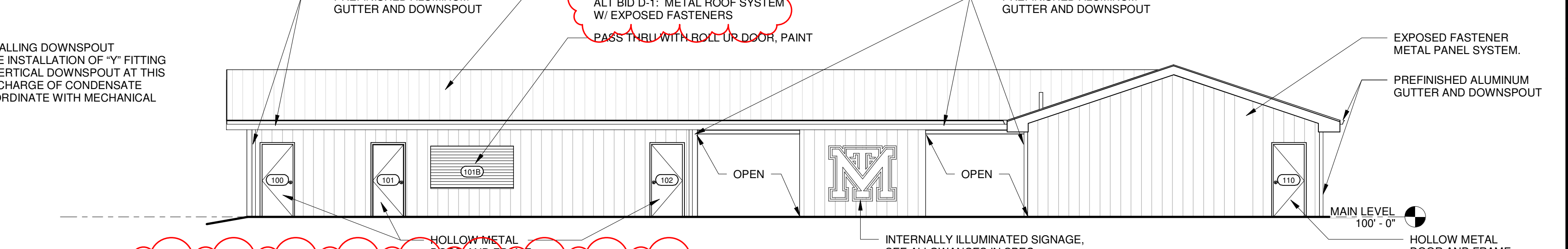
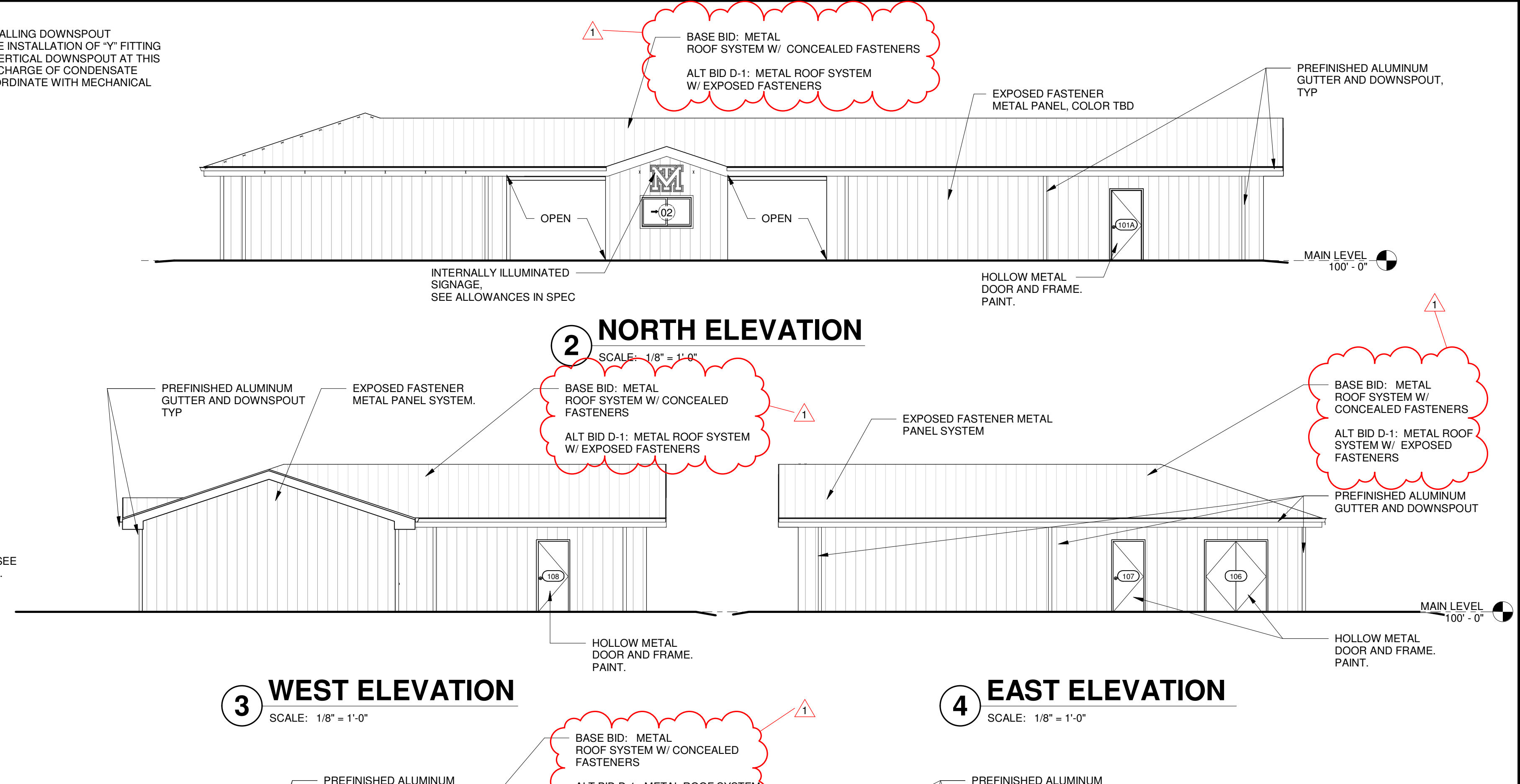
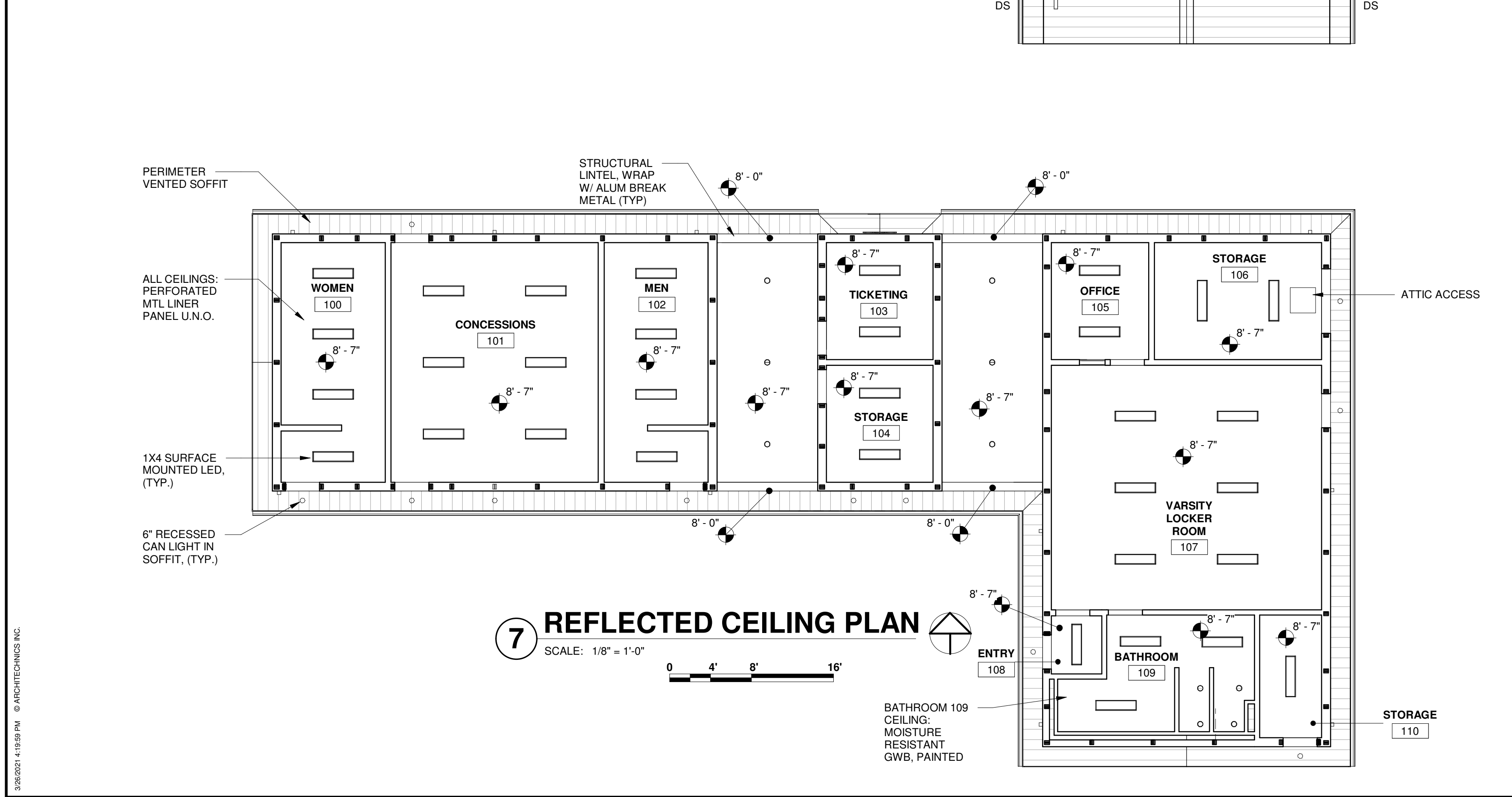
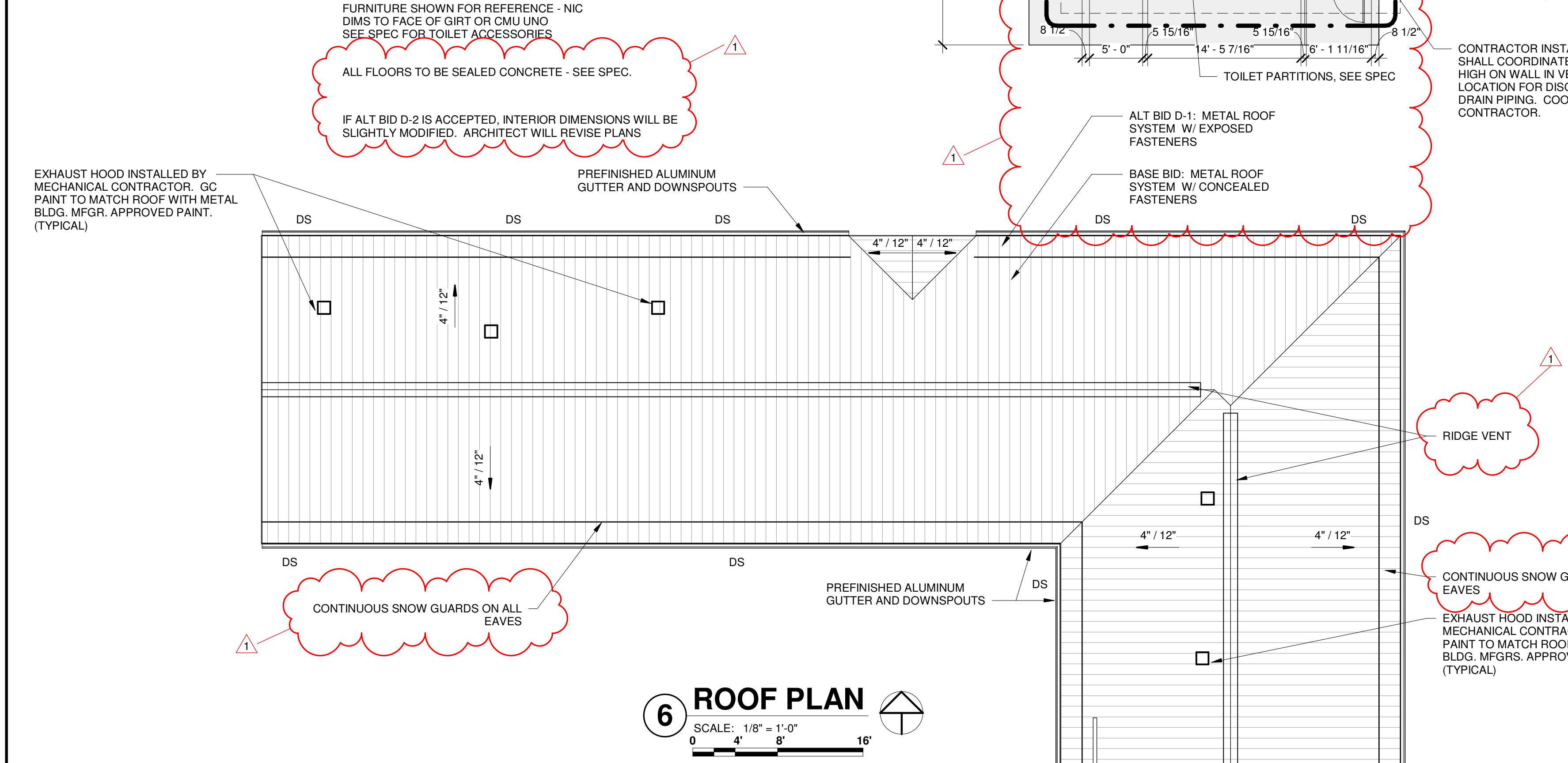
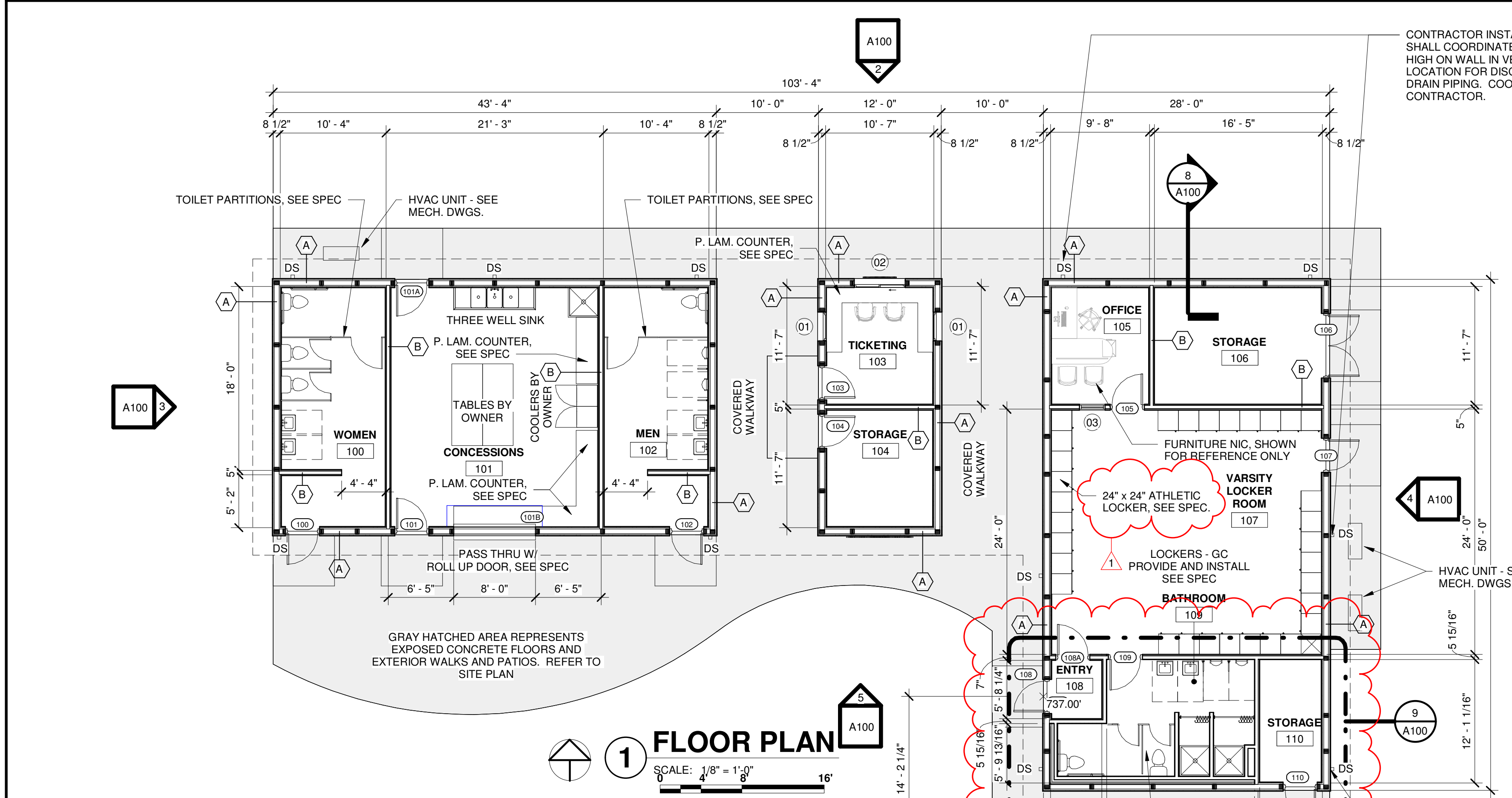
**4 FOOTING SCHEDULE**  
SCALE: 1" = 1'-0"



**9 WALL FRAMING DETAIL - ALTERNATE D2**  
SCALE: 1" = 1'-0"

NO.	Date	Description
1	3/26/21	ADD: 01





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RALLS COUNTY R-II SCHOOL DISTRICT

NEW FIELD BUILDING

21622 HIGHWAY 19 CENTER, MO 63436

BIDDING PHASE

NOT FOR CONSTRUCTION

ISSUE DATE: 03/05/21

REVISIONS

NO.	Date	Description
1	3/26/21	ADD: 01

PROJECT NUMBER: 6003B

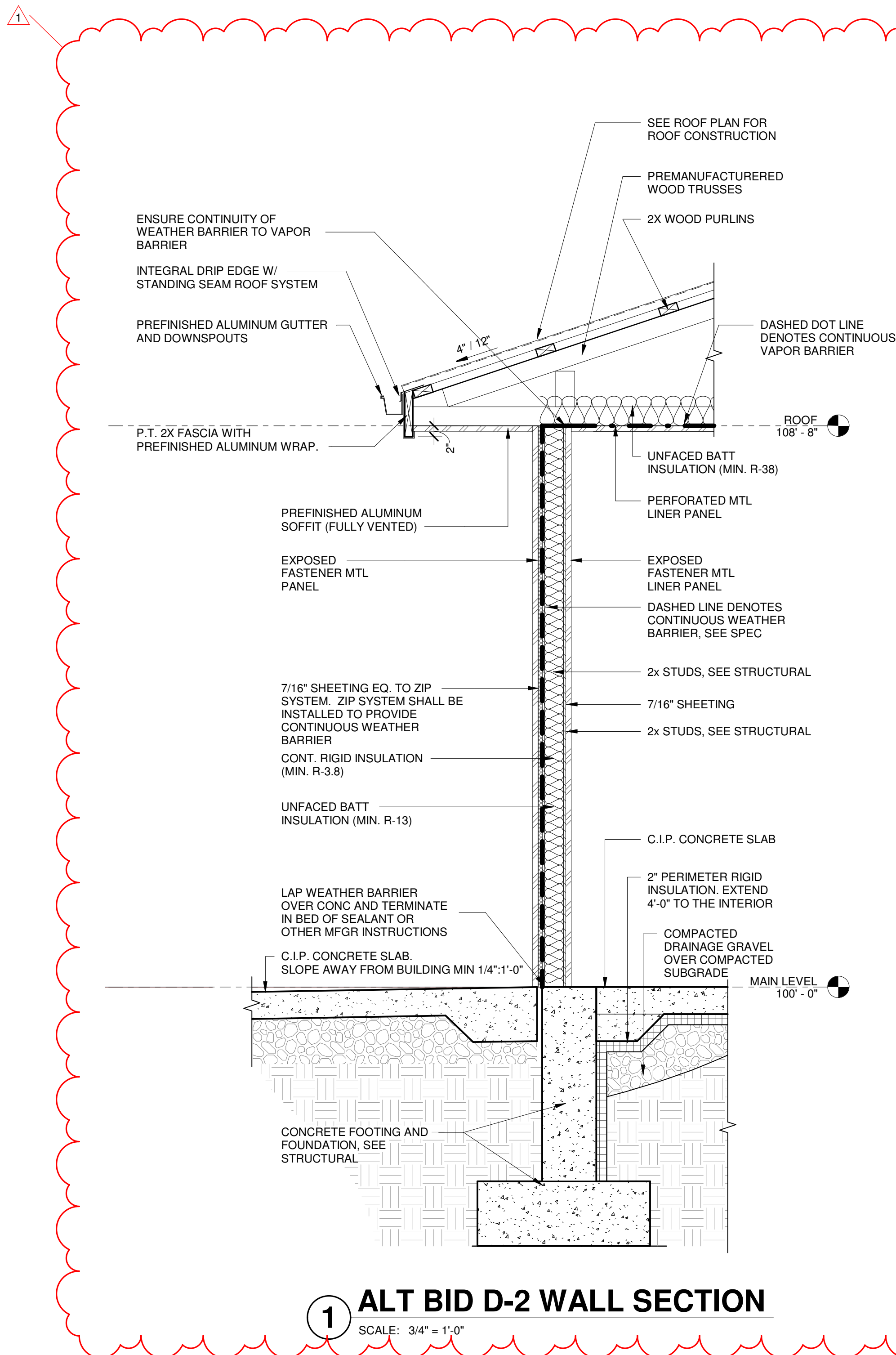
PLANS, ELEVATIONS AND DETAILS

DWG. NO.

A100



3/26/2021 2:10:00 PM ARCHITECTONICS INC.



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RALLS COUNTY R-II SCHOOL DISTRICT  
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NO.	Date	Description
1	3/26/21	ADD: 01

PROJECT NUMBER: 60036

ALT BID D-2  
DETAILS

DWG. NO.

A101

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SCHOOL DISTRICT  
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CENTER, MO 63436

RALLS COUNTY R-II SCHOOL DISTRICT  
**NEW FIELD BUILDING**

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CONSTRUCTION

ISSUE DATE: 03/5/2021

REVISIONS

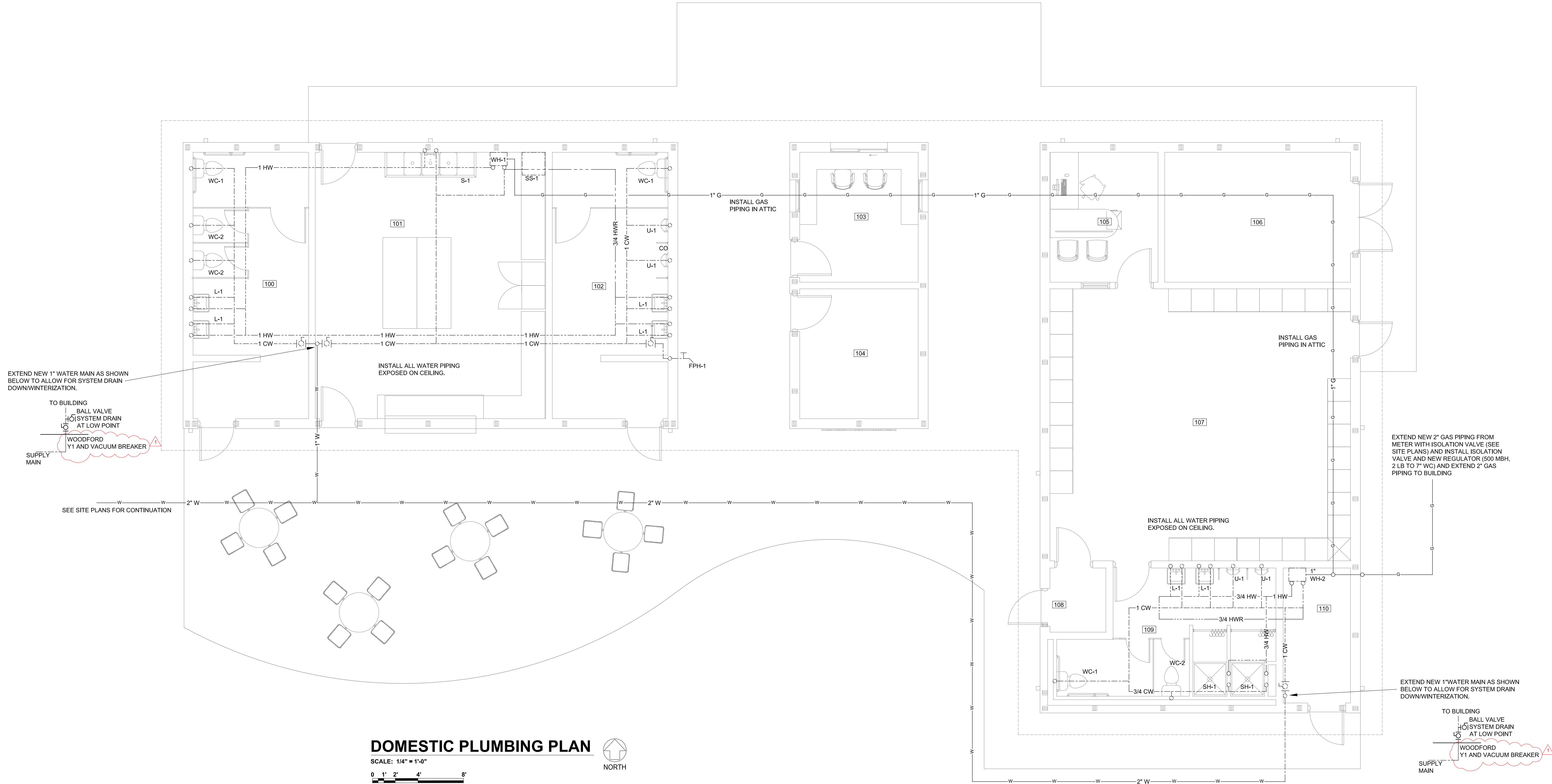
NO.	Date	Description
1	3/28/21	ADD, 01

PROJECT NUMBER: 6003B

**DOMESTIC  
PLUMBING  
PLAN**

DWG. NO.

**P200**



**DOMESTIC PLUMBING PLAN**

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 8'



NORTH



AG BUILDING ADDITION

RALLS COUNTY R-II SCHOOL DISTRICT

21622 HIGHWAY 19  
CENTER, MO 63436

ISSUED FOR BIDDING  
03/05/2021

ARCHITECT OF RECORD:

ARCHITECHNICS  
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CONTACT PERSON: JACQUES REYNOLDS  
PROJECT NO. 5730  
STATE OF MISSOURI  
ENGINEERING DESIGN FIRM 2014009673  
ARCHITECTURAL DESIGN FIRM 2014009673

APPLICABLE CODES

INTERNATIONAL BUILDING CODE 2015

GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS.
- ANY DISCREPANCIES BETWEEN STATED AND EXISTING CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT.
- DISCREPANCIES OR CONFLICTS BETWEEN SPECIFICATIONS AND DRAWINGS SHALL BE MADE KNOWN TO THE ARCHITECT FOR CLARIFICATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THOSE AREAS TO REMAIN UNDISTURBED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS, AS PER THE WRITTEN SPECIFICATIONS, TO MAINTAIN SAFETY AT THE CONSTRUCTION SITE, AND HE IS SOLELY RESPONSIBLE FOR SAFETY MEASURES. THE CONTRACTOR IS ALSO SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND TECHNIQUES REGARDING EXECUTION OF THE WORK.
- THE CONTRACTOR SHALL CONFORM TO ALL LOCAL AND STATE CODES AND RECEIVE LOCAL AND STATE APPROVAL WHERE NECESSARY PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS AND PAY ALL LEGAL FEES. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY, AND STATE BUILDING LAWS, ORDINANCES, OR REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, CAUSED BY HIMSELF, HIS SUBCONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
- THE CONTRACTOR MUST UNDERSTAND THAT THE WORK IS ENTIRELY AT HIS RISK UNTIL SAME IS ACCEPTED, AND HE WILL BE HELD RESPONSIBLE FOR ITS SAFETY.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY TEMPORARY MEASURES FOR THE PROTECTION OF THE WORK, INCLUDING BARRICADES, WARNING SIGNS, LIGHTS, ETC.

ALTERNATES

- ALTERNATE BID E-1: PROVIDE EXPOSED FASTENER METAL ROOFING SYSTEM IN LIEU OF STANDING SEAM METAL.
- ALTERNATE BID E-2: PROVIDE AND INSTALL AIR CONDITIONING FOR EXISTING SHOP.
- ALTERNATE BID E-3: PROVIDE AND INSTALL AIR CONDITIONING FOR NEW SHOP.
- ALTERNATE BID E-4: PROVIDE CONVENTIONAL STICK FRAMED CONSTRUCTION IN LIEU OF PRE-ENGINEERED WOOD FRAMED CONSTRUCTION.

WALL / PARTITION TYPES		
EXTERIOR		NOTES:  <

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E101	HVAC POWER PLAN
E200	ELECTRICAL LIGHTING PLAN

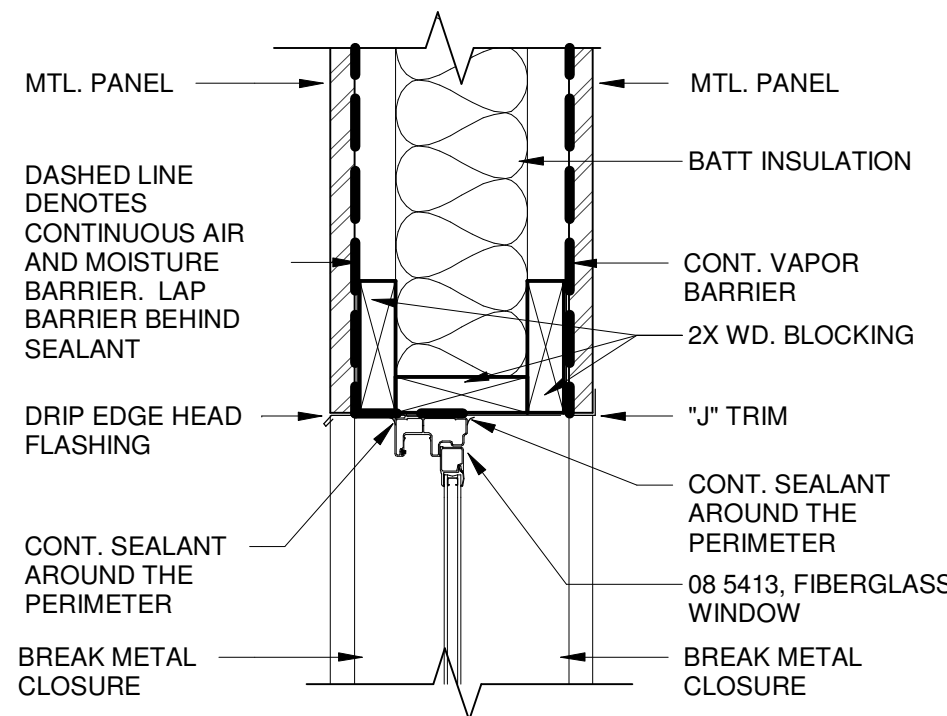


4 STATE OF MISSOURI  
SCALE: 12" = 1'-0"

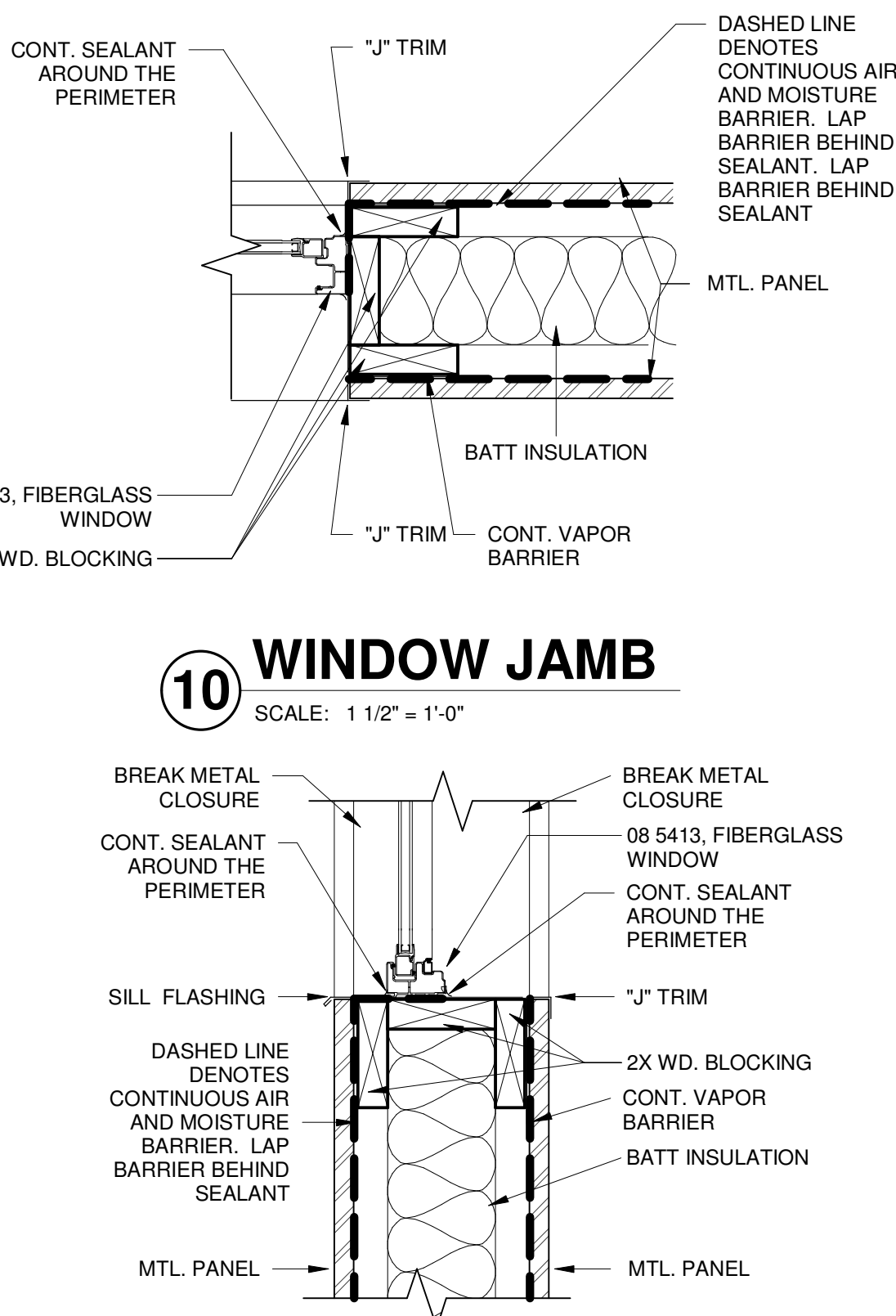


AERIAL PHOTO

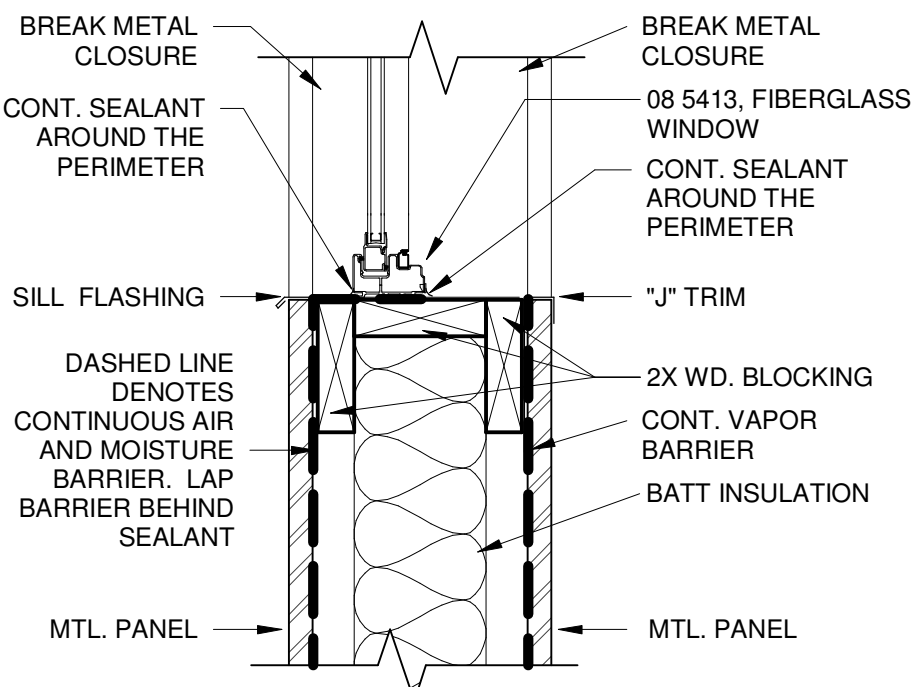
AREA OF WORK



9 WINDOW HEAD  
SCALE: 1 1/2" = 1'-0"

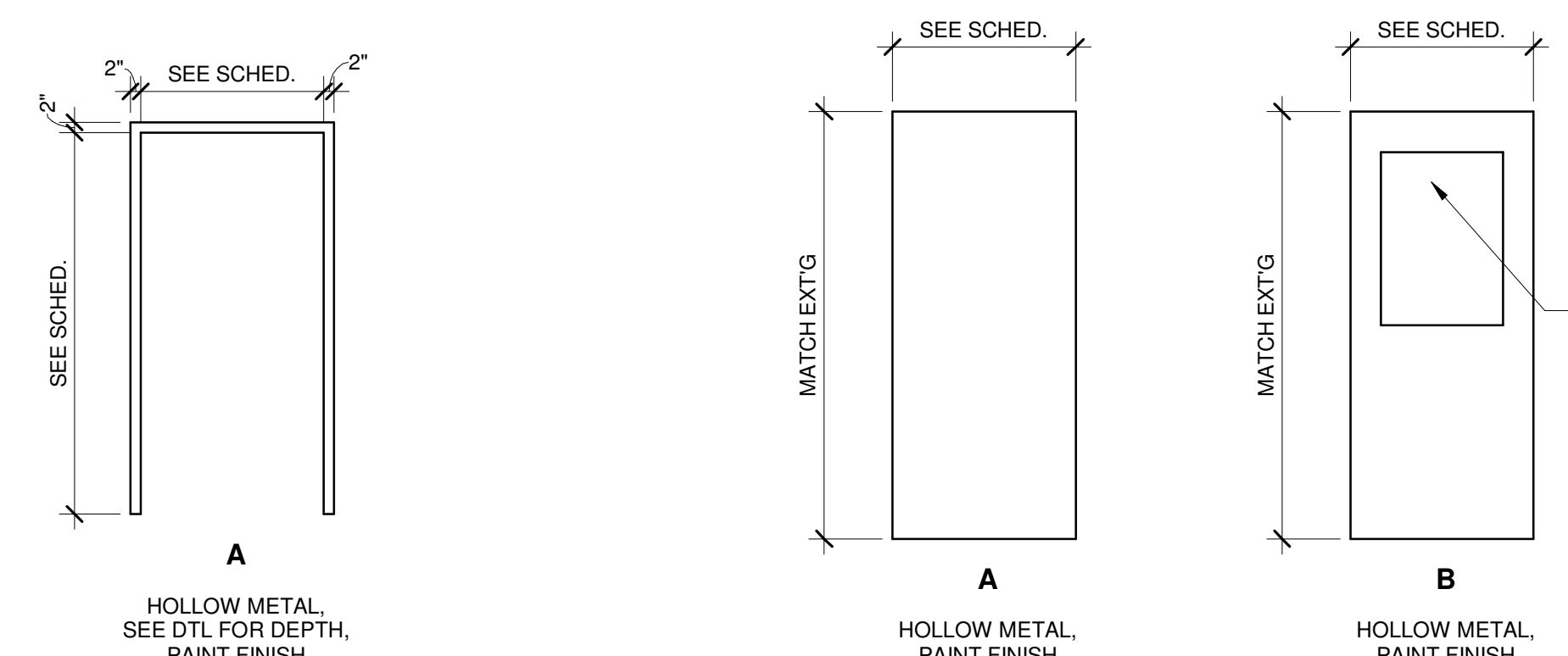


10 WINDOW JAMB  
SCALE: 1 1/2" = 1'-0"



11 WINDOW SILL DETAIL  
SCALE: 1 1/2" = 1'-0"

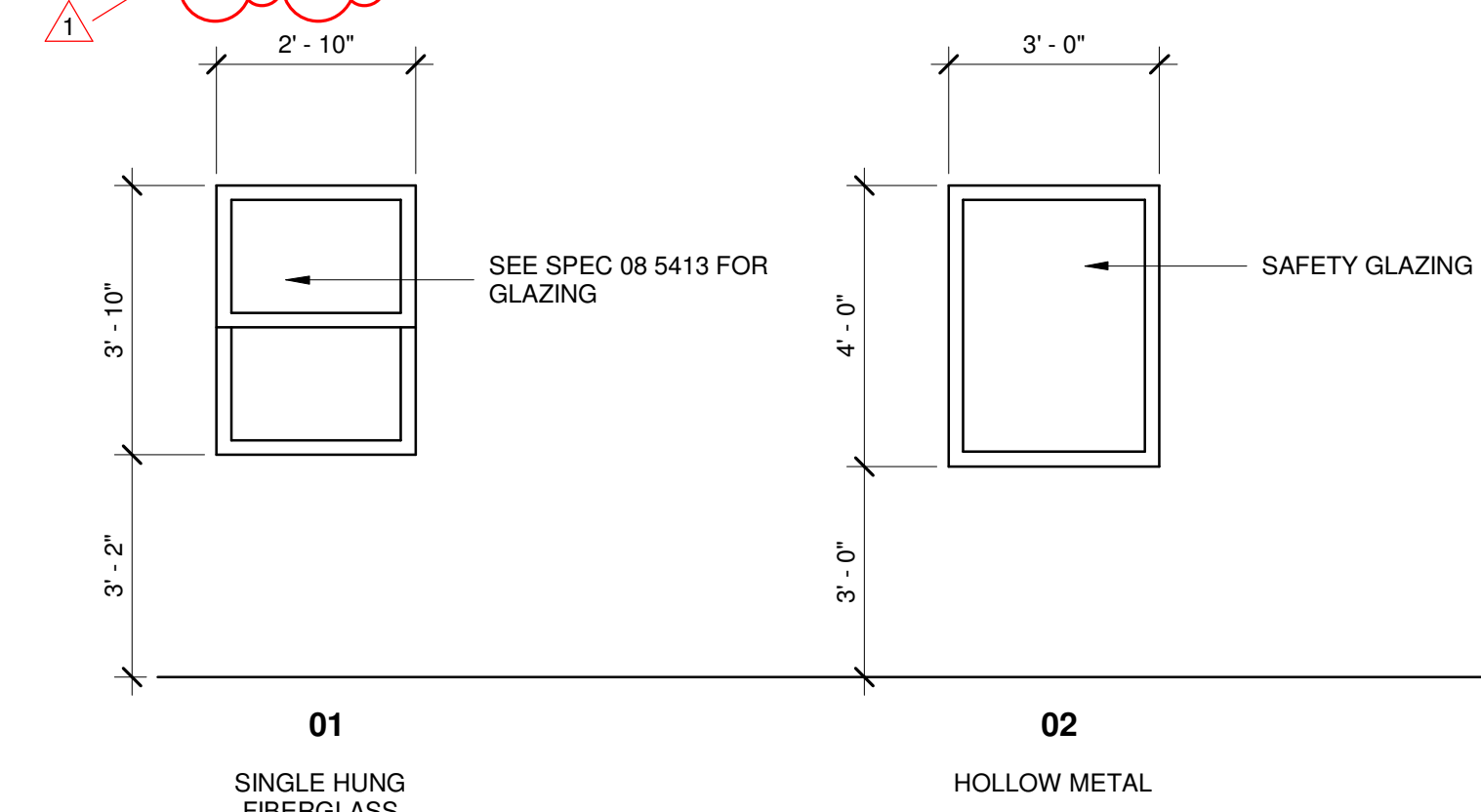
DOOR SCHEDULE													
WT	SIZE			DOOR			FRAME				THRESHOLD	HDWE. GROUP	REMARKS
	W.	HT.	TH.	MAT'L	FIN.	TYPE	MAT'L	FIN.	TYPE	HEAD	JAMB		
100	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC	01
100A	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC	01
100B	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	02
101	6'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	04
102	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	02
103	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	02
103A	6'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	02
104	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	03
105	3'-0"	7'-0"	1 3/4"	HM	PAINT	2A/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	04
106	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC	02
106A	9'-0"	10'-0"	2"	SEE SPEC	PREFIN	SEE ELEV	BY MFG	BY MFG	7/G000	8/G000	N/A	SEE SPEC	
106B	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	SEE SPEC	01
106C	3'-0"	7'-0"	1 3/4"	HM	PAINT	2B/G000	HM	PAINT	1A/G000	5/G000	6/G000	N/A	02



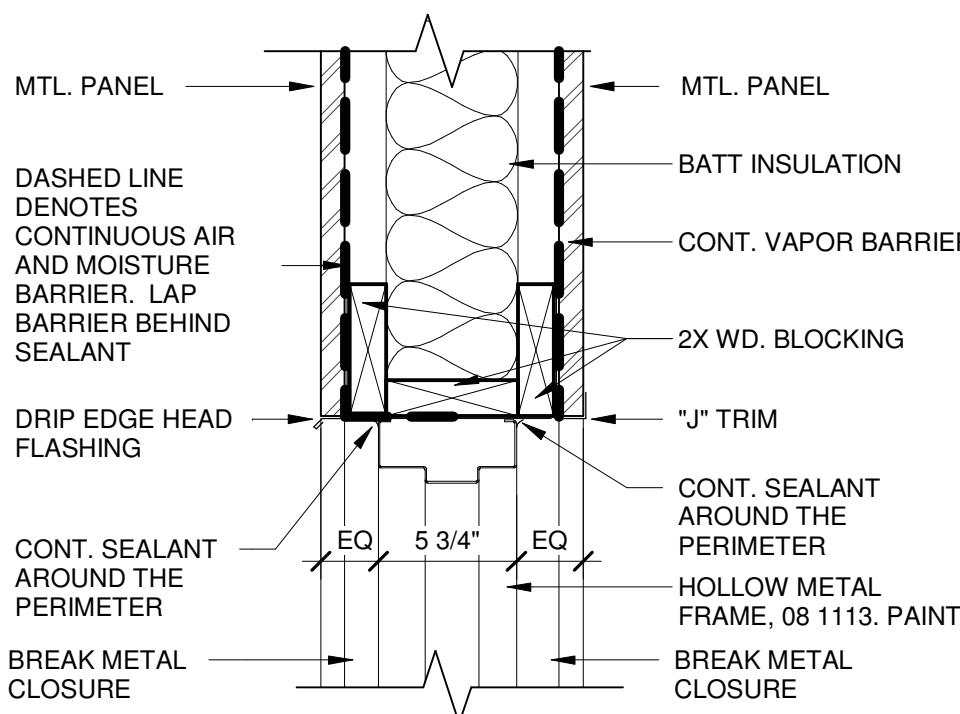
1 DOOR FRAME TYPES  
SCALE: 3/8" = 1'-0"

2 DOOR TYPES  
SCALE: 3/8" = 1'-0"

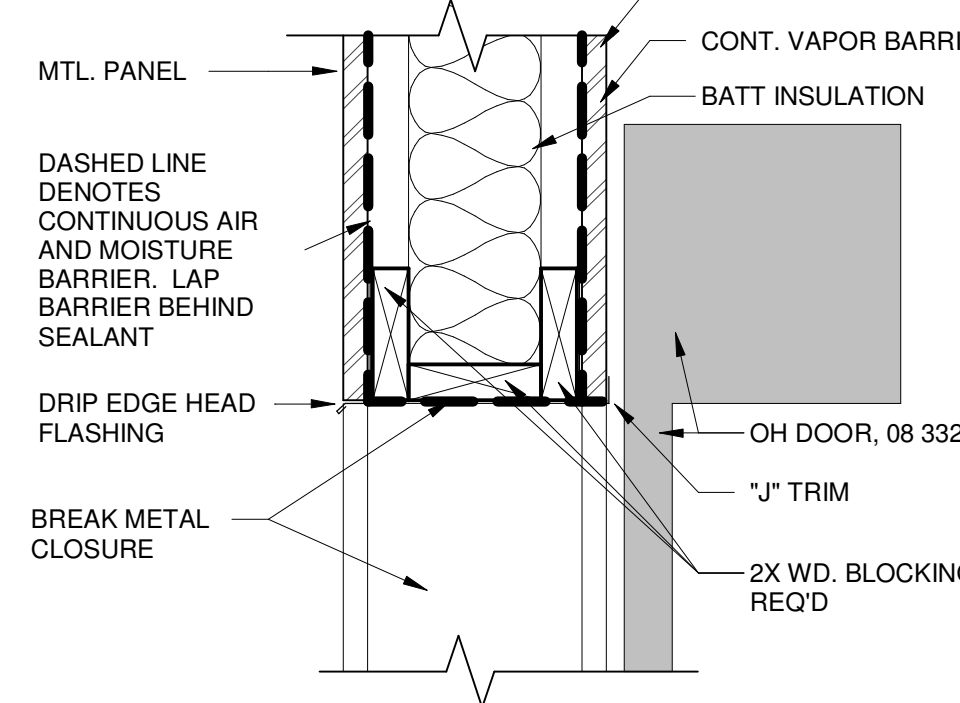
WINDOW SCHEDULE									
TYPE	R.O.		FINISH	HEAD	JAMB	SILL	Glazing		COMMENTS
	WIDTH	HEIGHT					THICKNESS	SILL HEIGHT	
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
01	2'-10"	3'-10"	PREFIN	9/G000	10/G000	11/G000	see spec 08 5413	3'-2"	7'-0"
02	3'-0"	4'-0"	PAINT	12/G000	12/G000 SIM	12/G000 SIM	see spec 08 8000	3'-2"	7'-2"
02	3'-0"	4'-0"	PAINT	12/G000	12/G000 SIM	12/G000 SIM	see spec 08 8000	3'-2"	7'-2"
02	3'-0"	4'-0"	PAINT	12/G000	12/G000 SIM	12/G000 SIM	see spec 08 8000	3'-2"	7'-2"
02	3'-0"	4'-0"	PAINT	12/G000	12/G000 SIM	12/G000 SIM	see spec 08 8000	3'-0"	7'-0"
02	3'-0"	4'-0"	PAINT	12/G000	12/G000 SIM	12/G000 SIM	see spec 08 8000	3'-0"	7'-0"



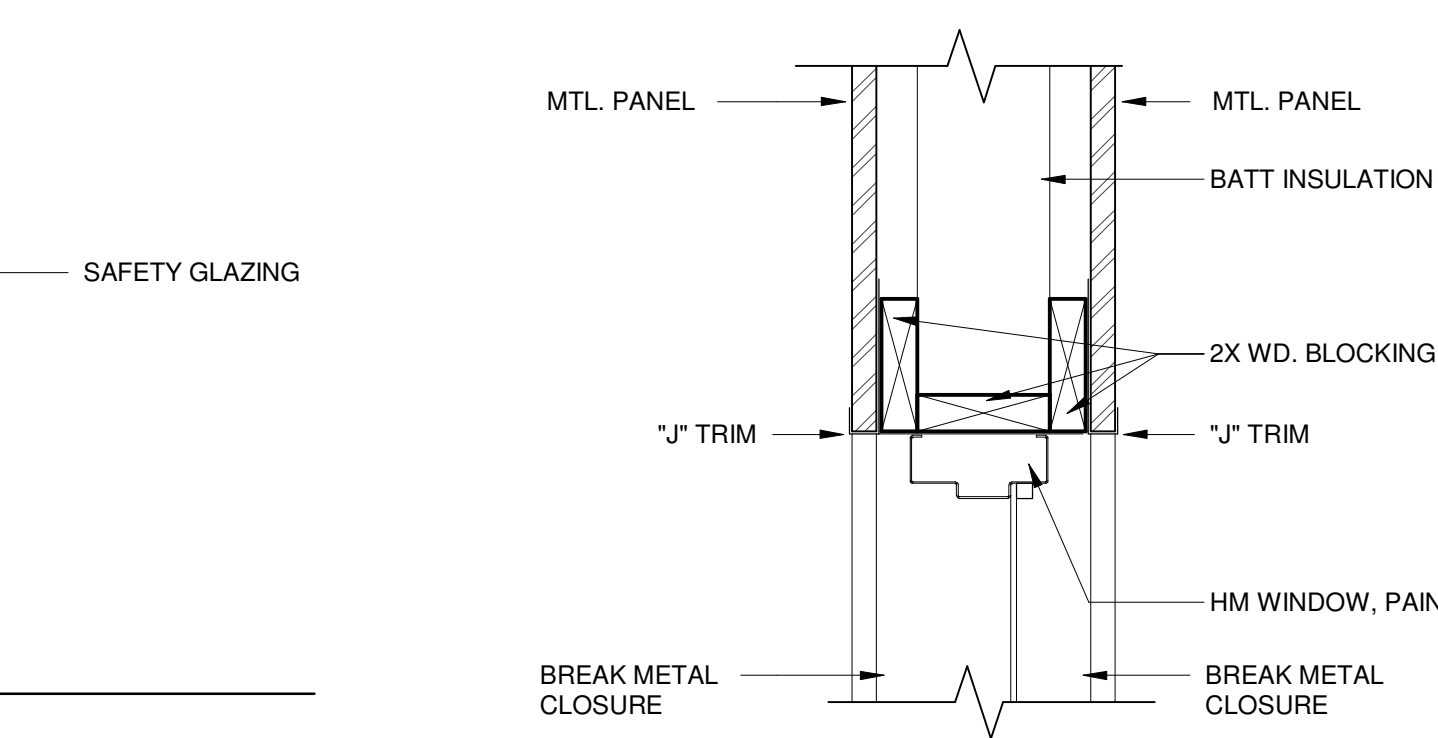
3 WINDOW TYPES  
SCALE: 3/8" = 1'-0"



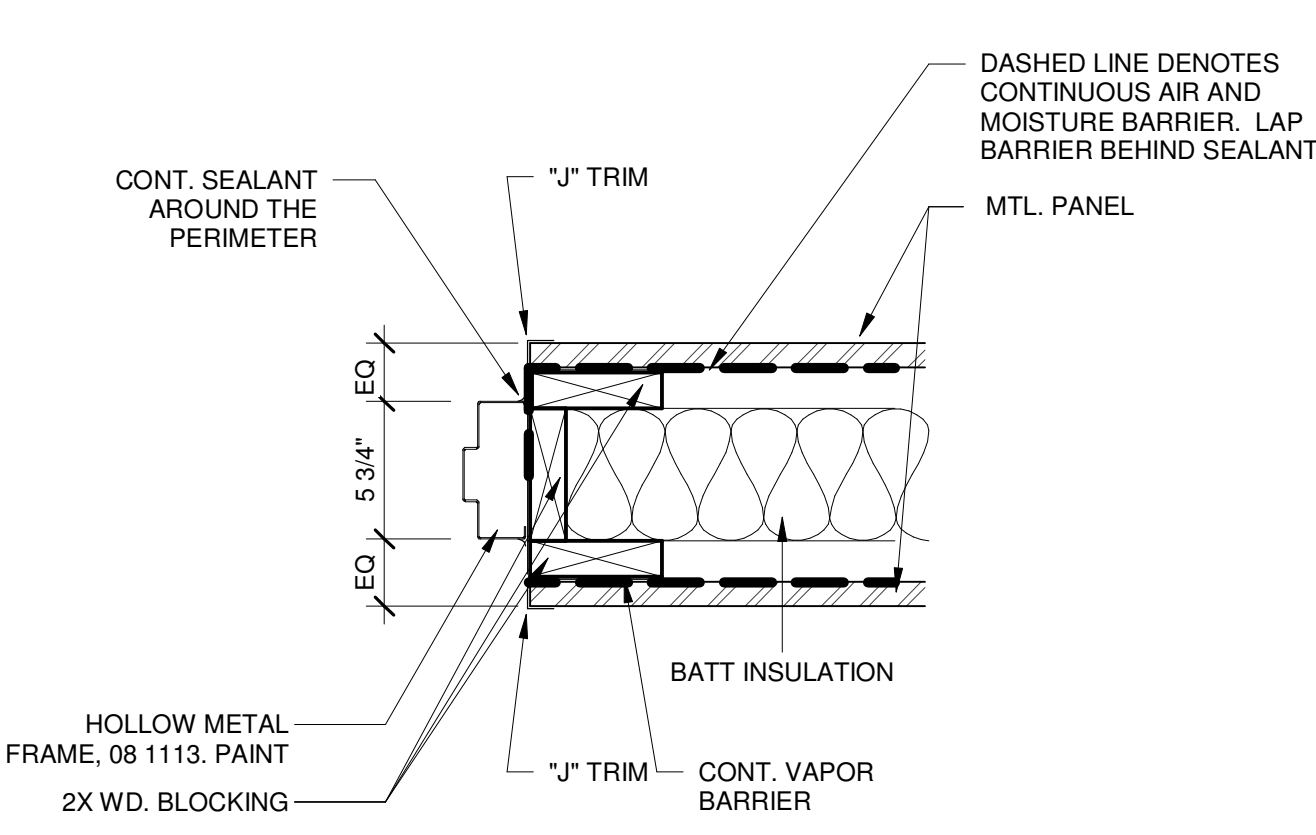
5 DOOR HEAD  
SCALE: 1 1/2" = 1'-0"



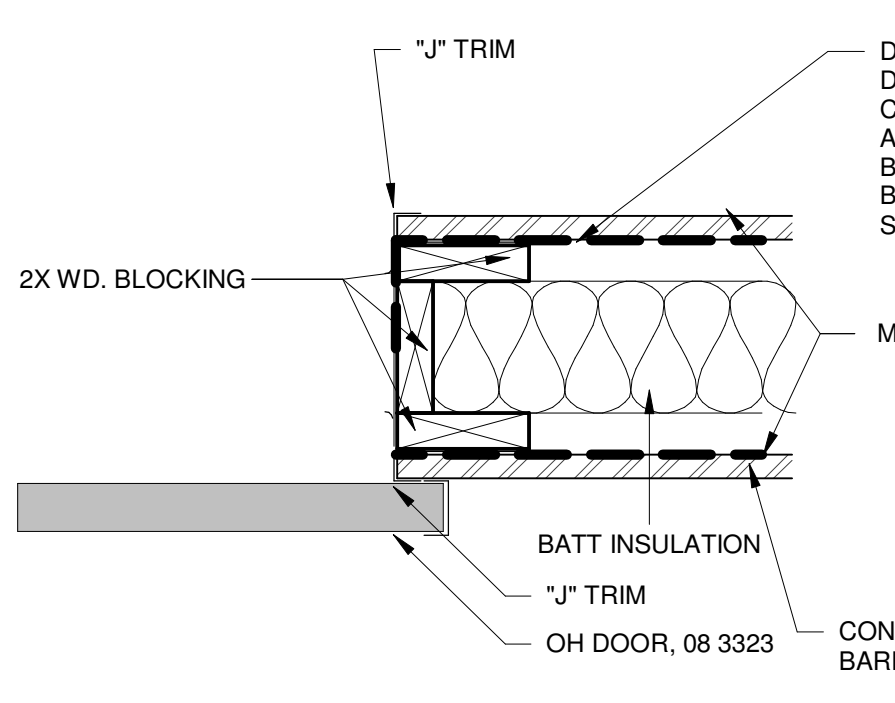
7 OH DOOR HEAD  
SCALE: 1 1/2" = 1'-0"



12 WINDOW HEAD  
SCALE: 1 1/2" = 1'-0"



6 DOOR JAMB  
SCALE: 1 1/2" = 1'-0"



8 OH DOOR JAMB  
SCALE: 1 1/2" = 1'-0"

ARCHITECHNICS  
architects • engineers • interior designers

OWNER:  
RALLS COUNTY R-II  
SCHOOL DISTRICT  
21622 HIGHWAY 19  
CENTER, MO 63436



RALLS COUNTY R-II SCHOOL DISTRICT  
AG BUILDING ADDITION

21622 HIGHWAY 19  
CENTER, MO 63436

BIDDING PHASE

NOT FOR CONSTRUCTION

ISSUE DATE: 03/05/2021

REVISIONS

NO. Date Description

1 3/26/21 ADD 01

PROJECT NUMBER: 6036

TITLE

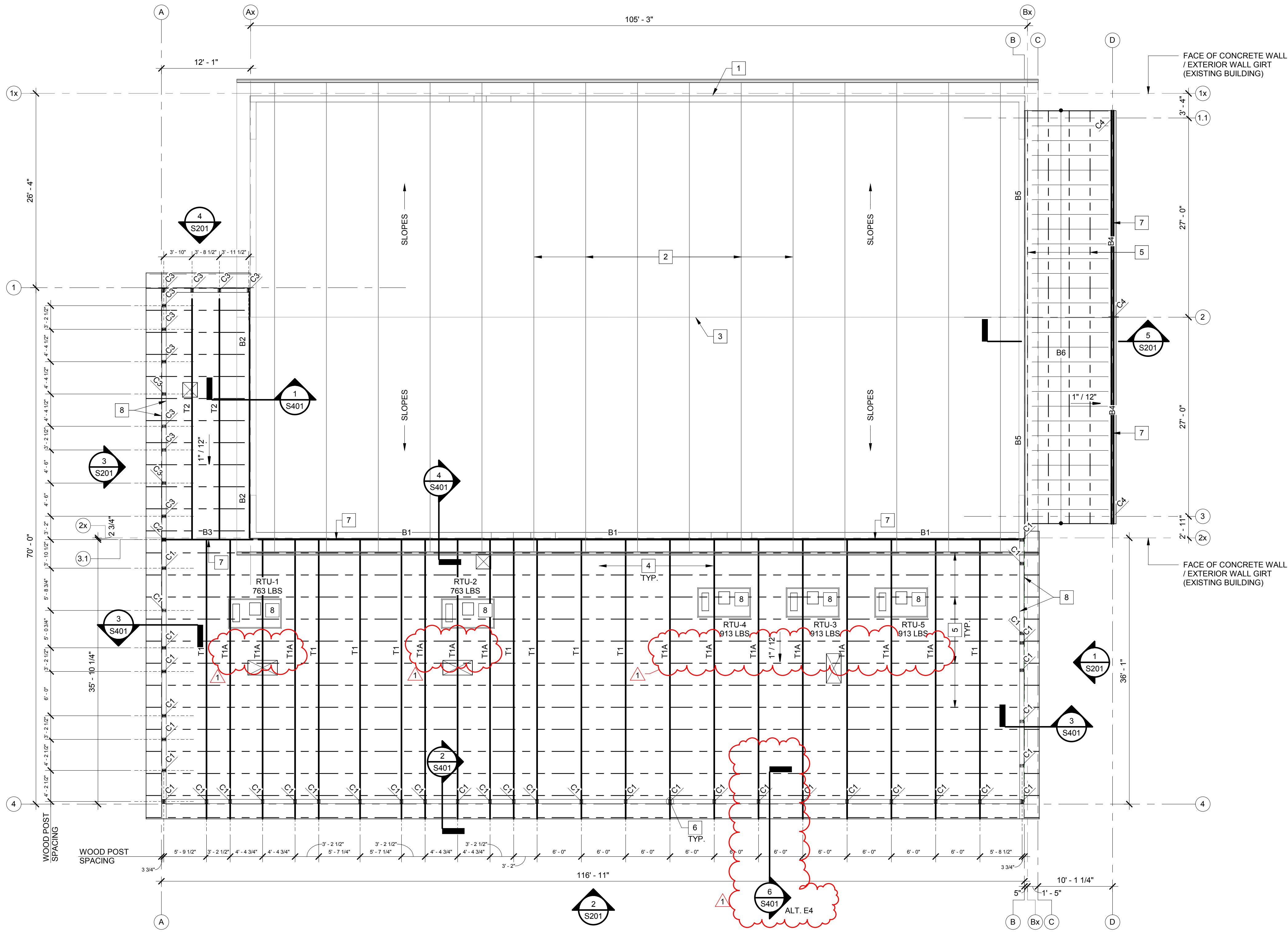
DWG. NO.

G000









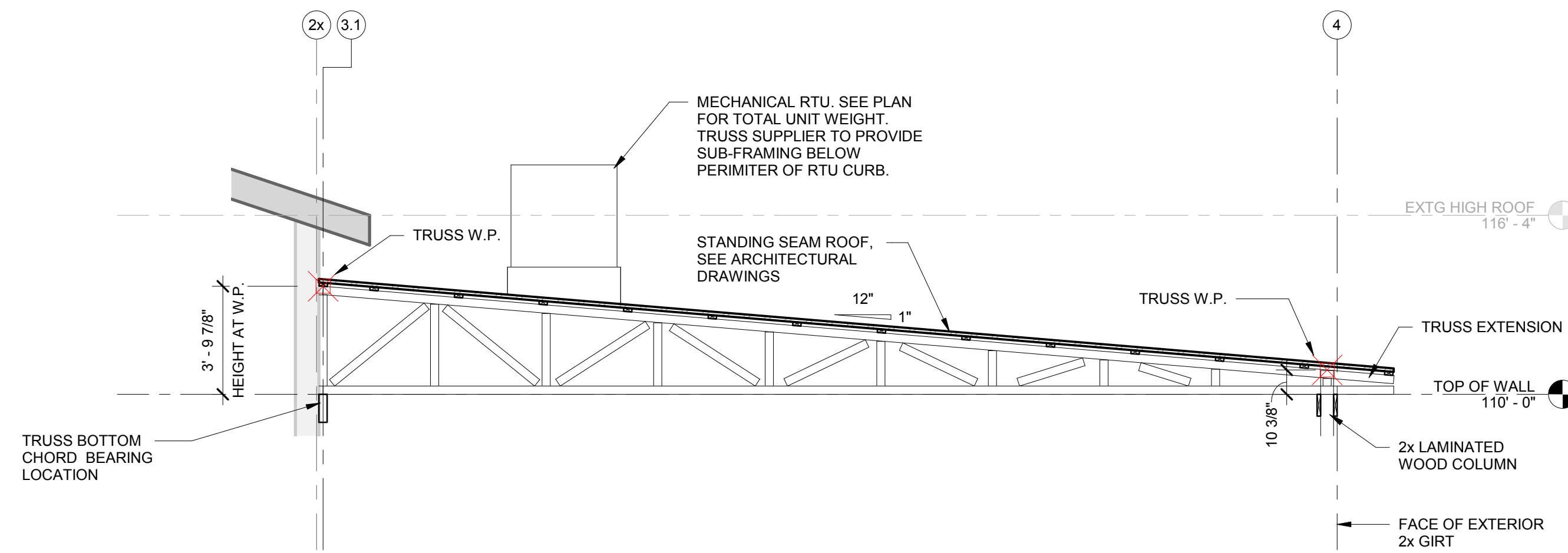
1 ROOF FRAMING PLAN  
SCALE: 1/8" = 1'-0"

KEYED NOTES STRUCTURAL - FRAMING

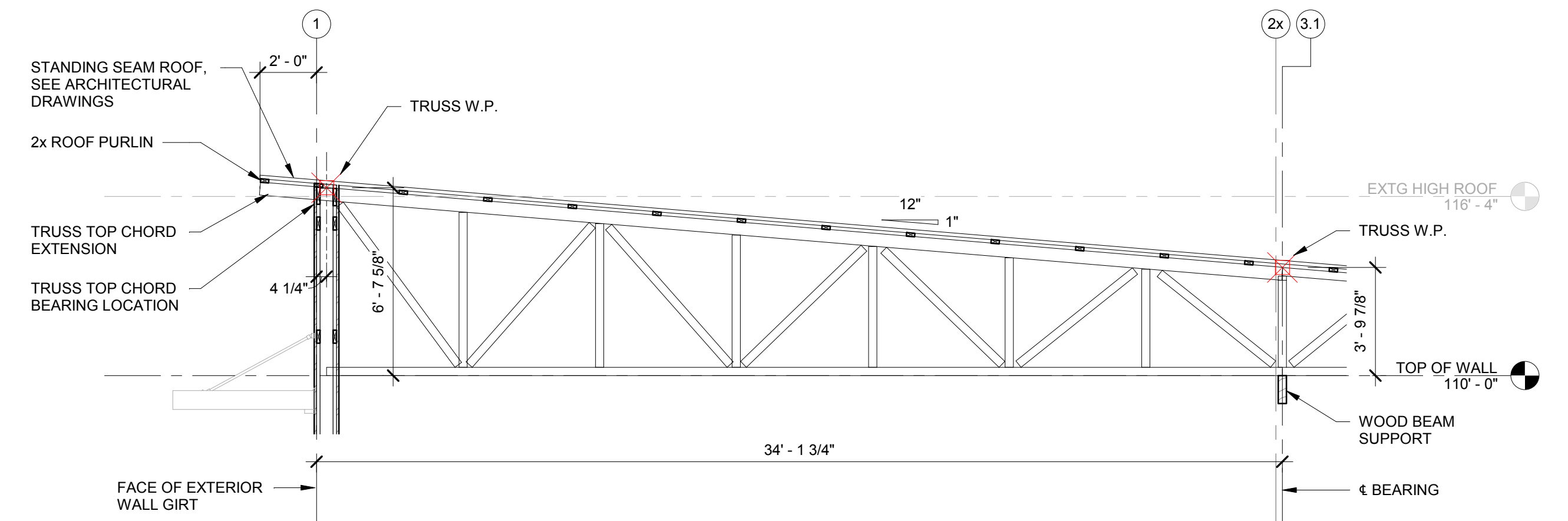
- EXISTING FRAME BUILDING STRUCTURE TO REMAIN.
- EXISTING METAL PLATE CONNECTED WOOD TRUSSES TO REMAIN.
- EXISTING ROOF RIDGE.
- NEW METAL PLATE CONNECTED WOOD TRUSSES. SEE PLAN FOR SPACING. SEE DETAILS FOR LOADING CONDITIONS.
- NEW 2x PURLIN FRAMING AT 3'-0" O.C. MAX. SPACING.
- NEW 2x LAMINATED WOOD COLUMN. FINAL DESIGN AND LOCATIONS TO BE PROVIDED BY FRAME BUILDING SUPPLIER (DELEGATED DESIGN).
- NEW WOOD BEAM FRAMING. SEE SCHEDULE FOR SIZE, ATTACHMENT AND ADDITIONAL INFORMATION.
- NEW 2x RAKE FRAMING.

GENERAL NOTES

- TX - INDICATES METAL PLATE CONNECTED WOOD TRUSS SPACED AS INDICATED ON FRAMING PLAN. TRUSS DESIGN IS A DELEGATED DESIGN BY OTHERS. SEE DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- CX - INDICATES LAMINATED DIMENSIONAL COLUMN. FINAL SIZE BY FRAME BUILDING SUPPLIER.
- Bx - INDICATES WOOD BEAM. SEE SCHEDULE FOR SIZE AND ADDITIONAL INFORMATION.
- ALT E4: WALL FRAMING TO BE 2x6 (GR. NO. 1) @ 24" O.C. TYPICAL. PROVIDE SINGLE SILL PLATE AND DOUBLE TOP PLATE FOR TRUSS AND/OR RAKE FRAMING.



2 TRUSS ELEVATION - TYPE T1  
SCALE: 1/4" = 1'-0"



3 TRUSS ELEVATION - TYPE T2  
SCALE: 1/4" = 1'-0"

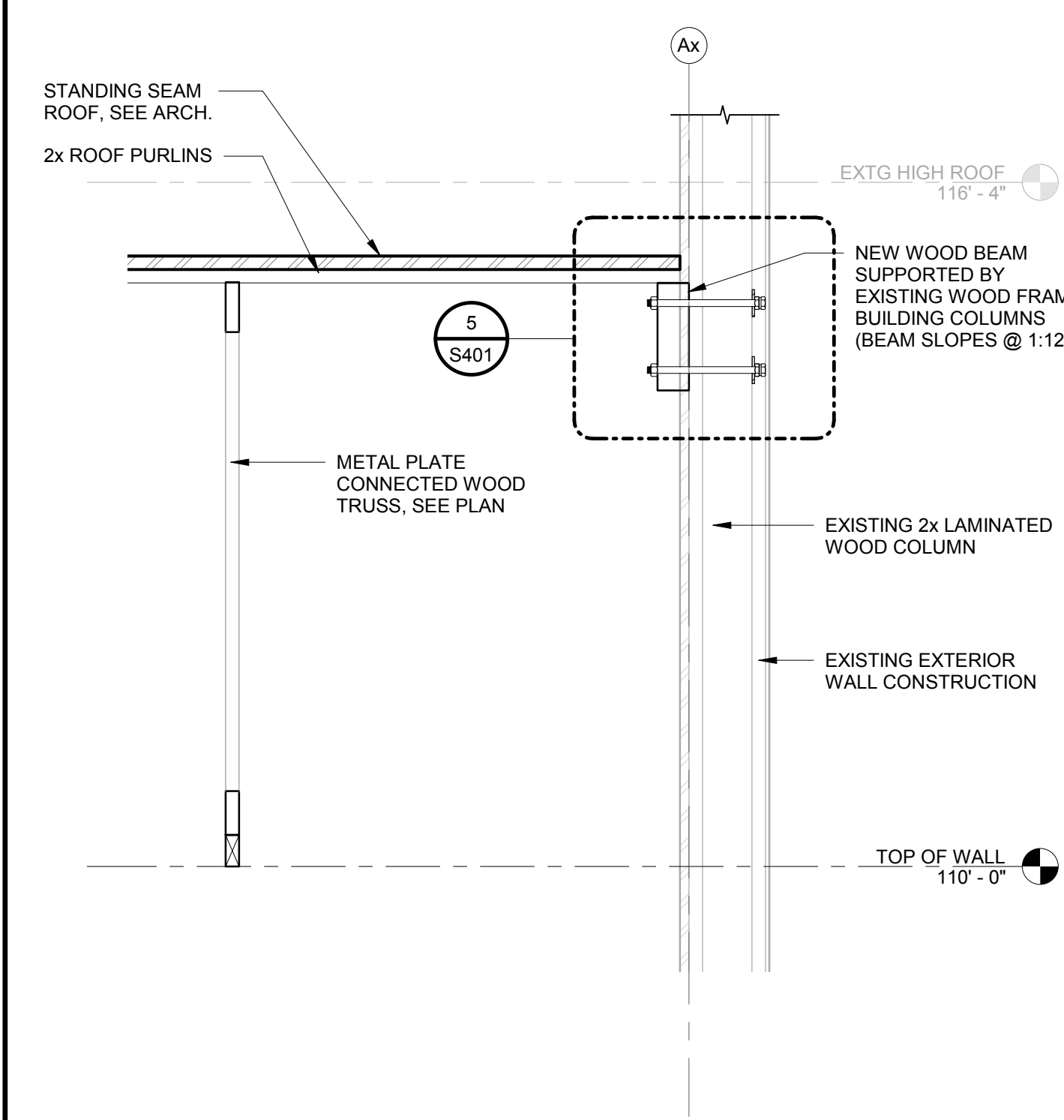
TRUSS LOADING SCHEDULE

TRUSS DESIGNATION	BOT. CHORD DL	BOT. CHORD LL	TOP CHORD DL	TOP CHORD RLL	TOP CHORD SL	TOP CHORD WL (+/-)	REMARKS
T1	8 PSF	--	10 PSF	20 PSF	20 PSF	**	SEE PLAN FOR TRUSS SPACING
T1A	8 PSF	--	10 PSF	20 PSF	20 PSF	**	SEE PLAN FOR TRUSS SPACING, SEE PLAN FOR MECHANICAL LOADING
T2	8 PSF	--	10 PSF	20 PSF	20 PSF	**	SEE PLAN FOR TRUSS SPACING

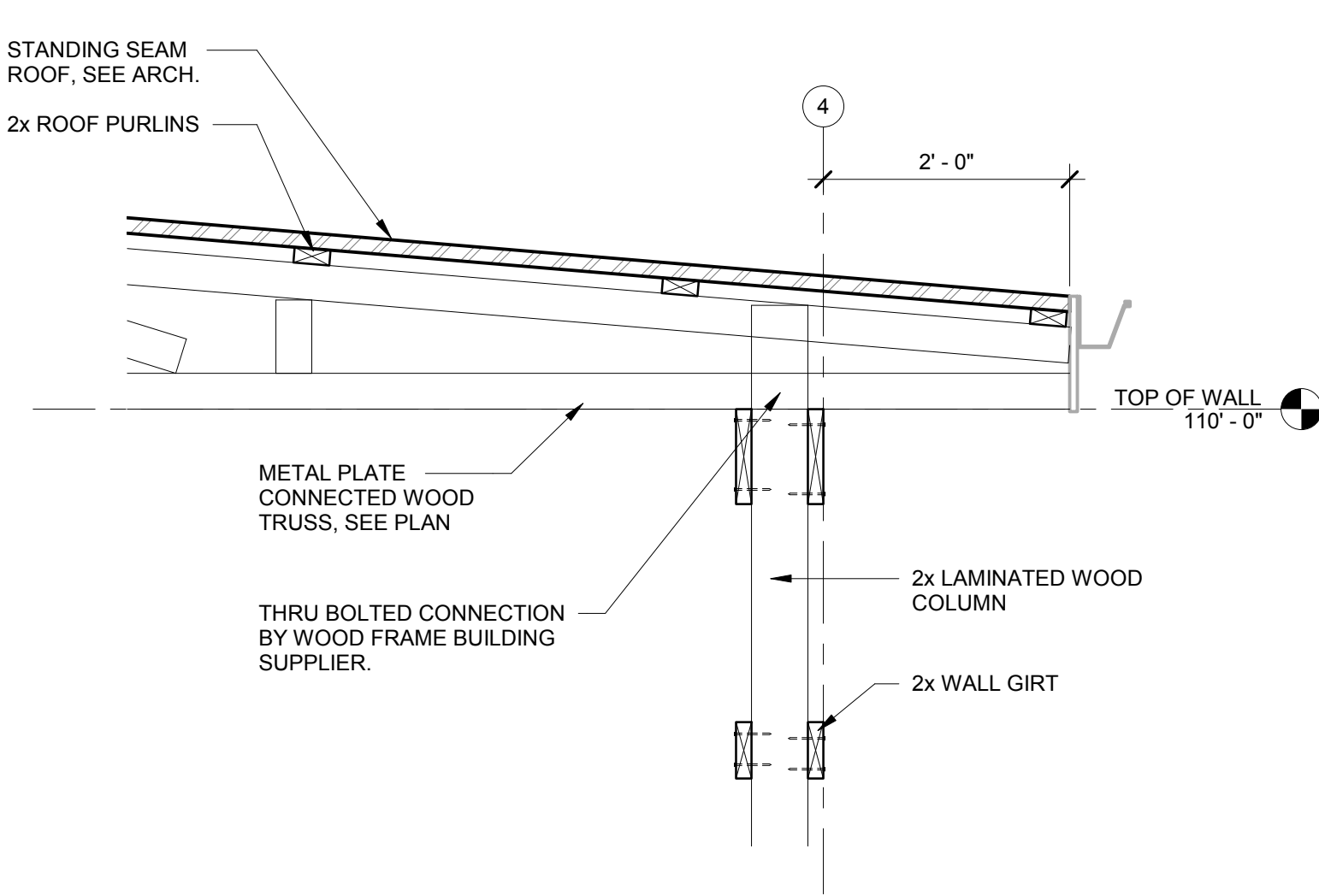
NOTES:

- \* - INDICATES TRUSS SELFWEIGHT **NOT** INCLUDED IN APPLIED DEAD LOAD. TRUSS SELFWEIGHT SHALL BE ACCOUNTED FOR BY TRUSS DESIGNER.
- \*\* - INDICATES APPLIED COMPONENT WIND LOAD. SEE WIND LOAD DIAGRAMS AND SCHEDULE FOR ADDITIONAL INFORMATION.
- SEE PLAN FOR TRUSS SPACING.

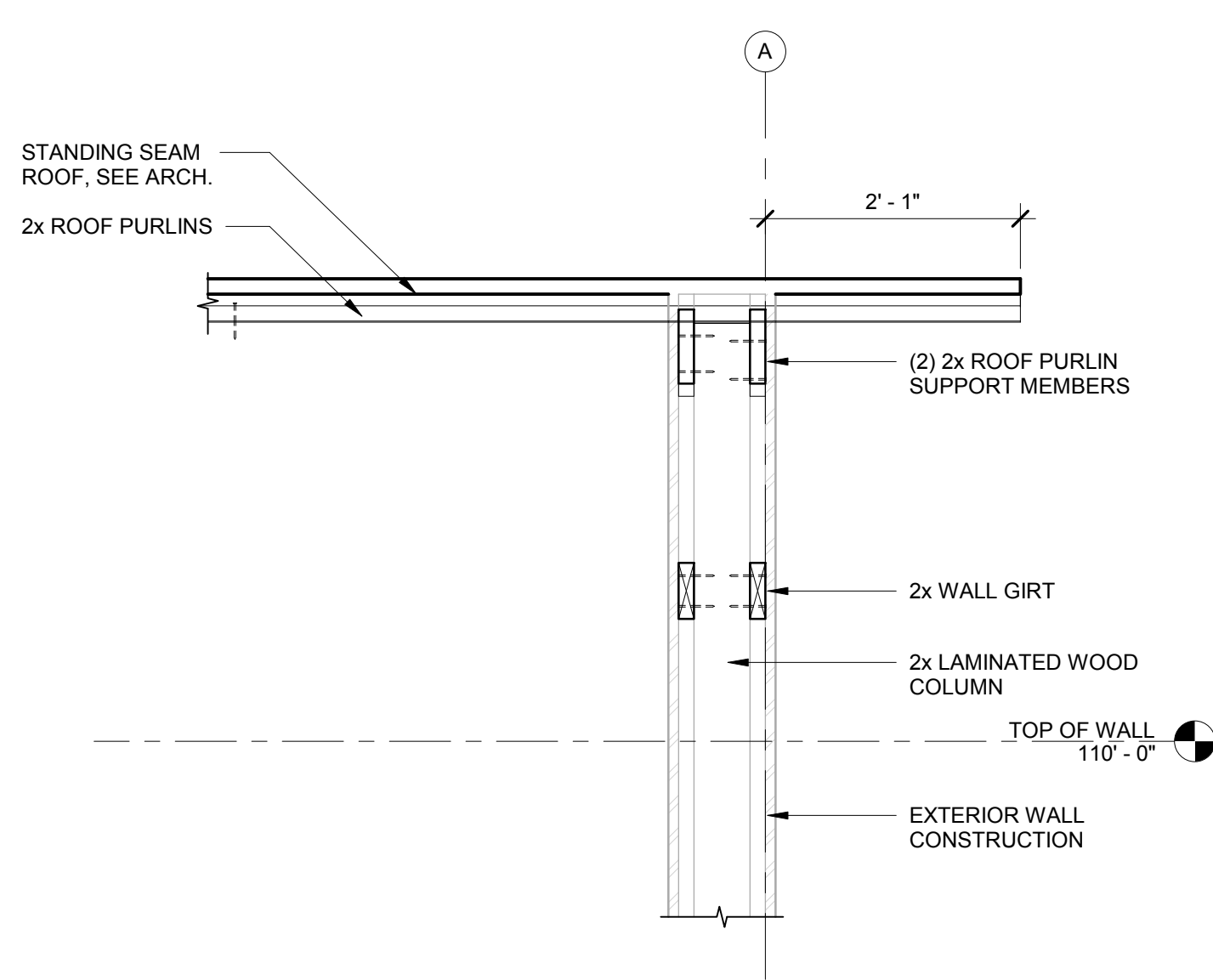
4 ROOF TRUSS LOADING SCHEDULE  
SCALE: 12" = 1'-0"



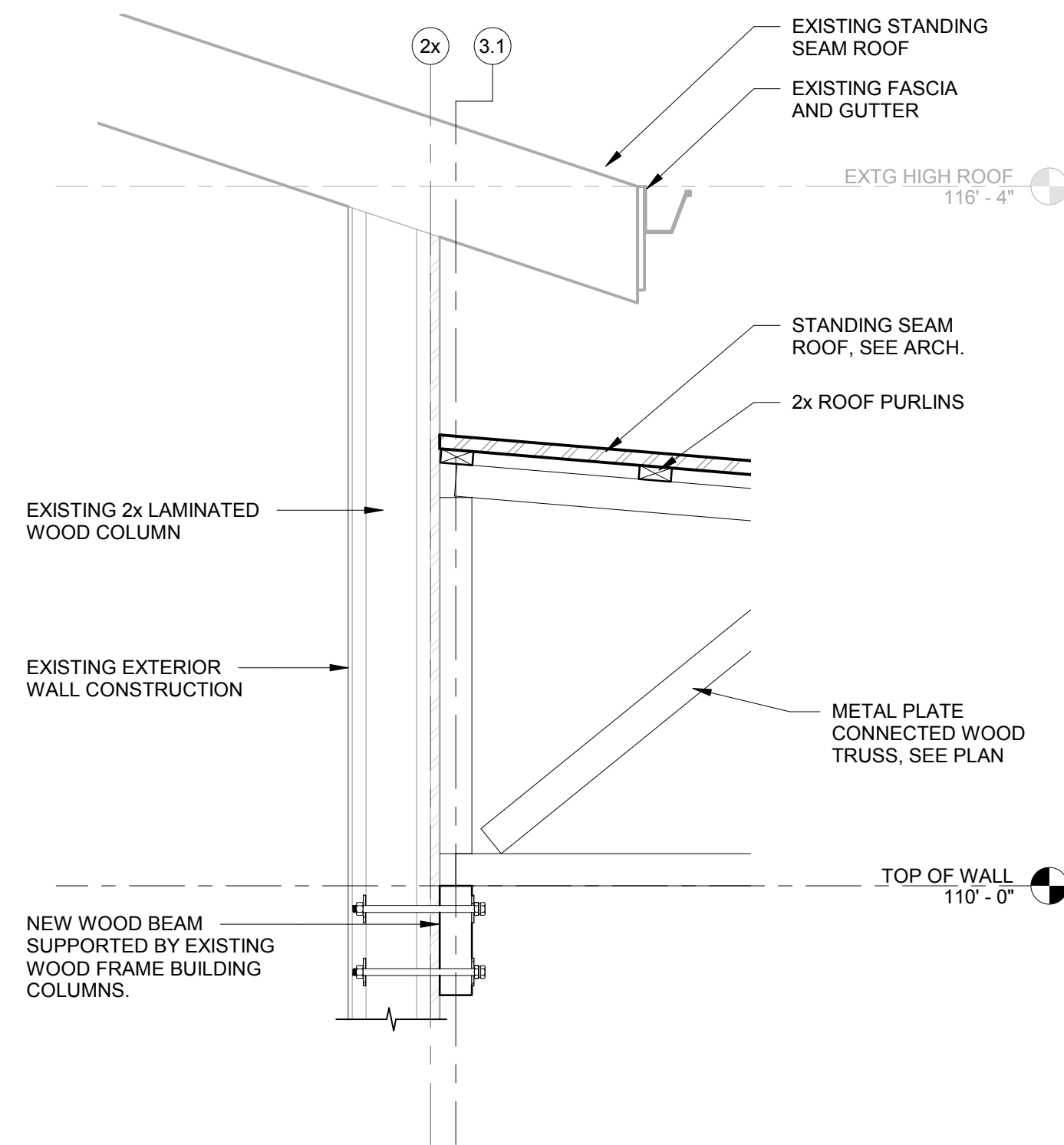
**1 FRAMING DETAIL**  
SCALE: 3/4" = 1'-0"



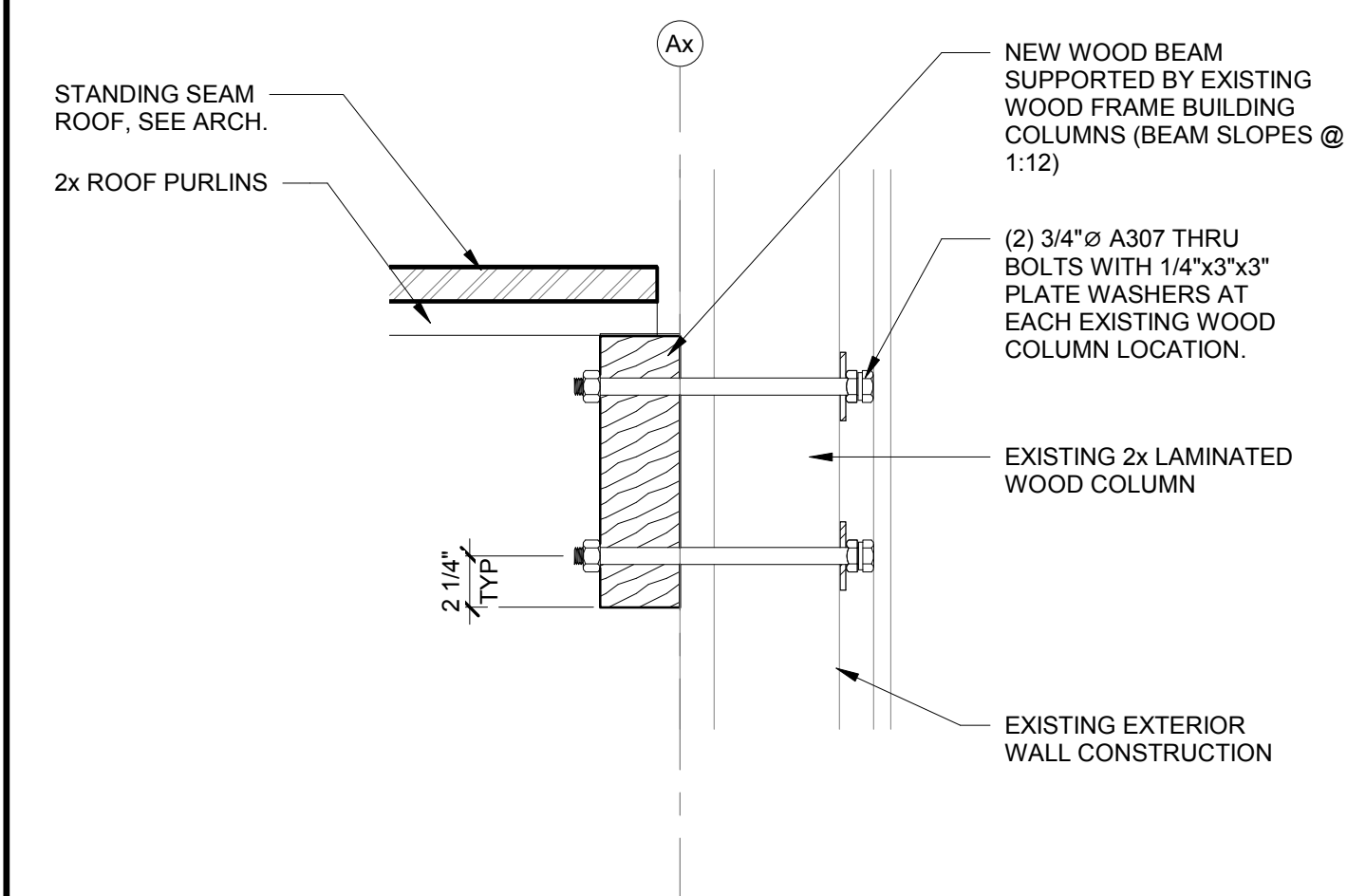
**2 FRAMING DETAIL**  
SCALE: 3/4" = 1'-0"



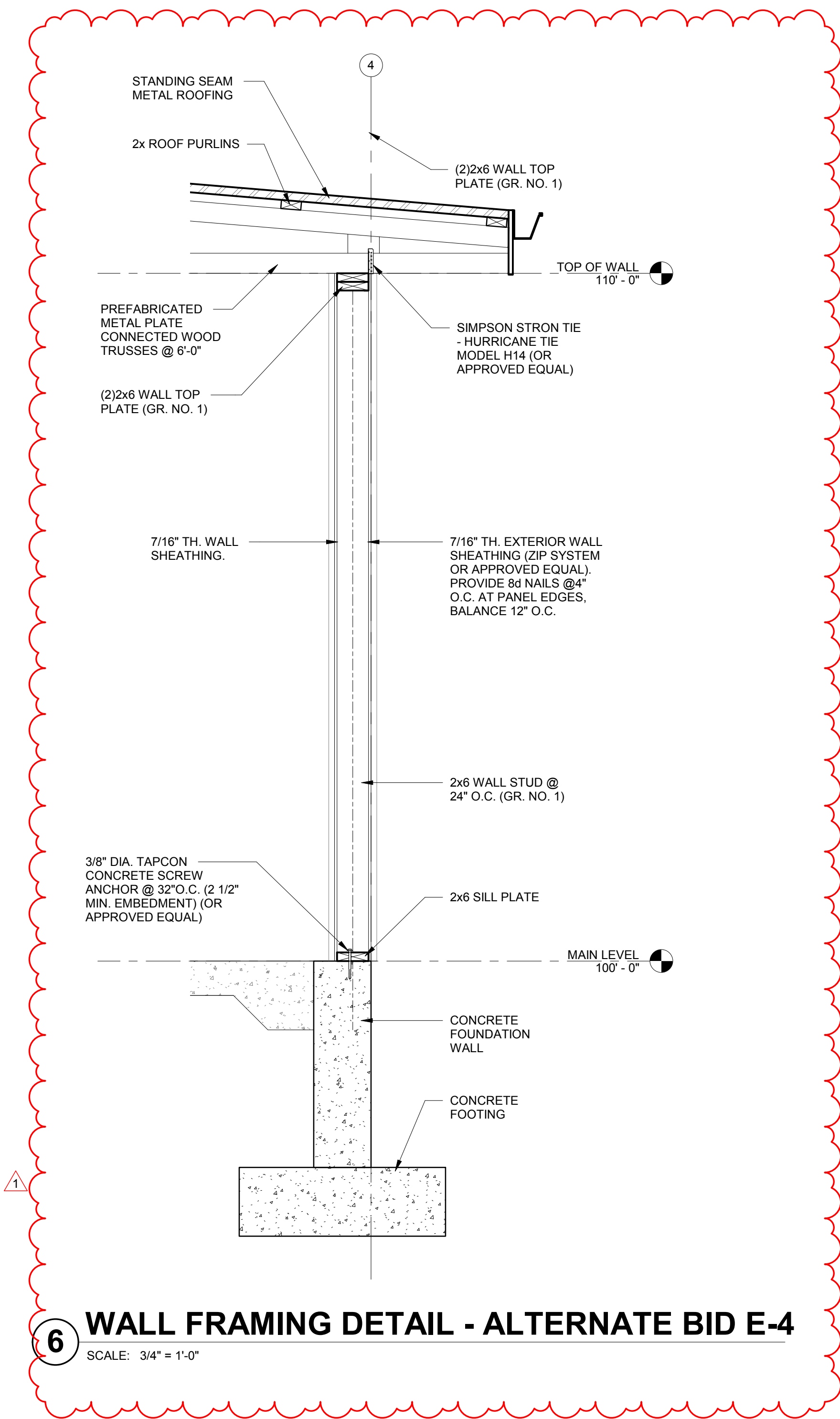
**3 FRAMING DETAIL**  
SCALE: 3/4" = 1'-0"



**4 FRAMING DETAIL**  
SCALE: 3/4" = 1'-0"

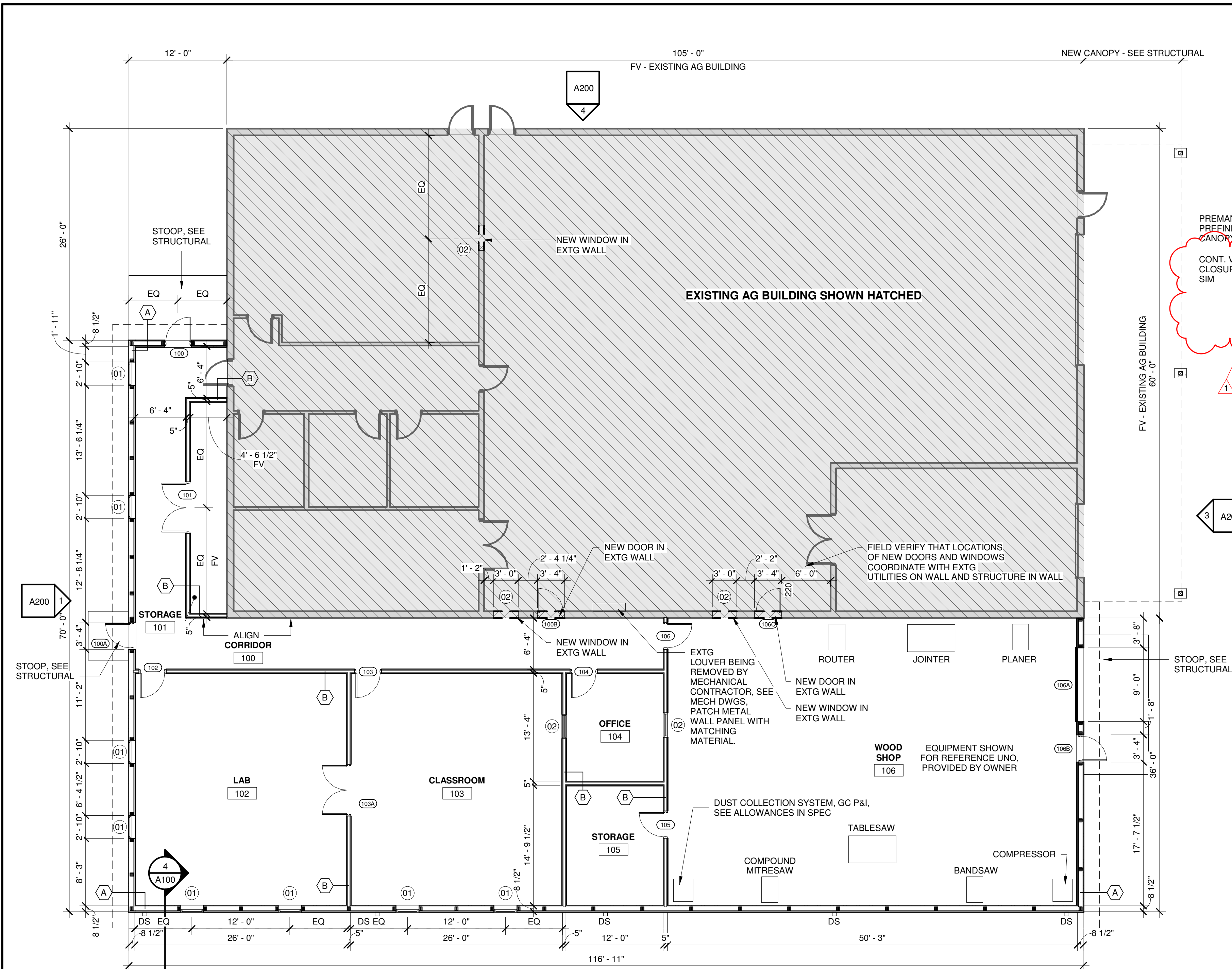


**5 WOOD BEAM CONNECTION DETAIL**  
SCALE: 1 1/2" = 1'-0"



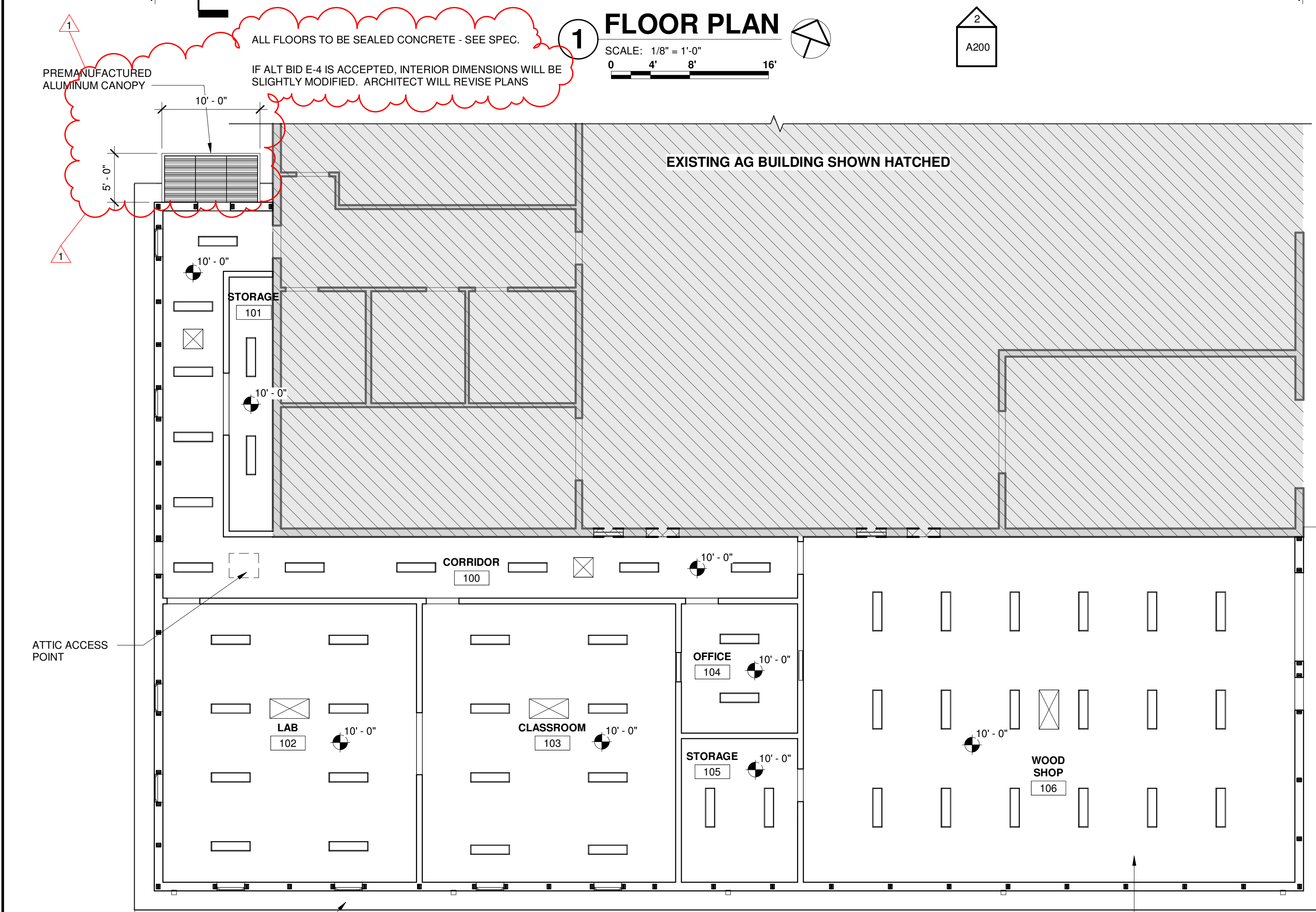
**6 WALL FRAMING DETAIL - ALTERNATE BID E-4**  
SCALE: 3/4" = 1'-0"





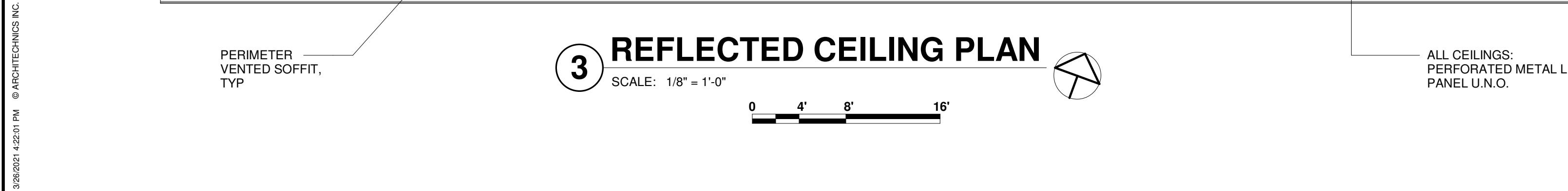
1 FLOOR PLAN

SCALE: 1/8" = 1'-0"



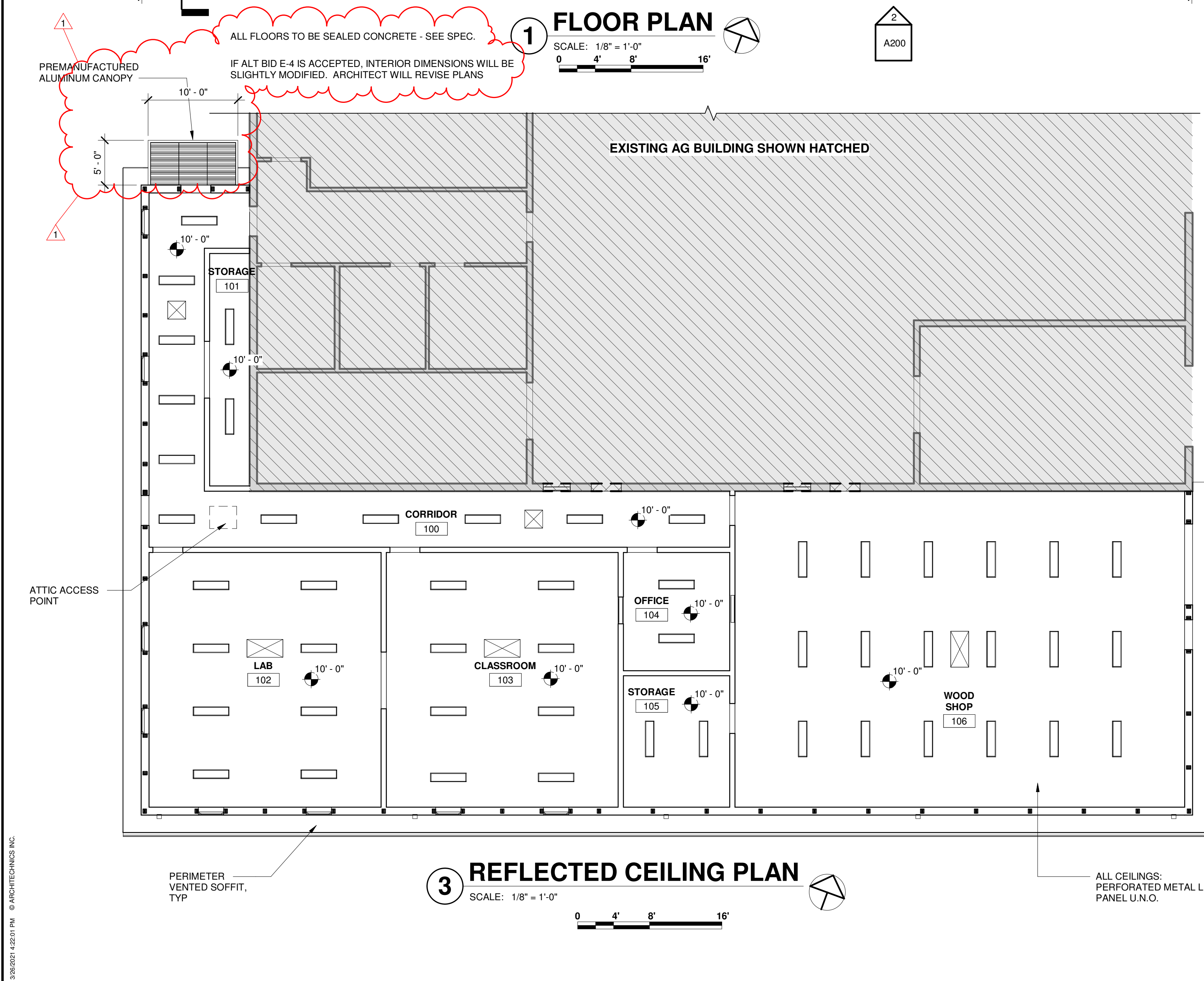
3 REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"



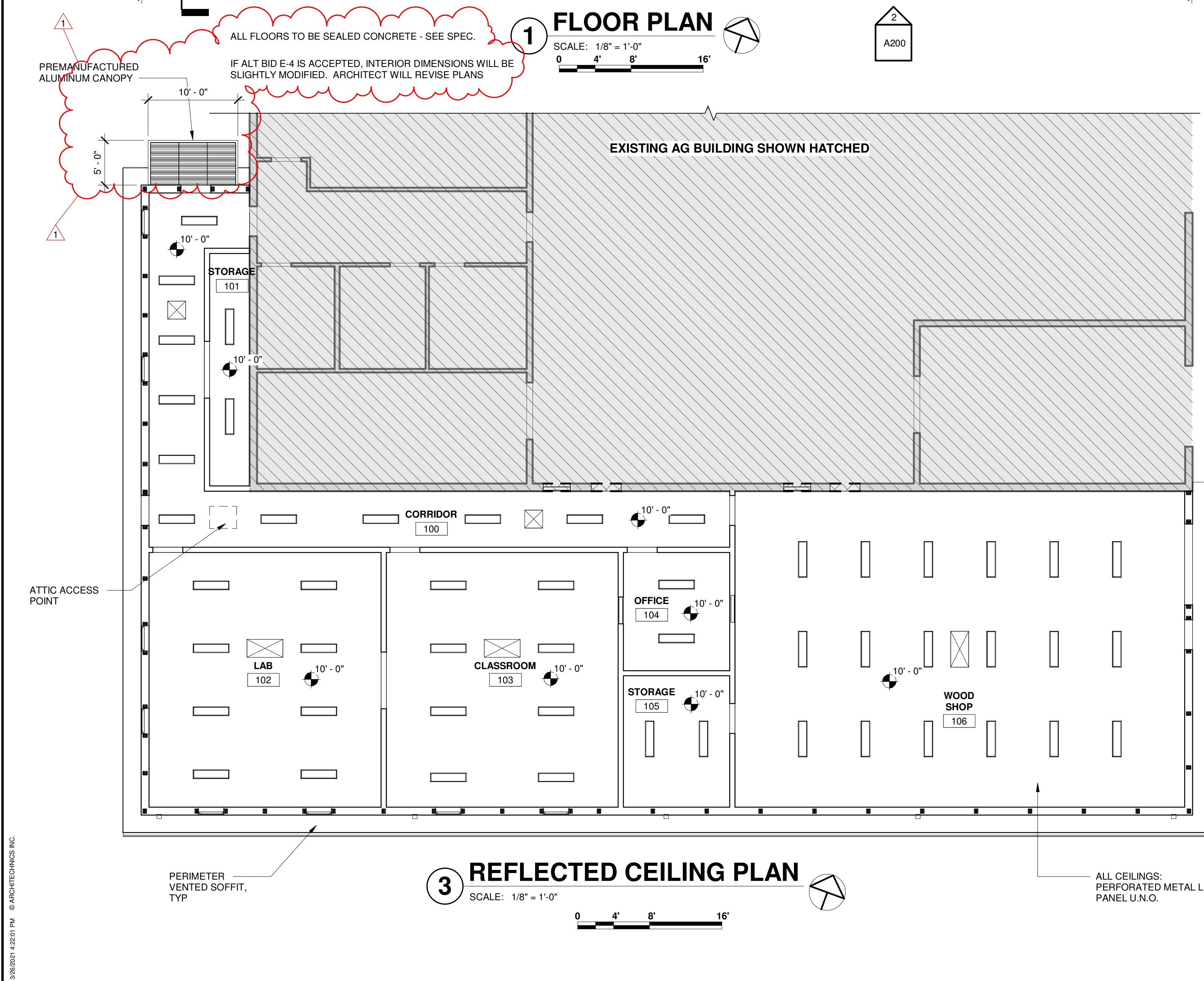
5 ROOF SECTION AT EXT'G EAVE

SCALE: 3/4" = 1'-0"



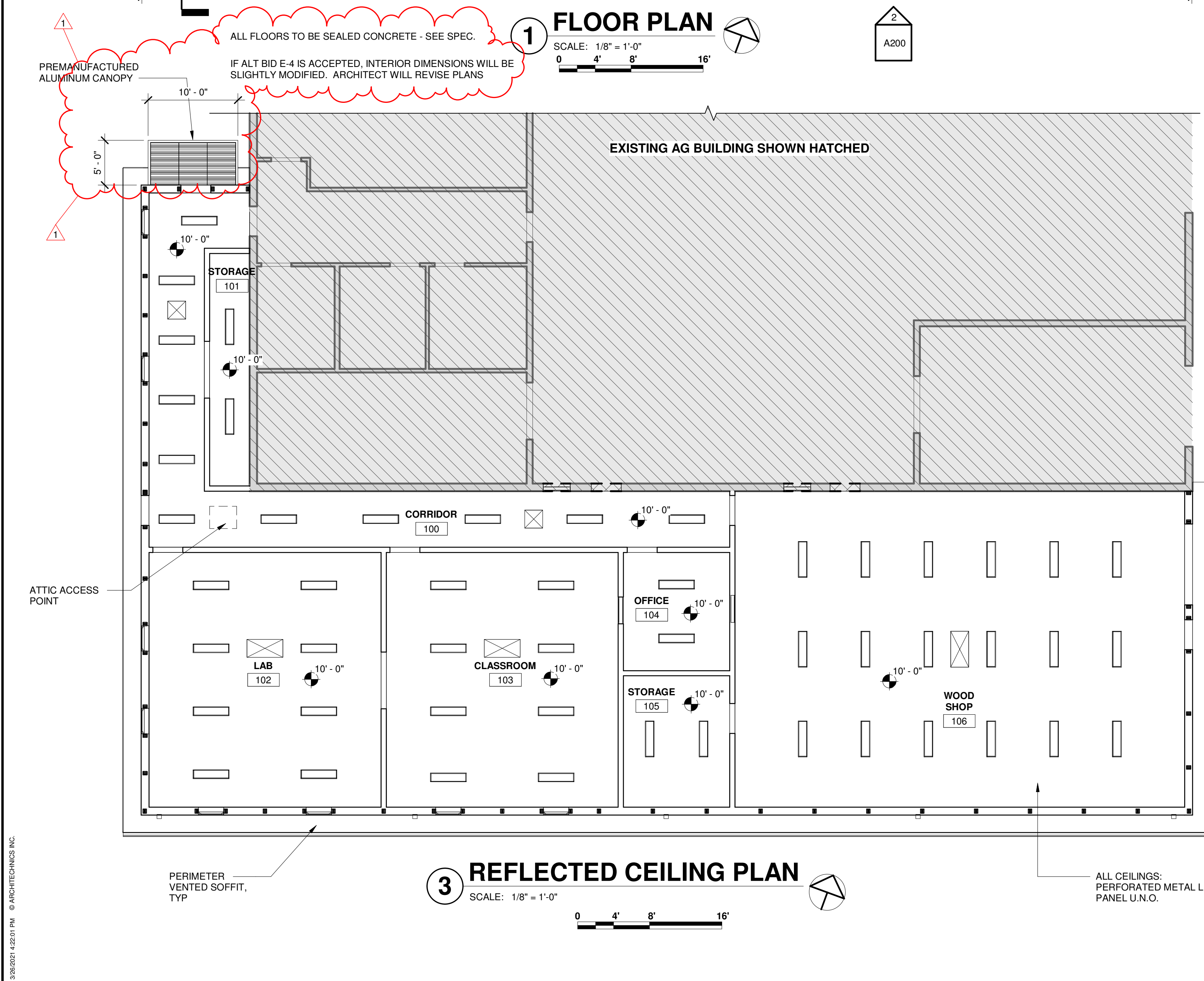
6 ROOF SECTION AT EXTG WALL

SCALE: 3/4" = 1'-0"



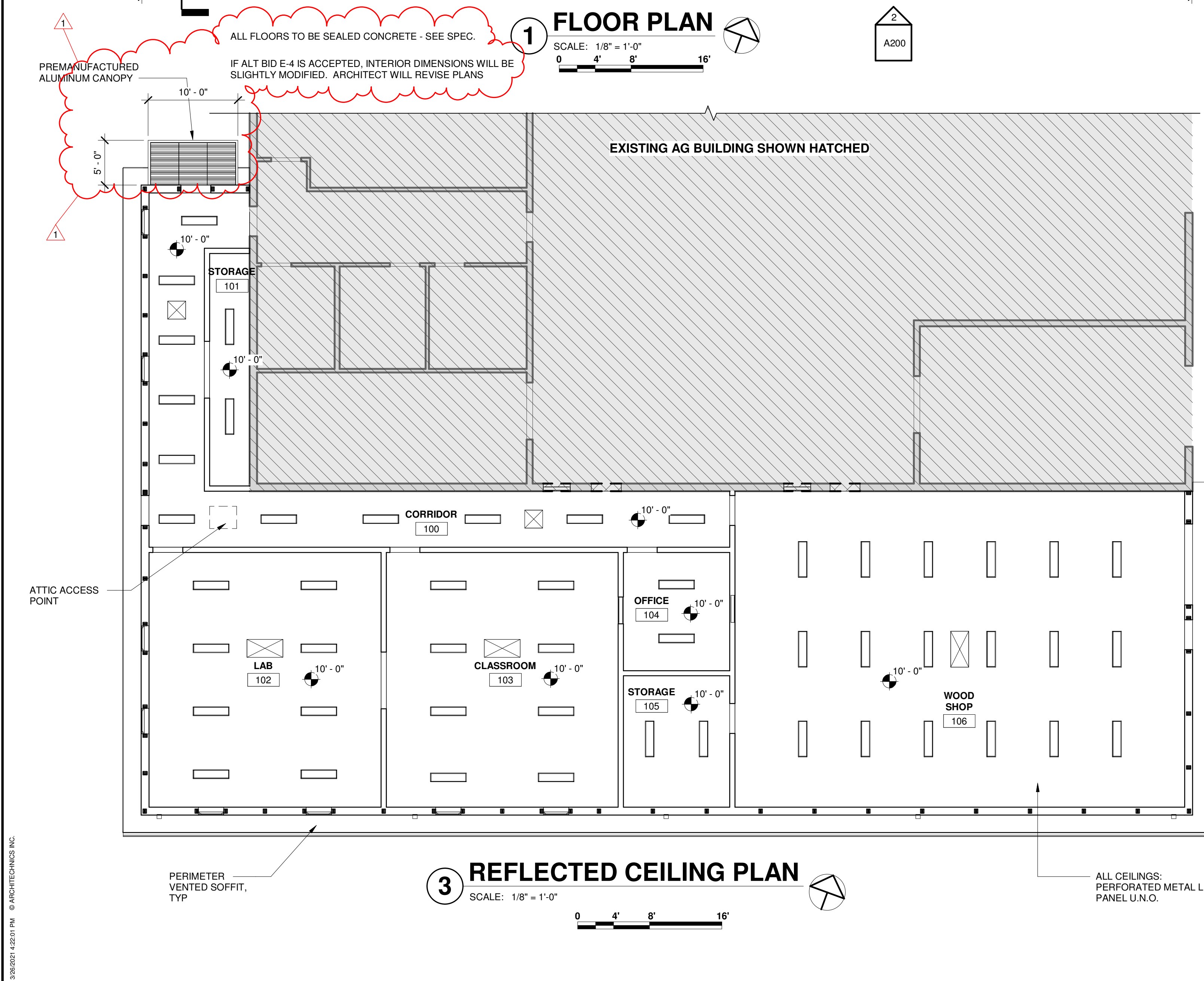
4 TYP. WALL SECTION

SCALE: 3/4" = 1'-0"



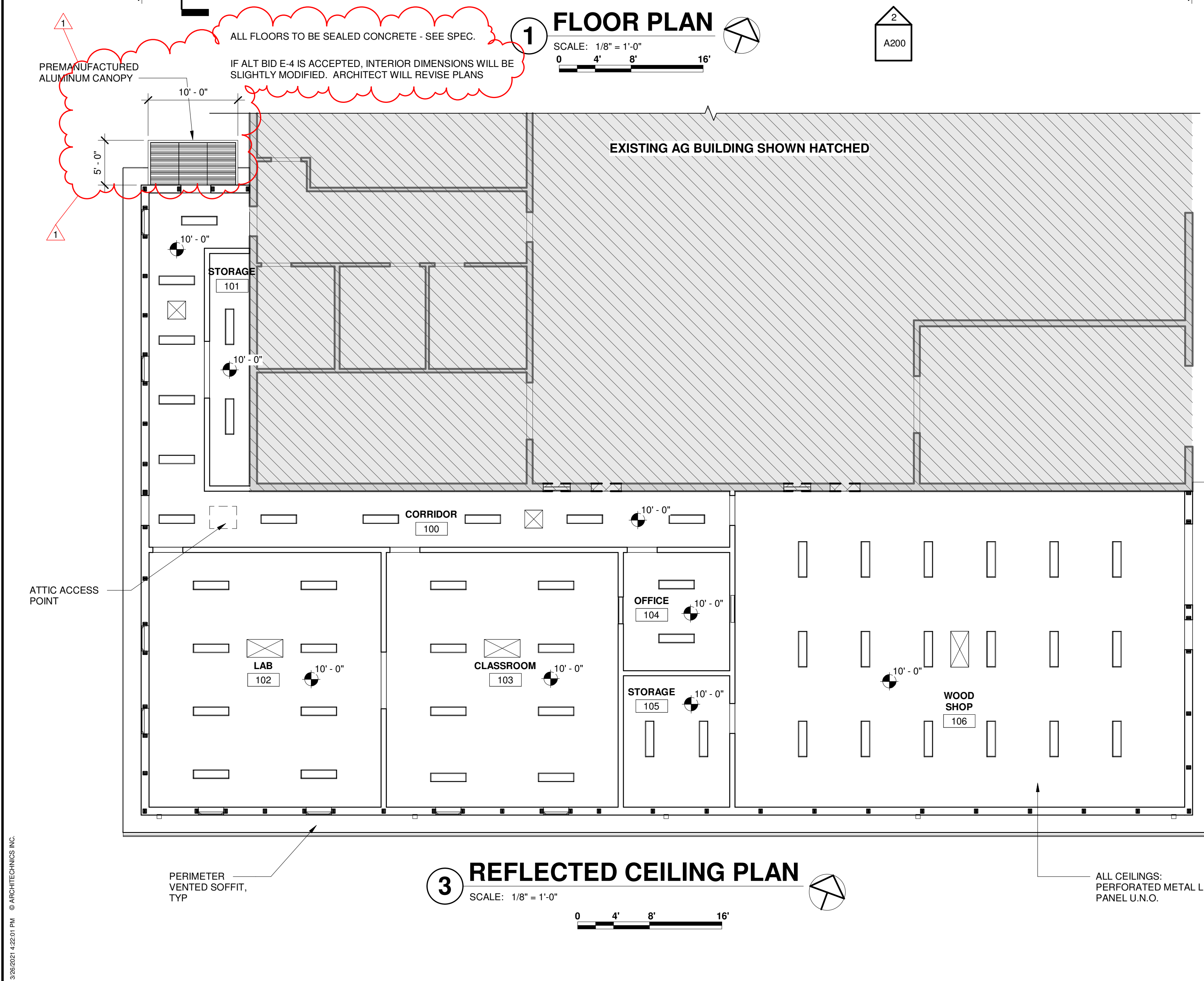
2 ROOF PLAN

SCALE: 1/8" = 1'-0"



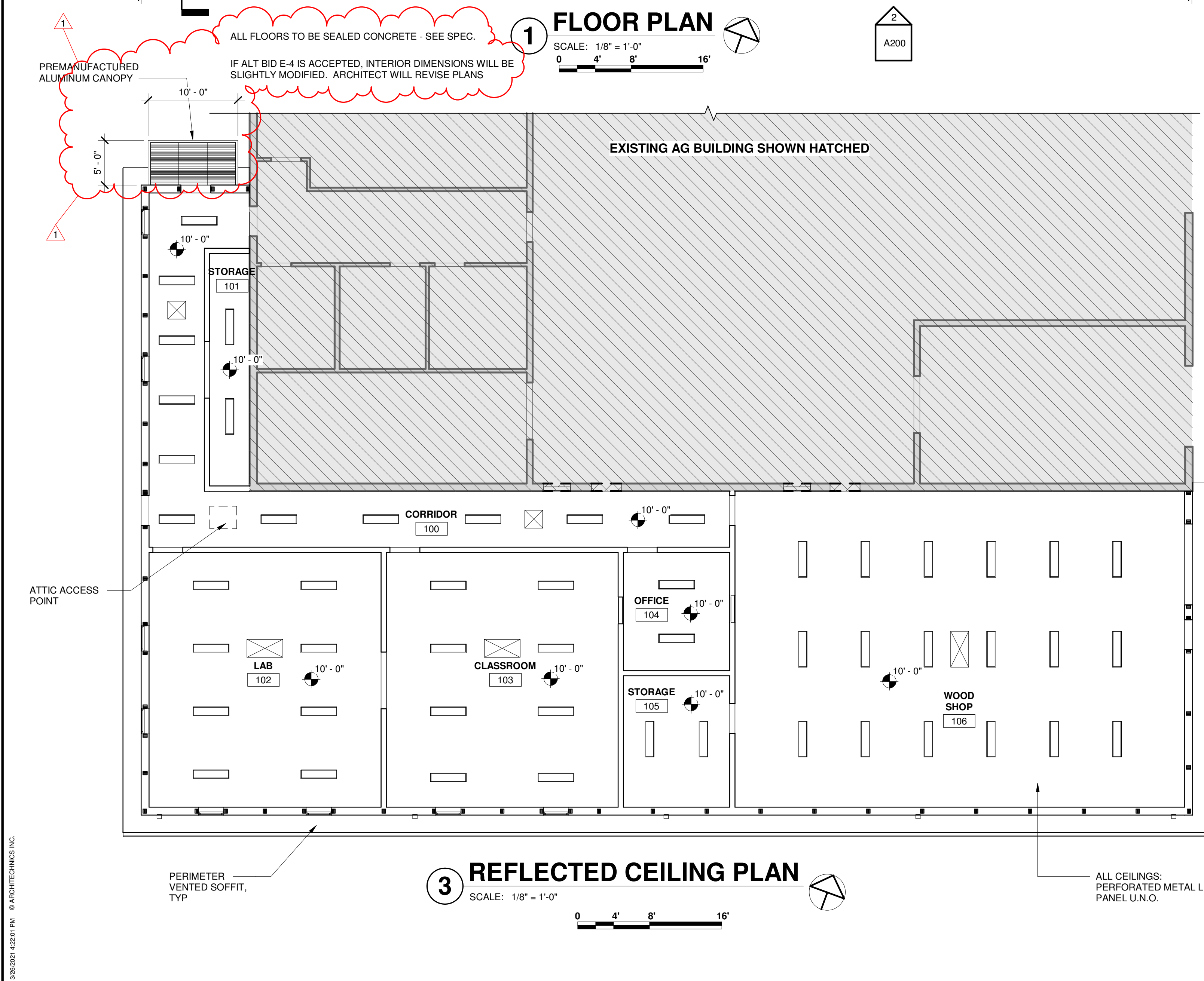
5 ROOF SECTION AT EXT'G EAVE

SCALE: 3/4" = 1'-0"



6 ROOF SECTION AT EXTG WALL

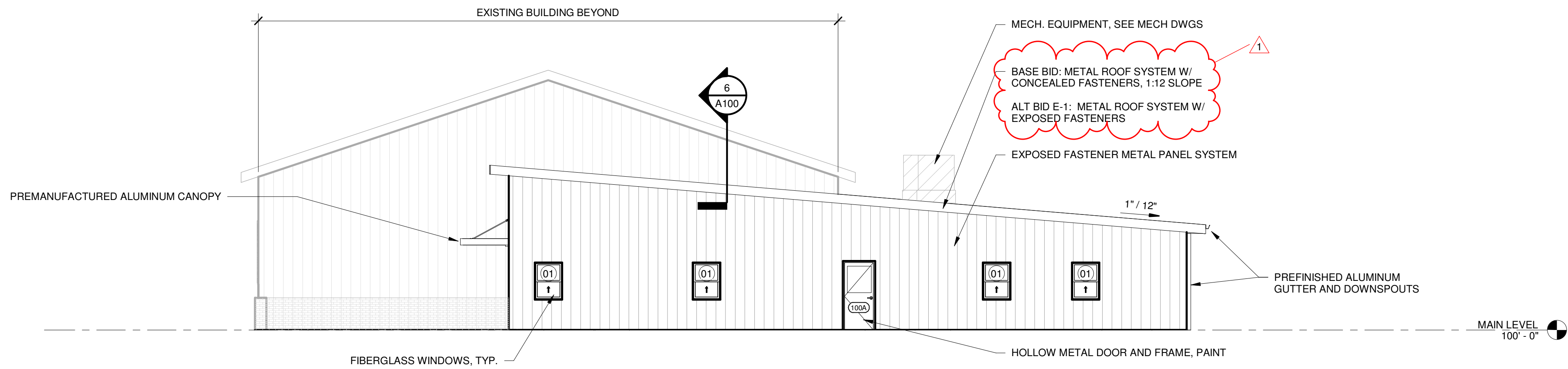
SCALE: 3/4" = 1'-0"



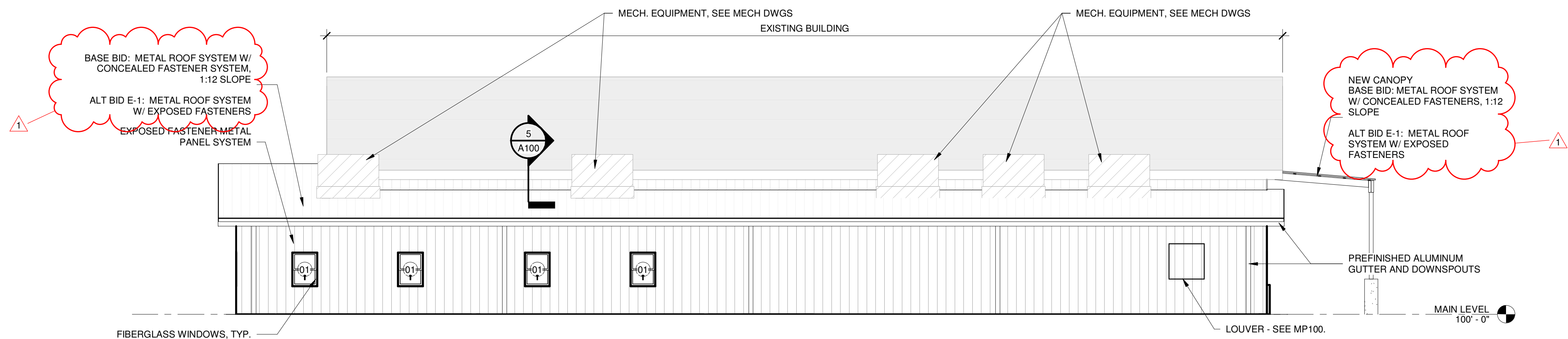
4 TYP. WALL SECTION

SCALE: 3/4" = 1'-0"

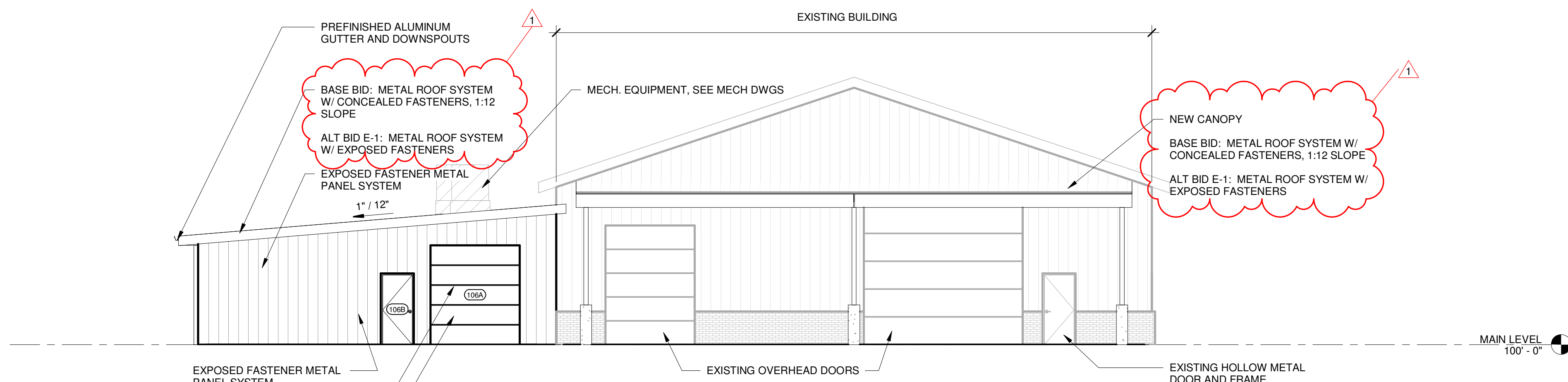




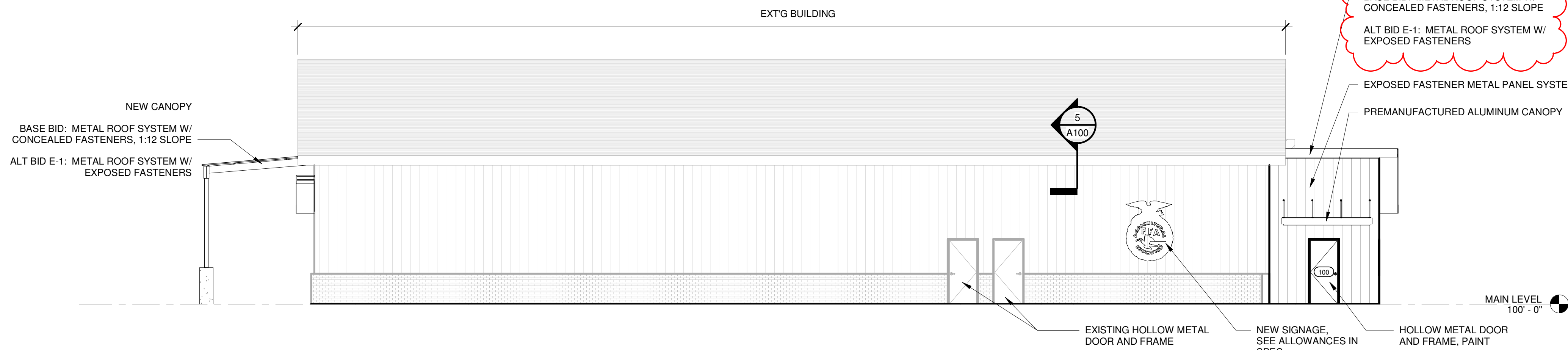
1 WEST ELEVATION  
SCALE: 1/8" = 1'-0"



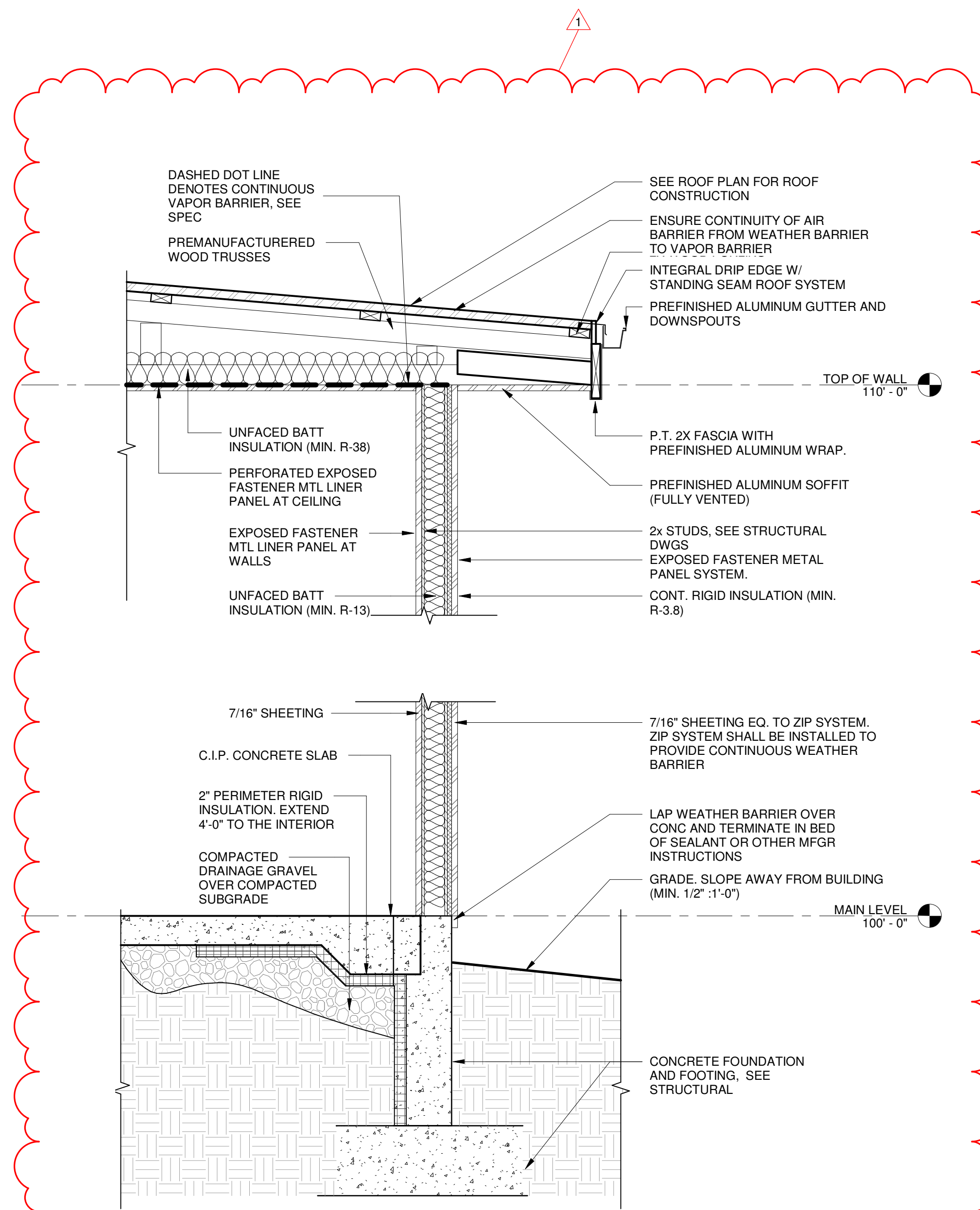
2 SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"



3 EAST ELEVATION  
SCALE: 1/8" = 1'-0"



4 NORTH ELEVATION  
SCALE: 1/8" = 1'-0"



5 ALT BID E-4 WALL SECTION  
SCALE: 3/4" = 1'-0"

OWNER:  
RALLS COUNTY R-II  
SCHOOL DISTRICT  
21622 HIGHWAY 19  
CENTER, MO 63436

RALLS COUNTY R-II SCHOOL DISTRICT  
**AG BUILDING ADDITION**  
21622 HIGHWAY 19  
CENTER, MO 63436

**BIDDING PHASE**

**NOT FOR CONSTRUCTION**  
ISSUE DATE: 03/05/2021

REVISIONS		
NO.	Date	Description
1	3/2/21	ADD 01

PROJECT NUMBER: 6036

**BUILDING ELEVATIONS**

DWG. NO.  
**A200**