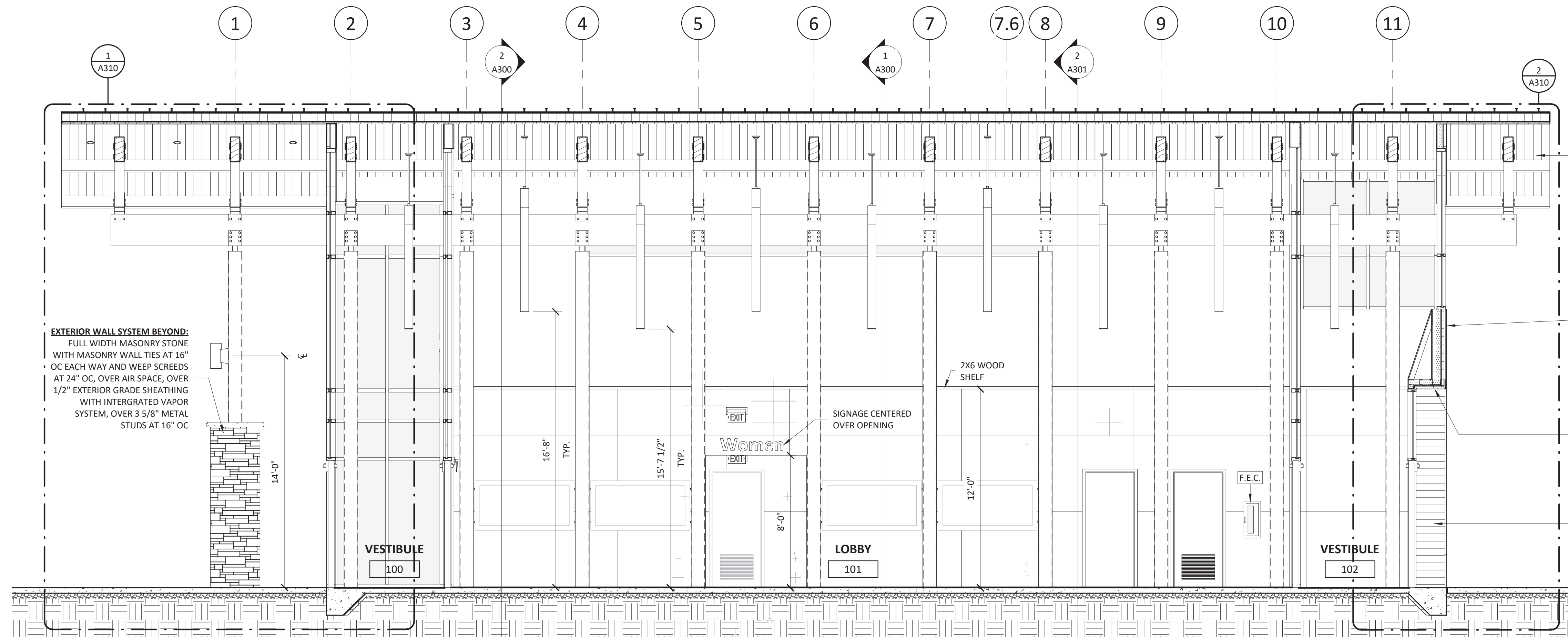


**This electronic collection of documents is provided  
for the convenience of the user  
and is Not a Certified Document –**

**The documents contained herein were originally issued  
and sealed by the individuals whose names and license  
numbers appear on each page, on the dates appearing  
with their signature on that page.**

**This file or an individual page  
shall not be considered a certified document.**



**ROOF SYSTEM:**  
STANDING SEAM METAL ROOF WITH AIR GAP AND UNDERLAYMENT PER MANUFACTURER'S RECOMMENDATION, OVER 1/2" EXTERIOR GYPSUM ROOF SHEATHING, OVER 5" RIGID BOARD INSULATION OR BLOCKING AT SOFFIT OVERHANGS, OVER 1/2" EXTERIOR GRADE SHEATHING, OVER 2X TONGUE AND GROOVE DECKING, OVER WOOD STRUCTURAL SYSTEM - SEE STRUCTURAL DRAWINGS

**EXTERIOR WALL SYSTEM BEYOND:**  
FULL WIDTH MASONRY STONE WITH MASONRY WALL TIES AT 16" OC EACH WAY AND WEEP SCREDS AT 24" OC, OVER AIR SPACE, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 3 5/8" METAL STUDS AT 16" OC

**EXTERIOR WALL SYSTEM:**  
FIBER CEMENT PANEL, OVER AIR SPACE WITH CLIP SYSTEMS AT EACH PANEL JOINT, OVER 7/8" METAL HAT CHANNEL INSTALLED VERTICALLY AT 16" OC, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 6" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD

**T.O. WINDOWS**  
12'-0"

**EXTERIOR SOFFIT SYSTEM:**  
EXTERIOR GRADE GYPSUM SHEATHING, PAINT TO MATCH ADJACENT PANEL SYSTEM, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 3 5/8" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD

**EXTERIOR WALL SYSTEM BEYOND:**  
FIBER CEMENT PANEL, OVER AIR SPACE WITH CLIP SYSTEMS AT EACH PANEL JOINT, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 8" METAL STUDS AT 16" OC, WITH 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, WITH AIR SPACE WITH CLIP SYSTEMS AT EACH PANEL JOINT, WITH FIBER CEMENT PANEL

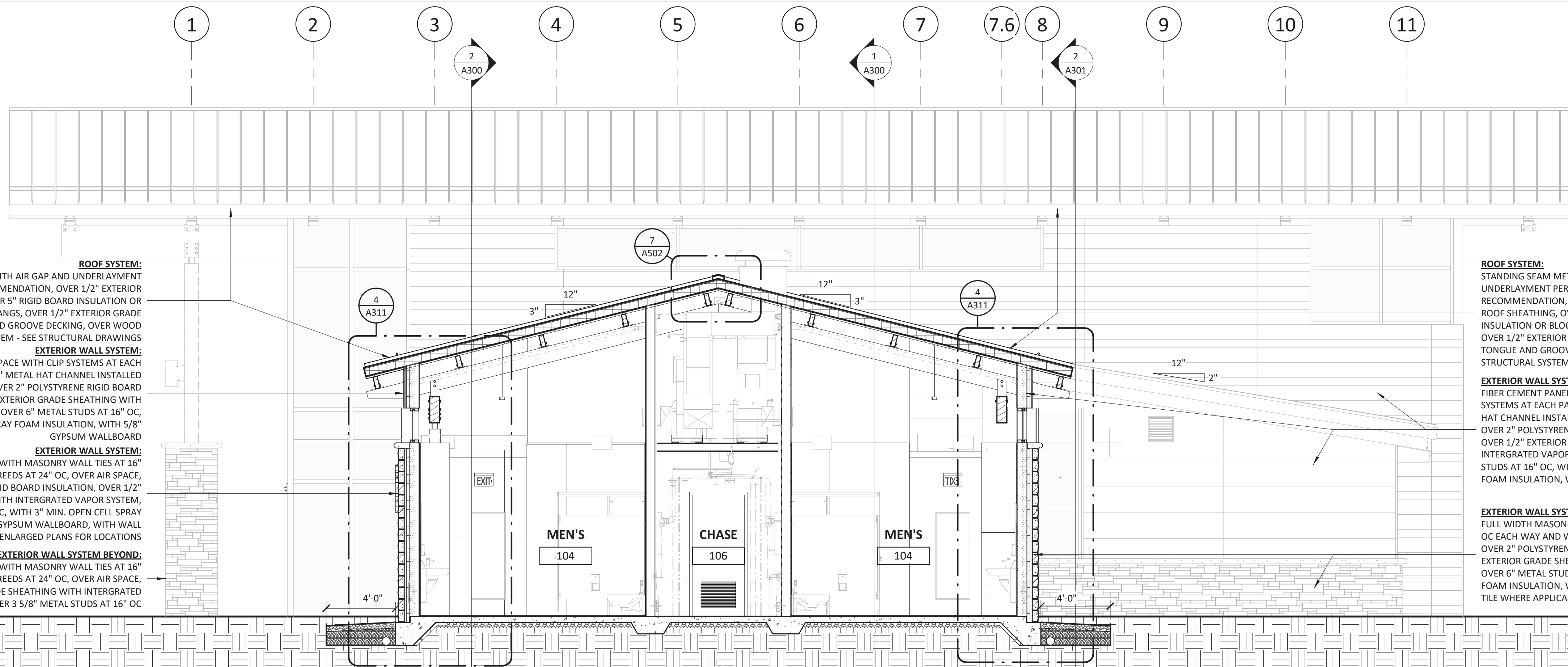
**HIGH ROOF RIDGE**  
29' - 4"

**LOW ROOF RIDGE**  
19' - 8"

**FIRST FLOOR**  
0' - 0"

**BUILDING SECTION 05**

1/4" = 1'-0"



**ROOF SYSTEM:**  
STANDING SEAM METAL ROOF WITH AIR GAP AND UNDERLAYMENT PER MANUFACTURER'S RECOMMENDATION, OVER 1/2" EXTERIOR GYPSUM ROOF SHEATHING, OVER 5" RIGID BOARD INSULATION OR BLOCKING AT SOFFIT OVERHANGS, OVER 1/2" EXTERIOR GRADE SHEATHING, OVER 2X TONGUE AND GROOVE DECKING, OVER WOOD STRUCTURAL SYSTEM - SEE STRUCTURAL DRAWINGS

**EXTERIOR WALL SYSTEM BEYOND:**  
FULL WIDTH MASONRY STONE WITH MASONRY WALL TIES AT 16" OC EACH WAY AND WEEP SCREDS AT 24" OC, OVER AIR SPACE, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 6" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD, WITH WALL TILE WHERE APPLICABLE, SEE ENLARGED PLANS FOR LOCATIONS

**EXTERIOR WALL SYSTEM:**  
FIBER CEMENT PANEL, OVER AIR SPACE WITH CLIP SYSTEMS AT EACH PANEL JOINT, OVER 7/8" METAL HAT CHANNEL INSTALLED VERTICALLY AT 16" OC, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 6" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD

**T.O. WINDOWS**  
12'-0"

**HIGH ROOF RIDGE**  
29' - 4"

**LOW ROOF RIDGE**  
19' - 8"

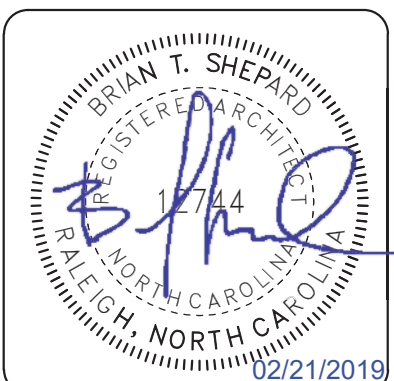
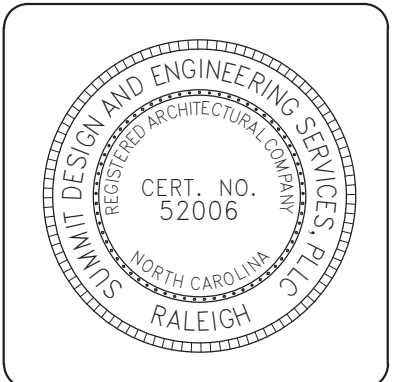
**FIRST FLOOR**  
0' - 0"

**BUILDING SECTION 06**

1/4" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Created by Inspiration - Technically Executed  
License # P-10339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.com

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

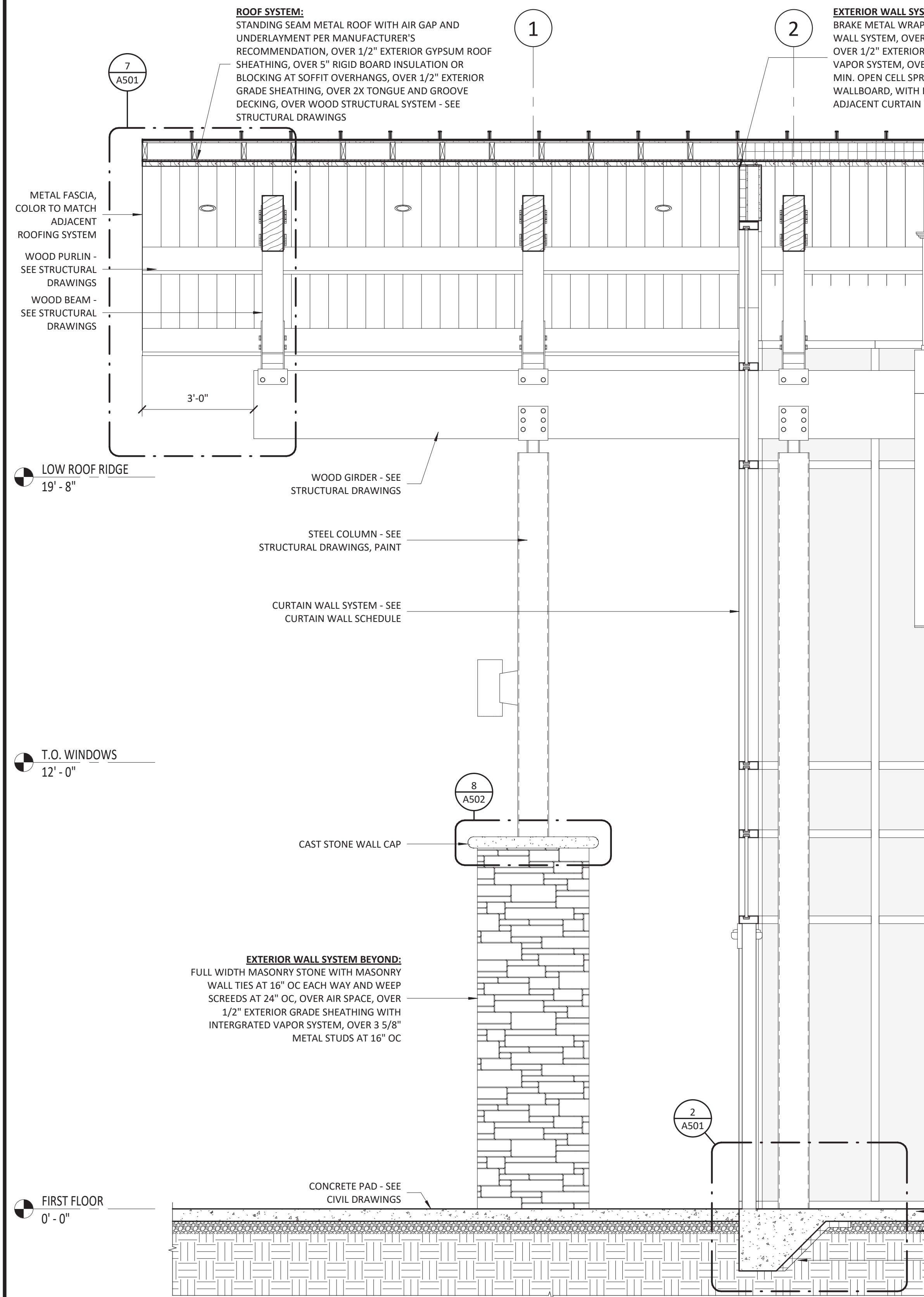


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC  
FIRST ISSUE DATE 11/16/2018

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MSC	MC
B	ISSUED TO NCDOT	01/22/19	MSC	MC
C	ISSUED FOR CONST.	02/21/19	MSC	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**RESTROOMS BUILDING SECTIONS**

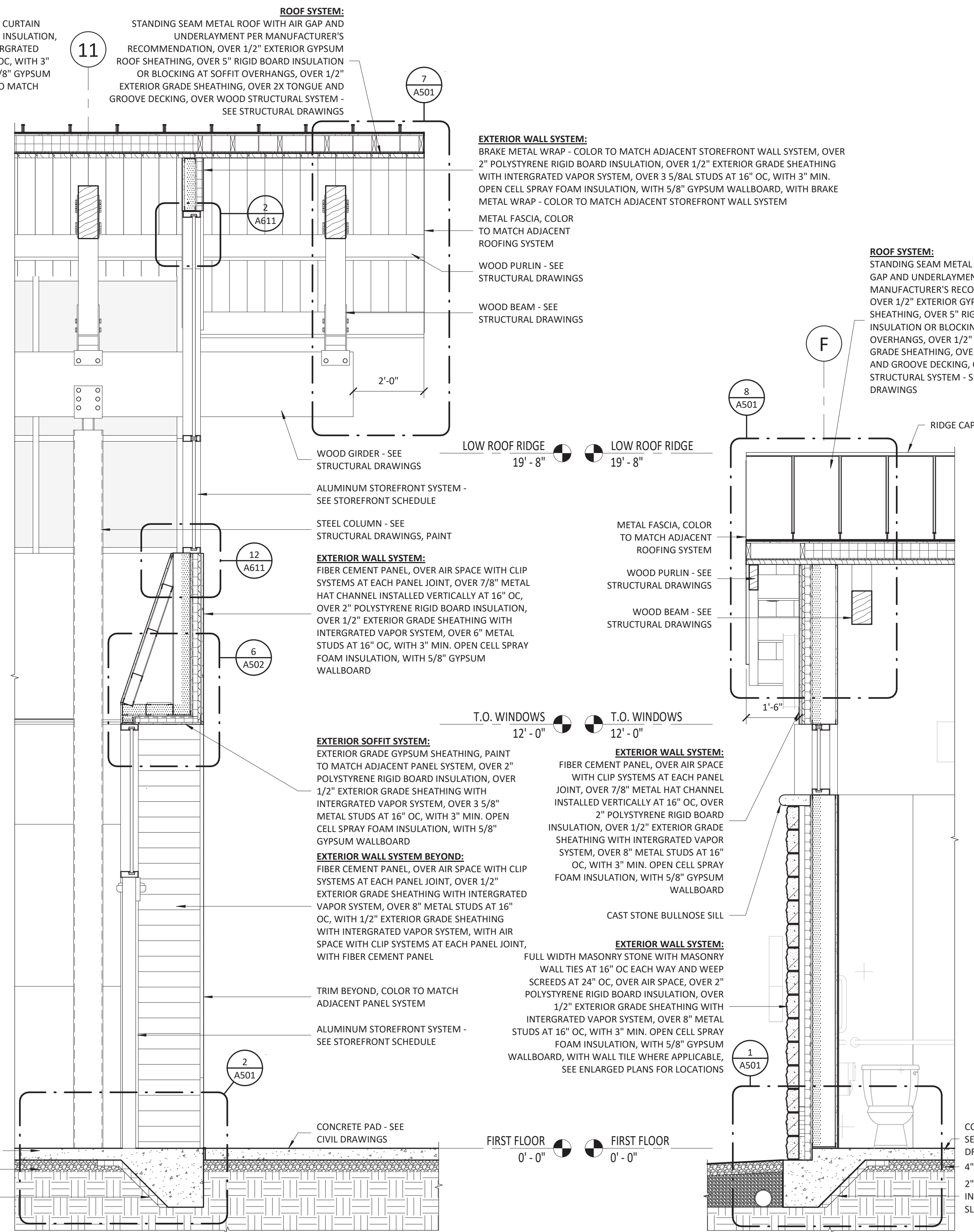
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A302**



**ROOF SYSTEM:**  
STANDING SEAM METAL ROOF WITH AIR GAP AND UNDERLAYMENT PER MANUFACTURER'S RECOMMENDATION, OVER 1/2" EXTERIOR GYPSUM ROOF SHEATHING, OVER 5" RIGID BOARD INSULATION OR BLOCKING AT SOFFIT OVERHANGS, OVER 1/2" EXTERIOR GRADE SHEATHING, OVER 2X TONGUE AND GROOVE DECKING, OVER WOOD STRUCTURAL SYSTEM - SEE STRUCTURAL DRAWINGS

**EXTERIOR WALL SYSTEM:**  
BRAKE METAL WRAP - COLOR TO MATCH ADJACENT CURTAIN WALL SYSTEM, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 3 5/8" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD, WITH BRAKE METAL WRAP - COLOR TO MATCH ADJACENT CURTAIN WALL SYSTEM

**1** WALL SECTION @ FRONT ENTRY  
1/2" = 1'-0"



**ROOF SYSTEM:**  
STANDING SEAM METAL ROOF WITH AIR GAP AND UNDERLAYMENT PER MANUFACTURER'S RECOMMENDATION, OVER 1/2" EXTERIOR GYPSUM ROOF SHEATHING, OVER 5" RIGID BOARD INSULATION OR BLOCKING AT SOFFIT OVERHANGS, OVER 1/2" EXTERIOR GRADE SHEATHING, OVER 2X TONGUE AND GROOVE DECKING, OVER WOOD STRUCTURAL SYSTEM - SEE STRUCTURAL DRAWINGS

**EXTERIOR WALL SYSTEM:**  
BRAKE METAL WRAP - COLOR TO MATCH ADJACENT STOREFRONT WALL SYSTEM, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 3 5/8" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD, WITH BRAKE METAL WRAP - COLOR TO MATCH ADJACENT STOREFRONT WALL SYSTEM

**EXTERIOR WALL SYSTEM:**  
FIBER CEMENT PANEL, OVER AIR SPACE WITH CLIP SYSTEMS AT EACH PANEL JOINT, OVER 7/8" METAL HAT CHANNEL INSTALLED VERTICALLY AT 16" OC, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 6" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD

**EXTERIOR SOFFIT SYSTEM:**  
EXTERIOR GRADE GYPSUM SHEATHING, PAINT TO MATCH ADJACENT PANEL SYSTEM, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 3 5/8" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD

**EXTERIOR WALL SYSTEM BEYOND:**  
FIBER CEMENT PANEL, OVER AIR SPACE WITH CLIP SYSTEMS AT EACH PANEL JOINT, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 8" METAL STUDS AT 16" OC, WITH 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, WITH AIR SPACE WITH CLIP SYSTEMS AT EACH PANEL JOINT, WITH FIBER CEMENT PANEL

**EXTERIOR WALL SYSTEM:**  
FULL WIDTH MASONRY STONE WITH MASONRY WALL TIES AT 16" OC EACH WAY AND WEEP SCREEDS AT 24" OC, OVER AIR SPACE, OVER 2" POLYSTYRENE RIGID BOARD INSULATION, OVER 1/2" EXTERIOR GRADE SHEATHING WITH INTERGRATED VAPOR SYSTEM, OVER 8" METAL STUDS AT 16" OC, WITH 3" MIN. OPEN CELL SPRAY FOAM INSULATION, WITH 5/8" GYPSUM WALLBOARD, WITH WALL TILE WHERE APPLICABLE, SEE ENLARGED PLANS FOR LOCATIONS

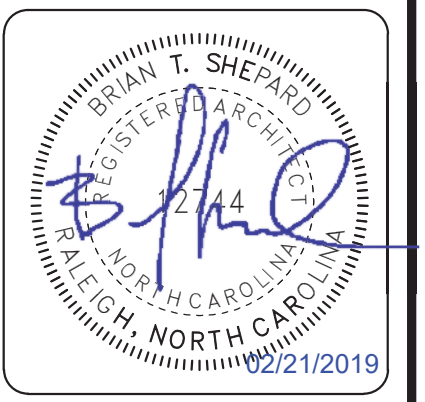
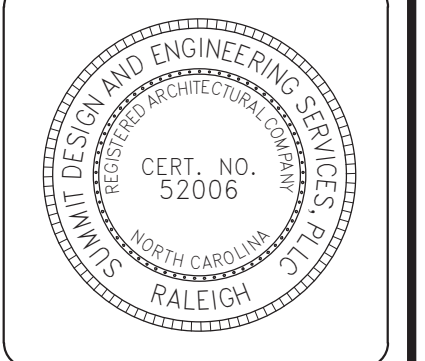
**ROOF SYSTEM:**  
STANDING SEAM METAL ROOF WITH AIR GAP AND UNDERLAYMENT PER MANUFACTURER'S RECOMMENDATION, OVER 1/2" EXTERIOR GYPSUM ROOF SHEATHING, OVER 5" RIGID BOARD INSULATION OR BLOCKING AT SOFFIT OVERHANGS, OVER 1/2" EXTERIOR GRADE SHEATHING, OVER 2X TONGUE AND GROOVE DECKING, OVER WOOD STRUCTURAL SYSTEM - SEE STRUCTURAL DRAWINGS

**2** WALL SECTION @ REAR ENTRY  
1/2" = 1'-0"

**3** WALL SECTION @ STONE WALL  
1/2" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License # P-20339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

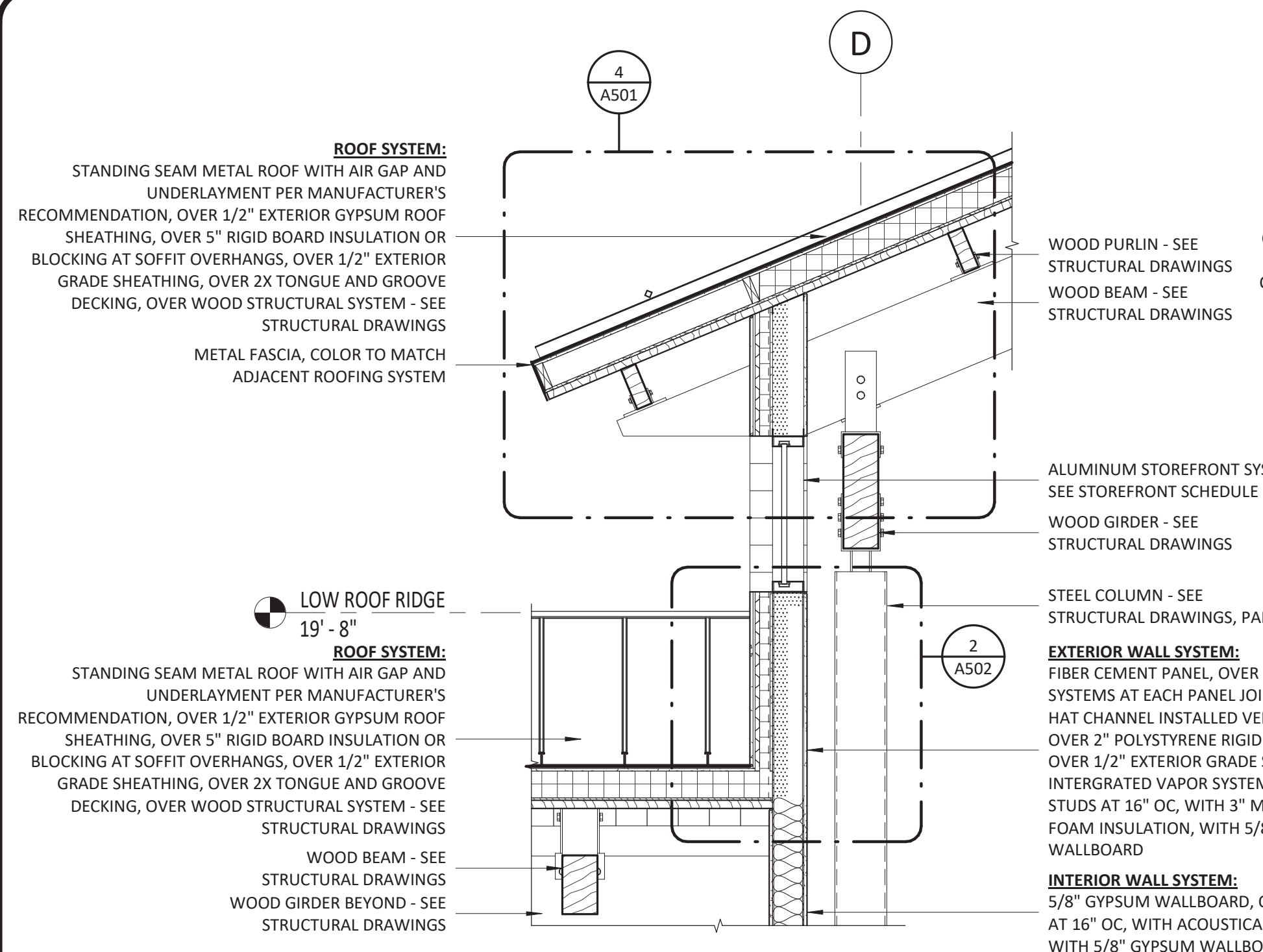


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC  
FIRST ISSUE DATE 11/16/2019

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/19	MSC	MC
B	ISSUED TO NCDOT	01/22/19	MSC	MC
C	ISSUED FOR CONST.	02/21/19	MSC	MC

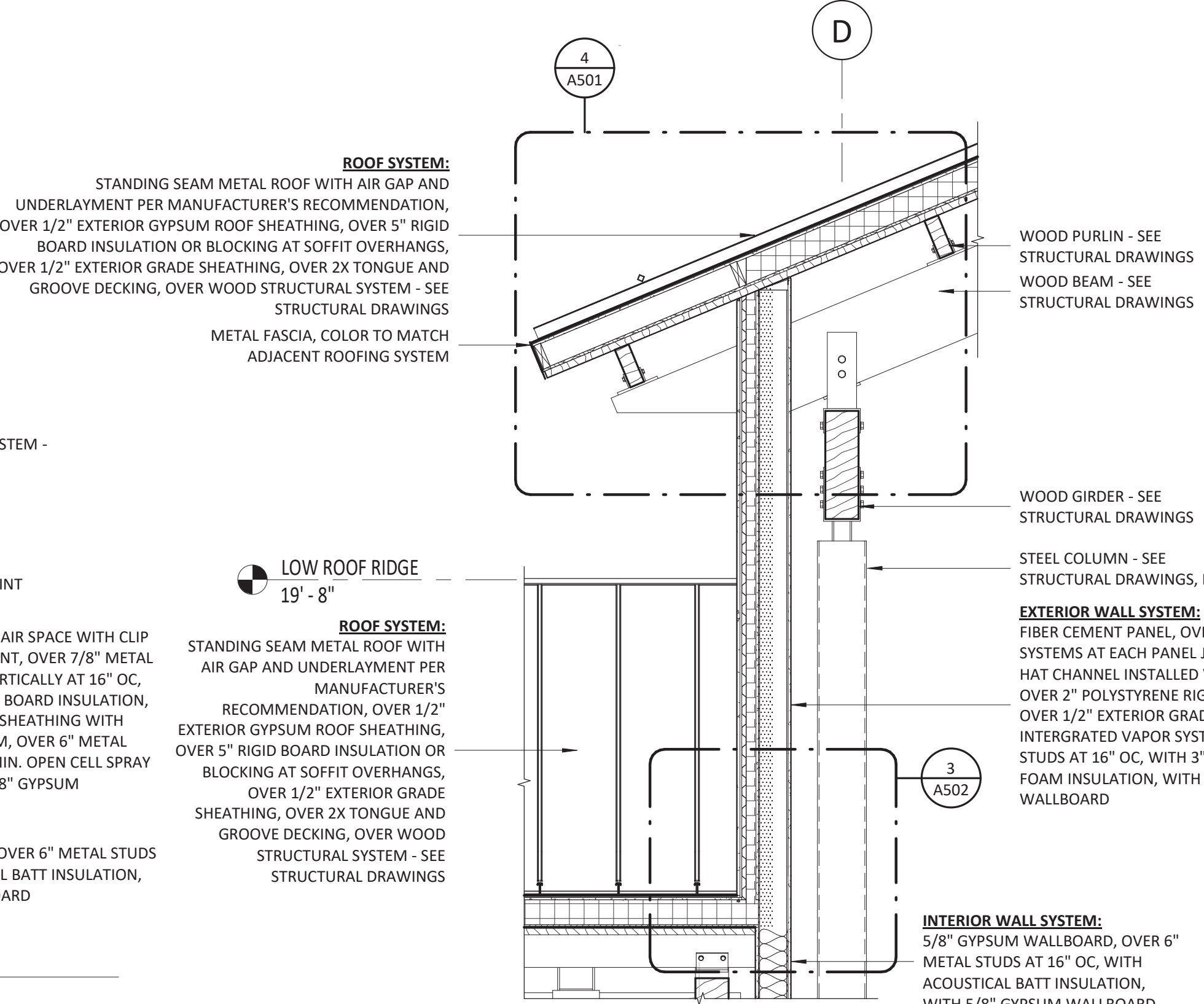
NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**RESTROOMS WALL SECTIONS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A310**



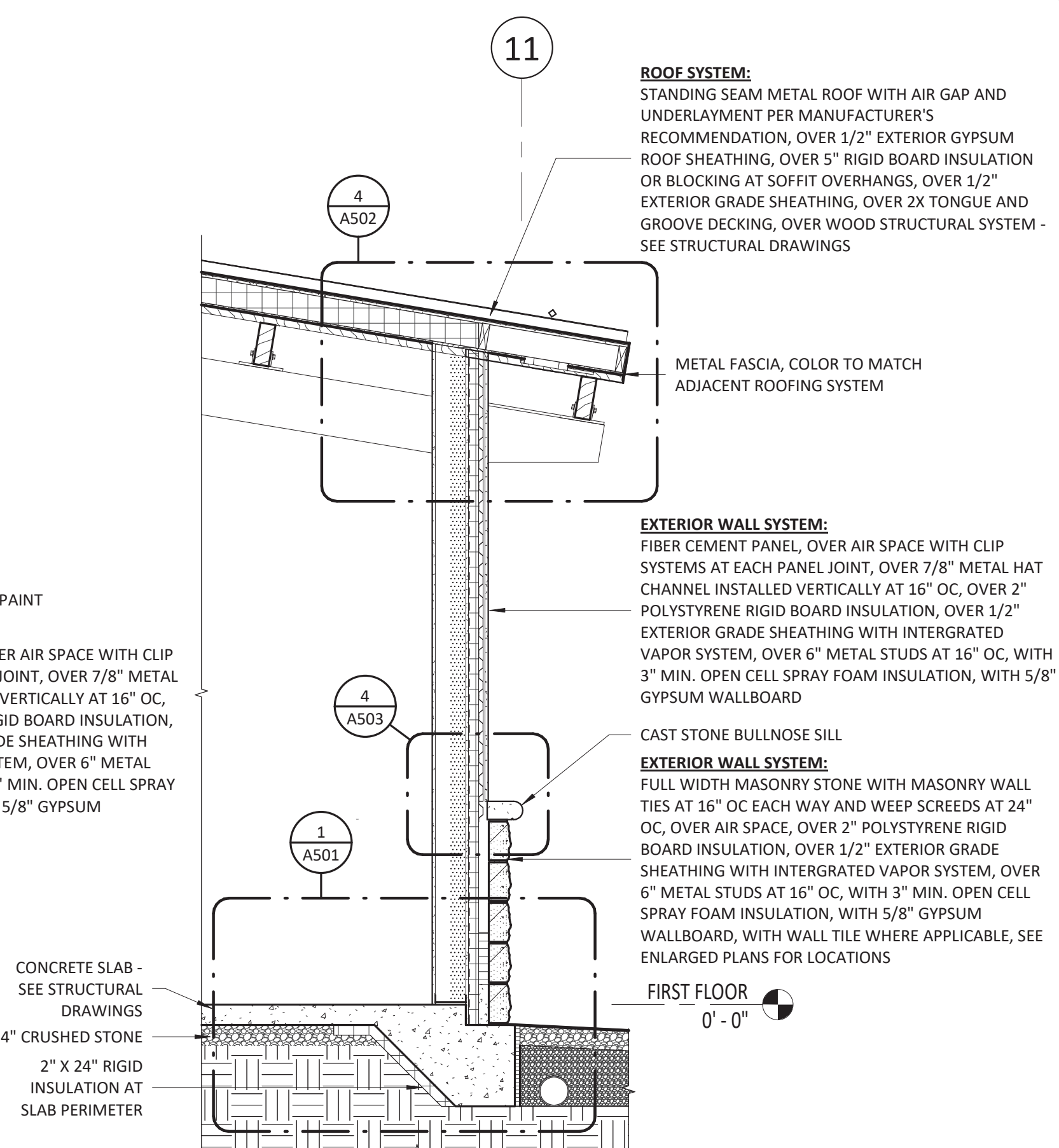
1 WALL SECTION @ UPPER ROOF EAVE

1/2" = 1'-0"



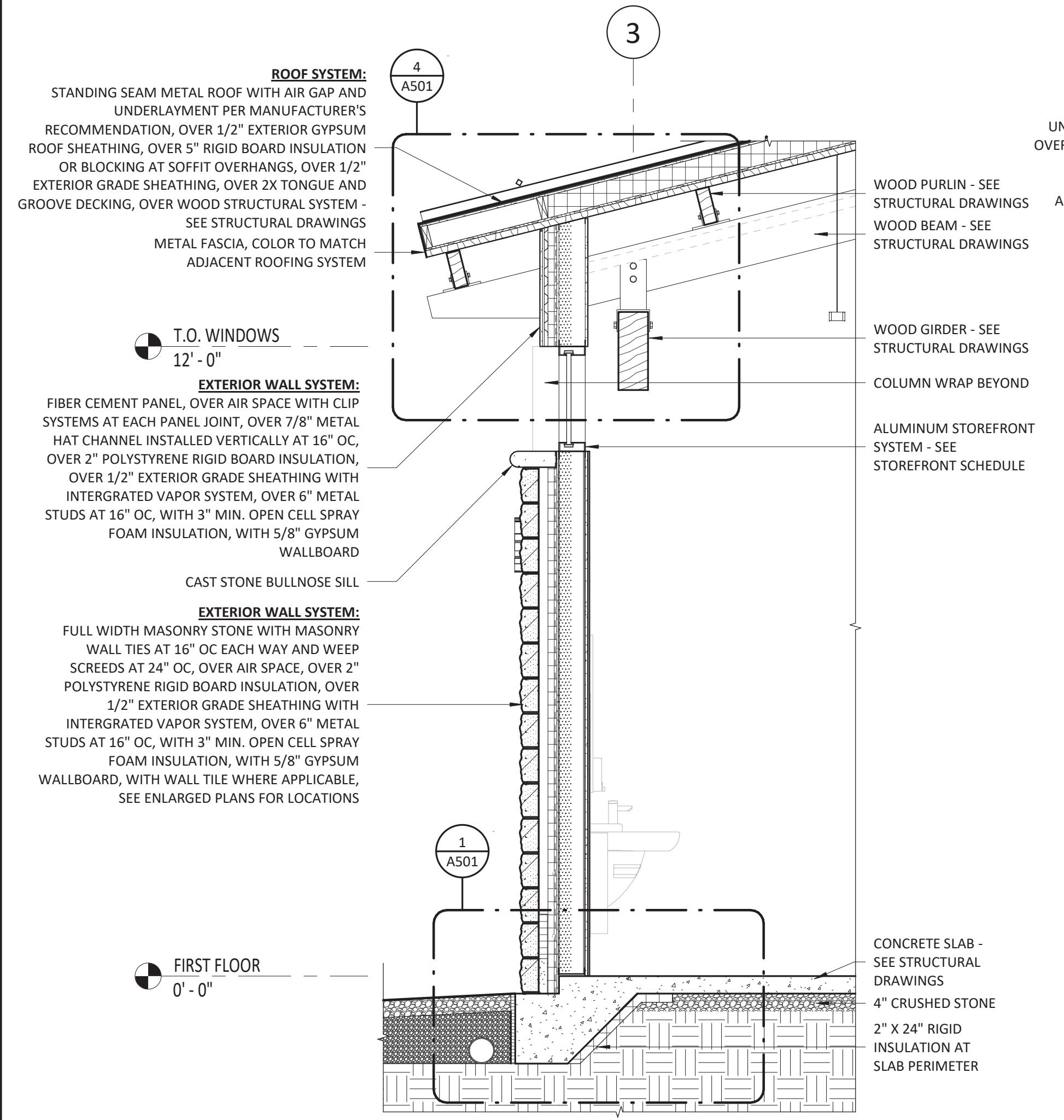
2 WALL SECTION @ UPPER ROOF EAVE

1/2" = 1'-0"



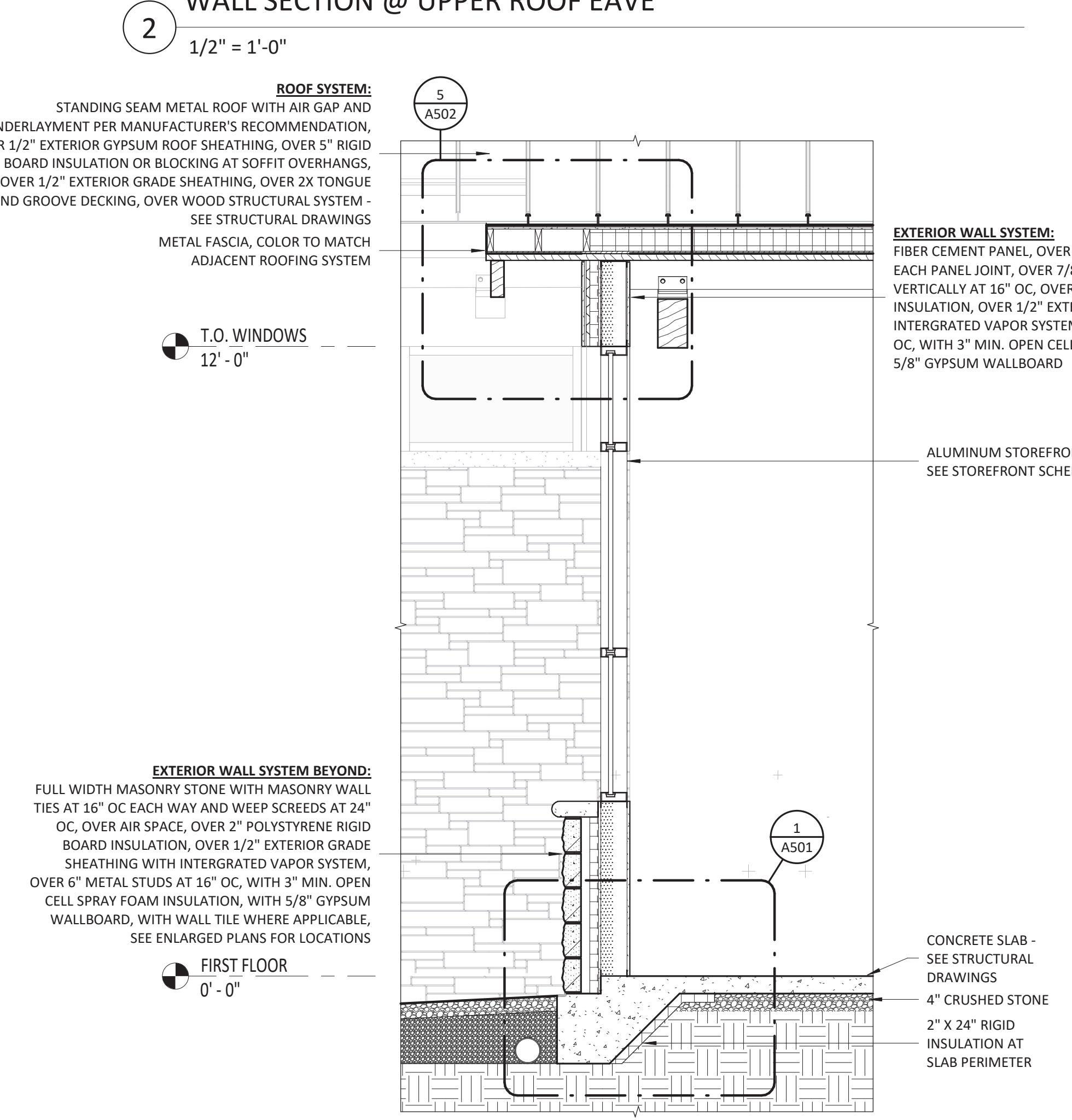
3 WALL SECTION @ NICHIIA WALL

1/2" = 1'-0"



4 WALL SECTION @ STONE WALL

1/2" = 1'-0"

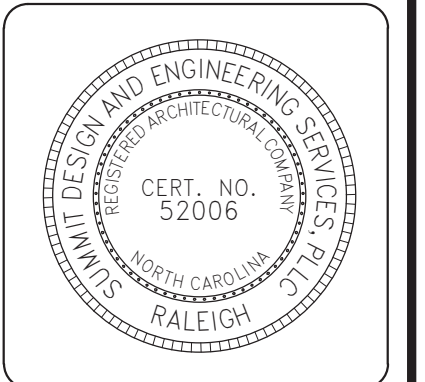


5 WALL SECTION @ STOREFRONT WINDOW

1/2" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License # P-10339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

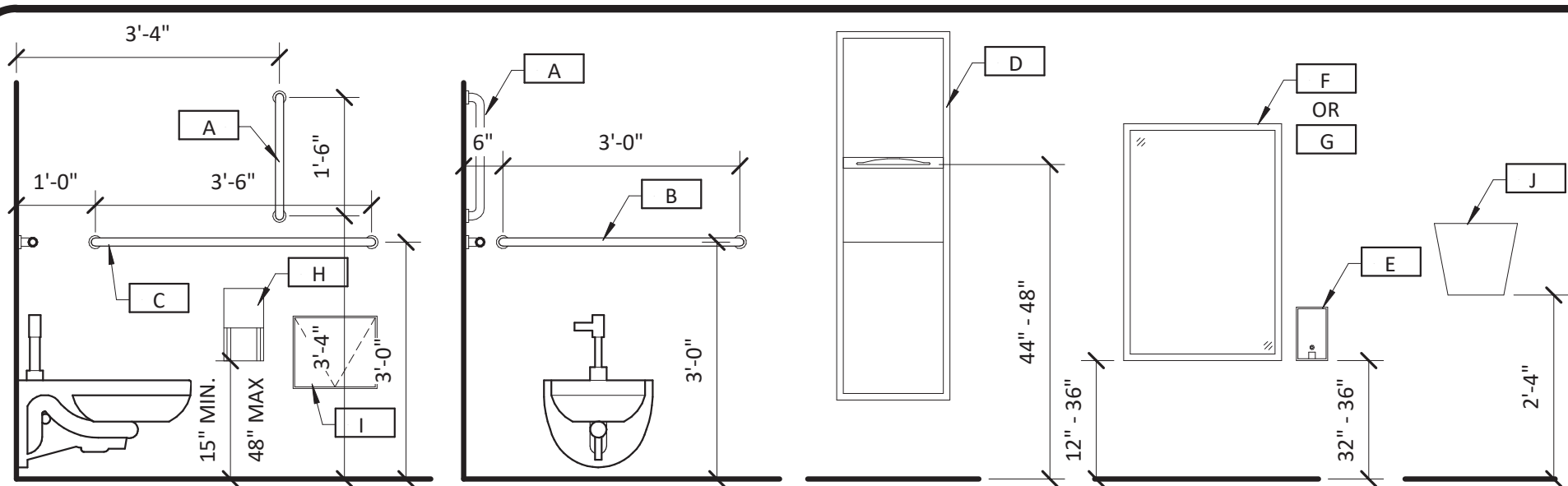


ARCHITECT OF RECORD  
BRIAN T. SHEPHARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPHARD, AIA, NCARB, LEED GA  
DRAWN BY FIRST ISSUE DATE  
MSC 11/16/2018

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MSC	MC
B	ISSUED TO NCDOT	01/22/19	MSC	MC
C	ISSUED FOR CONST.	02/21/19	MSC	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**RESTROOMS WALL SECTIONS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A311**



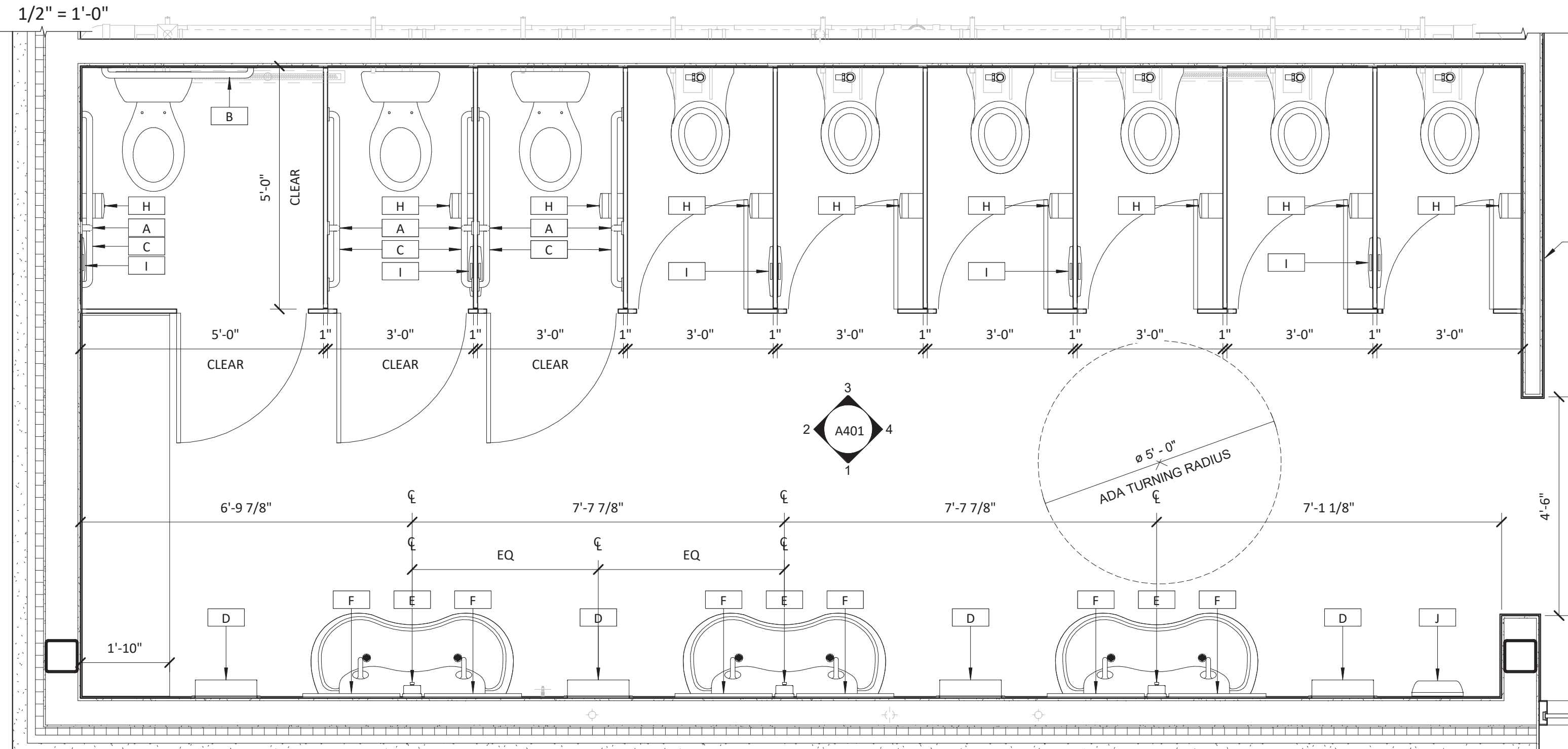
RESTROOM MOUNTING HEIGHTS

RESTROOM EQUIPMENT SCHEDULE					
TYPE MARK	MANUFACTURER	MODEL	DESCRIPTION	MOUNTING	COMMENTS
A	Bobrick	B-680x18	GRAB BAR - 18"	SURFACE	
B	Bobrick	B-680x36	GRAB BAR - 36"	SURFACE	
C	Bobrick	B-680x42	GRAB BAR - 42"	SURFACE	
D	Bobrick	B-3942	PAPER TOWEL DISPENSER AND WASTE RECEPTACLE	SEMI RECESSED	
E	Bobrick	B-2111	SOAP DISPENSER	SURFACE	
F	Bobrick	B-290 2436	WELDED FRAME MIRROR	SURFACE	
G	Bobrick	B-290 2460	WELDED FRAME MIRROR	SURFACE	
H	Bobrick	B-4288	TOILET PAPER HOLDER	SURFACE	
I	Bobrick	B-4354	SANITARY NAPKIN DISPOSAL	RECESSED	THROUGH PARTITION
J	Bobrick	B-7125	HAND DRYER	SURFACE	
K	Bobrick	B-223 x 36	MOP AND BROOM HOLDER	SURFACE	

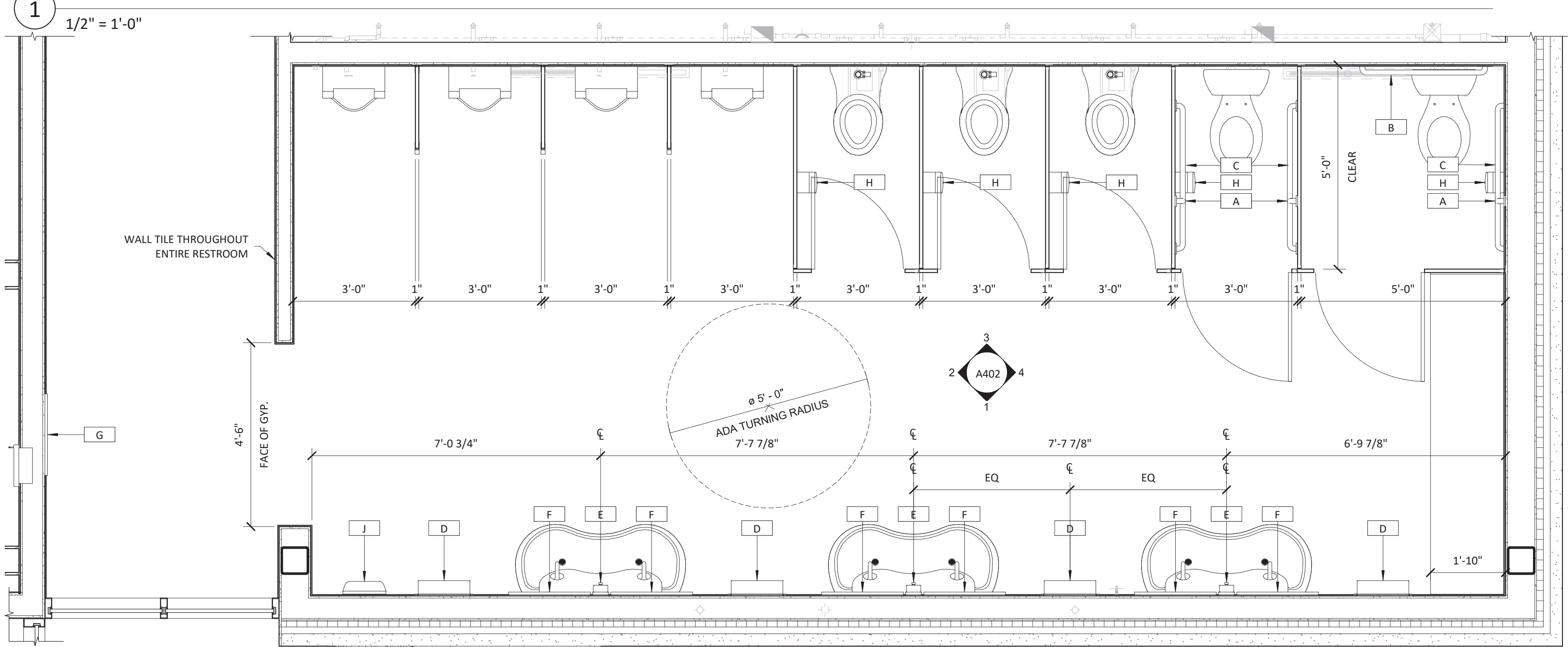
\*MANUFACTURER LISTED OR APPROVED EQUAL\*

**ADA NOTES:**

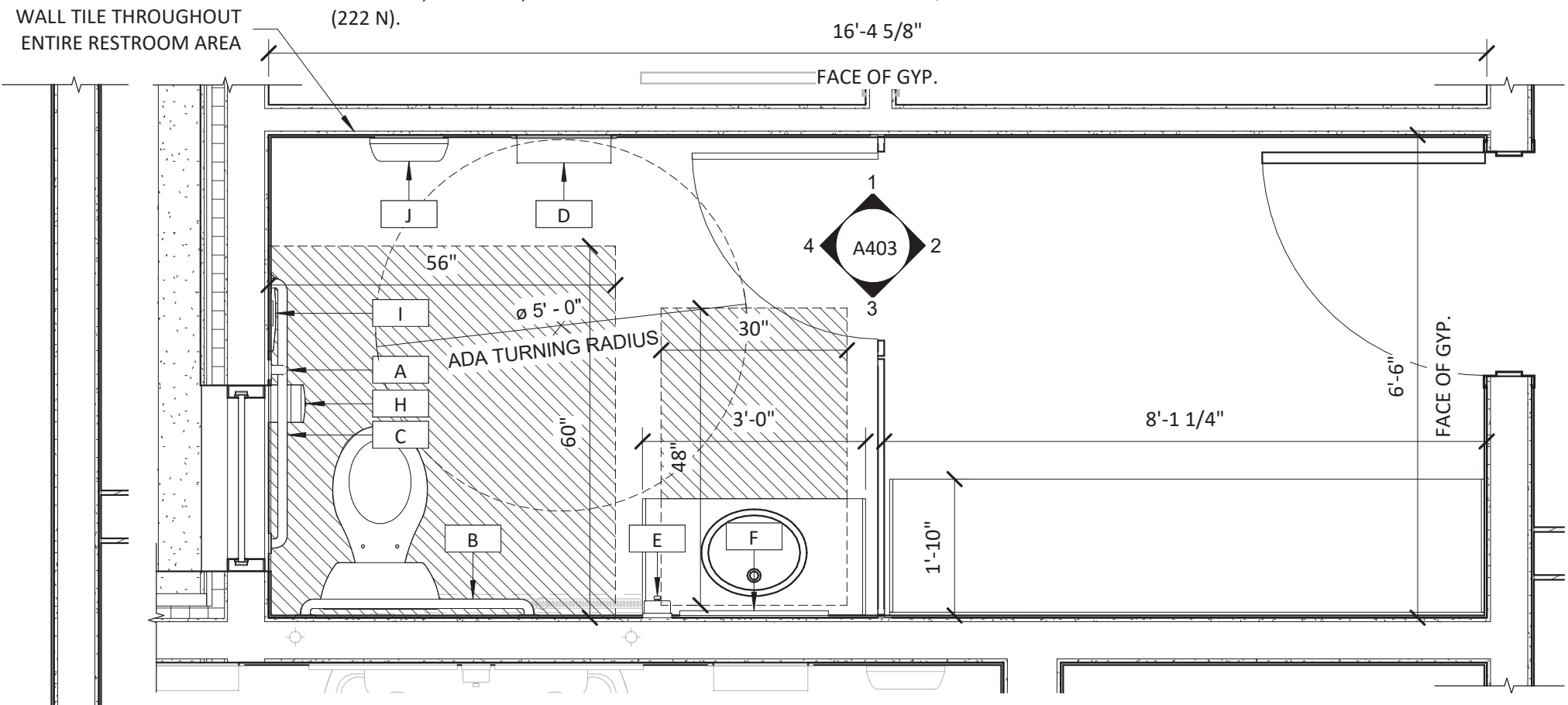
- INSIDE CLEAR DIMENSIONS SHOWN ARE AS REQUIRED TO MEET HANDICAPPED CLEARANCE CRITERIA. COORDINATE STUD/SUBSTRATE DIMENSIONS WITH WALL TYPES SHOWN ON FLOOR PLAN.
- PROVIDE FRT WOOD BLOCKING IN WALL BEHIND ALL WALL MOUNTED TOILET ACCESSORIES & EQUIPMENT. VERIFY MOUNTING HEIGHTS OF ALL OWNER MOUNTED EQUIPMENT WITH OWNER REPRESENTATIVE.
- GRAB BARS TO BE BOBRICK BY LENGTH INDICATED ON DRAWINGS AND TO MEET 609 OF ANSI 310.10.
- THE RESTROOM LAYOUT IS BASED ON AND COMPLIES WITH THE "AMERICAN WITH DISABILITIES ACT" LATEST REGULATIONS. PLEASE NOTE THE FOLLOWING SECTIONS:  
 4.16.5 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND SHALL COMPLY WITH 4.27.4. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS NO MORE THAN 44" (1120mm) ABOVE THE FLOOR.  
 4.19.4 EXPOSED PIPES AND SURFACES. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.  
 4.19.5 FAUCETS. FAUCETS SHALL COMPLY WITH 4.27.4. LEVER-OPERATED PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.  
 4.26.2 GRAB BARS. OUTSIDE DIAMETER - MIN 1 1/4", MAX 1 1/2", SPACE BETWEEN WALL AND GRAB BAR - 1 1/2"  
 4.27.4 OPERATION. CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF (222 N).



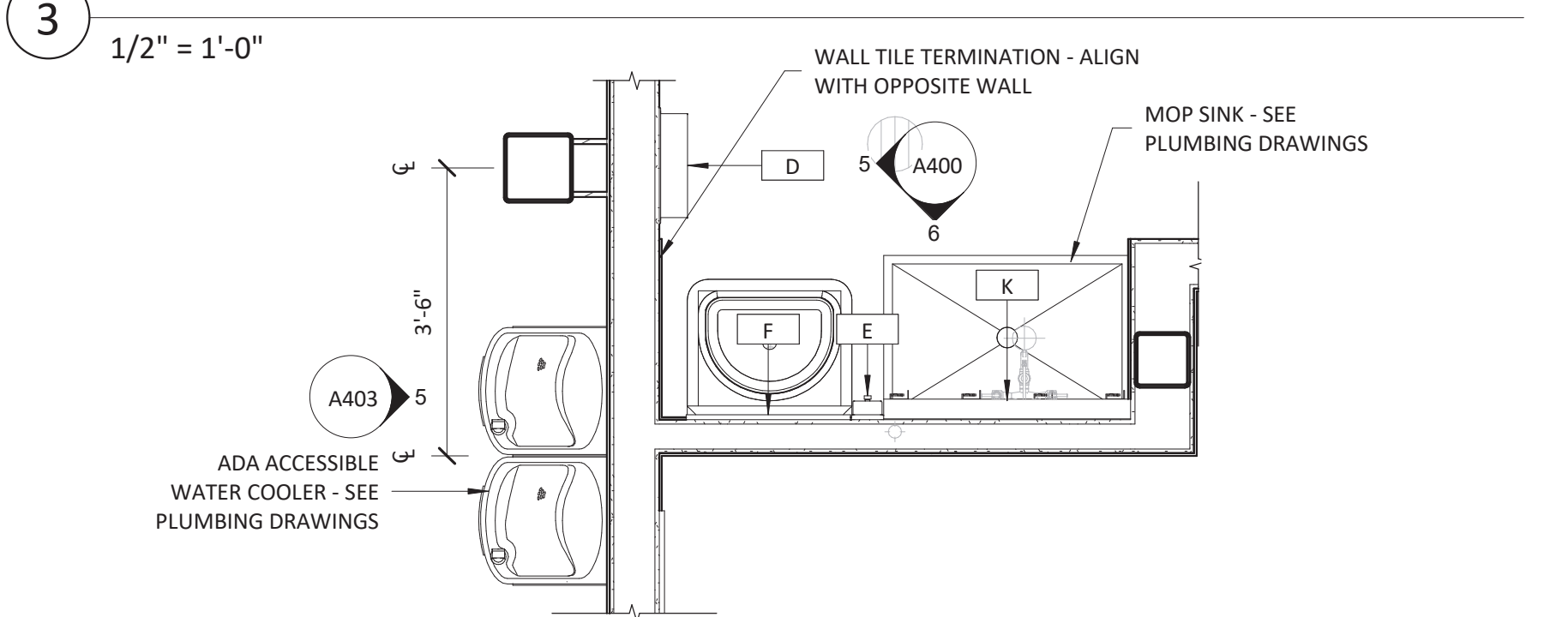
1 ENLARGED TYPICAL WOMEN'S RESTROOM LAYOUT



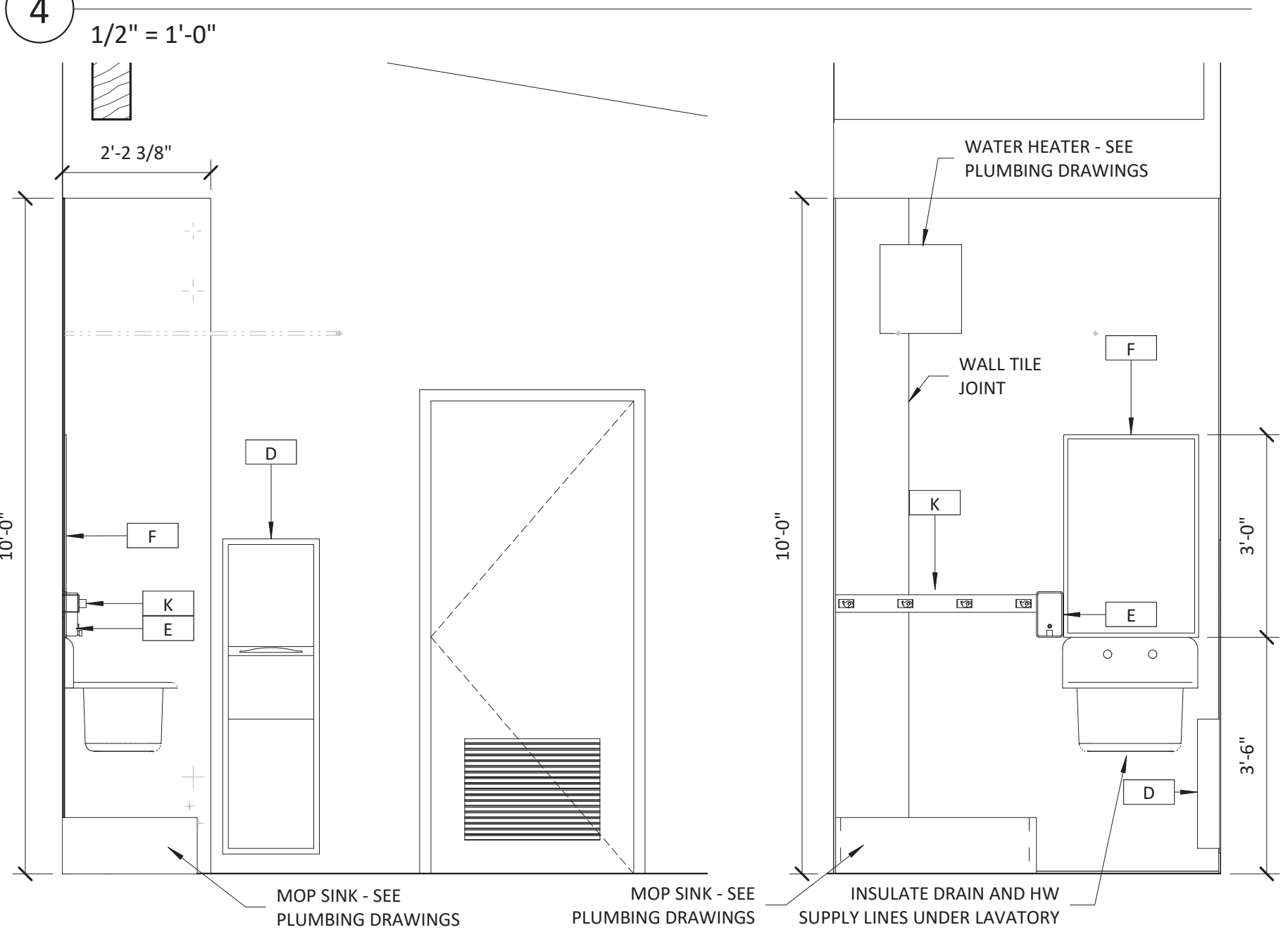
2 ENLARGED TYPICAL MEN'S RESTROOM LAYOUT



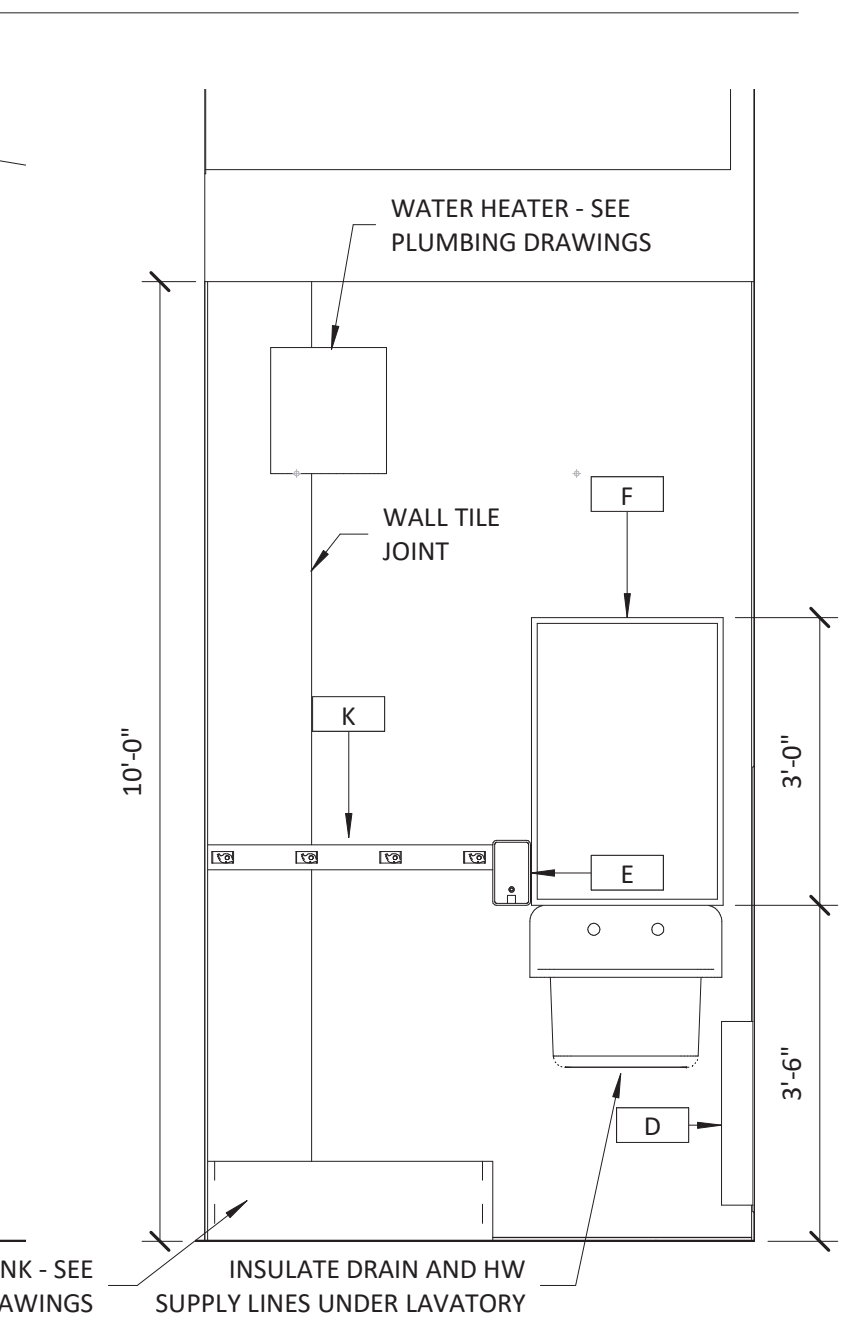
3 ENLARGED FAMILY RESTROOM



4 ENLARGED JANITOR PLAN



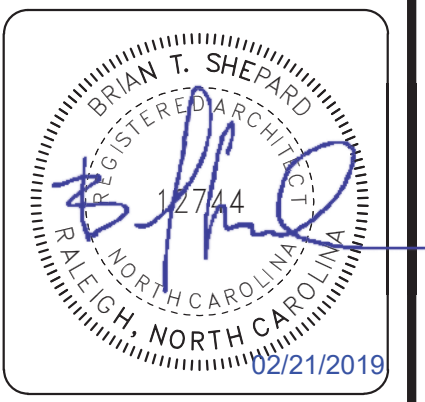
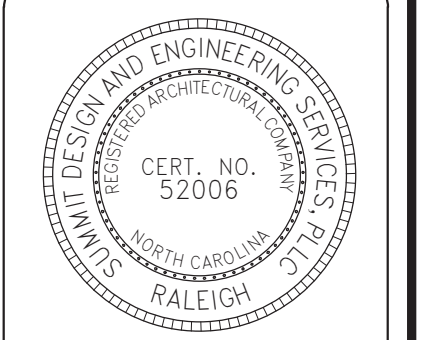
5 JANITOR ELEVATION



6 JANITOR ELEVATION

**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 Creatively Inspired - Technically Executed  
 License # P-20339  
 1110 Navaho Drive, Suite 400  
 Raleigh, NC 27609  
 Phone: (919) 322-0115  
 Fax: (919) 322-0116  
 www.SummitDE.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
 THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

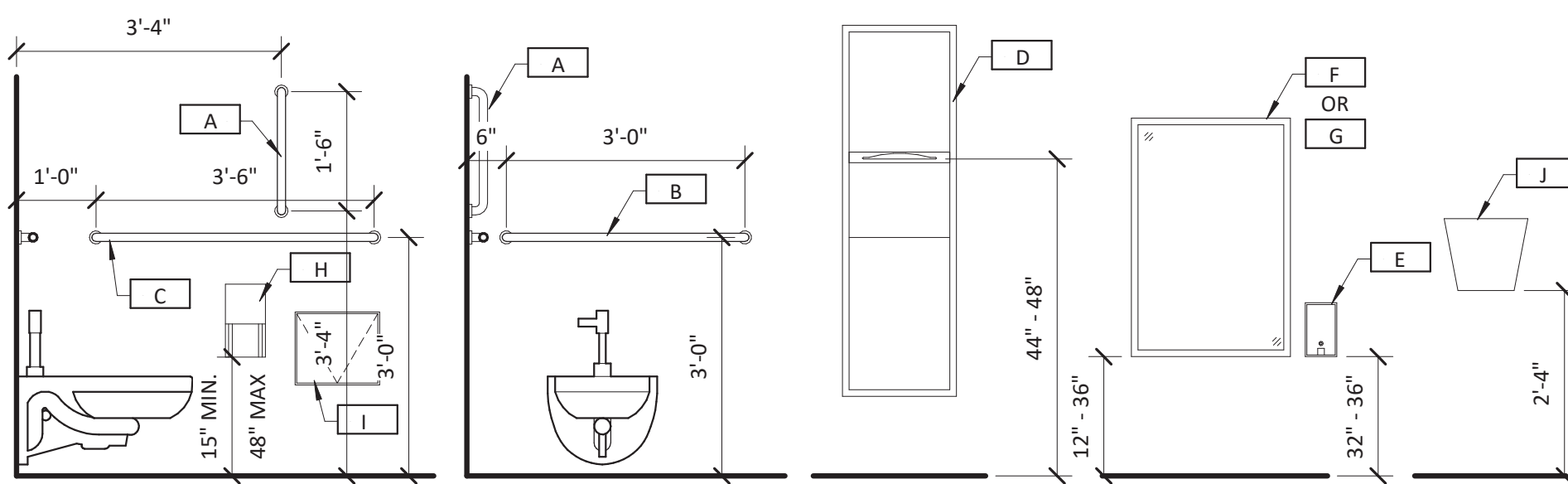


ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 PROJECT MANAGER  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 DRAWN BY MSC  
 FIRST ISSUE DATE 11/16/2019

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**ENLARGED PLANS, ELEV., & SCHEDULE**

PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**A400**



RESTROOM MOUNTING HEIGHTS

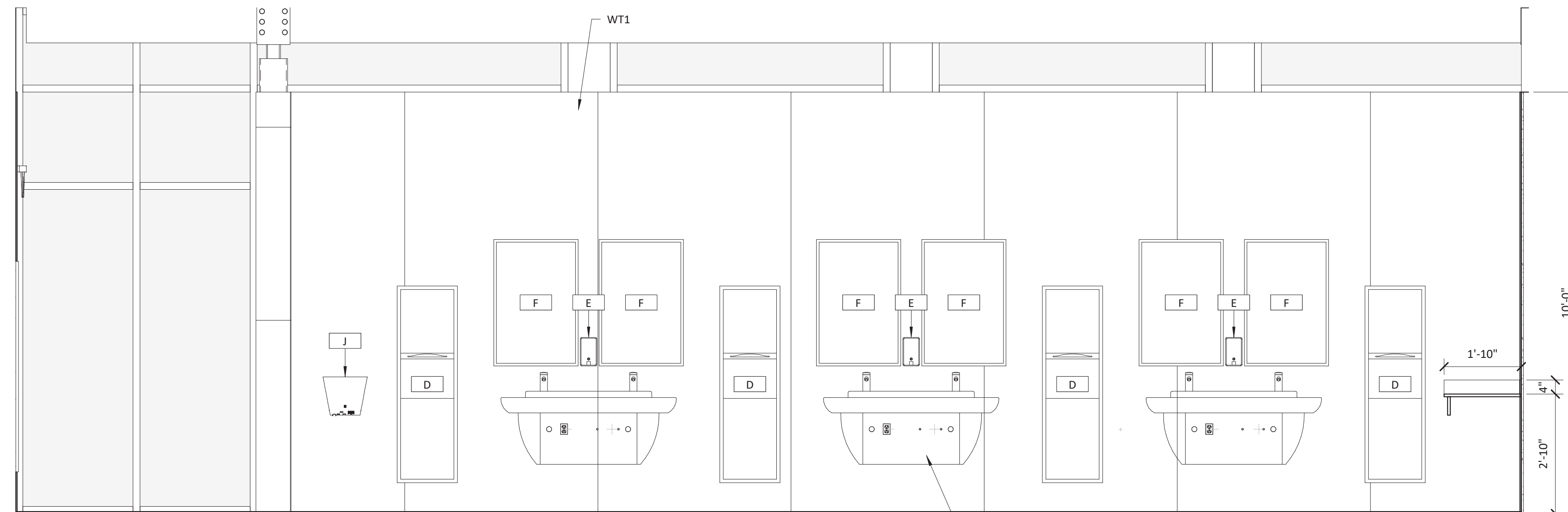
1/2" = 1'-0"

RESTROOM EQUIPMENT SCHEDULE					
TYPE MARK	MANUFACTURER	MODEL	DESCRIPTION	MOUNTING	COMMENTS
A	Bobrick	B-680x18	GRAB BAR - 18"	SURFACE	
B	Bobrick	B-680x36	GRAB BAR - 36"	SURFACE	
C	Bobrick	B-680x42	GRAB BAR - 42"	SURFACE	
D	Bobrick	B-3942	PAPER TOWEL DISPENSER AND WASTE RECEPTACLE	SEMI RECESSED	
E	Bobrick	B-2111	SOAP DISPENSER	SURFACE	
F	Bobrick	B-290 2436	WELDED FRAME MIRROR	SURFACE	
G	Bobrick	B-290 2460	WELDED FRAME MIRROR	SURFACE	
H	Bobrick	B-4288	TOILET PAPER HOLDER	SURFACE	
I	Bobrick	B-4354	SANITARY NAPKIN DISPOSAL	RECESSED	THROUGH PARTITION
J	Bobrick	B-7125	HAND DRYER	SURFACE	
K	Bobrick	B-223 x 36	MOP AND BROOM HOLDER	SURFACE	

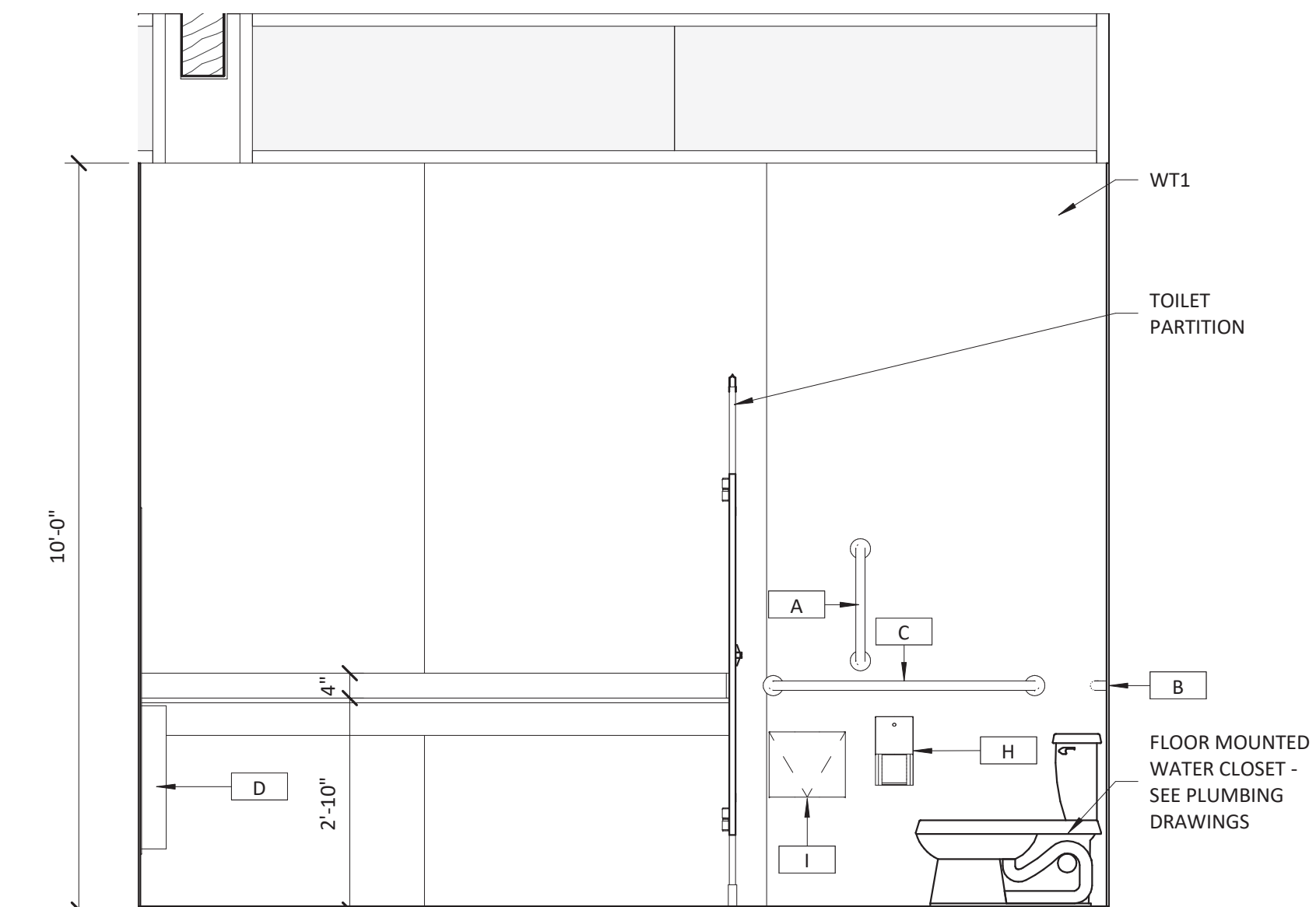
\*MANUFACTURER LISTED OR APPROVED EQUAL\*

**ADA NOTES:**

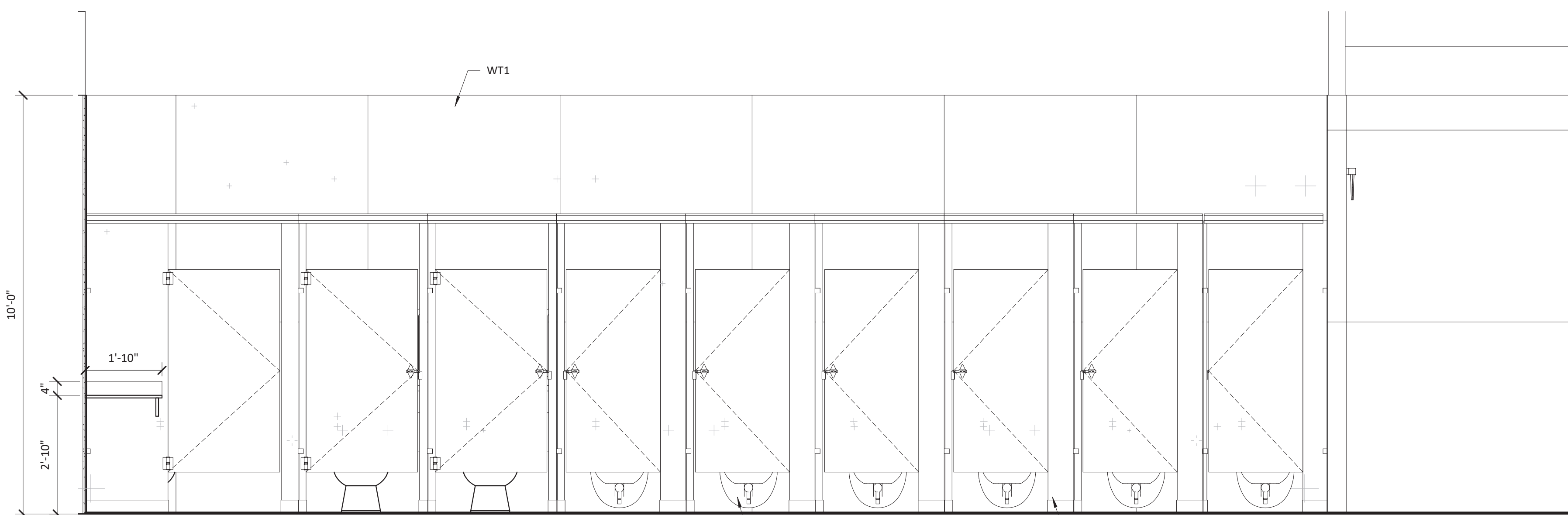
- INSIDE CLEAR DIMENSIONS SHOWN ARE AS REQUIRED TO MEET HANDICAPPED CLEARANCE CRITERIA. COORDINATE STUD/SUBSTRATE DIMENSIONS WITH WALL TYPES SHOWN ON FLOOR PLAN.
- PROVIDE FRT WOOD BLOCKING IN WALL BEHIND ALL WALL MOUNTED TOILET ACCESSORIES & EQUIPMENT. VERIFY MOUNTING HEIGHTS OF ALL OWNER MOUNTED EQUIPMENT WITH OWNER REPRESENTATIVE.
- GRAB BARS TO BE BOBRICK BY LENGTH INDICATED ON DRAWINGS AND TO MEET 609 OF ANSI 2010.
- THE RESTROOM LAYOUT IS BASED ON AND COMPLIES WITH THE "AMERICAN WITH DISABILITIES ACT" LATEST REGULATIONS. PLEASE NOTE THE FOLLOWING SECTIONS:  
 4.16.5 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND SHALL COMPLY WITH 4.27.4. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS NO MORE THAN 44" (1120mm) ABOVE THE FLOOR.  
 4.19.4 EXPOSED PIPES AND SURFACES. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.  
 4.19.5 FAUCETS. FAUCETS SHALL COMPLY WITH 4.27.4. LEVER-OPERATED PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.  
 4.26.2 GRAB BARS. OUTSIDE DIAMETER - MIN 1 1/4", MAX 1 1/2", SPACE BETWEEN WALL AND GRAB BAR - 1 1/2"  
 4.27.4 OPERATION. CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF (222 N).



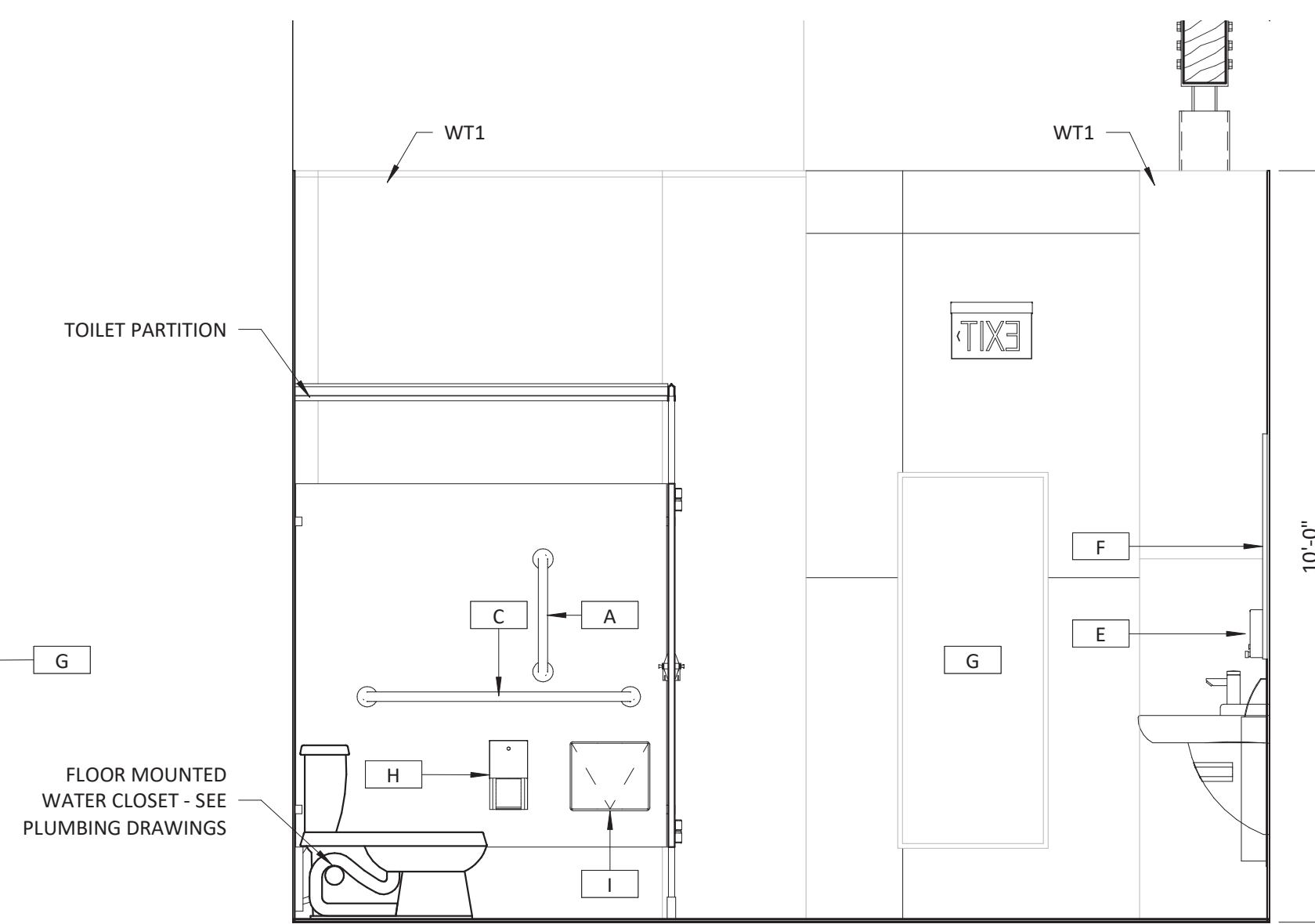
1 WOMEN'S RESTROOM ELEVATION  
1/2" = 1'-0"



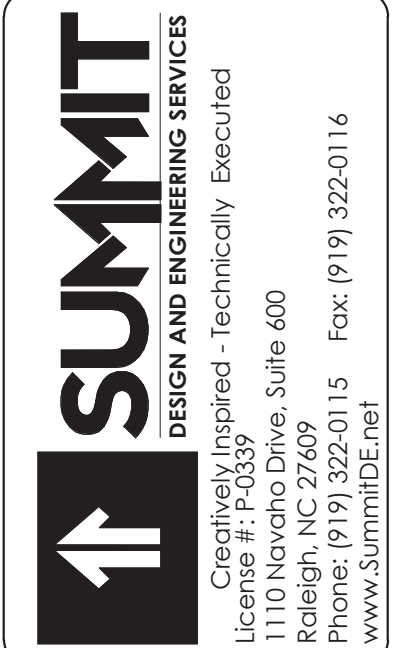
2 WOMEN'S RESTROOM ELEVATION  
1/2" = 1'-0"



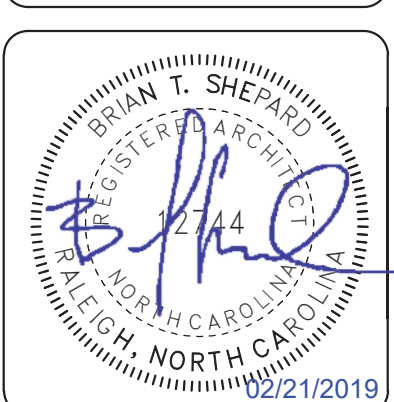
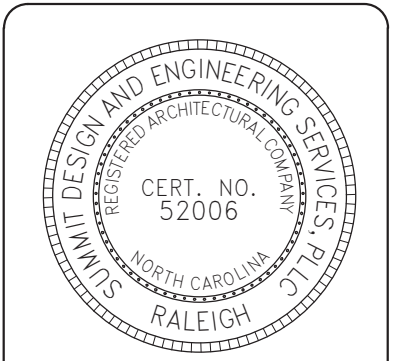
3 WOMEN'S RESTROOM ELEVATION  
1/2" = 1'-0"



4 WOMEN'S RESTROOM ELEVATION  
1/2" = 1'-0"



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

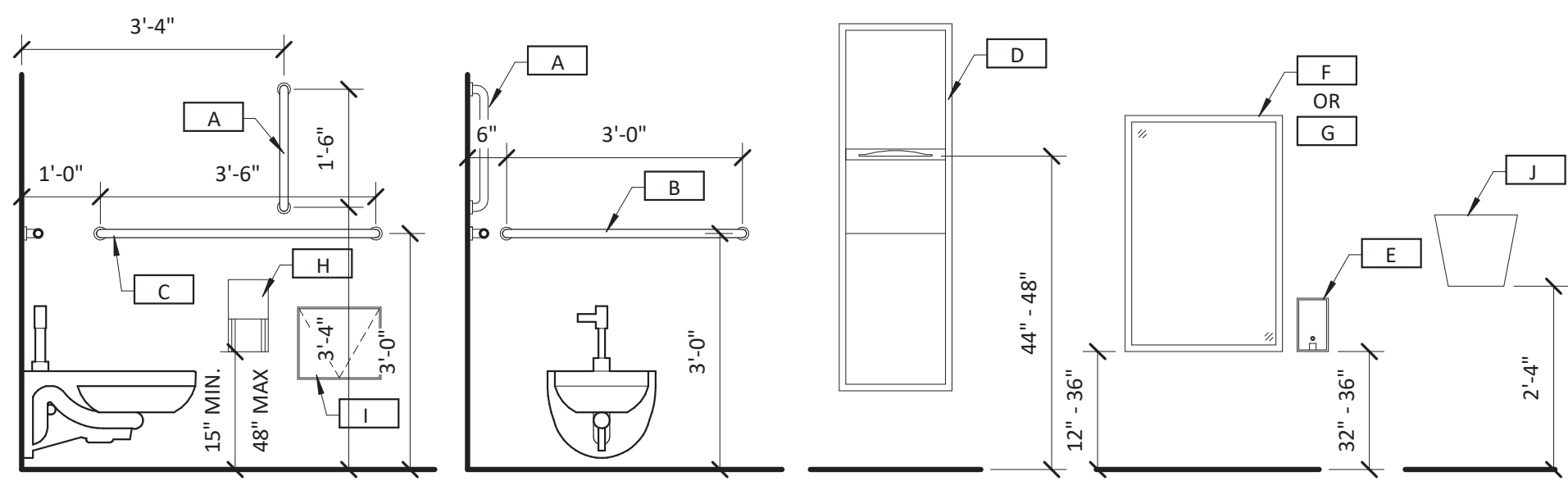


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 11/16/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**ENLARGED ELEVATIONS & DETAILS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A401**



RESTROOM MOUNTING HEIGHTS

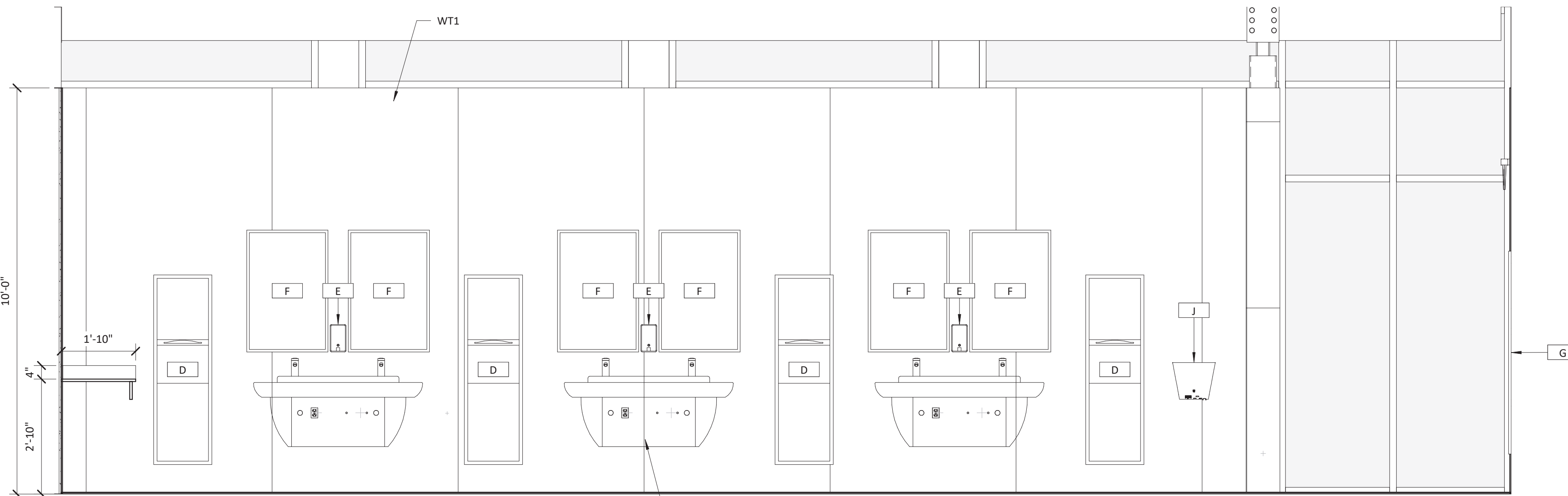
1/2" = 1'-0"

RESTROOM EQUIPMENT SCHEDULE					
TYPE MARK	MANUFACTURER	MODEL	DESCRIPTION	MOUNTING	COMMENTS
A	Bobrick	B-680x18	GRAB BAR - 18"	SURFACE	
B	Bobrick	B-680x36	GRAB BAR - 36"	SURFACE	
C	Bobrick	B-680x42	GRAB BAR - 42"	SURFACE	
D	Bobrick	B-3942	PAPER TOWEL DISPENSER AND WASTE RECEPTACLE	SEMI RECESSED	
E	Bobrick	B-2111	SOAP DISPENSER	SURFACE	
F	Bobrick	B-290 2436	WELDED FRAME MIRROR	SURFACE	
G	Bobrick	B-290 2460	WELDED FRAME MIRROR	SURFACE	
H	Bobrick	B-4288	TOILET PAPER HOLDER	SURFACE	
I	Bobrick	B-4354	SANITARY NAPKIN DISPOSAL	RECESSED	THROUGH PARTITION
J	Bobrick	B-7125	HAND DRYER	SURFACE	
K	Bobrick	B-223 x 36	MOP AND BROOM HOLDER	SURFACE	

\*MANUFACTURER LISTED OR APPROVED EQUAL\*

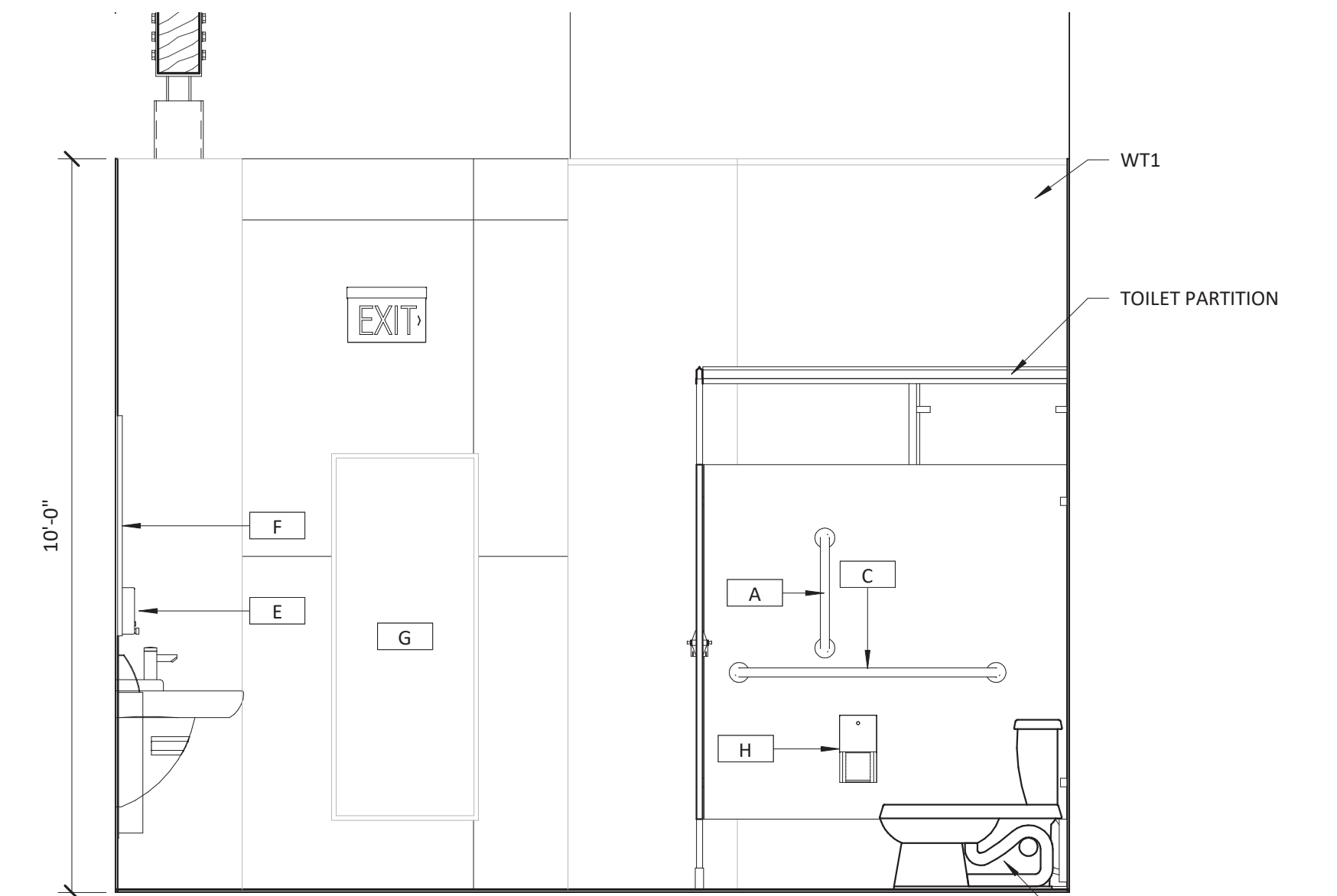
**ADA NOTES:**

- INSIDE CLEAR DIMENSIONS SHOWN ARE AS REQUIRED TO MEET HANDICAPPED CLEARANCE CRITERIA. COORDINATE STUD/SUBSTRATE DIMENSIONS WITH WALL TYPES SHOWN ON FLOOR PLAN.
- PROVIDE FRT WOOD BLOCKING IN WALL BEHIND ALL WALL MOUNTED TOILET ACCESSORIES & EQUIPMENT. VERIFY MOUNTING HEIGHTS OF ALL OWNER MOUNTED EQUIPMENT WITH OWNER REPRESENTATIVE.
- GRAB BARS TO BE BOBRICK BY LENGTH INDICATED ON DRAWINGS AND TO MEET 609 OF ANSI 2010.
- THE RESTROOM LAYOUT IS BASED ON AND COMPLIES WITH THE "AMERICAN WITH DISABILITIES ACT" LATEST REGULATIONS. PLEASE NOTE THE FOLLOWING SECTIONS:  
 4.16.5 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND SHALL COMPLY WITH 4.27.4. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS NO MORE THAN 44" (1120mm) ABOVE THE FLOOR.  
 4.19.4 EXPOSED PIPES AND SURFACES. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.  
 4.19.5 FAUCETS. FAUCETS SHALL COMPLY WITH 4.27.4. LEVER-OPERATED PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.  
 4.26.2 GRAB BARS. OUTSIDE DIAMETER - MIN 1 1/4", MAX 1 1/2", SPACE BETWEEN WALL AND GRAB BAR - 1 1/2"  
 4.27.4 OPERATION. CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF (222 N).



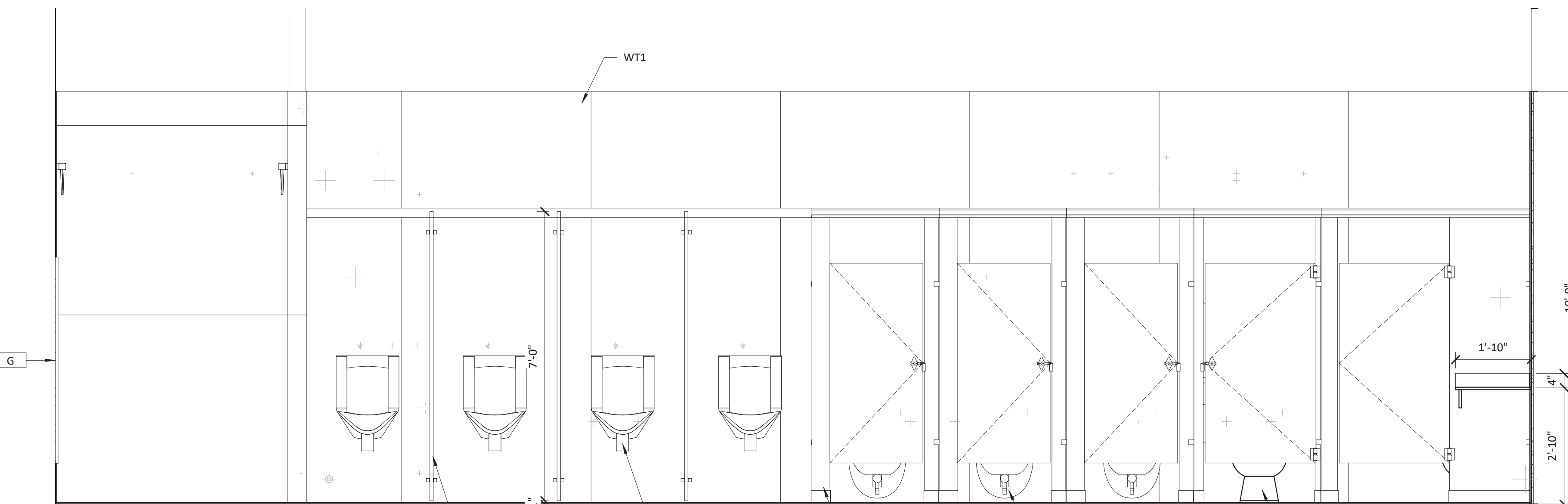
1 MEN'S RESTROOM ELEVATION

1/2" = 1'-0"



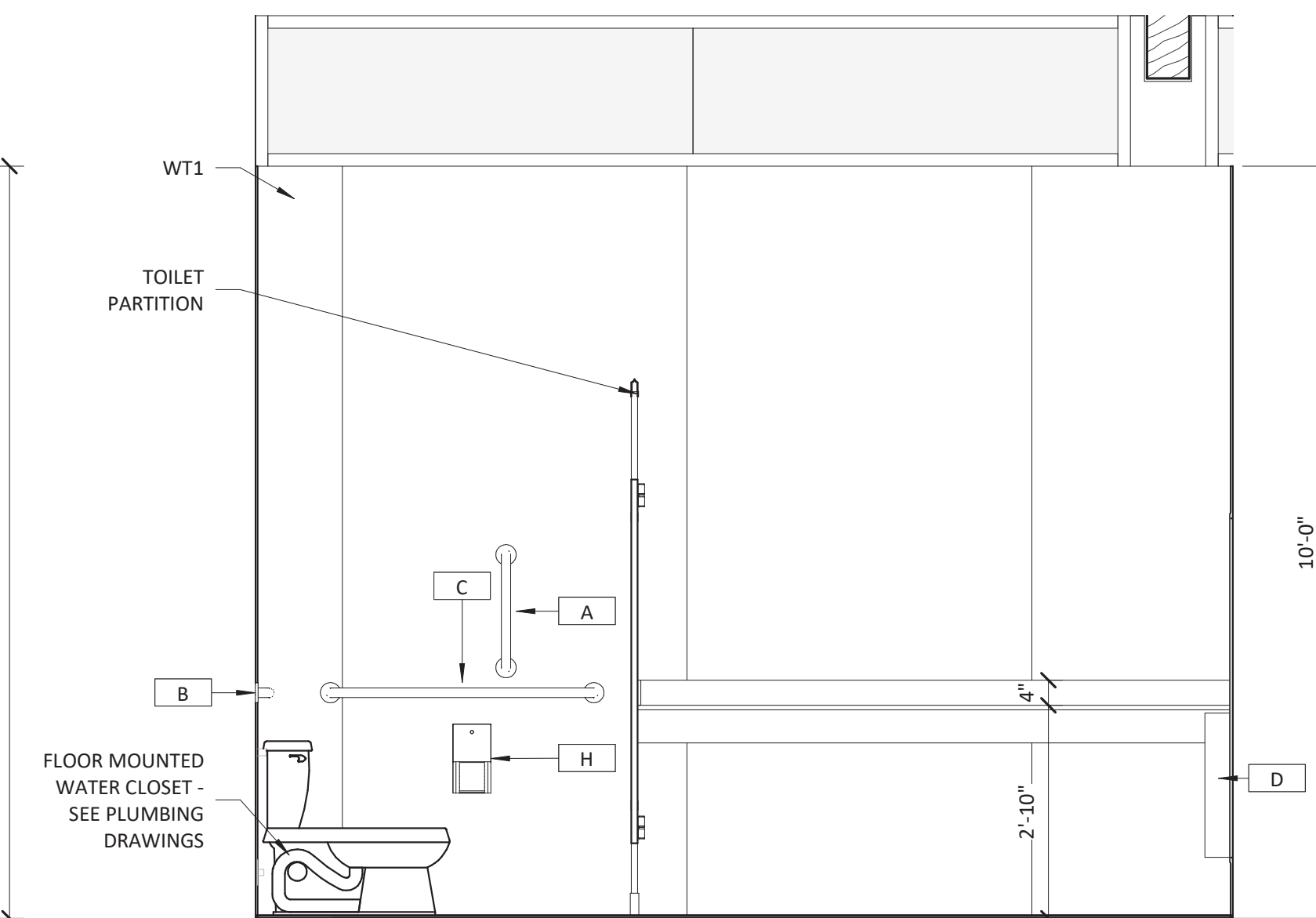
2 MEN'S RESTROOM ELEVATION

1/2" = 1'-0"



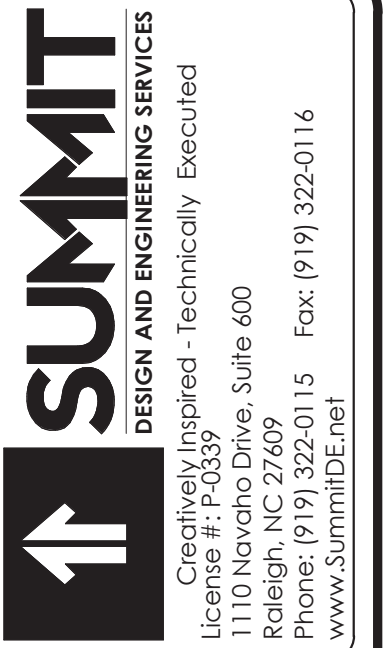
3 MEN'S RESTROOM ELEVATION

1/2" = 1'-0"

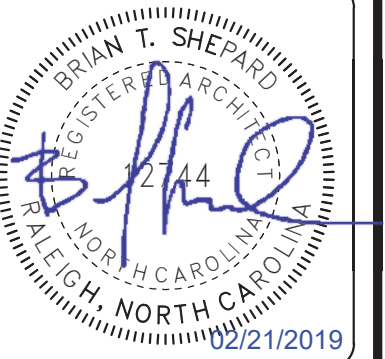
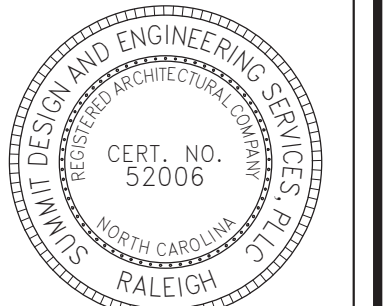


4 MEN'S RESTROOM ELEVATION

1/2" = 1'-0"



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
 THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

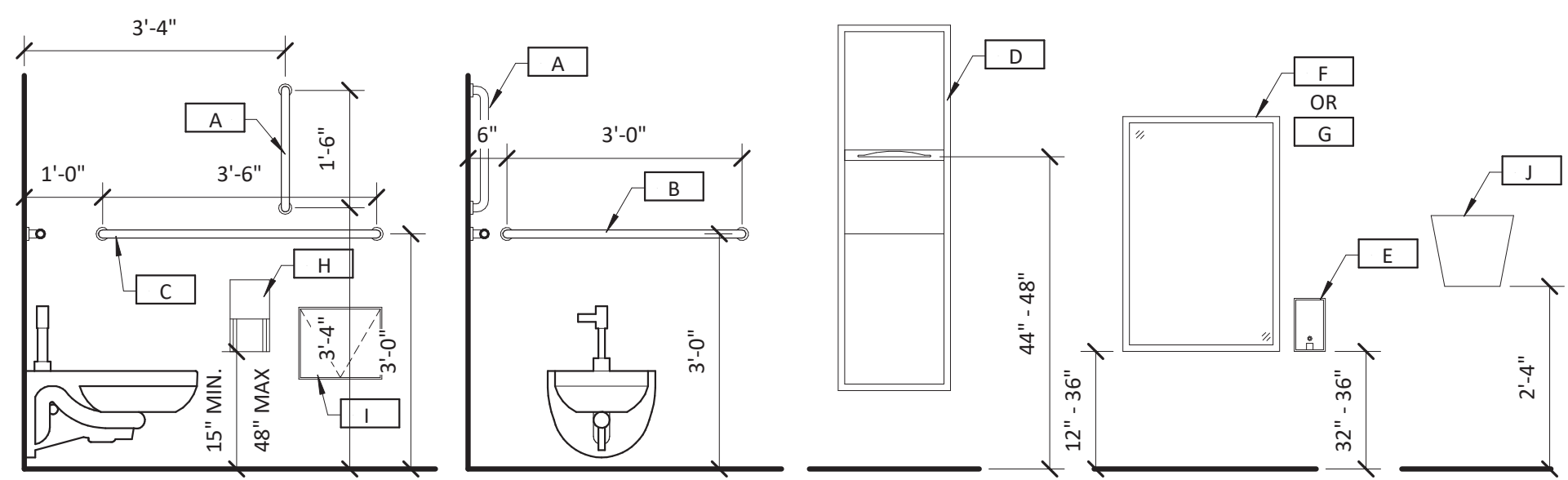


ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 PROJECT MANAGER  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 DRAWN BY MSC FIRST ISSUE DATE 11/16/2018

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MC	
B	ISSUED TO NCDOT	01/22/19	MC	
C	ISSUED FOR CONST.	02/21/19	MC	

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**ENLARGED ELEVATIONS & DETAILS**

PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**A402**



RESTROOM MOUNTING HEIGHTS

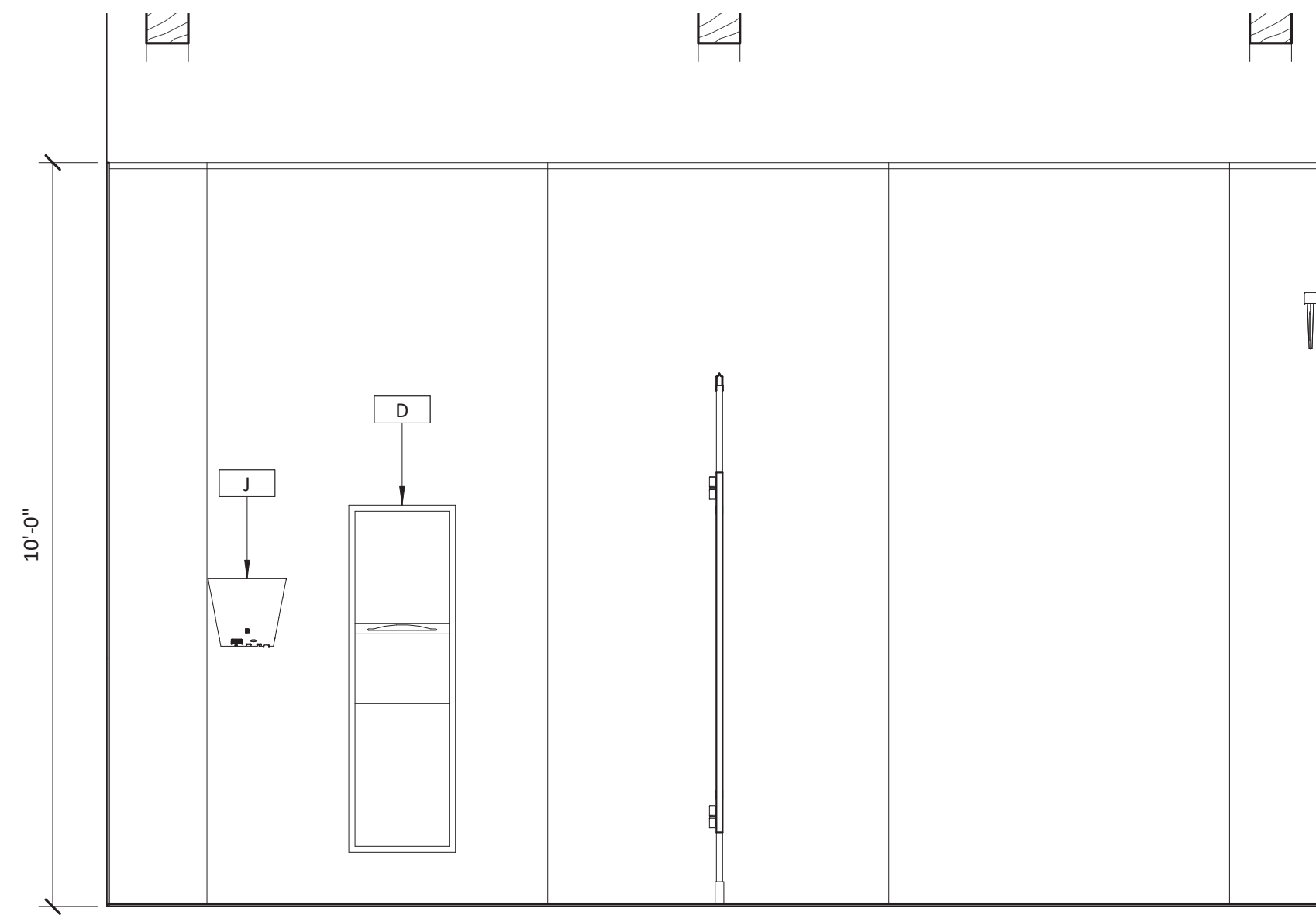
1/2" = 1'-0"

RESTROOM EQUIPMENT SCHEDULE					
TYPE MARK	MANUFACTURER	MODEL	DESCRIPTION	MOUNTING	COMMENTS
A	Bobrick	B-680x18	GRAB BAR - 18"	SURFACE	
B	Bobrick	B-680x36	GRAB BAR - 36"	SURFACE	
C	Bobrick	B-680x42	GRAB BAR - 42"	SURFACE	
D	Bobrick	B-3942	PAPER TOWEL DISPENSER AND WASTE RECEPTACLE	SEMI RECESSED	
E	Bobrick	B-2111	SOAP DISPENSER	SURFACE	
F	Bobrick	B-290 2436	WELDED FRAME MIRROR	SURFACE	
G	Bobrick	B-290 2460	WELDED FRAME MIRROR	SURFACE	
H	Bobrick	B-4288	TOILET PAPER HOLDER	SURFACE	
I	Bobrick	B-4354	SANITARY NAPKIN DISPOSAL	RECESSED	THROUGH PARTITION
J	Bobrick	B-7125	HAND DRYER	SURFACE	
K	Bobrick	B-223 x 36	MOP AND BROOM HOLDER	SURFACE	

\*MANUFACTURER LISTED OR APPROVED EQUAL\*

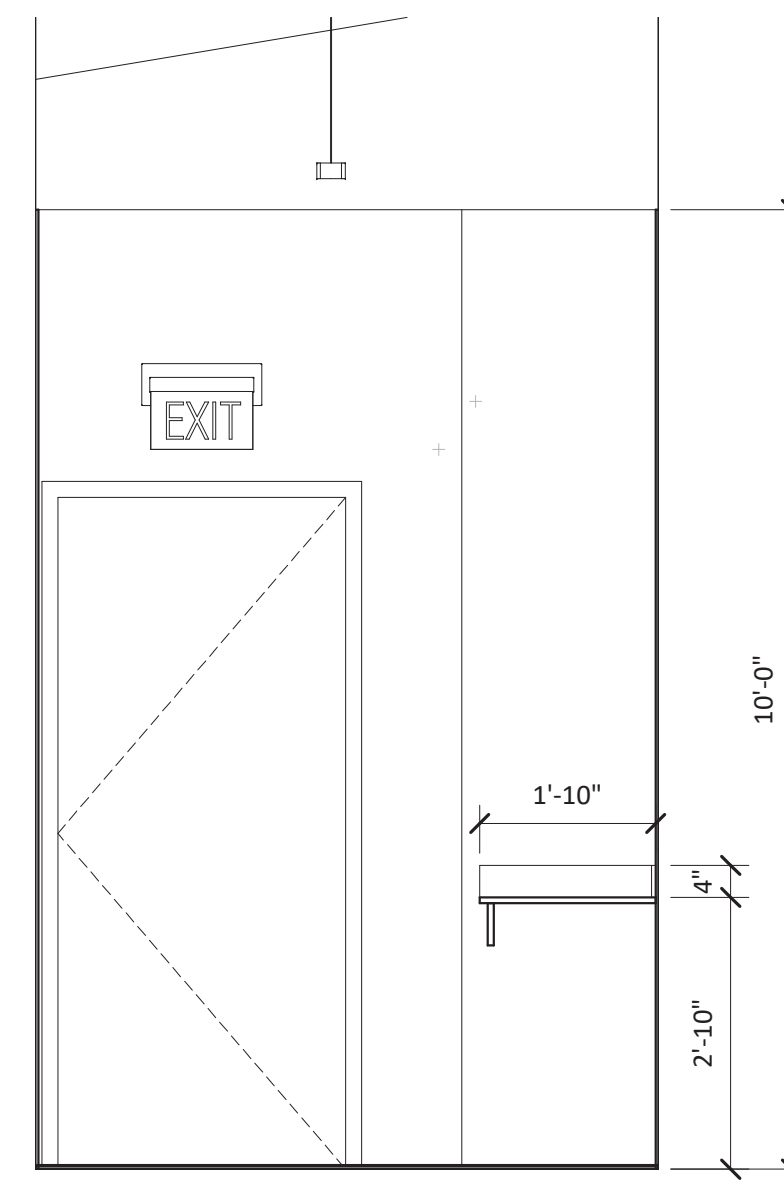
**ADA NOTES:**

- INSIDE CLEAR DIMENSIONS SHOWN ARE AS REQUIRED TO MEET HANDICAPPED CLEARANCE CRITERIA. COORDINATE STUD/SUBSTRATE DIMENSIONS WITH WALL TYPES SHOWN ON FLOOR PLAN.
- PROVIDE FRT WOOD BLOCKING IN WALL BEHIND ALL WALL MOUNTED TOILET ACCESSORIES & EQUIPMENT. VERIFY MOUNTING HEIGHTS OF ALL OWNER MOUNTED EQUIPMENT WITH OWNER REPRESENTATIVE.
- GRAB BARS TO BE BOBRICK BY LENGTH INDICATED ON DRAWINGS AND TO MEET 609 OF ANSI 2010.
- THE RESTROOM LAYOUT IS BASED ON AND COMPLIES WITH THE "AMERICAN WITH DISABILITIES ACT" LATEST REGULATIONS. PLEASE NOTE THE FOLLOWING SECTIONS:  
 4.16.5 FLUSH CONTROLS. FLUSH CONTROLS SHALL BE HAND OPERATED OR AUTOMATIC AND SHALL COMPLY WITH 4.27.4. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS NO MORE THAN 44" (1120mm) ABOVE THE FLOOR.  
 4.19.4 EXPOSED PIPES AND SURFACES. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.  
 4.19.5 FAUCETS. FAUCETS SHALL COMPLY WITH 4.27.4. LEVER-OPERATED PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.  
 4.26.2 GRAB BARS. OUTSIDE DIAMETER - MIN 1 1/4", MAX 1 1/2", SPACE BETWEEN WALL AND GRAB BAR - 1 1/2"  
 4.27.4 OPERATION. CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF (222 N).



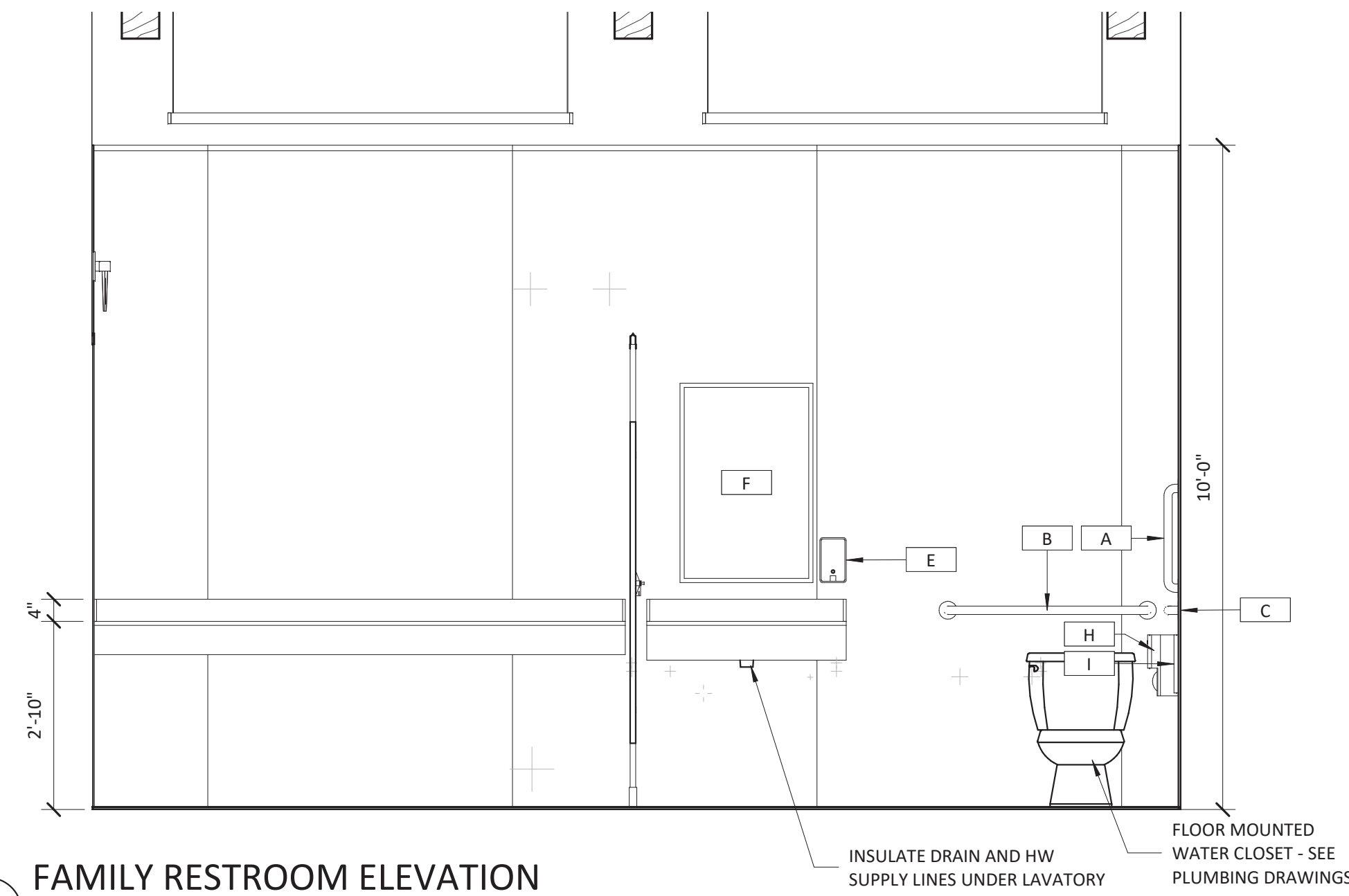
1 FAMILY RESTROOM ELEVATION

1/2" = 1'-0"



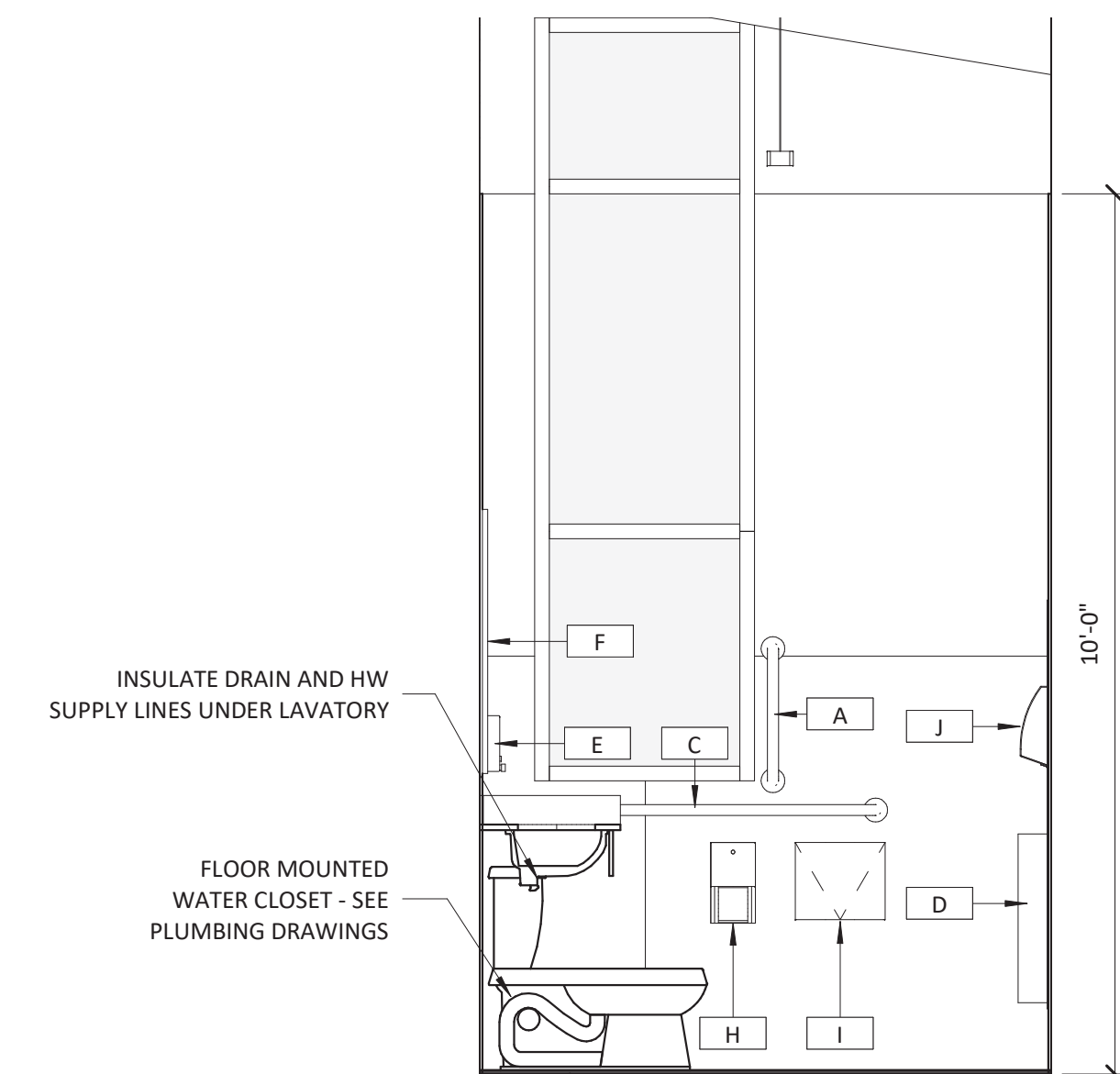
2 FAMILY RESTROOM ELEVATION

1/2" = 1'-0"



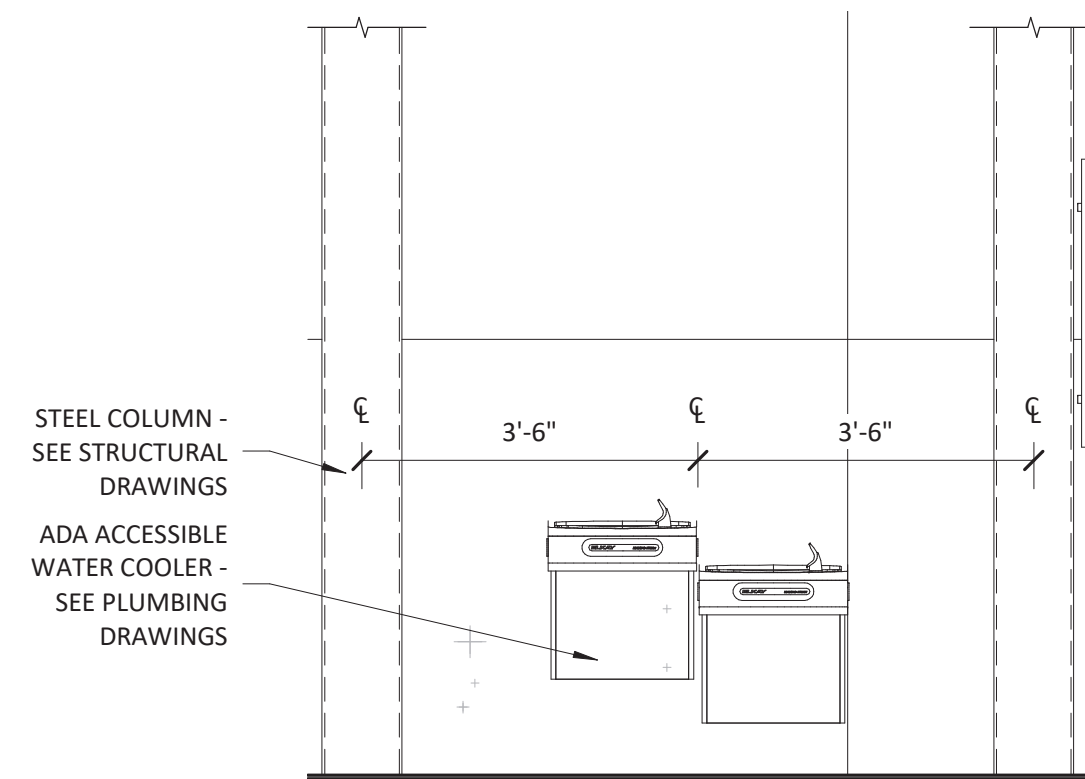
3 FAMILY RESTROOM ELEVATION

1/2" = 1'-0"



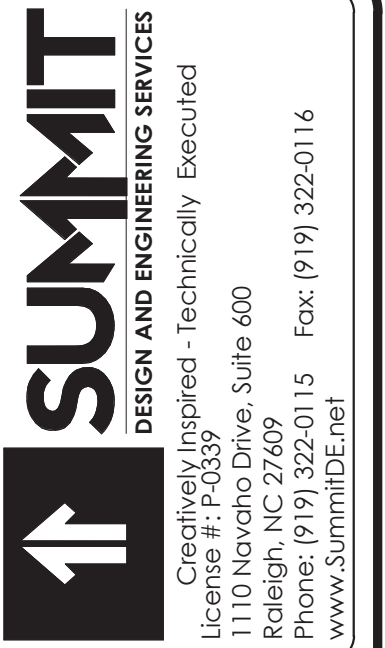
4 FAMILY RESTROOM ELEVATION

1/2" = 1'-0"

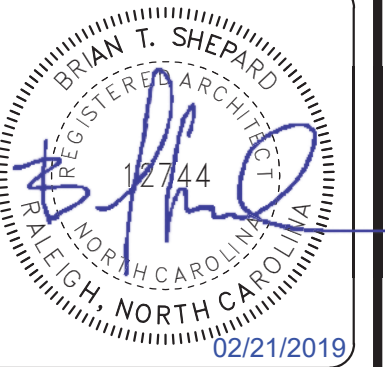
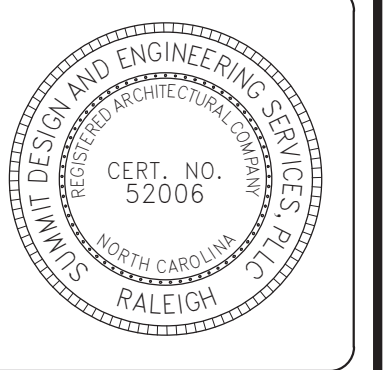


5 WATER COOLER ELEVATION

1/2" = 1'-0"



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



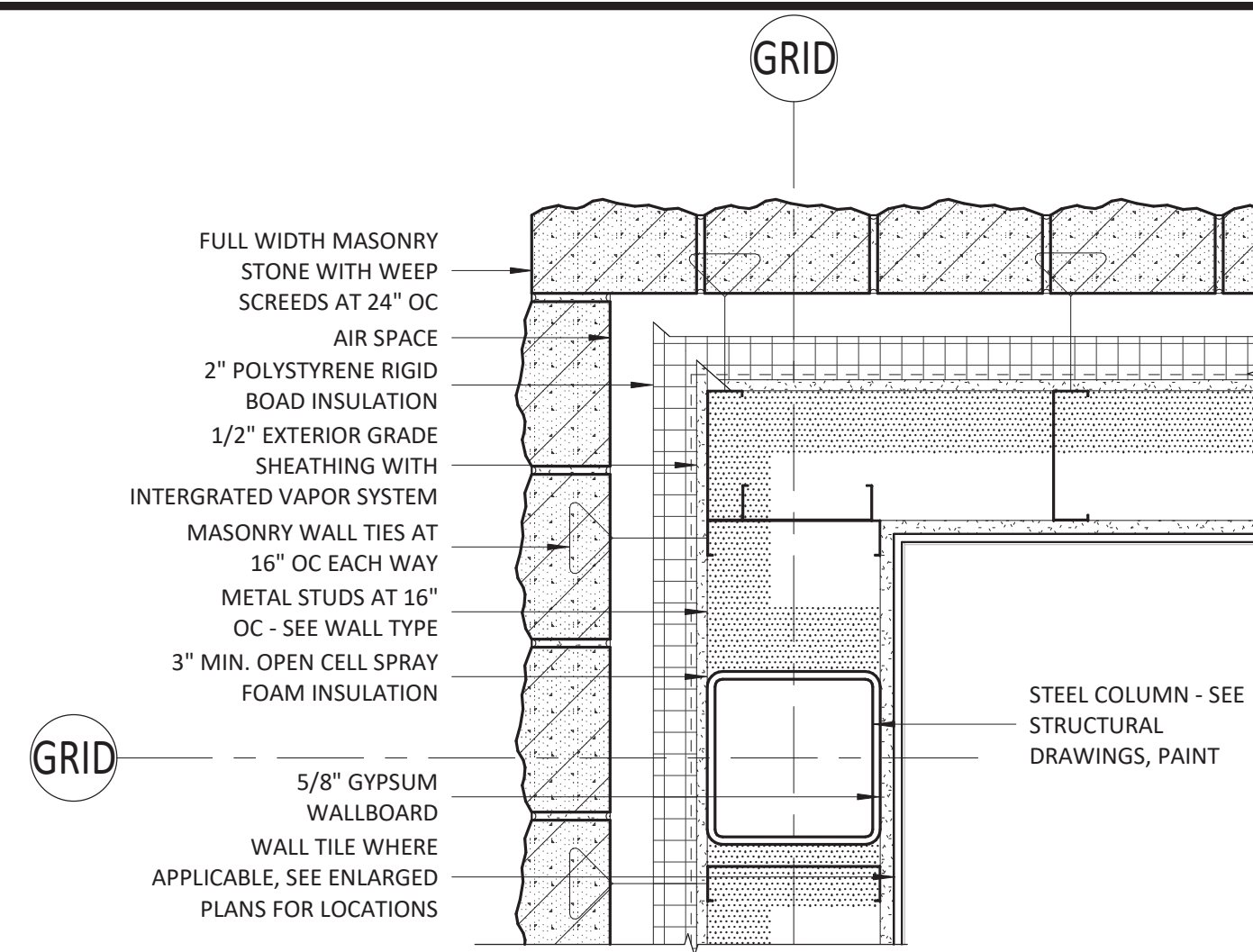
ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 12/03/18

NO	REVISIONS	ISSUED TO NCDOT	ISSUED FOR CONST.	DATE	BY
B				01/22/19	MC
C				02/21/19	MC

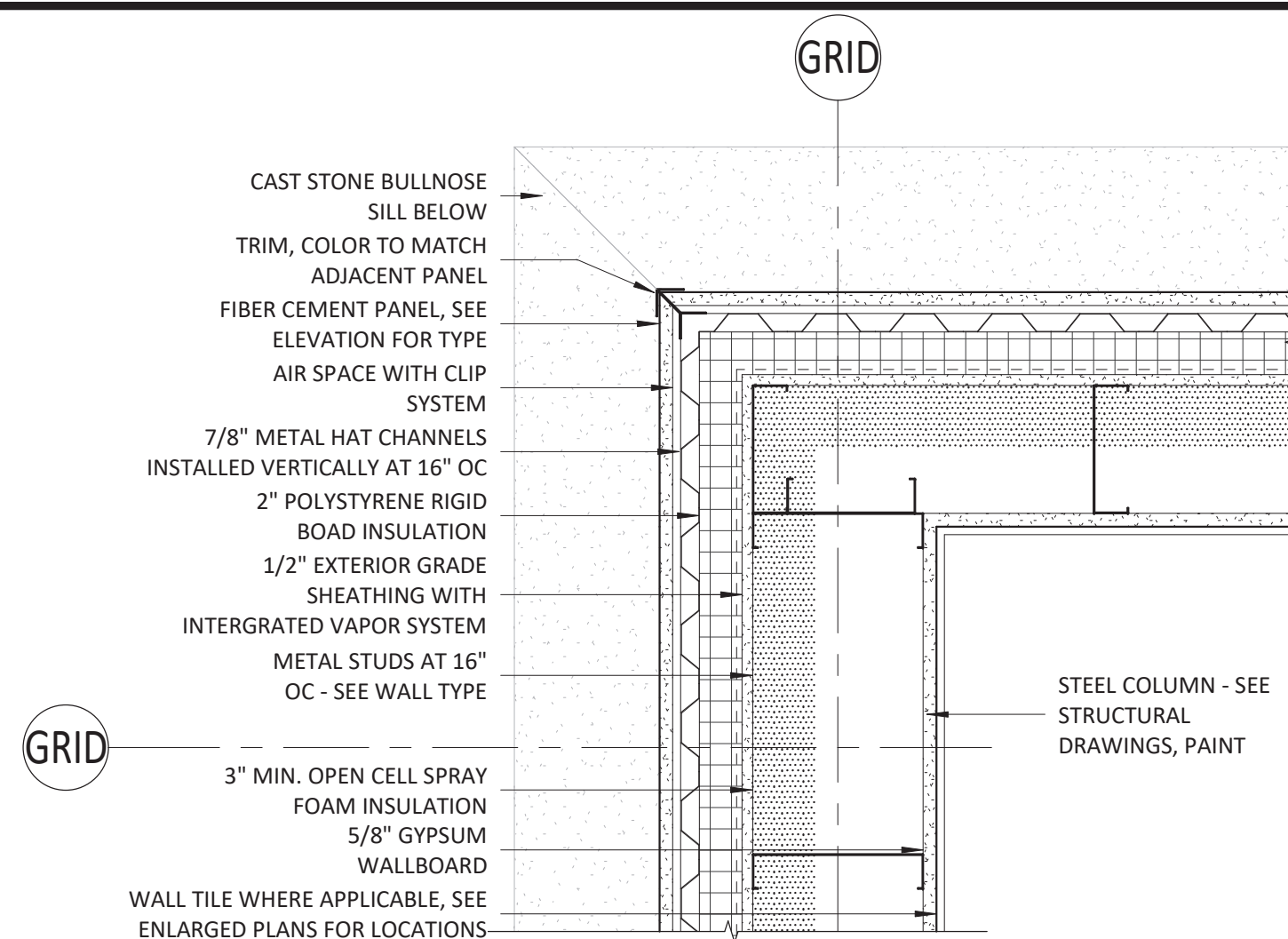
NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**ENLARGED ELEVATIONS & DETAILS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A403**

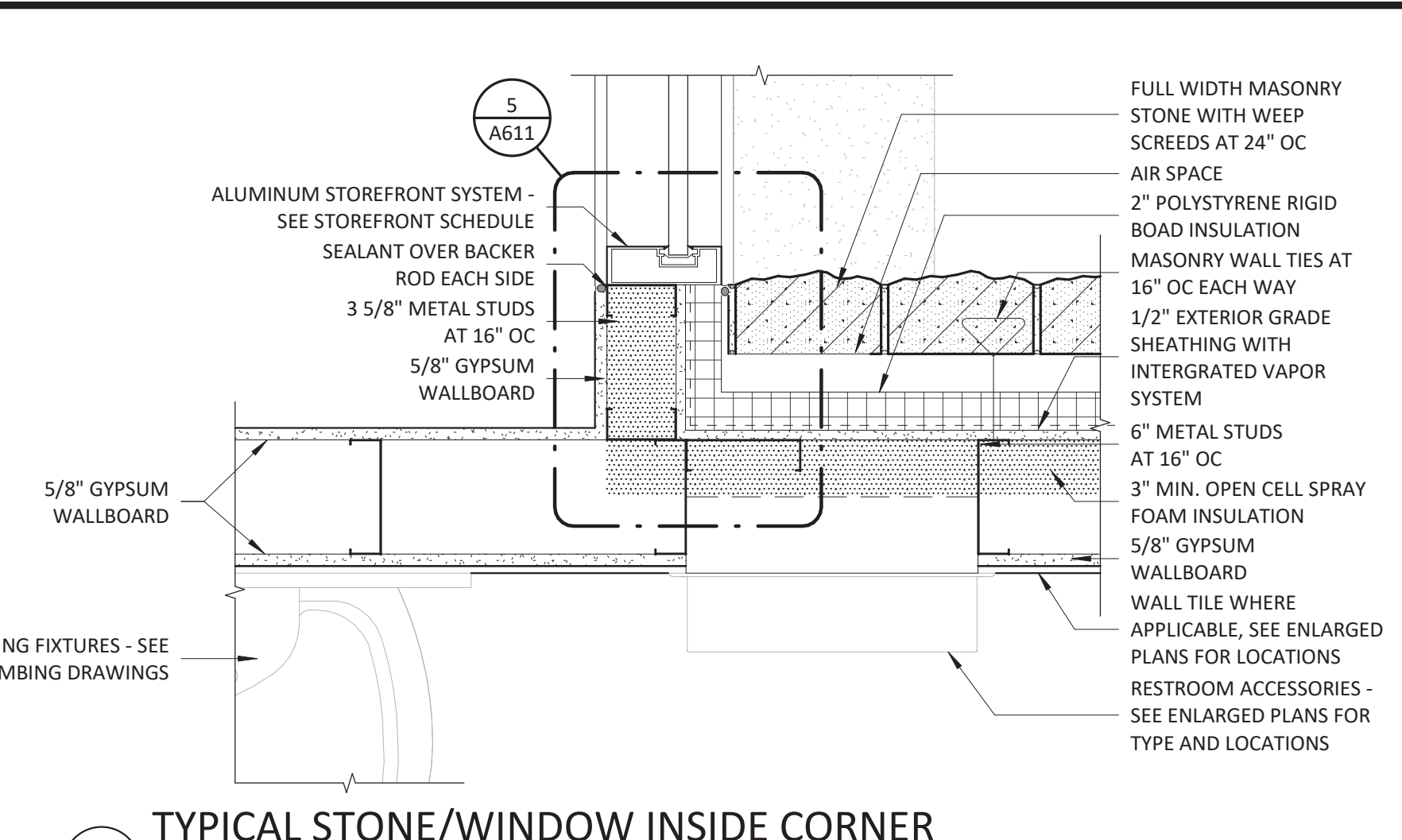




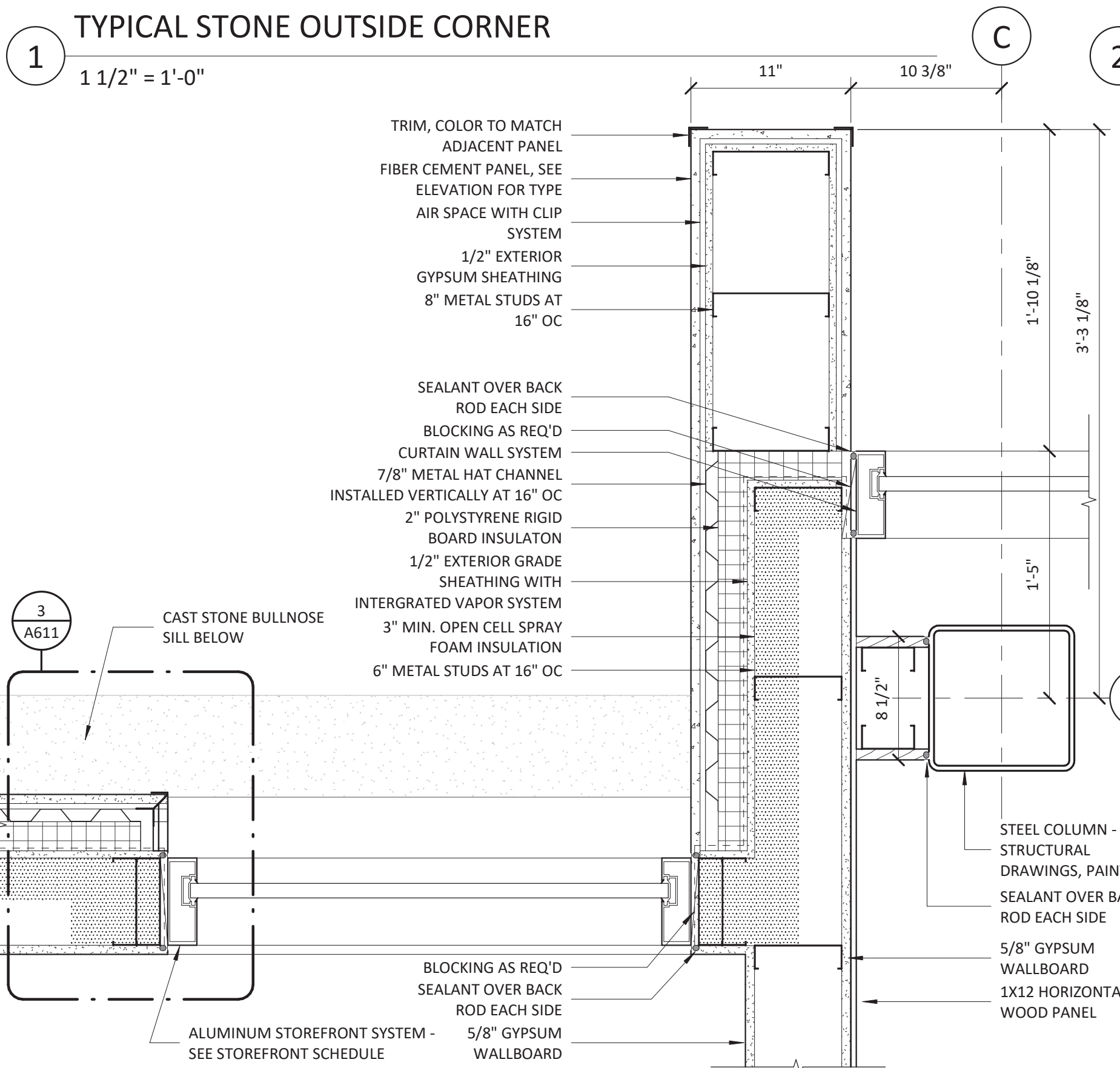
1 1 1/2" = 1'-0"



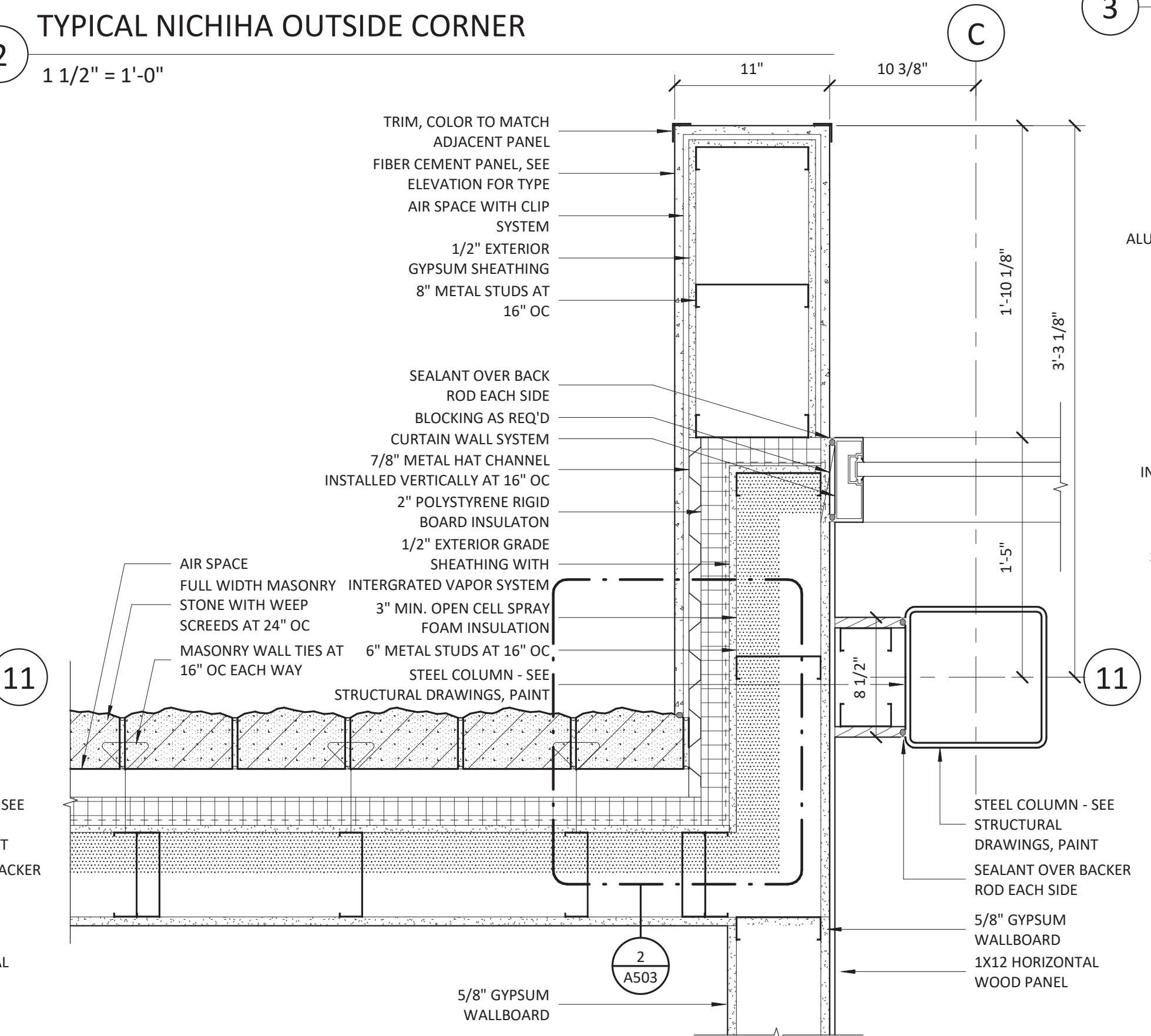
2 1 1/2" = 1'-0"



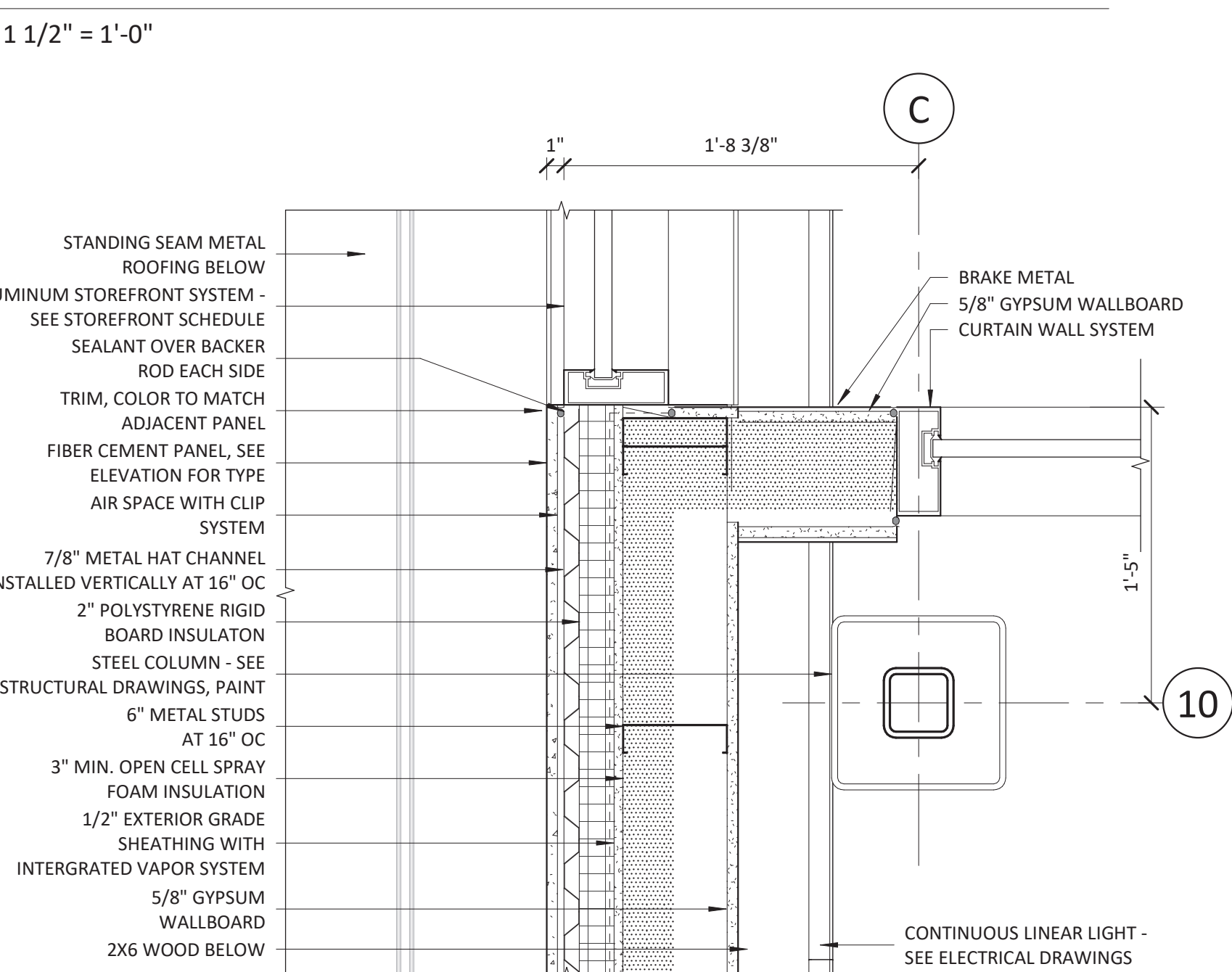
3 1 1/2" = 1'-0"



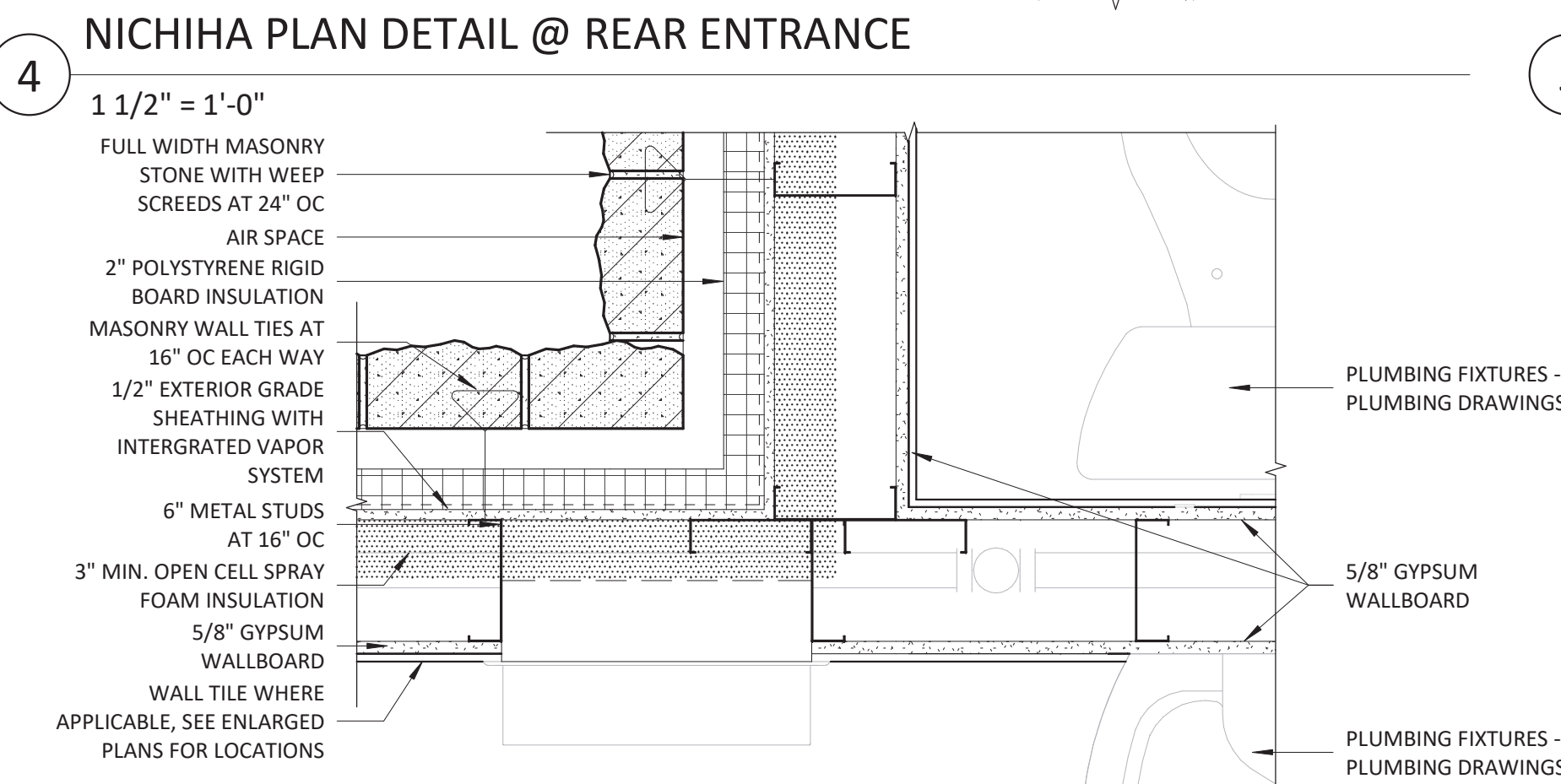
4 1 1/2" = 1'-0"



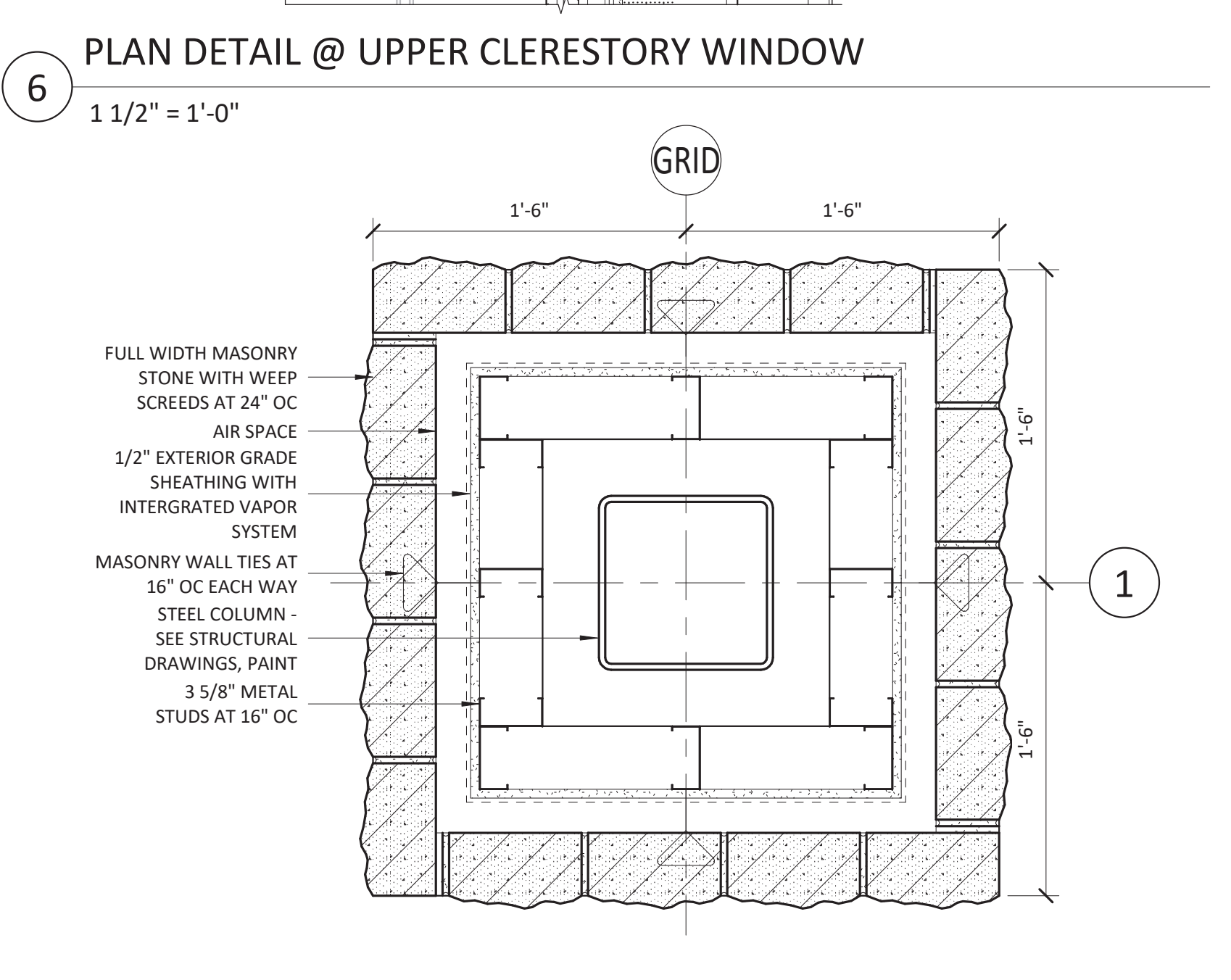
5 1 1/2" = 1'-0"



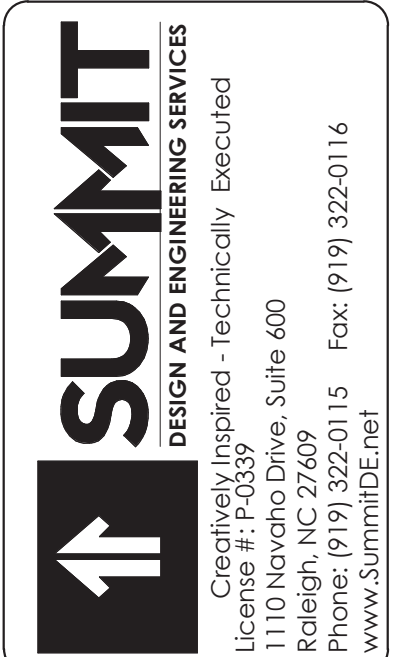
6 1 1/2" = 1'-0"



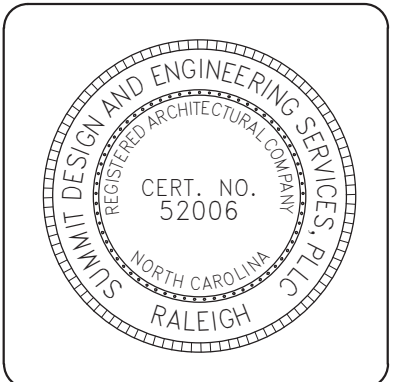
7 1 1/2" = 1'-0"



8 1 1/2" = 1'-0"



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES. THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

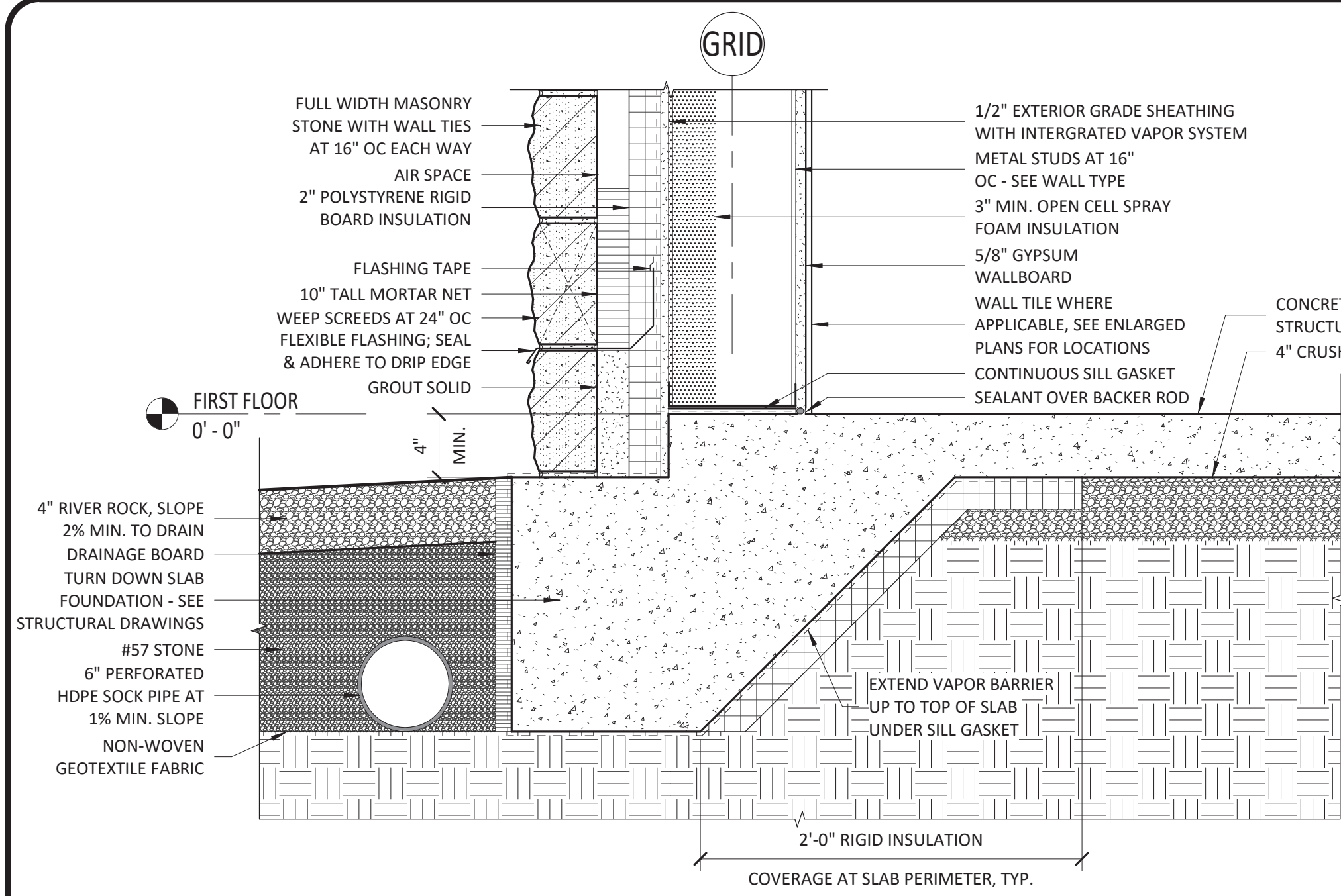


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY: NSC FIRST ISSUE DATE: 11/16/2019

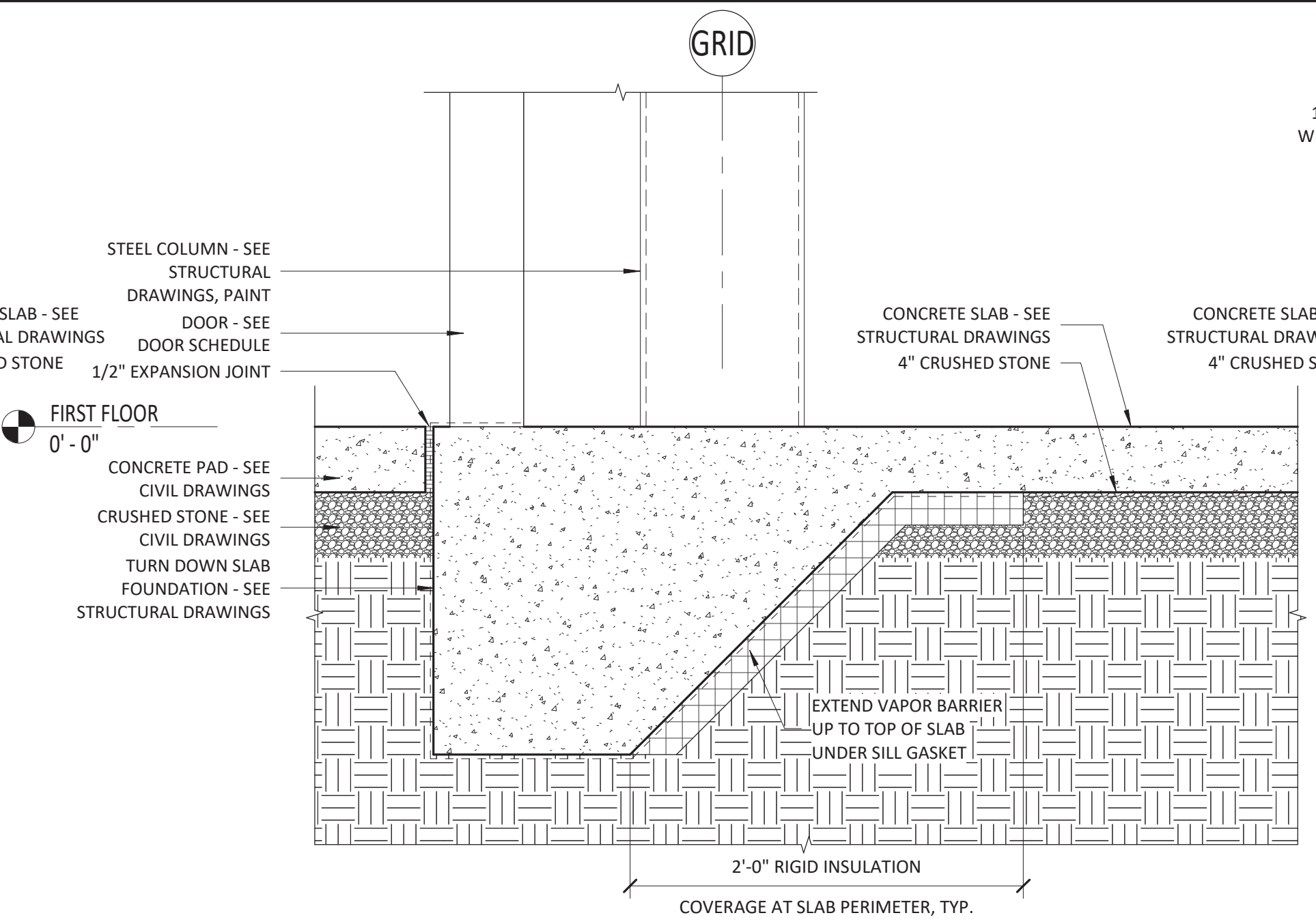
NO	REVISIONS	BY	DATE
A	ISSUED TO SCO	MC	11/16/18
B	ISSUED TO NCDOT	MC	01/22/19
C	ISSUED FOR CONST.	MC	02/21/19

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
EXTERIOR PLAN DETAILS

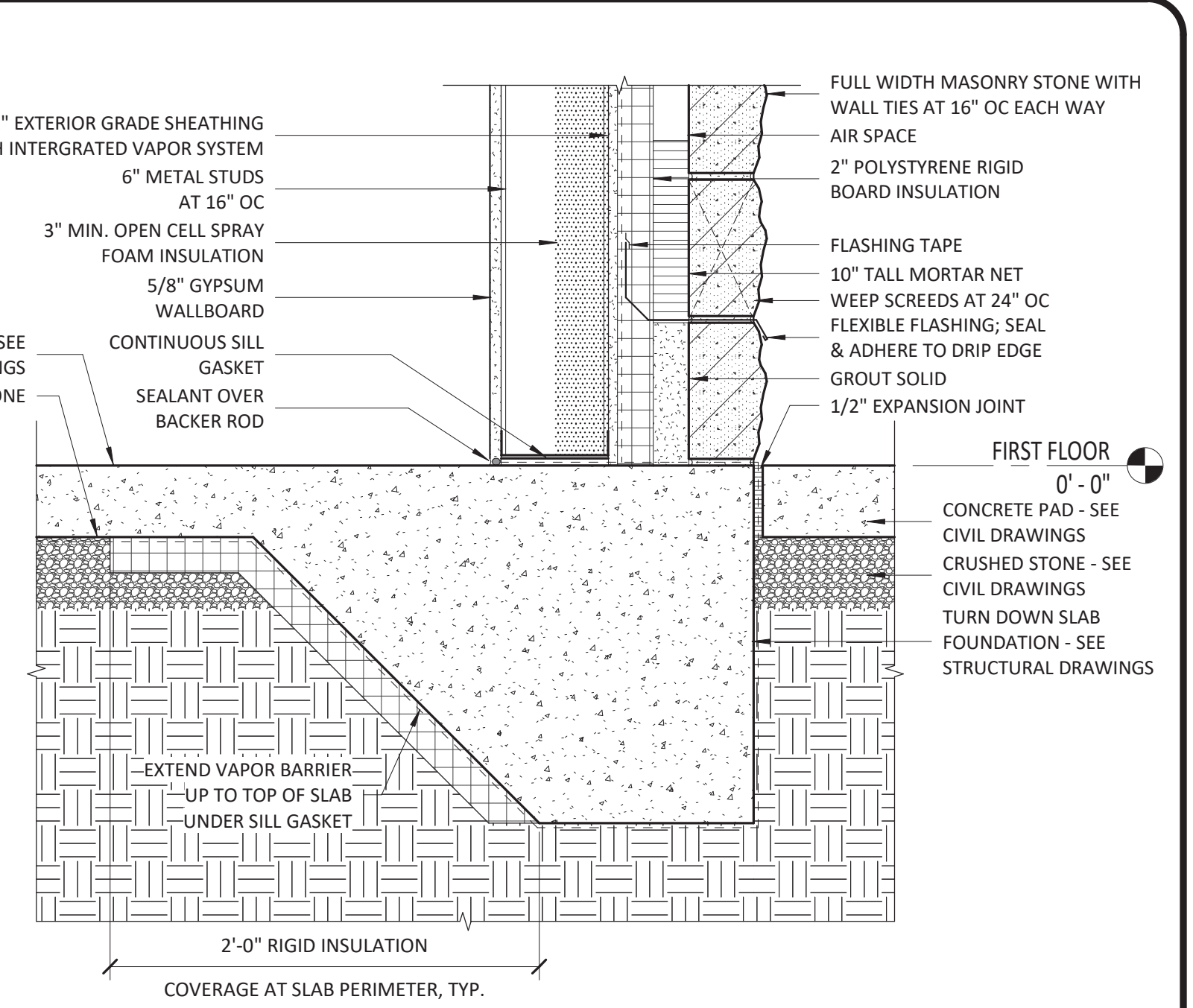
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A500**



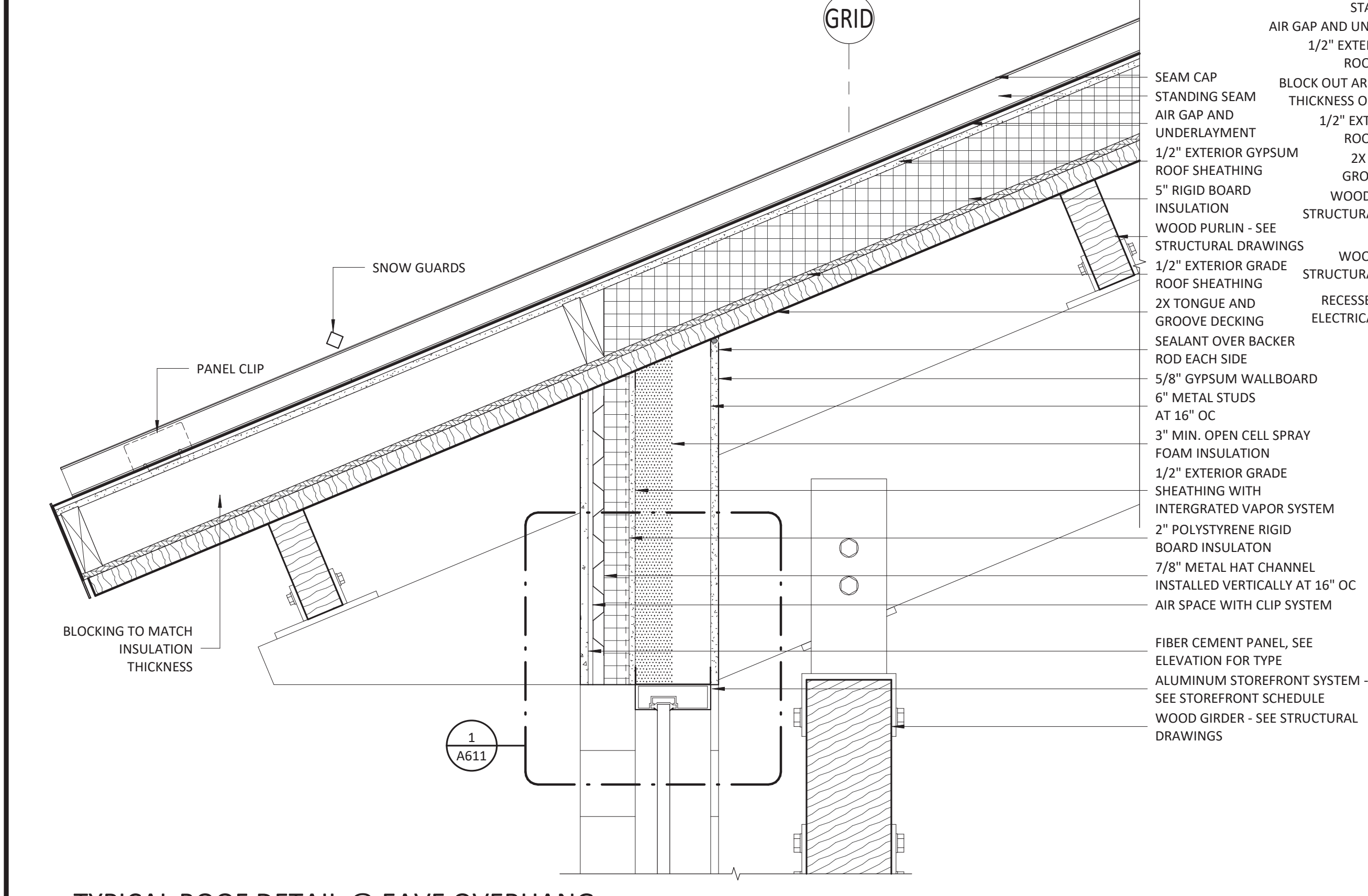
**1** TYPICAL FOUNDATION DETAIL @ BRICK LEDGE  
1 1/2" = 1'-0"



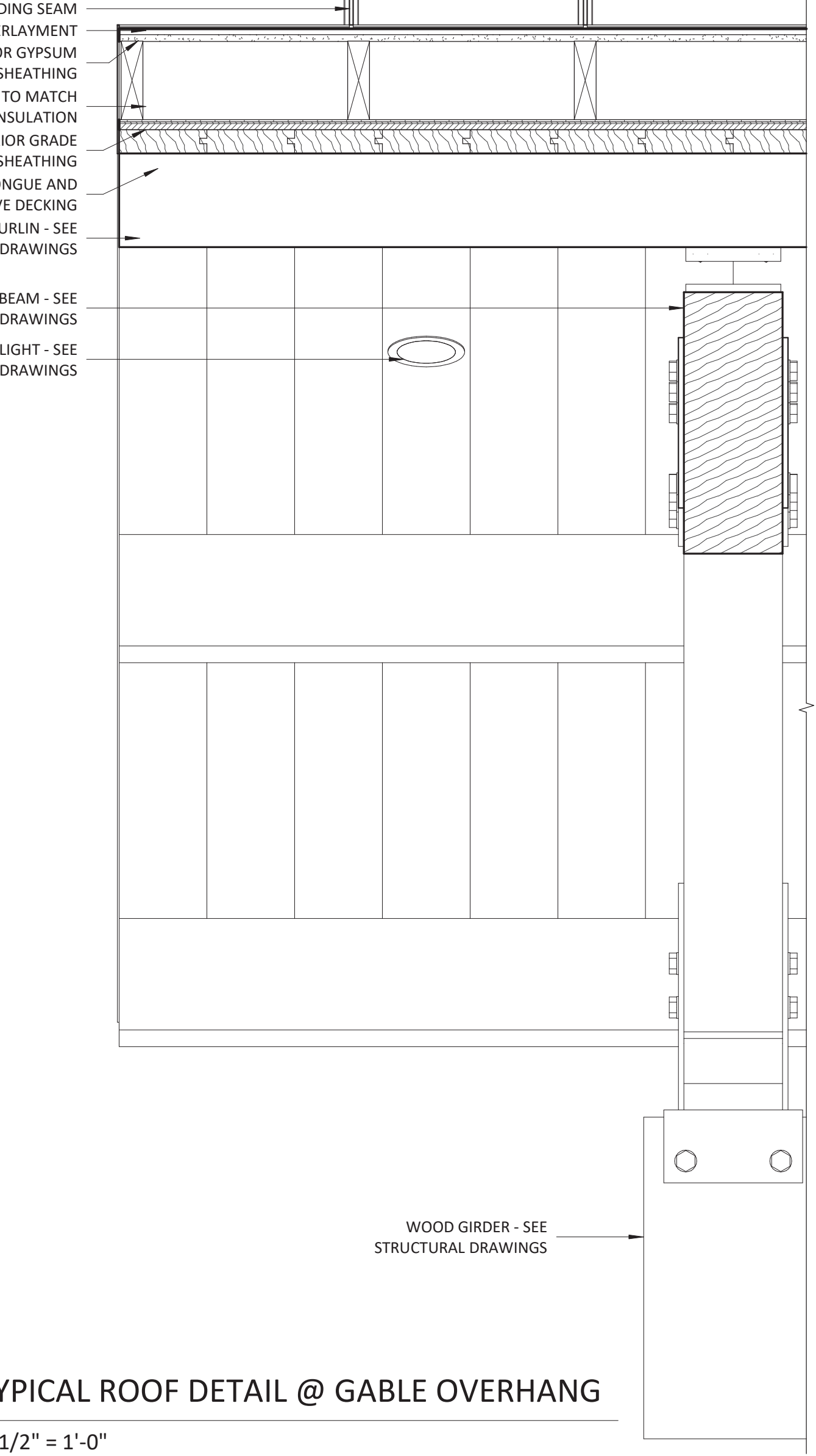
**2** TYPICAL FOUNDATION DETAIL @ ENTRY  
1 1/2" = 1'-0"



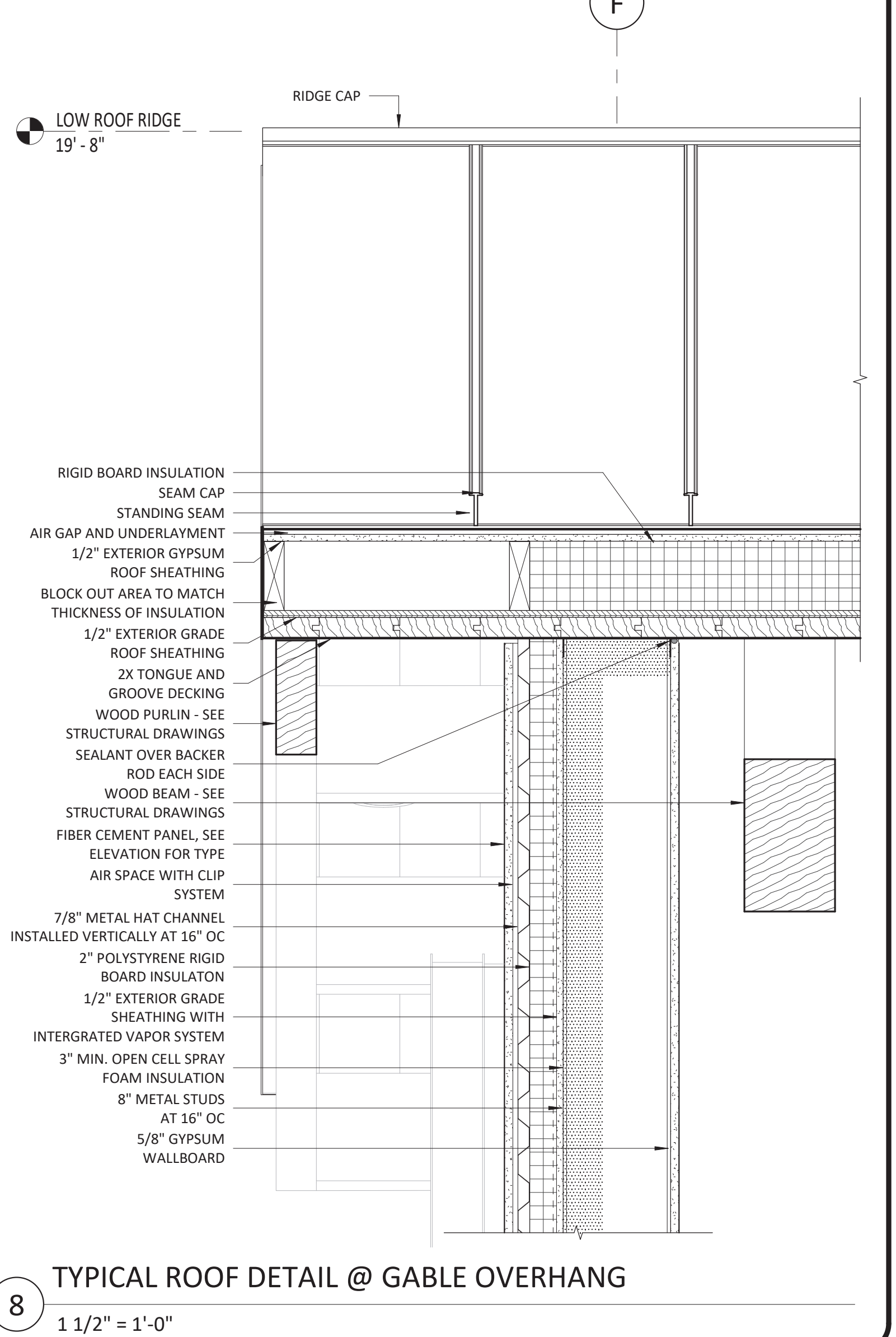
**3** FOUNDATION DETAIL @ CONCRETE PAD  
1 1/2" = 1'-0"



**4** TYPICAL ROOF DETAIL @ EAVE OVERHANG  
1 1/2" = 1'-0"



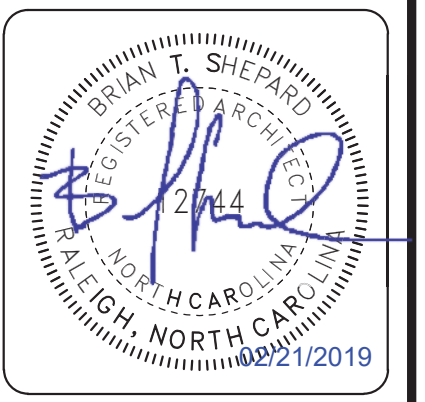
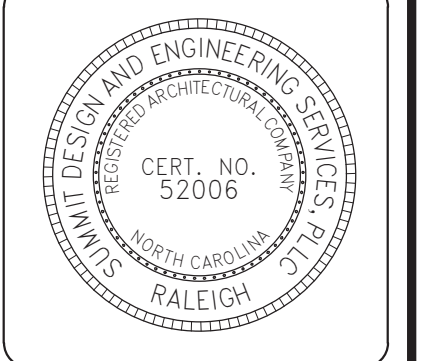
**7** TYPICAL ROOF DETAIL @ GABLE OVERHANG  
1 1/2" = 1'-0"



**8** TYPICAL ROOF DETAIL @ GABLE OVERHANG  
1 1/2" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License # P-0339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115 Fax: (919) 322-0116  
www.summitde.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

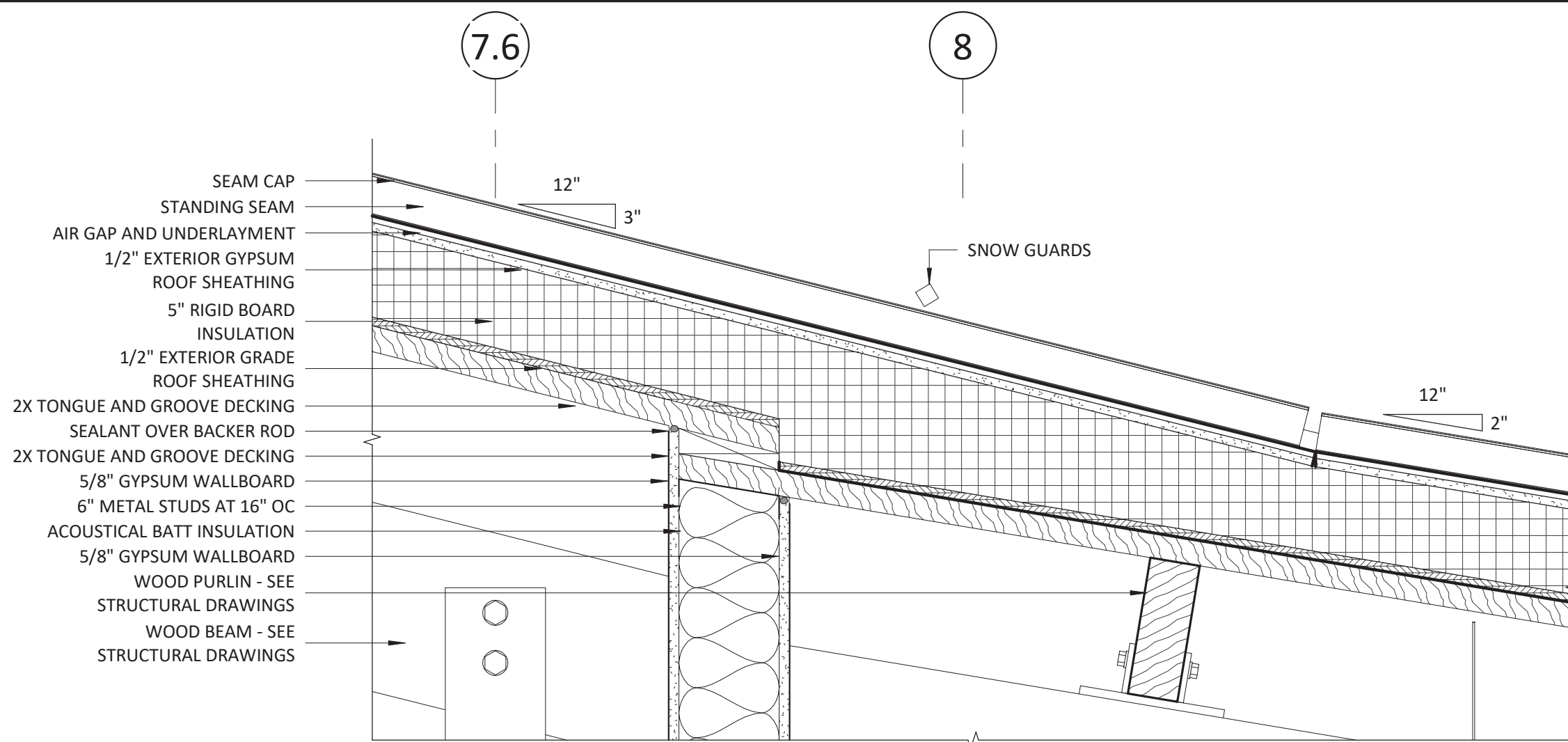


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 11/16/2019

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MSC	MC
B	ISSUED TO NCDOT	01/22/19	MSC	MC
C	ISSUED FOR CONST.	02/21/19	MSC	MC

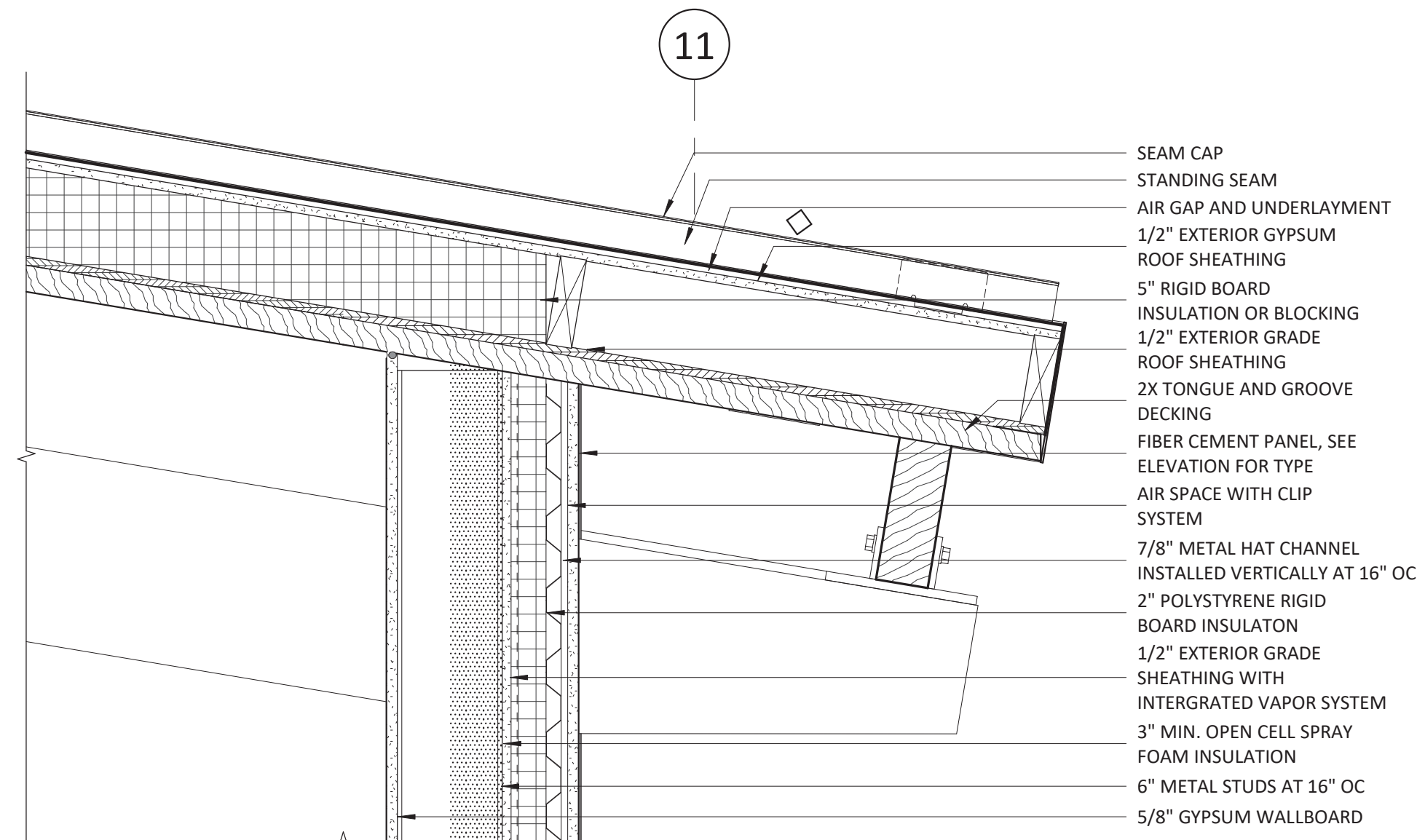
NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**EXTERIOR DETAILS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A501**



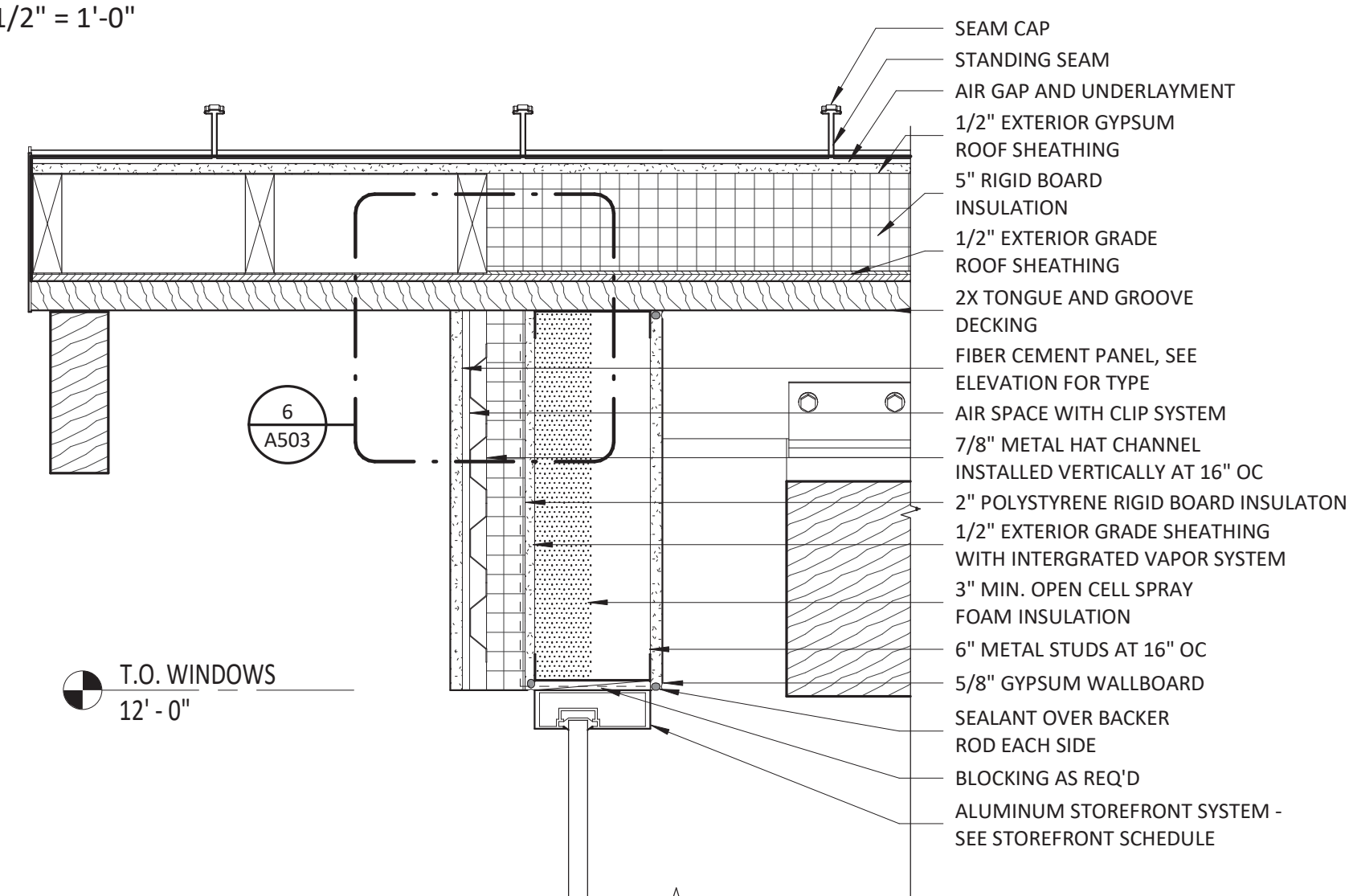
1 ROOF DETAIL @ VALLEY

1 1/2" = 1'-0"



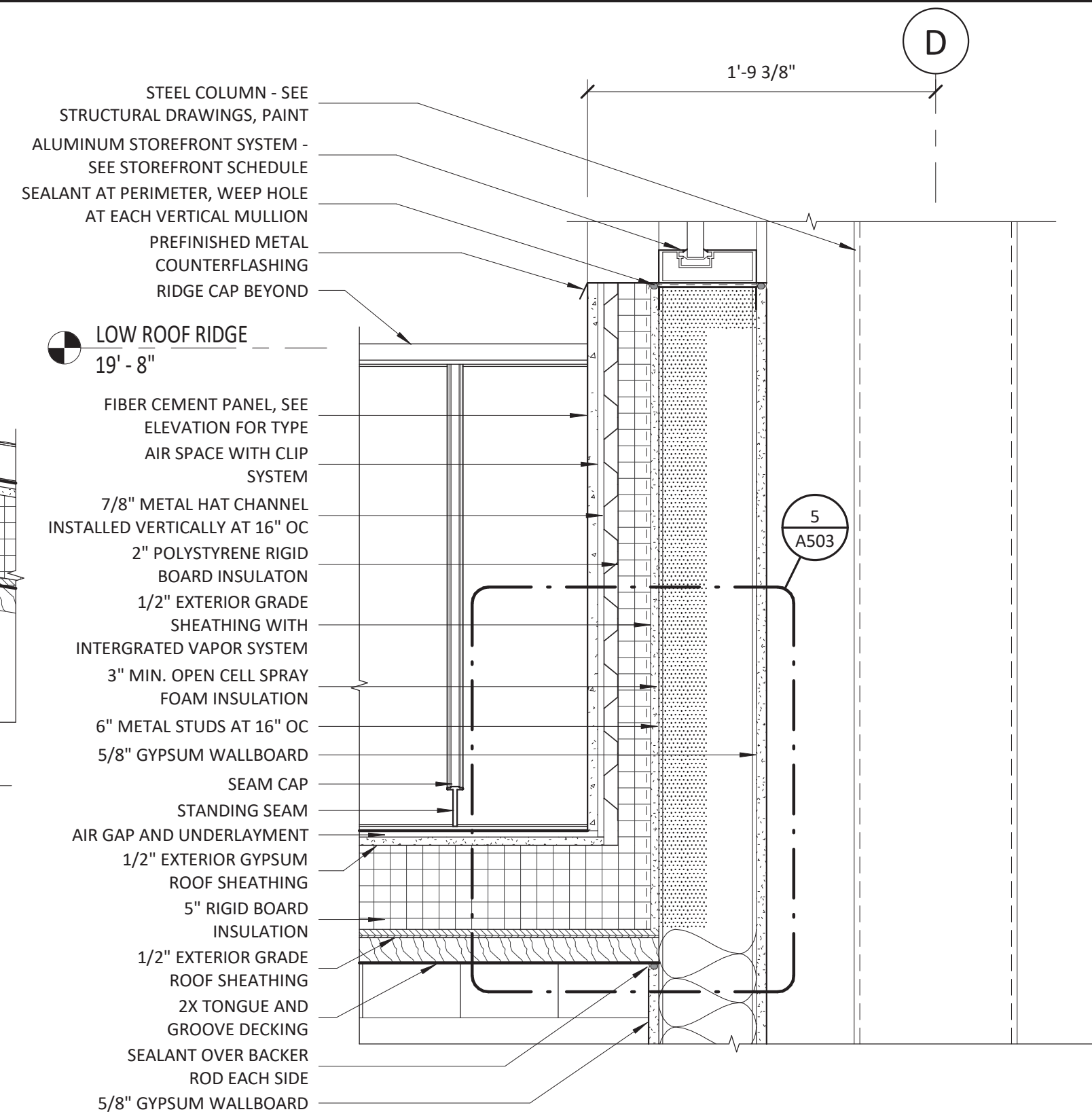
4 ROOF DETAIL @ REAR EAVE

1 1/2" = 1'-0"



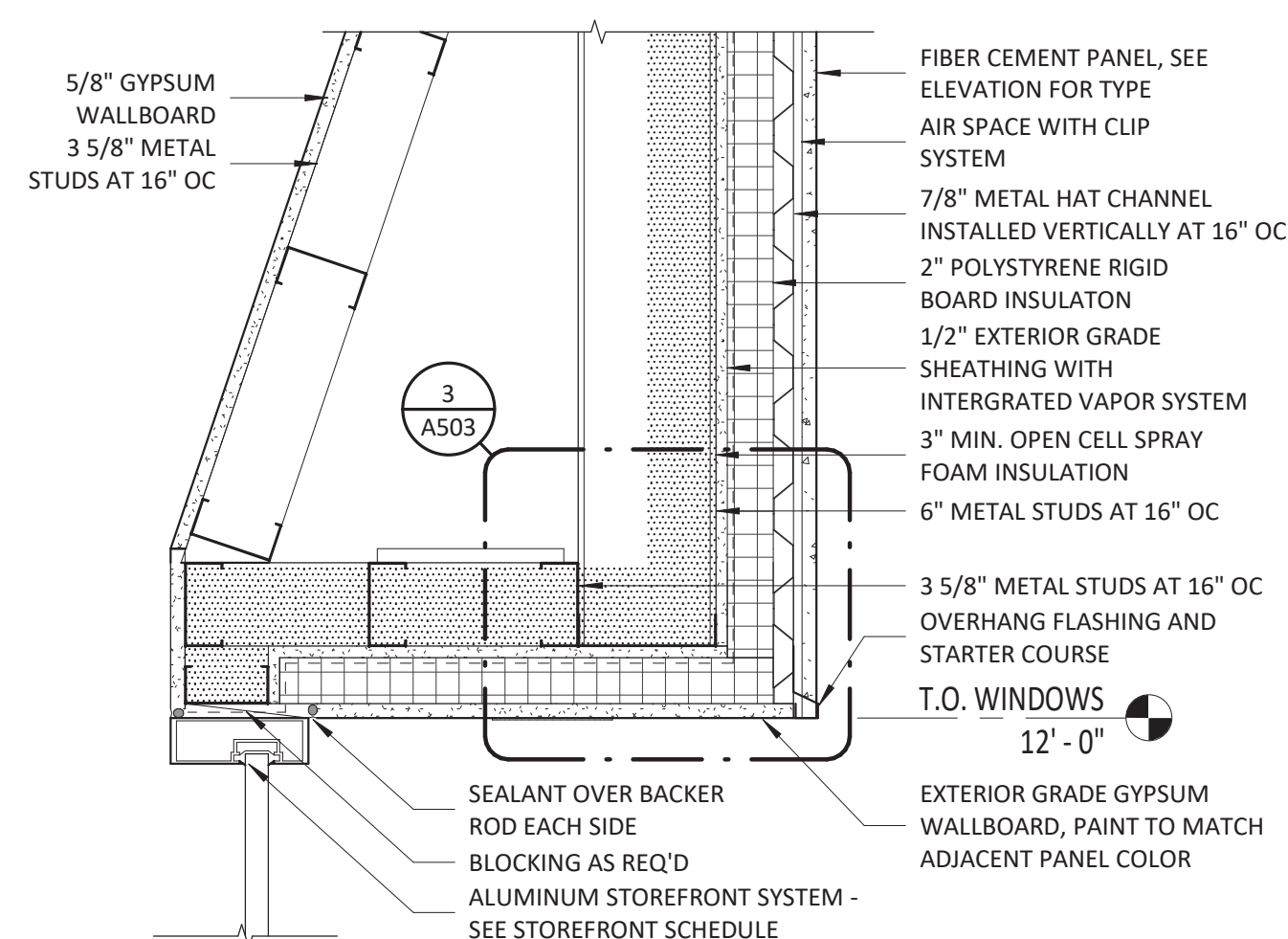
5 ROOF DETAIL @ REAR RAKE

1 1/2" = 1'-0"



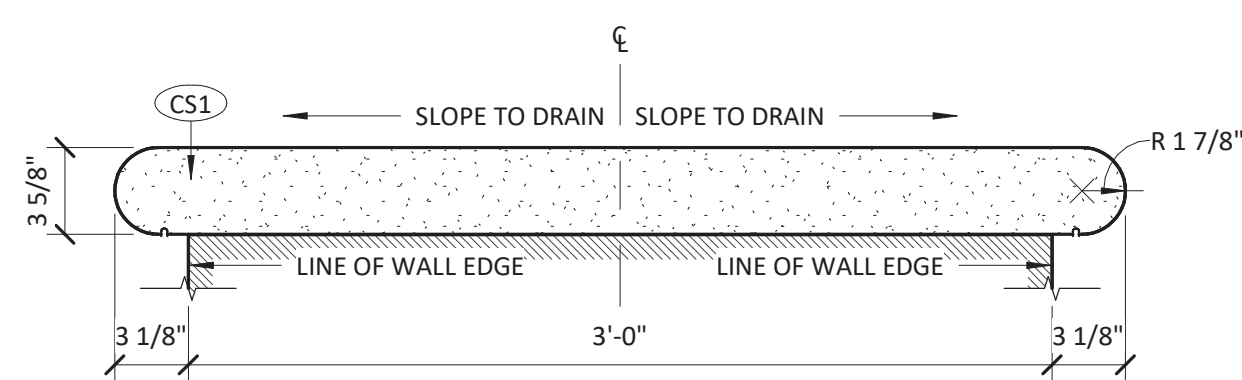
2 ROOF DETAIL @ WALL TURNUP

1 1/2" = 1'-0"



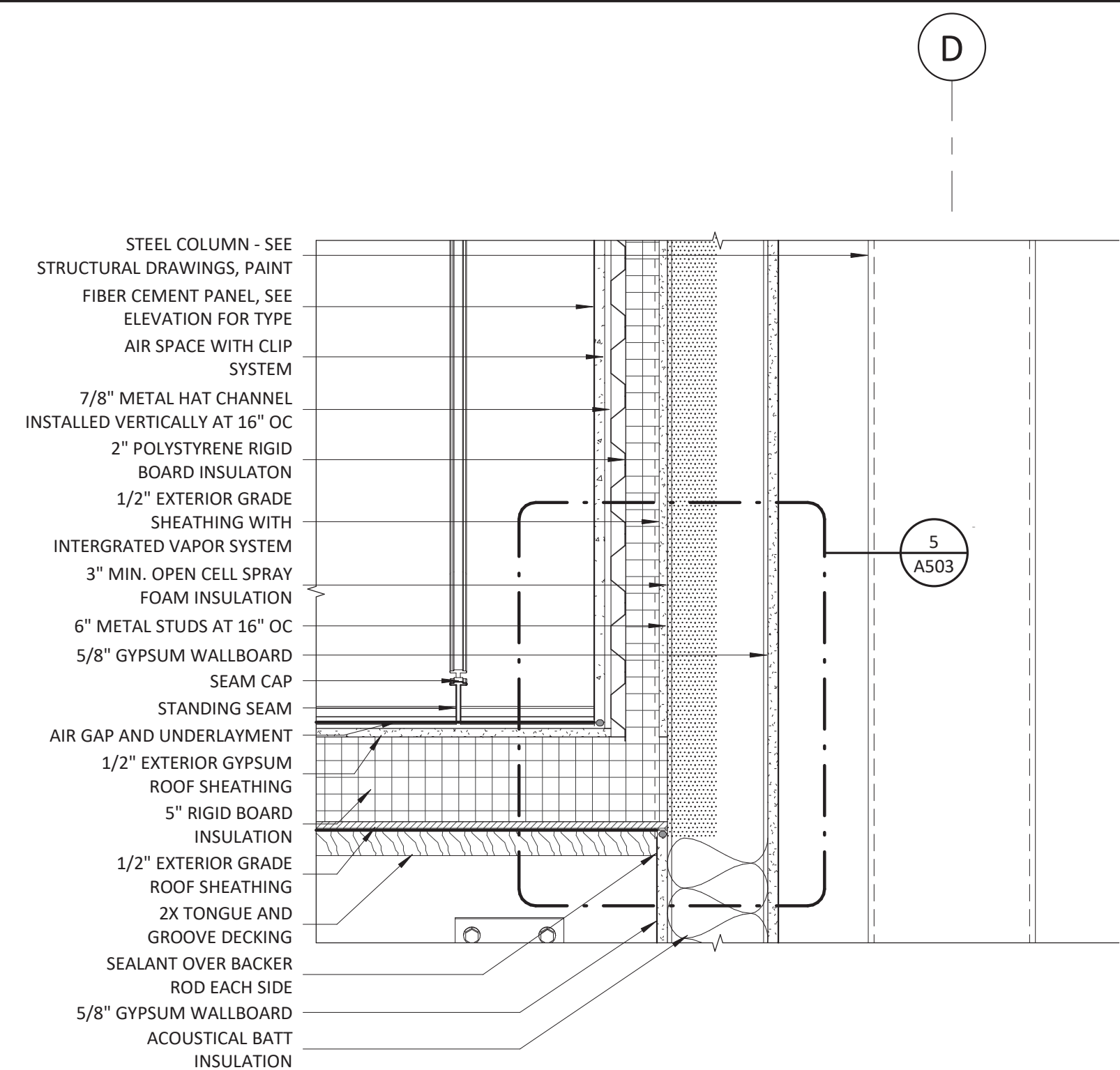
6 OVERHANG SOFFIT DETAIL @ ENTRY

1 1/2" = 1'-0"



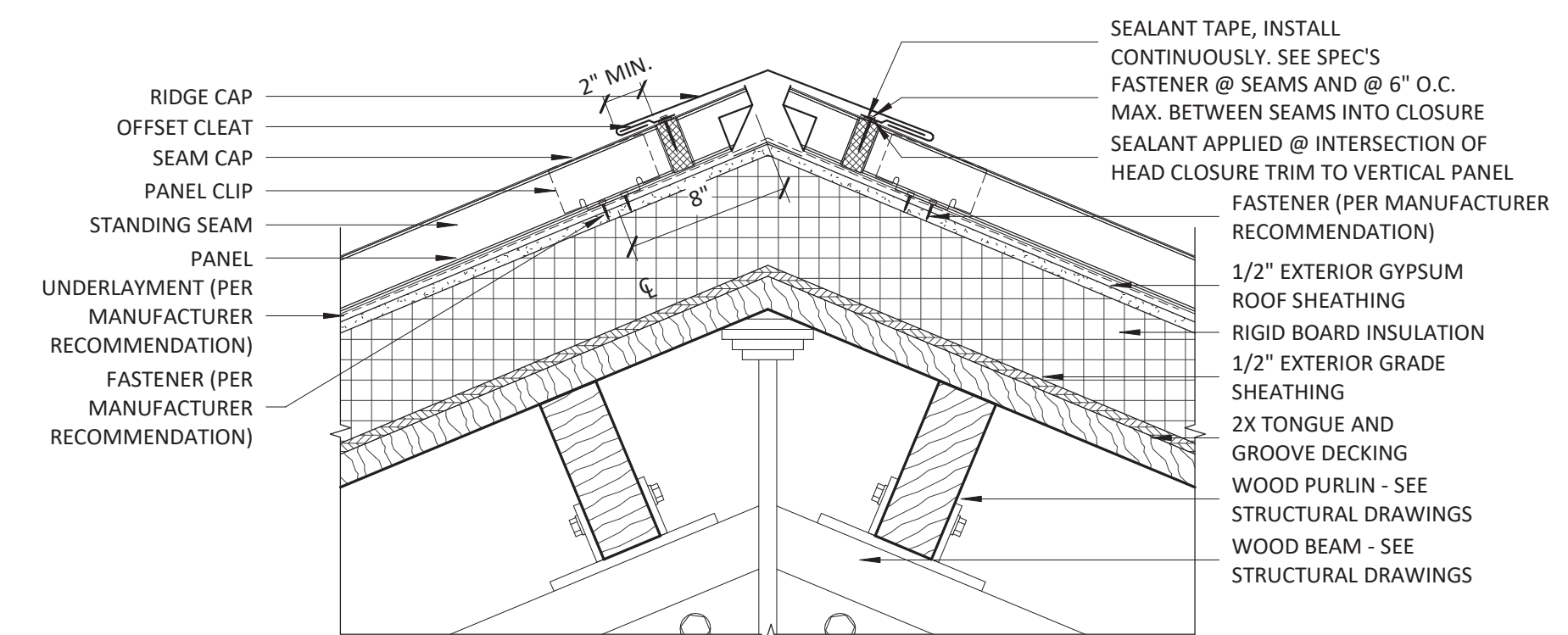
8 CAST STONE CAP DETAIL

1 1/2" = 1'-0"



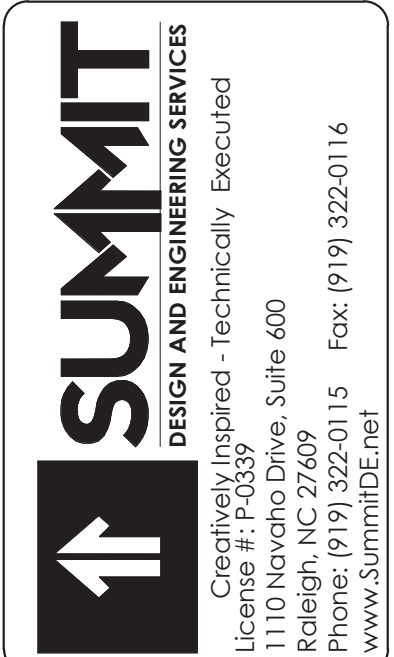
3 ROOF DETAIL @ WALL TURNUP

1 1/2" = 1'-0"

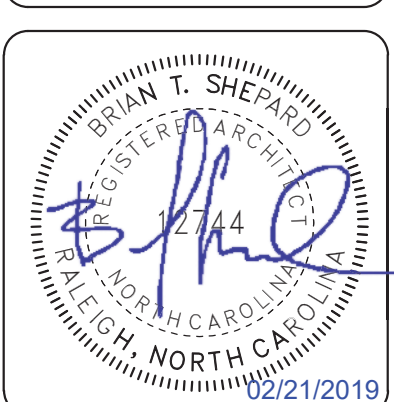
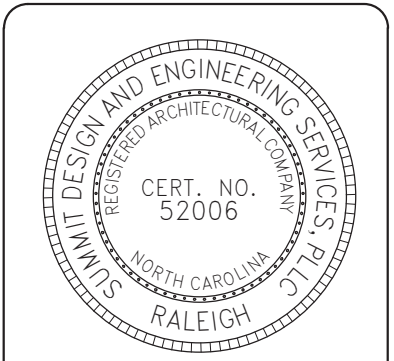


7 TYPICAL RIDGE CAP DETAIL

1 1/2" = 1'-0"



COPYRIGHT © 2018 SUMMIT  
DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS  
INSTRUMENT OF SERVICE IS THE VESTED  
PROPERTY OF THE ARCHITECT & THE  
ARCHITECTS CONSULTANTS, WHICH ARE NOT  
TO BE REPRODUCED IN WHOLE OR IN PART BY  
ANY MEANS OR METHOD WITHOUT EXPRESS  
WRITTEN CONSENT OF THE ARCHITECT. THIS  
INSTRUMENT OF SERVICE IS SOLELY &  
EXCLUSIVELY FOR THE PURPOSE OF  
CONSTRUCTING, USING, MAINTAINING,  
ALTERING & ADDING TO THIS SPECIFIC  
PROJECT AT ITS SPECIFIC LOCATION.

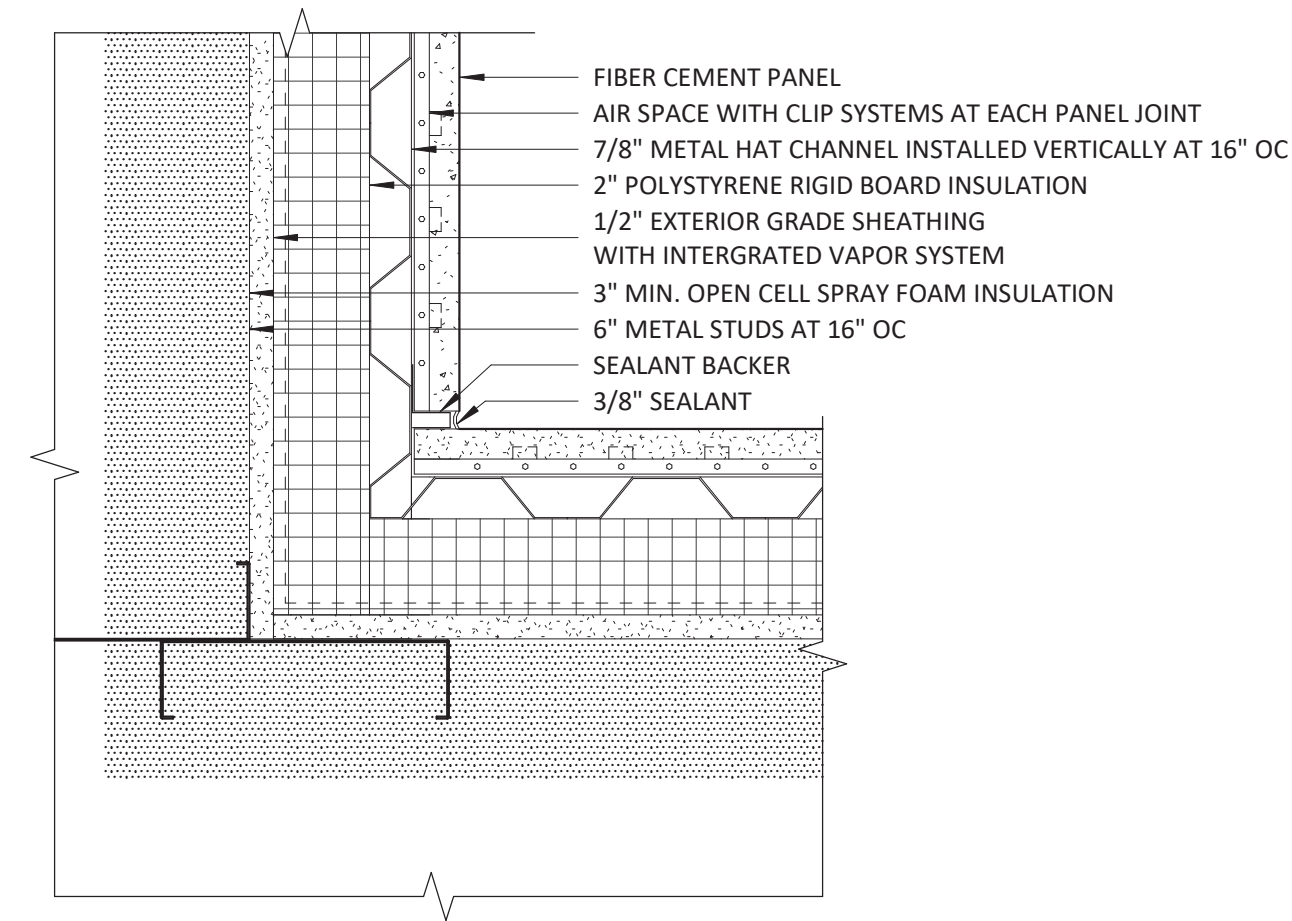


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY FIRST ISSUE DATE  
MSC 11/16/2018

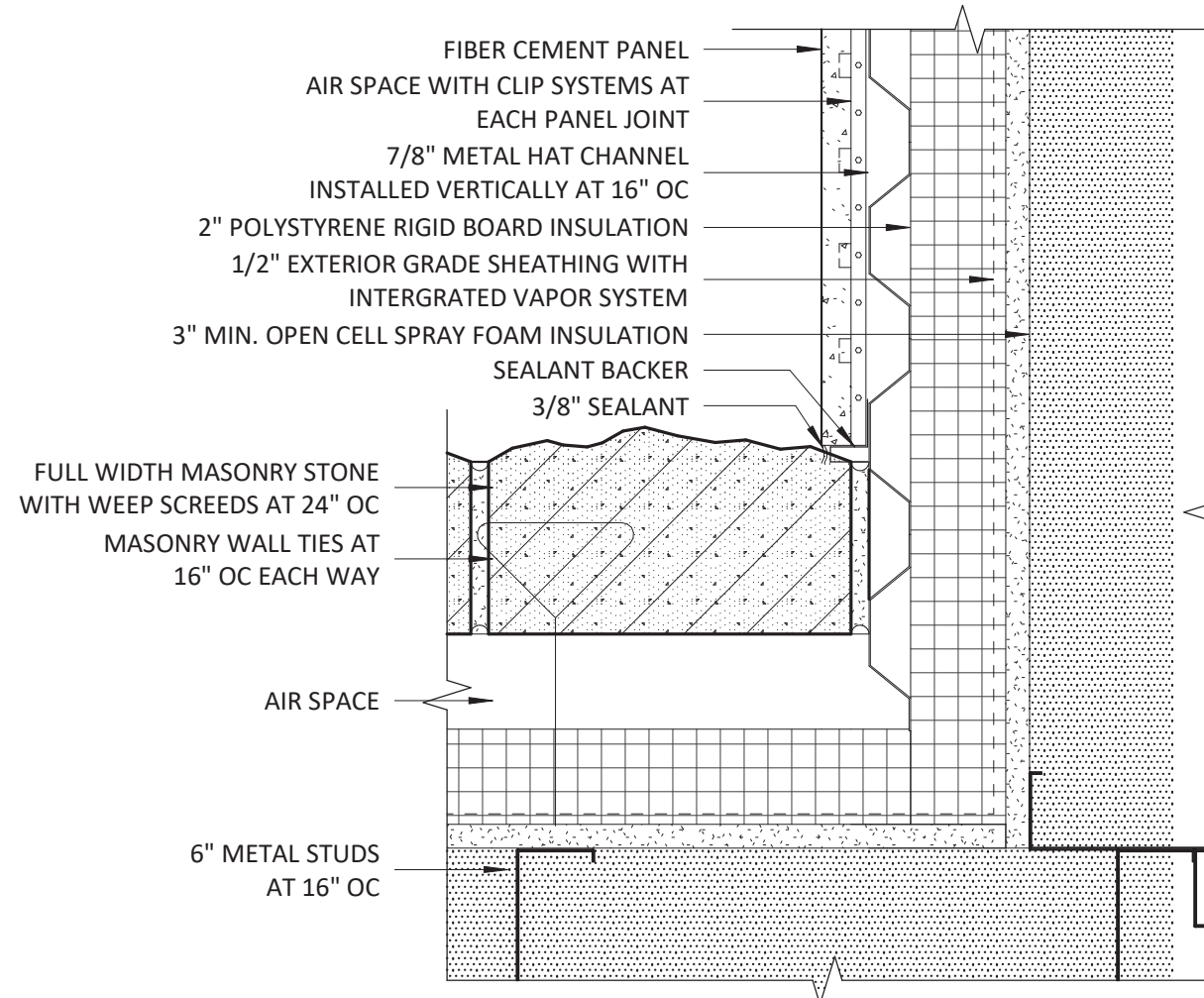
NO	REVISIONS	BY	DATE	MC
A	ISSUED TO SCO	11/16/18	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**EXTERIOR DETAILS**

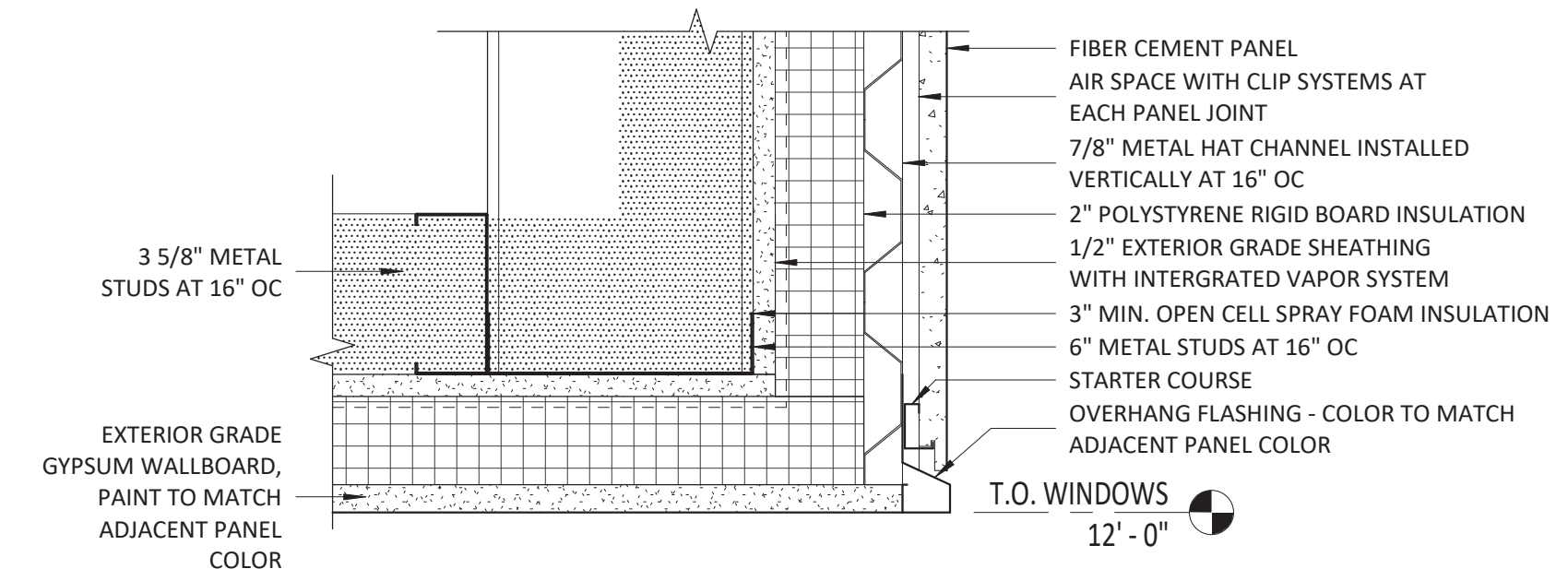
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A502**



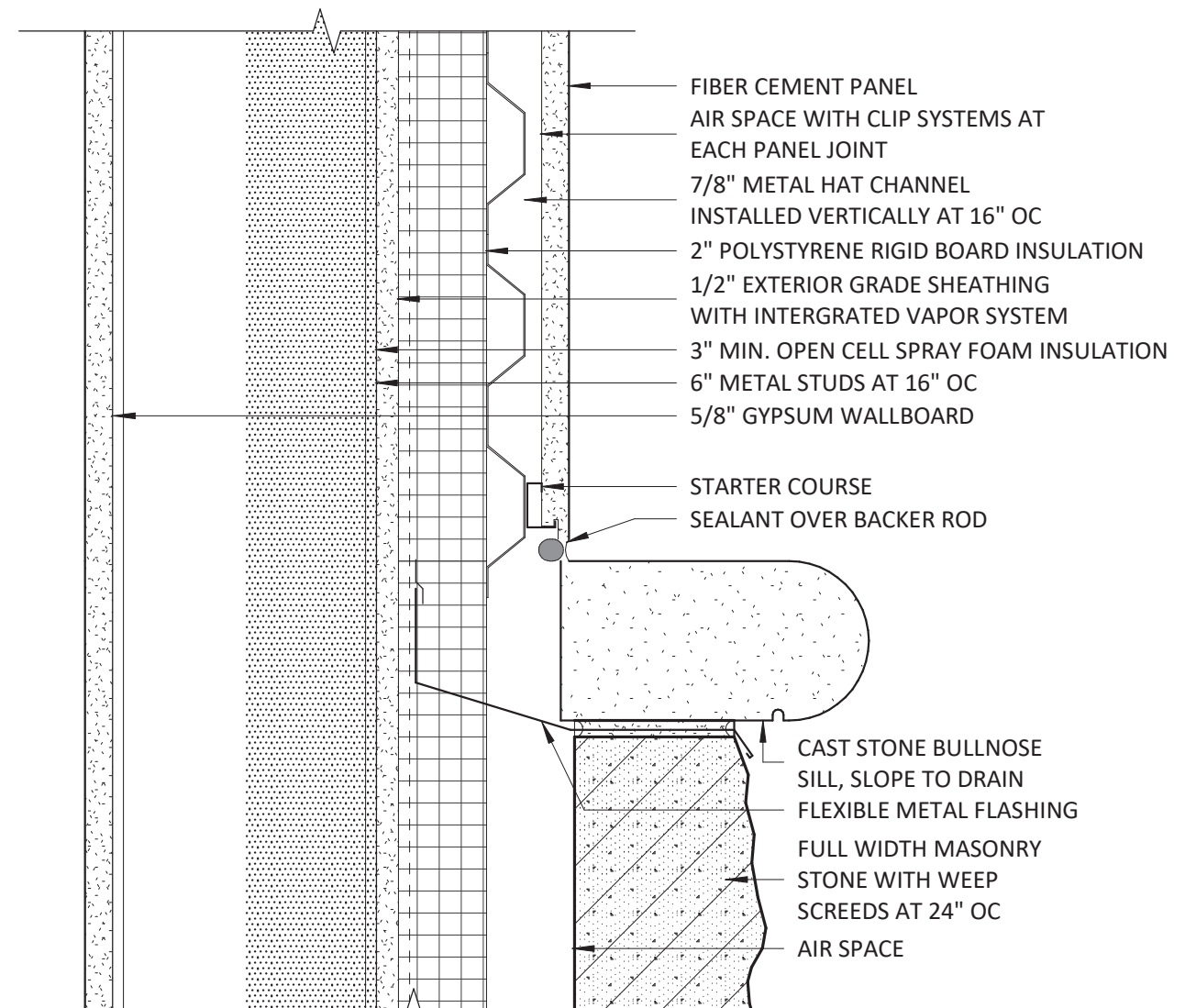
1 TYPICAL NICHIBA INSIDE CORNER DETAIL  
 3" = 1'-0"



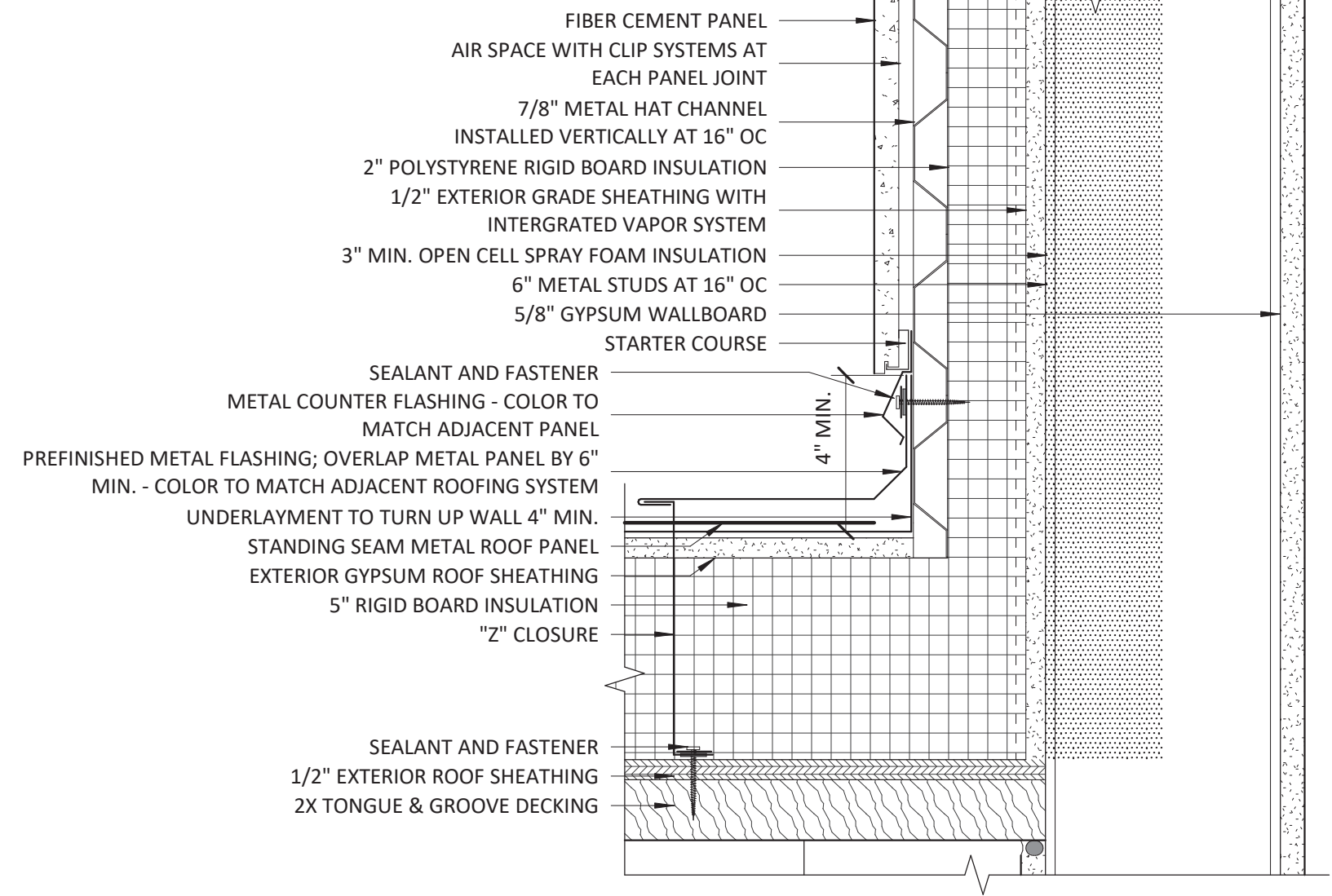
2 TYPICAL NICHIBA/STONE INSIDE CORNER DETAIL  
 3" = 1'-0"



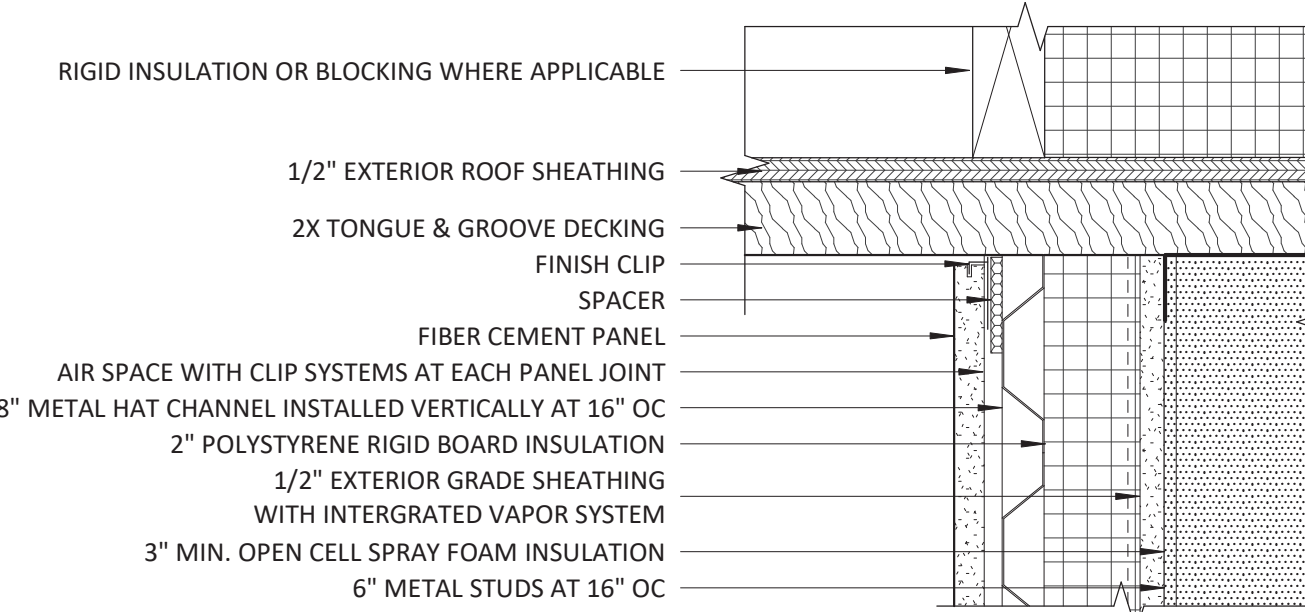
3 TYPICAL NICHIBA OVERHANG DETAIL  
 3" = 1'-0"



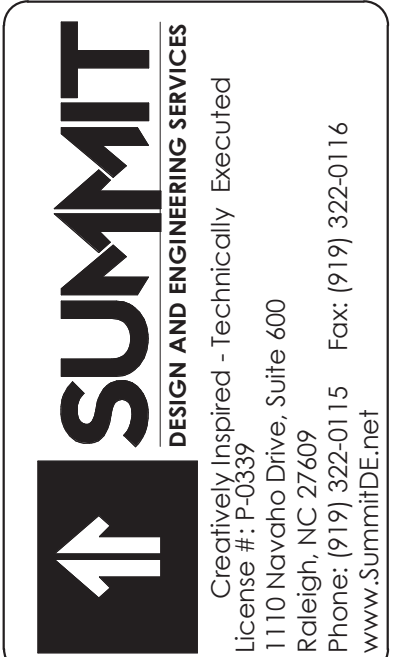
4 TYPICAL NICHIBA TO STONE CONNECTION  
 3" = 1'-0"



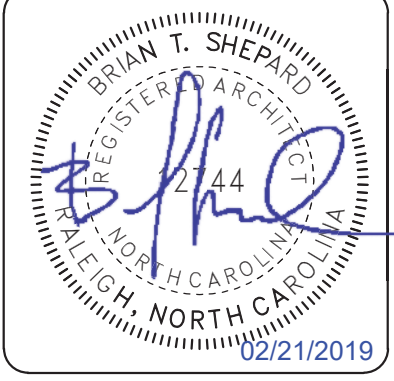
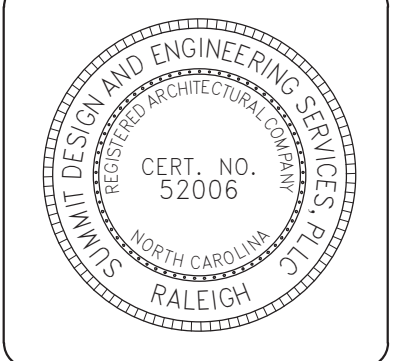
5 TYPICAL ROOF END WALL FLASHING DETAIL  
 3" = 1'-0"



6 TYPICAL SOFFIT DETAIL @ NICHIBA  
 3" = 1'-0"



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
 THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 PROJECT MANAGER  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 DRAWN BY MSC FIRST ISSUE DATE 12/03/18

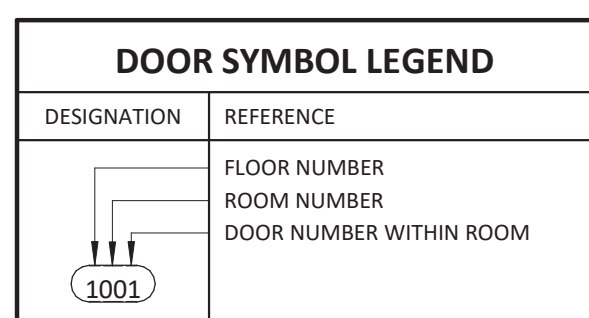
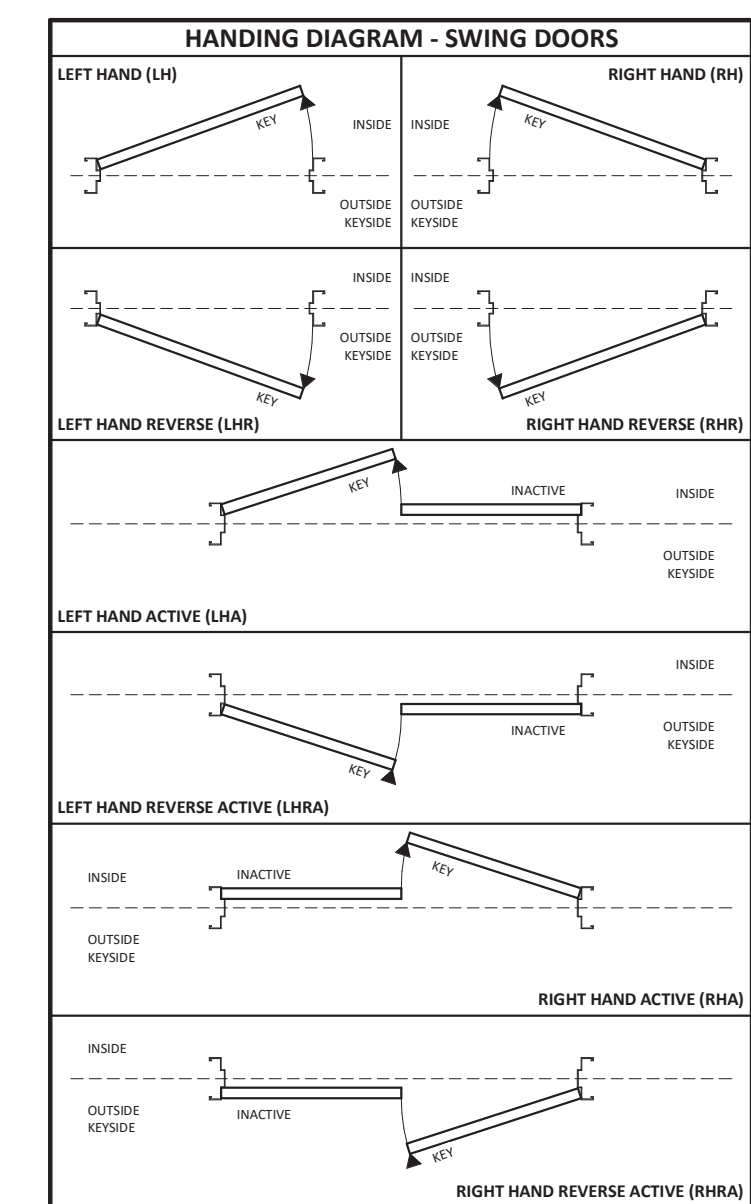
NO	REVISIONS	ISSUED TO NCDOT	ISSUED FOR CONST.	BY	DATE
B				MC	01/22/19
C				MC	02/21/19

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**EXTERIOR DETAILS**

PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**A503**

DOOR AND FRAME SCHEDULE																		
NO.	ROOM	DOOR					FRAME					LABEL	HANDING	LOCKSET		HARDWARE SET	COMMENTS	
		TYPE	MATERIAL	NOMINAL SIZE			OPERATION	TYPE	MATERIAL	DETAILS (SEE NOTES)				FUNCTION	GRADE			
				WIDTH	HEIGHT	THK				HEAD	JAMB							SILL
1001	VESTIBULE	D	GLASS	11'-8 1/2"	7'-0"	1 3/4"	SLIDER	CD1	ALUMINIUM	6/A600	10/A600	5/A600	None	OXXO	ENTRY	1	3	AUTOMATIC DOOR OPENER
1002	VESTIBULE	D	GLASS	11'-8 1/2"	7'-0"	1 3/4"	SLIDER	CD3	ALUMINIUM	6/A600	10/A600	4/A600	None	OXXO	PASSAGE	1	3	AUTOMATIC DOOR OPENER
1021	VESTIBULE	D	GLASS	11'-8 1/2"	7'-0"	1 3/4"	SLIDER	CD3	ALUMINIUM	6/A600	10/A600	4/A600	None	OXXO	PASSAGE	1	3	AUTOMATIC DOOR OPENER
1022	VESTIBULE	D	GLASS	11'-8 1/2"	7'-0"	1 3/4"	SLIDER	SO1	ALUMINIUM	6/A600	10/A600	5/A600	None	OXXO	ENTRY	1	3	AUTOMATIC DOOR OPENER
1051	CHASE	B	HM	3'-0"	7'-0"	1 3/4"	SWING	A	HOLLOW METAL	1/A600	2/A600	3/A600	NR	LH	STOREROOM	1	2	
1061	CHASE	B	HM	3'-0"	7'-0"	1 3/4"	SWING	A	HOLLOW METAL	1/A600	2/A600	3/A600	NR	RH	STOREROOM	1	2	
1071	FAMILY	A	HM	3'-0"	7'-0"	1 3/4"	SWING	A	HOLLOW METAL	1/A600	2/A600	3/A600	NR	RH	PASSAGE	1	6	
1081	ELECTRICAL	A	HM	3'-0"	7'-0"	1 3/4"	SWING	A	HOLLOW METAL	1/A600	2/A600	3/A600	NR	LH	STOREROOM	1	1	
1091	STORAGE	B	HM	3'-0"	7'-0"	1 3/4"	SWING	A	HOLLOW METAL	1/A600	2/A600	3/A600	NR	LH	STOREROOM	1	2	
1101	STORAGE	B	HM	3'-0"	7'-0"	1 3/4"	SWING	A	HOLLOW METAL	1/A600	2/A600	3/A600	NR	RH	STOREROOM	1	2	
1111	STORAGE	A	HM	3'-0"	7'-0"	1 3/4"	SWING	A	HOLLOW METAL	1/A600	2/A600	3/A600	NR	LH	STOREROOM	1	1	
1121	VENDING	C	GLASS	6'-0"	7'-0"	1 3/4"	SWING	B	HOLLOW METAL	7/A600	8/A600	9/A600	NR	RHRA	ENTRY	1	4	
1122	VENDING	C	GLASS	6'-0"	7'-0"	1 3/4"	SWING	B	HOLLOW METAL	7/A600	8/A600	9/A600	NR	RHRA	ENTRY	1	4	
1131	STORAGE	A	HM	3'-0"	7'-0"	1 3/4"	SWING	B	HOLLOW METAL	7/A600	8/A600	9/A600	NR	LH	STOREROOM	1	5	

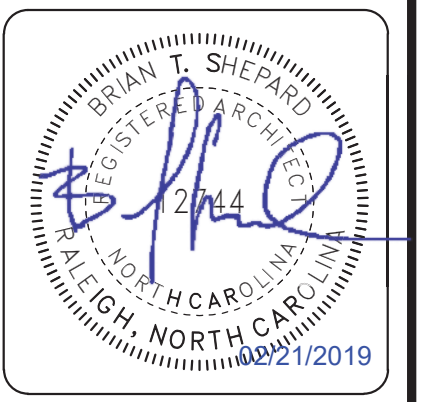
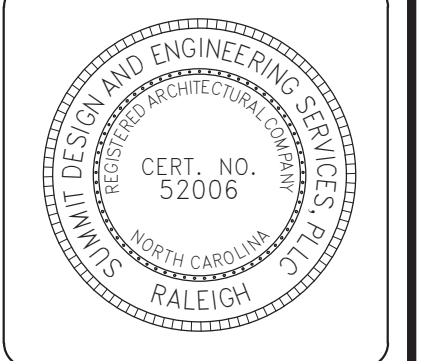
HARDWARE SET												
SET #	HINGES	CLOSER	DOOR STOP	PUSH/PULL PLATE	PANIC DEVICE	THRESHOLD	DOOR SWEEP	SILENCER	AUTOMATIC ACTUATOR	DOOR CONTACT	PROXIMITY CARD READER	
1	1.5	SURFACE	WALL	No	No	No	No	Yes	No	No	No	
2	1.5	SURFACE	HINGE	No	No	No	No	Yes	No	No	No	
3	0	AUTOMATIC	N/A	No	No	Yes	No	No	No	No	No	
4	3	SURFACE	HINGE	No	Yes	Yes	Yes	Yes	No	No	No	
5	1.5	SURFACE	WALL	No	Yes	Yes	Yes	Yes	No	No	No	
6	1.5	N/A	WALL	No	No	No	No	Yes	No	No	No	



- ### DOOR NOTES
- HARDWARE SET REPRESENTS THE DESIGN INTENT AND DIRECTION OF THE OWNER AND ARCHITECT. THEY ARE GUIDELINES ONLY AND SHOULD NOT BE CONSIDERED A DETAILED HARDWARE SCHEDULE.
  - DISCREPANCIES, CONFLICTING HARDWARE AND MISSING ITEMS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE BIDDING PROCESS.
  - OMITTED ITEMS NOT INCLUDED IN THE HARDWARE SET SHOULD BE SCHEDULED WITH THE APPROPRIATE ADDITIONAL HARDWARE REQUIRED FOR PROPER APPLICATION, INSTALLATION AND FUNCTIONALITY.
  - ALL EXTERIOR DOORS AND WINDOWS TO BE INSULATED GLASS, NON-TINTED.
  - ALL DOORS SERVING A MEANS OF EGRESS SHALL COMPLY TO SECTION 1008 OF THE N.C.S.B.C.
  - THE MAIN EXTERIOR DOOR LOCK FUNCTIONS ARE TO FOLLOW PARAGRAPH 1008.1.9.3 OF THE N.C.S.B.C. FOR GROUP B.
  - DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE BY CHAPTER 11 OF THE 2012 N.C.S.B.C. SHALL NOT BE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
  - ALL DOOR HARDWARE TO BE MOUNTED AT A HEIGHT IN ACCORDANCE WITH PARAGRAPH 1008.1.9.2.
  - ALL INTERIOR EGRESSES DOORS TO COMPLY WITH SECTION 1008.1.3 DOOR OPENING FORCE.
  - DOOR TYPE "C" & "D": TO BE TEMPERED GLASS APPROVED FOR HAZARDOUS LOCATIONS FOR GLAZING IN INGRESS/EGRESS DOORS.
  - SEE ELEVATIONS FOR EXTENT OF TEMPERED GLASS. USE TEMPERED, LAMINATED, OR OTHER SAFETY GLASS APPROVED FOR HAZARDOUS LOCATIONS IN ACCORDANCE TO N.C.S.B.C. 2012 SECTION 2406.
  - EXTERIOR GRADE SILICONE BUILDING SEALANT IS TO BE USED AT JOINTS BETWEEN DIFFERENT BUILDING MATERIALS. SEALANT IS TO COMPLY WITH ASTM D412, ASTM C794, ASTM C1135, ASTM C719, AND ASTM C1248. SEALANT IS TO BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REVIEW WITH ARCHITECT PRIOR TO INSTALLATION.

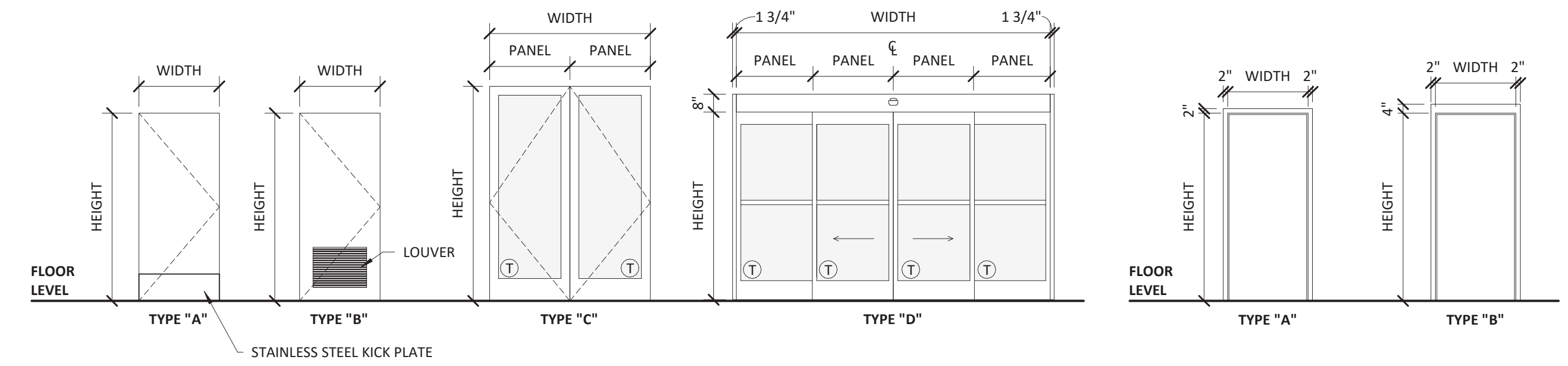
**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.com

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



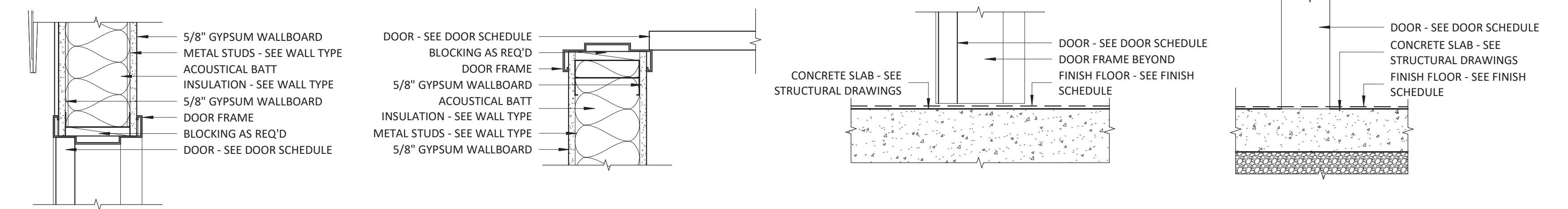
ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY: MISC  
FIRST ISSUE DATE: 11/16/2019

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

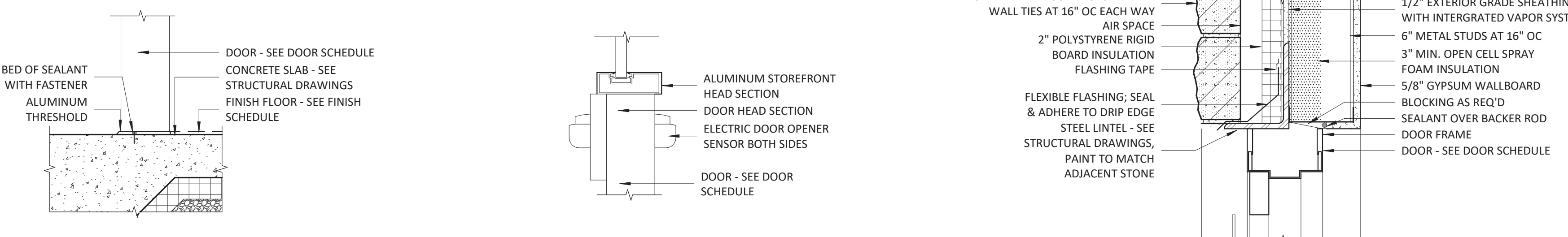


DOOR TYPE LEGEND

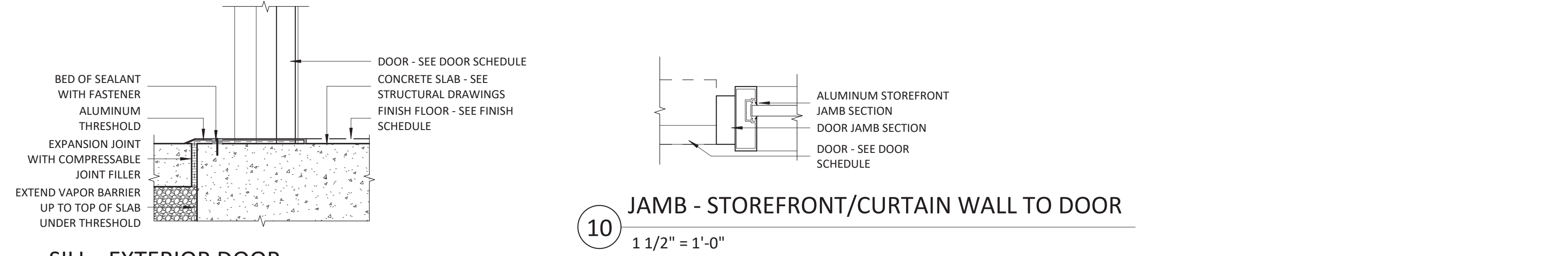
DOOR FRAME LEGEND



1 HEAD - TYPICAL INTERIOR DOOR 1 1/2" = 1'-0"  
 2 JAMB - TYPICAL INTERIOR DOOR 1 1/2" = 1'-0"  
 3 SILL - TYPICAL INTERIOR DOOR 1 1/2" = 1'-0"  
 4 SILL - INTERIOR VESTIBULE DOOR 1 1/2" = 1'-0"



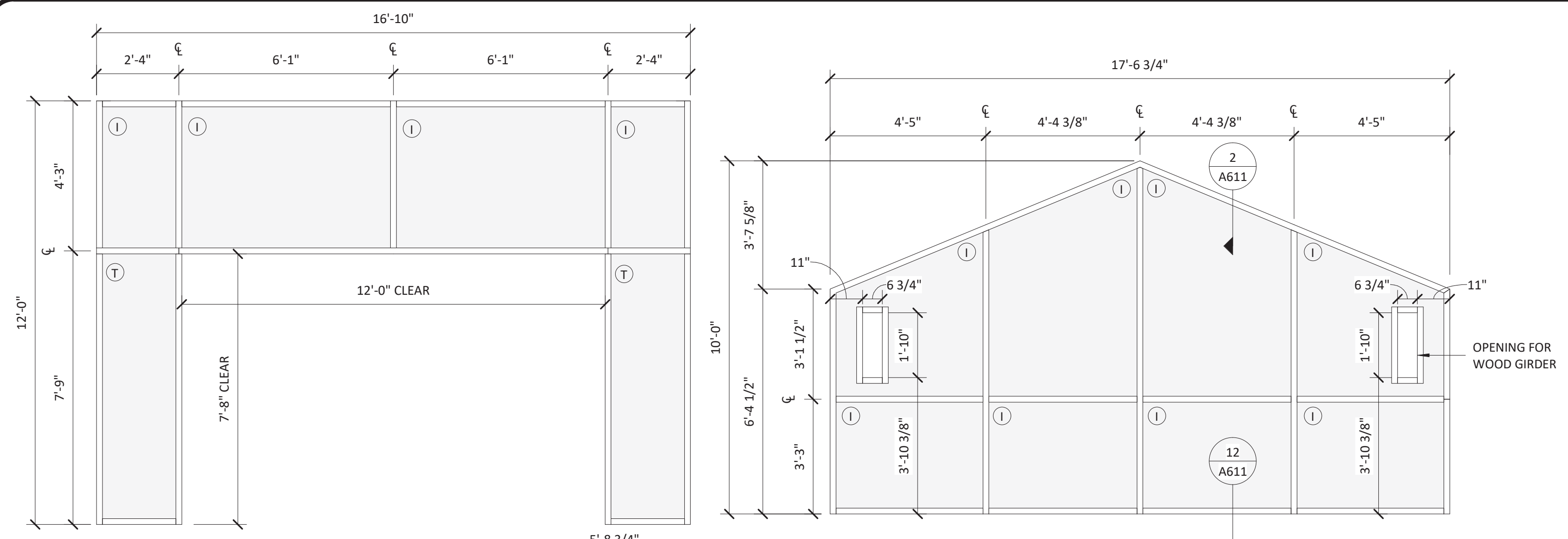
5 SILL - EXTERIOR ENTRY DOOR 1 1/2" = 1'-0"  
 6 HEAD - STOREFRONT/CURTAIN WALL TO DOOR 1 1/2" = 1'-0"  
 7 HEAD - EXTERIOR DOOR 1 1/2" = 1'-0"  
 8 JAMB - EXTERIOR DOOR 1 1/2" = 1'-0"



9 SILL - EXTERIOR DOOR 1 1/2" = 1'-0"  
 10 JAMB - STOREFRONT/CURTAIN WALL TO DOOR 1 1/2" = 1'-0"

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
DOOR SCHEDULE & DETAILS

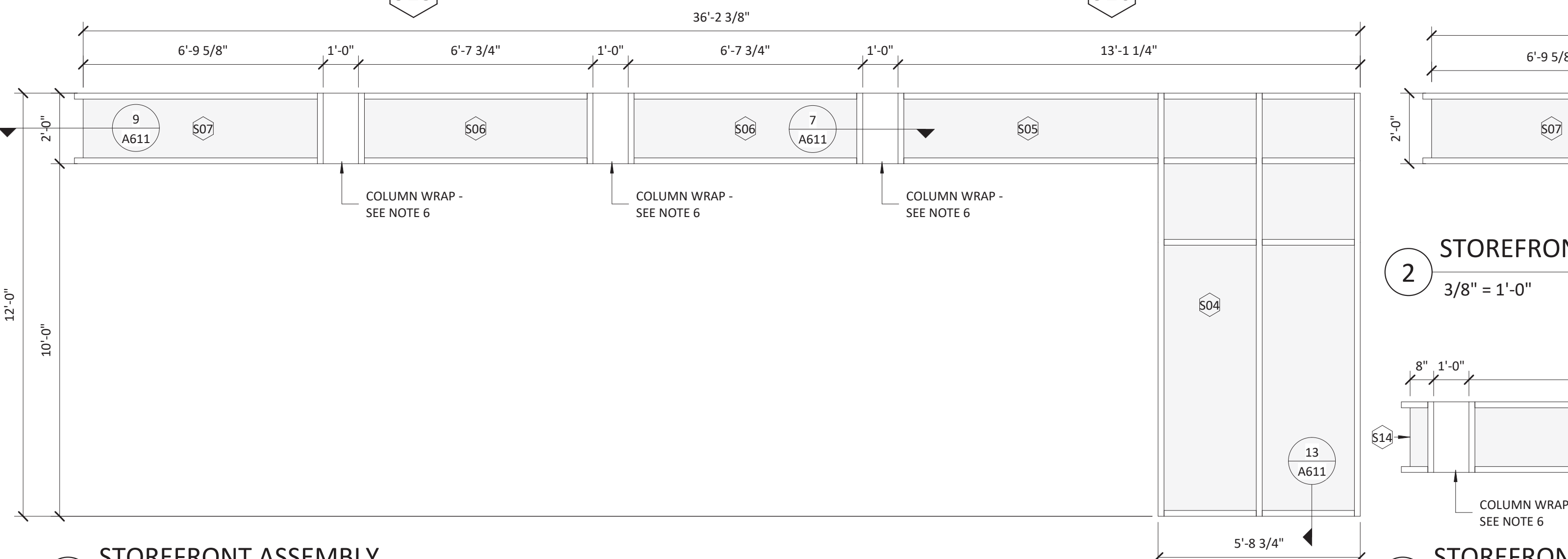
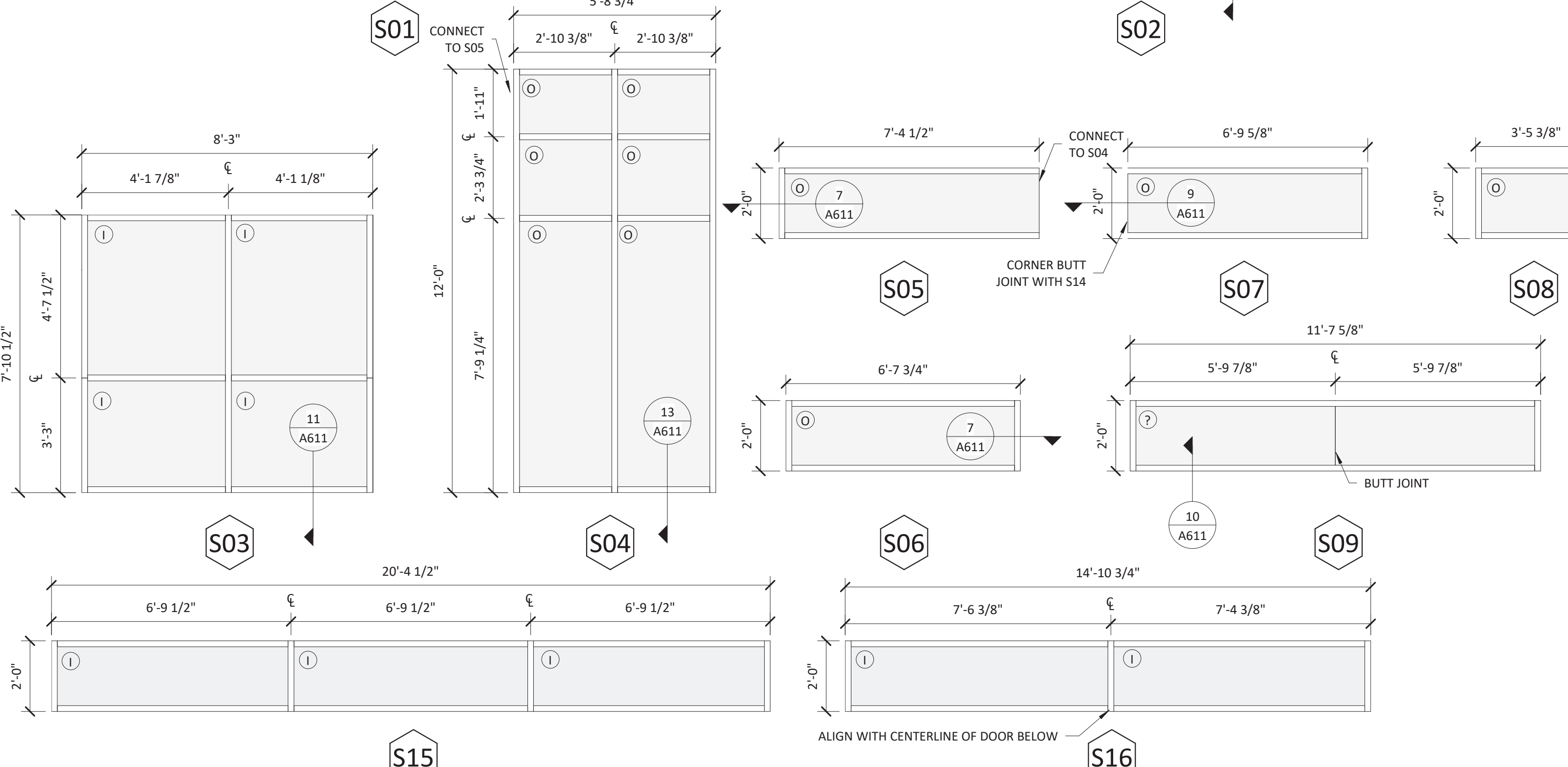
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A600**



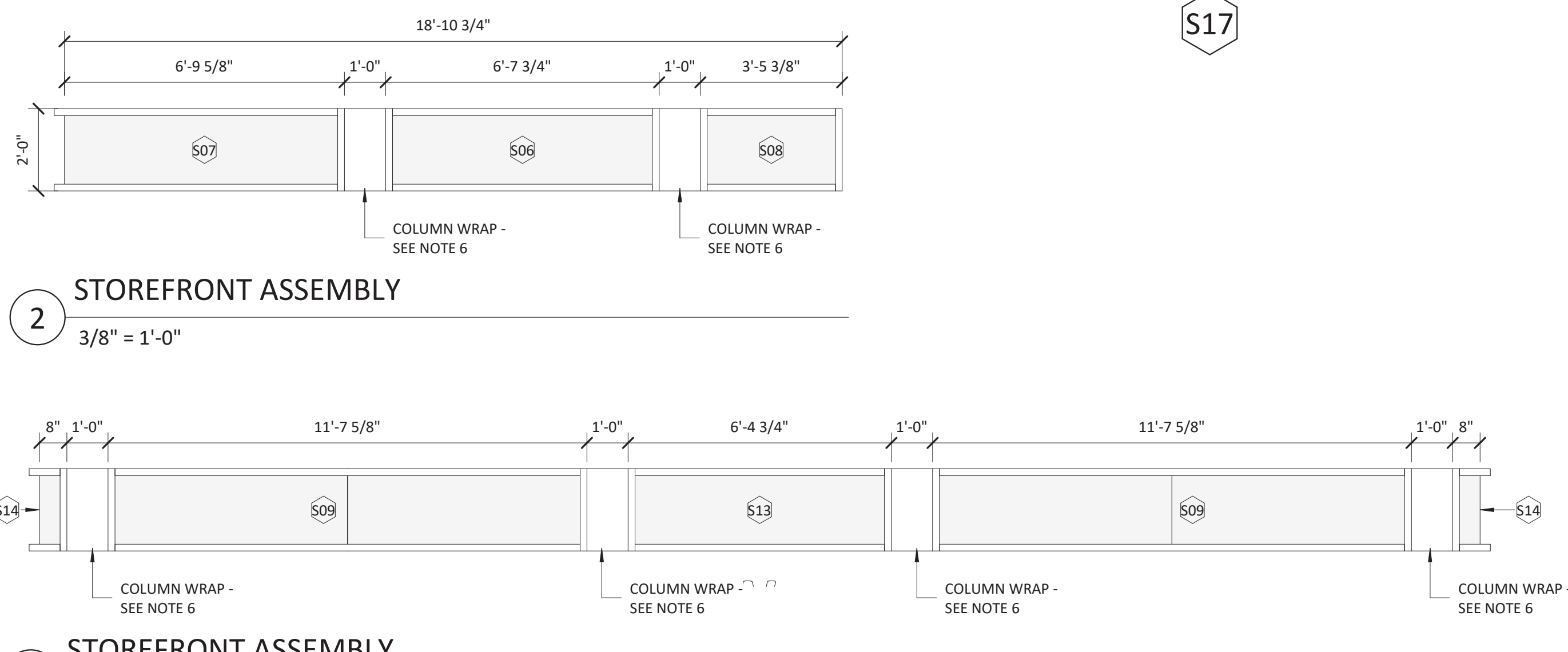
MARK	NOMINAL SIZE		FRAME		FRAME			QTY	COMMENTS
	WIDTH	HEIGHT	MATERIAL	FINISH	DETAILS (SEE NOTES)				
					HEAD	JAMB	SILL		
S01	16'-10"	12'-0"	ANODIZED ALUMINUM	BLACK NO. 29	4/A501	4/A500	5/A600	1	
S02	17'-6 3/4"	10'-0"	ANODIZED ALUMINUM	BLACK NO. 29	2/A611	6/A611	12/A611	2	
S03	8'-3"	6'-2"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	3&6/A611	11/A611	2	
S04	5'-8 3/4"	12'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	4/A611	13/A611	2	
S05	7'-4 1/2"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	7/A611	10/A611	2	
S06	6'-7 3/4"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	7/A611	10/A611	6	
S07	6'-9 5/8"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	7&9/A611	10/A611	4	
S08	3'-5 3/8"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	7&8/A611	10/A611	2	
S09	11'-7 5/8"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	7/A611	10/A611	4	
S10	2'-6"	8'-8"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	3,5&8/A611	10/A611	2	
S11	3'-0"	4'-8"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	4/A500 & 3/A611	10/A611	2	
S12	28'-2"	2'-6"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	3/A611	11/A611	2	
S13	6'-4 3/4"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	7/A611	10/A611	2	
S14	0'-8"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	9/A611	10/A611	4	
S15	20'-4 1/2"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	9/A611	10/A611	1	
S16	15'-1 3/16"	2'-0"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	3&9/A611	10/A611	2	
S17	16'-0"	4'-10"	ANODIZED ALUMINUM	BLACK NO. 29	1/A611	3/A611	11/A611	1	

- GENERAL NOTES:**
- SEE BUILDING ELEVATIONS FOR SILL HEIGHT
  - ALL GLAZING TO HAVE EXTRUDED ALUMINUM FRAME WITH THERMAL BREAK: DOUBLE PANE, CLEAR (UNO) (SEE SPECIFICATION FOR FURTHER INFORMATION)
  - VERIFY LOCATION OF WINDOWS WITH ELEVATIONS
  - ALUMINUM WINDOW FRAMES TO HAVE BLACK NO. 29 ANODIZED FINISH (UNO)
  - STANDARD WINDOW FRAME TO BE 2" WIDE x 6" DEEP (UNO)
  - BRAKE METAL COLUMN & BEAM WRAPS TO BE ANODIZED ALUMINUM. FINISH TO MATCH ADJACENT STOREFRONT SYSTEM.
  - GLASS TYPE "O" TO BE 50% OPAQUE

- GLASS TYPES**
- (I) INSULATING GLASS: CLEAR
  - (T) TEMPERED INSULATING GLASS: CLEAR
  - (O) 50% OPAQUE



**1 STOREFRONT ASSEMBLY**  
3/8" = 1'-0"

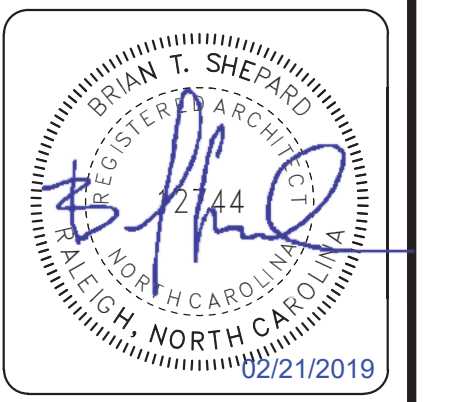
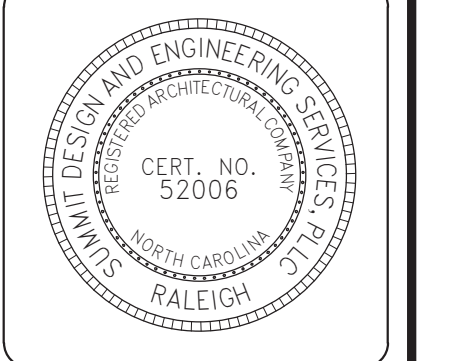


**2 STOREFRONT ASSEMBLY**  
3/8" = 1'-0"

**3 STOREFRONT ASSEMBLY**  
3/8" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.SummitDE.com

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

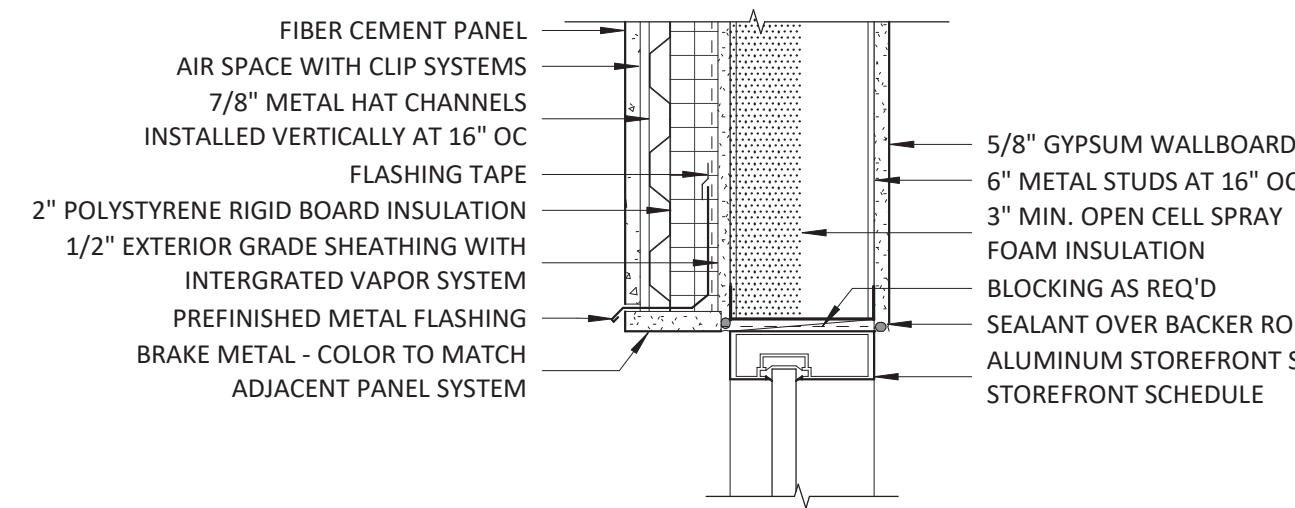


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC  
FIRST ISSUE DATE 11/16/2018

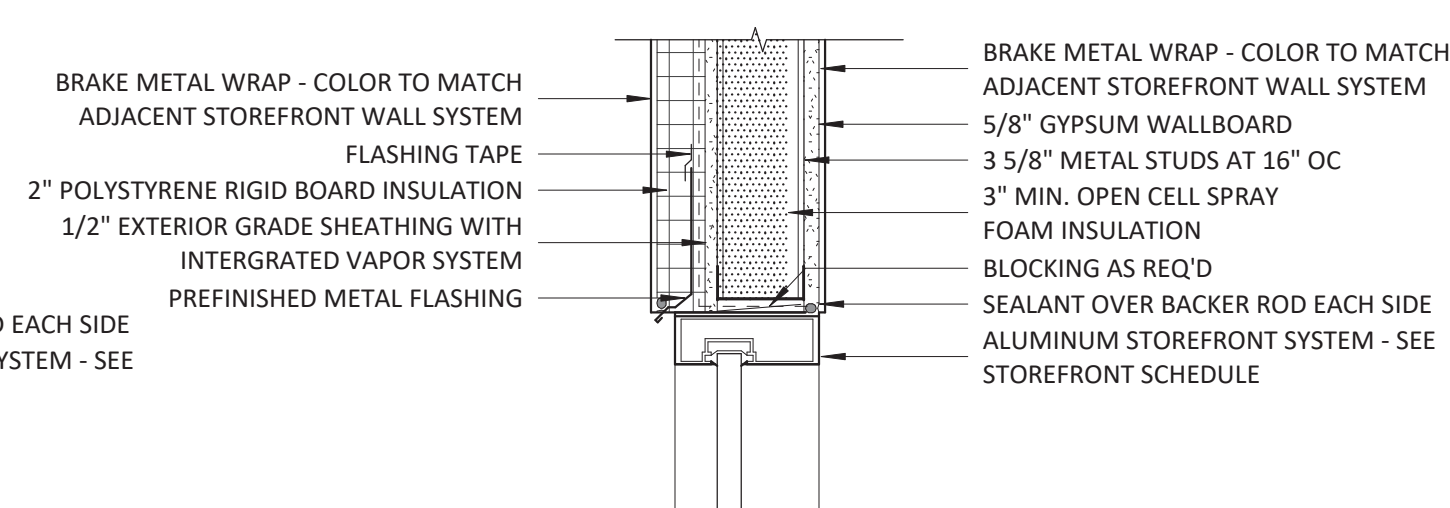
NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MC	
B	ISSUED TO NCDOT	01/22/19	MC	
C	ISSUED FOR CONST.	02/21/19	MC	

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**STOREFRONT SCHEDULE & ELEVATIONS**

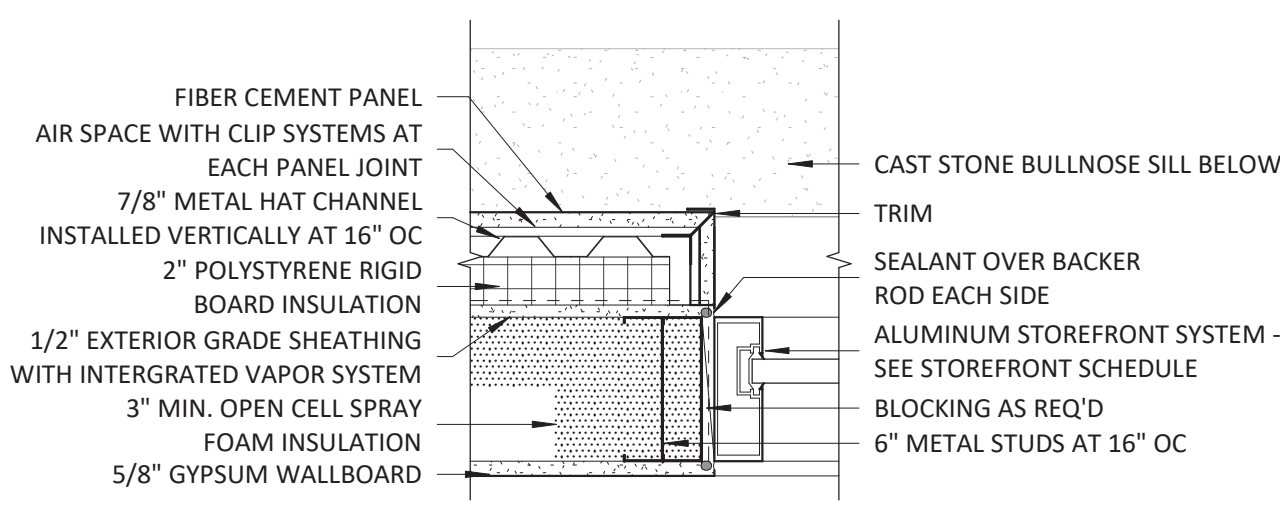
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A610**



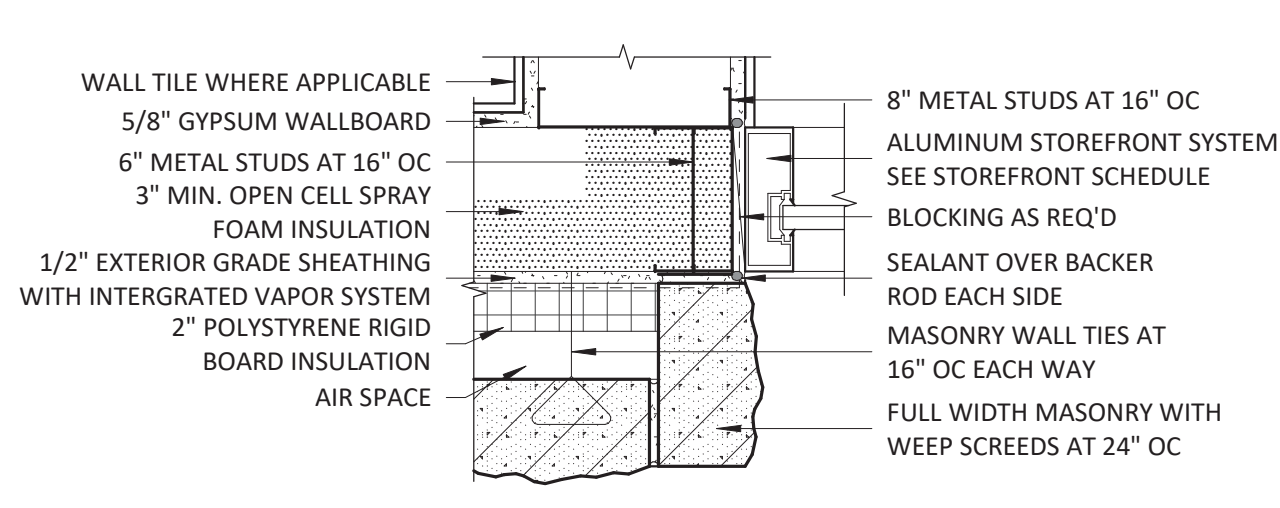
1 HEAD - STOREFRONT @ NICHIIA  
1 1/2" = 1'-0"



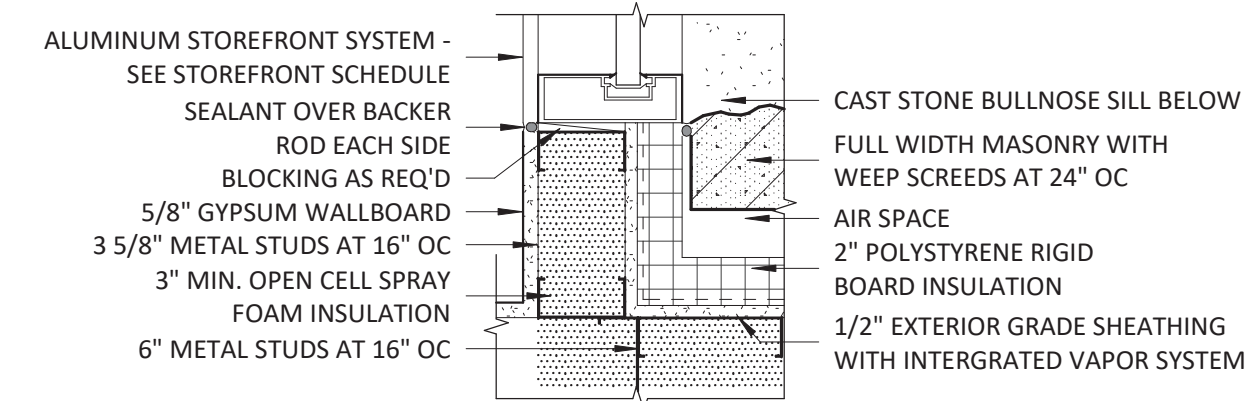
2 HEAD - STOREFRONT @ BREAK METAL  
1 1/2" = 1'-0"



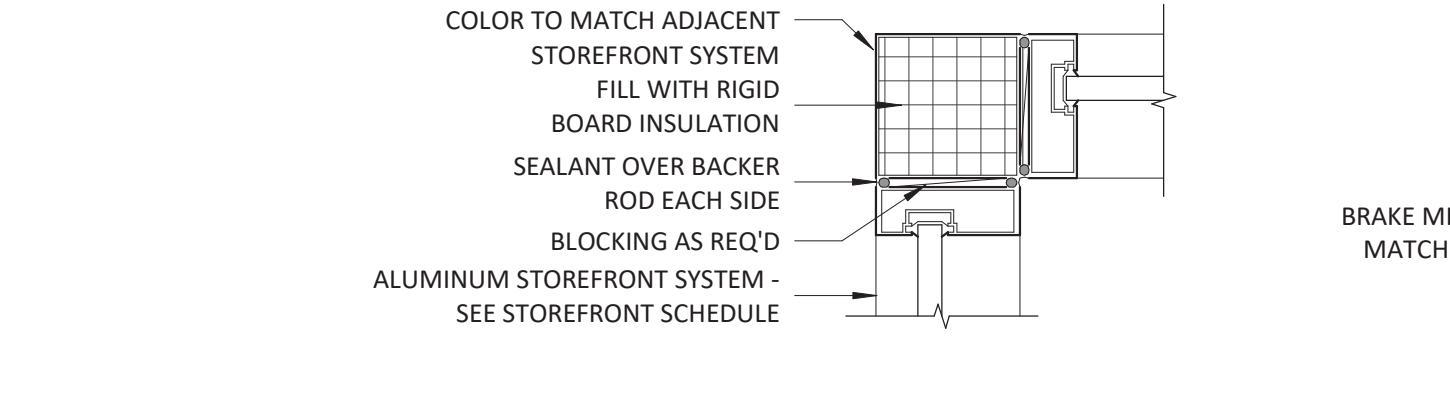
3 JAMB - STOREFRONT @ NICHIIA  
1 1/2" = 1'-0"



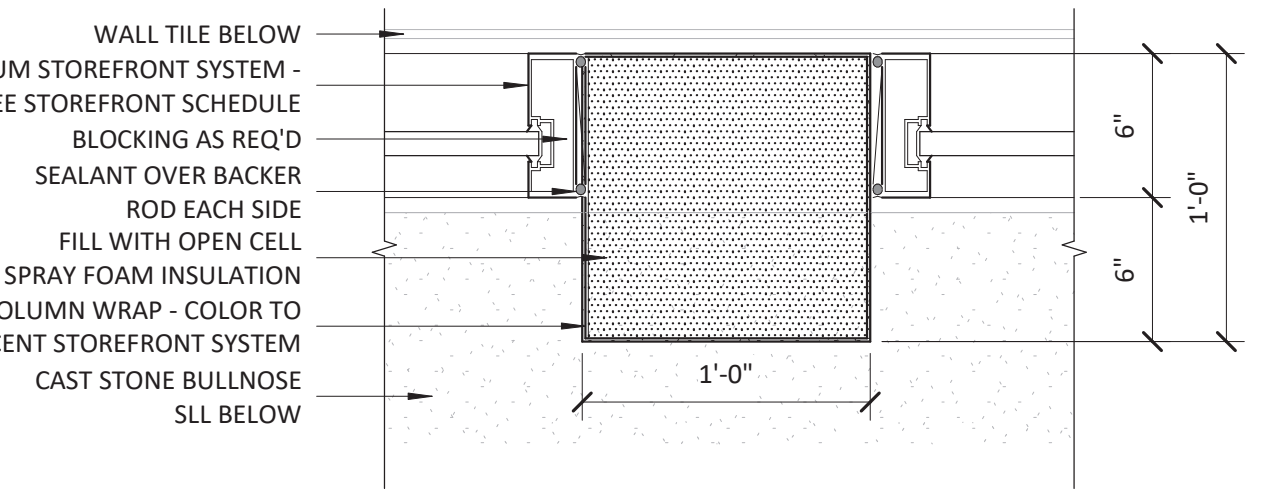
4 JAMB - STOREFRONT @ STONE  
1 1/2" = 1'-0"



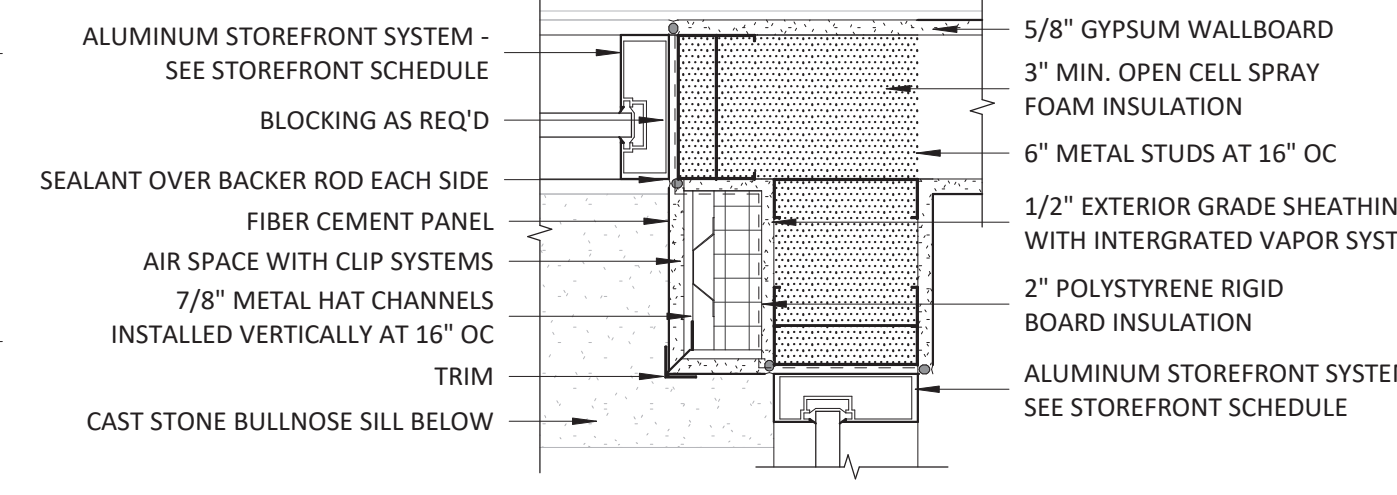
5 JAMB - STOREFRONT @ STONE INSIDE CORNER  
1 1/2" = 1'-0"



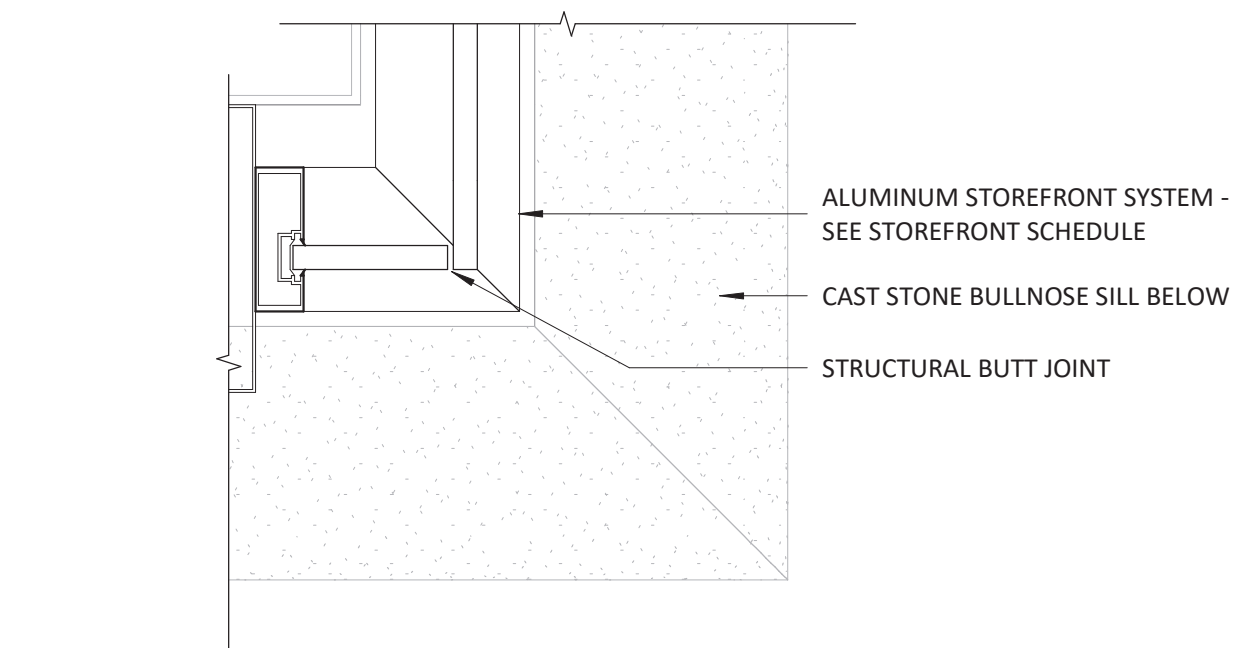
6 JAMB - STOREFRONT @ CORNER WRAP  
1 1/2" = 1'-0"



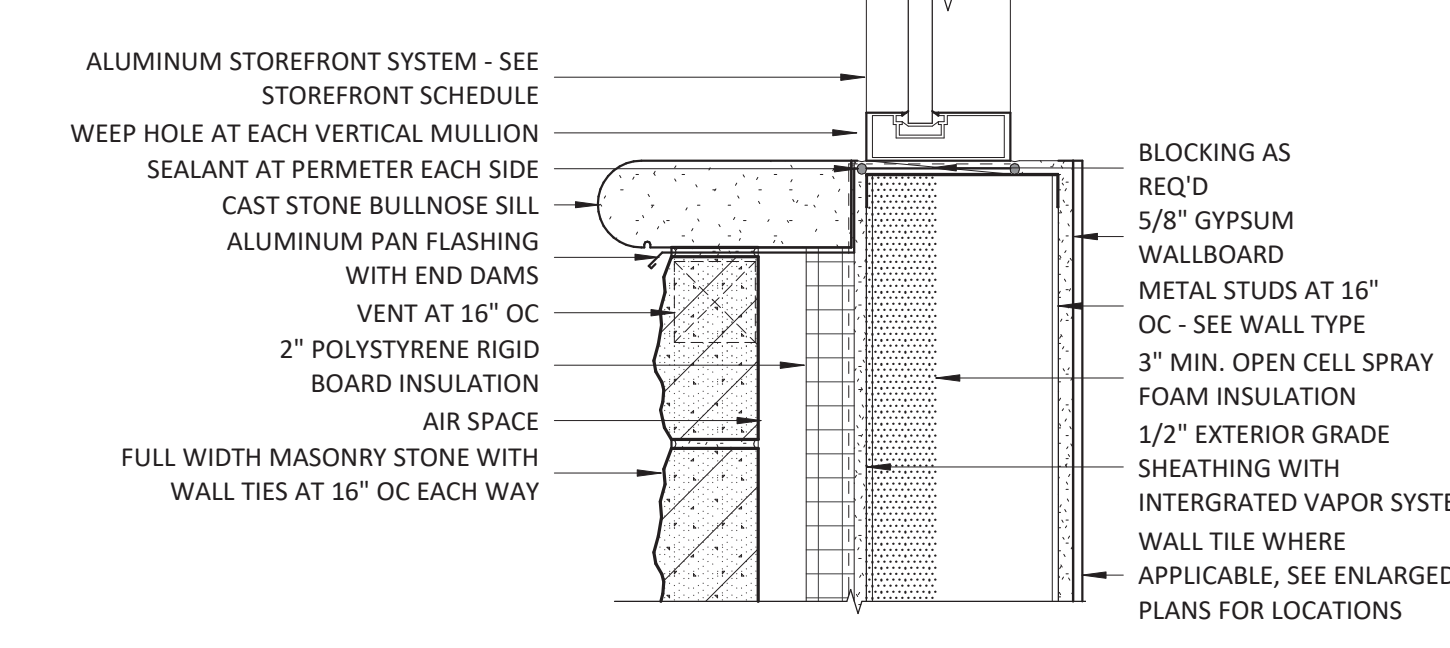
7 JAMB - STOREFRONT @ METAL WRAP  
1 1/2" = 1'-0"



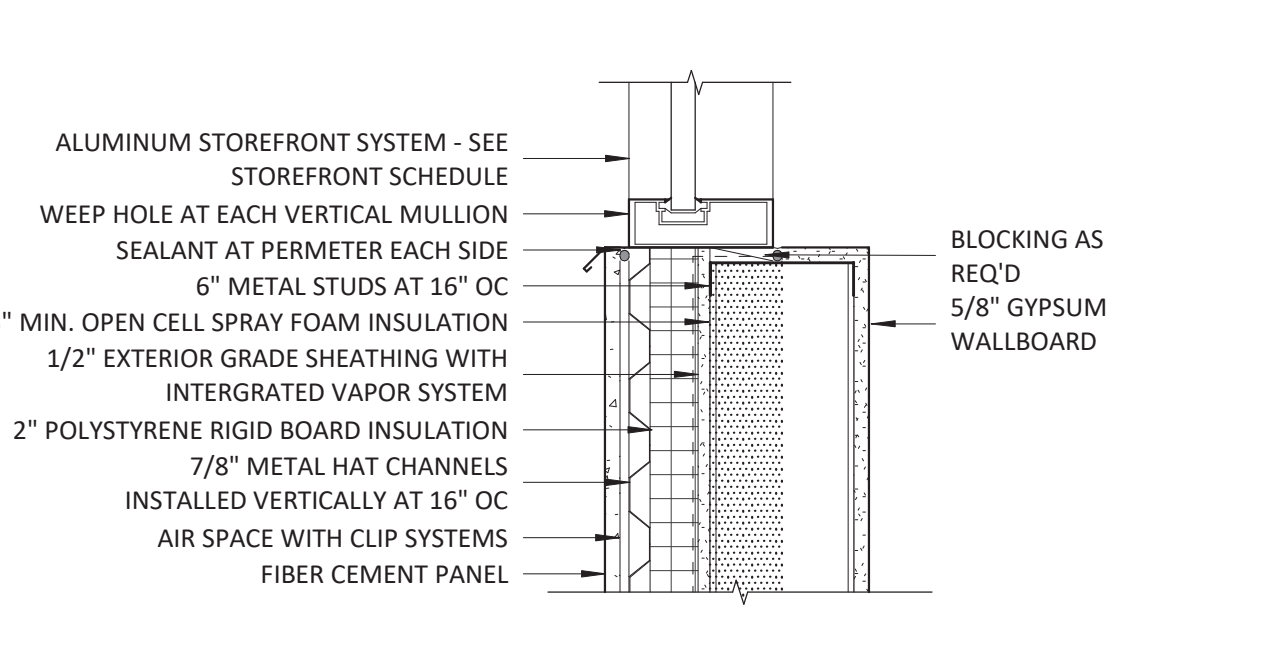
8 JAMB - STOREFRONT @ NICHIIA INSIDE CORNER  
1 1/2" = 1'-0"



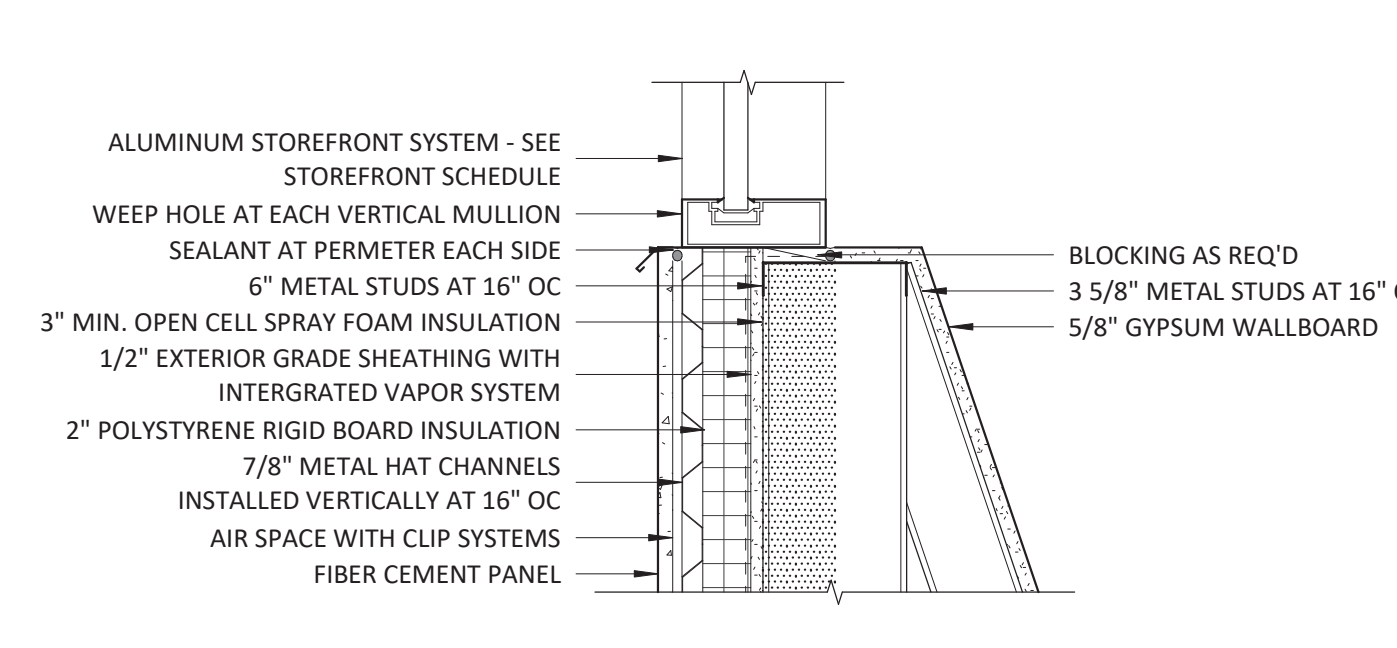
9 JAMB - STOREFRONT @ CORNER BUTT JOINT  
1 1/2" = 1'-0"



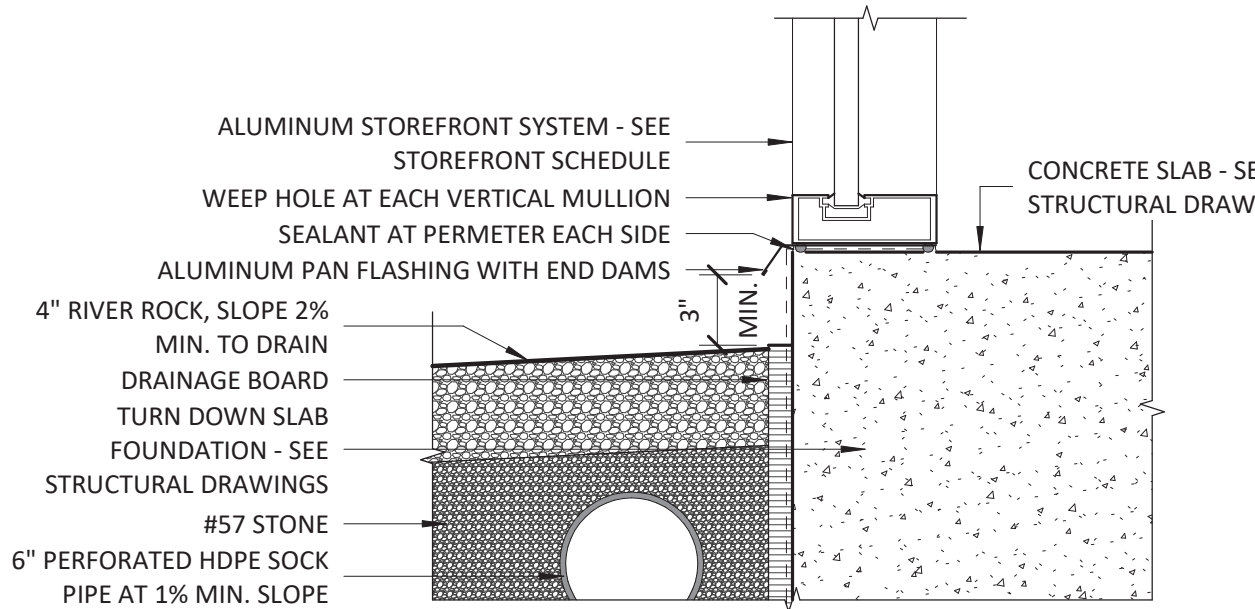
10 SILL - STOREFRONT @ STONE  
1 1/2" = 1'-0"



11 SILL - STOREFRONT @ NICHIIA  
1 1/2" = 1'-0"



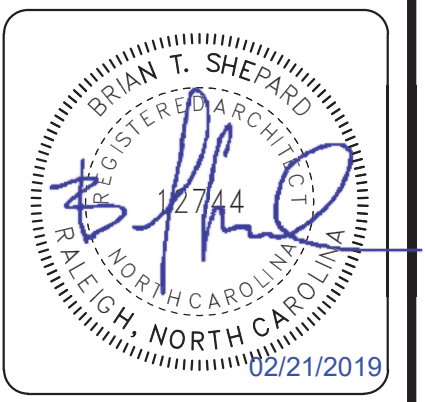
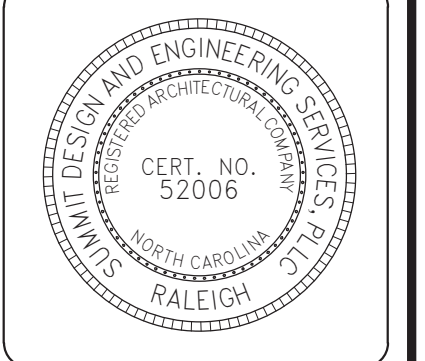
12 SILL - STOREFRONT @ NICHIIA  
1 1/2" = 1'-0"



13 SILL - STOREFRONT @ SLAB  
1 1/2" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License # P-10339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY FIRST ISSUE DATE  
MSC 11/16/2019

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MC	
B	ISSUED TO NCDOT	01/22/19	MC	
C	ISSUED FOR CONST.	02/21/19	MC	

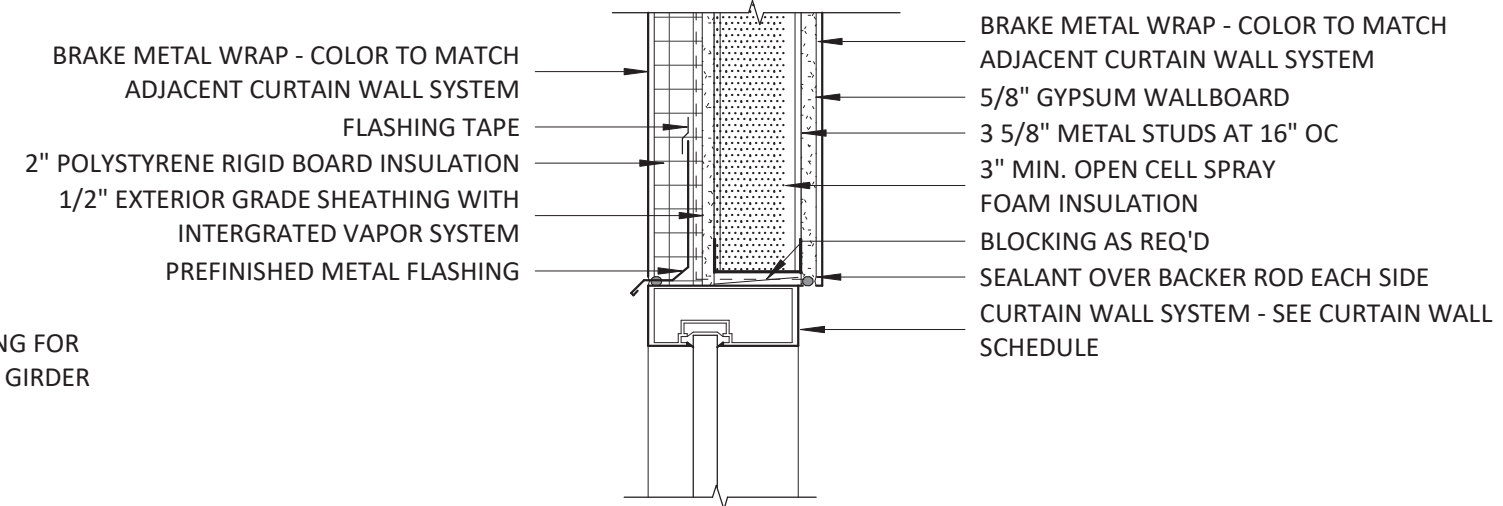
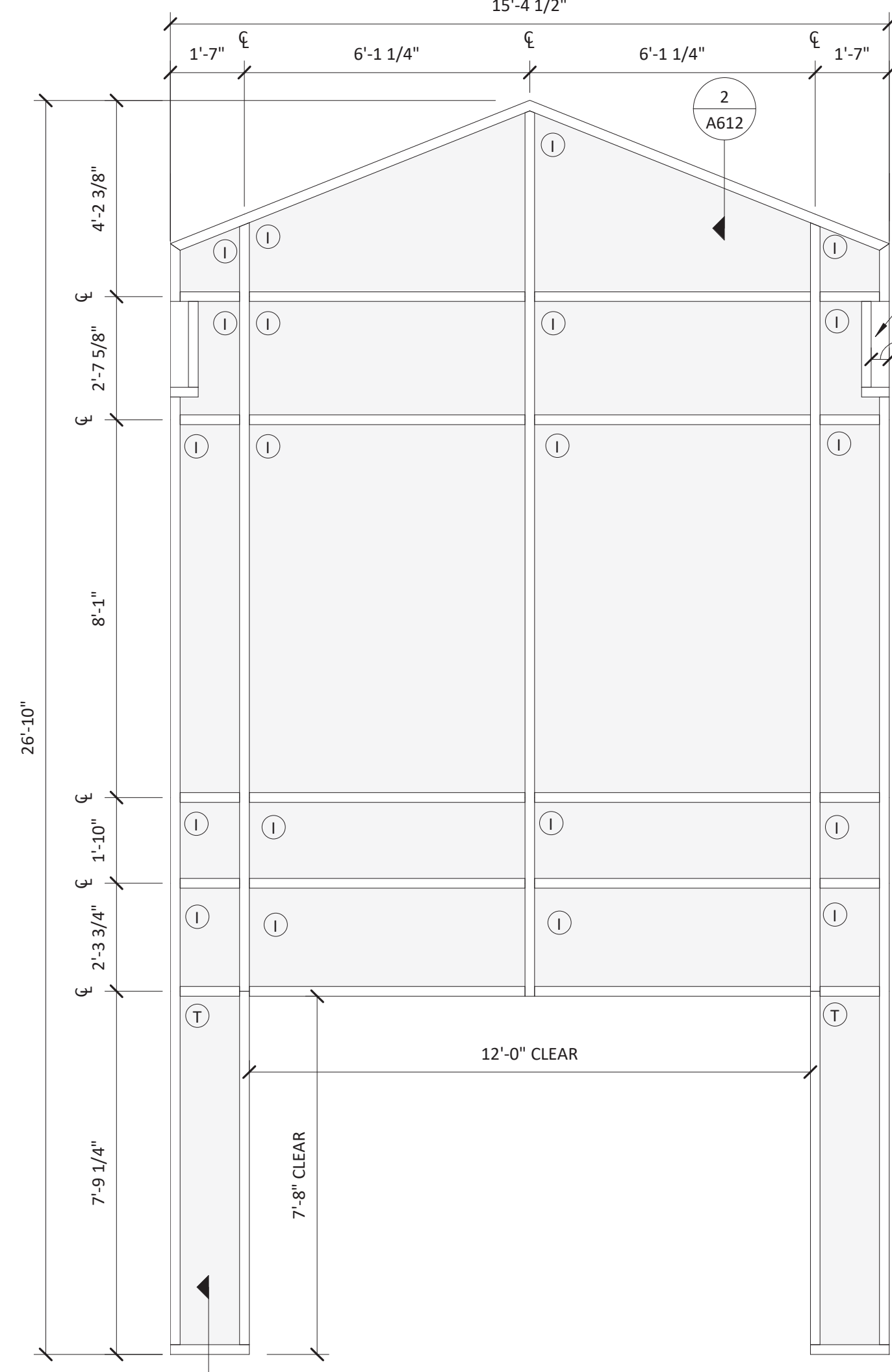
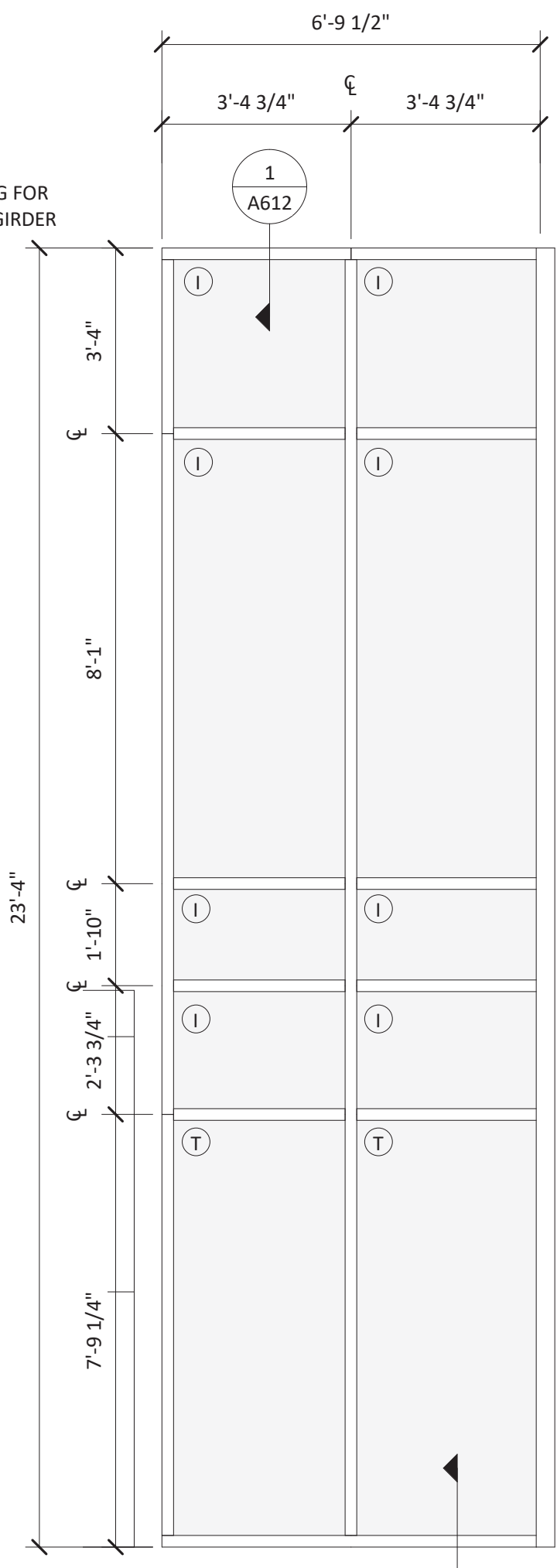
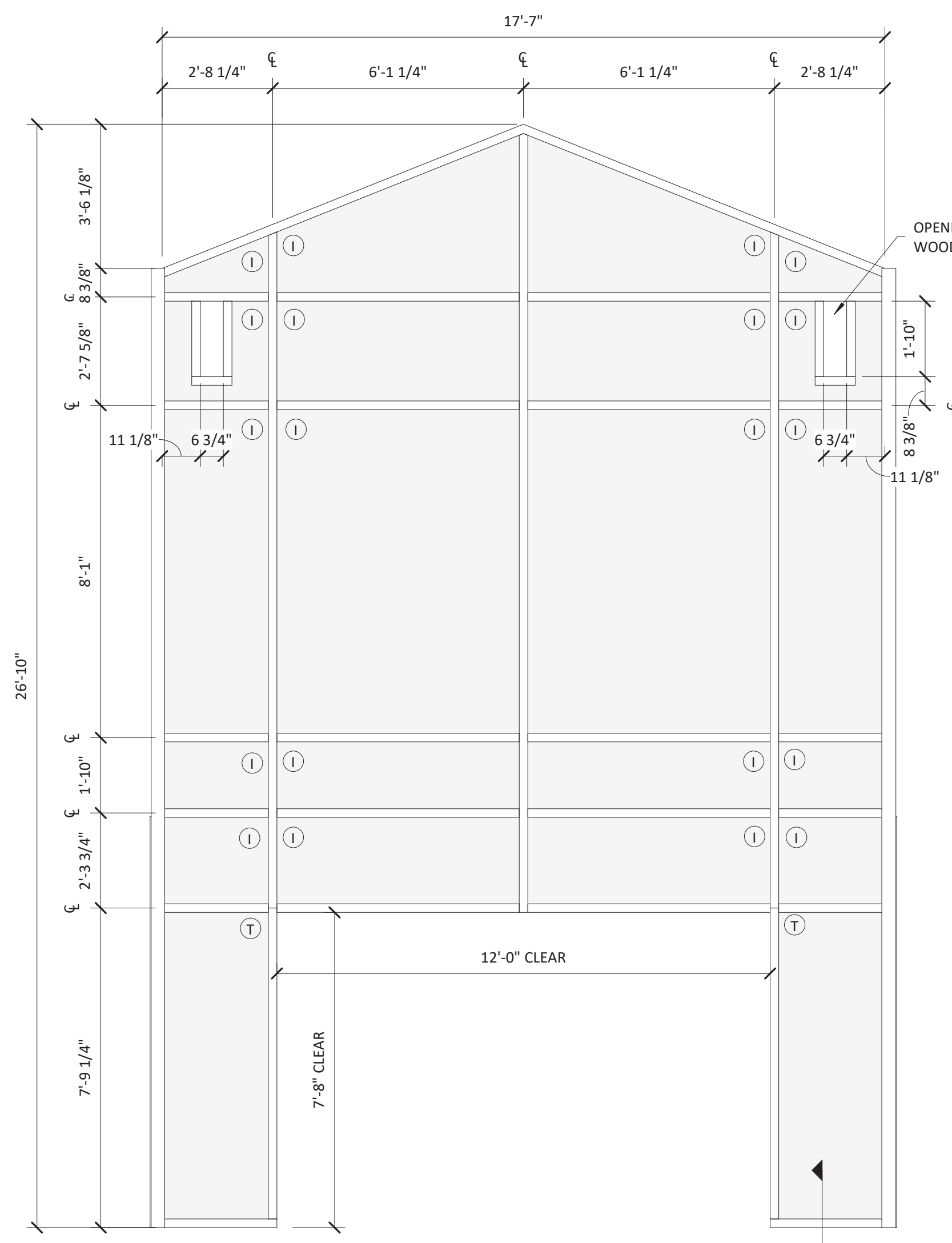
NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**STOREFRONT DETAILS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A611**

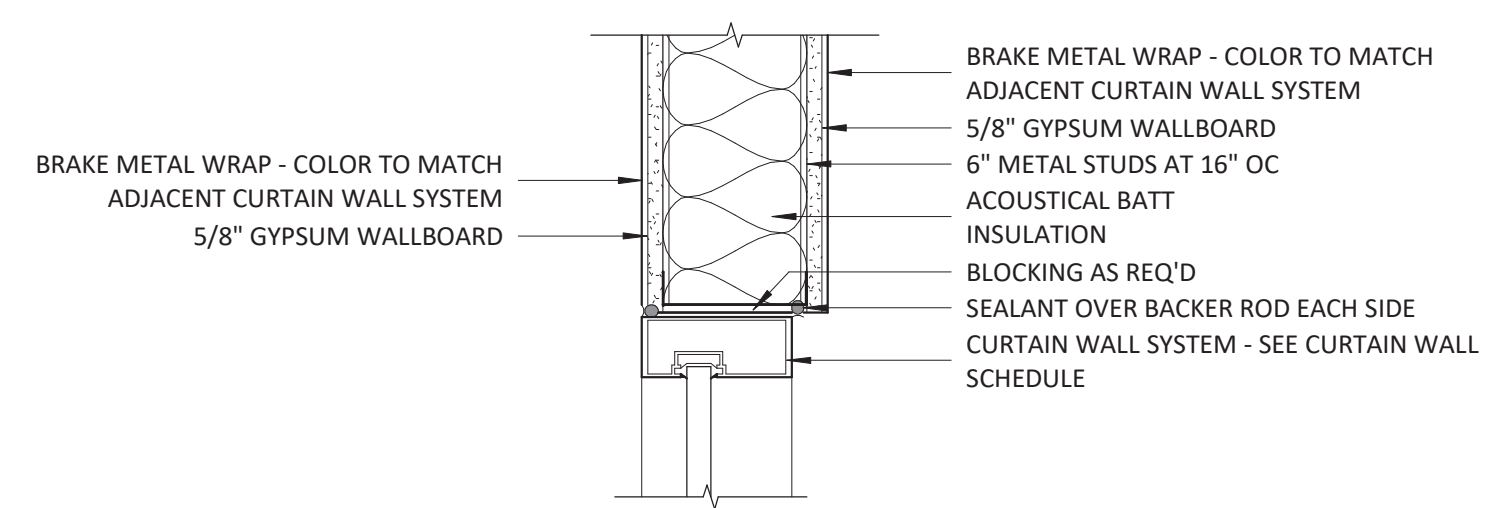
MARK	NOMINAL SIZE		FRAME MATERIAL	FINISH	FRAME DETAILS (SEE NOTES)			QTY	COMMENTS
	WIDTH	HEIGHT			HEAD	JAMB	SILL		
	C01	17'-7"			26'-10"	ANODIZED ALUMINUM	BLACK NO. 29		
C02	6'-9 1/2"	23'-4"	ANODIZED ALUMINUM	BLACK NO. 29	1/A612	3&4/A612	6/A612	2	
C03	15'-4 1/2"	26'-10"	ANODIZED ALUMINUM	BLACK NO. 29	2/A612	4/A612	7/A612	2	

- GENERAL NOTES:**
- SEE BUILDING ELEVATIONS FOR SILL HEIGHT
  - ALL GLAZING TO HAVE EXTRUDED ALUMINUM FRAME WITH THERMAL BREAK: DOUBLE PANE, CLEAR (UNO)(SEE SPECIFICATION FOR FURTHER INFORMATION)
  - VERIFY LOCATION OF WINDOWS WITH ELEVATIONS
  - ALUMINUM WINDOW FRAMES TO HAVE BLACK NO.29 ANODIZED FINISH (UNO)
  - STANDARD WINDOW FRAME TO BE 2.5" WIDE x 6.25" DEEP (UNO)

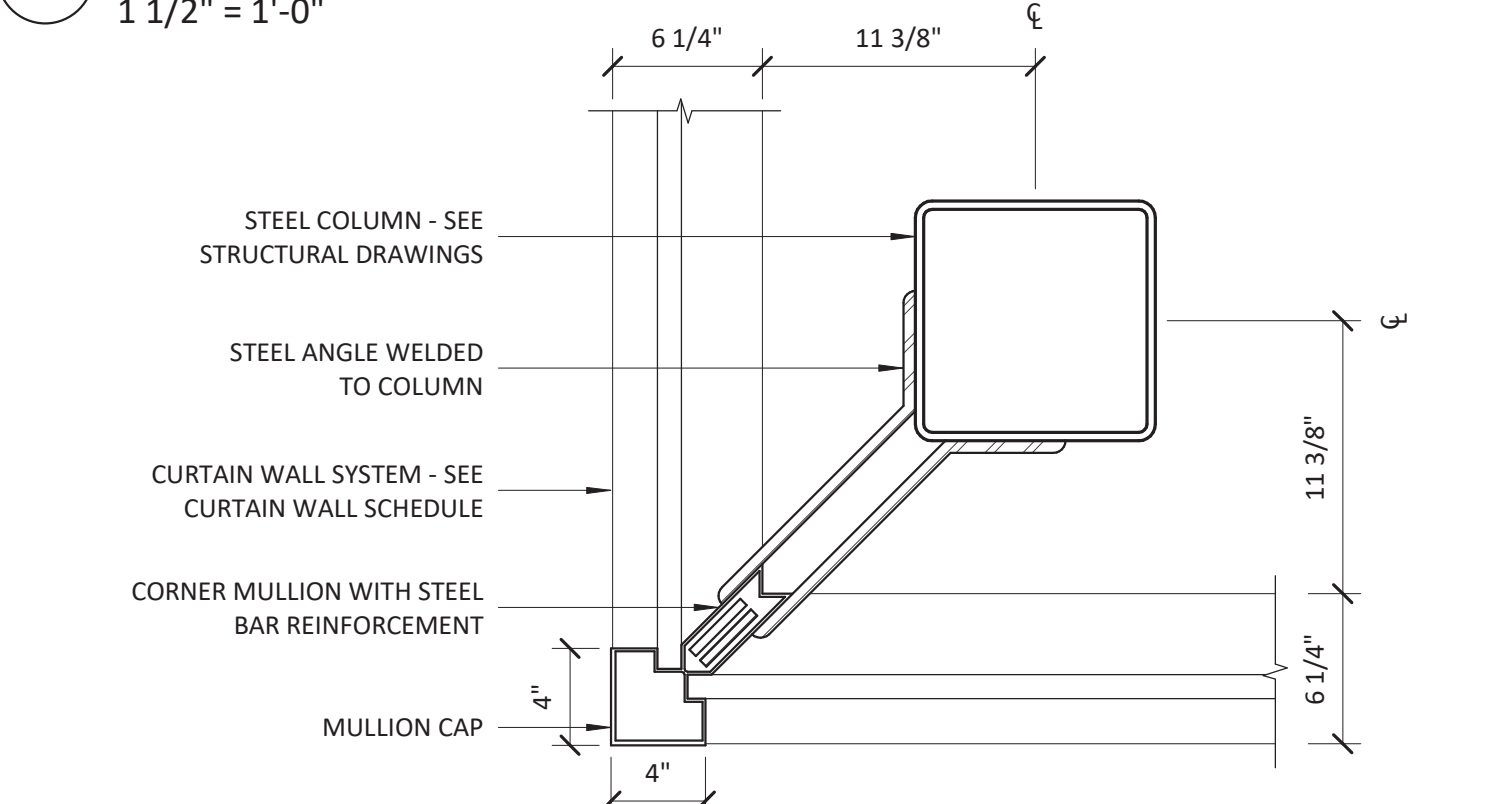
- GLASS TYPES**
- ① INSULATING GLASS: CLEAR
  - ② TEMPERED INSULATING GLASS: CLEAR
  - ③ SPANDRAL GLASS: GRAY



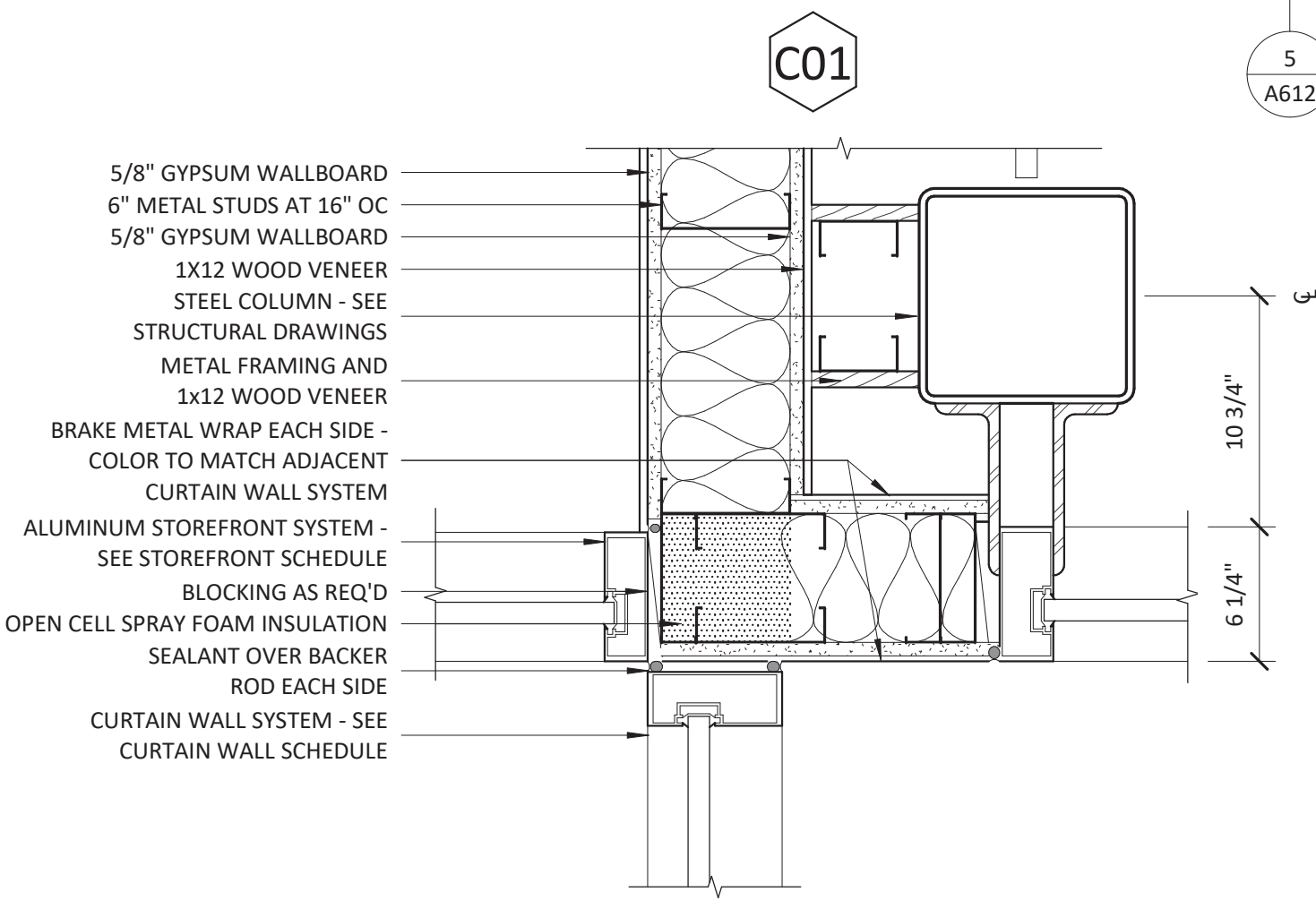
**1 HEAD - CURTAIN WALL @ EXTERIOR BREAK METAL**  
1 1/2" = 1'-0"



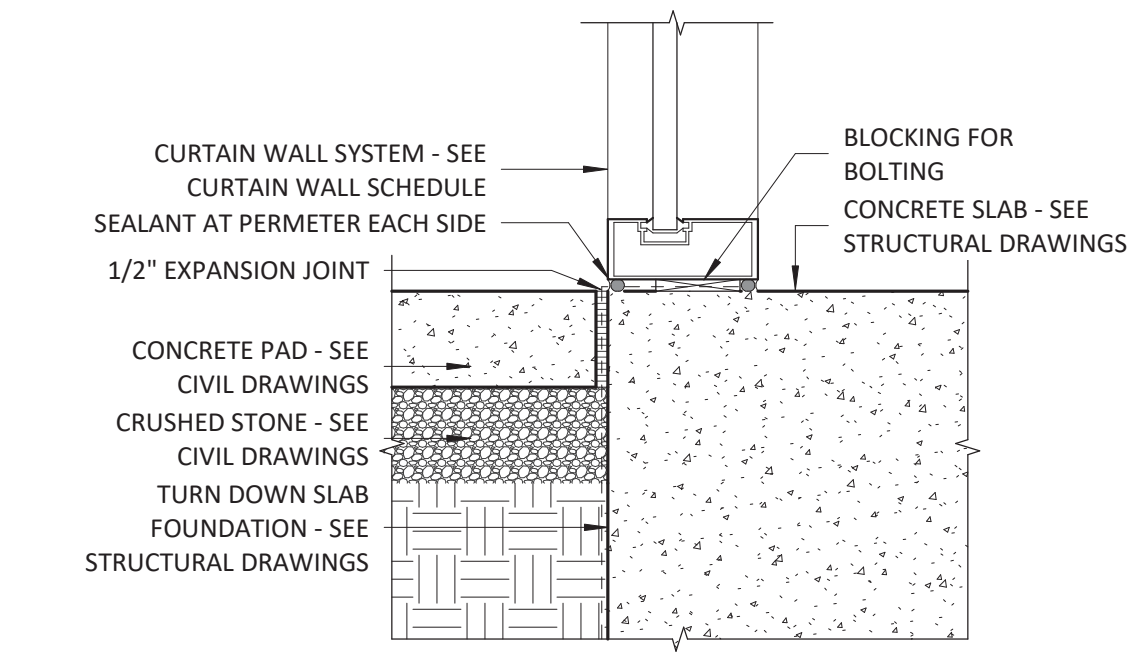
**2 HEAD - CURTAIN WALL @ INTERIOR BREAK METAL**  
1 1/2" = 1'-0"



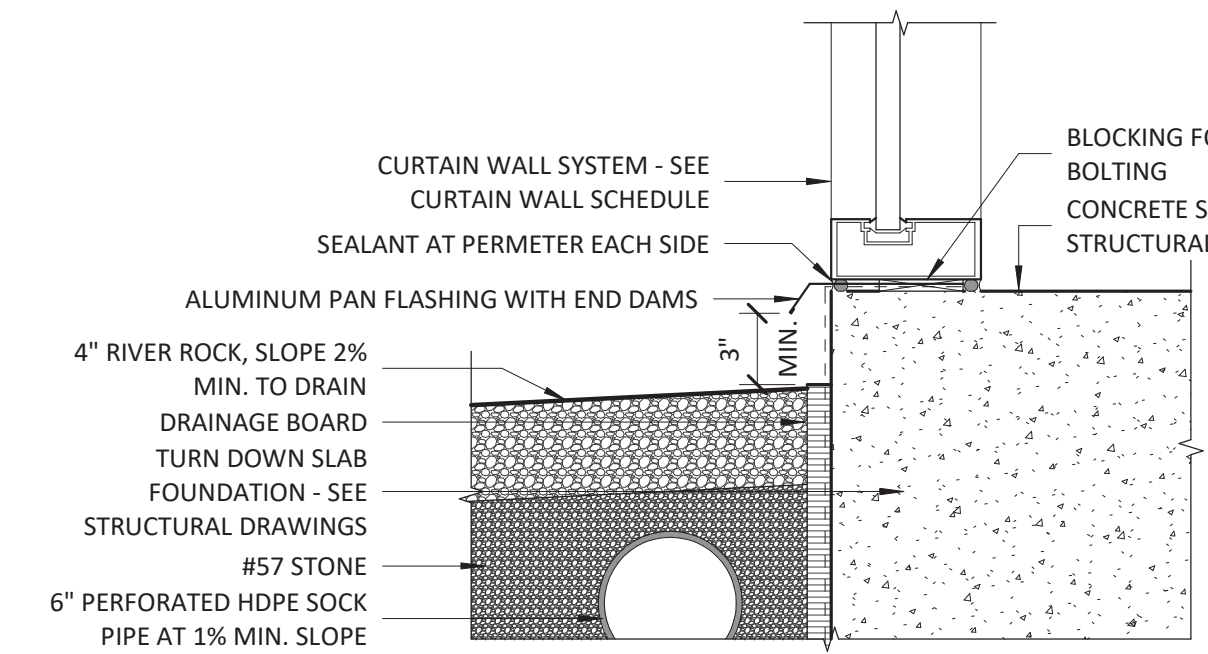
**3 JAMB - CURTAIN WALL @ OUTSIDE CORNER**  
1 1/2" = 1'-0"



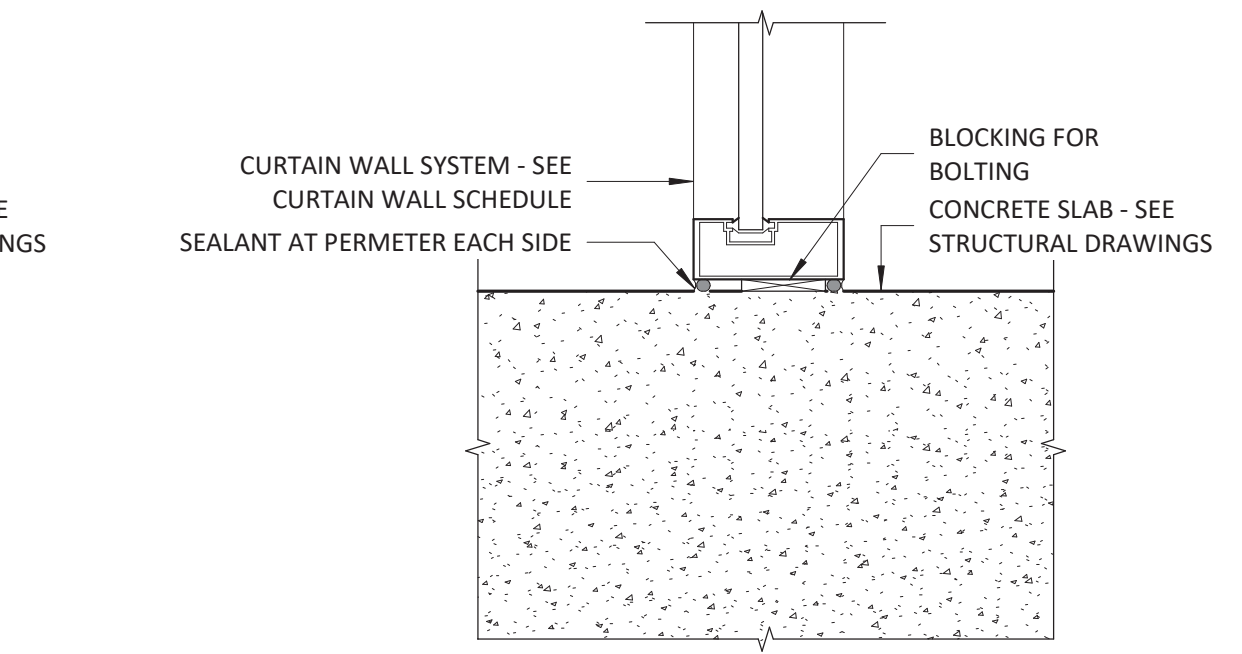
**4 JAMB - CURTAIN WALL @ INSIDE CORNER**  
1 1/2" = 1'-0"



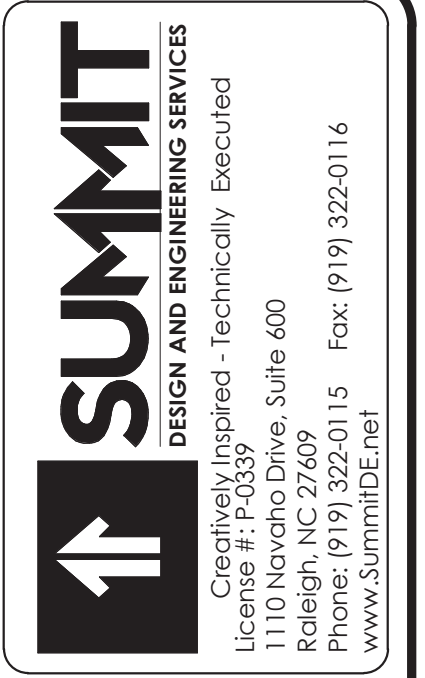
**5 SILL - CURTAIN WALL @ EXTERIOR ENTRY**  
1 1/2" = 1'-0"



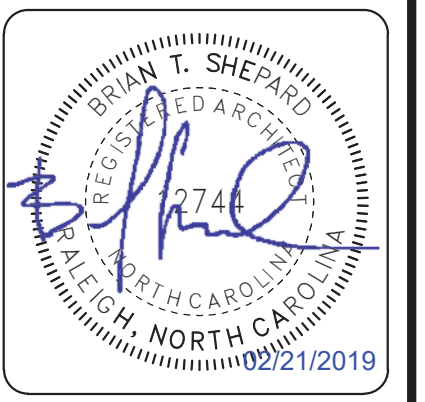
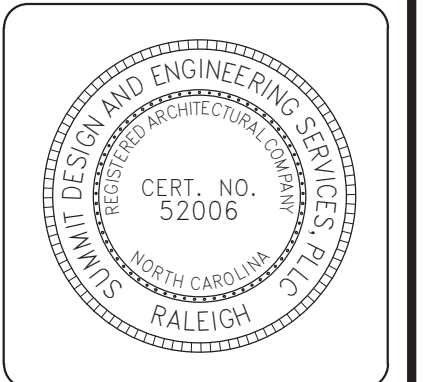
**6 SILL - CURTAIN WALL @ EXTERIOR SLAB**  
1 1/2" = 1'-0"



**7 SILL - CURTAIN WALL @ INTERIOR ENTRY**  
1 1/2" = 1'-0"



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 11/16/2019

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MSC	MC
B	ISSUED TO NCDOT	01/22/19	MSC	MC
C	ISSUED FOR CONST.	02/21/19	MSC	MC

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**CURTAIN WALL SCH., ELEV. & DETAILS**

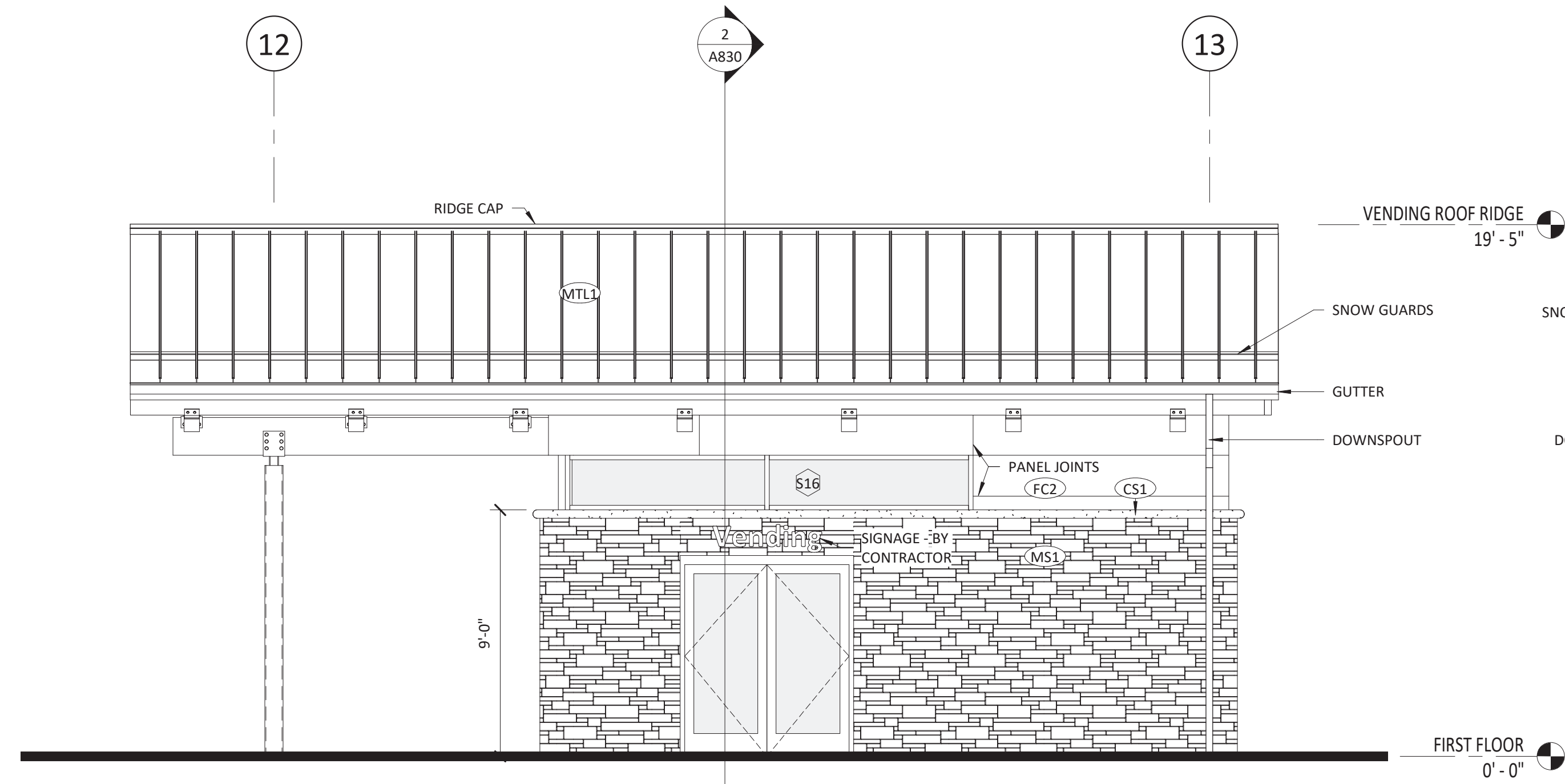
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A612**



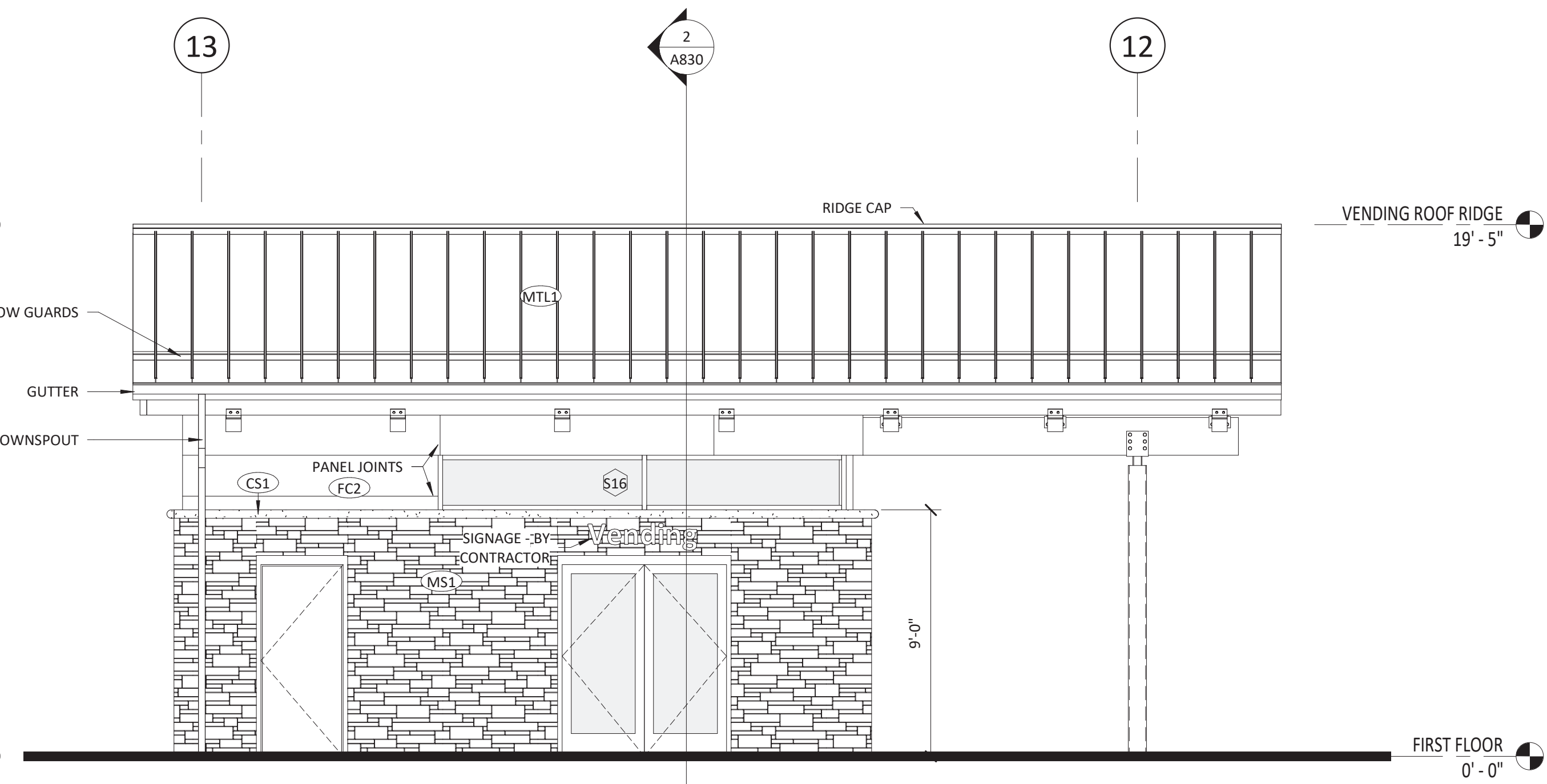


EXTERIOR FINISH SCHEDULE					
KEY	MATERIAL	MNFR.	ID	FINISH	COMMENTS
CS1	CAST STONE	SEE SPEC'S	SEE SPEC'S	CAFÉ	HOLCIM "COLUMBUS TAN" TYPE S MORTAR
FC1	FIBER CEMENT PANEL	SEE SPEC'S	SEE SPEC'S	CEDAR	INSTALLED HORIZONTALLY
FC2	FIBER CEMENT PANEL	SEE SPEC'S	SEE SPEC'S	SW 9171	SMOOTH FACE, INSTALLED HORIZONTALLY
MS1	FULL WIDTH MASONRY STONE	SEE SPEC'S	SEE SPEC'S	SEE SPEC'S	5-PC CITADEL W/ HOLCIM "COLUMBUS TAN" TYPE S MORTAR
I	GLASS	SEE SPEC'S	SEE SPEC'S	SEE SPEC'S	LOW-E, INSULATED
T	GLASS	SEE SPEC'S	SEE SPEC'S	SEE SPEC'S	TEMPERED
MTL1	STANDING SEAM METAL ROOF	SEE SPEC'S	SEE SPEC'S	SEE SPEC'S	CUSTOM COLOR MATCH TO IMETCO'S CHARCOAL

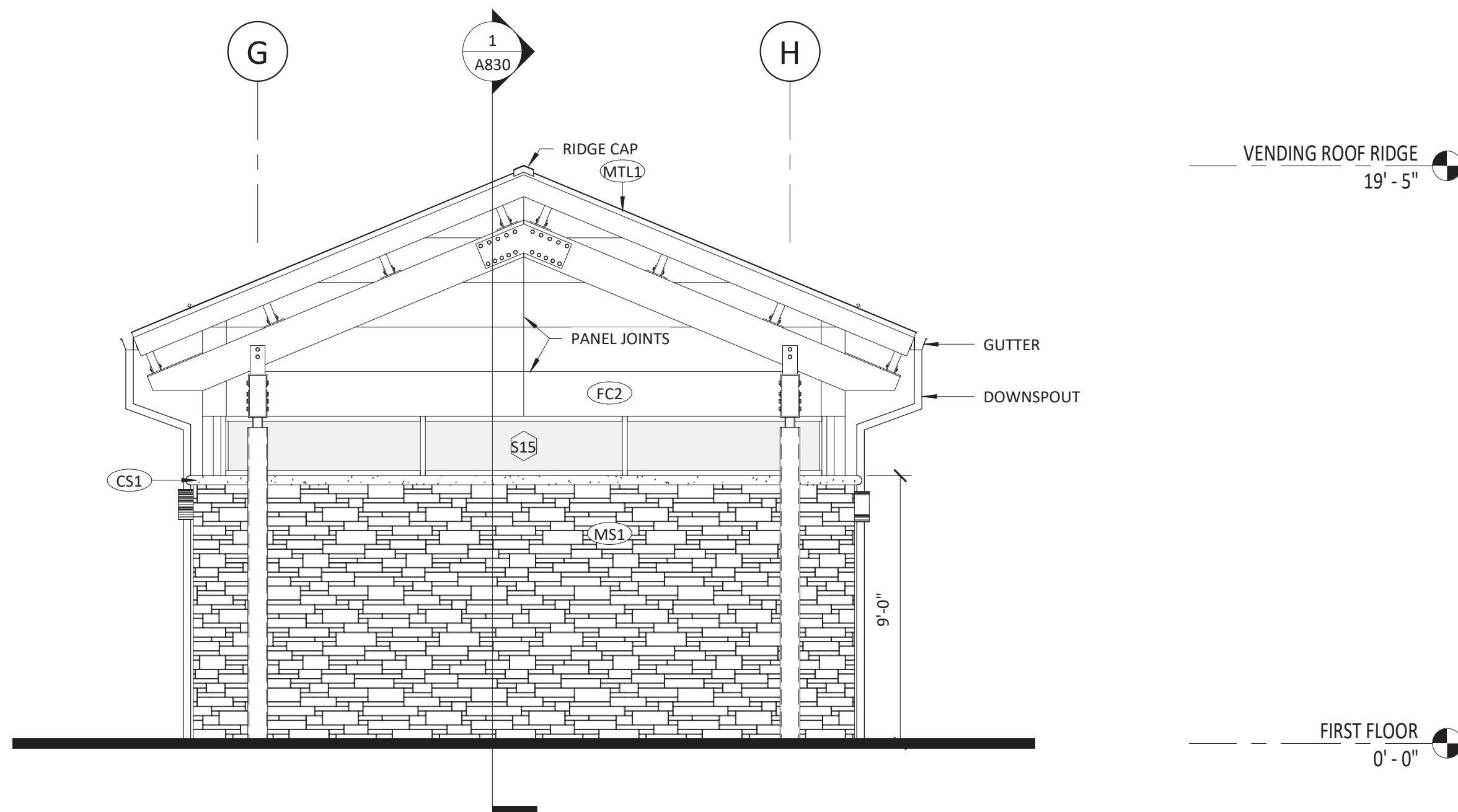
\*MANUFACTURER LISTED OR APPROVED EQUAL\*



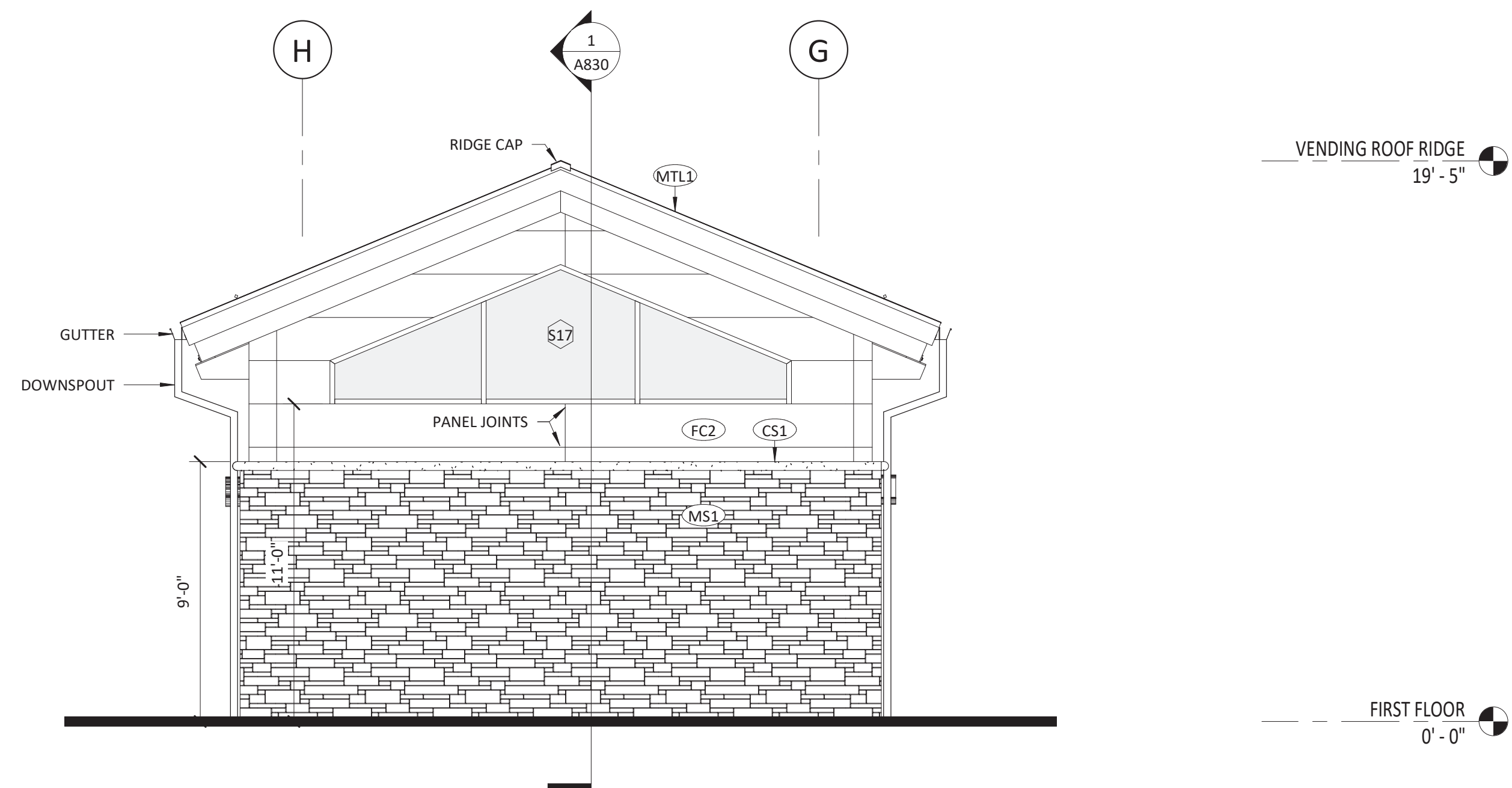
1 VENDING RIGHT ELEVATION  
1/4" = 1'-0"



2 VENDING LEFT ELEVATION  
1/4" = 1'-0"



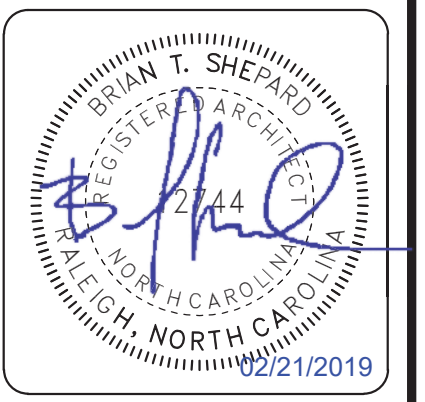
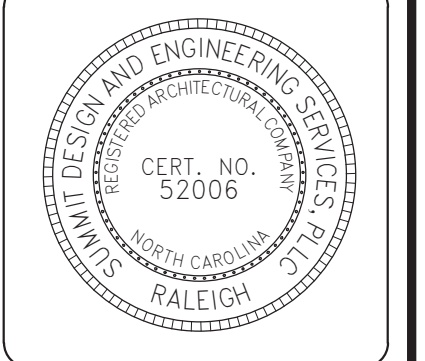
3 VENDING FRONT ELEVATION  
1/4" = 1'-0"



4 VENDING REAR ELEVATION  
1/4" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License #: P-20339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

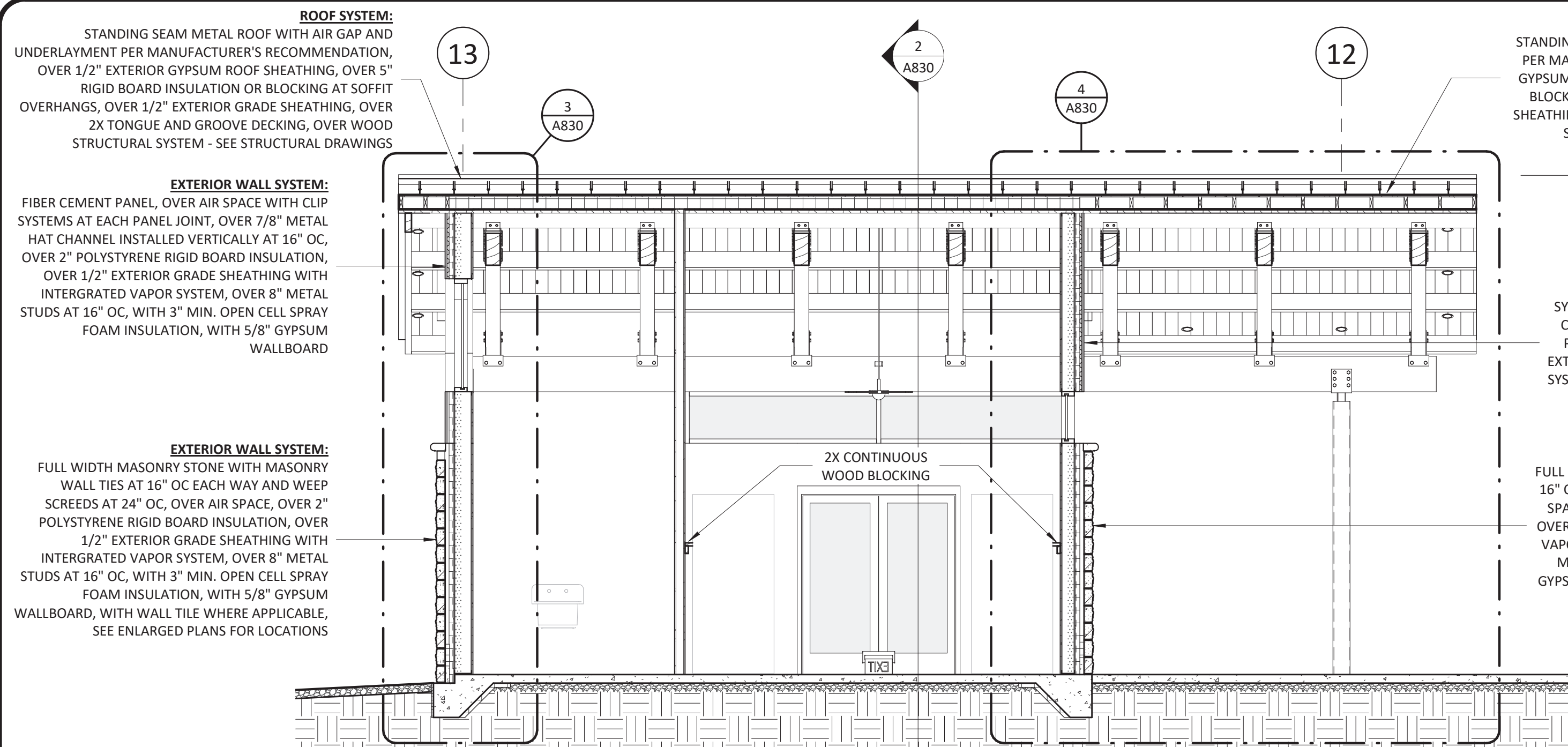


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC  
FIRST ISSUE DATE 11/16/2018

NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MC	MC
B	ISSUED TO NCDOT	01/22/19	MC	MC
C	ISSUED FOR CONST.	02/21/19	MC	MC

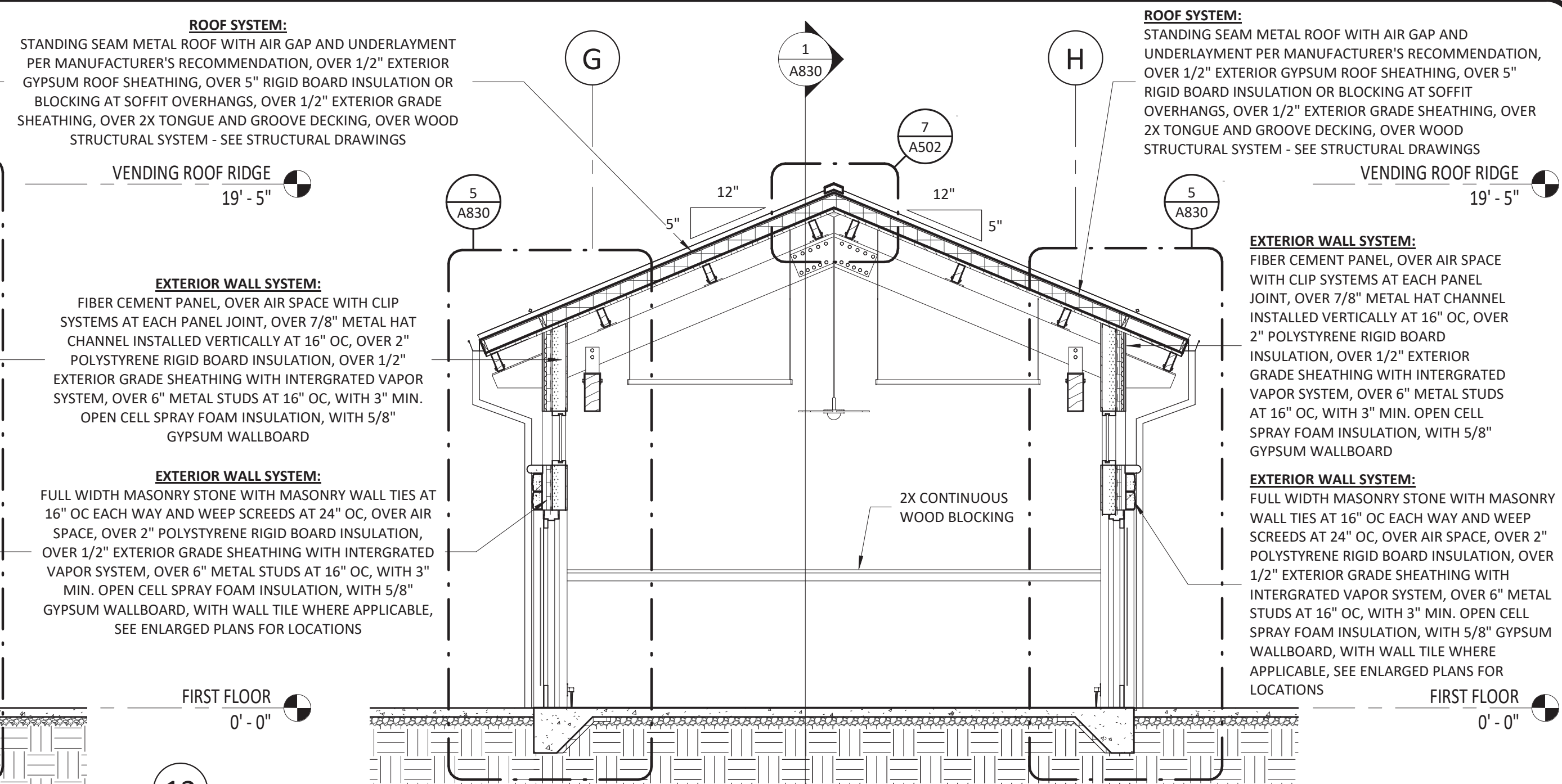
NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**VENDING EXTERIOR ELEVATIONS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A820**



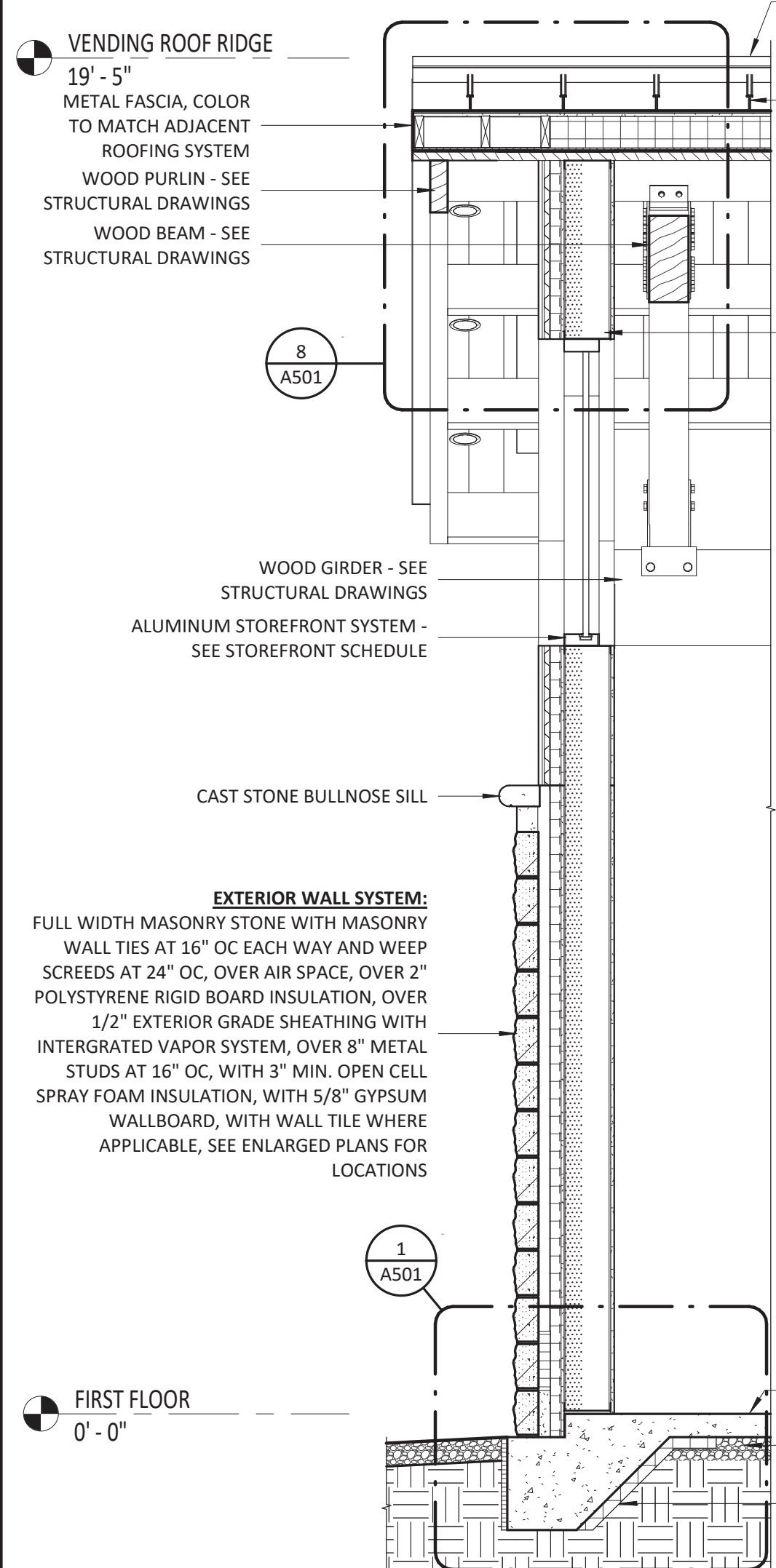
**VENDING BUILDING SECTION 01**

1  
1/4" = 1'-0"



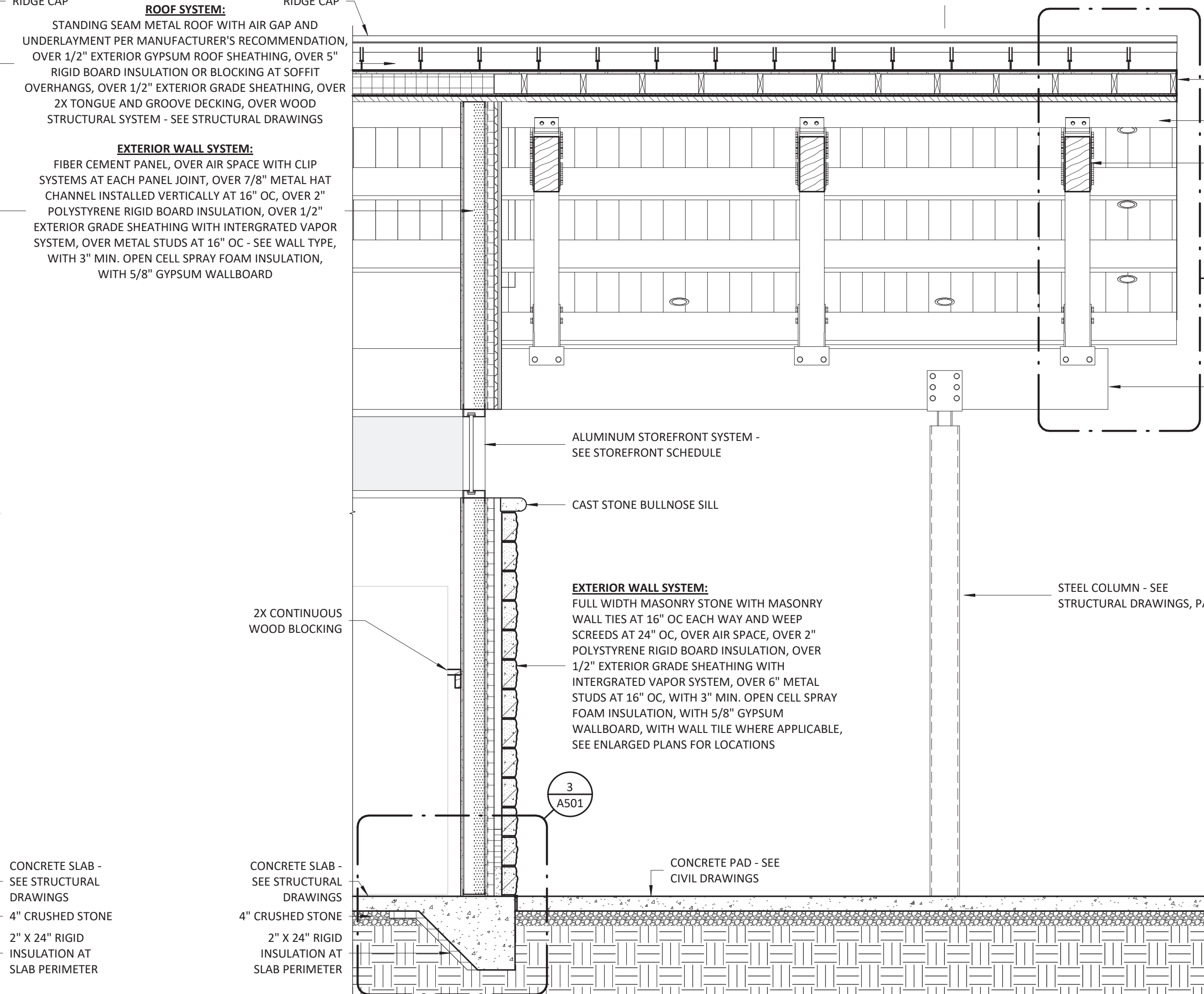
**VENDING BUILDING SECTION 02**

2  
1/4" = 1'-0"



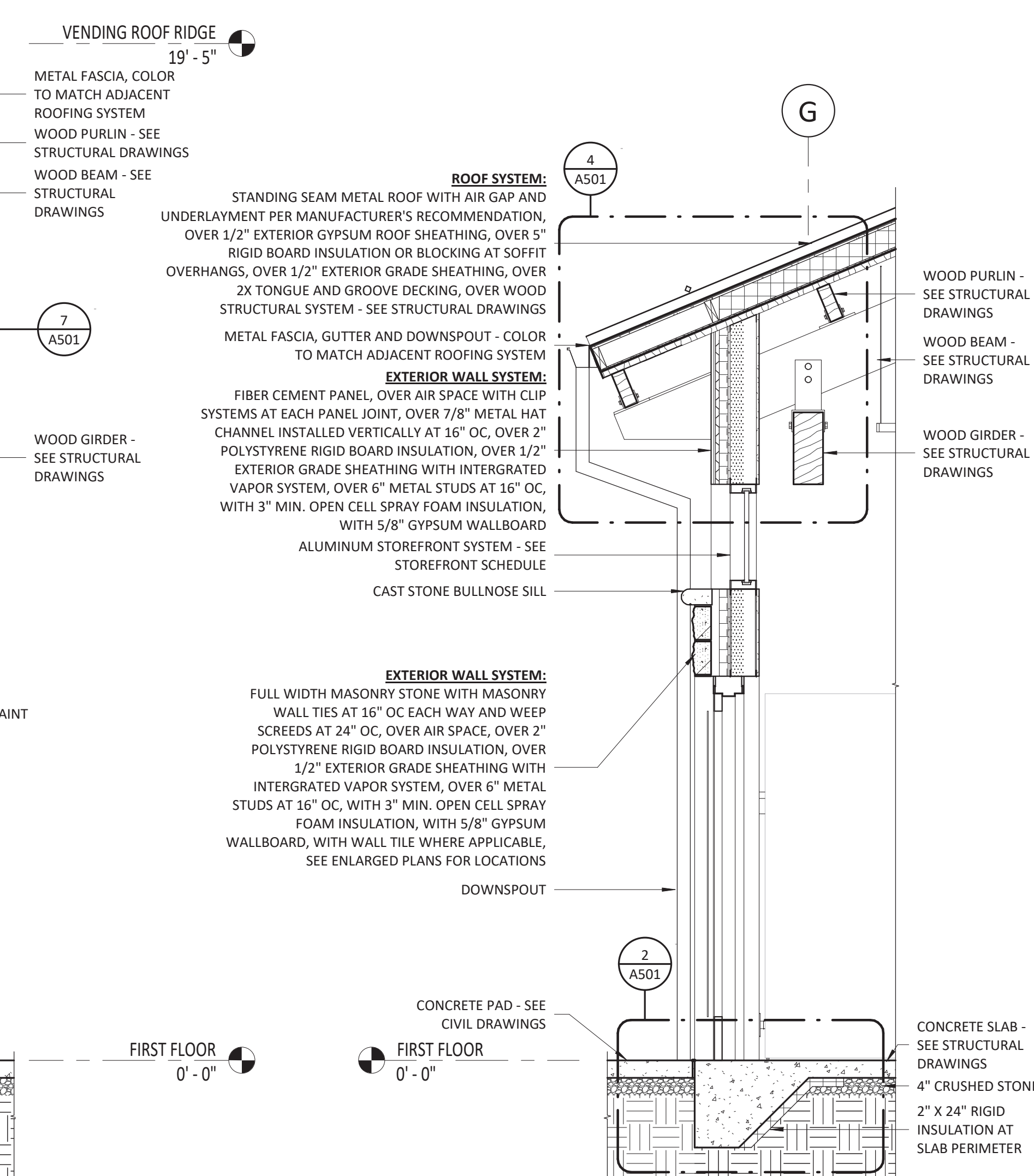
**WALL SECTION @ VENDING REAR WALL**

3  
1/2" = 1'-0"



**WALL SECTION @ VENDING FRONT WALL**

4  
1/2" = 1'-0"



**WALL SECTION @ VENDING SIDE WALL**

5  
1/2" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License # P-10339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

PROFESSIONAL ENGINEER  
BRIAN T. SHEPARD  
CERT. NO. 52006  
NORTH CAROLINA  
RALEIGH

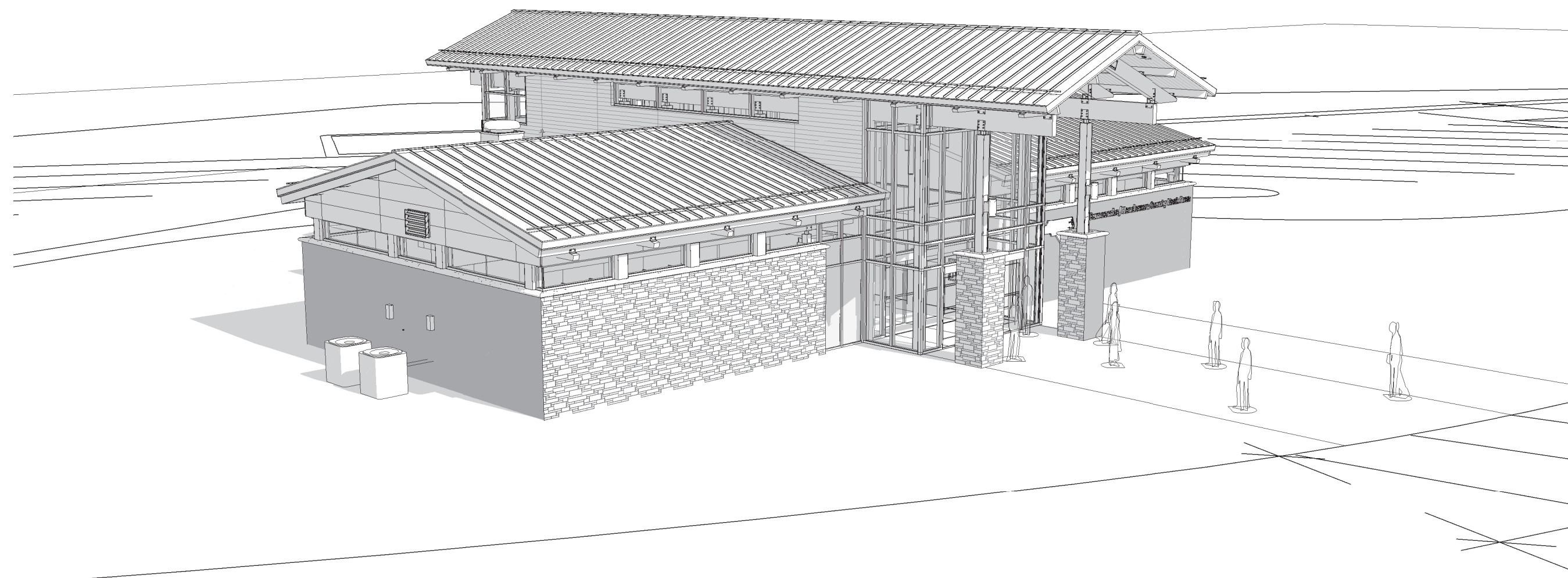
BRIAN T. SHEPARD  
REGISTERED ARCHITECT  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
NORTH CAROLINA  
RALEIGH  
02/21/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY  
FIRST ISSUE DATE  
11/16/2019

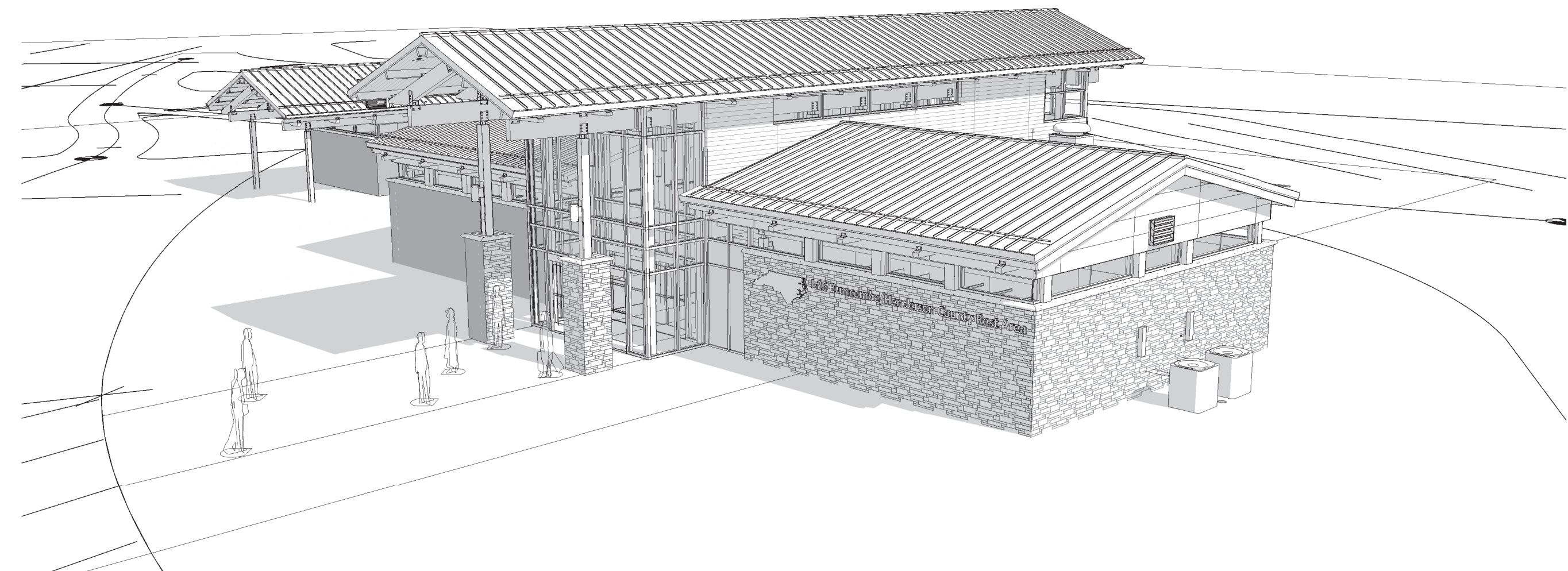
NO	REVISIONS	DATE	BY	MC
A	ISSUED TO SCO	11/16/18	MC	
B	ISSUED TO NCDOT	01/22/19	MC	
C	ISSUED FOR CONST.	02/21/19	MC	

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**VENDING BUILDING & WALL SECTIONS**

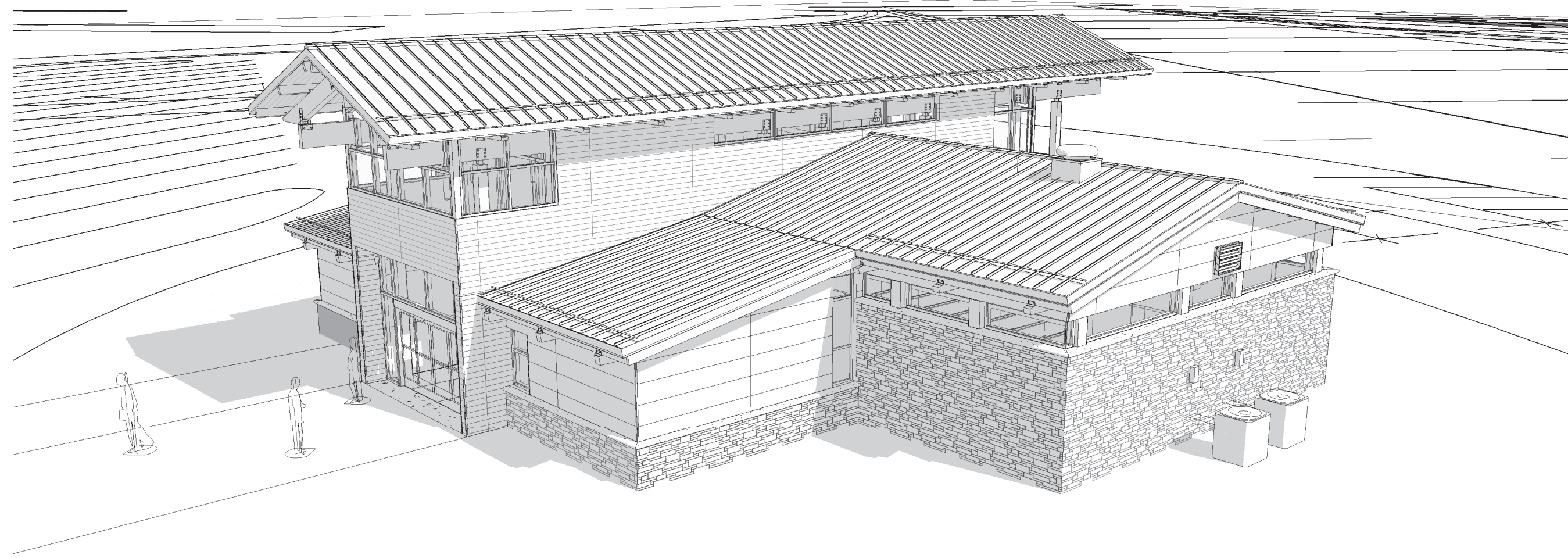
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A830**



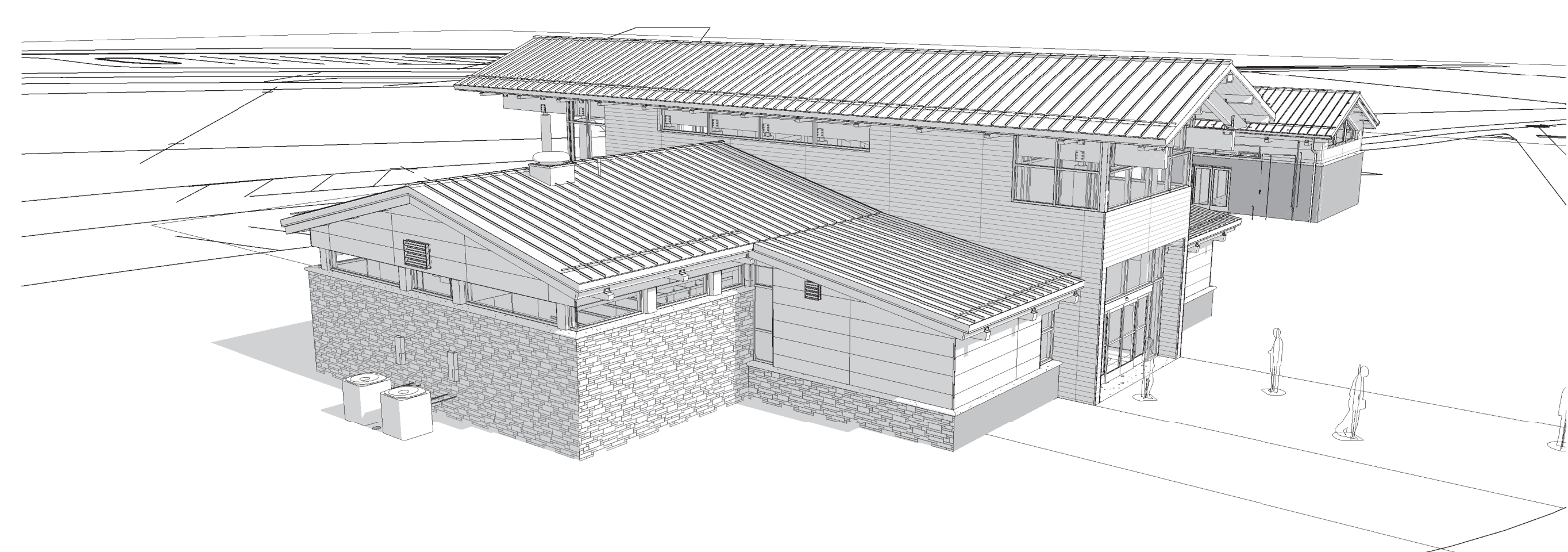
1 AERIAL - FRONT LEFT



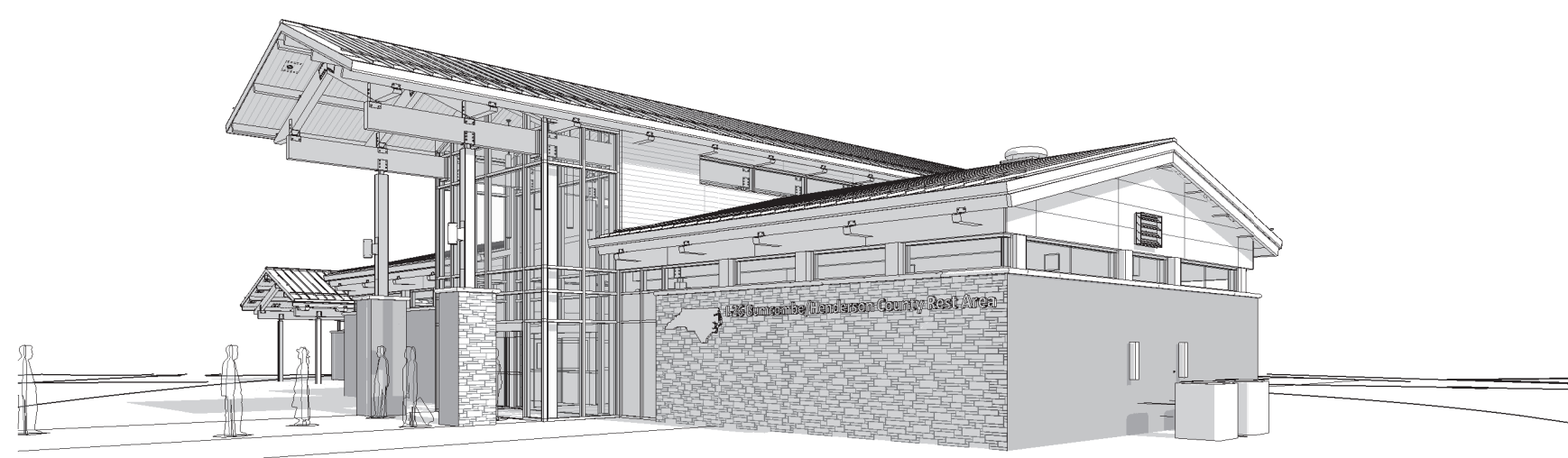
2 AERIAL - FRONT RIGHT



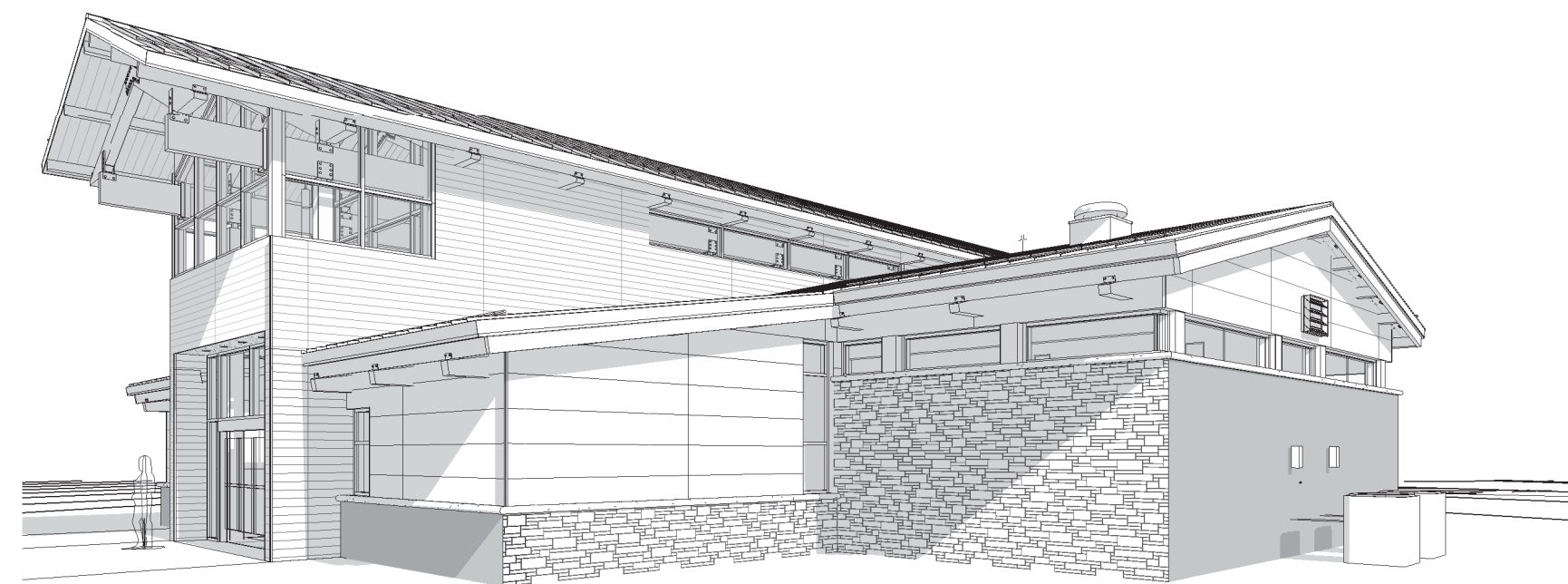
3 AERIAL - REAR LEFT



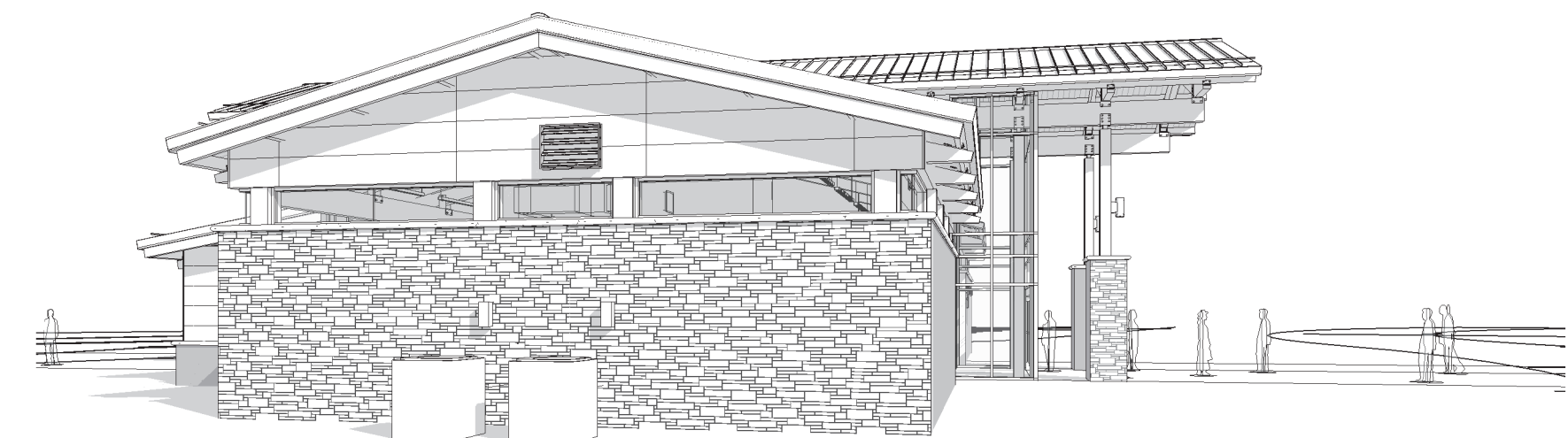
4 AERIAL - REAR RIGHT



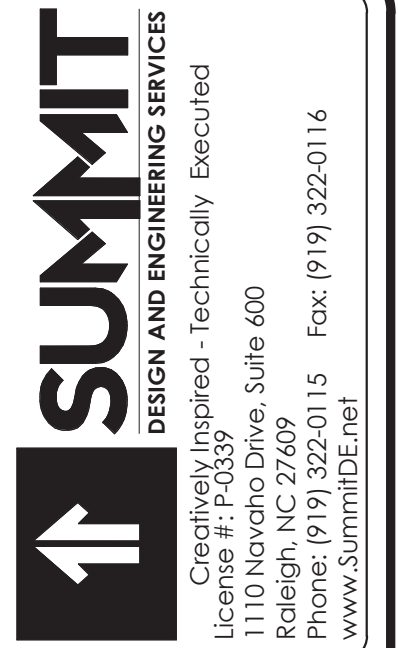
5 PERSPECTIVE - FRONT RIGHT



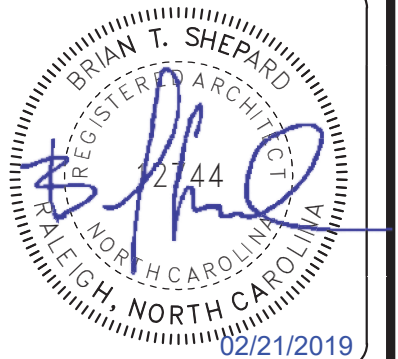
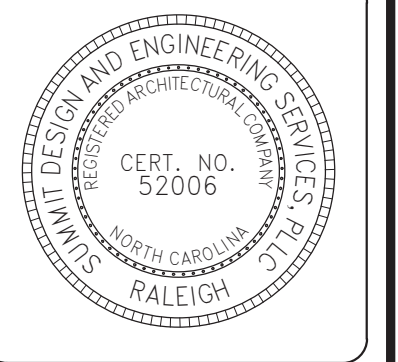
6 PERSPECTIVE - REAR LEFT



7 PERSPECTIVE - LEFT



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
 THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

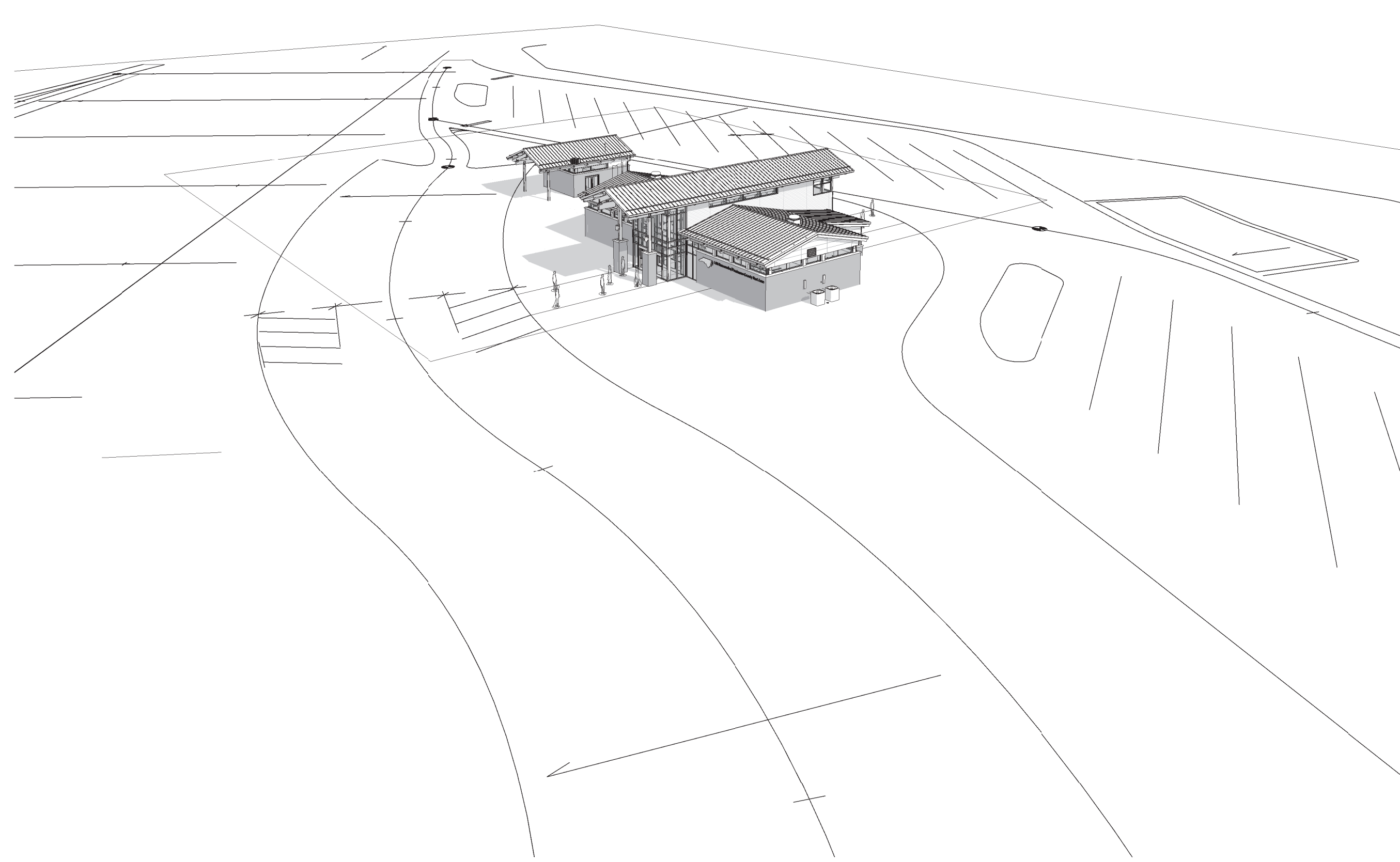


ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 PROJECT MANAGER  
 BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
 DRAWN BY MSC FIRST ISSUE DATE 11/16/2018

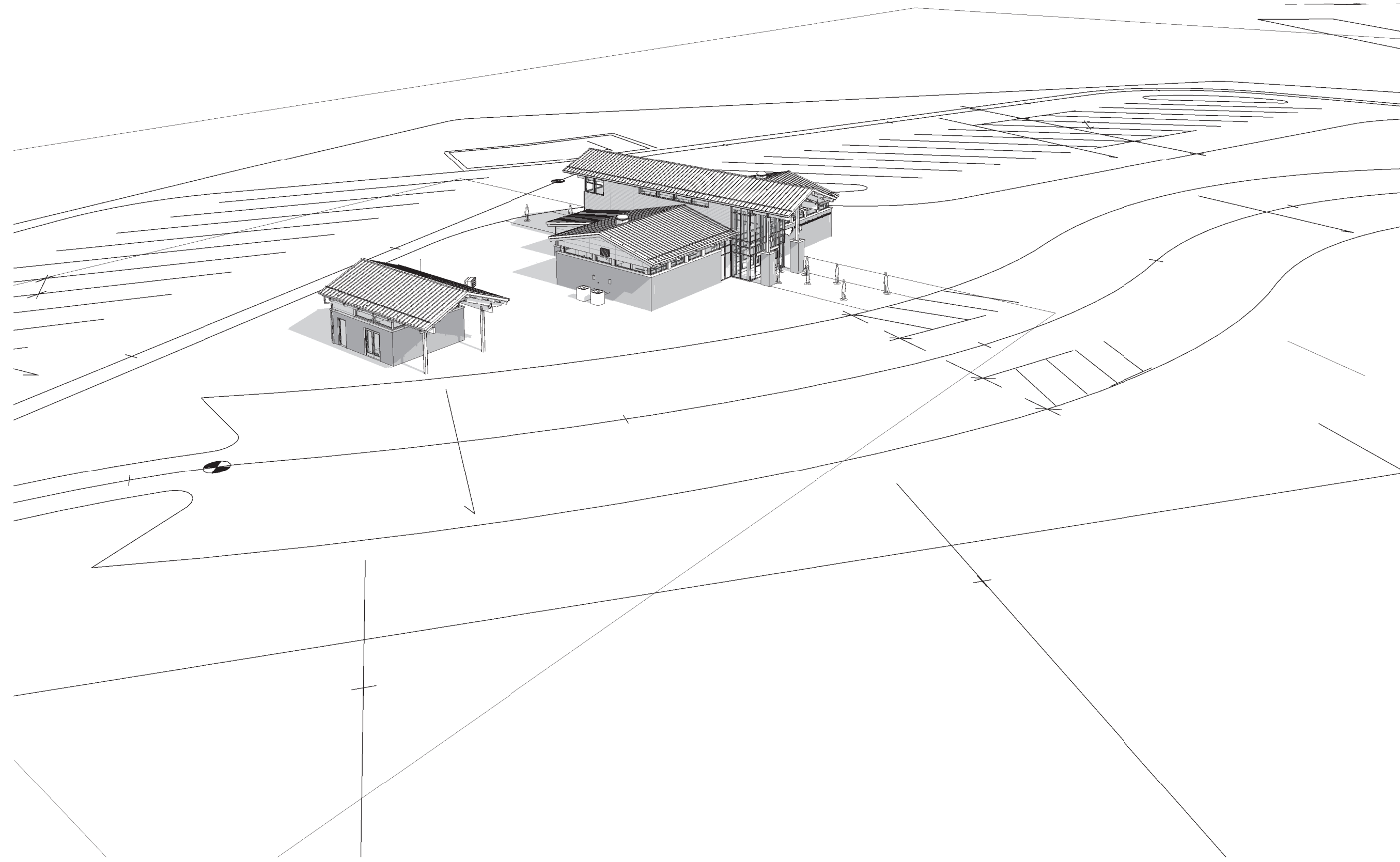
NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**PERSPECTIVES**

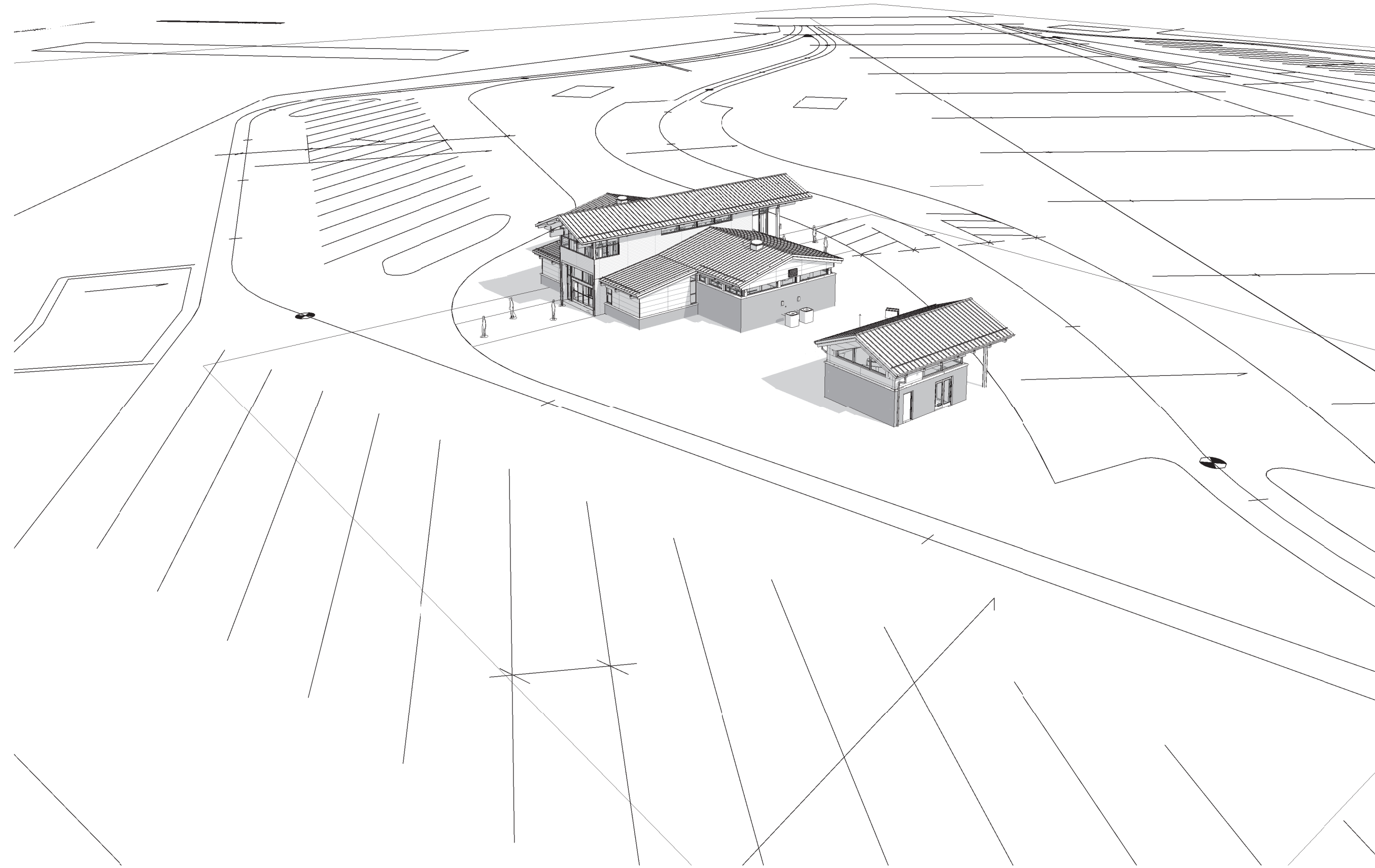
PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**A900**



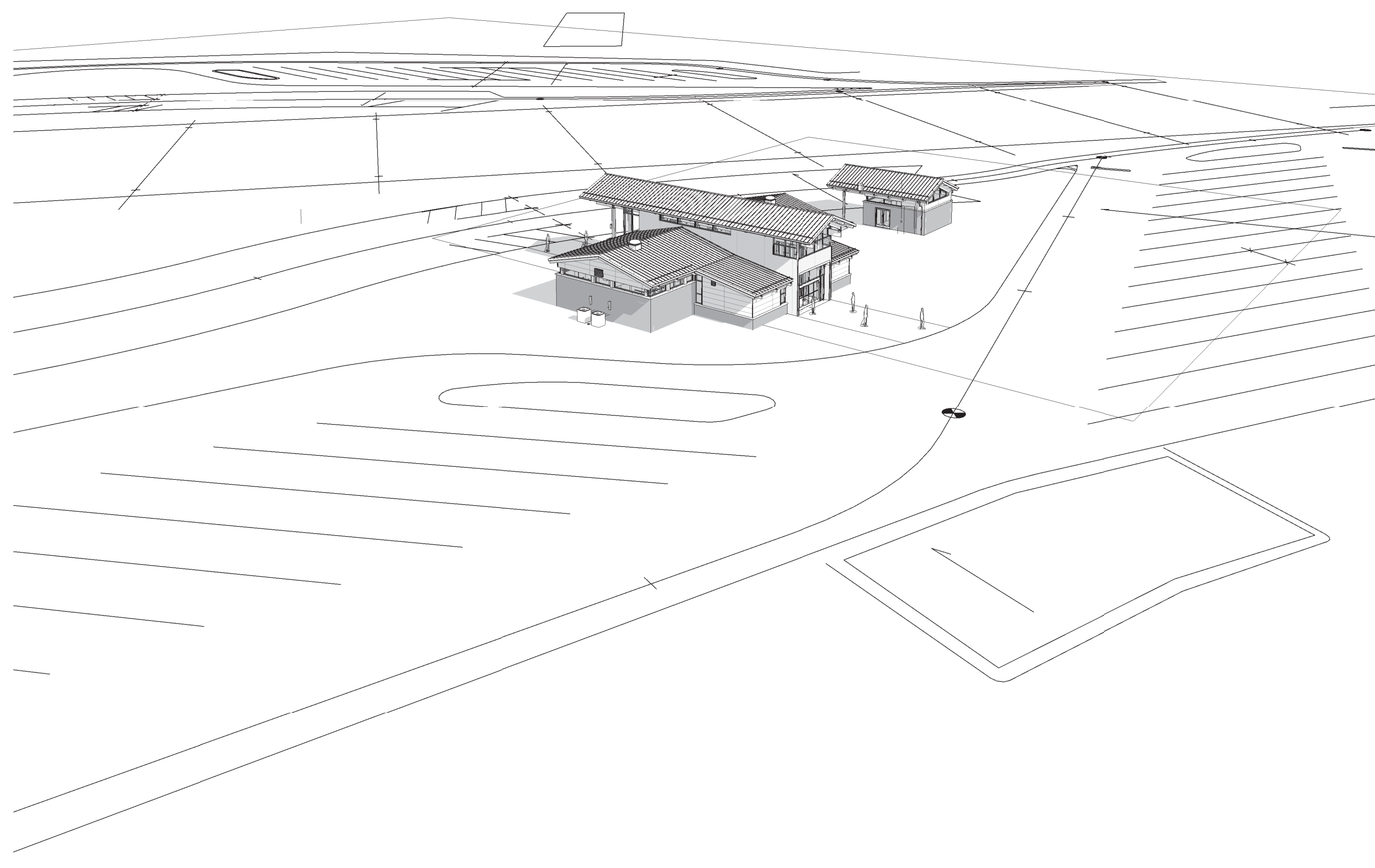
1 AERIAL - FRONT RIGHT



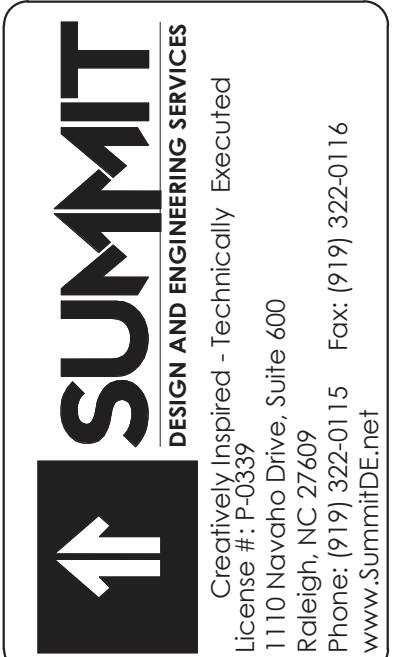
2 AERIAL - FRONT LEFT



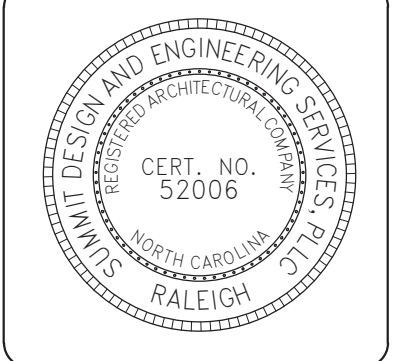
3 AERIAL - REAR LEFT



4 AERIAL - REAR RIGHT



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING AND THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

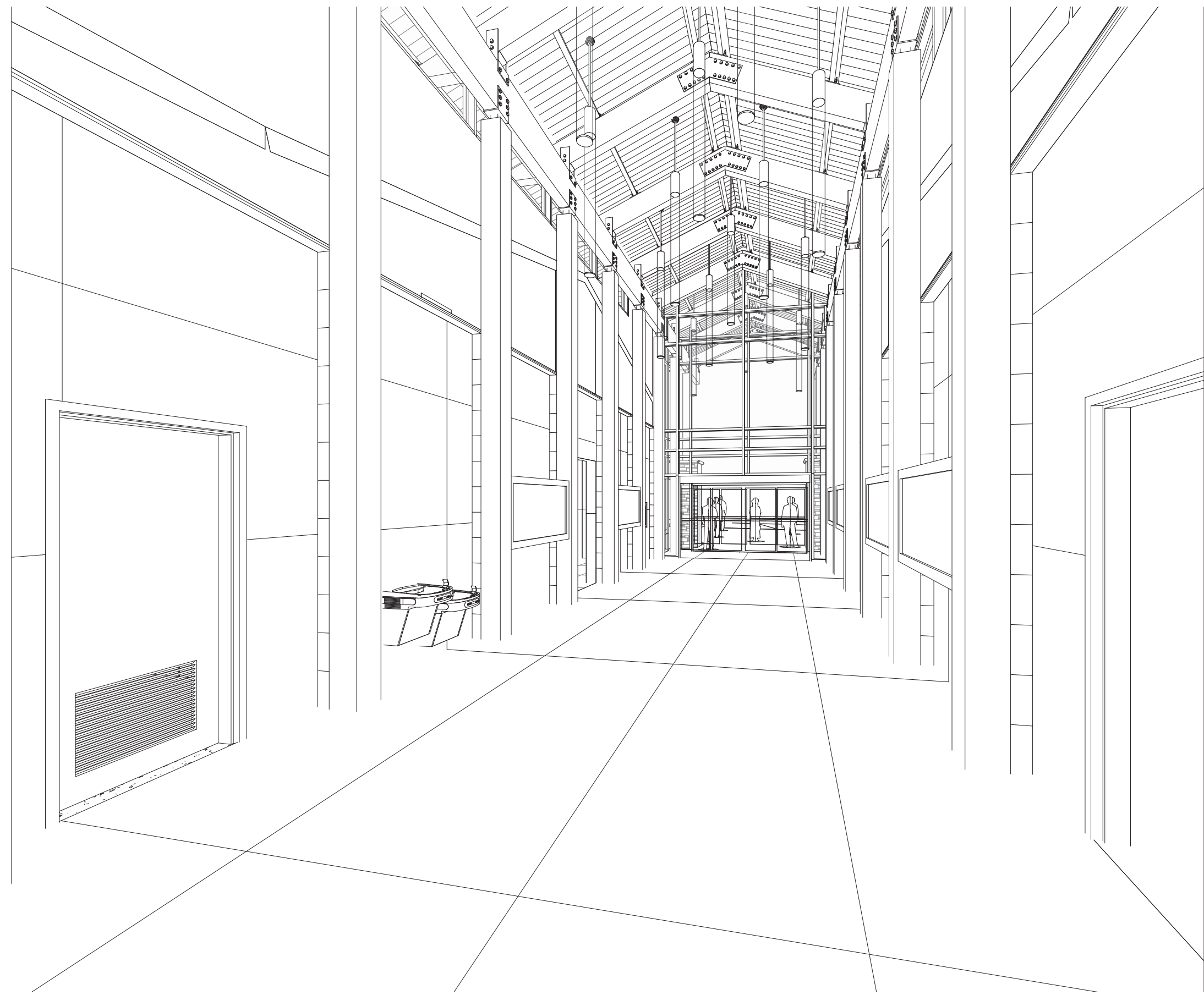


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 11/16/2018

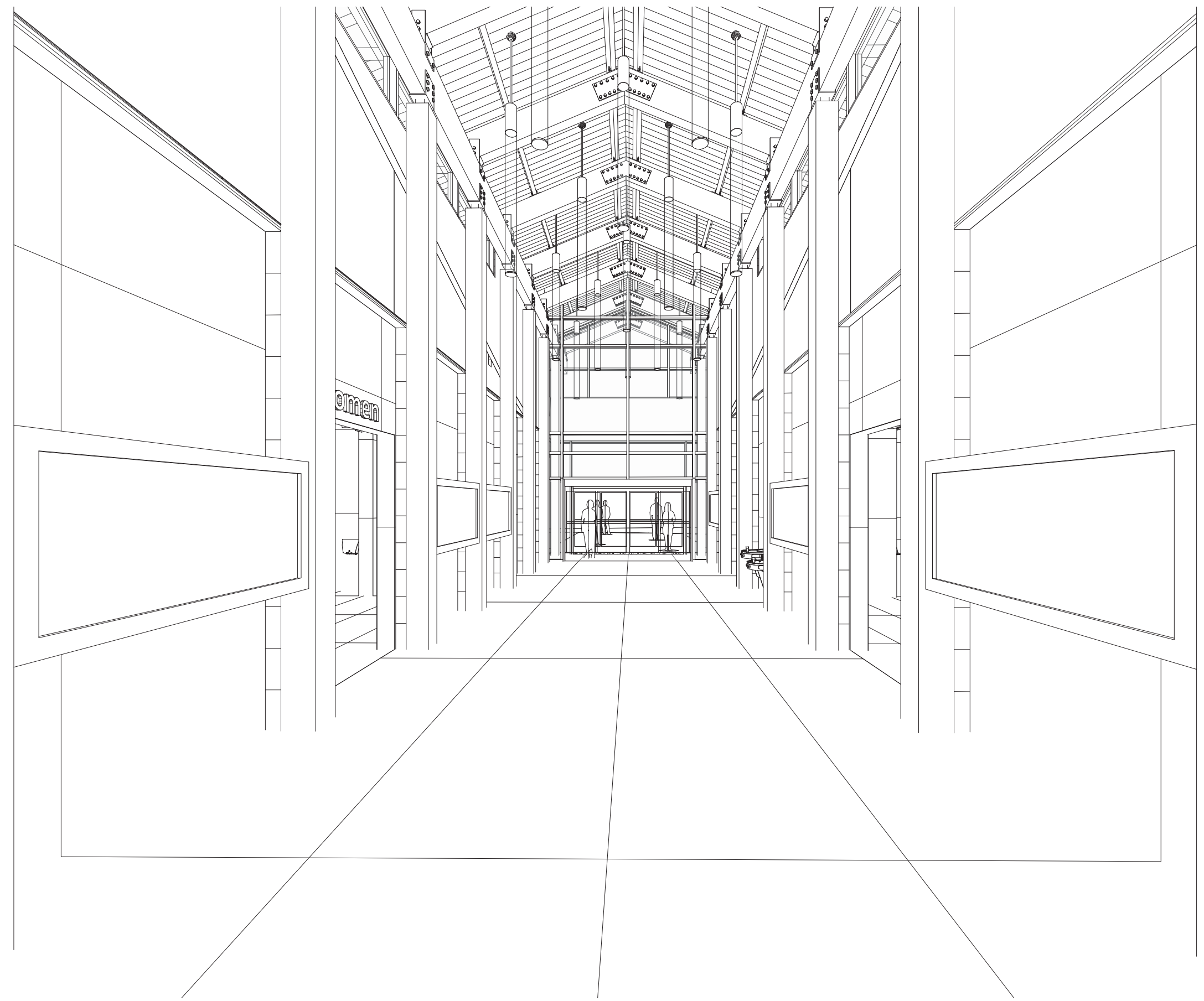
NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**PERSPECTIVES**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A901**



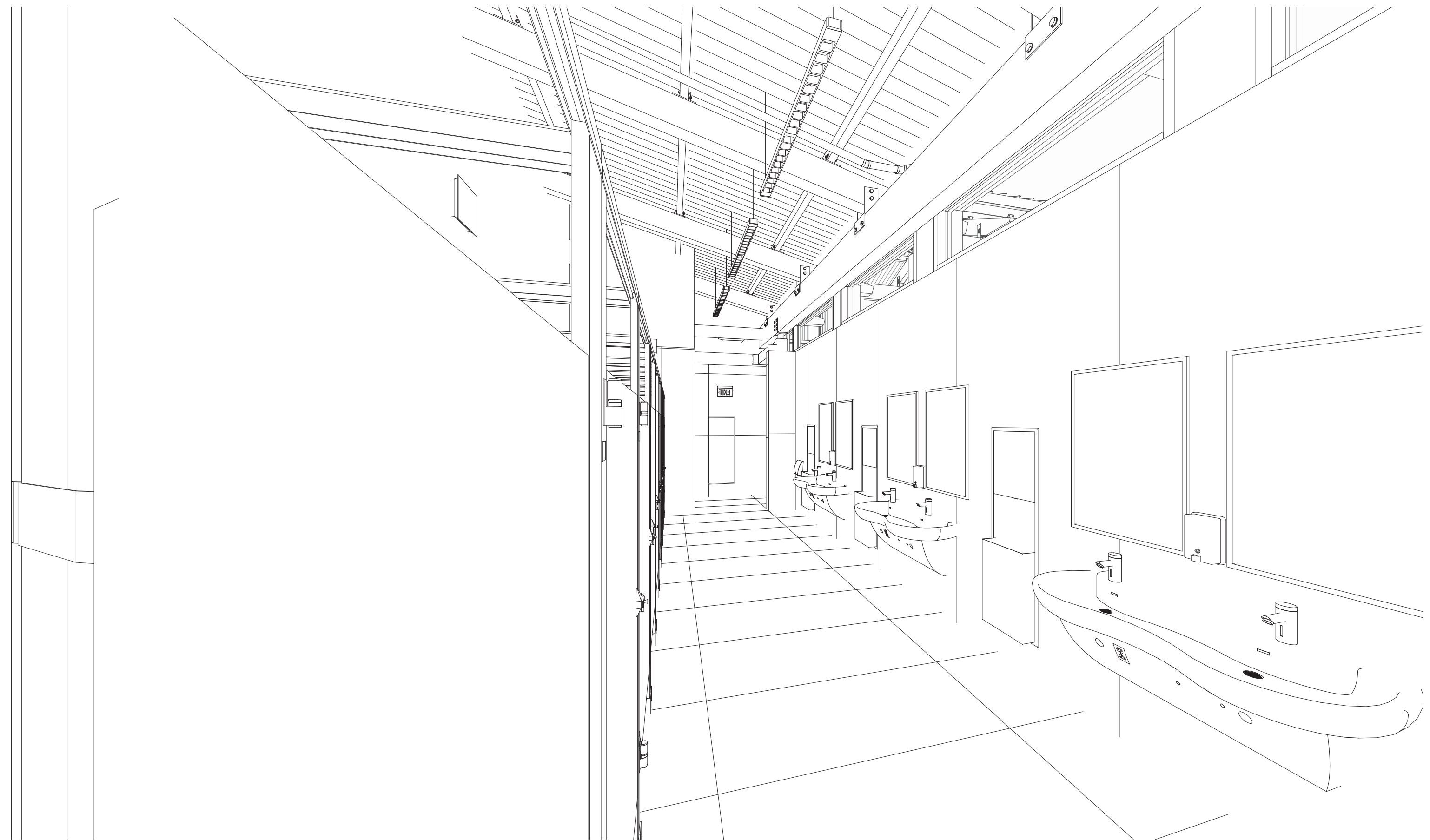
1 PERSPECTIVE - LOBBY



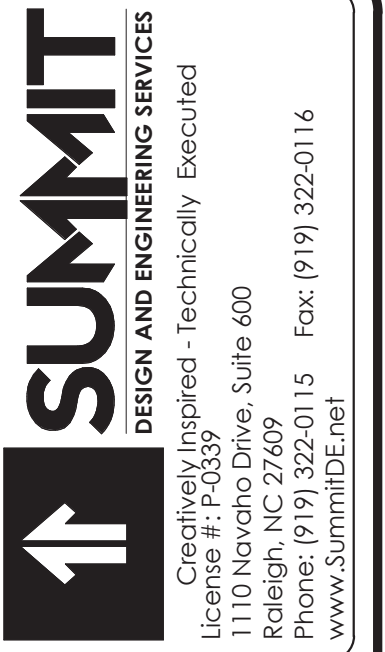
2 PERSPECTIVE - LOBBY



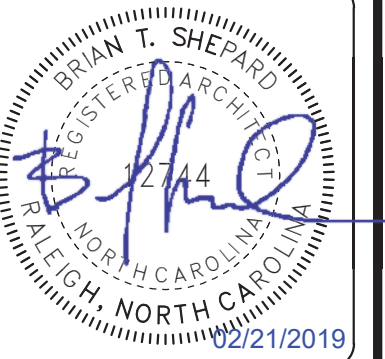
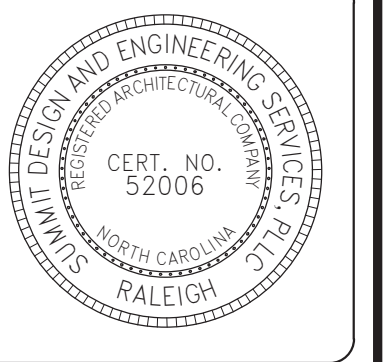
3 PERSPECTIVE - RESTROOM



4 PERSPECTIVE - RESTROOM



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

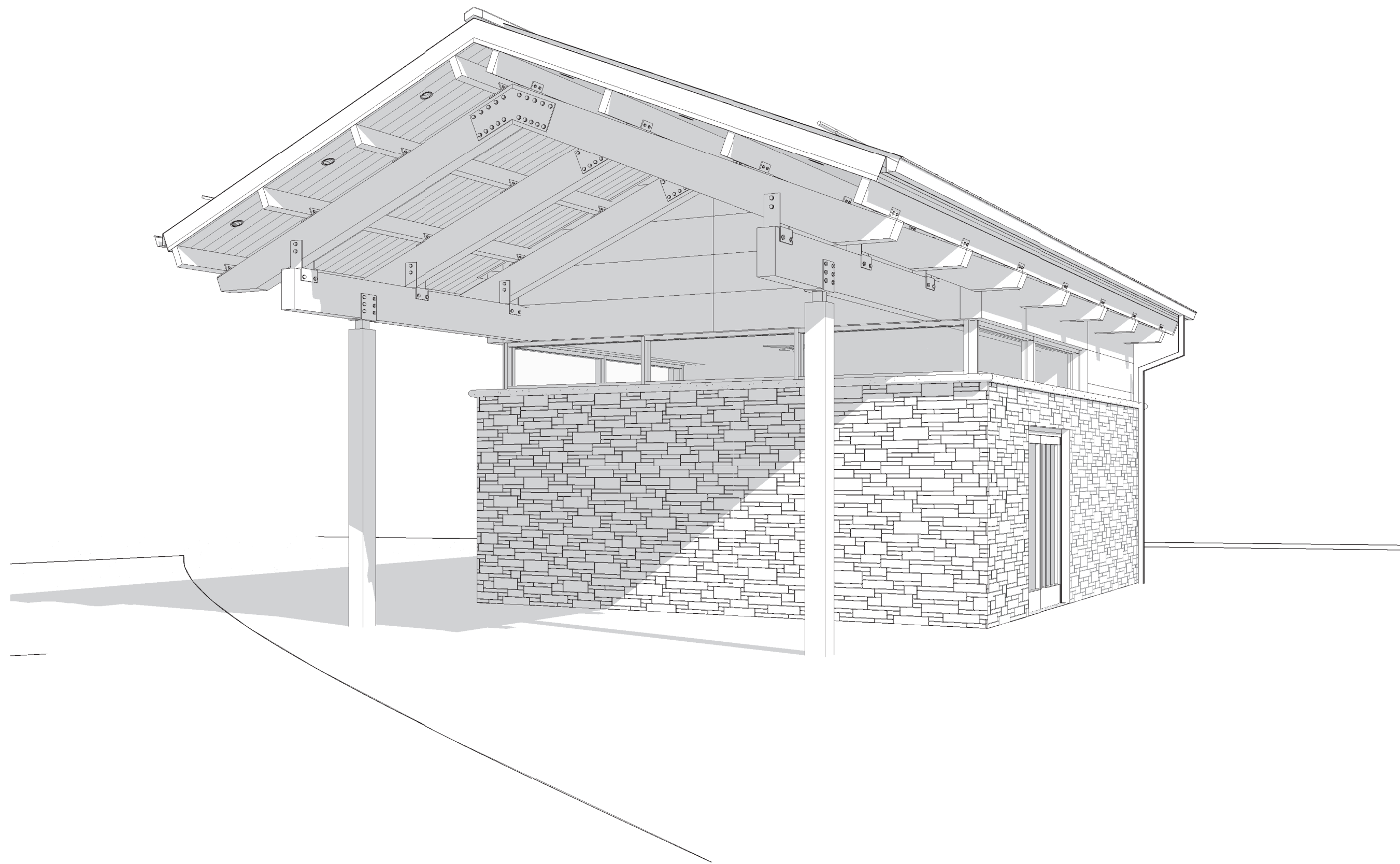


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 11/16/2018

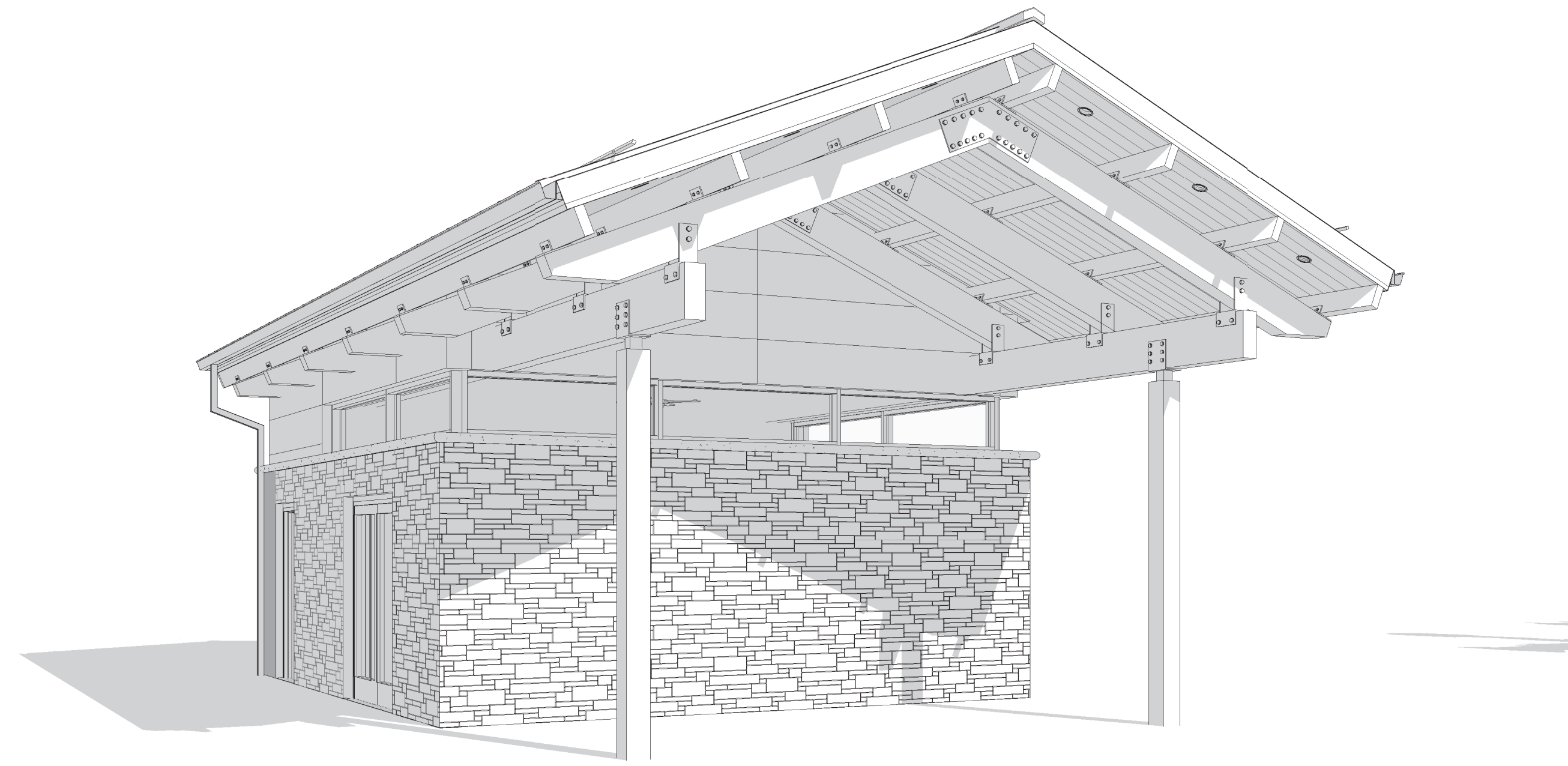
NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**PERSPECTIVES**

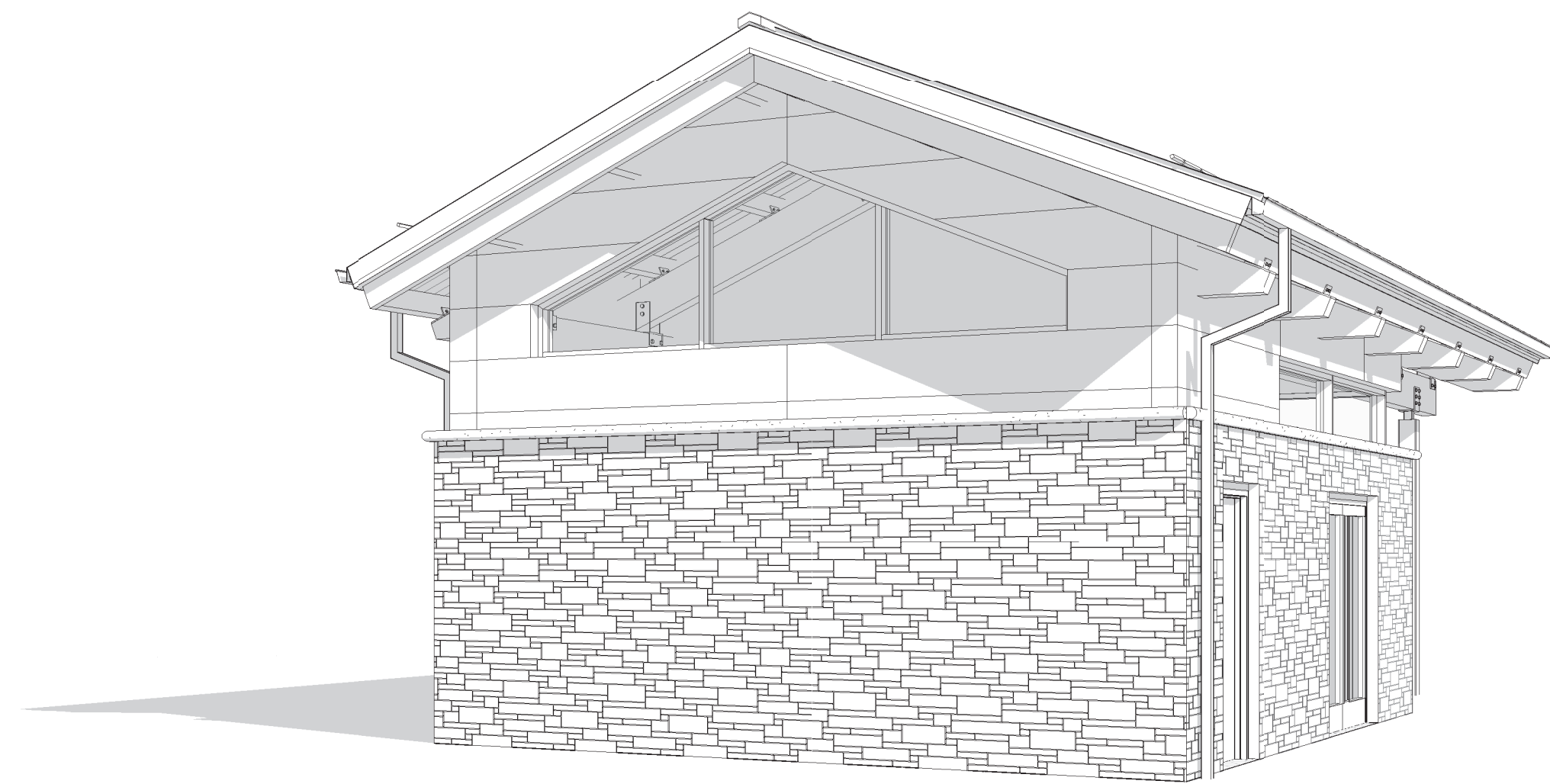
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A902**



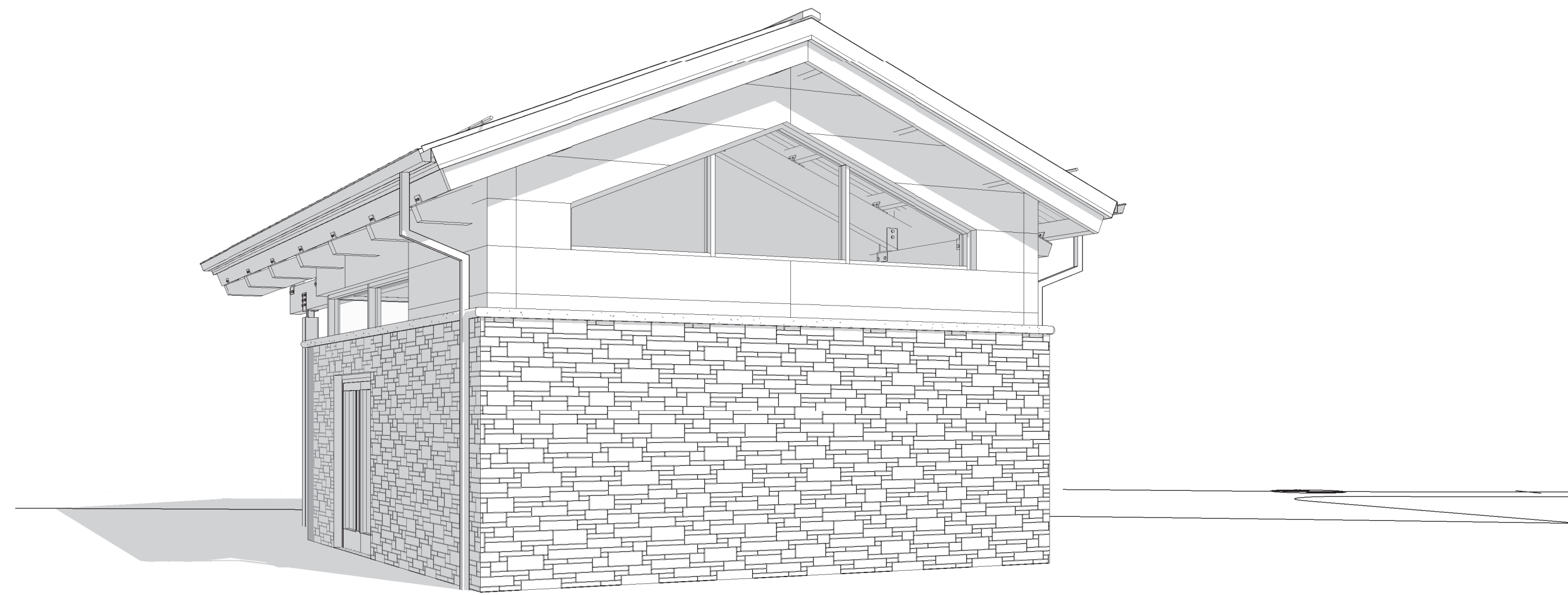
1 PERSPECTIVE - FRONT RIGHT



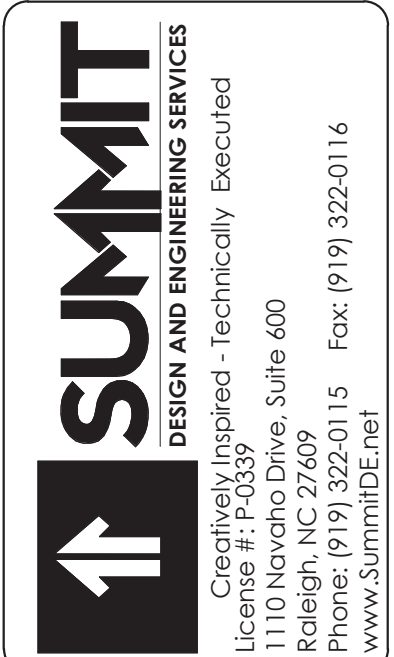
2 PERSPECTIVE - FRONT LEFT



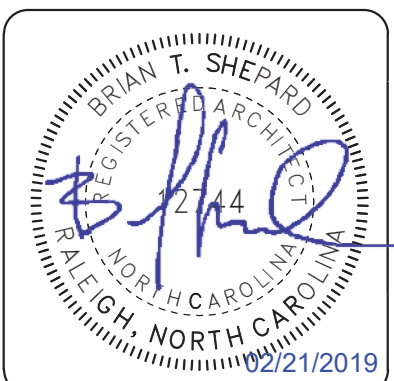
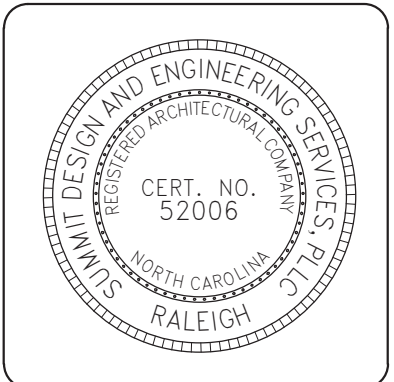
3 PERSPECTIVE - REAR RIGHT



4 PERSPECTIVE - REAR LEFT



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

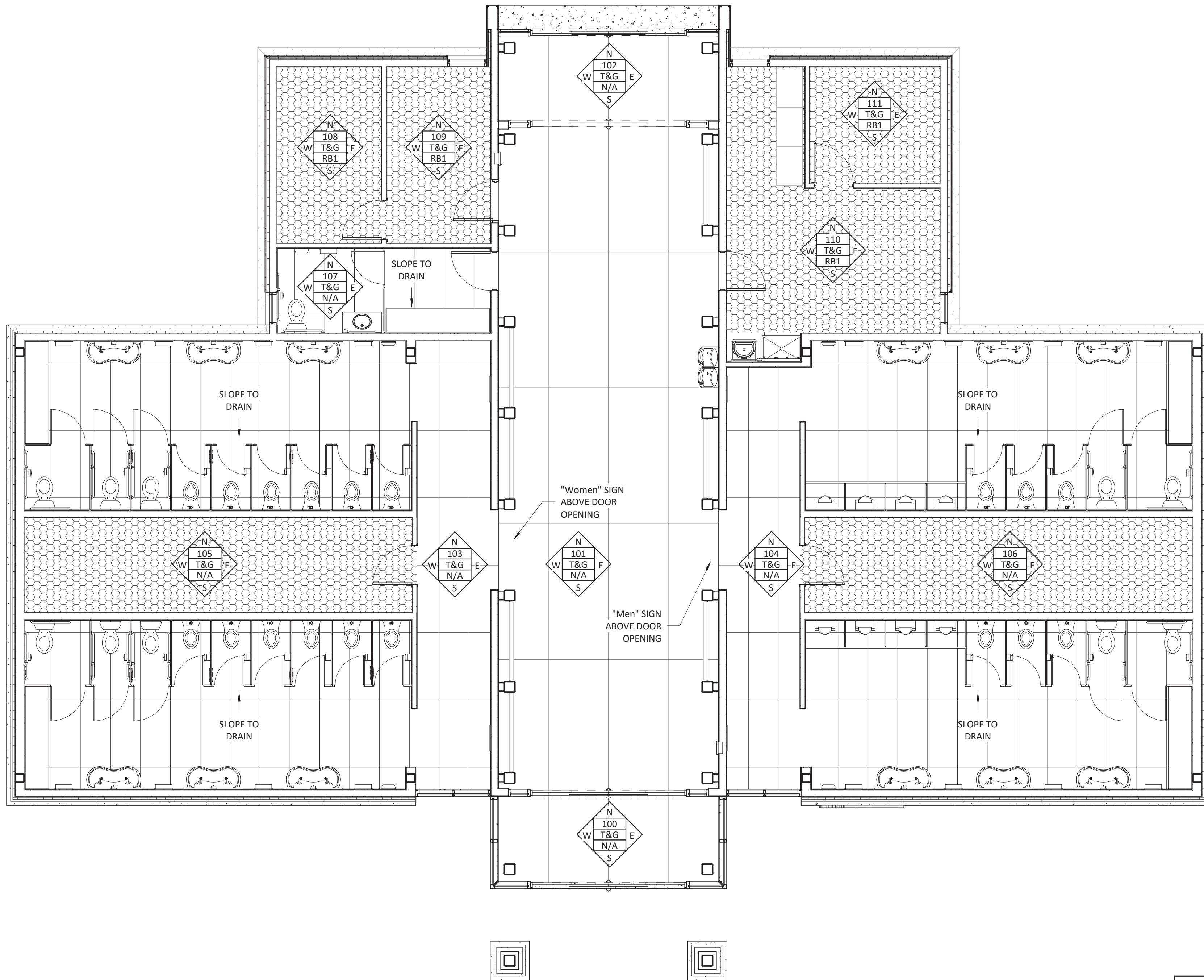


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 11/16/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**PERSPECTIVES**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**A903**



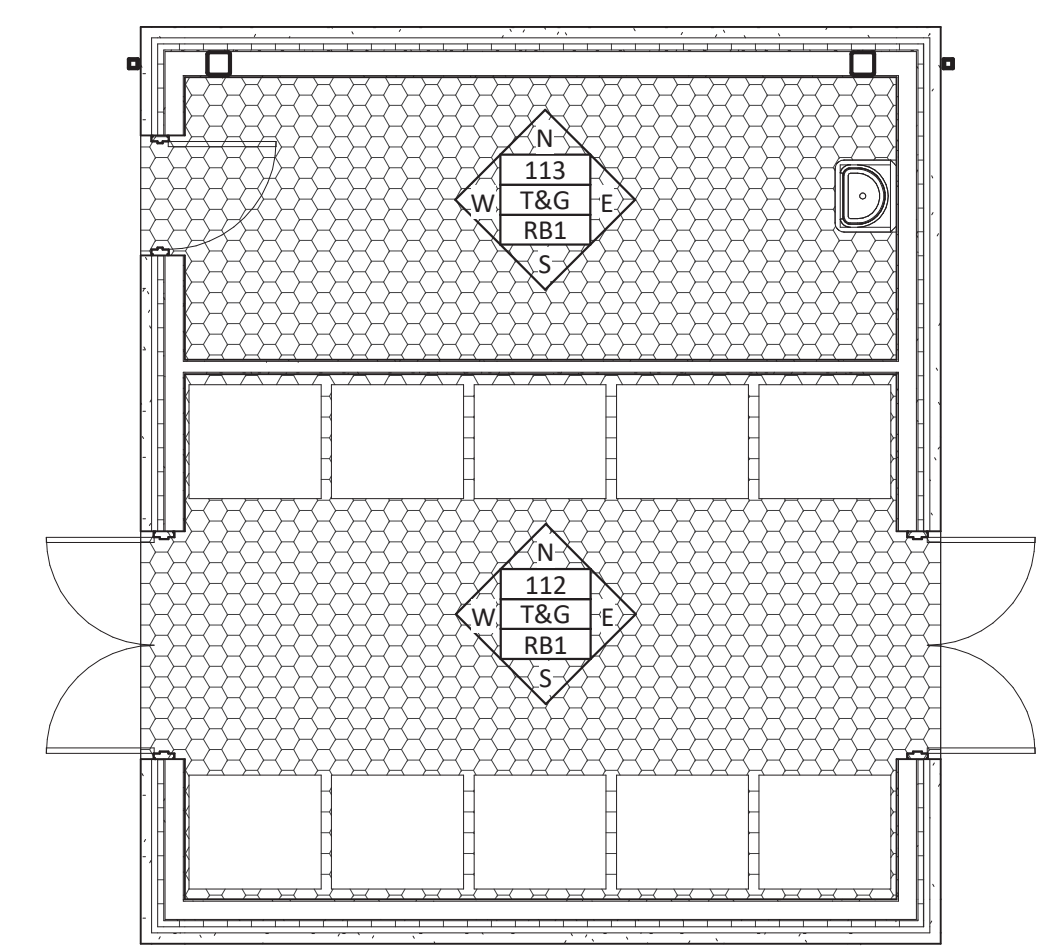
1 RESTROOMS FINISH FLOOR PLAN  
3/16" = 1'-0"

INTERIOR FINISH SCHEDULE									
NO.	ROOM NAME	FLOORS		WALLS				CEILING	COMMENTS
		FINISH	BASE	NORTH	EAST	SOUTH	WEST		
FIRST FLOOR									
100	VESTIBULE	UC1	N/A	-	P1	-	P1	T&G	
101	LOBBY	UC1	N/A	-	UC4/P1	-	UC4/P1	T&G	WALL TILE TO EXTEND 12'-0" A.F.F.
102	VESTIBULE	UC1	N/A	P1	P1	-	P1	T&G	
103	WOMEN'S	UC2	N/A	UC3/P1	UC3/P1	UC3/P1	UC3/P1	T&G	SEE ENLARGED ELEVATIONS FOR PATTERN
104	MEN'S	UC2	N/A	UC3/P1	UC3/P1	UC3/P1	UC3/P1	T&G	SEE ENLARGED ELEVATIONS FOR PATTERN
105	CHASE	P2	N/A	-	-	-	-	T&G	
106	CHASE	P2	N/A	-	-	-	-	T&G	
107	FAMILY	UC2	N/A	UC3/P1	UC3/P1	UC3/P1	UC3/P1	T&G	SEE ENLARGED ELEVATIONS FOR PATTERN
108	ELECTRICAL	P2	RB1	P1	P1	P1	P1	T&G	
109	STORAGE	P2	RB1	P1	P1	P1	P1	T&G	
110	STORAGE	P2	RB1	P1	P1	P1	P1	T&G	SEE ENLARGED JANITOR PLAN AND ELEVATIONS FOR TILE LOCATIONS
111	STORAGE	P2	RB1	P1	P1	P1	P1	T&G	
112	VENDING	P1	RB1	P1	P1	P1	P1	T&G	
113	STORAGE	P1	RB1	P1	P1	P1	P1	T&G	

SYMBOL LEGEND			
N	PLAN WALL	101	ROOM No.
W	CEILING FINISH	CE	CEILING FINISH
E	WALL BASE	BF	WALL BASE
S			

FINISH LEGEND	
[Pattern]	P2
[Pattern]	UC1
[Pattern]	UC2
[Pattern]	CPT1

- GENERAL FINISH NOTES**
- SEE SPECIFICATIONS FOR SELECTED FINISHES.
  - ALL GYPSUM WALLBOARD WALLS AND CEILINGS SHALL RECEIVE A LEVEL 4 OR 5 FINISH (SEE SPECIFICATIONS). PREPARE MOCK-UP FOR ARCHITECT'S APPROVAL.
  - SEAL ALL GAPS BETWEEN WALLS AND CEILINGS/FLOORS.
  - REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
  - REVIEW INTERIOR ELEVATIONS, WALL SECTIONS AND DETAILS FOR SPECIAL CONDITIONS RELATING TO FINISHING.
  - WHERE STOREFRONT INSTALLED, BASE FINISH SHALL NOT BE INSTALLED.
  - WHERE STOREFRONT INSTALLED, WALL FINISH REFERS TO GYPSUM WALLBOARD ABOVE.

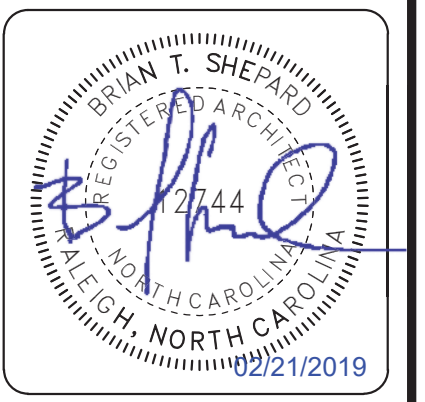
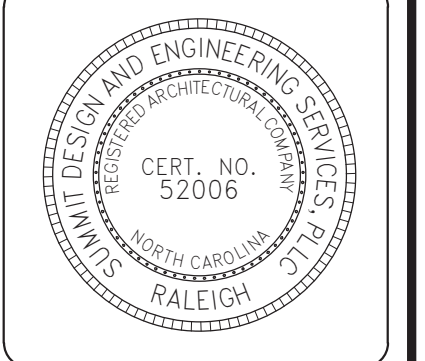


2 VENDING FINISH FLOOR PLAN  
3/16" = 1'-0"

FINISH LEGEND			
MNFR.	STYLE/ID	COLOR	COMMENTS
FLOORING			
PAINT			
P2	SEE SPECIFICATIONS	SEE SPECIFICATIONS	CONCRETE SEALER
TILE			
UC1	SEE SPECIFICATIONS	SEE SPECIFICATIONS	FULL SLAB IN LOBBY
UC2	SEE SPECIFICATIONS	SEE SPECIFICATIONS	27.5" X 62" IN RESTROOMS
WALL BASE			
RUBBER			
RB1	-	BLACK	
WALLS			
PAINT			
P1	SEE SPECIFICATIONS	SEE SPECIFICATIONS	SEE SPECIFICATIONS
TILE			
UC3	SEE SPECIFICATIONS	SEE SPECIFICATIONS	FULL SLAB IN RESTROOMS
UC4	SEE SPECIFICATIONS	SEE SPECIFICATIONS	FULL SLAB IN LOBBY
WOOD			
WD1	-	TO MATCH T&G	1X12 BOARDS INSTALLED HORIZONTALLY
CEILING			
TONGUE & GROOVE			
T&G	SEE SPECIFICATIONS	SEE SPECIFICATIONS	SEE SPECIFICATIONS

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License #: P-0339  
1110 Navaho Drive, Suite 400  
Raleigh, NC 27609  
Phone: (919) 322-0115 Fax: (919) 322-0116  
www.summitde.com

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING AND THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
PROJECT MANAGER  
BRIAN T. SHEPARD, AIA, NCARB, LEED GA  
DRAWN BY MSC FIRST ISSUE DATE 11/16/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	MC
B	ISSUED TO NCDOT	01/22/19	MC
C	ISSUED FOR CONST.	02/21/19	MC

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**FINISH PLAN, NOTES AND SCHEDULE**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**ID100**



## DESIGN CRITERIA

BUILDING CODE:	NORTH CAROLINA SATE BUILDING OCDE, 2012 EDITION
CONCRETE DESIGN CODE:	ACI 318-11, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
CONCRETE DESIGN METHOD:	EQUIV. RECTANGULAR STRESS BLOCK
STEEL DESIGN CODE:	AISC MANUAL OF STEEL CONSTRUCTION, LRFD, FOURTEENTH EDITION
STEEL DESIGN METHOD:	ELASTIC ANALYSIS, PLASTIC DESIGN
LIGHT GAUGE STEEL:	AISI NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 2007 EDITION

## SNOW LOAD

TERRAIN CATEGORY:	C
GROUND SNOW LOAD (Pg):	15 PSF
SNOW EXPOSURE FACTOR (Ce):	1.0
THERMAL FACTOR (Ct):	1.0
SNOW IMPORTANCE FACTOR (Is):	1.0
FLAT ROOF SNOW LOAD (Pf):	15 PSF

## WIND LOADS

MINIMUM WIND PRESSURE:	10 PSF
BASIC WIND VELOCITY:	90 MPH
RISK CATEGORY:	II
WIND EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFFICIENT:	±0.18
BASE SHEAR:	N/A
COMPONENTS & CLADDING:	CALCULATED BY PROVDER PER ASCE 7-05

## SEISMIC DATA

BUILDING OCCUPANCY CATEGORY:	II
SEISMIC IMPORTANCE FACTOR (Ie):	1.0
MAPPED SPECTRAL RESPONSE ACCELERATION (SS):	37.9%
MAPPED SPECTRAL RESPONSE ACCELERATION (S1):	10.6%
SITE CLASS:	D
DESIGN SPECTRAL RESPONSE ACCELERATION (SDS):	37.8%
DESIGN SPECTRAL RESPONSE ACCELERATION (SD1):	16.8%
SEISMIC DESIGN CATEGORY:	C
BASIC SEISMIC FORCE RESISTING SYSTEM:	NOT DETAILED
RESPONSE MODIFICATION FACTOR (R):	1.25
DEFLECTION AMPLIFICATION FACTOR (Cd):	1.25
BASE SHEAR:	N/A
ANALYSIS PROCEDURE:	EQUIV. LATERAL FORCE

## LIVE LOADS

ROOF (MINIMUM):	20 PSF
-----------------	--------

## GENERAL NOTES

- THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL, CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS.
- THE CONTRACTOR WILL COORDINATE BETWEEN ALL TRADES. CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND THE DRAWINGS OF OTHERS WILL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER IN A TIMELY FASHION THAT PERMITS CLARIFICATIONS WITHOUT EFFECTING THE CONSTRUCTION SCHEDULE.
- HESE DRAWINGS ALONG WITH ANY SPECIFICATIONS ISSUED CONSTITUTE THE CONTRACT DESIGN DOCUMENTS FOR THIS PROJECT. ANY DISCREPANCY BETWEEN THE TWO WILL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR STRUCTURAL ENGINEER FOR CLARIFICATION. FOR ESTIMATING PURPOSES THE CONTRACTOR WILL ASSUME THE MORE COSTLY ALTERNATIVE. NO MATERIALS MAY BE ORDERED, AND NO WORK MAY PROCEED UNTIL THE DISCREPANCY IS RESOLVED BY THE DESIGN PROFESSIONAL.
- ALTERNATES OR SUBSTITUTIONS TO STRUCTURAL MATERIALS OR DESIGN ARE AT THE SOLE DISCRETION OF THE LICENSED STRUCTURAL ENGINEER OF RECORD. ANY MODIFICATION MUST BE APPROVED IN THE MANNER SET FORTH IN THE "FRONT END" SPECIFICATIONS.
- ALL STANDARDS REFERENCED WITHIN THESE DOCUMENTS ARE TO BE THE EDITIONS REFERENCED IN CHAPTER THIRTY-FIVE OF THE INTERNATIONAL BUILDING CODE.
- STRUCTURAL MEMBERS, INCLUDING BEAMS, COLUMNS, JOISTS, TRUSSES, WALLS, SLABS AND BRACING ELEMENTS, ARE DESIGNED FOR THE FINAL DESIGN LOADS GIVEN ON THIS SHEET. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING. CONTRACTOR SHALL PROVIDE COMPLETE SHORING PLANS AND CERTIFIED STRUCTURAL CALCULATIONS PREPARED AND SEALED BY A QUALIFIED ENGINEER, REGISTERED IN NORTH CAROLINA. FOR APPROVAL PRIOR TO INSTALLATION. SHORING IS TO BE DESIGNED TO PRECLUDE THE OVERSTRESSING ANY STRUCTURAL ELEMENT (AS REQUIRED AT ANY STAGE OF CONSTRUCTION) UNTIL COMPLETION OF THIS PROJECT.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ON-SITE SAFETY. AT A MINIMUM, THE CONTRACTOR IS TO RESEARCH AND IMPLEMENT ALL SAFETY REGULATIONS IN FORCE IN THE JURISDICTION OF THIS PROJECT. PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR WILL BRING TO THE ATTENTION OF THE STRUCTURAL ENGINEER ANY STRUCTURAL DETAIL THAT WOULD PRODUCE AN UNUSUALLY UNSAFE CONDITION.

## FOUNDATIONS

- THE PRIMARY BUILDING STRUCTURE IS DESIGNED FOR SUPPORT ON SPREAD FOOTINGS WITH AN ASSUMED ALLOWABLE NET SOIL BEARING PRESSURE OF 3000 PSF ON UNDISTURBED SOILS OR COMPACTED FILL.
- IF SOIL AT THE SCHEDULED FOOTING ELEVATION IS OF QUESTIONABLE BEARING VALUE, THE ARCHITECT AND STRUCTURAL ENGINEER ARE TO BE NOTIFIED IMMEDIATELY. LOWER FOOTING ELEVATIONS IF REQUIRED BY ARCHITECT AND ENGINEER TO REACH FIRM SOIL.
- CONTRACTOR IS TO PROVIDE PROPERLY DESIGNED SHEETING AND SHORING AT ALL OPEN EXCAVATIONS, OR LAY BACK THE CUT AT A SLOPE APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER IN ORDER TO ENSURE SAFE WORKING CONDITIONS AND AS NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS. ALL EXCAVATIONS SHALL BE ADEQUATELY DEWATERED BEFORE PLACEMENT OF CONCRETE.

## CONCRETE

- ALL CONCRETE WORK SHALL COMPLY WITH THE SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI-301 AND THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI-318 (EDITIONS IN FORCE).
- CONCRETE MIX DESIGNS ARE REFERENCED IN THE PROJECT SPECIFICATIONS. FOR EACH DESIGN A SUBMITTAL WILL BE MADE BY THE CONTRACTOR AS OUTLINED IN THE SPECIFICATIONS.
- ALL REINFORCING STEEL IS TO BE TIED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. TACK WELDING OF REINFORCEMENT STEEL IS PROHIBITED.
- THE CONTRACTOR WILL SUBMIT A COMPLETE LIST OF ACCESSORIES AND PLACING DETAILS WITH SHOP DRAWINGS.
- ALL REINFORCING STEEL IS TO BE CONTINUOUS. LAP BARS 40 DIAMETERS FOR BARS #6 AND SMALLER OR 48 DIAMETERS FOR BARS #7 AND LARGER AT SPLICE UNLESS NOTED OTHERWISE ON SCHEDULES OR DETAILS.
- THE LOCATION OF ALL LAP SPLICES WILL BE SHOWN ON SHOP DRAWINGS.
- NO CONCRETE ELEMENT MAY BE CORED TO PLACE THROUGH ITEMS (ie PIPES, ELECTRICAL LINES, ETC.). ALL THROUGH ITEMS PENETRATING HORIZONTAL SURFACES ARE TO BE PLACED IN SCHEDULE 40, STEEL, PIPE SLEEVES OF A DIAMETER SUFFICIENT TO ACCOMMODATE THE THROUGH ITEM. AT PENETRATIONS IN THE VERTICAL PLANE OF ELEMENTS THE PIPE SLEEVE DIAMETER WILL BE INCREASED BY AN AMOUNT TO PROVIDE 1 1/2" CLEAR DIMENSION AROUND THE THROUGH ITEM.
- REFER TO ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING OF CONCRETE BELOW GRADE.
- NO HORIZONTAL CONSTRUCTION JOINTS ARE PERMITTED IN CONCRETE ELEMENTS. LOCATE VERTICAL CONSTRUCTION JOINTS AT THE MIDDLE THIRD OF THE SPAN. PROVIDE 2x4, CONTINUOUS, BEVELED KEYWAYS AT SLABS AND (ONE MINIMUM) AND 2X8 BEVELED KEYWAY AT BEAMS. SUBMIT PROPOSED CONSTRUCTION JOINT LOCATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL.
- ALL INTERSECTING BEAMS, WALLS, AND FOOTINGS SHALL HAVE CORNER BARS. REFER TO TYPICAL DETAILS.

## STEEL

- DIMENSIONS GIVEN ON THE STRUCTURAL DRAWINGS ARE PROVIDED AS A CONVENIENCE AND ARE SOLELY TO CONVEY THE QUANTITY AND NATURE OF THE STRUCTURAL STEEL LAYOUT. ALL FINAL DIMENSIONS ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE PROJECT ARCHITECT BEFORE MATERIAL IS ORDERED OR FABRICATIONS HAS BEGUN.
- UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS, SHEAR CONNECTIONS ARE TO BE DESIGNED USING THE AISC ALLOWABLE STRESS DESIGN METHOD FOR THE MINIMUM SERVICE LOAD REACTIONS PROVIDED ON THE FRAMING PLANS. ADDITIONALLY, SINGLE ANGLE CONNECTIONS ARE PROHIBITED AND MEMBERS WILL BE FURNISHED WITH A MINIMUM NUMBER OF WEB BOLT ROWS AS FOLLOWS:

MEMBER DEPTH	MIN. NUMBER OF WEB BOLT ROWS
W4 - W10	2 BOLTS
W12 OR GREATER	3 BOLTS

- GENERALLY, 3/4" DIA., ASTM A-325-N BOLTS ARE TO BE USED FOR ALL BOLTED SHEAR CONNECTIONS UNLESS OTHERWISE INDICATED. THE FABRICATOR MAY USE OTHER DIAMETER BOLTS WHERE AISC RECOMMENDATIONS REQUIRE A SMALLER BOLT FOR GAGE OR BLOCK SHEAR REASONS OR WHERE STRENGTH REASONS REQUIRE LARGER DIAMETER BOLTS. THE PROVIDER OF BOLTS WILL PAINT THE HEADS OF THE NONSTANDARD BOLTS WITH IDENTIFYING COLORS UNIQUE TO A PARTICULAR DIAMETER OF BOLT AND WILL STRIPE THE FRAMING MEMBER AT THE CONNECTION SITE OUTSIDE THE FAYING SURFACE WITH THE CORRESPONDING COLOR.
- FULLY TENSION ALL BOLTS WHERE DESIGNATED ON STRUCTURAL DRAWINGS AND AT MOMENT CONNECTIONS, INCLUDING BOLTS RESISTING ONLY GRAVITY LOADS. PROVIDE ASTM A-325-SC BOLTS AT CONNECTIONS WHERE INDICATED ON DRAWINGS. PREPARE FAYING SURFACES AT SUCH CONDITIONS PER AISC REQUIREMENTS.
- SINGLE PLATE SHEAR CONNECTION IS THE PREFERRED METHOD OF ATTACHMENT BETWEEN BEAMS AND GIRDERS AND WHERE HORIZONTAL FRAMING MEMBERS ATTACH TO COLUMNS AT ANGLES OTHER THAN 90°.
- COLD BENDING OF PLATE MATERIAL IS NOT PERMITTED FOR USE IN SKEWED CONNECTIONS. HEAT MEMBER OR BUILD UP FROM TWO PLATES AS REQUIRED AND FULLY TEST ANGLE FOR WELD DEFECTS.
- ALL COPES AND CUTS IN STRUCTURAL MEMBERS ARE TO BE MADE FREE OF NOTCHES OR OTHER STRESS CONCENTRATORS. COPES ARE TO BE CUT AT A MINIMUM RADIUS OF 1/2".
- ALL ROLLED STEEL MEMBERS ARE TO FABRICATED WITH MILL CAMBER UP.
- COLUMN SPLICES ARE NOT ANTICIPATED ON THIS PROJECT. THE FABRICATOR MAY REQUEST COLUMN SPLICES SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD. ALTHOUGH THE ACTUAL TYPE OF SPLICE WILL BE DETERMINED ON AN INDIVIDUAL BASIS, AISC TYPE VIIIID COLUMN SPLICES MAY BE ASSUMED FOR PRICING PURPOSES.
- ALL WELDS ARE TO CONFORM WITH ANSI/AWS D1.1 STANDARD AND ARE TO BE MADE BY CERTIFIED WELDERS.
- ALL FULL AND PARTIAL PENETRATION WELDS IN MOMENT CONNECTIONS ARE TO MEET CYCLICAL LOADING STANDARDS.
- A WELD SCHEDULE FOR ALL FIELD WELDS WILL BE FURNISHED BY THE ERECTOR. THIS SCHEDULE IS TO BE PREPARED BY A COMPETENT DESIGNER OF WELDS AND WILL INDICATE AT A MINIMUM PREHEAT, THE WELD FILLER MATERIAL, THE PROPER WELD DEPOSITION RATE AND THE WELDING MACHINE SETTINGS.
- THE TOP FLANGES OF ALL MEMBERS ARE TO REMAIN UN-PRIMED AND UNPAINTED UNLESS EXPOSED TO VIEW. ADDITIONALLY, MEMBERS TO RECEIVE SPRAY APPLIED FIRE PROOFING OR MEMBERS EMBEDDED OR ENCASED IN CONCRETE ARE TO REMAIN UN-PRIMED AND UNPAINTED
- ALL STEEL ELEMENTS AND CONNECTIONS WHICH WILL BE PERMANENTLY EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

## LIGHT GAGE METAL FRAMING

- LIGHT GAUGE METAL WALL FRAMING IS TO BE DESIGNED BY ITS SUPPLIER FOR ALL APPLICABLE LOADS, INCLUDING WIND LOAD, SELF WEIGHT, AND WEIGHT OF SUSPENDED PRE-FABRICATED CANOPIES.
- THE CONTRACTOR WILL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL LIGHT GAUGE FRAMING, WHICH BE SEALED BY A NC PROFESSIONAL ENGINEER
- THE FOLLOWING MINIMUM SIZES SHALL BE ASSUMED. FINAL STUD SIZES MAY EXCEED THESE AND SHALL BE DETERMINED BY THE ENGINEER PREPARING THE LIGHT GAUGE DRAWINGS:  
TYPICAL WALL STUDS: 600S162-43 @ 16" O.C.  
TYPICAL JAMB STUD: (2) 600S162-54  
TYPICAL HEADER: (2) 600S162-54 W/ (2) 600T125-33

## ENGINEERED LUMBER

- CODE FOR MEMBER DESIGN: ANSI/AF&PA NATIONAL DESIGN SPECIFICATION AND SUPPLEMENT. ALL MEMBERS SHALL BEAR AN APPROVED GRADE STAMP.
- ENGINEERED LUMBER DESIGN IS BASED ON THE FOLLOWING MINIMUM DESIGN PROPERTIES:  
LVLs: Fb = 2600 PSI  
Fv = 285 PSI  
Fc (PERP) = 750 PSI  
E = 1900 KSI  
PSLs: Fb = 2400 PSI  
Fc (PARA) = 2500 PSI  
Fv = 190 PSI  
E = 1800 KSI  
GLULAM: 24F-V3 SP/SP ARCHITECTURAL STOCK
- LVLs AND PSLs SHALL BE PROTECTED FROM WEATHER ACCORDING TO THEIR MANUFACTURER'S RECOMMENDATIONS. GLULAM BEAMS ARE TO PRESERVATIVE TREATED IF THEY ARE EXPOSED TO WEATHER.

## DIMENSIONAL LUMBER

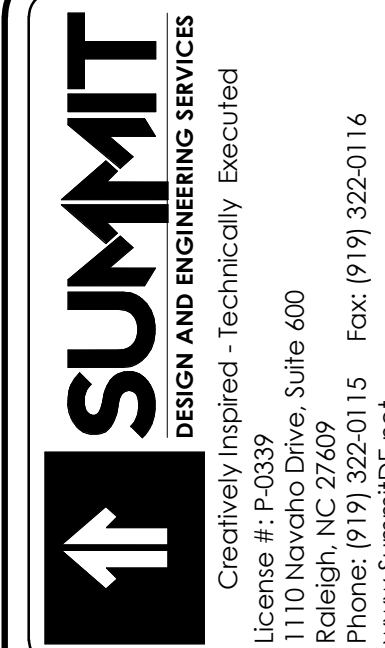
- CODE FOR MEMBER DESIGN: ANSI/AF&PA NATIONAL DESIGN SPECIFICATION AND SUPPLEMENT. ALL MEMBERS SHALL BEAR AN APPROVED GRADE STAMP.
- DESIGN IS BASED ON SP. NO. 2 WITH DESIGN PROPERTIES ACCORDING TO THE SOUTHERN PINE 2013 ADDENDUM.
- ALL DIMENSIONAL LUMBER SIZES SHOWN ON DRAWINGS ARE NOMINAL DIMENSIONS.
- UNLESS NOTED OTHERWISE, LOAD BEARING PLATES AND LEDGERS SHALL BE PRESERVATIVE TREATED AND ANCHORED TO MASONRY OR CONCRETE WITH 1/2"Ø SILL ANCHORS AT 36" O.C.
- ALL LUMBER EXPOSED TO WEATHER SHALL BE PRESERVATIVE TREATED.

## DELEGATED DESIGN:

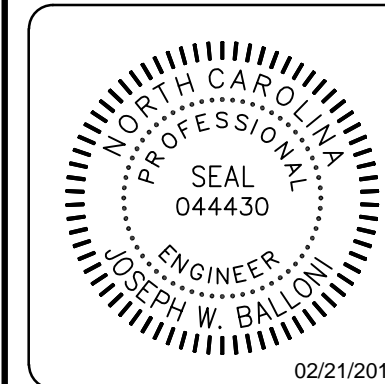
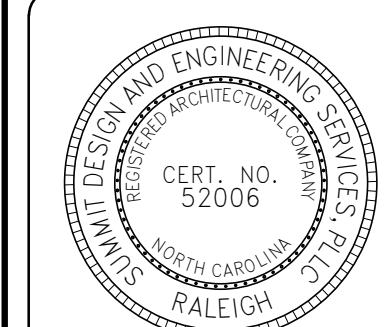
- THE STRUCTURAL DESIGN OF SEVERAL ELEMENTS IN THIS BUILDING HAVE BEEN DELEGATED TO THE PRODUCT MANUFACTURER. FOR EACH OF THESE ITEMS, A SUBMITTAL SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA SHALL BE PROVIDED CERTIFYING THAT THE ELEMENTS HAVE BEEN DESIGNED TO SATISFY ALL REQUIRED LOADS AS NOTED ON THE DRAWING AND PER THE NORTH CAROLINA STATE BUILDING CODE.
- ITEMS CLASSIFIED AS "DELEGATED STRUCTURAL DESIGN" ON THIS PROJECT ARE, BUT NOT LIMITED TO:  
A. LIGHT GAUGE FRAMING AND ASSOCIATED CONNECTIONS  
B. CURTAIN WALLS AND ASSOCIATED SUPPORT SYSTEMS
- STRUCTURAL ITEMS NOT LISTED ABOVE THAT MAY REQUIRE AN ENGINEER'S SEAL SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER TO VERIFY CERTIFICATION REQUIREMENTS.

## MATERIALS

- STEEL**  
WIDE FLANGE MEMBERS  
ANGLES & CHANNELS  
PLATES & BARS (GENERAL)  
PLATES & BARS (MOMENT CONNECTIONS)  
HOLLOW STRUCTURAL SECTIONS (RECT)  
MISCELLANEOUS PIPES  
BOLTS (FRAMING MEMBERS)  
ANCHOR RODS  
ROOF DECKING  
**REINFORCING STEEL**  
GENERAL REINFORCING  
WELDED WIRE FABRIC  
**WELD ELECTRODES**  
GENERAL - ROLLED OR FORMED MEMBERS  
DECKING TO FRAME WELDS  
**CONCRETE**  
FOOTINGS  
SLABS ON GRADE
- ASTM A992, Fy = 50KSI  
ASTM A36, Fy = 36KSI  
ASTM A36, Fy = 36KSI  
ASTM A572, Fy = 50KSI  
ASTM A500 GRADE B, Fy = 46KSI  
ASTM A53, Fy = 35KSI  
ASTM A352-N  
ASTM F1554 GRADE 55, WELDABLE  
ASTM A653SQ, GRADE 33 GALV.
- ASTM A615, Fy = 60KSI  
ASTM A185, IN FLAT SHEETS
- E70xx ELECTRODES, CVN = 20#-FT AT 40 DEG.  
E70xx OR E60xx
- MIX F'c = 3000PSI NORMAL WEIGHT  
MIX F'c = 4000PSI NORMAL WEIGHT



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

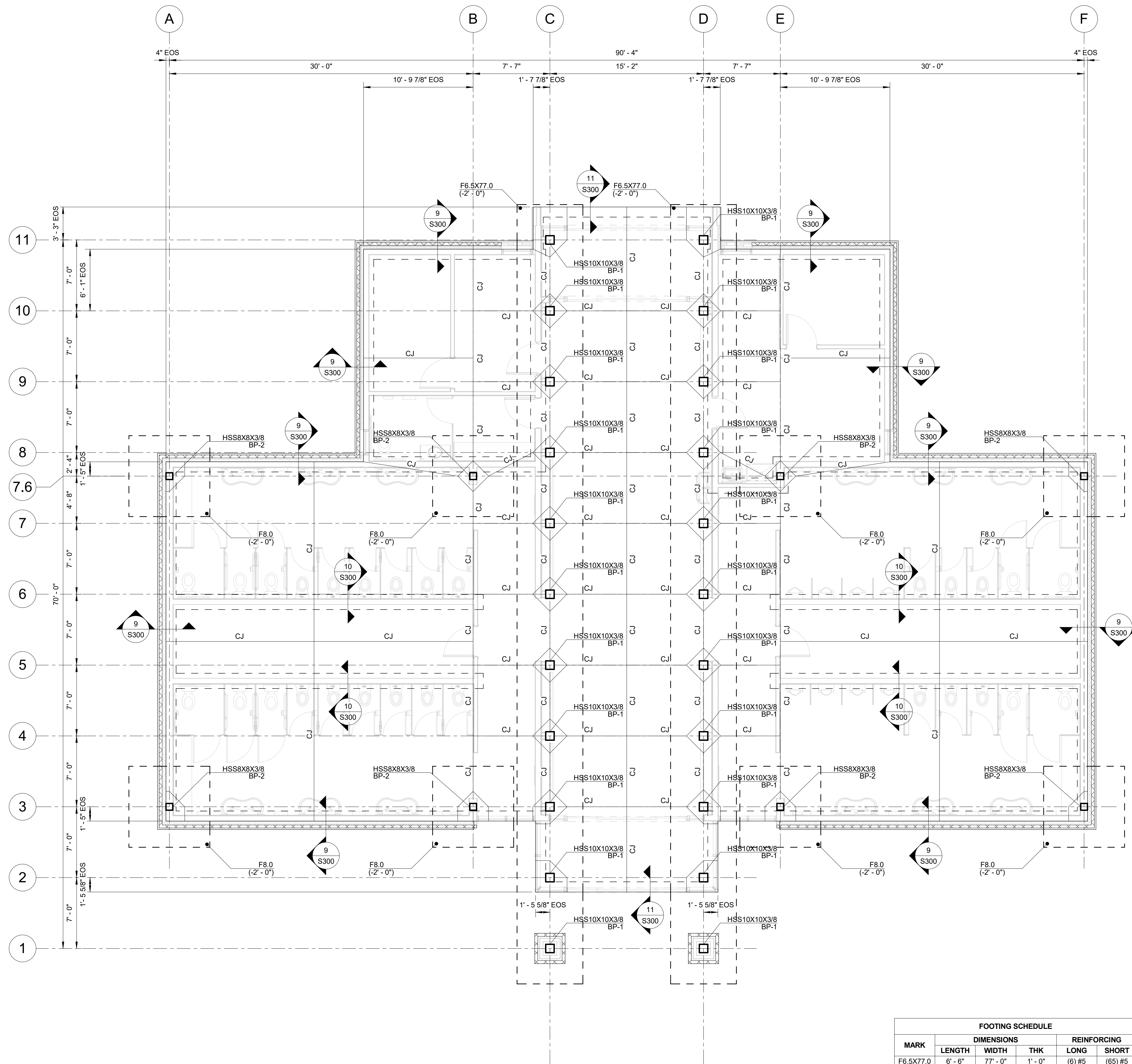


ENGINEER OF RECORD  
JOSEPH W. BALLONI, PE  
PROJECT MANAGER  
C. CHRISTIAN BERG, PE  
DRAWN BY: IWB  
FIRST ISSUE DATE: 11/16/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JB
B	ISSUED TO NCDOT	01/22/19	JB
C	ISSUED FOR CONST	02/21/19	JB

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**GENERAL NOTES**

PROJECT NO.  
**18-0129**  
SHEET NO.  
**S000**



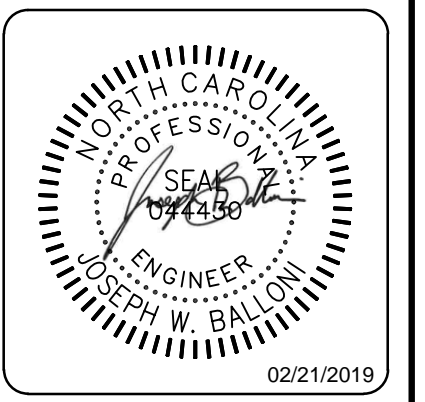
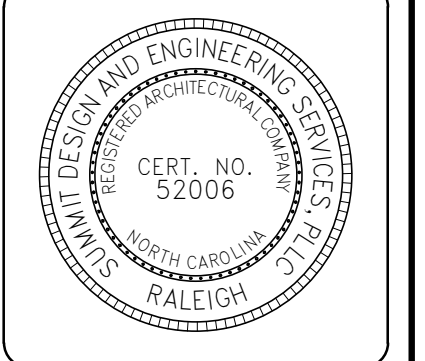
MARK	DIMENSIONS			REINFORCING	
	LENGTH	WIDTH	THK	LONG	SHORT
F6.5X77.0	6'-6"	77'-0"	1'-0"	(6) #5	(65) #5
F8.0	8'-0"	8'-0"	1'-6"	(8) #6	(8) #6

1 FOUNDATION PLAN - RESTROOMS BUILDING  
3/16" = 1'-0"

- NOTES:
- TOP OF SLAB REFERENCE ELEVATION = 0' - 0"
  - U.N.O. TYPICAL SLAB CONSTRUCTION CONSISTS OF 4" CONCRETE SLAB ON GRADE OVER 6MIL POLY VAPOR BARRIER ON 4" #57 STONE SUB-BASE. TYPICAL REINFORCEMENT CONSISTS OF W.W.F. 6X6 W1.4KW1.4. REFER TO DETAIL 1/S300 FOR ADDITIONAL INFORMATION.
  - ALL DIMENSIONS ARE TO EDGE OF SLAB (E.O.S.) OR COLUMN CENTERLINE. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
  - "FX" ON PLAN REFERS TO FOOTING MARK. SEE FOOTING SCHEDULE FOR ADDITIONAL INFORMATION.
  - "T.O.F." ON PLAN REFERS TO FOOTING ELEVATION AS MEASURED FROM REFERENCE ELEVATION AND IS NOTED (-X'-X") ON PLAN.
  - "C.J." ON PLAN DENOTES SLAB CONTROL JOINT. REFER TO DETAIL 2/S300 FOR ADDITIONAL INFORMATION.
  - "BP-X" ON PLAN REFERS TO COLUMN BASE PLATE. REFER TO DETAIL 7/S300 FOR ADDITIONAL INFORMATION.

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
License #: P-0339  
1110 Navaho Drive, Suite 600  
Raleigh, NC 27609  
Phone: (919) 322-0115  
Fax: (919) 322-0116  
www.summitde.net

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

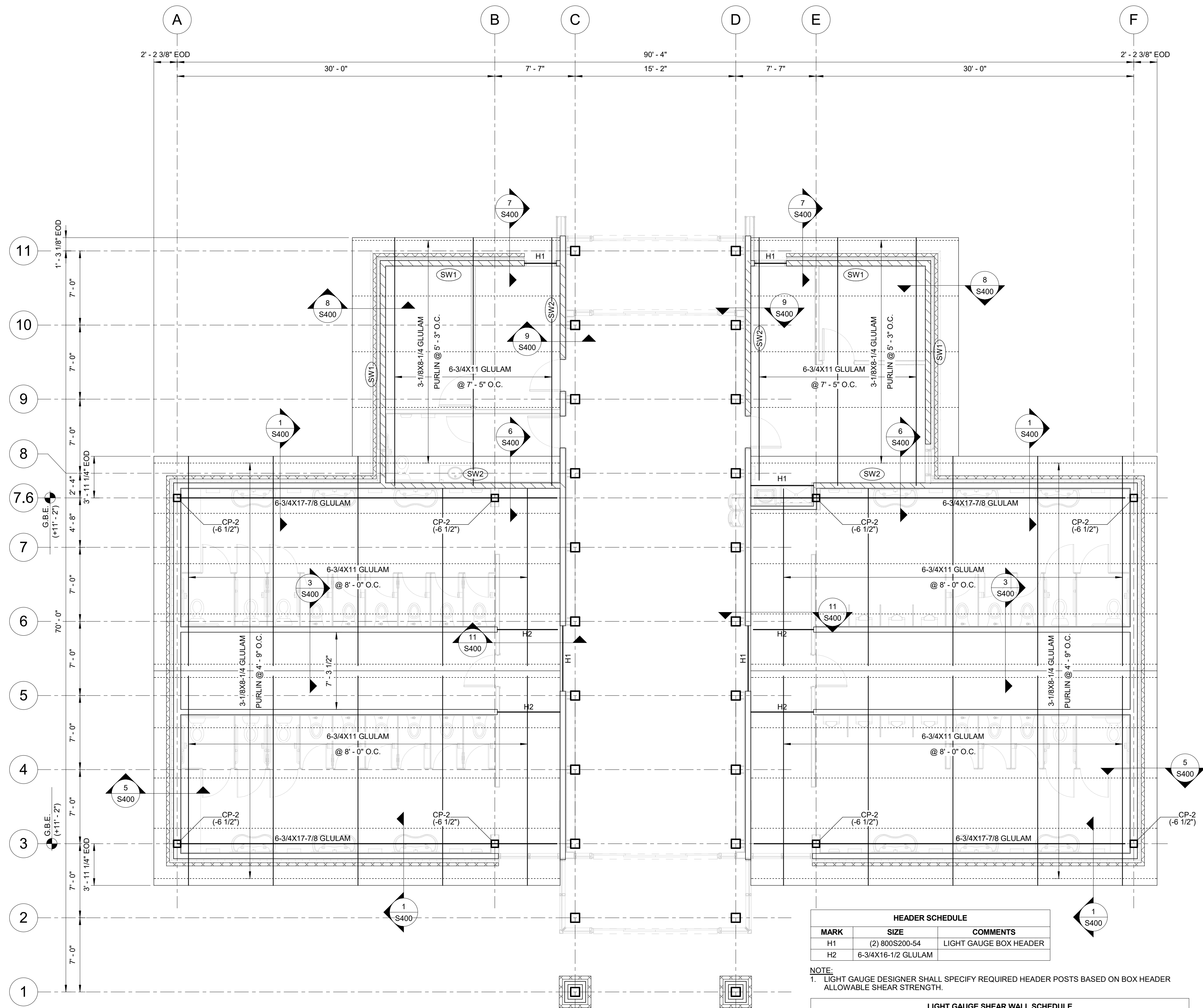


ENGINEER OF RECORD  
JOSEPH W. BALLONI, PE  
PROJECT MANAGER  
C. CHRISTIAN BERG, PE  
DRAWN BY: JWB  
FIRST ISSUE DATE: 11/16/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JB
B	ISSUED TO NCDOT	01/22/19	JB
C	ISSUED FOR CONST	02/21/19	JB

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**FOUNDATION PLAN - RESTROOMS**

PROJECT NO.  
**18-0129**  
SHEET NO.  
**S100**



HEADER SCHEDULE		
MARK	SIZE	COMMENTS
H1	(2) 800S200-54	LIGHT GAUGE BOX HEADER
H2	6-3/4x16-1/2 GLULAM	

NOTE:  
 1. LIGHT GAUGE DESIGNER SHALL SPECIFY REQUIRED HEADER POSTS BASED ON BOX HEADER ALLOWABLE SHEAR STRENGTH.

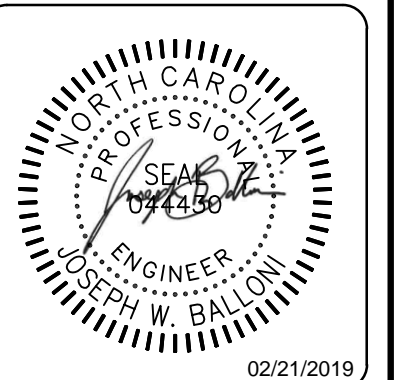
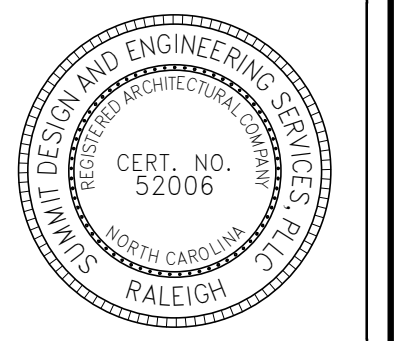
MARK	SHEATHING	FASTENING		END POST	COMMENTS
		EDGE	FIELD		
SW1	7/16" OSB	#8 TEK @ 6" O.C.	#8 TEK @ 12" O.C.	600S200-54	
SW2	0.027" STEEL SHEET	#8 TEK @ 6" O.C.	#8 TEK @ 12" O.C.	600S200-54	

NOTES:  
 1. LIGHT GAUGE STUDS AND RUNNER TRACKS SHALL BE 33 MILS MINIMUM THICKNESS.  
 2. LIGHT GAUGE STUDS AND RUNNER TRACKS SHALL BE ASTM A1003, GRADE 33 TYPE H.  
 3. LIGHT GAUGE DESIGNER SHALL SPECIFY REQUIRED ANCHORAGE TO FOUNDATION AT EACH END POST BASED ON DESIGN SERVICE UPLIFT OF 3,400 LBS.  
 4. LIGHT GAUGE DESIGNER MAY SUBSTITUTE STRAPPING INSTEAD OF STEEL SHEET SHEATHING. STRAPPING SHALL MEET OR EXCEED CAPACITY OF STEEL SHEET SHEATHING AS SPECIFIED.

1 LOW ROOF FRAMING PLAN - RESTROOMS BUILDING  
 3/16" = 1'-0"

- NOTES:  
 1. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.  
 2. ROOF SHEATHING TO BE 7/16" APA RATED OSB. SHEATHING SHALL BE NAILED TO T&G DECKING WITH 11 GAUGE X 1-3/4" ROOFING NAILS WITH MAX. SPACING 4" AND 12" AT EDGE AND FIELD, RESPECTIVELY. FIELD NAILING LINES SHALL BE SPACED A MAXIMUM OF 24" ON CENTER.  
 3. ALL CUT ENDS OF T&G DECKING SHALL BEAR ON A PURLIN, EXCEPT AT ROOF EDGE CANTILEVER. DECKING SHALL BE FASTENED TO EACH PURLIN WITH (2) #12 X 4" WOOD SCREWS MINIMUM.  
 4. ALL EXPOSED EXTERIOR TIMBER MEMBERS SHALL BE PRESSURE TREATED.  
 5. "G.B.E." REFERS TO GIRDER BEARING ELEVATION AS MEASURED FROM TOP OF SLAB AND IS NOTED AS (+X'-X") ON PLAN.  
 6. "T.O.C." REFERS TO TOP OF COLUMN ELEVATION AS MEASURED FROM GIRDER BEARING ELEVATION AND IS NOTED AS (-X") ON PLAN.  
 7. "E.O.D." ON PLAN REFERS TO EDGE OF DECK.  
 8. "HX" ON PLAN REFERS TO HEADER. SEE HEADER SCHEDULE FOR ADDITIONAL INFORMATION.  
 9. "SW#F" ON PLAN REFERS TO SHEAR WALL. SEE LIGHT GAUGE SHEAR WALL SCHEDULE FOR ADDITIONAL INFORMATION.

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
 THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

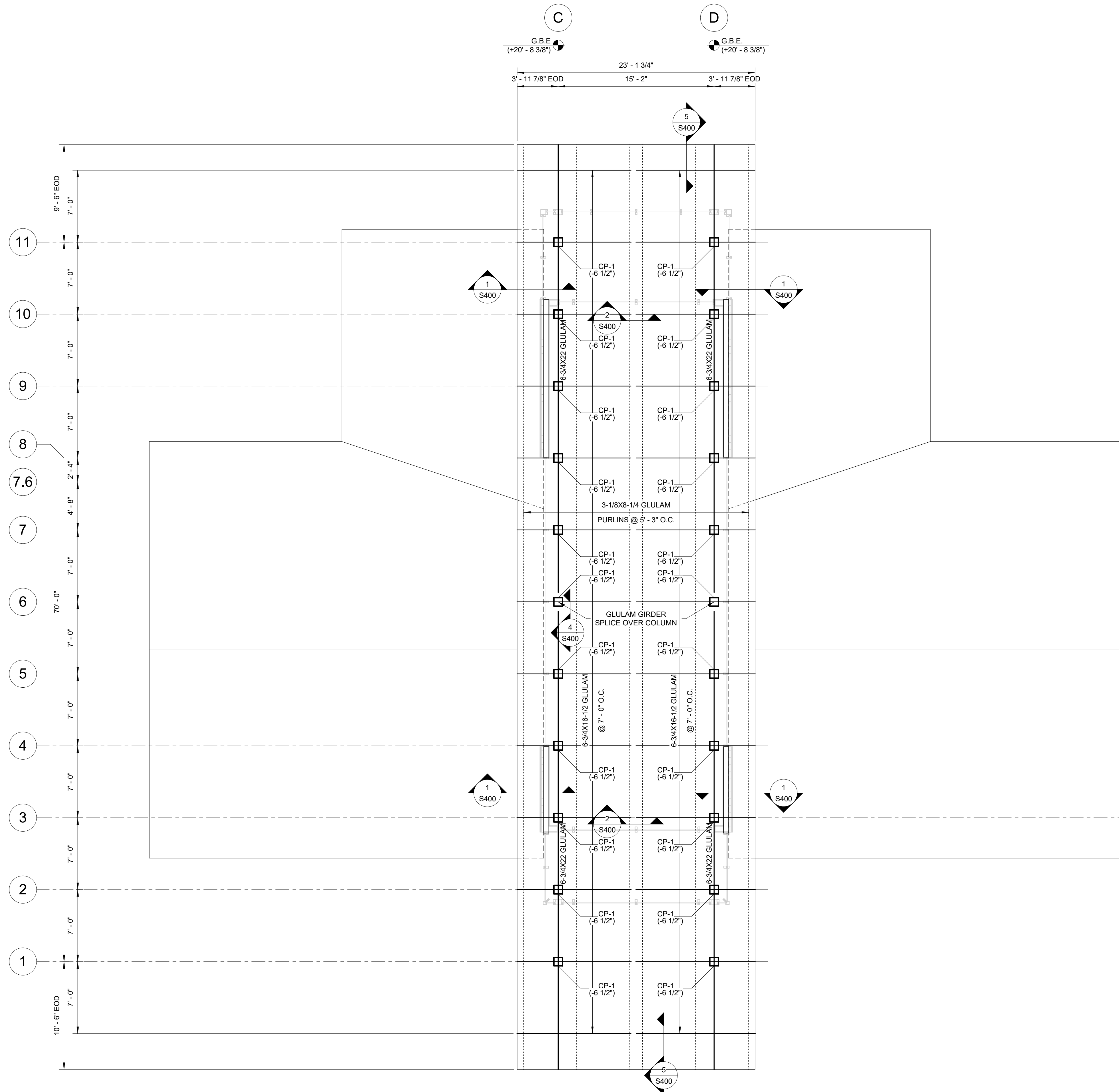


ENGINEER OF RECORD  
 JOSEPH W. BALLONI, PE  
 PROJECT MANAGER  
 C. CHRISTIAN BERG, PE  
 DRAWN BY: JWB  
 FIRST ISSUE DATE: 11/16/2019

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JB
B	ISSUED TO NCDOT	01/22/19	JB
C	ISSUED FOR CONST	02/21/19	JB

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**LOW ROOF PLAN - RESTROOMS**

PROJECT NO.  
**18-0129**  
 SHEET NO.  
**S101**

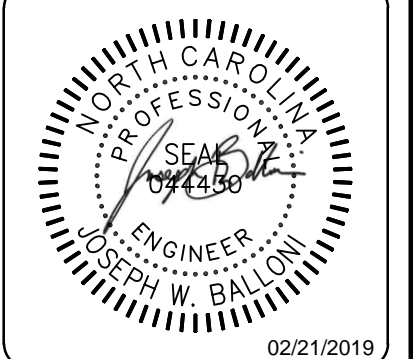
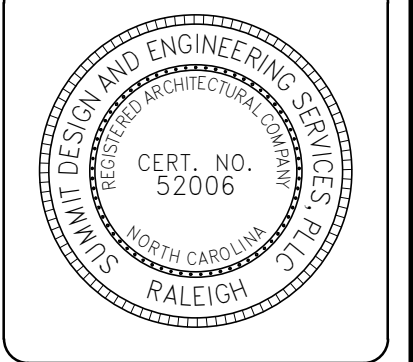


1 HIGH ROOF FRAMING PLAN - RESTROOMS BUILDING  
3/16" = 1'-0"

- NOTES:
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
  - ROOF SHEATHING TO BE 7/16" APA RATED OSB. SHEATHING SHALL BE NAILED TO T&G DECKING WITH 11 GAUGE X 1-3/4" ROOFING NAILS WITH MAX. SPACING 4" AND 12" AT EDGE AND FIELD, RESPECTIVELY. FIELD NAILING LINES SHALL BE SPACED A MAXIMUM OF 24" ON CENTER.
  - ALL CUT ENDS OF T&G DECKING SHALL BEAR ON A PURLIN, EXCEPT AT ROOF EDGE CANTILEVER. DECKING SHALL BE FASTENED TO EACH PURLIN WITH (2) #12 X 4" WOOD SCREWS MINIMUM.
  - ALL EXPOSED EXTERIOR TIMBER MEMBERS SHALL BE PRESSURE TREATED.
  - "G.B.E." REFERS TO GIRDER BEARING ELEVATION AS MEASURED FROM TOP OF SLAB AND IS NOTED AS (+X'-X") ON PLAN.
  - "T.O.C." REFERS TO TOP OF COLUMN ELEVATION AS MEASURED FROM GIRDER BEARING ELEVATION AND IS NOTED AS (-X") ON PLAN.
  - "E.O.D." ON PLAN REFERS TO EDGE OF DECK.



COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.

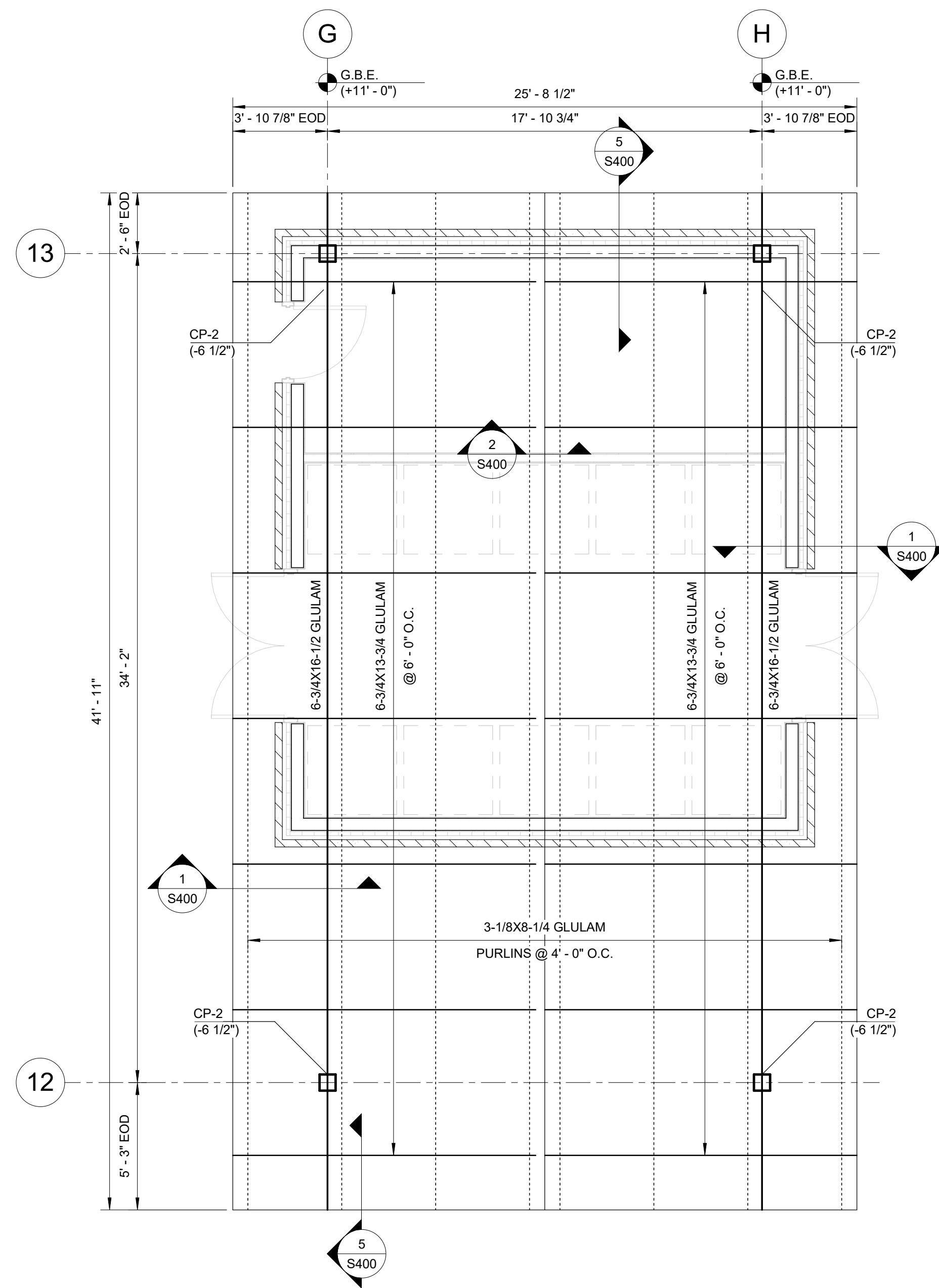


ENGINEER OF RECORD  
JOSEPH W. BALLONI, PE  
PROJECT MANAGER  
C. CHRISTIAN BERG, PE  
DRAWN BY: JWB  
FIRST ISSUE DATE: 11/16/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JB
B	ISSUED TO NCDOT	01/22/19	JB
C	ISSUED FOR CONST	02/21/19	JB

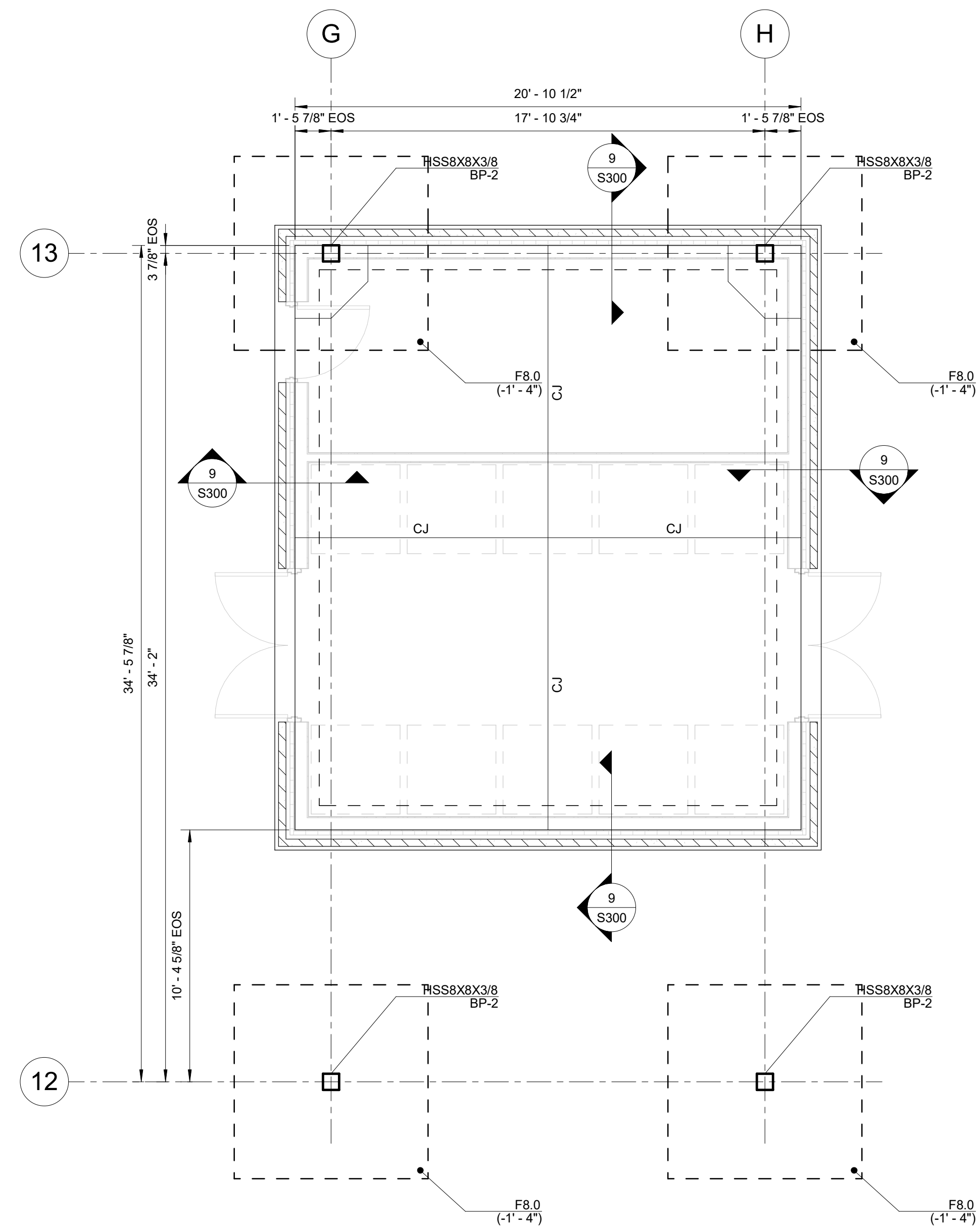
NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**HIGH ROOF PLAN - RESTROOMS**

PROJECT NO.  
**18-0129**  
SHEET NO.  
**S102**



② ROOF FRAMING PLAN - VENDING BUILDING  
1/4" = 1'-0"

- NOTES:
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
  - ROOF SHEATHING TO BE 7/16" APA RATED OSB. SHEATHING SHALL BE NAILED TO T&G DECKING WITH 11 GAUGE X 1-3/4" ROOFING NAILS WITH MAX. SPACING 4" AND 12" AT EDGE AND FIELD, RESPECTIVELY. FIELD NAILING LINES SHALL BE SPACED A MAXIMUM OF 24" ON CENTER.
  - ALL CUT ENDS OF T&G DECKING SHALL BEAR ON A PURLINE, EXCEPT AT ROOF EDGE. DECKING SHALL BE FASTENED TO EACH PURLINE WITH (2) #12 X 4" WOOD SCREWS MINIMUM.
  - ALL EXPOSED EXTERIOR TIMBER MEMBERS SHALL BE PRESSURE TREATED.
  - "G.B.E." REFERS TO GIRDER BEARING ELEVATION AS MEASURED FROM TOP OF SLAB AND IS NOTED AS (+X'-X") ON PLAN.
  - "T.O.C." REFERS TO TOP OF COLUMN ELEVATION AS MEASURED FROM GIRDER BEARING ELEVATION AND IS NOTED AS (-X'-X") ON PLAN.
  - "E.O.D." ON PLAN REFERS TO EDGE OF DECK.

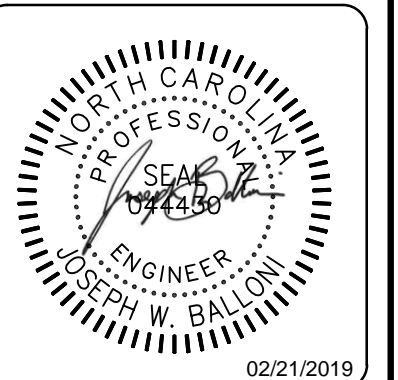
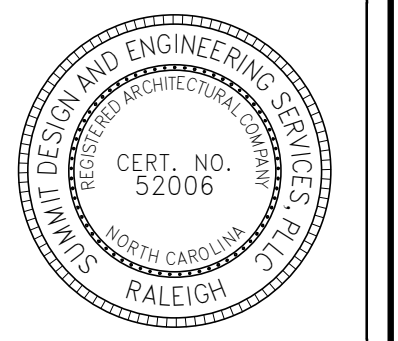


① FOUNDATION PLAN - VENDING BUILDING  
1/4" = 1'-0"

- NOTES:
- TOP OF SLAB REFERENCE ELEVATION = 0' - 0"
  - U.N.O. TYPICAL SLAB CONSTRUCTION CONSISTS OF 4" CONCRETE SLAB ON GRADE OVER 6MIL POLY VAPOR BARRIER ON 4" #57 STONE SUB-BASE. TYPICAL REINFORCEMENT CONSISTS OF W.W.F. 6X6 W1.4XW1.4. REFER TO DETAIL 1/S300 FOR ADDITIONAL INFORMATION.
  - ALL DIMENSIONS ARE TO EDGE OF SLAB (E.O.S.) OR COLUMN CENTERLINE. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
  - "FX-X" ON PLAN REFERS TO FOOTING MARK. SEE FOOTING SCHEDULE FOR ADDITIONAL INFORMATION.
  - "T.O.F." ON PLAN REFERS TO FOOTING ELEVATION AS MEASURED FROM REFERENCE ELEVATION AND IS NOTED (-X'-X") ON PLAN.
  - "C.J." ON PLAN DENOTES SLAB CONTROL JOINT. REFER TO DETAIL 2/S300 FOR ADDITIONAL INFORMATION.
  - "BP-X" ON PLAN REFERS TO COLUMN BASE PLATE. REFER TO DETAIL 7/S300 FOR ADDITIONAL INFORMATION.

MARK	DIMENSIONS			REINFORCING	
	LENGTH	WIDTH	THK	LONG	SHORT
F6.5X77.0	6' - 6"	77' - 0"	1' - 0"	(6) #5	(65) #5
F8.0	8' - 0"	8' - 0"	1' - 6"	(8) #6	(8) #6

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



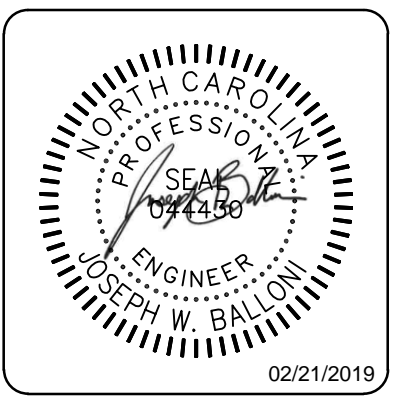
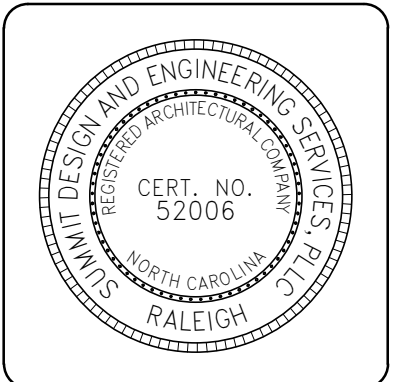
ENGINEER OF RECORD  
JOSEPH W. BALLONI, PE  
PROJECT MANAGER  
C. CHRISTIAN BERG, PE  
DRAWN BY: JWB  
FIRST ISSUE DATE: 11/16/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JB
B	ISSUED TO NCDOT	01/22/19	JB
C	ISSUED FOR CONST	02/21/19	JB

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**FDN & ROOF PLANS - VENDING**

PROJECT NO.  
**18-0129**  
SHEET NO.  
**S200**

COPYRIGHT © 2018 SUMMIT DESIGN AND ENGINEERING SERVICES  
 THIS DRAWING & THE DESIGN INTENT OF THIS INSTRUMENT OF SERVICE IS THE VESTED PROPERTY OF THE ARCHITECT & THE ARCHITECTS CONSULTANTS, WHICH ARE NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS OR METHOD WITHOUT EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THIS INSTRUMENT OF SERVICE IS SOLELY & EXCLUSIVELY FOR THE PURPOSE OF CONSTRUCTING, USING, MAINTAINING, ALTERING & ADDING TO THIS SPECIFIC PROJECT AT ITS SPECIFIC LOCATION.



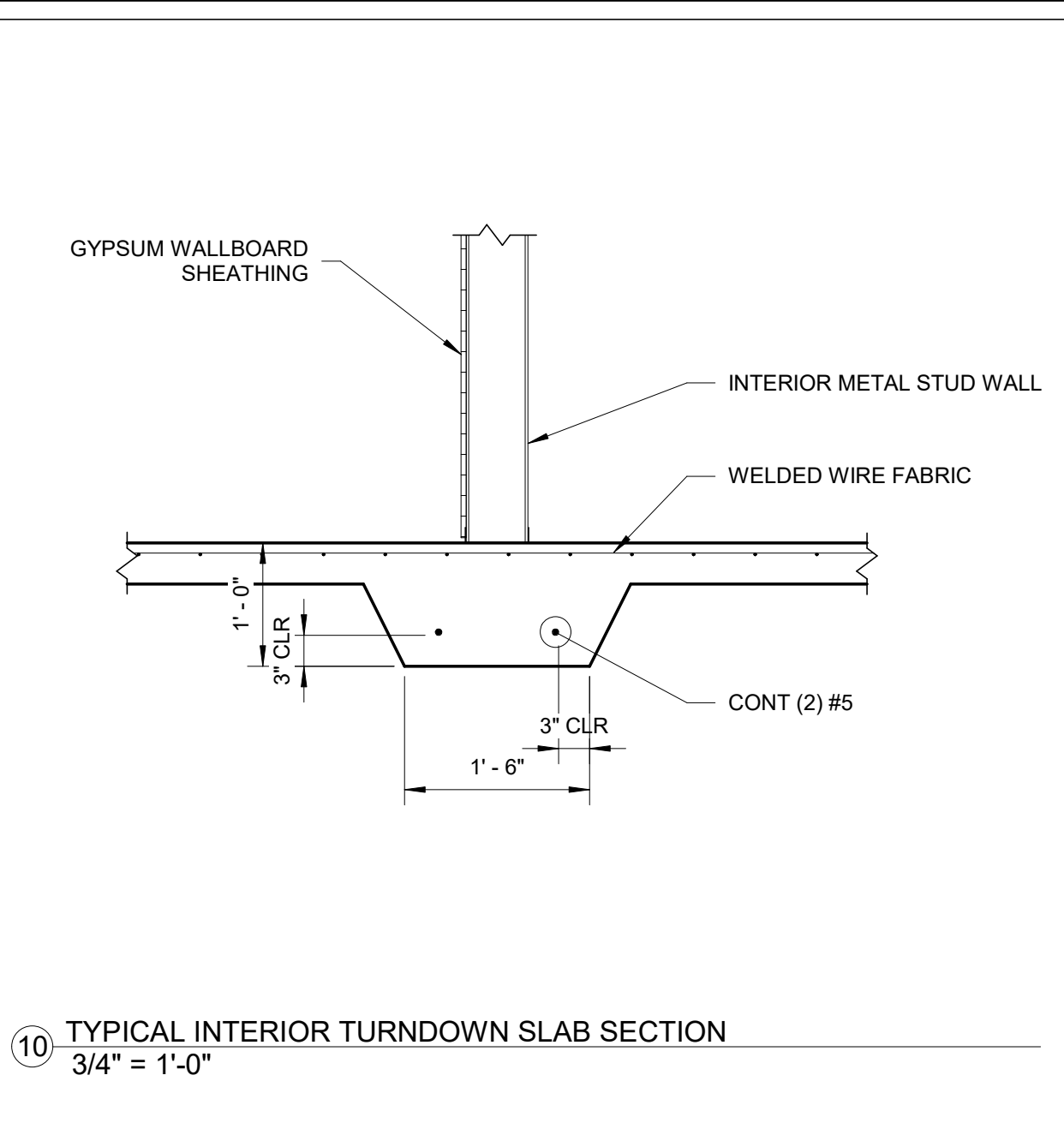
ENGINEER OF RECORD  
 JOSEPH W. BALLONI, PE  
 PROJECT MANAGER  
 C. CHRISTIAN BERG, PE  
 DRAWN BY: JWB FIRST ISSUE DATE: 11/16/2019

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JB
B	ISSUED TO NCDOT	01/22/19	JB
C	ISSUED FOR CONST	02/21/19	JB

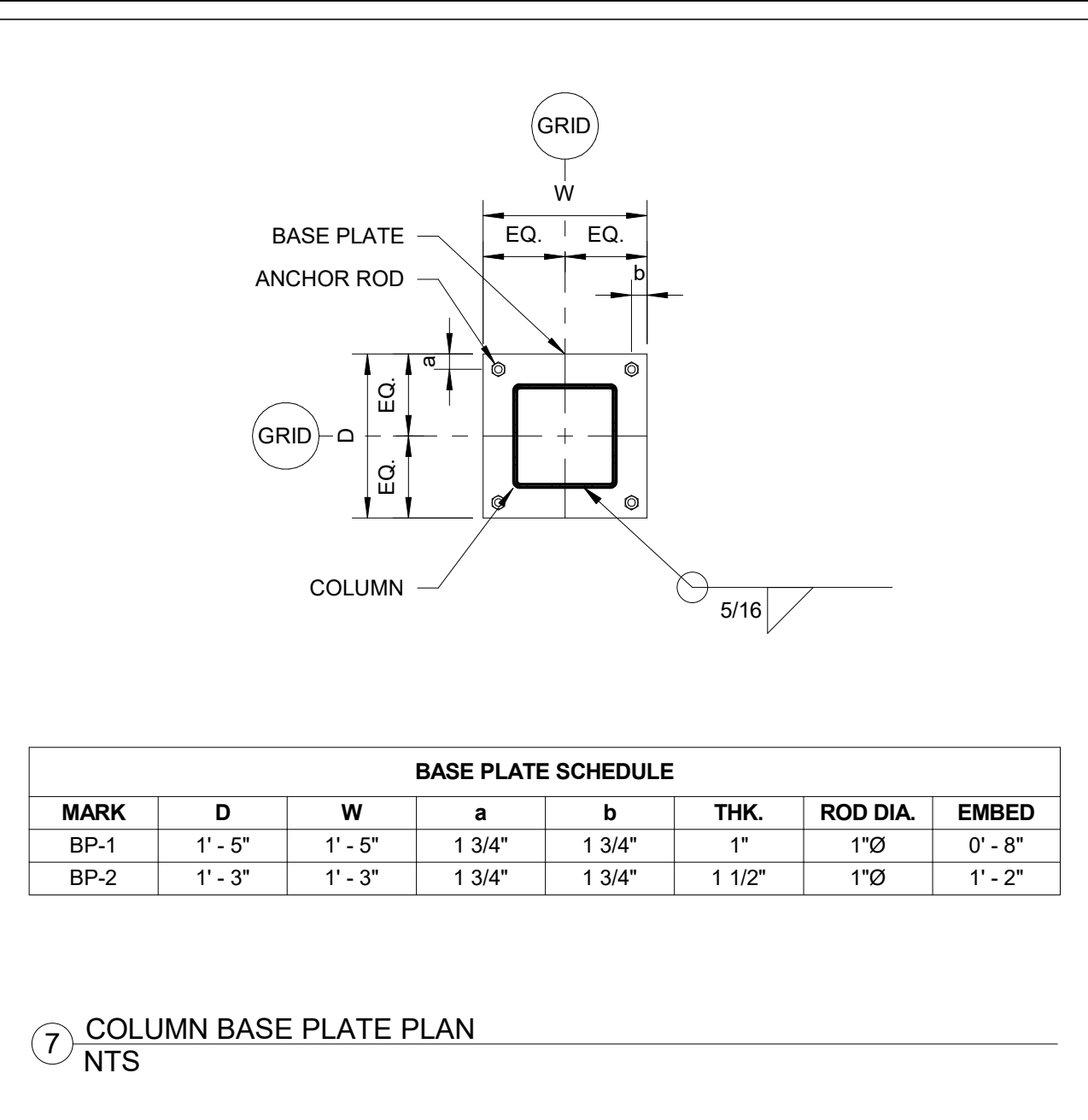
NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732

PROJECT NO.  
**18-0129**  
 SHEET NO.  
**S300**

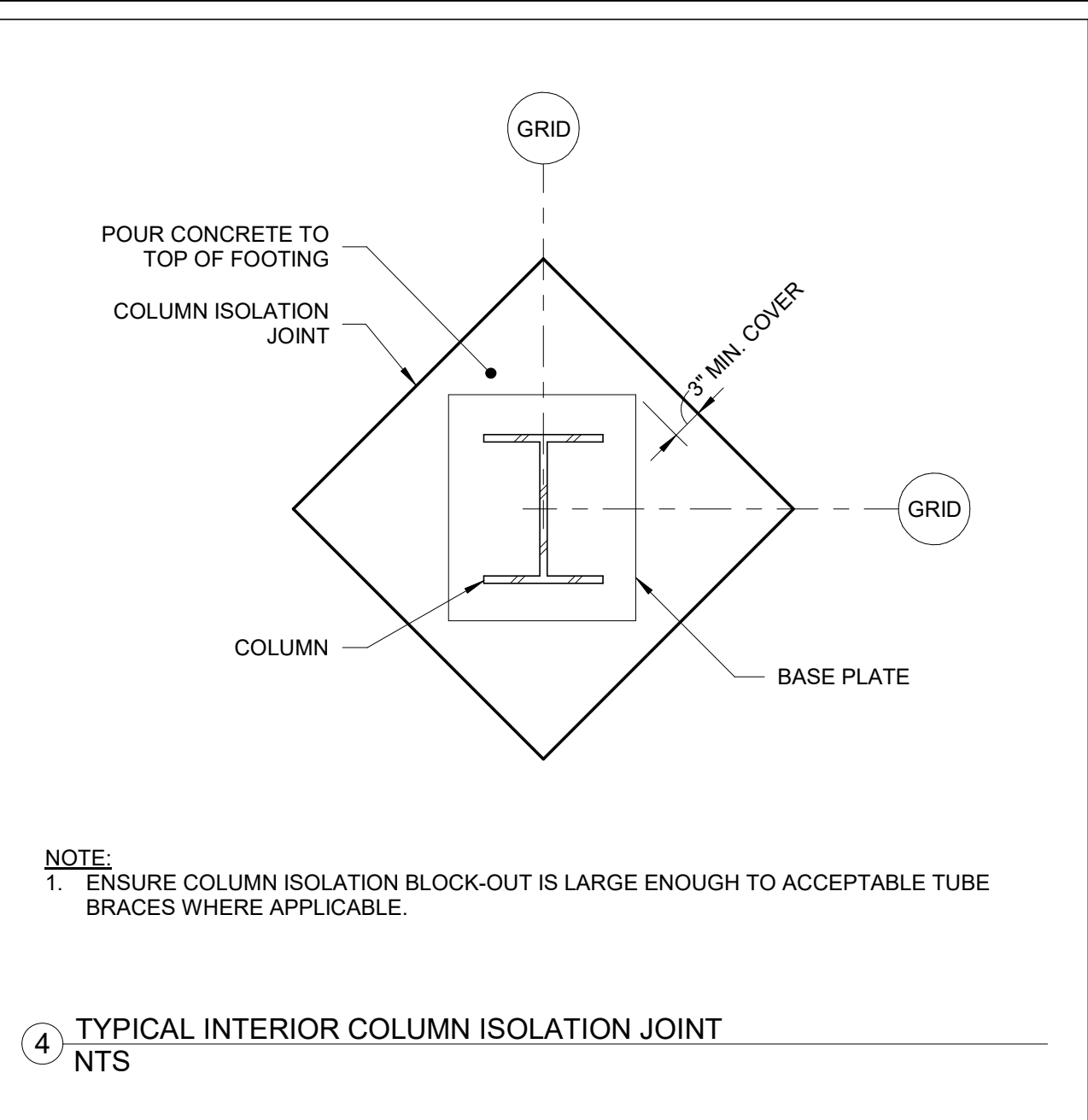
**FOUNDATION DETAILS**



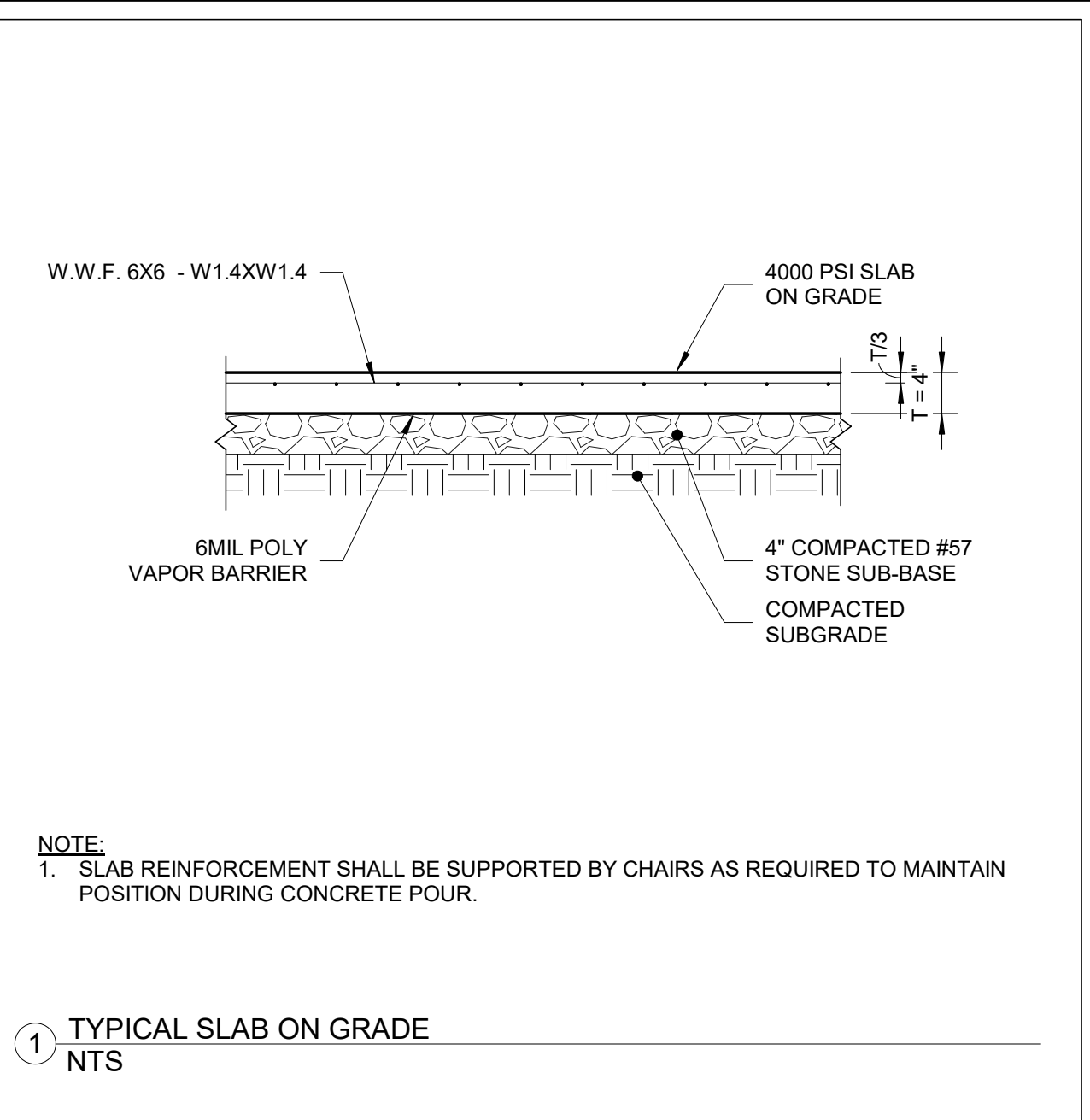
10 TYPICAL INTERIOR TURNDOWN SLAB SECTION  
 3/4" = 1'-0"



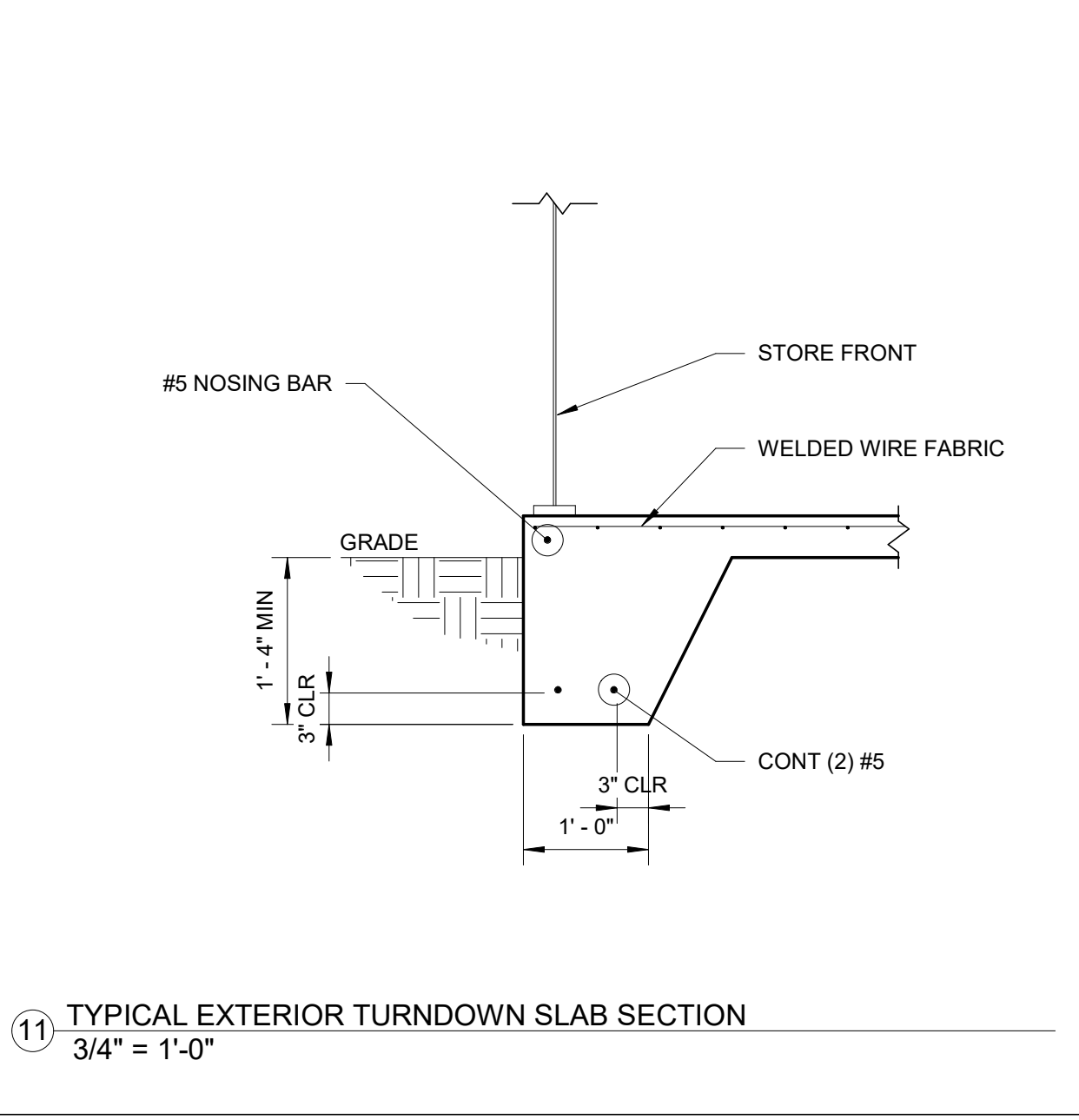
7 COLUMN BASE PLATE PLAN  
 NTS



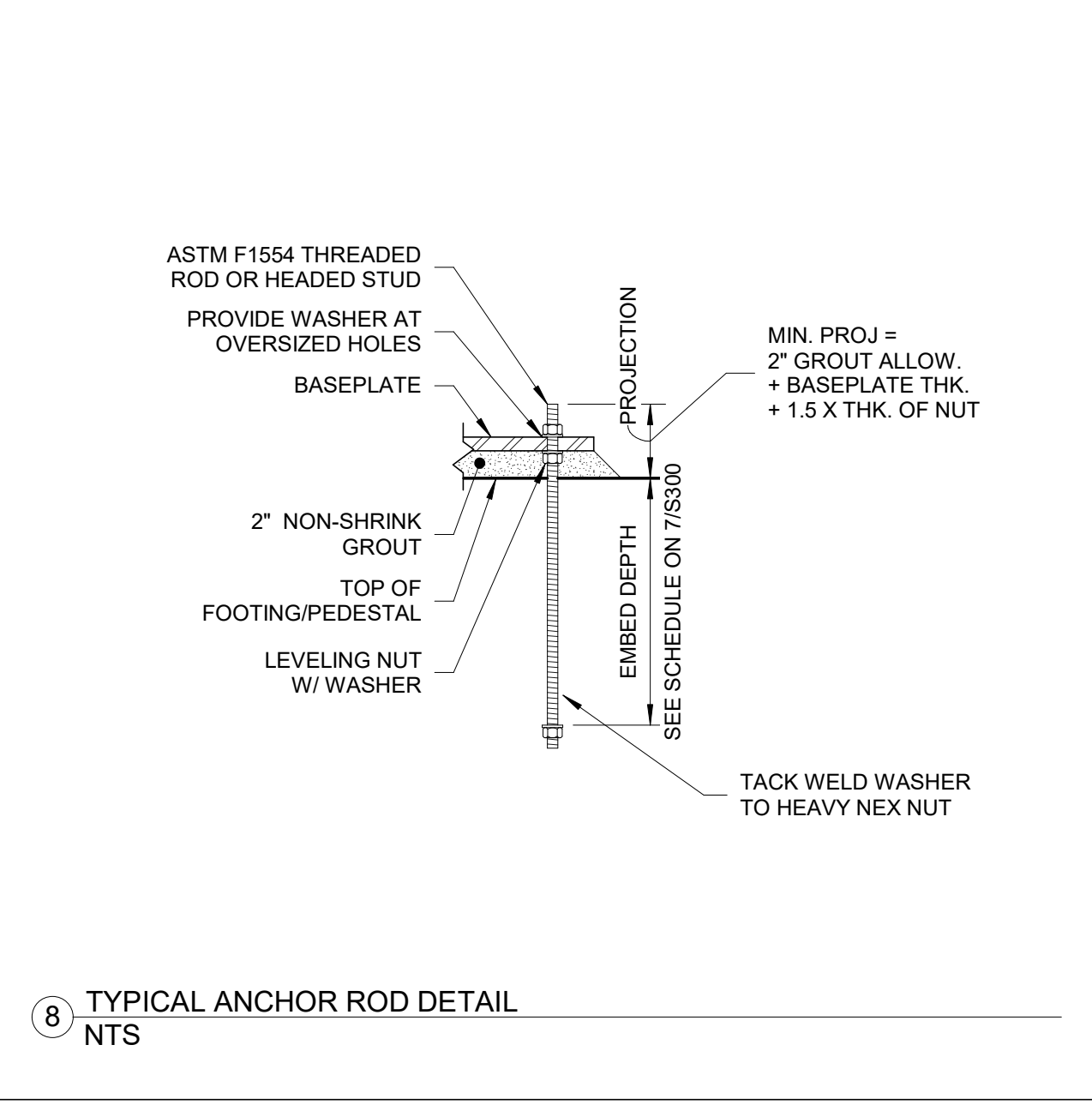
4 TYPICAL INTERIOR COLUMN ISOLATION JOINT  
 NTS



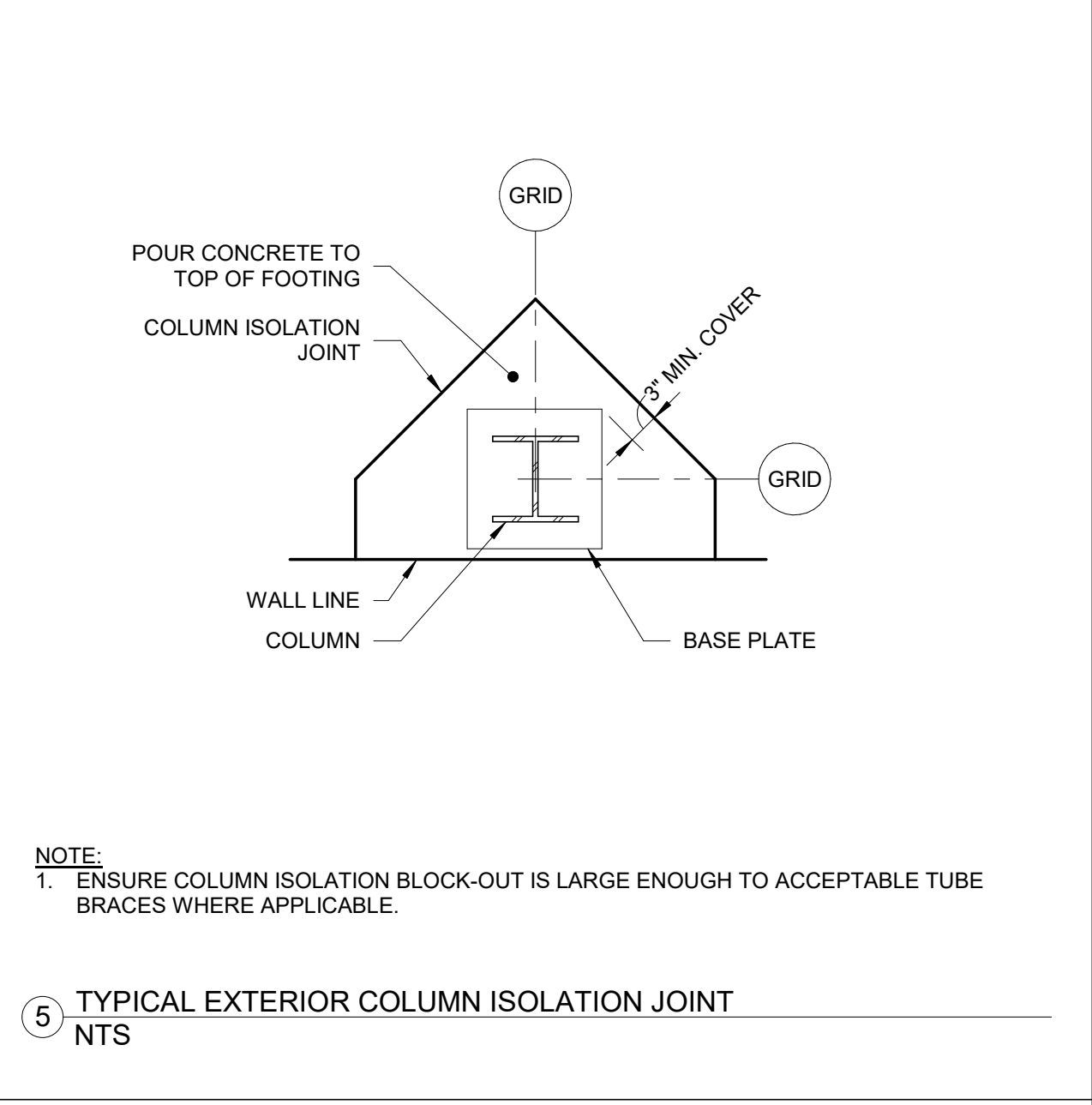
1 TYPICAL SLAB ON GRADE  
 NTS



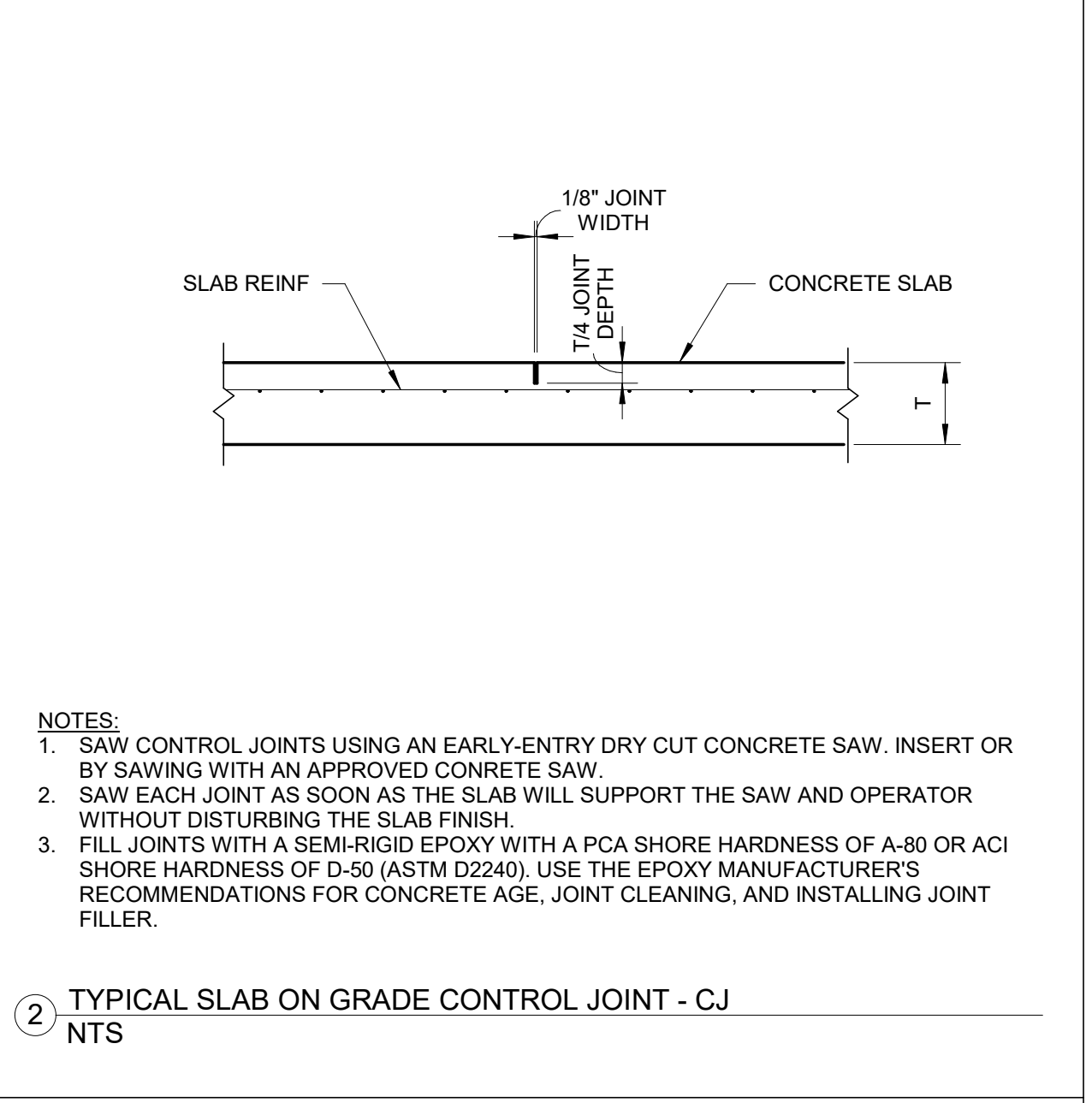
11 TYPICAL EXTERIOR TURNDOWN SLAB SECTION  
 3/4" = 1'-0"



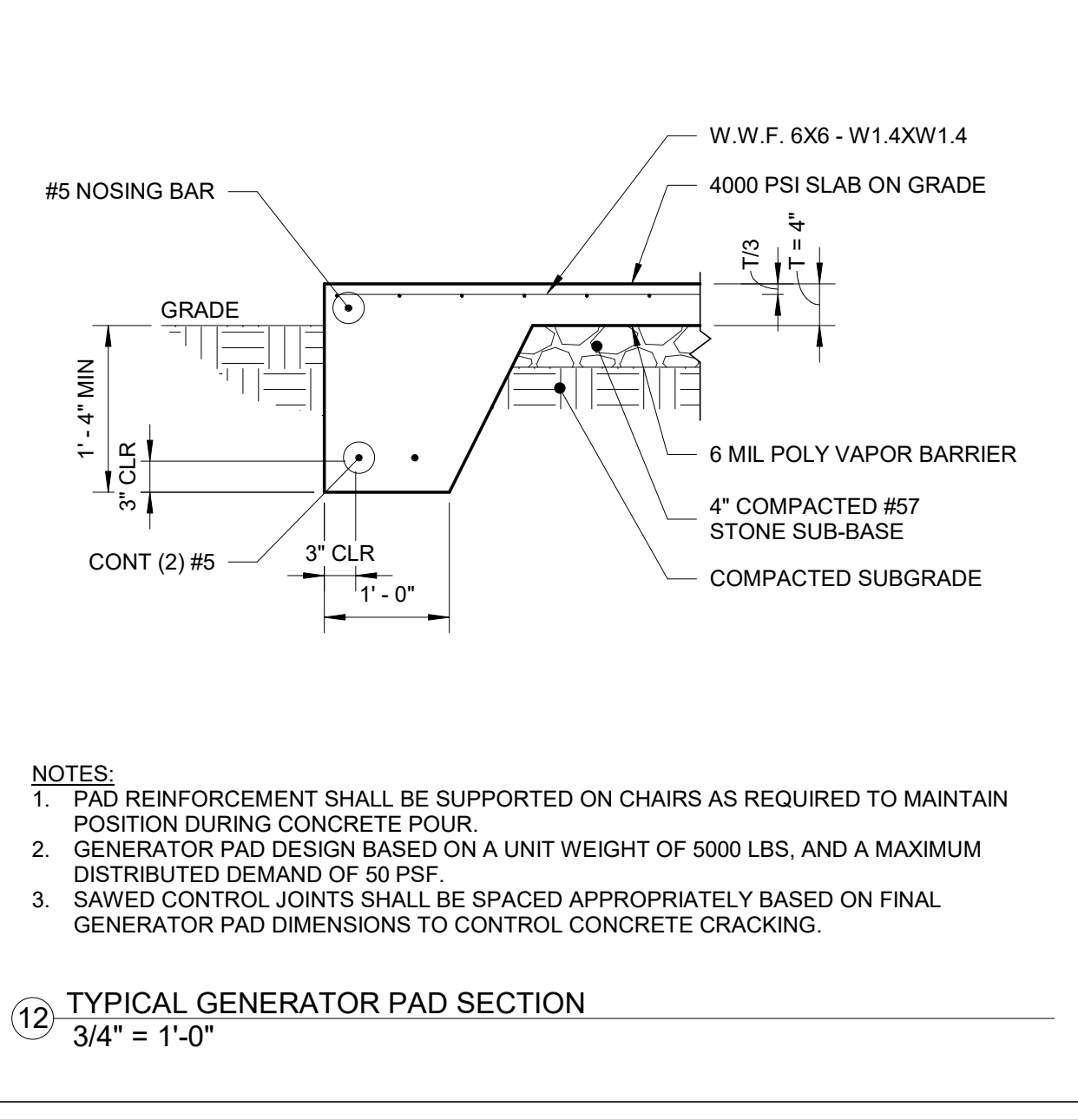
8 TYPICAL ANCHOR ROD DETAIL  
 NTS



5 TYPICAL EXTERIOR COLUMN ISOLATION JOINT  
 NTS

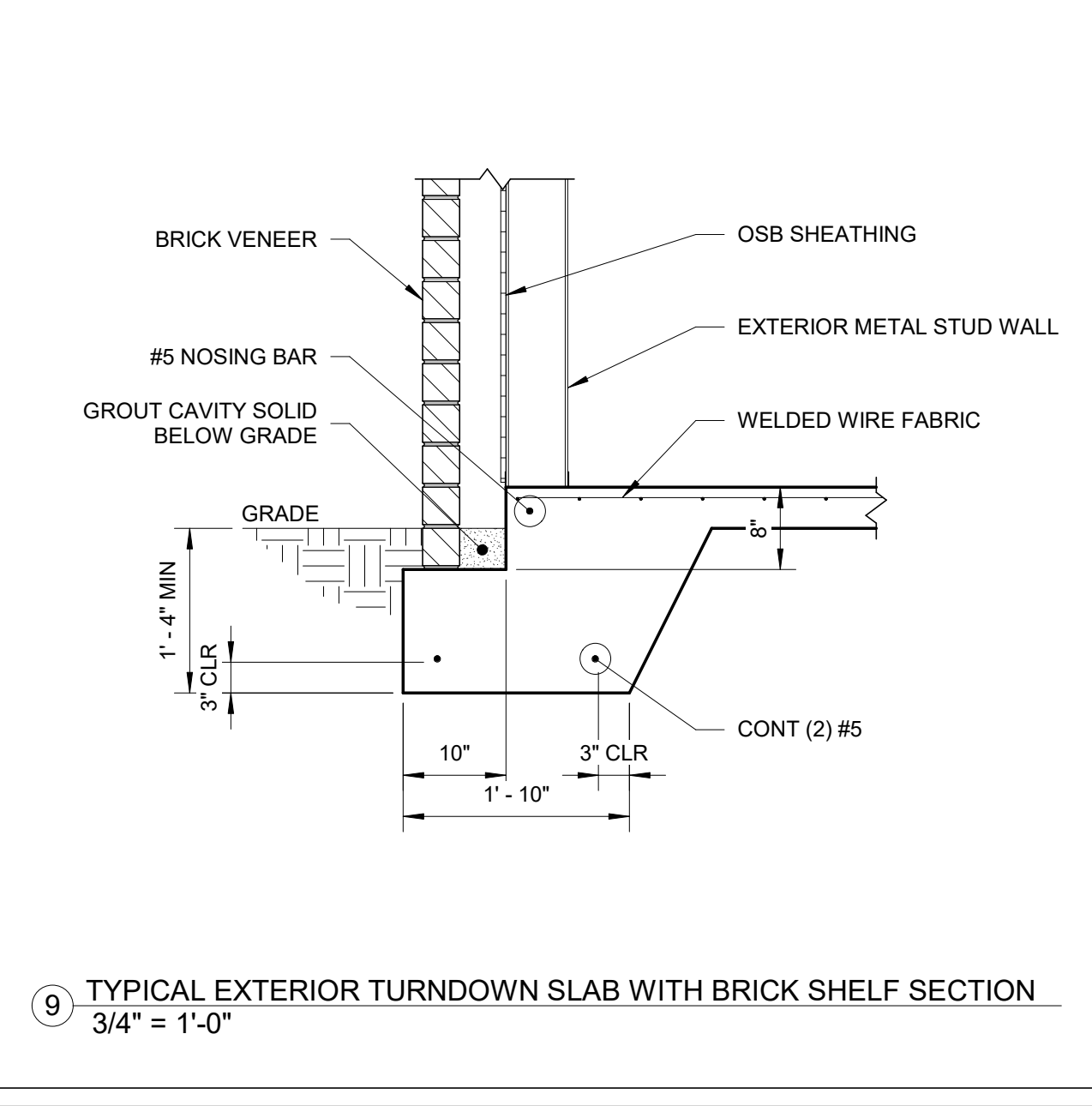


2 TYPICAL SLAB ON GRADE CONTROL JOINT - CJ  
 NTS

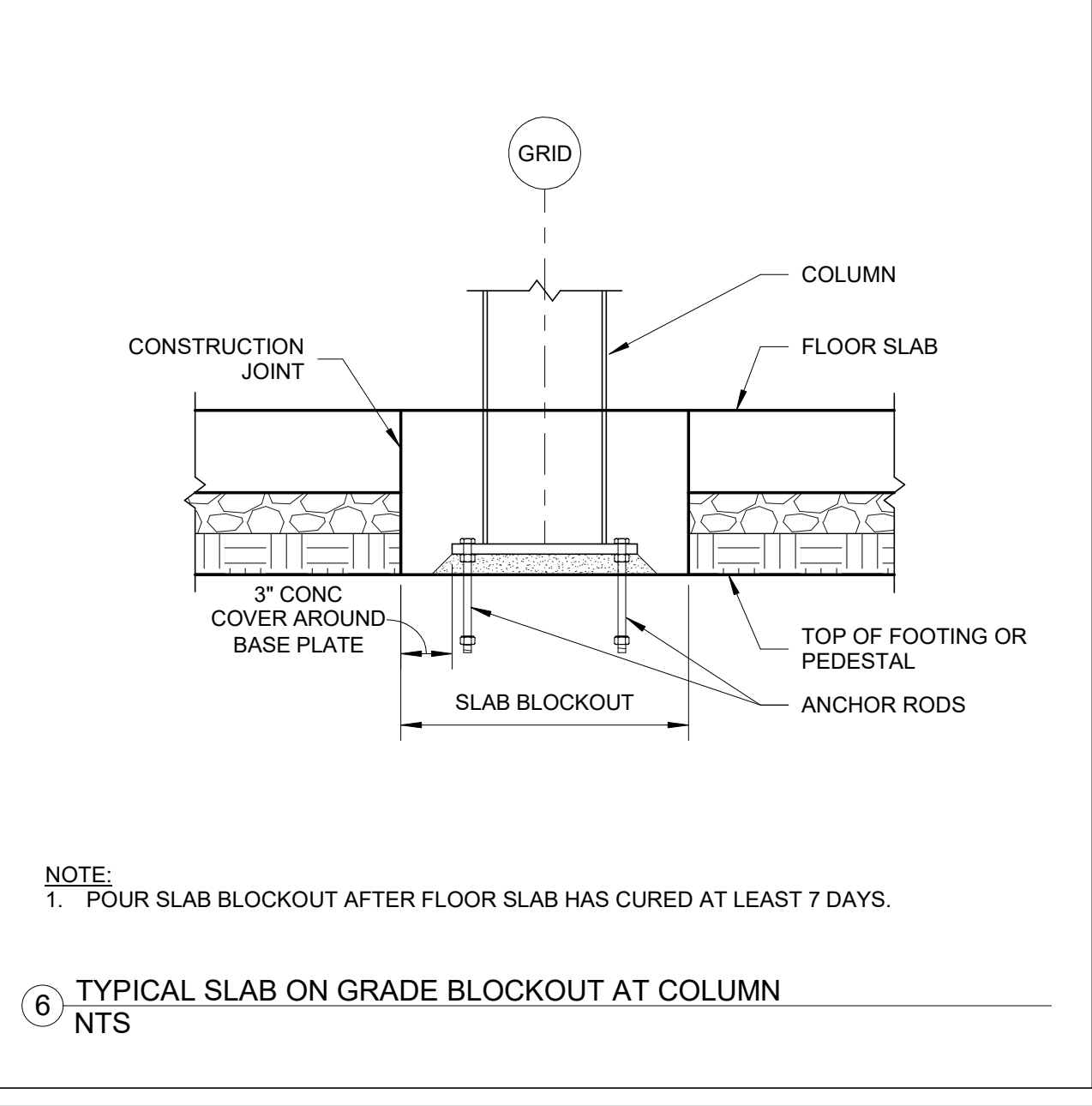


12 TYPICAL GENERATOR PAD SECTION  
 3/4" = 1'-0"

NOTES:  
 1. PAD REINFORCEMENT SHALL BE SUPPORTED ON CHAIRS AS REQUIRED TO MAINTAIN POSITION DURING CONCRETE POUR.  
 2. GENERATOR PAD DESIGN BASED ON A UNIT WEIGHT OF 5000 LBS, AND A MAXIMUM DISTRIBUTED DEMAND OF 50 PSF.  
 3. SAWED CONTROL JOINTS SHALL BE SPACED APPROPRIATELY BASED ON FINAL GENERATOR PAD DIMENSIONS TO CONTROL CONCRETE CRACKING.

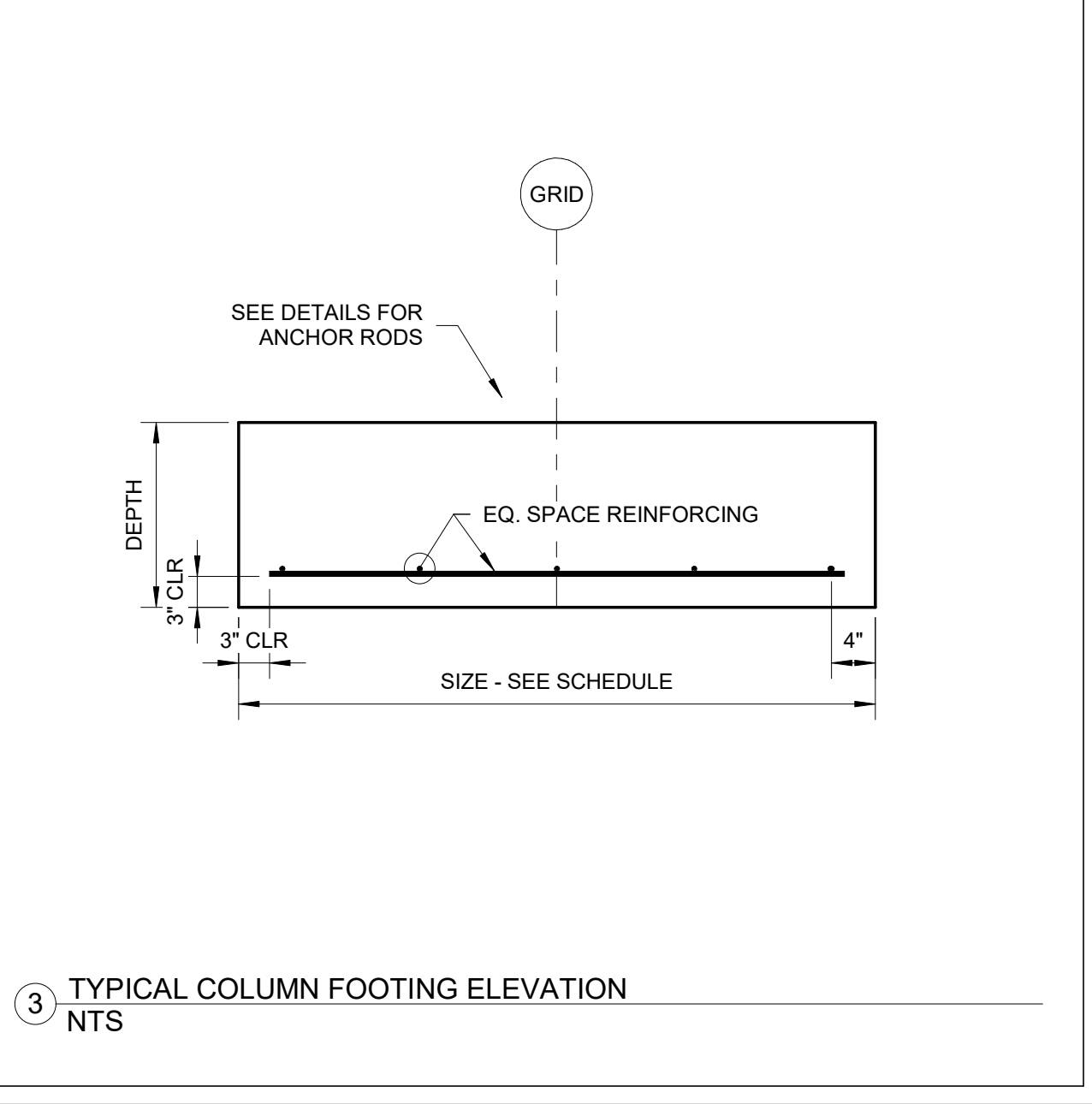


9 TYPICAL EXTERIOR TURNDOWN SLAB WITH BRICK SHELF SECTION  
 3/4" = 1'-0"

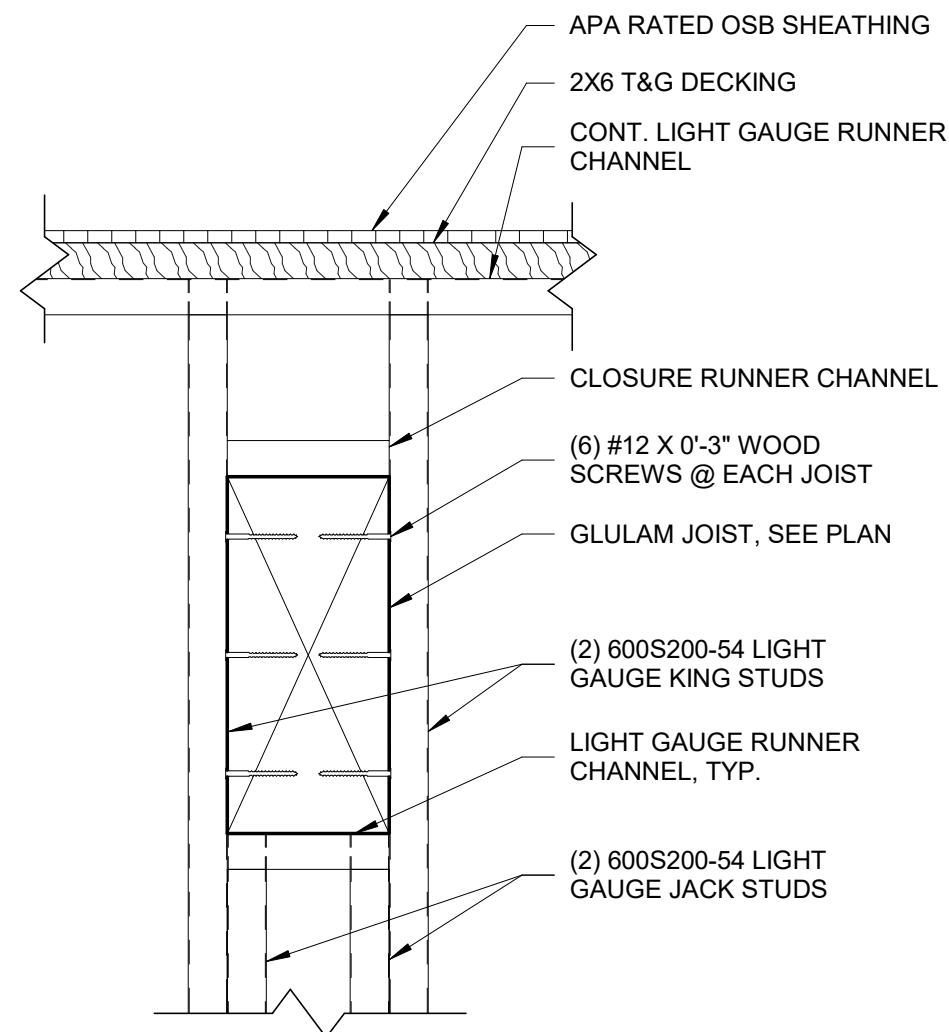


6 TYPICAL SLAB ON GRADE BLOCKOUT AT COLUMN  
 NTS

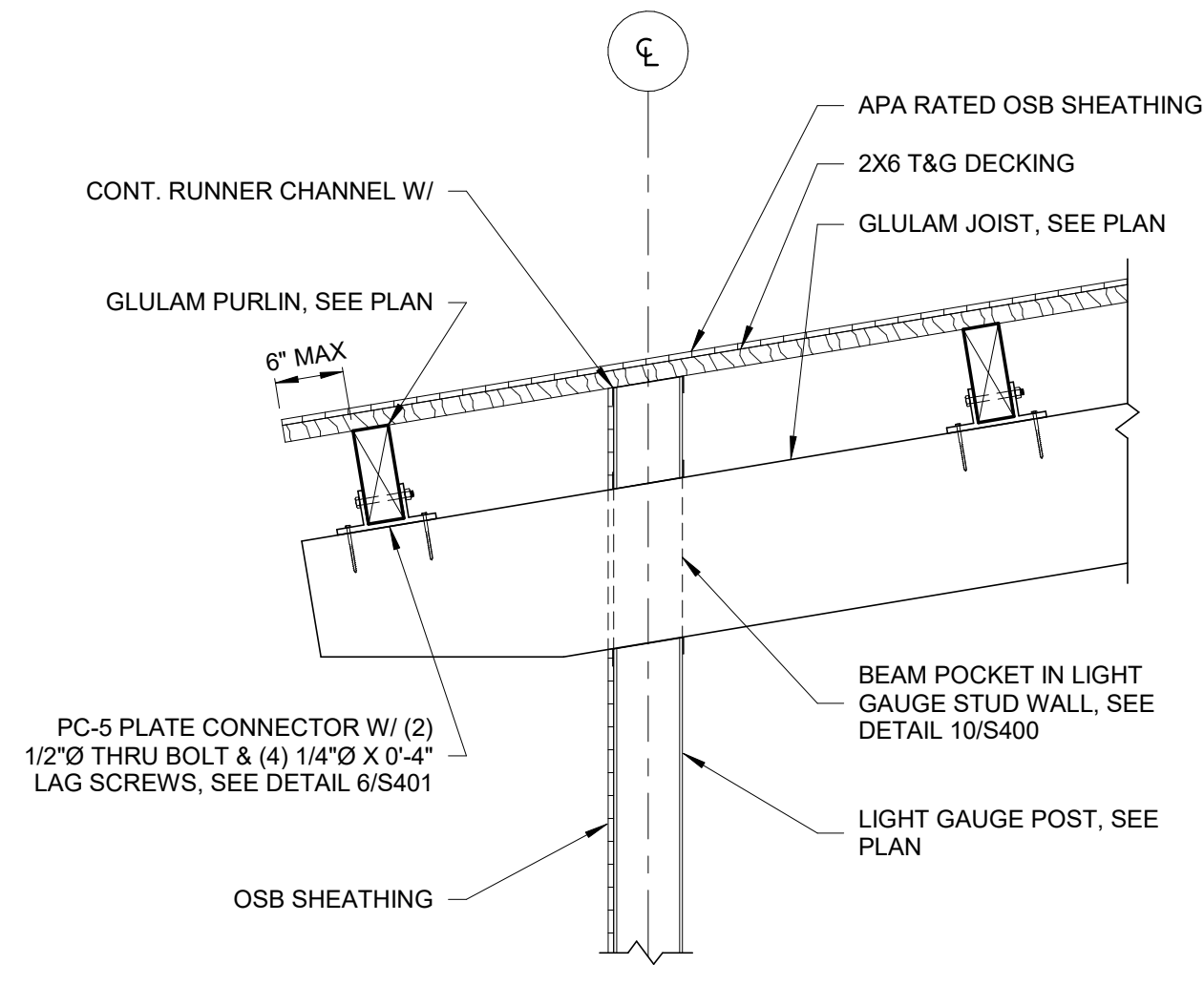
NOTE:  
 1. POUR SLAB BLOCKOUT AFTER FLOOR SLAB HAS CURED AT LEAST 7 DAYS.



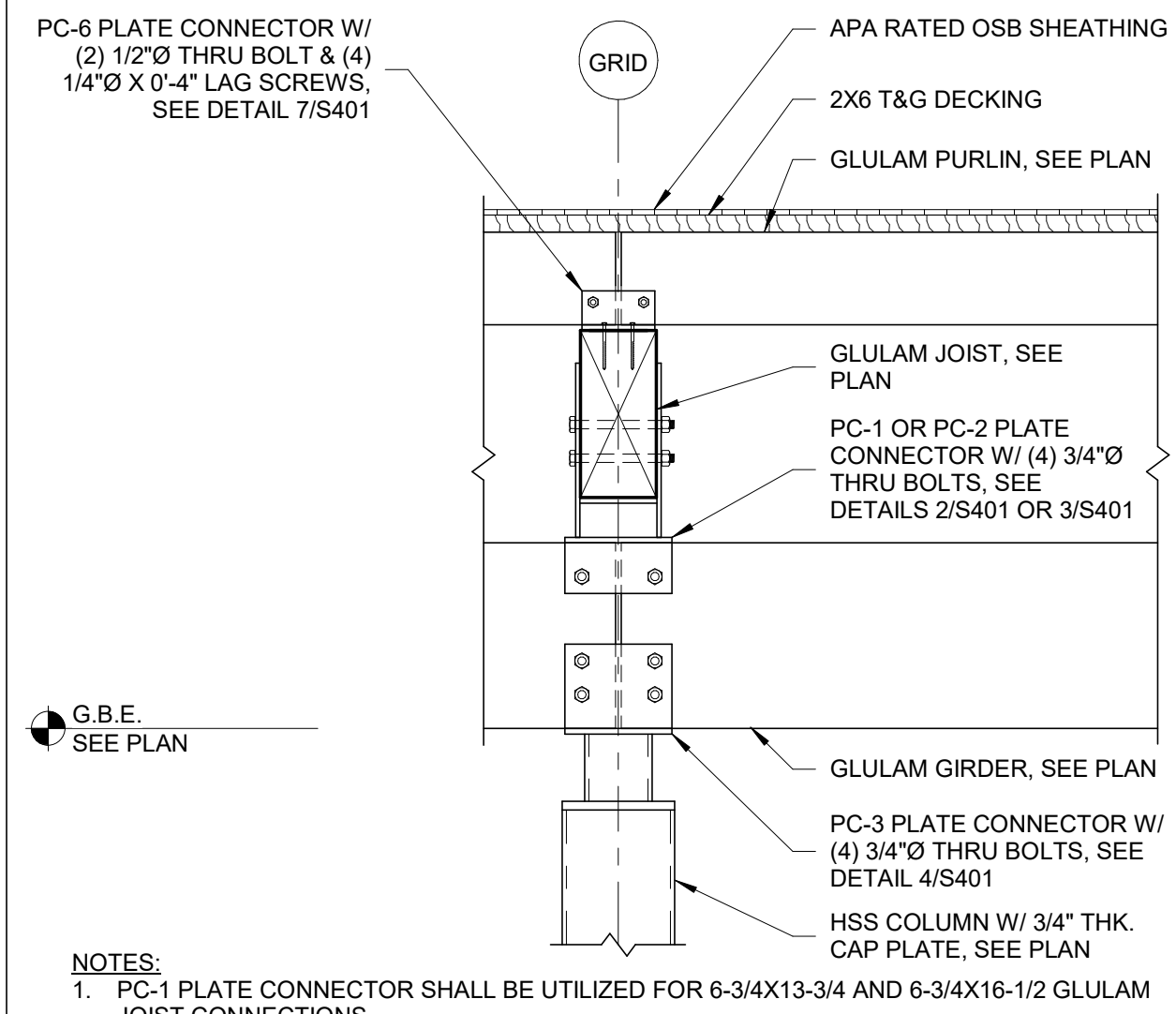
3 TYPICAL COLUMN FOOTING ELEVATION  
 NTS



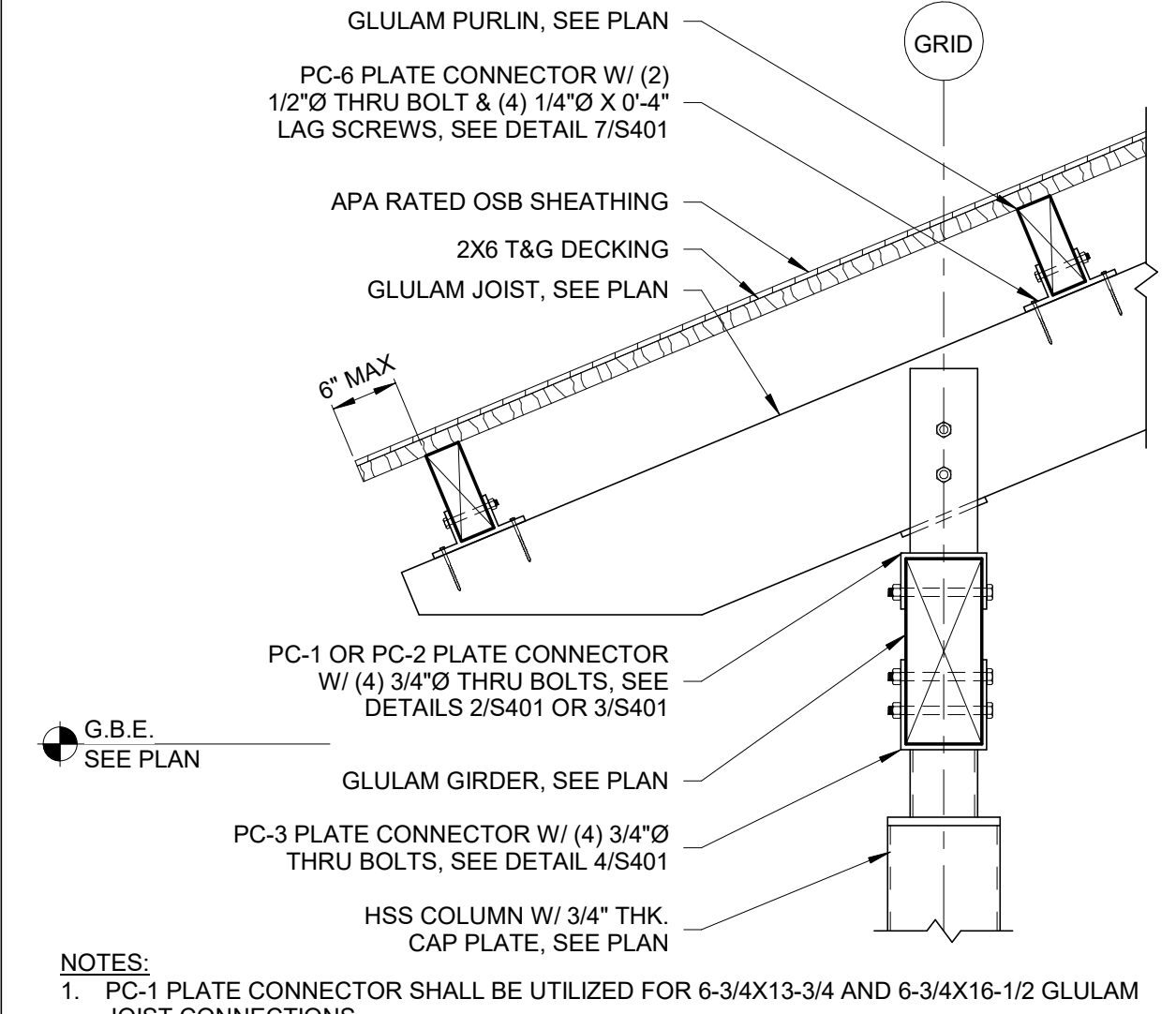
10 BEAM POCKET IN LIGHT GAUGE STUD WALL ELEVATION  
1 1/2" = 1'-0"



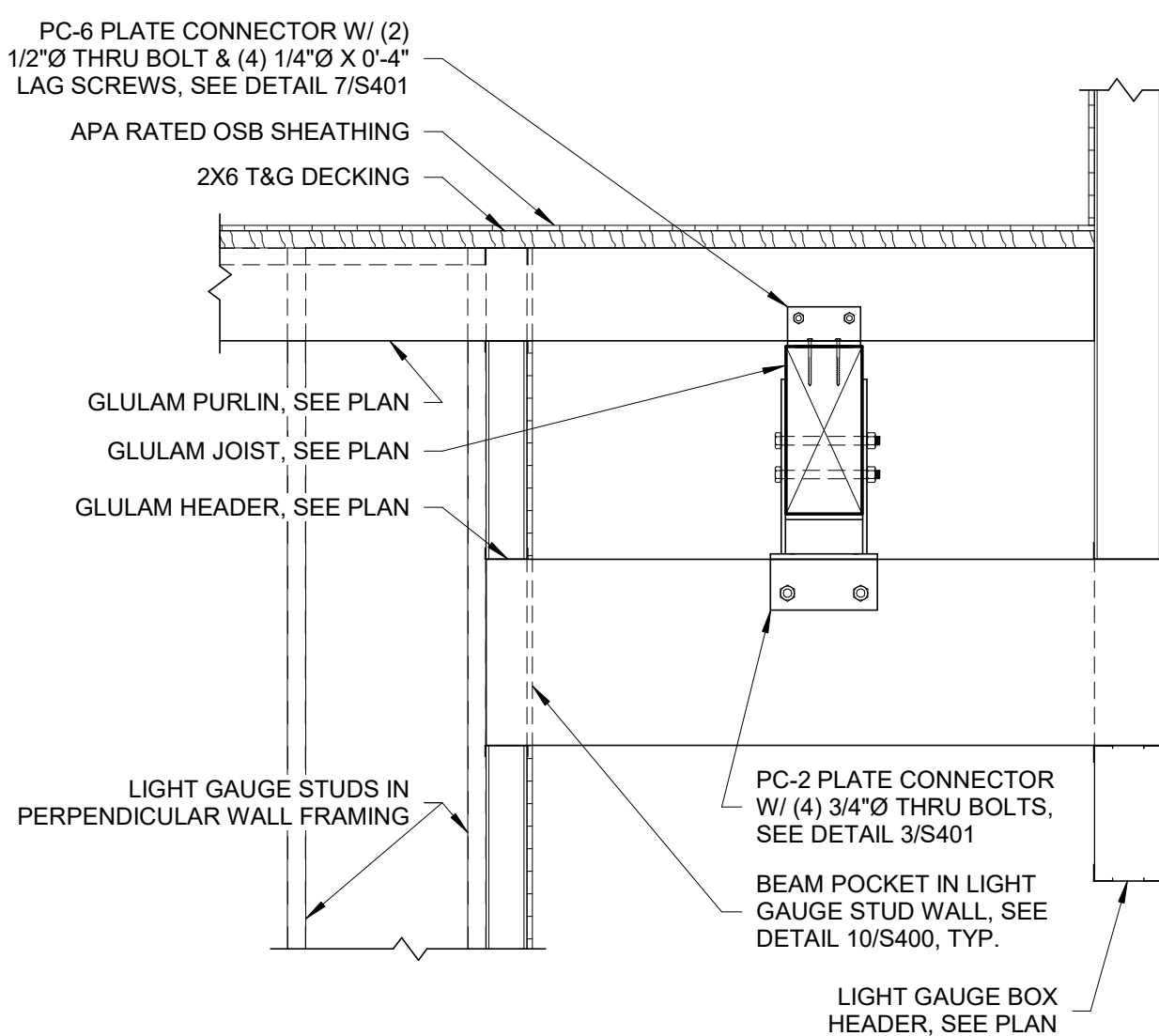
7 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



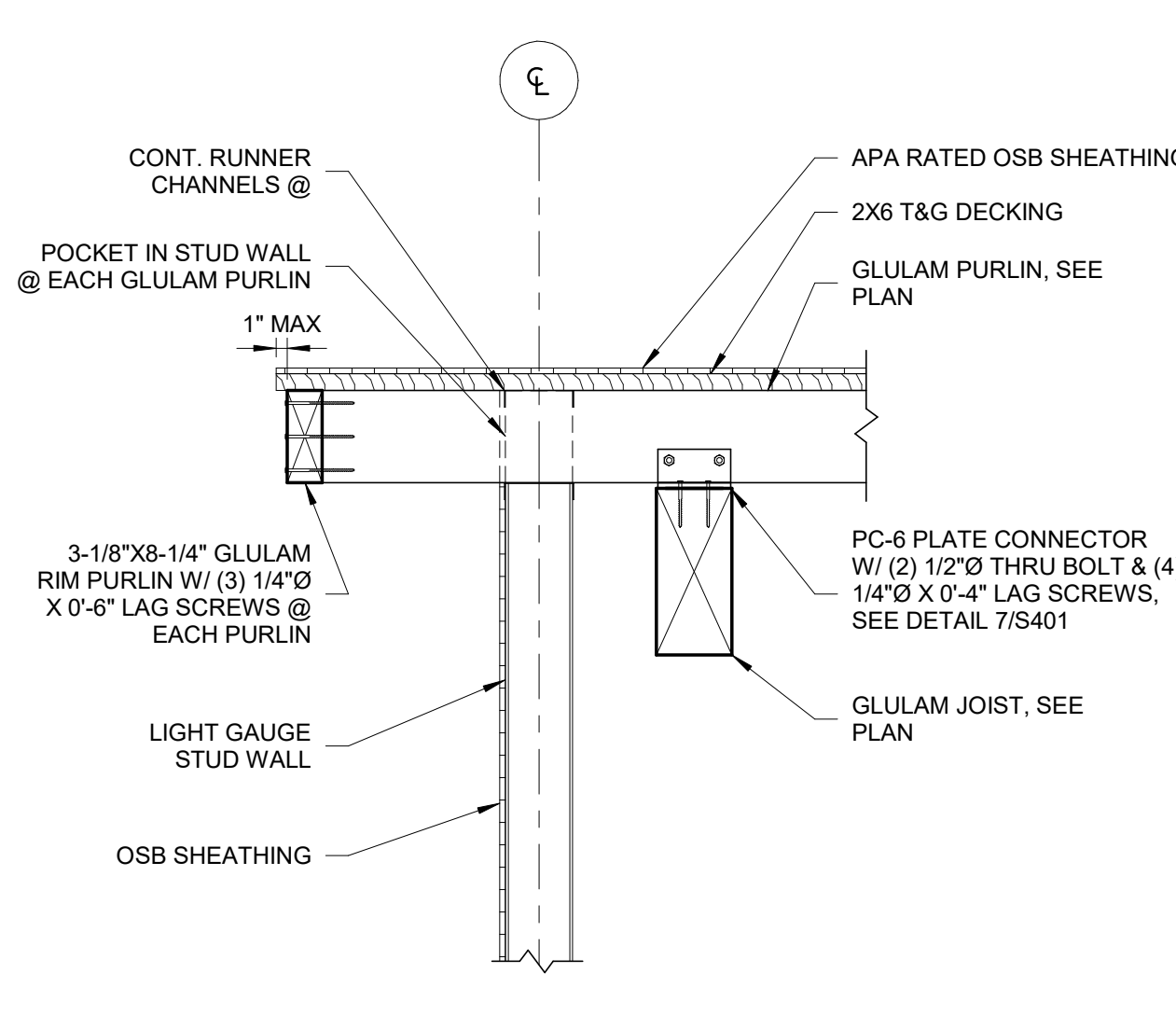
4 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



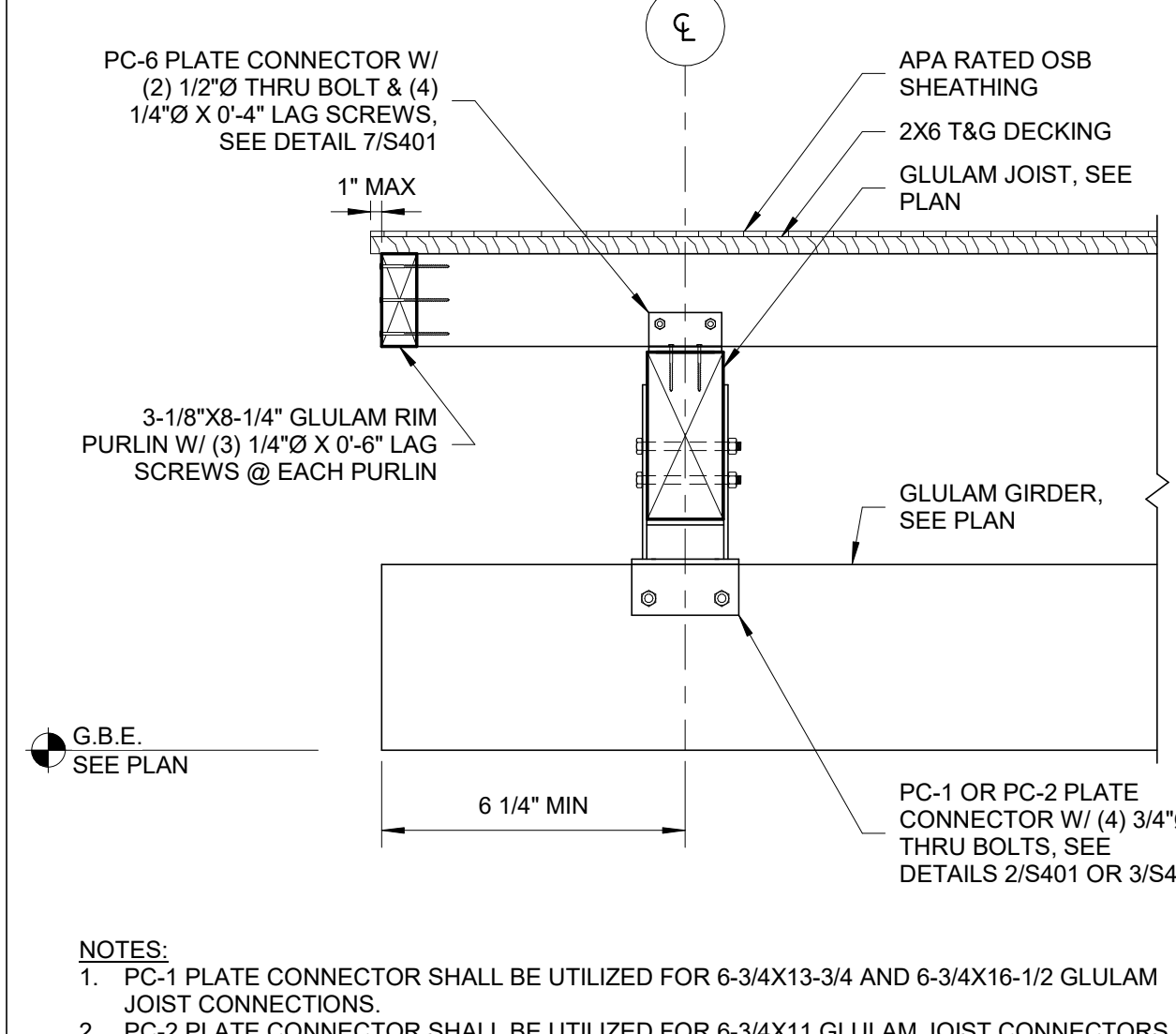
1 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



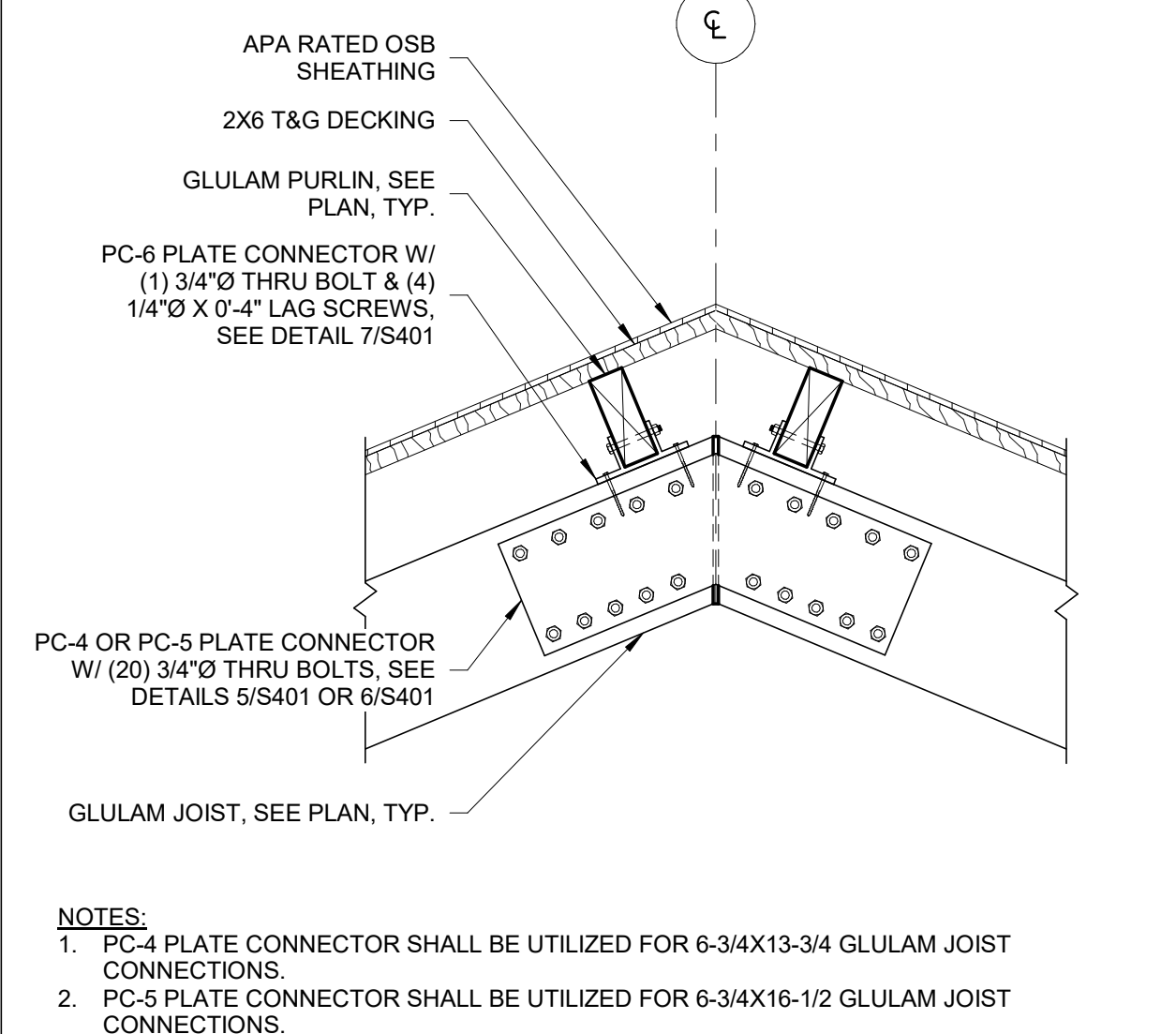
11 GLULAM HEADER ELEVATION  
NTS



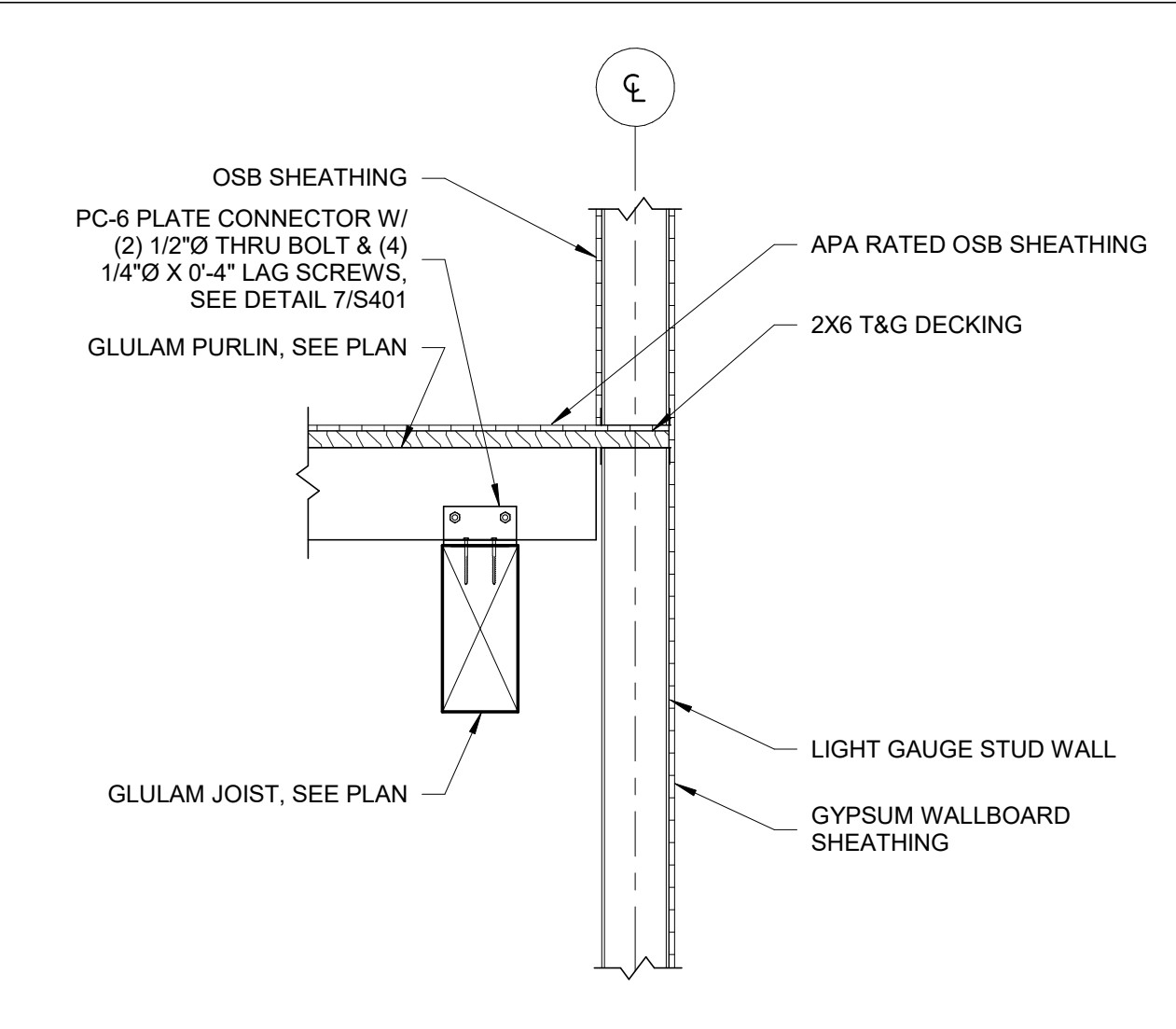
8 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



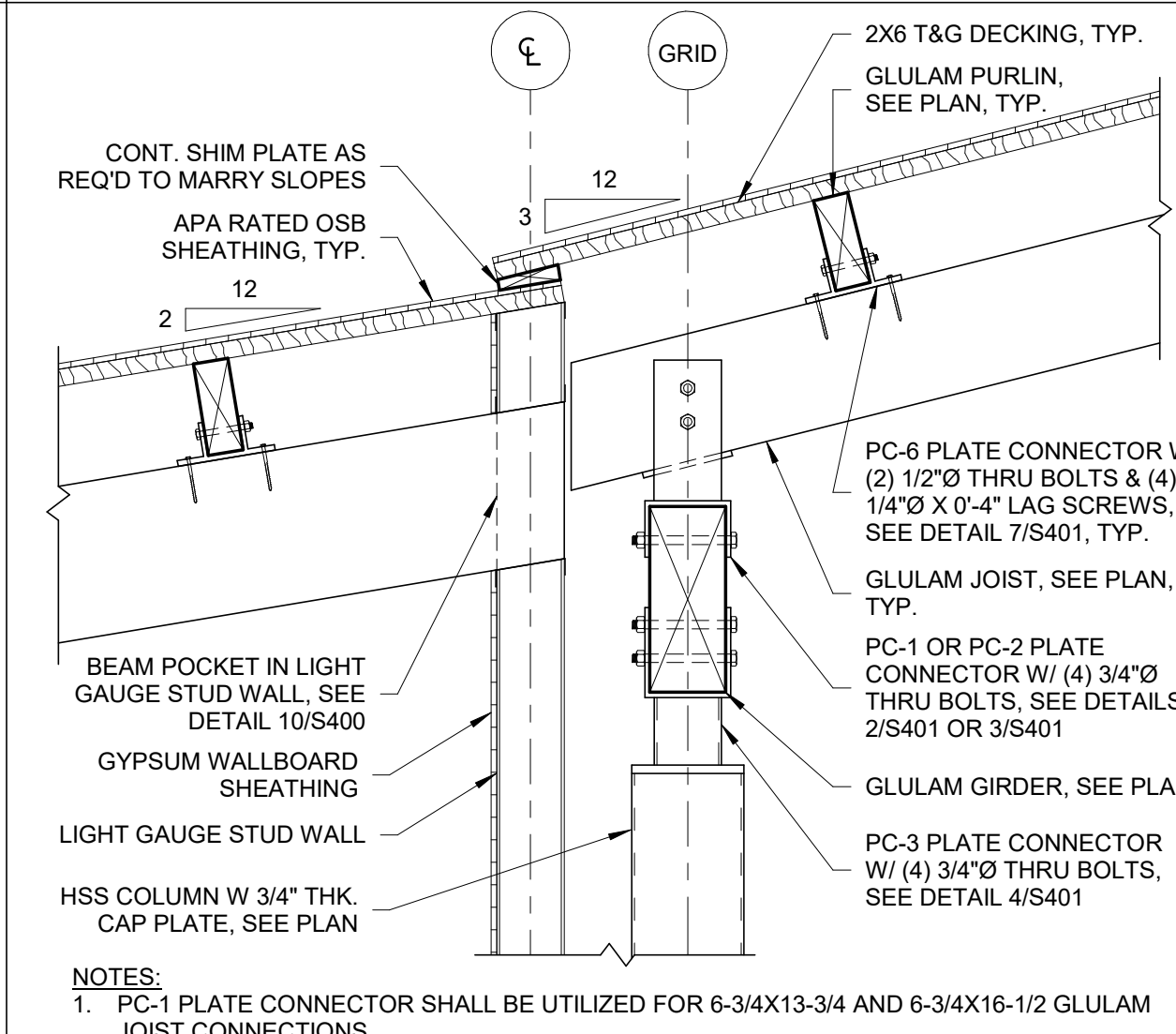
5 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



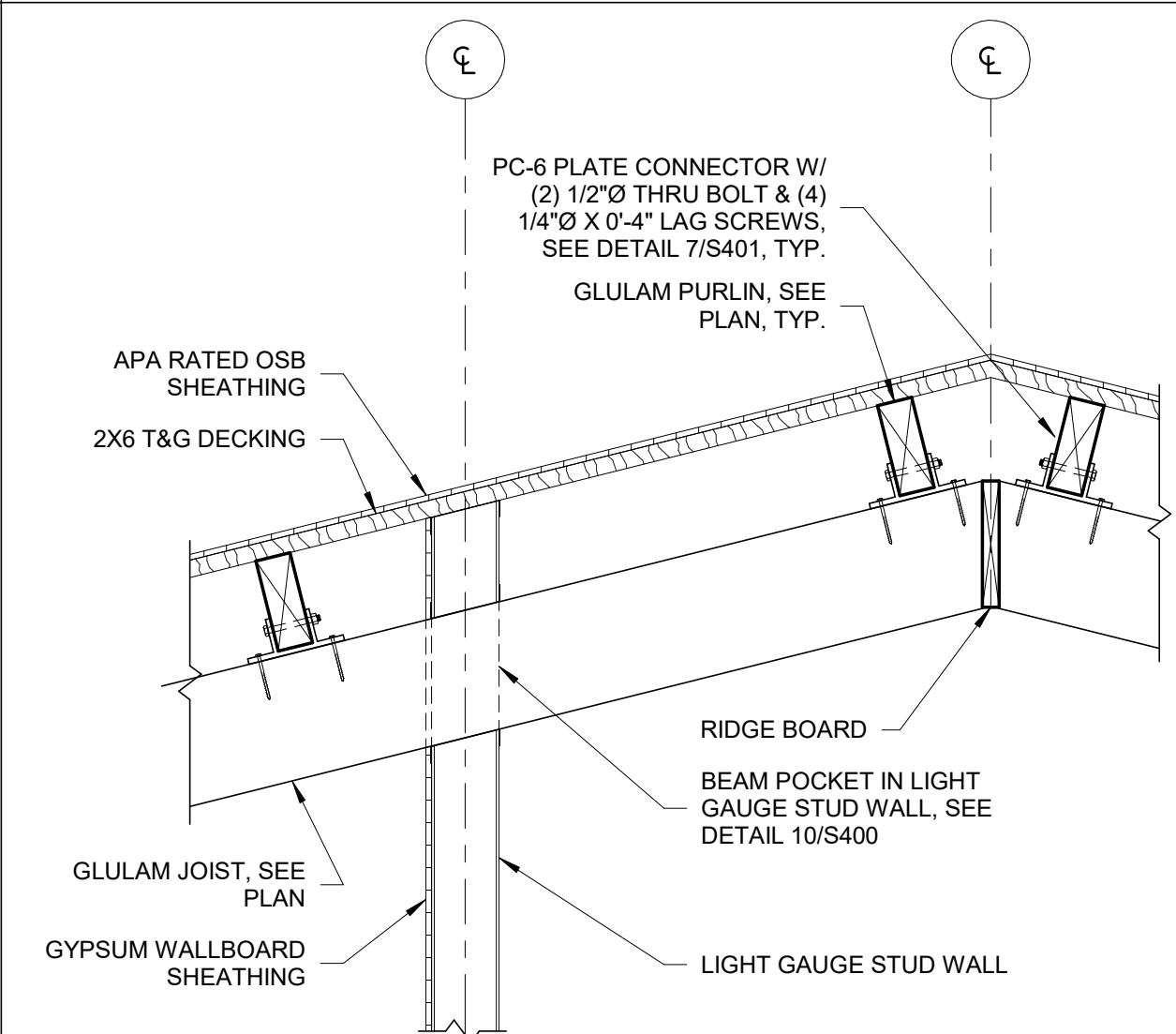
2 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



9 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



6 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"



3 GLULAM ROOF FRAMING SECTION  
3/4" = 1'-0"

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JB
B	ISSUED TO NCDOT	01/22/19	JB
C	ISSUED FOR CONST	02/21/19	JB





## PLUMBING SYMBOLS & ABBREVIATIONS

### ANNOTATION ABBREVIATIONS

A/E	ARCHITECT/ENGINEER	G	GALLON	PC	PLUMBING CONTRACTOR
AC	ABOVE CEILING	GC	GENERAL CONTRACTOR	PD	PRESSURE DROP
AFF	ABOVE FINISHED FLOOR	GCO	GRADE CLEANOUTS	PDI	PLUMBING AND DRAINAGE INSTITUTE
AG	AIR GAP	GD	GARBAGE DISPOSAL	PG	PRESSURE GAUGE
AP	ACCESS PANEL	GPD	GALLONS PER DAY	PPM	PARTS PER MILLION
AFG	ABOVE FINISHED GRADE	GPH	GALLONS PER HOUR	PRV	PRESSURE REDUCING VALVE
ASHRAE	AMERICAN SOCIETY HEATING, REFRIGERATING, AIR CONDITIONING ENGINEERS	GPM	GALLONS PER MINUTE	PSI	POUNDS PER SQUARE INCH
				PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	H&CW	HOT AND COLD WATER	PSIG	POUNDS PER SQUARE INCH GAUGE
		HB	HOSE BIBB (INTERIOR)	PTRV	PRESSURE TEMPERATURE RELIEF VALVE
ASPE	AMERICAN SOCIETY PLUMBING ENGINEERS	HD	HUB DRAIN	PW	POTABLE WATER
		HP	HORSEPOWER		
		HW/CP	HOT WATER CIRCULATING PUMP		
		HYD	HYDRANT		
BF	BELOW FLOOR			SAN	SANITARY SEWER
BFP	BACKFLOW PREVENTER	INW	INVERT	SCFM	STANDARD CUBIC FOOT/MIN
BG	BELOW GRADE	IW	INDIRECT WASTE	SQFT	SQUARE FOOT
BHP	BREAK HORSEPOWER	IWH	INSTANTANEOUS WATER HEATER	SS	STAINLESS STEEL
BOP	BOTTOM OF PIPE	KW	KILOWATT	ST	STORAGE TANK
BSP	BLACK STEEL PIPE	KWH	KILOWATT-HOUR		
BTUH	BRITISH THERMAL UNITS PER HOUR			TCV	TEMPERATURE CONTROL VALVE
				TD	TRENCH DRAIN
C	CELSIUS	L/S	LITER PER SECOND	TDH	TOTAL DYNAMIC HEAD
CF	COMBINATION FIXTURE	LAV	LAVATORY	TDL	TEMPERATURE DIFFERENTIAL
CI	CAST IRON	LW	LOW WATER	TEMP	TEMPERATURE
CO	CLEANOUT			TMV	THERMOSTATIC MIXING VALVE
		M	METER	TP	TRAP PRIMER
DCW	DOMESTIC COLD WATER	MAV	MANUAL AIR VENT	TSSTAT	THERMOSTAT
DHW	DOMESTIC HOT WATER	MBH	THOUSANDS OF BTU PER HOUR	TWR	TEMPERED WATER RETURN
HWR	DOMESTIC HOT WATER RETURN	MC	MECHANICAL CONTRACTOR	TWS	TEMPERED WATER SUPPLY
DF	DRINKING FOUNTAIN	MH	MANHOLE	TYP	TYPICAL
DN	DOWN	MSB	MOP SINK BASIN		
DOE	DEPARTMENT OF ENERGY			V	SANITARY VENT
DS	DOWNSPOUT	NC	NORMALLY CLOSED	VAC	VACUUM
DWG	DRAWING	NIC	NOT IN CONTRACT	VB	VACUUM BREAKER
DWH	DOMESTIC WATER HEATER	NO	NORMALLY OPEN	VS	VENT STACK
DWV	DRAIN WASTE VENT	NOM	NOMINAL	VTR	VENT THROUGH ROOF
		NTS	NOT TO SCALE		
EC	ELECTRICAL CONTRACTOR			W	WASTE
EL	ELEVATION	O2	OXYGEN	WC	WATER CLOSET
EPA	ENVIRONMENTAL PROTECTION AGENCY	OC	ON CENTER	WCO	WALL CLEANOUT
		OD	OUTSIDE DIAMETER	WG	WATER GAUGE
EPACT	ENERGY POLICY ACT	OFD	OVERFLOW DRAIN	WH	WATER HEATER
ESC	ESCUTCHEON			WHA	WATER HAMMER ARRESTOR
ET	EXPANSION TANK			WHD	WALL HYDRANT
				WL	WATER LINE
F	FAHRENHEIT			WM	WATER METER
FA	FROM ABOVE			WPD	WATER PRESSURE DROP
FB	FROM BELOW			WS	WASTE STACK
FBO	FURNISHED BY OTHERS				
FCO	FLOOR CLEANOUT			YCO	YARD CLEANOUT
FD	FLOOR DRAIN			YH	YARD HYDRANT
FPHB	FREEZE-PROOF HOSE BIBB				
FS	FLOOR SINK				
FU	FIXTURE UNITS				

### PLUMBING SYMBOLS

	PIPE SLOPE ARROW
	FLOW ARROW
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	3-WAY CONTROL VALVE
	ANGLE GATE VALVE
	ANGLE GLOBE VALVE
	BALANCING/SHUTOFF VALVE
	BALL VALVE
	BUTTERFLY VALVE
	CALIBRATED BALANCING VALVE
	CHECK VALVE
	CONTROL VALVE
	EXPANSION VALVE
	GAS COCK
	GATE VALVE
	GLOBE VALVE
	PLUG VALVE
	PRESSURE REDUCING VALVE (WATER)
	PRESSURE REGULATOR (GAS)
	QUICK OPEN VALVE
	SAFETY RELIEF VALVE
	SOLENOID VALVE
	VACUUM RELIEF VALVE
	BACKFLOW PREVENTER
	HOSE BIBB / SILLCOCK
	AUTOMATIC AIR VENT
	PRESSURE GAUGE
	THERMOMETER
	FLOW SWITCH
	PRESSURE SWITCH
	TEMPERATURE SWITCH
	PIPE UNION
	WYE STRAINER
	WYE STRAINER W/DRAIN VALVE
	PUMP
	FLOOR DRAIN - ROUND OR SQUARE
	FLOOR CLEANOUT - ROUND OR SQUARE
	SUSPENDED CLEANOUT
	WALL CLEANOUT
	PIPE CAP
	PIPE TURNING DOWN
	PIPE TURNING UP
	TEE UP
	TEE DOWN
	DROP AND RUN
	DROP AND TURN
	TEE OFF TOP
	TEE OFF BOTTOM
	CROSS AND RISER
	PLAN 90° ELBOW
	PIPE TEE
	FLEXIBLE PIPE CONNECTOR
	PIPE ANCHOR
	PIPE GUIDES
	WATER METER

### PLUMBING SYMBOLS

	PIPING SYSTEM
	CONDENSATE DRAIN
	SANITARY WASTE
	SANITARY VENT
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HW RECIRCULATION

	NEW KEYNOTE
<b>NEW</b>	BOLD TEXT INDICATES NEW ITEM
	DETAIL, MODULE NUMBER DETAIL OR SECTION MARK SHOWN ON DRAWING
<b>P-###</b>	PLUMBING EQUIPMENT DESIGNATION

### PLUMBING GENERAL NOTES

- WORK SHALL BE PERFORMED BY A PLUMBING CONTRACTOR LICENSED IN THE STATE OF NORTH CAROLINA.
- MATERIALS, INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF STATE AND LOCAL CODE PROCEDURES, METHODS AND REQUIREMENTS, INCLUDING THE MOST STRINGENT OF HEALTH AND SAFETY STANDARDS AS REQUIRED AND AS INTERPRETED BY THE AUTHORITY HAVING JURISDICTION. SYSTEMS, MATERIALS, AND WORK SHALL COMPLY WITH THE 2012 NORTH CAROLINA PLUMBING CODE, THE 2012 NORTH CAROLINA MECHANICAL CODE, THE 2012 NORTH CAROLINA BUILDING CODE, AND OTHER APPLICABLE LOCAL AND MUNICIPAL CODES AND ORDINANCES.
- DRAWINGS ARE DIAGRAMMATICAL IN NATURE. AS SUCH, THE DRAWINGS DO NOT SHOW ALL RISES, DROPS OR FITTINGS THAT MAY BE REQUIRED. IT IS UNDERSTOOD THAT THE DRAWINGS MUST BE FOLLOWED AS CLOSELY AS CIRCUMSTANCES WILL PERMIT, THE PROPER INSTALLATION ACCORDING TO THE TRUE INTENT AND MEANING OF THE DRAWINGS, LOCAL CODES AND STANDARD PRACTICES SHALL BE PROVIDED. REPORT ANY PROBLEMS OR CONFLICTS TO THE ARCHITECT/ENGINEER. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. ANY MINOR CHANGES IN LOCATION OF EQUIPMENT, WASTE VENT, WATER PIPE, ETC. FROM THOSE LOCATIONS SHOWN ON THE DRAWINGS, SHALL BE MADE WITHOUT EXTRA COST, IF SO DIRECTED BY THE ARCHITECT/ENGINEER BEFORE THE INSTALLATION IS MADE. ANY ADDITIONAL PIPE, FITTING, OR ACCESSORY REQUIRED, EVEN IF NOT SPECIFICALLY MENTIONED HEREIN, SHALL BE PROVIDED WITHOUT CLAIM FOR ADDITIONAL PAYMENT; IT BEING UNDERSTOOD THAT A COMPLETE AND OPERATIONAL PLUMBING SYSTEM, SATISFACTORY TO THE ARCHITECT/ENGINEER AND THE OWNER SHALL BE PROVIDED. USE ONLY THE MANUFACTURER'S TESTED ASSEMBLIES.
- ALL GENERAL NOTES ARE PART OF THIS CONTRACT.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL SERVICES IN BUILDING AND TO 5'-0" BEYOND THE BUILDING CONSTRUCTION LINE. SITE UTILITY CONTRACTOR IS RESPONSIBLE FOR ALL OTHER PIPING.
- COORDINATE ROUTING OF PIPING WITH ALL OTHER TRADES AND STRUCTURAL CONDITIONS.
- MAINTAIN A MINIMUM CLEARANCE OF 3'-0" IN FRONT OF ELECTRICAL PANELS (OR AS REQUIRED BY TYPE OF PANEL AND NEC) AND 1'-0" EITHER SIDE FROM STRUCTURE TO STRUCTURE AND FLOOR TO STRUCTURE. ROUTE PIPING AROUND AND NOT DIRECTLY ABOVE ELECTRICAL PANELS. VERIFY CLEARANCE REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO INSTALLING PIPE.
- INCLUDE IN THE BID ALL LICENSE, PERMIT, INSPECTION AND OTHER FEES REQUIRED BY UTILITY COMPANIES OR AUTHORITIES HAVING JURISDICTION REQUIRED FOR COMPLETION OF WORK.
- PROMPTLY INFORM THE ENGINEER, IN WRITING, OF ANY DEVIATION IN THE CONTRACT DOCUMENTS FROM REQUIREMENTS OF LOCAL UTILITIES, MUNICIPALITIES, STATE OR FEDERAL LAWS AND REGULATIONS.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, ETC. REQUIRED FOR COMPLETE AND FUNCTIONAL SYSTEMS AS SPECIFIED AND INDICATED ON THE DRAWINGS.
- ALL CLEANOUTS, VALVES, AIR CHAMBERS, ETC. ARE TO BE ACCESSIBLE. EXTEND PIPING AND PROVIDE ACCESS PANELS AS NECESSARY. PLUMBING CONTRACTOR WILL BE REQUIRED TO DEMONSTRATE ACCESSIBILITY IF IT IS QUESTIONABLE. ACCESS PANEL SIZES, LOCATIONS, AND FINAL COLOR SHALL BE COORDINATED WITH THE ARCHITECT AS WELL AS ALL OTHER TRADES TO AVOID ANY CONFLICTS. ACCESS PANELS SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR INSTALLATION BY THE GENERAL CONTRACTOR.
- DURING CONSTRUCTION PROCEDURES, THE ENTIRE WORK AREA SHALL BE CLEAN OF ALL DUST, DIRT AND OTHER DEBRIS BEFORE APPLICATION OF ANY NEW MATERIALS.
- ALL VALVES IN CORRIDORS SHALL BE LOCATED A MINIMUM OF 1'-0" AWAY FROM WALLS UNLESS NOTED OTHERWISE. VALVES SHALL NOT BE LOCATED OVER INACCESSIBLE CEILING UNLESS ADEQUATE ACCESS IS PROVIDED.
- FURNISH AND INSTALL BALL TYPE SHUTOFF VALVES IN ALL DOMESTIC WATER BRANCH PIPING OFF OF THE MAINS, RISERS, AND IN ALL BRANCH PIPING TO EACH SEPARATE ROOM TO PERMIT WATER SUPPLY SHUT OFF WITHOUT INTERFERING WITH ANY OTHER ROOM OR PORTION OF BUILDING. THESE VALVES SHALL BE FURNISHED AND INSTALLED EVEN IF NOT SHOWN ON THE DRAWINGS.
- SANITARY WASTE PIPING SHALL BE SLOPED AT 1/8-INCH PER FOOT MINIMUM FOR ALL PIPING 4-INCH AND LARGER AND AT 1/4-INCH PER FOOT MINIMUM FOR ALL PIPING 3-INCH AND SMALLER.
- INDIRECT WASTE FROM FIXTURES AND SPECIALTIES, AND EQUIPMENT DRAIN LINES TERMINATING AT FLOOR DRAINS, OR APPROVED RECEPTACLES SHALL HAVE A MINIMUM 2" AIR GAP. SUPPORT PIPING SO INDIRECT WASTE CANNOT BE DEFLECTED FROM DRAIN OPENING.
- ALL VENTS FROM HORIZONTAL SOIL OR WASTE PIPE SHALL COME OFF TOP OR AT 45 DEGREE VERTICALLY FROM CENTER OF PIPE BEFORE OFFSETTING HORIZONTALLY TO RISER.
- ALL VENT TERMINATIONS SHALL BE COORDINATED WITH BUILDING OPENINGS, AIR INTAKES AND AIR EXHAUST OPENINGS, ADJUST VENT THROUGH ROOF LOCATIONS TO COMPLY WITH APPLICABLE CODE AND TO BE IN THE LEAST VISIBLE EXTERIOR VIEWPOINT.
- SUPPORT ALL NEW PIPING AND EQUIPMENT FROM STRUCTURE ABOVE AS REQUIRED, EXCEPT IN MECHANICAL SPACES PIPING MAY BE SUPPORTED FROM FLOOR IF MORE PRACTICAL THAN SUPPORTING IT FROM STRUCTURE ABOVE. PLUMBING CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTAL STEEL TO SPAN BETWEEN PRIMARY BUILDING STRUCTURAL MEMBERS. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE DESIGN OF SUPPLEMENTAL STEEL AND PIPE SUPPORTS, INCLUDING REACTION LOADS TO PRIMARY BUILDING STRUCTURAL MEMBERS.
- PLUMBING CONTRACTOR SHALL PROVIDE NAIL PLATES WHERE PIPING PASSES THROUGH STUD(S) WITHIN 2" OF NAILING SURFACE TO PROTECT PIPE FROM NAILS OR DRYWALL SCREWS.
- PLUMBING CONTRACTOR SHALL INSTALL APPROVED WATER HAMMER ARRESTORS IN WATER LINES, BOTH HOT AND COLD, SERVING BATTERY AND BACK TO BACK FIXTURE INSTALLATIONS IN PIPE SPACE AND PIPE CHASES. WATER HAMMER ARRESTORS SHALL BE ACCESSIBLE.
- PLUMBING CONTRACTOR SHALL INSTALL HOT WATER DISTRIBUTION LOOP AND BRANCH SUPPLY PIPING AS CLOSE AS POSSIBLE TO THE HOT WATER INLET SIDE OF POINT OF USE THERMOSTATIC MIXING VALVE, INCLUDING FIXTURES WITH INTEGRAL MIXING VALVES, SO THAT THERE IS NO MORE THAN 10 LINEAR FEET DISTANCE. THIS SHALL BE IN SINGLE FIXTURE APPLICATIONS. IN MULTIPLE FIXTURE APPLICATIONS BATTERED IN WALL OR PIPE CHASES, THE HOT WATER SUPPLY PIPING SHALL BE AS CLOSE AS REASONABLY POSSIBLE TO THE FIXTURE CONNECTIONS.
- ALL P-TRAPS FOR FLOOR DRAINS AND FLOOR SINKS SHALL BE DEEP SEAL TRAP FILLED WITH VEGETABLE OIL. 2" TRAPS SHALL HAVE A 4" MINIMUM WATER SEAL, 3" AND LARGER SHALL HAVE A 5" WATER SEAL.
- PLUMBING CONTRACTOR SHALL INSTALL, TEST, AND FIELD BALANCE APPROVED EQUIPMENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
- PROVIDE DISCONNECT SWITCHES OR MAGNETIC MOTOR STARTERS FOR ALL DIVISION 22 EQUIPMENT. MAGNETIC MOTOR STARTERS SHALL COMPLY WITH SPECIFICATION SECTION 26 29 13. COORDINATE WITH DIVISION 26. REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 N. Church Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**Apogee Consulting Group, P.A.**  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com 919-688-7420

**APOGEE**  
Engineers | Architects

**PROFESSIONAL SEAL**  
PAUL L. HOLLOMAN  
REGISTERED PROFESSIONAL ENGINEER  
NO. 47721  
EXPIRES 12/31/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME

DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	
B	ISSUED FOR NCDOT	01/22/19	PLH	
C	ISSUED FOR CONST.	02/21/19	PLH	

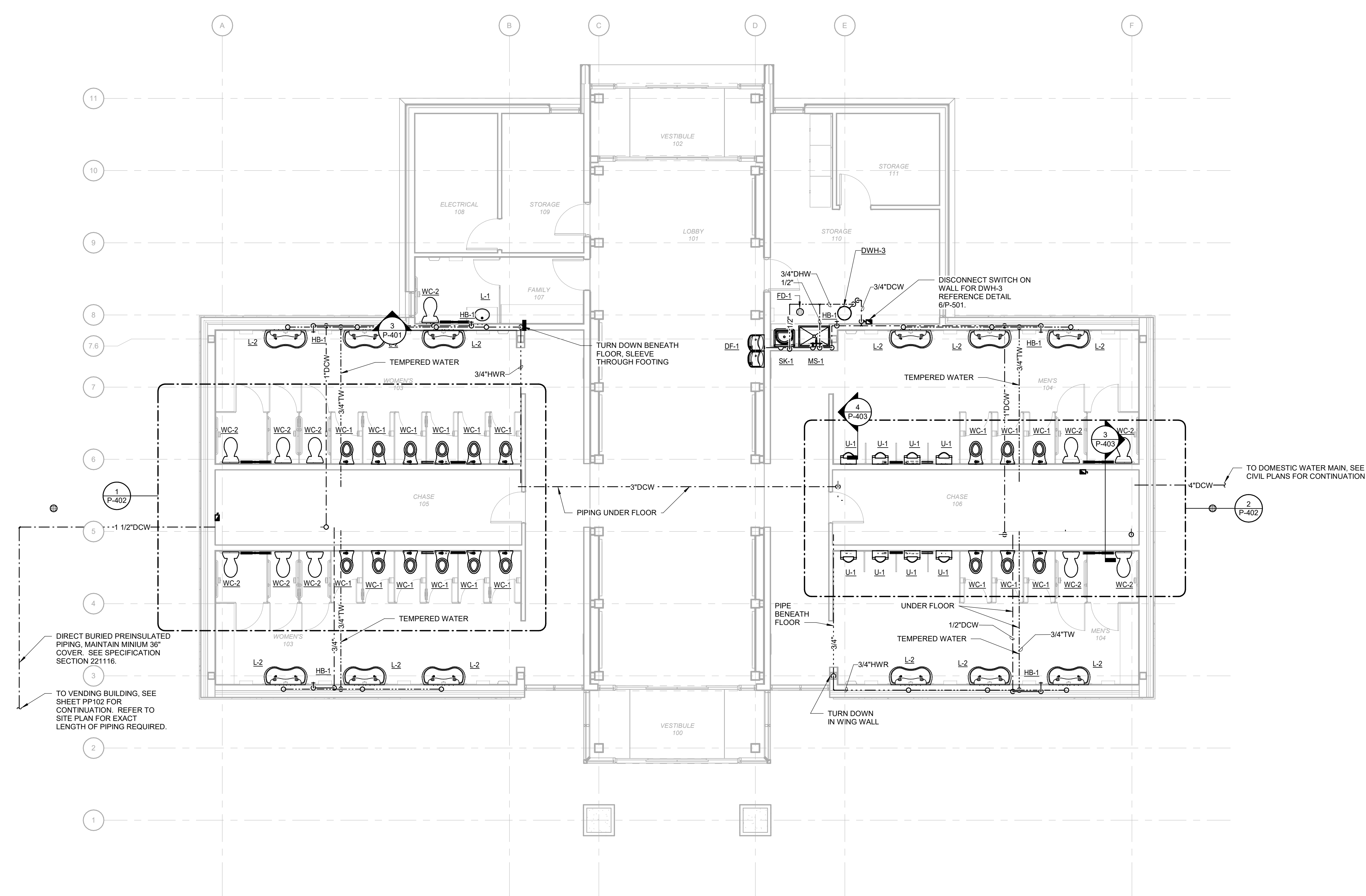
NCDOT PROJECT #1-4400C

**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732

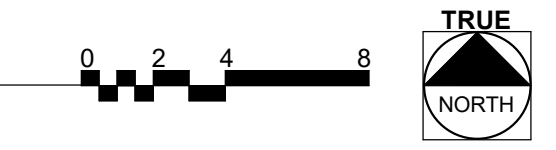
**PLUMBING GENERAL INFORMATION**

PROJECT NO.  
**18-0129.021**

SHEET NO.  
**P-001**



**1 DOMESTIC WATER RESTROOM PLAN**  
Scale: 3/16" = 1'-0"



**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively inspired - Technically Executed  
1110 Navaho Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**Apogee Consulting Group, P.A.**  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
Architects | Engineers | Architects | Interior Designers  
919-888-7420  
www.apogeeinc.com

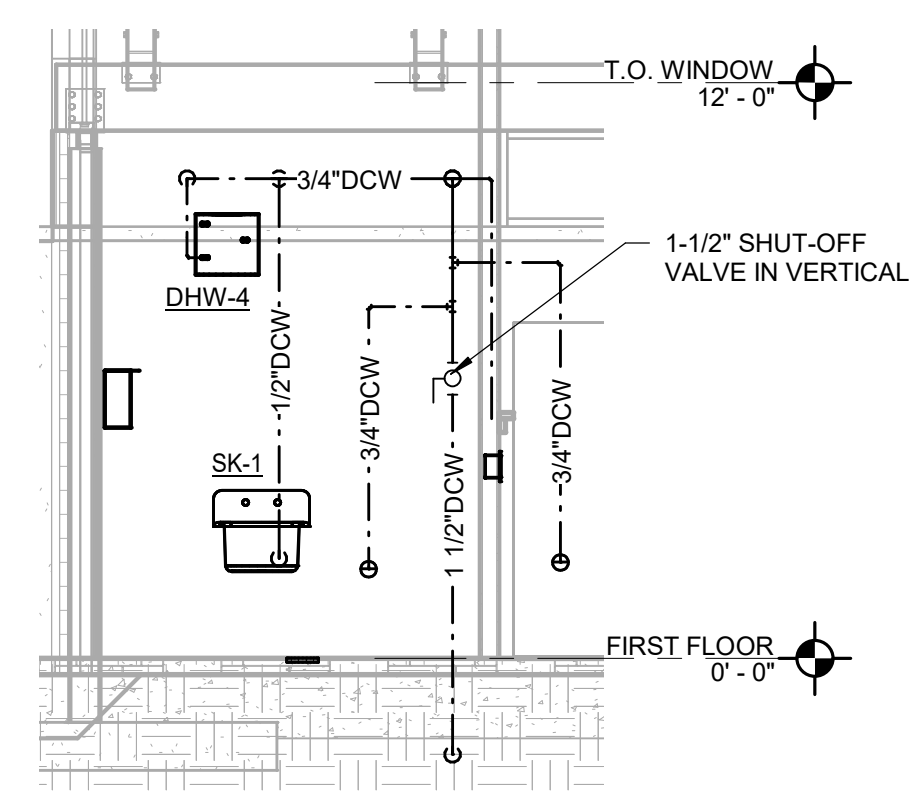
**APOGEE**  
NORTH CAROLINA PROFESSIONAL ENGINEER  
PAUL L. HOLLOWAY  
47721  
02/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

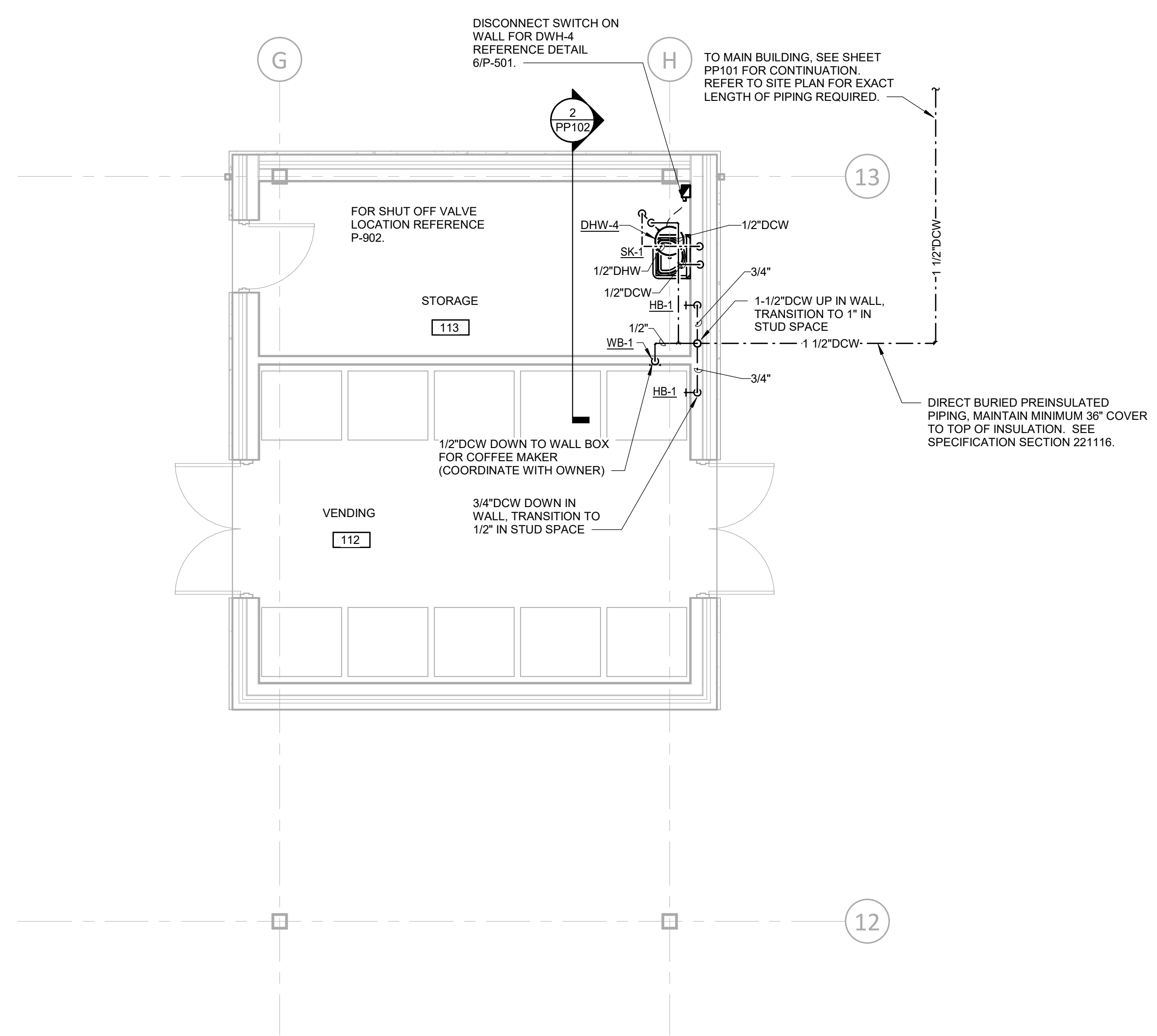
NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**DOMESTIC WATER RESTROOM PLAN**

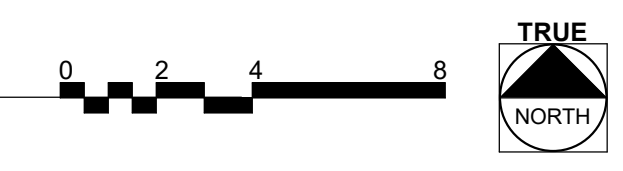
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**PP101**



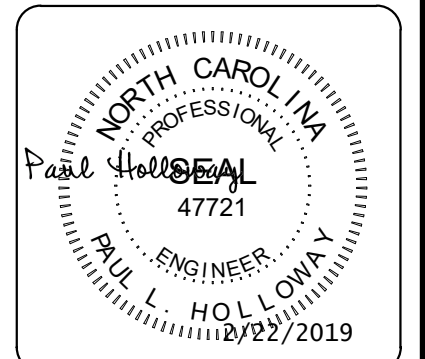
**2 SECTION THROUGH STORAGE 113**  
Scale: 1/4" = 1'-0"



**1 DOMESTIC WATER VENDING PLAN**  
Scale: 1/4" = 1'-0"



**Apogee Consulting Group, P.A.**  
1151 Kildine Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com  
919-888-7420

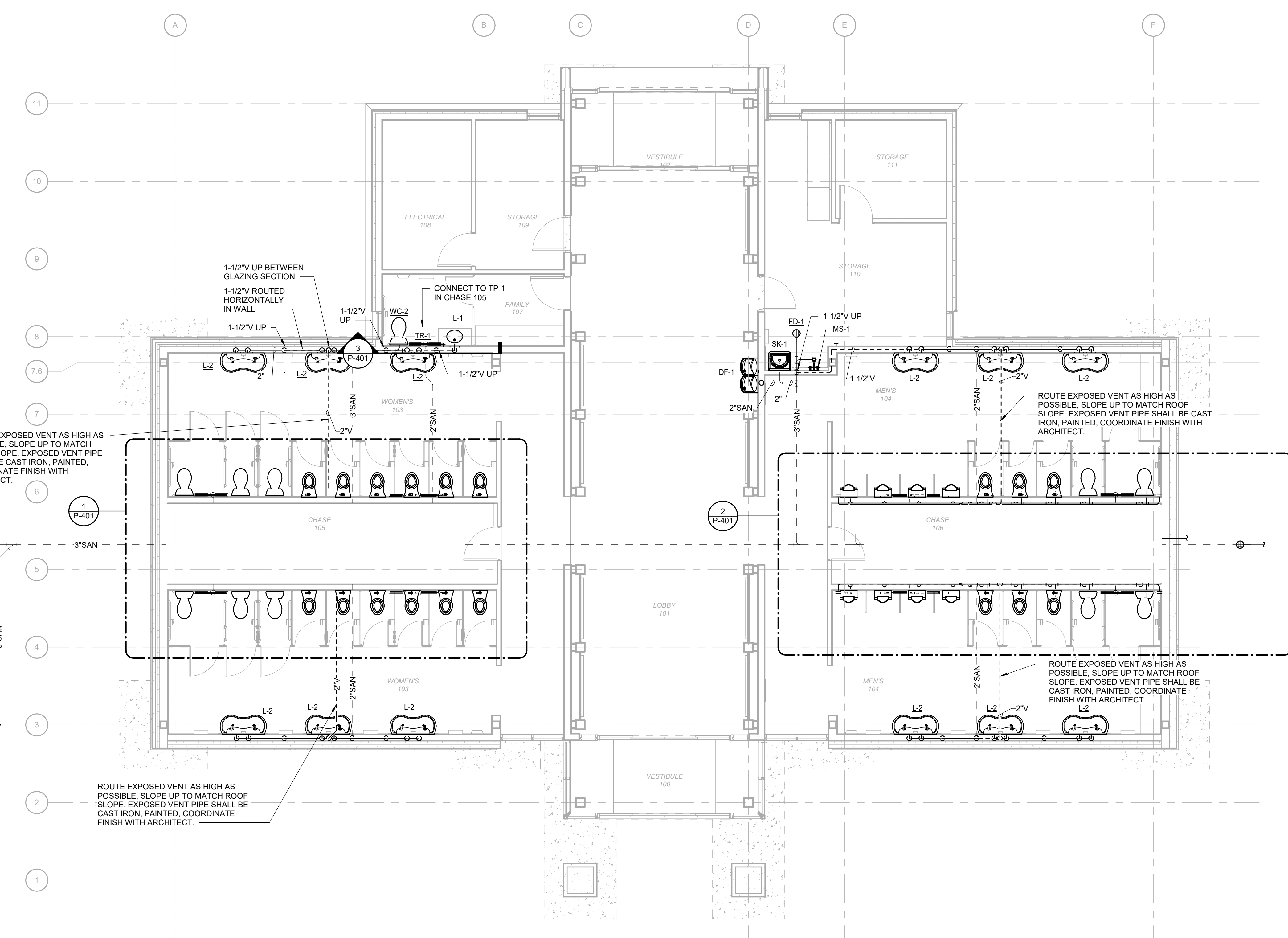


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**DOMESTIC WATER VENDING PLAN**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**PP102**



ROUTE EXPOSED VENT AS HIGH AS POSSIBLE. SLOPE UP TO MATCH ROOF SLOPE. EXPOSED VENT PIPE SHALL BE CAST IRON, PAINTED, COORDINATE FINISH WITH ARCHITECT.

EXTERIOR CLEANOUT. COORDINATE WITH SITE PLAN. DO NOT INSTALL CLEANOUT IN SIDEWALK

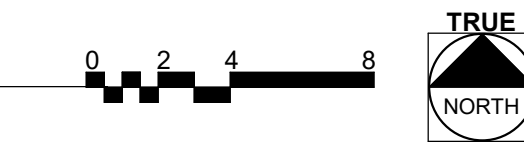
3\"/>

ROUTE EXPOSED VENT AS HIGH AS POSSIBLE. SLOPE UP TO MATCH ROOF SLOPE. EXPOSED VENT PIPE SHALL BE CAST IRON, PAINTED, COORDINATE FINISH WITH ARCHITECT.

ROUTE EXPOSED VENT AS HIGH AS POSSIBLE. SLOPE UP TO MATCH ROOF SLOPE. EXPOSED VENT PIPE SHALL BE CAST IRON, PAINTED, COORDINATE FINISH WITH ARCHITECT.

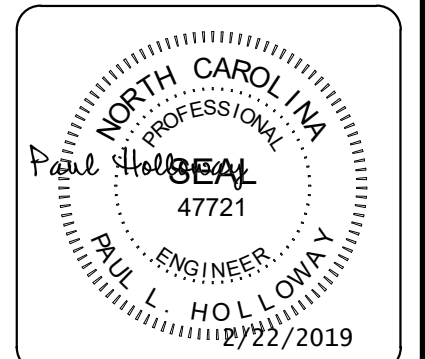
ROUTE EXPOSED VENT AS HIGH AS POSSIBLE. SLOPE UP TO MATCH ROOF SLOPE. EXPOSED VENT PIPE SHALL BE CAST IRON, PAINTED, COORDINATE FINISH WITH ARCHITECT.

**1 WASTE AND VENT RESTROOM PLAN**  
Scale: 3/16" = 1'-0"



**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Navaho Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

Apogee Consulting Group, P.A.  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
Engineers | Architects www.apogee.com 919-885-7420

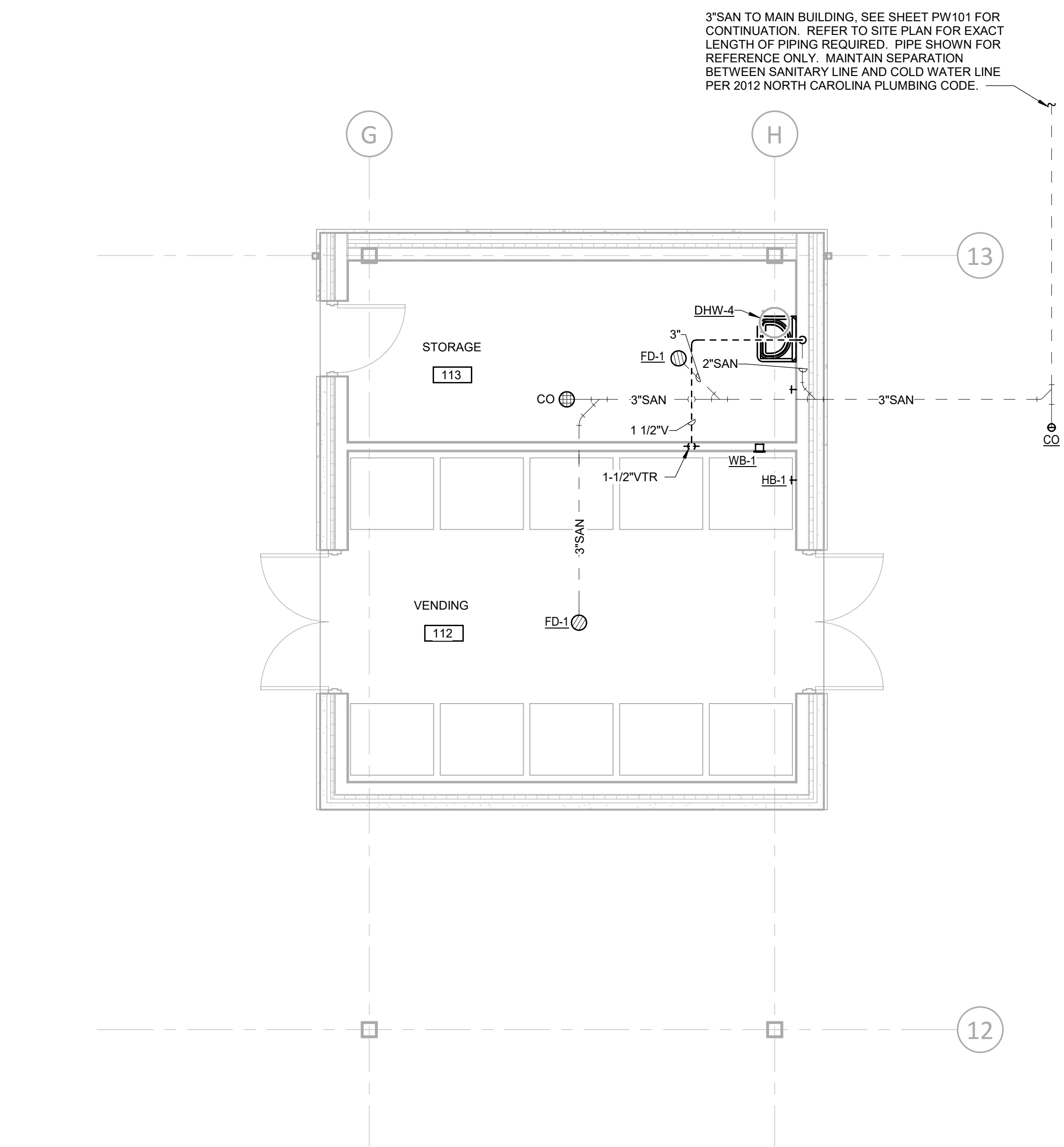


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

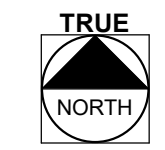
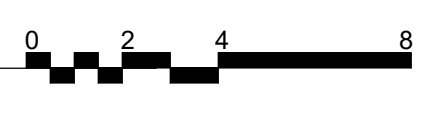
NO	REVISIONS	BY	DATE
A	ISSUED TO SCO	PLH	11/16/18
B	ISSUED FOR NCDOT	PLH	01/22/19
C	ISSUED FOR CONST.	PLH	02/21/19

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**WASTE AND VENT RESTROOM PLAN**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**PW101**

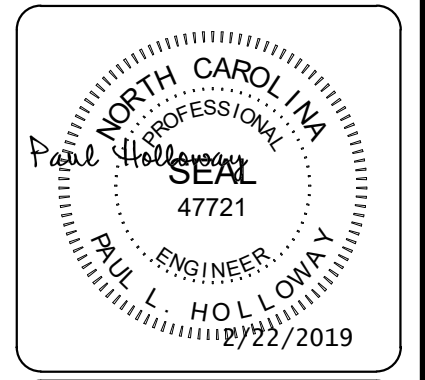


**1** DRAIN, WASTE, AND VENT VENDING PLAN  
 Scale: 1/4" = 1'-0"



**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 Creatively Inspired - Technically Executed  
 1110 Newcho Drive, Suite 600  
 Raleigh, NC 27609  
 Voice: (919) 322-0115 Fax: (919) 322-0116  
 www.summitde.net

**Apogee Consulting Group, P.A.**  
 1151 Kildine Farm Road, Suite 120  
 Cary, North Carolina 27511  
 NC License #C-1848  
**APOGEE** Engineers | Architects  
 www.apogee.com 919-888-7420

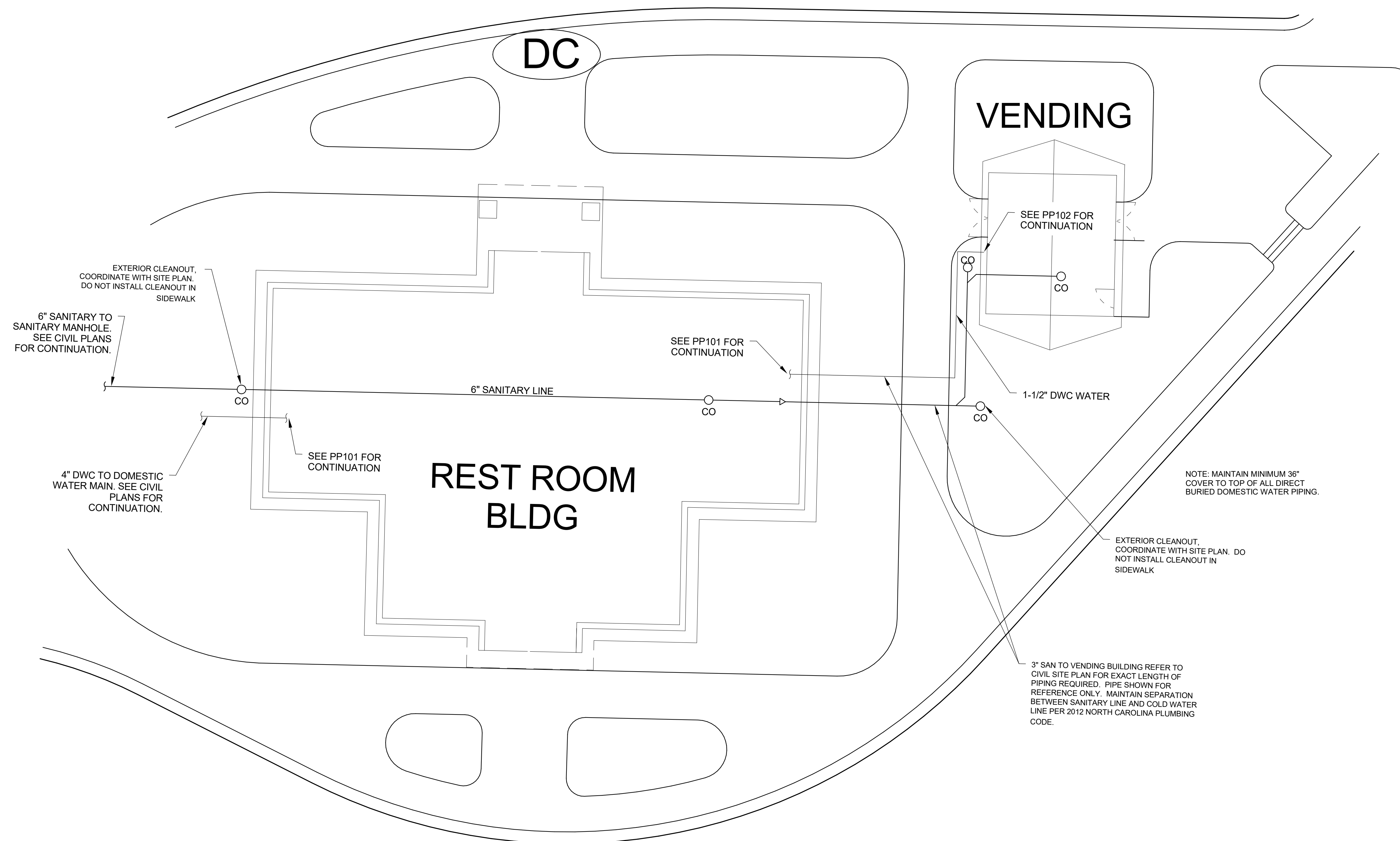


ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED  
 PROJECT MANAGER  
 JOSEPH A. ANGELL II, PE, F. SAME  
 DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

NO	REVISIONS	DATE	BY
A	ISSUED TO SGO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**DRAIN, WASTE, AND VENT VENDING PLAN**

PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**PW102**



**1 PLUMBING SITE PLAN**  
Scale: No Scale

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Newcho Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**APOGEE**  
Engineers | Architects  
Apogee Consulting Group, P.A.  
1151 Kildine Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com 919-885-7420

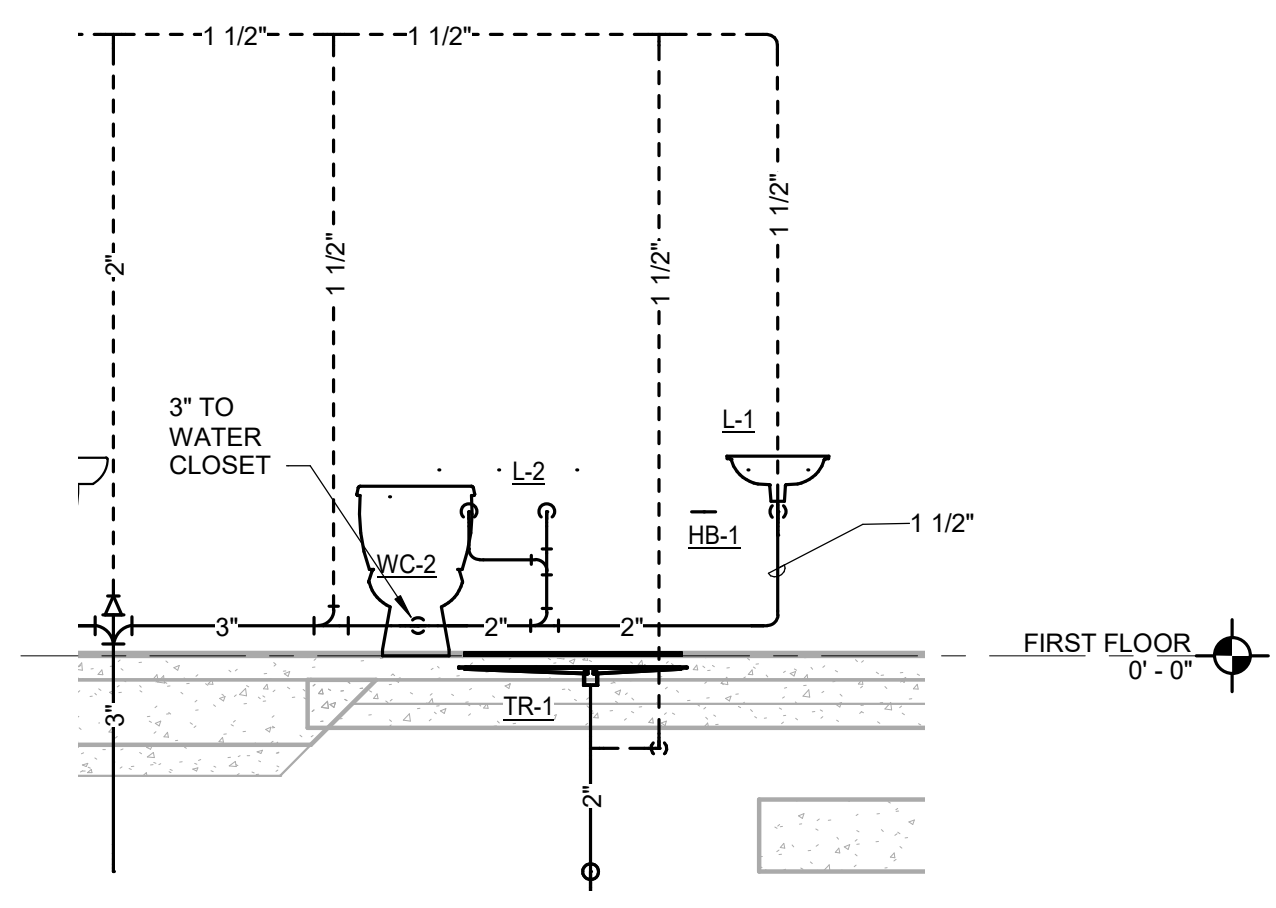
**PAUL L. HOLLOWAY**  
Professional Engineer  
No. 47721  
02/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH FIRST ISSUE DATE 11/02/18

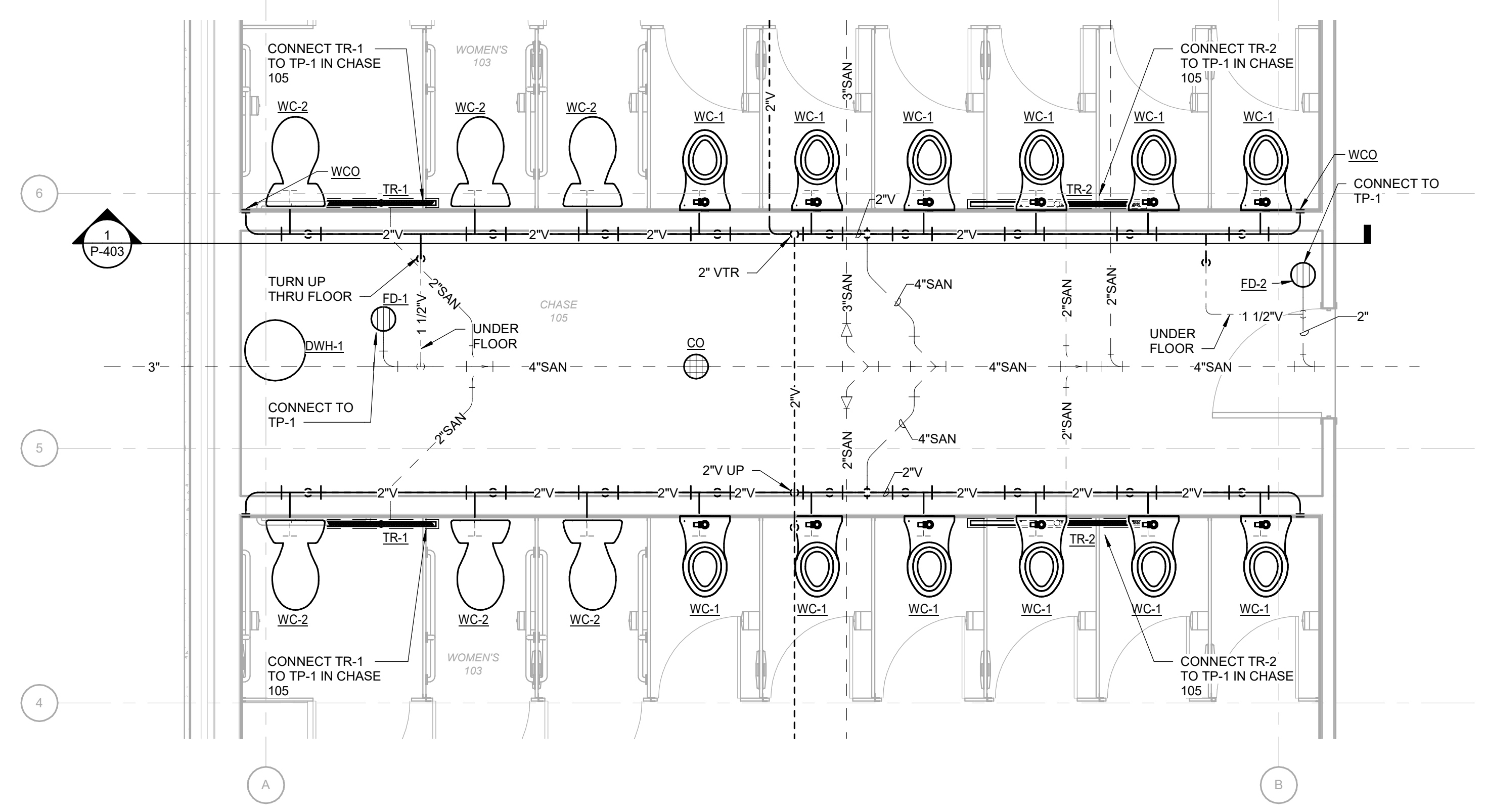
NO	REVISIONS	DATE	BY
A	ISSUED TO SGO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**PLUMBING SITE PLAN**

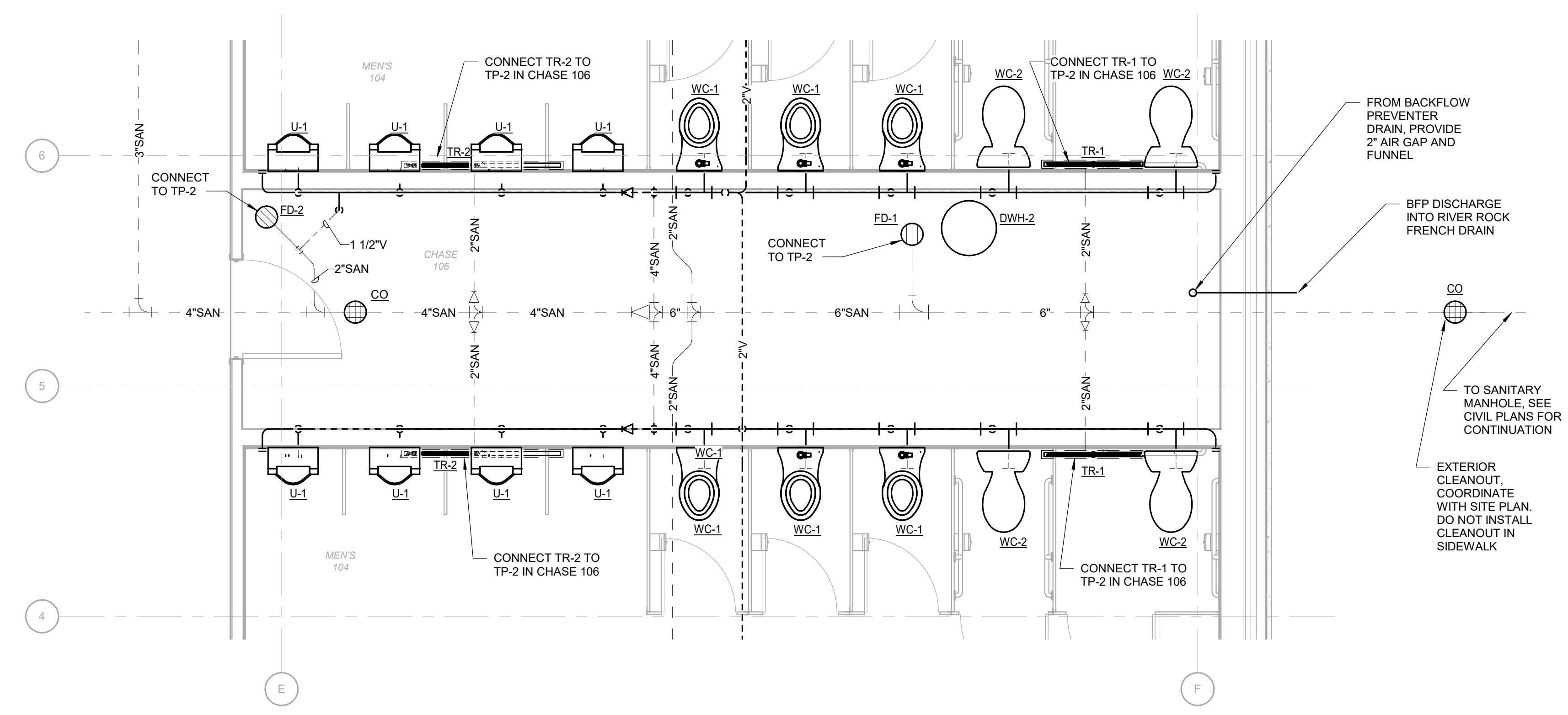
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**PS101**



**3 FAMILY ROOM 107 WASTE PIPING**  
Scale: 3/8" = 1'-0"



**1 CHASE 105 ENLARGED FLOOR PLAN - DRAIN, WASTE, AND VENT**  
Scale: 3/8" = 1'-0"



**2 CHASE 106 ENLARGED FLOOR PLAN - DRAIN, WASTE AND VENT**  
Scale: 3/8" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Newchico Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

Apogee Consulting Group, P.A.  
1151 Kilahe Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
Engineers | Architects www.apogee.com 919-888-7420

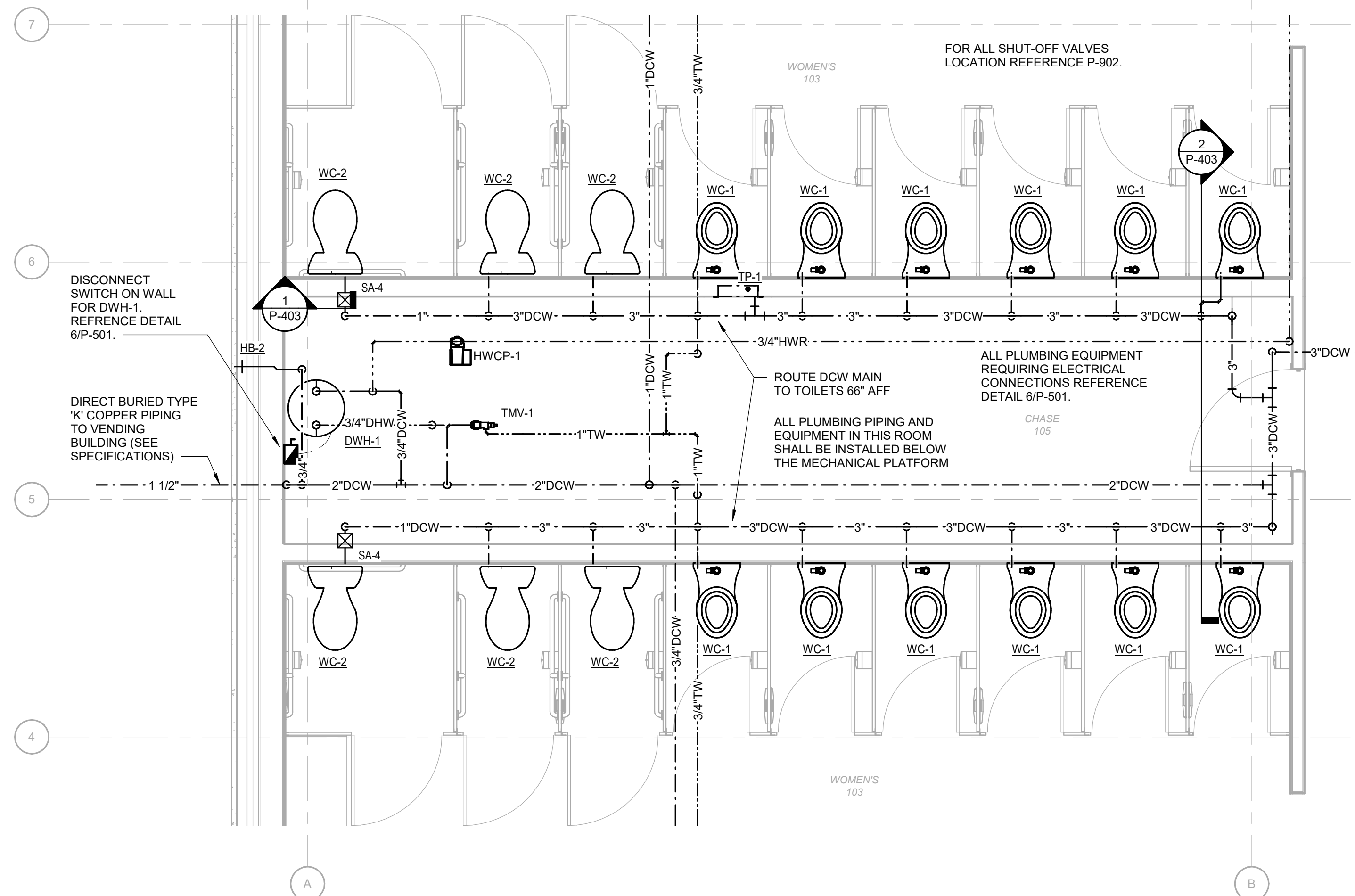
NORTH CAROLINA  
PROFESSIONAL  
ENGINEER  
PAUL L. HOLLOWAY  
47721  
02/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

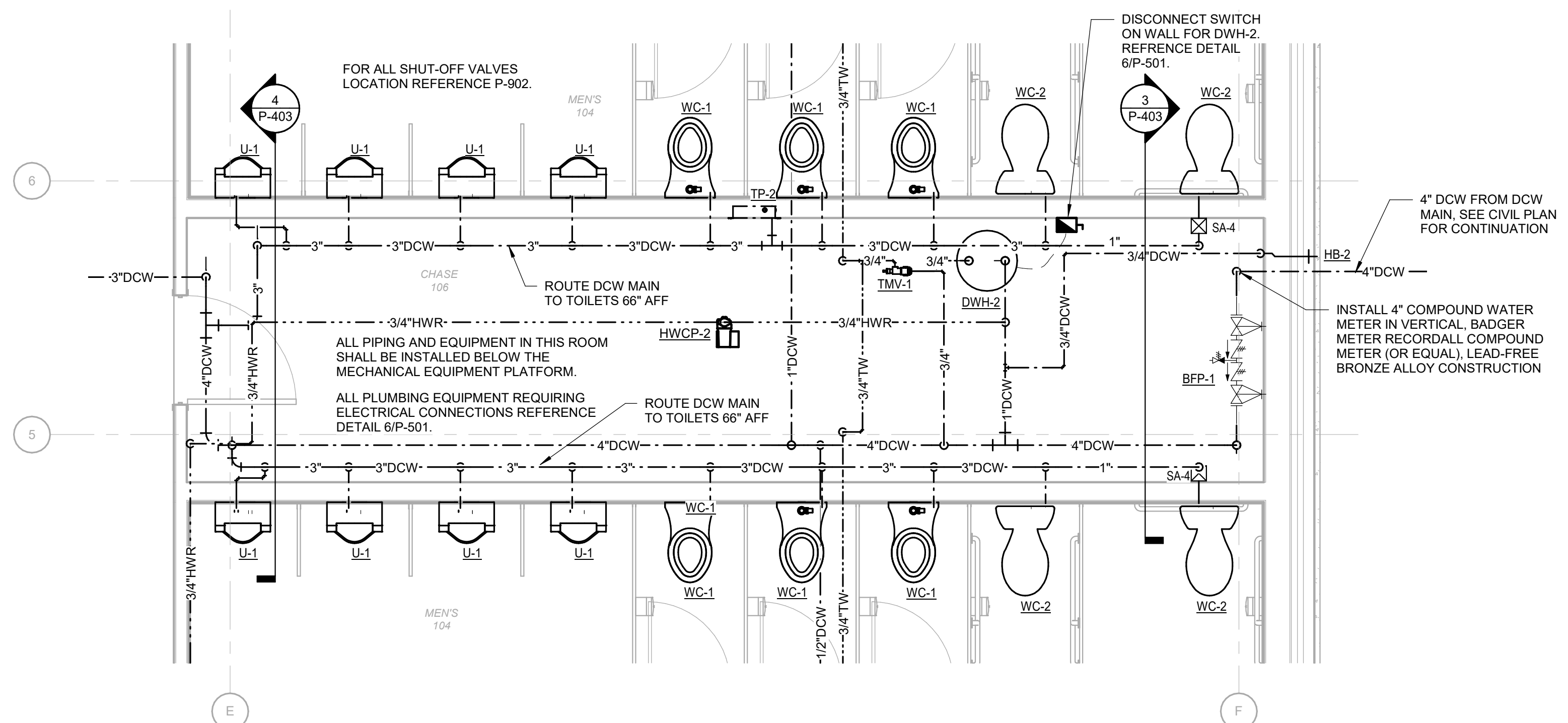
NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**ENLARGED FLOOR PLANS - PLUMBING**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**P-401**



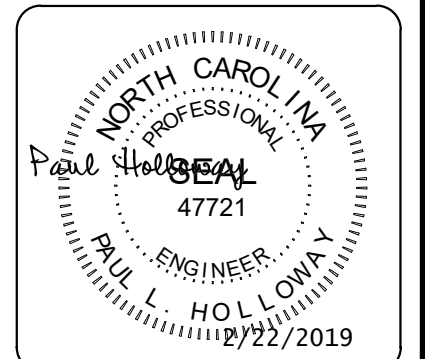
**1 CHASE 105 ENLARGED FLOOR PLAN - DOMESTIC WATER**  
Scale: 3/8" = 1'-0"



**2 CHASE 106 ENLARGED FLOOR PLAN - DOMESTIC WATER**  
Scale: 3/8" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively inspired - Technically Executed  
Lic. No. 1110, Raleigh, NC  
1110 Newchico Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

Apogee Consulting Group, P.A.  
1151 Kilaheo Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
Engineers | Architects WMAapga.com 919-888-7420

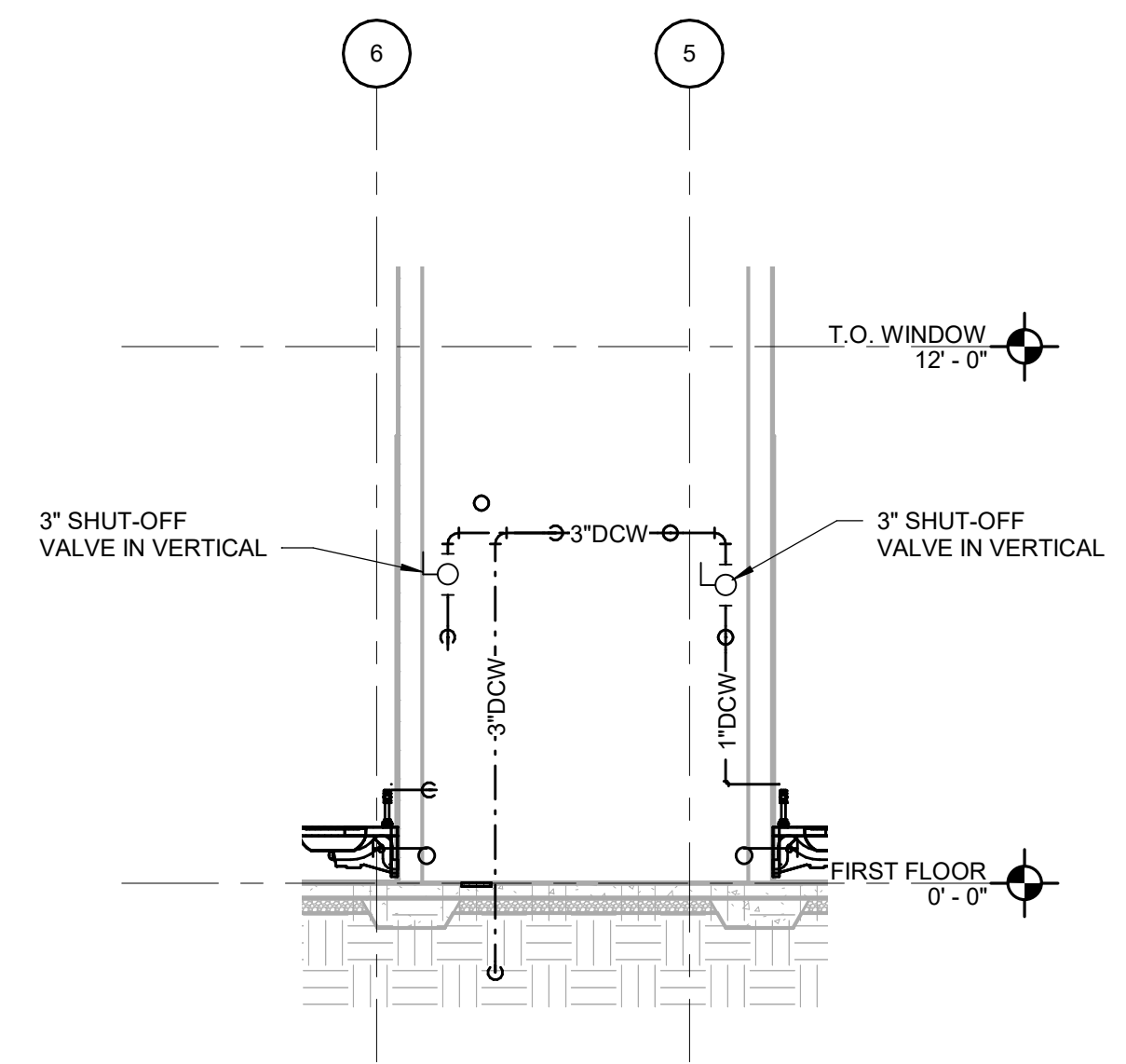


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

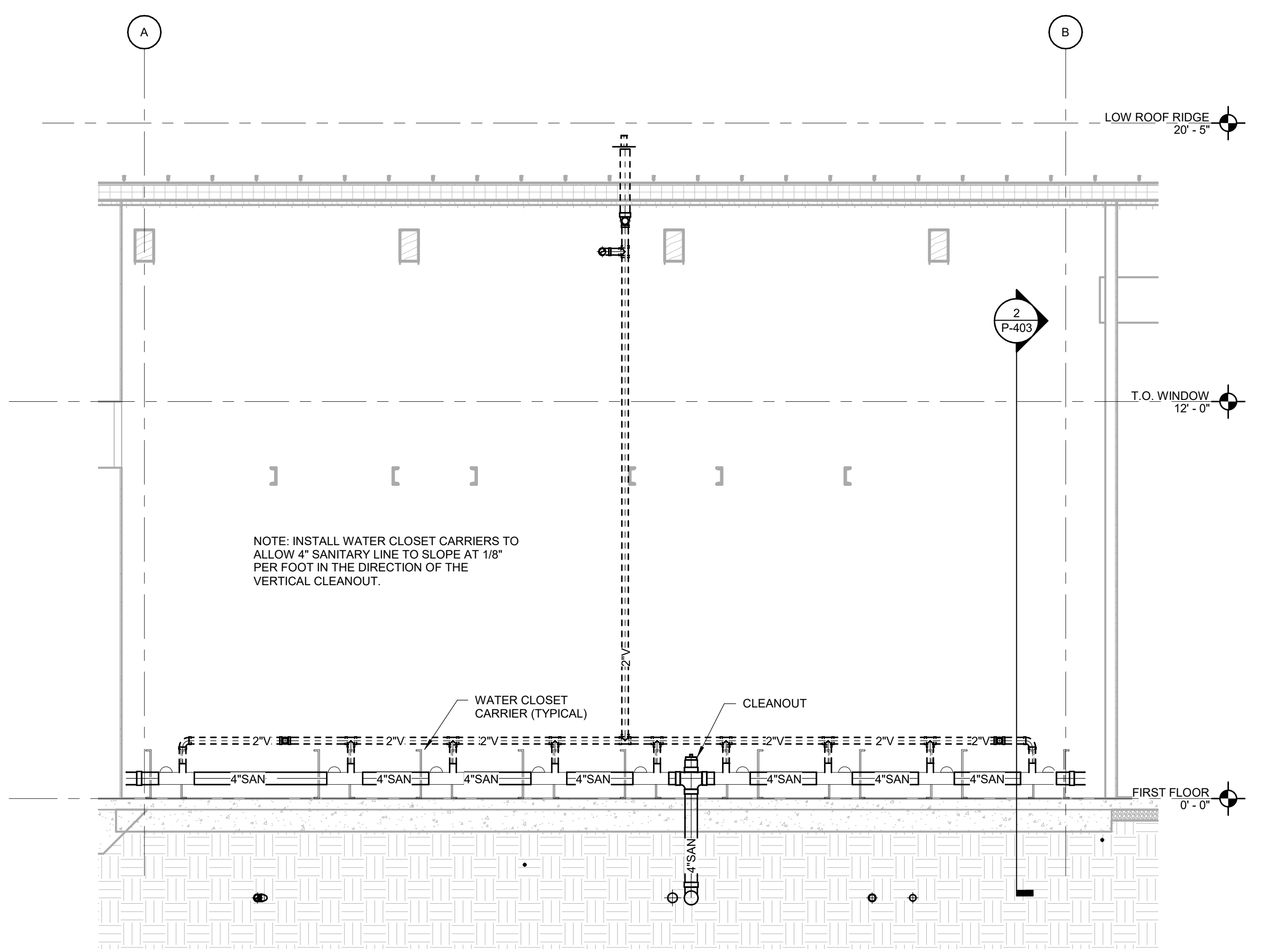
NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
ENLARGED FLOOR PLANS - PLUMBING  
PROJECT NO. 18-0129.021  
SHEET NO. P-402

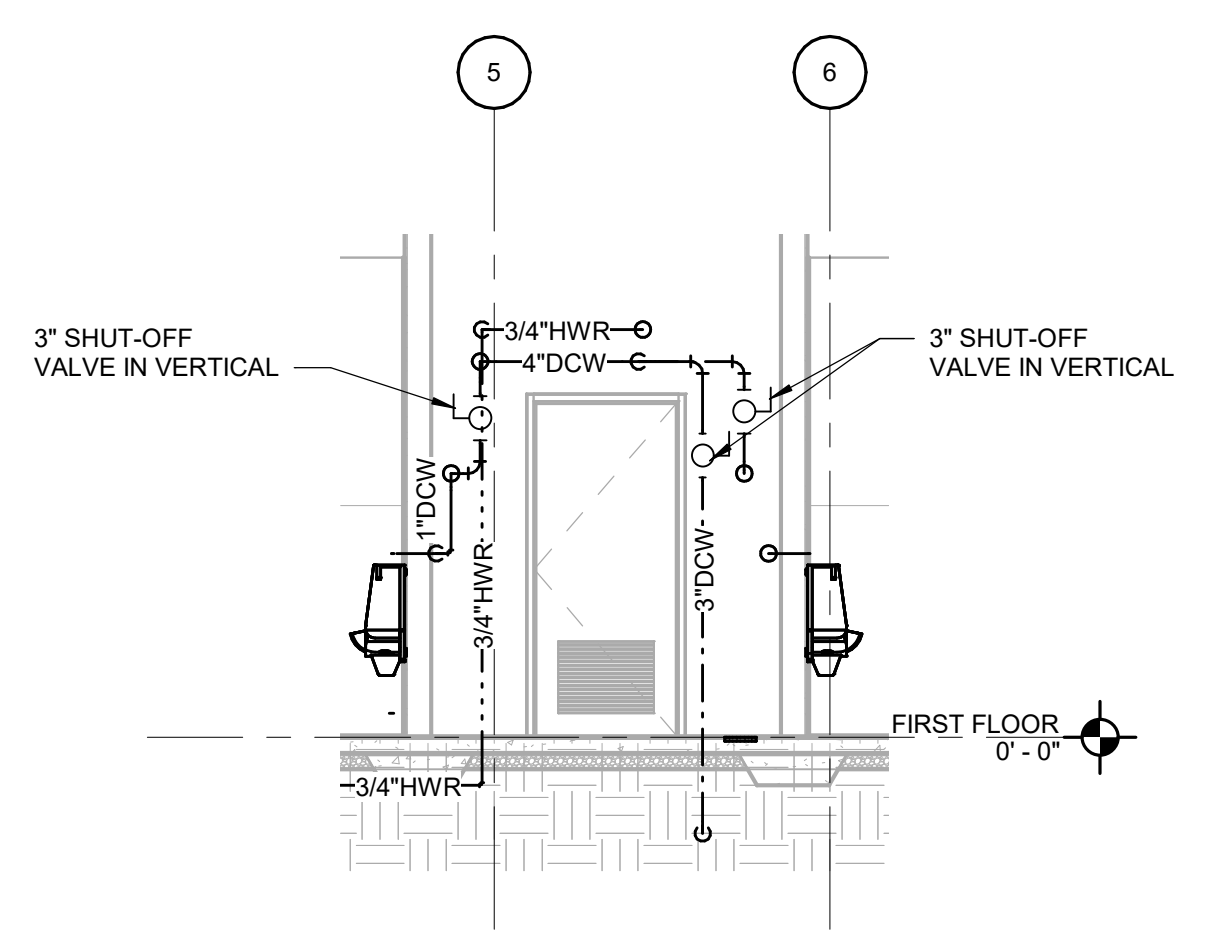




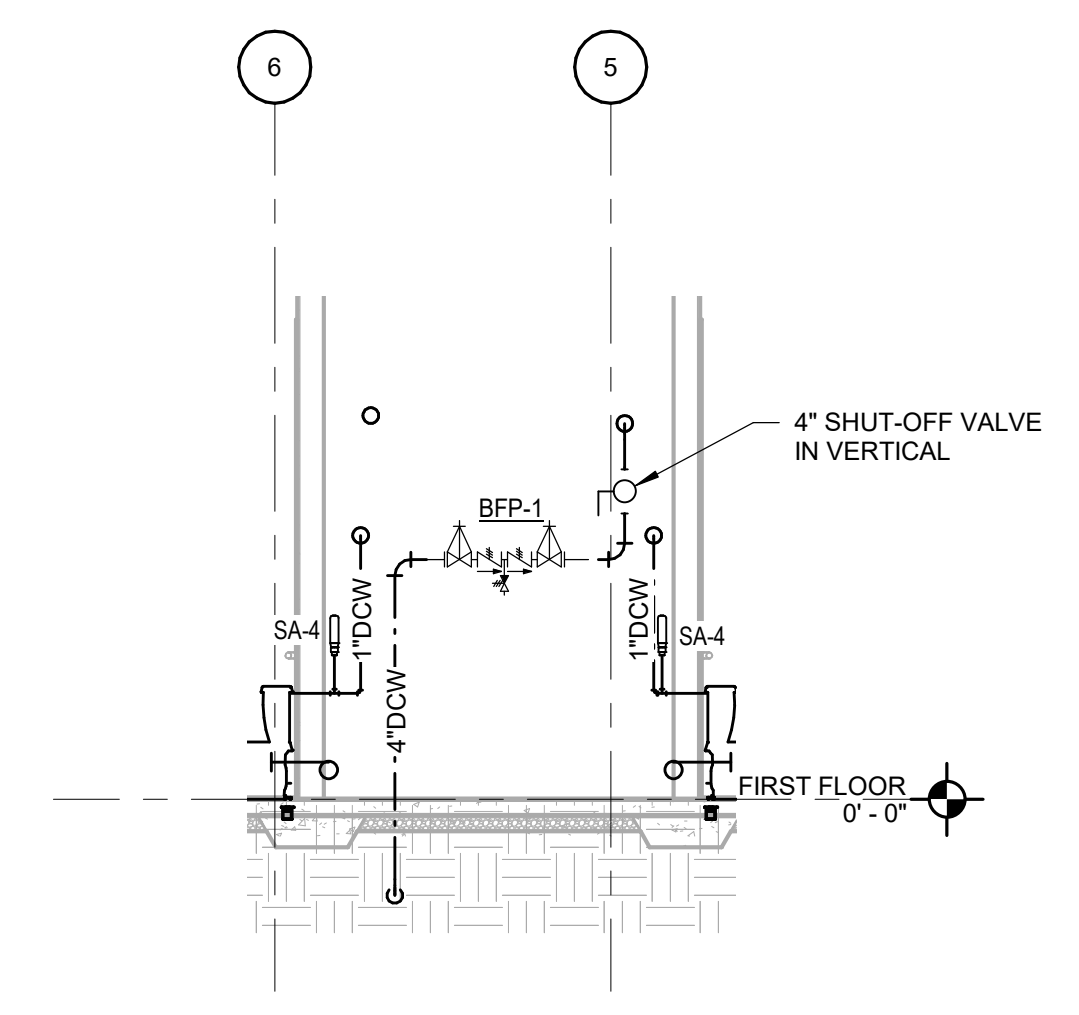
**2 CHASE 105 - SECTION THROUGH PLUMBING CHASE RIGHT SIDE**  
Scale: 1/4" = 1'-0"



**1 CHASE 105 - SECTION #1 AT WATER CLOSET CARRIERS**  
Scale: 3/8" = 1'-0"



**4 CHASE 106 - SECTION THROUGH PLUMBING CHASE LEFT SIDE**  
Scale: 1/4" = 1'-0"



**3 CHASE 106 - SECTION THROUGH PLUMBING CHASE RIGHT SIDE**  
Scale: 1/4" = 1'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Navaho Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

Apogee Consulting Group, P.A.  
1151 Kilaheo Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
Engineers | Architects WMAapcga.com 919-888-7420

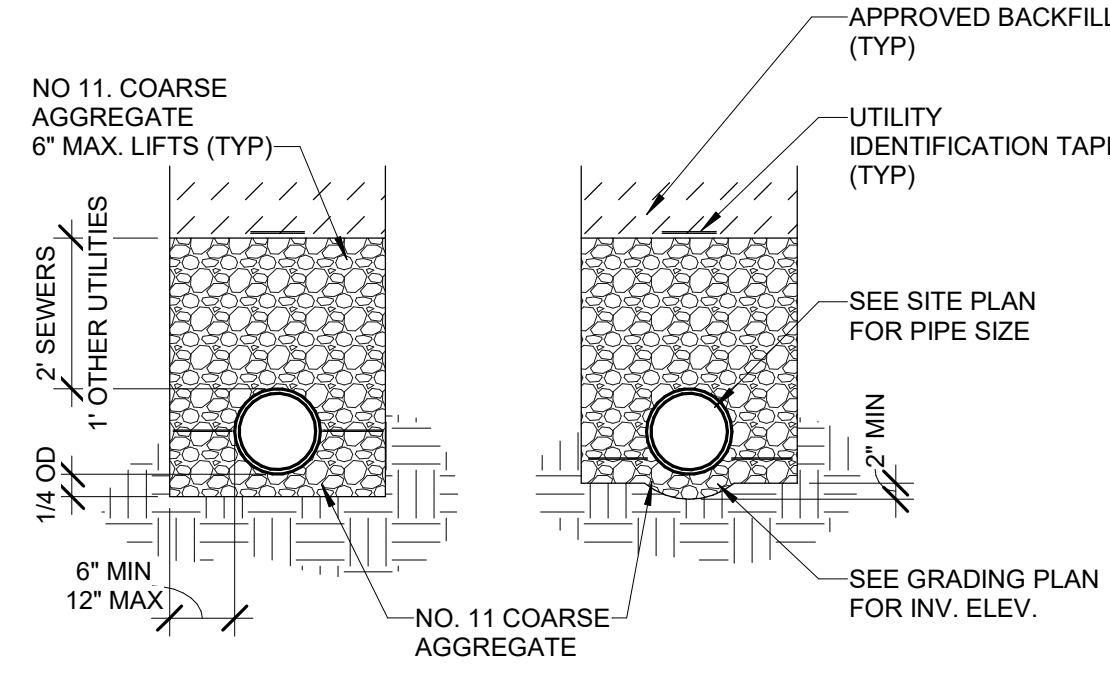
**PAUL L. HOLLOMAN**  
PROFESSIONAL ENGINEER  
47721  
2/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

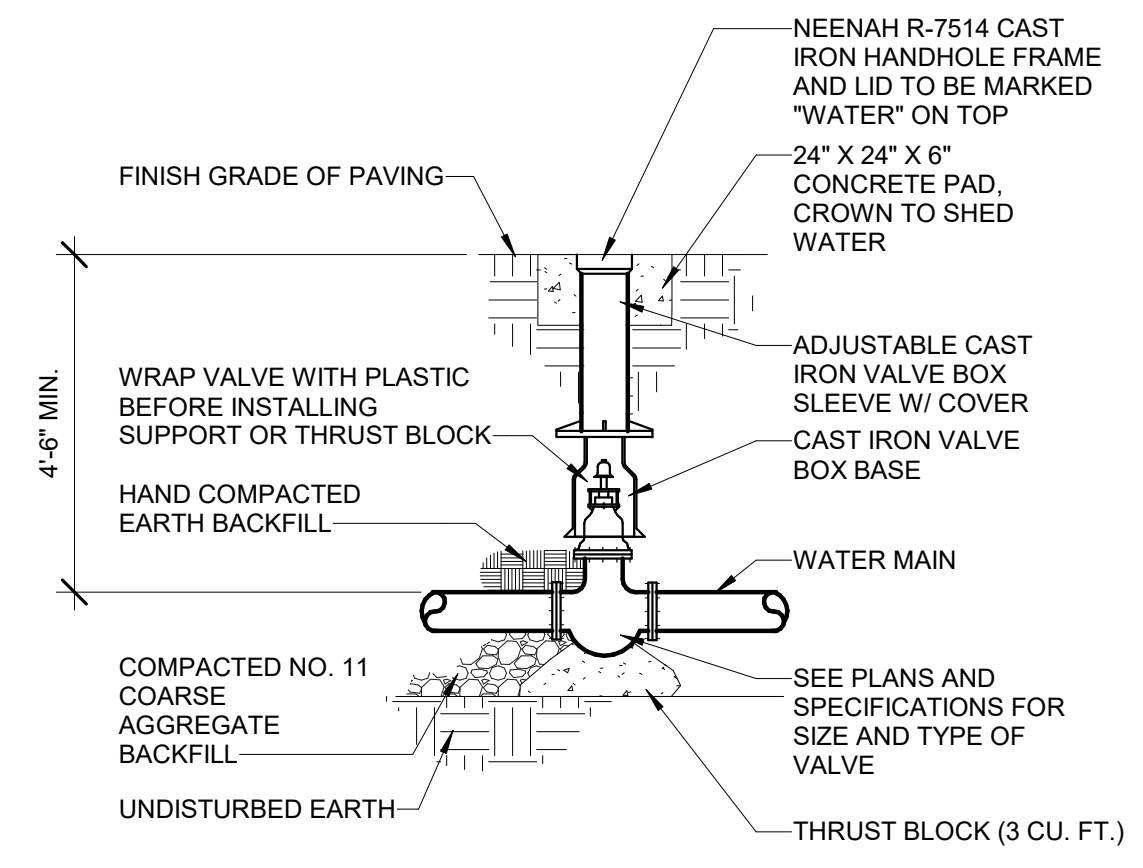
NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**PLUMBING SECTIONS**

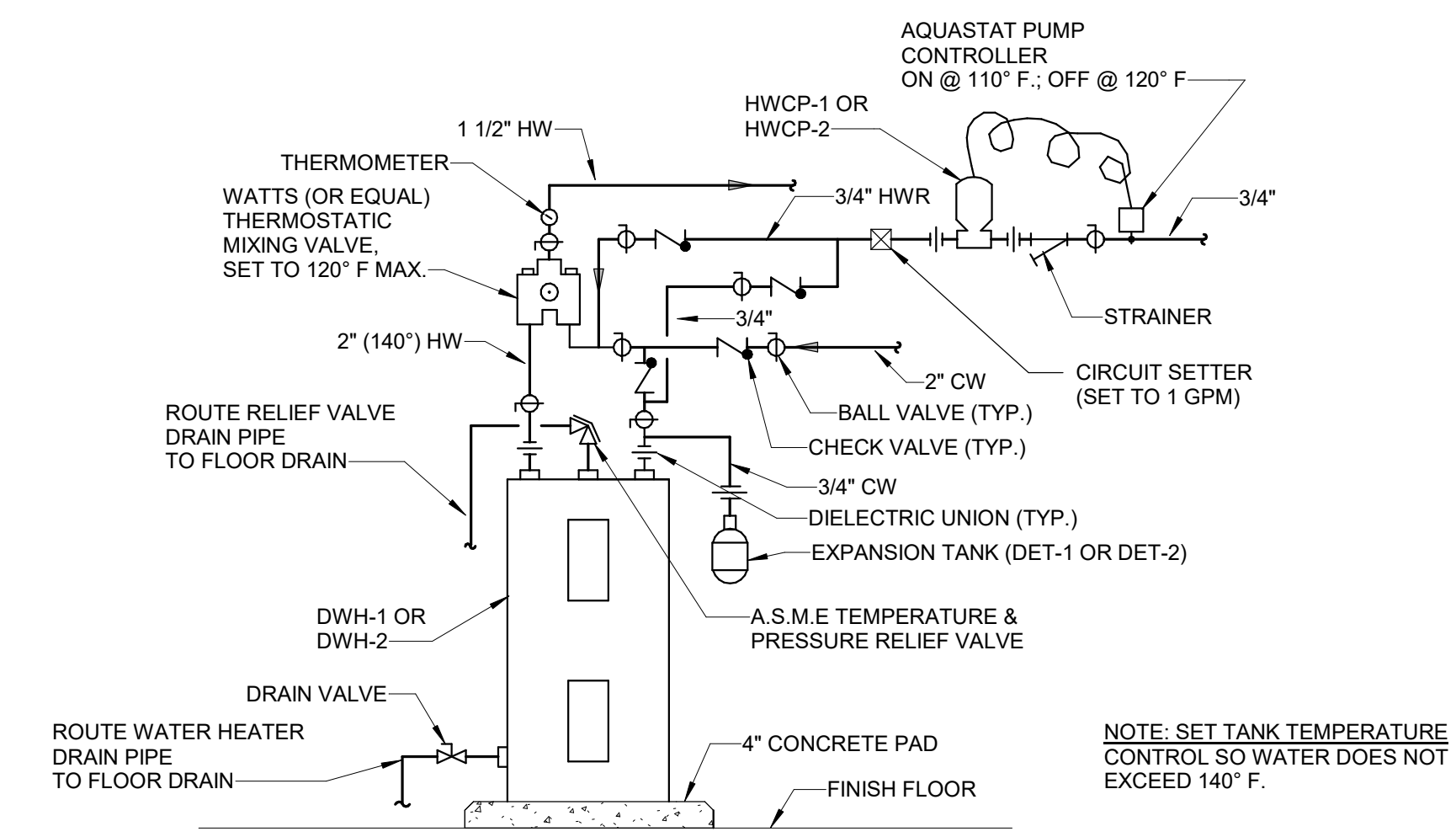
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**P-403**



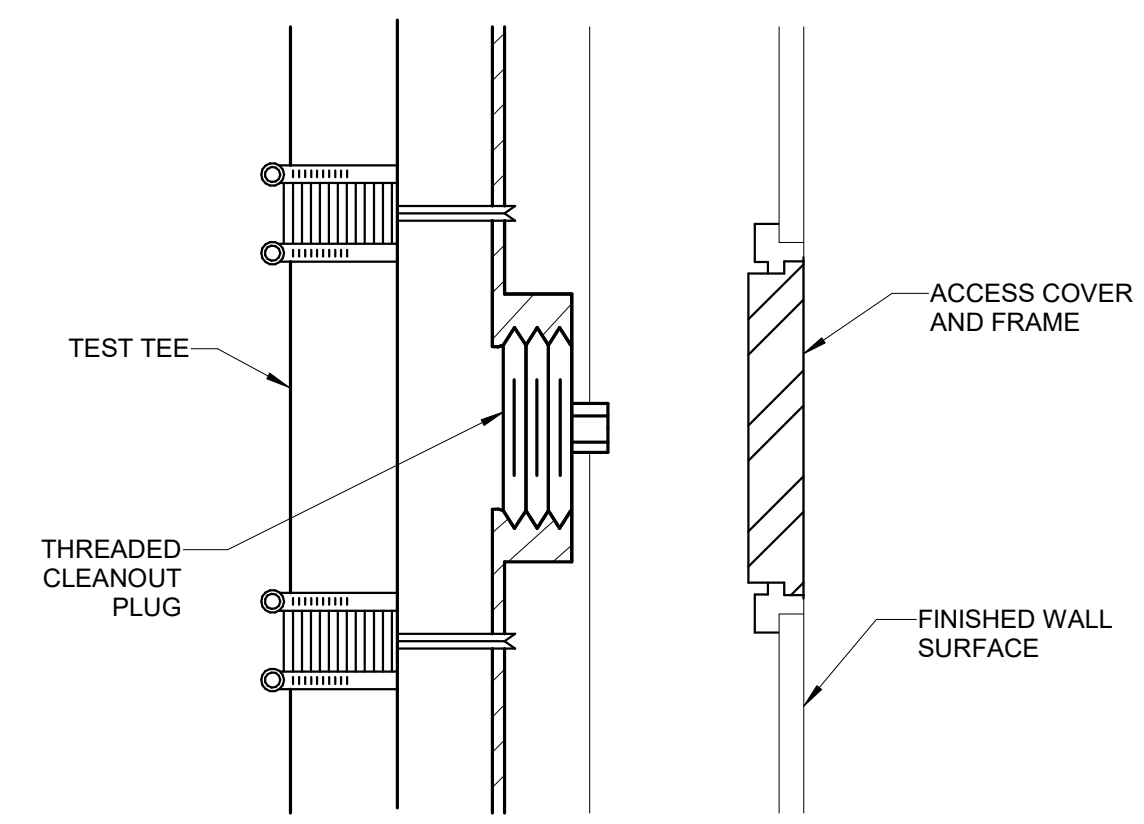
**7 PIPE BEDDING AND BACKFILL DETAIL**  
Scale: N.T.S.



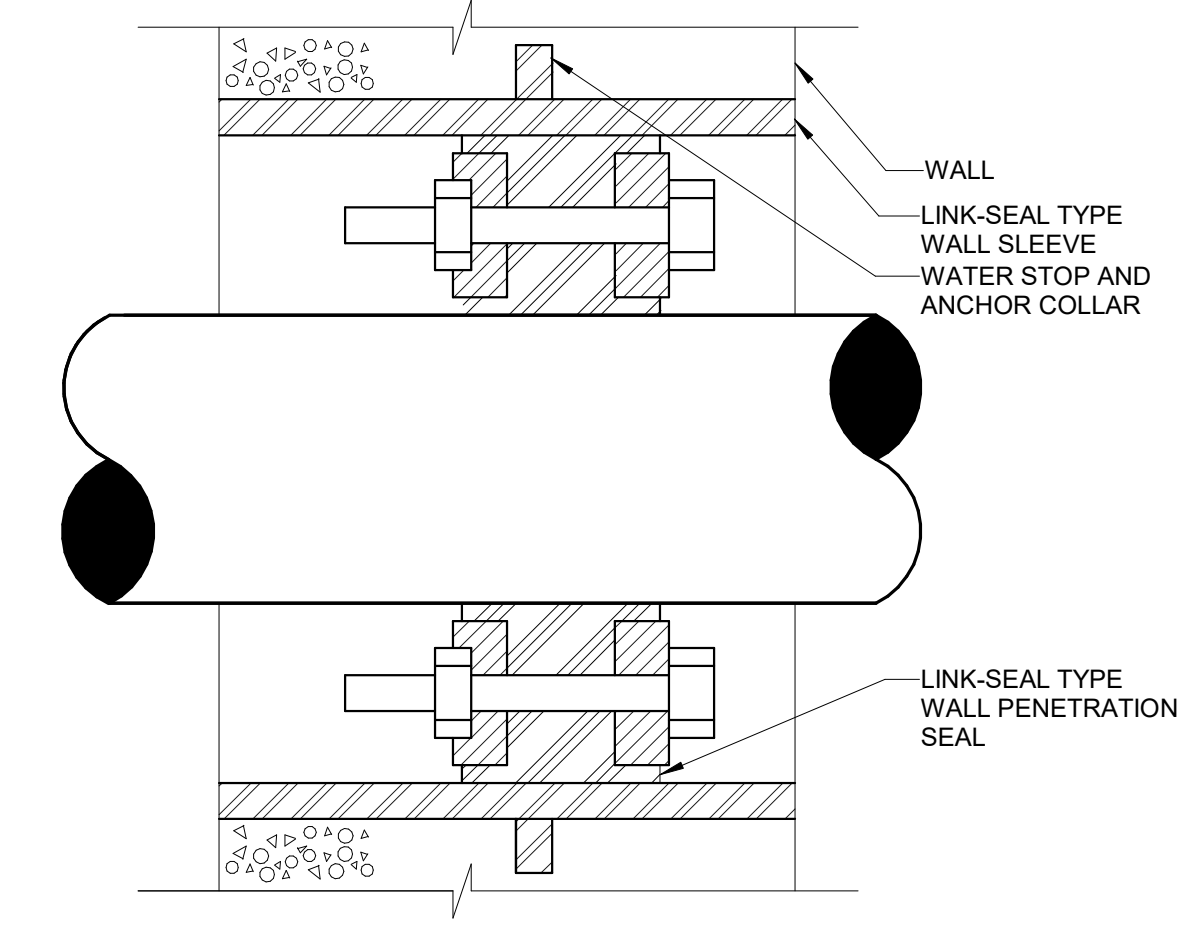
**4 VALVE BOX DETAIL**  
Scale: N.T.S.



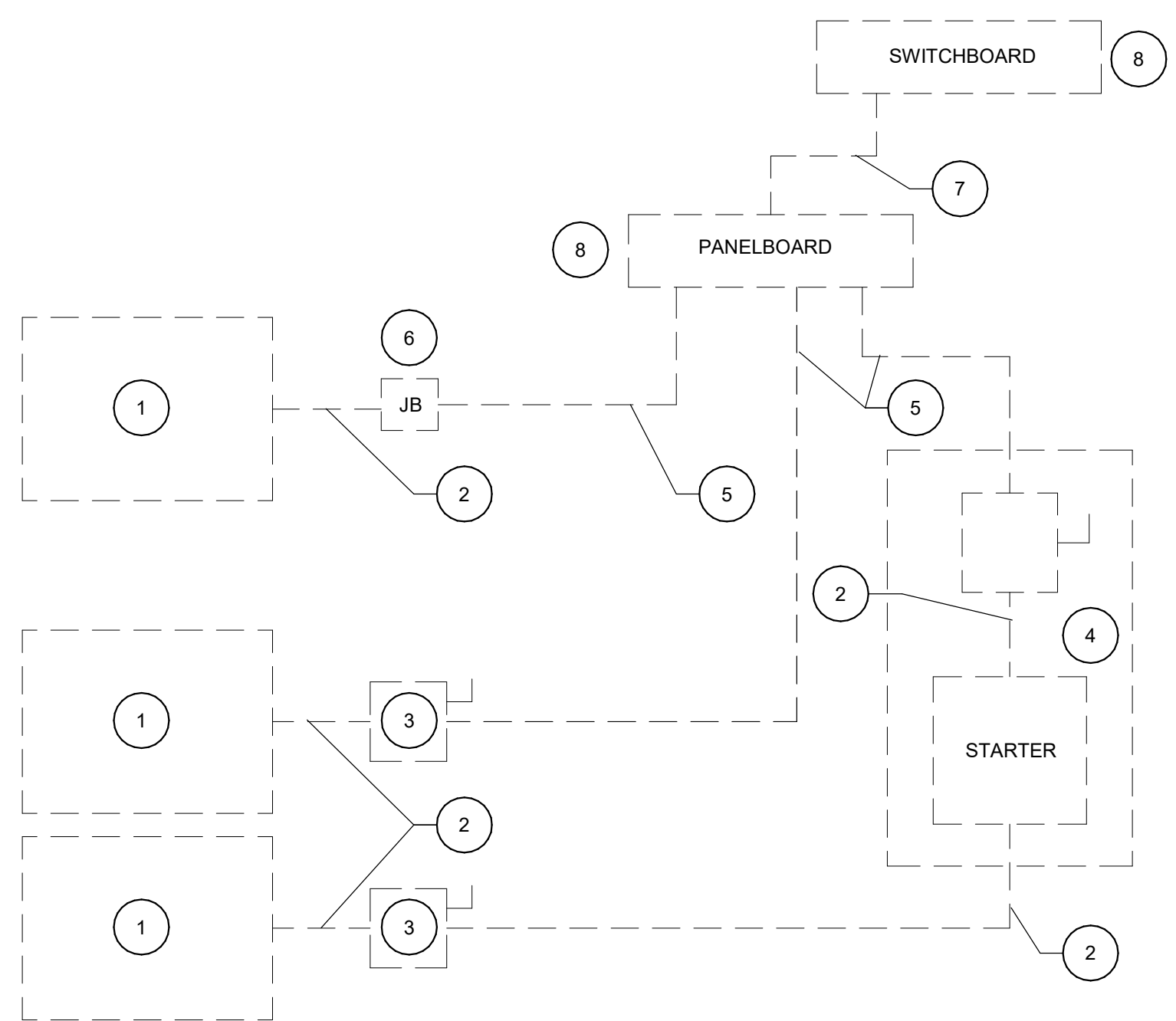
**1 ELECTRIC HEATER PIPING DIAGRAM (DWH-1 AND DWH-2)**  
Scale: N.T.S.



**5 NO HUB W/ACCESS DOOR DETAIL**  
Scale: N.T.S.

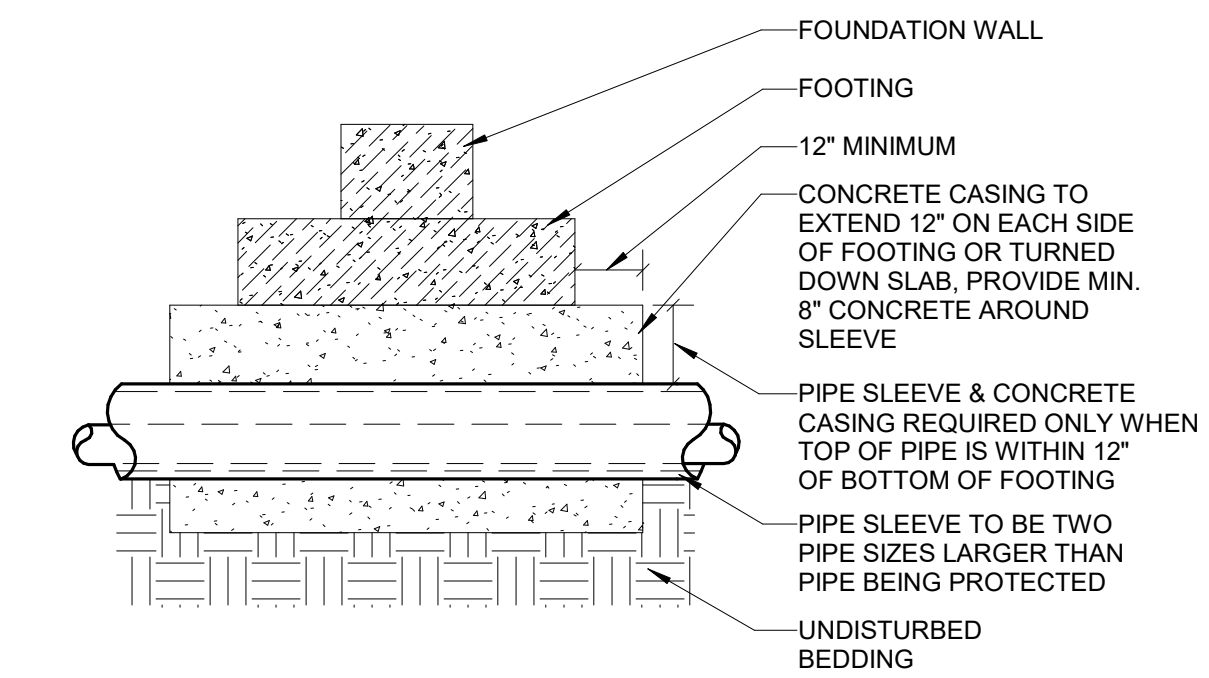


**2 WALL / FLOOR SLEEVE DETAIL**  
Scale: N.T.S.



**6 ELECTRICAL EQUIPMENT CONNECTION PLUMBING DETAIL**  
Scale: N.T.S.

- GENERAL NOTES:**
1. THE PURPOSE OF THIS DIAGRAM IS TO INDICATE THE RESPONSIBILITIES OF THE DIVISION 22 AND DIVISION 26 CONTRACTORS. THIS DIAGRAM IS NOT INTENDED TO BE USED TO SHOW THE METHOD OF INSTALLATION OF WIRING, CONDUIT OR EQUIPMENT. DO NOT USE THIS DIAGRAM FOR PURPOSES OTHER THAN THE INTENDED PURPOSE STATED ABOVE.
  2. COORDINATE WITH THE DIVISION 26 CONTRACTOR THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT, AS WELL AS THE SIZING AND ROUTING OF ALL CONDUIT.
  3. ALL WIRING AND CONDUIT SHALL BE SIZED, ROUTED AND INSTALLED IN ACCORDANCE WITH NEC AND THE APPLICABLE PORTIONS OF THE DIVISION 26 SPECIFICATIONS.
  4. THE DIVISION 22 CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
  5. SEE SPECIFICATION SECTION 28 28 16 FOR DISCONNECT SWITCHES. REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.
- DIAGRAM KEY NOTES:**
1. EQUIPMENT BY DIVISION 22.
  2. CONDUIT & WIRING BY DIVISION 22.
  3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, OR IS CALLED FOR ON THE FLOOR PLANS, EQUIPMENT SCHEDULES, OR SPECIFICATIONS, IT SHALL BE PROVIDED AND INSTALLED BY THE DIVISION 22 EQUIPMENT CONTRACTOR.
  4. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
  5. FEEDER CIRCUIT WIRING AND CONDUIT BY DIVISION 26.
  6. JUNCTION BOX BY DIVISION 26 (WHERE SHOWN ON PLANS).
  7. WIRING AND CONDUIT BY DIVISION 26.
  8. BY DIVISION 26.



**3 PIPE SLEEVE BELOW FOOTING OR TURNED DOWN SLAB DETAIL**  
Scale: N.T.S.

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 N. Raleigh Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

Apogee Consulting Group, P.A.  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
NC license #C-1848  
www.apogee.com  
919-888-7420  
Architects www.apogee.com

**APOGEE**  
Engineers | Architects

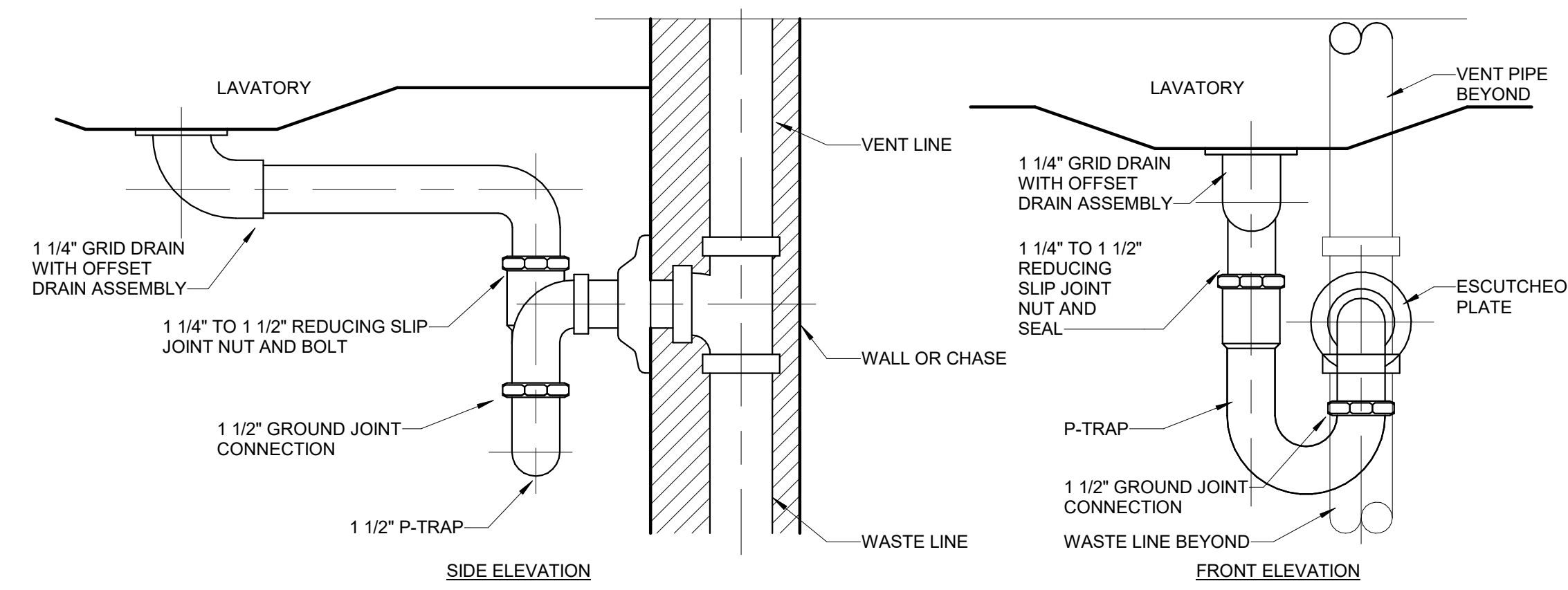
**PAUL H. HOLLOWAY**  
PROFESSIONAL ENGINEER  
47721  
2/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

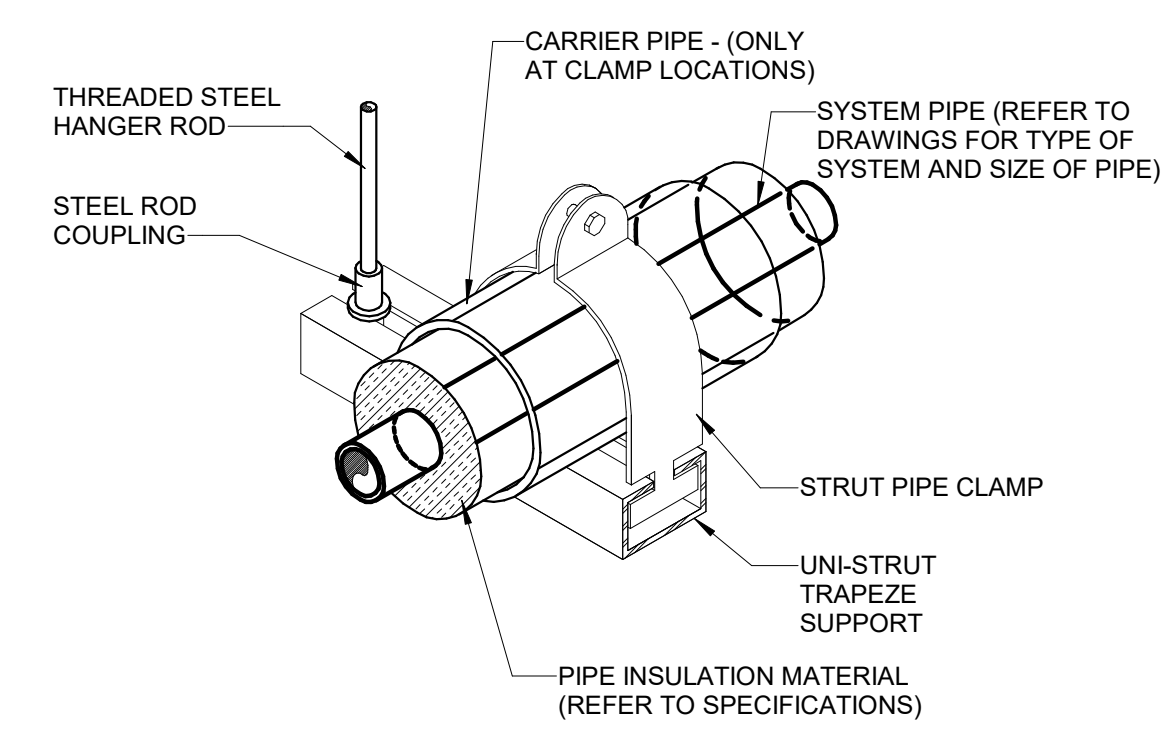
NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**PLUMBING DETAILS**

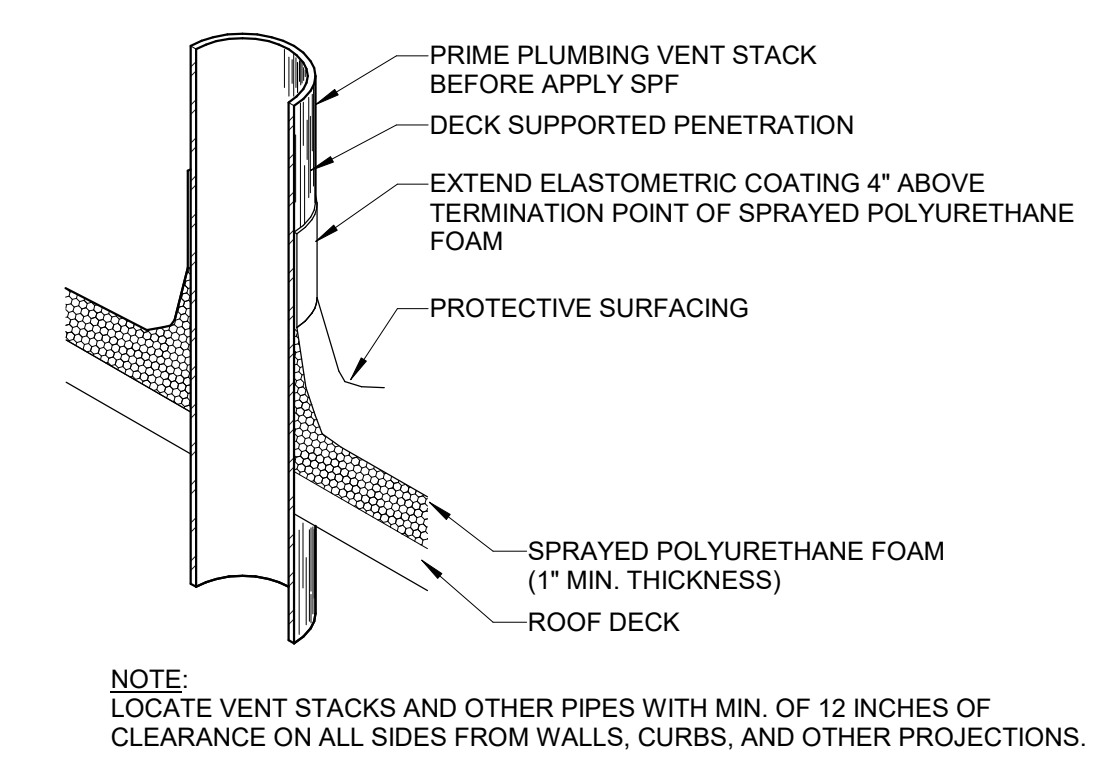
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**P-501**



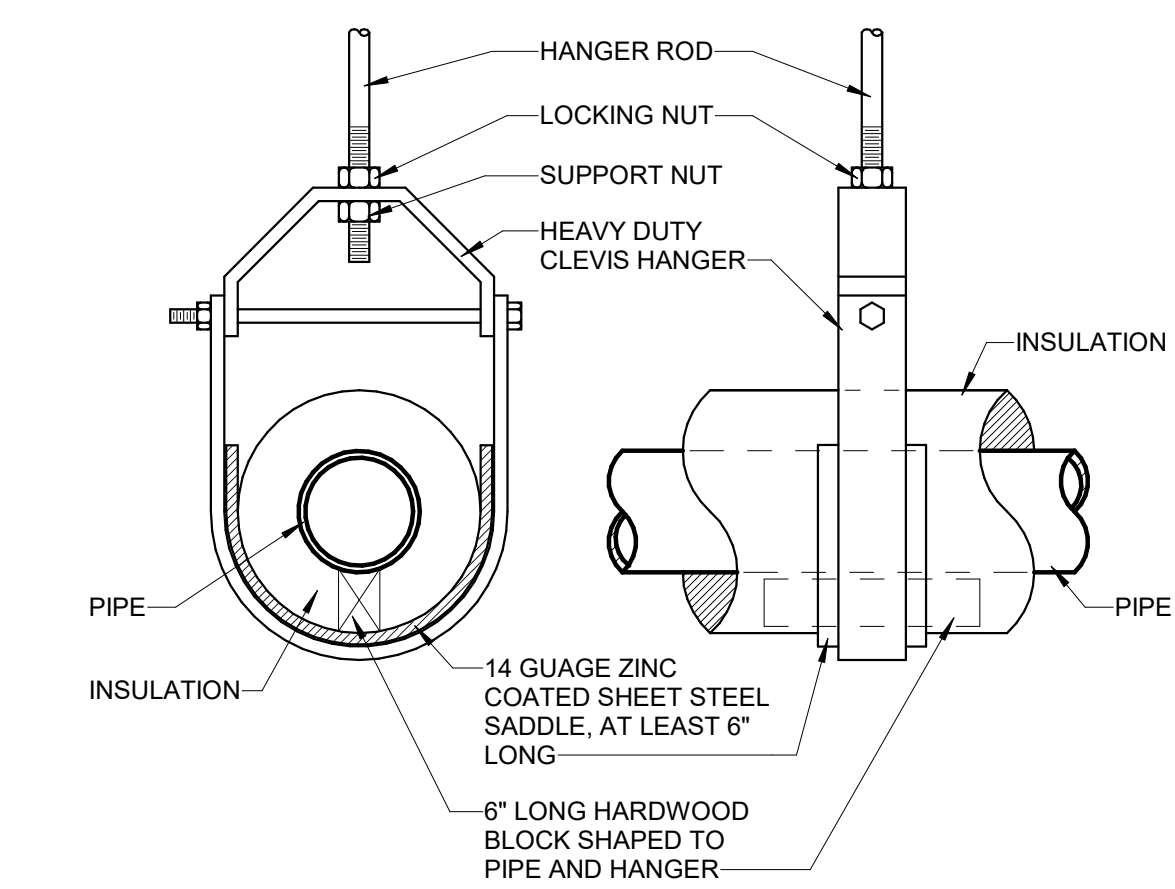
**4 ADA OFFSET P-TRAP DETAIL**  
Scale: No Scale



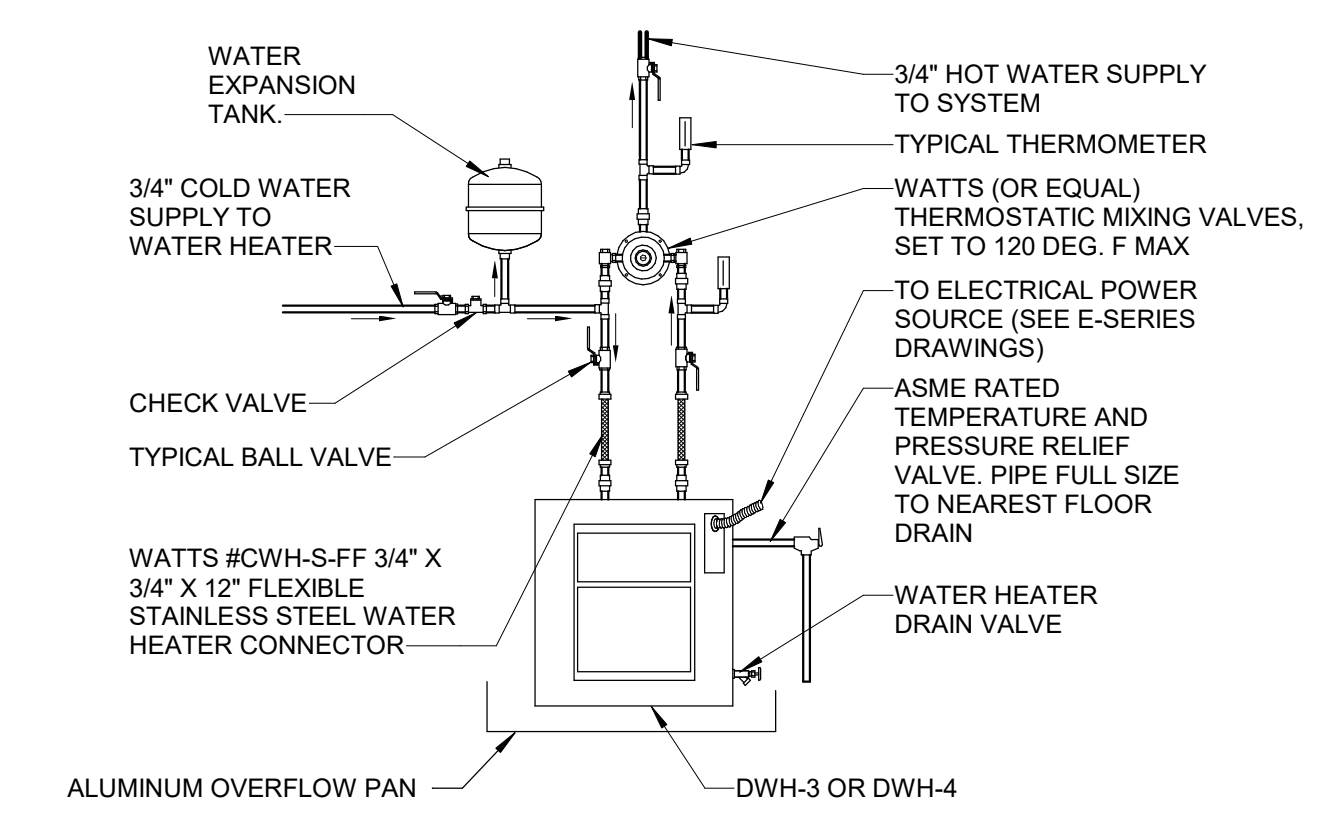
**1 TYPICAL TRAPEZE PIPE SUPPORT DETAIL**  
Scale: No Scale



**5 SPRAYED POLYURETHANE FOAM ROOF VENT DETAIL**  
Scale: No Scale



**2 PIPE HANGER (6" & SMALLER) DETAIL**  
Scale: No Scale



**3 POINT-OF-USE-ELECTRIC WATER HEATER DETAIL (DWH-3 AND DWH-4)**  
Scale: No Scale

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Navaho Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**Apogee Consulting Group, P.A.**  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com  
Architects | Engineers | Architects | www.apogee.com | 919-888-7420

**APOGEE**  
Engineers | Architects

**PROFESSIONAL SEAL**  
PAUL L. HOLLOWAY  
ENGINEER  
47721  
2/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**PLUMBING DETAILS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**P-502**

### DOMESTIC HOT WATER RECIRCULATION PUMPS

MARK	SERVICE	TYPE	GPM	HEAD, FT. H2O	MOTOR		ELECTRICAL (V/Ph/Hz)	SERIES	MODEL # (BELL & GOSSETT)	REMARKS
					HP	RPM				
HWCP-1	DWH-1 RECIRCULATION	WET ROTOR CIRCULATOR	1.0	8	1/12	3600	115/1/60	ECOCIRC XL	XL N 20-35	1, 2
HWCP-2	DWH-2 RECIRCULATION	WET ROTOR CIRCULATOR	1.0	8	1/12	3600	115/1/60	ECOCIRC XL	XL N 20-35	1, 2

**REMARKS:**

- PUMP SHALL HAVE STAINLESS STEEL BODY.

### DOMESTIC WATER HEATERS (ELECTRIC)

MARK	DESCRIPTION	STORAGE CAP. GALLONS	PRESSURE RATING, PSI	HEATING ELEMENTS		ELECTRICAL		MODEL #	REMARKS
				QUANTITY	KW (EACH)	V/Ph/Hz	FLA		
DWH-1	STORAGE TANK TYPE	40	150	2	3.0	240/1/60	25	DEN-40 (AO SMITH)	1, 4, 5
DWH-2	STORAGE TANK TYPE	40	150	2	3.0	240/1/60	25	DEN-40 (AO SMITH)	1, 4, 5
DWH-3	POINT-OF-USE TANK TYPE	10	150	1	3.0	240/1/60	12.5	EGSP10 (RHEEM)	2, 3, 4, 6
DWH-4	POINT-OF-USE TANK TYPE	10	150	1	1.5	240/1/60	6.3	EGSP10 (RHEEM)	2, 3, 4, 6

**REMARKS:**

- INSTALL 28" DIAMETER ALUMINUM DRAIN PAN UNDER WATER HEATER WITH 1" DRAIN CONNECTION.
- INSTALL 20" DIAMETER ALUMINUM DRAIN PAN UNDER WATER HEATER WITH 1" DRAIN CONNECTION.
- MOUNT WATER HEATER ON FIELD-FABRICATED WELDED STEEL CANTILEVERED PLATFORM BOLTED TO WALL.

### PLUMBING LOAD SUMMARY

\* - PRIVATE FIXTURES

MARK	DESCRIPTION	QUANTITY	DFU EACH	DFU	CW WSFU EACH	CW WSFU	HW WSFU EACH	HW WSFU	TOTAL WSFU EACH	TOTAL WSFU
DF-1	WATER COOLER WALL HUNG	1	0.5	0.5	0.25	0.25	0	0	0.25	0.25
HB-1	HOSE BIBB	8	0	0	0	0	0	0	2.2	17.6
HB-2	FREEZELESS WALL HYDRANT CONCEALED BOX	2	0	0	0	0	0	0	2.2	4.4
L-1	LAVATORY COUNTER MOUNTED, PUBLIC	1	1	1	1.5	1.5	1.5	1.5	0.7	0.7
L-2	LAVATORY DOUBLE STATION SYSTEM	12	1	12	1.5	18	1.5	18	0.7	8.4
MS-1	MOP SINK	1	2	2	3	3	3	3	4	4
SK-1	SERVICE SINK CAST IRON	2	2	4	3	6	3	6	4	8
TP-1	TRAP PRIMING STATION, 115V (FLUSH MOUNT)	0		0		0		0		0
TP-2	TRAP PRIMING STATION, 115V (FLUSH MOUNT)	0		0		0		0		0
U-1	URINAL WALL HUNG	12	2	24	3	36	3	0	0	0
WB-1	ICE MAKER BOX	1		0	0.25	0.25		0		0
WC-1	WATER CLOSET, WALL-HUNG, PUBLIC	19	4	76	10	190	0	0	10	190
WC-2	WATER CLOSET, FLOOR MOUNTED, PUBLIC	11	4	44	10	110	0	0	10	110
		70		163.5		365		28.5		343.35

### PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	DFU EACH	CW WSFU	HW WSFU	TOTAL WSFU	WASTE PIPE	VENT PIPE	COLD WATER	HOT WATER	ELECTRIC SENSOR	REMARKS
BFP-1	ZURN 375 OSY BACKFLOW PREVENTER										3" ZURN 375 OSY
CO	FLOOR CLEAN OUT										ZURN ZN14004NH
DF-1	WATER COOLER WALL HUNG	0.5	0.25	0	0.25	1 1/2"	1 1/2"	1/2"			ELKAY EZO8" HI-LOW
FD-1	3" FLOOR DRAIN										ZURN 3" Z415B WITH TRAP PRIMER CONNECTION
FD-2	2" FLOOR DRAIN										ZURN 2" Z415B WITH TRAP PRIMER CONNECTION
HB-1	HOSE BIBB	0	0	0	2.2	0"		1/2"			WOODFORD/26
HB-2	FREEZELESS WALL HYDRANT CONCEALED BOX	0	0	0	2.2	0"		1/2"			WOODFORD B67C-4 SINGLE CHECK VACUUM BREAKER. SELF DRAINING WITH LOCKABLE COVER.
L-1	LAVATORY COUNTER MOUNTED, PUBLIC	1	1.5	1.5	0.7	1 1/2"	0"	1/2"	1/2"	Yes	KOHLER K-2031 FAUCET SLOAN EAF-275
L-2	LAVATORY DOUBLE STATION SYSTEM	1	1.5	1.5	0.7	1 1/2"	0"	1/2"	1/2"	Yes	SLOAN ELS-72275 WITH 2 FAUCETS EAF-275 AND SOAP DISPENSER MSD ESD-350
MS-1	MOP SINK	2	3	3	4	3"	1 1/2"	1/2"	1/2"	No	TSB-3000 FLOOR MOUNTED STAIN RESISTANT TERRAZO
SK-1	SERVICE SINK CAST IRON	2	3	3	4	3"	1 1/2"	1/2"	1/2"	No	ZURN Z5888, FAUCET DELTA D28C2383, PROFLO PF003
TMV-1	THERMOSTATIC MIXING VALVE										WATTS WLFMMVM1USF
TP-1	TRAP PRIMING STATION, 115V (FLUSH MOUNT)										PRECISION PLUMBING PRODUCT MODEL PT-6
TP-2	TRAP PRIMING STATION, 115V (FLUSH MOUNT)										PRECISION PLUMBING PRODUCT MODEL PT-6
TR-1	TRENCH DRAIN 36" LONG										INFINITYDRAIN PLD36 - DRIAN BODY 36
TR-2	TRENCH DRAIN 55" LONG										INFINITYDRAIN PLD57 - DRIAN BODY 57
U-1	URINAL WALL HUNG	2	3	3	0	2"	2"	1"		Yes	ZURN Z5760 WALL HUNG SLOAN 195-1.0 ES-S FLUSH VALVE.
WB-1	ICE MAKER BOX	1	0.25			0"	0"	1/2"			PROPEX LF5955025 WITH SUPPORT BRACKETS
WC-1	WATER CLOSET, WALL-HUNG, PUBLIC	4	10	0	10	4"	2"	1"	0"	Yes	SLOAN ST-2060-A-1.28 WALL-HUNG, BACK DISCHARGE SLOAN ROYAL 152-1.28 ES-S WITH EL-154 TRANSFORMER PROFLO SEAT PFTSC0F2000WH
WC-2	WATER CLOSET, FLOOR MOUNTED, PUBLIC	4	10	0	10	2"	2"	1"	0"	Yes	AMERICAN STANDARD PRIOLO FLOOR MOUNTED, BACK DISCHARGE, SLOAN 8111-1.28 FLUSH VALVE

### SHOCK ABSORBER - WATER HAMMER ARRESTOR SCHEDULE

MARK	FIXTURE UNIT RATING
SA-1	1 - 11
SA-2	12 - 32
SA-3	33 - 60
SA-4	61 - 113
SA-5	114 - 154
SA-6	155 - 330

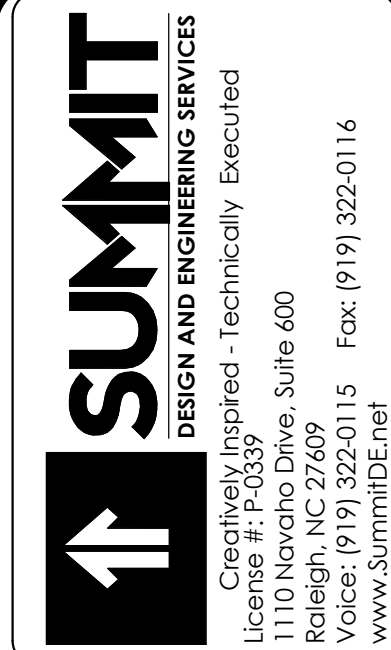
NOTE: USE ZURN MODEL Z1700100 SIZE 100 OR EQUAL.

### EXPANSION TANKS

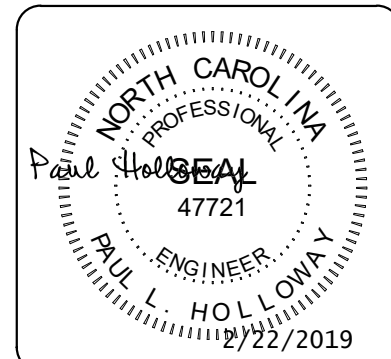
MARK	SERVICE	TANK VOLUME, GAL.	ACCEPTANCE VOLUME, GAL.	DIAMETER, INCHES	LENGTH, INCHES	MODEL # (AMTROL)	REMARKS
DET-1	DWH-1 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2
DET-2	DWH-2 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2
DET-3	DWH-3 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2
DET-4	DWH-4 HOT WATER	2.0	0.9	8	14	ST-5C	1, 2

**REMARKS:**

- TANK SHALL BE STEEL CONSTRUCTION WITH HEAVY DUTY BUTYL RUBBER DIAPHRAGM.
- TANK SHALL HAVE A WORKING PRESSURE RATING OF 150 PSIG.



**Apogee Consulting Group, P.A.**  
 1151 Klilane Farm Road, Suite 120  
 Cary, North Carolina 27511  
 NC License #C-1848  
**APOGEE** Engineers | Architects [www.apogee.com](http://www.apogee.com) 919-888-7420

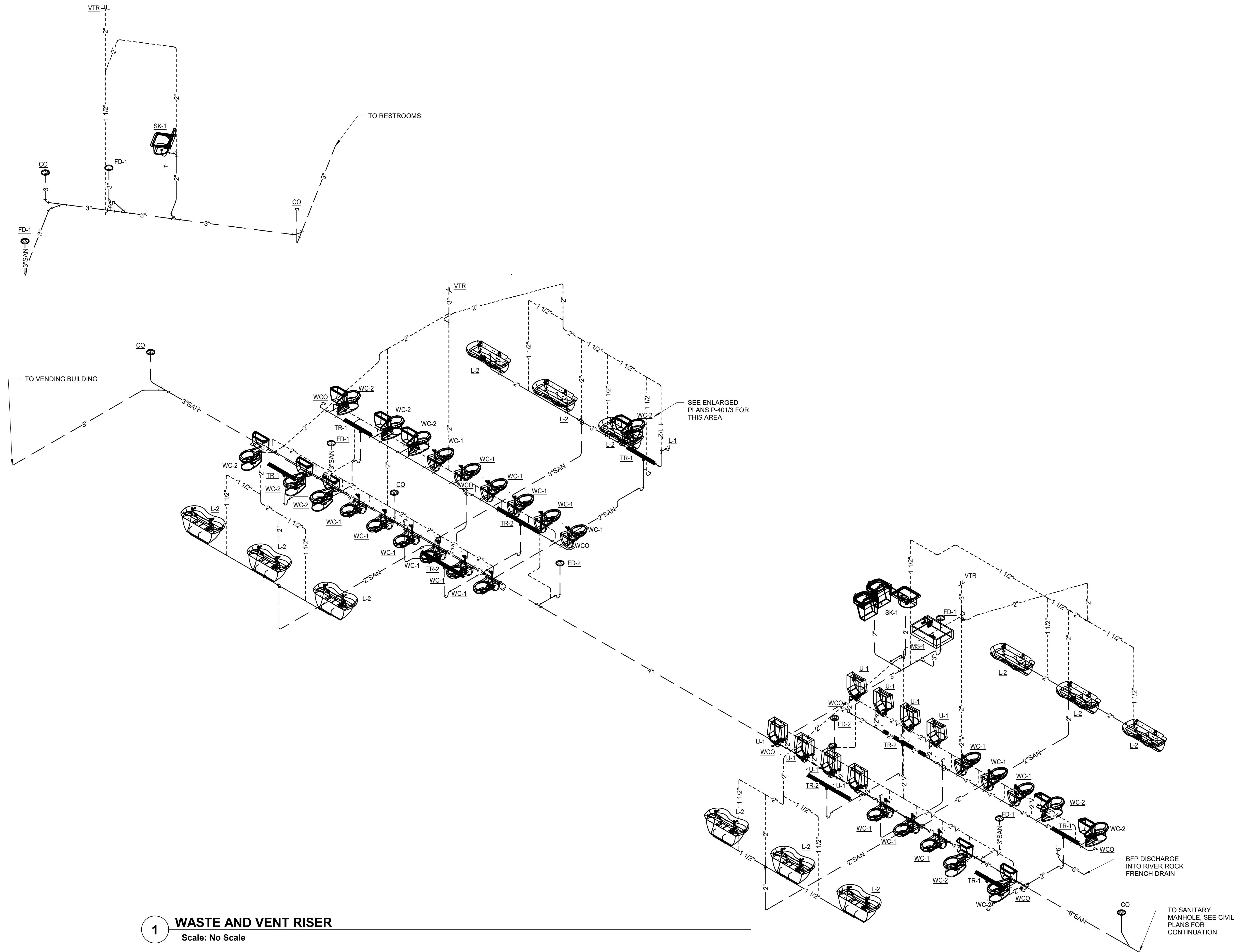


ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED  
 PROJECT MANAGER  
 JOSEPH A. ANGELL II, PE, F. SAME  
 DRAWN BY: SMH/PLH FIRST ISSUE DATE: 11/02/18

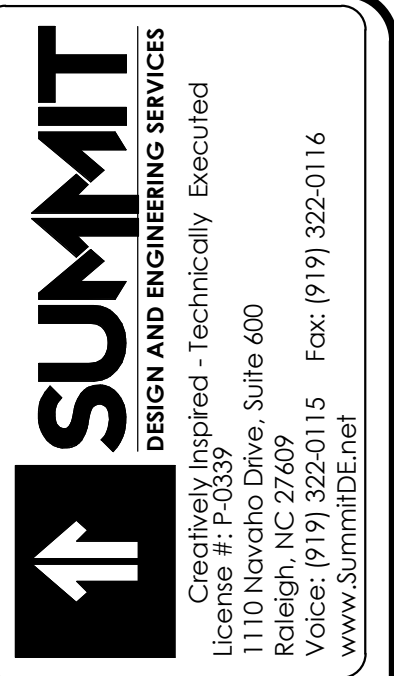
NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**PLUMBING SCHEDULES**

PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**P-601**

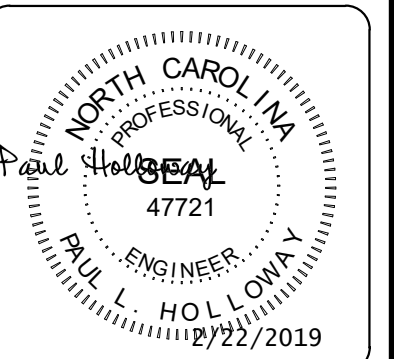


**1 WASTE AND VENT RISER**  
Scale: No Scale



**Apogee Consulting Group, P.A.**  
1151 Kilauea Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-7848  
www.apogee.com

**APOGEE**  
Engineers | Architects | Architects



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME

DRAWN BY: SMH/PLH  
FIRST ISSUE DATE: 11/02/18

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

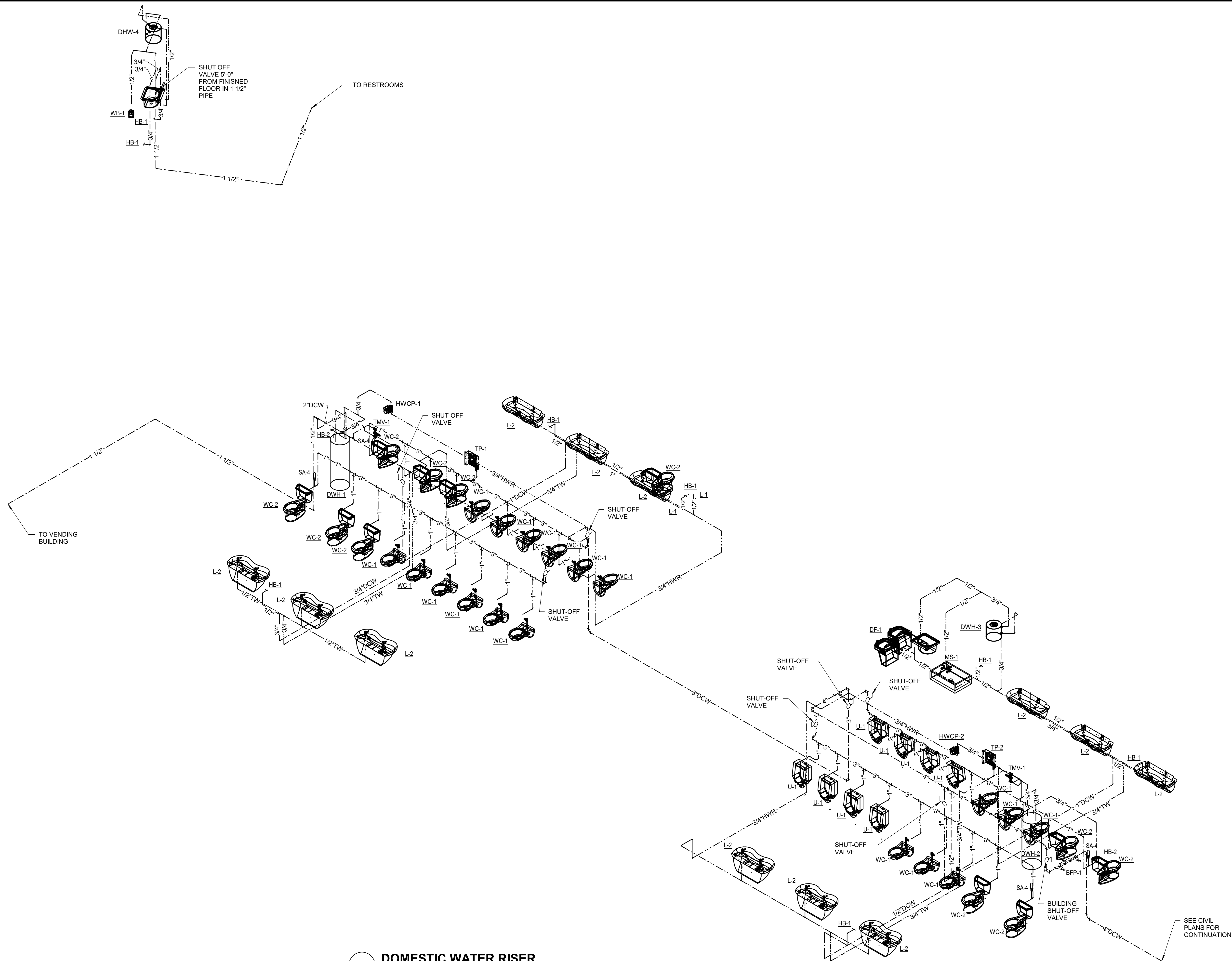
NCDOT PROJECT # 4-400C

**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732

**SANITARY PIPE RISERS**

PROJECT NO.  
**18-0129.021**

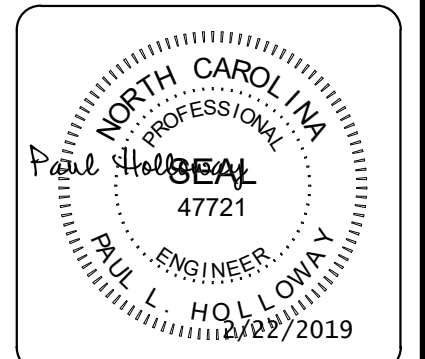
SHEET NO.  
**P-901**



**1 DOMESTIC WATER RISER**  
Scale: No Scale

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively inspired - Technically Executed  
1110 Newchico Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**Apogee Consulting Group, P.A.**  
1151 Kilaheo Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com  
**APOGEE**  
Engineers | Architects | Interiors | WMAACGPA.com



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/18

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**DOMESTIC WATER PIPE RISERS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**P-902**

## MECHANICAL ABBREVIATIONS

A/E	ARCHITECT / ENGINEER	DPA	DIFFERENTIAL PRESSURE ASSEMBLY	IN	INCHES	R/E	RETURN OR EXHAUST
ACCU	AIR-COOLED CONDENSING UNIT	DPS	DIFFERENTIAL PRESSURE SENSOR	IN HG	INCHES OF MERCURY	RA	RETURN AIR
ACD	AUTOMATIC CONTROL DAMPER, MODULATING	DX	DIRECT EXPANSION	IN WC	INCH WATER COLUMN	RAT	RETURN AIR TEMPERATURE
ACD-TP	AUTOMATIC CONTROL DAMPER, TWO POSITION	EA	EXHAUST AIR	IN WB	INCH WATER GAUGE	REA	RELIEF AIR
AD	ACCESS DOOR	EAT	ENTERING AIR TEMPERATURE	IN-LB	INCH-POUND	RG	RETURN GRILLE
AF	AFTER FILTER	EER	ENERGY EFFICIENCY RATIO	IS	INCH-SCREEN	RH	RELATIVE HUMIDITY
AFF	ABOVE FINISHED FLOOR	EF	EXHAUST FAN	kPa	KILOPASCAL	RL	REFRIGERANT LIQUID LINE
AFMD	AIR FLOW MEASURING DEVICE	EG	EXHAUST GRILLE	kW	KILOWATT	RLA	RUN LOAD AMPERE
AHU	AIR-HANDLING UNIT	ENT	ENTERING	kWh	KILOWATT HOUR	RPM	REVOLUTIONS PER MINUTE
AMP	AMPERE	ESP	EXTERNAL STATIC PRESSURE	LAT	LEAVING AIR TEMPERATURE	RS	REFRIGERANT SUCTION
AP	ACCESS PANEL	F	FAHRENHEIT	LF	LINEAR FOOT (FEET)	RV	RELIEF VENT
APD	AIR PRESSURE DROP	FA	FREE AREA	LVG	LEAVING	SA	SUPPLY AIR
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE	FC	FLEXIBLE CONNECTION	LVR	LOUVER	SAT	SUPPLY AIR TEMPERATURE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	FD	FLOOR DRAIN	M	METER, SI UNIT	SC	SHADING COEFFICIENT
		FF	FIRE DAMPER	M/s	METERS PER SECOND (OR METERS/SECOND)	SCFM	STANDARD CUBIC FEET PER MINUTE
BD	BUTTERFLY DAMPER	FM	FINAL FILTER	MA	MIXED AIR	SCR	SILICON CONTROLLED RECTIFIER
BDD	BACKDRAFT DAMPER	FFM	FLOW METER	MAT	MIXED AIR TEMPERATURE	SD	SUPPLY AIR DIFFUSER
BFP	BACKFLOW PREVENTER	FFS	FEET PER MINUTE	MAX	MAXIMUM	SF	SUPPLY FAN
BHP	BRAKE HORSEPOWER	FS	FEET PER SECOND	MB	MIXING BOX	SI	SQUARE INCHES
BTU	BRITISH THERMAL UNIT	FSTAT	FLOW SWITCH	MBH	1000 BTUH	SP GR	STATIC PRESSURE
BTUH	BRITISH THERMAL UNIT PER HOUR	FT	FEET	MCA	MINIMUM BRANCH CIRCUIT AMPACITY	SPS	STATIC PRESSURE SENSOR
		FT-LB	FOOT-POUND	MERV	MINIMUM EFFICIENCY REPORTING VALUE	SQ FT	SQUARE FOOT (FEET)
		FV	FACE VELOCITY	MHP	MOTOR HORSEPOWER	SR	SUPPLY AIR REGISTER
C	CENTIGRADE (CELCIUS)	GA	GAUGE	MIN	MINIMUM	SS	STAINLESS STEEL
CC	COOLING COIL	GAL	GALLONS	MM	MILLIMETER	TAB	TESTING, ADJUSTING, BALANCE
CCD	COOLING COIL CONDENSATE DRAIN	GAL	GALLONS	MOD	MOTOR-OPERATED DAMPER	TD	TEMPERATURE DIFFERENCE
CENT	CENTRIFUGAL	GS	GALVANIZED STEEL	MVD	MANUAL VOLUME DAMPER	TSP	TOTAL STATIC PRESSURE
CFH	CUBIC FEET PER HOUR	HD	HEAD	NA	NOT APPLICABLE	TSTAT	THERMOSTAT
CFM	CUBIC FEET PER MINUTE	HOA	HAND/OFF/AUTOMATIC	NC	NOISE CRITERIA	UL	UNDERWRITERS LABORATORY
CFT	CUBIC FEET	HP	HEAT PUMP	NC	NOISE CRITERIA	VAF	VANE-AXIAL FAN
CO	CLEAN OUT	HRW	HORSEPOWER	NOM	NOMINAL	VAV	VARIABLE AIR VOLUME
CO2	CARBON DIOXIDE	HSTAT	HEAT RECOVERY WHEEL	NTS	NOT TO SCALE	VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
COP	COEFFICIENT OF PERFORMANCE	HX	HUMIDISTAT	OA	OUTSIDE AIR	VI	VIBRATION ISOLATOR
CU	CONDENSING UNIT	HZ	HEAT EXCHANGER	OAI	OUTSIDE AIR INTAKE	W	WATTS
CV	CONSTANT VOLUME	IAQ	HEAT EXCHANGER	OD	OUTSIDE AIR INTAKE	Wb	WET-BULB (TEMPERATURE)
		ID	INSIDE DIAMETER	OSA	OUTSIDE SUPPLY AIR (CONDITIONED)	WG	WATER GAGE
D	DAMPER - AUTOMATIC			PCF	POUNDS PER CUBIC FOOT (FEET)		
dB	DECIBELS			PD	PRESSURE DROP		
Db	DRY-BULB TEMPERATURE			PF	PRE-FILTER		
DEG	DEGREE			PG	PRESSURE GAGE		
DF	DIFFUSER			PPM	PARTS PER MILLION		
DIA	DIAMETER			PSI	POUNDS PER SQUARE INCH		
DP	DEW POINT TEMPERATURE			PSIA	POUNDS PER SQUARE INCH - ABSOLUTE		
				PSIG	POUNDS PER SQUARE INCH - GAGE		

## MECHANICAL GENERAL NOTES

- ALL MECHANICAL SYSTEMS SHALL BE INSTALLED TO THE SATISFACTION OF THE LOCAL CODE AUTHORITIES HAVING JURISDICTION. MECHANICAL SYSTEMS SHALL COMPLY WITH THE 2012 NORTH CAROLINA MECHANICAL CODE, THE 2012 NORTH CAROLINA ENERGY CONSERVATION CODE, THE 2012 NORTH CAROLINA BUILDING CODE, AND OTHER APPLICABLE CODES.
- INSTALL EQUIPMENT TO ALLOW MAXIMUM POSSIBLE HEADROOM UNLESS SPECIFIC MOUNTING HEIGHTS ARE INDICATED.
- INSTALL EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS IN EXPOSED INTERIOR SPACES, UNLESS OTHERWISE INDICATED.
- ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- INSTALL HVAC EQUIPMENT TO FACILITATE SERVICE, MAINTENANCE, AND REPAIR OR REPLACEMENT OF COMPONENTS. CONNECT EQUIPMENT FOR EASE OF REMOVAL, WITH MINIMUM INTERFERENCE TO OTHER INSTALLATIONS.
- PROVIDE ALL SUPPORTS REQUIRED TO INSTALL DUCTWORK, PIPING AND EQUIPMENT.
- ALL FLOOR-MOUNTED MECHANICAL EQUIPMENT SHALL BE MOUNTED ON 4" THICK CONCRETE HOUSEKEEPING PADS UNLESS NOTED OTHERWISE.
- AIR FILTERS SHALL BE REPLACED IN ALL AIR HANDLING EQUIPMENT EMPLOYING SUCH PRIOR TO FINAL COMPLETION AND OWNER OCCUPANCY. ANY TEMPORARY FILTERS USED IN EQUIPMENT PRIOR TO TAB SHALL BE REPLACED WITH NEW FILTERS TO BE USED DURING TAB.
- ALL RETURN AND EXHAUST DUCT OPENINGS ASSOCIATED WITH MECHANICAL EQUIPMENT USED DURING CONSTRUCTION SHALL BE COVERED WITH ROLL TYPE FILTER MEDIA DURING SUCH TEMPORARY OPERATION. OPERATION OF THE MECHANICAL EQUIPMENT PRIOR TO FINAL COMPLETION SHALL NOT IMPACT THE EQUIPMENT WARRANTY. WARRANTY SHALL BE MINIMUM 1-YEAR FROM SUBSTANTIAL COMPLETION UNLESS SPECIFIED OTHERWISE.
- PROVIDE FLEXIBLE DUCT CONNECTION BETWEEN MOTOR DRIVEN MECHANICAL UNITS AND SHEET METAL SUPPLY, OUTDOOR AIR, EXHAUST, AND/OR RETURN AIR DUCTWORK CONNECTIONS.
- BASIS OF DESIGN MECHANICAL EQUIPMENT IS AS SCHEDULED ON THE DRAWINGS. INSTALLING CONTRACTOR ASSUMES RESPONSIBILITY FOR COORDINATING PHYSICAL SPACE REQUIREMENTS OF EQUIVALENT CAPACITY MECHANICAL EQUIPMENT DEEMED ACCEPTABLE BY THE ENGINEER.
- MECHANICAL EQUIPMENT FACTORY FINISH DAMAGED DURING THE COURSE OF CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION PRIOR TO FINAL ACCEPTANCE.
- DUCTWORK IS SHOWN IN SCHEMATIC FORM. ALL REQUIRED DUCT RISERS AND DROPS TO ALLOW GENERAL ROUTING DEPICTED MAY NOT BE SHOWN. PROVIDE OFFSETS AS REQUIRED TO MEET SPACE REQUIREMENTS AND TO AVOID INTERFERENCE WITH OTHER TRADES AND FIELD CONDITIONS. EXACT LOCATION OF THE DUCTWORK MAY VARY ACCORDING TO THE COORDINATED SPACE REQUIREMENTS. EACH TRADE SHALL BE TOTALLY RESPONSIBLE FOR COORDINATION WITH OTHER TRADES. NOTIFY ENGINEER OF CONDITIONS REPRESENTING SIGNIFICANT CHANGES TO THE DESIGNED ROUTING.
- COMPLY WITH NFPA 90A, "INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS;" UNLESS OTHERWISE INDICATED.
- COMPLY WITH NFPA 90B, "INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS;" UNLESS OTHERWISE INDICATED.
- FABRICATE RECTANGULAR DUCTS, ELBOWS, TRANSITIONS, OFFSETS, BRANCH CONNECTIONS, AND OTHER CONSTRUCTION WITH GALVANIZED, SHEET STEEL, ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE." COMPLY WITH REQUIREMENTS FOR METAL THICKNESS, REINFORCING TYPES AND INTERVALS, TIE-ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS.
- COORDINATE SIZE, QUANTITY, AND LOCATION OF ALL OPENINGS REQUIRED FOR DUCT AND PIPE PENETRATIONS THROUGH WALLS, FLOORS, AND ROOFS, WITH CONTRACTOR RESPONSIBLE FOR ROUGH FRAMING. COORDINATE LOCATION OF AIR INTAKES WITH EXHAUST AND PLUMBING VENTS SO THAT INTAKES ARE A MINIMUM OF 10 FEET FROM EXHAUST OPENINGS OR PLUMBING VENTS.
- INSTALL DUCTS IN LONGEST LENGTH POSSIBLE AND FEWEST POSSIBLE JOINTS. INSTALL FABRICATED FITTINGS FOR CHANGES IN DIRECTIONS, CHANGES IN SIZE AND SHAPE, AND CONNECTIONS.
- ROOF CURBS ON SLOPING ROOFS SHALL BE INSTALLED SUCH THAT THE EQUIPMENT ON THE CURB IS INSTALLED LEVEL.
- INSTALL DUCTS, UNLESS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY, PARALLEL AND PERPENDICULAR TO BUILDING LINES; AVOID DIAGONAL RUNS UNLESS SPECIFICALLY INDICATED ON DRAWINGS.
- CEILING DIFFUSERS SHALL BE 4-WAY THROW TYPE, UNLESS NOTED OTHERWISE.
- COORDINATE MECHANICAL CEILING DEVICES SUCH AS DIFFUSERS AND REGISTERS WITH LIGHT FIXTURES, FIRE ALARM DEVICES, AND OTHER CEILING DEVICES.
- ELECTRICAL EQUIPMENT SPACES: ROUTE DUCTWORK TO AVOID PASSING THROUGH ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES. AVOID ROUTING DUCTWORK DIRECTLY ABOVE ELECTRICAL EQUIPMENT UNLESS SPECIFICALLY INDICATED ON THE MECHANICAL DRAWINGS.
- NON-FIRE-RATED PARTITION PENETRATIONS: WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS AND ARE EXPOSED TO VIEW IN MECHANICAL ROOMS, CONCEAL SPACE BETWEEN CONSTRUCTION OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME METAL THICKNESS AS DUCT. OVERLAP OPENING ON FOUR SIDES BY AT LEAST 1-1/2 INCHES UNLESS INDICATED OTHERWISE.
- PROVIDE MANUAL VOLUME-CONTROL BALANCING DAMPER AT ALL BRANCH DUCTS AND AT ALL OTHER LOCATIONS REQUIRED FOR A COMPLETE AND BALANCEABLE AIR DISTRIBUTION SYSTEM. BALANCE ENTIRE AIR DISTRIBUTION SYSTEM TO AIRFLOW QUANTITIES INDICATED ON MECHANICAL DRAWINGS.
- FLEXIBLE DUCTWORK SHALL BE ALLOWED ONLY IN POSITIVE PRESSURE APPLICATIONS AT SUPPLY BRANCH RUNOUTS TO DIFFUSERS ABOVE ACCESSIBLE CEILINGS. FLEXIBLE DUCTWORK SHALL NOT EXCEED 60' IN LENGTH. 90 DEGREE TURNS SHALL ONLY BE ALLOWED IF RETAINING BANDS EQUAL TO THERMAFLEX "FLEX-FLOW" ARE EMPLOYED. UNDER NO CIRCUMSTANCES SHALL FLEXIBLE DUCTWORK BE ALLOWED IN NEGATIVE PRESSURE APPLICATIONS.
- DELIVER PIPES AND TUBES WITH FACTORY-APPLIED END CAPS. MAINTAIN END CAPS THROUGH SHIPPING, STORAGE, AND HANDLING TO PREVENT PIPE END DAMAGE AND TO PREVENT ENTRANCE OF DIRT, DEBRIS, AND MOISTURE.
- COORDINATE PIPE ROUTINGS AND OPENINGS IN BUILDING STRUCTURE WITH ALL TRADES DURING PROGRESS OF CONSTRUCTION. COORDINATE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SET SLEEVES IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS AS THEY ARE CONSTRUCTED.
- INSTALL PIPING IN CONCEALED LOCATIONS, UNLESS OTHERWISE INDICATED AND EXCEPT IN EQUIPMENT ROOMS AND SERVICE AREAS. INSTALL PIPING INDICATED TO BE EXPOSED AND PIPING IN EQUIPMENT ROOMS AND SERVICE AREAS AT RIGHT ANGLES OR PARALLEL TO BUILDING WALLS. DIAGONAL RUNS ARE PROHIBITED UNLESS SPECIFICALLY INDICATED OTHERWISE.
- INSTALL PIPING ABOVE ACCESSIBLE CEILINGS TO ALLOW SUFFICIENT SPACE FOR CEILING PANEL REMOVAL.
- VERIFY FINAL EQUIPMENT LOCATIONS FOR ROUGH-IN.
- SYSTEMS SHALL OPERATE UNDER CONDITIONS OF LOAD WITHOUT UNUSUAL OR EXCESSIVE NOISE OR VIBRATION. UNUSUAL OR EXCESSIVE NOISE OR VIBRATION SHALL BE CORRECTED.
- PROVIDE DISCONNECT SWITCHES OR MAGNETIC MOTOR STARTERS FOR ALL DIVISION 23 EQUIPMENT. MAGNETIC MOTOR STARTERS SHALL COMPLY WITH SPECIFICATION SECTION 26 29 13. COORDINATE CONNECTION WITH DIVISION 26. REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.

## MECHANICAL SYSTEMS AND EQUIPMENT METHOD OF COMPLIANCE:

PREScriptive  ENERGY COST BUDGET

THERMAL ZONE: 4A

### EXTERIOR DESIGN CONDITIONS:

WINTER DRY BULB: 19.6°F  
SUMMER DRY/WET BULB: 92.4°F

### INTERIOR DESIGN CONDITIONS:

WINTER DRY BULB: 70°F  
SUMMER DRY BULB: 75°F  
RELATIVE HUMIDITY: 50%

BUILDING HEATING LOAD: 145.8 MBH

BUILDING COOLING LOAD: 147.4 MBH

### MECHANICAL SPACE CONDITIONING SYSTEM:

UNITARY - SPLIT SYSTEM AHUS  
BOILER - NOT APPLICABLE TO THIS PROJECT  
CHILLER - NOT APPLICABLE TO THIS PROJECT

### EQUIPMENT EFFICIENCIES:

REFER TO EQUIPMENT SCHEDULES

### EQUIPMENT SCHEDULES WITH MOTORS:

SEE DRAWINGS FOR EFFICIENCIES

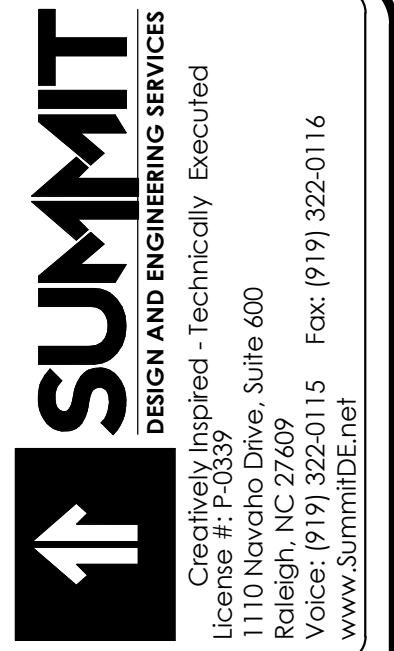
### DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS REPLACEMENT SYSTEM COMPLIES WITH THE MECHANICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE, 2012 EDITION - ENERGY.

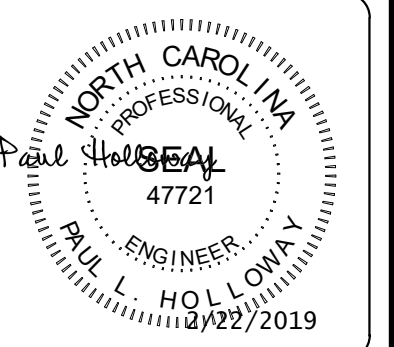
SIGNED: Paul Holloway  
NAME: PAUL L. HOLLOWAY  
TITLE: PROFESSIONAL ENGINEER

## MECHANICAL LEGEND

	THERMOSTAT		SIDE MOUNTED GRILLE
	SUPPLY DIFFUSER		TERMINAL UNIT SUPPLY DUCT BRANCH (CONICAL TAP)
	RETURN DIFFUSER/GRILLE		STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)
	EXHAUST GRILLE		BALANCING DAMPER (RECTANGULAR)
	DIFFUSER TAG   DIFFUSER CFM		BALANCING DAMPER (ROUND)
	MOTOR-OPERATED DAMPER		REFRIGERANT LIQUID PIPING
	ROUND FLEX DUCT		REFRIGERANT SUCTION PIPING
	INCLINED RISE, IN DIRECTION OF AIRFLOW		CONDENSATE DRAIN LINE
	INCLINED DROP, IN DIRECTION OF AIRFLOW		PIPE UP
	SUPPLY DUCT (UP & DOWN)		PIPE DOWN
	EXHAUST DUCT (UP & DOWN)		BOTTOM CONNECTION
	RETURN DUCT (UP & DOWN)		TOP CONNECTION
	VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)		CAPPED OUTLET
	STANDARD RADIUS ELBOW (LONG RADIUS)		WALL-MOUNTED INDOOR SPLIT-SYSTEM
	NEW DUCT (INSIDE DIMENSIONS: WIDTH X DEPTH)		SPLIT-SYSTEM CONDENSING UNIT
	DUCT TRANSITION		DISCONNECT SWITCH



Apogee Consulting Group, P.A.  
1151 Kilahe Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
www.apogee.com



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME

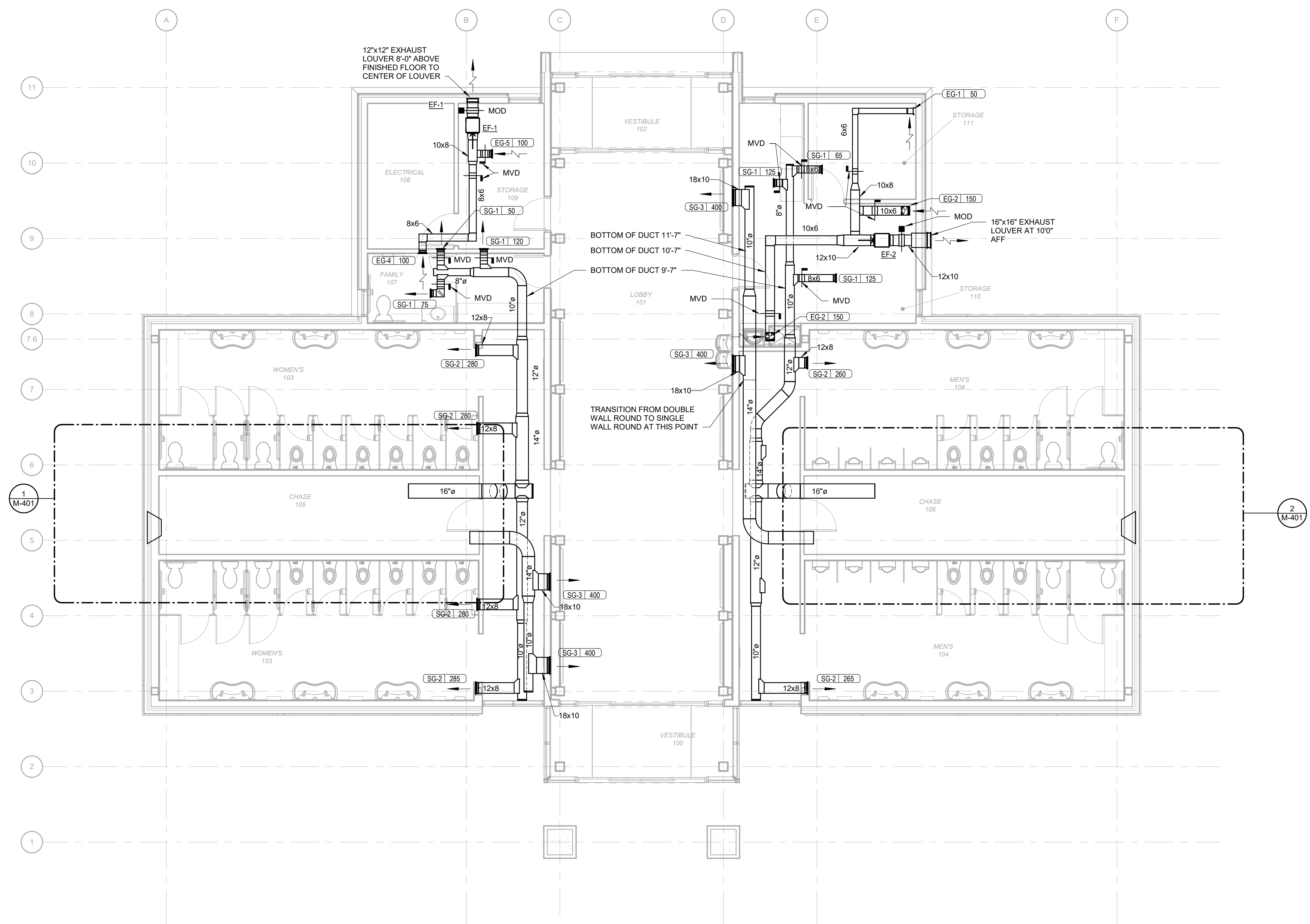
DRAWN BY: SMH/PLH FIRST ISSUE DATE: 11/02/2018

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	
B	ISSUED FOR NCDOT	01/22/19	PLH	
C	ISSUED FOR CONST.	02/21/19	PLH	

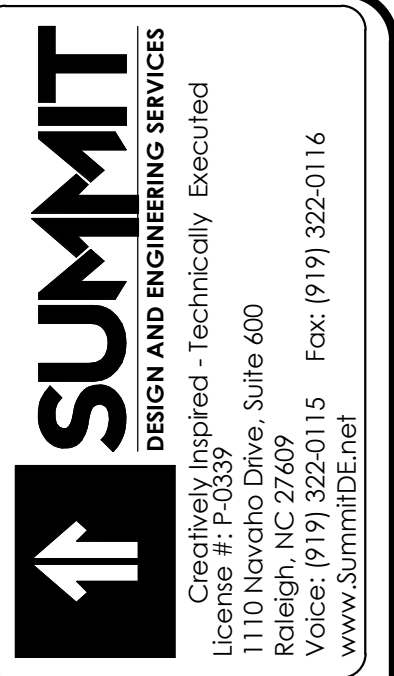
NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**MECHANICAL GENERAL INFORMATION**

PROJECT NO.  
**18-0129.021**

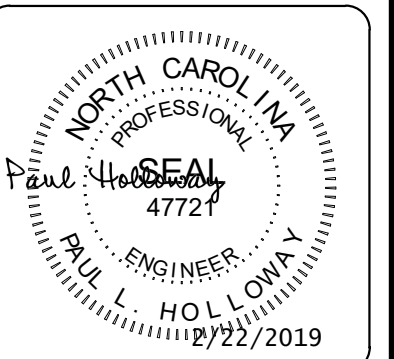
SHEET NO.  
**M-001**



**1 HVAC RESTROOM PLAN**  
 Scale: 3/16" = 1'-0"



**Apogee Consulting Group, P.A.**  
 1151 Klilane Farm Road, Suite 120  
 Cary, North Carolina 27511  
 NC License #C-1848  
 www.apogee.com 919-885-7420



ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED  
 PROJECT MANAGER  
 JOSEPH A. ANGELL II, PE, F. SAME

DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

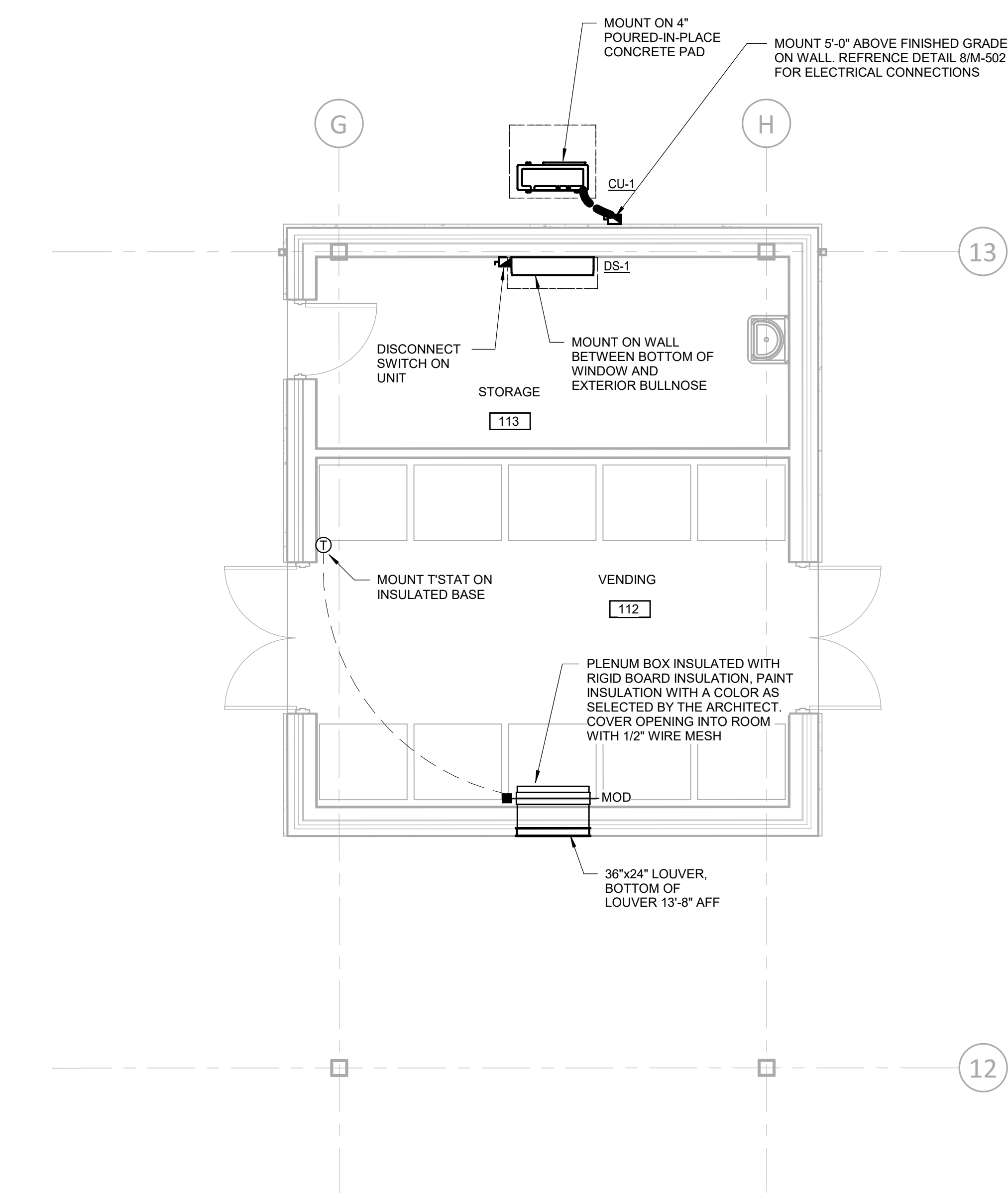
NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732

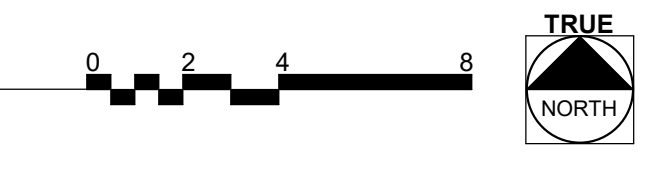
PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**MH101**

**HVAC RESTROOM PLAN**



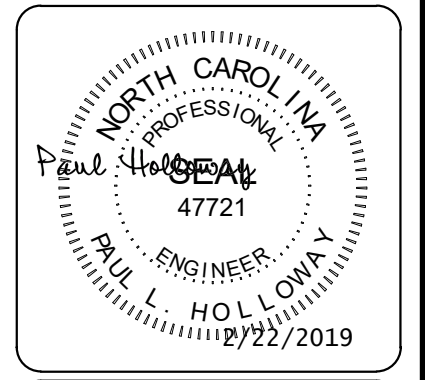


**1 HVAC VENDING PLAN**  
Scale: 1/4" = 1'-0"



**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively inspired - Technically Executed  
1110 Newchico Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**Apogee Consulting Group, P.A.**  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.aogp.com 919-888-7420  
Engineers | Architects



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME

DRAWN BY: SMH/PLH FIRST ISSUE DATE: 11/02/2018

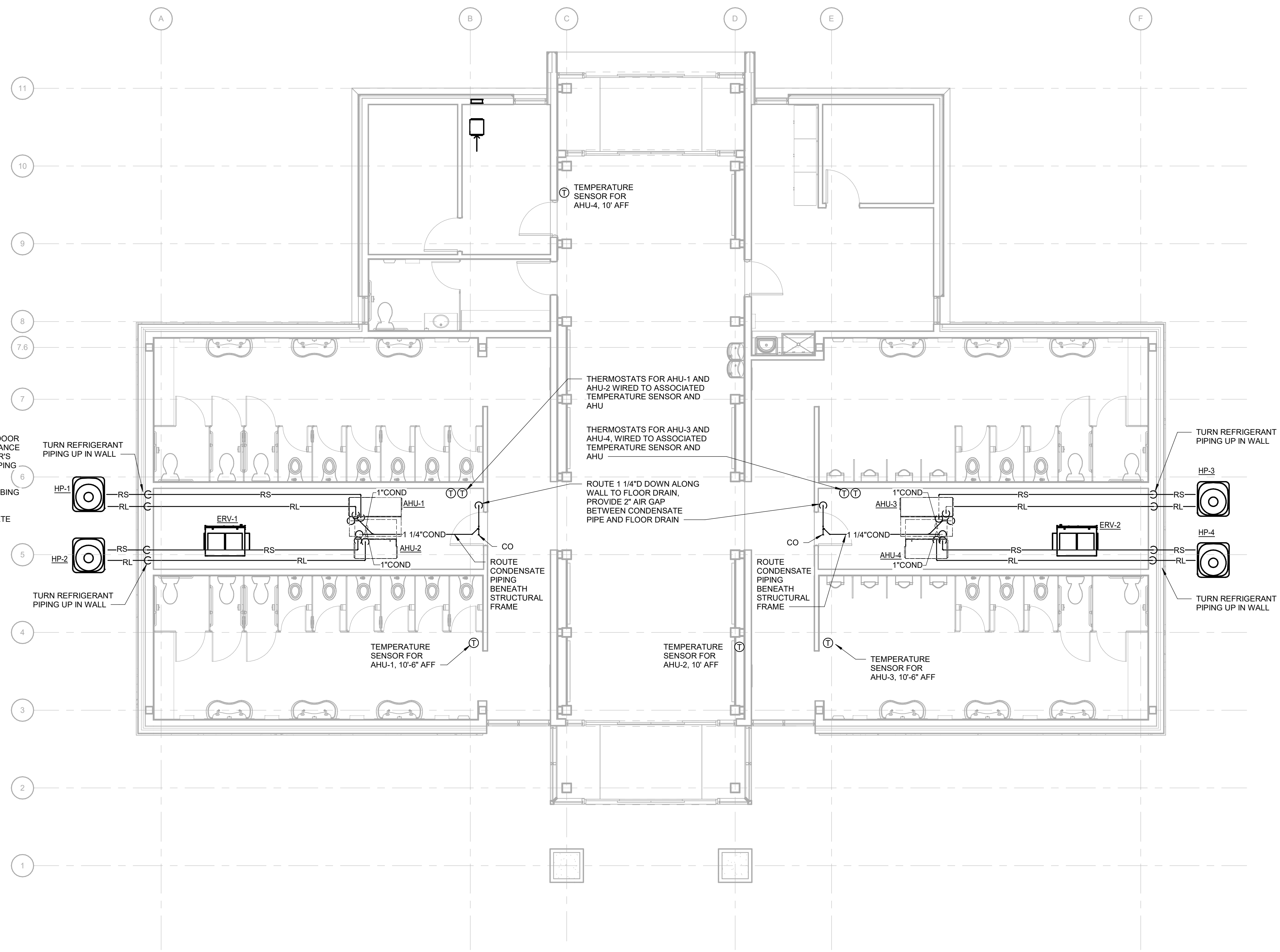
NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

NCDOT PROJECT #I-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732

**HVAC VENDING PLAN**

PROJECT NO.  
**18-0129.021**

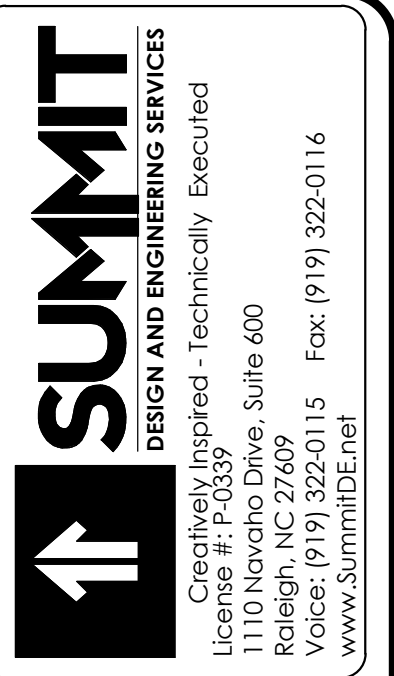
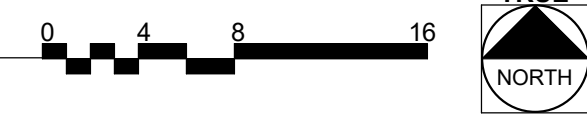
SHEET NO.  
**MH102**



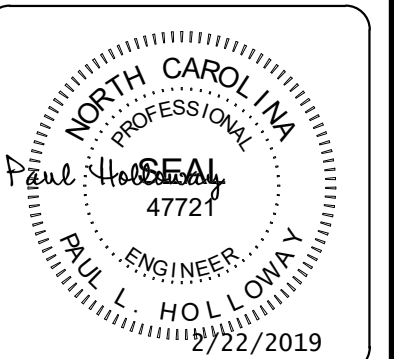
NOTE: SIZE, ROUTE AND INSTALL REFRIGERANT PIPING FROM OUTDOOR UNIT TO INDOOR UNIT IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S INSTRUCTIONS. REFRIGERANT PIPING SHOWN ON DRAWINGS IS FOR REFERENCE ONLY. COORDINATE ROUTING WITH DUCTWORK, PLUMBING PIPING, AND OTHER DISCIPLINES. COORDINATE LOCATIONS OF CONDENSING UNITS AND CONCRETE PADS WITH FRENCH DRAIN.

NOTE: SIZE, ROUTE AND INSTALL REFRIGERANT PIPING FROM OUTDOOR UNIT TO INDOOR UNIT IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S INSTRUCTIONS. REFRIGERANT PIPING SHOWN ON DRAWINGS IS FOR REFERENCE ONLY. COORDINATE ROUTING WITH DUCTWORK, PLUMBING PIPING, AND OTHER DISCIPLINES. COORDINATE LOCATIONS OF CONDENSING UNITS AND CONCRETE PADS WITH FRENCH DRAIN.

**1 MECHANICAL PIPING RESTROOM PLAN**  
Scale: 3/16" = 1'-0"



**Apogee Consulting Group, P.A.**  
1151 Kilahe Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
APOGEE Engineers | Architects www.apogee.com 919-888-7420

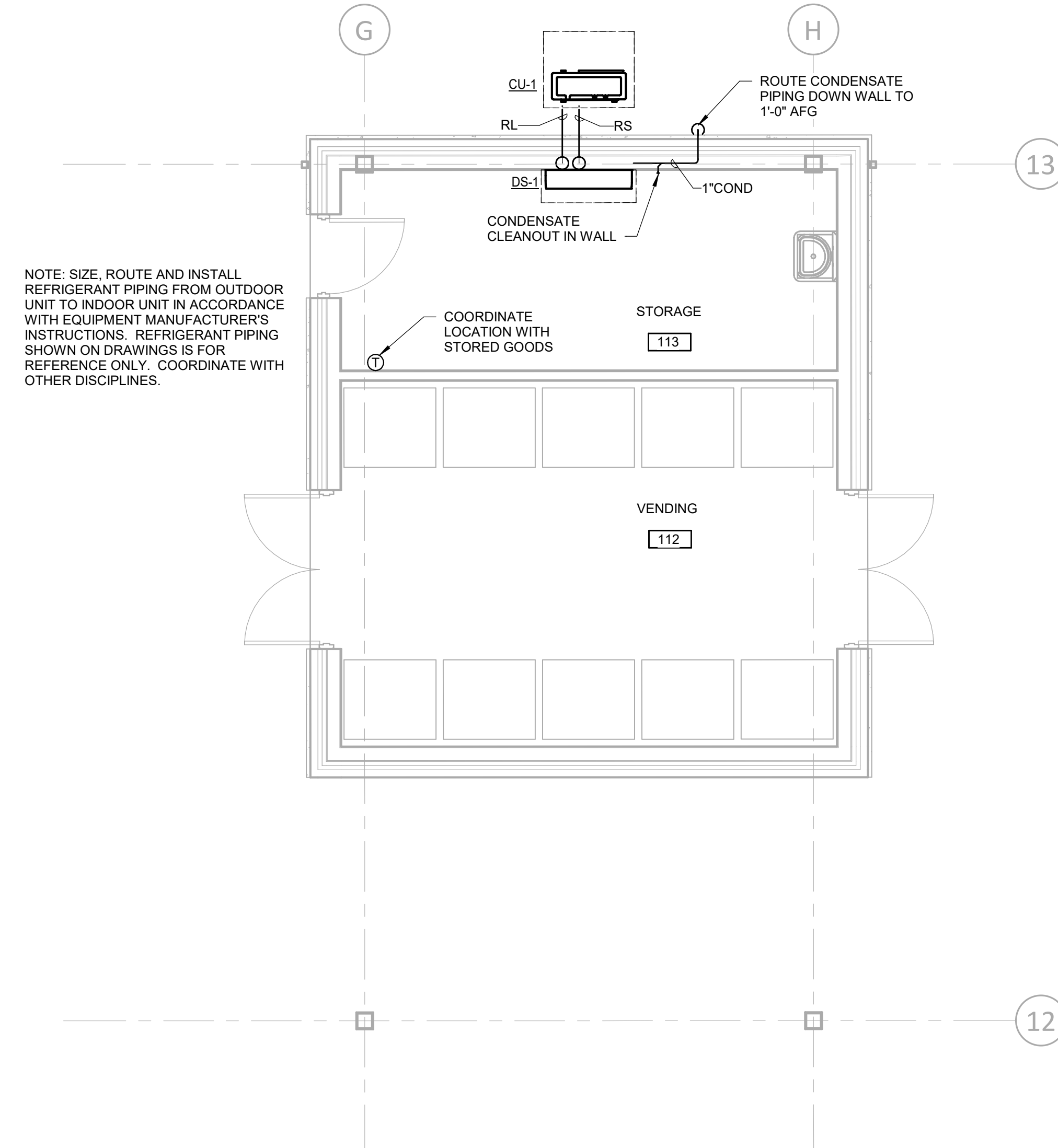


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	
B	ISSUED FOR NCDOT	01/22/19	PLH	
C	ISSUED FOR CONST.	02/21/19	PLH	

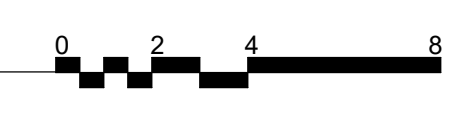
NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**MECHANICAL PIPING RESTROOM PLAN**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**MP101**



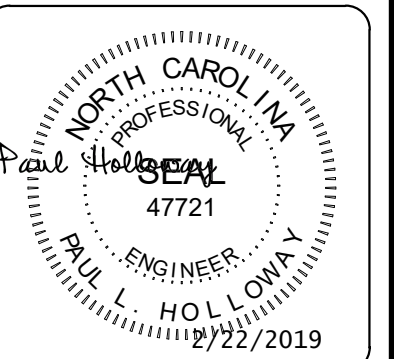
NOTE: SIZE, ROUTE AND INSTALL REFRIGERANT PIPING FROM OUTDOOR UNIT TO INDOOR UNIT IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S INSTRUCTIONS. REFRIGERANT PIPING SHOWN ON DRAWINGS IS FOR REFERENCE ONLY. COORDINATE WITH OTHER DISCIPLINES.

**1 MECHANICAL PIPING VENDING PLAN**  
Scale: 1/4" = 1'-0"



**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Navarro Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**Apogee Consulting Group, P.A.**  
1151 Kildare Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.aagcpe.com 919-888-7420  
**APOGEE** Engineers | Architects

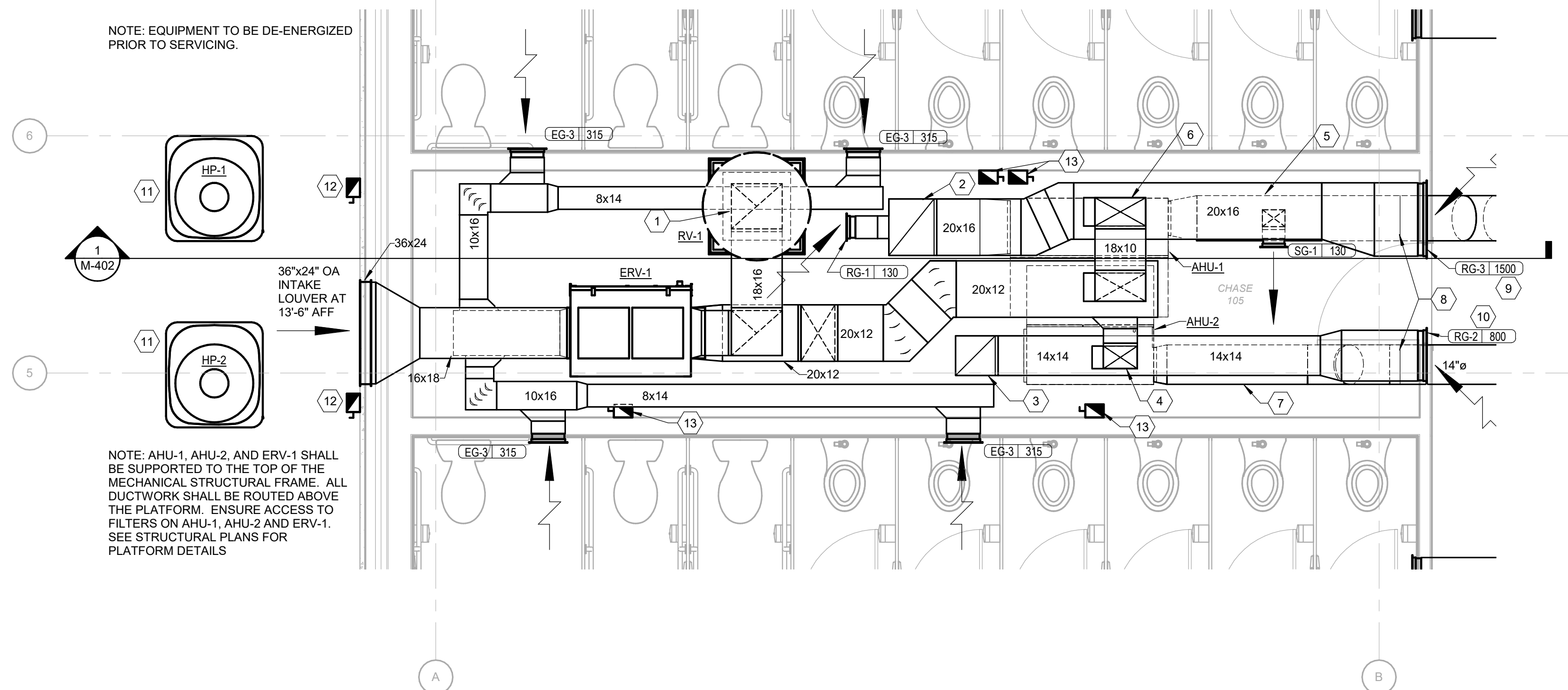


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

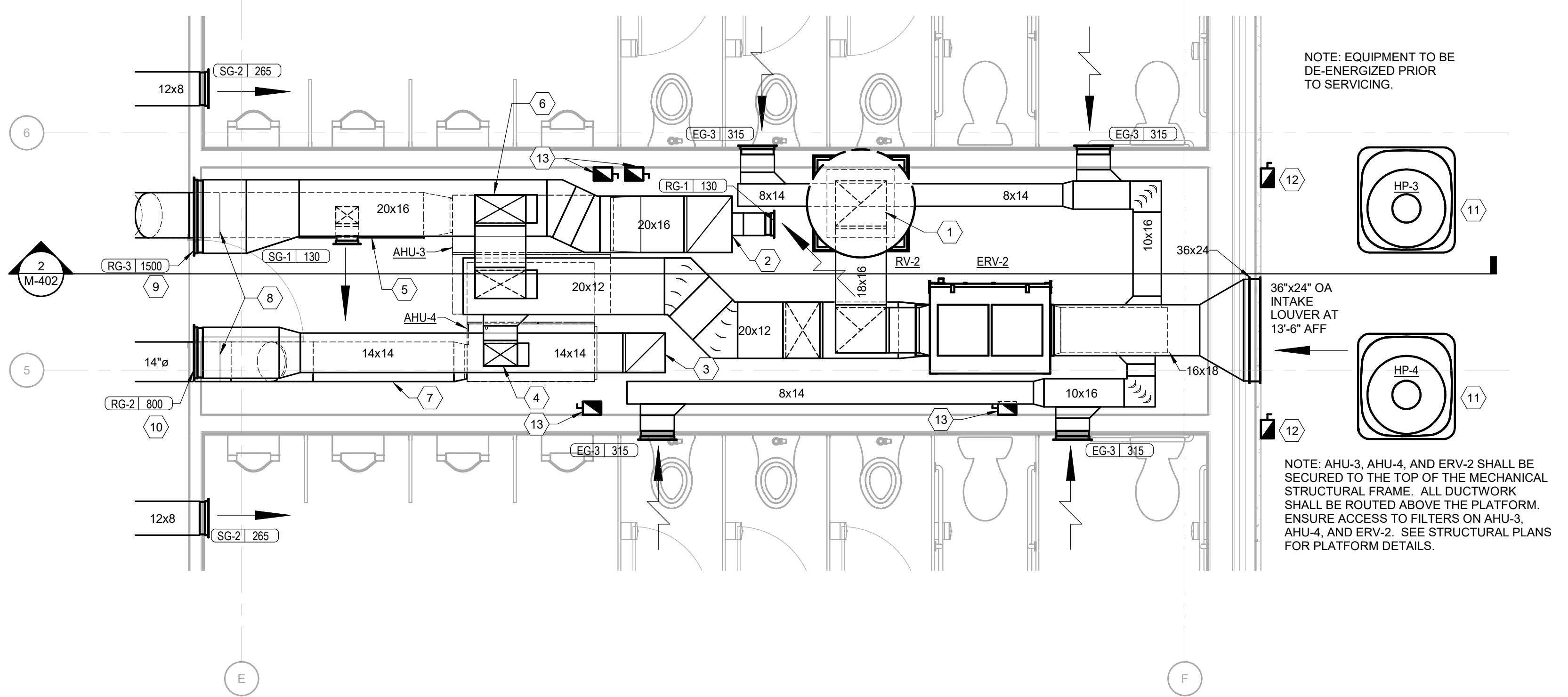
NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT # 4-400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**MECHANICAL PIPING VENDING PLAN**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**MP102**

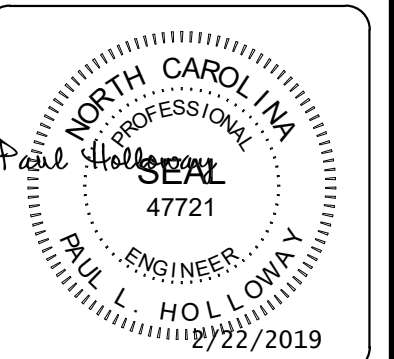
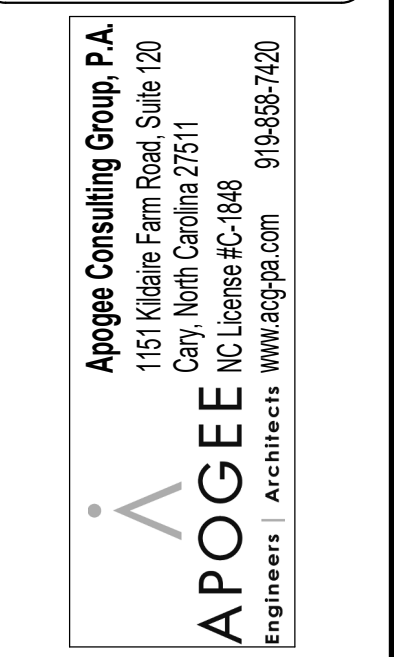
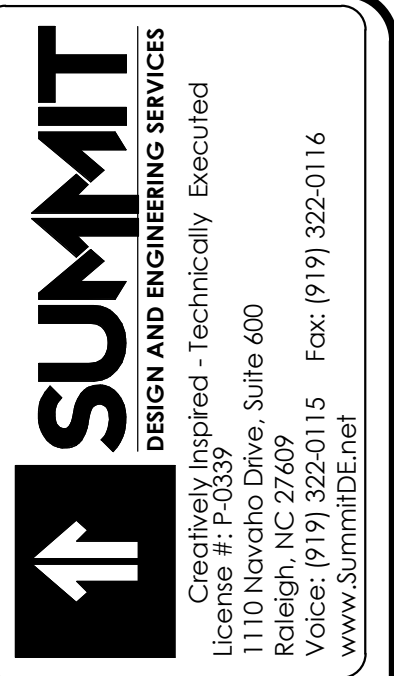


**1 CHASE 105 ENLARGED FLOOR PLAN - HVAC**  
Scale: 3/8" = 1'-0"



**2 CHASE 106 ENLARGED FLOOR PLAN - HVAC**  
Scale: 3/8" = 1'-0"

KEYNOTES	
NUMBER	NOTE
1	16"x18" UP TO RV-1 ON ROOF.
2	20"x16" RETURN DUCT DN TO AHU-1 RETURN AIR CONNECTION.
3	14"x14" RETURN DUCT DN TO AHU-2 RETURN AIR CONNECTION.
4	12"x8" OUTSIDE AIR DUCT, CONNECT TO TOP OF RETURN DUCT. PROVIDE MANUAL BALANCING DAMPER IN VERTICAL, BALANCE OUTSIDE AIR TO 450 CFM.
5	16" DIA SUPPLY DUCT BENEATH 20"x16" RETURN DUCT.
6	18"x10" OUTSIDE AIR DUCT, CONNECT TO TOP OF RETURN DUCT. PROVIDE MANUAL BALANCING DAMPER IN VERTICAL, BALANCE OUTSIDE AIR TO 970 CFM.
7	14" DIA SUPPLY DUCT BENEATH 14"x14" RETURN DUCT.
8	TRANSITION FROM SINGLE WALL ROUND TO DOUBLE WALL ROUND AT THIS POINT.
9	SCHEDULED RETURN AIRFLOW WILL OCCUR WHEN ERV-1 IS DE-ENERGIZED. RETURN AIRFLOW WHEN ERV-1 IS ENERGIZED SHALL BE 570 CFM.
10	SCHEDULED RETURN AIRFLOW WILL OCCUR WHEN ERV-1 IS DE-ENERGIZED. RETURN AIRFLOW WHEN ERV-1 IS ENERGIZED SHALL BE 350 CFM.
11	MOUNT OUTDOOR UNIT ON 4" POURED-IN-PLACE CONCRETE PAD.
12	MOUNT 5'-0" ABOVE FINISHED GRADE ON WALL. REFERENCE DETAIL 8M-502 FOR ELECTRICAL CONNECTIONS.
13	MOUNT 6'-0" ABOVE FINISHED FLOOR ON WALL. REFERENCE DETAIL 8M-502 FOR ELECTRICAL CONNECTIONS.

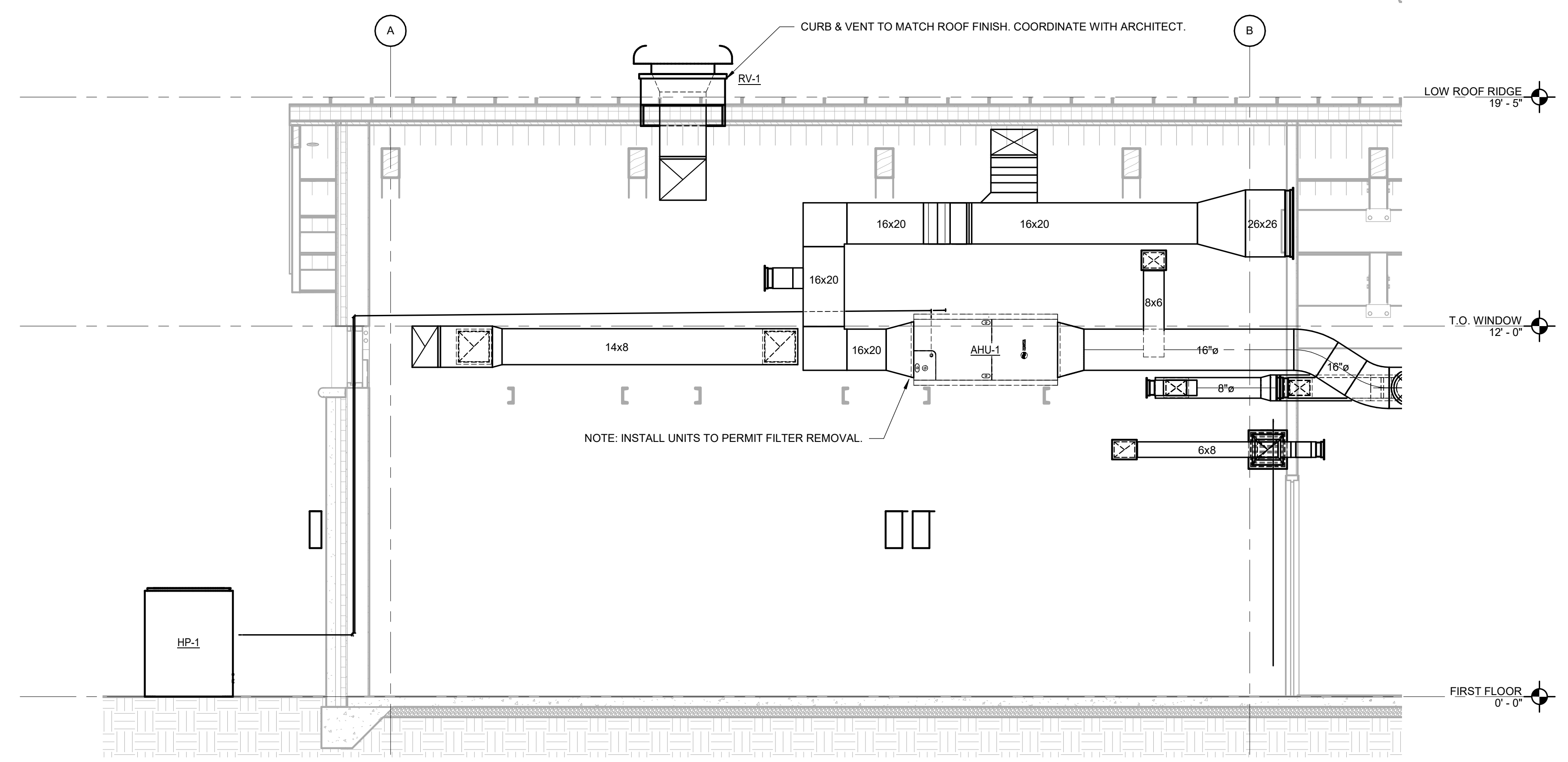


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

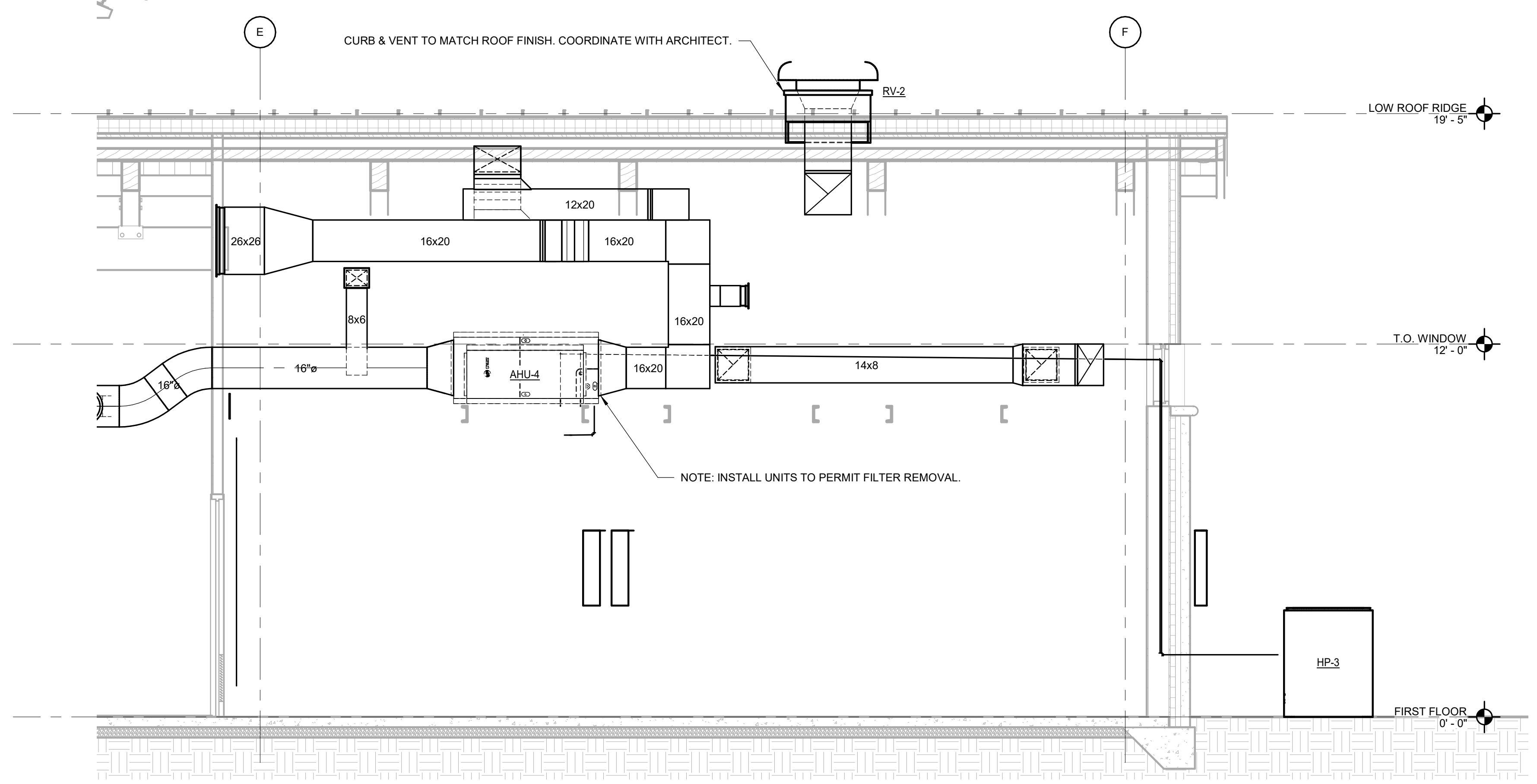
NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**ENLARGED MECHANICAL PLANS**

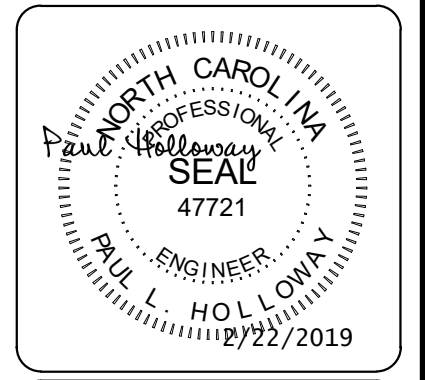
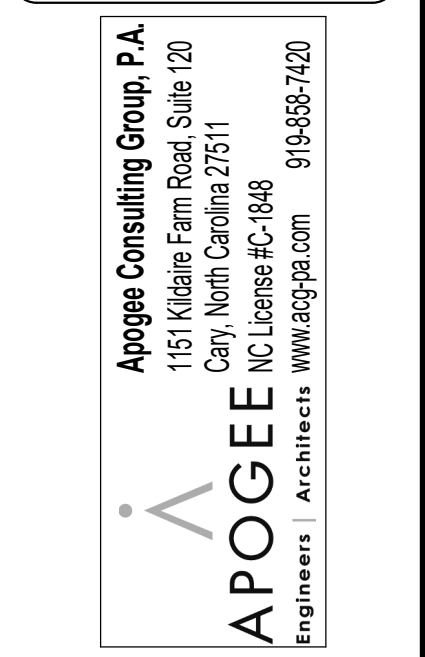
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**M-401**



**1 CHASE 105 SECTION #1 AT HVAC UNITS**  
Scale: 3/8" = 1'-0"



**2 CHASE 106 SECTION #2 AT HVAC UNITS**  
Scale: 3/8" = 1'-0"

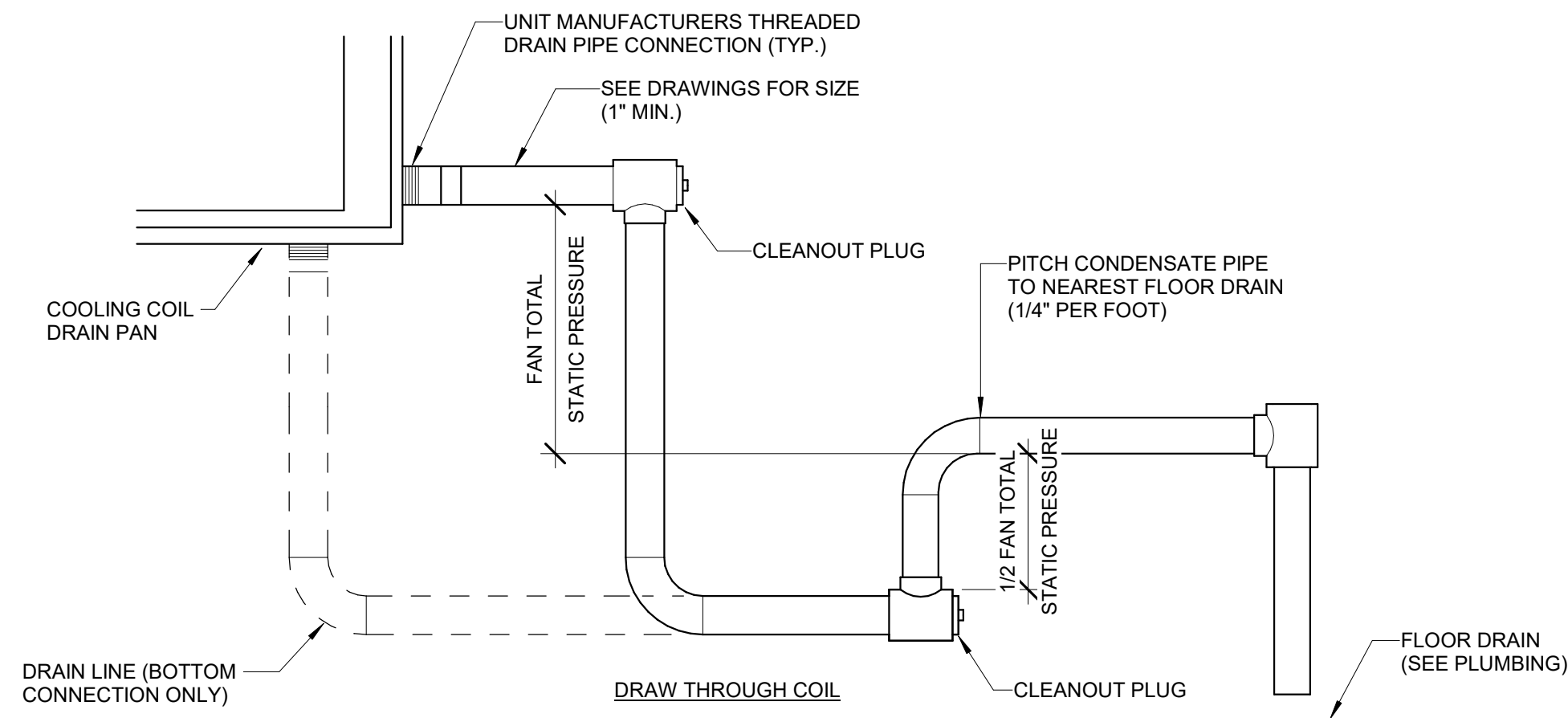
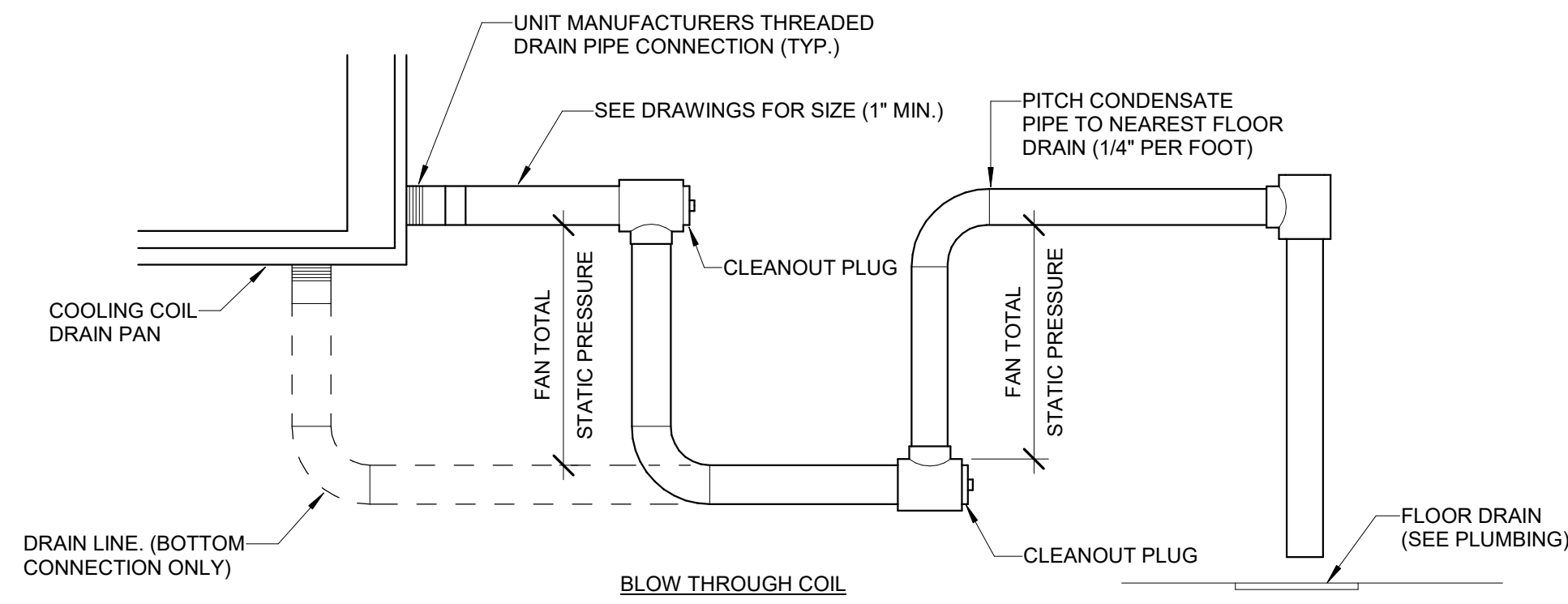


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

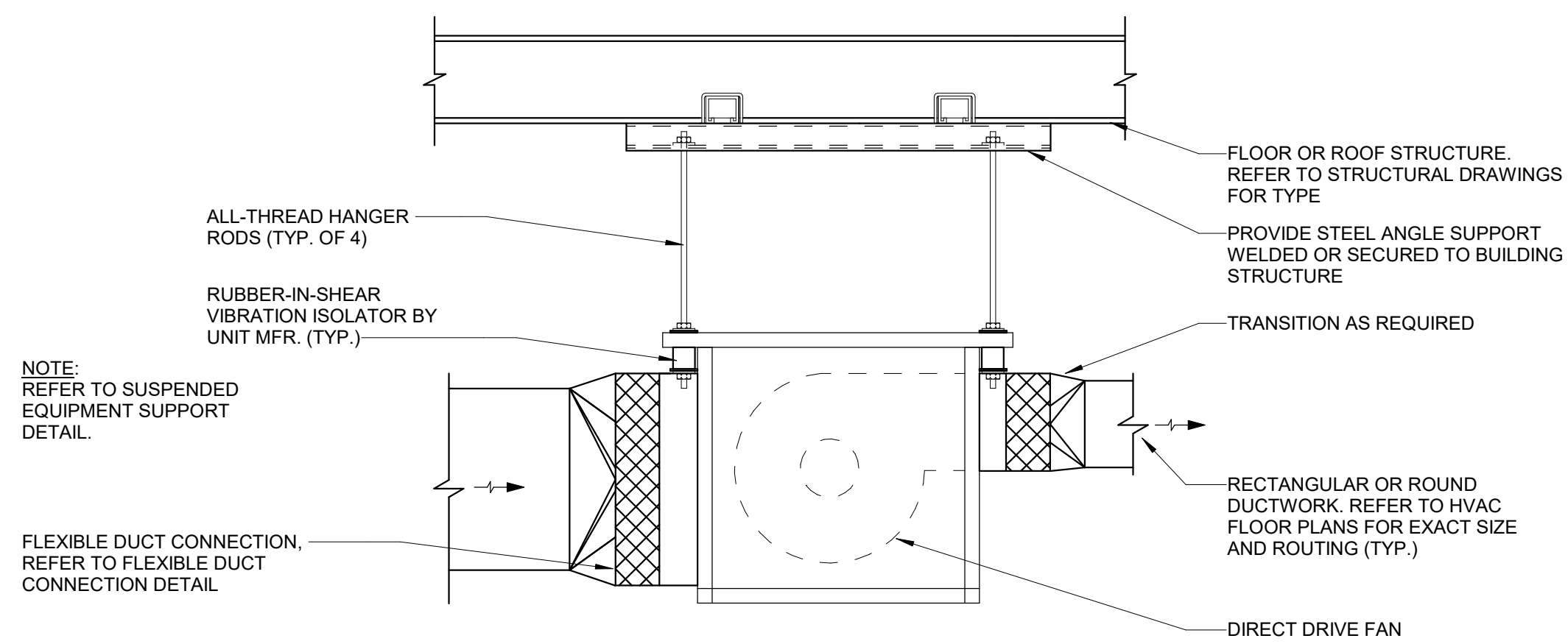
NO	REVISIONS	BY	DATE
A	ISSUED TO SCO	PLH	11/16/18
B	ISSUED FOR NCDOT	PLH	01/22/19
C	ISSUED FOR CONST.	PLH	02/21/19

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**ENLARGED MECHANICAL PLANS**

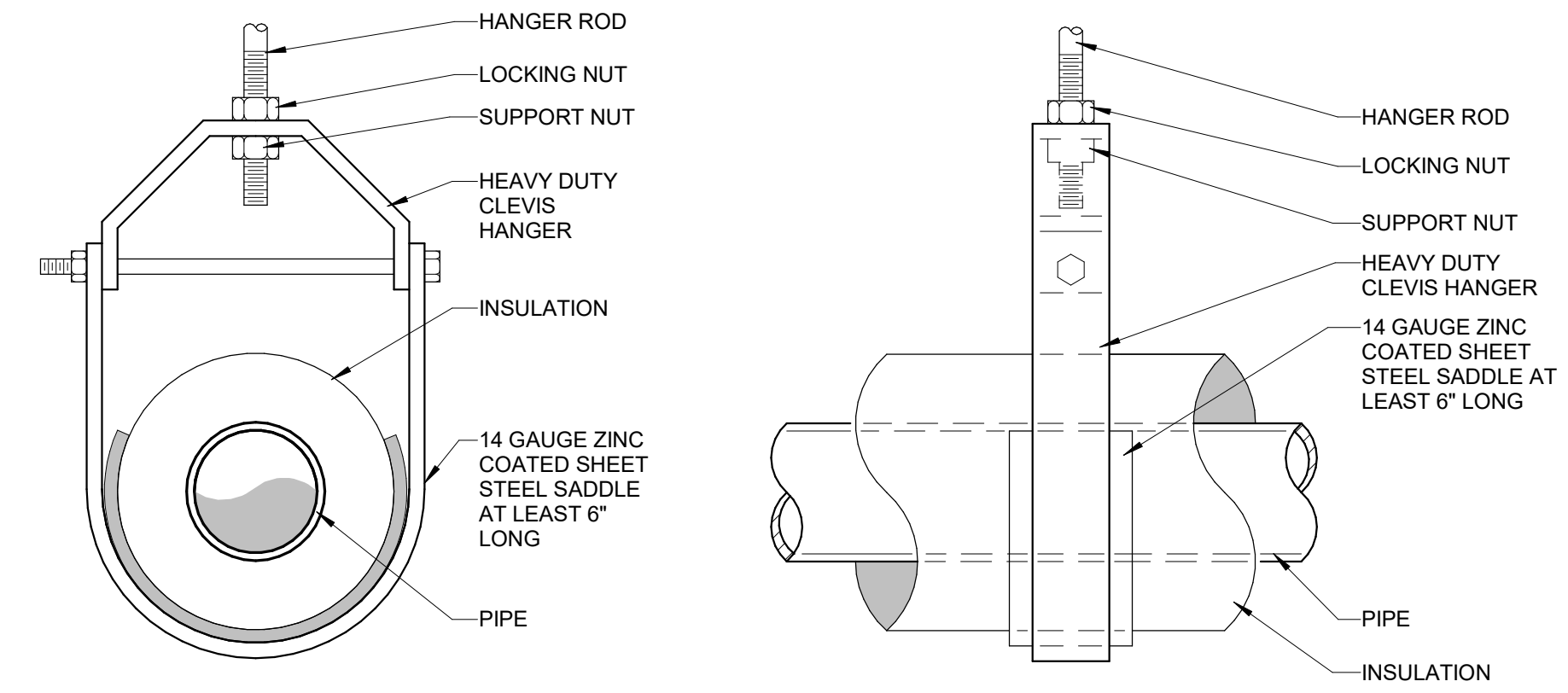
PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**M-402**



**2 CONDENSATE DRAIN PIPING DETAIL**  
Scale: N.T.S.

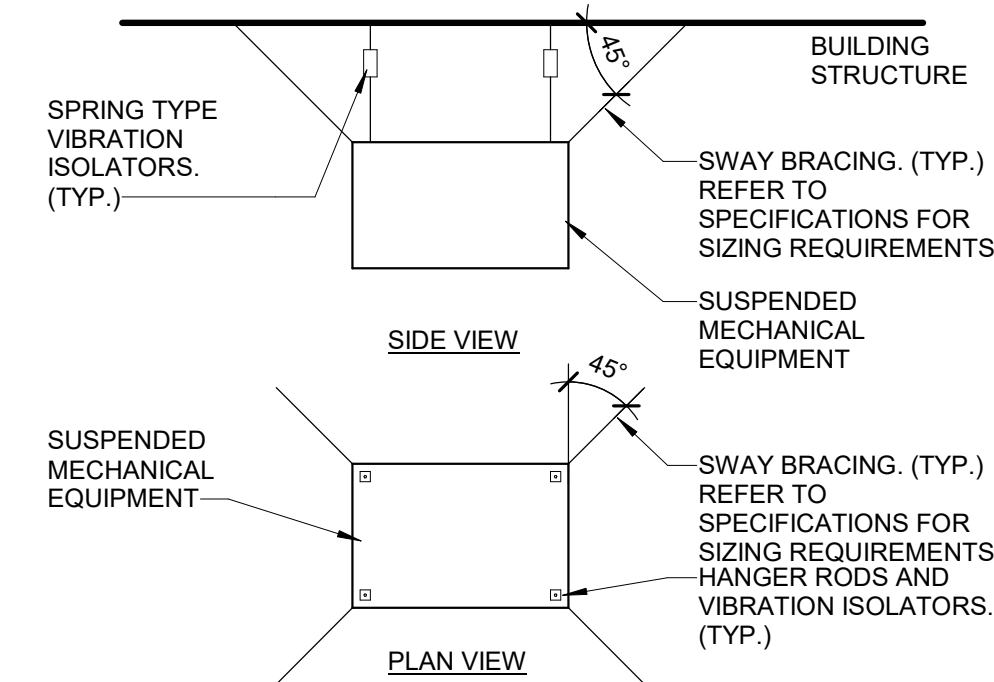


**5 IN-LINE EXHAUST FAN DETAIL**  
Scale: 1/8" = 1'-0"



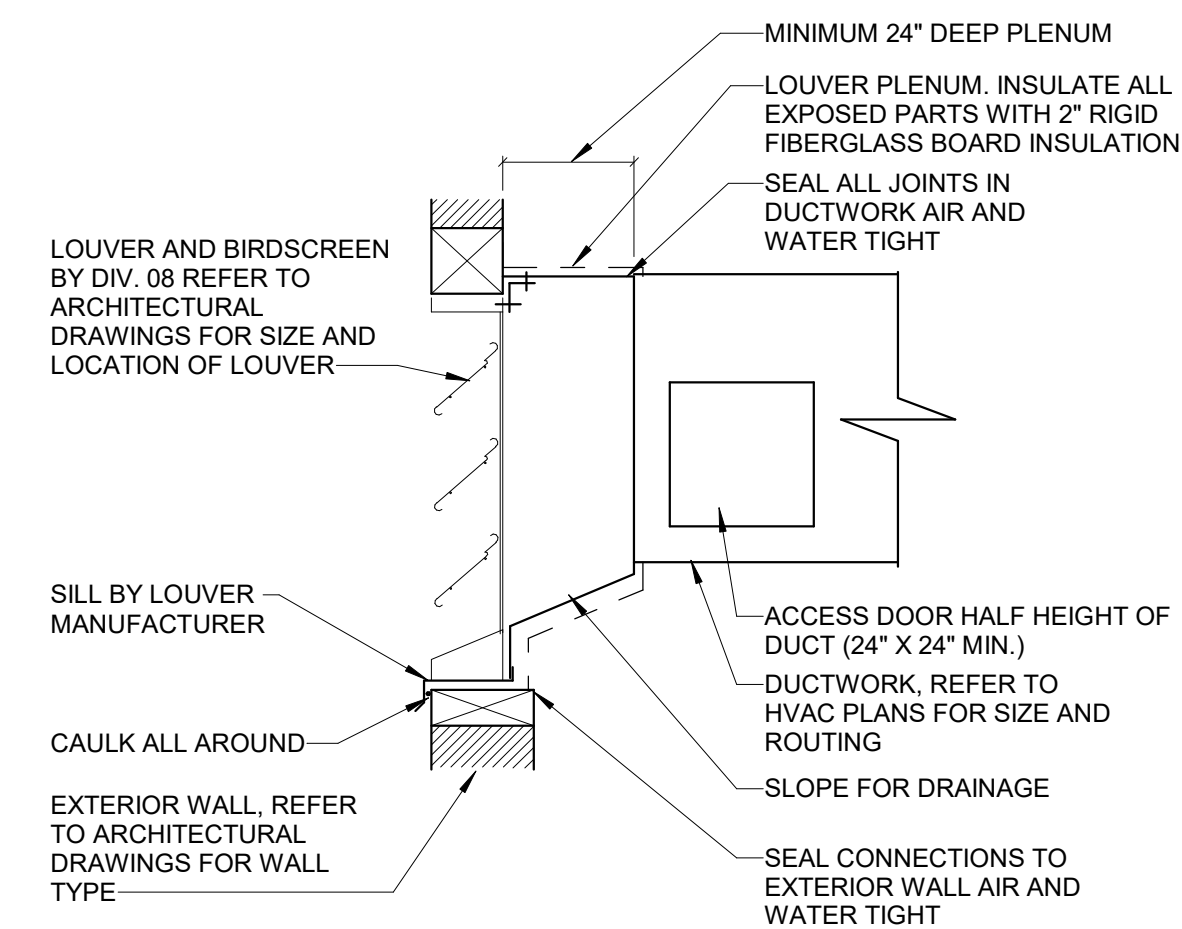
**PIPE HANGER (6" AND SMALLER) DETAIL**

**1 PIPE HANGER (6" AND SMALLER) DETAIL**  
Scale: N.T.S.

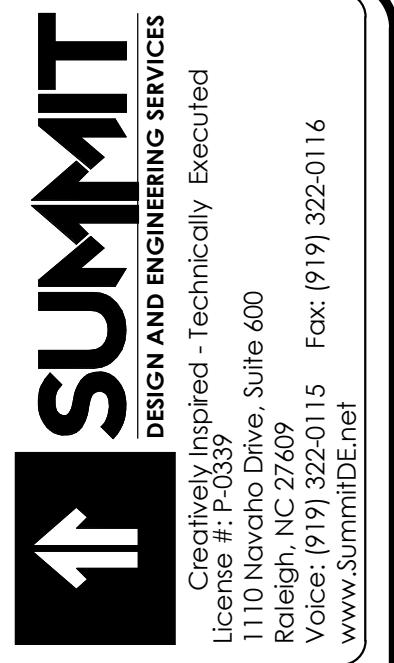


**NOTES:**  
1. PROVIDE ALL ASSOCIATED HARDWARE FOR THE ATTACHMENT OF THE SWAY BRACING TO THE BUILDING STRUCTURE AND TO THE HANGING EQUIPMENT.  
2. INSTALL SWAY BRACING TO AVOID BENDING ACROSS SHARP EDGES.  
3. SWAY BRACING SHALL BE INSTALLED WITH ADEQUATE SLACK TO ALLOW VIBRATION ISOLATION TO FUNCTION PROPERLY.

**3 SUSPENDED EQUIPMENT SUPPORT DETAIL**  
Scale: N.T.S.

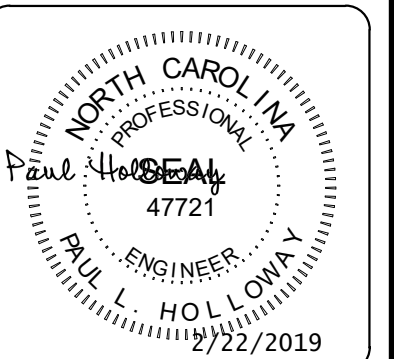


**4 LOUVER CONNECTION DETAIL**  
Scale: 1/8" = 1'-0"



**Apogee Consulting Group, P.A.**  
1151 Kilahe Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com

**APOGEE**  
Engineers | Architects | Interior Designers



**ARCHITECT OF RECORD**  
BRIAN T. SHEPARD, AIA, NCARB, LEED

**PROJECT MANAGER**  
JOSEPH A. ANGELL II, PE, F. SAME

**DRAWN BY** SMH/PLH  
**FIRST ISSUE DATE** 11/02/2018

NO	REVISIONS	BY	DATE
A	ISSUED TO SCO	PLH	11/16/18
B	ISSUED FOR NCDOT	PLH	01/22/19
C	ISSUED FOR CONST.	PLH	02/21/19

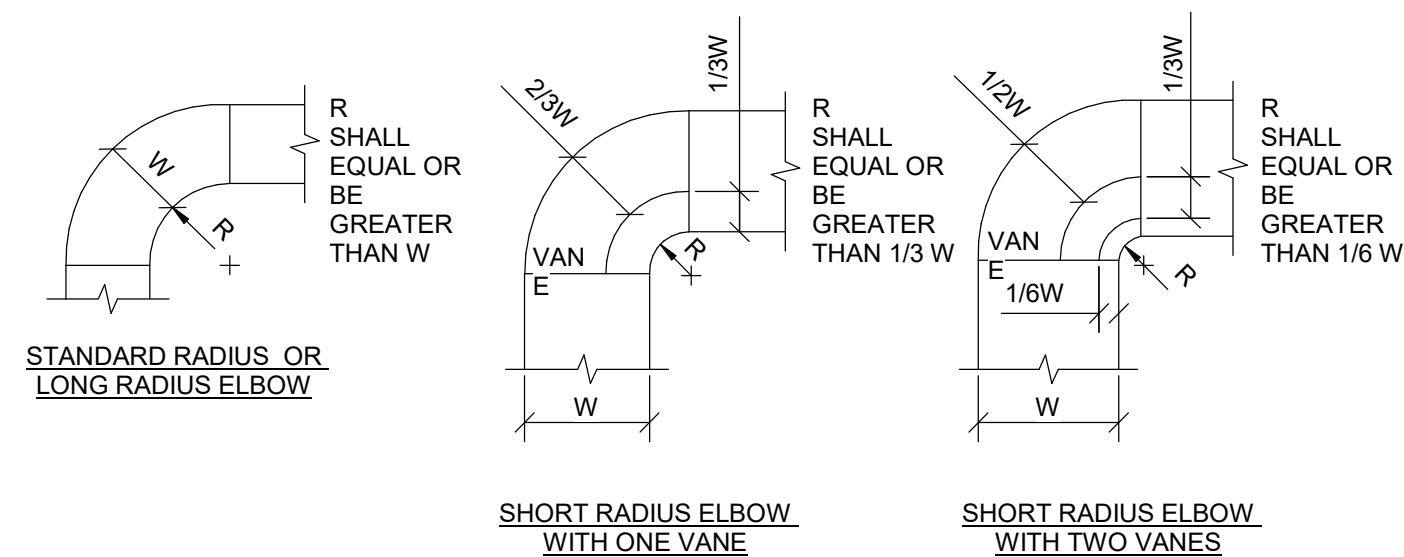
**NCDOT PROJECT #1-4400C**

**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732

**MECHANICAL DETAILS**

**PROJECT NO.**  
18-0129.021

**SHEET NO.**  
M-501

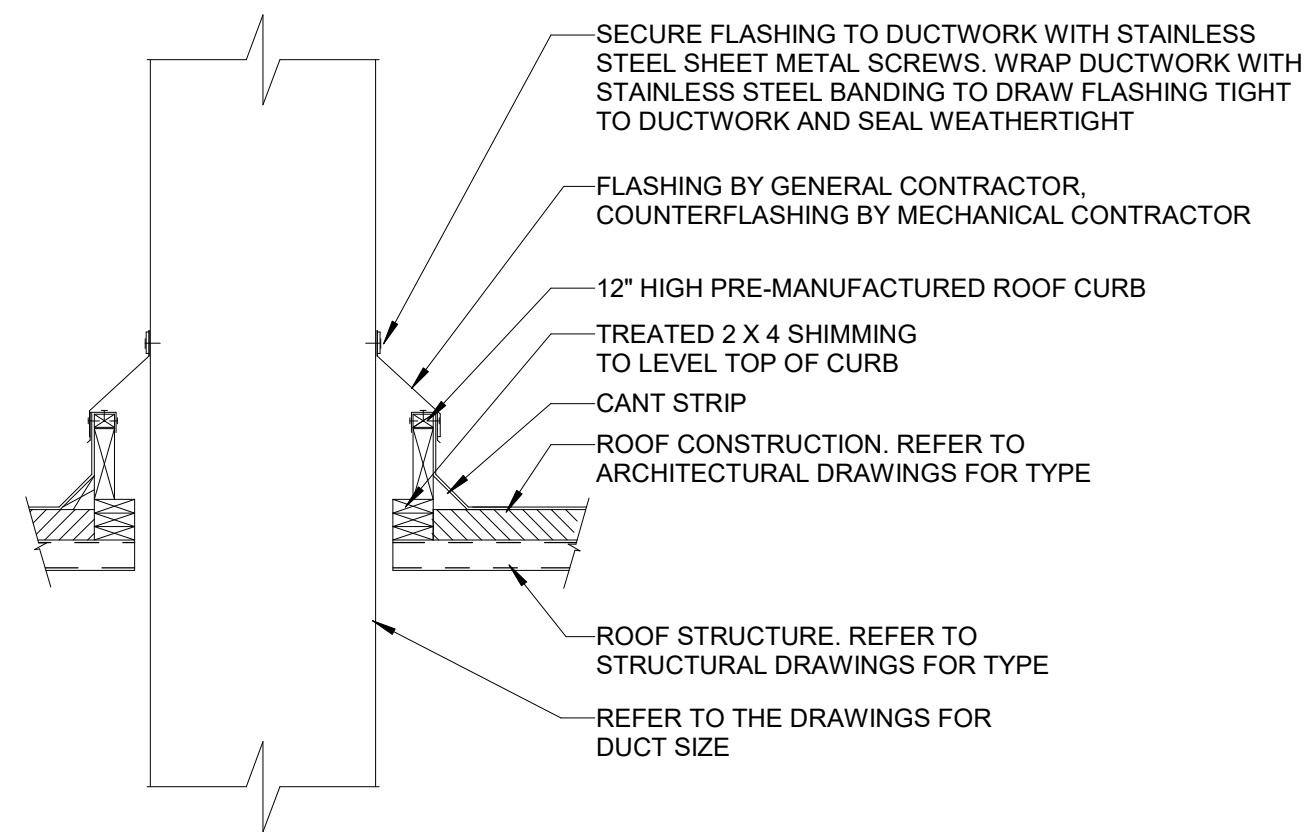


**NOTES:**

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD ELBOWS MAY BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

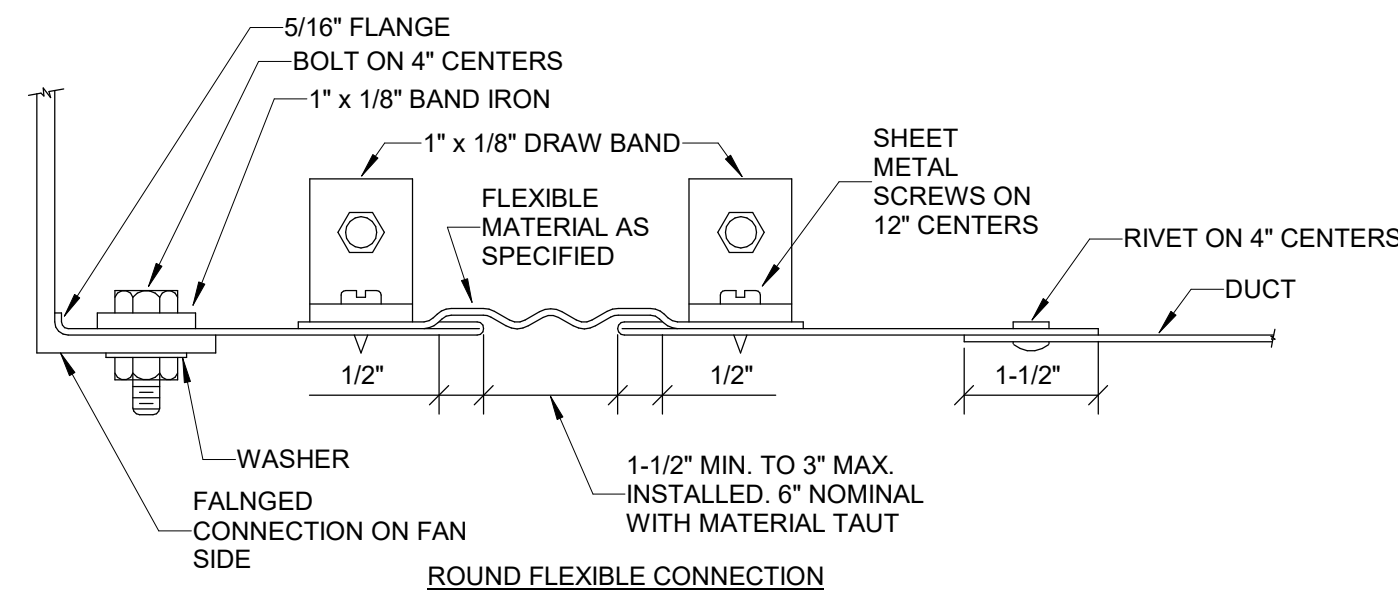
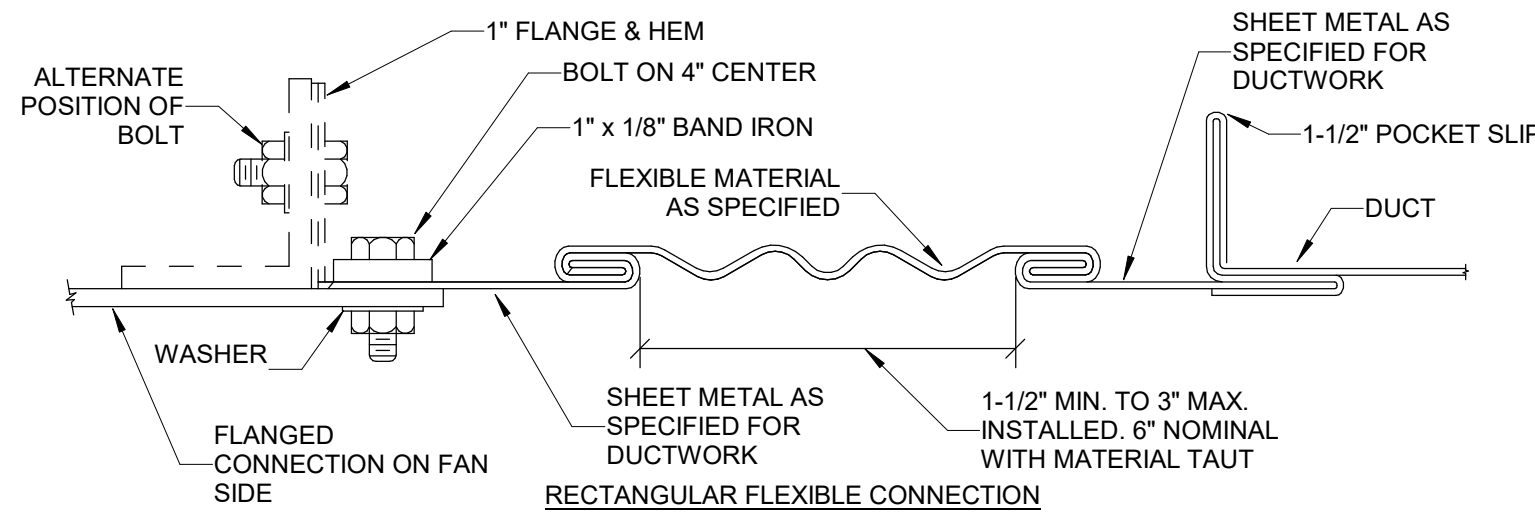
**6 DUCTWORK RADIUS ELBOW**

SCALE: N.T.S.



**7 DUCTWORK ROOF PENETRATION DETAIL**

SCALE: N.T.S.



**4 FLEXIBLE DUCT CONNECTIONS**

SCALE: N.T.S.

**NOTES:**

1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" RADIUS, 1-1/2" MAXIMUM SPACE BETWEEN VANES AND A 3/4" TRAILING EDGE.
4. WHEN W EQUAL W2 AND W1 IS GREATER THAN 20" VANES SHALL BE DOUBLE VANE TYPE.

**5 DUCTWORK SQUARE VANE ELBOWS**

SCALE: N.T.S.

**GENERAL NOTES:**

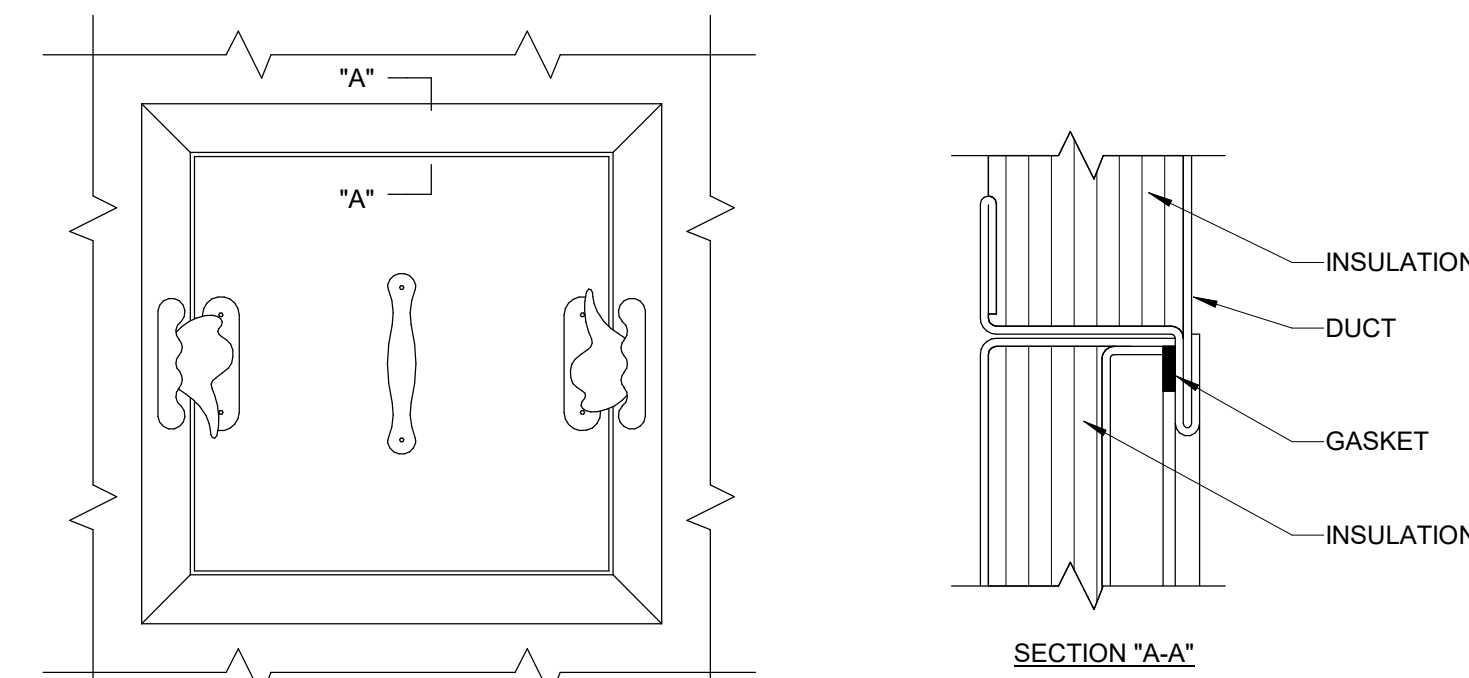
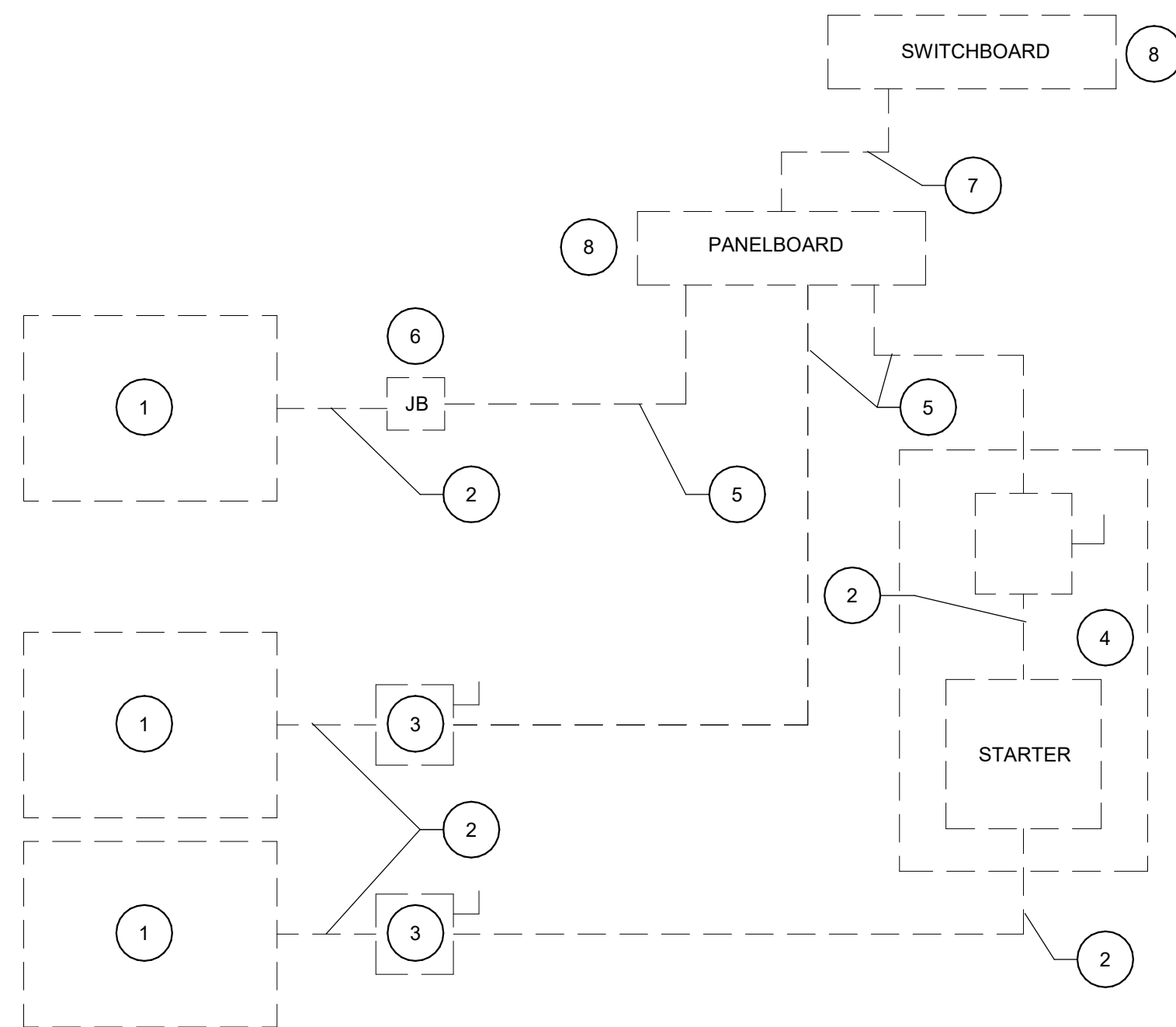
1. THE PURPOSE OF THIS DIAGRAM IS TO INDICATE THE RESPONSIBILITIES OF THE DIVISION 23 AND DIVISION 26 CONTRACTORS. THIS DIAGRAM IS NOT INTENDED TO BE USED TO SHOW THE METHOD OF INSTALLATION OF WIRING, CONDUIT OR EQUIPMENT. DO NOT USE THIS DIAGRAM FOR PURPOSES OTHER THAN THE INTENDED PURPOSE STATED ABOVE.
2. COORDINATE WITH THE DIVISION 26 CONTRACTOR THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT, AS WELL AS THE SIZING AND ROUTING OF ALL CONDUIT.
3. ALL WIRING AND CONDUIT SHALL BE SIZED, ROUTED AND INSTALLED IN ACCORDANCE WITH NEC AND THE APPLICABLE PORTIONS OF THE DIVISION 26 SPECIFICATIONS.
4. THE DIVISION 23 CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
5. SEE SPECIFICATION SECTION 26 28 16 FOR DISCONNECT SWITCHES. REFERENCE THE ELECTRICAL CONDUCTOR SCHEDULE ON SHEET E-601.

**DIAGRAM KEY NOTES:**

1. EQUIPMENT BY DIVISION 23.
2. CONDUIT & WIRING BY DIVISION 23.
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, OR IS CALLED FOR ON THE FLOOR PLANS, EQUIPMENT SCHEDULES, OR SPECIFICATIONS, IT SHALL BE PROVIDED AND INSTALLED BY THE DIVISION 23 EQUIPMENT CONTRACTOR.
4. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
5. FEEDER CIRCUIT WIRING AND CONDUIT BY DIVISION 26.
6. JUNCTION BOX BY DIVISION 26 (WHERE SHOWN ON PLANS).
7. WIRING AND CONDUIT BY DIVISION 26.
8. BY DIVISION 26.

**8 ELECTRICAL EQUIPMENT CONNECTION MECHANICAL DETAIL**

SCALE: N.T.S.



**ACCESS PANEL**

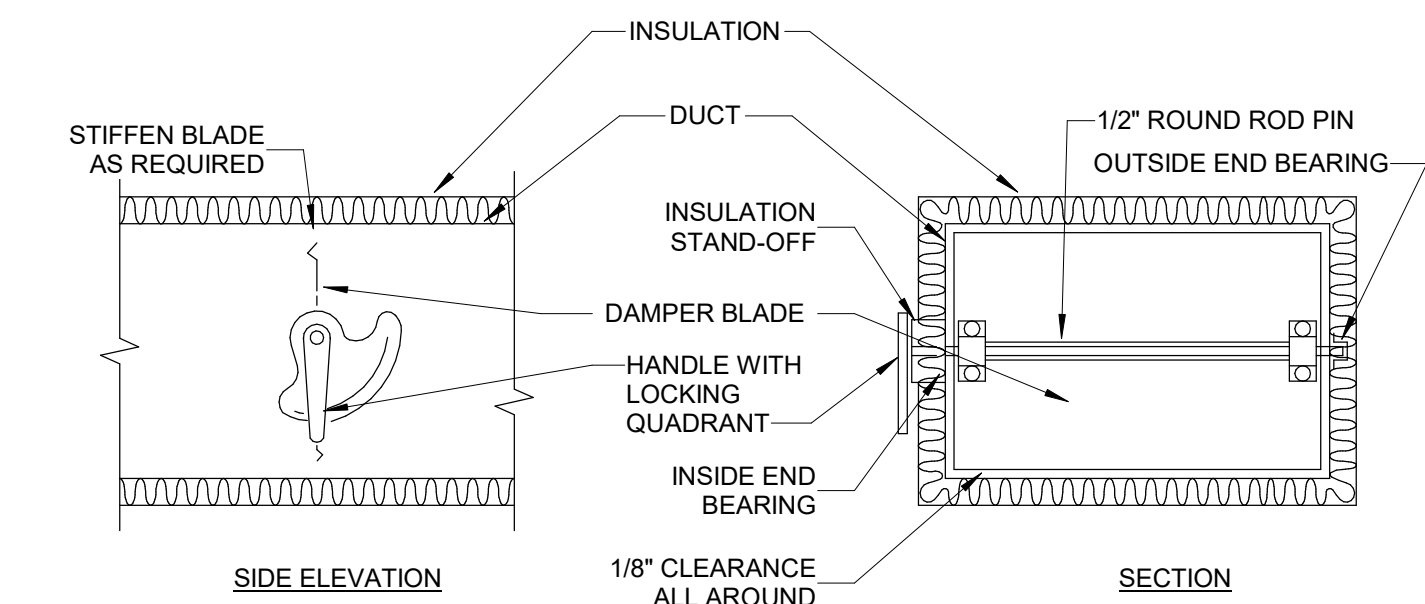
**ACCESS DOOR**

**NOTES:**

1. LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS TIGHTLY.
2. HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROSIVE PINS.
3. SEE SMACNA 2005, FIGURE 9-16

**1 ACCESS PANEL AND DOOR DETAIL**

SCALE: N.T.S.

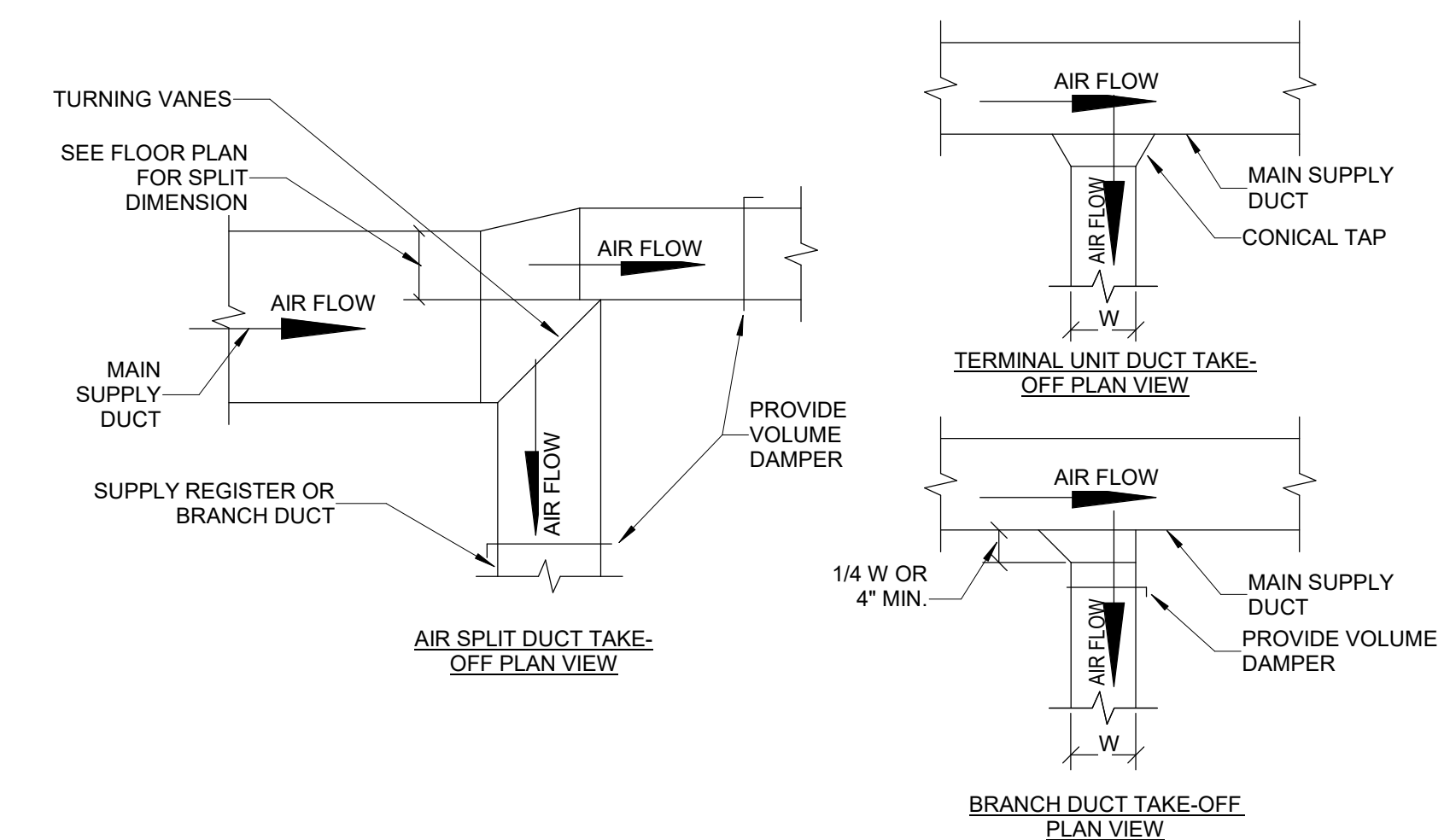


**NOTES:**

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

**2 VOLUME DAMPER DETAIL**

SCALE: N.T.S.



**3 SUPPLY DUCT TAKE-OFFS**

SCALE: N.T.S.

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Navaho Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

Apogee Consulting Group, P.A.  
1151 Kilahe Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
Engineers | Architects | www.apogee.com | 919-688-7420

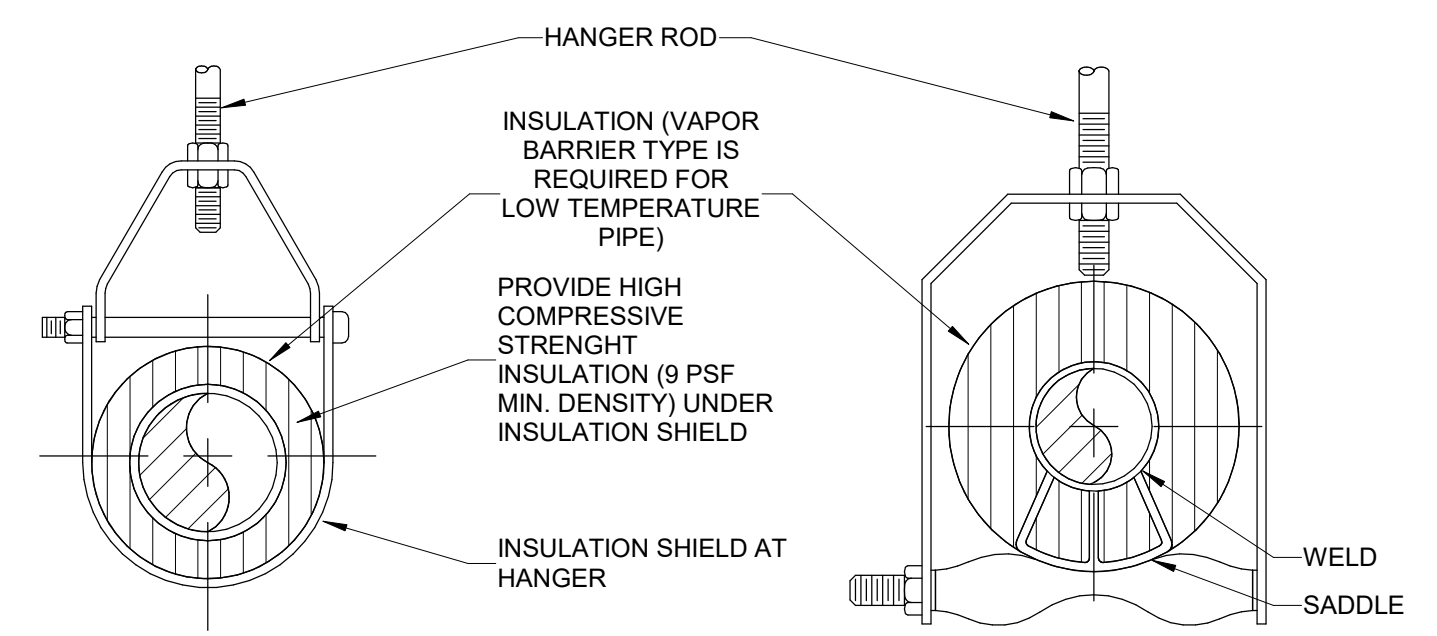
NORTH CAROLINA PROFESSIONAL SEAL  
PAUL L. HOLLOMAN  
REGISTERED PROFESSIONAL ENGINEER  
02/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH	PLH
C	ISSUED FOR CONST.	02/21/19	PLH	PLH

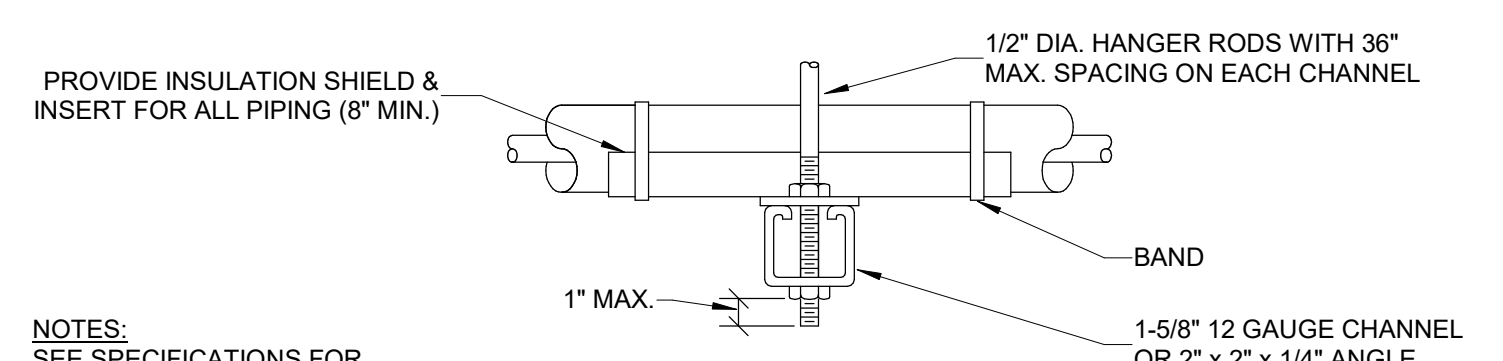
NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**MECHANICAL DETAILS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**M-502**



ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS

ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS



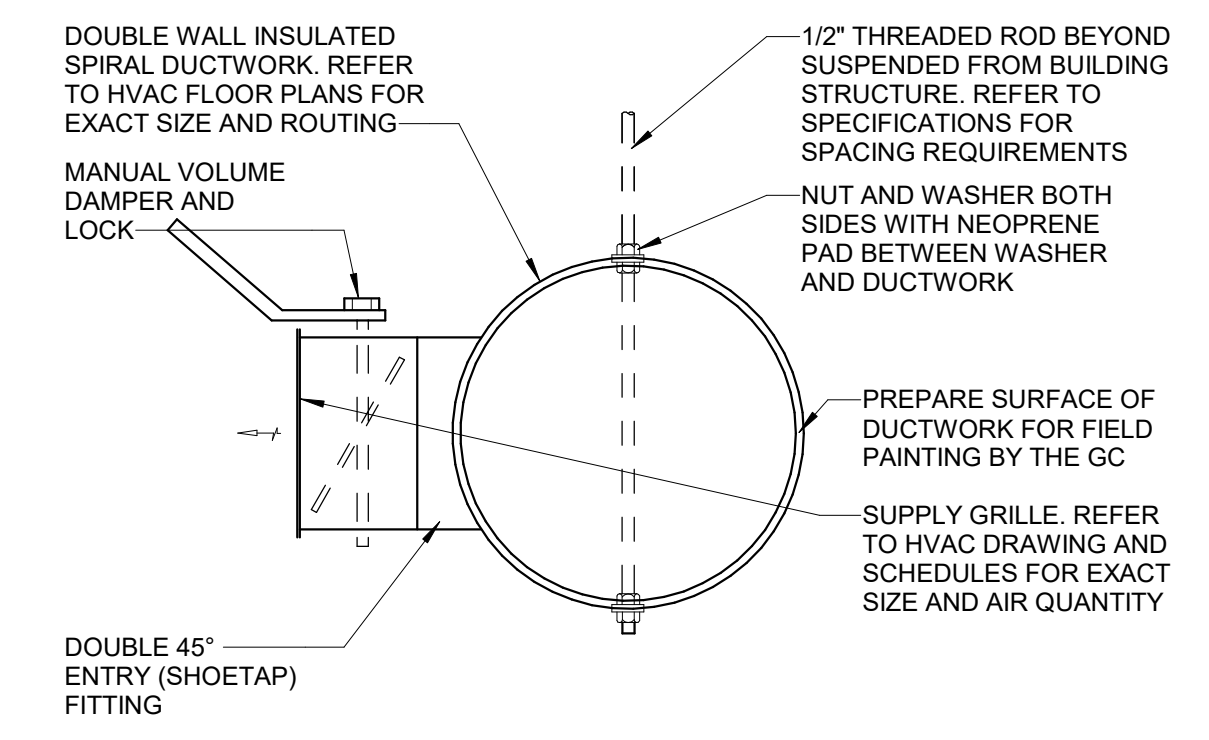
NOTES:  
SEE SPECIFICATIONS FOR DETAILED HANGER REQUIREMENTS.

SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. UNIFORM LOAD

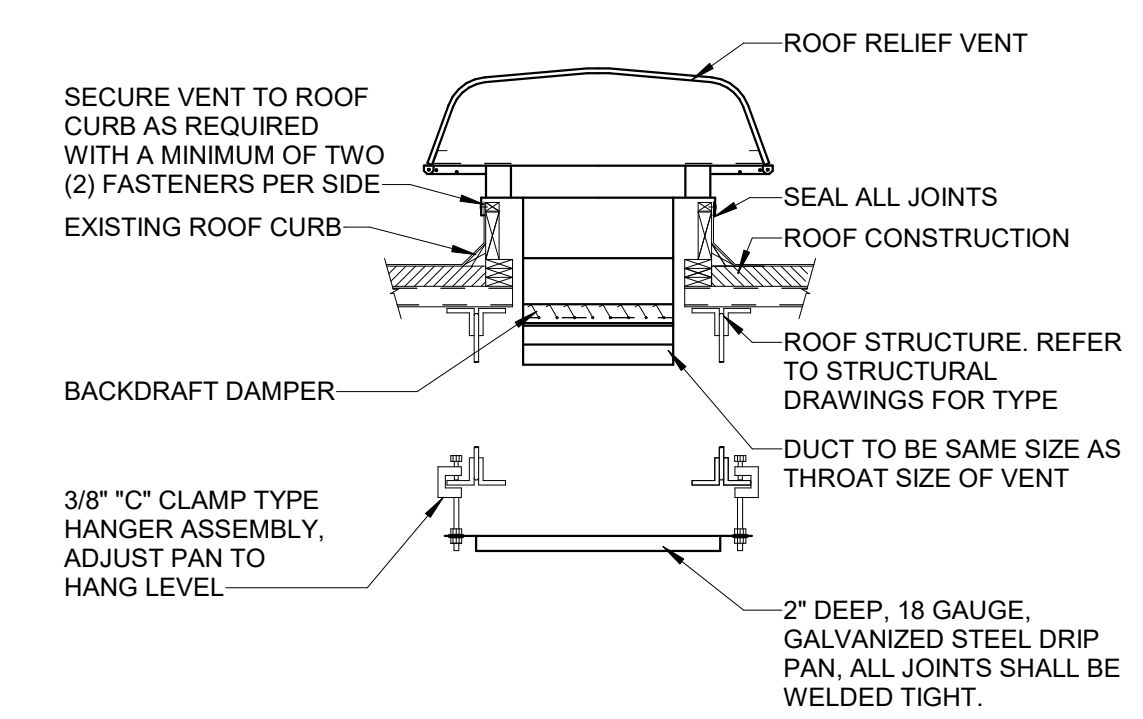
MAXIMUM PIPE/TUBING SUPPORT SPACING												
NOM. SIZE (IN.)	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	12
PIPE (FT.)	7	7	7	9	10	11	12	14	16	17	19	23
TUBING (FT.)	5 FT	6	7	8	8	9	10	12	13	14	16	-

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE

**3 PIPE HANGER**  
SCALE: N.T.S.

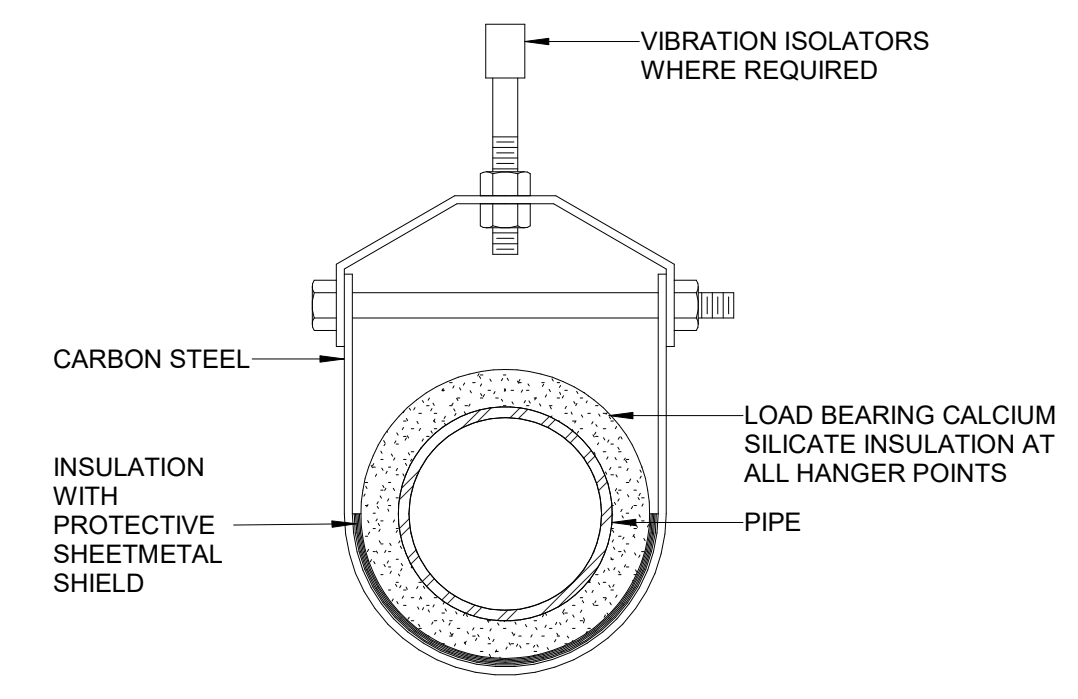


**1 EXPOSED SUPPLY GRILLE AND DUCTWORK DETAIL**  
Scale: 1/8" = 1'-0"

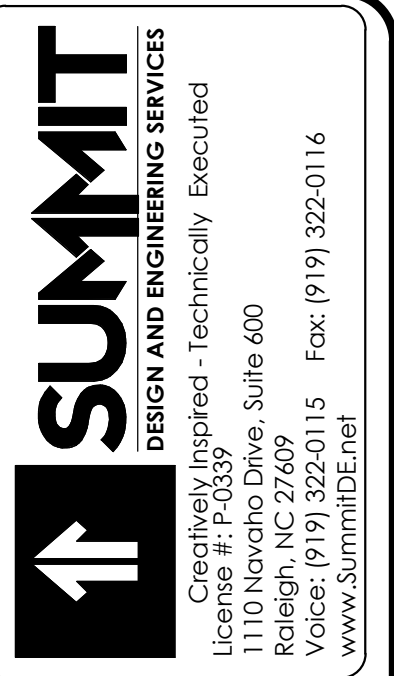


NOTE:  
ALL INTAKE / RELIEF VENTS SHALL BE MOUNTED LEVEL. PROVIDE SLOPED CURBS AND SHIMS AS REQUIRED FOR SLOPED ROOFS. REFER TO ARCHITECTURAL DRAWINGS FOR PITCH OF ROOF.

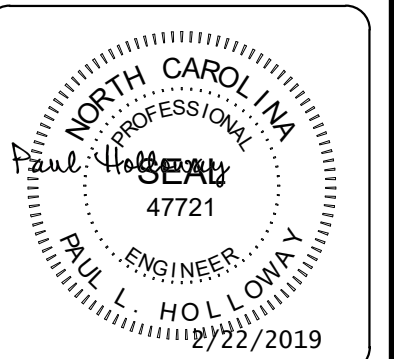
**4 RELIEF VENT INSTALLATION DETAIL**  
Scale: N.T.S.



**2 CLEVIS PIPE HANGER DETAIL**  
SCALE: N.T.S.



Apogee Consulting Group, P.A.  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
www.apogee.com  
www.summitde.net



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME  
DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	
B	ISSUED FOR NCDOT	01/22/19	PLH	
C	ISSUED FOR CONST.	02/21/19	PLH	

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
MECHANICAL DETAILS

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**M-503**



### INDOOR ENERGY RECOVERY VENTILATION UNITS

MARK	OUTSIDE AIR			TOTAL ENERGY RECOVERY CORE						EXHAUST AIR			ELECTRICAL	MODEL # (RENEWAIRE)	REMARKS	
	AIRFLOW	FAN POWER	ESP	SUMMER CONDITIONS			WINTER CONDITIONS			AIRFLOW	FAN POWER	ESP				
				OA EAT, °F DB/WB	OA LAT, °F DB/WB	EA EAT, °F DB/WB	OA EAT, °F DB/WB	OA LAT, °F DB/WB	EA EAT, °F DB/WB							
ERV-1	1,420	1	0.25	88/72	79.9/68.0	75/62.6	15/12	49.4/39.3	70/54	1,260	1	0.35	240/1/60	15	HE1.5XINH	1, 2, 3, 4
ERV-2	1,420	1	0.25	88/72	79.9/68.0	75/62.6	15/12	49.4/39.3	70/54	1,260	1	0.35	240/1/60	15	HE1.5XINH	1, 2, 3, 4

- REMARKS:
- PROVIDE UNIT WITH SINGLE POINT POWER CONNECTION AND DISCONNECT SWITCH.
  - PROVIDE UNIT WITH WITH ELECTRONICALLY COMMUTATED (EC) MOTORS WITH MOTOR-MOUNTED POTENTIOMETER.
  - PROVIDE 2" MERV 8 FILTER AND PREWIRED MOTORIZED DAMPERS IN OUTSIDE AIR AND EXHAUST AIR STREAMS.
  - PROVIDE 30 AMP DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

### INDOOR SPLIT SYSTEM HEAT PUMP AIR HANDLING UNITS

MARK	SUPPLY FAN			DX COOLING COIL				HEAT PUMP HEATING			ELECTRIC HEAT		ELECTRICAL			MAX. WEIGHT (LBS)	MODEL # (TRANE)	REMARKS
	TOTAL AIRFLOW	FAN POWER	ESP	TOTAL	SENSIBLE	EAT	LAT	TOTAL	EAT, °F	LAT, °F	CAPACITY	V/Ph/Hz	CIRCUIT #1 MCA/MOP	CIRCUIT #2 MCA/MOP				
															CFM			
AHU-1	1,500	3/4	0.6	48.7	35.2	80/67	57.9/56.3	48.0/30.4	60	89.6	9.6/4.8	240/1/60	59/60	25/25	200	TEM6A0C48	1, 2, 3, 4, 5, 6, 7, 9	
AHU-2	800	1/3	0.4	25.0	18.8	80/67	57.9/56.7	24.2/15.3	60	88.0	7.68/---	240/1/60	44/45	---	200	TEM6ACB30	1, 2, 3, 4, 5, 6, 7, 8	
AHU-3	1,500	3/4	0.6	48.7	35.2	80/67	57.9/56.3	48.0/30.4	60	89.6	9.6/4.8	240/1/60	59/60	25/25	200	TEM6A0C48	1, 2, 3, 4, 5, 6, 7, 9	
AHU-4	800	1/3	0.4	25.0	18.8	80/67	57.9/56.7	24.2/15.0	60	88.0	7.68/---	240/1/60	44/45	---	200	TEM6ACB30	1, 2, 3, 4, 5, 6, 7, 8	

- REMARKS:
- AIR HANDLING UNIT SHALL HAVE SINGLE POWER CONNECTION.
  - HEATING CAPACITIES ARE BASED ON 47 DEG. F OUTDOOR AMBIENT AND 17 DEG. F. OUTDOOR AMBIENT.
  - COOLING CAPACITY IS BASED ON 95 DEG. F OUTDOOR AMBIENT.
  - PROVIDE FILTER RACK WITH 1" MERV 8 FILTER.
  - ELECTRICAL HEATERS SHALL HAVE INTEGRAL CIRCUIT BREAKERS.
  - PROVIDE OVERFLOW SWITCH IN CONDENSATE DRAIN PAN.
  - SUPPLY FAN MOTOR SHALL BE VARIABLE SPEED ELECTRONICALLY COMMUTATED MOTOR.
  - PROVIDE 60 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.
  - PROVIDE 60 AMP - 2 POLE (CIRCUIT #1), AND 30 AMP - 2 POLE (CIRCUIT #2), DISCONNECT SWITCHES, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCHES CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

### SPLIT SYSTEM HEAT PUMP OUTDOOR CONDENSING UNITS

MARK	REFRIGERANT	COOLING			HEATING				ELECTRICAL			REMARKS
		TOTAL COOLING CAPACITY	AMBIENT TEMP	EFFICIENCY	TOTAL HEATING CAPACITY	AMBIENT TEMP	EFFEICIENCY		V/Ph/Hz	MCA/MOP	MODEL # (TRANE)	
							MBH	°F DB/WB				
HP-1	410A	48.0	95/75	13/17	48.7/30.4	47/17	4.1/2.8	9.5	240/1/60	28/45	4TWR7048	1, 2, 3, 4, 5
HP-2	410A	25.0	95/75	13/17	24.2/15.3	47/17	3.9/2.5	9.0	240/1/60	15/25	4TWR7024	1, 2, 3, 4, 6
HP-3	410A	48.0	95/75	13/17	48.7/30.4	47/17	4.1/2.8	9.5	240/1/60	28/45	4TWR7048	1, 2, 3, 4, 5
HP-4	410A	25.0	95/75	13/17	24.2/15.3	47/17	3.9/2.5	9.0	240/1/60	15/25	4TWR7024	1, 2, 3, 4, 6

- REMARKS:
- UNIT SHALL HAVE 2-STAGE COMPRESSOR.
  - PROVIDE CRANKCASE HEATER IN COMPRESSOR BODY.
  - MOUNT UNIT ON 4" POURED-IN-PLACE CONCRETE PAD.
  - HEATING CAPACITIES BASED ON 47 DB AND 17 DB OUTDOOR AMBIENT.
  - PROVIDE 60 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.
  - PROVIDE 30 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

### GRAVITY RELIEF ROOF VENTS

MARK	FREE AREA. SQ. FT.	AIRFLOW, CFM	THROAT DIA., IN.	DAMPER	MODEL # (GREENHECK)	REMARKS
RV-1	1.83	1,260	20-1/4	NO	GRSR 24	1, 2
RV-2	1.83	1,260	20-1/4	NO	GRSR 24	1, 2

- REMARKS:
- MOUNT VENT ON 8" HIGH ROOF CURB. CURB SHALL MATCH SLOPE OF ROOF.
  - VENT SHALL HAVE INTEGRAL BIRD SCREEN.

### EXHAUST FANS

MARK	TYPE	CFM	ESP, IN. W.C.	RPM	MAX SONES	MOTOR		ELECTRICAL	MODEL # (GREENHECK)	REMARKS
						HP	RPM			
EF-1	INLINE CENTRIFUGAL	200	0.25	1,592	5.1	1/10	1,725	115/1	SQ-70-VG	1, 2, 3
EF-2	INLINE CENTRIFUGAL	350	0.25	1,576	6.4	1/10	1,725	115/1	SQ-80-VG	1, 2, 3

- REMARKS:
- DIRECT DRIVE FAN. PROVIDE MOTOR DISCONNECT SWITCH.
  - PROVIDE ELECTRONICALLY COMMUTATED (EC) MOTOR WITH POTENTIOMETER ON MOTOR FOR ADJUSTING MOTOR SPEED.
  - PROVIDE FAN WITH WALL-MOUNTED MOTION DETECTOR.

NOTE: FOR EQUIPMENT CONDUCTOR SIZES REFERENCE E-601.

### AIR DEVICE SCHEDULE (SUPPLY)

MARK	TYPE	MATERIAL	PANEL/ FRAME SIZE	NECK SIZE	MAX ΔP	MAX NC	DAMPER	MODEL # (PRICE)	REMARKS
SG-1	SURFACE-MOUNTED REGISTER	STEEL	10x8	8x6	0.1	25	YES	520D/F/S/A	1, 2
SG-2	SURFACE-MOUNTED REGISTER	STEEL	14x10	12x8	0.1	25	YES	520D/F/S/A	1, 2
SG-3	SURFACE-MOUNTED REGISTER	STEEL	20x12	18x10	0.1	25	YES	520D/F/S/A	1, 2

- REMARKS:
- FINISH COLOR AS SELECTED BY ARCHITECT.
  - PROVIDE SURFACE MOUNTING FRAME.

### AIR DEVICE SCHEDULE (EXHAUST)

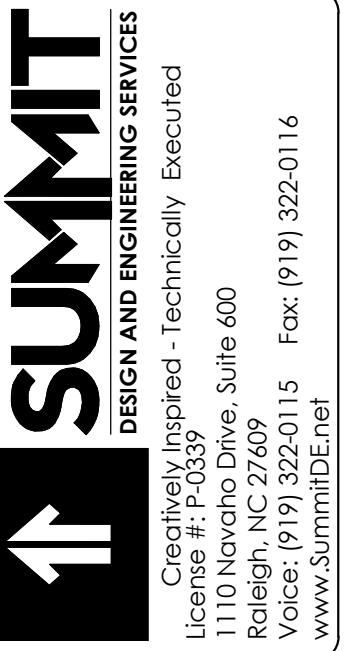
MARK	TYPE	MATERIAL	PANEL/ FRAME SIZE	NECK SIZE	MAX ΔP	MAX NC	DAMPER	MODEL # (PRICE)	REMARKS
EG-1	DUCT-MOUNTED GRILLE	STEEL	8x8	6x6	0.05	20	NO	530/F/L/A	
EG-2	DUCT-MOUNTED GRILLE	STEEL	10x10	8x8	0.05	20	NO	530/F/L/A	
EG-3	SURFACE-MOUNTED GRILLE	STEEL	14x14	12x12	0.05	20	NO	530/F/L/A	
EG-4	SIDE WALL GRILLE	STEEL	8x8	8x6	0.05	20	NO	530/F/L/A	
EG-5	DUCT-MOUNTED GRILLE	STEEL	8x8	8x6	0.05	20	NO	530/F/L/A	

- REMARKS:

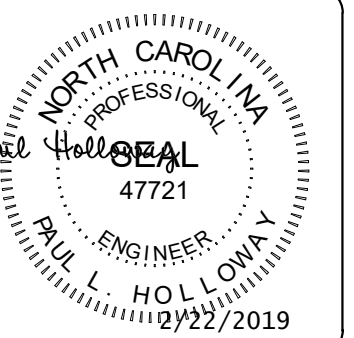
### AIR DEVICE SCHEDULE (RETURN)

MARK	TYPE	MATERIAL	PANEL/ FRAME SIZE	NECK SIZE	MAX ΔP	MAX NC	DAMPER	MODEL # (PRICE)	REMARKS
RG-1	SURFACE-MOUNTED REGISTER	STEEL	10x10	8x8	0.05	20	YES	530D/F/L/A	
RG-2	SURFACE-MOUNTED GRILLE	STEEL	20x20	18x18	0.05	20	NO	530/F/L/A	
RG-3	SURFACE-MOUNTED GRILLE	STEEL	28x28	26x26	0.05	20	NO	530/F/L/A	

- REMARKS:



Apogee Consulting Group, P.A.  
1151 Kilauea Farm Road, Suite 120  
Cary, North Carolina 27511  
APOGEE NC License #C-1848  
www.apogee.com



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F. SAME

DRAWN BY SMH/PLH FIRST ISSUE DATE 11/02/2018

NO	REVISIONS	DATE	BY	PLH
A	ISSUED TO SCO	11/16/18	PLH	
B	ISSUED FOR NCDOT	01/22/19	PLH	
C	ISSUED FOR CONST.	02/21/19	PLH	

NCDOT PROJECT #1-4400C  
**I-26 REST AREA, WEST BOUND**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732

MECHANICAL SCHEDULES

PROJECT NO.  
**18-0129.021**

SHEET NO.  
**M-601**

DUCTLESS SPLIT SYSTEM INDOOR UNITS												
MARK	TYPE	REFRIGERANT	CFM (HI/LO)	TOTAL COOLING CAPACITY	SENSIBLE COOLING CAPACITY	COOLING EAT	TOTAL HEATING CAPACITY	HEATING EAT	ELECTRICAL		MODEL # (DAIKIN)	REMARKS
				MBH	MBH	°F DB/WB	MBH	°F DB/WB	V/Ph	MCA/ MOP		
DS-1	WALL...	410A	500/400	18	13.7	80/67	20	70/60	240/1	0.4/15	FAQ18PVJU	1, 2, 3

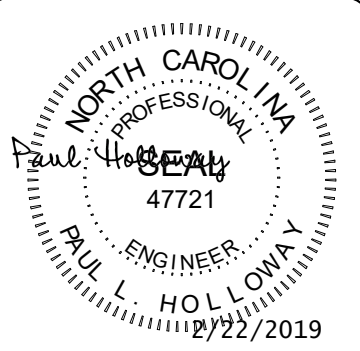
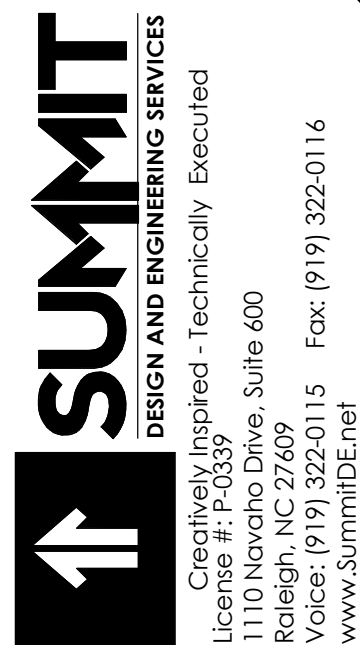
REMARKS:

1. SIZE, ROUTE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE WALL-MOUNTED 7-DAY PROGRAMMABLE THERMOSTAT.
3. PROVIDE 30 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.

DUCTLESS SPLIT SYSTEM OUTDOOR UNITS												
MARK	REFRIGERANT	TOTAL COOLING CAPACITY	SENSIBLE COOLING CAPACITY	COOLING AMBIENT	TOTAL HEATING CAPACITY	HEATING AMBIENT	EFFICIENCY		ELECTRICAL		MODEL # (DAIKIN)	REMARKS
		MBH	MBH	°F DB/WB	MBH	°F DB/WB	EER	SEER	V/Ph	MCA/ MOP		
CU-1	410A	18	13.7	95/75	20	47/43	12.7	18.6	240/1	16.5/20	RZQ18PVJU8	1, 2, 3, 4

REMARKS:

1. SIZE, ROUTE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S INSTRUCTIONS.
2. UNIT SHALL BE CAPABLE OF COOLING DOWN TO 23°F AMBIENT TEMPERATURE WITHOUT A WIND BAFFLE.
3. INSTALL UNIT ON 4" HIGH POURED-IN-PLACE CONCRETE PAD.
4. PROVIDE 30 AMP - 2 POLE, DISCONNECT SWITCH, FUSE PER NAMEPLATE. LABEL DISCONNECT SWITCH CIRCUIT ORIGIN, EQUIPMENT FEED, VOLTS, AND AMPS.



ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED

PROJECT MANAGER  
 JOSEPH A. ANGELL II, PE, F. SAME

DRAWN BY  
 SMH/PLH

FIRST ISSUE DATE  
 11/02/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	PLH
B	ISSUED FOR NCDOT	01/22/19	PLH
C	ISSUED FOR CONST.	02/21/19	PLH

NCDOT PROJECT #1-4400C

**I-26 REST AREA, WEST BOUND**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732

**MECHANICAL SCHEDULES**

PROJECT NO.  
**18-0129.021**

SHEET NO.  
**M-602**

## ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)	CONST	CONSTRUCTION	GF1	GROUND FAULT CIRCUIT INTERRUPTER	MTS	MANUAL TRANSFER SWITCH	SR	SURFACE RACEWAY
1PH	1 PHASE	CONT	CONTINUATION OR CONTINUOUS	GND	GROUND	MTR	MOTOR, MOTORIZED	SS	STAINLESS STEEL
2/C	TWO-CONDUCTOR (3/C, 4/C, ETC.)	CONTR	CONTRACTOR	GRS	GALVANIZED RIGID STEEL (CONDUIT)	NA	NOT APPLICABLE	SSW	SELECTOR SWITCH
W2	TWO-WIRE (3W, 4W, ETC.)	COORD	COORDINATE	GYP	BGDGYP SUM BOARD	NC	NORMALLY CLOSED	STD	STANDARD
3PH	3 PHASE	CPT	CONTROL POWER TRANSFORMER	HID	HIGH-INTENSITY DISCHARGE	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION	SURF	SURFACE MOUNTED
A	AMPERE	CRI	COLOR RENDERING INDEX	HOA	HAND-OFF-AUTOMATIC	NFDS	NON-FUSED SAFETY DISCONNECT SWITCH	SW	SWITCH
AAP	ALARM ANNUNCIATOR PANEL	CT	CURRENT TRANSFORMER	HP	HORSEPOWER	NIC	NOT IN CONTRACT	SWBD	SWITCHBOARD
AC	ABOVE COUNTER	CTV	CABLE TELEVISION	HT	HEIGHT	NL	NIGHT LIGHT	SYS	SYMMETRICAL SYSTEM
	AIR CONDITIONER	CTR	CENTER	HTR	HEATER	NO	NORMALLY OPEN	TC	TIMECLOCK
	ALTERNATING CURRENT	CU	COPPER	HV	HIGH VOLTAGE	NTS	NOT TO SCALE	TEL	TELEPHONE
ACC	ACCESSIBLE	CU FT	CUBIC FEET	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	OC	ON CENTER	TEL DATA	TELEPHONE/DATA
ACLG	ABOVE CEILING	dB	DECIBEL	IES	ILLUMINATION ENGINEERING SOCIETY	OD	OUTSIDE DIAMETER	TERM	TERMINAL
ADO	AUTOMATIC DOOR OPENER	DB	DIRECT BURIAL	IG	ISOLATED GROUND	OH	OVERHEAD	TP	TWISTED PAIR
A/E	ARCHITECT/ENGINEER	DC	DIRECT CURRENT	IMC	INTERMEDIATE METAL CONDUIT	OL	OVERLOAD	TPS	TWISTED PAIR SHIELDED
AF	AMP FRAME	DEG C	DEGREES CELSIUS	IR	INFRARED	PA	PUBLIC ADDRESS	TR	TAMPER RESISTANT
AFC	AVAILABLE FAULT CURRENT (KILOAMPS)	DEG F	DEGREES FAHRENHEIT	IW	INTERLOCK WITH	PB	PULL BOX OR PUSHBUTTON	T-STAT	THERMOSTAT
AFF	ABOVE FINISHED FLOOR	DEMO	DEMOLISH/DEMOLITION	IWH	INSTANTANEOUS WATER HEATER	PBPU	PREFABRICATED BESIDE PATIENT UNIT	TTB	TELEPHONE TERMINAL BOARD
AFG	ABOVE FINISHED GRADE	DEPT	DEPARTMENT	J-BOX	JUNCTION BOX	PCB	POLYCHLORINATED BIPHENYL	TTC	TELEPHONE TERMINAL CABINET
AFI	ARC FAULT CIRCUIT INTERRUPTER	DIA	DIAMETER	KV	KILOVOLT	PC	PHOTOELECTRIC CELL	TV	TELEVISION
AHJ	AUTHORITY HAVING JURISDICTION	DISC	DISCONNECT	KVA	KILOVOLT-AMPERE	PED	PEDESTAL	UC	UNDER COUNTER
AHU	AIR HANDLING UNIT	DIST	DISTRIBUTION	KVAR	KILOVOLT-AMPERE REACTIVE	PEND	PENDANT	UG	UNDERGROUND
AIC	AMPERE INTERRUPTING CAPACITY	DN	DOWN	KW	KILOWATT	PH	POWER FACTOR	UH	UNIT HEATER
AL	ALUMINUM	DS	SAFETY DISCONNECT SWITCH	LED	LIGHT-EMITTING DIODE	PIV	POST INDICATING VALVE	UL	UNDERWRITER'S LABORATORY
ALT	ALTERNATE	DT	DOUBLE THROW	LF	LINEAR FEET/FOOT	PNL	PANEL	UNO	UNLESS NOTED OTHERWISE
AMP	AMPERE	DWG	DRAWING	LM	LUMEN	POE	POWER-OVER-ETHERNET	UT	UNDERGROUND TELEPHONE
APPROX	APPROXIMATELY	EC	ELECTRICAL CONTRACTOR	LRA	LOCKED ROTOR AMPS	PR	PAIR	UTP	UNSHIELDED TWISTED PAIR
ARCH	ARCHITECT, ARCHITECTURAL	EG	EQUIPMENT GROUND	LT	LIGHT	PRI	PRIMARY	UTIL	UTILITY
AT	AMP TRIP	ELEC	ELECTRIC, ELECTRICAL	LTG	LIGHTNING	PROJ	PROJECTION	UV	UNIT VENTILATOR OR ULTRAVIOLET
ATS	AUTOMATIC TRANSFER SWITCH	ELEV	ELEVATOR	LV	LOW VOLTAGE	PRV	POWER ROOF VENTILATOR	V	VOLT
AUTO	AUTOMATIC	EM	EMERGENCY	MATV	MASTER ANTENNA TELEVISION SYSTEM	PT	POTENTIAL TRANSFORMER	VA	VOLT-AMPERES
AUX	AUXILIARY	EMI	ELECTROMAGNETIC INTERFERENCE	MAX	MAXIMUM	PVC	POLYVINYL CHLORIDE (CONDUIT)	VERT	VERTICAL
AV	AUDIO VISUAL	EMS	ENERGY MANAGEMENT SYSTEM	MC	MAIN BONDING JUMPER	PWR	POWER	VFD	VARIABLE FREQUENCY DRIVE
AWG	AMERICAN WIRE GAUGE	EMT	ELECTRICAL METALLIC TUBING	MCB	MINIMUM CIRCUIT BREAKER	QTY	QUANTITY	VOL	VOLUME
		EPO	EMERGENCY POWER OFF	MCC	MOTOR CONTROL CENTER	RCP	REFLECTED CEILING PLAN	W	WATT
BAS	BUILDING AUTOMATION SYSTEM	EQUIP	EQUIPMENT	MDP	MAIN DISTRIBUTION PANEL	RCPT	RECEPTACLE	WH	WATER HEATER
BATT	BATTERY	ESEM	EASEMENT	MECH	MECHANICAL	REQD	REQUIRED	W/O	WITHOUT
BC	BARE COPPER	EWC	ELECTRIC WATER COOLER	MFR	MANUFACTURER	RGS	RIGID GALVANIZED STEEL	WP	WEATHERPROOF
BD	BOARD	EWH	ELECTRIC WALL HEATER	MFS	MAIN FUSED DISCONNECT SWITCH	RM	ROOM		
BFF	BELOW FINISHED FLOOR	EX	EXISTING	MH	MANHOLE	RMS	ROOT MEAN SQUARE	XFR	TRANSFORMER
BLDG	BUILDING	EXP	EXPLOSION PROOF	MIC	MICROPHONE	RTU	ROOF TOP UNIT		
BMS	BUILDING MANAGEMENT SYSTEM	FA	FIRE ALARM	MIN	MINIMUM	SC	SURFACE CONDUIT	∠	ANGLE
BYP	BYPASS	FAAP	FIRE ALARM ANNUNCIATOR PANEL	MISC	MISCELLANEOUS	SE	SERVICE ENTRANCE	@	AT
		FACP	FIRE ALARM CONTROL PANEL	MLO	MAIN LUGS ONLY	SEC	SECONDARY	Δ	DELTA
C	CONDUIT	FC	FOOTCANDLE	MOA	MULTIOUTLET ASSEMBLY	SF	SQUARE FEET/FOOT	∅	FEET
CAB	CABINET	FCU	FAN COIL UNIT	MSBD	MAIN SWITCHBOARD	SHT	SHEET	#	INCHES
CALC	CALCULATED	FIXT	FIXTURE	MT	MOUNT	SIM	SIMILAR	Φ	PHASE
CAP	CAPACITY	FLR	FLOOR			SIN	SOLID NEUTRAL	⊕	CENTER LINE
CAT	CATALOG, CATEGORY	FLUOR	FLUORESCENT			SPEC	SPECIFICATION	⊖	PLATE
CATV	COMMUNITY ANTENNA TELEVISION	FUSE	FUSE			SPKR	SPEAKER	⊘	
CB	CIRCUIT BREAKER	FVNR	FULL VOLTAGE NON-REVERSING			SP	SPARE	⊚	
CCR	CONTROL CONTRACTOR	GAL	GALLON					⊙	
CCTV	CLOSED CIRCUIT TELEVISION	GALV	GALVANIZED					⊛	
cd	CANDELA	GC	GENERAL CONTRACTOR					⊜	
CD	CONSTRUCTION DOCUMENTS	GEN	GENERATOR					⊝	
CF	CONTRACTOR-FURNISHED							⊞	
CLG	CEILING							⊟	
COAX	COAXIAL CABLE							⊠	
COMM	COMMUNICATION							⊡	
CONN	CONNECTION							⊢	

## ELECTRICAL SYMBOL NOTES

	THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER OR AN UPPER CASE LETTER AND NUMBER. THE SWITCH DESIGNATION (IF NEEDED) IS INDICATED BY A LOWER CASE LETTER.  EXAMPLE: LIGHTING FIXTURE TYPE 'A1' IS CONTROLLED BY SWITCH 'b'.
	EXIT SIGNS: STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S).  EXAMPLE 1: WALL MOUNTED EXIT SIGN TYPE 'E1' WITH SINGLE FACE AND DIRECTIONAL ARROW.  EXAMPLE 2: CEILING MOUNTED EXIT SIGN TYPE 'E2' WITH DOUBLE FACE AND DIRECTIONAL ARROWS.
	DEVICES: THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SPLIT DUPLEX RECEPTACLE; ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH 'c'.
	THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SINGLE POLE SWITCH 'd' TO CONTROL LIGHTING FIXTURES INDICATED BY 'd'.
	TRANSFORMERS: THE TRANSFORMER TYPE IS INDICATED BY A NUMBER FOLLOWING THE UPPER CASE LETTER 'T'. SEE THE TRANSFORMER SCHEDULE OR THE SINGLE LINE DIAGRAM FOR THE TRANSFORMER DESCRIPTION AND REQUIREMENTS.  EXAMPLE: TRANSFORMER TYPE 'T1'.
	PANELBOARDS: PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF RECESSED PANELBOARDS. SEE PANELBOARD IDENTIFICATION FOR DESIGNATION CODES.
	SHEET KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE HEXAGON.
	DEMOLITION KEY NOTE: SEE THE SHEET KEY NOTES ON THAT SHEET FOR THE NOTE NUMBER INDICATED IN THE SQUARE.
	HOME RUN TO BRANCH CIRCUIT PANEL: THE PANEL DESIGNATION AND CIRCUIT DESIGNATION ARE SHOWN ADJACENT TO THE HOME RUN ARROW. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANEL SCHEDULE WITH THE CORRESPONDING PANEL AND CIRCUIT DESIGNATION.  EXAMPLE: HOME RUN TO PANELBOARD 'LPN'; CIRCUITS 1, 3, 5.
	SYMBOL NOTATIONS: UPPER CASE LETTERS ADJACENT TO SYMBOLS INDICATE A UNIT TYPE. SEE APPROPRIATE SCHEDULE OR SPECIFICATIONS.

## ELECTRICAL SYMBOL LEGEND

GENERAL SYMBOLS		LIGHTING SYMBOLS	
	KEYED NOTE		LUMINAIRE TYPE
	ROOM NUMBER		LUMINAIRE - RECESSED (REFER TO LUMINAIRE SCHEDULE)
	REVISION CALL-OUT		CONNECTED FOR NIGHT LIGHT USE CIRCUIT NUMBER AND SWITCH LEG (LUMINAIRES ARE CONTROLLED BY LOCAL SWITCH UNLESS DESIGNATION GIVEN)
	NEW EQUIPMENT (TYPICAL)		LUMINAIRE - SURFACE MOUNTED
	EXISTING EQUIPMENT (TYPICAL)		RECESSED LUMINAIRE CONNECTED TO THE EMERGENCY POWER SYSTEM OR BALLAST/DRIVER
	DEMOLITION EQUIPMENT (TYPICAL)		OPEN INDUSTRIAL LUMINAIRE
	WALL MOUNT BRACKET (TYPICAL)		OPEN INDUSTRIAL LUMINAIRE EMERGENCY POWER SYSTEM OR BALLAST/DRIVER
	TELEPHONE OUTLET - WALL MOUNTED		WALL MOUNTED LUMINAIRE
	WALL MOUNTED 18" AFF		RECESSED DOWNLIGHT - CEILING MOUNTED
	TOUCH TONE DEVICE FOR THE DEAF		RECESSED DOWNLIGHT w/ EMERGENCY BALLAST/DRIVER - CEILING MTD.
	WALL PHONE (MOUNTED 54" AFF)		SURFACE MOUNTED DOWNLIGHT
	DEDICATED TELEPHONE OUTLET		LINEAR PENDANT
	BRANCH CIRCUIT PANELBOARD - SURFACE MOUNTED		PENDANT
	BRANCH CIRCUIT PANELBOARD - FLUSH MOUNTED		EXIT SIGN - SINGLE FACE, CEILING MOUNTED ARROW INDICATES DIRECTION OF EXIT
	DISTRIBUTION PANELBOARD OR SWITCHBOARD		EXIT SIGN - SINGLE FACE, WALL MOUNTED
	TRANSFORMER		EXIT SIGN - DUAL FACE, CEILING MOUNTED
	CONTROL PANEL		EXIT SIGN - DUAL FACE, WALL MOUNTED
	GROUND BAR		TOGGLE SWITCH - MOUNTED 48" AFF b LOWER CASE LETTER DENOTES LTG. SWITCH GROUP
	UTILITY KILOWATT-HOUR METER		SERVICE DROP
	SAFETY SWITCH - NON-FUSIBLE		PANELBOARD
	SAFETY SWITCH - FUSIBLE		DELTA-WYE TRANSFORMER
	MAGNETIC STARTER		GENERATOR
	COMBINATION STARTER		AUTOMATIC TRANSFER SWITCH
	DUPLEX RECEPTACLE (NEMA 5-20R) - MOUNTED 18" AFF		GROUND
	GFI GROUND FAULT CIRCUIT INTERRUPTER		CIRCUIT BREAKER
	WP WEATHERPROOF		DRAWOUT CIRCUIT BREAKER
	DED DEDICATED		METER
	DUPLEX RECEPTACLE - MOUNTED 6" ABOVE COUNTER		DIGITAL POWER METER
	DUPLEX RECEPTACLE - SPLIT WIRED - MOUNTED 18" AFF		
	DUPLEX RECEPTACLE - EMERGENCY POWER - MOUNTED 18" AFF		
	QUADRUPLUX RECEPTACLE - MOUNTED 18" AFF		
	QUADRUPLUX RECEPTACLE - MOUNTED 6" ABOVE COUNTER		
	SINGLE RECEPTACLE - MOUNTED 18" AFF		
	SPECIAL PURPOSE RECEPTACLE - MOUNTED 18" AFF		
	EQUIPMENT CONNECTION		
	JUNCTION BOX		
	LINE VOLTAGE WALL TIMER SWITCH WITH MANUAL OVERRIDE ON TO COMPLY WITH NEC 110.26(D).		

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 N. Church Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.summitde.net

Apogee Consulting Group, P.A.  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
919-888-7420  
www.apogee.com  
**APOGEE**  
Engineers | Architects | Interiors

**PROFESSIONAL SEAL**  
23894  
JOHN KEVIN MASON  
REGISTERED PROFESSIONAL ENGINEER  
02/22/2019

ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F.SAME  
DRAWN BY: JDM FIRST ISSUE DATE: 11/02/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JM
B	ISSUED TO NCDOT	01/22/19	JM
C	ISSUED FOR CONST.	02/21/19	JM

NCDOT PROJECT #: 4400C  
**I-26 WEST BOUND REST AREA**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**ELECTRICAL SYMBOLS**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**F-001**

## LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMP DESCRIPTION	VOLTAGE	LOAD (VA)	FINISH	MOUNTING	DESCRIPTION
A	FLUXWERX	APS-RD-B-35-B-06-S-F1-M-06	LED	120 V	21	BLACK	LINEAR PENDANT	6' LED LINEAR LED PENDANT MOUNT LIGHT
B	COLUMBIA	CFP24-4135-HE	LED	120 V	34	MATTE WHITE	CABLE MOUNT	2'X4' EDGE LIT PANEL WITH CABLE MOUNTING KIT
C	KENALL	MLHA84FMWCP45L40KDC120	LED	120 V	50	MATTE WHITE	SURFACE	4' LED INDUSTRIAL STRIP
C2	VODE	707-Z2-SL-57/0-36-M-0-RP-AE-1-0-Z-HO-40-A1-0-WH-0	LED	120 V	565	WHITE	SURFACE	57' 3" SECTION LINEAR LED LIGHTS
D1	PRESCOLITE	LF4SL-4LFLSL15L40KSPBL	LED	120 V	10	BLACK	RECESSED	4" RECESSED LED WET-LOCATION RATED DOWNLIGHT
D2	PRESCOLITE	LF4SL-4LFLSL20L40KSPBL	LED	120 V	10	BLACK	RECESSED	4" RECESSED LED WET-LOCATION RATED DOWNLIGHT
E1	LITHONIA	LED-X-EM-R-WA-TR	LED	120 V	7.2	WHITE	WALL MOUNT	CONTEMPORARY LED EXIT SIGN, WHITE WITH ALUMINUM HOUSING, BRUSHED ALUMINUM FACE, RED LETTERS, AND CHEVRON ARROWS AS SHOWN ON PLANS. FACE LIGHTING AS SHOWN ON PLANS.
H	LUMINIS	CL672 L504W100-120-DGT-CAT2-FT6-K35	LED	120 V	100	GUNMETAL	PENDANT	75" LED PENDANT FIXTURE
J	LUMINIS	SY802-L2W30r1-DGT-PH	LED	120 V	62	GUNMETAL	WALL	UP/DOWN LED OUTDOOR WALL SCONCE
<b>NOTES:</b> A. FOR CONTINUOUS FIXTURES, COORDINATE WITH SUPPLIER ON LENGTH AND REQUIRED FITTINGS, AND INSTALL WITH UNIFORM ILLUMINATION ALONG FIXTURE INCLUDING CORNERS. B. REMOVE ALL FINGER PRINTS FROM LENSES, REFLECTORS, AND LOUVERS FOLLOWING LIGHT FIXTURE INSTALLATION. C. FIXTURES FROM MANUFACTURERS OTHER THAN THOSE LISTED SHALL BE ACCEPTABLE PROVIDED THAT THEY ARE SIMILAR IN APPEARANCE AND ARE EQUAL IN QUALITY AND PHOTOMETRY. D. EXTERIOR LIGHTING CIRCUITS SHALL BE PHOTOCELL CONTROLLED.								

### METHOD OF SHORT CIRCUIT CURRENT CALCULATIONS

SHORT CIRCUIT CURRENT CALCULATIONS WILL BE PERFORMED ON THE ELECTRICAL SYSTEM USING A BOLTED THREE PHASE FAULT CONDITION FOR CALCULATIONS TO ACHIEVE MAXIMUM THERMAL AND MECHANICAL STRESS TO THE SYSTEM FOR CALCULATIONS PURPOSES. EXISTING SHORT CIRCUIT VALUES WILL BE USED OUTSIDE THE WORK AREA, FOR THE STARTING POINT OF THE CALCULATIONS.

### METHOD OF VOLTAGE DROP CALCULATIONS

USING OHM'S LAW AND THE KNOWN RESISTIVITY CONSTANT OF CONDUCTOR METAL (CIRCULAR MIL-OHM PER FOOT) FOR COPPER CONDUCTORS. OUR INTENT IS TO CALCULATE THE REQUIRED WIRE SIZE NECESSARY SO AS NOT TO EXCEED THE RECOMMENDED VOLTAGE DROP OF 3% FOR BRANCH CIRCUIT CONDUCTORS.

## BUILDING CODE DATA

### ELECTRICAL SYSTEM AND EQUIPMENT ENERGY COST BUDGET

METHOD OF COMPLIANCE:  PRESCRIPTIVE  PERFORMANCE

#### LIGHTING SCHEDULE

LAMP TYPE REQUIRED IN FIXTURE: \_\_\_\_\_ REFER TO LIGHT FIXTURE SCHEDULE  
 NUMBER OF LAMPS IN FIXTURE: \_\_\_\_\_ REFER TO LIGHT FIXTURE SCHEDULE  
 BALLAST TYPE USED IN THE FIXTURE: \_\_\_\_\_ REFER TO LIGHT FIXTURE SCHEDULE  
 NUMBER OF BALLASTS IN FIXTURE: \_\_\_\_\_ REFER TO LIGHT FIXTURE SCHEDULE  
 TOTAL WATTAGE PER FIXTURE: \_\_\_\_\_ REFER TO LIGHT FIXTURE SCHEDULE  
 TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED: 5593 W SPECIFIED VS. 5615.39 W ALLOWED  
 TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED: 1002 W SPECIFIED VS. 1819 W ALLOWED

#### EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)

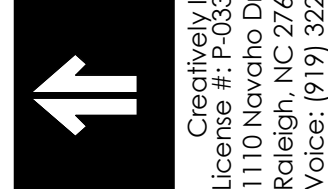
MOTOR HORSEPOWER: \_\_\_\_\_ N/A  
 NUMBER OF PHASES: \_\_\_\_\_ N/A  
 MINIMUM EFFICIENCY: \_\_\_\_\_ N/A  
 MOTOR TYPE: \_\_\_\_\_ N/A  
 NUMBER OF POLES: \_\_\_\_\_ N/A

#### DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF 2012 NORTH CAROLINA ENERGY CONSERVATION CODE.


## GENERAL ELECTRICAL NOTES

- ALL ELECTRICAL DEVICES, FIXTURES, EQUIPMENT AND FEEDERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDED PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICANS WITH DISABILITIES ACT AND WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- PROVIDE ADDITIONAL SUPPORT FOR DEVICES, FIXTURES, EQUIPMENT AND FEEDERS WHERE THE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
- FIRESTOP, DRAFTSTOP, SMOKESTOP AND/OR PROTECT THE ANNULAR SPACE AROUND ALL PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILING, AND ROOFS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, UL LISTING REQUIREMENT AND THE APPLICABLE BUILDING CODES.
- VERIFY CEILING SYSTEMS AND PROVIDE MOUNTING ACCESSORIES, TRIMS AND ALL REQUIRED MOUNTING HARDWARE TO SUIT THE PARTICULAR INSTALLATION.
- PROTECT EXISTING UNDERGROUND AND BUILDING INTERIOR UTILITIES DURING CONSTRUCTION.
- BRANCH CIRCUIT CONDUCTORS SHALL BE 12 AWG COPPER MINIMUM.
- COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION SO AS TO AVOID CONFLICT DURING CONSTRUCTION.
- ALL PANELS SHALL HAVE TYPED, COMPLETED DIRECTORIES INDICATING EQUIPMENT SERVED AND ROOM NUMBER (AS INDICATED ON FINAL BUILDING ROOM SIGNAGE) OF EQUIPMENT LOCATION, OR SPARE, OR SPACE.
- MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD, AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE DESIGNER WILL BE ACCEPTED. ALL PRODUCTS MUST COMPLY WITH "BUY AMERICAN ACT".
- ALL FEEDERS AND CIRCUITRY SHALL BE TORQUED PER THE PANEL, BREAKER, AND/OR PARTICULAR EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- CIRCUITRY TO SWITCHES, RECEPTACLES, AND ALL OTHER DEVICES SHALL BE TERMINATED ON THE DEVICE'S SCREW TERMINALS.
- MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, OUTLET, FIXTURE, OR EQUIPMENT UNLESS NOTED OTHERWISE.
- ALL WIRE TERMINATIONS SHALL BE RATED FOR 75 DEGREES C.
- ALL CONDUCTORS SHALL HAVE THHN/THWN INSULATION, UNLESS OTHERWISE NOTED.
- ALL CONDUIT SHALL BE RGS OR EMT UNLESS OTHERWISE NOTED. FMC CONDUIT SHALL BE USED ON VIBRATING EQUIPMENT (MAXIMUM LENGTH OF 6 FEET). PVC SHALL BE USED FOR UNDERGROUND CONDUIT OR WHERE CONCRETE-ENCASED. WHERE VIBRATING EQUIPMENT IS LOCATED OUTSIDE, LFMC CONDUIT SHALL BE USED (MAXIMUM SIX FEET) FOR FINAL CONNECTIONS.
- ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.
- FOR ALL LED FIXTURES, THE FIXTURE MUST BE CAPABLE OF SELF-RESETTING TO THE SWITCHED/CONTROLLED STATE DURING ANY FLUCTUATION IN POWER SUPPLY WHERE AUTOMATIC PROTECTIVE MEASURES DISABLE THE LED LAMPS. PROVIDE A LETTER OR STATEMENT FROM THE MANUFACTURER, OR OTHER ACCEPTABLE PROOF, THAT ALL LED FIXTURES, WITH OR WITHOUT BROWNOUT PROTECTION, WILL RETURN TO THE SWITCHED/CONTROLLED STATE AUTOMATICALLY. PROVIDE STATEMENT WITH THE FIXTURE SUBMITTALS.
- IN CASE OF CONFLICTS OR DISCREPANCIES WITHIN OR AMONG THE CONTRACT DRAWINGS, AS DETERMINED BY THE GOVERNMENT, SHALL BE PROVIDED.
- COMPRESSION COUPLINGS SHALL BE USED. NO SET SCREW FITTINGS ARE ALLOWED.

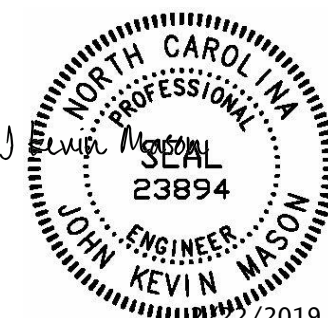


**SUMMIT**  
 DESIGN AND ENGINEERING SERVICES  
 Creatively Inspired - Technically Executed  
 License # 00000000000000000000000000000000  
 1110 Navaho Drive, Suite 600  
 Raleigh, NC 27609  
 Voice: (919) 322-0115 Fax: (919) 322-0116  
 www.SummitDE.net

Apogee Consulting Group, P.A.  
 1151 Kildane Farm Road, Suite 120  
 Cary, North Carolina 27511  
 NC License #C-1848  
 www.apogee.com



**APOGEE**  
 Engineers | Architects | Interior Designers



KEVIN MASON  
 PROFESSIONAL ENGINEER  
 23894  
 02/27/2019

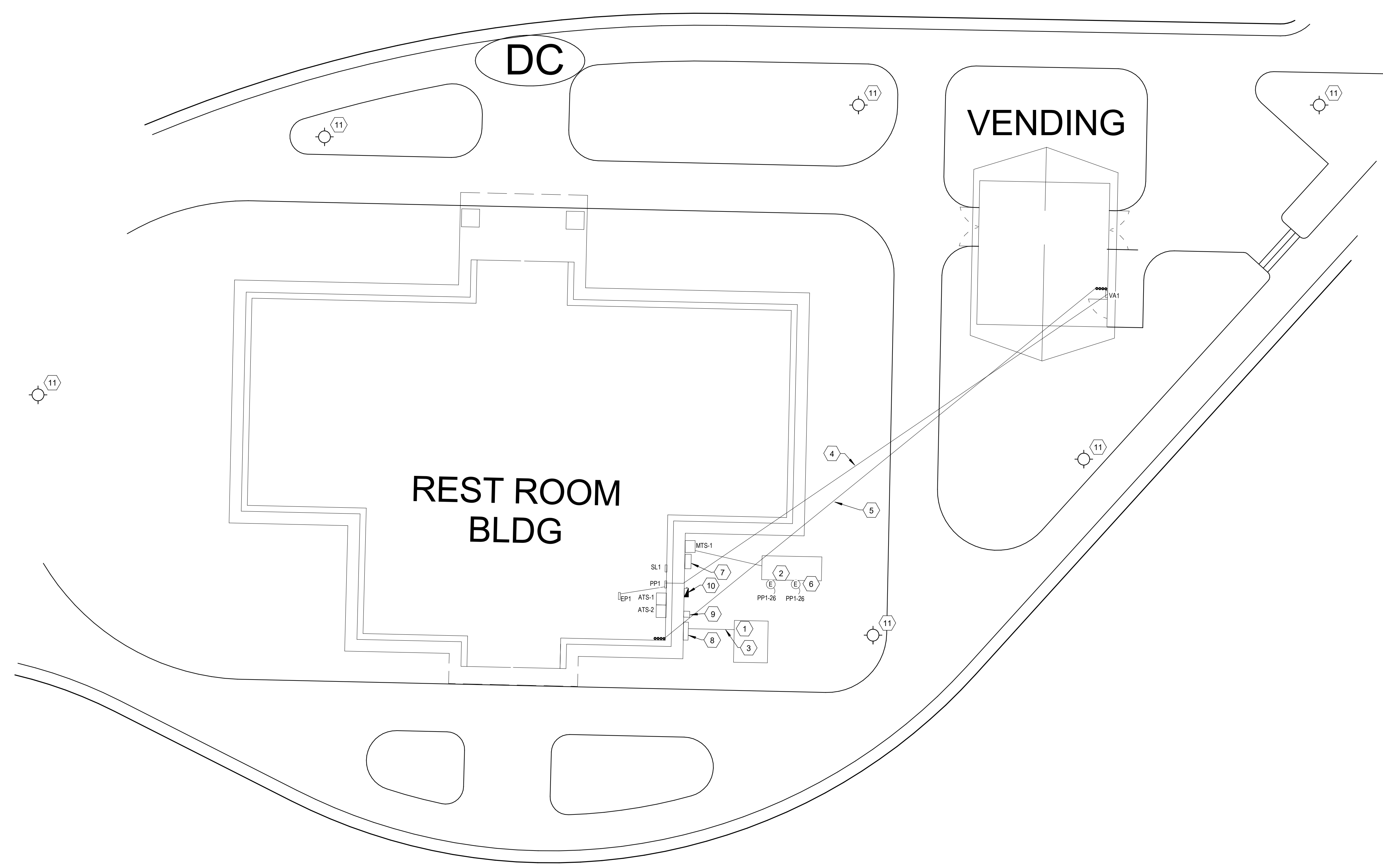
ARCHITECT OF RECORD  
 BRIAN T. SHEPARD, AIA, NCARB, LEED  
 PROJECT MANAGER  
 JOSEPH A. ANGELL II, PE, F.SAME  
 DRAWN BY: JDM FIRST ISSUE DATE: 11/02/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JM
B	ISSUED TO NCDOT	01/22/19	JM
C	ISSUED FOR CONST.	02/21/19	JM

NCDOT PROJECT #: 4400C  
**I-26 WEST BOUND REST AREA**  
 HENDERSON/BUNCOMBE COUNTY  
 NORTH CAROLINA 28732  
**ELECTRICAL NOTES AND ABBREVIATIONS**

PROJECT NO.  
**18-0129.021**  
 SHEET NO.  
**F-002**

SHEET NOTES	KEY NOTES
A. ALL RECEPTACLE CONDUCTORS ARE 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT MINIMUM UNLESS NOTED OTHERWISE.	1 TRANSFORMER PAD SHALL BE BY THE CONTRACTOR, AND SHALL MEET THE REQUIREMENTS OF THE UTILITY COMPANY. TRANSFORMER SUPPLIED BY LOCAL UTILITY. REFERENCE TRANSFORMER PAD DETAIL ON SHEET S300.
B. COORDINATE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTORS.	2 CONTRACTOR TO INSTALL GENERATOR. GENERATOR PROVIDED BY OWNER.
C. COORDINATE EQUIPMENT WITH ARCHITECTURAL EQUIPMENT PLANS AND SCHEDULES.	3 SERVICE LATERAL. REFERENCE SINGLE-LINE E-601.
D. COORDINATE UNDERGROUND CONDUIT RUNS WITH OTHER TRADES AND WITH LOCAL UTILITY COMPANIES.	4 FEEDERS TO PANELS IN VENDING BUILDING. REFERENCE SINGLE-LINE E-601. RUN UNDERGROUND CONDUITS IN PARALLEL.
E. REFERENCE SHEET EP101 FOR UNDERSLAB CONDUIT RUN.	5 EMPTY CONDUITS WITH PULL CORDS INSTALLED. REFERENCE EP101.
F. ATS-1 TO PROVIDE START/STOP CONTROL TO PERMANANT GENERATOR AND ATS-2 TO PROVIDE START/STOP CONTROL TO TEMPORARY GENERATOR HOOKUP LOCATION.	6 GENERATOR HEATER AND BATTERY CHARGER. PROVIDE TEMPORARY GENERATOR CONNECTION POINT PER NFPA 70 700.3(F).
	7 CT CABINET. REFERENCE SINGLE LINE SHEET E-601.
	8 METER BASE. REFERENCE SINGLE LINE SHEET E-601.
	9 SE DISCONNECT. REFERENCE SINGLE LINE SHEET E-601.
	10 SITE LIGHTING POLE AND FIXTURE (BY OTHERS).
	11



**1 WESTBOUND SITE PLAN**  
Scale: 1" = 10'-0"

**SUMMIT**  
DESIGN AND ENGINEERING SERVICES  
Creatively Inspired - Technically Executed  
1110 Navaho Drive, Suite 600  
Raleigh, NC 27609  
Voice: (919) 322-0115 Fax: (919) 322-0116  
www.SummitDE.net

**Apogee Consulting Group, P.A.**  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com  
**APOGEE**  
Engineers | Architects

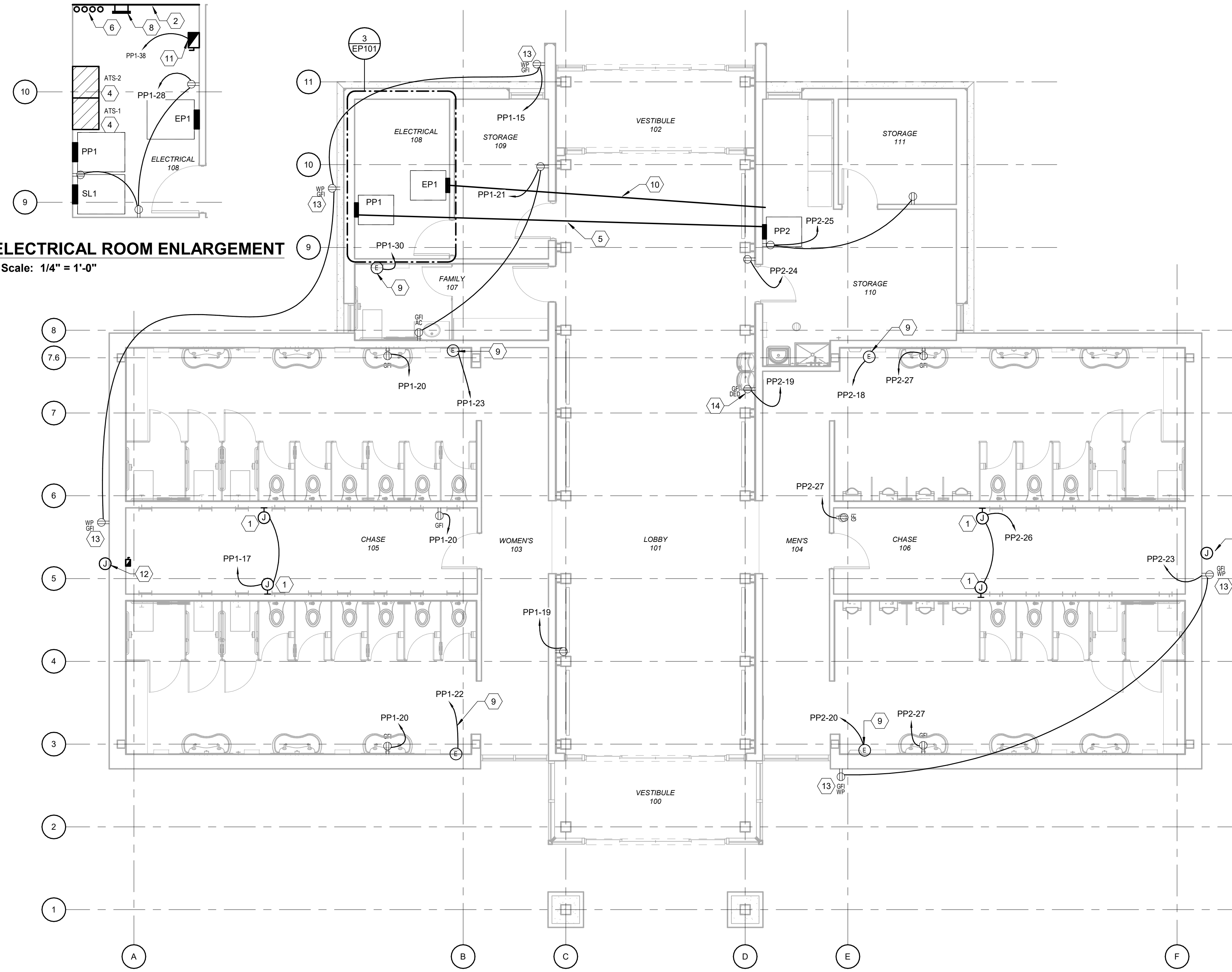


ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F.SAME  
DRAWN BY: JDM FIRST ISSUE DATE: 11/02/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JM
B	ISSUED TO NCDOT	01/22/19	JM
C	ISSUED FOR CONST.	02/21/19	JM

NCDOT PROJECT #: 4-400C  
**I-26 WEST BOUND REST AREA**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**ELECTRICAL SITE PLAN**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**ES101**

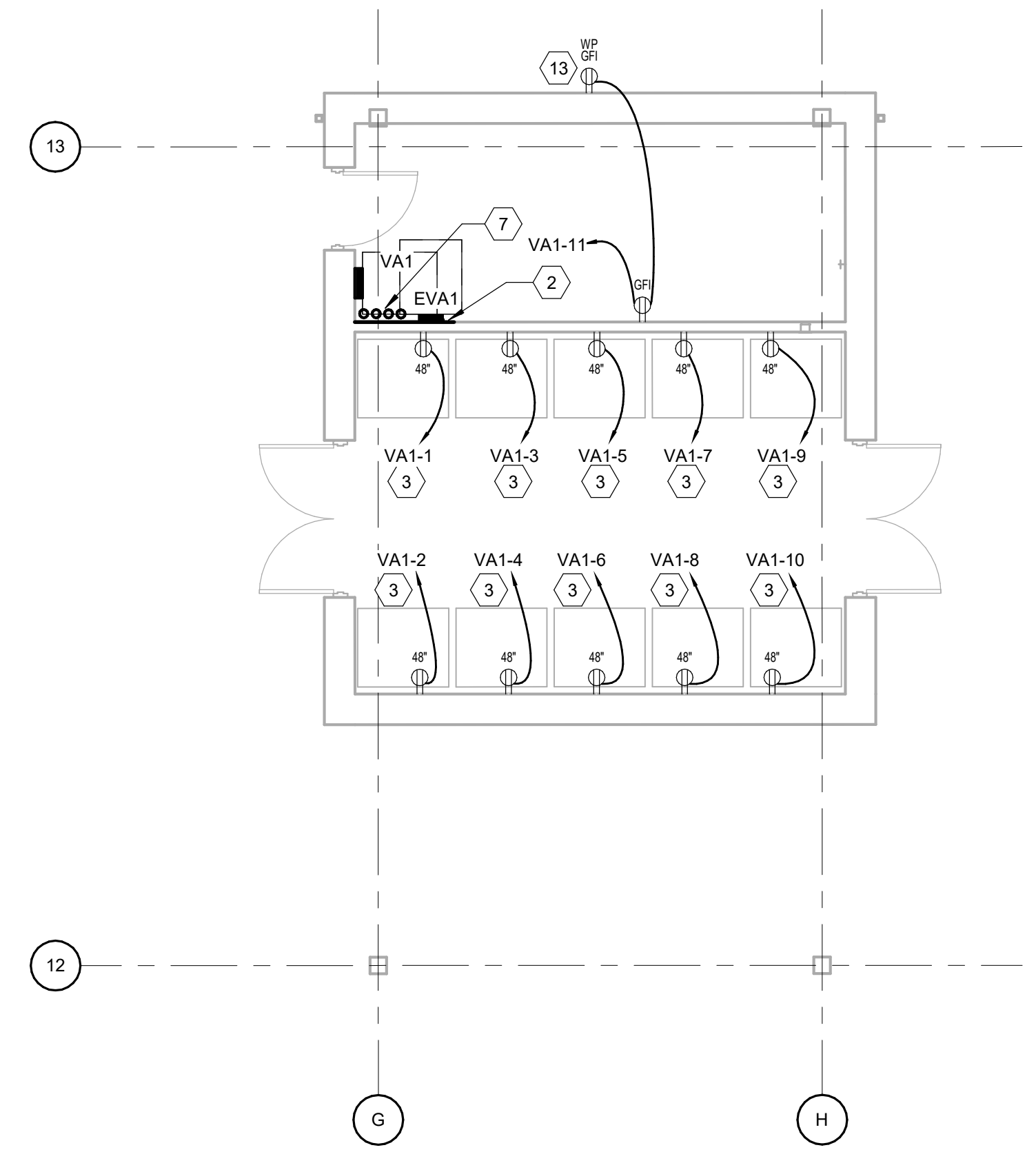


**3 ELECTRICAL ROOM ENLARGEMENT**  
Scale: 1/4" = 1'-0"

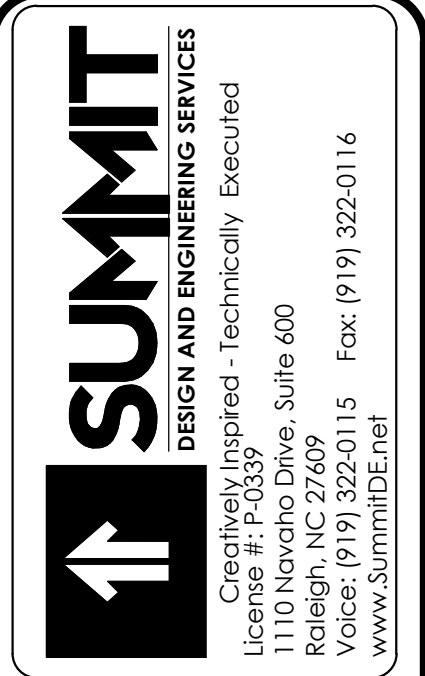
**1 REST AREA ELECTRICAL PLAN**  
Scale: 3/16" = 1'-0"

- SHEET NOTES**
- A. ALL RECEPTACLE CONDUCTORS SHALL BE 2-12 AWG, 1-12 AWG EG IN 3/4" CONDUIT MINIMUM UNLESS NOTED OTHERWISE.
  - B. COORDINATE LOCATION AND ELECTRICAL REQUIREMENTS OF ALL MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTORS.
  - C. COORDINATE EQUIPMENT WITH ARCHITECTURAL EQUIPMENT PLANS AND SCHEDULES.
  - D. ELECTRICAL CONTRACTOR SHALL FOLLOW SITE LOCK-OUT/TAG-OUT GUIDELINES TO DEENERGIZE EQUIPMENT.
  - E. ALL RECEPTACLES SHALL HAVE THEIR SOURCE PANEL AND CIRCUIT NUMBER INDICATED ON THEIR FACEPLATE.

- KEY NOTES**
- 1 PROVIDE JUNCTION BOX & 120V 20A CIRCUIT AS INDICATED ON PLAN TO PROVIDE POWER TO PLUMBING FIXTURE SENSORS. COORDINATE WITH PLUMBING CONTRACTOR. (TYP. 3 JUNCTION BOXES PER BATHROOM.)
  - 2 NEW 8'x4'x3/4" FIRE RATED PLYWOOD.
  - 3 RECEPTACLES SHALL BE PROVIDED GFI PROTECTION THROUGH GFI BREAKER. PROVIDE 20A GFI BREAKER WITH 5 MILLIAMP TRIP.
  - 4 600A ATS. REFERENCE SINGLE LINE SHEET E-601.
  - 5 UNDER SLAB CONDUIT FROM PANEL 'PP1' TO PANEL 'PP2'. REFERENCE SINGLE LINE SHEET E-601.
  - 6 PROVIDE 4-1" CONDUITS WITH PULL CORDS FROM THIS LOCATION TO VENDING BUILDING. REFERENCE PLAN 2 THIS SHEET AND REFERENCE SHEET ES101. COORDINATE UNDERGROUND ROUTINGS WITH OTHER DISCIPLINES.
  - 7 PROVIDE 4-1" CONDUITS WITH PULL CORDS FROM THIS LOCATION TO RESTROOM BUILDING. REFERENCE PLAN 1 THIS SHEET AND REFERENCE SHEET ES101. COORDINATE UNDERGROUND ROUTINGS WITH OTHER DISCIPLINES.
  - 8 PROVIDE GROUND BAR. SEE DETAIL 4/E501.
  - 9 POWER CONNECTION FOR HAND DRYER. COORDINATE WITH OTHER DISCIPLINES.
  - 10 UNDER SLAB CONDUIT RUN FOR LIGHTING CIRCUITING. REFERENCE EL101.
  - 11 30A 240V RATED DISCONNECT PROVIDED BY OTHERS FOR SITE WATERWORKS AND LANDSCAPING FEATURES. REFERENCE SHEET E-501 DETAIL 4.
  - 12 EMPTY WEATHERPROOF JUNCTION BOX MOUNTED AT 18" FOR SITE WATERWORKS AND LANDSCAPING FEATURES. PROVIDE EMPTY 1" CONDUIT BACK TO 30A DISCONNECT. REFERENCE KEYNOTE 11 THIS SHEET.
  - 13 (TYP) RECEPTACLE IN WEATHERPROOF LOCKABLE HEAVY DUTY ENCLOSURE. PROVIDE GFI PROTECTION THROUGH GFI BREAKER (5mA).
  - 14 DEDICATED RECEPTACLE FOR DRINKING FOUNTAIN. COORDINATE PLACEMENT WITH PLUMBING CONTRACTOR.



**2 VENDING AREA ELECTRICAL PLAN**  
Scale: 3/16" = 1'-0"



**Apogee Consulting Group, P.A.**  
1151 Kildane Farm Road, Suite 120  
Cary, North Carolina 27511  
NC License #C-1848  
www.apogee.com



ARCHITECT OF RECORD  
BRIAN T. SHEPARD, AIA, NCARB, LEED  
PROJECT MANAGER  
JOSEPH A. ANGELL II, PE, F.SAME  
DRAWN BY: JDM FIRST ISSUE DATE: 11/02/2018

NO	REVISIONS	DATE	BY
A	ISSUED TO SCO	11/16/18	JM
B	ISSUED TO NCDOT	01/22/19	JM
C	ISSUED FOR CONST.	02/21/19	JM

NCDOT PROJECT #1-4400C  
**I-26 WEST BOUND REST AREA**  
HENDERSON/BUNCOMBE COUNTY  
NORTH CAROLINA 28732  
**FIRST FLOOR POWER PLAN**

PROJECT NO.  
**18-0129.021**  
SHEET NO.  
**EP101**