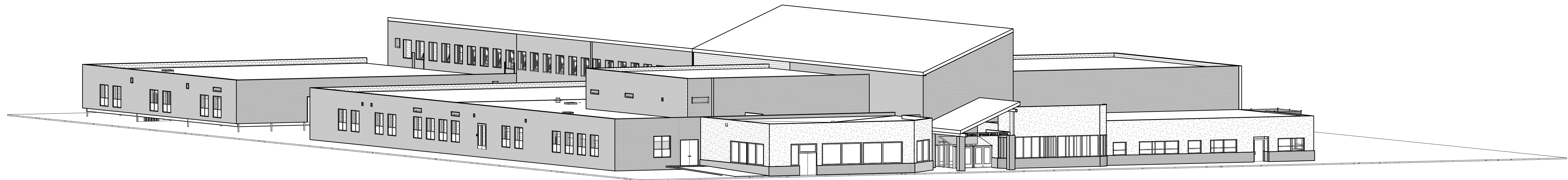


STEAMBOAT SPRINGS MIDDLE SCHOOL CAFETERIA ADDITION

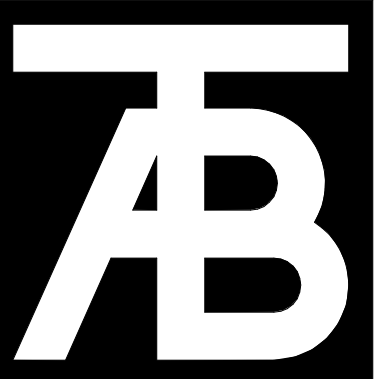
39610 AMETHYST DR
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CONSTRUCTION DOCUMENTS
04/07/20

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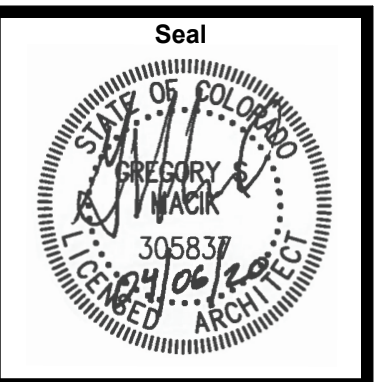
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Steamboat Springs Middle School
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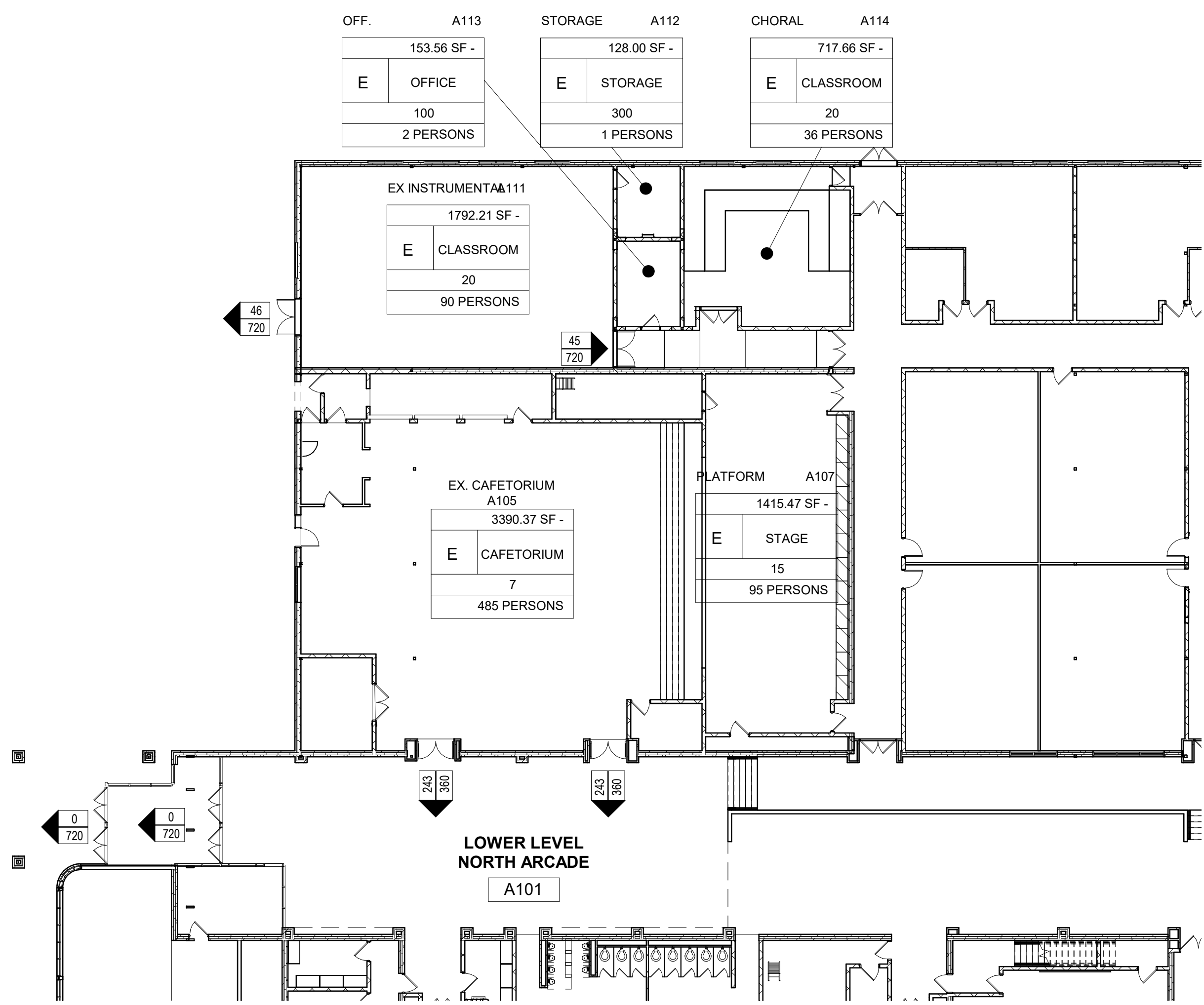
Revisions:		
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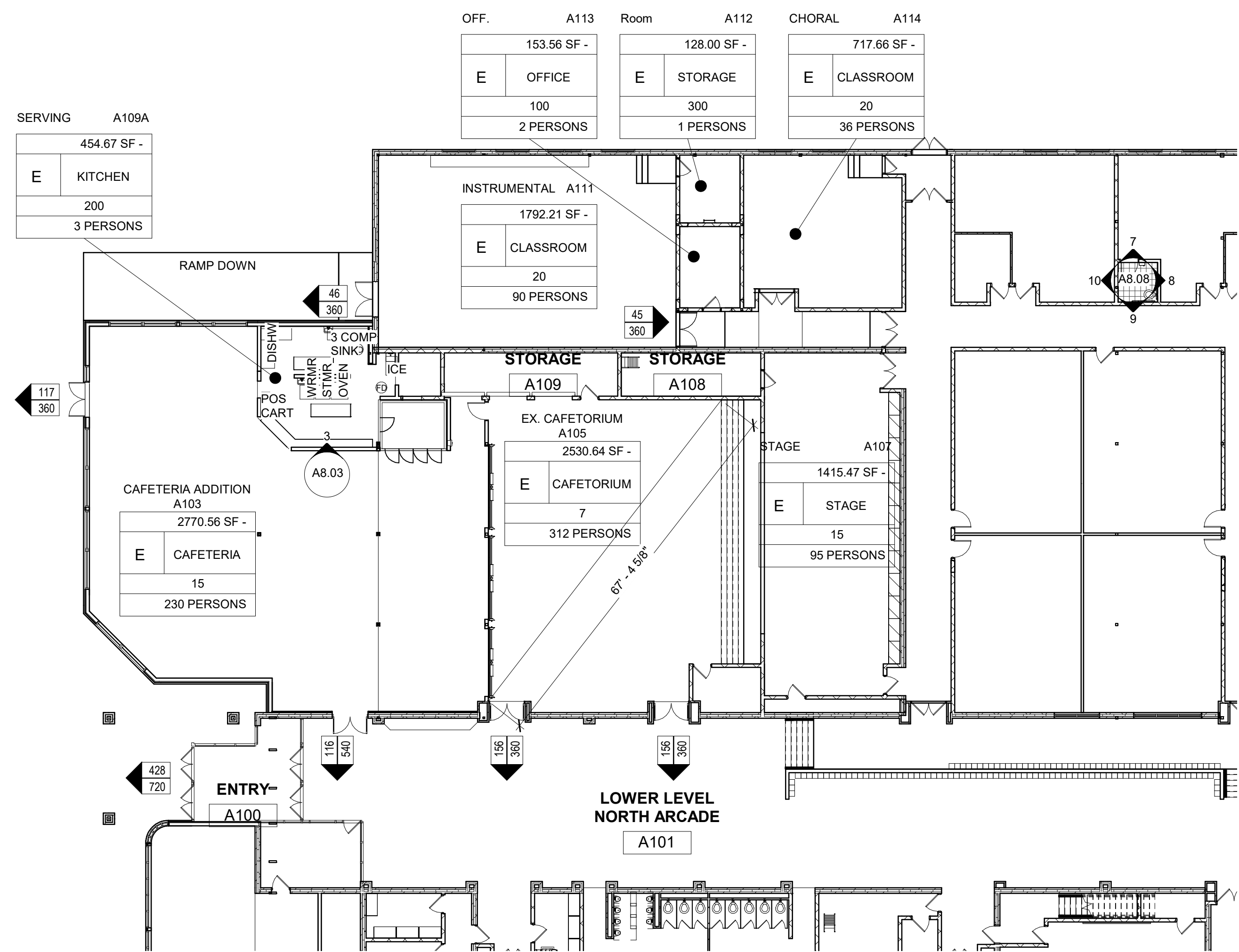
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Project No:
1935.03

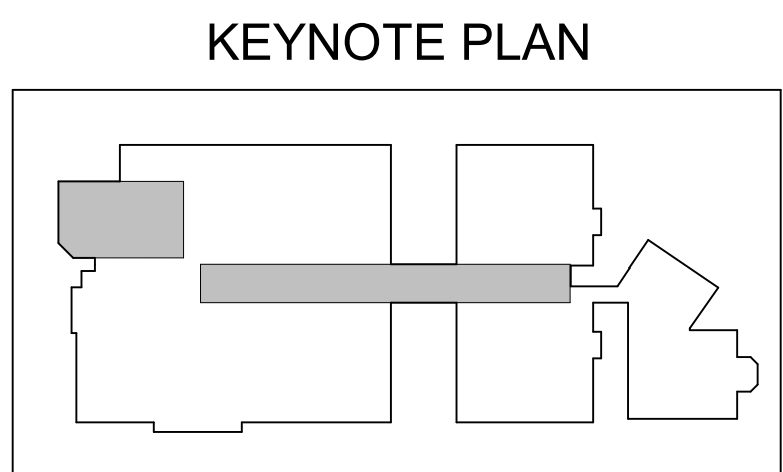
Sheet No:
A0.00



1 EX. EGRESS PLAN AREA A
A0.02 1/16" = 1'-0"



2 LEVEL 1 - EGRESS PLAN AREA A
A0.02 1/16" = 1'-0"



EGRESS NARRATIVE

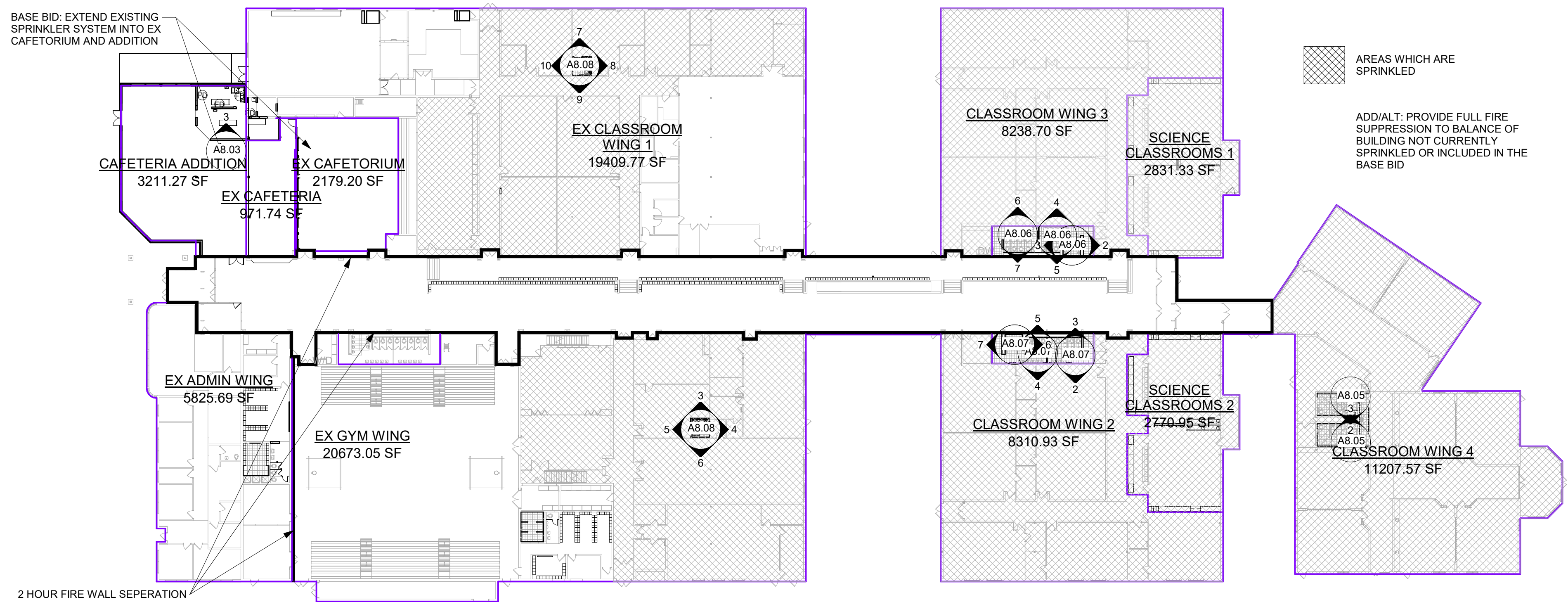
- CAFETERIA - ACCESSORY USE
EXTERIOR DOOR IS SIZED TO ALLOW FULL OCCUPANCY EGRESS
- CAFETERIUM - ACCESSORY USE
EGRESS DOORS INTO ARCADE ARE HAVING THE PANELS REPLACED
BUT THE FRAMES AND EGRESS WIDTH STAY THE SAME. THE
CAFETERIUM HAS BEEN REDUCED IN SIZE FROM 485 TO 312 PERSONS
- EX. INSTRUMENTAL - NO CHANGE IN OCCUPANCY OR EGRESS
- EX. CHORAL - NO CHANGE IN OCCUPANCY OR EGRESS
- SCIENCE ROOMS - NO CHANGE IN OCCUPANCY OR EGRESS
- VARIOUS BATHS - ACCESSORY USE, REF PLANS FOR INCREASED OCCUPANTS

EGRESS DOORS

ALL EGRESS DOORS TO THE EXTERIOR WILL HAVE FREE EGRESS WITH PANIC DEVICES. DOORS
WITH NOTED OCCUPANT LOAD OF 50 OR OVER WILL ALSO HAVE FREE EGRESS WITH PANIC
DEVICE ELECTRONIC DOOR LOCKS DO NOT HAMPER EGRESS



3 LEVEL 1 - EX. FIRE WALL SEPERATION PLAN
A0.02 1/32" = 1'-0"



4 LEVEL 1 - FIRE WALL SEPERATION PLAN
A0.02 1/32" = 1'-0"

EXISTING BUILDING INFORMATION

BUILDING	OCCUPANCY	OCCUPANTS	EXISTING AREA	NEW AREA	ALLOWABLE AREA	EXISTING CONST. TYPE	FIRE SUPPRESSION	BUILDING HEIGHT
ADMIN WING ADDITION 2007	B		5,826 SF	-	58,000 SF	TYPE 2B (IIB)	YES	EX
GYM +STAGE WING ORIGINAL BLDG 1980	A1/A3/E		20,674 SF	-	58,000 SF	TYPE 2B (IIB)	YES	EX
CLASSROOM WING 1 ORINGAL BLDG 1980	E		18,148 SF	-	58,000 SF	TYPE 2B (IIB)	YES	EX
CLASSROOM WING 2 ORIGINAL BLDG 1980	E		11,082 SF	-	58,000 SF	TYPE 2B (IIB)	YES	EX
CLASSROOM WING 3 ORIGINAL BLDG 1980	E		11,071 SF	-	58,000 SF	TYPE 2B (IIB)	YES	EX
CLASSROOM WING 4 ADDITION 2003	E		11,208 SF	-	58,000 SF	TYPE 2B (IIB)	YES	EX
NEW CAFETERIA WING EXISTING CAFETERIUM + PROPOSED CAFETERIA ADDED TO CLASSROOM WING 1	A2		4,434 SF	2,608 SF	58,000 SF	TYPE 2B (IIB)	PROPOSED EXISTING CAFETERIUM TO BE SPRINKLED	16'-8" MATCHING ADJACENT
TOTAL OCCUPANTS		NO ADDITIONAL OCCUPANTS						
TOTAL NEW AREA		2,608 SF						
TOTAL AREA		85,051 SF						

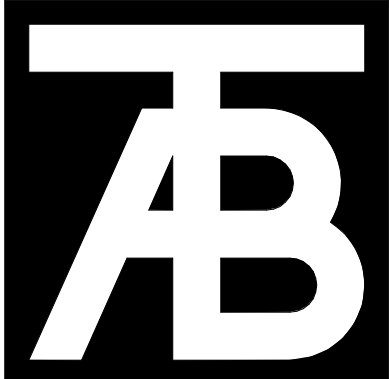
NEW CAFETERIA AREA IS AN ACCESSORY USE FOR THE SCHOOL PER 2015 IBC 303.1.3

WORK IN SCIENCE CLASSROOMS DOES NOT IMPACT/CHANGE OCCUPANCY, SQUARE FOOTAGE, CONSTRUCTION TYPE, OR EGRESS

PROJECT CODES

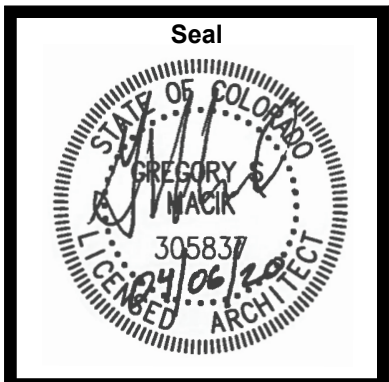
2015 International Building Code (IBC)
2015 International Energy Conservation Code (IECC)
2015 International Mechanical Code (IMC)
2015 International Plumbing Code (IPC)
2015 International Fuel Gas Code (IFGC)
2015 International Fire Code (IFC)
2017 National Electric Code (NEC)

IECC Info/Requirements
CLIMATE ZONE 7
Roof Insulation above deck min R-35
Metal Framed Wall Insulation R-13+R-7.5ci
Below Grade Wall R-10ci
Unheated Slabs R-15 for 24" Below



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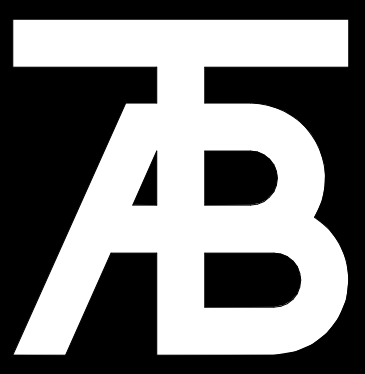
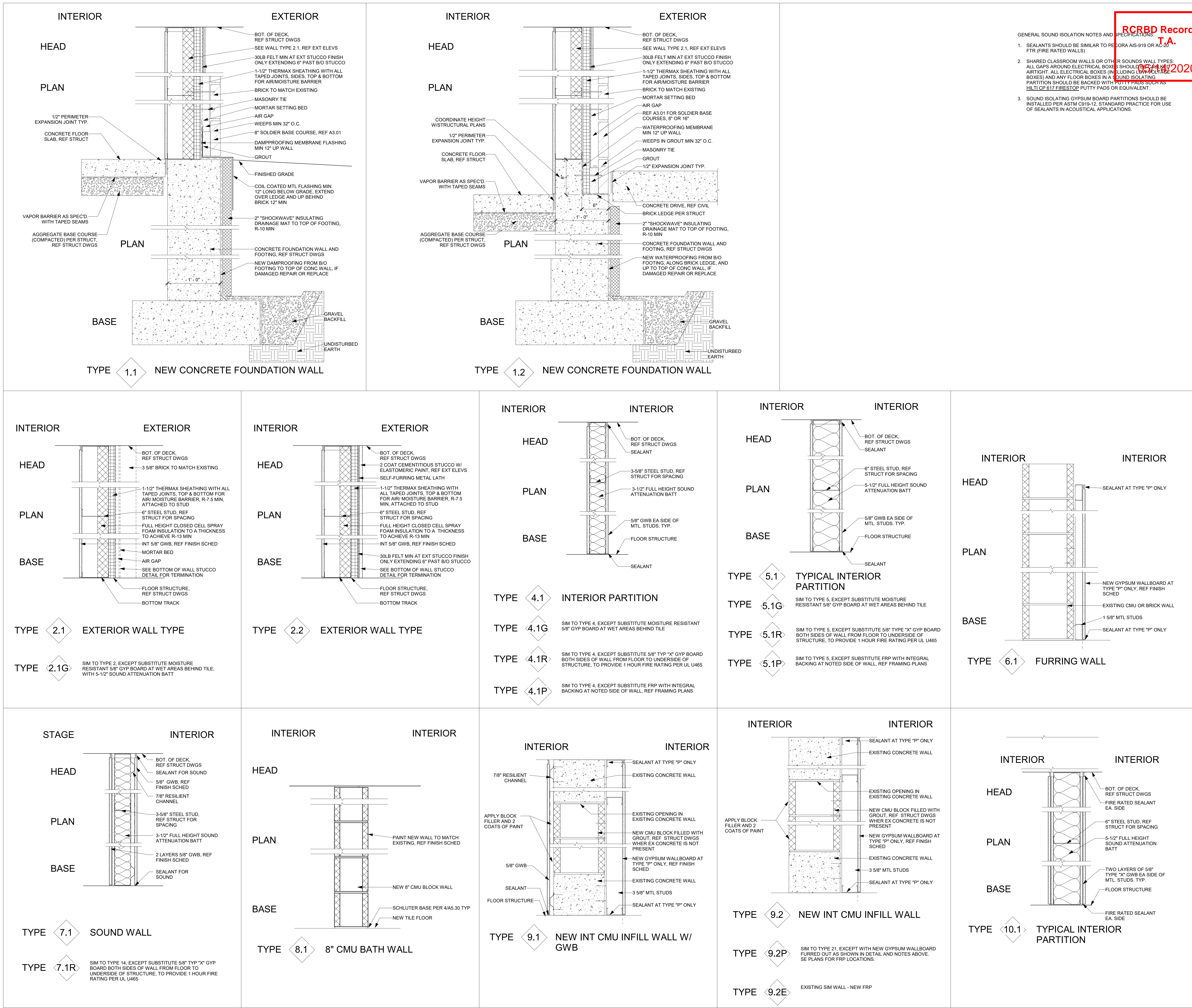
Revisions:		
No	Description	Date

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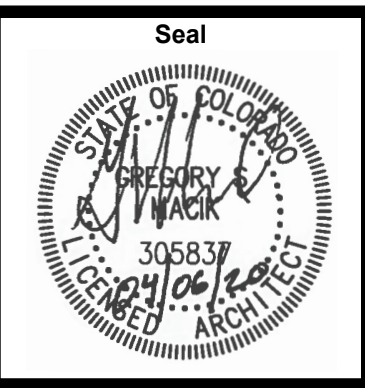
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Sheet No:
A0.02



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Sheet Title:
Wall Types

Project No:
1935.03

Sheet No:
A0.03

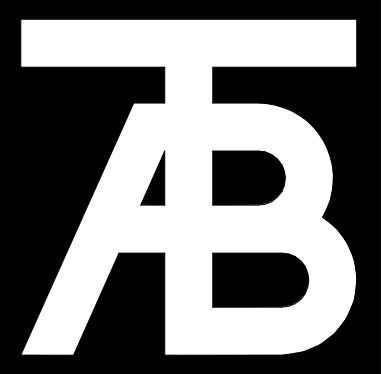
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4/5/2020 9:00:21 AM

DOOR SCHEDULE																			
DOOR NO.	LOCATION		WIDTH	HEIGHT	THICKNESS	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME DEPTH	FRAME FINISH	GLASS TYPE	HEAD	JAMB	SILL	FIRE RATING	HDWR	REMARKS
	FROM ROOM	TO ROOM																	
A103A	CAFETERIA ADDITION	LOWER LEVEL NORTH ARCADE	6' - 0"	7' - 0"	1 3/4"	6	WD	ST	5	HM	1' - 1 5/8"	PT	TEMPERED	14/A5.60	14/A5.60	6/A5.60	---	02	MAG LOCKS, HOLD OPEN + CLOSERS, NO MULLION OR ASTRIGAL, KEYCARD ACCESS
A103C	CAFETERIA ADDITION		6' - 0"	7' - 0"	1 3/4"	7 SIM	SF	MFG	2 SIM	SF	6' - 6"	MFG	TEMPERED, INSULATED	9/A5.60	13/A5.60	7/A5.60	---	AL-01	KEYCARD ACCESS, NO WIRING IN REMOVABLE MULLION, REF WINDOW TYPE 3 FOR SIZING
A103D	EX. CAFETORIUM	CAFETERIA CONVERSION	3' - 0"	7' - 0"	1 3/4"	1	WD	ST	1	HM	8 1/4"	PT	TEMPERED	4/A5.60	4/A5.60	6/A5.60	---	04	
A105C		EX. CAFETORIUM	12' - 0"	8' - 0"	2 1/8"	9	SF	MFG	EXTRUDED	SF	6 1/2"	MFG	TEMPERED	2/A5.60 SIM	2/A5.60	-	---	OH-01	GARAGE DOOR, GLASS, STRAIGHT UP TRACK, ANODIZED DARK BRONZE FRAME
A105D		EX. CAFETORIUM	14' - 6"	8' - 0"	2 1/8"	9	SF	MFG	EXTRUDED	SF	6 1/2"	MFG	TEMPERED	2/A5.60 SIM	2/A5.60	-	---	OH-01	GARAGE DOOR, GLASS, STRAIGHT UP TRACK, ANODIZED DARK BRONZE FRAME
A105E		EX. CAFETORIUM	14' - 6"	8' - 0"	2 1/8"	9	SF	MFG	EXTRUDED	SF	6 1/2"	MFG	TEMPERED	2/A5.60 SIM	2/A5.60	-	---	OH-01	GARAGE DOOR, GLASS, STRAIGHT UP TRACK, ANODIZED DARK BRONZE FRAME
A109A	SERVING	CAFETERIA ADDITION	3' - 0"	2' - 6"	2"	8	WD	ST	-	-	-	-		-	-	-	---	05	HALF HEIGHT
A111A	INSTRUMENTAL		6' - 2"	8' - 2"	1 3/4"	1	HM	PT	EX	EX		PT		EX.	EX.	EX.	---	01.01	REPLACE DOOR, DOOR HARDWARE, AND RETROFIT FOR HINGE LOCKSET
B109A	SPED	SPED BATH	3' - 0"	7' - 0"	1 3/4"	1	WD	ST	1	HM	8 1/4"	PT		4/A5.60	4/A5.60		---		SPED BATH, PASSAGE HARDWARE W/NO LOCKS
C106A	GREENHOUSE		3' - 0"	7' - 0"	1 3/4"	1	HM	PT	3	HM		PT		8/A5.60	13/A5.60	7/A5.60	---	01	
C107D	7TH GRADE SCIENCE	7TH GRADE SCIENCE	12' - 0"	8' - 6"	3' - 6"	-	MFR	WB	EXTRUDED	MFR	8 1/4"	MFG		12/A5.60	10/A5.60	-	---	SL-01	FOLDING PARTITION
C107E			15' - 0"	5' - 6"	2"	-	MFR	NA	EXTRUDED	MFR	8 1/4"	MFG		15/A5.60	10/A5.60	-	---	SL-01	ACORDION COUNTERTOP DOOR
EA105E	SPED		3' - 0"	7' - 0"	1 3/4"	1	WD	ST	1	HM	8 1/4"	PT		4/A5.60	4/A5.60		---		SPED BATH, PASSAGE HARDWARE W/NO LOCKS
EA111B	INSTRUMENTAL		6' - 0"	8' - 0"	1 3/4"	EX	EX	EX	EX	EX		EX	EX.	EX.	EX.	EX.	---	EX-02	DOOR HOLD OPEN TO RECIEVE NEW THINNER MAG HOLD

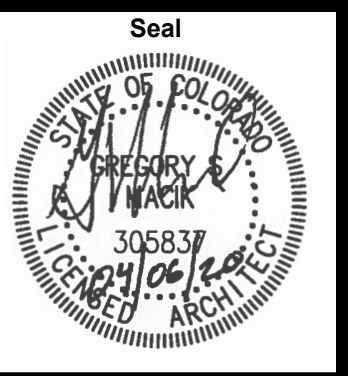
ABBREVIATION	DESCRIPTION
MFG	MANUFACTURER
EHM	EX HOLLOW METAL
EWD	EX WOOD
ESF	EX STOREFRONT
EAL	EX ALUMINUM
HM	HOLLOW METAL
WD	WOOD
SF	STORE FRONT
AL	ALUMINUM
EST	EX STAIN
EPT	EX PAINT
EML	FACTORY MILL FINISH
PT	PAINT
ST	STAIN
TEMP	TEMPERED
EX	EXISTING
SS	STAINLESS STEEL FINISH
VS	VINYL STICKER FINISH BY MFG

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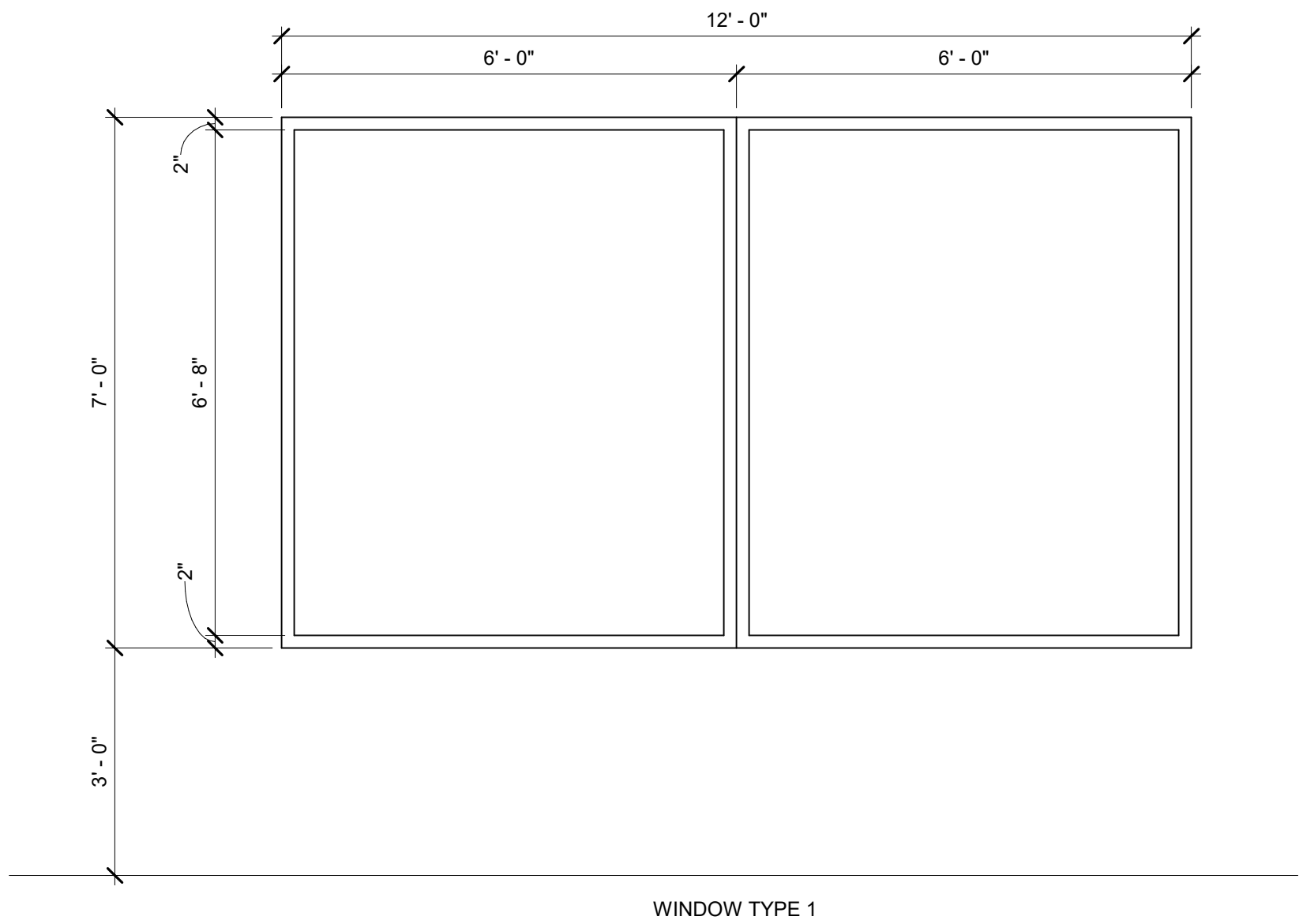
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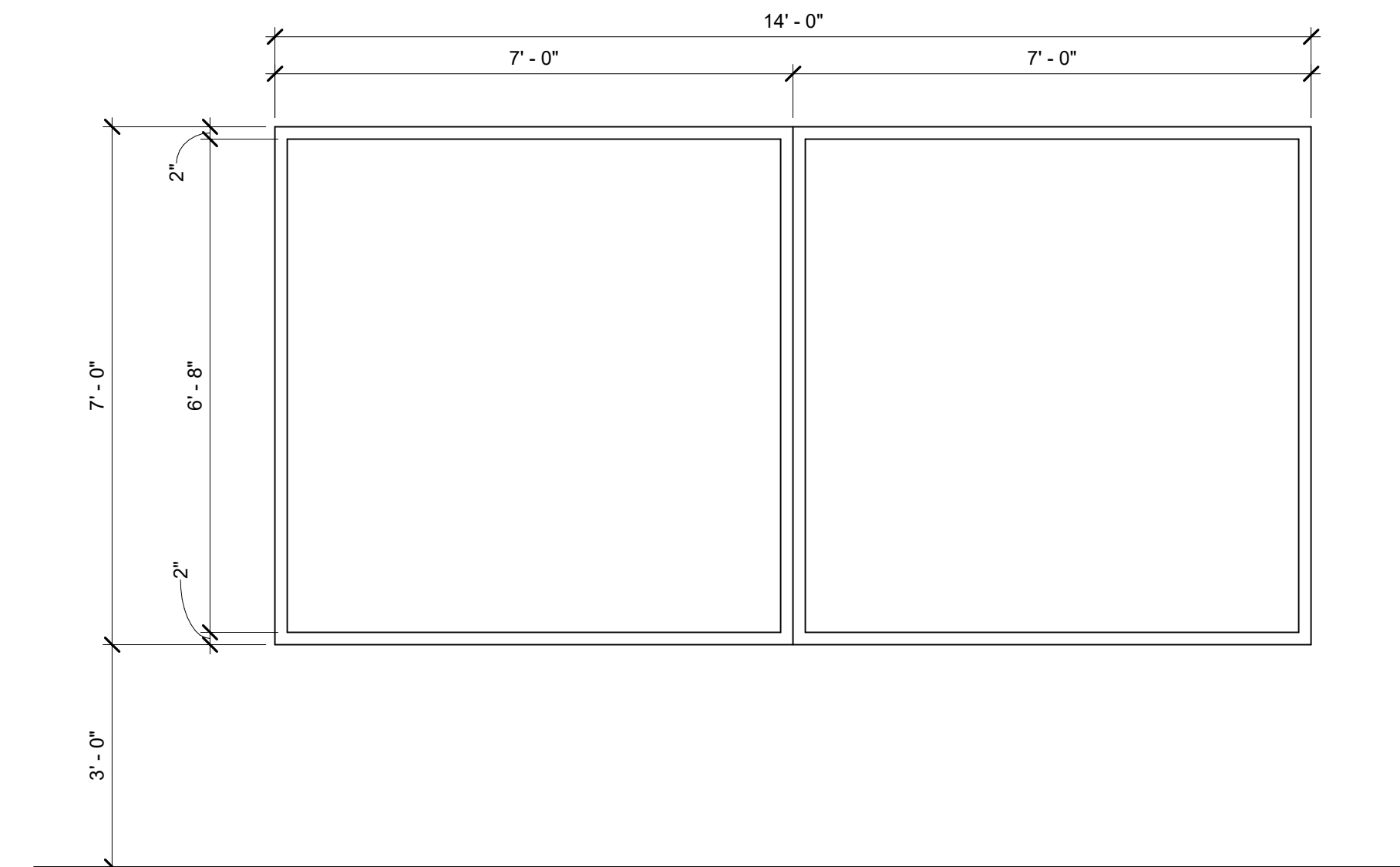
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Door and Window Schedules

Project No:
1935.03

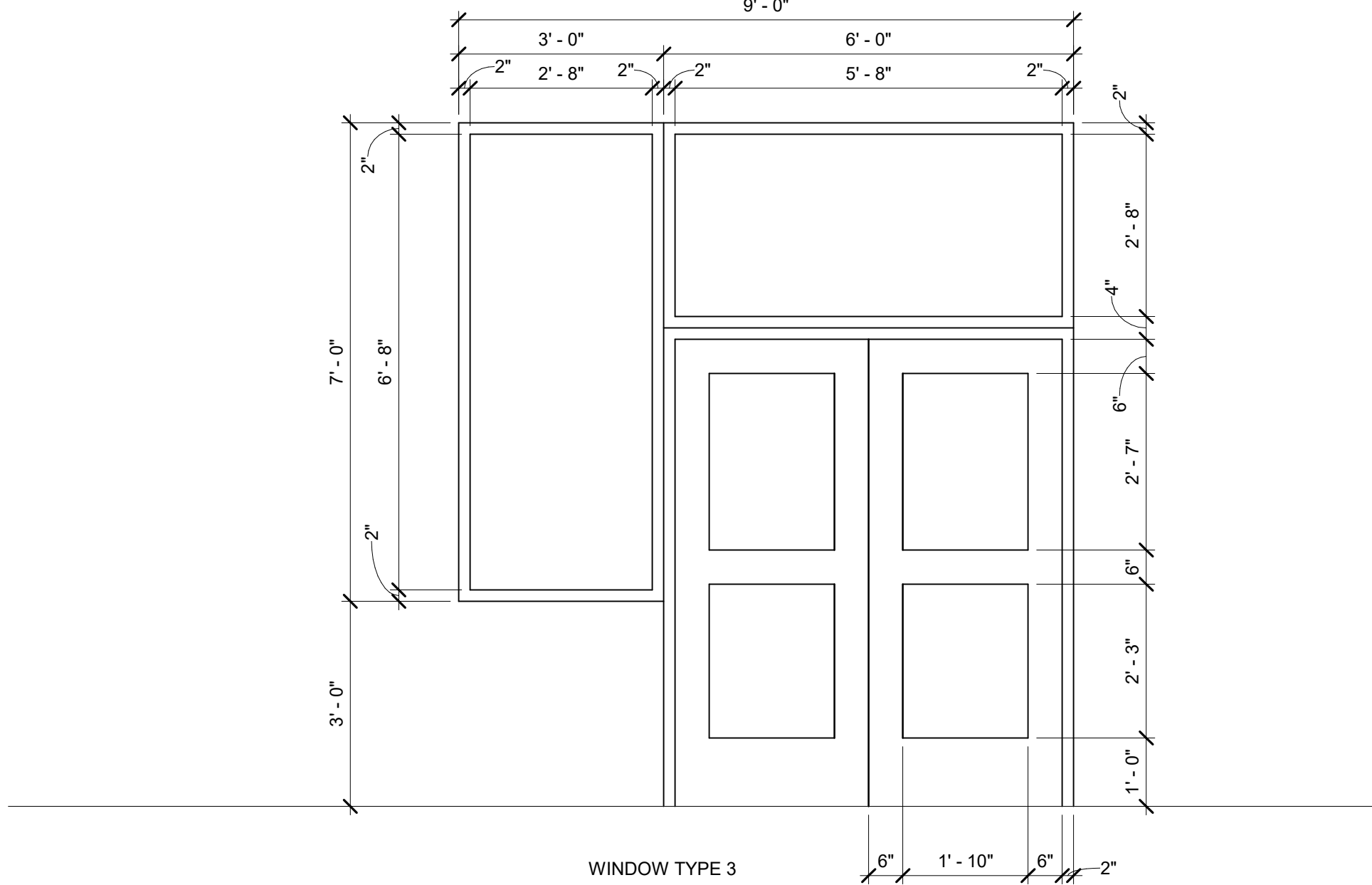
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A0.04



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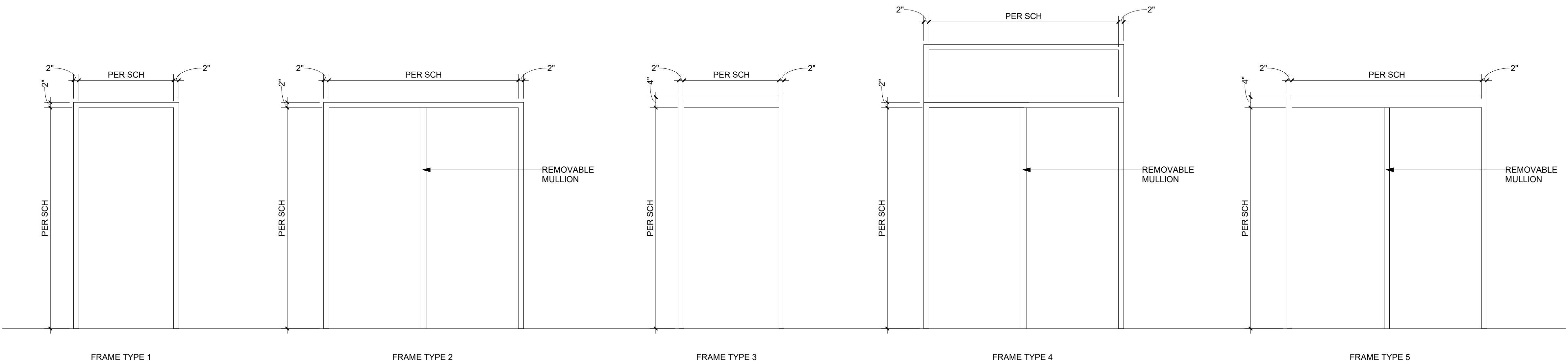


WINDOW TYPE 2



WINDOW TYPE 3

WINDOWS
1/2" = 1'-0"



FRAME TYPE 1

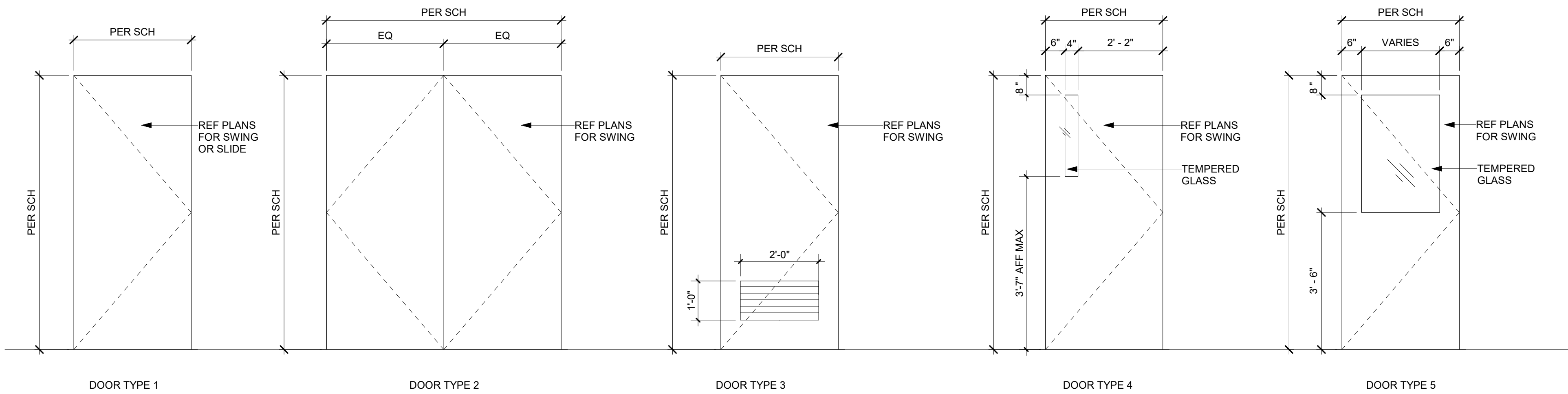
FRAME TYPE 2

FRAME TYPE 3

FRAME TYPE 4

FRAME TYPE 5

DOOR FRAME TYPES
1/2" = 1'-0"



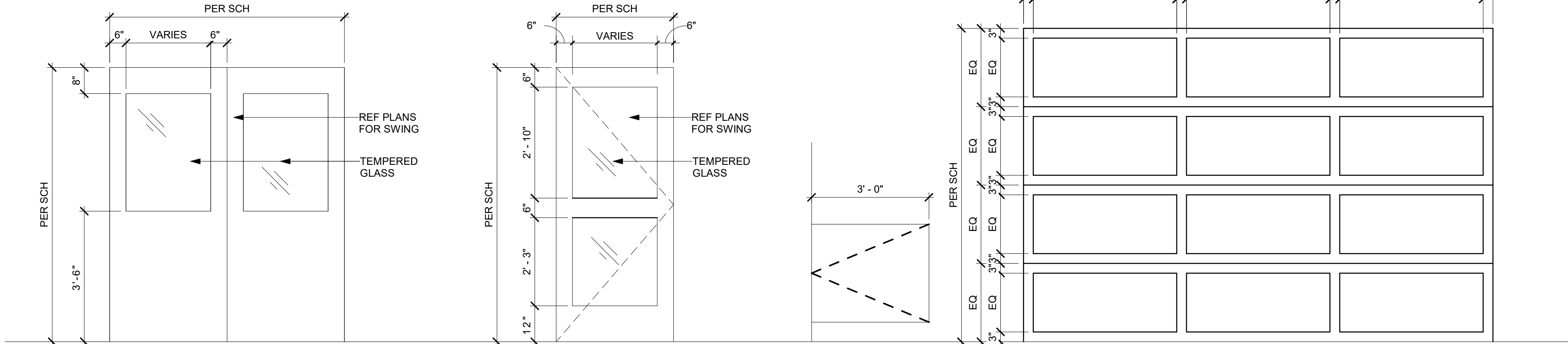
DOOR TYPE 1

DOOR TYPE 2

DOOR TYPE 3

DOOR TYPE 4

DOOR TYPE 5



DOOR TYPE 6

DOOR TYPE 7

DOOR TYPE 8
HALF DOOR
REF 6/A5.60

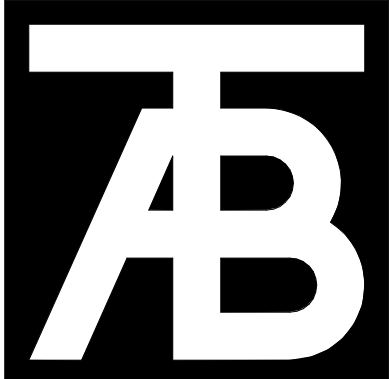
DOOR TYPE 9
HALF DOOR

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

COLOR AND MATERIALS SCHEDULE - BASIS OF DESIGN							
SYMBOL	GENERAL_ LOCATION	MANUFACTURER	PRODUCT NAME	COLOR / FINISH	SIZE	REMARKS	
ACOUSTIC PANEL CEILING							
APC-1	CLASSROOMS/CAFETERIA	ARMSTRONG	FINE FISSURED-HIGH ACOUSTICS SQUARE LAY-IN - 1714	WHITE W/ WHITE GRID	24" x 48"x3/4"	NRC: .55	ACOUSTIC PANEL CEILING
APC-2	LEARNING COMMONS CLOUDS	ARMSTRONG	FINE FISSURED-HIGH ACOUSTICS SQUARE LAY-IN - 1714	WHITE W/ WHITE GRID	24" x 48"x3/4"	CLOUD EDGE - 6" AXIOM	ACOUSTIC PANEL CEILING
ACOUSTIC WALL PANEL							
AWP-1	CAFETORIUM	KINETICS	HARDSIDE	TBD		GUILFORD OF MAINE FABRIC	ACOUSTIC WALL PANEL
BASE							
B-1	GENERAL WALL BASE	ROPPE	VINYL - TYPE TP - 700 SERIES	100 BLACK	4" H		BASE
CARPET							
CPT-1	FIELD	TANDUS CENTIVA	APPLAUSE III	QUINCE	TILES	UNIDIRECTIONAL	CARPET
CORNER GUARD							
CG-1		INPRO CORP	TAPE ONCORNER GUARDS	SILVER WHITE 0105	WIDTH- 1.5" HEIGHT- 4'-0"	INSTALL AT TOP OF BASE	CORNER GUARD
DOORS							
DR-1	INTERIOR DOORS	VT INDUSTRIES	MATCH EX.	MATCH EX.			DOORS
FIBRE-REINFORCED PLASTIC							
FRP-1	MOP SINKS	MARLITE	STANDARD PEBBLE SURFACE	P199 BRIGHT WHITE			FIBRE-REINFORCED PLASTIC
GROUT							
G-1	FOR WALL TILE T-1, T-3	MAPEI	EPOXY	CHARCOAL 47			GROUT
G-2	FOR FLOOR TILE T-2	MAPEI	EPOXY	CHARCOAL 47			GROUT
LUXURY VINYL TILE							
LVT-1	CAFTERIA/CAFETORIUM	TARKETT	CONTOUR MODERN WOOD	OAKHURST 3824	6X36		LUXURY VINYL TILE
PAINT							
P-1	FIELD PAINT	SHERWIN WILLIAMS	KWALL PAINT, DISTRICT STANDARD				PAINT
P-3	INTERIOR DOOR AND WINDOW FRAMES	SHERWIN WILLIAMS	MATCH EX.	MATCH EX.			PAINT
PLASTIC LAMINATE							
PL-1	CASEWORK - VERTICAL SURFACES	WILSONART	PLASTIC LAMINATE	BRONZE LEGACY 4656-60			PLASTIC LAMINATE
SEALED CONCRETE FLOORING							
SC-1		-	CONCRETE, SEALED		-		SEALED CONCRETE FLOORING
SOLID SURFACE							
SS-1	COUNTERTOPS AND WINDOW SILLS	CORIAN	SOLID SURFACING 13MM	DEEP ANTHRACITE	13MM		SOLID SURFACE
TACKBOARD							
TBD-1	GENERAL TACKBOARD	FORBO	BULLETIN BOARD	2182 - POTATO SKIN	48"X72"	SATIN ANODIZED ALUMINUM TRIM, SEE PLAN FOR SIZE	TACKBOARD
TILING							
T-1	RESTROOM WALL TILE	AMERICAN OLEAN	NEOCONCRETE	BEIGE NEJI-MATTE	24X24	INSTALL IN ALL RESTROOMS	TILING
T-2	RESTROOM FLOOR TILE	DALTILE	CHORD	ALLEGRO BEIGE CH21-UNPOLISHED	24X24	INSTALL IN ALL RESTROOMS	TILING
T-3	KITCHEN WALL TILE	DALTILE	COLOR WHEEL LINEAR	K175 GLOSS BISCUIT	6X18	INSTALL IN KITCHEN	TILING
T-4	RESTROOM WALL TILE	AMERICAN OLEAN	NEOCONCRETE	BEIGE NEJI-MATTE	6X24	CWJ WALLS IN ALL RESTROOMS	TILING
T-5	MOSAIC AT FLOOR DRAINS	DALTILE	CHORD	ALLEGRO BEIGE CH21-UNPOLISHED	12X12	MOSAIC SHEET AT FLOOR DRAINS	TILING
TOILET PARTITIONS							
TP-1	TOILET ROOMS	BOBRICK	HDPL	DESERT ZEPHYR 4841-60			TOILET PARTITIONS
TRANSITIONS							
TR-1	RESTROOM WALL TILE EDGE TRIM	SCHLUTER	DILEX-AHK	SATIN ANODIZED ALUMINUM	HEIGHT TO MATCH TILE AND SETTING BED THICKNESS		TRANSITIONS
TR-2	CARPET TO LVT	JOHNSONITE	CTA-XXX-H	BLACK 40	INSTALLER TO VERIFY SIZE		TRANSITIONS
TR-3	TILE TO LVT	SCHLUTER	RENO-TK	AE	INSTALLER TO VERIFY SIZE		TRANSITIONS
TR-4	CARPET TO CARPET	JOHNSONITE	CTA-XXX-N	BLACK 40	INSTALLER TO VERIFY SIZE		TRANSITIONS
WALK OFF CARPET							
WOC-1		TANDUS CENTIVA	ASSERTIVE ACTION 04837	CHROMIUM 26201	24X24 MODULAR		WALK OFF CARPET
WINDOW SHADE							
WS-1	WINDOW SHADES	HUNTER DOUGLAS	GLACIER SCREEN HD1005	WHITE/SAND			WINDOW SHADE
WOOD							
WD-1		-	FURNITURE GRADE PLYWOOD	MATCH EX.	SEE ELEVATION FOR SIZE	-	WOOD
WD-2			FURNITURE GRADE PLYWOOD	MATCH EX.	SEE ELEVATION FOR SIZE	EACH HOUSE (4 TOTAL) TO RECEIVE A DIFFERNT COLOR STAIN. SEE ELEVATION FOR COLOR.	WOOD

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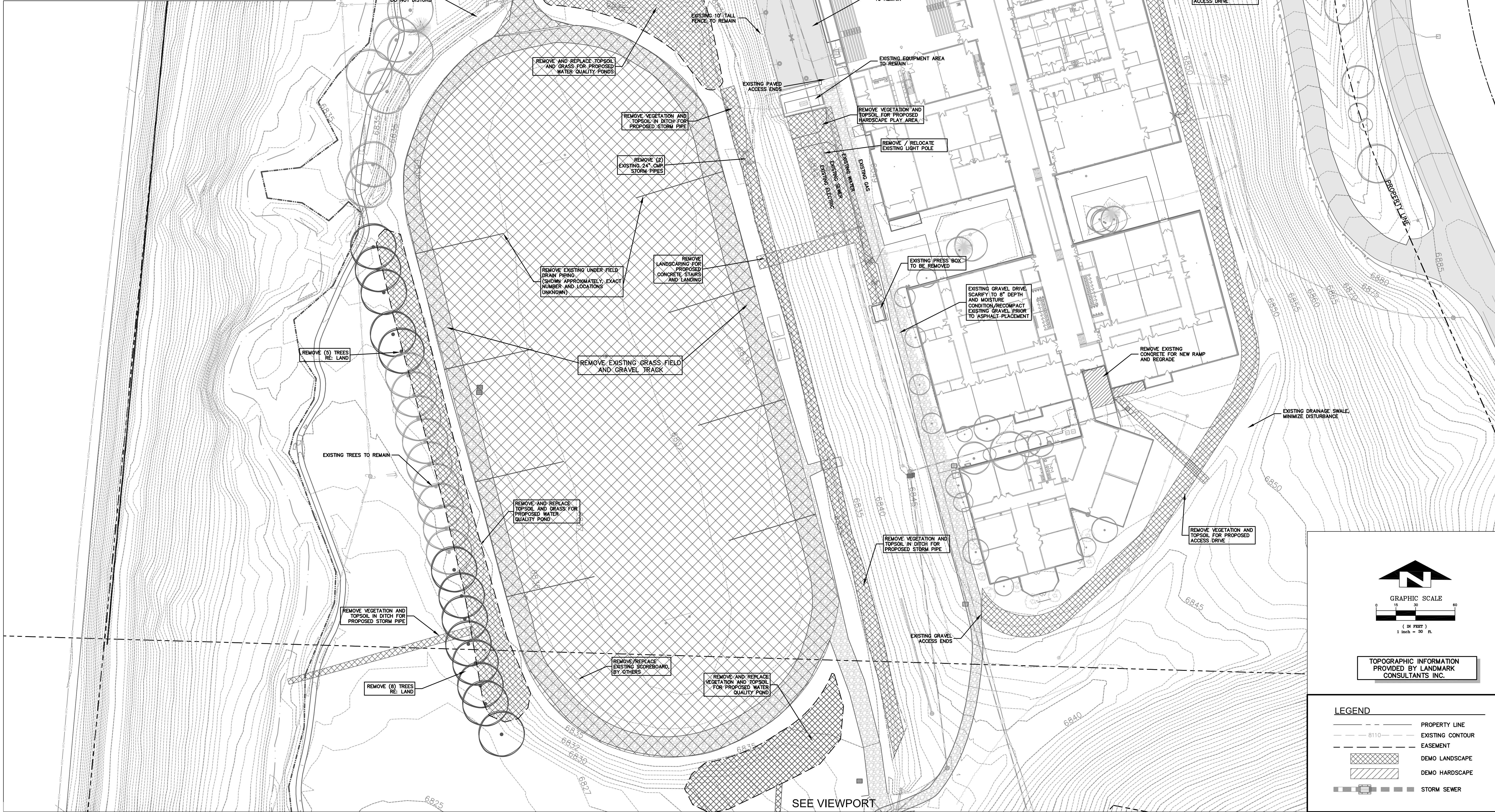
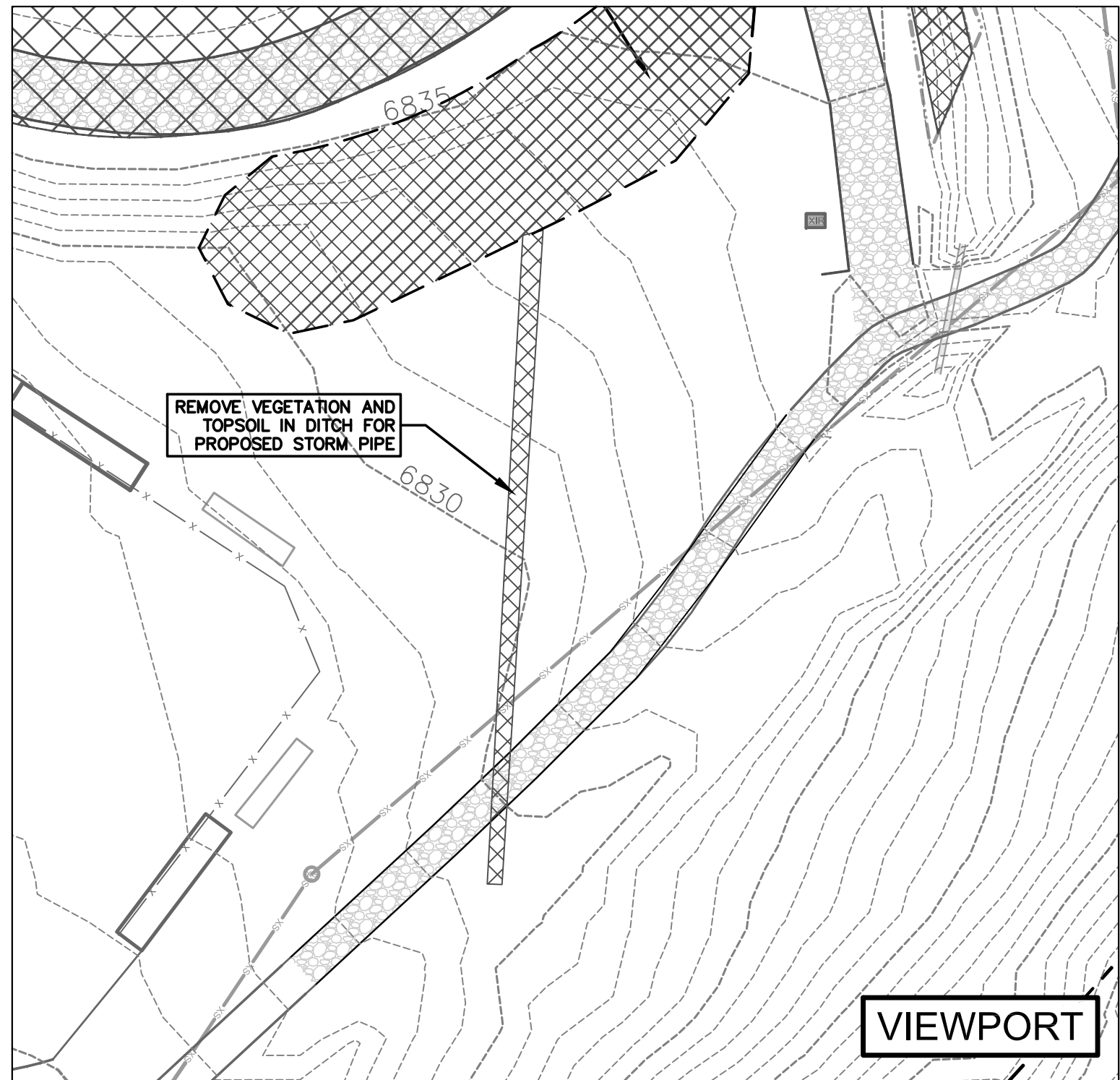
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Finish
Schedule

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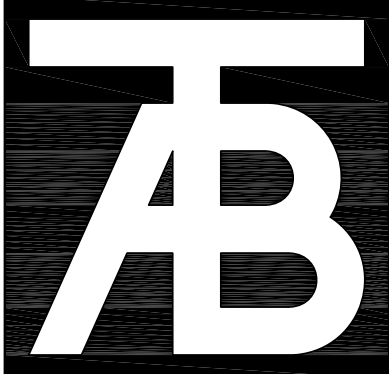
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Field Engineer:
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Structural Engineer:
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Mechanical Engineer:
BG BUILDINGWORKS
(970) 949-6108
Electrical Engineer:
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(970) 949-6108



Steamboat Springs Middle School
39610 Amethyst Drive
Steamboat Springs, CO 80487

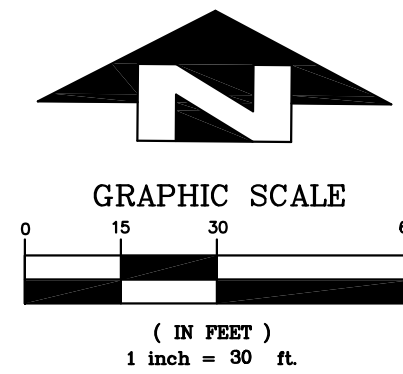
Revisions:		
No	Description	Date

Issue Dates:
SD - 1/15/19
DD - 2/21/20
95 % CD - 3/30/20
100% CD - 4/6/20

Sheet Title:
Demolition Plan
ALPINE ENGINEERING INC.
ENGINEERING INC.
EDWARDS CO 81624 (970) 926-3373
WWW.ALPIENGINEERING.COM

Project No:
1935.03

Sheet No:
C1.1



TOPOGRAPHIC INFORMATION
PROVIDED BY LANDMARK
CONSULTANTS, INC.

LEGEND	
	PROPERTY LINE
	EXISTING CONTOUR
	EASEMENT
	DEMO LANDSCAPE
	DEMO HARDSCAPE
	STORM SEWER

CONCRETE REPAIR
SAWCUT/REMOVE/REPLACE CONCRETE TO MATCH EXISTING. ANY DAMAGED SNOWMELT TUBING TO BE SPICED

ASPHALT PATCH
SAWCUT/REMOVE/REPLACE ASPHALT TO MATCH EXISTING FOR SNOWMELT TUBING

SNOW STORAGE/DETENTION FACILITY
FOR SNOW REMOVAL OF TURF FIELD AND SETTLEMENT/COLLECTION OF TURF INFILL RUBBER.

EXISTING BOILERS

EXISTING FENCE, REPAIR FABRIC AND REPLACE POSTS AS NECESSARY. MATCH EXISTING MATERIAL.

EXISTING EQUIPMENT AREA AND FENCE TO REMAIN

PROPOSED PLAY AREA
4" ASPHALT PAVING OVER 6" CLASS 6 BASECOURSE

CONSTRUCT 10' WIDE CONCRETE WALK WITH STAIRS FROM SCHOOL TO FIELD (12" TREAD, 7" RISER) NON-SNOWMELTED, 5" CONCRETE OVER 4" BASECOURSE

10' WIDE ASPHALT LANDING, SLOPE 3% TOWARDS FIELD

EXPAND ANNOUNCERS BOX FOR CONCESSIONS, BY OWNER

INSTALL RAILING (HANDRAIL RE: LAND) ON TOP OF EXISTING CONC. WALL

MATCH INTO EXISTING CONCRETE. DOWEL CONNECTION, DRILL & GROUT 18" LONG #4 REBAR @ 12" O.C.

CONSTRUCT 5' WIDE CONCRETE WALK, DOWEL CONNECTION TO EXISTING FOUNDATION, 18" #4 @ 12" O.C.

INSTALL 12" NYLOPLAST INLET WITH DROP IN GRATE RIM=49.0' INV OUT 12"=46.7'

CONCRETE 6" CLASS 6 BASECOURSE, INSTALL AMVIC AMFLEX RIGID INSULATION TUBING PANEL UNDER SLAB (R10, 60 PSI) (SEE SIDEWALK DETAIL)

INSTALL EXCELSIOR EROSION LOG WATTLES (TYP)

CONSTRUCT PAVED ASPHALT ACCESS, GRADE 12" WIDE PLATFORM REMOVE TOPSOIL AND COMPACT TO 85% STD PROCTOR. INSTALL 4" ASPHALT / 4" CLASS 6 BASECOURSE / 4" PIT RUN

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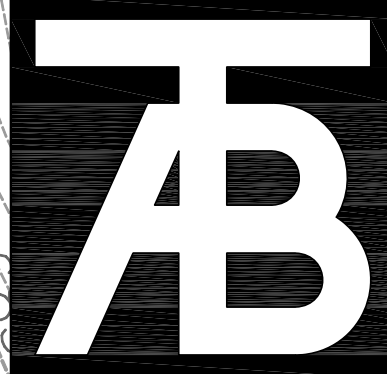
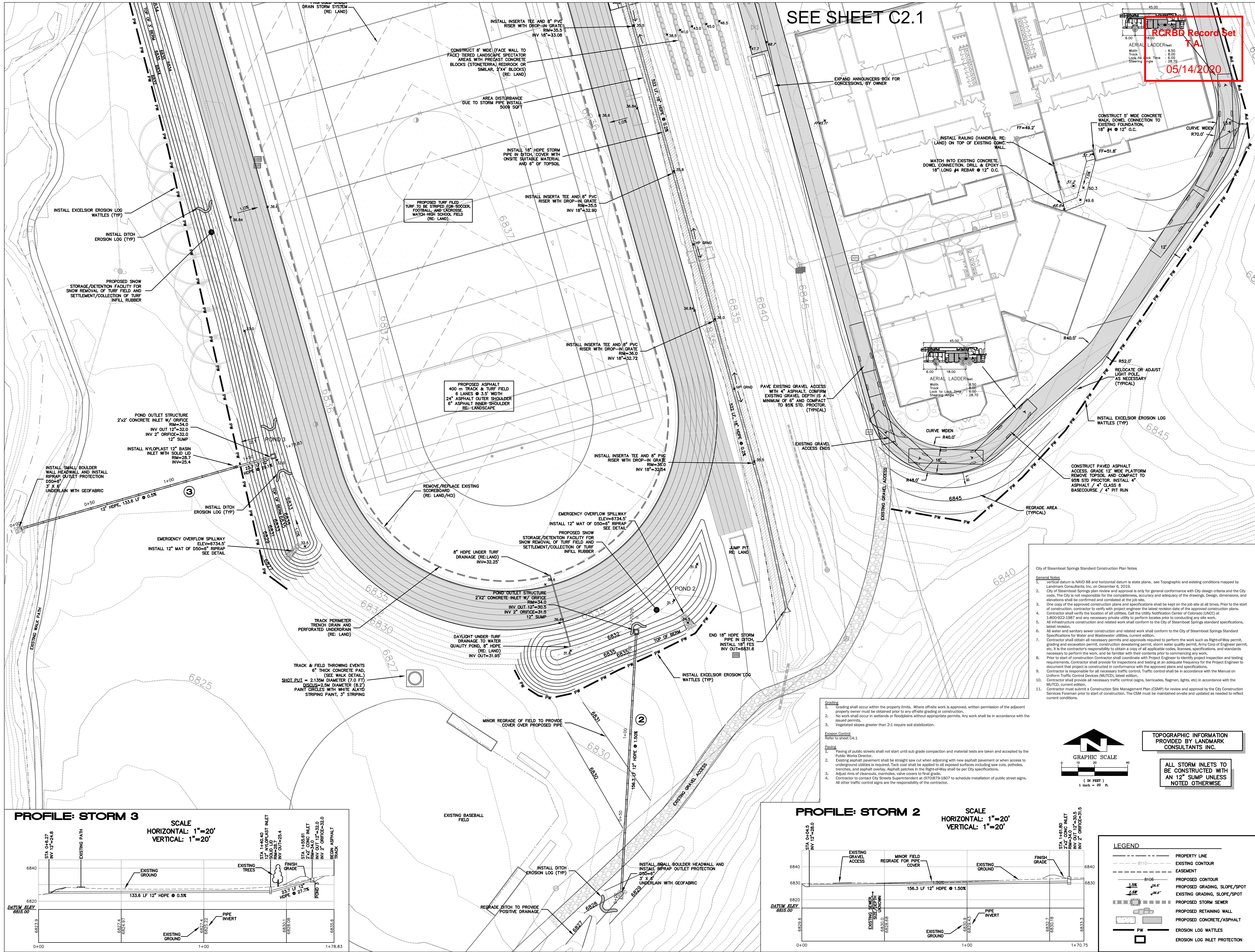
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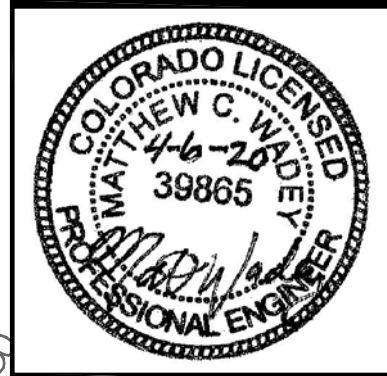
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Steamboat Springs Middle School
39610 Amethyst Drive
Steamboat Springs, CO 80487

No	Revisions:	Description	Date

Issue Dates:
SD - 1/15/19
DD - 2/21/20
95% CD - 3/30/20
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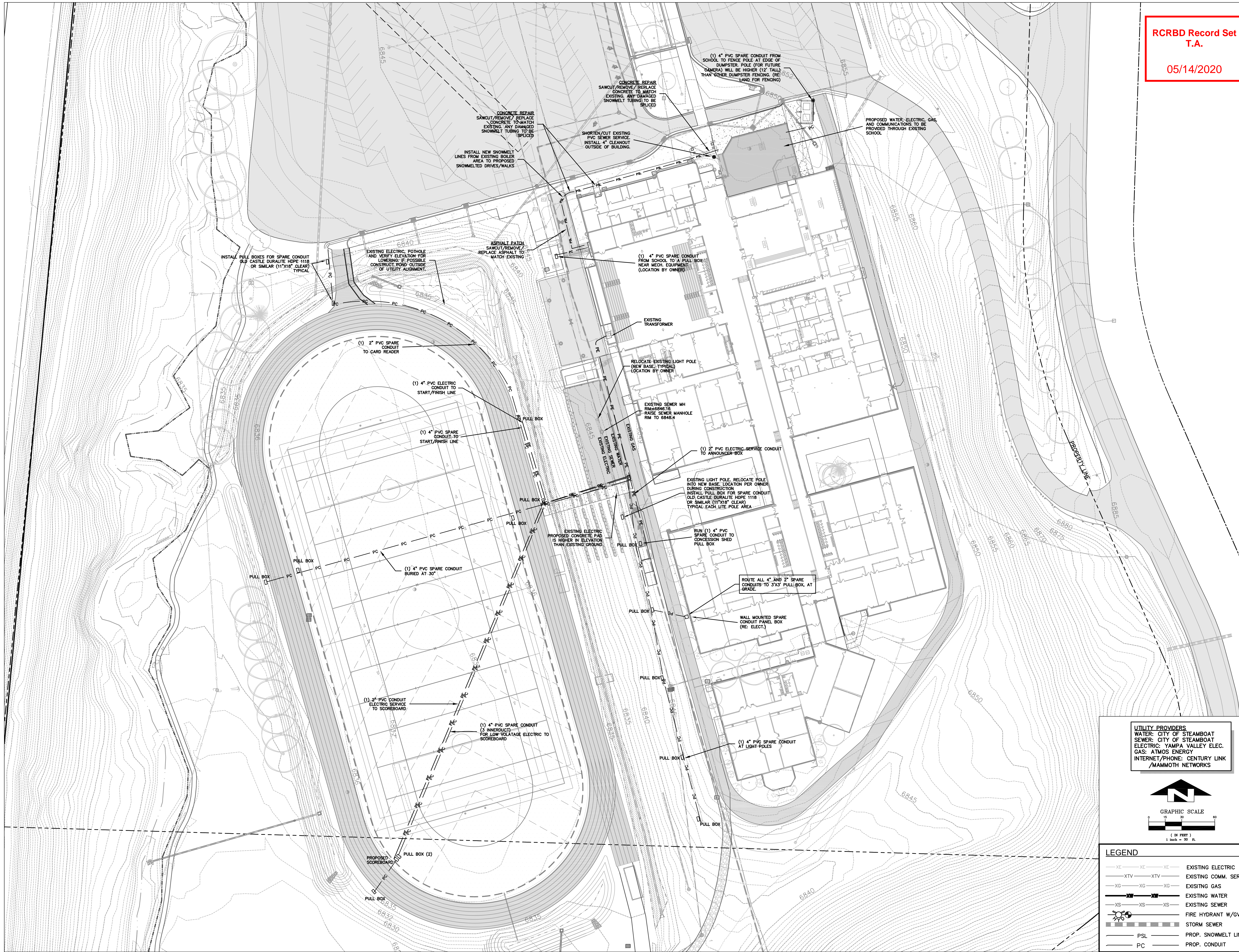
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Grading & Drainage



Project No:
1935.03

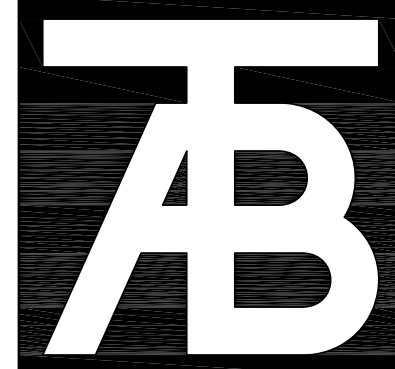
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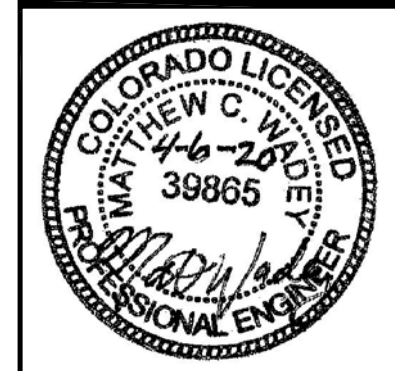
05/14/2020



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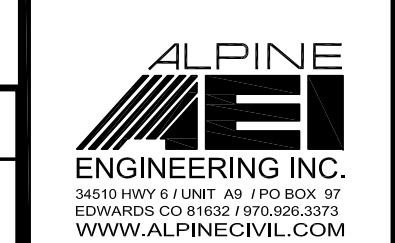


Steamboat Springs Middle School
39610 Amethyst Drive
Steamboat Springs, CO 80487

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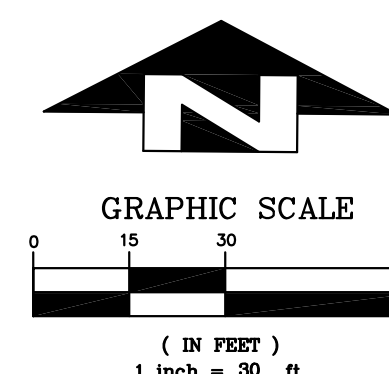
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Utility Plan



Project No:
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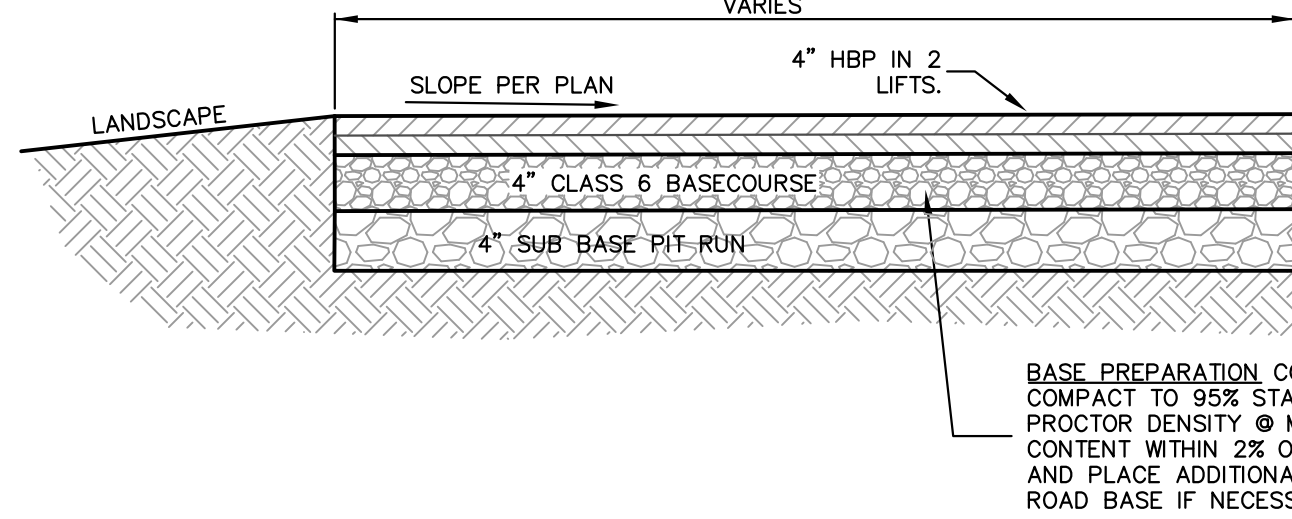
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UTILITY PROVIDERS:
WATER: CITY OF STEAMBOAT
SEWER: CITY OF STEAMBOAT
ELECTRIC: YAMPA VALLEY ELEC.
GAS: ATMOS ENERGY
INTERNET/PHONE: CENTURY LINK
/MAMMOTH NETWORKS

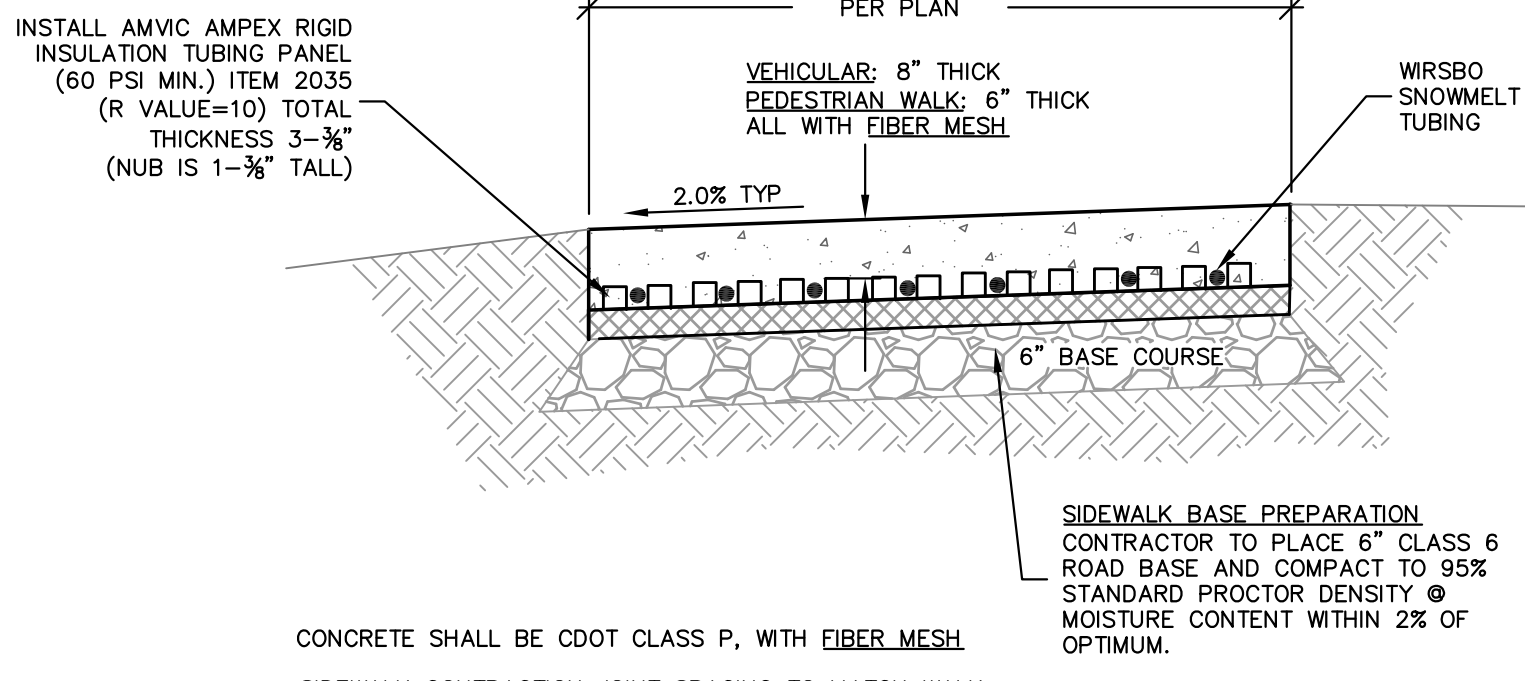


LEGEND	
—XE—XE—XE—	EXISTING ELECTRIC
—XTV—XTV—	EXISTING COMM. SERVICE
—XG—XG—XG—	EXISTING GAS
—XW—XW—XW—	EXISTING WATER
—XS—XS—XS—	EXISTING SEWER
	FIRE HYDRANT W/GV
	STORM SEWER
—PSL—	PROP. SNOWMELT LINES
—PC—	PROP. CONDUIT

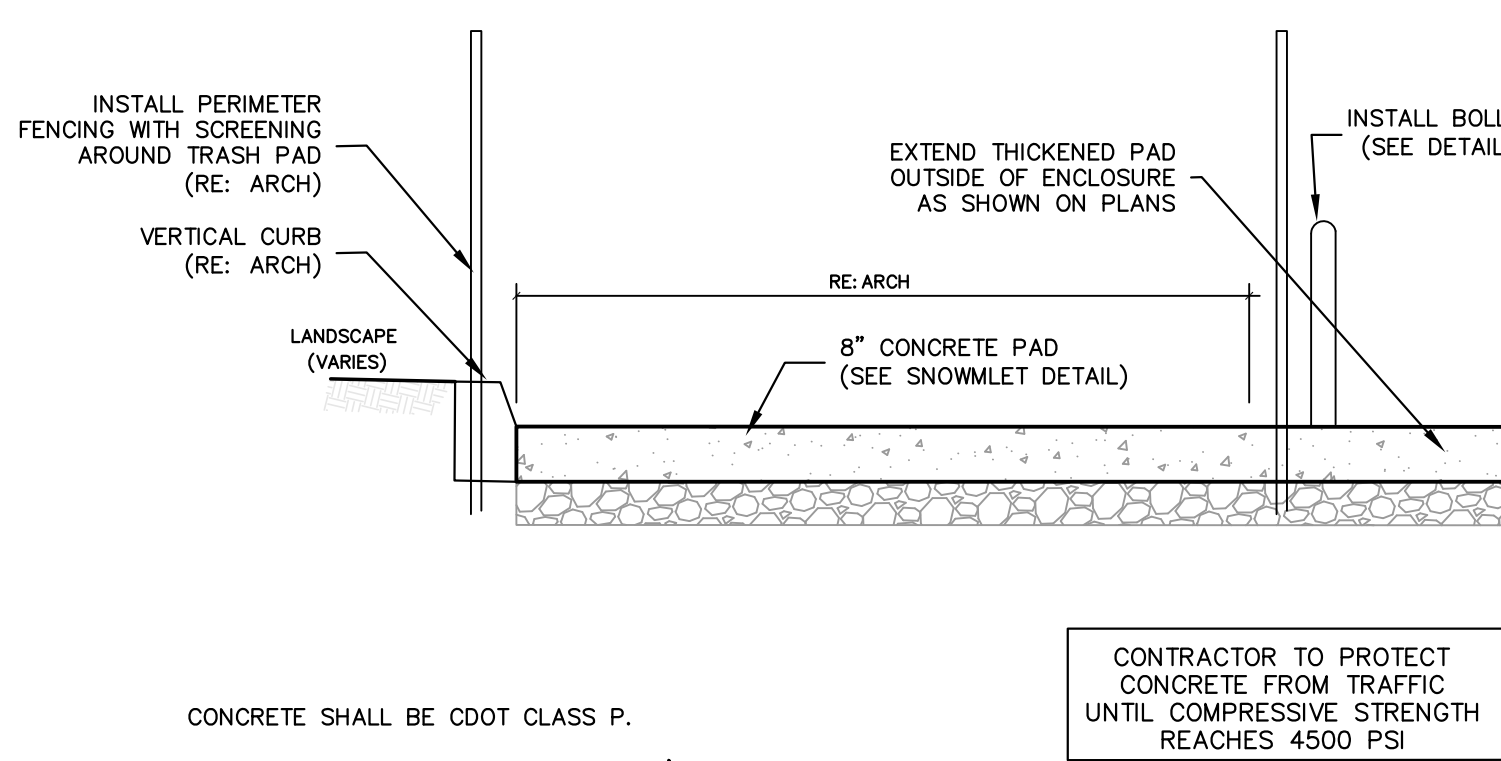
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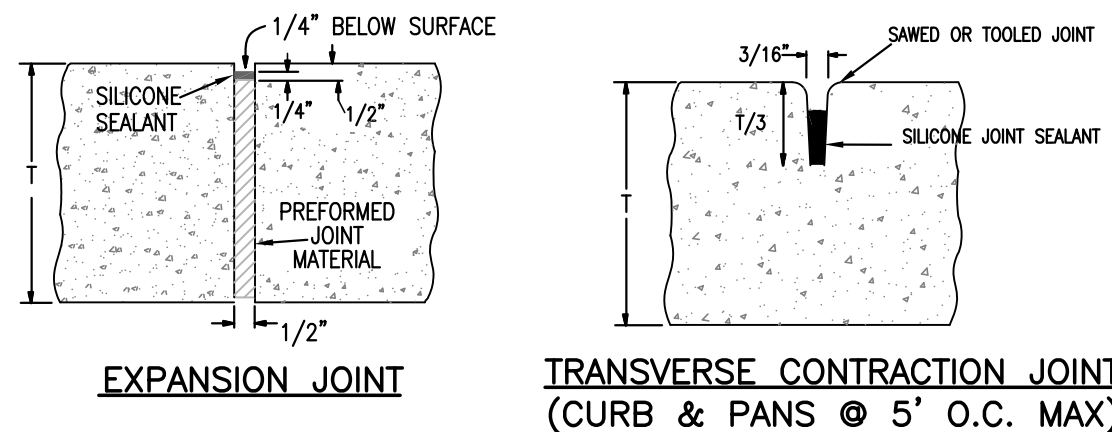
ASPHALT DRIVE/PARKING SECTION
NTS



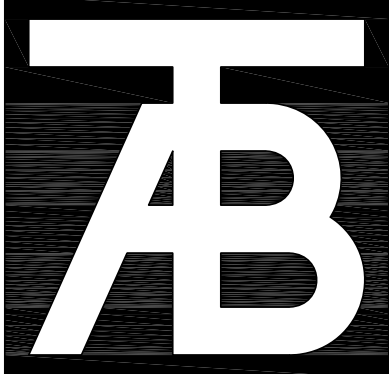
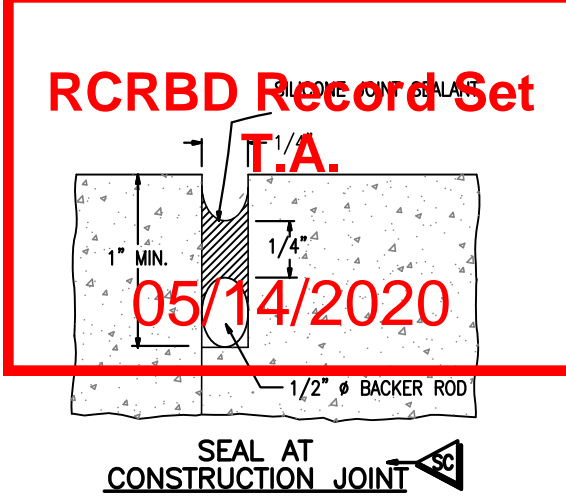
SNOWMELTED CONCRETE



CONCRETE DUMPSTER PAD



CONCRETE JOINTING



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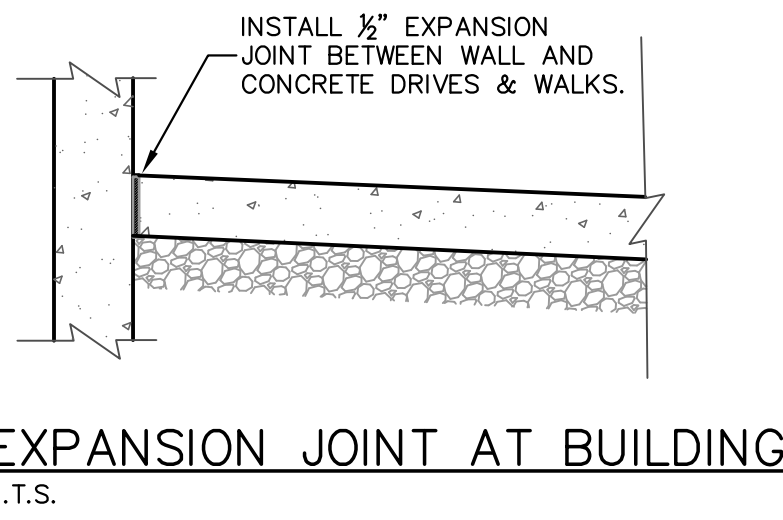
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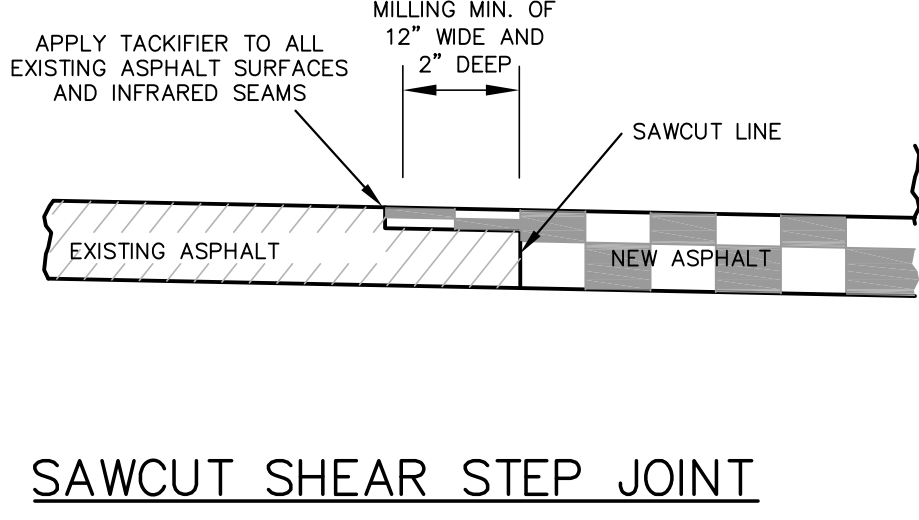
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Grading & Drainage Details
ALPINE ENGINEERING INC.
ENGINEERS & ARCHITECTS
EDWARDS CO 81632
WWW.ALPIENGINEER.COM

Project No:
1935.03

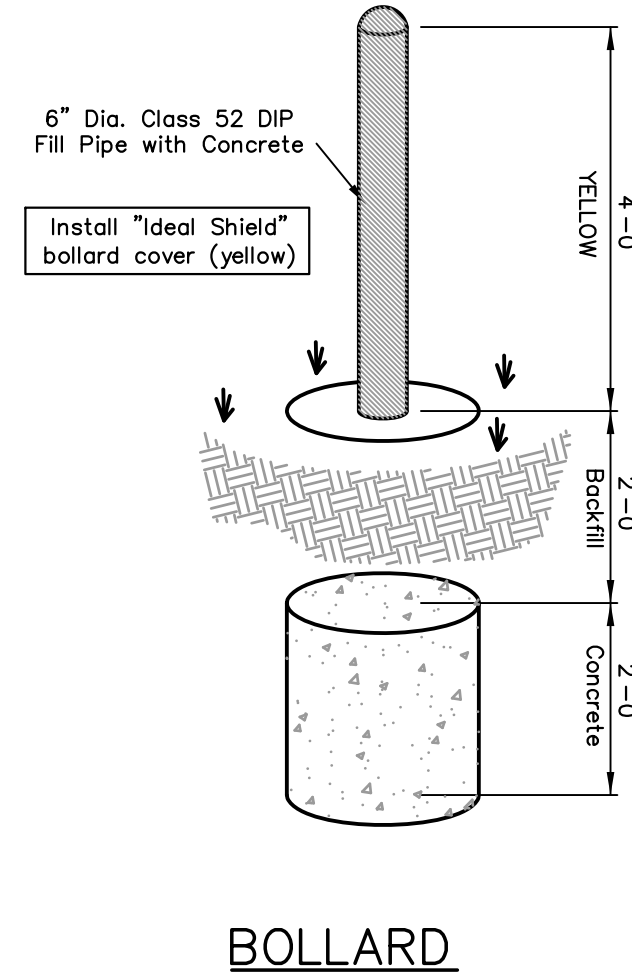
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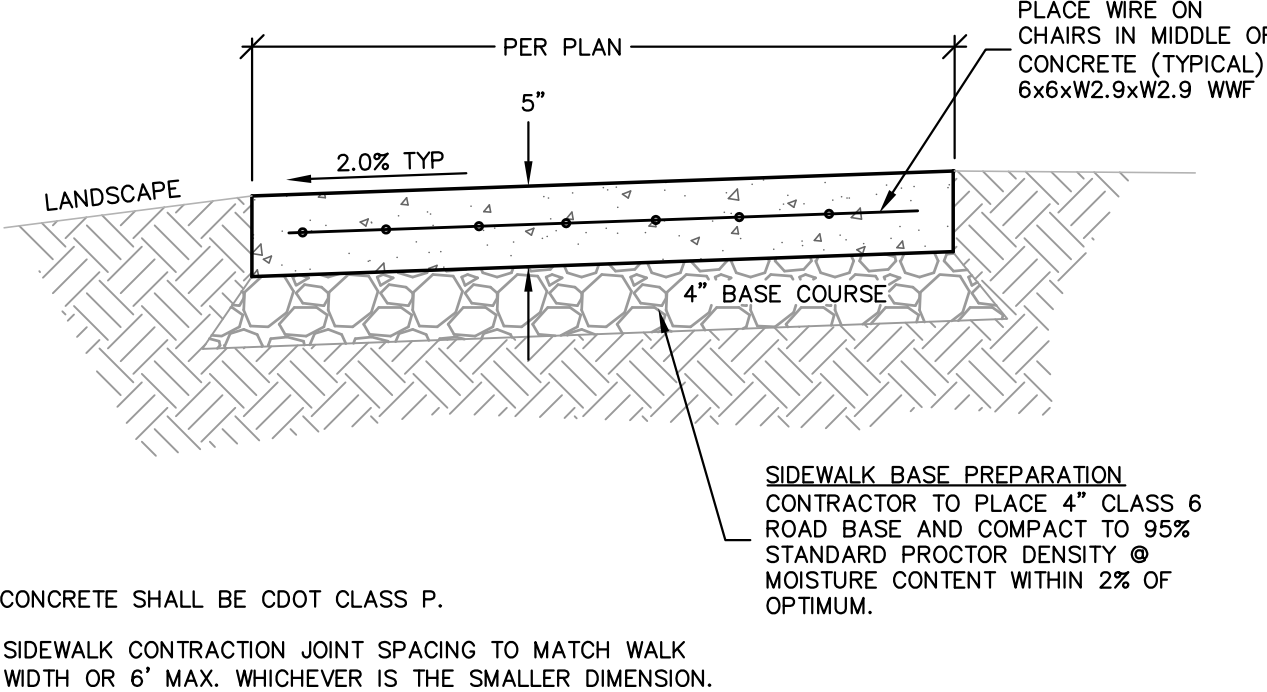
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N.T.S.



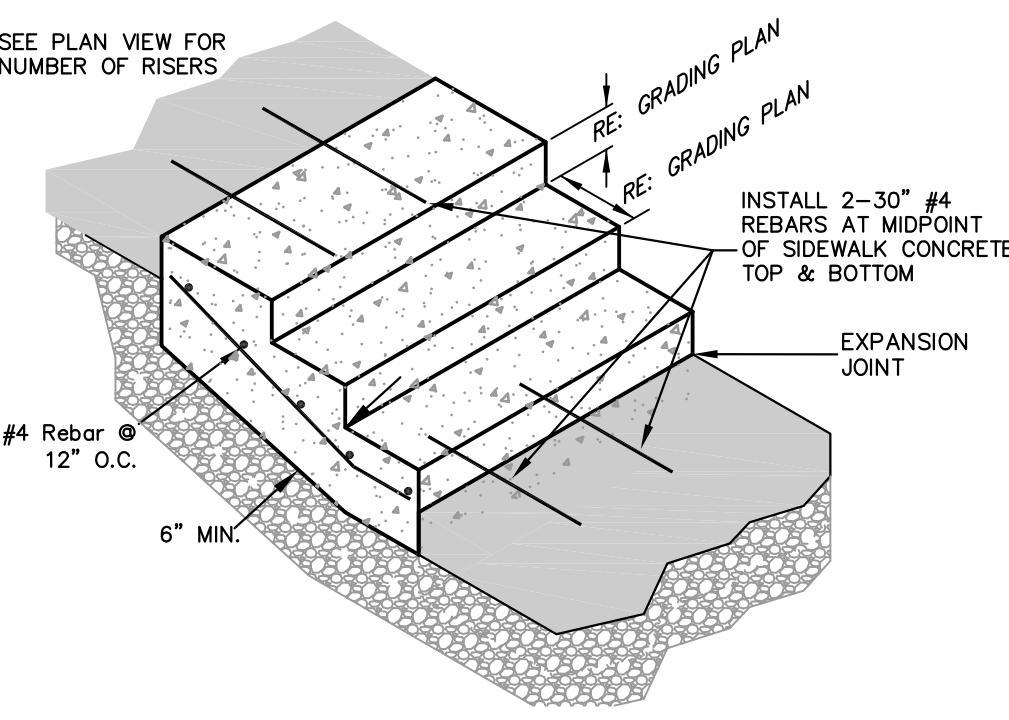
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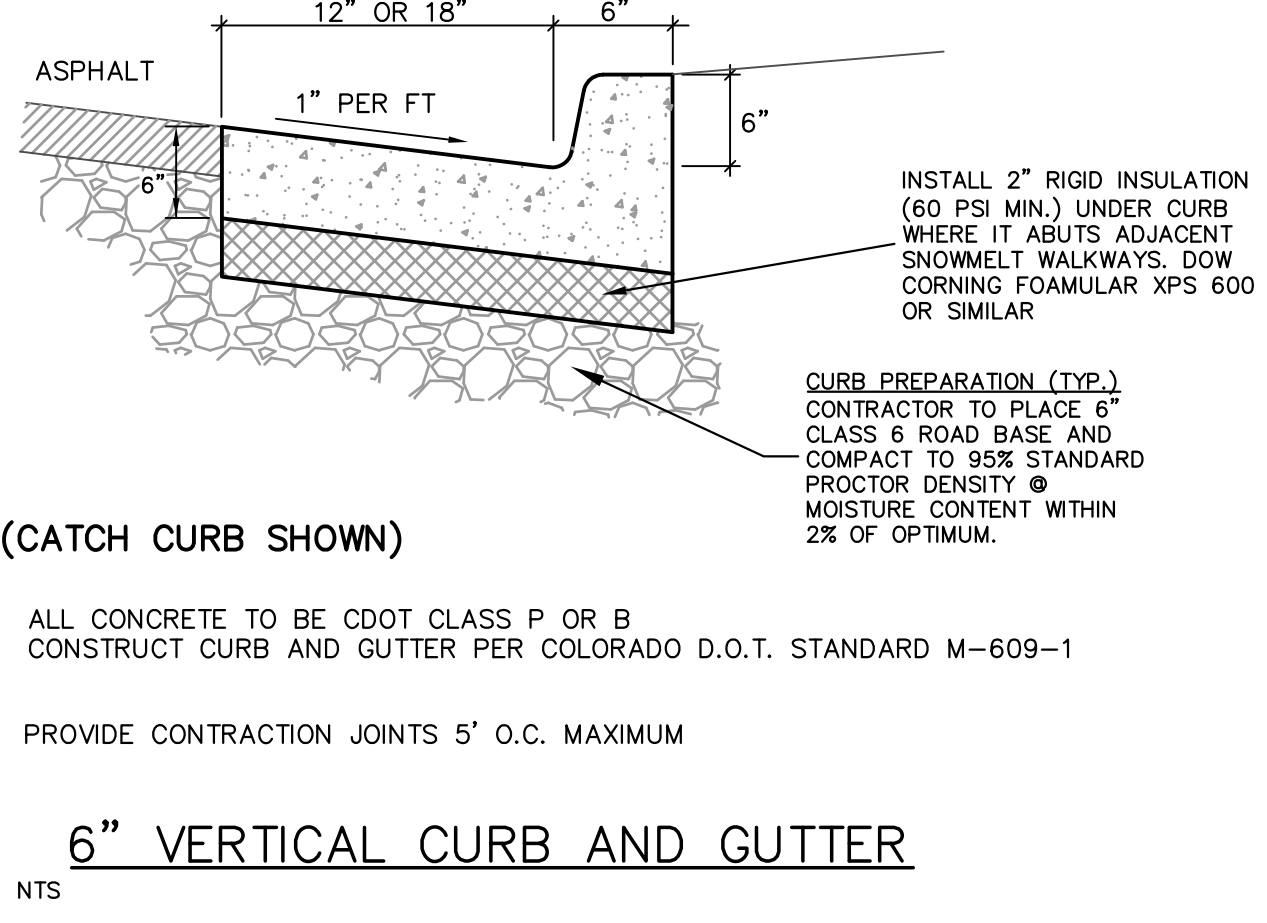
BOLLARD



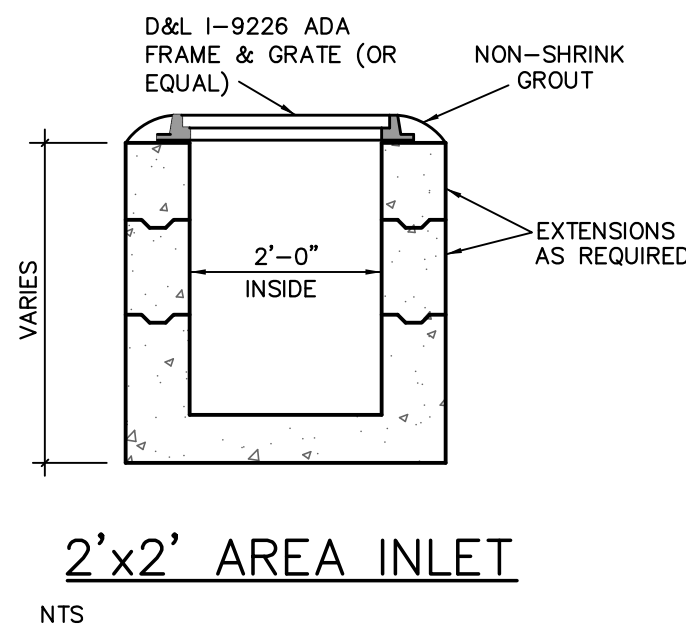
CONCRETE (NON SNOWMELT) SIDEWALK SECTION



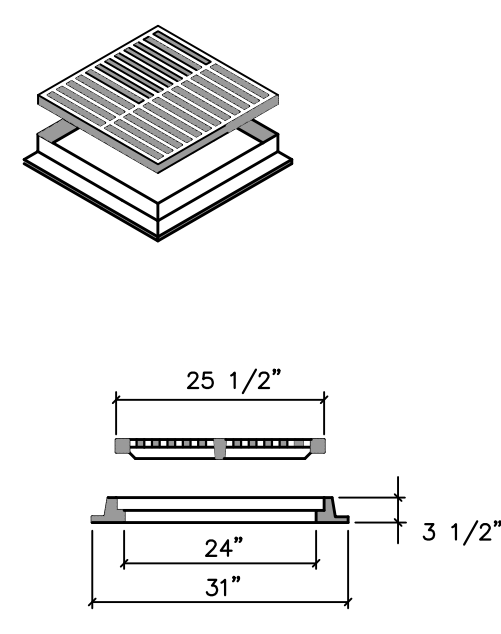
CONCRETE STAIRS



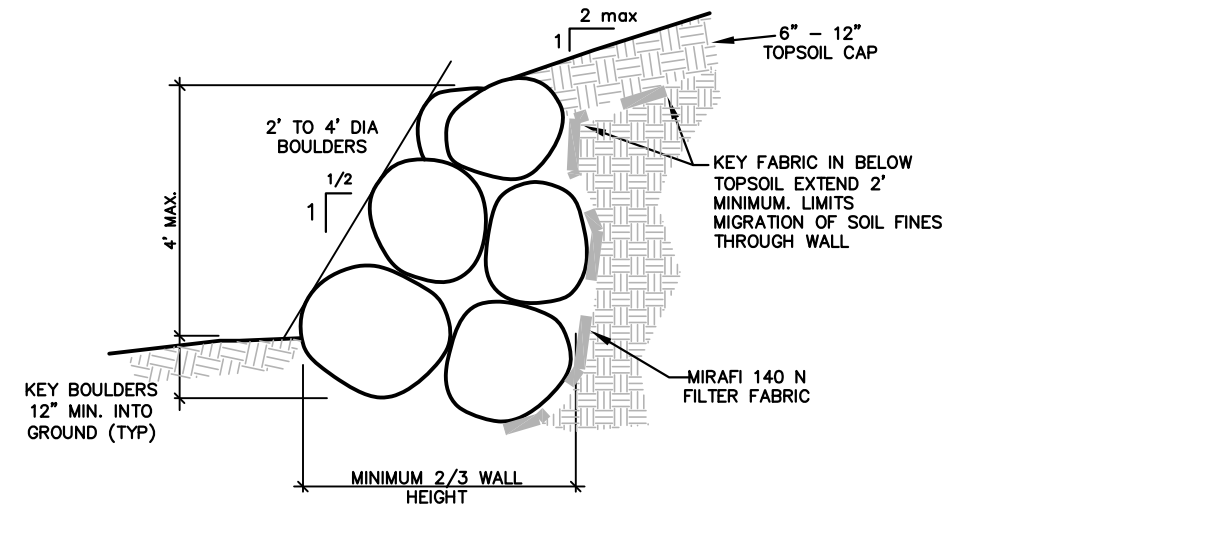
6" VERTICAL CURB AND GUTTER
NTS



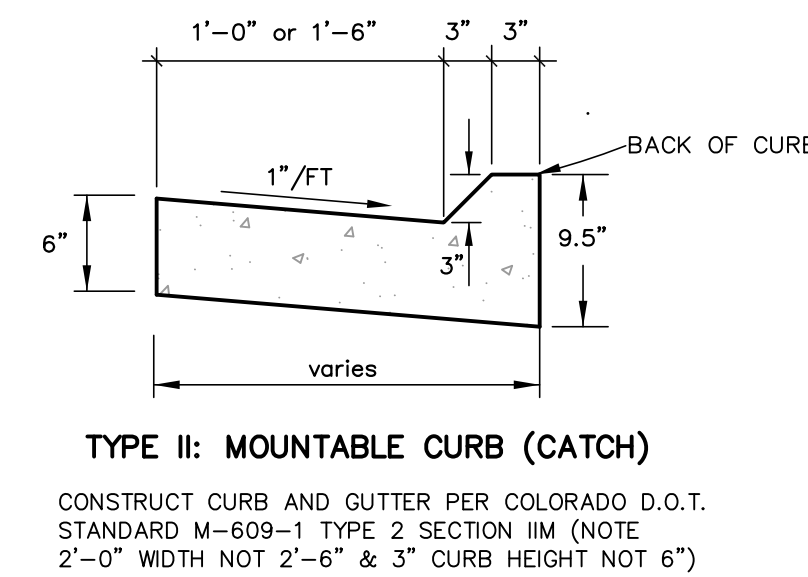
2'x2' AREA INLET
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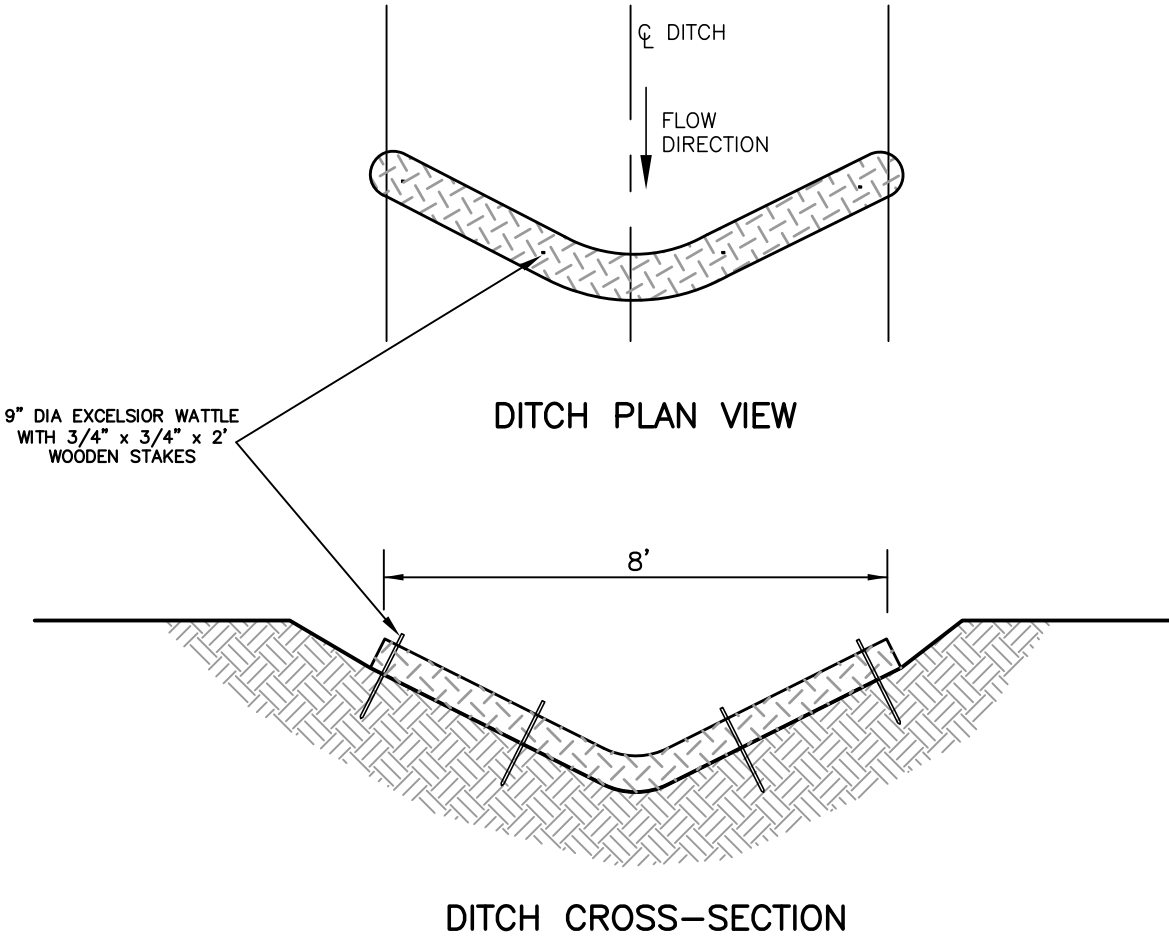
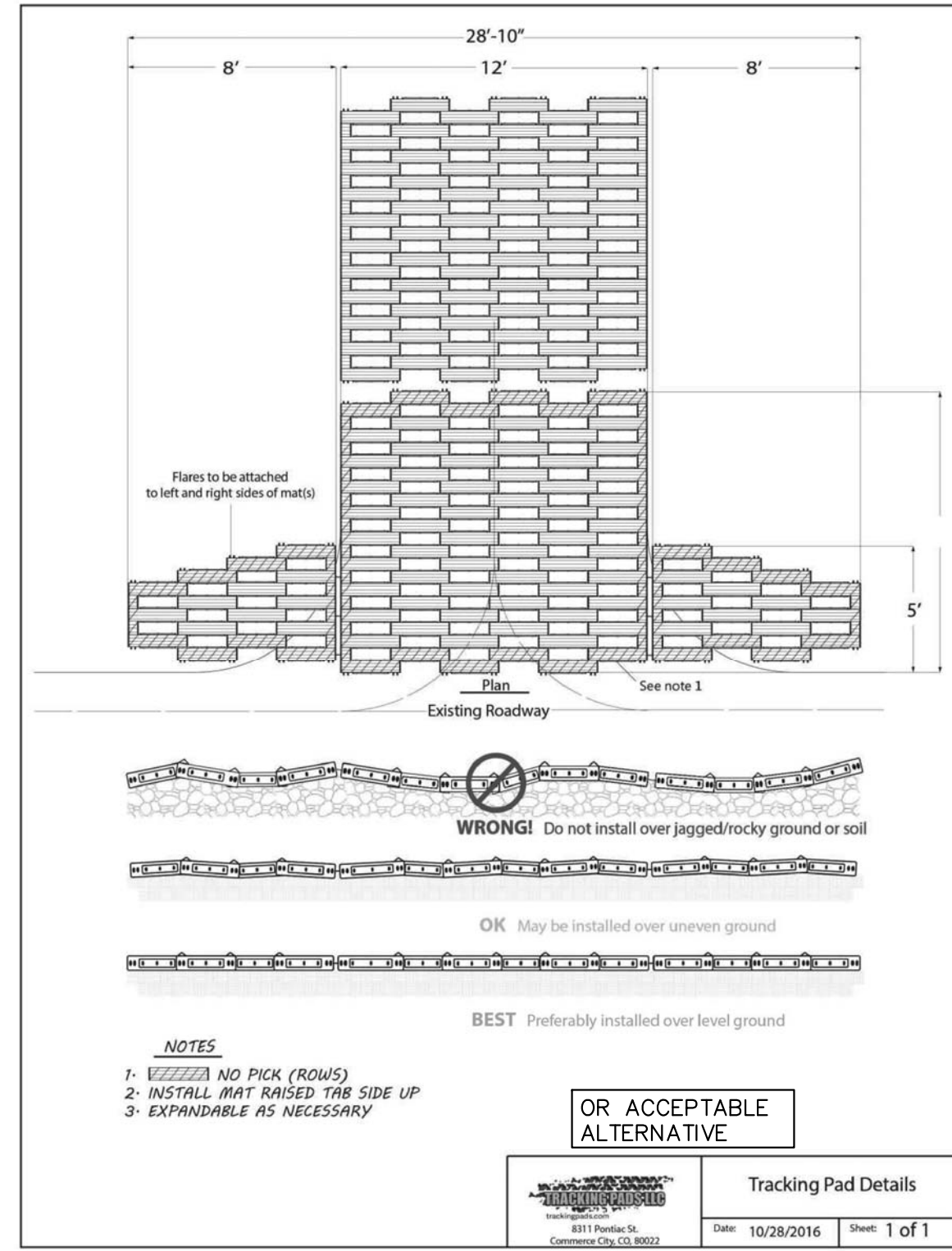
STORM SEWER BEDDING



BOULDER WALL



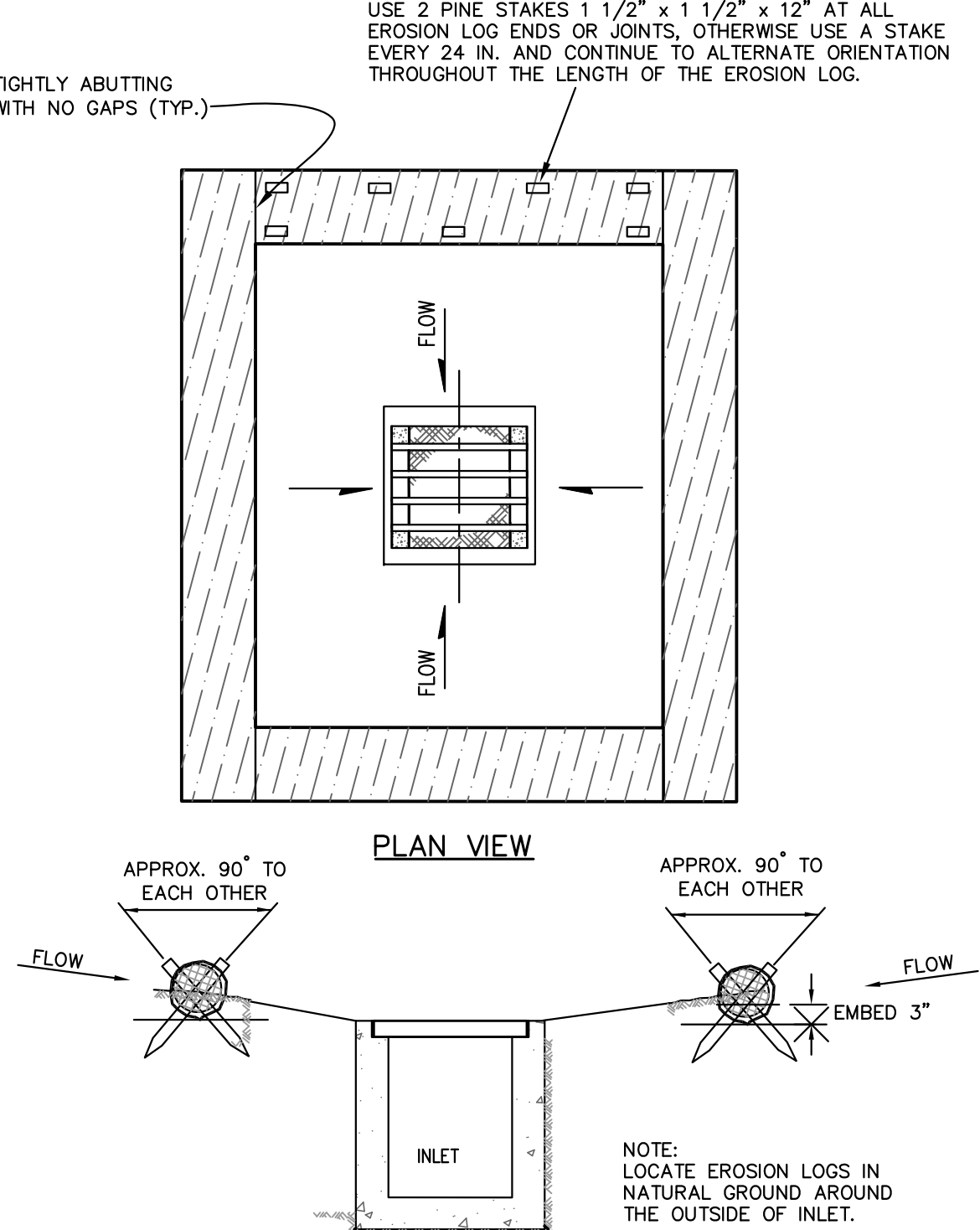
MOUNTABLE CURB DETAIL



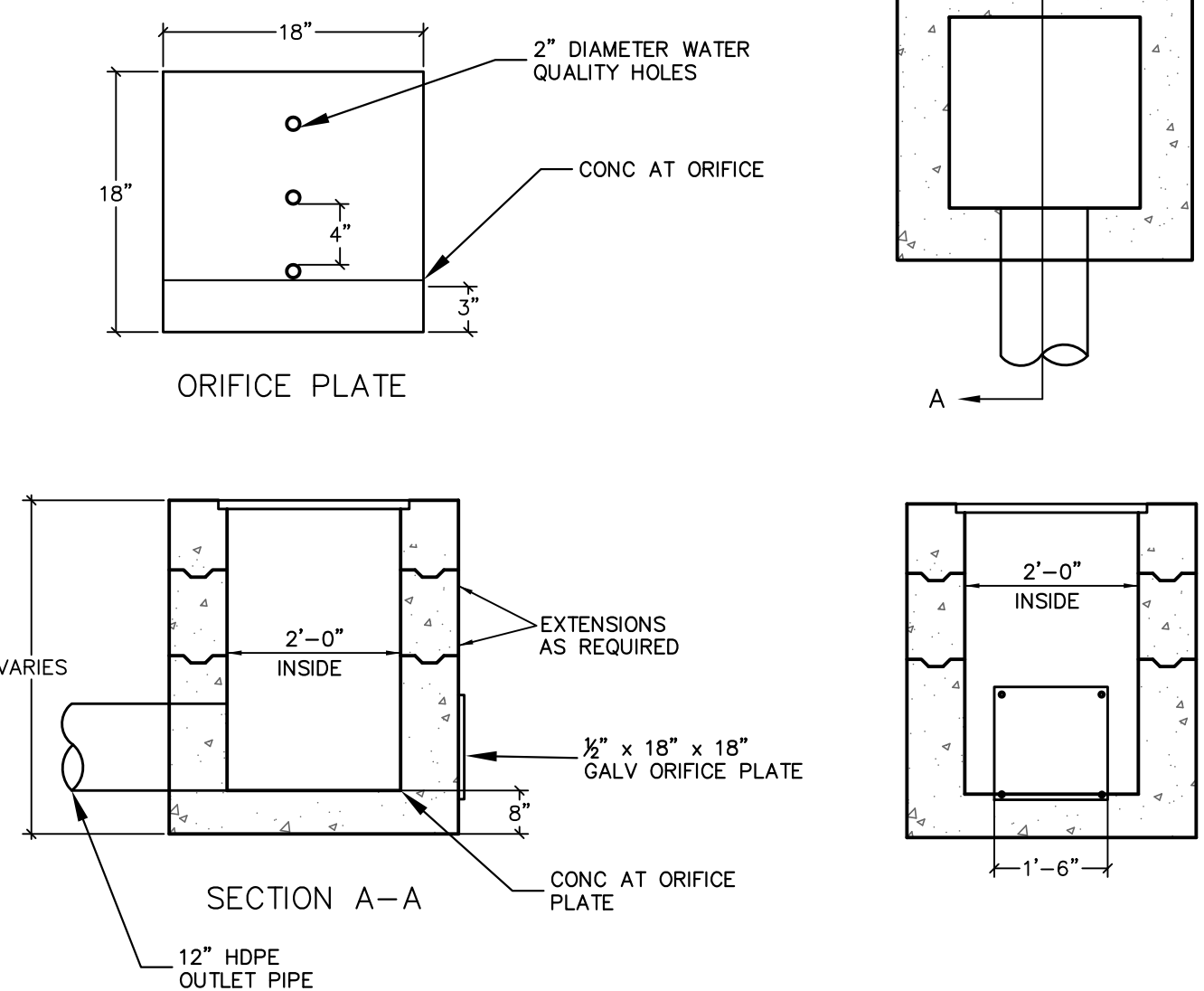
DITCH CROSS-SECTION

1. THE HEIGHT OF A STRAW WATTLE IS 9 IN. THE INSTALLED HEIGHT IS APPROXIMATELY 5 - 7 IN.
2. STRAW WATTLES SHOULD BE INSTALLED IN SHALLOW TRENCHES, 2 - 4 IN. DEEP, DEPENDING ON SOIL TYPE AND SLOPE STEEPNESS. DIG THE TRENCH DEEPER FOR SOFT, LOAMY SOILS AND STEEPER SLOPES; DIG THE TRENCH SHALLOWER FOR HARD, ROCKY SOILS AND GENTLER SLOPES.
3. INSTALL WATTLE IN DRAINAGE DITCH PERPENDICULAR TO FLOW DIRECTION.

DITCH EROSION LOG DETAIL
N.T.S.

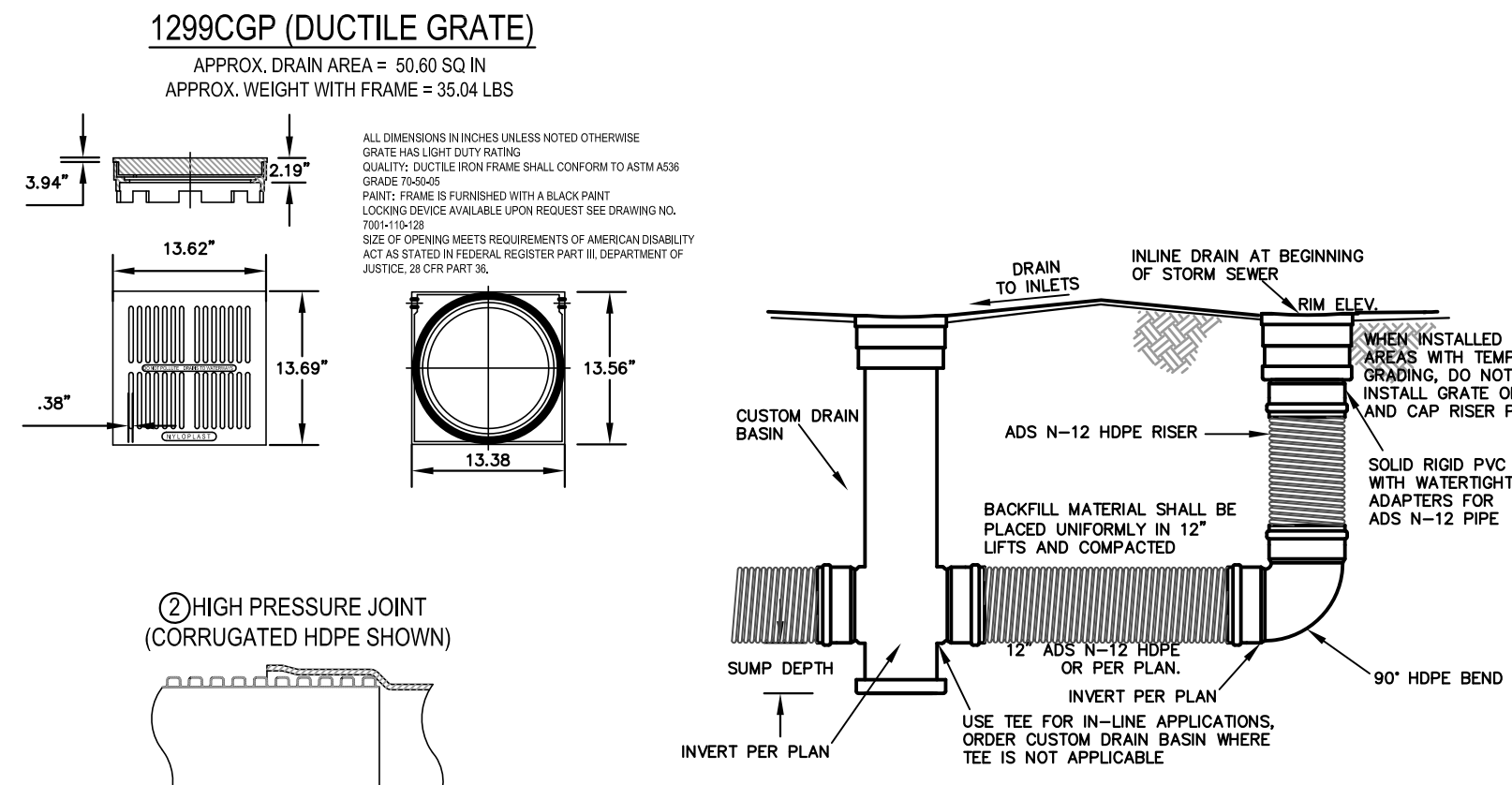


EROSION LOG INLET PROTECTION

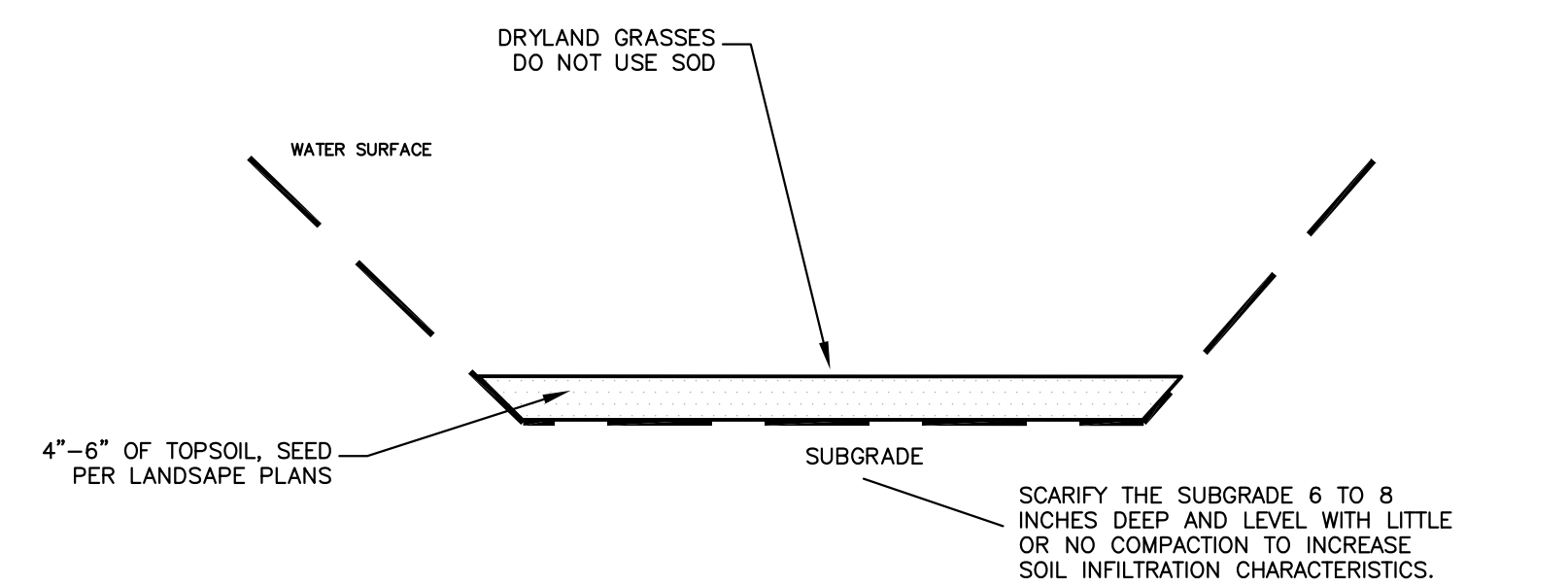


OUTLET STRUCTURE DETAIL
NTS

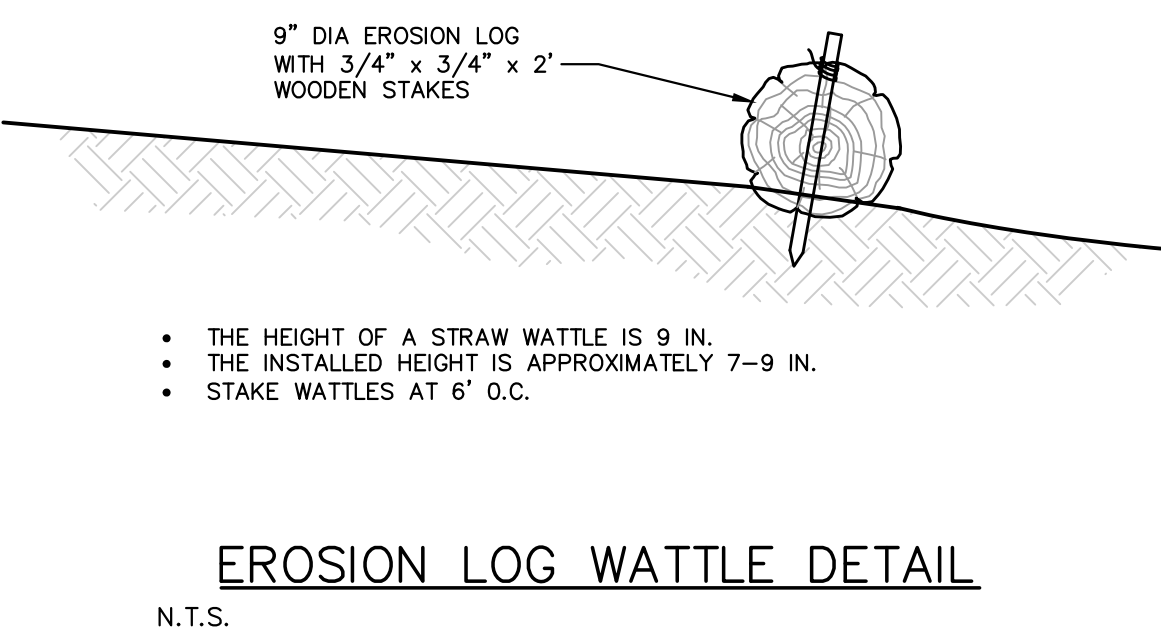
1. CONCRETE SHALL BE CDOT CLASS B OR P.
2. ALL WALLS AND BASE SHALL BE REINFORCED WITH #4's @ 8" OC EACH WAY REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2" MINIMUM CLEARANCE.
3. ALL GRATE AND FRAME COMPONENTS SHALL BE GALVANIZED INLET GRATING SHALL BE MCNICHOLS GW-125 GRATING OR EQUIVALENT.
4. INLET GRATING SHALL HAVE MCNICHOLS TYPE C TIE-DOWN FASTENERS OR EQUAL AT ALL CORNERS.
5. SEE PLAN DETAILS FOR LOCATION, SIZE, AND INVERT OF PIPE AND OUTLET STRUCTURE.



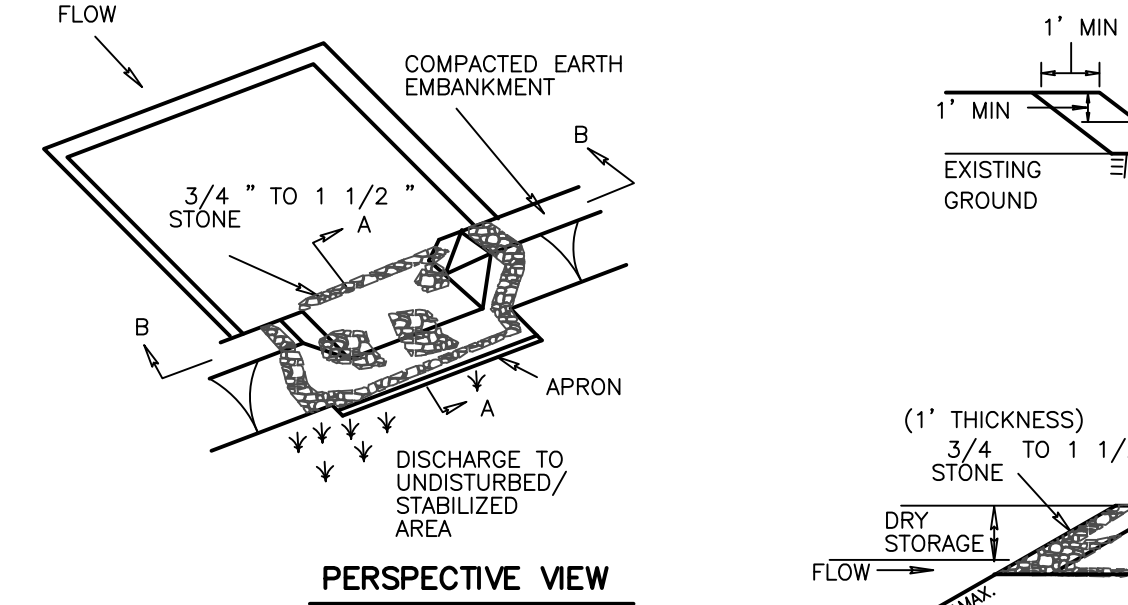
NYLOPLAST DRAIN BASINS
N.T.S.



SNOW STORAGE/DETENTION POND



EROSION LOG WATTLE DETAIL
N.T.S.



EMERGENCY SPILLWAY DETAIL

CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. MAXIMUM HEIGHT OF EMBANKMENT SHALL BE 4', MEASURED AT CENTERLINE OF EMBANKMENT.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST BE EQUAL OR EXCEED THE HEIGHT OF TRAP EMBANKMENT.
5. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME MEASURED FROM TOP OF EXCAVATION.
6. GEOTEXTILE SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO PLACEMENT OF STONE. SECTION OF FABRIC MUST OVERLAP AT LEAST 1' WITH SECTION NEAREST THE ENTRANCE. FABRIC SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
7. 4" - 7" STONE SHALL BE USED TO CONSTRUCT THE WEIR AND 4" - 12" RIP-RAP SHALL BE USED TO CONSTRUCT THE OUTLET CHANNEL.
8. OUTLET - AN OUTLET SHALL INCLUDE A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION THE DISCHARGE POINT SHALL BE PROVIDED AS NECESSARY.
9. OUTLET CHANNEL MUST HAVE POSITIVE DRAINAGE FROM THE TRAP.
10. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2" OF THE NET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
11. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AFTER EACH RAIN AND REPAIRED AS NEEDED.
12. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT POLLUTION IS ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP.
13. THE STRUCTURE SHALL BE DEWATERED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

C:\Steamboat\School Renovations\2019\DWG\Master\Steamboat_School_MSDetails\SSN.dwg, 4/3/2020 9:24:33 AM, mcsley

REFER TO CITY OF STEAMBOAT'S
STANDARD SPECIFICATIONS FOR
WATER AND WASTEWATER
UTILITIES

EROSION/SEDIMENT CONTROL

GENERAL NOTES FOR SEDIMENT CONTROL

- CONTRACTOR SHALL SUBMIT A CONSTRUCTION STAGING & MANAGEMENT PLAN IDENTIFYING CONSTRUCTION FENCING, STAGING, STORAGE & CONSTRUCTION TRAILER LOCATION PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
- INSTALL AND MAINTAIN SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THESE PLANS AND AS NEEDED TO PREVENT SEDIMENT FROM DISCHARGING OFF-SITE.
- ALL PROPOSED SEDIMENT CONTROL MEASURES ARE TEMPORARY MEASURES UNLESS SPECIFIED OTHERWISE ON PLANS.
- SEDIMENT CONTROL MEASURES MAY REQUIRE FIELD ADJUSTMENTS AT THE TIME OF CONSTRUCTION TO INSURE THAT THEIR INTENDED PURPOSE IS ACCOMPLISHED.
- PROVIDE REGULAR INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES TO INSURE THAT SEDIMENT CONTROL EFFICIENCY IS OBTAINED UNTIL FINAL STABILIZATION OF SITE HAS TAKEN PLACE.
- INSTALL SEDIMENT CONTROL MEASURES AT THE ONSET OF GRADING OPERATIONS SO THAT EFFECTIVE SEDIMENT CONTROL CAN BE ACHIEVED DURING THE ENTIRE CONSTRUCTION PERIOD.
- STABILIZE ALL POINTS OF INGRESS AND EGRESS WITH TRACKING PAD DURING CONSTRUCTION TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS.
- FOR TEMPORARY STOCKPILES APPLY SEED, HYDROMULCH AND TACKIFIER IMMEDIATELY AFTER THEY ARE CONSTRUCTED FOR STABILIZATION. IF EROSION OCCURS AFTER APPLICATION OF THE TACKIFIER, USE EXCELSIOR C2 EROSION CONTROL FABRIC. INSTALL SILT FENCE BELOW STOCKPILES TO CAPTURE SEDIMENT.
- THE TERM "REVEGETATION" ON THIS PLAN MEANS THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED CONTAINING THE SPECIFIED AMOUNTS OF FERTILIZER IN ACCORDANCE WITH APPLICABLE STANDARDS AND SPECIFICATIONS. REFER TO LANDSCAPE PLANS FOR SEED MIX, FERTILIZER TYPE, MULCH, TACKIFIER AND APPLICATION RATES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE APPROPRIATE MEASURES TO INSURE THAT NO SEDIMENT LADEN WATER IS DISCHARGED FROM THE SITE.
- APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES BEFORE REMOVAL OF SEDIMENT CONTROLS.
- CONTRACTOR SHALL OBTAIN AND CONFORM TO STORMWATER DISCHARGE PERMIT AND ALL ENVIRONMENTAL PERMITS AND KEEP STREETS CLEAN AND FREE OF SEDIMENT.
- REMOVAL AND CLEANUP OF ANY SEDIMENT THAT LEAVES THE SITE IS THE RESPONSIBILITY OF THE CONTRACTOR

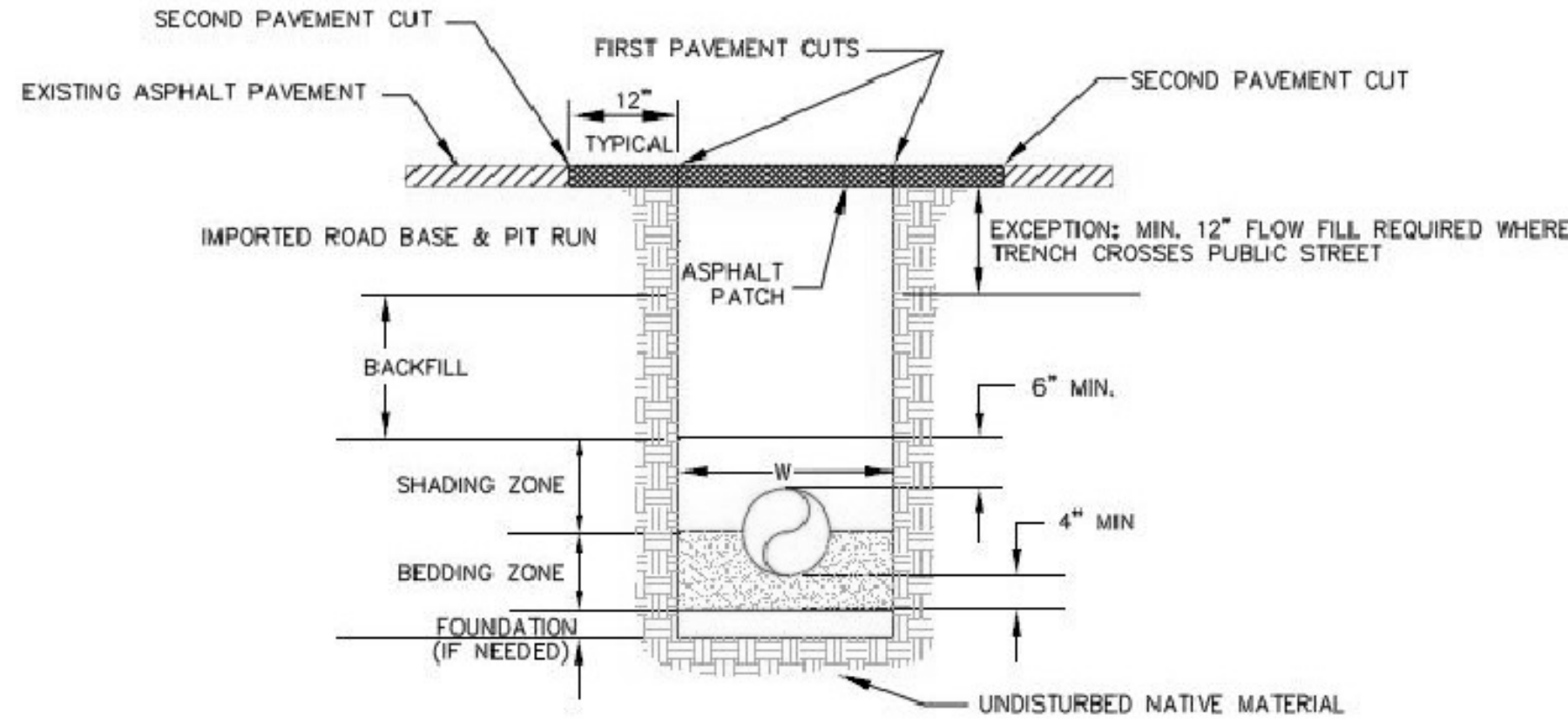
FUGITIVE DUST CONTROL

- THE CONTRACTOR IS RESPONSIBLE TO CONTROL FUGITIVE DUST AND TO INCORPORATE THE FOLLOWING:
- ALL UNPAVED ROADS AND OTHER DISTURBED AREAS ON SITE SHALL BE WATERED TO MINIMIZE FUGITIVE DUST.
 - HAUL ROADS SHALL BE TREATED WITH MAGNESIUM CHLORIDE IF WATER IS NOT CONTROLLING THE DUST.
 - ALL DISTURBED SURFACE AREAS SHALL BE REVEGETATED OR SURFACED PER THE LANDSCAPE PLAN AS SOON AS POSSIBLE.
 - MUD AND DIRT CARRYOUT ONTO PAVED SURFACES SHALL BE PREVENTED. ANY MUD AND DIRT CARRYOUT ONTO PAVED SURFACES SHALL BE CLEANED UP DAILY.

CONSTRUCTION SEQUENCE OF EROSION/SEDIMENT CONTROL MEASURES

BEFORE COMMENCING GRADING OR CONSTRUCTION

- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT ALL POINTS OF INGRESS AND EGRESS.
- CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ASSURE THAT NO SEDIMENT LEAVES THE SITE.
- CONSTRUCT SILT FENCE AND WATTLES AND ALL SEDIMENT CONTROL DEVICES.
- BEGIN DEMOLITION, EXCAVATION AND CONSTRUCTION.
- INSTALL EROSION CONTROL MEASURES AFTER DITCHES AND SWALES HAVE BEEN CONSTRUCTED AND TOPSOIL AND SEED HAVE BEEN PLACED. INSTALL INLET PROTECTION IN ALL INLETS AS THEY ARE CONSTRUCTED.
- TOPSOIL AND REVEGETATE ALL DISTURBED AREAS WITH APPROVED SEED MIX PER LANDSCAPE PLAN.
- CONTRACTOR SHALL REMOVE SEDIMENT CONTROL FACILITIES AFTER FINAL STABILIZATION.



NOTES:

A GUIDE FOR DESIRABLE TRENCH WIDTH (W) AT THE TOP OF THE PIPE SHALL BE THE NOMINAL DIAMETER OF THE PIPE PLUS 12-INCHES ON EACH SIDE OF THE PIPE.

A SECOND PAVEMENT CUT SHALL BE REQUIRED PRIOR TO PLACING THE ASPHALT PATCH. REMOVE ALL IRREGULAR ASPHALT EDGES A MINIMUM OF 12-INCHES BEYOND ANY DAMAGED SURFACE TO A CLEAN VERTICAL EDGE. APPLY A BITUMINOUS TACK COAT PRIOR TO PLACING THE ASPHALT PATCH.

THE ASPHALT PATCH SHALL BE PLACED IN TWO 2-INCH LIFTS AND ROLLER COMPACTED TO MATCH THE ADJACENT ASPHALT EDGES.

SUB-BASE MATERIALS SHALL CONSIST OF 4-INCHES OF ROAD BASE OR 8-INCHES OF PIT-RUN. COMPACTION REQUIREMENTS SHALL EXCEED 95% MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO T-180 TEST PROCEDURES.

TRENCH CROSS SECTION

NTS

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Water & Sewer

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STEAMBOAT SPRINGS, CO
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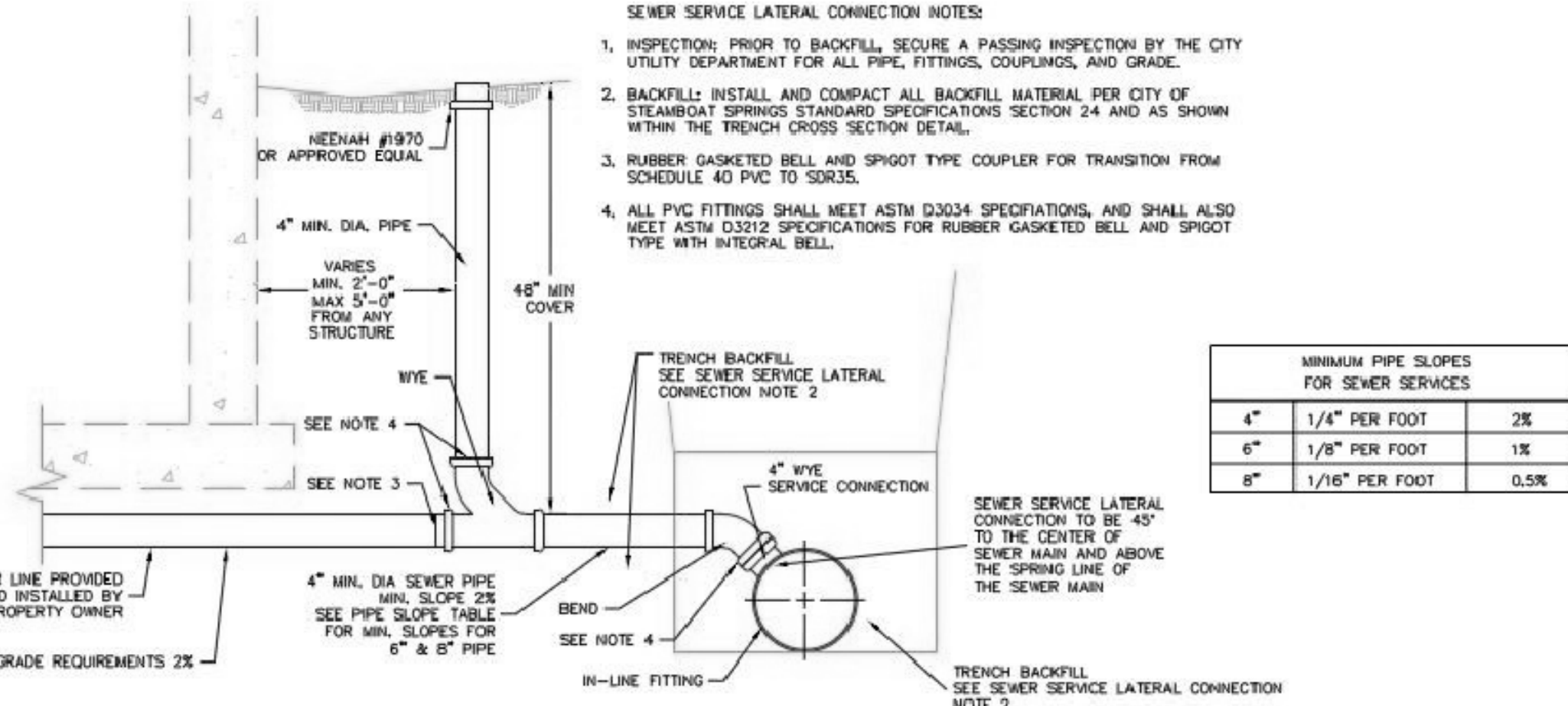
STANDARD DETAILS

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Scale: N.T.S. Date: 3/01/10

Revision description:

Sheet number 1 of 17



SECTION

SEWER SERVICE LATERAL CONNECTION DETAIL

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Revision description:

Sheet number 3 of 17

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MATERIAL & STYLE

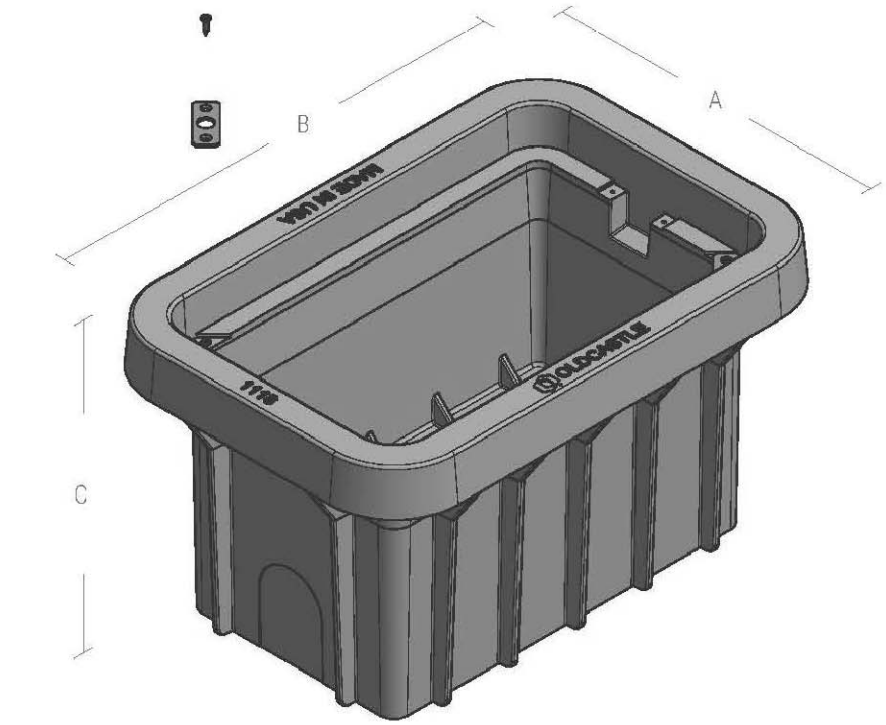
Polyethylene Blend
Straight Wall

1118-12

ANSI/SCTE-77, Tier 15
12.6 lbs
ANSI/SCTE-77, Tier 22
12.6 lbs

1118-18

ANSI/SCTE-77, Tier 15
16.3 lbs
ANSI/SCTE-77, Tier 22
16.3 lbs



	A	B	C
1118-12	14 1/4	21 1/8	12
1118-18	14 1/4	21 1/8	18

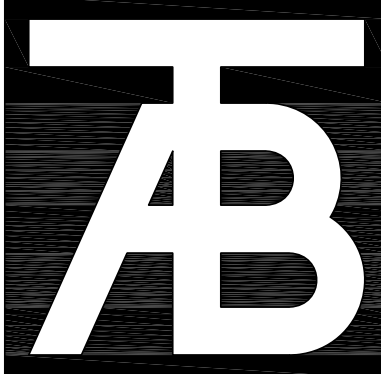
Cover comes standard with permanent markings for manufacturer, load rating, model size and manufacturing location.
*Based upon 1st test body combination, this unit can be Tier 15 or Tier 22, 12.6 rating when paved with 102 polymer concrete lid.
Revision 10/30/19

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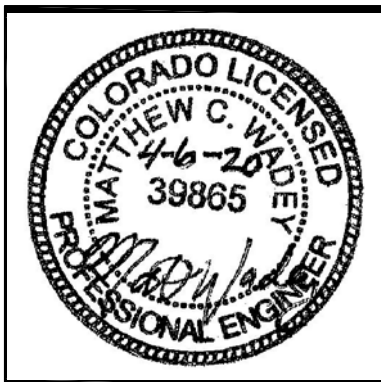
- MEDIUM DUTY
ANSI/SCTE TIER 15
- HEAVY DUTY
ANSI/SCTE TIER 22

For use in non-vehicular traffic situations only. Weights and dimensions may vary slightly. Actual load rating is determined by the box and cover combination.
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Steamboat Springs Middle School
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Revisions:		
No	Description	Date

Issue Dates:
SD - 1/15/19
DD - 2/21/20
95 %CD - 3/30/20
100% CD - 4/6/20

Sheet Title:
**Utility
Details**

ALPINE
ENGINEERING INC.
1000 E. 10TH AVE. SUITE 100
EDWARDS CO 81632 (970) 926-3373
WWW.ALPIENGINEER.COM

Project No:
1935.03

Sheet No:
C4.1

LEGEND

—X—

TREE PROTECTION FENCING

⊗

TREES TO BE REMOVED

▨

LIMITS OF REMOVALS

LIMITS OF CONSTRUCTION

1 TREE PROTECTION FENCING

SCALE: NTS

1 L1.0 EXISTING CONDITIONS AND DEMOLITION PLANS
1" = 40'-0"

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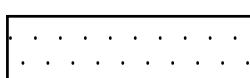
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Revisions:		
No	Description	Date


Issue Dates:
01/13/20 - SD
02/21/20 - DD
03/30/20 - CD
04/06/20 - CD
Sheet Title:
EXISTING CONDITIONS AND DEMOLITION PLANS

Project No:
1935.01
Sheet No:
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LEGEND



SYNTHETIC TURF



LIMITS OF CONSTRUCTION

SYNTHETIC TURF

LIMITS OF CONSTRUCTION

05/14/2020

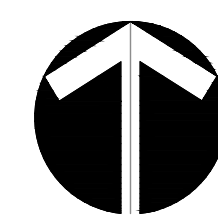


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1935.01

Sheet No:
L2.0



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SCALE: 1"=40'-0"

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LEGEND

EXISTING CONTOUR

ACO CATCH BASIN

TRENCH DRAIN PIPE

.00

PROPOSED CONTOUR - MAJOR

.01

PROPOSED CONTOUR - MINOR

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Shelley Sautter
BG BuildingWorks
970-949-6108

Seal

MARK WILCOX

2019

Professional Engineer

Original Date of License

04-05-2020

Steamboat Springs Middle School

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Steamboat Springs, CO

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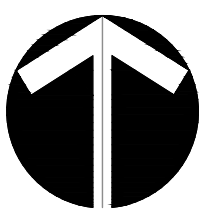
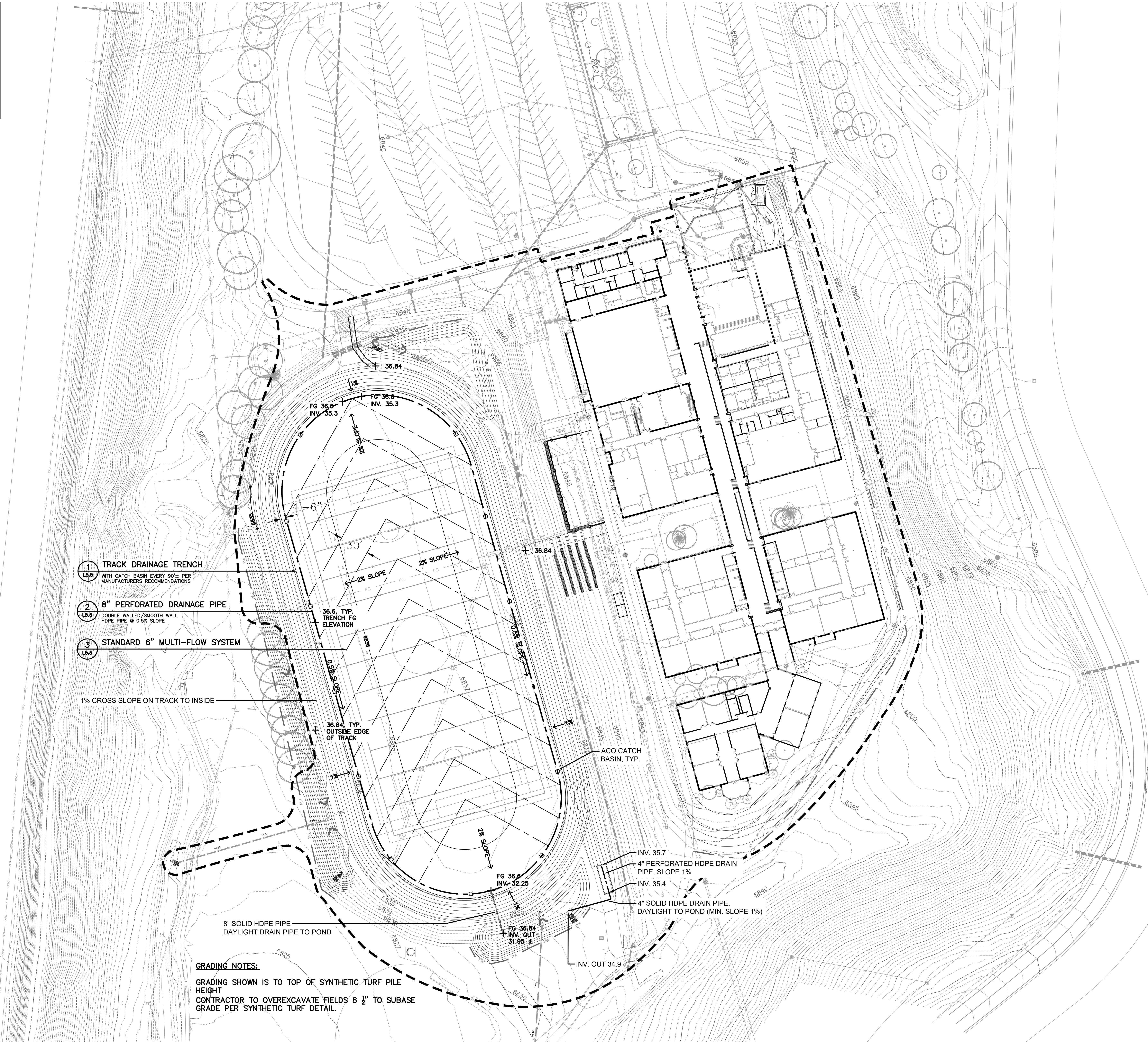
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GRADING
AND
DRAINAGE
PLAN

Project No:
1935.01

Sheet No:
L3.0

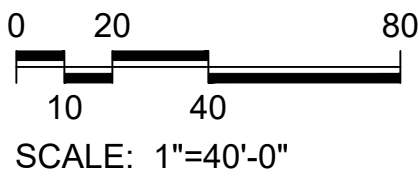


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L3.0

GRADING AND DRAINAGE PLAN

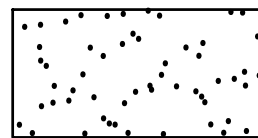
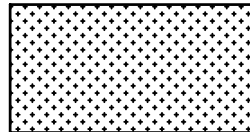
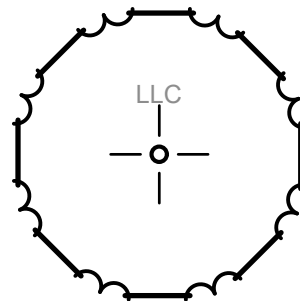

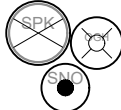



1" = 40' - 0"



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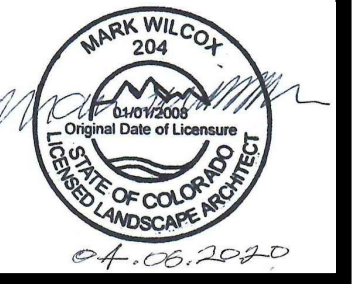
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	NATIVE SEED
	ROCK MULCH
	DECIDUOUS TREE
	DECIDUOUS SHRUBS
	EVERGREEN SHRUBS
	ORNAMENTAL GRASSES
	LIMITS OF CONSTRUCTION
	MATCHLINE

05/14/2020



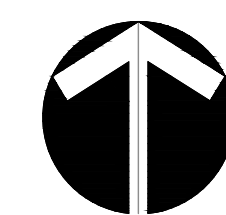
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Sheet Title:

**LANDSCAPE
PLAN**

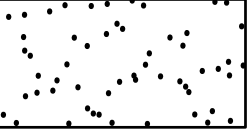
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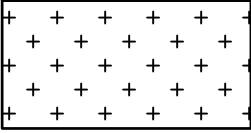


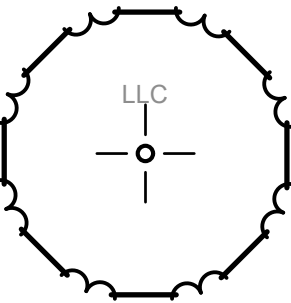
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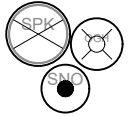
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 NATIVE SEED


 ROCK MULCH

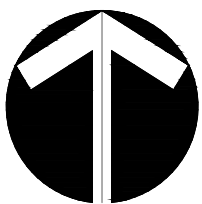
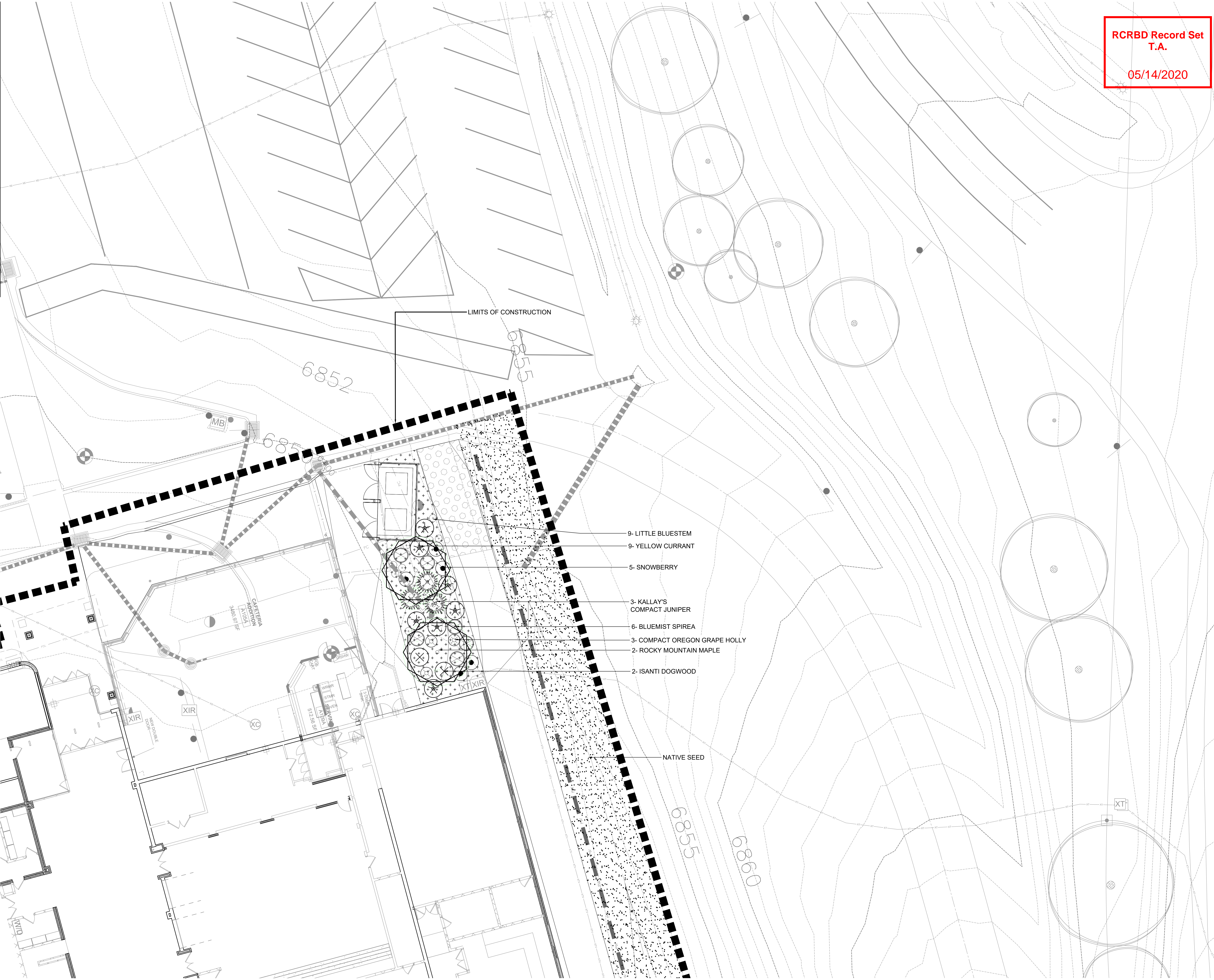
 DECIDUOUS TREE

 DECIDUOUS SHRUBS

 EVERGREEN SHRUBS

 ORNAMENTAL GRASSES

 LIMITS OF CONSTRUCTION



1
L4.1
1" = 10' - 0"

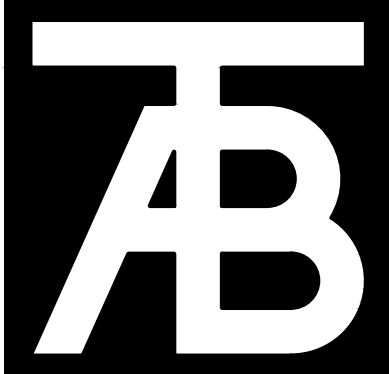
LANDSCAPE ENLARGEMENT PLAN

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SCALE: 1"=10'-0"

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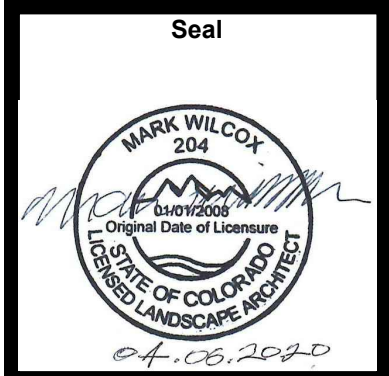
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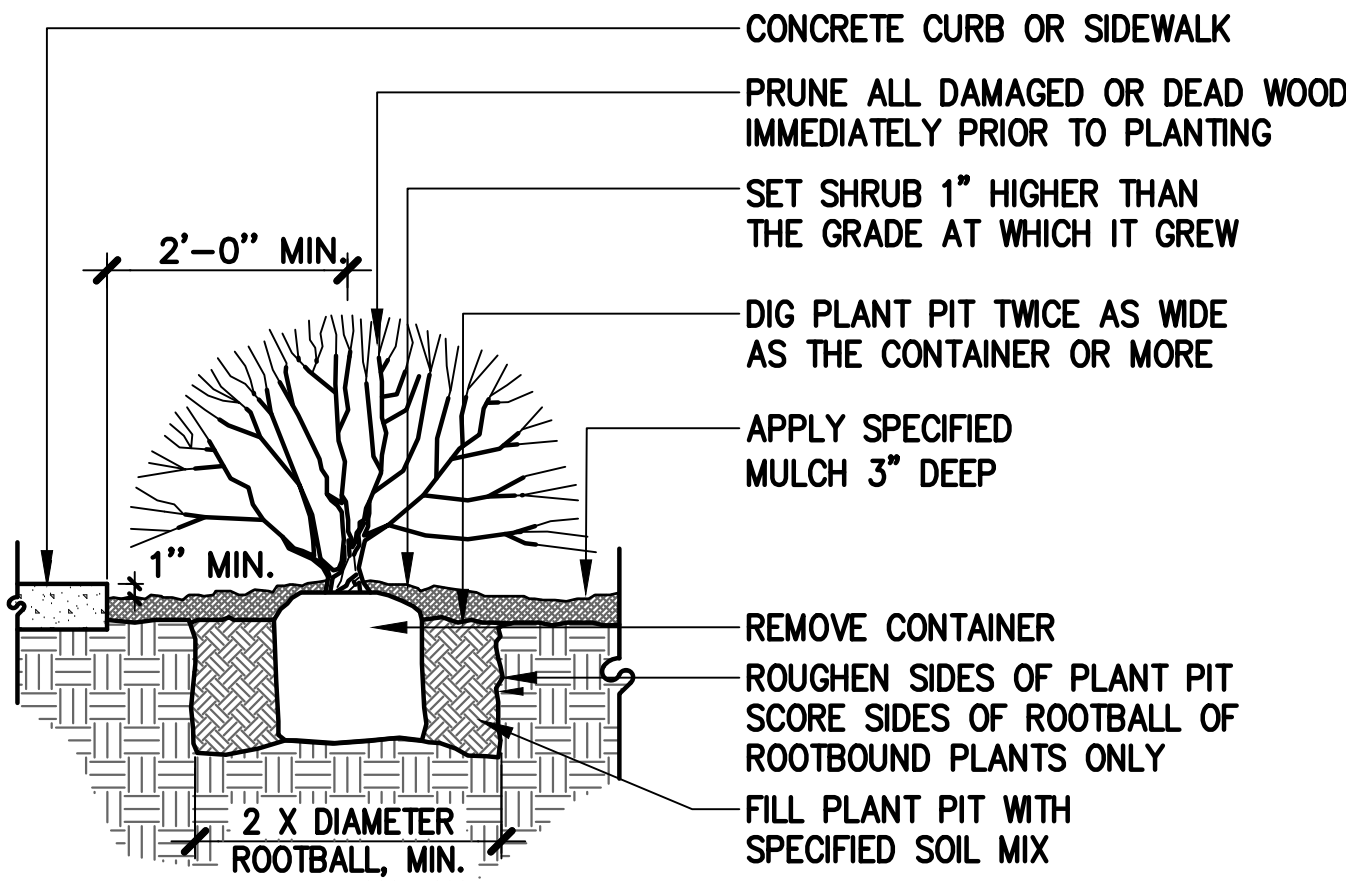
Sheet Title:
**LANDSCAPE
ENLARGEMENT
PLAN**

Project No:
1935.01

Sheet No:
L4.1

LANDSCAPE NOTES:

- ALL PLANT MATERIALS SHALL MEET OR EXCEED CURRENT AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1 AND THE COLORADO NURSERY ACT AND ACCOMPANYING RULES AND REGULATIONS.
- ALL APPROVED WORK WITHIN TREE PROTECTION ZONE/CRITICAL ROOT ZONE MUST BE ACCOMPLISHED WITH HAND TOOLS ONLY.
- ALL PLANT MATERIAL ARE TO BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- NO SUBSTANTIAL CHANGE FROM THE APPROVED LANDSCAPE PLAN MAY OCCUR WITHOUT PRIOR REVIEW & APPROVAL BY THE OWNER'S REPRESENTATIVE WHICH MAY REQUIRE ADDITIONAL IRRIGATION TAPS FOR CHANGES DUE TO MORE WATER INTENSIVE LANDSCAPING.
- ALL TREES IN SEEDING AREAS WILL HAVE A MULCH RING WITH NATURAL CEDAR FIBER MULCH AT A 3'-4" DEPTH AND AT LEAST 3'-4' DIAMETER. NO MULCH WILL BE PLACED AGAINST THE TRUNK OF THE TREE.
- ANY TREE SUBSTITUTIONS MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO DELIVERY AND INSTALLATION.
- ALL UTILITY EASEMENT SHALL REMAIN UNOBSTRUCTED AND FULLY ACCESSIBLE ALONG THEIR ENTIRE LENGTH FOR MAINTENANCE EQUIPMENT ENTRY.
- THE CONTRACTOR SHALL FINE GRADE ALL AREAS TO BE PLANTED. THE CONTRACTOR SHALL REMOVE REQUIRED DEPTH OF SOIL ALONG WALKWAYS TO ACCOMMODATE SOD OR MULCH DEPTH.
- THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES AND WALKWAYS. HAVE ALL FINE GRADING APPROVED PRIOR TO SEEDING.
- ALL SHRUB BEDS TO BE MULCHED WITH 1 3/4" WASHED RIVER ROCK, 3" DEPTH, OVER FILTER FABRIC UNLESS OTHERWISE NOTED. SUBMIT SAMPLE FOR APPROVAL.
- PRIOR TO SEEDING OR PLANTING, CONTRACTOR TO APPLY HERBICIDE TO ELIMINATE ALL WEED GROWTH WITHIN LANDSCAPE AREAS, PER SPECIFICATION.

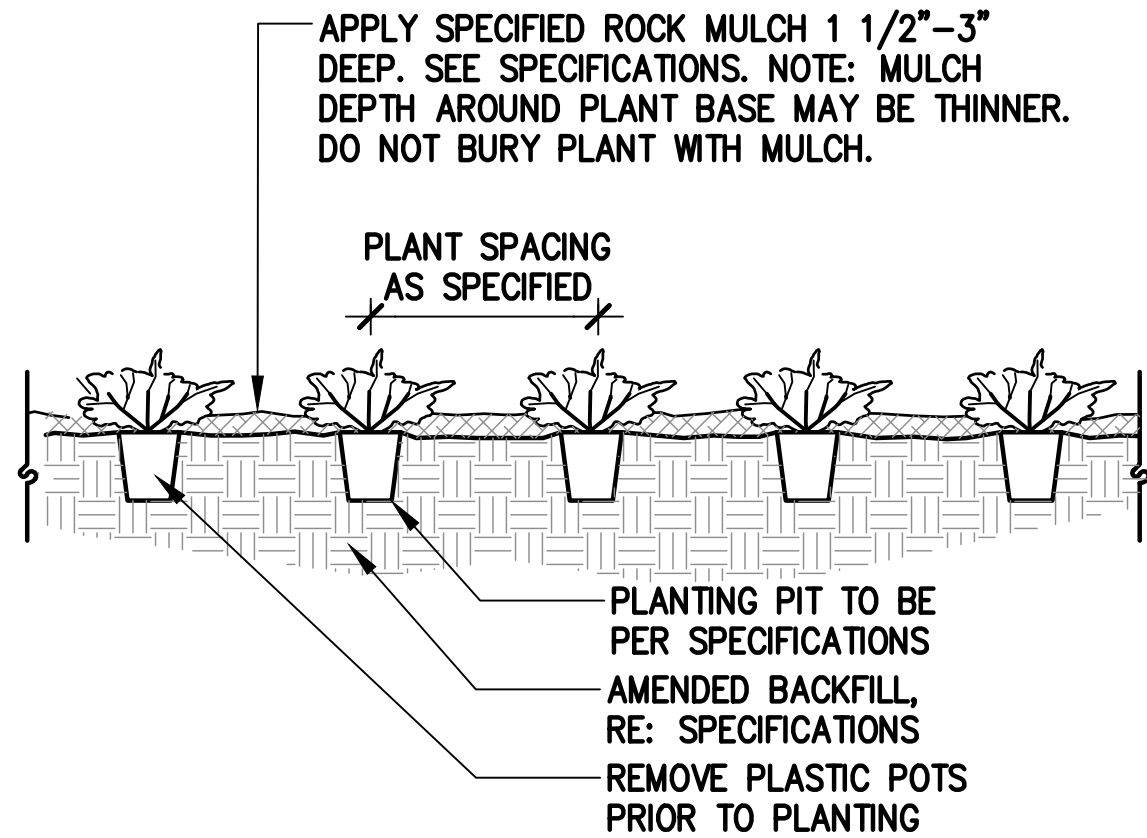


GENERAL NOTES

- HOLD GRADE 1" BELOW EDGE OF WALK OR CURB
- SHRUB PLANTING - REFER TO SHRUB BED LAYOUT FOR PLACEMENT OF SHRUBS.
- FOR GROUPINGS OF SHRUBS, MULCH ENTIRE PLANTING AREA. FOR INDIVIDUAL SHRUBS, MULCH PLANTING PIT AREA ONLY.
- GRADE EDGE OF PLANTING AREAS TO RETAIN MULCH.
- ANY BROKEN OR CRUMBLING ROOTBALL WILL BE REJECTED. REMOVING THE CONTAINERS WILL NOT BE AN EXCUSE FOR DAMAGED ROOTBALLS.

1 SHRUB PLANTING

NOT TO SCALE

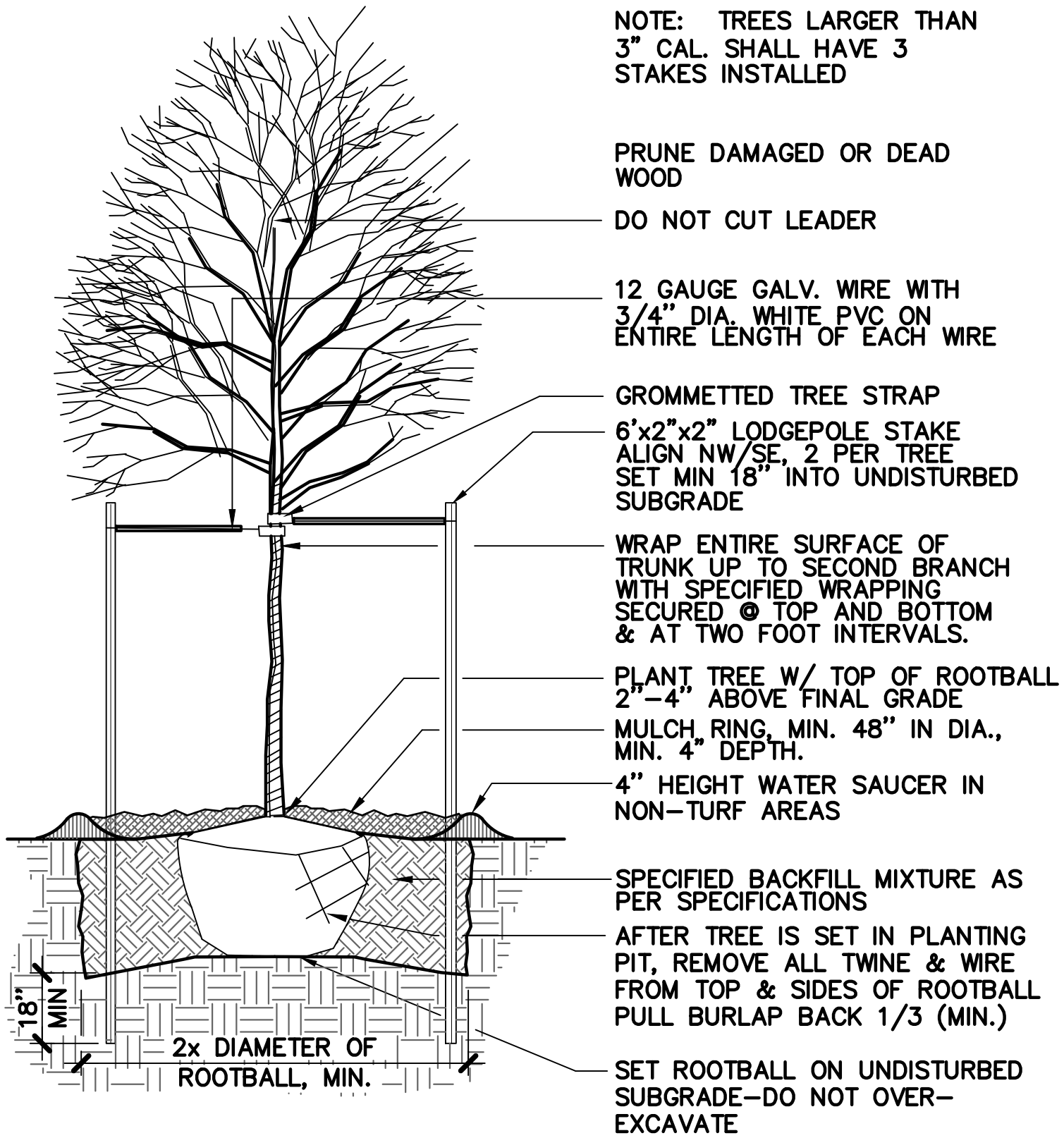


2 ORNAMENTAL GRASSES & PERENNIALS

NOT TO SCALE

PLANT LIST

COMMON NAME	BOTANICAL NAME	SIZE	COMMENTS
DECIDUOUS TREE			
Quaking Aspen	Populus tremuloides	8'-10' HT. Clump Form	B&B, specimen quality
Rocky Mountain Maple	Acer glabrum	2 1/2" cal	B&B, specimen quality
DECIDUOUS SHRUBS			
Bluemist Spirea	Caryopteris x clandonensis 'Dark Knight'	5 gal.	cont., 5 canes min., 12"-18" ht.
Mountain Snowberry	Symphoricarpos oreophilus	5 gal.	cont., 5 canes min., 18"-24" ht.
Yellow Flowering Currant	Ribes aureum	5 gal.	cont., 5 canes min., 18"-24" ht.
Isanti Dogwood	Cornus sericea 'Isanti'	5 gal.	cont., 5 canes min., 18"-24" ht.
CONIFEROUS/EVERGREEN SHRUBS			
Compact Oregon Grape Holly	Mahonia repens 'Compacta'	5 gal.	cont., 5 canes min., 18"-24" ht.
Kallay's Compact Juniper	Juniperus x pfitzeriana 'Kallay's Compact'	5 gal.	cont., 5 canes min., 18"-24" ht.
ORNAMENTAL GRASSES			
Little Bluestem	Schizachyrium Scoparium 'Blaze'	1 gal.	Container, Well established

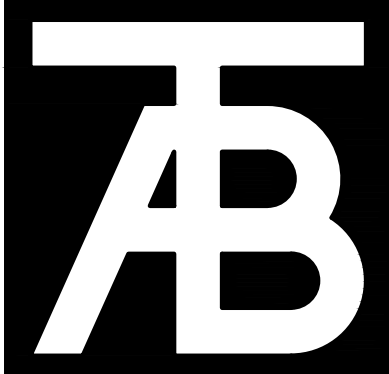


3 DECIDUOUS TREE PLANTING

NOT TO SCALE

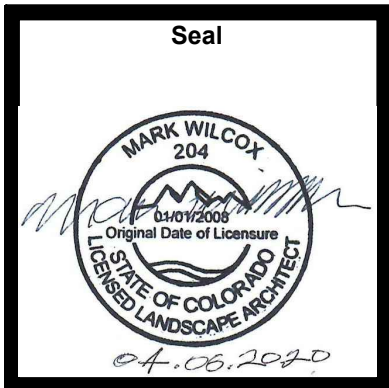
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05/14/2020



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Steamboat Springs Middle School
39610 Amethyst Drive
Steamboat Springs, CO

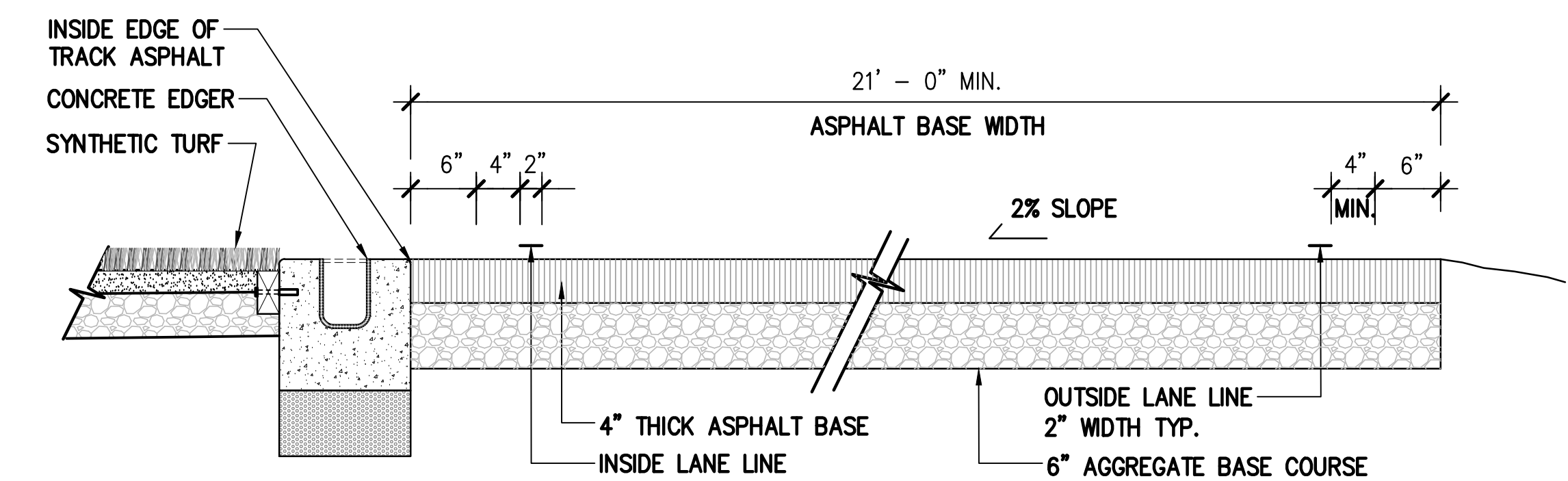
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No.	Description	Date

Issue Dates:
01/13/20 - SD
02/21/20 - DD
03/30/20 - CD
04/06/20 - CD

Sheet Title:
LANDSCAPE
NOTES AND
DETAILS

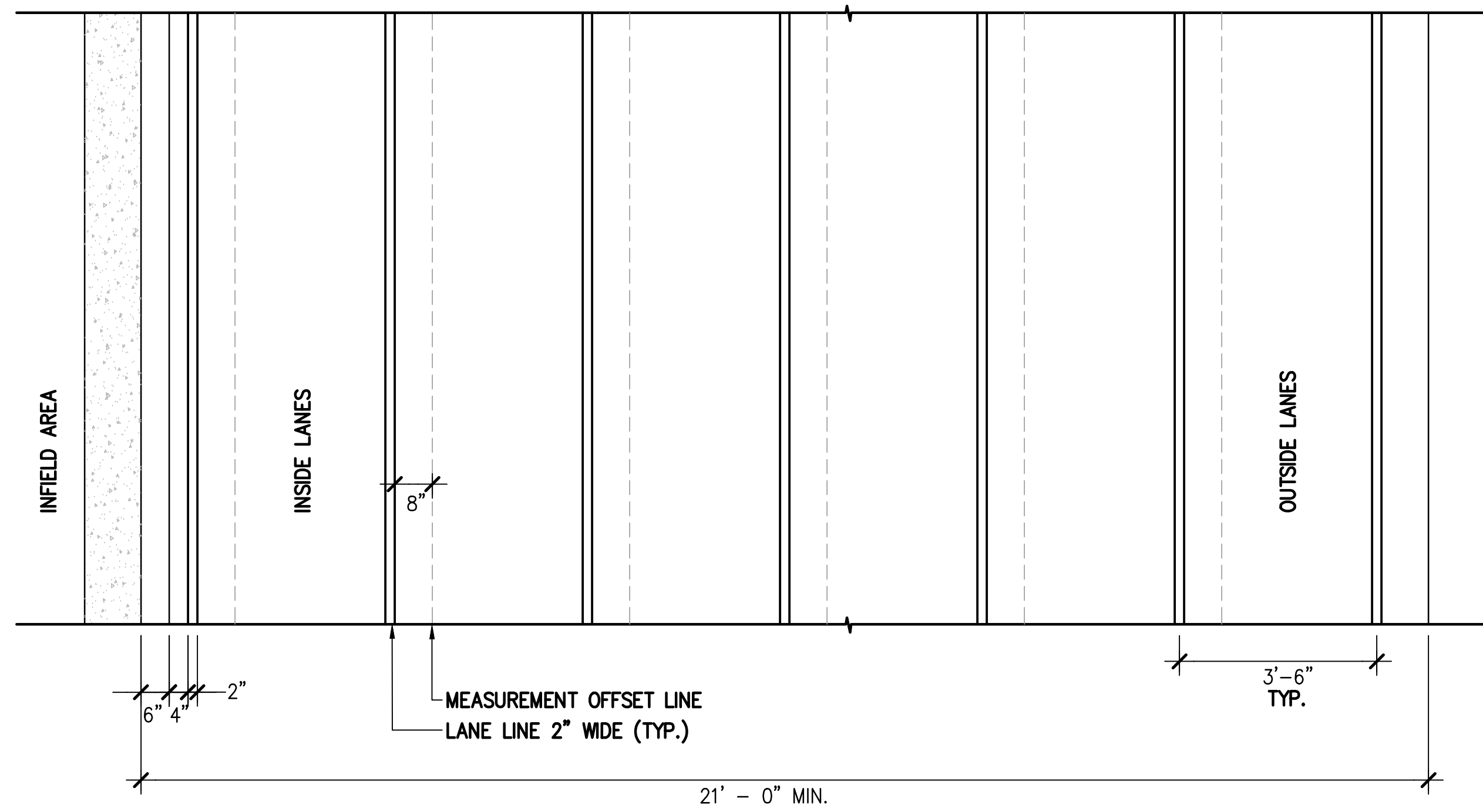
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1935.01

Sheet No:
L4.2



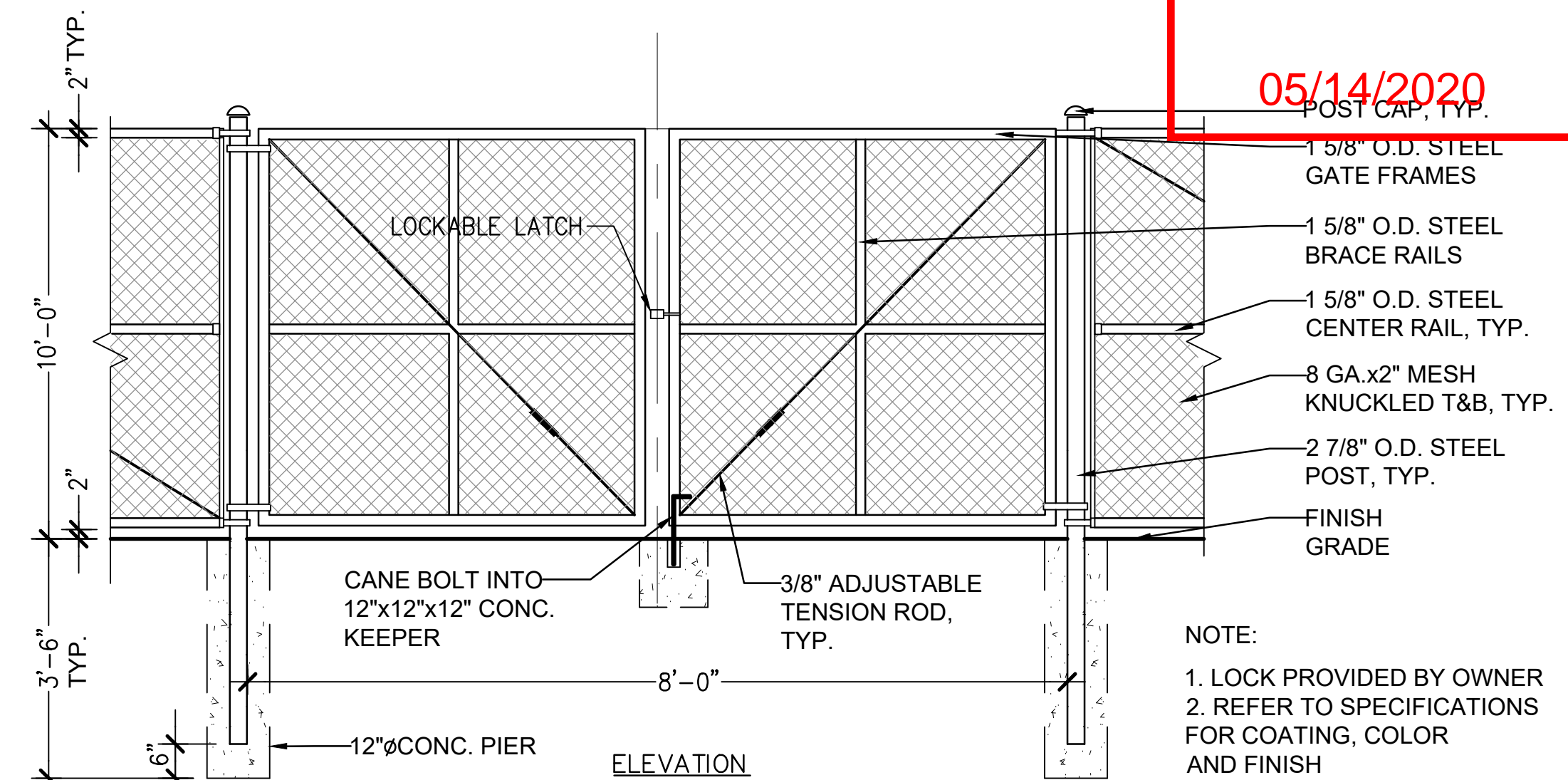
1 TYPICAL TRACK SECTION

SCALE: 1" = 1'-0"



2 TYPICAL TRACK PLAN

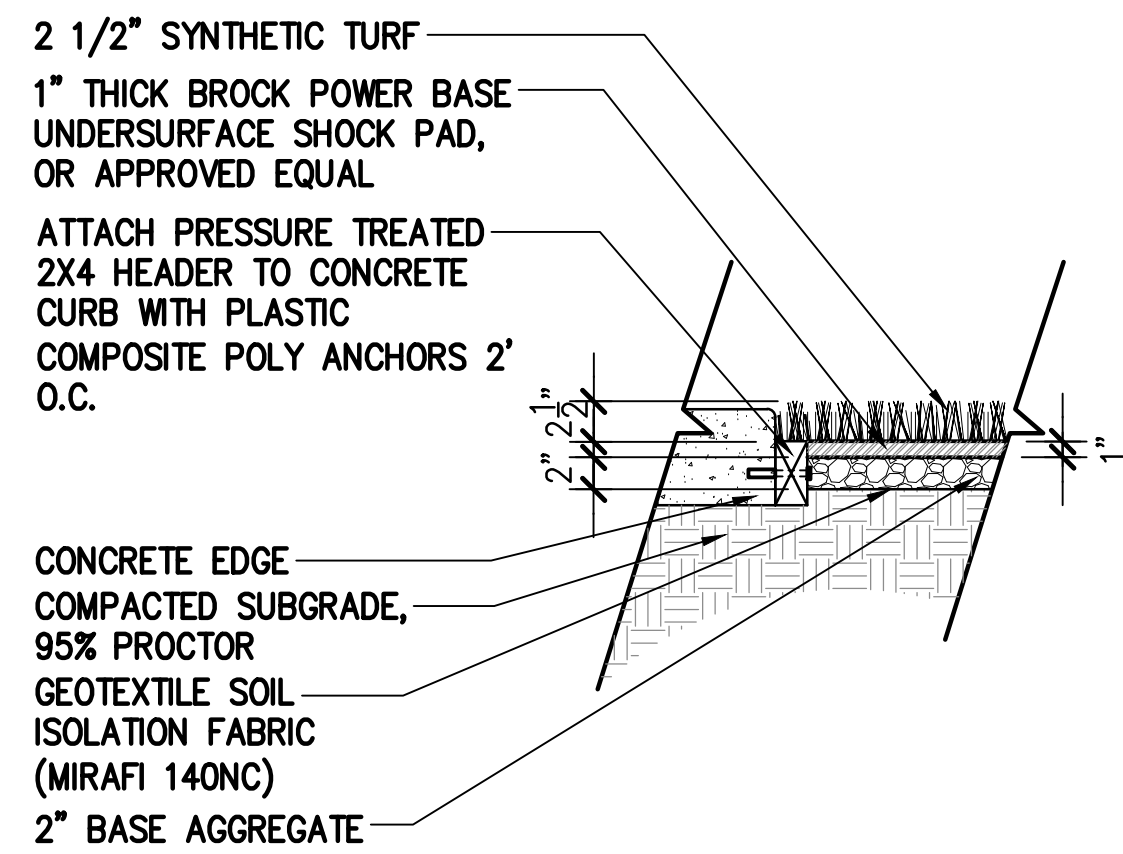
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3 CHAIN LINK FENCE - 10' HT.

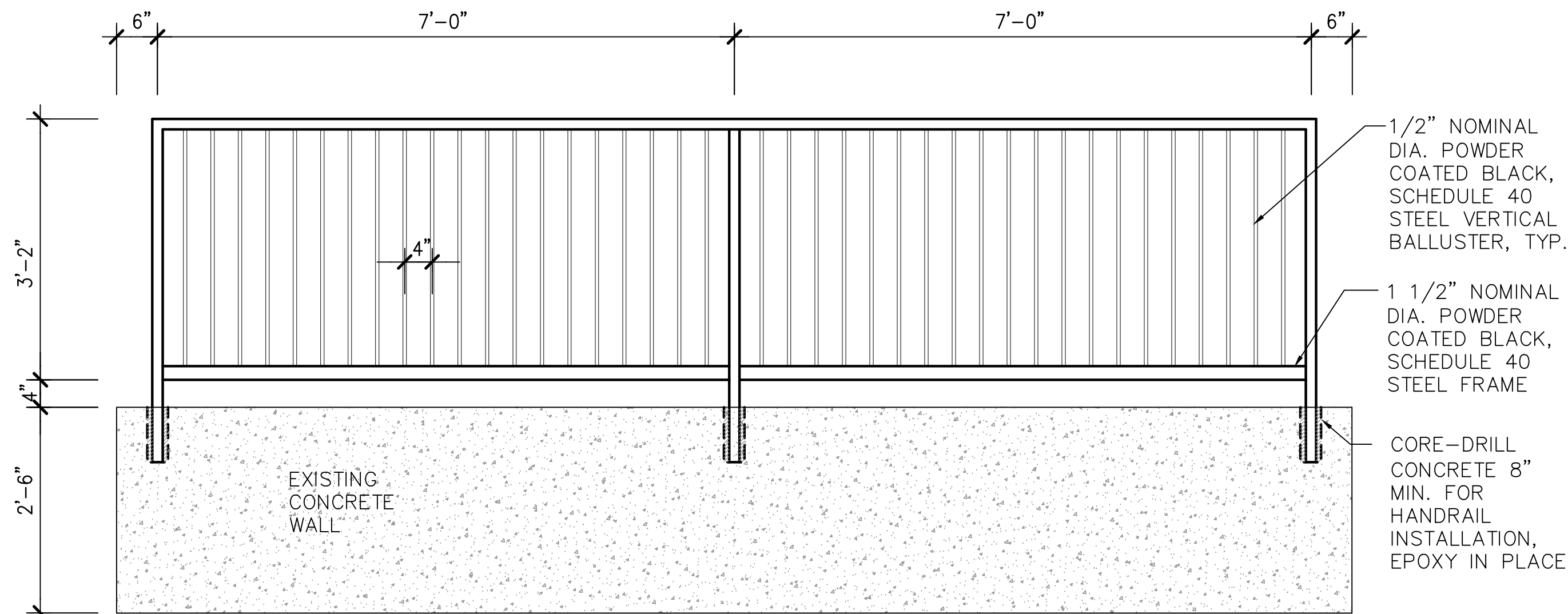
COLOR: GREEN

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



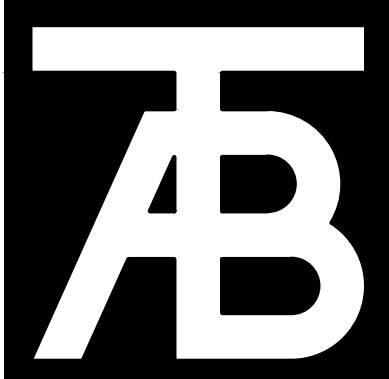
4 SYNTHETIC TURF

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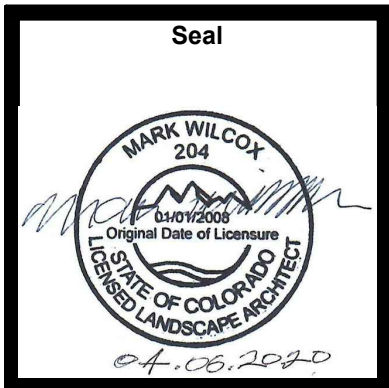


5 RAILING

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



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No.	Description	Date

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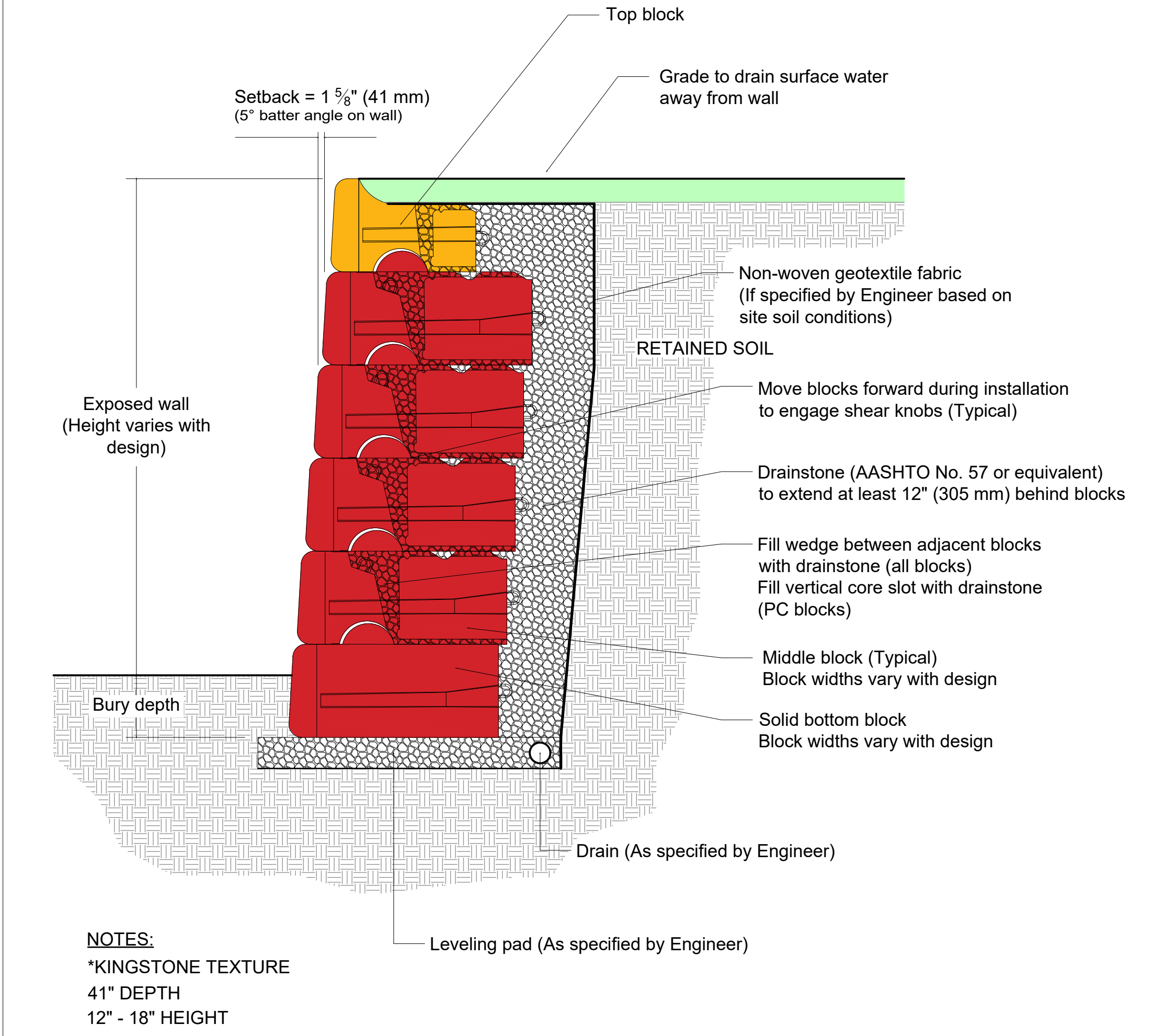
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SITE DETAILS

Project No:
1935.01

Sheet No:
L5.0

1 SITE DETAILS
L5.0

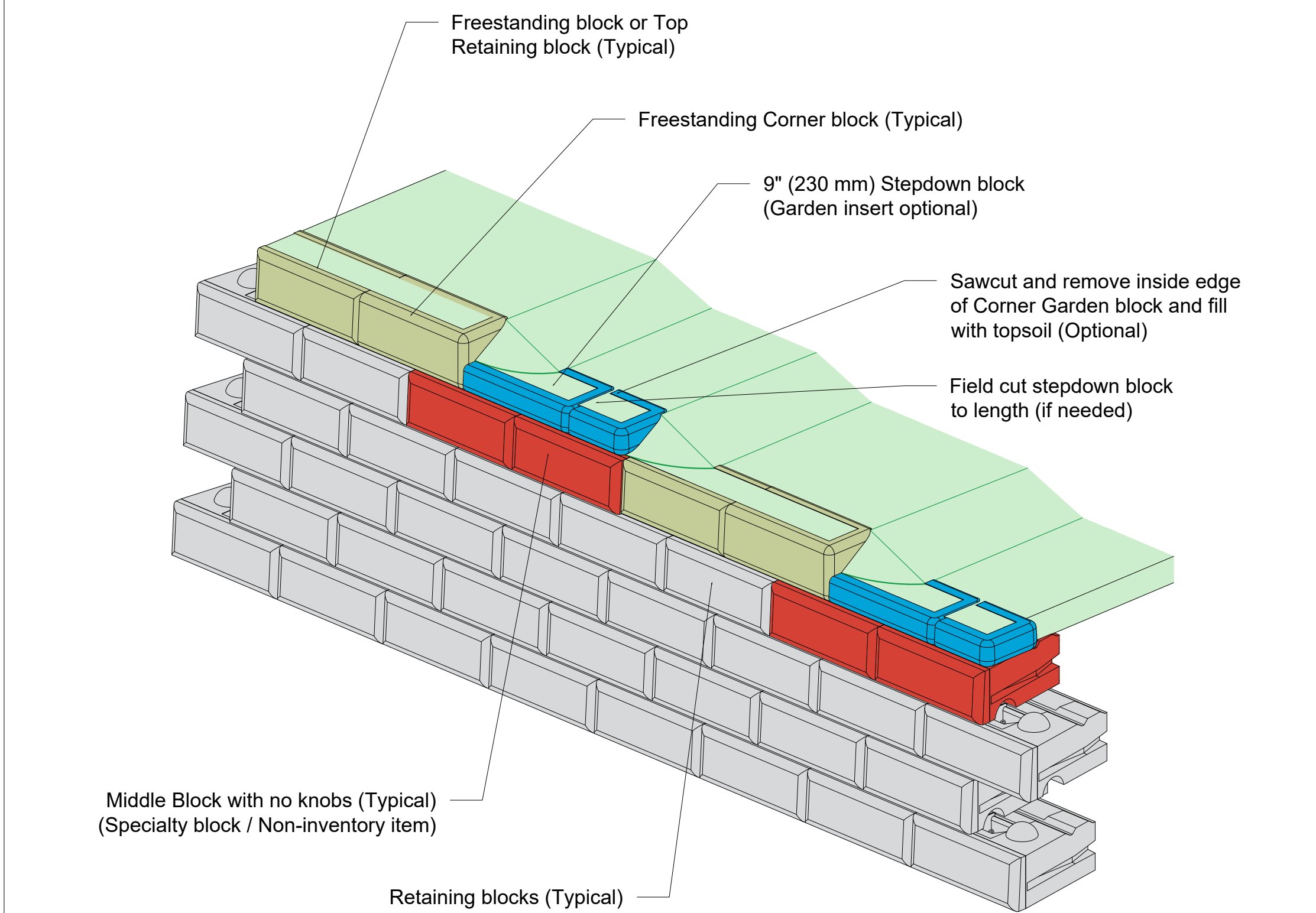
DHM DESIGN
900 S. Broadway
Suite 300
Denver, CO 80209
303.892.5566
www.dhmdesign.com



DRAWN BY:	JRJ	TITLE:	Typical Gravity Wall Detail	<div>REDI-ROCK® 05481 US 31 SOUTH, CHARLEVOIX, MI 49720 (866) 222-8400 ext 3010 • engineering@redi-rock.com www.redi-rock.com</div>
APPROVED BY:	JRJ			
DATE:	17MAR2016			
SHEET:	1 of 1			
FILE:	1 Typical Gravity Wall Detail 031716.dwg			

1 REDI-ROCK BOULDER SEATING

TYPICAL GRAVITY WALL DETAIL N.T.S.



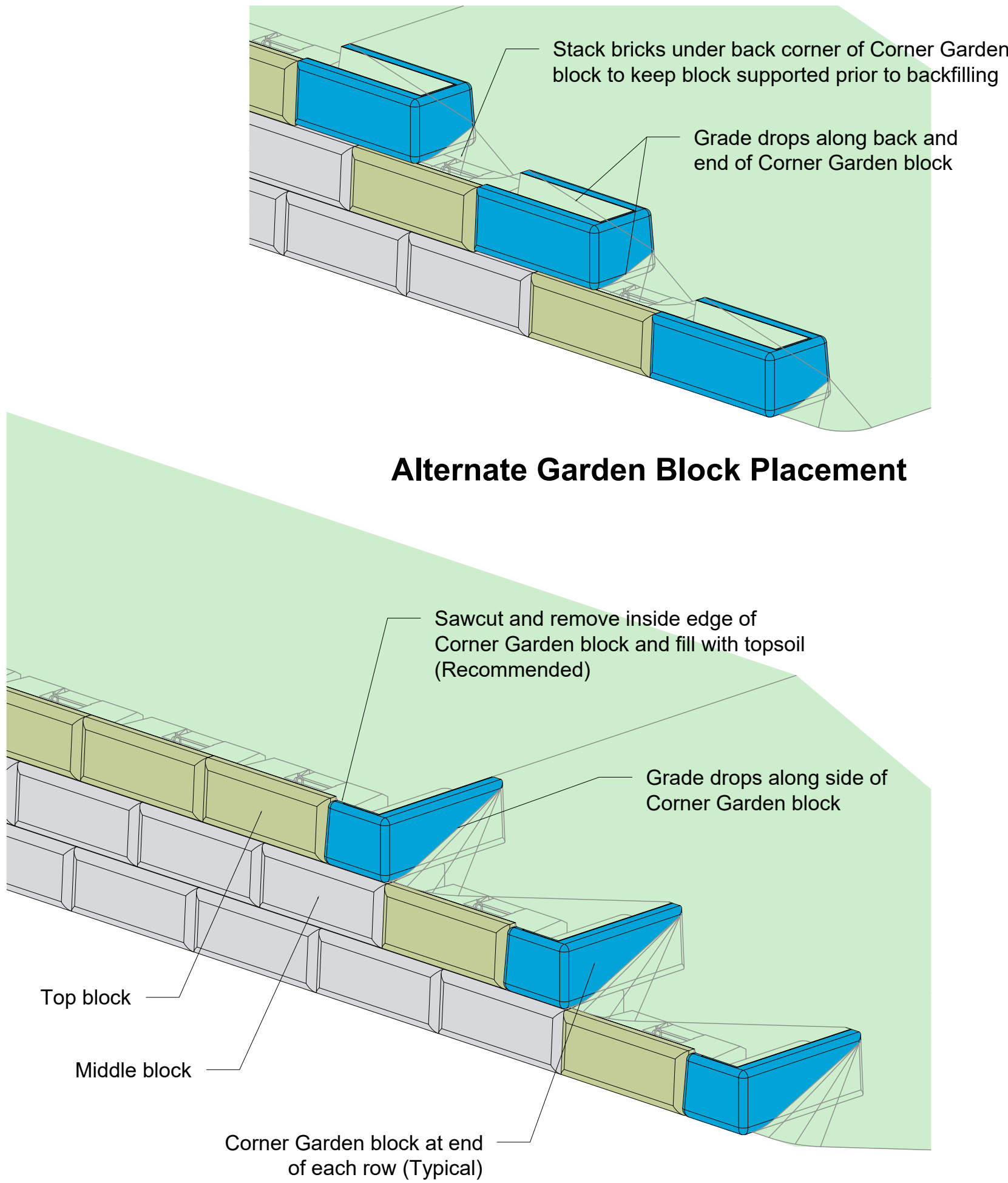
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DRAWN BY:	JRJ	TITLE:	Top of Wall, 9" Stepdown Blocks	 05481 US 31 SOUTH, CHARLEVOIX, MI 49720 (866) 222-8400 ext 3010 • engineering@redi-rock.com www.redi-rock.com
APPROVED BY:	JRJ			
DATE:	06-22-2015			
SHEET:	1 of 1			
FILE:	2 Top of Wall 9in Stepdown Blocks 062215.dwg			

1 REDI-ROCK BOULDER SEATING

TOP OF WALL, 9" STEPDOWN BLOCKS N.T.S.

Top of Wall Step Options



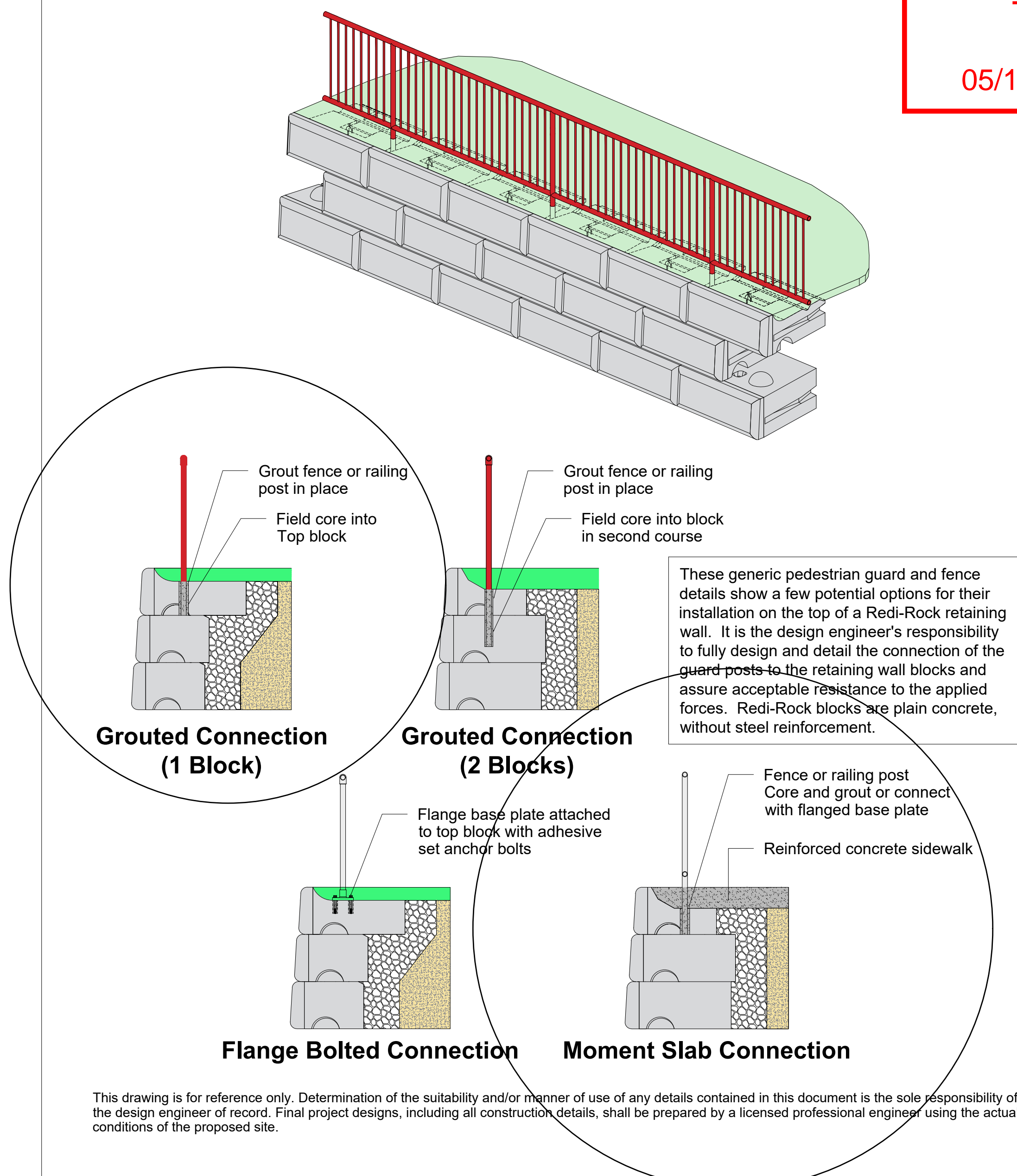
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DATE:	06-22-2015		
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FILE:	1 Top of Wall Step Options 062215.dwg		


1 REDI-ROCK BOULDER SEATING

TOP OF WALL STEP OPTIONS N.T.S.

Fence or Pedestrian Guard Connection Options



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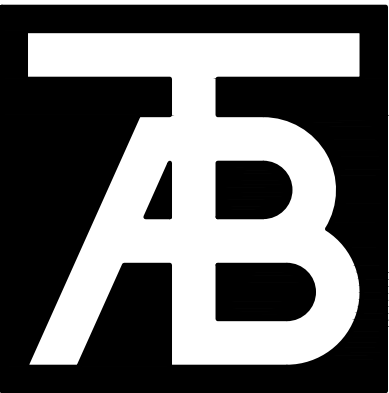
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APPROVED BY:	JRJ		
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SHEET:	1 of 1		
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1 REDI-ROCK BOULDER SEATING

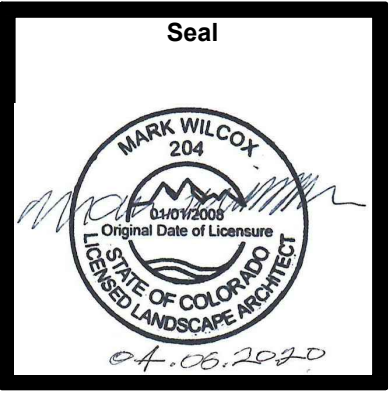
FENCE OR PEDESTIRAN GUARD CONNECTION OPTIONS N.T.S.

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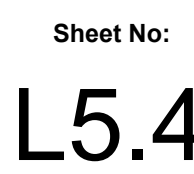
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SITE DETAILS

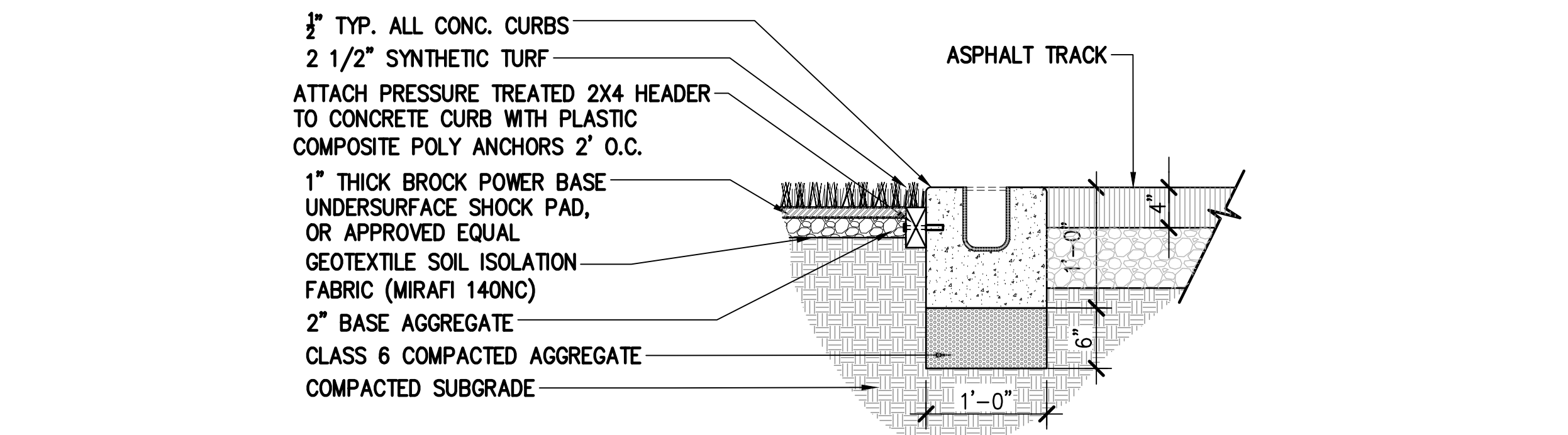
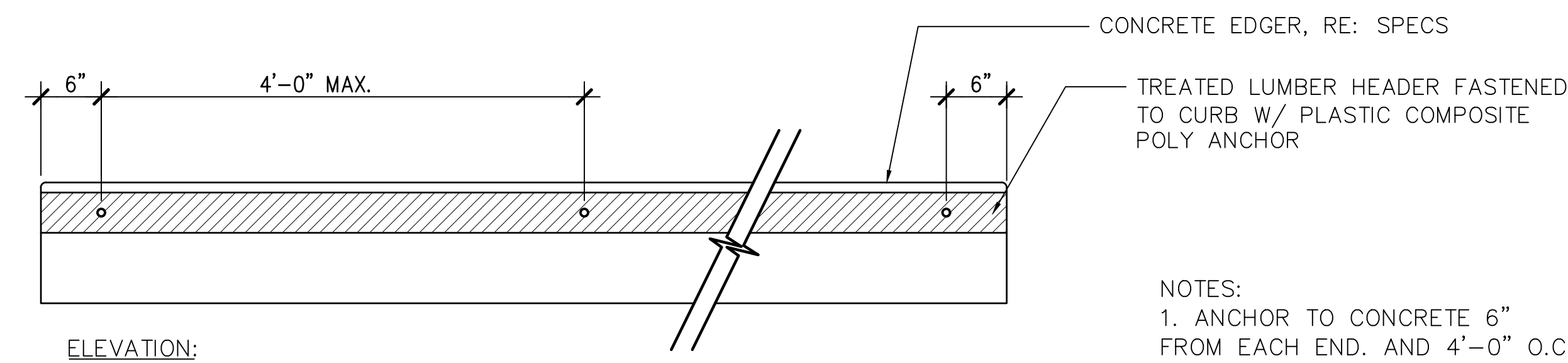
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1935.01

Sheet No:
L5.1

1 SITE DETAILS
L5.1

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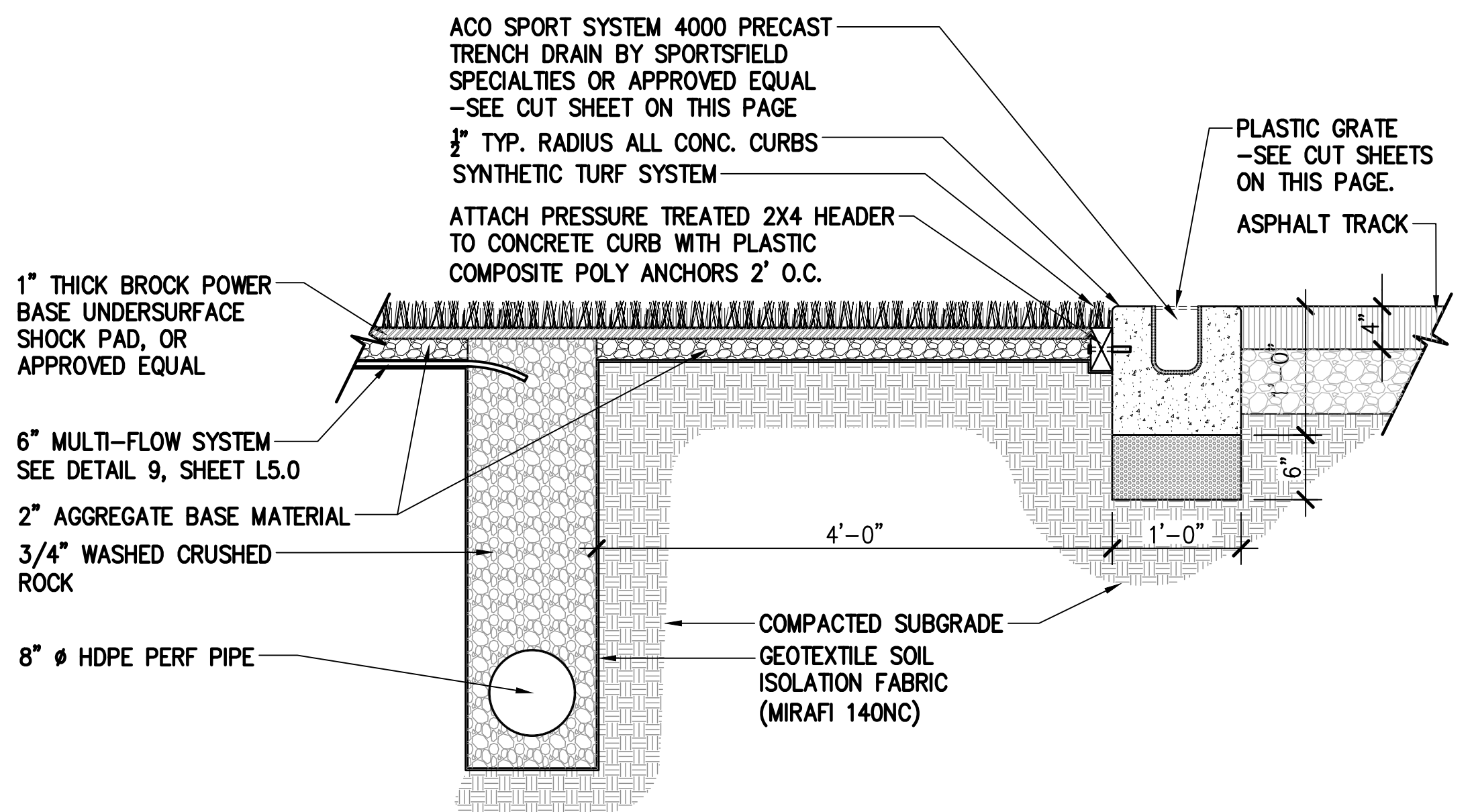




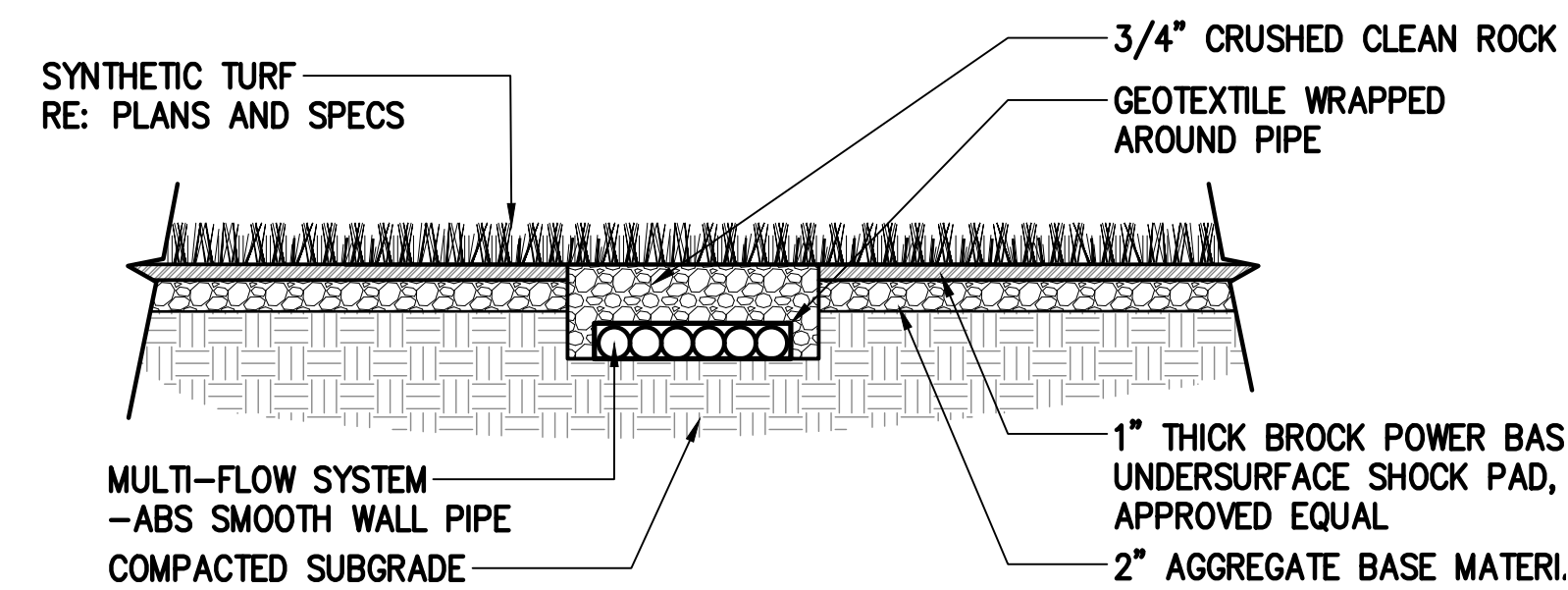
NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR FINAL SYNTHETIC TURF STRIPING, LAYOUT, SEAMS, RE: SPECS.
2. HEADER SHALL BE TREATED LUMBER.
3. CATCH BASINS EVERY 90' +/- PER MANUFACTURER'S RECOMMENDATION. SEE CUT SHEET ON THIS PAGE.

1 TRACK DRAINAGE TRENCH

SCALE: 1" = 1'-0"



2 8" PERFORATED DRAINAGE PIPE



3 STANDARD 6" MULTI-FLOW SYSTEM

SCALE: 1" = 1'-0"

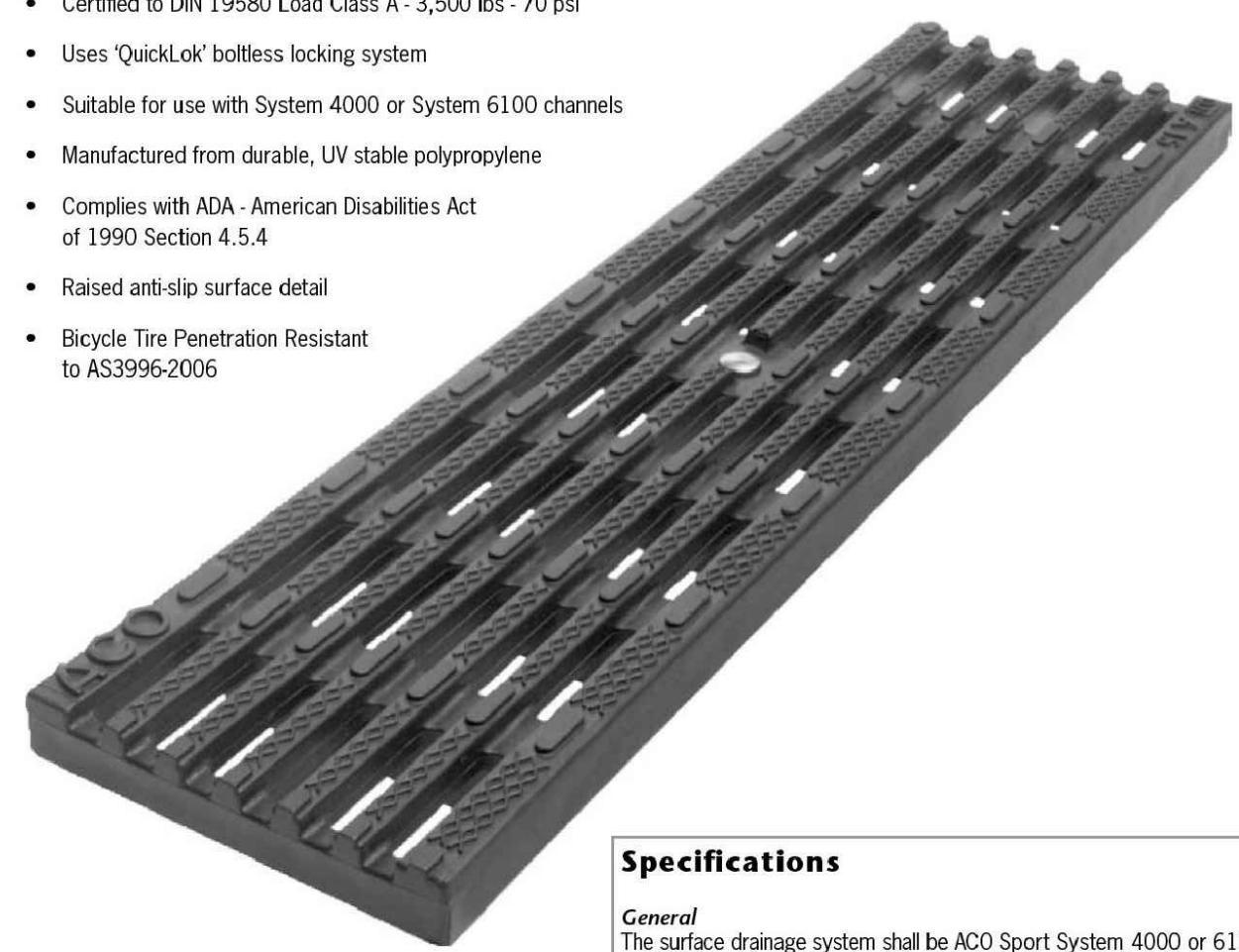
ACO SPORT

ADA Plastic ADA black plastic

Product Features

- Certified to DIN 19580 Load Class A - 3,500 lbs - 70 psi
- Uses 'QuickLok' boltless locking system
- Suitable for use with System 4000 or System 6100 channels
- Manufactured from durable, UV stable polypropylene
- Complies with ADA - American Disabilities Act of 1990 Section 4.5.4
- Raised anti-slip surface detail
- Bicycle Tire Penetration Resistant to AS3996-2006

Dec 07



Specifications

General
The surface drainage system shall be ACO Sport System 4000 or 6100 channels,* complete with ACO ADA plastic grate with 'QuickLok' locking as manufactured by ACO Polymer Products, Inc. or similar approved.

Materials

The covers shall be manufactured from polypropylene and have minimum properties as follows:

- Independently certified to meet Load Class A to DIN 19580 - 3,500 lbs - 70 psi
- UV stable polypropylene
- Intake area of 27.4 sq. in. (176.8 cm²) per half meter of grate

The overall width of 4.84" (123mm) and overall length of 19.69" (500mm). Slots measure 0.33" (8mm) by 1.74" (44mm).

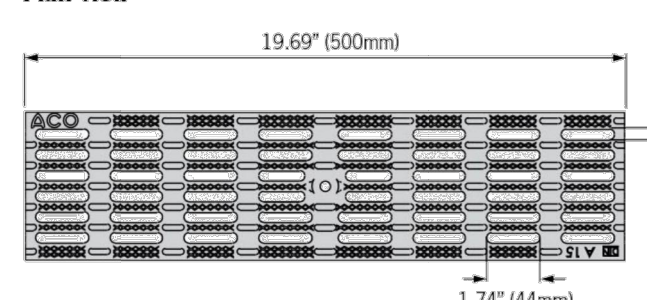
Installation
The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.
* delete as appropriate

ACO SPORT

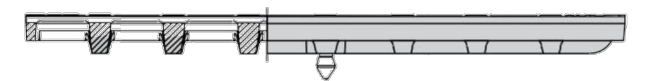
ADA plastic grate details



Plan view

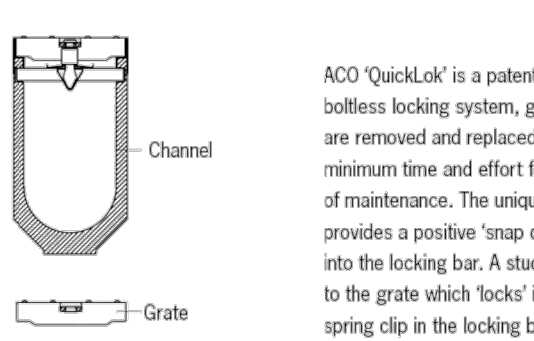


Side elevation

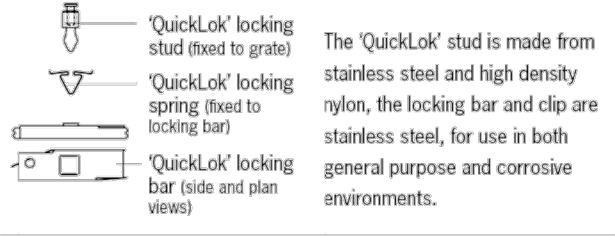


Description	Part No.	Length inches (mm)	Width inches (mm)	Weight lbs.
QuickLok grates				
ADA black plastic grate	97393	19.69 (500)	4.84 (123)	1.8
ADA grey plastic grate	97395	19.69 (500)	4.84 (123)	1.8
ADA green plastic grate	97396	19.69 (500)	4.84 (123)	1.8
ADA black plastic grate	97396	19.69 (500)	4.84 (123)	1.8
QuickLok locking bar	02899	-	-	0.2
QuickLok grate removal hook	01318	-	-	0.6

'QuickLok' locking mechanism



ACO 'QuickLok' is a patented boltless locking system, grates are removed and replaced with the minimum time and effort for ease of maintenance. The unique design provides a positive 'snap down' fit into the locking bar. A stud is fixed to the grate which 'locks' into the spring clip in the locking bar.



The 'QuickLok' stud is made from stainless steel and high density nylon, the locking bar and clip are stainless steel, for use in both general purpose and corrosive environments.

ACO Polymer Products, Inc.

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Charlotte, NC 44024
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Toll Free: (800) 543-6764
Fax: (440) 285-7005

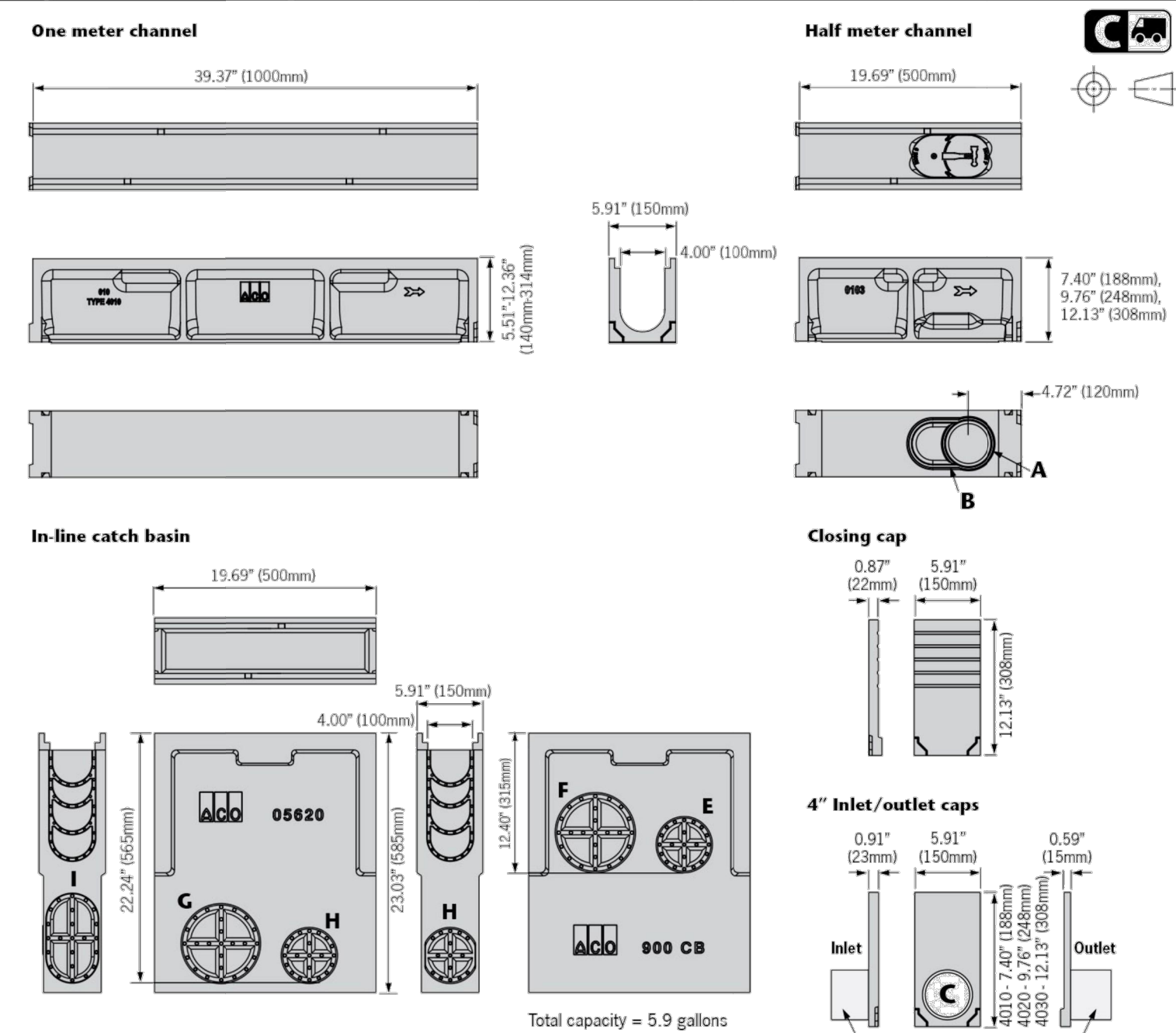
West Sales Office
P.O. Box 12067
Cana, GA 30520
Tel: (520) 421-9985
Toll Free: (888) 490-9552
Fax: (520) 421-9999

Electronic Contact:
info@aco-usa.com
www.aco-usa.com

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SPEC INFO
ACO

ACO SPORT System 4000 - Open channel trench drain system



Outlet flow rates

Outlet	Product	Outlet size (Sch. 40)	Depth	Invert	GPM	CFS
A	Bottom outlet - 40103	4" round	6.50	117	0.26	
B	Bottom outlet - 40303	4" round	11.22	105	0.41	
C	Bottom outlet - 40103	6" oval	6.50	163	0.40	
D	Bottom outlet - 40303	6" oval	11.22	203	0.64	
E	Outlet cap - 4010	4" round	6.50	119	0.27	
F	Outlet cap - 4030	4" round	11.22	163	0.39	
G	Outlet cap - 4020	6" oval	6.50	220	0.50	
H	Outlet cap - 4030	6" oval	11.22	240	0.50	
I	In-line catch basin*	4" round	12.40	175	0.40	
J	In-line catch basin*	6" round	12.40	379	0.37	
K	In-line catch basin*	6" round	22.24	530	1.22	
L	In-line catch basin*	6" round	22.24	242	0.54	
M	In-line catch basin*	6" round	22.24	374	0.56	

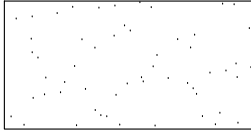
* In-line catch basin flow rates without trash basket (flow rates from isolated inlets only)

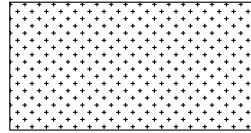
ACO SPORT

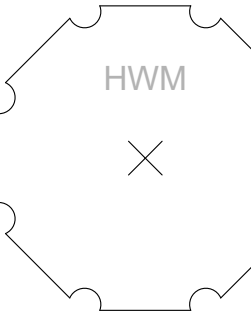
System 4000 Open channel trench drain system

Description	Part	Invert	Depth	Overall	Length	Weight
40001 Shaped channel - 39.37" (1 meter)	130001	4.61	117	5.51	140	32.0
40002 Constant depth channel - 39.37" (1 meter)	05562	4.61	117	5.51	140	32.0
40003 Shaped channel - 39.37" (1 meter)	130002	4.84	123	5.75	146	32.9
40004 Shaped channel - 39.37" (1 meter)	130003	5.08	129	5.98	152	33.8
40005 Shaped channel - 39.37" (1 meter)	130004	5.31	135	6.22	158	34.7
40006 Shaped channel - 39.37" (1 meter)	130005	5.55	141	6.46	164	35.6
40007 Shaped channel - 39.37" (1 meter)	130006	5.79	147	6.69	170	36.5
40008 Shaped channel - 39.37" (1 meter)	130007	6.02	153	6.93	176	37.4
40009 Shaped channel - 39.37" (1 meter)	130008	6.26	159	7.17	182	38.3
40010 Shaped channel - 39.37" (1 meter)	130009	6.50	165	7.40	188	39.2
40011 Constant depth channel - 39.37" (1 meter)	05561	6.50	165	7.40	188	40.1
40012 Shaped channel - 39.37" (1 meter)	130010	6.73	171	7.64	194	40.1
40013 Shaped channel - 39.37" (1 meter)	130011	6.97	177	7.87	200	41.0
40014 Shaped channel - 39.37" (1 meter)	130012	7.20	183	8.11	206	41.9
40015 Shaped channel - 39.37" (1 meter)	130013	7.44	189	8.35	212	42.8
40016 Shaped channel - 39.37" (1 meter)	130014	7.68	195	8.58	218	43.7
40017 Shaped channel - 39.37" (1 meter)	130015	7.91	201	8.82	224	44.6
40018 Shaped channel - 39.37" (1 meter)	130016	8.15	207	9.06	230	45.5
40019 Shaped channel - 39.37" (1 meter)	130017	8.39	213	9.29	236	46.4
40020 Shaped channel - 39.37" (1 meter)	130018	8.62	219	9.53	242	47.3
40021 Shaped channel - 39.37" (1 meter)	130019	8.86	225	9.76	248	48.2
40022 Constant depth channel - 39.37" (1 meter)	05563	8.86	225	9.76	248	49.1
40023 Shaped channel - 39.37" (1 meter)	130020	9.10	231	10.00	254	49.1
40024 Shaped channel - 39.37" (1 meter)	130021	9.33	237	10.24	260	50.0
40025 Shaped channel - 39.37" (1 meter)	130022	9.57	243	10.47	266	50.9
40026 Shaped channel - 39.37" (1 meter)	130023	9.80	249	10.71	272	51.8
40027 Shaped channel - 39.37" (1 meter)	130024	10.04	255	10.94	278	52.7
40028 Shaped channel - 39.37" (1 meter)	130025	10.28	261	11.18	284	53.6
40029 Shaped channel - 39.37" (1 meter)	130026	10.51	267	11.42	290	54.5
40030 Shaped channel - 39.37" (1 meter)	130027	10.75	273	11.65	296	55.4
40031 Shaped channel - 39.37" (1 meter)	130028	10.98	279	11.89	302	56.3
40032 Shaped channel - 39.37" (1 meter)	130029	11.22	285	12.13	308	57.2
40033 Constant depth channel - 39.37" (1 meter)	130030	11.22	285	12.13	308	58.3
40034 Shaped channel - 39.37" (1 meter)	130031	11.46	291	12.36	314	59.2
40035 Shaped channel - 39.37" (1 meter)	130032	11.69	297	12.60	320	60.1
40036 Shaped channel - 39.37" (1 meter)	130033	11.93	303	12.84	326	61.0
40037 Shaped channel - 39.37" (1 meter)	130034	12.17	309	13.07	332	61.9
40038 Shaped channel - 39.37" (1 meter)	130035	12.41	315	13.31	338	62.8
40039 Shaped channel - 39.37" (1 meter)	130036	12.65	321	13.55	344	63.7
40040 Shaped channel - 39.37" (1 meter)	130037	12.89	327	13.79	350	64.6
40041 Shaped channel - 39.37" (1 meter)	130038	13.13	333	14.03	356	65.5
40042 Shaped channel - 39.37" (1 meter)	130039	13.37	339	14.27	362	66.4
40043 Shaped channel - 39.37" (1 meter)	130040	13.61	345	14.51	368	67.3
40044 Shaped channel - 39.37" (1 meter)	130041	13.85	351	14.75	374	68.2
40045 Shaped channel - 39.37" (1 meter)	130042	14.09	357	14.99	380	69.1
40046 Shaped channel - 39.37" (1 meter)	130043	14.33	363	15.23	386	70.0
40047 Shaped channel - 39.37" (1 meter)	130044	14.57	369	15.47	392	70.9
40048 Shaped channel - 39.37" (1 meter)	130045	14.81	375	15.71	398	71.8
40049 Shaped channel - 39.37" (1 meter)	130046	15.05	381	15.95	404	72.7
40050 Shaped channel - 39.37" (1 meter)	130047	15.29	387	16.19	410	73.6
40051 Shaped channel - 39.37" (1 meter)	130048	15.53	393	16.43	416	74.5
40052 Shaped channel - 39.37" (1 meter)	130049	15.77	399	16.67	422	75.4
40053 Shaped channel - 39.37" (1 meter)	130050	16.01	405	16.91	428	76.3
40054 Shaped channel - 39.37" (1 meter)	130051	16.25	411	17.15	434	77.2
40055 Shaped channel - 39.37" (1 meter)	130052	16.49	417	17.39	440	78.1
40056 Shaped channel - 39.37" (1 meter)	130053	16.73	423	17.63	446	79.0
40057 Shaped channel - 39.37" (1 meter)	130054	16.97	429	17.87	452	79.9
40058 Shaped channel - 39.37" (1 meter)	130055	17.21	435	18.11	458	80.8
40059 Shaped channel - 39.37" (1 meter)	130056	17.45	441	18.35	464	81.7
40060 Shaped channel - 39.37" (1 meter)	130057	17.69	447	18.59	470	82.6
40061 Shaped channel - 39.37" (1 meter)	130058	17.93	453	18.83	476	83.5
40062 Shaped channel - 39.37" (1 meter)	130059	18.17	459	19.07	482	84.4
40063 Shaped channel - 39.37" (1 meter)	130060	18.41	465	19.31	488	85.3
40064 Shaped channel - 39.37" (1 meter)	130061	18.65	471	19.55	494	86.2
40065 Shaped channel - 39.37" (1 meter)	130062	18.89	477	19.79	500	87.1
40066 Shaped channel - 39.37" (1 meter)	130063	19.13	483	20.03	506	88.0
40067 Shaped channel - 39.37" (1 meter)	130064	19.37	489	20.27	512	88.9
40068 Shaped channel - 39.37" (1 meter)	130065	19.61	495	20.51	518	89.8
40069 Shaped channel - 39.37" (1 meter)	130066	19.85	501	20.75	524	90.7
40070 Shaped channel - 39.37" (1 meter)	130067	20.09	507	20.99	530	91.6
40071 Shaped channel - 39.37" (1 meter)	130068	20.33	513	21.23	536	92.5
40072 Shaped channel - 39.37" (1 meter)	130069	20.57	519	21.47	542	93.4
40073 Shaped channel - 39.37" (1 meter)	130070	20.81	525	21.71	548	94.3
40074 Shaped channel - 39.37" (1 meter)	130071	21.05	531	21.95	554	95.2
40075 Shaped channel - 39.37" (1 meter)	130072	21.29	537	22.19	560	96.1
40076 Shaped channel - 39.37" (1 meter)	130073	21.53	543	22.43	566	97.0
40077 Shaped channel - 39.37" (1 meter)	130074	21.77	549	22.67	572	97.9
40078 Shaped channel - 39.37" (1 meter)	130075	22.01	555	22.91	578	98.8
40079 Shaped channel - 39.37" (1 meter)	130076	22.25	561	23.15	584	99.7
40080 Shaped channel - 39.37" (1 meter)	130077	22.49	567	23.39	590	100.6
40081 Shaped channel - 39.37" (1 meter)	130078	22.73	573	23.63	596	101.5
40082 Shaped channel - 39.37" (1 meter)	130079	22.97	579	23.87	602	102.4
40083 Shaped channel - 39.37" (1 meter)	130080	23.21	585	24.11	608	103.3
40084 Shaped channel - 39.37" (1 meter)	130081	23.45	591	24.35	614	104.2
40085 Shaped channel - 39.37" (1 meter)	130082	23.69	597	24.59	620	105.1
40086 Shaped channel - 39.37" (1 meter)	130083	23.93	603	24.83	626	106.0
40087 Shaped channel - 39.37" (1 meter)	130084	24.17	609	25.07	632	106.9
40088 Shaped channel - 39.37" (1 meter)	130085	24.41	615	25.31	638	107.8
40089 Shaped channel - 39.37" (1 meter)	130086	24.65	621	25.55	644	108.7
40090 Shaped channel - 39.37" (1 meter)	130087	24.89	627	25.79	650	109.6
40091 Shaped channel - 39.37" (1 meter)	130088	25.13	633	26.03	656	110.5
40092 Shaped channel - 39.37" (1 meter)	130089	25.37	639	26.27	662	111.4
40093 Shaped channel - 39.37" (1 meter)	130090	25.61	645	26.51	668	112.3
40094 Shaped channel - 39.37" (1 meter)	130091	25.85	651	26.75	674	113.2
40095 Shaped channel - 39.37" (1 meter)	130092	26.09	657	26.99	680	114.1
40096 Shaped channel - 39.37" (1 meter)	130093	26.33	663	27.23	686	115.0
40097 Shaped channel - 39.37" (1 meter)	130094	26.57	669	27.47	692	115.9
40098 Shaped channel - 39.37" (1 meter)	130095	26.81	675	27.71	698	116.8
40099 Shaped channel - 39.37" (1 meter)	130096	27.05	681	27.95	704	117.7
40100 Shaped channel - 39.37" (1 meter)	130097	27.29	687	28.19	710	118.6
40101 Shaped channel - 39.37" (1 meter)	130098	27.53	693	28.43	716	119.5
40102 Shaped channel - 39.37" (1 meter)	130099	27.77	699	28.67	722	120.4
40103 Shaped channel - 39.37" (1 meter)	130100	28.01	705	28.91	728	121.3
40104 Shaped channel - 39.37" (1 meter)	130101	28.25	711	29.15	734	122.2
40105 Shaped channel - 39.37" (1 meter)	130102	28.49	717	29.39	740	123.1
40106 Shaped channel - 39.37" (1 meter)	130103	28.73	723	29.63	746	124.0
40107 Shaped channel - 39.37" (1 meter)	130104	28.97	729	29.87	752	124.9
40108 Shaped channel - 39.37" (1 meter)	130105	29.21	735	30.11	758	125.8
40109 Shaped channel - 39.37" (1 meter)	130106	29.45	741	30.35	764	126.7
40110 Shaped channel - 39.37" (1 meter)	130107	29.69	747	30.59	770	127.6
40111 Shaped channel - 39.37" (1 meter)	130108	29.93	753	30.83	776	128.5
40112 Shaped channel - 39.37" (1 meter)	130109	30.17	759	31.07	782	129.4
40113 Shaped channel - 39.37" (1 meter)	130110	30.41	765	31.31	788	130.3
40114 Shaped channel - 39.37" (1 meter)	130111	30.65	771	31.55	794	131.2
40115 Shaped channel - 39.37" (1 meter)	130112	30.89	777	31.79	800	132.1
40116 Shaped channel - 39.37" (1 meter)	130113	31.13	783	32.03	806	133.0
40117 Shaped channel - 39.37" (1 meter)	130114	31.37	789	32.27	812	133.9
40118 Shaped channel - 39.37" (1 meter)	130115	31.61	795	32.51	818	134.8
40119 Shaped channel - 39.37" (1 meter)	130116	31.85	801	32.75	824	135.7
40120 Shaped channel - 39.37" (1 meter)	130117	32.09	807	32.99	830	136.6
40121 Shaped channel - 39.37" (1 meter)	130118	32.33	813	33.23	836	137.5
40122 Shaped channel - 39.37" (1 meter)	130119	32.57	819	33.47	842	138.4
40123 Shaped channel - 39.37" (1 meter)	130120	32.81	825	33.71	848	139.3
40124 Shaped channel - 39.37" (1 meter)	130121	33.05	831	33.95	854	140.2
40125 Shaped channel - 39.37" (1 meter)	130122	33.29	837	34.19	860	141.1
40126 Shaped channel - 39.37" (1 meter)	130123	33.53	843	34.43	866	142.0
40127 Shaped channel - 39.37" (1 meter)	130124	33.77	849	34.67	872	142.9
40128 Shaped channel - 39.37" (1 meter)	130125	34.01	855	34.91	878	143.8
40129 Shaped channel - 39.37" (1 meter)	130126	34.25	861	35.15	884	144.7
40130 Shaped channel - 39.37" (1 meter)	130127	34.49	867	35.39	890	145.6
40131 Shaped channel - 39.37" (1 meter)	130128	34.73	873	35.63	896	146.5
40132 Shaped channel - 39.37" (1 meter)	130129	34.97	879	35.87	902	147.4
40133 Shaped channel - 39.37" (1 meter)	130130	35.21	885	36.11	908	148.3
40134 Shaped channel - 39.37" (1 meter)	130131	35.45	891	36.35	914	149.2
40135 Shaped channel - 39.37" (1 meter)	130132	35.69	897	36.59	920	150.1
40136 Shaped channel - 39.37" (1 meter)	130133	35.93	903	36.83	926	151.0
40137 Shaped channel - 39.37" (1 meter)	130134	36.17	909	37.07	932	151.9
40138 Shaped channel - 39.37" (1 meter)	130135	36.41	915	37.31	938	152.8
40139 Shaped channel - 39.37" (1 meter)	130136	36.65	921	37.55	944	153.7
40140 Shaped channel - 39.37" (1 meter)	130137	36.89	927	37.79	950	154.6
40141 Shaped channel - 39.37" (1 meter)	130138	37.13	933	38.03	956	155.5
40142 Shaped channel - 39.37" (1 meter)	130139	37.37	939	38.27	962	156.4
40143 Shaped channel - 39.37" (1 meter)	130140	37.61	945	38.51	968	157.3
40144 Shaped channel - 39.37" (1 meter)	130141	37.85	951	38.75	974	158.2
40145 Shaped channel - 39.37" (1 meter)	130142	38.09	957	38.99	980	159.1
40146 Shaped channel - 39.37" (1 meter)	130143	38.33	963	39.23	986	160.0
40147 Shaped channel - 39.37" (1 meter)	130144	38.57	969			


LEGEND

 NATIVE SEED


 ROCK MULCH

 HWM

DECIDUOUS TREE




DECIDUOUS SHRUBS




EVERGREEN SHRUBS

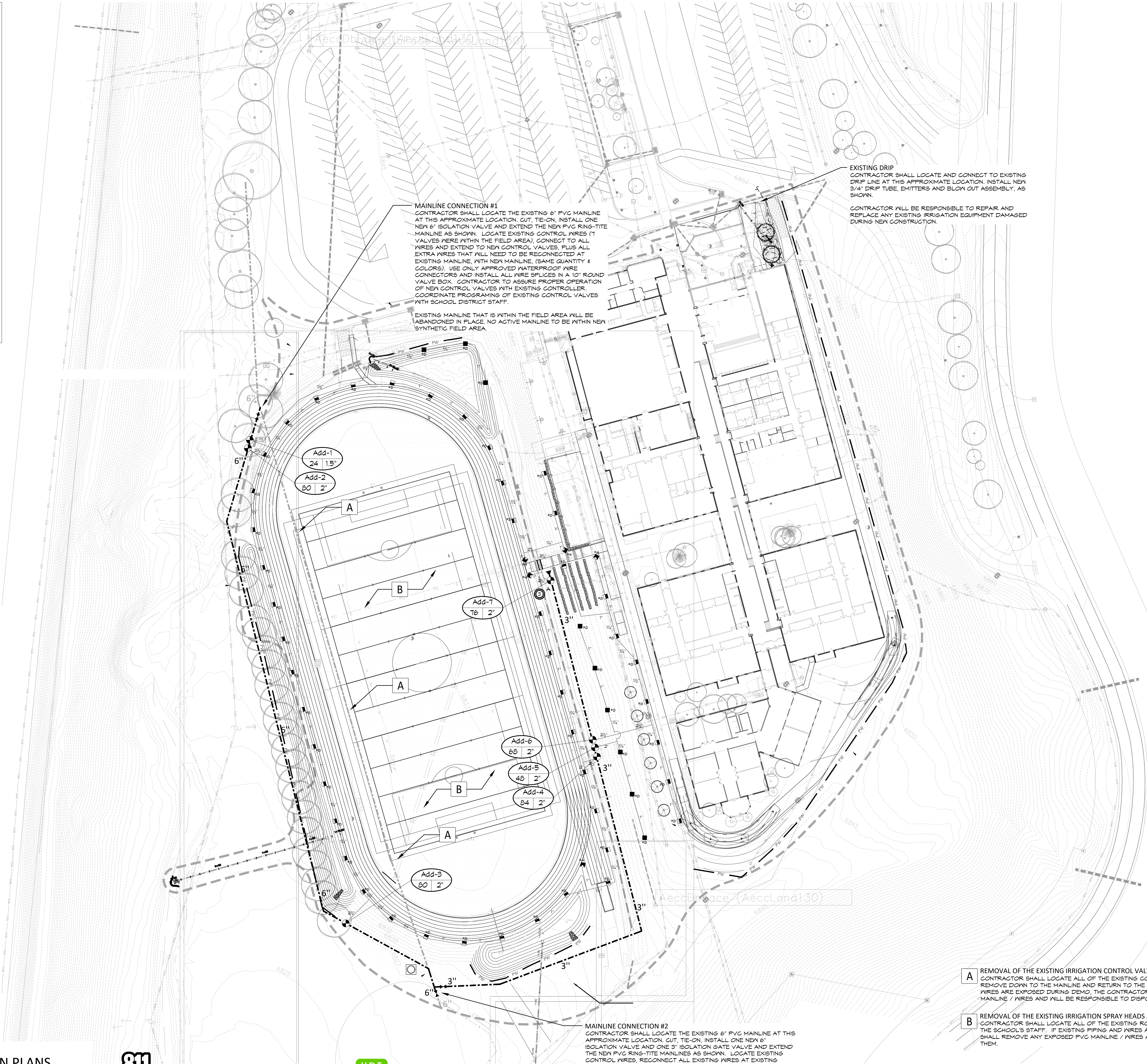
ORNAMENTAL GRASSES



LIMITS OF CONSTRUCTION

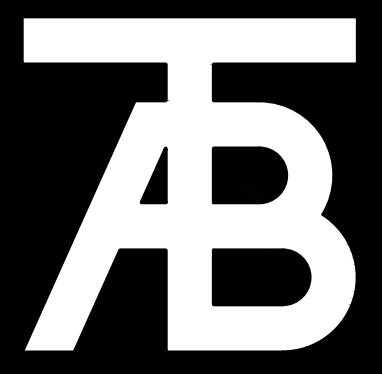


MATCHLINE



RCRBD Record Set
T.A.

05/14/2020



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Seal

Steamboat Springs Middle School
39610 Amethyst Drive
Steamboat Springs, CO

Revisions:		
No	Description	Date

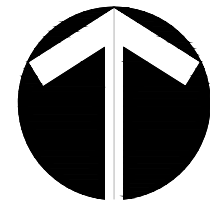
Issue Dates:
01/13/20 - SD
02/21/20 - DD
04/06/20 - CD

Sheet Title:
IRRIGATION PLAN

Project No:
1935.01

Sheet No:
IR2.0




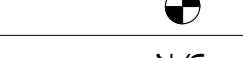

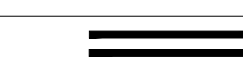
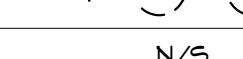
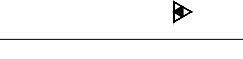
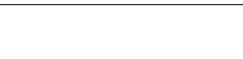
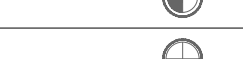



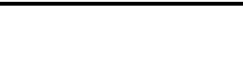






REFER TO SHEET
IR2.0 IRRIGATION PLANS
IR2.1 IRRIGATION NOTES
IR2.1 IRRIGATION SCHEDULE
IR2.1 - IR2.2 IRRIGATION DETAILS



1 IRRIGATION PLAN
1/4.0 1" = 40' - 0"

0 20 80
10 40
SCALE: 1"=40'-0"



IRRIGATION SCHEDULE				
SYMBOL	MANUFACTURER	MODEL NO.	DESCRIPTION	DETAIL NO.
	HUNTER	I-20-12 WITH # STANDARD NOZZLE (BLUE)	HI-POP GEAR STREAM DRIVEN ROTOR	1
	RAIN BIRD	44-LRC	QUICK COUPLING VALVE	3
	MATCO	201X	MANUAL DRAIN VALVE	4
	HUNTER	ICV-FS-R-AS-ADJ	ELECTRIC CONTROL VALVE	2
			THRUST BLOCKS	7
		CLASS 200 RT - 3" & LARGER	PVC MAINLINE	6
		CLASS 200 BE	PVC LATERAL	6
		CLASS 160	PVC SLEEVING	8
	TORO	BLUE STRIPE	POLY DRIP TUBING - 3/4" MIN. WIDTH	9
	RAIN BIRD	XERI-BUG	DRIP EMITTERS	9
			DRIP LINE BLOW-OUT STUB	10
			WIRE SPLICES	11
			EXISTING CONTROL VALVE	
			EXISTING DRIP VALVE	
			EXISTING MAINLINE	
			EXISTING LATERAL LINE	
			EXISTING SLEEVING	
			EXISTING DRIP VALVE	
 CONTROLLER & STATION NO. CONTROL VALVE SIZE				
 NUMBER OF SPARE WIRES - 2 CONTROL AND 1 SPARE WIRES TO WHICH CONTROLLER - SEE CONSTRUCTION NOTES				

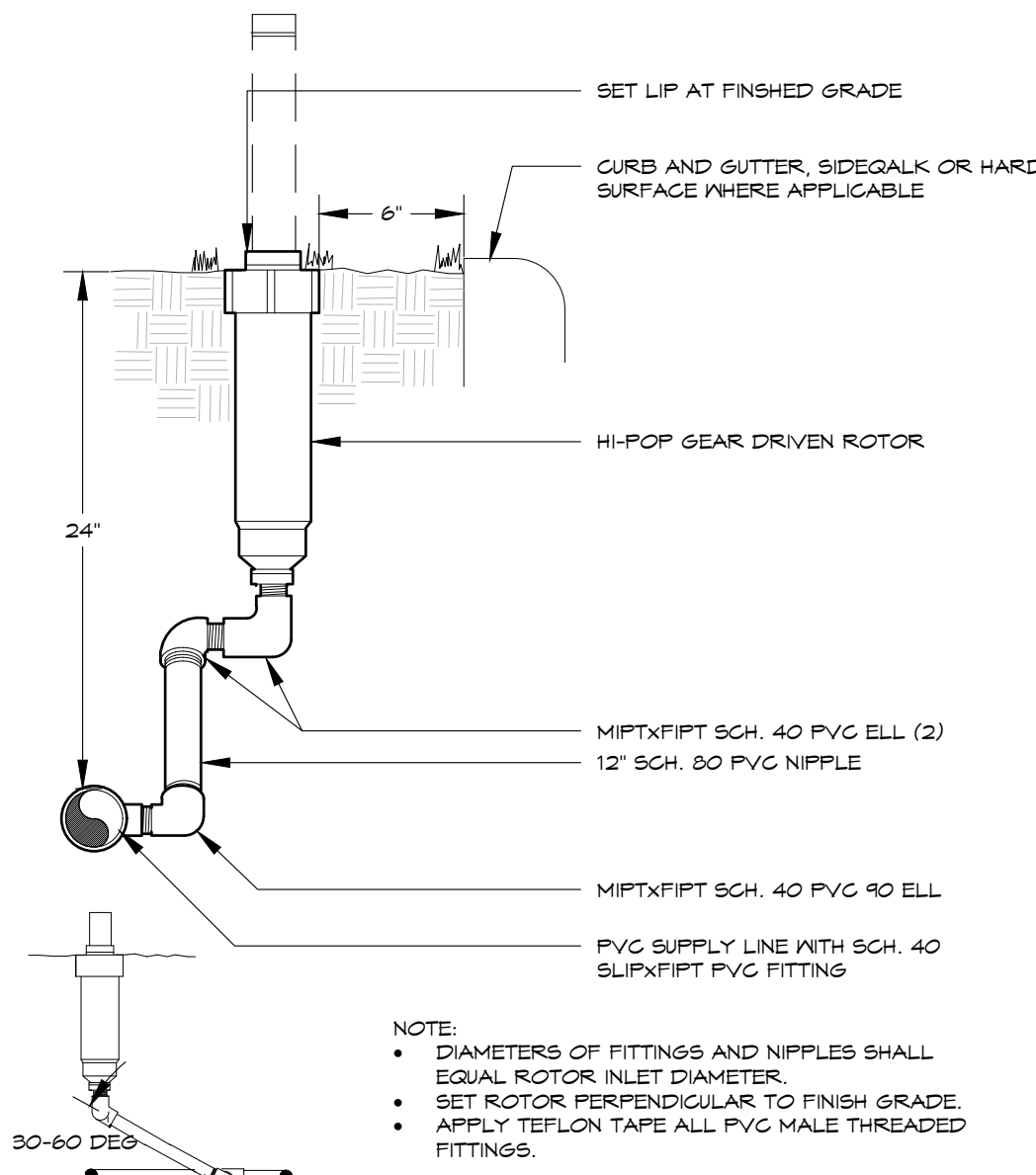
IRRIGATION CONSTRUCTION NOTES

- DRAWINGS AND BASE INFORMATION - ALL BASE AND PLANTING INFORMATION HAVE BEEN PROVIDED BY DHM DESIGN. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY HYDROSYSTEMS*SKI OF ANY DISCREPANCIES BETWEEN THE UTILITY OR PLANTING PLANS AND THE IRRIGATION PLAN. IF CONTRACTOR FAILS TO NOTIFY HYDROSYSTEMS*SKI AND MAKES CHANGES TO THE IRRIGATION SYSTEM DESIGN, HE ASSUMES ALL COSTS AND LIABILITIES ASSOCIATED WITH THOSE FIELD CHANGES. REFER TO SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS. CONTACT IRRIGATION CONSULTANT FOR CURRENT SPECIFICATIONS IF NOT PROVIDED.
- SYSTEM PRESSURE - HYDROSYSTEMS*SKI HAS TOLD, BY SCHOOL STAFF, THAT THE STATIC WATER PRESSURE IN THIS AREA SHOULD BE 70 PSI. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY PRESSURE PRIOR TO COMMENCING ANY CONSTRUCTION AND NOTIFY HYDROSYSTEMS*SKI OF ANY VARIANCE FROM THE STATED PRESSURE IMMEDIATELY. WRITTEN DOCUMENTATION OF PRESSURE TEST AND RESULTS SHALL BE PROVIDED TO HYDROSYSTEMS*SKI AT CONSTRUCTION ONSET. IF CONTRACTOR FAILS TO FIELD VERIFY PRESSURE AND/OR NOTIFY HYDROSYSTEMS*SKI OR ANY VARIATIONS FROM THIS PRESSURE, THEN HE ASSUMES ALL CONSTRUCTION AND ENGINEERING COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS REQUIRED TO ACCOMMODATE ACTUAL SITE PRESSURE. THIS SYSTEM HAS BEEN DESIGNED FOR A REQUIRED STATIC PRESSURE OF 70 PSI MINIMUM.
- IRRIGATION SYSTEM OPERATION INTENT - THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO IRRIGATE THE ESTABLISHED LANDSCAPE WITHIN A SIX NIGHT PER WEEK, EIGHT-HOUR PER NIGHT WATERING WINDOW. ESTABLISHMENT WATERING WILL REQUIRE UP TO THREE AS MUCH IRRIGATION FOR A FOUR TO SIX WEEK PERIOD. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES ARE BASED ON A 30-YEAR AVERAGE WEATHER DATA AND WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND WEATHER CONDITIONS ABOVE AND BELOW THE AVERAGE VALUES UTILIZED.

BLUEGRASS TURF	2.23" PER WEEK PEAK SEASON
ORNAMENTAL PLANTINGS	0.89" PER WEEK PEAK SEASON
NATIVE SEED MIXES	0.74" PER WEEK PEAK SEASON (TWO SEASONS)

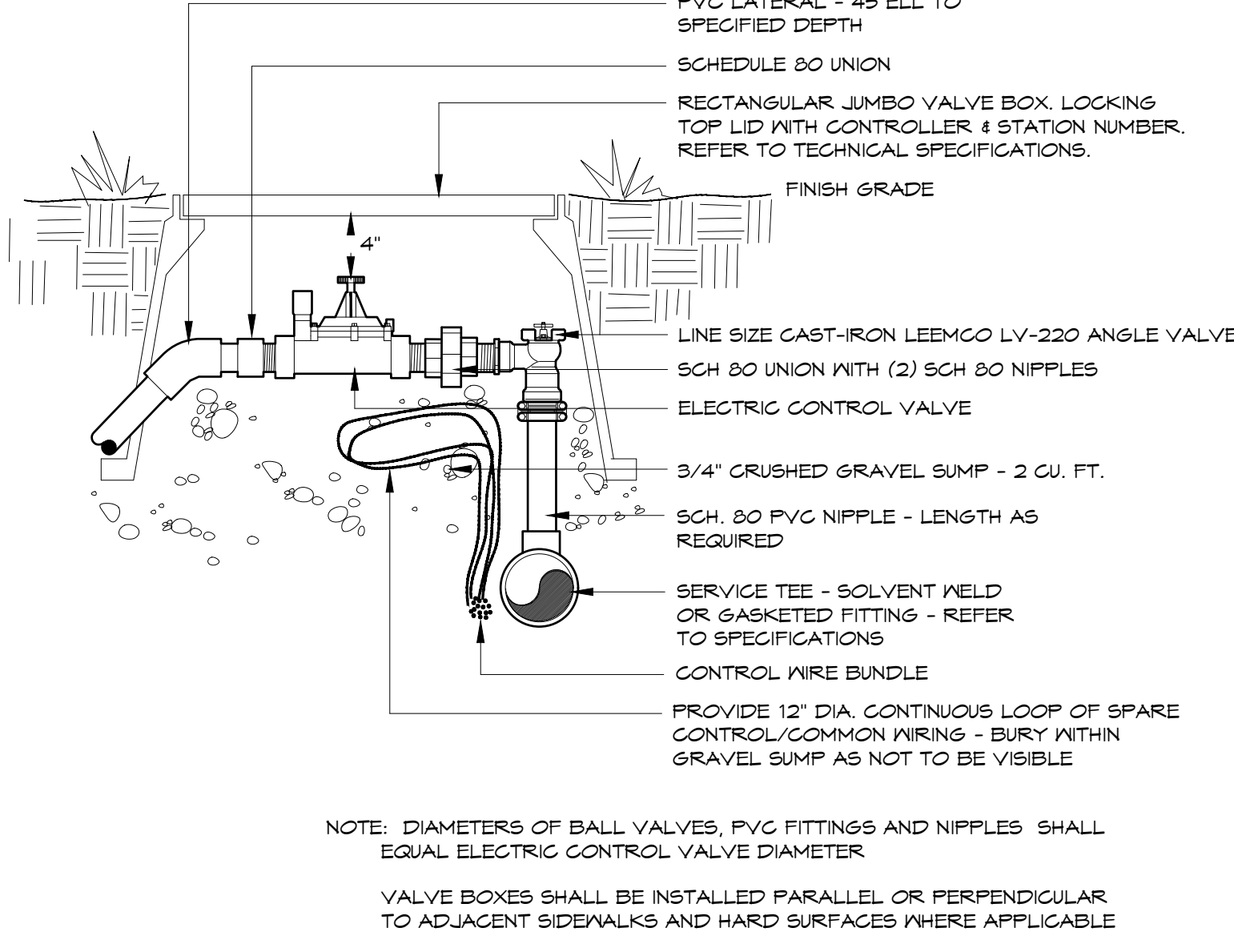
NOTE: IT IS THE INTENT OF THIS DESIGN THAT NATIVE AREAS WOULD ONLY BE IRRIGATED FOR ESTABLISHMENT. SYSTEM WILL REMAIN FOR USE DURING YEARS WITH LESS THAN NORMAL RAINFALL.
- EQUIPMENT INSTALLATION - IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN PROPERTY LIMITS AND WITHIN LANDSCAPED AREAS. ANY EQUIPMENT OTHER THAN VALVE BOXES OR SLEEVING THAT CONTAINS PIPE OR WIRES SHOWN OUTSIDE OF THESE LIMITS IS SHOWN IN THAT LOCATION FOR GRAPHICAL CLARITY ONLY. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 2'-0" FROM EDGE OF ANY PAVED SURFACES UNLESS SPECIFICALLY INDICATED ON PLANS. BOXES INSTALLED IN OPEN TURF AREAS SHALL BE KEPT TO EDGES AND STAKED FOR REVIEW IF ALONG HIGH TRAFFIC AREAS. ALL VALVE BOXES SHALL BE PLACED A MINIMUM OF 3'-0" FROM THE CENTERLINE OF ANY DRAINAGE SWALE. ALL VALVE BOXES WITHIN PAVEMENT SHALL BE TIER 15 RATED BOXES FOR HEAVY DUTY NON-DELIBERATE TRAFFIC. BOX LID COLOR SHALL MATCH ADJACENT MATERIALS, I.E. GREEN IN TURF, TAN IN PAVED MULCH, GRAY IN STONE MULCH, PURPLE FOR REGAINED WATER SYSTEMS (IF REQUIRED). REFER TO LANDSCAPE PLANS FOR MATERIAL COLORS AND TYPES. ALL BOXES SHALL BE INSTALLED TO BE FLUSH WITH GRADE AND IN AN ORDERLY MANNER.
- PIPING INSTALLATION - IRRIGATION PIPING SHALL MAINTAIN A MINIMUM DISTANCE FROM BUILDING FOUNDATIONS OF 5 FEET OR AS DESCRIBED IN SOILS REPORT, WHICHEVER IS GREATER. NO SPRAY IRRIGATION SHALL OCCUR WITHIN 10 FEET OF THE FOUNDATION. NO DRIP IRRIGATION SHALL OCCUR WITHIN 5 FEET OF THE FOUNDATION UNLESS SOIL MOISTURE SENSORS ARE INSTALLED ON VALVES SERVICING THESE AREAS. ALL IRRIGATION PIPING AND EMISSION DEVICES LOCATED ON TOP OF OR WITHIN BUILDING STRUCTURE SHALL CONFORM TO WATERPROOFING CONSULTANT REQUIREMENTS. PIPE ROUTING MAY BE SHOWN WITHIN THESE DISTANCES FOR GRAPHICAL CLARITY ONLY.
- MANUAL DRAIN VALVES - CONTRACTOR TO INSTALL ONE MANUAL DRAIN VALVE ON PRESSURE SUPPLY LINE DIRECTLY DOWNSTREAM OF BACKFLOW PREVENTER AND AT ALL LOW POINTS AND DEAD ENDS OF PRESSURE SUPPLY PIPING TO ENSURE COMPLETE DRAINAGE OF SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE LOCATIONS IN-FIELD AND INSTALLATION LOCATIONS SHALL BE NOTED ON AS-BUILTS.
- UNLABELED PIPING - ALL UNLABELED LATERAL PIPING SHALL BE 1" MINIMUM UNLESS OTHERWISE NOTED.
- SLEEVING - ALL SLEEVING UNDER PAVED SURFACES SHOWN ON PLANS IS BY CONTRACTOR UNLESS OTHERWISE NOTED. SLEEVING SHALL BE INSTALLED IN THE SIZES AND QUANTITIES SHOWN ON PLANS OR BASED ON THE SCHEDULE BELOW. WHERE SLEEVES ARE SHOWN, BUT NOT LABELED, FOLLOW THE SCHEDULE BELOW. ALL MAINLINE, CONTROL WIRES AND DRIP LINES UNDER PAVED SURFACES ARE TO BE INSTALLED IN SLEEVES. ALL MAINLINE SLEEVE LOCATIONS TO INCLUDE A SEPARATE WIRE SLEEVE.

SLEEVED PIPE SIZE/WIRE QUANTITY	REQUIRED SLEEVE SIZE & (QUANTITY)
3/4" - 1 1/2" PIPING	2" PVC (1)
1 1/2" - 2" PIPING	4" PVC (1)
2 1/2" - 3" PIPING	6" PVC (1)
4" PIPING	8" PVC (1)
1-25 CONTROL WIRES	2" PVC (1)
26-50 CONTROL WIRES	3" PVC (1)
- SPARE CONTROL WIRES - CONTRACTOR SHALL EXTEND THREE SPARE WIRES (ONE COMMON AND 2 CONTROL WIRES) FROM EACH CONTROLLER TO THE END OF THE MAINLINE SERVING THAT CONTROLLER OR AS SHOWN ON THE PLANS. INSTALL SPARE WIRES IN 10" ROUND VALVE BOX WITH QUICK COUPLING VALVE. REFER TO SPECIFICATIONS FOR WIRE COLOR. SEE IRRIGATION SCHEDULE FOR ADDITIONAL INFORMATION.
- ADJUSTMENT - CONTRACTOR SHALL FINE TUNE/ADJUST THE IRRIGATION SYSTEM TO REDUCE/AVOID OVERSPRAY ONTO HARD SURFACES BY ADJUSTING NOZZLE DIRECTION AND NOZZLE RADIUS.
- PLANS AND SPECIFICATIONS - CONTRACTOR RESPONSIBLE TO ENSURE WORK CONFORMS TO PLANS AND SPECIFICATIONS. AT ONSET OF CONSTRUCTION, VERIFY PLANS ARE CURRENT. WHERE REQUIRED BY CITY OR TOWN, CONTRACTOR SHALL CONSTRUCT ONLY OFF CITY OR TOWN STAMPED PLANS. REVISIONS TO CITY OR TOWN STAMPED PLANS SHALL CONFORM TO CITY OR TOWN FIELD CHANGE PROCEDURES AND DOCUMENTATION.
- EXISTING IRRIGATION DAMAGE - CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING IRRIGATION SYSTEMS DAMAGED DURING NEW INSTALLATION AND CONSTRUCTION. REPAIR OR REPLACEMENT SHALL BE DETERMINED BY OWNER OR OWNER'S REPRESENTATIVE AND PAID FOR BY THE LANDSCAPE CONTRACTOR.
- EXISTING IRRIGATION COORDINATION - EXISTING IRRIGATION SYSTEM SHALL NOT BE TURNED OFF FOR MORE THAN 24 HOURS MAXIMUM. CONTRACTOR SHALL COORDINATE TURN OFF OF SYSTEM WITH OWNER OR MAINTENANCE STAFF 12 HOURS PRIOR TO ANY NEW CONSTRUCTION.



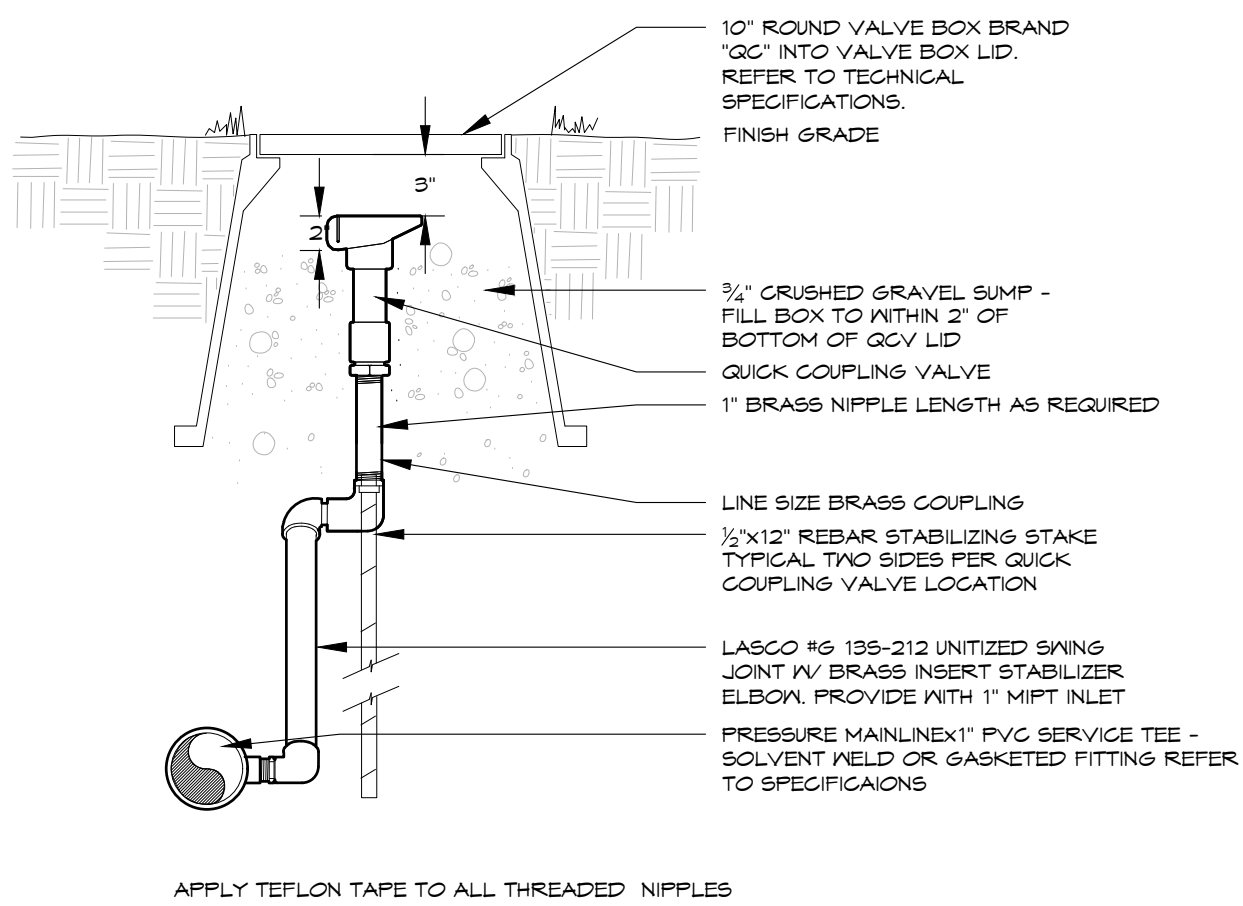
HI-POP GEAR DRIVEN ROTOR

1



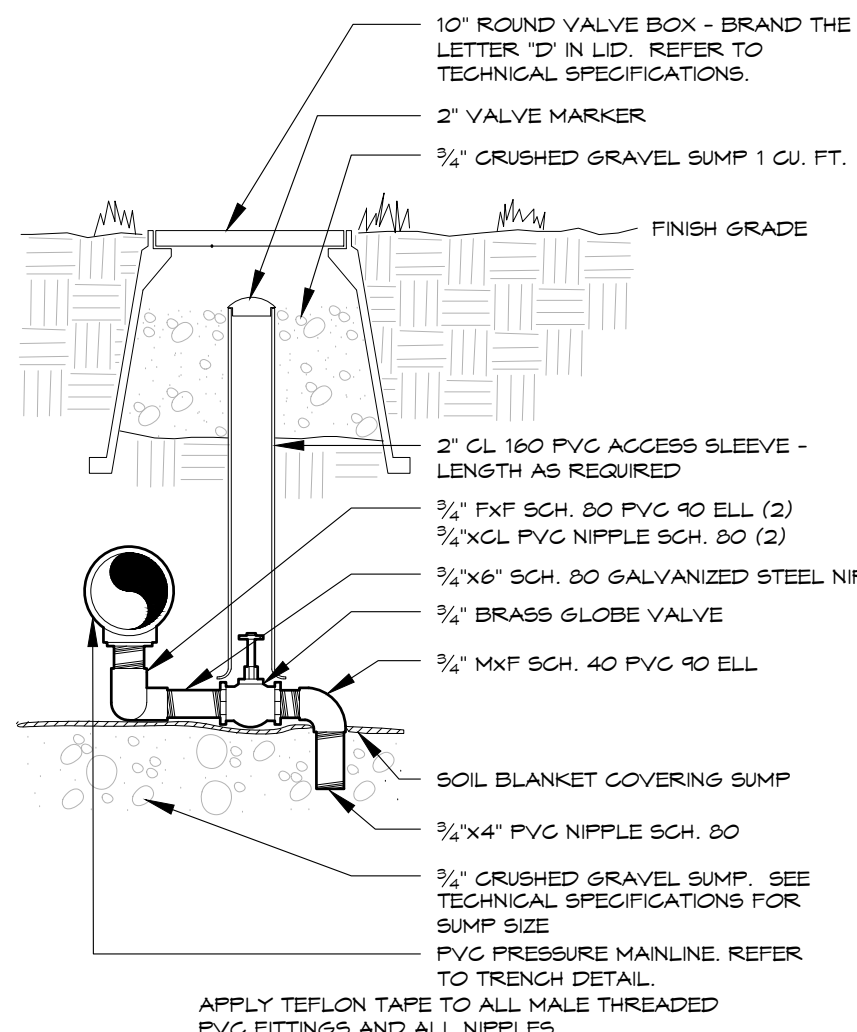
ELECTRIC CONTROL VALVE

2



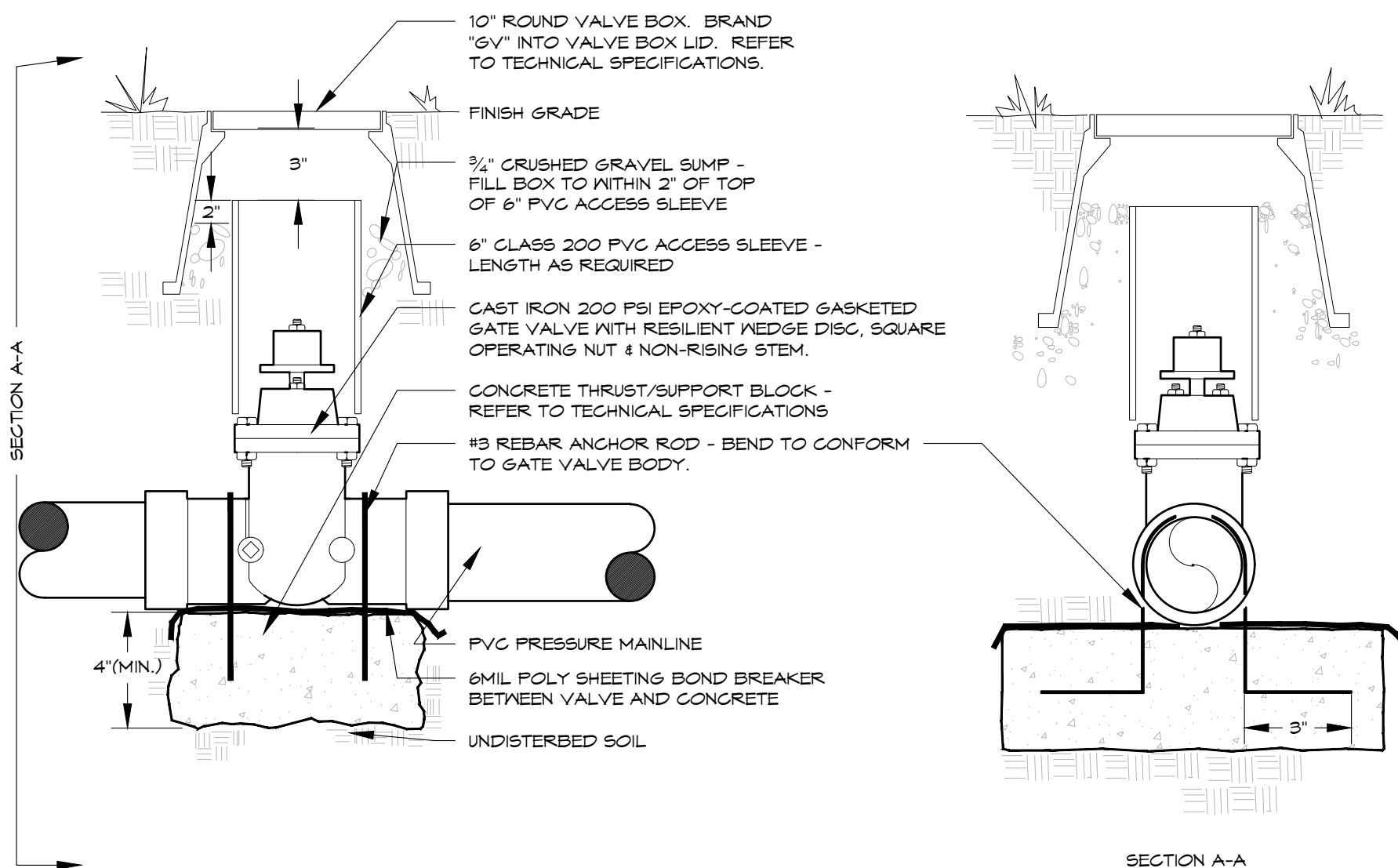
QUICK COUPLING VALVE

3



MANUAL DRAIN VALVE

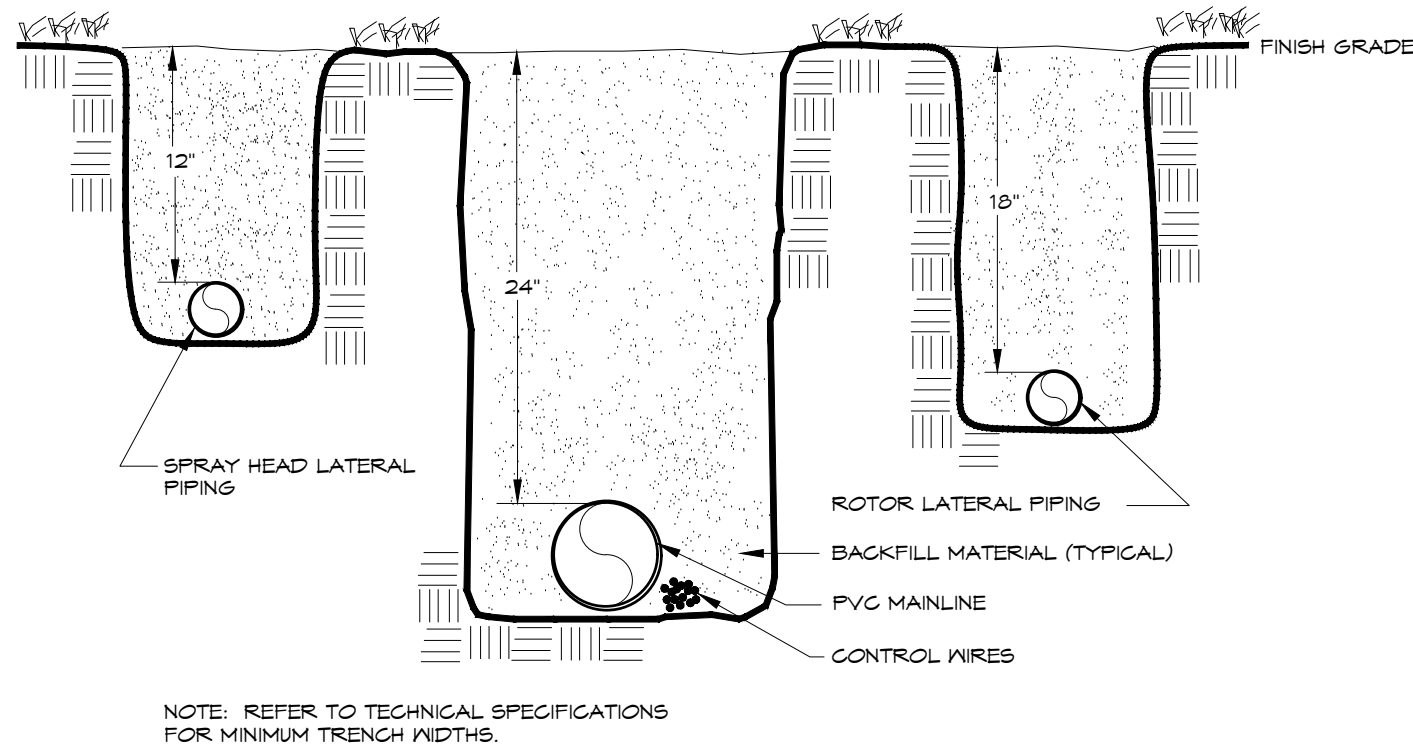
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GATE VALVE

3" & LARGER - REBARANCHOR

5

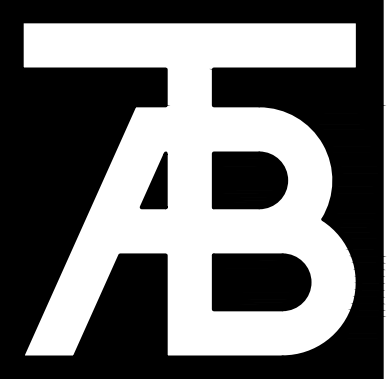


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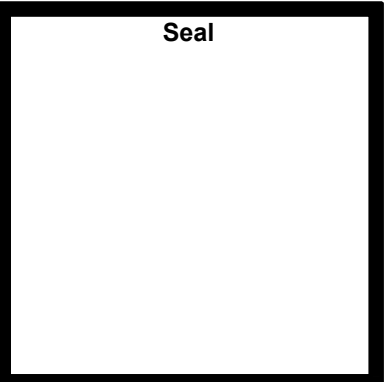
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REFER TO SHEET

- | | |
|---------------|---------------------|
| IR2.0 | IRRIGATION PLANS |
| IR2.1 | IRRIGATION NOTES |
| IR2.1 | IRRIGATION SCHEDULE |
| IR2.1 - IR2.2 | IRRIGATION DETAILS |



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Steamboat Springs Middle School
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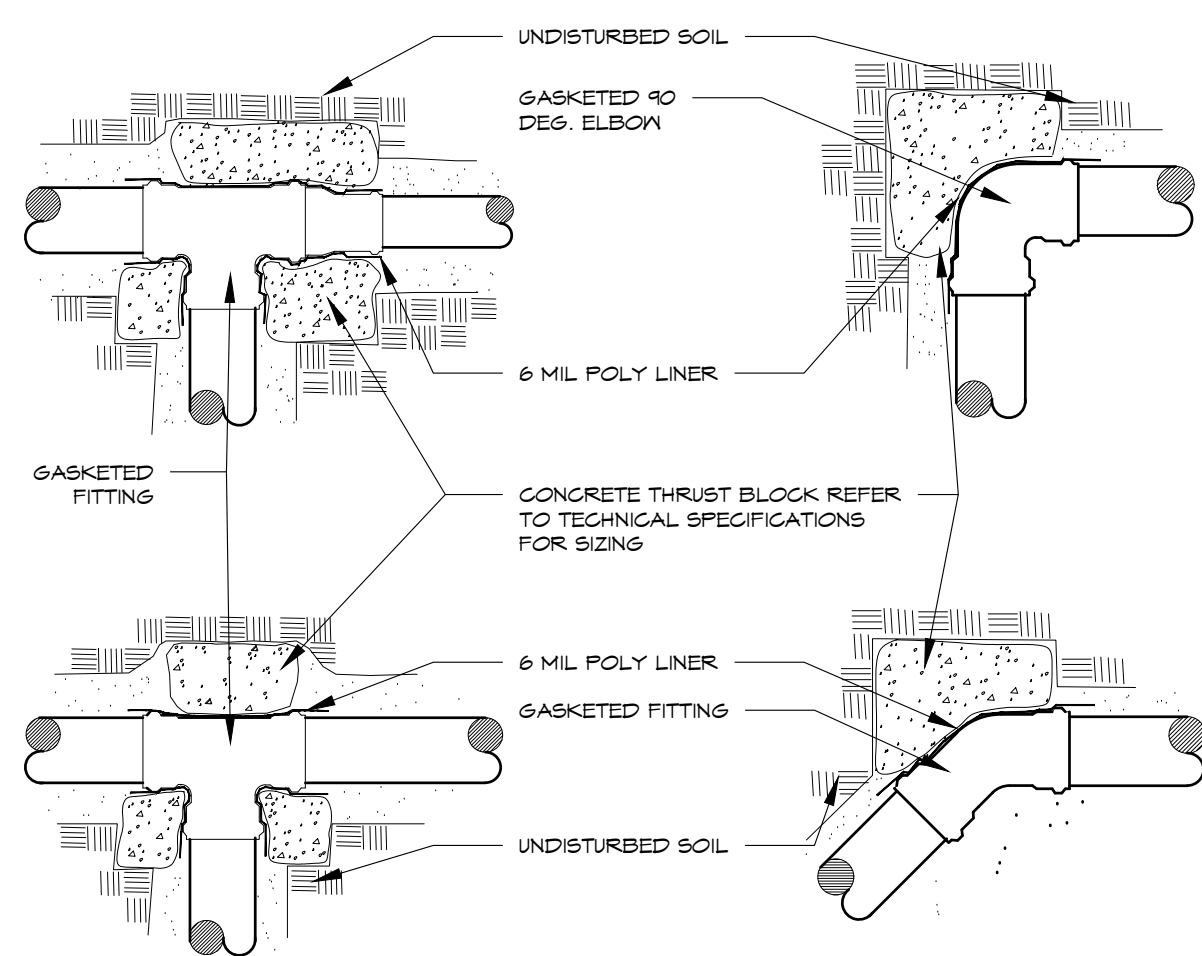
Revisions:		
No.	Description	Date

Issue Dates:
01/13/20 - SD
02/21/20 - DD
04/06/20 - CD

Sheet Title:
IRRIGATION NOTES, SCHEDULE AND DETAILS

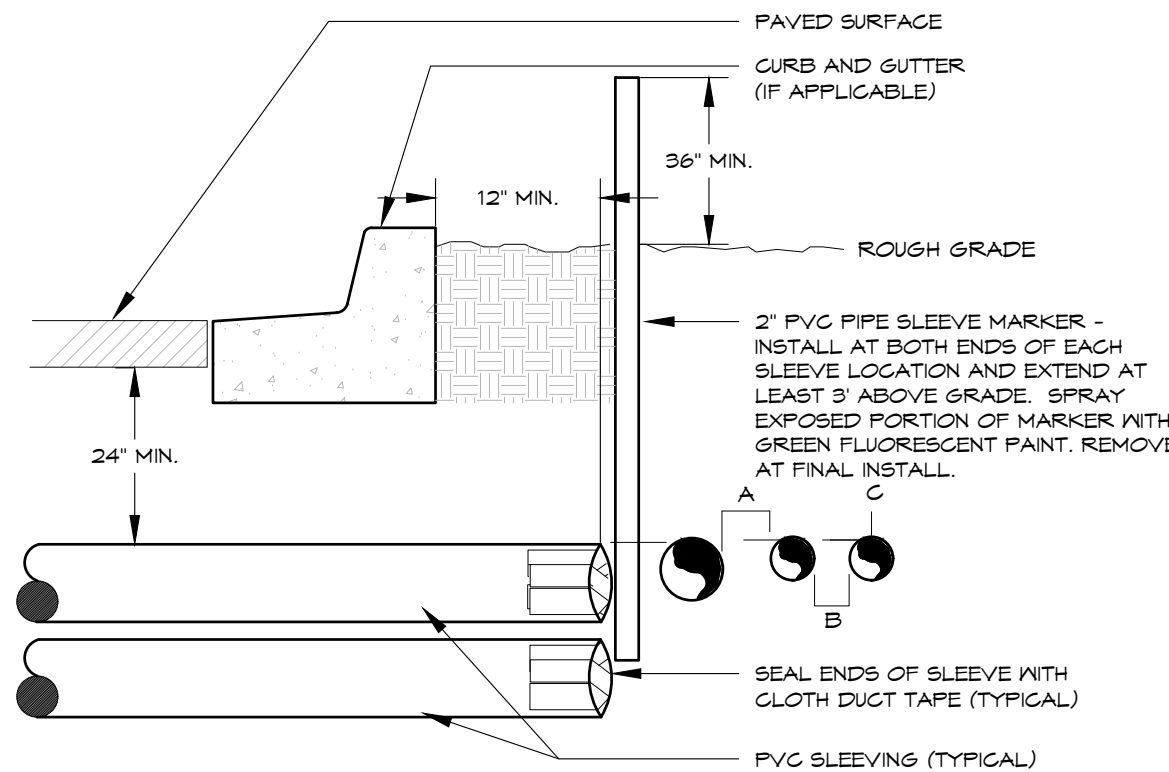
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1935.01

Sheet No:
IR2.1



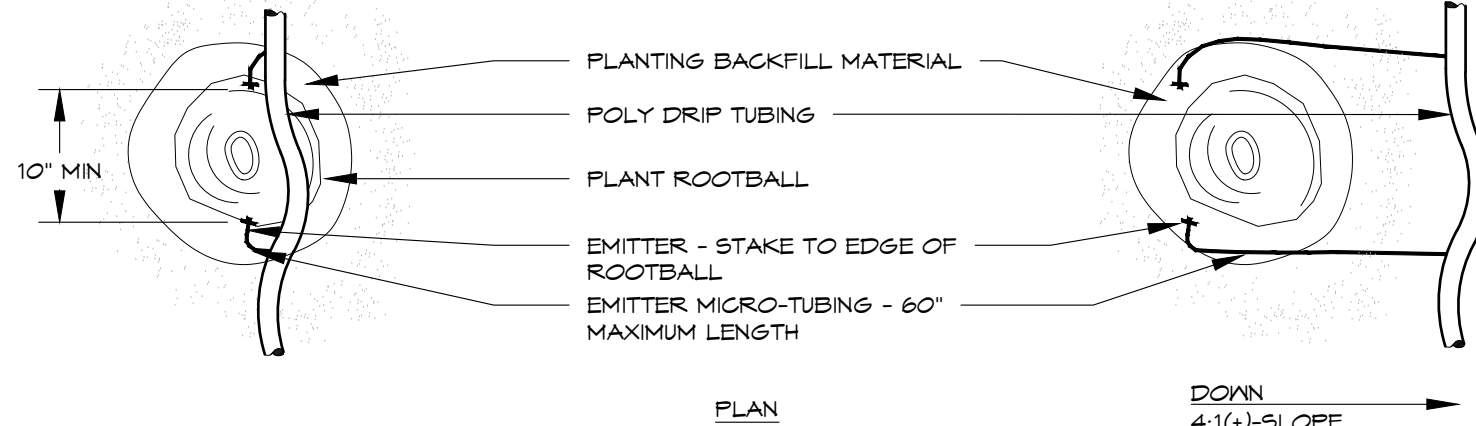
THRUST BLOCKS

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IRRIGATION SLEEVING

8

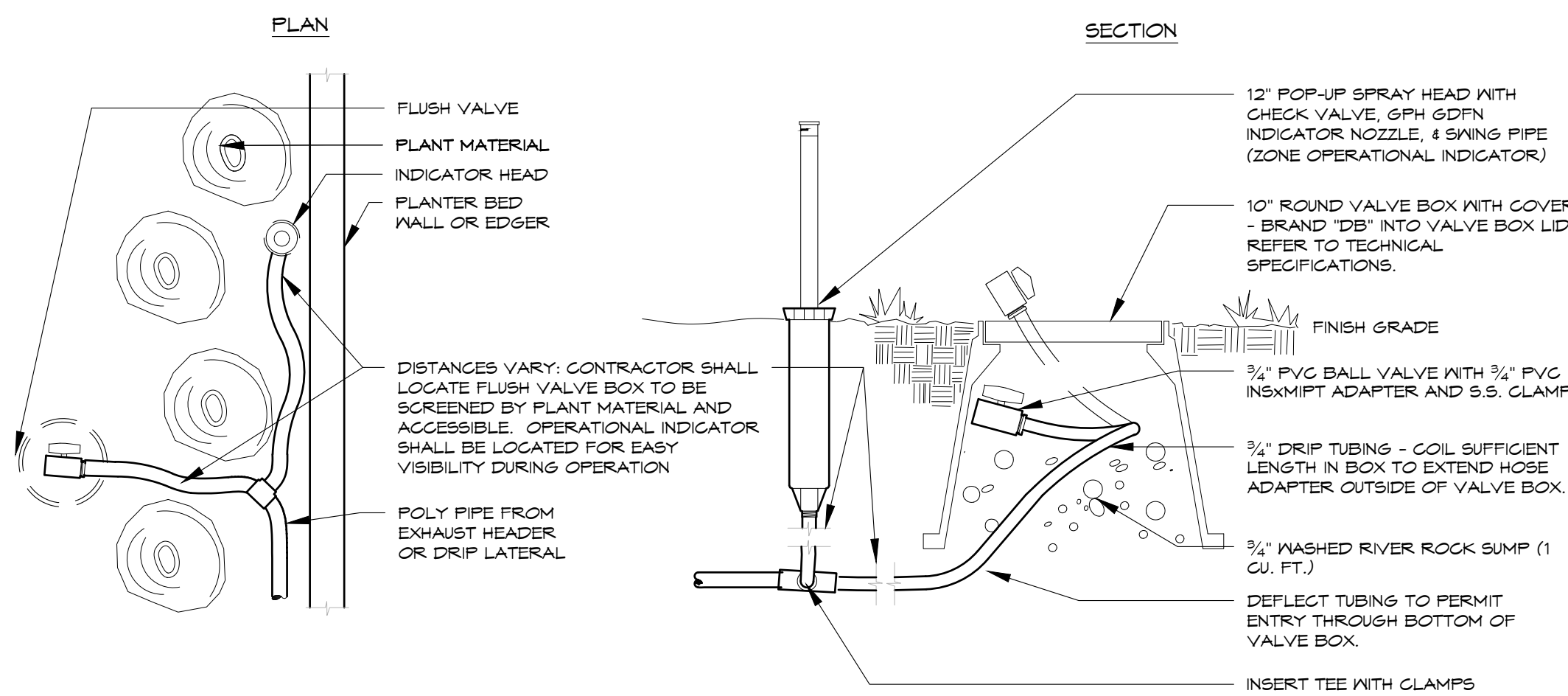


PLANT SIZE	EMITTER FLOW RATE	EMITTER QTY. AT MULCHED BED LOCATIONS	EMITTER QTY. AT NATIVE SEED LOCATIONS
1 - 2 GALLON MATERIAL	0.5 GPH	ONE EACH	ONE EACH
3 GALLON MATERIAL	0.5 GPH	TWO EACH	TWO EACH
1 1/2" GALIPER TREE	1.0 GPH	THREE EACH	FOUR EACH
2" GALIPER TREE	1.0 GPH	FOUR EACH	SIX EACH
2 1/2" GALIPER TREE	1.0 GPH	SIX EACH	EIGHT EACH
3" GALIPER TREE	1.0 GPH	EIGHT EACH	TEN EACH
3 1/2" GALIPER TREE	1.0 GPH	NINE EACH	ELEVEN EACH
4" GALIPER TREE	1.0 GPH	TEN EACH	TWELVE EACH
6 FT. CONIFEROUS TREE	1.0 GPH	FOUR EACH	SIX EACH
8 FT. CONIFEROUS TREE	1.0 GPH	SIX EACH	NINE EACH
10 FT. CONIFEROUS TREE	1.0 GPH	EIGHT EACH	TWELVE EACH
12 FT. CONIFEROUS TREE	1.0 GPH	TEN EACH	FOURTEEN EACH

DRIP EMITTER

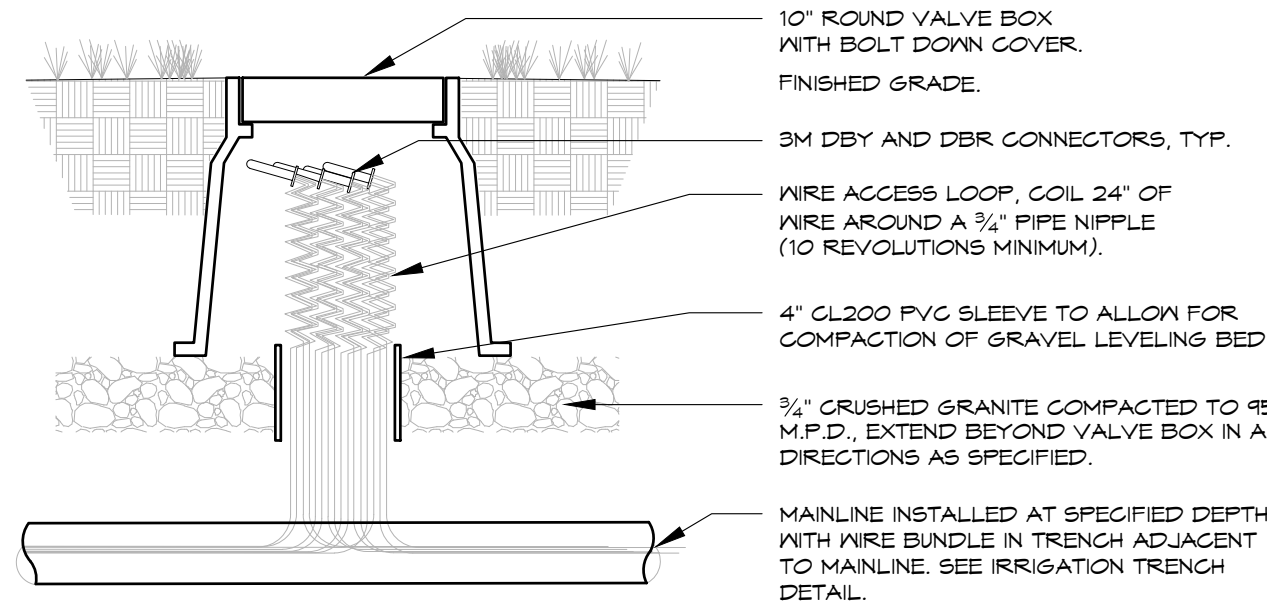
BELOW GRADE

9



DRIP FLUSH VALVE
WITH OPERATIONAL INDICATOR

10

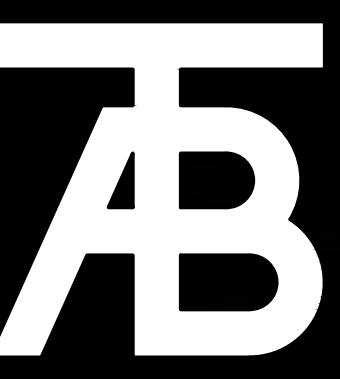


WIRE SPLICE BOX

11

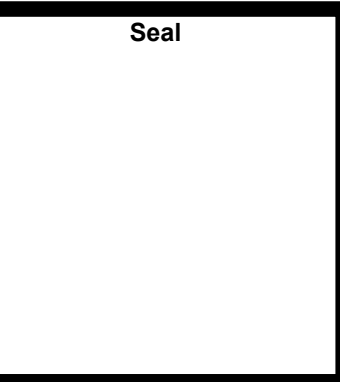
REFER TO SHEET

IR2.0	IRRIGATION PLANS
IR2.1	IRRIGATION NOTES
IR2.1	IRRIGATION SCHEDULE
IR2.1 - IR2.2	IRRIGATION DETAILS



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Revisions:		
No.	Description	Date

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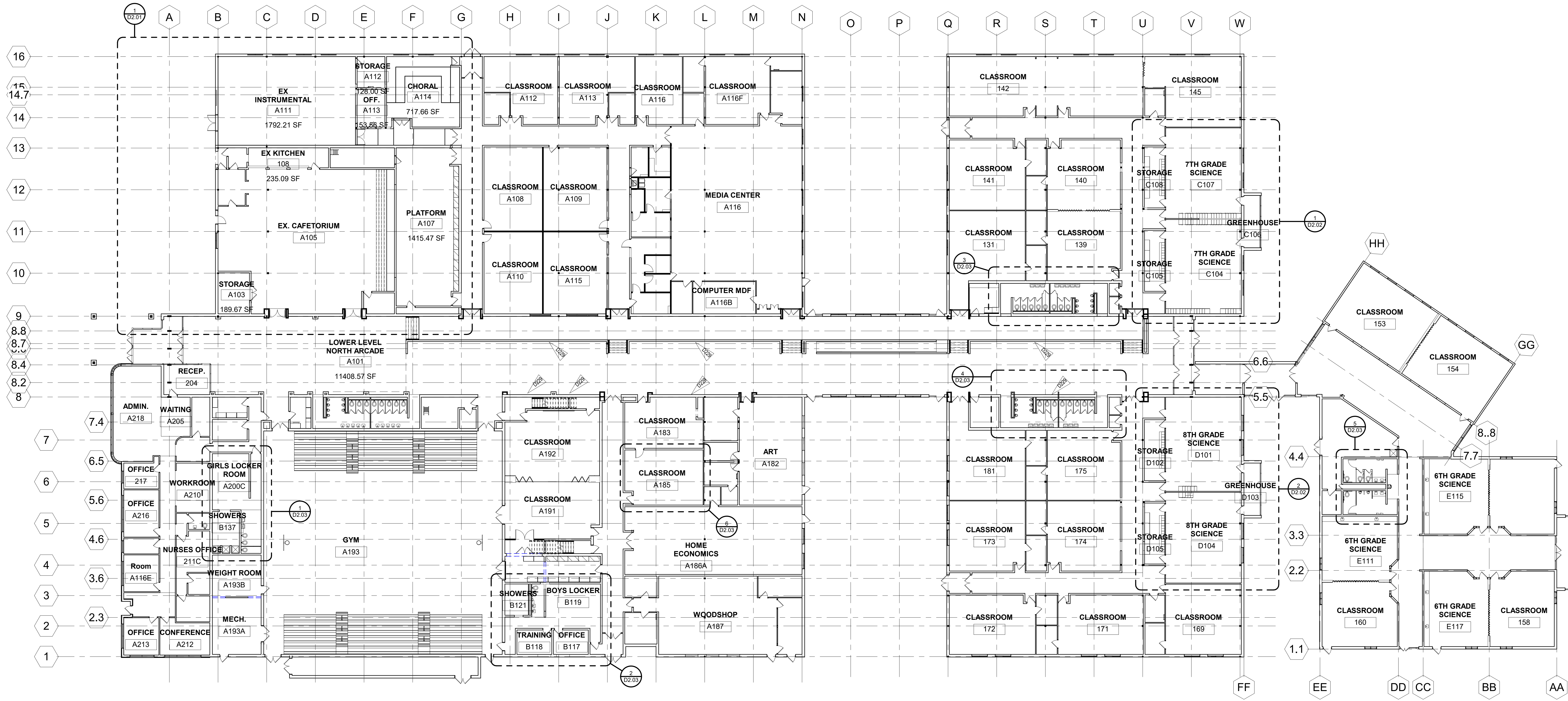
Sheet Title:
**IRRIGATION
DETAILS**

Project No:
1935.01

Sheet No:
IR2.2

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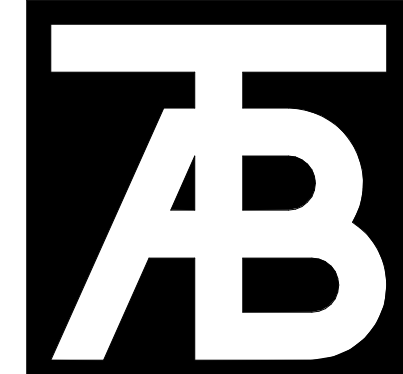


1 OVERALL EXISTING PLAN DEMO
D2.00 1/16" = 1'-0"

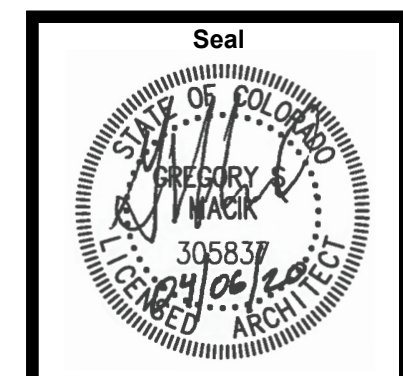
RCRBD Record Set
T.A.

Keynote 05/14/2020

Key Value	Keynote
D229	REMOVE EXISTING LOCKERS AND CONCRETE CURB TO FLUSH OUT WITH T.O. BRICK FLOORING



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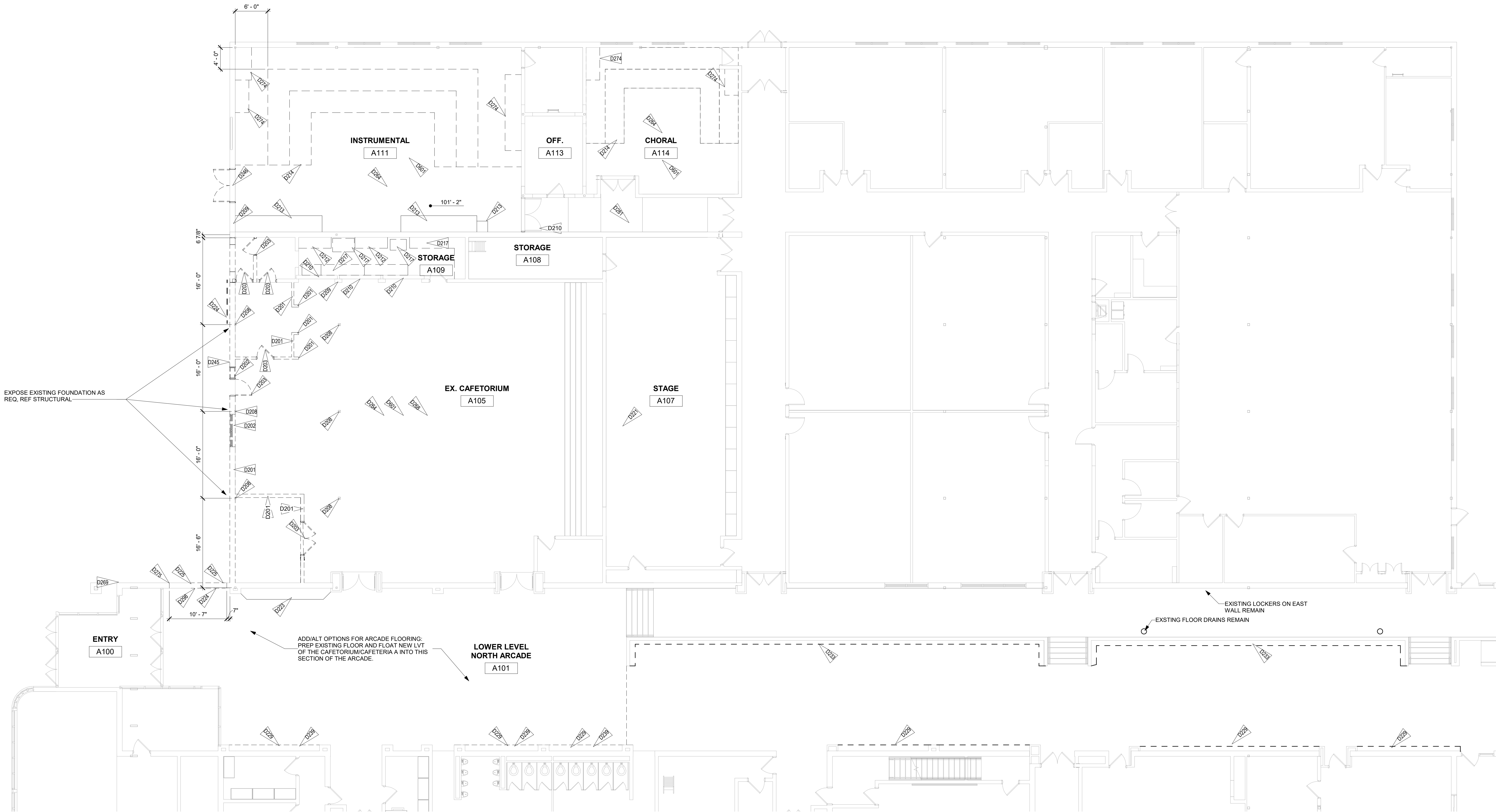
Revisions:		
No	Description	Date

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SD - 01/14/20
DD - 02/21/20
95% CD - 03/30/20
CD's - 04/07/20

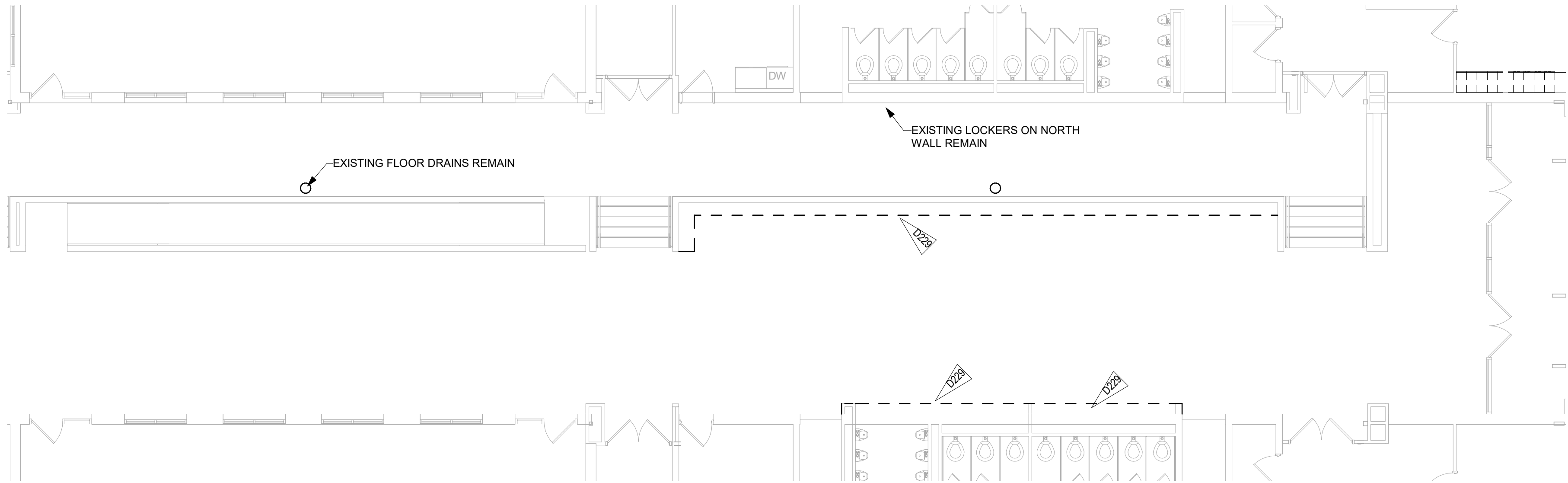
Sheet Title:
Demo Overall Floor Plan

Project No:
1935.03

Sheet No:
D2.00



1 DEMO ARCH PLAN AREA A
1/8" = 1'-0"



2 DEMO ARCH PLAN AREA A Arcade
1/8" = 1'-0"

NOTES:

GENERAL DEMOLITION NOTES:

- DEMOLITION GENERAL NOTES APPLY TO ALL DEMOLITION WORK.
- COORDINATE DEMOLITION WITH ASBESTOS ABATEMENT EFFORTS WITH ARCHITECT AND OWNER'S REPRESENTATIVES. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION OF OWNER'S OPERATIONS AND TO PROVIDE BUILDING USER'S SAFETY. EXCESSIVE NOISE AND VIBRATION SHALL BE MINIMIZED AND COORDINATED WITH OWNER'S REPRESENTATION.
- COORDINATE DEMOLITION WITH OWNER'S REPRESENTATIVE AND ASBESTOS ABATEMENT. PRIMARY ASBESTOS ABATEMENT DEMOLITION WILL INCLUDE BUT IS NOT LIMITED TO THE REMOVAL OF CEILINGS, LIGHTING, CASEWORK, DOORS, WALL FINISHES, INTERIOR WALL FRAMING, ASBESTOS FLOOR TILE AND MASTIC REMOVAL.
- COORDINATE DISRUPTION OF UTILITY SERVICES WITH OWNER AND AS SATISFIED.
- VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS AND NOTIFY ARCHITECT OF DISCREPANCIES.
- ITEMS NOT SHOWN DASHED ARE TO REMAIN. ALL DASHED ITEMS REPRESENT ITEMS TO BE REMOVED. COORDINATE REMOVAL WITH NEW ITEMS SHOWN IN DRAWINGS.
- REMOVE EXISTING WALLS, DOORS, MILLWORK, PLUMBING FIXTURES, CEILINGS, SOFFITS, MARKERBOARDS, ETC. IN THEIR ENTIRETY AND AS REQUIRED TO EXECUTE DEMOLITION AND CONSTRUCTION WORK AS DESCRIBED ON THE DRAWINGS.
- THE OWNER SHALL RESERVE THE RIGHT TO SALVAGE ANY MATERIALS.
- PROVIDE PROTECTIONS FOR EXISTING BUILDING MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION-RELATED INCIDENT PERFORMED UNDER THIS CONTRACT.
- REFER TO MEP AND STRUCTURAL DRAWINGS FOR ADDITIONAL ITEMS TO BE REMOVED, CAPPED OR ALTERED.
- IF NEW CONSTRUCTION IS SHOWN ON OTHER DRAWINGS IT IS ASSUMED DEMOLITION IS REQUIRED IF EXISTING WALLS, FINISHES AND ETC. ARE CURRENTLY PRESENT.
- CONTRACTOR TO COORDINATE REMOVAL OF EXISTING ITEMS WITH INSTALLATIONS OF NEW ITEMS.
- COORDINATE NEW STRUCTURAL ITEMS WITH REMOVAL OF EXISTING ITEMS. REFER TO STRUCTURAL PLANS FOR ADDITIONAL STRUCTURAL WORK TO EXISTING STRUCTURE.
- IT IS ASSUMED ITEMS NOT TAGGED AS REMOVED OR SALVAGED WILL BE REMOVED IF ATTACHED TO WALL, CABINET, OR OTHER ITEMS. THIS INCLUDES ITEMS ON WALLS, CEILINGS AND FLOORS.
- ALL PLUMBING SHOWN AS DASHED AND NOT SPECIFICALLY NOTED WILL BE REMOVED. ALL PLUMBING NEEDS TO BE MODIFIED TO MATCH NEW LAYOUT. REFER TO PLUMBING PLANS FOR EXTENT OF WORK.
- DRAWINGS ATTEMPT TO SHOW EXISTING CONDITIONS. BUT, ALL EXISTING CONDITIONS MAY NOT BE SHOWN OR VISIBLE ON SITE. CARE MUST BE TAKEN TO ABANDON, TURN-OFF OR OTHERWISE SECURE EXISTING ELEMENTS THAT NEED TO BE REMOVED WITH REMOVED STRUCTURE. WHEN CONFLICTS ARE FOUND CONTACT ARCHITECT FOR DIRECTION.
- REFER TO DEMO REFLECTED CEILING PLANS FOR ADDITIONAL WORK.
- ALL HARDWARE TO BE SALVAGED FOR OWNER OR REUSE FOR NEW CONSTRUCTIONS.
- SALVAGE AND STORE ALL EXISTING FURNISHINGS AND EQUIPMENT IN EXISTING SPACES NOTED FOR REMOVAL.
- NOT ALL ITEMS TAGGED FOR CLARITY. ASSUME REMOVE IF DASHED.

DEMOLITION DEFINITIONS:

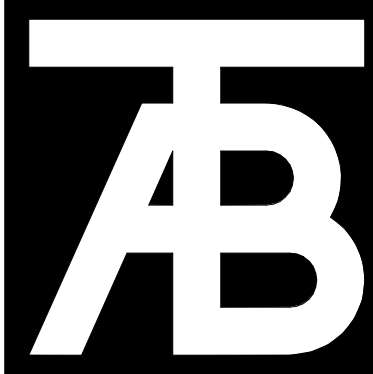
- REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF SITE. UNLESS OTHERWISE INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.
- SALVAGE: DETACH ITEMS FROM EXISTING CONDITIONS AND RETURN TO OWNER READY FOR REUSE.
- REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONDITIONS, PREPARE THEM FOR REUSE, TEMPORARY STORE AS REQUIRED AND REINSTALL THEM AS INDICATED.
- EXISTING: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, SALVAGED, OR REMOVED AND REINSTALLED.
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DEMOLITION LEGEND

- EXISTING CONSTRUCTION TO BE REMOVED
- EXISTING CONSTRUCTION TO REMAIN
- EXISTING SLAB AREA TO BE DEMOED FOR NEW PLUMBING AND/OR SANITARY LINES

Keynote Legend

Key Value	Keynote Text
D201	REMOVE EXISTING WALL
D202	REMOVE EXISTING WINDOW
D203	REMOVE EXISTING DOOR AND DOOR FRAME
D208	EXISTING STRUCTURE TO REMAIN, REF STRUCTURE DWGS
D209	EXISTING WALL TO REMAIN
D210	EXISTING DOOR TO REMAIN
D212	REMOVE EXISTING CASEWORK
D213	EXISTING CASEWORK TO REMAIN
D214	REMOVE FLOOR RISERS
D217	REMOVE EXISTING KITCHEN EQUIPMENT, REF KITCHEN DWGS AND OWNER FOR REUSE
D221	EXISTING STAGE TO REMAIN
D223	EXISTING CLIMBING WALL TO REMAIN
D224	SALVAGE SIGN FOR RELOCATION
D225	REMOVE PORTION OF EXISTING WALL FOR NEW DOOR
D229	REMOVE EXISTING LOCKERS AND CONCRETE CURB TO FLUSH OUT WITH T.O. BRICK FLOORING
D233	SALVAGE SINK FOR REINSTALLATION
D239	REMOVE EXISTING TROPHY CASE
D245	COORDINATE REMOVAL OF EXISTING HOSE BIB
D246	REMOVE DOOR AND DOOR HARDWARE, EXISTING FRAME TO REMAIN
D264	REMOVE FLOORING, PREP FLOOR FOR NEW FLOORING REF FLOOR FINISH PLANS
D268	EXISTING CARPET ON WALLS TO REMAIN
D269	EXISTING ELECTRICAL, GUTTER, AND DOWNSPOUT TO REMAIN
D274	SALVAGE EXISTING CABINETS FOR REINSTALLATION IN THE SAME FOOTPRINT LOCATION ON THE NEW FLOOR ELEVATION
D275	RELOCATE WIRING AROUND NEW DOOR OPENING AND WITHIN NEW FLOORING WALL
D281	EXISTING FLOORING TO REMAIN
D298	SALVAGE TRACK AND FIELD RECORDS FOR REINSTALLATION BY SCHOOL. ALTERNATE FOR CONTRACTOR TO REINSTALL RECORDS ABOVE NEW DOORS BETWEEN ARCADE AND CAFETERIA
D601	REMOVE EXISTING ACT CEILING



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Electrical Engineer

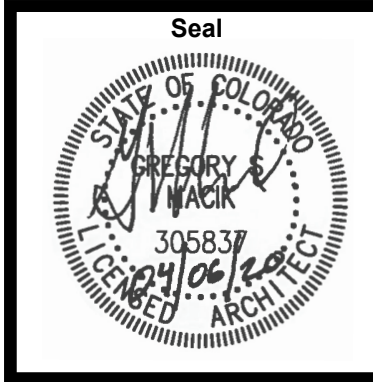
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Electrical Engineer

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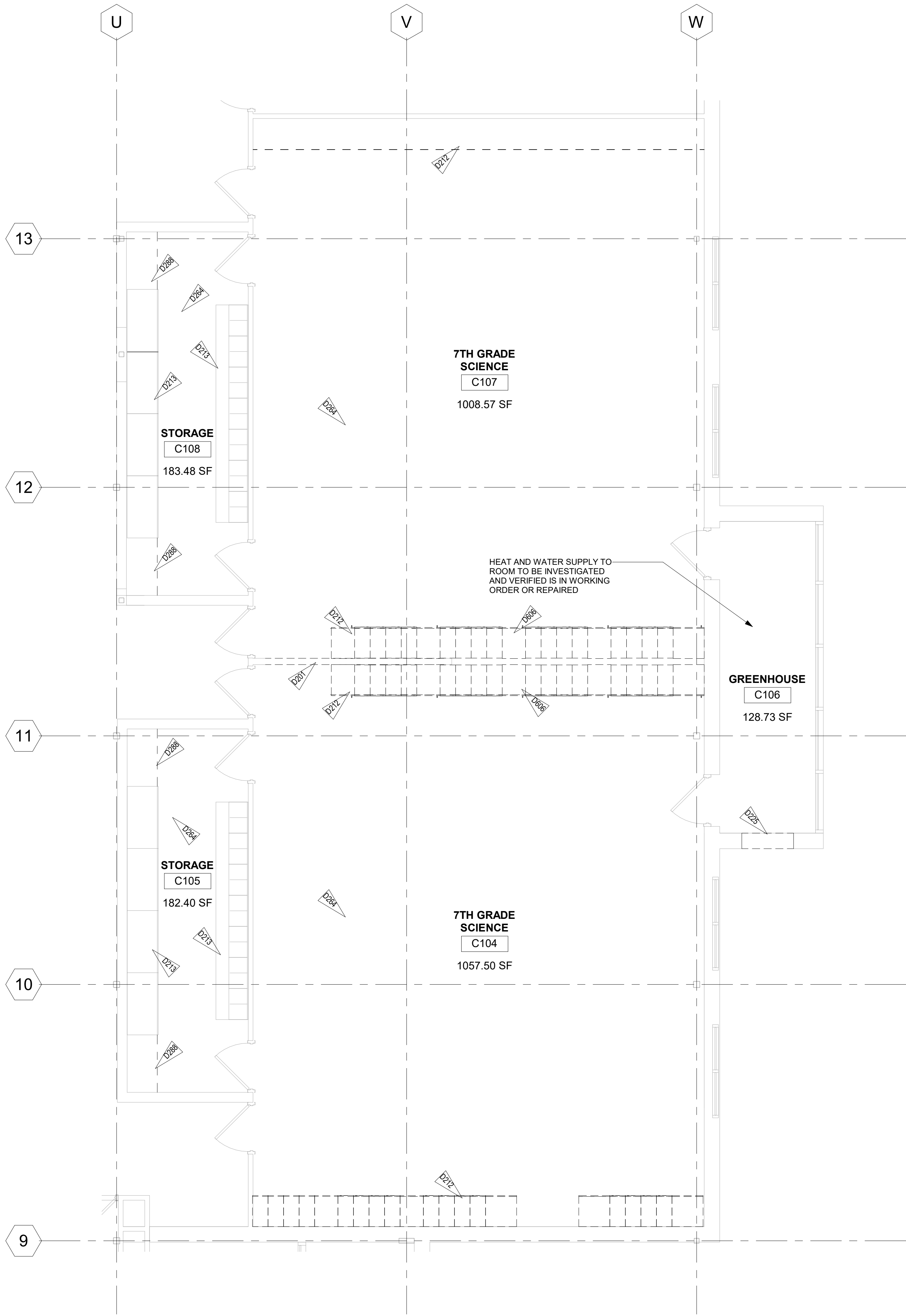
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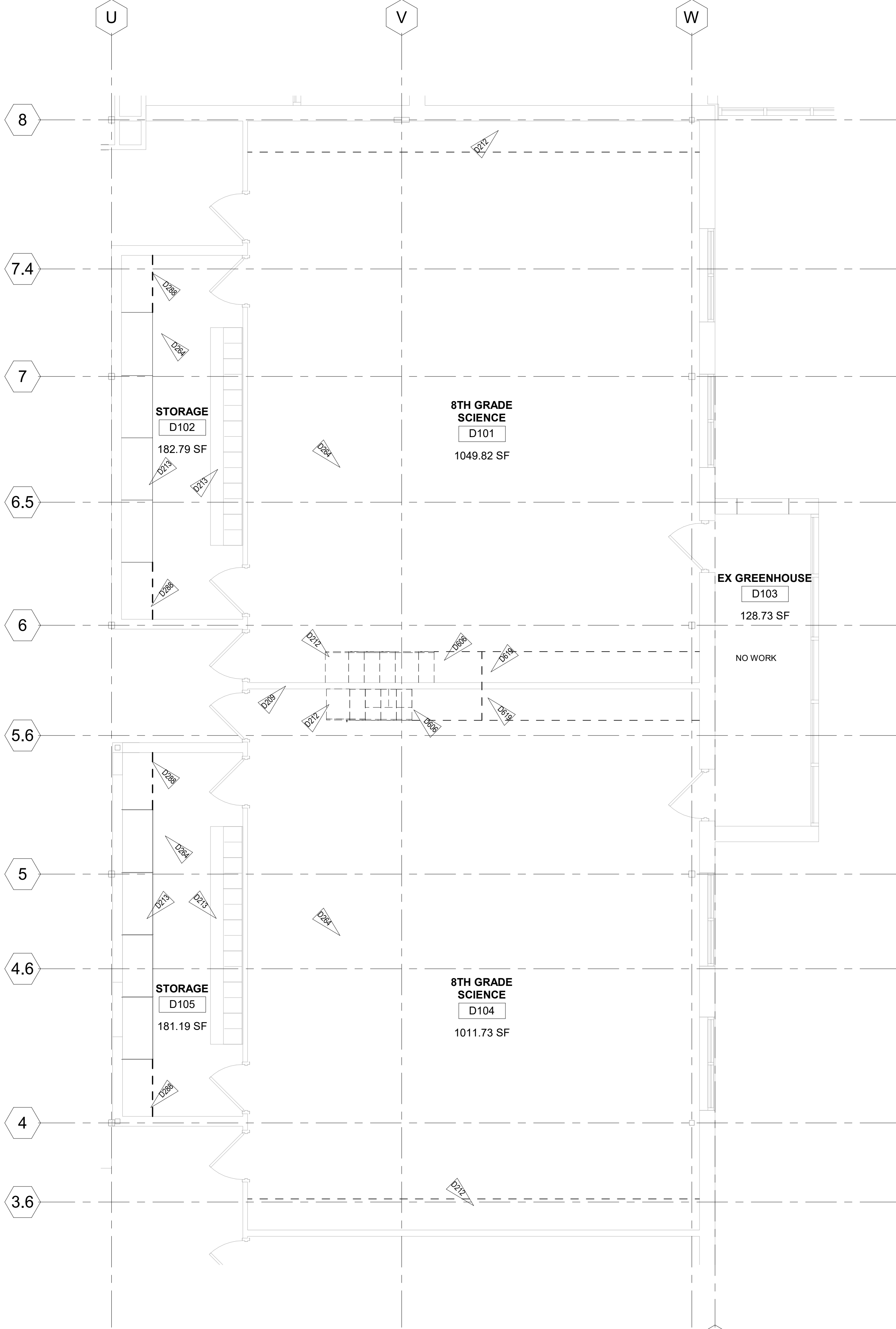
Sheet Title:
**Demo
Main Level
Plan**

Project No:
1935.03

Sheet No:
D2.01



1 DEMO ARCH PLAN - SCIENCE RM - 7TH GRADE
D2.02 1/4" = 1'-0"



2 DEMO ARCH PLAN - SCIENCE RM - 8TH GRADE
D2.02 1/4" = 1'-0"

NOTES:

GENERAL DEMOLITION NOTES:

1. DEMOLITION SHALL BE IN ACCORDANCE WITH THE CITY OF BOULDER RECORD SET T.A. 0599.1470.0005. DEMOLITION SHALL BE COORDINATED WITH OWNER'S REPRESENTATION.

2. COORDINATE DEMOLITION AND PHASING EFFORTS WITH ARCHITECT AND OWNER'S REPRESENTATIVES. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION OF OWNER'S OPERATIONS AND TO PROVIDE BUILDING TO REMAIN WITH MINIMUM NOISE AND VIBRATION SHALL BE MAINTAINED AND COORDINATED WITH OWNER'S REPRESENTATION.

3. COORDINATE DEMOLITION WITH OWNER'S REPRESENTATIVE AND ASBESTOS ABATEMENT. PRIMARY ASBESTOS ABATEMENT DEMOLITION WILL INCLUDE BUT IS NOT LIMITED TO THE REMOVAL OF CEILINGS, LIGHTING, CASEWORK, DOORS, WALL FINISHES, INTERIOR WALL FRAMING, ASBESTOS FLOOR TILE AND MASTIC REMOVAL.

4. COORDINATE DISRUPTION OF UTILITY SERVICES WITH OWNER AND AS SATISFIED.

5. VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS AND NOTIFY ARCHITECT OF DISCREPANCIES.

6. ITEMS NOT SHOWN DASHED ARE TO REMAIN. ALL DASHED ITEMS REPRESENT ITEMS TO BE REMOVED. COORDINATE REMOVAL WITH NEW ITEMS SHOWN IN DRAWINGS.

7. REMOVE EXISTING WALLS, DOORS, MILLWORK, PLUMBING FIXTURES, CEILINGS, SOFFITS, MARKERBOARDS, ETC. IN THEIR ENTIRETY AND AS REQUIRED TO EXECUTE DEMOLITION AND CONSTRUCTION WORK AS DESCRIBED ON THE DRAWINGS.

8. THE OWNER SHALL RESERVE THE RIGHT TO SALVAGE ANY MATERIALS.

9. PROVIDE PROTECTIONS FOR EXISTING BUILDING MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION-RELATED INCIDENT PERFORMED UNDER THIS CONTRACT.

10. REFER TO MEP AND STRUCTURAL DRAWINGS FOR ADDITIONAL ITEMS TO BE REMOVED, CAPPED OR ALTERED.

11. IF NEW CONSTRUCTION IS SHOWN ON OTHER DRAWINGS IT IS ASSUMED DEMOLITION IS REQUIRED IF EXISTING WALLS, FINISHES AND ETC. ARE CURRENTLY PRESENT.

12. CONTRACTOR TO COORDINATE REMOVAL OF EXISTING ITEMS WITH INSTALLATIONS OF NEW ITEMS.

13. COORDINATE NEW STRUCTURAL ITEMS WITH REMOVAL OF EXISTING ITEMS. REFER TO STRUCTURAL PLANS FOR ADDITIONAL STRUCTURAL WORK TO EXISTING STRUCTURE.

14. IT IS ASSUMED ITEMS NOT TAGGED AS REMOVED OR SALVAGED WILL BE REMOVED IF ATTACHED TO WALL, CABINET, OR OTHER ITEMS. THIS INCLUDES ITEMS ON WALLS, CEILINGS AND FLOORS.

15. ALL PLUMBING SHOWN AS DASHED AND NOT SPECIFICALLY NOTED WILL BE REMOVED. ALL PLUMBING NEEDS TO BE MODIFIED TO MATCH NEW LAYOUT. REFER TO PLUMBING PLANS FOR EXTENT OF WORK.

16. DRAWINGS ATTEMPT TO SHOW EXISTING CONDITIONS. BUT, ALL EXISTING CONDITIONS MAY NOT BE SHOWN OR VISIBLE ON SITE. CARE MUST BE TAKEN TO ABANDON, TURN-OFF OR OTHERWISE SECURE EXISTING ELEMENTS THAT NEED TO BE REMOVED WITH REMOVED STRUCTURE. WHEN CONFLICTS ARE FOUND CONTACT ARCHITECT FOR DIRECTION.

17. REFER TO DEMO REFLECTED CEILING PLANS FOR ADDITIONAL WORK.

18. ALL HARDWARE TO BE SALVAGED FOR OWNER OR REUSE FOR NEW CONSTRUCTIONS.

19. SALVAGE AND STORE ALL EXISTING FURNISHINGS AND EQUIPMENT IN EXISTING SPACES NOTED FOR RENOVATION.

20. NOT ALL ITEMS TAGGED FOR CLARITY. ASSUME REMOVE IF DASHED.

DEMOLITION DEFINITIONS:

1. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF SITE. UNLESS OTHERWISE INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.

2. SALVAGE: DETACH ITEMS FROM EXISTING CONDITIONS AND RETURN TO OWNER READY FOR REUSE.

3. REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONDITIONS. PREPARE THEM FOR REUSE. TEMPORARY STORE AS REQUIRED AND REINSTALL THEM AS INDICATED.

4. EXISTING: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, SALVAGED, OR REMOVED AND REINSTALLED.

5. DRAWINGS ATTEMPT TO SHOW EXISTING CONDITIONS. BUT, ALL EXISTING CONDITIONS MAY NOT BE SHOWN OR VISIBLE ON SITE. CARE MUST BE TAKEN TO ABANDON, TURN-OFF OR OTHERWISE SECURE EXISTING ELEMENTS THAT NEED TO BE REMOVED WITH REMOVED STRUCTURE.

DEMOLITION LEGEND

 EXISTING CONSTRUCTION TO BE REMOVED

 EXISTING CONSTRUCTION TO REMAIN

 EXISTING SLAB AREA TO BE DEMO'D FOR NEW PLUMBING AND/OR SANITARY LINES

Keynote Legend

Key Value	Keynote Text
D201	REMOVE EXISTING WALL
D209	EXISTING WALL TO REMAIN
D212	REMOVE EXISTING CASEWORK
D213	EXISTING CASEWORK TO REMAIN
D225	REMOVE PORTION OF EXISTING WALL FOR NEW DOOR
D264	REMOVE FLOORING, PREP FLOOR FOR NEW FLOORING REF FLOOR FINISH PLANS
D288	REMOVE EXISTING COUNTERTOP AND SHELVE
D606	REMOVE EXISTING SOFFIT
D619	EXISTING SOFFIT TO REMAIN

KEYNOTE PLAN

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Revisions:

No	Description	Date

Issue Dates:

Initial SD - 12/20/19
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Sheet Title:

Demo Science Classrooms Plan

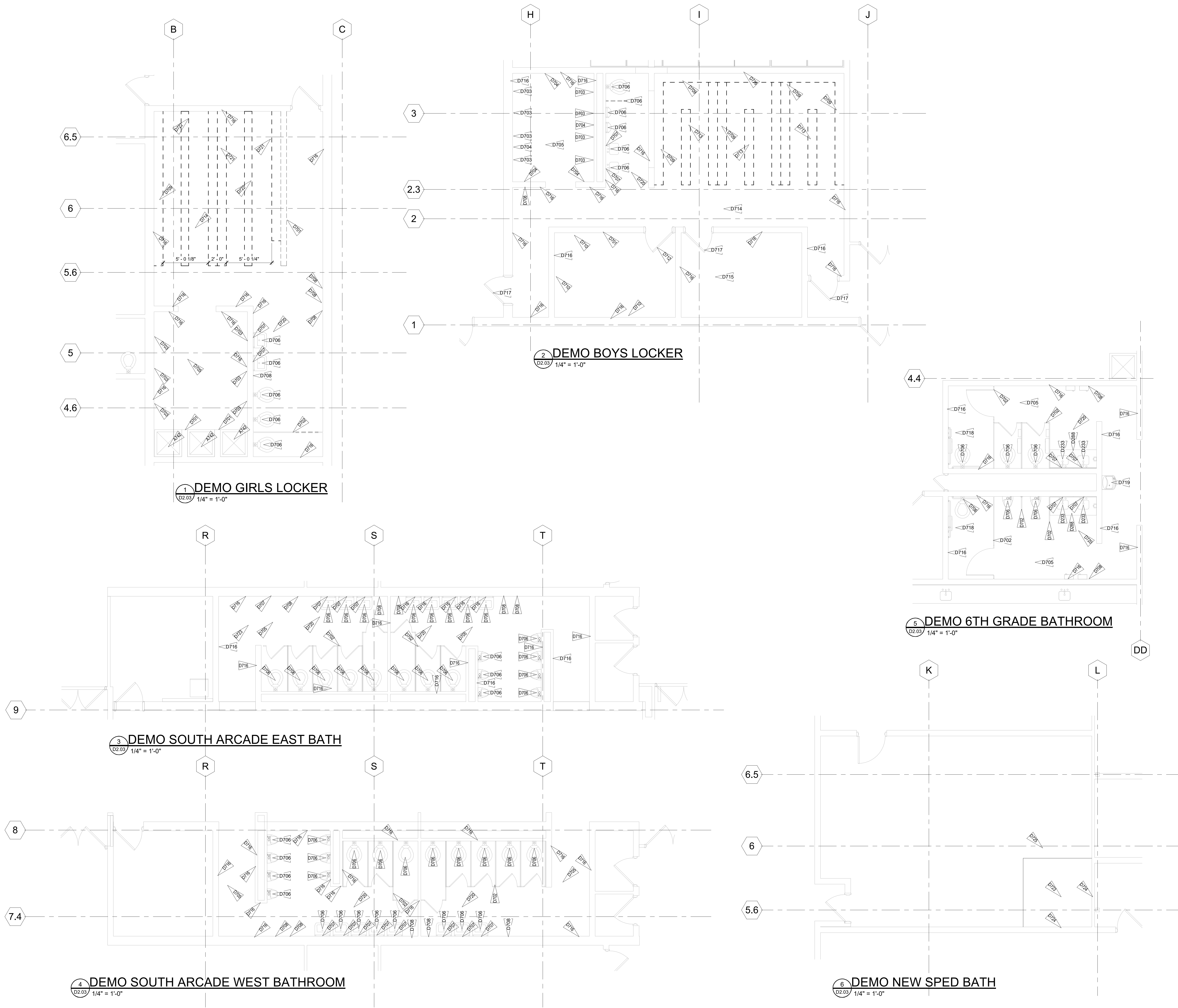
Project No:

1935.03

Sheet No:

D2.02

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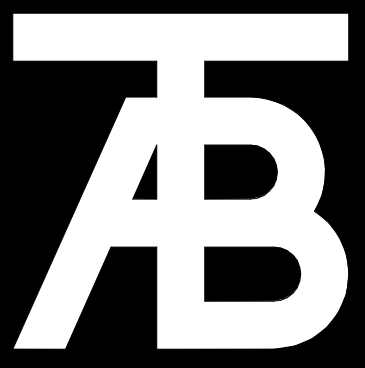


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RCRBD Record Set

Keynote Legend

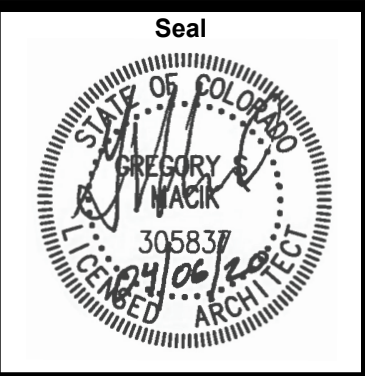
Key Value	Keynote Text
A742	EXISTING SHOWER TO REMAIN
D233	SALVAGE SINK FOR REINSTALLATION
D288	REMOVE EXISTING COUNTERTOP AND SHELVE
D701	REMOVE WALL DOWN TO FLUSH WITH
D702	REMOVE PARTITIONS AND PARTITION DOOR
D703	REMOVE/RELOCATE SHOWER HEADS
D704	REMOVE WALL TILE
D705	REMOVE FLOOR TILE
D706	REMOVE FITTINGS AND VALVES
D707	REMOVE MIRRORS
D708	REMOVE HAND DRYER
D709	REMOVE LOCKERS, CONC CURB TO REMAIN
D710	SALVAGE STORAGE SHELVING SYSTEM AND GIVE TO DISTRICT
D712	REMOVE DOOR
D713	REMOVE BENCH, CONCRETE CURB TO REMAIN
D714	PREP FLOOR FOR NEW TILE D7
D715	NO WORK IN AREA
D716	EXISTING WALL TO REMAIN, DEMO WALL FINISH DOWN TO GWB OR CMU
D717	EXISTING DOOR TO REMAIN
D718	EXISTING GRAB BARS TO REMAIN
D719	EXISTING WATER FOUNTAIN TO REMAIN
D720	DEMO SOAP DISPENSOR
D721	REMOVE LOCKERS AND CONC CURB
D722	REMOVE BENCH AND CONC CURB
D723	REMOVE FLOOR FINISH
D724	REMOVE WALL FINISH DOWN TO STUDS
D725	EXISTING FLOOR TO REMAIN



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Steamboat Springs Middle School
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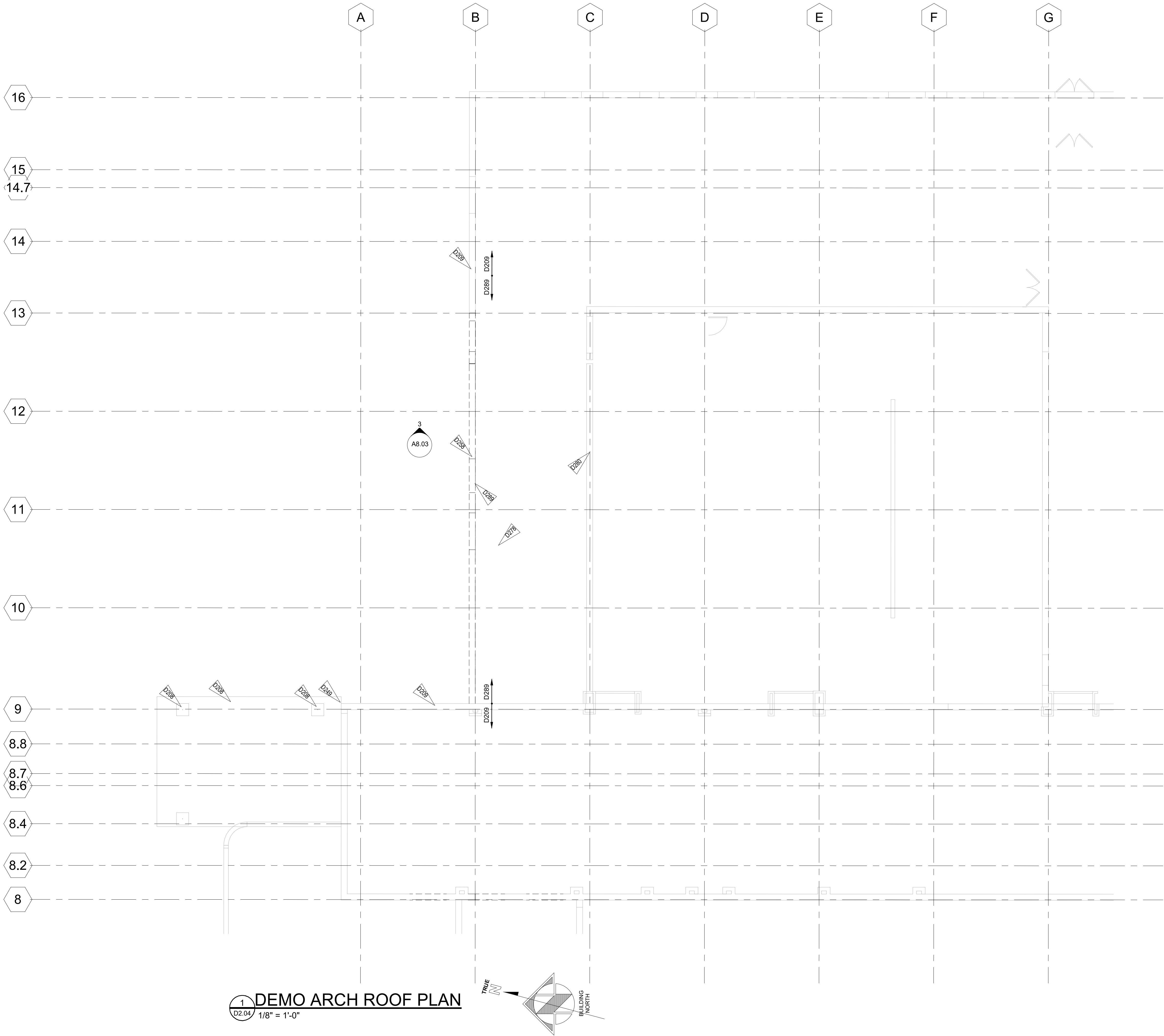
Revisions:		
No	Description	Date

Issue Dates:
Initial SD - 12/20/19
SD - 01/14/20
DD - 02/21/20
95% CD - 03/30/20
CD's - 04/07/20

Sheet Title:
**Demo
Bathroom
Plans**

Project No:
1935.03

Sheet No:
D2.03



NOTES:

GENERAL DEMOLITION NOTES:

1. DEMOLITION OF OTHER BUILDING SHEETS.

2. COORDINATE DEMOLITION AND PHASING EFFORTS WITH ARCHITECT AND OWNER'S REPRESENTATIVES. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION OF OWNER'S OPERATIONS AND TO PROVIDE BUILDING OPERATIONS WITH MINIMAL NOISE AND VIBRATION SHOCK. DEMOLITION SHALL BE COORDINATED WITH OWNER'S REPRESENTATION.

3. COORDINATE DEMOLITION WITH OWNER'S REPRESENTATIVE AND ASBESTOS ABATEMENT. PRIMARY ASBESTOS ABATEMENT DEMOLITION WILL INCLUDE BUT IS NOT LIMITED TO THE REMOVAL OF CEILINGS, LIGHTING, CASEWORK, DOORS, WALL FINISHES, INTERIOR WALL FRAMING, ASBESTOS FLOOR TILE AND MASTIC REMOVAL.

4. COORDINATE DISRUPTION OF UTILITY SERVICES WITH OWNER AND AS SATISFIED.

5. VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS AND NOTIFY ARCHITECT OF DISCREPANCIES.

6. ITEMS NOT SHOWN DASHED ARE TO REMAIN. ALL DASHED ITEMS REPRESENT ITEMS TO BE REMOVED. COORDINATE REMOVAL WITH NEW ITEMS SHOWN IN DRAWINGS.

7. REMOVE EXISTING WALLS, DOORS, MILLWORK, PLUMBING FIXTURES, CEILINGS, SOFFITS, MARKERBOARDS, ETC. IN THEIR ENTIRETY AND AS REQUIRED TO EXECUTE DEMOLITION AND CONSTRUCTION WORK AS DESCRIBED ON THE DRAWINGS.

8. THE OWNER SHALL RESERVE THE RIGHT TO SALVAGE ANY MATERIALS.

9. PROVIDE PROTECTIONS FOR EXISTING BUILDING MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION-RELATED INCIDENT PERFORMED UNDER THIS CONTRACT.

10. REFER TO MEP AND STRUCTURAL DRAWINGS FOR ADDITIONAL ITEMS TO BE REMOVED, CAPPED OR ALTERED.

11. IF NEW CONSTRUCTION IS SHOWN ON OTHER DRAWINGS IT IS ASSUMED DEMOLITION IS REQUIRED IF EXISTING WALLS, FINISHES AND ETC. ARE CURRENTLY PRESENT.

12. CONTRACTOR TO COORDINATE REMOVAL OF EXISTING ITEMS WITH INSTALLATIONS OF NEW ITEMS.

13. COORDINATE NEW STRUCTURAL ITEMS WITH REMOVAL OF EXISTING ITEMS. REFER TO STRUCTURAL PLANS FOR ADDITIONAL STRUCTURAL WORK TO EXISTING STRUCTURE.

14. IT IS ASSUMED ITEMS NOT TAGGED AS REMOVED OR SALVAGED WILL BE REMOVED IF ATTACHED TO WALL, CABINET, OR OTHER ITEMS. THIS INCLUDES ITEMS ON WALLS, CEILINGS AND FLOORS.

15. ALL PLUMBING SHOWN AS DASHED AND NOT SPECIFICALLY NOTED WILL BE REMOVED. ALL PLUMBING NEEDS TO BE MODIFIED TO MATCH NEW LAYOUT. REFER TO PLUMBING PLANS FOR EXTENT OF WORK.

16. DRAWINGS ATTEMPT TO SHOW EXISTING CONDITIONS. BUT, ALL EXISTING CONDITIONS MAY NOT BE SHOWN OR VISIBLE ON SITE. CARE MUST BE TAKEN TO ABANDON, TURN-OFF OR OTHERWISE SECURE EXISTING ELEMENTS THAT NEED TO BE REMOVED WITH REMOVED STRUCTURE. WHEN CONFLICTS ARE FOUND CONTACT ARCHITECT FOR DIRECTION.

17. REFER TO DEMO REFLECTED CEILING PLANS FOR ADDITIONAL WORK.

18. ALL HARDWARE TO BE SALVAGED FOR OWNER OR REUSE FOR NEW CONSTRUCTIONS.

19. SALVAGE AND STORE ALL EXISTING FURNISHINGS AND EQUIPMENT IN EXISTING SPACES NOTED FOR RENOVATION.

20. NOT ALL ITEMS TAGGED FOR CLARITY. ASSUME REMOVE IF DASHED.

DEMOLITION DEFINITIONS:

1. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF SITE, UNLESS OTHERWISE INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.

2. SALVAGE: DETACH ITEMS FROM EXISTING CONDITIONS AND RETURN TO OWNER READY FOR REUSE.

3. REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONDITIONS, PREPARE THEM FOR REUSE, TEMPORARY STORE AS REQUIRED AND REINSTALL THEM AS INDICATED.

4. EXISTING: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, SALVAGED, OR REMOVED AND REINSTALLED.

5. DRAWINGS ATTEMPT TO SHOW EXISTING CONDITIONS. BUT, ALL EXISTING CONDITIONS MAY NOT BE SHOWN OR VISIBLE ON SITE. CARE MUST BE TAKEN TO ABANDON, TURN-OFF OR OTHERWISE SECURE EXISTING ELEMENTS THAT NEED TO BE REMOVED WITH REMOVED STRUCTURE.

DEMOLITION LEGEND

EXISTING CONSTRUCTION TO BE REMOVED

EXISTING CONSTRUCTION TO REMAIN

EXISTING SLAB AREA TO BE DEMO'D FOR NEW PLUMBING AND/OR SANITARY LINES

Keynote Legend

Key Value	Keynote Text
D208	EXISTING STRUCTURE TO REMAIN, REF STRUCTURE DWGS
D209	EXISTING WALL TO REMAIN
D249	EXISTING GUTTER, DOWNSPOUT, AND HEAT TAPE TO REMAIN
D258	EXISTING WALL FRAMING ABOVE BEAM TO REMAIN
D278	EXISTING EPDM ROOFING AND EXISTING ROOF INSULATION TO REMAIN
D280	EXISTING PARAPET WALL TO REMAIN
D289	REMOVE EXISTING PARAPET CAP

KEYNOTE PLAN

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Revisions:

No	Description	Date

Issue Dates:

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Sheet Title:

Demo Roof Plan

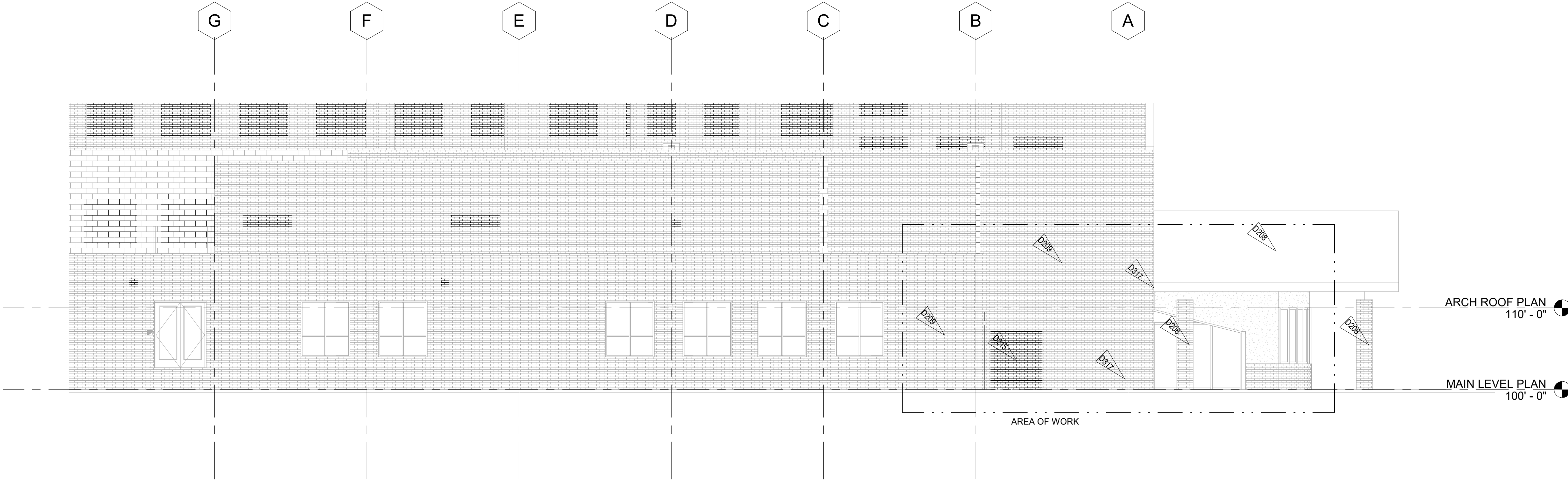
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1935.03

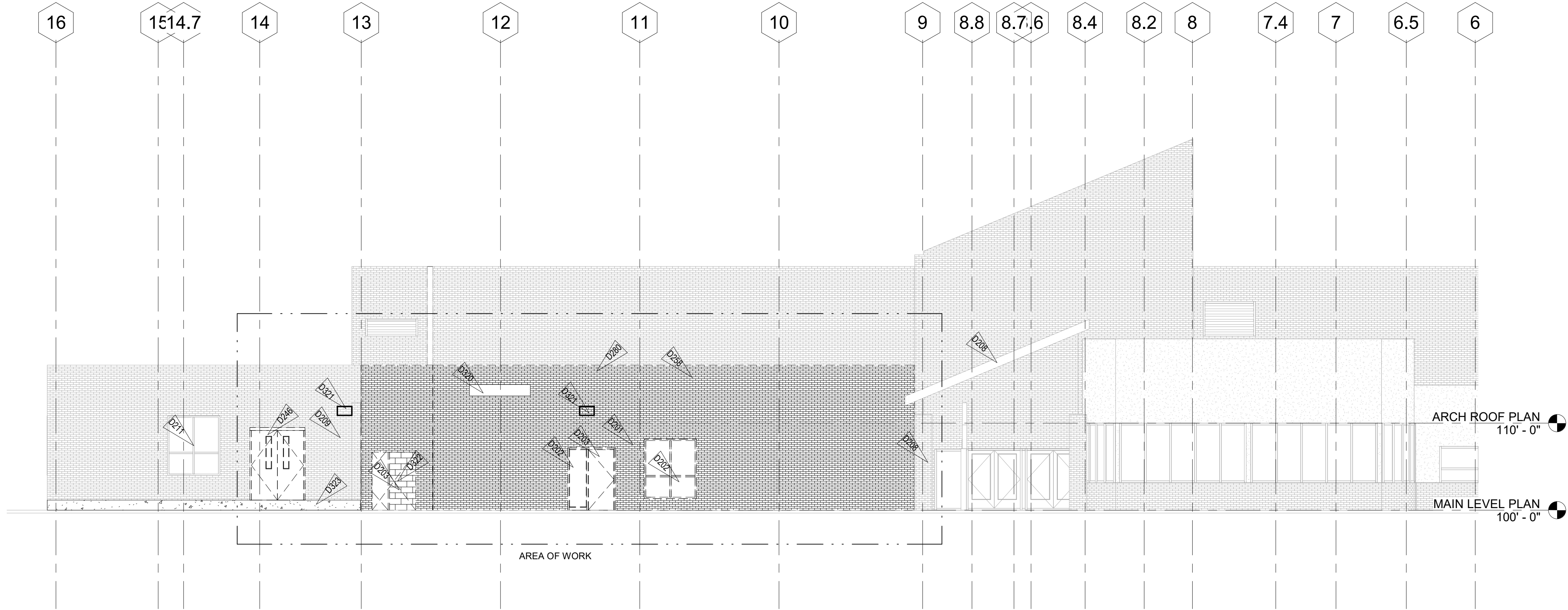
Sheet No:

D2.04

1



1 DEMO EAST ELEVATION
1/8" = 1'-0"



2 DEMO NORTH ELEVATION
1/8" = 1'-0"

NOTES:

- GENERAL DEMOLITION NOTES:**
RCRBD Record Set
T.A.
015-1-1470-020
015-1-1470-020
015-1-1470-020
- DEMOLITION GENERAL NOTES APPLY TO ALL DEMOLITION SHEETS.
 - COORDINATE DEMOLITION AND PHASING EFFORTS WITH ARCHITECT AND OWNER'S REPRESENTATIVES. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION OF ON-SITE ACTIVITIES. PROVIDE BUILDING OWNER'S SAFETY, NOISE, AND VIBRATION SHALL BE PRE-APPROVED AND COORDINATED WITH OWNER'S REPRESENTATION.
 - COORDINATE DEMOLITION WITH OWNER'S REPRESENTATIVE AND ASBESTOS ABATEMENT. PRIMARY ASBESTOS ABATEMENT DEMOLITION WILL INCLUDE BUT IS NOT LIMITED TO THE REMOVAL OF ALL THE EXISTING FLOOR VINYL TILE, EXISTING CORRIDOR CARPETS, EXISTING DRYWALL TEXTURE AND GWB, AND EXISTING ROOFING MATERIALS.
 - VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS AND NOTIFY ARCHITECT OF DISCREPANCIES.
 - ITEMS NOT SHOWN DASHED ARE TO REMAIN. ALL DASHED ITEMS REPRESENT ITEMS TO BE REMOVED. COORDINATE REMOVAL WITH NEW ITEMS SHOWN IN DRAWINGS.
 - THE OWNER SHALL RESERVE THE RIGHT TO SALVAGE ANY MATERIALS.
 - PROVIDE PROTECTIONS FOR EXISTING BUILDING MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION-RELATED INCIDENT PERFORMED UNDER THIS CONTRACT.
 - REFER TO MEP AND STRUCTURAL DRAWINGS FOR ADDITIONAL ITEMS TO BE REMOVED, CAPED OR ALTERED.
 - CONTRACTOR TO COORDINATE REMOVAL OF EXISTING ITEMS WITH INSTALLATIONS OF NEW ITEMS.
 - COORDINATE NEW STRUCTURAL ITEMS WITH REMOVAL OF EXISTING ITEMS. REFER TO STRUCTURAL PLANS FOR ADDITIONAL STRUCTURAL WORK TO EXISTING STRUCTURE.
 - IT IS ASSUMED ITEMS NOT TAGGED AS REMOVED OR SALVAGED WILL BE REMOVED IF ATTACHED TO WALL, CABINET, OR OTHER ITEMS. THIS INCLUDES ITEMS ON WALLS, CEILINGS AND FLOORS.
 - ALL PLUMBING SHOWN AS DASHED AND NOT SPECIFICALLY NOTED WILL BE REMOVED. ALL PLUMBING NEEDS TO BE MODIFIED TO MATCH NEW LAYOUT. REFER TO PLUMBING PLANS FOR EXTENT OF WORK.
 - DRAWINGS ATTEMPT TO SHOW EXISTING CONDITIONS. BUT, ALL EXISTING CONDITIONS MAY NOT BE SHOWN OR VISIBLE ON SITE. CARE MUST BE TAKEN TO ABANDON, TURN-OFF OR OTHERWISE SECURE EXISTING ELEMENTS THAT NEED TO BE REMOVED WITH REMOVED STRUCTURE. WHEN CONFLICTS ARE FOUND CONTACT ARCHITECT FOR DIRECTION.

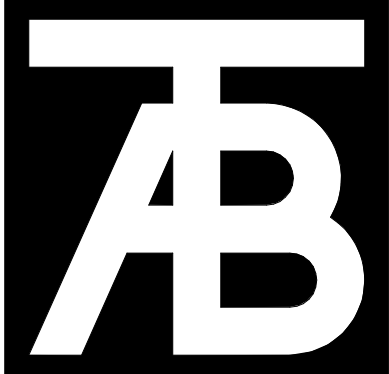
DEMOLITION DEFINITIONS:

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- SALVAGE: DETACH ITEMS FROM EXISTING CONDITIONS AND RETURN TO OWNER READY FOR REUSE.
- REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONDITIONS. PREPARE THEM FOR REUSE, TEMPORARY STORE AS REQUIRED AND REINSTALL THEM AS INDICATED.
- EXISTING: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, SALVAGED, OR REMOVED AND REINSTALLED.
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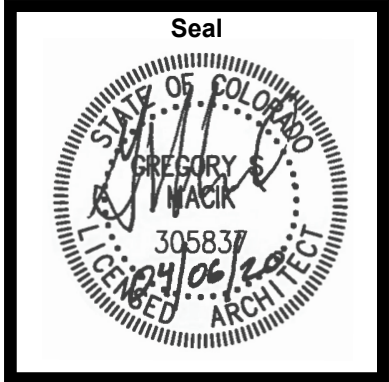
DEMOLITION LEGEND

- EXISTING CONSTRUCTION TO BE REMOVED
- EXISTING CONSTRUCTION TO REMAIN
- EXISTING SLAB AREA TO BE DEMOED FOR NEW PLUMBING AND/OR SANITARY LINES

Keynote Legend	
Key Value	Keynote Text
D201	REMOVE EXISTING WALL
D202	REMOVE EXISTING WINDOW
D203	REMOVE EXISTING DOOR AND DOOR FRAME
D208	EXISTING STRUCTURE TO REMAIN, REF STRUCTURE DWGS
D209	EXISTING WALL TO REMAIN
D211	EXISTING WINDOW TO REMAIN
D215	REMOVE PORTION OF EXISTING WALL
D246	REMOVE DOOR AND DOOR HARDWARE, EXISTING FRAME TO REMAIN
D258	EXISTING WALL FRAMING ABOVE BEAM TO REMAIN
D280	EXISTING PARAPET WALL TO REMAIN
D317	EXISTING ELECTRICAL CONDUIT TO REMAIN
D320	SALVAGE EXISTING SIGN FOR REINSTALLATION ON ADDITION
D321	SALVAGE EXISTING LIGHT
D322	SALVAGE DOOR CARD READER
D323	DEMO CONCRETE LANDING AND STAIRS, REF CIVIL



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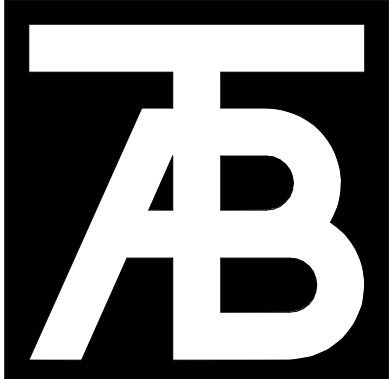
Revisions:		
No	Description	Date

Issue Dates:
Initial SD - 12/20/19
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Sheet Title:
Demo Exterior Elevations

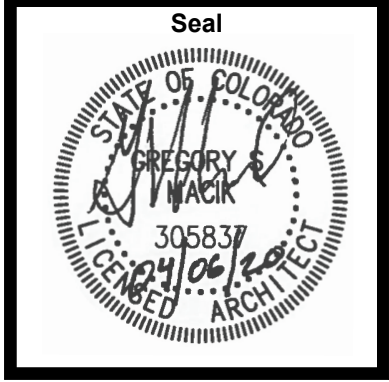
Project No:
1935.03

Sheet No:
D3.01



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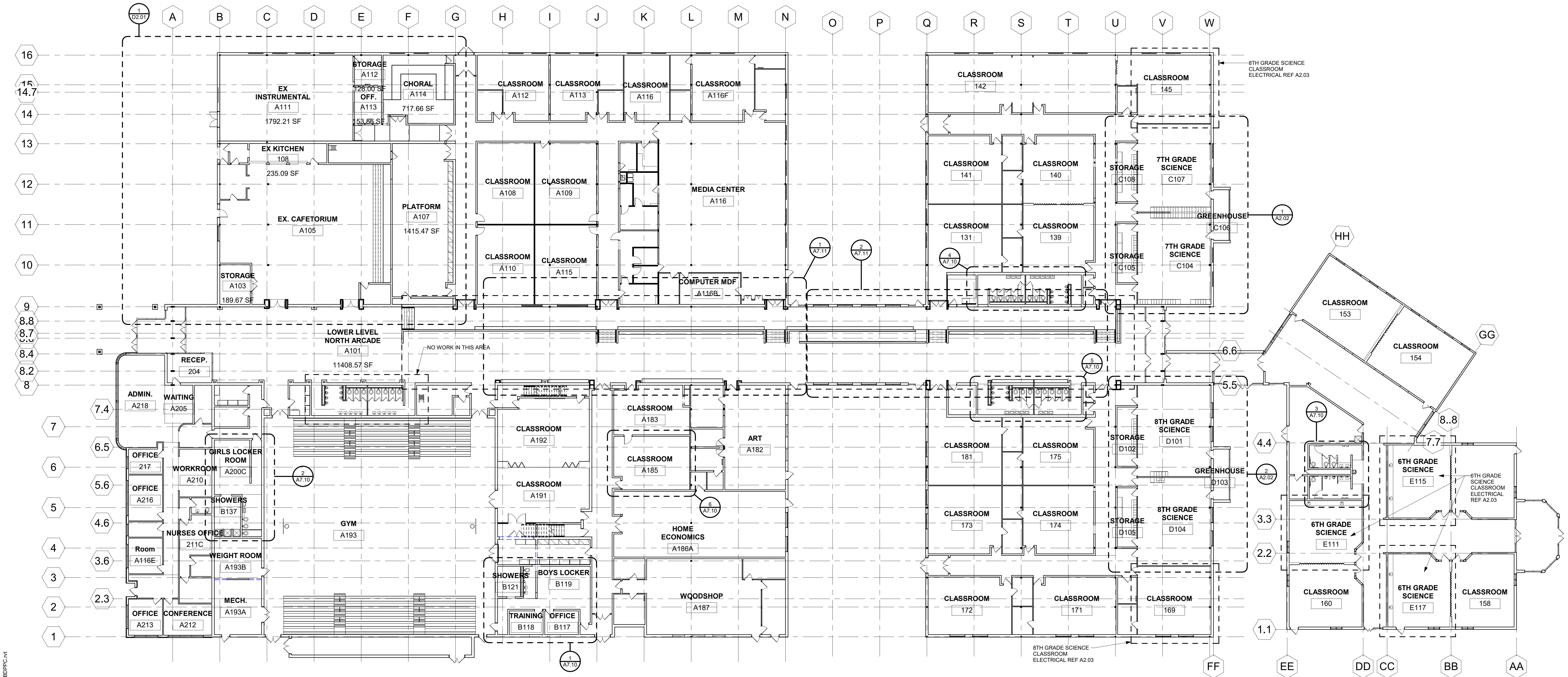
Issue Dates:
Initial SD - 12/20/19
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Sheet Title:
Existing Building Floor Plans

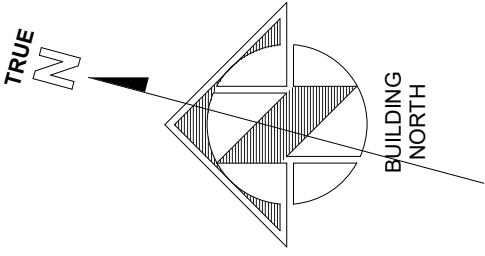
Project No:
1935.03

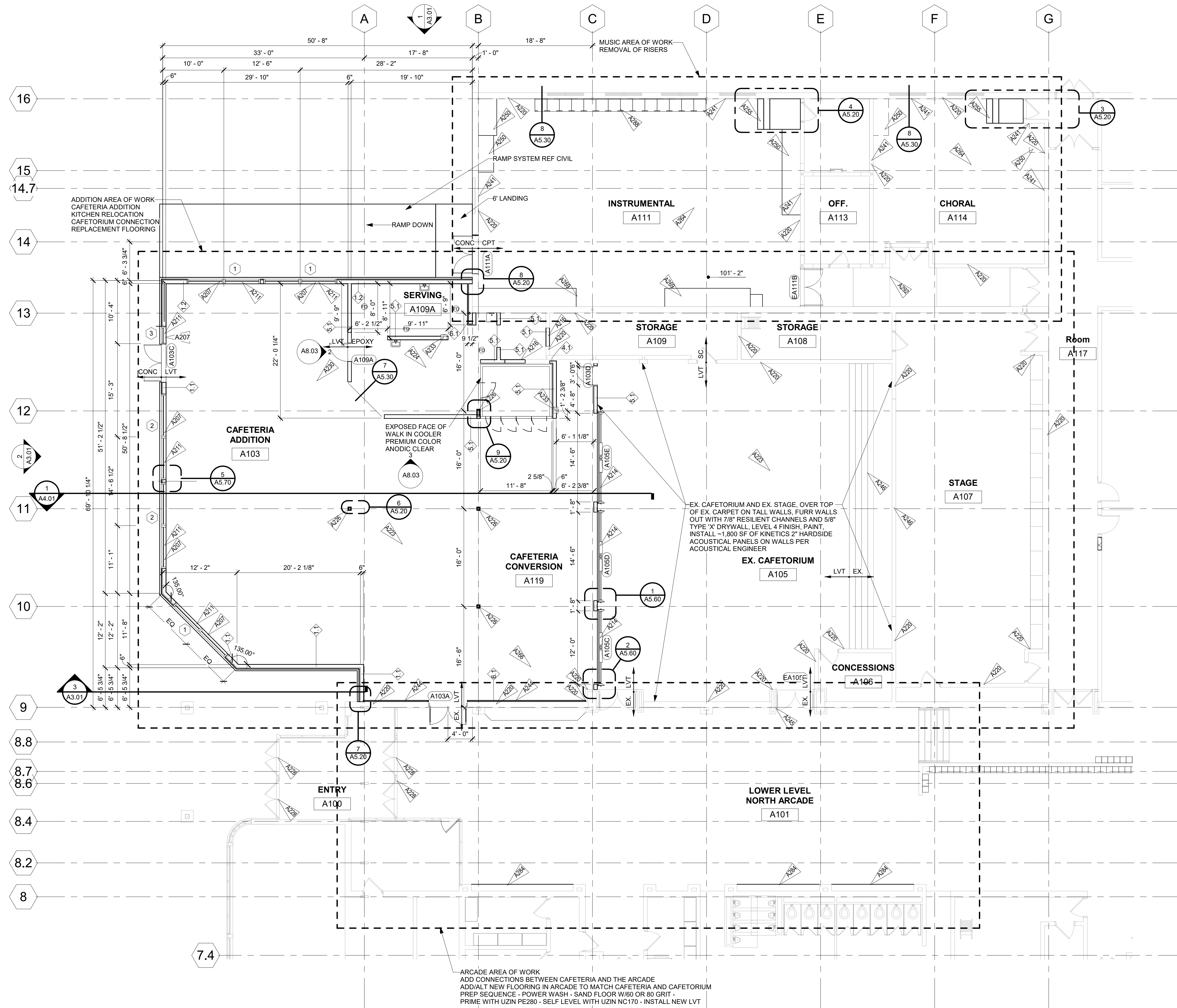
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A2.00

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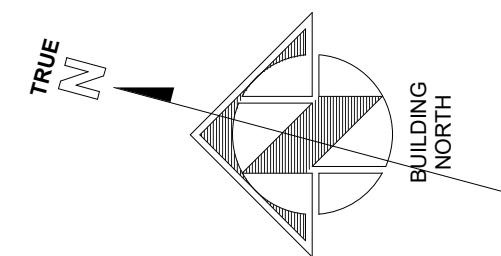


1 OVERALL EXISTING PLAN
A2.00 1/16" = 1'-0"





1 MAIN LEVEL PLAN
A2.01 1/8" = 1'-0"



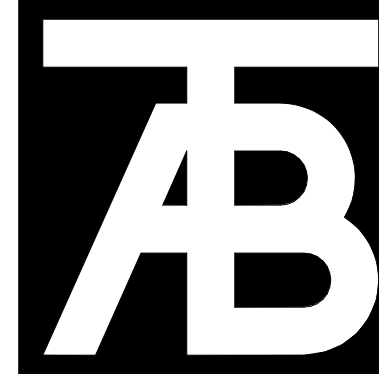
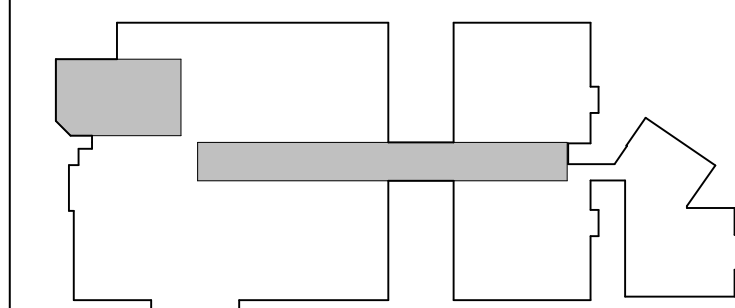
NOTES:

- FLOOR PLAN GENERAL NOTES:**
- PATCH EXISTING REPAIRED SURFACES TO BE FLUSH WITH ADJACENT FINISH SURFACES TO SAME QUALITY AS NEW CONSTRUCTION PRIOR TO INSTALLING NEW FINISHES. REFER TO THE FINISH MANUFACTURER'S GUIDELINES FOR INSTALLATION.
 - PATCH EXISTING CEILING, ETC. SO AS TO MAINTAIN THE FIRE-RADIANT BARRIER. ADD FIRE STOP AT ALL DUCTS CROSS. ADD FIRE STOP AT ALL
 - PATCH WALLS AT REMOVED RECEPTACLE OPENINGS SO AS TO RECEIVE SUBSEQUENT WORK
 - PATCH AND LEVEL FLOOR SUBSTRATES TO RECEIVE NEW WORK AS SCHEDULED.
 - COORDINATE ALL FLOOR CORE DRILLING WITH EXISTING
 - DO NOT SCALE DRAWINGS.
 - ALL SPOT ELEVATIONS SHOWN ON THE FLOOR PLANS OUTSIDE THE BUILDING RELATE TO USGS ELEVATIONS. ALL SPOT ELEVATIONS INSIDE THE BUILDING REFER TO BUILDING REFERENCE ELEVATIONS. NOTIFY ARCHITECT IMMEDIATELY SHOULD CONDITIONS BE FOUND CONTRADICTORY TO THESE DRAWINGS.
 - ALL ANGLES SHOWN ON THE FLOOR PLANS ARE 90 DEGREES UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS ARE TO GRID LINE, FACE OF CONCRETE OR MASONRY, OR FACE OF GYPSUM BOARD, UNLESS OTHERWISE NOTED.
 - ALL FLOOR PLAN DIMENSIONS TO MASONRY ARE NOMINAL DIMENSIONS, UNLESS NOTED AS ACTUAL.
 - "TB" NEW CORK TACKBOARDS OR "MB" NEW MARKERBOARDS
 - ALL SIGNAGE BY OWNER. EXIT DOOR NUMBERS PER DOOR SIGNAGE SHEET AT ALL EXIT DOORS.

Keynote Legend

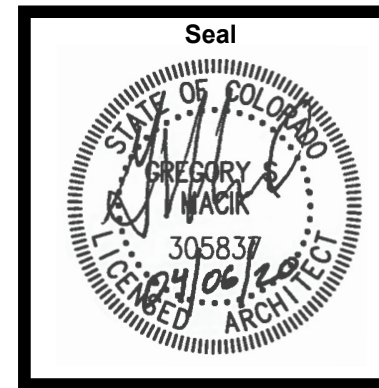
Key Value	Keynote Text
A207	INSTALL NEW ROLLER BLINDS ON WINDOW OR DOOR GLAZING PER SPEC
A211	NEW WINDOW SOLID SURFACE SILLS
A214	INSTALL NEW SECTIONAL GARAGE DOOR REF DOOR SCHEDULE
A216	INFILL WALL WHERE EXISTING WINDOWS AND DOORS ARE TO BE REMOVED, REF WALL TAG
A220	EXISTING WALL TO REMAIN
A223	INSTALL NEW LVT FLOORING
A224	INSTALL NEW EPOXY FLOORING
A226	INSTALL DRYWALL WRAP ON STRUCT COLUMN, SIM TO A5.20
A228	EXISTING WINDOW OR DOOR TO REMAIN
A230	NEW CEILING MOUNTED DROP DOWN ELECTRICAL POWER OUTLET ON RETRACTABLE CORD, REF ELEC DRAWINGS
A233	INSTALL NEW SEMI RECESSED FIRE EXTINGUISHER CABINET, NO MORE THAN 75' APART, FULLY RECESSED CABINET IN GYM
A241	PATCH/INSTALL NEW DRYWALL ON WALLS WHERE RISERS/CABINETS WERE REMOVED
A244	INSTALL NEW WALL FURRING, REF WALL TYPE OR FRAMING PLAN
A245	REPAIR/REPLACE EXISTING DOOR HOLD OPEN
A246	NO WORK IN AREA
A250	REINSTALL SALVAGED CABINETS
A255	NEW STAIRS TO BE INSTALLED WITH GUARDRAILS AND HANDRAILS
A264	INSTALL NEW CARPET
A266	FLUSH OUT FLOOR WITH EXISTING ADJACENT SPACES, IF REQ
A269	EXISTING CABINETS TO REMAIN
A284	PATCH/STAIN/POLISH CONCRETE TO MATCH EXISTING, NEW FFE SEATING
A288	INSTALL NEW BASE CABINETS
A292	EXISTING CARPET TO REMAIN

KEYNOTE PLAN



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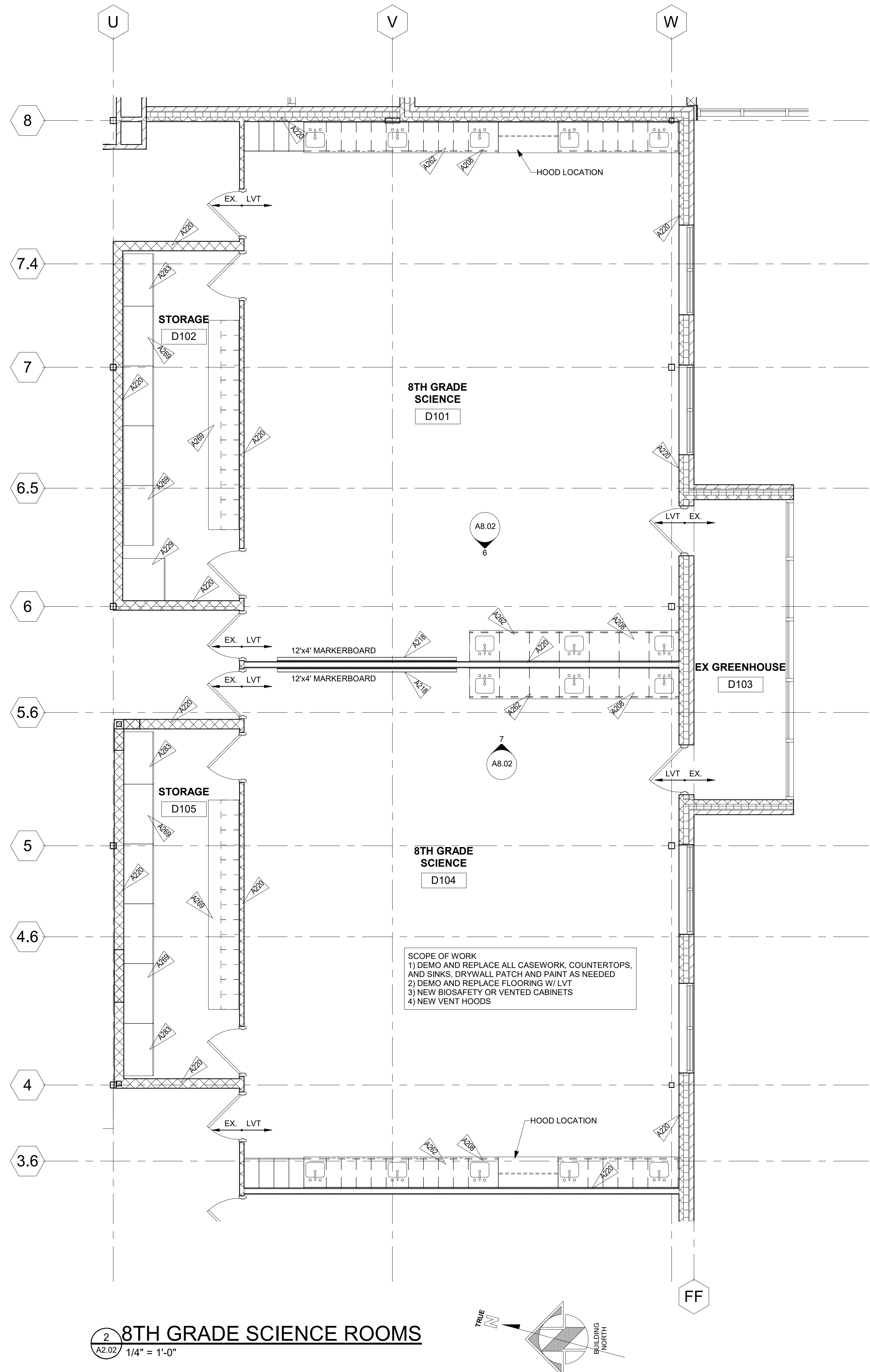
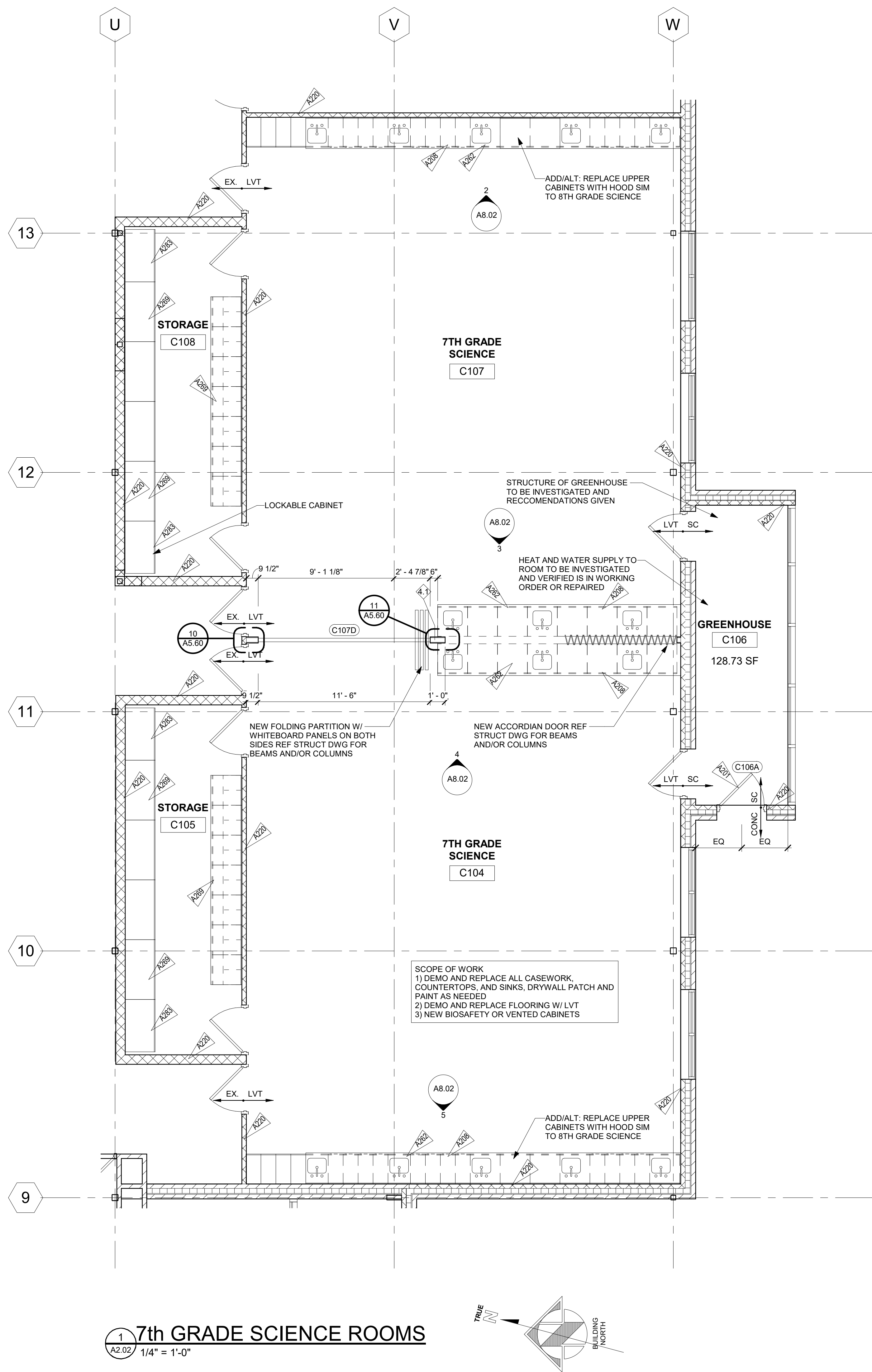
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No	Description	Date

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Sheet Title:
Main Level Floor Plan

Project No:
1935.03

Sheet No:
A2.01



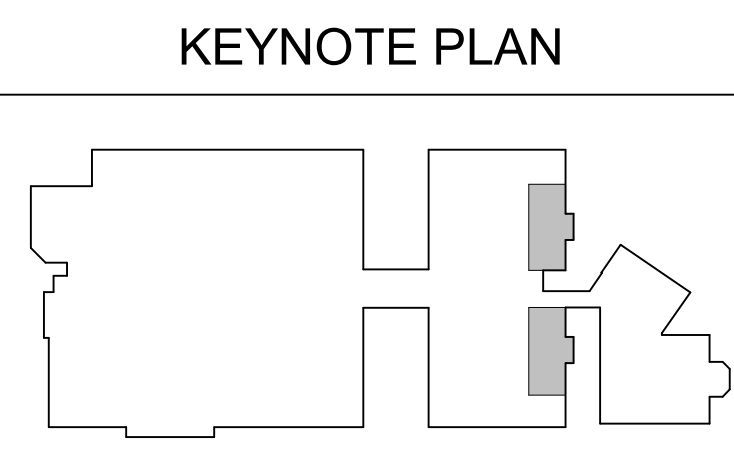
- NOTES:**
- FLOOR PLAN GENERAL NOTES:**
1. PATCH EX. REMAIN. REPAIRED SURFACES TO BE FLUSH WITH ADJACENT FINISH SURFACES TO SAME QUALITY AS NEW CONSTRUCTION PRIOR TO INSTALLING NEW FINISHES. REFER TO THE FINISH MANUFACTURER'S GUIDE LINES FOR INSTALLATION.
 2. PATCH EX. REMAIN. REPAIRED SURFACES TO BE FLUSH WITH ADJACENT FINISH SURFACES TO SAME QUALITY AS NEW CONSTRUCTION PRIOR TO INSTALLING NEW FINISHES. REFER TO THE FINISH MANUFACTURER'S GUIDE LINES FOR INSTALLATION.
 3. PATCH WALLS AT REMOVED RECEPTACLE OPENINGS SO AS TO RECEIVE SUBSEQUENT WORK.
 4. PATCH AND LEVEL FLOOR SUBSTRATES TO RECEIVE NEW WORK AS SCHEDULED.
 5. COORDINATE ALL FLOOR CORE DRILLING WITH EXISTING.
 6. DO NOT SCALE DRAWINGS.
 7. ALL SPOT ELEVATIONS SHOWN ON THE FLOOR PLANS OUTSIDE THE BUILDING RELATE TO USGS ELEVATIONS. ALL SPOT ELEVATIONS INSIDE THE BUILDING REFER TO BUILDING REFERENCE ELEVATIONS. NOTIFY ARCHITECT IMMEDIATELY SHOULD CONDITIONS BE FOUND CONTRADICTORY TO THESE DRAWINGS.
 8. ALL ANGLES SHOWN ON THE FLOOR PLANS ARE 90 DEGREES UNLESS OTHERWISE NOTED.
 9. ALL DIMENSIONS ARE TO GRID LINE. FACE OF CONCRETE OR MASONRY, OR FACE OF GYPSUM BOARD, UNLESS OTHERWISE NOTED.
 10. ALL FLOOR PLAN DIMENSIONS TO MASONRY ARE NOMINAL DIMENSIONS, UNLESS NOTED AS ACTUAL.
 11. "TB" NEW CORK TACKBOARDS OR "MB" NEW MARKERBOARDS
 12. ALL SIGNAGE BY OWNER. EXIT DOOR NUMBERS PER DOOR SIGNAGE SHEET AT ALL EXIT DOORS.

Keynote Legend	
Key Value	Keynote Text
A201	INSTALL NEW DOOR, REF. DOOR DETAILS
A208	INSTALL NEW CASEWORK WITH UPPER/LOWER CABINETS, SINKS REF. INTERIOR ELEVATIONS
A218	INSTALL NEW TACKBOARDS WITH PROJECTABLE/MAGNETIC WHITEBOARD ON TEACHING WALL, REF. DETAIL 2/A5.20 AND SEE PLANS FOR SIZES
A220	EXISTING WALL TO REMAIN
A229	NEW FLAME/CHEM STORAGE CABINET SHW340X60T
A262	NEW EPOXY COUNTERTOPS WITH INTEGRAL EPOXY SINKS
A269	EXISTING CABINETS TO REMAIN
A283	INSTALL NEW FULL-HEIGHT CABINET TO MATCH ADJACENT

Revisions:		
No	Description	Date

Issue Dates:
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Sheet Title:
Science Classroom Floor Plans



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Sheet Title:
Science Classroom Floor Plans

Project No:
1935.03

Sheet No:
A2.02



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Sheet Title:

6th Grade Science Rooms

Project No:
1935.03

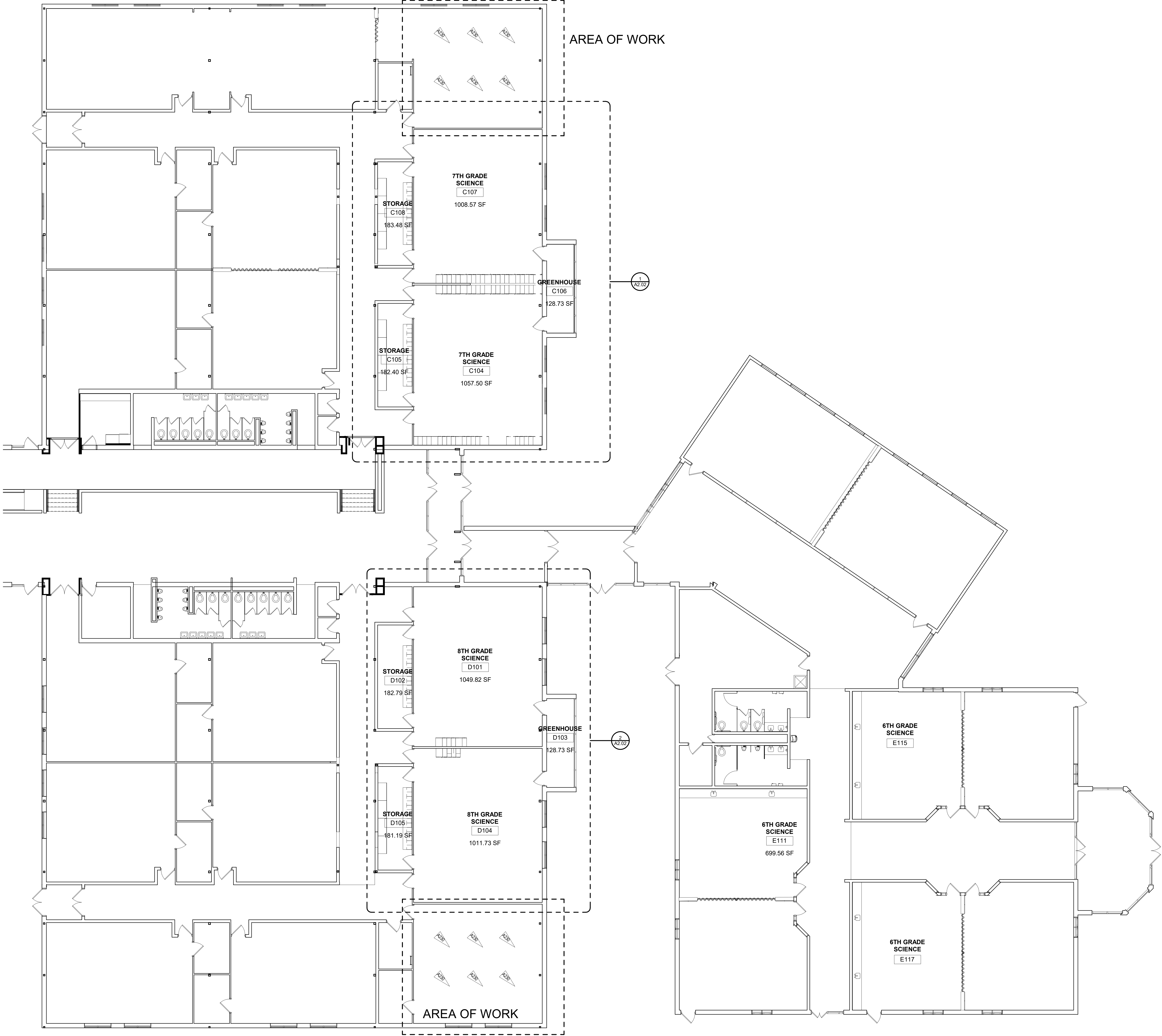
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A2.03

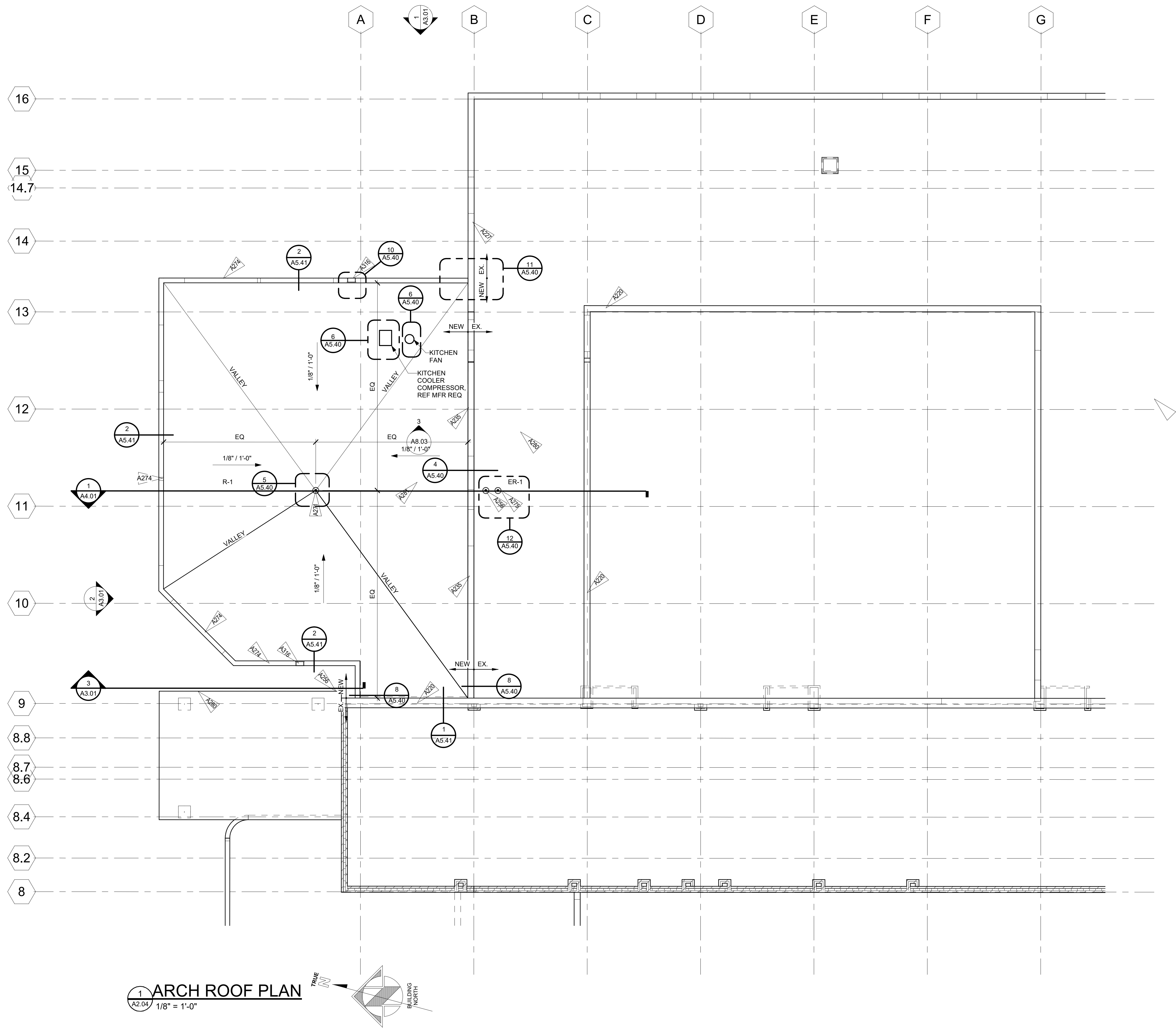
FLOOR PLAN GENERAL NOTES:
 1. EXISTING FINISH SURFACES TO BE FULSH WITH
 REPAIRED SURFACES. TO SAME QUALITY AS
 INSTRUCTION PRIOR TO INSTALLING NEW
 S. REFER TO THE FINISH MANUFACTURER'S
 NES FOR INSTALLATION.

05/14/2020

- RCRBBB-Record Set**
1. PATCH REPAIRS SURFACES TO BE FLOUSH WITH FINISH MATERIALS TO SAME QUALITY AS NEW CONSTRUCTION PRIOR TO INSTALLING NEW FINISHERS. REFER TO THE FINISH MANUFACTURER'S GUIDELINES FOR INSTALLATION.
2. PATCH EXISTING FIRE-RESISTANT CEILING PANELS, EXISTING FIRE-RESISTANT WALLS, RADIANT, AND FIRE-SMOKE DAMPERS WHERE NEW DUCTS CROSS-ABOVE FIRE STOP AT ALL
3. PATCH WALLS AT REMOVED RECEPTACLE OPENINGS SO AS TO RECEIVE SUBSEQUENT WORK.
4. PATCH AND LEVEL FLOOR SUBSTRATES TO RECEIVE NEW WORK AS SCHEDULED.
5. COORDINATE ALL FLOOR CORE DRILLING WITH EXISTING.
6. DO NOT SCALE DRAWINGS.
7. ALL SPOT ELEVATIONS SHOWN ON THE FLOOR PLANS OUTSIDE THE BUILDING RELATE TO USGS ELEVATIONS. ALL SPOT ELEVATIONS INSIDE THE BUILDING REFER TO BUILDING REFERENCE ELEVATIONS. NOTIFY ARCHITECT IMMEDIATELY SHOULD CONDITIONS BE FOUND CONTRADICTORY TO THESE DRAWINGS.
8. ALL ANGLES SHOWN ON THE FLOOR PLANS ARE 90 DEGREES UNLESS OTHERWISE NOTED.
9. ALL DIMENSIONS ARE TO GRID LINE, FACE OF CONCRETE OR MASONRY, OR FACE OF GYPSUM BOARD, UNLESS OTHERWISE NOTED.
10. ALL FLOOR PLAN DIMENSIONS TO MASONRY ARE NOMINAL DIMENSIONS, UNLESS NOTED AS ACTUAL.
11. "TB" NEW CORK TACKBOARDS OR "MB" NEW MARKERBOARDS
12. ALL SIGNAGE BY OWNER, EXIT DOOR NUMBERS PER DOOR SIGNAGE SHEET AT ALL EXIT DOORS

Keynote Legend	
Key Value	Keynote Text
A230	NEW CEILING MOUNTED DROP DOWN ELECTRICAL POWER OUTLET ON RETRACTABLE CORD, REF ELEC DRAWINGS





NOTES:

RCRBD Record Set
T.A.
05/14/2020

ROOF FINISH LEGEND
R-1 90 MIL BLACK EPDM

METAL FLASHING PAINTED TO MATCH EXISTING

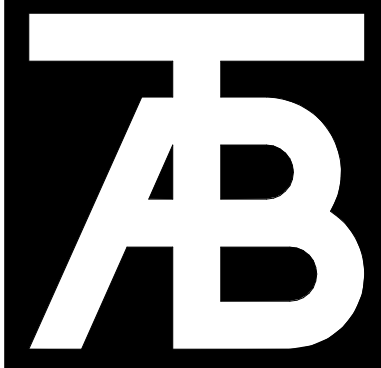
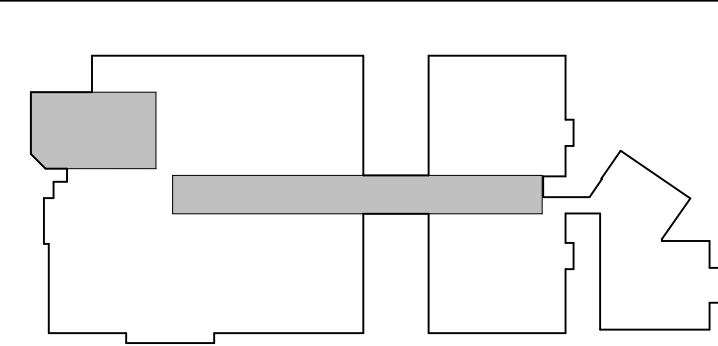
NOTES:
1. HATCHED AREAS INDICATE OVERBUILT ROOF & CRICKETS, RE: STRUCTURAL
2. ALL DRAINS TO RECEIVE HEAT TAPE FOR ENTIRE LENGTH, RE: DIAGRAM ON ELECTRICAL PLANS

ROOF PLAN GENERAL NOTES:
1. ALL EXISTING ROOFING IN DEMO AREAS TO BE REMOVED AND REPLACED WITH FULLY ADHERED 90 MIL EPDM ON 1/2" PROTECTION BOARD ON R-30 MIN CONTINUOUS INSULATION.
2. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE.

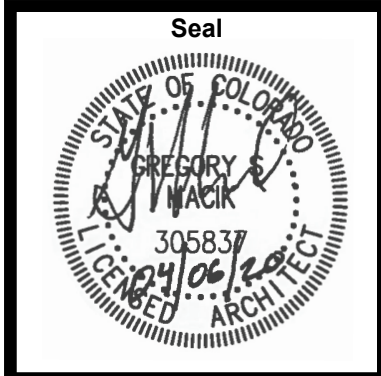
EXTERIOR MATERIAL LEGEND:
EX-1 EXISTING BRICK
X-1 NEW BRICK TO MATCH EXISTING
X-2 NEW STUCCO TO MATCH EXISTING
ER-1 EXISTING EPDM
R-1 NEW 90 MIL FULLY ADHERED REINFORCED EPDM ROOF ON SINGLE LAYER OF DENSDECK ON RIGID INSULATION ON ONE LAYER OF DENSDECK INSTALLED ON TOP OF MTL ROOF DECK
CJ STUCCO CONTROL JOINT

Keynote Legend	
Key Value	Keynote Text
A220	EXISTING WALL TO REMAIN
A227	EXISTING ROOF PARAPET TO REMAIN
A235	INSTALL NEW EPDM ROOFING UP, OVER, AND DOWN PARAPET 6" MIN, INSTALL NEW PARAPET CAP
A256	EXISTING ROOF DRAIN OR GUTTER AND DOWNSPOUT TO REMAIN
A271	NEW ROOF DRAIN, REF MEP DWGS
A274	INSTALL NEW PARAPET
A275	INSTALL NEW ROOF OVERFLOW DRAIN, REF MEP DWGS
A280	EXISTING ROOF TO REMAIN
A281	INSTALL NEW 90 MIL REINFORCED EPDM ROOF WITH TAPERED R-35 MIN RIGID INSULATION
A316	LAMBS TOUNGE ROOF DRAIN AND SCUPPER, REF DETAIL 10/A5.40

KEYNOTE PLAN



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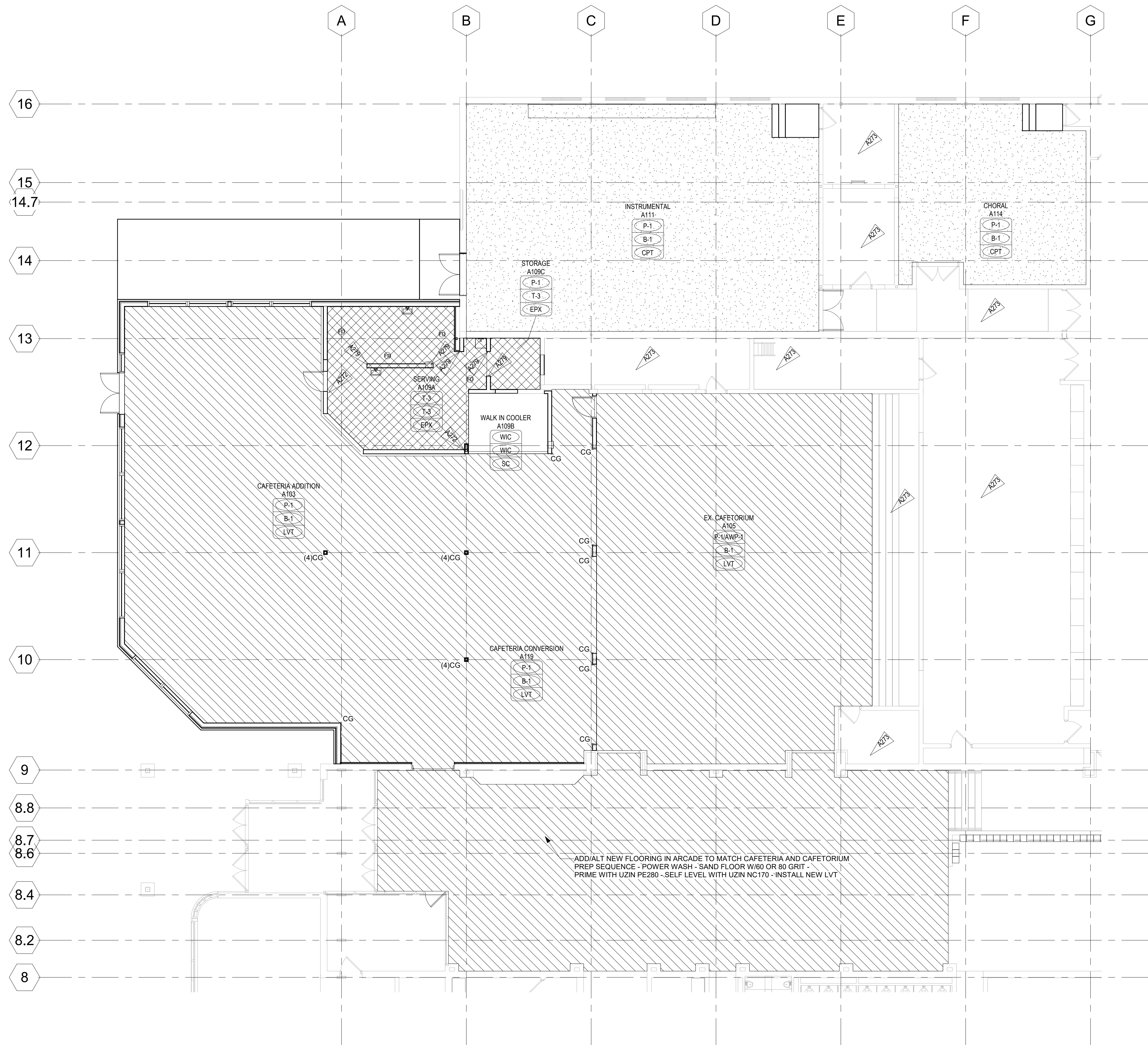
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No	Description	Date

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SD - 01/14/20
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95% CD - 03/30/20
CD's - 04/07/20

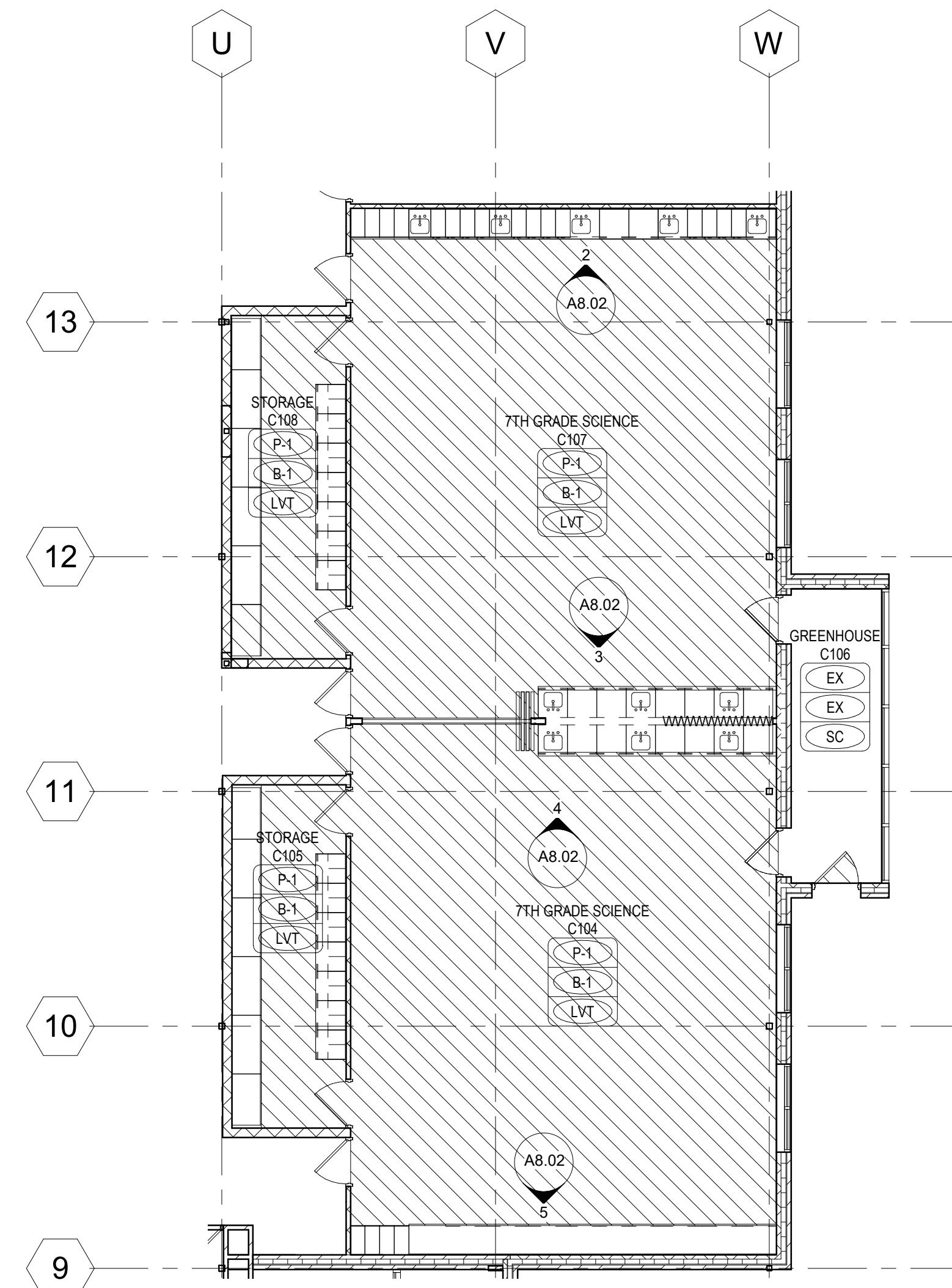
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Roof Plan

Project No:
1935.03

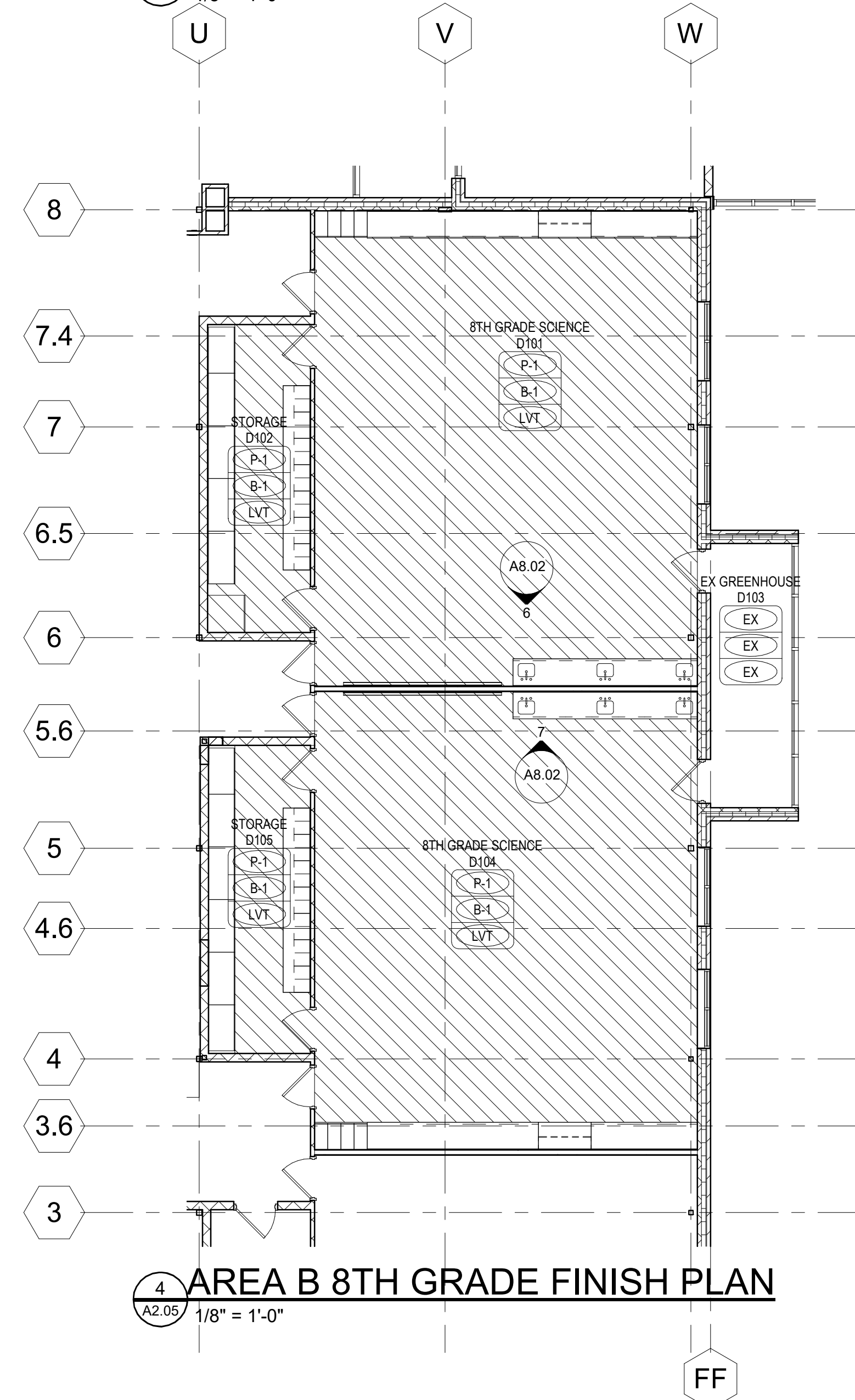
Sheet No:
A2.04



1 AREA A FINISH PLAN
A2.05 1/8" = 1'-0"



2 AREA B 7TH GRADE FINISH PLAN
A2.05 1/8" = 1'-0"



3 AREA B 8TH GRADE FINISH PLAN
A2.05 1/8" = 1'-0"

NOTES:

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T.A.

05/14/2020

SEE ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS FOR EXTENT OF WALL TILE ON WET WALLS ONLY.

FLOOR MATERIAL LEGEND

LVT

CARPET

WALK-OFF CARPET

SEALED CONCRETE

EPOXY

Keynote Legend

Key Value	Keynote Text
A272	WALL TILE TO STOP AT EDGE OF COUNTER
A273	EXISTING FLOOR TO REMAIN
A279	USE SCHLUTER CORNER TRIM, SIM 2/A5.3

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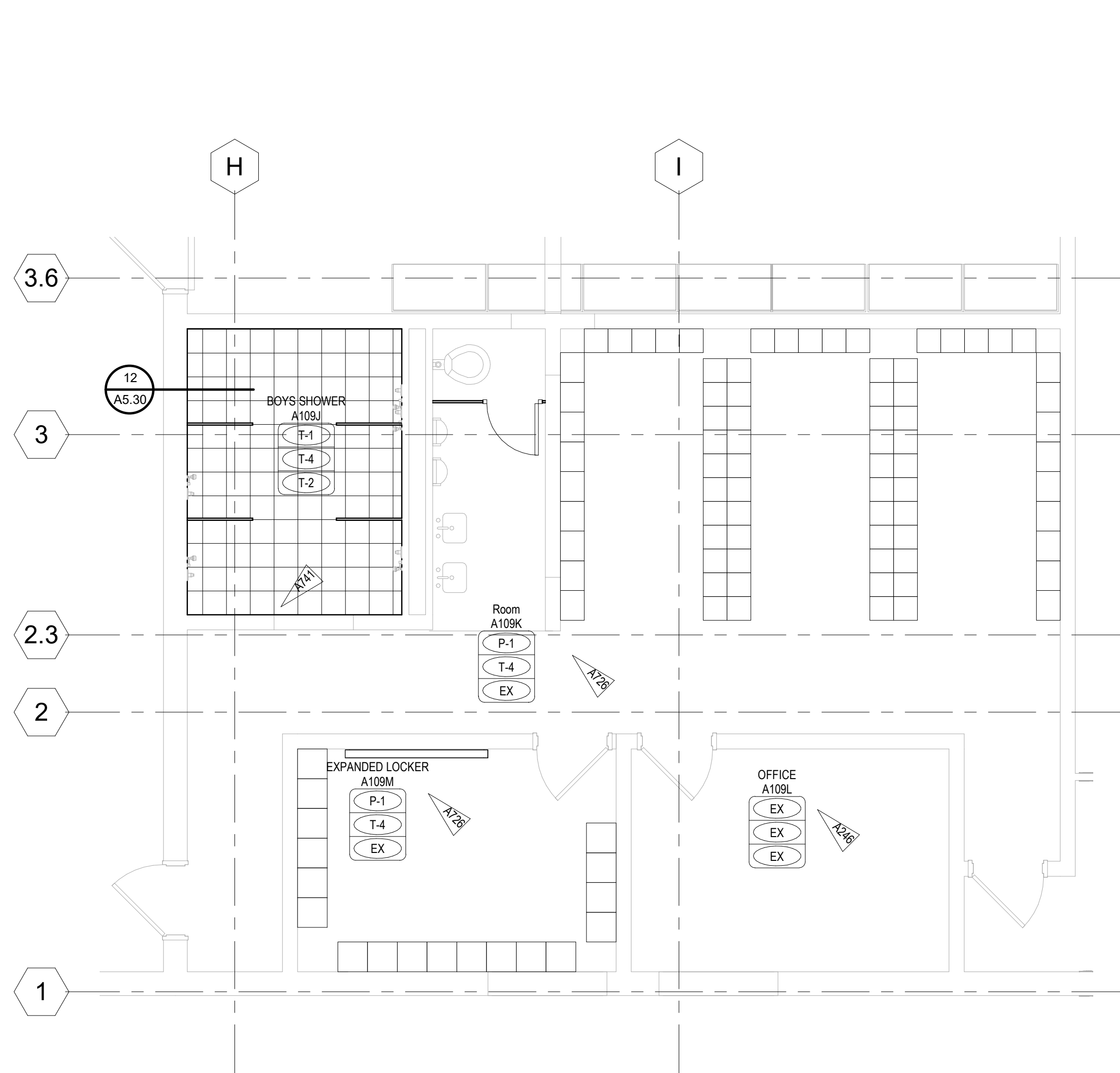
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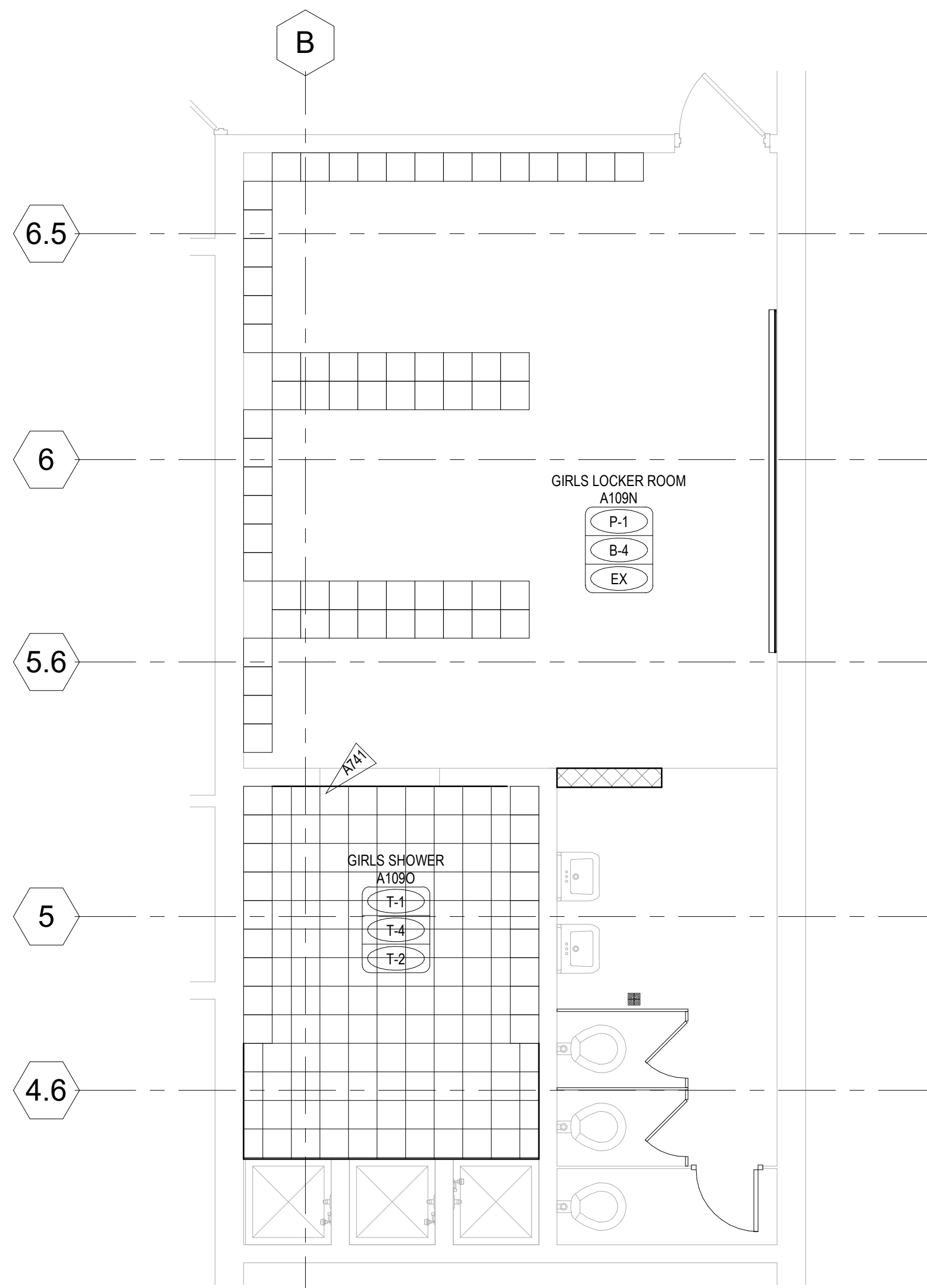
Sheet Title:
**Floor
Finish
Plans Cafe
and
Classrooms**

Project No:
1935.03

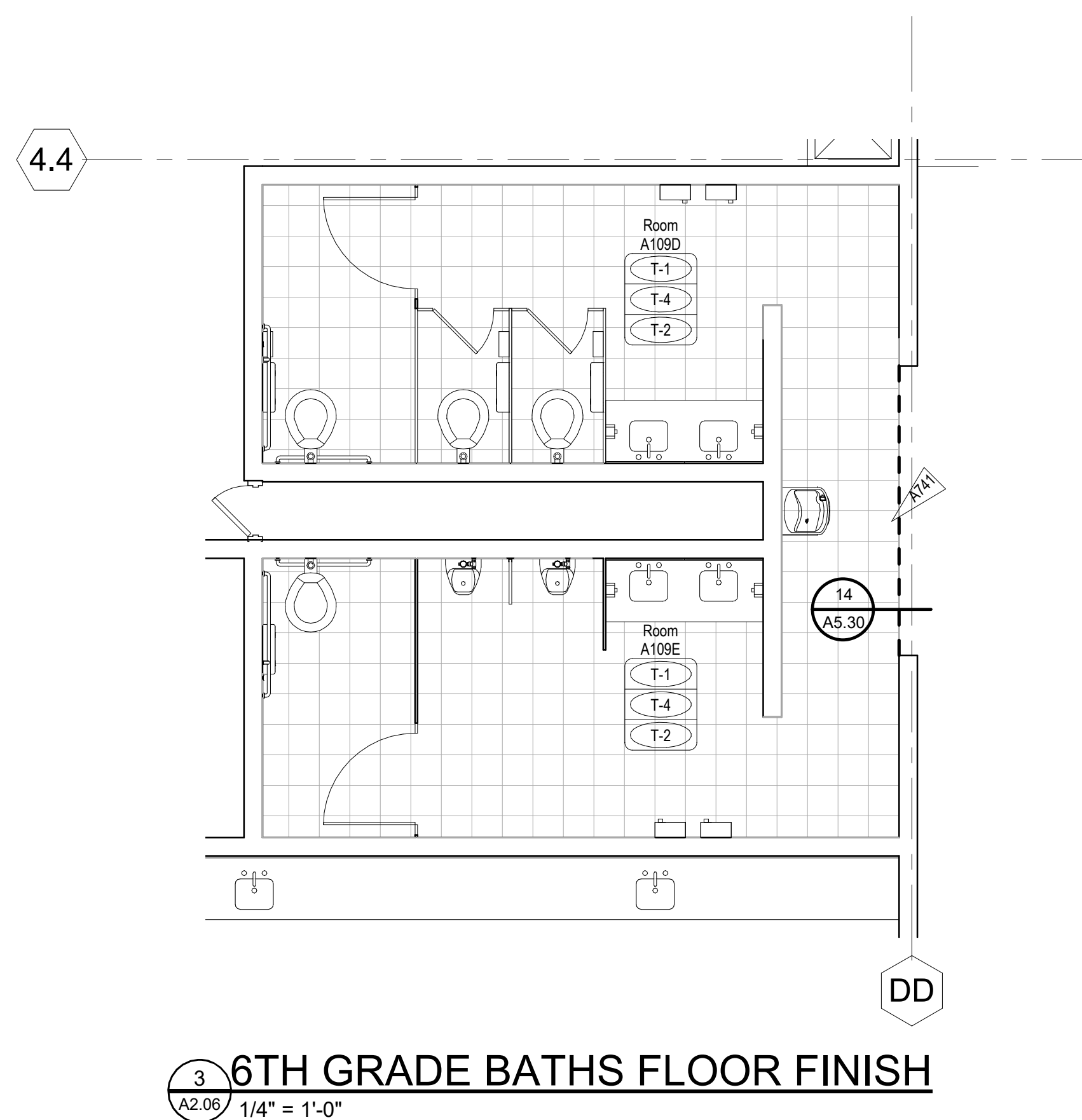
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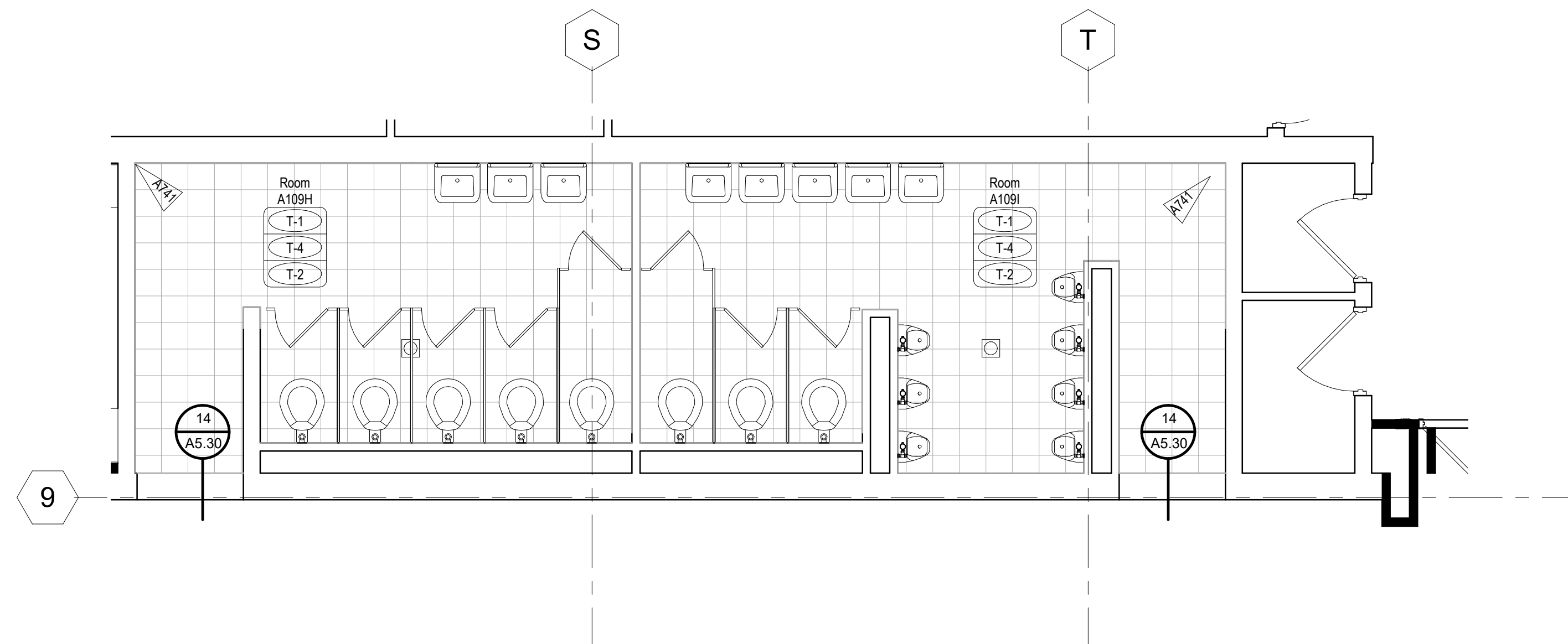
6 BOYS LOCKER B119 FLOOR FINISH
A2.06 1/4" = 1'-0"



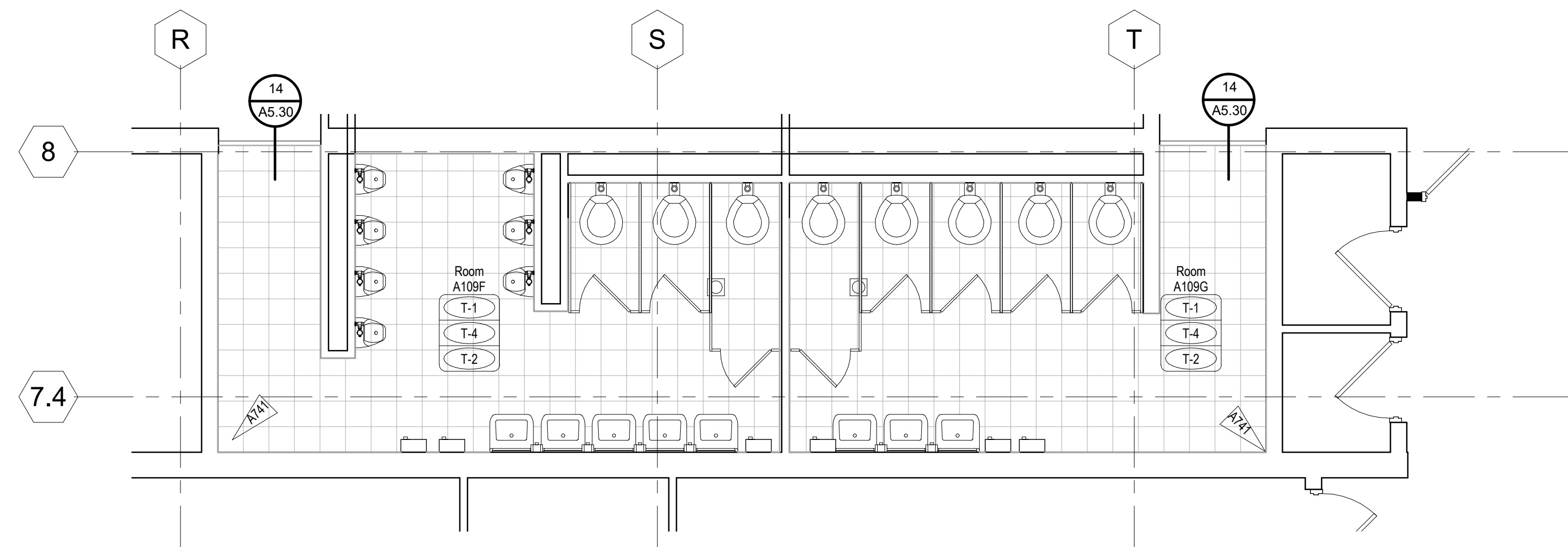
8 GIRLS LOCKER A200C FLOOR FINISH
A2.06 1/4" = 1'-0"



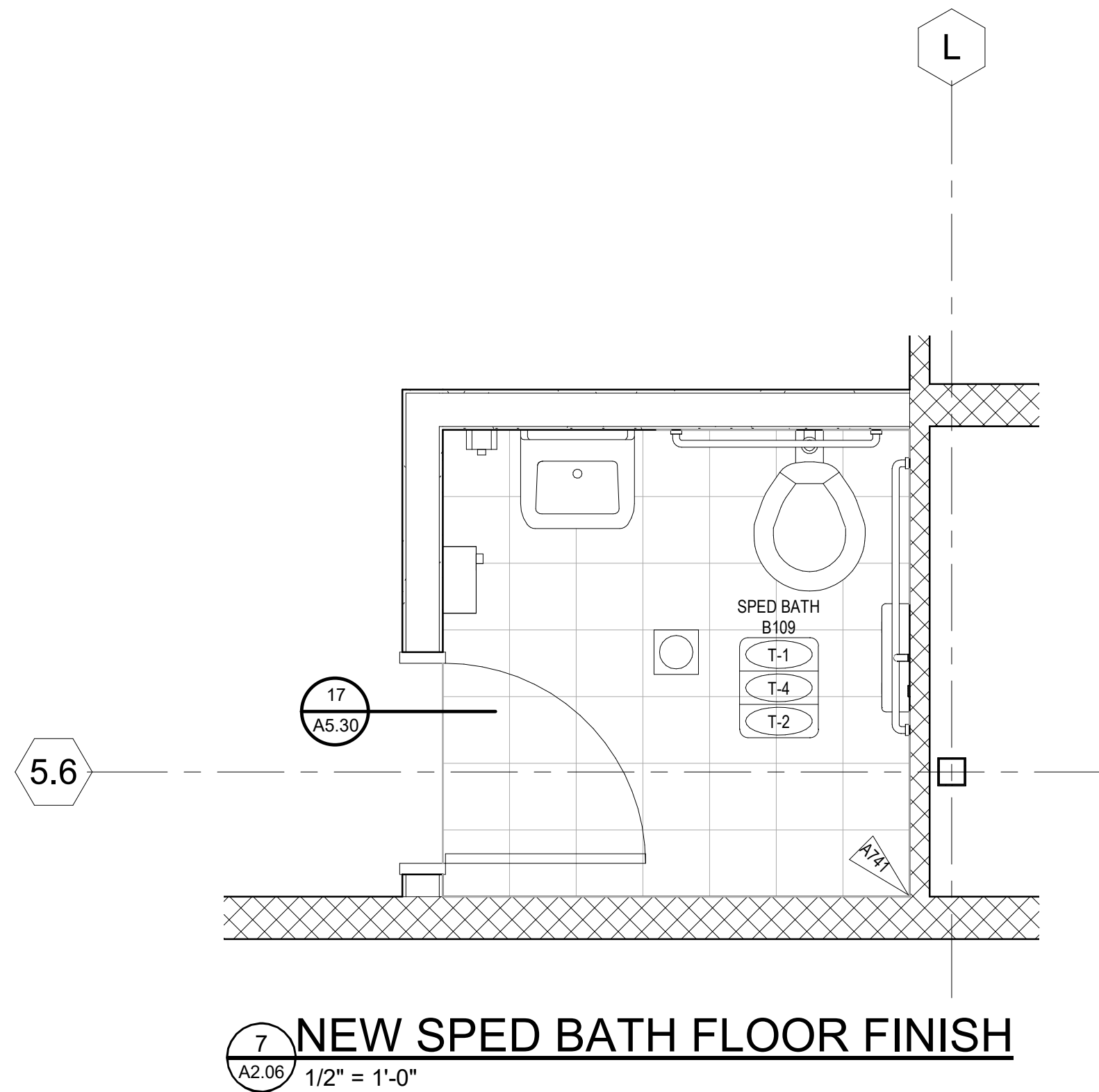
3 6TH GRADE BATHS FLOOR FINISH
A2.06 1/4" = 1'-0"



4 SOUTH ARCADE EAST BATHS FLOOR FINISH
A2.06 1/4" = 1'-0"



5 SOUTH ARCADE WEST BATHS FLOOR FINISH
A2.06 1/4" = 1'-0"



7 NEW SPED BATH FLOOR FINISH
A2.06 1/2" = 1'-0"

NOTES:

RCRBD Record Set
T.A.

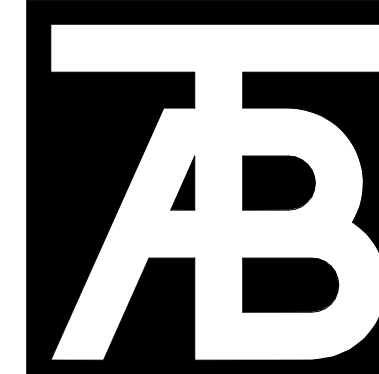
05/14/2020

FLOOR MATERIAL LEGEND

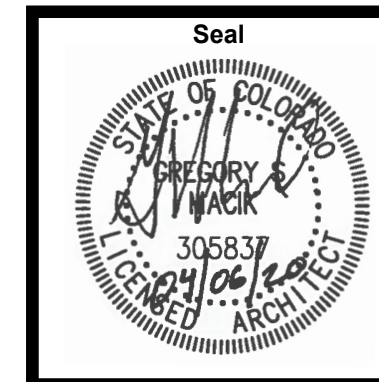


Keynote Legend

Key Value	Keynote Text
A246	NO WORK IN AREA
A726	EXISTING SEALED CONCRETE FLOOR TO REMAIN
A741	STARTER TILE



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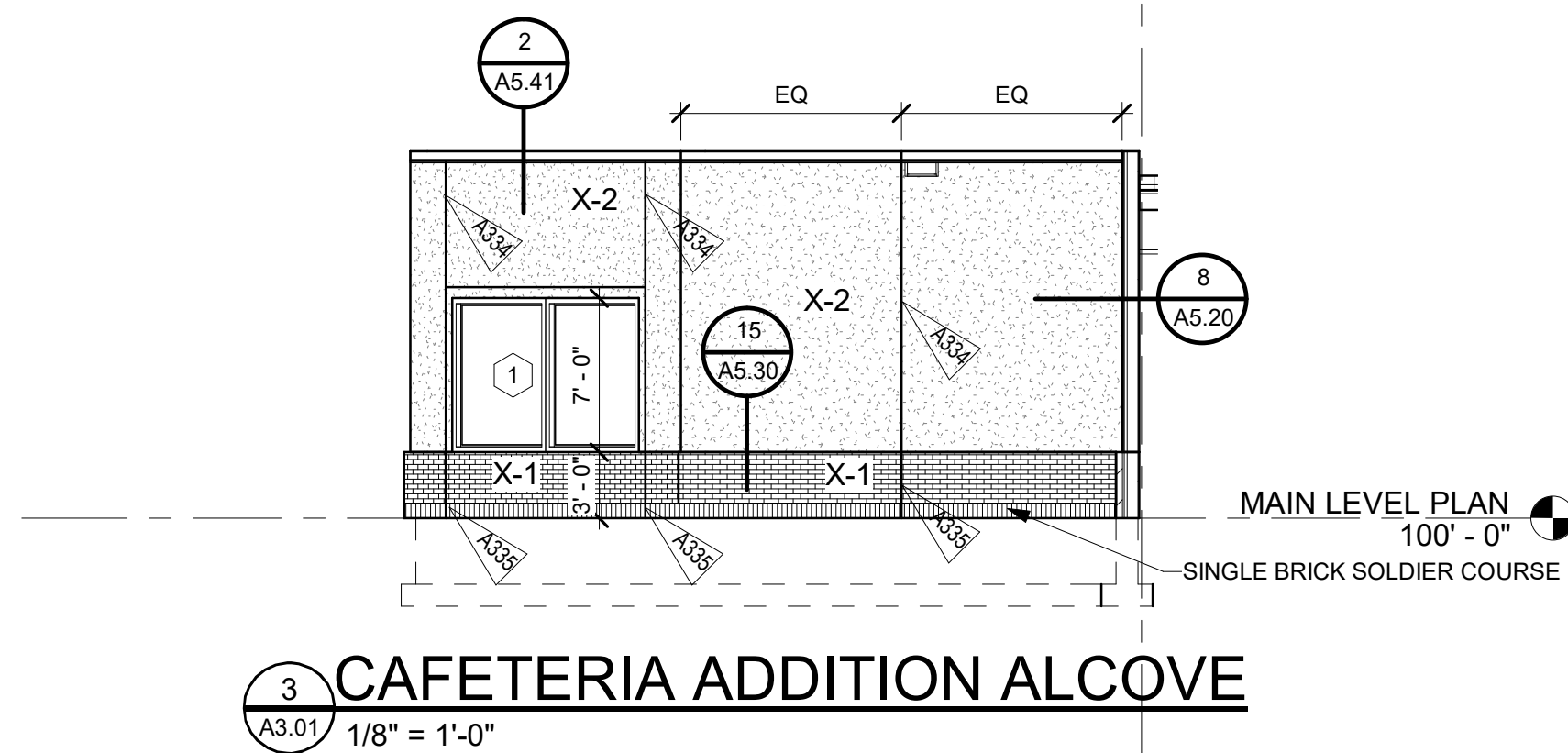
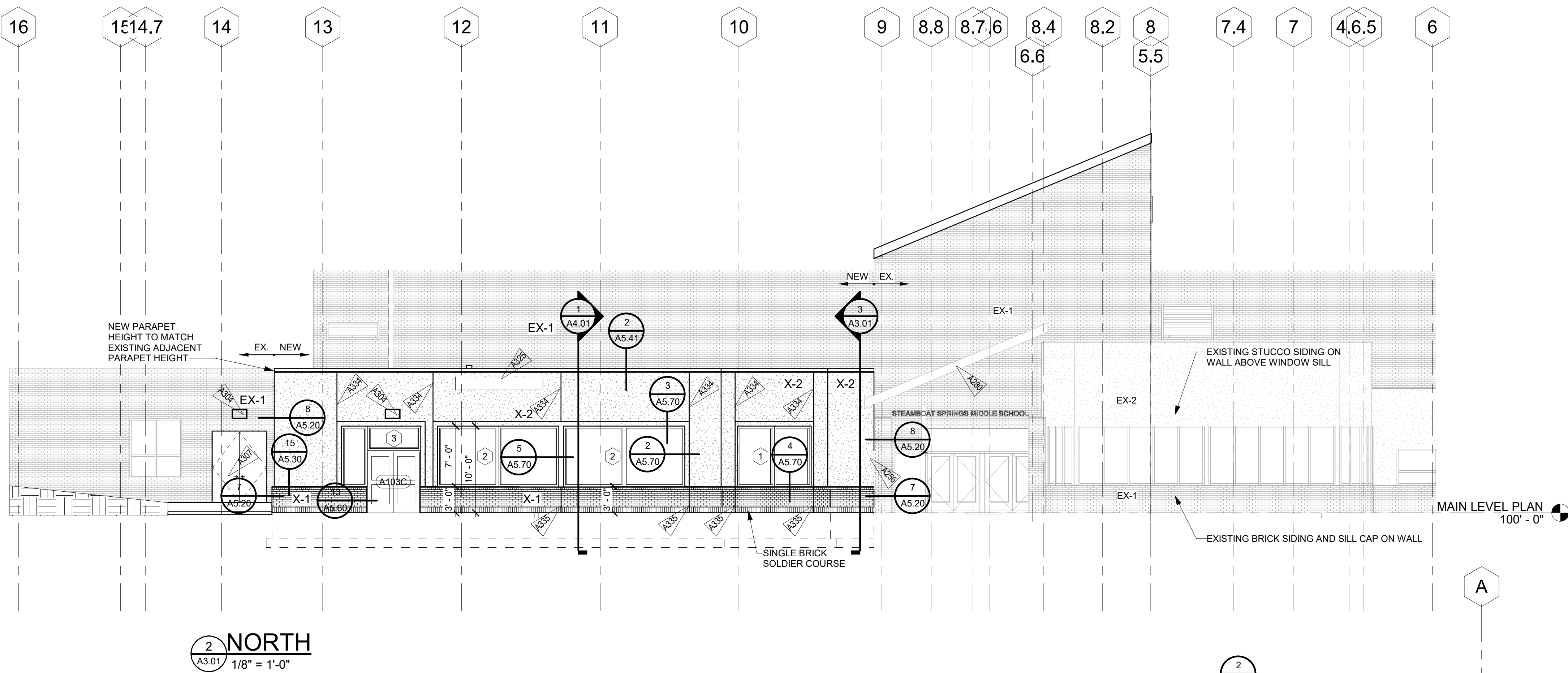
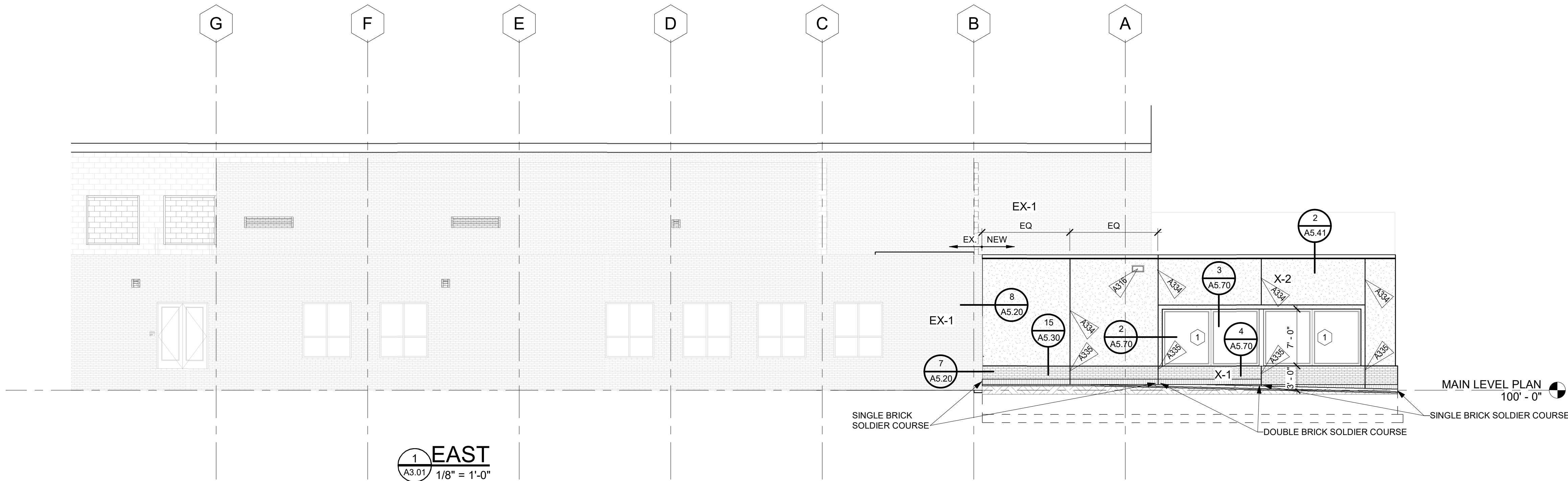
Revisions:		
No	Description	Date

Issue Dates:
Initial SD - 12/20/19
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DD - 02/21/20
95% CD - 03/30/20
CD's - 04/07/20

Sheet Title:
Finish Floor Plans Bathrooms

Project No:
1935.03

Sheet No:
A2.06



NOTES:

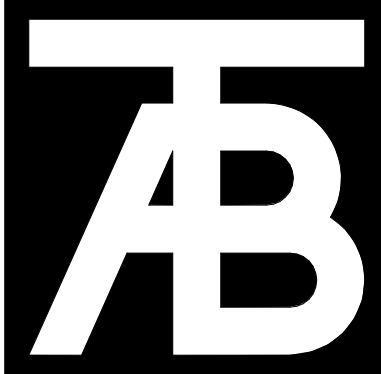
EXTERIOR ELEVATION GENERAL NOTES:

1. EXTERIOR FINISHES INDICATED ON ELEVATIONS SEE "EXTERIOR MATERIAL LEGEND" FOR MATERIALS.
2. REFERENCE ROOF PLAN FOR LOCATIONS OF ROOF COMPONENTS NOT INDICATED ON EXTERIOR ELEVATIONS.
3. REFER TO MEP AND STRUCTURAL DRAWINGS FOR ANY ADDITIONAL WORK.
4. ASSUME ALL PAINTED SURFACES IN AREA OF WORK WILL BE REPAINTED. THIS INCLUDES BUT IS NOT LIMITED TO: DOORS, DOOR FRAMES, WINDOW FRAMES, AND HEADERS, CEILING, HANDRAILS, EXPOSED MECHANICAL CMU ACCENTS, SOFFITS, STRUCTURAL BEAMS, AND ETC.
5. PROVIDE ALLOWANCE TO SEAL AND CAULK VARIOUS WALL PENETRATIONS AND HOLES AROUND EXTERIOR PERIMETER OF BUILDING. SIMILAR AREAS SUCH AS HOSE BIBS, PIPES, ETC.
6. PROVIDE ALLOWANCE TO REVIEW ALL EXPOSED ELECTRICAL CONDUIT TO DETERMINE FEASIBILITY TO REMOVE OR RELOCATE. INCLUDE IN ALLOWANCE LABOR AND MATERIALS TO REMOVE OR RELOCATE.
7. SEE CIVIL PLANS FOR NOTE TO RESEAL ALL HORIZONTAL CONCRETE AND ASPHALT JOINTS AT BUILDING.
8. WHEN A PORTION OF A WALL IS PAINTED ASSUME THE ENTIRE WALL IS PAINTED TO INSIDE OR OUTSIDE CORNERS.
9. DO NOT SCALE DRAWINGS.
10. ALL ANGLES SHOWN ON THE FLOOR PLANS ARE 90 DEGREES UNLESS NOTED OTHERWISE.

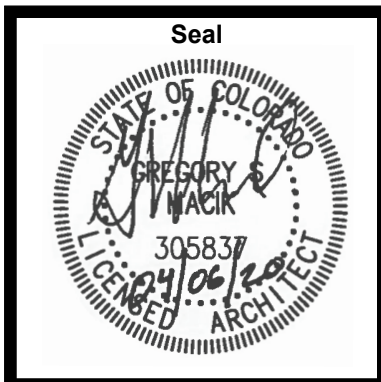
EXTERIOR MATERIAL LEGEND:

- EX-1 EXISTING BRICK
- X-1 NEW BRICK TO MATCH EXISTING
- X-2 NEW STUCCO TO MATCH EXISTING
- ER-1 EXISTING EPDM
- R-1 NEW 90 MIL FULLY ADHERED REINFORCED EPDM ROOF ON SINGLE LAYER OF DENSDECK ON RIGID INSULATION ON ONE LAYER OF DENSDECK INSTALLED ON TOP OF MTL ROOF DECK
- CJ STUCCO CONTROL JOINT

Keynote Legend	
Key Value	Keynote Text
A256	EXISTING ROOF DRAIN OR GUTTER AND DOWNSPOUT TO REMAIN
A280	EXISTING ROOF TO REMAIN
A304	REINSTALL SALVAGED EXTERIOR LIGHT CENTERED ABOVE DOOR BELOW
A307	INSTALL NEW DOORS, REF DOOR SCHEDULE
A316	LAMBS TOUNGE ROOF DRAIN AND SCUPPER, REF DETAIL 10/A5.40
A325	INSTALL SALVAGED ELECTRIC SIGN
A334	STUCCO CONTROL JOINT, REF 11/A5.30
A335	MASONRY CONTROL JOINT
EX-1	EXISTING BRICK
X-1	NEW BRICK TO MATCH EXISTING
X-2	NEW STUCCO WITH INTEGRAL COLOR FINISH COAT



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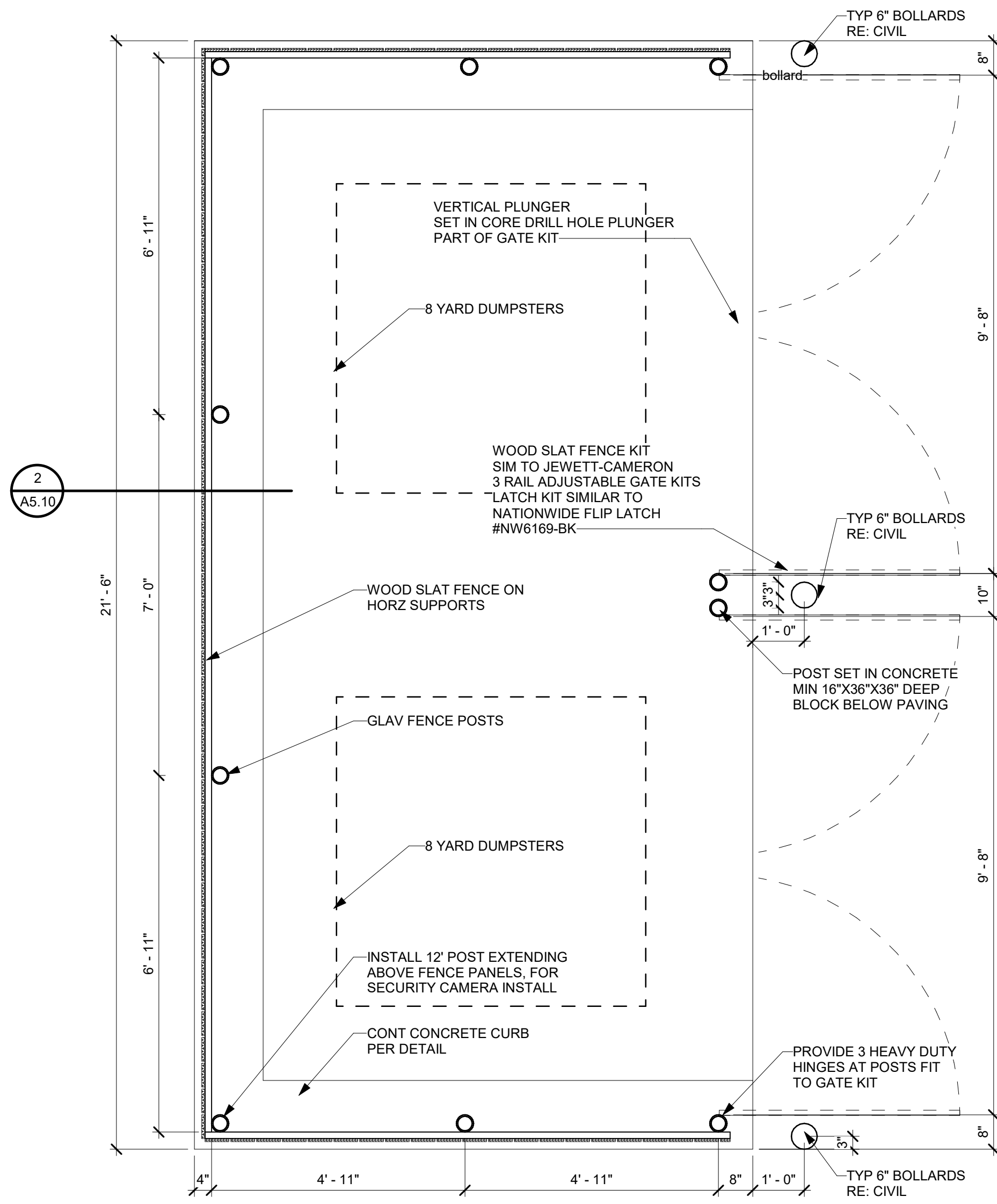
Sheet Title:
Exterior Elevations

Project No:
1935.03

Sheet No:
A3.01

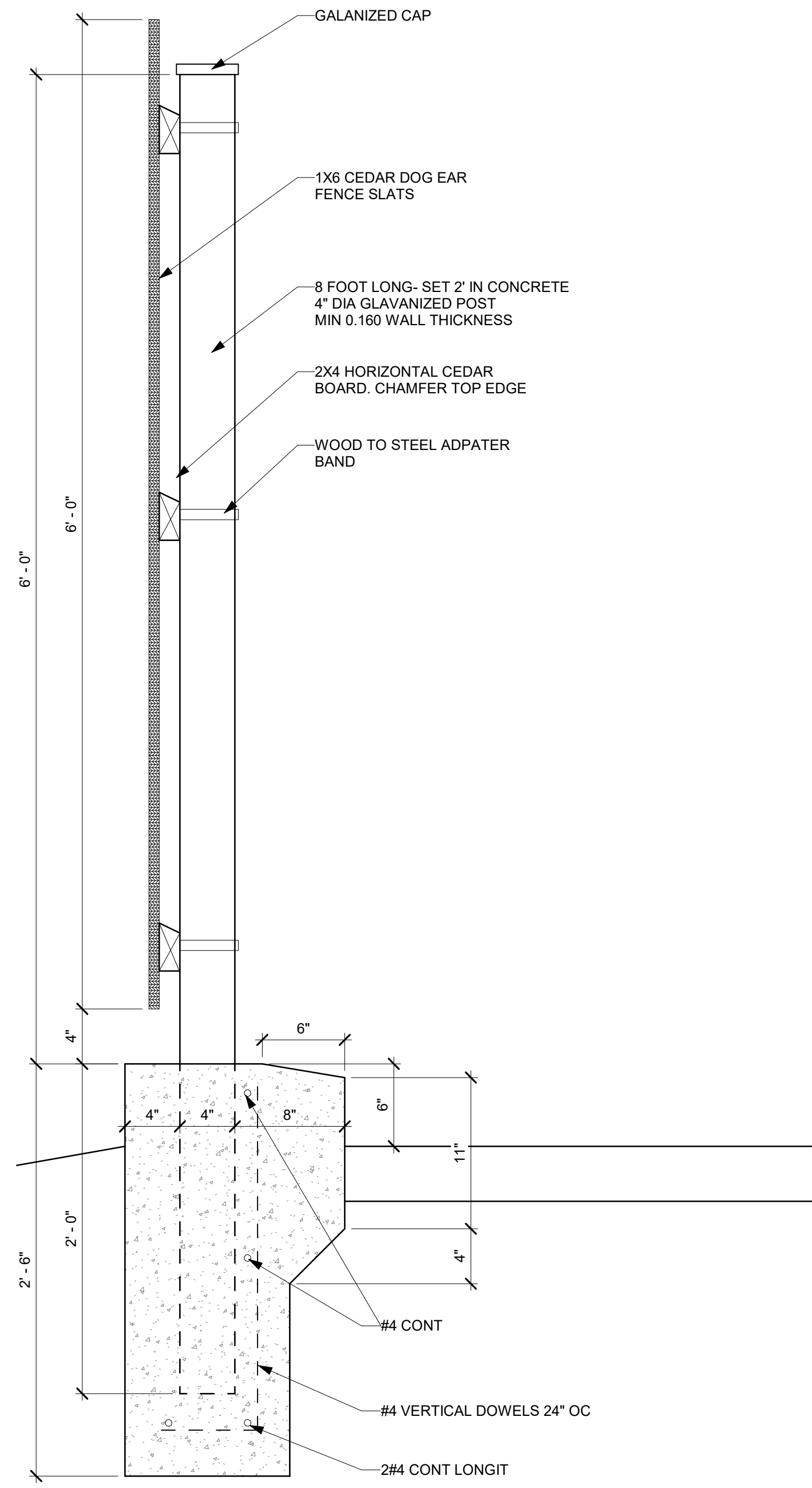


Keynote Legend	
Key Value	Keynote Text
A220	EXISTING WALL TO REMAIN
A226	INSTALL DRYWALL WRAP ON STRUCT COLUMN, SIM TO 6/AS 20
A235	INSTALL NEW EPDM ROOFING UP, OVER, AND DOWN PARAPET 6" MIN, INSTALL NEW PARAPET CAP
A274	INSTALL NEW PARAPET
A280	EXISTING ROOF TO REMAIN
A281	INSTALL NEW 90 MIL REFORCED EPDM ROOF WITH TAPERED R-5 MIN RIGID INSULATION
A316	LAMBS TONGUE ROOF DRAIN AND SCUPPER, REF DETAIL 10/A5/40
A401	DRYWALL WRAP STEEL BEAM
A402	STEEL BEAM, REF STRUCTURAL DRAWINGS
A403	INSTALL STEEL STUD WALL, UP TO B.O. ROOF JOISTS WITH 5/8" GWB ON ROOM SIDE
A404	NEW MECH DUCT, REF MECH DRAWINGS
A613	NEW 2X4 SUSPENDED ACOUSTIC CEILING TILE CLOUD



1 TRASH ENCLOSURE PLAN

1/2" = 1'-0"

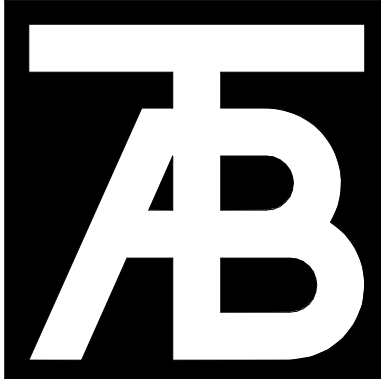


2 FENCE SECTION

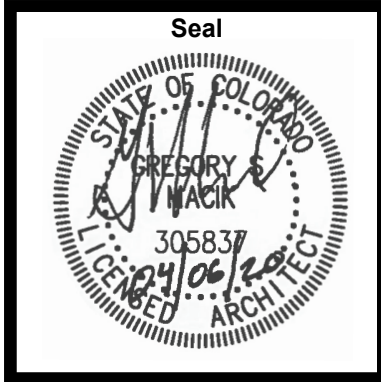
1/2" = 1'-0"

RCRBD Record Set
T.A.

05/14/2020



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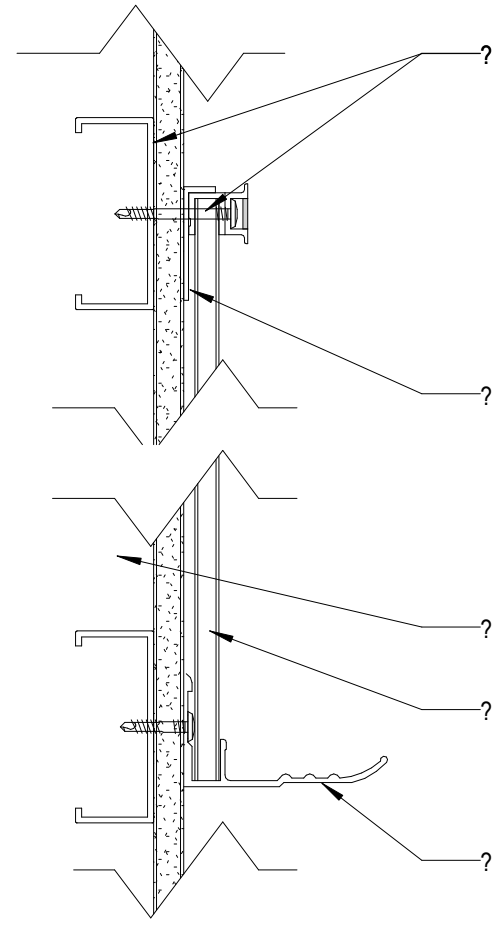
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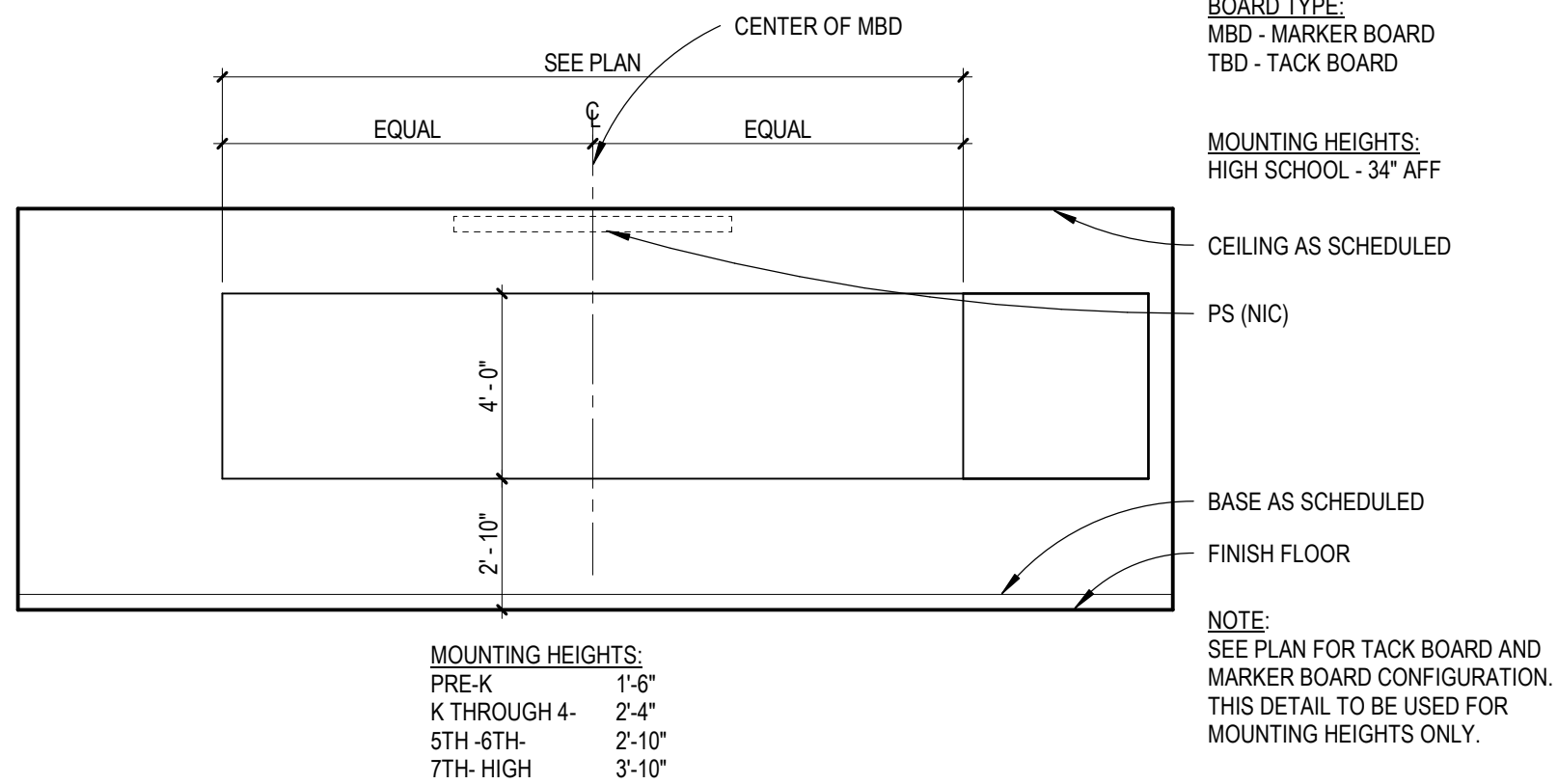
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**Foundation
/Site
Details**

Project No:
1935.03

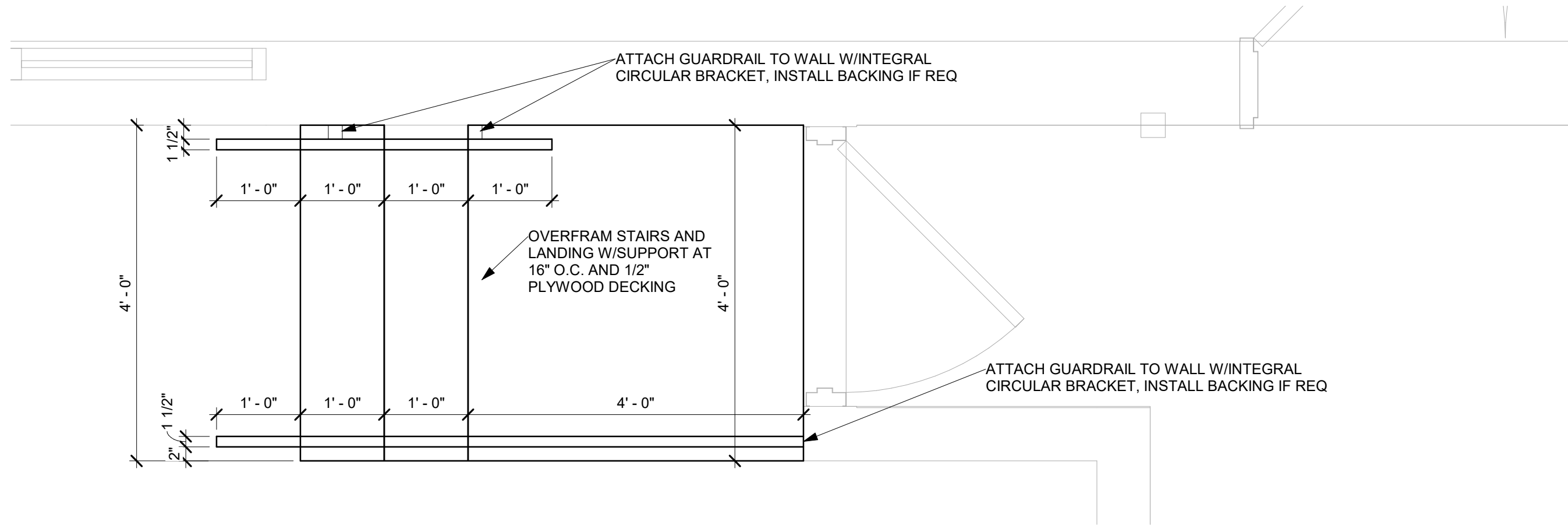
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A5.10



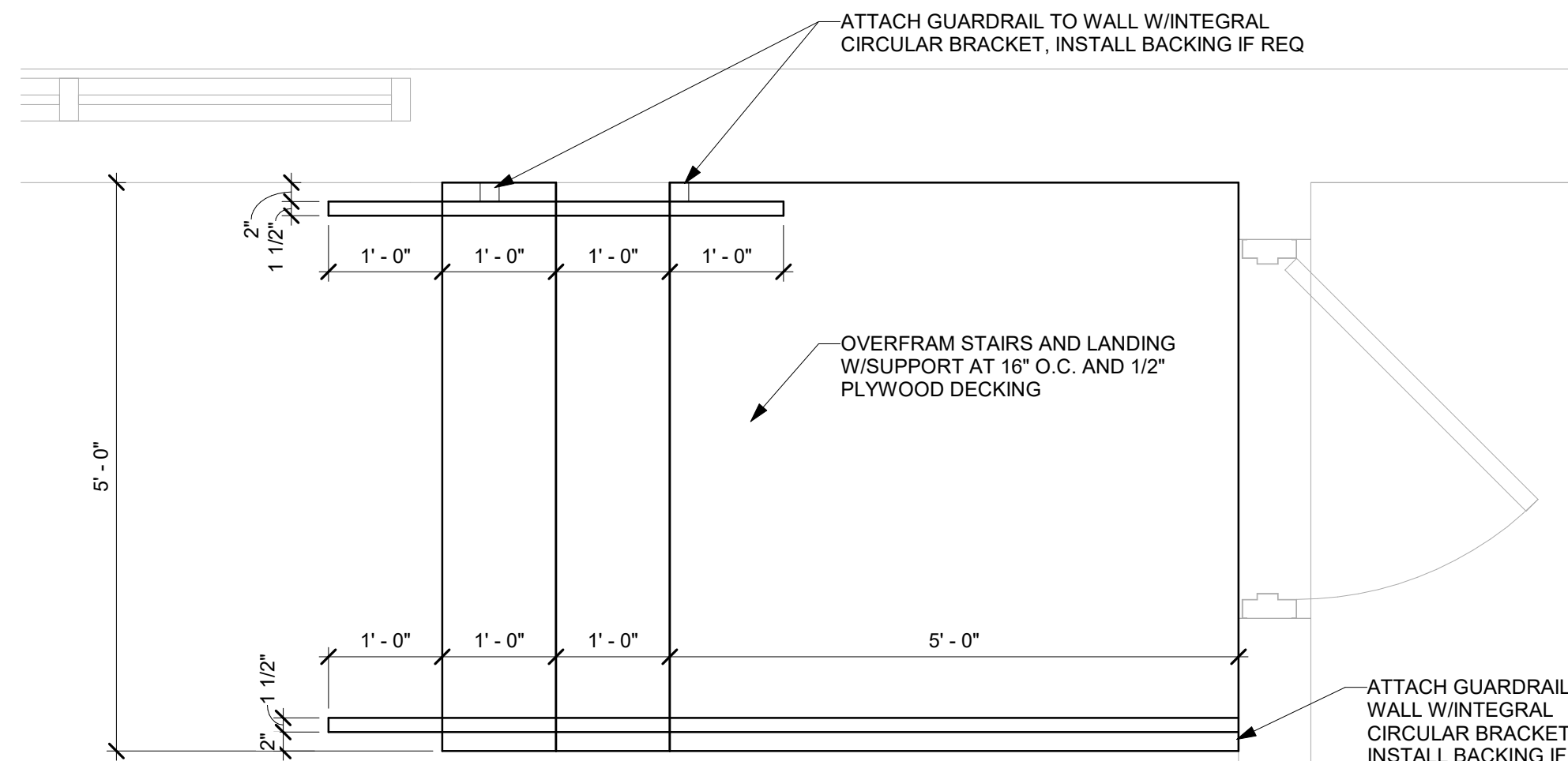
1 MARKERBOARD ATTACHMENT
A5.20 3" = 1'-0"



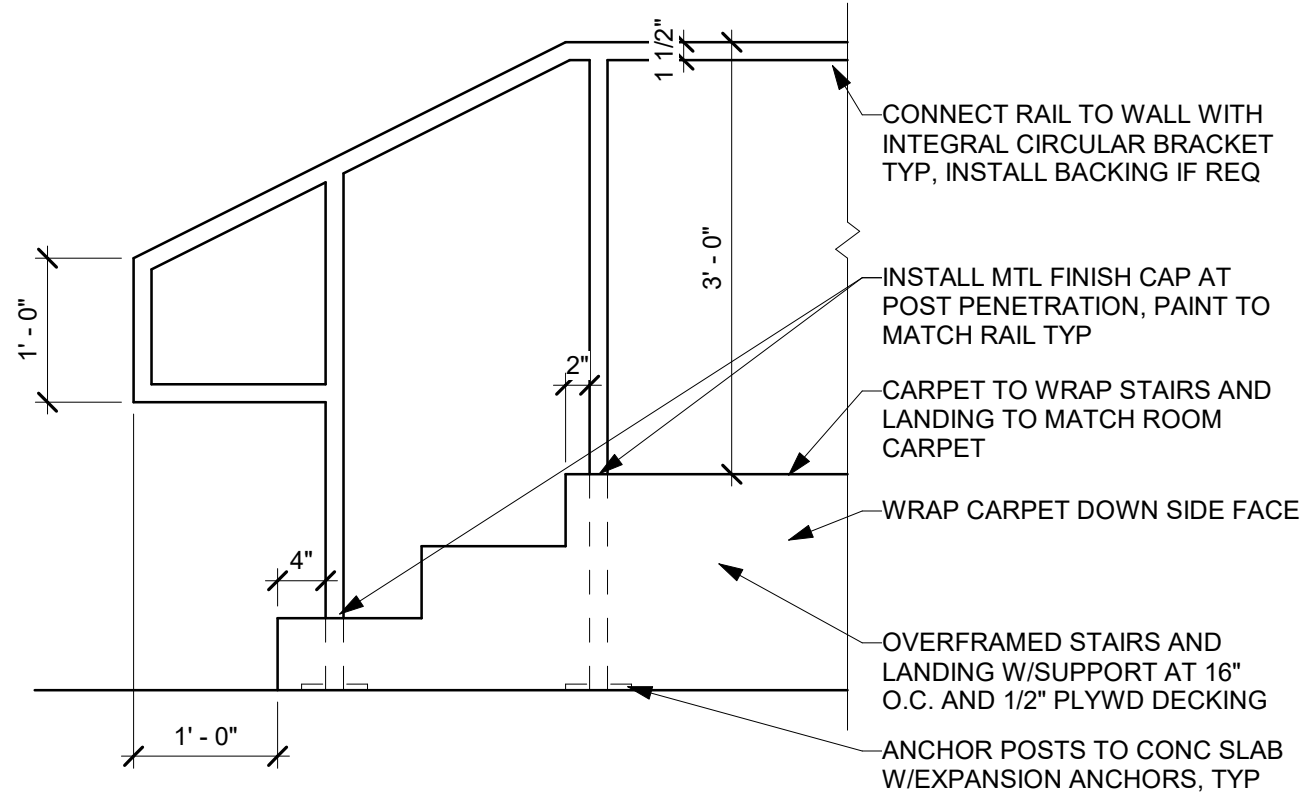
2 MBD / TBD / TV ELEVATION
A5.20 1/4" = 1'-0"



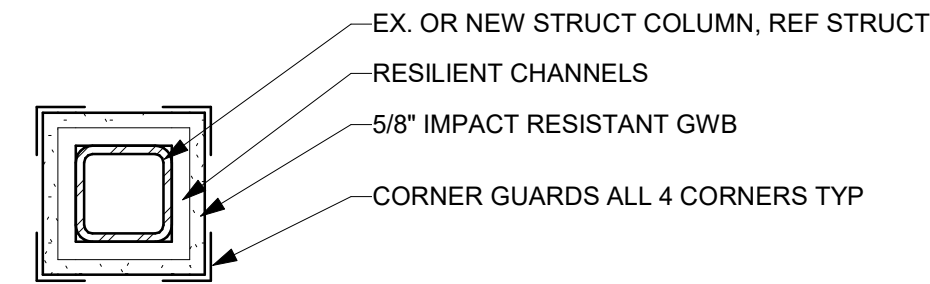
3 CHORAL A114 STAIR
A5.20 3/4" = 1'-0"



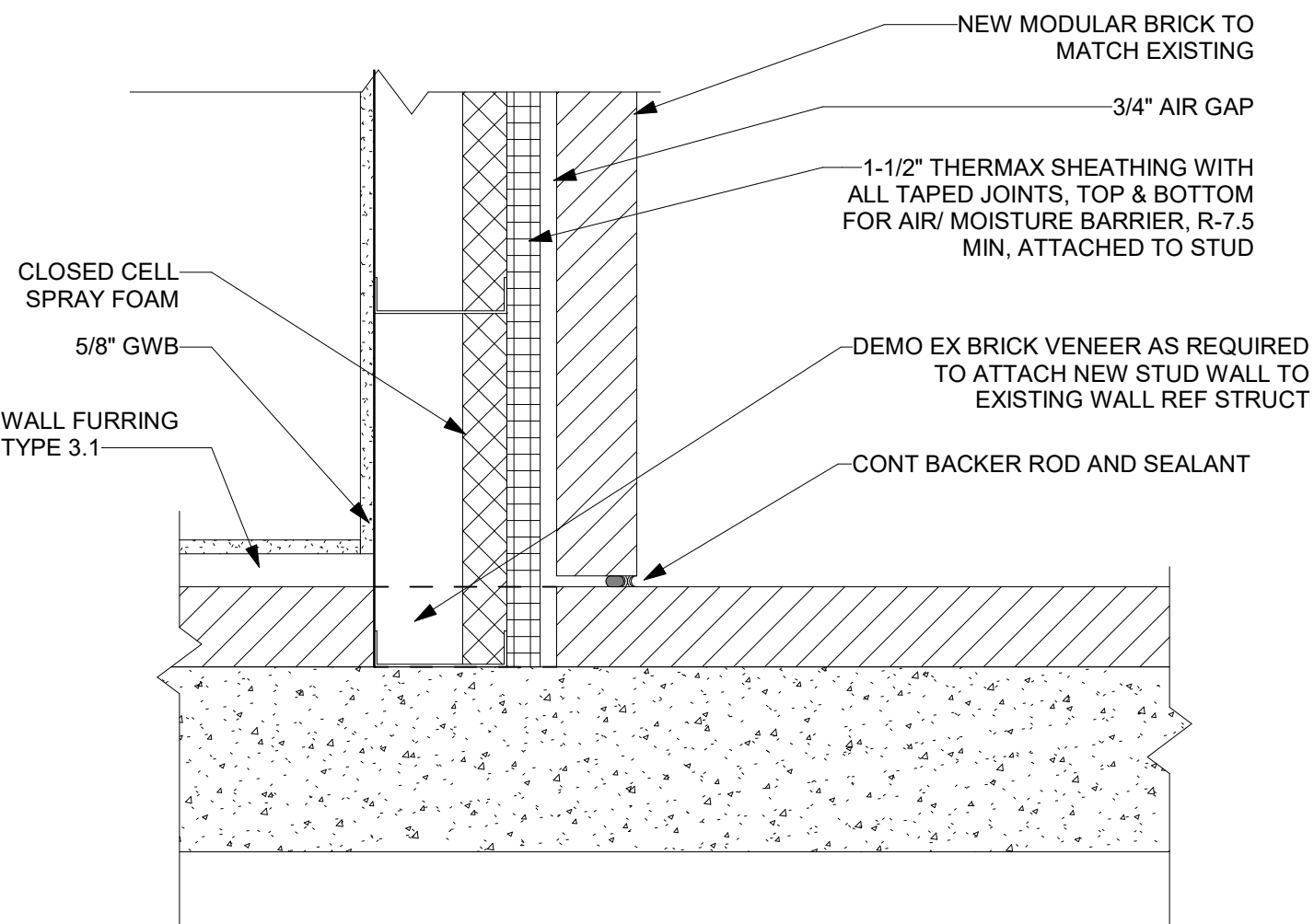
4 INSTRUMENTAL A111 STAIR
A5.20 3/4" = 1'-0"



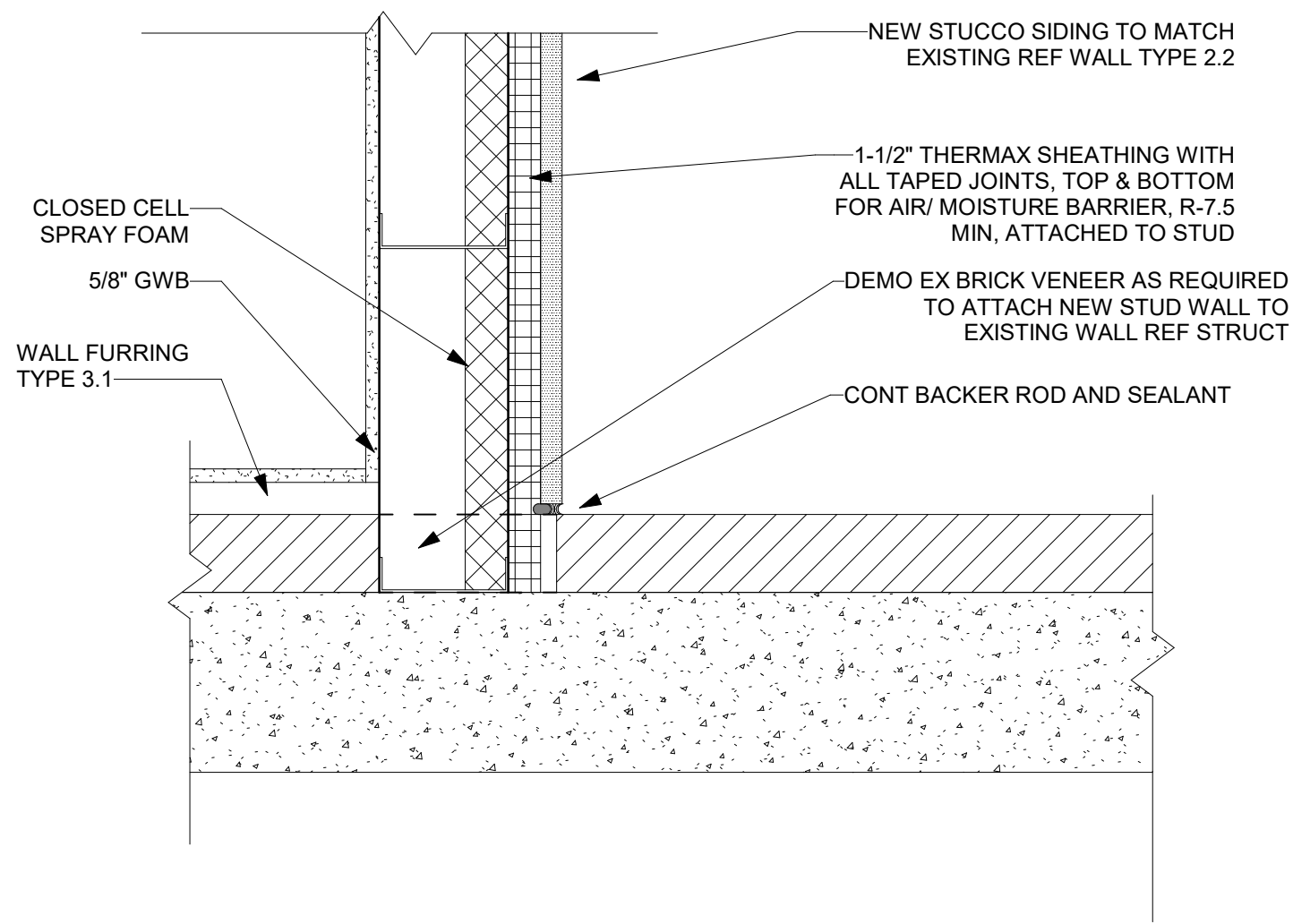
5 TYP HANDRAIL
A5.20 3/4" = 1'-0"



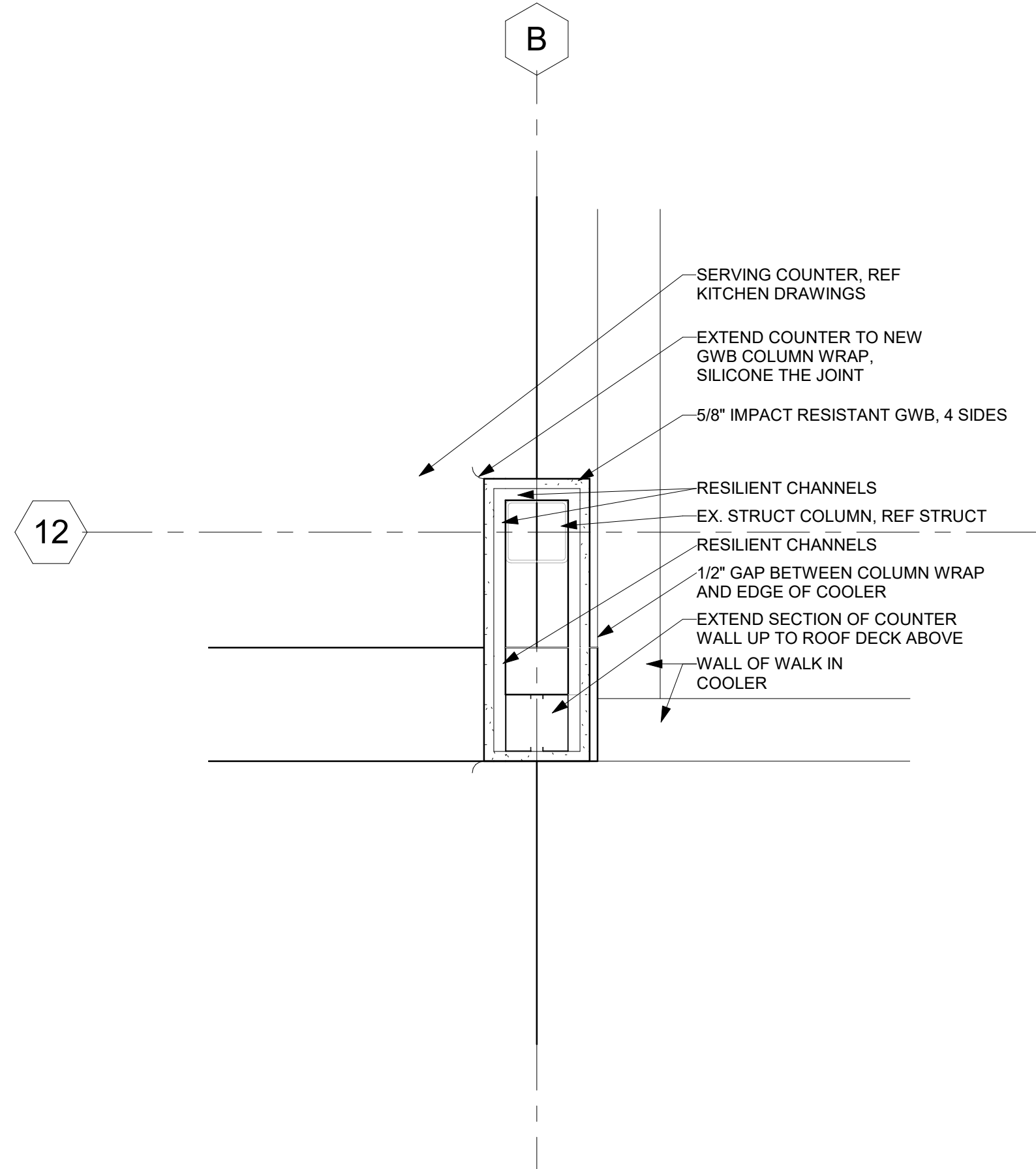
6 TYP STL COLUMN WRAP
A5.20 1 1/2" = 1'-0"



7 NEW BRICK WALL TO EX MASONRY
A5.20 1 1/2" = 1'-0"



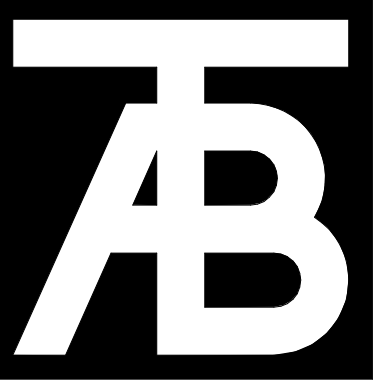
8 NEW STUCCO WALL TO EX MASONRY
A5.20 1 1/2" = 1'-0"



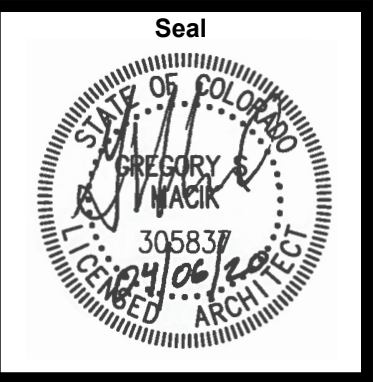
9 SERVING LINE COLUMN WRAP
A5.20 1 1/2" = 1'-0"

RCRBD Record Set
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05/14/2020



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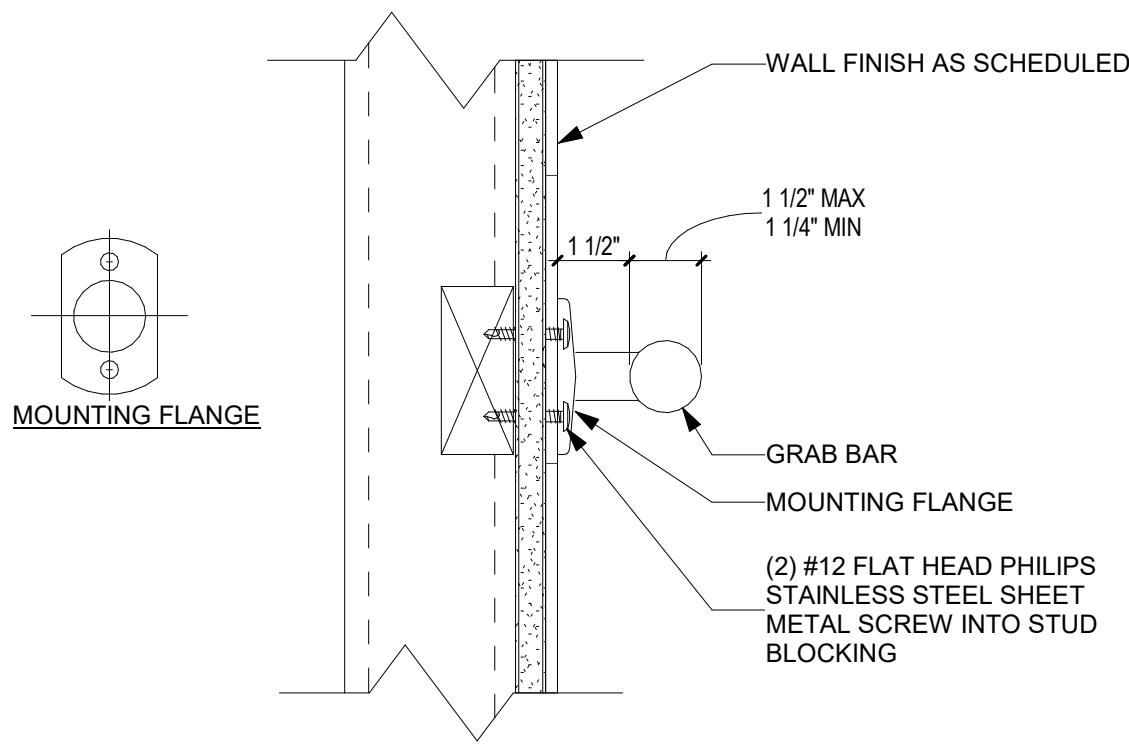
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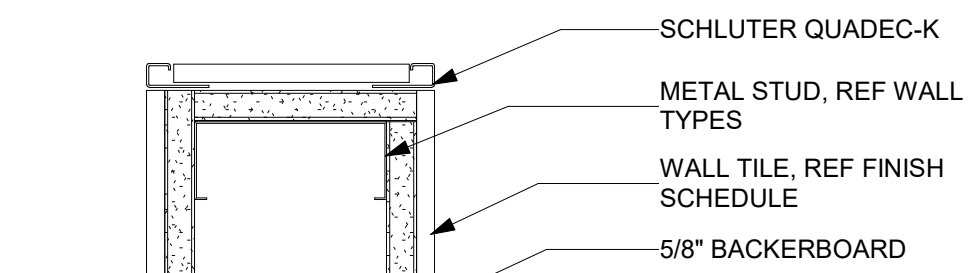
Sheet Title:
Plan Details

Project No:
1935.03

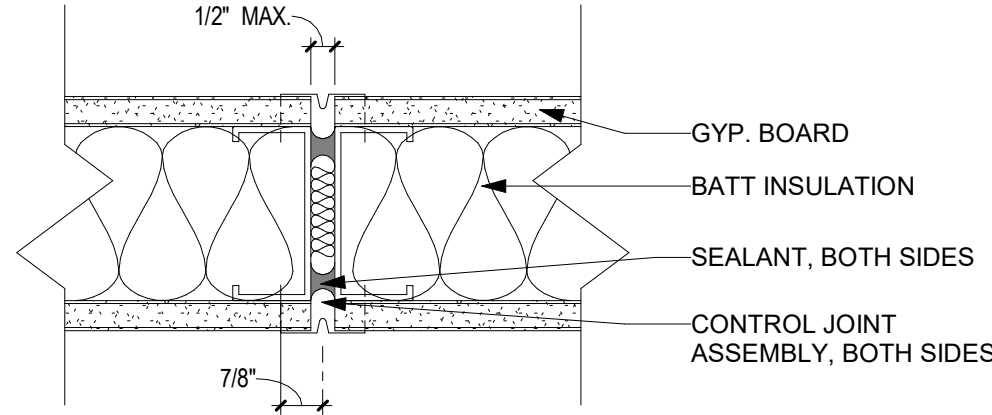
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A5.20



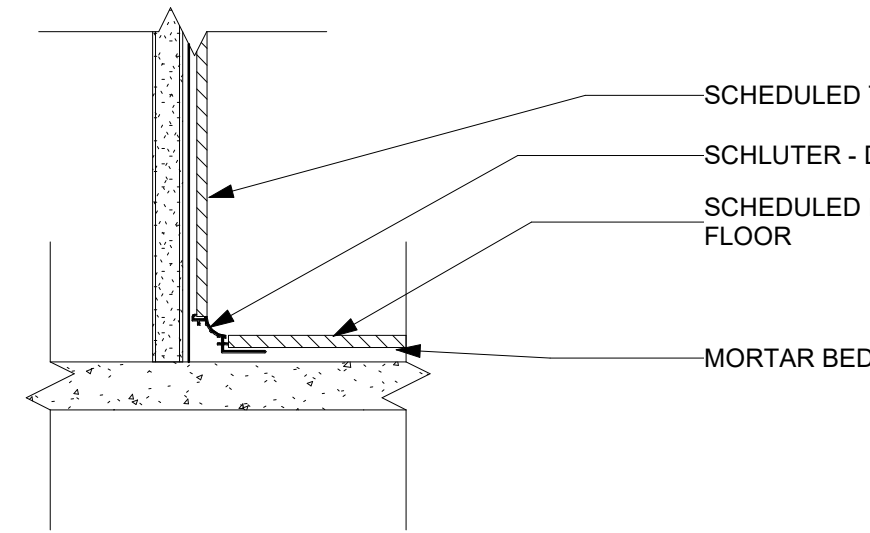
1 GRAB BAR ATTACHMENT DETAIL
A5.30 3" = 1'-0"



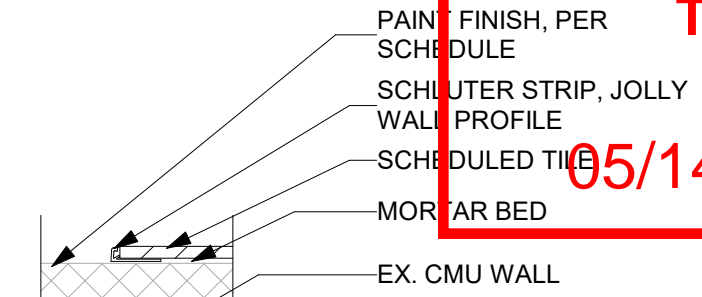
2 TILE CORNER EDGE - TYP
A5.30 3" = 1'-0"



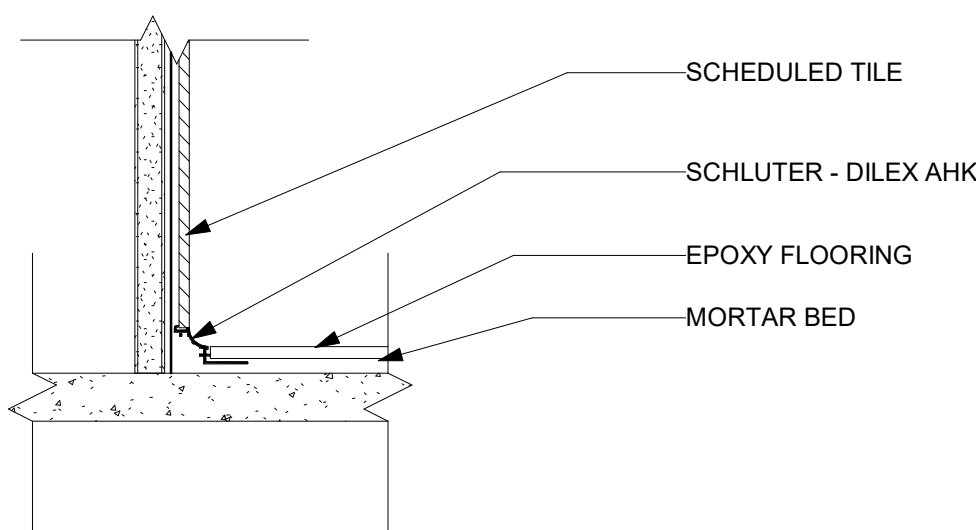
3 CONTROL JOINT @ WALL
A5.30 3" = 1'-0"



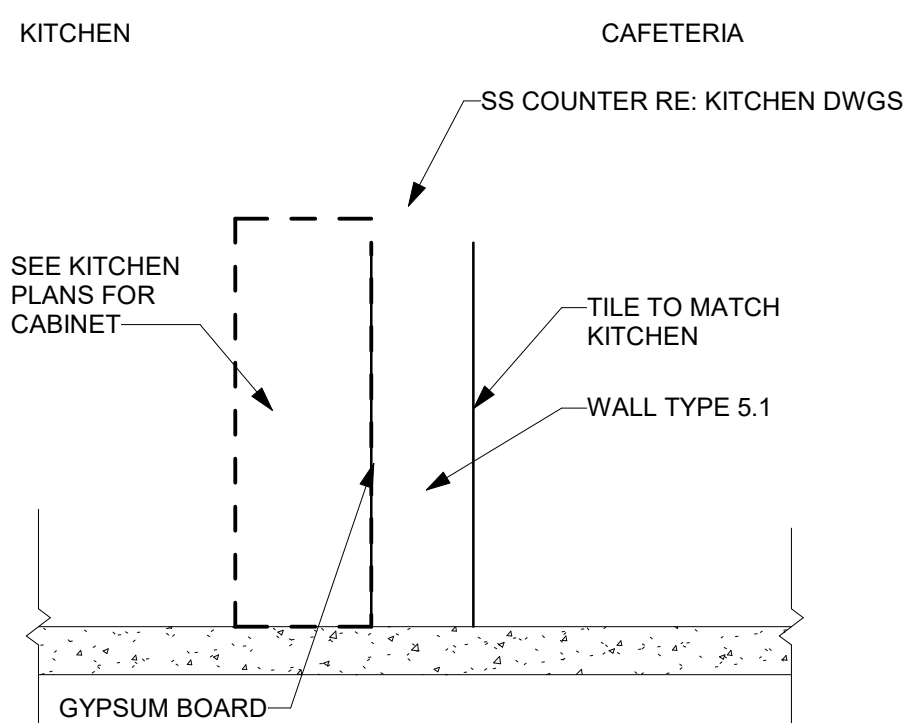
4 RESTROOM WALL BASE TRANSITION
A5.30 3" = 1'-0"



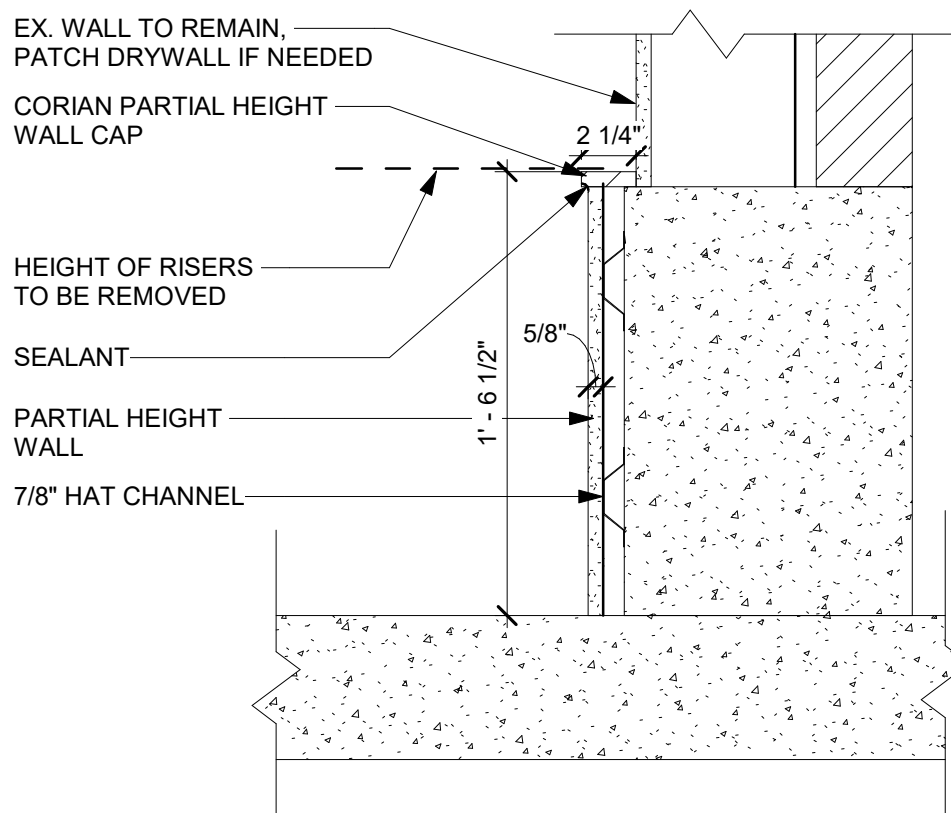
5 TILE END - SCHLUTER
A5.30 3" = 1'-0"



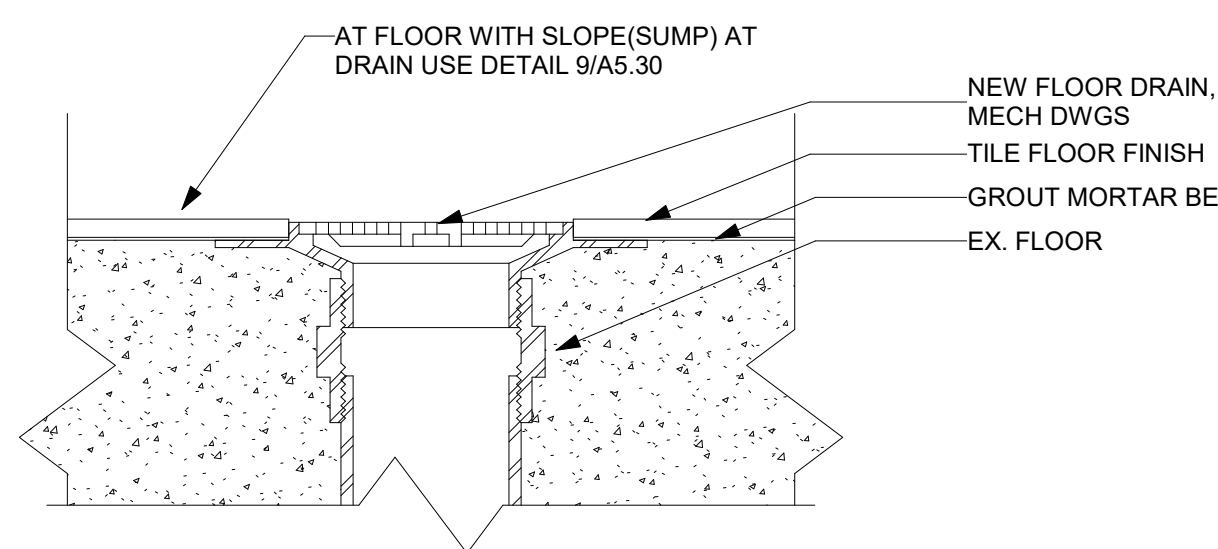
6 TILE/EPOXY FLOORING
A5.30 3" = 1'-0"



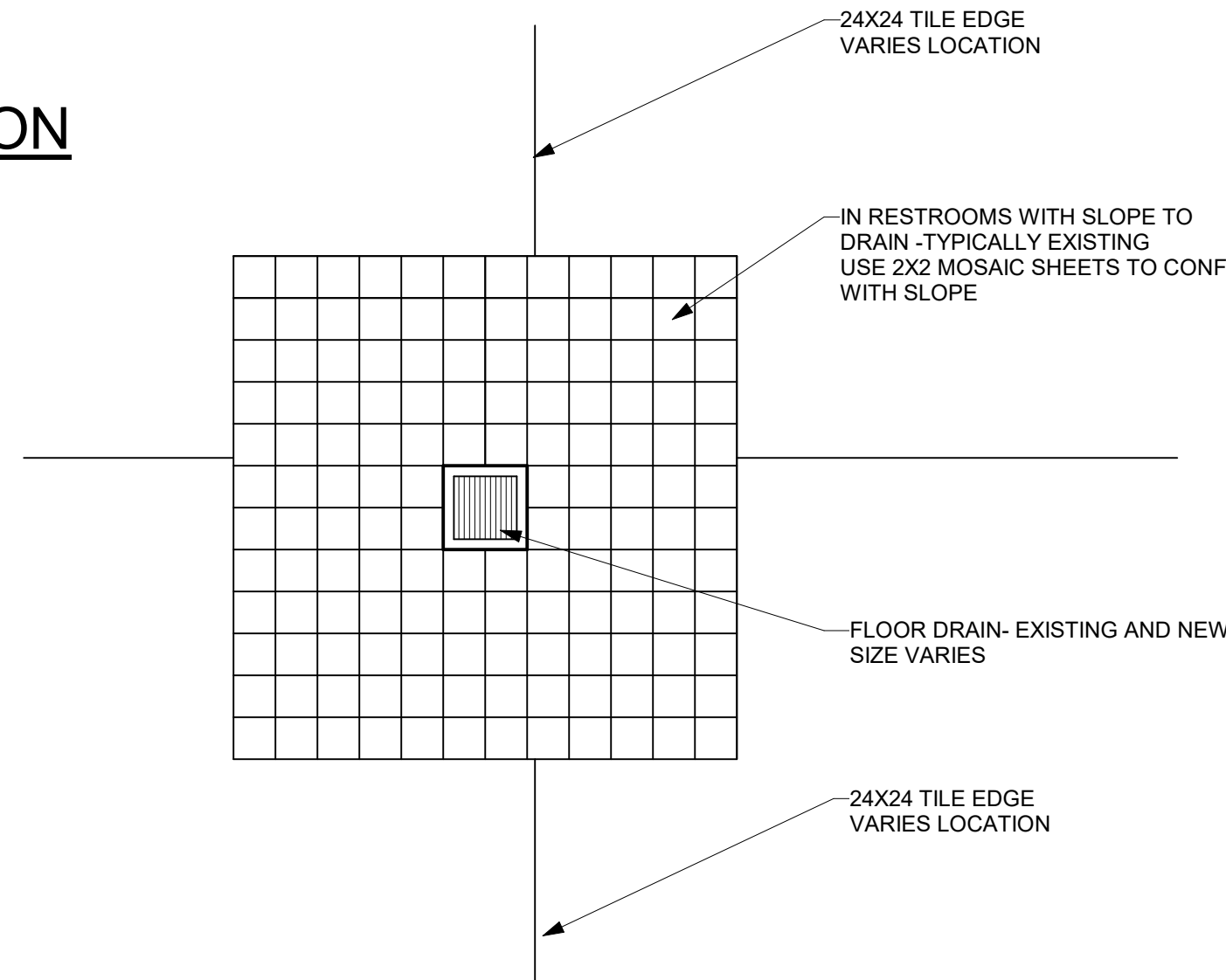
7 TYP KITCHEN SERVING COUNTER
A5.30 3/4" = 1'-0"



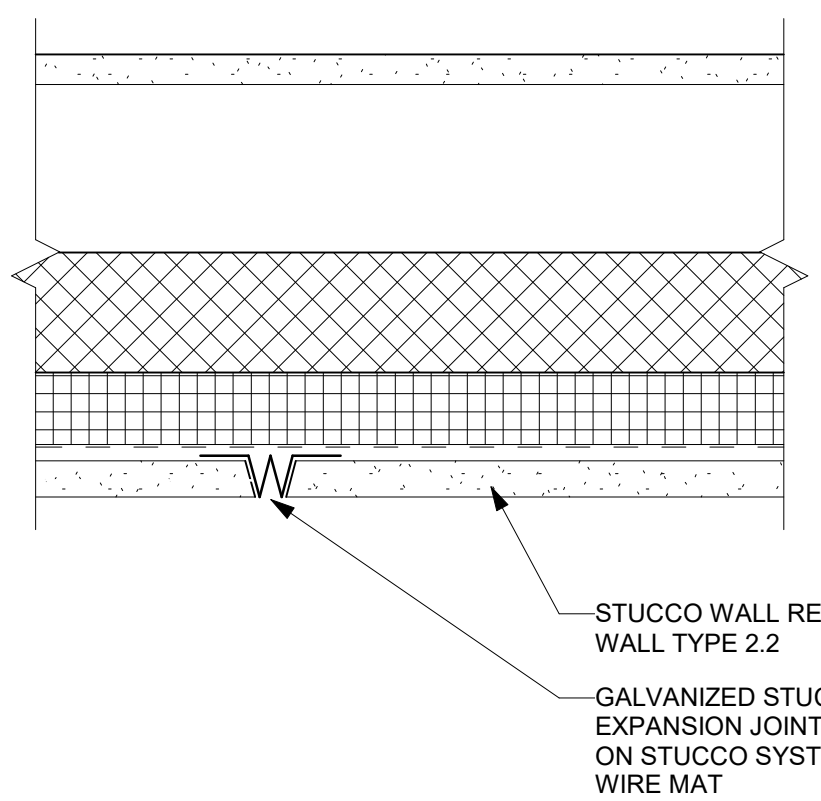
8 TYP EX. RISER WALL PATCH
A5.30 1 1/2" = 1'-0"



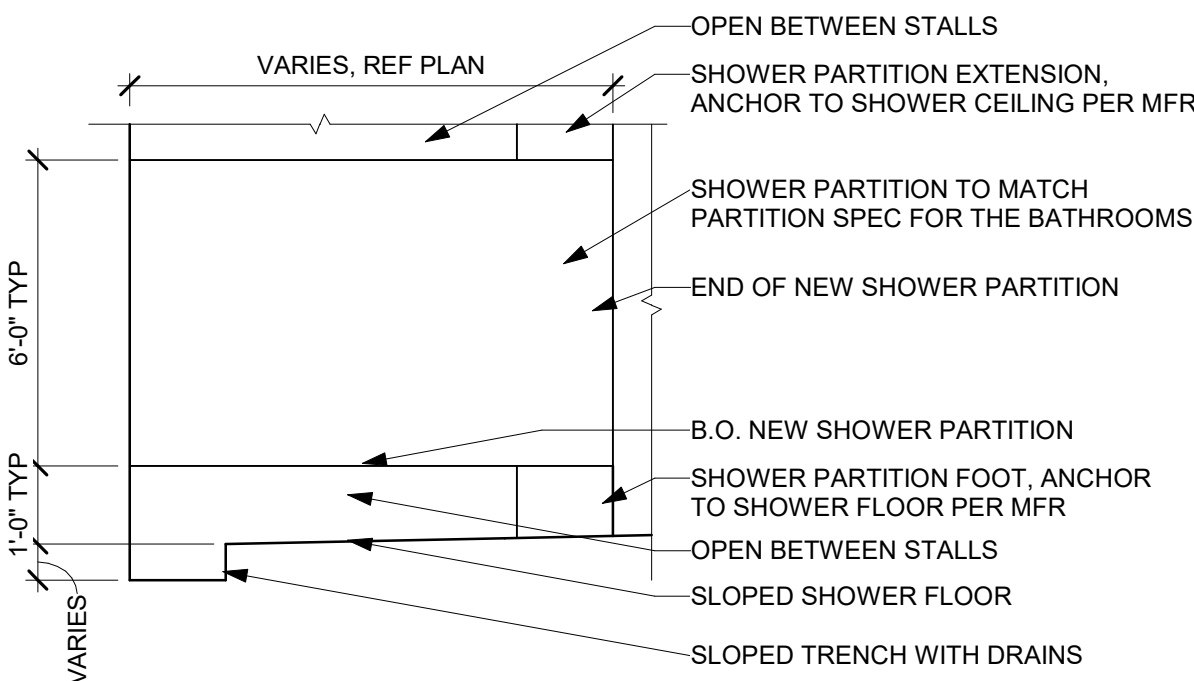
9 TYP TILE @ DRAIN SECTION
A5.30 3" = 1'-0"



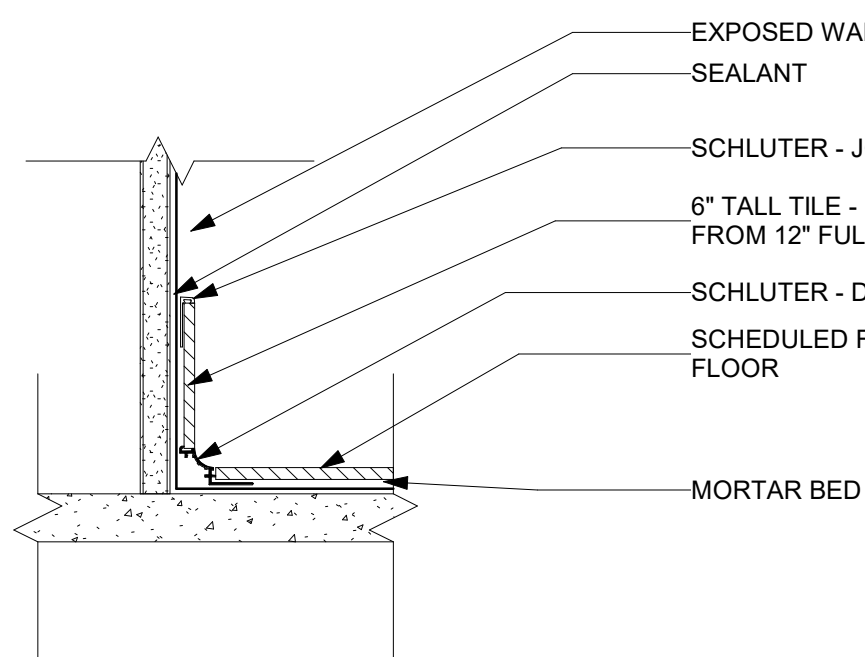
10 TYP TILE @ DRAIN PLAN
A5.30 1 1/2" = 1'-0"



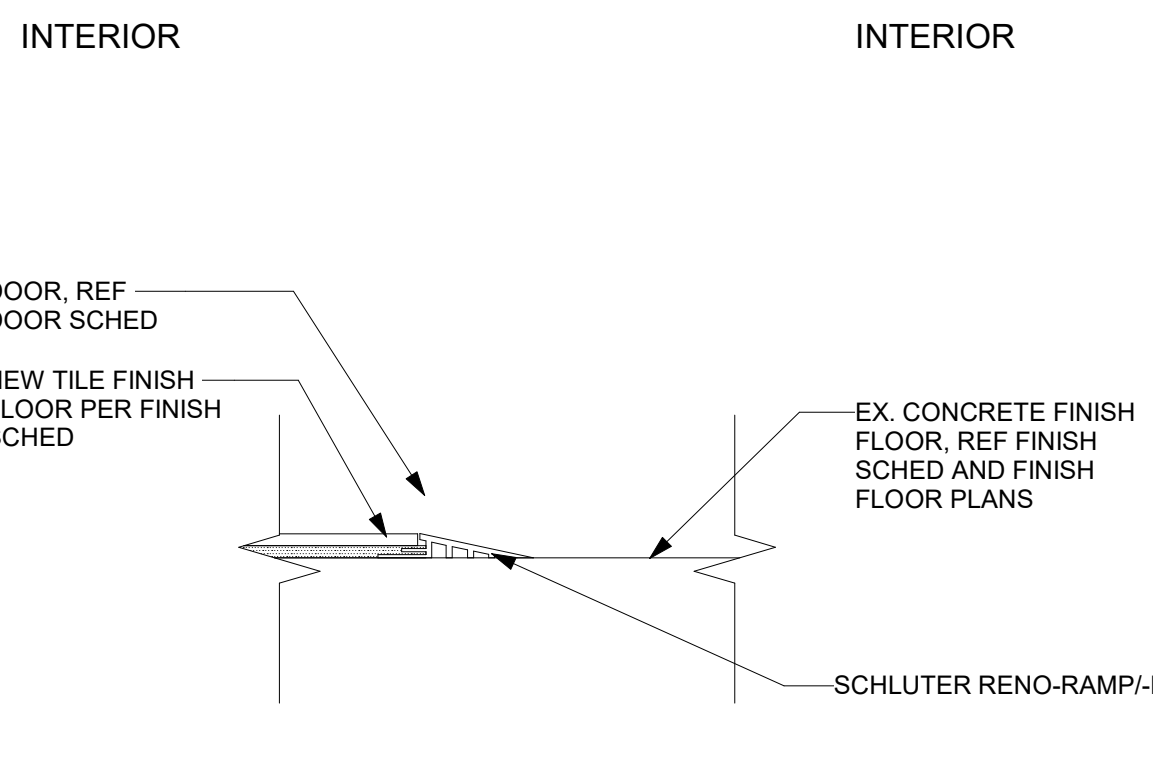
11 STUCCO CONTROL JOINT
A5.30 3" = 1'-0"



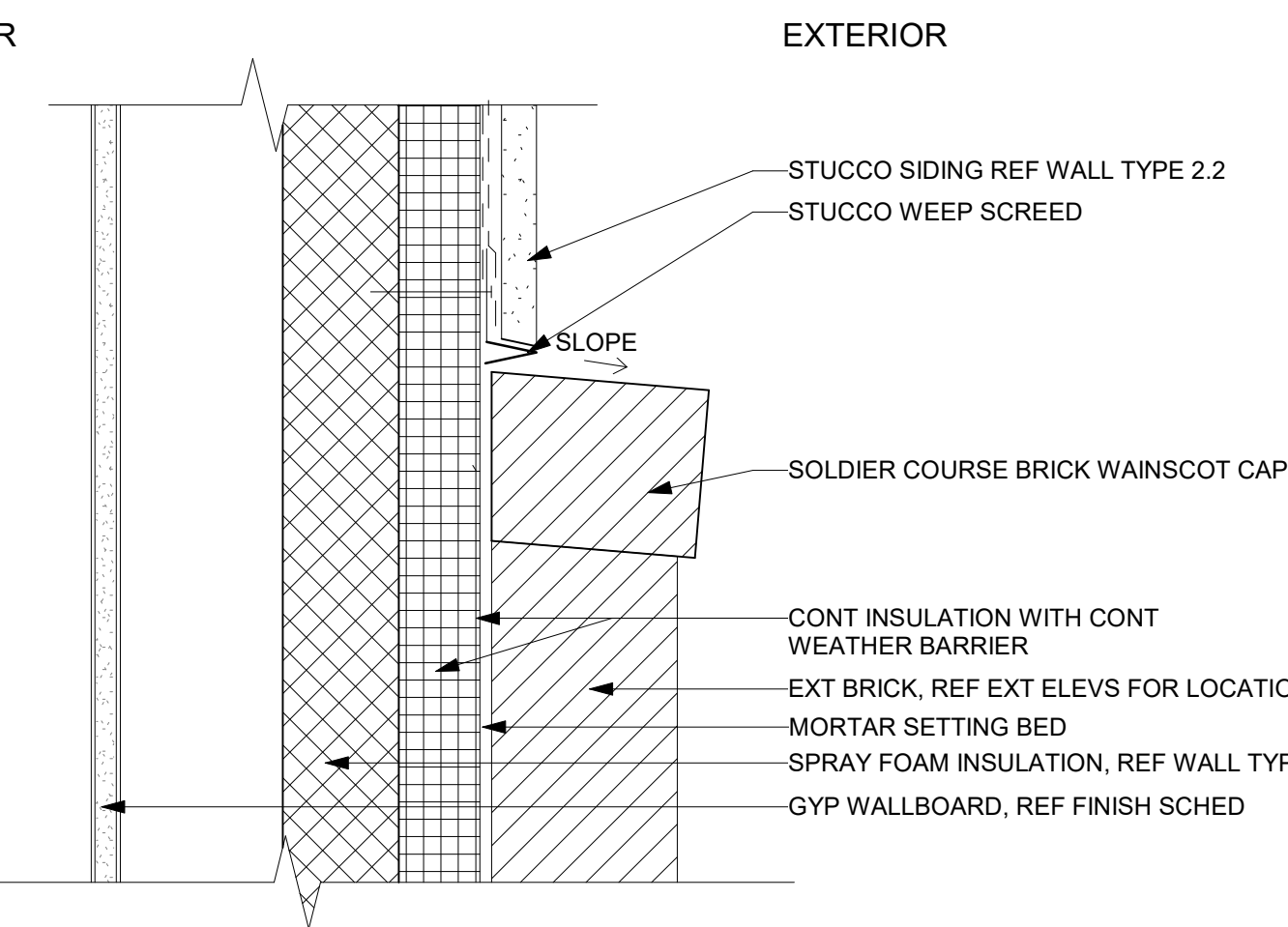
12 TYP SHOWER PARTITION
A5.30 1 1/2" = 1'-0"



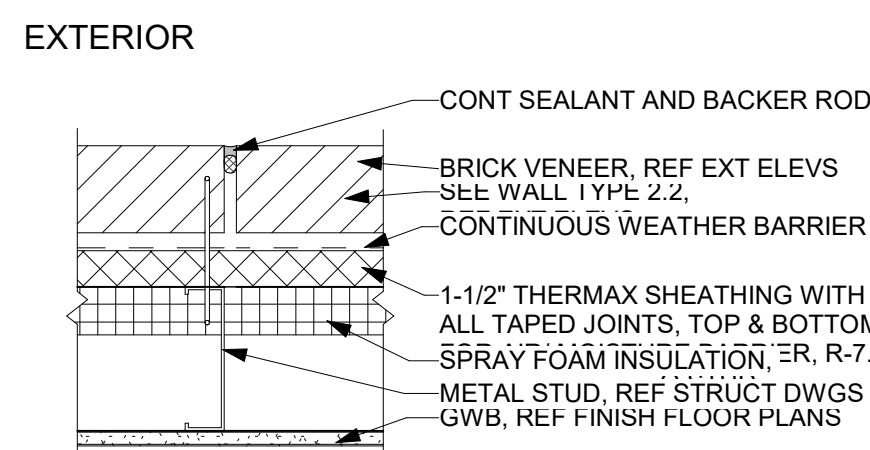
13 RESTROOM WALL BASE
A5.30 3" = 1'-0"



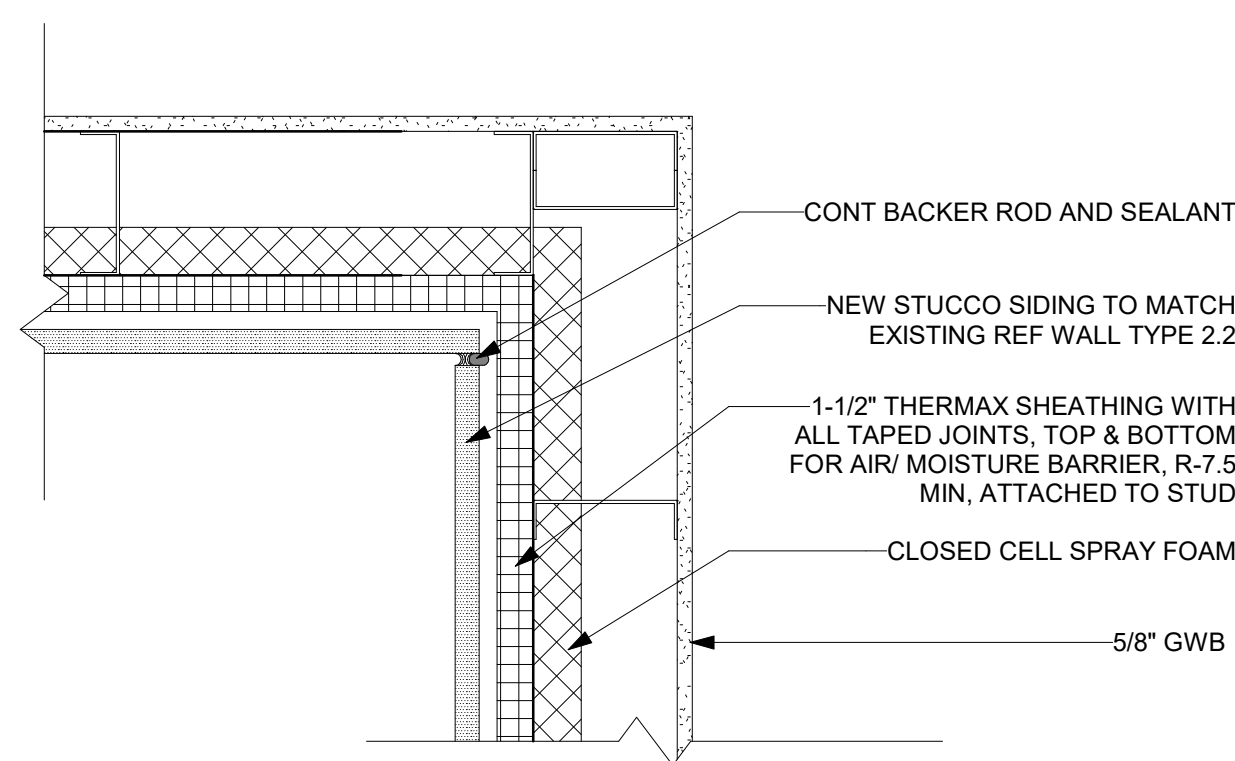
14 TILE TO CONCRETE FLOOR
A5.30 3" = 1'-0"



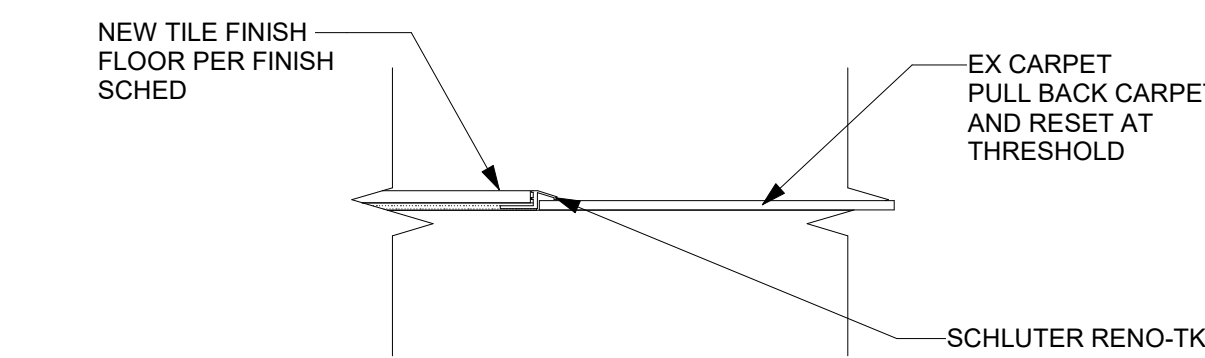
15 TYP BRICK WAJNSCOT CAP
A5.30 3" = 1'-0"



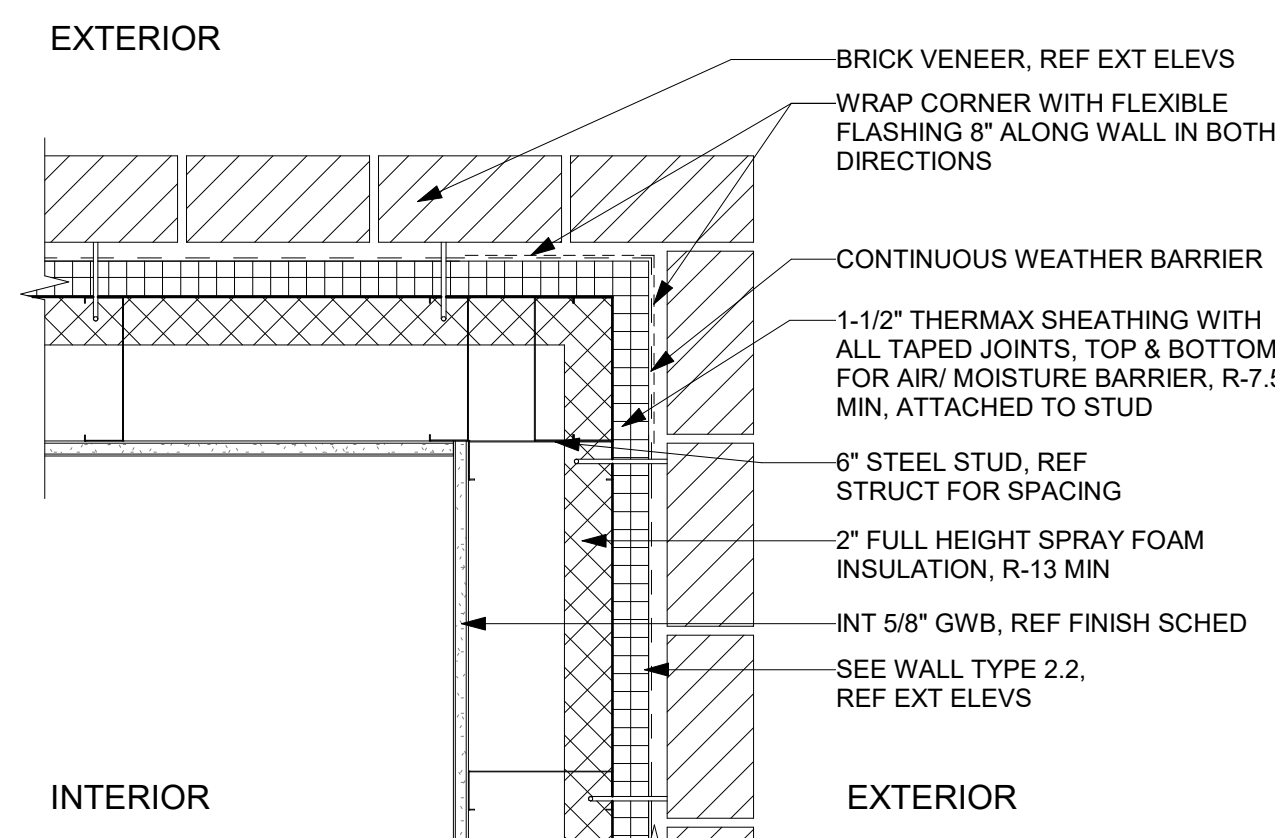
20 BRICK CONTROL JOINT
A5.30 1 1/2" = 1'-0"



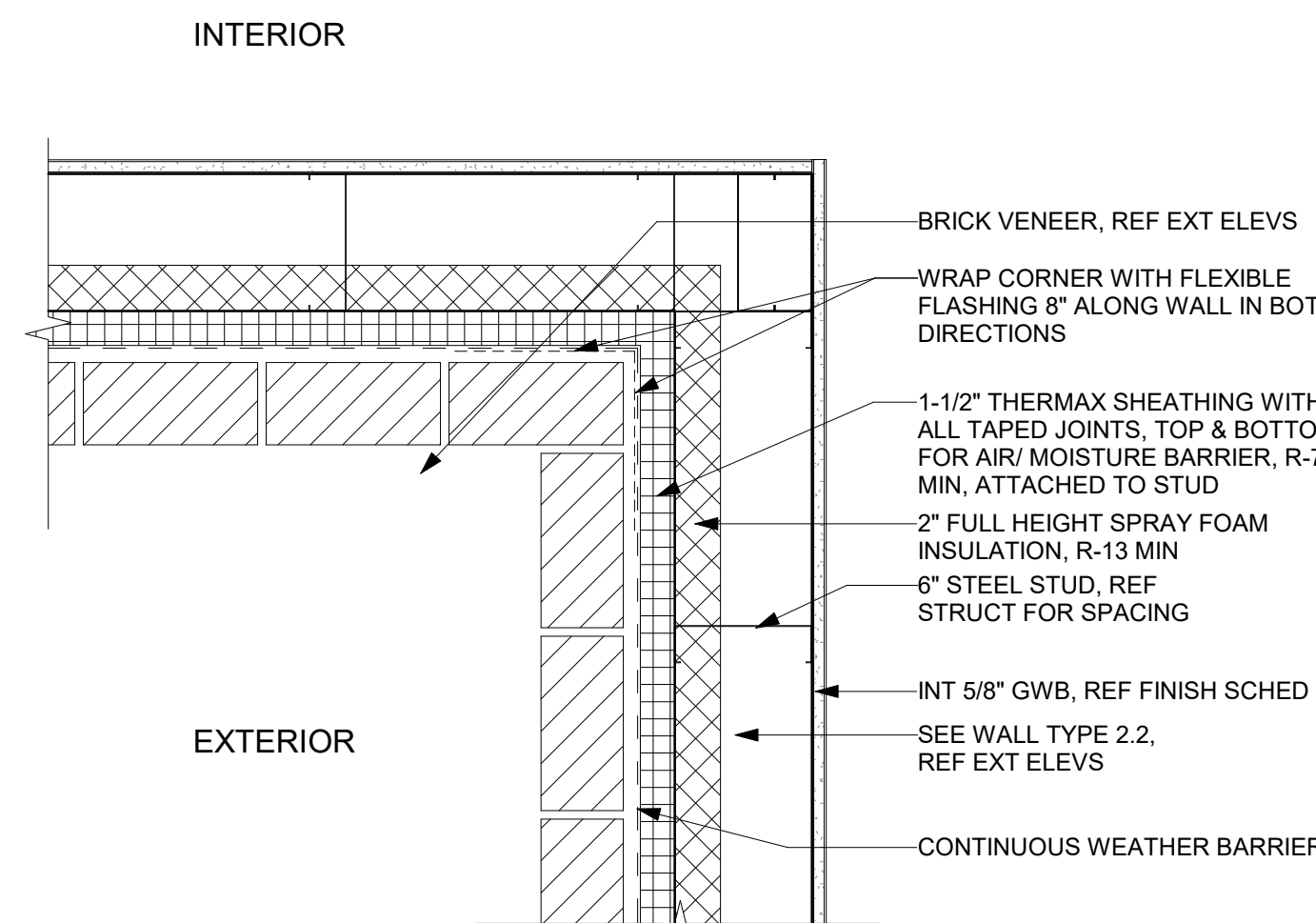
16 STUCCO WALL INTERIOR CORNER
A5.30 1 1/2" = 1'-0"



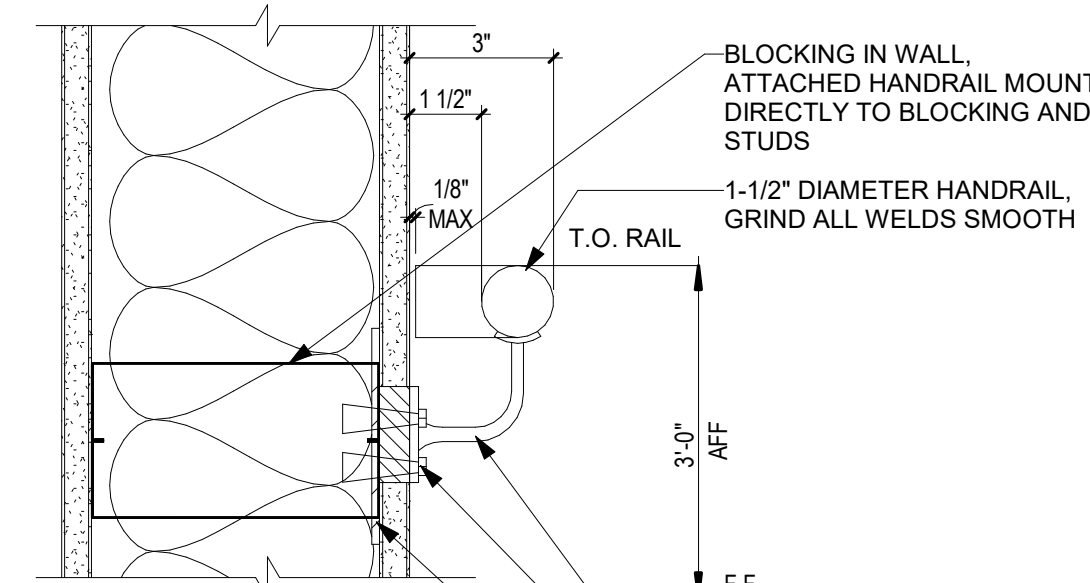
17 INTERIOR DOOR THRESHOLD - CPT/TILE
A5.30 3" = 1'-0"



18 BRICK OUTSIDE CORNER
A5.30 1 1/2" = 1'-0"

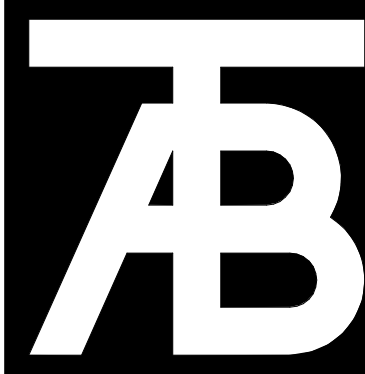


19 BRICK INSIDE CORNER
A5.30 1 1/2" = 1'-0"

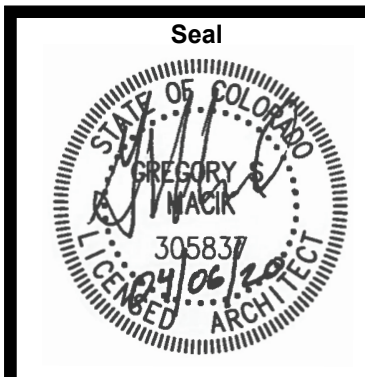


21 HANDRAIL TO WALL
A5.30 3" = 1'-0"

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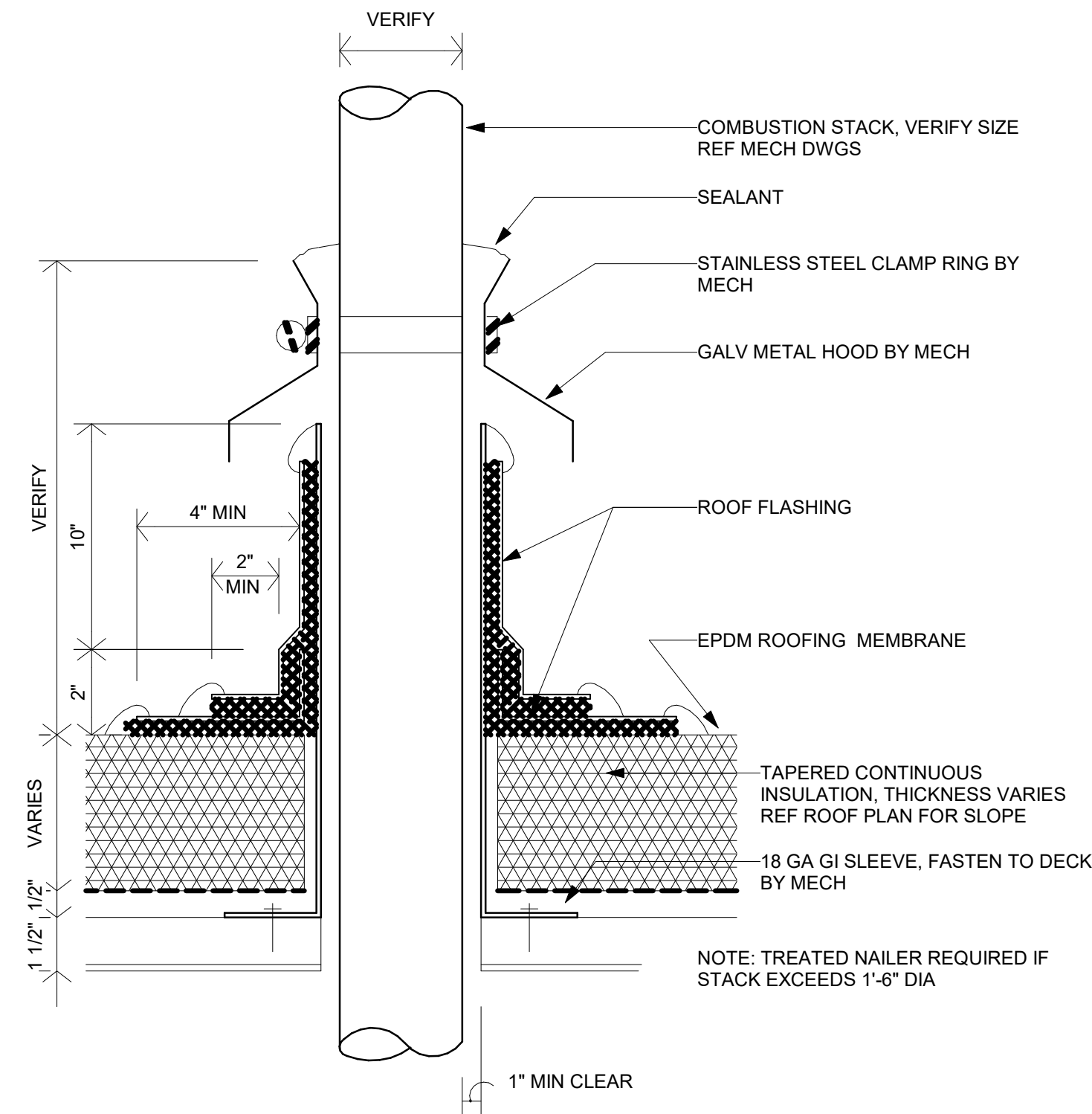
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No	Description	Date

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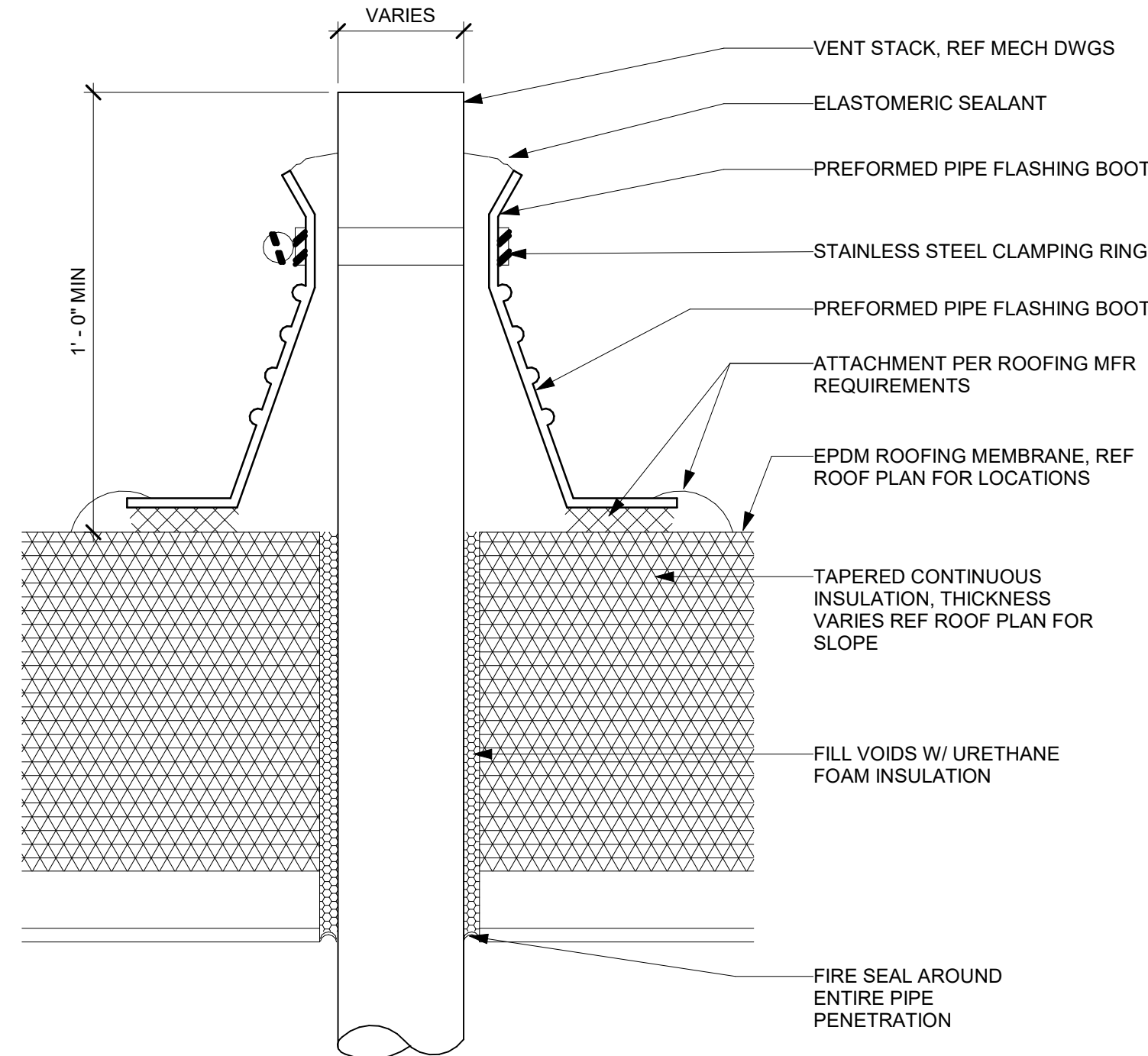
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**Wall/
Transition
Details**

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1935.03

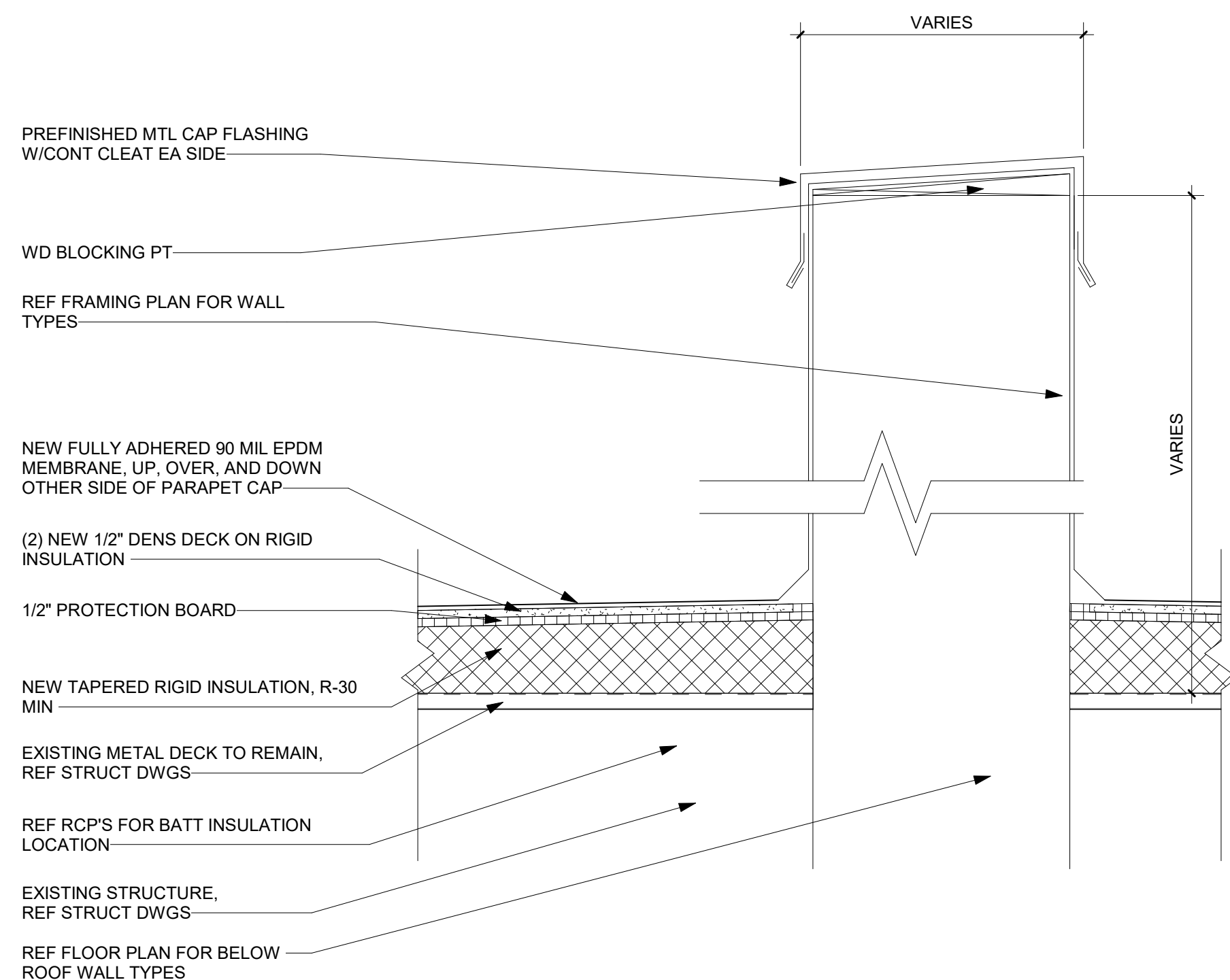
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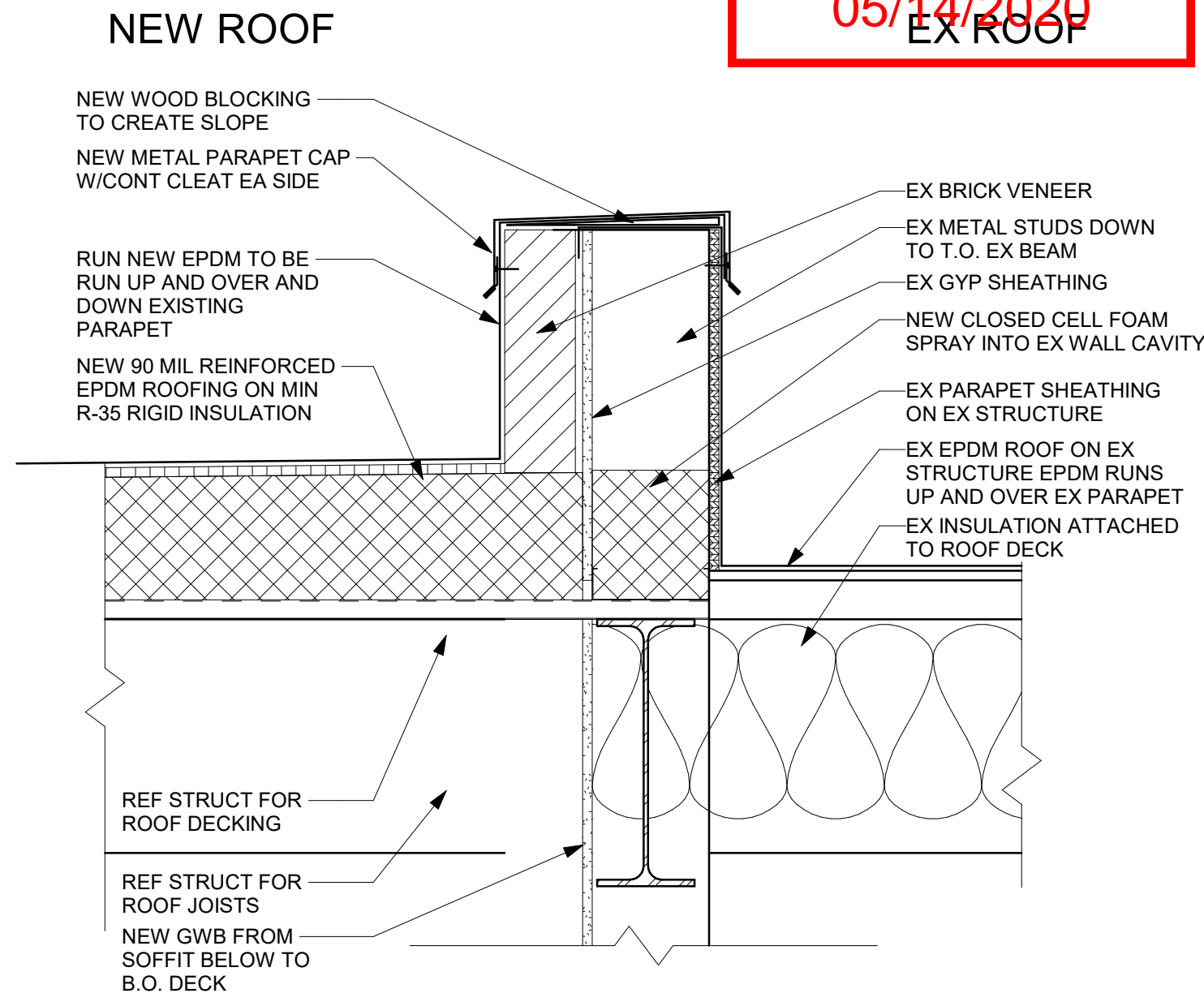
1 BOILER FLUE ROOF PENETRATION
A5.40 3' = 1'-0"



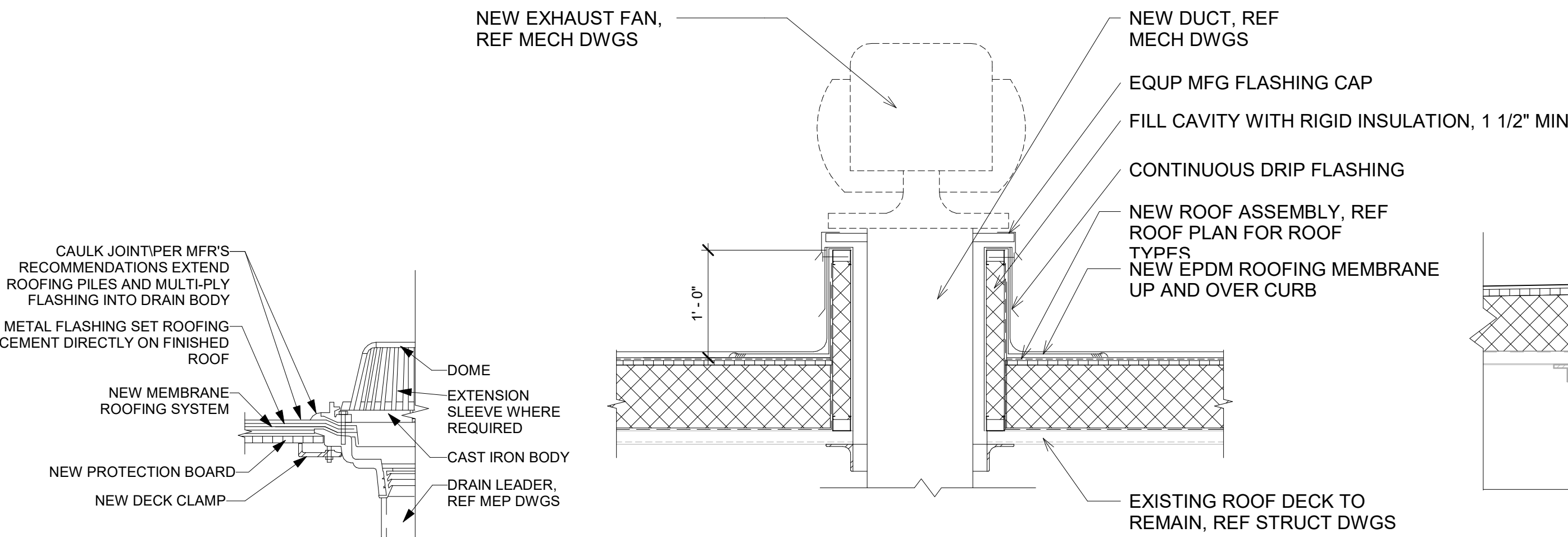
2 PIPE PENETRATION AT MEMBRANE ROOFING
A5.40 3' = 1'-0"



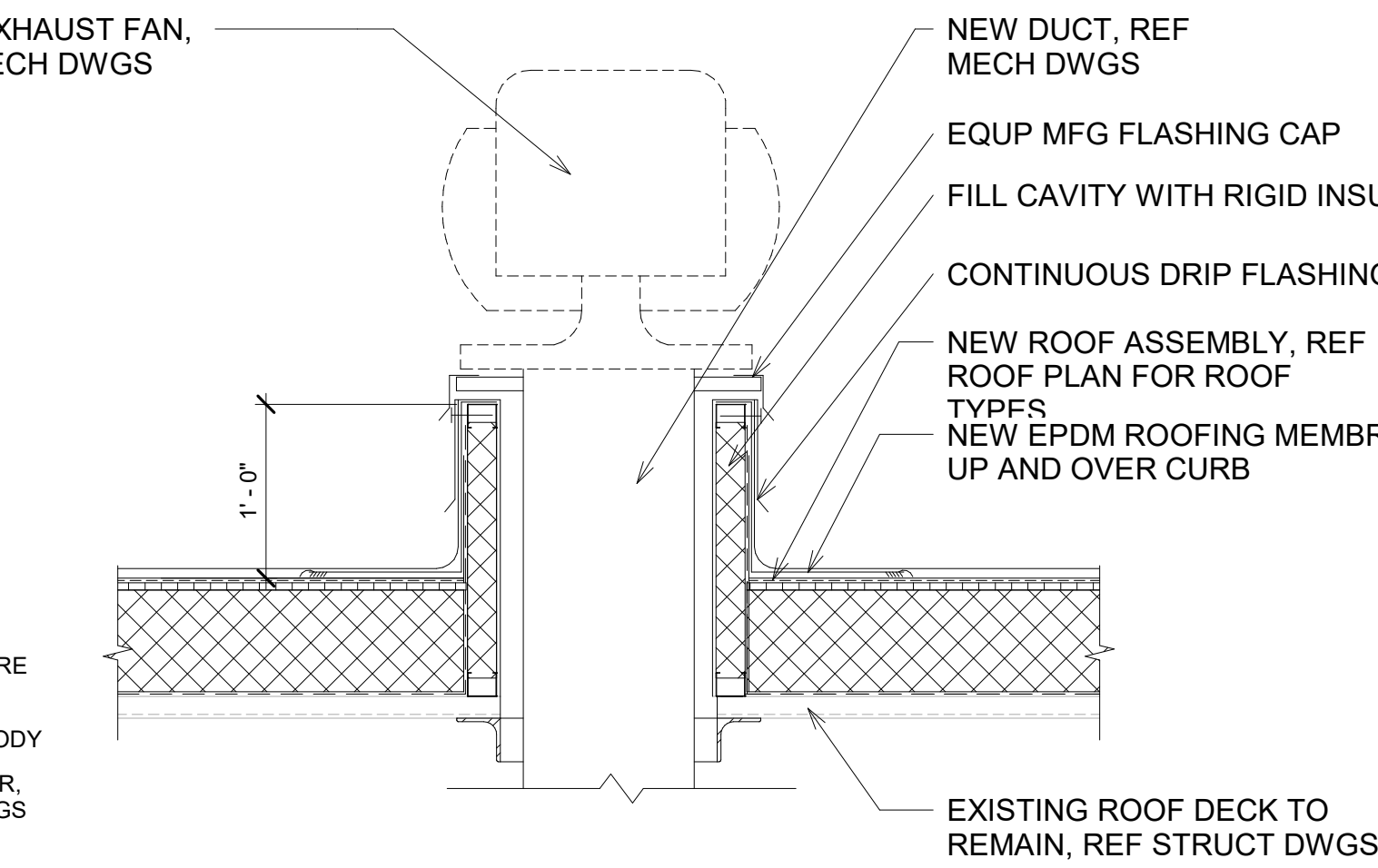
3 STANDARD OFFSET PARAPET
A5.40 1 1/2" = 1'-0"



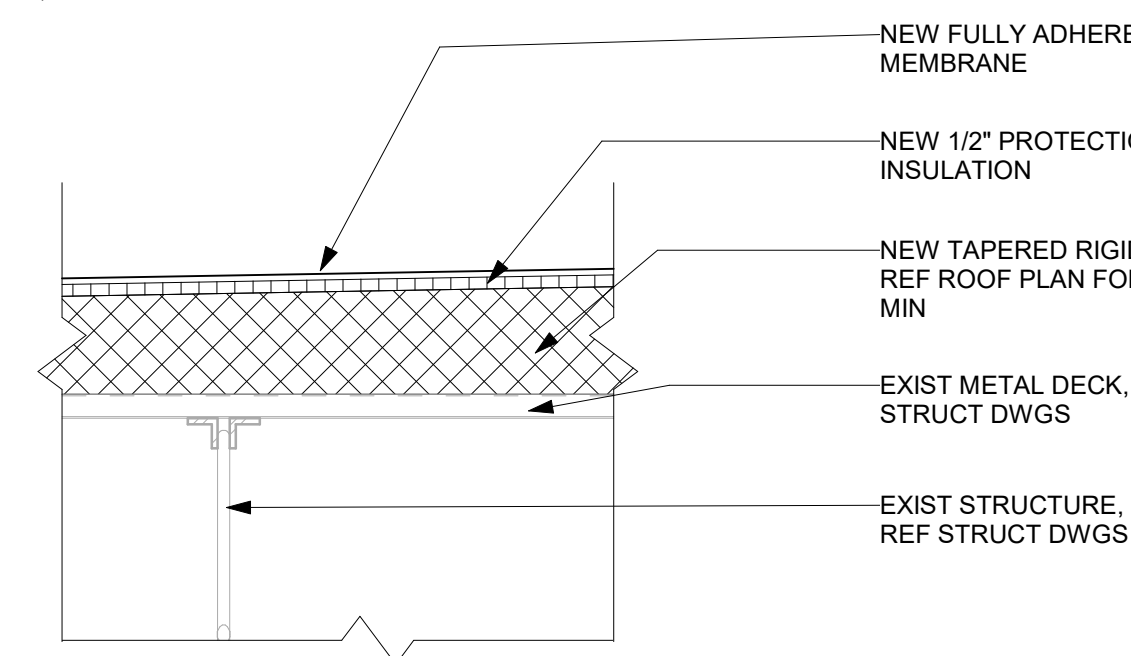
4 EX ROOF TO NEW ROOF
A5.40 1 1/2" = 1'-0"



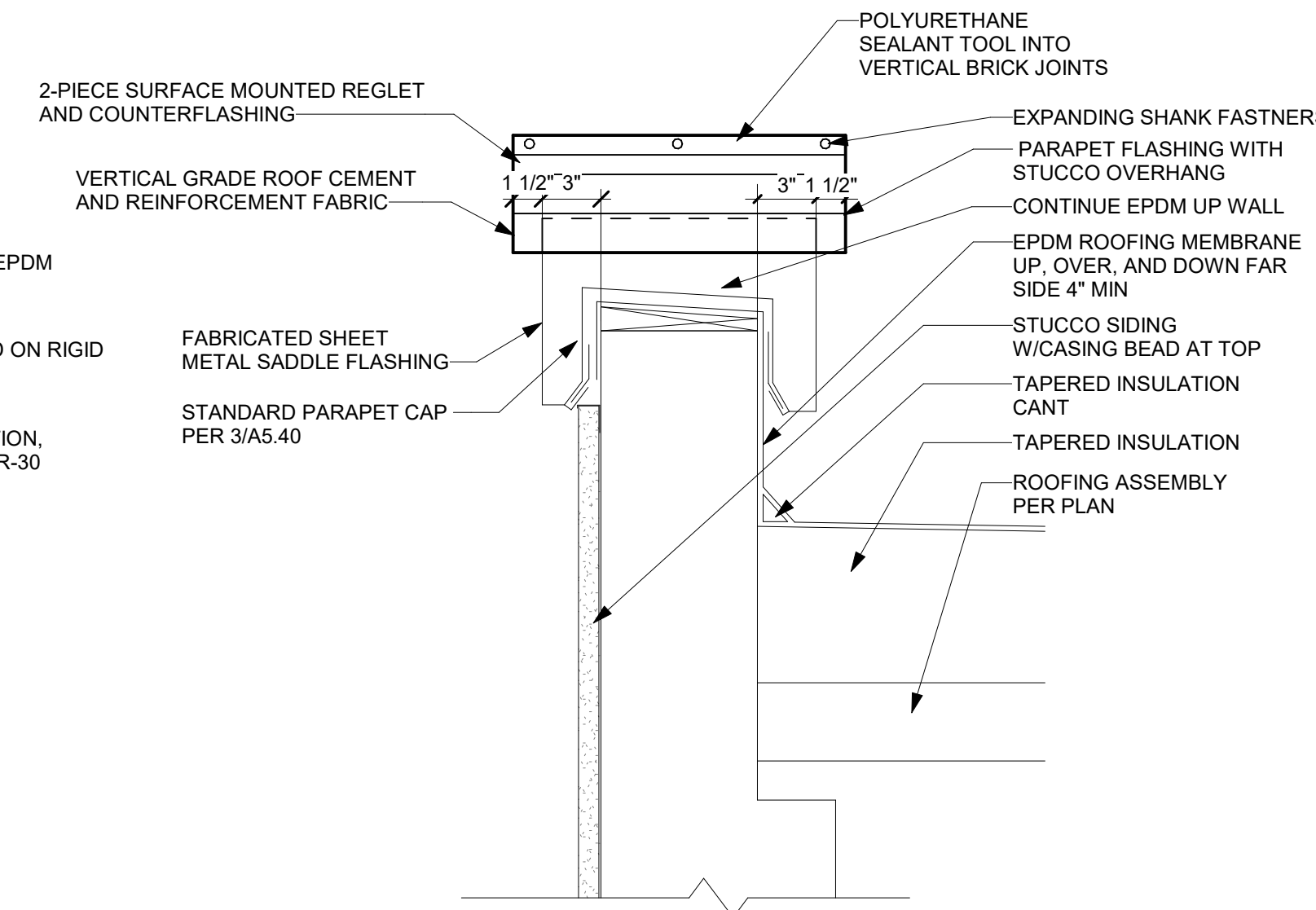
5 NEW ROOF DRAIN DETAIL
A5.40 1 1/2" = 1'-0"



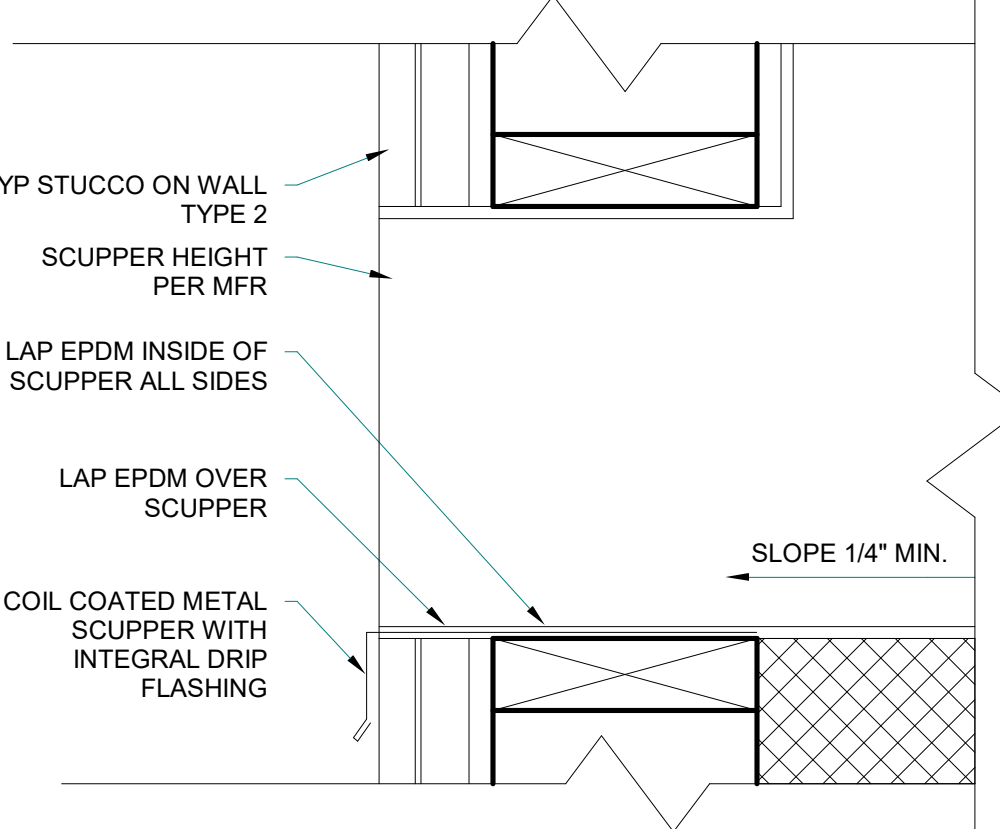
6 TYP EXHAUST FAN DETAIL
A5.40 1" = 1'-0"



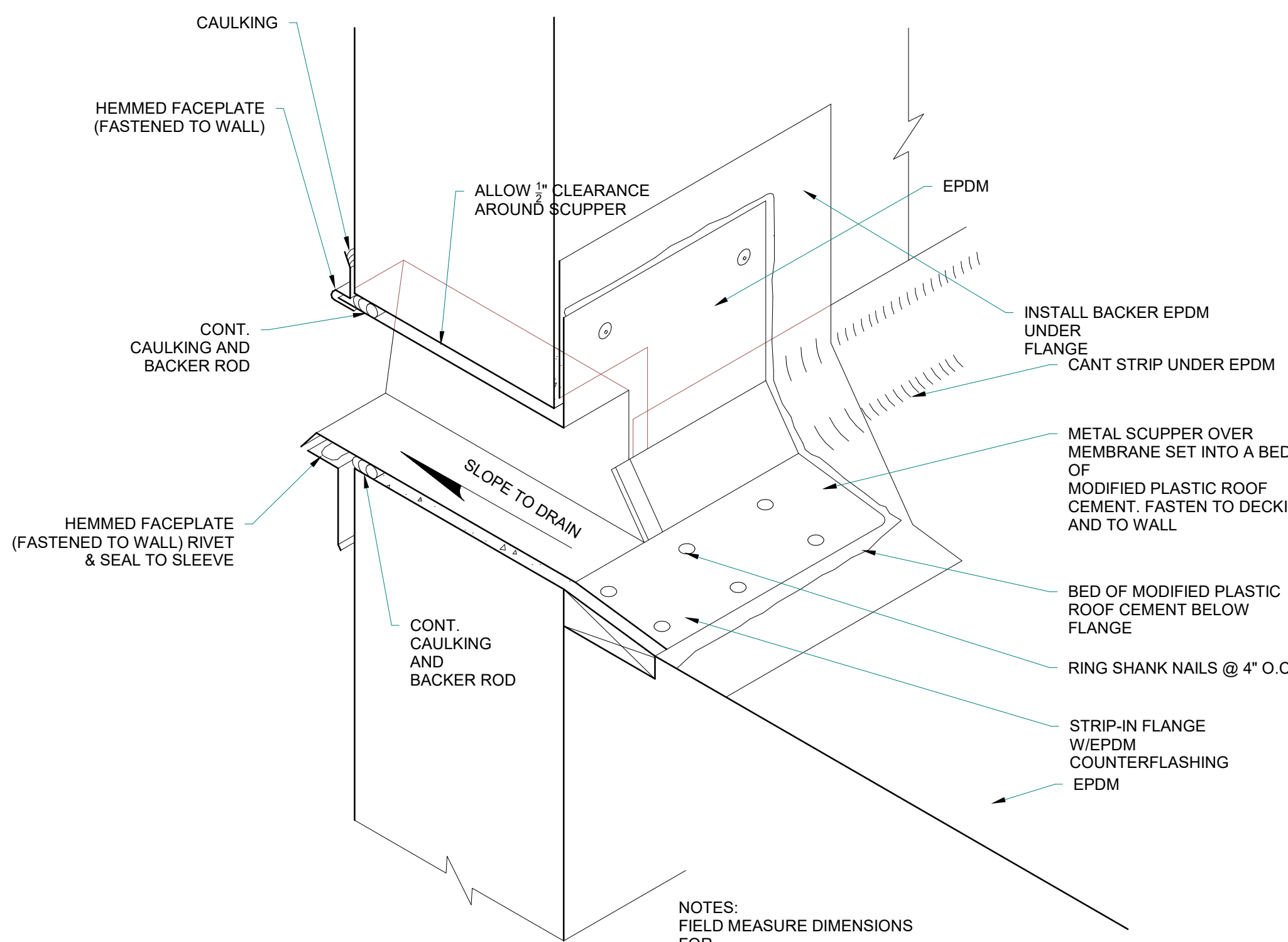
7 TYPICAL EPDM ROOF ASSEMBLY
A5.40 1 1/2" = 1'-0"



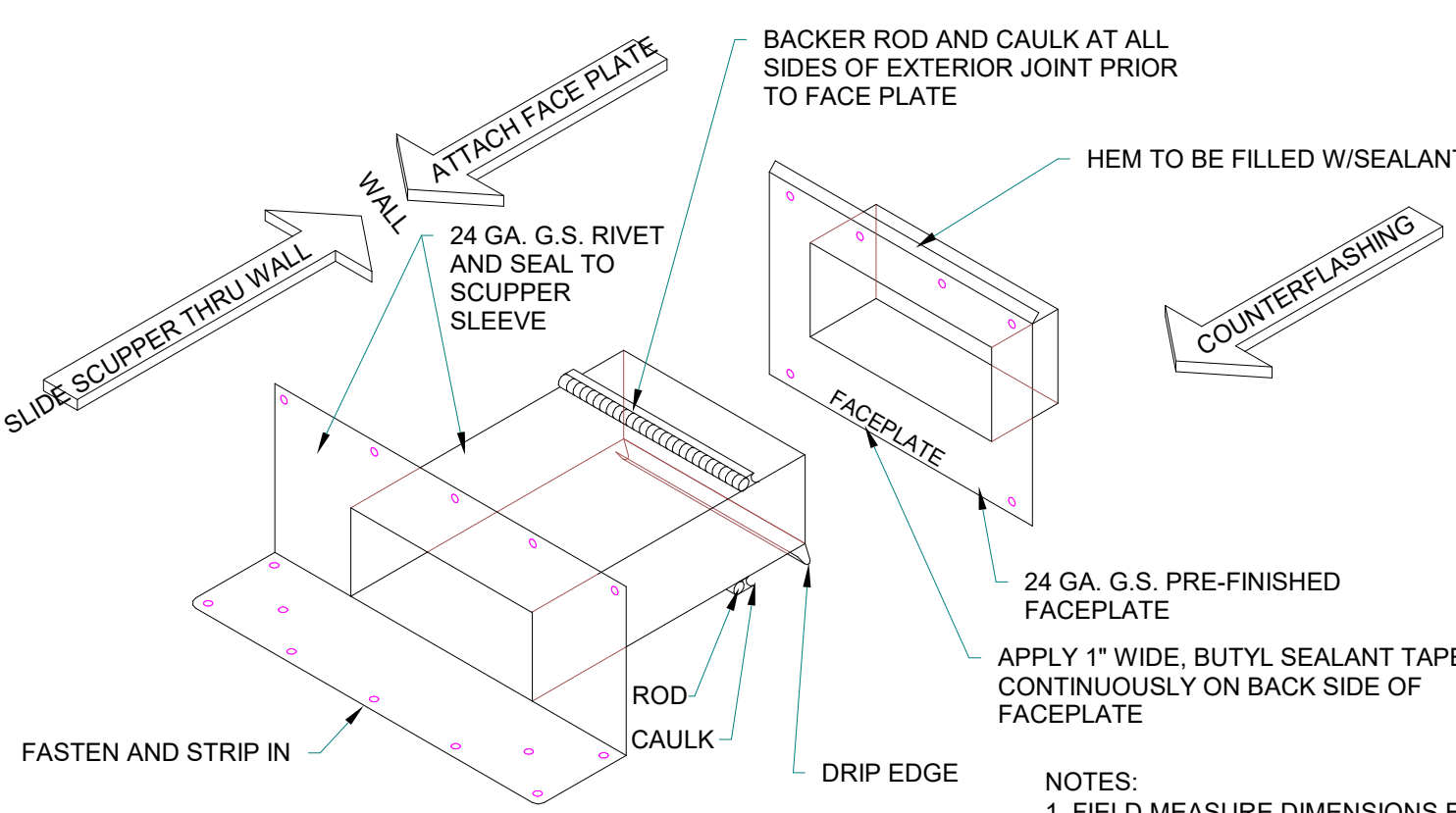
8 PARAPET CAP @ STUCCO
A5.40 1 1/2" = 1'-0"



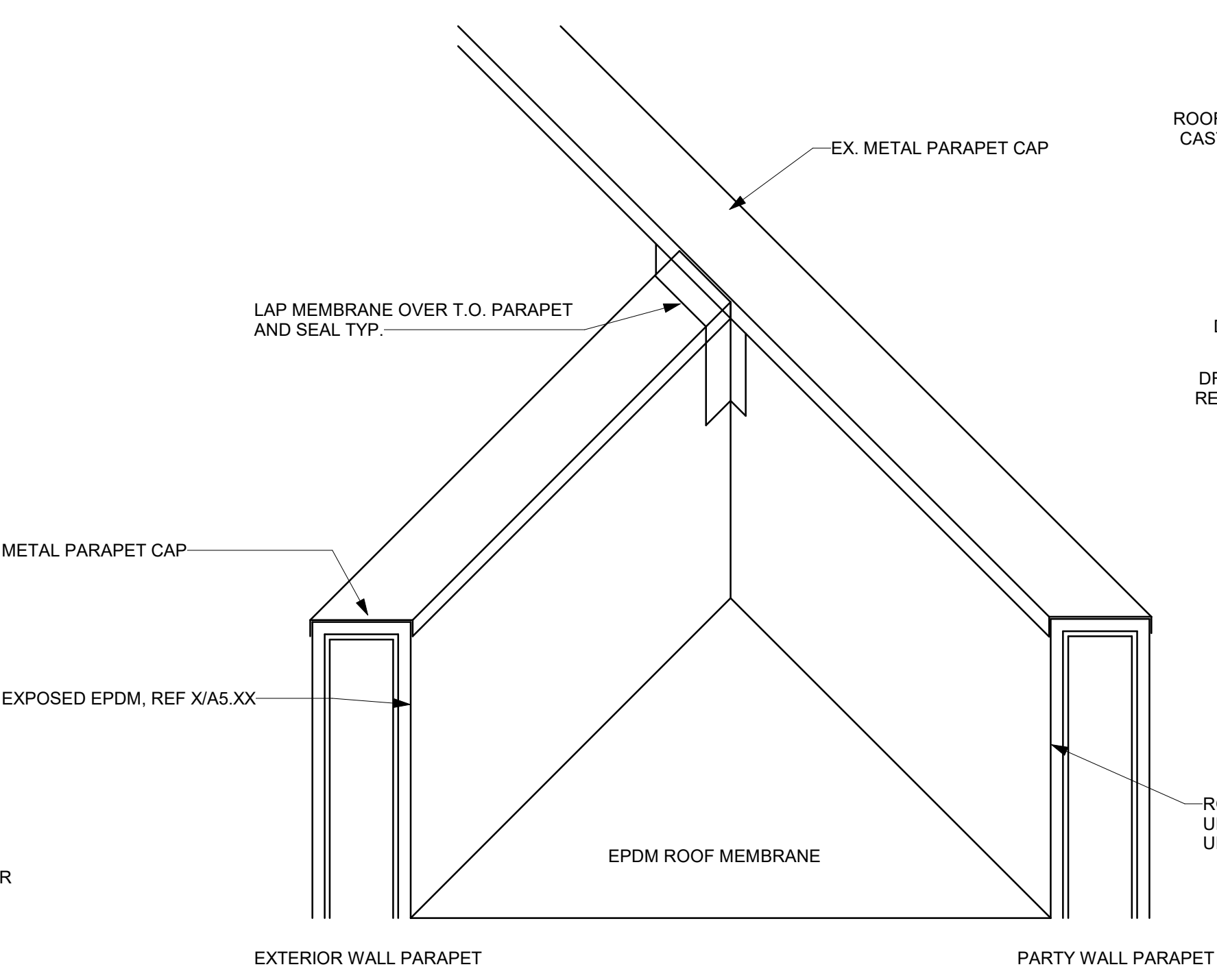
9 SCUPPER DETAIL - STUCCO
A5.40 3' = 1'-0"



10 SCUPPER
A5.40 1 1/2" = 1'-0"



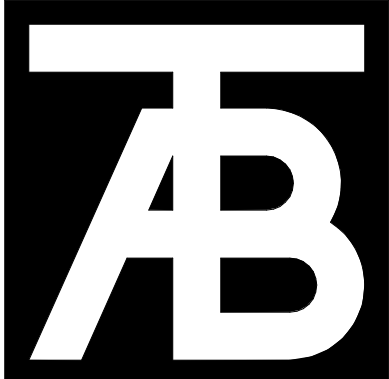
11 EX PARAPET TO NEW PARAPET
A5.40 3/4" = 1'-0"



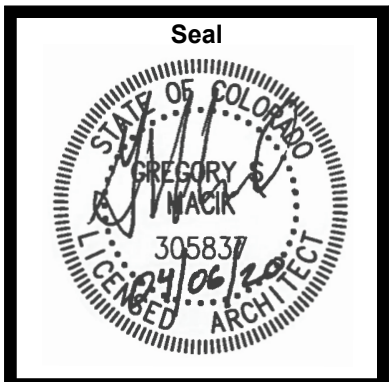
12 ROOF AND OVERFLOW DRAINS
A5.40 1 1/2" = 1'-0"

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EX ROOF



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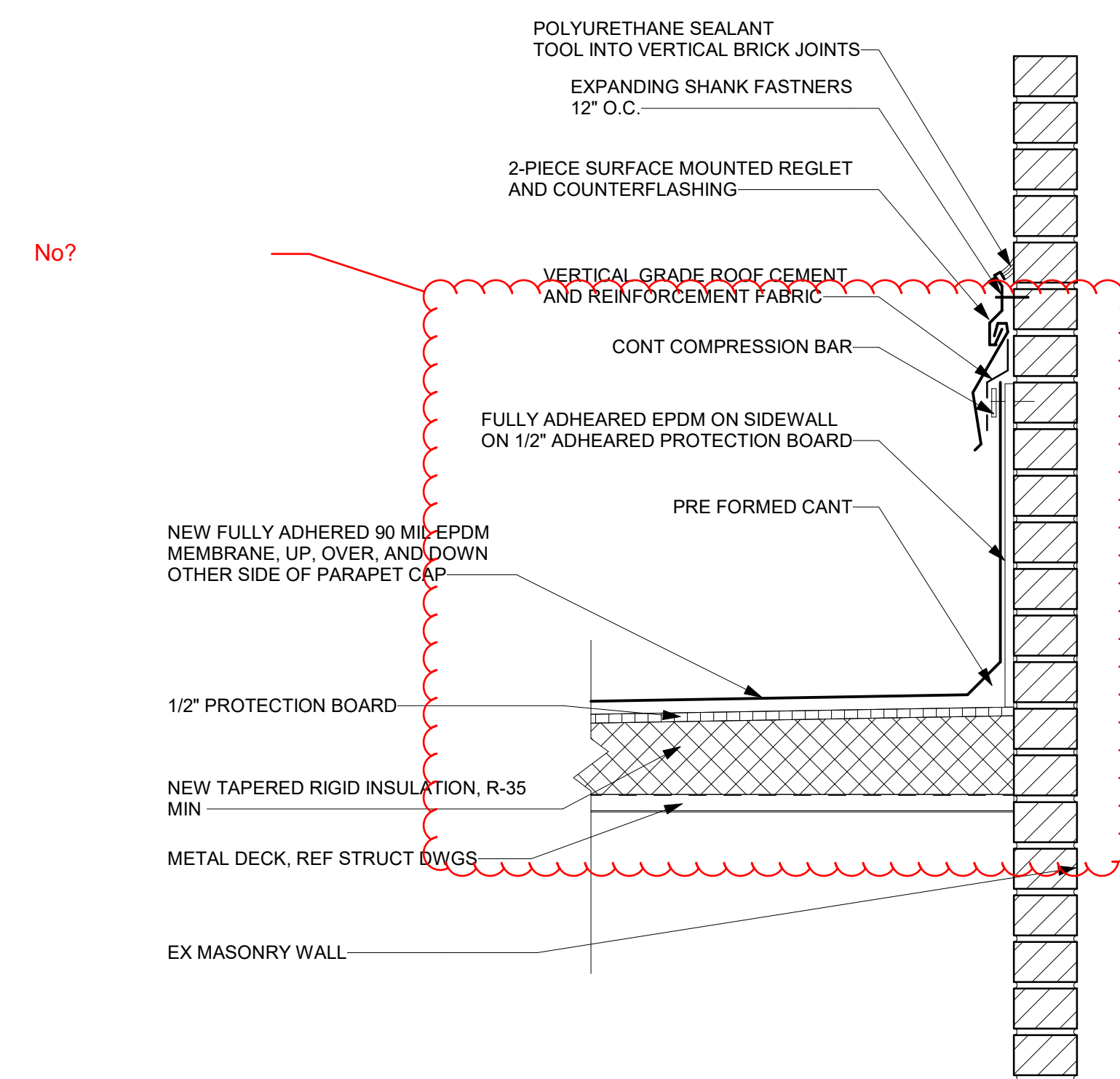
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No	Description	Date

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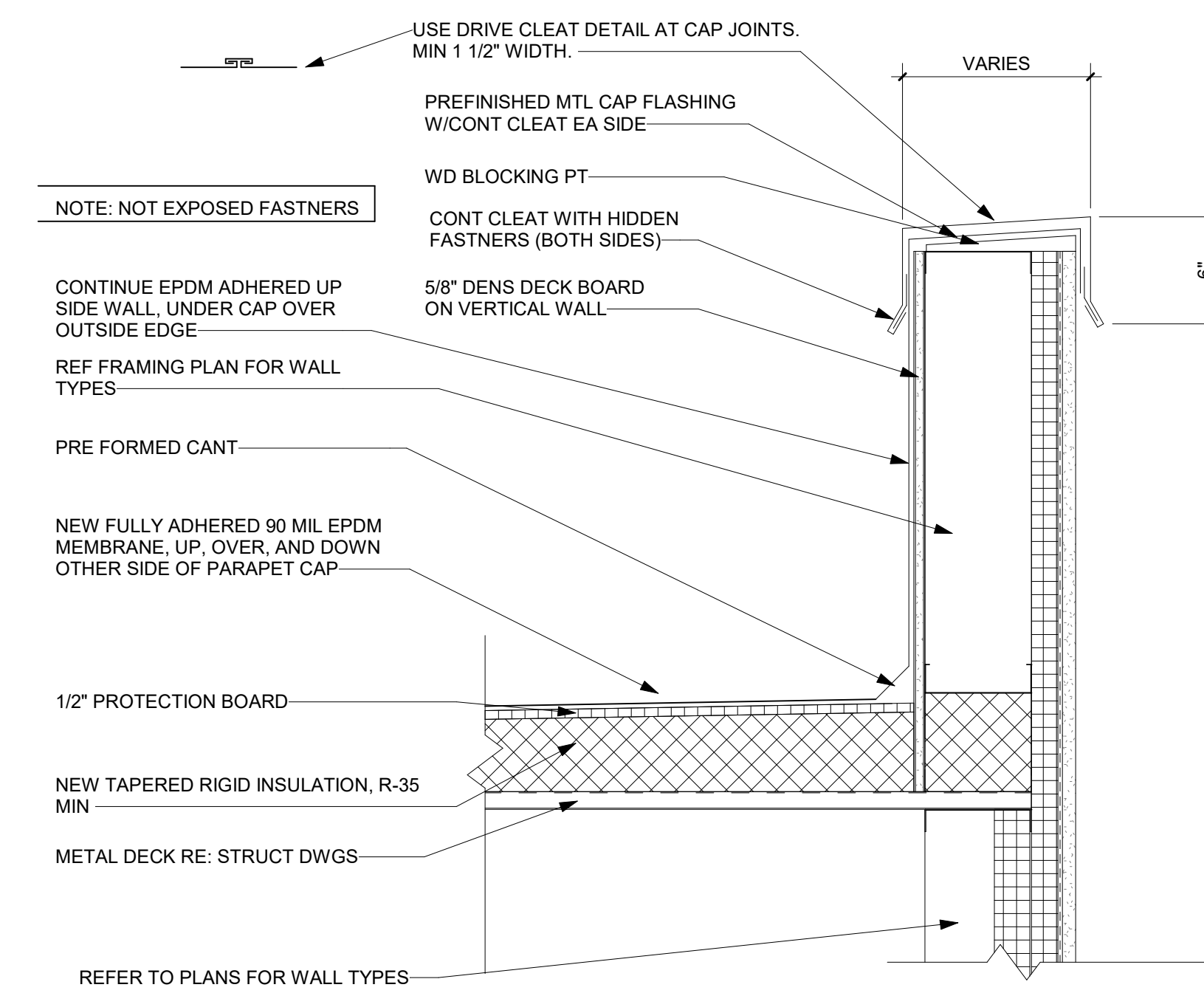
Sheet Title:
Roof Details

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A5.40



1 TYPICAL EPDM TO SIDEWALL
A5.41 1 1/2" = 1'-0"



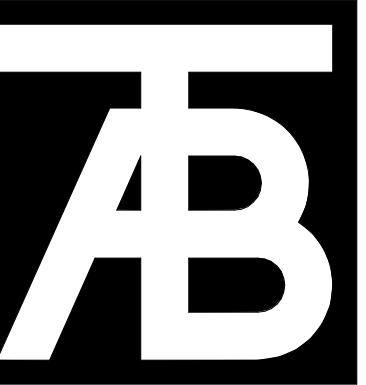
2 TYPICAL PARAPET
A5.41 1 1/2" = 1'-0"

NOTES:

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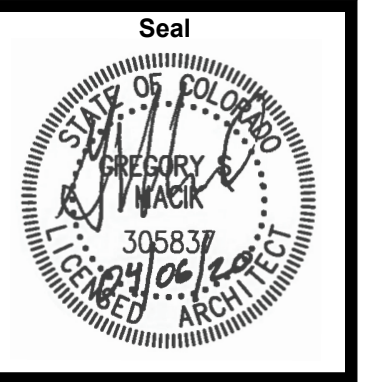
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GREGORY S. ...
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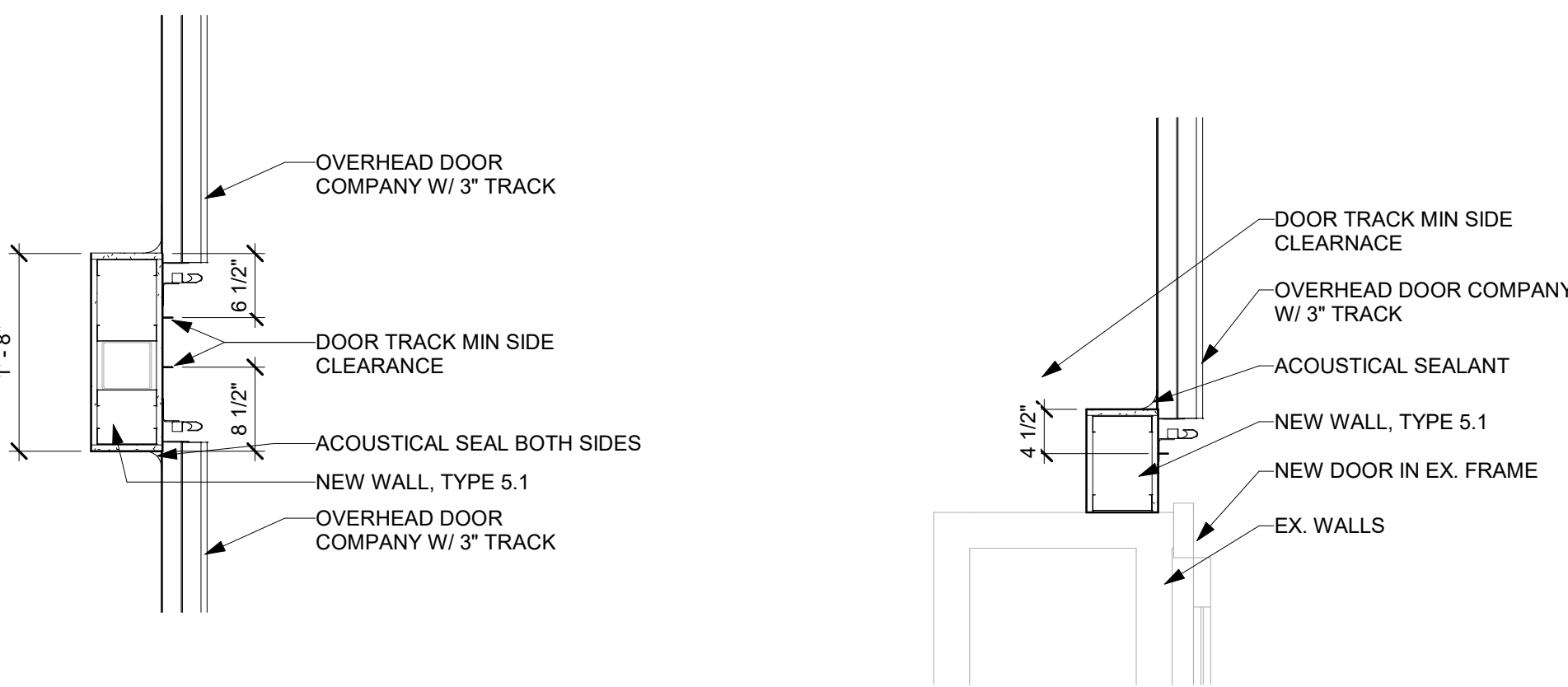
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Roof Details

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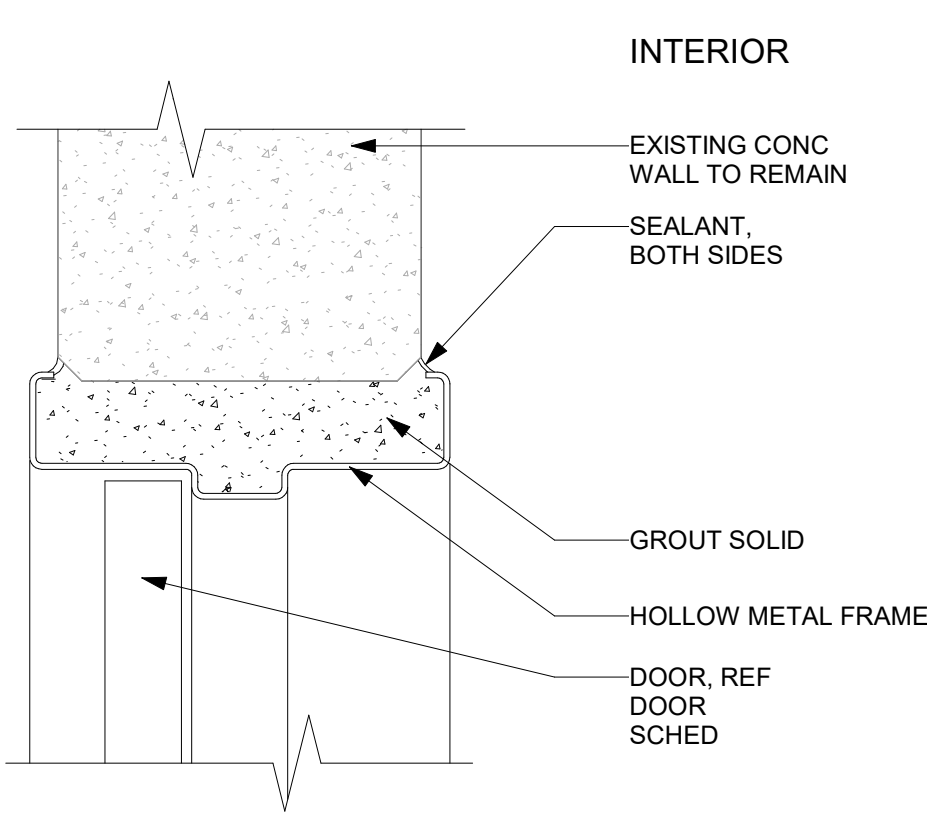
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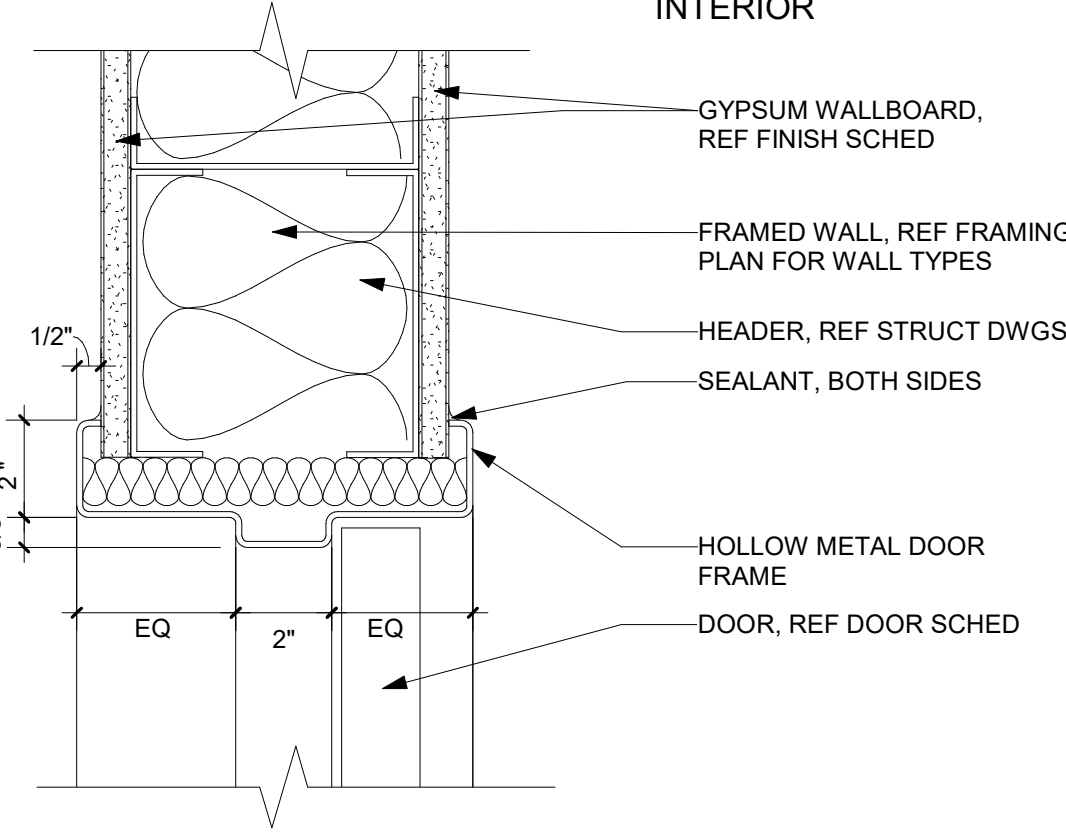


1 OVERHEAD DOOR SIDE TO SIDE
A5.60 3/4" = 1'-0"

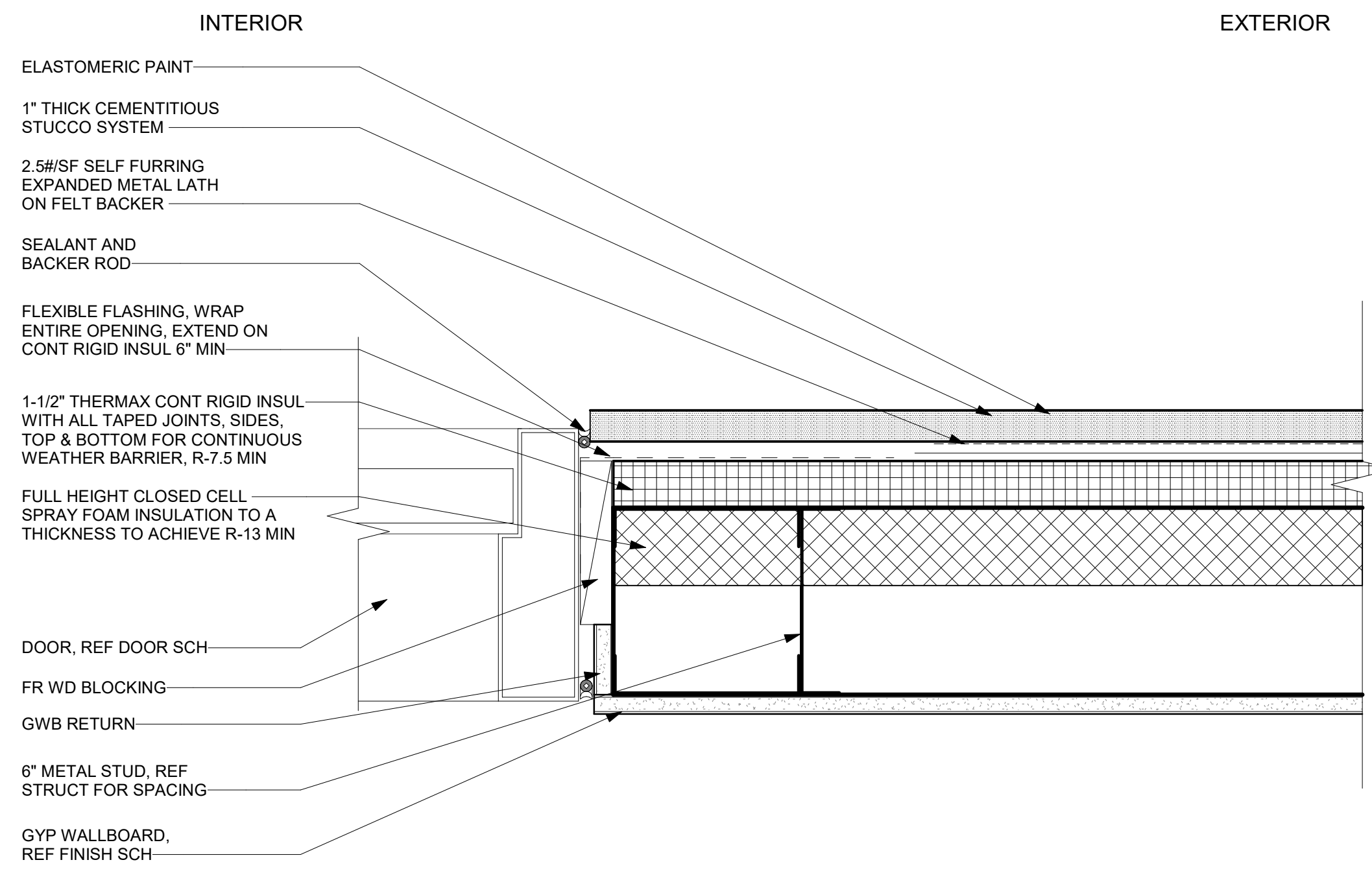
2 OVERHEAD DOOR SIDE
A5.60 3/4" = 1'-0"



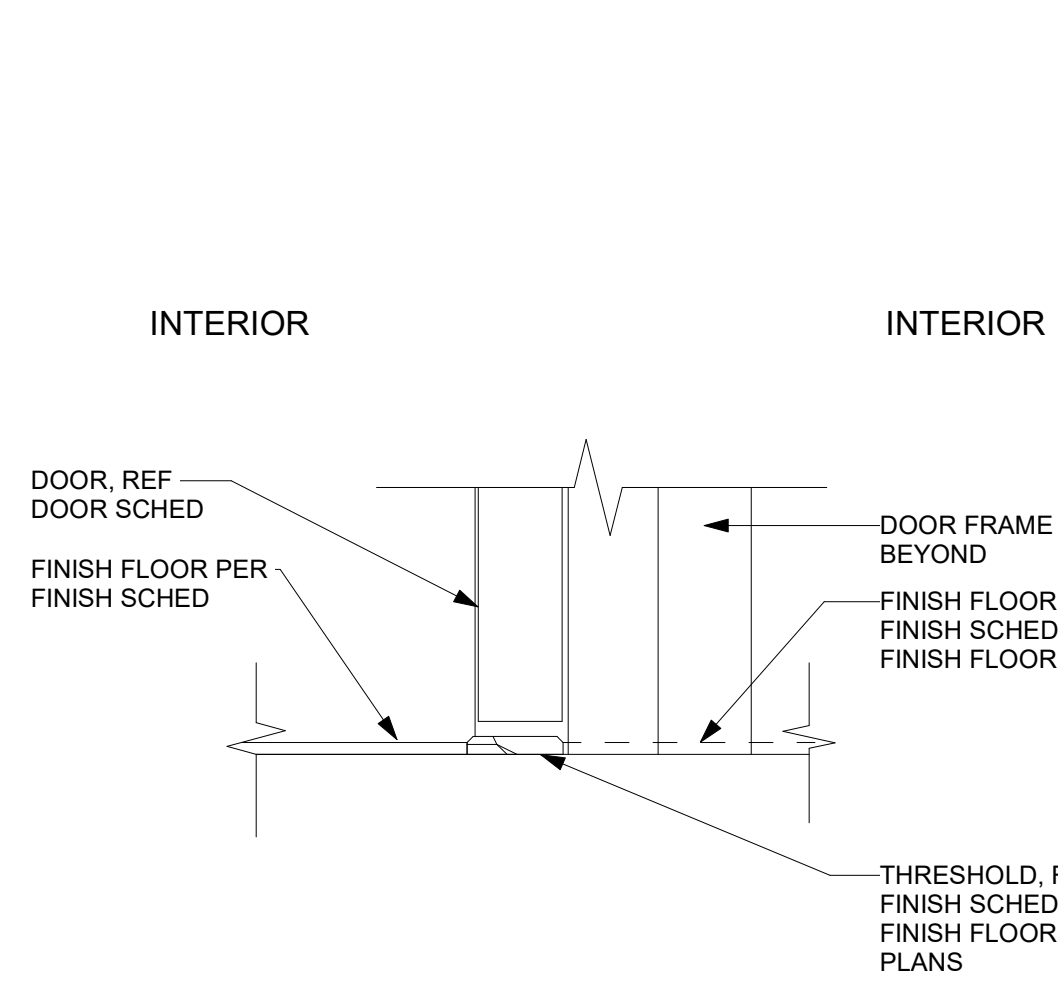
3 INTERIOR DOOR HEAD/ JAMB AT CONC
A5.60 3" = 1'-0"



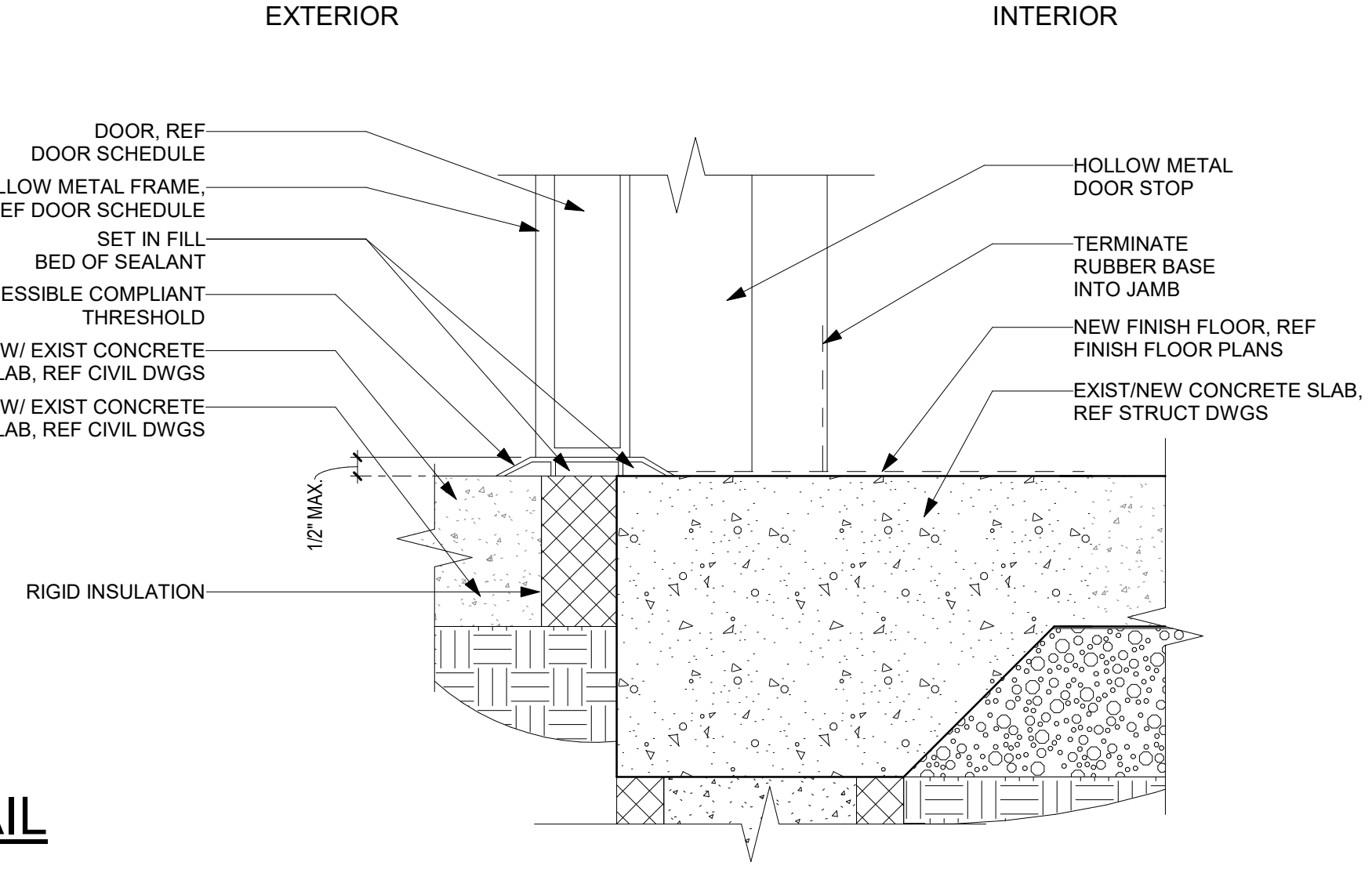
4 TYP INTERIOR DOOR HEAD/ JAMB DETAIL
A5.60 3" = 1'-0"



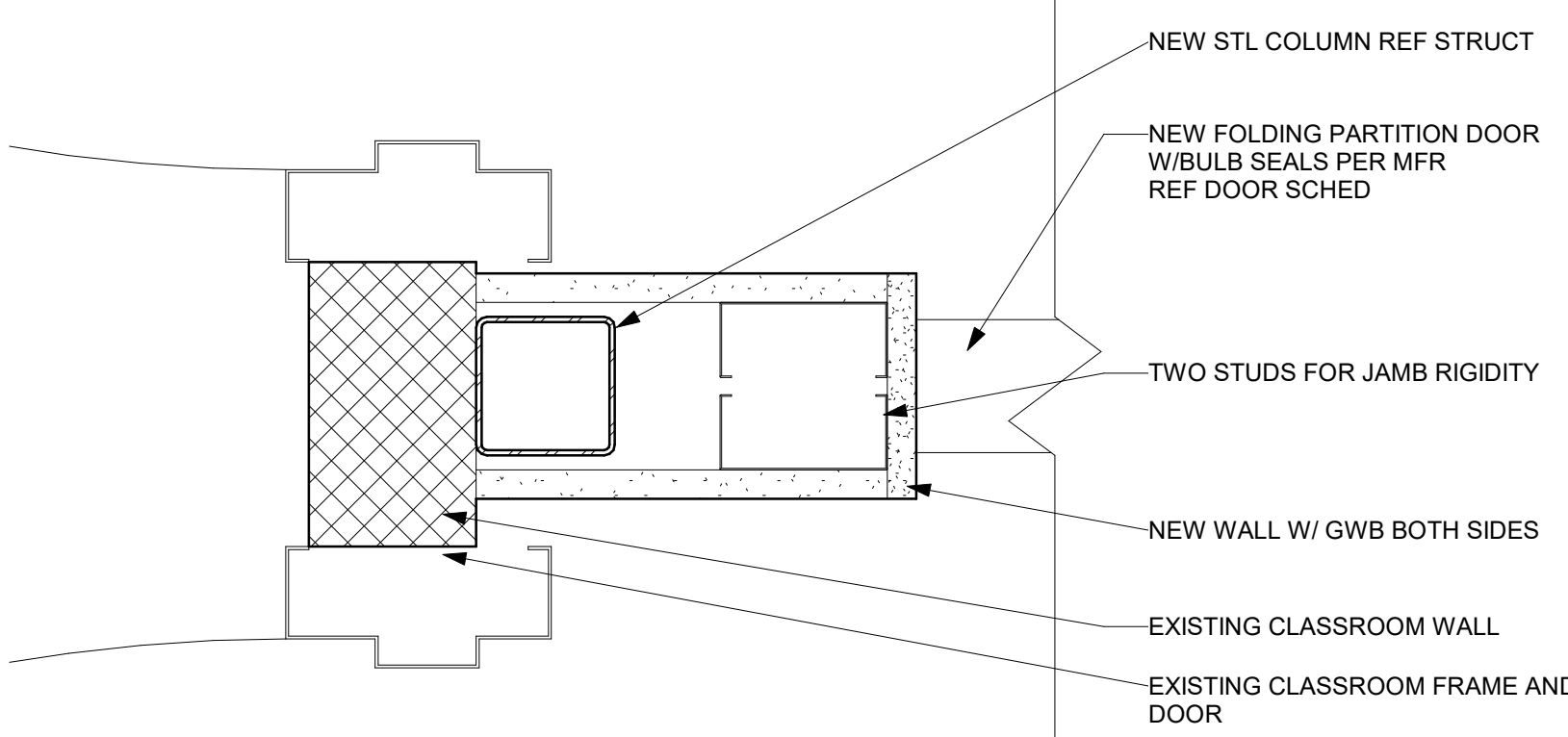
5 SF DOOR JAMB AT STUCCO
A5.60 3" = 1'-0"



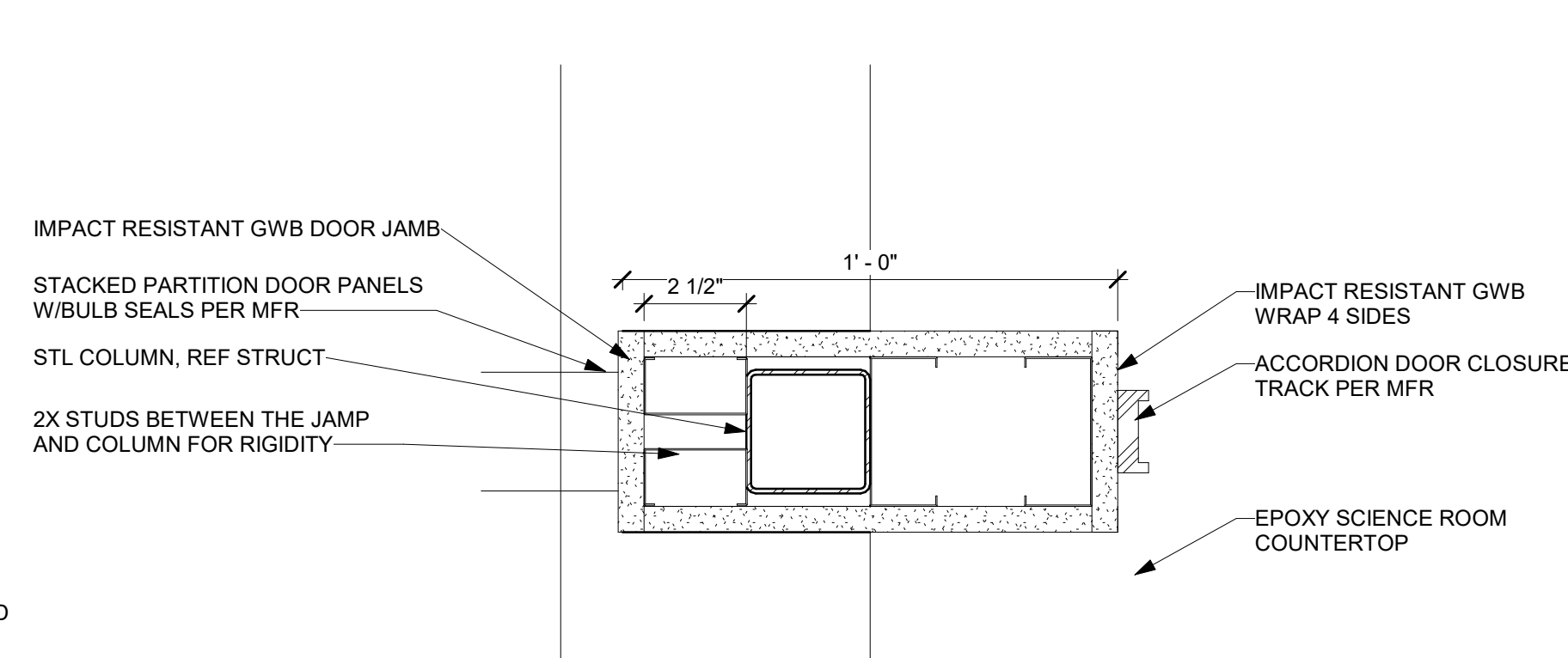
6 TYP INTERIOR DOOR THERSHOLD DETAIL
A5.60 3" = 1'-0"



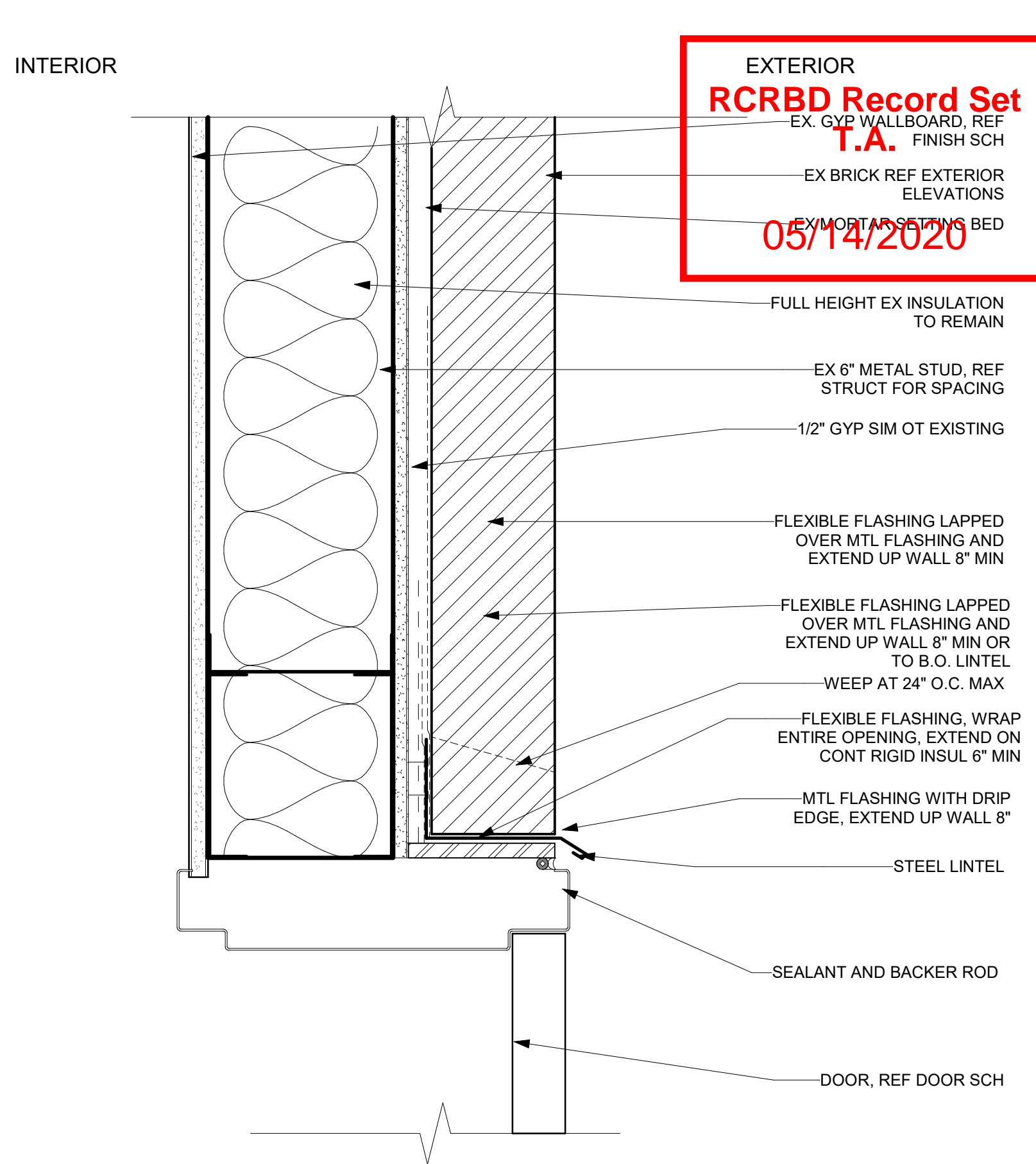
7 TYP DOOR SILL
A5.60 3" = 1'-0"



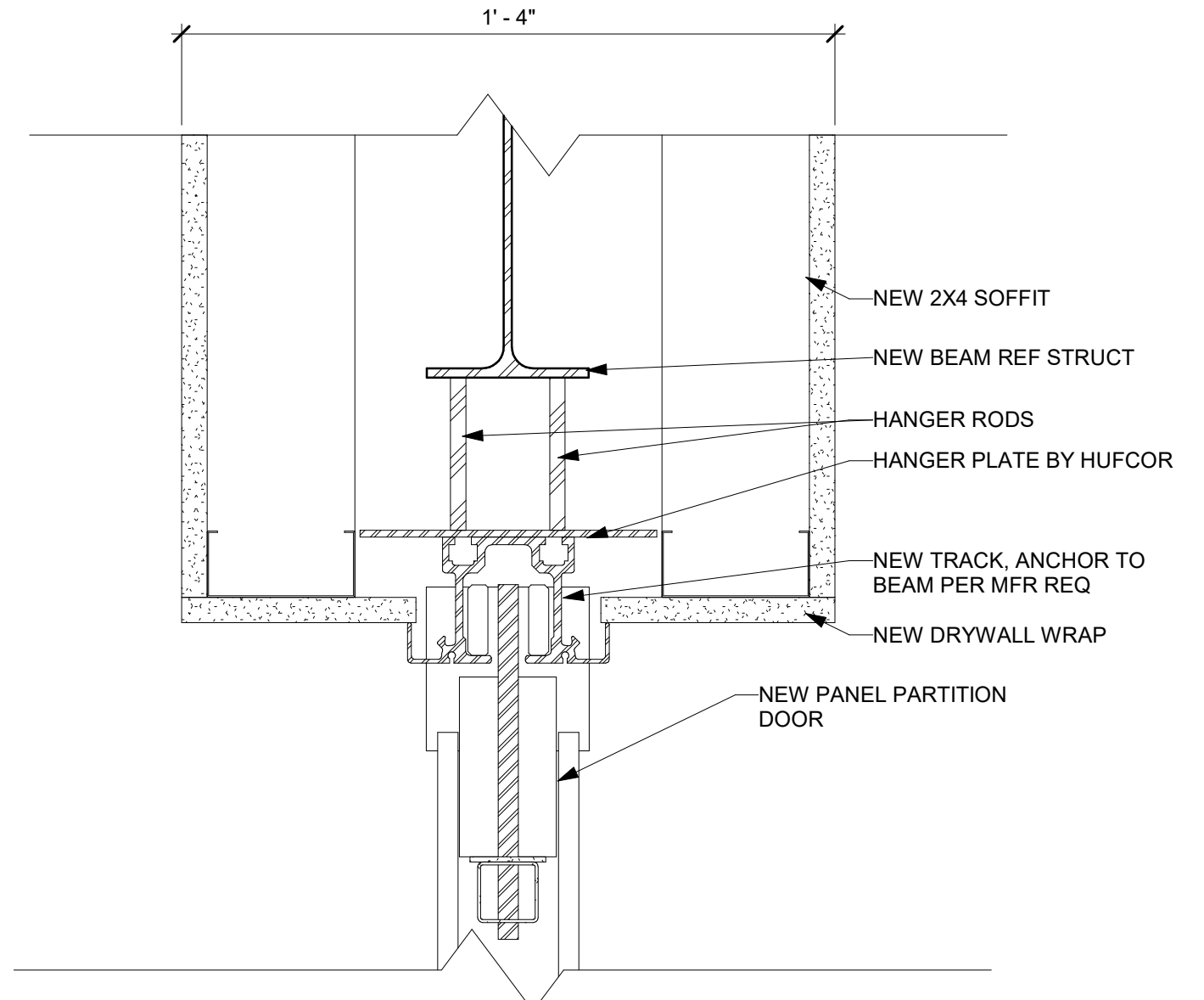
10 PARTITION DOOR JAMB OPEN SIDE
A5.60 3" = 1'-0"



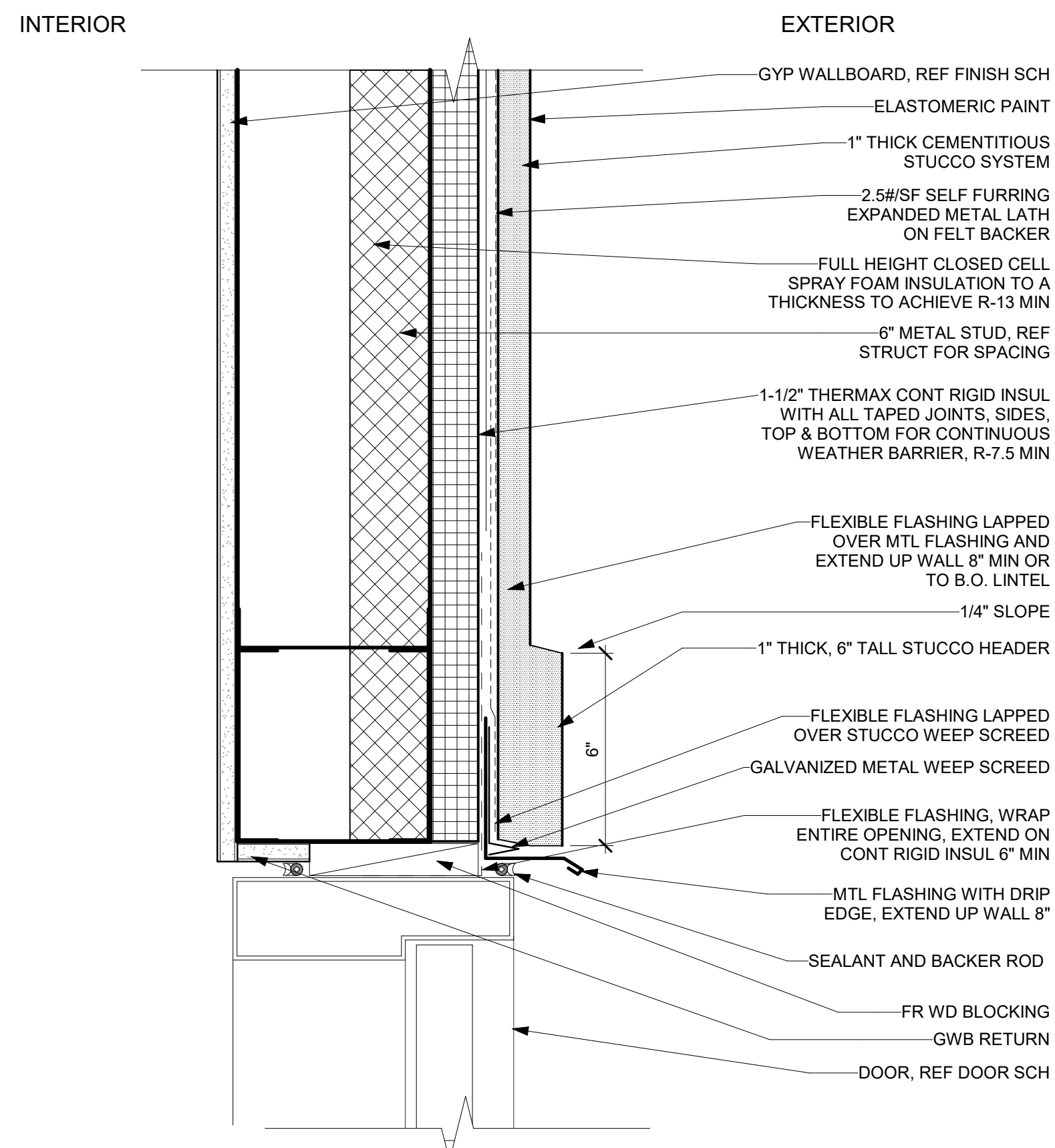
11 7th GRADE SCIENCE DOOR JAMBS
A5.60 3" = 1'-0"



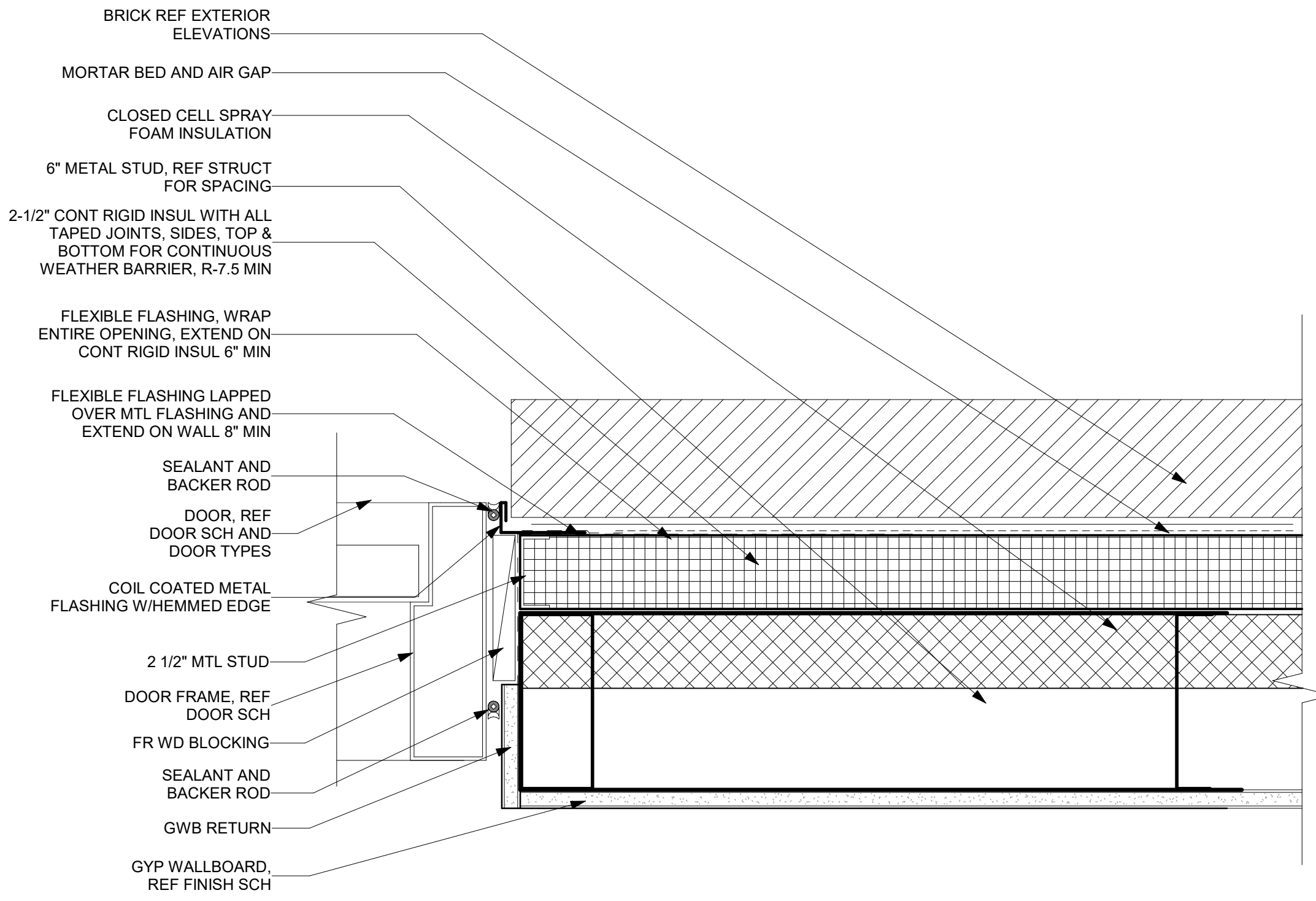
8 HM EXT DOOR
A5.60 3" = 1'-0"



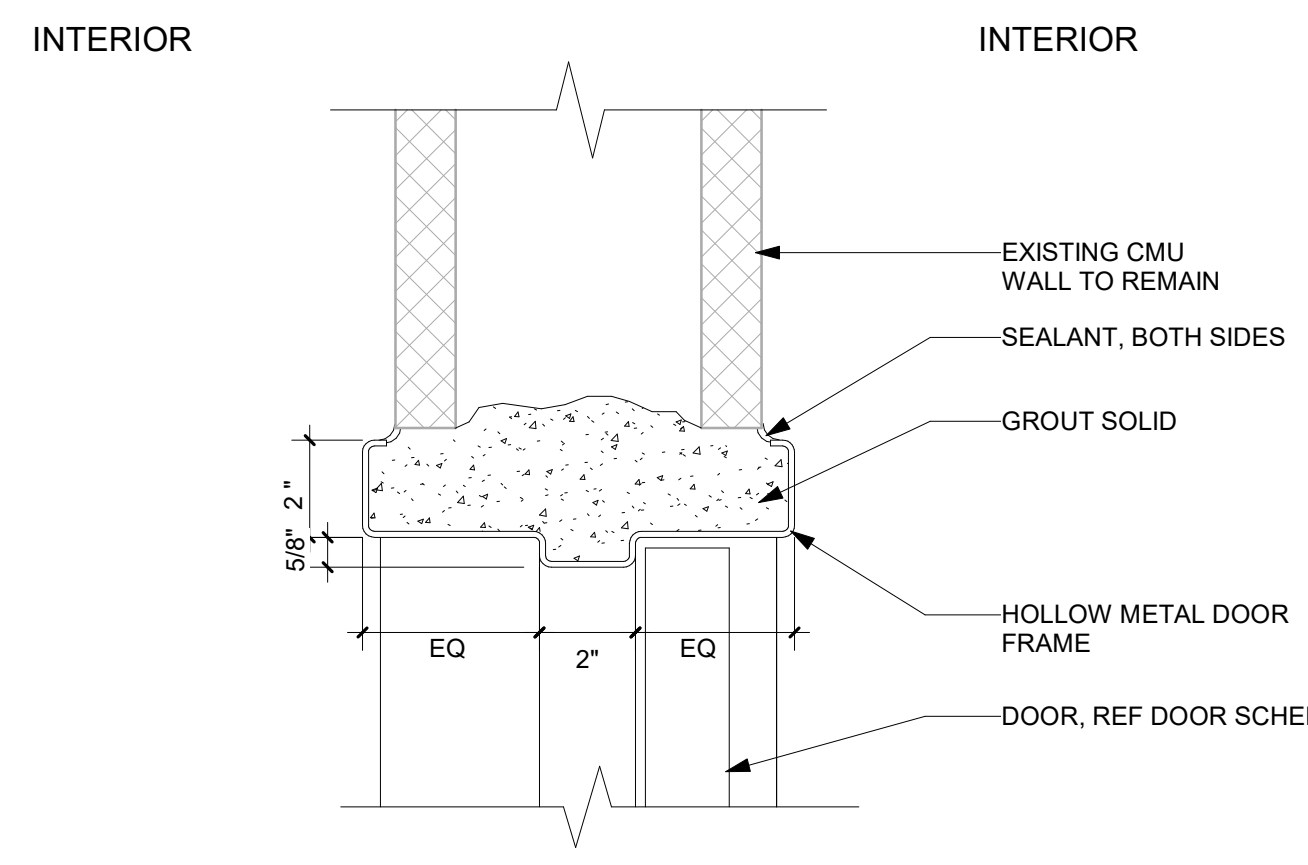
12 PANEL PARTITION DOOR HEAD
A5.60 3" = 1'-0"



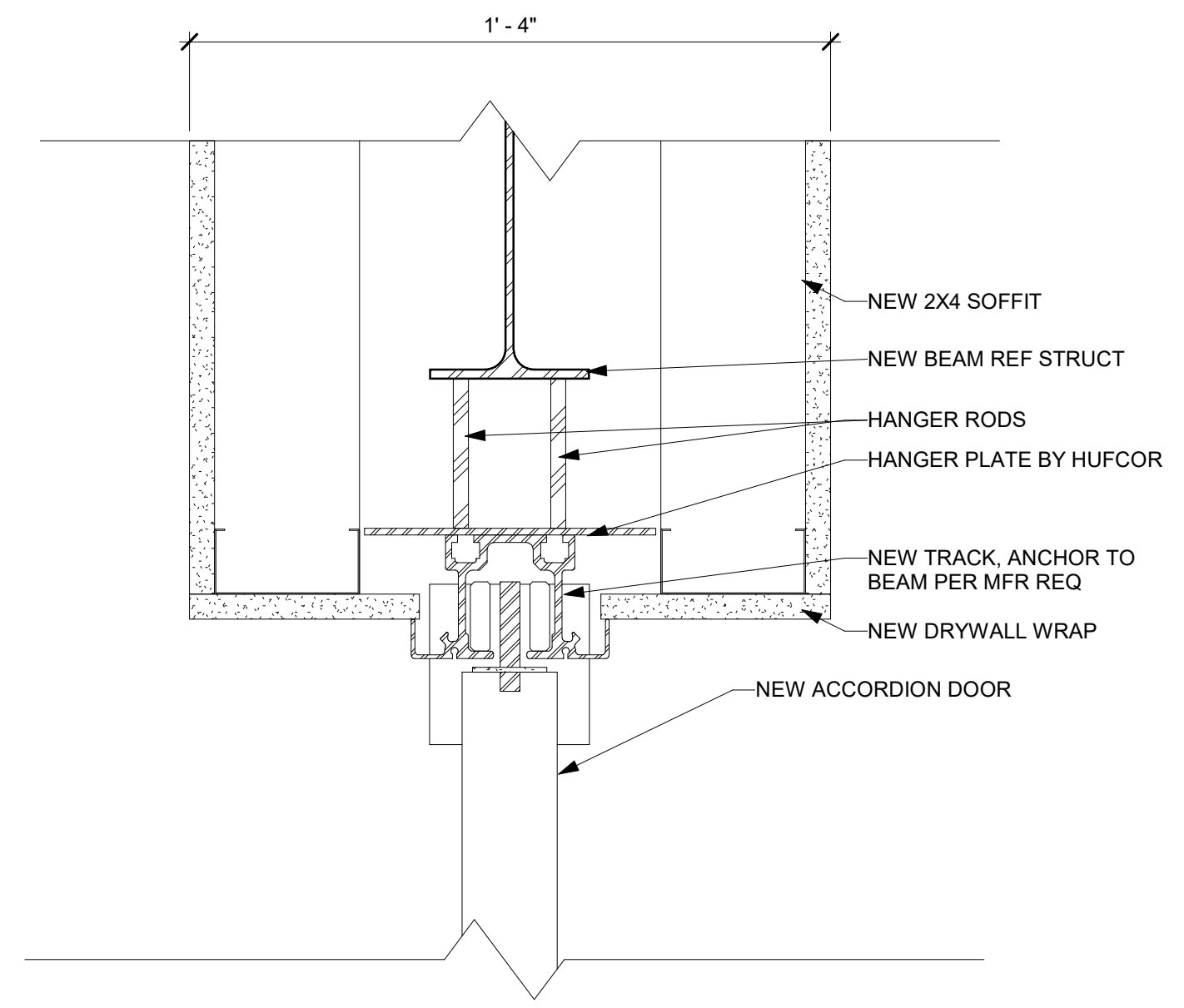
9 SF DOOR HEAD AT STUCCO
A5.60 3" = 1'-0"



13 SF DOOR JAMB AT BRICK
A5.60 3" = 1'-0"



14 TYP CMU INTERIOR DOOR HEAD/JAMB DETAIL
A5.60 3" = 1'-0"



15 ACCORDION PARTITION DOOR HEAD
A5.60 3" = 1'-0"

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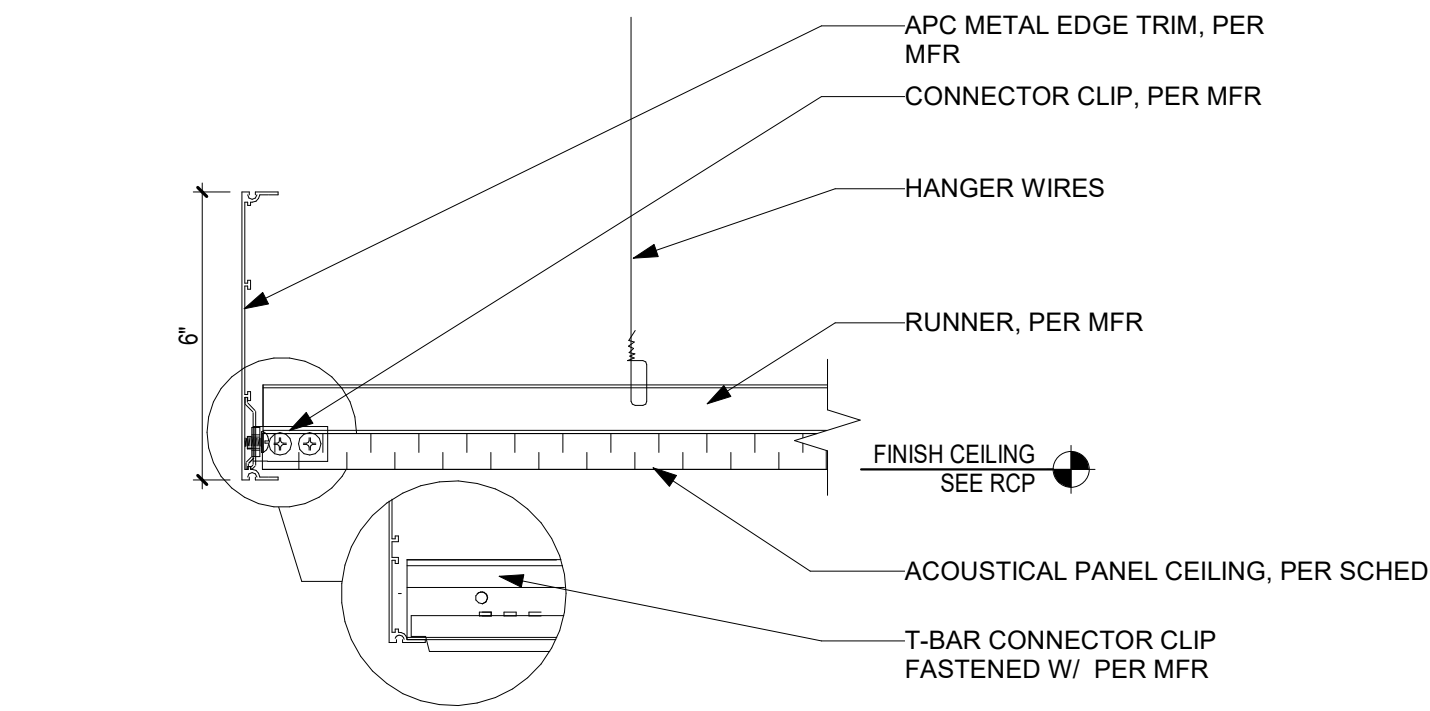
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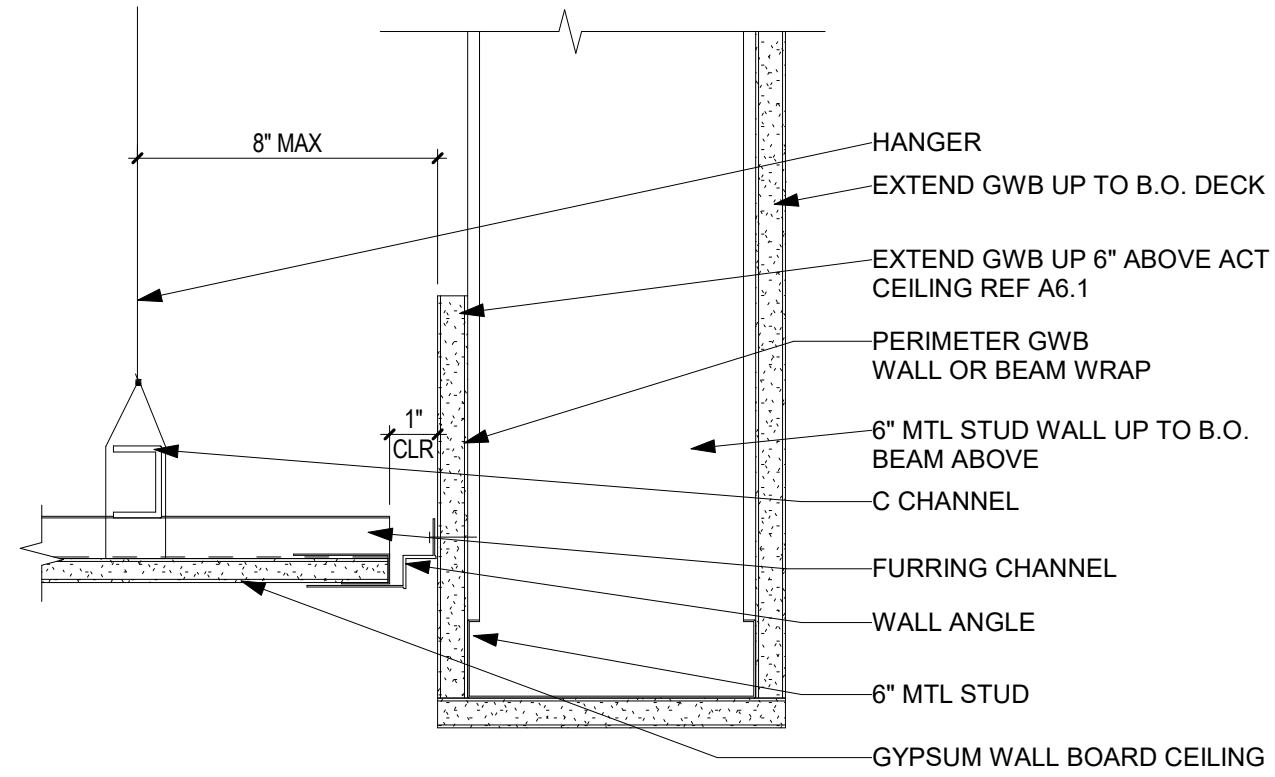
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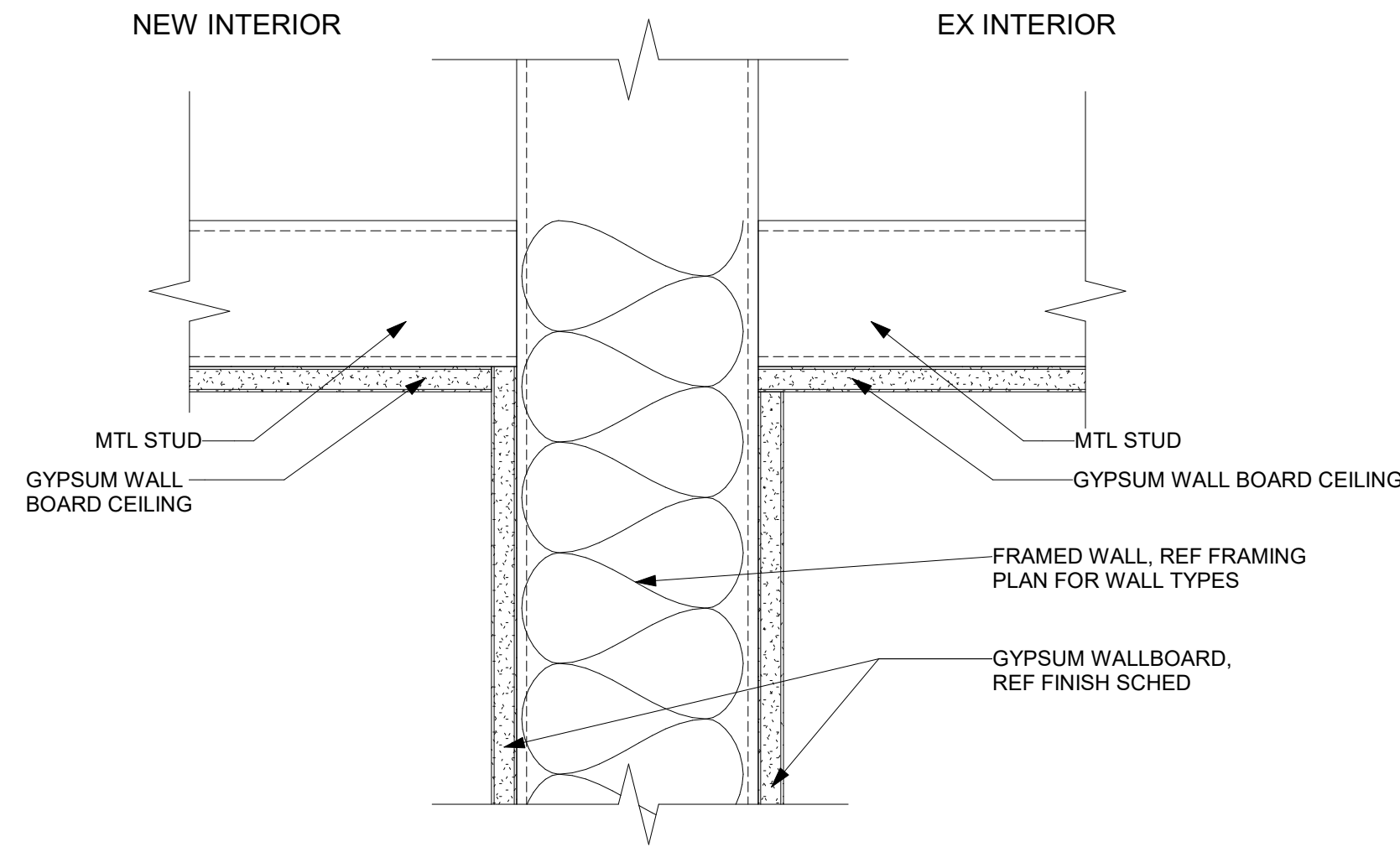
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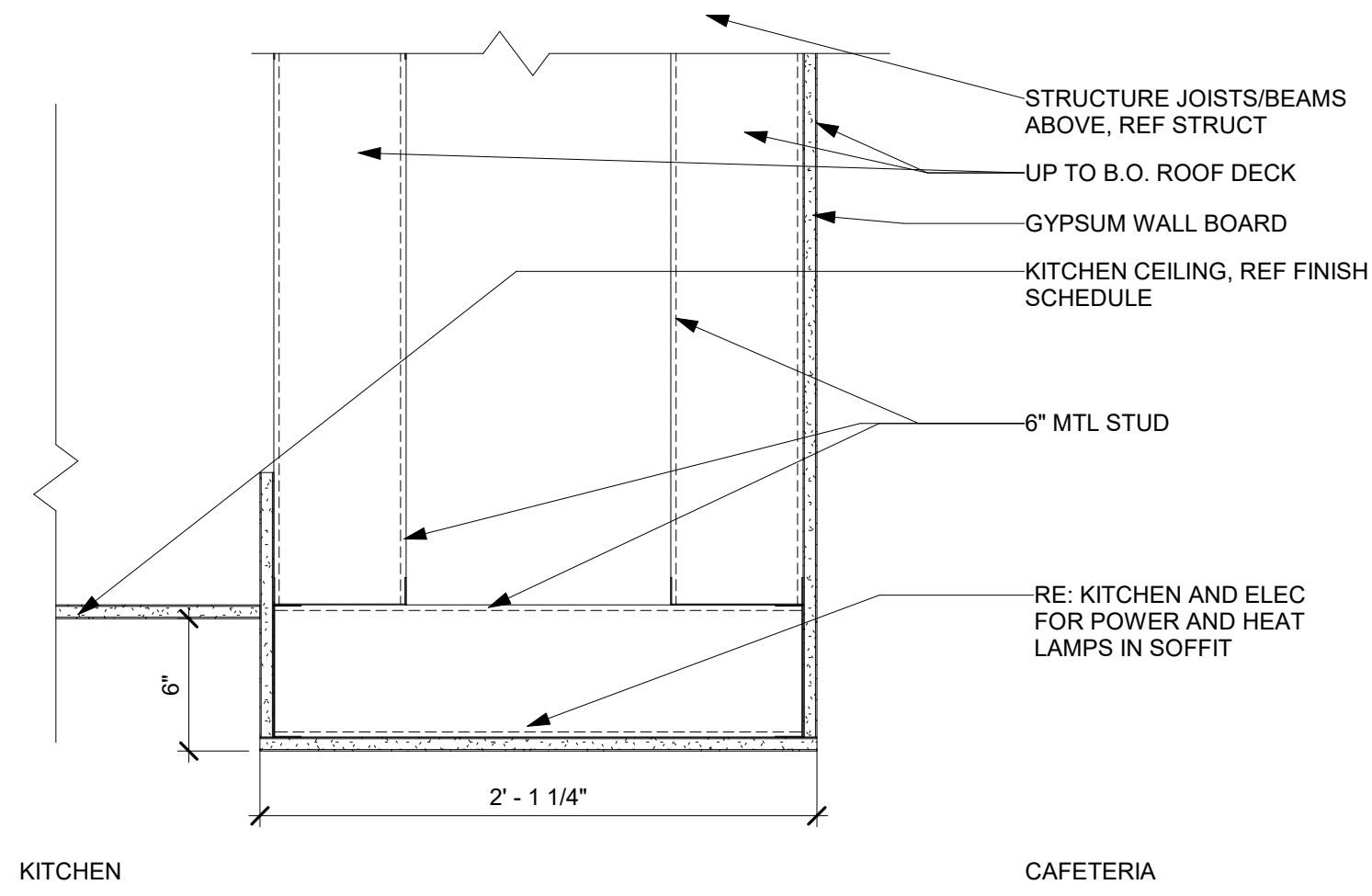
1 APC CLOUD
A5.90 3" = 1'-0"



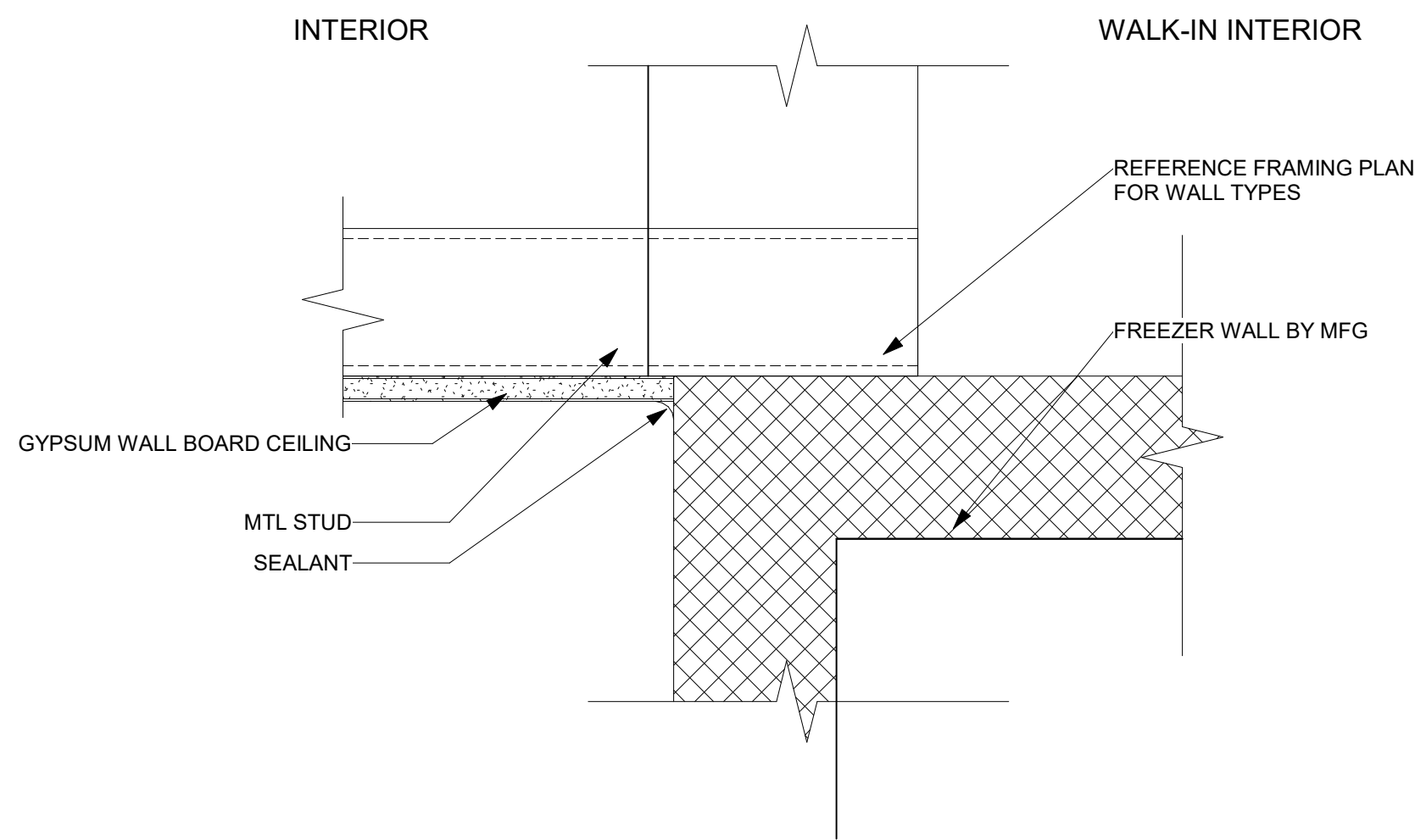
2 GWB CEILING AT PERIMETER GWB
A5.90 3" = 1'-0"



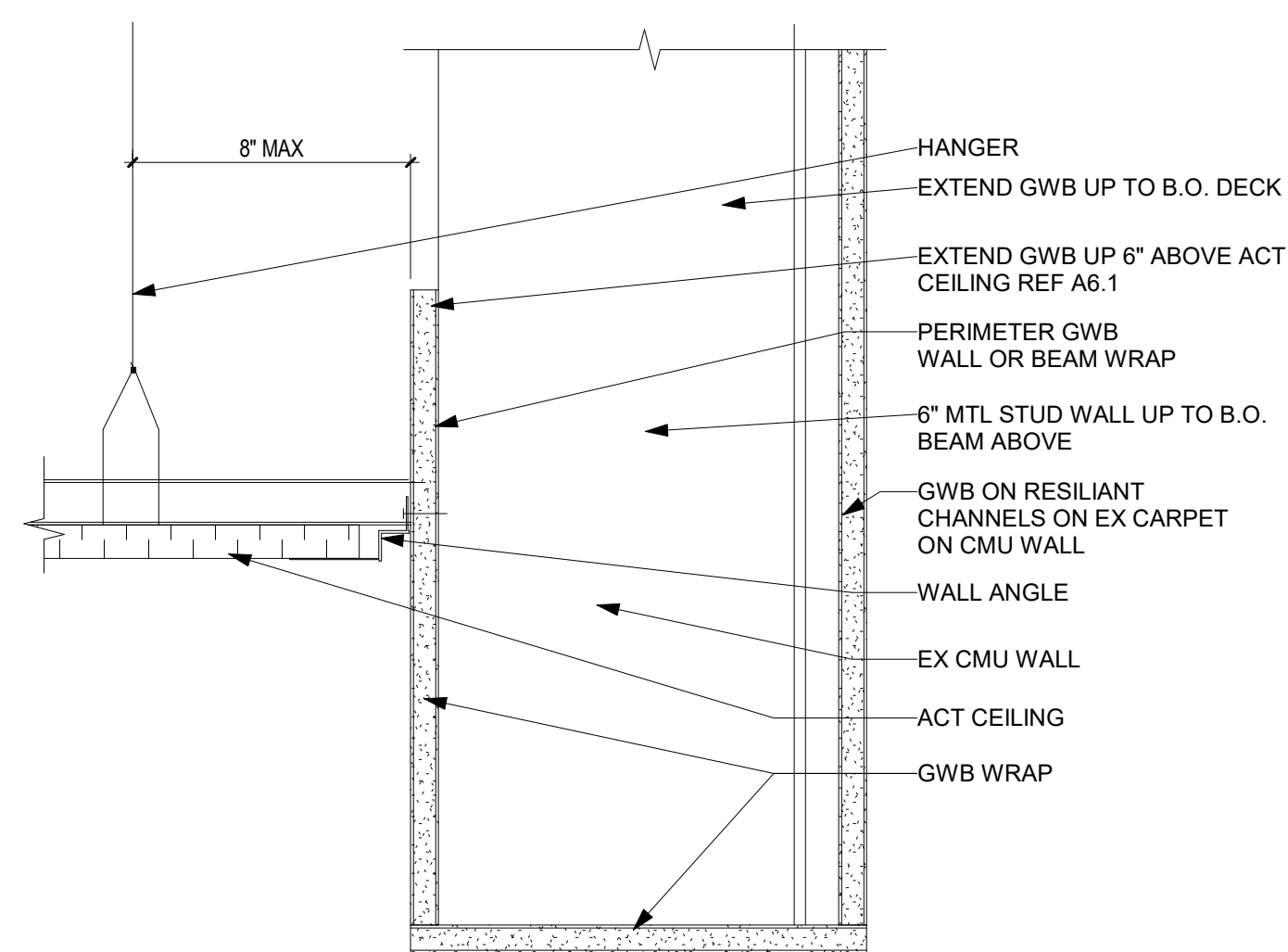
3 SOFFIT AT NEW & EXISTING
A5.90 3" = 1'-0"



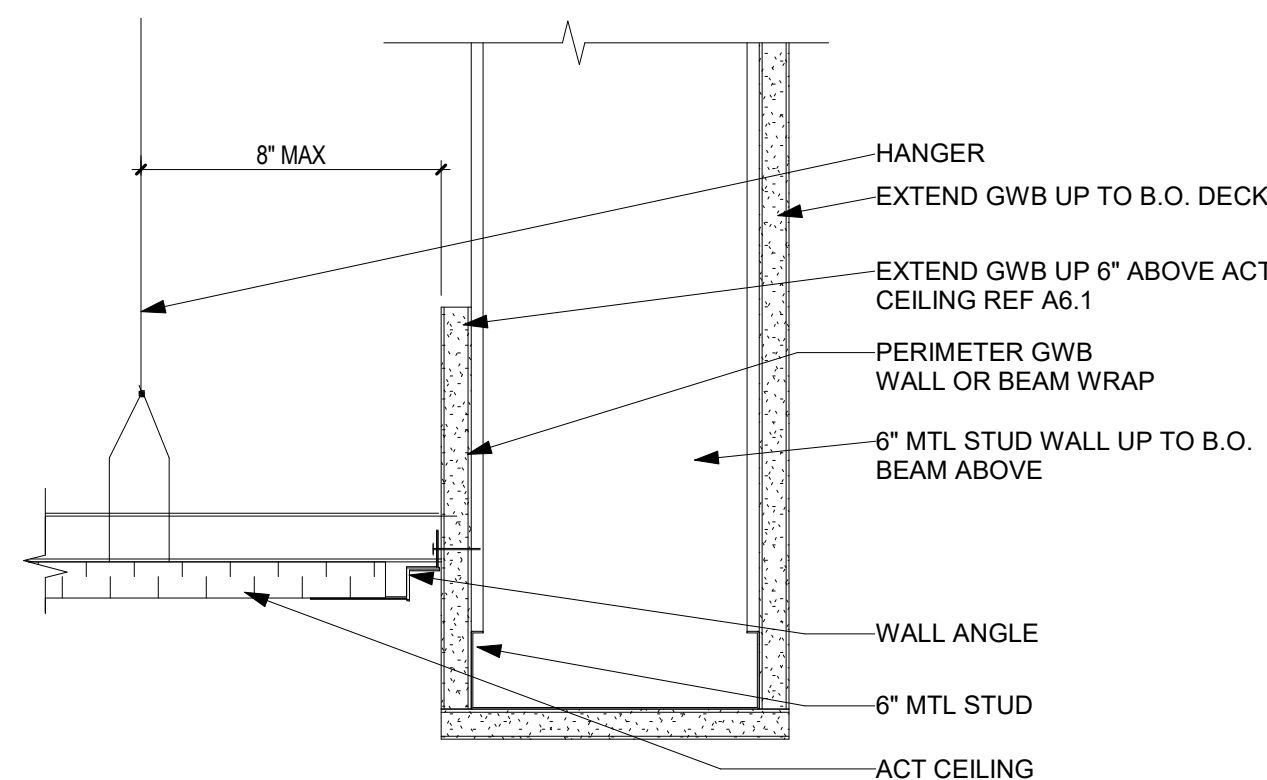
4 SOFFIT AT SERVING LINE
A5.90 1 1/2" = 1'-0"



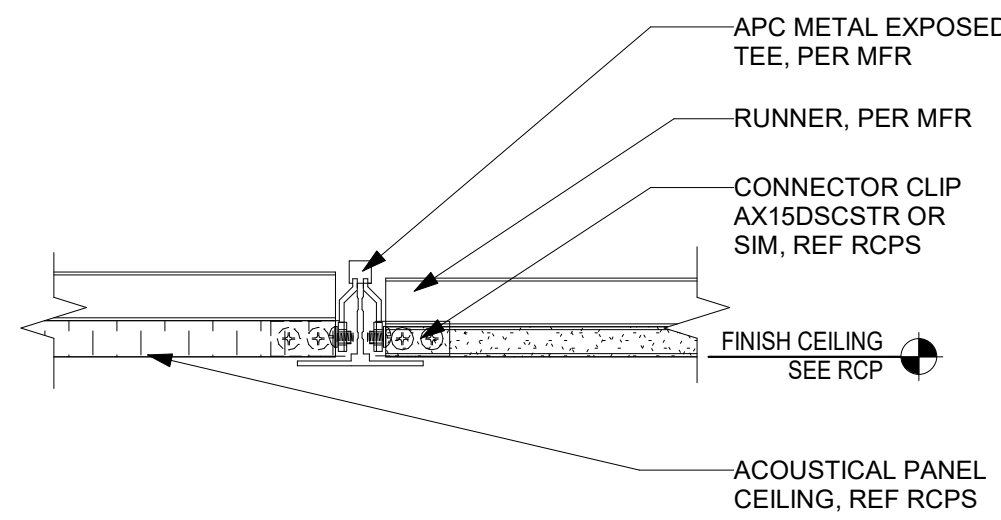
5 SOFFIT AT WALK-IN
A5.90 3" = 1'-0"



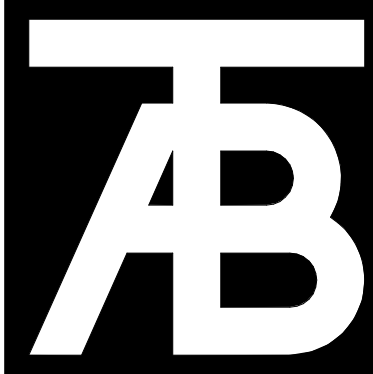
6 ACT CEILING AT CMU WALL
A5.90 3" = 1'-0"



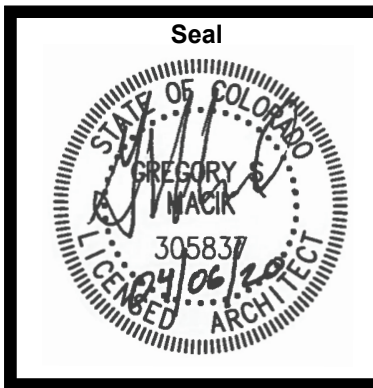
7 ACT CEILING AT PERIMETER GWB
A5.90 3" = 1'-0"



8 ACT CEILING EXPANSION JOINT
A5.90 3" = 1'-0"



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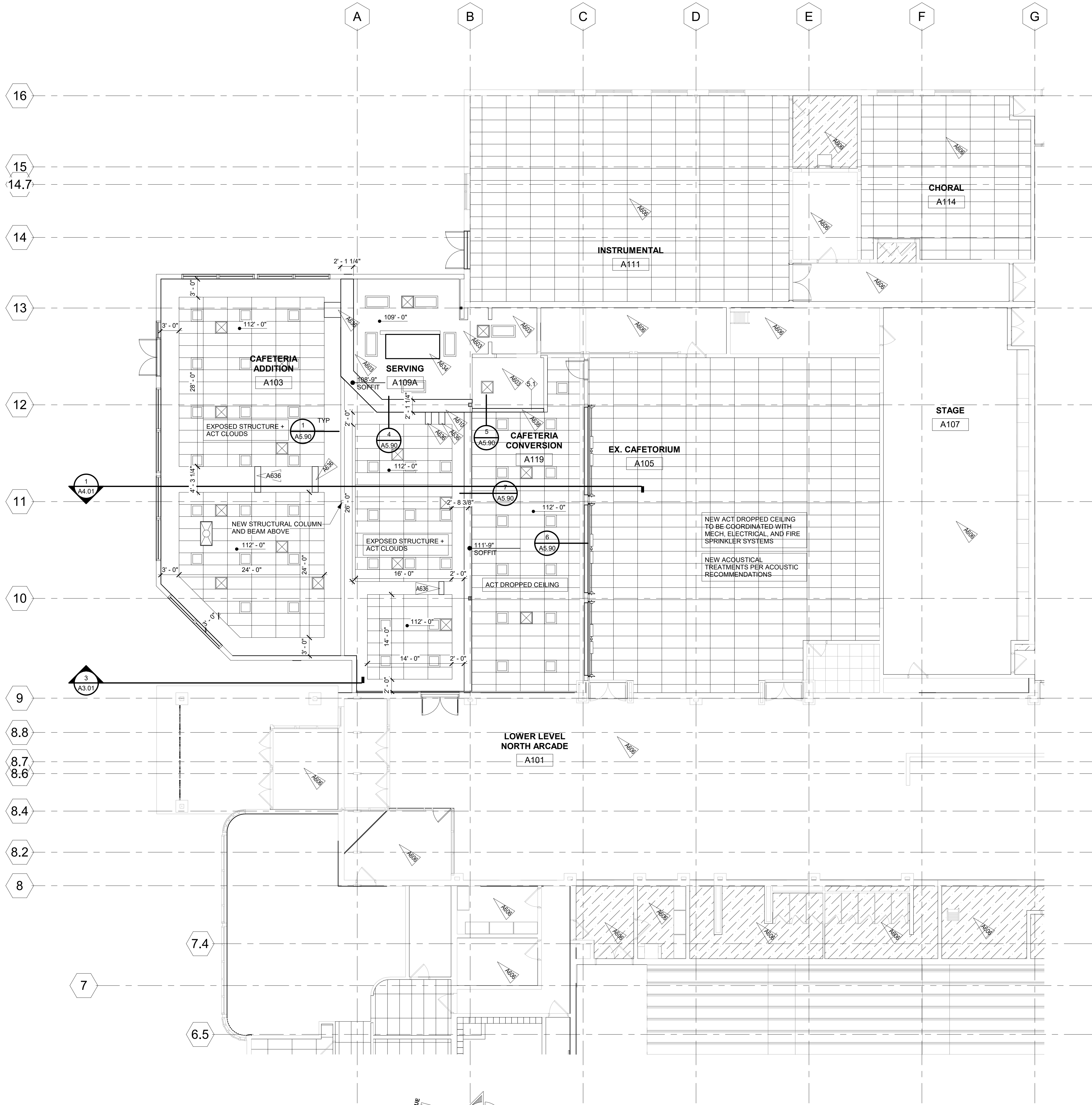
Revisions:		
No	Description	Date

Issue Dates:
Initial SD - 12/20/19
SD - 01/14/20
DD - 02/21/20
95% CD - 03/30/20
CD's - 04/07/20

Sheet Title:
Ceiling Details

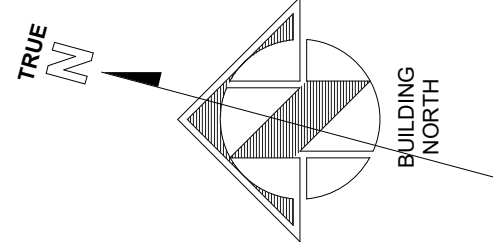
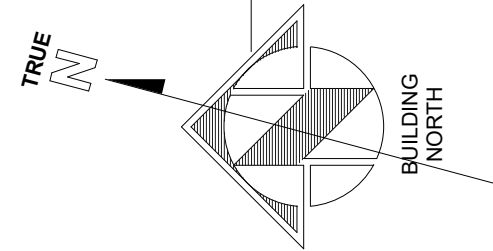
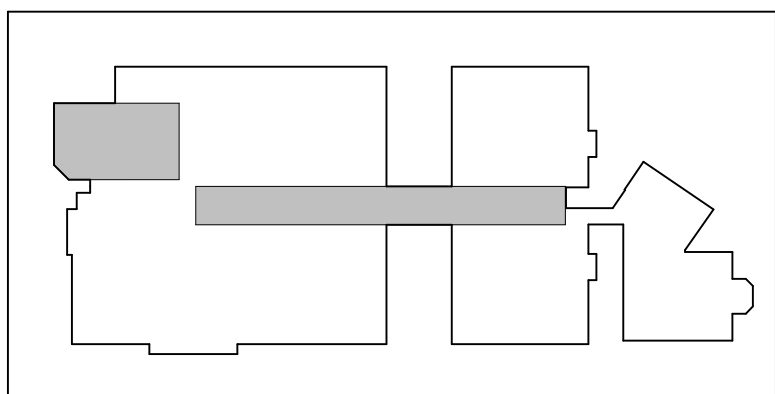
Project No:
1935.03

Sheet No:
A5.90

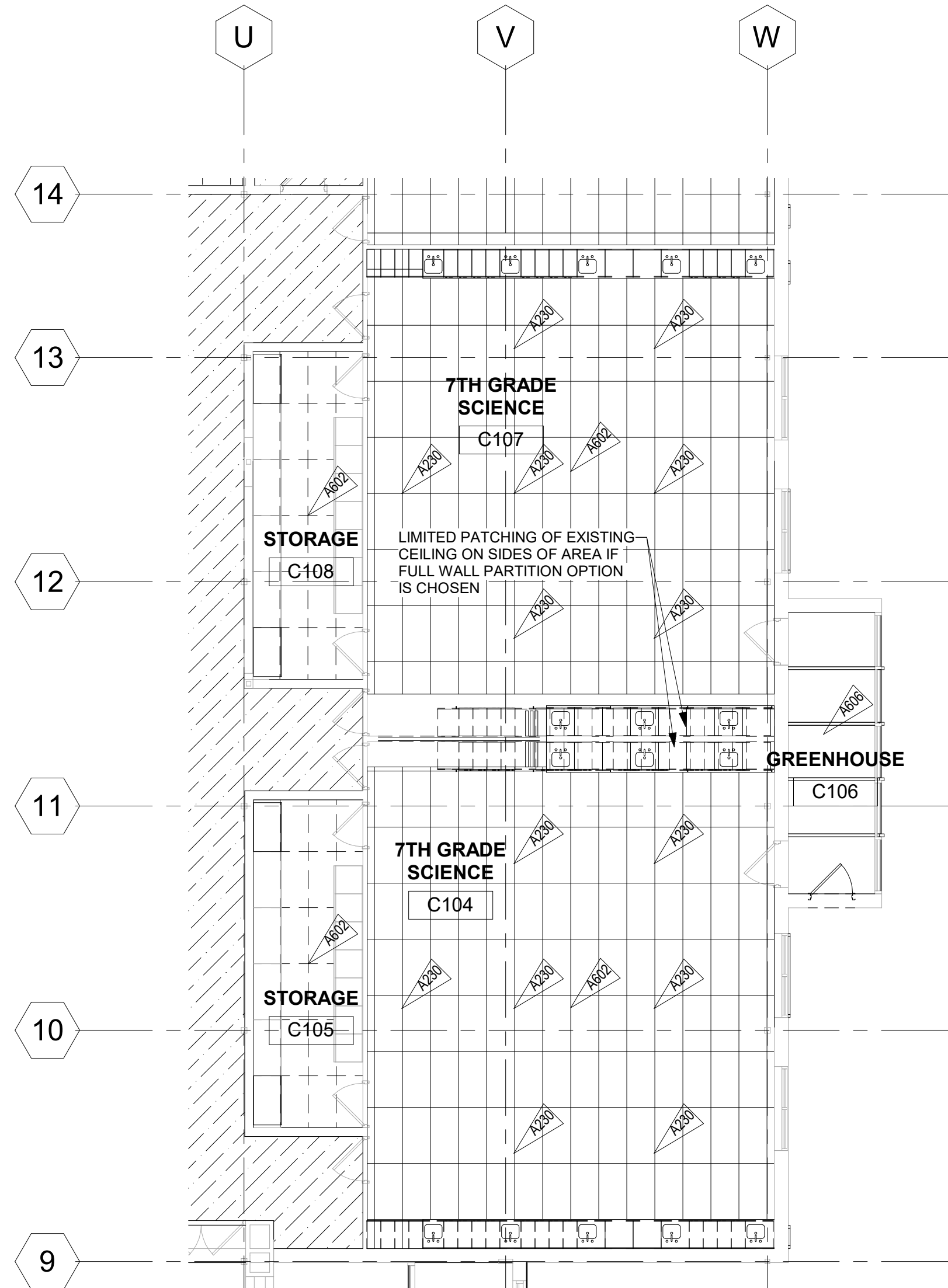
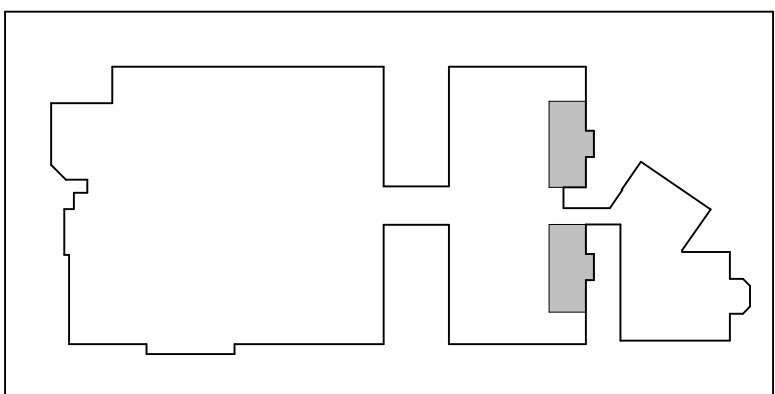


1 MAIN LEVEL PLAN
A6.01 1/8" = 1'-0"

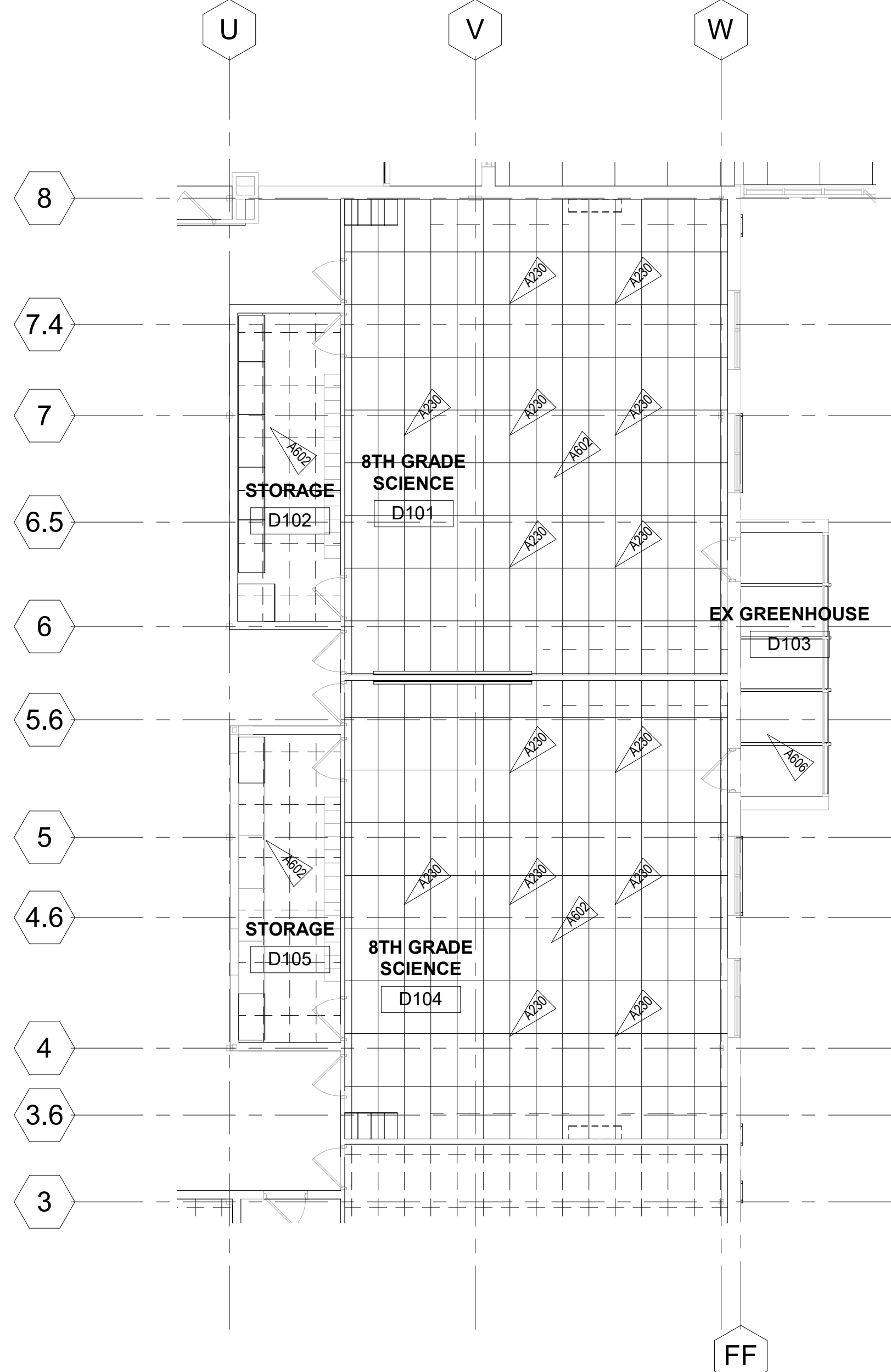
KEYNOTE PLAN



KEYNOTE PLAN



2 7TH GRADE SCIENCE CLASSROOM RCP
A6.01 1/8" = 1'-0"



3 8TH SCIENCE CLASSROOM RCP
A6.01 1/8" = 1'-0"

NOTES:

RCP NOTES:

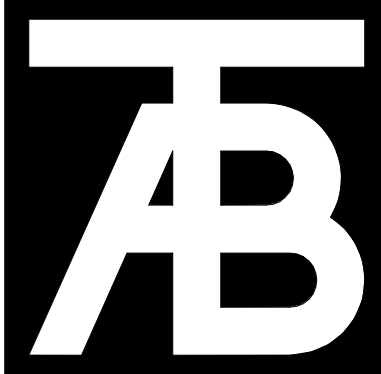
- REFER TO FIRE PROTECTION DRAWINGS FOR LOCATIONS OF FIRE SPRINKLER HEADS. CENTER FIRE SPRINKLER HEADS BOTH DIRECTIONS IN CEILING TILES.
- SUBMIT LAYOUT OF ALL NEW CEILING CONTROL JOINTS FOR REVIEW.
- ALL CEILING SHALL BE AS NOTED ON PLANS.
- SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR MOUNTING LOCATIONS OF ITEMS WHERE NO CEILING IS REQUIRED OR INDICATED.
- LIGHTS, DIFFUSERS, EXIT SIGNS, SMOKE DETECTORS, AND FIRE ALARMS SPEAKERS/STROBES SHALL BE CENTERED IN THE CEILING TILES IN WHICH THEY OCCUR, UNLESS NOTED OTHERWISE.
- CENTER ALL CEILING GRIDS IN EACH ROOM OR SPACE UNLESS OTHERWISE INDICATED WITH A GRID ORIGIN OR DIMENSION.
- REFER TO ELECTRICAL AND MECHANICAL DRAWINGS FOR NEW LIGHTS AND REGISTERS.
- EXPOSED STRUCTURE PAINTED W/ DRYFIL MEP COMPONENTS NOT TO BE PAINTED.

Keynote Legend

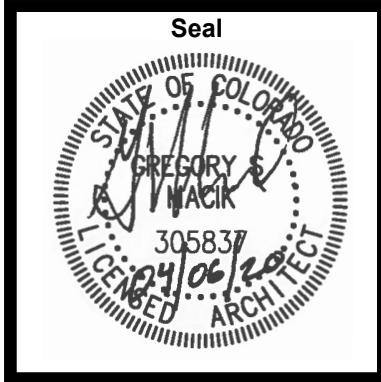
Key Value	Keynote Text
A230	NEW CEILING MOUNTED DROP DOWN ELECTRICAL POWER OUTLET ON RETRACTABLE CORD, REF ELEC DRAWINGS
A602	EX 2X4 ACT CEILING TO REMAIN
A603	NEW GYPSUM CEILING
A606	EX CEILING TO REMAIN
A610	NEW PENDANT LIGHT, REF KITCHEN DRAWINGS
A634	NEW KITCHEN HOOD REF KITCHEN AND MECHANICAL DRAWINGS
A636	NEW MECHANICAL DUCT, REF MECH DRAWINGS
A638	NEW CLOSURE WALL ABOVE REFRIGERATOR UNIT

RCP LEGEND:

	AIR SUPPLY, REF MECHANICAL
	LIGHT FIXTURE, REF ELECTRICAL
	APC-1 2X4 ACOUSTICAL LAY-IN CEILING WITH 6' x 6' 1/2\"/>
	GYPSUM WALL BOARD CEILING HEIGHT AS NOTED.



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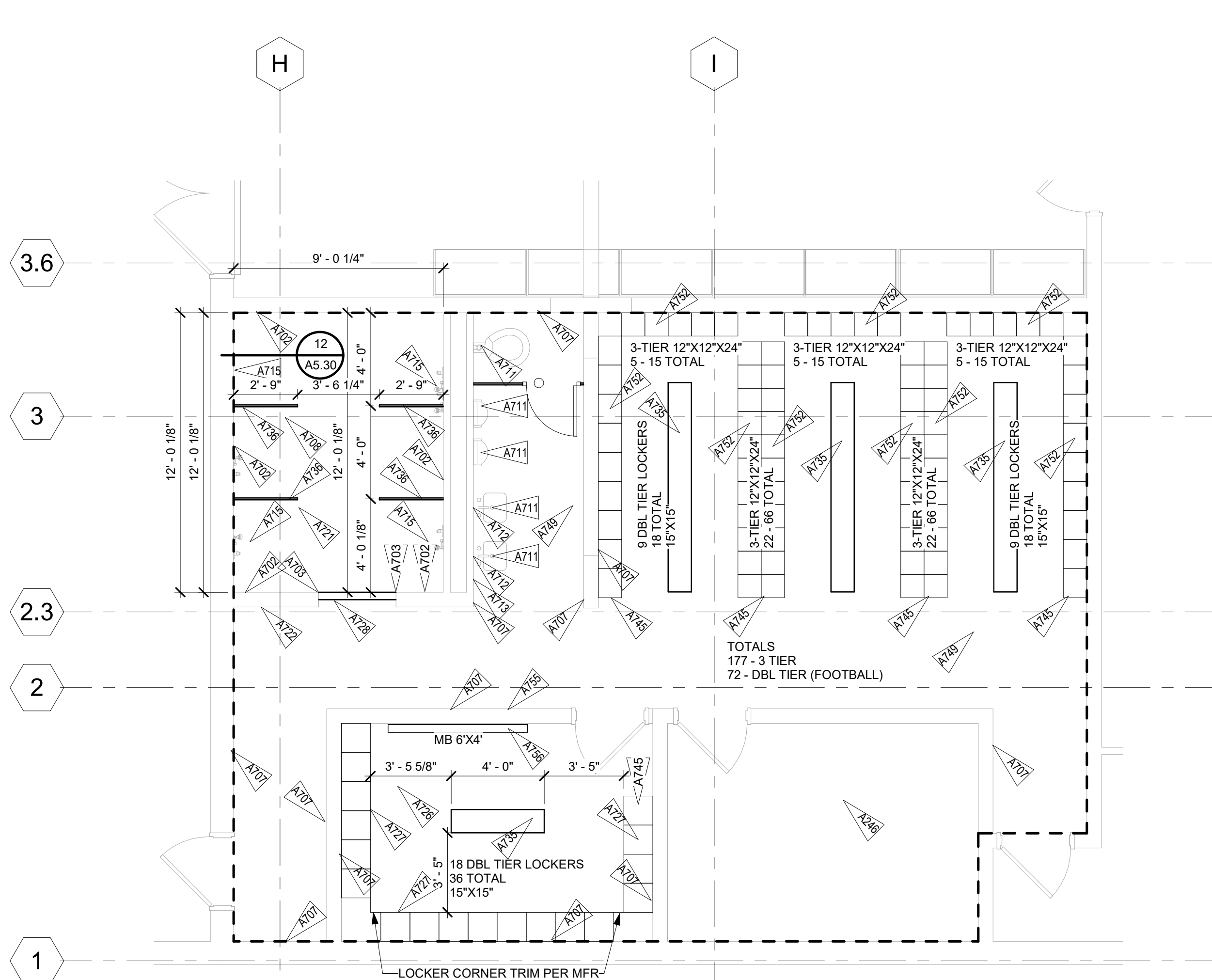
Revisions:		
No	Description	Date

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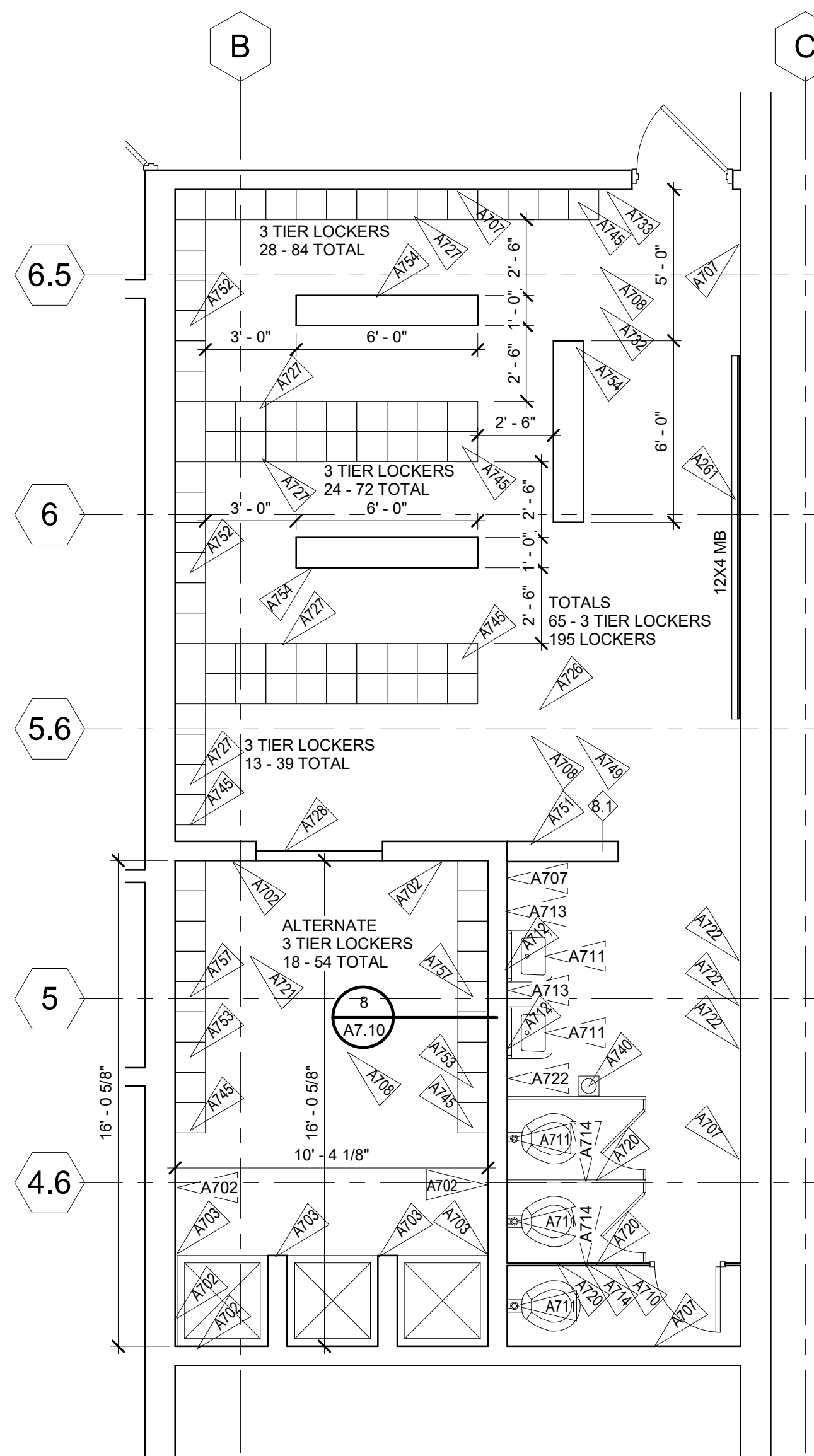
Sheet Title:
Reflected Ceiling Plan

Project No:
1935.03

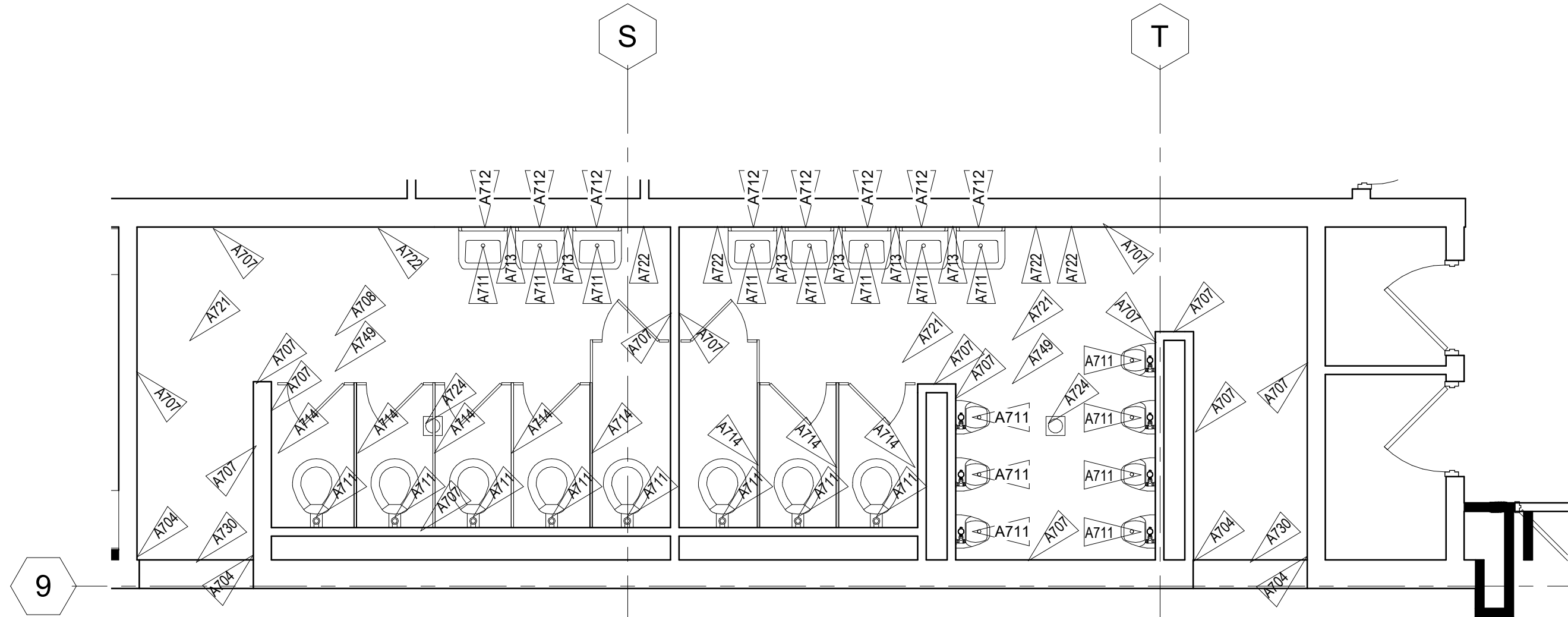
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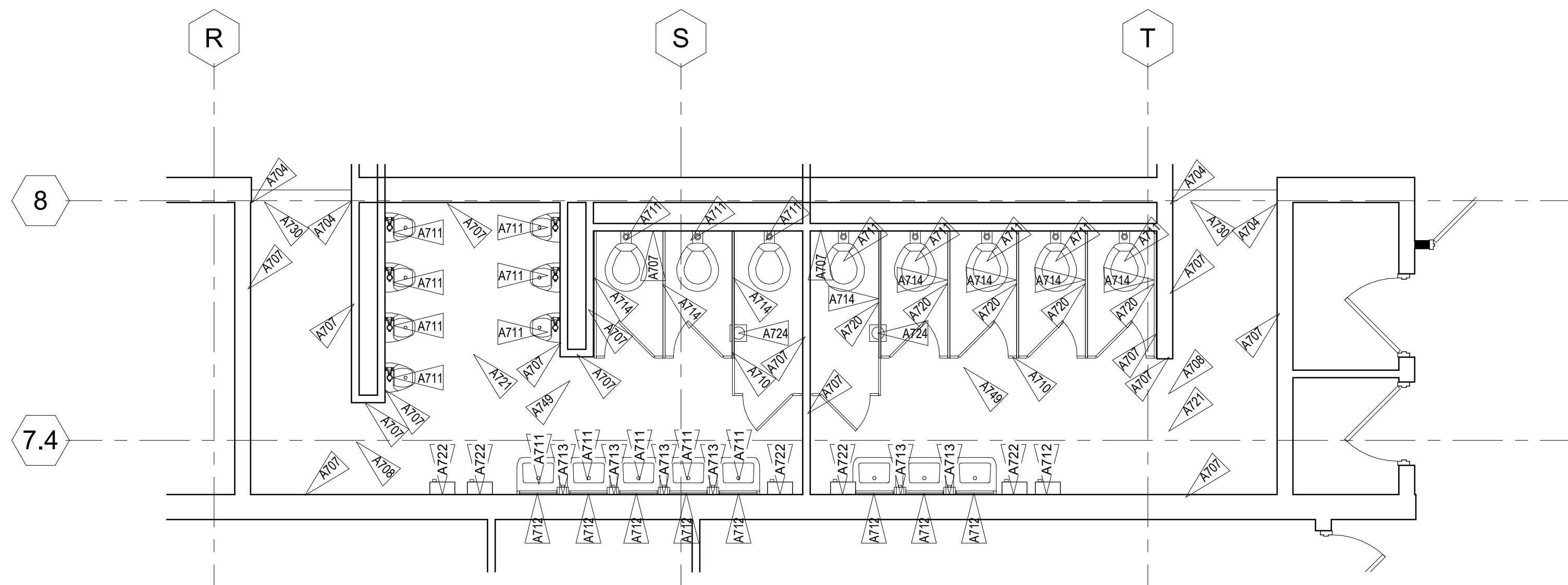
1 BOYS LOCKER B119
A7.10 1/4" = 1'-0"



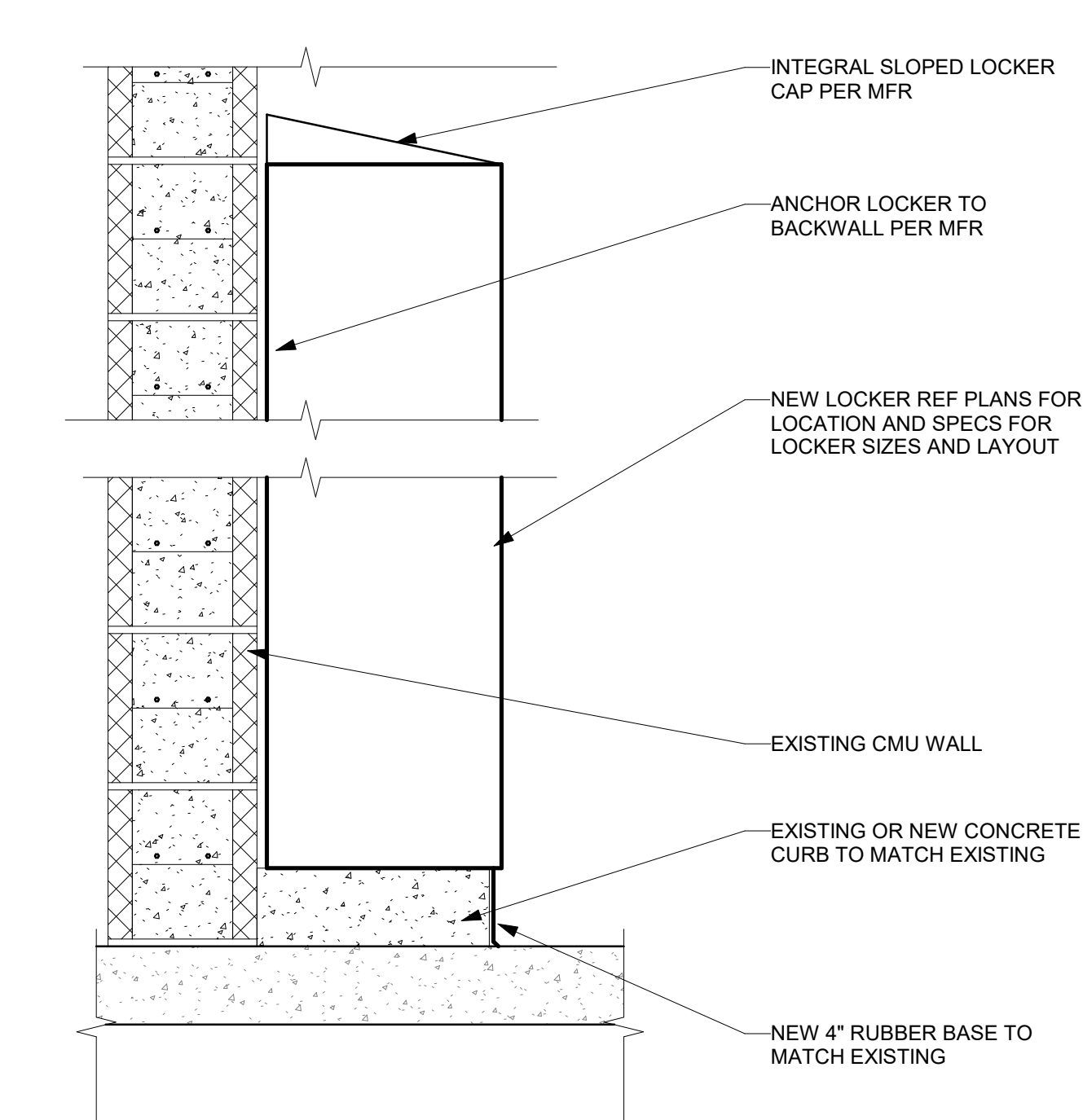
2 GIRLS LOCKER A200C
A7.10 1/4" = 1'-0"



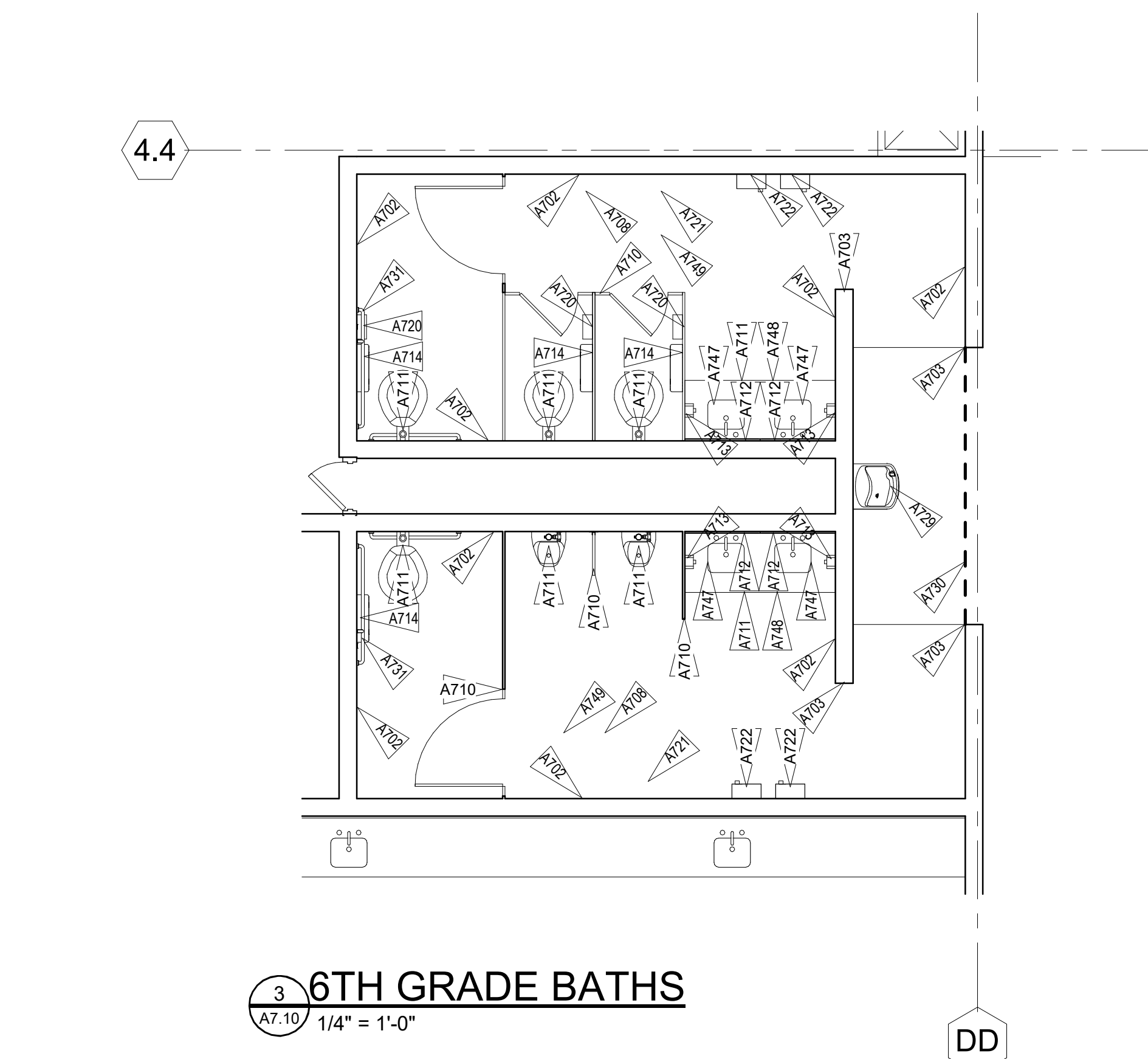
4 SOUTH ARCADE EAST BATHS
A7.10 1/4" = 1'-0"



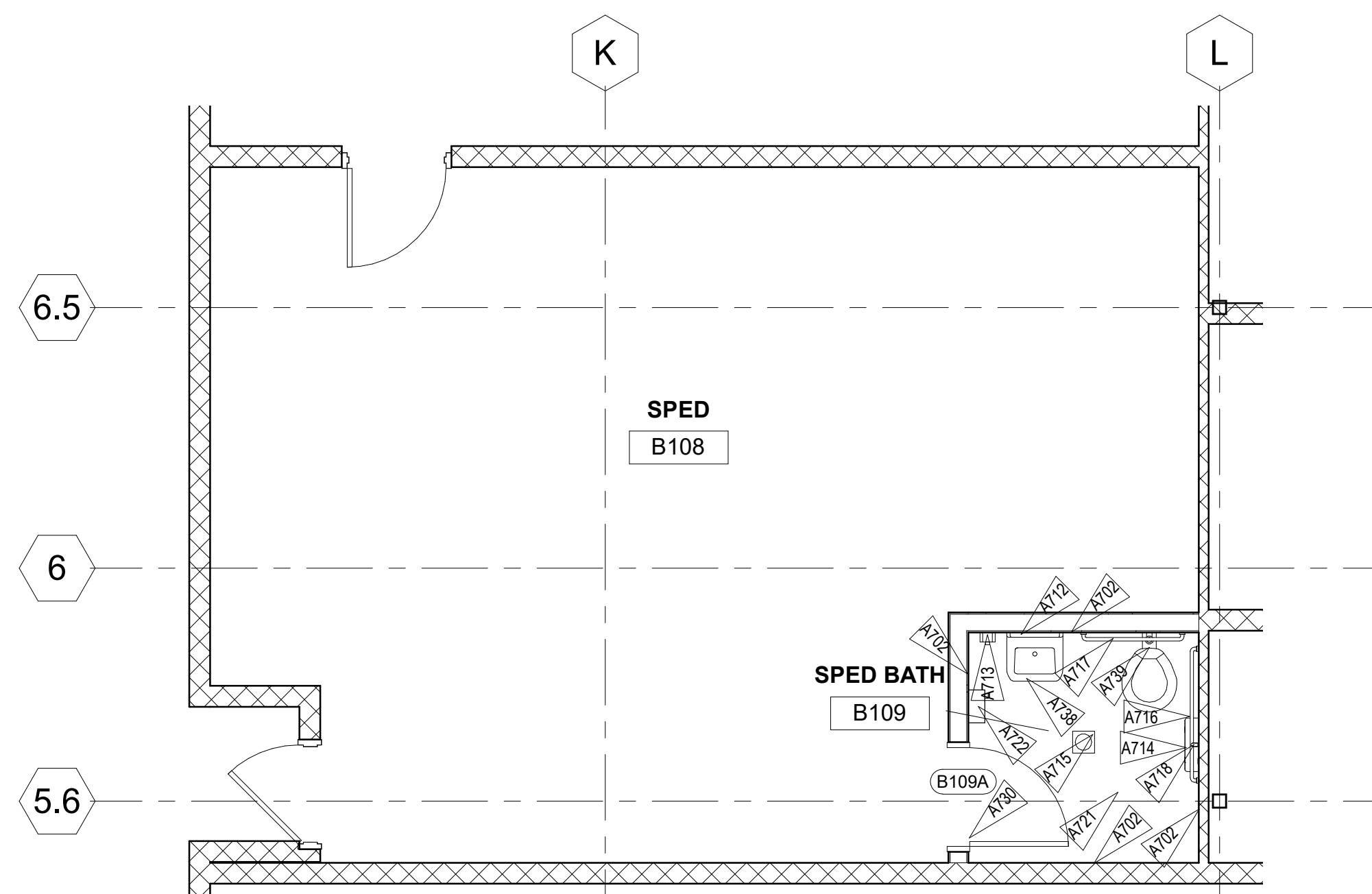
5 SOUTH ARCADE WEST BATHS
A7.10 1/4" = 1'-0"



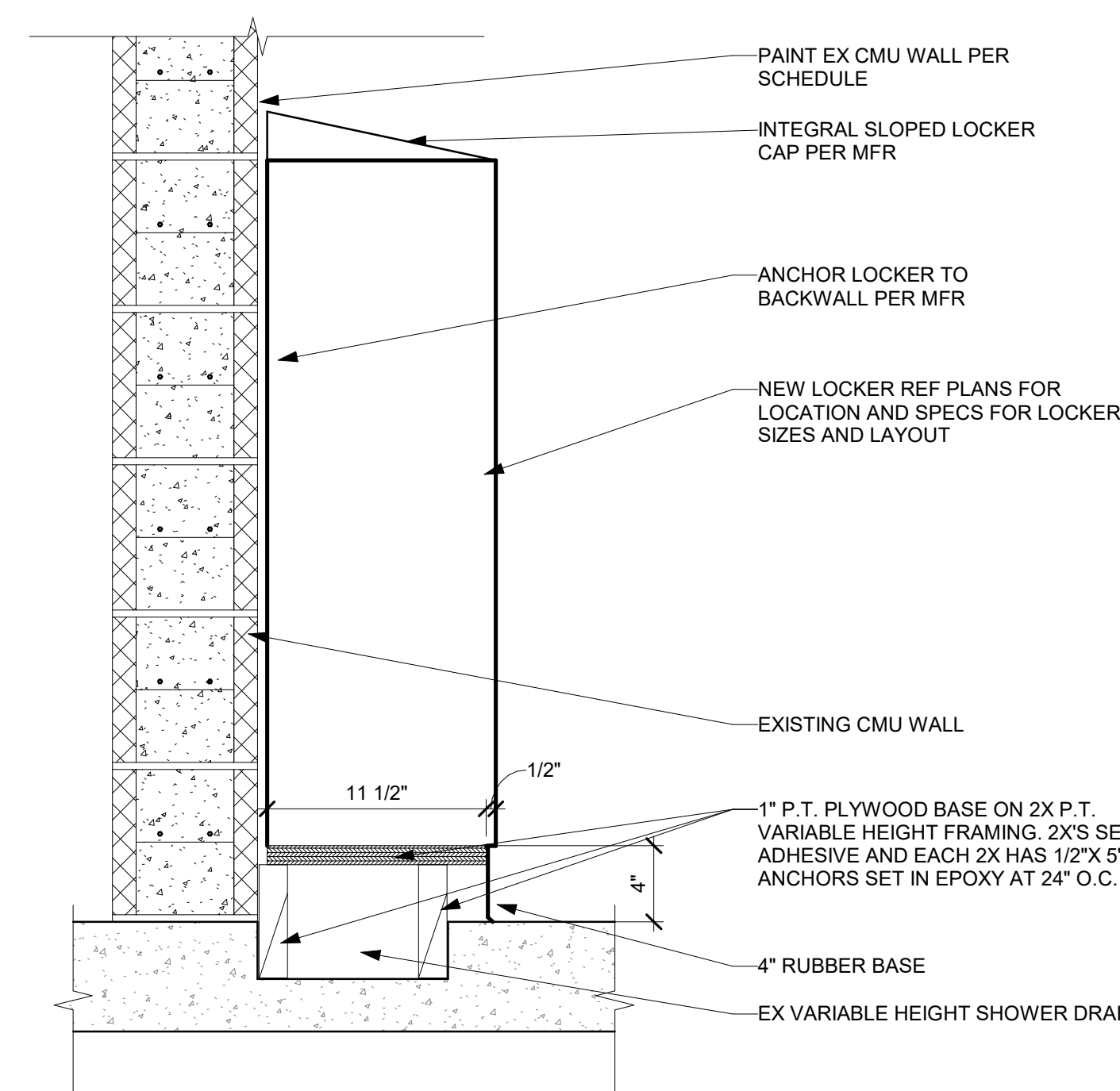
7 LOCKERROOM LOCKERS
A7.10 1 1/2" = 1'-0"



3 6TH GRADE BATHS
A7.10 1/4" = 1'-0"



6 ARCH PLAN - SPED BATH 2
A7.10 1/4" = 1'-0"



8 SHOWER LOCKERS
A7.10 1 1/2" = 1'-0"

NOTES:

RCRBD Record Set

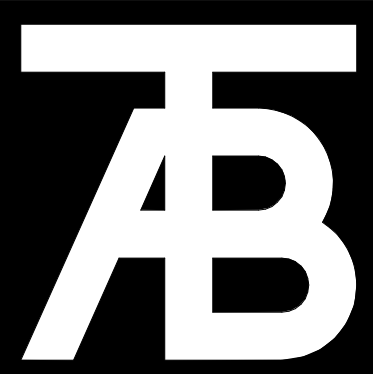
NO CHANGE TO LAYOUTS, FIXTURES, AND LIGHTING, UNLESS NOTED OTHERWISE. **T.A.**

ITEMS BEING REPLACED WILL BE THE SAME SIZE AND INSTALLED IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

05/14/2020

1. REPLACE WALL TILE
2. REPAIR FLOOR TILE
3. REPAINT EXISTING CMU WALLS AND CEILING
4. NEW PARTITIONS IN SAME SIZE/LOCATION AS EX.
5. NEW PLUMBING FITTINGS
6. NEW PLUMBING VALVES
7. NEW MIRRORS
8. NEW HAND DRYERS

Keynote Legend	
Key Value	Keynote Text
A246	NO WORK IN AREA
A261	INSTALL (2) NEW 4'x 4' TACKBOARDS WITH A 8'x 4' MAGNETIC WHITEBOARD AND A 6' x 4' PROJECTABLE MARKER BOARD WITH MUSIC STAFF, ON TEACHING WALL, REF DETAIL 3/A7.04
A702	FULL HEIGHT WALL TILE
A703	FULL HEIGHT TILE ON END FACE. TERMINATE TILE ON OUTSIDE EDGE, RE: SIM DETAIL 2/A5.30
A704	FULL HEIGHT TILE ON END FACE. RE: DETAIL 5/A5.30
A707	EXISTING CMU PAINT (EPOXY PAINT) W/NEW TILE BASE SIM TO 13/A5.30
A708	PATCH AND PAINT EXISTING GYP BD CEILING (EPOXY PAINT)
A710	INSTALL NEW BATHROOM PARTITIONS. OVERHEAD BRACED PER SPECS. PROVIDE ONSITE MEASUREMENTS TO CONFIRM EXACT SIZES PER EACH RESTROOM. NEW PARTITIONS TO MATCH EXISTING LAYOUT
A711	EXISTING FIXTURES WITH NEW FAUCETS AND FLUSH VALVES, RE MEP. INSTALL NEW PIPE PROTECTION COVERS AT EXPOSED SINK PIPES
A712	INSTALL NEW WALL MIRROR PER SPECS
A713	GC TO INSTALL OWNER SUPPLIED SOAP DISPENSER
A714	GC TO INSTALL OWNER SUPPLIED TOILET PAPER DISPENSER
A715	EXISTING FLOOR DRAIN - INSTALL TILE PER DETAILS 9-10/A5.30
A716	INSTALL SIDE WALL GRAB BAR GB-2-42"
A717	INSTALL BACK WALL GRAB BAR GB-1-36"
A718	INSTALL SIDE WALL VERTICAL GRAB BAR GB-3-18" IN DRYWALL LOCATIONS. ADDITIONAL BACKING MAY BE NECESSARY
A720	INSTALL OWNER PROVIDED SANITARY NAPKIN DISPOSAL UNIT
A721	INSTALL NEW FLOOR TILE
A722	NEW WALL MOUNTED ELECTRIC HAND DRYER
A724	INSTALL NEW FLOOR DRAIN FLUSH WITH TOP OF TILE PER DETAIL
A726	EXISTING SEALED CONCRETE FLOOR TO REMAIN
A727	NEW LOCKERS ON NEW CURBS
A728	EXISTING CONC CURB TO REMAIN, WRAP W/ FLOOR TILE
A729	EXISTING DRINKING FOUNTAIN TO REMAIN
A730	END FLOOR TILE, RE: SIM 14/A5.30
A731	EXISTING GRAB BARS TO REMAIN. REMOVE AND REINSTALL IF REQ FOR TILE INSTALLATION
A732	PATCH FLOOR WHERE WALL WAS REMOVED TO MATCH ADJACENT. SEAL CONC TO MATCH ADJ AS REQ
A733	PATCH CMU WHERE WALL WAS REMOVED
A735	NEW BENCH INSTALLED ON EX CONC CURB. SIM TO EXISTING
A736	NEW SHOWER PARTITION WALL. OVERHEAD BRACED PER SPECS
A738	INSTALL NEW SINK
A739	INSTALL NEW TOILET
A740	EX FLOOR DRAIN
A745	END OF LOCKERS - EXPOSED EDGE. PROVIDE END PANEL
A747	REINSTALL SALVAGED UNDERMOUNT SINK
A748	NEW CORIAN COUNTERTOP AND 6" BACKSPLASH
A749	REPLACE ALL SURFACE MOUNTED LIGHT FIXTURES, REF ELECT
A751	NEW CMU WALL TO MATCH ADJACENT
A752	NEW LOCKERS ON EX CURBS
A753	NEW LOCKERS ON NEW FRAMED CURB
A754	NEW BENCH ON NEW CONC CURB
A755	EXISTING WINDOWS TO REMAIN
A756	MARKERBOARD TO BE MOUNTED OVERTOP OF WINDOWS
A757	ALTERNATE #5



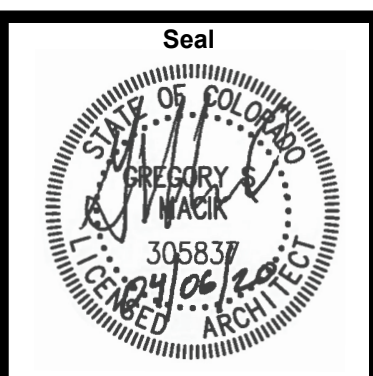
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Revisions:		
No	Description	Date

Issue Dates:
Initial SD - 12/20/19
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CD's - 04/07/20

Sheet Title:
Enlarged Floor Plans

Project No:
1935.03

Sheet No:
A7.10



Sheet No:
A7.11

<p>MR</p> <p>ADA S.D.</p> <p>2010 - 603.3</p>	<p>URINAL (ACC)</p> <p>ADA S.D.</p> <p>2010 - 605.2</p>	<p>EHD (A.C.C.)</p> <p>ADA S.D.</p> <p>2010 - 308</p>	<p>WC (ACC)</p> <p>ADA S.D. 2010 - 604.9 - 604.9</p> <p>ANSI A117.1 2003 - 604.5.1</p>
<p>TD (ACC)</p> <p>ADA S.D.</p> <p>2010 - 308</p>	<p>LAV</p> <p>ADA S.D. 2010 - 606.2.4</p>	<p>LAV</p> <p>ADA S.D. 2010 - 606.2.4</p>	<p>TPH</p> <p>ADA S.D.</p> <p>2010 - 308</p>

MR
ADA SAD 2010 - 603.3

RH (ACC)
ADA SAD 2010 - 604.8.3

EWC (ACC)
ADA SAD 2010 - 602.4

EWC
ADA SAD 2010 - 602.7

URNAL (ACC)
ADA SAD 2010 - 605.2

EHD (ACC)
ADA SAD 2010 - 308

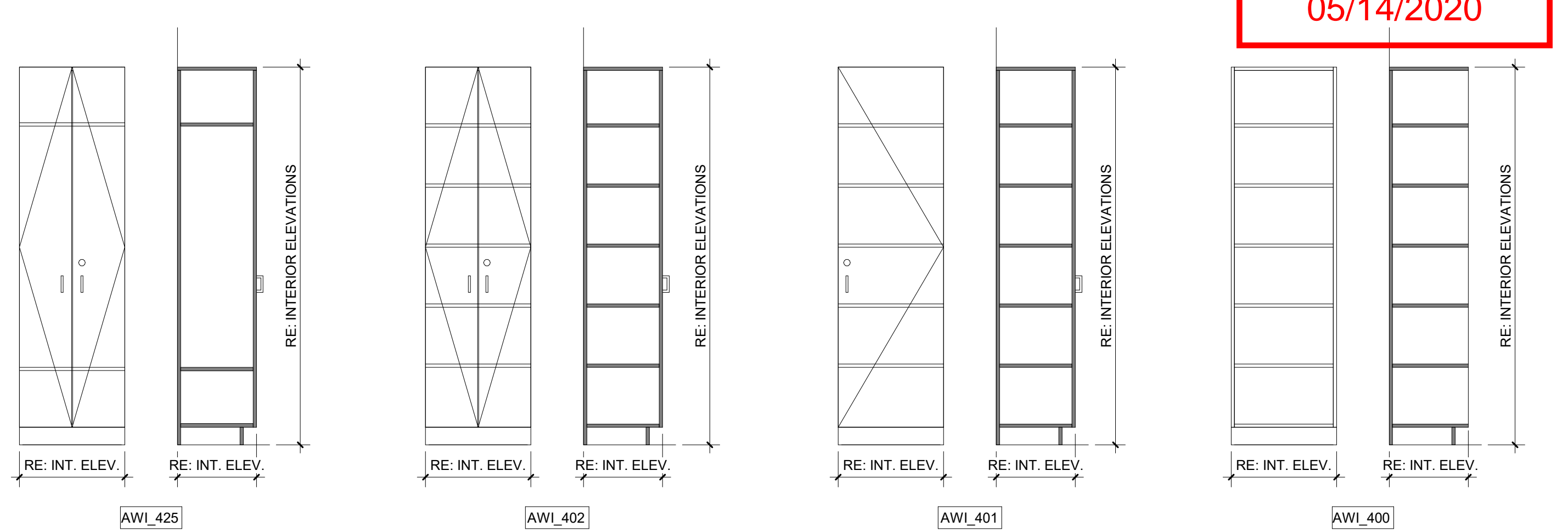
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TPH
ADA SAD 2010 - 308

SD
ADA SAD 2010 - 308

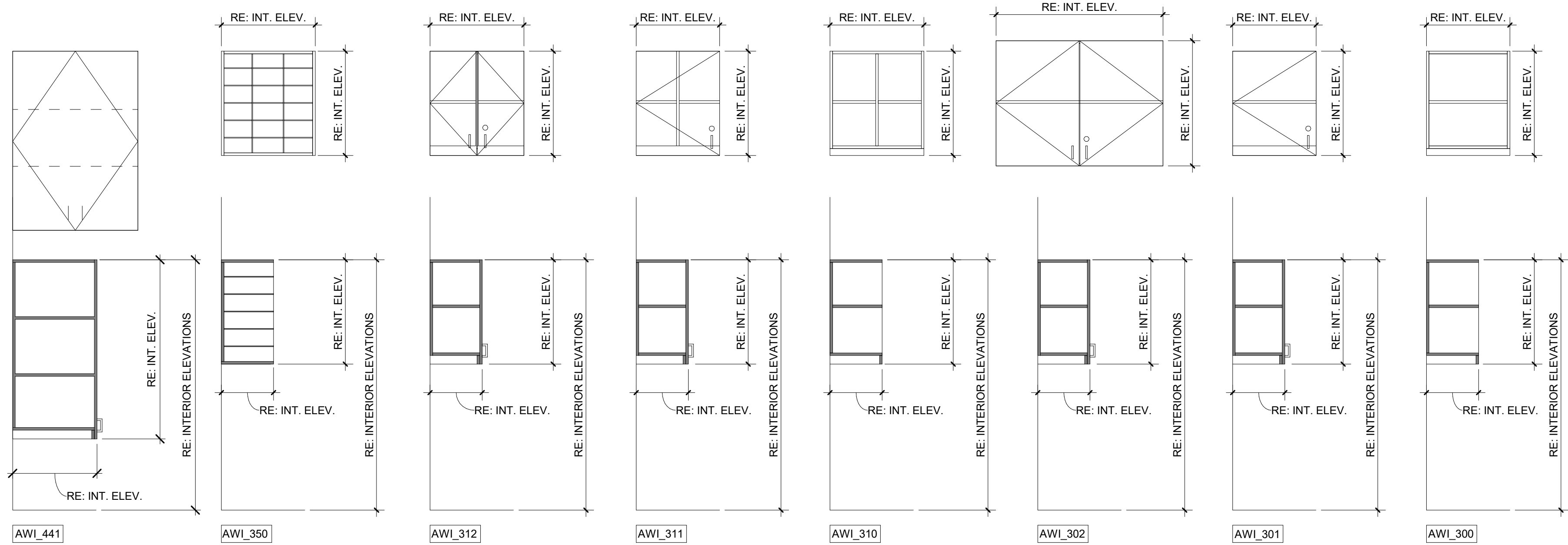
WC (ACC)
ADA SAD 2010 - 604.9
ANSI A117.1 (2007) - 604.5.1

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<p>TDWR (ACC) ADA SAD 2010-606.1</p>	<p>LAV ADA SAD 2010-606.3</p>	<p>SD ADA SAD 2010-606.1</p>	<p>TTD ADA SAD 2010-606.1</p>		
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<p>RH ADA SAD 2010-604.8.3</p>	<p>SH (ACC) ELEVATION 1 ADA SAD 2010-603.1</p>	<p>SH (ACC) ELEVATION 2 ADA SAD 2010-308.2.1</p>	<p>BCS ADA SAD 2010-603.4</p>	<p>MBH ADA SAD 2010-603.4</p>	

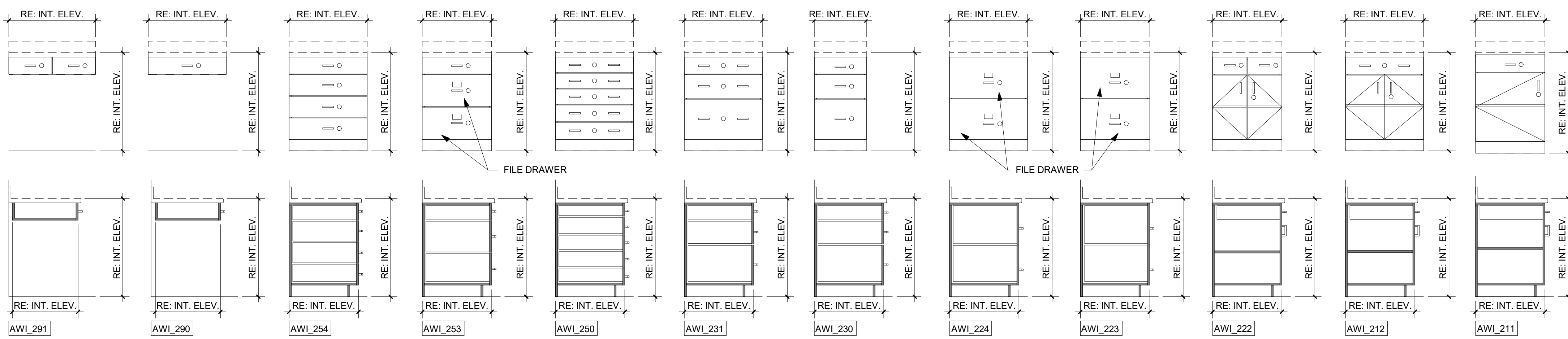


05/14/2020

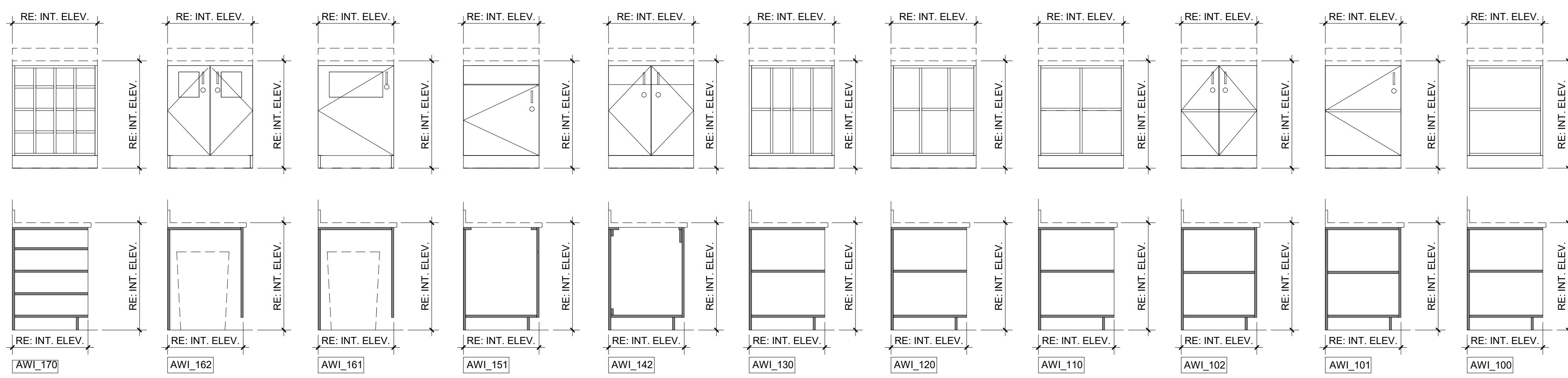
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AWI_3xx



AWI_2xx



AWI_1xx

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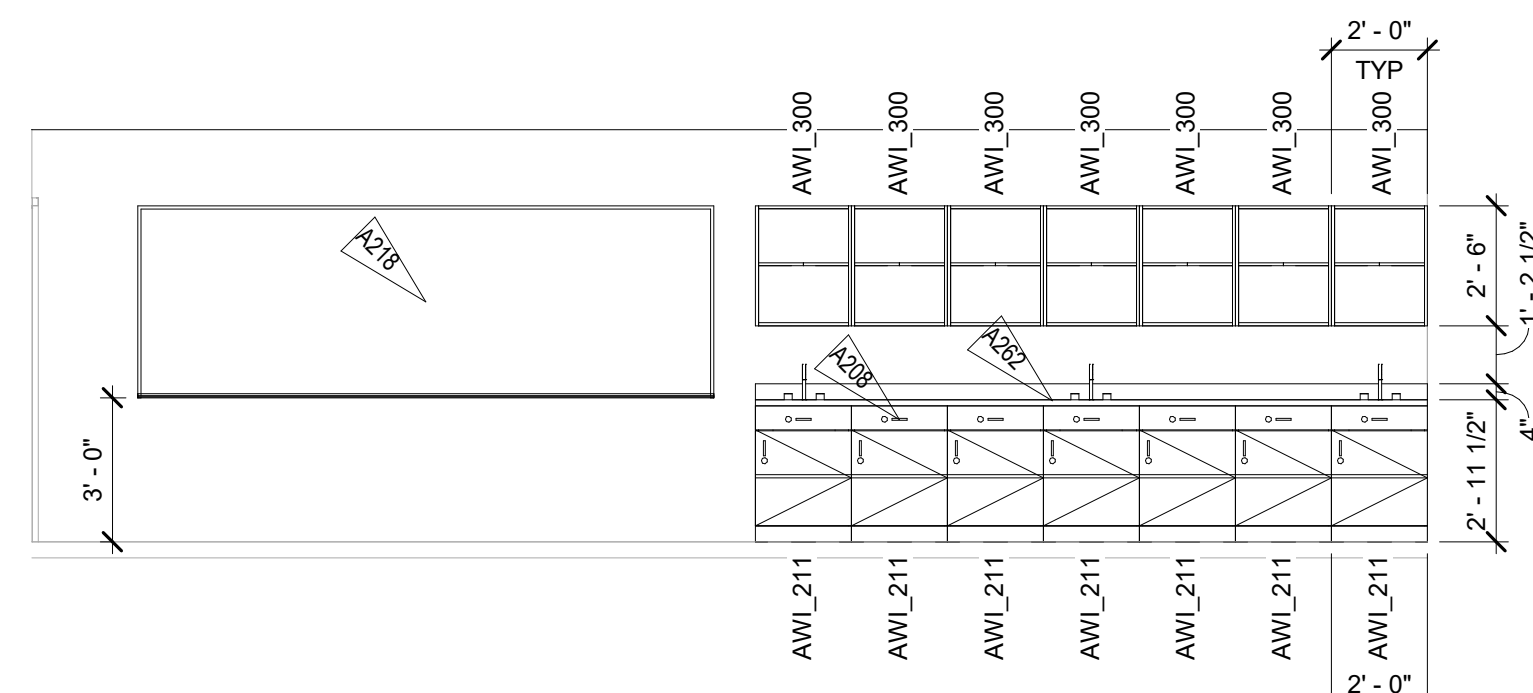
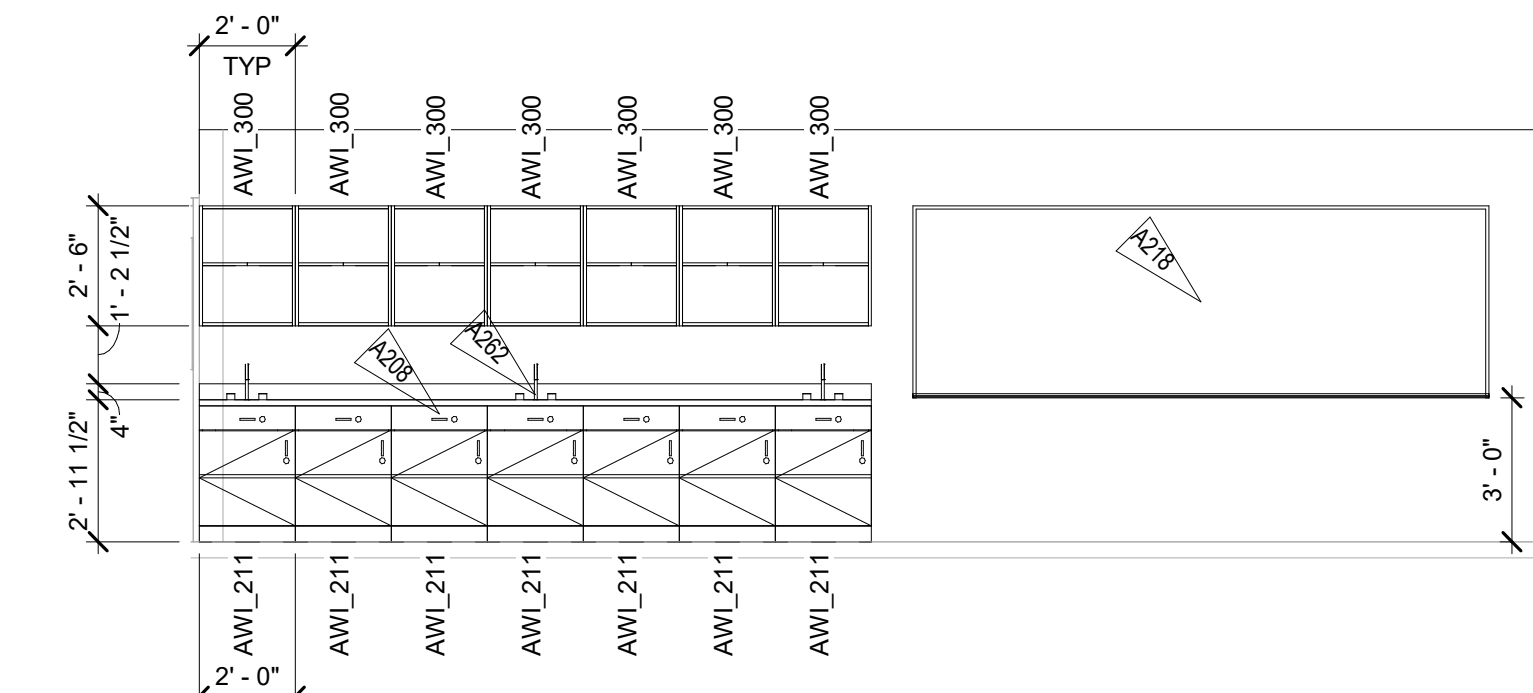
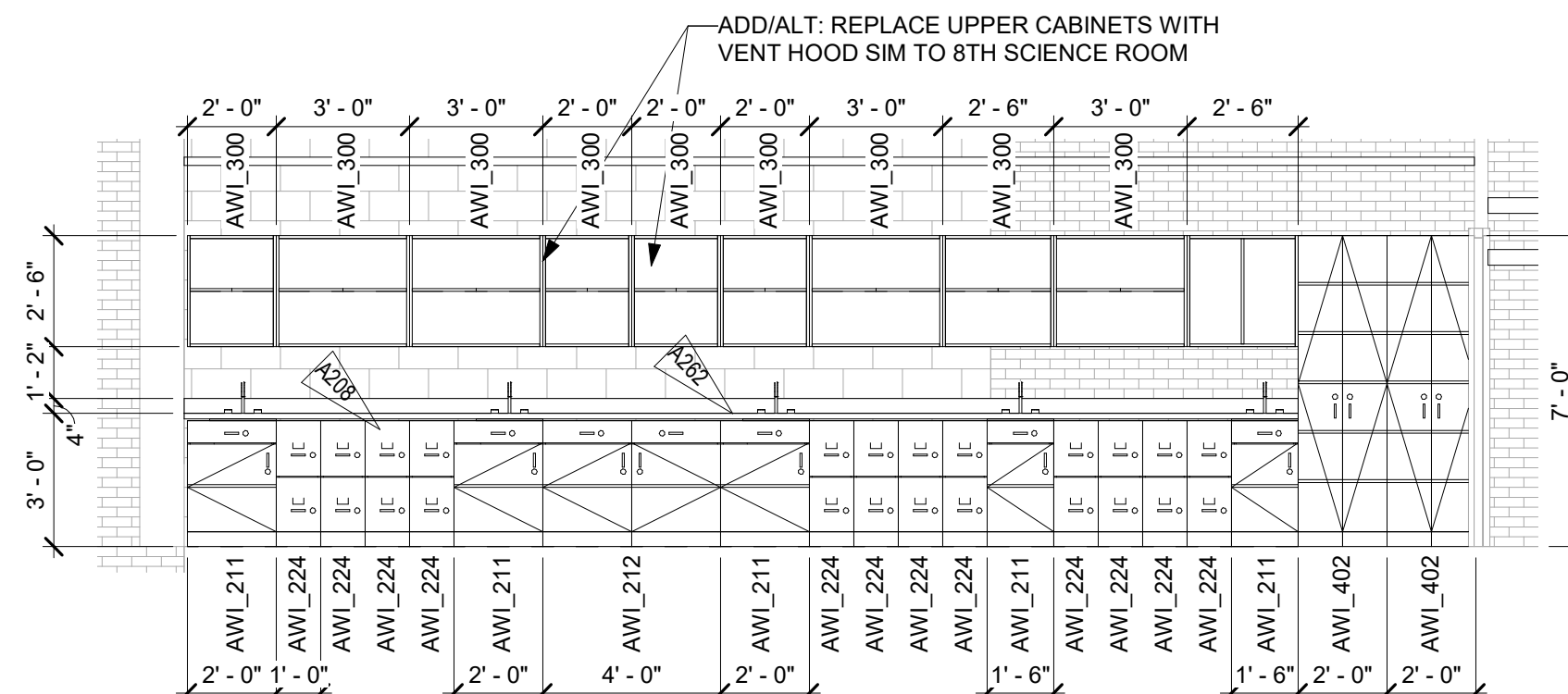
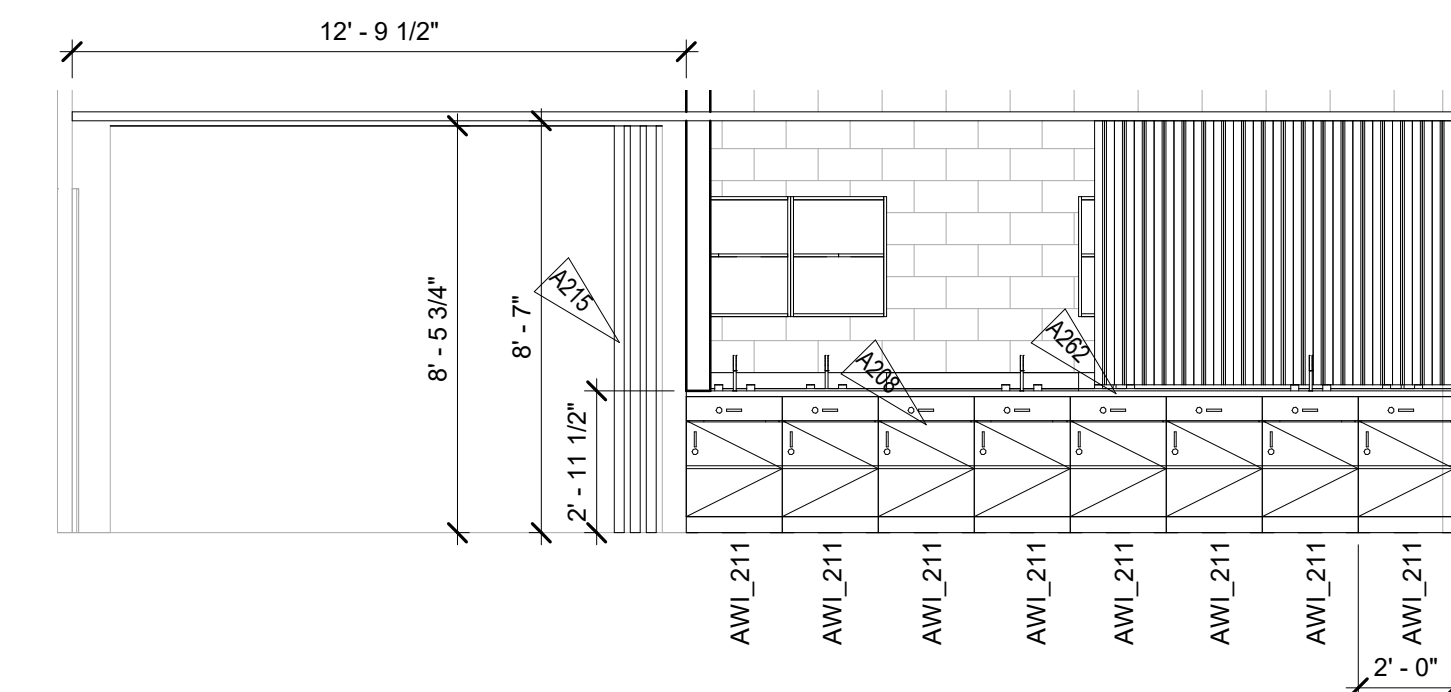
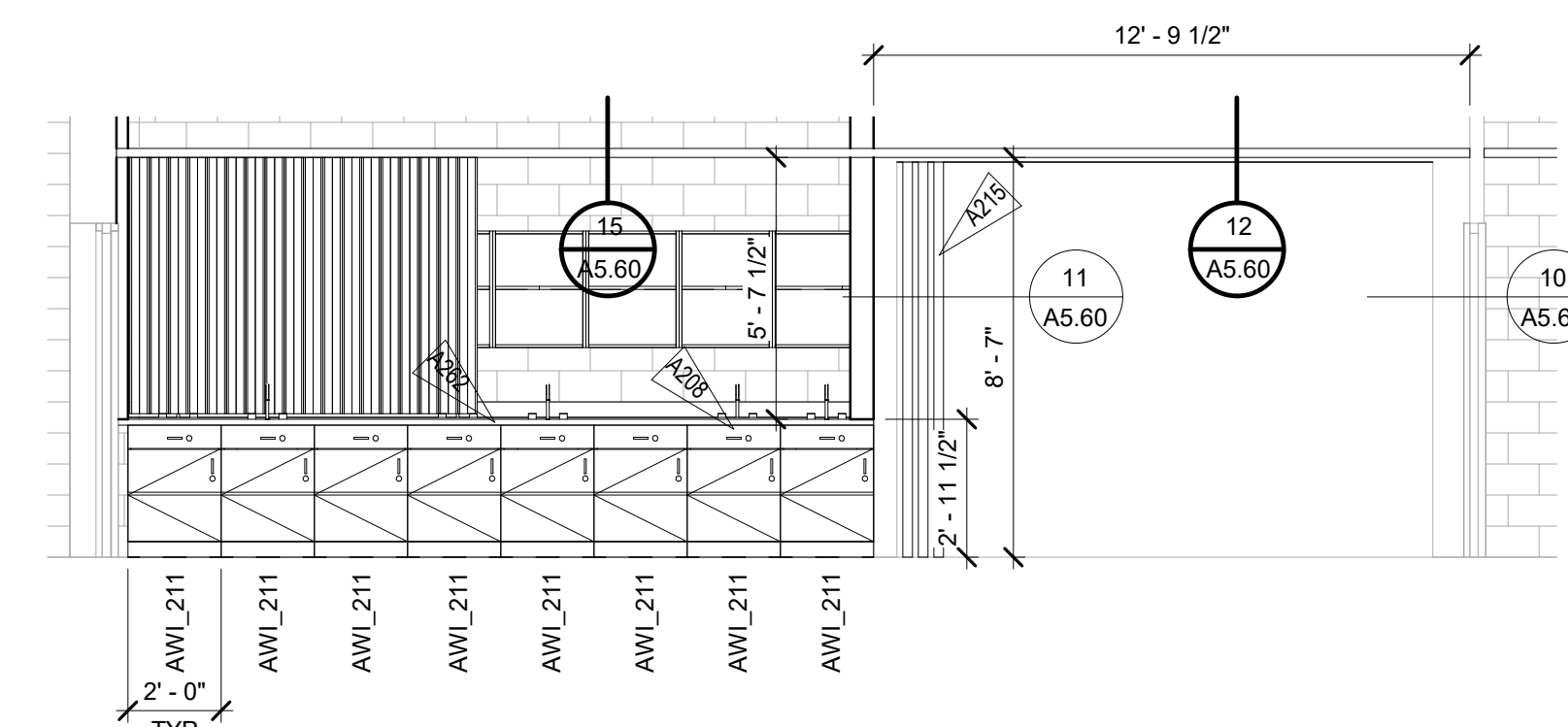
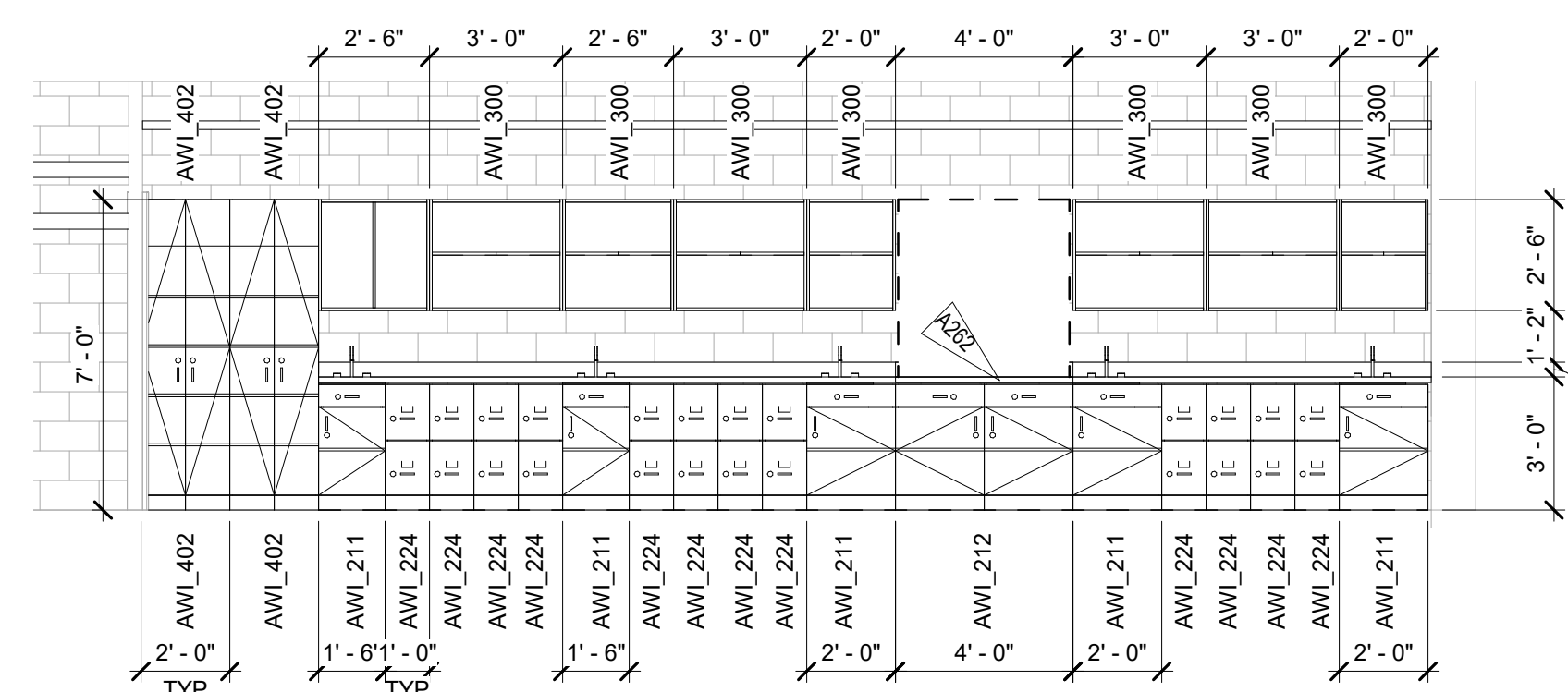
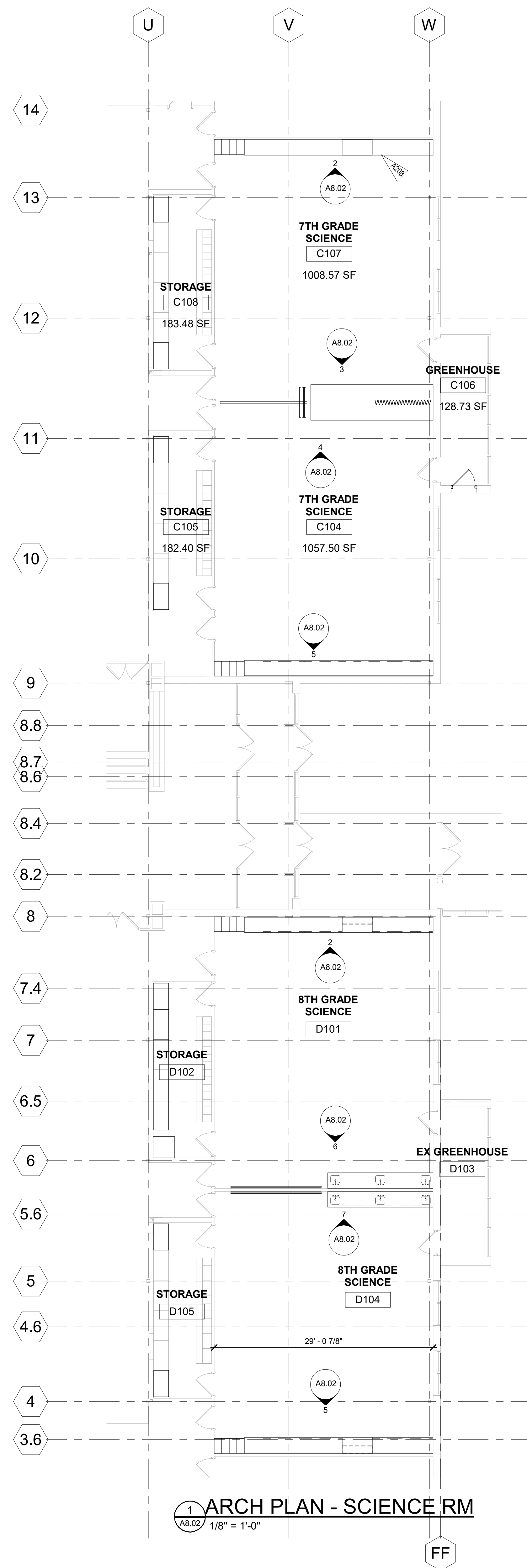
Issue Dates:
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Sheet Title:

**Restroom
and Typ
Cabinet
Elevations**

Project No:
1935.03

Sheet No:
A8.01



NOTES:

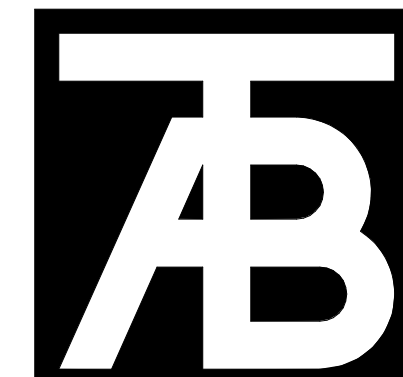
INTERIOR ELEVATION NOTES:

RCKB Record Set

T.A.

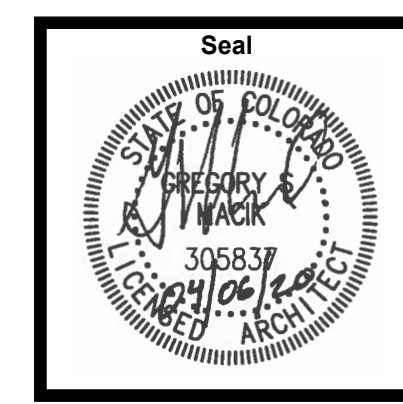
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2. VERIFY EQUIPMENT ROUGH IN DIMENSIONS WITH MANUFACTURER
3. ALL DIMENSIONS ARE TO FACE OF CONCRETE, MASONRY, OR FACING OF OTHER MATERIALS UNLESS OTHERWISE NOTED.
4. EQUIPMENT (SHOWN DASHED) SHOWN FOR COORDINATION ONLY. REFER TO EQUIPMENT DRAWINGS OR SPECIFICATIONS AND DIMENSIONS
5. REFER TO SHEET AO 10 FOR TYPICAL MOUNTING HEIGHTS.

Keynote Legend	
Key Value	Keynote Text
A208	INSTALL NEW CASEWORK WITH UPPER/LOWER CABINETS, SINKS REF INTERIOR ELEVATIONS
A215	INSTALL NEW SOUND PROOF PARTITION WALL SYSTEM
A218	INSTALL NEW TACKBOARDS WITH PROJECTABLE/MAGNETIC WHITEBOARD ON TEACHING WALL. REE DETAIL 2/A/5.2 AND SEE PLANS FOR SIZES
A262	NEW EPOXY COUNTERTOPS WITH INTERGRAI, FROXY SINKS



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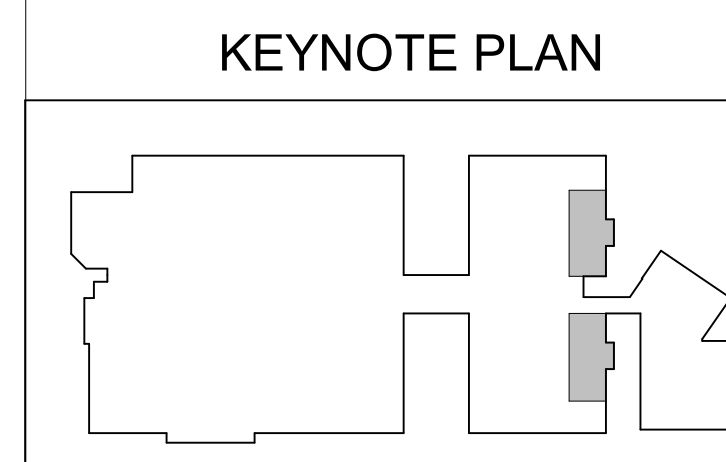
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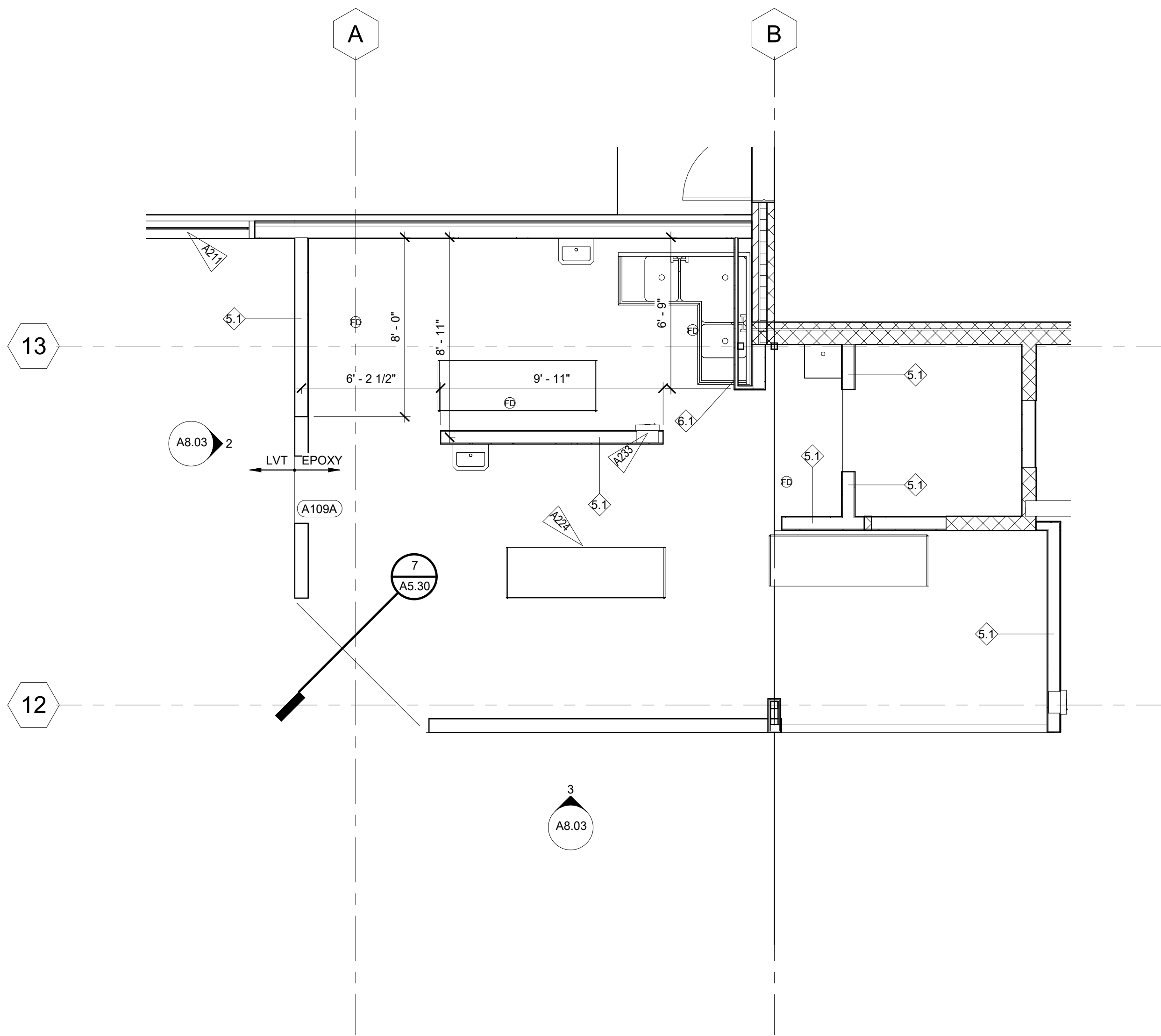
Sheet Title:

**Science
Classroom
Interior
Elevations**

Project No:
1935.03

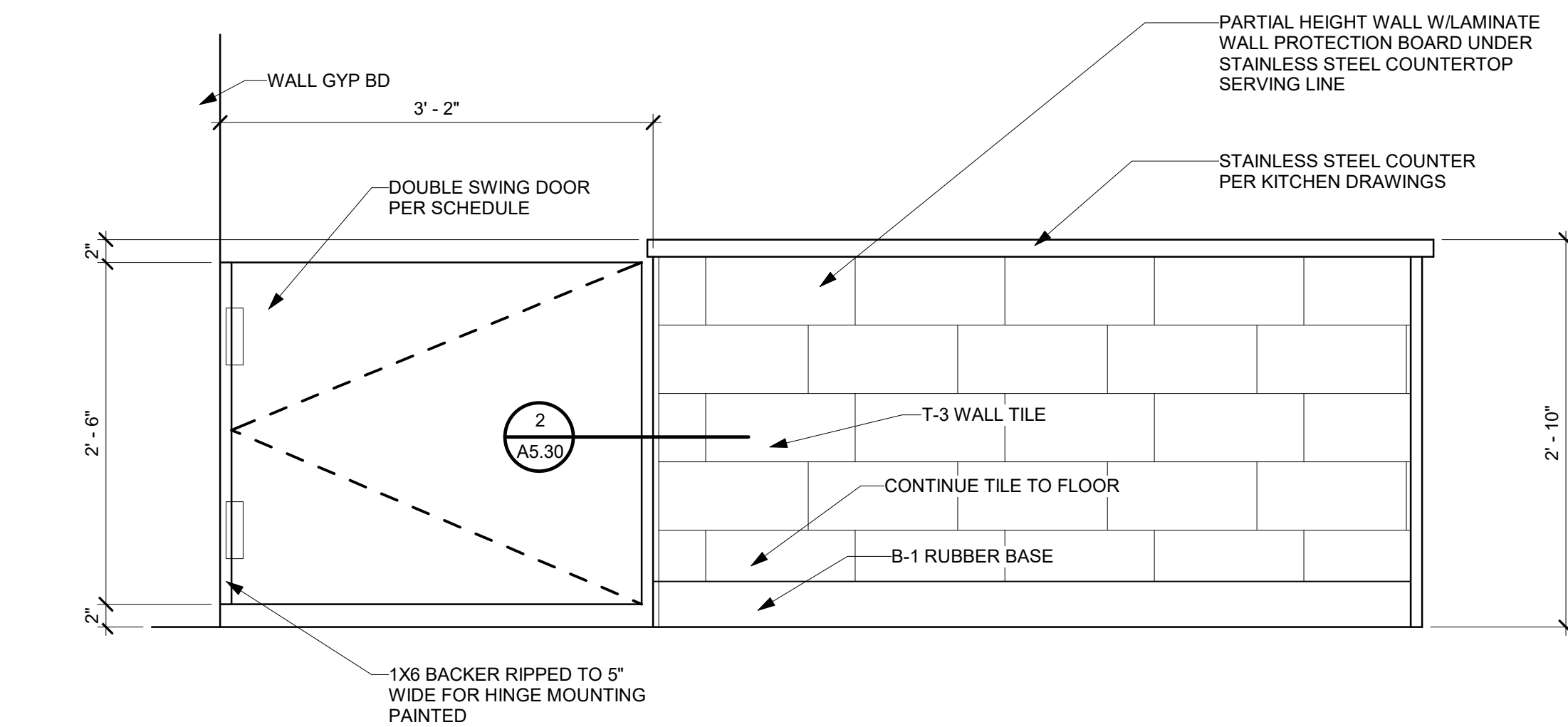
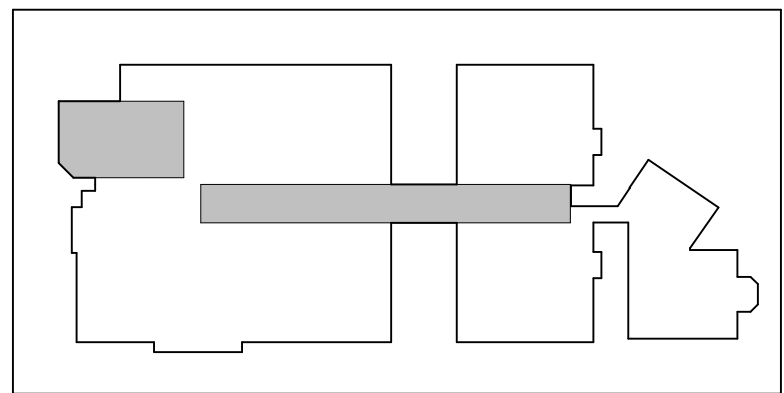
Sheet No:
A8.02



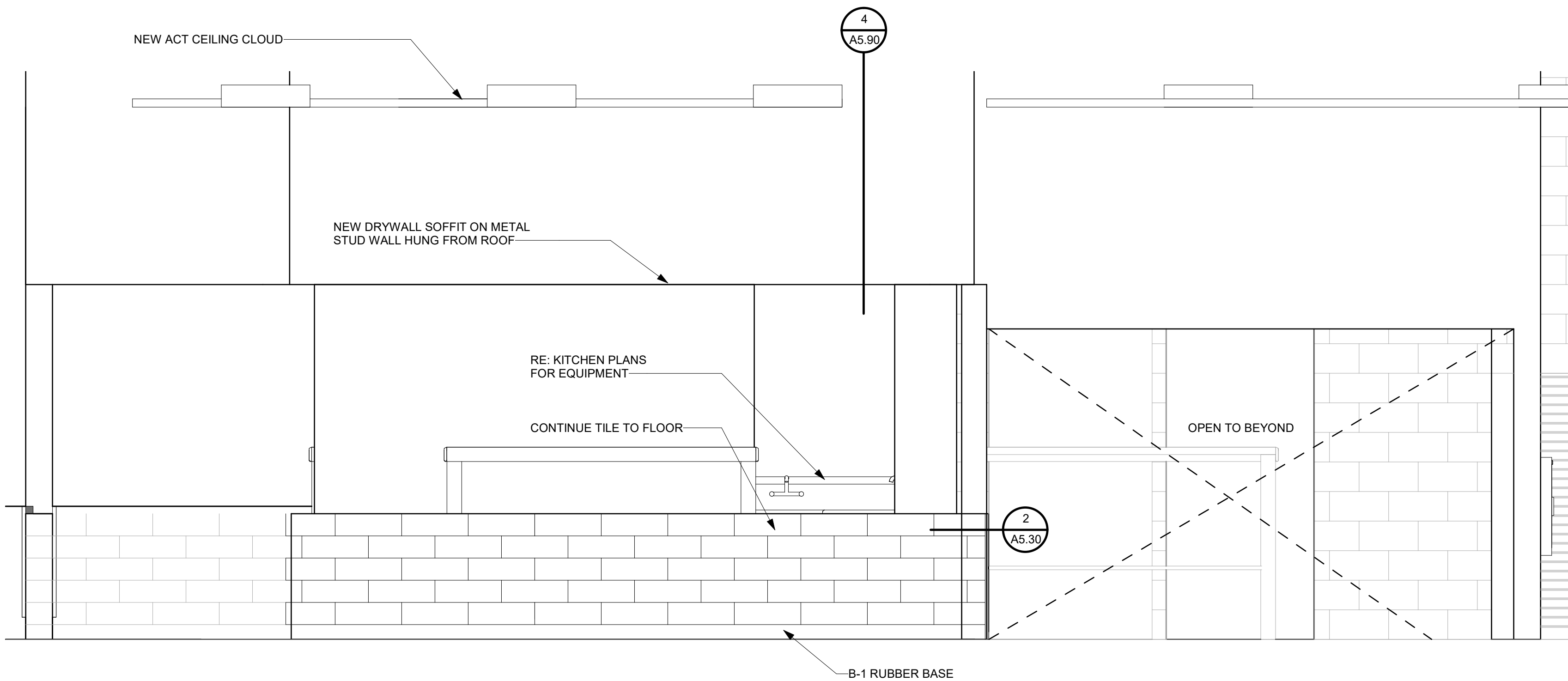


1
A8.03 1/4" = 1'-0"

KEYNOTE PLAN



2
A8.03 1" = 1'-0"

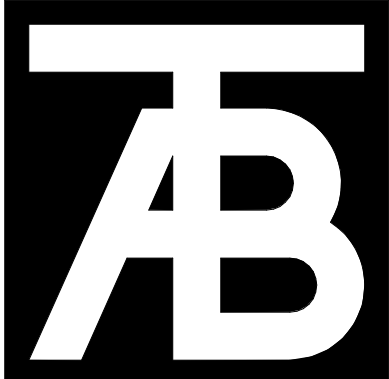


3
A8.03 1/2" = 1'-0"

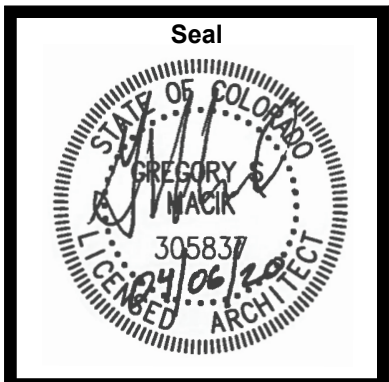
NOTES:

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1. DO NOT SCALE DRAWINGS.
2. VERIFY EQUIPMENT ROUGH IN DIMENSIONS WITH MANUFACTURER
3. ALL DIMENSIONS ARE TO FACE OF CONCRETE, MASONRY, OR FLOORING UNLESS OTHERWISE NOTED.
4. EQUIPMENT (SHOWN DASHED) SHOWN FOR COORDINATION ONLY. REFER TO EQUIPMENT DRAWINGS OR SPECIFICATIONS AND DIMENSIONS.
5. REFER TO SHEET A0.10 FOR TYPICAL MOUNTING HEIGHTS.

Keynote Legend	
Key Value	Keynote Text
A211	NEW WINDOW SOLID SURFACE SILLS
A224	INSTALL NEW EPOXY FLOORING
A233	INSTALL NEW SEMI RECESSED FIRE EXTINGUISHER CABINET, NO MORE THAN 75\"/>



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Sheet Title:
**Cafeteria
Interior
Elevations**

Project No:
1935.03

Sheet No:
A8.03

ANCHOR BOLT	ANCHOR BOLT
AMERICAN CONCRETE INSTITUTE	AMERICAN CONCRETE INSTITUTE
ADDITIONAL	ADDITIONAL
ABOVE FINISH FLOOR	ABOVE FINISH FLOOR
ALTERNATE	ALTERNATE
AMERICAN PLYWOOD ASSOCIATION	AMERICAN PLYWOOD ASSOCIATION
ARCHITECTURAL	ARCHITECT / ARCHITECTURAL
BOTTOM	BOTTOM
BETWEEN	BETWEEN
BOTTOM OF FOOTING	BOTTOM OF FOOTING
BRICK LEDGE	BRICK LEDGE
BUILDING	BUILDING
BLOCKING	BLOCKING
BEARING	BEARING
BOTTOM OF WALL	BOTTOM OF WALL
COLD FORMED STEEL/COLD FORMED METAL FRAMING	COLD FORMED STEEL/COLD FORMED METAL FRAMING
CAST-IN-PLACE	CAST-IN-PLACE
CONTROL JOINT, CONSTRUCTION JOINT	CONTROL JOINT, CONSTRUCTION JOINT
COMPLETE JOINT PENETRATION	COMPLETE JOINT PENETRATION
CLEAR	CLEAR
CONCRETE MASONRY UNIT	CONCRETE MASONRY UNIT
CONCRETE	CONCRETE
CONSTRUCTION	CONSTRUCTION
CONTINUOUS	CONTINUOUS
DEFORMED ANCHOR STUD	DEFORMED ANCHOR STUD
DEAD LOAD	DEAD LOAD
DOWN	DOWN
DRAW TRUSS	DRAW TRUSS
DRAWING	DRAWING
EACH	EACH
EACH FACE	EACH FACE
EXPANSION JOINT	EXPANSION JOINT
ELEVATION	ELEVATION
ELEVATOR	ELEVATOR
EQUAL	EQUAL
EACH WAY	EACH WAY
EXPANSION	EXPANSION
EXTERIOR	EXTERIOR
EXISTING	EXISTING
FLOOR DRAIN	FLOOR DRAIN
FINISHED FLOOR	FINISHED FLOOR
FOUNDATION	FOUNDATION
FOOTING	FOOTING
FIELD VERIFY	FIELD VERIFY
GALVANIZED	GALVANIZED
GENERAL CONTRACTOR	GENERAL CONTRACTOR
GABLE END TRUSS	GABLE END TRUSS
GLIDER BEAM OR COLUMN	GLIDER BEAM OR COLUMN
GUARD TRUSS	GUARD TRUSS
HEADED ANCHOR STUD	HEADED ANCHOR STUD
HORIZONTAL	HORIZONTAL
HOLLOW STRUCTURAL SECTION	HOLLOW STRUCTURAL SECTION
HIGHT	HIGHT
HIP TRUSS	HIP TRUSS
INTERNATIONAL BUILDING CODE	INTERNATIONAL BUILDING CODE
INSIDE FACE	INSIDE FACE
JOINT	JOINT
KIPS	KIPS
LIVE LOAD	LIVE LOAD
LONG LEG BACK-TO-BACK	LONG LEG BACK-TO-BACK
LONG LEG HORIZONTAL	LONG LEG HORIZONTAL
LONG LEG VERTICAL	LONG LEG VERTICAL
LAMINATED VENEER LUMBER	LAMINATED VENEER LUMBER
MATERIAL	MATERIAL
MAXIMUM	MAXIMUM
MECHANICAL	MECHANICAL
MANUFACTURER	MANUFACTURER
MINIMUM	MINIMUM
MISCELLANEOUS	MISCELLANEOUS
METAL	METAL
NOT IN CONTRACT	NOT IN CONTRACT
NOT TO SCALE	NOT TO SCALE
ON-CENTER	ON-CENTER
OPPOSITE HAND	OPPOSITE HAND
OPENING	OPENING
POWDER ACTUATED FASTENER	POWDER ACTUATED FASTENER
PRECAST	PRECAST
PRE-ENGINEERED WOOD ROOF TRUSS	PRE-ENGINEERED WOOD ROOF TRUSS
PARTIAL JOINT PENETRATION	PARTIAL JOINT PENETRATION
PLATE	PLATE
PLYWOOD	PLYWOOD
QUANTITY	QUANTITY
RADIUS	RADIUS
ROOF DRAIN	ROOF DRAIN
REINFORCING	REINFORCING
REQUIRED	REQUIRED
ROUGH OPENING	ROUGH OPENING
SCHEDULE	SCHEDULE
SHEET	SHEET
STEATHING	STEATHING
SIMILAR	SIMILAR
SLAB LEDGE	SLAB LEDGE
SHORT LEGS BACK-TO-BACK	SHORT LEGS BACK-TO-BACK
SLAB-ON-GRADE	SLAB-ON-GRADE
SPACE(S)	SPACE(S)
SPECIFICATIONS	SPECIFICATIONS
STANDARD	STANDARD
STIFFENER	STIFFENER
STRUCTURAL	STRUCTURAL
SYMMETRICAL	SYMMETRICAL
TOP OF CONCRETE	TOP OF CONCRETE
TOP OF FOOTING	TOP OF FOOTING
THICKNESS	THICKNESS
TOP OF LEDGE	TOP OF LEDGE
TOP OF MASONRY	TOP OF MASONRY
TOP OF PLATE	TOP OF PLATE
TOP OF STEEL	TOP OF STEEL
TOP OF WALL	TOP OF WALL
TOP AND BOTTOM	TOP AND BOTTOM
TYPICAL	TYPICAL
UNLESS NOTED OTHERWISE	UNLESS NOTED OTHERWISE
VERTICAL	VERTICAL
VALLEY TRUSS	VALLEY TRUSS
WITH	WITH
WOOD	WOOD
WORK POINT	WORK POINT
WEIGHT	WEIGHT
WELDED WIRE REINFORCEMENT	WELDED WIRE REINFORCEMENT
#	#
POUNDS	POUNDS

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S1.0

1. STEEL BAR JOISTS.
2. COLD FORMED METAL FRAMING.
3. CURTAIN WALL SYSTEMS

1. All foundation design and construction shall be accomplished and performed in accordance with the Soils Report and Geotechnical Engineering numbered 15-1673 dated 12/12/2019. This report is hereby made a part of these General Notes and all recommendations therein shall be considered as minimum.

2. All foundation excavations, compaction, fill material, and engineering inspection of foundation bearing strata shall be performed in accordance with the Soils Report and Geotechnical Engineering numbered 15-1673 dated 12/12/2019. All excavations shall be performed prior to placement, reinforcement and pouring of concrete.

3. All excavations shall be inspected by a Licensed Professional Engineer. Inspections shall be performed prior to placement, reinforcement and pouring of concrete.

4. Do not place concrete for foundation on frozen soil.

5. Allowable bearing pressure used in design is 2500 psf.

6. Retain wall pressure used in the design of retaining walls backfilled with water from source prior to pouring concrete.

Active	54
Lateral	55
Coefficient of Friction	0.4

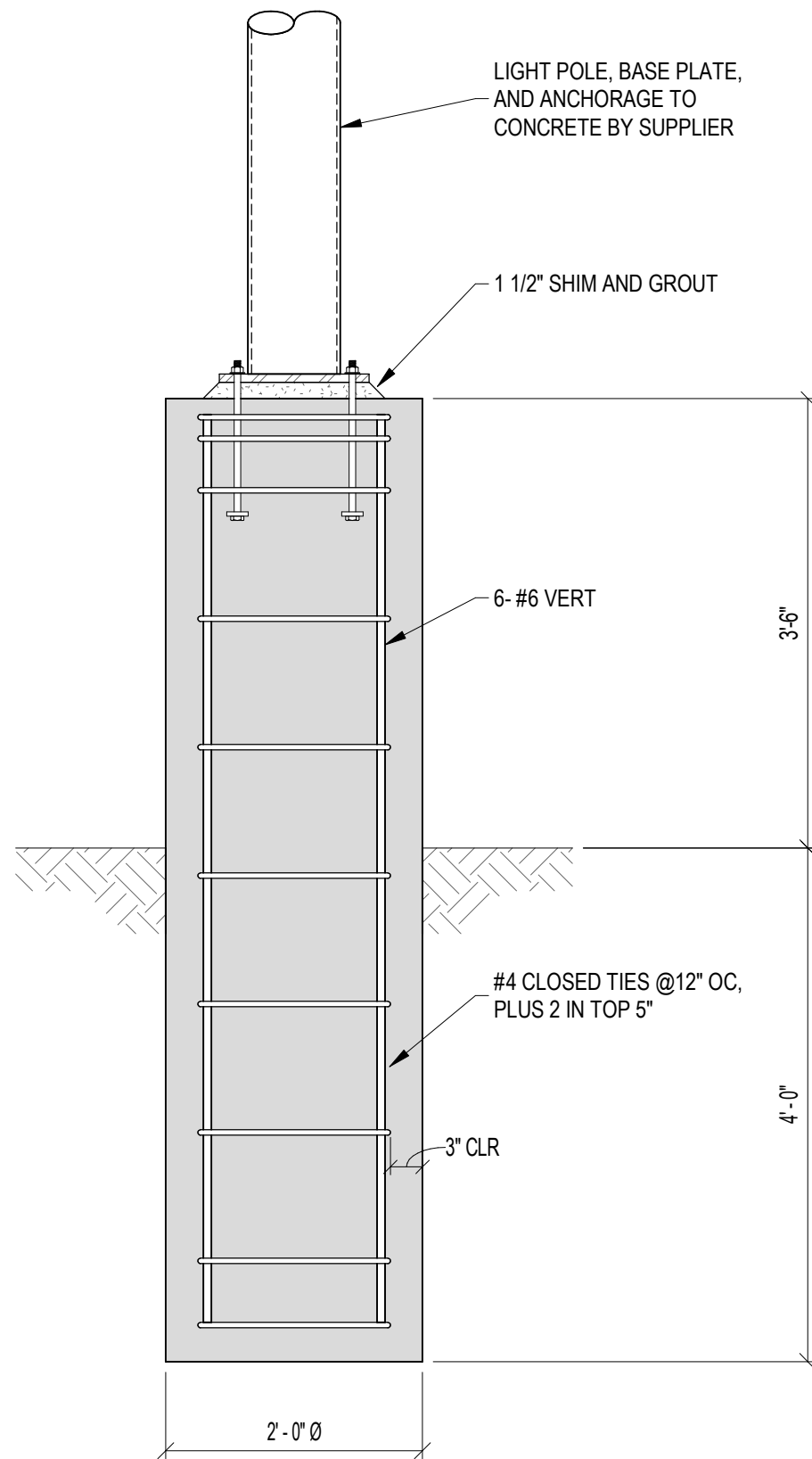
CONCRETE REINFORCING TENSION LAP SPLICE LENGTH (CLASS B) - 60 ksi REBAR									
BAR SIZE ENGLISH (METRIC)	f _c =3000 psi (3/4" COVER)		f _c =3000 psi (1 1/2" COVER)		f _c =3000 psi (2" COVER)		STD HOOK LENGTH	l _{dh} (f _c = 3000psi)	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS			
#3 (10)	17	13	17	13	17	13	6	6	
#4 (13)	29	22	23	17	23	17	8	8	
#5 (16)	42	32	28	22	28	22	10	10	
#6 (19)	56	43	34	26	34	26	12	12	
#7 (22)	90	69	55	43	49	38	14	14	
#8 (25)	112	86	70	54	56	43	16	16	
#9 (29)	135	104	86	66	69	53	19	18	
#10 (32)	163	125	105	81	85	66	22	20	
#11 (36)	190	146	126	97	102	79	24	22	
BAR SIZE ENGLISH (METRIC)	f _c =4000 psi (3/4" COVER)		f _c =4000 psi (1 1/2" COVER)		f _c =4000 psi (2" COVER)		STD HOOK LENGTH	l _{dh} (f _c = 4000psi)	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS			
#3 (10)	16	12	15	12	15	12	6	6	
#4 (13)	25	19	20	15	20	15	8	7	
#5 (16)	36	28	24	19	24	19	10	9	
#6 (19)	48	37	29	23	29	23	12	10	
#7 (22)	78	60	48	37	42	33	14	12	
#8 (25)	96	74	61	47	49	37	16	14	
#9 (29)	117	90	75	57	60	46	19	15	
#10 (32)	140	108	91	70	74	57	22	17	
#11 (36)	165	127	109	84	89	68	24	19	
BAR SIZE ENGLISH (METRIC)	f _c =5000 psi (3/4" COVER)		f _c =5000 psi (1 1/2" COVER)		f _c =5000 psi (2" COVER)		STD HOOK LENGTH	l _{dh} (f _c = 5000psi)	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS			
#3 (10)	16	12	13	12	13	12	6	6	
#4 (13)	22	17	18	14	18	14	8	6	
#5 (16)	33	25	22	17	22	17	10	8	
#6 (19)	44	34	26	20	26	20	12	9	
#7 (22)	70	54	43	33	38	29	14	11	
#8 (25)	87	67	54	42	43	33	16	12	
#9 (29)	105	81	67	51	54	41	19	14	
#10 (32)	126	97	82	63	66	51	22	16	
#11 (36)	148	114	97	75	79	61	24	17	

NOTES:

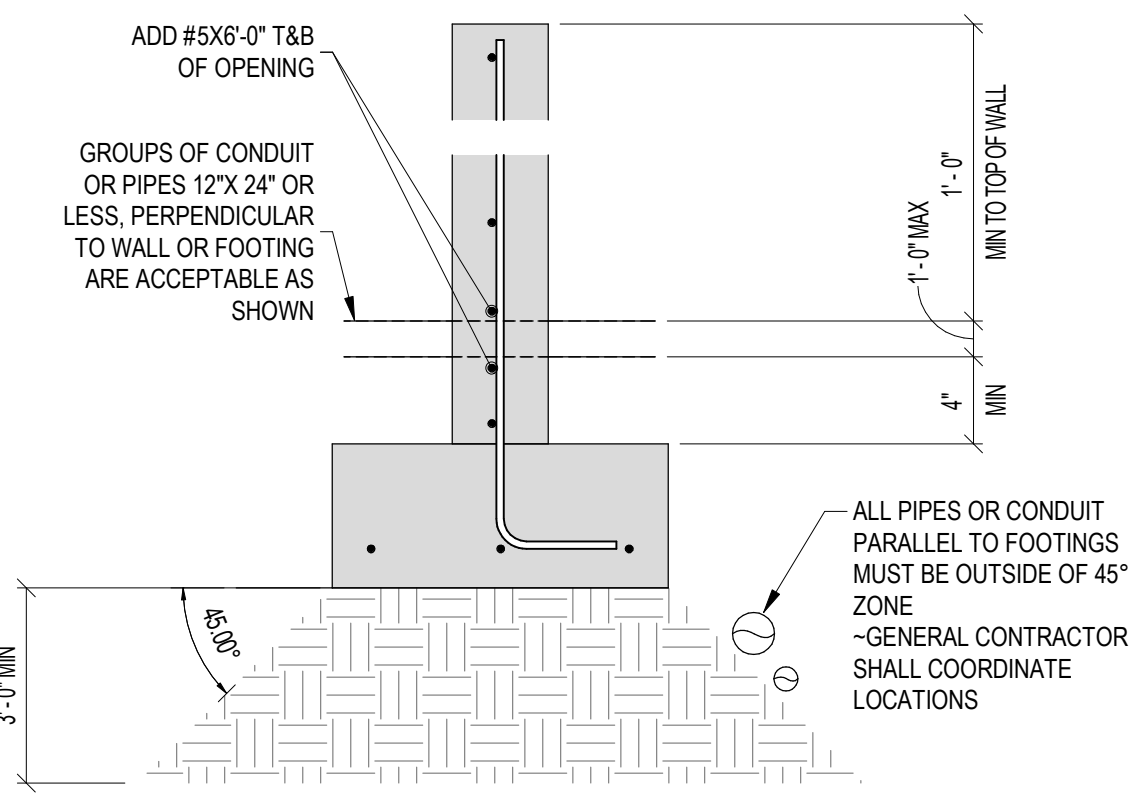
1. TABULATED VALUES ARE BASED ON NON-EPOXY COATED GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE. LENGTHS ARE IN INCHES.
2. TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS ARE CALCULATED PER ACI 318-14.
3. CLEAR SPACING OF BARS MUST BE AT LEAST DOUBLE THE CONCRETE COVER.
4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
5. FOR LIGHT WEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.33.
6. DEVELOPMENT LENGTH (l_{dh}) = TENSION LAP SPLICE LENGTH DIVIDED BY 1.3 BUT NOT LESS THAN 12" MINIMUM.
7. MINIMUM COVER FOR l_{dh} IS 2 1/2" MEASURED NORMAL TO THE PLANE OF THE HOOKED BAR (SIDE COVER).
8. SEE CONCRETE COLUMN SCHEDULE FOR COMPRESSION LAP SPLICE LENGTHS.

TYPICAL DETAILS

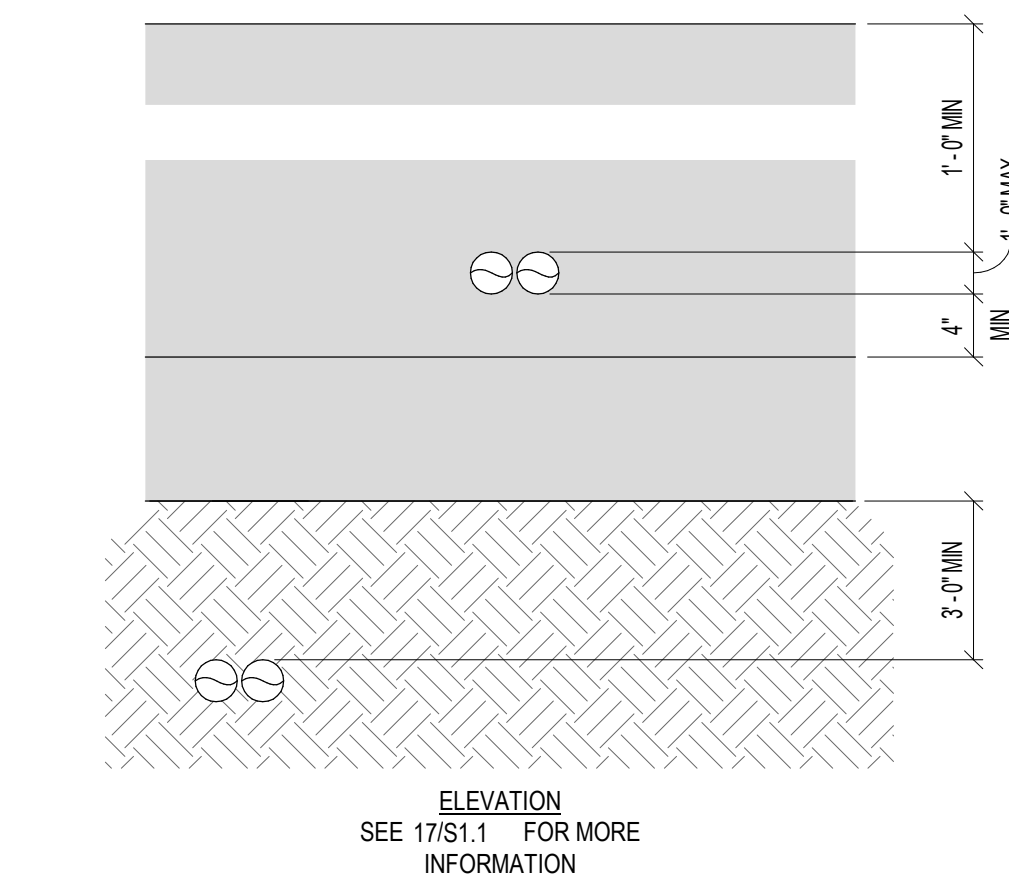
20 LIGHT POLE BASE
3/4" = 1'-0"



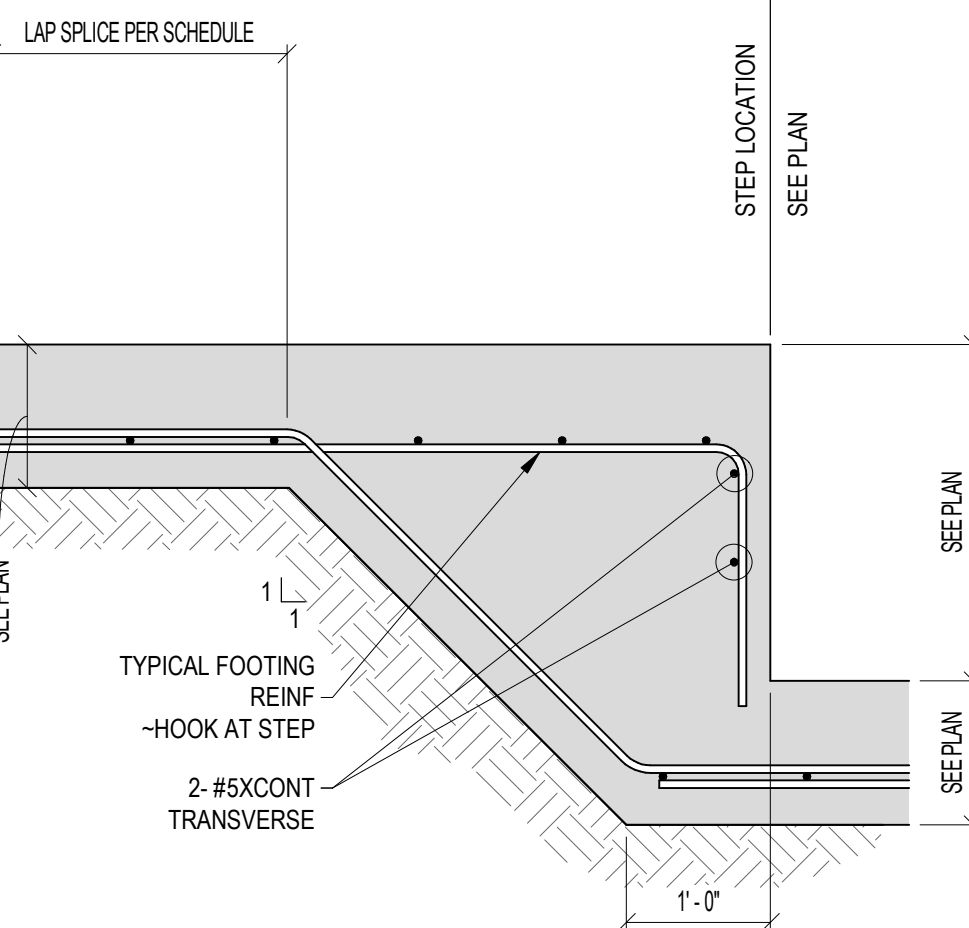
16 CONCRETE WALL AT OPENINGS 12" - 48"
3/4" = 1'-0"



17 PIPE/CONDUIT ADJACENT TO FOOTINGS
3/4" = 1'-0"

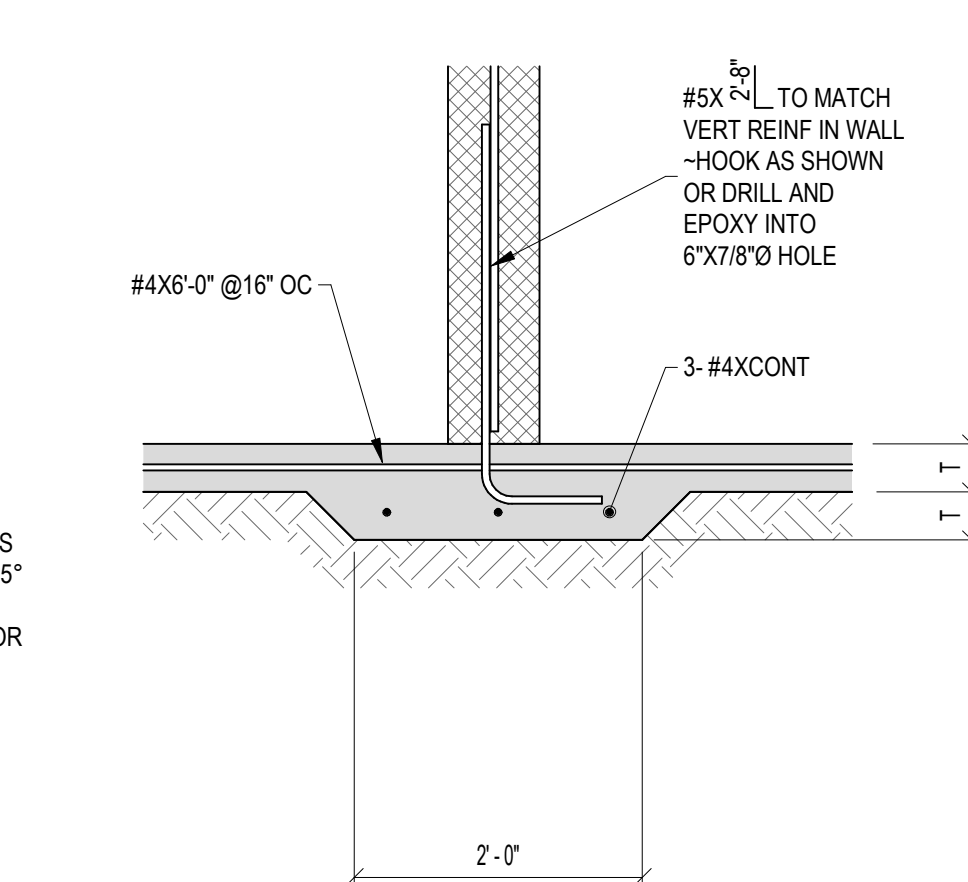


18 PIPE/CONDUIT ADJACENT TO FOOTINGS
3/4" = 1'-0"

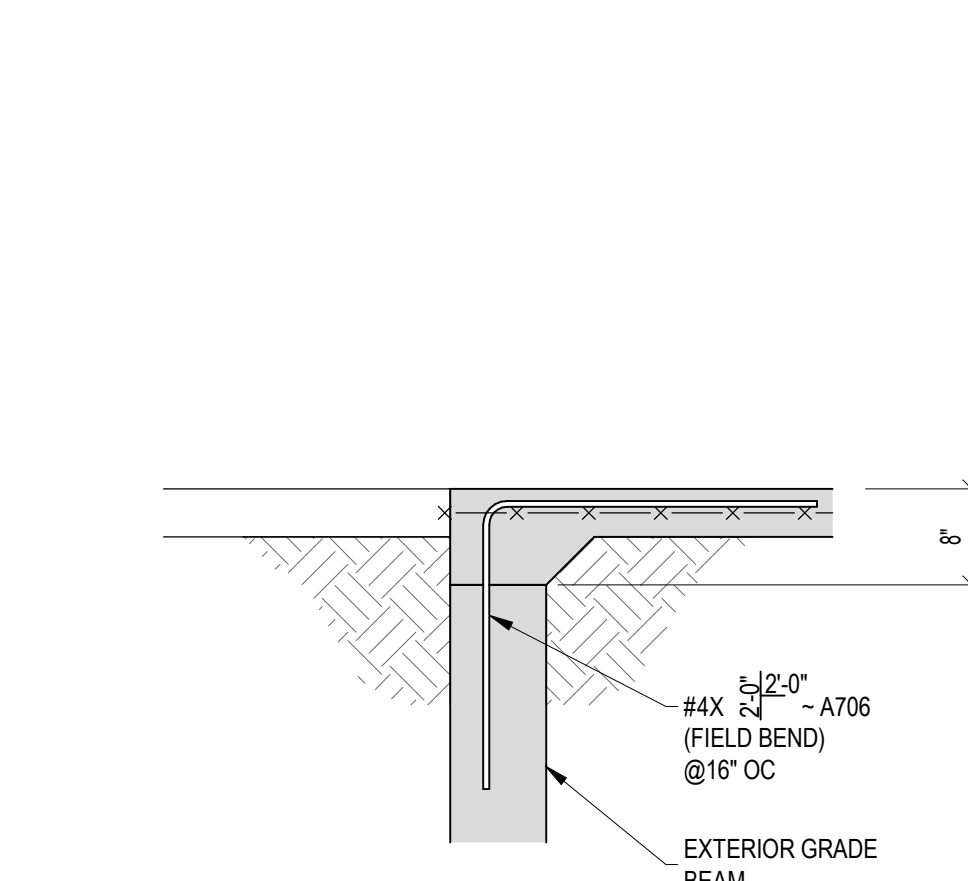


19 FOOTING STEP
3/4" = 1'-0"

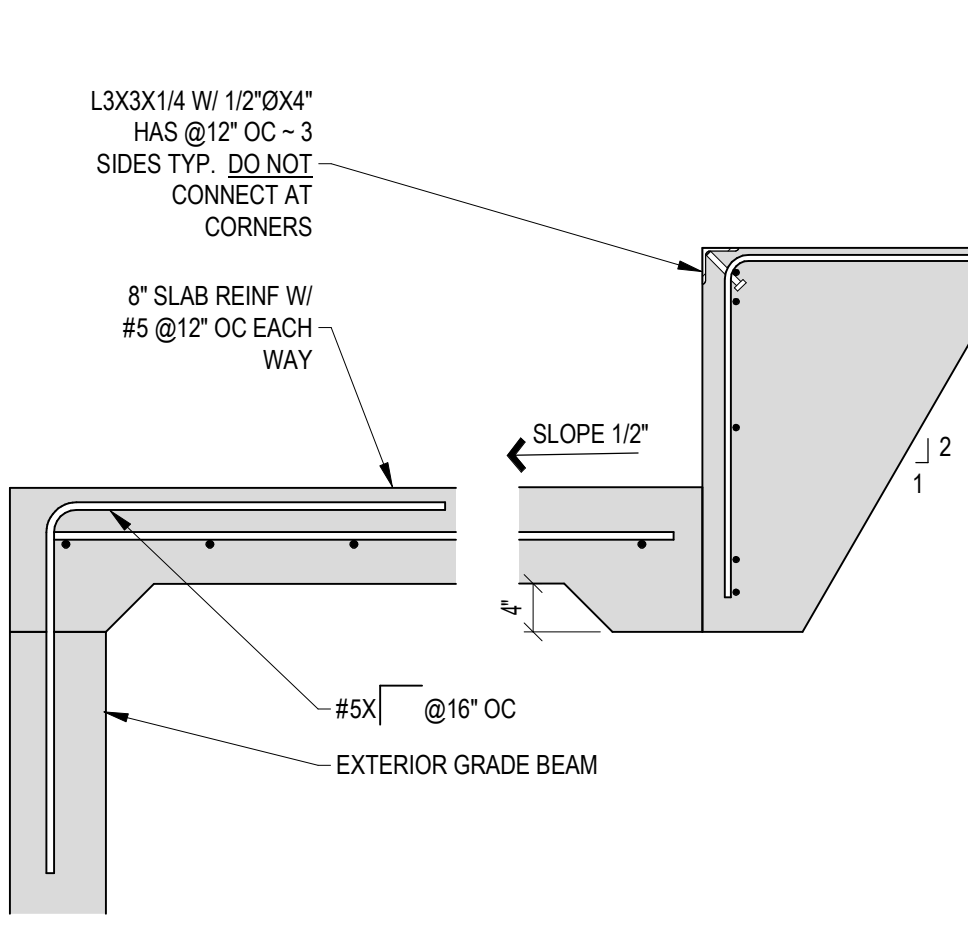
11 CURBS / MONOLITHIC & POST-INSTALLED
3/4" = 1'-0"



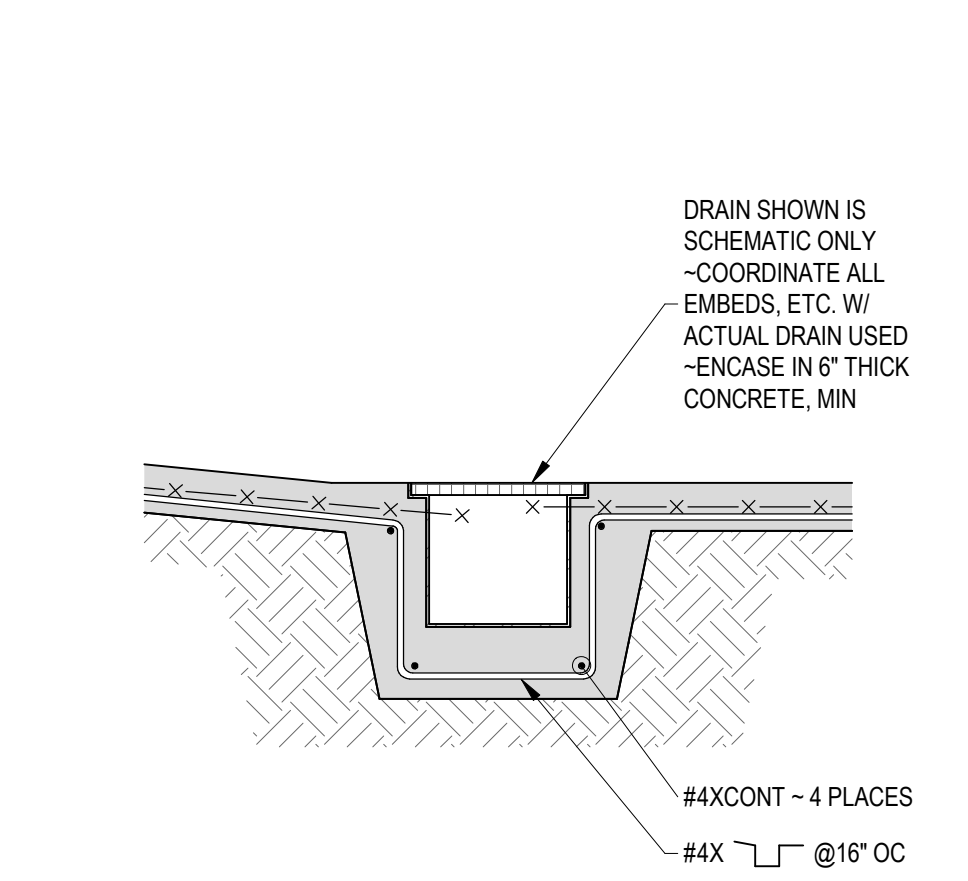
12 CMU WALL BEARING
3/4" = 1'-0"



13 THRESHOLD
3/4" = 1'-0"

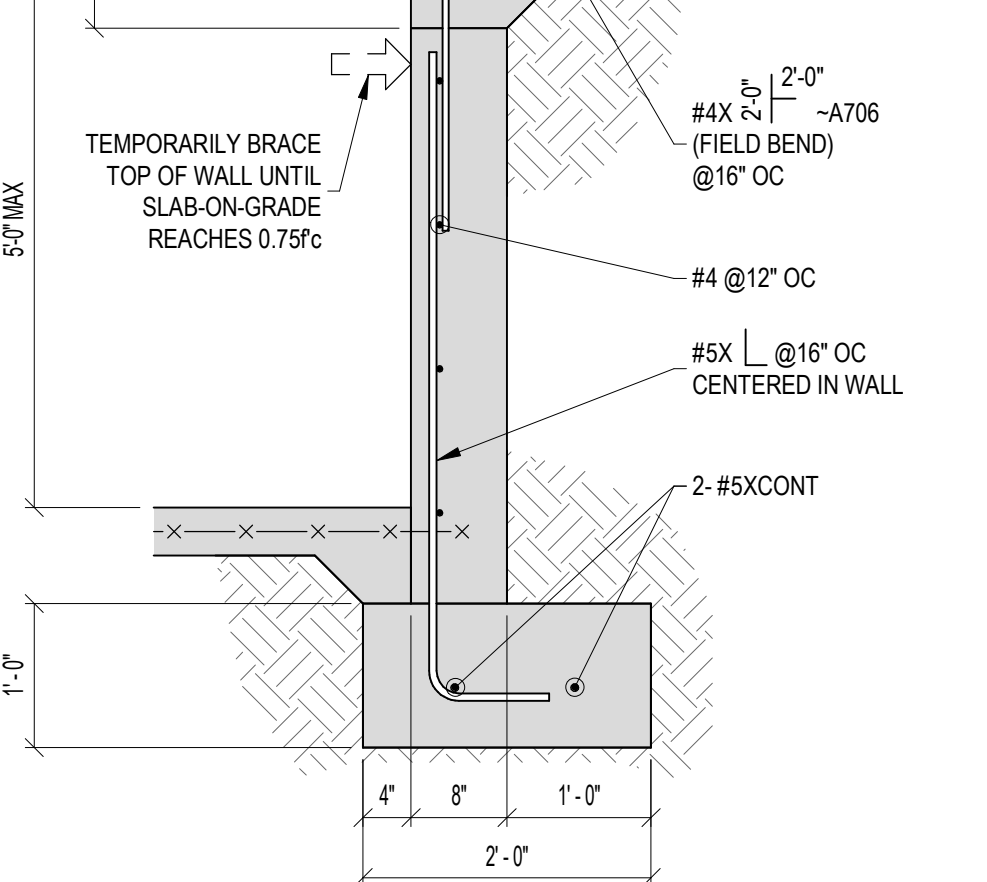


14 DOCK LEVELER
3/4" = 1'-0"

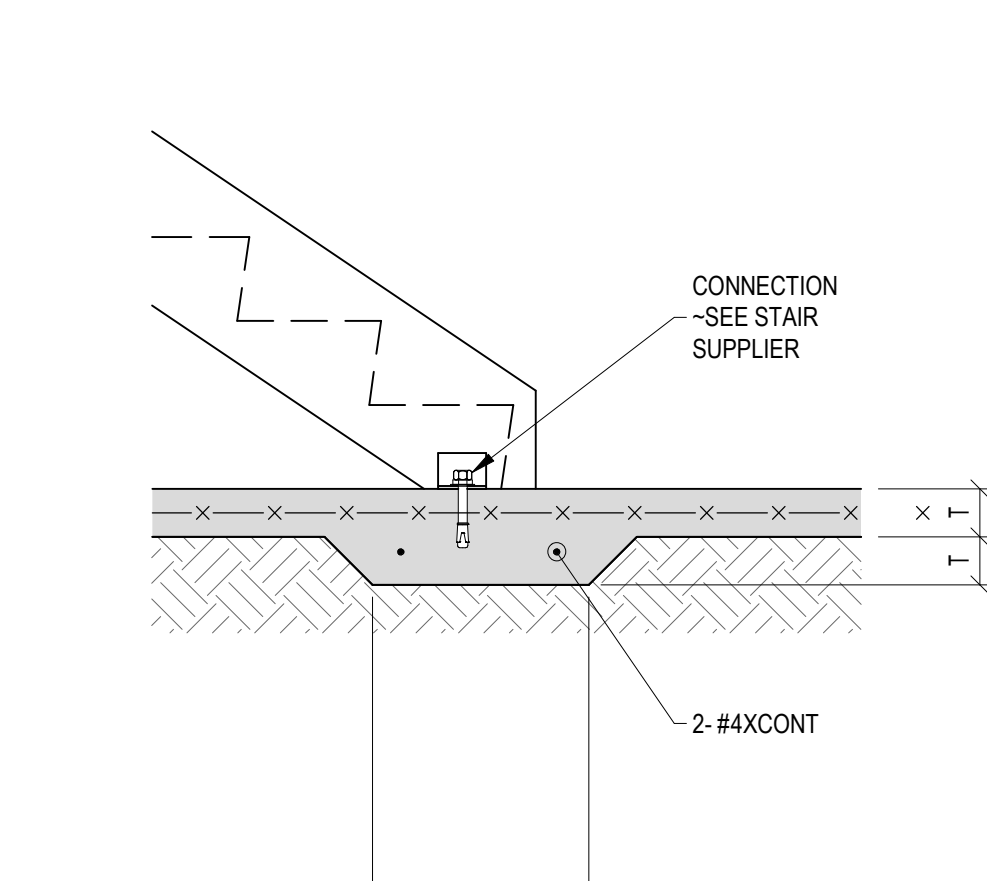


15 TRENCH DRAIN
3/4" = 1'-0"

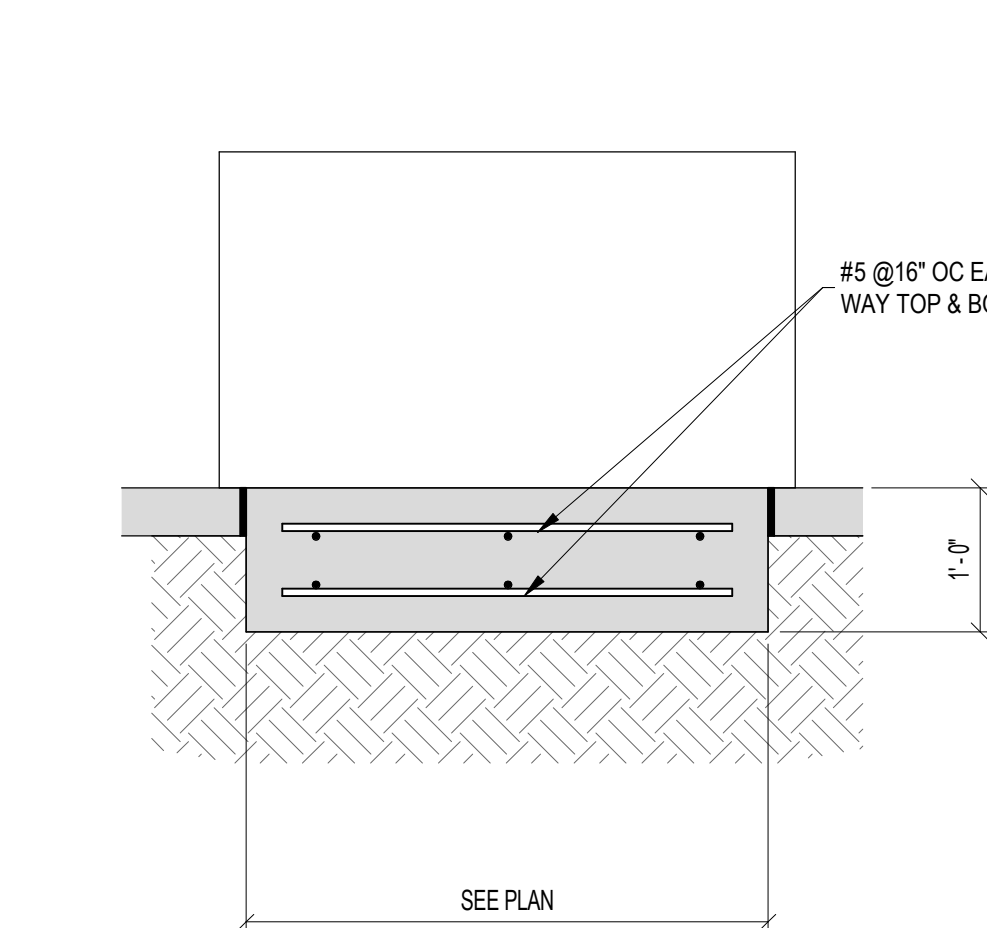
6 LARGE SLAB STEP - TYPE 1
3/4" = 1'-0"



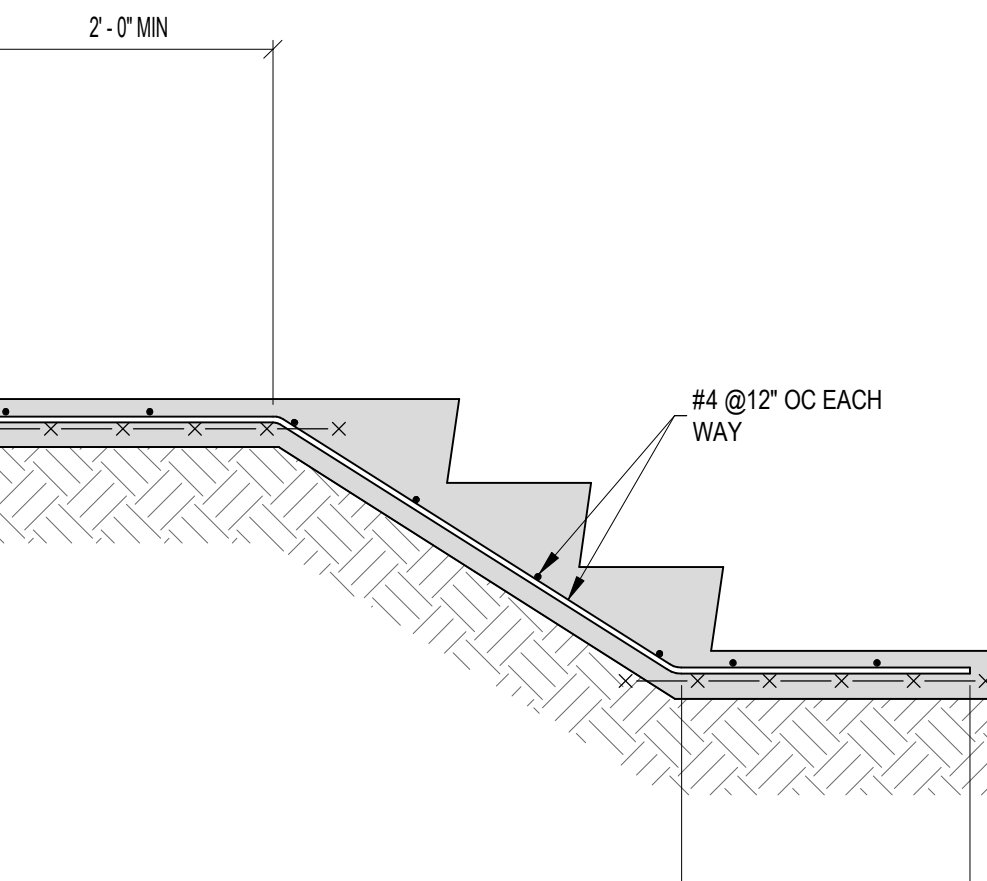
7 LARGE SLAB STEP - TYPE 2
3/4" = 1'-0"



8 THICKENED SLAB AT STAIR BASE
3/4" = 1'-0"

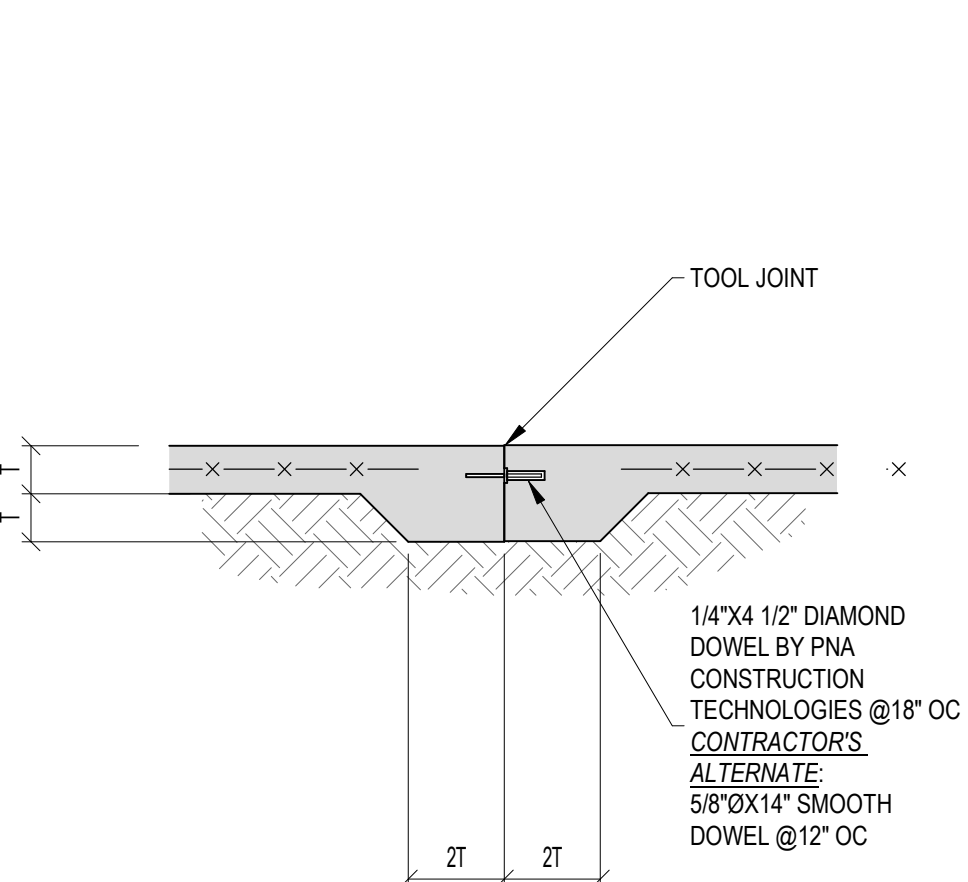


9 EQUIPMENT PADS / FIREPLACE FOOTING
3/4" = 1'-0"

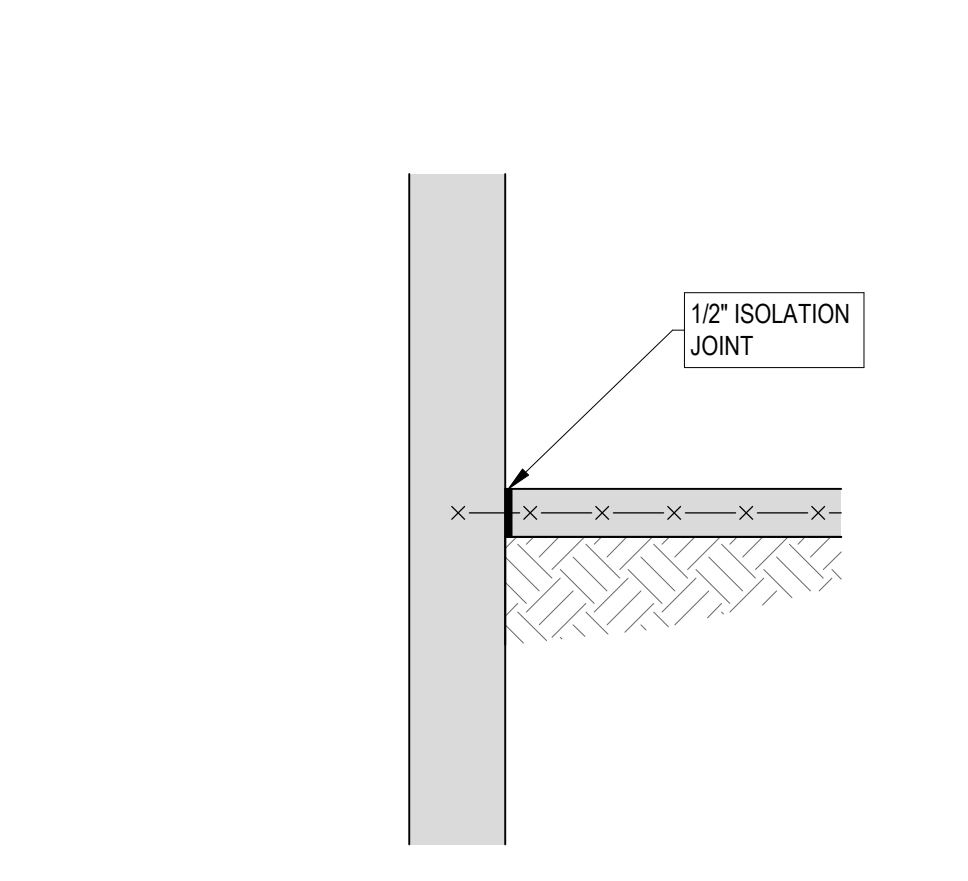


10 STAIR ON GRADE
3/4" = 1'-0"

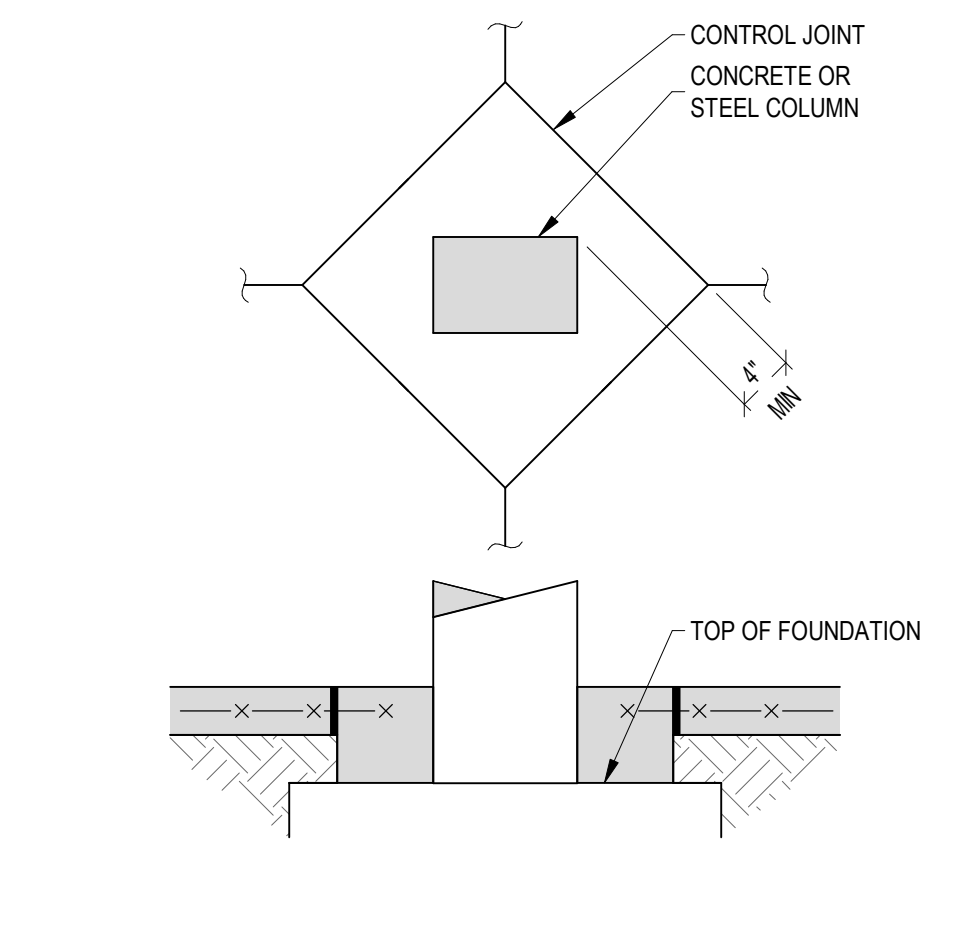
1 CONTROL JOINT
3/4" = 1'-0"



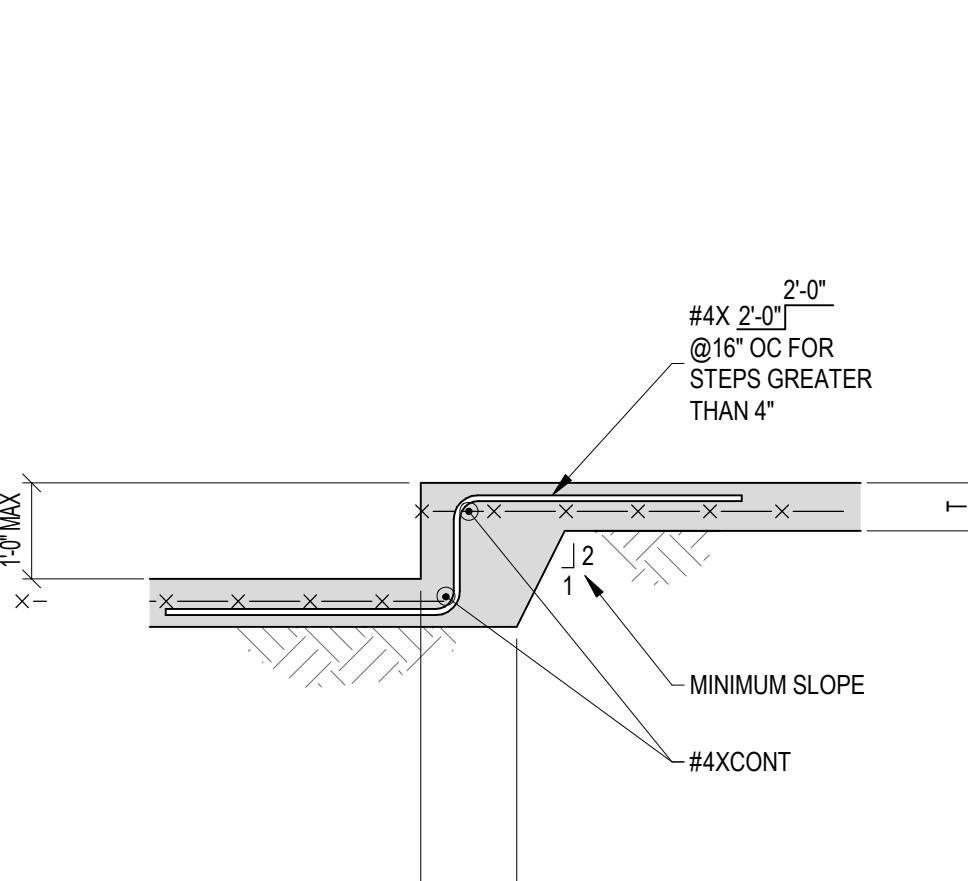
2 CONSTRUCTION JOINT
3/4" = 1'-0"



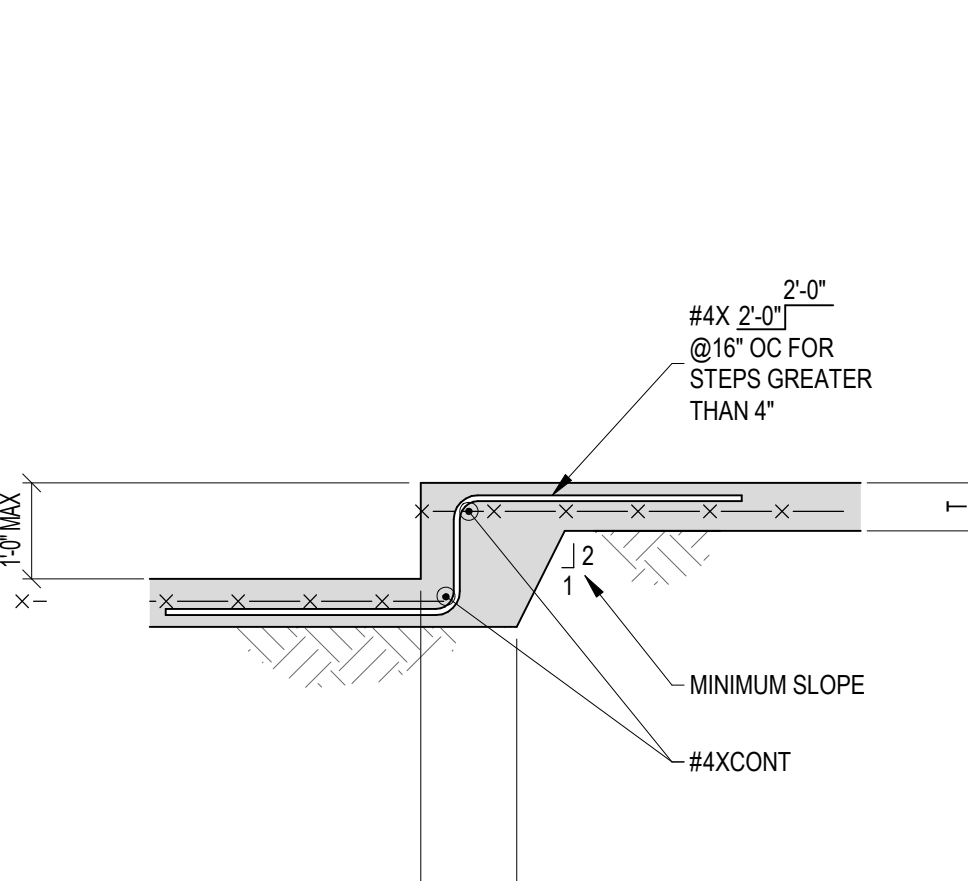
3 SLAB-ON-GRADE ABUTTING VERTICAL CONCRETE
3/4" = 1'-0"



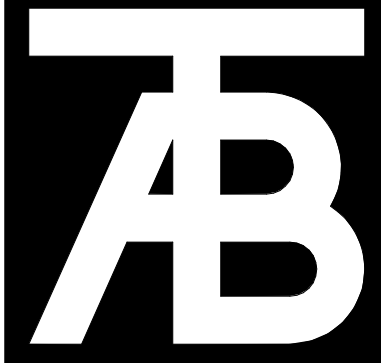
4 DIAMOND BLOCKOUT AROUND COLUMNS
3/4" = 1'-0"



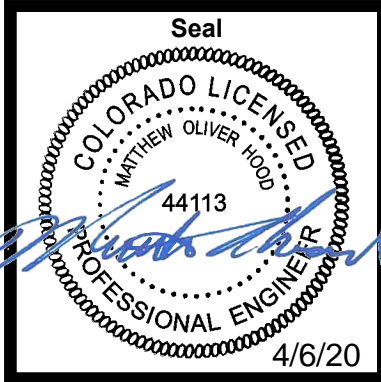
5 SMALL SLAB STEP
3/4" = 1'-0"



BOXED NOTES INDICATE A
TYPICAL CONDITION EXISTS
UNLESS NOTED OTHERWISE
RCRBD Record Set
NOT ALL DETAILS APPLY
05/14/2020



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Steamboat Springs Middle School
39610 Amethyst Dr

Revisions:		
No	Description	Date

Issue Dates:
DD's - 02/21/20
95% - 03/30/20
CD's - 04/06/20

Sheet Title:
Typical Concrete Details

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S1.1

STEEL COLUMN SCHEDULE		
MARK	SIZE	BASEPLATE TYPE
1	HSS4X4X5/16	1
2	HSS5X5X5/16	1
3	HSS5X5X1/2	1
NOTES: 1. PROVIDE 1 1/2" NON-SHRINK GROUT UNDER ALL BASE PLATES BEARING ON CONCRETE		
BASE PLATE SCHEDULE		
<p>TYPE 1</p>		

LOOSE LINTEL SCHEDULE			
OPENING SIZE	LOOSE LINTEL		COMMENTS
	LINTEL	BEARING EACH END	
4'-0" OR LESS	L3 1/2X3 1/4 LLH	6"	
4'-0" TO 6'-8"	L3 1/2X3 1/2X1/4	6"	
6'-8" TO 8'-4"	L5X3 1/2X1/4 LLV	6"	
8'-4" TO 10'-0"	L6X3 1/2X5/16 LLV	6"	
10'-0" TO 11'-4"	WBX15 WITH 1/4" PLATE BOTTOM	8"	
11'-4" TO 19'-4"	SEE PLANS		
NOTES: 1. PROVIDE 1 STEEL ANGLE FOR EACH 4" WIDTH OR LESS OF MASONRY. 2. PROVIDE 1 STEEL BEAM FOR MASONRY WIDTH OF 8" TO 12". 3. FOR OPENINGS 8'-0" WIDE OR LESS, BLOCKS AT BEARING MUST BE SOLID OR HAVE CELLS GROUTED SOLID FOR A HEIGHT OF 10" BELOW BEARING ELEVATION. 4. FOR OPENINGS OVER 8'-0" WIDE, REINFORCE WITH 1-#5 AND GROUT THE MASONRY CELL UNDER LINTEL BEARING SOLID ON EACH SIDE OF THE OPENING. 5. FOR OPENINGS OVER 10'-0", PROVIDE 2-3/4"x1'-0" ANCHOR BOLTS EACH END OF LINTEL. SLOT HOLES IN BEAM, JAMB CELLS SHALL BE SOLID GROUTED AND REINFORCED IN ACCORDANCE WITH GENERAL NOTES, PLANS AND DETAILS. 6. DESIGN ASSUMES A 60 DEGREE LOADING TRIANGLE AND NO LEDGER LOADS OR CONCENTRATED LOADS SUPPORTED BY THE LINTEL. Fm = 1350 psi MIN.			

SINGLE PLATE W/ 3/4"Ø A325-N BOLTS - LRFD							
BEAM TO GIRDER OR COLUMN CONNECTION							
UNCOPED AND TOP COPED							

SINGLE PLATE W/ 3/4"Ø A325-N BOLTS - LRFD							
BEAM TO GIRDER CONNECTION							
DOUBLE COPED							
#"- 3/4"Ø A325-N BOLTS	BEAM SIZES	MIN BEAM WEB THICKNESS	3" COPE CAPACITY (KIPS)	4" COPE CAPACITY (KIPS)	5" COPE CAPACITY (KIPS)	6" COPE CAPACITY (KIPS)	8" COPE CAPACITY (KIPS)
2	W8's, MC10's, MC12's	0.170	12	9	8	6	5
2	W10's, C10's	0.190	19	14	12	10	7
3	W12x14, W12x16	0.200	33	26	21	18	13
3	W12x19 AND HEAVIER, C12's, C15's, W14's, W16's, W18's	0.230	42	33	27	22	17
4	W16's, W18's, W21's, W24's, C18's	0.250	63	62	50	42	32
5	W18's, W21's, W24's, W27's, W30's	0.300	79	79	79	74	57
6	W21's, W24's, W27's, W30's, W33's, W36's	0.350	95	95	95	95	95
7	W24's, W27's, W30's, W33's, W36's	0.395	-	111	111	111	111
8	W27's, W30's, W33's, W36's, W40's	0.460	-	-	127	127	127
9	W30's, W33's, W36's, W40's	0.470	-	-	143	143	143
10	W33's, W36's, W40's	0.550	-	-	-	159	159
11	W36's, W40's	0.600	-	-	-	175	175
NOTES: 1. LRFD CAPACITIES ARE BASED ON THE AISC MANUAL FOR STEEL CONSTRUCTION - THIRTEENTH EDITION FOR STRENGTH (LRFD) LOADS. 2. Fy OF BEAMS AND GIRDERS = 50 ksi. Fy OF CONNECTION PLATES = 36 ksi. 3. GIRDER WEB THICKNESS MUST BE ≥ BEAM WEB THICKNESS. 4. INTERPOLATION BETWEEN WEB THICKNESSES GIVEN IS NOT PERMITTED. 5. 1 1/2" COPE DEPTH. 6. BEAMS MAY BE SKEWED UP TO 30° FROM PERPENDICULAR WITH NO REDUCTION IN CAPACITY OR INCREASE IN WELD SIZE.							

SINGLE ANGLE W/ 3/4"Ø A325-N BOLTS - LRFD				
BEAM TO GIRDER CONNECTION				
TOP COPED ONLY - BEAM UPSET 2 1/2"				
#"- 3/4"Ø A325-N BOLTS	BEAM SIZES	MIN BEAM WEB THICKNESS	MAX COPE LENGTH	LRFD CAPACITY (KIPS)
2	W12's	0.200	6"	11
3	W14's, W16's, W18's	0.230	6"	23
4	W18's, W21's, W24's, C18's	0.300	6"	38
5	W21's, W24's, W27's, W30's	0.350	10"	54
6	W24's, W27's, W30's, W33's, W36's	0.395	10"	71
7	W27's, W30's, W33's, W36's, W40's	0.460	10"	88
8	W30's, W33's, W36's, W40's	0.470	10"	105
9	W33's, W36's, W40's	0.550	10"	122
10	W36's, W40's	0.600	10"	139
11	W40's	0.630	10"	156
NOTES: 1. LRFD CAPACITIES ARE BASED ON THE AISC MANUAL FOR STEEL CONSTRUCTION - THIRTEENTH EDITION FOR STRENGTH (LRFD) LOADS. 2. Fy OF BEAMS AND GIRDERS = 50 ksi. Fy OF CONNECTION ANGLES = 36 ksi. 3. GIRDER WEB THICKNESS MUST BE ≥ BEAM WEB THICKNESS. 4. INTERPOLATION BETWEEN WEB THICKNESSES GIVEN IS NOT PERMITTED.				

SINGLE ANGLE W/ 3/4"Ø A325-N BOLTS - LRFD							
BEAM TO GIRDER CONNECTION							
DOUBLE COPED							
#"- 3/4"Ø A325-N BOLTS	BEAM SIZES	MIN BEAM WEB THICKNESS	3" COPE CAPACITY (KIPS)	4" COPE CAPACITY (KIPS)	5" COPE CAPACITY (KIPS)	6" COPE CAPACITY (KIPS)	8" COPE CAPACITY (KIPS)
2	W8's, MC10's, MC12's	0.170	12	9	8	6	5
2	W10's, C10's	0.190	11	11	10	8	6
3	W12x14, W12x16	0.200	23	23	19	16	12
3	W12x19 AND HEAVIER, C12's, C15's, W14's, W16's, W18's	0.230	23	23	23	21	16
4	W16's, W18's, W21's, W24's, C18's	0.250	38	38	38	38	32
5	W18's, W21's, W24's, W27's, W30's	0.300	54	54	54	54	54
6	W21's, W24's, W27's, W30's, W33's, W36's	0.350	71	71	71	71	71
7	W24's, W27's, W30's, W33's, W36's	0.395	-	88	88	88	88
8	W27's, W30's, W33's, W36's, W40's	0.460	-	-	105	105	105
9	W30's, W33's, W36's, W40's	0.550	-	-	-	122	122
10	W33's, W36's, W40's	0.600	-	-	-	139	139
11	W36's, W40's	0.630	-	-	-	156	156
NOTES: 1. LRFD CAPACITIES ARE BASED ON THE AISC MANUAL FOR STEEL CONSTRUCTION - THIRTEENTH EDITION FOR STRENGTH (LRFD) LOADS. 2. Fy OF BEAMS AND GIRDERS = 50 ksi. Fy OF CONNECTION ANGLES = 36 ksi. 3. GIRDER WEB THICKNESS MUST BE ≥ BEAM WEB THICKNESS. 4. INTERPOLATION BETWEEN WEB THICKNESSES GIVEN IS NOT PERMITTED.							

SINGLE ANGLE W/ 3/4"Ø A325-N BOLTS - LRFD							
BEAM TO GIRDER OR COLUMN CONNECTION							
UNCOPED AND TOP COPED							
#"- 3/4"Ø A325-N BOLTS	BEAM SIZES	MIN BEAM WEB THICKNESS	UNCOPED CAPACITY (KIPS)	3" COPE CAPACITY (KIPS)	4" COPE CAPACITY (KIPS)	5" COPE CAPACITY (KIPS)	6" COPE CAPACITY (KIPS)
2	MC8's, MC10's, MC12's, W8x10, W10x12	0.170	29	25	20	17	14
2	C8's, C10's, W8x13 AND HEAVIER, W10x15 AND HEAVIER, W12's	0.230 (W12's ≥ 0.20)	31	31	28	23	19
3	W12x14, W12x16	0.200	47	44	44	40	34
3	W12x19 AND HEAVIER, C12's, C15's, W14's, W16's, W18's	0.230	47	-	-	47	44
4	W16's, W18's, W21's, W24's, C18's	0.250	63	-	-	-	63
5	W18's, W21's, W24's, W27's, W30's	0.300	79	-	-	-	79
6	W21's, W24's, W30's, W33's, W36's	0.350	95	-	-	-	95
7	W24's, W27's, W30's, W33's, W36's, W40's	0.395	111	-	-	-	111
8	W27's, W30's, W33's, W36's, W40's	0.460	127	-	-	-	127
9	W30's, W33's, W36's, W40's	0.470	143	-	-	-	143
10	W33's, W36's, W40's	0.550	159	-	-	-	159
11	W36's, W40's	0.600	175	-	-	-	175
NOTES: 1. LRFD CAPACITIES ARE BASED ON THE AISC MANUAL FOR STEEL CONSTRUCTION - THIRTEENTH EDITION FOR STRENGTH (LRFD) LOADS. 2. Fy OF BEAMS AND GIRDERS = 50 ksi. Fy OF CONNECTION ANGLES = 36 ksi. 3. GIRDER WEB, COLUMN WEB OR FLANGE THICKNESS MUST BE ≥ BEAM WEB THICKNESS. 4. INTERPOLATION BETWEEN WEB THICKNESSES GIVEN IS NOT PERMITTED.							

SINGLE ANGLE W/ 3/4"Ø A325-N BOLTS - LRFD			
BEAM TO GIRDER OR COLUMN CONNECTION			
UNCOPED AND TOP COPED ONLY			

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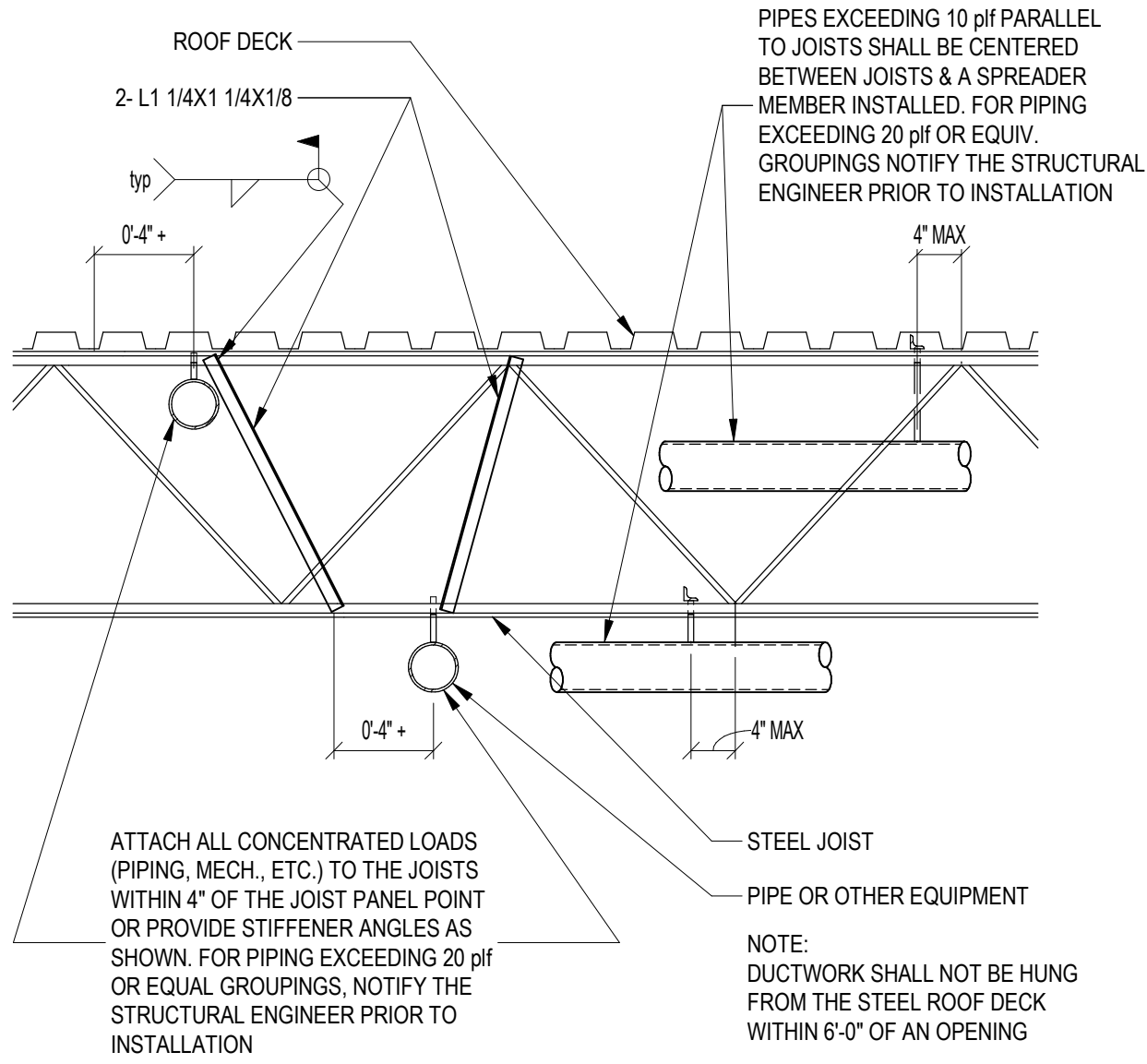
Revisions:
No Description Date

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95% - 03/30/20
CD's - 04/06/20

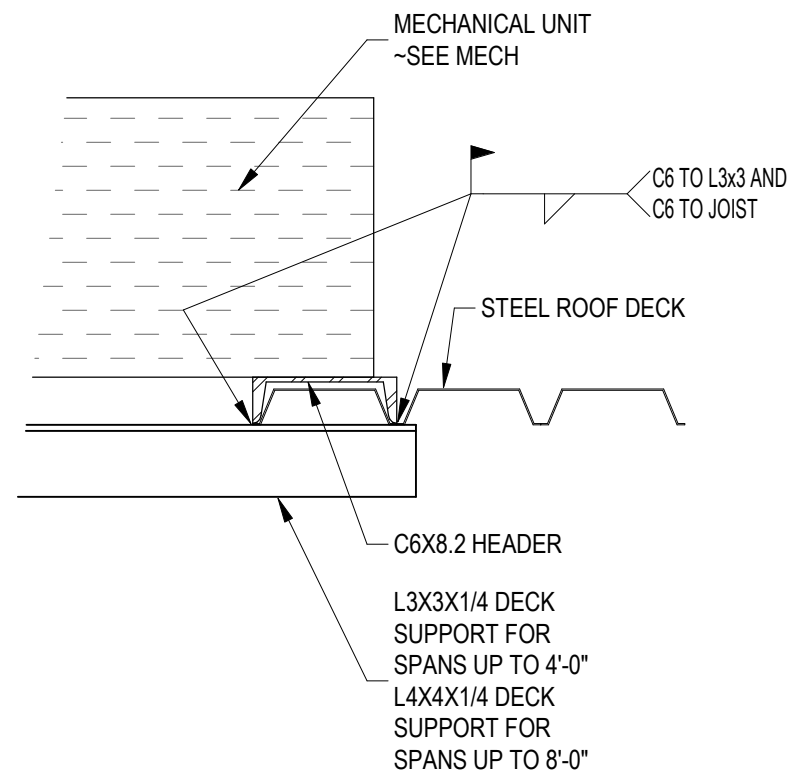
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Steel Connection Schedules

Project No:
TAB-1935.01
JH-20191103

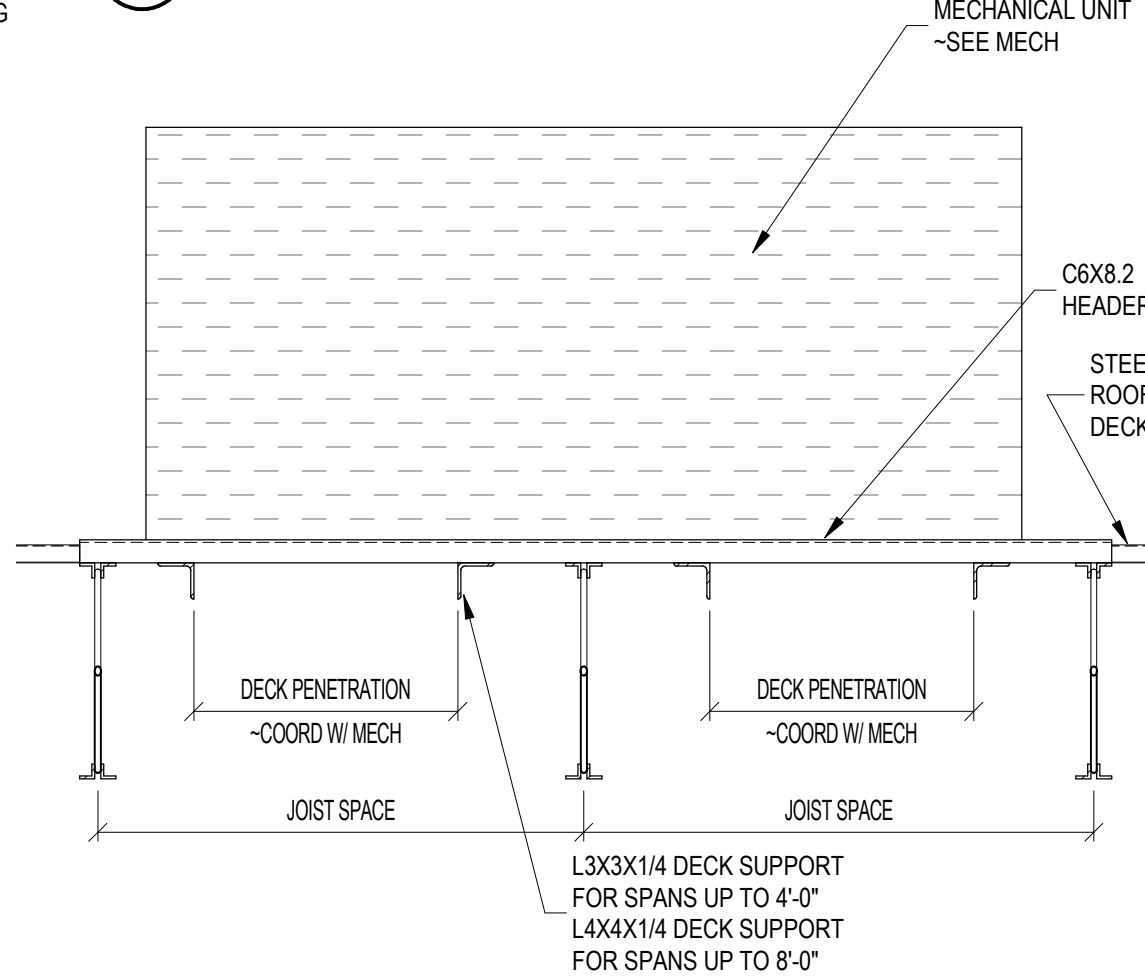
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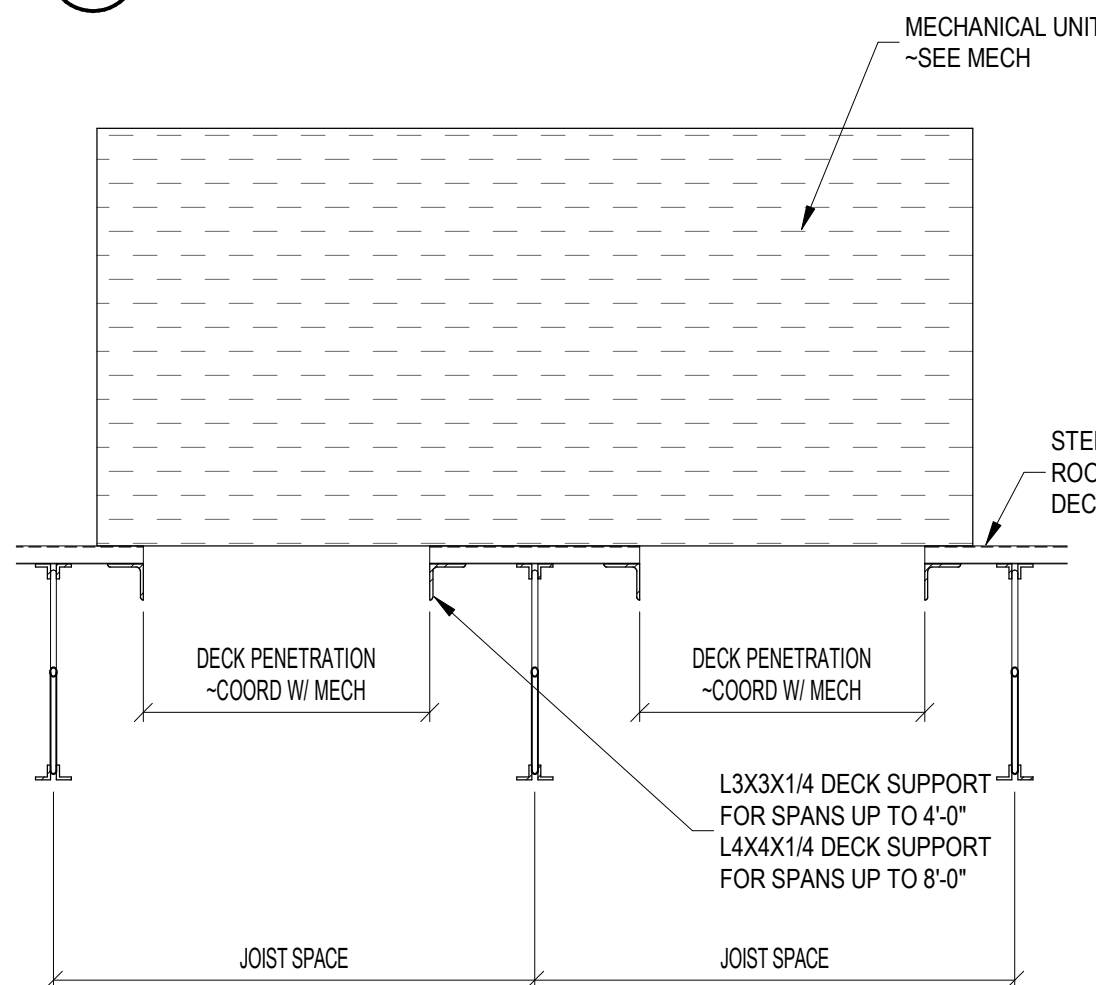
11 JOIST REINFORCEMENT AT PIPING
3/4" = 1'-0"



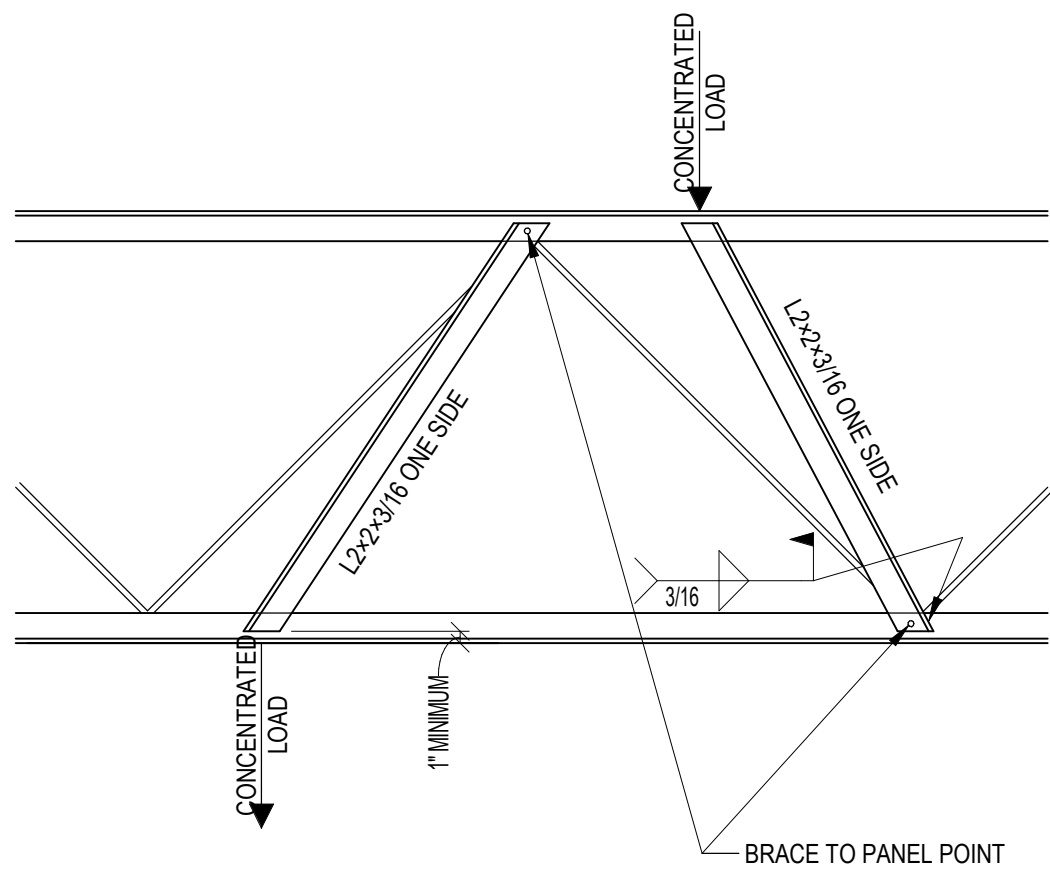
6 STEEL CHANNEL MECHANICAL UNIT SUPPORT
1 1/2" = 1'-0"



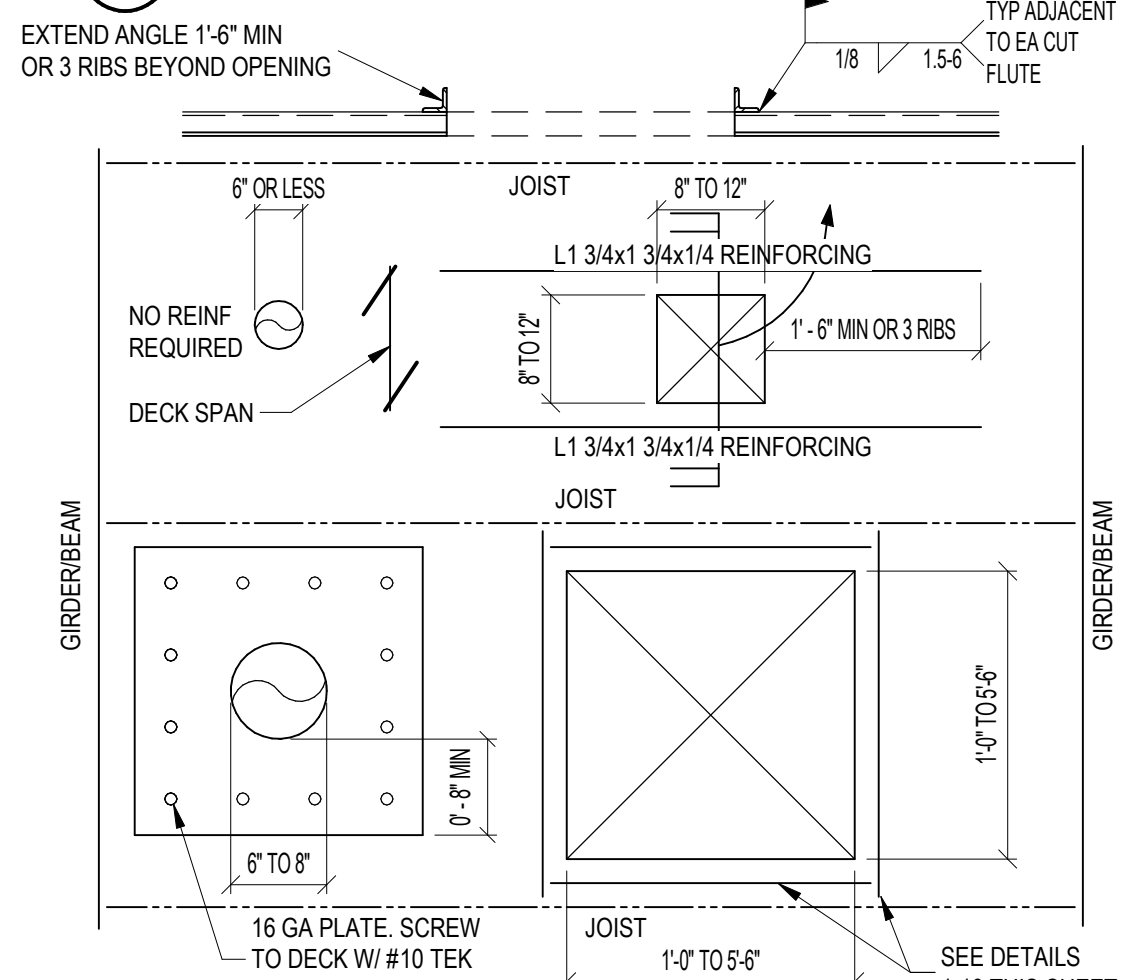
7 CHANNEL SUPPORT HEADER
3/4" = 1'-0"



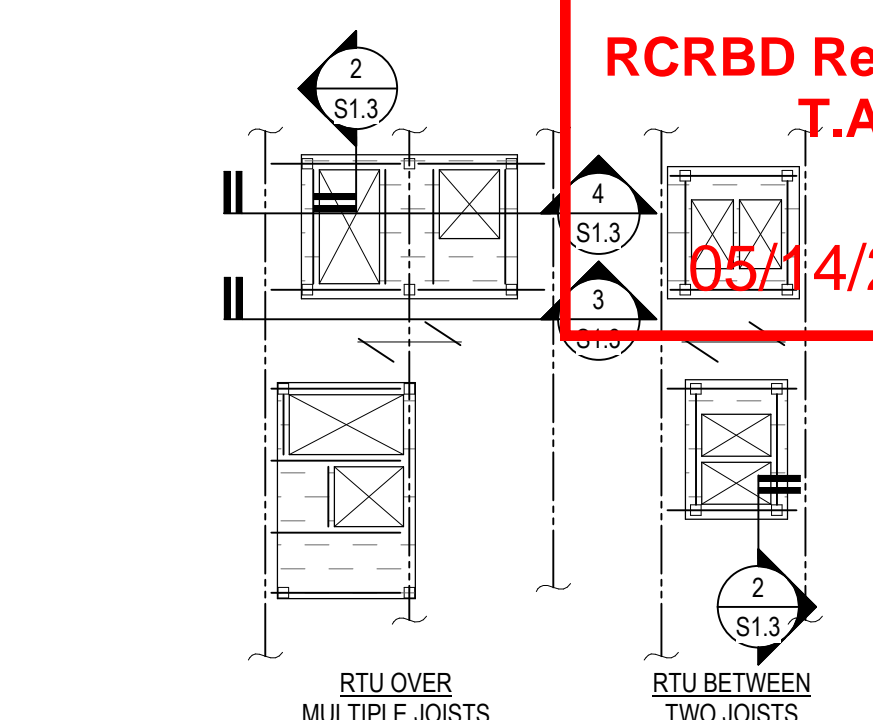
8 CHANNEL HEADER AND DECK SUPPORT
3/4" = 1'-0"



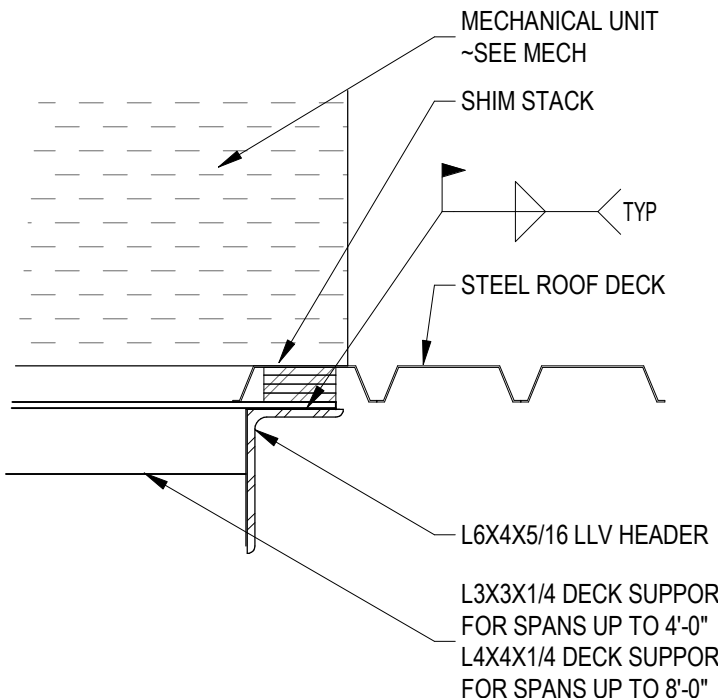
9 JOIST REINFORCING AT CONCENTRATED LOAD
3/4" = 1'-0"



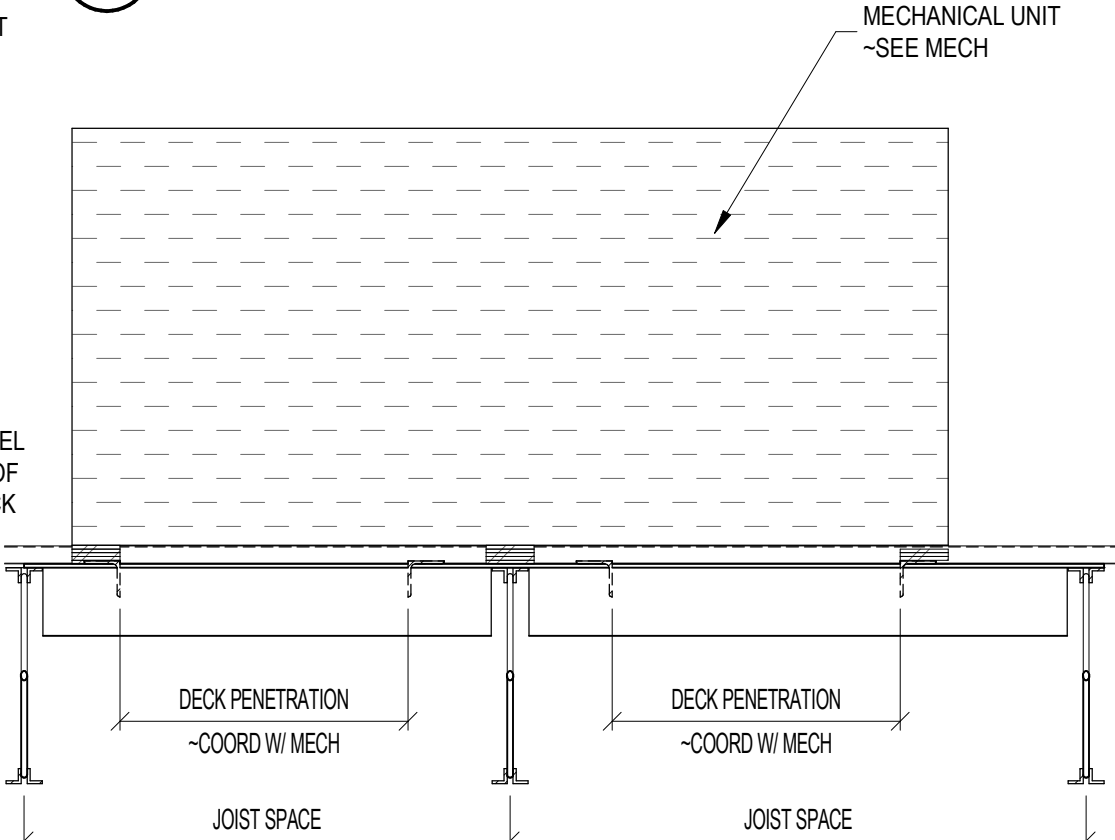
10 GENERAL ROOF DECK PENETRATION REINFORCEMENT
3/4" = 1'-0"



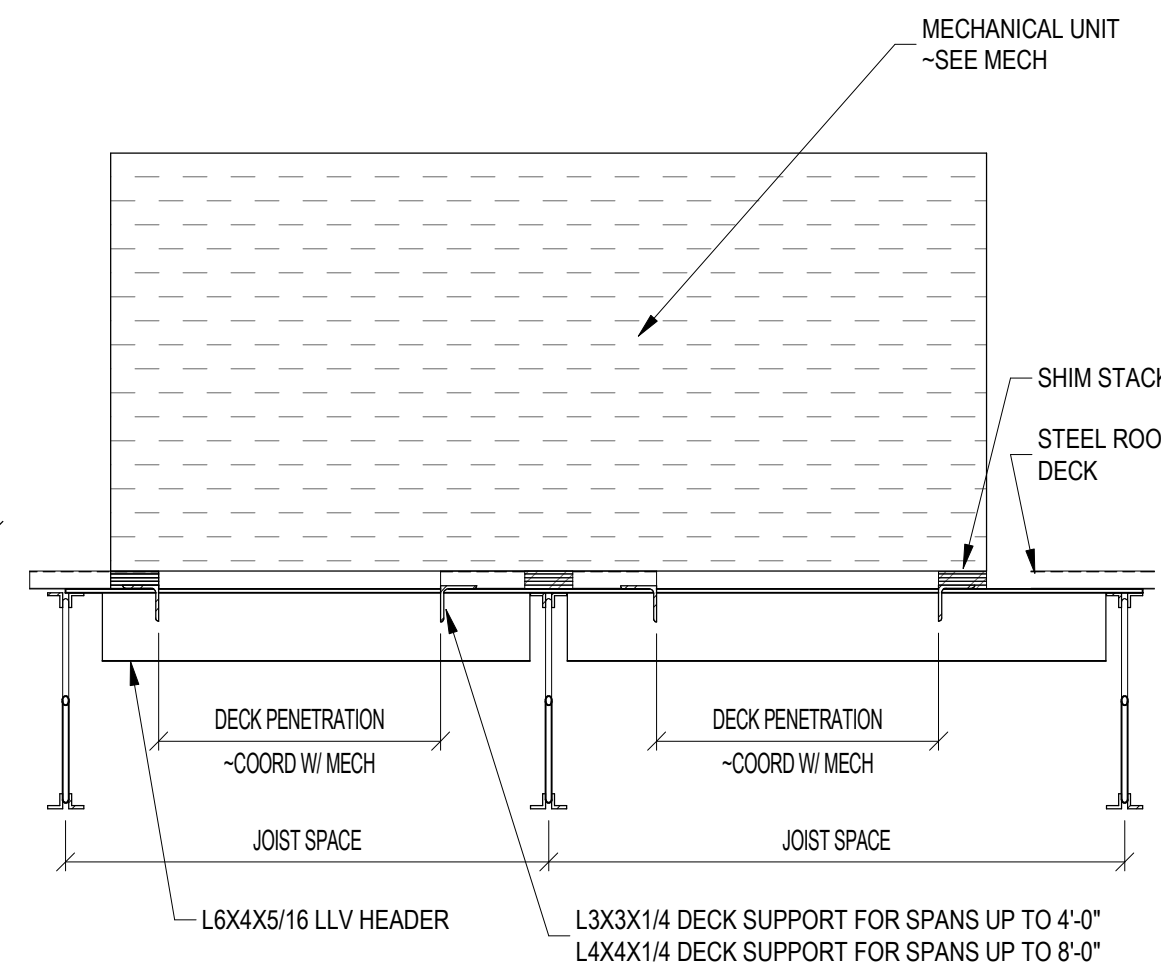
1 MECHANICAL RTU - ANGLE SUPPORT
3/16" = 1'-0"



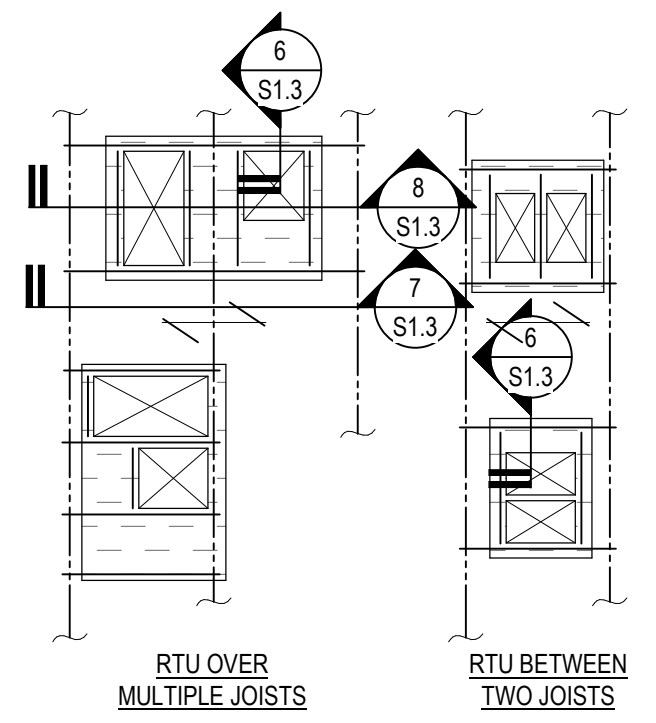
2 STEEL ANGLE MECHANICAL UNIT SUPPORT
1 1/2" = 1'-0"



3 ANGLE SUPPORT HEADER
3/4" = 1'-0"

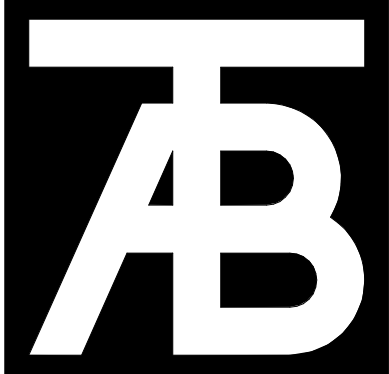


4 ANGLE HEADER AND DECK SUPPORT
3/4" = 1'-0"



5 MECHANICAL RTU PLANS - CHANNEL SUPPORT
3/16" = 1'-0"

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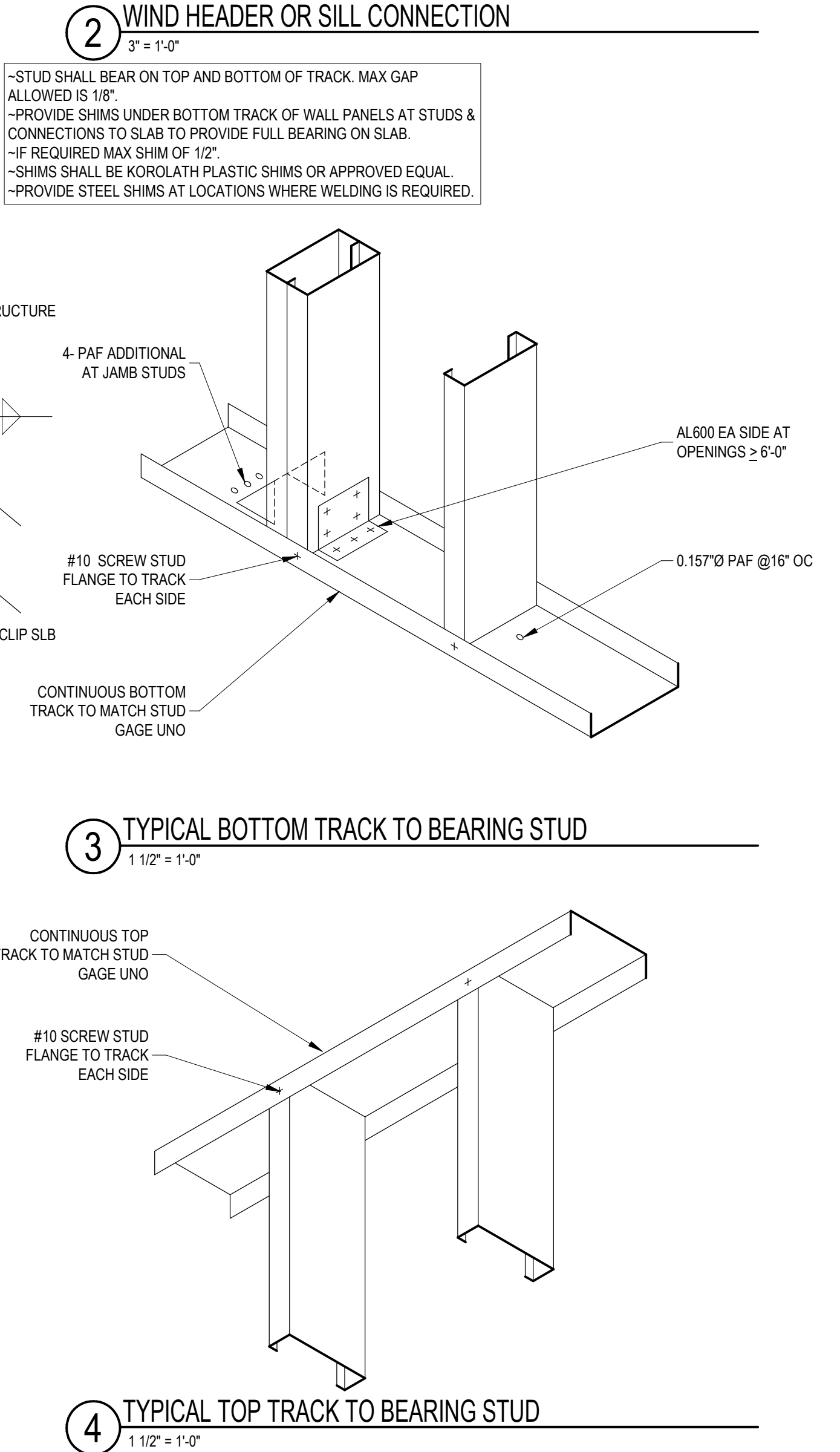
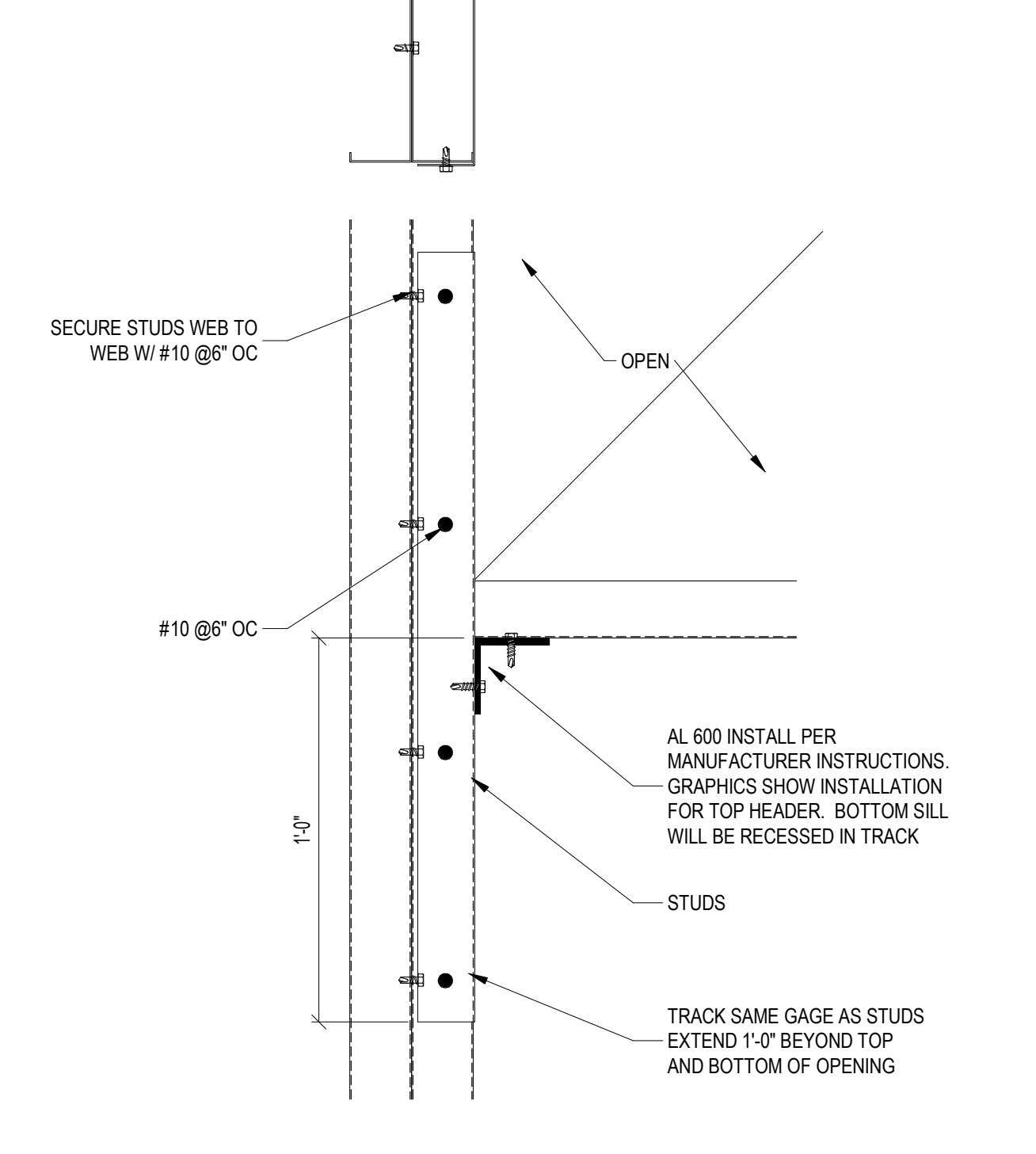
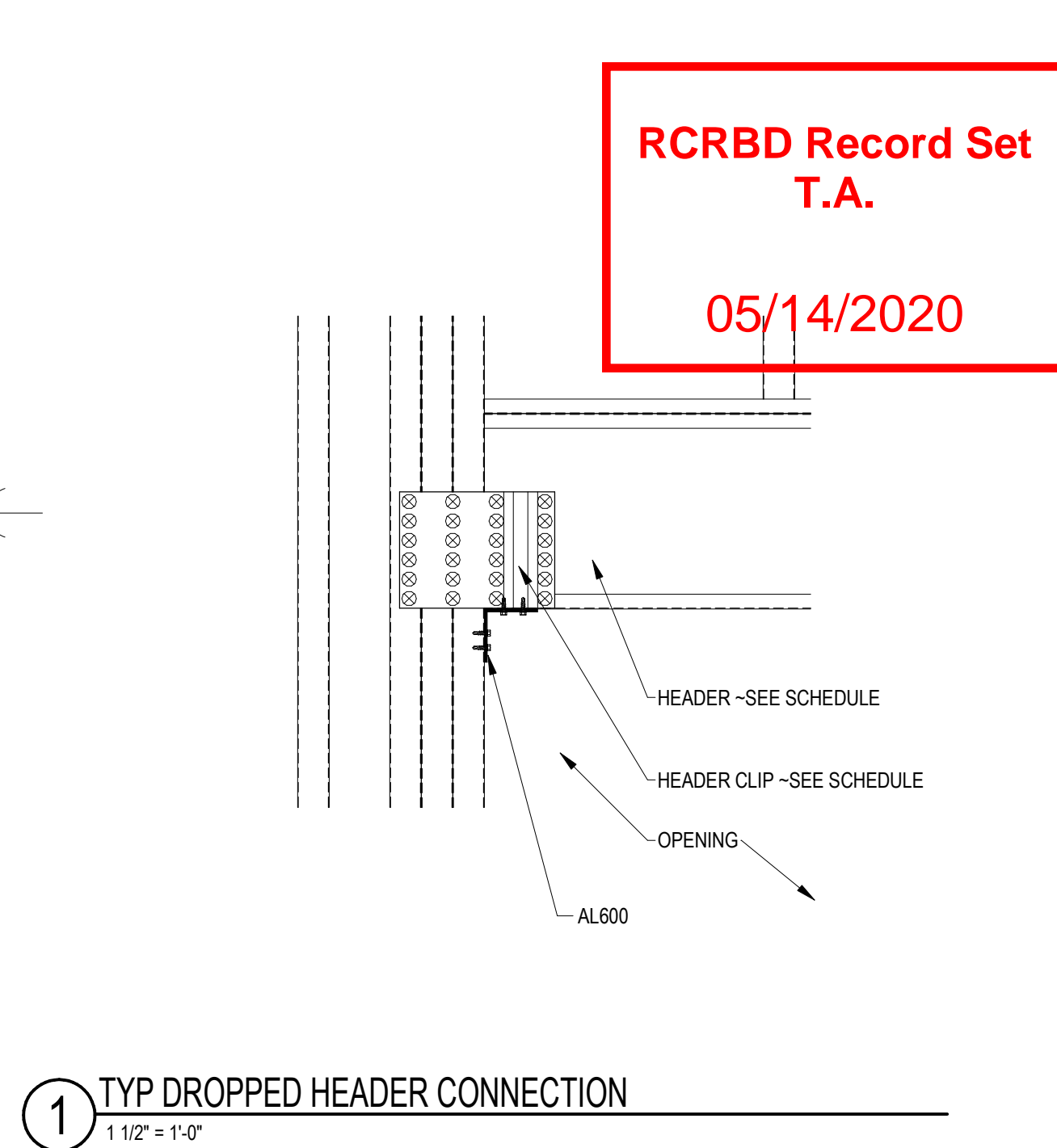
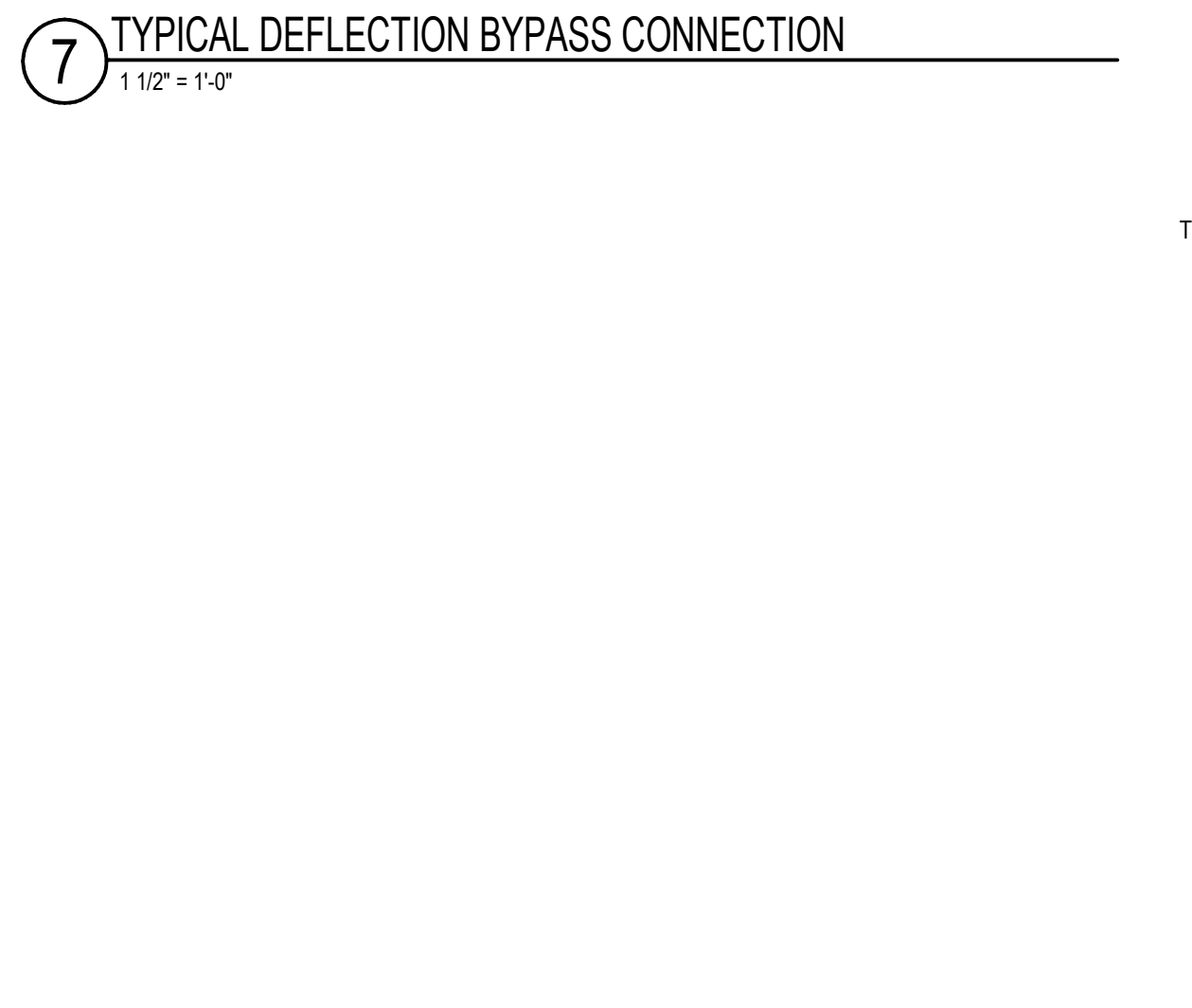
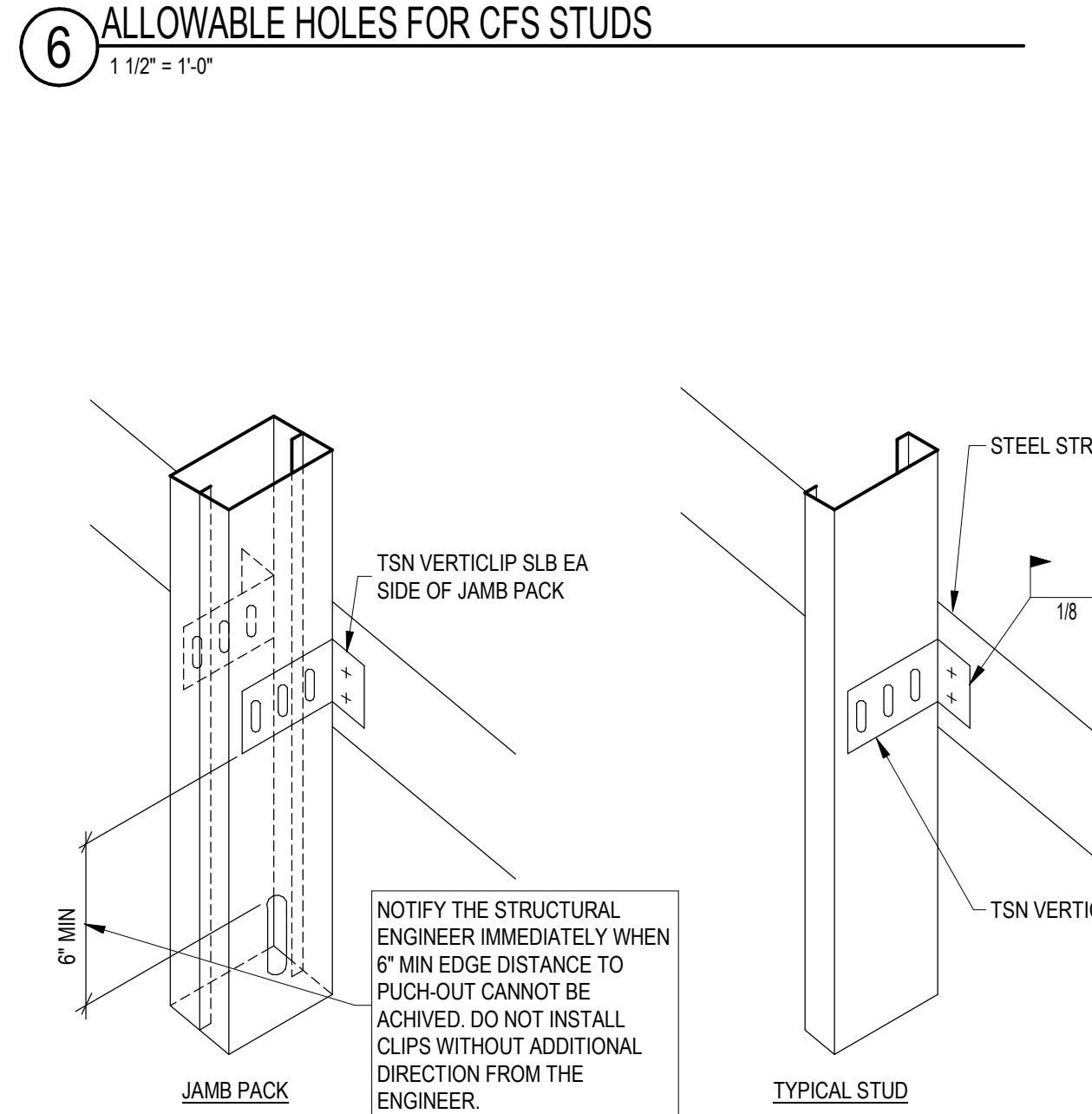
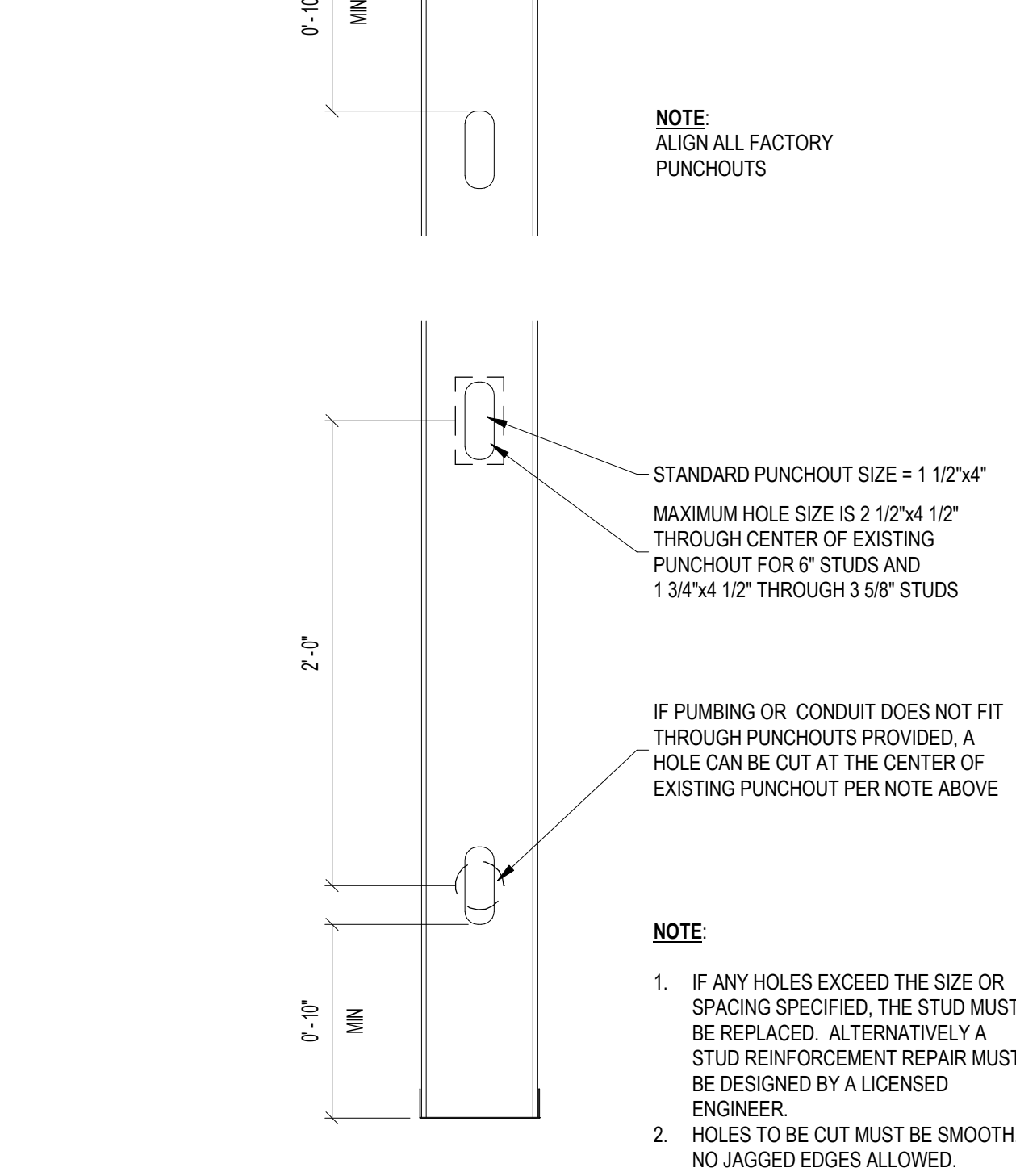
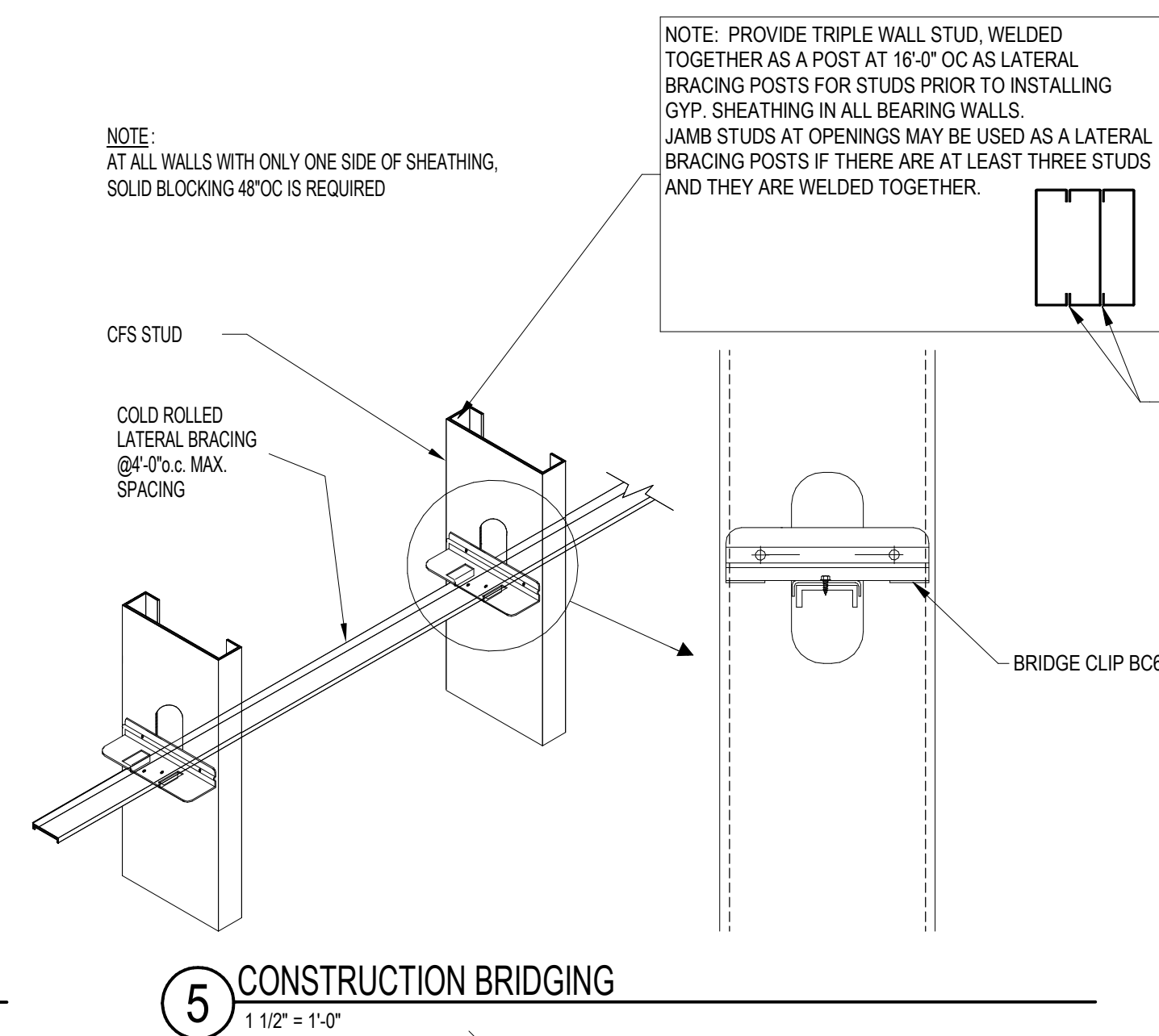
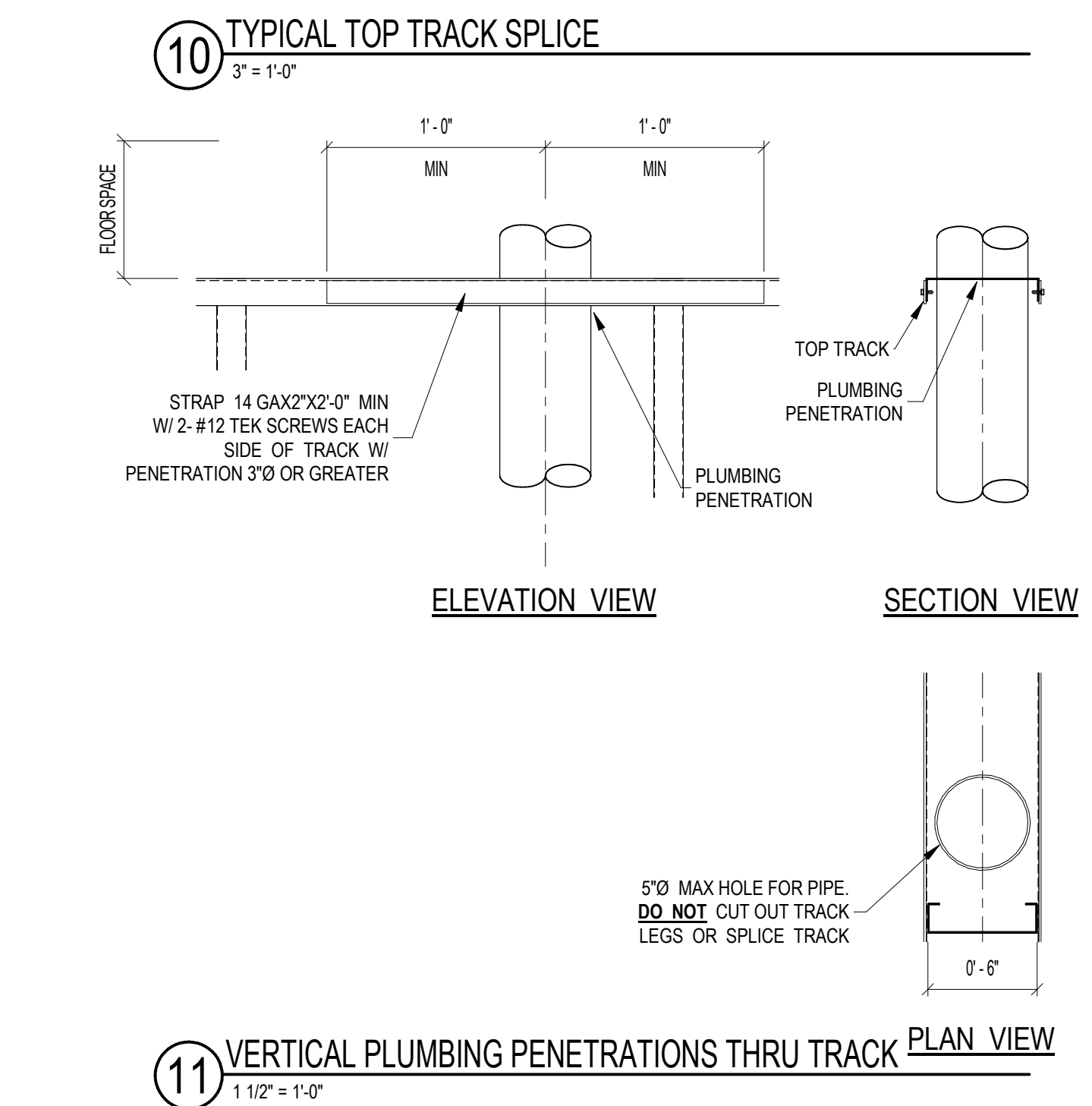
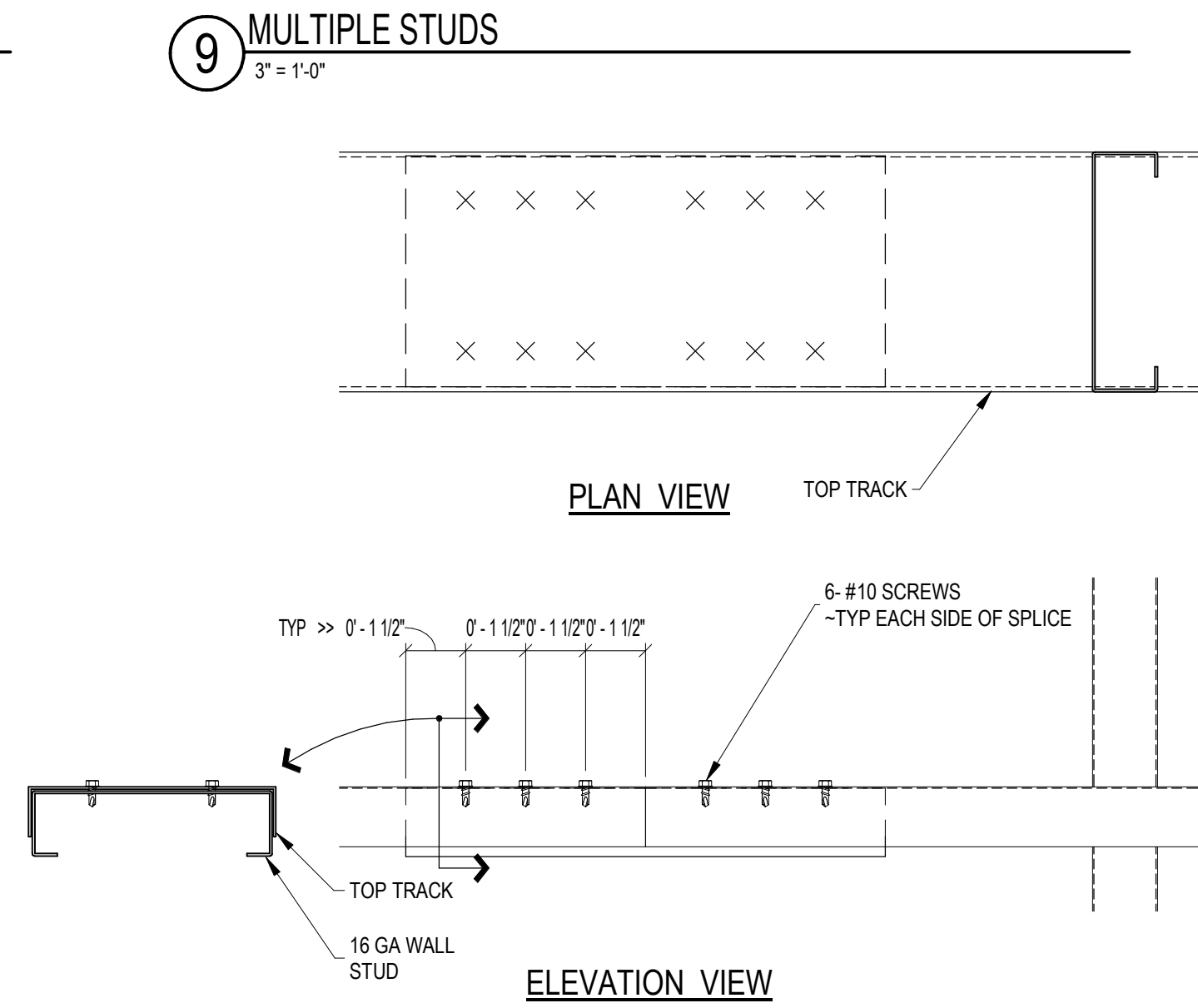
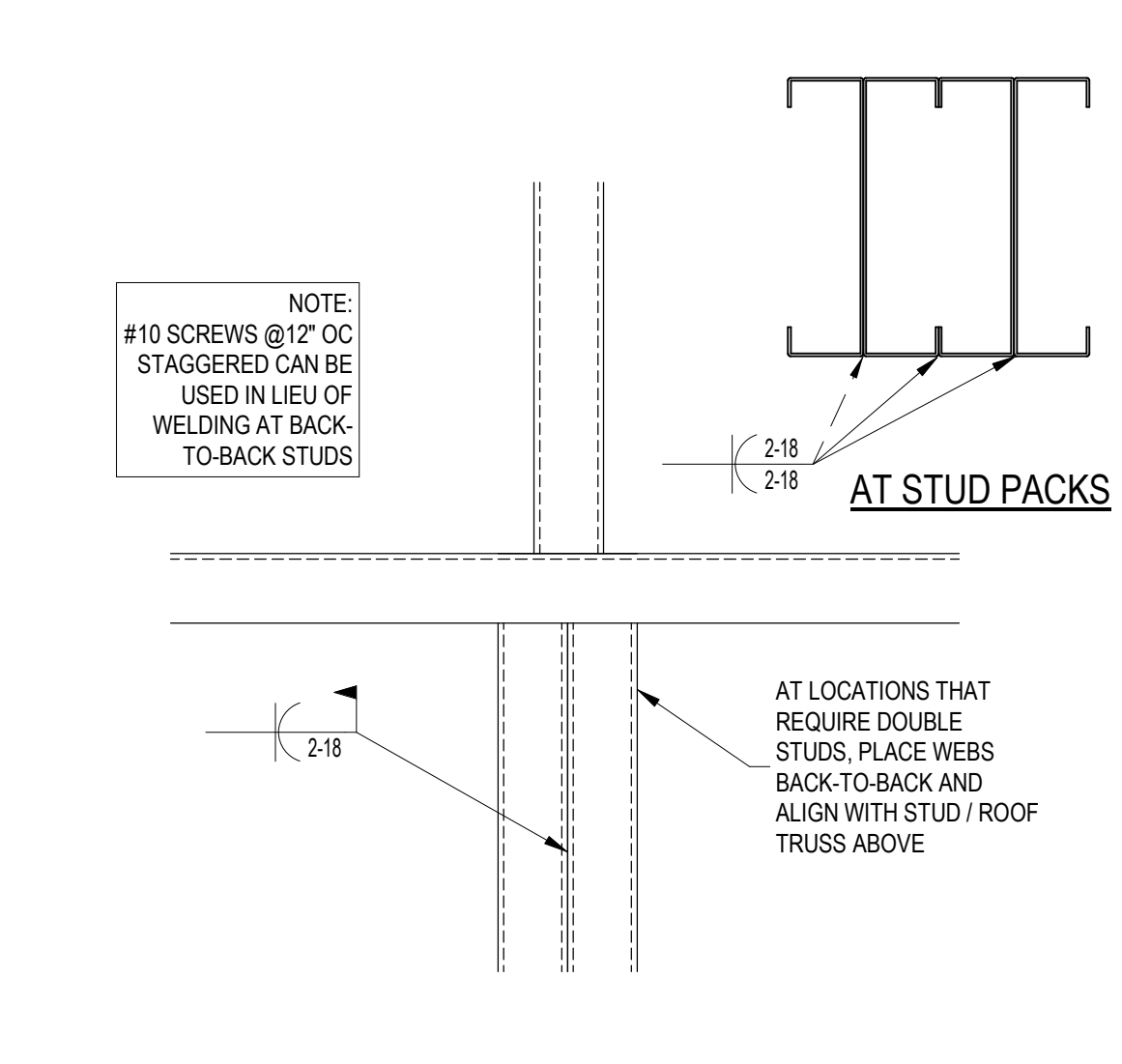
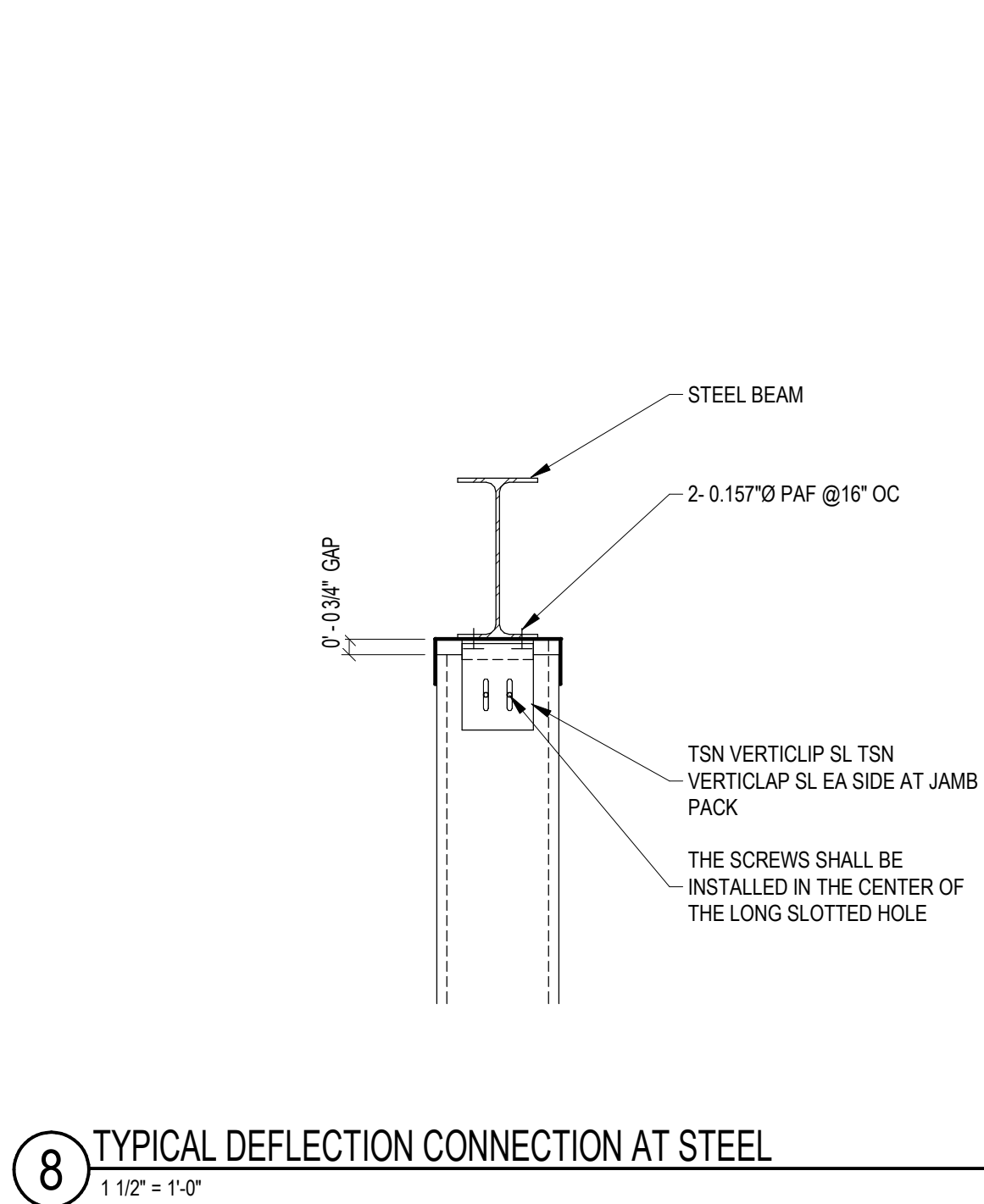
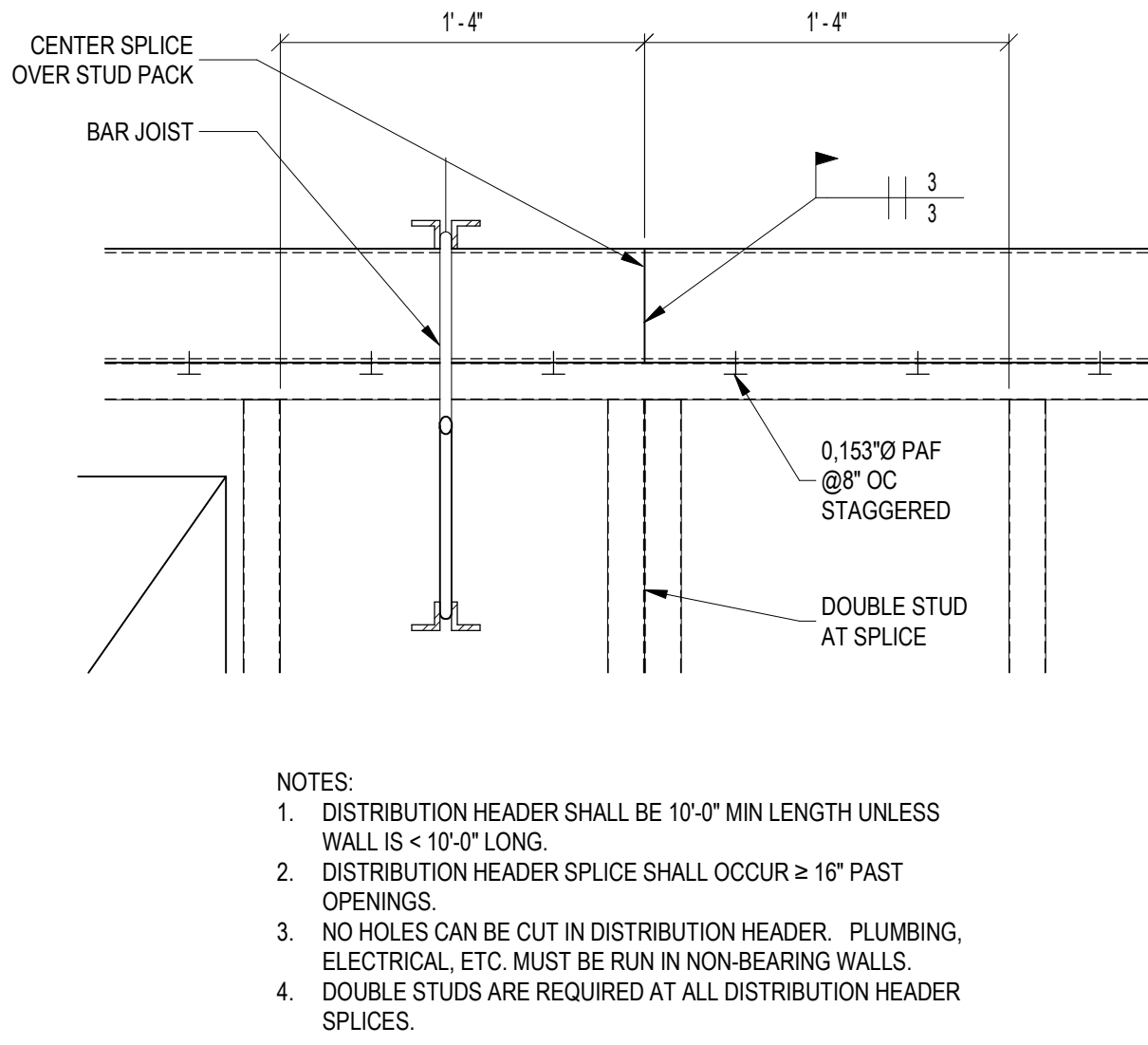
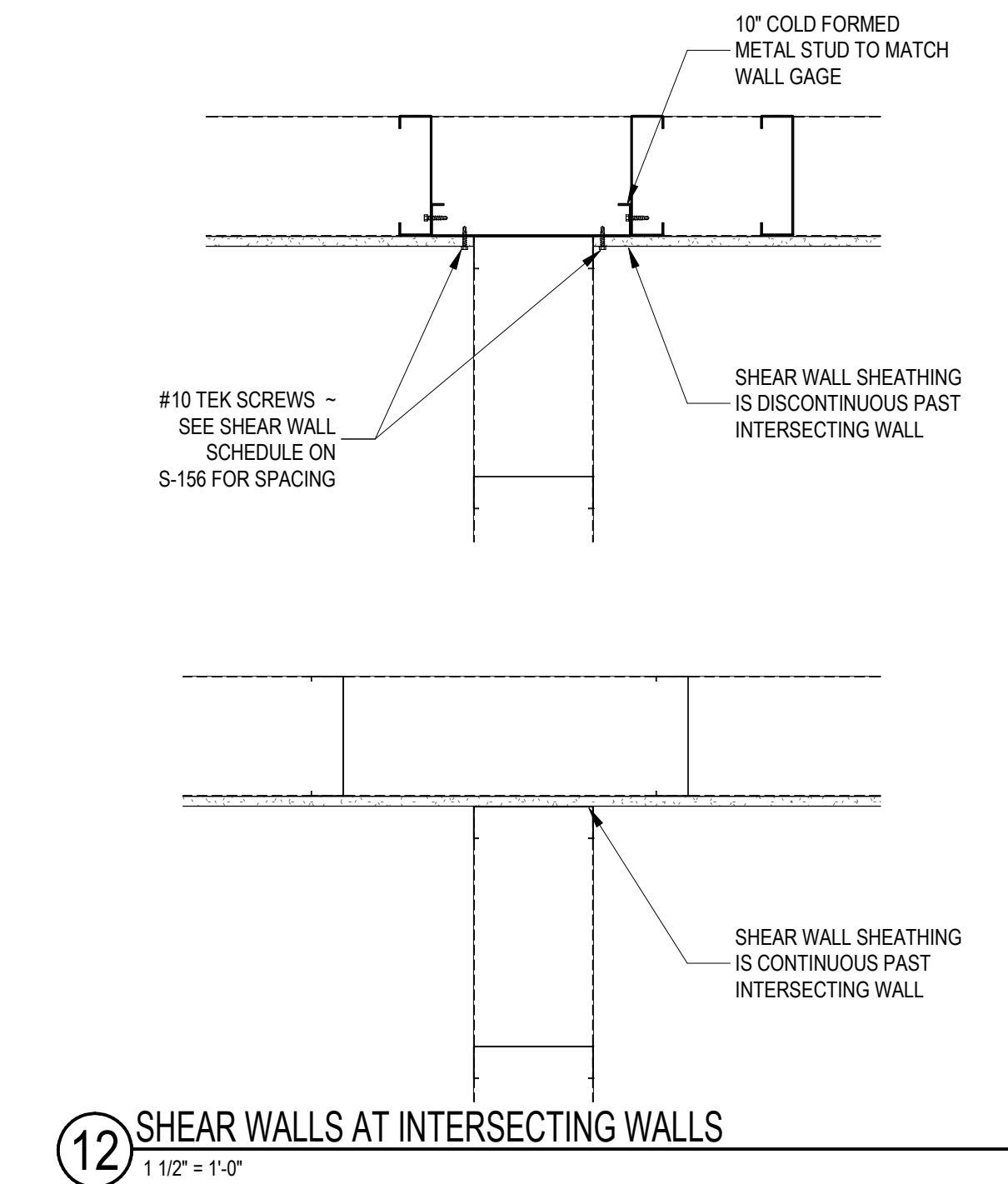
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Sheet Title:
Steel Bar Joist Roof Typical Details

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S1.3



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Sheet Title:
Typical CFS Details

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S1.4

REQUIRED THIRD PARTY SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION - 2015 IBC				
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REFERENCE
1. Inspect reinforcement, including prestressing tendons, and verify placement.	-	X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. Reinforcing bar welding:	-	-	AWS D1.4 ACI 318: 26.6.4	-
a. Verify weldability of reinforcing bars other than ASTM A706.	-	X	AWS D1.4 ACI 318: 26.6.4	-
b. Inspect single-pass fillet welds, maximum 5/16"; and	-	X	AWS D1.4 ACI 318: 26.6.4	-
c. Inspect all other welds.	X	-	AWS D1.4 ACI 318: 26.6.4	-
3. Inspect anchors cast in concrete.	-	X	ACI 318: 17.8.2	-
4. Inspect anchors post-installed in hardened concrete members.	-	-	-	-
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X	-	ACI 318: 17.8.2.4	-
b. Mechanical anchors and adhesive anchors not defined in 4.a.	-	X	ACI 318: 17.8.2	-
5. Verifying use of required design mix.	-	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	-	ASTM C 172 ASTM C 31 ACI 318: 26.4, 26.12	1908.10
7. Inspect concrete and shotcrete placement for proper application techniques.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9. Inspect prestressed concrete for:	-	-	-	-
a. Application of prestressing forces; and	X	-	ACI 318: 26.10	-
b. Grouting of bonded prestressing tendons.	X	-	ACI 318: 26.10	-
10. Inspect erection of precast concrete members.	-	X	ACI 318: Ch. 26.8	-
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	-	X	ACI 318: 26.11.2	-
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	-	X	ACI 318: 26.11.1.2 (b)	-

REQUIRED THIRD PARTY SPECIAL INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS - 2015 IBC			
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD
1. Installation of open-web steel joists and joist girders.	-	-	
a. End connections - welding or bolted.	-	X	SJI specifications listed in Section 2207.1.
b. Bridging - horizontal or diagonal.	-	-	
1. Standard bridging.	-	X	SJI specifications listed in Section 2207.1.
2. Bridging that differs from the SJI specifications listed in section 2207.1.	-	X	

THIRD PARTY LEVEL B QUALITY ASSURANCE FOR MASONRY CONSTRUCTION - 2015 IBC				
INSPECTION TASK	FREQUENCY		REFERENCE FOR CRITERIA	
	CONTINUOUS	PERIODIC	TMS 402	TMS 602
1. Verify compliance with the approved submittals	-	X	-	Art. 1.5
2. As masonry construction begins, verify that the following are in compliance:	-	-	-	
a. Proportions of site-prepared mortar	-	-	X	Art. 2.1, 2.6 A
b. Construction of mortar joints	-	X	-	Art. 3.3 B
c. Grade and size of prestressing tendons and anchorages.	-	X	-	Art. 2.4 B, 2.4 H
d. Location of reinforcement, connectors, and prestressing tendons and anchorages.	-	X	-	Art. 3.4, 3.6 A
e. Prestressing technique	-	X	-	Art. 3.6 B
f. Properties of thin-bed mortar for AAC masonry	X	X	-	Art. 2.1 C
3. Prior to grouting, verify that the following are in compliance:	-	-	-	
a. Grout space	-	X	-	Art. 3.2 D, 3.2 F
b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	-	X	Sec. 6.1	Art. 2.4, 3.4
c. Placement of reinforcement, connectors, and prestressing tendons and anchorages	-	X	Sec. 6.1, 6.2.1, 6.2.6, 6.2.7	Art. 3.2 E, 3.4, 3.6 A
d. Proportions of site-prepared grout and prestressing grout for bonded tendons	-	X	-	Art. 2.6 B, 2.4 G.1b
e. Construction of mortar joints	-	X	-	Art. 3.3 B
4. Verify during construction:	-	-	-	
a. Size and location of structural elements	-	X	-	Art. 3.3 F
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.	-	X	Sec. 1.2.1(e), 6.1.4.3, 6.2.1	-
c. Welding of reinforcement	X	-	Sec. 8.1.6.7.2, 9.3.3.4(c), 11.3.3.4 (b)	-
d. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F (4.4°C)) or hot weather (temperature above 90°F (32.2°C))	-	X	-	Art. 1.8 C, 1.8 D
e. Application and measurement of prestressing force	X	-	-	Art. 3.6 B
f. Placement of grout and prestressing grout for bonded tendons is in compliance	X	-	-	Art. 3.5, 3.6 C
g. Placement of AAC masonry units and construction of thin-bed mortar joints	X	X	-	Art. 3.3 B.9, 3.3 F.1b
5. Observe preparation of grout specimens, mortar specimens, and / or prisms	-	X	-	Art. 1.4 B.2 a.3, 1.4 B.2 b.3, 1.4 B.2 c.3, 1.4 B.3, 1.4 B.4

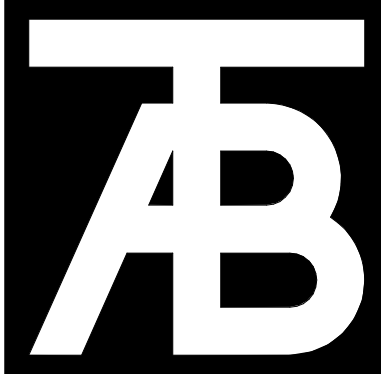
REQUIRED THIRD PARTY SPECIAL INSPECTIONS AND TESTS OF SOILS - 2015 IBC		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	-	X
2. Verify excavations are extended to proper depth and have reached proper material	-	X
3. Perform classification and testing of compacted fill materials.	-	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	-
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	-	X

REQUIRED THIRD PARTY VERIFICATION AND INSPECTIONS FOR COLD-FORMED STEEL CONSTRUCTION - 2015 IBC				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. Pre-fabricated cold-formed steel structural elements and assemblies.			-	Sec. 1704.2.5.1, 1705.11.2, 1705.12.3
a. size, spacing	-	X		
b. connections and welds	-	X		
2. Site built assemblies			-	Sec. 1705.11.2, 1705.12.3
a. grade, size, spacing	-	X		
b. connections and welds	-	X		
c. blocking	-	X	-	Sec. 1705.11.2, 1705.12.3
3. Diaphragms				
a. member size at panel edges	-	X		
b. fastener diameter and length	-	X		
c. fastener spacing	-	X		

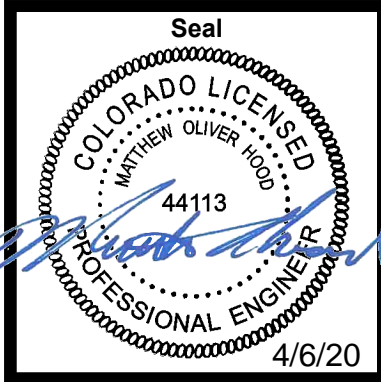
STATEMENT OF SPECIAL INSPECTIONS - 2015 IBC	
1. SPECIAL INSPECTIONS AND STRUCTURAL TESTING SHALL BE PROVIDED BY A THIRD PARTY AGENCY EMPLOYED BY THE OWNER. SPECIAL INSPECTIONS AND TESTING SHALL BE PROVIDED AS REQUIRED IN CHAPTER 17 OF THE IBC AND BY THE ENGINEER OF RECORD. REQUIREMENTS ARE NOTED IN CHARTS PROVIDED ON THE CONSTRUCTION DOCUMENTS, AS WELL AS IN THE SPECIFICATIONS.	
2. THE NAMES AND CREDENTIALS OF THE SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING OFFICIAL.	
A. ALL SPECIAL INSPECTORS SHALL BE QUALIFIED TO INSPECT MATERIALS BASED ON CERTIFICATION, TRAINING OR EXPERIENCE AS REQUIRED, AND MUST MEET SPECIFICATION STANDARDS.	
3. SPECIAL INSPECTOR DUTIES	
A. SPECIAL INSPECTOR SHALL REVIEW ALL WORK REQUIRED ON THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS.	
B. SPECIAL INSPECTOR SHALL FURNISH SPECIAL INSPECTION REPORTS TO THE ENGINEER OF RECORD, ARCHITECT, CONTRACTOR, OWNER, AND BUILDING OFFICIAL ON A WEEKLY BASIS OR MORE FREQUENTLY. ALL ITEMS NOT IN COMPLIANCE SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF UNCORRECTED, THEY SHALL BE REPORTED TO THE EOR.	
C. SPECIAL INSPECTOR SHALL KEEP A LOG OF ALL NON-COMPLIANCE ITEMS, INCLUDING THOSE NOTED ON STRUCTURAL OBSERVATION REPORTS.	
D. SPECIAL INSPECTOR SHALL REINSPECT ALL NON-COMPLIANCE ITEMS UPON REPAIR BY THE CONTRACTOR TO MEET THE CONSTRUCTION DOCUMENTS OR REPAIR BASED ON ENGINEER OF RECORD DIRECTIVES.	
E. SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT.	
F. SPECIAL INSPECTOR SHALL FURNISH A FINAL LETTER TO THE EOR AT THE COMPLETION OF THE PROJECT STATING THAT ALL INSPECTIONS HAVE BEEN COMPLETED AND ALL DISCREPANCIES HAVE BEEN RESOLVED.	
4. CONTRACTOR DUTIES	
A. CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK. THE STATEMENT SHALL CONTAIN ACKNOWLEDGEMENT OF THE SPECIAL INSPECTION REQUIREMENTS ON THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS.	
B. CONTRACTOR SHALL NOTIFY THE RESPONSIBLE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION A MINIMUM OF 24 HOURS BEFORE SUCH INSPECTION IS REQUIRED.	
C. ALL WORK, INCLUDING REPAIRS, SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT HAS BEEN OBSERVED BY THE SPECIAL INSPECTOR.	
D. CONTRACTOR SHALL PROVIDE CURRENT DRAWINGS AND SPECIFICATIONS TO THE SPECIAL INSPECTOR. THIS INCLUDES ALL STRUCTURAL OBSERVATIONS, REPORTS, AND REPAIR DOCUMENTATION.	
E. ALL REPAIRS SHALL BE INSPECTED AT THE COST OF THE CONTRACTOR. NON-COMPLIANCE ITEMS SHALL BE RESOLVED IN A TIMELY MANNER.	

REQUIRED THIRD PARTY VERIFICATION AND INSPECTION FOR STEEL CONSTRUCTION - 2015 IBC			
	CONTINUOUS	PERIODIC	REFERENCED T.A. STANDARD
INSPECTION TASKS PRIOR TO WELDING			
Welder qualification records and continuity records	-	X	05/14/2020
WPS available	X	-	
Manufacturer certifications for welding consumables available	X	-	
Material identification (type/grade)	-	X	
Welder identification system ^[1]	-	X	
Fit-up of groove welds (including joint geometry)	-	X	AISC 360 TABLE N5.4-1
Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)	-	X	AISC 360 TABLE N5.4-1
Configuration and finish of access holes	-	X	
Fit-up of fillet welds	-	X	AISC 360 TABLE N5.4-1
INSPECTION TASKS DURING WELDING			
Control and handling of welding consumables	-	X	AISC 360 TABLE N5.4-2
No welding over cracked tack welds	-	X	
Environmental conditions	-	X	AISC 360 TABLE N5.4-2
WPS followed	-	X	AISC 360 TABLE N5.4-2
Welding techniques	-	X	AISC 360 TABLE N5.4-2
Placement and installation of steel headed stud anchors	X	-	
INSPECTION TASKS AFTER WELDING			
Welds cleaned	-	X	
Size, length and location of welds	X	-	
Welds meet visual acceptance criteria	X	-	AISC 360 TABLE N5.4-3
Arc strikes	X	-	
k-area ^[2]	X	-	
Weld access holes in rolled heavy shapes and built-up heavy shapes ^[2]	X	-	
Backing removed and weld tabs removed (if required)	X	-	
Repair activities	X	-	
Document acceptance or rejection of welded joint or member	X	-	
No prohibited welds have been added without the approval of the EOR	-	X	
INSPECTION TASKS PRIOR TO BOLTING			
Manufacturer's certifications available for fastener materials	X	-	
Fasteners marked in accordance with ASTM requirements	-	X	
Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	-	X	
Correct bolting procedure selected for joint detail	-	X	
Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	-	X	
Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used	-	X	
Protected storage provided for bolts, nuts, washers and other fastener components	-	X	
INSPECTION TASKS DURING BOLTING			
Fastener assemblies placed in all holes and washers and nuts are positioned as required	-	X	
Joint brought to the snug-tight condition prior to the pretensioning operation	-	X	
Fastener component not turned by the wrench prevented from rotating	-	X	
Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid joint toward the free edges	-	X	
INSPECTION TASKS AFTER BOLTING			
Document acceptance or rejection of bolted connections	X	-	
INSPECTION OF STEEL FRAME, DECK AND JOINT DETAILS FOR COMPLIANCE			
Placement and installation of steel deck	-	X	
Details such as bracing and stiffening	-	X	
Member locations	-	X	
Application of joint details at each connection	-	X	

NOTES:
1. THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.
2. WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3" OF THE WELD.
3. AFTER ROLLED HEAVY SHAPES (PER AISC 360 SECTION A3.1c) AND BUILT-UP HEAVY SHAPES (PER AISC 360 SECTION A3.1d) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLES FOR CRACKS.



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Revisions:		
No	Description	Date

Issue Dates:
DD's - 02/21/20
95% - 03/30/20
CD's - 04/06/20

Sheet Title:
Inspection Schedules 2015 IBC

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S1.5

LOADING DIAGRAM KEY

PATTERN	AREA	TOTAL DEAD LOAD	LIVE LOAD	NOTES
	ROOF	25 psf	72 psf SNOW + DRIFT (non-reducible)	<div>RCR85 Record Set T.A.</div> <div>05/14/2020</div>

NOTES:
1. ROOF JOIST DEAD LOAD INCLUDES THE WEIGHT OF THE JOISTS.
2. SNOW DRIFT DIAGRAM INCLUDES THE 72 psf BASE SNOW LOAD.
3. DESIGN ROOF JOISTS FOR 10 psf NET UPLIFT.
4. ROOF JOIST BRIDGING SHALL BE PROVIDED IN ACCORDANCE WITH SJI SPECIFICATIONS.

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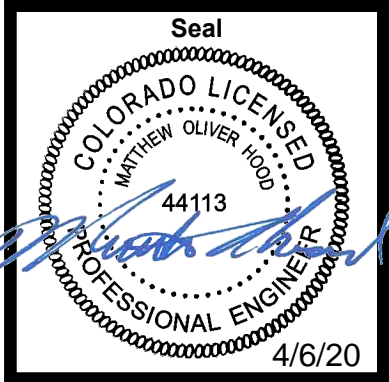
0056 Edwards Village Blvd.
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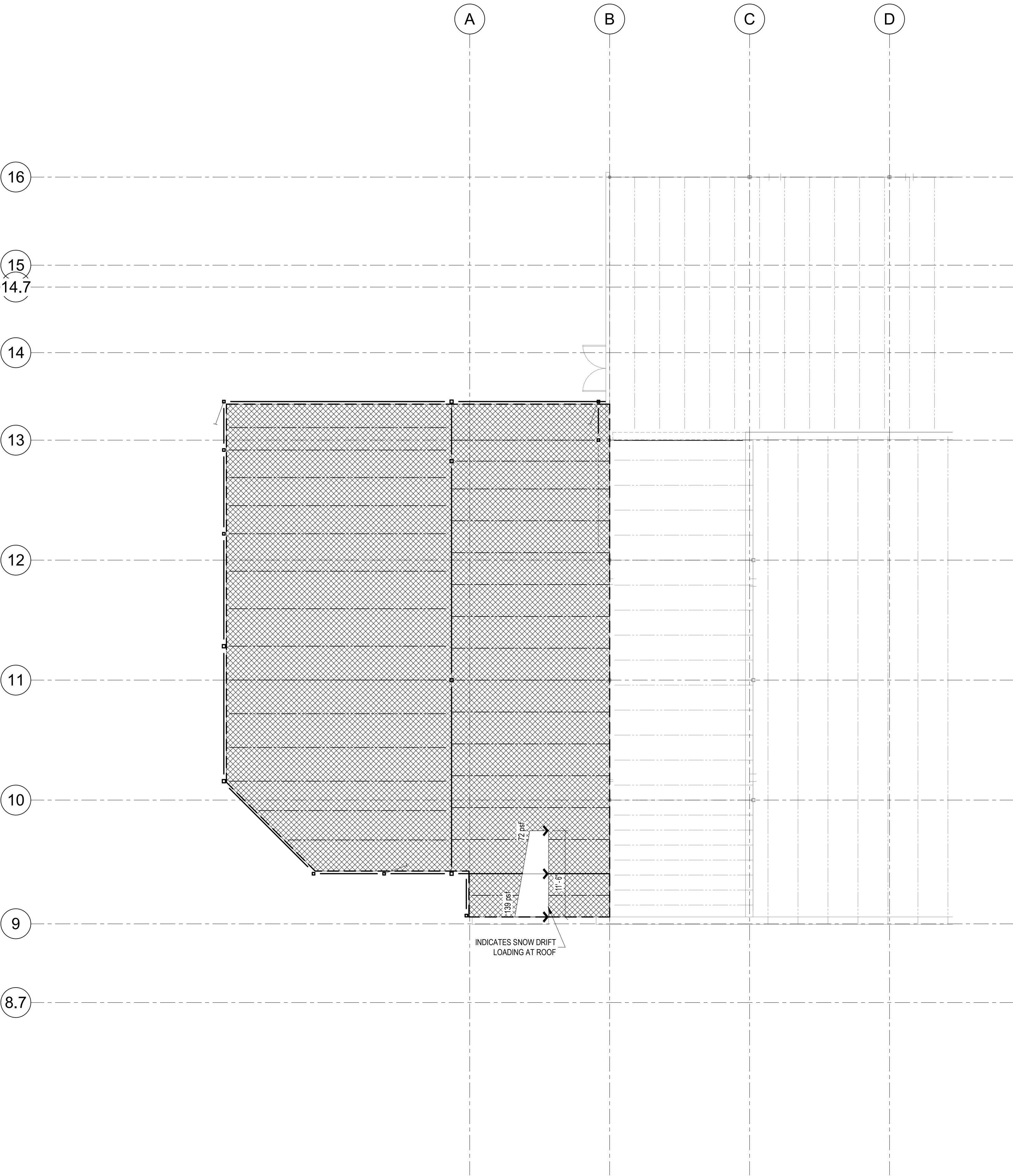
Revisions:		
No	Description	Date

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Sheet Title:
Loading Plan

Project No:
TAB-1935.01
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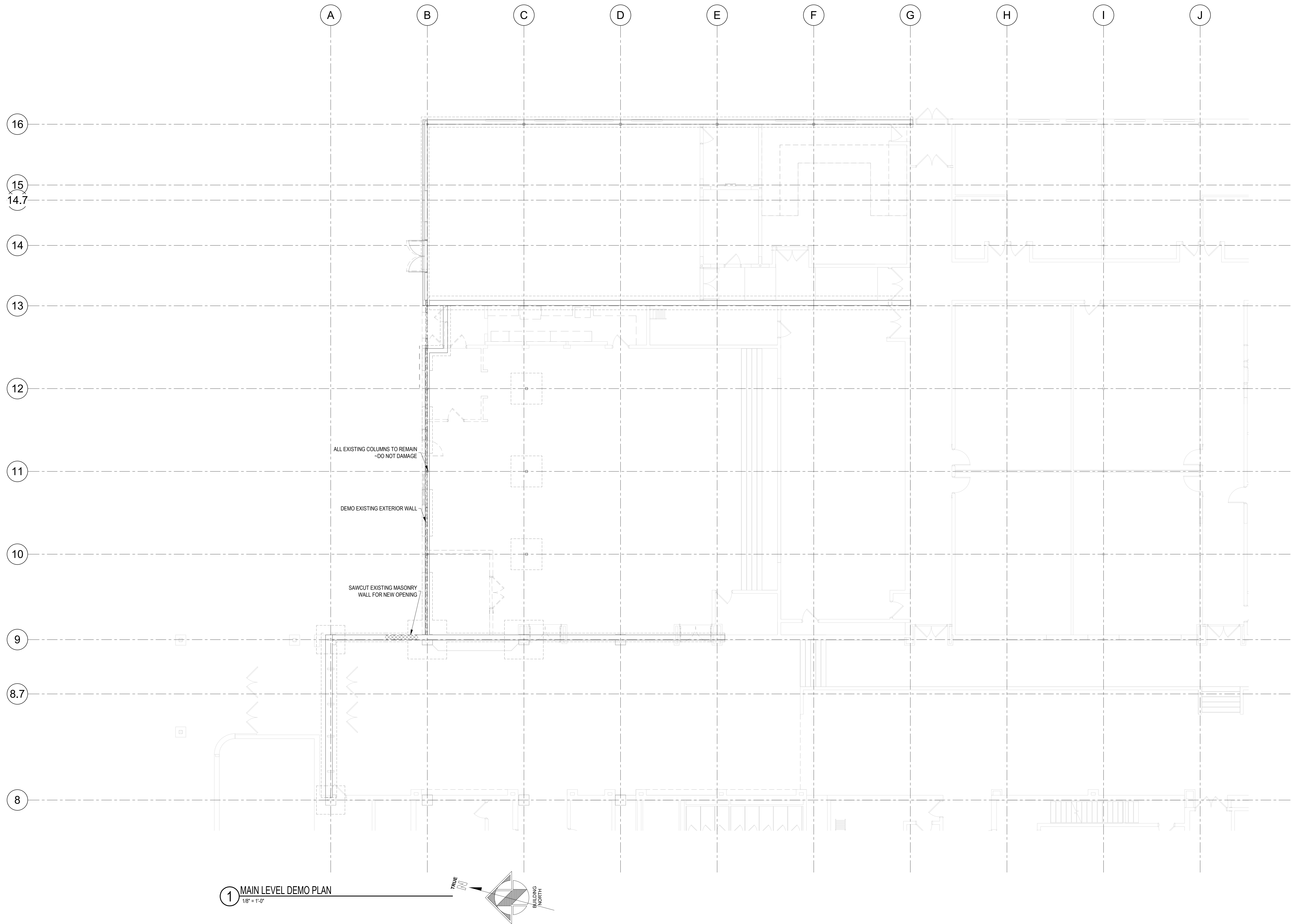
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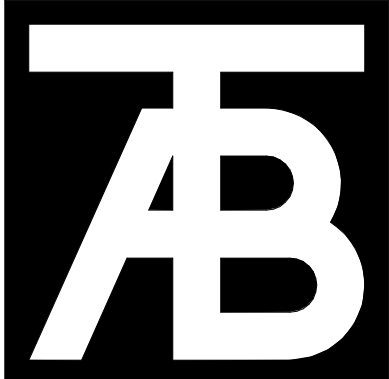
1 ROOF LOADING PLAN
1/8" = 1'-0"

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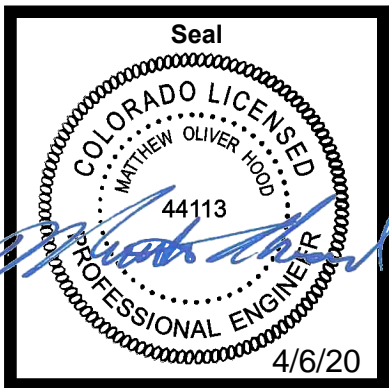
4/23/2020 11:42:22 AM



RCRBD Record Set
T.A.
05/14/2020



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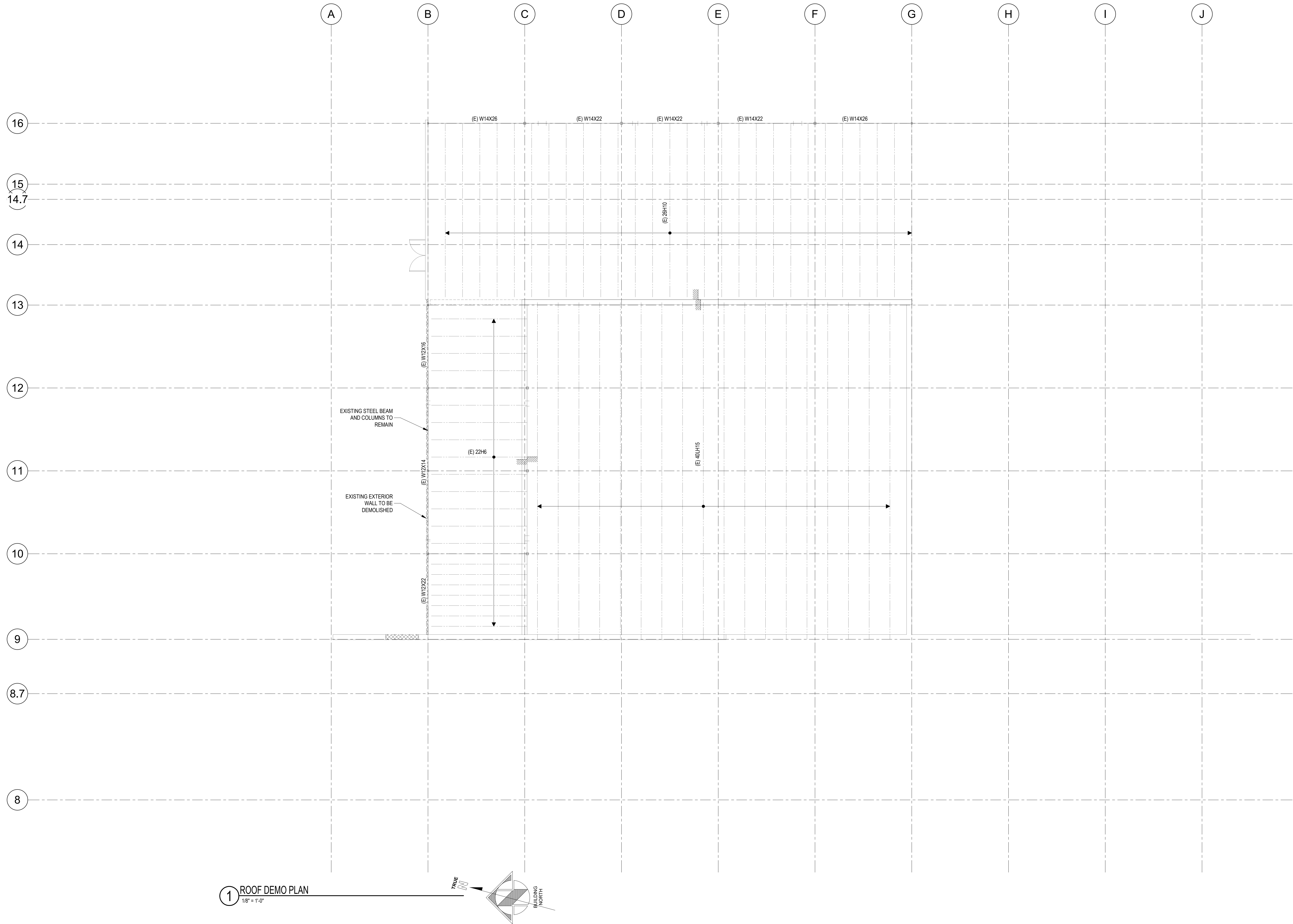
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**Main Level
Demo Plan**

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S2.01

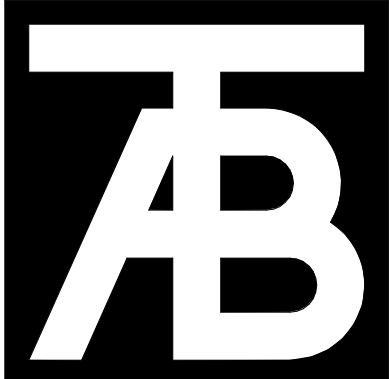
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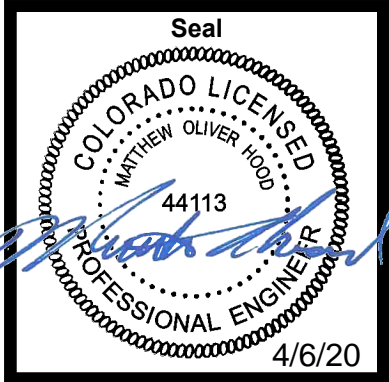


1 ROOF DEMO PLAN
1" = 1'-0"

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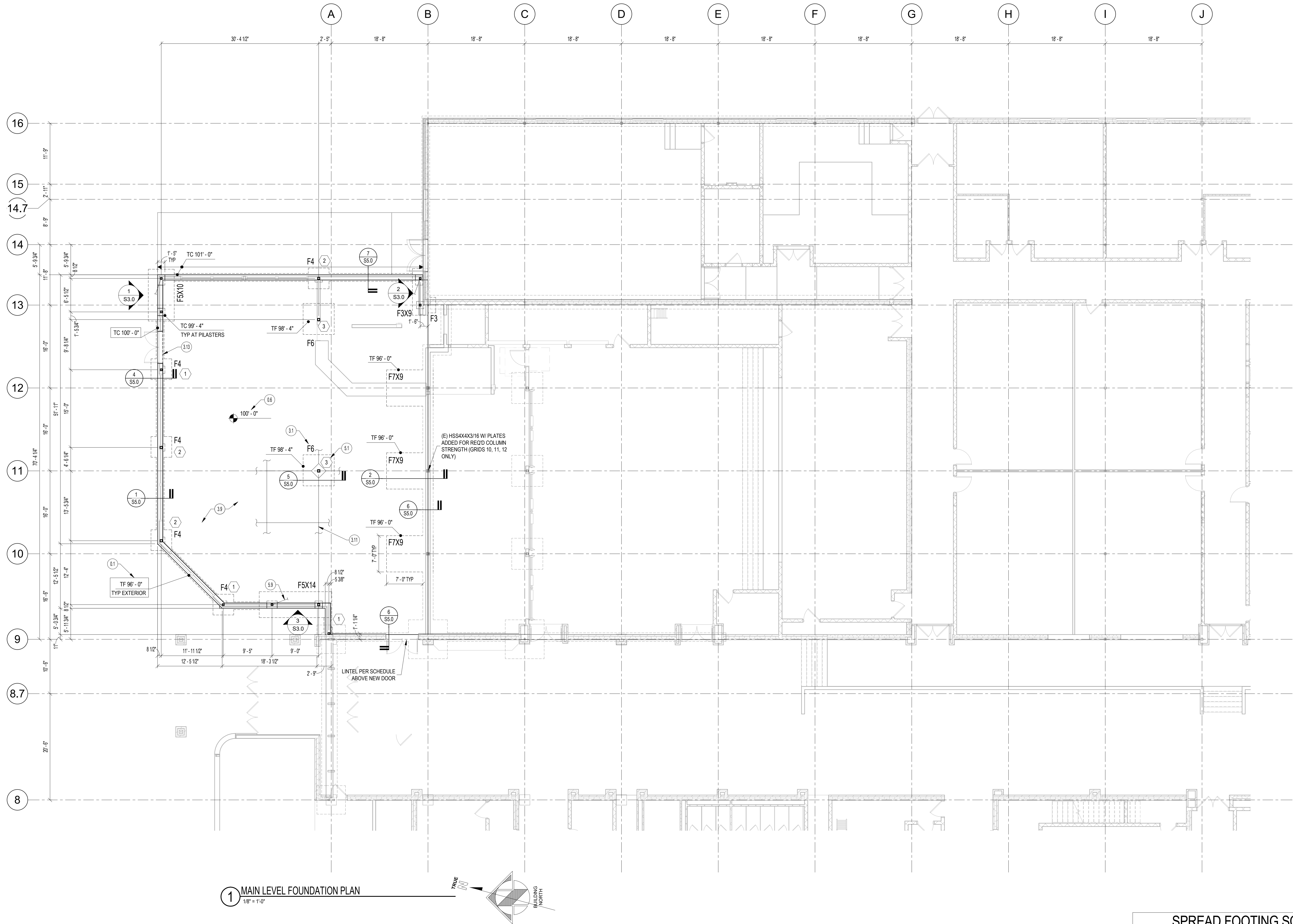
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Project No:
TAB-1935.01
JH-20191103

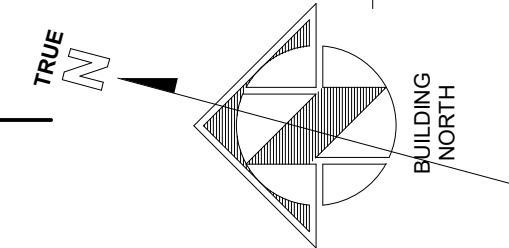
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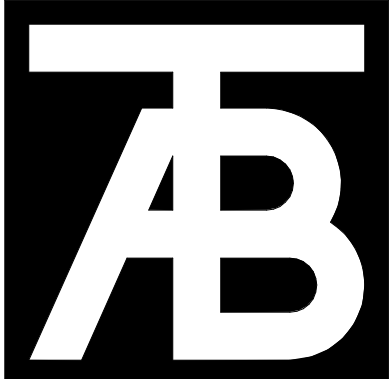
1 MAIN LEVEL FOUNDATION PLAN
1/8" = 1'-0"



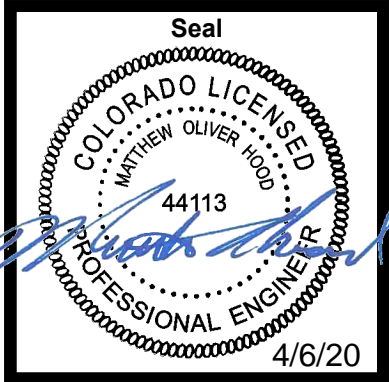
KEYNOTES

- 0.1 BOXED NOTES INDICATE A TYPICAL CONDITION UNLESS NOTED OTHERWISE.
- 0.6 TOP OF SLAB UNLESS NOTED OTHERWISE.
- 3.1 INDICATES CONCRETE PAD FOOTING. SEE SCHEDULE FOR FOOTING TYPE AND REINFORCING.
- 3.9 4" CONCRETE SLAB ON-GRADE REINF W/ 6x6-W2.1W2.1 WWR AT MID HEIGHT.
- 3.11 CONTROL JOINTS AT ALL COLUMN HEADS. DO NOT EXCEED 10'-0" TO EXCEED 10'-0" OF EACH WAY.
- 3.13 PLACE SLAB OVER LOWEST BEAM AT THRESHOLD. SEE DETAIL C.
- 5.1 INDICATES STEEL COLUMN TYPE. SEE SCHEDULE.
- 5.9 INDICATES BRACE FRAMING.

RCRBD Record Set
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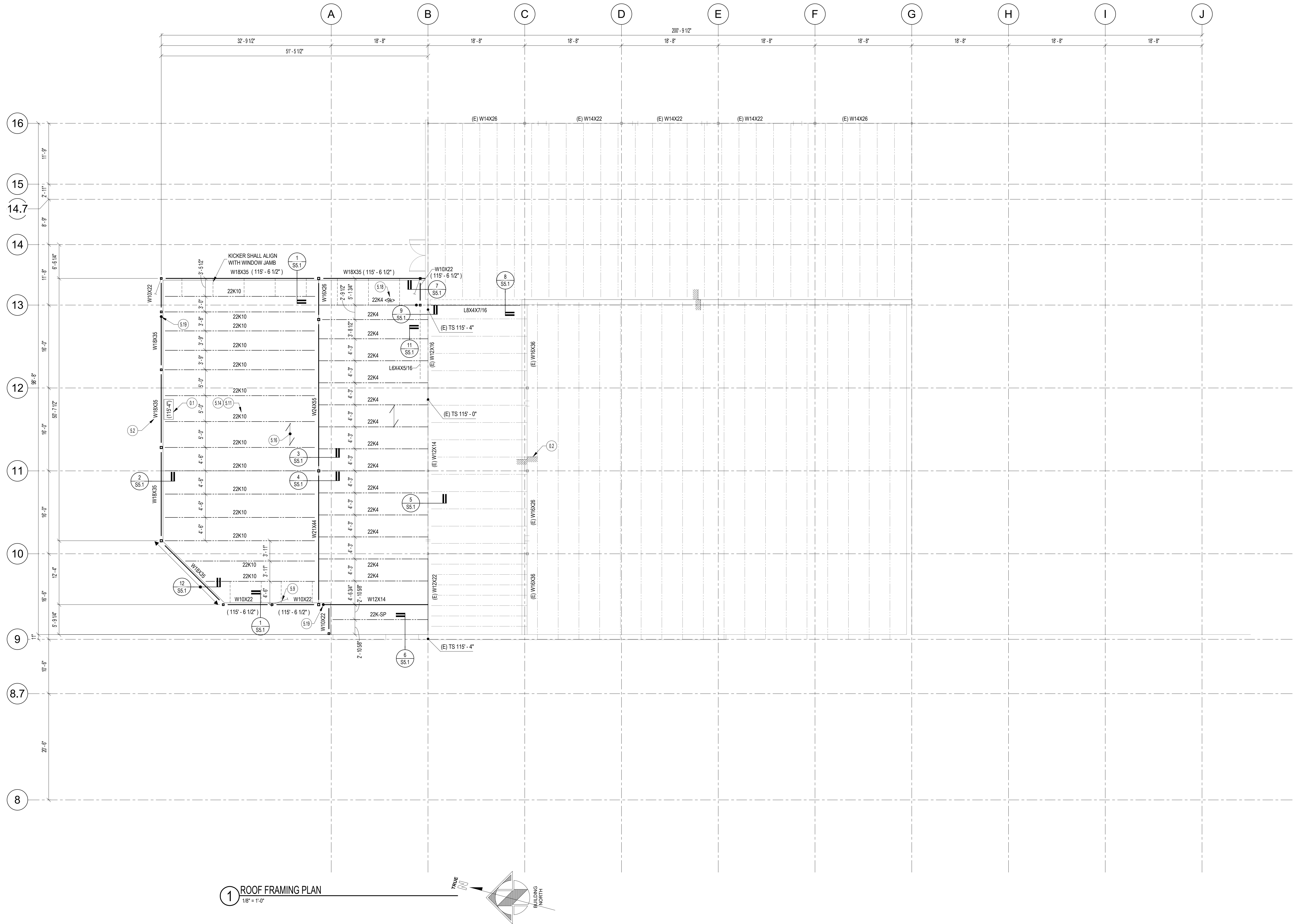
Issue Dates:
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Sheet Title:
Main Level Plan

Project No:
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JH-20191103

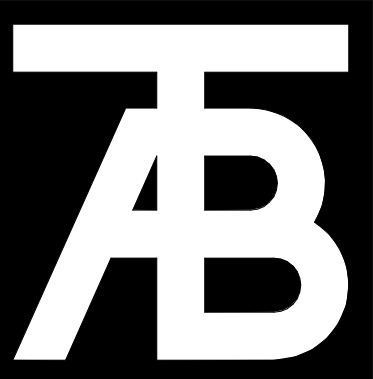
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S2.11

SPREAD FOOTING SCHEDULE				
TYPE	WIDTH	LENGTH	THICKNESS	REINFORCING
F3	3'-0"	3'-0"	1'-0"	#5 @12" OC EW BOT
F3X9	3'-0"	9'-0"	2'-0"	#7 @10" OC EW T&B
F4	4'-0"	4'-0"	1'-0"	#5 @12" OC EW BOT
F5X10	5'-0"	10'-0"	2'-0"	#7 @10" OC EW T&B
F5X14	5'-0"	14'-0"	2'-0"	#7 @10" OC EW T&B
F6	6'-0"	6'-0"	1'-0"	#5 @12" OC EW BOT
FTX9	7'-0"	9'-0"	1'-0"	#5 @10" OC EW T&B



KEYNOTES

- 0.1 BOXED NOTES INDICATE A TYPICAL CONDITION UNLESS NOTED OTHERWISE. **RCRBD Record Set**
- 0.2 INDICATES CHANGE IN ELEVATION. **T.S.A.**
- 5.2 INDICATES STEEL BEAM SIZE AND TOP FLOOR ELEVATION.
- 5.9 INDICATES BRACED FRAMING.
- 5.11 JOIST DESIGN FOR 20psf DEAD LOAD AND 72psf UNIFORM SNOW LOAD PLUS WEIGHT OF MECHANICAL UNITS WHERE APPLICABLE. SPACING AS SHOWN ON PLAN. SEE LOADS AND 100% SNOW LOADS DUE TO DRIFTING. DESIGN ROOF JOIST FOR A NET UPLIFT OF 10psf.
- 5.14 JOIST BRIDGING PER SJI SPECIFICATIONS BY JOIST SUPPLIER.
- 5.16 1 1/2" TYPE "B"x18GA METAL ROOF DECK, 3 SPAN MINIMUM. ATTACH DECK WITH HILTI X-ENP19 FASTENERS IN A 364 PATTERN AND #10 SCREW SIDELAP CONNECTION @ 12" OC TO DEVELOP A DIAPHRAGM SHEAR CAPACITY OF 450 plf.
- 5.18 JOIST SHALL BE DESIGNED FOR <XX> SERVICE LEVEL DRAG WIND LOAD WHERE INDICATED ON PLAN.
- 5.19 INDICATES DRAG CONNECTION. SEE DETAILS.



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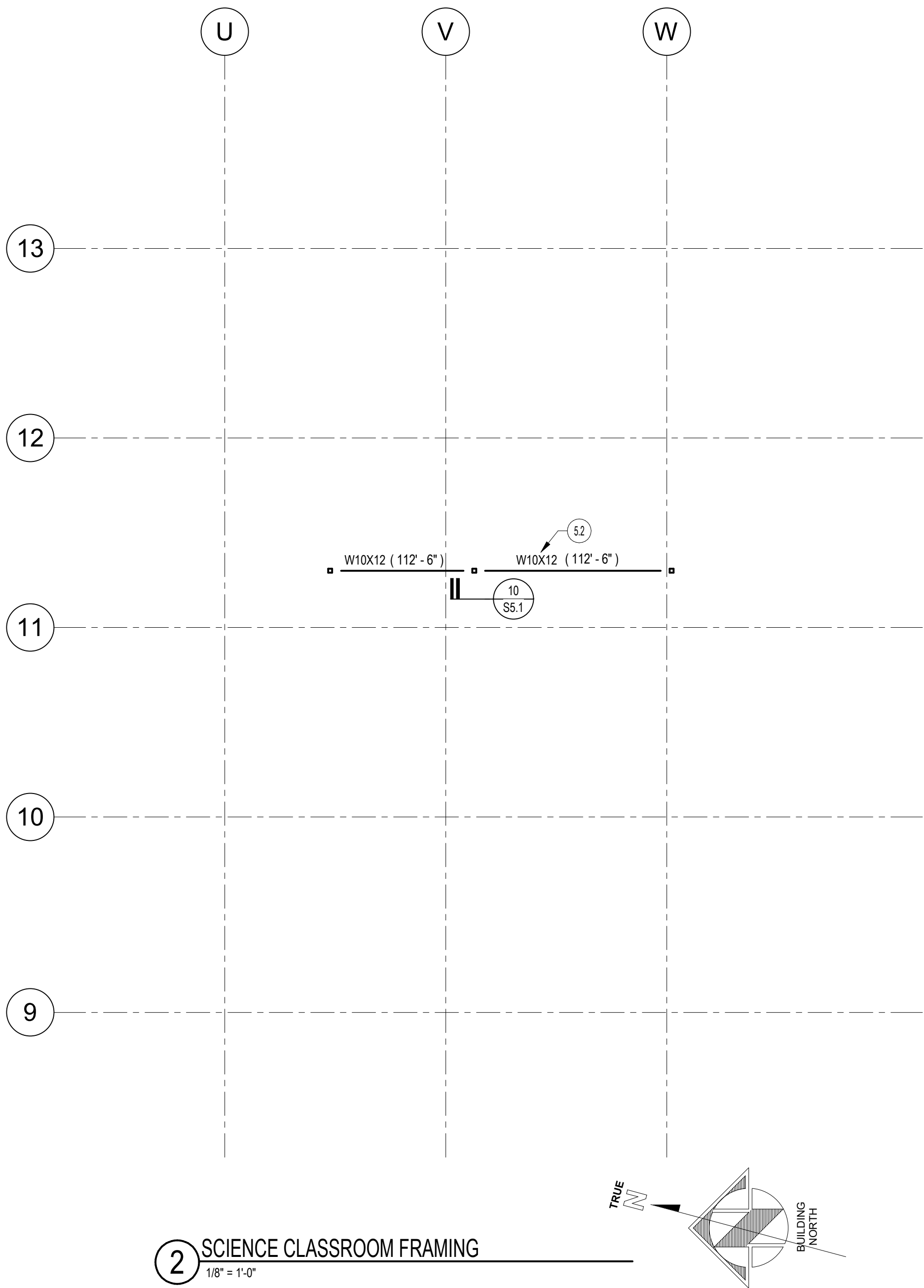
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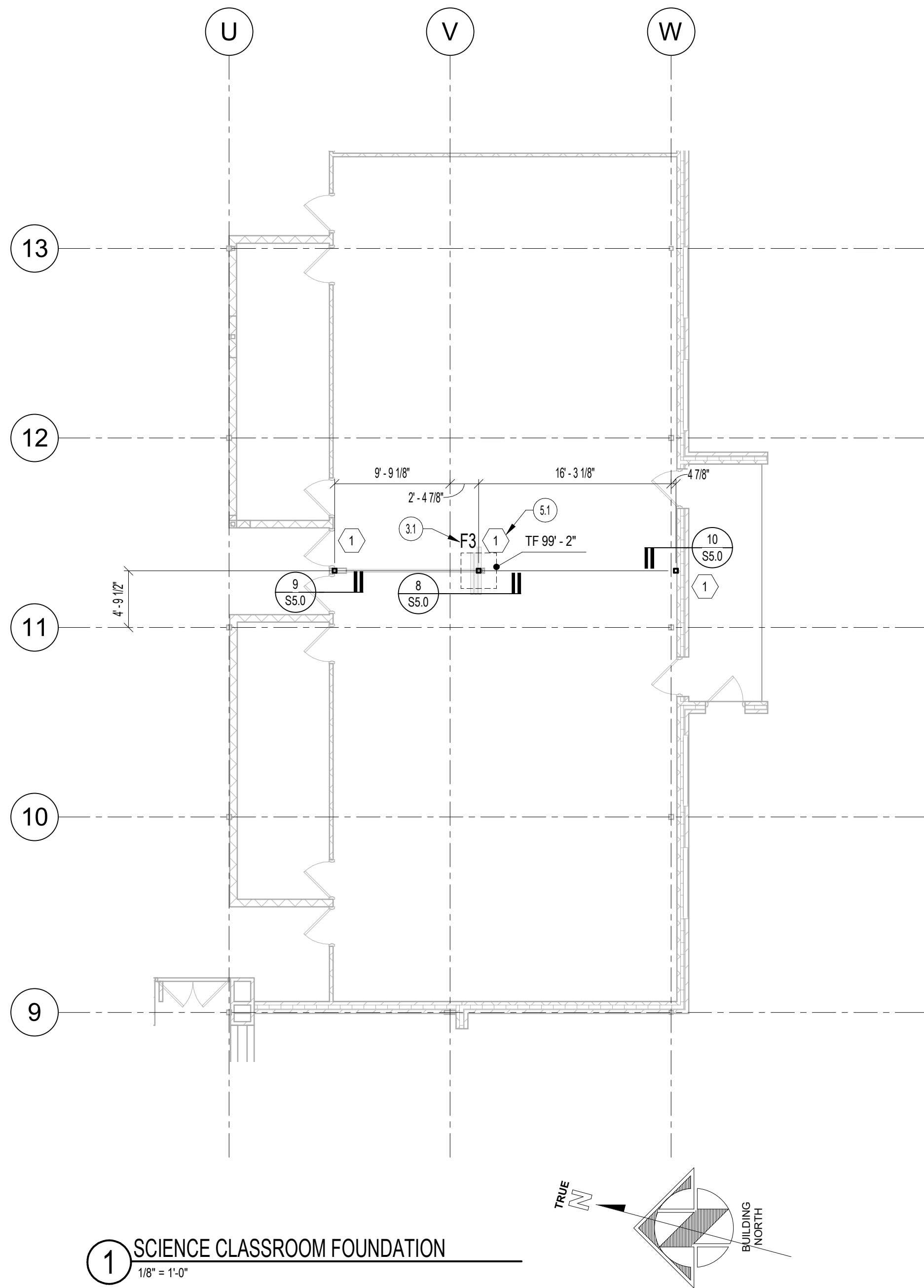
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**Roof
Framing
Plan**

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S2.12



2 SCIENCE CLASSROOM FRAMING
1/8" = 1'-0"

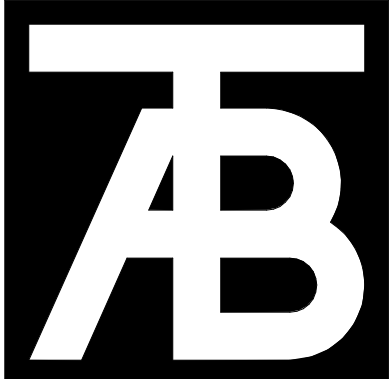


1 SCIENCE CLASSROOM FOUNDATION
1/8" = 1'-0"

KEYNOTES

- 3.1 INDICATES CONCRETE PAD FOOTING. SEE SCHEDULE FOR FOOTING TYPE AND REINFORCING.
- 5.1 INDICATES STEEL COLUMN TYPE. SEE SCHEDULE.
- 5.2 INDICATES STEEL BEAM SIZE AND TOP FLOOR ELEVATION.

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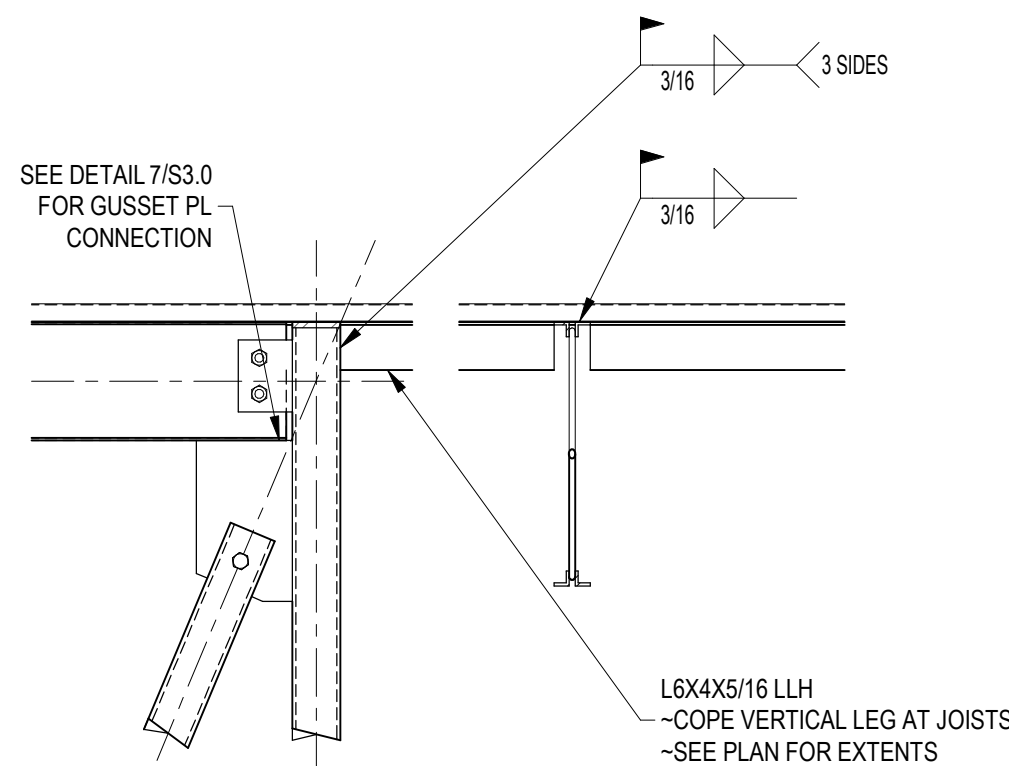
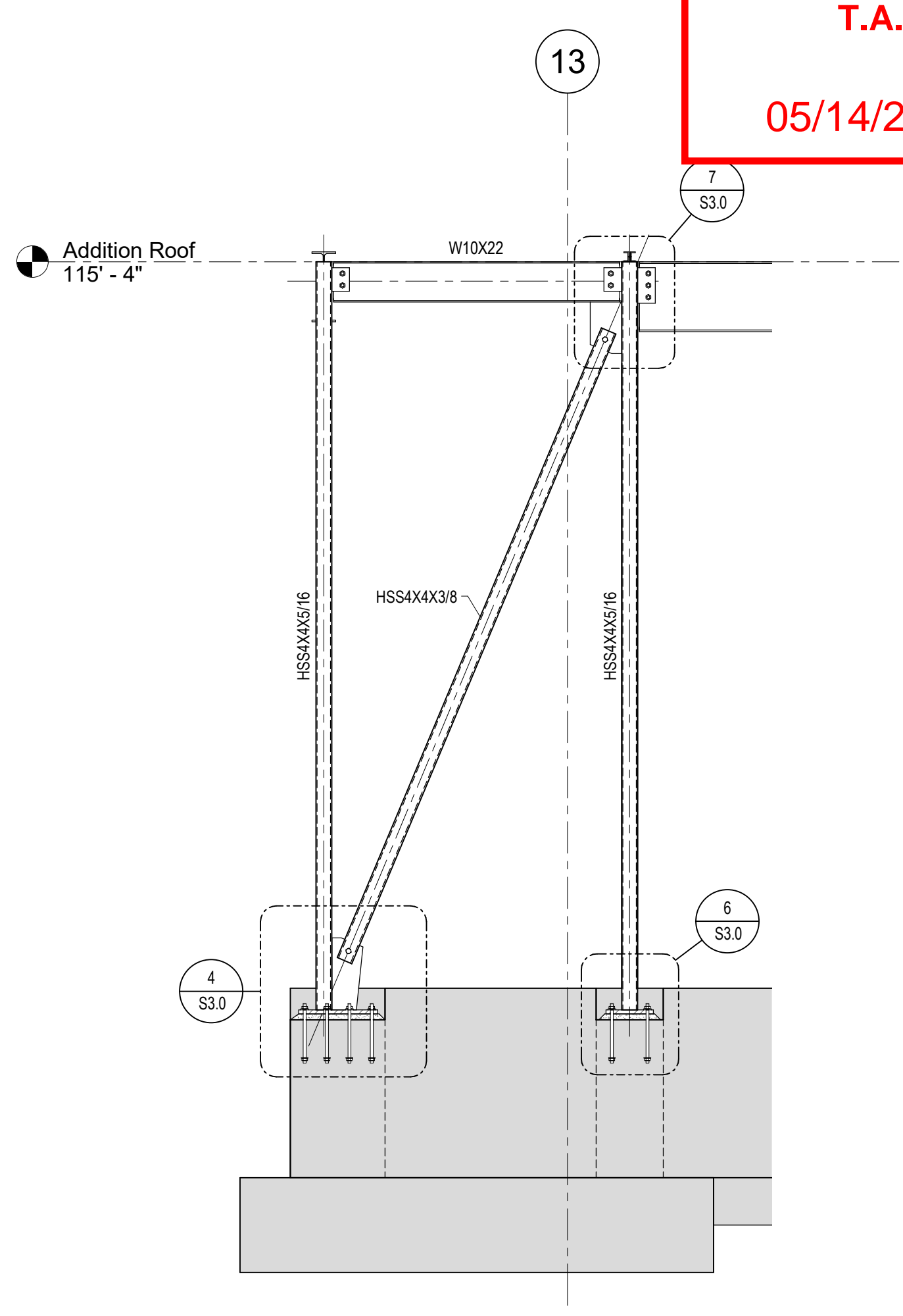
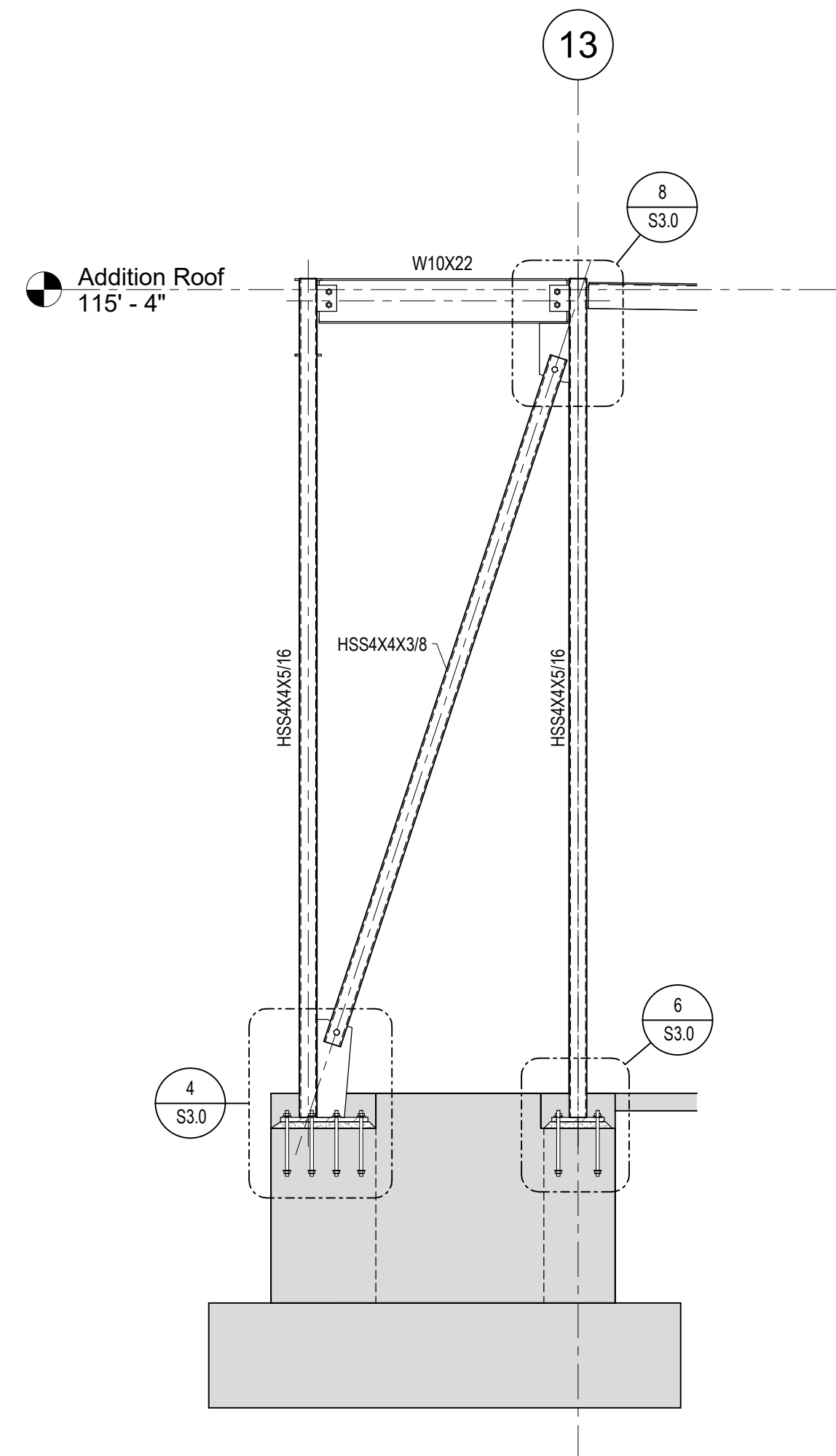
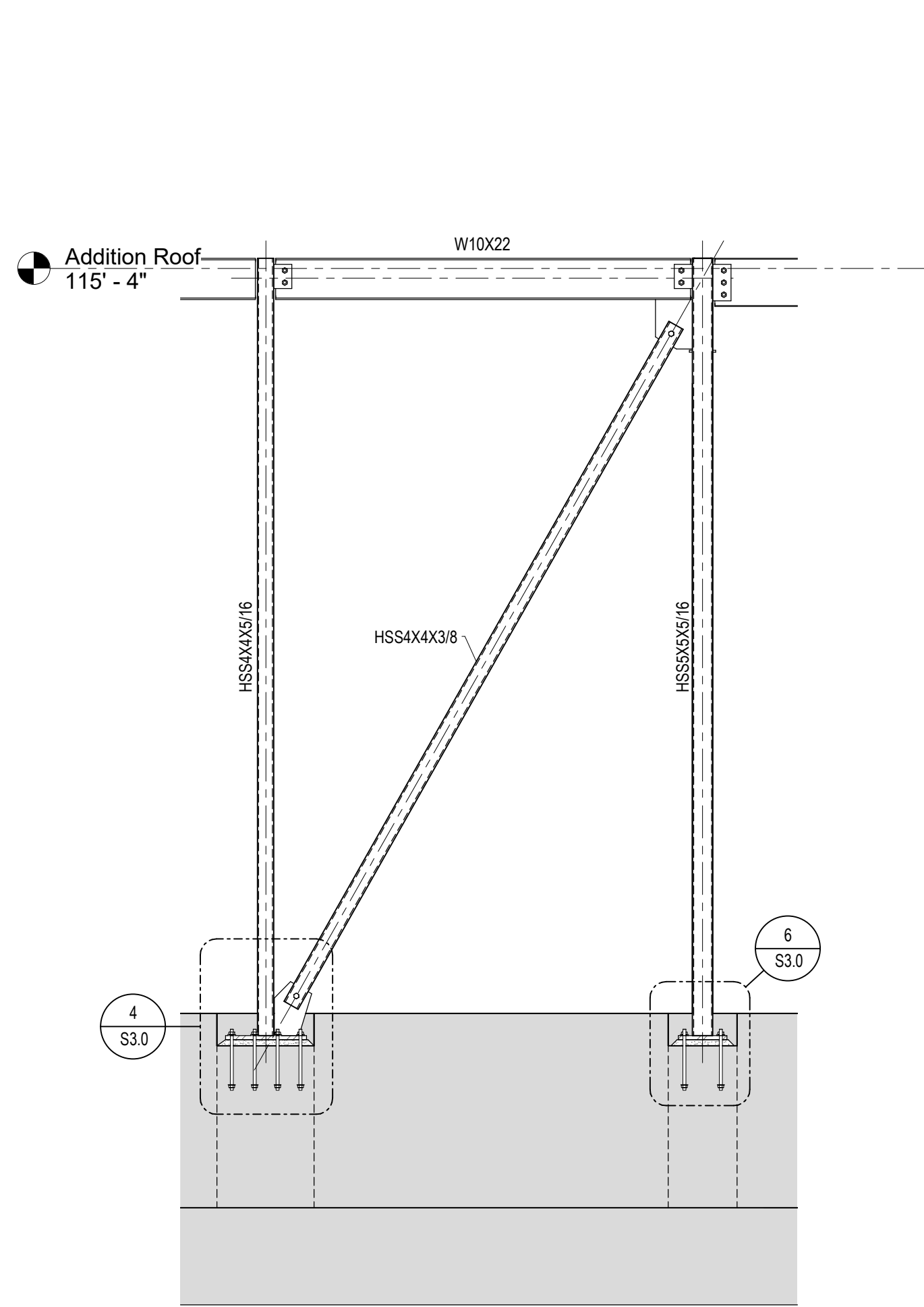
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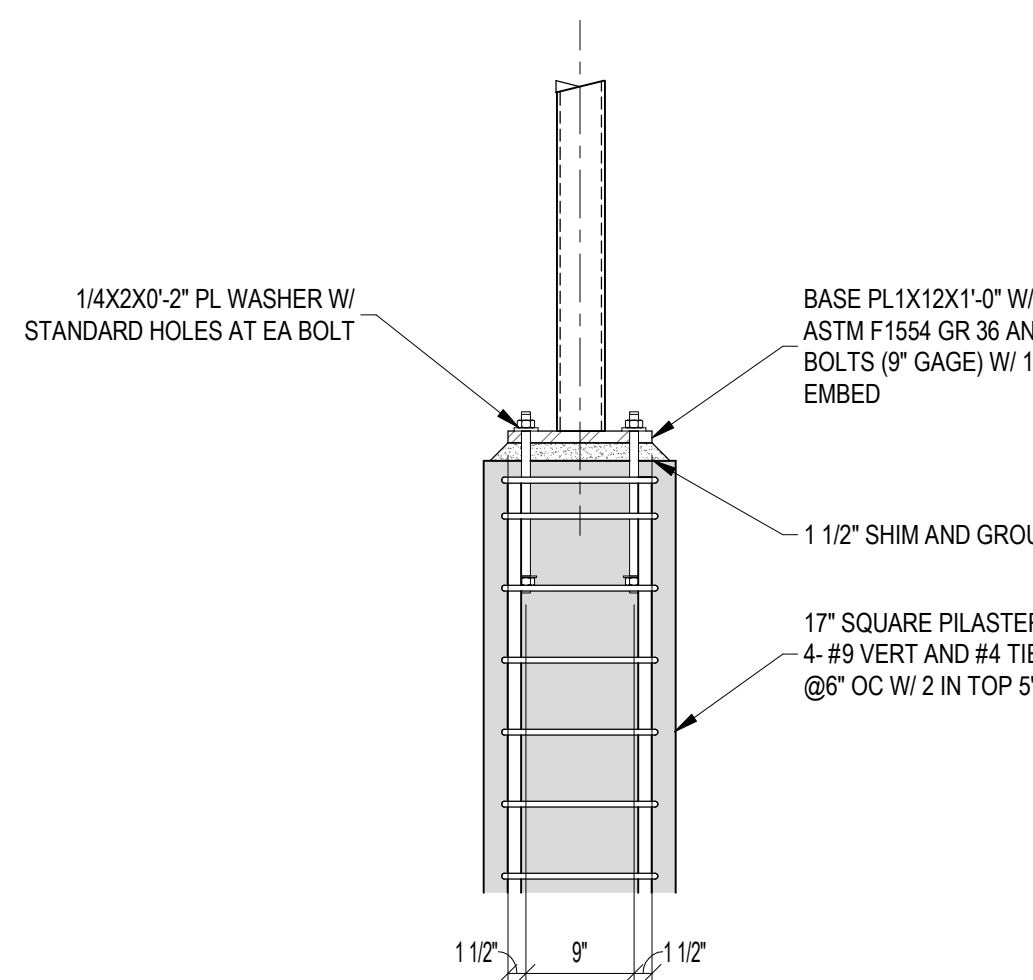
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**Science
Classroom**

Project No:
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JH-20191103

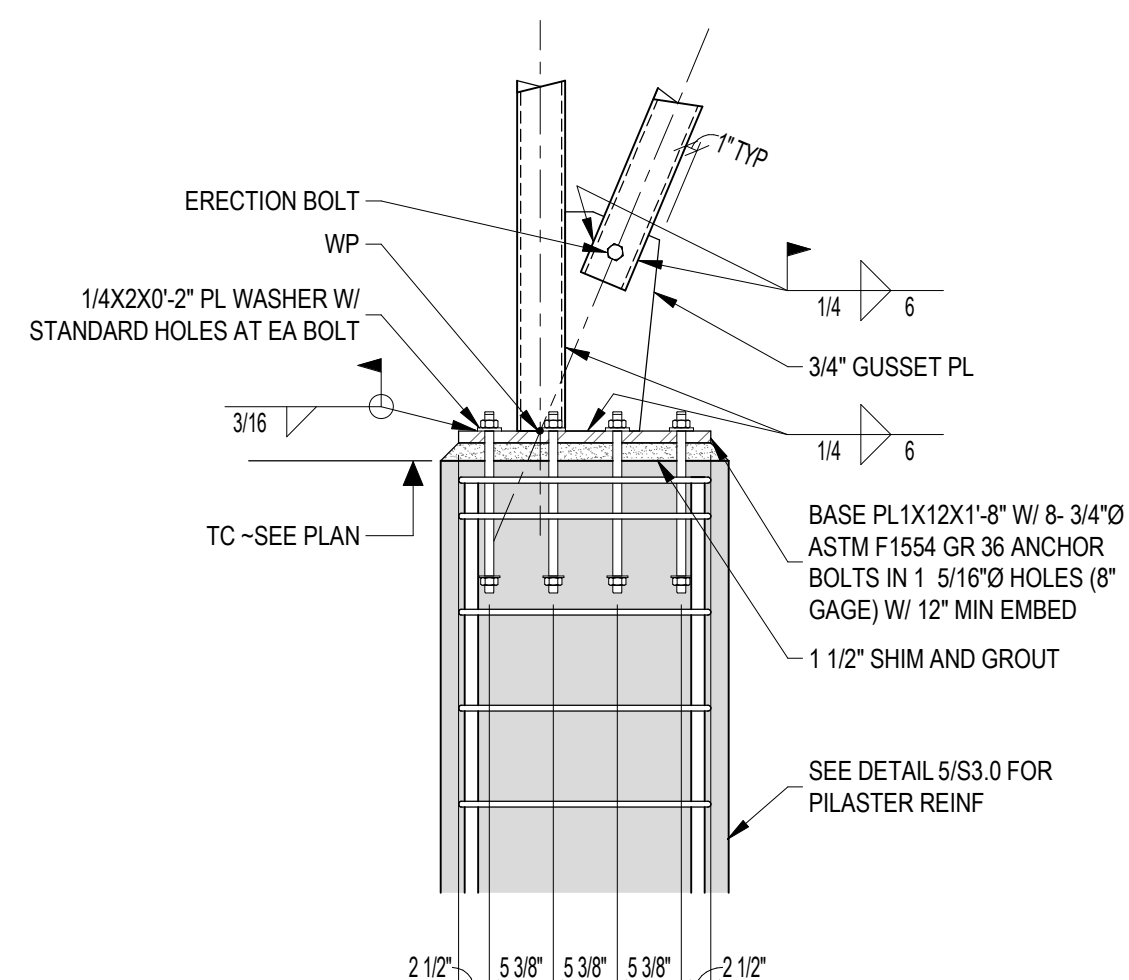
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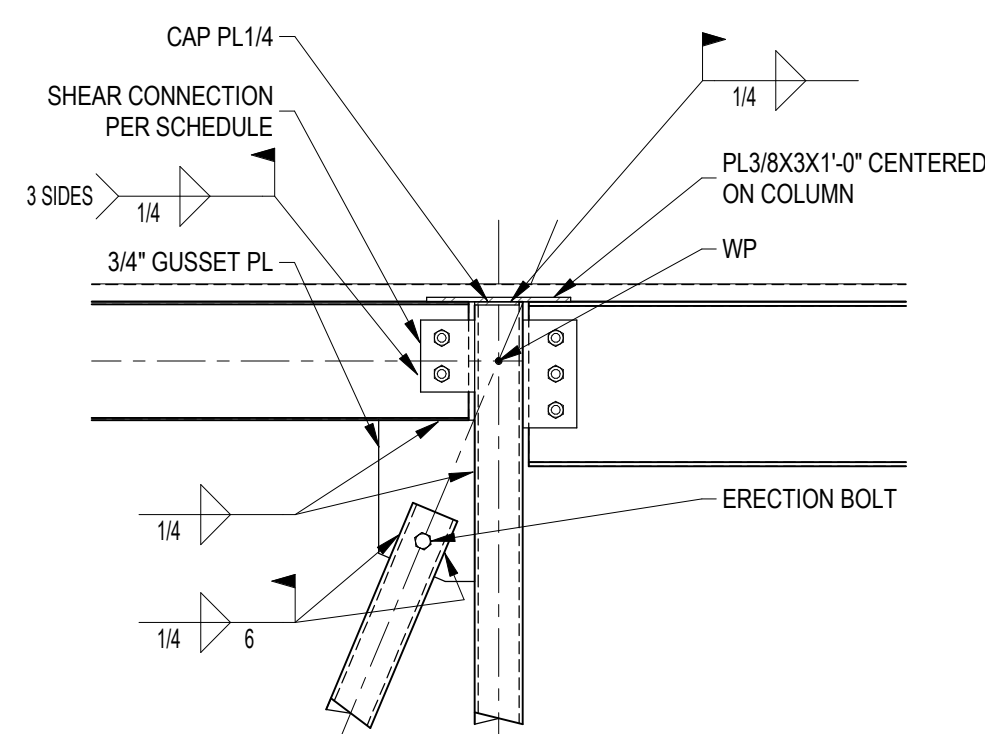
8 DRAG ANGLE AT STEEL COLUMN
3/4" = 1'-0"



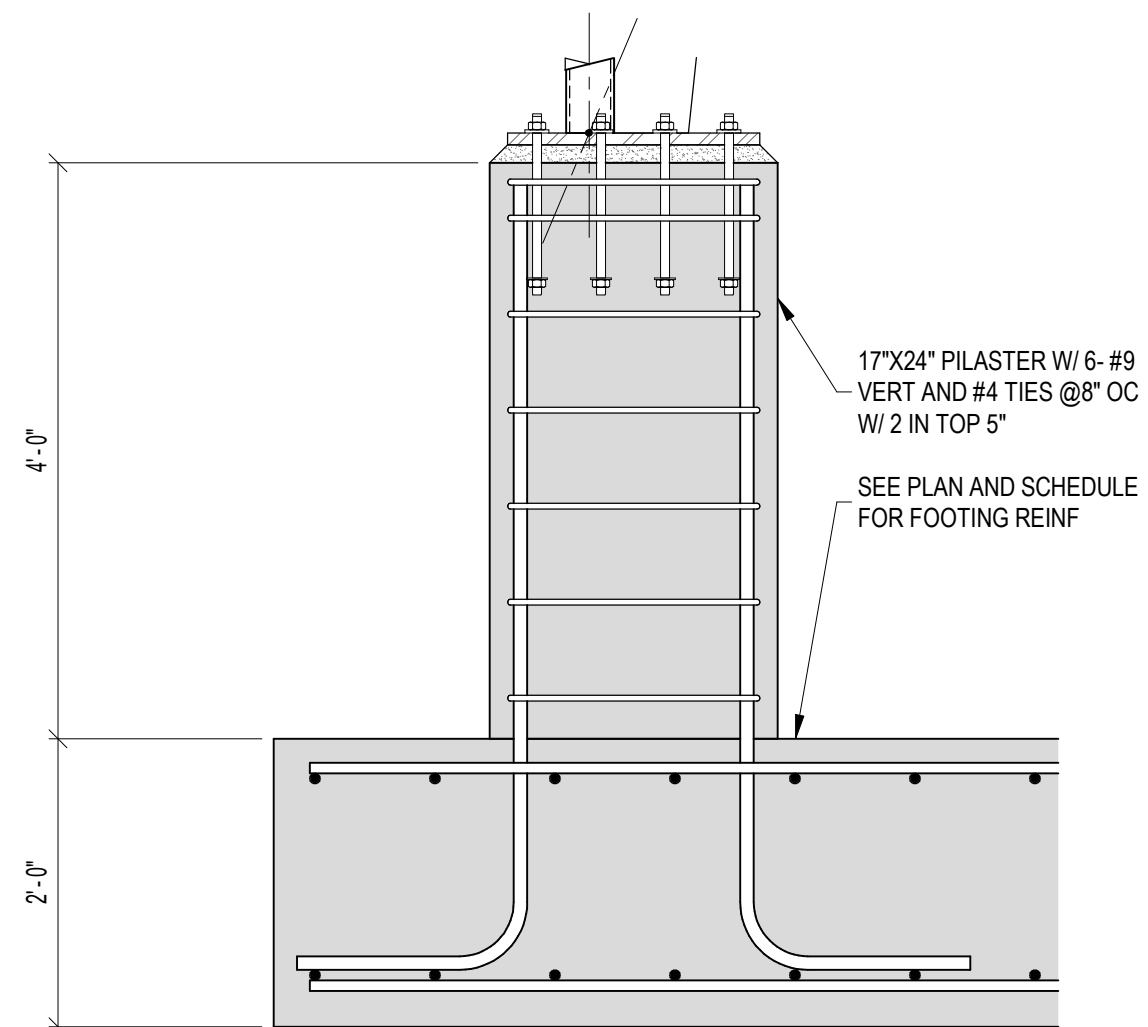
6 BRACED FRAME COLUMN BASE PLATE
3/4" = 1'-0"



4 BRACED FRAME GUSSET BASE PLATE
3/4" = 1'-0"

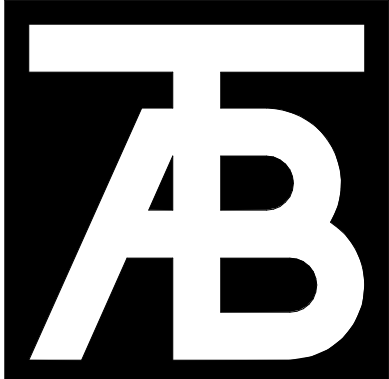


7 BRACED FRAME GUSSET PLATE
3/4" = 1'-0"



5 BRACED FRAME PILASTER AND FOOTING
3/4" = 1'-0"

BOXED NOTES INDICATE A TYPICAL CONDITION EXISTS
RCRBD RECORD SET
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05/14/2020



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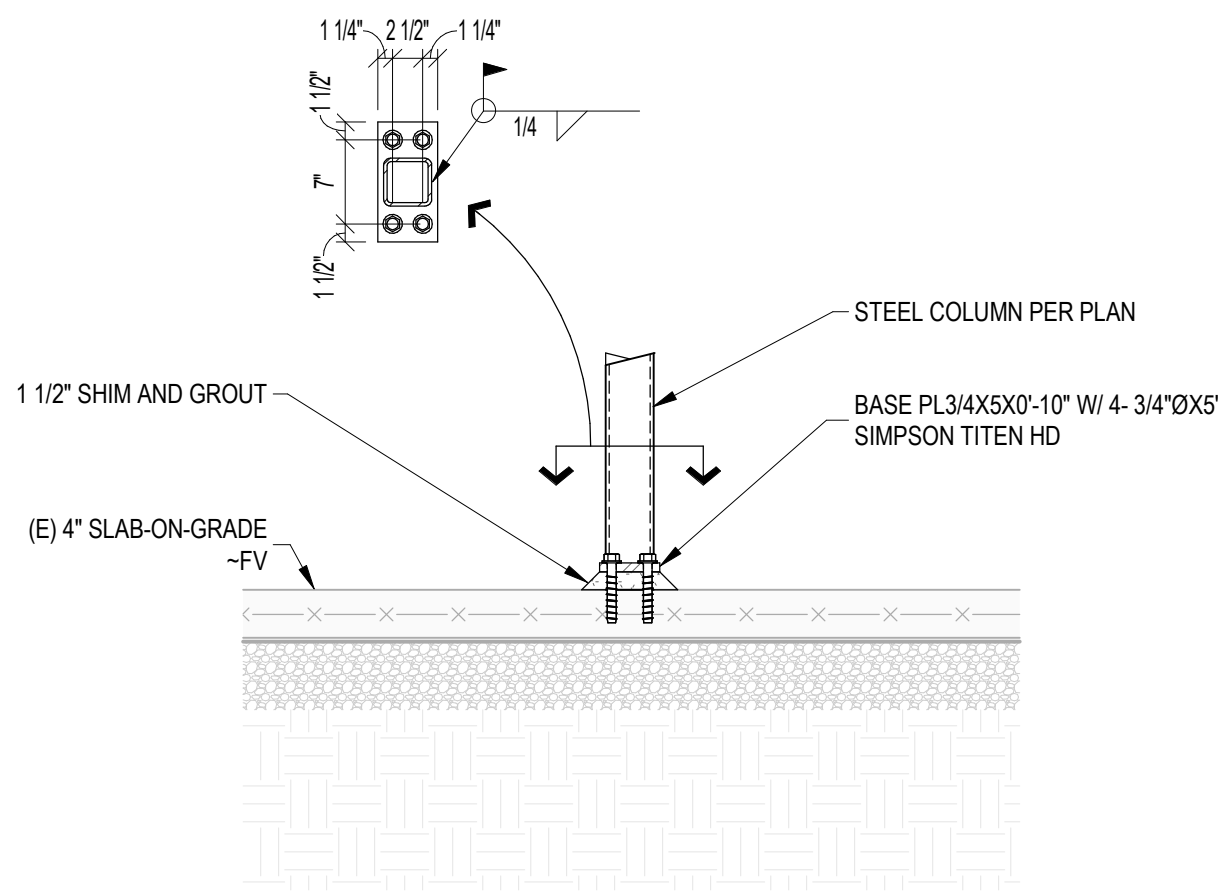
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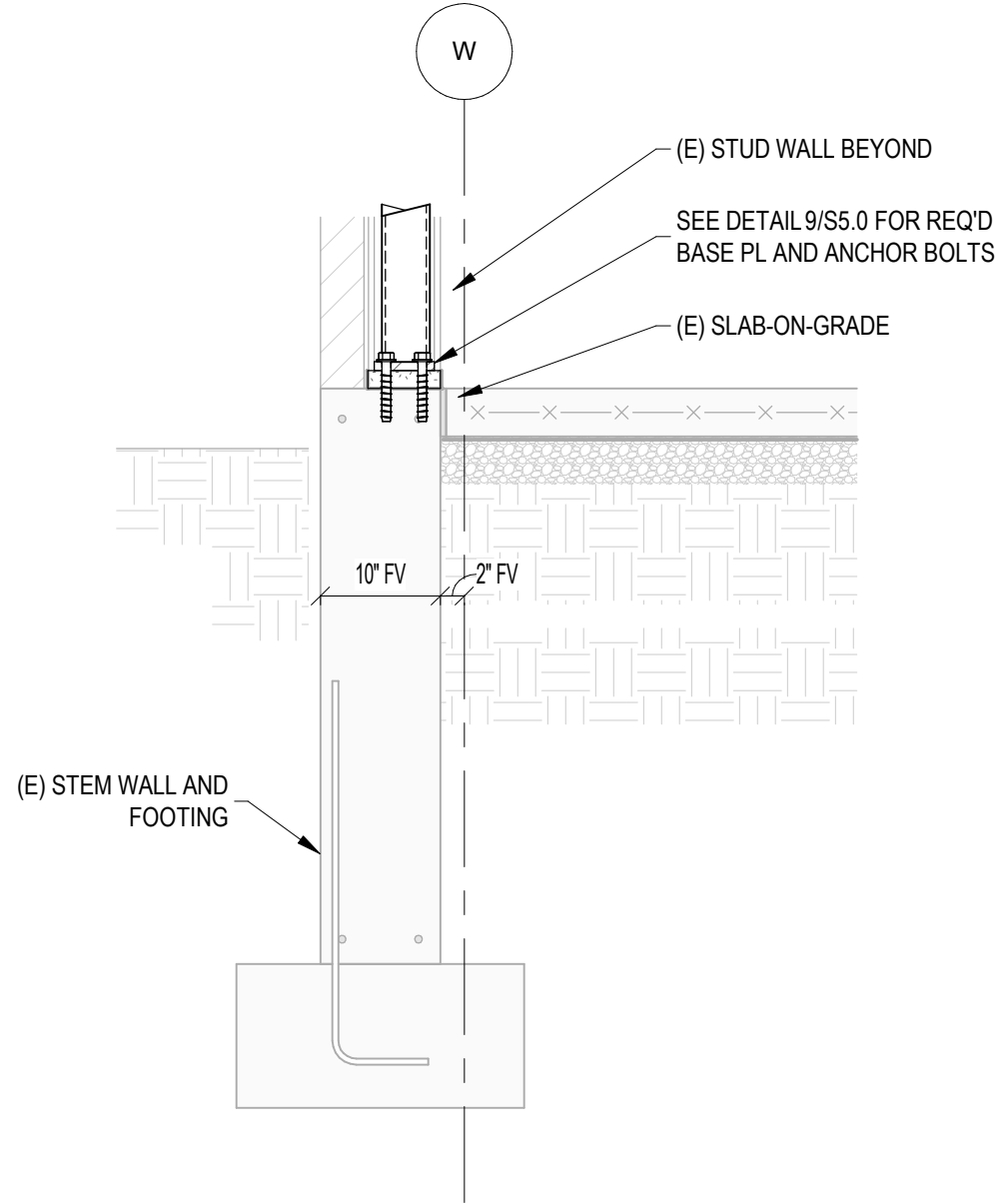
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Project No:
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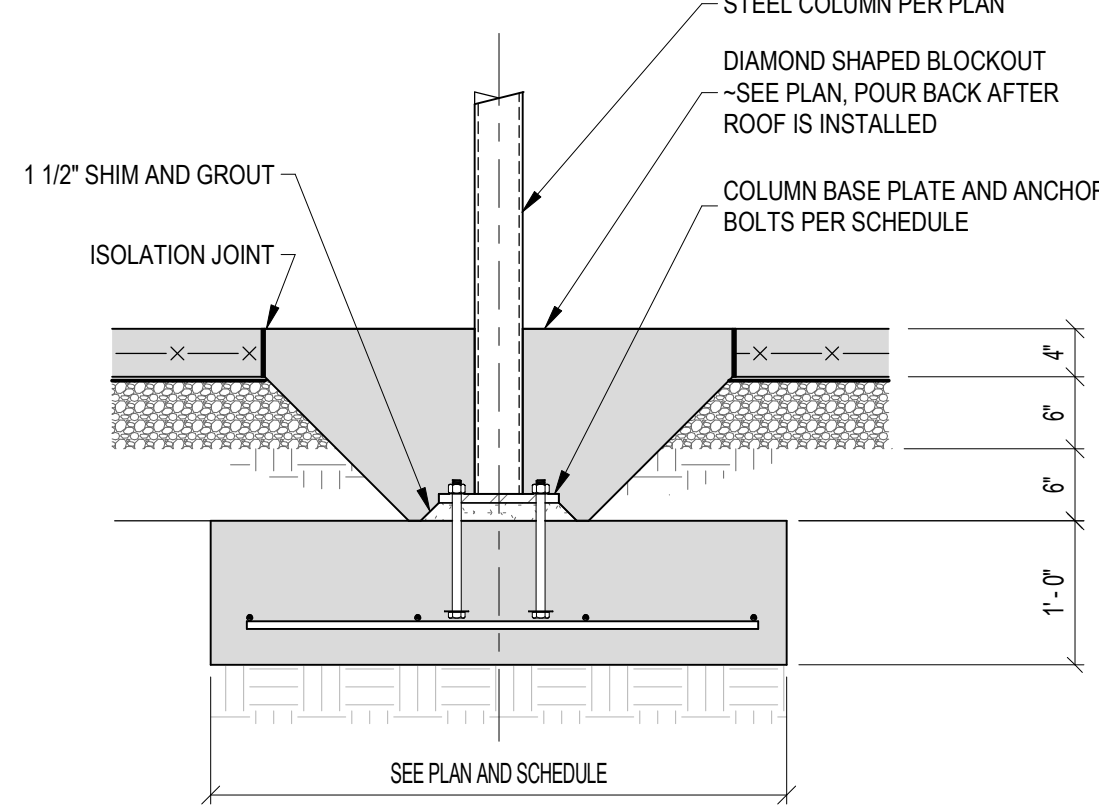
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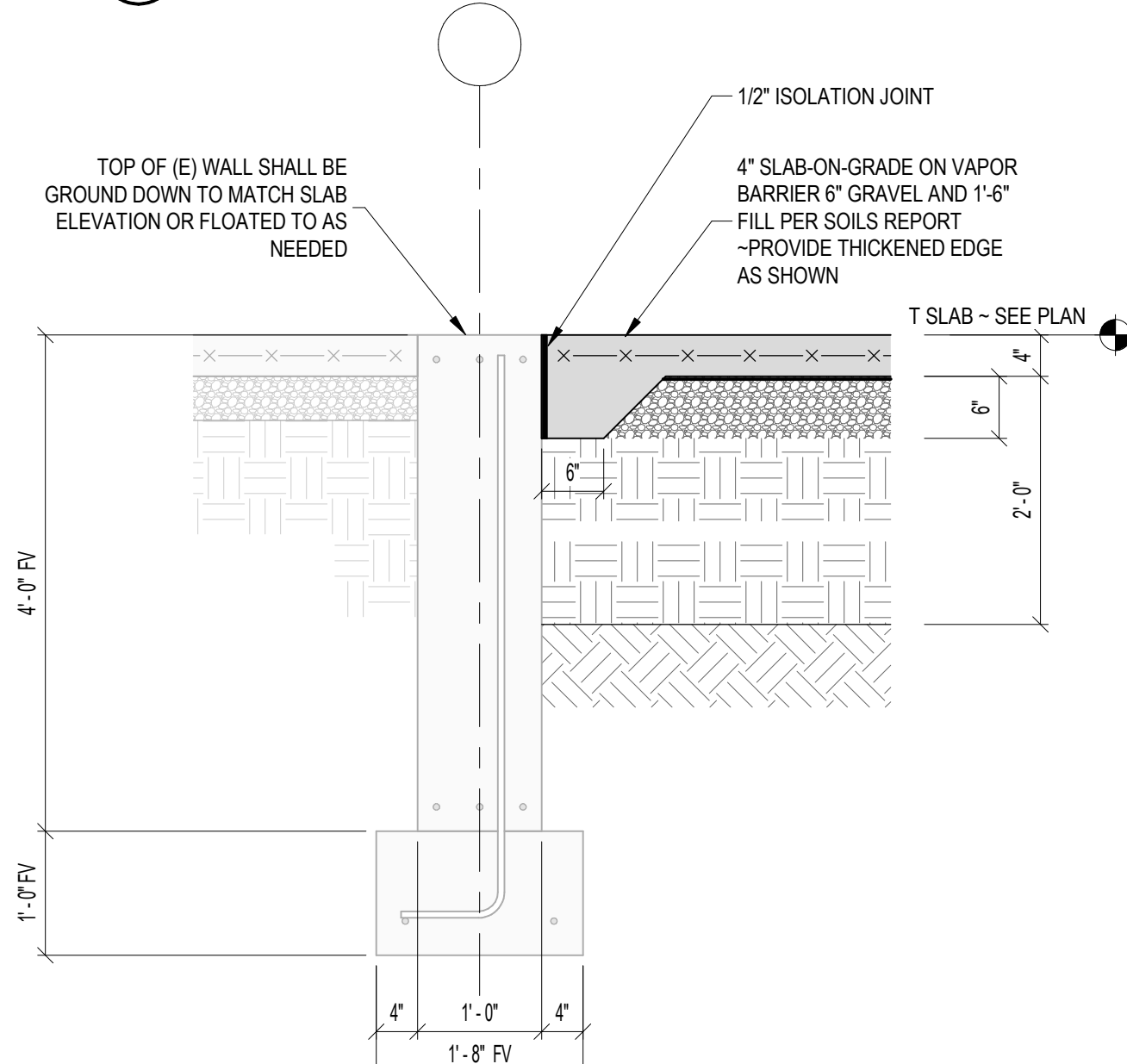
9 STEEL COLUMN AT SLAB-ON-GRADE
3/4" = 1'-0"



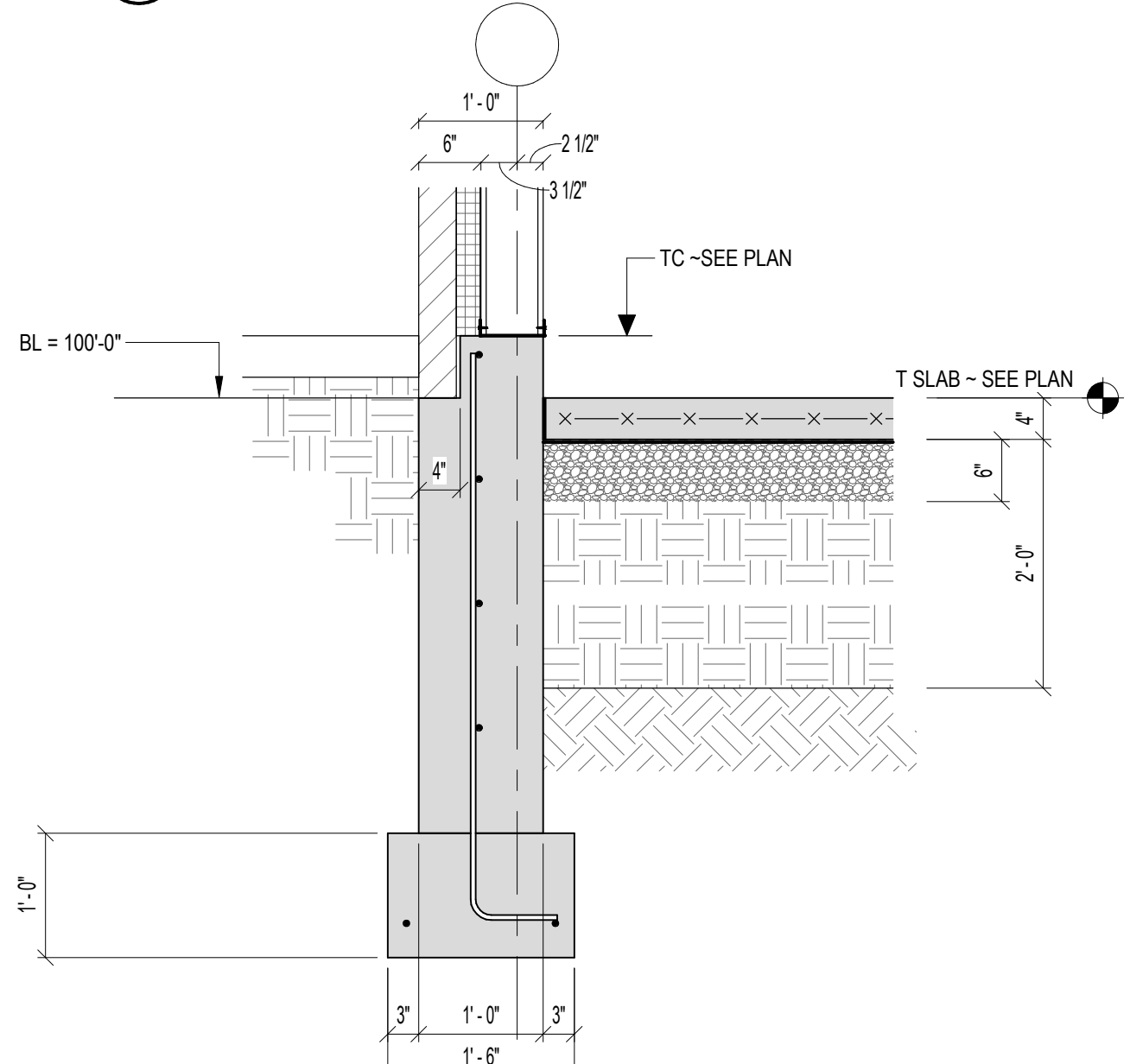
10 NEW STEEL COLUMN AT (E) STEM WALL
3/4" = 1'-0"



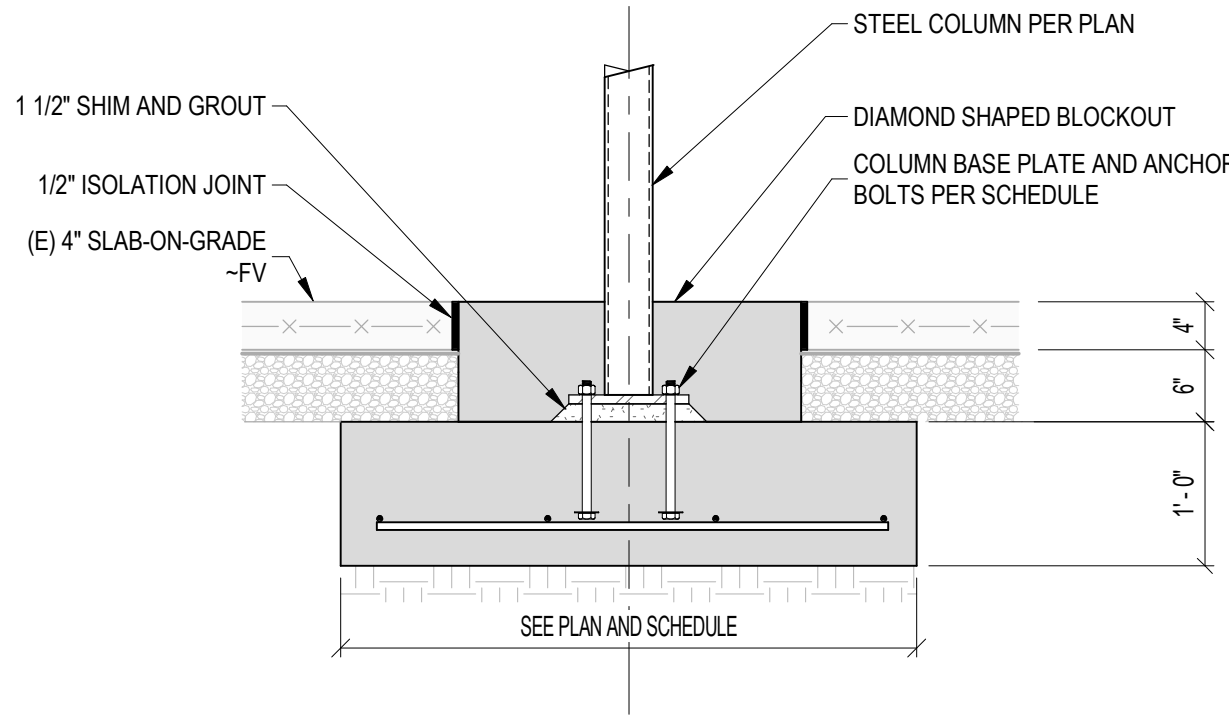
5 STEEL COLUMN FOUNDATION
3/4" = 1'-0"



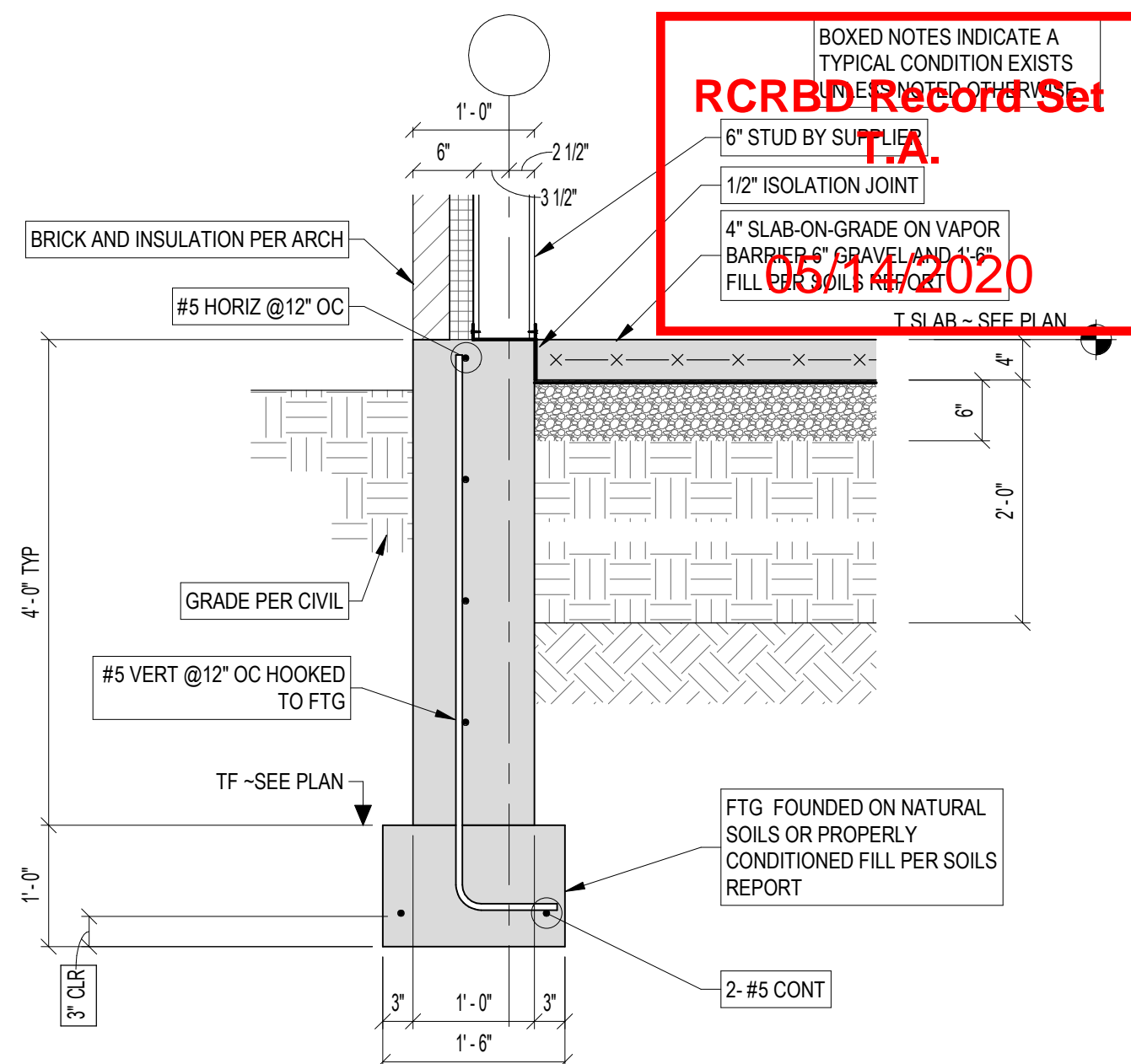
6 THRESHOLD AT NEW TO EXISTING
3/4" = 1'-0"



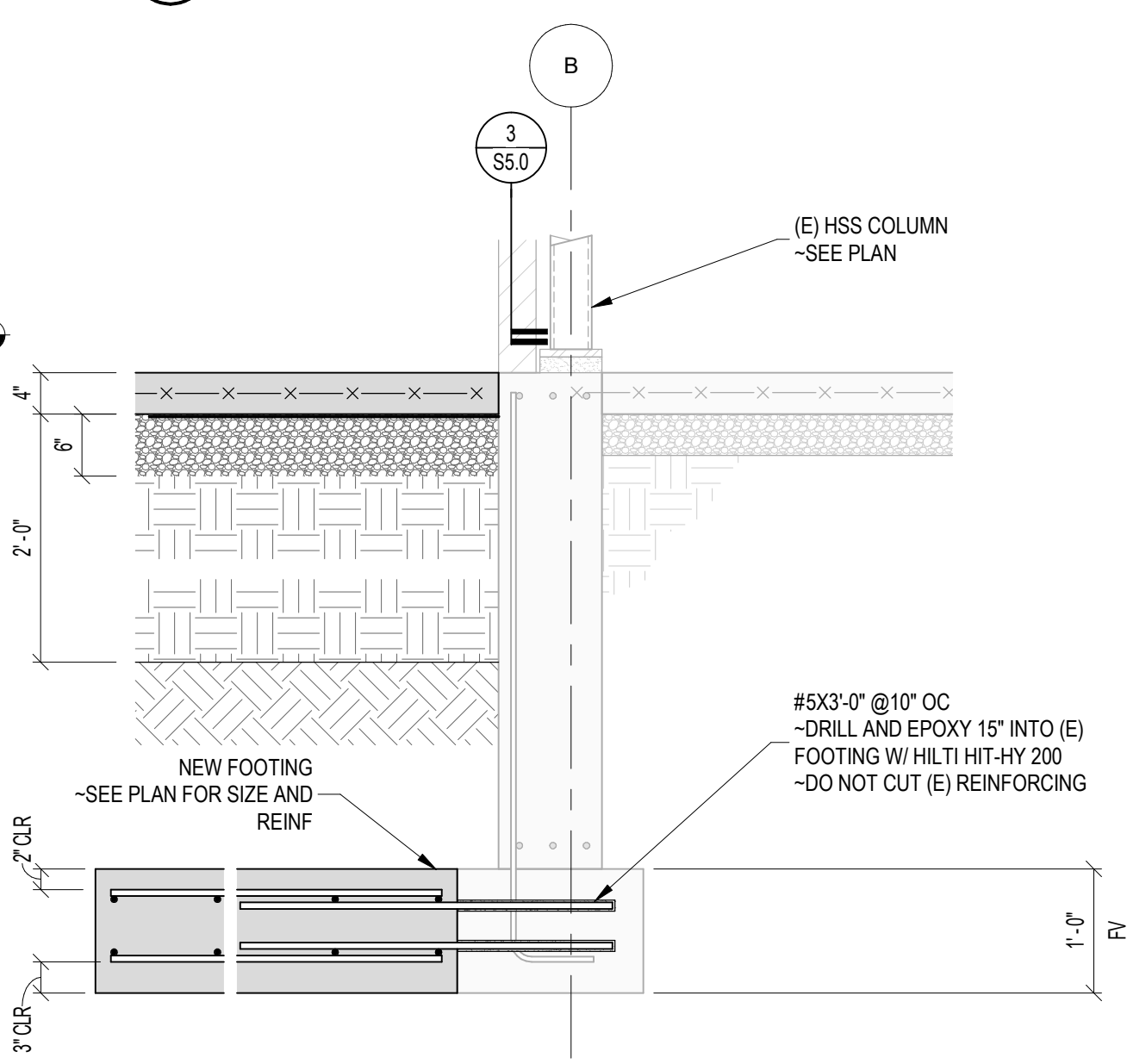
7 GRADE WALL AT LEDGE
3/4" = 1'-0"



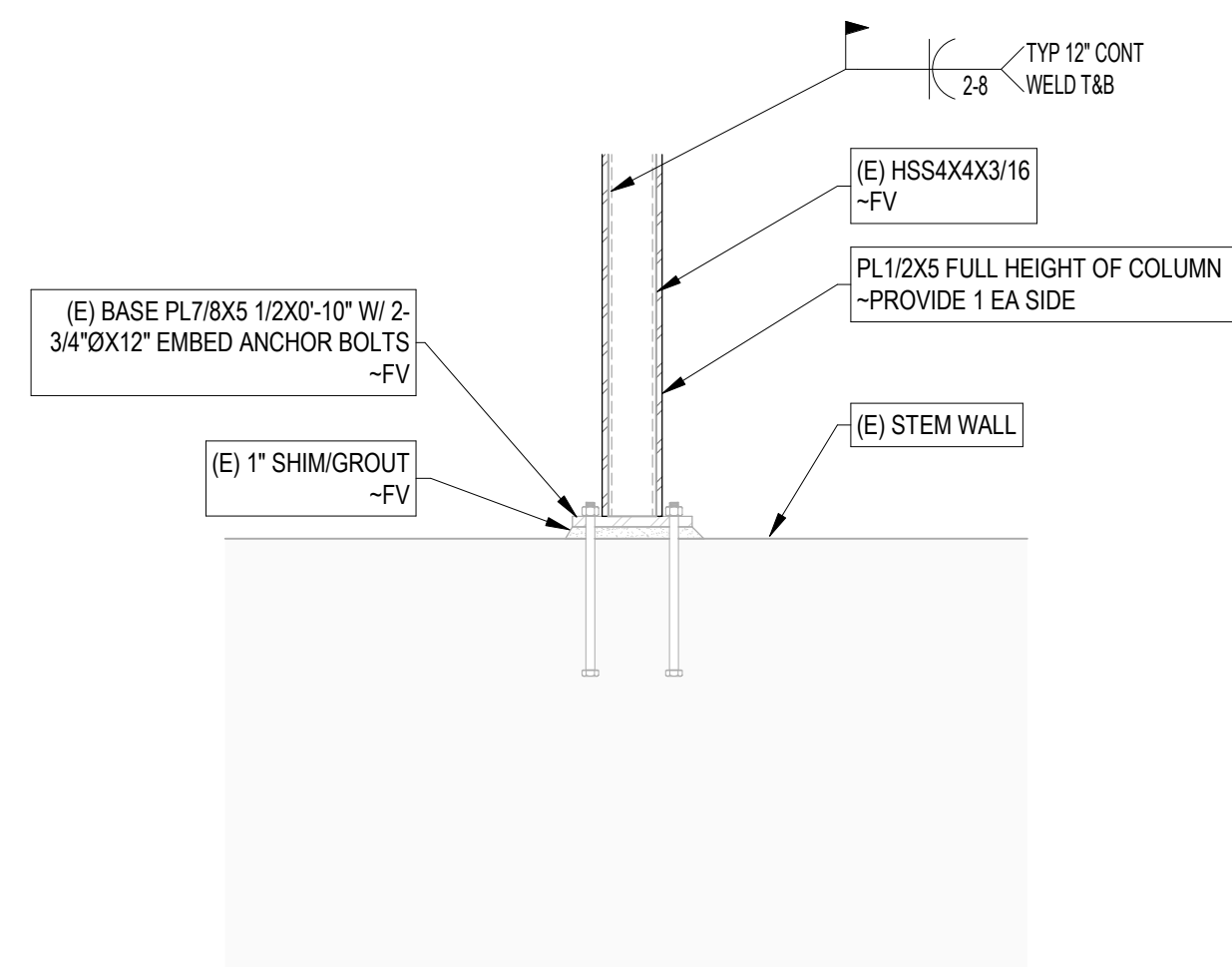
8 STEEL COLUMN FOUNDATION AT SCIENCE ROOM
3/4" = 1'-0"



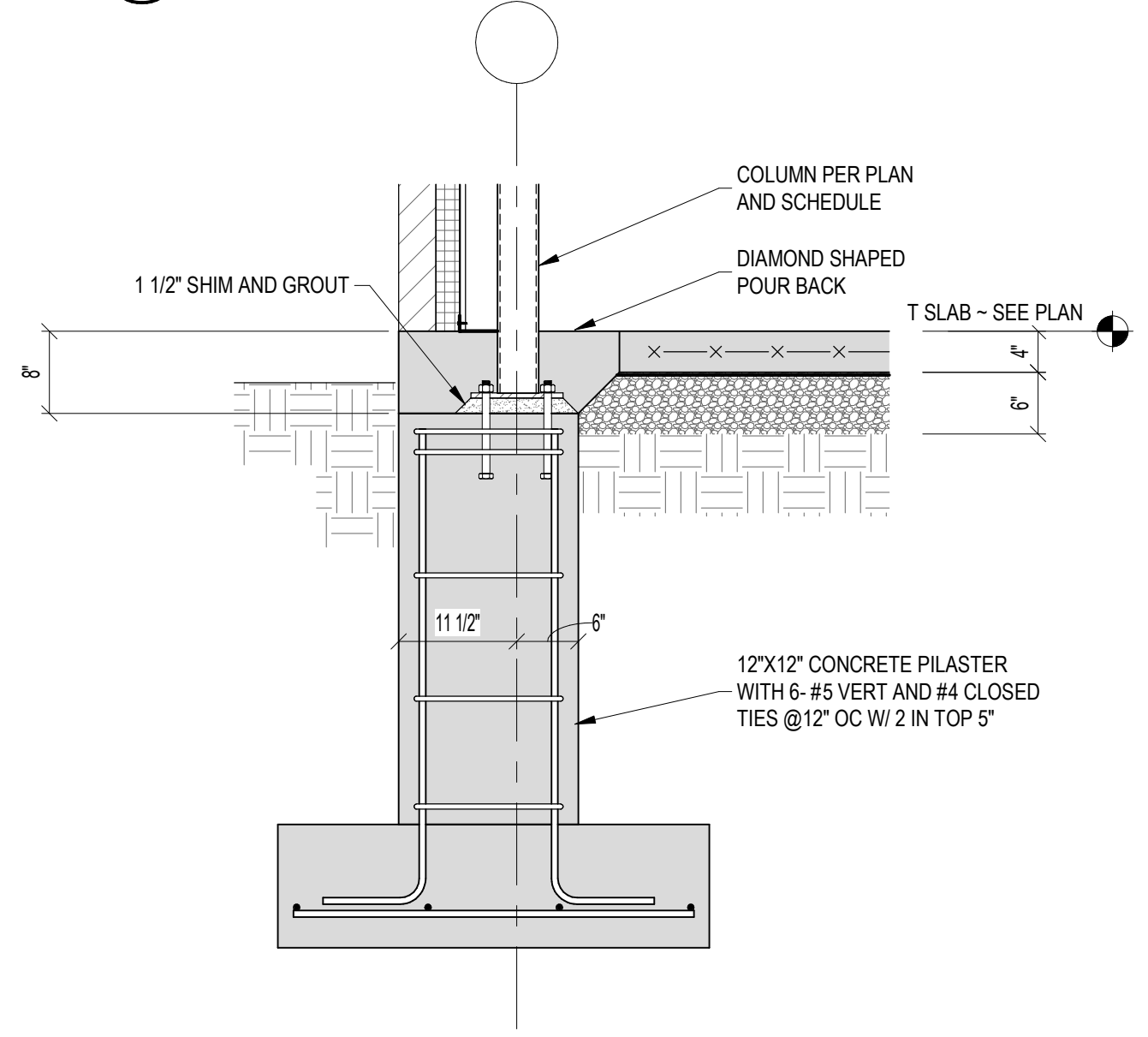
1 TYPICAL GRADE WALL
3/4" = 1'-0"



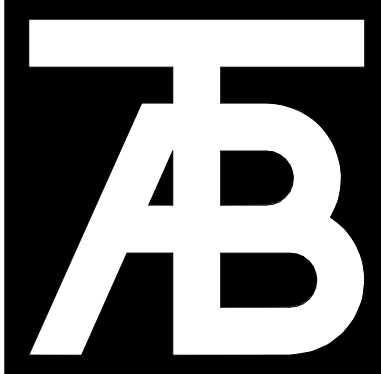
2 EXPANDED FOOTING
3/4" = 1'-0"



3 (E) COLUMN STIFFENER AT GRID B
3/4" = 1'-0"



4 COLUMN PILASTER
3/4" = 1'-0"



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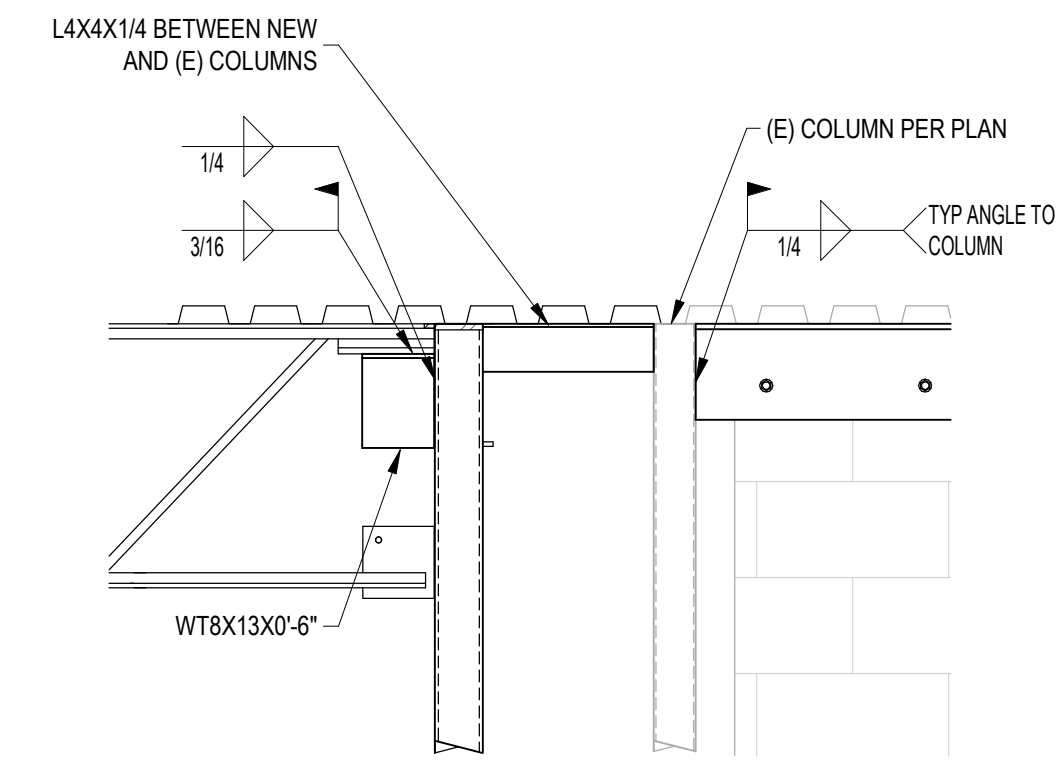
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No	Description	Date

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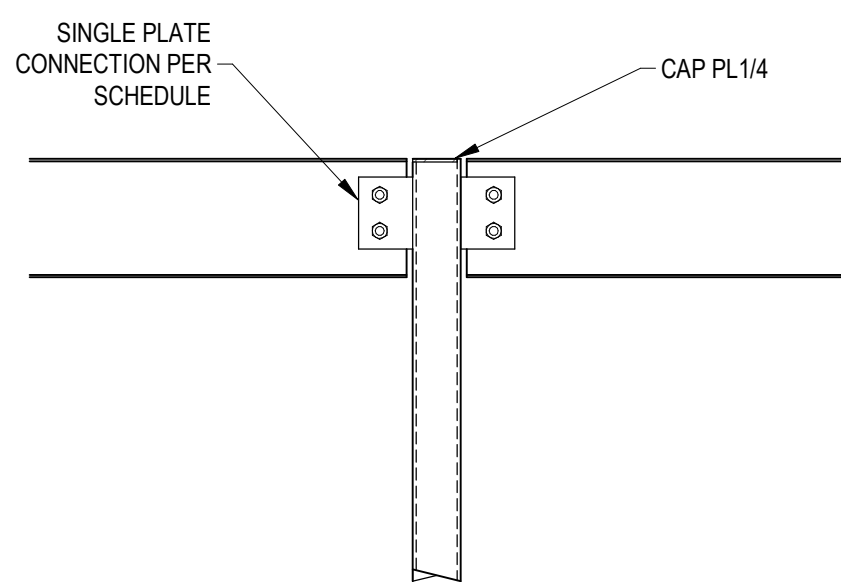
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Project No:
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JH-20191103

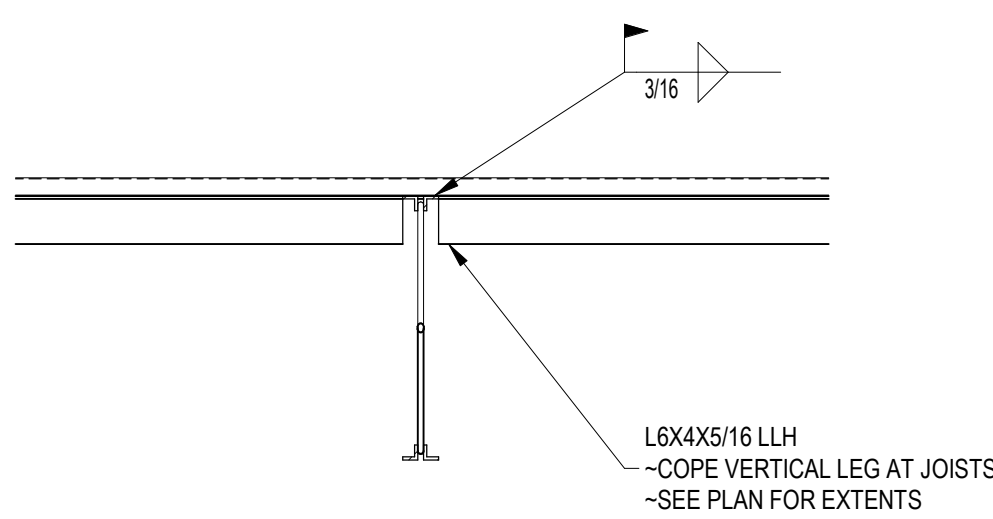
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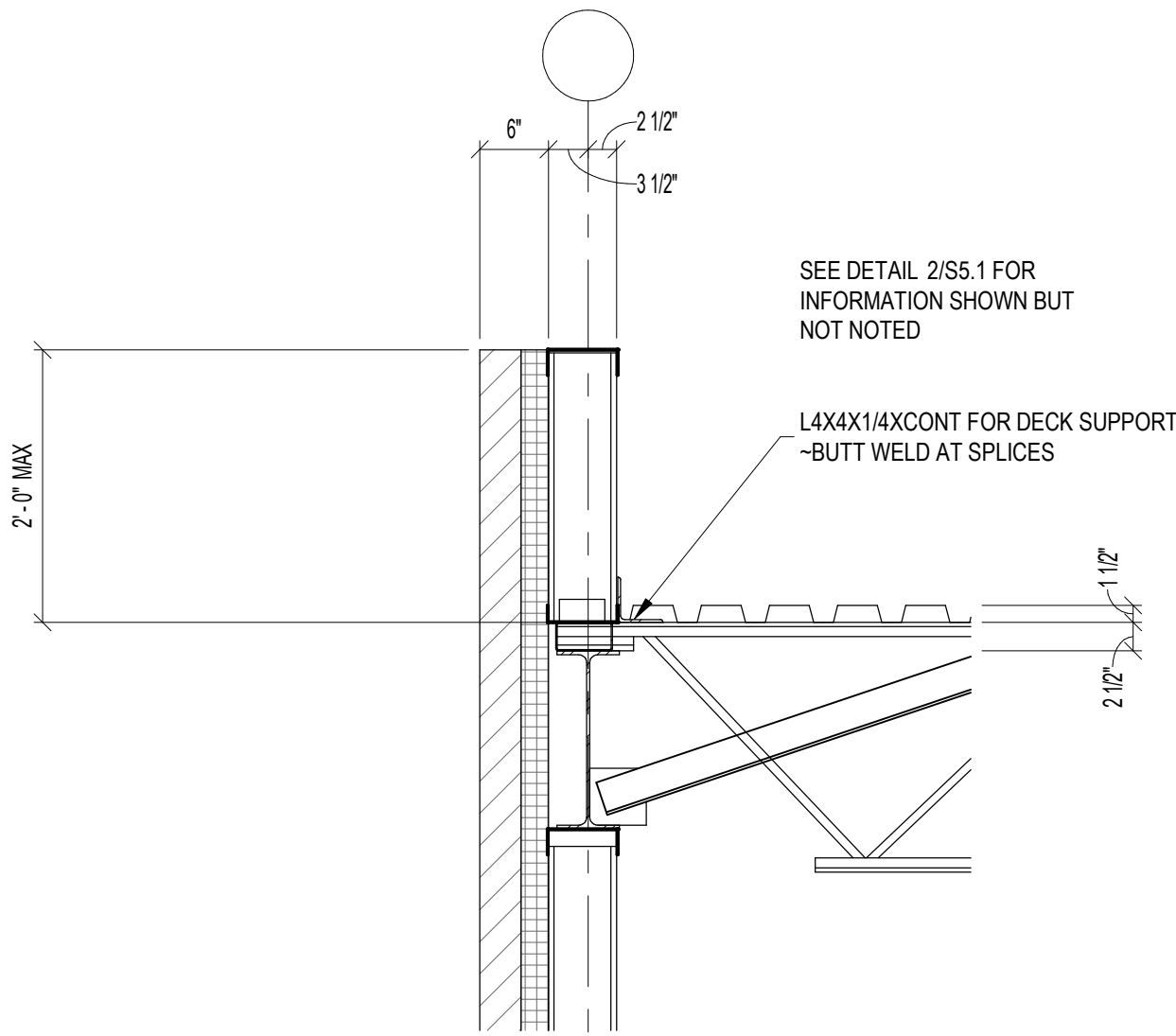
9 ANGLE CONNECTION AT COLUMNS
3/4" = 1'-0"



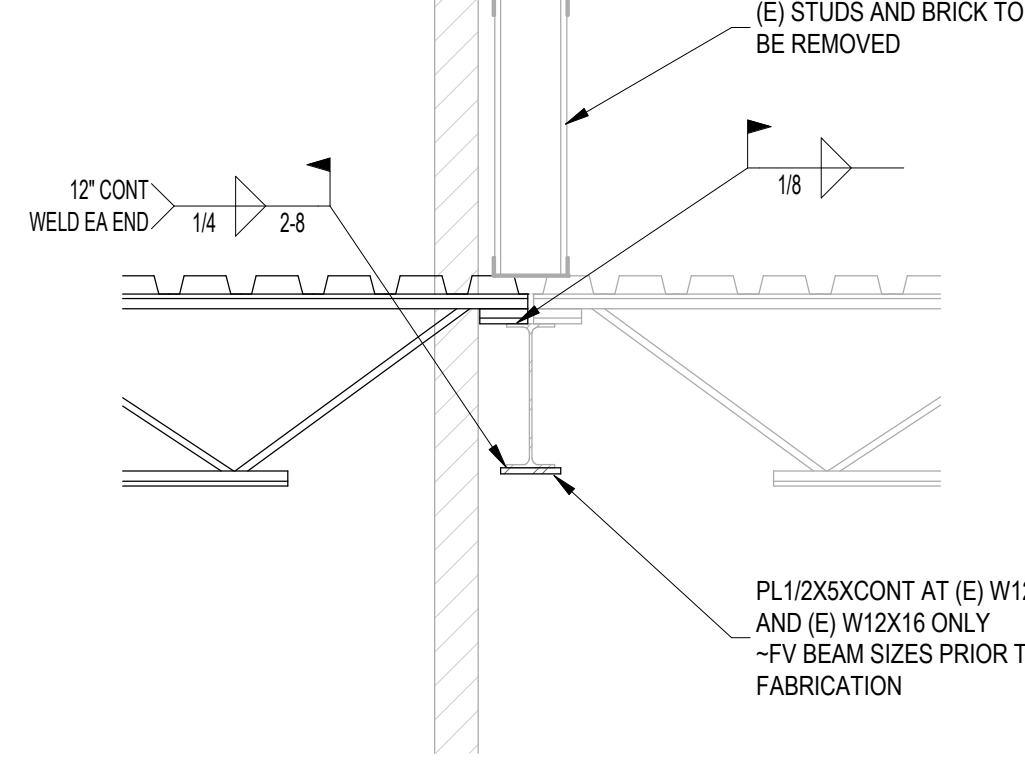
10 PARTITION BEAM AT COLUMN
3/4" = 1'-0"



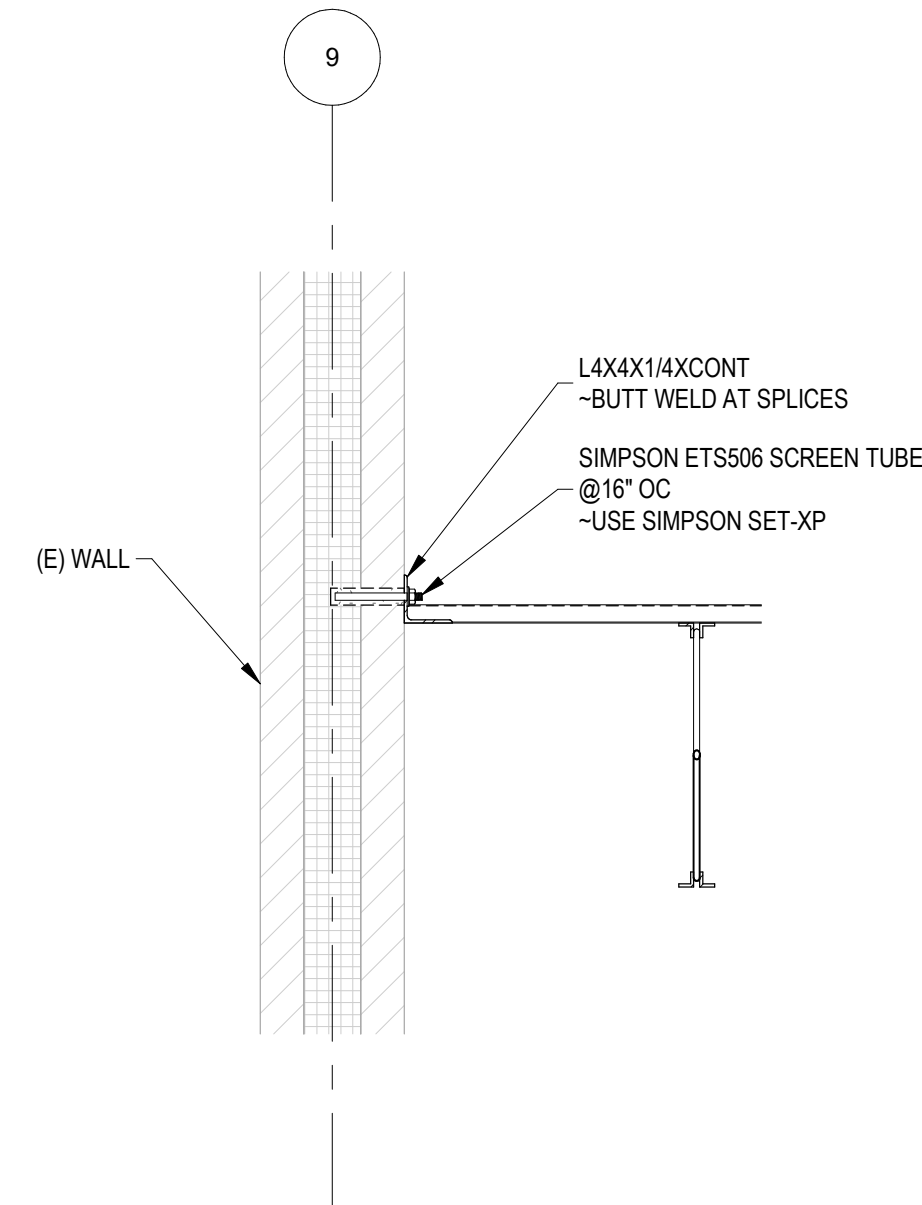
11 DRAG ANGLE AT JOISTS
3/4" = 1'-0"



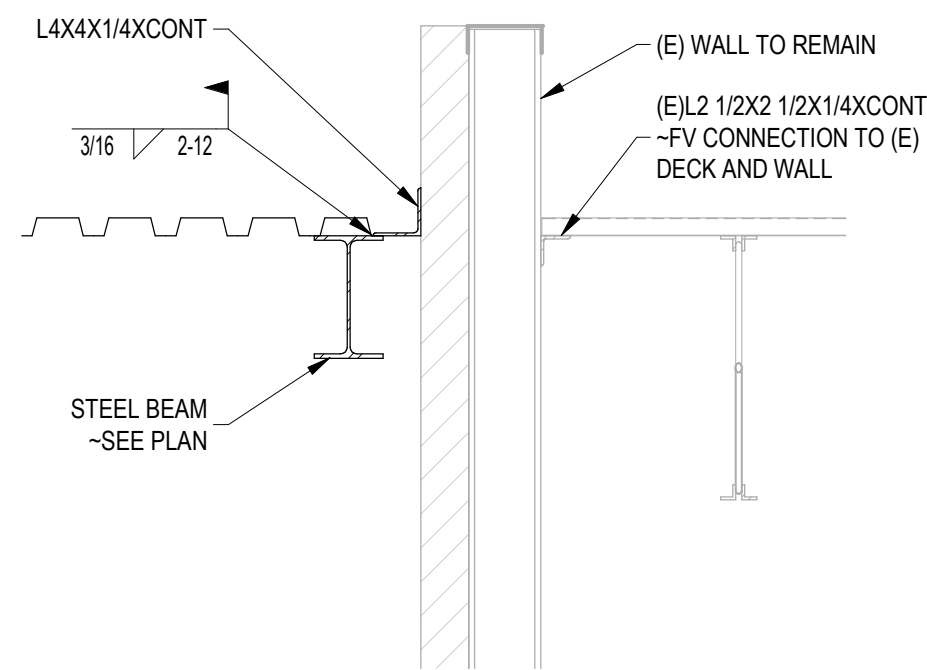
12 DECK SUPPORT AT DIAGONAL EDGE
3/4" = 1'-0"



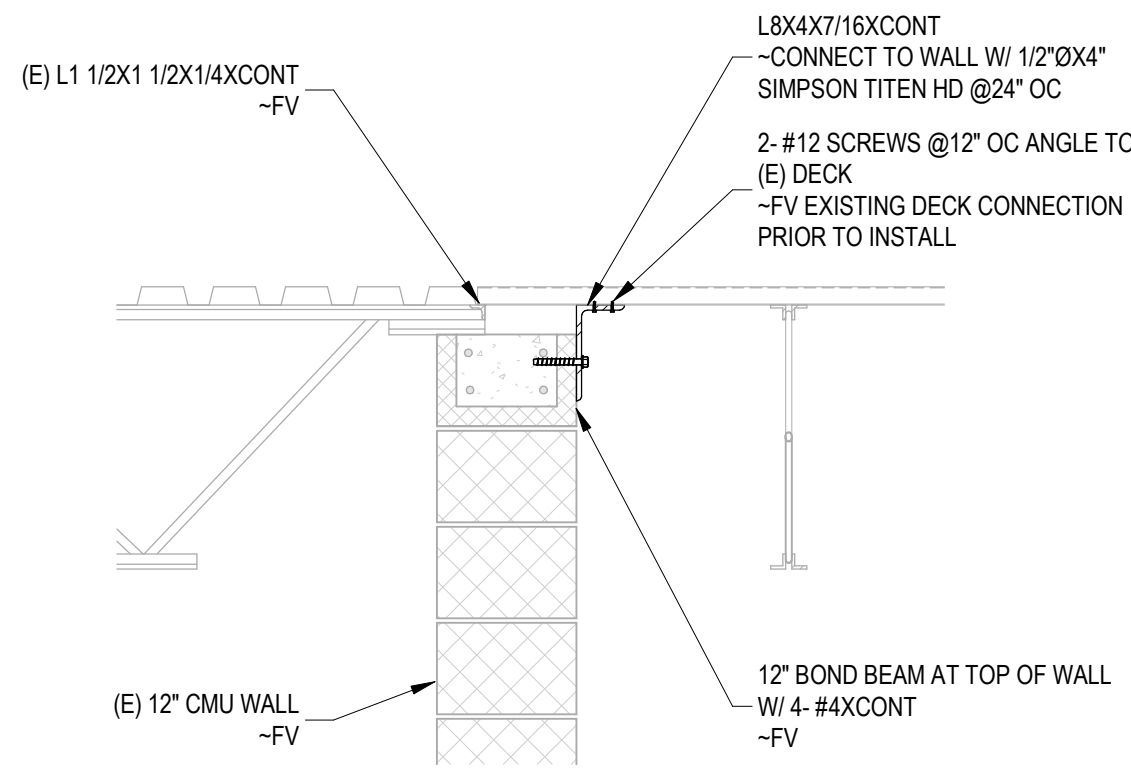
5 JOIST FRAMING AT EXISTING GIRDER
3/4" = 1'-0"



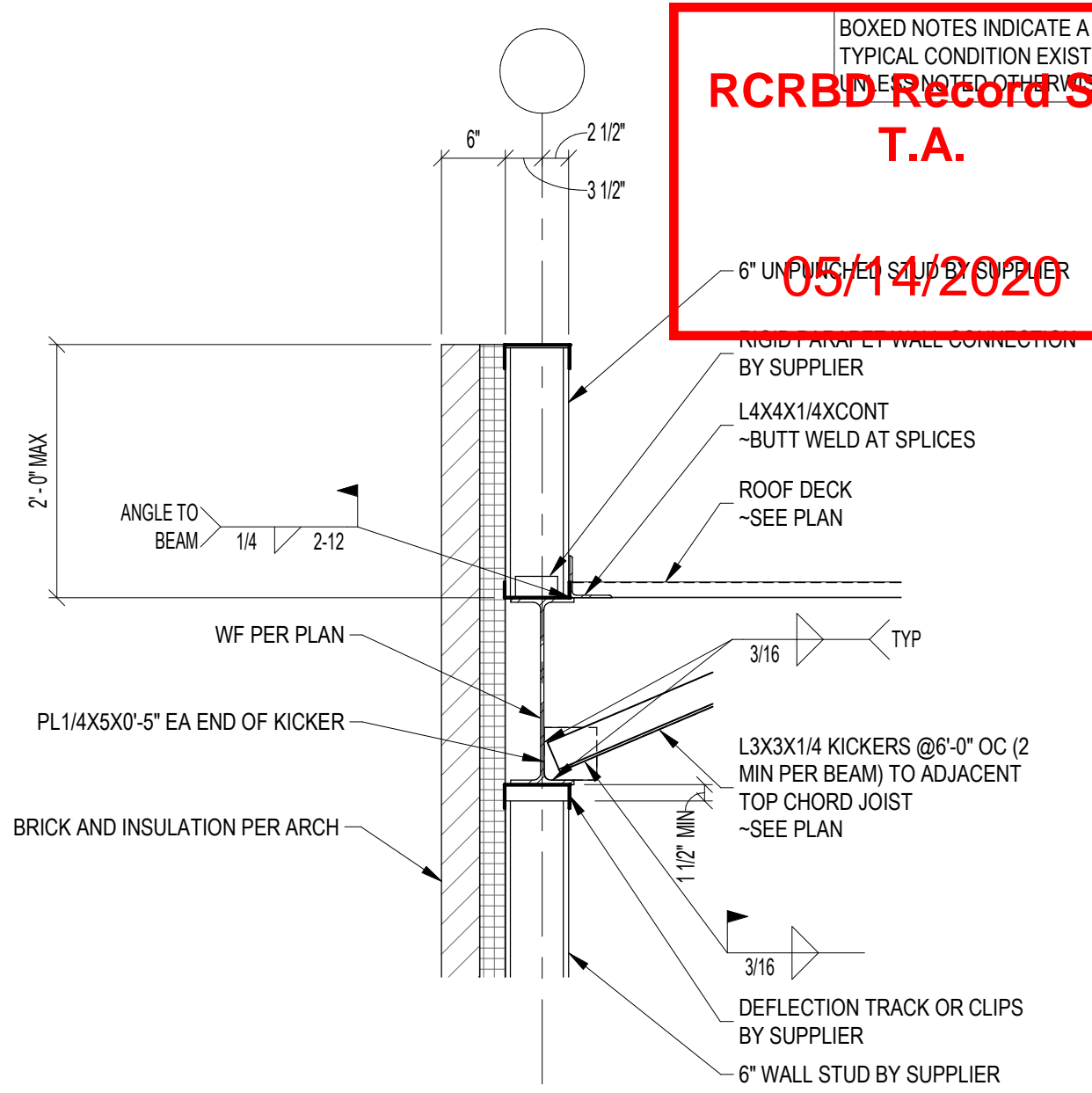
6 ANGLE CONNECTION AT GRID 9 WALL
3/4" = 1'-0"



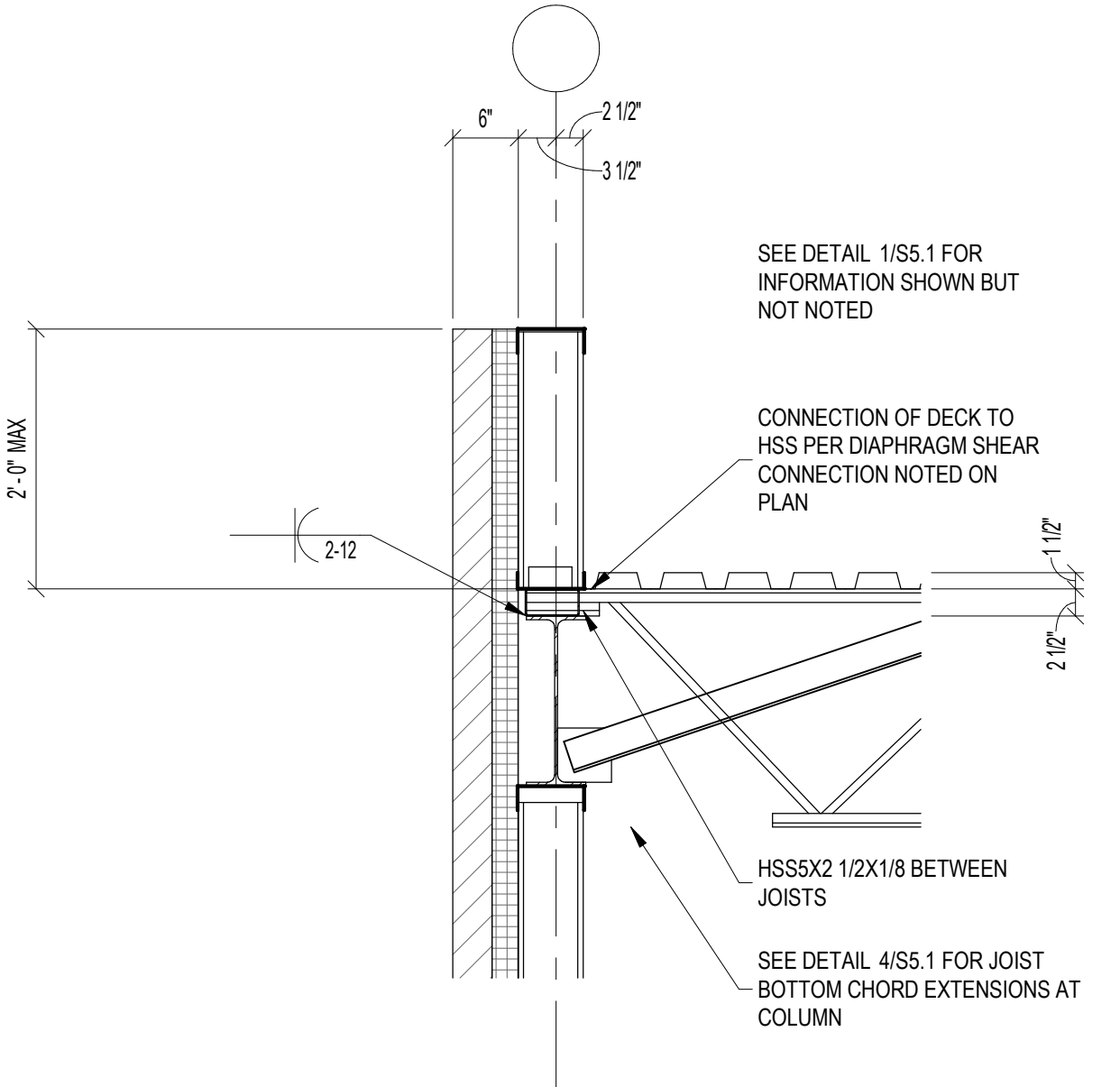
7 SOUTH FRAMING AT (E) WALL
3/4" = 1'-0"



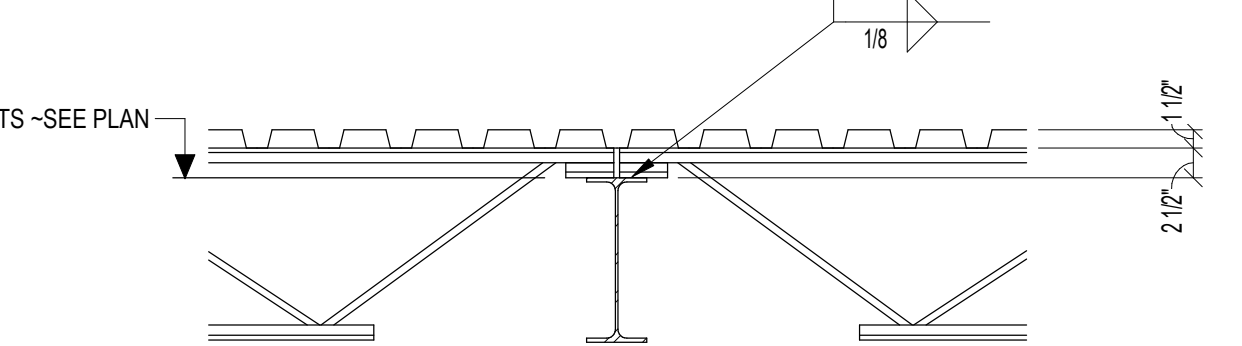
8 ANGLE CONNECTION AT (E) WALL
3/4" = 1'-0"



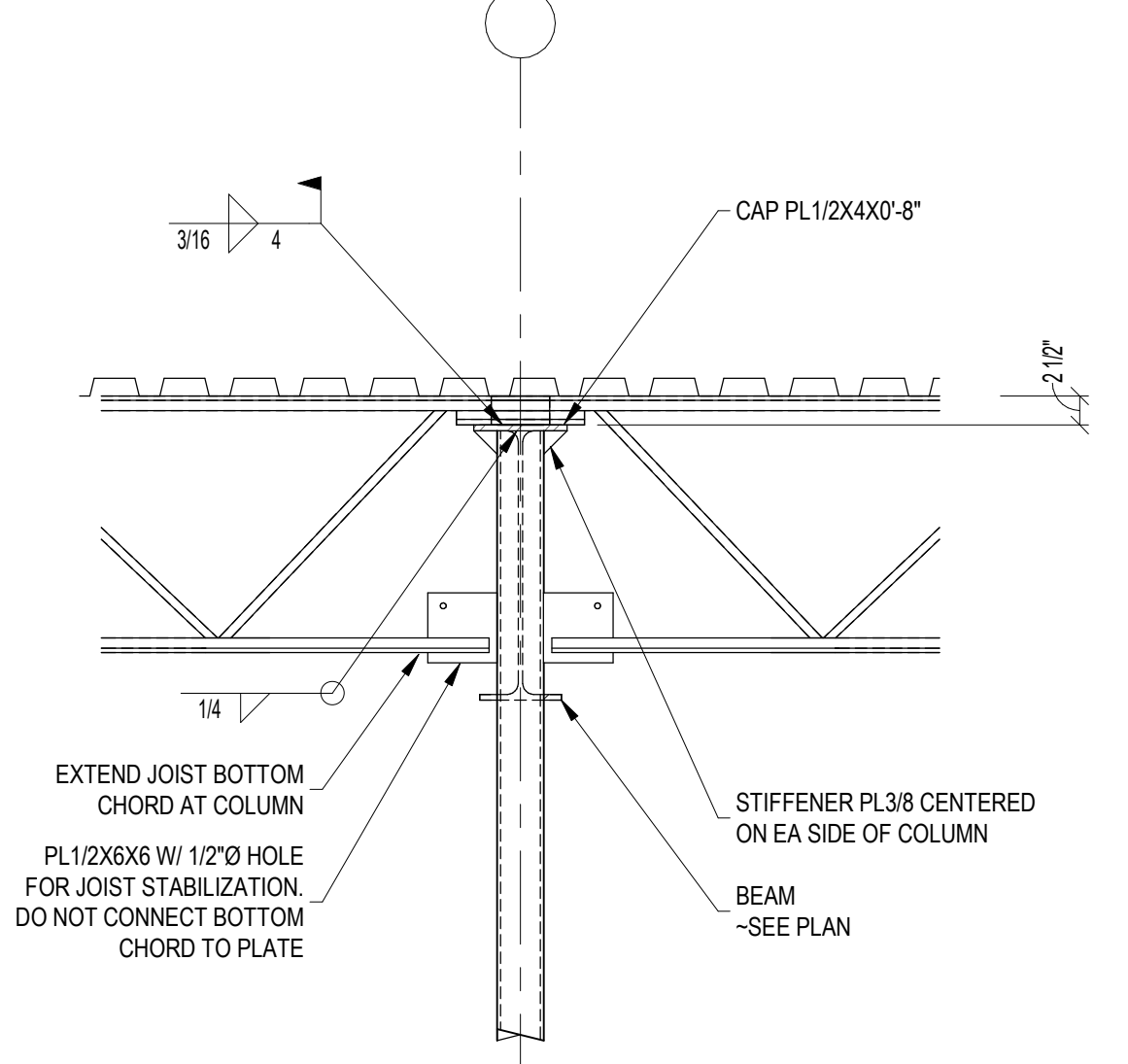
1 ROOF BEAM AT DECK BEARING
3/4" = 1'-0"



2 ROOF BEAM AT JOIST BEARING
3/4" = 1'-0"

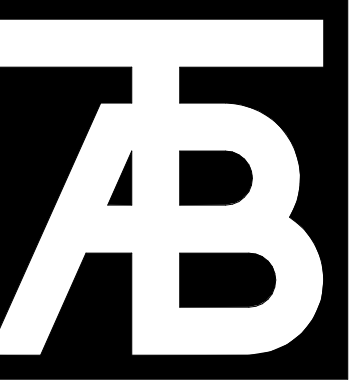


3 BEAM AT JOIST BEARING
3/4" = 1'-0"

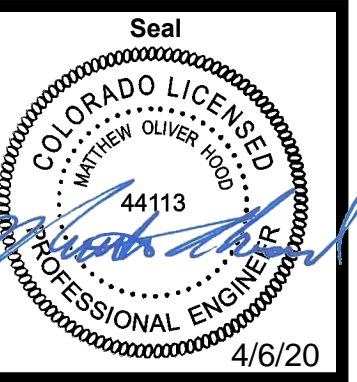


4 JOIST BEARING AT STEEL COLUMN
3/4" = 1'-0"

BOXED NOTES INDICATE A TYPICAL CONDITION EXISTS.
RCRBD RECORD SET
T.A.
05/14/2020



TAB Associates
The Architectural Balance
0066 Edwards Village Blvd.
Suite 210
Edwards, CO 8132
(970) 766-1470
fax: (970) 766-1471
email: tab@tab.net
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Civil Engineer
Alpine Engineering Inc.
970-926-3373
Structural Engineer
Jirsa Hedrick Structural Eng.
303-318-6539
Mechanical Engineer
BG Buildingworks, Inc.
970-949-6108
Electrical Engineer
BG Buildingworks, Inc.
970-949-6108



Steamboat Springs Middle School
39610 Amethyst Dr

Revisions:		
No	Description	Date

Issue Dates:
DD's - 02/21/20
95% - 03/30/20
CD's - 04/06/20

Sheet Title:
Roof Details

Project No:
TAB-1935.01
JH-20191103

Sheet No:
S5.1

MECHANICAL SYSTEMS LEGEND																																																																																																																																																																																																																																																																										
AIR DEVICE DESIGNATION KEY		DUCTWORK LEGEND			EQUIPMENT ABBREVIATIONS		ABBREVIATIONS		PIPING DESIGNATIONS																																																																																																																																																																																																																																																																	
TYPE OF AIR DEVICE RE: GRD SCHEDULE # = AIR QUANTITY (CFM) CA = COMB AIR OSA = OUTSIDE AIR RET = RETURN EXH = EXHAUST XFR = TRANSFER SIZE (INCHES) OR MINIMUM FREE AREA REQUIRED IN SQUARE FEET INDICATES AIR INLET DEVICE NOTE: FOR STANDARD MODULE SIZE REGISTERS, SIZE GIVEN IS NECK SIZE. REFER TO GRD SCHEDULE FOR MODULE SIZE.		<table> <tr> <th>ROUND</th><th>PLAN</th><th>DESCRIPTION</th><th>RECTANGULAR</th><th>PLAN</th><th>3D</th></tr> <tr> <td></td><td></td><td>DUCT RISER</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>DUCT DROP</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>90° ELBOW DN (NEGATIVE PRESSURE)</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>90° ELBOW UP (POSITIVE PRESSURE)</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>90° ELBOW UP (POSITIVE PRESSURE)</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>SIZE OR SHAPE TRANSITION</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>ROUND FLANGE DUCT CONNECTION</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>90° RADIUS ELBOW</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>90° MITERED ELBOW W/ TURNING VANES</td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td>90° STRAIGHT 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CIP	CAST IN PLACE																																																																																																																																																																																																																																																																									
CLG	CEILING (OR COOLING)																																																																																																																																																																																																																																																																									
CONC	CONCRETE																																																																																																																																																																																																																																																																									
COND	CONDENSATE																																																																																																																																																																																																																																																																									
CONN	CONNECT (OR CONNECTION)																																																																																																																																																																																																																																																																									
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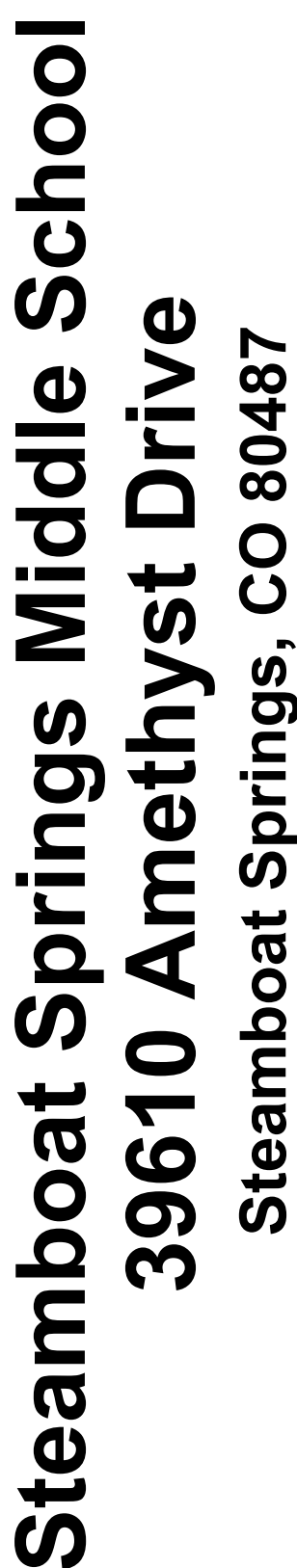
		ISSUE LOG			
		100% DD - 02.21.2020	95% CD - 03.26.2020	95% CD - 03.30.2020	PERMIT - 04.06.2020
#	TITLE				
M0.0	MECH COVER SHEET	✓	✓	✓	✓
M0.1	MECHANICAL SCHEDULES	✓	✓	✓	✓
M1.0	MECHANICAL SITE PLAN	✓	✓	✓	✓
M1.1	MECHANICAL OVERALL PLAN	✓	✓	✓	✓
M1.2	ENLARGED RESTROOM MECHANICAL PLANS	✓	✓	✓	✓
M2.1	FIRST LEVEL AREA A DEMO MECH PLAN	✓	✓	✓	✓
M2.2	SCIENCE ROOMS DEMO MECH PLANS	✓	✓	✓	✓
M2.3	ROOF AREA A DEMO MECH PLAN	✓	✓	✓	✓
M2.1	FIRST LEVEL AREA A MECH PLAN	✓	✓	✓	✓
M2.2	SCIENCE ROOMS MECH PLANS	✓	✓	✓	✓
M2.3	SCIENCE ROOMS ENLARGED MECH PLANS	✓	✓	✓	✓
M2.4	ROOF AREA A MECHANICAL PLAN	✓	✓	✓	✓
MC2.1	FIRST LEVEL AREA A MECHANICAL COORDINATION CEILING PLAN	✓	✓	✓	✓
MPD2.1	FIRST LEVEL AREA A DEMO PLUMBING PLAN	✓	✓	✓	✓
MPD2.2	SCIENCE ROOMS DEMO PLUMBING PLAN	✓	✓	✓	✓
MP2.1	FIRST LEVEL AREA A PLUMBING PLAN	✓	✓	✓	✓
MP2.2	SCIENCE ROOMS PLUMBING PLANS	✓	✓	✓	✓
MP2.3	SCIENCE ROOMS ENLARGED PLUMBING PLANS	✓	✓	✓	✓
MP2.4	ROOF AREA A PLUMBING PLAN	✓	✓	✓	✓
M3.1	MECHANICAL DIAGRAMS	✓	✓	✓	✓
M3.2	MECHANICAL DIAGRAMS	✓	✓	✓	✓

ISSUE LOG KEY:
 ✓ ISSUED AS PART OF SET
 ✗ NOT PART OF SET
 ... ISSUED FOR INFORMATION ONLY

CONTRACTOR MUST KEEP IN MIND THAT THIS IS A REMODEL PROJECT. READ GENERAL NOTES CAREFULLY. CONTRACTORS MUST COORDINATE NEW AND EXISTING CONDITIONS FOR INSTALLATION OF THE WORK.

CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF FIELD CONDITIONS DISCOVERED DURING DEMOLITION THAT VARY FROM THOSE INDICATED HEREIN

6733' ABOVE SEA LEVEL

[illegible]

Issue Dates:
04.06.2020
PERMIT SET

Sheet Title:
MECH COVER
SHEET

Project No:
10183.00

Sheet No:

M0.0



HYDRONIC VAV AIR HANDLING UNIT SCHEDULE W/ ENERGY RECOVERY																																										
NOTES: A. HEATING COIL CAPACITY SIZED AT A MINIMUM FOR MORNING WARMUP. COIL TO TAKE HEATING CFM FROM 70 TO 90 °F. B. SEE HEAT WHEEL SCHEDULE FOR INFORMATION ON INTEGRAL HEAT WHEEL.																												G. REFER TO CONTROL DIAGRAMS FOR ADDITIONAL INFORMATION.														
MARK			SERVICE			TYPE			SUPPLY FAN			RELIEF FAN						COOLING						HEATING						ELECTRICAL						OPER. WEIGHT (LBS)	MANUFACTURER & MODEL #	REMARKS				
									MIN. OUTSIDE AIR (CFM)	CFM	MIN. CFM	ESP @ SL (IN WC)	ESP @ ALT (IN WC)	RPM	BHP	HP	CFM	MIN. CFM	ESP @ SL (IN WC)	ESP @ ALT (IN WC)	RPM	BHP	HP	EAT DBWB (°F)	LAT DBWB (°F)	SENSIBLE MBH	TOTAL MBH	EWT (°F)	LWT (°F)	GPM	MAX WTR PD (FT HEAD)	EAT DB (°F)	LAT DB (°F)	SENSIBLE MBH	EWT (°F)				LWT (°F)	GPM	MAX WTR PD (FT HEAD)	FILTER
(E) RTU-1	CAFETERIA/ CAFTORIUM/ STORAGE	ROOFTOP W/ INTEGRAL ERV	6000	10500	5700	1.92	1.60		1750	9.39	10	10500	5700	0.90	0.75	1750	1.46	2	77.0	55.0	171	171	45	55	36	12.50	35	90	365	150	120	26	4.00	2" PLEATED	480	3	19.0	22.0	30.0	5,295	AAON RN	NOTES A.B. UPSIZING SUPPLY FAN MOTOR FROM 7.5 TO 10HP ON EXISTING RTU.

RCRBD Record Set
T.A.
05/14/2020

ENERGY RECOVERY WHEEL SCHEDULE (INTEGRAL TO RTU-1)						
MARK	SERVICE	HEAT RECOVERY WHEEL DESIGN CONDITIONS				
		OUTDOOR AIR		INDOOR AIR		SUPPLY LAT
		DBWB (°F) (SUM)	DBWB (°F) (WINT)	DBWB (°F) (SUM)	DBWB (°F) (WINT)	DBWB (°F) (SUM)
		91/55	19	80/51	49	76/53
(E) RTU-1	CAFETERIA/ CAFTORIUM/ STORAGE					57/49

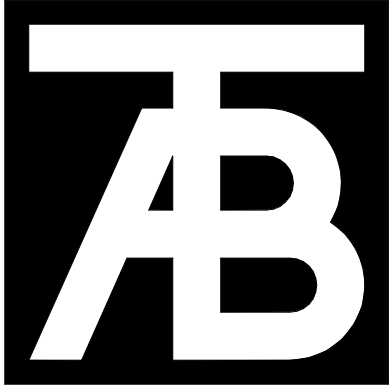
TERMINAL BOX WITH REHEAT SCHEDULE																	
NOTES: A. RADIATED AND DISCHARGE SOUND LEVELS SHALL NOT EXCEED NC 35 AT 1.5" INLET STATIC PRESSURE WHEN TESTED PER ARI STANDARD 885-98. B. TOTAL AIR PRESSURE DROP OF TAB AND REHEAT COIL SHALL NOT EXCEED 0.5" CW. C. WATER PRESSURE DROP OF REHEAT COILS SHALL NOT EXCEED 5 FT. PROVIDE REHEAT COILS SEPARATE FROM BOXES IF REQUIRED TO MEET WATER PRESSURE DROP REQUIREMENTS.																	
MARK	SERVICE	INLET DIA. (IN.)	COOLING CFM	HEATING CFM	MIN INLET S.P. @ S.L. (IN. W.C.)	EAT DB (°F)	LAT DB (°F)	HEATING COIL (HYDRONIC)						MANUFACTURER & MODEL #	CONTROL TYPE	ACCESSORIES	REMARKS
								SENSIBLE MBH	EWT (°F)	LWT (°F)	GPM	MAX. WATER P.D. (FT.)	MAX AIR P.D. (IN. WC)				
VAV-01	CAFETORIUM/	14	2000	700	1.0	55	80	43	140	120	4.8	3.00	0.40	TITUS DESV	DDC	THERMOSTAT AND CO2 SENSOR	-
VAV-02	CAFETORIUM/ STAGE	16	3000	1000	1.0	55	80	64	140	120	6.7	3.00	0.40	TITUS DESV	DDC	THERMOSTAT AND CO2 SENSOR	-
VAV-03	CAFETERIA	24X18	4600	1400	1.0	55	85	119	140	115	10.0	3.00	0.40	TITUS DESV	DDC	THERMOSTAT AND CO2 SENSOR	-
VAV-04	KITCHEN	8	900	150	1.0	55	85	19	140	115	2.0	3.00	0.30	TITUS DESV	DDC	THERMOSTAT AND CO2 SENSOR	-

EXHAUST FAN SCHEDULE												
NOTES: A. PROVIDE DIRECT DRIVE FANS WITH FAN SPEED CONTROL. B. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAMEPLATE RATING. C. PROVIDE ROOF CURB WITH INTEGRAL DAMPER.												
MARK	SERVICE	TYPE	FAN				MOTOR			MANUFACTURER & MODEL #	ACCESSORIES	REMARKS
			CFM	SONES	ESP @ SL (IN WC)	@ ALT (IN WC)	MHP	VOLT	PHASE			
EF-1	SPED BATHROOM	CEILING	80	3.8	0.17	0.15	13 W	120	1	GREENHECK SP-A80	INTEGRAL BACKDRAFT DAMPER	-
KEF-1	TYPE II DISH HOOD	UPBLAST	1500	10	0.60	0.40	1/4	120	1	GREENHECK CUBE-141	INTEGRAL BACKDRAFT DAMPER	-
KEF-2	TYPE II KITCHEN HOOD	UPBLAST	600	8.1	0.60	0.30	1/8	120	1	GREENHECK CUE-095-D	INTEGRAL BACKDRAFT DAMPER	-

PLUMBING FIXTURE SCHEDULE							
MARK	TYPE	ADA	FINISH	MANUFACTURER* & MODEL #	FAUCET TRIM MFR* & MODEL #	ACCESSORIES	REMARKS
P1	FLOOR SINK	N/A	ACID RESISTANT CAST IRON	ZURN Z1902		-	-
P2	ROOF DRAIN	N/A	DURA-COATED CAST IRON	ZURN Z125		DECK CLAMP	-
P3	SCIENCE CLASSROOM	N/A	RESIN, RE-ARCH		CHICAGO #930-VPH	PROVIDE VACUUM BREAKER, UNDER COUNTER PROTECTION, QUARTER TURN ANGLE STOPS, SUPPLIES AND ACID WASTE TAIL PIECE. PROVIDE AND INSTALL POINT OF USE STRIEM UNDER COUNTER ACID NEUTRALIZATION TANK, MODEL LB2.	INSTALL PER MANUFACTURERS REQUIREMENTS
P4	DOWNSPOUT NOZZLE	N/A	RE-ARCH	ZURN Z199			-
P5	MOP BASIN	N/A	TERRAZO	FLORESTONE #02 36X36	T & S BRASS #B-0665-B5TP	FLOOR MOUNT, 36"X36" DROP FRONT MOP RECEPTOR	-
P6	URINAL FLUSH VALVE ONLY	EXISTING	CHROME		SLOAN G2 8111-1.6 3250400	EXISTING URINAL TO REMAIN. REPLACE FLUSH VALVE ONLY	-
P7	WATER CLOSET FLUSH VALVE ONLY	EXISTING	CHROME		SLOAN G2 8111-1.6 3250400	EXISTING WATER CLOSET TO REMAIN. REPLACE FLUSH VALVE ONLY	-
P8	LAVATORY FAUCET ONLY	EXISTING	CHROME		DELTA 2529LF-HDF	EXISTING SINK BASIN AND DRAIN TO REMAIN. REPLACE FAUCET ONLY.	-

GRILLE, REGISTER, DIFFUSER & LOUVER SCHEDULE						
MARK (E)	USE	PATTERN	FINISH	MANUFACTURER* & MODEL#	ACCESSORIES	REMARKS
	VARIES	-	-	-	-	EXISTING DIFFUSER TO REMAIN
A	LAY-IN CEILING	4-WAY	WHITE	TITUS TDC-AA	-	-
B	SIDEWALL RETURN	STATIONARY	RE-ARCH	TITUS 350RL	-	-

MULTI ZONE VENTILATION SCHEDULE											
VENTILATION EQUATION VARIABLE DEFINITIONS: BREATHING ZONE OUTDOOR AIRFLOW, Vbz ZONE FLOOR AREA, Az ZONE POPULATION, Pz AREA OUTDOOR AIR RATE, Ra PEOPLE OUTDOOR AIR RATE, Rp ZONE AIR DISTRIBUTION EFFECTIVENESS, Ez ZONE OUTDOOR AIRFLOW, Voz SYSTEM OUTDOOR AIR INTAKE FLOW RATE, Vot ZONE PRIMARY OUTDOOR AIR FRACTION, Zp ZONE PRIMARY AIRFLOW, Vpz SYSTEM VENTILATION EFFICIENCY, SYSTEM Ev ZONE VENTILATION EFFICIENCY, ZONE Ev							VENTILATION EQUATIONS: Vbz = Rp * Pz + Ra * Az (EQUATION 4-1) Vbz = Vbz / Ez (EQUATION 4-2) Zp = Voz / Vpz (EQUATION 4-5) Ev = (Table 403.3.1.1.2.3.2) Vou = Z (Vbz), ASSUMING D=1 (EQUATION 4-6) Vot = Vou / (SYSTEM Ev) (EQUATION 4-8)				
VAV-01 SUMMARY											
SPACE NAME	SPACE TYPE	Az [SQ.FT.]	Rp [CFM/ PERSON]	Ra [CMF/SQ.FT.]	PEOPLE DENSITY [#/1000SQ.F...	Pz [PEOPLE]	Vbz [CFM]	Ez	Voz [CFM]	Vpz [CFM]	ZONE Zp
CAFETORIUM	EDUCATION - MULTISE ASSEMBLY	1400	7.5	0.06	100	124	1014	1	1014	2000	51%
VAV-02 SUMMARY											
SPACE NAME	SPACE TYPE	Az [SQ.FT.]	Rp [CFM/ PERSON]	Ra [CMF/SQ.FT.]	PEOPLE DENSITY [#/1000SQ.F...	Pz [PEOPLE]	Vbz [CFM]	Ez	Voz [CFM]	Vpz [CFM]	ZONE Zp
CAFETORIUM AND STAGE	EDUCATION - MULTISE...	2470	7.5	0.06	100	186	1544	1	1544	3000	51%
VAV-03 SUMMARY											
SPACE NAME	SPACE TYPE	Az [SQ.FT.]	Rp [CFM/ PERSON]	Ra [CMF/SQ.FT.]	PEOPLE DENSITY [#/1000SQ.F...	Pz [PEOPLE]	Vbz [CFM]	Ez	Voz [CFM]	Vpz [CFM]	ZONE Zp
CAFETERIA	F&B - CAFETERIA...	3400	7.5	0.18	100	220	2262	1	2262	3600	63%
VAV-04 SUMMARY											
SPACE NAME	SPACE TYPE	Az [SQ.FT.]	Rp [CFM/ PERSON]	Ra [CMF/SQ.FT.]	PEOPLE DENSITY...	Pz [PEOPLE]	Vbz [CFM]	Ez	Voz [CFM]	Vpz [CFM]	ZONE Zp
KITCHEN AND SERVING	F&B - KITCHEN (COOKING)	700	-	-	-	-	-	0.8	0	600	0%
TOTAL SYSTEM SUMMARY											
SYSTEM Ev											52%
SYSTEM Vot											6000
GENERAL NOTES:											
A:		-									
B:		-									
Comments											



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No	Description	Date

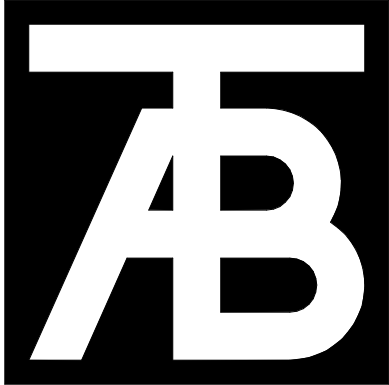
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Sheet Title:
MECHANICAL
SCHEDULES

Project No:
10183.00

Sheet No:
M0.1





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Sheet Title:
**MECHANICAL
SITE PLAN**

Project No:
10183.00

Sheet No:
M1.0

PROPOSED SNOWMELT ADDITION
(2200 SF)

PROVIDE NEW MANIFOLD IN BOX
WITH MEANS TO ACCESS FOR
BALANCING AND SERVICE. FIELD
COORDINATE EXACT LOCATION.

EXISTING SNOWMELT AREA
(3500 SF)

REPAIR ANY DAMAGED EXISTING
SNOWMELT TUBING WITH SPLICES
LOCATED IN ACCESSIBLE
LANDSCAPE BO, TYP.

NEW 1-1/2" SMSR

(E) SB-1 FRONT SNOWMELT BOILER
LAARS FNCH1250NACC2JN
1250 MBH INPUT, 1000 MBH OUTPUT
955 MBH OUTPUT @ ALTITUDE

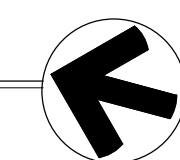
(E) PUMP
TO BE CONFIRMED BY CONTRACTOR

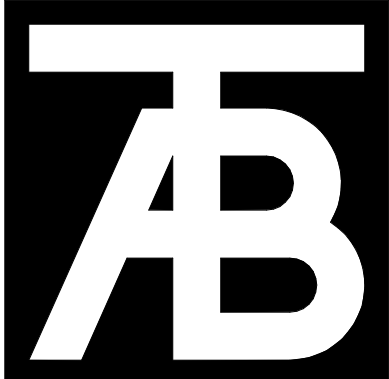
EXISTING AREA SERVED: (272 BTU/SF)
3500 SF - SIDEWALK

PROPOSED NEW SNOWMELT AREA:
ADD 2200 SF - SIDEWALK/ASPHALT
NEW TOTAL = 5700 SF (167 BTU/SF)

MECHANICAL SITE PLAN

SCALE: 1" = 20'-0"





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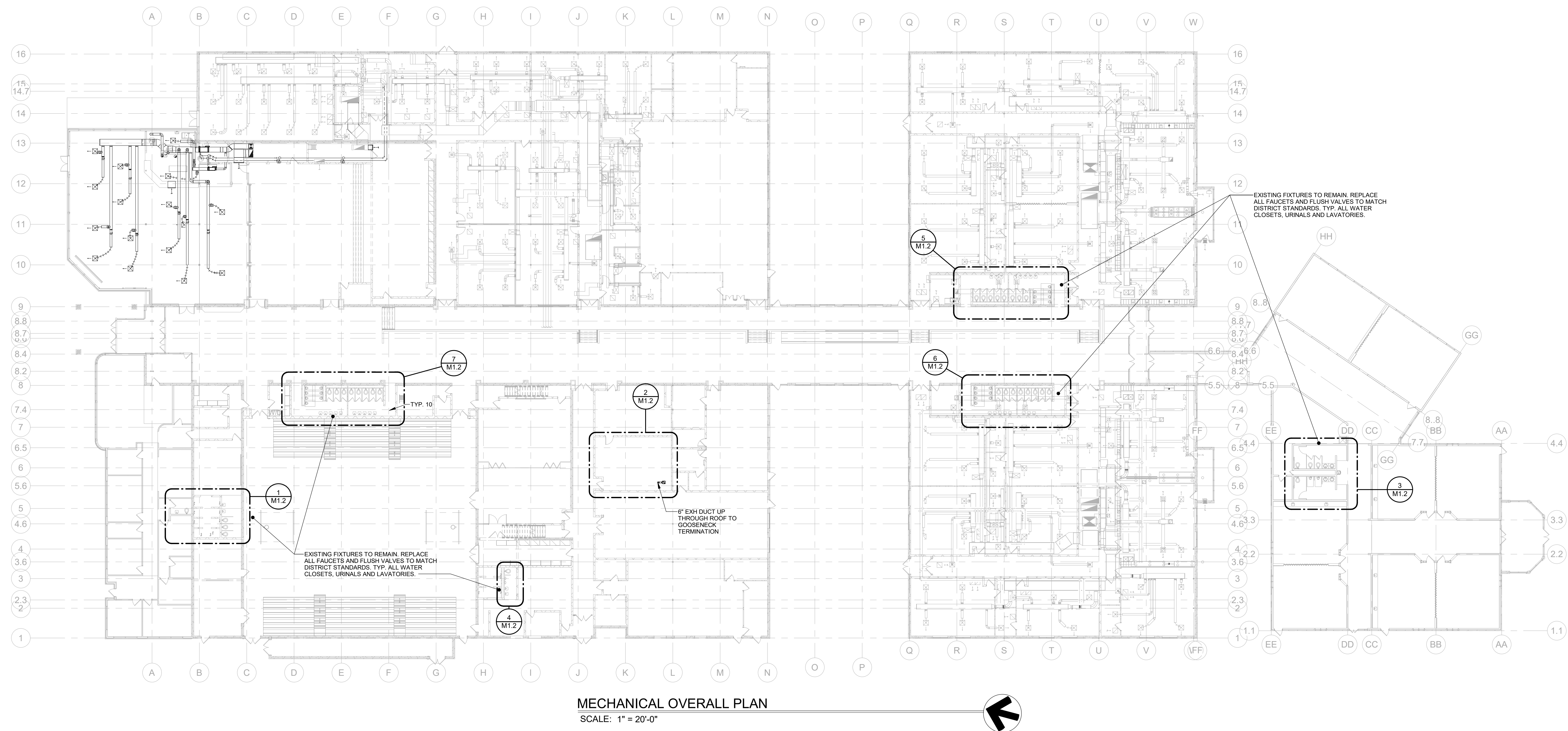
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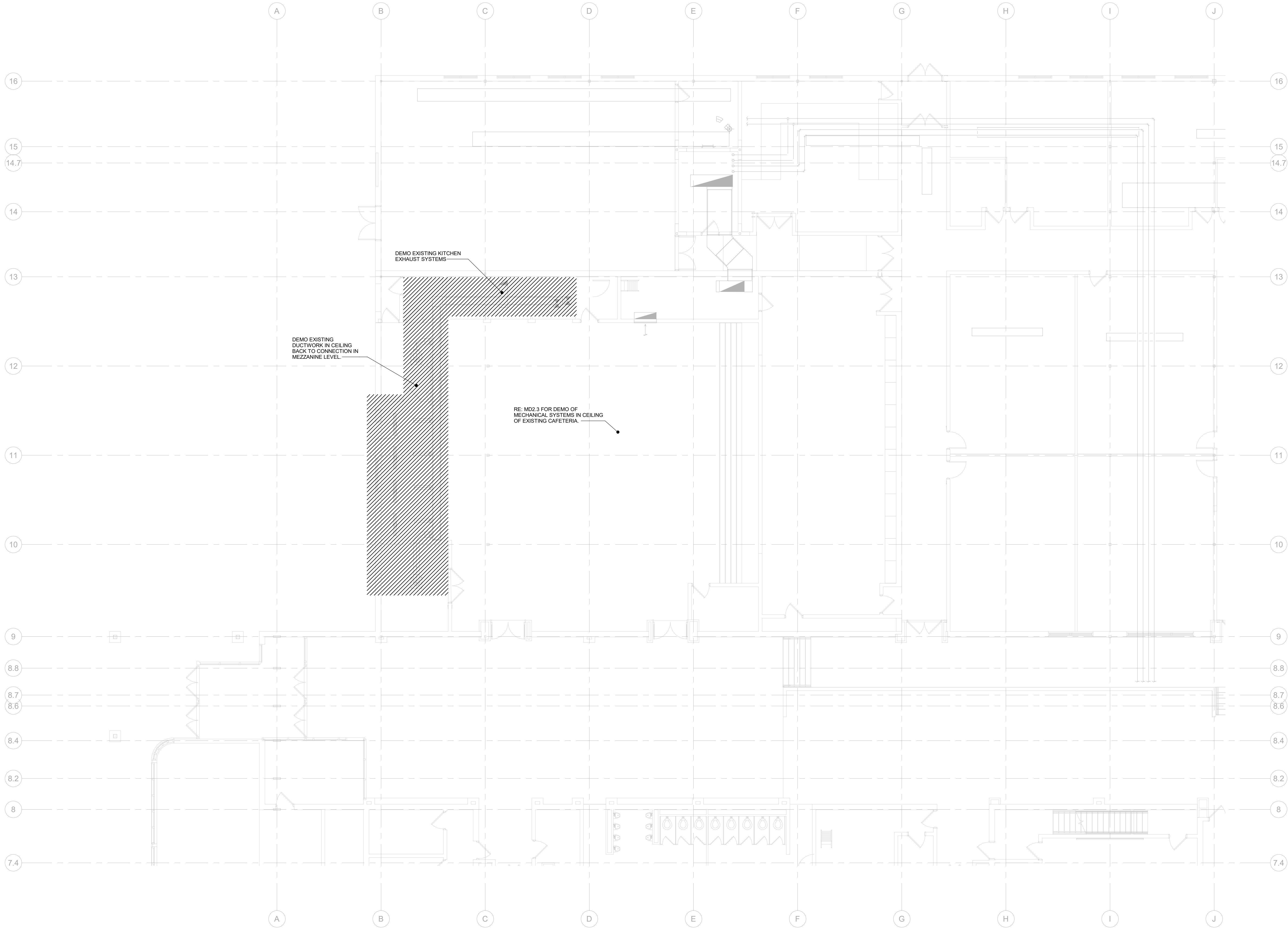
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Sheet Title:
MECHANICAL
OVERALL
PLAN

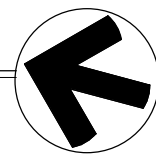
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M1.1



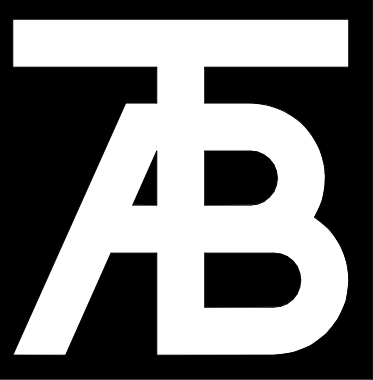


1 FIRST LEVEL AREA A DEMO MECHANICAL PLAN
SCALE: 1/8" = 1'-0"



DEMOLITION NOTES:

- WASTE AND VENT PIPING MAY BE ROUTED SPACE THAT IS NOT REPRESENTED, BUT IS TO BE DEMOLISHED. SEE MD2.3 FOR DEMO OF MECHANICAL SYSTEMS IN CEILING OF EXISTING CAFETERIA.
2. FIELD VERIFY ALL COMPONENTS PRIOR TO DEMOLITION. THE INFORMATION ON THIS SHEET WAS OBTAINED, IN PART, FROM HISTORIC DESIGN DRAWINGS. ONLY PORTIONS OF THE SYSTEMS ARE ACCESSIBLE FOR VISUAL CONFIRMATION DURING DESIGN PROCESS.
3. PROVIDE PRELIMINARY TESTING OF EXISTING HYDRONIC SYSTEMS. MEASURE CURRENT FLUID FLOW RATE THROUGH ALL EXISTING COILS, RADIANT, AND SNOWMELT ZONES FOR THE CURRENTLY INSTALLED SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
4. PROVIDE PRELIMINARY TESTING OF EXISTING HVAC DUCTWORK SYSTEMS. MEASURE CURRENT AIR FLOW RATES AT ALL EXISTING SUPPLY, RETURN, AND EXHAUST REGISTERS. MEASURE TOTAL AIR FLOWS AT MAIN DUCT BRANCHES AND ALL FAN SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
5. (E) WASTE SYSTEM SERVING SPACE IS LOCATED IN THE CEILING OF THE SPACE BELOW.
6. REMOVE ALL MECHANICAL ITEMS INDICATED.
7. TEMPORARILY SEAL OR CAP PIPING TO BE RE-USED FOR LATER CONNECTION.
8. SEAL ALL OPEN DUCTS DURING CONSTRUCTION TO MITIGATE DUST AND DEBRIS FROM SYSTEM. CAP DUCTWORK IN LOCATIONS THAT ARE NOT BEING RECONNECTED.
9. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OF INFORMATION REPRESENTED IN THE DOCUMENTS VERSUS WHAT IS FOUND IN THE FIELD.
10. COORDINATE PATCHING AND REPAIRS OF WALLS, CEILINGS AND FLOORS WITH ARCHITECT.
11. PATCH STRUCTURAL OPENINGS IN FLOORS, WALLS AND ROOFS THAT WERE PREVIOUSLY OCCUPIED BY SYSTEMS AND EQUIPMENT DEMOLISHED UNDER THIS CONTRACT IN ACCORDANCE WITH STRUCTURAL ENGINEER'S REQUIREMENTS.



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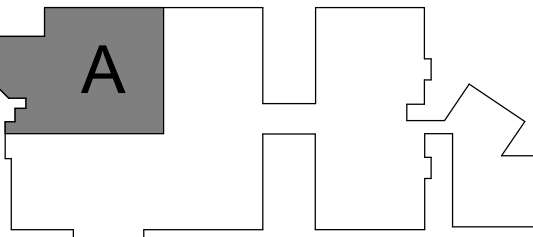
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04.06.2020
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Sheet Title:
FIRST LEVEL
AREA A
DEMO MECH
PLAN

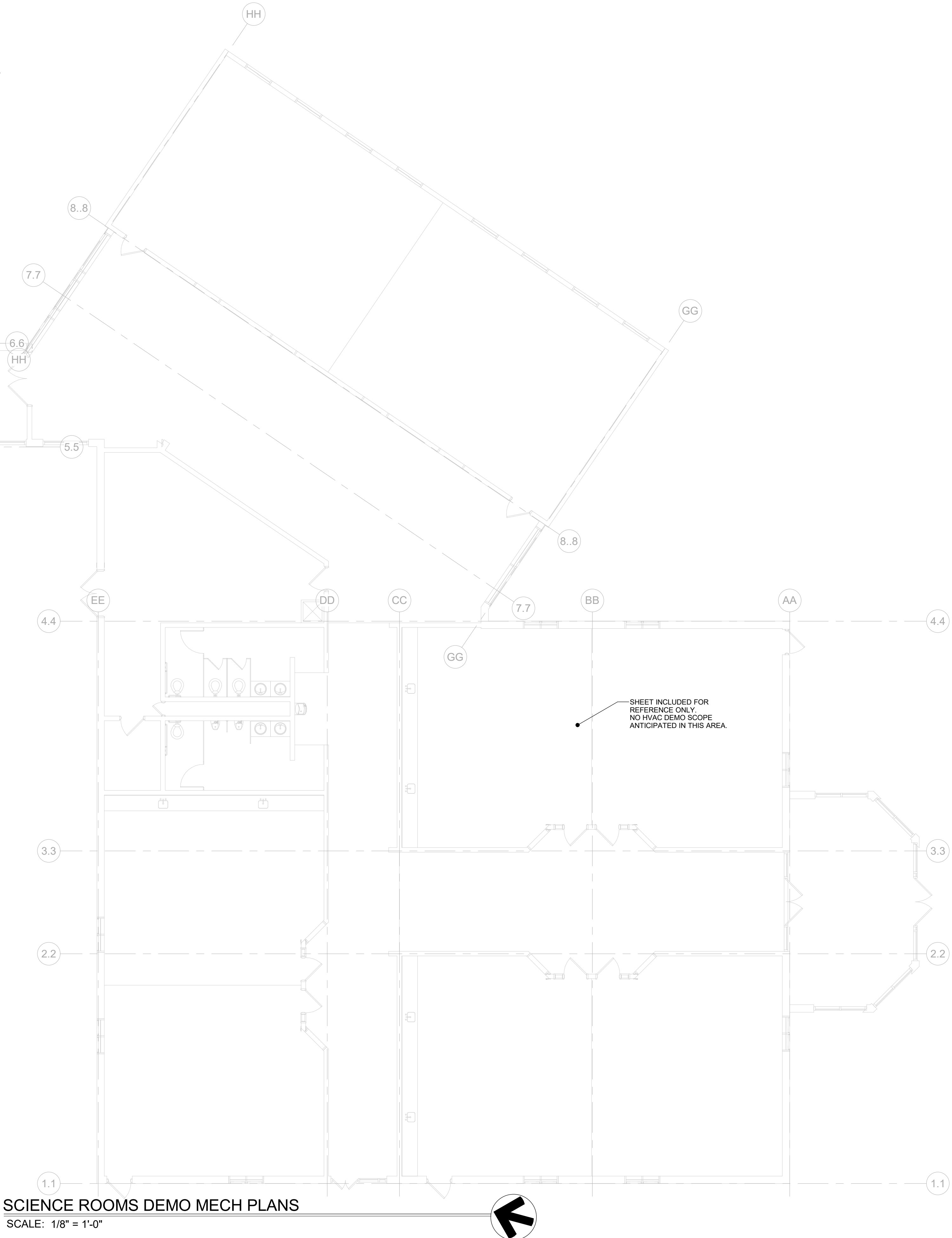
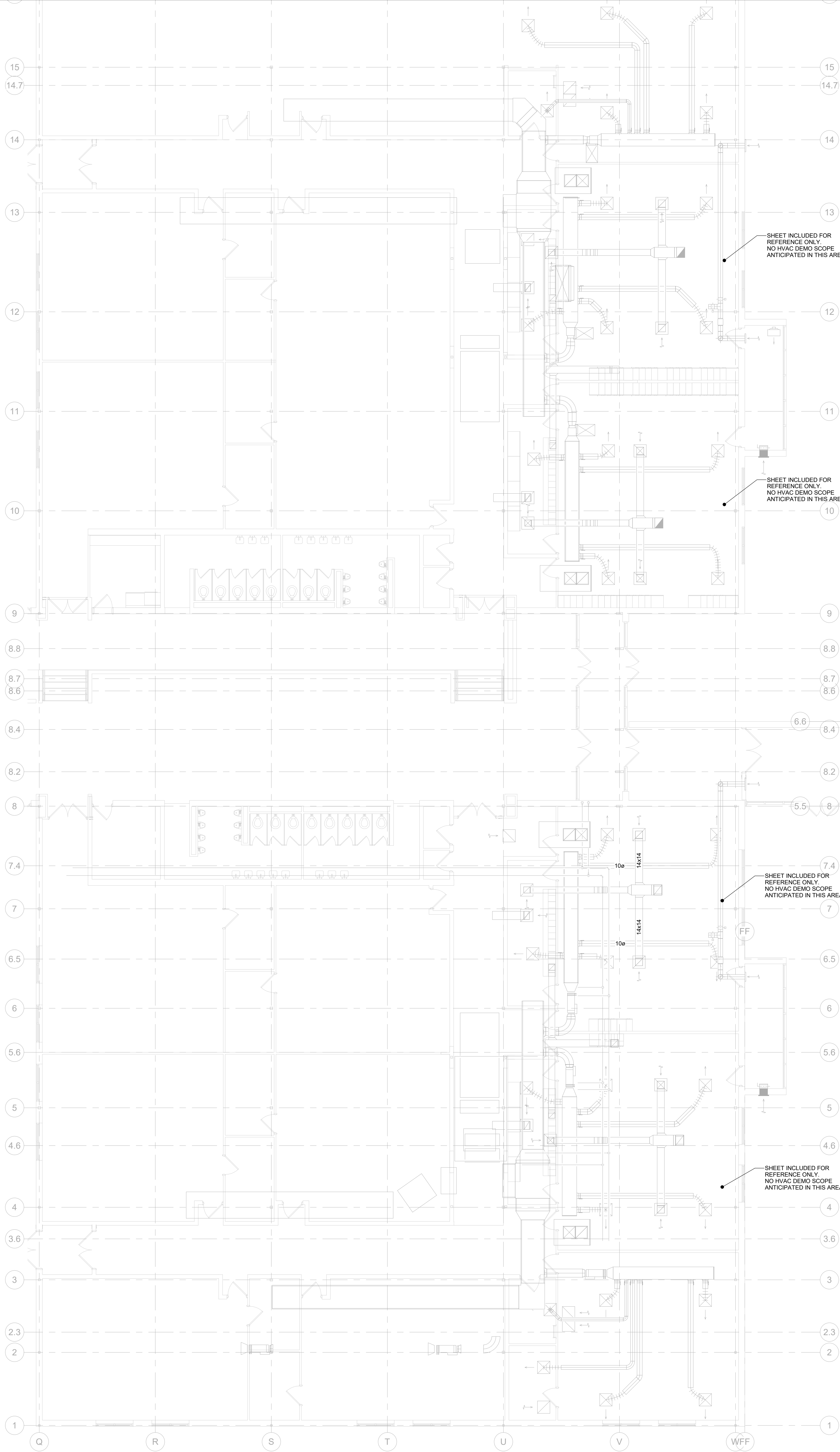
Project No:
10183.00

Sheet No:
MD2.1



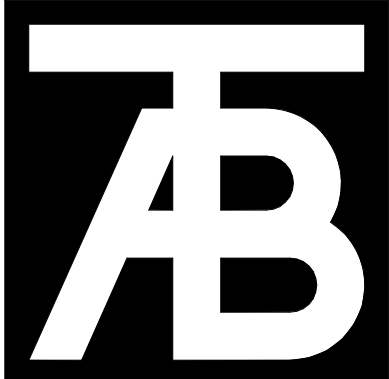
KEY PLAN





DEMOLITION NOTES:

1. WASTE AND VENT PIPING MAY BE ROUTED TO SPACE THAT IS NOT REPRESENTED, BUT IS TO BE DEMOLISHED. SEE DEMOLITION NOTES FOR MORE INFORMATION. THESE DRAWINGS, MODIFICATIONS TO THESE SYSTEMS ARE ANTICIPATED.
2. FIELD VERIFY ALL COMPONENTS PRIOR TO DEMOLITION. THE INFORMATION ON THIS SHEET WAS OBTAINED, IN PART, FROM HISTORIC DESIGN DRAWINGS. ONLY PORTABLE MEASUREMENTS ARE ACCESSIBLE FOR FIELD CONFIRMATION DURING DESIGN PROCESS.
3. PROVIDE PRELIMINARY TESTING OF EXISTING HYDRONIC SYSTEMS. MEASURE CURRENT FLUID FLOW RATE THROUGH ALL EXISTING COILS, RADIANT, AND SNOWMELT ZONES FOR THE CURRENTLY INSTALLED SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
4. PROVIDE PRELIMINARY TESTING OF EXISTING HVAC DUCTWORK SYSTEMS. MEASURE CURRENT AIR FLOW RATES AT ALL EXISTING SUPPLY, RETURN, AND EXHAUST REGISTERS. MEASURE TOTAL AIR FLOWS AT MAIN DUCT BRANCHES AND ALL FAN SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
5. (E) WASTE SYSTEM SERVING SPACE IS LOCATED IN THE CEILING OF THE SPACE BELOW.
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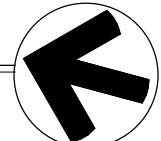
Sheet Title:
**SCIENCE
ROOMS
DEMO MECH
PLANS**

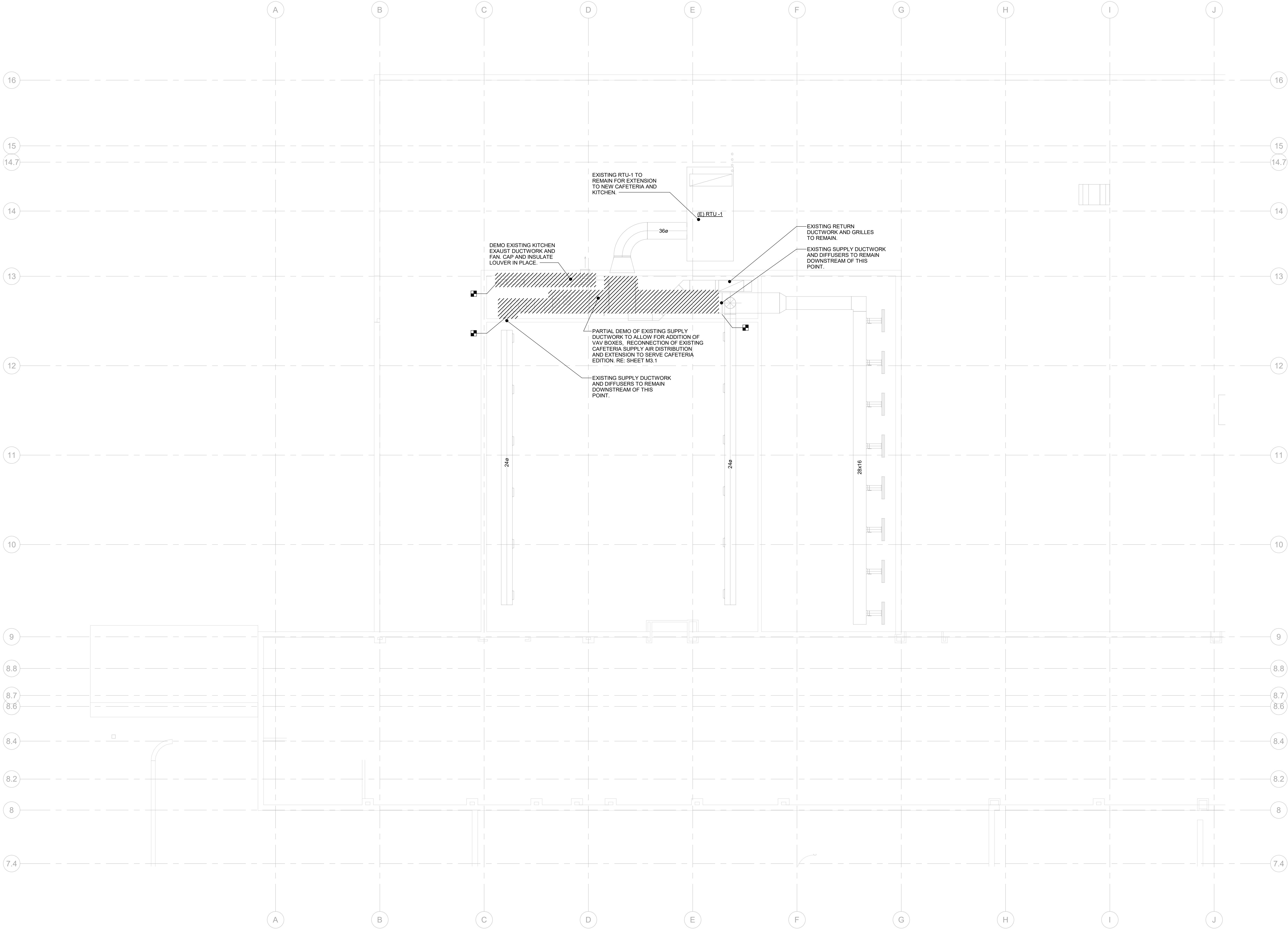
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Sheet No:
MD2.2

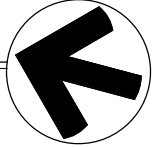


SCIENCE ROOMS DEMO MECH PLANS
SCALE: 1/8" = 1'-0"



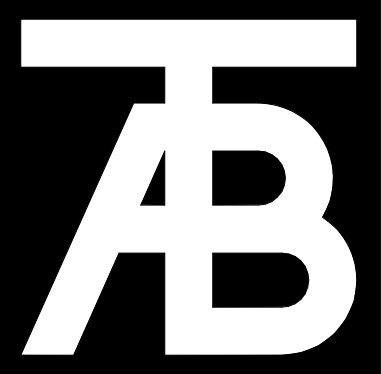
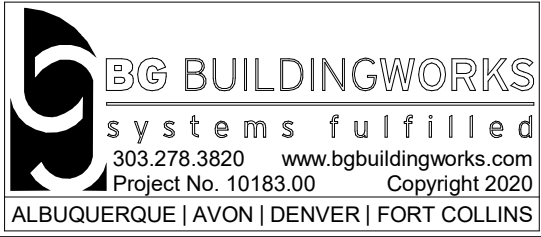


ROOF AREA A DEMO MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

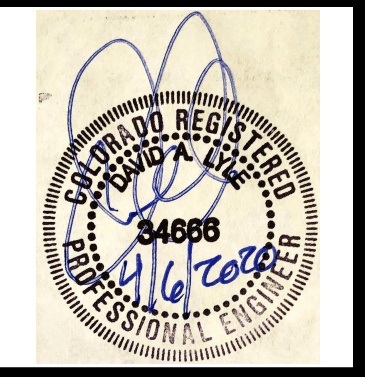


DEMOLITION NOTES:

1. ADDITIONAL STORM, HYDRONIC, DOMESTIC, WASTE AND VENT PIPING MAY BE ROUTED IN SPACE THAT IS NOT REPRESENTED, BUT IS TO REMAIN. THESE SHALL NOT BE REPRESENTED ON THESE DRAWINGS. MODIFICATIONS TO THESE SYSTEMS ARE NOT ANTICIPATED.
2. FIELD VERIFY ALL COMPONENTS PRIOR TO DEMOLITION. THE INFORMATION ON THIS SHEET WAS OBTAINED, IN PART, FROM HISTORIC DESIGN DRAWINGS AND POINTS OF THE BUILDING THAT ARE ACCESSIBLE FOR VISUAL CONFIRMATION DURING DESIGN PROCESS.
3. PROVIDE PRELIMINARY TESTING OF EXISTING HYDRONIC SYSTEMS. MEASURE CURRENT FLUID FLOW RATE THROUGH ALL EXISTING COILS, RADIANT, AND SNOWMELT ZONES FOR THE CURRENTLY INSTALLED SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
4. PROVIDE PRELIMINARY TESTING OF EXISTING HVAC DUCTWORK SYSTEMS. MEASURE CURRENT AIR FLOW RATES AT ALL EXISTING SUPPLY, RETURN, AND EXHAUST REGISTERS. MEASURE TOTAL AIR FLOWS AT MAIN DUCT BRANCHES AND ALL FAN SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
5. (E) WASTE SYSTEM SERVING SPACE IS LOCATED IN THE CEILING OF THE SPACE BELOW.
6. REMOVE ALL MECHANICAL ITEMS INDICATED.
7. TEMPORARILY SEAL OR CAP PIPING TO BE RE-USED FOR LATER CONNECTION.
8. SEAL ALL OPEN DUCTS DURING CONSTRUCTION TO MITIGATE DUST AND DEBRIS FROM SYSTEM. CAP DUCTWORK IN LOCATIONS THAT ARE NOT BEING RECONNECTED.
9. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OF INFORMATION REPRESENTED IN THE DOCUMENTS VERSUS WHAT IS FOUND IN THE FIELD.
10. COORDINATE PATCHING AND REPAIRS OF WALLS, CEILINGS AND FLOORS WITH ARCHITECT.
11. PATCH STRUCTURAL OPENINGS IN FLOORS, WALLS AND ROOFS THAT WERE PREVIOUSLY OCCUPIED BY SYSTEMS AND EQUIPMENT DEMOLISHED UNDER THIS CONTRACT IN ACCORDANCE WITH STRUCTURAL ENGINEER'S REQUIREMENTS.



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Sheet Title:
ROOF AREA A
DEMO MECH
PLAN

Project No:
10183.00

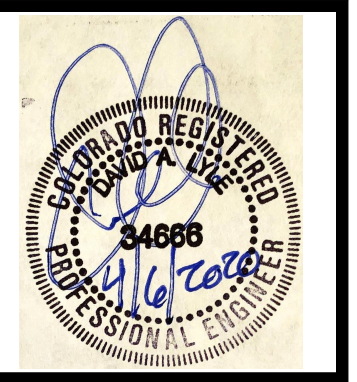
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MD2.3

NOTES:

1. RE: M&O SERIES FOR MECHANICAL DIAGRAM.
2. CEILING COORDINATION OF ALL MEP SYSTEMS SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO THE START OF MECHANICAL INSTALLATIONS.
3. DO NOT ROUTE DUCTWORK OVER ELECTRICAL ROOMS OR ELECTRICAL PANELS. MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR.
4. PROVIDE FLEXIBLE DUCT AND PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
5. ALL DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE, ESPECIALLY WHERE CROSSING OTHER DUCTS, PIPES, AND ELECTRICAL.
6. MAINTAIN MIN. 3 FT BETWEEN ENVIRONMENTAL EXH TERMINATIONS AND OPENINGS INTO BUILDING.



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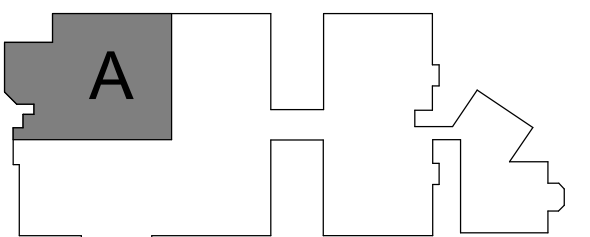
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No.	Description	Date

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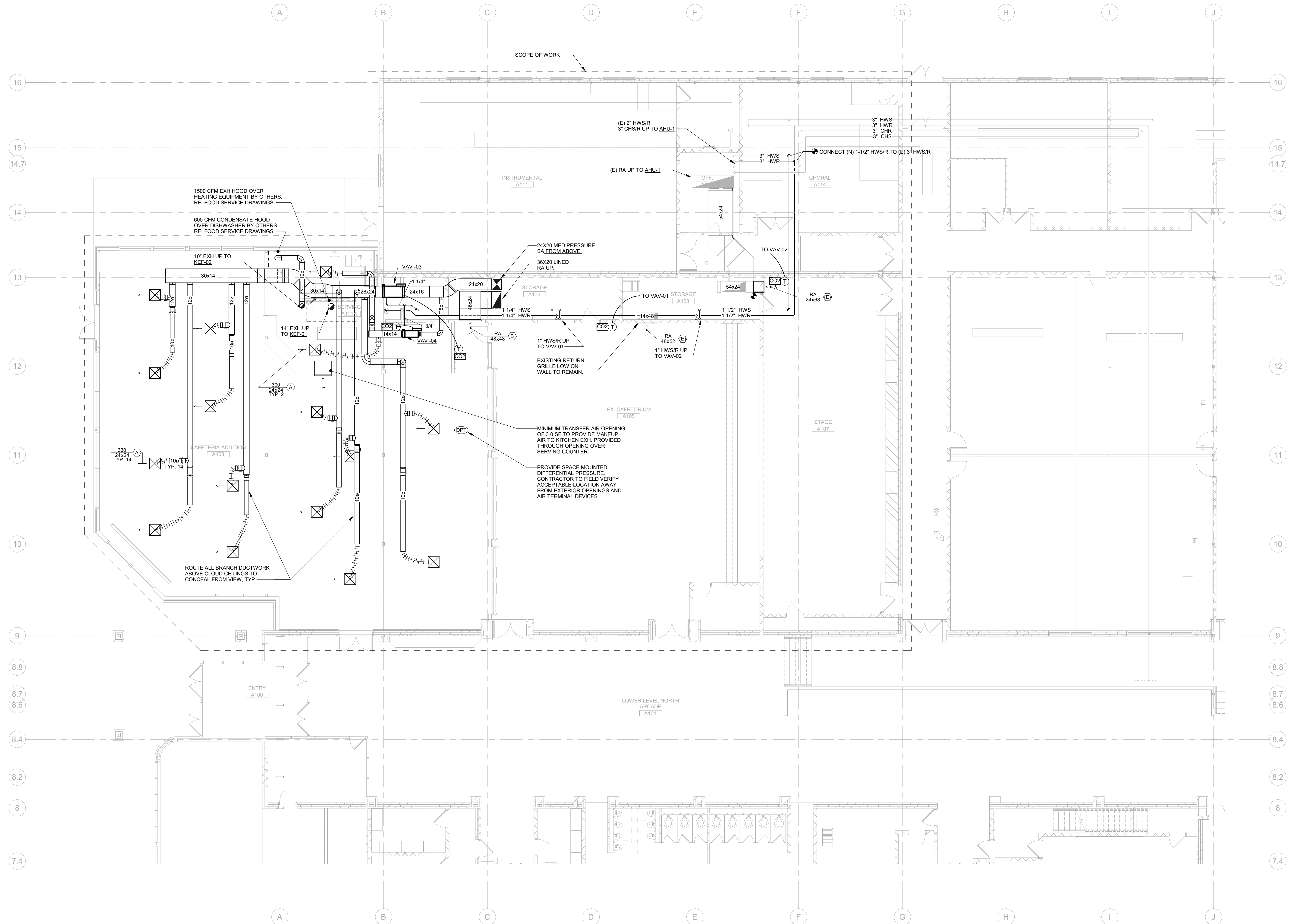
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**FIRST LEVEL
AREA A MECH
PLAN**

Project No:
10183.00

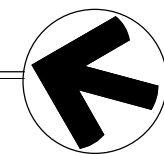
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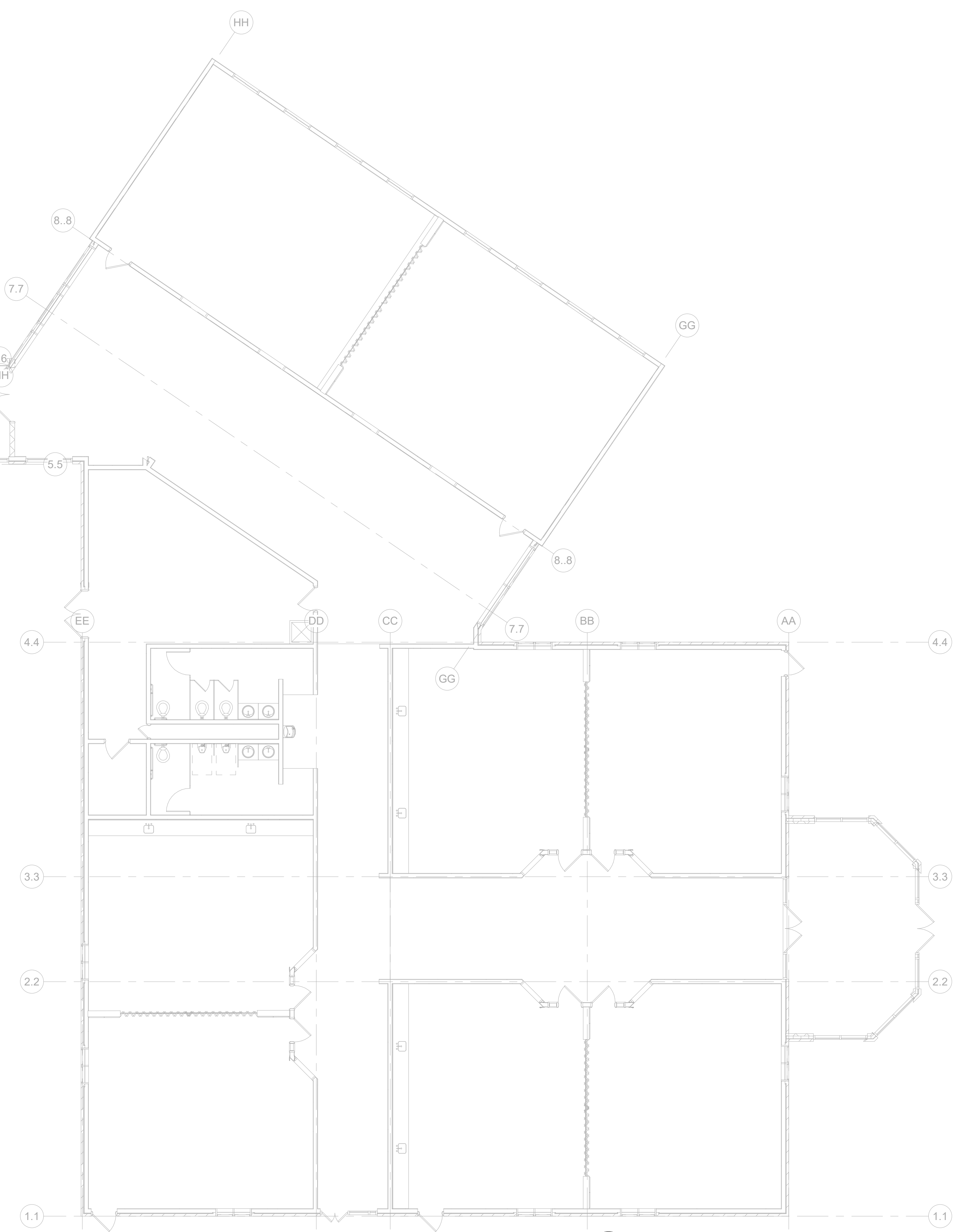
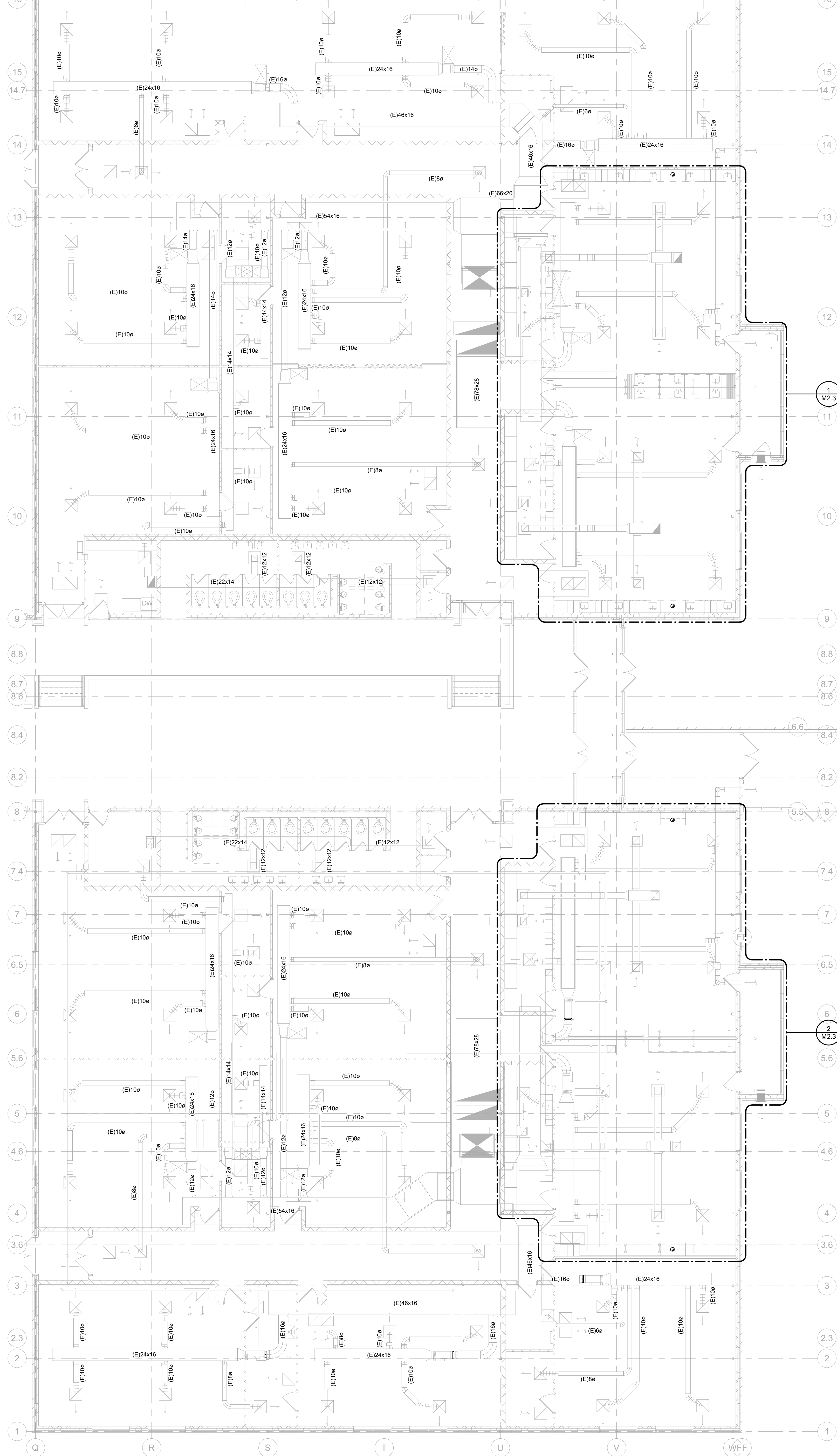


KEY PLAN



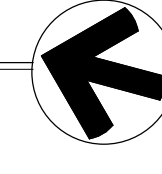
1 FIRST LEVEL AREA A MECHANICAL PLAN
SCALE: 1/8" = 1'-0"





SCIENCE ROOMS MECH PLANS


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



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STATE OF COLORADO
No. 34098
TAB ASSOCIATES

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Sheet Title:
**SCIENCE
ROOMS
MECH PLANS**

Project No:
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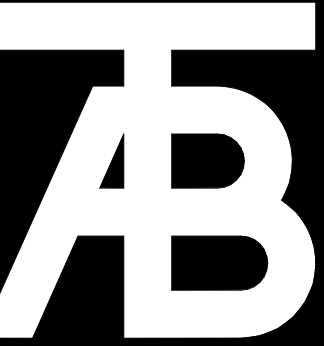
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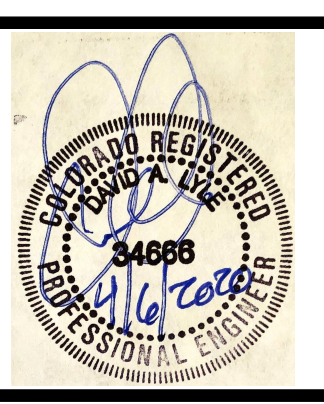
NOTES:

2. CEILING COORDINATION OF ALL MEP SYSTEMS SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO THE START OF MECHANICAL INSTALLATIONS.
3. DO NOT ROUTE DUCTWORK OVER ELECTRICAL ROOMS OR ELECTRICAL PANELS. MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTINGS WITH DIV. 16 CONTRACTOR.
4. PROVIDE FLEXIBLE DUCT AND PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
5. ALL DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE. ESPECIALLY WHERE CROSSING OTHER DUCTS, PIPES, AND ELECTRICAL.
6. MAINTAIN MIN. 3 FT. BETWEEN ENVIRONMENTAL EXH TERMINATIONS AND OPENINGS INTO BUILDING.

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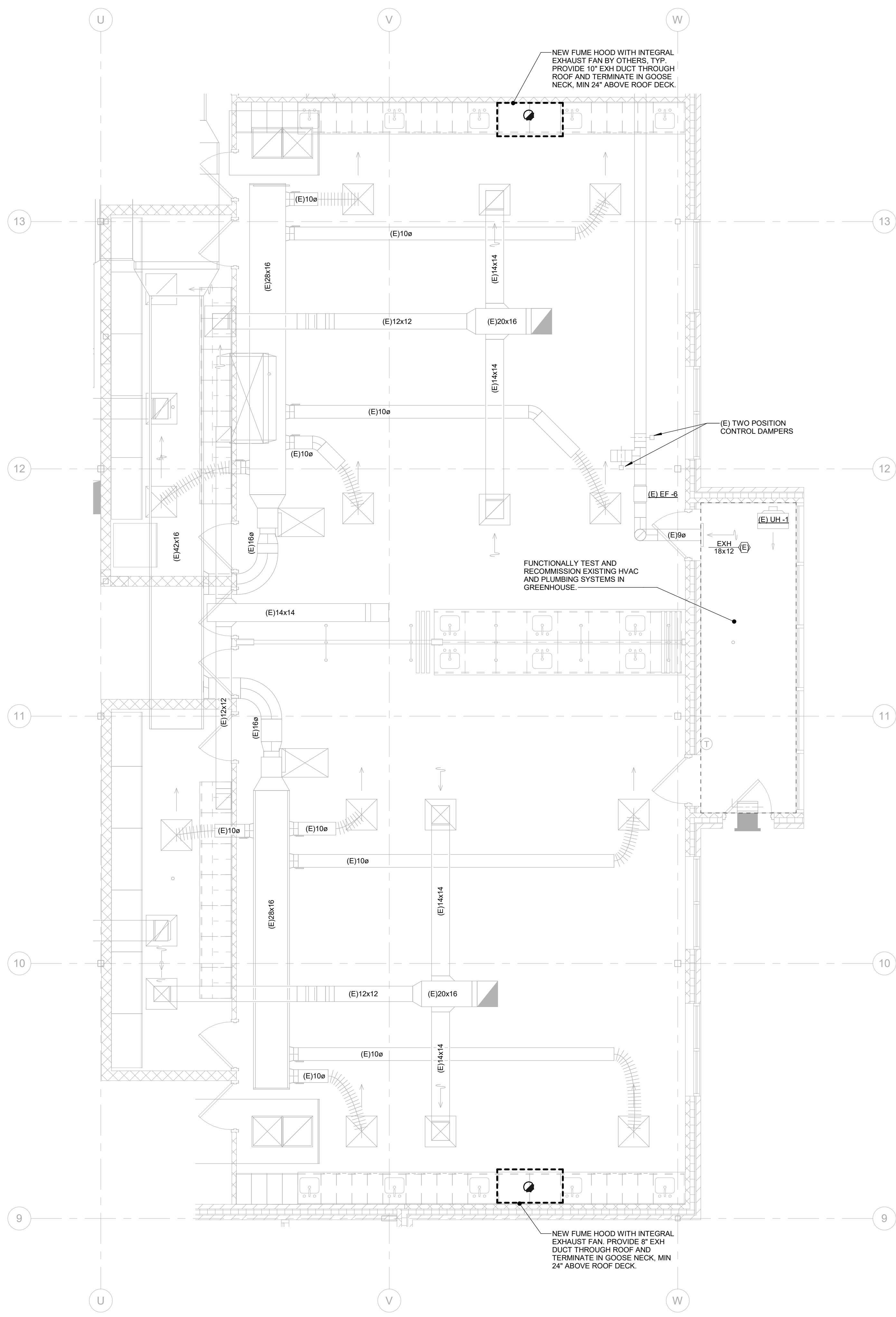
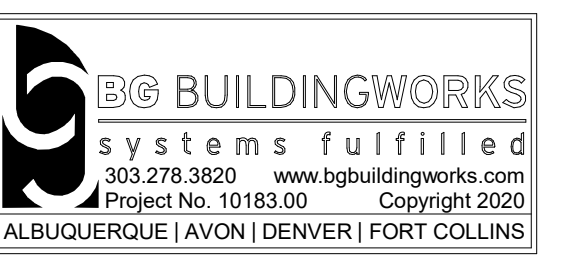
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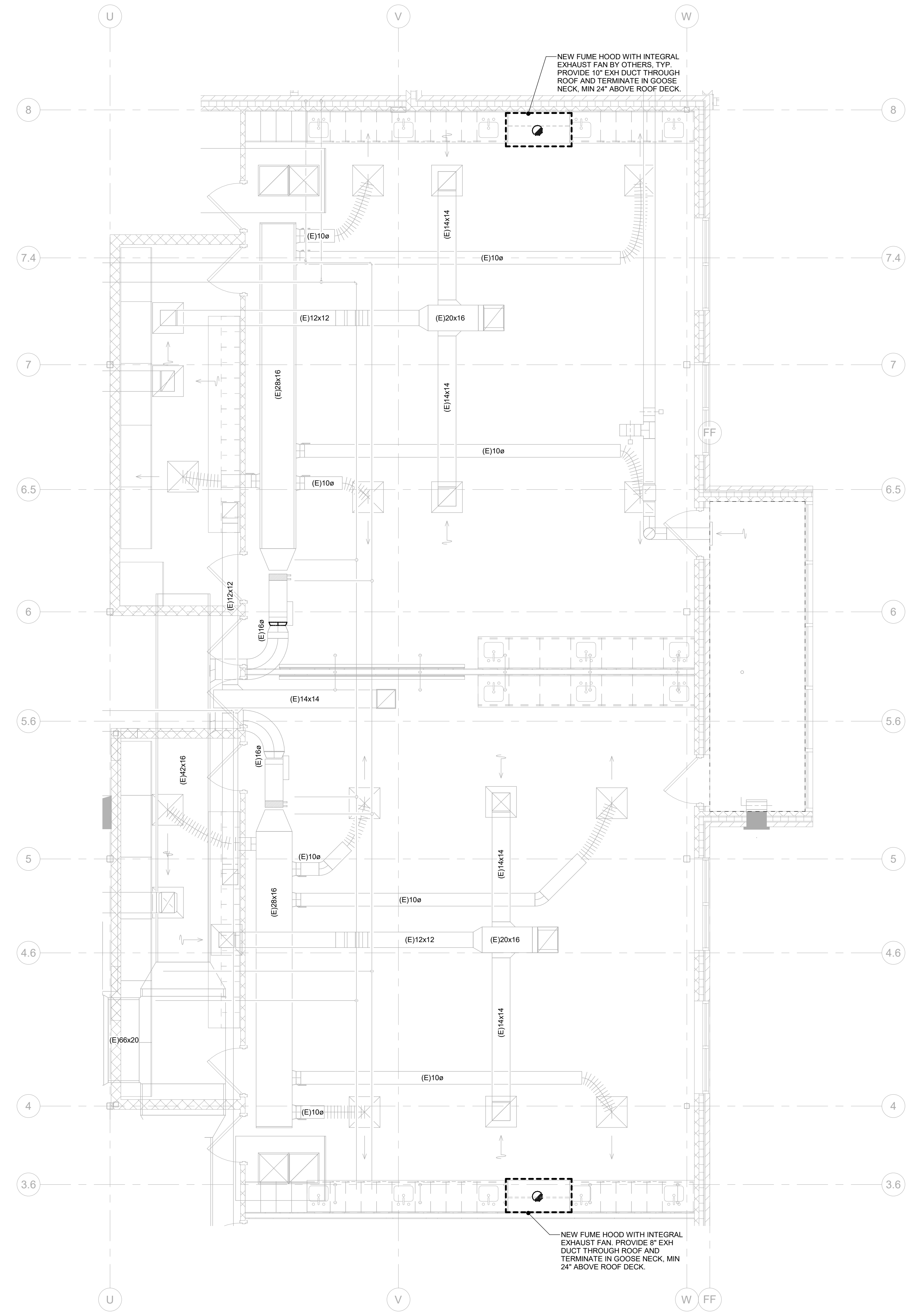
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**SCIENCE ROOMS
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Project No:
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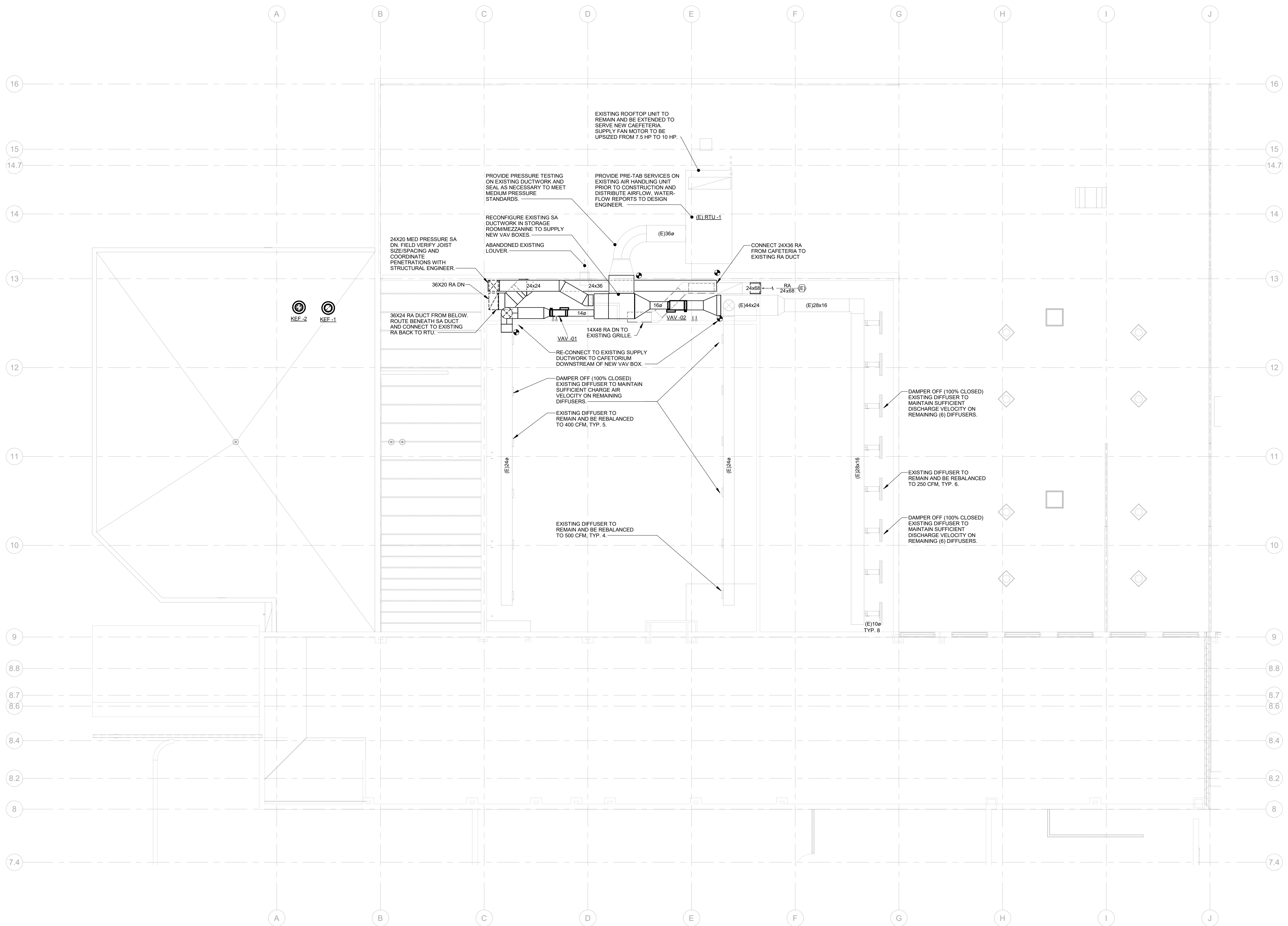
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7TH GRADE SCIENCE ROOMS MECHANICAL PLAN
SCALE: 1/4" = 1'-0"



8TH GRADE SCIENCE ROOMS MECHANICAL PLAN
SCALE: 1/4" = 1'-0"



ROOF AREA A MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

- NOTES:
- RE: M3.0 SERIES FOR MECHANICAL DIAGRAM
 - DO NOT ROUTE DUCTWORK OVER ELECTRICAL ROOMS OR ELECTRICAL PANELS. MAINTAIN MIN. 3 FT. CLEARANCE. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR PRIOR TO THE START OF ANY INSTALLATIONS.
 - DO NOT ROUTE DUCTWORK OVER ELECTRICAL ROOMS OR ELECTRICAL PANELS. MAINTAIN MIN. 3 FT. CLEARANCE. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR PRIOR TO THE START OF ANY INSTALLATIONS.
 - PROVIDE FLEXIBLE DUCT AND PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
 - ALL DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE. ESPECIALLY WHERE CROSSING OTHER DUCTS, PIPES, AND ELECTRICAL.
 - MAINTAIN MIN. 3 FT. BETWEEN ENVIRONMENTAL EXH TERMINATIONS AND OPENINGS INTO BUILDING.

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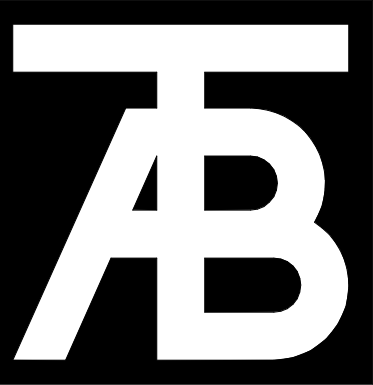
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Sheet Title:
ROOF AREA A
MECHANICAL
PLAN

Project No:
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Sheet No:
M2.4



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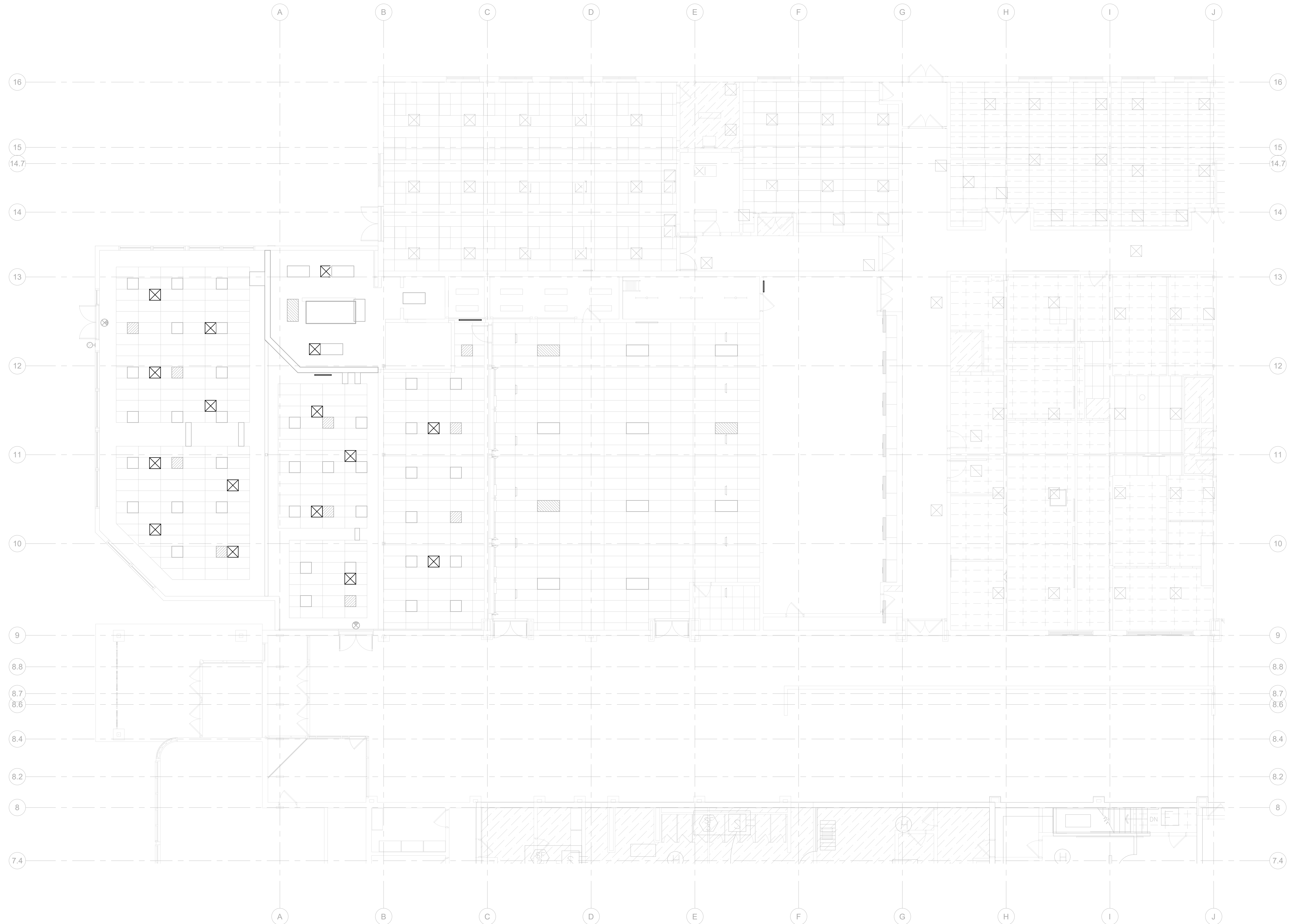
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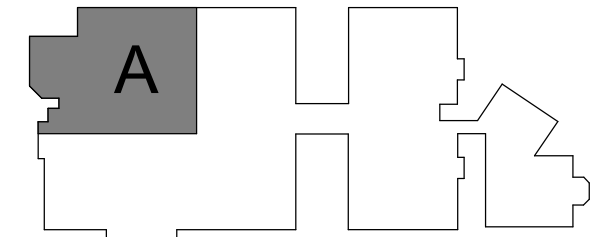
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**FIRST LEVEL
AREA A
MECHANICAL
COORDINATION
CEILING PLAN**

Project No:
10183.00

Sheet No:
MC2.1



1 FIRST LEVEL MECHANICAL COORDINATION CEILING PLAN
SCALE: 1/8" = 1'-0"



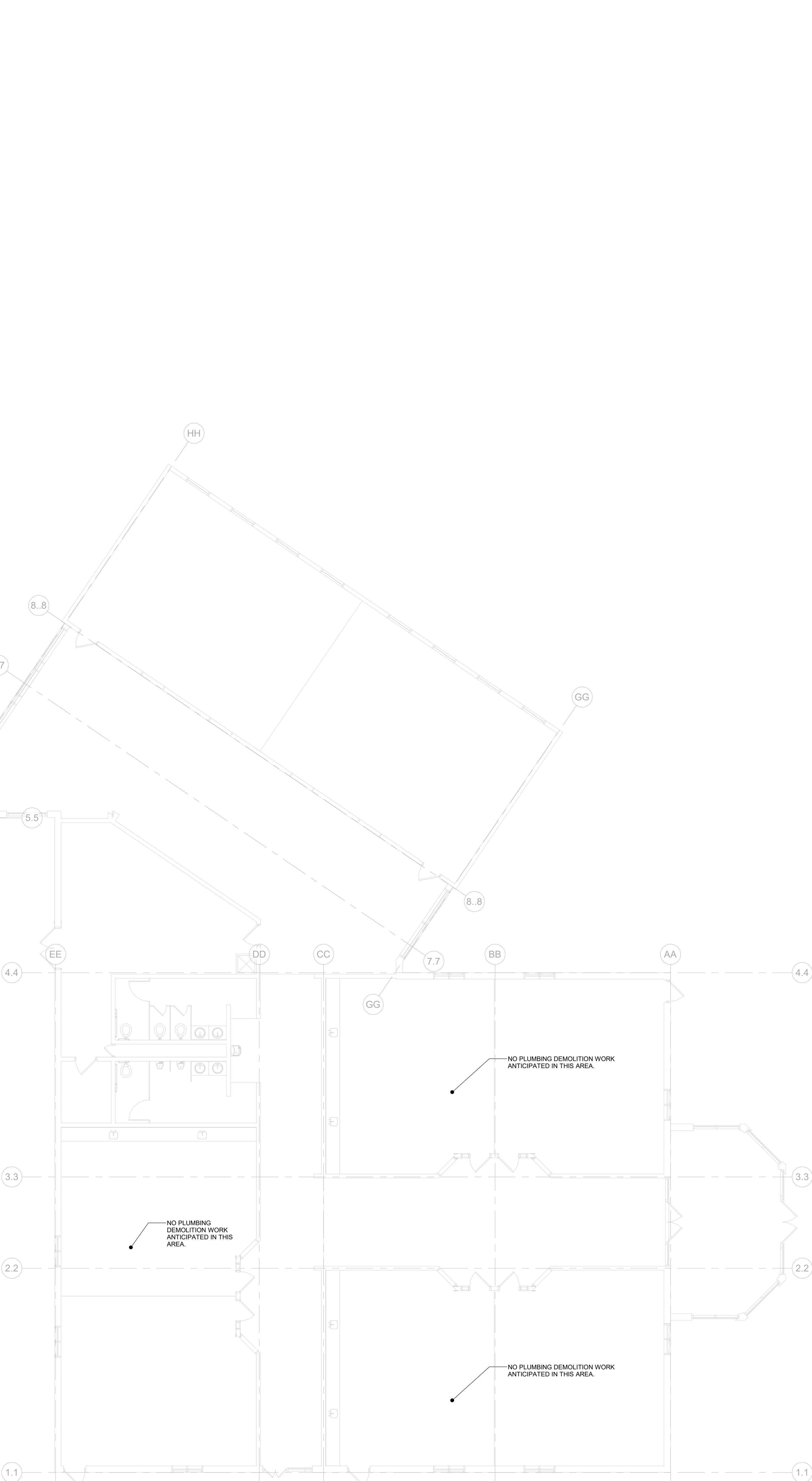
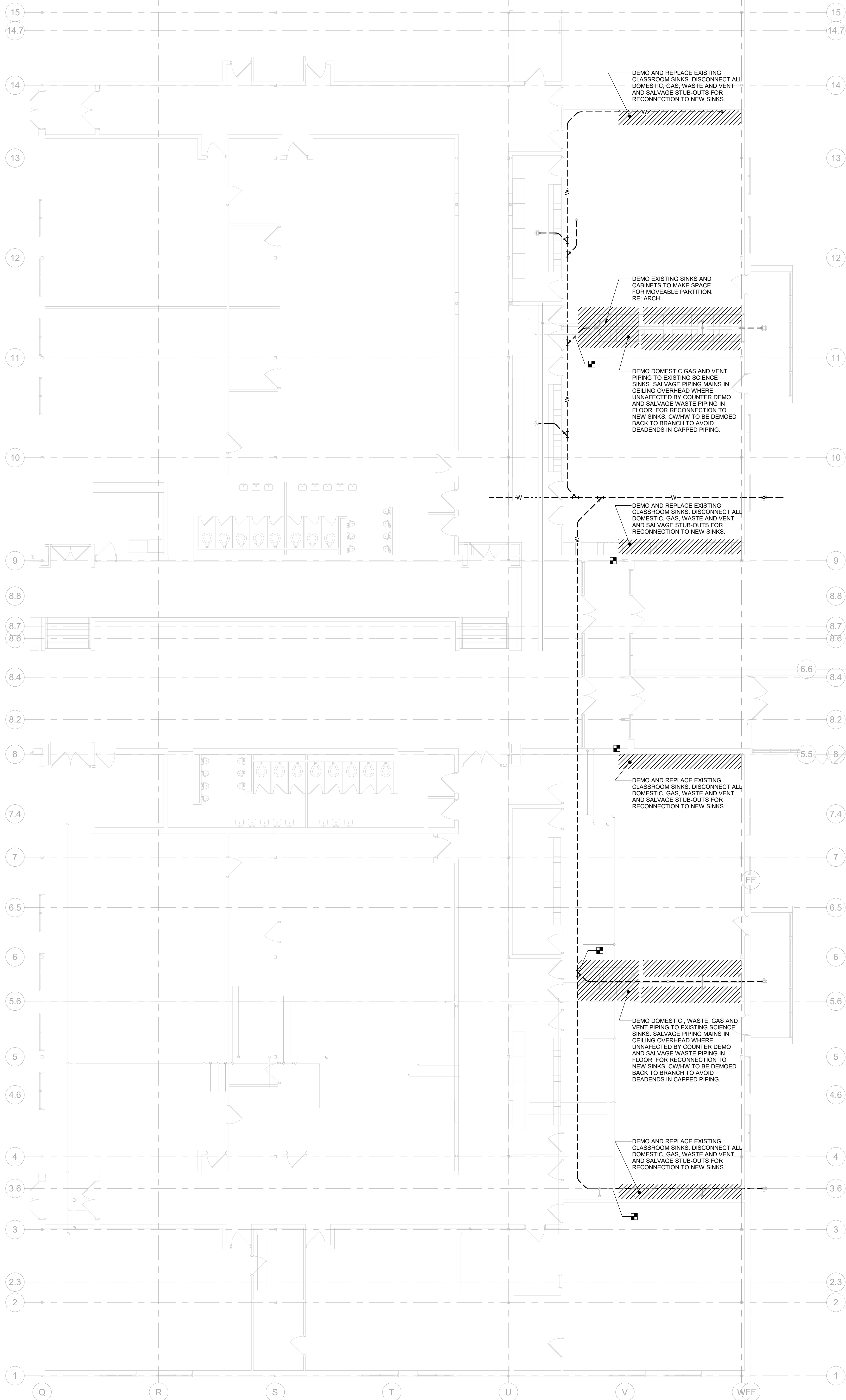
KEY PLAN



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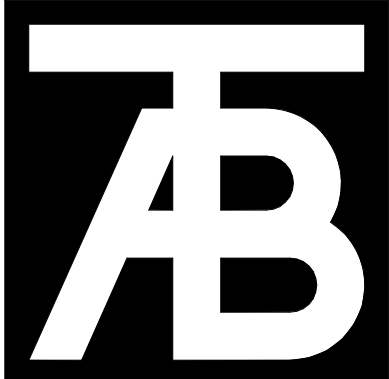


FIRST LEVEL AREA A DEMO PLUMBING PLAN
SCALE: 1/8" = 1'-0"



SCIENCE ROOMS DEMO PLUMBING PLAN
SCALE: 1/8" = 1'-0"

- DEMOLITION NOTES:**
1. ADDITIONAL STORM, HYDRONIC, DOMESTIC, WASTE AND VENT PIPING MAY BE ROUTED IN THE SPACE THAT ARE NOT REPRESENTED ON THESE DRAWINGS. VERIFICATIONS TO THESE SYSTEMS ARE NOT ANTICIPATED.
 2. FIELD VERIFY ALL COMPONENTS PRIOR TO DEMOLITION. THE INFORMATION ON THIS SHEET WAS OBTAINED, IN PART, FROM HISTORIC RECORDS. THESE SYSTEMS WERE ACCESSIBLE FOR VISUAL CONFIRMATION DURING DESIGN PROCESS.
 3. PROVIDE PRELIMINARY TESTING OF EXISTING HYDRONIC SYSTEMS. MEASURE CURRENT FLUID FLOW RATE THROUGH ALL EXISTING COILS, RADIANT, AND SNOWMELT ZONES FOR THE CURRENTLY INSTALLED SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
 4. PROVIDE PRELIMINARY TESTING OF EXISTING HVAC DUCTWORK SYSTEMS. MEASURE CURRENT AIR FLOW RATES AT ALL EXISTING SUPPLY, RETURN, AND EXHAUST REGISTERS. MEASURE TOTAL AIR FLOWS AT MAIN DUCT BRANCHES AND ALL FAN SYSTEMS. SUBMIT REPORT OF MEASURED VALUES TO ENGINEER FOR REVIEW AND CONFIRMATION OF SYSTEM DESIGN ASSUMPTIONS PRIOR TO DEMOLITION.
 5. (E) WASTE SYSTEM SERVING SPACE IS LOCATED IN THE CEILING OF THE SPACE BELOW.
 6. REMOVE ALL MECHANICAL ITEMS INDICATED.
 7. TEMPORARILY SEAL OR CAP PIPING TO BE RE-USED FOR LATER CONNECTION.
 8. SEAL ALL OPEN DUCTS DURING CONSTRUCTION TO MITIGATE DUST AND DEBRIS FROM SYSTEM. CAP DUCTWORK IN LOCATIONS THAT ARE NOT BEING RECONNECTED.
 9. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OF INFORMATION REPRESENTED IN THE DOCUMENTS VERSUS WHAT IS FOUND IN THE FIELD.
 10. COORDINATE PATCHING AND REPAIRS OF WALLS, CEILINGS AND FLOORS WITH ARCHITECT.
 11. PATCH STRUCTURAL OPENINGS IN FLOORS, WALLS AND ROOFS THAT WERE PREVIOUSLY OCCUPIED BY SYSTEMS AND EQUIPMENT DEMOLISHED UNDER THIS CONTRACT IN ACCORDANCE WITH STRUCTURAL ENGINEER'S REQUIREMENTS.



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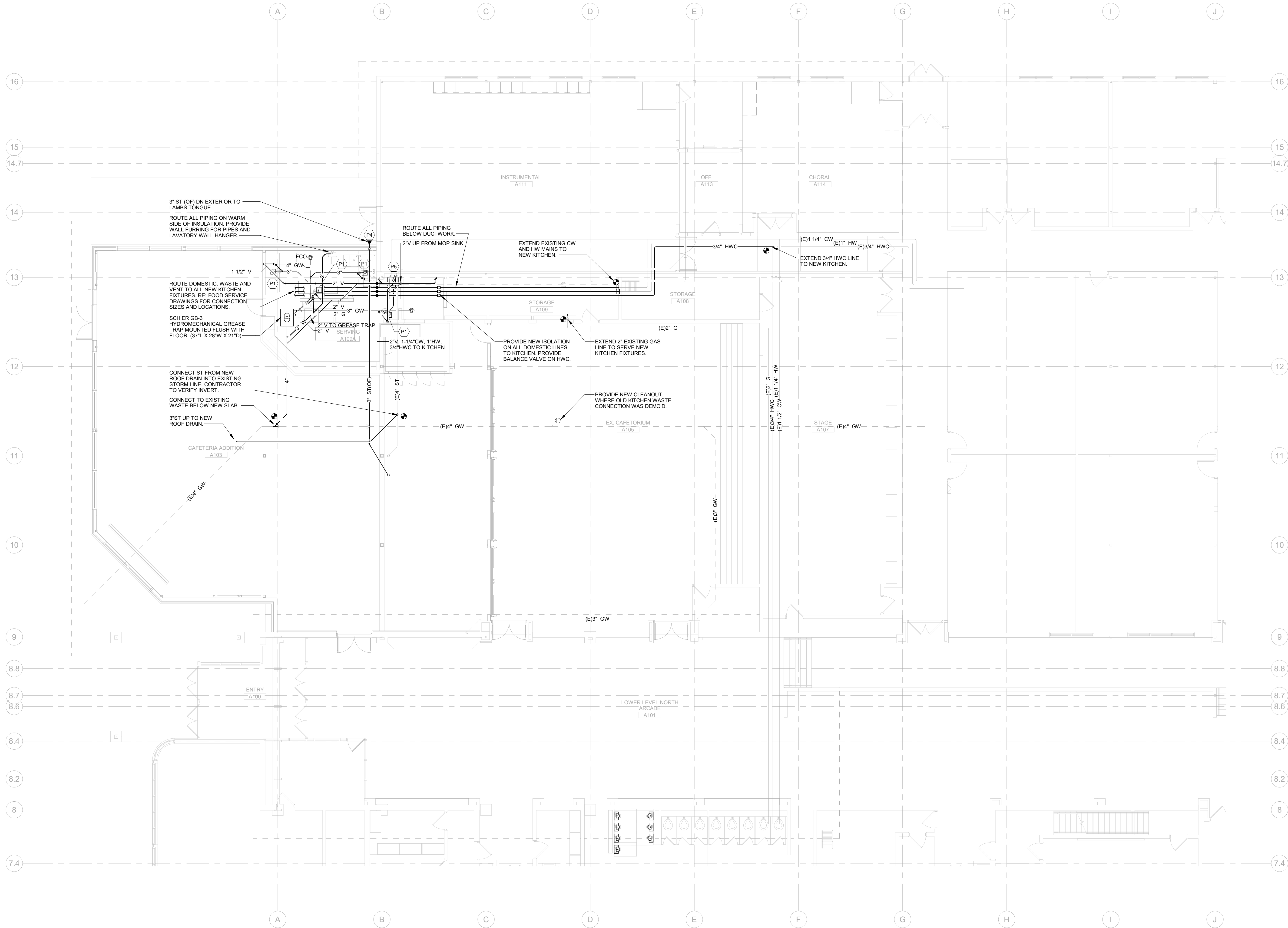
Sheet Title:
SCIENCE ROOMS DEMO PLUMBING PLAN

Project No:
10183.00

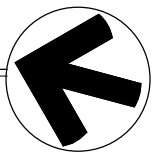
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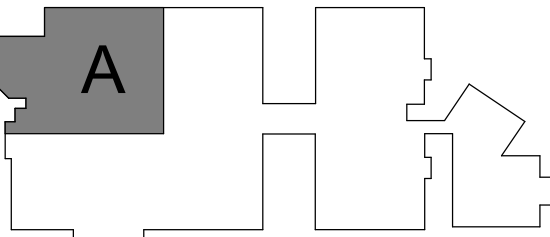


FIRST LEVEL AREA A PLUMBING PLAN
SCALE: 1/8" = 1'-0"

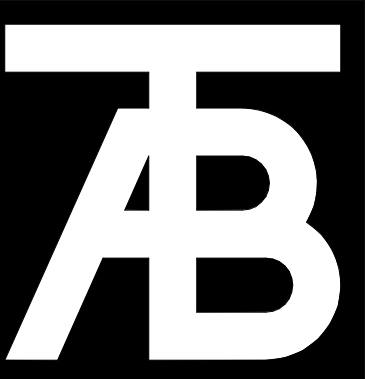


NOTES:

1. SEE M3.0 SERIES FOR MECHANICAL DIAGRAM.
2. SET-TO-SET PLUMBING FIXTURES SHALL BE INSTALLED TO MATCH THE SET-TO-SET PLUMBING FIXTURES. SEE THE SET-TO-SET PLUMBING FIXTURES FOR THE SET-TO-SET PLUMBING FIXTURES.
3. NOT ALL REQUIRED CLEANOUTS ARE NECESSARILY SHOWN ON THESE PLANS. PROVIDE CLEANOUTS ON WASTE, VENT AND STORM PIPING AS REQUIRED BY CODE AND FOR REASONABLE MAINTENANCE BASED ON ACTUAL FIELD CONDITIONS. DATE LOCATIONS WITH ARCHITECT'S SIGNER.
4. DRAIN LINES WITH ARCHITECT PRIOR TO INSTALLATION.
5. PIPING ON EXTERIOR WALLS OR PRE-CAST CONCRETE WALLS TO BE ROUTED IN FRAMED WALL ON INTERIOR SIDE OF INSULATION.
6. ST AND ST(O)F PIPING 3" U.N.O.
7. INSTALL THERMOSTATIC MIXING VALVES, ASSE 1070 LISTED, AT EACH PUBLIC HANDWASHING LAVATORY/SINK. SIZE TO MATCH HW PIPE SIZE.
8. ROOF OVERFLOW DRAINAGE STRATEGY TO BE DETERMINED OR VIA ARCHITECTURAL SCUPPERS U.N.O.
9. TERMINATE PLUMBING VENTS NOT LESS THAN 12' ABOVE ROOF.
10. DO NOT ROUTE PIPING OVER ELECTRICAL ROOMS OR ELECTRICAL PANELS. MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTINGS WITH DIV. 16 CONTRACTOR.
11. CONTRACTOR TO MAINTAIN 8'-6" CLEAR HEAD HEIGHT IN GARAGE AND INFORM THE ENGINEERS AND ARCHITECT OF ANY AREAS THAT MAY NOT MEET 8'-6" PRIOR TO INSTALLATION. MINIMUM 6'-2" CLEAR HEAD HEIGHT MUST BE MAINTAINED IN ACCESSIBLE VEHICLE AREAS.
12. PROVIDE FLEXIBLE PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
13. ROUTE DOMESTIC HOT WATER REIRC TO WITHIN 10 FEET OF ALL HOT WATER FIXTURES. CONNECT WITHIN 2 FEET OF PUBLIC LAVATORY FAUCETS.
14. VERIFY ALL EQUIPMENT ACCESS PANELS WITH MANUFACTURER AND ARCHITECT.
15. PROTECT PIPING ROUTED ALONG COLUMNS, WALLS, ETC. FROM DAMAGE AS NECESSARY WITH CAGES. COORDINATE WITH ARCHITECT.
16. PEX PIPING SHALL NOT BE ALLOWED TO PENETRATE FIRE BARRIERS WHERE FIRE CAULKING IS REQUIRED.
17. ALL VALVES SHALL BE INSTALLED ABOVE DROP-IN CEILINGS IN ACCESSIBLE LOCATIONS, OR WITH ACCESS PANELS IN HARD-LID CEILINGS.
18. ALL PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE, ESPECIALLY WHERE CROSSING OTHER PIPES, DUCTS, AND ELECTRICAL.
19. ACCESS PANELS SHALL BE 24x24 U.N.O. LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT'S DRAWINGS AND WITH THE LOCATIONS OF THE EQUIPMENT OR APPARATUS THAT THEY SERVE.
20. SEAL ALL PIPING PENETRATIONS THROUGH ACOUSTIC PARTITIONS.
21. EXPOSED SOIL OR WASTE PIPING SHALL NOT BE INSTALLED ABOVE ANY WORKING, STORAGE, OR EATING SURFACES IN FOOD SERVICE ESTABLISHMENTS.



KEY PLAN



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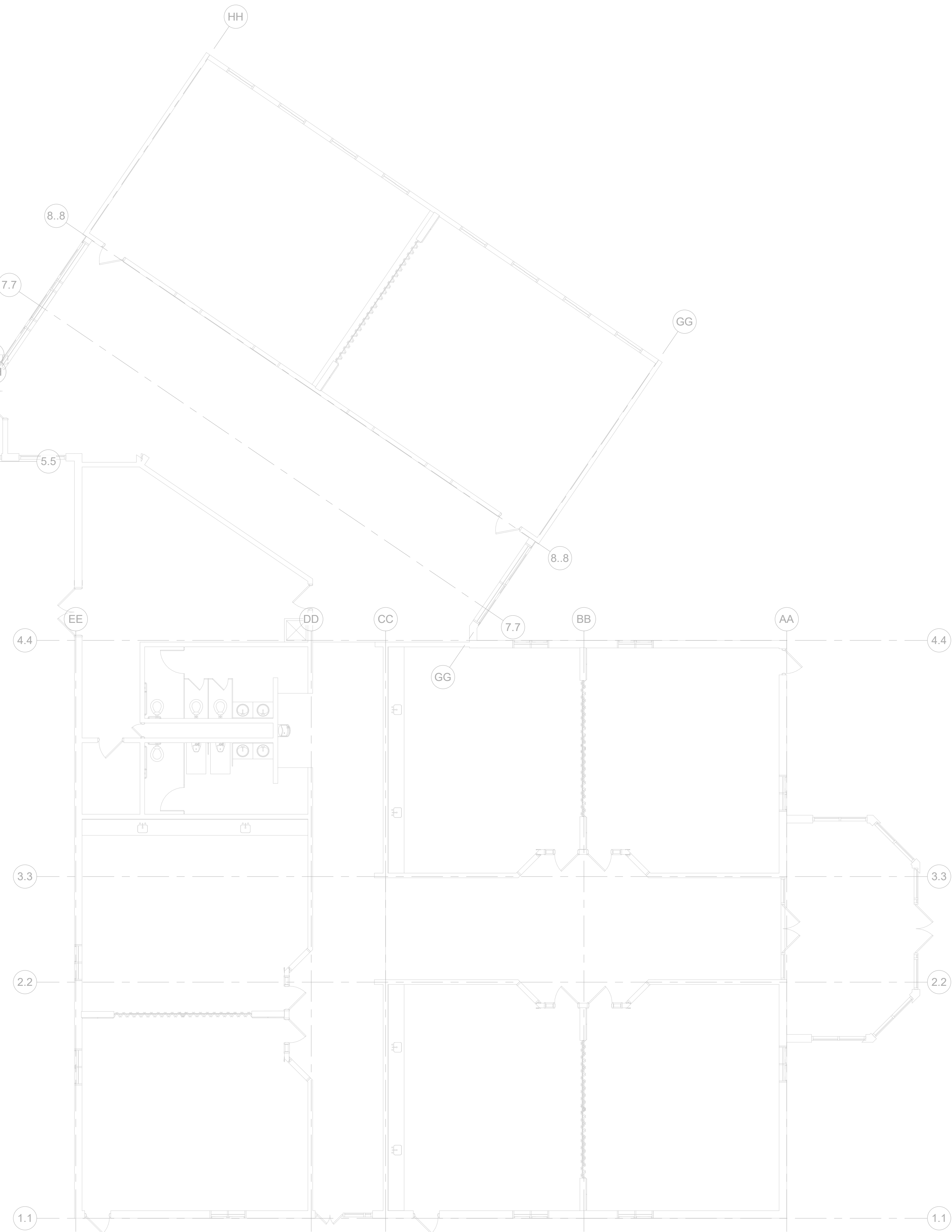
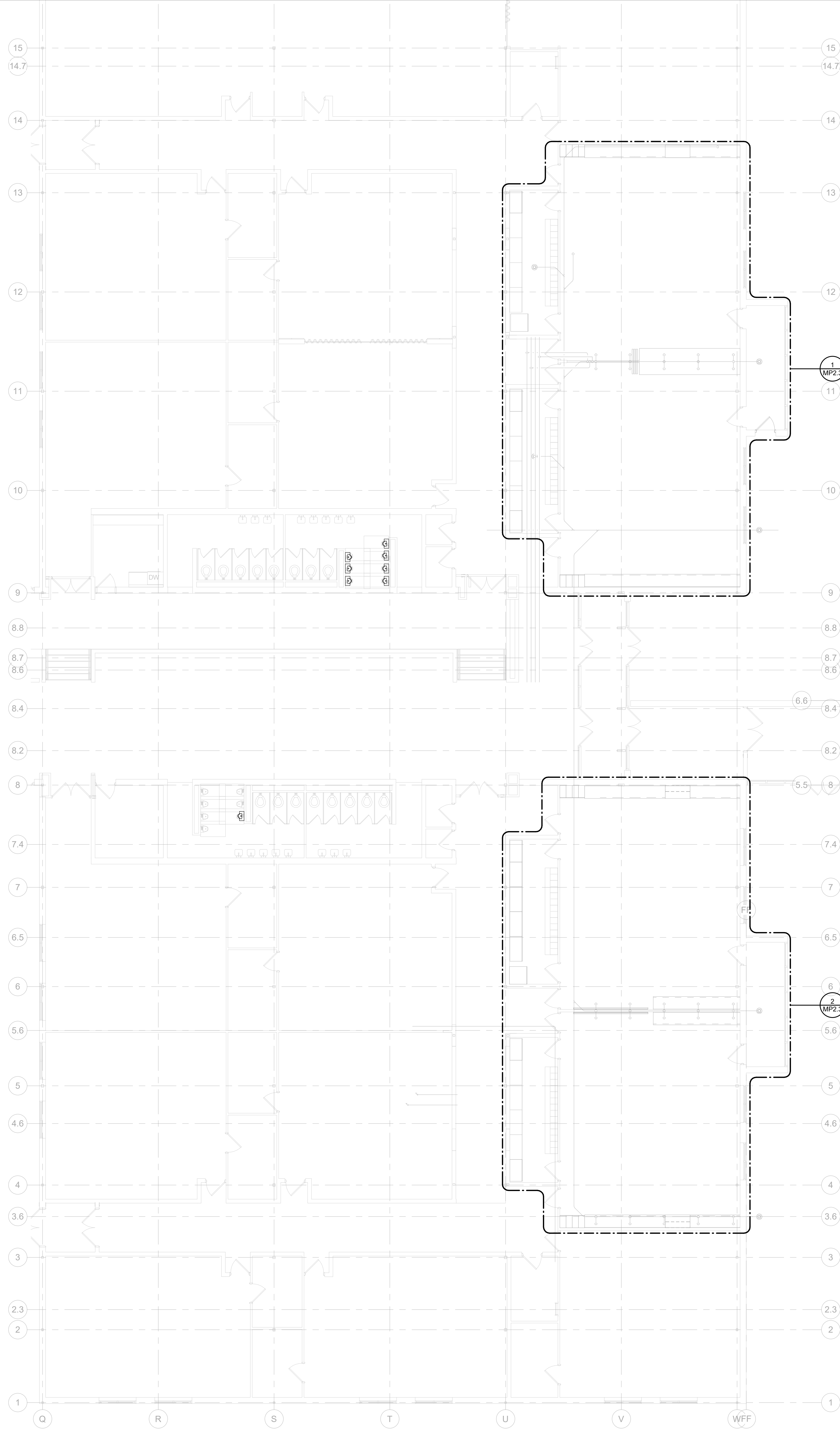
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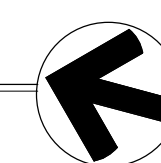
Sheet Title:
**FIRST LEVEL
AREA A
PLUMBING
PLAN**

Project No:
10183.00

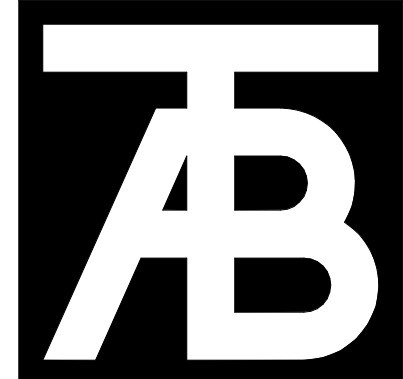
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SCIENCE ROOMS PLUMBING PLAN
SCALE: 1/8" = 1'-0"



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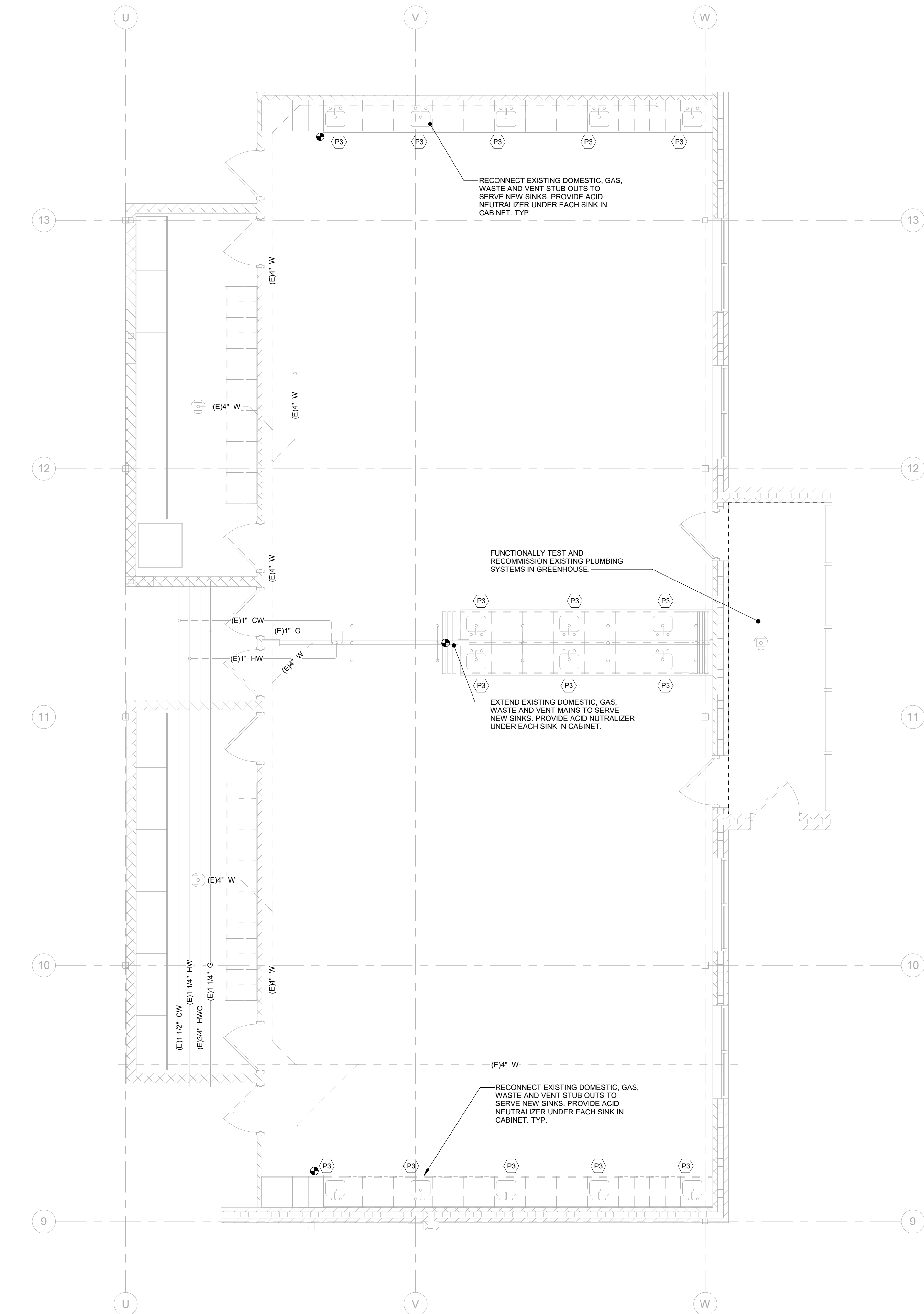
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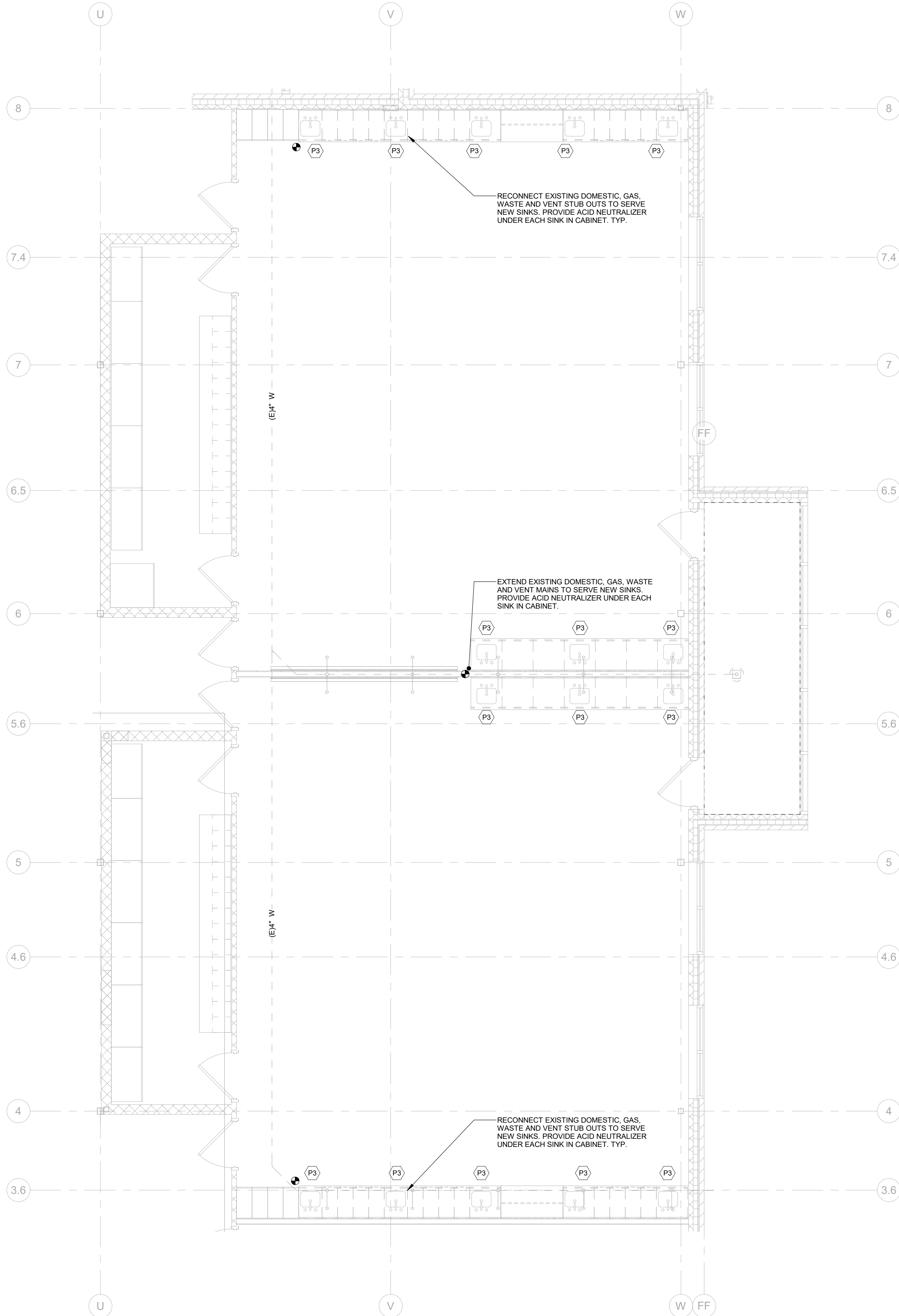
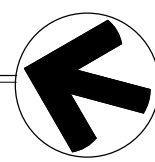
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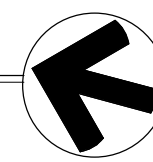




7TH GRADE SCIENCE ROOMS PLUMBING PLAN
SCALE: 1/4" = 1'-0"

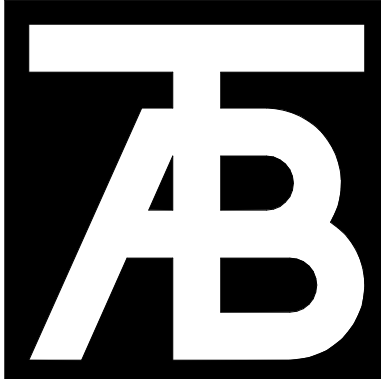


8TH GRADE SCIENCE ROOMS PLUMBING PLAN
SCALE: 1/4" = 1'-0"

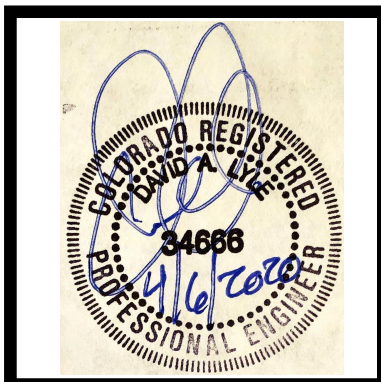


NOTES:

2. REFER TO THE PLUMBING FIXTURE RECORD SET.
3. NOT ALL REQUIRED CLEANOUTS ARE NECESSARILY SHOWN ON THESE PLANS. PROVIDE CLEANOUTS ON WASTE, VENT AND STORM PIPING AS REQUIRED BY CODE AND FOR REASONABLE MAINTENANCE BASED ON ACTUAL FIELD INSTALLATION. COORDINATE LOCATION WITH ARCHITECT AND ENGINEER.
4. COORDINATE ROUTING OF CONDENSATE INSTALLATION.
5. PIPING ON EXTERIOR WALLS OR PRE-CAST CONCRETE WALLS TO BE ROUTED IN FRAMED WALL ON INTERIOR SIDE OF INSULATION.
6. ST AND ST(OP) PIPING 3", U.N.O.
7. INSTALL THERMOSTATIC MIXING VALVES, ASSE 1070 LISTED, AT EACH PUBLIC HANDWASHING LAVATORY/SINK. SIZE TO MATCH HW PIPE SIZE.
8. ROOF OVERFLOW DRAINAGE STRATEGY TO BE DETERMINED OR VIA ARCHITECTURAL SCUPPERS U.N.O.
9. TERMINATE PLUMBING VENTS NOT LESS THAN 12" ABOVE ROOF.
10. DO NOT ROUTE PIPING OVER ELECTRICAL ROOMS OR ELECTRICAL PANELS. MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTINGS WITH DIV. 16 CONTRACTOR.
11. CONTRACTOR TO MAINTAIN 8'-6" CLEAR HEAD HEIGHT IN GARAGE AND INFORM THE ENGINEER AND ARCHITECT OF ANY AREAS THAT MAY NOT MEET 8'-6" PRIOR TO INSTALLATION. MINIMUM 8'-2" CLEAR HEAD HEIGHT MUST BE MAINTAINED IN ACCESSIBLE VEHICLE AREAS.
12. PROVIDE FLEXIBLE PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
13. ROUTE DOMESTIC HOT WATER REIRC TO WITHIN 10 FEET OF ALL HOT WATER FIXTURES. CONNECT WITHIN 2 FEET OF PUBLIC LAVATORY FAUCETS.
14. VERIFY ALL EQUIPMENT ACCESS PANELS WITH MANUFACTURER AND ARCHITECT.
15. PROTECT PIPING ROUTED ALONG COLUMNS, WALLS, ETC. FROM DAMAGE AS NECESSARY WITH CAGES. COORDINATE WITH ARCHITECT.
16. PEX PIPING SHALL NOT BE ALLOWED TO PENETRATE FIRE BARRIERS WHERE FIRE CAULKING IS REQUIRED.
17. ALL VALVES SHALL BE INSTALLED ABOVE DROP-IN CEILINGS IN ACCESSIBLE LOCATIONS, OR WITH ACCESS PANELS IN HARD-LID CEILINGS.
18. ALL PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE. ESPECIALLY WHERE CROSSING OTHER PIPES, DUCTS, AND ELECTRICAL.
19. ACCESS PANELS SHALL BE 24x24, U.N.O. LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT'S DRAWINGS AND WITH THE LOCATIONS OF THE EQUIPMENT OR APPARATUS THAT THEY SERVE.
20. SEAL ALL PIPING PENETRATIONS THROUGH ACOUSTIC PARTITIONS.
21. EXPOSED SOIL OR WASTE PIPING SHALL NOT BE INSTALLED ABOVE ANY WORKING, STORAGE, OR EATING SURFACES IN FOOD SERVICE ESTABLISHMENTS.



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Steamboat Springs Middle School
39610 Amethyst Drive
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Revisions:		
No	Description	Date

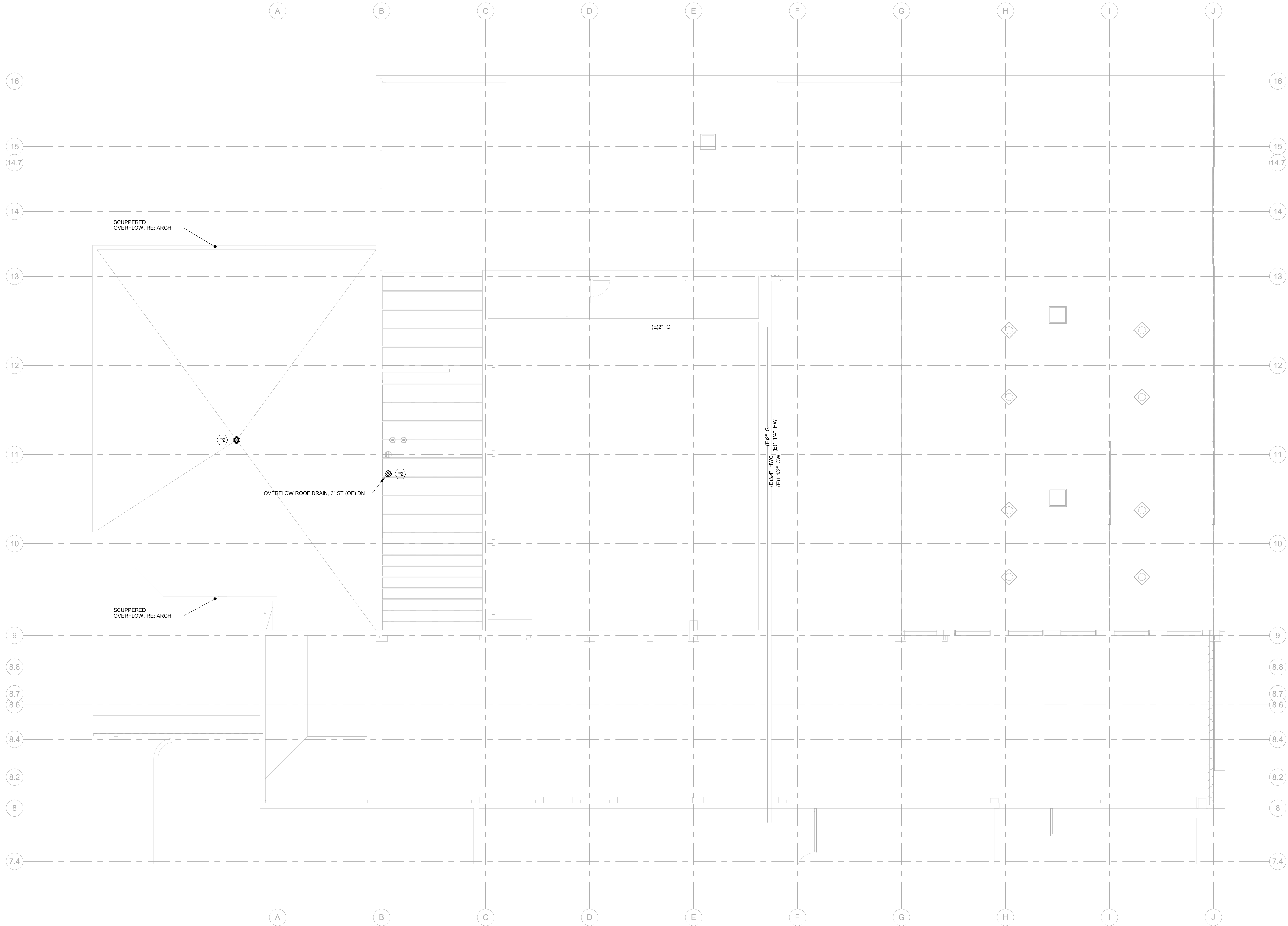
Issue Dates:
04.06.2020
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Sheet Title:
**SCIENCE ROOMS
ENLARGED
PLUMBING
PLANS**

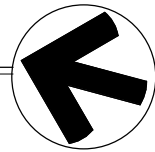
Project No:
10183.00

Sheet No:
MP2.3



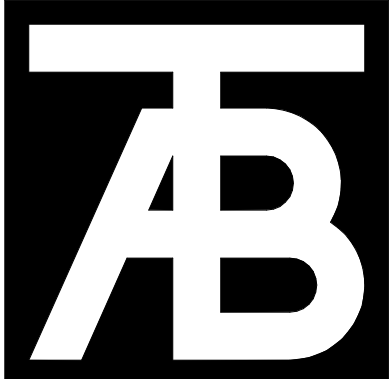


ROOF AREA A PLUMBING PLAN
SCALE: 1/8" = 1'-0"



NOTES:

1. SEE M3.0 SERIES FOR MECHANICAL DIAGRAM.
2. EFFECTIVE DATE: 04.06.2020
3. NOT ALL REQUIRED CLEARANCES ARE NECESSARILY SHOWN ON THESE PLANS. PROVIDE CLEARCUTS ON WASTE, VENT AND DRAIN PIPING AS REQUIRED BY CODE AND FOR REASONABLE MAINTENANCE BASED ON ACTUAL FIELD CONDITIONS. COORDINATE LOCATIONS WITH ARCHITECT/ENGINEER.
4. TERMINATE DRAIN LINES WITH ARCHITECT PRIOR TO INSTALLATION.
5. PIPING ON EXTERIOR WALLS OR PRE-CAST CONCRETE WALLS TO BE ROUTED IN FRAMED WALL ON INTERIOR SIDE OF INSULATION.
6. ST AND ST(OFF) PIPING 3", U.N.O.
7. INSTALL THERMOSTATIC MIXING VALVES, ASSE 1079 LISTED, AT EACH PUBLIC HANDWASHING LAVATORY/SINK. SIZE TO MATCH HW PIPE SIZE.
8. ROOF OVERFLOW DRAINAGE STRATEGY TO BE DETERMINED OR VIA ARCHITECTURAL SCUPPERS U.N.O.
9. TERMINATE PLUMBING VENTS NOT LESS THAN 12" ABOVE ROOF.
10. DO NOT ROUTE PIPING OVER ELECTRICAL ROOMS OR ELECTRICAL PANELS. MAINTAIN N.E.C. CLEARANCES. COORDINATE ROUTINGS WITH DIV. 16 CONTRACTOR.
11. CONTRACTOR TO MAINTAIN 8'-6" CLEAR HEAD HEIGHT IN GARAGE AND INFORM THE ENGINEER AND ARCHITECT OF ANY AREAS THAT MAY NOT MEET 8'-6" PRIOR TO INSTALLATION. MINIMUM 8'-2" CLEAR HEAD HEIGHT MUST BE MAINTAINED IN ACCESSIBLE VEHICLE AREAS.
12. PROVIDE FLEXIBLE PIPE CONNECTIONS TO ALL MOTORIZED EQUIPMENT.
13. ROUTE DOMESTIC HOT WATER RECIRC TO WITHIN 10 FEET OF ALL HOT WATER FIXTURES. CONNECT WITHIN 2 FEET OF PUBLIC LAVATORY FAUCETS.
14. VERIFY ALL EQUIPMENT ACCESS PANELS WITH MANUFACTURER AND ARCHITECT.
15. PROTECT PIPING ROUTED ALONG COLUMNS, WALLS, ETC. FROM DAMAGE AS NECESSARY WITH GAGES. COORDINATE WITH ARCHITECT.
16. PEX PIPING SHALL NOT BE ALLOWED TO PENETRATE FIRE BARRIERS WHERE FIRE CAULKING IS REQUIRED.
17. ALL VALVES SHALL BE INSTALLED ABOVE DROP-IN CEILINGS IN ACCESSIBLE LOCATIONS, OR WITH ACCESS PANELS IN HARD-LID CEILINGS.
18. ALL PIPING SHALL BE ROUTED AS HIGH AS POSSIBLE IN THE CEILING SPACE. UTILIZE JOIST SPACE WHEN POSSIBLE, ESPECIALLY WHERE CROSSING OTHER PIPES, DUCTS, AND ELECTRICAL.
19. ACCESS PANELS SHALL BE 24x24, U.N.O. LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT'S DRAWINGS AND WITH THE LOCATIONS OF THE EQUIPMENT OR APPARATUS THAT THEY SERVE.
20. SEAL ALL PIPING PENETRATIONS THROUGH ACOUSTIC PARTITIONS.
21. EXPOSED SOIL OR WASTE PIPING SHALL NOT BE INSTALLED ABOVE ANY WORKING, STORAGE, OR EATING SURFACES IN FOOD SERVICE ESTABLISHMENTS.



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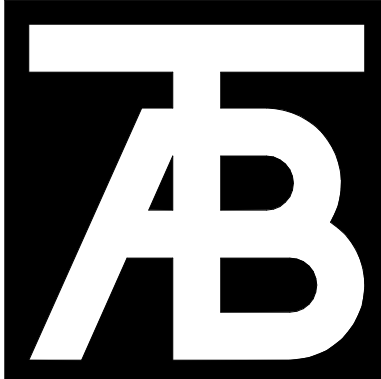
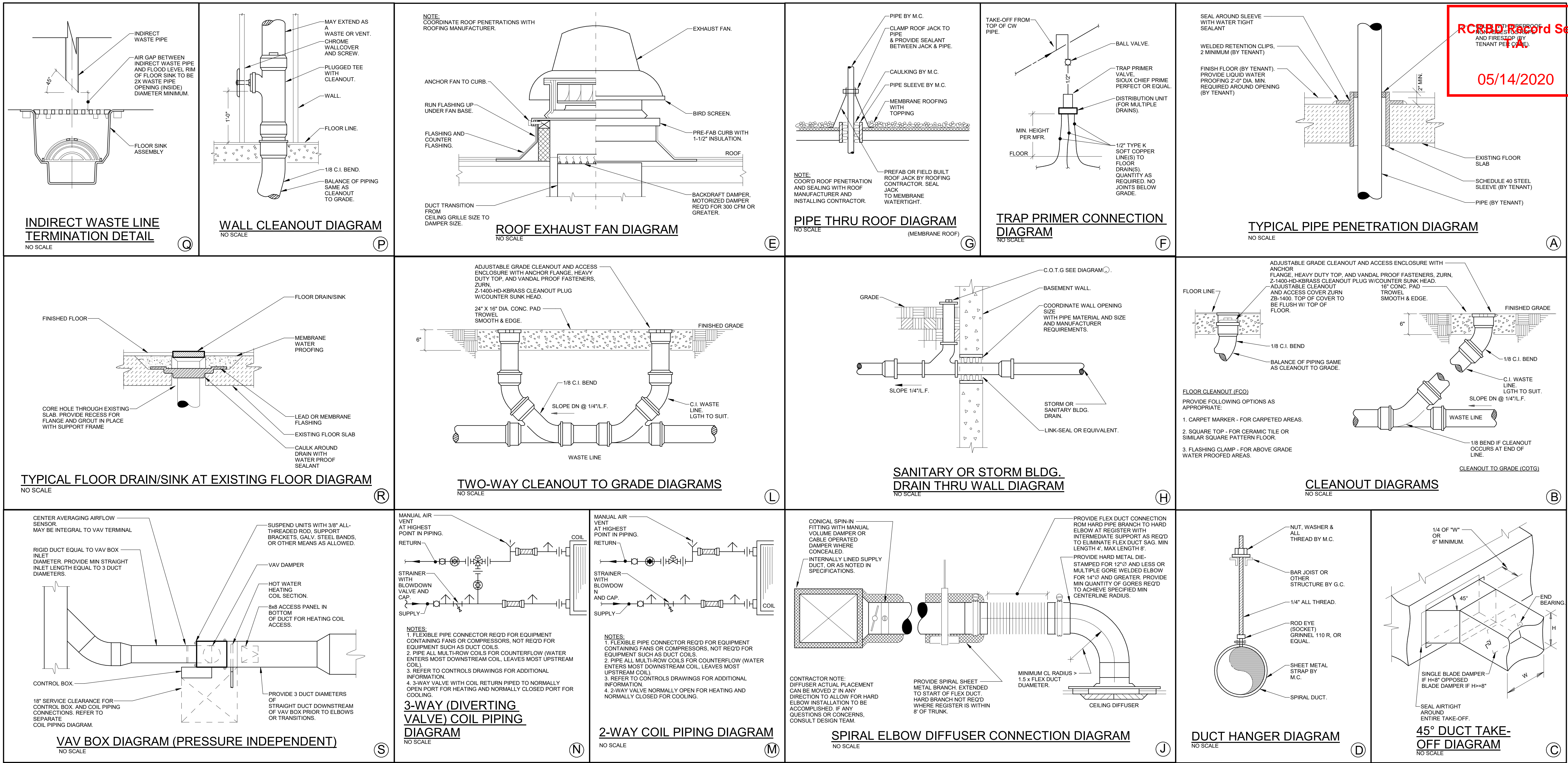
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Sheet Title:
ROOF AREA A
PLUMBING
PLAN

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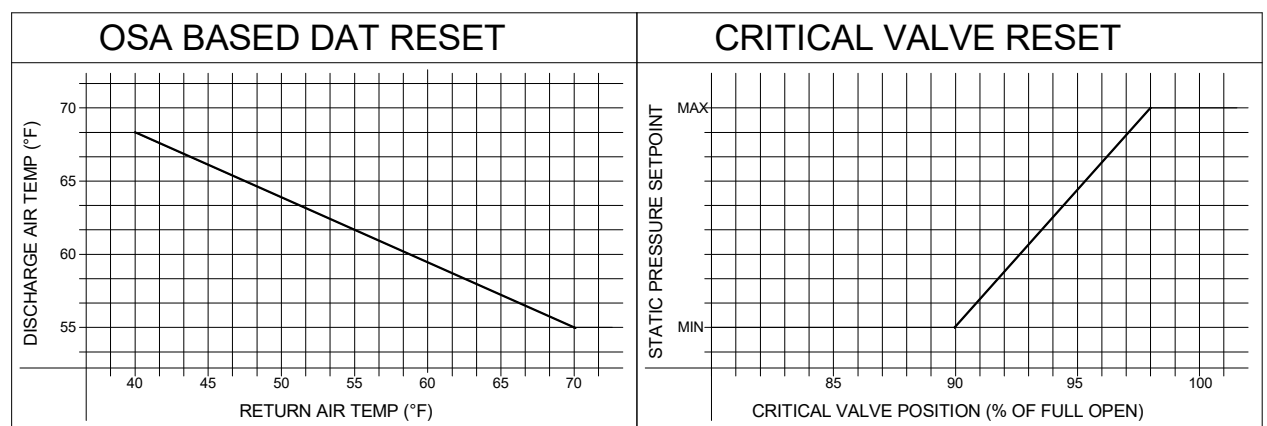
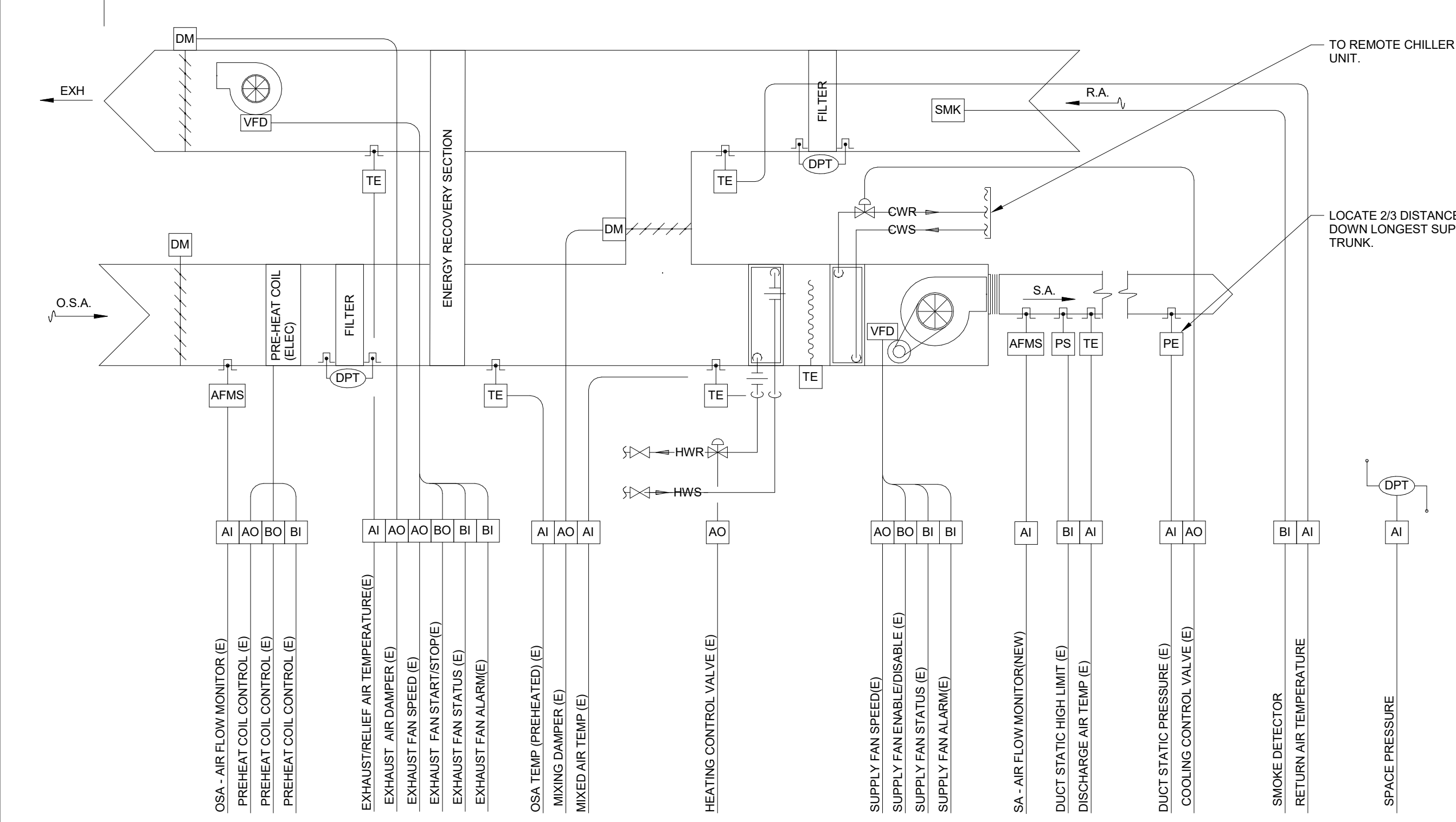
Issue Dates:
04.06.2020
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Sheet Title:
**MECHANICAL
DIAGRAMS**

Project No:
10183.00

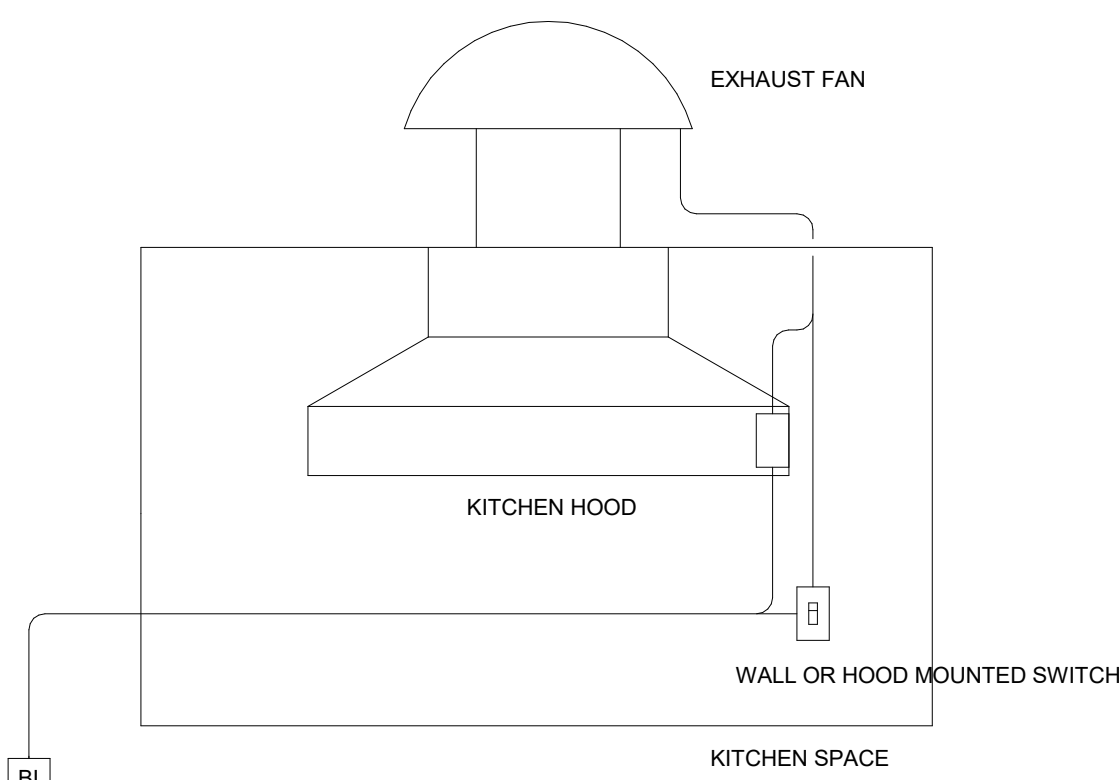
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POINT DESCRIPTION	ANALOG		BINARY		SYSTEM FEATURE	
	INPUT	OUTPUT	INPUT	OUTPUT	ALARMS	PROGRAMS
EXHAUST AIR DAMPER	X					
EXHAUST FAN SPEED	X					
EXHAUST FAN ENABLE/DISABLE	X					
EXHAUST FAN STATUS	X	X				
MIXED DAMPER POSITION	X					
MIXED AIR TEMPERATURE	X	X				
CO2 - OUTDOOR REFERENCE	X	X				
HEATING CONTROL VALVE	X	X				
SUPPLY FAN SPEED	X					
SUPPLY FAN STATUS	X	X				
SUPPLY FAN ALARM	X					
DUCT STATIC HIGH LIMIT	X					
DISCHARGE AIR TEMPERATURE	X	X				
AFMS - OSA	X	X				
DUCT STATIC PRESSURE	X	X				
SMOKE DETECTOR	X					
RETURN AIR TEMPERATURE	X	X				
AFMS - SA	X	X				
SPACE PRESSURE	X	X				

RTU-1: EXISTING ROOFTOP UNIT CONTROL DIAGRAM
SCALE: NONE



SEQUENCE OF CONTROL:

DDC SYSTEM WILL MONITOR KITCHEN HOOD ON/OFF STATUS.
THE HOOD EXHAUST FAN WILL BE ACTIVATED BY A SWITCH IN THE ROOM. UPON DETECTION OF HOOD FAN ACTIVATION DDC SYSTEM WILL SEND SIGNAL TO OVERRIDE VAV BOX OPERATION TO CONSTANT VOLUME OPERATION PER VAV SEQUENCE.

KEF-1 AND KEF-2 - KITCHEN HOOD EXHAUST CONTROL DIAGRAM
SCALE: NONE

SEQUENCE OF CONTROL:

DESCRIPTION - THE SYSTEM CONSISTS OF AN EXISTING, SINGLE ZONE, LOW PRESSURE ROOF TOP AIR HANDLER UNIT THAT WILL BE CONVERTED TO A MEDIUM PRESSURE MULTI-ZONE VARIABLE AIR VOLUME UNIT. THE EXISTING DDC CONTROL POINTS WILL BE REUSED AND NEW POINTS ADDED TO ACHIEVE THE NEW SEQUENCE OF OPERATION. THE DIAGRAM SHOWS EXISTING AND NEW CONTROL POINTS.

ALL PROGRAMMING, CONTROLS, DAMPERS, ACTUATORS, SENSOR, ETC REQUIRED FOR THE CONVERSION OF THE RTU TO BE PROVIDED AND INSTALLED BY THE TEMPERATURE CONTROLS CONTRACTOR.

GENERAL SECTION:

OUTSIDE AIR, MIXED AIR, BYPASS, AND EXHAUST AIR DAMPERS ARE PROVIDED WITH THE ENERGY RECOVERY UNIT. THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE WHENEVER THE SUPPLY FAN STOPS UNDER ANY CONDITION. THE MIXED AIR DAMPER SHALL OPEN.

ALL CONTROL POINTS SHOWN SHALL REPORT TO THE DDC SYSTEM.

PROVIDE ALARM AT DDC WORKSTATION IF THE DISCHARGE AIR TEMPERATURE FALLS BELOW 45 DEG F, OR ABOVE 110 DEG F.

PROVIDE MANUFACTURER'S RECOMMENDED FROST PROTECTION SEQUENCE FOR THE HEAT WHEEL UTILIZING THE ELECTRIC PREHEATER, MODULATE PREHEATER AS REQUIRED, ELECTRIC HEAT IS TO BE ENABLED AND MODULATE BELOW NEGATIVE (-) 5 DEG F.

PROVIDE ALL ALARMS AT DDC WORKSTATION.

LIFE SAFETY SECTION - SHOULD THE SMOKE DETECTOR, FREEZE STAT, OR DOOR SWITCH ACTIVATE, THE SUPPLY FAN AND EXHAUST FANS SHALL STOP IN BOTH THE MANUAL OR AUTOMATIC MODE, INDEPENDENT OF THE CONTROL SYSTEM. AN ALARM SIGNAL SHALL BE INDICATED AT THE DDC CONTROL PANEL.

THE DISCHARGE AIR TEMPERATURE SHALL BE LIMITED TO A MINIMUM OF 55 DEG F, AND A MAXIMUM OF 90 DEG F. SHOULD THE SUPPLY FAN OR EXHAUST FAN FAIL TO START OR FAIL DURING OPERATION FOR ANY REASON, AN ALARM SHALL BE INDICATED AT THE DDC CONTROL PANEL. VALVES SHALL OPEN UPON UNIT FAILURE, LOSS OF POWER OR IF THE UNIT IS SHUT DOWN DURING NORMAL OPERATION. DAMPERS SHALL CLOSE UPON A UNIT FAILURE, LOSS OF POWER OR IF THE UNIT IS SHUT DOWN DURING NORMAL OPERATION.

UNIT START / STOP CONTROL: THE DDC SYSTEM TIME AND OPTIMUM START/STOP PROGRAMS SHALL CONTROL THE SYSTEM IN THE FOLLOWING CONTROL CYCLES (INITIALLY START AT 6:30 A.M. AND INITIALLY STOP AT 4:30 P.M.) (ADJ.) WARM UP / COOL DOWN CYCLE: AS CALCULATED BY THE DDC OPTIMUM START PROGRAM. THE WARM UP / COOL DOWN CYCLE SHALL START AS LATE AS POSSIBLE TO BRING THE SPACE TO ITS PROGRAMMED SETPOINT BY THE PROGRAMMED OCCUPIED TIME.

WARM UP: DURING THE WARM UP, THE SUPPLY FAN SHALL BE ON, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL BE 100% CLOSED AND THE MIXED AIR DAMPER SHALL BE 100% OPEN. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED SETPOINT, THE SYSTEM SHALL GO TO THE OCCUPIED CYCLE.

COOL DOWN: THE COOL DOWN CYCLE SHALL BE THE SAME AS THE OCCUPIED CYCLE. SCHEDULING: THE RTU SHALL BE SCHEDULED IN EITHER OCCUPIED OR UNOCCUPIED MODE BASED ON FEEDBACK STATUS FROM THE RESPECTIVE TERMINAL BOX ZONES SERVED BY THE RTU. WHEN ALL RESPECTIVE ZONES SERVED ARE IN UNOCCUPIED MODE, THE RTU OPERATIONAL MODE SHALL BE UNOCCUPIED. WHEN ANY OF THE RESPECTIVE ZONES ARE IN OCCUPIED MODE, THE RTU OPERATIONAL MODE SHALL BE OCCUPIED. WHEN IN OCCUPIED MODE, BOTH FANS SHALL OPERATE AND CONTROL VALVE POSITIONS WITH RESPECT TO THEIR FL CONTROL LOOP. WHEN IN UNOCCUPIED MODE, FANS SHALL SHUT OFF, RETURN DAMPER FULL OPEN, RELIEF AND OUTSIDE AIR DAMPERS CLOSED, HOT WATER VALVE 5% OPEN (ADJ.) TO COIL.

OCCUPIED CYCLE: THE SUPPLY AND EXHAUST FANS SHALL START AT MINIMUM SPEED AND RUN CONTINUOUSLY. DEMAND CONTROL VENTILATION SHALL BE THE FIRST STAGE OF CONTROL FOR THE OUTSIDE AIR DAMPER AND MIXED AIR DAMPER. EXHAUST AIR DAMPER SHALL BE 100% OPEN. SUPPLY FAN CONTROL: THE SUPPLY FAN VFD SHALL RUN AND MODULATED BASED ON DUCT STATIC PRESSURE. FEEDBACK TO MAINTAIN DUCT STATIC PRESSURE AT SETPOINT. EMPLOY CRITICAL VALVE LOGIC TO MAINTAIN THE MOST OPEN PRIMARY AIR VALVE IN THE SYSTEM AT 90% OR GREATER. POLL ALL VALVE POSITIONS TO DETERMINE MOST OPEN (CRITICAL) VALVE. RESET STATIC PRESSURE SETPOINT PER THE SCHEDULE BELOW.

EXHAUST/RELIEF SYSTEMS CONTROL: THE EXHAUST DAMPER AND EXHAUST/RELIEF FAN SHALL OPERATE IN OCCUPIED MODE AND BE CONTROLLED BASED ON SPACE PRESSURE REFERENCED AGAINST OUTSIDE AIR PRESSURE. VALUES INDICATED BELOW ARE DIFFERENTIAL PRESSURES BETWEEN THE TWO MEASUREMENTS. UPON A RISE IN SPACE PRESSURE TO +0.02" WC, OPEN THE EXHAUST DAMPER AND SPACE PRESSURE EXHAUST/RELIEF FAN VFD FROM MINIMUM TO FULL SPEED AS BUILDING SPACE PRESSURE RISES FROM +0.02" WC TO +0.06" WC.

DEMAND CONTROL VENTILATION (DCV): DURING OCCUPIED MODE THE BUILDING AUTOMATION SYSTEM WILL MONITOR CARBON MONOXIDE CO2 AT EACH ZONE AND FROM OUTSIDE TO DETERMINE OCCUPANCY LEVELS IN EACH ZONE. BASED ON OCCUPANCY, THE DCV PROGRAM WILL RESET THE VAV BOX MINIMUM VENTILATION CFM TO MAINTAIN CODE REQUIRED VENTILATION TO EACH ZONE. AS VAV BOX MINIMUM CFMS CHANGE, DCV PROGRAM WILL CALCULATE NEW VENTILATION FRACTION FOR RTU AND RESET OSA CFM. THE EXHAUST FAN SPEED SHALL BE PROVIDED WITH AN OFFSET BASED ON SUPPLY FAN SPEED TO MAINTAIN PLENUM STATIC PRESSURE OF 0.05 IN. W. C. (ADJUSTABLE).

DISCHARGE AIR TEMPERATURE (DAT) CONTROL: DAT SETPOINT SHALL BE BASED ON O.S.A. TEMP RESET SCHEDULE BELOW. THE DISCHARGE AIR TEMPERATURE SHALL BE MAINTAINED BY:

1ST STAGE OF HEATING: ENABLING THE HEAT WHEEL.
2ND STAGE OF HEATING: WHEN THE 1ST STAGE OF HEATING CANNOT MAINTAIN THE SPACE TEMPERATURE FOR TEN MINUTES (ADJ.) THEN THE HEATING WATER CONTROL VALVE SHALL OPEN AND MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT.
LESS HEATING SHALL BE OPPOSITE OF ABOVE.

1ST STAGE COOLING: MODULATING THE MIXED AIR DAMPER, BYPASS DAMPERS, AND OUTSIDE AIR DAMPER FOR ECONOMIZER COOLING WITH THE HEAT WHEEL OFF. (SEE BELOW FOR ECONOMIZER COOLING)

2ND STAGE OF COOLING: WHEN THE 1ST STAGE OF COOLING CANNOT MAINTAIN THE SPACE TEMPERATURE FOR TEN MINUTES (ADJ.) THEN THE HEAT WHEEL SHALL BE ENABLED.

3RD STAGE OF COOLING: WHEN THE 2ND STAGE OF COOLING CANNOT MAINTAIN THE SUPPLY AIR TEMPERATURE FOR TEN MINUTES (ADJ.) THE CHILLED WATER COIL CONTROL VALVE SHALL OPEN AND MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE.
LESS COOLING SHALL BE OPPOSITE OF ABOVE.

ECONOMIZER COOLING IS ENABLED WHENEVER THE OUTSIDE AIR DRY-BULB TEMPERATURE IS LESS THAN THE RETURN AIR DRY-BULB TEMPERATURE PLUS DEADBAND. WHEN THE OUTSIDE AIR DRY-BULB TEMPERATURE IS GREATER THAN THE RETURN AIR DRY-BULB TEMPERATURE, ECONOMIZER COOLING IS DISABLED. ECONOMIZER COOLING IS DISABLED AND THE OUTSIDE AIR DAMPER SHALL RETURN TO MINIMUM POSITION. THE OUTSIDE AIR DAMPERS SHALL MODULATE IN RESPONSE TO THE GREATER OF THE ECONOMIZER AND THE DEMAND CONTROLLED VENTILATION SEQUENCE.

ELECTRIC PREHEAT COIL: ELECTRIC PREHEAT COIL TO BE ENABLED AND MODULATED TO MAINTAIN A PREHEAT ELECTRIC COIL LEAVING AIR TEMPERATURE (EHT) OF 19 DEG. F.

OUTSIDE AIR DAMPER CONTROL: THE OUTSIDE AIR DAMPER SHALL OPEN TO MINIMUM POSITION IN EITHER THE COOLING OR HEATING MODE USING THE OA FLOW MEASURING STATION. THE OUTSIDE DAMPER SHALL BE PROVIDED WITH A LINEAR RESET FOR HEATING TO COOLING BASED ON OUTSIDE AIR TEMPERATURE. OUTSIDE AIR DAMPER SHALL BE SET AT THE HEATING OUTSIDE AIR POSITION AT 30 DEG. F. AND RESET TO COOLING POSITION AT 70 DEG. F. OUTSIDE AIR.

FEATURES -

- DISCHARGE AIR TEMPERATURE SHALL BE TRENDED HOURLY.
- GENERATE AN ALARM SHOULD DISCHARGE AIR TEMPERATURE STRAY FROM DISCHARGE AIR TEMPERATURE SETPOINT BY 5 DEG OR MORE.
- GENERATE FILTER CHANGE ALARM SHOULD FILTER DIFFERENTIAL PRESSURE EXCEED FILTER CHANGE SETPOINT (ADJUSTABLE AT THE OPERATOR INTERFACE).
- GENERATE AN ALARM SHOULD ANY FAN STATUS NOT MATCH FAN COMMAND.
- GENERATE AN ALARM AND OPEN HEATING VALVE TO 100% SHOULD FREEZE STAT TRIP AND DAMPERS SHALL GO TO UNOCCUPIED MODE POSITION.
- GENERATE AN ALARM SHOULD SMOKE DETECTOR TRIP AND SHUT UNIT DOWN, VALVES AND DAMPERS SHALL GO TO UNOCCUPIED MODE.
- DISABLE SUPPLY FAN AND GENERATE ALARM SHOULD DUCT HIGH STATIC PRESSURE SWITCH TRIP.
- HOURLY TREND ITEMS INDICATED IN THE POINTS LIST TO BE TRENDED. STORE DATA FOR 1 YEAR PRIOR TO PURGING.
- GENERATE ALARMS AS INDICATED IN THE POINTS LIST AND IN THE SEQUENCE OF CONTROL ABOVE.

SEQUENCE OF CONTROL:

EXHAUST FAN SYSTEM TO BE INDEPENDENT OF DDC CONTROL.

FAN SHALL BE INTERLOCKED TO RUN WITH RESTROOM LIGHTING CONTROL. WHEN LIGHTING IS ON, FAN WILL RUN. WHEN LIGHTING IS OFF, FAN WILL BE OFF.

SPED RESTROOM EXHAUST CONTROL DIAGRAM
SCALE: NONE

1. CONTROLS CONTRACTOR TO COVER ALL COSTS OF ELECTRICAL POWER REQUIREMENTS, IF ANY, AND LINE VOLTAGE WIRING, IF ANY, BY LICENSED ELECTRICIAN.

2. SEQUENCES OF OPERATION DEFINED HEREIN DESCRIBE GENERAL INTENT AND DO NOT INCLUDE ALL NECESSARY PROCEDURES/STEPS REQUIRED. ANTICIPATE FINE TUNING OF SEQUENCES (INCLUDING, BUT NOT LIMITED TO, SETPOINT ADJUSTMENTS, DEADBAND REFINEMENT, RESET CURVES ENDPOINTS, TIME DELAYS, OFFSETS, AND ACTUAL SEQUENCING LOGIC), MAY BE REQUIRED AND SHALL BE PERFORMED AS REQUIRED DURING FUNCTIONAL PERFORMANCE TESTING OF THE SYSTEMS. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL FINE TUNING ADJUSTMENTS TO PROVIDE A COMPLETE AND OPERABLE SYSTEM.

3. CONTROLS SHALL BE FIELD INSTALLED. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING AND INSTALLING ALL DEVICES REQUIRED FOR A FULLY FUNCTIONAL CONTROL SYSTEM FOR THIS PROJECT, REGARDLESS OF VOLTAGE. IF THE CONTRACTOR CANNOT SELF-PERFORM WORK REQUIRING LINE VOLTAGE THEN THE CONTRACTOR SHALL COORDINATE WITH AND COMPENSATE THE ELECTRICAL CONTRACTOR AS REQUIRED. CONTROLS CONTRACTOR SHALL COORDINATE WITH EQUIPMENT SUPPLIERS TO ENSURE THAT ALL DEVICES ARE COMPATIBLE WITH THE EXISTING CONTROLS SYSTEM AND EXISTING MECHANICAL EQUIPMENT.

4. ALL CONTROL WIRING TO BE INSTALLED IN PLENUM RATED CONDUIT.

5. NO NETWORKED CONTROL POINTS ARE ALLOWED. ALL SENSORS TO BE HARDWIRED DIRECTLY TO CONTROLLING MOULDE.

6. DESCRIPTION - THE BUILDING CONTROL SYSTEM (BCS) SHALL CONSIST OF AN ASHRAE STANDARD 135 COMPLIANT (BACNET COMPATIBLE) DEVICES AND COMPONENTS, INCLUDING BOILERS, PUMPS, RTUS, VAV BOXES, FAN POWERED BOXES, VFDs, WATER HEATERS, AND COMPUTER ROOM COOLING SYSTEMS. THE BCS SHALL BE PROVIDED BY MANUFACTURER WITH BACNET COMPATIBLE CONTROLLERS WITH ALL AVAILABLE INFORMATION WITHIN COMMUNICATED TO AND GRAPHICALLY REPRESENTED IN THE BCS.

7. REMOTE ACCESS - PROVIDE REMOTE ACCESS VIA WEB BASED INTERFACE (WEB ACCESS ITSELF IS NOT PART OF THIS CONTRACT).

8. BUILDING OCCUPANCY - IN ADDITION TO THE OCCUPANCY SCHEDULING FEATURES AVAILABLE THROUGH THE BCS SOFTWARE, PROVIDE MANUAL CONTROLLABILITY OF OCCUPANCY STATUS. MANUAL CONTROL OF OCCUPANCY STATUS SHALL BE ADJUSTABLE THROUGH THE OPERATOR INTERFACE. MANUAL OCCUPANCY OVERRIDE DURATION SHALL BE ADJUSTABLE.

9. GRAPHICS - ALL BCS POINTS SHALL BE REPRESENTED BY GRAPHIC DISPLAY ON THE WEB BASED INTERFACE. ITEMS SUCH AS PUMPS, FANS, CONTROL VALVES, AND DAMPER ACTUATORS SHALL BE REPRESENTED BY GRAPHIC DISPLAYS. GRAPHICAL FLOOR PLANS SHALL INDICATE ANNOTATED ZONE DESIGNATIONS AS

WELL AS THEIR SPACE TEMPERATURE SETPOINT, SPACE TEMPERATURE, AND MODE OF OPERATION "HEATING", "COOLING" OR "INACTIVE". BACKGROUND COLOR OF ZONES SHALL BE CHANGED AS FOLLOWS: GREEN - SPACE TEMPERATURE WITHIN 3°F OF SETPOINT; RED - SPACE TEMPERATURE GREATER THAN 3°F ABOVE SETPOINT; BLUE - SPACE TEMPERATURE LOWER THAN 3°F BELOW SETPOINT.

10. GRAPHICAL FLOOR PLANS SHALL ALSO INDICATE CENTRALIZED PLANT EQUIPMENT, VAVS, AHUS, RTUS, AND DISTRIBUTED IT ROOM COOLING SYSTEM BY LOCATION. ANIMATED GRAPHICS ARE NOT REQUIRED ON THE GRAPHICAL FLOOR PLAN SCREEN. ADDITIONAL INFORMATION FOR THE EQUIPMENT IS INDICATED ON THE GRAPHICAL FLOOR PLANS SHALL BE EASILY ACCESSED BY DOUBLE-CLICKING THE ASSOCIATED FLOOR PLAN GRAPHIC. ADDITIONAL INFORMATION FOR THE CENTRAL PLANT AS A WHOLE SHALL BE ACCESSIBLE IN THE SAME MANNER.

11. LOCATIONS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS ONLY. INDICATE EXACT LOCATION OF ALL DEVICES IN THE FIELD WITH CLEARLY MARKED IDENTIFIERS AND OBTAIN ARCHITECTS' AND ENGINEER'S APPROVAL PRIOR TO ROUTING CONDUIT AND PULLING WIRE.

12. VARIABLE FREQUENCY DRIVES (VFDs) TO BE PROVIDED WITH BACNET COMPATIBLE INTERFACE TO MONITOR CURRENT VFD STATUS AND OPERATING CONDITIONS THROUGH ITS COMMUNICATION PORT.

13. ALARMS - PROVIDE THE FOLLOWING SPECIFIC DIAL-OUT ALARMS TO DESTINATION DETERMINED BY THE OWNER: SPACE TEMPERATURE LOW LIMIT; IT (IN/F & I/F'S) ROOM TEMPERATURE HIGH LIMIT; GENERALIZED EQUIPMENT FAILURE ALARM (FOR EQUIPMENT SUCH AS PUMPS, WATER HEATERS, RTUS, ERVS, VFDs, ETC)

14. ADJUSTABILITY - WITH THE EXCEPTION OF DESIGN TEMPERATURES, ALL SETPOINTS, TIME DELAYS, DURATIONS, RESET SCHEDULES, AND OTHER CONTROL VARIABLES SHALL BE ADJUSTABLE. VARIABLES REQUIRED FOR CONTROLS IMPLEMENTATION THAT ARE NOT DEFINED IN THE SEQUENCES OF CONTROL SHALL BE DEFINED BY CONTROLS CONTRACTOR IN THEIR SHOP DRAWING SUBMITTAL. CONTRACTOR'S SUGGESTED ADJUSTMENTS TO VARIABLES DEFINED IN THE SEQUENCES OF CONTROL, IF ANY, SHALL BE SUBMITTED IN THE CONTROLS DRAWINGS.

15. RESET CURVE GRAPHICS - CERTAIN CONTROLS'S SEQUENCES IN THIS DRAWING SET CONTAIN RESET CURVE GRAPHICS THAT ARE PROVIDED GRAPHICALLY. THOUGH THESE CURVES REPRESENT PROPORTIONAL CONTROL ONLY IN THE SIMPLEST INTERPRETATION, THE CONTROLS SYSTEM INTENT IS TO UTILIZE PROPORTIONAL-INTEGRAL (PI) AND/OR PROPORTIONAL-INTTEGRAL-DERIVATIVE (PID) LOOPS TO PERMIT TUNING OF CONTROLS SYSTEMS RESPONSE, LIMIT OVERSHOOT/UNDERSHOOT, AND IMPROVE SYSTEM STABILITY. RESET CURVE GRAPHICS ARE PROVIDED AS SUGGESTED STARTING POINTS FOR THE PROPORTIONAL COMPONENT ONLY; ALL ENDPOINTS, OFFSETS, SLOPES, ETC ARE FLEXIBLE.

16. CONTROLS RECORD DRAWINGS REQUIRED - CONTRACTOR SHALL MAINTAIN, THROUGH THE COURSE OF THE PROJECT, A COMPREHENSIVE RECORD OF MECHANICAL EQUIPMENT AND CONTROLS RELATED ADDENDUMS (ADIS, RTFS, AND CDS), ADJUSTMENTS TO SETPOINTS DEFINED HEREIN, INITIAL SETPOINTS NOT DEFINED HEREIN, ANY SUGGESTIONS FOR ADJUSTMENTS AND/OR CONTROL OF THE PROJECT. CONTROLS RECORD DRAWINGS SHALL BE MAINTAINED DURING THE COURSE OF CONSTRUCTION, STARTUP, AND COMMISSIONING SHALL BE REVIEWED BY THE ENGINEER. APPROVED CHANGES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. CONTROLS RECORD DRAWINGS, ALL SUCH CHANGES SHALL BE UPDATED ELECTRONICALLY AND SUBMITTED TO THE OWNER DURING PROJECT CLOSEOUT.

17. TRENDDING - TREND HOURLY WITH MINIMUM ONE YEAR STORAGE THE FOLLOWING SPACE TEMPERATURE FOR EACH ZONE: CO2 LEVEL FOR EACH ZONE EQUIPPED WITH DEMAND CONTROL VENTILATION; ADDITIONAL 1% STORAGE AVAILABILITY FOR OTHER POINTS THAT MAY REQUIRE FUTURE TRENDDING FOR TROUBLE SHOOTING, COMMISSIONING, ETC.

18. POINTS LISTS - CONTROLS DRAWING SUBMITTAL SHALL PROVIDE COMPLETE POINTS LISTS AND NAME/ADDRESS OF EACH POINT OCCURRENCE WITHIN THE PROJECT.

19. SPARE CAPACITY - PROVIDE SYSTEM ARCHITECTURE/INFRASTRUCTURE WITH MINIMUM 10% SPARE CAPACITY FOR FUTURE ADDITIONAL POINTS EVENLY DISTRIBUTED ACROSS THE FACILITY.

SEQUENCE OF CONTROL:

DESCRIPTION - THE NEW SYSTEMS CONSIST OF A PRESSURE INDEPENDENT VARIABLE AIR VOLUME BOX COMPLETE WITH MOTORIZED DAMPER, HOT WATER REHEAT COIL, FLOATING POINT OR PROPORTIONAL CONTROL VALVE, AND AIR FLOW PRESSURE TRANSDUCER.

SCHEDULING - OCCUPIED/UNOCCUPIED SCHEDULING APPLIES TO THESE SYSTEMS. SCHEDULES TO BE DETERMINED BY OWNER AND SHALL BE AVAILABLE THROUGH THE OPERATOR WORKSTATION INTERFACE.

SCHEDULING CONTROLS: SPACE SETPOINT TEMPERATURE. DURING OCCUPIED MODE, TERMINAL UNIT SHALL MAINTAIN SPACE TEMPERATURE AT SETPOINT DICTATED BY SPACE MOUNTED THERMOSTAT (I.E. 68-72° HEATING, 76-80°F COOLING). DURING UNOCCUPIED MODE, TERMINAL UNIT SHALL MAINTAIN SPACE TEMPERATURE AT SETBACK TEMPERATURE SETPOINT (I.E. 60°F HEATING, N/A COOLING).

OCCUPIED/UNOCCUPIED SCHEDULING ALSO ALSO CONTROLS VENTILATION. WHEN SCHEDULED IN THE OCCUPIED MODE, TERMINAL UNIT SHALL PROVIDE MINIMUM VENTILATION CFM CALCULATED BY THE DEMAND CONTROL VENTILATION PROGRAM. WHEN SCHEDULED IN THE UNOCCUPIED MODE, DAMPER SHALL BE SHUT. TERMINAL BOX SHALL BE PERMITTED TO OPEN AS REQUIRED ON DEMAND FOR HEATING ONLY, DURING UNOCCUPIED PERIODS.

TIMED OVERRIDE - SHOULD THE TIMED OVERRIDE BE SWITCHED TO OCCUPIED DURING UNOCCUPIED MODE, OCCUPIED MODE OPERATION SHALL APPLY FOR THE TIMED OCCUPANCY DURATION.

CONTROL - THE AIRFLOW PRESSURE TRANSDUCER SHALL INDICATE TO THE UNIT MOUNTED DDC CONTROLLER MEASURED AIRFLOW. THE DDC CONTROLLER SHALL MODULATE THE VAV BOX DAMPER TO MAINTAIN AIRFLOW AT SETPOINT. AIRFLOW SETPOINT AND REHEAT VALVE SHALL BE MODULATED BASED ON SPACE TEMPERATURE DEVIATION FROM SETPOINT PER THE SAMPLE RESET SCHEDULES BELOW INDICATING DEADBAND, HEATING AND COOLING RAMP-UP RANGES, AND MINIMUM AIRFLOWS.

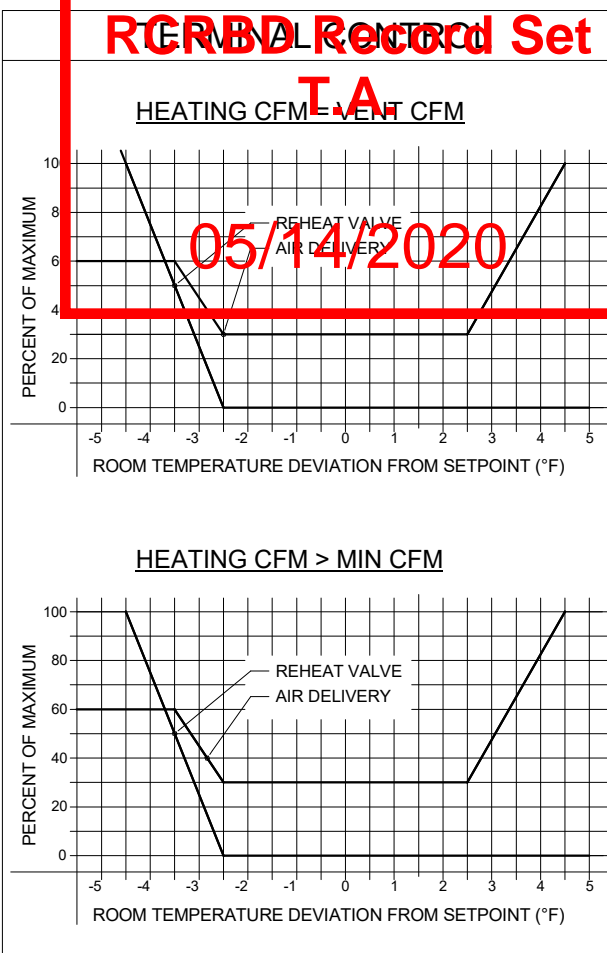
NOTES:

- THE ADJACENT GRAPHICS ARE PROVIDED FOR REFERENCE ONLY.
- EACH TERMINAL BOX IS UNIQUE AND MAY HAVE RECMTS THAT VARY FROM THOSE DEPICTED ABOVE.
- INCLUDE LOGIC TO OPERATE REHEAT VALVE TO MAINTAIN DISCHARGE AIR TEMPERATURE AT SETPOINT (I.E. 85°F MAX AT -2°F AND GREATER DEVIATION FROM SETPOINT).
- REFER TO EQUIPMENT SCHEDULES FOR INITIAL AIR DELIVERY (CFM) SETTINGS.

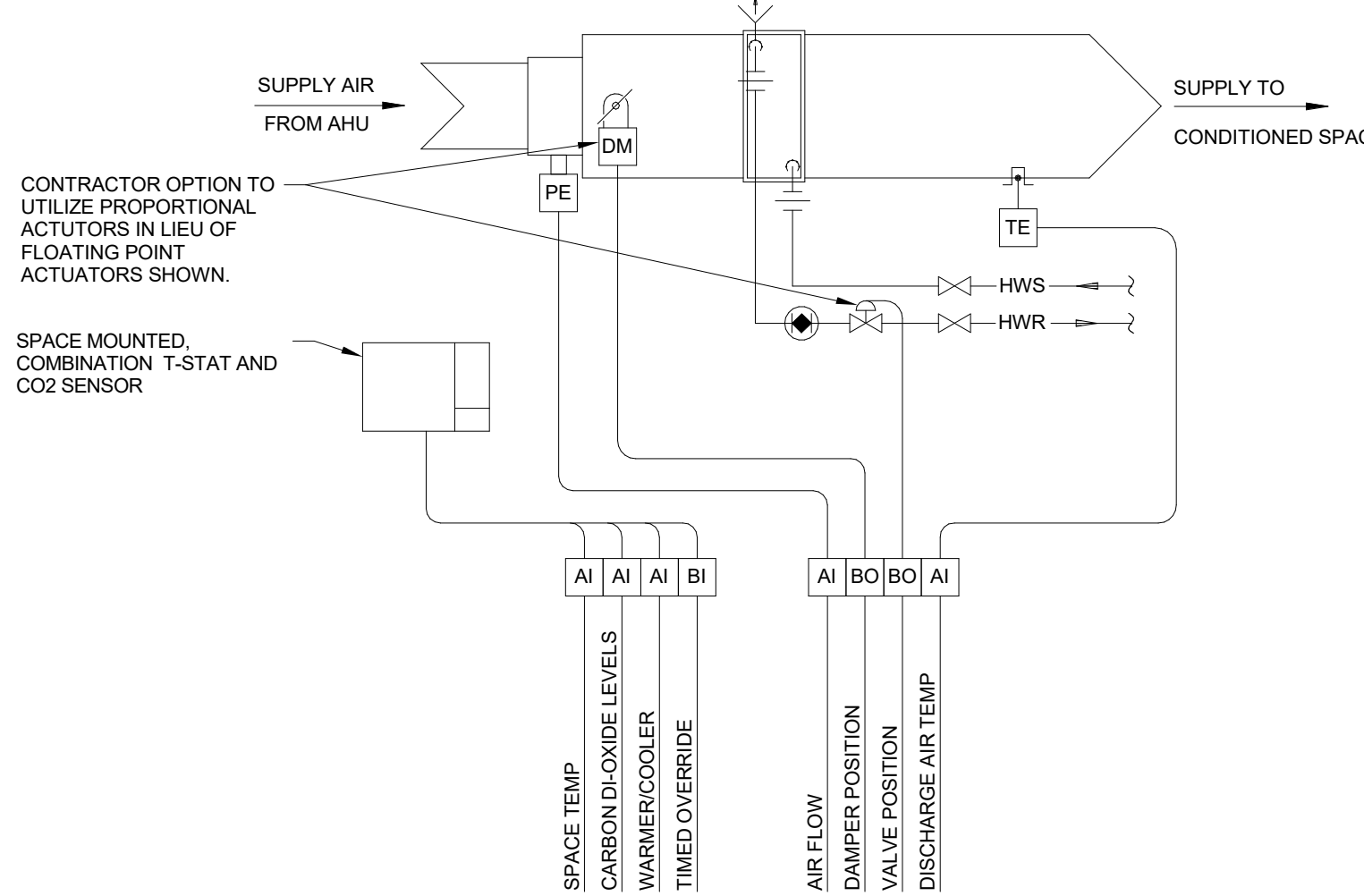
THE SPACE MOUNTED TEMPERATURE SENSOR SHALL INCORPORATE A WARMER/COLER ADJUSTMENT ALLOWING ZONE OCCUPANTS TO BIAS THE SPACE TEMPERATURE SETPOINT BY A FIXED AMOUNT IN EITHER DIRECTION.

FEATURES -

- COOPERATION WITH NIGHT VENT COOLING, MORNING WARMUP, AND DOV LOGIC WHERE SPECIFIED IN RESPECTIVE AHU SEQUENCES.
- SPACE TEMPERATURE SHALL BE TRENDED HOURLY.
- GENERATE AN ALARM SHOULD DISCHARGE AIR TEMPERATURE STRAY FROM DISCHARGE AIR TEMPERATURE SETPOINT BY 5 DEG OR MORE.
- HOURLY TREND ITEMS INDICATED IN THE POINTS LIST TO BE TRENDED. STORE DATA FOR 1 YEAR PRIOR TO PURGING.



1 VAV WITH REHEAT CONTROL DIAGRAM
SCALE: NONE



SEQUENCE OF CONTROL:

DESCRIPTION - THE NEW SYSTEMS CONSIST OF A PRESSURE INDEPENDENT VARIABLE AIR VOLUME BOX COMPLETE WITH MOTORIZED DAMPER, HOT WATER REHEAT COIL, FLOATING POINT OR PROPORTIONAL CONTROL VALVE, AND AIR FLOW PRESSURE TRANSDUCER.

SCHEDULING - OCCUPIED/UNOCCUPIED SCHEDULING APPLIES TO THESE SYSTEMS. SCHEDULES TO BE DETERMINED BY OWNER AND SHALL BE AVAILABLE THROUGH THE OPERATOR WORKSTATION INTERFACE.

SCHEDULING CONTROLS: SPACE SETPOINT TEMPERATURE. DURING OCCUPIED MODE, TERMINAL UNIT SHALL MAINTAIN SPACE TEMPERATURE AT SETPOINT DICTATED BY SPACE MOUNTED THERMOSTAT (I.E. 68-72° HEATING, 76-80°F COOLING). DURING UNOCCUPIED MODE, TERMINAL UNIT SHALL MAINTAIN SPACE TEMPERATURE AT SETBACK TEMPERATURE SETPOINT (I.E. 60°F HEATING, N/A COOLING).

OCCUPIED/UNOCCUPIED SCHEDULING ALSO ALSO CONTROLS VENTILATION. WHEN SCHEDULED IN THE OCCUPIED MODE, TERMINAL UNIT SHALL PROVIDE MINIMUM VENTILATION CFM CALCULATED BY THE DEMAND CONTROL VENTILATION PROGRAM. WHEN SCHEDULED IN THE UNOCCUPIED MODE, DAMPER SHALL BE SHUT. TERMINAL BOX SHALL BE PERMITTED TO OPEN AS REQUIRED ON DEMAND FOR HEATING ONLY, DURING UNOCCUPIED PERIODS.

TIMED OVERRIDE - SHOULD THE TIMED OVERRIDE BE SWITCHED TO OCCUPIED DURING UNOCCUPIED MODE, OCCUPIED MODE OPERATION SHALL APPLY FOR THE TIMED OCCUPANCY DURATION.

KITCHEN HOOD VENTILATION MODE: WHEN KITCHEN EXHAUST HOOD IS ACTIVATED, VAV WILL BE OVERRIDDEN TO OCCUPIED MODE AND MAX DESIGN CFM. WHEN KITCHEN EXHAUST IS OFF, VAV WILL RETURN TO NORMAL OPERATION.

CONTROL - THE AIRFLOW PRESSURE TRANSDUCER SHALL INDICATE TO THE UNIT MOUNTED DDC CONTROLLER MEASURED AIRFLOW. THE DDC CONTROLLER SHALL MODULATE THE VAV BOX DAMPER TO MAINTAIN AIRFLOW AT SETPOINT. AIRFLOW SETPOINT AND REHEAT VALVE SHALL BE MODULATED BASED ON SPACE TEMPERATURE DEVIATION FROM SETPOINT PER THE SAMPLE RESET SCHEDULES BELOW INDICATING DEADBAND, HEATING AND COOLING RAMP-UP RANGES, AND MINIMUM AIRFLOWS.

WHEN KITCHEN VENTILATION MODE IS ACTIVATED, THE DDC CONTROLLER SHALL DRIVE THE AIRFLOW TO CONSTANT VOLUME AT MAXIMUM CFM, AND MODULATE THE REHEAT VALVE TO MAINTAIN SPACE TEMPERATURE SETPOINT.

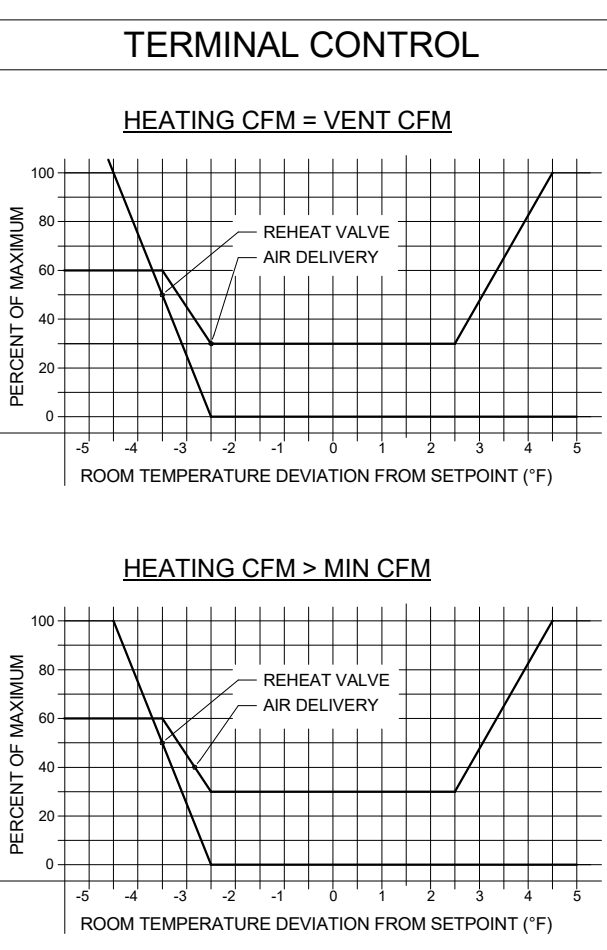
NOTES:

- THE ADJACENT GRAPHICS ARE PROVIDED FOR REFERENCE ONLY.
- EACH TERMINAL BOX IS UNIQUE AND MAY HAVE REQUENTS THAT VARY FROM THOSE DEPICTED ABOVE.
- INCLUDE LOGIC TO OPERATE REHEAT VALVE TO MAINTAIN DISCHARGE AIR TEMPERATURE AT SETPOINT (I.E. 85°F MAX AT -2°F AND GREATER DEVIATION FROM SETPOINT).
- REFER TO EQUIPMENT SCHEDULES FOR INITIAL AIR DELIVERY (CFM) SETTINGS.

THE SPACE MOUNTED TEMPERATURE SENSOR SHALL INCORPORATE A WARMER/COLER ADJUSTMENT ALLOWING ZONE OCCUPANTS TO BIAS THE SPACE TEMPERATURE SETPOINT BY A FIXED AMOUNT IN EITHER DIRECTION.

FEATURES -

- COOPERATION WITH NIGHT VENT COOLING, MORNING WARMUP, AND DOV LOGIC WHERE SPECIFIED IN RESPECTIVE AHU SEQUENCES.
- SPACE TEMPERATURE SHALL BE TRENDED HOURLY.
- GENERATE AN ALARM SHOULD DISCHARGE AIR TEMPERATURE STRAY FROM DISCHARGE AIR TEMPERATURE SETPOINT BY 5 DEG OR MORE.
- HOURLY TREND ITEMS INDICATED IN THE POINTS LIST TO BE TRENDED. STORE DATA FOR 1 YEAR PRIOR TO PURGING.































































2 KITCHEN AND CAFETERIA SPACE VAV
SCALE: NONE

CONTROLS GENERAL NOTES:

- CONTROLS CONTRACTOR TO COVER ALL COSTS OF ELECTRICAL POWER REQUIREMENTS, IF ANY, AND LINE VOLTAGE WIRING, IF ANY, BY LICENSED ELECTRICIAN.
- SEQUENCES OF OPERATION DEFINED HEREIN DESCRIBE GENERAL INTENT AND DO NOT INCLUDE ALL NECESSARY PROCEDURES/STEPS REQUIRED. ANTICIPATE FINE TUNING OF SEQUENCES (INCLUDING, BUT NOT LIMITED TO, SETPOINT ADJUSTMENTS, DEADBAND REFINEMENT, RESET CURVES ENDPOINTS, TIME DELAYS, OFFSETS, AND ACTUAL SEQUENCING LOGIC), MAY BE REQUIRED AND SHALL BE PERFORMED AS REQUIRED DURING FUNCTIONAL PERFORMANCE TESTING OF THE SYSTEMS. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL FINE TUNING ADJUSTMENTS TO PROVIDE A COMPLETE AND OPERABLE SYSTEM.
- CONTROLS SHALL BE FIELD INSTALLED. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING AND INSTALLING ALL DEVICES REQUIRED FOR A FULLY FUNCTIONAL CONTROL SYSTEM FOR THIS PROJECT, REGARDLESS OF VOLTAGE. IF THE CONTRACTOR CANNOT SELF-PERFORM WORK REQUIRING LINE VOLTAGE THEN THE CONTRACTOR SHALL COORDINATE WITH AND COMPENSATE THE ELECTRICAL CONTRACTOR AS REQUIRED. CONTROLS CONTRACTOR SHALL COORDINATE WITH EQUIPMENT SUPPLIERS TO ENSURE THAT ALL DEVICES ARE COMPATIBLE WITH THE EXISTING CONTROLS SYSTEM AND EXISTING MECHANICAL EQUIPMENT.
- ALL CONTROL WIRING TO BE INSTALLED IN PLENUM RATED CONDUIT.
- NO NETWORKED CONTROL POINTS ARE ALLOWED. ALL SENSORS TO BE HARDWIRED DIRECTLY TO CONTROLLING MOULDE.
- DESCRIPTION - THE BUILDING CONTROL SYSTEM (BCS) SHALL CONSIST OF AN ASHRAE STANDARD 135 COMPLIANT (BACNET COMPATIBLE) DEVICES AND COMPONENTS, INCLUDING BOILERS, PUMPS, RTUS, VAV BOXES, FAN POWERED BOXES, VFDs, WATER HEATERS, AND COMPUTER ROOM COOLING SYSTEMS. THE BCS SHALL BE PROVIDED BY MANUFACTURER WITH BACNET COMPATIBLE CONTROLLERS WITH ALL AVAILABLE INFORMATION WITHIN COMMUNICATED TO AND GRAPHICALLY REPRESENTED IN THE BCS.
- REMOTE ACCESS - PROVIDE REMOTE ACCESS VIA WEB BASED INTERFACE (WEB ACCESS ITSELF IS NOT PART OF THIS CONTRACT).
- BUILDING OCCUPANCY - IN ADDITION TO THE OCCUPANCY SCHEDULING FEATURES AVAILABLE THROUGH THE BCS SOFTWARE, PROVIDE MANUAL CONTROLLABILITY OF OCCUPANCY STATUS. MANUAL CONTROL OF OCCUPANCY STATUS SHALL BE ADJUSTABLE THROUGH THE OPERATOR INTERFACE. MANUAL OCCUPANCY OVERRIDE DURATION SHALL BE ADJUSTABLE.
- GRAPHICS - ALL BCS POINTS SHALL BE REPRESENTED BY GRAPHIC DISPLAY ON THE WEB BASED INTERFACE. ITEMS SUCH AS PUMPS, FANS, CONTROL VALVES, AND DAMPER ACTUATORS SHALL BE REPRESENTED BY GRAPHIC DISPLAYS. GRAPHICAL FLOOR PLANS SHALL INDICATE ANNOTATED ZONE DESIGNATIONS AS WELL AS THEIR SPACE TEMPERATURE SETPOINT, SPACE TEMPERATURE, AND MODE OF OPERATION "HEATING", "COOLING" OR "INACTIVE". BACKGROUND COLOR OF ZONES SHALL BE CHANGED AS FOLLOWS: GREEN - SPACE TEMPERATURE WITHIN 3°F OF SETPOINT; RED - SPACE TEMPERATURE GREATER THAN 3°F ABOVE SETPOINT; BLUE - SPACE TEMPERATURE LOWER THAN 3°F BELOW SETPOINT.
- GRAPHICAL FLOOR PLANS SHALL ALSO INDICATE CENTRALIZED PLANT EQUIPMENT, VAVS, AHUS, RTUS, AND DISTRIBUTED IT ROOM COOLING SYSTEM BY LOCATION. ANIMATED GRAPHICS ARE NOT REQUIRED ON THE GRAPHICAL FLOOR PLAN SCREEN. ADDITIONAL INFORMATION FOR THE EQUIPMENT IS INDICATED ON THE GRAPHICAL FLOOR PLANS SHALL BE EASILY ACCESSED BY DOUBLE-CLICKING THE ASSOCIATED FLOOR PLAN GRAPHIC. ADDITIONAL INFORMATION FOR THE CENTRAL PLANT AS A WHOLE SHALL BE ACCESSIBLE IN THE SAME MANNER.
- LOCATIONS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS ONLY. INDICATE EXACT LOCATION OF ALL DEVICES IN THE FIELD WITH CLEARLY MARKED IDENTIFIERS AND OBTAIN ARCHITECTS' AND ENGINEER'S APPROVAL PRIOR TO ROUTING CONDUIT AND PULLING WIRE.
- VARIABLE FREQUENCY DRIVES (VFDs) TO BE PROVIDED WITH BACNET COMPATIBLE INTERFACE TO MONITOR CURRENT VFD STATUS AND OPERATING CONDITIONS THROUGH ITS COMMUNICATION PORT.
- ALARMS - PROVIDE THE FOLLOWING SPECIFIC DIAL-OUT ALARMS TO DESTINATION DETERMINED BY THE OWNER: SPACE TEMPERATURE LOW LIMIT; IT (IN/F & I/F'S) ROOM TEMPERATURE HIGH LIMIT; GENERALIZED EQUIPMENT FAILURE ALARM (FOR EQUIPMENT SUCH AS PUMPS, WATER HEATERS, RTUS, ERVS, VFDs, ETC)
- ADJUSTABILITY - WITH THE EXCEPTION OF DESIGN TEMPERATURES, ALL SETPOINTS, TIME DELAYS, DURATIONS, RESET SCHEDULES, AND OTHER CONTROL VARIABLES SHALL BE ADJUSTABLE. VARIABLES REQUIRED FOR CONTROLS IMPLEMENTATION THAT ARE NOT DEFINED IN THE SEQUENCES OF CONTROL SHALL BE DEFINED BY CONTROLS CONTRACTOR IN THEIR SHOP DRAWING SUBMITTAL. CONTRACTOR'S SUGGESTED ADJUSTMENTS TO VARIABLES DEFINED IN THE SEQUENCES OF CONTROL, IF ANY, SHALL BE SUBMITTED IN THE CONTROLS DRAWINGS.
- RESET CURVE GRAPHICS - CERTAIN CONTROLS'S SEQUENCES IN THIS DRAWING SET CONTAIN RESET CURVE GRAPHICS THAT ARE PROVIDED GRAPHICALLY. THOUGH THESE CURVES REPRESENT PROPORTIONAL CONTROL ONLY IN THE SIMPLEST INTERPRETATION, THE CONTROLS SYSTEM INTENT IS TO UTILIZE PROPORTIONAL-INTEGRAL (PI) AND/OR PROPORTIONAL-INTTEGRAL-DERIVATIVE (PID) LOOPS TO PERMIT TUNING OF CONTROLS SYSTEMS RESPONSE, LIMIT OVERSHOOT/UNDERSHOOT, AND IMPROVE SYSTEM STABILITY.

NOTE:
ALL SYMBOLS SHOWN ON LEGEND
ARE NOT NECESSARILY USED.

POWER SYMBOLS	
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER
	DOUBLE DUPLEX RECEPTACLE
	GFCI DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE, HALF SWITCHED
	ISOLATED GROUND DUPLEX RECEPTACLE
	MULTI-OUTLET PLUG STRIP
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE, HALF SWITCHED
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE AND TELECOM
	WALL MOUNTED SPECIAL OUTLET AS NOTED
	SPECIAL OUTLET AS NOTED
	JUNCTION BOX
	WALL MOUNTED JUNCTION BOX
	FLOOR MOUNTED JUNCTION BOX
	MECHANICAL EQUIPMENT POWER CONNECTION
	TIMER SWITCH
	FUSED DISCONNECT
	NON FUSED DISCONNECT
	MOTOR STARTER
	ENCLOSED CIRCUIT BREAKER
	PULL BOX
	PUSH BUTTON
	TIME CLOCK
	PHOTO-CELL
	TRANSFORMER
	PANELBOARD OR LOADCENTER
	CONTACTOR
	ELECTRIC MOTOR
	METER
	THERMOSTAT
	AUTOMATIC TRANSFER SWITCH
	CIRCUIT HOMERUN
	CONDUIT RUN
	CONDUIT RUN BELOW GRADE
	CONDUIT UP
	CONDUIT DOWN
	SWITCH
	THERMAL OVERLOAD SWITCH
	VARIABLE SPEED SWITCH
	KEY SWITCH
ONE-LINE DIAGRAM SYMBOLS	
	DISCONNECT SWITCH
	FUSE
	CIRCUIT BREAKER
	CURRENT TRANSFORMER
	POTENTIAL TRANSFORMER
	METER
	VOLT-METER
	AMP-METER
	SURGE PROTECTION DEVICE
	SELECTOR SWITCH
	GROUND FAULT PROTECTION
	SHUNT TRIP
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	GROUND
	COLD WATER GROUND CONNECTION
	BUILDING STEEL GROUND CONNECTION

ABBREVIATIONS	
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
AP	ACCESS POINT
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFS	BELOW FINISH GRADE
BMS	BUILDING MANAGEMENT SYSTEM
CU	CONDUIT
CATV	COMMUNITY (CABLE) ANTENNA TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CPU	CENTRAL PROCESSING UNIT
CT	CURRENT TRANSFORMER
DISP	GARBAGE DISPOSAL
DW	DISHWASHER
(E)	EXISTING
EM	EMERGENCY
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
GFC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GRD	GROUND
IAC	IN ACCORDANCE WITH
IC	INTERMEDIATE CROSS-CONNECT
IDF	INTERMEDIATE DISTRIBUTION FRAME
IG	ISOLATED GROUND
IR	INFRARED
LAN	LOCAL AREA NETWORK
MDF	MAIN DISTRIBUTION FRAME
(N)	NEW
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
PA	PUBLIC ADDRESS
REF	REFRIGERATOR
SPD	SURGE PROTECTION DEVICE
TTB	TELECOMMUNICATIONS TERMINAL BOARD
TVTB	TELEVISION TERMINAL BOARD
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLT
W	WATT
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WLAN	WIRELESS LOCAL AREA NETWORK
WP	WEATHERPROOF
XP	EXPLOSIONPROOF
+18"	MOUNTING HEIGHT TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR (VERIFY W/ ARCH ELEVATIONS)
<p>NOTES:</p> <ul style="list-style-type: none"> - LIGHT LINEWEIGHT INDICATES EXISTING. - HATCHED AREAS INDICATE DEMOLITION. - 'C' ADJACENT TO A DEVICE INDICATES MOUNTING ABOVE COUNTERTOP. 	

CONNECTIONS

ITEM		FURNISHED UNDER	SET IN PLACE OR MTD. UNDER	WIRED/ CONNECTED UNDER
1	EQUIPMENT MOTORS AND THERMAL OVERLOADS, RESISTANCE HEATERS.	MD	MD	ED
2	VFDs, MOTOR CONTROLLERS, MAGNETIC STARTERS, REDUCED VOLTAGE STARTERS AND OVERLOAD RELAYS.	MD	ED(a)	ED
3	DISCONNECT SWITCHES FUSED OR NON-FUSED, HP RATED SWITCHES, THERMAL OVERLOAD SWITCHES AND FUSES AND MANUAL OPERATING SWITCHES.	ED(a)	MD	ED
4	PUSHBUTTON STATIONS, PILOT LIGHTS, MULTI-SPEED SWITCHES, FLOAT SWITCHES, THERMOSTATS, CONTROL VALVES, THERMOCKS, CONTROL TRANSFORMERS, CONTROL PANELS, MOTOR VALVES, DAMPER ACTUATORS, SOLENOID RELAYS, BP AND PE SWITCHES AND INTERLOCKS.		MD	MD(b)
5	120 VOLT POWER FOR BAS PANELS, FIRE PROTECTION AND BOILER CONTROLS.	ED	ED	ED
6	FIRE/SMOKE DAMPERS AND ELEVATOR VENT DAMPERS	MD	MD	ED(c)

MD = MECHANICAL DIVISION
ED = ELECTRICAL DIVISION

NOTES:

(a) IF FURNISHED AS PART OF FACTORY-WIRED EQUIPMENT, THEN WIRING AND CONNECTIONS ONLY BY ED

(b) IF ANY OF THESE DEVICES CARRY THE FULL LOAD CURRENT TO ANY MOTOR THEY SHALL BE CONNECTED BY ED. CONTROL DEVICES CARRYING FULL LOAD CURRENT FURNISHED BY MD AND WIRED BY ED SHALL BE LOCATED AT THE DEVICE BEING CONTROLLED, UNLESS SHOWN ON DRAWINGS OR MUTUAL AGREEMENT IS MADE BETWEEN THE CONTRACTORS WITH NO CHANGE IN THE CONTRACT PRICE.

(c) WIRING FROM ALARM CONTROLS TO ALARM SYSTEM BY ED. ALL CONTROL FUNCTION WIRING BY MD. DUCT DETECTORS FURNISHED BY ED, SET IN PLACE BY MD.

GENERAL NOTES: THE ABOVE LIST DOES NOT ATTEMPT TO INCLUDE ALL COMPONENTS. ALL ITEMS NECESSARY FOR A COMPLETE SYSTEM SHALL BE INCLUDED IN THE BASE CONTRACT.

ISSUE LOG				

#	TITLE	Issued Graphic Check Mark	ISSUE LOG			
			DD - 02.21.2020	CD PROGRESS SET - 03.16.2020	95% CD SET - 03.30.2020	PERMIT SET - 04.06.2020
E0.0	ELEC COVER SHEET	✓	✓	✓	✓	
E0.1	ELECTRICAL SCHEDULES	✓	✓	✓	✓	
E0.2	ELECTRICAL SCHEDULES	✓	✓	✓	✓	
E1.0	ELECTRICAL SITE PLAN	✓		✓	✓	✓
ED2.1	FIRST LEVEL AREA A DEMO ELEC PLAN	✓	✓	✓	✓	✓
ED2.2	6TH GRADE SCIENCE ROOMS DEMO ELECTRICAL PLAN	✓	✓	✓	✓	✓
E2.1	FIRST LEVEL AREA A ELEC PLAN	✓	✓	✓	✓	✓
E2.2	SCIENCE CLASSROOMS ELEC PLANS	✓	✓	✓	✓	✓
E2.3	6TH GRADE SCIENCE ROOMS ELEC PLAN	✓	✓	✓	✓	✓
E2.4	ROOF AREA A ELECTRICAL PLAN	✓		✓	✓	✓
E2.11	FIRST LEVEL AREA A LIGHTING PLAN	✓	✓	✓	✓	✓
E3.1	ELECTRICAL DIAGRAMS	✓	✓	✓	✓	✓

ISSUE LOG KEY:
 ✓ = ISSUED AS PART OF SET
 ✗ = NOT PART OF SET
 ** = ISSUED FOR INFORMATION ONLY

- DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. SIZES AND LOCATION OF EQUIPMENT AND WIRING ARE SHOWN TO SCALE WHERE POSSIBLE BUT NOT NECESSARILY SO. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER FOR ANY DEVIATION FROM AS APPROVED BY THE ARCHITECT. IT IS NOT WITHIN THE SCOPE OF DRAWINGS TO SHOW ALL NECESSARY BENDS, OFFSETS, RACEWAYS OR OBSTRUCTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL BACKSAWRY BENDS TO CONFORM TO THE STRUCTURE, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR.
- EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND WAS NOT REFLECT EXIST'AS-BUILT' CONDITIONS. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. CAREFULLY COORDINATE NEW WORK WITH EXISTING UTILITIES TO AVOID DAMAGE TO EXISTING SYSTEMS.
- SYSTEM OUTAGES SHALL BE PERMITTED ONLY AT TIMES APPOINTED BY OWNER - IN WRITING. WORK WHICH COULD RESULT IN AN ACCIDENTAL OUTAGE (BEYOND BRANCH CIRCUITS) SHALL BE PERFORMED WITH THE OWNER'S MAINTENANCE PERSONNEL ADVISED OF SUCH WORK.
- SERVICE SHALL BE MAINTAINED TO EXISTING AREAS DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE PORTABLE GENERATORS, CABLES, OUTLETS ETC. AS REQUIRED TO MAINTAIN CONTINUITY OF SERVICE. PLACEMENT OF SUCH PORTABLE EQUIPMENT SHALL BE SUBJECT TO OWNER APPROVAL.
- REVIEW ARCHITECTURAL, MECHANICAL AND OTHER DRAWINGS PRIOR TO BID. CONTRACTOR SHALL BE RESPONSIBLE TO THE ARCHITECT FOR ANY DISCREPANCIES OFFERED BY THE ARCHITECT. THE DRAWINGS FINAL LOCATION OF OUTLETS AND EQUIPMENT SHALL, LOCATION AND MOUNTING HEIGHT OF ALL LIGHT FIXTURES AND DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.
- VERIFY REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH SHOP DRAWING SUBMITTALS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND ELECTRICAL DRAWINGS.
- WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT.
- WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES.
- SECURE AND PAY FOR ALL PERMITS AND FEES NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK. FURNISH TO THE ARCHITECT THROUGH THE SUPERVISOR ALL NECESSARY INFORMATION, CERTIFICATES FROM LOCAL AND STATE INSPECTORS.
- CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
- VERIFY EXIST' LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PIPE BOXES, TRANSFORMERS, JOINTS, JUNCTION BOXES, TERMINATING POINTS, BACKFLAP TRICHENS TO TWO (2') MINIMUM COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXIST' UTILITY COMPANY DRAWINGS AND REQUIREMENTS. ELECTRICAL CONTRACTOR IS TO SUBMIT A COMPLETE CONSTRUCTION DRAWING SET TO THE ARCHITECT WITHIN THIRTY DAYS AFTER THE DATE WHEN THE CONTRACT IS AWARDED. NO NEW APPROVAL, APPROVAL CONSTRUCTION SCHEDULING AND INSTALLATION OF THE UTILITY TRANSMITTER WITH THE UTILITY COMPANY. NOTIFY OWNER OR THE UTILITY COMPANY IMMEDIATELY IF THERE IS A CHANGE IN THE DESIGN OR SPECIFICATIONS.
- EXISTING SYSTEMS AND CONDITIONS SHOWN ON DRAWINGS FOR EXISTING BUILDINGS ARE TO BE NOTED "FOR GUIDANCE ONLY." THE ELECTRICAL CONTRACTOR TO FIELD CHECK ALL EXISTING CONDITIONS PRIOR TO BIDDING AND TO INCLUDE IN HIS BID AN ALLOWANCE FOR REMOVAL AND/OR RELOCATION OF EXISTING CONDUIITS, WIRES, DEVICES, FIXTURES, OR OTHER EQUIPMENT AS DETICATED ON THIS PLAN OR DUE TO THE NEED TO REMOVE OR ADD NEW AND EXISTING ELECTRICAL SYSTEM TO ALL OTHER WORK AS REQUIRED.
- ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR PARTITIONS SHALL BE SEALED TO PREVENT THE SPREAD OF FIRE AND GASES THROUGHOUT THE BUILDING. THE SEALANT MUST BE CAPABLE OF WITHSTANDING A MINIMUM BE THE SAME RATINGS AS THAT OF THE FLOOR OR RAFTER USED FOR SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- EXPPOSED CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL WITH OR AT RIGHT ANGLES TO THE BUILDING STRUCTURE. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE.
- PROVIDE A SEPARATE CUOTE SIZEZ GREEN EQUIPMENT GROUND CONDUCTOR IN ALL CONDUIITS AND RACEWAYS CONTAINING LINE VOLTAGE. PROVIDE PROPER CONNECTIONS TO THE MAIN PANEL. PROVIDE ONE (1") MINIMUM SIZE GREEN CONDUCTOR SIZE, FOR CIRCUITS UPSIZED FOR VOLTAGE DROP INCREASE EQUIPMENT GROUNDCONDUCTOR CONDUIT SIZE PER CODE.
- PROVIDE ELECTRICAL DEMOLITION REFERRED TO ARCHITECTUAL AND ELECTRICAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK REQUIRED.
- PROVIDE ALL NECESSARY DEMOLITION TO REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE , JBOKES, RECEPABLECS, SWITCHES, LIGHTS, FIRE ALARMS DEVICES, ECT. COMPLETE WITH ASSOCIATED CURCUTING TO SOURCE. WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE, OUTLET SHALL BE ABANDONED, WIRE REMOVED, AND BLANK COVER PLATES PROVIDED.
- THE CONTRACTOR SHALL DO ALL CUTTING AND PATCHING OF THE EXISTING CONSTRUCTION WORK WHICH MAY BE REQUIRED FOR THE PURCHASE OF MATERIALS AND EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING THE SAME MATERIALS, WORKMANSHIP AND FINISH AS, AND SHALL ACCURATELY MATCH ALL SURROUNDING WORK.
- ALL (E) EQUIPMENT, LAMPS, BALLASTS, ECT. BEING REMOVED SHALL BE DISCARDED IN ACCORDANCE WITH APPLICABLE EPA REQUIREMENTS.
- EXISTING LIGHT FIXTURES, ELECTRICAL EQUIPMENT, ECT. BEING REMOVED SHALL BE RETURNED TO THE OWNER, EXCEPT FOR ITEMS THAT ARE DAMAGED OR DESTROYED.
- VERIFY LOCATIONS FOR ALL ELECTRICAL EQUIPMENT WITH ARCHITECTURAL DRAWINGS FOR INTERIOR DETAILS AND FINISH. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT. VARIATIONS IN PREFRAPPING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILING AND LITE, AND CORRECT ANY DEFICIENCIES BEFORE STARTING ELECTRICAL WORK.
- INSTALL ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION PRIOR TO INSTALLATION.
- FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH THE EQUIPMENT ACTUALLY INSTALLED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
- UPON COMPLETION OF ALL ELECTRICAL WORK, ELECTRICAL CONTRACTOR SHALL ADJUST TEST ALL CIRCUITS, OUTLETS, SWITCHES, LIGHTS, MOTORS, AND ANY OTHER ELECTRICAL ITEMS SHALL BE IMMEDIATELY REPAIRED OR REPLACED WITH ALL NEW EQUIPMENT AND MATERIALS. IF THE ITEM IS NOT TESTED, IT SHALL BE RETESTED. ALL SUCH REPLACEMENT OR REPAIR SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- AFTER COMPLETION OF WORK UNDER THIS SECTION, CLEAN UP ALL RESULTANT DEBRIS FROM SITE AND WORK AND REMOVE FROM THE SITE.
- ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY UL OR OTHER RECOGNIZED TESTING FACILITY.
- WIRING DEVICES SHALL BE SPECIFICATION GRADE AND RATED AT 20 AMPERES FOR LIGHT SWITCHES, AND 20 AMPERES FOR DUPLEX RECEPTABLES. THE COLOR OF THE DEVICES AND COVER PLATES SHALL BE AS DIRECTED BY ARCHITECT.
- ALL WIRING SHALL BE INSTALLED IN LISTED METALLIC RACEWAYS UNLESS NOTED OTHERWISE. CONNECTORS SHALL BE INSTALLED AT EACH END OF THE RACEWAY. WIRING SHALL BE INSTALLED IN RACEWAY CONFIGURATIONS SHOWN ON ONE-LINE BRANCH CIRCUITS 25A AND LARGER SHALL BE INSTALLED IN INDIVIDUAL RACEWAYS. BRANCH CIRCUITS 25A AND LARGER SHALL BE INSTALLED IN INDIVIDUAL RACEWAYS. BRANCH CIRCUITS 20A AND LARGER SHALL BE INSTALLED IN INDIVIDUAL RACEWAYS. CURRENT-CARRYING 90-DEGREE CONDUCTORS, OR 8 CURRENT-CARRYING 90-DEGREE CONDUCTORS, IN A SINGLE RACEWAY. METAL CLAD CABLE IS PERMITTED.
- ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A 200LB NYLON PULL STRING OR EQUAL, AND SHALL BE IDENTIFIED AT ALL JUNCTION, PULL AND TERMINATION POINTS, USING PERMANENT METALLIC TAGS. TAG SHALL INDICATE INTENDED USE OF CONDUIT, TYPE OF EQUIPMENT TO BE INSTALLED, AND THE NAME OF THE INDIVIDUAL CONTRACTOR WHO INSTALLED THE RACEWAY.
- WIRE SHALL BE COPPER .75 DEGREE CELSIUS RATED FOR GENERAL USE. WIRING WITHN THREE (3) INCHES OF FLUORESCENT BALLASTS WIRE SHALL BE COPPER MINIMUM 90 DEGREE CELSIUS RATED. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 DEGREE CELSIUS AMBIENT. CONDUCTOR AMPCACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
- PROVIDE NEW UPDATED PANELBOARD DIRECTORYS FOR EXISTING AND NEW CIRCUITS BEING UTILIZED FOR COMPLETION OF PROJECT.
- PANEL DIRECTORYS SHALL BE REMOVABLE. ROOM NAMES AND NUMBERS SHALL BE AS DIRECTED BY OWNER. DIRECTORYS SHALL BE TYPED AND INSTALLED UNDER CLEAR PLASTIC COVERS.
- FINAL CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER VIBRATING EQUIPMENT SHALL BE SEAL TIE, FLEX AND APPROVED FITTINGS. DO NOT SECURE CONDUITS, DISCONNECTS, OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT.
- REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL ROUGH-IN REQUIREMENTS NOT INDICATED WITHIN THIS SERIES. SUPPLEMENTAL CONTRACT DOCUMENTS SHALL BE USED FOR FOOD SERVICE DRAWINGS.
- ALL REMOTE POWER SUPPLIES FOR LIGHTING SHALL BE LOCATED WHERE ACCESSIBLE AND CONCEALED FROM PUBLIC VIEW. LABEL POWER SUPPLY WITH CIRCUIT, LOAD SERVED, AND ROOM WHERE LOAD IS SERVED. WHERE APPLICABLE AND/OR INDICATED ON DRAWINGS, LOCATE REMOTE EQUIPMENT ON WALL AREA ABOVE DOORWAYS FOR CONSISTENCY IN FACILITY MANAGEMENT.
- GARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS & WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE. FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
- SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION. LIGHTS, SWITCHES, RECEPTABLES, MOTORS, ECT. SHALL BE CONNECTED AND OPERABLE.



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[illegible]

Issue Dates:
04.06.2020
PERMIT SET

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ELEC COVER
SHEET

Project No:
10183.00

Sheet No:
E0.0



LUMINAIRE SCHEDULE													
GENERAL NOTES: BOF = BOTTOM OF FIXTURE, RFD = RECESSED FIXTURE DEPTH, OFD = OVERALL FIXTURE DEPTH, OFH = OVERALL FIXTURE HEIGHT, TOP = TOP OF POLE, AFF = ABOVE FINISHED FLOOR. A. THE LUMINAIRE SCHEDULE CAN NOT BE USED INDEPENDENTLY OF THE DRAWINGS AND SPECIFICATIONS TO OBTAIN LUMINAIRE COSTS. THE INDIVIDUAL ESTABLISHING LUMINAIRE COSTS SHALL NOT QUOTE PRICING WITHOUT FIRST SEEING APPLICABLE ELECTRICAL DRAWINGS AND ELECTRICAL DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY DRAWINGS AND SPECIFICATIONS TO THE INDIVIDUAL QUOTING LUMINAIRE PRICING. B. REFER TO DRAWINGS FOR FIXTURES REQUIRING EMERGENCY BATTERY BACKUP OPTION (SHOWN BY HATCH INVERTER SYMBOL). MINIMUM LIGHT OUTPUT FOR EM BALLAST SHALL BE 600 LUMENS. BATTERY SHALL OPERATE FOR A MINIMUM OF 90 MINUTES. C. INTERRUPT POWER SUPPLY TO DEMONSTRATE PROPER OPERATION OF ALL EMERGENCY LIGHTING PRIOR TO JOB COMPLETION. D. MINIMUM CRF FOR FRONT OF HOUSE LIGHT FIXTURES SHALL BE 80. E. ALL FINISHES TO BE REVIEWED AND VERIFIED BY ARCHITECT PRIOR TO PURCHASE. F. PROVIDE ALL PARTS, PIECES, AND COMPONENTS NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM. ELECTRICAL CONTRACTOR TO CONFIRM ALL MOUNTING ACCESSORIES PRIOR TO ORDER. G. CONFIRM DIMMING PROTOCOL WITH FINAL CONTROLS SPECIFICATIONS AND SHOP DRAWINGS. ALL FRONT OF HOUSE LIGHT FIXTURES TO BE PROVIDED WITH 1% MINIMUM DIMMING RANGE. ELECTRICAL CONTRACTOR TO VERIFY PRIOR TO ORDER. H. ELECTRICAL CONTRACTOR TO COORDINATE ALL ACCESS PANELS, DRIVER LOCATIONS, AND TRANSFORMER LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. I. ELECTRICAL CONTRACTOR TO CONFIRM FIXTURE COMPATIBILITY WITH CEILING TYPE AND CEILING THICKNESS PRIOR TO FINAL FIXTURE ORDER. J. FOR ALL LINEAR FIXTURES, ELECTRICAL CONTRACTOR TO VERIFY EXACT FIXTURE LENGTHS PER FIELD MEASUREMENTS OR MILLWORK SHOP DRAWINGS, AS APPLICABLE. K. ELECTRICAL CONTRACTOR TO VERIFY FEED AND LENGTH OF LEAD WIRES REQUIRED AND REVISE AS NECESSARY. L. PROVIDE EXIT SIGN MOUNTING, FACES AND CHENORS PER PLANS. M. FOR ALL DECORATIVE LIGHTING, REFER TO INTERIOR DESIGN DOCUMENTATION FOR FIXTURE MOUNTING HEIGHT.													
SPECIFIC NOTES: 1. MOUNT PER PLANS. PENDANT MOUNT AS REQUIRED BELOW DUCTWORK FOR MAXIMUM ILLUMINATION OF ROOM SURFACES.] 2. REMOVE DRIVER/TRANSFORMER REQUIRED. DRIVER/TRANSFORMER TO BE LOCATED IN ACCESSIBLE, VENTILATED LOCATION. 3. SEE PLANS FOR CIRCUITING AND [EMERGENCY INVERTER] INFORMATION. 4. COORDINATE AIMING IN FIELD WITH [ARCHITECT AND/OR LIGHTING DESIGNER]. 5. ELECTRICAL CONTRACTOR TO REVIEW FIXTURE WEIGHT AND PROVIDE A JOY SUIABLE FOR FIXTURE GREATER THAN 50LBS. AS REQUIRED.) 6. [NO MORE THAN 30 TRACK HEADS MAY BE MOUNTED PER TRACK PER CIRCUIT.]													
TYPE	DESCRIPTION	MOUNTING	QTY	TYPE	LUMENS	CRI	CCT	INPUT WATTS	DIMMING	VOLTAGE	MANUFACTURER	CATALOG NUMBER	SPECIFIC NOTES
R1	2x4 RECESSED VOLUMETRIC TROFFER, GASKETED	RECESSED	1	LED	6218 lm	80	3500	49	0	277	LITHONIA	20TL1-4-60L-GZ10-LP835	-
R1E	2x4 RECESSED VOLUMETRIC TROFFER, GASKETED	RECESSED	1	LED	6218 lm	80	3500	49	0	277	LITHONIA	20TL1-4-60L-GZ10-LP835	-
R2	2x4 RECESSED VOLUMETRIC TROFFER, GRID	RECESSED	1	LED	12000 lm	82	3500	100	0	277	LITHONIA	28LT14 120L ASDM E21 LP835	-
R2E	2x4 RECESSED VOLUMETRIC TROFFER, GRID	RECESSED	1	LED	12000 lm	82	3500	100	0	277	LITHONIA	28LT14 120L ASDM E21 LP835	-
R3	2x4 RECESSED VOLUMETRIC TROFFER, GRID	RECESSED	1	LED	3332 lm	80	3500	27	0	277	LITHONIA	28LT2 33L ASDM E21 LP835	-
R3E	2x4 RECESSED VOLUMETRIC TROFFER, GRID	RECESSED	1	LED	3332 lm	80	3500	27	0	277	LITHONIA	28LT2 33L ASDM E21 LP835	-
S1	1x4 LED FLAT PANEL	SURFACE	1	LED	3300 lm	80	3500	28	1	0	LITHONIA	CPANL1 1x4 33LM 35 K M4	-
X1	THERMOPLASTIC EXIT SIGN, BATTERY POWERED WITH NICKLE CADMIUM BATTERY, WHITE FINISH WITH GREEN LETTERS	SURFACE	1	LED	0	0	0	1	NA	277	LITHONIA	LQM S W 3 G 120V277 EL N	-
ZW1E	EXTERIOR LED WALL PACK	SURFACE	1	LED	4300 lm	75	5000	44	NA	277	LITHONIA	OLW-31	-

WIRING SCHEDULE - COPPER			
AMPS	(2WG)	(2WG)	(4WG)
	10, 2 WIRE, GROUND	10, 3 WIRE, GROUND OR 20, 3 WIRE, GROUND	30, 3 WIRE, GROUND
20	(2#12 & 1#12 G) 3/4"	(2#12 & 1#12 G) 3/4"	(4#12 & 1#12 G) 3/4"
30	(2#10 & 1#10 G) 3/4"	(2#10 & 1#10 G) 3/4"	(4#10 & 1#10 G) 3/4"
40	(2#8 & 1#10 G) 3/4"	(2#8 & 1#10 G) 3/4"	(4#8 & 1#10 G) 3/4"
50	(2#6 & 1#10 G) 3/4"	(2#6 & 1#10 G) 3/4"	(4#6 & 1#10 G) 3/4"
60	(2#4 & 1#10 G) 3/4"	(2#4 & 1#10 G) 1"	(4#4 & 1#10 G) 1"
70	(2#4 & 1#8 G) 3/4"	(2#4 & 1#8 G) 1"	(4#4 & 1#8 G) 1 1/4"
80	(2#3 & 1#8 G) 1"	(2#3 & 1#8 G) 1"	(4#3 & 1#8 G) 1 1/4"
90	(2#2 & 1#8 G) 1"	(2#2 & 1#8 G) 1 1/4"	(4#2 & 1#8 G) 1 1/4"
100	(2#3 & 1#8 G) 1"	(2#3 & 1#8 G) 1 1/4"	(4#3 & 1#8 G) 1 1/4"

CONDUCTOR SIZES ARE BASED ON 60° (TERMINATIONS LESS THAN 100A AND 75° TERMINATIONS GREATER THAN OR EQUAL TO 100A, NEC TABLE 310.15(B)(16)).

CONDUCTOR SIZES ARE BASED ON NEC TABLE 4 (400V) AND TABLE 5 (THHN/ALUMINUM).

KITCHEN EQUIPMENT SCHEDULE										
MARK	DESCRIPTION	VOLT / PHASE	HP / WATTS	AMPS	CONNECTION			FEEDER	CIRCUIT	SPECIFIC NOTES
					HARDWIRED	RECEPTACLE	DISCONNECT			
K-5	DISPOSAL	208/1	2 HP	9	X	-	-	12"	20(3WG)	LANE-19,21
K-6	HIGH TEMP DISH MACHINE	208/3	-	40	X	-	-	24"	40(3WG)	LANE-14,16,18
K-8	BOOSTER HEATER	208/3	7000W	-	X	-	-	12"	20(3WG)	LANE-20,22,24
K-24	EXHAUST HOOD TYPE 2	120/1	-	15	X	-	-	CLG	20(2WG)	K-1
K-26	10 PAN STEAMER	120/1	-	5	X	-	-	24"	24"	K-3
K-27	DOUBLE STACKED CONNECTION OVEN	120/1	-	20	-	5-20R	-	24", 48"	20(2WG)	K-5
K-31	HEATED CABINET	120/1	-	20	X	-	-	24"	20(2WG)	K-7
K-33	HEAT LAMPS	120/1	375W	-	X	-	-	CLG	20(2WG)	SEE PLANS
K-41	ICE MACHINE WITH BIN	120/1	-	20	-	5-20R	-	60"	20(2WG)	LANE-33
K-43	WALK IN COOLER	120/1	-	10	X	-	-	CLG	20(2WG)	LANE-35
K-44	WALK IN COOLER EVAP COIL	120/1	-	3	X	-	-	CLG	20(2WG)	LANE-37
K-45	WALK IN COOLER CONDENSER	208/3	-	12	X	-	-	-	20(3WG)	LANE-26,38,30
K-47	GLASS DOORS WITH INTEGRAL LED LIGHTING	120/1	-	3	X	-	-	CLG	20(2WG)	LANE-32
GENERAL NOTES:										
A. FIELD VERIFY ALL EQUIPMENT POWER AND CONNECTION REQUIREMENTS WITH KITCHEN CONTRACTOR AND MANUFACTURERS INFORMATION.										
B. HARD WIRED EQUIPMENT CONNECTIONS SHALL BE SEALTIGHT.										
C. E.C. SHALL COORDINATE ALL CONNECTION POINT LOCATIONS AND RECEPTACLE CONFIGURATIONS WITH THE KITCHEN CONSULTANT. VERIFY EQUIPMENT DISCONNECT REQUIREMENTS PRIOR TO INSTALLATION.										
D. ANY EQUIPMENT UNDER HOOD TIES INTO FIRE SUPPRESSION SYSTEM. PROVIDE SHUNT TRIP CIRCUIT BREAKER TO TURN EQUIPMENT OFF WHEN FIRE SUPPRESSION SYSTEM IS ACTIVATED.										
E. PROVIDE ALL EQUIPMENT DISCONNECTS IN KITCHEN WITH NEMA 3R RATING.										
F. COORDINATE CONTROLS WITH KITCHEN EQUIPMENT VENDOR.										
SPECIFIC NOTES:										
(1) WALK IN COOLER CONDENSER LOCATED ON ROOF. COORDINATE EXACT LOCATION WITH KITCHEN CONSULTANT.										
(2)										
(3)										
(4)										

LIGHTING CONTROL DEVICES				
TYPE	DESCRIPTION	PROGRAMMING REQUIREMENTS	COMMENTS	NOTES
STAND ALONE SWITCH DEVICES				
S	LINE VOLTAGE TOGGLE SWITCH, SINGLE POLE	MANUAL ON, MANUAL OFF		
AUTOMATIC STAND ALONE CONTROL DEVICES				
SO1	CEILING MOUNTED, DUAL TECH OCCUPANCY SENSOR	AUTOMATIC ON, AUTOMATIC OFF AFTER 15 MINUTES OF UNOCCUPIED SPACE. LOCAL ON/OFF OVERRIDE BUTTON (SEE DEVICES BELOW)	EC SHALL COORDINATE MOUNTING SUCH THAT SENSOR IS NOT WITHIN 6' OF AIR RETURN SURFACES. MANUAL ON SWITCHES TO BE WELL LOCATED AND COMPATIBLE WITH CEILING SENSOR.	1
SK1	KEYED LOW VOLTAGE PUSH BUTTON KEYPAD, TWO BUTTON	KEYED: MANUAL ON OPERATION WHEN KEY ENGAGED; AUTOMATIC OFF VIA ROOM SENSOR (SEE AUTOMATIC DEVICES ABOVE)		
ROOM CONTROLLER SYSTEMS				
RO1	ROOM CONTROLLER CEILING MOUNTED OCCUPANCY SENSOR, DUAL TECH LOW VOLTAGE	MANUAL ON VIA LOCAL PUSH BUTTON, OFF AFTER 15 MINUTES OF UNOCCUPIED SPACE	EC SHALL COORDINATE MOUNTING SUCH THAT SENSOR IS NOT WITHIN 6' OF AIR RETURN SYSTEMS	1
RP1	ROOM CONTROLLER CLOSED LOOP DAYLIGHT SENSOR	<p>LIGHT-LEVEL MONITORING RANGE: 1% TO 100 FC WITH AN ADJUSTMENT TO TURN ON AND TURN OFF LIGHTS AT FOOT-CANDLE LEVELS WITHIN THAT RANGE.</p> <p>TIME DELAY: AFTER 2000 MINIMUM TO PREVENT FALSE OPERATION, MAINTAIN 30 FC AT WORKING SURFACE. PHOTOCELL MUST DIM LIGHTS CONTINUOUSLY TO AT LEAST 1% MINIMUM.</p>	<p>AND A DIRECTIONAL LENS IN FRONT OF THE PHOTOCELL TO PREVENT FIXED LIGHT SOURCES FROM CAUSING UNWANTED SHUT-OFF. SENSOR SHALL NOT BE LOCATED ON WHERE SUBJECT TO VEILING REFLECTIONS FROM GLASS OR LIGHTING SURFACES.</p>	
RK1	ROOM CONTROLLER, TWO ZONE, MANUAL LOW VOLTAGE PUSH BUTTON KEYPAD WITH RAISE LOWER	MANUAL ON, SHALL BE COMPATIBLE FOR 1% DIMMING DIMMING UNLESS OTHERWISE NEEDED, 5-10% DIMMING		
RA	ROOM CONTROLLER DEVICE		PROVIDE QUANTITIES AS REQUIRED PER MANUFACTURER	

SHORT CIRCUIT / VOLTAGE DROP CALCULATION SUMMARY											
POINT	TAG	VOLTAGE / PHASE	LENGTH (FT)	CONP / ALUMINUM	CONDUIT	WIRE SIZE	# OF SETS	FEEDER VOLTAGE DROP (%)	TOTAL VOLTAGE DROP (%)	IsC Available UPSTREAM	IsC (FAULT)
F1	(E)MSB	480V, 3Ø	210	C	N	400	5	0.7%	15.70%	14.30%	
F2	(E)MSHW	480V, 3Ø	265	C	S	2X 1	1.3%	2.0%	14.30%	6.29%	
F3	(N)DISC(LDSW2)	480V, 3Ø	80	C	S	10	1	0.6%	2.6%	6.29%	2.12%
F4	(N)PRALD(SW2)	480V, 3Ø	5	C	S	10	1	0.0%	2.7%	2.28%	2.20%
F5	(N)SEC(LDSW2)	208V, 3Ø	20	C	S	10	1	0.0%	0.0%	1.73%	1.73%
F6	(N)PANEL(LDSW2)	208V, 3Ø	5	C	S	4	1	0.1%	0.1%	1.73%	1.73%
F7	(E)HCSE	480V, 3Ø	265	C	S	3X 1	1.2%	1.9%	14.30%	6.92%	
F8	(N)DISC(LCSE2)	480V, 3Ø	80	C	S	10	1	0.6%	2.5%	6.92%	2.28%
F9	(N)PRALC(LCSE2)	480V, 3Ø	5	C	S	10	1	0.0%	2.6%	2.18%	2.18%
F10	(N)SEC(LCSE2)	208V, 3Ø	20	C	S	10	1	0.0%	0.0%	1.76%	1.76%
F11	(N)PANEL(LCSE2)	208V, 3Ø	5	C	S	4	1	0.1%	0.1%	1.76%	1.76%
F12	(E)HSBW2	480V, 3Ø	15	C	S	300	3	0.1%	0.7%	14.30%	14.10%
F13	(E)HMANE2	480V, 3Ø	120	C	S	2	0.6%	1.3%	14.10%	13.30%	
F14	(E)PR(LANE2)	480V, 3Ø	5	C	S	1	1	0.0%	1.3%	11.30%	11.08%
F15	(E)SEC(LANE2)	208V, 3Ø	30	C	S	0	0	0.0%	0.0%	9.04%	9.04%
F16	(E)LANE2	208V, 3Ø	5	C	S	250	1	0.1%	0.0%	8.80%	8.80%
F17	(N)PANEL K	208V, 1Ø	10	C	S	6	1	0.1%	0.1%	8.80%	7.45%

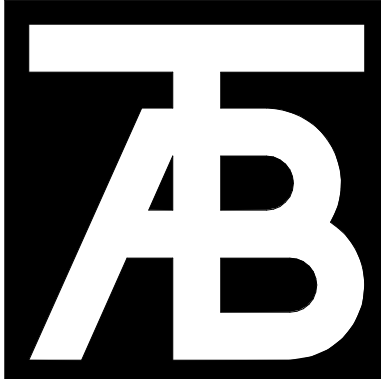
** PER THE UTILITY, THE MAXIMUM AVAILABLE (SYMMETRIC) FAULT AT THE SECONDARY SIDE OF THE SERVICE TRANSFORMER IS 15,700 AMPS, ASSUMING A 750KVA TRANSFORMER. SHORT CIRCUIT CALCULATIONS ARE FURNISHED FOR FAULT LEVELS ABOVE 10,000 AMPS @ 208 VOLT, 10,000 AMPS @ 480 VOLT. THE FAULT CURRENT BELOW THIS LEVEL IS CONSIDERED SAFE FOR THE ELECTRICAL SYSTEM TO CLEAR OR EQUIPMENT IS BUILT TO WITHSTAND THE FAULT LEVEL OF FAULT SAFELY.

TRANSFORMER SCHEDULE													
SIZE (KVA)	PRIMARY (480V, 3Ø, 3W)			SECONDARY (208V, 3Ø, 4W)			GROUNDING ELECTRODE CONDUCTOR	DIMENSIONS (IN.)			WEIGHT (LBS.)		
	FLA	OCPD	FEEDER	FLA	OCPD	FEEDER		HEIGHT	WIDTH	DEPTH			
15	15	25A3P	300WG	42	60A3P	COPPER (484 & 186) 1-1/4"	ALUMINUM (484 & 186) 1-1/4"	1-48	27	20.5	17.25	587	250
GENERAL NOTES:													
A. PRIMARY OVERCURRENT PROTECTION PER N.E.C. TABLE 450.3(B).													
B. SECONDARY OVERCURRENT PROTECTION PER N.E.C. TABLE 450.3(B).													
C. BONDING AND GROUNDING CONDUCTOR PER N.E.C. TABLE 250.68.													
D. GROUNDING ELECTRODES AND SIZES BASED BASED ON COPPER CONDUCTORS.													
E. SEE PLANS FOR INCREASED CONDUCTOR SIZES DUE TO VOLTAGE DROP.													
F. CONDUIT SIZES ARE BASED ON NEC TABLE 4 (EMT) AND TABLE 5 (THIN WALL INSULATION).													
G. DIMENSIONS AND WEIGHT FOR 1500VA TRANSFORMERS AND LARGER ARE BASED ON SQUARE D D201 DEDICATED ENERGY EFFICIENT TYPE-150 DEGREE C RISE, WITH COPPER WINDINGS.													

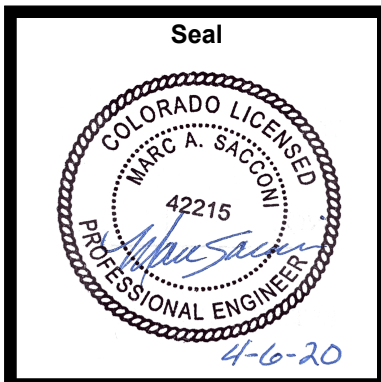
MECHANICAL EQUIPMENT SCHEDULE													
		ELECTRICAL INFORMATION											
UNIT	MARK	POLE	POLE						STARTER	DISCONNECT	FEEDER	NOTES	
			VOLTAGE	S	HP	FLA	MCA	MOPP					
EF	1												
KEE	1		120 V	1	3/4	13.8	-	20A	-	1P MOTOR RATED SWITCH	20(W)G	-	
KEE	2		120 V	1	1/4	5.8	-	20A	-	1P MOTOR RATED SWITCH	20(W)G	-	
VAV	1		120 V	1	-	-	-	20A	-	1P MOTOR RATED SWITCH	20(W)G	-	
VAV	2		120 V	1	-	-	-	20A	-	1P MOTOR RATED SWITCH	20(W)G	-	
VAV	62		120 V	1	-	-	-	20A	-	1P MOTOR RATED SWITCH	20(W)G	-	
VAV	63		120 V	1	-	-	-	20A	-	1P MOTOR RATED SWITCH	20(W)G	-	
VAV	64		120 V	1	-	-	-	20A	-	1P MOTOR RATED SWITCH	20(W)G	-	

- 1 METER PANEL, FOR 30-DAYS PER NEC 220.87 TO DETERMINE AVAILABLE LOAD CAPACITY, IT IS REQUIRED AT THE TIME OF ISSUANCE THAT THIS PANEL HAS SUFFICIENT CAPACITY FOR ADDITIONAL ELECTRICAL CONTRACTOR TO PROVIDE ELECTRICAL ENGINEER WITH METERING DATA PRIOR TO INSTALLATION OF ELECTRICAL SYSTEMS TO VERIFY SUFFICIENT CAPACITY IN PANEL.
- 2 100A, 208Y/120V, 3-PHASE PANELBOARD WITH 60A MAIN CIRCUIT BREAKER AND 30 BREAKER SPACES.
- 3 NEW 15KVA TRANSFORMER.
- 4 PROVIDE NEW 25A/3P CIRCUIT BREAKER IN THIS PANEL TO SERVE THE NEW TRANSFORMER AND PANEL.
- 5 REFER TO TRANSFORMER SCHEDULE ON THIS SHEET FOR FEEDER SIZE.
- 6 NEW 30A, 3P, NF DISCONNECT ON PRIMARY SIDE OF TRANSFORMER.
- 7 100A, 208Y/120V, 3-PHASE PANELBOARD MLO WITH 18 BREAKER SPACES.





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Sheet Title:
**ELECTRICAL
SCHEDULES**

Project No:
10183.00

Sheet No:
E0.2

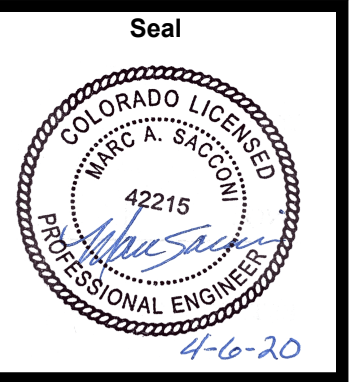
Branch Panel: LCSE2																					
Location: SOUTHEAST IT ROOM					Volts: 120/208 Wye				A.I.C. Rating: 10,000												
Supply From: XFMR-LCSE2					Phases: 3				Bus Rating 100A												
Mounting: Surface					Wires: 4				MLO or MCB: MCB												
Enclosure: Type 1									MCB Rating: 60 A												
NO.	LOAD DESCRIPTION	TYPE	POLE	TRIP	A	B	C	TRIP	POLE	TYPE	LOAD DESCRIPTION	NO.									
1	CEILING RCPT	R	1	20 A	360	360			20 A	1	R	CEILING RCPT	2								
3	SHUNT TRIP	--	--	--		0	0		--	--	SHUNT TRIP	4									
5	CEILING RCPT	R	1	20 A			360	360	20 A	1	R	CEILING RCPT	6								
7	SHUNT TRIP	--	--	--		0	0		--	--	SHUNT TRIP	8									
9	CEILING RCPT	R	1	20 A			540	540	20 A	1	R	CEILING RCPT	10								
11	SHUNT TRIP	--	--	--				0	0	--	--	SHUNT TRIP	12								
13	CEILING RCPT	R	1	20 A	360	0			20 A	1	--	Spare	14								
15	SHUNT TRIP	--	--	--		0	0		--	--	Spare	16									
17	CEILING RCPT	R	1	20 A			360	0	20 A	1	--	Spare	18								
19	SHUNT TRIP	--	--	--		0	0		--	--	Spare	20									
21	CEILING RCPT	R	1	20 A			540	0		--	Spare	22									
23	SHUNT TRIP	--	--	--				0	0	--	Spare	24									
25	Space	--	--	--	0	0			--	--	Spare	26									
27	Space	--	--	--		0	0		--	--	Spare	28									
29	Space	--	--	--			0	0	--	--	Spare	30									
Total Load:					A	B	C														
Total Amps:					1080 VA	1620 VA	1680 VA														
					9 A	14 A	9 A														
LOAD CLASSIFICATION	FEEDER SUBTOTAL	DEMAND FACTOR	FEEDER TOTAL	PANEL TOTALS																	
Lighting	0 VA	125%	0 VA	TOTAL LOAD: 3.8 kVA																	
Receptacles	3780 VA	Per NEC 220	3780 VA																		
Motors	0 VA	Per NEC 430.24	0 VA																		
Equipment	0 VA	100%	0 VA																		
Appliances	0 VA	Per NEC 220.56	0 VA	TOTAL CURRENT: 10 A																	
Notes:																					

Branch Panel: LDSW2													
Location: SOUTHWEST IT...					Volts: 120/208 Wye			A.I.C. Rating: 10,000					
Supply From: XFMR-LDSW2					Phases: 3			Bus Rating: 100A					
Mounting: Surface					Wires: 4			MLO or MCB: MCB					
Enclosure: Type 1								MCB Rating: 60 A					
NO.	LOAD DESCRIPTION	TYPE	POLE	TRIP	A	B	C	TRIP	POLE	TYPE	LOAD DESCRIPTION	NO.	
1	CEILING RCPT	R	1	20 A	360	360			20 A	1	R	CEILING RCPT	2
3	SHUNT TRIP	--	--	--		0	0		--	--	SHUNT TRIP	4	
5	CEILING RCPT	R	1	20 A			360	360	20 A	1	R	CEILING RCPT	6
7	SHUNT TRIP	--	--	--		0	0		--	--	SHUNT TRIP	8	
9	CEILING RCPT	R	1	20 A			540	540	20 A	1	R	CEILING RCPT	10
11	SHUNT TRIP	--	--	--			0	0	--	--	SHUNT TRIP	12	
13	CEILING RCPT	R	1	20 A	360	0			20 A	1	--	Spare	14
15	SHUNT TRIP	--	--	--		0	0		--	--	Spare	16	
17	CEILING RCPT	R	1	20 A			360	0	20 A	1	--	Spare	18
19	SHUNT TRIP	--	--	--		0	0		--	--	Spare	20	
21	CEILING RCPT	R	1	20 A			540	0		--	Spare	22	
23	SHUNT TRIP	--	--	--				0	0	--	Spare	24	
25	Space	--	--	--	0	0			--	--	Space	26	
27	Space	--	--	--		0	0		--	--	Space	28	
29	Space	--	--	--			0	0	--	--	Space	30	
Total Load:					A	B	C						
Total Amps:					9 A	1680 VA	1680 VA						
						9 A	14 A						
LOAD CLASSIFICATION	FEEDER SUBTOTAL	DEMAND FACTOR	FEEDER TOTAL	PANEL TOTALS									
Lighting	0 VA	125%	0 VA	TOTAL LOAD: 3.8 kVA									
Receptacles	3780 VA	Per Nec 220	3780 VA										
Motors	0 VA	Per NEC 430.24	0 VA										
Equipment	0 VA	100%	0 VA										
Appliances	0 VA	Per NEC 220.56	0 VA	TOTAL CURRENT: 10 A									
Notes:													

PANEL: (E) LANE 2					VOLTAGE: 120/208V, 3PH, 4W						
LOCATION: STORAGE A108					MINIMUM BUS: 250						
MOUNTING: SURFACE					MAIN: 250/3 CB MINIMUM AIC: EXISTING						
NO	LOAD	TYPE	LOAD DESCRIPTION	BREAKER	BUS	BREAKER	TYPE	LOAD DESCRIPTION	LOAD		
A	B	C	(E) LOAD	POLE TRIP	A	B	C	(E) LOAD	A	B	C
1					3	40					2
3					1	20					4
5					1	20					6
7					1	20					8
9			(E) LOAD		1	20		(E) LOAD			10
11			(E) LOAD		1	20		(E) LOAD			12
13			(E) LOAD		1	20		(E) LOAD			14
15			(E) LOAD		1	20		(E) LOAD			16
17			(E) LOAD		2	40		(E) LOAD			18
19			(E) LOAD		-	-	50	2	2	2	2
21			(E) LOAD		-	-	50	2	2	2	2
23			(E) LOAD		-	-	50	2	2	2	2
25			(E) LOAD		2	30				3120	3120
27			(E) LOAD		-	-	20	3			24
29			(E) LOAD		-	-	20	3			28
31	540		R (1) KITCH RCPT		1	20		CAFETERIA TV'S		1000	300
33	180		R (1) KITCH POS		1	20		GARAGE DOORS		1000	340
35	180		R (1) CAFETERIA RCPT		1	20					38
37	120		R (1) CAFETERIA RCPT		1	20					40
39			E (E) LOAD		1	20					42
41			E (E) LOAD		1	20					42
LOAD TYPE	PANEL TOTAL	FEED THRU TOTAL	SUBSERVED TOTAL	FEEDER SUBTOTAL	DEMAND	FEEDER TOTAL	GENERAL NOTES:				
(A) LIGHTING				100%			A				
(B) RECEPTACLES	2280		2280	NEC 220	2280	C	B				
(C) LARGEST MOTOR			0	25%	0	D	C				
(D) EQUIPMENT				100%		E	D				
(E) APPLIANCES	4180		4180	100%	4180	E	E				
(F) NEW LOAD ON NEW BREAKER							F				
(G) NEW LOAD ON SHUNT TRIP BREAKER							G				
PANEL TOTAL (KVA):					12.5						
PANEL TOTAL (A):					37						

1 RELOCATED EXISTING LIGHT POLE.
COORDINATE EXACT LOCATION WITH OWNER
PRIOR TO ROUGH-IN.

2 PROVIDE LINE ITEM PRICING FOR CAT6 CABLE
TO PULL BOX.



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**ELECTRICAL
SITE PLAN**

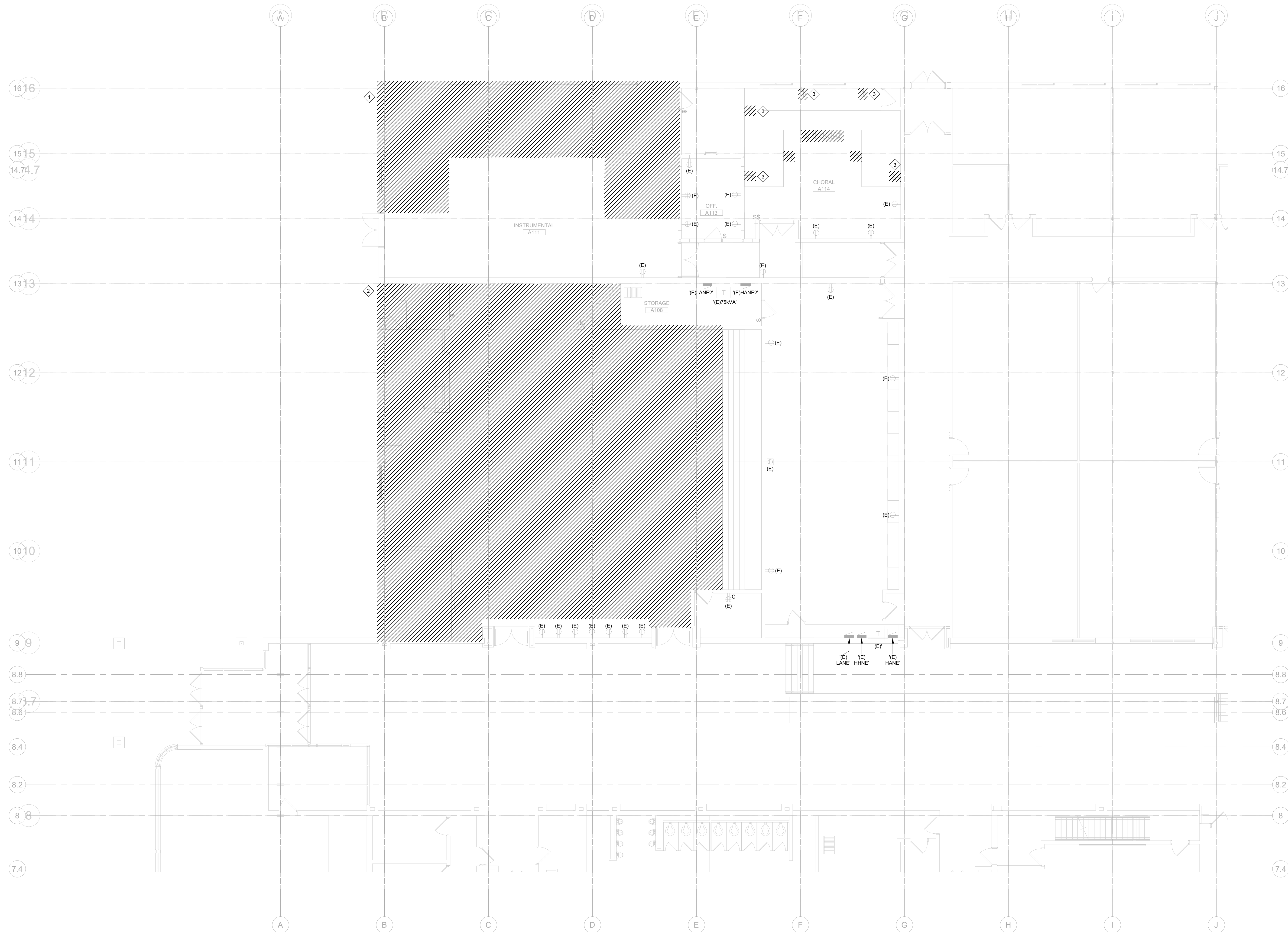
Project No:
10183.00

Sheet No:
E1.0



1 ELECTRICAL SITE PLAN

SCALE: 1" = 30'-0"

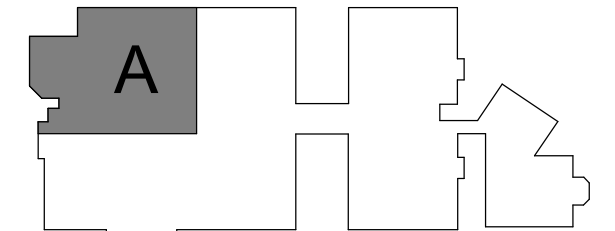


NOTES:

1. DEMOLITION PLAN INDICATES A DESIRED SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IN FIELD PRIOR TO START OF WORK.
2. CONDITIONS MAY EXIST WHERE (E) CABLING AND/OR EQUIPMENT IS INSTALLED WITHIN AN AREA OF DEMOLITION THAT IS INTENDED TO REMAIN IN ORDER TO KEEP SYSTEMS OUTSIDE OF THE AREA OF DEMOLITION IN OPERABLE CONDITION. CONTRACTOR SHALL PROVIDE APPROPRIATE PROTECTION AND EXERCISE CARE WHEN PERFORMING DEMOLITION AROUND SUCH CABLING AND EQUIPMENT.
3. ALL SYSTEMS LOCATED OUTSIDE THE AREA OF DEMOLITION ARE INTENDED TO REMAIN OPERABLE.
4. FOR ALL ITEMS TO BE DEMOLISHED REMOVE CIRCUIT BACK TO POINT OF CONNECTION. MAKE BRANCH CIRCUIT WITH REMAINING DEVICES CONTIGUOUS.
5. ELECTRICAL CONTRACTOR SHALL REMOVE ALL DEMOLISHED ITEMS FROM SITE UNLESS OWNER WISHES TO RETAIN. ITEMS REMOVED FROM SITE SHALL BE DISPOSED OF IN A LEGAL MANNER.
6. EVERY ATTEMPT WAS MADE TO LOCATE ALL ITEMS TO BE INCLUDED IN THE DEMOLITION SCOPE IN THIS OCCUPIED SPACE. ELECTRICAL CONTRACTOR SHALL PROVIDE A REASONABLE ALLOWANCE TO INCLUDE THE REMOVAL OF ITEMS NOT INDICATED ON THE ELECTRICAL DEMOLITION PLAN.

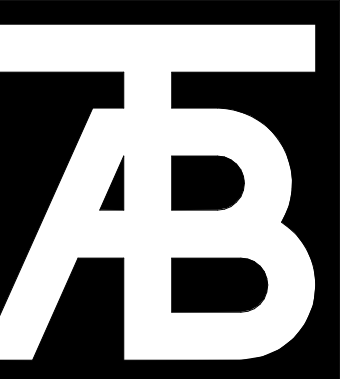
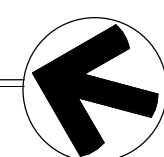
DEMO NOTES

1. DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL DEVICES IN EXISTING RISERS.
2. DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL FIXTURES AND EQUIPMENT.
3. DISCONNECT AND REMOVE RECEPTACLE. STORE AND PROTECT TO BE RELOCATED IN SAME LOCATION AT 16" AFF.

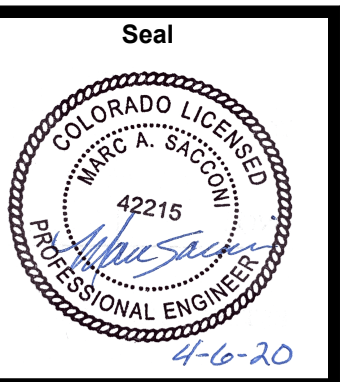


KEY PLAN

1 FIRST LEVEL AREA A DEMO ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"



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FIRST LEVEL
AREA A
DEMO ELEC
PLAN

Project No:
10183.00

Sheet No:
ED2.1

- ## DEMO NOTES

 - 1 DEMO EXISTING RECEPTACLE.
 - 2 SALVAGE EXISTING PLUGMOLD ROUTED ALONG THIS WALL FOR REUSE.
 - 3 DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE. EXISTING CIRCUIT TO BE REUSED FOR NEW LIGHT FIXTURE.



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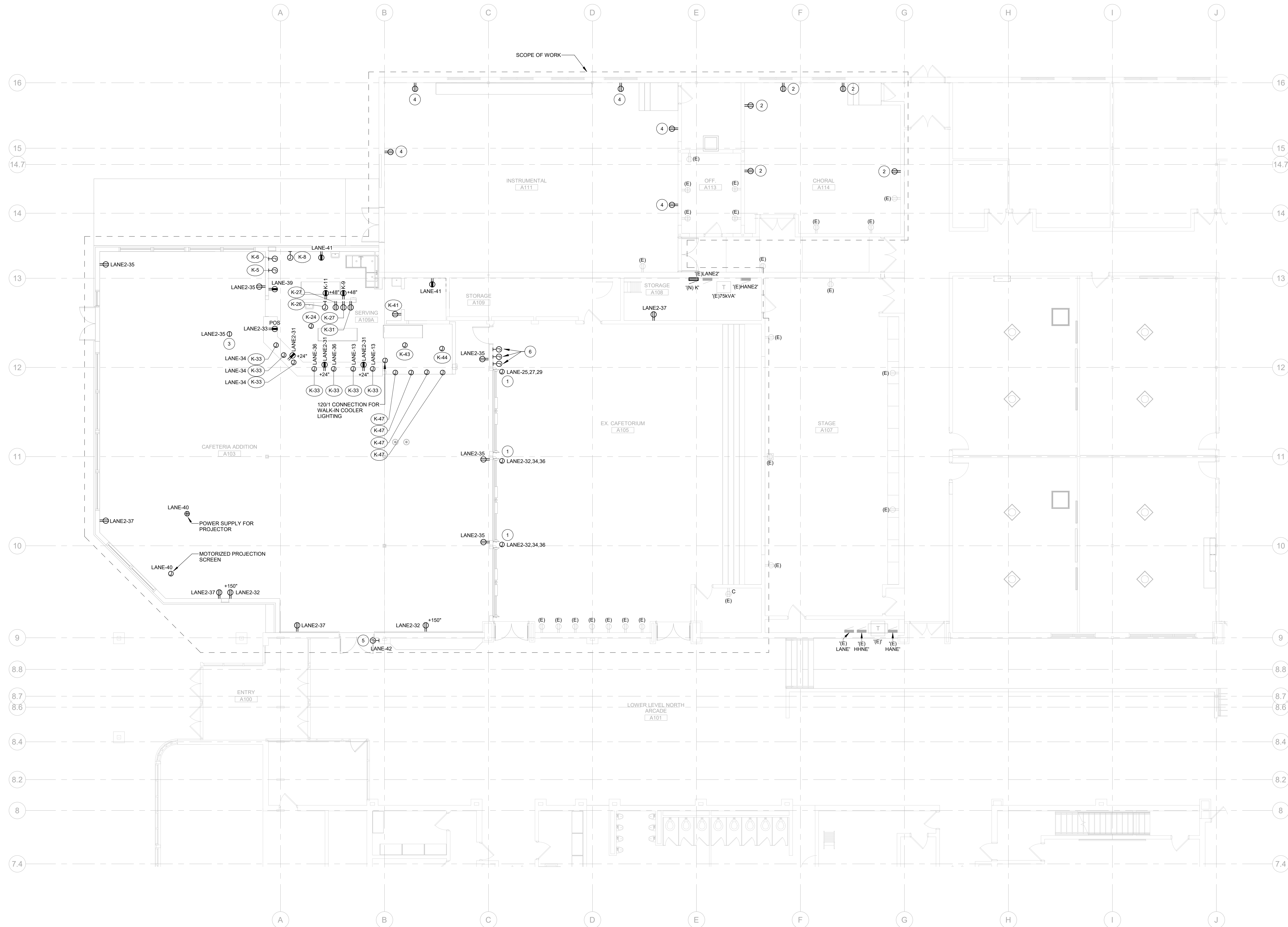
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Sheet Title:
AREA C AND
D DEMO
ELECTRICAL
PLAN

Project No:
10183.00

Sheet No:
ED2.2



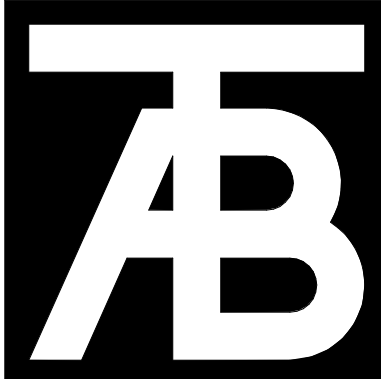


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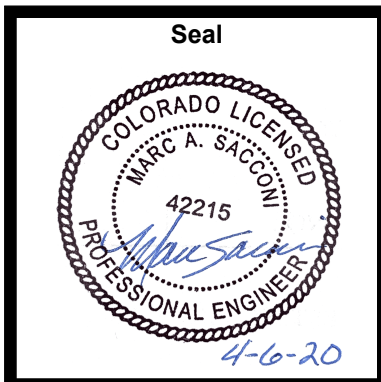
1. REFER TO ARCHITECTURAL PLANS AND INTERIOR ELEVATIONS FOR FINAL RECEPTACLE AND DEVICE PLACEMENT. COORDINATE ALL RECEPTACLE MOUNTING LOCATIONS WITH FIXTURES, APPLIANCES, FURNITURE, CABINETRY, AND OTHER EQUIPMENT PRIOR TO ROUGH-IN.
2. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR CIRCUIT, DISCONNECT, AND CONDUCTORS FOR MECHANICAL EQUIPMENT.
3. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD COORDINATING THE LOCATION OF ELECTRICAL EQUIPMENT, JUNCTION BOXES, DISCONNECTS, ETC. EC SHALL BE RESPONSIBLE FOR COORDINATION AND THE ROUTING OF FEEDERS, AND BRANCH CIRCUITS.
4. COORDINATE POWER CONNECTIONS FOR OWNER PROVIDED EQUIPMENT AND APPLIANCES, AND ALL OTHER EQUIPMENT PROVIDED BY OTHER DIVISIONS WITH SUBMITTAL DATA CUT SHEETS, WIRING DIAGRAMS, AND MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. FIELD COORDINATE FINAL LOCATIONS OF EQUIPMENT AND POWER CONNECTIONS WITH GENERAL CONTRACTOR AND OTHER DIVISIONS/CONTRACTORS PRIOR TO ROUGH-IN.

FLAG NOTES:

1. PROVIDE 3/4" 12, 14" 12 G. 3/4" TO NEW OVERHEAD GARAGE DOORS.
2. NEW LOCATION, AT 18" AFF, FOR STORED RECEPTACLE. REUSE EXISTING POWER CIRCUIT.
3. PROVIDE SIMPLEX RECEPTACLE FOR HUBBELL MAC12545020 PULL-DOWN RECEPTACLE OR EQUIVALENT. COORDINATE EXACT LOCATION OF RECEPTACLE WITH ARCHITECT PRIOR TO ROUGH-IN.
4. REUSE EXISTING POWER CIRCUIT FOR NEW RECEPTACLE.
5. PROVIDE (2#12, 1#12G) 3/4" TO JUNCTION BOX FOR MAGNETIC DOOR HOLD.
6. PROVIDE 1" CONDUIT WITH PULL STRING FROM GARAGE DOOR MOTOR. COORDINATE CONTROL WITH REVIEWED MANUFACTURER SUBMITTAL BEFORE INSTALLATION.



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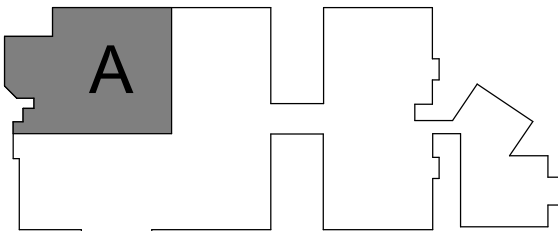
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Sheet Title:
**FIRST LEVEL
AREA A ELEC
PLAN**

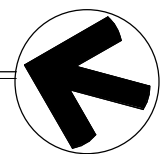
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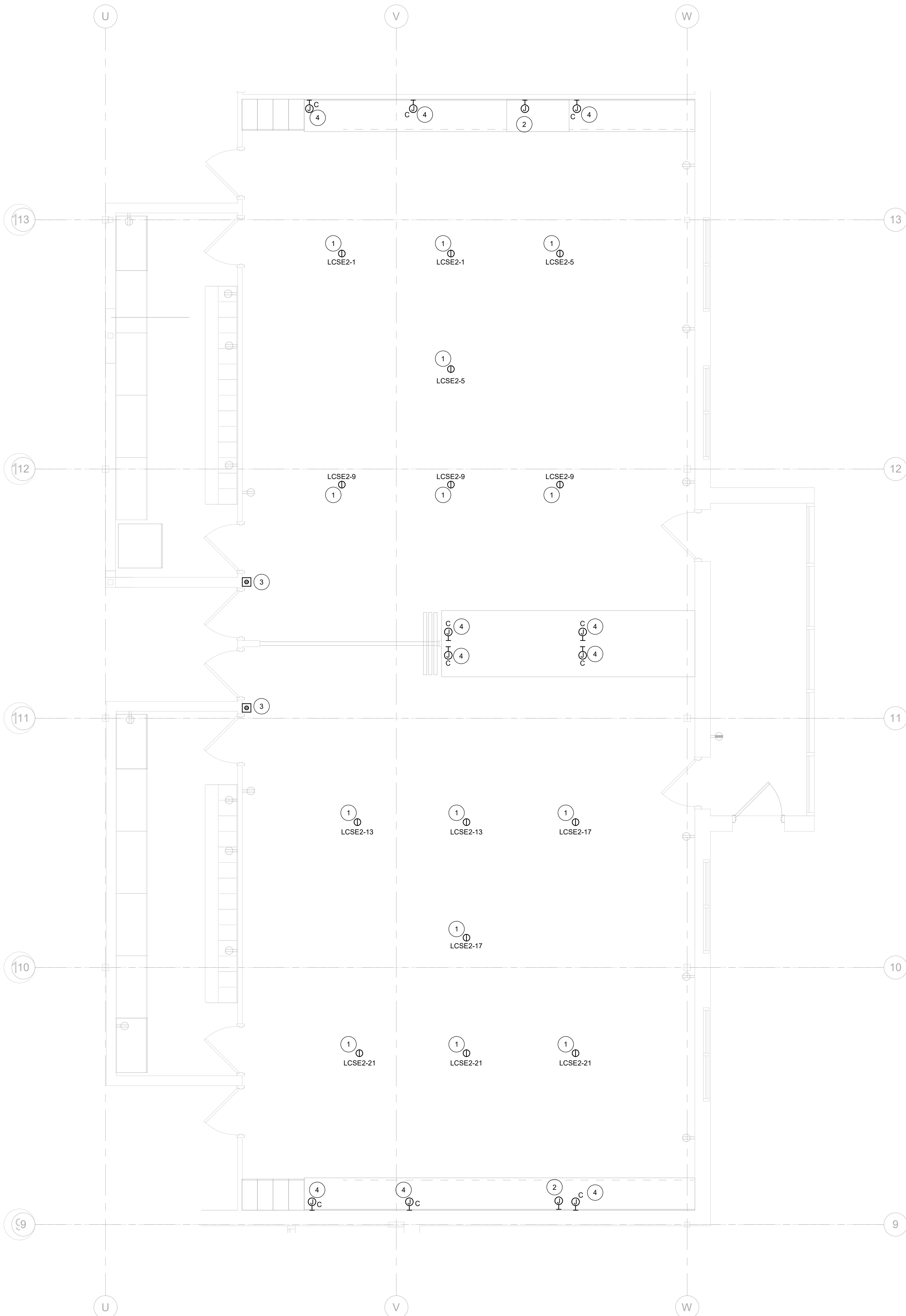
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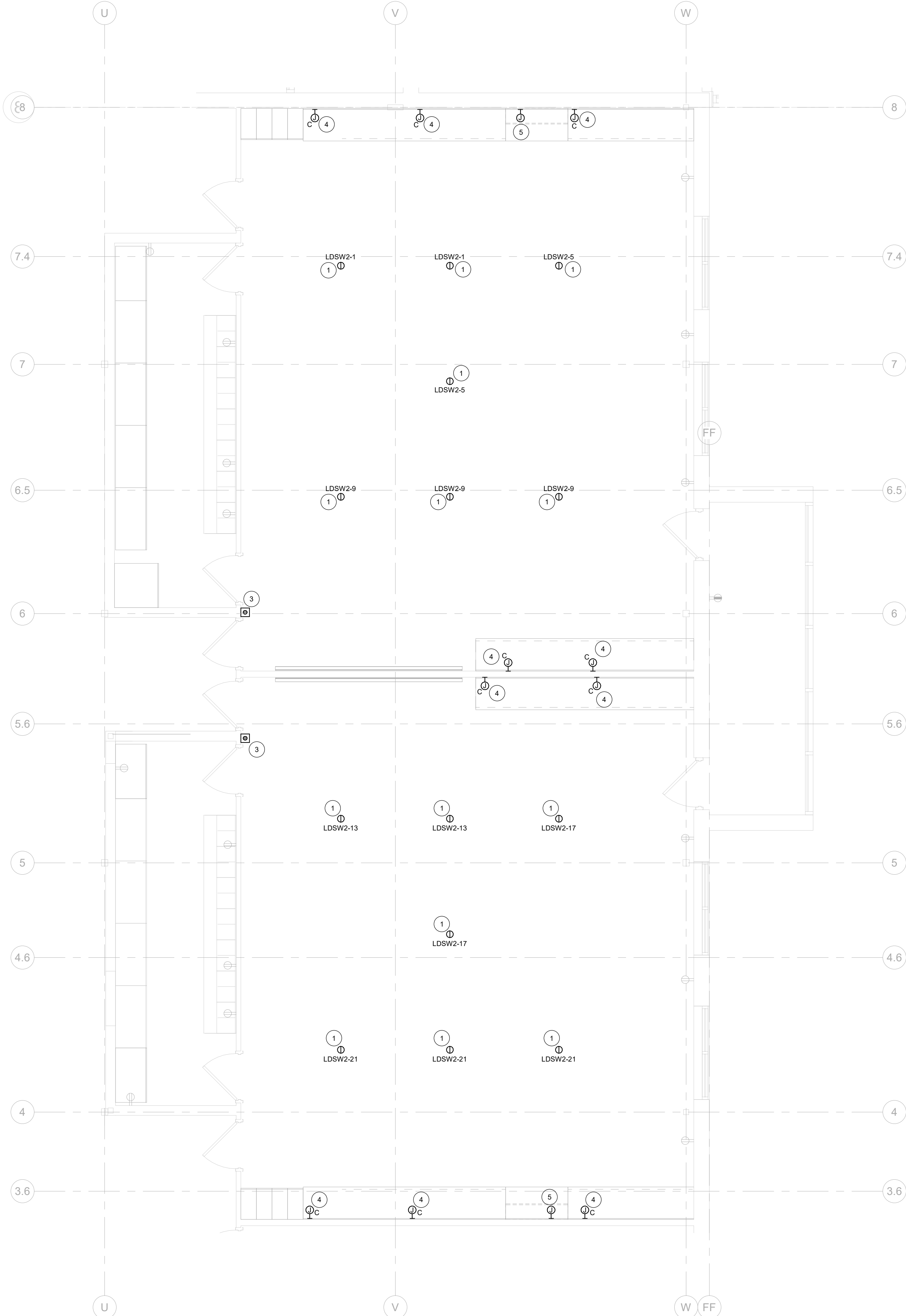
KEY PLAN

1 FIRST LEVEL AREA A ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"





7TH GRADE SCIENCE ROOMS ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"



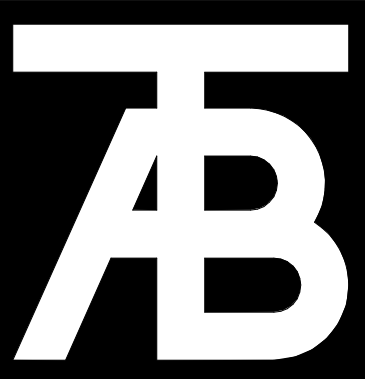
8TH GRADE SCIENCE ROOMS ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL PLANS AND INTERIOR ELEVATIONS FOR FINAL RECEPTACLE AND DEVICE PLACEMENT. COORDINATE ALL RECEPTACLE MOUNTING LOCATIONS WITH FIXTURES, APPLIANCES, FURNITURE, CABINETRY, AND OTHER EQUIPMENT PRIOR TO ROUGH-IN.
2. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR CIRCUIT, DISCONNECT, AND CONDUCTORS FOR MECHANICAL EQUIPMENT.
3. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD COORDINATING THE LOCATION OF ELECTRICAL EQUIPMENT, JUNCTION BOXES, DISCONNECTS, ETC. EC SHALL BE RESPONSIBLE FOR COORDINATION AND THE ROUTING OF FEEDERS, AND BRANCH CIRCUITS.
4. COORDINATE POWER CONNECTIONS FOR OWNER PROVIDED EQUIPMENT AND APPLIANCES, AND ALL OTHER EQUIPMENT PROVIDED BY OTHER DIVISIONS WITH SUBMITTAL DATA CUT SHEETS, WIRING DIAGRAMS, AND MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS. FIELD COORDINATE FINAL LOCATIONS OF EQUIPMENT AND POWER CONNECTIONS WITH GENERAL CONTRACTOR AND OTHER DIVISIONS/CONTRACTORS PRIOR TO ROUGH-IN.

FLAG NOTES:

1. PROVIDE SIMPLEX RECEPTACLE FOR HUBBELL #ACA12345-DR20 PULL-DOWN RECEPTACLE OR EQUIVALENT. COORDINATE EXACT LOCATION OF RECEPTACLE WITH ARCHITECT PRIOR TO ROUGH-IN.
2. PROVIDE ADD ALTERNATE PRICE TO PROVIDE ELECTRICAL CIRCUIT FOR NEW FUME HOOD.
3. PROVIDE EMERGENCY SHUT-OFF FOR ALL RECEPTACLES IN CLASSROOM. REPLACE EXISTING CIRCUIT BREAKERS SERVING EXISTING RECEPTACLES IN CLASSROOM WITH SHUNT TRIP TYPE CIRCUIT BREAKERS. ADD ALTERNATE PRICE TO INCLUDE ALL COMPONENTS TO PROVIDE AN OPERABLE EM SHUTOFF SYSTEM.
4. PROVIDE NEW LEGRAND #X20GB618 PLUGWOLD OR EQUIVALENT. REUSE EXISTING ELECTRICAL CIRCUIT SERVING DEMO. PLUGWOLD REPLACE EXISTING CIRCUIT BREAKER WITH SHUNT TRIP BREAKER.
5. PROVIDE (2#12, #12G) 3/4" TO JUNCTION BOX FOR NEW FUME HOOD.



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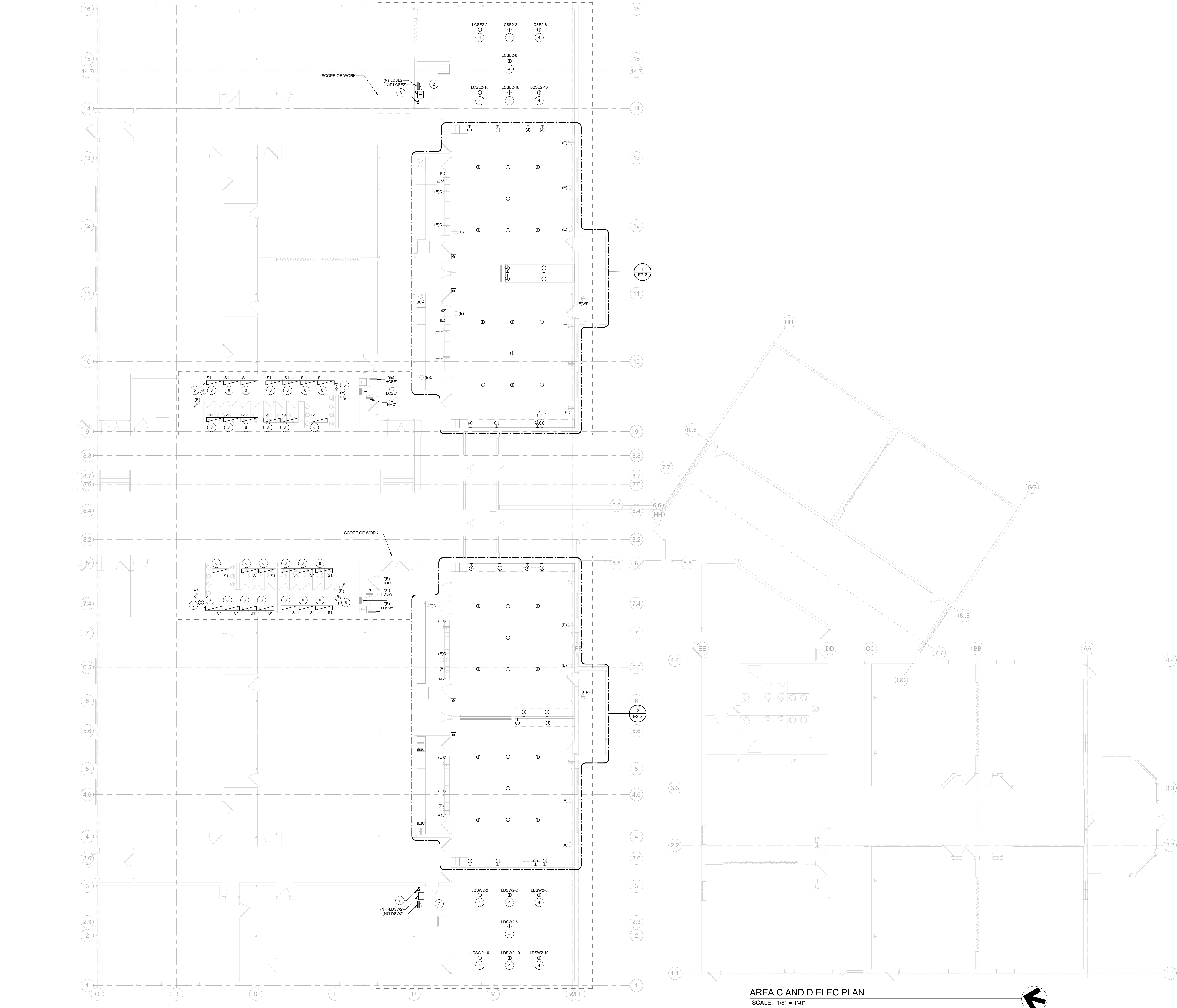
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Sheet Title:
SCIENCE CLASSROOMS
ELEC PLANS

Project No:
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Sheet No:
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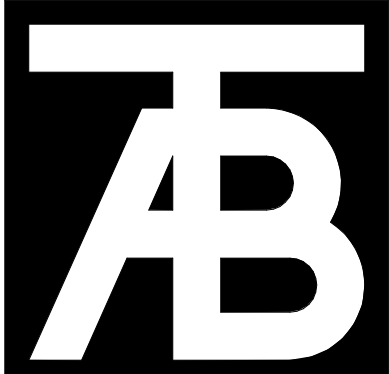
AREA C AND D ELEC PLAN
SCALE: 1/8" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL PLANS AND INTERIOR ELEVATIONS FOR FINAL RECEPTACLE AND DEVICE PLACEMENT. COORDINATE ALL RECEPTACLE MOUNTING LOCATIONS WITH FIXTURES, APPLIANCES, FURNITURE, CABINETRY, AND OTHER EQUIPMENT PRIOR TO ROUGH-IN.
2. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR CIRCUIT, DISCONNECT, AND CONDUCTORS FOR MECHANICAL EQUIPMENT.
3. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD COORDINATING THE LOCATION OF ELECTRICAL EQUIPMENT, JUNCTION BOXES, DISCONNECTS, ETC. E.C. SHALL BE RESPONSIBLE FOR COORDINATION AND THE ROUTING OF FEEDERS, AND BRANCH CIRCUITS.
4. COORDINATE POWER CONNECTIONS FOR OWNER PROVIDED EQUIPMENT AND APPLIANCES, AND ALL OTHER EQUIPMENT PROVIDED BY OTHER DIVISIONS WITH SUBMITTAL DATA CUT SHEETS, WIRING DIAGRAMS, AND MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. FIELD COORDINATE FINAL LOCATIONS OF EQUIPMENT AND POWER CONNECTIONS WITH GENERAL CONTRACTOR AND OTHER DIVISIONS/CONTRACTORS PRIOR TO ROUGH-IN.

FLAG NOTES:

1. PROVIDE SIMPLEX RECEPTACLE FOR HUBBELL #A212345 DRD PULL-DOWN RECEPTACLE OR EQUIVALENT. COORDINATE EXACT LOCATION OF RECEPTACLE WITH ARCHITECT PRIOR TO ROUGH-IN.
2. DISCONNECT EXISTING LIGHTING. CIRCUIT TO PANEL 'E1' LOCATED IN ELECTRICAL ROOM MEZZANINE.
3. NEW 30A, 3P, 4P DISCONNECT ON PRIMARY SIDE OF TRANSFORMER.
4. PROVIDE SIMPLEX RECEPTACLE FOR HUBBELL #A212345 DRD PULL-DOWN RECEPTACLE OR EQUIVALENT. COORDINATE EXACT LOCATION OF RECEPTACLE WITH ARCHITECT PRIOR TO ROUGH-IN.
5. CONNECT LINE-VOLTAGE OCCUPANCY SENSOR TO EXISTING LIGHTING CIRCUIT. LIGHTING TO BE AUTOMATIC FULL ON UPON DETECTION OF OCCUPANCY. LIGHTING TO TURN OFF AUTOMATICALLY AFTER 30 MINUTES OF UNOCCUPIED SPACE. MANUAL OFF VIA EXISTING KEYED SWITCH.
6. CIRCUIT NEW LIGHT FIXTURE TO EXISTING LIGHTING CIRCUIT.



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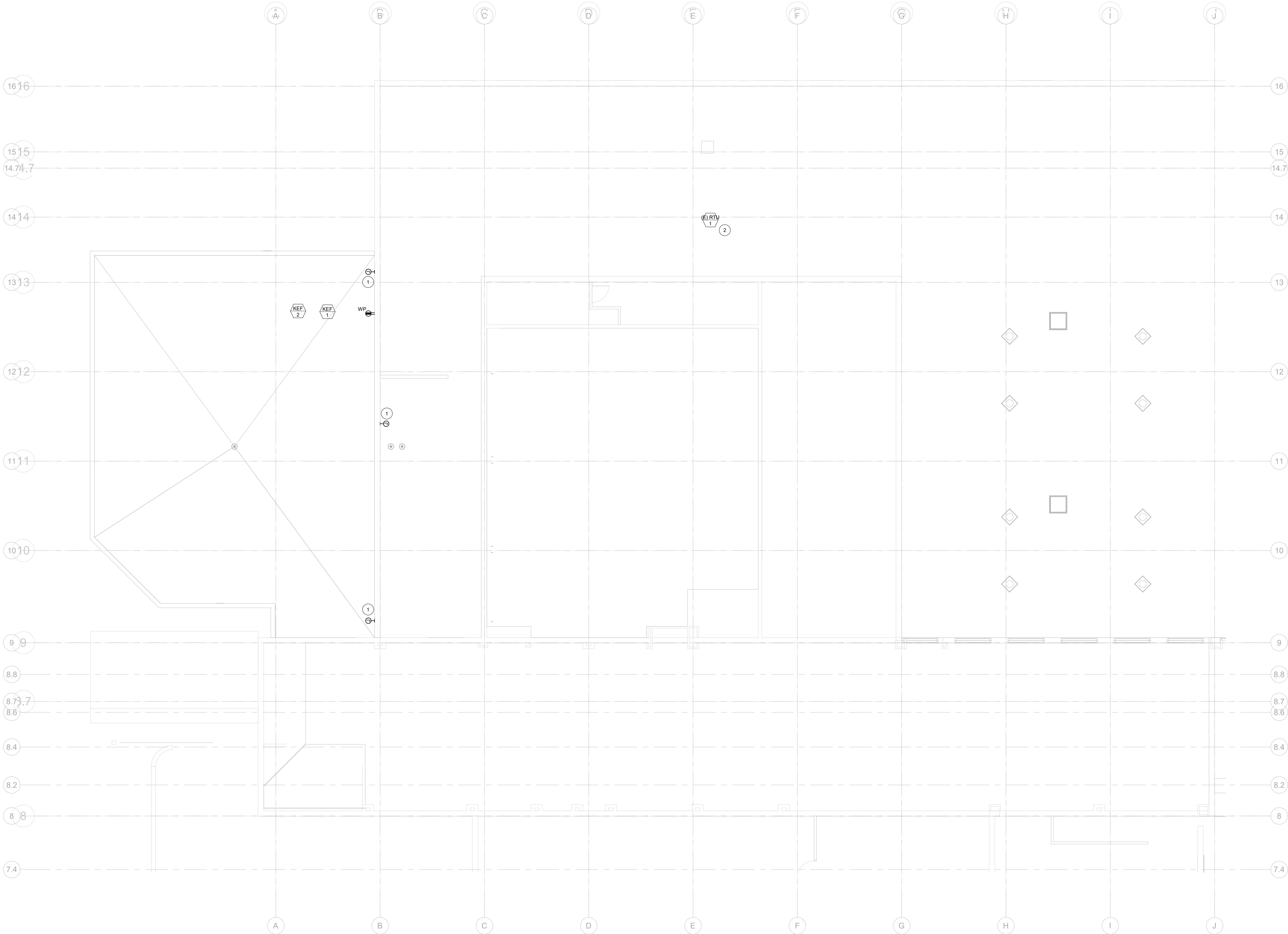
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Sheet Title:
AREA C AND
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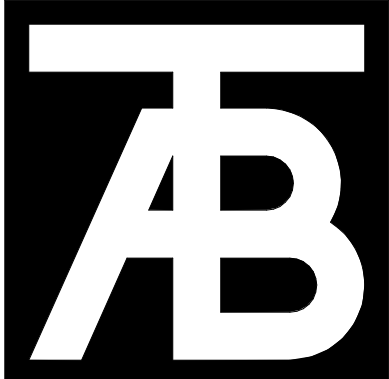
ROOF AREA A ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

ROOF HEAT
TRACE NOTES:

1. PROVIDE 12W/FT., 208 VOLT ELECTRICAL, SELF-REGULATING, HEATING CABLE IN ALL GUTTERS AND DOWNSPOUTS. ELECTRIC HEATING CABLE SHALL BE UL AND CSA LISTED SPECIFICALLY AS ELECTRIC ROOF AND GUTTER DE-ICING AND SNOWMELTING EQUIPMENT. CABLE BE QUALIFIED FOR PROLONGED UV EXPOSURE TO THE SUN PER IEEE 615-1997 AND TO WITHSTAND CONTINUOUS SUBMERSION IN WATER PER IEEE 515.1-1997. PROVIDE ALL ELECTRICAL CONNECTION KITS, SUPPORTS, DOWNSPOUT HANGERS, CONTROLS, AND OTHER APPURTENANCES FOR A COMPLETE AND OPERABLE SYSTEM IN COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. OVERCURRENT PROTECTION FOR ELECTRIC HEATING CABLE CIRCUITS SHALL BE 30-mA-TRIP GROUND FAULT TYPE CIRCUIT BREAKERS.
3. PROVIDE ELECTRIC HEATING CABLE IN DRAINAGE VALLEYS, AS SHOWN ON PLAN. ROUTE ELECTRIC HEATING CABLE A MINIMUM OF 6" INTO ROOF DRAIN.
4. CONTRACTOR SHALL PROVIDE COMPLETE, AND OPERABLE CONTROL SYSTEM. SYSTEM SHALL CONSIST OF AMBIENT THERMOSTAT AND MOISTURE SENSOR WITH CONTACTOR(S).
5. CONTRACTOR SHALL SUBMIT SHOP DRAWING SUBMITTAL WITH ALL EQUIPMENT, CONTROLS, CONTACTORS, AND ACCESSORY DATA SHEETS. DATA SHEETS SHALL BE MARKED INDICATING THE ACTUAL MODEL, VOLTAGE, RATINGS, AND ACCESSORIES BEING PROPOSED TO BE PROVIDED. SHOP DRAWING SHALL INCLUDE LAYOUT PLAN INDICATING ZONING, CONTROL INTENT, AND ESTIMATED CIRCUIT LENGTHS. PARTIAL OR INCOMPLETE SUBMITTALS WILL NOT BE ACCEPTED.
6. ACTUAL INSTALLED HEAT TRACE CIRCUIT LENGTH MAY VARY FROM DESIGN OR PLANNED FOR CIRCUIT LENGTHS. CONTRACTOR SHALL MEASURE AND RECORD ACTUAL CIRCUIT LENGTHS AND PROVIDE THE CIRCUIT LENGTHS AS PART OF TEST REPORTS. CIRCUIT LENGTH SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDED LENGTH FOR THE OVERCURRENT PROTECTION RATING. CONTACT ARCHITECT/ENGINEER IF ACTUAL INSTALLED ELECTRIC HEATING CABLE LENGTHS EXCEED THE MANUFACTURER'S RECOMMENDED LENGTH FOR THE OVERCURRENT PROTECTION RATING.
7. CONTRACTOR SHALL PROVIDE ALL TESTING AND FIELD QUALITY CONTROL MEASURES RECOMMENDED BY MANUFACTURER, INCLUDING, BUT NOT LIMITED TO, MEGGER TEST ALL ELECTRIC HEATING CABLE CIRCUITS. AFTER INSTALLATION ALL HEATING CABLE CIRCUITS SHALL BE TESTED WITH A 2500 VDC MEGOHMMETER. INSULATION RESISTANCE FROM THE CONDUCTORS TO THE SHIELD SHALL BE GREATER THAN 1000 MEGOHMS. CONTRACTOR SHALL RECORD ALL TESTS AND PROVIDE TEST REPORTS TO ARCHITECT/ENGINEER, PRIOR TO PROJECT CLOSEOUT OR FINAL PUNCH REQUESTS, AS PART OF THE PROJECT CLOSEOUT DOCUMENTS.

FLAG NOTES:

1. PROVIDE 3/4" WITH PULLSTRING FROM PANEL LANE TO WEATHERPROOF JUNCTION BOX FOR FUTURE SELF-REGULATING HEATING CABLE.
2. DISCONNECT AND REMOVE CIRCUIT. REPLACE EXISTING FEED TO RTU-1 WITH 4-BR. #100 IN EXISTING 3/4" CONDUIT. REPLACE EXISTING 30A-0P CIRCUIT BREAKER IN PANEL HANE2 WITH 40A-3P CIRCUIT BREAKER.



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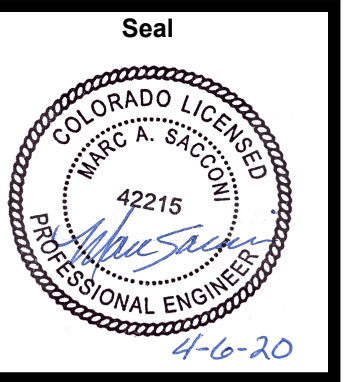
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Sheet Title:
ROOF AREA A
ELECTRICAL
PLAN

Project No:
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Sheet No:
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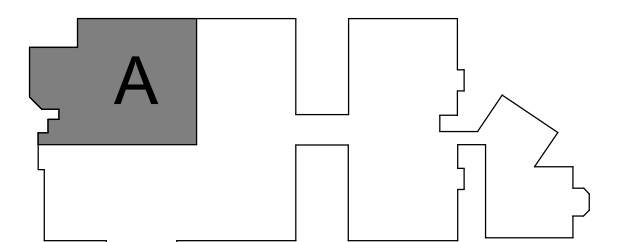
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Sheet Title:

FIRST LEVEL
AREA A
LIGHTING
PLAN

Project No:
10183.00

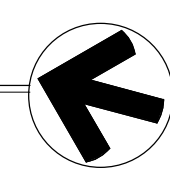
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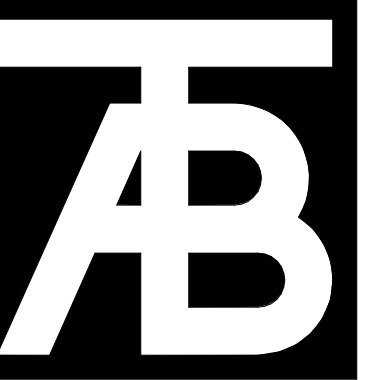
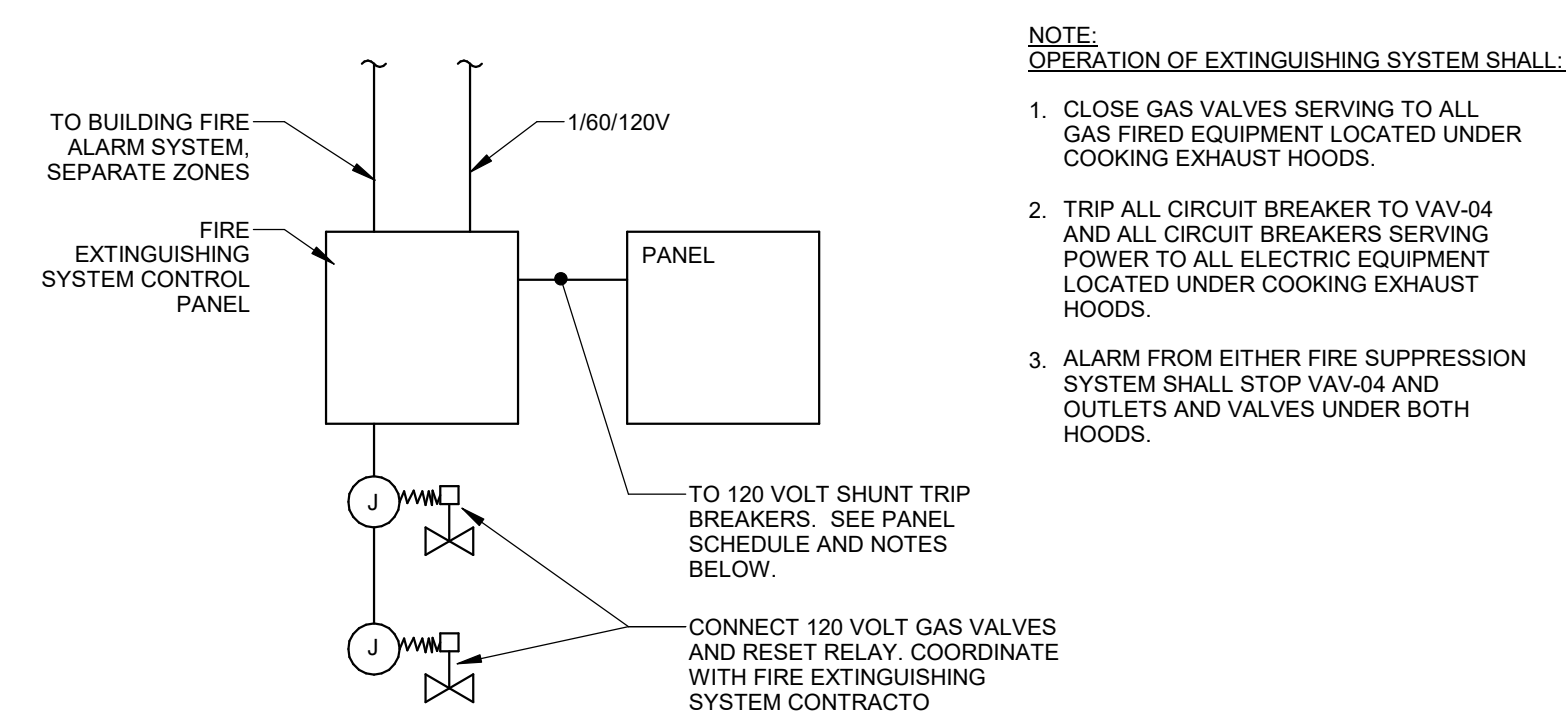
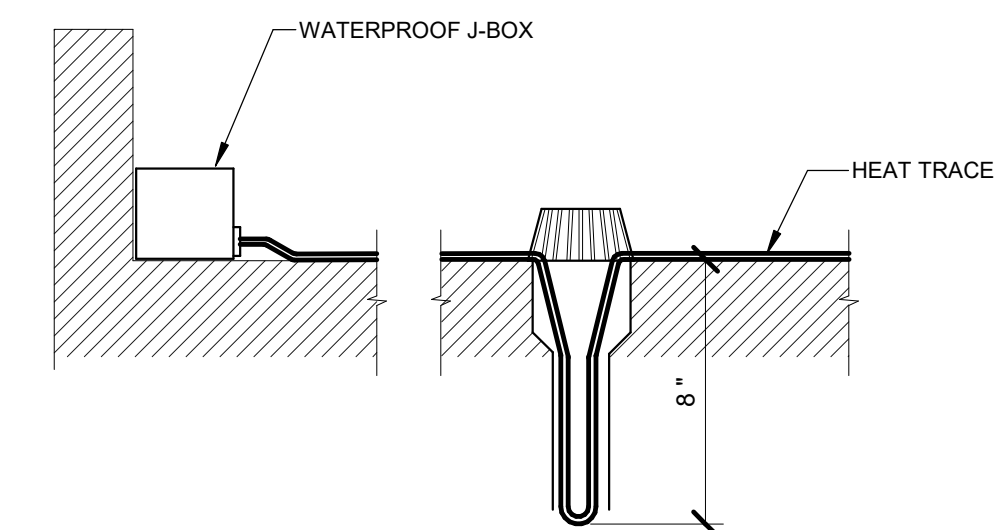
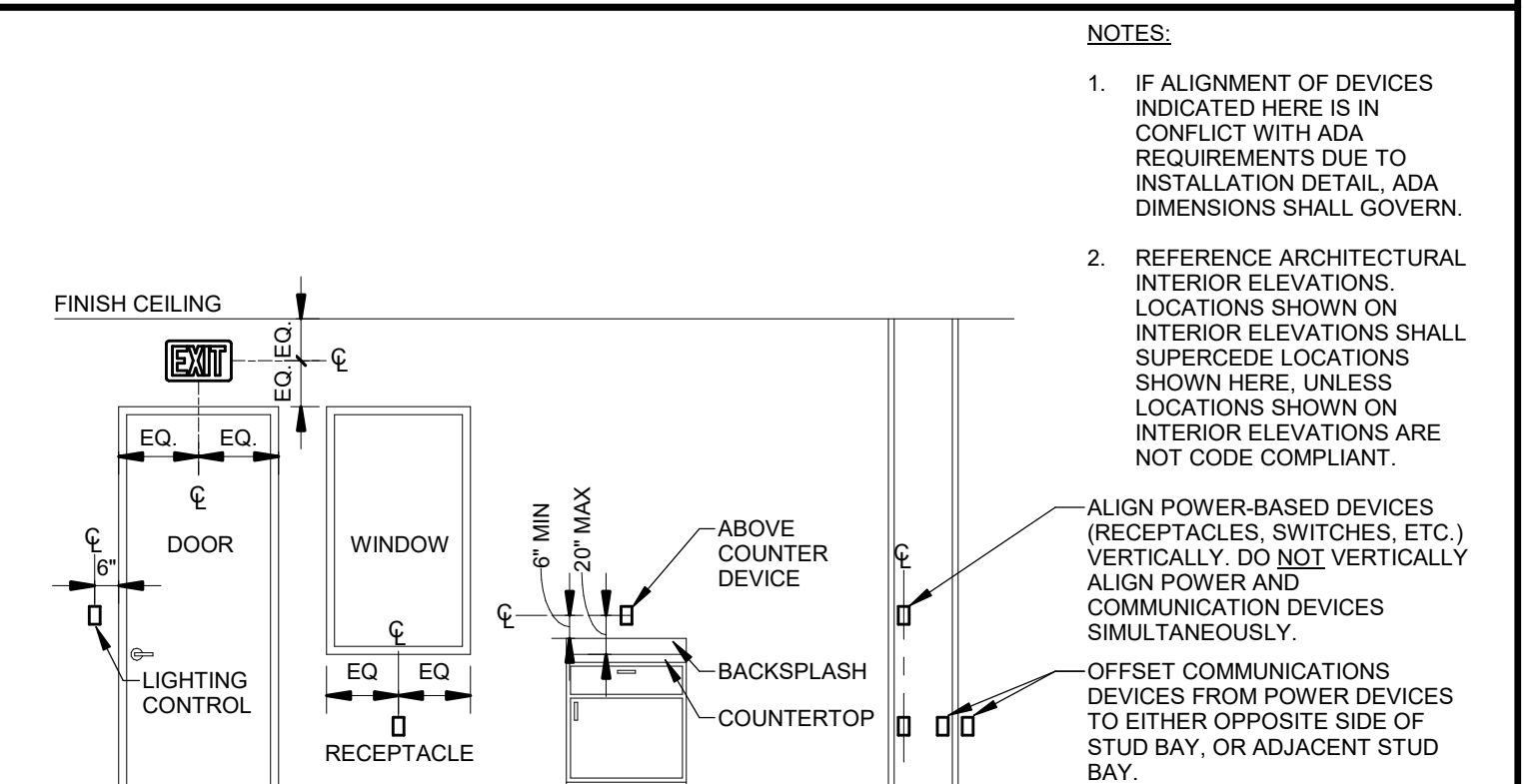
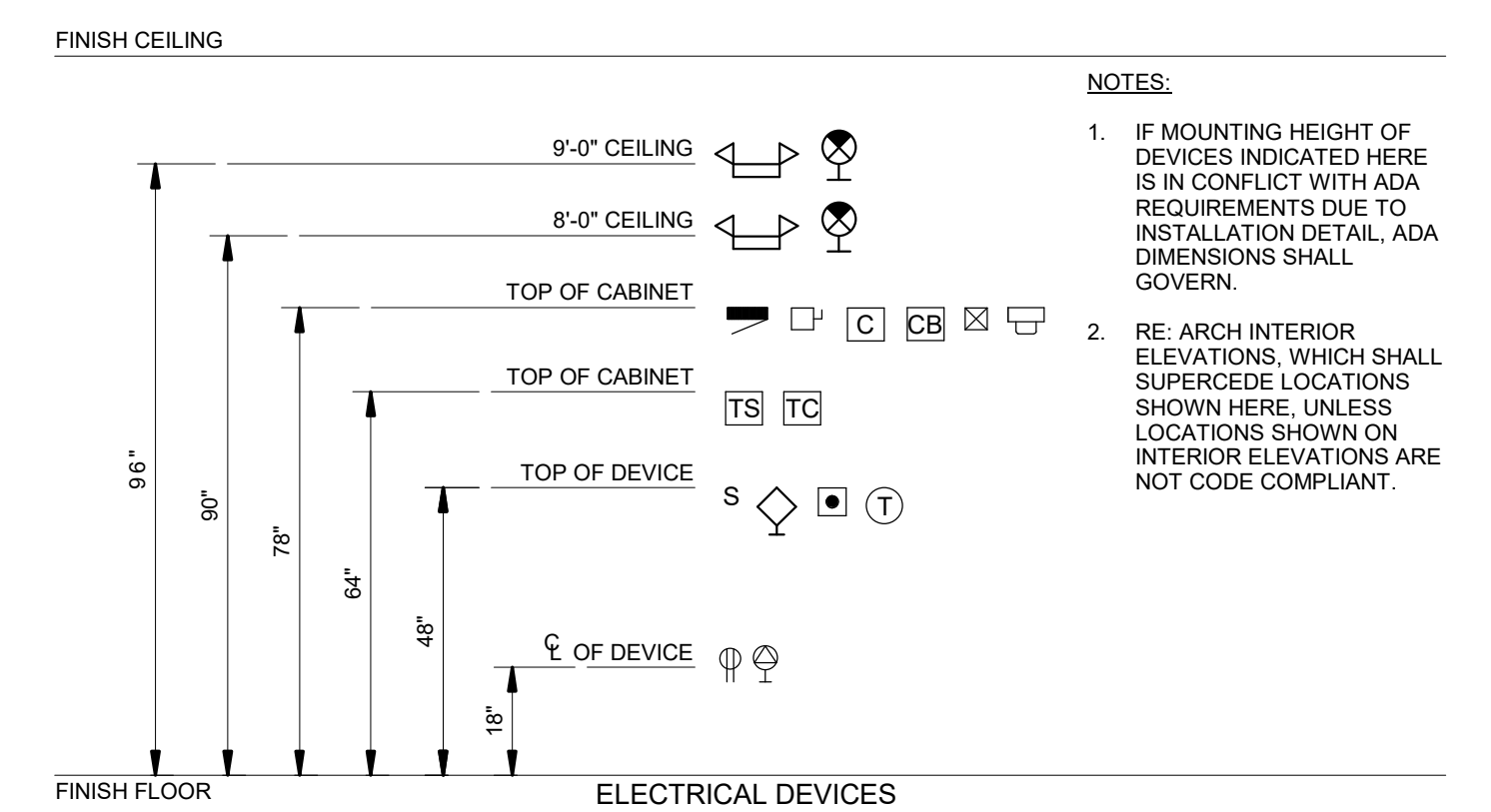
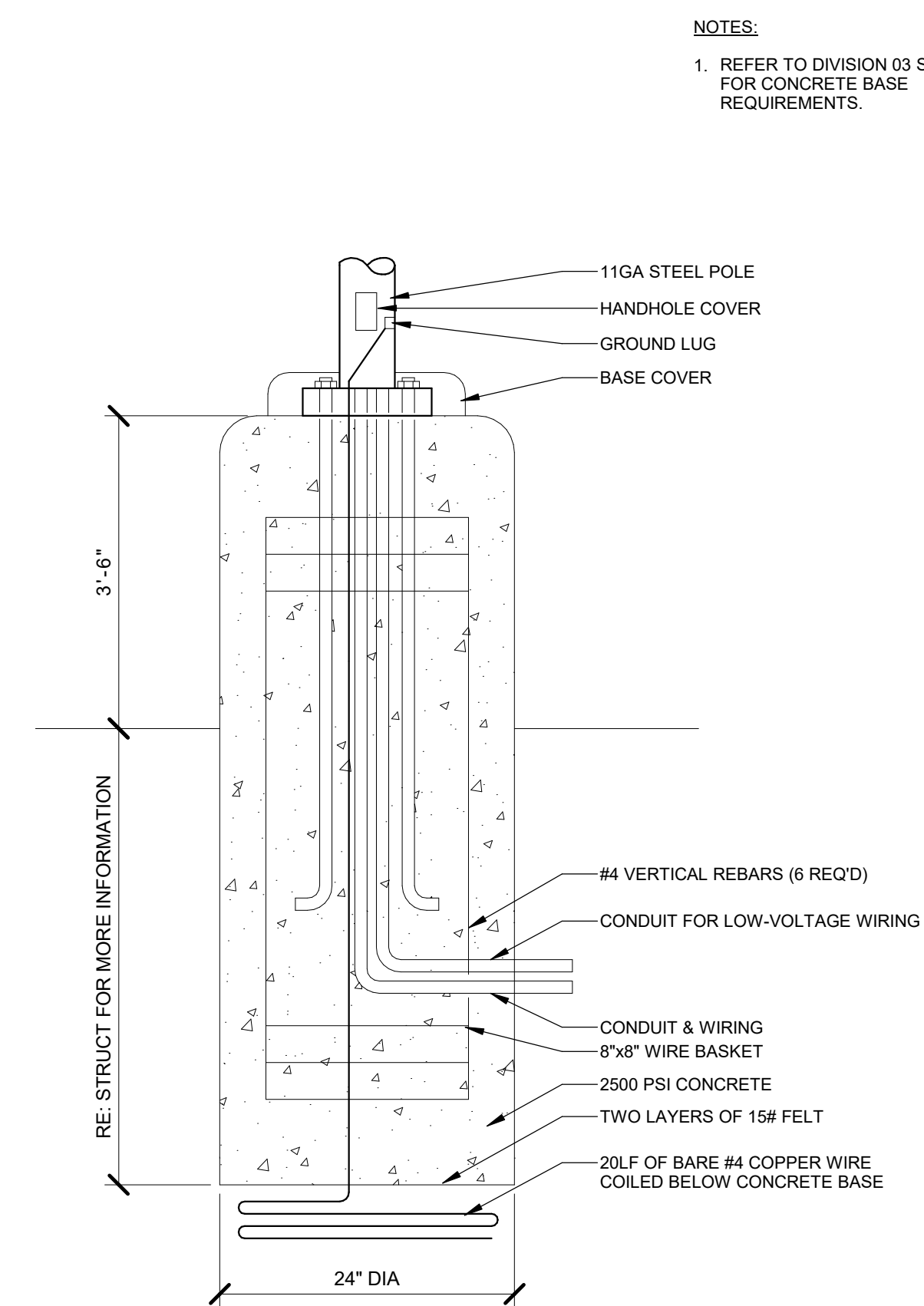
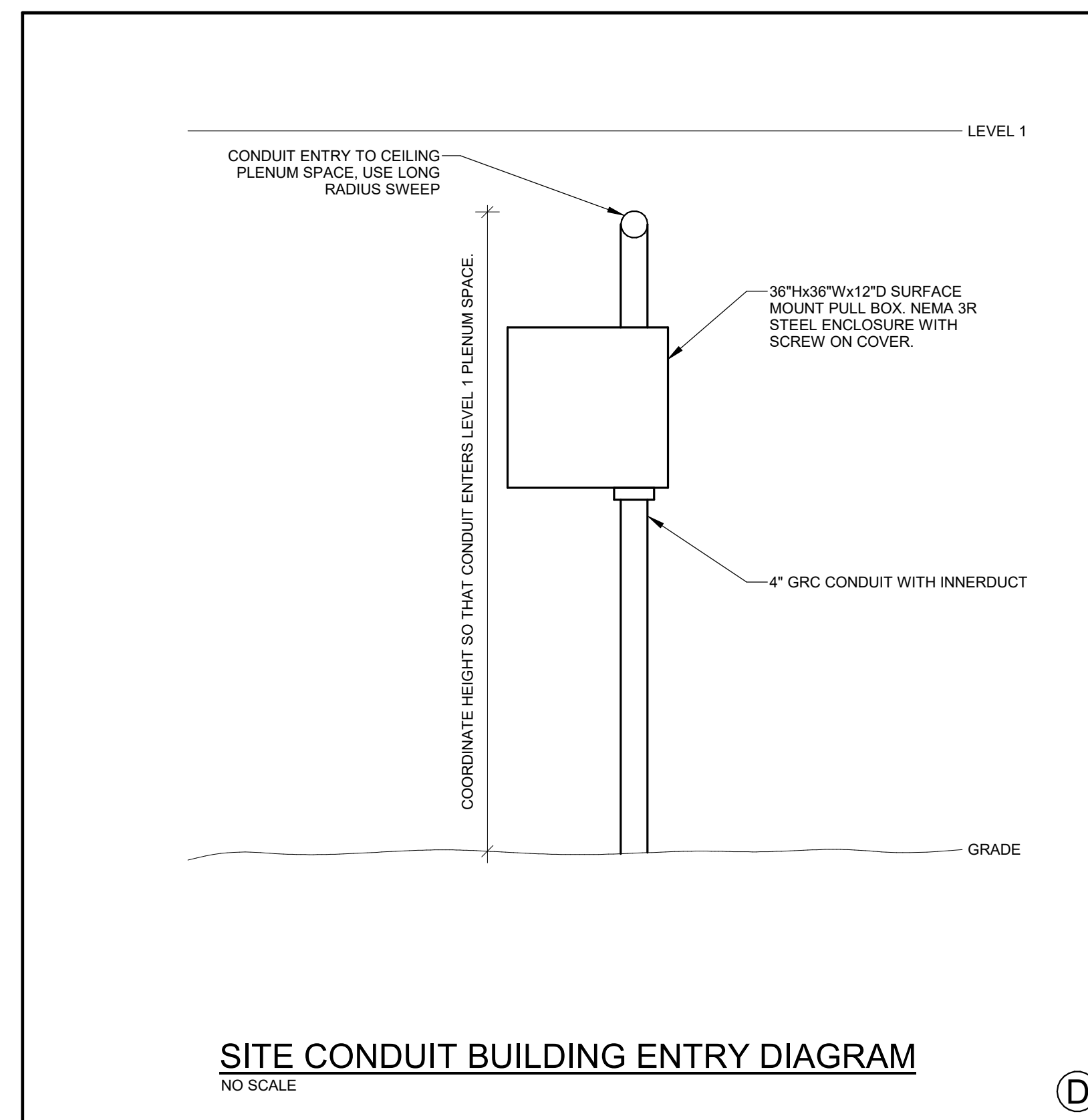


KEY PLAN



1 FIRST LEVEL AREA A LIGHTING RCP





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Sheet Title:
ELECTRICAL
DIAGRAMS

Project No:
10183.00

Sheet No: E3.1



SSSD TECHNOLOGY SYSTEMS RESPONSIBILITY MATRIX

COMPONENT	ENTITY		SPECIFIC NOTES
	FURNISH	INSTALL	
COMMON WORK			
CABLE PATHWAY FIRE STOPPING DEVICE	E	E	
CONDUIT SLEEVES	E	E	
FIRE RATED FLOOR PENETRATION ASSEMBLY	E	E	
HANGER SUPPORTS FOR CABLE SUPPORTS	T	T	
HANGER SUPPORTS FOR CONDUITS	E	E	
MISCELLANEOUS FIRE STOPPING MATERIAL	GC	GC	
PENETRATION	GC	GC	
STRAPS/SLEINGS	T	T	
WIDE BASE CABLE SUPPORTS (J-HOOKS)	T	T	
ELECTRICAL FOR COMMUNICATIONS			
BACKBOXES	E	E	
CABLE TRAY	E	E	
CABLE TRAY ELECTRICAL GROUNDING AND BONDING	E	E	
CONDUIT, FITTINGS, PULL STRINGS	E	E	
EXCAVATION, TRENCHING, BASE, BEDDING, BACKFILL	GC	GC	
FLOOR BOXES	E	E	
BONDING BUSBAR	E	E	
BONDING RISER CONDUCTORS	E	E	
HANGERS AND SUPPORTS FOR CABLE TRAY	E	E	
INNERDUCTS	E	E	
JUNCTION BOXES	E	E	
MANHOLES, VAULTS, MANHOLES	GC	GC	
PLENUM ENCLOSURES	E	E	
POKE-THROUGHS	E	E	
PULL BOXES	E	E	
SURFACE RACEWAY	E	E	
WALL BOXES (AV)	E	E	
TELECOMMUNICATIONS (STRUCTURED CABLE SYSTEM)			
CABLEBOARDS	GC	GC	COORDINATE WITH EC AND TC.
CABLE MANAGEMENT	T	T	
CABLE RUNWAY AND ACCESSORIES	T	T	
CONNECTORS (BACKBONE / HORIZONTAL CABLE)	T	T	
EQUIPMENT FRAMES AND ACCESSORIES	T	T	
EQUIPMENT RACKS AND ACCESSORIES	T	T	
FACEPLATES AND CONNECTORS	T	T	
HORIZONTAL CABLEING	T	T	
IDENTIFICATION (LABELING)	T	T	
INSIDE PLANT BACKBONE CABLEING	T	T	
OUTSIDE PLANT BACKBONE CABLEING	T	T	
PATCH CORDS	O	O	
PATCH PANELS	T	T	
POWER DISTRIBUTION UNITS (PDU)	T	T	
SPRICE ENCLOSURES	T	T	
TELECOM ROOM EQUIPMENT GROUNDING AND BONDING	E	E	
TERMINATION BLOCKS	T	T	
AUDIOVISUAL SYSTEMS			
CLASSROOM			
AUDIO ENHANCEMENT SYSTEM	O	AV	
AUDIO ENHANCEMENT SYSTEM CABLEING	O	AV	
INTERACTIVE SCREEN / SMART BOARD	O	O	GC TO PROVIDE BLOCKING TO SUPPORT DISPLAYS
EQUIPMENT ENCLOSURE (IN-CEILING, IN-WALL)	AV	AV	COORDINATE POWER INSTALLATION WITH EC
AV INTERFACE PLATES	AV	AV	
AV CABLEING	O	AV	
HANGER WIRE SUPPORTS FOR AV EQUIP IN LAY-IN CEILINGS	AV	AV	
COMMON AREAS			
SOUND REINFORCEMENT LOUDSPEAKERS	AV	AV	
MICROPHONES	AV	AV	
GENERAL			
NETWORK HORIZONTAL CABLEING FOR AV	T	T	
NETWORK PATCH CORDS (AT DEVICE)	O	O	
NETWORK SWITCHES AND POE	O	O	
LOW VOLTAGE CABLEING	AV	AV	
SCHOOL SYSTEMS			
PUBLIC ADDRESS (PA) SYSTEM	O	O	
BELL / PROGRAM SYSTEM	O	O	
CLOCKS	O	O	
PAPAPAGING LOUDSPEAKERS	O	AV	
CABLEING FOR PA SYSTEM	AV	AV	
DISTRIBUTED ANTENNA SYSTEM (PUBLIC SAFETY)	GC	GC	
ELECTRONIC SAFETY & SECURITY			
ACCESS CONTROL SYSTEM			
ACCESS CONTROL SOFTWARE	O	O	
ACCESS CONTROL SYSTEM CABLEING TERMINATION	S	S	
ACCESS CONTROL SYSTEM CABLEING	S	S	
ACCESS CONTROL SYSTEM NETWORK CABLEING	T	T	
RESIDENTIAL READERS	S	S	COORDINATE WITH GC AND ARCH.
DOOR HARDWARE	GC	GC	COORDINATE WITH ARCH.
ELEVATOR INTEGRATION REQUIREMENTS	GC	GC	
HEAD END SERVER EQUIPMENT	O	O	
LOCKING MECHANISMS	S	S	COORDINATE WITH GC AND ARCH.
DOOR POSITION SWITCHES	S	S	COORDINATE WITH GC AND ARCH.
NETWORK BASED PATCH CORDS (AT DEVICE)	S	S	
NETWORK SERVER FOR ACCESS CONTROL SYSTEM	O	O	
NETWORK SWITCHES AND POE	O	O	
VIDEO SURVEILLANCE SYSTEM			
CAMERAS AND MOUNTING HARDWARE	O	O	
NETWORK BASED HORIZONTAL CABLEING FOR CAMERAS	T	T	
NETWORK BASED PATCH CORDS FOR CAMERAS (AT DEVICE)	O	O	
NETWORK SWITCHES AND POE	O	O	
NETWORK VIDEO RECORDER, WORKSTATIONS AND SERVER	O	O	
SURGE PROTECTION DEVICES FOR CAMERAS	O	O	
VIDEO MANAGEMENT SOFTWARE	O	O	
END-USER EQUIPMENT			
NETWORK EQUIPMENT			
SWITCHES	O	O	
SERVERS	O	O	
FIBER PATCH CORDS - MDF/IDF	O	O	
COPPER PATCH CORDS - MDF/IDF	O	O	
COPPER PATCH CORDS - WORKSTATIONS/ROOMS	O	O	
MDF/IDF UPS	O	O	
WIRELESS ACCESS POINTS AND SYSTEM			
WI-FI SYSTEM	O	O	
ACCESS POINTS	O	O	
SERVICES			
TELEPHONE	O	O	
CATV	O	O	
DATA	O	O	
LEGEND			
GC = GENERAL CONTRACTOR			
E = ELECTRICAL CONTRACTOR			
T = TELECOMMUNICATIONS CONTRACTOR			
AV = AUDIOVISUAL CONTRACTOR			
S = SECURITY CONTRACTOR			
O = OWNER			

NOTE:
ALL SYMBOLS SHOWN ON LEGEND
ARE NOT NECESSARILY USED.

TECHNOLOGY SYSTEMS LEGEND

ABBREVIATIONS

AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
AP	ACCESS POINT
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFG	BELOW FINISH GRADE
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CATV	COMMUNITY (CABLE) ANTENNA TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CPU	CENTRAL PROCESSING UNIT
CT	CURRENT TRANSFORMER
DISP	GARBAGE DISPOSAL
DW	DISHWASHER
(E)	EXISTING
EM	EMERGENCY
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GRD	GROUND
IAW	IN ACCORDANCE WITH
IC	INTERMEDIATE CROSS-CONNECT
IDF	INTERMEDIATE DISTRIBUTION FRAME
IG	ISOLATED GROUND
IR	INFRARED
LAN	LOCAL AREA NETWORK
MDF	MAIN DISTRIBUTION FRAME
(N)	NEW
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
PA	PUBLIC ADDRESS
REF	REFRIGERATOR
SPD	SURGE PROTECTION DEVICE
TTB	TELECOMMUNICATIONS TERMINAL BOARD
TVTB	TELEVISION TERMINAL BOARD
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLT
W	WATT
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WLAN	WIRELESS LOCAL AREA NETWORK
WP	WEATHERPROOF
XP	EXPLOSIONPROOF
+18"	MOUNTING HEIGHT TO CENTERLINE OF DEVICE ABOVE FINISH FLOOR (VERIFY W/ ARCH ELEVATIONS)

NOTES:

- LIGHT LINEWEIGHT INDICATES EXISTING
- HATCHED AREAS INDICATE DEMOLITION

VOICE/DATA SYMBOLS

	COMMUNICATIONS WALL OUTLET
	ANALOG WALL OUTLET
	COMBO ANALOG/COMMUNICATIONS WALL OUTLET
	COMMUNICATIONS FLOOR OUTLET
	ANALOG FLOOR OUTLET
	COMBO ANALOG/COMMUNICATIONS FLOOR OUTLET
	WIRELESS LAN (WI-FI) ACCESS POINT OUTLET - CEILING
	WIRELESS LAN (WI-FI) ACCESS POINT OUTLET - WALL
	POWER/TELECOM POLE
	MULTI-OUTLET WIREWAY
	NUMBER OF DATA JACKS
	NUMBER OF VOICE JACKS
	NUMBER OF FIBER JACKS
OUTLET DESIGNATIONS (XX)	
POS - POINT-OF-SALE	
C - MOUNT ABOVE COUNTER	W - WALL PHONE PLATE WITH LUGS
E - ELEVATOR	EM - EMERGENCY SERVICES

INTERCOM/PROGRAM/BELL/CLOCK SYMBOLS

	ANALOG CLOCK - WALL MOUNTED
	ANALOG CLOCK - CEILING MOUNTED
	DIGITAL CLOCK - WALL MOUNTED
	DIGITAL CLOCK - CEILING MOUNTED
	CALL IN SWITCH
	MASTER INTERCOM STATION
	INTERCOM STATION
	CHIME
	BUZZER
	BELL
	INTERCOM LOUDSPEAKER - CEILINGS MOUNTED
	INTERCOM LOUDSPEAKER - WALL MOUNTED
	TWO-WAY COMM SPEAKER - CEILING MOUNTED
	TWO-WAY COMM SPEAKER - WALL MOUNTED

ELECTRONIC SAFETY & SECURITY SYMBOLS

	CEILING MOUNTED CAMERA
	WALL MOUNTED CAMERA
	CORNER MOUNTED CAMERA
	MILTENSOR DOME CAMERA
	HEMISPHERIC DOME FISHEYE CAMERA
	INTERCOM - VIDEO DOOR STATION
	TWO-WAY EMERGENCY COMMUNICATION SYSTEM - CALL BOX
	TWO-WAY EMERGENCY COMMUNICATION SYSTEM - COMMAND CENTER
	INTRUSION DETECTION MAIN PANEL
	ACCESS CONTROL MAIN PANEL
	REQUEST-TO-EXIT - PANIC/CRAASH BAR SENSOR
	REQUEST-TO-EXIT - MOTION DETECTOR (PIR)
	CARD READER LOCKSET COMBO - POWER OVER ETHERNET
	CARD READER LOCKSET COMBO - WIRELESS (BATTERY POWERED)
	CARD READER - STANDALONE
	ELECTRIC LOCK - LATCH RETRACTOR
	ELECTRIC LOCK - ROD RETRACTOR
	ELECTRIC LOCK - STRIKE
	ELECTRIC LOCK - MAGNETIC HOLD
	DOOR POSITION SWITCH - MAGNETIC CONTACT
	DOOR POSITION SWITCH - WIRELESS
	DOOR POSITION SWITCH - LATCHBOLT MONITOR
	DOOR POSITION SWITCH - OVERHEAD DOOR
	RF GATEWAY - WIRELESS LOCKSETS/DOOR POSITION SWITCHES
	DOOR RELEASE BUTTON
	PANIC BUTTON
	ADA ACCESS CONTROL ACTUATOR
	INTRUSION MOTION SENSOR - WALL MOUNT
	INTRUSION MOTION SENSOR - CEILING MOUNT
	SECURITY KEYPAD

GENERAL SYMBOLS


	JUNCTION BOX
	WALL MOUNTED JUNCTION BOX
	FLOOR MOUNTED JUNCTION BOX
	CONDUIT RUN
	CONDUIT RUN BELOW GRADE
	CONDUIT UP
	CONDUIT DOWN

TECHNOLOGY SHEET INDEX									
#	TITLE	ISSUE LOG							
		DD - 02-21-2020	CD PROGRESS SET	95% CD - 03-30-2020	PERMIT SET - 04-06-20				
T0.0	TECH COVER SHEET	✓	✓	✓	✓				
T02.1	FIRST LEVEL AREA A DEMO TECH PLAN	✓	✓	✓	✓				
T2.1	FIRST LEVEL AREA A TECH PLAN	✓	✓	✓	✓				
T3.1	TECHNOLOGY SYSTEMS DIAGRAMS	✓	✓	✓	✓				
T3.2	AV FUNCTIONAL DIAGRAMS			✓	✓				
T4.1	TECHNOLOGY DIAGRAMS	✓	✓	✓	✓				
T4.2	TECHNOLOGY DIAGRAMS			✓	✓				

ISSUE LOG KEY:
 ✓ = ISSUED AS PART OF SET
 * = NOT PART OF SET
 ** = ISSUED FOR INFORMATION ONLY

GENERAL NOTES:

- THESE DRAWINGS ACCOMPANY THE PUBLISHED CONSTRUCTION DOCUMENT SPECIFICATION BOOK (PROJECT MANUAL).
2. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
3. WORK ASSOCIATED WITH TECHNOLOGY SYSTEMS REQUIRES CAREFUL, DETAILED COORDINATION, BOTH PREPATORY AND ON-SITE. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INFORMATION FROM THE DESIGNER'S SYSTEM CONTRACTORS REGARDING PLANNING, COORDINATION, OR SKILL ON PART OF ANY PARTY ASSOCIATED WITH THE SCOPE OF WORK INDICATED WILL NOT BE ACCEPTED AS FACTOR FOR INSTALLATION THAT DOES NOT MEET SPECIFICATIONS OR INDUSTRY STANDARDS.
4. VISIT SITE PRIOR TO BID AND VERIFY THAT CONDITIONS ARE AS INDICATED. CONTRACTOR SHALL INCLUDE IN HIS COSTS REQUIRED TO REMOVE EXISTING EQUIPMENT AND MATERIALS.
5. IF WORK ON LIVE NETWORKS OR SYSTEMS IS TO BE DONE, SYSTEM DOWNTIME SHALL BE PERMITTED ONLY AT TIMES APPROVED BY OWNER - IN WRITING. WORK WHICH RESULTED IN AN ACCIDENTAL OUTAGE SHALL BE PERFORMED WITH THE OWNER'S IT/SI STAFF AND NETWORK SERVICE PROVIDERS ADVISED AND AVOIDANCE OF SUCH WORK.
6. COMMUNICATIONS SERVICES SHALL BE MAINTAINED TO EXISTING AREAS DURING CONSTRUCTION IF SUCH AREAS ARE TO REMAIN LIVE. CONTRACTOR SHALL PROVIDE NECESSARY MEANS AND PROTECTIVE MEASURES TO ENSURE UPTIME.
7. REVIEW ENTIRE CONTRACT DOCUMENT PACKAGE INCLUDING ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND OTHER DRAWINGS AND SPECIFICATIONS) PRIOR TO BID.
8. WORK SHALL BE PERFORMED IN A WORKMANKMAN MANNER TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
9. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL AND STATE ADOPED CODES AND ORDINANCES. 2014 EDITION OF NFPA 70 - NATIONAL ELECTRICAL CODE SHALL BE MET AT A MINIMUM. APPLICABLE VOLUMES OF NFPA 70A, NFPA 70B AND NFPA 70C SHALL BE MET AT A MINIMUM.
10. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST APPLICABLE STANDARDS AND RECOMMENDATIONS AS PUBLISHED BY AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA), AND BROADCASTING ENGINEERING CONFERENCE (BEC). ADDITIONAL STANDARDS MAY BE REQUIRED BY THE ARCHITECT, ENGINEER AND ELECTRONICS ENGINEERING (IEEE), SECURITY INDUSTRY ASSOCIATION (SIA), BUILDING INDUSTRY CONSULTING SERVICES INTERNATIONAL (BICSI), AND INFOCOM INTERNATIONAL.
11. PROVIDE WITH SHOP DRAWING SUBMITTAL, 1/4" SCALE LAYOUT DRAWINGS OF ROOMS WITH COMMUNICATIONS, AUDIOVISUAL, AND BROADCASTING EQUIPMENT. PROVIDE ADDITIONAL LAYOUTS SHALL SHOW LOCATIONS OF AND SHIELD COORDINATED WITH ELECTRICAL AND MECHANICAL EQUIPMENT. ALL EQUIPMENT SHALL BE DRAWN TO SCALE.
12. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
13. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS PRIOR TO TRENCHING, DRILLING, OR DIGGING. CONTRACTOR SHALL OBTAIN RECORD DRAWINGS OF EXISTING UTILITY LOCATIONS (CONDUIT AND/OR CABLEING), POULBOXES, HANGHOLES, MANHOLES, PEDESTALS, SAWCUTTING AND PATCHING, CONCRETE PAAVING, ETC., BEFORE TRENCHING, DRILLING, OR DIGGING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT SERVICE PROVIDER DRAWINGS AND REQUIREMENTS. CONTRACTOR IS TO SUMBIT A COMPLETE CONSTRUCTION MANAGEMENT PLAN TO THE ARCHITECT PRIOR TO AWARD OF CONTRACT. COORDINATE THE TIMELINE OF THEIR REVIEW, APPROVAL, CONSTRUCTION SCHEDULING AND INSTALLATION OF THE PEDESTALS OR PROVIDER-OWNED MANHOLES WITH THE SERVICE PROVIDER. NOTIFY OWNER OF ANY SCHEDULING CONFLICTS.
14. FIELD-VISIBLY EXISTING INFRASTRUCTURE TO BE RECONNECTED TO NEW OR EXISTING DISTRIBUTION (PATCH/PANES, WIRING DECKS, ETC.) SHALL BE IDENTIFIED AND PRESERVED.
15. EXISTING SYSTEMS AND CONDITIONS SHOWN ON DRAWINGS FOR EXISTING BUILDINGS ARE TO BE NOTED "FOR GUIDANCE ONLY." CONTRACTOR SHALL FIELD CHECK ALL EXISTING CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL INCLUDE IN THEIR BID AN AGREEMENT TO REMEDY ANY DEFICIENCIES OR DISCREPANCIES IDENTIFIED AFTER BIDDING. CONTRACTOR SHALL BE RESPONSIBLE AS INDICATED ON THE PLANS OR AS REQUIRED TO COORDINATE AND ADAPT NEW AND EXISTING TECHNOLOGY SYSTEMS TO ALL OTHER WORK AS REQUIRED.
16. PROVIDE TECHNOLOGY SYSTEMS DEMOLITION REFERENCE. REFER TO ARCHITECTURAL, TECHNOLOGY SYSTEMS AND ELECTRICAL SYSTEMS TO DEMONSTRATE THE LOCATION AND EXTENT OF EXISTING CONDITIONS. CONTRACTOR SHALL VERIFY SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED. PROVIDE LABOR AND MATERIALS REQUIRED TO MAINTAIN AND/OR RESTORE EXISTING CONDITIONS.
17. PROVIDE ALL NECESSARY DOCUMENTATION TO REMOVE EXISTING UNUSED CONDUIT, CABLE, J-BOXES, OUTLETS, DEVICES, AND THE LIKE, COMPLETE WITH ASSOCIATED CABLING TO DISTRIBUTION LOCATION. WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE, OUTLET SHALL BE ABANDONED, CABLE REMOVED, AND BLANK COVER PLATES PROVIDED.
18. ALL (E) EQUIPMENT BEING REMOVED SHALL BE RECYCLED IN ACCORDANCE WITH APPLICABLE AREA AND LOCAL REQUIREMENTS.)
19. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
20. INSTALL ALL MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANY DEVIATIONS SHALL BE BROUGHT TO THE ARCHITECT/ENGINEER'S ATTENTION PRIOR TO INSTALLATION.
21. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
22. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
23. WHERE THE RE-USE OF EXISTING EQUIPMENT, CONDUITS, CABLES, AND DEVICES IS PERMISSIBLE, MAKE CERTAIN THAT THESE COMPONENTS ARE COMPLETELY FREE OF CORROSIVE RESIDUES, ARE ABLE TO SUPPORT ADDITIONAL LOADS AS NECESSARY TO RE-ESTABLISH OPERATION.
24. WHEN EXISTING PATHWAYS (CONDUITS AND BOXES) ARE TO BE REUSED, ENSURE CABLING PASSES THROUGH NO OUTLET OR JOINT UNLESS SUCH WHICH MAY BE RENDERED INACCESSIBLE BY THE ARCHITECTURAL OR STRUCTURAL CHANGES TO BE MADE TO THE BUILDING.
25. EXISTING CONDUITS, CABLE, AND DEVICES WHICH ARE NOT INDICATED FOR REUSE SHALL BECOME THE PROPERTY OF CONTRACTOR. EQUIPMENT AND DISTRIBUTION EQUIPMENT (PATCH/PANES, WIRING BLOCKS, ETC.) SHALL BE RETURNED TO THE OWNER UNLESS OTHERWISE EXPRESSLY TAKEN BY OWNER IN WRITING.
26. ALL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY U/L OR OTHER RECOGNIZED TESTING FACILITY.
27. SYSTEMS SHALL BE TESTED AND VERIFIED UPON COMPLETION OF INSTALLATION. SYSTEMS THAT DO NOT PASS INDUSTRY STANDARD TESTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO OWNER.
28. GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKSMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
29. PROVIDE SOLUTION-BASED EXTENDED WARRANTY FOR STRUCTURED CABELING SYSTEMS. PROVIDE ALL NECESSARY DOCUMENTATION TO OWNER PRIOR TURNOVER.
30. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF AS-BUILT RECORD DRAWINGS ON-SITE WHICH SHALL BE AVAILABLE FOR REVIEW DURING ENGINEER'S SITE OBSERVATIONS. UPON COMPLETION, PROVIDE OFFICIAL SET OF RECORD DRAWINGS TO ARCHITECT. ALL CHANGES REQUESTED BY OWNER, DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, FIELD ALTERATIONS, RETROFITTINGS, ETC.
31. CONDUITS FOR TECHNOLOGY SYSTEMS LARGER THAN TRADE SIZE 1 (1") SHALL HAVE LONG-RADIUS SWEEPS AT ALL CHANGES IN DIRECTION. LONG-RADIUS SWEEPS SHALL BE MINIMUM 12X DIAMETER.
32. OUTLET BOXES SHALL BE MINIMUM 1/4"x1/4"x1/16"-1/11/16x1/2"-1/8" METALLIC OR NONMETALLIC AS PROJECT REQUIREMENTS DICTATE.
33. FLEXIBLE METAL CONDUIT SHALL NOT BE USED AS CABLE PATHWAY. ONLY SMOOTH-WALLED METALLIC CONDUIT OR TUBING MAY BE USED FOR THIS PURPOSE. ALL OTHER TYPES OF CONDUIT SHALL BE PROHIBITED.
34. ALL METALLIC SUPPORT COMPONENTS (CONDUITS, SLEEVES, PATHWAYS, CABLETRAYS, J-HOOKS OR OTHER SUPPORT, RACKS, CABINETS, ETC.) SHALL BE BONDED WITH NO SMALLER THAN #6WG INSULATED GREEN COPPER BONDING CONDUCTORS. ALL JUNCTIONS SHALL BE BONDED TO TELECOMMUNICATIONS GROUNDING BUS. (REFERENCE DRAWINGS AND ANSI JSD-60T-A STANDARD).
35. ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A NYLON PULLTAPE INSTALLED. PULLTAPE SHALL HAVE PHYSICAL LENGTH MARKINGS AND BE RATED FOR 200LB STRENGTH. EMPTYPATHWAYS SHALL BE IDENTIFIED AS SUCH AT ALL JUNCTION BOXES, CONDUIT ENDS, AND OUTLET BOXES. CONTRACTOR SHALL PROVIDE PULLTAPE WITH IDENTIFICATION AND INDICATED INTENDED USE OF LOCATION, LOCATION OF PATHWAY ORIGIN, AND LOCATION OF TERMINATION OF EACH INDIVIDUAL CONDUIT.
36. ALL CABLEING SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURAL ELEMENTS. CABLEING IS NOT ALLOWED TO COME IN CONTACT WITH WALLS, ELECTRICAL CIRCUITS/CONDUITS, LIGHT FIXTURES, DUCTWORK OR OTHER STRUCTURALLY INSTALLED SYSTEM CABLEING SHALL NOT BE USED AS A CABLE SUPPORT. APPROVED CABLE TRAYS, HOOKS, BRIDGE RINGS, OR SIMILAR SHALL BE USED. CABLEING SHALL BE INSTALLED WITH SPACINGS NO GREATER THAN 4" OF SPACING.
37. ALL EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURAL ELEMENTS.
38. PROVIDE PULLBOXES ALONG CONDUIT RUNS AT 100 FOOT INTERVALS OR EVERY 180-DEGREES OF BENDS, OR BOTH.
39. CONDUITS MAY NOT CHANGE DIRECTION MORE THAN 90 DEGREES AT ANY SINGLE BEND.
40. CONDULETE FITTINGS MAY NOT BE USED TO CHANGE PATHWAY DIRECTION AT ANY TIME.



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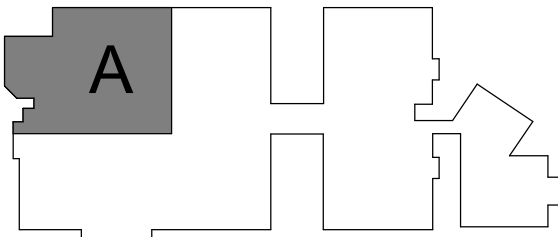
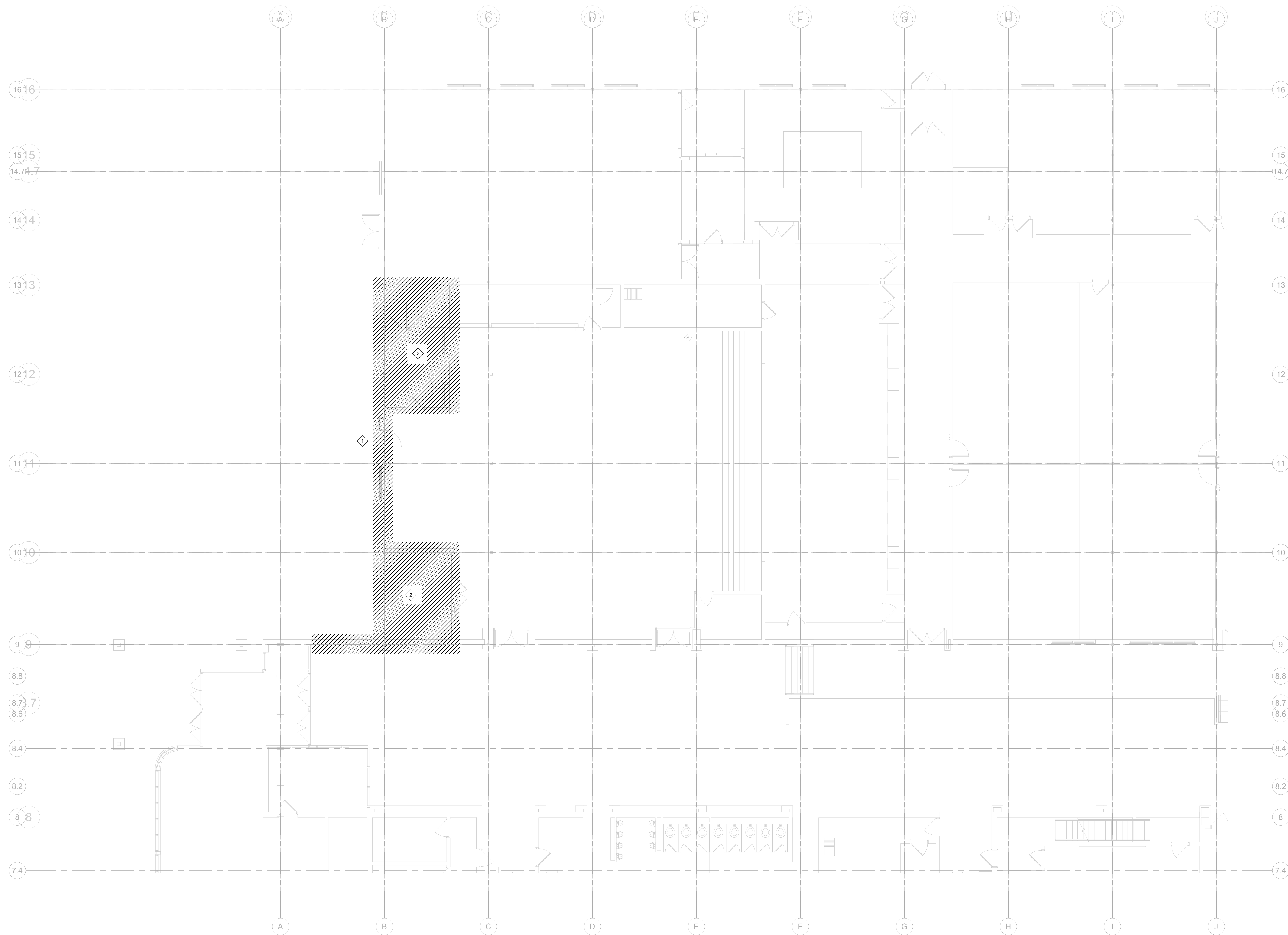
Issue Dates:
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TECH COVER
SHEET

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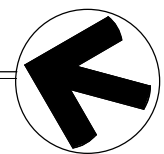
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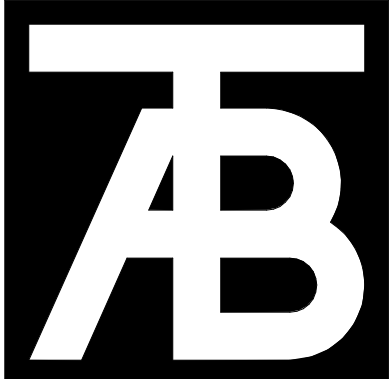


KEY PLAN

1 FIRST LEVEL AREA A DEMO TECHNOLOGY PLAN
SCALE: 1/8" = 1'-0"



- NOTES:**
1. INFORMATION REGARDING EXISTING DEVICE LOCATIONS AND CABLE ROUTING IS NOT AVAILABLE. DEMOLITION PLAN INDICATES A DESIRED SCOPE OF WORK; THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IN FIELD PRIOR TO START OF WORK.
 2. ALL SYSTEMS LOCATED OUTSIDE THE AREA OF DEMOLITION ARE INTENDED TO REMAIN OPERABLE.
 3. CONTRACTOR SHALL COORDINATE WITH OWNER AND ENSURE ALL EQUIPMENT TO BE RETAINED BY OWNER HAS BEEN REMOVED PRIOR TO DEMOLITION WORK, INCLUDING COMPUTER EQUIPMENT, WIRELESS CLOCKS, PROJECTION SCREENS, INTERACTIVE WHITEBOARDS, ETC.
- DEMO NOTES**
1. (E) ACCESS CONTROLLED ENTRANCE: REMOVE CARD READER AND ELECTRIFIED DOOR HARDWARE FOR POSSIBLE REUSE. IF DOOR CONTROLLER AND PSU ARE LOCATED AT DOOR, REMOVE AND PRESERVE FOR REUSE.
 2. GENERAL DEMOLITION AREA: REMOVE COMMUNICATIONS AND LOW VOLTAGE OUTLETS AND EQUIPMENT.



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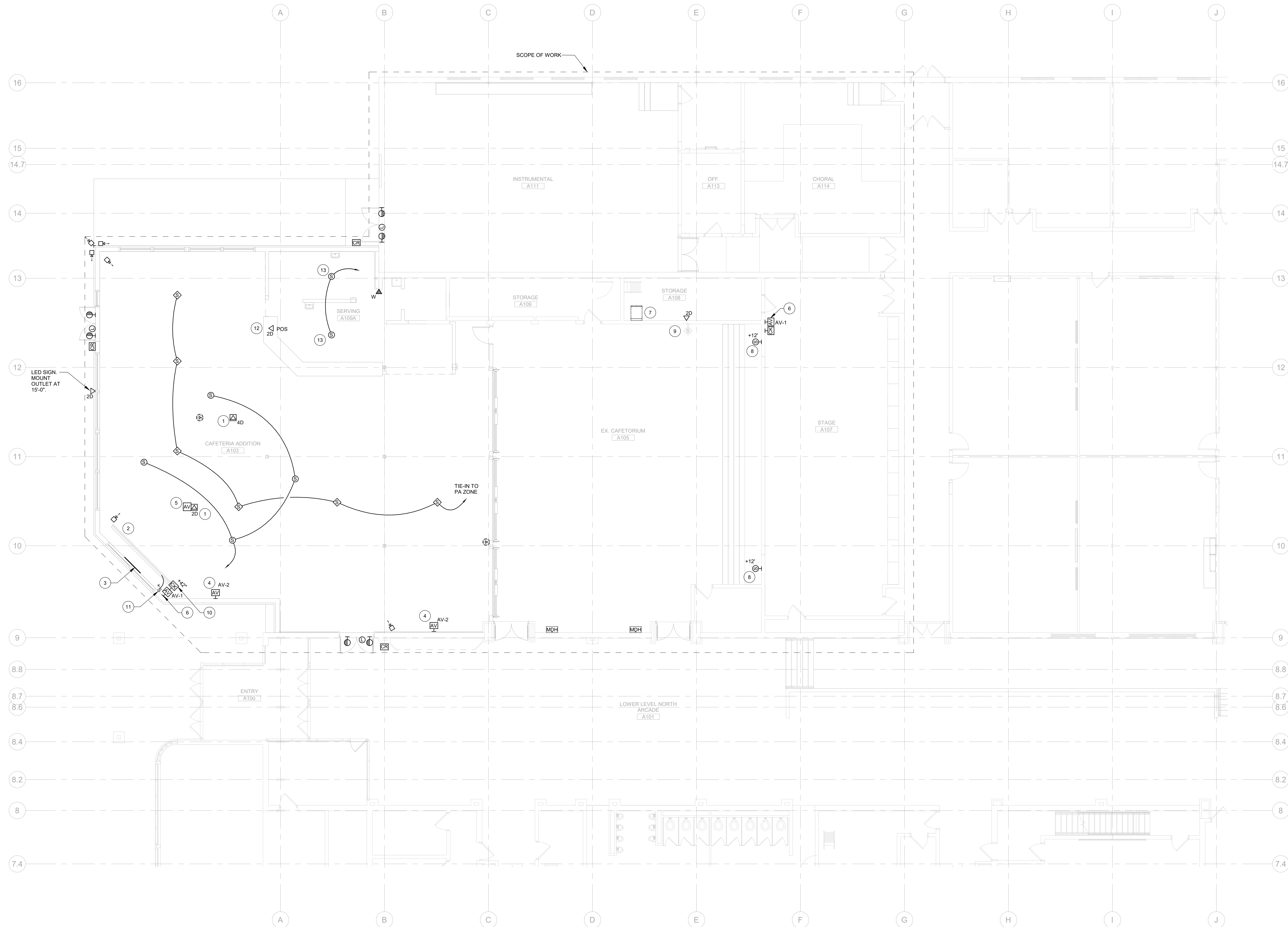
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FIRST LEVEL
AREA A
DEMO TECH
PLAN

Project No:
10183.00

Sheet No:
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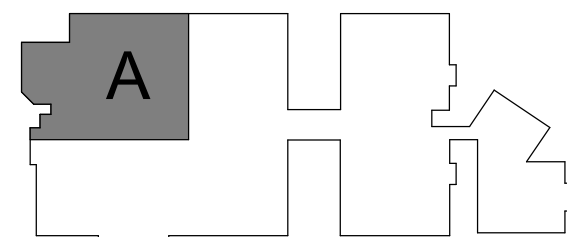


NOTES:

1. PROVIDE CONDUIT SLEEVES THROUGH WALLS TO FACILITATE CABLING. PROVIDE FIRESTOPPING AS REQUIRED.
2. ALL LOW VOLTAGE CONDUIT STUBBED OUT ABOVE FINISHED CEILINGS SHALL HAVE LONG RADIUS SWEEPS.
3. CABLE TIES SHALL BE RELEASABLE AND COMPOSED OF HOOK AND LOOP, RUBBER OR SOFT POLYMER. ZIP-TIES OR EQUAL SHALL NOT BE USED.
4. ACCESS CONTROL CABLING SHALL BE ROUTED VIA CONDUIT FROM OUTLET BOX TO ABOVE ACCESSIBLE CEILING.
5. COMMUNICATIONS CABLING SHALL BE ROUTED WILD FROM OUTLET BOX TO ABOVE ACCESSIBLE CEILING.
6. HOMERUN CABLING TO SERVING DISTRIBUTION FRAME. USE J-HOOKS FOR PATHWAYS ABOVE ACCESSIBLE CEILING.
7. CABLING SHALL NOT RUN UNSUPPORTED FOR LENGTHS GREATER THAN 5'-0". ALL VOICEDATA CABLING SHALL BE TERMINATED ON RACK MOUNTED PATCH PANELS.
8. ALL INFRASTRUCTURE SUPPORTING VOICEDATA STRUCTURED CABLING SYSTEMS (RACKING, GROUNDING, PATHWAYS, ETC.) SHALL MEET BICSI STANDARDS.
9. CONTRACTOR TO PROVIDE BLOCKING AT PROJECTOR AND DISPLAY LOCATIONS TO SUPPORT 100.LBS.
10. REFER TO SHEETS T3.X AND T4.X FOR SYSTEM DIAGRAMS AND INSTALLATION DIAGRAMS.

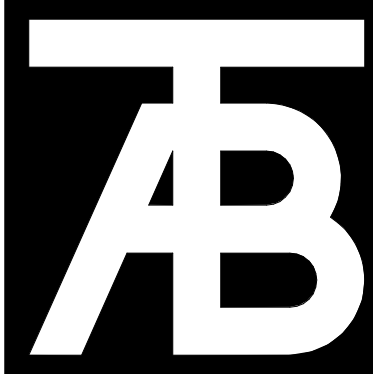
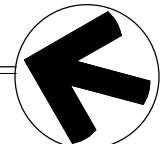
FLAG NOTES:

1. DATA CABLING TERMINATED TO SURFACE MOUNT BISCUIT JACK AND COILED ABOVE CEILING. PROVIDE 15' SERVICE LOOP. PORT QUANTITY AS INDICATED.
2. MOTORIZED PROJECTION SCREEN - 180" DIAGONAL 16:10. PROVIDE DA-LITE OR EQUAL. PROVIDE KEY SWITCH ON ADJACENT WALL.
3. PLYWOOD BACKBOARD - 24"X 48"X 3/4". MOUNT BOTTOM AT 12'-0".
4. AV CABLING TERMINATION. PROVIDE LOW VOLTAGE RING IN WALL. FIELD COORDINATE MOUNTING HEIGHT W/ OWNER. PROVIDE J-HOOK ABOVE CEILING FOR CABLE SLACK.
5. PROJECTOR LOCATION. PROVIDE 2-PORT BISCUIT JACK WITH TWO (2) CAT5E HOMERUN TO SERVING IDF AND AV CONNECTIVITY TO AV INPUT WALLPLATE.
6. AV INPUT PLATE. PROVIDE 2-GANG LOW VOLTAGE RING.
7. 12U WALL MOUNT RACK. MIDDLE ATLANTIC DWR OR EQUAL.
8. SURFACE MOUNT LOUDSPEAKER. PROVIDE QSC AD-S12 OR EQUAL.
9. (E) PAGING HORN. RELOCATE DEVICE TO LOCATION FIELD COORDINATED W/ OWNER. PROVIDE NEW CABLING.
10. AV CONTROL KEYPAD. PROVIDE 1-GANG LOW VOLTAGE RING @ 42" AFF. ROUTE CAT5E CABLE TO AV EQUIPMENT RACK IN STORAGE A108.
11. LOW VOLTAGE SWITCH W/ KEYLOCK COVER FOR PROJECTION SCREEN.
12. PROVIDE GROMMET IN WORK SURFACE FOR CABLE ROUTING.
13. COORDINATE LOUDSPEAKER LOCATIONS W/ OWNER. VERIFY HOMERUN LOCATION.

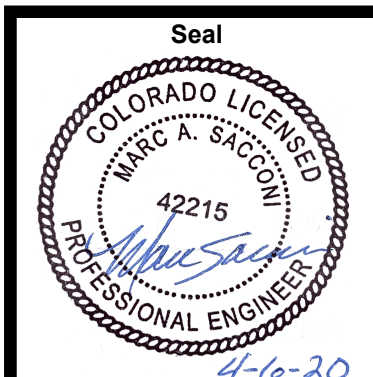


KEY PLAN

1 FIRST LEVEL AREA A TECHNOLOGY PLAN
SCALE: 1/8" = 1'-0"



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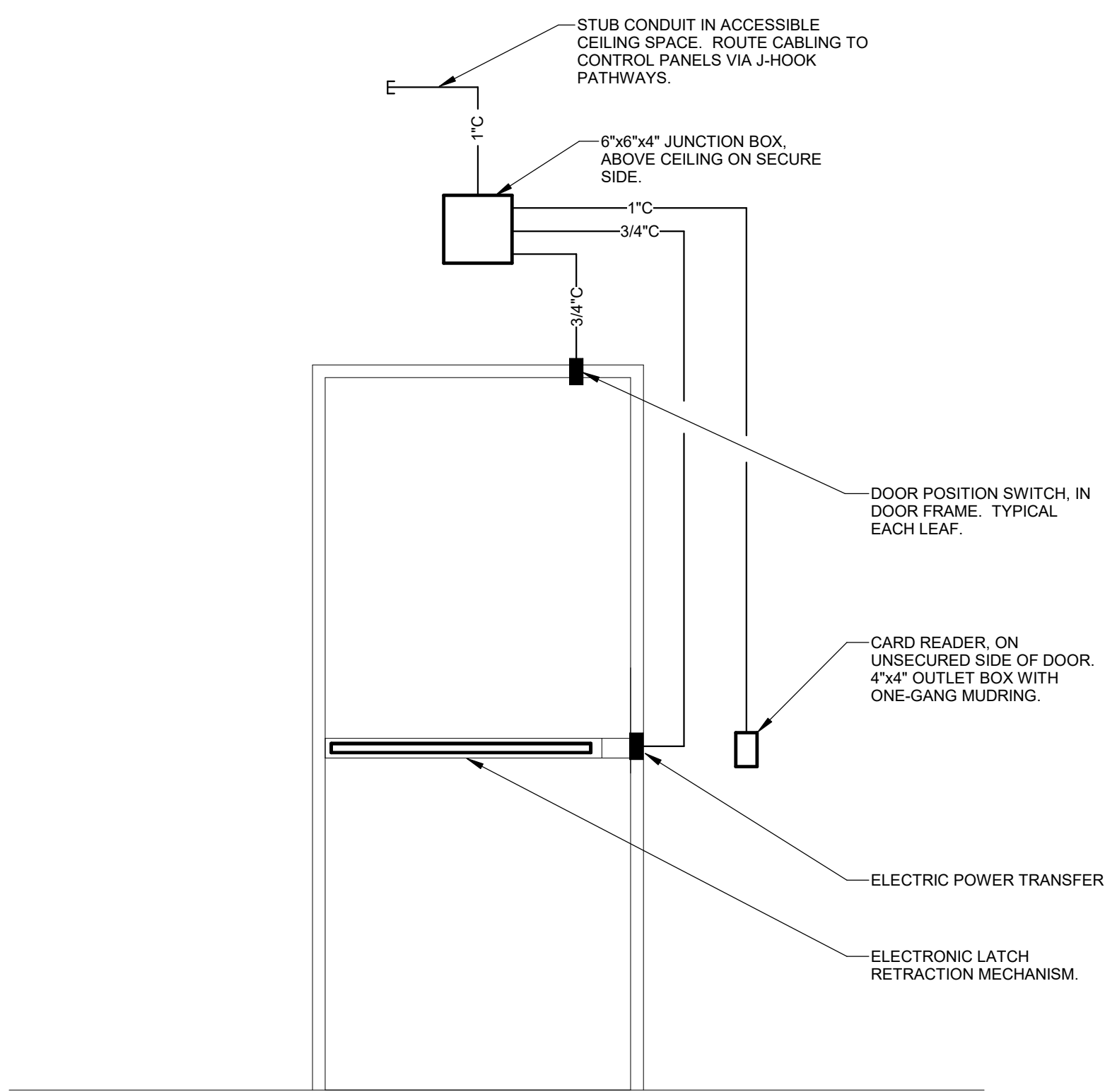
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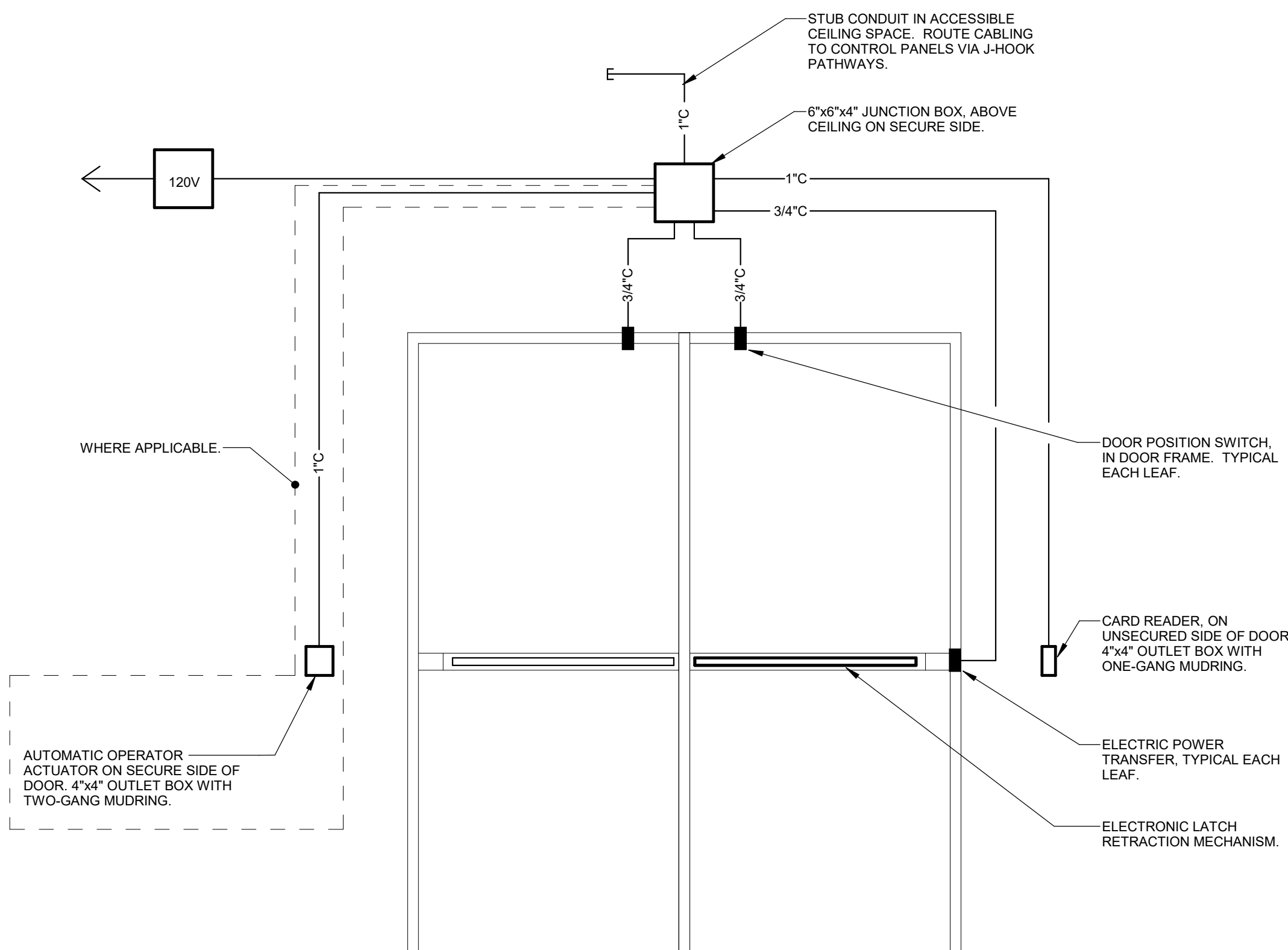
Sheet Title:
FIRST LEVEL
AREA A TECH
PLAN

Project No:
10183.00

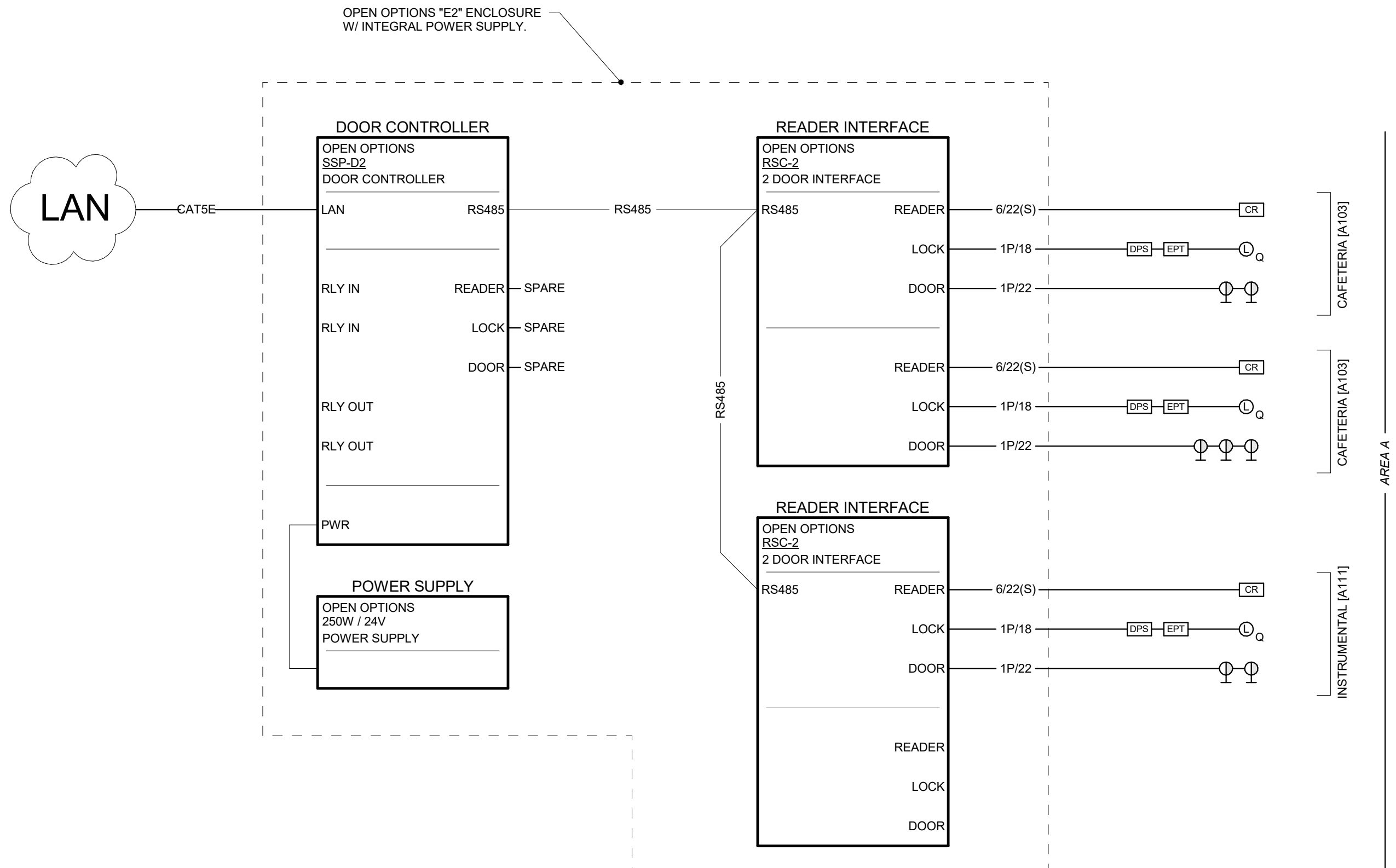
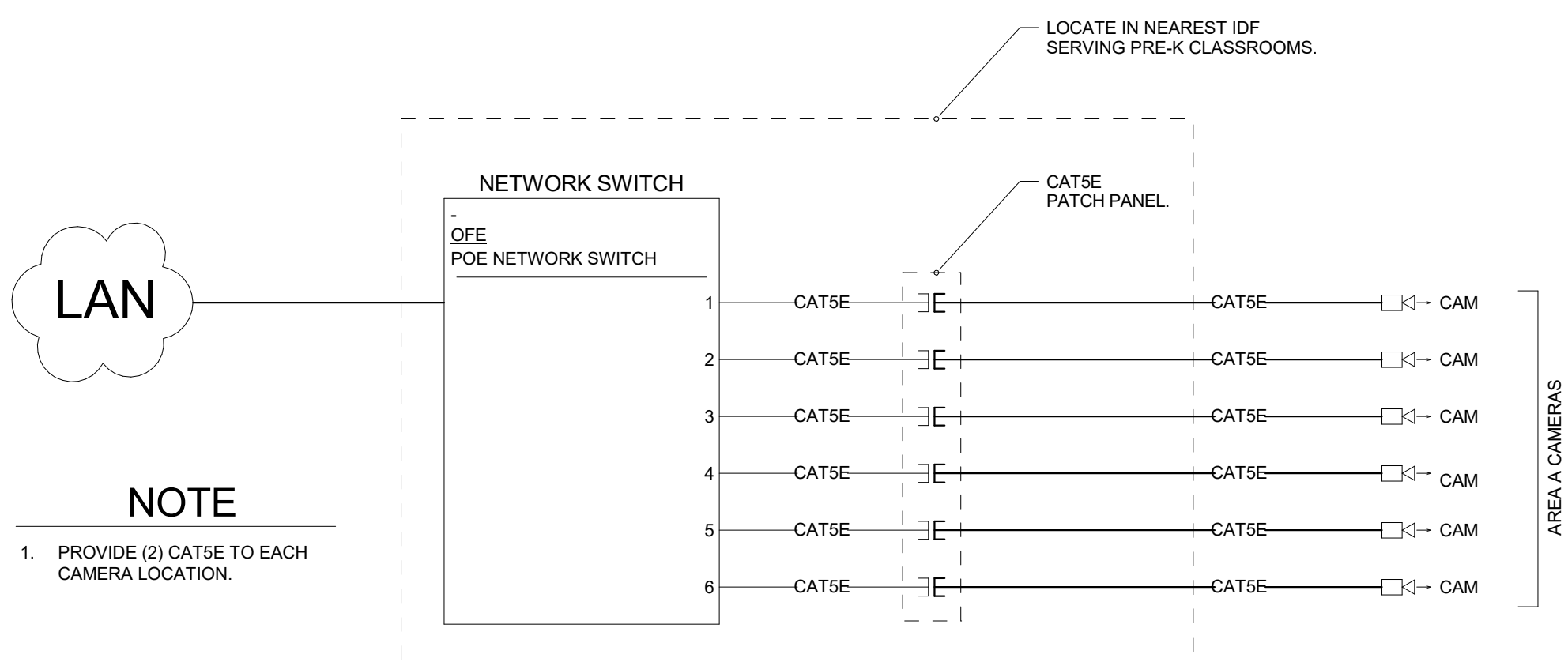
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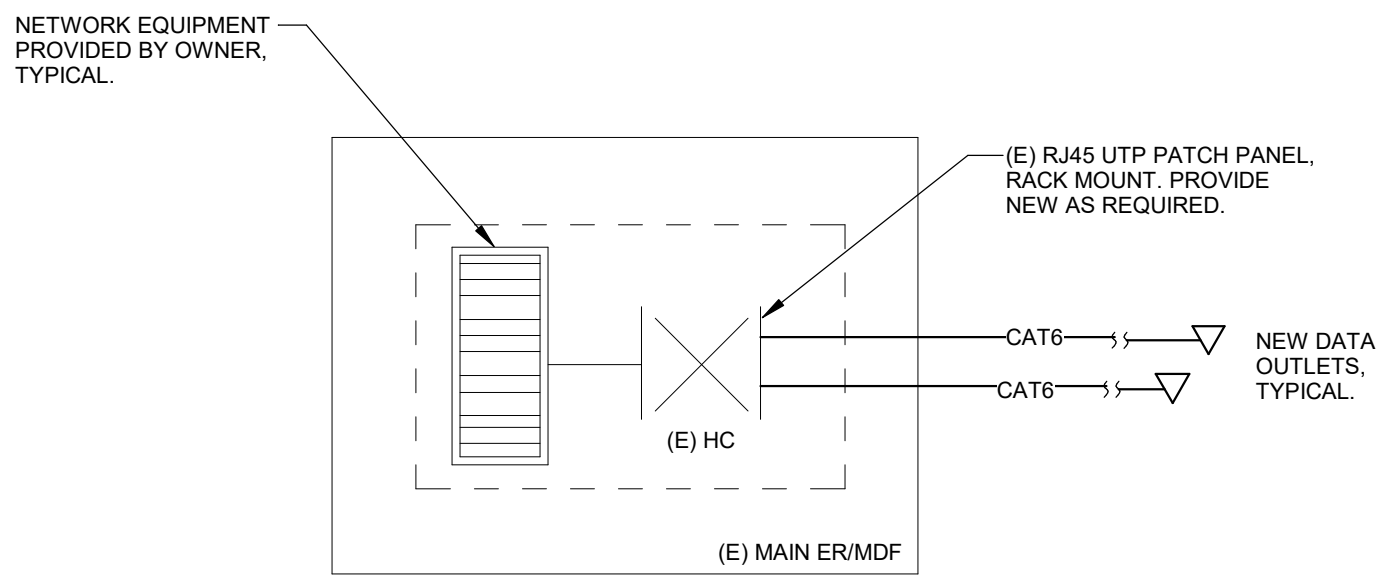
3 ELECTRONIC SECURITY - SINGLE LEAF DOOR
SCALE: NONE



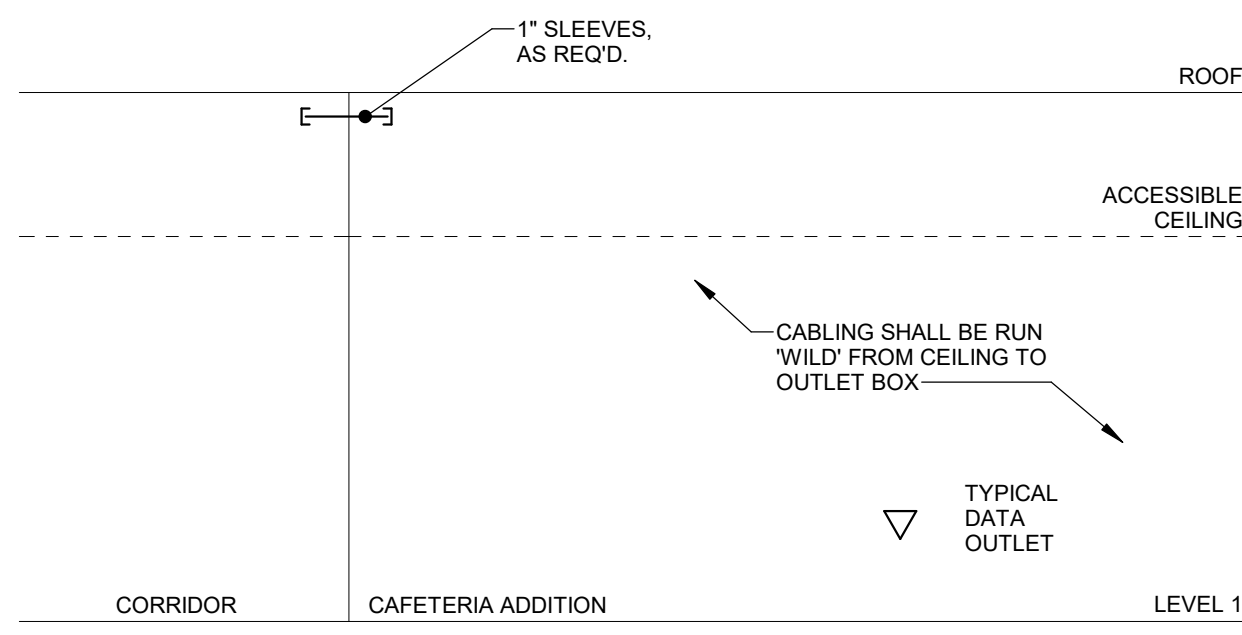
4 ACCESS CONTROL DOOR DIAGRAM - TWO LEAF
SCALE: NONE



5 ELECTRONIC SECURITY FUNCTIONAL DIAGRAM
SCALE: NONE



1 COMMUNICATIONS RISER DIAGRAM
SCALE: NONE



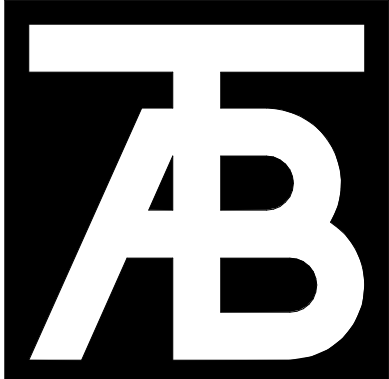
2 COMMUNICATIONS PATHWAYS AND SPACES
SCALE: NONE

NOTES:

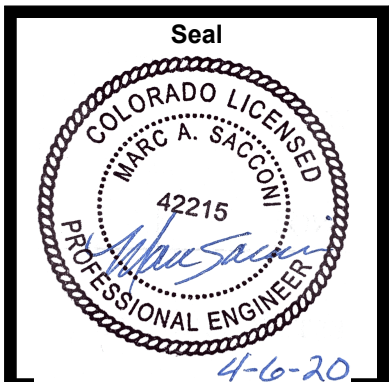
1. LIGHT LINEWEIGHT INDICATES EXISTING OR OWNER PROVIDED EQUIPMENT.
2. FIELD-COORDINATE EXACT LOCATION OF ALL PANELS AND HARDWARE WITH OWNER.
3. PROVIDE ALL NECESSARY ACCESSORIES AND APPURTENANCES TO COMPRISE A COMPLETE AND OPERABLE SYSTEM.
4. INCREASE WIRE GAUGE FOR LOCK CIRCUITS LONGER THAN 300 FEET.
5. REFERENCE PROJECT MANUAL / SPECIFICATION FOR CABLING REQUIREMENTS.
6. ALL ACCESS CONTROLLED DOORS SHALL ALLOW FREE EGRESS AT ALL TIMES.

LINETYPE LEGEND:

- 6/22(S) SECURITY - CARD READER
- 1P/18 SECURITY - ELECTRIC DOOR
- 1P/22 SECURITY - DOOR CONTACT
- RS485 CONTROL (SERIAL)
- CAT5E CATEGORY 6 - 4PR UTP



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PERMIT SET

Sheet Title:
TECHNOLOGY
SYSTEMS
DIAGRAMS

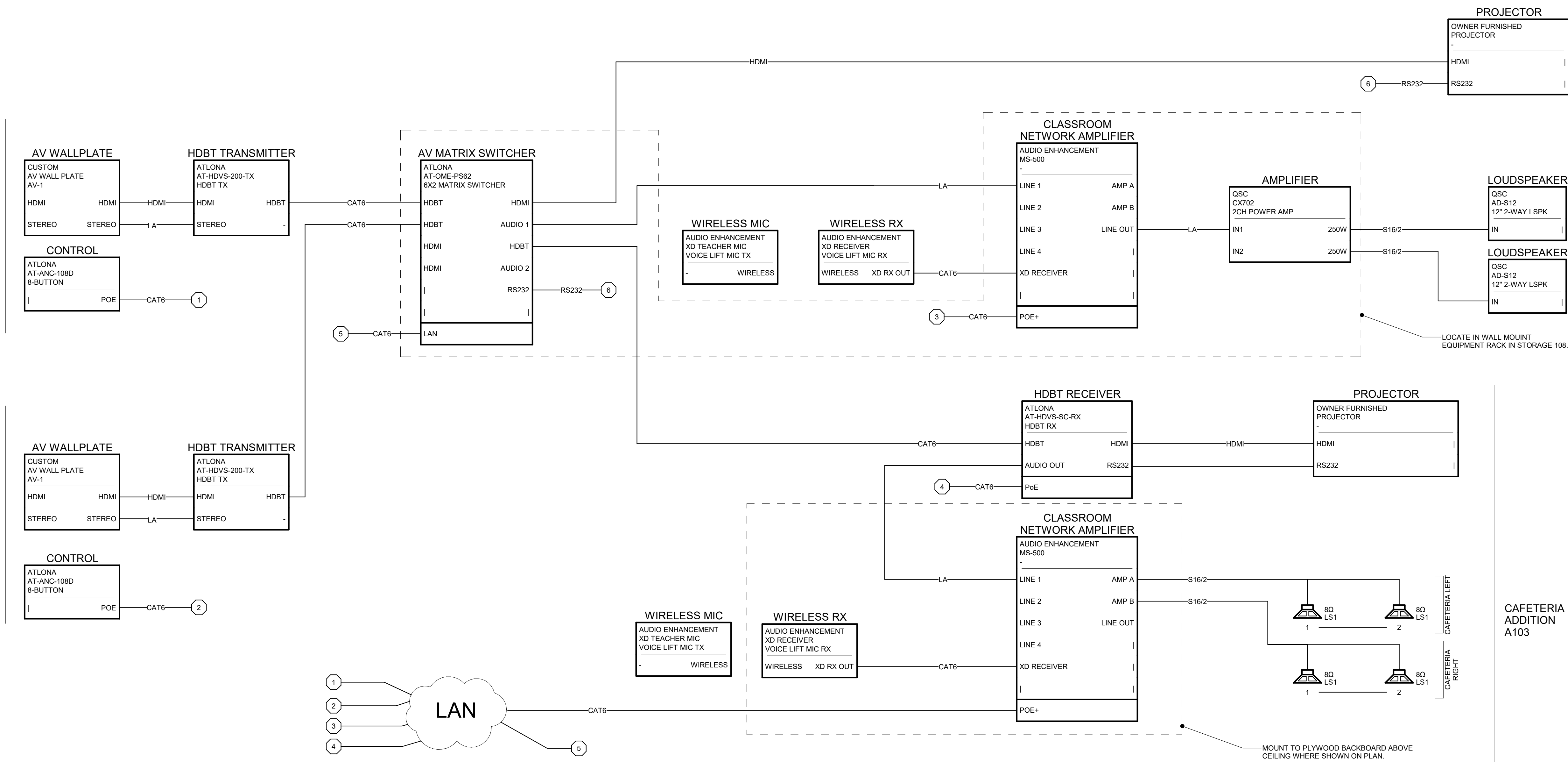
Project No:
10183.00

Sheet No:
T3.1



EX CAFETERIA
A105

CAFETERIA
ADDITION
A103



1 CAFETERIA AV FUNCTIONAL DIAGRAM
SCALE: 1/8" = 1'-0"

NOTES:

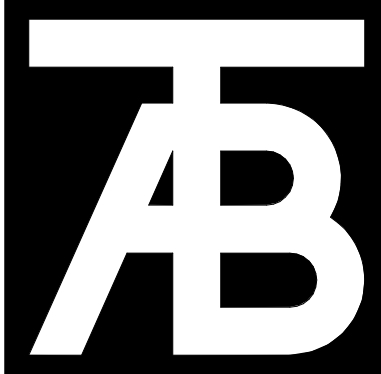
1. INSTALLERS SHALL HOLD CURRENT CERTIFICATION BY INFOCOMM INTERNATIONAL AS CTS AND/OR CTS-I AND HOLD MANUFACTURER CERTIFICATIONS FOR PRODUCTS BEING INSTALLED.
2. CONTROL SYSTEM PROGRAMMERS SHALL BE CERTIFIED BY MANUFACTURER. MINIMUM CRESTRON LEVEL 3 OR HIGHER, AMX HCCP-P OR HIGHER.
3. CONTRACTOR TO PROVIDE NECESSARY APURTENANCES TO ENSURE A FULLY FUNCTIONING SYSTEM.
4. CONTRACTOR SHALL PROVIDE EQUIPMENT RACK RACKING, RACK MOUNT POWER, MOUNTING ACCESSORIES AND VENTILATION EQUIPMENT FOR AV SYSTEM.
5. LIGHT LINE WEIGHT INDICATES EXISTING OR OFCI EQUIPMENT.

AV SYSTEM NOTES:

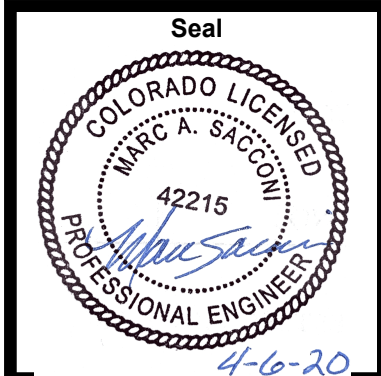
1. THE AV SYSTEM CONSIST OF TWO SEPARATE SYSTEM THAT MAY BE COMBINED BY WAY OF THE AV MATRIX SWITCHER.
2. SIGNAL PICKUP IN THE CAFETERIA IS ACHIEVED VIA HDBASE-T TRANSMITTERS THAT SEND SIGNAL TO THE MATRIX SWITCHER IN THE EQUIPMENT RACK IN STORAGE A108. THE SIGNAL IS PROCESSED IN THE MATRIX SWITCHER AND ROUTED TO DISPLAY DEVICES IN EACH SPACE. AUDIO SHALL FOLLOW THE VIDEO SOURCE.
3. SYSTEM CONTROL IS VIA WALL MOUNT KEYPADS. CONTROL INCLUDES SOURCE SELECTION, AUDIO LEVEL AND ON/OFF.

LINETYPE LEGEND:

- HDMI — PREFAB HDMI CABLE
- LA — LINE-LEVEL AUDIO (22/2C-SH)
- S16/2 — SPEAKER (GAUGE/QTY)
- IR--- CONTROL (SERIAL/INFRARED)
- CAT6 — CATEGORY 6 - 4PR UTP
- MMOF — MULTIMODE OPTICAL FIBER
- R18/2 — CONTROL RELAY (GAUGE/QTY)



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Revisions:		
No	Description	Date

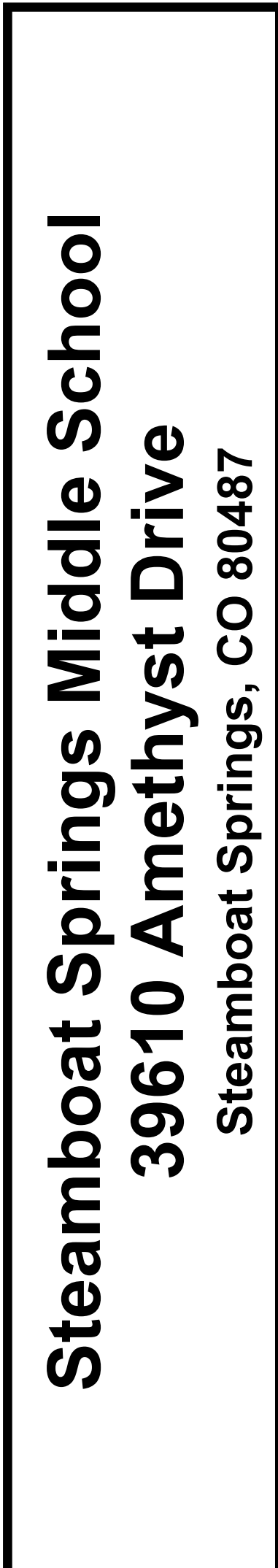
Issue Dates:
04.06.2020
PERMIT SET

Sheet Title:
AV
FUNCTIONAL
DIAGRAMS

Project No:
10183.00

Sheet No:
T3.2



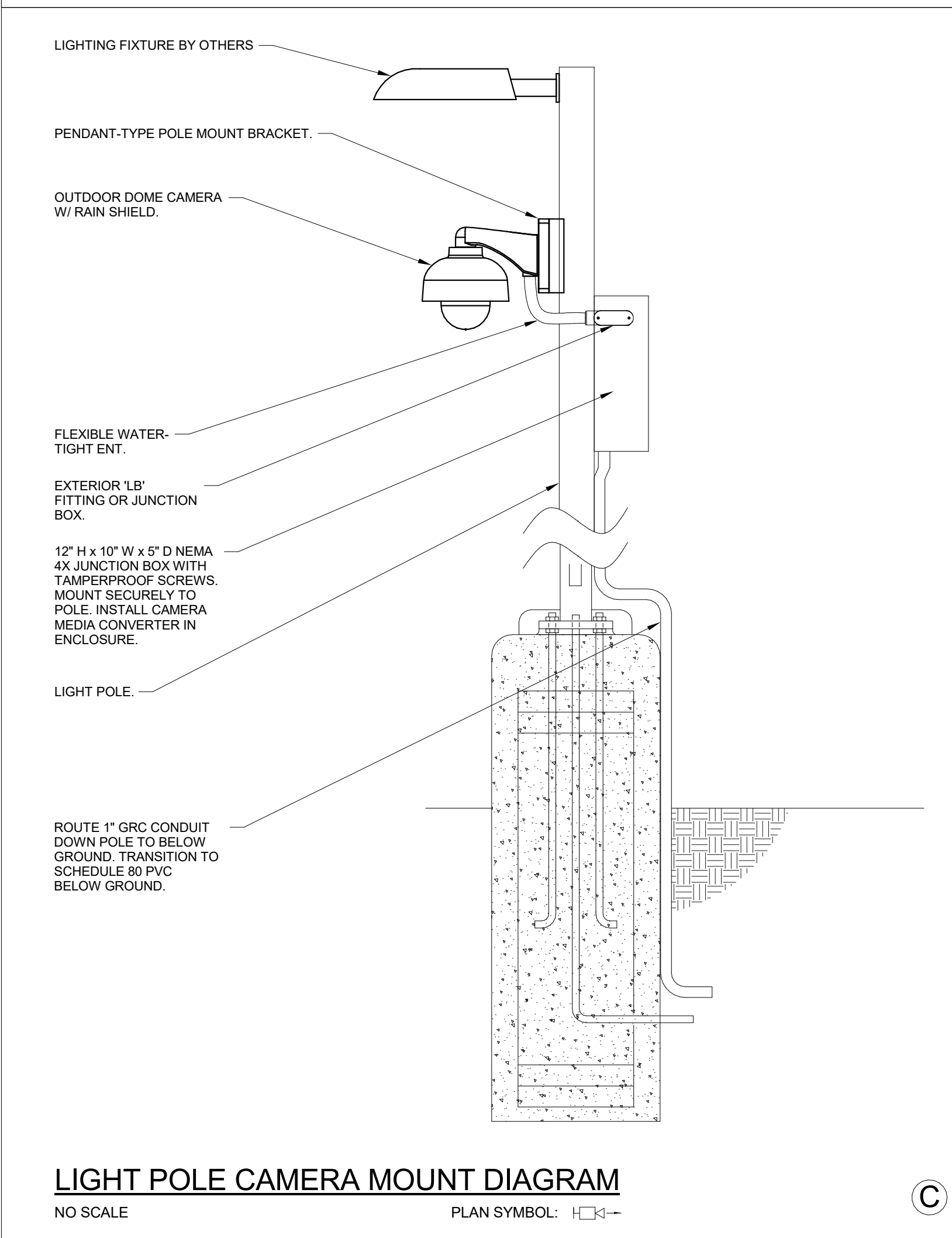
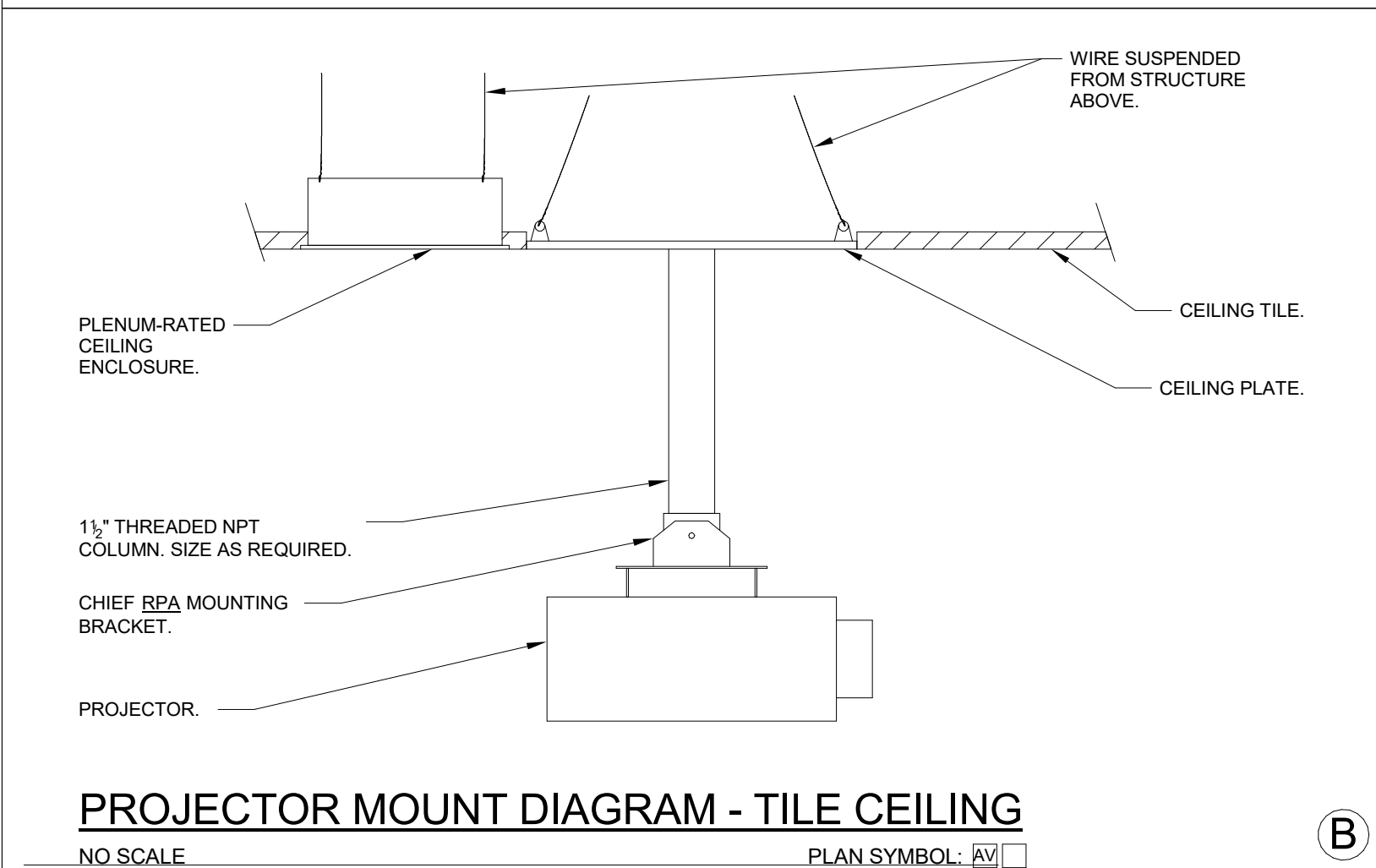
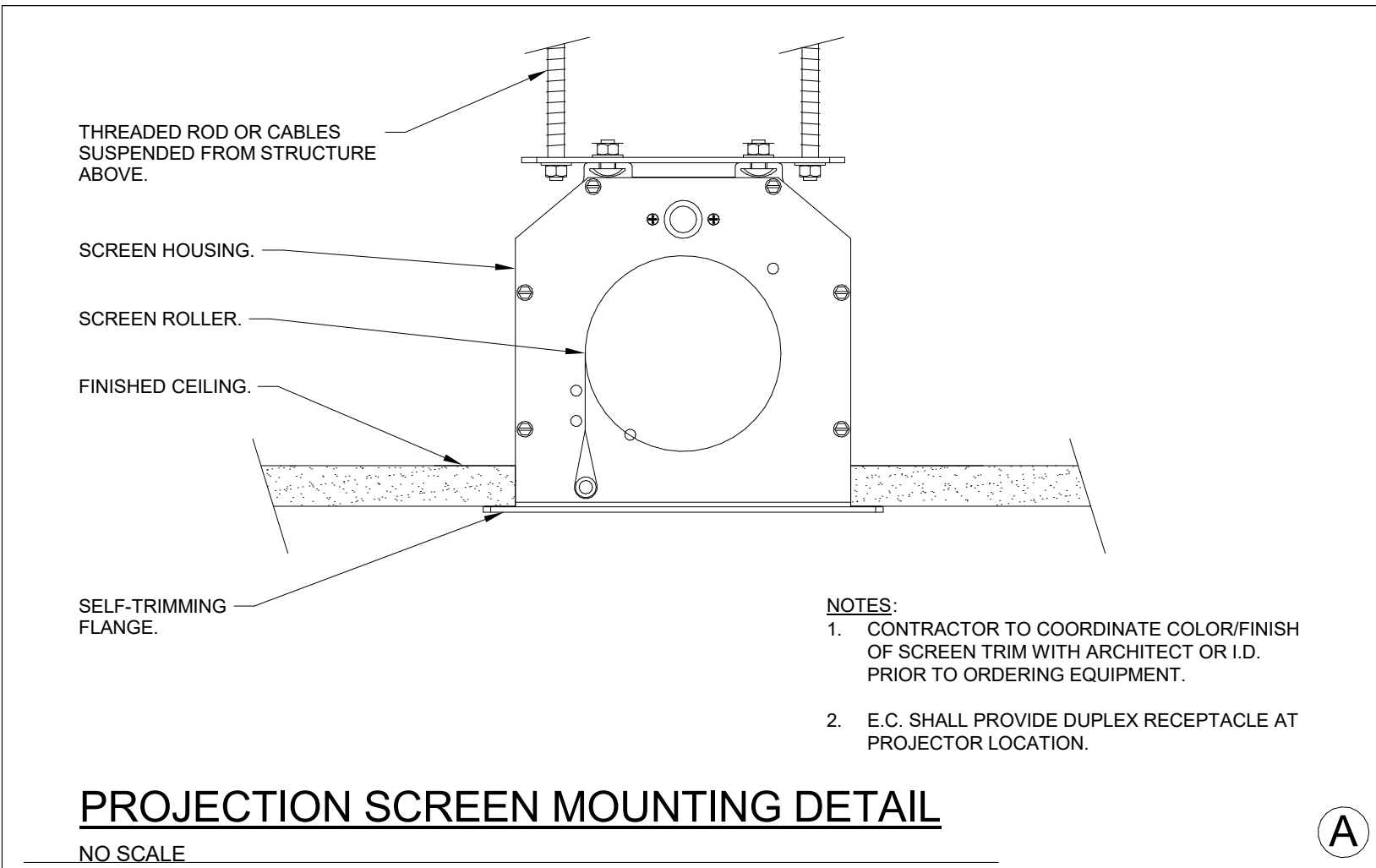


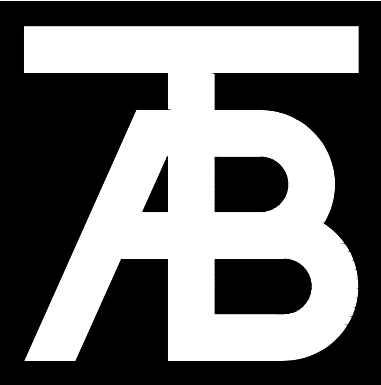
Issue Dates:
04.06.2020
PERMIT SET

Project No:
10183.00

Sheet No:
T4.1







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Revisions:		
No.	Description	Date

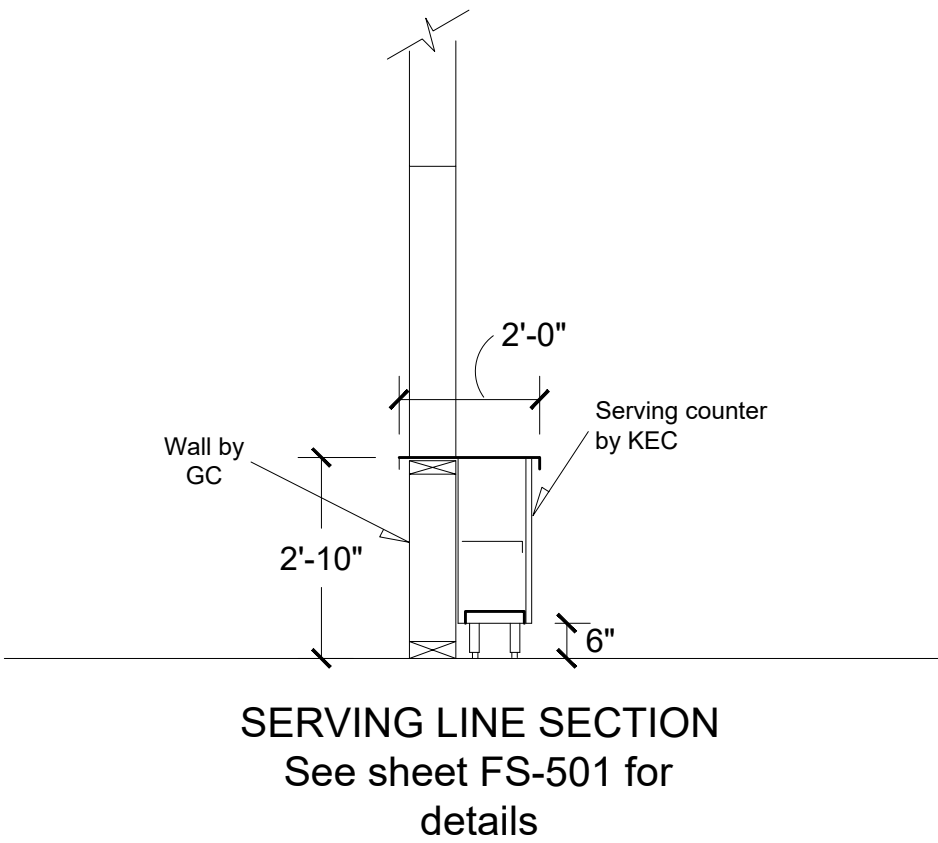
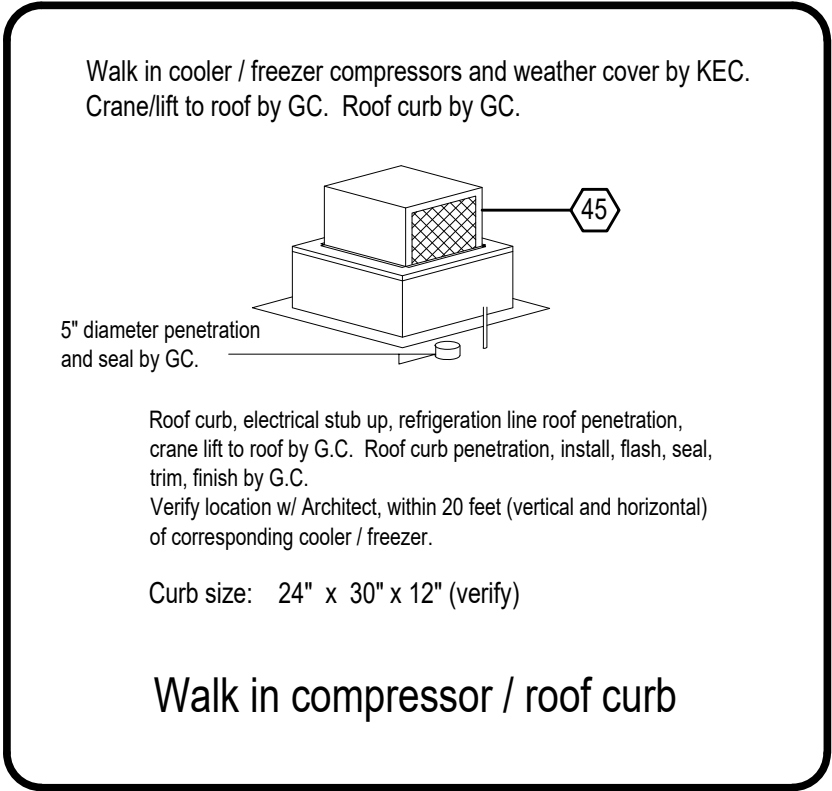
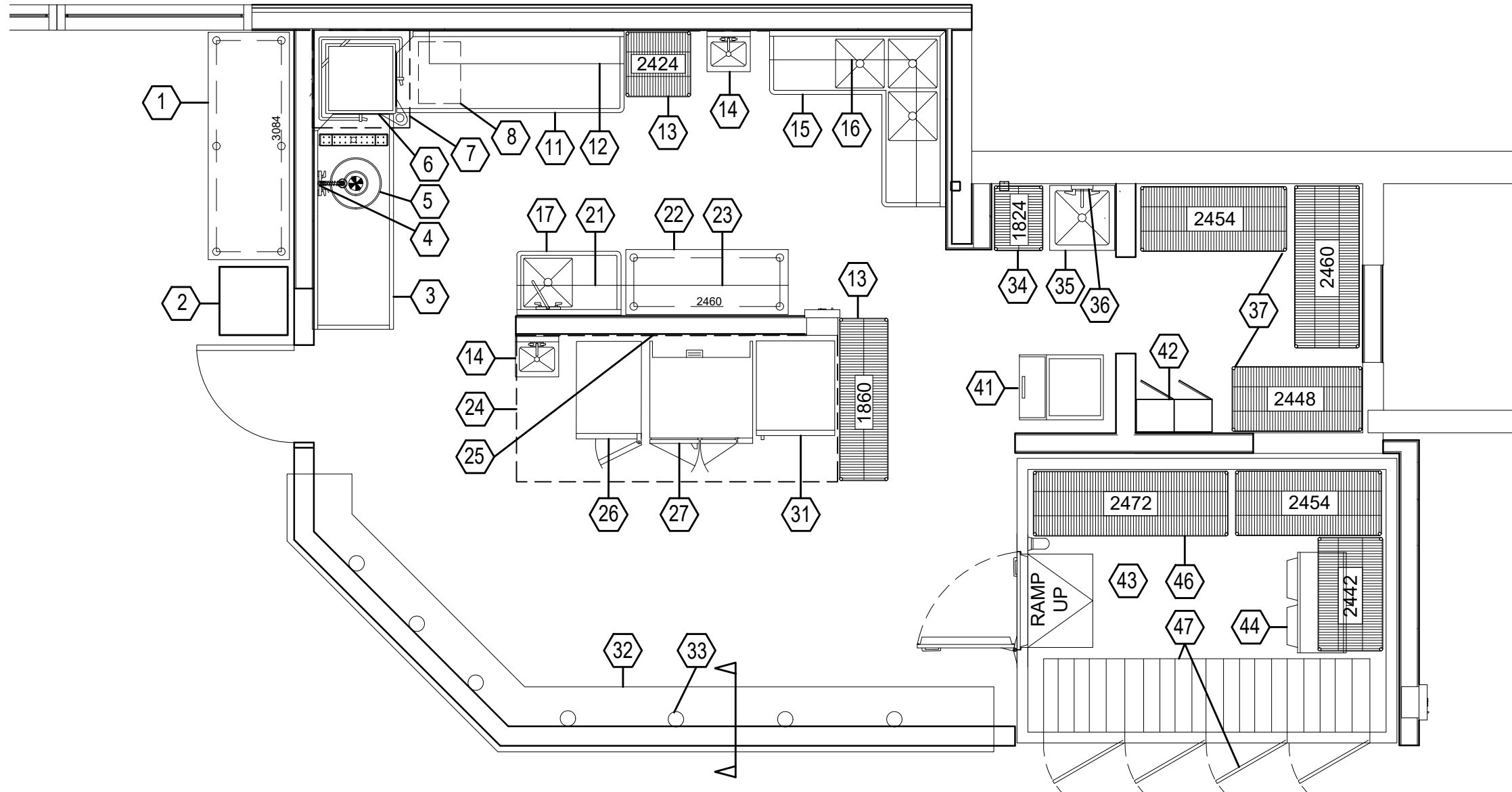
Issue Dates:
CD - 04/07/20

Sheet Title:

Kitchen
Equipment
Plan

Project No:
1935.03

Sheet No:
FS101



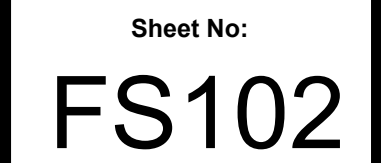
EQUIPMENT		SCHEDULE		
ITEM #	QTY.	DESCRIPTION	NOTES	PROVIDED BY
1	1	TRAY RETURN TABLE	UNDER SHELF	KEC
2	1	POS / CASHIER CART, MOBILE	CASTERS	KEC
3	1	DISH TABLE, SOILED		KEC
4	1	PRE RINSE SPRAYER		KEC
5	1	DISPOSAL, 2 HP		KEC
6	NIC	DISH MACHINE, HIGH TEMP		EXISTING
7	1	CONDENSATE HOOD		KEC
8	1	BOOSTER HEATER		KEC
9	NIC	SPARE NUMBER		
10	NIC	SPARE NUMBER		
11	1	DISH TABLE, CLEAN		KEC
12	2	WALL SHELVES	STAINLESS STEEL	KEC
13	2	CLEAN UTENSIL STORAGE	METRO MAX I	KEC
14	2	HAND SINK W/ SPLASH GUARDS		KEC
15	1	SINK, 3 COMPARTMENT, CORNER	OVERFLOWS AND LEVER DRAINS	KEC
16	2	WALL SHELVES	STAINLESS STEEL	KEC
17	1	SINK, VEG PREP	OVERFLOW AND LEVER DRAIN	KEC
18	NIC	SPARE NUMBER		
19	NIC	SPARE NUMBER		
20	NIC	SPARE NUMBER		
21	2	WALL SHELVES	STAINLESS STEEL	KEC
22	1	WORK TABLE	UNDER SHELF	KEC
23	2	WALL SHELVES	STAINLESS STEEL	KEC
24	1	EXHAUST HOOD, TYPE 2	SSSD STATES, NO COOKING WILL OCCUR	KEC
25	1 LOT	WALL FLASHING BELOW HOOD	STAINLESS STEEL	KEC
26	1	STEAMER, 10 PAN		KEC
27	1	CONVECTION OVEN, DOUBLE STACKED	CASTERS	KEC
28	NIC	SPARE NUMBER		
29	NIC	SPARE NUMBER		
30	NIC	SPARE NUMBER		
31	NIC	CABINET, HEATED		EXISTING
32	1	SERVING LINE, W/ BASE CABINET	STAINLESS STEEL TOP AND BASE	KEC
33	7	HEAT LAMPS		KEC
34	1	CLEANING SUPPLIES STORAGE	METRO MAX I	KEC
35	NIC	MOP SINK		GC
36	NIC	HOSE BIB FOR CHEM DISPENSER		GC
37	3	DRY STORAGE SHELVING	METRO MAX I	KEC
38	NIC	SPARE NUMBER		
39	NIC	SPARE NUMBER		
40	NIC	SPARE NUMBER		
41	1	ICE MACHINE W/ BIN	300 LBS / 24 HOURS	KEC
42	NIC	EMPLOYEE LOCKERS		GC
43	1	WALK IN COOLER	INTEGRAL FLOOR W /RAMP	KEC
44	1	WALK IN COOLER EVAP COIL		KEC
45	1	WALK IN COOLER CONDENSER	REMOTE, ON BUILDING ROOF	KEC
46	3	WALK IN COOLER SHELVING	METRO MAX I	KEC
47	4	GLASS DOORS W/ LED LIGHTING	27" DEEP INTERNAL SHELVING	KEC
END OF		ITEMS		
LEGEND:				
KEC = Kitchen Equipment Contractor NIC = Not In kitchen Contract GC = General Contractor				

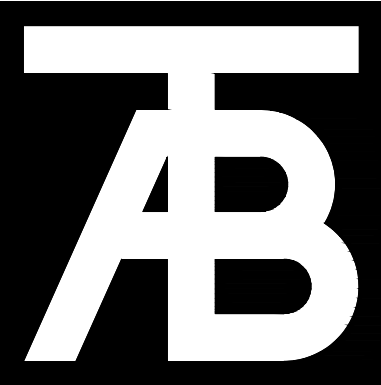
NOTE: KEC / GC shall disconnect, remove and store all equipment that will be reused in the new kitchen. Equipment shall be store in an environmentally controlled area and protected from freezing.



		EXHAUST		HOOD		SCHEDULE			
ITEM #	HOOD SIZE: L x W x D	HOOD TYPE	CFM	EXHAUST COLLAR(S)	COLLAR OPENING	S.P. / COLLAR	GLOBE LIGHTS	LIGHT / FAN SWITCHES	NOTES
7	42x 42x 24	2	600	1	6 x 6	0.50"	NA	NA	CONNECT FAN CONTROL RELAY TO DISH MACHINE TRIGGER. ADD DELAY CIRCUIT IF DESIRED
24									SEE CAPTIVE ARE DRAWINGS
END OF	ITEMS								THE HOOD RECOMMENDATION IS BASED ON INFO SUPPLIED TO KITCHEN TECH BY SSSD. STATING THERE WOULD BE NO COOKING OCCURRING IN THE KITCHEN. ONLY REHEATING OF PREVIOUSLY COOKED ITEMS.

LEGEND:
 OOF = Out Of Floor AFF = Above Finished Floor OOC = Out Of Ceiling NIC = Not In kitchen Contract KEC = Kitchen Equipment Contractor
 GC = General Contractor ROOF = Exterior roof of building EXT = Exterior of building





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Revisions:		
No	Description	Date

Issue Dates:
CD - 04/07/20

Sheet Title:
Exhaust Hood

Project No:
1935.03

Sheet No:
FS103

REVISIONS

DESCRIPTION	DATE

Denver Office
7300 S Alton Way Building 5, Suite B, Centennial, CO, 80112 PHONE: (720) 570-0981 FAX: (919) 227-5999 EMAIL: reg42@captivairc.com

Steamboat Springs MS - Steamboat Springs, CO

STEAMBOAT SPRINGS, CO, 80487

DATE: 2/14/2020

DWG.#:
4213819

DRAWN BY: MAR-42

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

MASTER DRAWING

SHEET NO.
1

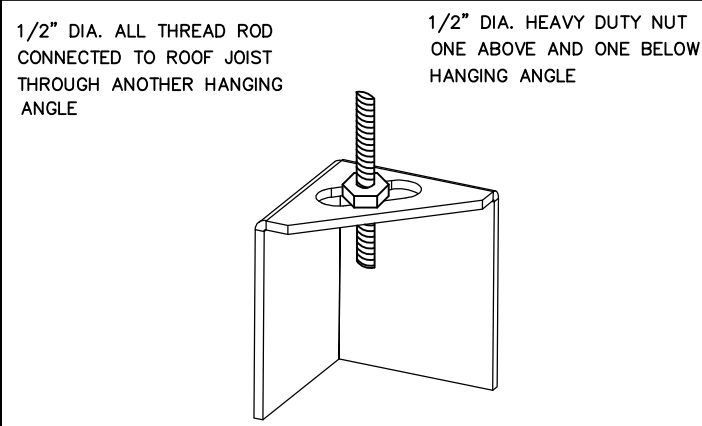
FOR QUESTIONS, CALL THE
COLORADO REGIONAL SALES OFFICE
7300 S. Alton Way, #5B, Centennial, CO 80112
PHONE: (720) 570-0981
FAX: (919) 227-5999

HOOD INFORMATION - Job#4213819

HOOD NO.	TAG	MODEL	LENGTH	MAX COOKING TEMP.	TYPE	APPLIANCE DUTY	DESIGN CFM/R	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S)				HOOD CONSTRUCTION	HOOD CONFIG.		SWITCHES	
									WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.	QUANTITY	LOCATION
1		5424 VHB-G-ND	10' 0"	700 Deg	II	N/A	150	1500			4"	12"	1500	1910	-0.249"	1 FAN	

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WGT
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	QUANTITY
1							4	Recessed	NO					NO	325 LBS



*HOOD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR
HANGING ANGLE IS PRE-PINCHED AT FACTORY

HANGING ANGLE DETAILS

HOOD STYLE / MODEL	450 DEGREES cfm/ft.	600 DEGREES cfm/ft.	700 DEGREES cfm/ft.
CANOPY ND2	150	200	250
WITH END PANELS (15% reduction)	127.5	170	212.5
SLOPED SNO-2	228	294	-
ISLAND ND-2WI	269	300	350
NDI	346	422	475

ETL HOOD LISTING DETAIL

EXHAUST CFM=LENGTH OF HOOD X CFM/IN.FT. (LOAD)

SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED

TOTAL DUCT AREA=144 X

CFM (C)

DUCT LENGTH=

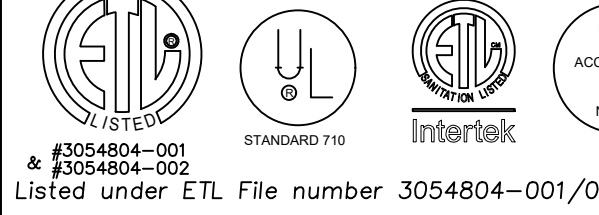
TOTAL DUCT AREA

DUCT DEPTH

*CAPTIVE-ARE VENTILATOR DUCT SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 1000 FPM.

CALCULATIONS UTILIZED

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:



3054804-001
3054804-002
Listed under ETL File number 3054804-001/002

BUILDING CODES

CAPTIVE-AIRE HOODS HAVE OPTIONAL CLEARANCE

REDUCTION SYSTEMS AVAILABLE AS FOLLOWS:

MATERIAL CLEARANCE REDUCTION SYSTEM

NON-COMBUSTIBLE NONE REQUIRED

LIMITED-COMBUSTIBLE 3" UNINSULATED STANDOFF

COMBUSTIBLE 1" INSULATED STANDOFF

CLEARANCE TO COMBUSTIBLES

INSTALLATION

- ALL ELECTRICAL "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
- ALL PLUMBING "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
- HANGING BRACKETS LOCATED AND WELDED AS SHOWN ON PLANS. ALL OTHER HANGER MATERIALS PROVIDED BY INSTALLING CONTRACTORS.
- ALL CONNECTIONS FROM CAPTIVE-AIRE DUCT PER MECHANICAL CONTRACTOR'S PLANS.
- COOKING EQUIPMENT TO SHUTOFF IN EVENT OF FIRE.
- EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
- ALL LIGHTS FIXTURE SHOWN INSTALLED BY CAPTIVE-AIRE ARE FACTORY PREWIRED. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
- LAMPS FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
- SEISMIC RESTRAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
- INSTALLING CONTRACTORS ASSUME ALL RELATED RESPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON THESE DOCUMENTS FOR ACCURACY, INTENT, AND ADHERENCE TO ALL APPLICABLE CODE REQUIREMENTS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

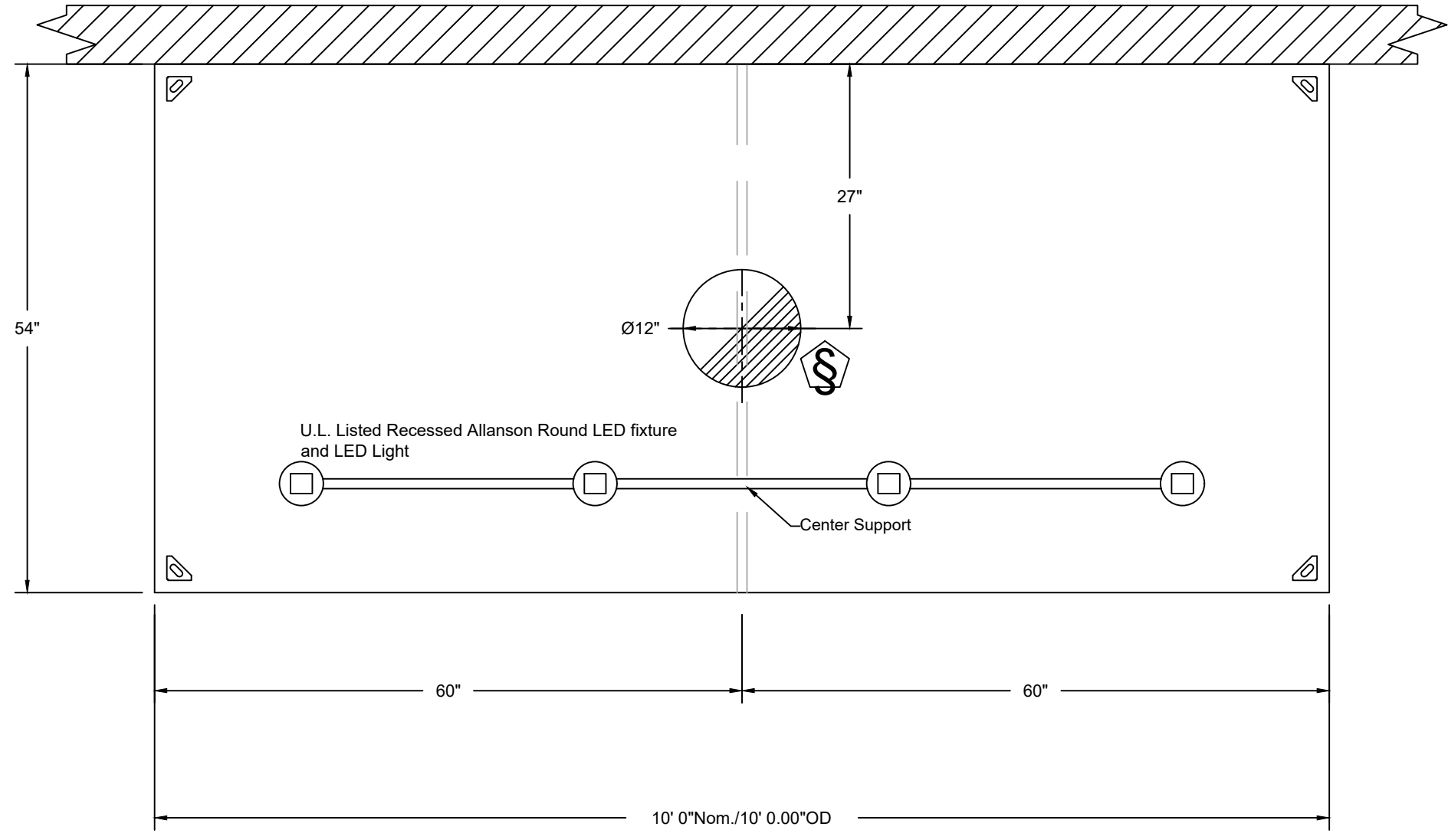
BALANCE

- KITCHEN HOODS MUST BE BALANCED WITH KITCHEN.
- KITCHEN SHALL BE NEGATIVE WITH RESPECT TO DINING AREA.
- RESTAURANT SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.

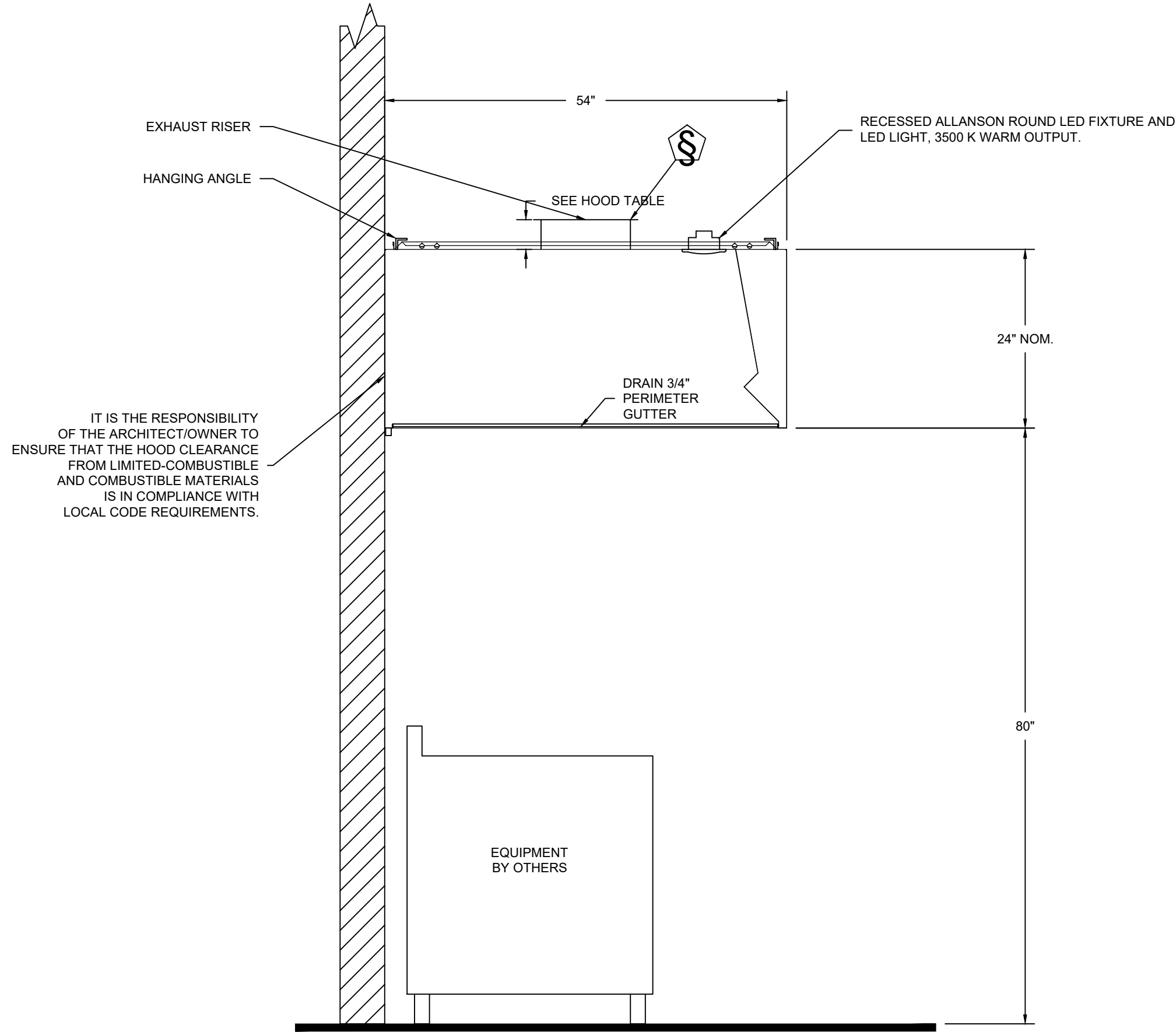
ADDITIONAL

- WRITTEN HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
- SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE RECEIVED BY FACTORY PRIOR TO COMMENCEMENT OF INSTALLATION.

GENERAL NOTES



PLAN VIEW - Hood #1
10' 0.00" LONG 5424VHB-G-ND



SECTION VIEW - MODEL 5424VHB-G-ND
HOOD - #1

System Design Verification (SDV)

If ordered, CAS Service will perform a System Design Verification (SDV) once all equipment has had a complete start up per the Operation and Installation Manual. Typically, the SDV will be performed after all inspections are complete.

Any field related discrepancies that are discovered during the SDV will be brought to the attention of the general contractor and corresponding trades on site. These issues will be documented and forwarded to the appropriate sales office. If CAS Service has to resolve a discrepancy that is a field issue, the general contractor will be notified and billed for the work. Should a return trip be required due to any field related discrepancy that cannot be resolved during the SDV, there will be additional trip charges.

During the SDV, CAS Service will address any discrepancy that is the fault of the manufacturer. Should a return trip be required, the general contractor and appropriate sales office will be notified. There will be no additional charges for manufacturer discrepancies.

