HUMBLE ISD

TIMBERWOOD MIDDLE SCHOOL RENOVATIONS

18450 TIMBER FOREST DR.

HUMBLE, TX 77346

BRW PROJECT NO.: 223005.00 CSP# 2026-03

FEBRUARY 23, 2024

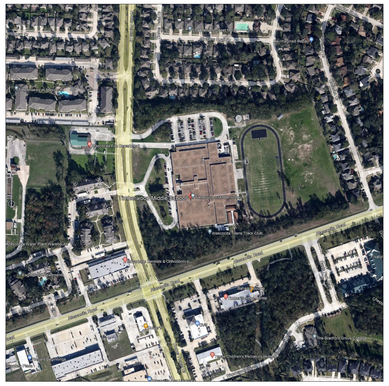
BOARD OF TRUSTEES

ROBERT SITTON	POSITION 1
ROBERT SCARFO	POSITION 2
CHRIS PARKER	POSITION 3
KEN KIRCHHOFER	POSITION 4
MARTINA LEMOND DIXON	POSITION 5
MARQUES HOLMES	POSITION 6
MICHAEL GRABOWSKI	POSITION 7

EXECUTIVE LEADERSHIP

DR. ROGER BROWN	SUPERINTENDENT
DR. TED LANDRY	DEPUTY SUPERINTENDENT

VICINITY MAP





DESIGN TEAM

BROWN REYNOLDS WATFORD ARCHITECTS — **ARCHITECT**
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HOUSTON, TEXAS 77345
281.361.3800

DALLY + ASSOCIATES — **STRUCTURAL/CIVIL ENGINEER**
9800 RICHMOND AVENUE, SUITE 460
HOUSTON, TX 77042
713.337.8881

SALAS O'BRIEN — **MEP ENGINEER/TECHNOLOGY**
10930 W. SAM HOUSTON PARKWAY N.
HOUSTON, TX 77064
281.664.1900

WRIGHTSON, JOHNSON, HADDON & WILLIAMS — **ACOUSTICS**
12175 NETWORK BLVD
SUITE 150
SAN ANTONIO, TEXAS 78249
210.561.9800

SYMBOL LEGEND

NORTH ARROWS (PLAN / TRUE)

WORKING POINT, CONTROL OR DATUM POINT

COLUMN DESIGNATION (0)

DETAIL BUBBLE (1 / A1.2)

BUILDING SECTION (1 / A1.2)

WALL SECTION (1 / A1.2)

FACE OF FINISH DIMENSIONING (1")

MATCH LINE

1 TITLE — SCALE — VIEW TITLE

SHEET NUMBERING: A 1 .1 — SHEET NUMBER / SHEET TYPE DESIGNATOR / DISCIPLINE DESIGNATOR

ALIGN

TEMPERED GLASS

REFERENCES: 1 / A1.1 — SHEET NUMBER / DETAIL NUMBER

A1.2 1 EXTERIOR ELEVATION

3 A1.2 1 INTERIOR ELEVATION

3111.10 KEYNOTE

A1 WALL TYPE

101 DOOR NUMBER

A WINDOW TYPE

1 REVISIONS

EXISTING CONSTRUCTION TO REMAIN

ROOM NAME 101A — ROOM NAME DESIGNATION & NUMBER
CP1 | RB1 | P1 | AC1 — CEILING FINISH / WALL FINISH / BASE FINISH / FLOOR FINISH

ROOM NAME 101A — ROOM NAME DESIGNATION & NUMBER
AC1 — CEILING FINISH
P1 — WALL FINISH
RB1 — BASE FINISH
CP1 — FLOOR FINISH

CT1 FINISH SYMBOL

NEW CONSTRUCTION

2 NEW FIRE RATED CONSTRUCTION

EXISTING WALL TO REMAIN

INDEX OF DRAWINGS

G1.1	TITLE SHEET	S503	TYPICAL COMPOSITE FRAMING DETAILS	M0.1	MECHANICAL COMPOSITE FLOOR PLAN	E3.1	ELECTRICAL POWER FLOOR PLAN - AREA A
G1.2	MASTER KEYNOTE LIST	S504	TYPICAL ROOF FRAMING DETAILS	M1.1	MECHANICAL DEMOLITION FLOOR PLAN - AREA A	E3.2	ELECTRICAL POWER FLOOR PLAN - AREA B
G1.3	TYPICAL MOUNTING HEIGHTS / ACCESSIBILITY	S505	TYPICAL COLD FORMED METAL FRAMING DETAILS	M1.2	MECHANICAL DEMOLITION FLOOR PLAN - AREA B	E3.3	ELECTRICAL POWER FLOOR PLAN - AREA C
G1.4	HARRIS COUNTY FIRE REVIEW SHEET	S506	TYPICAL CMU DETAILS	M1.3	MECHANICAL DEMOLITION FLOOR PLAN - AREA C	E3.4	ELECTRICAL POWER FLOOR PLAN - AREA D
G1.5	PHASING	S601	COMPOSITE FRAMING DETAILS	M1.4	MECHANICAL DEMOLITION FLOOR PLAN - AREA D	E3.5	ELECTRICAL POWER FLOOR PLAN - AREA E & F
G1.7	LIFE SAFETY PLAN	S701	ROOF FRAMING DETAILS	M1.5	MECHANICAL DEMOLITION FLOOR PLAN - AREA E & F	E3.6	ELECTRICAL POWER FLOOR PLAN - AREA G AND MEZZANINE
AS1.1	DEMO SITE PLAN	S702	ROOF FRAMING DETAILS	M1.6	MECHANICAL DEMOLITION ENLARGED FLOOR PLAN		
AS1.2	ARCHITECTURAL SITE PLAN	S703	ROOF FRAMING DETAILS	M1.7	MECHANICAL DEMOLITION ENLARGED FLOOR PLAN	E4.1	ELECTRICAL FLOOR PLAN - CULINARY ARTS
AS1.3	SITE DETAILS			M2.1	MECHANICAL FLOOR PLAN - AREA A	E4.2	ELECTRICAL ROOF PLAN
AS1.4	SITE DETAILS	A0.1	COMPOSITE FLOOR PLAN	M2.2	MECHANICAL FLOOR PLAN - AREA B	E5.1	ELECTRICAL ONE-LINE DIAGRAM
		A1.1A	DEMOLITION PLAN - AREA A	M2.3	MECHANICAL FLOOR PLAN - AREA C	E6.1	ELECTRICAL PANEL SCHEDULE
C0.00	HARRIS COUNTY CIVIL COVER SHEET	A1.1B	DEMOLITION PLAN - AREA B	M2.4	MECHANICAL FLOOR PLAN - AREA D	E6.2	ELECTRICAL PANEL SCHEDULE
C0.01	HARRIS COUNTY EXPRESS REVIEW SHEET	A1.1C	DEMOLITION PLAN - AREA C	M2.5	MECHANICAL FLOOR PLAN - AREA E & F	E7.1	ELECTRICAL DETAILS & SCHEDULES
C0.02	HARRIS COUNTY FLOOD CONTROL REVIEW SHEET	A1.1D	DEMOLITION PLAN - AREA D	M2.6	MECHANICAL FLOOR PLAN - AREA G		
C1.01	OVERALL SITE PLAN	A1.1E&F	DEMOLITION PLAN - AREA E & F	M2.7	MECHANICAL ROOF PLAN	T0.0	TECHNOLOGY NOTES AND LEGENDS
C1.02	FIRE ACCESS PLAN	A2.0	PARTITION TYPES	M3.1	MECHANICAL ENLARGED FLOOR PLAN	T0.1	TECHNOLOGY DEMOLITION SITE PLAN
C2.01	DEMOLITION PLAN - BUILDING EXPANSION	A2.1A	FLOOR PLAN - AREA A	M3.2	MECHANICAL ENLARGED FLOOR PLAN	T1.0	TECHNOLOGY SITE PLAN
C2.02	DEMOLITION PLAN - PARKING EXPANSION	A2.1B	FLOOR PLAN - AREA B	M4.1	MECHANICAL PIPING DIAGRAM	T1.1	TECHNOLOGY DEMOLITION FLOOR PLAN - AREA A
C3.01	LAYOUT PLAN - BUILDING EXPANSION	A2.1C	FLOOR PLAN - AREA C	M5.1	MECHANICAL DETAILS	T1.2	TECHNOLOGY DEMOLITION FLOOR PLAN - AREA B
C3.02	LAYOUT PLAN - PARKING EXPANSION	A2.1D	FLOOR PLAN - AREA D	M5.2	MECHANICAL DETAILS	T1.3	TECHNOLOGY DEMOLITION FLOOR PLAN - AREA C
C4.01	PAVING PLAN - BUILDING EXPANSION	A2.1E&F	FLOOR PLAN - AREA E & F	M5.3	MECHANICAL DETAILS	T1.4	TECHNOLOGY DEMOLITION FLOOR PLAN - AREA D
C4.02	PAVING PLAN - PARKING EXPANSION	A2.1G	FLOOR PLAN - AREA G	M6.1	MECHANICAL SCHEDULES	T1.5	TECHNOLOGY DEMOLITION FLOOR PLAN - AREA E & F
C5.01	UTILITY PLAN - BUILDING EXPANSION	A2.2G	MEZZANINE & CLERESTORY PLAN - AREA G			T2.0	TECHNOLOGY COMPOSITE PLAN
C5.02	UTILITY PLAN - PARKING EXPANSION	A2.3	ROOF PLAN	P1.0	PLUMBING SITE PLAN	T2.1	TECHNOLOGY FLOOR PLAN - AREA A
C6.01	GRADING PLAN BUILDING EXPANSION	A2.4	ROOF DETAILS	P1.1	PLUMBING DEMOLITION FLOOR PLAN - AREA A	T2.2	TECHNOLOGY FLOOR PLAN - AREA B
C6.02	GRADING PLAN PARKING EXPANSION	A3.1	EXTERIOR ELEVATIONS	P1.2	PLUMBING DEMOLITION FLOOR PLAN - AREA B	T2.3	TECHNOLOGY FLOOR PLAN - AREA C
C7.01	SWPPP PLAN BUILDING EXPANSION	A3.2	BUILDING SECTIONS	P1.3	PLUMBING DEMOLITION FLOOR PLAN - AREA C	T2.4	TECHNOLOGY FLOOR PLAN - AREA D
C7.02	SWPPP PLAN PARKING EXPANSION	A3.3	WALL SECTIONS & DETAILS	P1.4	PLUMBING DEMOLITION FLOOR PLAN - AREA D	T2.5	TECHNOLOGY FLOOR PLAN - AREA E & F
C7.03	SWQMP	A3.4	WALL SECTIONS	P1.5	PLUMBING DEMOLITION FLOOR PLAN - AREA E & F	T2.6	TECHNOLOGY FLOOR PLAN - AREA G
C7.04	DRAINAGE AREA MAP	A3.5	WALL SECTIONS	P1.6	PLUMBING DEMOLITION ROOF PLAN	T3.1	TECHNOLOGY ENLARGED PLAN
C7.05	DRAINAGE CALCULATIONS	A3.6	PLAN DETAILS	P2.1	PLUMBING UNDERFLOOR PLAN - AREA A	T5.1	TECHNOLOGY DETAILS
C8.00	SWPPP DETAILS	A4.1	DOOR SCHEDULE & DETAILS	P2.2	PLUMBING UNDERFLOOR PLAN - AREA B	T5.2	TECHNOLOGY DETAILS
C9.01	MISCELLANEOUS DETAILS 1 OF 3	A4.2	WINDOW TYPES	P2.3	PLUMBING UNDERFLOOR PLAN - AREA C	T5.3	TECHNOLOGY DETAILS
C9.02	MISCELLANEOUS DETAILS 2 OF 3	A4.3	DOOR & WINDOW DETAILS	P2.4	PLUMBING UNDERFLOOR PLAN - AREA G	T5.4	TECHNOLOGY DETAILS
C9.03	MISCELLANEOUS DETAILS 3 OF 3	A5.1	ENLARGED PLANS	P3.1	PLUMBING FLOOR PLAN - AREA A		
C10.01	TOPOGRAPHIC SURVEY 1 OF 2 (FOR REFERENCE ONLY)	A5.3	INTERIOR ELEVATIONS	P3.2	PLUMBING FLOOR PLAN - AREA B	AV0.00	GENERAL NOTES AND LEGENDS
		A5.4	INTERIOR ELEVATIONS	P3.3	PLUMBING FLOOR PLAN - AREA C	AV2.1B	FLOOR PLAN - AREA B
C10.02	TOPOGRAPHIC SURVEY 2 OF 2 (FOR REFERENCE ONLY)	A5.9	MILLWORK DETAILS	P3.4	PLUMBING FLOOR PLAN - AREA D	AV2.1G	FLOOR PLAN - AREA G
		A6.1A	REFLECTED CEILING PLAN - AREA A	P3.5	PLUMBING FLOOR PLAN - AREA E& F	AV3.1	ELEVATIONS
S001	3D VIEW AND SHEET LIST	A6.1B	REFLECTED CEILING PLAN - AREA B	P3.6	PLUMBING FLOOR PLAN - AREA G	AV6.1B	REFLECTED CEILING PLAN - AREA B
S101	GENERAL STRUCTURAL CRITERIA	A6.1C	REFLECTED CEILING PLAN - AREA C	P3.7	PLUMBING ROOF PLAN	AV6.1G	REFLECTED CEILING PLAN - AREA G
S102	GENERAL STRUCTURAL CRITERIA	A6.1D	REFLECTED CEILING PLAN - AREA D	P4.0	PLUMBING ENLARGED PLANS - CULINARY	AV11.00	AUDIO-VIDEO FUNCTIONAL LEGEND AND STANDARD DETAILS
S201	FOUNDATION PLAN - OVERALL	A6.1E&F	REFLECTED CEILING PLAN - AREA E & F	P4.1	PLUMBING ENLARGED PLAN - MEZZANINE		
S201G	FOUNDATION PLAN - AREA G	A6.1G	REFLECTED CEILING PLAN - AREA G	P5.0	PLUMBING RISER DIAGRAM - CULINARY		
S202	SECOND FLOOR AND LOW ROOF FRAMING PLAN - OVERALL	A7.1A	FINISH PLAN - AREA A	P6.0	PLUMBING DETAILS		
		A7.1B	FINISH PLAN - AREA B	P6.1	PLUMBING SCHEDULES		
S202G	LOW ROOF FRAMING PLAN - AREA G	A7.1C	FINISH PLAN - AREA C				
S203	ROOF FRAMING PLAN - OVERALL	A7.1D	FINISH PLAN - AREA D	E1.0	ELECTRICAL SITE PLAN		
S203G	ROOF FRAMING PLAN - AREA G	A7.1E&F	FINISH PLAN - AREA E & F	E1.1	ELECTRICAL DEMOLITION FLOOR PLAN - AREA A		
S204	ROOF FRAMING PLAN - OVERALL	A7.1G	FINISH PLAN - AREA G	E1.2	ELECTRICAL DEMOLITION FLOOR PLAN - AREA B		
S204G	HIGH ROOF FRAMING PLAN - AREA G			E1.3	ELECTRICAL DEMOLITION FLOOR PLAN - AREA C		
S301	DRILLED PIER & PLINTH SCHEDULE & DETAILS	QF1	FS GENERAL COORDINATION NOTES	E1.4	ELECTRICAL DEMOLITION FLOOR PLAN - AREA D		
S302	GRADE BEAM SCHEDULE AND DETAILS	QF1.1	FS EQUIPMENT PLAN	E1.5	ELECTRICAL DEMOLITION FLOOR PLAN - AREA E & F		
S303	COLUMN SCHEDULE & DETAILS	QF1.2	FS SPECIAL CONDITIONS & MECHANICAL PLAN	E2.1	ELECTRICAL LIGHTING FLOOR PLAN - AREA A		
S401	TYPICAL FOUNDATION DETAILS	QF1.3	FS PLUMBING PLAN	E2.2	ELECTRICAL LIGHTING FLOOR PLAN - AREA B		
S402	TYPICAL SITE FOUNDATION DETAILS	QF1.4	FS ELECTRICAL PLAN	E2.3	ELECTRICAL LIGHTING FLOOR PLAN - AREA C		
S403	FOUNDATION DETAILS (PIER)	QF1.5	FS EXHAUST HOODS	E2.4	ELECTRICAL LIGHTING FLOOR PLAN - AREA D		
S501	TYPICAL FRAMING DETAILS	QF1.6	FS ELEVATIONS	E2.5	ELECTRICAL LIGHTING FLOOR PLAN - AREA E & F		
S502	TYPICAL FRAMING DETAILS	QF1.7	FS SECTIONS & DETAILS	E2.6	ELECTRICAL LIGHTING FLOOR PLAN - AREA G AND MEZZANINE		

ARCHITECTURAL ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR	MNTD.	MOUNTED
B.O.	BOTTOM OF	NOM.	NOMINAL
C.J.	CONTROL JOINT	N.I.C.	NOT IN CONTRACT
CLR	CLEAR	O.C.(E.W.)	ON CENTER (EACH WAY)
DIA.	DIAMETER	O.H.	OPPOSITE HAND
DN	DOWN	RE:	REFERENCE
E.J.	EXPANSION JOINT	REQ./REQD	REQUIRED
EQ.	EQUAL	R.O.	ROUGH OPENING
F.F.	FINISH FLOOR	SIM.	SIMILAR
F.V.	FIELD VERIFY	SP.	PARKING SPACE
GA.	GAUGE	T.O.	TOP OF
M.O.	MASONRY OPENING	TYP.	TYPICAL
MAX.	MAXIMUM	W/	WITH
MIN.	MINIMUM	W.B.	WIND BRACE
		W.P	WORKING POINT

GENERAL NOTES

1. ALL WORK SHOULD BE DONE IN A NEAT AND WORKMANLIKE MANNER AND IN ACCORDANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES.

2. SUBMITTAL OF A PROPOSAL REPRESENTS THAT THE CONTRACTOR HAS VISITED THE SITE AND IS FAMILIAR WITH EXISTING CONDITIONS THAT MAY AFFECT ANY PORTION OF WORK.

3. THE PLANS AND SPECIFICATIONS CONTAINED HEREIN REPRESENT THE SCOPE OF WORK TO BE PROVIDED. CONTRACTOR SHALL PROVIDE ALL WORK SHOWN ON THESE DOCUMENTS AND ALL WORK THAT CAN BE REASONABLY INFERRED TO BE INCLUDED. ARCHITECT SHALL BE THE SOLE INTERPRETER OF THE INTENT OF THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THAT PORTION OF WORK.

4. PRIOR TO SUBMITTING A PROPOSAL, THE CONTRACTOR SHALL CHECK ON THE AVAILABILITY OF ALL MATERIALS SPECIFIED, AND QUALITY IN WRITING THE TIME OF PROPSAL IF ANY MATERIALS SHOULD REQUIRE A LONG LEAD TIME OR ARE NOT AVAILABLE WITHIN A REASONABLE TIME FRAME.

5. CONTRACTOR SHALL ACQUIRE AND PAY FOR ANY AND ALL PERMITS OR FEES THAT BE REQUIRED FOR THIS PROJECT.

6. CONTRACTOR SHALL INCLUDE ALL HAULING OF DEMOLISHED MATERIALS OR TRASH GENERATED BY THE PROJECT. TRASH SHALL BE REMOVED DAILY FROM THE AREAS BEING IMPROVED AND SHALL NOT BE ALLOWED TO ACCUMULATE.

7. CONTRACTOR SHALL THOROUGHLY PROTECT ALL EXISTING SURFACES DURING DEMOLITION AND CONSTRUCTION. ANY MATERIAL OR SURFACE THAT IS DAMAGED SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

8. THE CONTRACTOR REMAINS RESPONISBLE FOR DETAILS AND ACCURACY OF THE WORK, CONFIRMING QUANTITES FOR SELECTING FABRICATION AND CONSTRUCTION PROCESSES, FOR TECHNIQUES OF ASSEMBLY, FOR PERFORMING HIS WORK IN A SAFE MANNER AND ADHERING TO ALL APPLICABLE CODES.

9. UPON COMPLETION OF WORK, CONTRACTOR SHALL THOROUGHLY CLEAN ALL AREAS WHERE WORK OCCURED, AS WELL AS ANY "PATHS" THAT MAY HAVE BEEN ESTABLISHED DURING CONSTRUCTION. AREAS DESIGNATED BY THE DISTRICT FOR STORAGE OF THE CONTRACTOR'S EQUIPMENT AND MATERIALS SHALL BE LEFT CLEAN, FREE OF DEBRIS OR EXCESS MATERIALS.

ALTERNATES

ALT.1: STAFF PARKING
ADD NEW PARKING, SIDEWALK, AND DRIVE AISLE WHERE INDICATED.

ALT.2: VISITOR PARKING
ADD NEW PARKING, SIDEWALK AND DRIVE AISLE WHERE INDICATED.

ALT.3: DAYLIGHTING
ADD SKYLIGHTS THROUGHOUT NEW AND EXISTING AND EXTERIOR WINDOWS AT AREAS C AND D.

REGISTERED ARCHITECT — JEFFREY S. CHANCE — 18762 — STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HOUSTON, TEXAS 77345
281-361-3800
WWW.BRWARCH.COM

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DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

G1.1

TITLE SHEET

MASTER KEYNOTE LIST

0100 DIVISION 01 - GENERAL REQUIREMENTS
0200 DIVISION 02 - EXISTING CONDITIONS (TO REMAIN, U.N.O.) & DEMOLITION
0220.02 EXISTING LIGHT POLE
0220.03 EXISTING POWER POLE
0220.10 EXISTING FIRE HYDRANT
0220.14 EXISTING MANHOLE COVER
0220.26 EXISTING CHAIN-LINK FENCE
0220.27 EXISTING GATE
0220.33 EXISTING MASONRY WALL
0220.35 EXISTING STEEL COLUMN
0220.39 EXISTING COUNTERTOP
0220.43 EXISTING ROOFING SYSTEM
0220.44 EXISTING ROOF DRAIN
0220.46 EXISTING DOOR
0220.53 EXISTING LOCKERS
0220.54 EXISTING FLAGPOLE
0220.56 EXISTING FIRE DEPARTMENT CONNECTION
0220.69 EXISTING LIGHT FIXTURE
0220.73 EXISTING CELL TOWER
0220.75 EXISING STRUCTURE
0220.76 EXISTING EMERGENCY EXIT SIGN
0220.77 EXISTING EXPOSED FIRE EXTINGUISHER
0220.78 EXISTING RECESSED FIRE EXTINGUISHER
0220.79 EXISTING EMERGENCY EXIT SIGN
0220.80 EXISTING ELECTRICAL OUTLET
0220.81 EXISTING TACK/DRY ERASE BOARD
0220.82 EXISTING LIGHT SWITCHES
0220.83 EXISTING COUNTERTOP
0220.85 EXISTING WALL MOUNTED CUBBIE
0220.87 EXISTING OPERABLE WALL
0220.89 EXISTING DRY ERASE BOARD
0220.90 EXISTING TACK BOARD
0220.91 EXISTING TROPHY CASE
0220.92 EXISTING BOLLARD
0220.93 EXISTING ELECTRICAL PRIMARY JUNCTION BOX
0220.95 EXISTING BUILT IN INSTRUMENT STORAGE TO REMAIN
0220.96 EXISTING WALL MOUNTED LIGHT
0220.97 EXISTING ROOF ACCESS DOOR
0220.98 EXISTING OVERFLOW DRAIN
0220.99 EXISTING ROOF LADDER
0220.100 EXISTING ROOF ACCESS LADDER
0220.101 EXISTING WASH STATION
0220.103 EXISTING TALL TEACHER'S CABINET
0220.105 EXISTING PROJECTION SCREEN
0220.106 EXISTING DESK
0220.108 PROTECT/ REPAINT EXISTING DOOR
0220.109 EXISITNG OUTSIDE AIR INTAKE
0220.110 EXISTING EXHAUST FAN
0240.01 REMOVE EXISTING TREE
0240.17 REMOVE EXISTING BASE CABINET
0240.18 REMOVE EXISTING WALL CABINET
0240.19 REMOVE EXISTING DOOR AND FRAME
0240.23 REMOVE PORTION OF EXISTING WALL
0240.24 REMOVE EXISTING GYPSUM BOARD CEILING
0240.26 REMOVE EXISTING ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM
0240.27 REMOVE EXISTING FLOORING AND WALL BASE
0240.28 REMOVE EXISTING LIGHT FIXTURE
0240.29 REMOVE EXISTING SECURITY CAMERA
0240.32 CAREFULLY REMOVE AND SALVAGE EXISTING WALL AND CEILING MOUNTED DEVICES INCLUDING TOUCHTILE ALARM DEVICES, CLOCKS, SPEAKERS, AND WIRELESS ACCESS DEVICES. REINSTALL DEVICES AT NEW WALLS AND CEILINGS
0240.33 REMOVE EXISTING BOLLARDS
0240.40 REMOVE EXISTING TRACK AND RE-GRADE (RE: CIVIL)
0240.41 REMOVE EXISTING LONG JUMP RUNWAY AND PIT
0240.42 REMOVE EXISTING CONCRETE WITH RUBBER OVERLAY
0240.43 REMOVE EXISTING POLE VAULT RUNWAY AND FOUNDATION
0240.44 REMOVE AND SALVAGE EXISTING FOOTBALL GOAL POST
0240.45 REMOVE EXISTING THROWING PLATFORM
0240.46 REMOVE METAL SHELVING
0240.48 REFINISH AND SALVAGE EXISTING WORK STATION
0240.49 REMOVE AND SALVAGE EXISTING DISPLAY CASE
0240.50 REMOVE AND SALVAGE EXISTING SAWS
0240.52 REMOVE EXISTING TROPHY CASE
0240.53 REMOVE EXISTING WALL HYDRANT
0240.55 RELOCATE EXISTING OVERFLOW DRAIN OUTLET. (RE: PLUMBING)
0240.56 REMOVE EXISTING WATER FOUNTAIN (RE: PLUMBING)
0240.57 REMOVE EXISTING WORK STATION
0240.58 REMOVE EXISTING TACK/ DRY ERASE BOARD
0240.59 DEMOLISH SIDEWALN AND CURB AT THIS AREA TO ACCOMMODATE NEW PARKING (RE: CIVIL)
0240.60 REMOVE CURB AND EARTH WORK TO PREPARE FOR NEW PAVING AT THIS AREA
0240.61 RELOCATE EXISTING DUMPSTERS
0240.62 RELOCATE EXISTING STORAGE SHED ON SITE AT NEW LOCATION AS DIRECTED BY HUMBLE ISD.
0240.63 REMOVE EXISTING CHAINLINK FENCE AND BOLLARDS
0240.64 REMOVE PORTION OF SIDEWALK AND CURB
0240.65 REMOVE EXISTING CHAINLINK FENCE AND GATES
0240.66 REMOVE EXISTING BIKE RACKS, CHAINLINK FENCE, GATES AND PAVING
0240.67 REMOVE INLETS (RE:CIVIL)
0240.68 RELOCATE STORAGE CONTAINER TO NEW LOCATION AS DIRECTED BY HUMBLE ISD
0240.69 RELOCATE PICNIC TABLES TO NEW LOCATION ON SITE AS DIRECTED BY HUMBLE ISD
0240.70 REMOVE EXISTING PAVEMENT
0240.71 DEMOLISH PORTION OF FENCE
0240.72 RESET HEIGHTS OF SANITARY SEWER M.H. FOR NEW DRIVEWAY (RE: CIVIL)
0240.73 DEMO EXISTING TREES AS NEEDED MINIMAL IMPACT
0240.75 REMOVE EXISTING WALK OFF CARPET
0240.76 REMOVE EXISTING ACCESSIBILITY SIGN
0240.77 REMOVE EXISTING ELECTRICAL OUTLET
0240.78 RELOCATE EXISTING ELECTRICAL CONDUIT
0240.79 RELOCATE EXISTING DRY ERASE BOARD
0240.80 REMOVE WALL MOUNTED BOX, OUTLET TO BE RELOCATED UNDER DESK
0240.81 DEMOLISH EXISTING WINDOW
0240.82 DEMOLISH SPACE FOR NEW DOOR (RE: A2.1B)
0240.83 DEMOLISH OUT 3" DOOR FOR NEW 42" DOOR AND WALL AS NEEDED
0240.86 RELOCATE EXISTING LIGHT SWITCH TO PLAN RIGHT SIDE OF DOOR
0240.90 REMOVE EXISTING DRY ERASE BOARD
0240.92 REMOVE EXISTING SINK
0240.93 REMOVE EXISTING DESK
0240.94 DEMOLISH EXISTING CONCRETE FOR NEW ELECTRICAL
0240.97 REMOVE EXISTING COUNTERTOP AND CABINETS
0240.99 DEMOLISH EXISTING MASONRY WALL TO PREPARE FOR WINDOW INSTALLATION
0240.102 REMOVE EXISTING FLOOR AS REQUIRED
0240.103 REMOVE EXISITNG ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM AS REQUIRED (RE:MEP)
0240.104 REMOVE EXISTNG LIGHT FIXTURE AS REQUIRED (RE:MEP)
0240.105 DEMOLISH EXISTING EXTERIOR WALL TO MAKE ROOM FOR NEW WINDOW SYSTEM (RE:A2.1A)
0240.110 REMOVE EXISTING EXIT SIGN
0240.112 REFER TO MEPT FOR ABOVE CEILING WORK IN THIS AREA
0240.113 REMOVE EXISTING PAVEMENT MARKING AND PARKING SIGNS
0240.114 SAW CUT AND REMOVE EXISTING CURB AND SIDEWALK TO ACCOMMODATE NEW PARKING
0240.115 ALT 2- CLEAR AREA AND PREPARE FOR NEW CONCRETE PARKING AND SIDEWALKS
0240.116 REMOVE FLOORING AND SAWCUT SLAB FOR NEW PLUMBING. (RE: PLUMBING)
0240.117 MODIFY ROOF AND STRUCTURE ABOVE AS REQUIRED TO ACCOMMODATE NEW SKYLIGHTS IN THIS ROOM. REFER TO ROOF PLAN AND RCP FOR NEW SKYLIGHT LOCATIONS
0240.118 REMOVE EXISTING CHAIN-LINK BACKSTOP
0240.119 REMOVE EXISTING PORTION OF WALL
0240.120 REMOVE AND SALVAGE EXISTING TEACHER DESK
0240.122 SAWCUT AND REPLACE EXISTING DRIVE TO RUN NEW LIGHTING AND CAMERA CABLES AS REQUIRED
0240.123 REMOVE EXISTING FIRE ALARM CONTROL PANEL
0300 DIVISION 03 - CONCRETE
0310.05 VOID FORMS
0310.11 EXPANSION JOINT PREMOLDED EXPANSION FILLER
0320.01 DOWEL INTO CONCRETE SLAB
0320.02 STEEL REINFORCING
0320.04 L-STONE ANCHOR WITH DOWEL
0330.01 CONCRETE
0330.02 CONCRETE SLAB
0330.05 CONCRETE GRADE BEAM
0330.07 CONCRETE FOOTING
0330.13 CONCRETE EQUIPMENT PAD
0330.18 WOOD BOLLARD
0330.19 REMOVABLE BOLLARD (STEEL HOLLOW)
0330.20 BOLLARD PADLOCK TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS
0330.21 RECESSED CONCRETE SLAB
0330.22 CONCRETE PIER
0360.03 FILL WITH GROUT
0400 DIVISION 04 - MASONRY
0405.01 FLASHING END DAM
0405.02 MORTAR NET
0405.05 MASONRY VENEER WEEP / VENT
0420.01 ADJUSTABLE MASONRY WALL TIES AT 16" O.C.E.W.
0420.02 CONCRETE MASONRY UNIT HORIZONTAL REINFORCING
0420.10 4" CONCRETE MASONRY UNITS
0420.13 6" CONCRETE MASONRY UNITS
0420.14 8" CONCRETE MASONRY UNITS
0420.16 8" BURNISHED CONCRETE MASONRY UNITS
0420.18 12" CONCRETE MASONRY UNITS
0420.20 BULLNOSE CMU
0420.23 CONCRETE MASONRY BOND BEAM
0420.25 ADHERED THIN BRICK
0420.27 KING SIZE BRICK
0420.28 4" TALL CONCRETE MASONRY UNIT STARTER COURSE
0420.29 INVERTED BOND BEAM WITH FIELD GROUND EDGE RADIUS
0420.30 ACCENT KING SIZE BRICK
0470.01 CAST STONE
0470.04 CAST STONE LINTEL WITH DRIP
0470.05 CAST STONE SILL WITH DRIP
0470.10 CAST STONE ANCHORS
0500 DIVISION 05 - METALS
0510.01 STEEL STRUCTURE (RE: STRUCTURAL)
0510.02 STEEL COLUMN (RE: STRUCTURAL)
0510.04 STEEL ANGLE (RE: STRUCTURAL)
0510.05 STEEL CHANNEL (RE: STRUCTURAL)
0510.06 STEEL LINTEL (RE: STRUCTURAL)
0510.07 STEEL TUBE (RE: STRUCTURAL)
0510.08 STEEL BENT PLATE (RE: STRUCTURAL)
0510.10 STEEL BEAM (RE: STRUCTURAL)
0510.12 HOIST BEAM (RE:STRUCTURAL)
0520.01 STEEL JOIST (RE: STRUCTURAL)
0530.01 METAL FLOOR DECK (RE: STRUCTURAL)
0530.02 METAL ROOF DECK (RE: STRUCTURAL)
0530.04 METAL DECKING WITH TAPERED INSULATION
0540.01 COLD-FORMED METAL FRAMING
0540.02 6" METAL STUDS (C.F.M.F.) AT 16" O.C. MAXIMUM
0540.06 2" COLD-FORMED METAL FURRING CHANNEL
0540.07 2" VERTICAL COLD-FORMED METAL FURRING CHANNELS AT 16" O.C. HORIZONTALLY
0540.08 SILL GASKET
0540.12 COLD-FORMED METAL HEADER
0540.16 COLD-FORMED METAL SUB-GIRT
0540.18 3 5/8" METAL STUDS (C.F.M.F.) AT 16" O.C. MAXIMUM
0540.22 CONTINUOUS STEEL STRAP CLOSURE AS REQUIRED
0550.02 3" X 3" X 1/4" STEEL ANGLE
0550.15 STEEL CHANNEL
0550.19 6" STEEL PIPE BOLLARD. FILL WITH CONCRETE (GALVANIZED AT EXTERIOR LOCATIONS)
0550.24 METAL CANOPY
0550.33 METAL LADDER
0550.34 NEW STEEL ROOF ACCESS LADDER
0550.41 1 1/4" STANDARD STEEL PIPE GUARDRAIL
0550.42 REMOVABLE 1 1/4" DIAMETER STANDARD STEEL PIPE GUARDRAIL, 5'-0" LENGTH MAXIMUM U.N.O.
0550.55 STEEL WEDGES (4) WELDED TO PIPE SLEEVE AT 90 DEGREES TO CENTER POLE
0550.56 2" HOT-DIPPED GALVANIZED STEEL PIPE GOOSENECK
0550.57 2" HOT-DIPPED GALVANIZED STEEL PIPE
0550.59 HOT-DIPPED GALVANIZED STEEL PIPE U-BRACKET CLAMP
0550.64 2 3/8" DIAMETER HOT-DIPPED GALVANIZED STEEL SIGN POST
0570.14 NEW ROOF ACCESS LADDER
0570.15 NET POST METAL SLEEVE
0600 DIVISION 06 - WOOD, PLASTICS, & COMPOSITES
0610.01 SHIM AS REQUIRED
0610.02 1X WOOD BLOCKING
0610.03 2X WOOD BLOCKING
0610.04 2X PRESSURE TREATED WOOD BLOCKING
0610.05 1/2" EXTERIOR GRADE PLYWOOD
0610.06 1/2" EXTERIOR GYPSUM SHEATHING
0610.11 2 X 6 WOOD FRAMING
0610.37 2 X 4 WOOD FRAMING
0610.38 2 X 6 MIN. PRESSURE TREATED WOOD NAILER
0610.39 FIRE TREATED 2X WOOD FRAMING
0620.02 1X HARDWOOD TRIM
0620.20 WOOD SOFFIT
0640.07 3/4" PLYWOOD
0640.10 3/4" HARDWOOD VENEER MEDIUM DENSITY FIBERBOARD
0640.13 1/2" MEDIUM DENSITY FIBERBOARD
0640.17 DRAWER GLIDE
0640.21 WIRE GROMMET
0640.22 CABINET PULLS
0640.24 ADJUSTABLE METAL SHELF STANDARDS. PROVIDE BLOCKING IN WALL AS REQUIRED
0640.25 HARDWOOD VENEER PLYWOOD SHELVES (5) ON ADJUSTABLE METAL STANDARDS. PROVIDE BLOCKING IN WALL AS REQUIRED
0640.32 SHELF BRACKET
0640.39 3/4" PLASTIC LAMINATE CLAD PLYWOOD DRAWER WITH 1/4" HARDWOOD BOTTOM
0640.45 1/4" HARDWOOD CABINET BACK
0640.46 3/4" PLASTIC LAMINATE CLAD PLYWOOD CABINET DOOR
0640.60 1/4" RUBBER MAT AT PULL OUT TRASH / RECYCLING DRAWER
0640.61 NEW MODIFIED COUNTERTOP TO BE PLACED ON MODIFIED EXISTING LEG SUPPORTS
0700 DIVISION 07 - THERMAL & MOISTURE PROTECTION
0720.02 6 1/4" BATT INSULATION
0720.05 2" CONTINUOUS MINERAL WOOL INSULATION
0720.09 ATTIC FLOOR INSULATION (R-38)
0720.16 SEMI-RIGID MINERAL WOOL INSULATION FILLER / BACKER MATERIAL
0725.01 UNDERSLAB VAPOR BARRIER
0725.04 FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0725.05 SELF-ADHERING DETAIL TRANSITION MEMBRANE
0725.07 6 MIL VAPOR BARRIER
0740.02 PREFINISHED METAL WALL PANEL SYSTEM
0740.03 PREFINISHED METAL SOFFIT PANEL SYSTEM
0740.04 PREFINISHED METAL PANEL TRIM
0740.05 Z-CLOSURE
0740.09 COMPOSITE FRAMING SUPPORT SYSTEM
0740.12 METAL PANEL
0740.13 PREFINISHED METAL SOFFIT ANGLE
0740.14 CONTINUOUS METAL FLASHING CLOSURE AS REQUIRED
0740.15 PREFINISHED ALUMINUM COMPOSITE PANEL SYSTEM
0750.01 ROOFING BASE FLASHING SYSTEM
0750.03 4" CANT STRIP
0750.04 PATCH AND REPAIR ROOFING SYSTEM TO MATCH EXISTING. MAINTAIN EXISTING WARRANTY
0750.07 MODIFIED BITUMEN MEMBRANE ROOFING SYSTEM
0750.08 TWO (2) LAYERS OF 2.2" RIGID ROOF INSULATION (R-25)
0750.09 MEMBRANE ROOFING SYSTEM
0750.10 TAPERED ROOF INSULATION
0750.12 WALKWAY PAD
0750.13 LIQUID ROOF FLASHING SYSTEM
0750.14 1/2" ROOF COVER BOARD
0750.15 3/4" ROOF COVER BOARD
0760.01 THROUGH-WALL FLASHING WITH WEEPS AT 2'-0" O.C. AND MORTAR NET
0760.02 THROUGH-WALL FLASHING (WITH WEEPS AT 2'-0" O.C. AS REQUIRED)
0760.10 GALVANIZED STRAP
0760.13 PREFINISHED METAL FASCIA
0760.14 METAL CLEAT
0760.32 CONTINUOUS CLEAT
0760.33 PREFINISHED METAL JAMB FLASHING
0760.34 PREFORMED PREFINISHED SILL PAN METAL FLASHING SET IN BED OF SEALANT
0760.35 PREFINISHED METAL THROUGH WALL FLASHING WITH HEMMED DRIP EDGE
0760.36 PREFINISHED METAL FLASHING CLOSURE
0760.40 TERMINATION BAR AND PREFINISHED FLASHING CAP
0760.45 PREFINISHED BRAKE METAL FLASHING OR CLOSURE TRIM
0760.49 NEW ROOF DRAIN
0760.50 NEW OVERFLOW DRAIN
0760.51 OVERFLOW DRAIN RELOCATION RE:PLUMB
0770.04 PREFINISHED METAL REGLET WITH SEALANT AND COUNTERFLASHING
0770.05 GALVANIZED METAL REGLET WITH SEALANT AND COUNTERFLASHING
0770.07 PREFABRICATED EQUIPMENT SUPPORT
0770.08 EQUIPMENT CURB WITH GALVANIZED COUNTERFLASHING
0770.09 ROOF HATCH WITH INTEGRAL CURB AND COUNTERFLASHING
0770.12 24 GAUGE HOODED PAN, FILL WITH 1" POURABLE SEALANT OVER ROOFING GRANULES
0770.13 24 GAUGE GALVANIZED CAP. MITER, RIVET AND SOLDER ENDS WATERTIGHT. ANCHOR 12" O.C. (ONE MIN. PER SIDE)
0770.16 4 LB. LEAD FLASHING. SET IN PLASTIC CEMENT AND EXTEND 2'-0" FROM DRAIN
0770.24 CONTINUOUS PREFINISHED VENTED SCREED
0770.29 ROOF DECK PEDESTAL SYSTEM
0770.31 NEW ROOF SITS ON TOP OF EXISTING ROOF
0770.32 NEW ROOF ACCESS HATCH
0770.33 TERMINATION BAR AND SEALANT. REAPPLY WEATHER BARRIER ONCE INSTALLED.
0790.01 SEALANT WITH BACKER ROD AS REQUIRED
0790.02 CAULKING
0790.03 SEAL WALL TO DECK
0790.05 METAL ROOF EXPANSION JOINT COVER
0790.07 SET IN BED OF SEALANT
0790.10 RETICULATED FOAM BAFFLE
0790.11 ROOF EXPANSION CURB
0800 DIVISION 08 - OPENINGS
0810.01 ALUMINUM DOOR FRAME
0810.02 HOLLOW METAL FRAME
0810.03 HOLLOW METAL STOP
0810.04 HOLLOW METAL DOOR AND FRAME
0810.05 JAMB ANCHOR (3 PER JAMB)
0810.06 HOLLOW METAL DOOR
0810.08 SOLID CORE WOOD DOOR
0810.19 FIRE RATED DOOR
0830.14 OVERHEAD COILING DOOR
0830.15 OVERHEAD COILING DOOR HOUSING
0830.18 DOOR TRACK
0830.26 SOUND CONTROL DOOR ASSEMBLY
0830.27 COILING GARAGE DOOR GOOSENECK
0840.01 ALUMINUM STOREFRONT
0840.02 ALUMINUM STOREFRONT DOOR
0840.05 CONTINUOUS ALUMINUM SILL PAN FLASHING WITH BACK AND END DAMS
0840.12 ALUMINUM CURTAIN WALL
0840.14 ALUMINUM STOREFRONT SUBSILL
0860.02 NEW SKYLIGHT
0860.03 NEW PYRAMID SKYLIGHT
0870.01 METAL THRESHOLD. SET IN BED OF SEALANT
0870.10 DOOR BOTTOM WITH DRIP SKIRT
0870.11 DRIP CAP
0880.01 GLASS TYPE MG#1A (MONOLITHIC CLEAR, ANNEALED)
0880.02 GLASS TYPE MG#1B (MONOLITHIC CLEAR, HEAT STRENGTHENED)
0880.34 GLASS TYPE LG#13 (LAMINATED, ATTACK-RESISTANT)
0880.38 GLASS TYPE IG#4 (INSULATED CLEAR, LOW-E)
0880.44 GLASS TYPE IG#10A (INSULATED SPANDREL)
0880.63 GLASS TYPE IGL#8 (ATTACK RESISTANT INSULATED, LAMINATED, LOW-E)
0900 DIVISION 09 - FINISHES
0920.04 3 5/8" METAL STUDS (20 GAUGE MINIMUM) AT 16" O.C.
0920.05 4" METAL STUDS AT 16" O.C.
0920.07 6" METAL STUDS (20 GAUGE MINIMUM) AT 16" O.C.
0920.08 STUD BRACE AT 4'-0" O.C. MAX.
0920.10 7/8" FURRING CHANNELS AT 16" O.C.
0920.11 1/2" RESILIENT CHANNELS AT 16" O.C. HORIZONTAL
0920.13 4" METAL C-H STUDS AT 2'-0" O.C.
0920.15 METAL SUPPORT SYSTEM WITH UPLIFT BRACING
0920.26 5/8" CEMENTITIOUS BACKER BOARD
0920.28 5/8" GYPSUM BOARD (TYPE X)
0920.31 1/2" GYPSUM BOARD (TYPE X)
0920.32 2 LAYERS OF 1/2" GYPSUM BOARD
0920.33 1" SHAFT LINER
0920.34 GYPSUM BOARD GUSSETS AT 16" O.C. VERTICALLY
0920.35 CORNER BEAD, TYPICAL
0920.36 J-MOULD, TYPICAL
0920.37 GYPSUM BOARD CONTROL JOINT
0920.42 L-BEAD, TYPICAL
0920.43 2 LAYERS OF 1/2" EXTERIOR GYPSUM SHEATHING
0930.01 CERAMIC TILE
0930.07 TILE WATERPROOFING MEMBRANE
0950.01 SUSPENDED ACOUSTICAL LAY-IN TILE CEILING
0950.04 1" FIBERGLASS ACOUSTICAL LAY-IN TILE CEILING
0950.08 SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
0950.10 MODIFIED 24"X24" SUSPENDED CEILING GRID WITH TBD
0950.12 SUSPENDED GYPSUM BOARD CEILING SYSTEM
0950.13 GYPSUM BOARD CEILING SYSTEM
0950.14 CEILING TILE SUSPENSION CORD
0960.01 FLOORING AS SCHEDULED
0960.08 WOOD ATHLETIC FLOORING SYSTEM
0960.10 4" VENTED WOOD FLOORING BASE
0960.13 4" RESILIENT BASE
0960.25 PATCH AND REPAIR EXISTING TILE
0960.26 PATCH AND REPAIR EXISTING CARPET
0960.27 PATCH AND REPAIR EXISTING CONCRETE
0960.28 2" WIDE PAINTED GAME LINE STRIPE.
0960.29 2'-0" WIDE PAINTED GAME LINE PERIMITER.
0960.30 INSERT PLATE
0960.31 1.5"- 2" EXPANSION VOID
0960.32 25/32" MAPLE FLOORING
0960.34 ECLIPSE SUBFLOOR PANEL
0960.35 ANCHOR AND SLEEVE
0960.36 SOLID STOP BLOCK
0960.37 1/4" THRESHOLD PLATE
0960.38 3"X 4" VENTED COVE BASE
0980.03 1" THICK, FABRIC-WRAPPED ACOUSTICAL WALL PANELS
0980.04 2" THICK, FABRIC-WRAPPED ACOUSTICAL WALL PANELS
0980.13 SUSPENDED ACOUSTICAL PANELS
0980.14 3" THICK FABRIC-WRAPPED ACOUSTICAL WALL PANELS
0980.16 ACOUSTIC WALL PANELS
1000 DIVISION 10 - SPECIALTIES
1010.02 DRY ERASE BOARD
1010.04 TACKBOARD
1010.23 ROOM NUMBER SIGN
1010.33 POLE MOUNTED SIGNAGE - "H.C. PARKING ONLY"
1010.34 POLE MOUNTED SIGNAGE - "VAN-ACCESSIBLE"
1010.47 MARKERBOARD
1010.48 INSTALL SALVAGED PROJECTION SCREEN
1010.49 BUILDING ENTRANCE IDENTIFICATION SIGN. RE: G1.7 FOR NUMBER SEQUENCE
1010.50 TOUCHTILE EXIT SIGN
1020.33 STAINLESS STEEL MOP RACK
1020.47 NEW SHELF AT 9' 4"
1020.48 FRAMELESS MIRRORS (RE: ELEVATION)
1040.01 LOCKBOX FOR FIRE DEPARTMENT KEY ACCESS (COORDINATE LOCATION WITH AUTHORITY HAVING JURISDICTION)
1040.02 FIRE EXTINGUISHER AND WALL BRACKET
1040.03 FIRE EXTINGUISHER AND SEMI-RECESSED CABINET
1040.13 TEACHER'S DESK NOT IN CONTRACT
1040.14 LOCATION FOR STUDENT BAGS
1040.15 REMOVEABLE GUARDRAIL
1050.05 METAL STORAGE SHELVING
1050.20 CHEMICAL SHELVES
1070.01 PRE-MANUFACTURED EXTERIOR ALUMINUM CANOPY SYSTEM
1070.07 ALUMINUM CANOPY DECK
1070.11 ALUMINUM FASCIA
1070.13 OPEN TOP ALUMINUM CANOPY BEAM
1070.14 ALUMINUM CANOPY DRAIN SCUPPER TRIM RING
1100 DIVISION 11 - EQUIPMENT
1130.02 REFRIGERATOR
1130.06 WASHING MACHINE
1130.07 CLOTHES DRYER
1140.09 ICE MACHINE
1140.18 INTEGRAL STAINLESS STEEL SINK (RE: FOOD SERVICE)
1140.19 GAS RANGE (RE: FOOD SERVICE)
1140.21 INSTALL SALVAGED CONVECTION OVEN (RE: FOOD SERVICE)
1140.22 STUDENT WORK STATION (RE: FOOD SERVICE)
1140.23 REACH-IN REFRIGERATOR (RE: FOOD SERVICE)
1140.24 REACH-IN FREEZER (RE: FOOD SERVICE)
1140.25 HANDWASH SINK (RE: FOOD SERVICE, RE: PLUMBING)
1140.26 THREE COMPARTMENT SINK (RE: FOOD SERVICE, RE: PLUMBING)
1140.27 PERFORATED OVERSHELF (RE: FOOD SERVICE)
1150.27 MITER SAW
1150.28 TABLE SAW
1150.29 RELOCATED SHOP WORK STATION
1150.30 COMPUTER WORK STATIONS (O.F.O.I)
1160.07 ADJUSTABLE ACOUSTICAL CURTAIN (RE: THEATRICAL)
1165.01 RETRACTABLE SUSPENDED BASKETBALL BACKSTOP WITH INTEGRAL HEIGHT ADJUSTMENT
1165.04 TEMPERED GLASS BASKETBALL BACKBOARD WITH RIM, NET, AND SAFETY PADS. PROVIDE STEEL SUPPORTS AND MOUNTING BRACKETS
1165.06 PLYWOOD BACKED WALL PADS
1165.10 VOLLEYBALL SLEEVE. SET FLUSH WITH SURFACE
1165.22 LEG CURL SEATED EXTENSION (N.I.C)
1165.23 HIGH LAT PULL WITH CABLE LOW ROW (N.I.C)
1165.24 DUMBELL RACK (N.I.C)
1165.25 ADJUSTABLE BENCH WITH WHEELS (N.I.C)
1165.26 DIP STATION (N.I.C)
1165.27 MEDICINE BALL RACK (N.I.C)
1165.28 HALF RACK (N.I.C)
1165.29 TELESCOPING BLEACHERS (196 SEATS WITH 6 ACCESSIBLE)
1165.30 SCOREBOARD
1165.31 MOTORIZED DIVIDER CURTAIN
1200 DIVISION 12 - FURNISHINGS
1220.05 MOTORIZED WINDOW SHADE
1230.07 MUSIC INSTRUMENT STORAGE CASEWORK
1230.19 SOLID SURFACE COUNTERTOP WITH 4" SPLASH AS SHOWN
1230.20 SOLID SURFACE COUNTER TOP WITH 4" SPLASH AS SHOWN AND INTEGRAL SINKS
1230.28 QUARTZ WINDOW SILL
1230.32 STAINLESS STEEL COUNTERTOP WITH SQUARE EDGE
1250.13 MOVEABLE TABLES (N.I.C.)
1250.14 INSTRUMENT STORAGE CABNIETS WITH INTERIOR ACOUSTIC PANELING. DESIGN BASIS: WENGER ULTRASTORE ACOUSTICABINETS.
1260.02 MOTORIZED TELESCOPING GYMNASIUM SEATING
1300 DIVISION 13 - SPECIAL CONSTRUCTION
1400 DIVISION 14 - CONVEYING EQUIPMENT
2100 DIVISION 21 - FIRE SUPPRESSION (RE: PLUMBING)
2110.07 ANSUL COMMERCIAL KITCHEN FIRE PROTECTION SYSTEM
2200 DIVISION 22 - PLUMBING (RE: PLUMBING)
2210.01 PLUMBING VENT
2210.06 FLOOR DRAIN
2210.07 FLOOR SINK
2210.13 ROOF DRAIN
2210.14 ROOF DRAIN PIPING
2210.15 OVERFLOW ROOF DRAIN
2210.25 ROOF DRAIN OVERFLOW SPOUT (RE: PLUMBING)
2210.26 GREASE WASTE FLOOR CLEANOUT (RE: PLUMBING)
2210.28 GAS LINE (RE: PLUMBING)
2240.11 MOP SINK
2300 DIVISION 23 - HEATING, VENTILATING, & AIR-CONDITIONING (HVAC) (RE: MECHANICAL)
2320.03 REFRIGERANT PIPING
2330.01 HVAC DUCTWORK
2330.04 EXHAUST FAN
2330.06 OUTSIDE AIR INTAKE HOOD
2330.09 TYPE I STAINLESS STEEL KITCHEN VENTILATION HOOD WITH INTEGRAL FIRE SUPPRESSION SYSTEM
2330.17 SUPPLY AIR REGISTER
2330.29 EXHAUST HOOD
2350.01 METAL FLUE WITH BASE AND COLLAR
2370.01 AIR HANDLING UNIT
2380.01 ROOFTOP HVAC UNIT
2600 DIVISION 26 - ELECTRICAL (RE: ELECTRICAL)
2609.08 SOUND SYSTEM PANEL (RE: AV DRAWINGS)
2609.09 (3) 1" CONDUITS RUNNING OUT TO TRACK FOR FUTURE DATA, POWER, ETC. RE:MEPT
2620.01 CONDUIT
2620.20 HUBBELL CABLE REEL
2650.01 RECESSED LIGHT FIXTURE
2650.04 SUSPENDED LIGHT FIXTURE
2650.08 LAY-IN LIGHT FIXTURE
2650.10 WALL-MOUNTED EXIT SIGN
2650.11 CEILING-MOUNTED EXIT SIGN
2650.22 RECESSED TAPE LIGHT RE: ELECTRICAL
2650.24 WALL MOUNTED LIGHT
2650.25 2X4 SEALED LIGHT FIXTURE
2650.27 RELOCATED LIGHT FIXTURE
2650.28 WALL-MOUNTED EXIT SIGN WITH IMPACT-RESISTANT CAGE
2700 DIVISION 27 - COMMUNICATIONS
2710.01 CABLE TRAY
2740.12 WALL MOUNTED SPEAKERS (RE: TECHNOLOGY)
2800 DIVISION 28 - ELECTRONIC SAFETY & SECURITY
2810.03 CARD READER (RE: TECHNOLOGY)
3100 DIVISION 31 - EARTHWORK
3120.02 COMPACTED SELECT FILL
3200 DIVISION 32 - EXTERIOR IMPROVEMENTS
3210 Bases, Ballasts & Paving
3210.09 CONCRETE SIDEWALK (RE: CIVIL)
3210.10 CONCRETE CURB RAMP PER CITY REQUIREMENTS
3210.14 CONCRETE PAVING (RE: CIVIL)
3210.22 PAVING EXPANSION JOINT - FILL WITH JOINT SEALER 1/4" BELOW SURFACE
3210.33 4" PAVEMENT MARKING (DIAGONAL STRIPING AT 2'-0" O.C. TYPICAL)
3210.34 H.C. PAVEMENT MARKING
3210.35 FIRE LANE STRIPING PER CITY REQUIREMENTS (RE: CIVIL)
3210.37 WHEEL STOP (6'-0" LONG). DRILL AND DOWEL INTO PAVING
3210.39 FIRE LANE MARKINGS
3210.40 NO PARKING PAVEMENT MARKING
3230 Site Improvements
3230.05 CHAIN-LINK GATE
3230.07 CHAIN-LINK FABRIC (GALVANIZED)

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
HUMBLE, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

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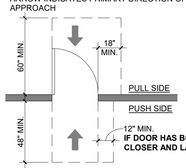
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CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

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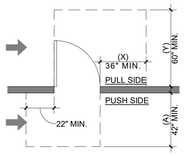
MASTER KEYNOTE LIST

NOTE: ALL DOORS SHALL COMPLY WITH ACCESSIBLE DIMENSION MINIMUM REQUIREMENTS INDICATED BELOW

ARROW INDICATES PRIMARY DIRECTION OF APPROACH

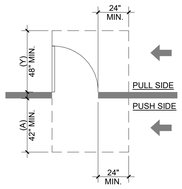


FRONT APPROACHES - MANUAL SWINGING DOORS AND GATES



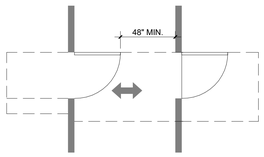
HINGE SIDE APPROACHES - MANUAL SWINGING DOORS AND GATES

X = 42" MIN. IF Y = 54" MIN.
A = 48" MIN. IF DOOR HAS BOTH CLOSER AND LATCH



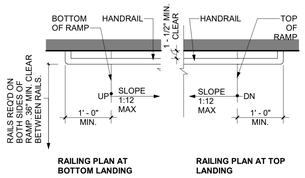
LATCH SIDE APPROACHES - MANUAL SWINGING DOORS AND GATES

Y = 54" MIN. IF DOOR HAS CLOSER
A = 48" MIN. IF DOOR HAS CLOSER



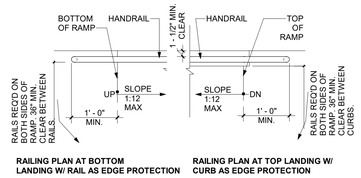
DOORS IN SERIES

4 DOOR CLEARANCE REQUIREMENTS
1/4" = 1'-0"



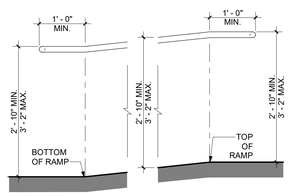
RAILING PLAN AT BOTTOM LANDING

RAILING PLAN AT TOP LANDING



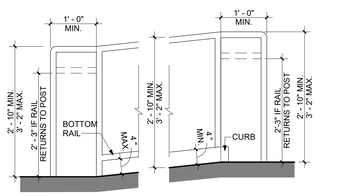
RAILING PLAN AT BOTTOM LANDING W/ RAIL AS EDGE PROTECTION

RAILING PLAN AT TOP LANDING W/ CURB AS EDGE PROTECTION



RAILING ELEVATION AT BOTTOM LANDING

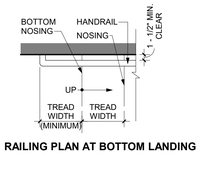
RAILING ELEVATION AT TOP LANDING AT WALL, NO EDGE PROTECTION REQ'D.



RAILING ELEVATION AT BOTTOM LANDING W/ RAIL AS EDGE PROTECTION

RAILING ELEVATION AT TOP LANDING W/ CURB AS EDGE PROTECTION

3 HANDRAIL AT RAMP
NOT TO SCALE

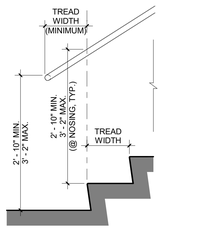


RAILING PLAN AT BOTTOM LANDING

RAILING PLAN AT BOTTOM LANDING

RAILING PLAN AT TOP LANDING

RAILING PLAN AT TOP LANDING



RAILING ELEVATION AT BOTTOM LANDING

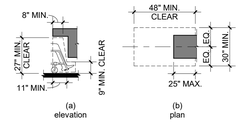
RAILING ELEVATION AT BOTTOM LANDING

RAILING ELEVATION AT TOP LANDING

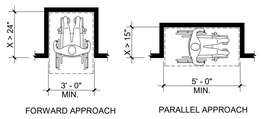
RAILING ELEVATION AT TOP LANDING

NOTE: HAND RAILINGS SHALL RETURN TO WALL OR TO FLOOR. BENDS AT RETURNS SHALL BE MINIMUM RADIUSES AND SHALL BE SMOOTH; MITERED CORNERS NOT ACCEPTABLE.

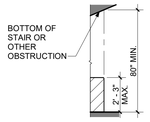
2 HANDRAIL AT STAIR
NOT TO SCALE



5 KNEE CLEARANCE
1/4" = 1'-0"

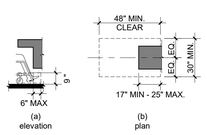


6 MANEUVERING CLEARANCE
1/4" = 1'-0"

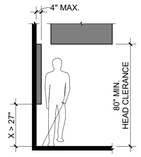


CANE DETECTION UNDER STAIR OR OVERHEAD OBSTRUCTION

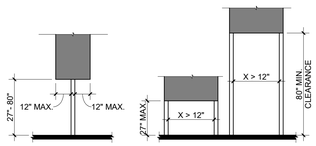
10 CANE DETECTION
1/4" = 1'-0"



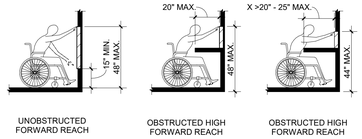
9 TOE CLEARANCE
1/4" = 1'-0"



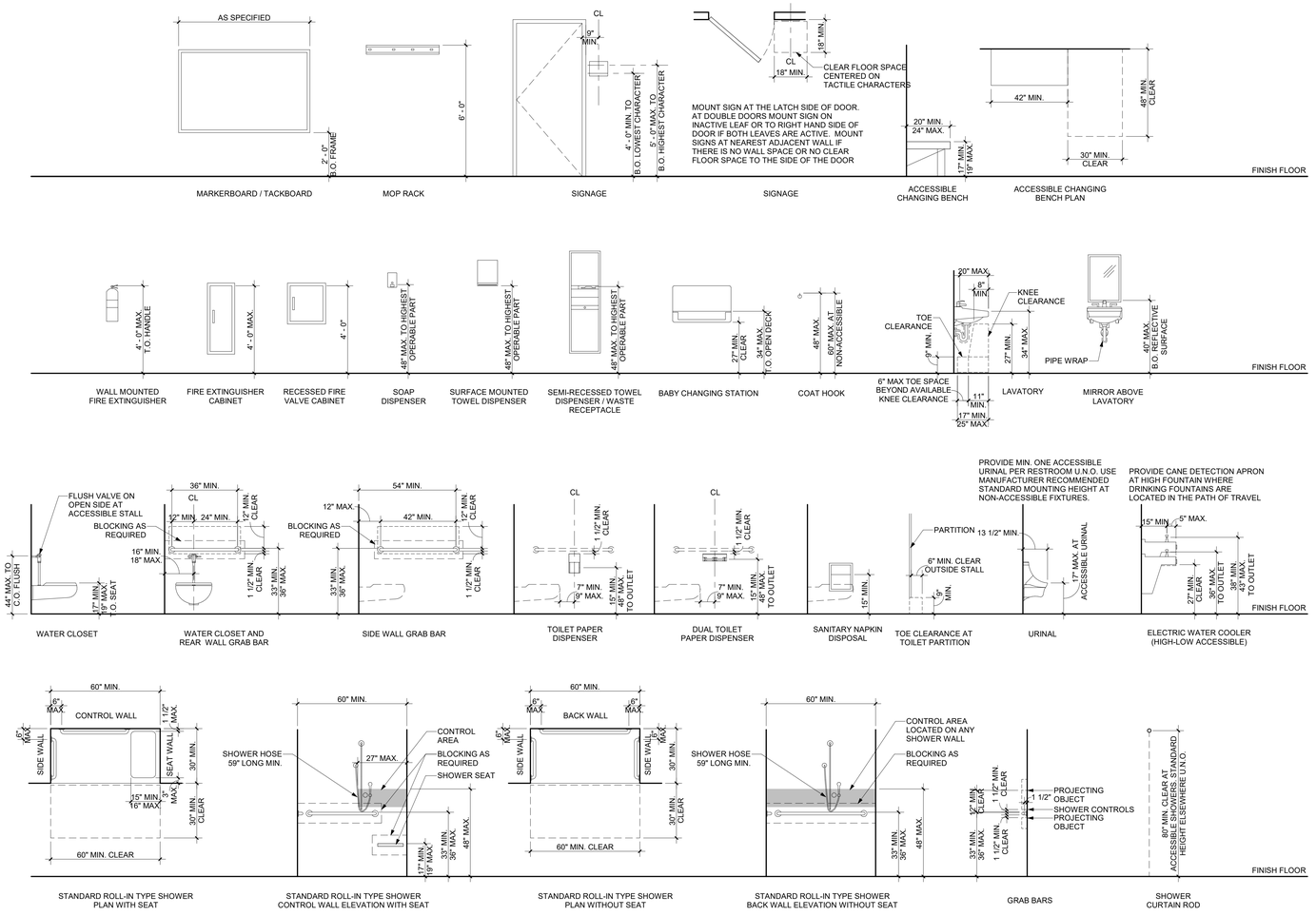
LIMITS OF PROTRUDING OBJECTS
7
1/4" = 1'-0"



POST MOUNTED OBJECTS AT WALKING SURFACES
8
1/4" = 1'-0"



11 CHILDREN'S REACH RANGES
1/4" = 1'-0"



1 TYPICAL MOUNTING HEIGHTS
3/8" = 1'-0"

REGISTERED ARCHITECT MICHAEL S. CHOATE 16762 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
FRISCO, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

DATE	FEBRUARY 23, 2024
DRAWN BY	JTL
CHECKED BY	MD, JSC
BRVV PROJECT NUMBER	223005.00

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

G1.3

TYPICAL MOUNTING HEIGHTS / ACCESSIBILITY

1 BUILDING PLANNING & DESCRIPTION

- [ ] NEW CONSTRUCTION
- [ ] LEASE SPACE BUILD-OUT (LSBO)
- [x] SUBSTANTIAL IMPROVEMENT
- [ ] SHELL BUILDING
- [ ] CHANGE OF OCCUPANCY
- [ ] OTHER: _____

MIXED OCCUPANCY

- [x] SINGLE OCCUPANCY
- [ ] SEPARATED USE
- [ ] NON-SEPARATED USE

(SECTION 508.3 OR 508.4 IBC 2018)

TYPE OF CONSTRUCTION: II-B *(CHAPTER 6 IBC 2018)*

HEIGHT LIMITATION: SEE G1.7 AREA LIMITATION: SEE G1.7 *(TABLE 504.3 IBC 2018)*

FRONTAGE INCREASE CALCULATIONS ARE SHOWN ON SHEET: G1.7

BUILDING VALUATION

BUILDING NUMBER: 1 OF 1

ADDRESS: 18450 Timber Forest Drive

CITY, ST: Humble, TX ZIP CODE: 77346 SUITE: _____

CALL CENTERPOINT ENERGY AHEAD OF TIME, AT 713-207-4460, TO OBTAIN AN ADDRESS

HCAD #, OR PROPERTY TAX #: 1192950010001 (13 DIGITS)
(http://www.hcad.org)

BUILDING LOCATED IN FLOODPLAIN: YES [ ] NO [X]

GROSS SQUARE FOOTAGE: 154,972 GSF - OVERALL 15,950 GSF - ADDITION #OF FLOORS: 1 HEIGHT: 26' - 5"

ESTIMATED COST OF CONSTRUCTION: $:_____

T.D.L.R #: TABS2024012539 *(REQUIRED FOR CONSTRUCTION OVER $50,000)*
TEXAS DEPARTMENT OF LICENSING AND REGULATIONS
(https://www.tdlr.texas.gov/ab/ab.htm)
TELEPHONE: (512) 463-6599 TOLL FREE (IN TEXAS): 800-803-9202
FAX: (512) 475-2871 RELAY TEXAS-TDD: 800-735-2989

SHELL BUILDING PERMIT #: N/A CIVIL PROJECT #: 2403070061 (1)

PUBLIC UTILITIES: YES [X] NO [ ]

OSSF : YES [ ] NO [X] PROJECT/PERMIT #: N/A

LIST BELOW THE PURPOSE/USE OF THE BUILDING OR AREA BEING REVIEWED. INCLUDE DETAILS ON THE PRODUCTS/MATERIALS BEING STORED/FABRICATED AND NOTE HOW THEY ARE BEING PACKAGED.

EXISTING MIDDLE SCHOOL WITH A BUILDING ADDITION. BUILDING ADDTION INCLUDES A WEIGHT ROOM, DANCE ROOM, GYMNASIUM, AND BAND SPACE. RENOVATION INCLUDES FULL RENOVATION OF CULLINARY CLASSROOM, WOOD SHOP, AND BAND HALL. INSTALLATION OF SKYLIGHTS, RELOCATION OF INFRASTRUCTURE, AND NEW WINDOWS AT CLASSROOMS. INCREASED PARKING, FIRE LANE, DETENTION, AND PLAY SURFACES.

2 OCCUPANCY TYPE AND LOAD
CHAPTER 2, 3 & TABLE 1004.5 IBC 2018

OCCUPANCY CLASSIFICATION TYPES

A-1	A-2	A-3	A-4	A-5	B	E
F-1	F-2	H-1	H-2	H-3	H-4	H-5
I-1	I-2	I-3	I-4	M	R-1	R-2
	R-3	R-4	S-1	S-2	U	

RESIDENTIAL BOARD AND CARE OCCUPANCIES (REFER TO THE HARRIS COUNTY CODEWORD OF THE SAME NAME AND ALSO COMPLETE THE RESIDENTIAL BOARD AND CARE CERTIFICATION FORM

	RBC-8A	RBC-8B	RBC-16A	RBC-16B	
	BREAK DOWN AREAS AND OCCUPANT LOADS PER FLOOR				
OCCUPANCY CLASSIFICATION	SPECIFIC USE		SQUARE FOOTAGE	SF PER OCCUPANT	DESIGN OCCUPANTS
A2	GYM AND BLEACHERS (222 SEATS)		6,675	15	667
E	ADD. EDUCATIONAL, DANCE ROOM		2,223	50	45
E	ADD. EXCERCISE ROOM, WEIGHT		1,194	50	24
E	ADD. EDUCATIONAL, BAND		892	50	18
S	ADD. STORAGE, BAND		286	300	1
S	ADD. STORAGE, GYM		422	300	2
S	ADD. STORAGE, DANCE		226	300	1
-	ADD. CORRIDORS		2,450	0	0
-	**ADDITION - SUBTOTAL**		**14,684**	**-**	**758**
E	ACCESSORY STORAGE/MECH		1,266	300	5
-	**MECH MEZZANINE - SUBTOTAL**		**1,266**	**-**	**5**
	EDUCATIONAL, SHOP		3,238	50	65
	EDUCATIONAL, TECH		1,522	50	31
	KITCHEN, COMMERCIAL		1,532	200	8
	EDUCATIONAL, BAND		3,112	50	90
	HALLWAYS/SKYLGIHTS		8140	-	-
	EXISITNG, RENOVATION - SUBTOTAL		*17,544*	*-*	*194*
	EXISTING, BUILDING		**139,022**	**-**	**1110**
TOTAL			**154,972**		**1,873**

3 MEANS OF EGRESS
CHAPTER 10 IBC 2018

MEANS OF EGRESS	# OF REQUIRED EXITS	# OF EXITS PROVIDED	SHEET #
STAIRWAYS (PER FLOOR)	SEE G1.7	SEE G1.7	G1.7
EGRESS @ 1ST FL OR LSBO	SEE G1.7	SEE G1.7	G1.7

(SECTION 1005.3 IBC 2018)

PANIC HARDWARE ON EXIT DOORS? YES [X] NO [ ] *(SECTION 1008.1.9 IBC 2018)*

STAIRWAYS *(SECTION 1011 IBC 2018)*

MINIMUM CLEAR WIDTH SHOWN ON: N/A *(EACH STAIRWELL)*

EGRESS WIDTHS ARE SHOWN ON: G1.7

ACCESSIBLE AREAS OF REFUGE & 2-WAY COMMUNICATIONS SHOWN ON: N/A
(SECTION 1009.3 TO 1009.8 IBC 2018)

EXIT SIGNS/EGRESS ILLUMINATION *(SECTION 1008 & 1013 IBC 2018)*

REQUIRED AND SHOWN ON: E2.1-E2.6 *(HIGHLIGHT ON PLANS)*

EXTERIOR MEANS OF EGRESS LIGHTING PROVIDED? YES [X] *(SECTION 1008 IBC 2018)*

EXIT TRAVEL DISTANCE *(TABLE 1017.2 IBC 2018)*

OCCUPANCY TYPE	MAX TRAVEL DISTANCE	PROVIDE TRAVEL DISTANCE (1)	SHEET #
E	250 FEET	116' - 0" MAX	G1.7

ELEVATORS NONE - N/A

NEW [ ] EXISTING [ ] ELEVATOR KEYBOX LOCATED IN LOBBY? YES [ ] NO [ ]
(MUST BE WITHIN 20' OF THE CALL BUTTON)

4 FIRE PROTECTION & LIFE SAFETY SYS.
CHAPTER 9 IBC & IFC 2018

ALL FIRE PROTECTION PLANS SHALL BE SUBMITTED FOR REVIEW AFTER BUILDING PERMIT HAS BEEN ISSUED *(I.E. UNDERGROUND FIRE LINE, SPRINKLER SYSTEM, FIRE ALARM SYSTEM, STANDPIPE, FIRE PUMP ROOM, AND FIRE PROTECTION WATER SUPPLY SYSTEMS)*

AUTOMATIC FIRE SPRINKLER SYSTEM/ALTERNATIVE AUTOMATIC FIRE EXTINGUISHING SYSTEM

ALL SPRINKLERS SHALL COMPLY WITH MONITORING AND OCCUPANT NOTIFICATION PER 903.4.2.1
(SECTION 903 HC FICODE AMENDMENTS & SECTION 903.4 IFC 2018)

[X] PROVIDED AS NOTED ON: P6.1 [ ] NOT REQUIRED PER SECTION 903

SYSTEM PROVIDED:
- [X] NFPA 13
- [ ] NFPA 13R
- [ ] NFPA 13D
- [ ] OTHER: _____

SPRINKLER HEAD PROVIDED:
- [X] STANDARD
- [ ] ELO
- [ ] ESFR
- [ ] QUICK RESPONSE

FIRE PUMP PROVIDED:
- [ ] YES
- [X] NO

FIRE DEPARTMENT ACCESS TO SPRINKLER CONTROLS:

[X] SPRINKLER RISER ROOM OR POST INDICATOR VALVE SHOWN ON: AS1.2 / G1.7 *(SECTION 901.4.6 HC AMENDMENTS IFC 2018)*

[X] FDC SHOWN ON: AS1.2 *(FDC SHALL COMPLY WITH SECTION 912 IFC 2018)*

SUPPRESSION SYSTEM PROVIDED *(SECTION 904 IFC 2018)*

[ ] REQUIRED AND SHOWN ON: _____
[X] NOT REQUIRED

STANDPIPE SYSTEM & HOSE CONNECTIONS *(SECTION 905 IFC 2018)*
(I.E. IN STAIRWAYS, STAGES, MALLS)

[ ] PROVIDED AS NOTED ON: _____, TYPE OF SYSTEM PROVIDED: _____ *(CLASS I, II OR III)*
[X] NOT REQUIRED PER SECTION 905

PORTABLE FIRE EXTINGUISHERS *(SECTION 906 IFC 2018)*

[X] PROVIDED AS NOTED ON: G1.7 , NUMBER PROVIDED: 26 *(HIGHLIGHT ON PLANS)*

FIRE ALARM & DETECTION SYSTEMS *(SECTION 907 & HC AMENDMENTS IFC 2018)*

- [X] FIRE ALARM SYSTEM (DEFERRED SUBMITTAL)
- [ ] NOT REQUIRED PER SECTION 907
- [X] EMERGENCY VOICE EVACUATION
- [ ] OTHER: _____
- [ ] DEDICATED FUNCTION (SPRINKLER MONITORING, ELEVATOR RECALL, PRE-ACTION, EMERGENCY ALARM, SMOKE CONTROL)

HVAC & AIR DISTRIBUTION SYSTEM CONTROLS *(SECTION 606 IMC 2018)*

- [X] SMOKE DETECTORS PROVIDED TO SHUT DOWN UNITS OVER 2,000 CFM PROVIDED ON: _____
- [ ] NO HVAC UNITS OVER 2,000 CFM
- [X] FIRE/SMOKE DAMPERS IN THE BUILDING SHOWN ON: M2.2 - M3.2
- [ ] NO FIRE/SMOKE DAMPERS IN THE BUILDING

SMOKE CONTROL SYSTEMS *(SECTION 909 IFC 2018)(I.E. FOR HIGH RISE, ATRIUMS OR STAIRWAY PRESSURIZATION)*

[ ] PROVIDED AS NOTED ON: _____
[X] NOT REQUIRED PER SECTION 909

SMOKE & HEAT VENTILATION *(SECTION 910 IFC 2018)*

[ ] CALCULATIONS PROVIDED AS NOTED ON: _____
[X] NOT REQUIRED PER SECTION 910

NOTE: WHERE AREAS OF THE BUILDING ARE EQUIPPED WITH EARLY SUPPRESSION FAST-RESPONSE (ESFR) SPRINKLERS, AUTOMATIC SMOKE AND HEAT VENTS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS, MEETING LOCAL JURISDICTION REQUIREMENTS.

5 FIRE-RESISTANCE RATE CONSTRUCTION
CHAPTER 6, 7 AND 10 IBC 2018

SHOW DETAILS OF FIRE WALLS OR FIRE BARRIERS MEETING HORIZONTAL WALLS AND ROOF DECKS *(SEE SECTION 706.5, 706.6 & 707.5 IBC 2018)*

FIRE-RESISTANCE RATING REQUIREMENTS *(TABLES 601 & 602 IBC 2018)*

BUILDING ELEMENTS	HOURS REQUIRED	HOURS PROVIDED	UL OR IBC STANDARD USED & DESIGN DETAIL SHOWN ON
STRUCTURAL FRAME	0	0	-
EXTERIOR BEARING WALLS	0	N/A	-
EXTERIOR NON-BEARING WALLS	0	0	-
INTERIOR BEARING WALLS	0	0	-
INTERIOR NON-BEARING WALLS	0	0	-
FLOOR CONSTRUCTION	0	0	-
ROOF CONSTRUCTION	0	0	-
STAIRWELLS *(SECTION 1023)*	1	N/A	NONE IN PROJECT
ELEVATOR SHAFTS *(SECTION 713)*	2	N/A	NONE IN PROJECT
CORRIDORS *(SECTION 1020)*	0*	0	*W/ SPRINKLER SYSTEM
FIRE RATED DOORS *(TABLE 716.1(2))*	1 1/2	1 1/2	PER DOOR SCHEDULE (A4.1)
DEMISING/PARTITION WALL *(SECTION 708)*	N/A	N/A	-
FIRE BARRIER *(SECTION 707)*	N/A	N/A	-
FIRE WALL *(SECTION 706)*	2	2	SEE G7.1 FOR LOCATION
DRAFTSTOPS: [ ] YES, SHOWN ON: _____ [ ] NO (SPRINKLED ATTIC) [X] N/A *(SECTION 718.4)*			
HAVE YOU CHECKED WIDTH OF OPENINGS IN FIRE RATED WALLS? YES [X] NO [ ] *(TABLE 705.8, SECTION 706.8 & 707.6 IBC 2018)*			

FIRE SEPARATION DISTANCE (FEET) *(SECTION 602 IBC 2018)*	> 30' NORTH	>30' SOUTH	>30' EAST	>30' WEST

ROOF COVERING CLASSIFICATION PROVIDED: A [X] B [ ] C [ ] *(TABLE 1505.1 IBC 2018)*

6 WATER SUPPLY (FOR FIREFIGHTING)
CHAPTER 5, APPENDIX B & C IFC 2018

179,173 GROSS SIZE OF BUILDING IN SQUARE FEET *(INCLUDE ALL OVERHANGS UNDER ROOF)*

PUBLIC WATER SUPPLY WITH FIRE HYDRANTS
(FOR PROPOSED AND EXISTING FIRE HYDRANTS ONLY)

NAME OF THE MUNICIPAL UTILITY DISTRICT: Harris County M.U.D 46

OR NUMBER OF HYDRANTS WITHIN 400 FT (NON-SPRINKLED) OR 600 FT (SPRINKLED) OF BUILDING: 6 EXISTING 1 NEW SHOWN ON: AS1.2

REQUIRED GPM: 1,500 DURATION: 2 HR *(TABLE B105.1 IFC 2018)*

75% REDUCTION? YES [X] NO [ ] *(MUST MAINTAIN MINIMUM PER TABLE B105.1.(1) OR B105.1.(2))*

WATER SOURCE FOR RURAL AREAS WITHOUT FIRE HYDRANTS N/A
(COMPLETE THE FIRE FLOW CALCULATOR)

- [ ] ***DRY HYDRANT
- [ ] ABOVEGROUND STORAGE
- [ ] UNDERGROUND STORAGE
- [ ] OTHER: _____

DESIGN SPECIFICATIONS AND LOCATIONS SHOULD MEET MINIMUM REQUIRED WATER SUPPLY FROM THE FIRE FLOW CALCULATOR NFPA 1142 (AVAILABLE ON THE WEBSITE).

***SUBMIT DRY HYDRANT DESIGN PLANS & CALCULATIONS TO FIRE PROTECTION FOR REVIEW & APPROVAL (AVAILABLE ON THE WEBSITE)

7 FIRE LANE ACCESS
CHAPTER 5 & APPENDIX D IFC 2018

FIRE LANE LAYOUT PLAN, WHICH SHALL INCLUDE THE SITE PLAN, THE FIRE LANE & FIRE HYDRANTS, IS SHOWN ON AS1.2/C1.02 *(HIGHLIGHT THE FIRE HYDRANT LOCATIONS ON THE PLANS)* AERIAL ACCESS LAYOUT, FOR BUILDINGS OVER 30 FT, IS SHOWN ON: N/A.

FIRE LANES WILL BE APPROVED CONCEPTUALLY DURING THE CIVIL REVIEW PROCESS. HOWEVER, THE FIRE CODE PLAN REVIEWER MAY CHANGE THE FIRE LANE LAYOUT BASED ON THE BUILDING SPECIFICATIONS.

[ ] PROVIDING A REMOTE FIRE HOSE CONNECTION TO COMPLY WITH FIRE LANE HOSE COVERAGE. SUBMIT PLANS TO FIRE PROTECTION FOR REVIEW *(SECTION 918.1 HC AMENDMENTS)*

8 INTERIOR FINISH
CHAPTER 8 & TABLE 803.13 IBC 2018

OCCUPANCY GROUP	EXIT ENCLOSURES AND EXIT PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES	SHEET #
E	C*	C	C	A7.1A-G
	*TABLE 801.13, NOTE b			

9 STORAGE: STANDARD & HIGH PILED
CHAPTER 32 IFC 2018 *(REFER TO REGULATIONS FOR REQUIREMENT FOR CONSULTANT ENGINEER SECTION 3201.5 HC AMENDMENTS)*

YES [ ] NO [X] PRODUCTS BEING STORED: _____

YES [ ] NO [X] STORAGE PACKAGING *(I.E. PALLETS, RACKS, SOLID PILED, DRUMS, CARDBOARD BOXES, WRAPPED IN PLASTIC, ETC.)*: _____

YES [ ] NO [X] MAXIMUM HEIGHT OF COMMODITY: _____

YES [ ] NO [X] ***THIS BUILDING IS DESIGNED FOR THE INTENT OF HIGH PILED STORAGE. IF YES, THEN PROVIDE HIGH PILED STORAGE FORM (http://www.eng.hctx.net/Portals/23/Publications/FC_high_piled_storage_form.pdf).

YES [ ] NO [X] FIRE DEPARTMENT ACCESS DOORS

YES [ ] NO [X] HIGH PILED STORAGE RACK LAYOUT/ELEVATIONS, CODE ANALYSIS, ETC. SHOWN ON: _____

10 HAZARDOUS MATERIALS
CHAPTER 50 IFC 2018

YES [ ] NO [X] DOES THE BUILDING HAVE HAZARDOUS MATERIAL USE OR STORAGE? IF YES, THEN PROVIDE ALL HMIS SUMMARY AND MSDS REPORTS.

YES [ ] NO [X] IF YES, DO THE QUANTITIES EXCEED THE MAXIMUM ALLOWABLE PER IFC 2018?

IF YES, YOU WILL BE REQUIRED TO PROVIDE THE FOLLOWING:

CODE ANALYSIS BY FIRE PROTECTION ENGINEER TO SHOW COMPLIANCE WITH IFC 2018.
CODES AND REFERENCED STANDARDS SHOWN ON SHEET(S) _____

11 SPECIAL CONDITIONS
PROPERTIES WITH FENCE AND GATES SHALL PROVIDE A 911 KEY BOX AT ENTRY GATE

YES [ ] NO [X] ATRIUM(S) PER 404 IBC 2018?

YES [ ] NO [X] HIGH RISE BLDG PER 403 IBC 2018?

YES [ ] NO [X] ANY FUEL STORAGE TANKS PER 5704 IFC 2018?

YES [X] NO [ ] CRITICAL FACILITIES (HARRIS COUNTY REGULATIONS AND AMENDMENTS)

YES [ ] NO [ ] OTHER: _____

YES [ ] NO [X] PAINT SPRAY BOOTHS, COATINGS, DIPPING OR INDUSTRIAL OVENS USED PER 2404, 2405, 2406 AND CHAPTER 30 IFC 2018?

YES [ ] NO [X] * HEALTH DEPARTMENT APPROVAL? REQUIRED FOR ALL ESTABLISHMENTS THAT SERVE/PREPARE FOOD AND BEVERAGES FOR THE PUBLIC OR HAVE REFRIGERATED FOOD STORAGE.

*NO CHANGES AT EXISTING KITCHEN.

COMMENTS & NOTES

EMERGENCY AND STANDBY POWER WILL BE PROVIDED PER 1203.2.19 HC AMENDMENTS

A COPY OF THESE APPROVED CONSTRUCTION PLANS MUST BE KEPT AT PROJECT SITE FOR THE FINAL INSPECTION OF THE BUILDING

PROJECT NUMBER 2402280205 IFC 2018

REVIEWER'S STAMP

THE PROJECT KNOWN AS (1)
(MUST BE THE NAME OF BUSINESS D/BA IF BUILDING IS FOR A SPECIFIC COMPANY)
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS
WAS ACCEPTED BY HARRIS COUNTY FOR THE PURPOSE LISTED BELOW:

HCED REVIEW:

REVIEWER'S SIGNATURE BLOCK

PERMIT OFFICE

THE PROJECT WAS REVIEWED, HOWEVER, THIS DOES NOT MEAN THE ENTIRE PROJECT, INCLUDING ALL SUPPORTING DATA AND CALCULATIONS HAVE BEEN COMPLETELY CHECKED AND VERIFIED. THESE DRAWINGS ARE SIGNED, DATED AND SEALED BY A PROFESSIONAL ENGINEER / ARCHITECT LICENSED TO PRACTICE IN THE STATE OF TEXAS, WHICH THEREFORE CONVEYS THE PROFESSIONAL'S RESPONSIBILITY AND ACCOUNTABILITY. THIS ACCEPTANCE DOES NOT RELIEVE ANY PARTY FROM COMPLYING WITH ANY OTHER LEGALLY ADOPTED REGULATION OR ORDINANCE RELATED TO LAND DEVELOPMENT.

CERTIFICATION

I, JEFF CHOYCE, A LICENSED PROFESSIONAL ENGINEER/ARCHITECT, IN THE STATE OF TEXAS DO HEREBY CERTIFY THAT THE INFORMATION PRESENTED ON THIS SHEET IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I AM/AM NOT A DESIGNER OF RECORD FOR THIS PROJECT. THE PROJECT CONSISTS OF DRAWING SHEETS G1.1 THROUGH T4.01.

ENGINEERING FIRM N/A FIRM# N/A

SEAL SIGNATURE DATE

HARRIS COUNTY (IFC 2018)

FIRE CODE DESIGN AND COMPLIANCE REVIEW SHEET VERSION 8.0 (SEP 2019)

(http://www.eng.hctx.net/permits/Fire/Fire-Code/Fire-Code-Review)

REVISIONS (DO NOT USE THIS BLOCK UNTIL AFTER PERMIT IS ISSUED)

DATE	SHEET NO.(S)	DESCRIPTION	REVIEWER	COUNTY P.E.

FIRE CODE REVIEW

SHEET NUMBER

_____ OF _____

REGISTERED ARCHITECT JEFFREY S. CHOYCE 16762 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.3805
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

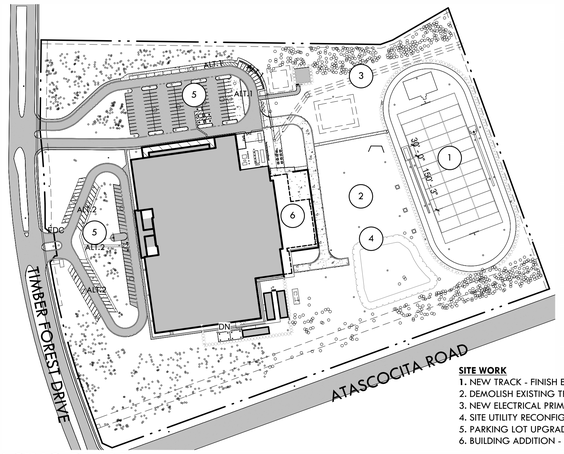
NO.	REVISION	DATE
1	ISSUED FOR CSP COMMENTS FOR REVIEW	06/13/2025 4/10/2024

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DATE FEBRUARY 23, 2024
DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

G1.4

HARRIS COUNTY FIRE REVIEW SHEET



SITE WORK
1. NEW TRACK - FINISH END OF FEBRUARY 2026
2. DEMOLISH EXISTING TRACK - REQUIRED TO BEGIN ADDITION
3. NEW ELECTRICAL PRIMARY - REQUIRED TO BEGIN ADDITION
4. SITE UTILITY RECONFIGURATION - PORTION TO BE COMPLETE TO BEGIN ADDITION
5. PARKING LOT UPGRADES - LOTS MUST REMAIN OPERATIONAL WHEN SCHOOL IS IN SESSION
6. BUILDING ADDITION - CAN BEGIN WHEN ELECTRICAL PRIMARY AND TRACK ARE RELOCATED

***DISTRICT TO TAKE BENECIAL OCCUPANCY OF NEW TRACK - END OF FEBRUARY 2026.**

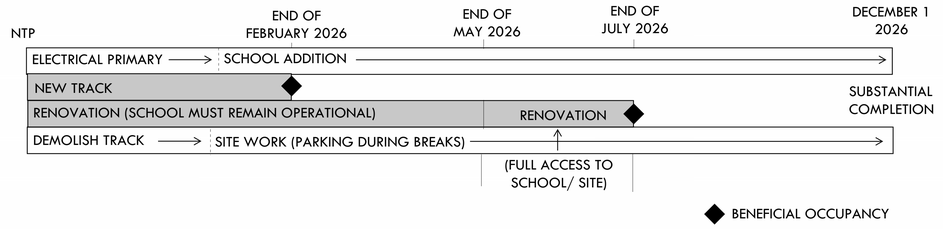
PLAN NORTH / TRUE NORTH

3 PHASING PLAN
1" = 160'-0"

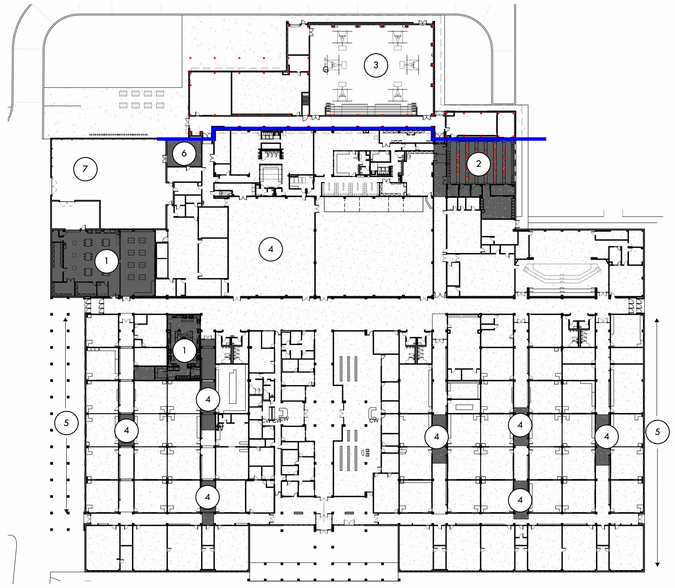
PHASING NOTES

GENERAL:

1. THE EXISTING FACILITY MUST REMAIN OPERATIONAL DURING RENOVATION AND CONSTRUCTION. THE PHASING PLAN REPRESENTS AN ABBREVIATED DESCRIPTION OF THE WORK (NOT NECESSARILY IN THE SEQUENCE GIVEN). THE CONTRACTOR SHALL PROVIDE DETAILED PHASING AND SCHEDULE AT THE PRE-CONSTRUCTION CONFERENCE.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PHASING OF ALL COMPONENTS NOT SHOWN IN PHASING NOTES OR PLAN. TO THE EXTENT POSSIBLE, ALL WORK SHALL BE PERFORMED TO MINIMIZE DISRUPTION TO OWNER'S ONGOING OPERATIONS.
3. WORK THAT CANNOT BE ACCOMPLISHED WITHOUT INTERFERING WITH OWNER'S ONGOING OPERATIONS SHALL BE PERFORMED AFTER REGULAR HOURS OR DURING SCHOOL BREAKS.
4. WORK NOT SPECIFICALLY SHOWN IN PLAN OR IN NOTES SHALL BE ACCOMPLISHED IN THE PHASE WHERE IT WILL LEAST INTERFERE WITH OWNER'S OPERATION, OR IF TIMING IS NOT CRITICAL, MAY BE PHASED PER CONTRACTOR'S RECOMMENDATION.
5. WHERE SEQUENCING OF WORK OR LEAD TIME MAY CONFLICT WITH THE SCOPE OF WORK IN THE SUGGESTED PHASE, NOTIFY OWNER AND ARCHITECT TO DETERMINE ACCEPTABLE ALTERNATIVE PHASING.
6. COORDINATE WITH THE OWNER'S SCHOOL TESTING DATES DURING WHICH CONSTRUCTION MAY NOT OCCUR.
7. THE CONTRACTOR SHALL SCHEDULE A "PRE-DIG" MEETING BEFORE ANY EXCAVATION.
8. NO PIER DRILLING DURING SCHOOL HOURS IS PERMITTED.
9. PRE-LIFT CONFERENCE IS REQUIRED FOR ANY EQUIPMENT BEING HOISTED TO THE ROOF. NO WORK ON EXISTING SCHOOL BUILDING ROOF IS ALLOWED WHEN THE CAMPUS IS OCCUPIED AND STUDENTS ARE IN CLASSROOMS BELOW.
10. COORDINATE WITH HUMBLE ISD FOR INTEGRATION AND LANDING AT ROOFTOP LEVELS, INCLUDING BUT NOT LIMITED TO, ACCESS CONTROLS, SECURITY CAMERAS, AND ALARM SYSTEMS.
11. COORDINATE WITH OWNER FOR REQUIRED DATES FOR HAVING SCHOOL BUILDING OPERATIONAL FOR HEATING AND COOLING. MAINTAIN COOLING AT 70 F MINIMUM IN MDF/IDF ROOMS DURING CONSTRUCTION.
12. ANY AREAS DISTURBED BY THE CONTRACTOR FOR LAY-DOWN OR DURING CONSTRUCTION SHALL BE REPLACED TO ORIGINAL CONDITION OR BETTER. AT DISTURBED SITE AREA, REPAIR IRRIGATION AND RE-SOD LAWN AREAS. AT PAVED AREAS, PATCH AND REPAIR PAVING AND RE-STRIPE PARKING AS REQUIRED.



2 PHASING SCHEDULE



RENOVATION/ ADDITION WORK
1. CTE SPACES (MUST BE OPERATIONAL WHEN SCHOOL IS IN SESSION)
2. BAND RENOVATION (MUST BE OPERATIONAL WHEN SCHOOL IS IN SESSION)
3. BUILDING ADDITION - SEE SITE PHASING PLAN ABOVE FOR WORK TO OCCUR BEFORE START
   - MEET WITH FIRE MARSHAL TO ESTABLISH EXIT ACCESS TO EXISTING SCHOOL WHILE CONSTRUCTION OF ADDITION IS IN PROCESS
   - PROVIDE CONSTRUCTION BARRIERS AND SIGNAGE AT CONSTRUCTION AREA ENRANCE
4. SKYLIGHTS - INFRASTRUCTURE MUST BE RELOCATED TO INSTALL. SCHOOL MUST REMAIN OPERATIONAL WHEN IN SESSION.
5. NEW EXTERIOR CLASSROOM WINDOWS - CLASSROOMS MUST REMAIN OPERATIONAL WHEN IN SESSION.
6. NEW BOILERS - CLASSROOMS MUST REMAIN OPERATIONAL WHEN IN SESSION.
7. MECHANICAL YARD EXPANSION - MUST REMAIN OPERATIONAL WHEN SCHOOL IS IN SESSION

***RENOVATION WORK - SCHOOL TO TAKE BENEFICIAL OCCUPANCY BY END OF JULY 2026.**
**** PROJECT AND BUILDING ADDITION TO BE SUBSTANTIALLY COMPLETE DECEMBER 1, 2026**

ALTERNATES

ALT.1: STAFF PARKING
ADD NEW PARKING, SIDEWALK, AND DRIVE AISLE WHERE INDICATED.

ALT.2: VISITOR PARKING
ADD NEW PARKING, SIDEWALK AND DRIVE AISLE WHERE INDICATED.

ALT.3: DAYLIGHTING
ADD SKYLIGHTS THROUGHOUT NEW AND EXISTING AND EXTERIOR WINDOWS AT AREAS C AND D.

PLAN NORTH / TRUE NORTH

1 PHASING PLAN
1" = 50'-0"

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.1300
WWW.BRWARCH.COM

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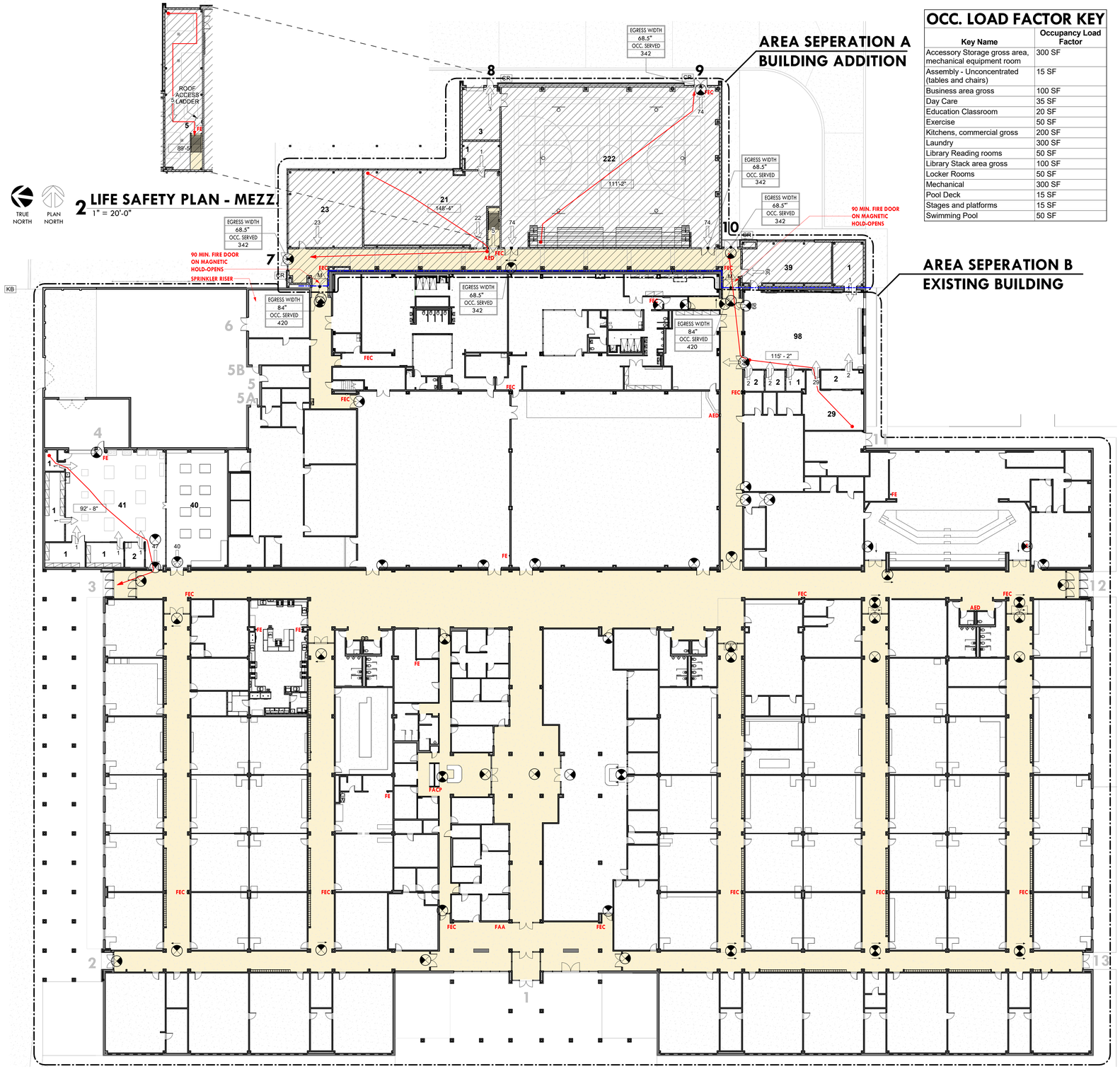
DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

G1.5

PHASING PLAN



2 LIFE SAFETY PLAN - MEZZ
1" = 20'-0"

TRUE NORTH / PLAN NORTH

1 LIFE SAFETY PLAN
1" = 20'-0"

TRUE NORTH / PLAN NORTH

OCC. LOAD FACTOR KEY

Key Name	Occupancy Load Factor
Accessory Storage gross area, mechanical equipment room	300 SF
Assembly - Unconcentrated (tables and chairs)	15 SF
Business area gross	100 SF
Day Care	35 SF
Education Classroom	20 SF
Exercise	50 SF
Kitchens, commercial gross	200 SF
Laundry	300 SF
Library Reading rooms	50 SF
Library Stack area gross	100 SF
Locker Rooms	50 SF
Mechanical	300 SF
Pool Deck	15 SF
Stages and platforms	15 SF
Swimming Pool	50 SF

LIFE SAFETY LEGEND

PATTERN	DESCRIPTION
	1 HOUR FIRE RATED CONSTRUCTION
	2 HOUR FIRE RATED FIRE WALL
	3 HOUR FIRE RATED CONSTRUCTION
	PATH OF TRAVEL
	EXIT SIGNAGE
FEC	SEMI- RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER, ABC 10 U.N.O.
AED	AUTOMATED EXTERNAL DEFIBRILLATOR (AED)
FE	FIRE EXTINGUISHER, ABC 10 U.N.O.
FDC	FIRE DEPARTMENT CONNECTION RE: AS1.2
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ANNUNCIATOR CONTROL PANEL
#	EXISTING BUILDING ENTRANCE IDENTIFICATION NUMBER
#	NEW BUILDING ENTRANCE IDENTIFICATION NUMBER
KB	KNOX BOX
CR	CARD READER (FAIL SAFE)
M	MAGNETIC HOLD OPEN TIED TO FIRE ALARM
	BUILDING ADDITION
	PATH OF EGRESS
Length	TRAVEL DISTANCE
#	OCCUPANCY COUNT AT ROOM EXIT
##	OCCUPANCY COUNT
EGRESS WIDTH 0.00" OCC. SERVED 000	DOOR CLEAR WIDTH / MAX OCC. LOAD SERVED BY EGRESS ELEMENT

APPLICABLE BUILDING CODES

BUILDING:	2018 INTERNATIONAL BUILDING CODE WITH HARRIS COUNTY AMENDMENTS
MECHANICAL:	2018 UNIFORM MECHANICAL CODE
PLUMBING:	2018 UNIFORM PLUMBING CODE WITH HARRIS COUNTY AMENDMENTS
ELECTRICAL:	2023 NATIONAL ELECTRICAL CODE
FIRE:	2018 INTERNATIONAL FIRE CODE WITH HARRIS COUNTY AMENDMENTS
ACCESSIBILITY:	2012 TEXAS ARCHITECTURAL BARRIER STANDARDS
ENERGY:	2015 INTERNATIONAL ENERGY CONSERVATION CODE

OCCUPANT LOAD

SEPARATION AREA A (BUILDING ADDITION)

OCCUPANCY: E
CONSTRUCTION TYPE: IIB
ALLOWABLE AREA: 58,000 S.F.

FIRST FLOOR: 14,684 S.F.
MEZZANINE: 1,266 S.F.
SPRINKLERED: 100%

FUNCTION OF SPACE		FACTOR	OCCUPANT LOAD
FIRST FLOOR			
E	ACCESSORY STORAGE / MECHANICAL	300 S.F.	5
A	PRACTICE GYM - BLEACHERS (222 SEATS)		222
E	EDUCATION - CLASSROOM	20 S.F.	166
E	EXERCISE	50 S.F	44
FIRST FLOOR TOTAL OCCUPANT LOAD			**437**
MECHANICAL MEZZANINE			
E	ACCESSORY STORAGE / MECHANICAL	300 S.F.	5
MEZZANINE TOTAL OCCUPANT LOAD			**5**
SEPARATION AREA A - TOTAL OCCUPANT LOAD			**442**

SEPARATION AREA B (EXISTING BUILDING)

OCCUPANCY: E
CONSTRUCTION TYPE: IIB
TOTAL AREA: 139 022 S.F.
SPRINKLERED: 100%

GENERAL NOTES

1. REFER TO REFLECTED CEILING PLANS AND ELECTRICAL LIGHTING PLANS FOR EXIT SIGNAGE.

REGISTERED ARCHITECT — HERBERT S. CHOATE JR. — 16762 — STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.1300
WWW.BRWARCH.COM

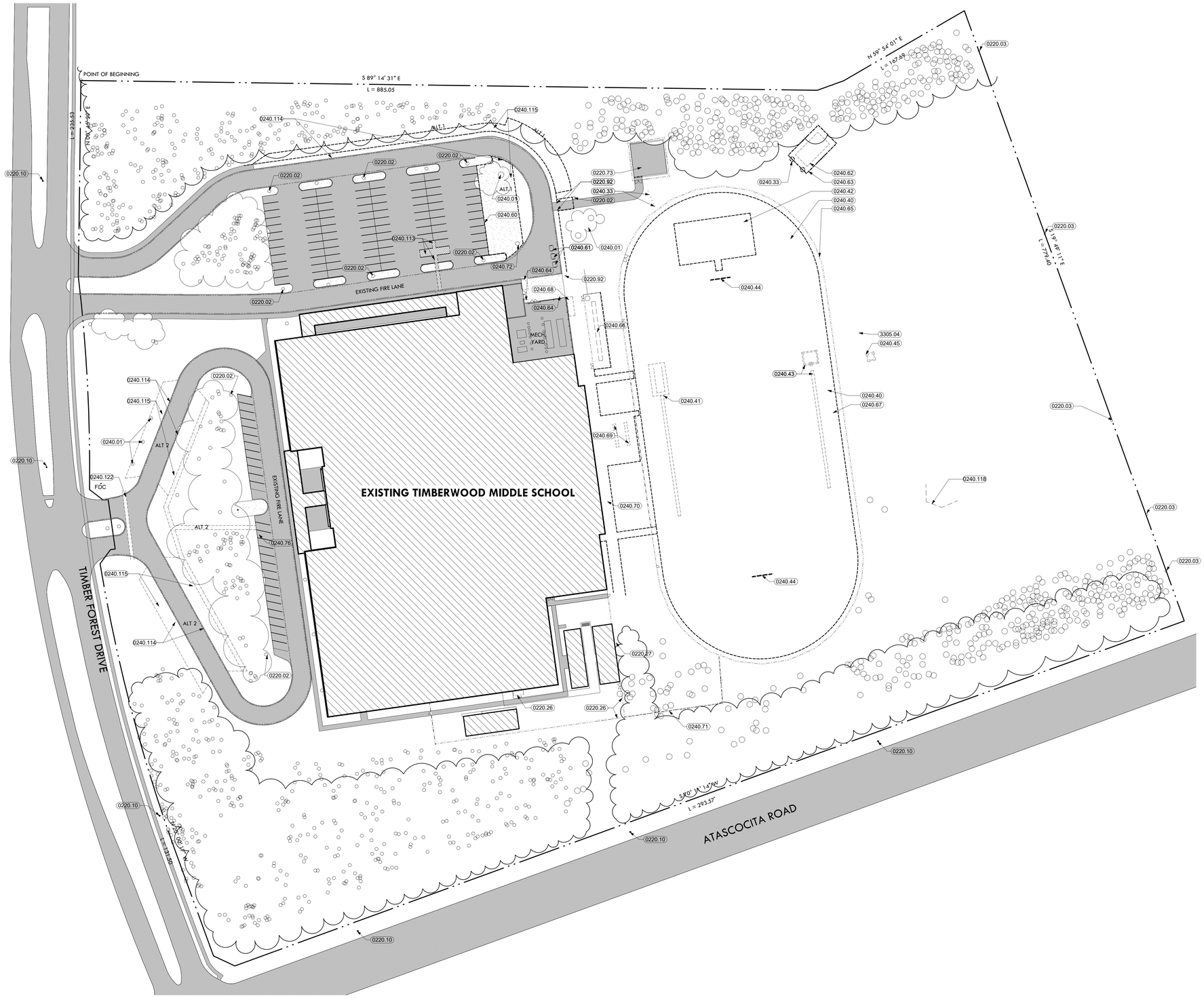
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DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

G1.7
LIFE SAFETY PLAN



KEYNOTES

0220.02	EXISTING LIGHT POLE
0220.03	EXISTING POWER POLE
0220.10	EXISTING FIRE HYDRANT
0220.26	EXISTING CHAIN-LINK FENCE
0220.27	EXISTING GATE
0220.73	EXISTING CELL TOWER
0220.92	EXISTING BOLLARD
0240.01	REMOVE EXISTING TREE
0240.33	REMOVE EXISTING BOLLARDS
0240.40	REMOVE EXISTING TRACK AND RE-GRADE (RE: CIVIL)
0240.41	REMOVE EXISTING LONG JUMP RUNWAY AND PIT
0240.42	REMOVE EXISTING CONCRETE WITH RUBBER OVERLAY
0240.43	REMOVE EXISTING POLE VAULT RUNWAY AND FOUNDATION
0240.44	REMOVE AND SALVAGE EXISTING FOOTBALL GOAL POST
0240.45	REMOVE EXISTING THROWING PLATFORM
0240.60	REMOVE CURB AND EARTH WORK TO PREPARE FOR NEW PAVING AT THIS AREA
0240.61	RELOCATE EXISTING DUMPSTERS
0240.62	RELOCATE EXISTING STORAGE SHED ON SITE AT NEW LOCATION AS DIRECTED BY HUMBLE ISD.
0240.63	REMOVE EXISTING CHAINLINK FENCE AND BOLLARDS
0240.64	REMOVE PORTION OF SIDEWALK AND CURB
0240.65	REMOVE EXISTING CHAINLINK FENCE AND GATES
0240.66	REMOVE EXISTING BIKE RACKS, CHAINLINK FENCE, GATES AND PAVING
0240.67	REMOVE INLETS (RE:CIVIL)
0240.68	RELOCATE STORAGE CONTAINER TO NEW LOCATION AS DIRECTED BY HUMBLE ISD
0240.69	RELOCATE PICNIC TABLES TO NEW LOCATION ON SITE AS DIRECTED BY HUMBLE ISD
0240.70	REMOVE EXISTING PAVEMENT
0240.71	DEMOLISH PORTION OF FENCE
0240.72	RESET HEIGHTS OF SANITARY SEWER M.H. FOR NEW DRIVEWAY (RE: CIVIL)
0240.76	REMOVE EXISTING ACCESSIBILITY SIGN
0240.113	REMOVE EXISTING PAVEMENT MARKING AND PARKING SIGNS
0240.114	SAW CUT AND REMOVE EXISTING CURB AND SIDEWALK TO ACCOMMODATE NEW PARKING
0240.115	ALT 2- CLEAR AREA AND PREPARE FOR NEW CONCRETE PARKING AND SIDEWALKS
0240.118	REMOVE EXISTING CHAIN-LINK BACKSTOP
0240.122	SAWCUT AND REPLACE EXISITNG DRIVE TO RUN NEW LIGHTING AND CAMERA CABLES AS REQUIRED
3305.04	RE: CIVIL FOR RECONFIGURATION OF STORM DRAIN SYSTEM

SITE LEGEND

- EXISITING CONCRETE PAVING
- NEW CONCRETE SIDEWALKS/PAVING
- EXISTING BUILDING
- CHAIN LINK FENCE

ALTERNATES

ALT.1: STAFF PARKING
ADD NEW PARKING, SIDEWALK, AND DRIVE AISLE WHERE INDICATED.

ALT.2: VISITOR PARKING
ADD NEW PARKING, SIDEWALK AND DRIVE AISLE WHERE INDICATED.

ALT.3: DAYLIGHTING
ADD SKYLIGHTS THROUGHOUT NEW AND EXISTING AND EXTERIOR WINDOWS AT AREAS C AND D.

PLAN NORTH / TRUE NORTH

1 ARCHITECTURAL SITE DEMOLITION PLAN

1" = 50'-0"

REGISTERED ARCHITECT
JEFFREY S CHOYCE
#67163
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
HUMBLE, TEXAS 77345
281.301.1300
WWW.BRWARCH.COM

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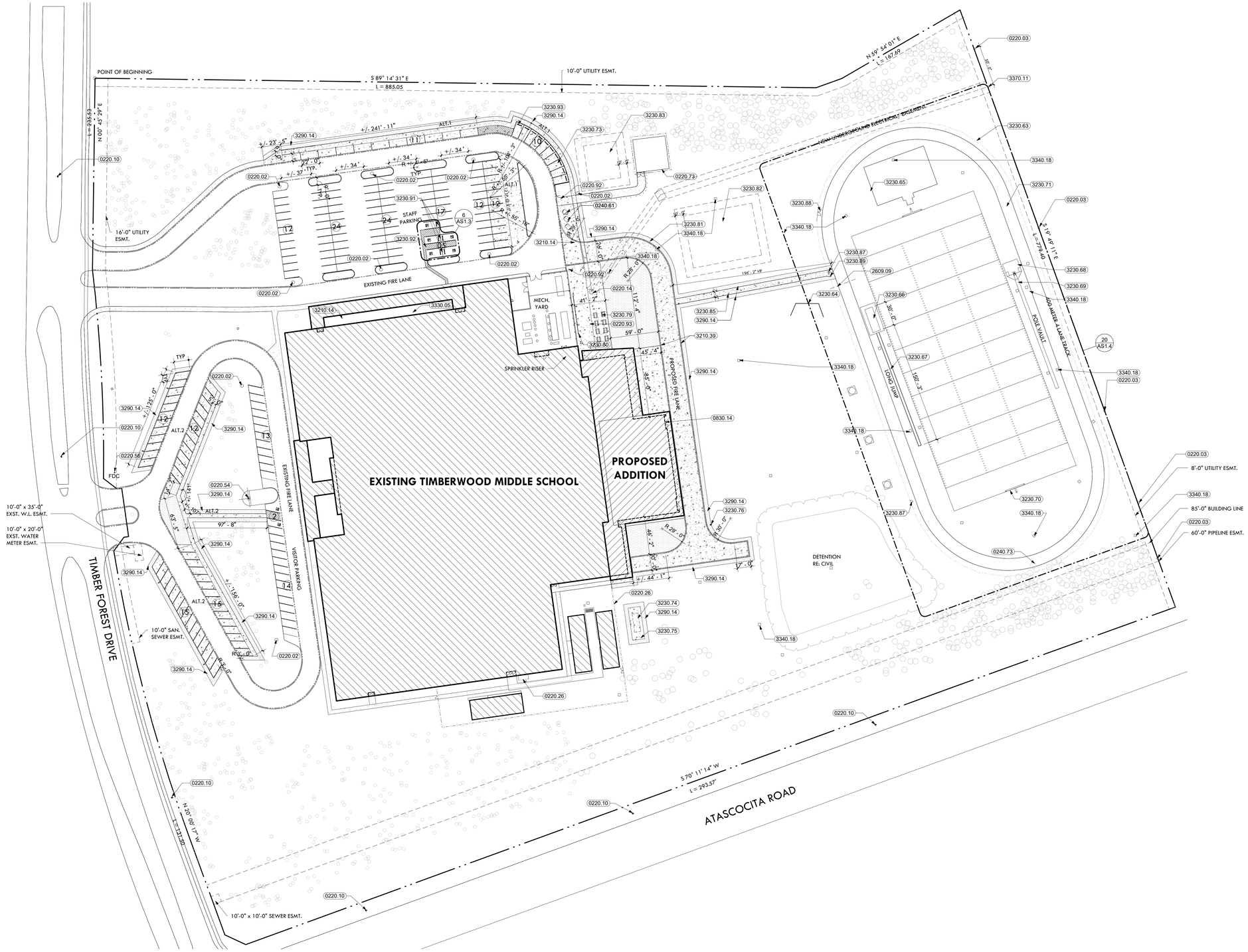
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

AS1.1

DEMO SITE PLAN



KEYNOTES

0220.02	EXISTING LIGHT POLE
0220.03	EXISTING POWER POLE
0220.10	EXISTING FIRE HYDRANT
0220.14	EXISTING MANHOLE COVER
0220.26	EXISTING CHAIN-LINK FENCE
0220.54	EXISTING FLAGPOLE
0220.56	EXISTING FIRE DEPARTMENT CONNECTION
0220.73	EXISTING CELL TOWER
0220.92	EXISTING BOLLARD
0220.93	EXISTING ELECTRICAL PRIMARY JUNCTION BOX
0240.61	RELOCATE EXISTING DUMPSTERS
0240.73	DEMO EXISTING TREES AS NEEDED MINIMAL IMPACT
0830.14	OVERHEAD COILING DOOR
2609.09	(3) 1" CONDUITS RUNNING OUT TO TRACK FOR FUTURE DATA, POWER, ETC. RE:MEPT
3210.14	CONCRETE PAVING (RE: CIVIL)
3210.39	FIRE LANE MARKINGS
3230.63	4'0" HIGH NOM. CHAIN-LINK FENCE
3230.64	NEW CHAIN-LINK BACKSTOP
3230.65	HIGH JUMP AREA WITH TRACK SURFACING
3230.66	JUMP PIT
3230.67	JUMP RUNWAY WITH TRACK SURFACING
3230.68	CONCRETE LANDING FOR POLE VAULT
3230.69	POLE VAULT RUNWAY WITH TRACK SURFACING
3230.70	FOOTBALL FEILD GOALPOST (RE: STRUCTURAL)
3230.71	NEW TRACK (RE: CIVIL FOR TRACK FOUNDATION)
3230.73	NEW PARKING RE: CIVIL
3230.74	RELOCATED CONTAINER PER HUMBLE ISD WITH CONCRETE
3230.75	NEW 15'X40' CONCRETE PAD
3230.76	NEW FIRE HYDRANT
3230.79	RELOCATED PICNIC TABLES AT PREVIOUS BIKE RACK
3230.80	RELOCATED BIKE RACKS
3230.81	LOCKED SWING GATE WITH KNOX BOX
3230.82	65' x 85' MASTERPLAN COURSE WITH 10' BUFFER
3230.83	40' x 45' FUTURE FIT COURSE NIC
3230.85	NEW SIDEWALK TO TRACK
3230.87	3' PEDESTRIAN GATE
3230.88	8' DOUBLE DOOR GATE FOR MAINTENANCE
3230.89	S-SHAPED PEDESTRIAN GATE
3230.91	NEW PARKING SIGN
3230.92	NEW PAVEMENT MARKINGS
3230.93	NEW PARKING STOP
3290.14	SOD
3330.05	SANITARY SEWER MANHOLE AND COVER (RE: CIVIL)
3340.18	INLET (RE: CIVIL)
3370.11	NEW CENTERPOINT POWER POLE

PARKING TABULATION

SIDE LOT

	ACTUAL	ALTERNATE
STAFF PARKING	89	--
PUBLIC H.C.	5	--
ALTERNATE #1	--	33
TOTAL PROVIDED	94	--
TOTAL W/ ALTERNATE #1	--	127

FRONT LOT

	ACTUAL	ALTERNATE
VISITOR PARKING	27	--
PUBLIC H.C.	2	--
ALTERNATE #2	--	54
TOTAL PROVIDED	29	--
TOTAL W/ ALTERNATE #2	--	83

REQUIRMENT ON ADA

ACCESSIBLE SPACES	REQUIRED	PROVIDED	DIFFERENCE
VISITOR PARKING	2	2	0
STAFF PARKING	5	5	0
TOTAL ACCESIBLE	**7**	**7**	**0**

ALTERNATES

ALT.1: STAFF PARKING
ADD NEW PARKING, SIDEWALK, AND DRIVE AISLE WHERE INDICATED.

ALT.2: VISITOR PARKING
ADD NEW PARKING, SIDEWALK AND DRIVE AISLE WHERE INDICATED.

ALT.3: DAYLIGHTING
ADD SKYLIGHTS THROUGHOUT NEW AND EXISTING AND EXTERIOR WINDOWS AT AREAS C AND D.

GENERAL NOTES

1. VERIFY AND DOCUMENT EXISTING CONDITIONS AND DIMENSIONS ON THE JOB SITE BEFORE BEGINNING CONSTRUCTION. NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES
2. RE: CIVIL FOR OVERALL SITE LAYOUT, DEMOLITION PLAN, GRADING, STORM DRAINAGE, AND SITE UTILITIES.
3. RE: ELECTRICAL FOR SPORTS LIGHTING, SITE LIGHTING, TRANSFORMER LOCATIONS, ETC.
4. SLOPE ALL PERIMETER SURFACES AT A MINIMUM OF 2% AWAY FROM THE NEW PAVEMENT.
5. CONTRACTOR SHALL PROVIDE AND ESTABLISH SOD (MIN. 2'-0") AT ALL DISTURBED SOUL ADHACENT TO PAVING MODIFICATIONS.

SITE LEGEND

- EXISITING CONCRETE PAVING
- NEW CONCRETE SIDEWALKS/PAVING
- EXISTING BUILDING
- CHAIN LINK FENCE

PLAN NORTH / TRUE NORTH

1 ARCHITECTURAL SITE PLAN

1" = 50'-0"

REGISTERED ARCHITECT — JEFFREY S. SCHOGGE — 16767 — STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.3800
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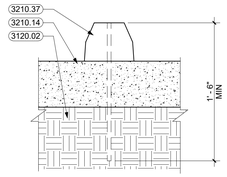
HUMBLE ISD
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RENOVATIONS

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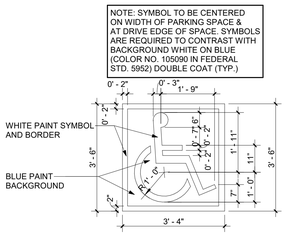
AS1.2
ARCHITECTURAL SITE PLAN

KEYNOTES

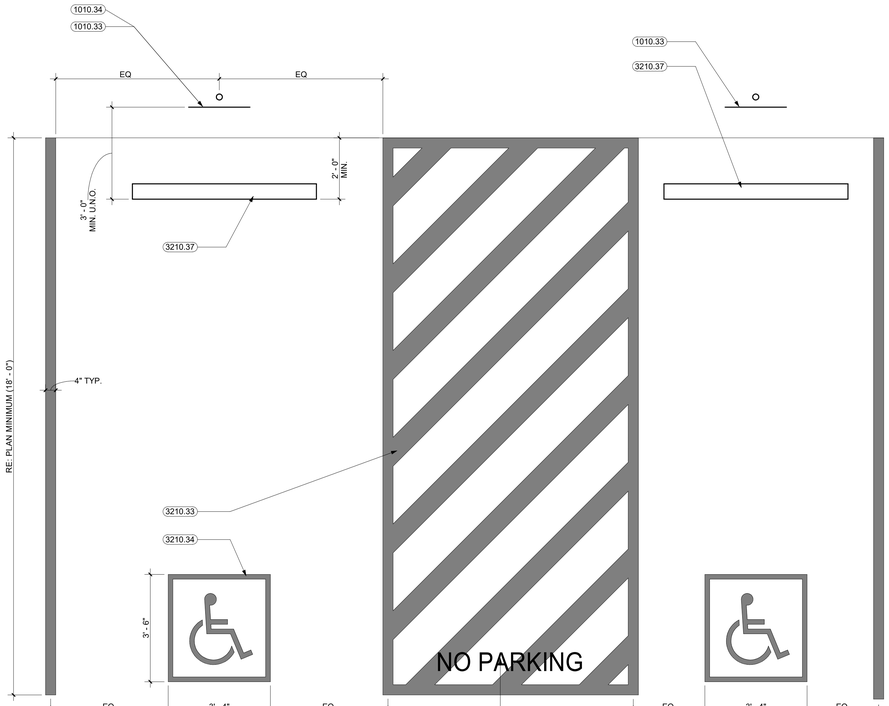
0330.01	CONCRETE
0330.07	CONCRETE FOOTING
0330.18	WOOD BOLLARD
0330.19	REMOVABLE BOLLARD (STEEL HOLLOW)
0330.20	BOLLARD PADLOCK TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS
0550.19	6" STEEL PIPE BOLLARD. FILL WITH CONCRETE (GALVANIZED AT EXTERIOR LOCATIONS)
0550.59	HOT-DIPPED GALVANIZED STEEL PIPE U-BRACKET CLAMP
0790.01	SEALANT WITH BACKER ROD AS REQUIRED
1010.33	POLE MOUNTED SIGNAGE - "H.C. PARKING ONLY"
1010.34	POLE MOUNTED SIGNAGE - "VAN-ACCESSIBLE"
1040.01	LOCKBOX FOR FIRE DEPARTMENT KEY ACCESS (COORDINATE LOCATION WITH AUTHORITY HAVING JURISDICTION)
3120.02	COMPACTED SELECT FILL
3210	Bases, Ballasts & Paving
3210.14	CONCRETE PAVING (RE: CIVIL)
3210.33	4" PAVEMENT MARKING (DIAGONAL STRIPING AT 2'-0" O.C. TYPICAL)
3210.34	H.C. PAVEMENT MARKING
3210.37	WHEEL STOP (6'-0" LONG). DRILL AND DOWEL INTO PAVING
3210.40	NO PARKING PAVEMENT MARKING
3230	Site Improvements
3230.05	CHAIN-LINK GATE
3230.07	CHAIN-LINK FABRIC (GALVANIZED)
3230.09	2" MIN. DIAMETER SCHEDULE 40 STEEL PIPE (GALVANIZED)
3230.11	6 5/8" MIN. DIAMETER STEEL PIPE (GALVANIZED)
3230.28	METAL HINGES
3230.35	POST CAP



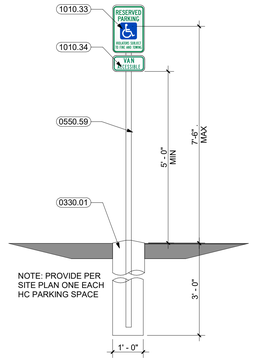
10 WHEEL STOP DETAIL
1 1/2" = 1'-0"



9 H.C SYMBOL
1/2" = 1'-0"



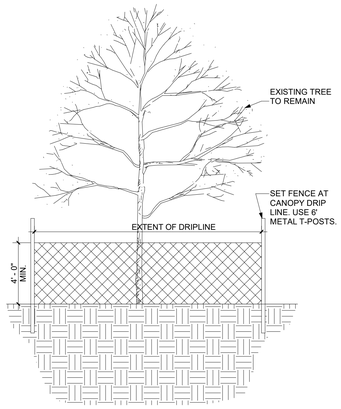
6 HC PARKING (VAN) PAVEMENT MARKING
1/2" = 1'-0"



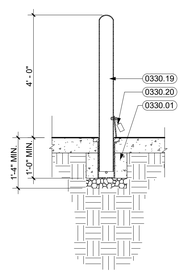
8 H.C. SIGN
1/2" = 1'-0"

NOTES:

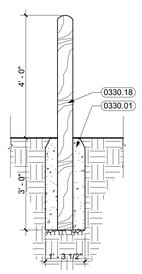
1. PRIOR TO SITEWORK, ALL TREES TO RECEIVE PROTECTION MUST BE FLAGGED WITH COLORED VINYL TAPE WRAPPED AROUND THE MAIN TRUNK AT THE HEIGHT OF AT LEAST 4' FEET SO AS TO BE VISIBLE TO WORKERS ON FOOT OR DRIVING EQUIPMENT. ALL EXISTING TREES SHALL REMAIN UNHARMED UNLESS DESIGNATED FOR REMOVAL.
2. TREE PROTECTIVE FENCING MUST OCCUR AS SHOWN ON THE PLANS PRIOR TO SITEWORK AND MUST REMAIN IN-PLACE UNTIL AFTER IRRIGATION TRENCHING HAS BEEN COMPLETE.
3. DURING CONSTRUCTION, NO EXCESS SOIL, ADDITIONAL FILL, EQUIPMENT, LIQUIDS, OR CONSTRUCTION DEBRIS MAY BE PLACED INSIDE THE PROTECTIVE FENCING, NOR MAY ANY SOIL BE REMOVED FROM WITHIN THE PROTECTIVE FENCING.



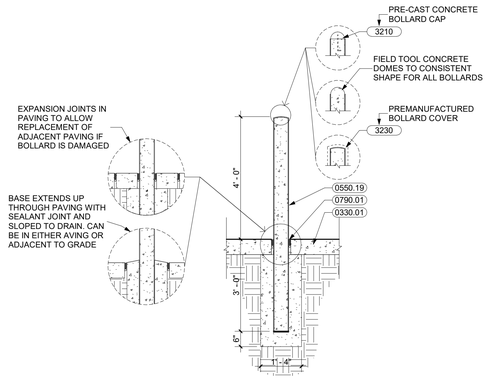
7 LS-DETAIL-D04
1/4" = 1'-0"



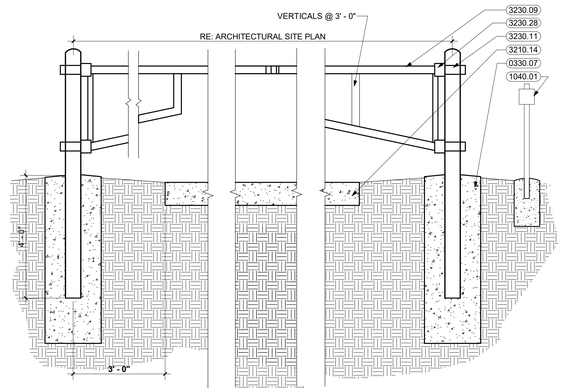
5 REMOVABLE BOLLARD
1/2" = 1'-0"



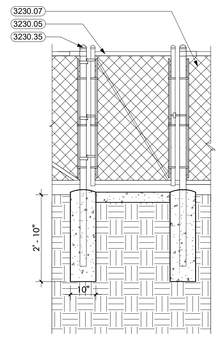
4 TIMBER BOLLARD
1/2" = 1'-0"



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



2 PIKE GATE DETAIL
1/2" = 1'-0"



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

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

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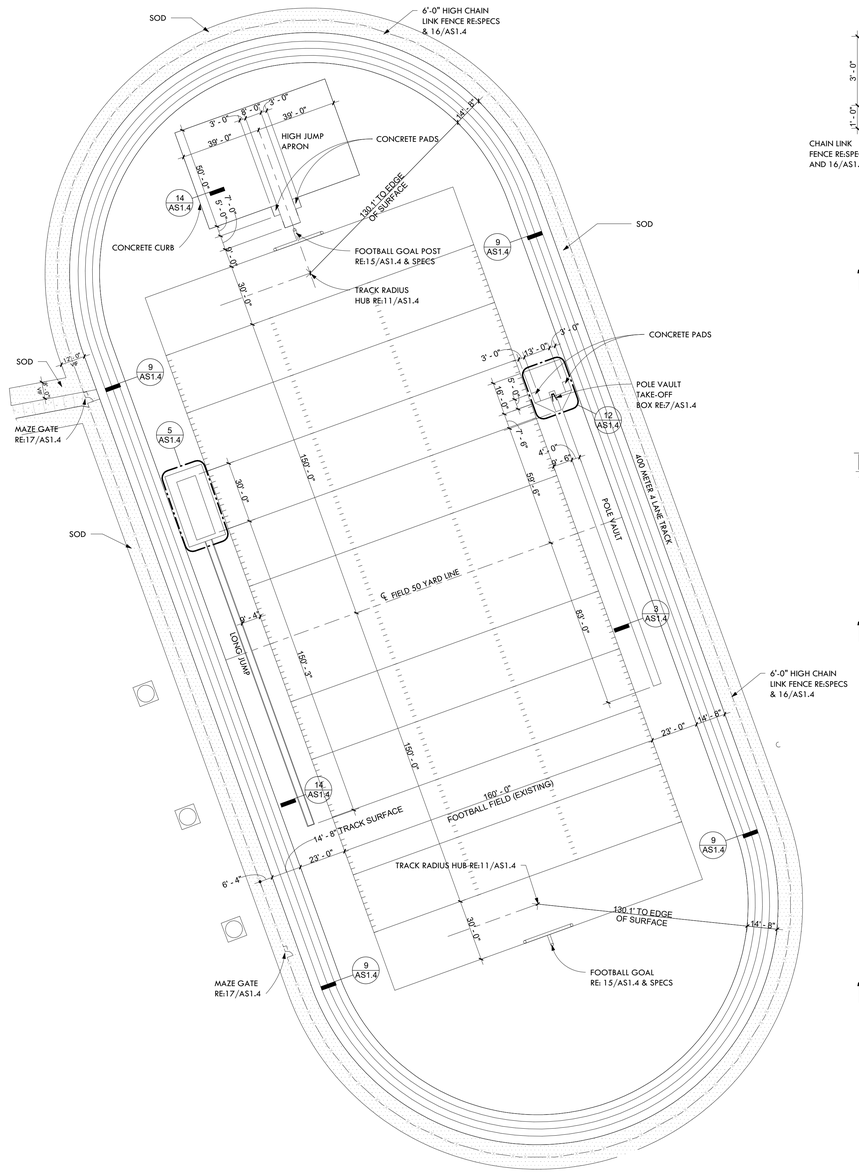
DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

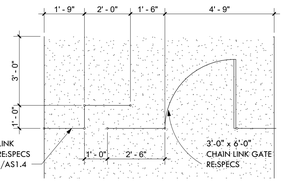
AS1.3

SITE DETAILS

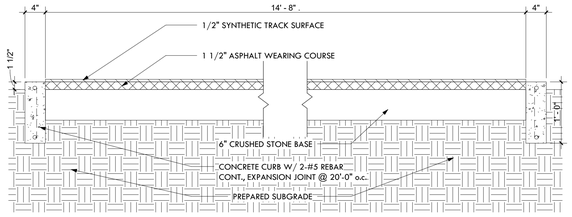


20 TRACK
1" = 30'-0"

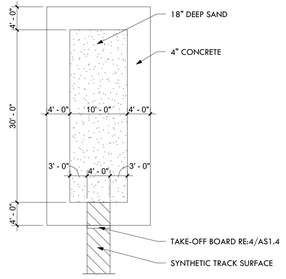
PLAN NORTH / TRUE NORTH



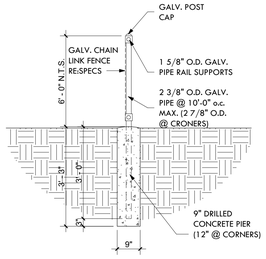
17 MAZE GATE
3/8" = 1'-0"



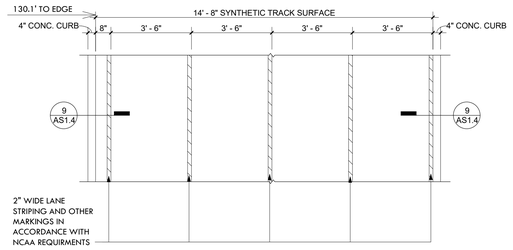
9 TRACK PROFILE
1" = 1'-0"



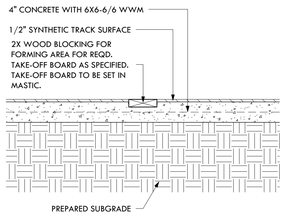
5 LANDING AREA PLAN
3/32" = 1'-0"
LONG JUMP



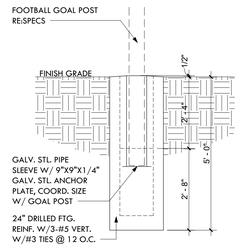
16 FENCE POST
1/2" = 1'-0"



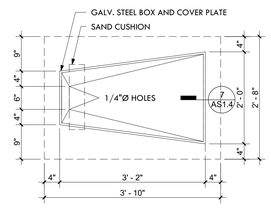
8 PARTIAL TRACK PLAN
3/8" = 1'-0"



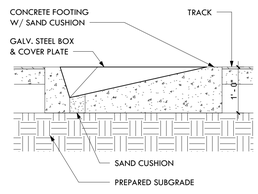
4 TAKE-OFF BOARD
1" = 1'-0"
LONG JUMP



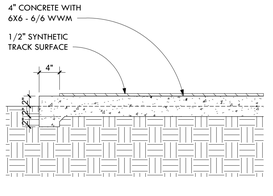
15 GOAL POST
1/2" = 1'-0"



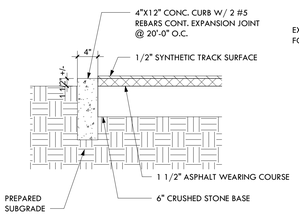
12 BOX PLAN
3/4" = 1'-0"
POLE VAULT TAKE-OFF



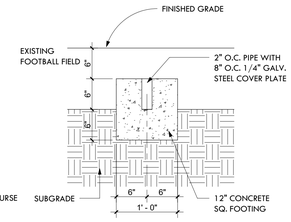
7 BOX SECTION
3/4" = 1'-0"
POLE VAULT TAKE-OFF



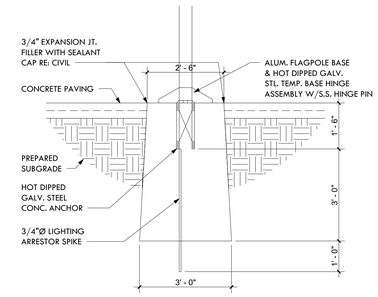
3 RUNWAY SECTION2
1" = 1'-0"
LONG JUMP, TRIPLE JUMP & POLE VAULT



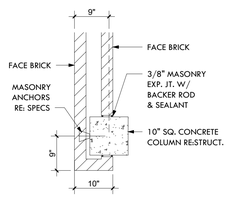
14 RUNWAY SECTION
1" = 1'-0"
HIGH JUMP



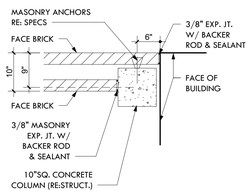
11 TRACK RADIUS HUB
1" = 1'-0"



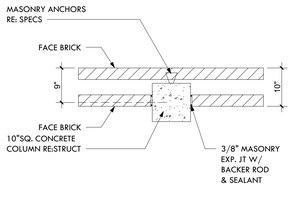
2 FLAGPOLE BASE
1/2" = 1'-0"



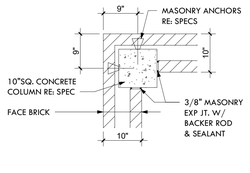
19 PLAN DETAIL
3/4" = 1'-0"
SERVICE YARD WALL



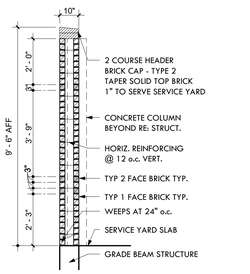
18 PLAN DETAIL
3/4" = 1'-0"
SERVICE YARD WALL



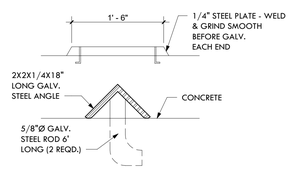
13 PLAN DETAIL
3/4" = 1'-0"
SERVICE YARD WALL



10 PLAN DETAIL
3/4" = 1'-0"
SERVICE YARD WALL



6 WALL SECTION
3/8" = 1'-0"
SERVICE YARD WALL



1 FOOTSCRAPER
1" = 1'-0"

REGISTERED ARCHITECT JEFFREY S. CHOATE 16762 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MCKINNEY, TEXAS 75345
PH: 214.301.1300
WWW.BRWARCH.COM

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DATE	FEBRUARY 23, 2024
DRAWN BY	JTL
CHECKED BY	MD, JSC
BRW PROJECT NUMBER	223005.00

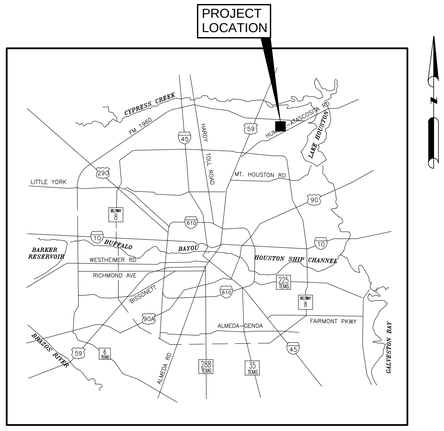
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

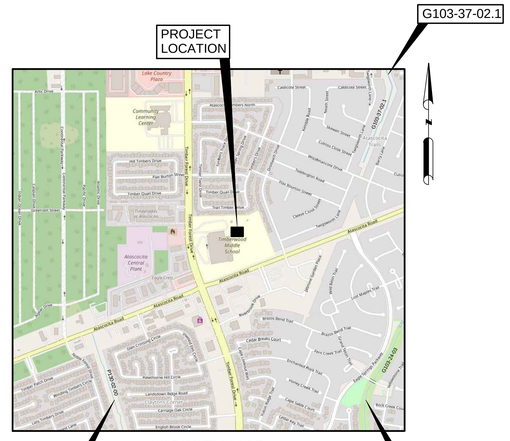
AS1.4

SITE DETAILS

PROPOSED RENOVATIONS
TO SERVE
HUMBLE ISD TIMBERWOOD MIDDLE SCHOOL
18450 TIMBERWOOD FOREST DR.
HUMBLE, TX 77346



LOCATION MAP
NOT TO SCALE


PROJECT LOCATION
G103-37-02.1
Lake Country Place
Community Learning Center
Timberwood Middle School
Atascocita Central Plant
Atascocita Road
Timberwood Park Trail
Timber Quail Drive
Timber Quail Court
Timber Quail Trail
Timber Quail Circle
Timber Quail Lane
Timber Quail Way
Timber Quail Path
Timber Quail Run
Timber Quail Terrace
Timber Quail Crossing
Timber Quail Cove
Timber Quail Ridge
Timber Quail Hollow
Timber Quail Glen
Timber Quail Meadow
Timber Quail Bend
Timber Quail Pass
Timber Quail Point
Timber Quail Knoll
Timber Quail Vista
Timber Quail Overlook
Timber Quail Summit
Timber Quail Valley
Timber Quail Creek
Timber Quail Forest
Timber Quail Grove
Timber Quail Park
Timber Quail Garden
Timber Quail Orchard
Timber Quail Field

1. PAVING

(FOR H.C. PUBLIC R.O.W. ONLY)

	DESIGN THICKNESS OF PAVING (IN.)	STABILIZED SUBGRADE DEPTH (IN.)	DESIGN STRENGTH OF CONCRETE (PSI)	STEEL SPACING LONG. (IN.)	STEEL SPACING TRANS. (IN.)	REINFORCING STEEL SIZE (#3 OR #4 MIN.)
CONCRETE						

	DESIGN SURFACE COURSE THICKNESS (IN.)	DESIGN SURFACE COURSE TYPE (MATERIAL)	DESIGN BASE COURSE THICKNESS (IN.)	DESIGN BASE COURSE TYPE (MATERIAL)	STABILIZED SUBGRADE THICKNESS (IN.)	STABILIZED SUBGRADE TYPE (MATERIAL)
ASPHALT						

DRIVEWAYS (in H.C. ROW only)

I. NUMBER OF DRIVEWAY APPROACHES PROPOSED INCLUDE WIDENING OR REPAVING EXISTING DRIVEWAYS AS WELL AS NEW DRIVEWAYS

DRWY	WIDTH	MATERIAL	CULVERT?	CULVERT LENGTH	NEAREST X-STREET	DIST. TO X-STREET
1						
2						
3						
4						

HARRIS COUNTY STANDARD DRIVEWAY DETAIL APPEARS ON SHEET ____

FIRE APPARATUS ACCESS ROAD

■ REQUIRED AND SHOWN ON SHEET(S) C1.02
☐ NOT REQUIRED DUE TO _____

CURBING

I. ISLANDS, MEDIANS AND ALL AREAS NOT TAKING DIRECT DRIVEWAY ACCESS REQUIRES STANDARD 6" CURBING

II. ☐ STANDARD 6" CURBING PROPOSED
☐ 4" x 12" CURBING PROPOSED EXCEPT AT MEDIANS AND ISLANDS

TRAFFIC CONSIDERATIONS

I. MEDIAN CUTS
■ NO MEDIAN CUT OR RELOCATION IS PROPOSED
☐ MEDIAN MODIFICATIONS ARE SHOWN ON SHEET _____

II. LEFT / RIGHT TURN LANE
■ NO LEFT / RIGHT TURN LANE IS PROPOSED
☐ LEFT / RIGHT TURN LANE IS SHOWN ON SHEET _____

III. TRAFFIC CONTROL PLAN
■ NO WORK IN THE RIGHT OF WAY IS PROPOSED THAT WOULD INTERFERE WITH TRAFFIC FLOW
☐ TRAFFIC CONTROL SHOWN ON SHEET _____

IV. TRAFFIC SIGNAL
■ NO TRAFFIC SIGNAL IS EXISTING / PROPOSED
☐ EXISTING TRAFFIC SIGNAL DEVICES (T.C. BOXES AND LOOPS) SHOWN ON SHEET _____
☐ PROPOSED TRAFFIC SIGNAL (BY OTHERS)

V. TRAFFIC IMPACT ANALYSIS
■ NO TRAFFIC IMPACT ANALYSIS IS REQUIRED
☐ TRAFFIC IMPACT ANALYSIS HAS BEEN APPROVED ON DATE:_____
PLAN TITLE: _____
HCPID PROJECT NO.: _____

5. DESCRIPTION OF PROPERTY

I. LEGAL DESCRIPTION
A. ACREAGE: 24.24 ACRES
B. SUBDIVISION: _____
■ SURVEY & ABSTRACT: RES A BLK 1
HUMBLE MIDDLE SCHOOL NO. 6
C. ADJACENT ROADS: ATASCOCITA RD. AND TIMBER FOREST DR.

II. PLATTING
A. SUBDIVISION PLAT
☐ PROPOSED PLAT / REPLAT
■ RECORDED PLAT / REPLAT
PLAT NAME: HUMBLE MIDDLE SCHOOL NO. 6
B. STREETS PROPOSED
☐ PUBLIC
☐ PRIVATE
☐ PUBLIC & PRIVATE
■ NONE

III. JURISDICTIONS
☐ CITY OF_____
■ ETJ, CITY OF HOUSTON
☐ ETJ, CITY OF_____
☐ NO ETJ

IV. HCAD ACCOUNT NOS. (ALL) KEY MAP PAGE 337W
1192950010001

V. UNOBSTRUCTED VISIBILITY EASEMENT (U.V.E.)
☐ REQUIRED AND SHOWN ON SHEET(S) _____
■ NOT REQUIRED

NOTE: ALL APPROVED, FINAL PLATS AND ASSOCIATED CPC101 FORMS MUST BE INCLUDED WITH PLAN SUBMITTAL.

☐ CONFORMING SUBDIVISION
■ NON-CONFORMING SUBDIVISION
☐ PARTIALLY NON-CONFORMING SUBDIVISION

2. RESIDENTIAL / SUBDIVISION DRAINAGE

PROPOSED DRAINAGE SYSTEM TYPE
☐ STORM SEWER
☐ ROADSIDE DITCH
☐ LOW IMPACT DEVELOPMENT (LID)

II. DESIGN METHOD USED
☐ CITY OF HOUSTON _____ YEAR FREQUENCY
☐ OTHER: _____

III. DRAINAGE SYSTEM OUTFALLS DIRECTLY TO EXISTING
☐ DETENTION POND (APPROVED H.C. PRJ NO.): _____
DETENTION POND MAINTAINED BY: _____
☐ HCFCD DRAINAGE DITCH UNIT NO.: _____
☐ H.C. ROADSIDE DITCH (ROW NAME): _____
☐ H.C. STORM SEWER (APPROVED H.C. PRJ NO.): _____

IV. H.C. OUTFALL CALCULATIONS
☐ ROADSIDE DITCH OUTFALL:
ALLOWABLE OUTFALL RATE: 0.0027 x _____ LF Frontage = _____ (CFS)
PROPOSED OUTFALL RATE: _____ (CFS), CALCULATIONS PROVIDED ON SHEET ___
☐ STORM SEWER OUTFALL:
CAPACITY ALLOCATED TO TRACT FROM D. A. MAP: _____ (CFS)
FROM DRAINAGE AREA MAP DATED: _____
PREPARED BY: _____
APPROVED H.C. PROJECT NO.: _____
ACTUAL OUTFALL RATE: _____ (CFS), CALCULATIONS PROVIDED ON SHEET ___

V. DETENTION PROVIDED BY
☐ DETENTION BASIN IS PART THIS PLAN SET. SERVICE AREA MAP ON SHEET ___
☐ REGIONAL DETENTION BASIN SYSTEM (APPROVED H.C. PRJ NO.): _____

☐ PROPOSED STORM SEWER IS SUBMERGED (AGREEMENT MUST BE PROVIDED).
STATIC W.S.E. @ OUTFALL IS _____.

OFFSITE SHEET FLOW: (100 YEAR)

OFFSITE SHEET FLOW MAPPING, TOTAL DISCHARGE CALCULATIONS, AND DESIGN ACCOMODATIONS ARE SHOWN ON SHEET TMS SPS OR, AS PRESENTED IN THE APPROVED DRAINAGE STUDY ENTITLED _____.

TOTAL ACREAGE = 0
TOTAL DISCHARGE = 0

NOTE: ALL OFFSITE SHEET FLOW FROM ADJACENT PROPERTIES MUST BE IDENTIFIED AND PROPERLY ACCOUNTED FOR IN THE PROJECT. THE SIGNING ENGINEER HEREBY CERTIFIES THAT THESE AREAS HAVE BEEN ADDRESSED.

3. COMMERCIAL / OTHER SITE DRAINAGE

I. PROPOSED DRAINAGE AREA
☐ NEW DEVELOPMENT AREA:
■ RE-DEVELOPMENT AREA (NET NEW DEVELOPED AREA): 1.63 ACRES
☐ LOW IMPACT DEVELOPMENT (LID)

II. DETENTION VOLUME
NEW AREA 1.63 x * = 1.22 ACRE FEET
DETENTION REQUIRED
* ☐ .65 (CHANNEL)
* ■ .75 (STM SWR)
* ☐ 1.00 (RD. DITCH)
* OTHER: _____
PROPOSED DETENTION VOLUME = 1.23 ACRE FEET
PROPOSED DETENTION VOLUME CALCULATIONS ARE SHOWN ON SHEET C5.01

DETENTION VOLUME PROVIDED BY EXISTING DETENTION POND
APPROVED H.C. PROJECT NO.: _____
DETENTION POND SERVICE AREA MAP IS PROVIDED ON SHEET _____

III. OUTFALL
OUTFALL TO ☐ H.C. ROADSIDE DITCH
☐ EXISTING H.C. STORM SEWER
■ OTHER PRIVATE STM SWR (PROVIDE PERMIT#) TO HC EX STM SWR
☐ ROADSIDE DITCH OUTFALL:
ALLOWABLE OUTFALL RATE: 0.0027 x _____ LF Frontage = _____ (CFS)
PROPOSED OUTFALL RATE: _____ (CFS), CALCULATIONS PROVIDED ON SHEET ___
☐ STORM SEWER OUTFALL:
CAPACITY ALLOCATED TO TRACT FROM D. A. MAP: _____ (CFS)
FROM DRAINAGE AREA MAP DATED: _____
PREPARED BY: _____
APPROVED H.C. PROJECT NO.: _____
ACTUAL OUTFALL RATE: _____ (CFS), CALCULATIONS PROVIDED ON SHEET ___ REFER TO TMS SPS AND SPS.1

IV. PUMPED DETENTION FACILITIES
VOLUME THAT GRAVITY FLOWS: _____ ACRE FEET
VOLUME THAT IS PUMPED: _____ ACRE FEET
ENTRANCE VELOCITY INTO ROADSIDE DITCH OR STORM SEWER: _____
PUMP SPECIFICATIONS AND AUTOMATIC SHUTOFF PLAN FOR ROADSIDE DITCH & STORM SEWER OUTFALLS APPEAR ON SHEET _____

V. FLOW RESTRICTOR SIZE
OUTFALL PIPE SIZE: _____
RESTRICTOR PIPE SIZE: _____

NOTE: ALL ROADSIDE DITCH OUTFALLS REQUIRE EROSION CONTROL MEASURES. RIPRAP IS NOT ALLOWED AS AN EROSION CONTROL MEASURE IN HARRIS COUNTY ROW. ALL PUMPED DETENTION OUTFALLS TO ROADSIDE DITCHES REQUIRE MANHOLE W/ LEADS.

4. WATER AND WASTEWATER

I. COMMERCIAL PROJECTS

DOES PROPERTY HAVE EXISTING AND/OR PROPOSED UTILITIES?
■ YES ☐ NO

IF YES, CHECK THE BOX THAT APPLIES TO THIS PROJECT
■ PUBLIC WATER & SANITARY
☐ PRIVATE WATER WELL & SEPTIC SYSTEM
☐ PUBLIC WATER & PRIVATE SEPTIC SYSTEM
☐ PRIVATE WATER WELL & PUBLIC SANITARY

NOTE: PUBLIC UTILITIES REQUIRE A LETTER FROM THE DISTRICT/ MUNICIPALITY AUTHORIZING SERVICE & CONNECTION. THIS IS REQUIRED FOR PLAN APPROVAL.

UTILITY DISTRICT/MUNICIPALITY NAME: HCMUD 46

NOTE: SEPTIC SYSTEMS REQUIRE H.C. WASTE WATER REVIEW
H.C. SEPTIC PERMIT/REQUEST NO. _____

NOTE: ALL EXISTING AND PROPOSED UTILITIES MUST BE ACCURATELY SHOWN & LABELED ON THE SITE PLANS.

II. SUBDIVISION PROJECTS
☐ UTILITY DISTRICT/MUNICIPALITY NAME: _____
☐ PRIVATE WATER & WASTE WATER SYSTEMS
☐ PRIVATE WATER & INDIVIDUAL OSSF
☐ INDIVIDUAL WATER WELL & OSSF

NOTE: A COPY OF TCEQ APPROVAL FOR PRIVATE WATER & WASTE WATER SYSTEMS IS REQUIRED FOR PLAN APPROVAL.

*NOTE: DEDICATED UNDERGROUND FIRE LINES MUST BE SUBMITTED TO THE HARRIS COUNTY FIRE PROTECTION GROUP FOR REVIEW AND PERMITTING BY THE UNDERGROUND FIRE LINE CONTRACTOR. CIVIL REIVEW DOES **NOT** REVIEW OR APPROVE UNDERGROUND FIRE LINES FOR THE FIRE PROTECTION SYSTEMS.*

WASTEWATER TREATMENT PLANTS

H.C. WWTP REVIEW

IS THE PROPOSED PROJECT A NEW WWTP SITE OR A REHAB/EXPANSION OF AN EXISTING WWTP SITE? *YES* ☐ *NO* ☐

IF YES, IS A HARRIS COUNTY DOMESTIC WASTEWATER TREATMENT PLANT EXPRES REVIEW SHEET ATTACHED AND COMPLETED ACCORDING TO INSTRUCTIONS? *YES* ☐ *NO* ☐

REFER TO:
WWW.ENG.HCTX.NET/PERMITS/WASTEWATER/REGULATIONS-STANDARDS-DETAILS AND DOMESTIC WWTP ERS FORM

6. STORMWATER QUALITY

I. SWPPP: CONSTRUCTION MEASURES. (Complete for ALL projects)
■ DISTURBS >1AC. SITE PLAN & DETAILS ON SHEET(S) C7.01, C7.02, C8.00
☐ DISTURBS <1AC. N/A

II. APPLICABILITY FOR PERMANENT FEATURES. (must be completed on all projects)
EXEMPT NEW DEVELOPMENT:
☐ PROJECT IS ON A PARCEL (A COMMON PLAN OF DEVELOPMENT) LESS THAN 5 ACRES. (must be verified with plat)
EXEMPT REDEVELOPMENT;
☐ PROJECT DOES NOT MEET THE DEFINITION OF SIGNIFICANT REDEVELOPMENT (Part A, Sec. 2.39 of Regulations of Harris County, Texas for Stormwater Quality Management)
EXEMPT GRANDFATHERED:
☐ PROJECT'S DRAINAGE TIES DIRECTLY INTO AN EXISTING DRAINAGE SYSTEM PRIOR TO OCTOBER 1, 2001.
(FOR VERIFICATION: PROVIDE ORIGINAL DRAINAGE AREA MAP INCLUDING CALCULATIONS)
GENERAL:
■ PROJECT'S SWQ REQUIREMENTS FALL WITHIN THE JURISDICTION OF: HARRIS COUNTY
☐ STORMWATER QUALITY PERMIT REQUIREMENT IS COVERED BY AN EXISTING SWQMP WITHIN
PROJECT TITLE: _____
HARRIS COUNTY PROJECT NO. _____ & SWQ PERMIT NO. _____
STORMWATER QUALITY MANAGEMENT PLAN:
■ SITE PLAN ON SHEET(S) C7.03

III. PERMANENT SWQ FEATURES. (COMPLETE IF NOT EXEMPT)
☐ VEGETATIVE CONTROLS USED: (FILTER STRIP, GRASSY SWALE, URBAN FORESTRY) DETAILS AND CALCULATIONS APPEAR ON SHEET(S) _____
☐ POND STRUCTURE USED (WET, DRY, WETLANDS) DETAILS AND CALCULATIONS APPEAR ON SHEET(S) _____
☐ HYDRODYNAMIC TYPE SEPARATOR MODEL: _____
■ OTHER(S): 21 TOTAL - FLEXSTORM INLET FILTER BASKETS - C7.03

7. FLOOD PLAIN STATUS

I. GENERAL INFORMATION
FIRM PANEL(S) FOR PROPERTY: 48201C0505M
FIRM PANEL(S) DATE: JUNE 09, 2014
STATUS OF PROPERTY ON MAP
■ ENTIRELY LOCATED IN UNSHADED ZONE "X"
☐ LOCATED PARTIALLY OR ENTIRELY IN ANY "A" ZONE OR SHADED ZONE "X", DELINEATE FLOODPLAIN BOUNDARY ON CONSTRUCTION DRAWINGS (DRAINAGE LAYOUT PG. NO._____) (1% BASE FLOOD LEVEL_____)
(0.2% BASE FLOOD LEVEL_____)
☐ SITE REMOVED FROM FLOODPLAIN BY LOMR, LOMR-F, LOMA CASE NO._____ REVISED FLOODPLAIN IS SHOWN ON SHEET_____
ELEVATION INFORMATION
BENCHMARK USED
■ HARRIS COUNTY FLOODPLAIN REFERENCE MARK
☐ HARRIS-GALVESTON COASTAL SUBSIDENCE DISTRICT BENCHMARK (FOR COASTAL AREAS)
DESCRIPTION OF BENCHMARK INCLUDING ELEVATION, DATUM AND YEAR OF ADJUSTMENT *(2001 ADJ.)* 070510
ALUMINUM LID STAMPED "HGCSD 7 1987" ELEVATION 70.18' (NAVD88, 2001 ADJ.)

II. FLOOD PLAIN DETERMINATION BASED ON GROUND ELEVATION
☐ PROPERTY LIES ENTIRELY ABOVE THE BASE FLOOD LEVEL AND IN SHADED ZONE "X"
☐ PROPERTY LIES PARTIALLY OR ENTIRELY BELOW THE BASE FLOOD LEVEL

III. FLOODPLAIN STORAGE SUMMARY (APPLIES ONLY TO PORTION OF LAND LOCATED WITHIN FLOODPLAIN AS DELINEATED BY FIRM PANEL).
A. TOTAL VOLUME OF MATERIAL PROPOSED TO BE MOVED OR PLACED WITHIN THE FIRM DELINEATED FLOODPLAIN (FILL, BASE, CONCRETE, ASPHALT, ETC.):
BELOW 0.2% BASE FLOOD ELEVATION _____ (2001 ADJ.) _____ CUBIC YARDS
B. TOTAL VOLUME OF MATERIAL PROPOSED TO BE REMOVED FROM THE FIRM DELINEATED FLOODPLAIN:
BELOW 0.2% BASE FLOOD ELEVATION _____ (2001 ADJ.) _____ CUBIC YARDS
C. FILL AREA & VOLUME CALCULATIONS ARE SHOWN ON SHEET _____

IV. ☐LOMR REQUIRED ☐CLOMR REQUIRED VERIFIED BY: _____

8. CURB RAMPS

A. ARE CURB RAMPS THAT CONNECT TO PUBLIC STREETS PROPOSED IN THIS SET OF PLANS? [ ] YES [ ] NO

9. LANDSCAPING

☐ REQUIRED AND SHOWN ON SHEET(S) _____
■ NOT REQUIRED

10. PERMITS REQUIRED

DOES THE PROPERTY HAVE ANY VIOLATIONS? IF SO PLEASE PROVIDE ALL VIOLATION NUMBERS. _____

■ STORM WATER QUALITY
☐ SEPTIC (EXISTING) ☐ SEPTIC (PROPOSED)
■ CIVIL SITE WORK (PHASE II PERMIT CLASS I (non-floodplain))
☐ CIVIL SITE WORK (PHASE II PERMIT CLASS II (floodplain))
☐ DRIVEWAY WITH CULVERT _____ CURB AND GUTTER _____
■ BUILDING PERMITS (NO. OF BUILDINGS = 1) ☐ CRITICAL FACILITY
☐ SUBDIVISION INFRASTRUCTURE PHASE II (NO. OF LOTS = _____)
■ NOTICE OF DETENTION AFFIDAVIT REQUIRED
☐ MUD MAINTENANCE AGREEMENT REQUIRED
NOTES: _____

WORK IN HARRIS COUNTY R.O.W.
☐ UTILITY WORK _____
☐ TURN LANE _____
☐ OTHER CONSTRUCTION _____

NOTES:
A PERMIT IS REQUIRED FOR EACH SCOPE OF WORK ON SITE.
A R.O.W. NOTIFICATION IS REQUIRED FOR EACH SCOPE OF WORK IN HC OR HCFCD ROW.
REFER TO www.eng.hctx.net/permits FOR EACH SCOPE OF WORK IN HC OR IN HCFCD ROW.

BENCHMARK REQUIREMENTS FOR PROPOSED BRIDGES AND OR NEW RESIDENTIAL SUBDIVISIONS

When the County Engineer has determined that a new benchmark will be required to be established for the proposed project, the developer shall be required to install a benchmark per section 8.0, part 2 of the Harris County Infrastructure Regulations.

Is a new Benchmark required for this project? *(to be determined by Harris County)* [__] yes [__] no

If a new Benchmark is required, the proposed benchmark information is shown on sheets ____

FOR PROJECTS LOCATED IN ANY FLOODPLAIN

Development constructed or placed in accordance with these plans will comply with all provisions of the Regulations of Harris County, Texas for Floodplain Management.

No net fill is allowed in the flood plain and no fill is allowed in the floodway.

FOUNDATION NOTES: *(Applies to only buildings or building additions requiring a class II permit)*

All water heaters, furnaces, air conditioning units, electrical distribution panels, and any other mechanical or electrical equipment must be elevated in accordance with Section 4.05 of Harris County Floodplain regulations.

Any electrical circuit serving a light switch or outlet located below the base (100-year) flood elevation shall be dropped from above and be on a separate breaker.

All materials used below the (100-year) base flood elevation are on approved FEMA Technical Bulletin 2-08 as Class 5 water-resistant, and approved in accordance with FEMA Technical Bulletin 1-08 for foundation openings.

Critical facilities located in the 0.2% or 500yr floodplain or 1% or 100yr floodplain shall have the lowest floor elevated to 3 feet or more above the 0.2% flood elevation, or 24 inches above the crown of the adjacent road, which results in a higher elevation.

Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters.

Access routes elevated to or above the level of the base flood shall be provided to all critical facilities to the extent possible.

A completed as-built certificate must be submitted after the structure is complete and before it is occupied.

The County Engineer's Office will post a final inspection notice on the structure once all requirements have been met.

No fill may be used to elevate structures in the 1% or 100yr flood plain. Structures may be constructed on an open foundation, such as piers, or on continuous foundation walls with properly sized and located openings. All foundations are required to be designed by a registered professional engineer.

All structures shall be designed to withstand a three second gust basic wind speed of 120mph.

*Completed *Elevation Certificates to be submitted: one at permitting, a second after the slab is poured or sub-floor is installed and before the framing starts, and a third is required once construction is finished. *(PER CURRENT FIRM PANEL) to the Harris County Engineering Department, 10555 Northwest Freeway, Suite 120, Houston, TX 77092*

HARRIS COUNTY ENGINEERING DEPARTMENT - PERMIT OFFICE NOTE:

THE PERMIT MANAGER SIGNATURE REPRESENTS THE FOLLOWING:
- THE COMPLETION OF REVIEW OF THESE PLANS
- INTERPOSE NO OBJECTION TO THE PROPOSED DESIGN ON PRIVATE PROPERTY
- APPROVAL OF WORK IN HARRIS COUNTY MAINTAINED RIGHT OF WAY
- APPROVAL OF WORK IN PROPOSED HARRIS COUNTY RIGHT OF WAY THAT IS TO BE ACCEPTED BY THE COUNTY

HCED SIGNATURE BLOCK:

THE PROJECT WAS REVIEWED, HOWEVER, THIS DOES NOT MEAN THE ENTIRE PROJECT, INCLUDING ALL SUPPORTING DATA AND CALCULATIONS HAVE BEEN COMPLETELY CHECKED AND VERIFIED. THESE DRAWINGS ARE SIGNED, DATED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, WHICH THEREFORE CONVEYS THE ENGINEER'S RESPONSIBILITY AND ACCOUNTABILITY. THIS DOES NOT RELIEVE ANY PARTY FROM COMPLYING WITH APPROPRIATE FEDERAL, STATE AND LOCAL ENVIRONMENTAL RULES, LAWS, AND REGULATIONS AND ANY OTHER LEGALLY ADOPTED REGULATION OR ORDINANCE RELATED TO LAND DEVELOPMENT. IF THE CITY SIGNATURES ARE REQUIRED BY ORDINANCE, COUNTY PERMITS WILL NOT BE ISSUED UNTIL SUCH SIGNATURES ARE OBTAINED. PLAN APPROVAL EXPIRATION TO BE IN ACCORDANCE WITH LOCAL GOVERNEMENT CODE CH. 245.

ENGINEER'S CERTIFICATION

I, FRED DALLY , A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THE INFORMATION PRESENTED ON THIS SHEET IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I AM NOT VIOLATING ANY PROVISION OF THE CURRENT TEXAS ENGINEERING PRACTICE ACT AND RULES CONCERNING THE PRACTICE OF ENGINEERING AND PROFESSIONAL ENGINEERING LICENSURE. I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE PLANS IN THEIR ENTIRETY ARE DESIGNED PER THE HARRIS COUNTY ENGINEERING STANDARDS, REGULATIONS, AND GUIDELINES UNLESS PROVIDED A VARIANCE BY THE COUNTY ENGINEER OR HIS DESIGNEE. SHOULD IT BE DEEMED BY HCED STAFF, THAT THE PLANS DO NOT MEET THE COUNTY'S STANDARDS, REGULATIONS AND GUIDELINES AND DID NOT RECEIVE AN APPROVED VARIANCE, THE APPROVAL OF SAID PLANS BECOMES NULL AND VOID AND THE DESIGN PLANS MUST BE CORRECTED AT NO CHARGE TO THE COUNTY.

THE COMPLETED PROJECT CONSISTS OF DRAWING SHEETS C0.01 THRU C10.02

SIGNATURE 06/02/2025 DATE

SEAL: STATE OF TEXAS · FRED DALLY · 90904 · LICENSED PROFESSIONAL ENGINEER

REVISIONS

NOTE: REVISION BLOCK IS TO BE USED ONLY FOR CHANGES MADE AFTER PLANS HAVE BEEN APPROVED BY HARRIS COUNTY.

DATE	SHEET NO.	DESCRIPTION	P.E. INITIAL	H.C. APPROVED DATE

HARRIS COUNTY
ENGINEERING DEPARTMENT
REVIEW SHEET

VERSION 20.0 MAY 27, 2020

HC PROJECT NO. 2403070061 HCFCD PROJECT NO. 2403070059 SHEET NUMBER 1 OF 22

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MISSOURI CITY, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 t 713 337 8881
TEXAS REGISTERED PE FIRM ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

DATE	DRAWN BY	CHECKED BY	BRW PROJECT NUMBER
FEBRUARY 23, 2024	KB	MN	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C0.01

HARRIS COUNTY EXPRESS REVIEW SHEET

1. PROPERTY DESCRIPTION

I. LOCATION INFORMATION

A. HARRIS COUNTY COMMISSIONER'S PRECINCT:
☐ 1 ☐ 2 ■ 3 ☐ 4

B. KEY MAP: 337W

C. ADDRESS: 18450 TIMBER FOREST DR, HUMBLE , TX 77347

II. LEGAL DESCRIPTION

A. ACREAGE: 24.24 ACRES

B. ■ SUBDIVISION: RES A BLK 1
HUMBLE MIDDLE SCHOOL NO. 6

☐ SURVEY & ABSTRACT:

C. ADJACENT ROADS: ATASCOCITA RD. AND TIMBER FOREST DR.

III. PLATTING

A. SUBDIVISION PLAT
☐ PROPOSED PLAT / REPLAT
■ RECORDED PLAT / REPLAT

B. STREETS PROPOSED
☐ PUBLIC
☐ PRIVATE
☐ PUBLIC & PRIVATE
■ NONE

PLAT NAME:
HUMBLE MIDDLE SCHOOL NO. 6

IV. JURISDICTIONS

☐ CITY OF
■ ETJ, CITY OF HOUSTON
☐ ETJ, CITY OF
☐ NO ETJ
■ UTILITY DISTRICT (NAME) HC MUD 46

V. HCAD ACCOUNT NOS. (ALL)

1192950010001

2. SITE DETENTION DRAINAGE

I. PROPOSED DRAINAGE AREA

☐ NEW DEVELOPMENT AREA:
■ RE-DEVELOPMENT AREA (AMOUNT INCREASED IMPERVIOUS AREA): 0.33 ACRES
☐ LOW IMPACT DEVELOPMENT (LID)
METHOD/DESCRIPTION

II. METHODOLOGY

HCFCD PCPM DETENTION METHOD USED:
■ METHOD 1 (LESS THAN 20 ACRES)
☐ METHOD 2 (20 ACRES TO 640 ACRES)
☐ METHOD 3 (GREATER THAN 640 ACRES)
☐ OTHER

III. DETENTION VOLUME & OUTFALL

OUTFALL TO:
☐ .65, H.C.F.C.D. CHANNEL, (H.C.F.C.D. UNIT NO.)
■ .75, EXISTING STORM SEWER (OWNER & OPERATOR) EXIST. STM. MH NEAR TIMBER FOREST DRIVE
LOCATED IN 10'X10' STM SWR ESMT (VOL 339 PG 28 HCMR)
☐ 1.00, ROADSIDE DITCH, (OWNER & ROAD NAME)
☐ OTHER (OWNER & OPERATOR)

IV. STORMWATER DETENTION BASIN INFORMATION

A. HCFCD PCPM SUMMARY TABLE SEE SHEET _____ OF THESE PLANS.

DETENTION BASIN SERVICE AREA		acres	
STORM EVENT	50% EXCEEDANCE (2-YEAR)	10% EXCEEDANCE (10-YEAR)	1% EXCEEDANCE (100-YEAR)
MAXIMUM ALLOWABLE OUTFLOW (PRE-DEVELOPED PEAK FLOW)			
MAXIMUM OUTFLOW PROVIDED (PEAK FLOW FROM BASIN)			
LOWEST NATURAL GROUND OR FINISHED FLOOR ELEVATION ESTIMATE			
DESIGN WATER SURFACE ELEVATION			
MINIMUM STORAGE REQUIRED (ac-ft)			
DETENTION STORAGE PROVIDED (ac-ft)			
STORAGE RATE PROVIDED (ac-ft/ac)			
OUTFLOW VELOCITY INTO CHANNEL (ft/sec)			
DRAIN TIME – 1% ONLY (hours)			
EMERGENCY OVERFLOW (TYPE, SIZE, ELEVATION, ETC.)			

B. DETENTION BASIN TO BE MAINTAINED BY

C. DETENTION SERVICE AREA MAP ON SHEET

D. ADDITIONAL CRITERIA FOR PUMPED DETENTION BASIN
VOLUME OF PUMPED 1% EXCEEDANCE STORAGE VOLUME _____ ACFT _____ % OF TOTAL VOLUME
MAXIMUM DESIGN OUTFLOW VELOCITY INTO HCFCD CHANNEL _____ FT/SEC
DRAIN TIME FOR BASIN = _____ HOURS BASED ON _____HEAD CONDITIONS

V. DETENTION PROVIDED IN OTHER PLANS:

HCFCD PROJECT No. _____ DATE SIGNED BY HCFCD _____
PLAN TITLE _____
DETENTION POND SERVICE AREA MAP IS PROVIDED ON SHEET _____
ENGINEERING FIRM _____
DETENTION BASIN MAINTAINED BY: _____

VI. FLOW RESTRICTOR SIZE

OUTFALL PIPE SIZE: _____
RESTRICTOR PIPE SIZE: _____
RESTRICTOR PLATE DIMENSION: _____

VII. DETENTION PROVIDED BY

☐ REGIONAL DETENTION BASIN SYSTEM (APPROVED H.C. PRJ NO.): _____

FOR PROJECTS LOCATED IN ANY FLOODPLAIN
Development constructed or placed in accordance with these plans will comply with all provisions of the designated Floodplain Administrator.
No net fill is allowed in the flood plain and no fill is allowed in the floodway.

OFFSITE SHEET FLOW: (100 YEAR)

OFFSITE SHEET FLOW MAPPING, TOTAL DISCHARGE CALCULATIONS, AND DESIGN ACCOMODATIONS ARE SHOWN ON SHEET ____ OR, AS PRESENTED IN THE APPROVED DRAINAGE STUDY ENTITLED _____.

TOTAL ACREAGE =____
TOTAL DISCHARGE =____

NOTE: ALL OFFSITE SHEET FLOW FROM ADJACENT PROPERTIES MUST BE IDENTIFIED AND PROPERLY ACCOUNTED FOR IN THE PROJECT. THE SIGNING ENGINEER HEREBY CERTIFIES THAT THESE AREAS HAVE BEEN ADDRESSED.

3. SWQ DISCHARGE INTO FCD FACILITY

I. SWPPP: CONSTRUCTION MEASURES. (Must complete)

■ DISTURBS >1AC. SITE PLAN & DETAILS ON SHEET(S) C7.01, C7.02 & C8.00
☐ DISTURBS <1AC. N/A

*II. APPLICABILITY FOR PERMANENT FEATURES. (Must complete)

EXEMPT NEW DEVELOPMENT:
☐ PROJECT IS ON A PARCEL (A COMMON PLAN OF DEVELOPMENT) LESS THAN 5 ACRES. (Must be verified with plat)

EXEMPT REDEVELOPMENT:
☐ PROJECT DOES NOT MEET THE DEFINITION OF SIGNIFICANT REDEVELOPMENT (Part A,Sec. 2.39 of Regulations of Harris County, Texas for Stormwater Quality Management)

EXEMPT GRANDFATHERED:
■ PROJECT'S DRAINAGE TIES DIRECTLY INTO AN EXISTING DRAINAGE SYSTEM PRIOR TO OCTOBER 1, 2001.
(FOR VERIFICATION: PROVIDE ORIGINAL DRAINAGE AREA MAP INCLUDING CALCULATIONS)

GENERAL:
■ PROJECT'S SWQ REQUIREMENTS FALL WITHIN THE JURISDICTION OF: HARRIS COUNTY
☐ STORMWATER QUALITY PERMIT REQUIREMENT IS COVERED BY AN EXISTING SWQMP WITHIN PROJECT TITLE:
HARRIS COUNTY PROJECT No _____ & SWQ PERMIT No.

STORMWATER QUALITY MANAGEMENT PLAN:
☐ SITE PLAN ON SHEET(S)

PERMANENT SWQ FEATURES. (COMPLETE IF NOT EXEMPT)
☐ VEGETATIVE CONTROLS USED: (FILTER STRIP, GRASSY SWALE, URBAN FORESTRY) DETAILS AND CALCULATIONS APPEAR ON SHEET(S)
☐ POND STRUCTURE USED (WET [illegible]) DETAILS AND CALCULATIONSAPPEAR ON SHEET(S)
☐ HYDRODYNAMIC SEDIMENT SEPARATOR MODEL:
☐ OTHER(S):

4. FLOOD PLAIN STATUS

I. GENERAL INFORMATION

FIRM PANEL(S) FOR PROPERTY: 48201C0505M
FIRM PANEL(S) DATE: JUNE 09, 2014
STATUS OF PROPERTY ON MAP
■ ENTIRELY LOCATED IN UNSHADED ZONE "X".
☐ LOCATED PARTIALLY OR ENTIRELY IN ANY "A" ZONE OR SHADED ZONE "X", DELINEATE FLOODPLAIN BOUNDARY ON CONSTRUCTION DRAWINGS (DRAINAGE LAYOUT PG. NO._____) (1% BASE FLOOD LEVEL_____) (0.2% BASE FLOOD LEVEL_____)
☐ SITE REMOVED FROM FLOODPLAIN BY LOMR, LOMR-F, LOMA CASE NO._____ REVISED FLOODPLAIN IS SHOWN ON SHEET____

ELEVATION INFORMATION
BENCHMARK USED
■ HARRIS COUNTY FLOODPLAIN REFERENCE MARK
☐ HARRIS-GALVESTON COASTAL SUBSIDENCE DISTRICT BENCHMARK (FOR COASTAL AREAS)
DESCRIPTION OF BENCHMARK INCLUDING ELEVATION, DATUM AND YEAR OF ADJUSTMENT *(NAVD 88 ADJ.)* HCFCD BM NO. 070510 (STREAM NO. G103-37-02.2
ELEVATION 70.18' (NAVD88, 2001 ADJ.)

II. FLOOD PLAIN DETERMINATION BASED ON GROUND ELEVATION

☐ PROPERTY LIES ENTIRELY ABOVE THE BASE FLOOD LEVEL AND IN SHADED ZONE "X"
☐ PROPERTY LIES PARTIALLY OR ENTIRELY BELOW THE BASE FLOOD LEVEL

III. FLOODPLAIN STORAGE SUMMARY
(APPLIES ONLY TO PORTION OF LAND LOCATED WITHIN FEMA REGULATORY FLOODPLAIN).

A. TOTAL VOLUME OF MATERIAL PROPOSED TO BE MOVED OR PLACED WITHIN THE FIRM DELINEATED FLOODPLAIN (FILL, BASE, CONCRETE, ASPHALT, ETC.):
BELOW 0.2% BASE FLOOD ELEVATION (2001 ADJ.) ____ CUBIC YARDS ____

B. TOTAL VOLUME OF MATERIAL PROPOSED TO BE REMOVED FROM THE FIRM DELINEATED FLOODPLAIN:
BELOW 0.2% BASE FLOOD ELEVATION (2001 ADJ.) ____ CUBIC YARDS ____

C. FILL AREA & VOLUME CALCULATIONS ARE SHOWN ON SHEET ____

5. WORK IN HCFCD RIGHT-OF-WAY

I. TYPE OF WORK TO BE PERFORMED IN HCFCD HCFCD ROW

A. BOND NOTIFICATION INFORMATION
☐ HCFCD WATERSHED
☐ HCFCD UNIT No.
☐ NUMBER OF OUTFALLS
☐ UTILITY CROSSING
☐ ROADWAY BRIDGE/CULVERT CROSSING
☐ FILL IN VICINITY
☐ REHABILITATION OF CHANNEL
☐ MAINTENANCE
☐ TEMPORARY CROSSING
☐ TRAIL (LENGTH)
☐ OTHER
COST OF WORK IN HCFCD ROW

II. USACE ENVIRONMENTAL PERMIT
☐ US ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER(S)
☐ US ARMY CORPS OF ENGINEERS INDIVIDUAL PERMITS
☐ OTHER
☐ NO PERMITS REQUIRED
EXPLAIN:

III. REFERENCE / BASIS OF DETERMINATION
☐ ENVIRONMENTAL CONSULTANT REPORT
BY
REPORT TITLE
REPORT DATE
☐ OTHER

NOTES:
I. – III. REQUIRED ON PROJECTS WITH WORK IN A HCFCD CHANNEL. PLEASE REFERENCE SECTION 17 OF THE FLOOD CONTROL DISTRICT POLICY, CRITERIA, AND PROCEDURE MANUAL FOR MORE INFORMATION.

IV. HCFCD STANDARD NOTES: SEE SHEET _____ OF THESE PLANS.

V. HCFCD STANDARD DETAILS: SEE SHEET _____ OF THESE PLANS.

VI. HCFCD ACCESS PLAN: SEE SHEET _____ OF THESE PLANS.

VII. REFER TO THE FOLLOWING PLAN SHEETS:
FOR EXISTING AND PROPOSED RIGHT(S) OF WAY INCLUDING DELINEATION AND RECORDING INFORMATION PER HCFCD POLICY, CRITERIA, & PROCEDURE MANUAL (i.e., DRAINAGE EASEMENT, FEE STRIP, ETC.) AND GRANTEE (e.g. COH, HCFCD, PUBLIC, TXDOT, ETC.)

6. REPORTS/AGREEMENTS

I. HCFCD ACCEPTED REPORTS (ALL)

STORMWATER DRAINAGE DESIGN REPORT
REPORT TITLE
HCFCD PROJECT #
ENGINEERING FIRM
REPORT ACCEPTANCE DATE

GEOTECHNICAL INVESTIGATION REPORT
REPORT TITLE
HCFCD PROJECT #
ENGINEERING FIRM
REPORT ACCEPTANCE DATE

HCFCD APPROVED VARIANCE
DESCRIPTION OF VARIANCE
DOCUMENT ID #
VARIANCE ACCEPTANCE DATE

II. AGREEMENT TYPE & No.:
☐ INTERLOCAL (ILA):
☐ HCFCD MAINTENANCE
☐ TURF ESTABLISHMENT
☐ OTHER

HCFCD SIGNATURE BLOCK

PROJECT NAME: HUMBLE ISD TIMBERWOOD MIDDLE SCHOOL RENOVATIONS
ADDRESS: 18450 TIMBER FOREST DRIVE, HUMBLE, TX 77346
WAS ACCEPTED BY HARRIS COUNTY FLOOD CONTROL DISTRICT FOR THE PURPOSES LISTED BELOW:

HARRIS COUNTY FLOOD CONTROL DISTRICT

INTERPOSE NO OBJECTION
BY _____ CB
FOR ITEMS LOCATED OUTSIDE OF HCFCD RIGHT-OF-WAY
APPROVED:
BY _____
FOR ITEMS LOCATED WITHIN EXISTING HCFCD RIGHT-OF-WAY
APPROVED:
BY _____
FOR ITEMS LOCATED WITHIN PROPOSED HCFCD RIGHT-OF-WAY
APPROVED:
BY _____ Digitally signed by Dennis Todd Miller 2024.04.10 11:36:48-05'00'
FINAL PERMITTING BY OTHERS

ADDITIONAL COMMENTS:
Harris County stormwater detention and floodplain fill requirements will apply.

THE PROJECT WAS REVIEWED, HOWEVER, THIS DOES NOT MEAN THE ENTIRE PROJECT, INCLUDING ALL SUPPORTING DATA AND CALCULATIONS HAVE BEEN COMPLETELY CHECKED AND VERIFIED. THESE DRAWINGS ARE SIGNED, DATED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS, WHICH THEREFORE CONVEYS THE ENGINEER'S RESPONSIBILITY AND ACCOUNTABILITY. THIS DOES NOT RELIEVE ANY PARTY FROM COMPLYING WITH APPROPRIATE FEDERAL, STATE AND LOCAL ENVIRONMENTAL RULES, LAWS, AND REGULATIONS AND ANY OTHER LEGALLY ADOPTED REGULATION OR ORDINANCE RELATED TO LAND DEVELOPMENT. IF THE CITY SIGNATURES ARE REQUIRED BY ORDINANCE, COUNTY PERMITS WILL NOT BE ISSUED UNTIL SUCH SIGNATURES ARE OBTAINED. PLAN APPROVAL EXPIRATION TO BE IN ACCORDANCE WITH LOCAL GOVERNEMENT CODE CH. 245.

ENGINEER'S CERTIFICATION

I, FRED DALLY , A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THE INFORMATION PRESENTED ON THIS SHEET IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I AM NOT VIOLATING ANY PROVISION OF THE CURRENT TEXAS ENGINEERING PRACTICE ACT AND RULES CONCERNING THE PRACTICE OF ENGINEERING AND PROFESSIONAL ENGINEERING LICENSURE.

ANY VIOLATIONS WILL BE FORWARDED TO THE HARRIS COUNTY DISTRICT ATTORNEY'S OFFICE FOR PROSECUTION.

THE COMPLETED PROJECT CONSISTS OF DRAWING SHEETS C0.01 THRU C10.02

SIGNATURE 03/25/2024 DATE

SEAL: STATE OF TEXAS · FRED DALLY · 90904 · LICENSED · PROFESSIONAL ENGINEER

REVISIONS

NOTE: REVISION BLOCK IS TO BE USED ONLY FOR CHANGES MADE AFTER PLANS HAVE BEEN APPROVED BY HARRIS COUNTY FLOOD CONTROL.

DATE	SHEET NO.	DESCRIPTION	P.E. INITIAL	H.C.F.C.D APPROVED DATE

HARRIS COUNTY FLOOD CONTROL PROJECT NO. 2403070059

SHEET NUMBER 2 OF 22

HARRIS COUNTY
FLOOD CONTROL DISTRICT
REVIEW SHEET

VERSION 1.0 OCTOBER 2019

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED PE FIRM ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

FRED DALLY 90904 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS
03/12/2024

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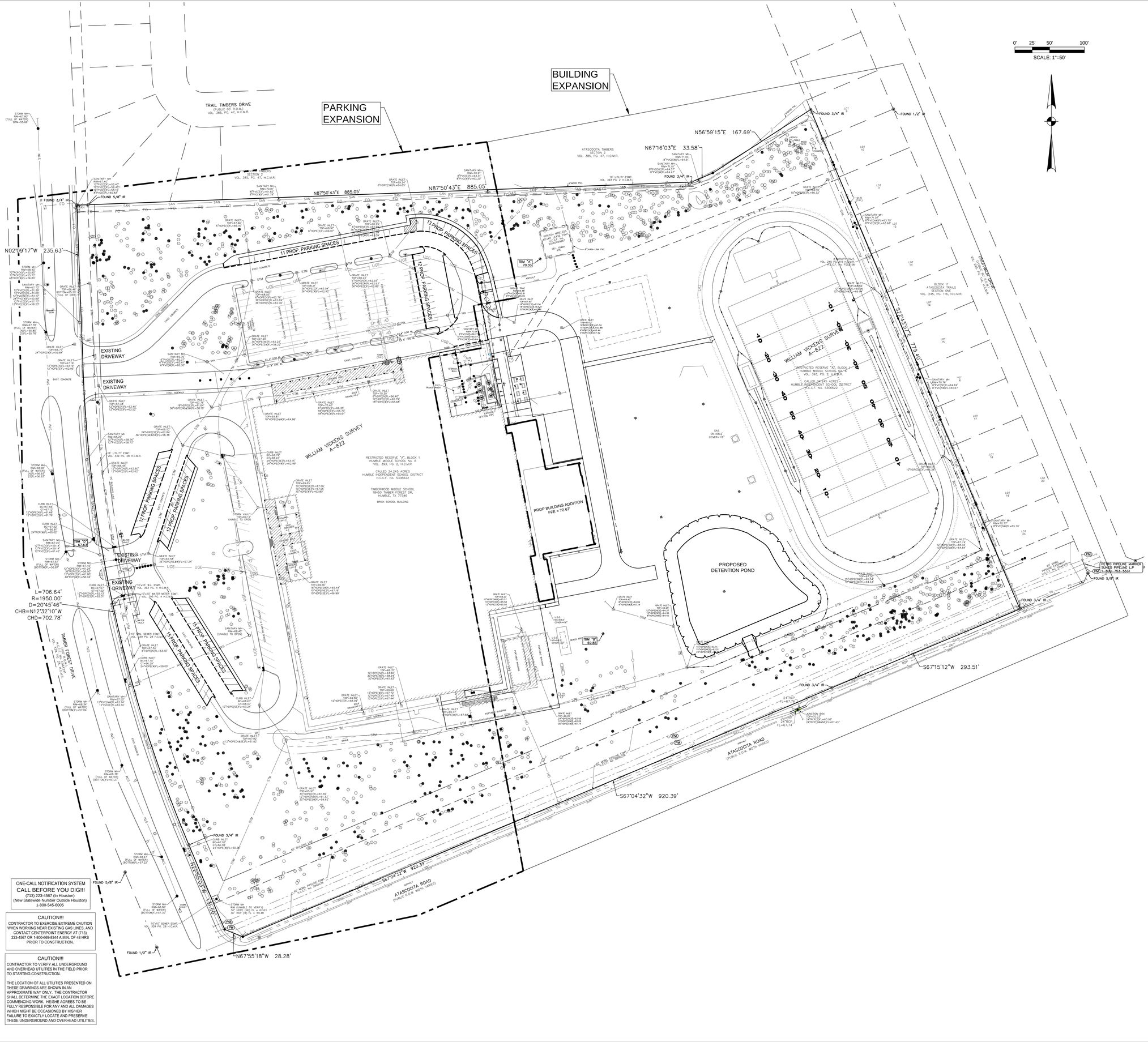
DATE FEBRUARY 23, 2024
DRAWN BY KB
CHECKED BY MN
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024

C0.02

HARRIS COUNTY FLOOD CONTROL REVIEW SHEET



LEGEND	
⊏ ⊐	PROPOSED BUILDING ADDITION

GENERAL CONSTRUCTION NOTES :

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF DISCREPANCIES OCCUR.
3. THE LOCATION OF ALL UTILITIES PRESENTED ON THESE DRAWINGS IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
4. CAUTION!!! THERE ARE OVERHEAD POWER LINES IN THE WORK AREA. CONTRACTOR SHALL FOLLOW CITY, STATE AND FEDERAL GUIDELINES WHEN WORKING AROUND EXISTING POWER LINES.
5. CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR TO STARTING CONSTRUCTION.
6. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR BUILDING DIMENSIONS.
7. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE STAGING AND TRAFFIC CONTROL PLANS WITH OWNER.
8. CONTRACTOR PERFORMING THE WORK SHALL BE RESPONSIBLE FOR SECURING ALL UTILITY PERMITS, PRIOR TO INSTALLATION OF ANY UTILITIES INCLUDING WATER, SEWER, ELECTRIC, CABLE TELEVISION AND GAS.

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
(713) 223-4567 (In Houston)
(New Statewide Number Outside Houston)
1-800-545-6005

CAUTION!!!
CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING GAS LINES, AND CONTACT CENTERPOINT ENERGY AT (713) 223-4567 OR 1-800-669-8344 A MIN. OF 48 HRS PRIOR TO CONSTRUCTION.

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BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
KINGWOOD, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

FRED DALLY 93934 LICENSED PROFESSIONAL ENGINEER 06/02/2025

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

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DATE	FEBRUARY 23, 2024
DRAWN BY	KB
CHECKED BY	MN
BRW PROJECT NUMBER	22300500

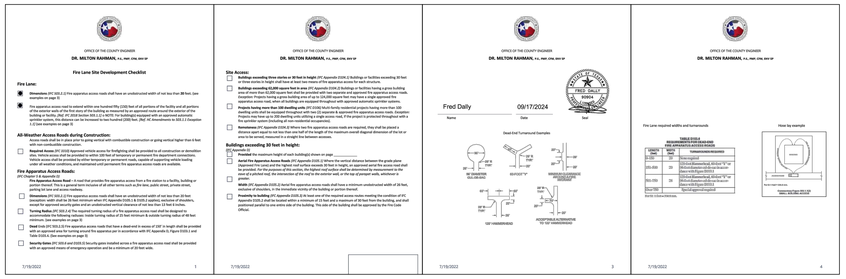
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

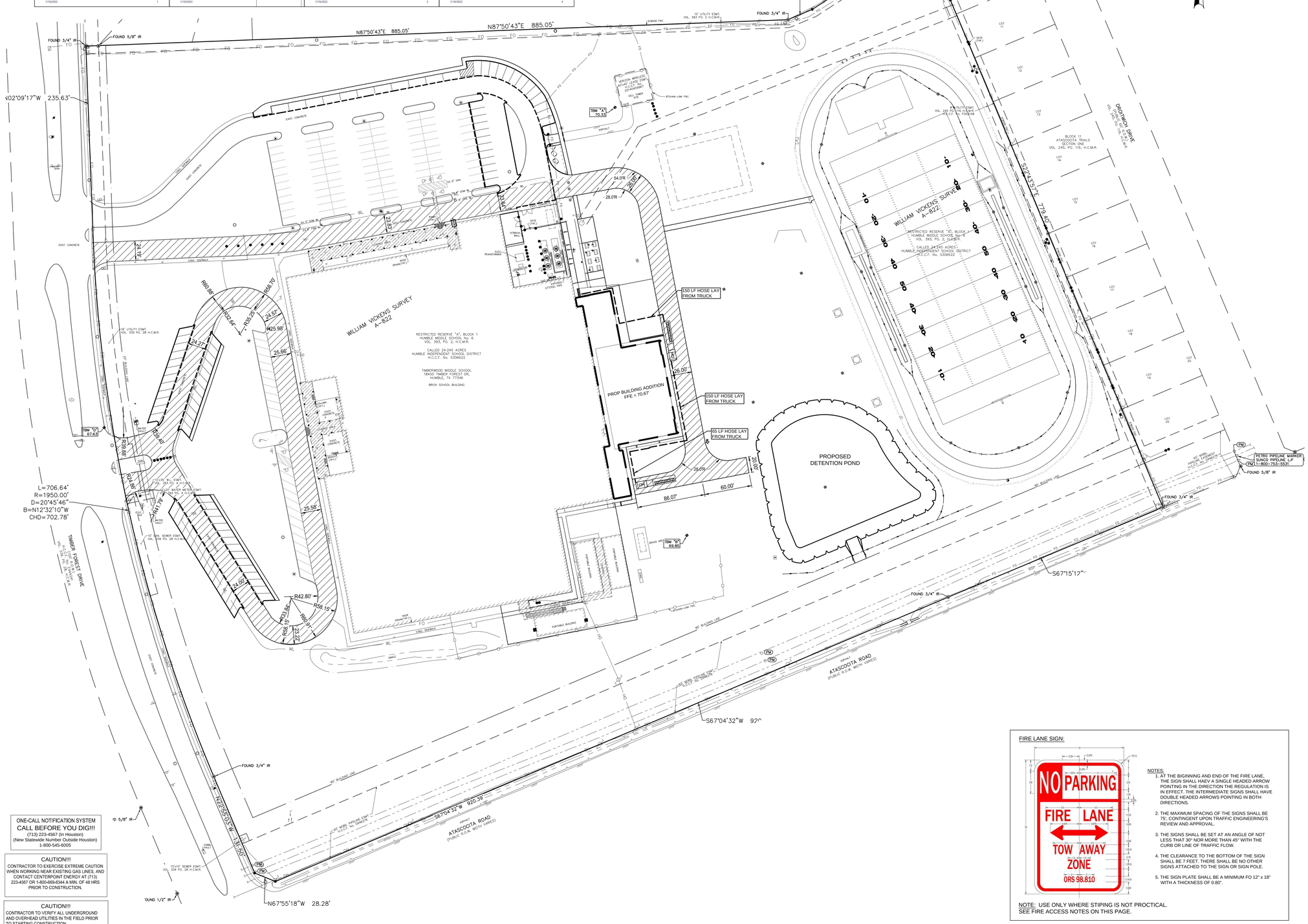
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

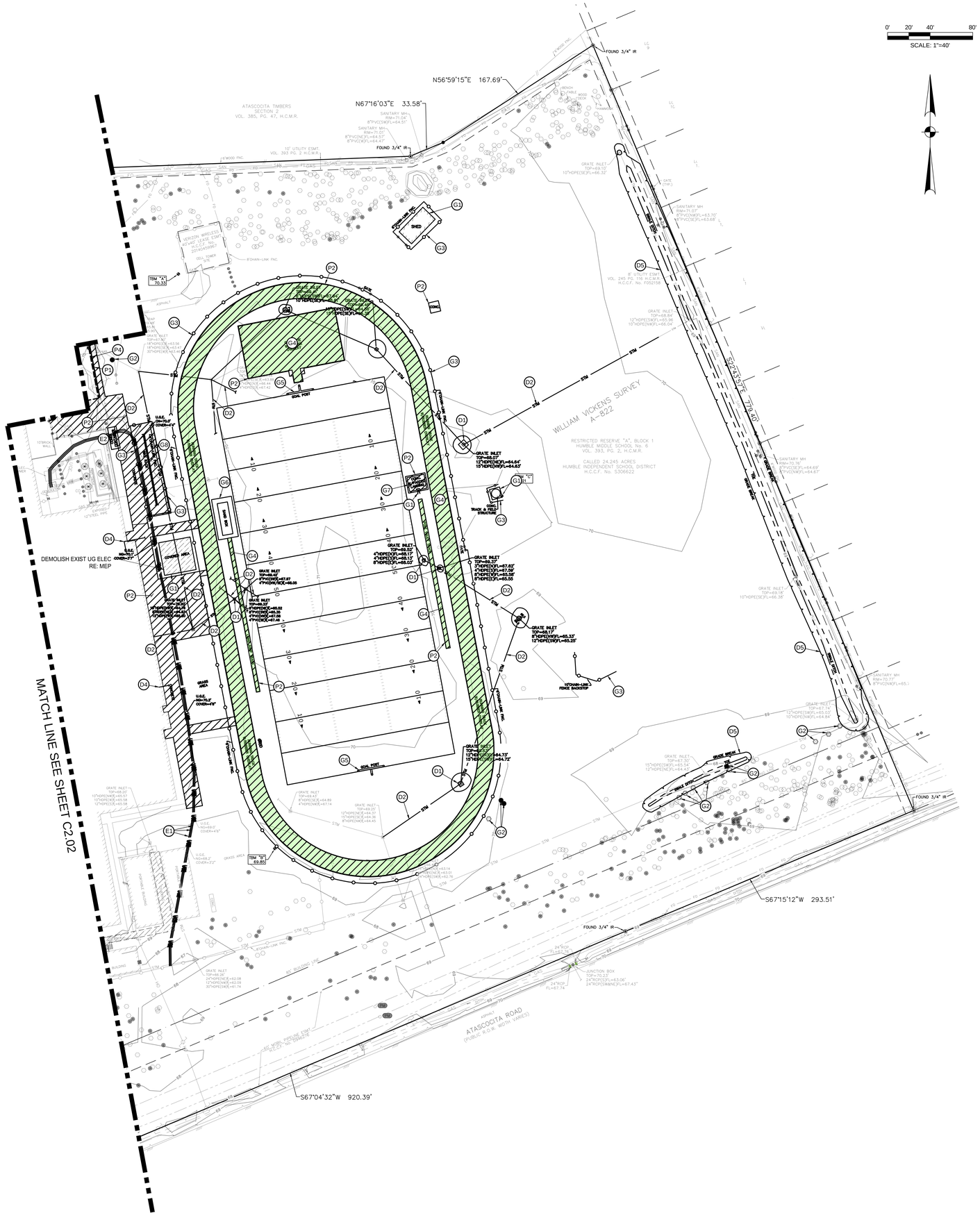
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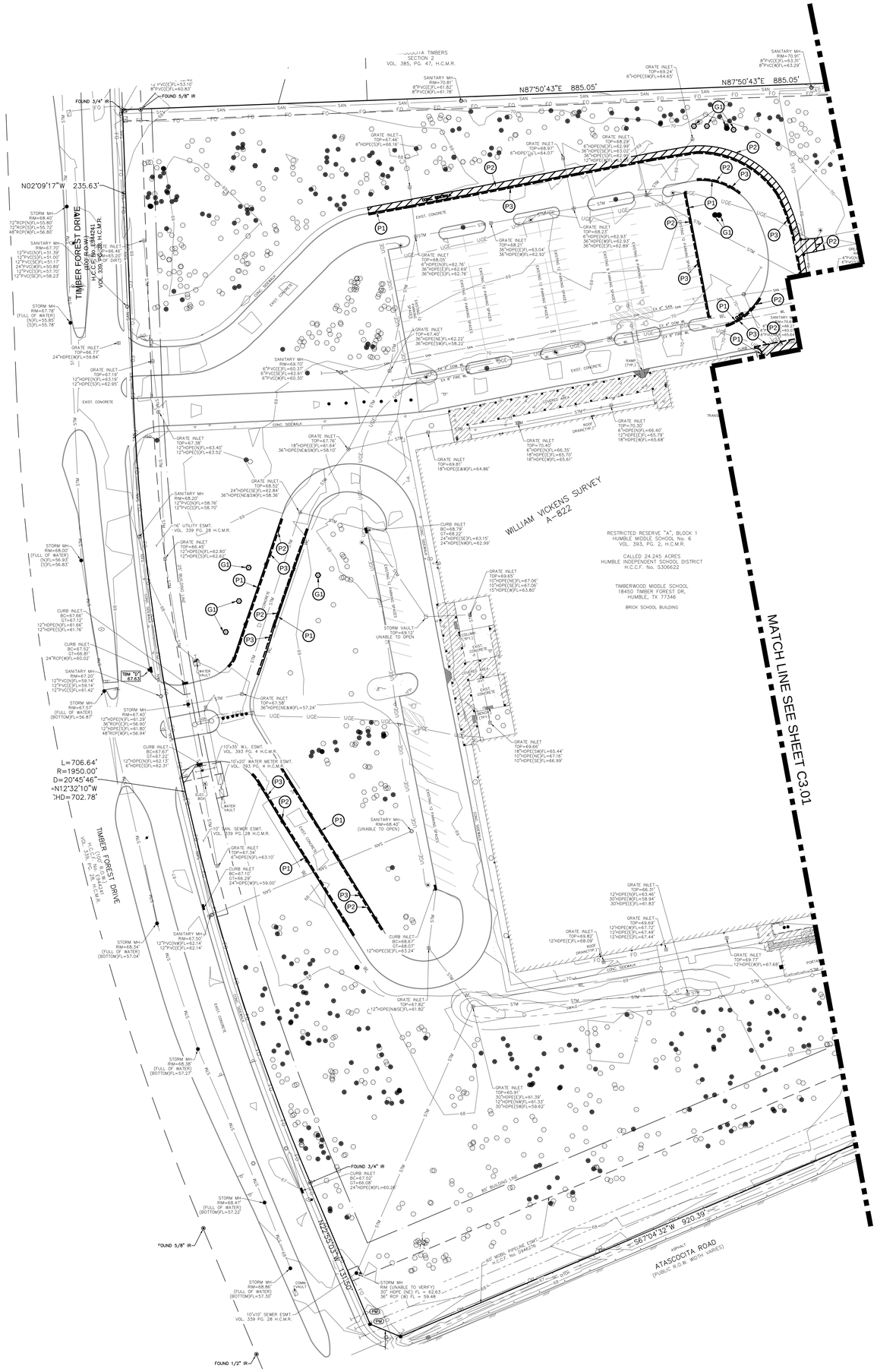
C1.01

OVERALL SITE PLAN




FOUND 3/4" IR
FOUND 5/8" IR
N87°50'43"E 885.05'
N02°09'17"W 235.63'
N56°59'15"E 167.69'
N67°16'03"E 33.58'
FOUND 1/2" IR
ATASCOCITA TIMBERS SECTION 2 VOL. 385, PG. 47, H.C.M.R.
10' UTILITY ESMT. VOL. 393 PG. 2 H.C.M.R.
6' WOOD FNC.
CHAIN-LINK FNC.
EXIST. CONCRETE
EXIST. BRICK
EXIST. SIDEWALK
TBM "A" 70.33
TBM "B" 69.85
TBM "C" 67.63
54.0'R
28.0'R
24.15'
24.82'
WILLIAM VICKENS SURVEY A- 822
RESTRICTED RESERVE "A", BLOCK 1 HUMBLE MIDDLE SCHOOL No. 6 VOL. 393, PG. 2, H.C.M.R.
CALLED 24.245 ACRES HUMBLE INDEPENDENT SCHOOL DISTRICT H.C.C.F. No. 5306622
TIMBERWOOD MIDDLE SCHOOL 18450 TIMBER FOREST DR. HUMBLE, TX 77346
BRICK SCHOOL BUILDING
PROP BUILDING ADDITION FFE = 70.67
26.00'
150 LF HOSE LAY FROM TRUCK
65 LF HOSE LAY FROM TRUCK
PROPOSED DETENTION POND
20.00'
60.00'
86.07'
L=706.64'
R=1950.00'
D=20°45'46"
B=N12°32'10"W
CHD=702.78'
R60.98'
R60.64'
R56.95'
R56.40'
R24.98'
R41.19'
R42.80'
R58.16'
R58.91'
R58.84'
R58.15'
R42.72'
24.57'
25.98'
24.27'
25.66'
25.58'
24.00'
TIMBER FOREST DRIVE
S67°15'12"E
S67°04'32"W 920.39'
N22°55'03"W 135.50'
N67°55'18"W 28.28'
S22°43'57"E 779.10'
DISPATCH DRIVE
BLOCK 11 ATASCOCITA TRAILS SECTION ONE VOL. 245, PG. 116, H.C.M.R.
WILLIAM VICKENS SURVEY A- 822
RESTRICTED RESERVE "A", BLOCK 1 HUMBLE MIDDLE SCHOOL No. 6 VOL. 393, PG. 2, H.C.M.R.
CALLED 24.245 ACRES HUMBLE INDEPENDENT SCHOOL DISTRICT H.C.C.F. No. 5306622
ATASCOCITA ROAD (PUBLIC R.O.W. WIDTH VARIES)
PETRO PIPELINE MARKER SUNOCO PIPELINE LP (TNL) 1-800-793-5531
PIPELINE EASEMENT VOL. 2177 PG. 2 H.C.D.R.
AC MAIN, SEWER, ESMT. & CITY OF HUMBLE
AC MAIN, WATER, ESMT. & CITY OF HUMBLE
10' UTILITY ESMT. VOL. 339 PG. 28 H.C.M.R.
10'x10' SEWER ESMT. VOL. 339 PG. 28 H.C.M.R.
10' HUMBLE UTILITY


0' 20' 40' 80'
SCALE: 1"=40'
LEGEND
PROPOSED SAWCUT
RUBBER OVERLAY REMOVAL LIMITS
CONCRETE PAVEMENT REMOVAL LIMITS
N56°59'15"E 167.69'
N67°16'03"E 33.58'
FOUND 3/4" IR
ATASCOCITA TIMBERS SECTION 2 VOL. 385, PG. 47, H.C.M.R.
WILLIAM VICKENS SURVEY A-822
RESTRICTED RESERVE "A", BLOCK 1 HUMBLE MIDDLE SCHOOL No. 6 VOL. 393, PG. 2, H.C.M.R.
CALLED 24.245 ACRES HUMBLE INDEPENDENT SCHOOL DISTRICT H.C.C.F. No. 5306622
VOL. 245 PG. 116 H.C.M.R. H.C.C.F. No. F052158
S67°24'33"E 729.40'
S67°15'12"W 293.51'
S67°04'32"W 920.39'
ATASCOCITA ROAD (PUBLIC R.O.W. WIDTH VARIES)
DEMOLISH EXIST UG ELEC RE: MEP
MATCH LINE SEE SHEET C2.02
TRACK & FIELD STRUCTURE
SHED
GOAL POST
SAND BOX
BIKE RACK
GRADE BEAM
CONC. PAD
TBM "A" 70.33
TBM "B" 69.85
SAN. MH RIM=71.04' 8"PVC(SW)FL=64.51'
SANITARY MH RIM=71.07' 8"PVC(NW)FL=64.57' 8"PVC(SW)FL=64.47'
SANITARY MH RIM=71.07' 8"PVC(NW)FL=63.70' 8"PVC(SE)FL=63.68'
SANITARY MH RIM=70.76' 8"PVC(SE)FL=64.69' 8"PVC(NW)FL=64.67'
SANITARY MH RIM=70.77' 8"PVC(NW)FL=65.
GRATE INLET TOP=69.52' 10"HDPE(SE)FL=66.32'
GRATE INLET TOP=68.84' 12"HDPE(SW)FL=65.96' 10"HDPE(NW)FL=66.04'
GRATE INLET TOP=67.50' 15"HDPE(SW)FL=65.54' 12"HDPE(NE)FL=64.
GRATE INLET TOP=67.72' 12"HDPE(NW)FL=65.01' 15"HDPE(NW)FL=64.84'
GRATE INLET TOP=68.07' 12"HDPE(NW)FL=64.64' 15"HDPE(NW)FL=64.62'
GRATE INLET TOP=68.37' 3"HDPE(NW)FL=67.63' 4"HDPE(SW)FL=67.59' 8"HDPE(SW)FL=65.58' 8"HDPE(SE)FL=65.55
GRATE INLET TOP=68.17' 8"HDPE(NW)FL=65.33' 12"HDPE(SW)FL=65.25'
GRATE INLET TOP=68.17' 4"HDPE(NW)FL=65.17' 4"HDPE(SW)FL=65.13' 8"HDPE(SE)FL=65.05'
GRATE INLET TOP=68.42' 8"HDPE(SE)FL=64.89' 4"HDPE(NW)FL=67.14'
GRATE INLET TOP=68.23' 12"HDPE(NE)FL=64.36' 8"HDPE(NW)FL=64.45'
GRATE INLET TOP=68.27' 10"HDPE(SW)FL=65.58' 12"HDPE(SE)FL=65.58'
GRATE INLET TOP=68.43' 10"HDPE(NW)FL=65.57' 12"HDPE(SE)FL=65.58'
GRATE INLET TOP=68.44' 10"HDPE(NW)FL=67.42'
GRATE INLET TOP=68.26' 24"HDPE(NE)FL=62.08' 12"HDPE(NW)FL=62.09' 30"HDPE(SW)FL=61.74'
GRATE INLET TOP=68.14' 12"HDPE(NE)FL=63.01' 4"HDPE(SE)FL=62.76'
GRATE INLET TOP=68.23' 12"HDPE(NE)FL=64.36' 8"HDPE(NW)FL=64.45'
GRATE INLET TOP=68.27' 10"HDPE(SW)FL=65.58' 12"HDPE(SE)FL=65.58'
GRATE INLET TOP=68.43' 8"HDPE(SE)FL=64.89' 4"HDPE(NW)FL=67.14



LEGEND

- PROPOSED SAWCUT
- CONCRETE PAVEMENT REMOVAL LIMITS

DEMOLITION NOTES TO CONTRACTOR:

1. THE CONTRACTOR AND OWNER SHALL COORDINATE WITH UTILITY SERVICE PROVIDERS FOR TERMINATION OF POWER AND GAS SERVICES TO THE SITE OR NEW SERVICES. THIS WORK SHALL BE PERFORMED BY THE UTILITY SERVICE PROVIDER AND SHALL BE SCHEDULED AS ONE OF THE FIRST ITEMS OF BUSINESS.
2. ALL SITE FEATURES NOT IDENTIFIED TO BE REMOVED ARE TO REMAIN AND SHALL BE PROTECTED-IN-PLACE.
3. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
4. CONTRACTOR TO FOLLOW ALL RECOMMENDED SAFETY AND DISPOSAL PROCEDURES INCLUDING BUT NOT LIMITED TO EPA, TCEQ & OSHA.
5. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS OFFSITE.
6. BACKFILL ALL VOIDS FROM REMOVED ITEMS WITH STRUCTURAL FILL MATERIAL PLACED AND COMPACTED PER GEOTECHNICAL REPORT.
7. WHEN EXISTING SIDEWALK IS CLOSED FOR CONSTRUCTION, CONTRACTOR SHALL BARRICADE THAT AREA AND PROVIDE SAFE ALTERNATE PATH FOR PEDESTRIANS WITH PROPER SIGNAGE.
8. ALL TRAFFIC SIGNAGE WITHIN THE ROW SHALL BE PROTECTED IN PLACE AT ALL TIMES. ANY DAMAGE TO THESE DEVICES SHALL BE REPAIRED IMMEDIATELY.
9. CONTRACTOR SHALL REPAIR ANY ITEMS DAMAGED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE ON SITE DURING ALL CONSTRUCTION ACTIVITIES.
11. THE CONTRACTOR SHALL ENTER AND EXIT THE SITE THROUGH EXISTING DRIVEWAY.
12. CONTRACTOR SHALL NOTE ALL UTILITY PLUG LOCATIONS ON FIELD RECORD DRAWINGS.

GENERAL DEMOLITION KEY NOTES:

(G1) EXISTING TREE TO BE REMOVED.

PAVING DEMOLITION KEY NOTES:

(P1) EXISTING CONCRETE CURB TO BE REMOVED.

(P2) EXISTING CONCRETE PAVEMENT TO BE REMOVED.

(P3) SAWCUT EXISTING CONCRETE PAVEMENT, CURB, OR SIDEWALK.

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
(713) 223-4567 (In Houston)
(New Statewide Number Outside Houston)
1-800-545-6005

CAUTION!!!
CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING GAS LINES, AND CONTACT CENTERPOINT ENERGY AT (713) 223-4567 OR 1-800-669-8344 A MIN. OF 48 HRS PRIOR TO CONSTRUCTION.

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MISSOURI CITY, TX 77345
281.261.3800
WWW.BRWARCH.COM

BRW

FRED DALLY 93904 LICENSED PROFESSIONAL ENGINEER 06/02/2025

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED ENGINEERING FIRM F-5428

D + A PROJECT No. C23-025-00

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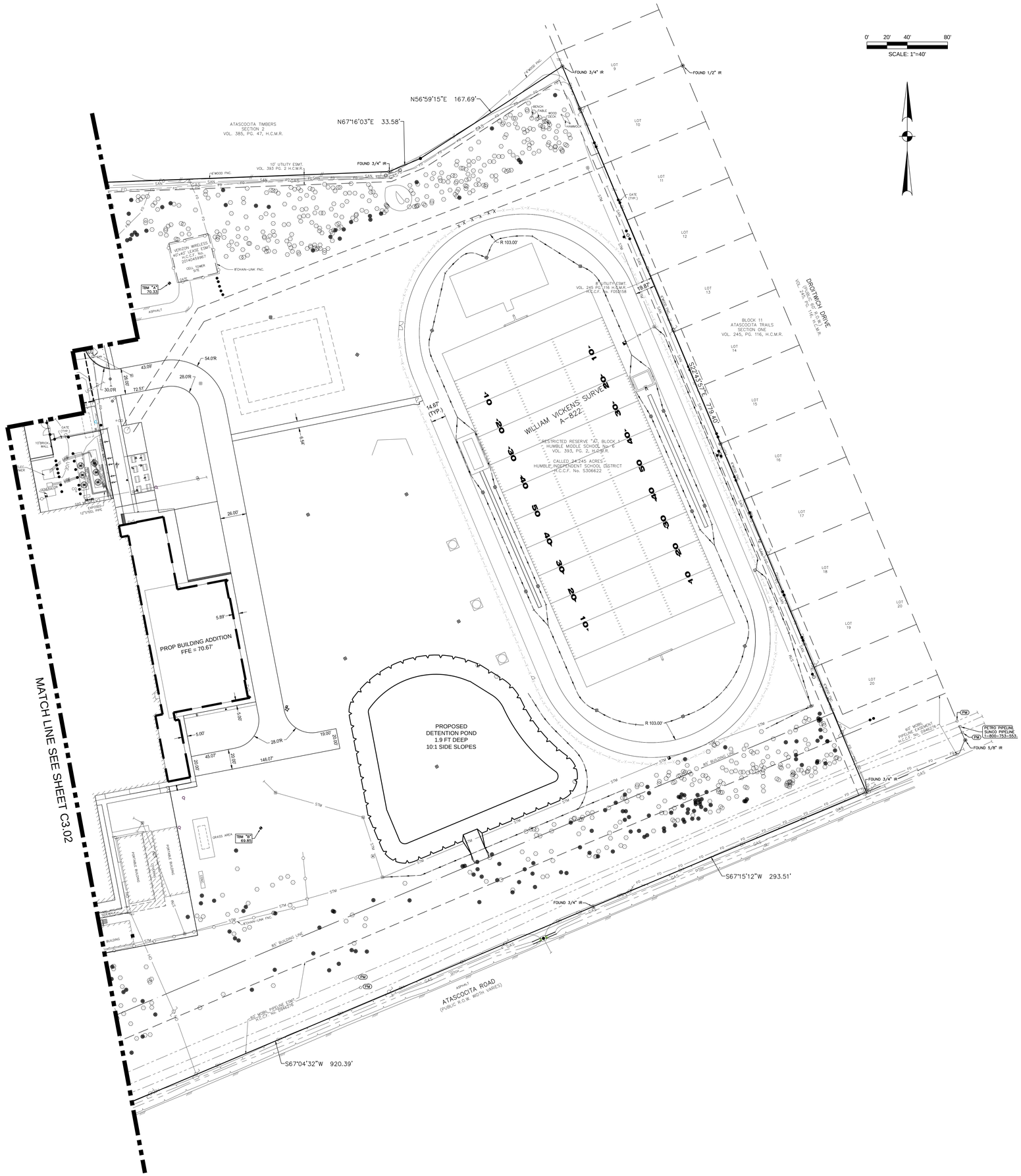
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BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C2.02

DEMOLITION PLAN - PARKING EXPANSION



ONE-CALL NOTIFICATION SYSTEM
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(New Statewide Number Outside Houston)
1-800-545-6005

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LEGEND

PROPOSED BUILDING ADDITION

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5. CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR TO STARTING CONSTRUCTION.
6. ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
7. ALL DIMENSIONS ARE PERPENDICULAR OR PARALLEL TO THEIR RESPECTIVE PROPERTY LINES UNLESS OTHERWISE NOTED.
8. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR BUILDING DIMENSIONS.
9. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE STAGING AND TRAFFIC CONTROL PLANS WITH OWNER.
10. ALL DISTURBED AREAS NOT TO BE PAVED OR LANDSCAPED SHALL BE SODDED UPON COMPLETION.

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

FRED DALLY
93904
REGISTERED ARCHITECT
06/02/2025

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED ENGINEERING FIRM F-5428

D + A PROJECT No. C23-025-00

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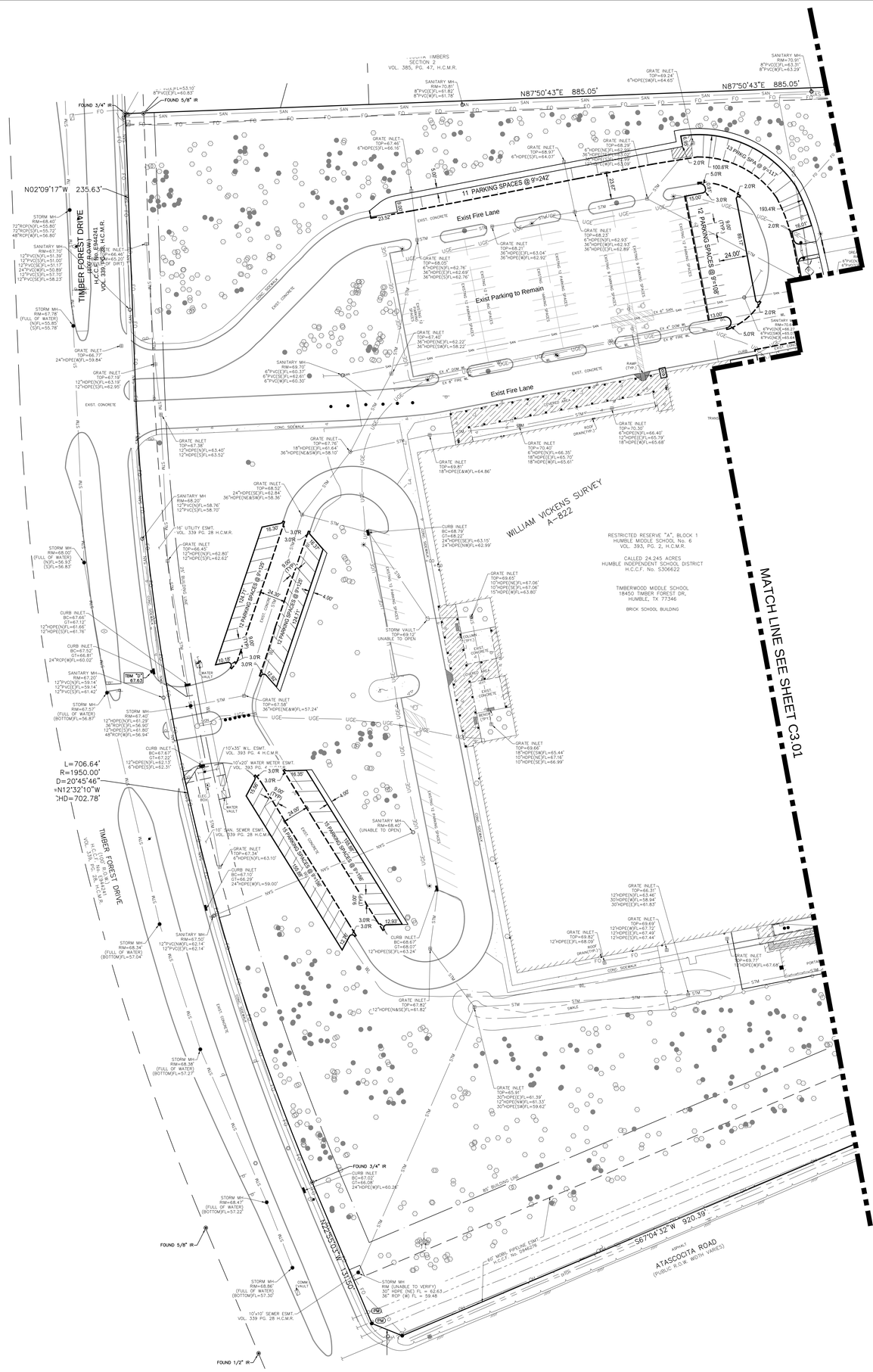
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TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
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C3.01

LAYOUT PLAN -
BUILDING EXPANSION



LEGEND

PROPOSED BUILDING ADDITION

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MISSOURI CITY, TEXAS 77345
281.261.3800
WWW.BRWACILCOM

FRED DALLY JR. 95804 LICENSED PROFESSIONAL ENGINEER 06/02/2025

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 T 713 337 8881
TEXAS REGISTERED ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

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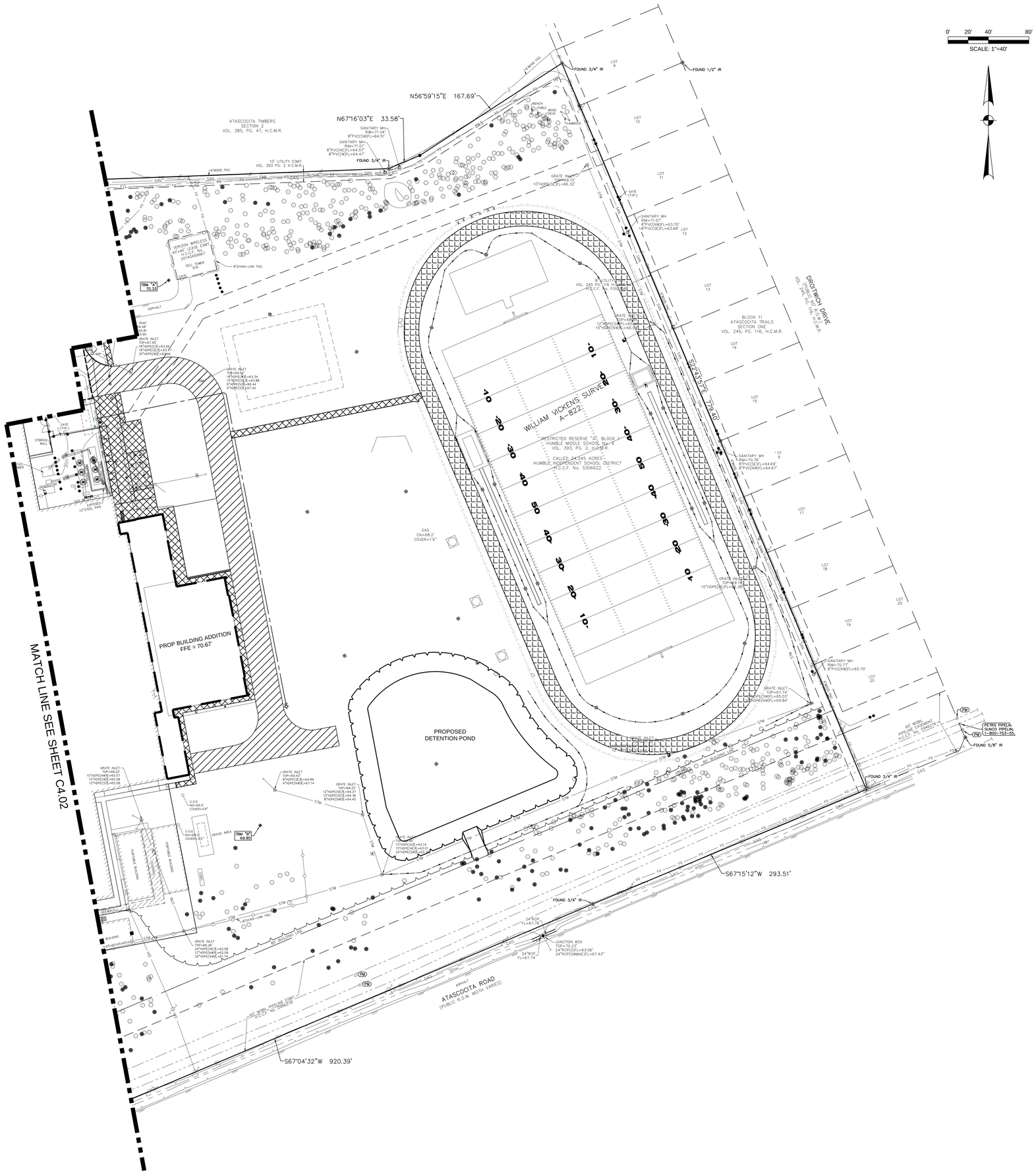
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BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
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2.	HCED COMMENTS	05/30/2025

C3.02

LAYOUT PLAN - PARKING EXPANSION



LEGEND

- PROPOSED BUILDING ADDITION
- PROPOSED SAWCUT
- PROPOSED LIGHT DUTY CONCRETE PAVEMENT PER GEOTECH REPORT
- PROPOSED MEDIUM DUTY CONCRETE PAVEMENT PER GEOTECH REPORT
- PROPOSED 5" CONCRETE SIDEWALK
- PROPOSED TRACK RE: ARCHITECTURAL AND STRUCTURAL

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SAWCUT NOTES:

1. SAWCUT 2" MINIMUM DEPTH, EXPOSE AND CLEAN EXISTING REINFORCING STEEL.
2. IF NO REINFORCING STEEL EXISTS, #5 HORIZONTAL DOWELS, 24" LONG, GRADE 60, SHALL BE DRILLED AND EMBEDDED 12" INTO THE CENTER OF EXISTING CONCRETE WITH EPOXY.
3. ALL REINFORCING STEEL SHALL BE PLACED 3" CLEAR (2" ABSOLUTE MINIMUM) FROM EDGE OF CONCRETE.

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STATE OF TEXAS
FRED DALLY
93904
PROFESSIONAL ENGINEER
06/02/2025

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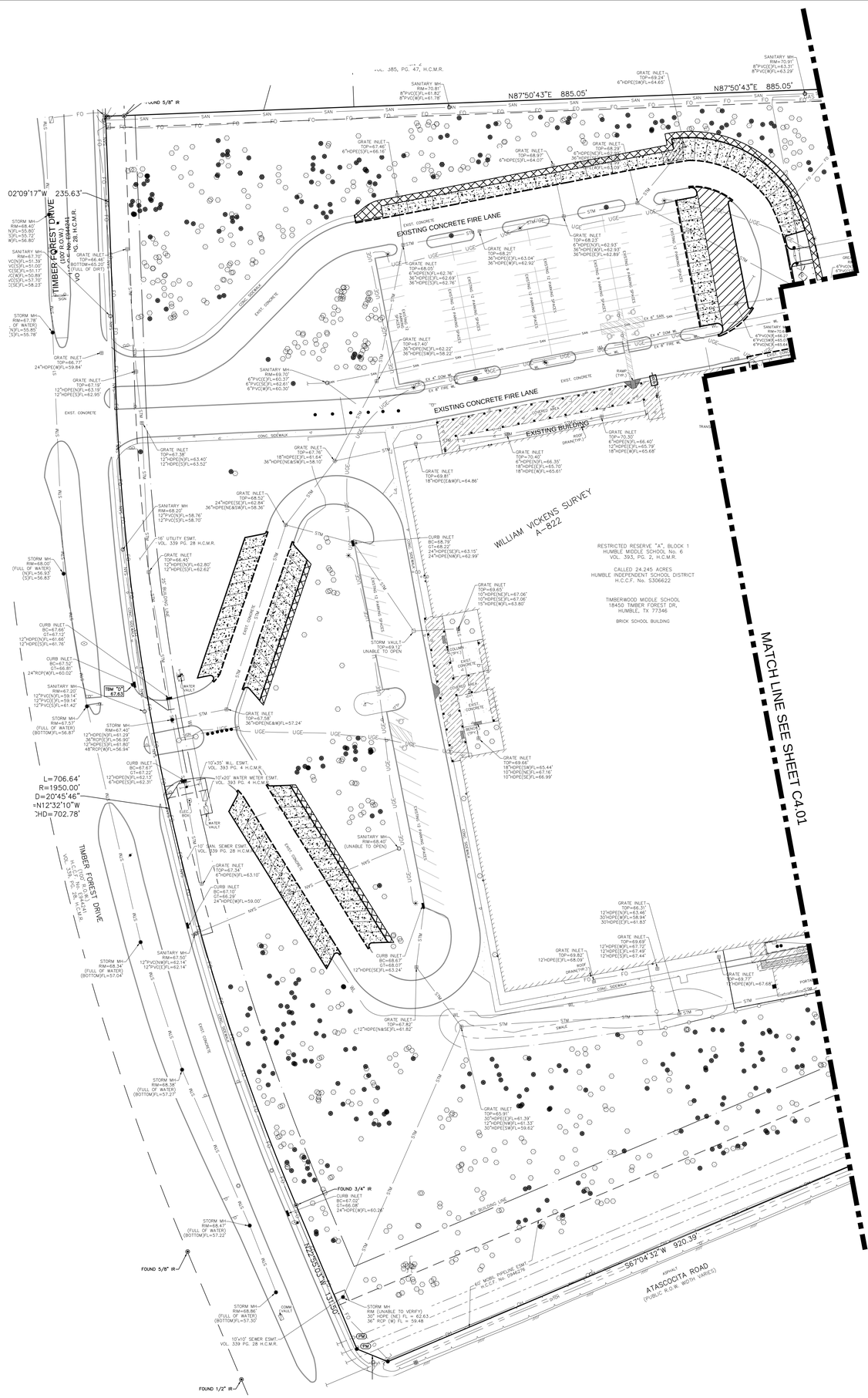
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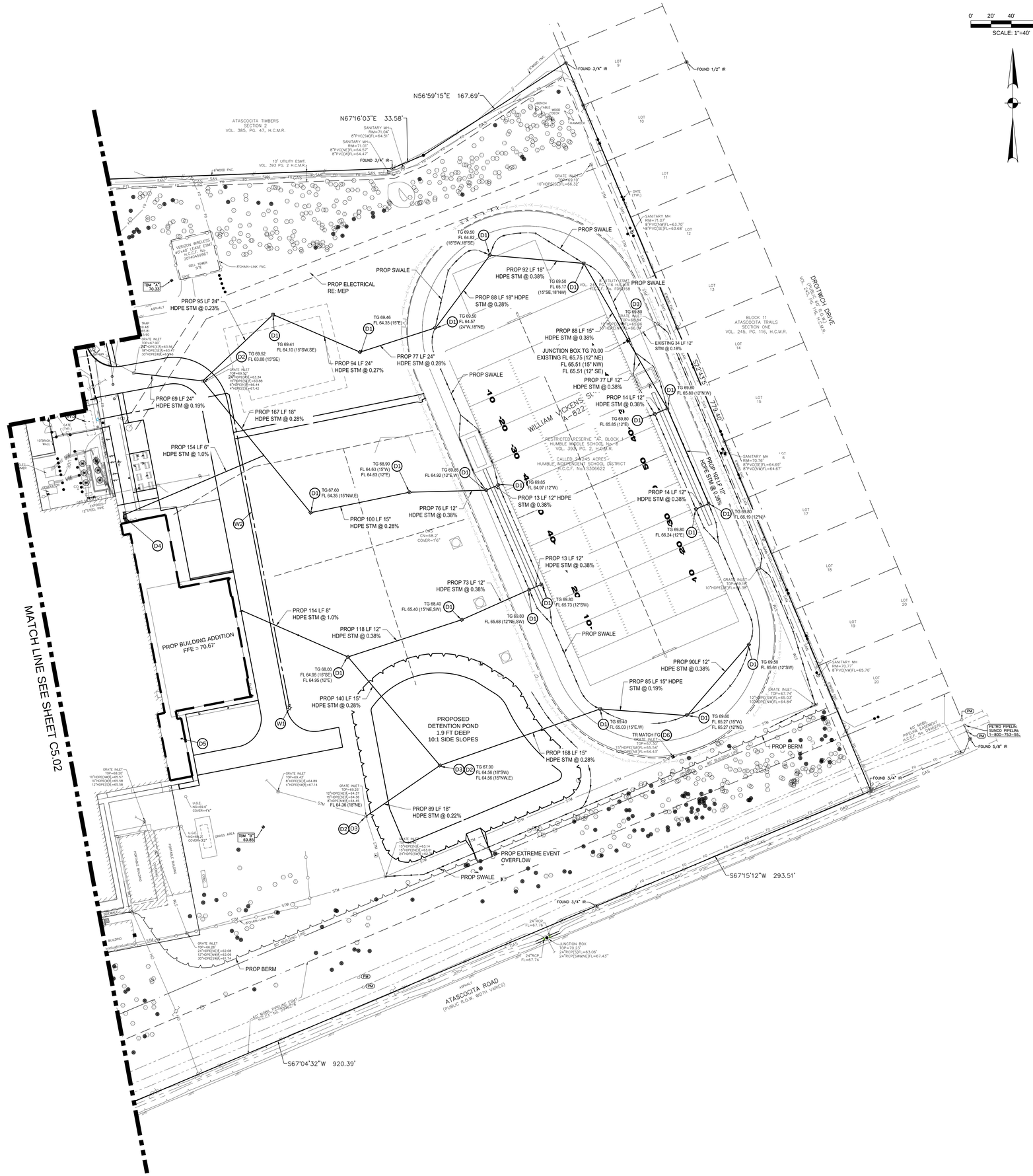
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C4.01

PAVING PLAN -
BUILDING EXPANSION


SCALE: 1"=40'
0' 20' 40' 80'
N87°50'43"E 885.05'
02°09'17"W 235.63'
TIMBER FOREST DRIVE
(100' R.O.W.)
VOL. 28, H.C.M.R.
EXISTING CONCRETE FIRE LANE
EXISTING BUILDING
WILLIAM VICKENS SURVEY
A-822
RESTRICTED RESERVE "A", BLOCK 1
HUMBLE MIDDLE SCHOOL No. 6
VOL. 393, PG. 2, H.C.M.R.
CALLED 24.245 ACRES
HUMBLE INDEPENDENT SCHOOL DISTRICT
H.C.C.F. No. S306622
TIMBERWOOD MIDDLE SCHOOL
18450 TIMBER FOREST DR,
HUMBLE, TX. 77346
BRICK SCHOOL BUILDING
MATCH LINE SEE SHEET C4.01
L=706.64'
R=1950.00'
D=20°45'46"
CHD=N12°32'10"W
CHD=702.78'
N22°55'03"W 133.50'
S67°04'32"W 920.39'
ATASCOCITA ROAD
(PUBLIC R.O.W. WIDTH VARIES)
FOUND 5/8" IR
FOUND 3/4" IR
FOUND 1/2" IR
VOL. 385, PG. 47, H.C.M.R.
VOL. 359, PG. 28 H.C.M.R.
VOL. 393 PG. 4 H.C.M.R.
VOL. 339 PG. 28 H.C.M.R.
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VOL. 339



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LEGEND	
	PROPOSED BUILDING ADDITION
	PROPOSED GRADE BREAK
	SHALLOW SWALE

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11. DOMESTIC WATER LINES LESS THAN 4" IN DIAMETER SHALL BE SCH 40 PVC AND HAVE A MINIMUM COVER OF 2 FEET, DOMESTIC WATER LINES 4" DIAMETER AND LARGER SHALL BE AWWA C-900 DR 14 PVC AND HAVE A MINIMUM COVER OF 4 FEET.
12. FIRE WATER SERVICE SHALL BE C-900 SELF-EXTINGUISHING PVC PIPE THAT BEARS UNDERWRITERS' LABORATORIES MARK OF APPROVAL AND IS ACCEPTABLE WITHOUT PENALTY TO TEXAS STATE FIRE INSURANCE COMMITTEE AND HAVE A MINIMUM COVER OF 4 FEET.
13. SANITARY SEWER PIPE SIZES 6 INCHES AND SMALLER SHALL BE PVC SCHEDULE 40, AND PIPE SIZES 8 INCHES OR LARGER MAY BE SDR 35.

DRAINAGE KEY NOTES:

(D1) PROPOSED TYPE "A" GRATE INLET
(D2) CONNECT PROPOSED HDPE STORM SEWER TO EXISTING INLET. SEAL WALL PENETRATIONS USING WATER STOP AND NON-SHRINK GROUT.
(D3) EXISTING INLET TO REMAIN. ADJUST INLET TOP TO PROPOSED ELEVATION.
(D4) CONNECT PROPOSED DOWN SPOUT TO PROPOSED STORM SEWER USING MANUFACTURED WATER TIGHT FITTINGS.
(D5) PROPOSED DOWN SPOUT. PROVIDE CONC. SPLASH PAD
(D6) CONVERT EXISTING INLET TO PROPOSED JUNCTION BOX WITH LID. MATCH EXISTING FLOWLINE. SEAL WALL PENETRATIONS USING WATER STOP AND NON-SHRINK GROUT.

WATER KEY NOTES:

(W1) PROPOSED FIRE HYDRANT.
(W2) PROPOSED 6" FIRE WATER LINE.
(W3) PROPOSED 8" X 6" TS&V.

DETENTION SUMMARY

DETENTION SUMMARY (Redevelopment)

TOTAL DRAINAGE AREA	1,057,667.29	SQ-FT
INCREASED IMPERVIOUS COVER	70,972.29	SQ-FT
REQUIRED DETENTION RATE (Exist Storm Sewer)	0.750	
REQUIRED DETENTION VOLUME	53,229.22	CU-FT
	1.22	AC-FT
PROVIDED DETENTION VOLUME (POND)	52,489.86	CU-FT
	1.21	AC-FT
PROVIDED DETENTION VOLUME (PIPES)	874.03	CU-FT
	0.02	AC-FT
SURPLUS DETENTION VOLUME	134.67	CU-FT
	0.00	AC-FT

STORM SEWER PIPE SUMMARY

D (IN)	15	18	24
R (FT)	0.625	0.750	1.000
L (LF)	62.39	89	203.78
VOLUME (CF)	76.6	157.3	640.2
TOTAL VOLUME (CF)	**874.03**		

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FIRM F-5428
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FRED DALLY 95634 LICENSED PROFESSIONAL ENGINEER 06/02/2025

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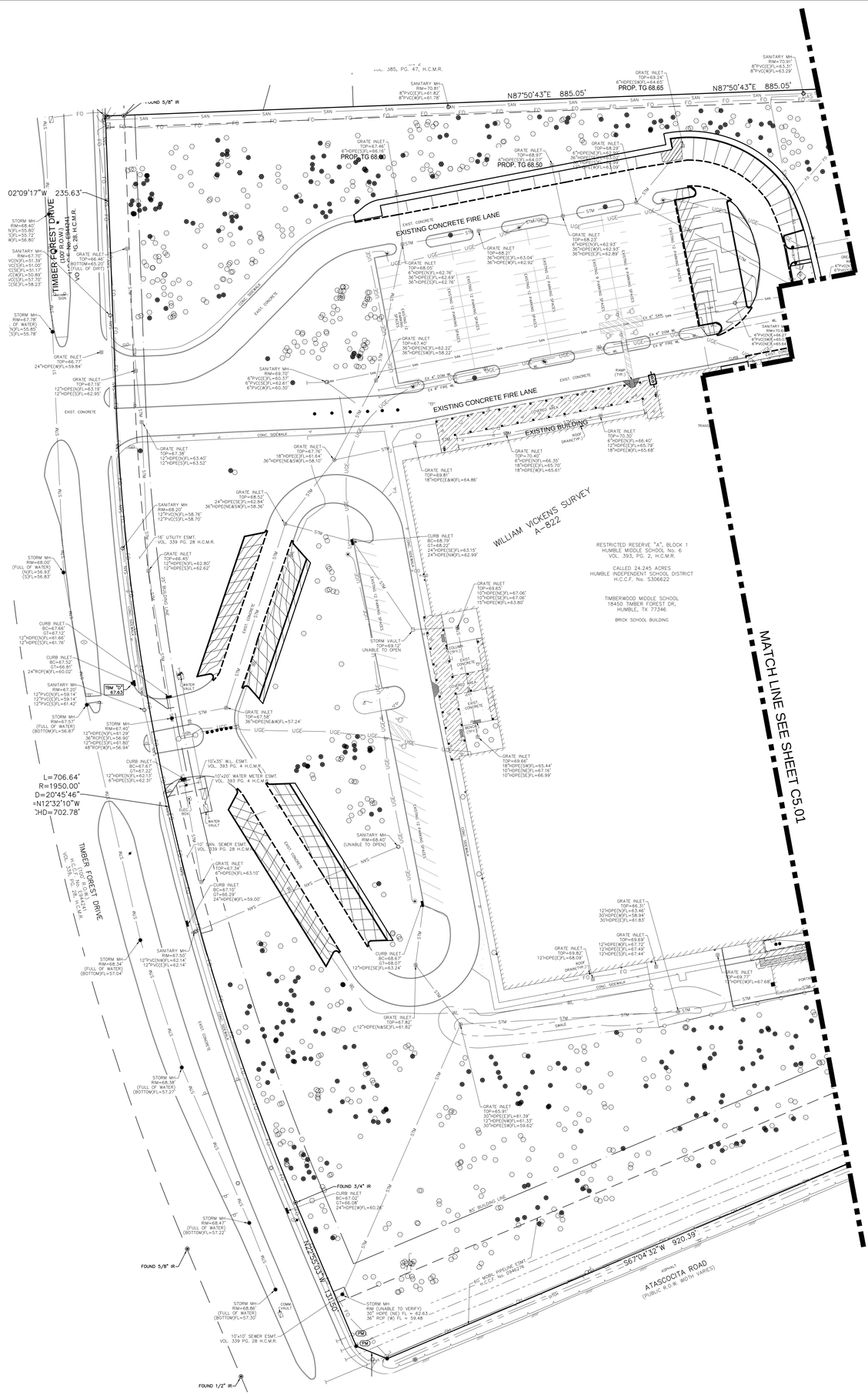
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C5.01

UTILITY PLAN - BUILDING EXPANSION



LEGEND	
	PROPOSED BUILDING ADDITION
	PROPOSED GRADE BREAK
	SHALLOW SWALE

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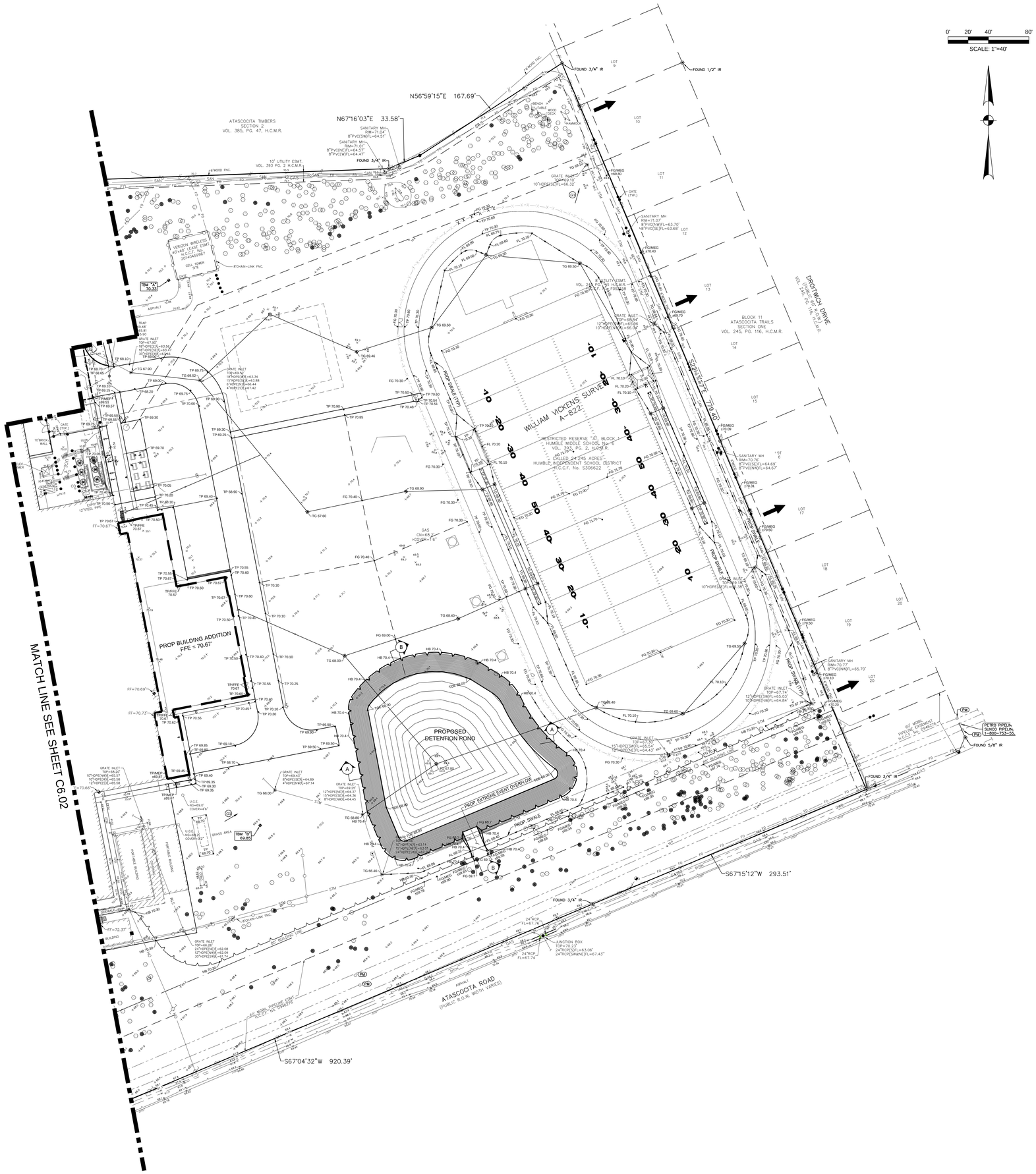
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C5.02

UTILITY PLAN -
PARKING EXPANSION



LEGEND	
	PROPOSED CONSTRUCTION LIMITS
FFE	FINISHED FLOOR ELEVATION
FL	FLOW LINE
FG	FINISHED GRADE
HB	HIGH BANK
MEC	MATCH EXISTING CURB
MEG	MATCH EXISTING GRADE
MEP	MATCH EXISTING PAVEMENT
TC	TOP OF CURB
TG	TOP OF GRATE
TOE	TOE OF SLOPE
TP	TOP OF PAVEMENT

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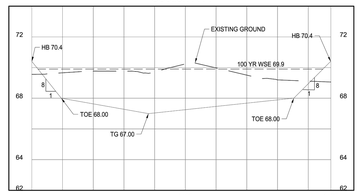
GRADING KEY NOTES:

(G1) GRADE TO DRAIN TO NEAREST INLET.

(G2) PROVIDE BERM AT SOUTH EDGE OF PROPERTY TO CONTAIN DETENTION. TOP OF BERM SHALL BE 70.30 AND MINIMUM 1'-0" WIDE. SLOPE DOWN FROM TOP OF BERM AT 3:1 MAXIMUM SLOPE. LOCATION OF BERM AND SWALE MAY BE ADJUSTED AS NEEDED TO MAINTAIN SLOPES.

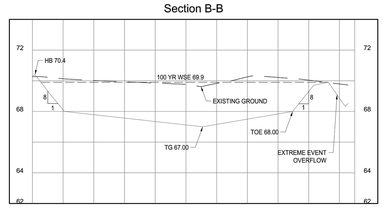
(G3) ADJUST FENCE ELEVATION TO MATCH NEW FINISHED GRADE.

Section A-A



SCALE H: 1"-20'
V: 1"-2'

Section B-B



SCALE H: 1"-20'
V: 1"-2'

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
(713) 223-4567 (In Houston)
(New Statewide Number Outside Houston)
1-800-545-6005

CAUTION!!!
CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING NEAR EXISTING GAS LINES, AND CONTACT CENTERPOINT ENERGY AT (713) 223-4567 OR 1-800-669-8344 A MIN. OF 48 HRS PRIOR TO CONSTRUCTION.

CAUTION!!!
CONTRACTOR TO VERIFY ALL UNDERGROUND AND OVERHEAD UTILITIES IN THE FIELD PRIOR TO STARTING CONSTRUCTION.

THE LOCATION OF ALL UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE/SHE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS/HER FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND AND OVERHEAD UTILITIES.

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

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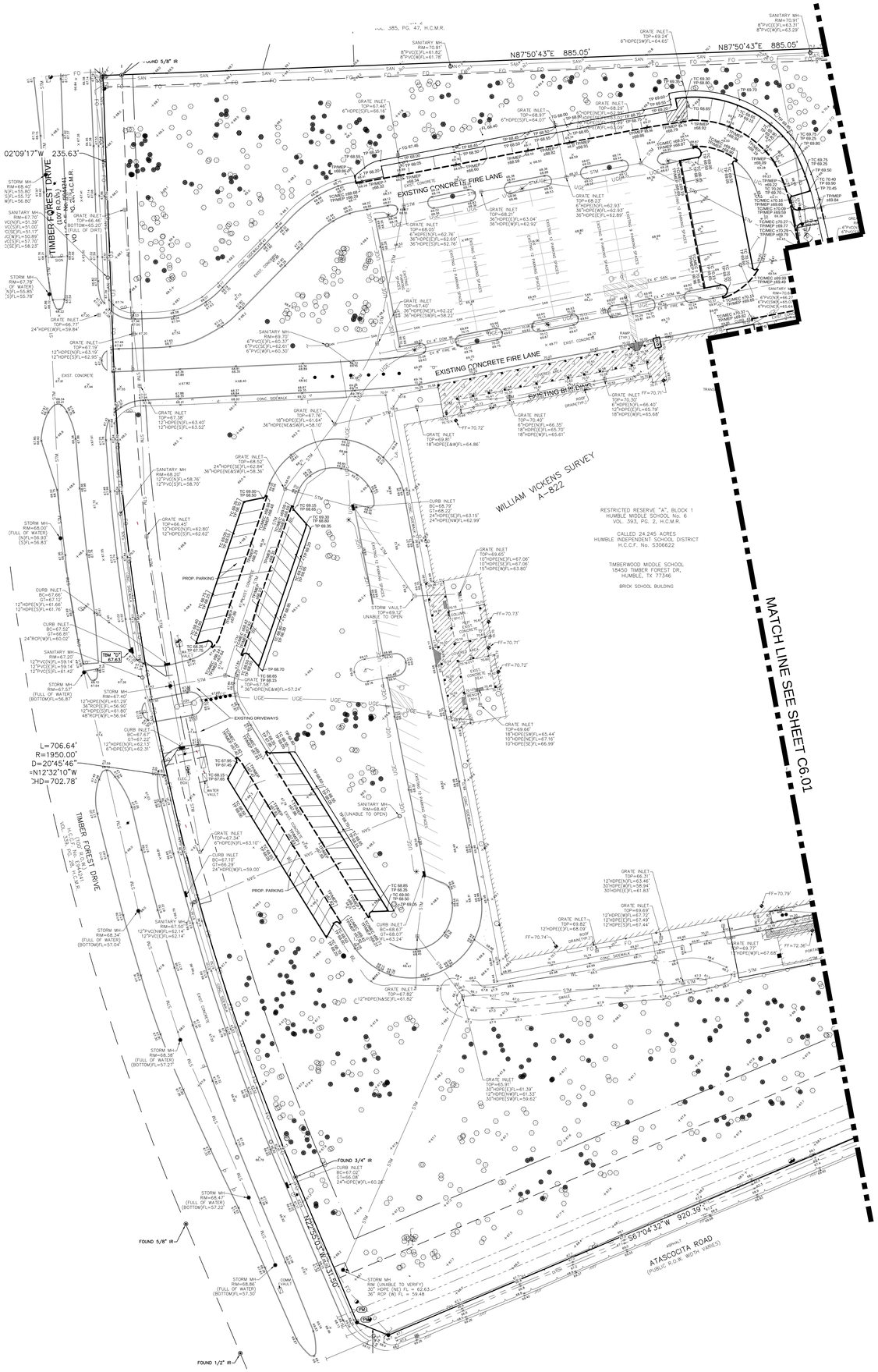
DATE	FEBRUARY 23, 2024
DRAWN BY	KB
CHECKED BY	MN
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03.12.2024
2	HCED COMMENTS	05.30.2025

C6.01

GRADING PLAN - BUILDING EXPANSION



0' 20' 40' 80'

SCALE: 1"=40'

LEGEND

	PROPOSED CONSTRUCTION LIMITS
FFE	FINISHED FLOOR ELEVATION
FL	FLOW LINE
FG	FINISHED GRADE
MEC	MATCH EXISTING CURB
MEG	MATCH EXISTING GRADE
MEP	MATCH EXISTING PAVEMENT
TC	TOP OF CURB
TG	TOP OF GRATE
TP	TOP OF PAVEMENT

GENERAL CONSTRUCTION NOTES :

1. ALL UNDERGROUND UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE.
2. CONTRACTOR TO VERIFY ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF DISCREPANCIES OCCUR.
3. THE LOCATION OF ALL UTILITIES PRESENTED ON THESE DRAWINGS IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.
4. CAUTION!!! THERE ARE OVERHEAD POWER LINES IN THE WORK AREA. CONTRACTOR SHALL FOLLOW CITY, STATE AND FEDERAL GUIDELINES WHEN WORKING AROUND EXISTING POWER LINES.
5. CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS REQUIRED PRIOR TO STARTING CONSTRUCTION.
6. SIDEWALKS SHALL HAVE A RUN SLOPE NO GREATER THAN 5% AND A CROSS SLOPE NO GREATER THAN 2%, UNLESS OTHERWISE NOTED.
7. ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
8. ALL DIMENSIONS ARE PERPENDICULAR OR PARALLEL TO THEIR RESPECTIVE PROPERTY LINES UNLESS OTHERWISE NOTED.
9. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR BUILDING DIMENSIONS.
10. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE STAGING AND TRAFFIC CONTROL PLANS WITH OWNER.
11. ALL DISTURBED AREAS NOT TO BE PAVED OR LANDSCAPED SHALL BE SODDED UPON COMPLETION.
12. WATER AND SEWER MAINS SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH TCEQ RULES AND REGULATIONS.
13. CONTRACTOR PERFORMING THE WORK SHALL BE RESPONSIBLE FOR SECURING ALL UTILITY PERMITS, PRIOR TO INSTALLATION OF ANY UTILITIES INCLUDING WATER, SEWER, ELECTRIC, CABLE TELEVISION AND GAS.

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LEAGUE CITY, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

BRW

STATE OF TEXAS
FRED DALLY
93904
REGISTERED ARCHITECT
06/02/2025

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

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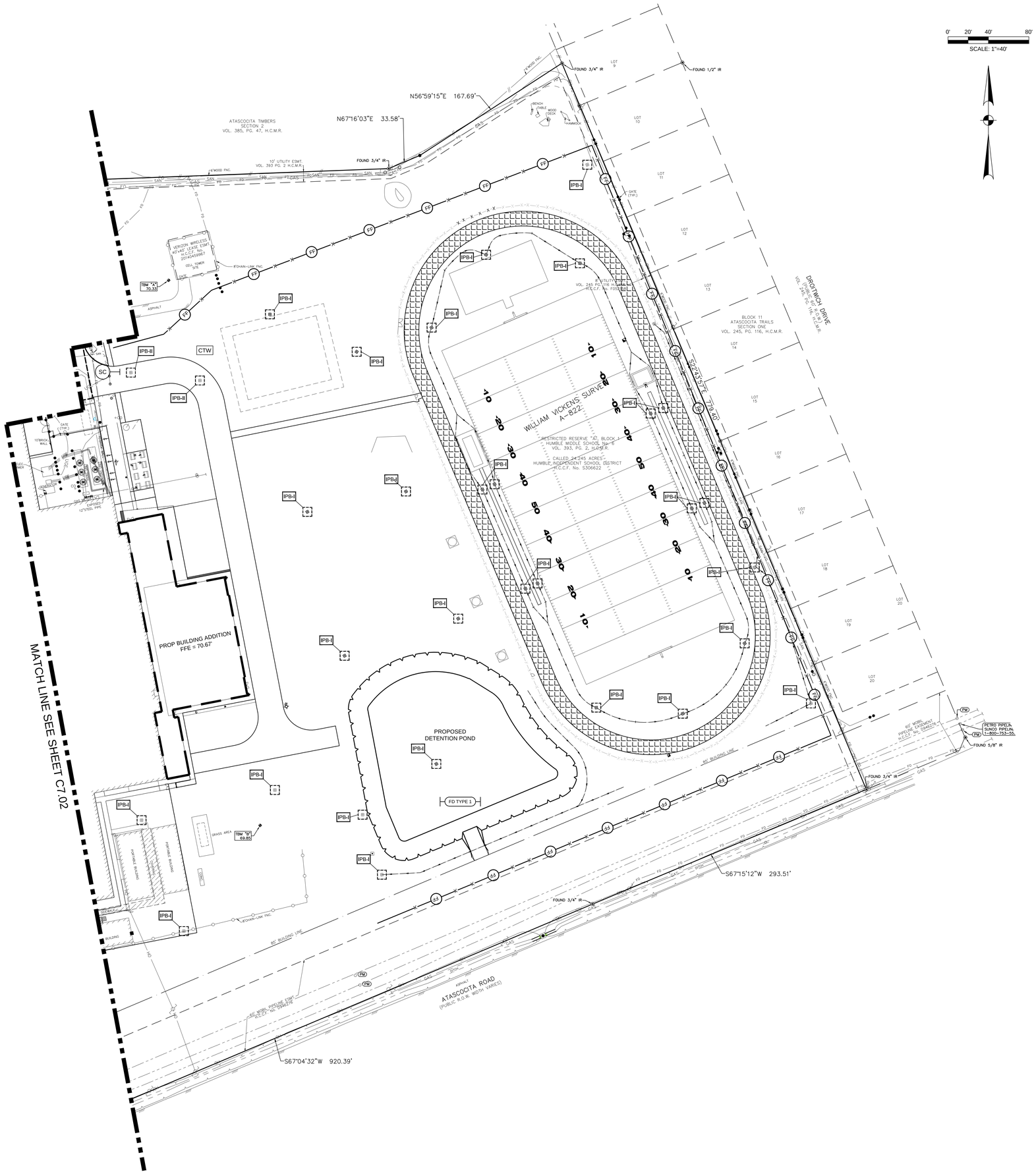
DATE	FEBRUARY 23, 2024
DRAWN BY	KB
CHECKED BY	MN
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C6.02

GRADING PLAN - PARKING EXPANSION



LEGEND

- PROPOSED BUILDING LIMITS
- IPB-I — INLET PROTECTION BARRIER (STAGE I)
- IPB-II — INLET PROTECTION BARRIER (STAGE II)
- FF — FILTER FABRIC FENCE
- FD TYPE 1 — FILTER DAM
- PROPOSED SILT SOCK
- SC — STABILIZED CONSTRUCTION ACCESS
- CTW — CONCRETE TRUCK WASHOUT

GENERAL CONSTRUCTION NOTES

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6. ALL DISTURBED AREAS SHALL BE SODDED UPON COMPLETION IF NOT TO BE PAVED OR LANDSCAPED.
7. CONTRACTOR SHALL UTILIZE TEMPORARY EROSION CONTROL MAT OR EQUAL DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ENSURING WATER QUALITY CONTROLS MEET TCEQ STANDARDS.

SWPPP CONSTRUCTION NOTES :

1. ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.
2. APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.
3. ALL EROSION CONTROL MEASURES SHALL BE CLEANED AFTER EVERY RAIN.
4. CONTRACTOR SHALL ENTER AND EXIT SITE FROM EXISTING DRIVEWAY.

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D + A PROJECT No. C23-025-00

06/02/2025

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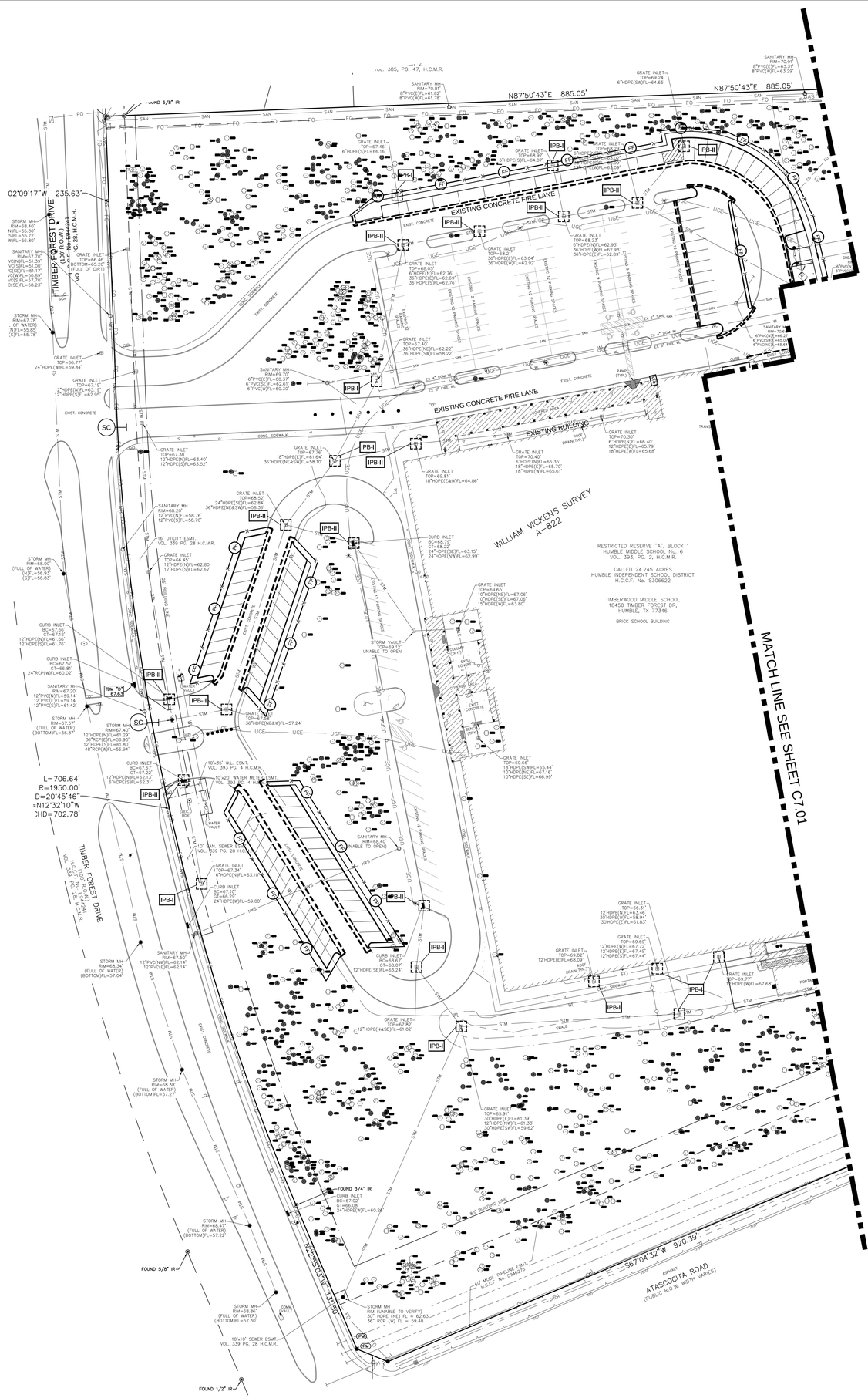
DATE FEBRUARY 23, 2024
DRAWN BY KB
CHECKED BY MN
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C7.01

SWPPP - BUILDING EXPANSION



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LEGEND

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IPB-II	INLET PROTECTION BARRIER (STAGE II)
FF	FILTER FABRIC FENCE
FD TYPE 1	FILTER DAM
	PROPOSED SILT SOCK
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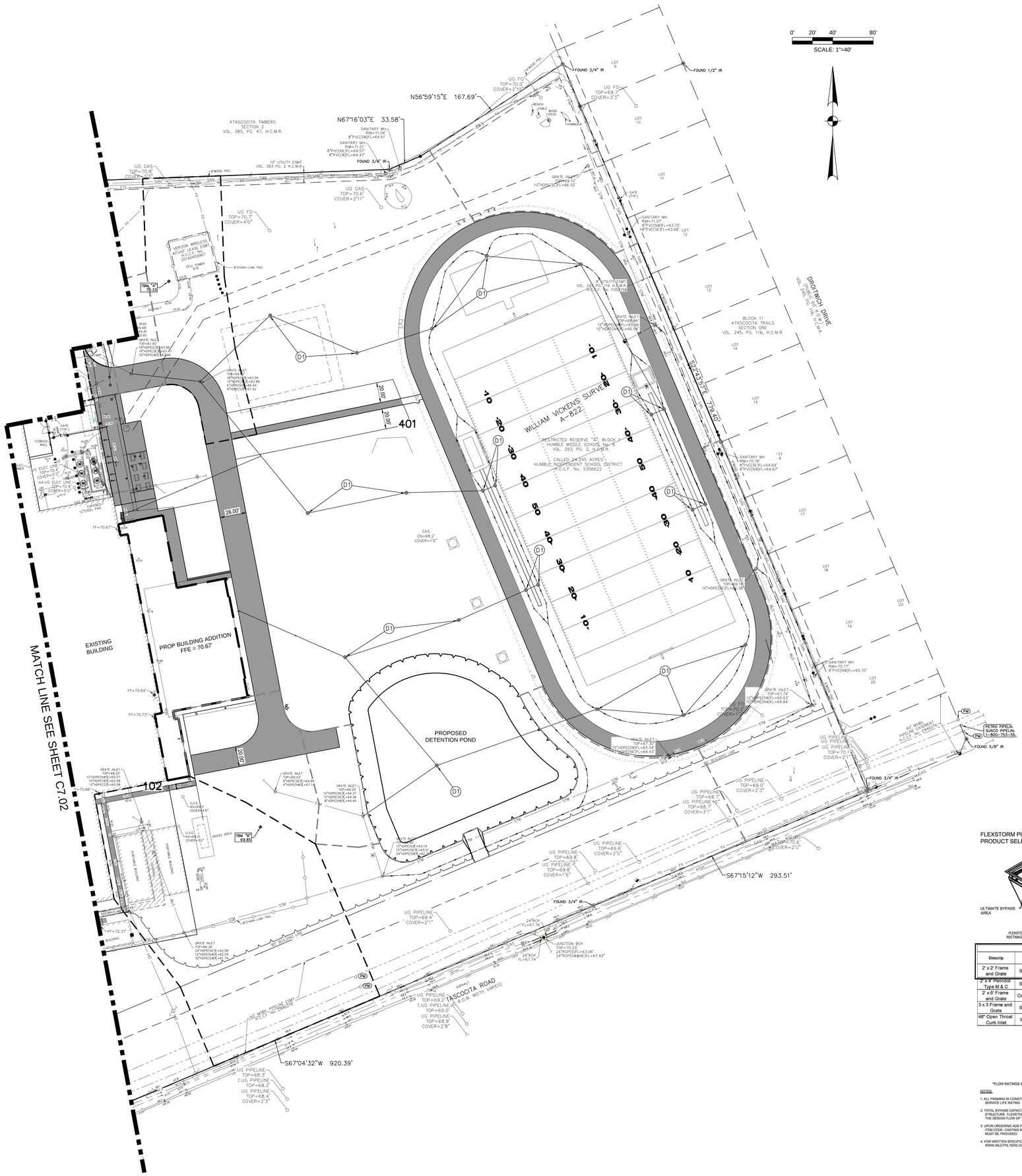
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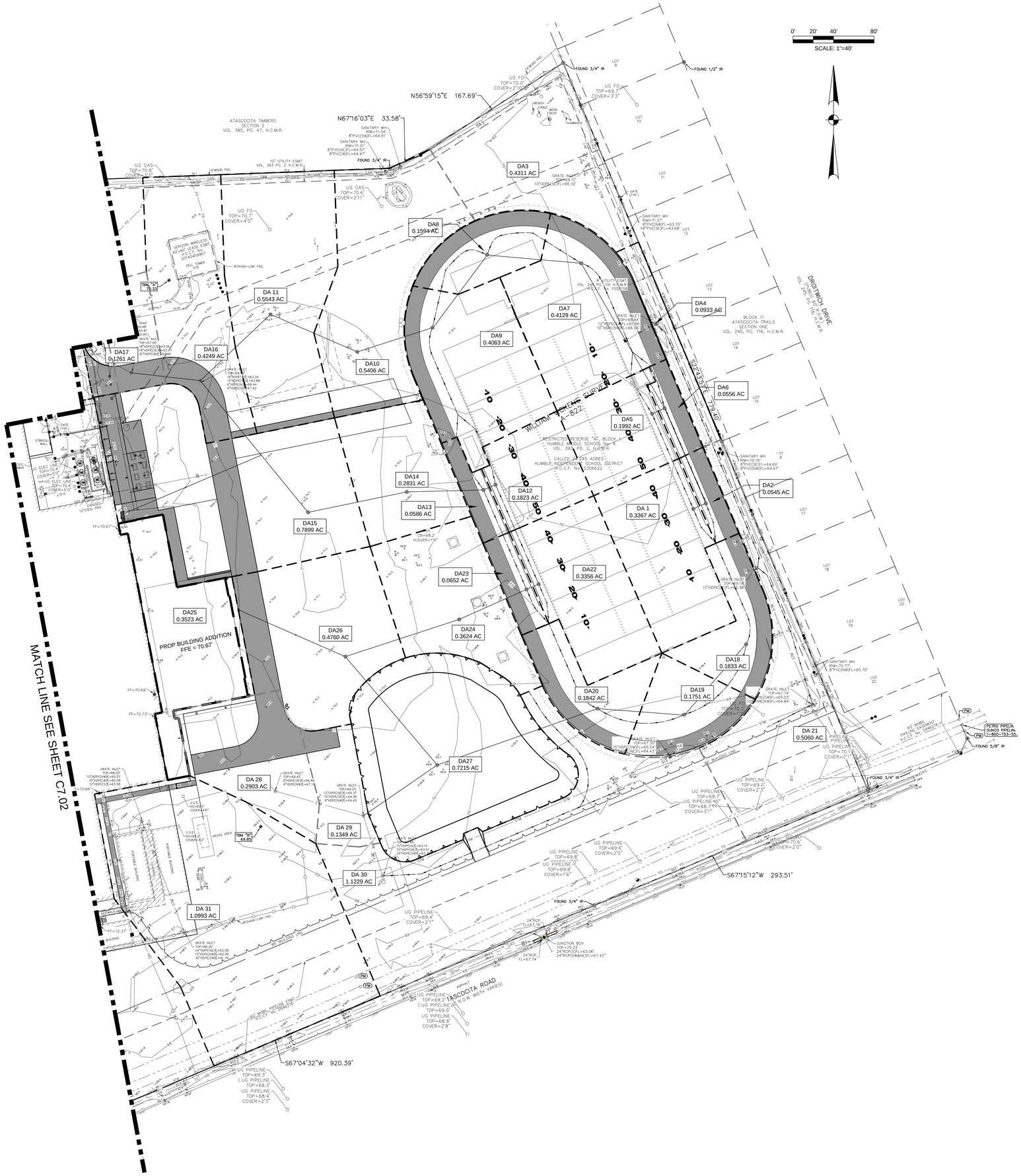
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
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18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

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C7.02

SWPPP - PARKING EXPANSION


SCALE: 1"=40'
0' 20' 40' 80'
N56°59'15"E 167.69'
N67°16'03"E 33.58'
S42°53'57"E 779.40'
S67°15'12"W 293.51'
S67°04'32"W 920.39'
WILLIAM VICKENS SURVEY
A-822
RESTRICTED RESERVE "C", BLOCK 1
HUMBLE MIDDLE SCHOOL No. 6
VOL. 393, PG. 2, H.C.M.R.
CALLED 24.245 ACRES
HUMBLE INDEPENDENT SCHOOL DISTRICT
H.C.C.F. No. S306622
ATASCOCITA TIMBERS
SECTION 2
VOL. 385, PG. 47, H.C.M.R.
BLOCK 11
ATASCOCITA TRAILS
SECTION ONE
VOL. 245, PG. 116, H.C.M.R.
DROITWICH DRIVE
(PUBLIC 80' R.O.W.)
VOL. 245, PG. 116, H.C.M.R.
ATASCOCITA ROAD
(PUBLIC R.O.W. WIDTH VARIES)
401
102
EXISTING BUILDING
PROP BUILDING ADDITION
FFE = 70.67'
PROPOSED DETENTION POND
MATCH LINE SEE SHEET C7.02
FOUND 3/4" IR
FOUND 1/2" IR
FOUND 5/8" IR
PETRO PIPELN.
SUNCO PIPELN.
1-800-753-30.
VERIZON WIRELESS
AT&T LEASE ESMT.
VOL. 393, PG. 2
20140459987
10' UTILITY ESMT.
VOL. 393, PG. 2, H.C.M.R.
26.00'
20.00'
TBM "A"
29.33
TBM "B"
69.50
SANITARY MH
RIM=71.04'
8"PVC(S/W)FL=64.51'
SANITARY MH
RIM=71.01'
8"PVC(NE)FL=64.57'
8"PVC(W)FL=64.47'
SANITARY MH
RIM=71.07'
8"PVC(NW)FL=63.70'
18"PVC(SE)FL=63.68'
SANITARY MH
RIM=70.76'
8"PVC(SE)FL=64.69'
8"PVC(NW)FL=64.67'
SANITARY MH
RIM=70.77'
8"PVC(NW)FL=65.70'
GRATE INLET
TOP=69.10'
10"HDPE(S/E)FL=66.32'
GRATE INLET
TOP=68.84'
12"HDPE(E)FL=63.60'
10"HDPE(N/W)FL=66.00'
GRATE INLET
TOP=69.43'
8"HDPE(SE)FL=64.89'
4"HDPE(NW)FL=67.19'
GRATE INLET
TOP=69.20'
12"HDPE(NE)FL=64.37'
15"HDPE(SE)FL=64.36'
8"HDPE(NW)FL=64.45'
GRATE INLET
TOP=67.30'
15"HDPE(SW)FL=65.54'
10"HDPE(NE)FL=64.43'
GRATE INLET
TOP=67.24'
12"HDPE(SW)FL=65.05'
10"HDPE(NW)FL=64.84'
GRATE INLET
TOP=69.18'
10"HDPE(SE)FL=64.38'
GRATE INLET
TOP=68.37'
15"HDPE(NW)FL=65.57'
15"HDPE(SW)FL=65.58'
12"HDPE(S)FL=65.58'
GRATE INLET
TOP=68.07'
18"HDPE(E)FL=63.56'
15"HDPE(W)FL=63.63'
30"HDPE(W)FL=63.44'
GRATE INLET
TOP=68.07'
24"HDPE(NE)FL=62.08'
12"HDPE(NW)FL=62.09'
30"HDPE(NW)FL=62.74'
GRATE INLET
TOP=68.84'
15"HDPE(E)FL=63.14'
15"HDPE(W)FL=63.01'
24"HDPE(NW)FL=62.91'
JUNCTION BOX
TOP=70.23'
24"RCP(S)FL=63.06'
24"RCP(S/W&NE)FL=67.43'
24"RCP
FL=67.74'
24"RCP
FL=67.76'
UG FO
TOP=70.0'
COVER=2'10"
UG FO
TOP=69.7'
COVER=3'3"
UG FO
TOP=70.7'
COVER=4'0"
UG FO
TOP=70.2'
COVER=2'6"
UG GAS
TOP=70.8'
COVER=2'0"
UG GAS
TOP=70.6'
COVER=2'11"
UG ELEC LINE
TOP=70.4'
COVER=3'0"
UG ELEC LINE
TOP=70.4'
COVER=3'0"
U.G.E.
NO=69.6'
COVER=4.6'
U.G.E.
NO=68.6'
COVER=3.2'
GAS
CN=68.2'
COVER=1'6"
UG PIPELINE
TOP=69.8'
UG PIPELINE
TOP=69.8'
COVER=1'6"
UG PIPELINE
TOP=69.6'
COVER=2'0"
UG PIPELINE
TOP=69.0'
COVER=2'3"
UG PIPELINE
TOP=68.7'
UG PIPELINE
TOP=68.7'
COVER=3'1"
UG PIPELINE
TOP=70.1'
COVER=2'1"
UG PIPELINE
TOP=69.4'
COVER=2'1"
UG PIPELINE
TOP=68.3'
CUG PIPELINE
TOP=68.3'
UG PIPELINE
TOP=68.4'
COVER=2'3"
CUG PIPELINE
TOP=69.0'
UG PIPELINE
TOP=68.9'
COVER=2'8"
6IN GAS
6IN WATER
8IN SAN
8IN STM
6IN FO
6IN UGE
6IN ELEC
6IN UG ELEC
6IN UG GAS
60' BUILDING LINE
60' MOBIL PIPELINE EASE
(VOL. 393, PG. 2, H.C.M.R.)
PIPELINE INC. EASEMENT
(VOL. 393, PG. 2, H.C.M.R.)
ASPHALT
CONC
8'CHAIN-LINK FNC.
6'WOOD FNC.
BENCH
TABLE
WOOD DECK
HAMMOCK
GATE (TYP.)
RAMP
SLAB=69.84'
TOP=69.93'
TOP=69.83'
TOP=69.51'
TOP=69.34'
TOP=69.31'
TOP=69.27'
TOP=69.25'
TOP=69.23'
TOP=69.21'
TOP=69.19'
TOP=69.17'
TOP=69.15'
TOP=69.13'
TOP=69.11'
TOP=69.09'
TOP=69.07'
TOP=69.05'
TOP=69.03'
TOP=69.01'
TOP=68.99'
TOP=68.97'
TOP=68.95'
TOP=68.93'
TOP=68.91'
TOP=68.89'
TOP=68.87'
TOP=68.85'
TOP=68.83'
TOP=68.81'
TOP=68.79'
TOP=68.77'
TOP=68.75'
TOP=68.73'
TOP=68.71'
TOP=68.69'
TOP=68.67'
TOP=68.65'
TOP=68.63'
TOP=68.61'
TOP=68.59'
TOP=68.57'
TOP=68.55'
TOP=68.53'
TOP=68.51'
TOP=68.49'



LEGEND	
	PROPOSED BUILDING LIMITS
	VEGETATED FILTER STRIPS
	PAVED AREAS

GENERAL CONSTRUCTION NOTES

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SWPPP CONSTRUCTION NOTES :

1. ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.
2. APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.
3. ALL EROSION CONTROL MEASURES SHALL BE CLEANED AFTER EVERY RAIN.
4. CONTRACTOR SHALL ENTER AND EXIT SITE FROM EXISTING DRIVEWAY.

KEY NOTES:

(D1) FLEXSTORM INLET SKIMMER BASKET

SWQMP Permit Requirements Note

Upon completion of contraction the permanent storm water quality feature will be cleaned of all sediment and debris that may have accumulated. additionally all disturbed areas relates to this project will be completely stabilized. this will be done prior to submitting an "AS-Built Certificate" and calling for final Inspection. Harris County Engineering will not pass the Final Inspection or issue the the Certificate of Compliance until the required final clean out and stabilization have been completed. The development is not approved for operation until a Certificate of Compliance has been issued.

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MISSOURI CITY, TX 77345
281.261.3800
WWW.BRWARCH.COM

FRED DALLY 93904 LICENSED PROFESSIONAL ENGINEER 06/02/2025

Dally + ASSOCIATES + ENGINEERING
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED FIRM ENGINEERING FIRM F-5428

D + A PROJECT No. C23-025-00

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DATE	FEBRUARY 23, 2024
DRAWN BY	KB
CHECKED BY	MN
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C7.04

DRAINAGE AREA MAP

2 YEAR STORM SEWER CALCULATIONS
HUMBLE ISD TIMBERWOOD
MIDDLE SCHOOL RENOVATIONS

PREPARED ON: 5/29/2025 **JOB NO.: C23-025-00**

File Name: P:\00 - PROJECTS\CIVIL\2023\C23-025-00 Humble ISD Timberwood MS Reno\DESIGN\Drainage\Proposed\[INLET Calcs.xls]2 YEAR

Manhole From	Manhole To	Delta Area	Area (Acres)	Runoff Coefficient C	Sum of C x A	Frequency	Intensity I (In/Hr)	Inlet Flow (CFS)	Sum of Flows (CFS)	Time of Concentration (Minutes)	Pipe Time (Minutes)	Reach Length (Feet)	Diameter or Rise (Inches)	Slope %	Mannings "n"	Design Capacity (CFS)	Design Velocity (Ft/S)	Fall (Feet)	Manhole Drop (Feet)	Flowline Elevation Upstream (Feet)	Top of Pipe Elevation Upstream (Feet)	Flowline Elevation Downstream (Feet)	Top of Pipe Elevation Downstream (Feet)	Actual Velocity (Ft/S)	Hydraulic Gradient (%)	Change in Head (Feet)	Hyd. Grad. Upstream (Feet)	Hyd. Grad. Downstream (Feet)	Ground Upstream (Feet)	Ground Downstream (Feet)	Top of Curb Elevation (Feet)	Gutter Elevation (Feet)
SYSTEM "A"																																
1	2	0.3367	0.3367	0.80	0.27	2	3.53	**0.95**	**0.95**	23.26	0.19	14	12	0.38	0.013	**2.20**	2.80	0.05	----	66.24	67.24	66.19	67.19	1.21	0.07	0.01	68.42	68.41	69.80	69.80	69.80	69.80
2	6	0.0545	0.3913	0.80	0.04	2	3.71	**0.16**	**1.11**	20.99	1.20	102	12	0.38	0.013	**2.20**	2.80	0.39	0.00	66.19	67.19	65.80	66.80	1.42	0.10	0.10	68.41	68.31	69.80	69.80	69.80	69.80
3	4	0.4311	0.4311	0.80	0.34	2	3.50	**1.21**	**1.21**	23.62	1.29	171	10	0.56	0.013	**1.64**	3.01	0.96	----	66.32	67.15	65.36	66.19	2.22	0.30	0.52	68.67	68.15	69.10	68.84	69.10	69.10
4	JB7	0.0933	0.5244	0.80	0.07	2	3.66	**0.27**	**1.48**	21.59	0.27	31	12	0.18	0.013	**1.51**	1.92	0.06	0.17	65.19	66.19	65.13	66.13	1.89	0.17	0.05	68.15	68.10	68.84	70.00	68.84	68.84
5	6	0.1992	0.1992	0.80	0.16	2	3.59	**0.57**	**0.57**	22.53	0.32	14	12	0.38	0.013	**2.20**	2.80	0.05	----	65.85	66.85	65.80	66.80	0.73	0.03	0.00	68.31	68.31	69.80	69.80	69.80	69.80
6	JB7	0.0556	0.6460	0.80	0.04	2	3.71	**0.16**	**1.85**	21.01	0.55	77	12	0.38	0.013	**2.20**	2.80	0.29	0.00	65.80	66.80	65.51	66.51	2.35	0.27	0.21	68.31	68.10	69.80	70.00	69.80	69.80
JB7	7	0.0000	1.1704	0.80	0.00	2	4.29	**0.00**	**3.33**	15.00	0.00	88	15	0.38	0.013	**3.98**	3.24	0.33	----	65.51	66.76	65.17	66.42	2.71	0.27	0.23	68.10	67.87	70.00	69.50	70.00	70.00
7	8	0.4129	1.5832	0.80	0.33	2	3.51	**1.16**	**4.49**	23.56	0.60	92	18	0.38	0.013	**6.48**	3.66	0.35	0.34	65.17	66.67	64.82	66.32	2.54	0.18	0.17	67.87	67.70	69.50	69.50	69.50	69.50
8	9	0.1594	1.7426	0.80	0.13	2	3.61	**0.46**	**4.95**	22.24	0.52	88	18	0.38	0.013	**6.48**	3.66	0.33	0.00	64.82	66.32	64.49	65.99	2.80	0.22	0.20	67.70	67.50	69.50	69.50	69.50	69.50
9	10	0.4063	2.1489	0.80	0.33	2	3.51	**1.14**	**6.09**	23.53	0.66	77	24	0.28	0.013	**11.97**	3.81	0.22	-0.08	64.57	66.57	64.35	66.35	1.94	0.07	0.06	67.50	67.45	69.50	69.46	69.50	69.50
10	11	0.5406	2.6895	0.80	0.43	2	3.48	**1.50**	**7.60**	23.97	0.65	94	24	0.27	0.013	**11.75**	3.74	0.25	0.00	64.35	66.35	64.10	66.10	2.42	0.11	0.11	67.45	67.34	69.46	69.41	69.46	69.46
11	16	0.5543	3.2438	0.80	0.44	2	3.48	**1.54**	**9.14**	24.01	0.54	95	24	0.23	0.013	**10.85**	3.45	0.22	0.00	64.10	66.10	63.88	65.88	2.91	0.16	0.15	67.34	67.19	69.41	69.52	69.41	69.41
12	13	0.1823	0.1823	0.80	0.15	2	3.60	**0.52**	**0.52**	22.41	0.32	13	12	0.38	0.013	**2.20**	2.80	0.05	-1.09	64.97	65.97	64.92	65.92	0.67	0.02	0.00	67.48	67.47	69.85	69.85	69.85	69.85
13	14	0.0586	0.2409	0.80	0.05	2	3.70	**0.17**	**0.70**	21.07	1.43	76	12	0.38	0.013	**2.20**	2.80	0.29	0.00	64.92	65.92	64.63	65.63	0.89	0.04	0.03	67.47	67.44	69.85	68.90	69.85	69.85
14	15	0.2831	0.5240	0.80	0.23	2	3.55	**0.80**	**1.50**	23.01	1.36	100	15	0.28	0.013	**3.42**	2.79	0.28	0.00	64.63	65.88	64.35	65.60	1.22	0.05	0.05	67.44	67.39	68.90	67.60	68.90	68.90
15	16	0.7899	1.3139	0.80	0.63	2	3.43	**2.17**	**3.67**	24.59	1.34	167	18	0.28	0.013	**5.56**	3.15	0.47	0.00	64.35	65.85	63.88	65.38	2.08	0.12	0.20	67.39	67.19	67.60	69.52	67.60	67.60
16	17	0.4249	4.9825	0.80	0.34	2	3.51	**1.19**	**14.00**	23.60	0.15	69	18	0.19	0.013	**4.56**	2.58	0.13	0.54	63.34	64.84	63.47	64.97	7.92	1.78	1.23	67.19	65.96	69.52	67.90	69.52	69.52
17	OUT	0.1261	5.1086	0.80	0.10	2	3.63	**0.37**	**14.37**	21.94	0.71	125	30	0.13	0.013	**14.79**	3.01	0.16	0.00	63.46	65.96	63.30	65.80	2.93	0.12	0.15	65.96	65.80	67.90	67.90	67.90	67.90
SYSTEM "B"																																
18	19	0.1833	0.1833	0.80	0.15	2	3.60	**0.53**	**0.53**	22.42	2.23	90	12	0.38	0.013	**2.20**	2.80	0.34	0.00	65.61	66.61	65.26	66.26	0.67	0.02	0.02	66.61	66.32	69.50	69.60	69.50	69.50
19	20	0.1751	0.3584	0.80	0.14	2	3.60	**0.50**	**0.50**	22.36	3.45	85	15	0.19	0.013	**2.82**	2.29	0.16	0.25	65.01	66.26	64.85	66.10	0.41	0.01	0.01	66.32	66.31	69.60	69.40	69.60	69.60
20	27	0.1842	0.5426	0.80	0.15	2	3.59	**0.53**	**0.53**	22.42	6.49	168	15	0.28	0.013	**3.42**	2.79	0.47	0.00	64.85	66.10	64.38	65.63	0.43	0.01	0.01	66.31	66.30	69.40	67.74	69.40	69.40
21	30	0.5060	1.0486	0.80	0.40	2	3.49	**1.41**	**1.41**	23.87	6.62	457	15	0.44	0.013	**4.29**	3.50	2.02	0.00	65.03	66.28	63.01	64.26	1.15	0.05	0.22	66.48	66.26	67.74	69.80	67.74	67.74
22	23	0.3356	1.3842	0.80	0.27	2	3.53	**0.95**	**0.95**	23.25	0.18	13	12	0.38	0.013	**2.20**	2.80	0.05	0.00	65.73	66.73	65.68	66.68	1.21	0.07	0.01	67.18	67.17	69.80	69.80	69.80	69.80
23	24	0.0652	1.4494	0.80	0.05	2	3.69	**0.19**	**0.19**	21.18	4.96	73	12	0.38	0.013	**2.20**	2.80	0.28	0.00	65.68	66.68	65.40	66.40	0.25	0.00	0.00	67.17	67.17	69.80	68.40	69.80	69.80
24	26	0.3624	1.8118	0.80	0.29	2	3.52	**1.02**	**1.02**	23.36	1.51	118	12	0.38	0.013	**2.20**	2.80	0.45	-0.25	64.63	65.63	64.18	65.18	1.30	0.08	0.10	67.17	67.07	68.40	70.67	68.40	68.40
25	26	0.3523	2.1641	0.80	0.28	2	3.53	**0.99**	**0.99**	23.32	0.67	114	8	1.00	0.013	**1.21**	3.46	1.14	-0.33	64.51	65.18	63.37	64.04	2.85	0.68	0.77	67.07	66.30	70.67	68.00	70.67	70.67
26	27	0.4760	2.6401	0.80	0.38	2	3.49	**1.33**	**1.33**	23.77	2.15	140	15	0.28	0.013	**3.42**	2.79	0.39	0.58	62.79	64.04	62.40	63.65	1.08	0.04	0.06	66.36	66.30	68.00	67.00	68.00	68.00
27	29	0.7215	3.3616	0.80	0.58	2	3.45	**1.99**	**1.99**	24.44	1.32	89	18	0.22	0.013	**4.93**	2.79	0.20	0.25	62.15	63.65	61.95	63.45	1.13	0.04	0.03	66.30	66.27	67.00	69.43	67.00	67.00
28	29	0.2903	3.6519	0.80	0.23	2	3.55	**0.82**	**0.82**	23.04	0.64	90	8	0.75	0.013	**1.05**	3.00	0.68	-0.83	62.78	63.45	62.10	62.77	2.36	0.46	0.42	66.69	66.27	69.43	69.25	69.43	69.43
29	30	0.1349	3.7868	0.80	0.11	2	3.63	**0.39**	**0.39**	22.03	2.07	62	12	0.44	0.013	**2.36**	3.01	0.27	0.33	61.77	62.77	61.50	62.50	0.50	0.01	0.01	66.27	66.26	69.25	69.46	69.25	69.25
30	31	1.1229	4.9097	0.80	0.90	2	3.39	**3.05**	**3.05**	25.21	3.50	204	24	0.18	0.013	**9.60**	3.06	0.37	1.00	64.26	66.26	63.89	65.89	0.97	0.02	0.04	66.26	65.89	69.46	66.26	69.46	69.46
31	OUT	1.0993	6.0090	0.80	0.88	2	3.40	**2.99**	**2.99**	25.17	5.48	200	30	0.045	0.013	**8.70**	1.77	0.09	2.15	61.74	64.24	61.83	64.33	0.61	0.01	0.01	64.34	64.33	66.26	66.31	66.26	66.26

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MISSOURI CITY, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES
PROFESSIONAL ENGINEERS
9800 Richmond Avenue, Suite 460
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DATE FEBRUARY 23, 2024
DRAWN BY KB
CHECKED BY MN
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
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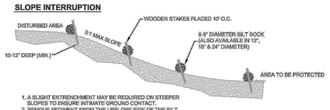
NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
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C7.05

DRAINAGE CALCULATIONS

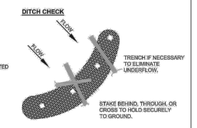
SILT SOCK INSTALLATION GUIDELINES

SLOPE INTERRUPTION



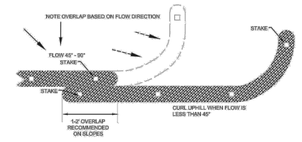
1. A SLIGHT ENTRENCHMENT MAY BE REQUIRED ON STEEPER SLOPES TO ENSURE INTIMATE GROUND CONTACT.
2. REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF THE SILT SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF EFFECTIVE HEIGHT OF SOCK.
3. LOOSE FILTER MEDIA MAY BE BACKFILLED ON THE UPSLOPE SIDE OF SOCK TO ENHANCE PERFORMANCE.
4. HARDWOOD STAKES 2"x2"x24" (NOMINAL) ARE SUGGESTED.

DITCH CHECK

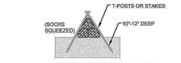


INSTALL SILT SOCK PERPENDICULAR TO FLOW WITH ENDS CURLED SLIGHTLY UPSTREAM TO PREVENT HIGH WATER FROM GOING AROUND THE ENDS. SLOW AND SPREAD WATER TO REDUCE CHANNELING AND EROSION

PERIMETER CONTROL & OVERLAPPING

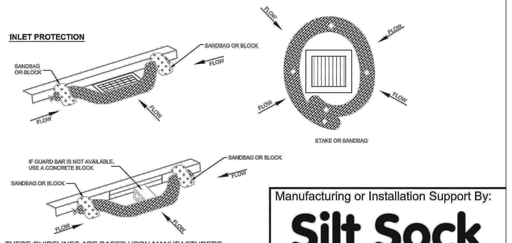


PYRAMID INSTALLATION STAKING



A PYRAMID OF SMALLER DIAMETER SILT SOCKS WILL INCREASE THE EFFECTIVE HEIGHT OF THE DEVICE WHEN LARGER DIAMETER SOCKS ARE NOT READILY AVAILABLE OR EASY TO INSTALL.

INLET PROTECTION



1. THESE GUIDELINES ARE BASED UPON MANUFACTURERS RECOMMENDATIONS. PROJECT SPECIFICATIONS MAY SUPERSEDE THESE GUIDELINES.
2. REFER TO REGULATORY AUTHORITY OR PROJECT ENGINEER FOR DETAILED INSTALLATION PROCEDURES.
3. WOOD FILLER MATERIAL IS PROPERLY SIZED, BIODEGRADABLE, WEED , SEED & DISEASE FREE AND ENVIRONMENTALLY SOUND.

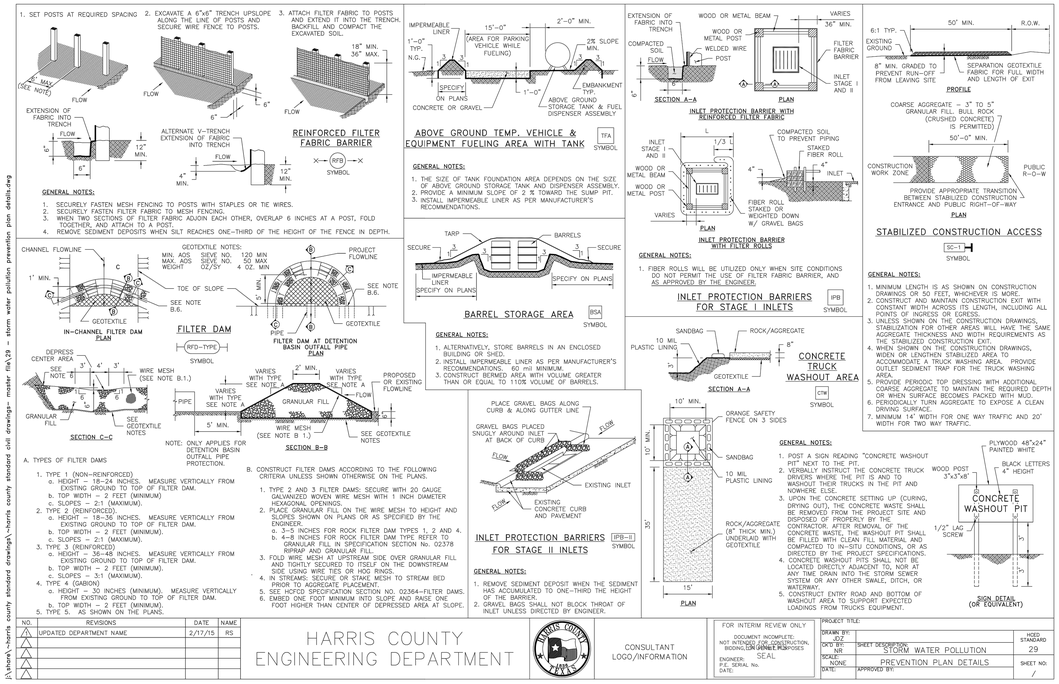
Manufacturing or Installation Support By:

Silt Sock

EROSION CONTROL PRODUCTS

info@siltsock.net

608-438-7625



NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME	2/17/15	RS
2			
3			
4			
5			

HARRIS COUNTY ENGINEERING DEPARTMENT

CONSULTANT LOGO/INFORMATION

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE; NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ENGINEER: P.E., SERIAL No.: DATE:
SEAL

PROJECT TITLE:
DRAWN BY: JDZ
DES. BY: NT
CHK'D BY: NONE
DATE:
SHEET DESCRIPTION: STORM WATER POLLUTION PREVENTION PLAN DETAILS
APPROVED BY:
HCED STANDARD
SHEET No.: 29
/

\\shan_harris county standard drawings\~harris county standard civil drawings~ master file\29 – storm water pollution prevention plan details.dwg

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

BRW

FRED T. DALLY JR. 93904 REGISTERED ARCHITECT STATE OF TEXAS
06/02/2025

Dally ASSOCIATES + ARCHITECTURE
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED FIRM ENGINEERING FIRM F-5428

D + A PROJECT No. C23-025-00

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DATE	FEBRUARY 23, 2024
DRAWN BY	KB
CHECKED BY	MN
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

HUMBLE INDEPENDENT SCHOOL DISTRICT

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
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C8.00

SWPPP DETAILS

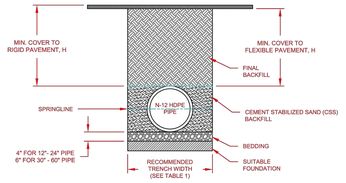


TABLE 1
RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". LATEST ADDITION. NATIVE SOILS SHALL BE OF ADEQUATE STIFFNESS TO WITHSTAND A VERTICAL CUT WITHOUT MATERIAL SLOUGHING, DUE TO THE FINAL SET STRENGTH, CEMENT STABILIZED SAND (CSS) SHALL BE COMPACTED TO 85% SPD OR GREATER. SEE NOTES 7 AND 9 REGARDING SET STRENGTH.
2. RECOMMENDED TRENCH WIDTHS ARE LISTED IN TABLE 1 PER ASTM D2321. THESE VALUES ARE BASED ON PROVIDING SUFFICIENT SPACE BETWEEN THE PIPE O.D. AND THE TRENCH WALL, SUCH THAT WORKING ROOM FOR COMPACTION EQUIPMENT IS PROVIDED WITHOUT DAMAGING THE PIPE OR TRENCH WALL INTEGRITY. NARROWER TRENCHES MAY BE POSSIBLE BASED ON THE COMPACTION EQUIPMENT.
3. CSS SHALL HAVE A MIX DESIGN OF ADEQUATE FINAL STRENGTH TO CARRY ALL LIVE AND DEAD LOADING BUT ALLOW FOR ANY FUTURE EXCAVATION. TYPICAL 7 DAY COMPRESSIVE STRENGTHS RANGE BETWEEN 50 AND 100 PSI. MIX DESIGNS CAN VARY BASED ON THE CEMENT, ASH, SOIL, ADMIXTURES, AND WATER RATIO AND SHALL BE DESIGNED AND DEFINED BY THE ENGINEER OF RECORD. THE AMERICAN CONCRETE INSTITUTE (ACI) REPORT ACI 230.1R-09 IS ONE RESOURCE THAT PROVIDES MIX DESIGNS BASED ON DIFFERENT CLASSIFICATIONS OF SOIL.
4. CSS SHOULD NOT BE PLACED WHEN TEMPERATURES ARE BELOW 40°F, AGAINST FROZEN TRENCH MATERIAL OR WHEN APPRECIABLE PRECIPITATION IS FORECASTED DURING PLACEMENT.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CSS, OR CLASS I OR II PER ASTM D2321. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 12"-24" DIAMETER PIPE (300mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm) DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED.
7. FINAL BACKFILL: THE CSS BACKFILL SHALL BE ALLOWED TO CURE AT LEAST 4 HOURS TO REACH AN INITIAL SET STRENGTH PRIOR TO PLACING SOIL ABOVE THE PIPE EMBEDMENT. ADDITIONAL CURE TIME MAY BE REQUIRED BASED ON THE OVERALL FINAL FILL HEIGHT (SEE NOTE 9).
8. MINIMUM COVER: MINIMUM COVER, H, IS 12" (300mm) THROUGH 48" (1200mm) DIAMETER PIPE AND 24" (600mm) OF COVER FOR 60" (1500mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
9. MAXIMUM COVER: MAXIMUM COVER, H, IS BASED ON A MINIMUM 4HR SET TIME OF THE CSS BACKFILL PRIOR TO ANY SOIL PLACEMENT ABOVE THE BACKFILL ENVELOPE. FILL HEIGHTS UP TO 15FT ARE SUITABLE FOR ALL DIAMETERS. LONGER SET TIME MAY ALLOW FOR GREATER FILL HEIGHTS. CONTACT AN ADS REPRESENTATIVE FOR GUIDANCE. SET TIME LESS THAN 4HR MAY RESULT IN HIGHER THAN EXPECTED DEFLECTION AND IMPACT LONG-TERM PERFORMANCE.

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REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
2	INITIAL BACKFILL	JAB	04/02/20	

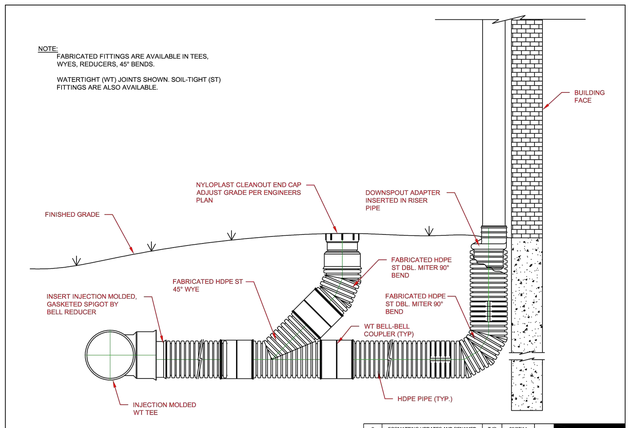
ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

N-12 HDPE TRENCH INSTALLATION (CEMENT STABILIZED SAND)

DRAWING NUMBER: STD-101K

4640 TRUEMAN BLVD
HILLIARD, OHIO 43026
Advanced Drainage Systems, Inc.

DWN: CKM
CHK: STATE
APP'D:
DATE: NTS
SHT: 1 OF 1



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REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
2	FORMATTING UPDATES AND RENAMED	TJR	03/07/14	

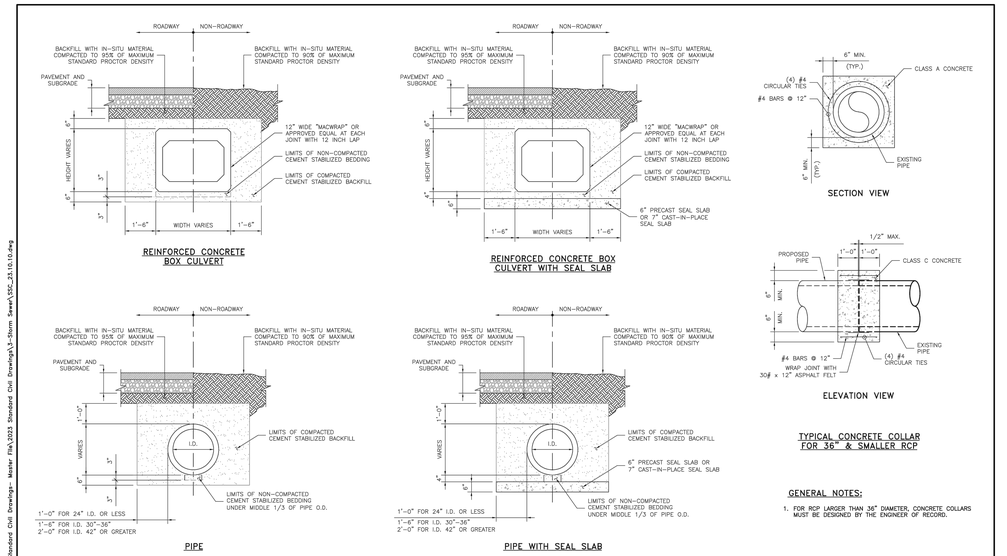
ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

ROOF DRAIN (45 DEG WYE CLEANOUT AND FITTING)

DRAWING NUMBER: STD-1003

4640 TRUEMAN BLVD
HILLIARD, OHIO 43026
ADVANCED DRAINAGE SYSTEMS, INC.

DWN: KSK
CHK: TD 10.04
APP'D:
DATE:
SHT: 1 OF 1



GENERAL NOTES:

1. FOR RCP LARGER THAN 36" DIAMETER, CONCRETE COLLARS MUST BE DESIGNED BY THE ENGINEER OF RECORD.

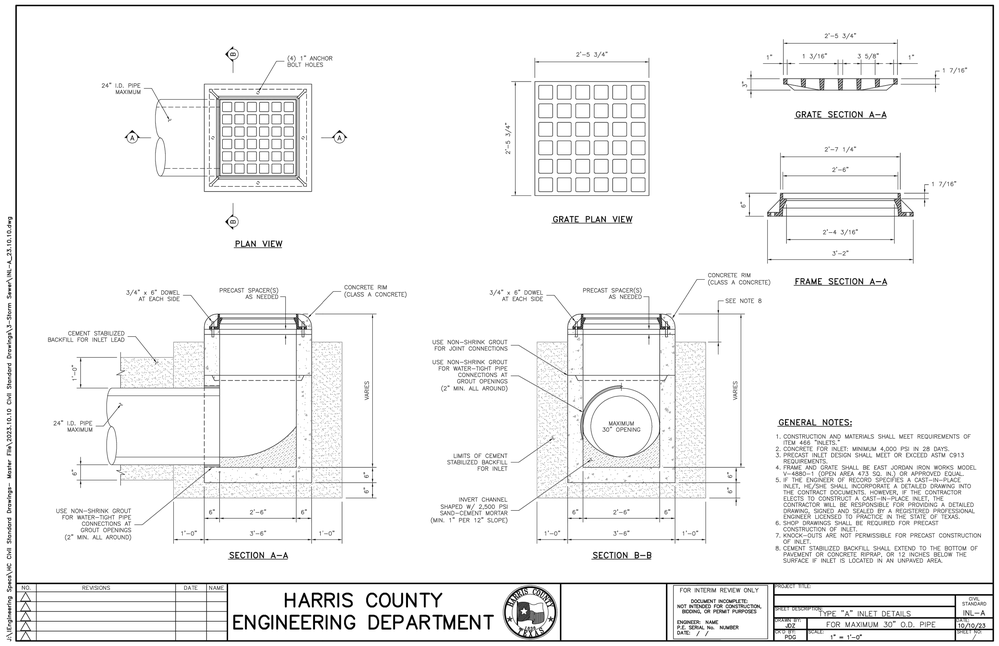
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HARRIS COUNTY ENGINEERING DEPARTMENT

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DOCUMENT INCOMPLETE; NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ENGINEER: NAME
P.E. SERIAL No. NUMBER
DATE: / /

PROJECT TITLE:
SHEET DESCRIPTION: STORM SEWER CONSTRUCTION DETAILS
DRAWN BY: JDZ
CHK'D BY: PDG
SCALE: 1" = 1'-0"
DWG. STANDARD: SSC
APP'D: 10/10/23
SHEET NO.:

J:\1-Engineering Space\HC Civil Standard Drawings - Master File\2023 Standard Civil Drawings\3-Storm Sewer\INL-A_23.10.10.dwg



GENERAL NOTES:

1. CONSTRUCTION AND MATERIALS SHALL MEET REQUIREMENTS OF ITEM 466 "INLETS."
2. CONCRETE FOR INLET: MINIMUM 4,000 PSI IN 28 DAYS.
3. PRECAST INLET DESIGN SHALL MEET OR EXCEED ASTM C913 REQUIREMENTS.
4. PRECAST GRATE SHALL BE EAST JORDAN IRON WORKS MODEL 1440, OR OPEN AREA 473 SQ. IN.) OR APPROVED EQUAL.
5. IF THE ENGINEER OF RECORD SPECIFIES A CAST-IN-PLACE INLET, HE/SHE SHALL INCORPORATE A DETAILED DRAWING INTO THE CONTRACT DOCUMENTS. HOWEVER, IF THE CONTRACTOR ELECTS TO CONSTRUCT A CAST-IN-PLACE INLET, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A DETAILED DRAWING, SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS.
6. GRATE ATTACHMENT WILL BE REQUIRED FOR PRECAST CONSTRUCTION OF INLET.
7. KNOCK-OUTS ARE NOT PERMISSIBLE FOR PRECAST CONSTRUCTION OF INLET.
8. CEMENT STABILIZED BACKFILL SHALL EXTEND TO THE BOTTOM OF PAVEMENT OR CONCRETE RIPRAP, OR 12 INCHES BELOW THE SURFACE IF INLET IS LOCATED IN AN UNPAVED AREA.

NO.	REVISIONS	DATE	NAME
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ENGINEER: NAME
P.E. SERIAL No. NUMBER
DATE: / /

PROJECT TITLE:
SHEET DESCRIPTION: TYPE "A" INLET DETAILS FOR MAXIMUM 30" O.D. PIPE
DRAWN BY: JDZ
CHK'D BY: PDG
SCALE: 1" = 1'-0"
DWG. STANDARD: INL-A
APP'D: 10/10/23
SHEET NO.:

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MISSOURI CITY, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM

BRW

FRED DALLY 93904 LICENSED PROFESSIONAL ENGINEER 06/02/2025

Dally ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713 337 8881
TEXAS REGISTERED ENGINEERING FIRM F-5428

D + A PROJECT No. C23-025-00

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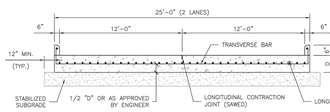
DATE FEBRUARY 23, 2024
DRAWN BY KB
CHECKED BY MN
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

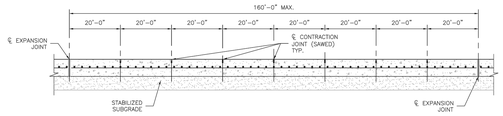
NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C9.01

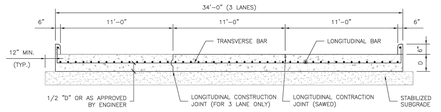
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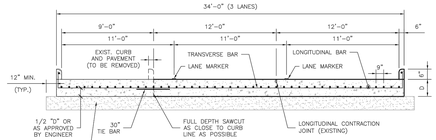
SPACING OF LONGITUDINAL JOINT (2 LANES)
(NEW CONSTRUCTION)
HORIZONTAL SCALE: 1" = 3'-0"
VERTICAL SCALE: 1" = 1'-6"



SPACING OF TRANSVERSE
EXPANSION AND CONTRACTION JOINTS
HORIZONTAL SCALE: 1" = 12'-0"
VERTICAL SCALE: 1" = 1'-6"



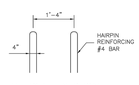
SPACING OF LONGITUDINAL JOINTS (3 LANES)
(NEW CONSTRUCTION)
HORIZONTAL SCALE: 1" = 3'-0"
VERTICAL SCALE: 1" = 1'-6"



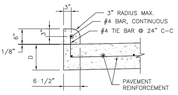
SPACING OF LONGITUDINAL JOINTS
(WIDENING)
HORIZONTAL SCALE: 1" = 3'-0"
VERTICAL SCALE: 1" = 1'-6"

SUBGRADE AND PAVEMENT NOTES:

1. TYPICAL STABILIZED SUBGRADE THICKNESS IS 8 INCHES.
2. TYPICAL PAVEMENT THICKNESS (D) IS 10 INCHES.
3. TYPICAL REINFORCING STEEL BAR SIZE AND SPACING ARE:
   a. LONGITUDINAL: #5 BARS @ 9 INCH SPACING
   b. TRANSVERSE: #5 BARS @ 36 INCH SPACING
4. REINFORCEMENT SHALL NOT BE PLACED WITHIN 3 INCHES FROM THE EDGE OF PAVEMENT.
5. FOR HEAVY INDUSTRIAL TRAFFIC, PAVEMENT THICKNESS (D) AND REINFORCING STEEL BAR SIZE AND SPACING WILL BE AS PER GEOTECHNICAL RECOMMENDATION.
6. ALL REINFORCING STEEL BARS SHALL BE GRADE 60 STEEL UNLESS OTHERWISE SPECIFIED.



ALTERNATE VERTICAL
REINFORCEMENT
SCALE: 1" = 1'-0"



TYPICAL CONCRETE CURB
REINFORCING DETAILS
SCALE: 1" = 1'-0"

GENERAL NOTES:

1. FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND STEEL REINFORCEMENT, REFER TO THE GOVERNING SPECIFICATION ITEM 360 "CONCRETE PAVEMENT."
2. CONCRETE SHALL BE CLASS P, 4,000 PSI @ 28 DAYS IN ACCORDANCE WITH SPECIFICATION ITEM 421 "HYDRAULIC CEMENT CONCRETE."
3. THE CHAIRS USED TO SUPPORT THE BAR MATS SHALL BE OF SUFFICIENT STRUCTURAL QUALITY AND NUMBER TO HOLD THE MAT WITHIN THE PLACEMENT HEIGHT, AND SHALL BE OF A TYPE APPROVED BY THE ENGINEER. SPACING OF BAR SUPPORT CHAIRS SHALL BE 3'-0" MAXIMUM.
4. SAWED CONTRACTION JOINTS SHALL BE USED FOR LONGITUDINAL JOINTS WHEREVER MORE THAN ONE LANE WIDTH IS PLACED IN A SINGLE POUR. KEYED CONSTRUCTION JOINTS SHALL BE USED AT ALL OTHER JOINTS.
5. ALL SAW CUTTING SHOWN ON THIS DETAIL SHALL BE INCIDENTAL TO SPECIFICATION ITEM 360 "CONCRETE PAVEMENT."
6. D = THICKNESS OF CONCRETE PAVEMENT.
   - FOR DEVELOPMENT PROJECTS SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE."
   - FOR PUBLIC PROJECTS SEE HCED 1988 DESIGN GUIDELINES.
7. JOINT SEALANT SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATION ITEM 360 "CONCRETE PAVEMENT."

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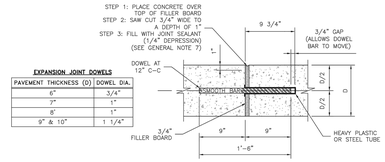
HARRIS COUNTY
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ENGINEER: NAME
P.E. SERIAL No. NUMBER
DATE: / /

PROJECT TITLE:

SHEET DESCRIPTION		CIVIL STANDARD
CONCRETE PAVEMENT DETAILS		CP-13
DRAWN BY: JDZ	PRECINCT 1 & 3 (1 OF 3)	DATE: 10/10/23
CHECKED BY: PDG	SCALE: AS NOTED	SHEET NO.

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EXPANSION JOINT DOWELS

PAVEMENT THICKNESS (D)	DOWEL DIA.
6"	3/4"
7"	1"
8"	1"
9" & 10"	1 1/4"

DOWEL TYPE EXPANSION JOINT
SCALE: 1" = 3"

NOTES FOR DOWEL EXPANSION JOINT:

1. EXPANSION JOINT SHALL BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED AT A MAXIMUM DISTANCE OF 160 FEET.
2. CENTER DOWEL HORIZONTALLY ON JOINT.
3. EXPANSION JOINT BARS SHALL BE HELD PARALLEL TO THE FINISHED CONCRETE SURFACE.



LONGITUDINAL CONSTRUCTION JOINT
SCALE: 1" = 1'-6"

NOTES FOR CONSTRUCTION JOINT:

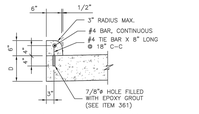
1. SAWED JOINTS SHALL BE CLEANED IN ACCORDANCE WITH SPECIFICATION ITEM 438 "JOINT SEALANTS."
2. JOINT SEALANT SHALL FILL THE JOINT FROM BOTTOM TO 1/4" BELOW CONCRETE PAVEMENT SURFACE.



CONTRACTION JOINT (SAWED)
SCALE: 1" = 1'-6"

NOTES FOR CONTRACTION JOINT:

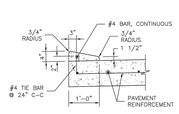
1. 20'-0" MAXIMUM SPACING BETWEEN TRANSVERSE CONTRACTION JOINTS.
2. SAWED JOINTS SHALL BE CLEANED IN ACCORDANCE WITH SPECIFICATION ITEM 438 "JOINT SEALANTS."
3. JOINT SEALANT SHALL FILL THE JOINT FROM BOTTOM TO 1/4" BELOW CONCRETE PAVEMENT SURFACE.



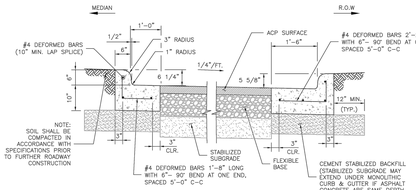
DRILLED-IN CONCRETE CURB
FOR CONCRETE PAVEMENT
SCALE: 1" = 1'-0"

NOTES FOR CURB:

1. AT EACH PAVEMENT CONTRACTION JOINT, PROVIDE A 1/4" THICK PRE-MOLDED EXPANSION JOINT AT THE FULL WIDTH AND HEIGHT OF THE CURB.
2. FOR EACH PAVEMENT EXPANSION JOINT, THE PRE-MOLDED EXPANSION JOINT FILLER MATERIAL SHALL BE THE FULL WIDTH AND HEIGHT OF THE CURB.



4" X 12" CURB
SCALE: 1" = 1'-0"



6" COMBINED CURB AND GUTTER
SCALE: 1" = 1'-0"

NO.	REVISIONS	DATE	NAME
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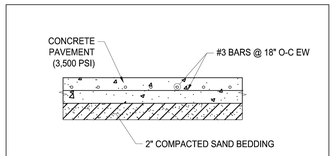
HARRIS COUNTY
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ENGINEER: NAME
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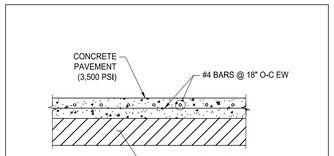
PROJECT TITLE:

SHEET DESCRIPTION		CIVIL STANDARD
CONCRETE PAVEMENT DETAILS		CP-13
DRAWN BY: JDZ	PRECINCT 1 & 3 (2 OF 3)	DATE: 10/10/23
CHECKED BY: PDG	SCALE: AS NOTED	SHEET NO.

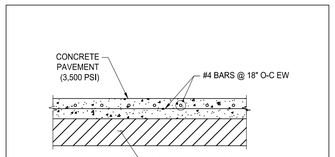
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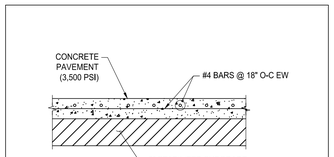
5" CONCRETE SIDEWALK
N.T.S.



5" CONCRETE PAVEMENT
SCALE: N.T.S.

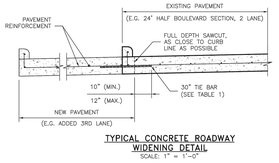


6" CONCRETE PAVEMENT
SCALE: N.T.S.



7" CONCRETE PAVEMENT
SCALE: N.T.S.

CONCRETE PAVEMENT SECTIONS
NTS

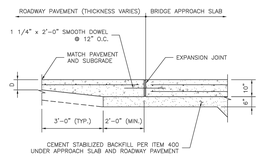


TYPICAL CONCRETE ROADWAY
WIDENING DETAIL
SCALE: 1" = 1'-0"

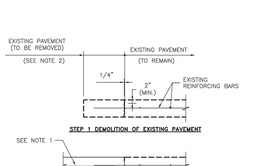
TABLE 1
(CONSTRUCTION JOINT TIE BARS)

TIE BAR SIZE	PAVEMENT DEPTH
#5 BAR	7" AND LESS
#6 BAR	GREATER THAN 7"

TIE BAR SHALL BE DRILLED INTO EXISTING PAVEMENT (MIN. 10", MAX. 12") AND EPOXIED. (SEE ITEM 361)



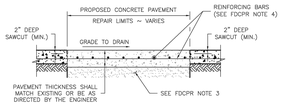
TYPICAL SECTION
PAVING TIE-IN TO BRIDGE APPROACH SLAB
SCALE: 1" = 1'-0"



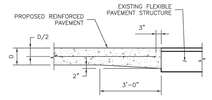
CONCRETE TO CONCRETE
STANDARD PAVEMENT TIE-IN
SCALE: 1" = 1'-6"

NOTES FOR STANDARD PAVEMENT TIE-IN:

1. REINFORCING CENTERED IN PROPOSED PAVEMENT, 3" CLEAR AT EDGES.
2. SAWCUT 2" DEEP MINIMUM AND REMOVE 2'-0" EXISTING PAVEMENT OR PAVEMENT WITH CURB. EXPOSE AND CLEAN EXISTING REINFORCING.
3. 24 BAR DIAMETER LAP SPLICE OR WELD, IF DIRECTED.
4. IF NO EXPOSED REINFORCING STEEL EXISTS, HORIZONTAL TIE BARS SHALL BE GRADE 60, 30" LONG DRILLED AND EMBEDDED 15" INTO THE CENTER OF THE EXISTING CONCRETE SLAB WITH EPOXY OR APPROVED EQUAL. SIZE OF TIE BARS SHALL CONFORM TO TO TABLE 1. TIE BARS SHALL BE PLACED 24" CENTER TO CENTER.
5. ALTERNATIVELY, THE CONTRACTOR MAY CHOOSE TO USE FULL DEPTH SAWCUT WITH DRILLED IN TIE BARS (AS SHOWN IN THE "TYPICAL CONCRETE ROADWAY WIDENING DETAIL" ON THIS SHEET. IF THE CONTRACTOR SO CHOOSES, THE SAWCUTTING AND TIE BARS WILL BE AT HIS OWN EXPENSE (THESE ITEMS WILL ONLY BE PAID FOR IF HARRIS COUNTY REQUIRES THE FULL DEPTH SAWCUT AND TIE BARS).



FULL DEPTH CONCRETE PAVEMENT REPAIR
HORIZONTAL SCALE: 1" = 3'-0"
VERTICAL SCALE: 1" = 1'-6"



TYPICAL PAVING HEADER
SCALE: 1" = 1'-0"

NOTES FOR PAVING HEADER:

1. ADDITIONAL CONCRETE FOR PAVING HEADER SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAVING BID ITEMS.
2. DISTURBED MATERIAL IN THE FLEXIBLE PAVEMENT WILL BE BACKFILLED WITH ASPHALT CONCRETE PAVEMENT (ACP). THE ACP WILL BE CONSIDERED INCIDENTAL TO VARIOUS PAVING BID ITEMS.

FULL DEPTH CONCRETE PAVEMENT REPAIR (FDCPR) NOTES:

1. SAWCUT LIMITS SHALL BE AS DIRECTED BY ENGINEER.
2. EXISTING CONCRETE VERTICAL FACES SHALL BE CLEANED OF ALL DELETERIOUS LOOSE MATERIAL PRIOR TO CONCRETE PLACEMENT.
3. FOR REPAIR/REPLACE AREAS, A 6 INCH DEPTH BASE SHALL BE REMOVED AND REPLACED WITH CEMENT STABILIZED BEDDING AND BACKFILL PER ITEM 400.
4. REINFORCEMENT FOR PAVEMENT 7" THICK AND LESS SHALL BE NO. 4 BARS AT 18" SPACING IN EACH DIRECTION. REINFORCEMENT FOR PAVEMENT GREATER THAN 7" THICK SHALL BE NO. 5 BARS AT 18" IN EACH DIRECTION.
5. ALTERNATIVELY, THE CONTRACTOR MAY CHOOSE TO USE FULL DEPTH SAWCUT WITH DRILLED IN TIE BARS (AS SHOWN IN THE "TYPICAL CONCRETE ROADWAY WIDENING DETAIL" DRAWING). IF THE CONTRACTOR SO CHOOSES, THE SAWCUTTING AND TIE BARS WILL BE AT HIS OWN EXPENSE (THESE ITEMS WILL ONLY BE PAID FOR IF HARRIS COUNTY REQUIRES THE FULL DEPTH SAWCUT AND TIE BARS).

NO.	REVISIONS	DATE	NAME
1			
2			
3			
4			
5			

HARRIS COUNTY
ENGINEERING DEPARTMENT

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE; NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ENGINEER: NAME
P.E. SERIAL No. NUMBER
DATE: / /

PROJECT TITLE:

SHEET DESCRIPTION		CIVIL STANDARD
CONCRETE PAVEMENT DETAILS		CP-13
DRAWN BY: JDZ	PRECINT 1 & 3 (3 OF 3)	DATE: 10/10/23
CHECKED BY: PDG	SCALE: AS NOTED	SHEET NO.

J:\Engineering Specs\HC Standard Civil Drawings- Master File\2023 Standard Civil Drawings\2-Pavement & Driveway\CP-13_23.10.10.dwg

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM



Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713.337.8881
TEXAS REGISTERED ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

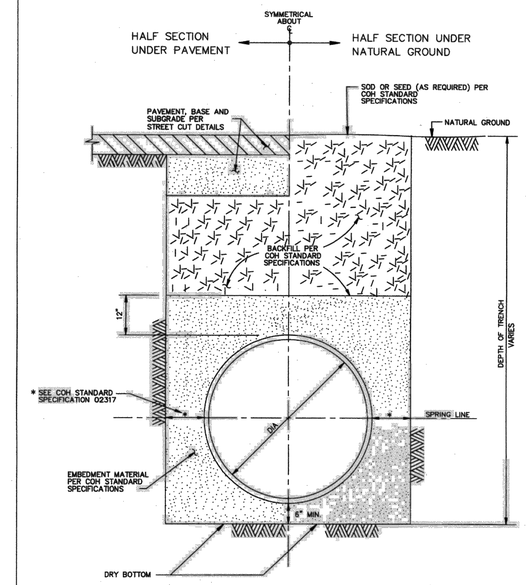
DATE FEBRUARY 23, 2024
DRAWN BY KB
CHECKED BY MN
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C9.02

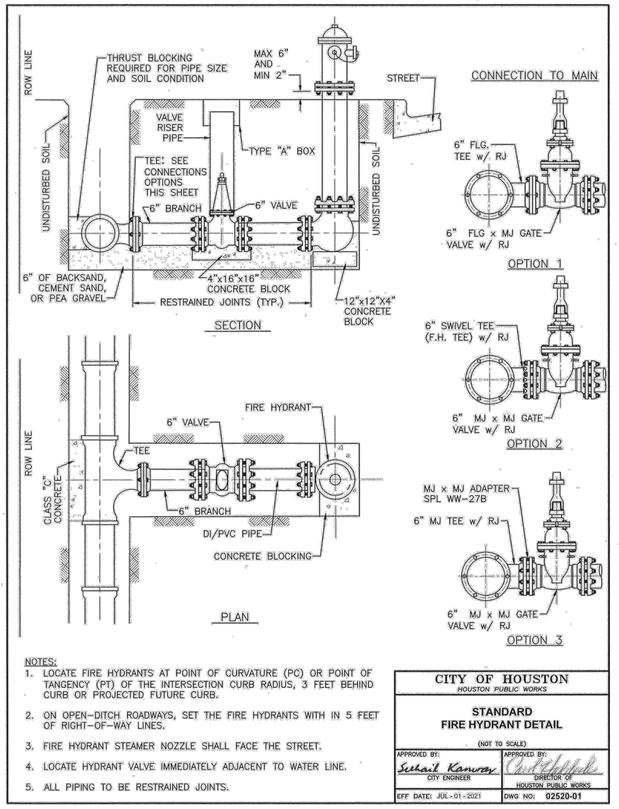
MISCELLANEOUS DETAILS
2 OF 3



CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER DISTRIBUTION MAIN
BEDDING AND BACKFILL FOR
OPEN CUT TRENCHES
(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JUL-01-2010 | DWG NO: 02317-04



NOTES:
1. LOCATE FIRE HYDRANTS AT POINT OF CURVATURE (PC) OR POINT OF TANGENCY (PT) OF THE INTERSECTION CURB RADIUS, 3 FEET BEHIND CURB OR PROJECTED FUTURE CURB.
2. ON OPEN-DITCH ROADWAYS, SET THE FIRE HYDRANTS WITH IN 5 FEET OF RIGHT-OF-WAY LINES.
3. FIRE HYDRANT STEAMER NOZZLE SHALL FACE THE STREET.
4. LOCATE HYDRANT VALVE IMMEDIATELY ADJACENT TO WATER LINE.
5. ALL PIPING TO BE RESTRAINED JOINTS.

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

STANDARD FIRE HYDRANT DETAIL
(NOT TO SCALE)

APPROVED BY: Srikanth Kanuru, CITY ENGINEER
APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: JUL-01-2021 | DWG NO: 02520-01

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MCKINNEY, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES
Professional Consulting Engineers
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713.337.8881
TEXAS REGISTERED FIRM ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

FRED DALLY 93904 LICENSED PROFESSIONAL ENGINEER 06/02/2025

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

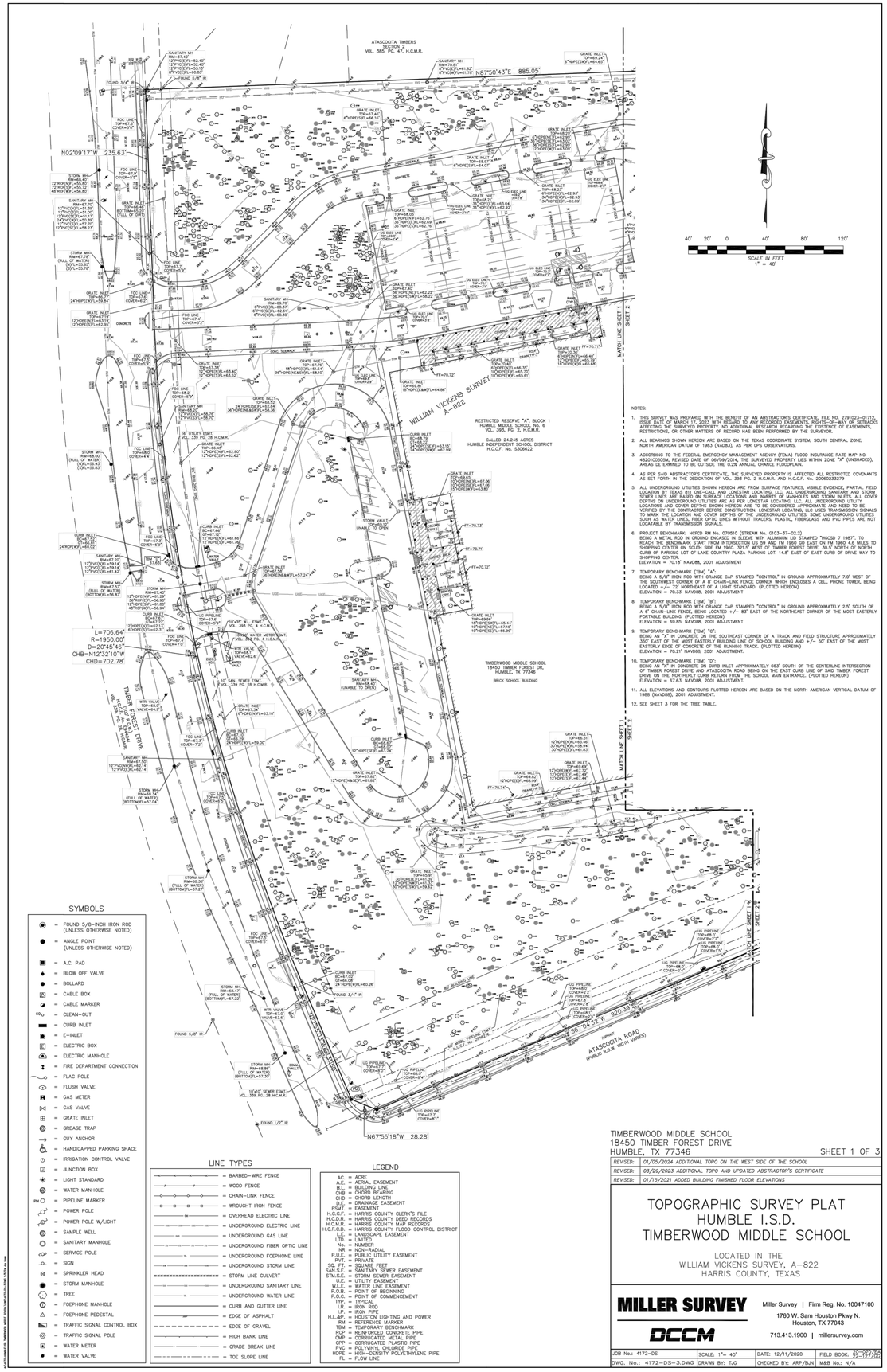
DATE: FEBRUARY 23, 2024
DRAWN BY: KB
CHECKED BY: MN
BRW PROJECT NUMBER: 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

C9.03

MISCELLANEOUS DETAILS
3 OF 3



NOTES:

1. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF AN ABSTRACTOR'S CERTIFICATE, FILE NO. 2791023-01712, ISSUE DATE OF MARCH 17, 2023 WITH REGARD TO ANY RECORDED EASEMENTS, RIGHTS-OF-WAY OR SETBACKS AFFECTING THE SURVEYED PROPERTY. NO ADDITIONAL RESEARCH REGARDING THE EXISTENCE OF EASEMENTS, RESTRICTIONS, OR OTHER MATTERS OF RECORD HAS BEEN PERFORMED BY THE SURVEYOR.
2. ALL BEARINGS SHOWN HEREON ARE BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), AS PER GPS OBSERVATIONS.
3. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP NO. 48201C0725M, REVISED DATE OF 08/09/2014, THE SURVEYED PROPERTY IS AFFECTED ALL RESTRICTED COVENANTS AS SET FORTH IN THE DEDICATION OF VOL. 393 PG. 2 H.C.M.R. AND H.C.C.F. No. 20060233279
4. AS PER SAID ABSTRACTOR'S CERTIFICATE, THE SURVEYED PROPERTY IS AFFECTED ALL RESTRICTED COVENANTS AS SET FORTH IN THE DEDICATION OF VOL. 393 PG. 2 H.C.M.R. AND H.C.C.F. No. 20060233279
5. ALL UNDERGROUND UTILITIES SHOWN HEREON ARE FROM SURFACE FEATURES, VISIBLE EVIDENCE, PARTIAL FIELD LOCATION BY TEXAS 811 ONE-CALL AND LONESTAR LOCATING, LLC. ALL UNDERGROUND SANITARY AND STORM SEWER LINES ARE BASED ON SURFACE LOCATIONS AND INVERTS OF MANHOLES AND STORM INLETS. ALL COVER DEPTHS ON UNDERGROUND UTILITIES ARE AS PER LONESTAR LOCATING, LLC. ALL UNDERGROUND UTILITY LOCATIONS AND COVER DEPTHS SHOWN HEREON ARE TO BE CONSIDERED APPROXIMATE AND NEED TO BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. LONESTAR LOCATING, LLC USES TRANSMISSION SIGNALS TO MARK THE LOCATION AND COVER DEPTHS OF THE UNDERGROUND UTILITIES. SOME UNDERGROUND UTILITIES SUCH AS WATER LINES, FIBER OPTIC LINES WITHOUT TRACERS, PLASTIC, FIBERGLASS AND PVC PIPES ARE NOT LOCATABLE BY TRANSMISSION SIGNALS.
6. PROJECT BENCHMARK: HCFCD RM No. 070510 (STREAM No. 0103-37-02.2)
BEING A METAL ROD IN GROUND ENCASED IN SLEEVE WITH ALUMINUM LID STAMPED "HCFCD 7 1989", TO REACH THE BENCHMARK START FROM INTERSECTION US 59 AND FM 1960 GO EAST ON FM 1960 4.6 MILES TO SHOPPING CENTER ON SOUTH SIDE FM 1960, 321.5' WEST OF TIMBER FOREST DRIVE, 30.5' NORTH OF NORTH CURB OF PARKING LOT OF LAKE COUNTRY PLAZA PARKING LOT, 14.8' EAST OF EAST CURB OF DRIVE WAY TO SHOPPING CENTER.
ELEVATION = 70.18' NAVD88, 2001 ADJUSTMENT
7. TEMPORARY BENCHMARK (TBM) "A":
BEING A 5/8" IRON ROD WITH ORANGE CAP STAMPED "CONTROL" IN GROUND APPROXIMATELY 7.0' WEST OF THE SOUTHWEST CORNER OF A 6' CHAIN-LINK FENCE CORNER WHICH ENCLOSES A CELL PHONE TOWER, BEING LOCATED +/- 72' NORTHEAST OF A LIGHT STANDARD, (PLOTTED HEREON)
ELEVATION = 70.33' NAVD88, 2001 ADJUSTMENT
8. TEMPORARY BENCHMARK (TBM) "B":
BEING A 5/8" IRON ROD WITH ORANGE CAP STAMPED "CONTROL" IN GROUND APPROXIMATELY 2.5' SOUTH OF A 6' CHAIN-LINK FENCE, BEING LOCATED +/- 83' EAST OF THE NORTHEAST CORNER OF THE MOST EASTERLY PORTABLE BUILDING. (PLOTTED HEREON)
ELEVATION = 69.85' NAVD88, 2001 ADJUSTMENT
9. TEMPORARY BENCHMARK (TBM) "C":
BEING AN "X" IN CONCRETE ON THE SOUTHEAST CORNER OF A TRACK AND FIELD STRUCTURE APPROXIMATELY 350' EAST OF THE MOST EASTERLY BUILDING LINE OF SCHOOL BUILDING AND +/- 50' EAST OF THE MOST EASTERLY EDGE OF CONCRETE OF THE RUNNING TRACK. (PLOTTED HEREON)
ELEVATION = 70.21' NAVD88, 2001 ADJUSTMENT.
10. TEMPORARY BENCHMARK (TBM) "D":
BEING AN "X" IN CONCRETE ON CURB INLET APPROXIMATELY 663' SOUTH OF THE CENTERLINE INTERSECTION OF TIMBER FOREST DRIVE AND ATASCOCITA ROAD BEING ON THE EAST CURB LINE OF SAID TIMBER FOREST DRIVE ON THE NORTHERLY CURB RETURN FROM THE SCHOOL MAIN ENTRANCE. (PLOTTED HEREON)
ELEVATION = 67.63' NAVD88, 2001 ADJUSTMENT.
11. ALL ELEVATIONS AND CONTOURS PLOTTED HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), 2001 ADJUSTMENT.
12. SEE SHEET 3 FOR THE TREE TABLE.

SYMBOLS

- FOUND 5/8-INCH IRON ROD (UNLESS OTHERWISE NOTED)
- ANGLE POINT (UNLESS OTHERWISE NOTED)
- A.C. PAD
- BLOW OFF VALVE
- BOLLARD
- CABLE BOX
- CABLE MARKER
- CLEAN-OUT
- CURB INLET
- E-INLET
- ELECTRIC BOX
- ELECTRIC MANHOLE
- FIRE DEPARTMENT CONNECTION
- FLAG POLE
- FLUSH VALVE
- GAS METER
- GAS VALVE
- GRATE INLET
- GREASE TRAP
- GUY ANCHOR
- HANDICAPPED PARKING SPACE
- IRRIGATION CONTROL VALVE
- JUNCTION BOX
- LIGHT STANDARD
- WATER MANHOLE
- PIPELINE MARKER
- POWER POLE
- POWER POLE W/LIGHT
- SAMPLE WELL
- SANITARY MANHOLE
- SERVICE POLE
- SIGN
- SPRINKLER HEAD
- STORM MANHOLE
- TREE
- FOEPHONE MANHOLE
- FOEPHONE PEDESTAL
- TRAFFIC SIGNAL CONTROL BOX
- TRAFFIC SIGNAL POLE
- WATER METER
- WATER VALVE

LINE TYPES

- BARBED-WIRE FENCE
- WOOD FENCE
- CHAIN-LINK FENCE
- WROUGHT IRON FENCE
- OVERHEAD ELECTRIC LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND GAS LINE
- UNDERGROUND FIBER OPTIC LINE
- UNDERGROUND FOEPHONE LINE
- UNDERGROUND STORM LINE
- STORM LINE CULVERT
- UNDERGROUND SANITARY LINE
- UNDERGROUND WATER LINE
- CURB AND GUTTER LINE
- EDGE OF ASPHALT
- EDGE OF GRAVEL
- HIGH BANK LINE
- GRADE BREAK LINE
- TOE SLOPE LINE

LEGEND

AC. = ACRE
A.E. = AERIAL EASEMENT
B.L. = BUILDING LINE
CHB = CHORD BEARING
CHD = CHORD LENGTH
D.E. = DRAINAGE EASEMENT
ESMT. = EASEMENT
H.C.C.F. = HARRIS COUNTY CLERK'S FILE
H.C.D.R. = HARRIS COUNTY DEED RECORDS
H.C.M.R. = HARRIS COUNTY MAP RECORDS
H.C.F.C.D. = HARRIS COUNTY FLOOD CONTROL DISTRICT
L.E. = LANDSCAPE EASEMENT
LTD. = LIMITED
No. = NUMBER
NR = NON-RADIAL
P.U.E. = PUBLIC UTILITY EASEMENT
PVT. = PRIVATE
SQ. FT. = SQUARE FEET
SAN.S.E. = SANITARY SEWER EASEMENT
STM.S.E. = STORM SEWER EASEMENT
U.E. = UTILITY EASEMENT
W.L.E. = WATER LINE EASEMENT
P.O.B. = POINT OF BEGINNING
P.O.C. = POINT OF COMMENCEMENT
TYP. = TYPICAL
I.R. = IRON ROD
I.P. = IRON PIPE
H.L.&P. = HOUSTON LIGHTING AND POWER
RM = REFERENCE MARKER
TBM = TEMPORARY BENCHMARK
RCP = REINFORCED CONCRETE PIPE
CMP = CORRUGATED METAL PIPE
CPP = CORRUGATED PLASTIC PIPE
PVC = POLYVINYL CHLORIDE PIPE
HDPE = HIGH DENSITY POLYETHYLENE PIPE
FL = FLOW LINE

TIMBERWOOD MIDDLE SCHOOL
18450 TIMBER FOREST DR,
HUMBLE, TX 77346

SHEET 1 OF 3

REVISED:	01/05/2024 ADDITIONAL TOPO ON THE WEST SIDE OF THE SCHOOL
REVISED:	03/29/2023 ADDITIONAL TOPO AND UPDATED ABSTRACTOR'S CERTIFICATE
REVISED:	01/15/2021 ADDED BUILDING FINISHED FLOOR ELEVATIONS

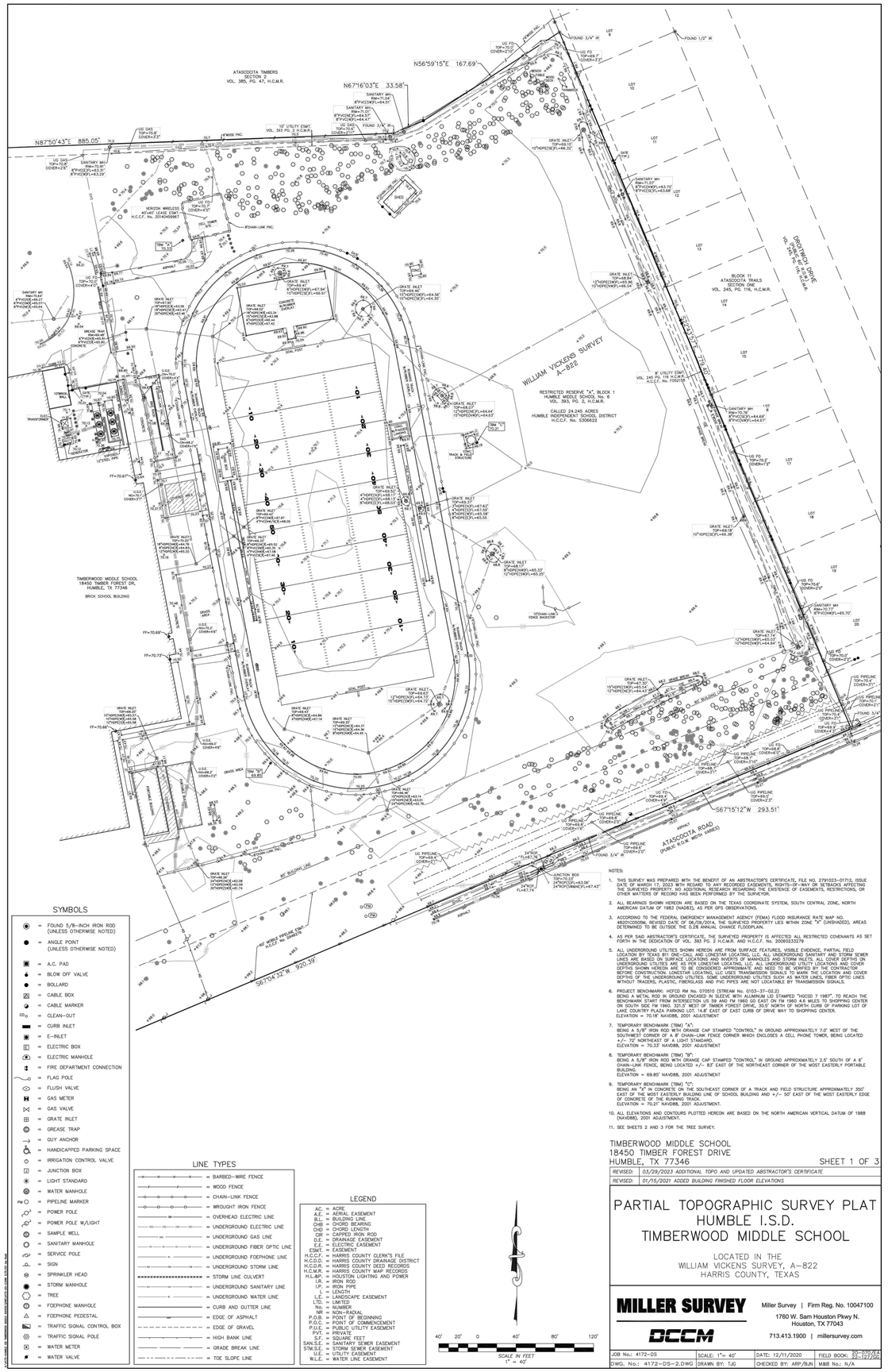
TOPOGRAPHIC SURVEY PLAT
HUMBLE I.S.D.
TIMBERWOOD MIDDLE SCHOOL

LOCATED IN THE
WILLIAM VICKENS SURVEY, A-822
HARRIS COUNTY, TEXAS

MILLER SURVEY
DCCM

Miller Survey | Firm Reg. No. 10047100
1760 W. Sam Houston Pkwy N.
Houston, TX 77043
713.413.1900 | millersurvey.com

JOB No.: 4172-DS	SCALE: 1"= 40'	DATE: 12/11/2020	FIELD BOOK: 20-070/EA 22-127/DG
DWG. No.: 4172-DS-3.DWG	DRAWN BY: TJG	CHECKED BY: ARP/BJN	M&B No.: N/A



NOTES:

1. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF AN ABSTRACTOR'S CERTIFICATE, FILE NO. 2791023-01712, ISSUE DATE OF MARCH 17, 2023 WITH REGARD TO ANY RECORDED EASEMENTS, RIGHTS-OF-WAY OR SETBACKS AFFECTING THE SURVEYED PROPERTY. NO ADDITIONAL RESEARCH REGARDING THE EXISTENCE OF EASEMENTS, RESTRICTIONS, OR OTHER MATTERS OF RECORD HAS BEEN PERFORMED BY THE SURVEYOR.
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3. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP NO. 48201C0725M, REVISED DATE OF 08/09/2014, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
4. AS PER SAID ABSTRACTOR'S CERTIFICATE, THE SURVEYED PROPERTY IS AFFECTED ALL RESTRICTED COVENANTS AS SET FORTH IN THE DEDICATION OF VOL. 393 PG. 2 H.C.M.R. AND H.C.C.F. No. 20060233279
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BEING A METAL ROD IN GROUND ENCASED IN SLEEVE WITH ALUMINUM LID STAMPED "HCFCD 7 1989", TO REACH THE BENCHMARK START FROM INTERSECTION US 59 AND FM 1960 GO EAST ON FM 1960 4.6 MILES TO SHOPPING CENTER ON SOUTH SIDE FM 1960, 321.5' WEST OF TIMBER FOREST DRIVE, 30.5' NORTH OF NORTH CURB OF PARKING LOT OF LAKE COUNTRY PLAZA PARKING LOT, 14.8' EAST OF EAST CURB OF DRIVE WAY TO SHOPPING CENTER.
ELEVATION = 70.18' NAVD88, 2001 ADJUSTMENT
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10. ALL ELEVATIONS AND CONTOURS PLOTTED HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), 2001 ADJUSTMENT.
11. SEE SHEETS 2 AND 3 FOR THE TREE SURVEY.

SYMBOLS

- FOUND 5/8-INCH IRON ROD (UNLESS OTHERWISE NOTED)
- ANGLE POINT (UNLESS OTHERWISE NOTED)
- A.C. PAD
- BLOW OFF VALVE
- BOLLARD
- CABLE BOX
- CABLE MARKER
- CLEAN-OUT
- CURB INLET
- E-INLET
- ELECTRIC BOX
- ELECTRIC MANHOLE
- FIRE DEPARTMENT CONNECTION
- FLAG POLE
- FLUSH VALVE
- GAS METER
- GAS VALVE
- GRATE INLET
- GREASE TRAP
- GUY ANCHOR
- HANDICAPPED PARKING SPACE
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- FOEPHONE MANHOLE
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- TRAFFIC SIGNAL POLE
- WATER METER
- WATER VALVE

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- BARBED-WIRE FENCE
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TIMBERWOOD MIDDLE SCHOOL
18450 TIMBER FOREST DR,
HUMBLE, TX 77346

SHEET 1 OF 3

REVISED:	03/29/2023 ADDITIONAL TOPO AND UPDATED ABSTRACTOR'S CERTIFICATE
REVISED:	01/15/2021 ADDED BUILDING FINISHED FLOOR ELEVATIONS

PARTIAL TOPOGRAPHIC SURVEY PLAT
HUMBLE I.S.D.
TIMBERWOOD MIDDLE SCHOOL

LOCATED IN THE
WILLIAM VICKENS SURVEY, A-822
HARRIS COUNTY, TEXAS

MILLER SURVEY
DCCM

Miller Survey | Firm Reg. No. 10047100
1760 W. Sam Houston Pkwy N.
Houston, TX 77043
713.413.1900 | millersurvey.com

JOB No.: 4172-DS	SCALE: 1"= 40'	DATE: 12/11/2020	FIELD BOOK: 20-070/EA 22-127/DG
DWG. No.: 4172-DS-2.DWG	DRAWN BY: TJG	CHECKED BY: ARP/BJN	M&B No.: N/A

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LAGO VISTA, TEXAS 78645
281.261.3800
WWW.BRWARCH.COM

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DATE: FEBRUARY 23, 2024
DRAWN BY: KB
CHECKED BY: MN
BRW PROJECT NUMBER: 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

18450 TIMBER FOREST DRIVE
HUMBLE, TX 77346

NO.	REVISION	DATE
1	ISSUE FOR BID	03/12/2024
2	HCED COMMENTS	05/30/2025

Dally + ASSOCIATES
9800 Richmond Avenue, Suite 460
Houston, Texas 77042 | 713.337.8881
TEXAS REGISTERED ENGINEERING FIRM F-5428
D + A PROJECT No. C23-025-00

STATE OF TEXAS
FRED DALLY
95904
LICENSED PROFESSIONAL ENGINEER
06/02/2025

C10.01

TOPOGRAPHIC SURVEY 1 OF 2 (FOR REFERENCE ONLY)

TREE TABLE

Tree Table	
Point #	Type & Size
280	PINE 14"
281	OAK 6"
282	OAK 4"
283	PINE 18"
284	PINE 14"
285	TALLOW 8"
286	PINE 12"
287	OAK 8"
288	OAK 6"
289	OAK 4"
290	PINE 14"
291	PINE 16"
292	PINE 10"
293	PINE 12"
294	PINE 16"
295	PINE 24"
296	OAK 10"
297	OAK 10"
298	PINE 14"
299	PINE 12"

Tree Table	
Point #	Type & Size
300	PINE 14"
301	PINE 20"
302	OAK 16"
303	OAK 12"
304	PINE 12"
305	PINE 12"
306	PINE 10"
307	OAK 14"
308	OAK 14"
309	OAK 6"
310	OAK 4"
311	PINE 6"
312	OAK 30"
313	OAK 12"
314	PINE 12"
315	PINE 8"
316	PINE 8"
317	OAK 6"
318	PINE 10"
319	TREE 4"

Tree Table	
Point #	Type & Size
320	TALLOW 10"
321	TALLOW 12"
322	PINE 15"
323	OAK 10"
324	TREE 6"
325	OAK 22"
326	OAK 10"
327	TREE 4"
328	TREE 4"
329	TREE 4"
330	TREE 4"
331	OAK 4"
332	OAK 6"
333	OAK 4"
334	OAK 4"
335	SQUM 4"
336	PINE 4"
337	TREE 10"
338	PINE 6"
339	OAK 22"

Tree Table	
Point #	Type & Size
340	OAK 10"
341	OAK 6"
342	PINE 16"
343	OAK 6"
344	TREE 4"
345	TREE 10"
346	TREE 4"
347	SQUM 4"
348	PINE 8"
349	OAK 2"
350	OAK 8 TWIN"
351	TREE 6 CLUSTER"
352	TREE 6"
353	PINE 18"
354	PINE 10"
355	TREE 4"
356	PINE 4"
357	PINE 10"
358	PINE 8"
359	OAK 8"

Tree Table	
Point #	Type & Size
360	OAK 8"
361	SQUM6"
362	SQUM 18"
363	TREE 4"
364	OAK 13"
365	TREE 4"
366	TALLOW 13"
367	TREE 4"
368	TREE 10 CLUSTER"
369	TREE 10 CLUSTER"
370	TREE 4"
371	OAK 4"
372	PINE 4"
373	TREE 6"
374	SQUM 12"
375	TREE 12"
376	PINE 6"
377	OAK 6"
378	TREE 10"
379	PINE 18 5"

Tree Table	
Point #	Type & Size
380	TREE 6 5"
381	PINE 10"
382	PINE 20"
383	SQUM 4"
384	PINE 8"
385	PINE 22"
386	PINE 8"
387	SQUM 4"
388	SQUM 4"
389	TREE 4"
390	TREE 6"
391	TREE 4"
392	TREE 6"
393	TREE 10"
394	TREE 6"
395	TREE 4"
396	TREE 6"
397	TREE 6"
398	TREE 10"
399	TREE 6"

Tree Table	
Point #	Type & Size
400	TREE 10"
401	TREE 10"
402	SQUM 4"
403	SQUM 8"
404	PINE 10"
405	PINE 22"
406	SQUM6"
407	PINE 15"
408	SQUM 12"
409	TREE 20"
410	TREE 12"
411	OAK 4"
412	OAK 6"
413	OAK 4"
414	TREE 4"
415	TREE 6"
416	TREE 12"
417	SQUM 15"
418	PINE 12"
419	SQUM6"

Tree Table	
Point #	Type & Size
420	SQUM 10"
421	OAK 4"
422	TREE 6"
423	OAK 12"
424	OAK 15"
425	SQUM 4"
426	TREE 12"
427	TREE 12"
428	SQUM 4"
429	TREE 4"
430	SQUM 12"
431	SQUM 4"
432	SQUM 4"
433	PINE 10"
434	SQUM 10"
435	TREE 6"
436	SQUM 4"
437	PINE 12"
438	TREE 6 CLUSTER"
439	PINE 15"

Tree Table	
Point #	Type & Size
440	PINE 4"
441	SQUM 3"
442	SQUM6"
443	SQUM 10"
444	PINE 15"
445	TREE 4"
446	SQUM 4"
447	SQUM 4"
448	SQUM6"
449	PINE 4"
450	PINE 8"
451	PINE 4"
452	SQUM 4"
453	TREE 4"
454	TREE 12 27"
455	SQUM 10"
456	PINE 22"
457	PINE 12"
458	PINE 4"
459	TREE 4"

Tree Table	
Point #	Type & Size
460	SQUM 4"
461	OAK 6"
462	TREE 4"
463	TREE 4"
464	TREE 6"
465	TREE 6"
466	OAK 10"
467	OAK 10"
468	OAK 6"
469	OAK 15"
470	OAK 4"
471	OAK 4"
472	OAK 4"
473	OAK 6"
474	OAK 4"
475	OAK 12"
476	OAK 12"
477	PINE 10"
478	OAK 24"
479	OAK 6"

Tree Table	
Point #	Type & Size
480	OAK 6"
481	OAK 13"
482	PINE 32"
483	OAK 4"
484	OAK 4"
485	OAK 10"
486	OAK 4"
487	PINE 24"
488	OAK 6"
489	OAK 15"
490	PINE 28"
491	PINE 20"
492	PINE 8"
493	TREE 4"
494	OAK 10"
495	SQUM 10"
496	SQUM 12"
497	OAK 12"
498	OAK 8"
499	SQUM 12"

Tree Table	
Point #	Type & Size
500	PINE 18"
501	PINE 12"
502	SQUM 12"
503	OAK 10"
504	OAK 13"
505	OAK 10"
506	OAK 4"
507	OAK 4"
508	SQUM 26"
509	SQUM6"
510	SQUM 4"
511	OAK 8"
512	PINE 12"
513	PINE 4"
514	PINE 6"
515	SQUM 16"
516	TREE 4"
517	OAK 4"
518	OAK 6"
519	OAK 6"

Tree Table	
Point #	Type & Size
520	OAK 4"
521	PINE 12"
522	PINE 12"
523	TREE 8"
524	OAK 8"
525	TREE 8"
526	SQUM6"
527	SQUM6"
528	SQUM6"
529	OAK 10"
530	TREE 4"
531	PINE 8"
532	PINE 6"
533	TREE 12"
534	TREE 12"
535	SQUM 15"
536	OAK 8"
537	PINE 4"
538	OAK 2"
539	PINE 4"

Tree Table	
Point #	Type & Size
540	PINE 15"
541	PINE 4"
542	TREE 6"
543	TREE 10"
544	PINE 4"
545	TREE 10"
546	TREE 10"
547	TREE 6"
548	TREE 10"
549	PINE 6"
550	TREE 6"
551	PINE 10"
552	OAK 4"
553	OAK 3"
554	TREE 10"
555	TREE 4"
556	TREE 4"
557	TREE 6 TWIN"
558	PINE 6"
559	PINE 6"

Tree Table	
Point #	Type & Size
560	PINE 15"
561	SQUM 4"
562	SQUM 4"
563	SQUM 10"
564	PINE 15"
565	SQUM 12"
566	SQUM 12"
567	SQUM 3"
568	OAK 6"
569	PINE 10"
570	OAK 4"
571	PINE 10"
572	TREE 6"
573	OAK 8"
574	TREE 6"
575	OAK 24"
576	OAK 15"
577	OAK 12"
578	PINE 15"
579	PINE 18"

Tree Table	
Point #	Type & Size
580	SQUM6"
581	PINE 12"
582	SQUM 10"
583	TREE 6"
584	PINE 8"
585	PINE 6"
586	PINE 6"
587	PINE 8"
588	PINE 10"
589	PINE 6"
590	OAK 4"
591	SQUM 4"
592	TREE 12"
593	SQUM6"
594	PINE 6"
595	SQUM 15"
596	PINE 6"
597	TREE 4"
598	TREE 4"
599	PINE 26"

Tree Table	
Point #	Type & Size
600	OAK 8"
601	PINE 18"
602	OAK 4"
603	SQUM 28"
604	OAK 14"
605	OAK 4"
606	OAK 8"
607	PINE 12"
608	OAK 12"
609	OAK 12"
610	TREE 8"
611	OAK 10"
612	PINE 6"
613	OAK 12"
614	OAK 4"
615	OAK 6"
616	TREE 6"
617	OAK 4"
618	OAK 8"
619	TREE 10"

Tree Table	
Point #	Type & Size
620	OAK 13"
621	OAK 10"
622	OAK 24"
623	SQUM 28"
624	PINE 18"
625	PINE 24"
626	OAK 14"
627	PINE 20"
628	PINE 10"
629	OAK 18"
630	PINE 20"
631	PINE 10"
632	PINE 4"
633	PINE 12"
634	PINE 12"
635	PINE 15"
636	PINE 10"
637	PINE 10"
638	SQUM 4"
639	PINE 10"

Tree Table	
Point #	Type & Size
640	SQUM 4"
641	PINE 8"
642	SQUM 4"
643	SQUM 4"
644	PINE 10"
645	PINE 10"
646	SQUM 4"
647	SQUM6"
648	PINE 12"
649	TREE 18"
650	PINE 22"
651	SQUM 4"
652	SQUM 4"
653	SQUM 4"
654	PINE 10"
655	PINE 15"
656	SQUM6"
657	SQUM6"
658	PINE 15"
659	PINE 4"

Tree Table	
Point #	Type & Size
660	SQUM 4"
661	PINE 8"
662	PINE 6"
663	PINE 15"
664	PINE 6"
665	PINE 10"
666	PINE 12"
667	PINE 10"
668	SQUM6"
669	SQUM6"
670	SQUM6"
671	PINE 10"
672	PINE 12"
673	PINE 12"
674	PINE 12"
675	SQUM 8"
676	SQUM 8"
677	OAK 4"
678	OAK 6"
679	PINE 15"

Tree Table	
Point #	Type & Size
680	PINE 12"
681	PINE 10"
682	PINE 10"
683	PINE 15"
684	PINE 15"
685	PINE 10"
686	PINE 4"
687	PINE 8"
688	PINE 4"
689	TREE 20"
690	PINE 24"
691	SQUM6"
692	SQUM6"
693	SQUM 4"
694	PINE 12"
695	PINE 10"
696	PINE 10"
697	PINE 10"
698	PINE 10"
699	SQUM 12"

Tree Table	
Point #	Type & Size
700	OAK 6"
701	TREE 4"
702	PINE 8"
703	PINE 12"
704	HACK 10"
705	PINE 12"
706	PINE 4"
707	PINE 10"
708	TREE 6"
709	TREE 12"
710	SQUM6"
711	SQUM6"
712	PINE 15"
713	PINE 18"
714	TREE 6"
715	SQUM 13"
716	SQUM6"
717	SQUM 4"
718	PINE 6"
719	SQUM 10"

Tree Table	
Point #	Type & Size
720	PINE 4"
721	PINE 6"
722	PINE 10"
723	PINE 10"
724	PINE 10"
725	PINE 10"
726	PINE 15"
727	SQUM6"
728	PINE 8"
729	PINE 4"
730	PINE 10"
731	PINE 10"
732	PINE 12"
733	PINE 10"
734	PINE 10"
735	TREE 8"
736	SQUM 8"
737	PINE 10"
738	PINE 6"
739	PINE 15"

Tree Table	
Point #	Type & Size
740	PINE 4"
741	PINE 4"
742	PINE 12"
743	PINE 10"
744	PINE 10"
745	SQUM6"
746	PINE 15"
747	OAK 8"
748	PINE 4"
749	PINE 8"
750	SQUM 10"
751	TALLOW 12"
752	PINE 18"
753	TREE 6"
754	PINE 10"
755	SQUM 8"
756	PINE 8"
757	PINE 12"
758	PINE 18"
759	SQUM 12"

Tree Table	
Point #	Type & Size
760	PINE 20"
761	PINE 18"
762	PINE 15"
763	PINE 12"
764	PINE 18"
765	PINE 10"
766	SQUM6"
767	OAK 4"
768	SQUM 4"
769	SQUM 10"
770	PINE 20"
771	SQUM 4"
772	PINE 12"
773	PINE 18"
774	PINE 12"
775	PINE 8"
776	PINE 12"
777	PINE 12"
778	PINE 12"
779	TREE 10"

Tree Table	
Point #	Type & Size
780	PINE 4"
781	TREE 10 CLUSTER"
782	PINE 10"
783	PINE 12"
784	PINE 15"
785	PINE 6"
786	PINE 10"
787	SQUM 20"
788	PINE 6"
789	PINE 6"
790	PINE 10"
791	PINE 10"
792	PINE 12"
793	SQUM 8"
794	PINE 10"
795	PINE 6"
796	PINE 6"
797	PINE 6"
798	PINE 4"
799	PINE 32"

Tree Table	
Point #	Type & Size
800	OAK 10"
801	PINE 15"
802	OAK 8"
803	PINE 12"
804	PINE 8"
805	SQUM 4"
806	SQUM 4"
807	PINE 12"
808	SQUM 12"
809	SQUM 4"
810	PINE 8"
811	PINE 12"
812	PINE 18"
813	SQUM 8"
814	SQUM 10"
815	PINE 8"
816	PINE 8"
817	SQUM 8"
818	PINE 15"
819	SQUM 10"

Tree Table	
Point #	Type & Size
820	TREE 10 CLUSTER"
821	SQUM6"
822	SQUM 4"
823	SQUM 4"
824	SQUM 8"
825	PINE 15"
826	SQUM 10"
827	PINE 15"
828	TREE 12"
829	PINE 12"
830	SQUM 10"
831	SQUM 4"
832	PINE 15"
833	PINE 12"
834	PINE 4"
835	PINE 4"
836	SQUM 4"
837	SQUM 10"
838	SQUM6"
839	SQUM 8"

Tree Table	
Point #	Type & Size
840	PINE 12"
841	PINE 10"
842	PINE 8"
843	PINE 10"
844	PINE 10"
845	PINE 12"
846	OAK 10"
847	PINE 10"
848	OAK 24"
849	SQUM 8"
850	PINE 12"
851	PINE 8"
852	PINE 12"
853	SQUM 8"
854	OAK 12"
855	SQUM 8"
856	PINE 10"
857	PINE 8"
858	SQUM 10"
859	PINE 15"

Tree Table	
Point #	Type & Size
860	PINE 8"
861	PINE 10"
862	OAK 3"
863	PINE 4"
864	SQUM6"
865	PINE 12"
866	PINE 12"
867	PINE 8"
868	SQUM 4"
869	OAK 6"
870	PINE 10"
871	OAK 4"
872	PINE 8"
873	PINE 12"
874	PINE 10"
875	PINE 10"
876	PINE 10"
877	PINE 8"
878	PINE 8"
879	PINE 15"

Tree Table	
Point #	Type & Size
880	PINE 12"
881	SQUM 8"
882	PINE 6"
883	PINE 6"
884	PINE 10"
885	PINE 8"
886	PINE 10"
887	PINE 8"
888	PINE 8"
889	PINE 15"
890	OAK 8"
891	SQUM 4"
892	PINE 10"
893	SQUM 12"
894	SQUM 12"
895	SQUM 4"
896	PINE 10"
897	PINE 6"
898	PINE 8"
899	PINE 12"

Tree Table	
Point #	Type & Size
900	SQUM 4"
901	PINE 10"
902	TREE 10 CLUSTER"
903	PINE 8"
904	PINE 10"
905	PINE 10"
906	PINE 10"
907	PINE 10"
908	PINE 12"
909	PINE 12"
910	SQUM 12"
911	SQUM 8"
912	SQUM 12"
913	SQUM 12"
914	PINE 12"
915	PINE 12 1"
916	TREE 6"
917	TREE 6"
918	SQUM 4"
919	SQUM 4"

Tree Table	
Point #	Type & Size
920	TREE 8"
921	PINE 6"
922	PINE 12"
923	PINE 10"
924	PINE 4"
925	PINE 10"
926	PINE 12"
927	PINE 10"
928	PINE 12"
929	PINE 12"
930	PINE 18"
931	PINE 15"
932	TREE 4"
933	PINE 4"
934	PINE 6"
935	PINE 12"
936	PINE 12"
937	PINE 12"
938	SQUM 12"
939	SQUM 10"

Tree Table	
Point #	Type & Size
940	SQUM 10"
941	TREE 10"
942	PINE 15"
943	OAK 12"
944	SQUM 23"
945	OAK 4"
946	PINE 10"
947	PINE 10"
948	PINE 18"
949	PINE 12"
950	PINE 10"
951	PINE 10"
952	PINE 12"
953	PINE 12"
954	PINE 8"
955	PINE 15"
956	PINE 8"
957	PINE 12"
958	SQUM 12"
959	OAK 12"

Tree Table	
Point #	Type & Size
960	PINE 12"
961	SQUM 15"
962	SQUM 4"
963	SQUM 15"
964	OAK 10"
965	PINE 12"
966	PINE 10"
967	PINE 6"
968	PINE 4"
969	PINE 8"
970	PINE 10"
971	PINE 12"
972	PINE 12"
973	SQUM6"
974	SQUM 29"
975	OAK 6"
976	OAK 4"
977	OAK 10"
978	OAK 10"
979	OAK 15"

Tree Table	
Point #	Type & Size
980	OAK 15"
981	OAK 18"
982	TREE 15"
983	OAK 15"
984	OAK 10"
985	PINE 6"
986	OAK 10"
987	OAK 10"
988	SQUM 23"
989	OAK 10"
990	PINE 18"
991	PINE 18"
992	PINE 6"
993	PINE 6"
994	PINE 6"
995	OAK 12"
996	SQUM 18"
3279	PINE 10"
3280	TALLOW 8"
3281	PINE 12"

Tree Table	
Point #	Type & Size
3714	OAK 4"
3717	OAK 6"
3718	TALLOW 4"
3719	TALLOW 12"
3720	SQUM 12"
3721	SQUM 12"
3722	TREE 10"
3723	OAK 18"
3724	OAK 4"
3725	SQUM 18"
3726	TALLOW 8"
3727	OAK 10"
3728	OAK 8"
3729	OAK 12"
3732	TALLOW 13"
3733	PINE 12"
3734	OAK 6"
3735	PINE 15"
3736	OAK 4"
3737	OAK 6"

Tree Table	
Point #	Type & Size
4284	PINE 12"
4355	OAK 4"
4356	SQUM 12"
4357	OAK 12"
4358	PINE 12"
4359	PINE 15"
4360	OAK 8"
4361	TREE 4"
4362	SQUM6"
4363	OAK 8"
4364	PINE 20"
4365	TALLOW 4"
4366	TALLOW 8"
4367	TALLOW 4"
4368	SQUM"
4369	PINE 18"
4392	OAK 4"
4393	PINE 12"
4394	PINE 8"
4395	PINE 4"
4396	PINE 15"
4397	PINE 15"

Tree Table	
Point #	Type & Size
4376	OAK 10"
4379	OAK 4"
4380	TALLOW 8"
4381	PINE 4"
4382	PINE 4"
4383	TALLOW 4"
4384	OAK 10"
4385	PINE 15"
4386	SQUM 4"
4387	PINE 10"
4388	PINE 4"
4389	PINE 4"
4390	SQUM 10"
4391	PINE 4"
4392	PINE 4"
4393	PINE 12"
4394	PINE 8"
4395	PINE 4"
4396	PINE 10"
4397	PINE 15"

Tree Table	
Point #	Type & Size
4398	OAK 4"
4399	PINE 4"
4400	PINE 4"
4401	PINE 4"
4402	PINE 10"
4403	PINE 4"
4404	SQUM 3"
4405	SQUM 8"
4406	SQUM6"
4407	PINE 12"
4408	PINE 12"
4409	PINE 4"
4410	PINE 4"
4411	PINE 10"
4412	PINE 8"
4413	PINE 4"
4414	PINE 10"
4415	PINE 4"
4416	PINE 10"
4417	PINE 10"

Tree Table	
Point #	Type & Size
4418	PINE 12"
4419	SQUM 4"
4420	PINE 12"
4421	PINE 12"
4422	SQUM6"
4423	SQUM6"
4424	PINE 10"
4425	SQUM 4"
4426	PINE 6"
4427	SQUM 8"
4429	PINE 24"
4430	SQUM 8"
4431	PINE 4"
4432	PINE 8"
4433	PINE 10"
4438	PINE 12"
4439	PINE 10"
4440	PINE 4"
4441	PINE 4"
4442	PINE 8"

Tree Table	
Point #	Type & Size
4443	PINE 8"
4444	PINE 12"
4445	PINE 8"
4446	PINE 4"
4447	PINE 4"
4448	TALLOW 4"
4449	PINE 6"
4450	PINE 8"
4451	PINE 4"
4452	PINE 4"
4453	PINE 6"
4454	PINE 10"
4455	PINE 8"
4456	PINE 4"
4457	PINE 6"
4458	PINE 4"
4459	PINE 8"
4460	PINE 4"
4462	PINE 4"
4463	OAK 4"

Tree Table	
Point #	Type & Size
4464	PINE 8"
4465	PINE 12"
4466	OAK 4"
4467	OAK 8"
4468	ELM 8"
4469	ELM 8"
4470	OAK 8"
4471	PINE 18"
4472	PINE 12"
4473	PINE 15"
4474	SQUM 4"
4475	SQUM6"
4476	OAK 15"
4477	OAK 6"
4478	OAK 12"
4479	PINE 10"
4480	PINE 15"
4481	SQUM6"
4482	OAK 8"
4483	PINE 6"

Tree Table	
Point #	Type & Size
4484	PINE 13"
4485	SQUM 4"
4486	PINE 4"
4487	PINE 4"
4488	PINE 6"
4489	PINE 12"
4490	PINE 15"
4491	OAK 6"
4492	OAK 12"
4493	OAK 4"
4494	SQUM 4"
4495	OAK 8"
4496	OAK 12"
4497	OAK 15"
4498	PINE 15"
4499	OAK 14"
4500	OAK 10"
4501	OAK 10"
4502	OAK 12"
4503	PINE 8"

Tree Table	
Point #	Type & Size
4504	PINE 8"
4505	PINE 4"
4506	PINE 4"
4507	PINE 10"
4508	TALLOW 8"
4509	OAK 4"
4510	OAK 12"
4511	PINE 8"
4512	PINE 8"
4513	TREE 4"
4514	OAK 12"
4515	OAK 12"
4516	OAK 4"
4517	OAK 8"
4518	OAK 8"
4519	OAK 15"
4520	PINE 18"
4521	TALLOW 10"
4522	OAK 4"
4523	OAK 8"

Tree Table	
Point #	Type & Size
4527	PINE 6"
4528	PINE 12"
4529	PINE 15"
4530	PINE 12"
4531	ELM 4"
4532	PINE 10"
4533	OAK 12"
4534	PINE 6"
4535	TALLOW 4"
4536	PINE 10"
4537	OAK 10"
4538	PINE 12"
4539	SQUM 10"
4540	OAK 12"
4541	PINE 24"
4542	TALLOW 8"
4543	OAK 4"
4544	OAK 12"
4545	TALLOW 12"
4546	PINE 12"

Tree Table	
Point #	Type & Size
4547	TALLOW 6"
4549	PINE 8"
4550	PINE 6"
4551	OAK 4"
4552	PINE 4"
4553	SQUM 4"
4554	PINE 8"
4555	PINE 15"
4556	PINE 13"
4557	PINE 13"
4558	PINE 8"
4559	OAK 4"
4560	SQUM6"
4561	PINE 10"
4562	PINE 10"
4575	PINE 12"
4576	PINE 15"
4577	PINE 10"
4578	OAK 4"
4579	OAK 10"

Tree Table	
Point #	Type & Size
4580	PINE 20"
4581	OAK 8"
4582	PINE 18"
4583	TALLOW 12"
4584	PINE 12"
4585	PINE 10"
4586	OAK 6"
4587	PINE 20"
4588	TREE 12"
4589	OAK 12"
4590	PINE 15"
4591	PINE 10"
4592	OAK 8"
4593	OAK 15"
4594	PINE 4"
4595	PINE 4"
4596	PINE 6"
4597	OAK 8"
4598	PINE 8"
4599	OAK 12"

Tree Table	
Point #	Type & Size
4600	OAK 6"
4601	SWEETGUM 4"
4602	PINE 10"
4603	PINE 18"
4604	OAK 8"
4605	PINE 6"
4606	OAK 6"
4607	PINE 15"
4608	OAK 10"
4609	OAK 12"
4610	OAK 12"
4611	PINE 12"
4612	OAK 10"
4613	OAK 12"
4614	PINE 10"
4615	OAK 12"
4616	OAK 8"
4617	PINE 10"
4618	PINE 12"
4619	OAK 15"

Tree Table	
Point #	Type & Size
4620	OAK 10"
4621	OAK 10"
4622	PINE 18"
4623	OAK 10"
4624	PINE 8"
4625	SWEETGUM 10"
4626	PINE 20"
4627	OAK 12"
4628	PINE 10"
4629	SWEETGUM 6"
4630	OAK 10"
4631	OAK 4"
4632	OAK 10"
4633	OAK 4"
4636	TALLOW 4"
4637	TALLOW 6"
4638	TALLOW 10"
4639	OAK 10"
4640	OAK 4"
4641	OAK 10"

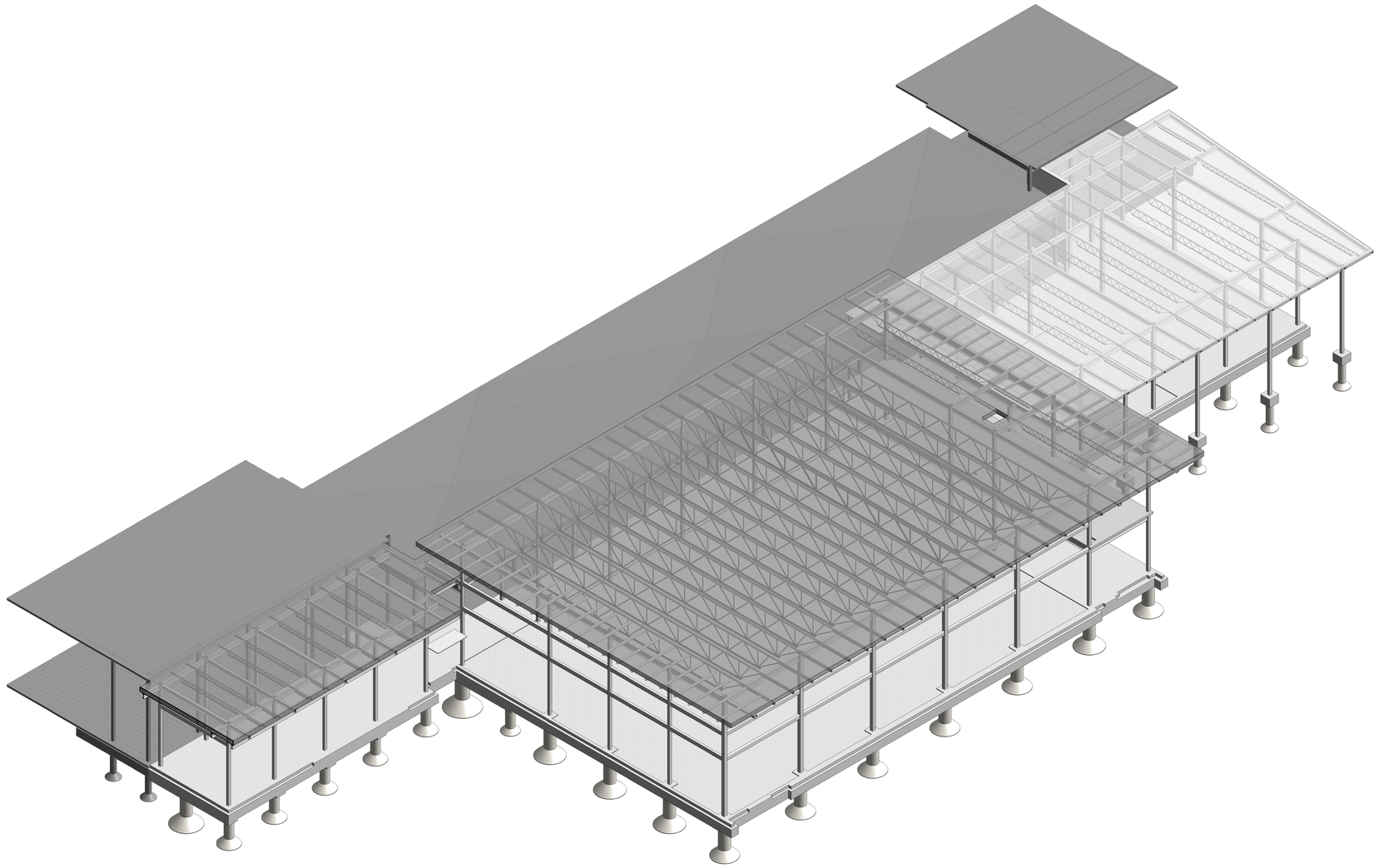
Tree Table	
Point #	Type & Size
4642	PINE 12"
4643	OAK 12"
4644	TALLOW 10"
4645	OAK 8"
4646	OAK 4"
4647	OAK 12"
4648	OAK 8"
4649	OAK 4"
4650	OAK 6"
4651	OAK 6"
4652	OAK 12"
4653	OAK 4"
4654	PINE 6"
4655	OAK 4"
4656	OAK 12"
4657	OAK 8"
4658	OAK 4"
4841	OAK 6"
4842	SWEETGUM 6"
4843	PINE 12"

Tree Table	
Point #	Type & Size
4844	SWEETGUM 6"
4845	PINE 15"
4846	SWEETGUM 4"
4847	PINE 12"
4848	SWEETGUM 4"
4849	SWEETGUM 4"
4850	PINE 12"
4851	PINE 10"
4852	SWEETGUM 4"
4853	SWEETGUM 6"
4854	PINE 6"
4855	PINE 12"
4856	PINE 12"
4857	SWEETGUM 6"
4858	PINE 12"
4859	PINE 10"
4860	OAK 6"
4861	OAK 6"
4862	OAK 6"
4863	OAK 12"

Tree Table	
Point #	Type & Size
4864	PINE 8"
4865	OAK 12"
4866	PINE 10"
4867	SWEETGUM 4"
4868	OAK 12"
4869	OAK 12"
4870	SWEETGUM 8"
4871	OAK 8"
4872	PINE 24"
4873	PINE 10"
4874	PINE 10"
4875	OAK 18"
4876	OAK 4"
4877	PINE 4"
4878	PINE 6"
4879	PINE 10"
4880	PINE 10"
8080	OAK 12"
8128	PINE 18"
8129	OAK 12"

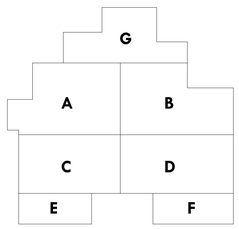
Tree Table	
Point #	Type & Size
8178	TREE 12"
8246	OAK 10"
8268	OAK 14"
8356	OAK 12"
8417	OAK 24"
9380	OA

SHEET LIST	
Sheet Number	Sheet Name
S001	3D VIEW AND SHEET LIST
S101	GENERAL STRUCTURAL CRITERIA
S102	GENERAL STRUCTURAL CRITERIA
S201	FOUNDATION PLAN - OVERALL
S201G	FOUNDATION PLAN - AREA G
S202	SECOND FLOOR AND LOW ROOF FRAMING PLAN - OVERALL
S202G	LOW ROOF FRAMING PLAN - AREA G
S203	ROOF FRAMING PLAN - OVERALL
S203G	ROOF FRAMING PLAN - AREA G
S204	ROOF FRAMING PLAN - OVERALL
S204G	HIGH ROOF FRAMING PLAN - AREA G
S301	DRILLED PIER & PLINTH SCHEDULE & DETAILS
S302	GRADE BEAM SCHEDULE AND DETAILS
S303	COLUMN SCHEDULE & DETAILS
S401	TYPICAL FOUNDATION DETAILS
S402	TYPICAL SITE FOUNDATION DETAILS
S403	FOUNDATION DETAILS (PIER)
S501	TYPICAL FRAMING DETAILS
S502	TYPICAL FRAMING DETAILS
S503	TYPICAL COMPOSITE FRAMING DETAILS
S504	TYPICAL ROOF FRAMING DETAILS
S505	TYPICAL COLD FORMED METAL FRAMING DETAILS
S506	TYPICAL CMU DETAILS
S601	COMPOSITE FRAMING DETAILS
S701	ROOF FRAMING DETAILS
S702	ROOF FRAMING DETAILS
S703	ROOF FRAMING DETAILS



1 PRESENTATION 3D VIEW

KEY PLAN



FRED DALLY 99904 REGISTERED PROFESSIONAL ENGINEER
06/13/2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MISSOURI CITY, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES STRUCTURAL | CIVIL
9800 Richmond Avenue, Suite 460
Houston, Texas 77042
t 713.337.8881
Texas Registered Engineering Firm
F-269429
D + A PROJECT #23-186-00

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DATE	MARCH 12, 2023
DRAWN BY	RHW
CHECKED BY	LMM
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL IMPROVEMENTS
10303 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

NO.	REVISION	DATE
	50% CD	11/21/2023
	95% CD	01/26/2024
	ISSUE FOR PERMIT	02/12/2024
2	ISSUE FOR BID	06/13/2025

S001

3D VIEW AND SHEET LIST

3. STRUCTURAL CONCEPT, STANDARDS AND LOADS

A. DESIGN CONCEPT:

THE STRUCTURE AS SHOWN HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS AND DESIGN STANDARDS TO SUPPORT THE FINAL BUILDING SERVICE LOADS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL SUPPORTS FOR THE STRUCTURE IF NECESSITATED BY THE CONSTRUCTION SEQUENCE OR METHODS OF FABRICATION, HANDLING, ERECTION, AND OTHER CONSTRUCTION OPERATIONS.

B. BUILDING CODES AND DESIGN STANDARDS:

1. INTERNATIONAL BUILDING CODE, 2018 EDITION.

2. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE), MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-16, AS AMENDED.

3. AMERICAN CONCRETE INSTITUTE (ACI), BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318, AS AMENDED.

4. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION,15TH EDITION(ASD) AS AMENDED.

5. AMERICAN WELDING SOCIETY (AWS).

6. STEEL JOIST INSTITUTE (SJI), STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS AND JOIST GIRDERS.

7. STEEL DECK INSTITUTE (SDI), DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, ROOF DECKS, AND CELLULAR METAL FLOOR DECK WITH ELECTRICAL DISTRIBUTION.

8. AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.

C. GRAVITY LOADS:

SUPERIMPOSED LOADS ARE GIVEN IN POUNDS PER SQUARE FOOT (PSF).

BUILDING AREA	DEAD LOAD (PSF)	LIVE LOAD (PSF)
1. SLAB ON GRADE	0	100
2. STAIRS	10	100
3. MEZZANINE	10	125
4. ROOF	20	20
5. MECHANICAL AREAS	10	150(**)

*INCLUDES AN ALLOWANCE OF 15 PSF FOR PARTITION WEIGHT
**EQUIPMENT WEIGHT IF LARGER

D. LATERAL DESIGN LOADS:

1. WIND LOADS FOR AN BASIC DESIGN WIND SPEED OF **142** MPH (ASD WIND SPEED OF **110** MPH), 3-SECOND GUST, WITH EXPOSURE **B** AND A RISK CATEGORY **III** (ASCE 7-16 METHOD)

2. COMPONENTS AND CLADDING PRESSURES (PSF) FOR "CLOSED" BUILDINGS:

		ZONE 1		ZONE 1'		ZONE 2		ZONE 3	
ROOF	10 FT²	16.0	-57.8	16.0	-33.2	16.0	-76.2	16.0	-103.9
	100 FT²	16.0	-45.1	16.0	-33.2	16.0	-60.0	16.0	-71.3

		ZONE 4		ZONE 5	
WALLS	10 FT²	33.2	-36.0	33.2	-44.3
	100 FT²	28.3	-31.1	28.3	-34.5

a. RE: IBC **2018** FOR ADDITIONAL DESCRIPTION OF PRESSURE ZONES.

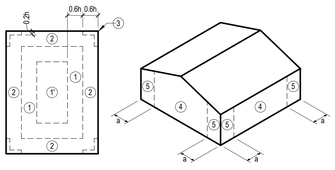
b. POSITIVE PRESSURES ARE PRESSURES ACTING TOWARD THE BUILDING.

c. NEGATIVE PRESSURES ARE PRESSURES ACTING AWAY FROM THE BUILDING.

d. VALUES ABOVE ARE FOR BASIC DESIGN WIND PRESSURES. THE ASD FACTOR 0.6.

e. ZONE WIDTH DIMENSIONS:

a (walls) = **9'-6"**
0.2h = **6'-0"**
0.6h = **18'-0"**



ROOF **WALL**

3. WIND-BORNE DEBRIS REGION, USE RISK CATEGORY **II** WIND SPEED OF **132** MPH BASIC (**102** MPH ASD)

E. SEISMIC CRITERIA:

1. IMPORTANCE FACTOR: 1.25
2. RISK CATEGORY: III
3. MAPPED SPECTRAL RESPONSE ACCELERATIONS:
   a. Ss: 0.07
   b. S1: 0.041
4. SITE CLASS: ..... D
5. SPECTRAL RESPONSE COEFFICIENTS:
   a. SDS: 0.075
   b. SD1: 0.066
6. SEISMIC DESIGN CATEGORY: ..... A
7. BASIC SEISMIC FORCE-RESISTING SYSTEM: "TBD" (EX: STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE)

F. GROUND SNOW LOADS: 5 PSF

G. SPECIAL LOADS:

1. STAIR TREADS, RAILING AND GUARDRAILS:

ITEM	REQUIRED CAPACITY
TREADS	300 POUNDS AT CENTER
TOP RAILS	50 PLF HORIZONTALLY
OTHER RAILS, FILLERS & CONNECTIONS	50 PSF HORIZONTALLY
HAND RAILS	200 POUNDS ANY DIRECTION

2. PIPE LOADS WITH WATER:

SIZE	WEIGHT MAX.	SPACING OF HANGERS
4" DIA.	17 PLF	10'-0"
6" DIA.	32 PLF	10'-0"
8" DIA.	50 PLF	10'-0"
10" DIA.	75 PLF	5'-0"
12" DIA.	102 PLF	5'-0"

VALUES ASSUME SCHEDULE 40 STEEL PIPE

H. ROOF RAIN LOAD DATA: RAIN INTENSITY, i = **4.5** IN/HR

4. GENERAL NOTES FOR CONSTRUCTION

A. CONSTRUCTION METHODS, PROCEDURES AND SEQUENCES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR SHALL TAKE ALL THE NECESSARY MEANS TO MAINTAIN AND PROTECT THE STRUCTURAL INTEGRITY OF ALL CONSTRUCTION AT ALL STAGES.

B. THESE NOTES APPLY TO STRUCTURAL DOCUMENTS SEALED BY THE STRUCTURAL ENGINEER AND ARE INTENDED TO BE COMPLEMENTARY TO AND USED IN CONJUNCTION WITH THE PLANS AND SPECIFICATIONS, INCLUDING THOSE PREPARED BY OTHER DISCIPLINES. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT/STRUCTURAL ENGINEER IMMEDIATELY. ANY SUCH DISCREPANCIES SHALL BE RESOLVED TO THE MORE STRINGENT REQUIREMENTS, UNLESS OTHERWISE AUTHORIZED BY THE STRUCTURAL ENGINEER.

C. ANY DISCREPANCIES ON THE STRUCTURAL DOCUMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/STRUCTURAL ENGINEER PRIOR TO SUBMISSION OF BIDS OR PROPOSALS, OR IF NOT REASONABLE DISCERNABLE DURING PREPARATION OF BIDS AND PROPOSALS, BEFORE COMMENCING THE WORK IN QUESTIONS. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER. NO CHANGE ORDER CONSIDERATION WILL BE GIVEN TO CHANGES FOR WHICH THE ARCHITECT AND/OR ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.

D. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONSTRUCTION, INCLUDING EXISTING WORK, PRIOR TO COMMENCING WORK. ANY DISCREPANCIES SHALL BE REPORT IMMEDIATELY TO THE ARCHITECT/STRUCTURAL ENGINEER.

E. ALL PROPOSED SUBSTITUTIONS MUST BE EQUAL OR BETTER AND SHALL BE REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO ANY PERTINENT WORK AND PRIOR TO THE AWARD OF THE CONTRACT.

F. NOT ALL OPENINGS AND OTHER COMPONENTS THAT ARE REQUIRED HAVE BEEN SHOWN IN THE STRUCTURAL DRAWINGS. COORDINATE WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND VERIFY THE LOCATIONS AND SIZES OF ALL CHASES, INSERTS, OPENINGS, SLEEVES, FINISHES, DEPRESSIONS, PADS AND OTHER PROJECT REQUIREMENTS. FLOOR PLAN WILL BE FURNISHED FOR THAT PURPOSE.

G. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE MECHANICAL, ELECTRICAL, PLUMBING AND ARCHITECTURAL DRAWINGS TO DETERMINE WHERE OPENINGS ARE REQUIRED IN REINFORCED CONCRETE BEAMS, SLABS AND WALLS.

H. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, DETAILING ALL THE OPENINGS, INCLUDING ADDED REINFORCEMENT AS SHOWN ON THE TYPICAL WALL, SLAB AND BEAM OPENING DETAILS FOR REVIEW.

I. ADDITIONAL REINFORCEMENT ABOVE THAT SHOWN IN THE TYPICAL SLAB AND BEAM OPENING DETAILS MAY BE REQUIRED AND WILL BE REVIEWED ON THE SHOP DRAWINGS.

J. USE THE MANUFACTURER'S CERTIFIED DRAWINGS AND SPECIFICATIONS FOR THE EQUIPMENT ANCHORAGE AND DETAILS.

K. ALL CONSTRUCTION JOINTS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE. ADDITIONAL CONSTRUCTION JOINTS TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILED ON THE SHOP DRAWINGS FOR REVIEW.

L. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN BEAMS UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

M. ALL CONSTRUCTION AND CONTROL JOINTS FOR BEAMS WHICH ARE EXPOSED TO VIEW ARE TO BE LOCATED TO COINCIDE WITH THE ARCHITECTURAL RUSTICATION JOINTS AS SHOWN ON THE BUILDING ELEVATION SHEETS OR AS REVIEWED IN WRITING.

N. SHOP DRAWINGS

1. THE TERM "SHOP DRAWINGS" INCLUDES FABRICATION, MANUFACTURING, ERECTION AND SETTING DRAWINGS, BROCHURES, CERTIFICATES, AND PRODUCT DATA DESCRIBING MATERIALS AND EQUIPMENT. SHOP DRAWINGS SHALL INCLUDE ALL PERTINENT INFORMATION REQUIRED FOR THE ENGINEER TO FULLY EVALUATE THE MATERIALS BEING REPRESENTED BY THE SUBMITTAL INCLUDING THE PHYSICAL PROPERTIES, DIMENSIONS, LOCATIONS AND METHOD OF INSTALLATION.

2. SHOP DRAWINGS WILL BEAR THE REVIEW STAMP OF THE CONTRACTOR INDICATING THAT HE HAS REVIEWED THE DRAWINGS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS; COORDINATED ITEMS INCLUDED IN THE SUBMITTAL WITH RELATED ITEMS; AND VERIFIED AND COORDINATED DIMENSIONS.

3. REPRODUCTIONS OF THE ENGINEERING DRAWINGS WILL NOT BE ACCEPTABLE AS SHOP DRAWINGS.

4. ANY SHOP DRAWING NOT CONFORMING TO THESE REQUIREMENTS WILL BE CAUSE FOR REJECTION AND WILL BE RETURNED WITHOUT ANY FURTHER ACTION.

5. STRUCTURAL SUBMITTALS REQUIRED FOR APPROVAL INCLUDE, BUT ARE NOT LIMITED TO:

CONCRETE ACCESSORIES (MANUFACTURERS PRODUCT DATA)
STEEL REINFORCING
CONCRETE MIX DESIGN
CONTROL JOINT LAYOUT
CONCRETE MATERIAL CERTIFICATES
STRUCTURAL STEEL FRAMING
STRUCTURAL STEEL CONNECTION CALCULATIONS
STEEL ROOF DECK
COLD FORMED METAL FRAMING
COLD FORMED METAL FRAMING CALCULATIONS
MISC. STEEL FABRICATIONS

6. DELEGATED STRUCTURAL DESIGN OF COMPONENTS:

A. SEE APPLICABLE SECTIONS OF GENERAL NOTES FOR THE APPROPRIATE DESIGN RESPONSIBILITIES OF THE SUPPLIER AND IT'S LICENSED ENGINEER

O. EXISTING DIMENSIONS AND CONDITIONS:

1. THIS PROJECT CONSISTS OF AN ADDITION AND MODIFICATIONS TO AN EXISTING BUILDING. INFORMATION ON EXISTING CONDITIONS HAS BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND SHOWN ON THESE DRAWINGS. THESE DRAWINGS WERE ASSUMED TO BE "AS-BUILT" DRAWINGS. SINCE EXISTING CONDITIONS WERE NOT ACCESSIBLE OR SINCE FIELD OBSERVATION OF EXISTING CONDITIONS IS BEYOND THE ENGINEER'S SCOPE OF WORK DURING THE DESIGN PHASE OF THIS PROJECT, THE ACCURACY OF THIS INFORMATION HAS NOT BEEN VERIFIED. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING DIMENSIONS SHOWN ON THESE DRAWINGS AND TO VERIFY THE LOCATION OF ALL FRAMING MEMBERS AND OTHER OBSTRUCTIONS WHICH WILL AFFECT HIS WORK. AS A PART OF HIS WORK THE CONTRACTOR SHALL PREPARE AN ACCURATE FIELD SURVEY OF THE LOCATION OF ALL STRUCTURAL MEMBERS AND OTHER OBSTRUCTIONS IN THE WORK AREA PRIOR TO BEGINNING SHOP DRAWINGS AND CONSTRUCTION. THIS SURVEY SHALL BE SUBMITTED TO THE ARCHITECT WITH ANY VARIANCES NOTED. CLAIMS FOR ADDITIONAL TIME OR EXTRA COST DUE TO OBSTRUCTIONS AND VARIANCES IN THE LOCATION OF THE STRUCTRAL MEMBERS WILL NOT BE HONORED AFTER WORK HAS BEGUN ON THE PROJECT.

5. CONCRETE

A. CONCRETE SCHEDULE:

BUILDING COMPONENT	28 DAY CYLINDER COMPRESSIVE STRENGTH POUNDS PER SQUARE INCH(PSI)					
	NORMAL WEIGHT			MAX AGGREGATE SIZE (IN)	SLUMP (IN)	W/C RATIO
	3000	3500	4000			
1. DRILLED PIERS	●			1 1/2"	5-7	0.55
2. SLAB-ON-GRADE		●		1"	4-6	0.50
3. GRADE BEAMS AND PLINTHS		●		1"	4-6	0.50
4. ALL OTHER CONCRETE	●			1"	4-6	0.52

B. PROVIDE DEFORMED NEW BILLET STEEL BARS CONFORMING TO ASTM A615, GRADE 60. ALL REINFORCING STEEL SHALL BE SECURELY HELD IN PLACE; PROVIDE ADDITIONAL BARS OR STIRRUPS FOR SUPPORT AS REQUIRED.

C. WELDED WIRE FABRIC SHALL CONSIST OF FLAT SHEETS AND SHALL CONFORM TO ASTM A185, WITH A MINIMUM YIELD STRENGTH OF 65.0 KSI

D. PROVIDE FULL EMBEDMENT WITH STANDARD 90 DEGREE HOOKS FOR ALL DOWELS. IF NOT OTHERWISE SPECIFIED, THE DOWEL SIZE AND SPACING SHALL BE THE SAME AS THE MAIN REINFORCING.

E. WHEN REINFORCING STEEL IN GRADE BEAMS, WALLS, SLABS AND BEAMS, IS NOTED AS CONTINUOUS, SPLICE REINFORCING STEEL ONLY WHEN UNAVOIDABLE DUE TO STOCK LENGTHS. STAGGER ALL SPLICES A MINIMUM OF 4'-0" .ADJACENT BAR SPLICES ARE NOT ACCEPTABLE. LOCATE THE TOP BAR SPLICES WITHIN THE MIDDLE HALF OF THE SPAN AND LOCATE THE BOTTOM BAR SPLICES AT SUPPORTS OR BETWEEN SUPPORTS AND 1/3 SPAN POINT, UNLESS NOTED OTHERWISE ON PLANS, DETAILS OR SCHEDULES.

F. PROVIDE INTERIOR AND EXTERIOR HORIZONTAL LAPPED CORNER BARS AT ALL CORNERS TO MATCH THE SIZE, TYPE AND SPACING OF THE WALL AND GRADE BEAM HORIZONTAL REINFORCING.

G. UNLESS SPECIFICALLY NOTED, SCHEDULED OR DETAILED OTHERWISE. PROVIDE DEVELOPMENT LENGTH FOR REINFORCING IN CONCRETE COMPONENTS IN ACCORDANCE WITH THE SCHEDULE IN NOTE H. BELOW. THIS SCHEDULE SHALL APPLY TO ALL DEVELOPMENT LENGTHS NOT OTHERWISE NOTED, DETAILED OR SCHEDULED IN THE DRAWINGS OR SPECIFICATIONS.

H. REINFORCING BAR DEVELOPMENT LENGTHS (Ld) IN INCHES FOR VARIOUS CONCRETE STRENGTHS IN POUNDS PER SQUARE INCH (PSI). TOP BARS ARE DEFINED AS HORIZONTAL REINFORCING SO PLACED IN A MEMBER THAT MORE THAN 12 INCHES OF CONCRETE IS CAST BELOW THE BAR. ALL OTHER CONDITIONS ARE CONSIDERED BOTTOM BARS FOR DEVELOPMENT AND SPLICE LENGTH PURPOSES.

BAR SIZE GRADE 60	Ld FOR TOP BARS				Ld FOR BOTTOM BARS			
	28 DAY CYLINDER CONCRETE STRENGTH (PSI)				28 DAY CYLINDER CONCRETE STRENGTH (PSI)			
	3000/3500	4000	5000	6000	3000/3500	4000	5000	6000
#3	22	19	17	16	17	15	13	12
#4	29	25	23	21	22	19	17	16
#5	36	31	28	26	28	24	22	20
#6	43	37	34	31	33	29	26	24
#7	63	54	49	45	48	42	38	34
#8	72	62	56	51	55	48	43	39
#9	81	70	62	57	62	54	48	44
#10	89	78	69	63	69	60	53	49
#11	98	85	76	70	76	66	59	54

1. WHEN TWO BARS OF DIFFERENT SIZES ARE LAPPED, THE SMALLER SIZE SHALL GOVERN THE LAP LENGTH UNLESS SPECIFICALLY NOTED.

2. WELDED OR MECHANICAL SPLICES CAPABLE OF DEVELOPING 125% OF THE BAR YIELD STRENGTH MAY BE USED IN LIEU OF THE LAPS. SUCH SPLICES MAY BE EITHER FULL BUTT WELDS OR SERIES "C CADWELDS OR EQUAL."

J. AT LAP SPLICES, PROVIDE LAP SPLICE LENGTHS FOR REINFORCING BARS 1.3 TIMES THE Ld SHOWN IN TABLE IN NOTE H ABOVE.

K. THE GENERAL NOTES, LAP LENGTHS OR DETAILS PERTAINING TO REINFORCING STEEL AS SHOWN ON THE DETAIL SHEETS OR OTHER SCHEDULES SHALL SUPERSEDE THE NOTES SHOWN ON THIS SHEET.

L. PROVIDE THE FOLLOWING COVER FOR CAST-IN-PLACE CONCRETE REINFORCING.

1. UNFORMED SURFACES IN CONTACT WITH EARTH: 3 INCHES

2. UNFORMED SURFACES OVER MOISTURE BARRIER: 2 INCHES

3. FORMED SURFACES EXPOSED TO EARTH OR WEATHER

a. #6 AND LARGER: 2 INCHES
b. #5 AND SMALLER: 1 1/2" INCHES

4. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER
a. SLABS AND WALLS: 3/4 INCHES
b. BEAMS AND COLUMNS 1 1/2 INCHES

6. EXCAVATION, BACKFILLING & FOUNDATIONS

A. A GEOTECHNICAL EXPLORATION OF SUBSURFACE CONDITIONS, CONTAINING TEST BORINGS, LABORATORY TEST, ENGINEERING ANALYSIS AND FOUNDATION RECOMMENDATIONS, PERFORMED BY **QC Laboratories, Inc.** DATED **JANUARY 2024** REPORT NO. **23G20369** IS AVAILABLE FOR REVIEW.

B. MAINTAIN PROPER SITE DRAINAGE DURING CONSTRUCTION SO THAT PONDING OF WATER DOES NOT OCCUR IN THE BUILDING AREA.

C. SUB-GRADE PREPARATION .

1. PERFORM DEMOLITION OF EXISTING STRUCTURES AS REQUIRED BY THE GEOTECHNICAL REPORT. THE ENTIRE VOLUME OF THE EXCAVATIONS CREATED BY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES SHOULD BE BACKFILLED WITH ENGINEERED (SELECT) FILL THAT IS PROPERLY PLACED AND COMPACTED.

2. EXCAVATE EXISTING SOILS AS REQUIRED TO REMOVE ALL EXISTING VEGETATION, ROOTS AND DELETERIOUS MATERIALS FROM THE PROPOSED BUILDING AREA, AND AS REQUIRED BY GEOTECHNICAL REPORT. THE CLEARING SHOULD EXTEND BEYOND THE BUILDING EDGES. ONCE ROUGH GRADE IS ESTABLISHED, THE EXPOSED SURFACE SHOULD BE PROOF-ROLLED. ANY SOFT POCKETS OF SOFT OR WEAK SOILS ENCOUNTERED SHOULD BE REMOVED. BUILD BUILDING PAD AS REQUIRED BY GEOTECHNICAL REPORT.

3. BUILDING PAD UNDER SLAB ON GRADE SHALL BE PREPARED TO PROVIDE AN OWNER APPROVED PVR OF 1" OR LESS BASED ON RECOMMENDATIONS IN THE PROJECT GEOTECHNICAL REPORT.

D. FOUNDATIONS HAVE BEEN DESIGNED FOR ALLOWABLE PRESSURE OF
3,250 PSF (NET DEAD + SUSTAINED LIVE)
4,875 PSF (NET TOTAL)

E. REFER TO THE GEOTECHNICAL EXPLORATION FOR ADDITIONAL INFORMATION.

7. STRUCTURAL STEEL

A. ROLLED SHAPES:

1. ALL STRUCTURAL STEEL FOR ALL THE HORIZONTAL FRAMING MEMBER SHALL CONFORM TO ASTM A992, GRADE 50, UNLESS OTHERWISE NOTED

2. ALL STRUCTURAL STEEL FOR HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A500, GRADE B WITH A MINIMUM YIELD OF 46 KSI, UNLESS OTHERWISE NOTED.

3. ALL STRUCTURAL STEEL FOR PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, UNLESS OTHERWISE NOTED.

4. ALL STRUCTURAL STEEL FOR ANGLES, PLATES AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36, UNLESS OTHERWISE NOTED.

5. ALL EXPOSED STEEL TO BE GALVANIZED.

B. CONNECTIONS

1. THE DESIGN OF STRUCTURAL STEEL CONNECTIONS IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE STEEL FABRICATOR. THE DESIGN OF THE CONNECTION SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY THE STEEL FABRICATOR. THE DETAILS AND CALCULATIONS SHALL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

A. ALL WELD SIZES AND LENGTHS
B. ALL BOLT SIZES, LOCATIONS, QUANTITIES AND GRADES
C. ALL PLATE AND ANGLE SIZES, THICKNESS AND DIMENSIONS
D. ALL WORK POINT LOCATIONS AND RELATED INFORMATION

2. PROVIDE STANDARD BOLTED CONNECTIONS CONFORMING TO AISC BOLTED CONNECTIONS, USING ASTM A325-OR A490 BOLTS, FOR THE BEAM END SHEARS INDICATED IN THE DOCUMENTS. PROVIDE MINIMUM OF TWO BOLTS FOR ALL CONNECTIONS.

3. ALL WELDED CONNECTIONS SHALL CONFORM TO AWS UNLESS OTHERWISE NOTED.

4. SURVEY ALL PLANS, DETAILS, SECTIONS, SCHEDULES AND SPECIFICATIONS FOR SPECIAL CONNECTIONS.

5. UNLESS OTHERWISE NOTED AND/OR SPECIFIED, ALL BEAM CONNECTIONS SHALL BE DESIGNED TO SUPPORT 1/2 THE TOTAL UNIFORM LOAD FOR THE APPLICABLE MEMBER SIZE AND SPAN AS DETERMINED BY THE TABLES FOR ALLOWABLE UNIFORM LOADS ON BEAM IN THE **15TH** EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL OF STEEL CONSTRUCTION (ASD)

6. WHERE BEAMS ARE TO RECEIVE HEADED SHEAR CONNECTORS, DESIGN THOSE BEAM CONNECTIONS FOR THE REACTION SHOWN. IF REACTIONS ARE NOT SHOWN, DESIGN THE CONNECTIONS TO SUPPORT 40 PERCENT OF THE MAXIMUM WEB SHEAR, V, FOR THE APPLICABLE MEMBER SIZE AS DETERMINED BY THE TABLES FOR ALLOWABLE UNIFORM LOADS ON BEAMS IN THE **15TH** EDITION OF THE AISC MANUAL

7. MOMENT CONNECTIONS SHOWN SHALL BE DESIGNED TO FULLY DEVELOP THE SECTION IN FLEXURE AND TO SUPPORT 1/2 THE TOTAL UNIFORM LOAD FOR SHEAR AS DESCRIBED IN NOTE 5 ABOVE.

8. WHERE FILLET WELD IS NOT SHOWN ON DETAIL, ITS SIZE SHALL BE ASSUMED TO BE THE PLATE THICKNESS OF THE THINNEST PIECE MINUS 1/16"

C. WELDS

1. CONFORM TO "CODE FOR WELDING IN BUILDING CONSTRUCTION" BY THE AMERICAN WELDING SOCIETY, LATEST EDITION.

2. WELDS ON INDICATED ON DRAWINGS ARE TO BE FILLET ALL AROUND AS PRESCRIBED BY AISC SPECIFICATION, PROVIDE WELDING OF CONTINUOUS MEMBERS OF 2 INCHES OF 3/16" INCH FILLET STITCH WELDS AT 12 INCHES OC, STAGGERED EACH SIDE, UNLESS OTHERWISE NOTED.

3. FIELD PAINT ALL WELDS W/ "GALVILITE" BY Z.R.C. OR APPROVED EQUAL ARC WELDING ELECTRODES.

4. METAL DECK - E60XX
STRUCTURAL STUDS - E6022 OR E6011, 3/32" RODS
ALL OTHER - E70XX LOW HYDROGEN, 250 DEGREE MIN. OVEN TEMP.

5. SIZE - ALL FILLETS ARE 1/16" LESS THAN MINIMUM THICKNESS TO BE WELDED

6. PROVIDE ULTRASONIC INSPECTION BY THE TESTING LABORATORY FOR ALL WELDS INDICATED AS PENETRATION WELDS.

D. HEADED SHEAR CONNECTORS

1. ALL HEADED SHEAR CONNECTORS SHALL BE 3/4 IN. DIAMETER STUDS x 4 1/2 IN. LONG AFTER WELDING AND SHALL CONFORM TO ASTM A108 UNLESS OTHERWISE NOTED.

2. PLACE MAXIMUM NUMBER OF STUDS IN A SINGLE ROW PATTERN AND THE BALANCE IN A DOUBLE ROW PATTERN AS NECESSARY TO SATISFY THE AISC SPACING REQUIREMENT.

E. OPEN WEB STEEL JOISTS:

1. AS APPLICABLE FOR THE OPEN WEB STEEL JOIST TYPE INDICATED ON THE DRAWINGS, CONFORMING TO SJI OR AISC, WHICHEVER IS MORE STRINGENT.

2. PROVIDE JOIST BRIDGING IN ACCORDANCE WITH SJI.

3. DESIGN ROOF JOISTS USING GOVERNING LOAD COMBINATIONS WITH UPLIFT PRESSURES INDICATED ON COMPONENT AND CLADDING PRESSURES TABLE.

F. STEEL DECK:

TYPE 1

1. PROVIDE COMPOSITE STEEL DECK 2" DEEP FORMED FROM 18 GAUGE STEEL SHEETS AND CONFORMING TO ASTM A653, STRUCTURAL STEEL (SS), GRADE 33, GALVANIZED WITH COATING DESIGNATION G60.

2. PROVIDE COMPOSITE STEEL DECK WITH THE FOLLOWING MINIMUM SECTION PROPERTIES:

a. MOMENT OF INERTIA: I=0.559 INCHES ^{4}/FOOT WIDTH
b. SECTION MODULUS: Sp=0.495 INCHES ^{3} /FOOT WIDTH
c. SECTION MODULUS: Sn=0.504 INCHES ^{3} /FOOT WIDTH

3. ATTACH COMPOSITE STEEL DECK TO STEELS SUPPORTS WITH 5/8" DIA. PUDDLE WELDS AND SHEAR CONNECTORS, 36/4 PATTERN. REFER TO PLANS FOR NUMBERS AND ARRANGEMENT OF SHEAR CONNECTORS. ATTACH SIDE LAPS WITH #10 SCREWS @ 18" OC.

4. REINFORCE 3 1/2" CONCRETE OVER DECK W/ 4x4 - W4.0 x W4.0. TOTAL THICKNESS = 5 1/2".

TYPE 2

1. PROVIDE STEEL ROOF DECK 1 1/2" DEEP TYPE B 20 GAUGE STEEL SHEETS AND CONFORMING TO ASTM A653, STRUCTURAL STEEL (SS), GRADE 33, GALVANIZED COATING DESIGNATION G60.

2. PROVIDE STEEL ROOF DECK WITH THE FOLLOWING MINIMUM SECTION PROPERTIES:

a. MOMENT OF INERTIA: I =0.201 INCHES^4 /FOOT WIDTH
b. SECTION MODULUS: Sp =0.234 INCHES^3 /FOOT WIDTH
c. SECTION MODULUS: Sn =0.247 INCHES^3 /FOOT WIDTH

3. ATTACH STEEL ROOF DECK TO STEEL SUPPORTS AND AT SIDE LAPS AS FOLLOWS:

a. POWDER-ACTUATED FASTENERS:

SUPPORTS: "HILTI" X-HSN24 AND "HILTI" X-ENP-19L15, 36/7 PATTERN
SIDELAP: #10 "TEK" @ 16" O.C. MAXIMUM

b. SCREWS:

SUPPORTS: #12 "TEK" SCREWS, 36/9 PATTERN
SIDELAP: #10 "TEK" @ 16" O.C. MAXIMUM

F. STAIR NOTES:

1. ALL STEEL PAN STAIRS SHALL BE DESIGNED, MANUFACTURED, AND INSTALLED BY THE STRUCTURAL STEEL CONTRACTOR. THE STAIR MANUFACTURER SHALL BE RESPONSIBLE FOR THE COMPLETE INSTALLATION OF THEIR PRODUCT, INCLUDING ALL ACCESSORIES AND CONNECTIONS. STAIRS SHALL BE DESIGNED FOR ALL LOADING CONDITIONS REQUIRED BY THE GOVERNING BUILDING CODES IN ADDITION TO ANY SPECIFIC LOADINGS SHOWN ON THE DRAWINGS. THE DESIGN, MANUFACTURE AND INSTALLATION OF ALL STEEL PAN STAIRS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, LATEST EDITION.

2. STAIR DESIGN CALCULATIONS, PREPARED AND SEALED BY A LICENSED STRUCTURAL ENGINEER SHALL BE SUBMITTED FOR REVIEW ALONG WITH THE NECESSARY SHOP DRAWINGS. SUBMITTALS WILL BE REVIEWED FOR INFLUENCE AND/OR LOAD APPLICATION TO THE SUPPORTING STRUCTURE, ONLY.

3. ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE ELEMENTS SHALL RECEIVE ONE COAT OF APPROVED SHOP PAINT, IN ADDITION TO FIELD PAINT AS SPECIFIED IN THE ARCHITECTURAL SPECIFICATIONS.

FRED DALLY 99804 REGISTERED PROFESSIONAL ENGINEER
06/13/2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MCKINNEY, TEXAS 75071
281.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES STRUCTURAL | CIVIL
9800 Richmond Avenue, Suite 460
Houston, Texas 77042
t 713.337.8881
Texas Registered Engineering Firm
F-20342
D + A PROJECT #23-186-00

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DATE	MARCH 12, 2023
DRAWN BY	RHW
CHECKED BY	LMM
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10303 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

NO.	REVISION	DATE
	50% CD	11/21/2023
	95% CD	01/26/2024
	ISSUE FOR PERMIT	02/12/2024
2	ISSUE FOR BID	06/13/2025

S101

GENERAL STRUCTURAL CRITERIA

8. INDEPENDENT TESTING LABORATORY & SPECIAL INSPECTIONS

A. A GEOTECHNICAL EXPLORATION OF SUBSURFACE CONDITIONS, CONTAINING TEST BORINGS, LABORATORY TEST, ENGINEERING ANALYSIS AND FOUNDATION RECOMMENDATIONS, PERFORMED BY **QC Laboratories, Inc.** DATED **JANUARY 2024** REPORT NO. **23C20369** IS AVAILABLE FOR REVIEW.

B. EMPLOYMENT OF A TESTING LABORATORY IN NO WAY RELIEVES THE CONTRACTOR OF ANY OBLIGATION TO PERFORM WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

C. CONTRACTOR RESPONSIBILITIES:

1. DELIVER TO LABORATORY AT DESIGNATED LOCATION ADEQUATE SAMPLES OF MATERIALS PROPOSED TO BE USED WHICH REQUIRE TESTING, TOGETHER WITH PROPOSED MIX DESIGNS.

2. COOPERATE WITH LABORATORY PERSONNEL AND PROVIDE ACCESS TO WORK AND TO MANUFACTURER'S FACILITIES.

3. PROVIDE INCIDENTAL LABOR AND FACILITIES TO PROVIDE ACCESS TO WORK TO BE TESTED, TO OBTAIN AND HANDLE SAMPLES AT THE SITE OR AT SOURCE OF PRODUCTS TO BE TESTED, TO FACILITATE TEST AND INSPECTIONS AND FOR STORAGE AND CURING OF TEST SAMPLES.

4. NOTIFY LABORATORY OF MATERIAL SOURCES AND FURNISH NECESSARY QUANTITIES OF REPRESENTATIVE SAMPLES OF MATERIALS PROPOSED FOR USE WHICH ARE REQUIRED TO BE TESTED.

5. NOTIFY ARCHITECT AND LABORATORY 24 HOURS PRIOR TO EXPECTED TIME FOR OPERATIONS REQUIRING INSPECTION AND TESTING SERVICES.

6. ADVISE LABORATORY IN A TIMELY FASHION TO COMPLETE REQUIRED INSPECTION AND TESTING PRIOR TO SUBSEQUENT WORK BEING PERFORMED.

7. PAY FOR ALL SUBSEQUENT RE-TESTING OF PRODUCTS OR SYSTEMS FOUND TO BE DEFECTIVE OR OTHERWISE NOT IN ACCORDANCE WITH SPECIFICATION REQUIREMENTS. REMOVE REJECTED PRODUCTS AND REPLACE WITH PRODUCTS OF SPECIFIED QUALITY.

D. SPECIAL INSTRUCTIONS:

1. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTOR(S) TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF CONSTRUCTION LISTED IN THIS SECTIONS. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE INSPECTIONS BEING PERFORMED TO THE SATISFACTION OF THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL HAVE EXPERIENCE WITH AT LEAST FIVE OTHER PROJECTS SIMILAR IN NATURE.

2. THE PURPOSE OF THE INSPECTIONS SHALL BE TO ENFORCE COMPLIANCE WITH THE CONSTRUCTION DRAWINGS, SPECIFICATIONS, GEOTECHNICAL REPORT AND THE **2018** INTERNATIONAL BUILDING CODE, SECTION 1704.

3. THE FOLLOWING ITEMS REQUIRE INSPECTION BY THE SPECIAL INSPECTOR:

REFERENCED STANDARD	FREQUENCY
STRUCTURAL / REINFORCING STEEL:	
HIGH STRENGTH BOLTING	
BEARING TYPE CONNECTIONS	PERIODIC
SLIP CRITICAL CONNECTIONS	CONTINUOUS
WELDING OF STRUCTURAL STEEL	
FULL PENETRATION GROOVE WELDS	CONTINUOUS
MULTI-PASS FILLET WELDS	CONTINUOUS
SINGLE-PASS FILLET WELDS > 5/16"	CONTINUOUS
SINGLE-PASS FILLET WELDS <=5/16"	PERIODIC
FLOOR AND DECK WELDS	PERIODIC
WELDING OF REINFORCING STEEL	
WELDABILITY OF STEEL, OTHER THE ASTM A706	PERIODIC
SHEAR REINFORCEMENT	CONTINUOUS
OTHER REINFORCEMENT	PERIODIC
INSPECTION OF STEEL FRAME AND JOISTS	
DETAILS SUCH AS BRACING AND STIFFENING	PERIODIC
MEMBERS SIZES AND LOCATION	PERIODIC
APPLICATION OF CONNECTION DETAIL	PERIODIC
CONCRETE CONSTRUCTION	
REINFORCING STEEL	PERIODIC RANDOMLY @ 20%
CONCRETE MIX DESIGN	PERIODIC EACH CONCRETE POUR
SAMPLING OF FRESH CONCRETE	CONTINUOUS (SEE NOTE 1)
MAINTENANCE OF SPECIFIED CURING TEMPS AND TECHNIQUES	PERIODIC EACH POUR
INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	CONTINUOUS
INSPECTION OF MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	PERIODIC
DRILLED & EPOXIED ANCHORS	EACH APPLICATION (SEE NOTE 2)
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS	PERIODIC
SOILS (SLAB-ON-GRADE):	
VISUAL OBSERVATIONS	PERIODIC
PROOF ROLLING OBSERVATION	CONTINUOUS
MOISTURE CONDITIONING & RECOMPACTION	CONTINUOUS OR PERIODIC, 1 DENSITY TEST FOR EACH 2,000 SF
DURING FILL PLACEMENT	CONTINUOUS OR PERIODIC
EVALUATION OF IN PLACE DENSITY FILL	CONTINUOUS OR PERIODIC
PIERS:	
OBSERVE DRILLING OPERATIONS AND COMPLETE RECORD OF DRILLING	CONTINUOUS
VERIFY PLACEMENTS LOCATIONS AND PLUMBNESS, LENGTH, EMBEEMENT AND ADEQUATE BEARING STRENGTH CAPACITY CONFIRM PIER DIAMETER. REINFORCING STEEL - RE CONCRETE ABOVE	CONTINUOUS

NOTES:

1. PROVIDE A SET OF 4 FOR EVERY 75 CY OF BUT NOT LESS THAN 1 / 5,000 SF OF SLAB OR WALL SURFACE AREA. MONITOR SLUMP AND AIR CONTENT OF CONC. AND NOTIFY DELIVERY DRIVER IF SLUMP DEVIATES MORE THAN 1" FROM SPEC'D VALUE.

2. ALL DRILLED AND EPOXIED ANCHORS (REBAR, BOLTS, THREADED RODS ETC.) SHALL BE FULL TESTED TO 110% FOR NO LESS THAN 3 MIN.

3. ADDITIONAL TESTS AT THE CONTRACTOR'S EXPENSE WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.

4. CORRECT DEFICIENCIES IN WORK THAT TEST REPORTS AND INSPECTIONS INDICATE DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.

5. PROVIDE THE ENGINEER OF RECORD (EOR) COPIES OF ALL SPECIAL INSPECTIONS SO A SPECIAL INSPECTIONS REPORT CAN BE PREPARED FOR OBTAINING A CERTIFICATE OF OCCUPANCY.

9. MASONRY

A. CONSTRUCT REINFORCED MASONRY IN ACCORDANCE WITH "SPECIFICATION FOR MASONRY STRUCTURES", ACI 530.1/ASCE 6. MASONRY ALLOWABLE DESIGN STRESSES ARE BASED UPON REQUIRING NO SPECIAL INSPECTION.

B. ALL CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90, GRADE N, TYPE 1 MINIMUM FACE THICKNESS SHALL BE 1.25". ALL WALLS ARE LIGHT WEIGHT BLOCKS (105 PCF OR LESS).

C. REINFORCING STEEL SHALL BE ASTM A615, GRADE 60. ALL BOLTS USED FOR ANCHORAGE SHALL BE ASTM A307 HEADED BOLTS.

D. MASONRY STRENGTH (F'M) AT 28 DAYS SHALL BE A MINIMUM OF 2,000 PSI. USE TYPE M OR S MORTAR. MASONRY UNITS SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2800 PSI. GROUT SHALL CONFORM TO ASTM C476. GROUT STRENGTH SHALL BE AT LEAST 2800 PSI.

E. PROVIDE MORTAR BED OR WEB BETWEEN GROUTED BED AND HOLLOW CELL. USE FULL HEAD AND BED JOINTS.

F. UNLESS SHOWN ON DETAILS, PROVIDE #9 LADDER OR TRUSS HORIZONTAL JOINT REINFORCEMENT AT 16" O.C. PROVIDE 2-#5 AT ALL JAMBS AND ENDS OF WALLS.

G. GROUT SOLID THE FIRST CELL ON EITHER SIDE OF DOOR OPENINGS, UNLESS OTHERWISE NOTED. PROVIDE 8" U-BLOCK CMU LINTEL WITH 8" BEARING EACH END; REINFORCE WITH (2) #4 BOTTOM.

H. EMBED ALL BOLTS IN FULL GROUTED CELL. PLACE BOLTS IN SAME VERTICAL CELL AS REINFORCING IF POSSIBLE. MINIMUM EMBEDDED LENGTH IS ONE-HALF WIDTH OF CELL.

I. UNLESS SHOWN ON DETAILS, PROVIDE (2) #5 HORIZONTAL REINFORCEMENT IN FULLY GROUTED CELL AT 8'-0" OC VERTICALLY.

J. GROUT SOLID THE FIRST CELL ON EACH LEVEL & ROOF. REINFORCE WITH HORIZONTAL AS PER NOTE I.

REINFORCEMENT TABLE: NON-LOAD BEARING CMU WALL (CMU 2.0-60, 105 PCF)

INTERIOR WALLS = 10 PSF

UNBRACED HEIGHT, FT	6" CMU	8" CMU	10" CMU	12" CMU
10'-0"	#4 @ 48" OC	#4 @ 48" OC	#4 @ 48" OC	
12'-0"	#4 @ 48" OC	#4 @ 48" OC	#4 @ 48" OC	
14'-0"	#4 @ 48" OC	#4 @ 48" OC	#4 @ 48" OC	
16'-0"	#4 @ 40" OC	#4 @ 48" OC	#4 @ 48" OC	
18'-0"	#4 @ 32" OC	#4 @ 48" OC	#4 @ 48" OC	
20'-0"	#4 @ 24" OC	#4 @ 40" OC	#4 @ 48" OC	
22'-0"	#4 @ 16" OC	#5 @ 32" OC	#4 @ 48" OC	
24'-0"		#5 @ 32" OC	#4 @ 40" OC	
26'-0"		#5 @ 24" OC	#4 @ 32" OC	
28'-0"		#6 @ 32" OC	#5 @ 40" OC	
30'-0"		#6 @ 24" OC	#5 @ 32" OC	
32'-0"		#6 @ 24" OC	#6 @ 32" OC	
34'-0"			#6 @ 24" OC	
36'-0"			#7 @ 32" OC	
38'-0"			#7 @ 32" OC	#7 @ 32" OC
40'-0"				#7 @ 32" OC

EXTERIOR WALLS = 30 PSF

UNBRACED HEIGHT, FT	6" CMU	8" CMU	10" CMU	
10'-0"	#4 @ 32" OC	#4 @ 48" OC	#4 @ 48" OC	
12'-0"	#4 @ 24" OC	#4 @ 32" OC	#4 @ 48" OC	
14'-0"	#4 @ 16" OC	#5 @ 32" OC	#4 @ 32" OC	
16'-0"	#6 @ 16" OC	#5 @ 24" OC	#5 @ 40" OC	
18'-0"		#5 @ 16" OC	#5 @ 24" OC	
20'-0"		#6 @ 16" OC	#5 @ 24" OC	
22'-0"		#6 @ 8" OC	#5 @ 16" OC	
24'-0"			#6 @ 16" OC	
26'-0"			#7 @ 16" OC	
28'-0"			#7 @ 8" OC	
30'-0"			#8 @ 8" OC	

NOTES:

1. DEFINITIONS: "H" CLEAR WALL HEIGHT, FEET, BETWEEN CONNECTIONS TO STRUCTURE.
"U.R." UNREINFORCED WALL (NO VERTICAL REINFORCEMENT IS REQUIRED, EXCEPT AS DETAILED ON DRAWINGS AT OPENINGS, ETC.).
"N.A." NOT APPLICABLE, THICKER WALL REQUIRED FOR SPAN.

2. IF THE UNBRACED WALL HEIGHT FALLS BETWEEN ANY TWO LIMITS LISTED IN THE TABLE, REINFORCEMENT FOR THE GREATER HEIGHT SHALL BE PROVIDED. EXAMPLE: IF UNBRACED HEIGHT = 15'-0" (FALLING BETWEEN 14'-0" AND 16'-0"), REINFORCEMENT FOR 16'-0" UNBRACED HEIGHT SHALL BE PROVIDED.

3. SPECIFIED REINFORCING STEEL SHALL BE PLACED IN CENTER OF WALL. (Fy=60 ksi)

4. SEE GENERAL NOTES AND SPECIFICATIONS FOR HORIZONTAL REINFORCING REQUIREMENTS.

5. THIS TABLE SHALL ONLY BE USED FOR VERTICALLY SPANNING C.M.U. WALLS.

6. SEE TYPICAL DETAILS FOR BRACING REQUIREMENTS AT THE TOP/ENDS OF THE WALL AND DOWELS TO THE STRUCTURE. REINFORCING STEEL SHALL BE CENTERED IN THE C.M.U. WALL BY USING BAR POSITIONERS AT 8'-0" O.C. VERTICALLY.

7. SPLICING OF VERTICAL STEEL: PROVIDE MINIMUM SPLICE LAP LENGTH OF 36" OR 48 BAR DIAMETERS.

8. FOR USE WITH PORTLAND CEMENT/LIME MORTAR.

10. CONCRETE MASONRY UNIT (CMU) LINTEL SCHEDULE

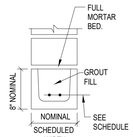
MASONRY OPENING	U-BLOCK	REINFORCING
LESS THAN 4'-8"	8" x 8"	(2) #4
4'-8" BUT LESS THAN 5'-8"	8" x 8"	(2) #5
5'-8" BUT LESS THAN 6'-8"	8" x 8"	(2) #6
GREATER THAN 6'-8"	-	RE: PLAN FOR DETAILS

A. PROVIDE 8" MINIMUM BEARING EACH END FOR CMU LINTELS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.

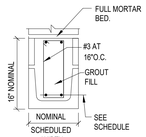
B. CURVE CMU LINTEL AND REINFORCING FOR THE RADIUS OF THE WALL WHERE OCCURRING AND PROVIDE 1'-4" MINIMUM BEARING EACH END.

SPAN	4x8	6x8	6x16	8x8	8x16	10x8	10x16	12x8	12x16
3-4	1-#3	1-#3	——	1-#3	——	2-#3	——	2-#3	——
4-0	1-#3	1-#4	——	2-#3	——	2-#3	——	2-#4	——
4-8	1-#4	1-#4	——	2-#4	——	2-#4	——	2-#4	——
5-4	1-#4	2-#4	——	2-#4	——	2-#4	2-#3	2-#5	——
6-0	1-#5	2-#4	1-#4	2-#4	2-#3	2-#5	2-#4	2-#5	2-#4
6-8	N/A	N/A	1-#5	N/A	2-#4	N/A	2-#4	2-#6	2-#4
7-4	↓	↓	1-#5	↓	2-#4	↓	2-#4	N/A	2-#5
8-0	↓	↓	1-#6	↓	2-#4	↓	2-#5	↓	2-#5
8-8	↓	↓	1-#6	↓	2-#5	↓	2-#5	↓	2-#6
9-4	N/A	N/A	1-#7	N/A	2-#5	N/A	2-#6	N/A	2-#6

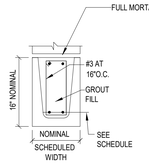
NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 7 5/8". REINFORCEMENT SHALL PROJECT A MINIMUM OF 6" ONTO THE BEARING.
3. MINIMUM MASONRY COMPRESSIVE STRENGTH OF GROUTED PRISM f'm=1500 psi.
4. LINTELS SCHEDULED AS 16" HIGH MAY BE EITHER TYPE "B" OR TYPE "C" AS DETAILED BELOW.
5. PRECAST CONCRETE LINTELS AS SHOWN MAY BE USED WITH ARCHITECT'S APPROVAL. MINIMUM f'c = 3000 psi.



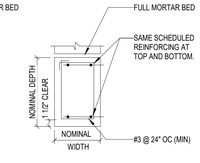
TYPE A



TYPE B



TYPE C



PRECAST

11. COLD-FORMED METAL FRAMING:

A. PROVIDE COLD-FORMED METAL FRAMING, INCLUDING TRUSSES, STUDS, JOIST, TRACK, RUNNERS, LINTELS, CLIP ANGLES, REINFORCEMENTS, SHOES, BLOCKING, AND BRIDGING, COMPLETE WITH ALL FASTENERS, AND ACCESSORIES NEEDED FOR A COMPLETE AND FINISHED INSTALLATION.

B. THE STRUCTURAL DRAWINGS INDICATE THE GENERAL CONFIGURATION OF FRAMING FOR TYPICAL CONDITIONS ONLY. FINAL CONFIGURATION OF DETAILS AS WELL AS ALL SUPPLEMENTARY FRAMING TO OBTAIN THE ROOF PROFILES SHOWN ON THE PLANS SHALL BE AS DETERMINED BY DESIGN.

C. COLD-FORMED METAL FRAMING SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) PUBLICATION: "SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION. PROVIDE STEEL FOR RAFTERS, JOISTS, STUDS AND ACCESSORIES CONFORMING TO ASTM A1003, GRADE 50, STRUCTURAL QUALITY STEEL SHEET FORMED TO 'C' SHAPES, UNPUNCHED WITH STIFFENED FLANGES.

D. ALL STRUCTURAL MEMBERS SHALL BE FORMED FROM CORROSION-RESISTANT STEEL, CORRESPONDING TO THE REQUIREMENTS OF ASTM A446, GRADE C, WITH A MINIMUM YIELD STRENGTH OF 50 KSI FOR STUDS AND JOISTS AND GRADE A, 33KSI, FOR RUNNERS. ALL STRUCTURAL MEMBERS SHALL BE ZINC COATED MEETING ASTM A525, G-60, OR EQUIVALENT. TYPICAL.

E. FASTENING OF COMPONENTS SHALL BE WITH SELF-DRILLING SCREWS OR BY WELDING. SCREWS AND WELDS SHALL BE OF SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. ALL WELDS SHALL BE TOUCHED-UP WITH A ZINC-RICH PAINT.

F. SUBMIT SHOP DRAWINGS FOR ALL FRAMING PREPARED UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER, AND CALCULATIONS, SIGNED AND SEALED BY SAID ENGINEER, FOR REVIEW PRIOR TO ERECTION OF ANY COLD-FORMED METAL FRAMING.

SHOP DRAWINGS SUBMITTED FOR REVIEW SHALL CONTAIN THE FOLLOWING FOR EACH:

A. COMPLETE ERECTION DRAWINGS SHOWING LOCATION AND SPACING OF ALL FRAMING MEMBERS.
B. SIZE AND GAGE OF ALL FRAMING MEMBERS.
C. DETAIL DRAWINGS OF ALL PREFABRICATED ASSEMBLIES.
D. LOADING CONDITIONS USED IN DESIGN.
E. CALCULATED FORCES FOR ALL MEMBERS.
F. ANCHORAGE DETAILS, CONNECTION DETAILS, SLICE DETAILS, TEMPORARY AND PERMANENT BRACING.

G. TEMPORARY BRACING, WHERE REQUIRED, SHALL BE PROVIDED UNTIL ERECTION IS COMPLETE.

H. THE INFORMATION PROVIDED SHALL TAKE INTO ACCOUNT AND SHOW ALL SPECIAL DESIGN, FRAMING AND CONNECTION REQUIREMENTS SUCH AS AT CONCENTRATED LOADS, UNBALANCED OR UNSYMMETRICAL LOAD CONDITIONS, AND OTHER NON-TYPICAL FRAMING DETAILS.

I. SPLICES IN FRAMING COMPONENTS, OTHER THAN RUNNER TRACK, SHALL NOT BE PERMITTED.

J. BLOCKING SHALL BE PROVIDED AT SUPPORTS WHERE JOISTS ARE NOT OTHERWISE RESTRAINED FROM ROTATION.

K. ABUTTING LENGTHS OF RUNNER TRACK SHALL BE BUTT-WELDED, SPLICED OR EACH LENGTH SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT. RUNNER TRACK SHALL BE SECURELY ANCHORED TO THE SUPPORTING STRUCTURE.

L. PROVIDE MEMBERS WITH THE FOLLOWING MINIMUM SECTION PROPERTIES:

SECTION	MINIMUM THICKNESS	Ix (MOMENT OF INERTIA	Sx (SECTION MODULUS)	FY (YIELD STRENGTH)
6" TYPICAL JOISTS, RAFTERS	0.056 INCHES	2.83 INCHES^4	0.95 INCHES^3	50 KSI
6" EXTERIOR STUDS	0.056 INCHES	2.31 INCHES^4	0.95 INCHES^3	50 KSI
3 5/8" INTERIOR STUDS	0.045 INCHES	0.71 INCHES^4	0.39 INCHES^3	33 KSI
RUNNER TRACK	0.045 INCHES	2.49 INCHES^4	0.81 INCHES^3	33 KSI

M. MEMBER PERFORMANCE:

1. RAFTERS AND HEADERS: VERTICAL DEFLECTION IS LIMITED TO 1/240 OF THE SPAN.

2. STUDS: HORIZONTAL DEFLECTION IS LIMITED TO 1/240 OF THE SPAN (TYPICAL); FOR BRICK VENEER 1/600 OF THE SPAN.

12. LOOSE VENEER LINTEL SCHEDULE

MASONRY OPENING	SIZE	DETAIL
LESS THAN 4'-0"	L 3 1/2 x 3 1/2 x 1/4	L
4'-0" BUT LESS THAN 5'-0"	L 4 x 4 x 1/4	L
5'-0" BUT LESS THAN 6'-0"	L 5 x 3 1/2 x 1/4 LLV	L
6'-0" BUT LESS THAN 7'-0"	L 6 x 3 1/2 x 5/16 LLV	L
7'-0" BUT LESS THAN 8'-6"	L 6 x 4 x 5/16 LLV	L

NOTE:
PROVIDE 8" MINIMUM BEARING EACH END FOR STEEL LOOSE LINTELS. ONE ANGLE SHALL BE PROVIDED FOR EACH WYTHE OF BRICK. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS. HOT DIP GALVANIZE ALL LINTELS AFTER FABRICATION.

13. DEMOLITION

A. CONDUCT DEMOLITION OPERATIONS IN EXTREMELY CAREFUL MANNER IN ORDER TO PREVENT ANY DAMAGES TO ALL EXISTING CONSTRUCTION AND TO MINIMIZE INTERFERENCE WITH ADJACENT **"STRUCTURES"**

B. PREVENT THE MOVEMENT, SETTLEMENT, DAMAGE OR INJURY TO ADJACENT STRUCTURES, PROVIDE & PLACE BRACING OR SHORING & BE RESPONSIBLE FOR THE SAFETY AND SUPPORT OF THE ADJACENT STRUCTURES, ASSUME FULL LIABILITY FOR SUCH MOVEMENT, SETTLEMENT, DAMAGE, OR INJURY.

C. CEASE OPERATIONS & NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY IF SAFETY ADJACENT STRUCTURES APPEARS TO BE ENDANGERED. TAKE PRECAUTIONS TO SUPPORT EXISTING STRUCTURES PROPERLY. DO NOT RESUME OPERATIONS UNTIL THE FULL SAFETY IS RESTORED.

D. PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF ADJACENT SERVICES, SIDEWALKS, DRIVEWAYS & TREES. ASSUME FULL LIABILITY FOR SUCH MOVEMENT, SETTLEMENT OR COLLAPSE. REPAIR DAMAGE PROMPTLY AT NO COST TO THE OWNER.

E. DEMOLISH INDICATED STRUCTURES & APPURTENANCE IN AN ORDERLY AND CAREFUL MANNER.

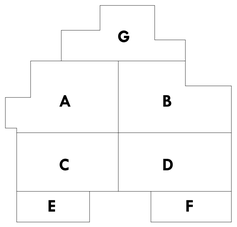
F. PERFORM DEMOLITION IN ACCORDANCE WITH THE APPLICABLE AUTHORITIES HAVING JURISDICTION.

G. REMOVE FOUNDATION WALLS & FOOTINGS AS INDICATED ON DEMOLITION DRAWINGS TO A MINIMUM 3' FEET BELOW FINISH GRADE.

H. REPAIR ANY DEMOLITION PERFORMED IN EXCESS OF THAT INDICATED, AT NO COST TO THE OWNER OR THE ARCHITECT/ENGINEER.

I. REPAIR DAMAGE TO ADJACENT STRUCTURES CAUSED AS THE RESULT OF THIS WORK AT NO COST TO THE OWNER OF THE ARCHITECT/ENGINEER.

KEY PLAN



BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES STRUCTURAL | CIVIL
9800 Richmond Avenue, Suite 460
Houston, Texas 77042
t 713 337 8881
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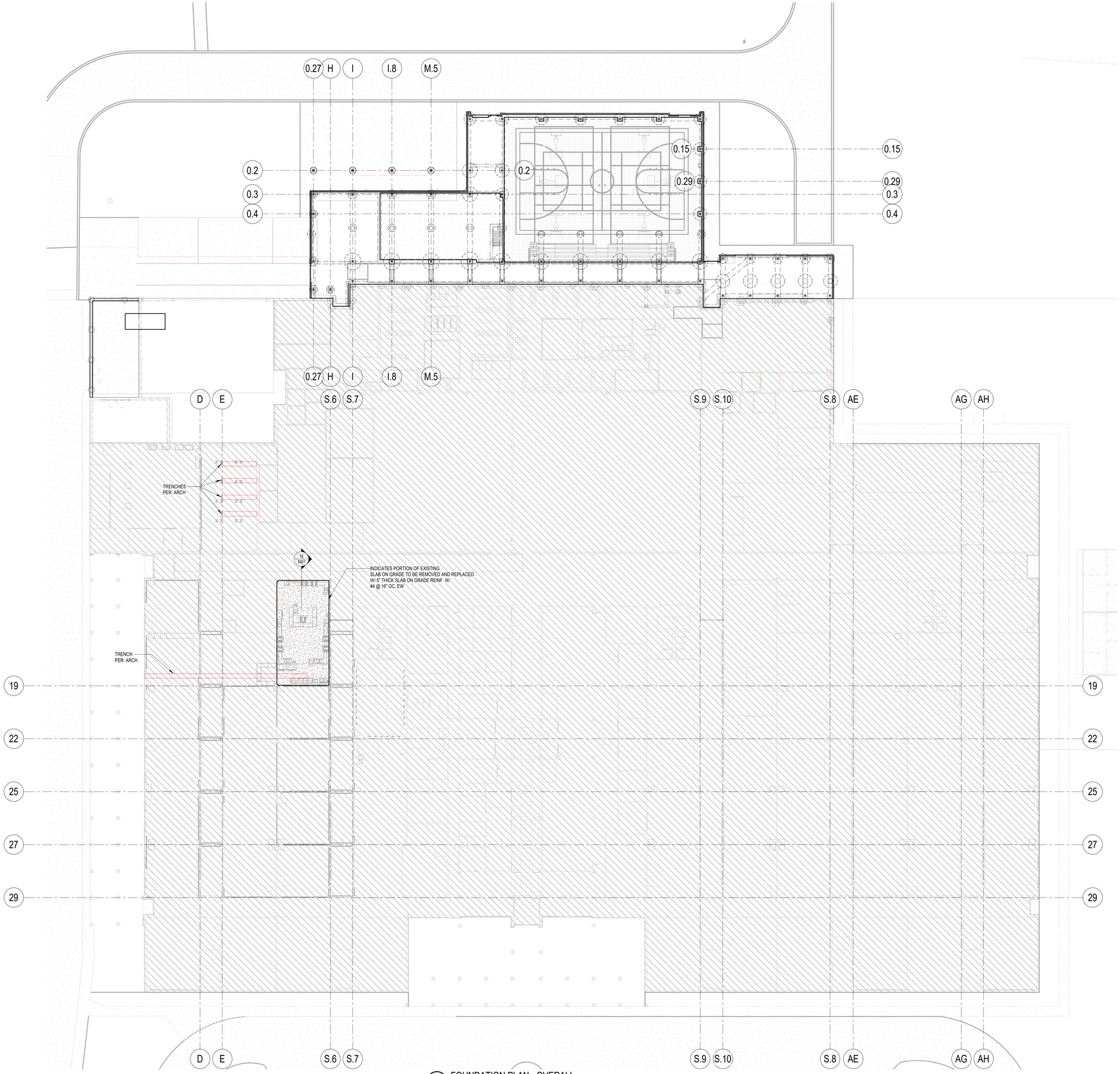
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BRW PROJECT NUMBER	22300500

HUMBLE ISD
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10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

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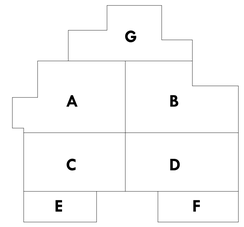
S102

GENERAL STRUCTURAL CRITERIA



1 FOUNDATION PLAN - OVERALL
1" = 20'-0"

KEY PLAN



BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LAGO VISTA, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES STRUCTURAL | CIVIL
9800 Richmond Avenue, Suite 460
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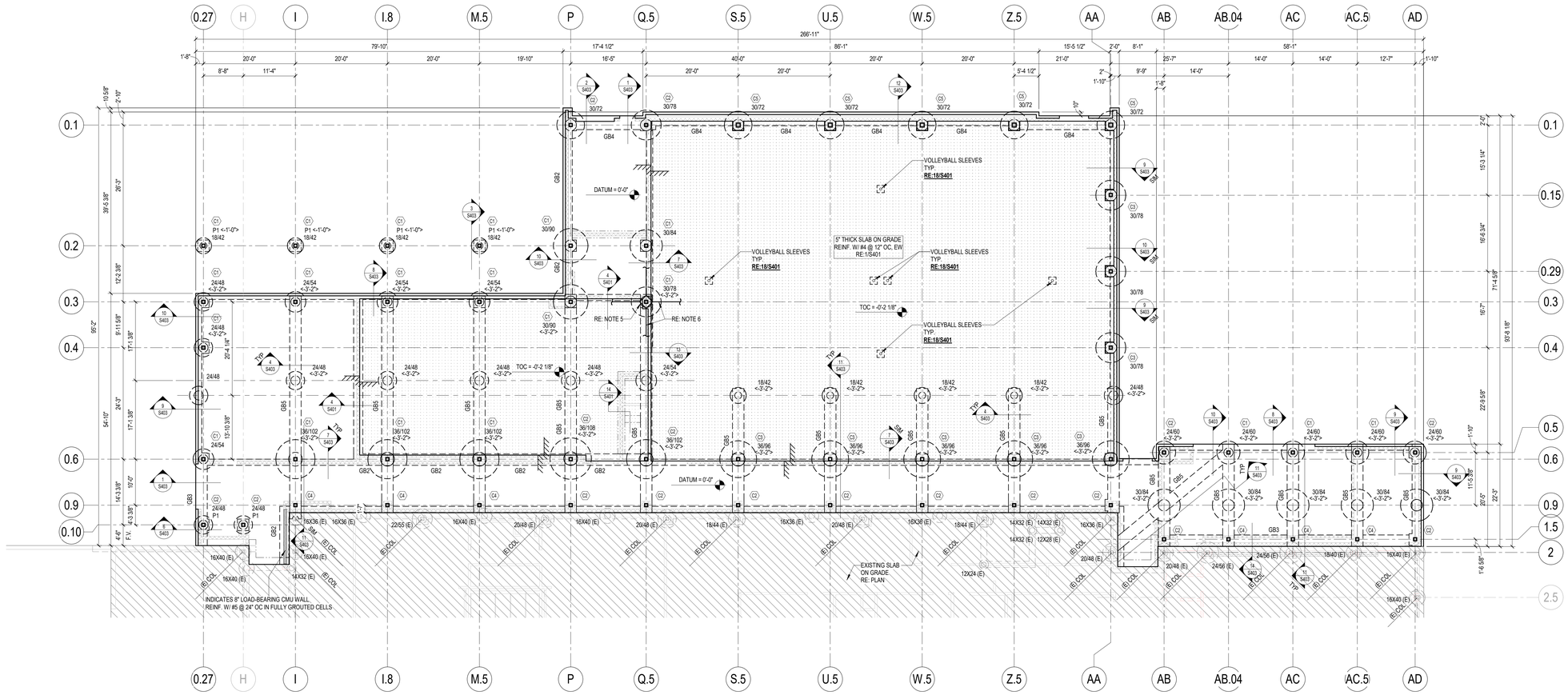
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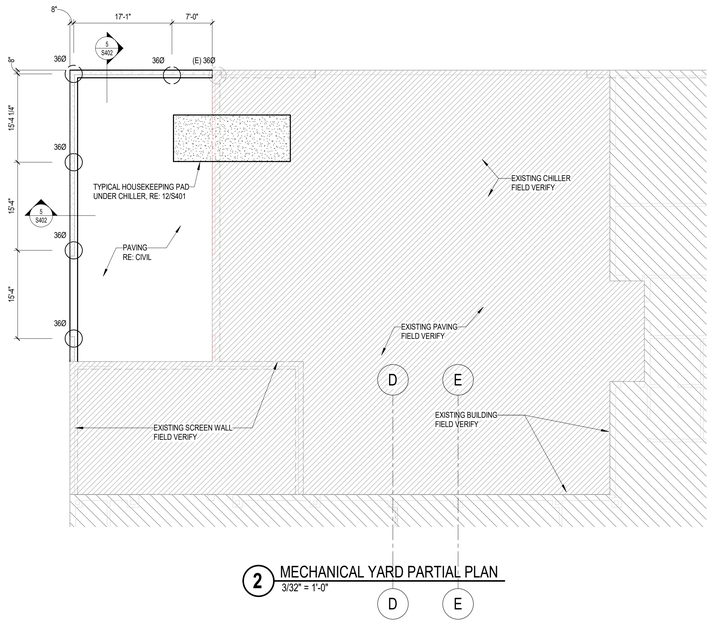
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S201
FOUNDATION PLAN - OVERALL

FRED DALLY 99904 REGISTERED PROFESSIONAL ENGINEER
06/13/2025



1 FOUNDATION PLAN - AREA A
3/32" = 1'-0"



2 MECHANICAL YARD PARTIAL PLAN
3/32" = 1'-0"

FOUNDATION NOTES:

1. DATUM ELEVATION <0'-0"> CORRESPONDS TO TRUE ELEVATION = RE: CIVIL.
   ALL ELEVATIONS ARE RELATIVE TO DATUM ELEVATION <0' - 0">.

2. "18/36" (EXAMPLE) INDICATES DRILLED PIER SHAFT AND BELL SIZE
   ALL INTERIOR DRILLED PIERS ARE AT ELEVATION <-2'-8"> TYP, UON.
   ALL EXTERIOR DRILLED PIERS ARE AT ELEVATION <-2'-8"> TYP, UON.
   ALL INTERMEDIATE PIERS ARE CENTERED BETWEEN GRIDS ON THE GRADE BEAM, TYP UON.
   FOR DRILLED PIER SCHEDULE & DETAILS RE: S301.

3. "P1" (EXAMPLE) INDICATES PLINTH TYPE
   ALL INTERIOR PLINTHS ARE TYPE "P1" UON
   ALL PERIMETER PLINTHS ARE TYPE "P2" UON
   ALL CORNER PLINTHS ARE TYPE "P3" UON
   T.O. PLINTHS ARE AT < -0'-8"> TYP, UON.
   FOR PLINTH SCHEDULE & DETAILS RE: S301.

4. "GB1" (EXAMPLE) INDICATES GRADE BEAM TYPE
   ALL GRADE BEAMS ARE TYPE GB1 UON AND ARE AT ELEVATION <-0'-8"> TYP. UON.
   PROVIDE TYPICAL CORNER BARS AT ALL GRADE BEAM INTERSECTIONS PER 2/S302.
   FOR GRADE BEAM SCHEDULE & DETAILS RE: S302.

5. * (C1) * (EXAMPLE) INDICATES COLUMN SIZE

   "BP(1" (EXAMPLE) INDICATES BASE PLATE TYPE
   FOR COLUMN, BASE PLATE & ANCHOR BOLT SCHEDULE RE: S303
   PROVIDE TYPICAL BLOCKOUTS AT EACH COLUMN PER DETAILS 6, 7, 8 & 9/S401, TYP UON.

6. PROVIDE CONTROL JOINTS AT EVERY COLUMN LINE AND AT A MAXIMUM SPACING
   OF 36 TIMES THE SLAB THICKNESS (NOT TO EXCEED 15'-0"), TYPICAL UON.
   FOR ADDITIONAL INFORMATION RE: 3/S401.

7. PROVIDE ADDITIONAL REINFORCING AT ALL RE-ENTRANT CORNERS PER 5/S401.

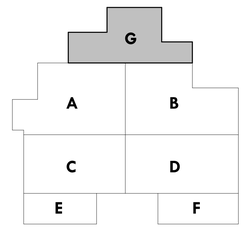
8. VERIFY ALL SLOPES, DEPRESSIONS, ELEVATIONS WITH ARCH. PRIOR TO CONSTRUCTION

9. CONCRETE CURBS NOT SHOWN FOR CLARITY.
   G.C TO PROVIDE CONCRETE CURB AS DESIGNATED IN ARCHITECTURAL DRAWINGS.
   FOR TYPICAL CONCRETE CURB DETAIL RE: 13/S401.

10. ALL CMU WALL LOCATIONS ARE FOR REFERENCE ONLY.
    G.C. TO COORDINATE FINAL CMU WALL LOCATIONS WITH ARCHITECTURAL DRAWINGS
    FOR SLAB THICKENINGS AND GRADE BEAM DETAILS AT CMU WALLS RE: 9, 10, 11, 12, 15 & 17/S401.

11. G.C. TO PROVIDE A HOUSEKEEPING PAD UNDER ALL MECHANICAL UNITS.
    FOR TYPCIAL HOUSEKEEPING PAD DETAIL RE: 12/S401.

KEY PLAN



BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES STRUCTURAL | CIVIL
9800 Richmond Avenue, Suite 460
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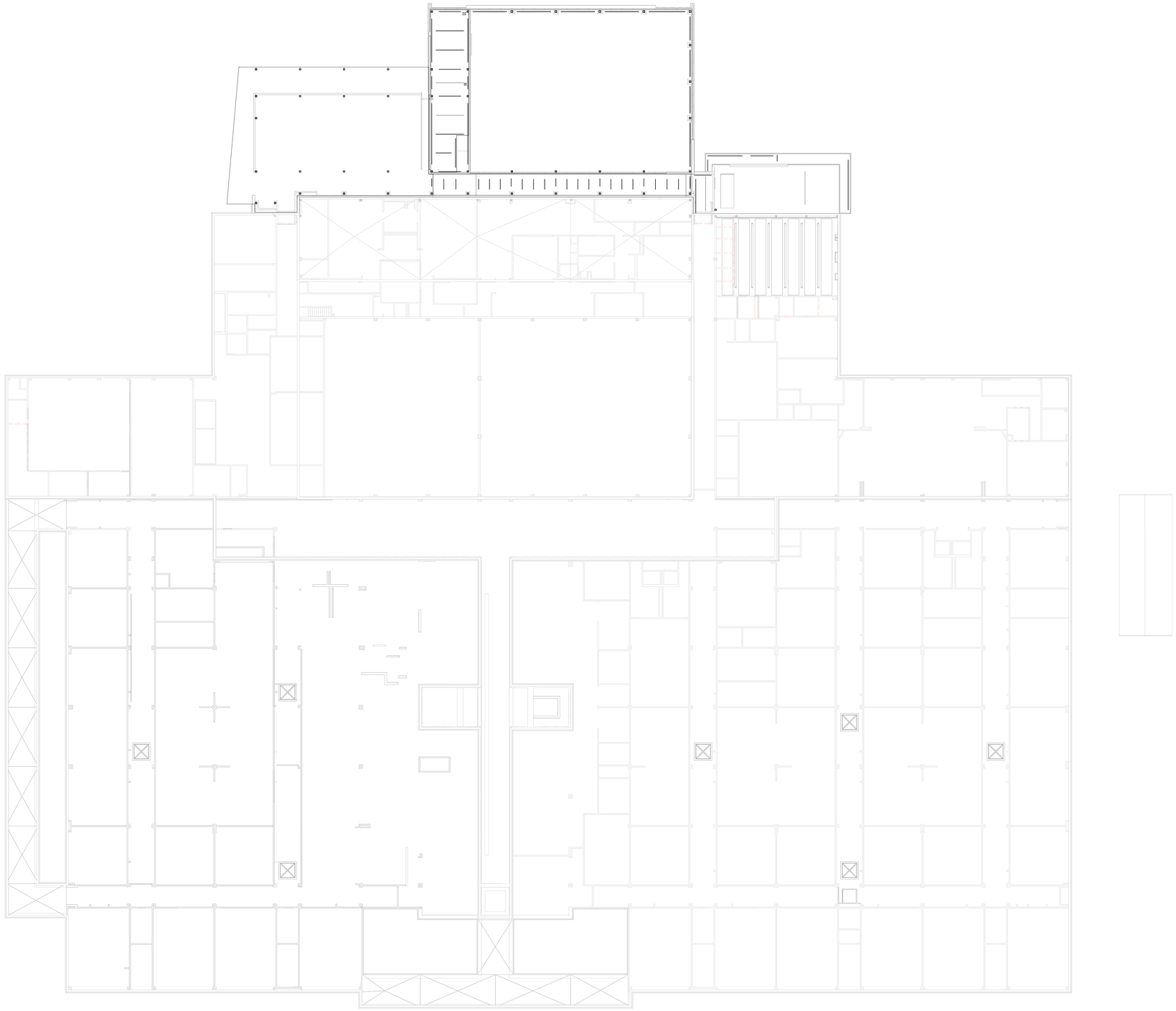
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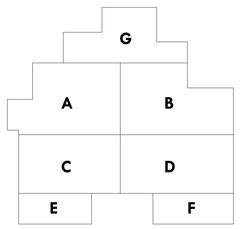
S201G

FOUNDATION PLAN - AREA G



1 SECOND FLOOR AND LOW ROOF FRAMING PLAN - OVERALL
1" = 20'-0"

KEY PLAN



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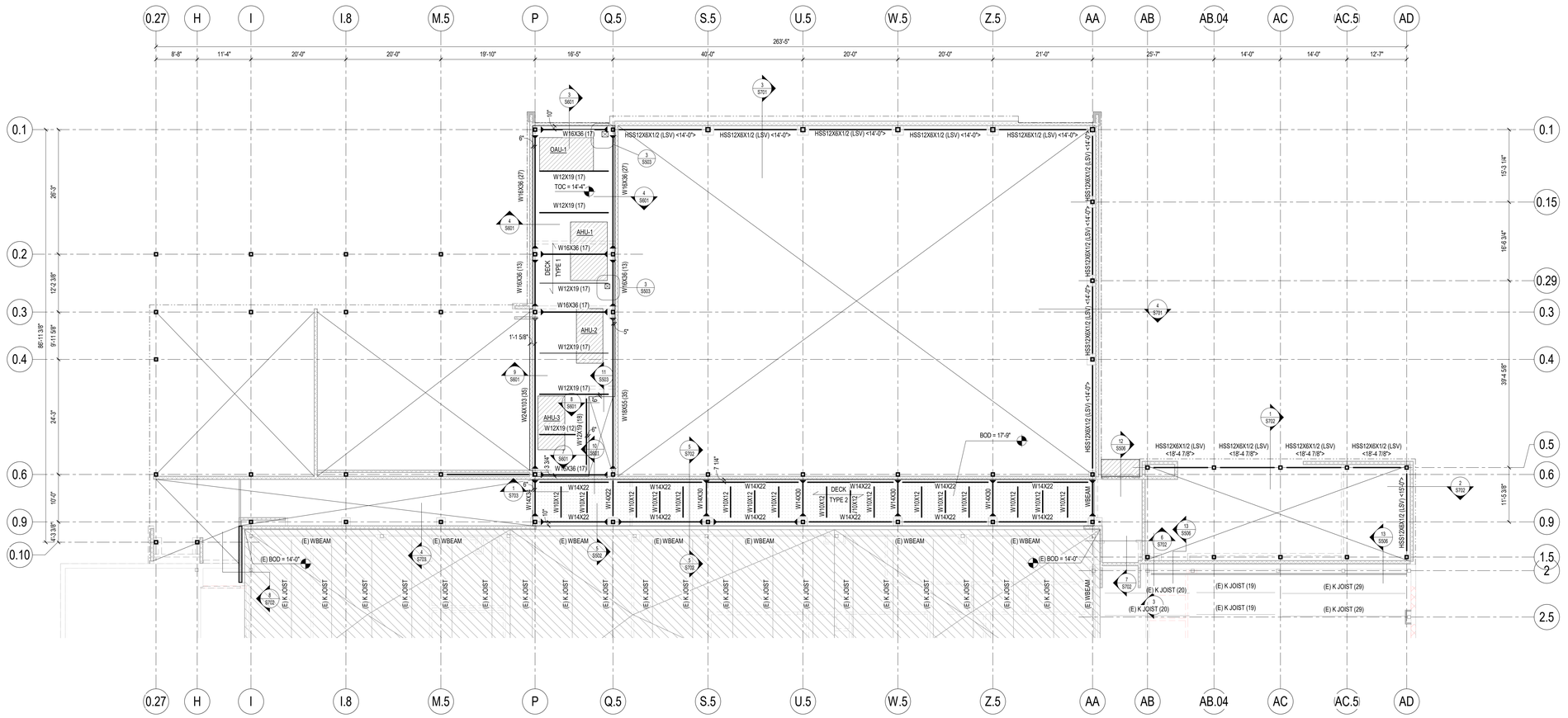
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S202

SECOND FLOOR AND LOW ROOF FRAMING PLAN - OVERALL



1 SECOND FLOOR PLAN
3/32" = 1'-0"

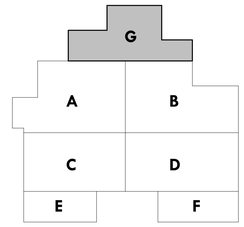
STEEL ROOF FRAMING NOTES:

1. ALL ELEVATIONS ARE RELATIVE TO DATUM ELEVATION.
2. * DECK TYPE 2 * (EXAMPLE) INDICATES ROOF DECK SPAN DIRECTION AND DECK TYPE 2.
   TOS ELEVATION AT ROOF DECKS ARE AT BOD, TYP, UON.
   FOR DECK TYPE INFORMATION **RE: 7 / S101**
3. COORDINATE LOCATIONS AND SIZES OF ALL CHASES AND PENETRATIONS WITH MEP.
   COORDINATE EXACT LOCATION OF ALL MEP UNITS WITH MEP.
   FOR FRAMING AROUND ROOF OPENINGS **RE: 7 / S504**
4. PROVIDE MID-SPAN BEAM BRACING AT ALL BEAMS DENOTED WITH "(*)" SIM. TO DETAIL 4/S701.

COMPOSITE DECK FRAMING NOTES:

1. ALL ELEVATIONS ARE RELATIVE TO DATUM ELEVATION.
2. * DECK TYPE 1 * INDICATES COMPOSITE DECK SPAN DIRECTION.
   T.O.S. ELEVATION AT COMPOSITE DECK IS 5 1/2" BELOW T.O. CONCRETE, TYP UON.
   FOR DECK TYPE INFORMATION RE: 7E/S101 .
3. COORDINATE LOCATIONS AND SIZES OF ALL CHASES AND PENETRATIONS WITH MEP.
   FOR TYPICAL FRAMING AROUND COMPOSITE DECK OPENINGS RE: 2, 3, & 4/S503.
4. CONCRETE CURBS NOT SHOWN ON PLAN FOR CLAIRTY
   (G.C. TO PROVIDE CONCRETE CURBS WHERE DESIGNATED BY ARCH DRAWINGS)
   FOR TYPICAL CONCRETE CURB DETAIL AT COMPOSITE DECKS RE: 18/S503.

KEY PLAN



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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES STRUCTURAL | CIVIL
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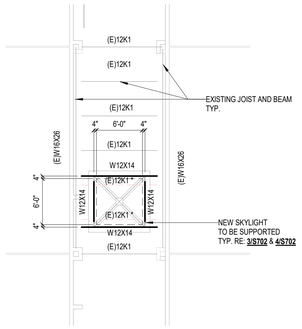
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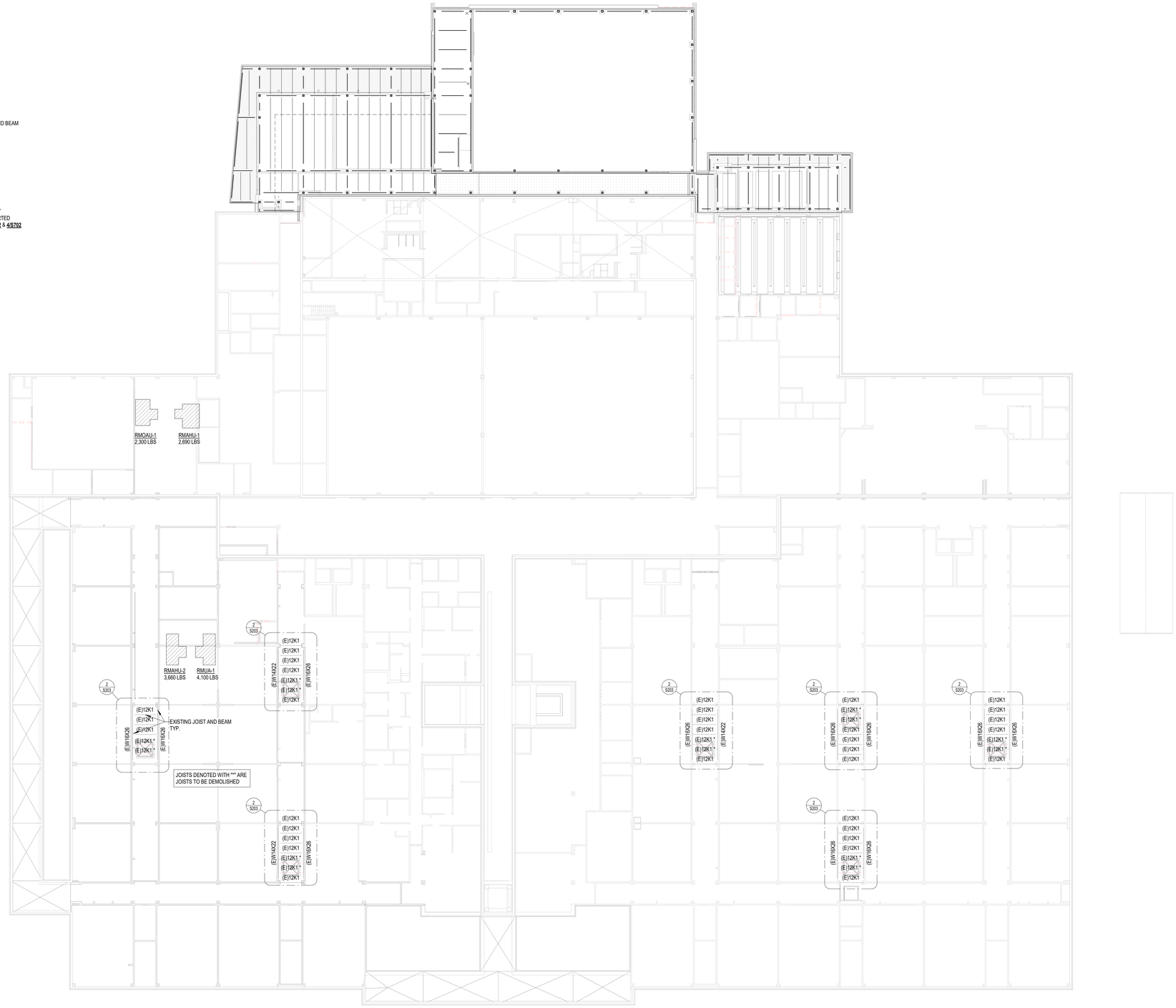
S202G

LOW ROOF FRAMING PLAN - AREA G



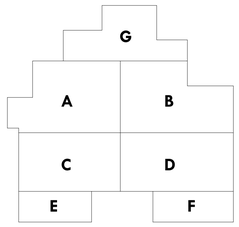
NOTE:
1. JOISTS DENOTED WITH *** ARE JOISTS TO BE DEMOLISHED
2. SHORE EXISTING FRAMING AS REQ'D TO INSTALL NEW STEEL

2 SKYLIGHT FRAMING PLAN
1/8" = 1'-0"



1 MAIN ROOF FRAMING PLAN-OVERALL
1" = 20'-0"

KEY PLAN



BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUDSON, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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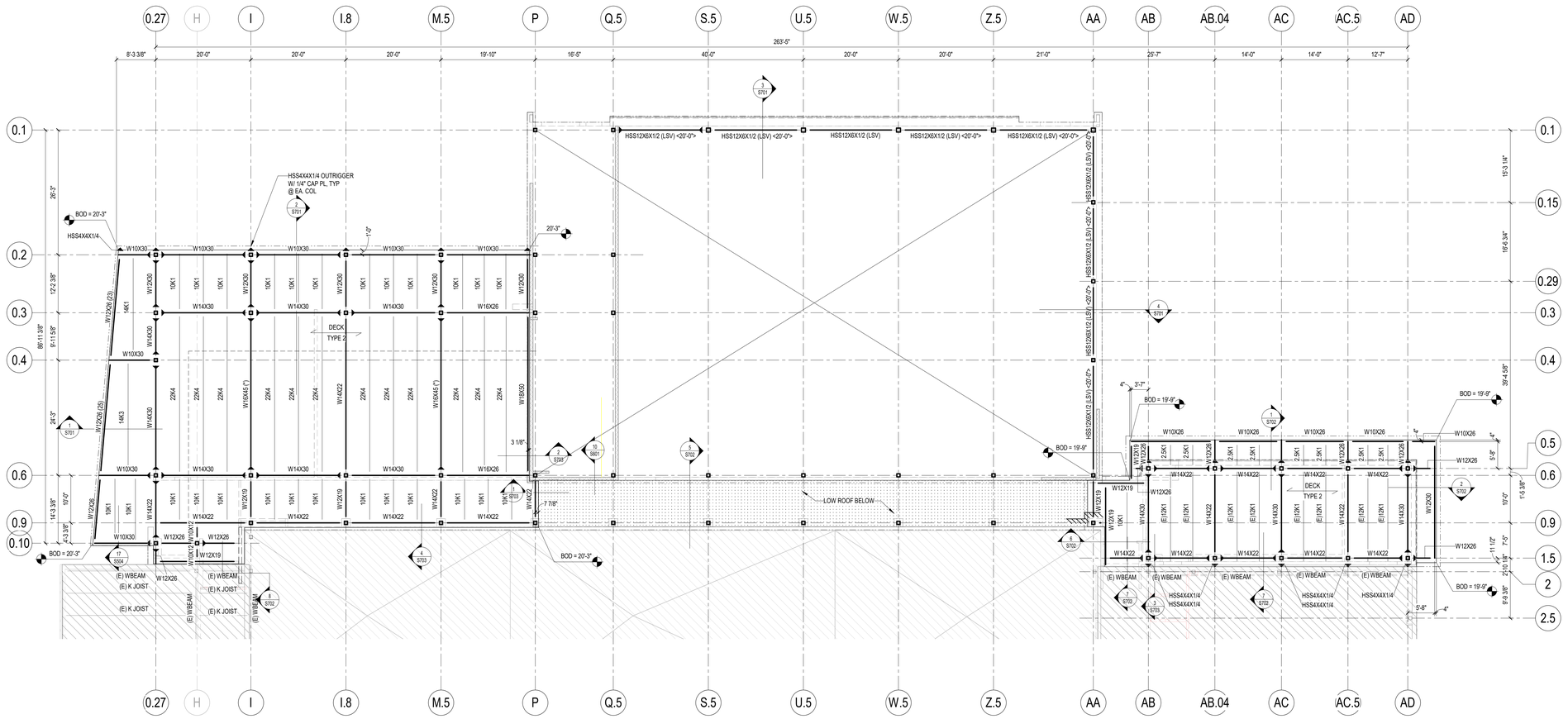
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

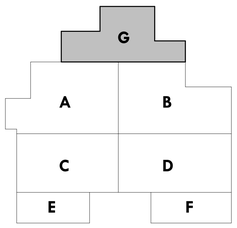
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S203
ROOF FRAMING PLAN - OVERALL



1 MAIN ROOF FRAMING PLAN
3/32" = 1'-0"

KEY PLAN



STEEL ROOF FRAMING NOTES:

1. ALL ELEVATIONS ARE RELATIVE TO DATUM ELEVATION.
2. " DECK TYPE 2 " (EXAMPLE) INDICATES ROOF DECK SPAN DIRECTION AND DECK TYPE 2.
   TOS ELEVATION AT ROOF DECKS ARE AT BOD, TYP, UON.
   FOR DECK TYPE INFORMATION **RE: 7 / S101**
3. COORDINATE LOCATIONS AND SIZES OF ALL CHASES AND PENETRATIONS WITH MEP.
   COORDINATE EXACT LOCATION OF ALL MEP UNITS WITH MEP.
   FOR FRAMING AROUND ROOF OPENINGS **RE: 7 / S504**
4. PROVIDE MID-SPAN BEAM BRACING AT ALL BEAMS DENOTED WITH "(*)" SIM. TO DETAIL 4/S701.

FRED DALLY 99804 LICENSED PROFESSIONAL ENGINEER
06/13/2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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Texas Registered Engineering Firm
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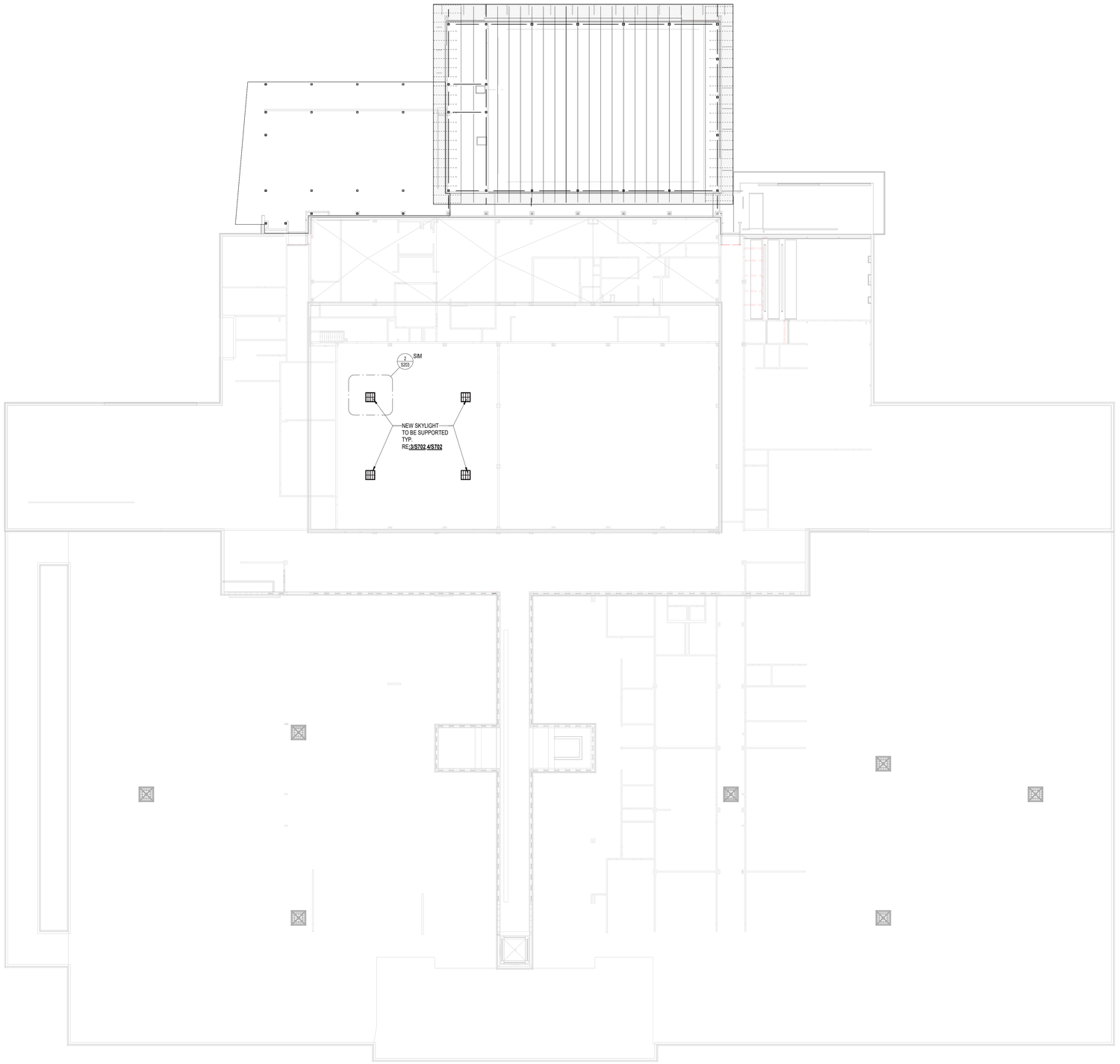
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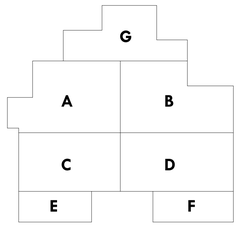
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S203G
ROOF FRAMING PLAN - AREA G



1 ROOF FRAMING PLAN - OVERALL
1" = 20'-0"

KEY PLAN



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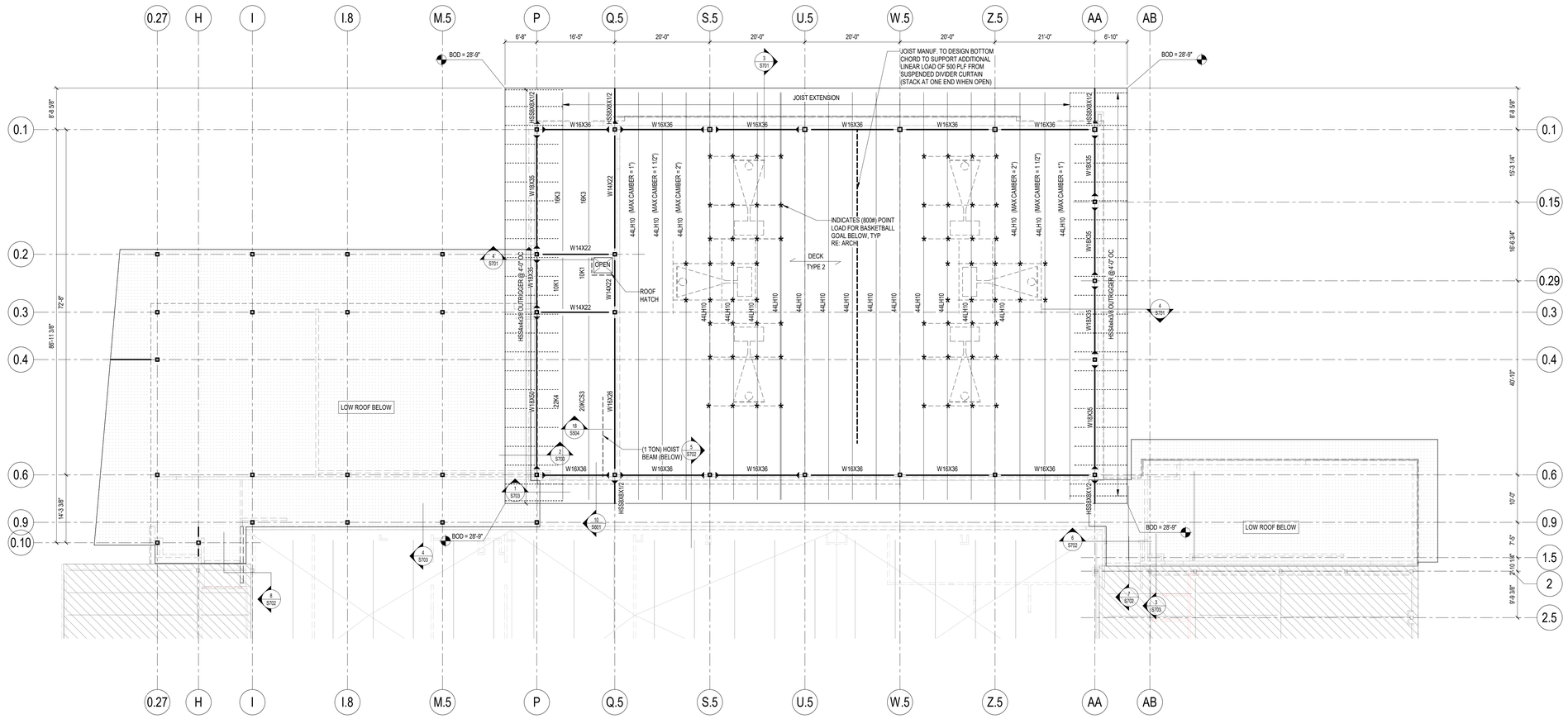
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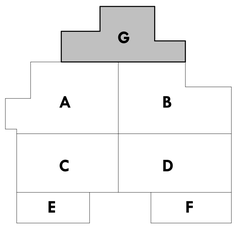
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S204
ROOF FRAMING PLAN - OVERALL



1 HIGH ROOF FRAMING PLAN
3/32" = 1'-0"

KEY PLAN



STEEL ROOF FRAMING NOTES:

1. ALL ELEVATIONS ARE RELATIVE TO DATUM ELEVATION.
2. * DECK TYPE 2 * (EXAMPLE) INDICATES ROOF DECK SPAN DIRECTION AND DECK TYPE 2. TOS ELEVATION AT ROOF DECKS ARE AT BOD, TYP, UON. FOR DECK TYPE INFORMATION **RE: 7 / S101**
3. COORDINATE LOCATIONS AND SIZES OF ALL CHASES AND PENETRATIONS WITH MEP. COORDINATE EXACT LOCATION OF ALL MEP UNITS WITH MEP. FOR FRAMING AROUND ROOF OPENINGS **RE: 7 / S504**
4. PROVIDE MID-SPAN BEAM BRACING AT ALL BEAMS DENOTED WITH "(*)" SIM. TO DETAIL 4/S701.

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SUITE 250 BUILDING 4
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S204G

HIGH ROOF FRAMING PLAN - AREA G

DRILLED SHAFT PIER SCHEDULE

SHAFT DIAMETER	VERTICAL REINFORCING		TIES		REMARKS
	NUMBER	SIZE	SIZE	SPACING (IN)	
18	6	#5	#4	12	
24	6	#6	#4	12	
30	6	#8	#4	12	
36	8	#9	#4	12	

DRILLED SHAFT PIER GENERAL NOTES

1. A GEOTECHNICAL REPORT IS AVAILABLE FOR REVIEW **RE: 6/S101**

2. THE INDEPENDENT TESTING LABORATORY SHALL CONFIRM THE ALLOWABLE SOIL BEARING CAPACITY IN THE FIELD AT THE ELEVATION DESIGNATED AS THE PLANE OF BEARING FOR THE DRILLED PIER.

3. THE INDEPENDENT TESTING LABORATORY SHALL INSPECT THE BOTTOM AND SIDES OF THE DRILLED PIER PRIOR TO PLACING REINFORCING AND CONCRETE.

4. CENTER ALL DRILLED PIERS UNDER THEIR COLUMNS, UON.

5. MAINTAIN CLOSE AND ACCURATE DRILLING PRACTICES TO ACHIEVE CLOSE TOLERANCES WITH THE REINFORCING STEEL AND THE ANCHOR ROD TEMPLATE.

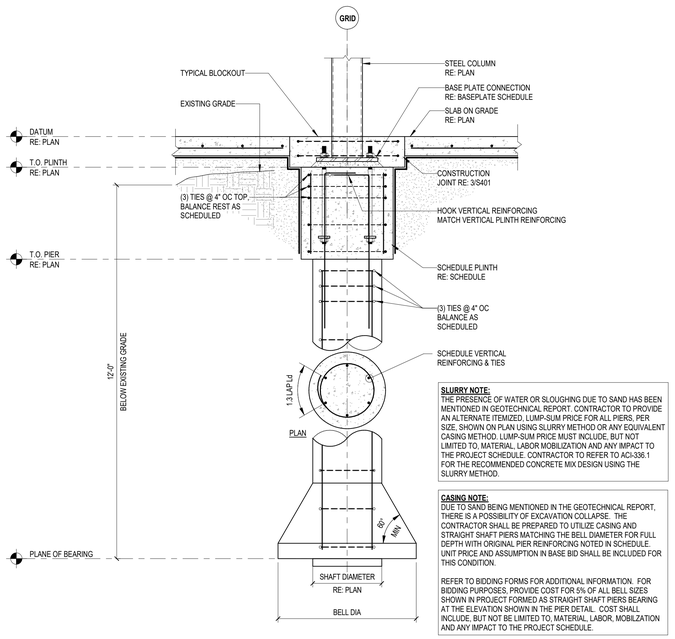
6. ALL REINFORCING STEEL FOR DRILLED PIERS SHALL BE DEFORMED NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.

7. ALL SCHEDULED REINFORCEMENT SHALL BE UNIFORMLY DISTRIBUTED.

8. DEPOSIT CONCRETE TO ITS FINAL POSITION BY THE USE OF A TREMIE.

9. CONSOLIDATE CONCRETE IN ITS FINAL POSITION BY VIBRATING.

DRILLED SHAFT PIER DETAILS



SLURRY NOTE:
THE PRESENCE OF WATER OR SLOUGHING DUE TO SAND HAS BEEN MENTIONED IN GEOTECHNICAL REPORT. CONTRACTOR TO PROVIDE AN ALTERNATE ITEMIZED, LUMP-SUM PRICE FOR ALL PIERS, PER SIZE, SHOWN ON PLAN USING SLURRY METHOD OR ANY EQUIVALENT CASING METHOD. LUMP-SUM PRICE MUST INCLUDE, BUT NOT LIMITED TO, MATERIAL, LABOR MOBILIZATION AND ANY IMPACT TO THE PROJECT SCHEDULE. CONTRACTOR TO REFER TO ACI-336.1 FOR THE RECOMMENDED CONCRETE MIX DESIGN USING THE SLURRY METHOD.

CASING NOTE:
DUE TO SAND BEING MENTIONED IN THE GEOTECHNICAL REPORT, THERE IS A POSSIBILITY OF EXCAVATION COLLAPSE. THE CONTRACTOR SHALL BE PREPARED TO UTILIZE CASING AND STRAIGHT SHAFT PIERS MATCHING THE BELL DIAMETER FOR FULL DEPTH WITH ORIGINAL PIER REINFORCING NOTED IN SCHEDULE. UNIT PRICE AND ASSUMPTION IN BASE BID SHALL BE INCLUDED FOR THIS CONDITION.

REFER TO BIDDING FORMS FOR ADDITIONAL INFORMATION. FOR BIDDING PURPOSES, PROVIDE COST FOR 5% OF ALL BELL SIZES SHOWN IN PROJECT FORMED AS STRAIGHT SHAFT PIERS BEARING AT THE ELEVATION SHOWN IN THE PIER DETAIL. COST SHALL INCLUDE, BUT NOT BE LIMITED TO, MATERIAL, LABOR, MOBILIZATION AND ANY IMPACT TO THE PROJECT SCHEDULE.

PLINTH SCHEDULE

MARK	PLINTH TYPE	REINFORCING		REMARKS
		VERTICAL	TIES	
P1	TYPE 1	(12) #6	#4 @ 10" OC	
P2	TYPE 2	(12) #6	#4 @ 10" OC	
P3	TYPE 3	(12) #6	#4 @ 10" OC	
P4	TYPE 4	(12) #6	#4 @ 10" OC	TYPICAL AT RE-ENTRANT CORNERS

PLINTH GENERAL NOTES

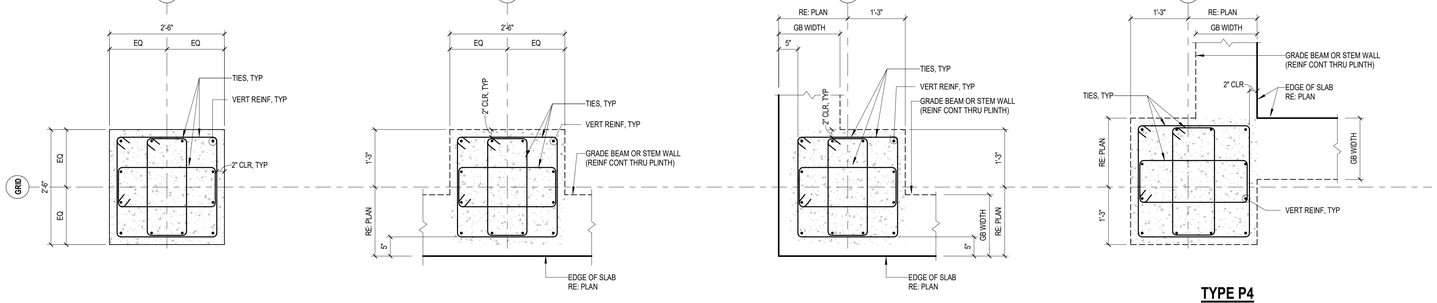
1. FOR PLINTH TYPE, LOCATION AND ORIENTATION REFER TO FOUNDATION PLAN VIEWS.

2. WHERE A PLINTH IS INTEGRAL WITH A BEAM, EXTEND THE HORIZONTAL REINFORCING THROUGH THE PLINTH.

3. PROVIDE (3) TIES @ 4" OC TO MATCH THE SCHEDULED TIES REINFORCING AT THE TOP OF EACH PLINTH, TYPICAL.

PLINTH DETAILS

ALL DETAILS ARE PLAN VIEW UON



TYPE P1

TYPE P2

TYPE P3

TYPE P4
(RE-ENTRANT CORNER)

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MISSOURI CITY, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM

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TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

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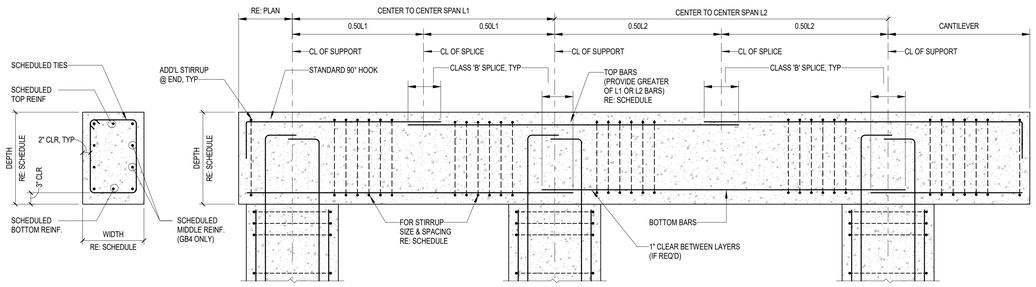
S301

DRILLED PIER & PLINTH
SCHEDULE & DETAILS

GRADE BEAM SCHEDULE

MARK	WIDTH	DEPTH	TOP REINFORCING	MIDDLE REINFORCING	BOTTOM REINFORCING	TIES	REMARKS
GB1	1'-4"	2'-0"	(3) #7	-	(3) #7	#4 @ 10" OC	
GB2	2'-0"	2'-0"	(5) #7	-	(5) #7	#4 @ 10" OC	
GB3	2'-6"	2'-0"	(5) #7	-	(5) #7	#4 @ 8" OC	PROVIDE #4 STIRRUPS @ 3" OC IN CANTILEVER END
GB4	3'-0"	2'-0"	(6) #7	(2) #7 EF	(6) #7	#4 @ 8" OC	PROVIDE #4 STIRRUPS @ 3" OC IN CANTILEVER END
GB5	2'-6"	2'-6"	(8) #8	-	(8) #8	#4 @ 8" OC	PROVIDE #4 STIRRUPS @ 3" OC IN CANTILEVER END

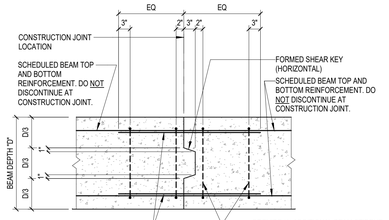
TYPICAL GRADE BEAM AND STRAP BEAM DETAILS



TYPICAL GRADE BEAM AND STRAP BEAM SECTION

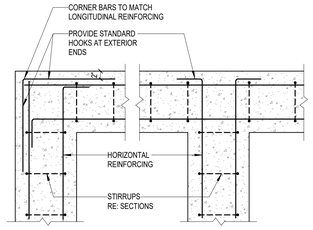
TYPICAL GRADE BEAM AND STRAP BEAM ELEVATION

TYPICAL GRADE BEAM DETAILS

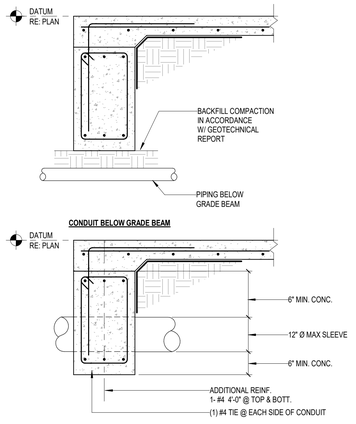


NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEK PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. ACCEPTABLE JOINT LOCATIONS ARE AS FOLLOWS:
   a. FOR BEAMS NOT SUPPORTING INTERSECTING BEAMS: PLACE JOINT MIDDLE THIRD OF SPAN.
   b. FOR BEAMS SUPPORTING INTERSECTING BEAMS, CHECK WITH STRUCTURAL ENGINEER.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN MIDDLE THIRD OF SPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

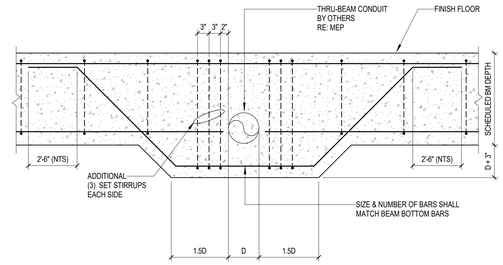
1 TYPICAL GRADE BEAM CONSTRUCTION JOINT
3/4" = 1'-0"



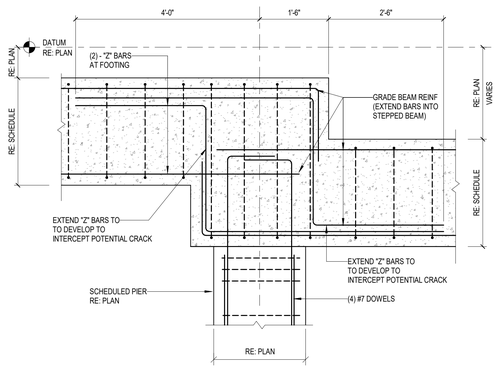
2 TYP GRADE BEAM REINF. AT INTERSECTIONS
3/4" = 1'-0"



3 TYPICAL CONDITION OF CONDUIT
3/4" = 1'-0"



4 TYPICAL THRU. BEAM CONDUIT
3/4" = 1'-0"



5 TYPICAL GRADE BEAM STEP
3/4" = 1'-0"

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

D + ASSOCIATES
STRUCTURAL | CIVIL
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

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S302

GRADE BEAM SCHEDULE AND DETAILS

1. STRUCTURAL STEEL COLUMN SCHEDULE AND DETAILS

MARK	COLUMN TYPE	BASEPLATE TYPE	BASEPLATE EL.	REMARKS
C1	HSS8X8X1/2	BP1	-0'-6 1/2"	
C2	HSS8X8X1/2	BP2	-0'-6 1/2"	
C3	HSS8X8X5/8	BP2	-0'-6 1/2"	
C4	HSS8X8X1/2	BP3	-0'-6 1/2"	
C5	HSS10X10X1/2	BP2	-0'-6 1/2"	

2. BASE PLATE SCHEDULE AND DETAILS

PLATE		DIMENSIONS					ANCHOR RODS				WELD SIZE	REMARKS
MARK	TYPE	B (IN)	N (IN)	tp (IN)	X (IN)	Z (IN)	QUANTITY	DIAMETER (IN)	PROJECTION, P (IN)	LENGTH, L (IN)	W (IN)	
BP1	A	16	16	1 1/4"			4	1 1/4"	6	2'-0"	5/16	
BP2	A	20	20	1 1/2"			4	1 1/4"	6	2'-0"	5/16	
BP3	B	18	18	1 1/2"	4 1/2"		4	1 1/4"	6	2'-0"	5/16	

B. COLUMN GENERAL NOTES

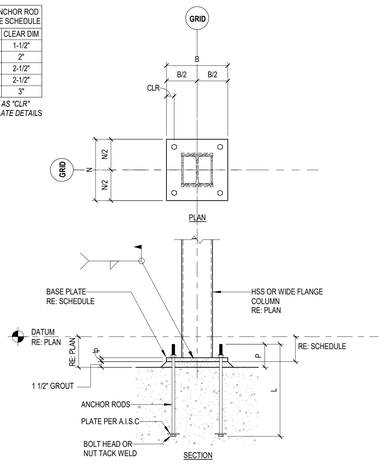
1. PROVIDE STRUCTURAL STEEL FOR W SHAPES CONFORMING TO ASTM 992, GRADE 50.
2. PROVIDE STRUCTURAL STEEL FOR HSS COLUMNS CONFORMING TO ASTM A500, GRADE B.
3. PROVIDE STEEL FOR STIFFENER PLATES, CONNECTION PLATES AND ANGLES CONFORMING TO ASTM A36.
4. SAW OR MILL SURFACES NOTED FIN. (FINISHED) FOR TRUE AND FULL CONTACT.
5. USE E70XX WELDING ELECTRODES FOR ALL WELDS, UNLESS OTHERWISE NOTED.
6. WEB DOUBLER PLATES ARE NOT REQUIRED.

F. BASE PLATE GENERAL NOTES

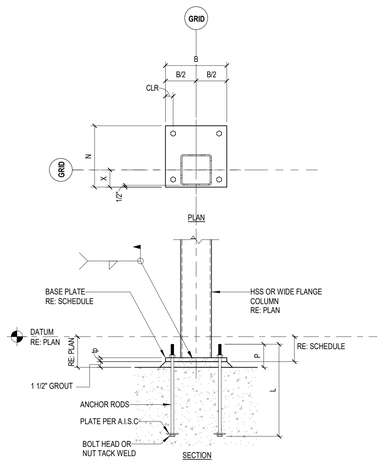
1. PROVIDE STEEL FOR BASE PLATES CONFORMING TO ASTM A36.
2. PROVIDE HOLES IN BASE PLATES IN ACCORDANCE WITH AISC 14TH EDITION.
3. PROVIDE ANCHOR RODS CONFORMING TO ASTM F1554, GRADE 55 WELDABLE.
4. PROVIDE ANCHOR RODS WITH PLATE WASHERS AND HEAVY HEX NUTS.
5. USE E70XX WELDING ELECTRODES FOR ALL WELDS, UNLESS OTHERWISE NOTED.
6. MILL SURFACES NOTED FIN. (FINISHED) FOR TRUE AND FULL CONTACT.
7. SET ANCHOR RODS WITH TEMPLATE.
8. PROVIDE NON-METALLIC SHRINK-RESISTANT GROUT WITH 8000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28-DAYS.

TYPICAL ANCHOR ROD CLEARANCE SCHEDULE	
ROD Ø	CLEAR DIM
3/4"	1-1/2"
1"	2"
1 1/2"	2-1/2"
2"	2-1/2"
2 1/2"	3"

NOTED AS "CLR" ON BASEPLATE DETAILS



TYPE A



TYPE B

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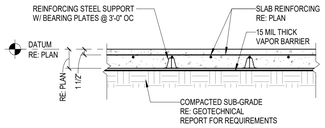
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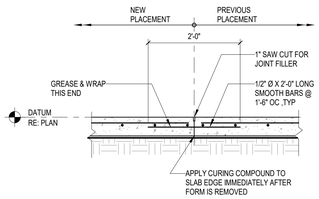
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S303

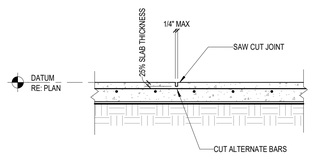
COLUMN SCHEDULE & DETAILS



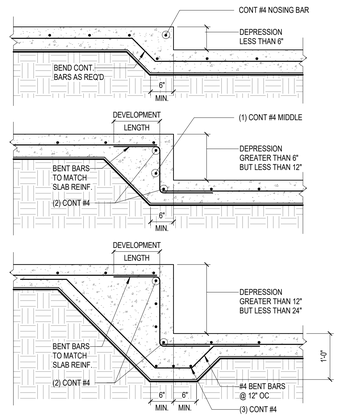
1 TYPICAL SLAB SECTION
3/4" = 1'-0"



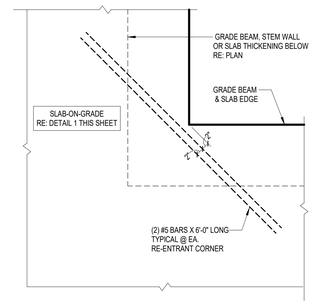
2 TYPICAL SECTION - CONSTRUCTION JOINT
3/4" = 1'-0"



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

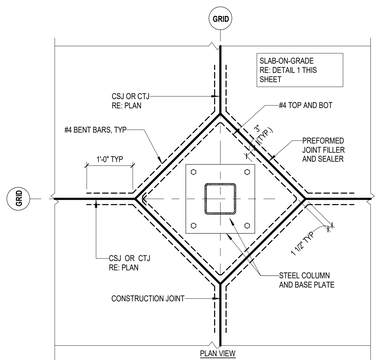


4 TYPICAL SLAB DEPRESSION DETAILS
3/4" = 1'-0"



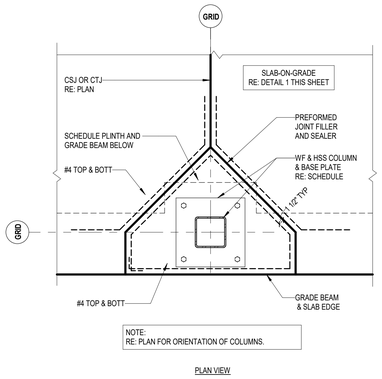
PLAN VIEW

5 TYPICAL RE-ENTRANT CORNER REINF.
3/4" = 1'-0"



PLAN VIEW

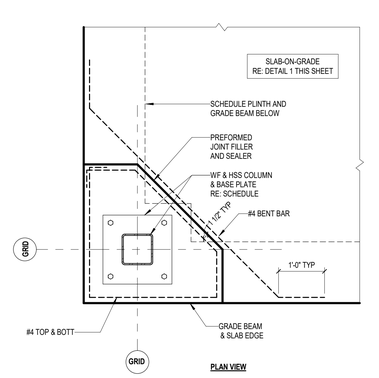
6 INTERIOR COLUMN BLOCKOUT
3/4" = 1'-0"



NOTE:
RE: PLAN FOR ORIENTATION OF COLUMNS.

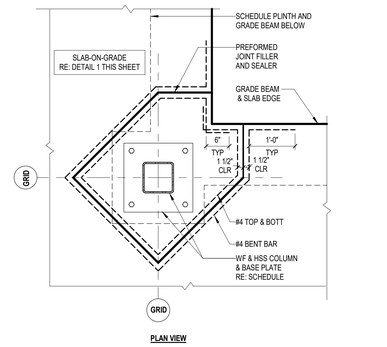
PLAN VIEW

7 PERIMETER COLUMN BLOCKOUT
3/4" = 1'-0"



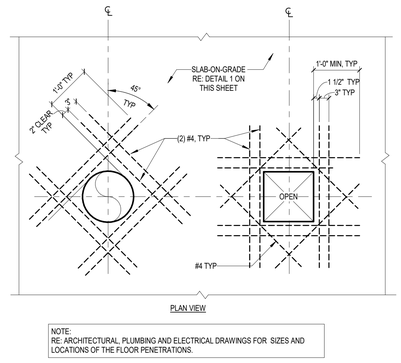
PLAN VIEW

8 EXTERIOR CORNER COLUMN BLOCKOUT
3/4" = 1'-0"



PLAN VIEW

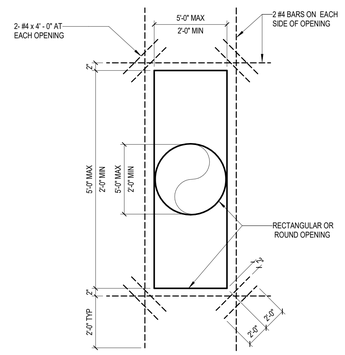
9 RE-ENTRANT CORNER COLUMN BLOCKOUT
3/4" = 1'-0"



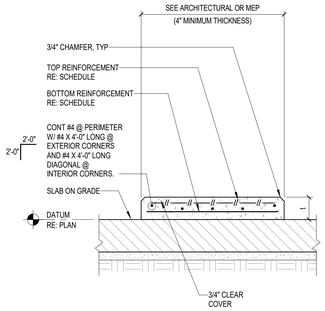
PLAN VIEW

NOTE:
RE: ARCHITECTURAL, PLUMBING AND ELECTRICAL DRAWINGS FOR SIZES AND LOCATIONS OF THE FLOOR PENETRATIONS.

10 SLAB REINF. AT OPENING 2'-0" OR LESS
3/4" = 1'-0"



11 SLAB REINF. AT OPENING 5'-0" OR LESS
3/4" = 1'-0"



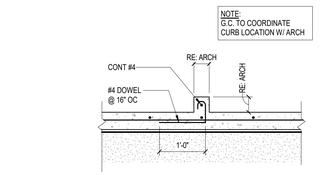
12 HOUSEKEEPING PAD
3/4" = 1'-0"

ROUGHEN SURFACE AND ADD BONDING AGENT TO EXIST. SURFACE PRIOR TO HOUSEKEEPING PAD POUR

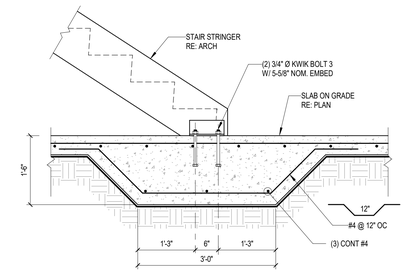
NOTE:
GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB ON GRADE AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.

HOUSEKEEPING PAD REINFORCING SCHEDULE

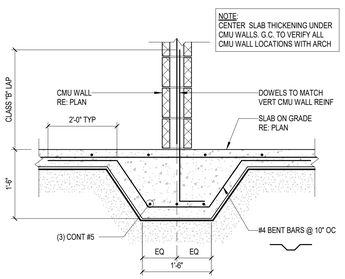
PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINFORCEMENT
t <= 4"	6"x 6",W2.9 x W2.9	NONE
4" < t <= 6"	4"x 4",W4.0 x W4.0	NONE
6" < t <= 8"	4"x 4",W5.5 x W5.5	NONE
8" < t <= 12"	#4@12"EW	#3@18"EW
12" < t <= 16"	#4@12"EW	#4@12"EW



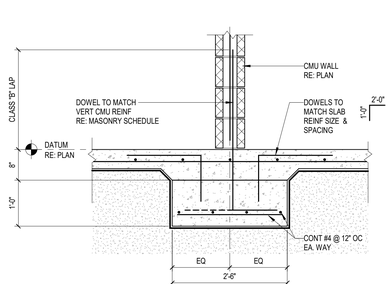
13 TYPICAL CURB DETAIL
3/4" = 1'-0"



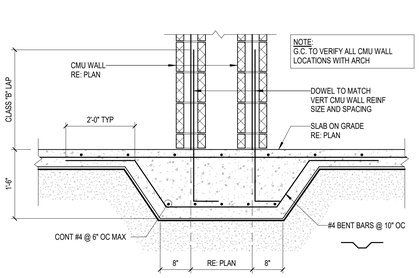
14 THICKENED SLAB AT STAIR STRINGER
3/4" = 1'-0"



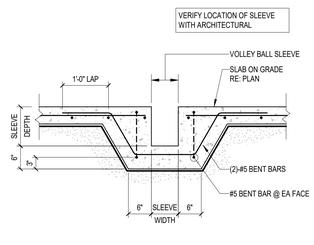
15 CMU WALL LESS THAN 11'-0"
3/4" = 1'-0"



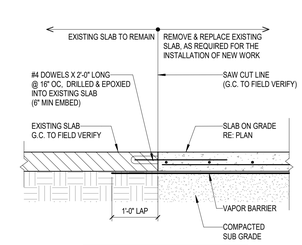
16 CMU WALL LESS THAN 20'-0"
3/4" = 1'-0"



17 INTERIOR CMU WALL SECTION
3/4" = 1'-0"



18 VOLLEYBALL SLEEVE
3/4" = 1'-0"



NOTE:
FOR LOCATIONS OF SAW CUTS IN EXISTING SLAB
RE: ARCH DRAWINGS

19 SLAB ON GRADE AT EXISTING SLAB
3/4" = 1'-0"

FRED DALLY
99904
LICENSED
PROFESSIONAL
ENGINEER
06/13/2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES
STRUCTURAL | CIVIL
9800 Richmond Avenue, Suite 460
Houston, Texas 77042
t 713.337.8881
Texas Registered Engineering Firm
F-269429
D + A PROJECT #23-186-00

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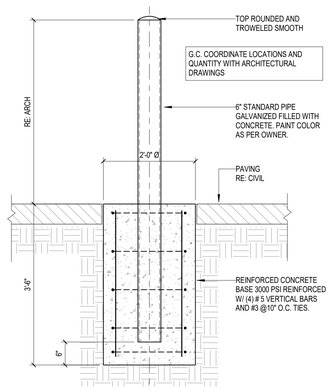
DATE: MARCH 12, 2023
DRAWN BY: RHV
CHECKED BY: LMM
BRW PROJECT NUMBER: 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

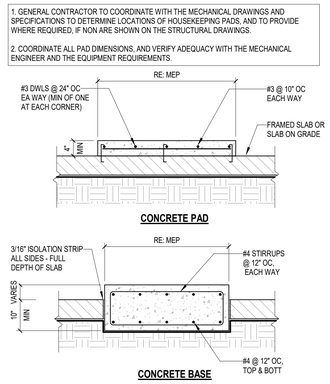
NO.	REVISION	DATE
	50% CD	11/21/2023
	95% CD	01/26/2024
	ISSUE FOR PERMIT	02/12/2024
2	ISSUE FOR BID	06/13/2025

S401

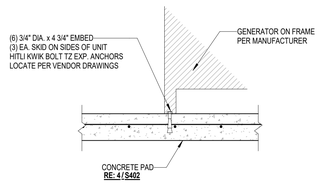
TYPICAL FOUNDATION DETAILS



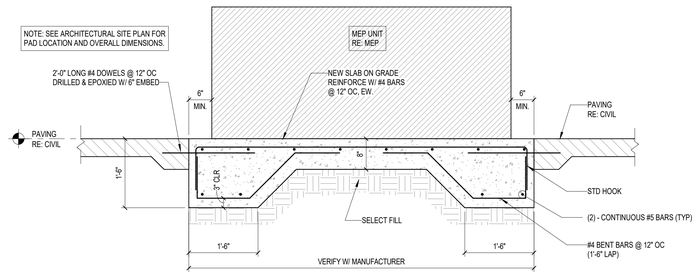
1 TYPICAL BOLLARD DETAIL
3/4" = 1'-0"



2 TYPICAL PAD BASE DETAIL
3/4" = 1'-0"



3 GENERATOR ANCHORAGE DETAIL
3/4" = 1'-0"



4 FOUNDATION AT MECHANICAL UNIT
3/4" = 1'-0"

5 SCREEN WALL DETAIL
3/4" = 1'-0"

6 TYPICAL LIGHT POLE DETAIL (30'-0" TALL MAX)
3/4" = 1'-0"

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SUITE 250 BUILDING 4
HUNTSVILLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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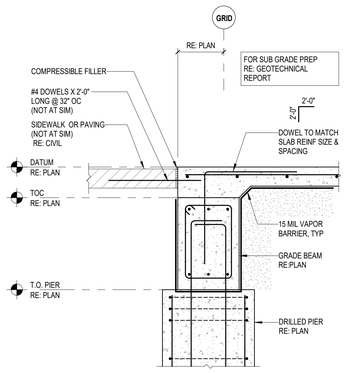
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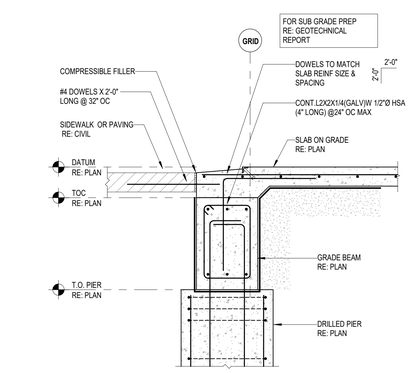
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

NO.	REVISION	DATE
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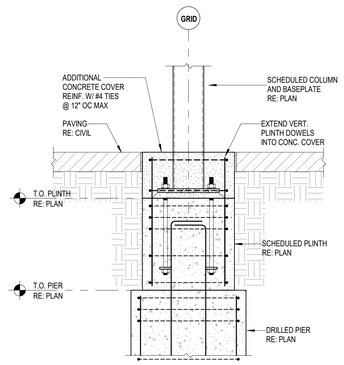
S402
TYPICAL SITE FOUNDATION DETAILS



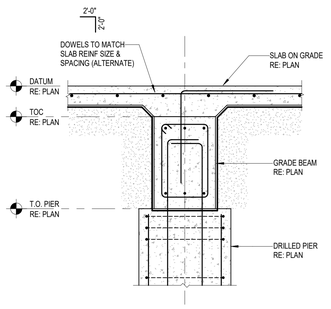
1 SECTION AT MAN DOOR
3/4" = 1'-0"



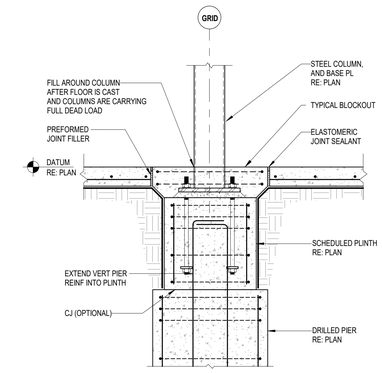
2 SECTION AT OVERHEAD DOOR
3/4" = 1'-0"



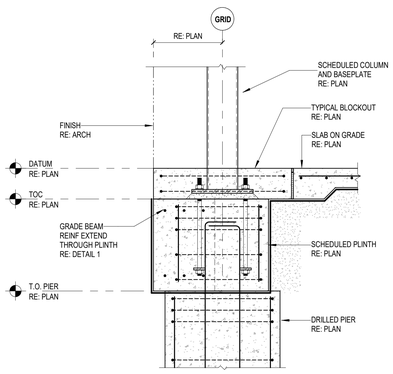
3 SECTION AT EXTERIOR COLUMN
3/4" = 1'-0"



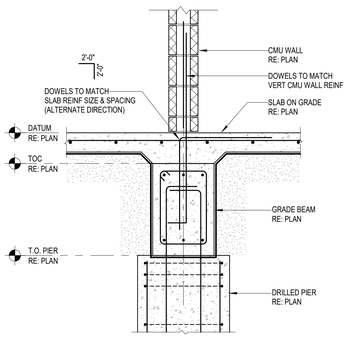
4 SECTION AT INTERIOR GRADE BEAM
3/4" = 1'-0"



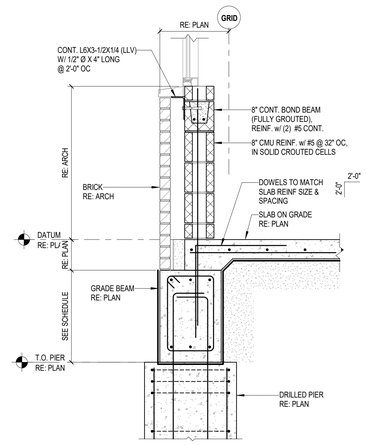
5 TYPICAL INTERIOR COLUMN SECTION
3/4" = 1'-0"



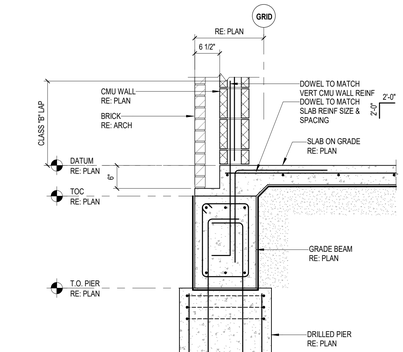
6 SECTION AT EXTERIOR COLUMN
3/4" = 1'-0"



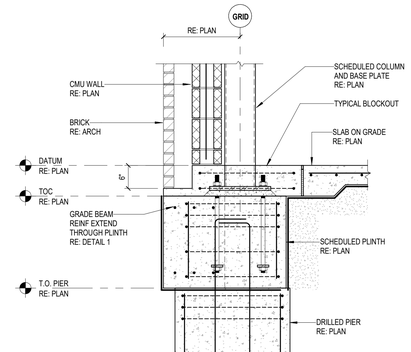
7 CMU WALL TALLER THAN 20'-0"
3/4" = 1'-0"



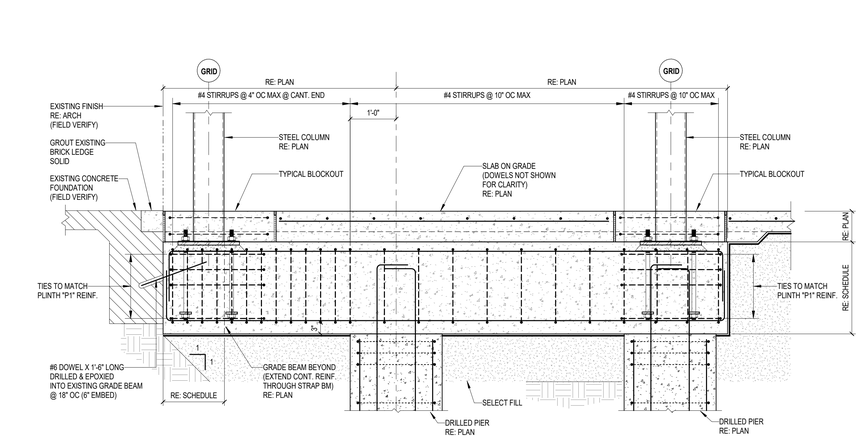
8 SECTION AT HSS POST
3/4" = 1'-0"



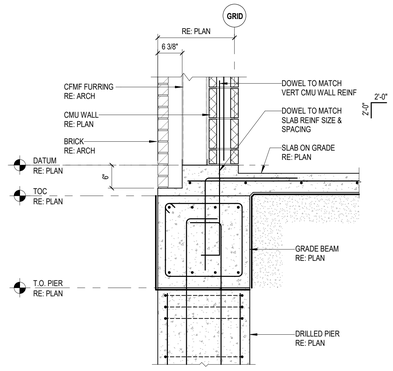
9 SECTION AT CMU WALL
3/4" = 1'-0"



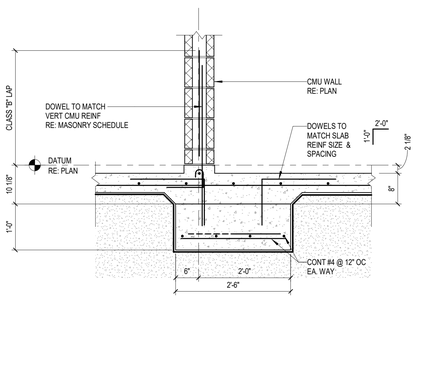
10 SECTION AT EXTERIOR COLUMN
3/4" = 1'-0"



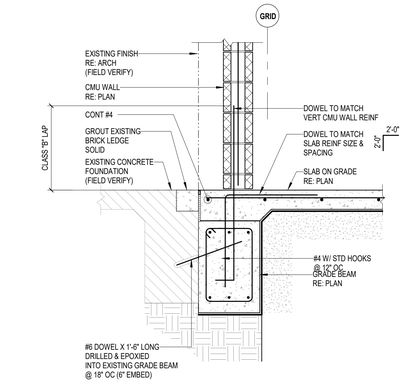
11 SECTION
3/4" = 1'-0"



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



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



14 SECTION
3/4" = 1'-0"

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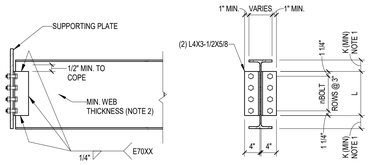
DATE MARCH 12, 2023
DRAWN BY RHW
CHECKED BY LMM
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

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S403

FOUNDATION DETAILS
(PIER)



"n"	L (INCHES)	ALLOWABLE BOLT CAPACITY (KIPS)	ALLOWABLE WELD CAPACITY (KIPS)
2	5 1/2"	37	48
3	8 1/2"	56	77
4	11 1/2"	74	100
5	14 1/2"	93	122
6	17 1/2"	111	143
7	20 1/2"	130	160
8	23 1/2"	148	180
9	26 1/2"	167	198
10	29 1/2"	186	215

NOTES:

1. REFER TO AISC - MANUAL OF STEEL CONSTRUCTION (SECTION 1).

2. ALLOWABLE WELD CAPACITY IS BASED UPON A BEAM WEB THICKNESS OF 1/2" FOR A36 MATERIAL AND 3/8" FOR ASTM A572, GRADE 50 MATERIAL. REDUCE THIS CAPACITY PROPORTIONALLY FOR A LESSER WEB THICKNESS.

3. THE SUPPORTING PLATE CAPACITY SHALL BE BASED UPON AN ALLOWABLE LOAD PER BOLT OF 65 KIPS PER INCH OF PLATE THICKNESS FOR A36 MATERIAL OR 73 KIPS PER INCH OF PLATE THICKNESS FOR ASTM A572, GRADE 50 MATERIAL. FOR BEAM CONNECTIONS ON TWO SIDES, THE SUM OF THE LOADS PER BOLT SHALL BE CONSIDERED.

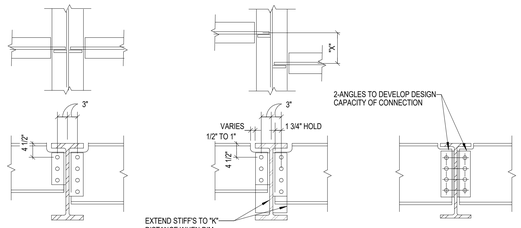
4. FOR COPED BEAM CONNECTIONS, THE CAPACITY OF THE NET SHEAR AREA OF THE WEB SHALL BE VERIFIED.

5. THE CAPACITY OF THE CONNECTION SHALL BE THE LESSER VALUE OF THE ALLOWABLE BOLT CAPACITY, ALLOWABLE WELD CAPACITY, SUPPORTING PLATE CAPACITY OR THE WEB NET SHEAR AREA CAPACITY.

6. THE MINIMUM NUMBER OF ROWS OF BOLTS SHALL BE AS FOLLOWS:

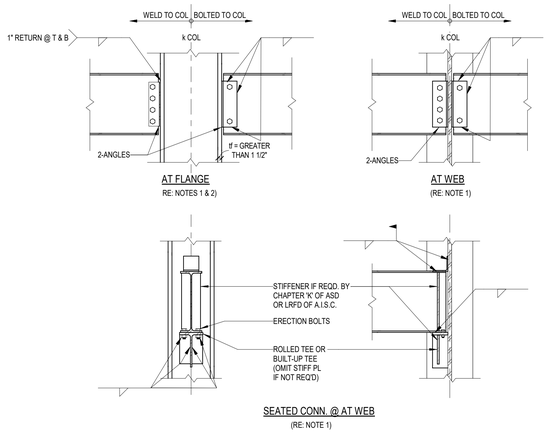
W10 & W12	2 ROWS
W14 & W16	3 ROWS
W18, W21, & W24	4 ROWS
W27 & W30	5 ROWS
W33 & W36	6 ROWS

3/4" Ø A325 BOLTS - BEARING CONN. - STANDARD HOLES



NOTES:-
1. BOTH THE WELDS & THE BOLTS TO BE DESIGNED FOR MOMENT CAUSED BY ECCENTRICITY BETWEEN WELD GROUP & BOLT CENTERLINE.

2. END REACTION TO BE DETERMINED PER GENERAL NOTES SHEET OR AS SHOWN ON PLANS.



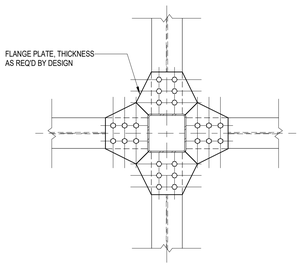
NOTES:

1. CONN. TO BE ADEQUATE FOR AXIAL BRACING FORCE = 1% OF WORKING COLUMN LOAD IN ADDITION TO END REACTION DETERMINED PER STEEL GENERAL NOTES SHEET (U.N.O. ON DWG.) ALLOWABLE STRESS CAN BE INCREASED 1/3 FOR THIS CONDITION. COLUMN LOAD WILL BE FURNISHED OR CAN BE DETERMINED FROM AISC MANUAL FOR FLOOR TO FLOOR HEIGHT.

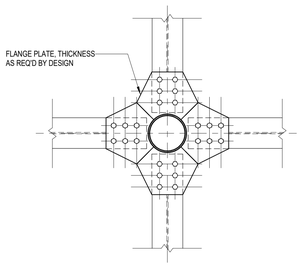
2. SINGLE PLATE CONNECTION IS ALLOWED ONLY WHEN AXIAL FORCE BRACING THE COLUMN IS LESS THAN 20 KIPS. THE DESIGN OF SINGLE PLATE CONNECTION WITH AXIAL FORCE LESS THAN 20 KIPS. SHOULD BE SUBSTANTIATED BY CALCULATION AND IS SUBJECT TO ENGINEER'S APPROVAL.

3/4" Ø A325 BOLTS - BEARING CONN. - STANDARD HOLES

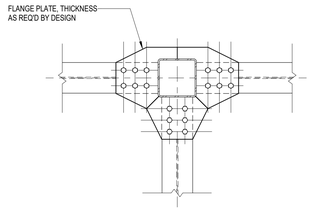
1 STANDARD BEAM CONNECTION
3/4" = 1'-0"



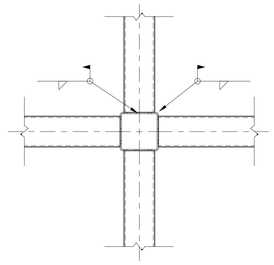
(4) WIDE FLANGE BEAMS TO HSS COL - PLAN



(4) WIDE FLANGE BEAMS TO ROUND HSS COL - PLAN

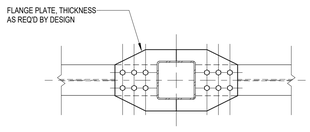


(3) WIDE FLANGE BEAMS TO HSS COL - PLAN

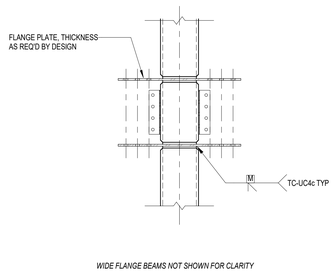


TYPICAL HSS BEAM TO HSS COL - PLAN

2 BEAM CONNECTION DETAILS
3/4" = 1'-0"

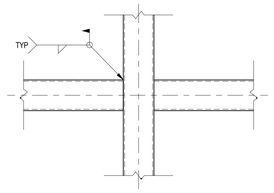


(2) WIDE FLANGE BEAMS TO HSS COL - PLAN



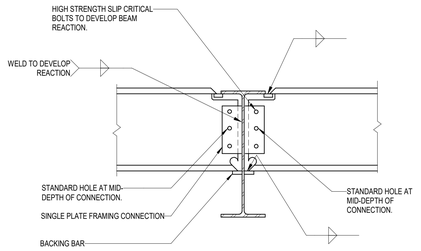
WIDE FLANGE BEAMS NOT SHOWN FOR CLARITY

WIDE FLANGE BEAMS TO HSS COL - SECTION



TYPICAL HSS BEAM TO HSS COL - SECTION

3 TYPICAL BEAM TO COLUMN CONN. @ FLANGE & WEB
N.T.S.



BEAM TO BEAM MOMENT CONNECTION BEAMS OF THE SAME NOMINAL DEPTH - SECTION

NOTES:

1. BOLTS IN WEB CONNECTION SHALL BE SNUG TIGHTENED PRIOR TO WELDING OF FLANGES.

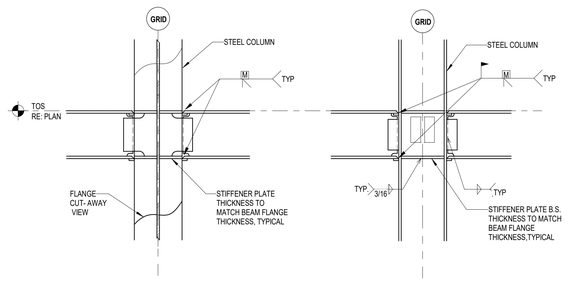
2. SLIP-CRITICAL BOLTED CONNECTION IN WEB USING A325 BOLTS IN HORIZONTAL SHORT-SLOTTED HOLES U.N.O. RESISTANCE BY BOLTS TO SHEAR SHALL BE BY FRICTION, PROPORTIONED USING THE STANDARD HOLE VALUE ON A CLASS "A" SURFACE.

3. REFER TO SPECIFICATIONS FOR CONNECTION DESIGN CRITERIA.

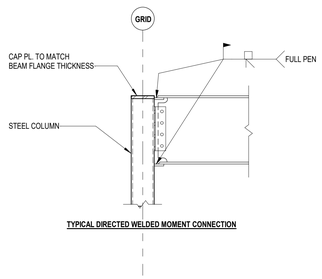
4. PROVIDE PREDESIGNED SHEAR CONNECTIONS AS SHOWN IN AISC ASD MANUAL WHERE APPLICABLE.

CONNECTIONS SHOWN HERE ARE FOR BIDDING PURPOSES ONLY. DESIGN AND DETAIL OF CONNECTIONS SHALL BE BY THE STEEL FABRICATOR AND SHALL FOLLOW AISC APPROVED MOMENT CONNECTIONS

4 MOMENT CONNECTION DETAILS
3/4" = 1'-0"

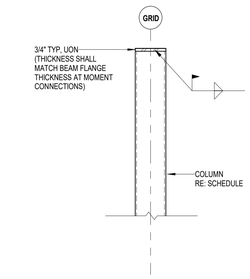


5 TYPICAL MOMENT CONN. AT WIDE FLANGE COLUMNS
1/2" = 1'-0"

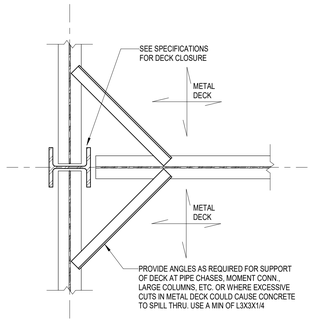


TYPICAL DIRECTED WELDED MOMENT CONNECTION

6 TYPICAL DIRECT WILDED MOMENT CONN.
3/4" = 1'-0"



7 TYPICAL COLUMN CAP PLATE
3/4" = 1'-0"



8 METAL DECK SUPPORT AT COLUMN
3/4" = 1'-0"

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HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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9800 Richmond Avenue, Suite 460
Houston, Texas 77042
t 713 337 8881
Texas Registered Engineering Firm
F-269429
D + A PROJECT #23-186-00

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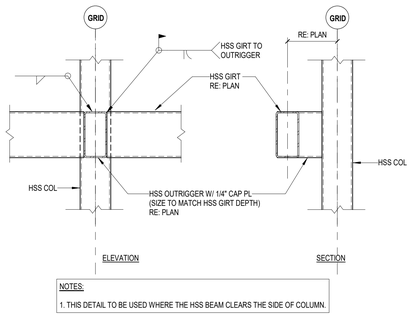
DATE	MARCH 12, 2023
DRAWN BY	RHW
CHECKED BY	LMM
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL IMPROVEMENTS
10303 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

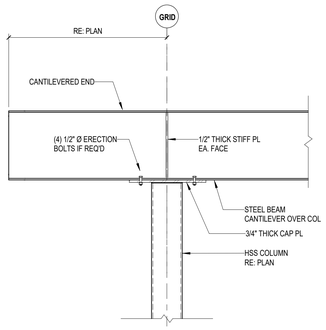
NO.	REVISION	DATE
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	95% CD	01/26/2024
	ISSUE FOR PERMIT	02/12/2024
2	ISSUE FOR BID	06/13/2025

S501

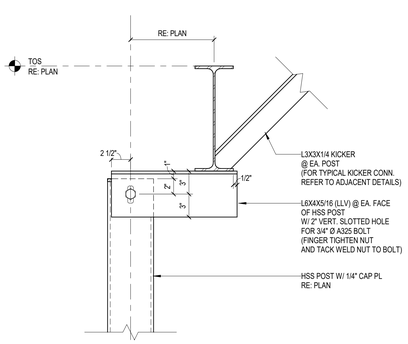
TYPICAL FRAMING DETAILS



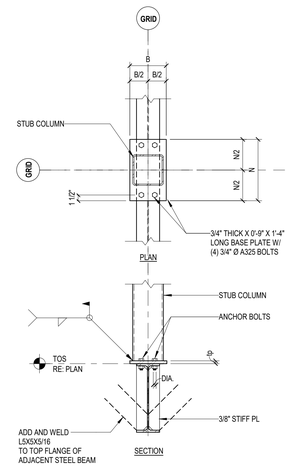
1 TYPICAL OFFSET HSS TUBE SUPPORT
3/4" = 1'-0"



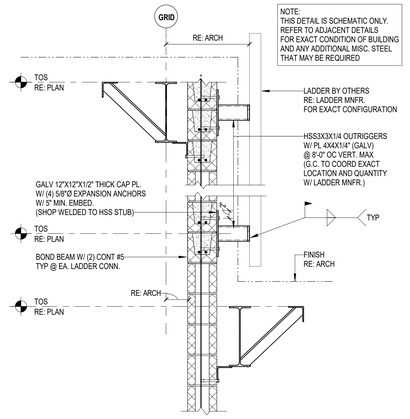
2 TYPICAL CANTILEVERED BEAM
3/4" = 1'-0"



3 TYPICAL HSS POST SLIP CONNECTION
1 1/2" = 1'-0"



4 TYPICAL STUB COLUMN DETAIL
3/4" = 1'-0"



5 TYPICAL LADDER SUPPORT DETAIL
N.T.S.

6 TYPICAL LADDER SUPPORT DETAIL
N.T.S.

7 TYPICAL LADDER SUPPORT DETAIL
N.T.S.

8 TYPICAL LADDER SUPPORT DETAIL
N.T.S.

NOTES:
1. THIS DETAIL TO BE USED WHERE THE HSS BEAM CLEARS THE SIDE OF COLUMN.

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
FORT WORTH, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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9800 Richmond Avenue, Suite 460
Houston, Texas 77042
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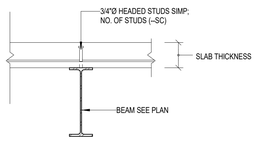
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DRAWN BY: RHV
CHECKED BY: LMM
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

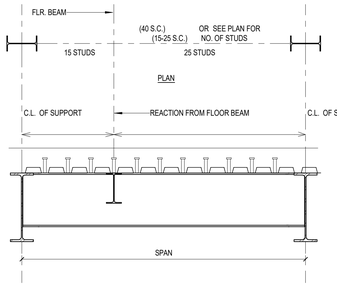
NO.	REVISION	DATE
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	95% CD	01/26/2024
	ISSUE FOR PERMIT	02/12/2024
2	ISSUE FOR BID	06/13/2025

S502
TYPICAL FRAMING DETAILS

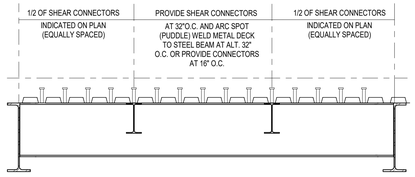
FIN. STUD LENGTH	SLAB THICKNESS 't'
8"	t' > 10"
5 1/2"	6 1/2" < t' < 10"
5"	6" < t' < 6 1/2"
4 1/2"	5 1/4" < t' < 6"



SECTION

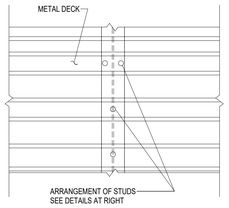


ELEVATION

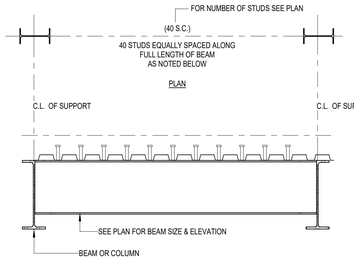


ABOVE PLACEMENT OF SHEAR CONNECTORS IS APPLICABLE WHERE ASTERISK (*) IS SHOWN ON PLAN WITH SHEAR CONNECTOR QUANTITIES.

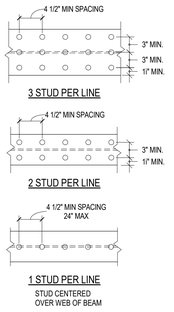
SPECIAL PLACEMENT OF SHEAR CONNECTORS



PLAN



ELEVATION

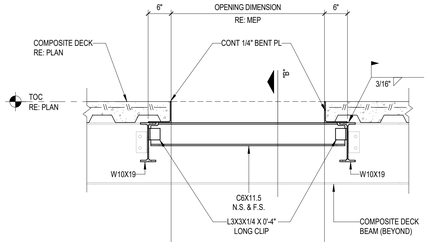


WELDED SHEAR STUD NOTES:

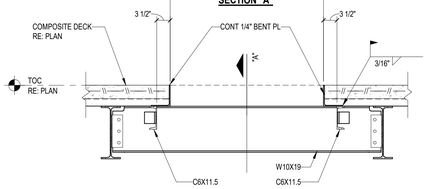
1. ALL SHEAR STUDS SHALL BE 3/4"Ø HEADED STUDS WITH HEIGHT OF STUDS AS SHOWN ABOVE.

2. ONE STUD PER TROUGH SHALL BE PLACED STARTING FROM BOTH ENDS OF BEAM. WHEN STUDS FILL EVERY TROUGH OF METAL DECK REMAINING STUDS SHALL BE PLACED IN TWO OR MORE ROWS PER TROUGH STARTING FROM EACH END OF BEAM OR GIRDER.

3. ALL BEAMS AND GIRDERS, NOT PART OF LATERAL LOAD RESISTING SYSTEM, SUPPORTING METAL DECK WITH ALL CONCRETE FILL SHALL HAVE THE STUDS AT MAX. 24" O.C. ALL BEAMS PART OF LATERAL LOAD RESISTANCE SYSTEM, EITHER WIND GIRDER OR HORIZONTAL BRACING BEAM, SHALL HAVE STUDS 30" O.C. IN NON-SEISMIC AREA AND 18" O.C. IN SEISMIC AREA.

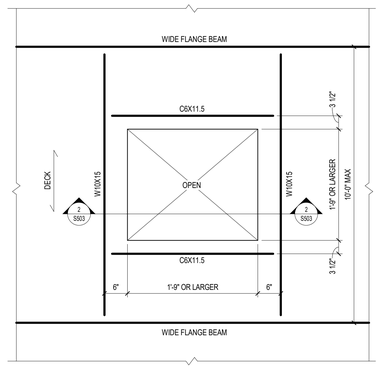


SECTION "A"

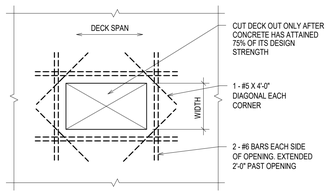


SECTION "B"

NOTES:
1. DETAIL SIM. FOR OPENINGS BETWEEN BEAMS.
2. APPLIES TO ALL OPENINGS WITH A DIMENSIONS GREATER THAN 12" BUT LESS THAN 30".
3. G.C. TO COORDINATE CURB REQUIREMENTS AROUND OPENINGS WITH ARCHITECTURAL DRAWINGS.

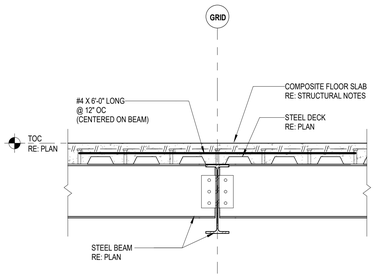


1 TYPICAL SHEAR CONNECTORS (S.C.) DETAILS
3/4" = 1'-0"

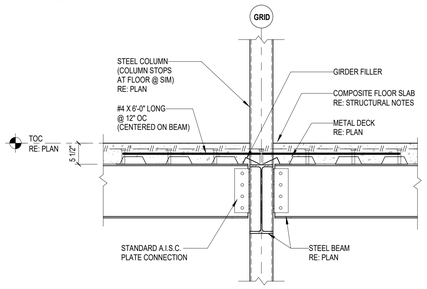


THIS DETAIL APPLIES TO OPENINGS WHERE THE "WIDTH" IS 10" TO 2'-0"
OMIT #6 BARS AT OPENINGS LESS THAN 10" IN WIDTH. OPENINGS
GREATER THAN 2'-0" MUST BE FRAMED WITH STEEL BEAMS.

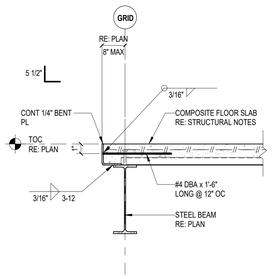
2 TYPICAL COMPOSITE DECK OPENING (SECTION)
3/4" = 1'-0"



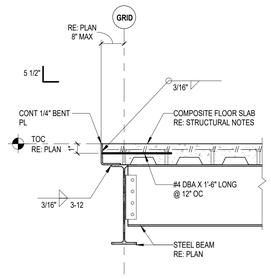
3 TYPICAL COMPOSITE DECK OPENING (PLAN)
3/4" = 1'-0"



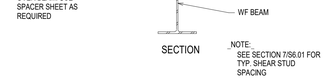
4 TYPICAL COMPOSITE DECK OPENING REINF.
3/4" = 1'-0"



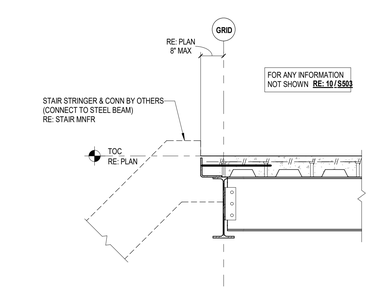
5 COMPOSITE DECK AT BEAM
3/4" = 1'-0"



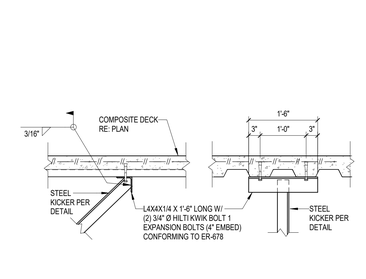
6 TYPICAL COMPOSITE GIRDER
3/4" = 1'-0"



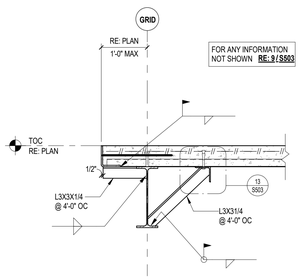
7 COMPOSITE DECK AT GIRDER
3/4" = 1'-0"



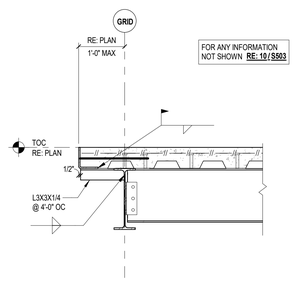
8 COMPOSITE DECK AT INTERIOR COLUMN
3/4" = 1'-0"



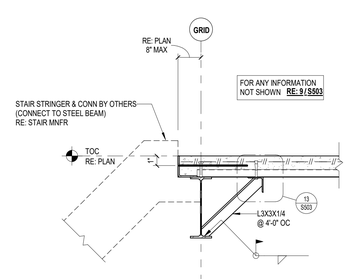
9 COMPOSITE DECK AT EXTERIOR BEAM
3/4" = 1'-0"



10 COMPOSITE DECK AT EXTERIOR GIRDER
3/4" = 1'-0"



11 COMPOSITE DECK AT STAIR STRINGER
3/4" = 1'-0"



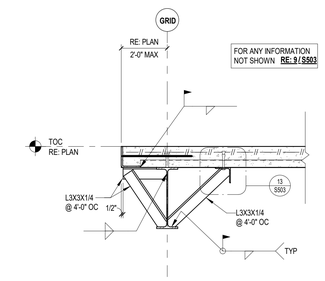
12 COMPOSITE DECK AT STAIR STRINGER
3/4" = 1'-0"

13 TYPICAL COMPOSITE KICKER CONNECTION
3/4" = 1'-0"

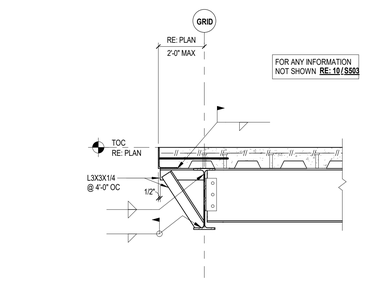
14 COMPOSITE DECK BEAM WITH OUTRIGGERS
3/4" = 1'-0"

15 COMPOSITE DECK GIRDER WITH OUTRIGGERS
3/4" = 1'-0"

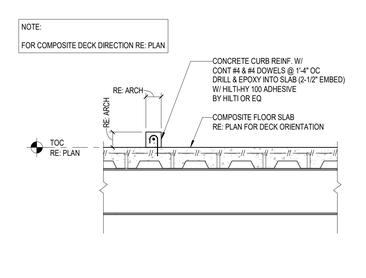
16 COMPOSITE DECK BEAM WITH OUTRIGGERS
3/4" = 1'-0"



17 COMPOSITE DECK GIRDER WITH OUTRIGGERS
3/4" = 1'-0"



18 TYPICAL CURB AT COMPOSITE DECK
3/4" = 1'-0"



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SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
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9800 Richmond Avenue, Suite 460
Houston, Texas 77042
t 713.337.8881
Texas Registered Engineering Firm
F-005429
D + A PROJECT #23-186-00

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DATE MARCH 12, 2023
DRAWN BY RHV
CHECKED BY LMM
BRW PROJECT NUMBER 22300500

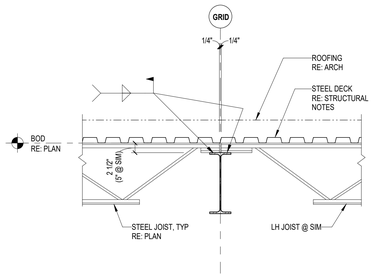
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

NO.	REVISION	DATE
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	95% CD	01/26/2024
	ISSUE FOR PERMIT	02/12/2024
2	ISSUE FOR BID	06/13/2025

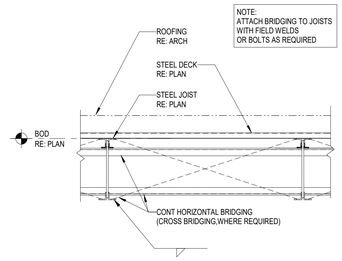
S503

TYPICAL COMPOSITE FRAMING DETAILS

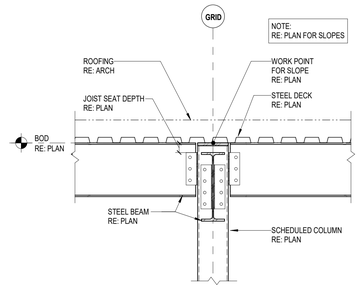
1 TYPICAL ROOF SECTION
3/4" = 1'-0"



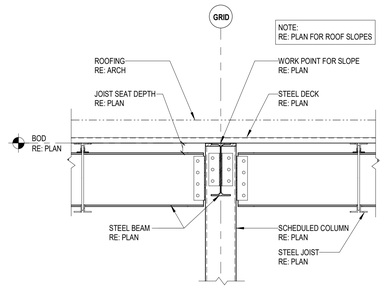
2 TYPICAL ROOF SECTION
3/4" = 1'-0"



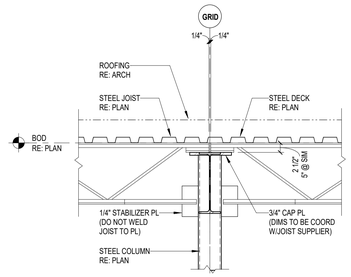
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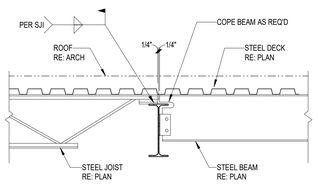
4 TYPICAL ROOF SECTION
3/4" = 1'-0"



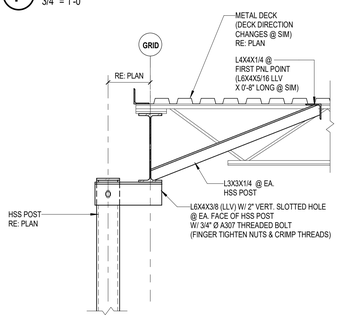
5 TYPICAL ROOF SECTION
3/4" = 1'-0"



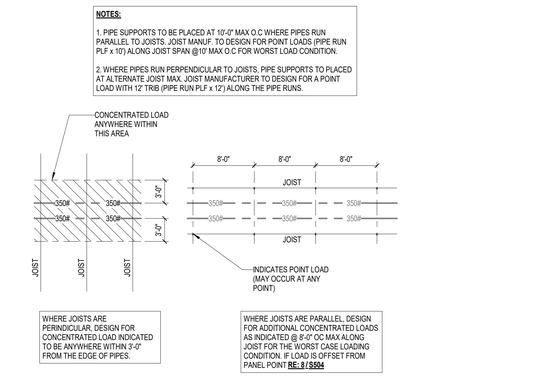
6 TYPICAL ROOF SECTION
3/4" = 1'-0"



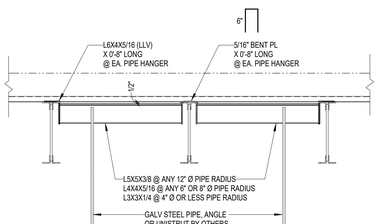
7 TYPICAL ROOF OPENING
3/4" = 1'-0"



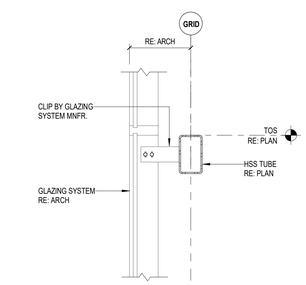
8 LOAD OFFSET FROM JOIST PNL POINT
3/4" = 1'-0"



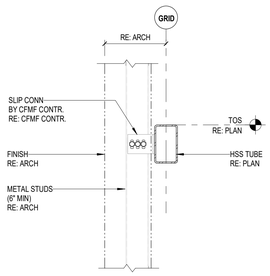
9 TYPICAL ROOF SECTION
3/4" = 1'-0"



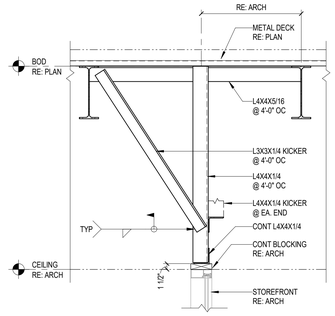
10 TYPICAL HSS POST CONN.
3/4" = 1'-0"



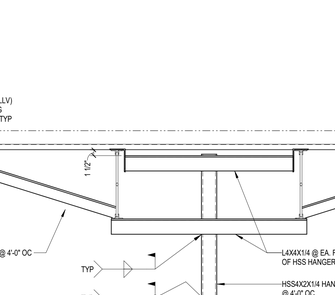
11 TYP MID SPAN CFMF SUPPORT
3/4" = 1'-0"



12 TYP GLAZING SUPPORT AT ROOF
3/4" = 1'-0"



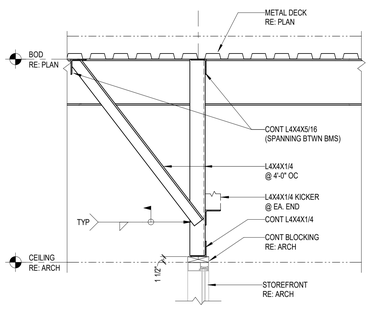
13 TYPICAL PIPE LOADING DIAGRAM
1/8" = 1'-0"



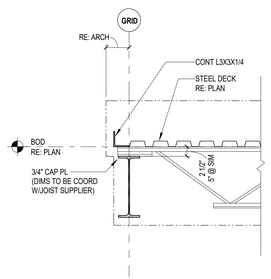
14 TYPICAL PIPE HANGER DETAIL
3/4" = 1'-0"

15 TYP MID SPAN GLAZING SUPPORT
3/4" = 1'-0"

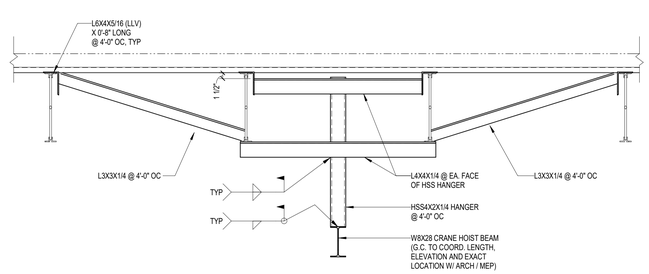
16 TYP GLAZING SUPPORT AT ROOF
3/4" = 1'-0"



17 TYPICAL ROOF SECTION
3/4" = 1'-0"



18 CRANE SUPPORT DETAIL
3/4" = 1'-0"



FRED DALLY 99914 REGISTERED ENGINEER
06/13/2025

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SUITE 250 BUILDING 4
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214.361.3800
WWW.BRWARCH.COM

Dally + ASSOCIATES STRUCTURAL | CIVIL
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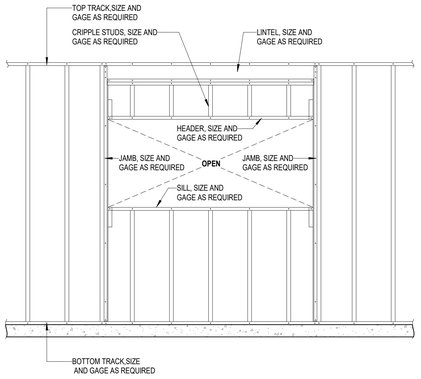
DATE	MARCH 12, 2023
DRAWN BY	RHW
CHECKED BY	LMM
BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL IMPROVEMENTS
10303 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

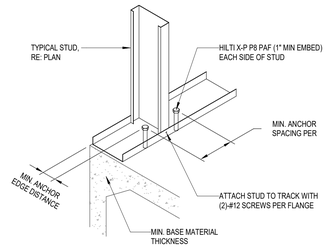
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S504

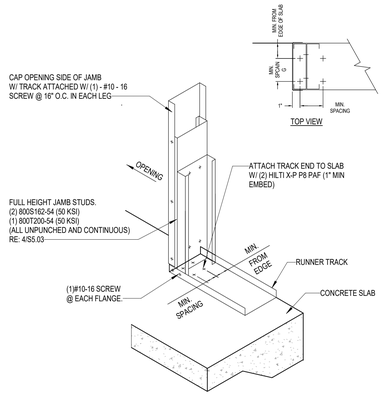
TYPICAL ROOF FRAMING DETAILS



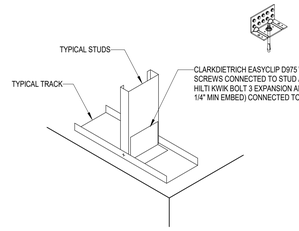
1 TYPICAL WALL OPENING ELEVATION
3/4" = 1'-0"



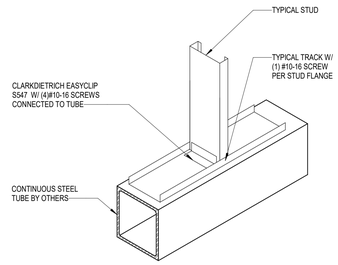
2 BASE CONNECTION TO SLAB
3/4" = 1'-0"



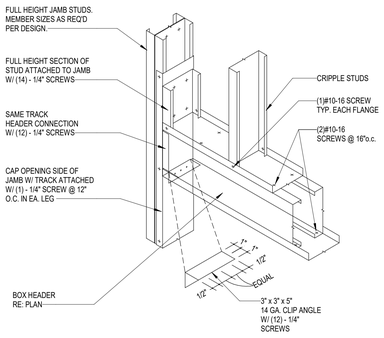
3 KING POST ANCHORAGE 1
3/4" = 1'-0"



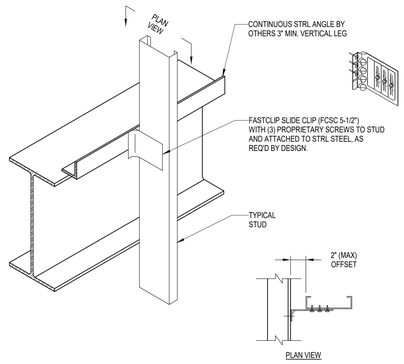
4 KING POST ANCHORAGE 2
3/4" = 1'-0"



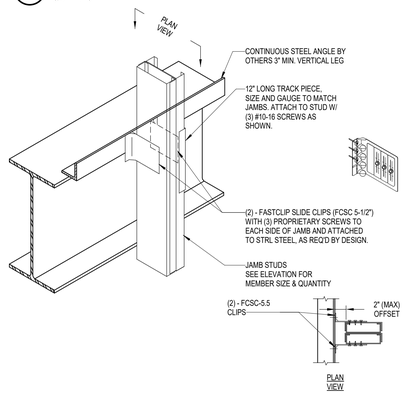
5 BASE CONNECTION TO HSS BEAM
3/4" = 1'-0"



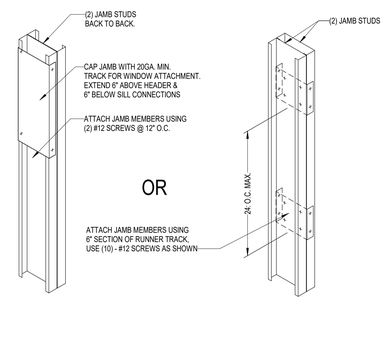
6 BOXED HDR CONNECTION
3/4" = 1'-0"



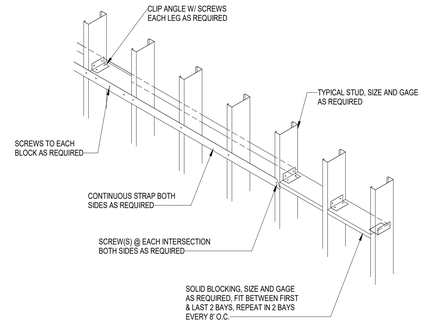
7 STUD CONNECTION W/ FCSC CLIP
3/4" = 1'-0"



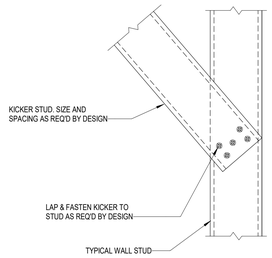
8 KING POST CONNECTION W/ FCSC CLIP
3/4" = 1'-0"



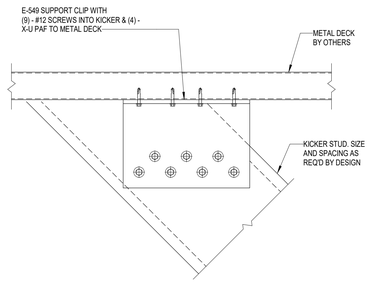
9 TIED JAMB STUDS
3/4" = 1'-0"



10 UNPUNCHED STUDS BRACING
3/4" = 1'-0"



11 KICKER CONNECTION TO STUD
3/4" = 1'-0"



12 KICKER CONNECTION TO DECK
3/4" = 1'-0"

FRED DALLY 99904 REGISTERED PROFESSIONAL ENGINEER
06/13/2025

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4301 MAGNOLIA COVE DRIVE
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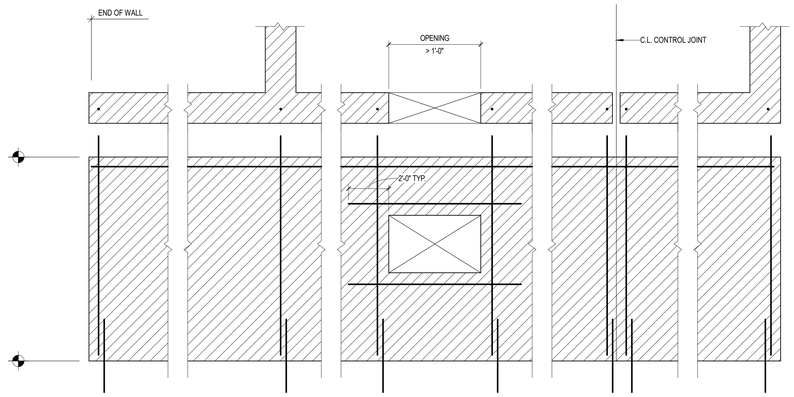
DATE MARCH 12, 2023
DRAWN BY RHV
CHECKED BY LMM
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

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S505

TYPICAL COLD FORMED METAL FRAMING DETAILS



TYPICAL REINFORCED MASONRY NOTES

TYPICAL HORIZONTAL AND VERTICAL REINFORCING BARS SHALL BE AS NOTED ON THE PLAN SHEET. ADDITIONAL REINFORCING SHALL BE AS FOLLOWS

1. (2) #5 VERTICAL REINFORCING BARS SHALL BE PROVIDED, CONTINUOUSLY FROM SUPPORT TO SUPPORT (FINISHED FLOOR TO ROOF) AT:

   A. WITHIN 8" OF EACH END OF WALL
   B. EACH WALL INTERSECTION
   C. WITHIN 16" OF EACH SIDE OF A MASONRY OPENING.
   D. WITHIN 8" OF EACH SIDE OF A MASONRY MOVEMENT JOINTS
   E. EACH CORNER OF THE BUILDING
   F. AT 32" OC, FULL HEIGHT

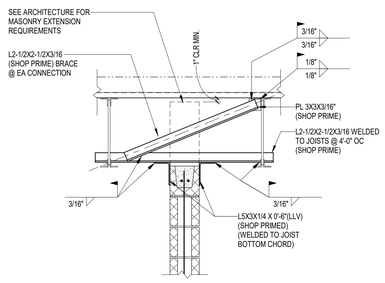
2. (2) #5 HORIZONTAL REINFORCING BARS SHALL BE PROVIDED AT:

   A. TOP AND BOTTOM OF MASONRY OPENINGS
   B. FLOOR AND ROOF LEVELS, CONTINUOUS
   C. WITHIN 16" OF THE TOP OF MASONRY WALLS, CONTINUOUS.
   D. 6'-0" OC

QC NOTE:
DO NOT LOCATE CONTROL JOINTS WITHIN HALF THE LENGTH OF THE LINTEL (2'-0" MIN) ADJACENT TO THE ROUGH OPENING.

ALL HORIZONTAL REINFORCING WILL BE CONTINUOUS ACROSS CONTROL JOINTS

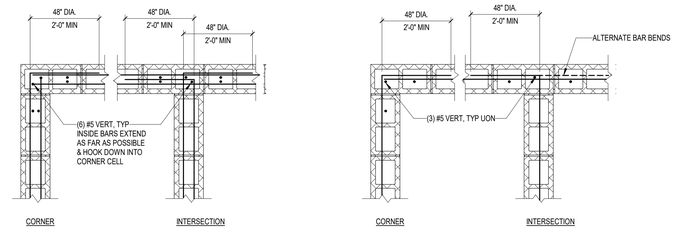
1 TYPICAL CMU WALL ELEVATION
3/4" = 1'-0"



NOTE:

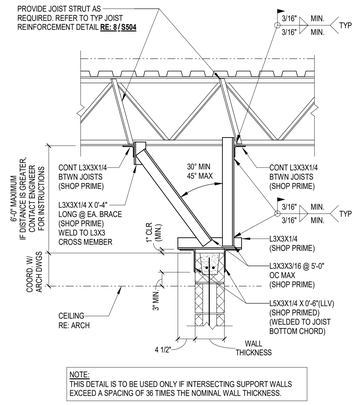
1. THIS DETAIL IS TO BE USED ONLY IF INTEGRAL INTERSECTING SUPPORT WALLS AT EACH END EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS.

2 TYPICAL CMU WALL REINFORCING AT INTERSECTIONS
3/4" = 1'-0"



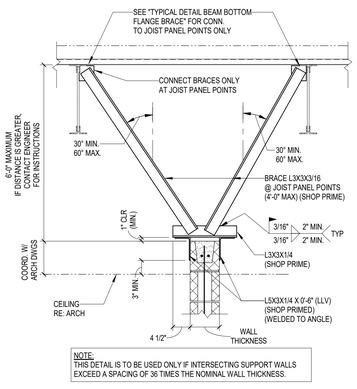
DOUBLE CURTAIN **SINGLE CURTAIN**

3 TOP OF CMU BRACING AT JOISTS
3/4" = 1'-0"



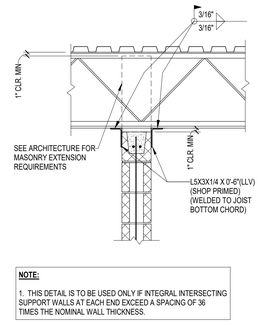
NOTE:
THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS.

4 TOP OF CMU BRACING AT JOISTS
3/4" = 1'-0"



NOTE:
THIS DETAIL IS TO BE USED ONLY IF INTERSECTING SUPPORT WALLS EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS.

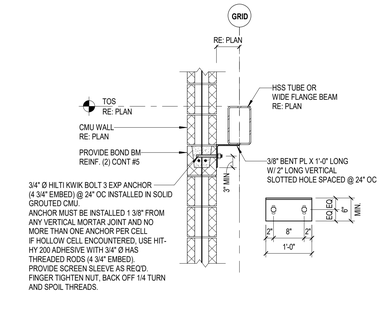
5 TOP OF CMU BRACING AT JOISTS
3/4" = 1'-0"



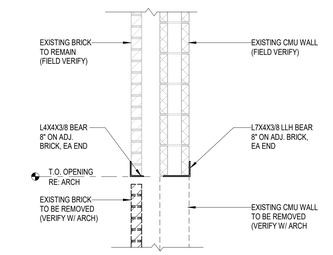
NOTE:

1. THIS DETAIL IS TO BE USED ONLY IF INTEGRAL INTERSECTING SUPPORT WALLS AT EACH END EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS.

6 TOP OF CMU BRACING AT JOISTS
3/4" = 1'-0"



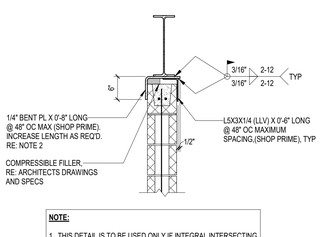
7 CMU CLIP TO STEEL BEAM
3/4" = 1'-0"



NOTE:

1. THIS DETAIL IS TO BE USED ONLY IF INTEGRAL INTERSECTING SUPPORT WALLS AT EACH END EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS.
2. DO NOT USE THIS DETAIL AT POST-TENSIONED SLABS.
3. FOR 4" PARTITIONS GREATER THAN 9'-0" TALL, REDUCE CONNECTION SPACING TO 3'-6".

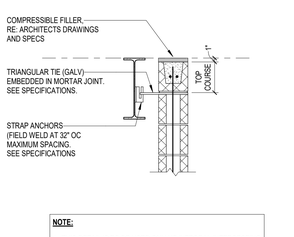
8 TOP OF CMU BRACING AT COMP. DECK
3/4" = 1'-0"



NOTE:

1. THIS DETAIL IS TO BE USED ONLY IF INTEGRAL INTERSECTING SUPPORT WALLS AT EACH END EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS.
2. FOR 4" PARTITIONS GREATER THAN 9'-0" TALL, REDUCE CONNECTION SPACING TO 3'-6".

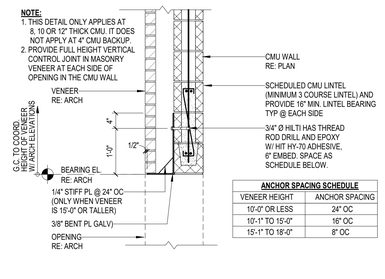
9 TOP OF CMU BRACING AT WIDE FLANGE BEAM
3/4" = 1'-0"



NOTE:

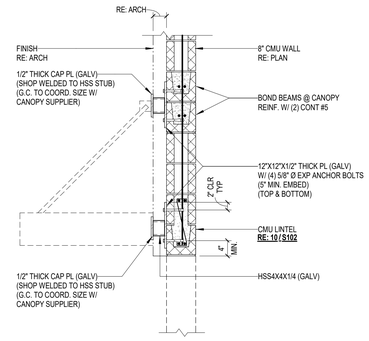
1. THIS DETAIL IS TO BE USED ONLY IF INTEGRAL INTERSECTING SUPPORT WALLS AT EACH END EXCEED A SPACING OF 36 TIMES THE NOMINAL WALL THICKNESS.

10 TOP OF CMU BRACING AT OFFSET WALL
3/4" = 1'-0"

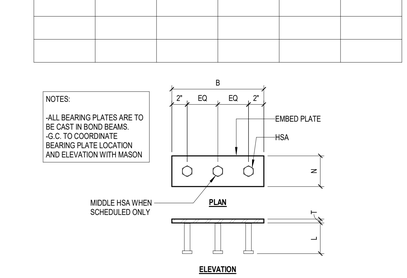


ANCHOR SPACING SCHEDULE	
VENEER HEIGHT	ANCHOR SPACING
10'-0" OR LESS	24" OC
10'-1" TO 15'-0"	16" OC
15'-1" TO 18'-0"	8" OC

11 MASONRY VENEER LINTEL (OPENINGS 10'-0" OR WIDER)
3/4" = 1'-0"



12 CANOPY SUPPORT AT ARCH FINISH
3/4" = 1'-0"



13 STEEL LINTEL AT EXISTING CMU
3/4" = 1'-0"

BEARING PLATE SCHEDULE

MARK	EMBED PLATE			HEADED STUD ANCHOR	
	B	N	T	SIZE & QUANTITY	L
BP1	7.5"	7.5"	3/8"	(2) 5/8" Ø	6"

NOTES:
-ALL BEARING PLATES ARE TO BE CAST IN BOND BEAMS.
-G.C. TO COORDINATE BEARING PLATE LOCATION AND ELEVATION WITH MASON

14 BEARING PLATE SCHEDULE
1 1/2" = 1'-0"

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LAGO VISTA, TEXAS 78645
281.301.3800
WWW.BRWARCH.COM

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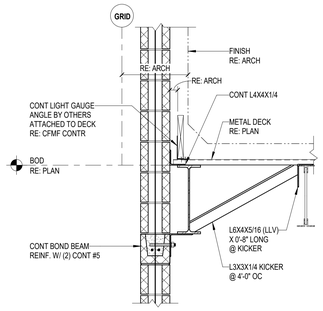
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CHECKED BY	LMM
BRW PROJECT NUMBER	22300500

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TIMBERWOOD MIDDLE SCHOOL IMPROVEMENTS
10203 BIRCHRIDGE DRIVE HUMBLE, TX 77338

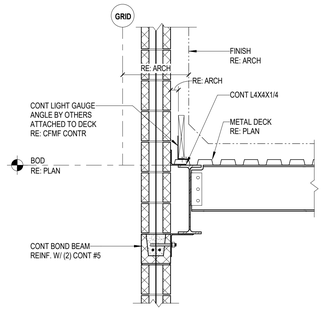
NO.	REVISION	DATE
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S506

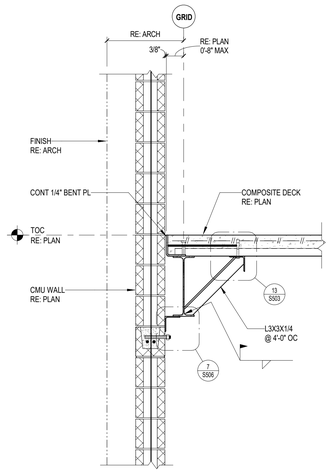
TYPICAL CMU DETAILS



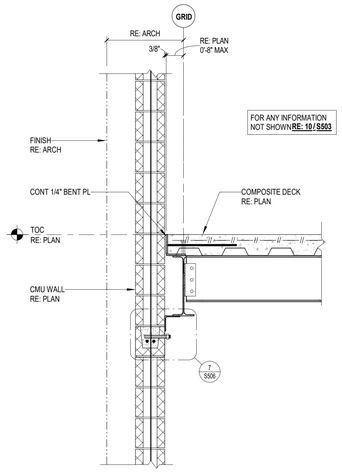
1 ROOF SECTION
3/4" = 1'-0"



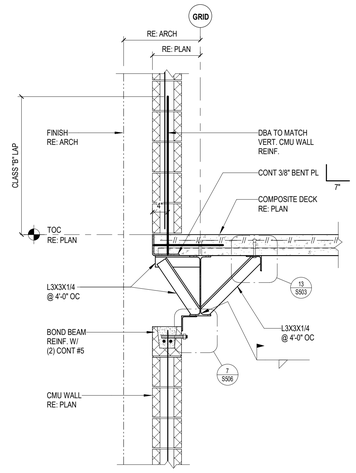
2 ROOF SECTION
3/4" = 1'-0"



3 SECTION
3/4" = 1'-0"

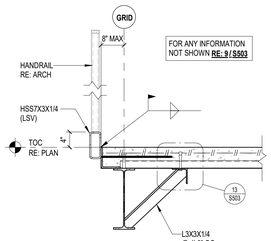


4 SECTION
3/4" = 1'-0"

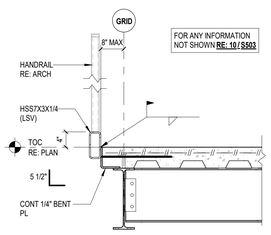


5 SECTION
3/4" = 1'-0"

6 SECTION
3/4" = 1'-0"



7 COMPOSITE DECK AT HANDRAIL
3/4" = 1'-0"



8 COMPOSITE DECK AT HANDRAIL
3/4" = 1'-0"

9 SECTION
3/4" = 1'-0"

10 Section 61
3/4" = 1'-0"

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
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WWW.BRWARCH.COM

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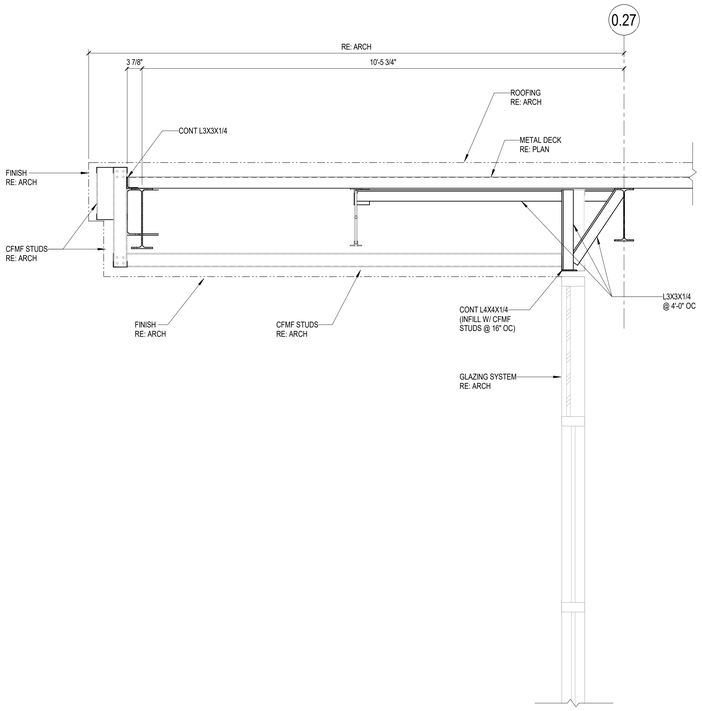
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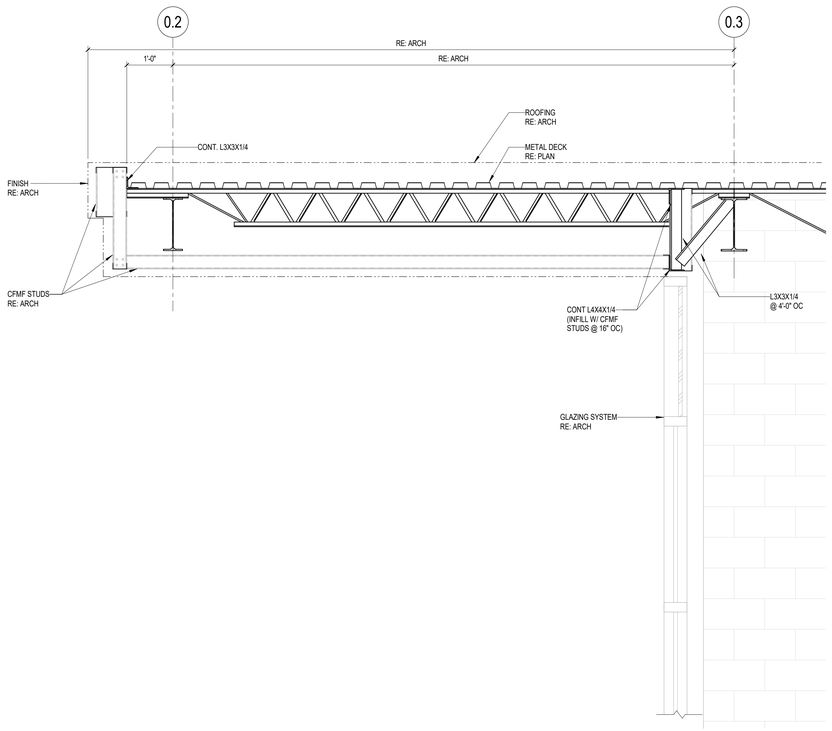
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TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
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HUMBLE, TX 77338

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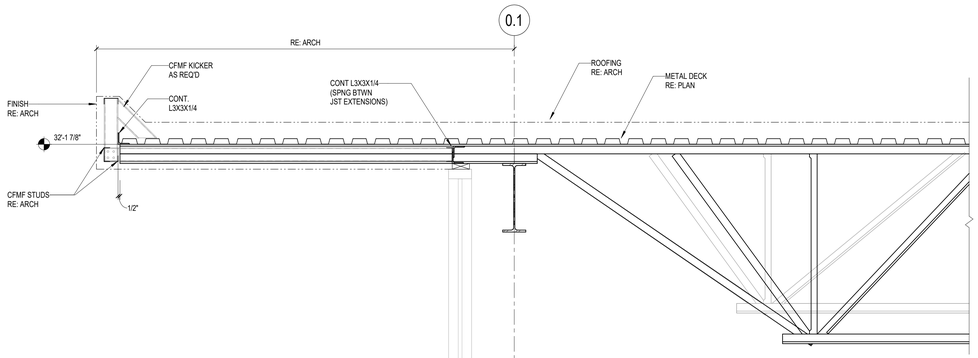
S601
COMPOSITE FRAMING DETAILS

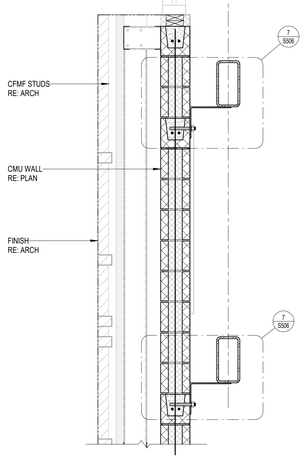


1 SECTION
3/4" = 1'-0"

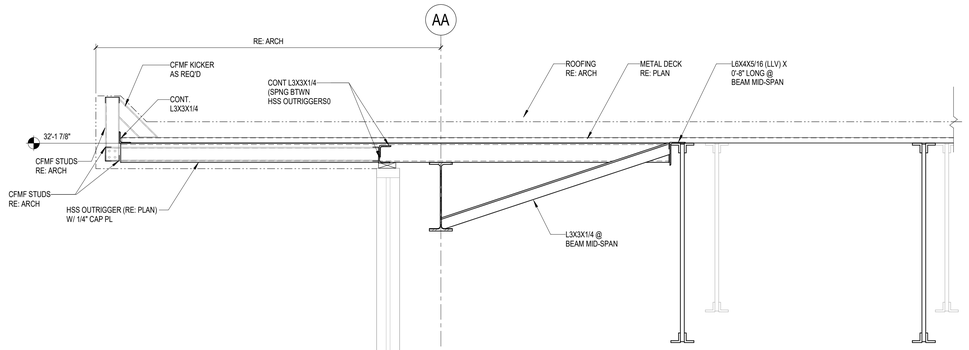


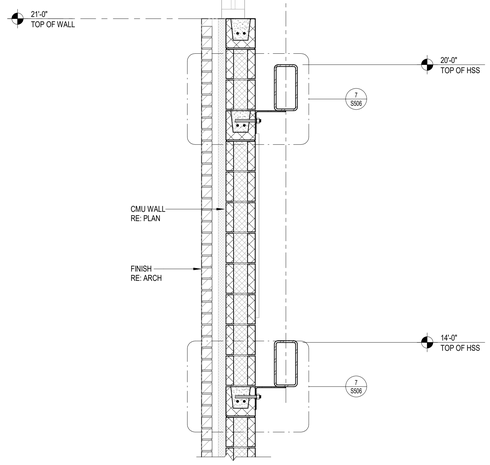
2 SECTION
3/4" = 1'-0"





3 SECTION
3/4" = 1'-0"





4 SECTION
3/4" = 1'-0"

FRED DALLY
99904
REGISTERED
PROFESSIONAL
ENGINEER
06/13/2025

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ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LAKE JACKSON, TEXAS 77345
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WWW.BRWARCH.COM

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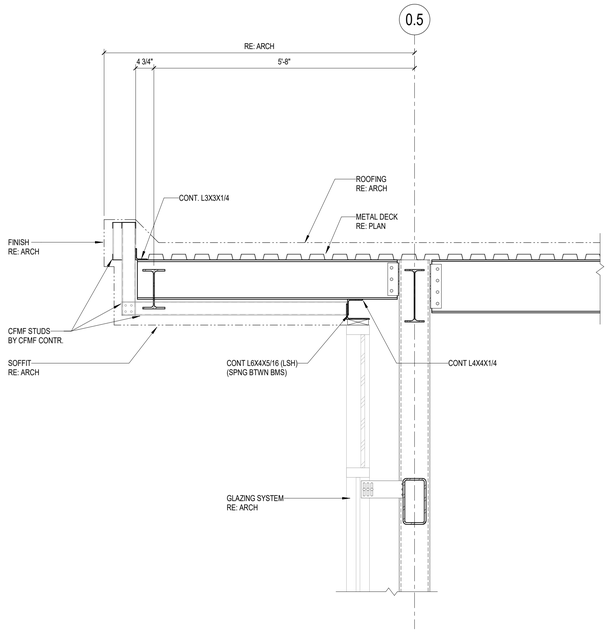
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

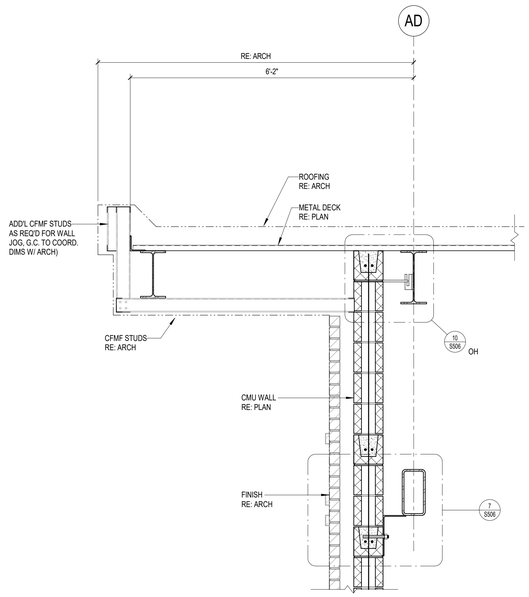
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S701

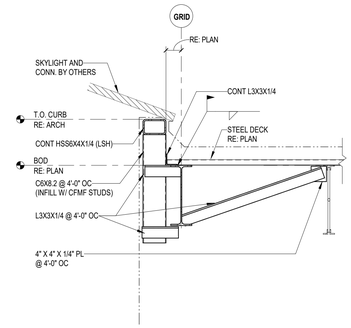
ROOF FRAMING DETAILS



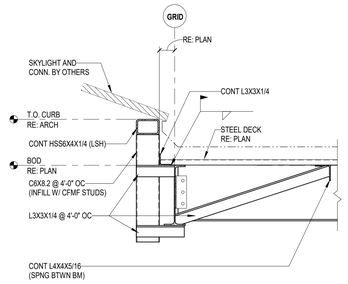
1 SECTION
3/4" = 1'-0"



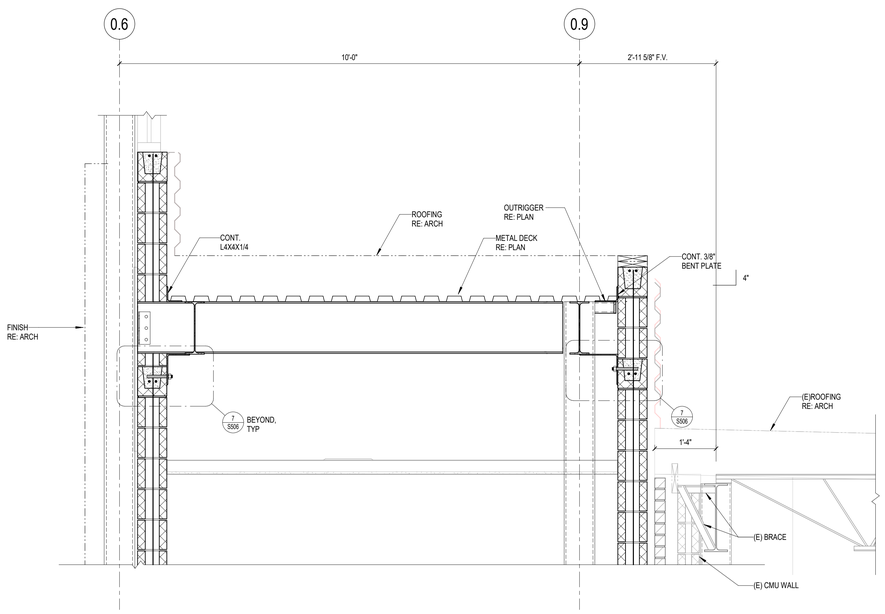
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3/4" = 1'-0"



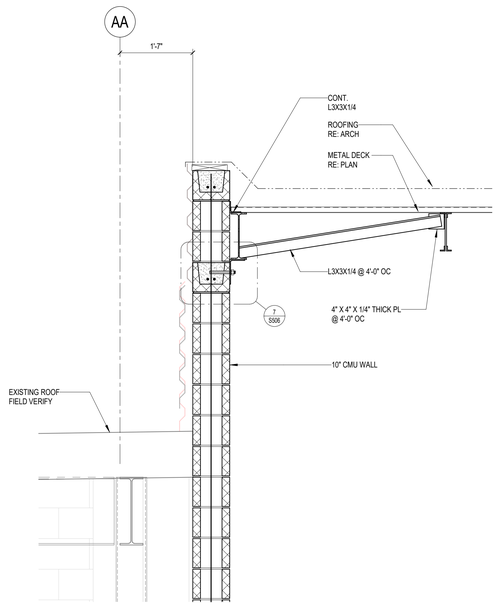
3 SECTION
3/4" = 1'-0"



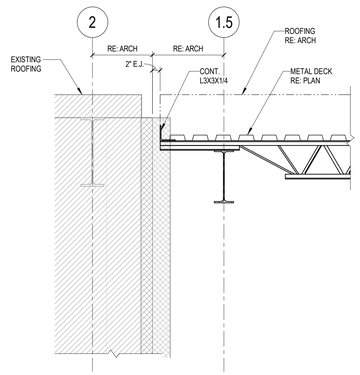
4 SECTION
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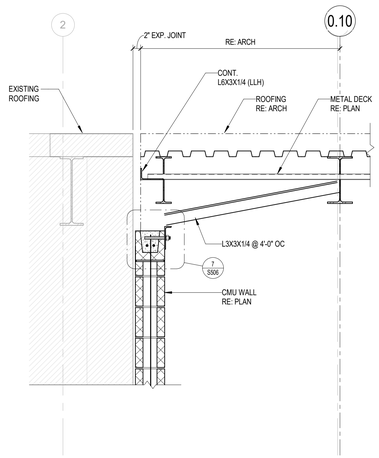
5 SECTION
3/4" = 1'-0"



6 SECTION
3/4" = 1'-0"



7 SECTION
3/4" = 1'-0"



8 SECTION
3/4" = 1'-0"

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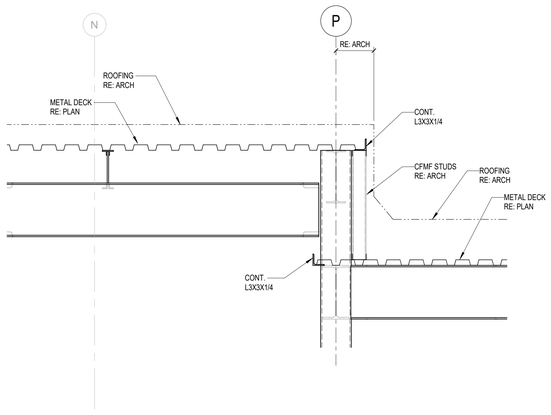
DATE	MARCH 12, 2023
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BRW PROJECT NUMBER	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
IMPROVEMENTS
10303 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

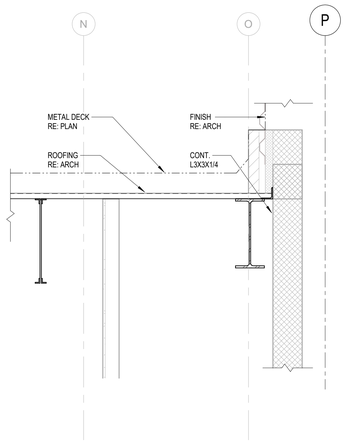
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S702

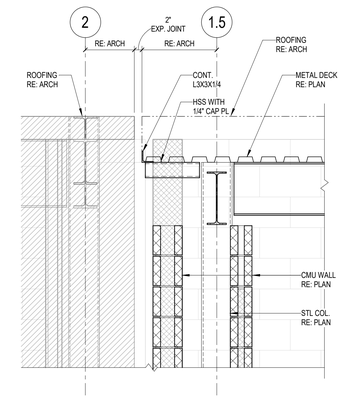
ROOF FRAMING DETAILS



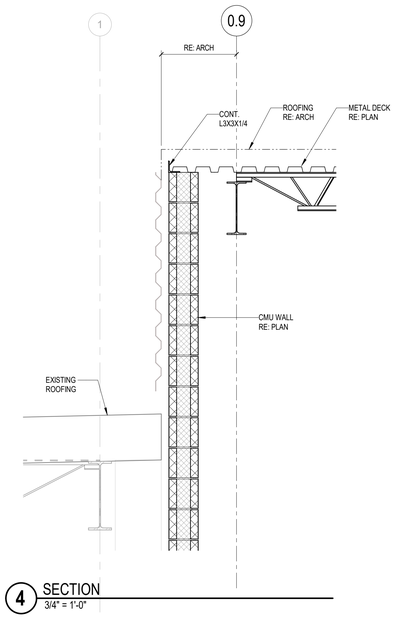
1 SECTION
3/4" = 1'-0"



2 SECTION
3/4" = 1'-0"



3 SECTION
3/4" = 1'-0"



4 SECTION
3/4" = 1'-0"

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SUITE 250 BUILDING 4
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2	ISSUE FOR BID	06/13/2025

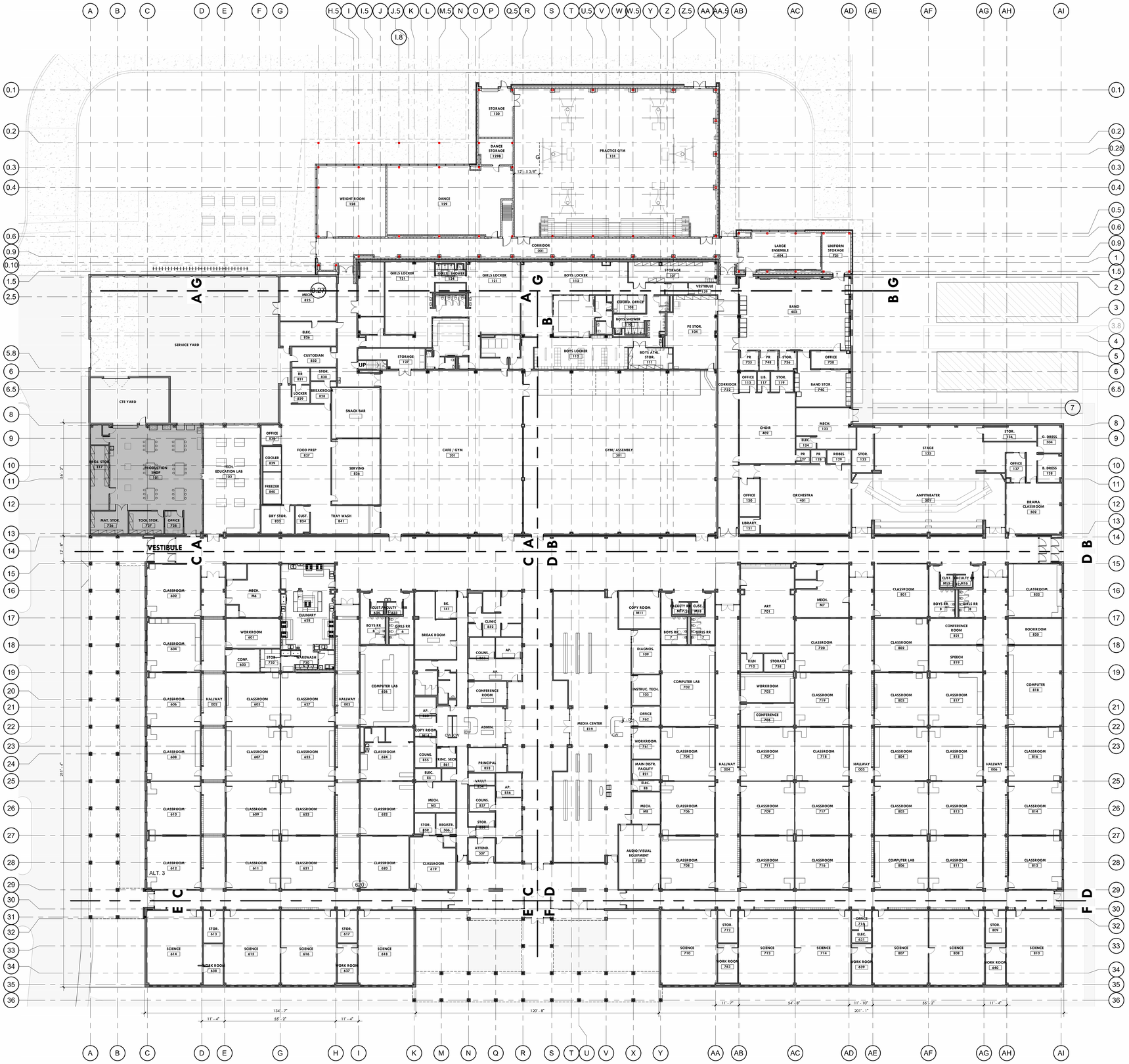
HUMBLE ISD
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IMPROVEMENTS
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S703

ROOF FRAMING DETAILS



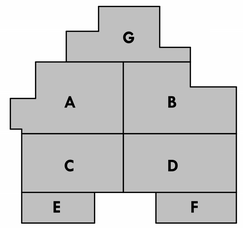
1 COMPOSITE FLOOR PLAN

1" = 20'-0"

PLAN NORTH

TRUE NORTH

KEY PLAN



JEFFREY S. CHOATE 76762 REGISTERED ARCHITECT STATE OF TEXAS

2/23/24

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SUITE 250 BUILDING 6
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

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DATE FEBRUARY 23, 2024
DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

A0.1

COMPOSITE FLOOR PLAN



1 DEMOLITION PLAN - AREA A

1/8" = 1'-0"

PLAN NORTH / TRUE NORTH

KEYNOTES

0220.69	EXISTING LIGHT FIXTURE
0220.76	EXISTING EMERGENCY EXIT SIGN
0220.77	EXISTING EXPOSED FIRE EXTINGUISHER
0220.101	EXISTING WASH STATION
0220.108	PROTECT/ REPAINT EXISTING DOOR
0240.17	REMOVE EXISTING BASE CABINET
0240.18	REMOVE EXISTING WALL CABINET
0240.19	REMOVE EXISTING DOOR AND FRAME
0240.23	REMOVE PORTION OF EXISTING WALL
0240.27	REMOVE EXISTING FLOORING AND WALL BASE
0240.28	REMOVE EXISTING LIGHT FIXTURE
0240.29	REMOVE EXISTING SECURITY CAMERA
0240.32	CAREFULLY REMOVE AND SALVAGE EXISTING WALL AND CEILING MOUNTED DEVICES INCLUDING FIRE ALARM DEVICES, CLOCKS, SPEAKERS, AND WIRELESS ACCESS DEVICES. REINSTALL DEVICES AT NEW WALLS AND CEILINGS
0240.46	REMOVE METAL SHELVING
0240.48	REFINISH AND SALVAGE EXISTING WORK STATION
0240.49	REMOVE AND SALVAGE EXISTING DISPLAY CASE
0240.50	REMOVE AND SALVAGE EXISTING SAWS
0240.53	REMOVE EXISTING WALL HYDRANT
0240.55	RELOCATE EXISTING OVERFLOW DRAIN OUTLET. (RE: PLUMBING)
0240.56	REMOVE EXISTING WATER FOUNTAIN (RE: PLUMBING)
0240.57	REMOVE EXISTING WORK STATION
0240.58	REMOVE EXISTING TACK/ DRY ERASE BOARD
0240.93	REMOVE EXISTING DESK
0240.94	DEMOLISH EXISTING CONCRETE FOR NEW ELECTRICAL
0240.97	REMOVE EXISTING COUNTERTOP AND CABINETS
0240.102	REMOVE EXISTING FLOOR AS REQUIRED
0240.103	REMOVE EXISITNG ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM AS REQUIRED (RE:MEP)
0240.104	REMOVE EXISTING LIGHT FIXTURE AS REQUIRED (RE:MEP)
0240.105	DEMOLISH EXISTING EXTERIOR WALL TO MAKE ROOM FOR NEW WINDOW SYSTEM (RE:A2.1A)
0240.116	REMOVE FLOORING AND SAWCUT SLAB FOR NEW PLUMBING, (RE: PLUMBING)
0240.117	MODIFY ROOF AND STRUCTURE ABOVE AS REQUIRED TO ACCOMMODATE NEW SKYLIGHTS IN THIS ROOM. REFER TO ROOF PLAN AND RCP FOR NEW SKYLIGHT LOCATIONS
0240.119	REMOVE EXISTING PORTION OF WALL

PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

DEMOLITION

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING BUILDING IN FIELD.

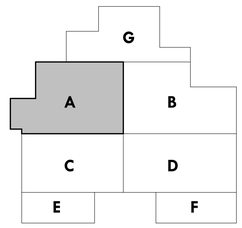
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4. PROTECT FROM CONSTRUCTION ACTIVITIES THE PATH TO THE AREA OF WORK AND ANY CONSTRUCTION ADJACENT TO THE AREA OF WORK.

5. REMOVE EXISTING CEILING GRID AND TILE AT LOCATIONS SCHEDULED TO RECEIVE NEW AND AS REQUIRED TO ACCOMPLISH ABOVE CEILING WORK. SALVAGE CEILING TILES WITHOUT ARTWORK FOR REUSE.

KEY PLAN



JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.1800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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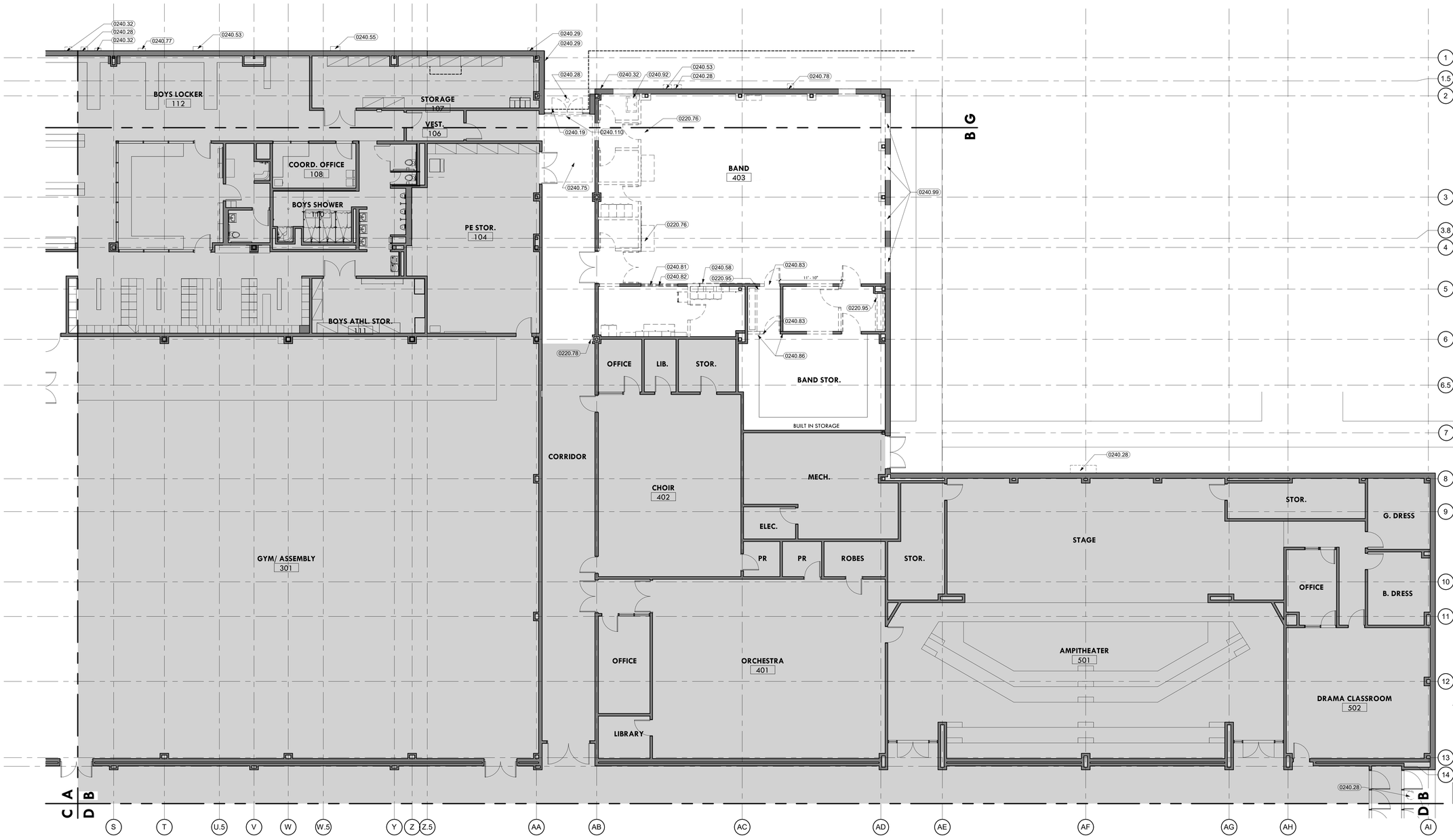
DATE FEBRUARY 23, 2024
DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

A1.1A

DEMOLITION PLAN - AREA A

KEYNOTES

0220.76	EXISTING EMERGENCY EXIT SIGN
0220.78	EXISTING RECESSED FIRE EXTINGUISHER
0220.95	EXISTING BUILT IN INSTRUMENT STORAGE TO REMAIN
0240.19	REMOVE EXISTING DOOR AND FRAME
0240.28	REMOVE EXISTING LIGHT FIXTURE
0240.29	REMOVE EXISTING SECURITY CAMERA
0240.32	CAREFULLY REMOVE AND SALVAGE EXISTING WALL AND CEILING MOUNTED DEVICES INCLUDING FIRE ALARM DEVICES, CLOCKS, SPEAKERS, AND WIRELESS ACCESS DEVICES. REINSTALL DEVICES AT NEW WALLS AND CEILINGS
0240.53	REMOVE EXISTING WALL HYDRANT
0240.55	RELOCATE EXISTING OVERFLOW DRAIN OUTLET. (RE: PLUMBING)
0240.58	REMOVE EXISTING TACK/ DRY ERASE BOARD
0240.75	REMOVE EXISTING WALK OFF CARPET
0240.77	REMOVE EXISTING ELECTRICAL OUTLET
0240.78	RELOCATE EXISTING ELECTRICAL CONDUIT
0240.81	DEMOLISH EXISTING WINDOW
0240.82	DEMOLISH SPACE FOR NEW DOOR (RE: A2.1B)
0240.83	DEMOLISH OUT 3' DOOR FOR NEW 42" DOOR AND WALL AS NEEDED
0240.86	RELOCATE EXISTING LIGHT SWITCH TO PLAN RIGHT SIDE OF DOOR
0240.92	REMOVE EXISTING SINK
0240.99	DEMOLISH EXISTING MASONRY WALL TO PREPARE FOR WINDOW INSTALLATION
0240.110	REMOVE EXISTING EXIT SIGN



PLAN LEGEND

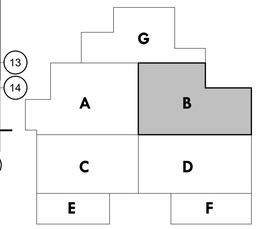
EXISTING CONSTRUCTION TO REMAIN

DEMOLITION

GENERAL NOTES

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KEY PLAN



PLAN NORTH / TRUE NORTH

1 DEMOLITION PLAN - AREA B

1/8" = 1'-0"

REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
MISSOURI CITY, TEXAS 77345
281.301.1380
WWW.BRWARCH.COM

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BRW PROJECT NUMBER	223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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A1.1B

DEMOLITION PLAN - AREA B



KEYNOTES

0220.39	EXISTING COUNTERTOP
0220.53	EXISTING LOCKERS
0220.69	EXISTING LIGHT FIXTURE
0220.77	EXISTING EXPOSED FIRE EXTINGUISHER
0220.78	EXISTING RECESSED FIRE EXTINGUISHER
0220.80	EXISTING ELECTRICAL OUTLET
0220.81	EXISTING TACK/DRY ERASE BOARD
0220.82	EXISTING LIGHT SWITCHES
0220.85	EXISTING WALL MOUNTED CUBBIE
0220.87	EXISTING OPERABLE WALL
0220.89	EXISTING DRY ERASE BOARD
0220.105	EXISTING PROJECTION SCREEN
0220.106	EXISTING DESK
0240.24	REMOVE EXISTING GYPSUM BOARD CEILING
0240.26	REMOVE EXISTING ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM
0240.28	REMOVE EXISTING LIGHT FIXTURE
0240.79	RELOCATE EXISTING DRY ERASE BOARD
0240.93	REMOVE EXISTING DESK
0240.102	REMOVE EXISTING FLOOR AS REQUIRED
0240.103	REMOVE EXISITNG ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM AS REQUIRED (RE:MEP)
0240.104	REMOVE EXISTNG LIGHT FIXTURE AS REQUIRED (RE:MEP)
0240.112	REFER TO MEPT FOR ABOVE CEILING WORK IN THIS AREA.
0240.116	REMOVE FLOORING AND SAWCUT SLAB FOR NEW PLUMBING. (RE: PLUMBING)
0240.120	REMOVE AND SALVAGE EXISTING TEACHER DESK
0240.123	REMOVE EXISTING FIRE ALARM CONTROL PANEL

PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

DEMOLITION

GENERAL NOTES

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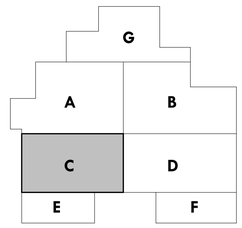
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KEY PLAN



PLAN NORTH / TRUE NORTH

1 DEMOLITION PLAN - AREA C

1/8" = 1'-0"

REGISTERED ARCHITECT
JEFFREY S. CHANCE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MCKINNEY, TEXAS 77345
(972) 521-1300
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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A1.1C

DEMOLITION PLAN - AREA C



KEYNOTES

0220.39	EXISTING COUNTERTOP
0220.53	EXISTING LOCKERS
0220.78	EXISTING RECESSED FIRE EXTINGUISHER
0220.80	EXISTING ELECTRICAL OUTLET
0220.81	EXISTING TACK/DRY ERASE BOARD
0220.82	EXISTING LIGHT SWITCHES
0220.83	EXISTING COUNTERTOP
0220.87	EXISTING OPERABLE WALL
0220.89	EXISTING DRY ERASE BOARD
0220.90	EXISTING TACK BOARD
0220.103	EXISTING TALL TEACHER'S CABINET
0220.105	EXISTING PROJECTION SCREEN
0220.106	EXISTING DESK
0240.24	REMOVE EXISTING GYPSUM BOARD CEILING
0240.26	REMOVE EXISTING ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM
0240.28	REMOVE EXISTING LIGHT FIXTURE
0240.52	REMOVE EXISTING TROPHY CASE
0240.58	REMOVE EXISTING TACK/ DRY ERASE BOARD
0240.80	REMOVE WALL MOUNTED BOX, OUTLET TO BE RELOCATED UNDER DESK
0240.90	REMOVE EXISTING DRY ERASE BOARD
0240.103	REMOVE EXISITNG ACOUSTICAL TILE CEILING AND SUSPENSION SYSTEM AS REQUIRED (RE:MEP)
0240.104	REMOVE EXISTNG LIGHT FIXTURE AS REQUIRED (RE:MEP)

PLAN LEGEND

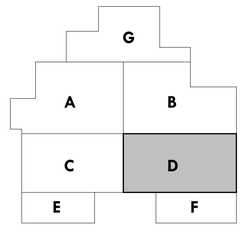
EXISTING CONSTRUCTION TO REMAIN

DEMOLITION

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KEY PLAN



PLAN NORTH / TRUE NORTH

1 DEMOLITION PLAN - AREA D

1/8" = 1'-0"

REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
HUMBLE, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

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BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

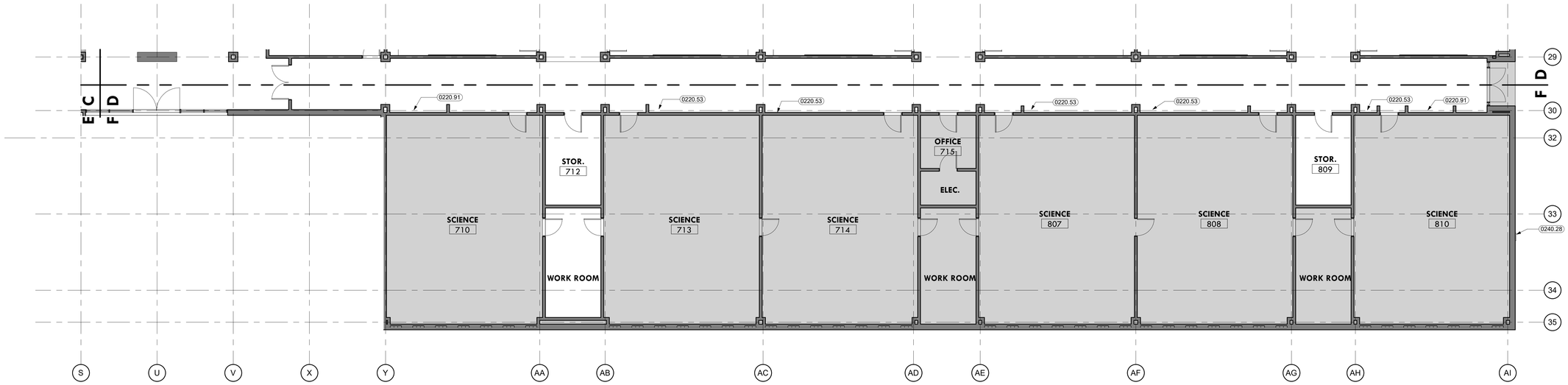
NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A1.1D

DEMOLITION PLAN - AREA D

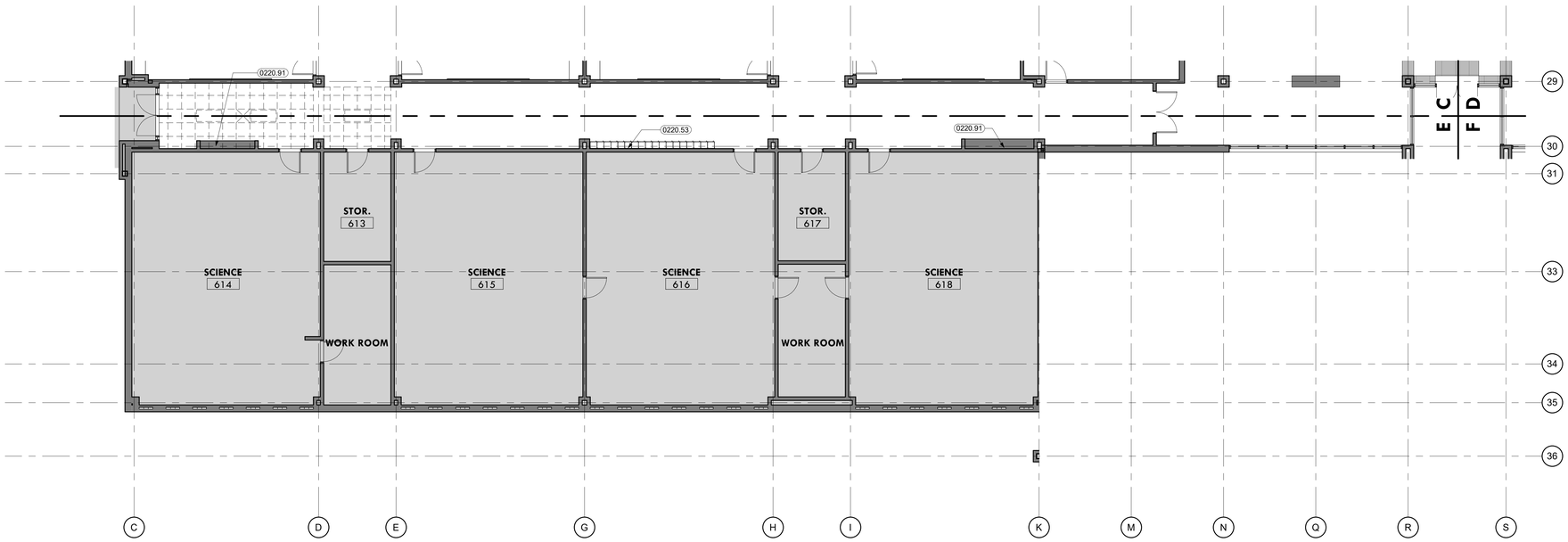
KEYNOTES

0220.53	EXISTING LOCKERS
0220.91	EXISTING TROPHY CASE
0240.28	REMOVE EXISTING LIGHT FIXTURE



2 DEMOLITION PLAN - AREA F

1/8" = 1'-0"



1 DEMOLITION PLAN - AREA E

1/8" = 1'-0"

PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

DEMOLITION

GENERAL NOTES

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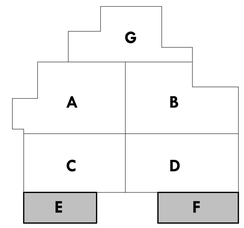
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KEY PLAN



REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

BRW

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

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DATE FEBRUARY 23, 2024

DRAWN BY JTL

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A1.1E&F

DEMOLITION PLAN - AREA E & F

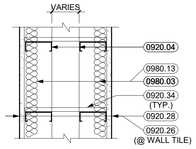
KEYNOTES

0360.03	FILL WITH GROUT
0420.02	CONCRETE MASONRY UNIT HORIZONTAL REINFORCING
0420.13	6" CONCRETE MASONRY UNITS
0420.14	8" CONCRETE MASONRY UNITS
0420.18	12" CONCRETE MASONRY UNITS
0920.04	3 5/8" METAL STUDS (20 GAUGE MINIMUM) AT 16" O.C.
0920.05	4" METAL STUDS AT 16" O.C.
0920.07	6" METAL STUDS (20 GAUGE MINIMUM) AT 16" O.C.
0920.10	7/8" FURRING CHANNELS AT 16" O.C.
0920.11	1/2" RESILIENT CHANNELS AT 16" O.C. HORIZONTAL
0920.13	4" METAL C-H STUDS AT 2'-0" O.C.
0920.26	5/8" CEMENTITIOUS BACKER BOARD
0920.28	5/8" GYPSUM BOARD (TYPE X)
0920.32	2 LAYERS OF 1/2" GYPSUM BOARD
0920.33	1" SHAFT LINER
0920.34	GYPSUM BOARD GUSSETS AT 16" O.C. VERTICALLY
0930.01	CERAMIC TILE
0980.03	1" THICK, FABRIC-WRAPPED ACOUSTICAL WALL PANELS
0980.13	SUSPENDED ACOUSTICAL PANELS

D SERIES

NON COMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U420 WHER NOTED.



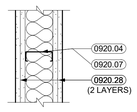
PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
D1	3 5/8" AT 16" O.C.	2' - 2"	TO DECK	1 HOUR	52	1X GYB. BD. LAYERS
D2	3 5/8" AT 16" O.C.	1' - 4"	TO DECK	1 HOUR	52	1X GYB. BD. LAYERS
D3	3 5/8" AT 16" O.C.	2' - 3 1/4"	TO DECK	2 HOUR	57	2X GYB. BD. LAYERS
D4	3 5/8" AT 16" O.C.	1' - 5 1/4"	TO DECK	2 HOUR	57	2X GYB. BD. LAYERS

C SERIES

NON COMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U411 WHERE NOTED.



PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
C1	3 5/8" AT 16" O.C.	6 1/8"	TO DECK	2 HOUR	50	
C2	6" AT 16" O.C.	8 1/2"	TO DECK	2 HOUR	50	

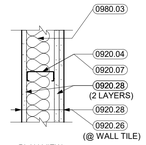
NOTES:

1. CROSS-LAY ALL MULTIPLE GWB LAYERS; JOINTS IN MULTIPLE LAYER ASSEMBLY SHALL NOT BE LAID DIRECTLY OVER EACH OTHER.

B SERIES

NONCOMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U465 WHERE NOTED.



PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
B1	3 5/8" AT 16" O.C.	5 1/2"	TO DECK	1 HOUR	45	
B2	6" AT 16" O.C.	7 7/8"	TO DECK	1 HOUR	45	

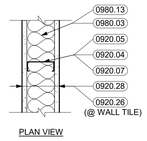
NOTES:

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A SERIES

NONCOMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U465 WHERE NOTED.



PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
A1	3 5/8" AT 16" O.C.	4 7/8"	TO DECK	1 HOUR	40	
A2	3 5/8" AT 8" O.C.	4 7/8"	TO DECK	1 HOUR	40	
A3	3 5/8" AT 16" O.C.	4 7/8"	6" ABOVE CEILING		40	
A4	6" AT 16" O.C.	7 1/4"	TO DECK		40	
A5	3 5/8" AT 16" O.C.	4 7/8"	TO DECK		37	NO BATT INSULATION

K SERIES

NON COMBUSTIBLE

PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
K1	2 1/2" AT 16" O.C.	3 1/8"	6" ABOVE CEILING	N/A		
K2	2 1/2" AT 16" O.C.	3 1/8"	TO DECK	N/A	34	1X GYB. BD. LAYERS
K3	3 5/8" AT 16" O.C.	4 1/4"	6" ABOVE CEILING	N/A		
K4	3 5/8" AT 16" O.C.	4 1/4"	TO DECK	N/A	34	1X GYB. BD. LAYERS
K5	6" AT 16" O.C.	6 5/8"	6" ABOVE CEILING	N/A		
K6	6" AT 16" O.C.	6 5/8"	TO DECK	N/A	34	1X GYB. BD. LAYERS
K7	6" AT 16" O.C.	7 1/4"	TO DECK	N/A	38	2X GYB. BD. LAYERS
K8	2 1/2" AT 16" O.C.	3 3/4"	6" ABOVE CEILING	N/A	38	2X GYB. BD. LAYERS

NOTES:

1. EXTEND GYPSUM BOARD 6" ABOVE ACOUSTICAL CEILING TILE OR STOP AT GYPSUM BOARD CEILING UNLESS NOTED OTHERWISE (ACOUSTICAL INSULATION REQUIREMENTS DO NOT APPLY UNLESS INDICATED ABOVE)

J SERIES

NON COMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U943 WHERE NOTED.

PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
J1	3 5/8" AT 16" O.C.	10 3/4"	TO DECK	2 HOUR	59	2X GYB. BD. LAYERS
J2	3 5/8" AT 16" O.C.	11 3/4"	TO DECK	2 HOUR	61	2X GYB. BD. LAYERS
J3	3 5/8" AT 16" O.C.	9 1/2"	TO DECK	1 HOUR	53	1X GYB. BD. LAYERS
J4	3 5/8" AT 16" O.C.	10 1/2"	TO DECK	1 HOUR	55	1X GYB. BD. LAYERS

NOTES:

1. CROSS-LAY MULTIPLE GWB LAYERS; JOINTS IN MULTIPLE LAYER ASSEMBLY SHALL NOT BE LAID DIRECTLY OVER EACH OTHER
2. DO NOT BRIDGE BETWEEN STUDS.

H SERIES

NON COMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U415 WHERE NOTED.

PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
H1	4" (C-H) AT 24" O.C.	5"	TO DECK	1 HOUR	48	1X GYB. BD. LAYERS
H2	4" (C-H) AT 24" O.C.	5 1/2"	TO DECK	2 HOUR	53	2X GYB. BD. LAYERS
H3	4" (C-H) AT 24" O.C.	6"	TO DECK	3 HOUR	60	3X GYB. BD. LAYERS
H4	4" (C-H) AT 24" O.C.	6 1/2"	TO DECK	4 HOUR	65	4X GYB. BD. LAYERS

E SERIES

NON COMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U937 AND U906 WHERE NOTED.

PLAN VIEW

PTN TYPE	NOMINAL SIZE	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
E1	8" NOM. CMU	7 5/8"	TO DECK	2 HOUR	45	
E2	8" NOM. CMU	7 5/8"	TO DECK	4 HOUR	45	UNGROUTED
E3	8" NOM. CMU	7 5/8"	TO DECK	4 HOUR	55	GROUTED
E4	6" NOM. CMU	5 5/8"	1'-4" ABOVE CEILING	N/A	N/A	UNGROUTED
E5	6" NOM. CMU	5 5/8"	TO DECK	3 1/4 HR	51	GROUTED
E6	12" NOM. CMU	11 5/8"	TO DECK	4 HOUR	49	UNGROUTED
E7	12" NOM. CMU	11 5/8"	TO DECK	4 HOUR	61	GROUTED

GENERAL NOTES:

A. PARTITIONS SHALL BE TYPE "A1" UNLESS OTHERWISE NOTED.

B. ALL ELEMENTS OF ACOUSTICALLY RATED PARTITIONS SHALL EXTEND TO ROOF OR FLOOR DECK ABOVE AND ALL JOINTS AND PENETRATIONS OF ACOUSTICALLY RATED PARTITIONS SHALL BE FILLED AND SEALED.

C. PENETRATIONS IN RATED PARTITIONS AND CONNECTIONS OF THE PARTITIONS TO OTHER PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED DETAILS AND IN COMPLIANCE WITH APPLICABLE TESTING AGENCY REQUIREMENTS.

D. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FACE OF PARTITION FINISH

E. INSTALL BLOCKING OR BACKER MATERIAL FOR ATTACHMENT/MOUNTING OF WALL HUNG ITEMS OR EQUIPMENT DESCRIBED IN THE DOCUMENTS.

F. PROVIDE CEMENTITIOUS BACKER BOARD AT AREAS THAT ARE SCHEDULED TO RECEIVE CERAMIC TILE FINISH AND AT AREAS SO REQUIRED BY CODE.

G. INSTALLATION OF GYPSUM BOARD, BACKER BOARD AND BASE BOARD SHALL CONFORM TO REQUIREMENTS FOR FIRE RATINGS AND ACOUSTICAL RATINGS.

H. TYPICAL FLOOR PLAN DIMENSIONS OF PARTITIONS ARE TO THE NOMINAL FINISH FACE OF GYPSUM BOARD.

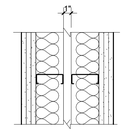
J. WHERE PARTITIONS AND/OR FURRING MEET, MAINTAIN A FLUSH SURFACE ON THE SIDE WHERE THE FINISH IS STRAIGHT OR CONTINUOUS UNLESS OTHERWISE NOTED.

L. PROVIDE STUD BRACING AT 4' - 0" O.C. STAGGERED IN ALTERNATING DIRECTIONS. BRACING SHALL ATTACH TO STUDS 1' - 0" MAX. ABOVE CEILING.

M SERIES

NON COMBUSTIBLE

FIRE RATING AVAILABLE WITH UL ASSEMBLY U943 WHERE NOTED.



PLAN VIEW

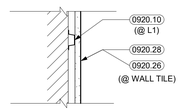
PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
M1	3 5/8" AT 16" O.C.	12"	TO DECK	2 HOUR	65	

NOTES:

1. CROSS-LAY MULTIPLE GWB LAYERS; JOINTS IN MULTIPLE LAYER ASSEMBLY SHALL NOT BE LAID DIRECTLY OVER EACH OTHER
2. DO NOT BRIDGE BETWEEN STUDS.

L SERIES

NON COMBUSTIBLE



PLAN VIEW

PTN TYPE	STUD	PART WIDTH	PART HEIGHT	FIRE RATING	STC RATING	NOTES
L1	7/8" AT 16" O.C.	1 1/2"	6" ABOVE CEILING	N/A	N/A	
L2	3/8" AT 16" O.C.	1"	6" ABOVE CEILING	N/A	N/A	
L3	3/8" AT 16" O.C.	1 5/8"	6" ABOVE CEILING	N/A	N/A	2x GYP. BD. LAYERS
L4	3/8" AT 16" O.C.	2 1/4"	6" ABOVE CEILING	N/A	N/A	3x GYP. BD. LAYERS

NOTES:

1. EXTEND GYPSUM BOARD 6" ABOVE ACOUSTICAL CEILING TILE OR STOP AT GYPSUM BOARD CEILING UNLESS NOTED OTHERWISE (ACOUSTICAL INSULATION REQUIREMENTS DO NOT APPLY UNLESS INDICATED ABOVE)
2. ALL C.I.P. CONCRETE COLUMNS TO RECEIVE PTN TYPE L2, U.N.O.

REGISTERED ARCHITECT JEFFREY S. CHOATE 16762 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
HUMBLE, TEXAS 77345
281.324.1380
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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A2.0

PARTITION TYPES

KEYNOTES

3230.80 RELOCATED BIKE RACKS



PLAN NORTH / TRUE NORTH

1 FLOOR PLAN - AREA A

1/8" = 1'-0"

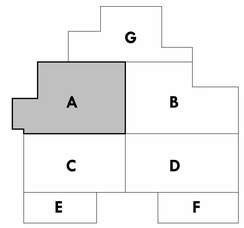
PLAN LEGEND NEW

- EXISTING CONSTRUCTION TO REMAIN
- NEW WALL
- 2HR. FIRE SEPARATION LINE

GENERAL NOTES

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3. KEEP COLUMN SURROUNDS TIGHT TO STRUCTURE U.N.O.
4. SEE A1.0 FOR PARTITION TYPE SCHEDULE.
5. SEE G1.4 FOR LOCATIONS OF FIRE RATED ASSEMBLIES.
6. REFER TO FINISH PLAN FOR WOOD ATHLETIC FLOOR DETAILS

KEY PLAN



REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
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A2.1A

FLOOR PLAN - AREA A

KEYNOTES

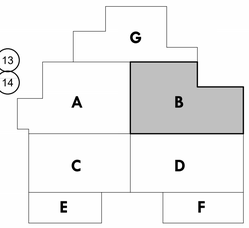
0980.04	2" THICK, FABRIC-WRAPPED ACOUSTICAL WALL PANELS
0980.14	3" THICK FABRIC-WRAPPED ACOUSTICAL WALL PANELS
1010.47	MARKERBOARD
1220.05	MOTORIZED WINDOW SHADE
1250.14	INSTRUMENT STORAGE CABNIETS WITH INTERIOR ACOUSTIC PANELING. DESIGN BASIS: WENGER ULTRASTORE ACOUSTICABINETS.



GENERAL NOTES

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5. SEE G1.4 FOR LOCATIONS OF FIRE RATED ASSEMBLIES.
6. REFER TO FINISH PLAN FOR WOOD ATHLETIC FLOOR DETAILS

KEY PLAN



PLAN NORTH / TRUE NORTH

1 FLOOR PLAN - AREA B

1/8" = 1'-0"

REGISTERED ARCHITECT
JEFFREY S. CHOYCE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
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A2.1B

FLOOR PLAN - AREA B

KEYNOTES

0220.103	EXISTING TALL TEACHER'S CABINET
0240.79	RELOCATE EXISTING DRY ERASE BOARD
0640.61	NEW MODIFIED COUNTERTOP TO BE PLACED ON MODIFIED EXISTING LEG SUPPORTS
0960.25	PATCH AND REPAIR EXISTING TILE
0960.26	PATCH AND REPAIR EXISTING CARPET
1010.02	DRY ERASE BOARD
1010.48	INSTALL SALVAGED PROJECTION SCREEN
3305.05	REMOVE FLOORING AND SAWCUT SLAB FOR NEW PLUMBING (RE: PLUMBING)



1 FLOOR PLAN - AREA C

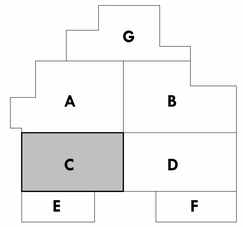
1/8" = 1'-0"

PLAN NORTH / TRUE NORTH

GENERAL NOTES

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4. SEE A1.0 FOR PARTITION TYPE SCHEDULE.
5. SEE G1.4 FOR LOCATIONS OF FIRE RATED ASSEMBLIES.
6. REFER TO FINISH PLAN FOR WOOD ATHLETIC FLOOR DETAILS

KEY PLAN



REGISTERED ARCHITECT JEFFREY S. CHYTIL 16762 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
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A2.1C

FLOOR PLAN - AREA C

KEYNOTES

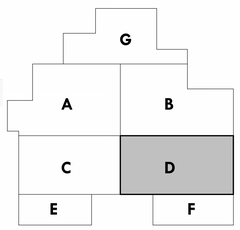
0220.78	EXISTING RECESSED FIRE EXTINGUISHER
0220.80	EXISTING ELECTRICAL OUTLET
0220.81	EXISTING TACK/DRY ERASE BOARD
0220.87	EXISTING OPERABLE WALL
0220.89	EXISTING DRY ERASE BOARD
0220.90	EXISTING TACK BOARD
0220.103	EXISTING TALL TEACHER'S CABINET
0760.51	OVERFLOW DRAIN RELOCATION RE:PLUMB
1010.02	DRY ERASE BOARD



GENERAL NOTES

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KEY PLAN



PLAN NORTH / TRUE NORTH

1 FLOOR PLAN - AREA D

1/8" = 1'-0"

JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MONTGOMERY, TEXAS 77345
281.301.3800
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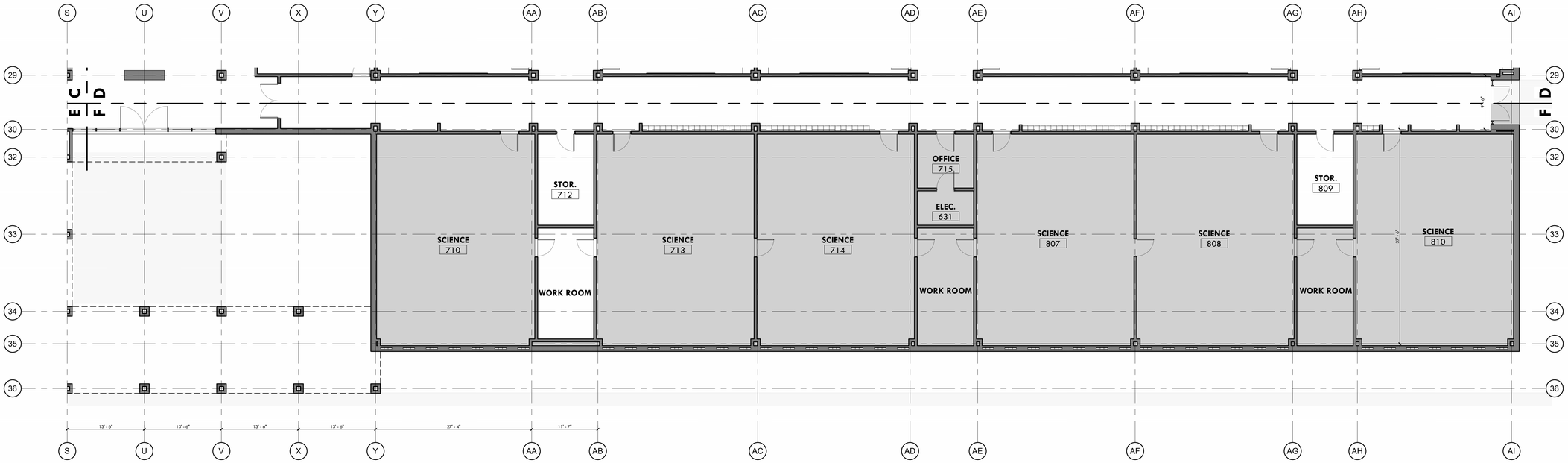
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A2.1D

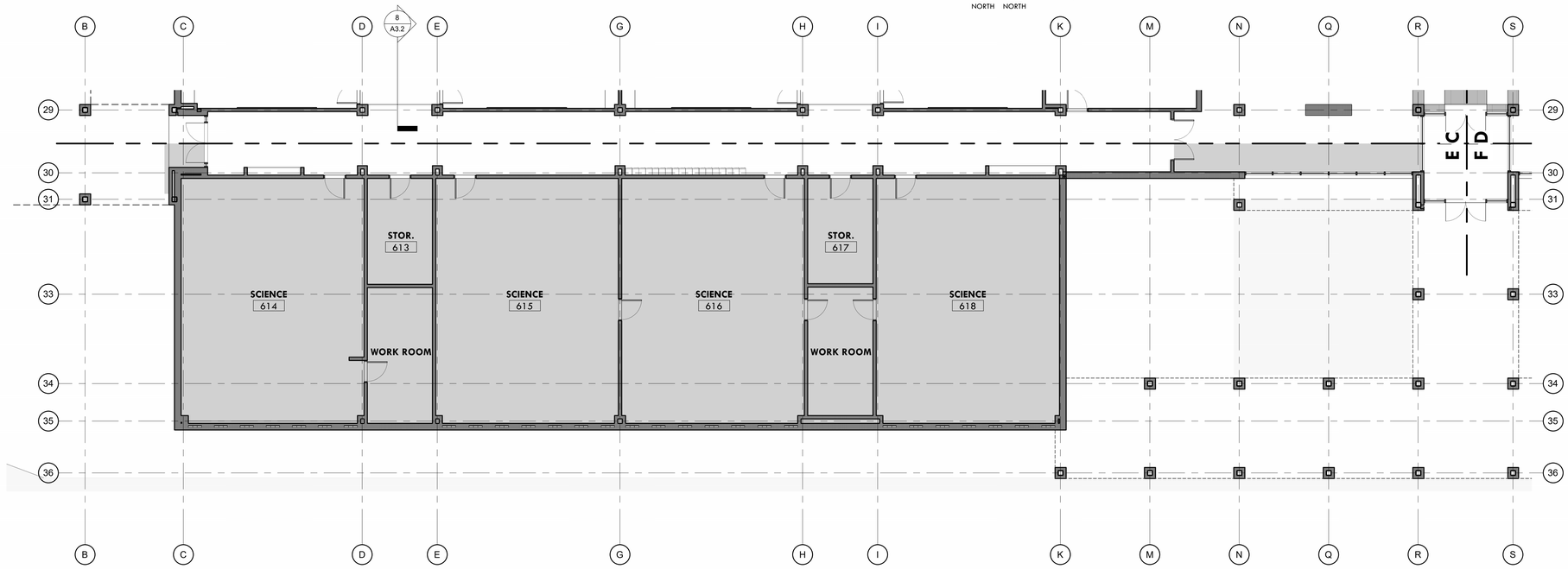
FLOOR PLAN - AREA D

KEYNOTES



PLAN NORTH / TRUE NORTH

2 FLOOR PLAN - AREA F
1/8" = 1'-0"



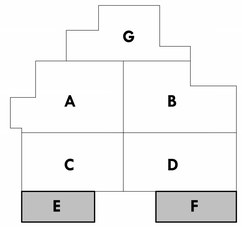
PLAN NORTH / TRUE NORTH

1 FLOOR PLAN - AREA E
1/8" = 1'-0"

GENERAL NOTES

NO ARCHITECTURAL WORK AT AREA SHADED IN GRAY, REFER TO OTHER TRADES(MECHANICAL, ELECTRICAL, ETC.) FOR POSSIBLE WORK IN THOSE AREAS

KEY PLAN



JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
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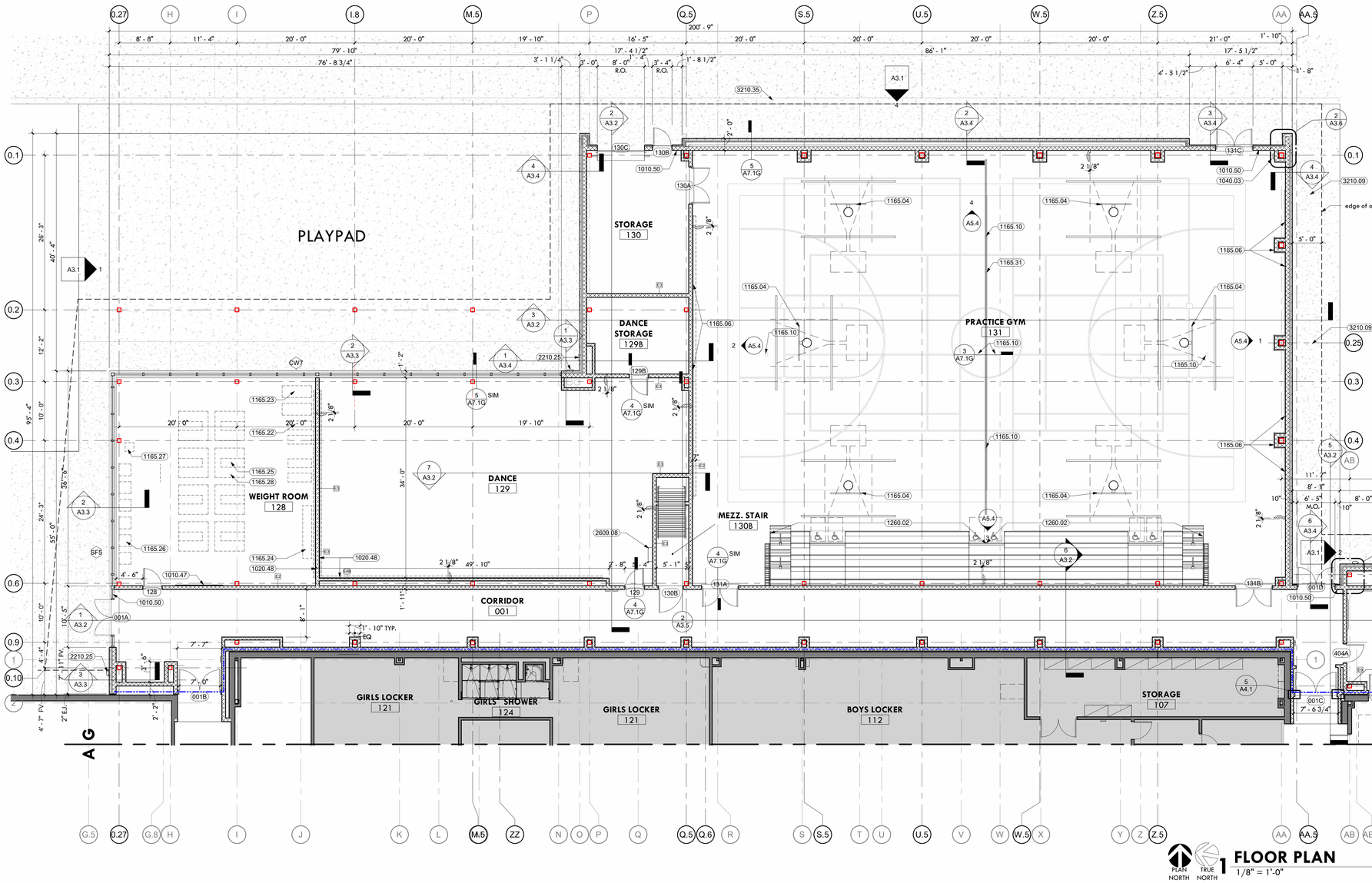
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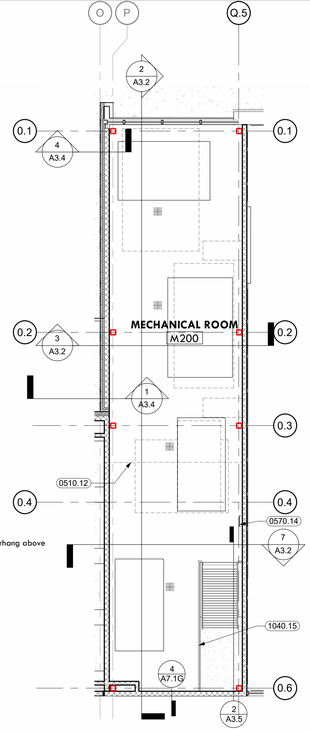
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A2.1E&F

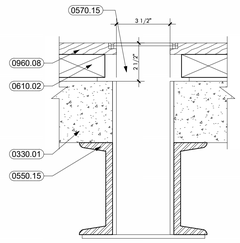
FLOOR PLAN - AREA E & F





2 SECOND FLOOR PLAN
1/8" = 1'-0"

1 FLOOR PLAN
1/8" = 1'-0"



4 FLOOR SLEEVE DETAIL
3" = 1'-0"

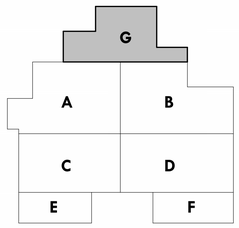
KEYNOTES

0330.01	CONCRETE
0510.12	HOIST BEAM (RE:STRUCTURAL)
0550.15	STEEL CHANNEL
0570.14	NEW ROOF ACCESS LADDER
0570.15	NET POST METAL SLEEVE
0610.02	1X WOOD BLOCKING
0960.08	WOOD ATHLETIC FLOORING SYSTEM
1010.47	MARKERBOARD
1010.50	TACKTILE EXIT SIGN
1020.48	FRAMELESS MIRRORS (RE: ELEVATION)
1040.03	FIRE EXTINGUISHER AND SEMI-RECESSED CABINET
1040.15	REMOVEABLE GUARDRAIL
1165.04	TEMPERED GLASS BASKETBALL BACKBOARD WITH RIM, NET, AND SAFETY PADS. PROVIDE STEEL SUPPORTS AND MOUNTING BRACKETS
1165.06	PLYWOOD BACKED WALL PADS
1165.10	VOLLEYBALL SLEEVE. SET FLUSH WITH SURFACE
1165.22	LEG CURL SEATED EXTENSION (N.I.C)
1165.23	HIGH LAT PULL WITH CABLE LOW ROW (N.I.C)
1165.24	DUMBELL RACK (N.I.C)
1165.25	ADJUSTABLE BENCH WITH WHEELS (N.I.C)
1165.26	DIP STATION (N.I.C)
1165.27	MEDICINE BALL RACK (N.I.C)
1165.28	HALF RACK (N.I.C)
1165.31	MOTORIZED DIVIDER CURTAIN
1260.02	MOTORIZED TELESCOPING GYMNASIUM SEATING
2210.25	ROOF DRAIN OVERFLOW SPOUT (RE: PLUMBING)
2609.08	SOUND SYSTEM PANEL (RE: AV DRAWINGS)
3210.09	CONCRETE SIDEWALK (RE: CIVIL)
3210.35	FIRE LANE STRIPING PER CITY REQUIREMENTS (RE: CIVIL)

GENERAL NOTES

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2. ALL WALLS TYPE E CMU UNLESS NOTED OTHERWISE.
3. KEEP COLUMN SURROUNDS TIGHT TO STRUCTURE U.N.O.
4. SEE A1.0 FOR PARTITION TYPE SCHEDULE.
5. SEE G1.4 FOR LOCATIONS OF FIRE RATED ASSEMBLIES.
6. REFER TO FINISH PLAN FOR WOOD ATHLETIC FLOOR DETAILS

KEY PLAN



REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.1300
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TIMBERWOOD MIDDLE SCHOOL
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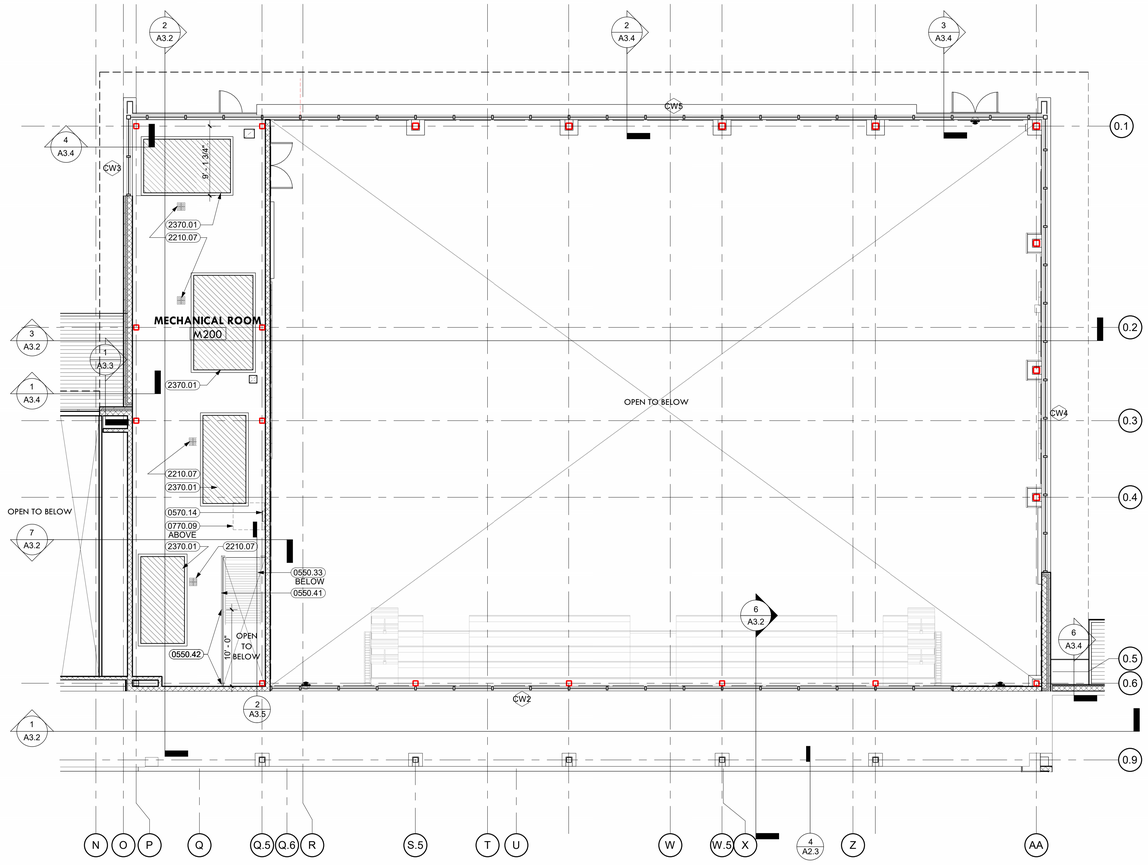
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A2.1G

FLOOR PLAN - AREA G

KEYNOTES

0550.33	METAL LADDER
0550.41	1 1/4" STANDARD STEEL PIPE GUARDRAIL
0550.42	REMOVABLE 1 1/4" DIAMETER STANDARD STEEL PIPE GUARDRAIL, 5'-0" LENGTH MAXIMUM U.N.O.
0570.14	NEW ROOF ACCESS LADDER
0770.09	ROOF HATCH WITH INTEGRAL CURB AND COUNTERFLASHING
2210.07	FLOOR SINK
2370.01	AIR HANDLING UNIT

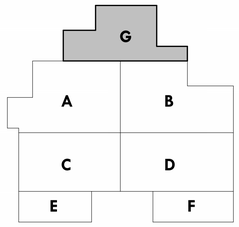


1 CLERESTORY PLAN

1/8" = 1'-0"

PLAN NORTH / TRUE NORTH

KEY PLAN



JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
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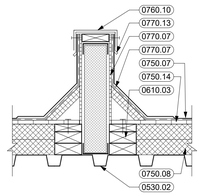
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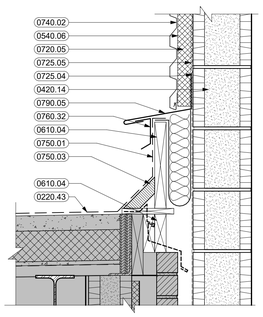
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A2.2G

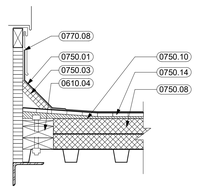
MEZZANINE & CLERESTORY PLAN - AREA G



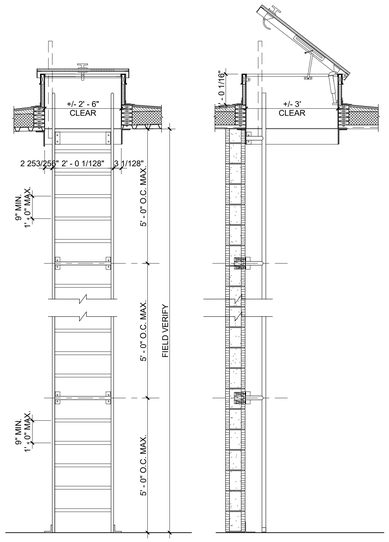
5 ENSEMBLE/BAND EQUIPMENT SUPPORT
1 1/2" = 1'-0"



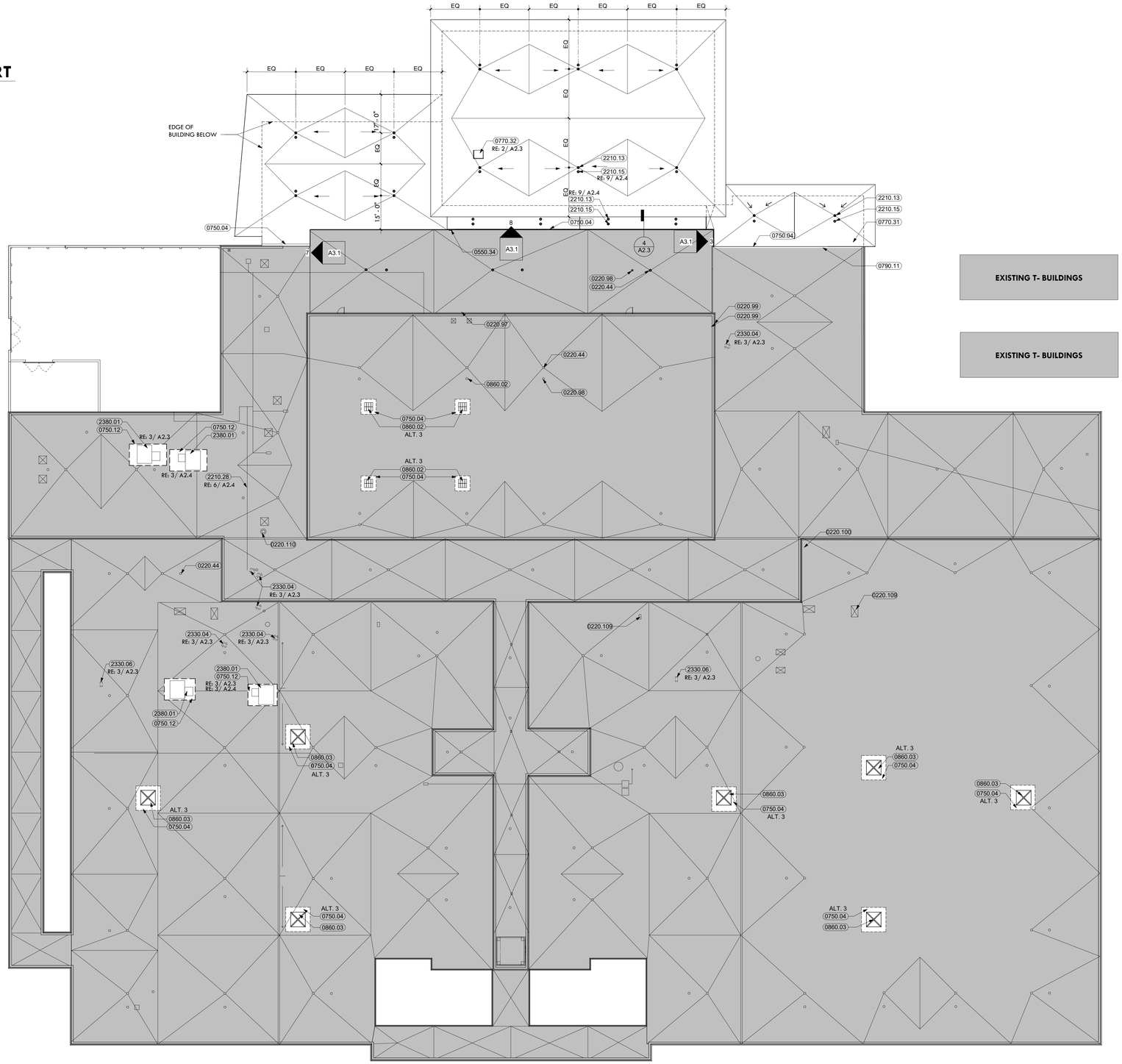
4 ROOF DETAIL
1 1/2" = 1'-0"



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



2 ROOF HATCH & LADDER
1/2" = 1'-0"



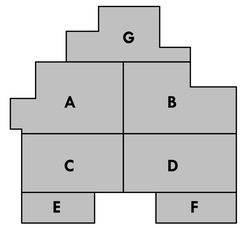
PLAN NORTH / TRUE NORTH

1 ROOF PLAN
1" = 20'-0"

KEYNOTES

0220.43	EXISTING ROOFING SYSTEM
0220.44	EXISTING ROOF DRAIN
0220.97	EXISTING ROOF ACCESS DOOR
0220.98	EXISTING OVERFLOW DRAIN
0220.99	EXISTING ROOF LADDER
0220.100	EXISTING ROOF ACCESS LADDER
0220.109	EXISITING OUTSIDE AIR INTAKE
0220.110	EXISITING EXHAUST FAN
0420.14	8" CONCRETE MASONRY UNITS
0530.02	METAL ROOF DECK (RE: STRUCTURAL)
0540.06	2" COLD-FORMED METAL FURRING CHANNEL
0550.34	NEW STEEL ROOF ACCESS LADDER
0610.03	2X WOOD BLOCKING
0610.04	2X PRESSURE TREATED WOOD BLOCKING
0720.05	2" CONTINUOUS MINERAL WOOL INSULATION
0725.04	FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0725.05	SELF-ADHERING DETAIL TRANSITION MEMBRANE
0740.02	PREFINISHED METAL WALL PANEL SYSTEM
0750.01	ROOFING BASE FLASHING SYSTEM
0750.03	4" CANT STRIP
0750.04	PATCH AND REPAIR ROOFING SYSTEM TO MATCH EXISTING. MAINTAIN EXISTING WARRANTY
0750.07	MODIFIED BITUMEN MEMBRANE ROOFING SYSTEM
0750.08	TWO (2) LAYERS OF 2.2" RIGID ROOF INSULATION (R-25)
0750.10	TAPERED ROOF INSULATION
0750.12	WALKWAY PAD
0750.14	1/2" ROOF COVER BOARD
0760.10	GALVANIZED STRAP
0760.32	CONTINUOUS CLEAT
0770.07	PREFABRICATED EQUIPMENT SUPPORT
0770.08	EQUIPMENT CURB WITH GALVANIZED COUNTERFLASHING
0770.13	24 GAUGE GALVANIZED CAP. MITER, RIVET AND SOLDER ENDS WATERTIGHT. ANCHOR 12" O.C. (ONE MIN. PER SIDE)
0770.31	NEW ROOF SITS ON TOP OF EXISTING ROOF
0770.32	NEW ROOF ACCESS HATCH
0790.05	METAL ROOF EXPANSION JOINT COVER
0790.11	ROOF EXPANSION CURB
0860.02	NEW SKYLIGHT
0860.03	NEW PYRAMID SKYLIGHT
2210.13	ROOF DRAIN
2210.15	OVERFLOW ROOF DRAIN
2210.28	GAS LINE (RE: PLUMBING)
2330.04	EXHAUST FAN
2330.06	OUTSIDE AIR INTAKE HOOD
2380.01	ROOFTOP HVAC UNIT

KEY PLAN



REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
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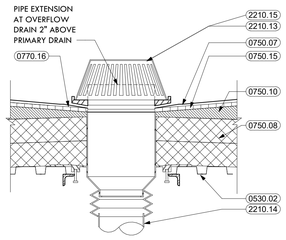
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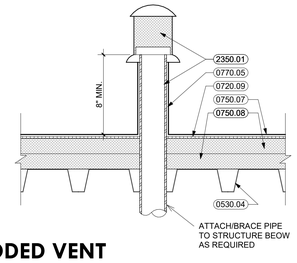
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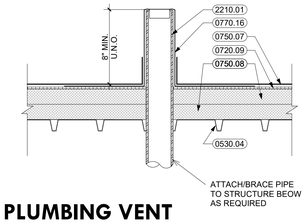
ROOF PLAN



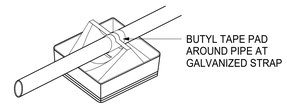
9 ROOF / OVERFLOW DRAIN
1 1/2" = 1'-0"



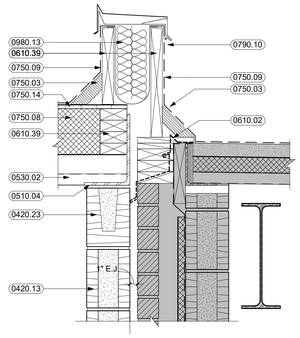
8 HOODED VENT
1 1/2" = 1'-0"



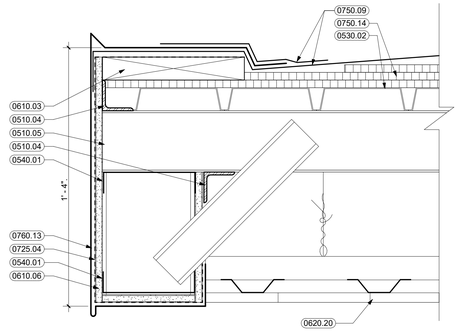
7 PLUMBING VENT
1 1/2" = 1'-0"



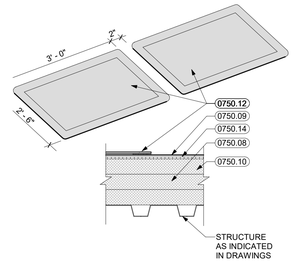
6 PIPE SUPPORT
1 1/2" = 1'-0"



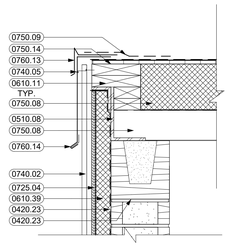
5 ROOF DETAIL AT BAND ROOF EXPANSION
1 1/2" = 1'-0"



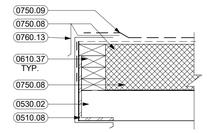
4 ROOF EDGE WITH SOFFIT
3" = 1'-0"



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



2 ROOF EDGE DETAIL
1 1/2" = 1'-0"



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

KEYNOTES

0420.13	6" CONCRETE MASONRY UNITS
0420.23	CONCRETE MASONRY BOND BEAM
0510.04	STEEL ANGLE (RE: STRUCTURAL)
0510.05	STEEL CHANNEL (RE: STRUCTURAL)
0510.08	STEEL BENT PLATE (RE: STRUCTURAL)
0530.02	METAL ROOF DECK (RE: STRUCTURAL)
0530.04	METAL DECKING WITH TAPERED INSULATION
0540.01	COLD-FORMED METAL FRAMING
0610.02	1X WOOD BLOCKING
0610.03	2X WOOD BLOCKING
0610.06	1/2" EXTERIOR GYPSUM SHEATHING
0610.11	2 X 6 WOOD FRAMING
0610.37	2 X 4 WOOD FRAMING
0610.39	FIRE TREATED 2X WOOD FRAMING
0620.20	WOOD SOFFIT
0720.09	ATTIC FLOOR INSULATION (R-38)
0725.04	FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0740.02	PREFINISHED METAL WALL PANEL SYSTEM
0740.05	Z-CLOSURE
0750.03	4" CANT STRIP
0750.07	MODIFIED BITUMEN MEMBRANE ROOFING SYSTEM
0750.08	TWO (2) LAYERS OF 2.2" RIGID ROOF INSULATION (R-25)
0750.09	MEMBRANE ROOFING SYSTEM
0750.10	TAPERED ROOF INSULATION
0750.12	WALKWAY PAD
0750.14	1/2" ROOF COVER BOARD
0750.15	3/4" ROOF COVER BOARD
0760.13	PREFINISHED METAL FASCIA
0760.14	METAL CLEAT
0770.05	GALVANIZED METAL REGLET WITH SEALANT AND COUNTERFLASHING
0770.16	4 LB. LEAD FLASHING. SET IN PLASTIC CEMENT AND EXTEND 2'-0" FROM DRAIN
0790.10	RETICULATED FOAM BAFFLE
0980.13	SUSPENDED ACOUSTICAL PANELS
2210.01	PLUMBING VENT
2210.13	ROOF DRAIN
2210.14	ROOF DRAIN PIPING
2210.15	OVERFLOW ROOF DRAIN
2350.01	METAL FLUE WITH BASE AND COLLAR

JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
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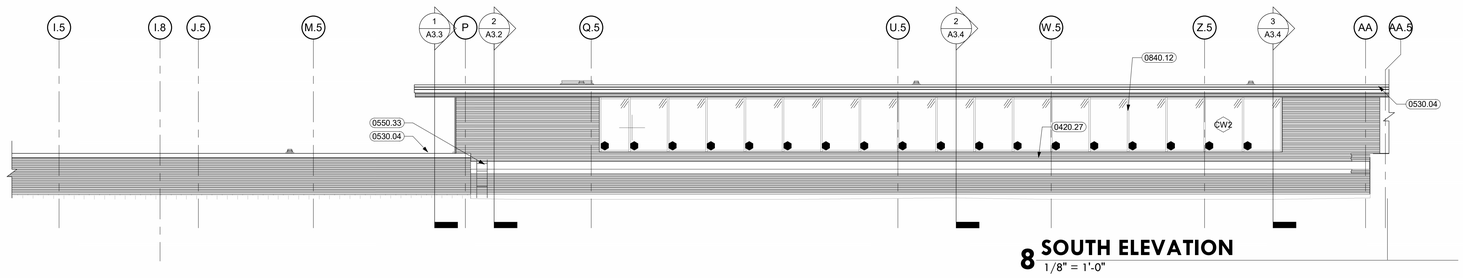
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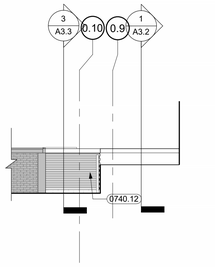
ROOF DETAILS



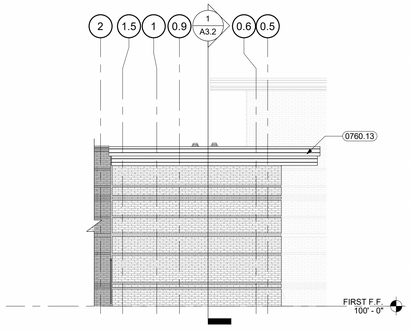
8 SOUTH ELEVATION
1/8" = 1'-0"

KEYNOTES

0220.26	EXISTING CHAIN-LINK FENCE
0420.27	KING SIZE BRICK
0470.01	CAST STONE
0470.05	CAST STONE SILL WITH DRIP
0530.04	METAL DECKING WITH TAPERED INSULATION
0550.24	METAL CANOPY
0550.33	METAL LADDER
0740.03	PREFINISHED METAL SOFFIT PANEL SYSTEM
0740.12	METAL PANEL
0760.13	PREFINISHED METAL FASCIA
0770.09	ROOF HATCH WITH INTEGRAL CURB AND COUNTERFLASHING
0810.04	HOLLOW METAL DOOR AND FRAME
0830.14	OVERHEAD COILING DOOR
0840.02	ALUMINUM STOREFRONT DOOR
0840.12	ALUMINUM CURTAIN WALL
0880.34	GLASS TYPE LG#13 (LAMINATED, ATTACK-RESISTANT)
1070.11	ALUMINUM FASCIA
2210.13	ROOF DRAIN
2210.25	ROOF DRAIN OVERFLOW SPOUT (RE: PLUMBING)
2810.03	CARD READER (RE: TECHNOLOGY)

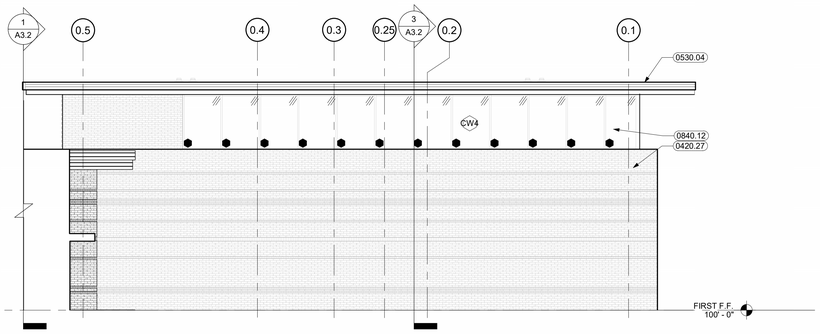


7 EAST ELEVATION
1/8" = 1'-0"



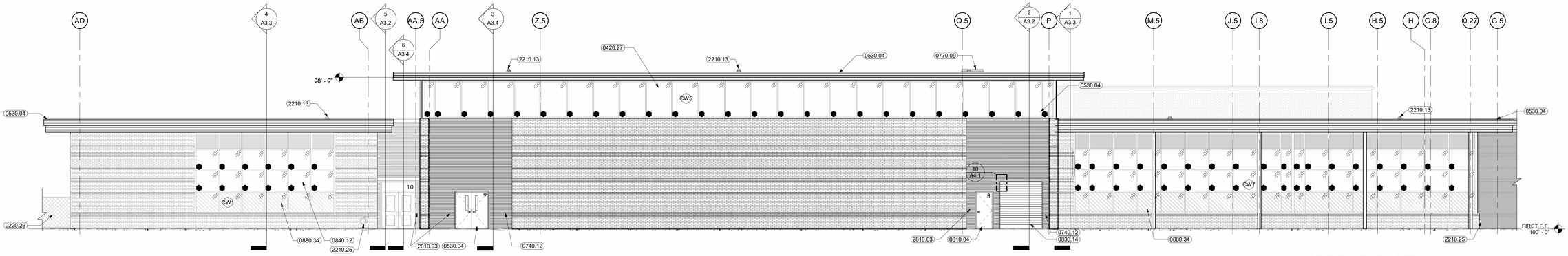
6 EAST ELEVATION
1/8" = 1'-0"

REFER TO WALL SECTIONS FOR BRICK PATTERN INFORMATION



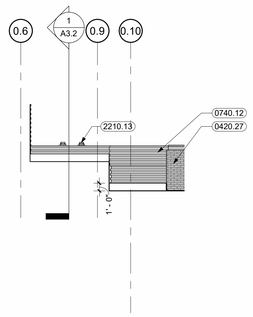
5 EAST ELEVATION
1/8" = 1'-0"

REFER TO WALL SECTIONS FOR BRICK PATTERN INFORMATION

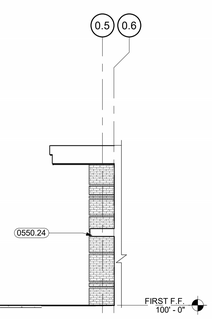


4 NORTH ELEVATION
1/8" = 1'-0"

REFER TO WALL SECTIONS FOR BRICK PATTERN INFORMATION

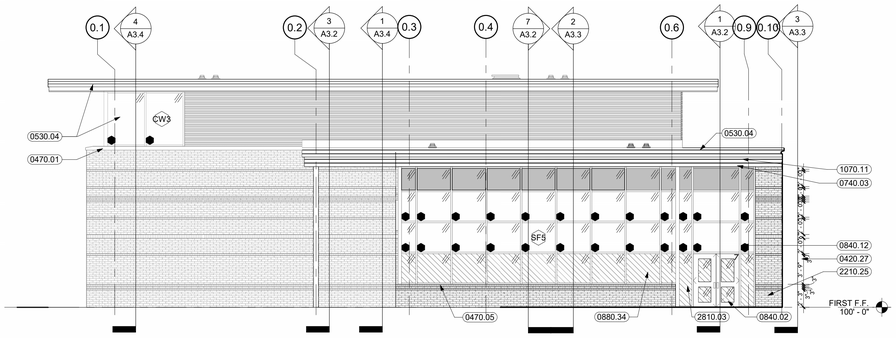


3 WEST ELEVATION
1/8" = 1'-0"



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

REFER TO WALL SECTIONS FOR BRICK PATTERN INFORMATION



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

REFER TO WALL SECTIONS FOR BRICK PATTERN INFORMATION

REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
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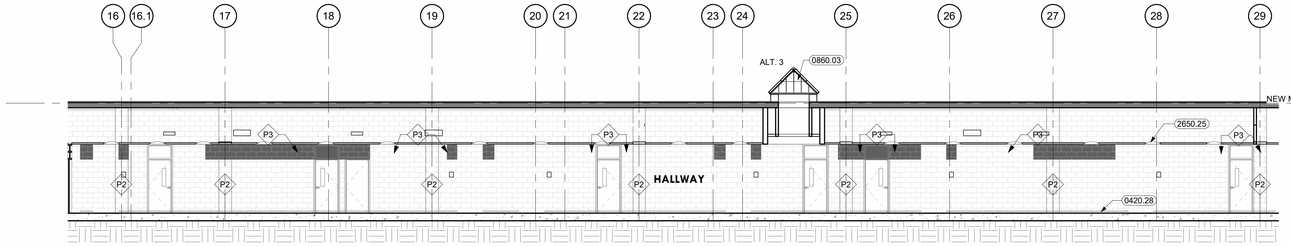
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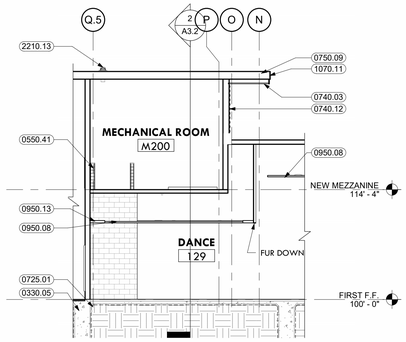
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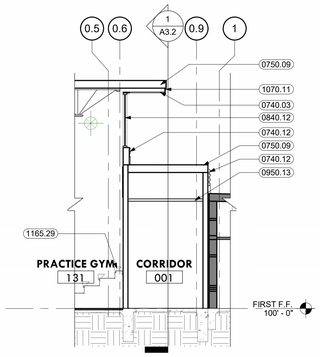
EXTERIOR ELEVATIONS



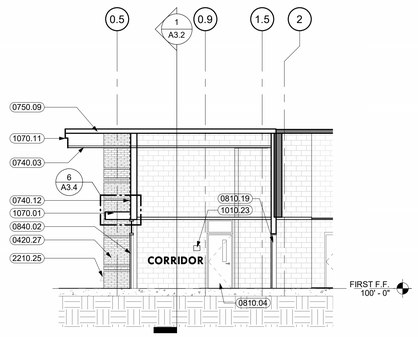
8 BUILDING SECTION
1/8" = 1'-0"



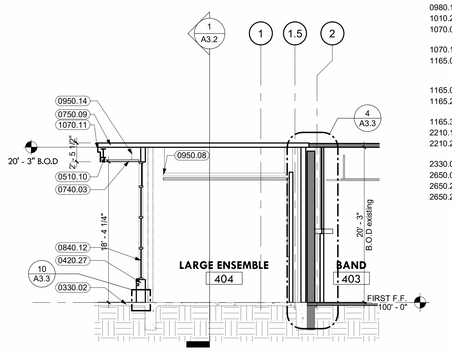
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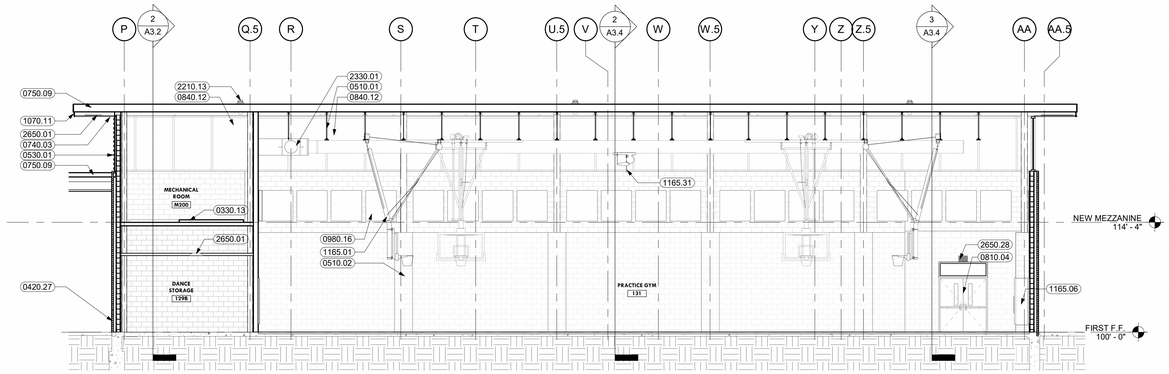
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1/8" = 1'-0"



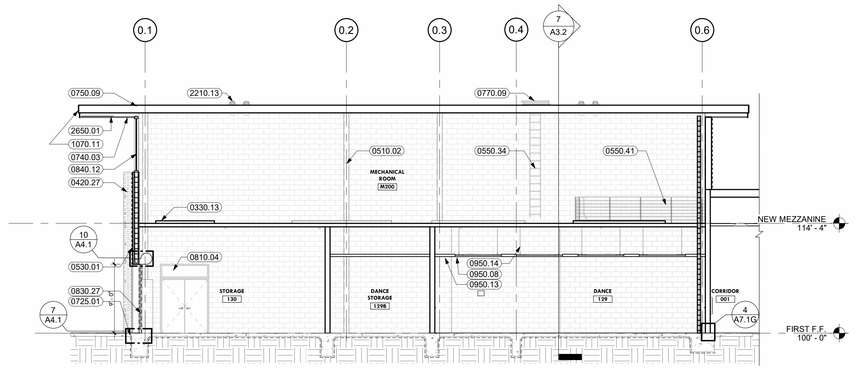
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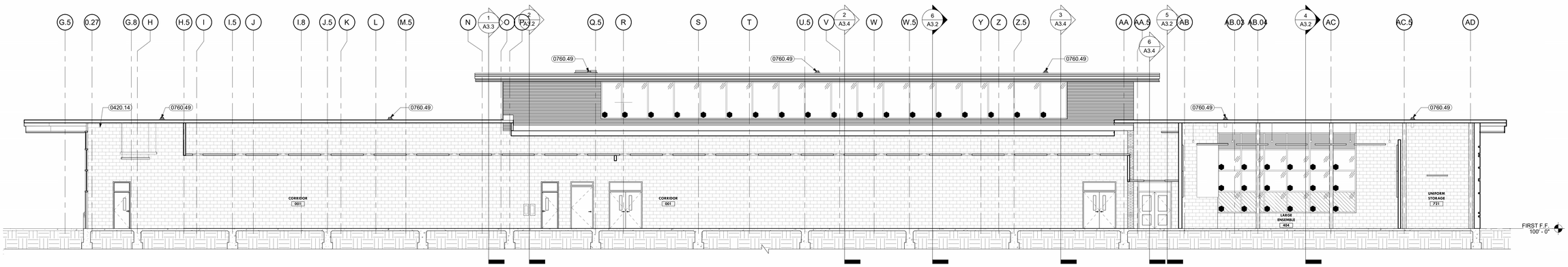
4 BUILDING SECTION
1/8" = 1'-0"



3 BUILDING SECTION
1/8" = 1'-0"



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



1 BUILDING SECTION
1/8" = 1'-0"

KEYNOTES

0330.02	CONCRETE SLAB
0330.05	CONCRETE GRADE BEAM
0330.13	CONCRETE EQUIPMENT PAD
0420.14	8" CONCRETE MASONRY UNITS
0420.27	KING SIZE BRICK
0420.28	4" TALL CONCRETE MASONRY UNIT STARTER COURSE
0510.01	STEEL STRUCTURE (RE: STRUCTURAL)
0510.02	STEEL COLUMN (RE: STRUCTURAL)
0510.10	STEEL BEAM (RE: STRUCTURAL)
0530.01	METAL FLOOR DECK (RE: STRUCTURAL)
0550.34	NEW STEEL ROOF ACCESS LADDER
0550.41	1 1/4" STANDARD STEEL PIPE GUARDRAIL
0725.01	UNDERSLAB VAPOR BARRIER
0740.03	PREFINISHED METAL SOFFIT PANEL SYSTEM
0740.12	METAL PANEL
0750.09	MEMBRANE ROOFING SYSTEM
0760.49	NEW ROOF DRAIN
0770.09	ROOF HATCH WITH INTEGRAL CURB AND COUNTERFLASHING
0810.04	HOLLOW METAL DOOR AND FRAME
0810.19	FIRE RATED DOOR
0830.27	COILING GARAGE DOOR
0840.02	ALUMINUM STOREFRONT DOOR
0840.12	ALUMINUM CURTAIN WALL
0860.03	NEW PYRAMID SKYLIGHT
0950.08	SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
0950.13	GYPSUM BOARD CEILING SYSTEM
0950.14	CEILING TILE SUSPENSION CORD
0980.16	ACOUSTIC WALL PANELS
1010.23	ROOM NUMBER SIGN
1070.01	PRE-MANUFACTURED EXTERIOR ALUMINUM CANOPY SYSTEM
1070.11	ALUMINUM FASCIA
1165.01	RETRACTABLE SUSPENDED BASKETBALL BACKSTOP WITH INTEGRAL HEIGHT ADJUSTMENT
1165.06	PLYWOOD BACKED WALL PADS
1165.29	TELESCOPING BLEACHERS (196 SEATS WITH 6 ACCESSIBLE)
1165.31	MOTORIZED DIVIDER CURTAIN
2210.13	ROOF DRAIN
2210.25	ROOF DRAIN OVERFLOW SPOUT (RE: PLUMBING)
2330.01	HVAC DUCTWORK
2650.01	RECESSED LIGHT FIXTURE
2650.25	2X4 SEALED LIGHT FIXTURE
2650.28	WALL-MOUNTED EXIT SIGN WITH IMPACT-RESISTANT CAGE

REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
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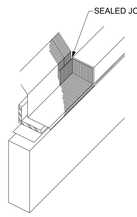
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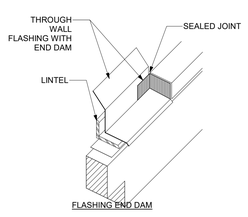
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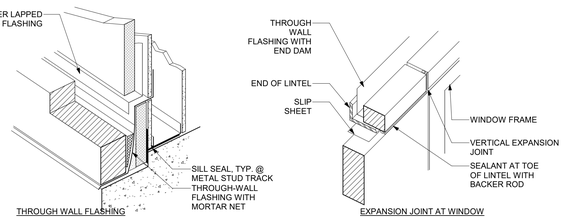
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A3.2

BUILDING SECTIONS

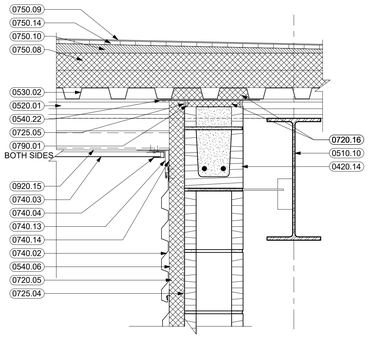




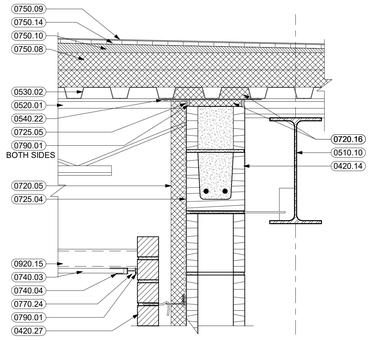


14 END DAM FLASHING
1 1/2" = 1'-0"

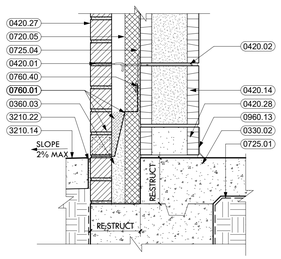
13 FLASHING DETAILS
1 1/2" = 1'-0"



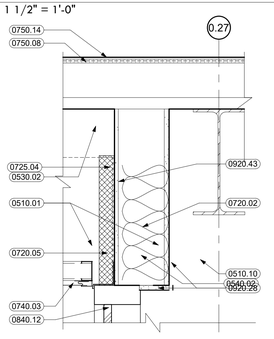
12 SECTION DETAIL
1 1/2" = 1'-0"



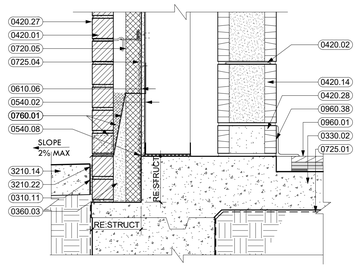
11 SECTION DETAIL
1 1/2" = 1'-0"



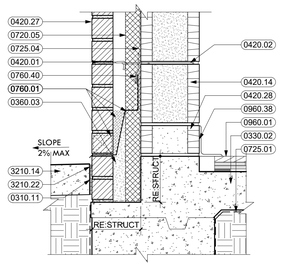
10 SECTION DETAIL
1 1/2" = 1'-0"



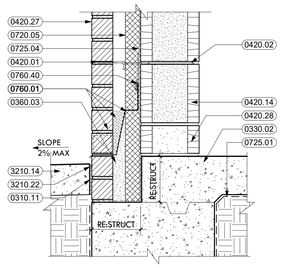
9 SECTION DETAIL
1 1/2" = 1'-0"



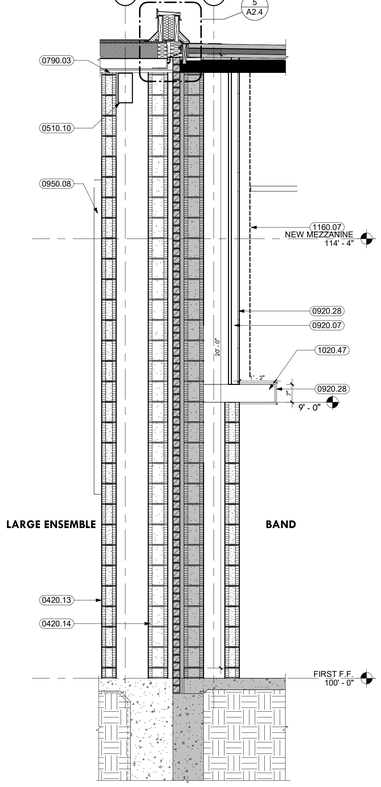
7 SECTION DETAIL
1 1/2" = 1'-0"



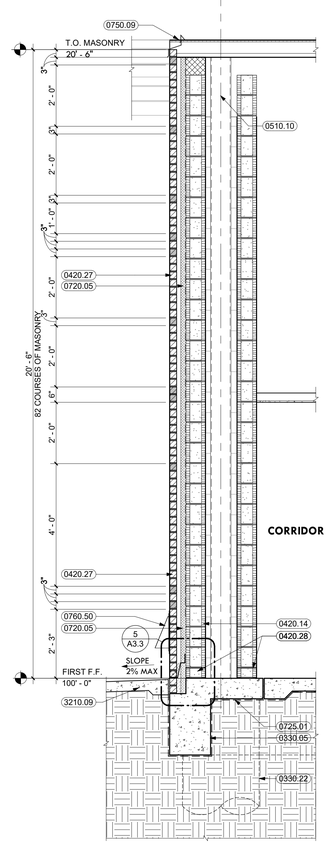
6 SECTION DETAIL
1 1/2" = 1'-0"



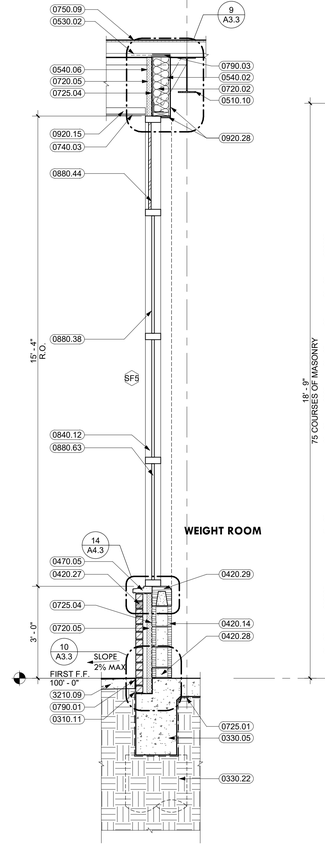
5 SECTION DETAIL
1 1/2" = 1'-0"



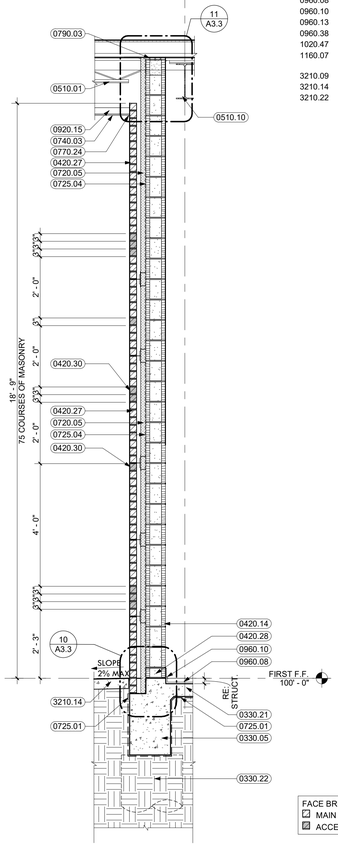
4 ENSEMBLE/BAND CONNECTION
1/2" = 1'-0"



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



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



FACE BRICK COLOR
MAIN
ACCENT

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

KEYNOTES

0310.11	EXPANSION JOINT PREMOLDED EXPANSION FILLER
0330.02	CONCRETE SLAB
0330.05	CONCRETE GRADE BEAM
0330.21	RECESSED CONCRETE SLAB
0330.22	CONCRETE PIER
0360.03	FILL WITH GROUT
0420.01	ADJUSTABLE MASONRY WALL TIES AT 16" O.C.E.W.
0420.02	CONCRETE MASONRY UNIT HORIZONTAL REINFORCING
0420.13	6" CONCRETE MASONRY UNITS
0420.14	8" CONCRETE MASONRY UNITS
0420.27	KING SIZE BRICK
0420.28	4" TALL CONCRETE MASONRY UNIT STARTER COURSE
0420.29	INVERTED BOND BEAM WITH FIELD GROUND EDGE RADIUS
0420.30	ACCENT KING SIZE BRICK
0470.05	CAST STONE SILL WITH DRIP
0510.01	STEEL STRUCTURE (RE: STRUCTURAL)
0510.10	STEEL BEAM (RE: STRUCTURAL)
0520.01	STEEL JOIST (RE: STRUCTURAL)
0530.02	METAL ROOF DECK (RE: STRUCTURAL)
0540.02	6" METAL STUDS (C.F.M.F.) AT 16" O.C. MAXIMUM
0540.06	2" COLD-FORMED METAL FURRING CHANNEL
0540.08	SILL GASKET
0540.22	CONTINUOUS STEEL STRAP CLOSURE AS REQUIRED
0610.06	1/2" EXTERIOR GYPSUM SHEATHING
0720.02	6 1/4" BATT INSULATION
0720.05	2" CONTINUOUS MINERAL WOOL INSULATION
0720.16	SEMI-RIGID MINERAL WOOL INSULATION FILLER / BACKER MATERIAL
0725.01	UNDERSLAB VAPOR BARRIER
0725.04	FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0725.05	SELF-ADHERING DETAIL TRANSITION MEMBRANE
0740.02	PREFINISHED METAL WALL PANEL SYSTEM
0740.03	PREFINISHED METAL SOFFIT PANEL SYSTEM
0740.04	PREFINISHED METAL PANEL TRIM
0740.13	PREFINISHED METAL SOFFIT ANGLE
0740.14	CONTINUOUS METAL FLASHING CLOSURE AS REQUIRED
0750.08	TWO (2) LAYERS OF 2.2" RIGID ROOF INSULATION (R-25)
0750.09	MEMBRANE ROOFING SYSTEM
0750.10	TAPERED ROOF INSULATION
0750.14	1/2" ROOF COVER BOARD
0760.01	THROUGH-WALL FLASHING WITH WEEPS AT 2'-0" O.C. AND MORTAR NET
0760.40	TERMINATION BAR AND PREFINISHED FLASHING CAP
0760.50	NEW OVERFLOW DRAIN
0770.24	CONTINUOUS PREFINISHED VENTED SCREED
0790.01	SEALANT WITH BACKER ROD AS REQUIRED
0790.03	SEAL WALL TO DECK
0840.12	ALUMINUM CURTAIN WALL
0880.38	GLASS TYPE IG#4 (INSULATED CLEAR, LOW-E)
0880.44	GLASS TYPE IG#10A (INSULATED SPANDREL)
0880.63	GLASS TYPE IGL#8 (ATTACK RESISTANT INSULATED, LAMINATED, LOW-E)
0920.07	6" METAL STUDS (20 GAUGE MINIMUM) AT 16" O.C.
0920.15	METAL SUPPORT SYSTEM WITH UPLIFT BRACING
0920.28	5/8" GYPSUM BOARD (TYPE X)
0920.43	2 LAYERS OF 1/2" EXTERIOR GYPSUM SHEATHING
0950.08	SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
0960.01	FLOORING AS SCHEDULED
0960.08	WOOD ATHLETIC FLOORING SYSTEM
0960.10	4" VENTED WOOD FLOORING BASE
0960.13	4" RESILIENT BASE
0960.38	3"X 4" VENTED COVE BASE
1020.47	NEW SHELF AT 9' 4"
1160.07	ADJUSTABLE ACOUSTICAL CURTAIN (RE: THEATRICAL)
3210.09	CONCRETE SIDEWALK (RE: CIVIL)
3210.14	CONCRETE PAVING (RE: CIVIL)
3210.22	PAVING EXPANSION JOINT - FILL WITH JOINT SEALER 1/4" BELOW SURFACE

JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
PEARLAND, TEXAS 77345
281.324.1300
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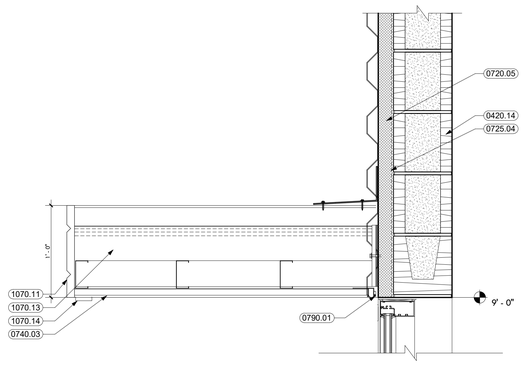
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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A3.3
WALL SECTIONS & DETAILS

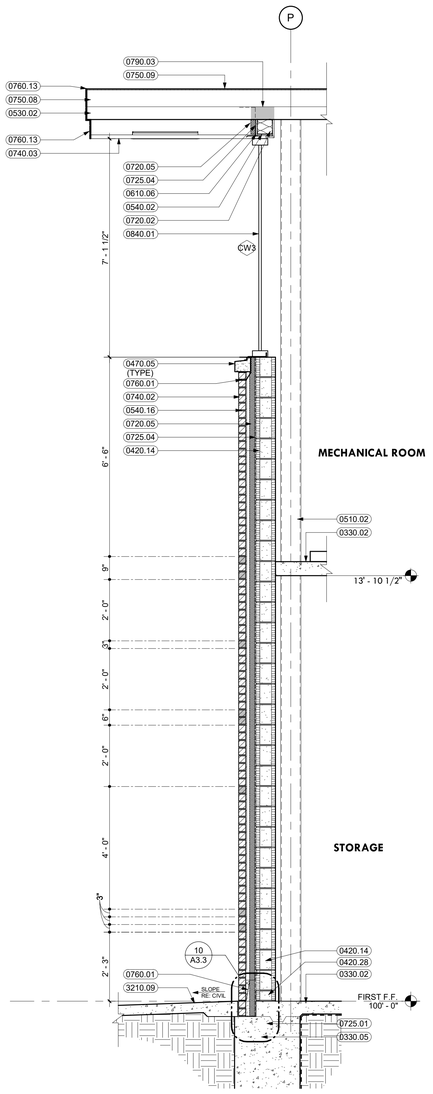
KEYNOTES

0330.02	CONCRETE SLAB
0330.05	CONCRETE GRADE BEAM
0330.22	CONCRETE PIER
0420.01	ADJUSTABLE MASONRY WALL TIES AT 16" O.C.E.W.
0420.14	8" CONCRETE MASONRY UNITS
0420.16	8" BURNISHED CONCRETE MASONRY UNITS
0420.27	KING SIZE BRICK
0420.28	4" TALL CONCRETE MASONRY UNIT STARTER COURSE
0420.30	ACCENT KING SIZE BRICK
0470.05	CAST STONE SILL WITH DRIP
0510.02	STEEL COLUMN (RE: STRUCTURAL)
0530.02	METAL ROOF DECK (RE: STRUCTURAL)
0540.02	6" METAL STUDS (C.F.M.F.) AT 16" O.C. MAXIMUM
0540.06	2" COLD-FORMED METAL FURRING CHANNEL
0540.16	COLD-FORMED METAL SUB-GIRT
0610.05	1/2" EXTERIOR GRADE PLYWOOD
0610.06	1/2" EXTERIOR GYPSUM SHEATHING
0720.02	6 1/4" BATT INSULATION
0720.05	2" CONTINUOUS MINERAL WOOL INSULATION
0725.01	UNDERSLAB VAPOR BARRIER
0725.04	FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0740.02	PREFINISHED METAL WALL PANEL SYSTEM
0740.03	PREFINISHED METAL SOFFIT PANEL SYSTEM
0750.08	TWO (2) LAYERS OF 2.2" RIGID ROOF INSULATION (R-25)
0750.09	MEMBRANE ROOFING SYSTEM
0760.01	THROUGH-WALL FLASHING WITH WEEPS AT 2'-0" O.C. AND MORTAR NET
0760.02	THROUGH-WALL FLASHING (WITH WEEPS AT 2'-0" O.C. AS REQUIRED)
0760.13	PREFINISHED METAL FASCIA
0770.04	PREFINISHED METAL REGLET WITH SEALANT AND COUNTERFLASHING
0770.29	ROOF DECK PEDESTAL SYSTEM
0790.01	SEALANT WITH BACKER ROD AS REQUIRED
0790.03	SEAL WALL TO DECK
0790.07	SET IN BED OF SEALANT
0840.01	ALUMINUM STOREFRONT
0920.15	METAL SUPPORT SYSTEM WITH UPLIFT BRACING
0960.01	FLOORING AS SCHEDULED
0980.16	ACOUSTIC WALL PANELS
1070.11	ALUMINUM FASCIA
1070.13	OPEN TOP ALUMINUM CANOPY BEAM
1070.14	ALUMINUM CANOPY DRAIN SCUPPER TRIM RING
2650.01	RECESSED LIGHT FIXTURE
3210.09	CONCRETE SIDEWALK (RE: CIVIL)
3210.14	CONCRETE PAVING (RE: CIVIL)

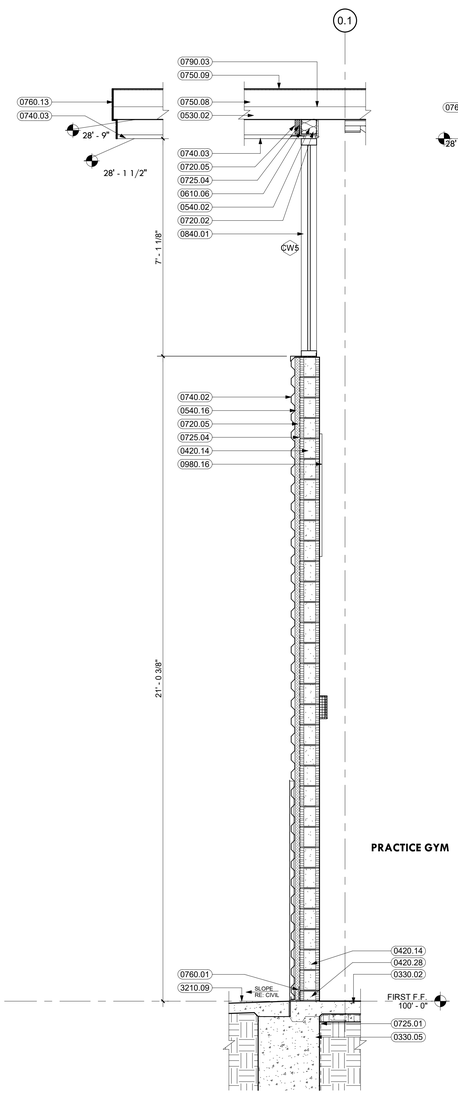


6 SECTION DETAIL
1 1/2" = 1'-0"

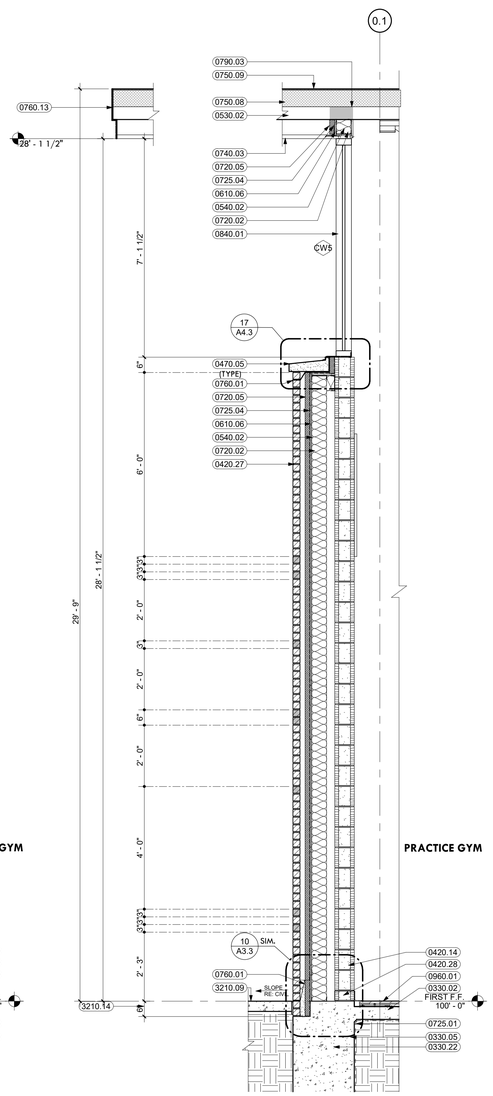
5 SECTION DETAIL
1 1/2" = 1'-0"



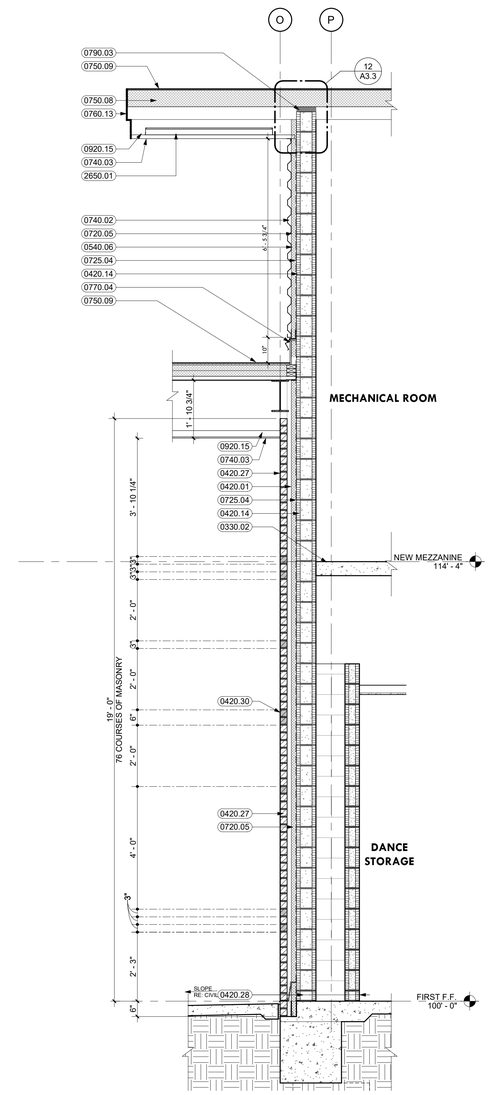
4 UPPER WINDOW CONDITION
1/2" = 1'-0"



3 METAL PANEL GYM WALL SECTION
1/2" = 1'-0"



2 LARGE BRICK ACCENT WALL
1/2" = 1'-0"



1 GYM/ENTRY CONNECTIONS
1/2" = 1'-0"

FACE BRICK COLOR
- MAIN
- ACCENT

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
HUMBLE, TEXAS 77345
281.441.1300
WWW.BRWARCH.COM

JEFFREY S. CHOATE 16762 REGISTERED ARCHITECT STATE OF TEXAS
2/23/24

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

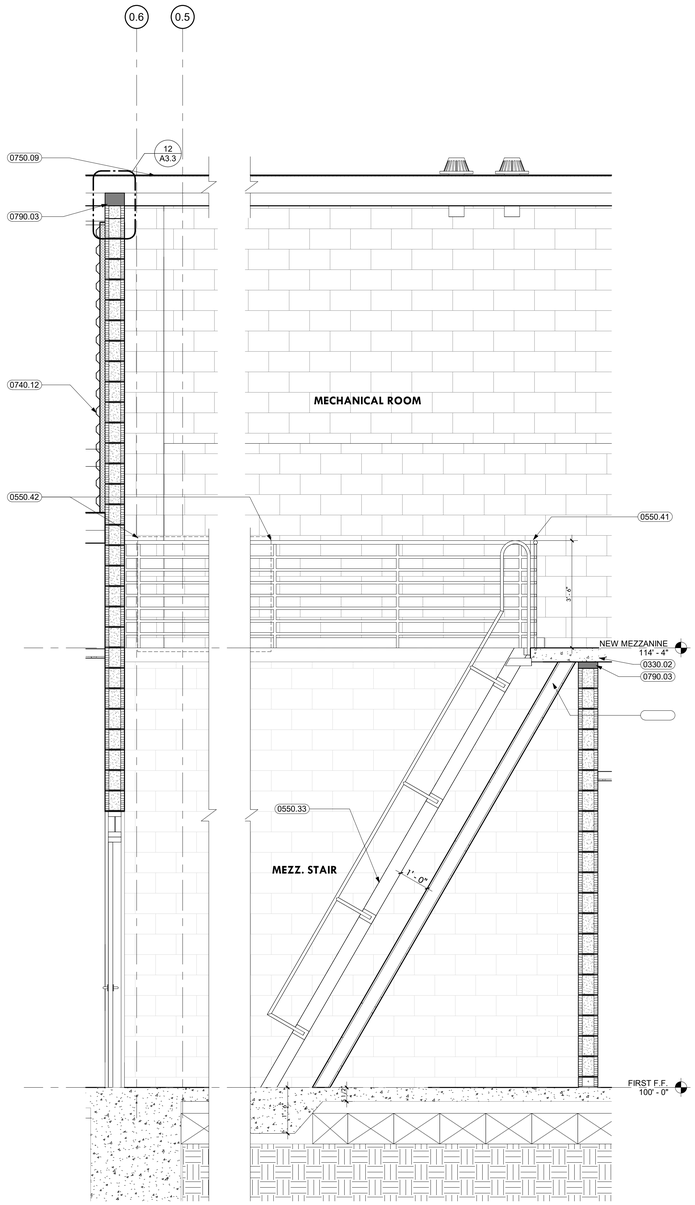
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A3.4

WALL SECTIONS

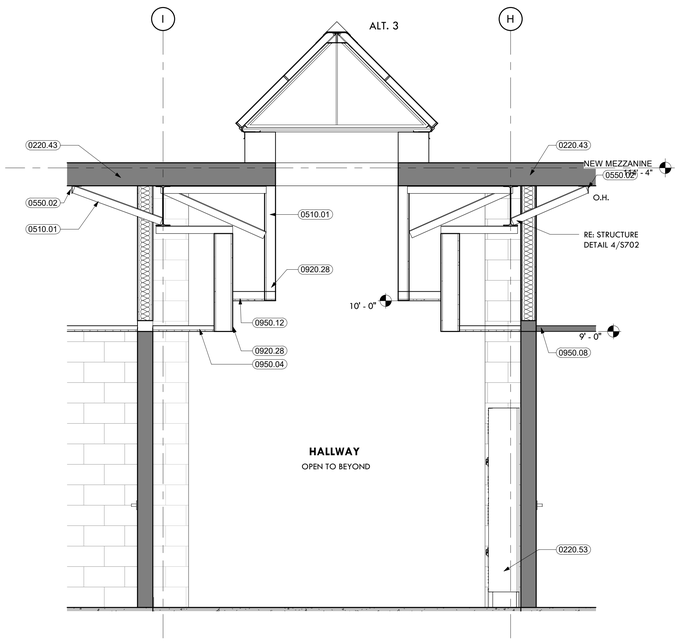
KEYNOTES

0220.43	EXISTING ROOFING SYSTEM
0220.53	EXISTING LOCKERS
0330.02	CONCRETE SLAB
0510.01	STEEL STRUCTURE (RE: STRUCTURAL)
0550.02	3" X 3" X 1/4" STEEL ANGLE
0550.33	METAL LADDER
0550.41	1 1/4" STANDARD STEEL PIPE GUARDRAIL
0550.42	REMOVABLE 1 1/4" DIAMETER STANDARD STEEL PIPE GUARDRAIL, 5'-0" LENGTH MAXIMUM U.N.O.
0740.12	METAL PANEL
0750.09	MEMBRANE ROOFING SYSTEM
0790.03	SEAL WALL TO DECK
0920.28	5/8" GYPSUM BOARD (TYPE X)
0950.04	1" FIBERGLASS ACOUSTICAL LAY-IN TILE CEILING
0950.08	SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
0950.12	SUSPENDED GYPSUM BOARD CEILING SYSTEM



2 MEZZANINE ACCESS STAIR

1/2" = 1'-0"



1 TYPICAL SKYLIGHT SECTION

1/2" = 1'-0"

REGISTERED ARCHITECT
JEFFREY S. CHOATE
16762
STATE OF TEXAS
2/23/24

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4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
MISSOURI CITY, TEXAS 77345
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TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

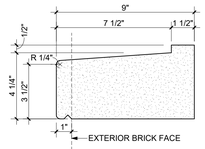
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A3.5

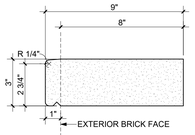
WALL SECTIONS

KEYNOTES

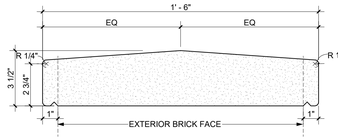
0320.02	STEEL REINFORCING
0420.01	ADJUSTABLE MASONRY WALL TIES AT 16" O.C.E.W.
0420.02	CONCRETE MASONRY UNIT HORIZONTAL REINFORCING
0420.13	6" CONCRETE MASONRY UNITS
0420.14	8" CONCRETE MASONRY UNITS
0420.20	BULLNOSE CMU
0420.27	KING SIZE BRICK
0510.02	STEEL COLUMN (RE: STRUCTURAL)
0540.02	6" METAL STUDS (C.F.M.F.) AT 16" O.C. MAXIMUM
0540.16	COLD-FORMED METAL SUB-GIRT
0610.06	1/2" EXTERIOR GYPSUM SHEATHING
0720.05	2" CONTINUOUS MINERAL WOOL INSULATION
0725.04	FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0725.05	SELF-ADHERING DETAIL TRANSITION MEMBRANE
0740.02	PREFINISHED METAL WALL PANEL SYSTEM
0740.04	PREFINISHED METAL PANEL TRIM
0790.01	SEALANT WITH BACKER ROD AS REQUIRED
0840.01	ALUMINUM STOREFRONT
0840.02	ALUMINUM STOREFRONT DOOR
2210.14	ROOF DRAIN PIPING
2210.25	ROOF DRAIN OVERFLOW SPOUT (RE: PLUMBING)



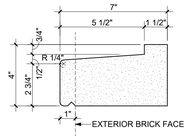
TYPE A



TYPE B (NOT USED)



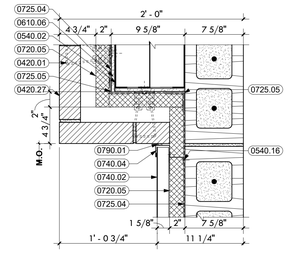
TYPE C



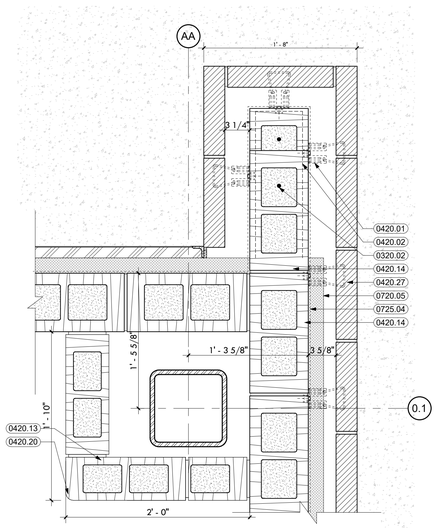
TYPE D

*SEE EXTERIOR ELEVATIONS AND WALL SECTIONS FOR LOCATIONS

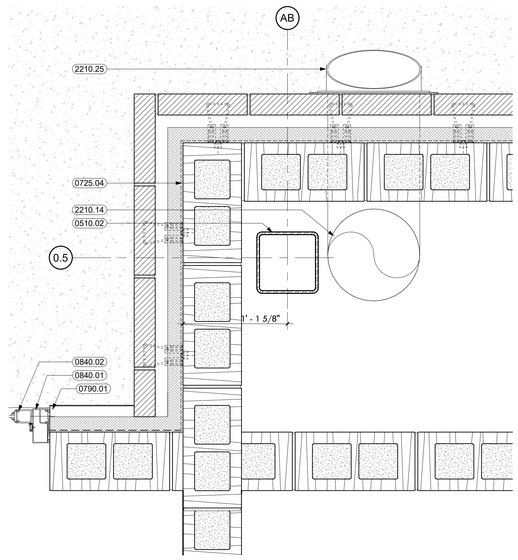
4 CAST STONE SCHEDULE
3" = 1'-0"



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



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



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

JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
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A3.6

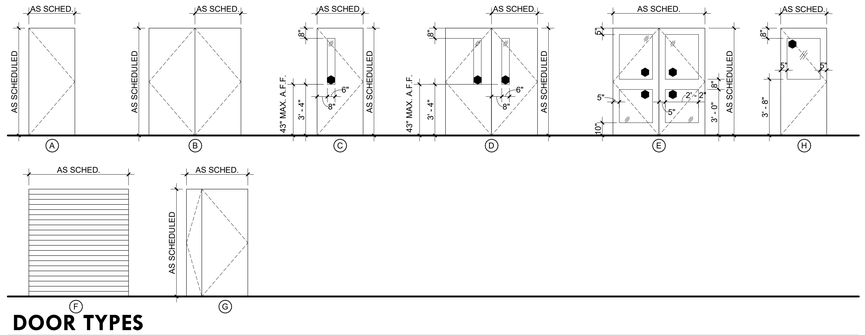
PLAN DETAILS

DOOR SCHEDULE

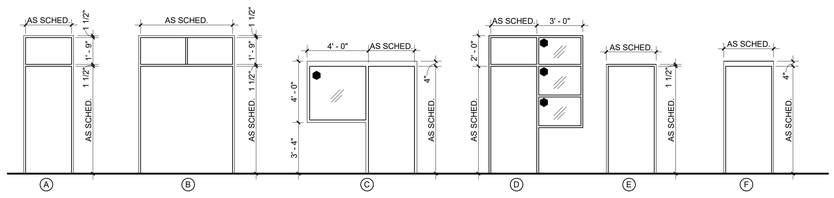
DOOR NUMBER	DOOR SIZE	TYPE	MTL.	FIRE RATING	FRAME TYPE	FRAME MTL.	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	HDWR. SET	REMARKS
001A	6' - 0" X 7' - 0" X 2 1/4"	E	GL			AL	7/A4.1	4/A4.1	7/A4.1	1.0	PANIC BARS, CLOSERS, CARD READER
001B	3' - 6" X 7' - 0" X 1 3/4"	B	HM	90 MIN.	E	HM		10/A3.6	1/A4.1	4.0	FIRE RATED 2 HR. MIN. ; PANIC BARS, MAGNETIC HOLD-OPENS, CLOSERS
001C	3' - 6" X 7' - 0" X 1 3/4"	B	HM	90 MIN.	E	HM		10/A3.6	1/A4.1	4.0	FIRE RATED 2 HR. MIN. ; PANIC BARS, MAGNETIC HOLD-OPENS, CLOSERS
001D	6' - 0" X 7' - 0" X 2 1/4"	E	GL			AL	7/A4.1	4/A4.1	7/A4.1		PANIC BARS, CLOSERS, CARD READER
101A	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	16/A4.1		CLOSER, MAIN DOOR TO CTE
101B	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	16/A4.1		
102B	2' - 11" X 7' - 0" X	FFF	HM					4/A4.1	7/A4.1		
128	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	16/A4.1	3.0	
129	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	16/A4.1		
129B	3' - 0" X 7' - 0" X 1 3/4"	A	WD		A	HM		12/A4.1	16/A4.1		
130A	6' - 0" X 7' - 0" X 1 3/4"	B	WD		B	HM		12/A4.1	16/A4.1		
130B	3' - 0" X 7' - 0" X 1 3/4"	A	HM		E	HM					CARD READER
130B	4' - 0" X 8' - 0" X 1 3/4"	XX									
130C	8' - 0" X 9' - 0" X 1/2"	F	HM		E	HM		9/A4.1	11/A4.1		ROLL UP MANUAL DOOR EXTERIOR
131A	6' - 0" X 7' - 0" X 1 3/4"	N	WD		B	HM		12/A4.1	16/A4.1		PANIC HARDWARE, CLOSER
131B	6' - 0" X 7' - 0" X 1 3/4"	N	WD		B	HM		12/A4.1	16/A4.1		PANIC HARDWARE, CLOSER
131C	6' - 0" X 7' - 0" X 1 3/4"	N	WD		F	HM					PANIC BARS, CLOSERS, CARD READER
403A	3' - 6" X 7' - 0" X 1 3/4"	H	WD/GL		A	HM		12/A4.1	16/A4.1		PR WITH VISION LIGHT, ACOUSTIC DOOR NEEDED
403B	3' - 6" X 7' - 0" X 1 3/4"	H	WD/GL		A	HM		12/A4.1	16/A4.1		PR WITH VISION LIGHT, ACOUSTIC DOOR NEEDED
403C	3' - 6" X 7' - 0" X 1 3/4"	H	WD/GL		A	HM		12/A4.1	16/A4.1		BAND DOOR, ACOUSTIC DOOR NEEDED
403D	3' - 6" X 7' - 0" X 1 3/4"	H	WD/GL		A	HM		12/A4.1	16/A4.1		
403E	3' - 6" X 7' - 0" X 1 3/4"	H	WD/GL		C	HM		12/A4.1	16/A4.1		BAND WITH VISION LITE AND WINDOW, ACOUSTIC DOOR NEEDED
403F	3' - 6" X 7' - 0" X 1 3/4"	G	WD		A	HM		12/A4.1	1/A4.1		FIRE RATED 2 HR. MIN. BAND DOOR, ACOUSTIC DOOR NEEDED
403F	2' - 0" X 7' - 0" X 1 3/4"	G	WD		A	HM		12/A4.1	1/A4.1		FIRE RATED 2 HR. MIN. 1FT OPERABLE PANEL ACOUSTIC DOOR NEEDED
403G	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	16/A4.1		
404A	3' - 0" X 7' - 0" X 1 3/4"	YY			A			12/A4.1	16/A4.1		
404B	3' - 6" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	1/A4.1		FIRE RATED 2 HR. MIN. BAND DOOR, ACOUSTIC DOOR NEEDED
628A	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		D	HM		12/A4.1	16/A4.1		
628B	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	16/A4.1		
628C	3' - 0" X 7' - 0" X 1 3/4"	C	WD/GL		A	HM		12/A4.1	16/A4.1		
825B	3' - 0" X 7' - 0" X 2"	E	WD								

KEYNOTES

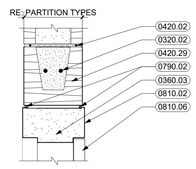
0220.75	EXISING STRUCTURE
0320.02	STEEL REINFORCING
0360.03	FILL WITH GROUT
0405.01	FLASHING END DAM
0405.02	MORTAR NET
0420.01	ADJUSTABLE MASONRY WALL TIES AT 16" O.C.E.W.
0420.02	CONCRETE MASONRY UNIT HORIZONTAL REINFORCING
0420.13	6" CONCRETE MASONRY UNITS
0420.14	8" CONCRETE MASONRY UNITS
0420.20	BULLNOSE CMU
0420.27	KING SIZE BRICK
0420.29	INVERTED BOND BEAM WITH FIELD GROUND EDGE RADIUS
0510.08	STEEL BENT PLATE (RE: STRUCTURAL)
0540.06	2" COLD-FORMED METAL FURRING CHANNEL
0540.07	2" VERTICAL COLD-FORMED METAL FURRING CHANNELS AT 16" O.C. HORIZONTALLY
0550.02	3" X 3" X 1/4" STEEL ANGLE
0610.05	1/2" EXTERIOR GRADE PLYWOOD
0720.05	2" CONTINUOUS MINERAL WOOL INSULATION
0725.04	FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0740.02	PREFINISHED METAL WALL PANEL SYSTEM
0740.05	Z-CLOSURE
0760.40	TERMINATION BAR AND PREFINISHED FLASHING CAP
0790.01	SEALANT WITH BACKER ROD AS REQUIRED
0790.02	CAULKING
0810.01	ALUMINUM DOOR FRAME
0810.02	HOLLOW METAL FRAME
0810.04	HOLLOW METAL DOOR AND FRAME
0810.05	JAMB ANCHOR (3 PER JAMB)
0810.06	HOLLOW METAL DOOR
0830.14	OVERHEAD COILING DOOR
0830.15	OVERHEAD COILING DOOR HOUSING
0830.18	DOOR TRACK
0840.01	ALUMINUM STOREFRONT
0840.02	ALUMINUM STOREFRONT DOOR
0870.11	DRIP CAP
3210.14	CONCRETE PAVING (RE: CIVIL)



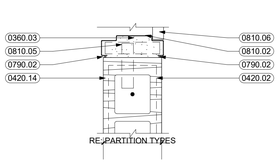
DOOR TYPES



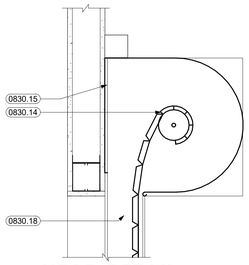
FRAME TYPES



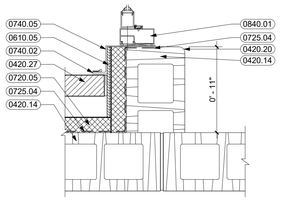
12 DOOR HEAD DETAIL
1 1/2" = 1'-0"



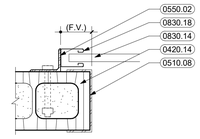
11 DOOR JAMB DETAIL
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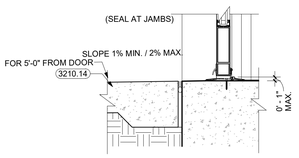
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1 1/2" = 1'-0"



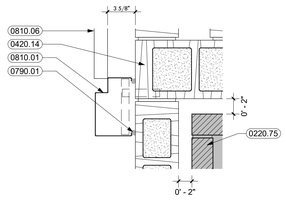
9 JAMB DETAIL
1 1/2" = 1'-0"



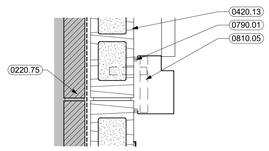
8 JAMB DETAIL
1 1/2" = 1'-0"



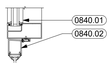
7 SILL DETAIL
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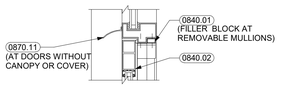
6 SECTION DETAIL
1 1/2" = 1'-0"



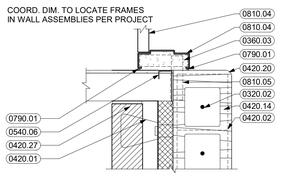
5 SECTION DETAIL
1 1/2" = 1'-0"



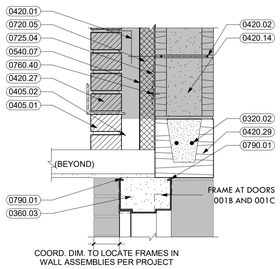
4 JAMB DETAIL
1 1/2" = 1'-0"



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



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



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

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.1380
WWW.BRWARCH.COM

JEFFREY S. CHOATE
REGISTERED ARCHITECT
16762
STATE OF TEXAS
2/23/24

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DATE FEBRUARY 23, 2024
DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A4.1

DOOR SCHEDULE & DETAILS

KEYNOTES

0840.12	ALUMINUM CURTAIN WALL
0880.38	GLASS TYPE IG#4 (INSULATED CLEAR, LOW-E)
0880.44	GLASS TYPE IG#10A (INSULATED SPANDREL)
0880.63	GLASS TYPE IGL#8 (ATTACK RESISTANT INSULATED, LAMINATED, LOW-E)
2810.03	CARD READER (RE: TECHNOLOGY)

GLASS LEGEND

INSULATED SPANDREL

ATTACK RESISTANT SAFETY FILM

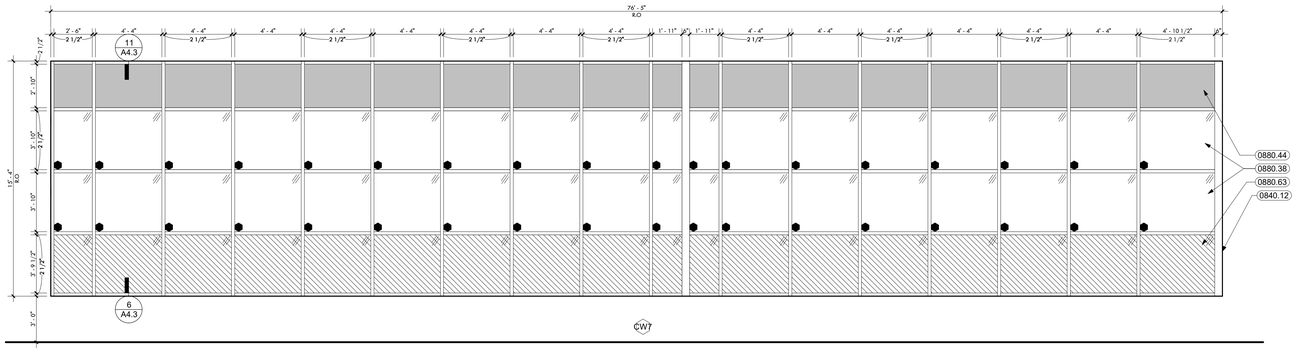
TEMPERED GLAZING

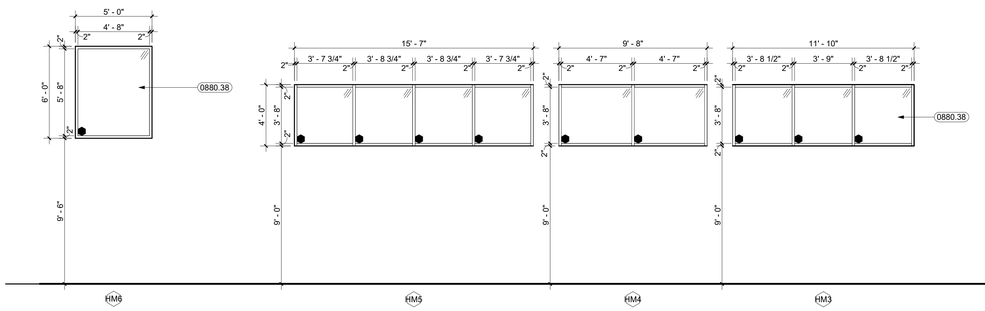
ALTERNATES

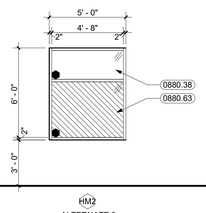
ALT.1: STAFF PARKING
ADD NEW PARKING, SIDEWALK, AND DRIVE AISLE WHERE INDICATED.

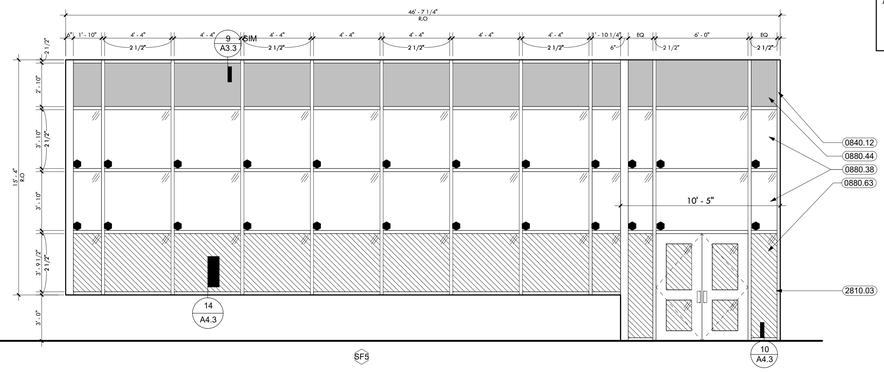
ALT.2: VISITOR PARKING
ADD NEW PARKING, SIDEWALK AND DRIVE AISLE WHERE INDICATED.

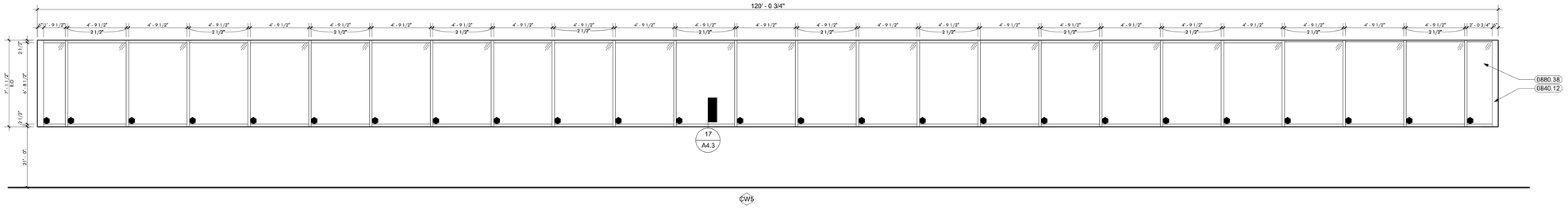
ALT.3: DAYLIGHTING
ADD SKYLIGHTS THROUGHOUT NEW AND EXISTING AND EXTERIOR WINDOWS AT AREAS C AND D.

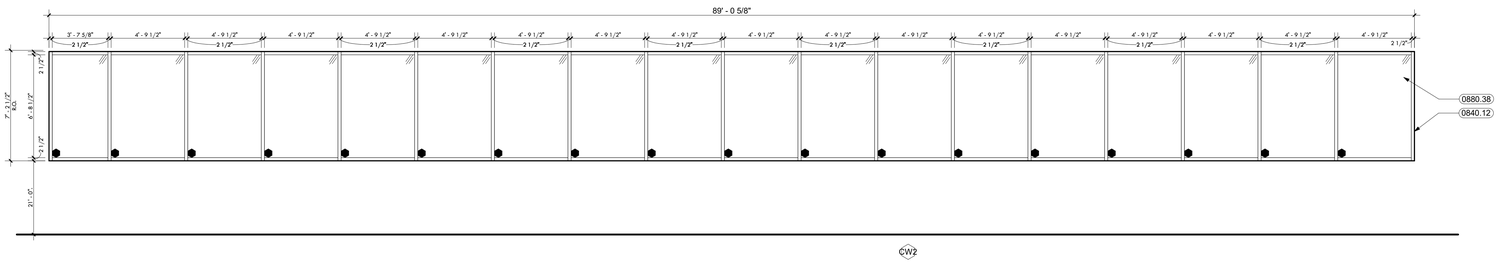


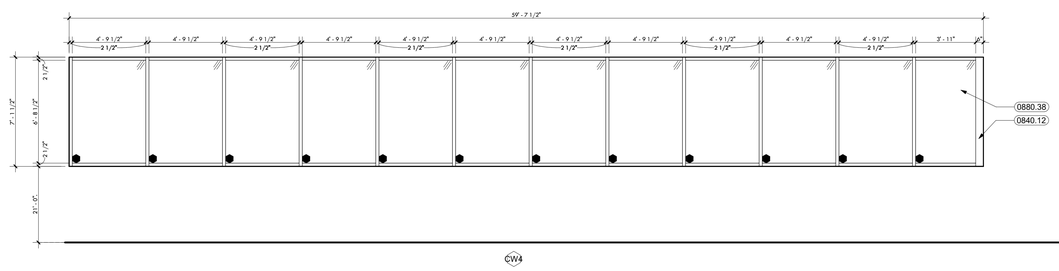


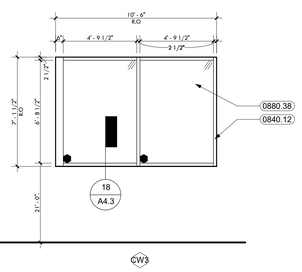


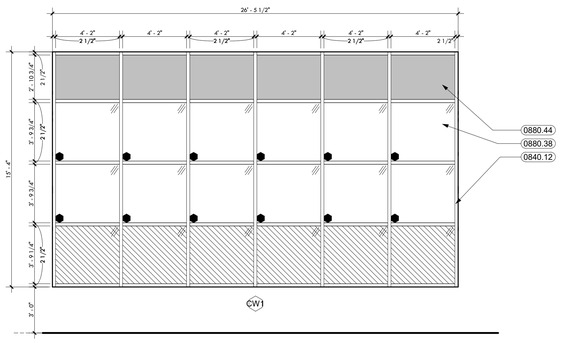












WINDOW TYPES

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
MISSOURI CITY, TEXAS 77345
281.261.1300
WWW.BRWARCH.COM

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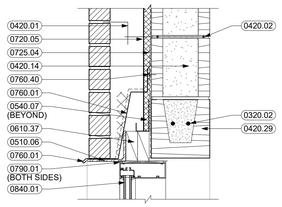
DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

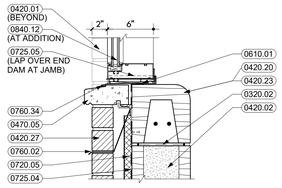
NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A4.2

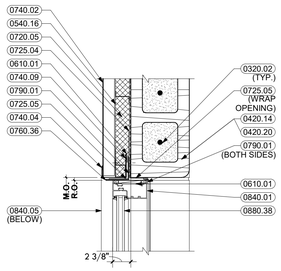
WINDOW TYPES



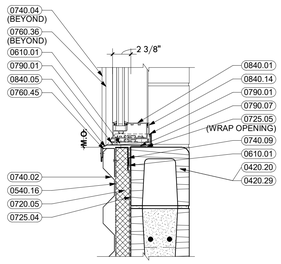
22 HEAD DETAIL
1 1/2" = 1'-0"



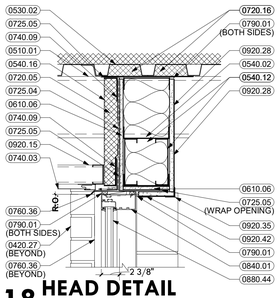
21 SILL DETAIL
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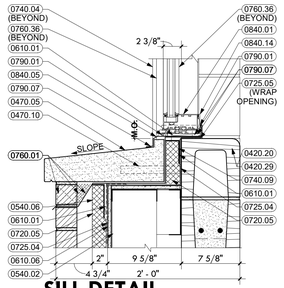
20 JAMB DETAIL
1 1/2" = 1'-0"



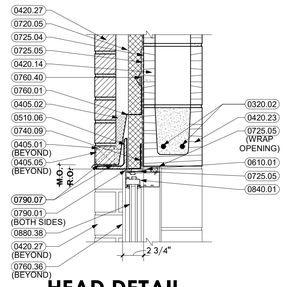
19 SILL DETAIL
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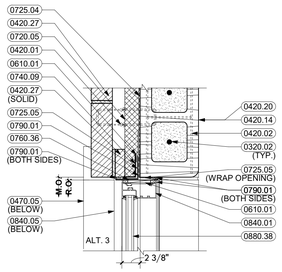
18 HEAD DETAIL
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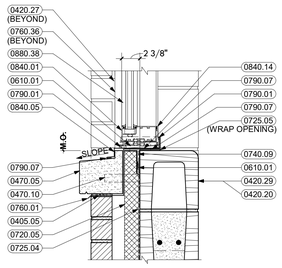
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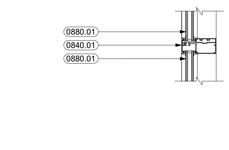
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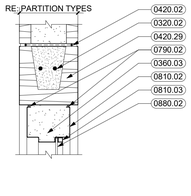
15 JAMB DETAIL
1 1/2" = 1'-0"



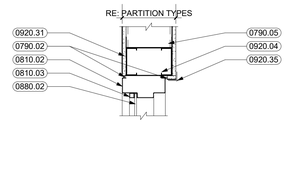
14 SILL DETAIL
1 1/2" = 1'-0"



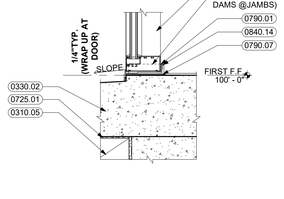
13 JAMB DETAIL
1 1/2" = 1'-0"



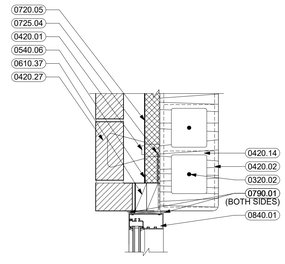
12 HEAD DETAIL
1 1/2" = 1'-0"



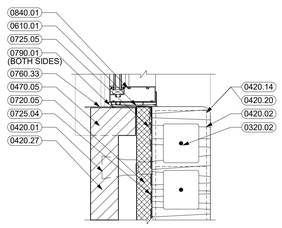
11 HEAD DETAIL
1 1/2" = 1'-0"



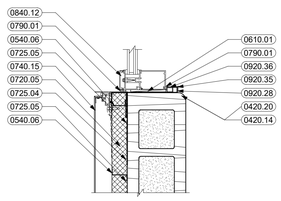
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1 1/2" = 1'-0"



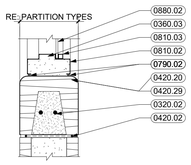
9 JAMB DETAIL
1 1/2" = 1'-0"



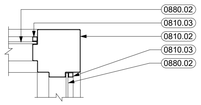
8 JAMB DETAIL
1 1/2" = 1'-0"



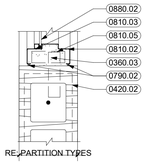
7 JAMB DETAIL
1 1/2" = 1'-0"



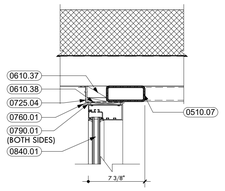
6 SILL DETAIL
1 1/2" = 1'-0"



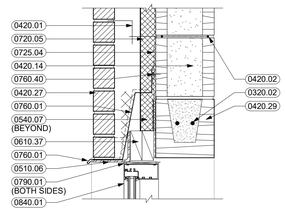
5 JAMB DETAIL
1 1/2" = 1'-0"



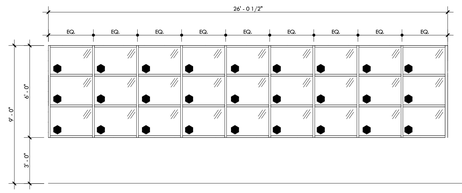
4 JAMB DETAIL
1 1/2" = 1'-0"



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



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



1 INTERIOR WINDOW TYPES
HM7
1/4" = 1'-0"

KEYNOTES

0310.05	VOID FORMS
0320.02	STEEL REINFORCING
0320.04	L-STONE ANCHOR WITH DOWEL
0330.02	CONCRETE SLAB
0360.03	FILL WITH GROUT
0405.01	FLASHING END DAM
0405.02	MORTAR NET
0405.05	MASONRY VENEER WEEP / VENT
0420.01	ADJUSTABLE MASONRY WALL TIES AT 16" O.C.E.W.
0420.02	CONCRETE MASONRY UNIT HORIZONTAL REINFORCING
0420.14	8" CONCRETE MASONRY UNITS
0420.20	BULLNOSE CMU
0420.23	CONCRETE MASONRY BOND BEAM
0420.27	KING SIZE BRICK
0420.29	INVERTED BOND BEAM WITH FIELD GROUND EDGE RADIUS
0470.05	CAST STONE SILL WITH DRIP
0470.10	CAST STONE ANCHORS
0510.01	STEEL STRUCTURE (RE: STRUCTURAL)
0510.04	STEEL ANGLE (RE: STRUCTURAL)
0510.06	STEEL LINTEL (RE: STRUCTURAL)
0510.07	STEEL TUBE (RE: STRUCTURAL)
0530.02	METAL ROOF DECK (RE: STRUCTURAL)
0540.02	6" METAL STUDS (C.F.M.F.) AT 16" O.C. MAXIMUM
0540.06	2" COLD-FORMED METAL FURRING CHANNEL
0540.07	2" VERTICAL COLD-FORMED METAL FURRING CHANNELS AT 16" O.C. HORIZONTALLY
0540.12	COLD-FORMED METAL HEADER
0540.16	COLD-FORMED METAL SUB-GIRT
0610.01	SHIM AS REQUIRED
0610.06	1/2" EXTERIOR GYPSUM SHEATHING
0610.37	2 X 4 WOOD FRAMING
0610.38	2 X 6 MIN. PRESSURE TREATED WOOD NAILER
0720.05	2" CONTINUOUS MINERAL WOOL INSULATION
0720.16	SEMI-RIGID MINERAL WOOL INSULATION FILLER / BACKER MATERIAL
0725.01	UNDERSLAB VAPOR BARRIER
0725.04	FLUID-APPLIED MEMBRANE AIR BARRIER SYSTEM
0725.05	SELF-ADHERING DETAIL TRANSITION MEMBRANE
0740.02	PREFINISHED METAL WALL PANEL SYSTEM
0740.03	PREFINISHED METAL SOFFIT PANEL SYSTEM
0740.04	PREFINISHED METAL PANEL TRIM
0740.09	COMPOSITE FRAMING SUPPORT SYSTEM
0740.15	PREFINISHED ALUMINUM COMPOSITE PANEL SYSTEM
0760.01	THROUGH-WALL FLASHING WITH WEEPS AT 2'-0" O.C. AND MORTAR NET
0760.02	THROUGH-WALL FLASHING (WITH WEEPS AT 2'-0" O.C. AS REQUIRED)
0760.33	PREFINISHED METAL JAMB FLASHING
0760.34	PREFORMED PREFINISHED SILL PAN METAL FLASHING SET IN BED OF SEALANT
0760.35	PREFINISHED METAL THROUGH WALL FLASHING WITH HEMMED DRIP EDGE
0760.36	PREFINISHED METAL FLASHING CLOSURE
0760.40	TERMINATION BAR AND PREFINISHED FLASHING CAP
0760.45	PREFINISHED BRAKE METAL FLASHING OR CLOSURE TRIM
0790.01	SEALANT WITH BACKER ROD AS REQUIRED
0790.02	CAULKING
0790.05	METAL ROOF EXPANSION JOINT COVER
0790.07	SET IN BED OF SEALANT
0810.02	HOLLOW METAL FRAME
0810.03	HOLLOW METAL STOP
0810.05	JAMB ANCHOR (3 PER JAMB)
0840.01	ALUMINUM STOREFRONT
0840.05	CONTINUOUS ALUMINUM SILL PAN FLASHING WITH BACK AND END DAMS
0840.12	ALUMINUM CURTAIN WALL
0840.14	ALUMINUM STOREFRONT SUBSILL
0880.01	GLASS TYPE MG#1A (MONOLITHIC CLEAR, ANNEALED)
0880.02	GLASS TYPE MG#1B (MONOLITHIC CLEAR, HEAT STRENGTHENED)
0880.38	GLASS TYPE IG#4 (INSULATED CLEAR, LOW-E)
0880.44	GLASS TYPE IG#10A (INSULATED SPANDREL)
0920.04	3 5/8" METAL STUDS (20 GAUGE MINIMUM) AT 16" O.C.
0920.15	METAL SUPPORT SYSTEM WITH UPLIFT BRACING
0920.28	5/8" GYPSUM BOARD (TYPE X)
0920.31	1/2" GYPSUM BOARD (TYPE X)
0920.35	CORNER BEAD, TYPICAL
0920.36	J-MOULD, TYPICAL
0920.42	L-BEAD, TYPICAL

JEFFREY S. CHOATE 16762 REGISTERED ARCHITECT STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
FRESNO, TEXAS 77345
281.301.1800
WWW.BRWARCH.COM

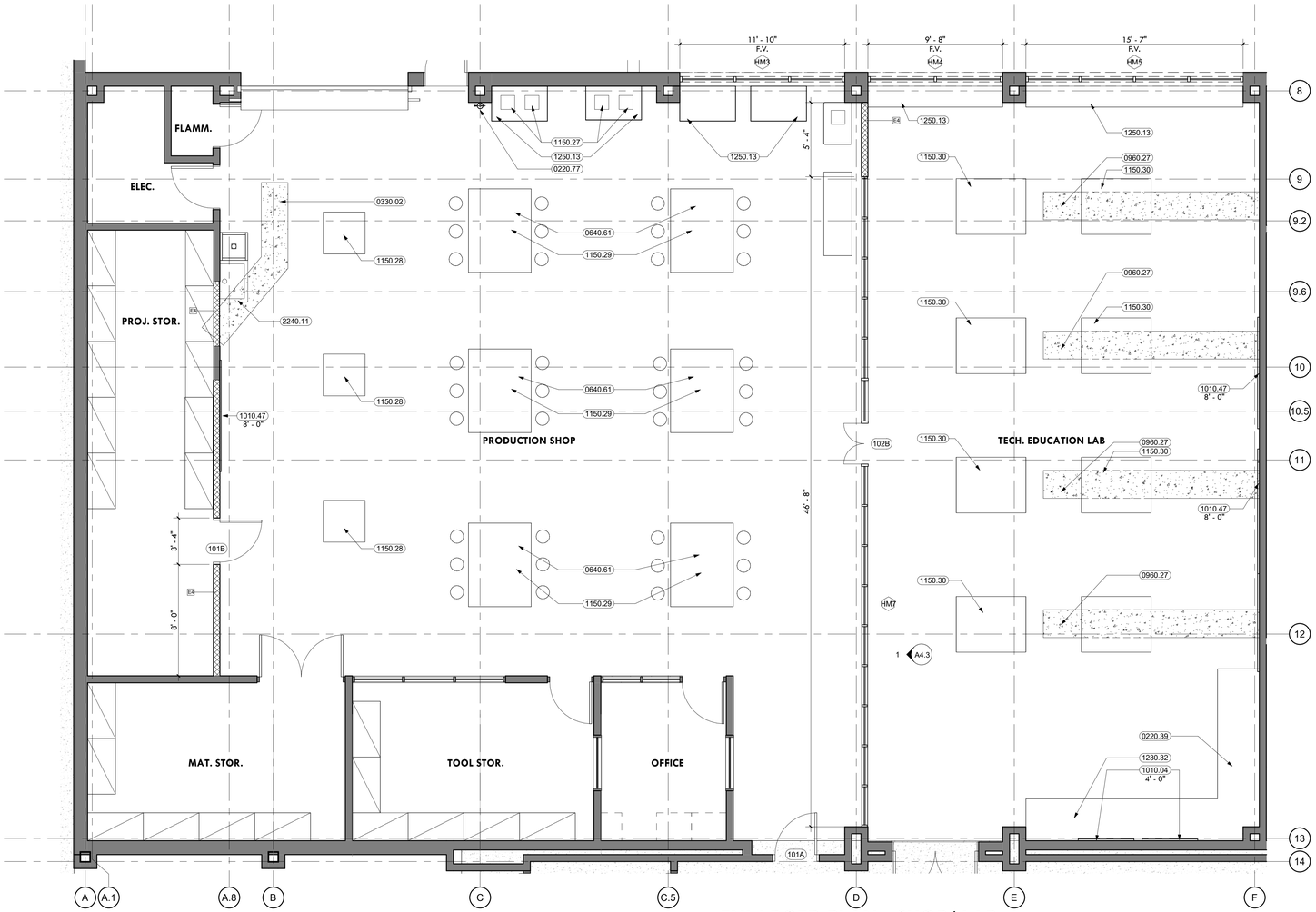
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RENOVATIONS

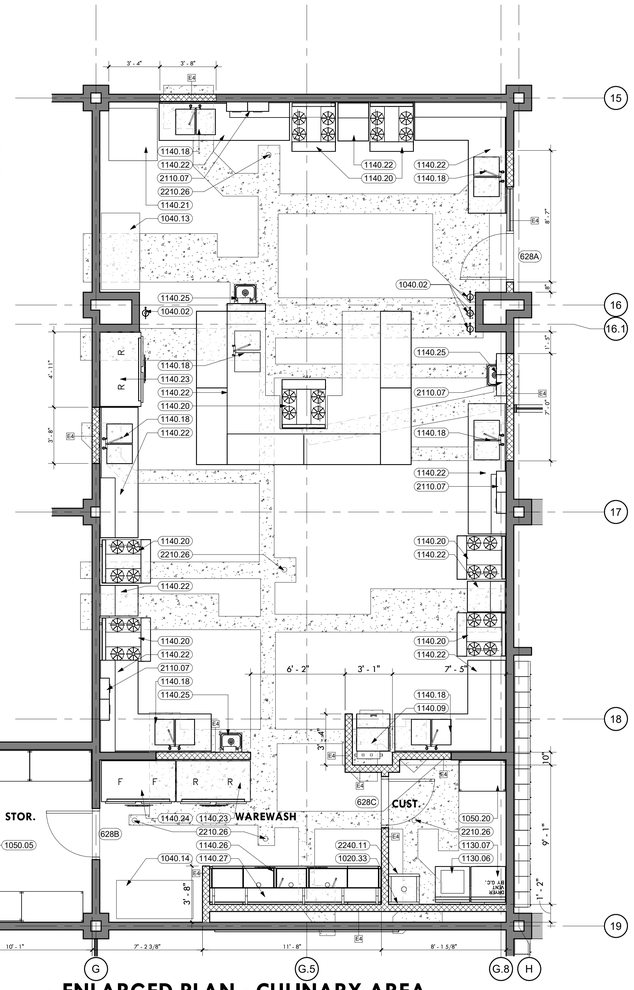
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A4.3
DOOR & WINDOW DETAILS



1 ENLARGED PLAN - SHOP/ LAB

1/4" = 1'-0"



2 ENLARGED PLAN - CULINARY AREA

1/4" = 1'-0"

KEYNOTES

0220.39	EXISTING COUNTERTOP
0220.77	EXISTING EXPOSED FIRE EXTINGUISHER
0330.02	CONCRETE SLAB
0640.61	NEW MODIFIED COUNTERTOP TO BE PLACED ON MODIFIED EXISTING LEG SUPPORTS
0960.27	PATCH AND REPAIR EXISTING CONCRETE
1010.04	TACKBOARD
1010.47	MARKERBOARD
1020.33	STAINLESS STEEL MOP RACK
1040.02	FIRE EXTINGUISHER AND WALL BRACKET
1040.13	TEACHER'S DESK NOT IN CONTRACT
1040.14	LOCATION FOR STUDENT BAGS
1050.05	METAL STORAGE SHELVING
1050.20	CHEMICAL SHELVES
1130.06	WASHING MACHINE
1130.07	CLOTHES DRYER
1140.09	ICE MACHINE
1140.18	INTEGRAL STAINLESS STEEL SINK (RE: FOOD SERVICE)
1140.20	GAS RANGE (RE: FOOD SERVICE)
1140.21	INSTALL SALVAGED CONVECTION OVEN (RE: FOOD SERVICE)
1140.22	STUDENT WORK STATION (RE: FOOD SERVICE)
1140.23	REACH-IN REFRIGERATOR (RE: FOOD SERVICE)
1140.24	REACH-IN FREEZER (RE: FOOD SERVICE)
1140.25	HANDWASH SINK (RE: FOOD SERVICE, RE: PLUMBING)
1140.26	THREE COMPARTMENT SINK (RE: FOOD SERVICE, RE: PLUMBING)
1140.27	PERFORATED OVERSHELF (RE: FOOD SERVICE)
1150.27	MITER SAW
1150.28	TABLE SAW
1150.29	RELOCATED SHOP WORK STATION
1150.30	COMPUTER WORK STATIONS (O.F.O.I)
1230.32	STAINLESS STEEL COUNTERTOP WITH SQUARE EDGE
1250.13	MOVEABLE TABLES (N.I.C.)
2110.07	ANSUL COMMERCIAL KITCHEN FIRE PROTECTION SYSTEM
2210.26	GREASE WASTE FLOOR CLEANOUT (RE: PLUMBING)
2240.11	MOP SINK

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING BUILDING IN FIELD.
2. ALL WALLS TYPE E CMU UNLESS NOTED OTHERWISE.
3. KEEP COLUMN SURROUNDS TIGHT TO STRUCTURE U.N.O.
4. SEE A1.0 FOR PARTITION TYPE SCHEDULE.
5. SEE G1.4 FOR LOCATIONS OF FIRE RATED ASSEMBLIES.
6. REFER TO FINISH PLAN FOR WOOD ATHLETIC FLOOR DETAILS

REGISTERED ARCHITECT
JEFFREY S. CHYCE
16762
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
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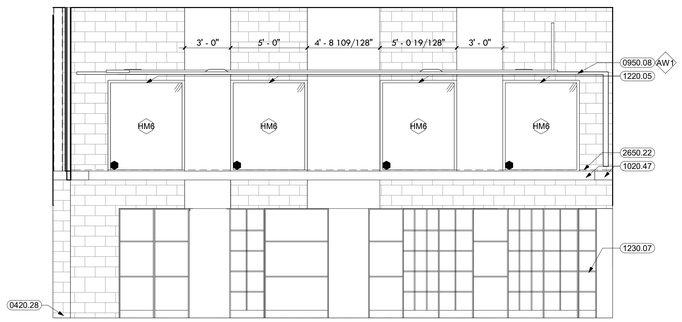
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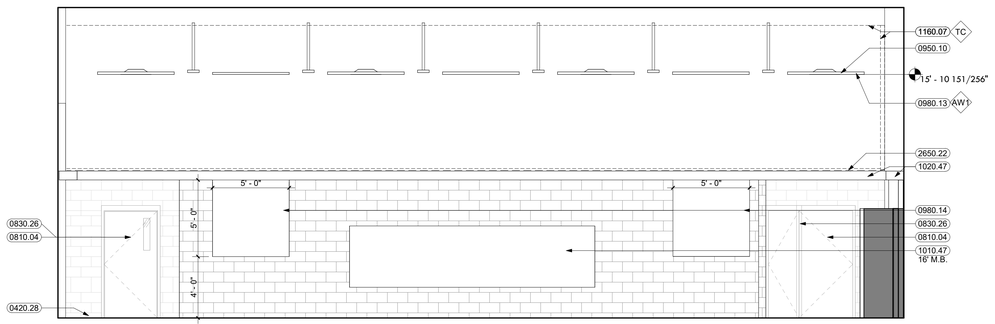
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A5.1

ENLARGED PLANS



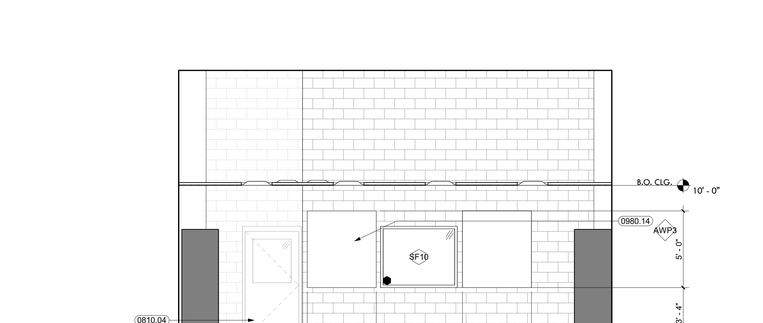
9 INT. ELEVATION BAND
1/4" = 1'-0"



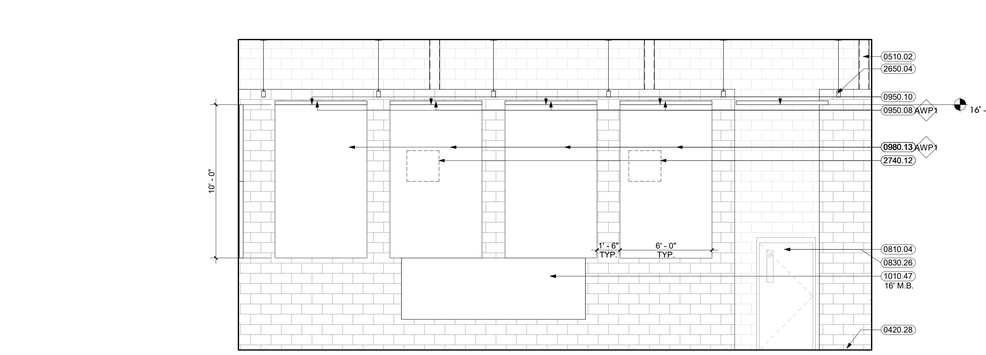
8 INT. ELEVATION BAND
1/4" = 1'-0"

KEYNOTES

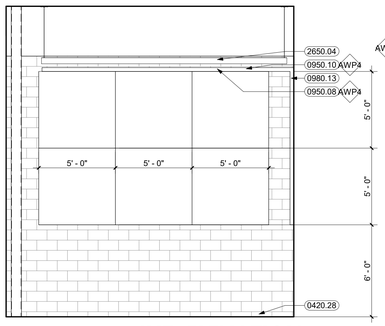
0220.46	EXISTING DOOR
0420.28	4" TALL CONCRETE MASONRY UNIT STARTER COURSE
0510.02	STEEL COLUMN (RE: STRUCTURAL)
0810.04	HOLLOW METAL DOOR AND FRAME
0830.26	SOUND CONTROL DOOR ASSEMBLY
0950.08	SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
0950.10	MODIFIED 24"X24" SUSPENDED CEILING GRID WITH TRIM
0980.13	SUSPENDED ACOUSTICAL PANELS
0980.14	3" THICK FABRIC-WRAPPED ACOUSTICAL WALL PANELS
1010.47	MARKERBOARD
1020.47	NEW SHELF AT 9' 4"
1160.07	ADJUSTABLE ACOUSTICAL CURTAIN (RE: THEATRICAL)
1220.05	MOTORIZED WINDOW SHADE
1230.07	MUSIC INSTRUMENT STORAGE CASEWORK
1250.14	INSTRUMENT STORAGE CABNIETS WITH INTERIOR ACOUSTIC PANELING. DESIGN BASIS: WENGER ULTRASTORE ACOUSTICABINETS.
2650.04	SUSPENDED LIGHT FIXTURE
2650.22	RECESSED TAPE LIGHT RE: ELECTRICAL
2740.12	WALL MOUNTED SPEAKERS (RE: TECHNOLOGY)



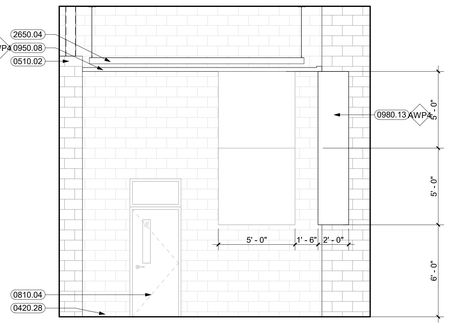
7 INT. ELEVATION BAND
1/4" = 1'-0"



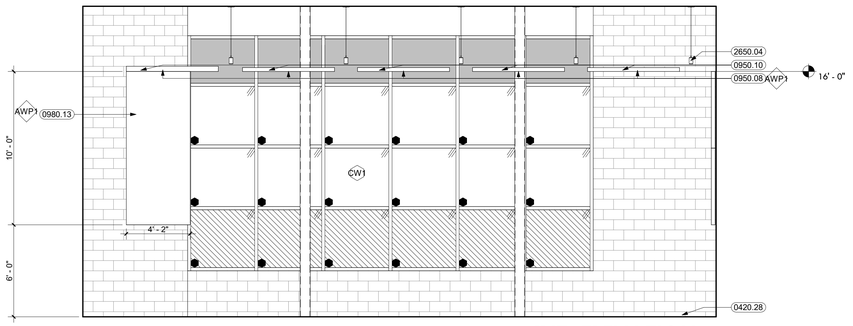
6 INT. ELEVATION BAND
1/4" = 1'-0"



5 INT. ELEVATION LARGE ENSEMBLE
1/4" = 1'-0"



4 INT. ELEVATION LARGE ENSEMBLE
1/4" = 1'-0"



3 INT. ELEVATION LARGE ENSEMBLE
1/4" = 1'-0"

2 INT. ELEVATION BAND STORAGE
1/4" = 1'-0"

1 INT. ELEVATION LARGE ENSEMBLE
1/4" = 1'-0"

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4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
HOUSTON, TEXAS 77345
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HUMBLE ISD
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RENOVATIONS

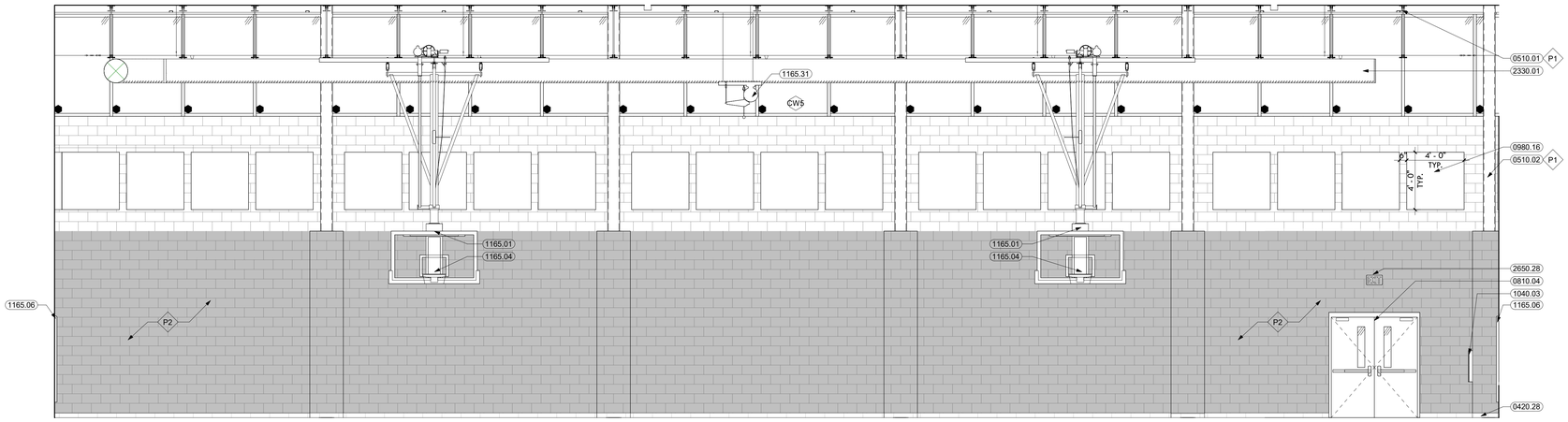
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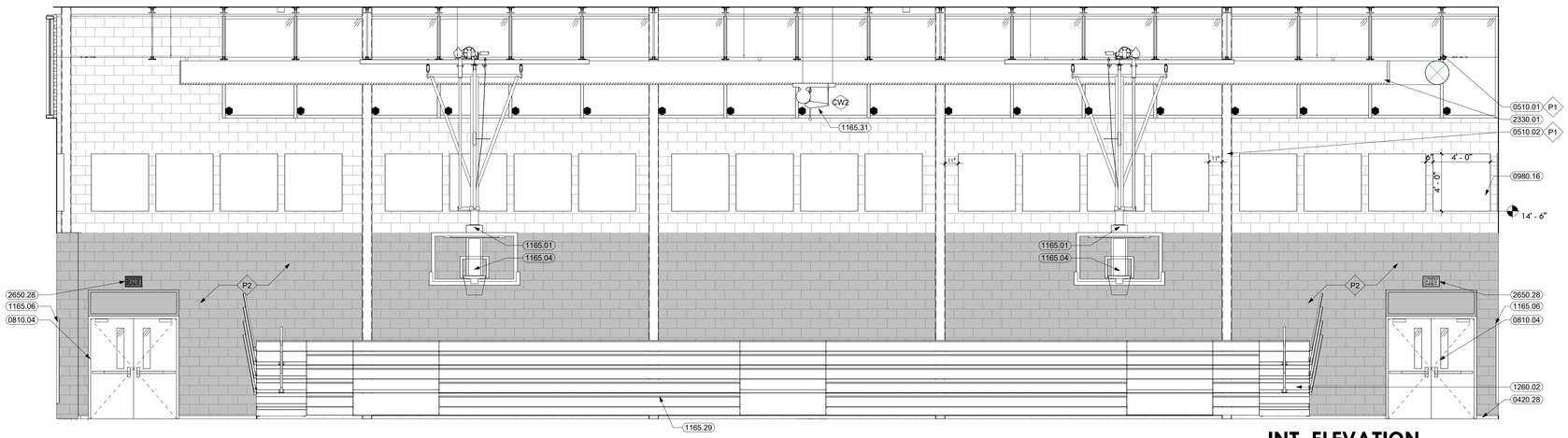
INTERIOR ELEVATIONS

KEYNOTES

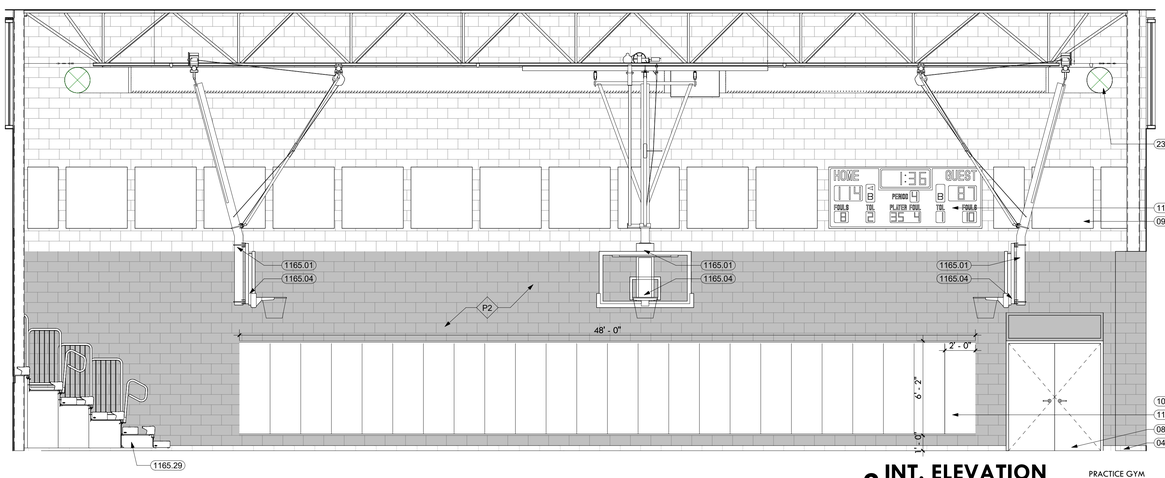
0420.28	4" TALL CONCRETE MASONRY UNIT STARTER COURSE
0510.01	STEEL STRUCTURE (RE: STRUCTURAL)
0510.02	STEEL COLUMN (RE: STRUCTURAL)
0810.04	HOLLOW METAL DOOR AND FRAME
0980.16	ACOUSTIC WALL PANELS
1040.03	FIRE EXTINGUISHER AND SEMI-RECESSED CABINET
1165.01	RETRACTABLE SUSPENDED BASKETBALL BACKSTOP WITH INTEGRAL HEIGHT ADJUSTMENT
1165.04	TEMPERED GLASS BASKETBALL BACKBOARD WITH RIM, NET, AND SAFETY PADS. PROVIDE STEEL SUPPORTS AND MOUNTING BRACKETS
1165.06	PLYWOOD BACKED WALL PADS
1165.29	TELESCOPING BLEACHERS (196 SEATS WITH 6 ACCESSIBLE)
1165.30	SCOREBOARD
1165.31	MOTORIZED DIVIDER CURTAIN
1260.02	MOTORIZED TELESCOPING GYMNASIUM SEATING
2330.01	HVAC DUCTWORK
2650.28	WALL-MOUNTED EXIT SIGN WITH IMPACT-RESISTANT CAGE



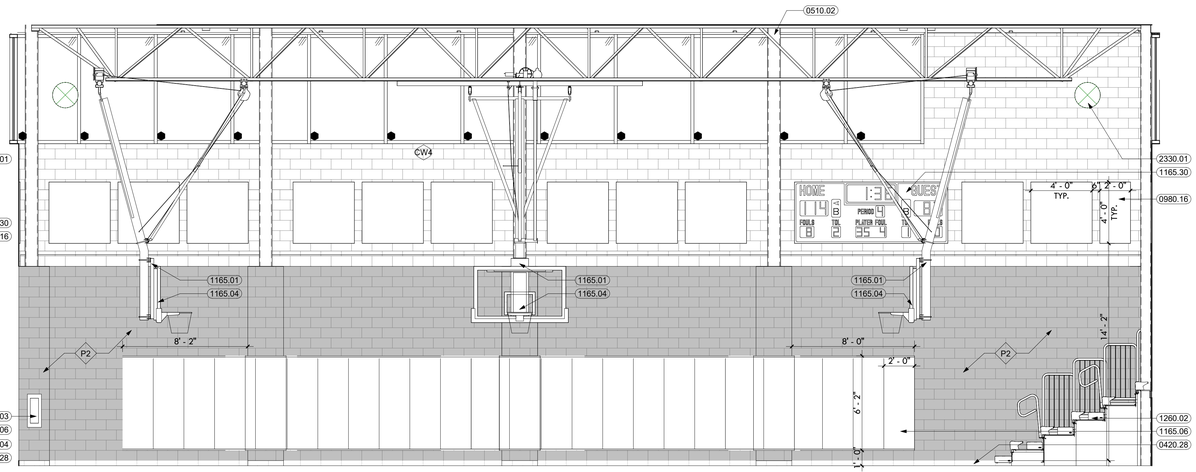
4 INT. ELEVATION PRACTICE GYM
1/4" = 1'-0"



3 INT. ELEVATION PRACTICE GYM
1/4" = 1'-0"



2 INT. ELEVATION PRACTICE GYM
1/4" = 1'-0"



1 INT. ELEVATION PRACTICE GYM
1/4" = 1'-0"

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SUITE 250 BUILDING 6
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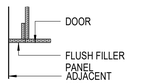
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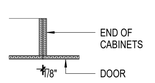
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A5.4

INTERIOR ELEVATIONS



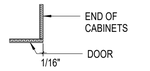
PLAN - CAB/END FILL
DETAIL "A"



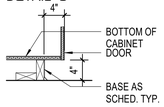
PLAN - CAB TO CAB
DETAIL "B"



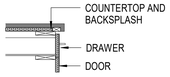
PLAN - COUNTER
DETAIL "C"



PLAN - FIN End of CAB
DETAIL "D"

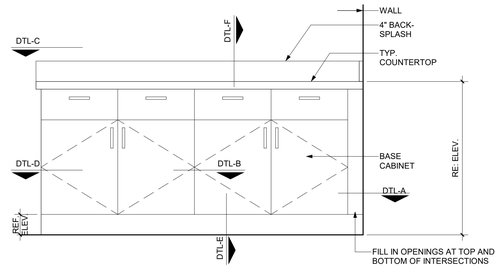


SECTION - TOE KICK
DETAIL "E1"



SECTION - COUNTERTOP
DETAIL "F"

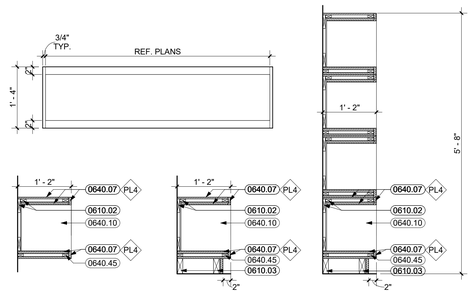
9 TYP. MILLWORK DETAILS
1" = 1'-0"



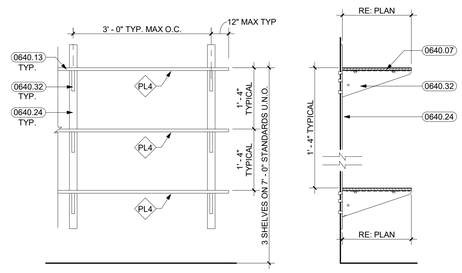
8 MILLWORK - TYP. DETAIL ELEVATION
1" = 1'-0"

KEYNOTES

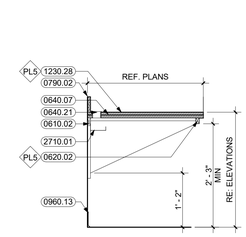
0610.02	1X WOOD BLOCKING
0610.03	2X WOOD BLOCKING
0620.02	1X HARDWOOD TRIM
0640.07	3/4" PLYWOOD
0640.10	3/4" HARDWOOD VENEER MEDIUM DENSITY FIBERBOARD
0640.13	1/2" MEDIUM DENSITY FIBERBOARD
0640.17	DRAWER GLIDE
0640.21	WIRE GROMMET
0640.22	CABINET PULLS
0640.24	ADJUSTABLE METAL SHELF STANDARDS. PROVIDE BLOCKING IN WALL AS REQUIRED
0640.32	SHELF BRACKET
0640.39	3/4" PLASTIC LAMINATE CLAD PLYWOOD DRAWER WITH 1/4" HARDWOOD BOTTOM
0640.45	1/4" HARDWOOD CABINET BACK
0640.46	3/4" PLASTIC LAMINATE CLAD PLYWOOD CABINET DOOR
0640.60	1/4" RUBBER MAT AT PULL OUT TRASH / RECYCLING DRAWER
0790.02	CAULKING
0960.13	4" RESILIENT BASE
1230.28	QUARTZ WINDOW SILL
2710.01	CABLE TRAY



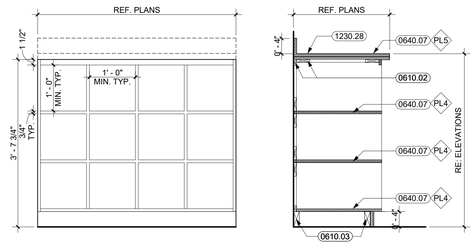
7 MILLWORK DETAIL - U300
3/4" = 1'-0"



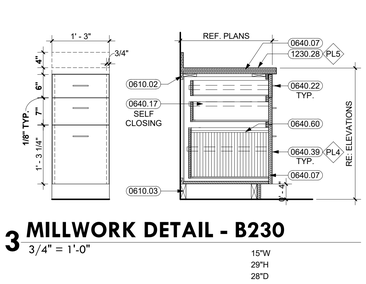
6 ADJUSTABLE SHELVING
3/4" = 1'-0"



5 MILLWORK DETAIL
3/4" = 1'-0"



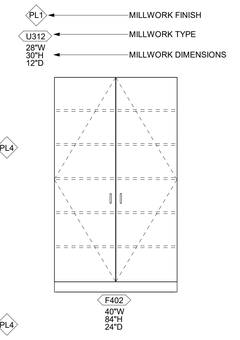
4 MILLWORK DETAIL-B170
3/4" = 1'-0"

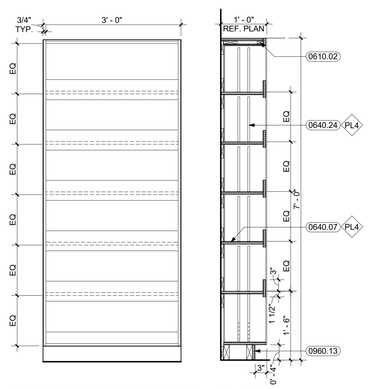


3 MILLWORK DETAIL - B230
3/4" = 1'-0"

15"W
29"H
28"D

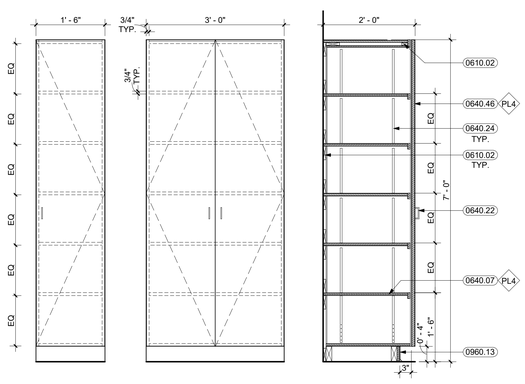
MILLWORK LEGEND





2 MILLWORK DETAIL - F429
3/4" = 1'-0"

36"W
84"H
24"D



1 MILLWORK DETAIL - F401, F402
3/4" = 1'-0"

18"W
84"H
24"D

36"W
84"H
24"D

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4501 MAGNOLIA COVE DRIVE
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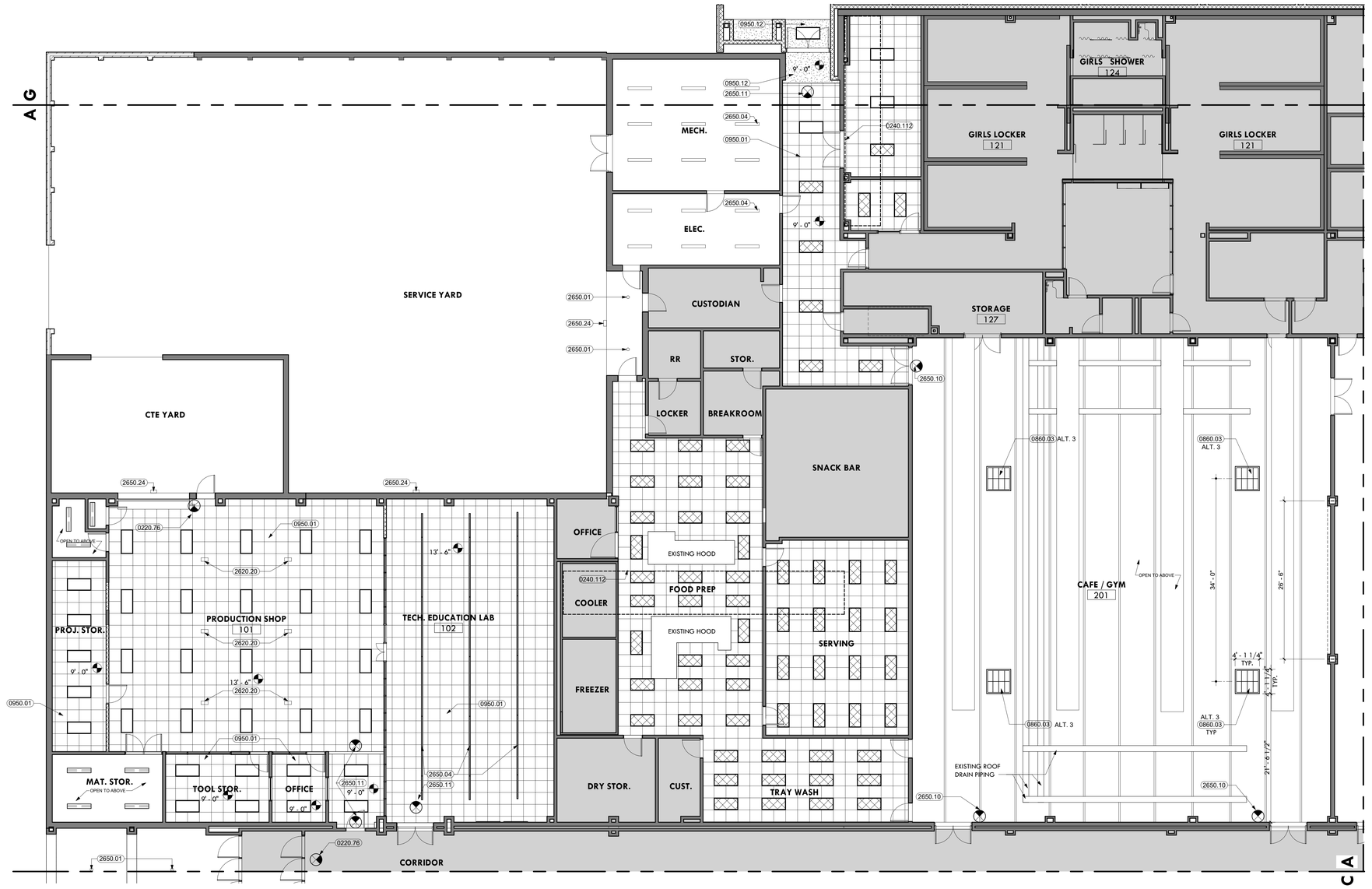
DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A5.9

MILLWORK DETAILS



PLAN NORTH / TRUE NORTH

1 REFLECTED CEILING PLAN - AREA A

1/8" = 1'-0"

KEYNOTES

0220.76	EXISTING EMERGENCY EXIT SIGN
0240.112	REFER TO MEPT FOR ABOVE CEILING WORK IN THIS AREA.
0860.03	NEW PYRAMID SKYLIGHT
0950.01	SUSPENDED ACOUSTICAL LAY-IN TILE CEILING
0950.12	SUSPENDED GYPSUM BOARD CEILING SYSTEM
2620.20	HUBBELL CABLE REEL
2650.01	RECESSED LIGHT FIXTURE
2650.04	SUSPENDED LIGHT FIXTURE
2650.10	WALL-MOUNTED EXIT SIGN
2650.11	CEILING-MOUNTED EXIT SIGN
2650.24	WALL MOUNTED LIGHT

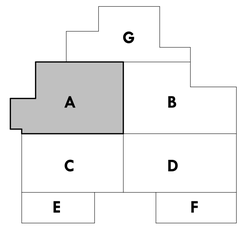
CEILING LEGEND

- 2'x2' LAY-IN CEILING GRID
- PAINTED GYPSUM CEILING
- CEILING LIGHT - LINEAR BOX
- EXIT LIGHTS
- 2X4 LED SEALED (FOOD GRADE FIXTURE)
- WALL MOUNTED SCONCE FIXTURE
- WALL MOUNTED FIXTURE
- TAPE LIGHT
- CHAIN-HUNG LED UTILITY LIGHT
- CHAIN-HUNG STRIP
- LINEAR PENDANT
- LINEAR PENDANT
- LINEAR PENDANT (INDIRECT ONLY)
- RECESSED LINEAR FIXTURE
- RECESSED LINEAR FIXTURE SEALED
- 2X4 EXISTING FIXTURE
- 2X4 NEW FIXTURE RE: ELECTRICAL LIGHTING FLOOR PLANS
- SUPPLY REGISTER
- RETURN REGISTER
- NEW SKYLIGHT
- ACOUSTICAL PANEL
- SOFFIT SYSTEM / CANOPY

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING BUILDING IN FIELD.
2. ALL CEILINGS AT 9'-0" A.F.F. U.N.O
3. PROTECT ALL EXISTING PROJECTION SCREENS AND PROJECTORS AT AREAS OF WORK.
4. AT AREAS WITH THE EXISTING CEILING SCHEDULED TO REMAIN, REMOVE AND REINSTALL CEILING TILE AND GRID THROUGHOUT THOSE AREAS AS NECESSARY TO RUN NEW INFRASTRUCTURE ABOVE CEILINGS. RE: MEPT FOR WORK ABOVE CEILINGS.
5. REFER TO THE FINISH PLANS FOR SCHEDULED CEILING FINISH.
6. REFER TO THE LIGHTING PLAN AND OTHER MEPT DRAWINGS FOR ADDITIONAL WORK ASSOCIATED WITH THE REFLECTED CEILING PLANS.
7. REFER TO ELECTRICAL LIGHTING PLAN FOR NEW EMERGENCY RELAY SWITCHES AT EXISTING FIXTURES.
8. INSTALL CEILING TILE AND GRID WHERE REMOVED TO PERFORM ABOVE CEILING WORK.

KEY PLAN



REGISTERED ARCHITECT JEFFREY S. CHOATE 16767 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
HUMBLE, TEXAS 77345
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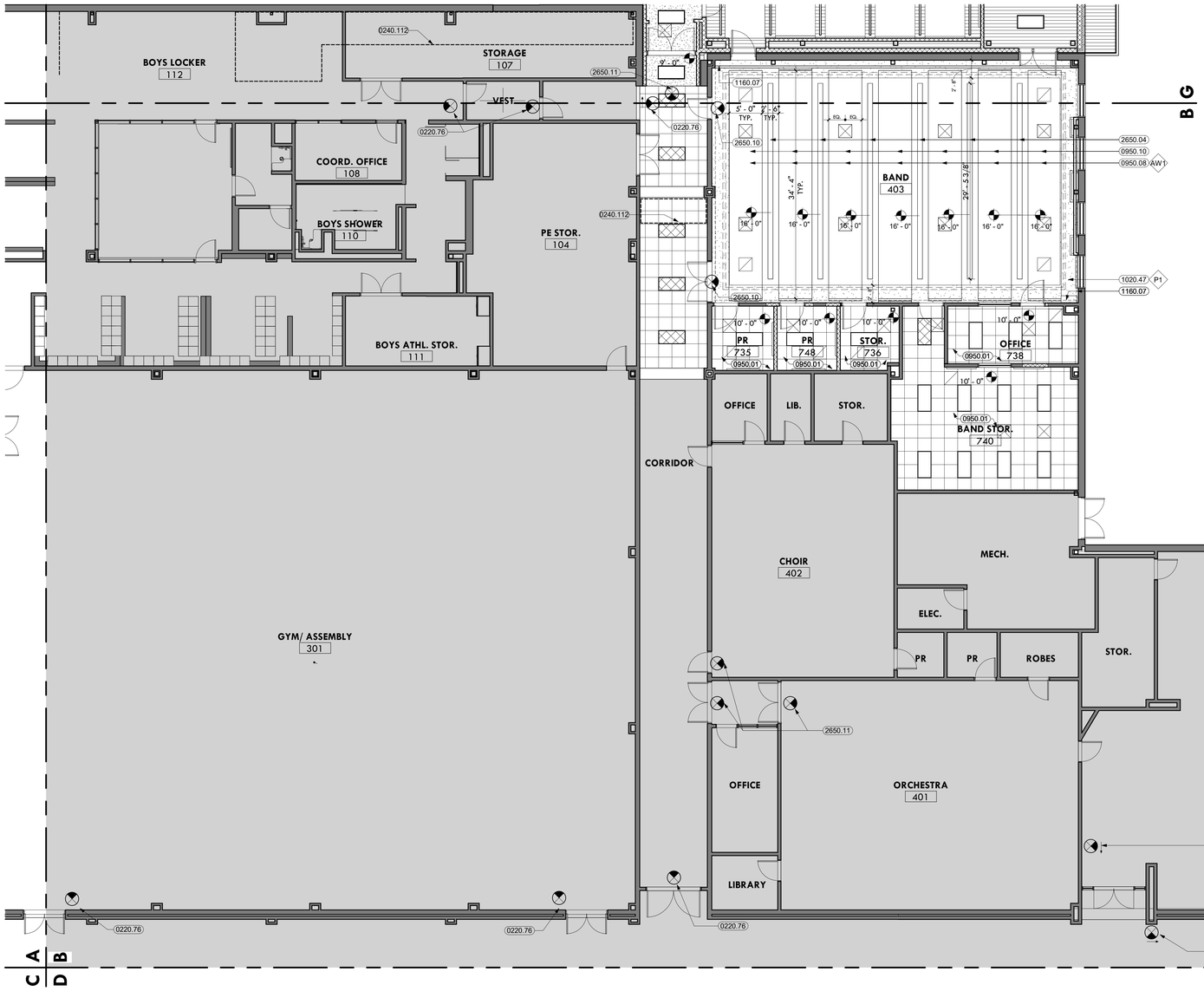
DATE	FEBRUARY 23, 2024
DRAWN BY	JTL
CHECKED BY	MD, JSC
BRW PROJECT NUMBER	223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A6.1A

REFLECTED CEILING PLAN - AREA A



PLAN NORTH / TRUE NORTH

1 REFLECTED CEILING PLAN - AREA B

1/8" = 1'-0"

KEYNOTES

0220.76	EXISTING EMERGENCY EXIT SIGN
0240.112	REFER TO MEPT FOR ABOVE CEILING WORK IN THIS AREA.
0950.01	SUSPENDED ACOUSTICAL LAY-IN TILE CEILING
0950.08	SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
0950.10	MODIFIED 24"X24" SUSPENDED CEILING GRID WITH TRIM
1020.47	NEW SHELF AT 9'-4"
1160.07	ADJUSTABLE ACOUSTICAL CURTAIN (RE: THEATRICAL)
2650.04	SUSPENDED LIGHT FIXTURE
2650.10	WALL-MOUNTED EXIT SIGN
2650.11	CEILING-MOUNTED EXIT SIGN
2650.24	WALL MOUNTED LIGHT

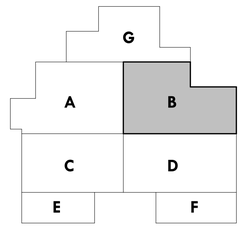
CEILING LEGEND

- 2'x2' LAY-IN CEILING GRID
- PAINTED GYPSUM CEILING
- CEILING LIGHT - LINEAR BOX
- EXIT LIGHTS
- 2X4 LED SEALED (FOOD GRADE FIXTURE)
- WALL MOUNTED SCONCE FIXTURE
- WALL MOUNTED FIXTURE
- TAPE LIGHT
- CHAIN-HUNG LED UTILITY LIGHT
- CHAIN-HUNG STRIP
- LINEAR PENDANT
- LINEAR PENDANT
- LINEAR PENDANT (INDIRECT ONLY)
- RECESSED LINEAR FIXTURE
- RECESSED LINEAR FIXTURE SEALED
- 2X4 EXISTING FIXTURE
- 2X4 NEW FIXTURE RE: ELECTRICAL LIGHTING FLOOR PLANS
- SUPPLY REGISTER
- RETURN REGISTER
- NEW SKYLIGHT
- ACOUSTICAL PANEL
- SOFFIT SYSTEM / CANOPY

GENERAL NOTES

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7. REFER TO ELECTRICAL LIGHTING PLAN FOR NEW EMERGENCY RELAY SWITCHES AT EXISTING FIXTURES.
8. INSTALL CEILING TILE AND GRID WHERE REMOVED TO PERFORM ABOVE CEILING WORK.

KEY PLAN



JEFFREY S. CHOATE
REGISTERED ARCHITECT
16767
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
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A6.1B

REFLECTED CEILING PLAN - AREA B



PLAN NORTH / TRUE NORTH

1 REFLECTED CEILING PLAN - AREA C

1/8" = 1'-0"

KEYNOTES

0220.76	EXISTING EMERGENCY EXIT SIGN
0220.79	EXISTING EMERGENCY EXIT SIGN
0220.105	EXISTING PROJECTION SCREEN
0240.112	REFER TO MEPT FOR ABOVE CEILING WORK IN THIS AREA.
0860.03	NEW PYRAMID SKYLIGHT
0950.01	SUSPENDED ACOUSTICAL LAY-IN TILE CEILING
0950.12	SUSPENDED GYPSUM BOARD CEILING SYSTEM
2330.04	EXHAUST FAN
2650.08	LAY-IN LIGHT FIXTURE
2650.11	CEILING-MOUNTED EXIT SIGN
2650.27	RELOCATED LIGHT FIXTURE

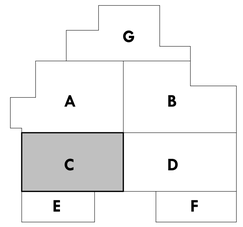
CEILING LEGEND

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- PAINTED GYPSUM CEILING
- CEILING LIGHT - LINEAR BOX
- EXIT LIGHTS
- 2X4 LED SEALED (FOOD GRADE FIXTURE)
- WALL MOUNTED SCONCE FIXTURE
- WALL MOUNTED FIXTURE
- TAPE LIGHT
- CHAIN-HUNG LED UTILITY LIGHT
- CHAIN-HUNG STRIP
- LINEAR PENDANT
- LINEAR PENDANT
- LINEAR PENDANT (INDIRECT ONLY)
- RECESSED LINEAR FIXTURE
- RECESSED LINEAR FIXTURE SEALED
- 2X4 EXISTING FIXTURE
- 2X4 NEW FIXTURE RE: ELECTRICAL LIGHTING FLOOR PLANS
- SUPPLY REGISTER
- RETURN REGISTER
- NEW SKYLIGHT
- ACOUSTICAL PANEL
- SOFFIT SYSTEM / CANOPY

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KEY PLAN



REGISTERED ARCHITECT
JEFFREY S. CHOATE
16767
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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	ISSUED FOR CSP	06/13/2025

A6.1C

REFLECTED CEILING PLAN - AREA C

KEYNOTES

0220.76	EXISTING EMERGENCY EXIT SIGN
0860.03	NEW PYRAMID SKYLIGHT
2650.11	CEILING-MOUNTED EXIT SIGN
2650.24	WALL MOUNTED LIGHT



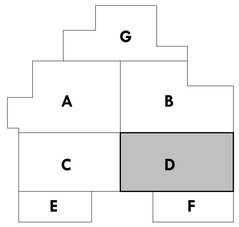
CEILING LEGEND

- 2'x2' LAY-IN CEILING GRID
- PAINTED GYPSUM CEILING
- CEILING LIGHT - LINEAR BOX
- EXIT LIGHTS
- 2X4 LED SEALED (FOOD GRADE FIXTURE)
- WALL MOUNTED SCONCE FIXTURE
- WALL MOUNTED FIXTURE
- TAPE LIGHT
- CHAIN-HUNG LED UTILITY LIGHT
- CHAIN-HUNG STRIP
- LINEAR PENDANT
- LINEAR PENDANT
- LINEAR PENDANT (INDIRECT ONLY)
- RECESSED LINEAR FIXTURE
- RECESSED LINEAR FIXTURE SEALED
- 2X4 EXISTING FIXTURE
- 2X4 NEW FIXTURE RE: ELECTRICAL LIGHTING FLOOR PLANS
- SUPPLY REGISTER
- RETURN REGISTER
- NEW SKYLIGHT
- ACOUSTICAL PANEL
- SOFFIT SYSTEM / CANOPY

GENERAL NOTES

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8. INSTALL CEILING TILE AND GRID WHERE REMOVED TO PERFORM ABOVE CEILING WORK.

KEY PLAN



PLAN NORTH / TRUE NORTH

1 REFLECTED CEILING PLAN - AREA D

1/8" = 1'-0"

REGISTERED ARCHITECT
JEFFREY S. CHOATE
16767
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
MISSOURI CITY, TEXAS 77345
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CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

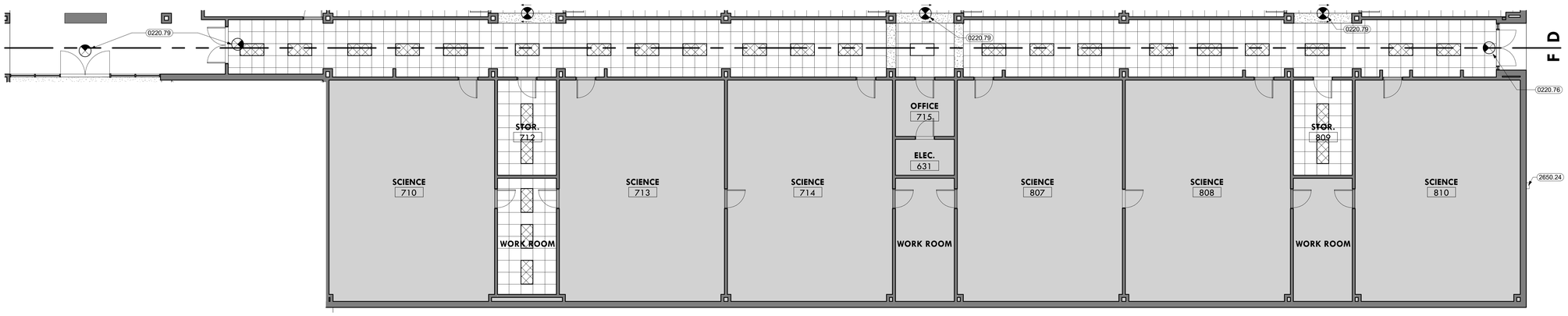
NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A6.1D

REFLECTED CEILING PLAN - AREA D

KEYNOTES

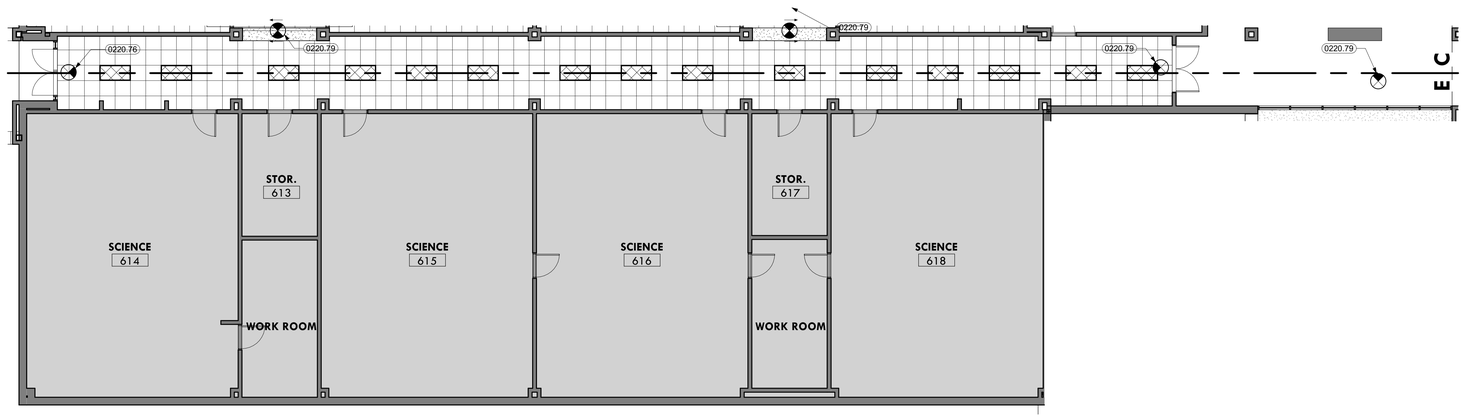
0220.76 EXISTING EMERGENCY EXIT SIGN
0220.79 EXISTING EMERGENCY EXIT SIGN
2650.24 WALL MOUNTED LIGHT



PLAN NORTH TRUE NORTH

2 REFLECTED CEILING PLAN - AREA F

1/8" = 1'-0"



PLAN NORTH TRUE NORTH

1 REFLECTED CEILING PLAN - AREA E

1/8" = 1'-0"

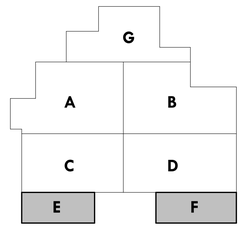
CEILING LEGEND

- 2'x2' LAY-IN CEILING GRID
- PAINTED GYPSUM CEILING
- CEILING LIGHT - LINEAR BOX
- EXIT LIGHTS
- 2X4 LED SEALED (FOOD GRADE FIXTURE)
- WALL MOUNTED SCONCE FIXTURE
- WALL MOUNTED FIXTURE
- TAPE LIGHT
- CHAIN-HUNG LED UTILITY LIGHT
- CHAIN-HUNG STRIP
- LINEAR PENDANT
- LINEAR PENDANT
- LINEAR PENDANT (INDIRECT ONLY)
- RECESSED LINEAR FIXTURE
- RECESSED LINEAR FIXTURE SEALED
- 2X4 EXISTING FIXTURE
- 2X4 NEW FIXTURE RE: ELECTRICAL LIGHTING FLOOR PLANS
- SUPPLY REGISTER
- RETURN REGISTER
- NEW SKYLIGHT
- ACOUSTICAL PANEL
- SOFFIT SYSTEM / CANOPY

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING BUILDING IN FIELD.
2. ALL CEILINGS AT 9'-0" A.F.F. U.N.O
3. PROTECT ALL EXISTING PROJECTION SCREENS AND PROJECTORS AT AREAS OF WORK.
4. AT AREAS WITH THE EXISTING CEILING SCHEDULED TO REMAIN, REMOVE AND REINSTALL CEILING TILE AND GRID THROUGHOUT THOSE AREAS AS NECESSARY TO RUN NEW INFRASTRUCTURE ABOVE CEILINGS. RE: MEPT FOR WORK ABOVE CEILINGS.
5. REFER TO THE FINISH PLANS FOR SCHEDULED CEILING FINISH.
6. REFER TO THE LIGHTING PLAN AND OTHER MEPT DRAWINGS FOR ADDITIONAL WORK ASSOCIATED WITH THE REFLECTED CEILING PLANS.
7. REFER TO ELECTRICAL LIGHTING PLAN FOR NEW EMERGENCY RELAY SWITCHES AT EXISTING FIXTURES.
8. INSTALL CEILING TILE AND GRID WHERE REMOVED TO PERFORM ABOVE CEILING WORK.

KEY PLAN



JEFFREY S. CROZIER
REGISTERED ARCHITECT
16767
STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

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DATE FEBRUARY 23, 2024
DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

A6.1E&F

REFLECTED CEILING PLAN - AREA E & F

GENERAL NOTES

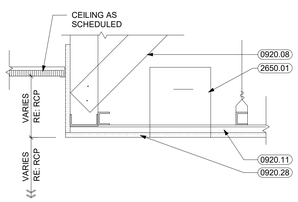
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2. ALL CEILINGS AT 9'-0" A.F.F. U.N.O
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8. INSTALL CEILING TILE AND GRID WHERE REMOVED TO PERFORM ABOVE CEILING WORK.

KEYNOTES

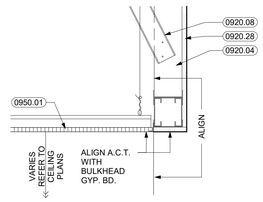
0220.76	EXISTING EMERGENCY EXIT SIGN
0740.03	PREFINISHED METAL SOFFIT PANEL SYSTEM
0770.32	NEW ROOF ACCESS HATCH
0920.04	3 5/8" METAL STUDS (20 GAUGE MINIMUM) AT 16" O.C.
0920.08	STUD BRACE AT 4'-0" O.C. MAX.
0920.11	1/2" RESILIENT CHANNELS AT 16" O.C. HORIZONTAL
0920.28	5/8" GYPSUM BOARD (TYPE X)
0950.01	SUSPENDED ACOUSTICAL LAY-IN TILE CEILING
0950.08	SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM
0950.10	MODIFIED 24"X24" SUSPENDED CEILING GRID WITH TRIM
1165.01	RETRACTABLE SUSPENDED BASKETBALL BACKSTOP WITH INTEGRAL HEIGHT ADJUSTMENT
1165.04	TEMPERED GLASS BASKETBALL BACKBOARD WITH RIM, NET, AND SAFETY PADS. PROVIDE STEEL SUPPORTS AND MOUNTING BRACKETS
1165.30	SCOREBOARD
1165.31	MOTORIZED DIVIDER CURTAIN
2330.01	HVAC DUCTWORK
2650.01	RECESSED LIGHT FIXTURE
2650.04	SUSPENDED LIGHT FIXTURE
2650.10	WALL-MOUNTED EXIT SIGN
2650.11	CEILING-MOUNTED EXIT SIGN
2650.24	WALL MOUNTED LIGHT
2650.28	WALL-MOUNTED EXIT SIGN WITH IMPACT-RESISTANT CAGE

CEILING LEGEND

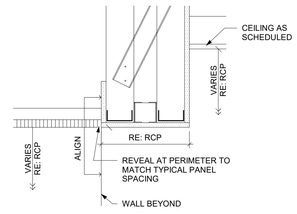
- 2'x2' LAY-IN CEILING GRID
- PAINTED GYPSUM CEILING
- CEILING LIGHT - LINEAR BOX
- EXIT LIGHTS
- 2X4 LED SEALED (FOOD GRADE FIXTURE)
- WALL MOUNTED SCONCE FIXTURE
- WALL MOUNTED FIXTURE
- TAPE LIGHT
- CHAIN-HUNG LED UTILITY LIGHT
- CHAIN-HUNG STRIP
- LINEAR PENDANT
- LINEAR PENDANT
- LINEAR PENDANT (INDIRECT ONLY)
- RECESSED LINEAR FIXTURE
- RECESSED LINEAR FIXTURE SEALED
- 2X4 EXISTING FIXTURE
- 2X4 NEW FIXTURE RE: ELECTRICAL LIGHTING FLOOR PLANS
- SUPPLY REGISTER
- RETURN REGISTER
- NEW SKYLIGHT
- ACOUSTICAL PANEL
- SOFFIT SYSTEM / CANOPY



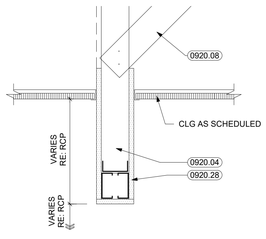
6 SOFFIT TRANSITION
1 1/2" = 1'-0"



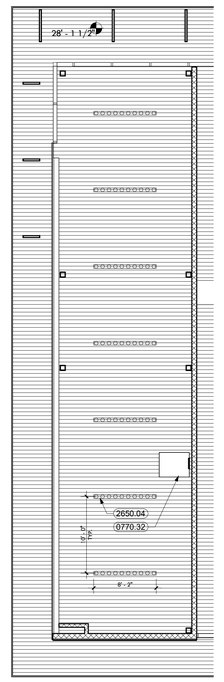
5 CEILING EDGE DETAIL
1 1/2" = 1'-0"

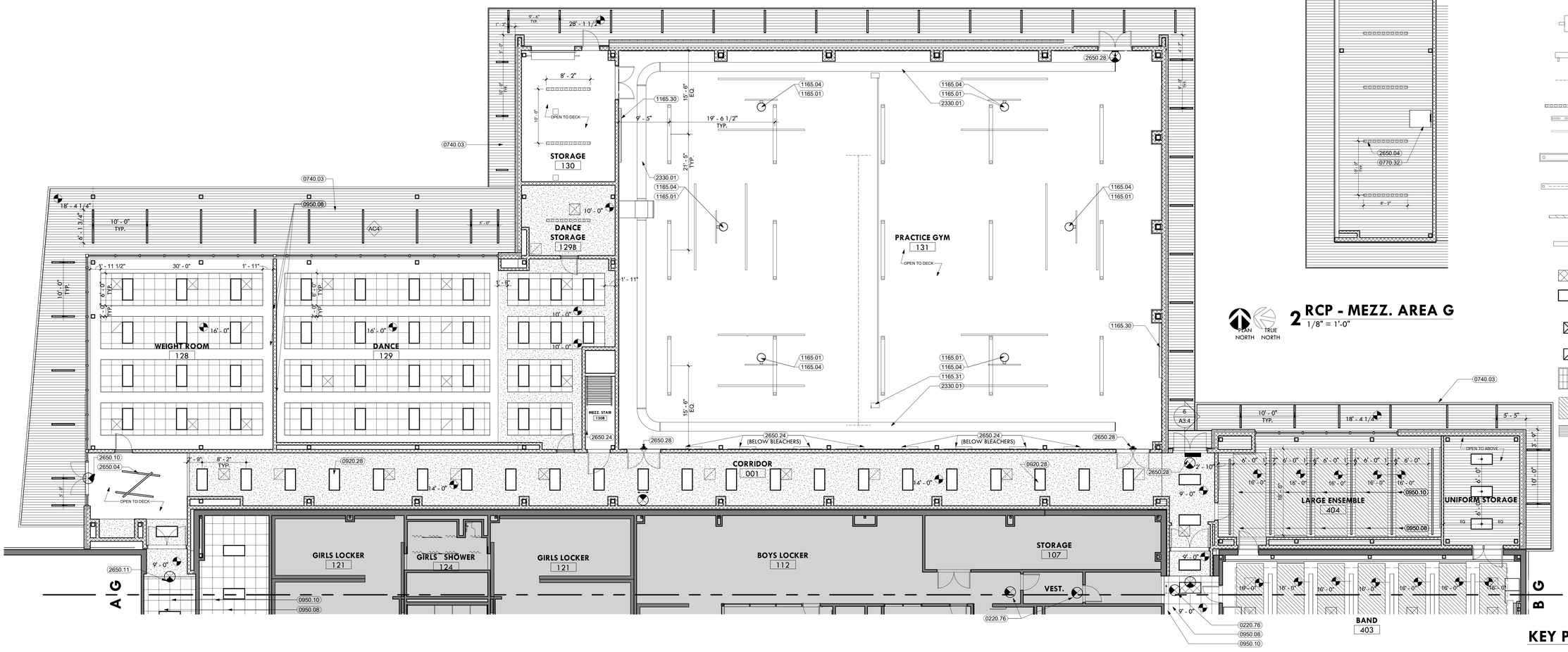


4 CEILING DTL AT HEADER
1 1/2" = 1'-0"



3 BULKHEAD (TYP.)
1 1/2" = 1'-0"





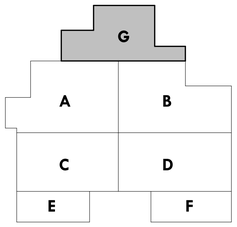
PLAN NORTH TRUE NORTH

2 RCP - MEZZ. AREA G
1/8" = 1'-0"

PLAN NORTH TRUE NORTH

1 REFLECTED CEILING PLAN - AREA G
1/8" = 1'-0"

KEY PLAN



JEFFREY T. CROWE 16767 REGISTERED ARCHITECT STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

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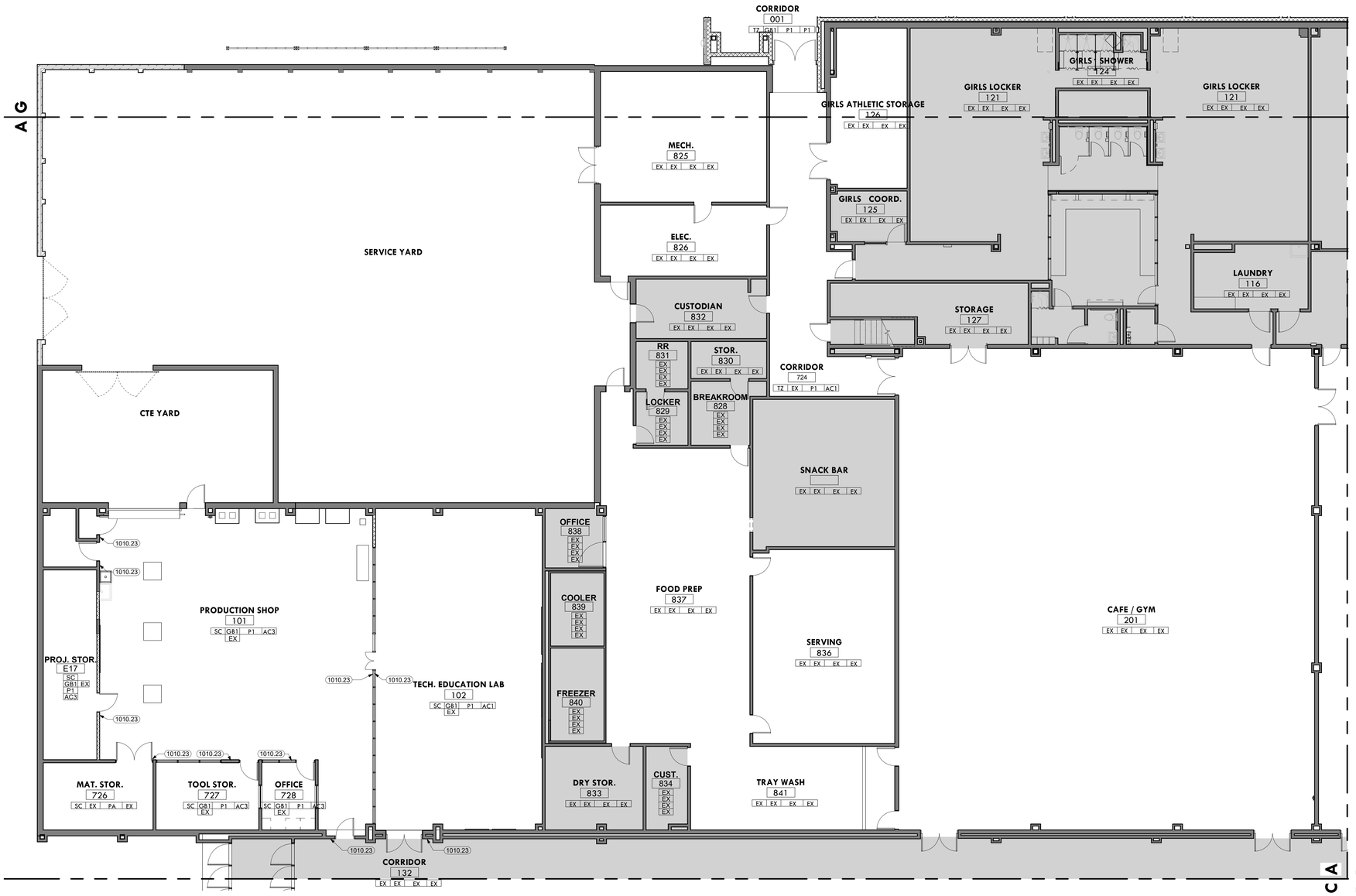
DATE FEBRUARY 23, 2024
DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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A6.1G

REFLECTED CEILING PLAN - AREA G



PLAN NORTH / TRUE NORTH

1 FINISH PLAN - AREA A

1/8" = 1'-0"

FINISH LEGEND

ROOM NAME 101A — CP1 | RB1 | P1 | AC1 — ROOM NAME DESIGNATION & NUMBER

CEILING FINISH — AC1
WALL FINISH — P1
BASE FINISH — RB1
FLOOR FINISH — CP1

ROOM NAME 101A

DESCRIPTION

AC - ACOUSTICAL CEILING TILE
AC1: 24" X 24" (NEW TILE AND GRID)
AC2: 24" X 24" (NEW TILE, EXISTING GRID)
AC3: VINYL COATED CEILING TILE
AC4: FLOATING CLOUDS (AT WEIGHT/ DANCE) 24"X24" NEW TILE AND GRID
AC5: TURF, LINEAR
COLOR: D02 SILVER TEAK AND 15 MELOT
PATTERN: VERTICAL LAYOUT SLAT PANELS

AC6: INCREASED NRC ACOUSTIC TILE 24"X24" NEW TILE AND GRID

AWP - ACOUSTICAL WALL PANELS
AWP1: AT BAND & ENSEMBLE
TURF, LINEAR CEILING AND WALL SCAPE
COLOR: D02 SILVER TEAK AND 15 MELOT
PATTERN: LS PANEL VERTICAL LAYOUT SLAT PANELS
*CAPPED BLADES AT EDGE PANELS.
AWP2: AT GYM
AWP3: AT BAND/ ENSEMBLE
COLOR: 15 MELOT

C - CARPET
C1: ENTRY WAY CARPET
C2: CARPET (AT BAND/ENSEMBLE)

CT - CERAMIC TILE
CT1: CERAMIC TILE (FIELD)
CT2: CERAMIC TILE (ACCENT)
CT3: TILE FLOOR/ BASE (AT CULINARY)

EX - EXISTING FINISH TO REMAIN

GB1: GLAZED BLOCK STARTER COLOR, MATCH EXISTING SCHOOL START BLOCK

M - MISC. METALS
M1: **PAINT**
EXPOSED STRUCTURAL STEEL AND HOLLOW METAL DOORS AND FRAMES
SW:
FINISH: SEMI GLOSS
* OVERHEAD STEEL SHALL BE PAINTED TO MATCH SCHEDULED CEILING FINISH AT THE BAND (403) AND LARGE ENSEMBLE (404).

P - PAINT
P1: CEILING, WALL
P2: WALL, ACCENT
P3: WALL (PRIMARY SCHOOL COLOR)

PL - PLASTIC LAMINATE
PL4: PLASTIC LAMINATE (MILLWORK)
PL5: PLASTIC LAMINATE (COUNTERS)
PL6: PLASTIC LAMINATE (DOORS)

PC - POLISHED CONCRETE
PC1: POLISHED CONCRETE

RB - RESILIENT BASE
RB1: RESILIENT BASE

RF - RUBBER FLOORING
RF1: RUBBER FLOORING (WEIGHT ROOM)

SC: **SEALED CONCRETE**
CLEAR CONCRETE SEALER

TC: **THEATRICAL CURTAIN**
COLOR: WHITE

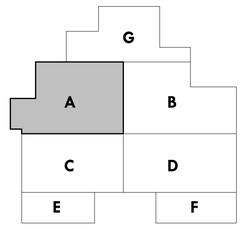
TS - TRANSITION STRIP
TS1: SEE FLOOR TRANSITION DETAIL
TS2: METAL TRANSITION STRIP
TS3: METAL TRANSITION STRIP

TZ - TERRAZZO FLOORING
TZ1: MATCH EXISTING (MAIN)
TZ2: MATCH EXISTING (ACCENT)
VB: VENTED BASE (AT WOOD FLOOR)

WF - WOOD FLOORING
WF1: SPORTS (GYM)
WF2: (DANCE)

NOTES:
1. GYPSUM BOARD CEILINGS ARE TO BE FINISH P1, U.N.O.
2. PROVIDE FLOOR LEVELING COMPOUND UNDER FINISH FLOORING AS REQUIRED
3. PROVIDE CONTROL JOINTS AT CONCRETE SLAB AS REQUIRED AND AT LOCATIONS SHOWN ON FINISH PLAN.
4. PROVIDE EPOXY PAINT AT ALL INTERIOR PAINTED CMU.
5. REMOVE AND REINSTALL CEILING TILE AND GRID THROUGHOUT THE SCHOOL AS NECESSARY TO RUN NEW INFRASTRUCTURE ABOVE CEILINGS. ENSURE ALL INTERIOR WALLS AND CEILING FINISHES MEET OR EXCEED A CLASS C FLAME SPREAD INDEX AT CORRIDORS, EXIT ENCLOSURES, EXIT PASSAGEWAYS, ROOMS AND ENCLOSED SPACES.

KEY PLAN



2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.324.1800
WWW.BRWARCH.COM

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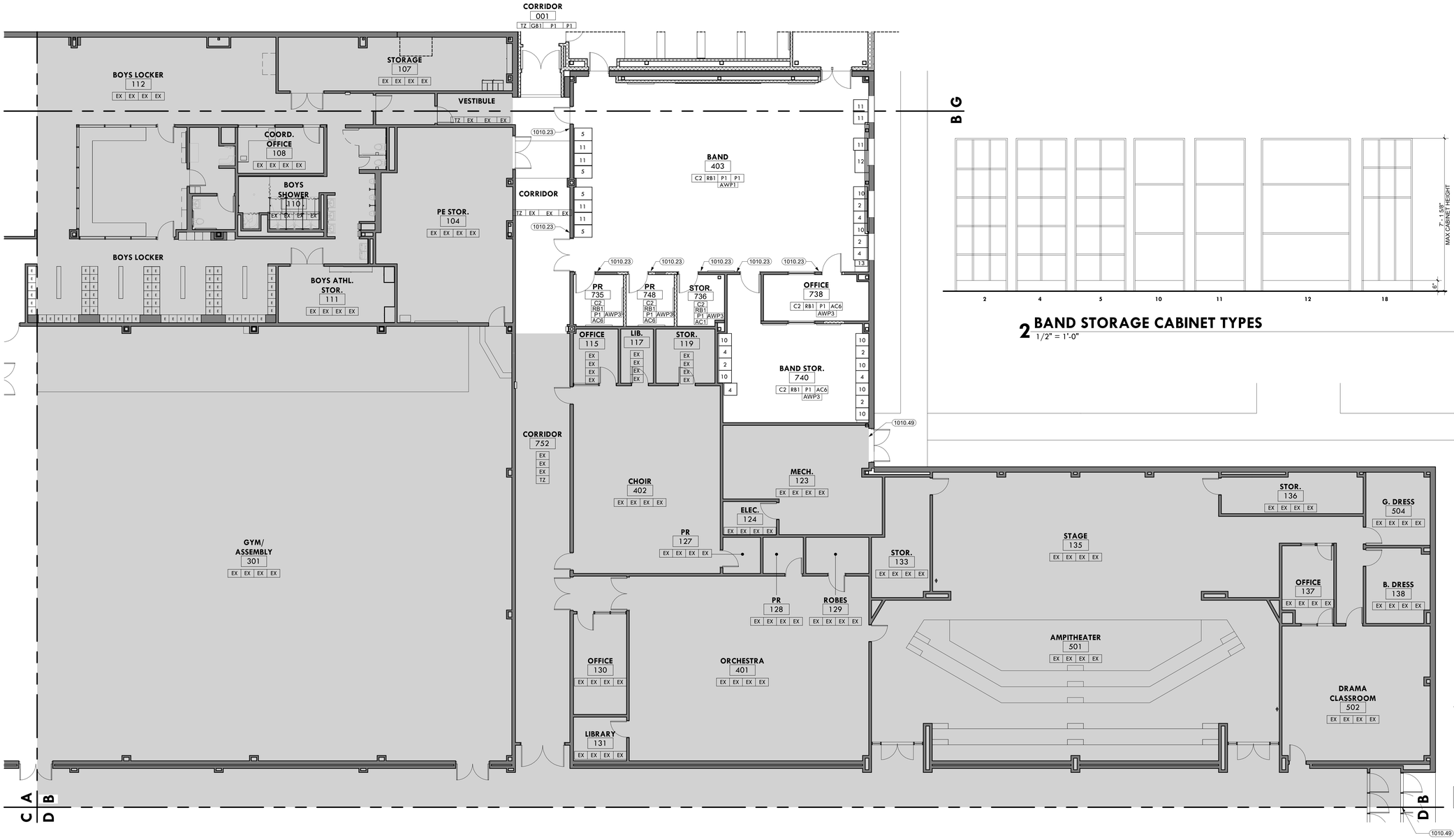
DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A7.1A

FINISH PLAN - AREA A



1 FINISH PLAN - AREA B
1/8" = 1'-0"

2 BAND STORAGE CABINET TYPES
1/2" = 1'-0"

FINISH LEGEND

ROOM NAME 101A — ROOM NAME DESIGNATION & NUMBER — ROOM NAME 101A

CP1 | RB1 | P1 | AC1 — CEILING FINISH — AC1
WALL FINISH — P1
BASE FINISH — RB1
FLOOR FINISH — CP1

DESCRIPTION

AC - ACOUSTICAL CEILING TILE
AC1: 24" X 24" (NEW TILE AND GRID)
AC2: 24" X 24" (NEW TILE, EXISTING GRID)
AC3: VINYL COATED CEILING TILE
AC4: FLOATING CLOUDS (AT WEIGHT/ DANCE) 24"X24" NEW TILE AND GRID
AC5: TURF, LINEAR
COLOR: D02 SILVER TEAK AND 15 MELOT
PATTERN: VERTICAL LAYOUT SLAT PANELS

AC6: INCREASED NRC ACOUSTIC TILE 24"X24" NEW TILE AND GRID

AWP - ACOUSTICAL WALL PANELS
AWP1: AT BAND & ENSEMBLE
TURF, LINEAR CEILING AND WALL SCAPE
COLOR: D02 SILVER TEAK AND 15 MELOT
PATTERN: L5 PANEL VERTICAL LAYOUT SLAT PANELS
*CAPPED BLADES AT EDGE PANELS.
AWP2: AT GYM
AWP3: AT BAND/ ENSEMBLE
COLOR: 15 MELOT

C - CARPET
C1: ENTRY WAY CARPET
C2: CARPET (AT BAND/ENSEMBLE)

CT - CERAMIC TILE
CT1: CERAMIC TILE (FIELD)
CT2: CERAMIC TILE (ACCENT)
CT3: TILE FLOOR/ BASE (AT CULINARY)

EX - EXISTING FINISH TO REMAIN

GB1: GLAZED BLOCK STARTER COLOR, MATCH EXISTING SCHOOL START BLOCK

M - MISC. METALS
M1: **PAINT**
EXPOSED STRUCTURAL STEEL AND HOLLOW METAL DOORS AND FRAMES
SW:
FINISH: SEMI GLOSS
* OVERHEAD STEEL SHALL BE PAINTED TO MATCH SCHEDULED CEILING FINISH AT THE BAND (403) AND LARGE ENSEMBLE (404).

P - PAINT
P1: CEILING, WALL
P2: WALL ACCENT
P3: WALL (PRIMARY SCHOOL COLOR)

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PC - POLISHED CONCRETE
PC1: POLISHED CONCRETE

RB - RESILIENT BASE
RB1: RESILIENT BASE

RF - RUBBER FLOORING
RF1: RUBBER FLOORING (WEIGHT ROOM)

SC: **SEALED CONCRETE**
CLEAR CONCRETE SEALER

TC: **THEATRICAL CURTAIN**
COLOR: WHITE

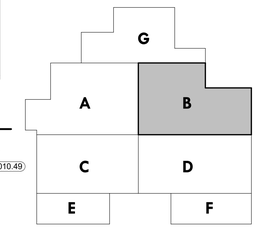
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TZ1: MATCH EXISTING (MAIN)
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WF1: SPORTS (GYM)
WF2: (DANCE)

NOTES:
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2. PROVIDE FLOOR LEVELING COMPOUND UNDER FINISH FLOORING AS REQUIRED
3. PROVIDE CONTROL JOINTS AT CONCRETE SLAB AS REQUIRED AND AT LOCATIONS SHOWN ON FINISH PLAN.
4. PROVIDE EPOXY PAINT AT ALL INTERIOR PAINTED CMU.
5. REMOVE AND REINSTALL CEILING TILE AND GRID THROUGHOUT THE SCHOOL AS NECESSARY TO RUN NEW INFRASTRUCTURE ABOVE CEILINGS.
6. ENSURE ALL INTERIOR WALLS AND CEILING FINISHES MEET OR EXCEED A CLASS C FLAME SPREAD INDEX AT CORRIDORS, EXIT ENCLOSURES, EXIT PASSAGEWAYS, ROOMS AND ENCLOSED SPACES.

KEY PLAN



PLAN NORTH / TRUE NORTH

REGISTERED ARCHITECT JEFFREY S. CROW 16767 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MCKINNEY, TEXAS 77345
214.501.1300
WWW.BRWARCH.COM

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DATE FEBRUARY 23, 2024
DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A7.1B

FINISH PLAN - AREA B



PLAN NORTH TRUE NORTH

1 **FINISH PLAN - AREA C**
1/8" = 1'-0"

FINISH LEGEND

ROOM NAME 101A — CP1 RB1 P1 AC1 — ROOM NAME DESIGNATION & NUMBER — CEILING FINISH — WALL FINISH — BASE FINISH — FLOOR FINISH — ROOM NAME 101A — AC1 P1 RB1 CP1

DESCRIPTION

AC - ACOUSTICAL CEILING TILE
AC1: 24" X 24" (NEW TILE AND GRID)
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AC5: TURF, LINEAR
COLOR: D02 SILVER TEAK AND 15 MELOT
PATTERN: VERTICAL LAYOUT SLAT PANELS

AC6: INCREASED NRC ACOUSTIC TILE 24"X24" NEW TILE AND GRID

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CLEAR CONCRETE SEALER

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COLOR: WHITE

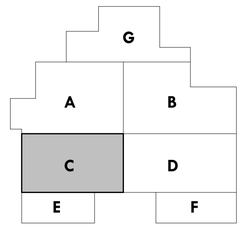
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WF1: SPORTS (GYM)
WF2: (DANCE)

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KEY PLAN



JEFFREY S. CROW 16767 REGISTERED ARCHITECT STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.1300
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HUMBLE ISD
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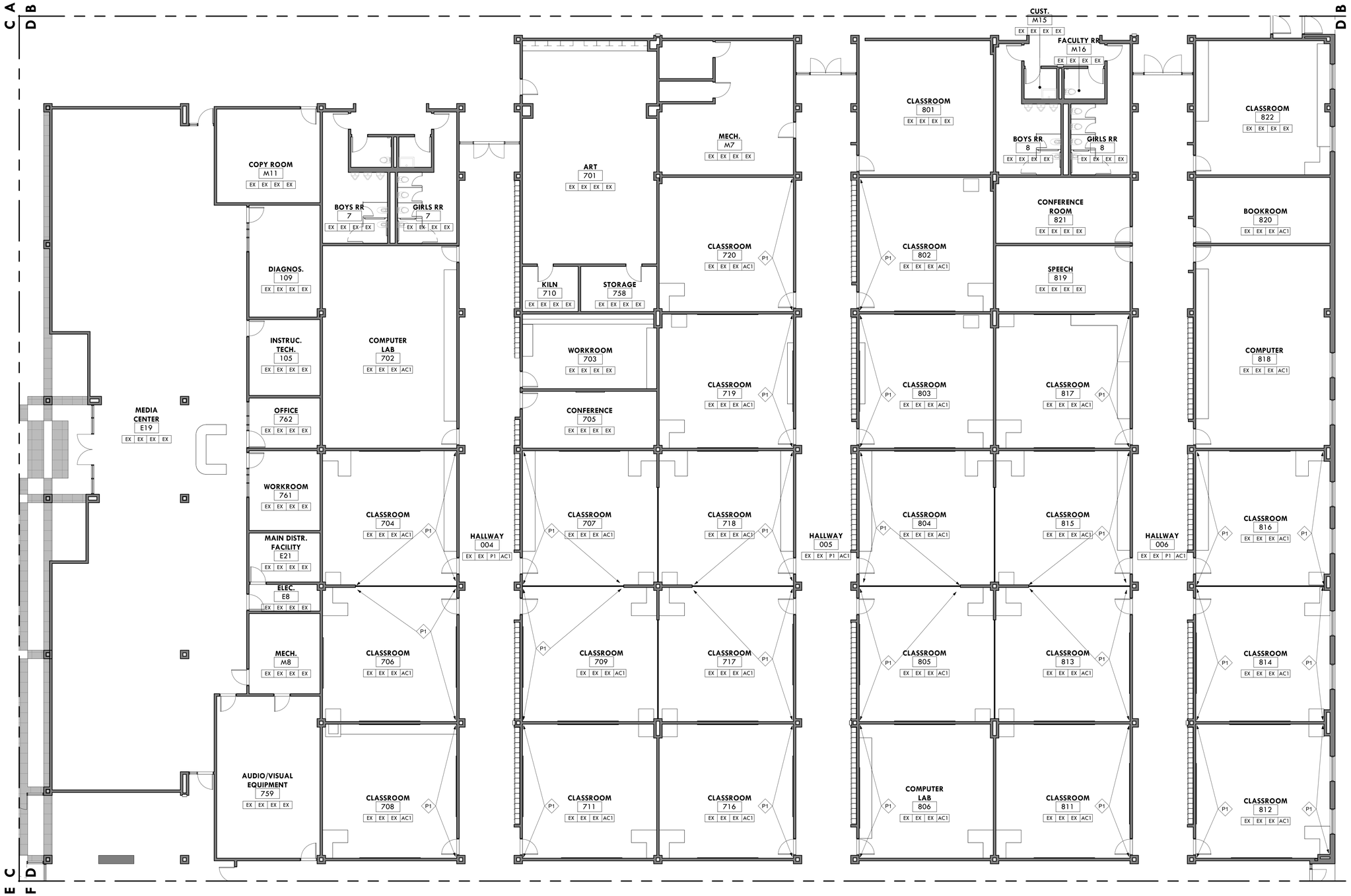
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DRAWN BY JTL
CHECKED BY MD, JSC
BRW PROJECT NUMBER 223005.00

A7.1C

FINISH PLAN - AREA C



PLAN NORTH / TRUE NORTH

1 FINISH PLAN - AREA D

1/8" = 1'-0"

FINISH LEGEND

ROOM NAME 101A — CP1 RB1 P1 AC1

ROOM NAME DESIGNATION & NUMBER

CEILING FINISH — AC1
WALL FINISH — P1
BASE FINISH — RB1
FLOOR FINISH — CP1

ROOM NAME 101A

DESCRIPTION

AC - ACOUSTICAL CEILING TILE
AC1: 24" X 24" (NEW TILE AND GRID)
AC2: 24" X 24" (NEW TILE, EXISTING GRID)
AC3: VINYL COATED CEILING TILE
AC4: FLOATING CLOUDS (AT WEIGHT/ DANCE) 24"X24" NEW TILE AND GRID
AC5: TURF, LINEAR
COLOR: D02 SILVER TEAK AND 15 MELOT
PATTERN: VERTICAL LAYOUT SLAT PANELS
AC6: INCREASED NRC ACOUSTIC TILE 24"X24" NEW TILE AND GRID

AWP - ACOUSTICAL WALL PANELS
AWP1: AT BAND & ENSEMBLE
TURF, LINEAR CEILING AND WALL SCAPE
COLOR: D02 SILVER TEAK AND 15 MELOT
PATTERN: L5 PANEL VERTICAL LAYOUT SLAT PANELS
*CAPPED BLADES AT EDGE PANELS.
AWP2: AT GYM
AWP3: AT BAND/ ENSEMBLE
COLOR: 15 MELOT

C - CARPET
C1: ENTRY WAY CARPET
C2: CARPET (AT BAND/ENSEMBLE)

CT - CERAMIC TILE
CT1: CERAMIC TILE (FIELD)
CT2: CERAMIC TILE (ACCENT)
CT3: TILE FLOOR/ BASE (AT CULINARY)

EX - EXISTING FINISH TO REMAIN

GB1: GLAZED BLOCK STARTER COLOR, MATCH EXISTING SCHOOL START BLOCK

M - MISC. METALS
M1: PAINT
EXPOSED STRUCTURAL STEEL AND HOLLOW METAL DOORS AND FRAMES
SW:
FINISH: SEMI GLOSS
* OVERHEAD STEEL SHALL BE PAINTED TO MATCH SCHEDULED CEILING FINISH AT THE BAND (403) AND LARGE ENSEMBLE (404).

P - PAINT
P1: CEILING, WALL
P2: WALL, ACCENT
P3: WALL (PRIMARY SCHOOL COLOR)

PL - PLASTIC LAMINATE
PL4: PLASTIC LAMINATE (MILLWORK)
PL5: PLASTIC LAMINATE (COUNTERS)
PL6: PLASTIC LAMINATE (DOORS)

PC - POLISHED CONCRETE
PC1: POLISHED CONCRETE

RB - RESILIENT BASE
RB1: RESILIENT BASE

RF - RUBBER FLOORING
RF1: RUBBER FLOORING (WEIGHT ROOM)

SC: SEALED CONCRETE
CLEAR CONCRETE SEALER

TC: THEATRICAL CURTAIN
COLOR: WHITE

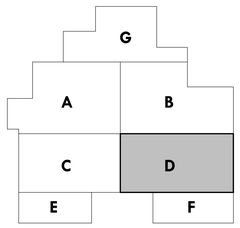
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TS2: METAL TRANSITION STRIP
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TZ - TERRAZZO FLOORING
TZ1: MATCH EXISTING (MAIN)
TZ2: MATCH EXISTING (ACCENT)
VB: VENTED BASE (AT WOOD FLOOR)

WF - WOOD FLOORING
WF1: SPORTS (GYM)
WF2: (DANCE)

NOTES:
1. GYPSUM BOARD CEILINGS ARE TO BE FINISH P1, U.N.O.
2. PROVIDE FLOOR LEVELING COMPOUND UNDER FINISH FLOORING AS REQUIRED
3. PROVIDE CONTROL JOINTS AT CONCRETE SLAB AS REQUIRED AND AT LOCATIONS SHOWN ON FINISH PLAN.
4. PROVIDE EPOXY PAINT AT ALL INTERIOR PAINTED CMU.
5. REMOVE AND REINSTALL CEILING TILE AND GRID THROUGHOUT THE SCHOOL AS NECESSARY TO RUN NEW INFRASTRUCTURE ABOVE CEILINGS. ENSURE ALL INTERIOR WALLS AND CEILING FINISHES MEET OR EXCEED A CLASS C FLAME SPREAD INDEX AT CORRIDORS, EXIT ENCLOSURES, EXIT PASSAGEWAYS, ROOMS AND ENCLOSED SPACES.

KEY PLAN



REGISTERED ARCHITECT JEFFREY S. CROZIER 16767 STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.301.1380
WWW.BRWARCH.COM

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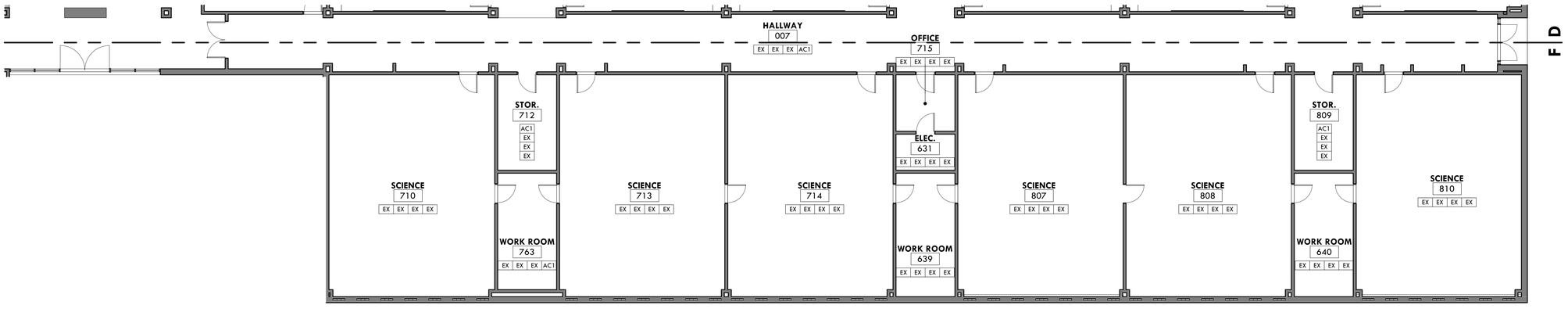
DATE: FEBRUARY 23, 2024
DRAWN BY: JTL
CHECKED BY: MD, JSC
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
	ISSUED FOR CSP	06/13/2025

A7.1D

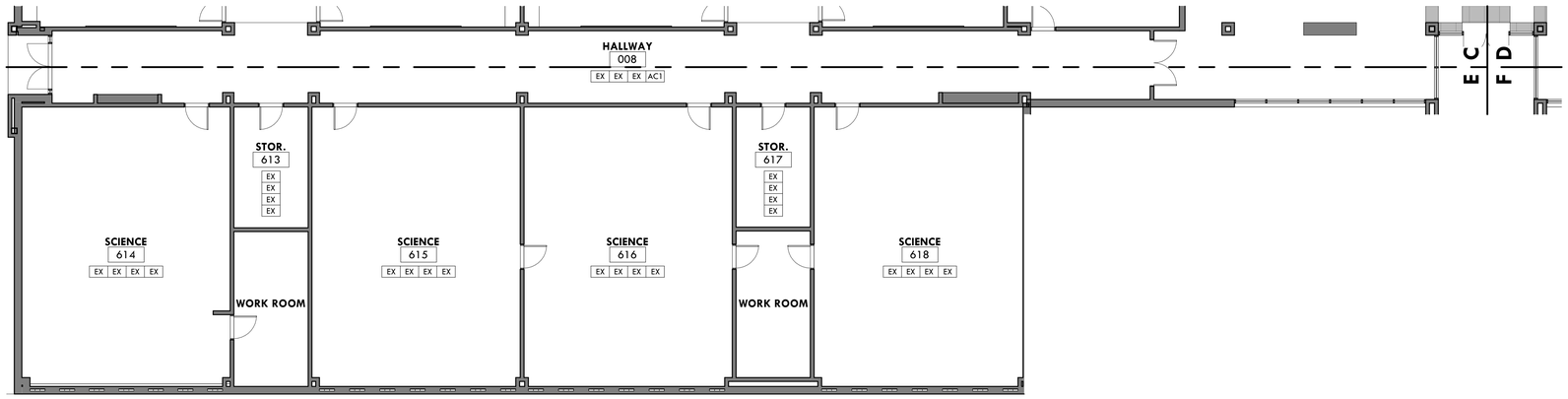
FINISH PLAN - AREA D



PLAN NORTH TRUE NORTH

2 FINISH PLAN - AREA F

1/8" = 1'-0"



PLAN NORTH TRUE NORTH

1 FINISH PLAN - AREA E

1/8" = 1'-0"

FINISH LEGEND

ROOM NAME 101A — CP1 | RB1 | P1 | AC1 — ROOM NAME DESIGNATION & NUMBER — CEILING FINISH: AC1; WALL FINISH: P1; BASE FINISH: RB1; FLOOR FINISH: CP1 — ROOM NAME 101A

DESCRIPTION

AC - ACOUSTICAL CEILING TILE
- **AC1:** 24" X 24" (NEW TILE AND GRID)
- **AC2:** 24" X 24" (NEW TILE, EXISTING GRID)
- **AC3:** VINYL COATED CEILING TILE
- **AC4:** FLOATING CLOUDS (AT WEIGHT/ DANCE) 24"X24" NEW TILE AND GRID
- **AC5:** TURF, LINEAR
  COLOR: D02 SILVER TEAK AND 15 MELOT
  PATTERN: VERTICAL LAYOUT SLAT PANELS
- **AC6:** INCREASED NRC ACOUSTIC TILE 24"X24" NEW TILE AND GRID

AWP - ACOUSTICAL WALL PANELS
- **AWP1:** AT BAND & ENSEMBLE
  TURF, LINEAR CEILING AND WALL SCAPE
  COLOR: D02 SILVER TEAK AND 15 MELOT
  PATTERN: L5 PANEL VERTICAL LAYOUT SLAT PANELS
  *CAPPED BLADES AT EDGE PANELS.
- **AWP2:** AT GYM
- **AWP3:** AT BAND/ ENSEMBLE
  COLOR: 15 MELOT

C - CARPET
- **C1:** ENTRY WAY CARPET
- **C2:** CARPET (AT BAND/ENSEMBLE)

CT - CERAMIC TILE
- **CT1:** CERAMIC TILE (FIELD)
- **CT2:** CERAMIC TILE (ACCENT)
- **CT3:** TILE FLOOR/ BASE (AT CULINARY)

EX - EXISTING FINISH TO REMAIN

- **GB1:** GLAZED BLOCK STARTER COLOR, MATCH EXISTING SCHOOL START BLOCK

M - MISC. METALS
- **M1:** **PAINT**
  EXPOSED STRUCTURAL STEEL AND HOLLOW METAL DOORS AND FRAMES
  SW:
  FINISH: SEMI GLOSS
  * OVERHEAD STEEL SHALL BE PAINTED TO MATCH SCHEDULED CEILING FINISH AT THE BAND (403) AND LARGE ENSEMBLE (404).

P - PAINT
- **P1:** CEILING, WALL
- **P2:** WALL, ACCENT
- **P3:** WALL (PRIMARY SCHOOL COLOR)

PL - PLASTIC LAMINATE
- **PL4:** PLASTIC LAMINATE (MILLWORK)
- **PL5:** PLASTIC LAMINATE (COUNTERS)
- **PL6:** PLASTIC LAMINATE (DOORS)

PC - POLISHED CONCRETE
- **PC1:** POLISHED CONCRETE

RB - RESILIENT BASE
- **RB1:** RESILIENT BASE

RF - RUBBER FLOORING
- **RF1:** RUBBER FLOORING (WEIGHT ROOM)

- **SC:** **SEALED CONCRETE**
  CLEAR CONCRETE SEALER

- **TC:** **THEATRICAL CURTAIN**
  COLOR: WHITE

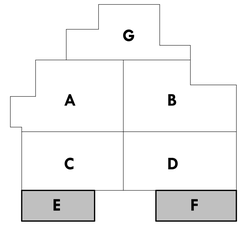
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WF - WOOD FLOORING
- **WF1:** SPORTS (GYM)
- **WF2:** (DANCE)

NOTES:
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KEY PLAN



BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
MISSOURI CITY, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

REGISTERED ARCHITECT — JEFFREY S. CROWE — 16767 — STATE OF TEXAS

2/23/24

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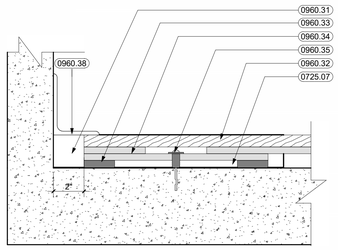
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT — HARRIS COUNTY, TEXAS

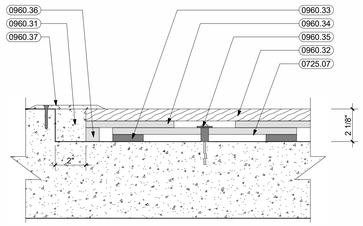
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A7.1E&F

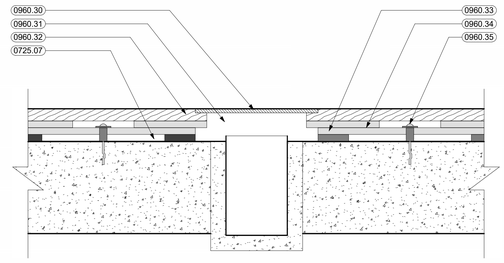
FINISH PLAN - AREA E & F



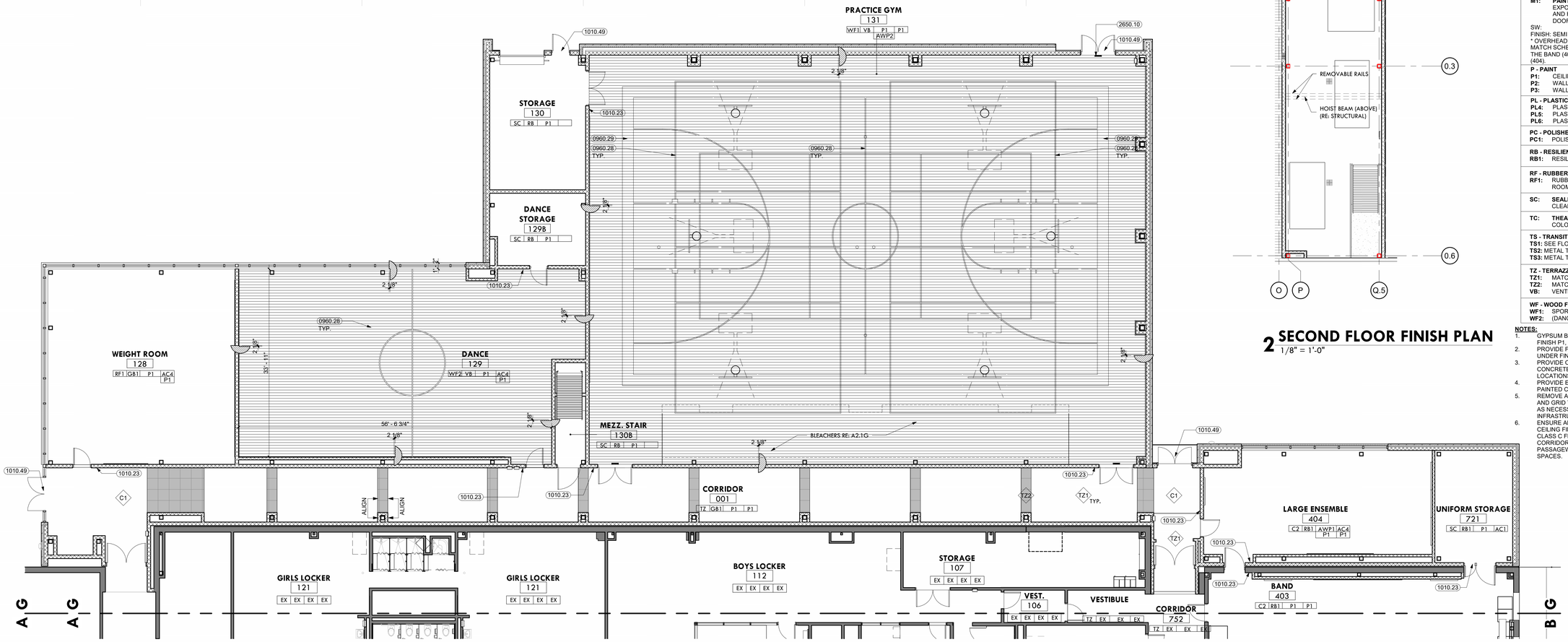
5 WALL BASE
3" = 1'-0"



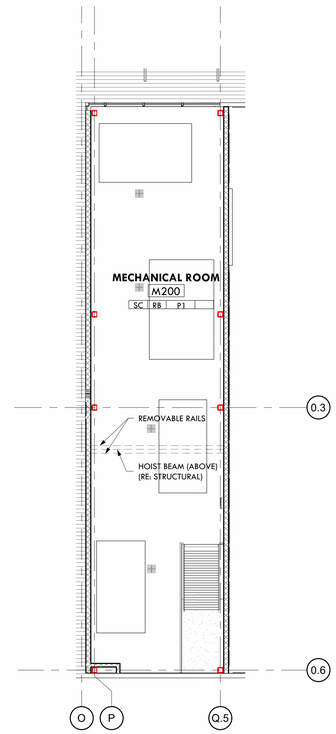
4 DOOR TRANSITION
3" = 1'-0"



3 VOLLEYBALL ANCHOR SYSTEM
3" = 1'-0"



2 SECOND FLOOR FINISH PLAN
1/8" = 1'-0"



KEYNOTES

0725.07	6 MIL VAPOR BARRIER
0960.28	2" WIDE PAINTED GAME LINE STRIPE.
0960.29	2'-0" WIDE PAINTED GAME LINE PERIMITER.
0960.30	INSERT PLATE
0960.31	1.5"- 2" EXPANSION VOID
0960.32	25/32" MAPLE FLOORING
0960.33	7/16" RESILIENT PAD
0960.34	ECLIPSE SUBFLOOR PANEL
0960.35	ANCHOR AND SLEEVE
0960.36	SOLID STOP BLOCK
0960.37	1/4" THRESHOLD PLATE
0960.38	3"X 4" VENTED COVE BASE
1010.23	ROOM NUMBER SIGN
1010.49	BUILDING ENTRANCE IDENTIFICATION SIGN. RE: G1.7 FOR NUMBER SEQUENCE
2650.10	WALL-MOUNTED EXIT SIGN

FINISH LEGEND

ROOM NAME: 101A — ROOM NAME DESIGNATION & NUMBER — ROOM NAME: 101A

CP1 RB1 P1 AC1 — CEILING FINISH — AC1
WALL FINISH — P1
BASE FINISH — RB1
FLOOR FINISH — CP1

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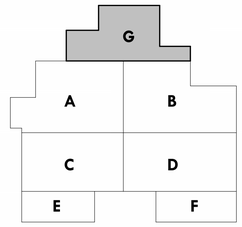
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KEY PLAN



1 FINISH PLAN - AREA G
1/8" = 1'-0"

PLAN NORTH / TRUE NORTH

JEFFREY S. CROSS — REGISTERED ARCHITECT — 16767 — STATE OF TEXAS
2/23/24

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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A7.1G

FINISH PLAN - AREA G

EXISTING EQUIPMENT NOTES:

1. EXISTING EQUIPMENT NOT SCHEDULED FOR RE-USE TO BE RELOCATED BY THE K.E.C. COORDINATE WITH OWNER FOR NEW LOCATION.
2. ALL UTILITIES NOT SCHEDULED FOR RE-USE TO BE CAPPED & COVERED BY REQUIRED DISCIPLINE.
3. K.E.C. TO VERIFY ALL EXISTING UTILITY LOCATIONS & COORDINATE WITH ALL EQUIPMENT AS REQUIRED.

8 EXISTING EQUIPMENT NOTES
NOT TO SCALE

ARCHITECTURAL COORDINATION REQUIREMENTS (FOOD SERVICE COLOR, MATERIAL, OR SIGNAGE SELECTIONS):

1. COUNTERTOPS: STONE (STAINLESS STEEL IS PROVIDED UNLESS OTHERWISE SPECIFIED).
2. TRAY SLIDES: CORIAN OR STONE (STAINLESS STEEL IS PROVIDED UNLESS OTHERWISE SPECIFIED).
3. COUNTER FRONTS: CERAMIC TILE, 3 FORM, OR PLASTIC LAMINATE.
4. SNEEZE GUARDS: STONE INSETS.
5. GENERAL COLOR, MATERIAL AND GRAPHIC SELECTIONS:
   - A. DISPLAY AIR SCREEN MERCHANDISERS - COLOR SELECTION: POWDER COAT OR PLASTIC LAMINATE (S/S IS PROVIDED UNLESS OTHERWISE SPECIFIED).
   - B. BAKERY DISPLAY CASES - COLOR SELECTION: POWDER COAT OR PLASTIC LAMINATE (S/S IS PROVIDED UNLESS OTHERWISE SPECIFIED).
   - C. PASS THRU OR REACH IN HOLDING CABINETS - COLOR SELECTION: POWDER COAT (MFG.: TRUE) OR PLASTIC LAMINATE (MFG.: TRAULSEN) (S/S IS PROVIDED UNLESS OTHERWISE SPECIFIED).
   - D. HANGING HEAT LAMPS - TRACK AND FIXTURE COLOR SELECTION.
   - E. HEATED MERCHANDISERS.
   - F. PORTABLE GUIDE RAILS - STANCHION AND BELT COLOR SELECTION.
   - G. POPCORN MACHINE - SIGNAGE SELECTION.
   - H. BOTTLE COOLER - SIGNAGE SELECTION.
   - I. GRAPHICS PACKAGE INFORMATION.
   - J. HOT FOOD WELL COVERS.
6. GENERAL ARCHITECTURAL FINISHES:
   - A. WALLS: CERAMIC TILE, FLAT FRP, OR MOLDED FRP (SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE AS APPROVED BY LOCAL JURISDICTION).
   - B. CEILINGS: REMOVABLE VINYL FACE TILE (SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE AS APPROVED BY LOCAL JURISDICTION).
   - C. FLOORS: TILE, EPOXY, OR RUBBERIZED FLOORING SYSTEM (SMOOTH, IMPERVIOUS, EASILY CLEANABLE AND SLIP RESISTANT AS APPROVED BY LOCAL JURISDICTION) (COORDINATE FLOOR TILE TRANSITION AT SERVING LINES).
   - D. FLOORS: COLD STORAGE ASSEMBLY - EXTEND KITCHEN FLOOR FLUSH INTO COLD STORAGE ASSEMBLY WITH COVED BASE.
   - E. FURR DOWNS ABOVE SERVING COUNTERS.

5 ARCHITECTURAL COORDINATION NOTES
NOT TO SCALE

REFER TO FOODSERVICE DESIGN PROFESSIONALS SPECIFICATIONS AND SUBSEQUENT SHEETS FOR ADDITIONAL COORDINATION INFORMATION

CRITICAL NOTES:

1. CONTRACTOR MUST COORDINATE AND VERIFY ALL DIMENSIONS WITH FOOD SERVICE EQUIPMENT SHOP DRAWINGS AND MANUFACTURER'S DATA. DIMENSIONS SHOWN ARE FOR DESIGN AND BIDDING PURPOSES ONLY.
2. COLD STORAGE ASSEMBLY DOORS MUST BE LEFT OPEN WHILE INTERIOR CONCRETE FLOOR CURES.
3. INSTALL PROTECTIVE COVER ON COLD STORAGE ASSEMBLY WALLS BEFORE INSTALLING CONCRETE FLOORS AND CURBS.
4. REFER TO GENERAL SPECS - DIVISION 26 TO PROVIDE AND INSTALL CONDUIT, WIRING AND EMERGENCY STROBE BEACONS. INTERCONNECT PANIC ALARM INSIDE FREEZER TO BOTH BEACONS.
5. REFER TO GENERAL SPECS - DIVISION 27 TO PROVIDE CONDUIT, DATA, AND INTERCONNECT THE PANIC ALARM INSIDE FREEZER TO THE BUILDING AUTOMATION SYSTEM FOR NOTIFICATION TO DISTRICT PERSONNEL.

7 CRITICAL NOTES
NOT TO SCALE

DIVISION 26 (ELECTRICAL) IS RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE FOLLOWING LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL ELECTRICAL REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. ROUGH-IN AND FINAL CONNECTION OF ELECTRICAL SYSTEMS TO FOOD SERVICE EQUIPMENT, COLD STORAGE ASSEMBLIES, AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR). ACCESSORIES PROVIDED LOOSE WITH FOOD SERVICE EQUIPMENT BY SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 26.
6. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
7. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR INTERCONNECT CABLES BETWEEN LAN AND POS TERMINALS, CHANGE-MAKERS, PRE-CHECK UNITS, PRINTERS, CPUS, ETC. DIVISION 26 TO VERIFY WHERE THE CONDUIT IS TO RUN FOR POS SYSTEM (I.E., MANAGER'S OFFICE OR IDF ROOM).
8. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR FIRE SUPPRESSION SYSTEMS. INTERCONNECT FIRE PROTECTION SYSTEM TO PANEL BOX SHUNT TRIPS AND BUILDING ALARM.
9. WALK-IN LIGHT FIXTURE INSTALLATION (PROVIDED LOOSE BY SECTION 11 40 00).
10. TABLE LIMIT SWITCH INSTALLATION (PROVIDED LOOSE BY SECTION 11 40 00).
11. ELECTRICAL MATERIALS AND DEVICES (SHUNT-TRIP BREAKERS, SURGE PROTECTORS, LIGHTING CONTROL DEVICES, CONDUIT, WIRE, ETC.).
12. SWITCHES AND STAINLESS STEEL DISCONNECTS AS REQUIRED (PROVIDE, LOCATE, AND INSTALL – TO BE IN AN ACCESSIBLE LOCATION).
13. CHARGING STATIONS FOR FORKLIFTS, PALLET STACKERS, AND PALLET JACKS (SIZE, PROVIDE, LOCATE, AND INSTALL).
14. INTERCONNECTION BETWEEN CONDENSATE FAN AND DISHMACHINE CONTROL PANEL.
15. INTERCONNECTION BETWEEN EXHAUST HOOD FANS AND SWITCH.
16. INTERCONNECTION BETWEEN EXHAUST HOOD LIGHTS AND SWITCH.
17. DOOR HEATERS, LIGHTS, COILS, AND PRESSURE RELIEF PORTS PRE-WIRED TO JUNCTION BOX AT TOP OF COLD STORAGE ASSEMBLIES PROVIDED BY SECTION 11 40 00. FINAL CONNECTION BY DIV. 26.
18. IF ANY ELECTRICAL ACCESSORIES, FITTINGS, AND CORD/PLUGS ARE PROVIDED LOOSE WITH EQUIPMENT BY 11 40 00, DIV.26 IS TO ATTACH TO EQUIPMENT AND PROVIDE FINAL CONNECTION.
19. PROVIDE WATERPROOF RECEPTACLES IN WET AREAS.
20. ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOODS TO EXTEND TO SHUNT TRIP BREAKERS WITH ELECTRICAL PANEL BOX FOR SHUTDOWN DURING FIRE MODE.
21. RECEPTACLES ARE TO BE PRE-WIRED TO THE JUNCTION BOX OR LOAD CENTER FOR FINAL CONNECTION BY DIVISION 26.
22. ALL ELECTRICAL LIGHTING, POWER, AND DISTRIBUTION SYSTEMS.
23. DO NOT INTERCONNECT MORE THAN THREE (3) CONVENIENCE OUTLETS ON ONE (1) BREAKER.
24. OTHER THAN CONVENIENCE OUTLETS, ALL ELECTRICAL CONNECTIONS SHOWN ON FOOD SERVICE PLANS ARE DEDICATED BREAKERS.
25. DOORBELL AT RECEIVING DOOR (PROVIDE AND INSTALL – TO BE AUDIBLE THROUGHOUT KITCHEN, OFFICE, AND DRY STORAGE ROOM).
26. ADEQUATE LIGHTING AT RECEIVING DOOR.
27. PROVIDE AND INSTALL TWO EMERGENCY STROBE BEACONS THAT INTERCONNECT TO PANIC ALARM IN WALK-IN FREEZER. ONE (1) IN KITCHEN ABOVE WALK-IN FREEZER DOOR ONE (1) IN CAFETORIUM. REFER TO GENERAL SPECIFICATIONS FOR ADDITIONAL DETAILS.
27. DEDICATED CIRCUIT FOR HEATED DRAIN LINE CONNECTION IN WALK-IN FREEZER AT EACH COIL.

NOTE: ELECTRICAL CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 26. FOR ADDITIONAL REQUIREMENTS, REFER TO THE ELECTRICAL ENGINEER'S DRAWINGS.

6 ELECTRICAL COORDINATION NOTES1
NOT TO SCALE

DIVISION 22 (PLUMBING) RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH-IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL PLUMBING REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. EMPTY PVC CONDUIT WITH WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO BEVERAGE LINES, CO2 LINES, AND REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
6. ROUGH-IN AND FINAL PLUMBING CONNECTIONS TO FOOD SERVICE EQUIPMENT AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR). ACCESSORIES PROVIDED LOOSE WITH FOOD SERVICE EQUIPMENT BY SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 22. THIS INCLUDES BUT IS NOT LIMITED TO INSTALLATION OF ALL FAUCETS (WATER FILL FAUCETS, PRE-RINSE FAUCETS, ETC.), HOSES, GAS DISCONNECTS, AND DRAINS FROM EQUIPMENT POINT OF CONNECTION TO BUILDING PLUMBING SYSTEMS.
7. KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL FAUCETS (WATER FILL FAUCETS, PRE-RINSE FAUCETS, ETC.), DRAIN FITTINGS, MIXING VALVES, CONTROL VALVES, WATER PRESSURE REGULATORS, VACUUM BREAKERS, AND ALL ACCESSORIES FOR EQUIPMENT SPECIFIED UNDER 11 40 00. DIVISION 22 IS RESPONSIBLE FOR INSTALLATION.
8. INDIRECT DRAIN LINE RUNS FROM EQUIPMENT TO NEAREST DRAIN OR FLOOR SINK. LINES TO BE COPPER.
9. IF ANY PLUMBING ACCESSORIES OR FITTINGS ARE PROVIDED LOOSE WITH EQUIPMENT BY 11 40 00, DIV. 22 IS TO ATTACH TO EQUIPMENT AND PROVIDE FINAL CONNECTION.
10. GAS SUPPLY SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM.
11. WATER SUPPLY SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM.
12. COMPRESSED AIR SYSTEMS WITH ALL COMPONENTS AND FITTINGS AS REQUIRED FOR A COMPLETE SYSTEM.
13. PIPING AND DRAINAGE SYSTEMS (SANITARY AND GREASE LADEN). SYSTEMS TO BE CLEANED PRIOR TO FINAL CONNECTION WITH FOOD SERVICE EQUIPMENT.
14. FLOOR SINKS (PROVIDE AND INSTALL). FLANGE AND GRATES TO BE FLUSH WITH FINISHED FLOOR.
15. FLOOR DRAINS (PROVIDE AND INSTALL). FLANGE AND GRATES TO BE FLUSH WITH FINISHED FLOOR.
16. TRENCH DRAINS (PROVIDE AND INSTALL). TRENCH LINERS PROVIDED BY 11 40 00. FLANGE AND LINERS TO BE FLUSH WITH FINISHED FLOOR.
17. GREASE TRAPS AS REQUIRED. VERIFY WITH LOCAL CODES TO BYPASS OR PIPE THRU GREASE TRAP AND/OR INTERCEPTOR.
18. P-TRAPS AS REQUIRED (INCLUDING ALL DISPOSERS).
19. INTERCONNECT WATER THRU WATER FILTER (FILTER PROVIDED BY 11 40 00 UNLESS OTHERWISE SPECIFIED) TO EQUIPMENT.
20. GAS QUICK DISCONNECT INSTALLATION (QUICK DISCONNECT PROVIDED BY 11 40 00).
21. SAFETY RESTRAINT CABLE INSTALLATION (SAFETY RESTRAINT CABLE PROVIDED BY 11 40 00).
22. SPECIFIED COUPLINGS AND PIPING TO ALL EQUIPMENT FURNISHED BY 11 40 00.
23. AIR COMPRESSORS (SIZE, PROVIDE, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
24. WATER SOFTENERS (SIZE, PROVIDE, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
25. PRESSURE BOILERS (SIZE, PROVIDE, AND INSTALL, UNLESS OTHERWISE SPECIFIED).
26. HAND SINKS (PROVIDE (UNLESS OTHERWISE SPECIFIED) AND INSTALL). PROVIDE HOT WATER TEMPERING VALVE IF REQUIRED. WATER TEMPERATURE TO BE AT LEAST 100 DEGREES AND FLOW FOR AT LEAST 20 SECONDS.
27. ICE BIN DRAIN INSULATION (PROVIDE AND INSTALL).
28. UNIONS AT DISPOSER SOLENOID VALVES (PROVIDE AND INSTALL).
29. BACK FLOW PREVENTION AS REQUIRED (PROVIDE AND INSTALL - INCLUDING ALL DISPOSERS). BACK- SIPHONAGE SHALL BE INSTALLED AT ALL FIXTURES AND EQUIPMENT WHERE BACKFLOW AND/OR BACK-SIPHONAGE MAY OCCUR AND WHERE A MINIMUM AIR GAP CANNOT BE PROVIDED BETWEEN THE WATER TO THE FIXTURE OR EQUIPMENT AT ITS FLOOD/LEVEL RIM. VACUUM BREAKERS, WHEN FURNISHED WITH EQUIPMENT, SHALL OVERRIDE THE ABOVE, IF ACCEPTABLE WITH APPLICABLE CODES. DIVISION 22 RESPONSIBLE FOR VERIFYING REQUIREMENT WITH LOCAL CODES.
30. JANITOR SINK WITH FAUCET (PROVIDE AND INSTALL).
31. FREEZE PROOF HOSE BIBB AT EXTERIOR OF BUILDING BY RECEIVING DOOR (PROVIDE AND INSTALL - UNLESS OTHERWISE SPECIFIED).
32. REVERSE OSMOSIS SYSTEMS (SIZE, PROVIDE (UNLESS OTHERWISE SPECIFIED), LOCATE AND INSTALL).
33. ALL PIPING WITHIN COUNTER BODY OR UNDER FABRICATED COUNTERS TO BE RUN TO A CONNECTION POINT BELOW COUNTER BODY BY SECTION 11 40 00. FINAL CONNECTION BY DIVISION 22.
34. EXHAUST HOOD CONDENSATE DRAIN CONNECTIONS (PROVIDE AND INSTALL).
35. INTERCONNECTION OF 1/2" CW TO PRE-RINSE AND DISPOSERS CONE/BODY INLETS PIPED THROUGH SOLENOID AND VACUUM BREAKER.
36. FIRE SYSTEM PIPING. EXPOSED PIPING TO BE CHROME PLATED.
37. PIPE 1/2" COLD WATER TO SWIRL INLETS AT DISPOSERS.
38. WATER TREATMENT FOR ICE BUILDERS (NON-CHLORINATED WATER WITH A PH LEVEL OF 10 OR HIGHER) AND ANY DRAINS AND OVERFLOWS. PIPING FROM ICE BUILDERS TO TUMBLE CHILLERS BY DIV. 23.

NOTE: WATER AND DRAIN CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOOD SERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 22. FOR ADDITIONAL WATER AND DRAIN REQUIREMENTS REFER TO MECHANICAL DRAWINGS.

NOTE: REFER TO ELECTRICAL/MECHANICAL DRAWINGS FOR REQUIREMENTS OF EXHAUST FANS AND MAKE-UP AIR HANDLERS AND LOCATION OF AN INTERLOCK AND START/STOP CONTROLS TO BE LOCATED WITHIN FOOD SERVICE AREA BY DIVISION 26.

4 PLUMBING COORDINATION NOTES
NOT TO SCALE

DIVISION 23 (MECHANICAL) RESPONSIBLE FOR BUT NOT LIMITED TO:

1. **DO NOT ROUGH-IN FROM FDP DRAWINGS. REFER TO THE KITCHEN EQUIPMENT CONTRACTOR'S DIMENSIONED SHOP DRAWINGS. DIMENSIONS INDICATED ARE TO BE VERIFIED BY KITCHEN EQUIPMENT CONTRACTOR AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.**
2. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF EXISTING EQUIPMENT.
3. ALL CONNECTIONS SHALL BE MADE FOLLOWING LOCAL CODES AND NATIONAL STANDARDS, EXCEPT WHERE PLANS AND SPECIFICATIONS EXCEED THOSE CODES AND STANDARDS.
4. VERIFY ALL MECHANICAL REQUIREMENTS WITH ENGINEERING DRAWINGS.
5. EMPTY EMT CONDUIT WITH PULL-WIRE AND WIDE-SWEEP BENDS FOR REFRIGERANT PIPING TO REMOTE FOOD SERVICE EQUIPMENT REFRIGERATION SYSTEMS.
6. ROUGH-IN AND FINAL CONNECTION OF MECHANICAL SYSTEMS TO FOOD SERVICE EQUIPMENT, COLD STORAGE ASSEMBLIES, AND BETWEEN COMPONENTS (INCLUDING MATERIALS AND LABOR).
7. TESTING AND BALANCING FOR ROOMS AND EXHAUST HOODS TO BE PERFORMED BY MECHANICAL CONTRACTOR. BALANCE REPORT FOR FOOD SERVICE EXHAUST HOODS TO BE PROVIDED TO FOODSERVICE DESIGN PROFESSIONALS (FDP) IMMEDIATELY UPON COMPLETION (SEND TO HOUSTON.SUBMITTAL@FDP.ORG FOR HOUSTON OFFICE AND DALLAS.SUBMITTAL@FDP.ORG FOR DALLAS OFFICE) AND MUST BE SUBMITTED WITH O&M MANUALS.
8. EXHAUST HOODS, CONDENSATE HOODS, FIRE SUPPRESSION SYSTEMS, CONNECTIONS AND CONTROLS (PROVIDE AND INSTALL – *UNLESS OTHERWISE SPECIFIED*). PROVIDE TEMPERED AIR AT ALL SUPPLY DUCTS.
   - A. IF EXHAUST/CONDENSATE HOODS AND FIRE SUPPRESSION SYSTEMS ARE SPECIFIED UNDER SECTION 11 40 00, DIVISION 23 IS RESPONSIBLE FOR ALL EXHAUST AND CONDENSATE HOOD CONNECTIONS (PROVIDE AND INSTALL).
9. VFD SYSTEM AND CONTROLLERS, WHEN REQUIRED BY CODE (PROVIDE AND INSTALL).
10. PROVIDE AND INSTALL ALL VENTILATION (DIRECT OR INDIRECT), AIR CONDITIONING AND HEATING SYSTEMS (UNLESS OTHERWISE SPECIFIED).
11. COORDINATE SUPPLY AND RETURN DUCTS ABOVE SERVING COUNTERS. NO COLD AIR BLOWN DIRECTLY ON HOT FOOD COUNTERS.
12. COORDINATE SUPPLY AND RETURN DUCTS AWAY FROM EQUIPMENT WITH TOP MOUNTED REFRIGERATION. NO AIR BLOWN DIRECTLY ON COMPRESSORS.
13. MECHANICAL CONTRACTOR TO LOCATE TEMPERATURE MONITORS WITHIN RETURN DUCTS.
14. CIRCULATING AIR ABOVE COLD STORAGE ASSEMBLIES (PROVIDE AND INSTALL).
15. CIRCULATING AIR ABOVE AND IN AIR GAPS AT WAREHOUSE COLD STORAGE ASSEMBLIES (PROVIDE AND INSTALL).
16. WATER CHILLERS AS REQUIRED (PROVIDE, SIZE AND LOCATE).
17. PIPING FROM ICE BUILDERS TO TUMBLE CHILLERS (PROVIDE, SIZE AND LOCATE).

3 MECHANICAL COORDINATION NOTES
NOT TO SCALE

GENERAL CONTRACTOR RESPONSIBLE FOR BUT NOT LIMITED TO:

1. ANY WALL PENETRATION REQUIRED FOR FOOD SERVICE EQUIPMENT UTILITIES. ESCUTCHEON PLATES OR S/S SLEEVES TO BE PROVIDED AND INSTALLED AS NEEDED.
2. BULK FREEZER VENTILATION PIPE (PROVIDE AND INSTALL, UNLESS OTHERWISE SPECIFIED).
3. CORE DRILLING FOR GUIDE RAILS.
4. REFRIGERATION ROOF CURBS / ROOF JACK.
5. INTERIOR BOLLARDS – TO BE EPOXY PAINTED PER LOCAL CODES (PROVIDE AND INSTALL).
6. FURNISH AND INSTALL 3/4" PLYWOOD BLOCKING IN THE WALL FOR MOUNTING EQUIPMENT FURNISHED BY SECTION 11 40 00 AS REQUIRED.
7. WALK-IN DEPRESSIONS (TO BE DEAD LEVEL) AND SAND LEVELING BED.
8. STRUCTURAL BRACING FOR BULK WALK-IN CEILING PANELS IF REQUIRED.
9. MENU SYSTEM VIDEO MONITORS IN SERVERY (UNLESS OTHERWISE SPECIFIED).
10. STRUCTURAL BRACING FOR MENU SYSTEM VIDEO MONITORS IF REQUIRED.
11. INTERIOR/EXTERIOR REFRIGERATION PENETRATIONS AND SLEEVES AT BUILDING PENETRATIONS.
12. DOORSCOPE VIEWER (PEEPHOLE) WITH WIDE VIEWING ANGLE AT RECEIVING DOOR.
13. CANOPY AT RECEIVING DOOR. COORDINATE HEIGHT WITH THE HEIGHT OF RECEIVING DOOR (8') AND THE MOUNTING HEIGHT OF AIR SCREEN ABOVE THE DOOR.
14. SOAP AND TOWEL DISPENSER PROVIDED BY OWNER. G.C. RESPONSIBLE FOR INSTALLATION.
15. WASHER AND DRYER (PROVIDE AND INSTALL, UNLESS OTHERWISE SPECIFIED).
16. DWARF WALL AT EXPOSED FRONT/ENDS OF CAFETERIA SERVING COUNTERS WITH FINISH AS SELECTED BY ARCHITECT.

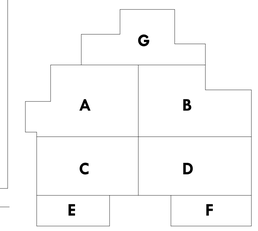
2 GENERAL CONTRACTOR COORDINATION NOTES
NOT TO SCALE

HEALTH DEPARTMENT NOTES:

1. FLOORS: VERIFY WITH DIVISION 9. FLOORS TO BE SMOOTH, IMPERVIOUS, EASILY CLEANABLE AND SLIP RESISTANT.
2. WALLS: VERIFY WITH ARCHITECTURAL DOCUMENTS. WALLS TO BE SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE.
3. CEILING: LAY-IN TILES. CEILING TILES TO BE SMOOTH, IMPERVIOUS, AND EASILY CLEANABLE.
4. EMPLOYEE TOILET: TO BE LOCATED OFF MAIN CORRIDOR AND ADJACENT TO MAIN KITCHEN. RESTROOM MUST HAVE A VESTIBULE AND NOT OPEN TO KITCHEN / PREP AREAS. TOILETS TO BE WELL VENTILATED.
5. LAVATORIES: WALL HUNG LAVATORIES LOCATED WITHIN ALL FUNCTIONAL WORKING AREAS.
6. UTENSIL CLEANING/SANITIZING: ACCOMPLISHED IN UTENSIL WASH AREA WITH (3) 2'-0" x 2'-2" x 15" MINIMUM DEEP SINKS AND WAREWASH MACHINE.
7. MECHANICAL CLEANING/SANITIZING OF TABLEWARE: ACCOMPLISHED BY WAREWASH MACHINE.
8. STOREROOMS: AMPLE DAILY STORAGE PROVIDED IN ENCLOSED STORE ROOMS. STORE ROOMS TO BE VENTILATED AND MAINTAIN PROPER TEMPERATURE.
9. WATER HEATER: LOCATED IN THE MECHANICAL ROOM ADJACENT TO KITCHEN. TO BE SIZED TO PROVIDE AMPLE WATER TO MAINTAIN PROPER WATER TEMPERATURE THROUGHOUT HOURS OF OPERATION.
10. GREASE TRAP: LOCATED AT EXTERIOR OF BUILDING. REFER TO ENGINEER'S DRAWINGS.
11. FOOD SERVICE EQUIPMENT: ALL FLOOR-MOUNTED EQUIPMENT IS TO BE SEALED TO THE FLOOR TO PROVIDE AN EASILY CLEANABLE SURFACE AND PREVENT SEEPAGE. EQUIPMENT NOT MOUNTED TO THE FLOOR IS TO BE WALL MOUNTED ON WALL CARRIERS, OR ELEVATED ON LEGS TO PROVIDE AT LEAST A SIX-INCH CLEARANCE BETWEEN FLOOR AND EQUIPMENT.
12. MOP SINK: LOCATED IN JANITOR CLOSET OFF MAIN KITCHEN CORRIDOR, AND LOCATED IN CLOSE PROXIMITY TO THE SERVERY WAREWASH AREA.
13. EXHAUST HOODS: EXHAUST HOODS PROVIDED OVER COOKING EQUIPMENT WITH LIQUID CHEMICAL ANSUL FIRE EXTINGUISHING SYSTEM.
14. LIGHTING AND PROTECTIVE SHIELDING: RECESSED CEILING-MOUNTED FLUORESCENT LIGHT FIXTURES FITTED WITH CLEAR LEXAN DIFFUSERS.
15. GARBAGE AND REFUSE: CENTRAL TRASH COLLECTION PROVIDED FOR BUILDING LOCATED NEAR RECEIVING AREA ON SMOOTH CONCRETE SURFACE.
16. POISONOUS AND TOXIC MATERIAL STORAGE: LOCATED IN RESPECTIVE JANITOR CLOSETS WITH LOCKING HARDWARE.

1 HEALTH DEPARTMENT COORDINATION NOTES
NOT TO SCALE

KEY PLAN



FDP
FOODSERVICE DESIGN PROFESSIONALS

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

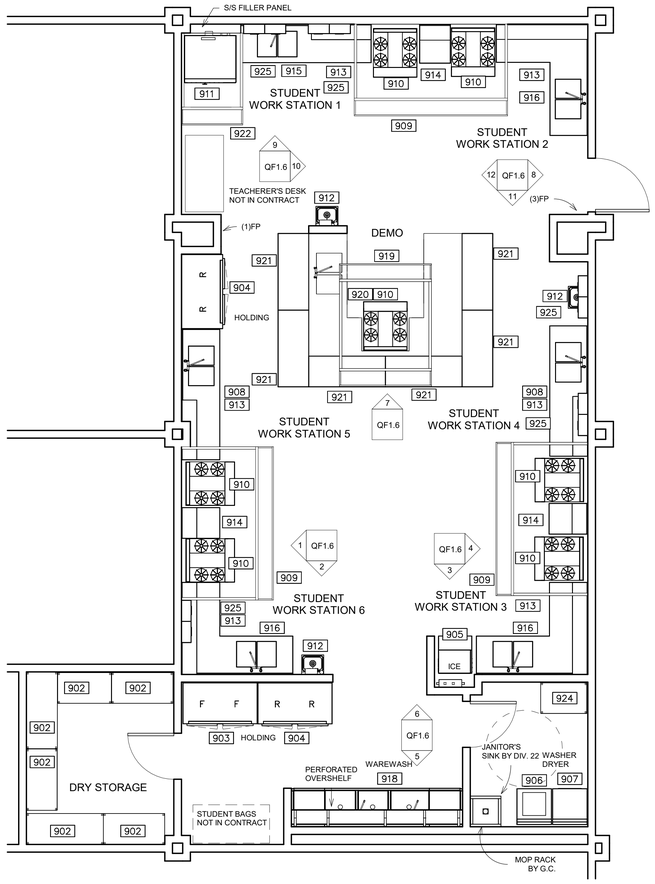
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DATE	DRAWN BY	CHECKED BY	BRW PROJECT NUMBER
FEBRUARY 12, 2024	MM	KD/MD	22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DR.
HUMBLE, TX 77346

NO.	REVISION	DATE

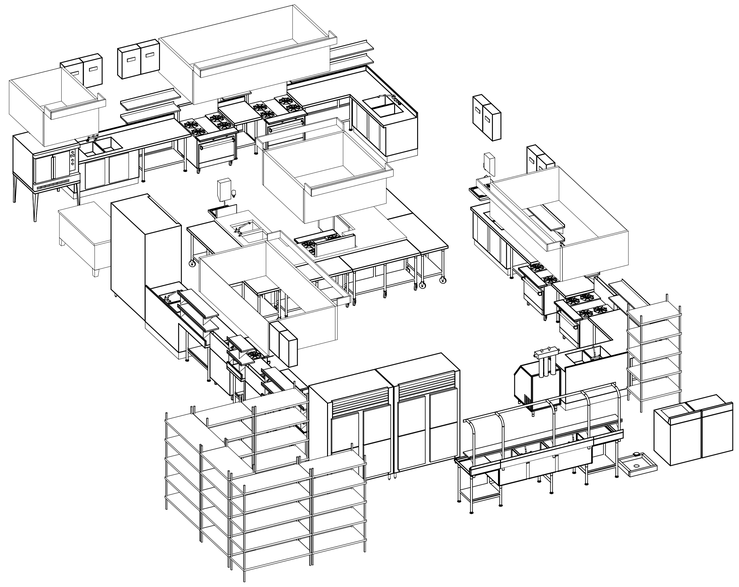
QF1
FS GENERAL COORDINATION NOTES



1 FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"

FOODSERVICE EQUIPMENT SCHEDULE					
FDP ITEM	QTY	FDP DESCRIPTION	FDP REMARKS	Manufacturer	Model
902	6	SHELVING		METRO	METRO MAX Q
903	1	REACH-IN FREEZER		TRAUSLEN	ALT-232WUT
904	2	REACH-IN REFRIGERATOR		TRAUSLEN	AHT-232WUT
905	1	ICE MAKER		MANITIWOC	UYF310A
906	1	CLOTHES WASHER	OWNER FURNISHED	CUSTOM FABRICATE	
907	1	CLOTHES DRYER	OWNER FURNISHED	CUSTOM FABRICATE	
908	2	STUDENT WORK STATION		CUSTOM FABRICATE	
909	3	EXHAUST HOOD		MODUSERVE	W-CPB
910	7	RANGE		WOLF	JBR-2-12GT-2
911	1	CONVECTION OVEN	EXISTING		
912	3	HAND SINK	PROVIDED BY SECTION 11 4000 INSTALLED BY DIV. 22	ADVANCED TABCO	7-PS-50
913	6	WALL SHELVING		CUSTOM FABRICATE	
914	3	STUDENT WORK STATION		CUSTOM FABRICATE	
915	1	STUDENT WORK STATION		CUSTOM FABRICATE	
916	3	STUDENT WORK STATION		CUSTOM FABRICATE	
918	1	THREE COMPARTMENT SINK		CUSTOM FABRICATE	
919	1	EXHAUST HOOD	ISLAND HOOD	MODUSERVE	W-CPB
920	1	DEMO COUNTER	CLOSED BASE	CUSTOM FABRICATE	
921	6	STUDENT WORK TABLES		CUSTOM FABRICATE	
922	1	EXHAUST HOOD		MODUSERVE	W-CPB
924	1	CHEMICAL SHELF		METRO	METRO MAX Q
925	5	FIRE PROTECTION SYSTEM		ANSUL	

2 FS FACILITY MODEL



3 FS EQUIPMENT MODEL

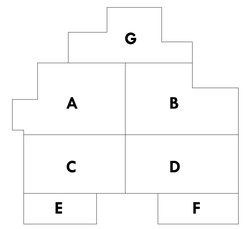
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FOODSERVICE DRAWING INDEX	
SHEET NUMBER	SHEET NAME
QF1	FS GENERAL COORDINATION NOTES
QF1.1	FS EQUIPMENT PLAN
QF1.2	FS SPECIAL CONDITIONS & MECHANICAL PLAN
QF1.3	FS PLUMBING PLAN
QF1.4	FS ELECTRICAL PLAN
QF1.5	FS EXHAUST HOODS
QF1.6	FS ELEVATIONS
QF1.7	FS SECTIONS & DETAILS

REFER TO SHEET QF1 FOR GENERAL CONTRACTOR AND HEALTH DEPARTMENT COORDINATION NOTES

0' 2' 4' 8' 16'

KEY PLAN



BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
LEAGUE CITY, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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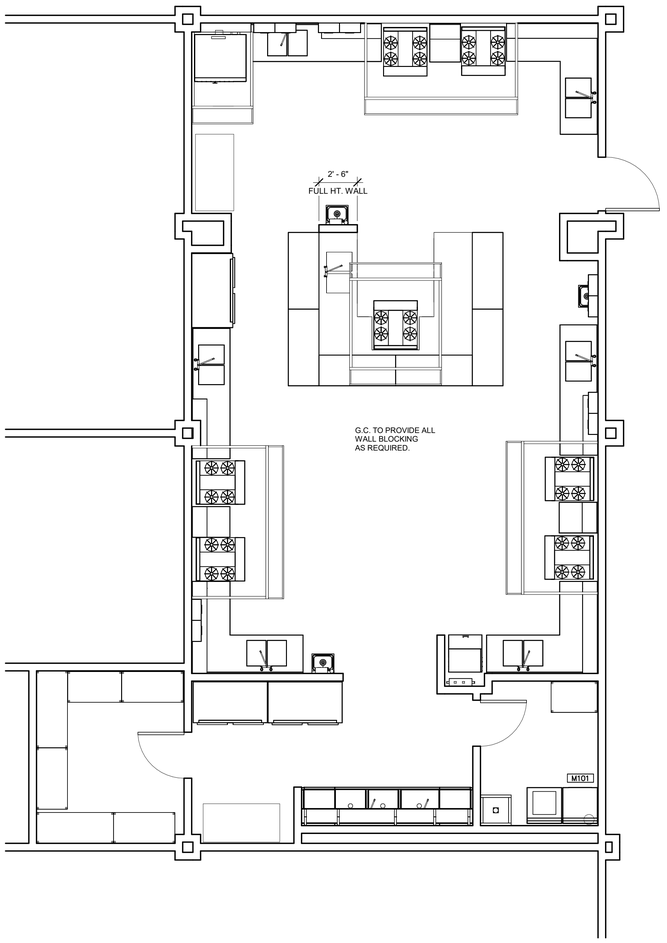
DATE FEBRUARY 12, 2024
DRAWN BY MM
CHECKED BY MD/KD
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DR.
HUMBLE, TX 77346

NO.	REVISION	DATE

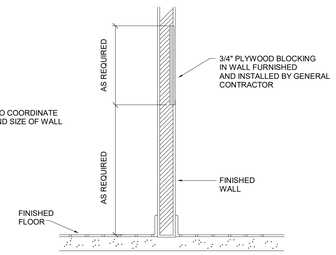
QF1.1
FS EQUIPMENT PLAN

FOODSERVICE MECHANICAL SCHEDULE						
NO.	QTY	TYPE	SIZE	LOCATION	CFM	S.P.
M101	1	EXHAUST	4" ROUND	WALL		GRAVITY



1 FOODSERVICE SPECIAL CONDITIONS PLAN
1/4" = 1'-0"

NOTE:
SECTION 11 40 00 TO COORDINATE FINAL LOCATION AND SIZE OF WALL BLOCKING.

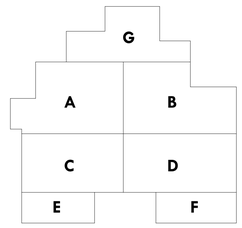


2 WALL BLOCKING DETAIL
NOT TO SCALE

REFER TO SHEET QF1 FOR DIVISION 23 COORDINATION NOTES

0' 2' 4' 8' 16'

KEY PLAN



FOODSERVICE DESIGN PROFESSIONALS

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 6
LEAGUE CITY, TEXAS 77345
281.361.3800
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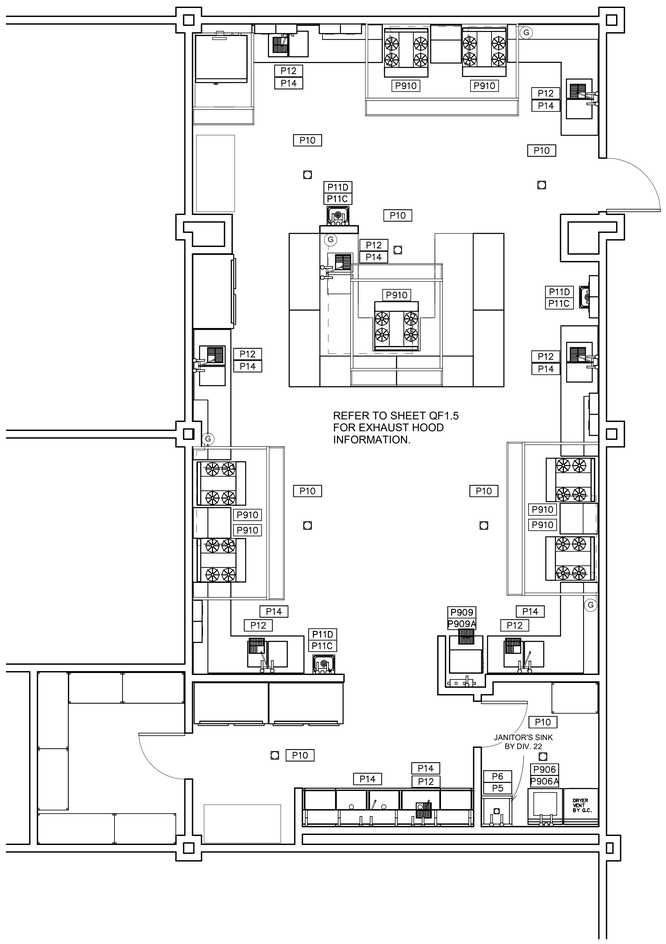
DATE FEBRUARY 12, 2024
DRAWN BY MM
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BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DR.
HUMBLE, TX 77346

NO.	REVISION	DATE

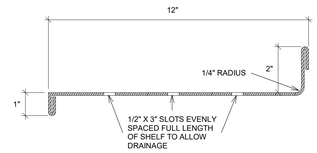
QF1.2

FS SPECIAL CONDITIONS & MECHANICAL PLAN



1 FOODSERVICE PLUMBING PLAN
1/4" = 1'-0"

FOODSERVICE PLUMBING SCHEDULE						
FDP PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS
P5	3/4"	H & C WATER	JANITOR SINK	WALL	48"	JANITOR SINK BY PLUMBER
P6	4"	FLOOR DRAIN	JANITOR SINK	FLOOR	VERIFY	JANITOR SINK BY PLUMBER
P10	VERIFY	FLOOR DRAIN	GENERAL AREA DRAIN	FLOOR	VERIFY	LOCATE PER ENGINEER'S DRAWING
P11C	1/2"	H & C WATER	FAUCET	WALL	18"	FURNISHED & INSTALLED BY DIV. 22
P11D	1 1/2"	DIRECT DRAIN	HAND SINK	WALL	15"	FURNISHED & INSTALLED BY DIV. 22
P12	12"SQ.	FLOOR SINK	EQUIPMENT	FLOOR	0"	3/4 GRATE
P14	3/4"	H & C WATER	FAUCET	WALL	18"	BTC; S/S FLEX HOSE TO MIXING VALVE
P906	3/4"	H & C WATER	CLOTHES WASHER	WALL	48"	BTC; VALVE BOX
P906A	2"	INDIRECT DRAIN	CLOTHES WASHER	WALL	48"	VALVE BOX
P909	3/4"	COLD WATER	WATER/ ICE	WALL	60"	BTC
P909A	12" SQ.	FLOOR SINK	ICE MACHINE	FLOOR	0"	FULL GRATE
P910	3/4"	NATURAL GAS	RANGE	WALL	18"	BTC: 160 MBTU/HR



3 WAREWASH - PERFORATED OVER SHELF DETAIL
NOT TO SCALE

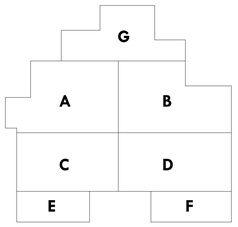
HW	HOT WATER	IW	INDIRECT WASTE (EXTEND TO F.D.)		
CW	COLD WATER	FFD	FUNNEL FLOOR DRAIN		
HTW	180 F HOT WATER	EVC	EXHAUST VENT CONNECTION		
CWS	CHILLED WATER	SVC	SUPPLY VENT CONNECTION		
G	GAS SUPPLY	FR	DIRECT-CONNECTED FLUE RISER		
SS	STEAM SUPPLY	PS	PIPE SLEEVE		
CR	CONDENSATE RETURN	AFF	ABOVE FINISHED FLOOR		
DR	DRAIN	ST	STUB UP/OUT		
FD	FLOOR DRAIN	BTC	BRANCH TO CONN. ON EQUIP		
FS	FLOOR SINK	DFA	DROP FROM ABOVE		
		CA	COMPRESSED AIR		

2 PLUMBING SYMBOLS
NOT TO SCALE

REFER TO SHEET QF1 FOR
DIVISION 22 COORDINATION
NOTES

0' 2' 4' 8' 16'

KEY PLAN



FOODSERVICE DESIGN PROFESSIONALS

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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DATE FEBRUARY 12, 2024
DRAWN BY MM
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BRW PROJECT NUMBER 22300500

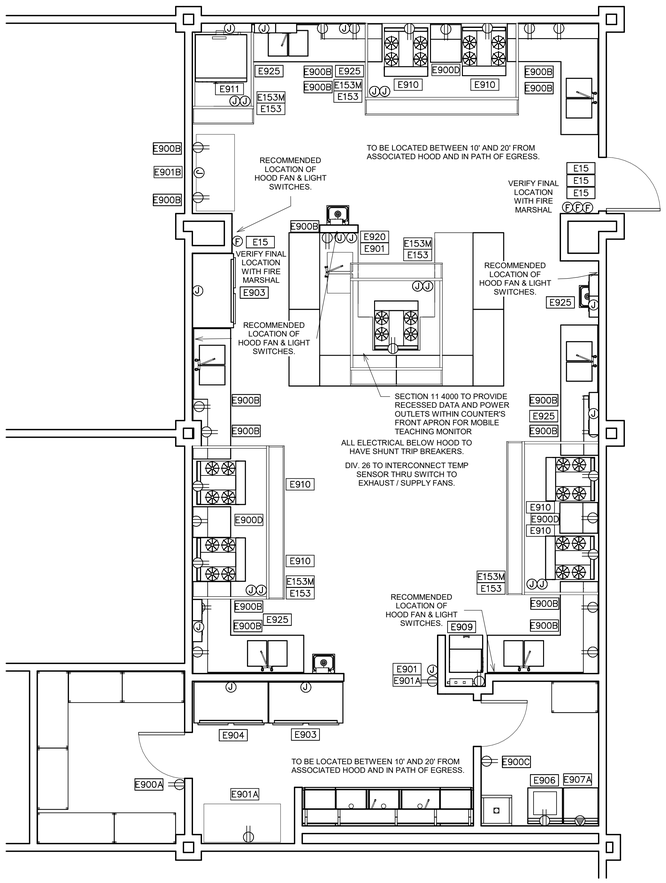
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DR.
HUMBLE, TX 77346

NO.	REVISION	DATE

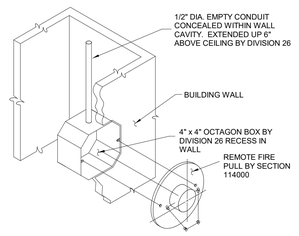
QF1.3

FS PLUMBING PLAN

FOODSERVICE ELECTRICAL SCHEDULE								
FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS
E15	JB	---	---	--	REMOTE FIRE PULL	WALL	54"	BTC - RECESSED JB - EXTEND TO FIRE SYSTEM FOR HOOD
E153	JB	10.0A	120	1	HOOD LIGHTS	CLG	DFA	BTC
E153M	JB	10.0A	120	1	HEAT SENSOR	CLG	DFA	BTC
E900A	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	24"	---
E900B	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	47"	---
E900C	WPR	16.0A	120	1	CONVENIENCE OUTLET	WALL	18"	---
E900D	DR	16.0A	120	1	CONVENIENCE	WALL	44"	SHUNT TRIP BREAKER
E901	JB	---	---	--	DATA CONNECTION	WALL	24"	FOR MOBILE VIDEO MONITOR
E901A	DR	16.0A	120	1	DEDICATED CIRCUIT	WALL	24"	---
E901B	JB	---	---	--	DATA CONNECTION	WALL	24"	TEACHER'S DESK
E903	JB	14.9A	120	1	FREEZER	WALL	90"	BTC - OMIT PLUG. UNIT TO BE HARDWIRED.
E904	JB	8.2A	120	1	REFRIGERATOR	WALL	90"	BTC - OMIT PLUG. UNIT TO BE HARDWIRED.
E906	DR	16.0A	120	1	CLOTHES WASHER	WALL	48"	--
E907A	SR	30.0A	208	1	CLOTHES DRYER	WALL	48"	VERIFY NEMA PLUG RECEPTACLE
E909	DR	11.9A	120	1	ICE MACHINE	WALL	60"	---
E910	DR	1.0A	120	1	SIX BURNER RANGE	WALL	24"	SHUNT TRIP BREAKER
E911	JB	31.0A	208	3	CONVECTION OVEN	WALL	36"	BTC; SHUNT TRIP BREAKER
E920	JB	60.0A	120/208	3	LOAD CENTER	WALL	24"	BTC
E925	JB	1.0A	120	1	FIRE PROT. SYSTEM	CLG	DFA	BTC



1 FOODSERVICE ELECTRICAL PLAN
1/4" = 1'-0"



3 FIRE PROTECTION SYSTEM FIRE PULL DETAIL
NOT TO SCALE

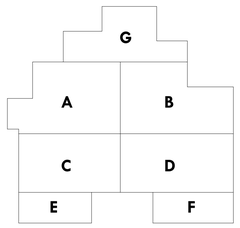
	SCR	CONDUIT STUB BTC ON RECEPT FURNISH WITH EQUIPMENT		CC	CONDUIT FOR COMPUTER CABLES
•	CS	CONDUIT STUB UP/OUT FOR DIRECT CONNECTION		BTC	BRANCH TO CONNECTION ON EQUIPMENT
	DR	20 AMP DUPLEX RECEPTACLE (MOUNT HORIZONTAL)		WPR	20 AMP WEATHERPROOF RECEPTACLE (SPRING COVER)
	SR	SINGLE PURPOSE RECEPTACLE-1PH		FPB	FIRE PROTECTION BUZZER
	SR	SINGLE PURPOSE RECPTACLE-3PH		BSC	BEVERAGE SYSTEM CONDUIT
	FR	FLUSH FLOOR RECEPTACLE		DFA	DROP FROM ABOVE
	PMR	PEDESTAL MOUNTED RECEPTACLE		AFF	ABOVE FINISH FLOOR
	DCR	DROP CORD RECEPTACLE		CSJB	JUNCTION BOX ON PEDESTAL
	JB	JUNCTION BOX ON CEILING		SW	SWITCH
	JB	JUNCTION BOX IN WALL		D	DATA
	JB/DS	JUNCTION BOX WITH DISCONNECT BY DIV.26		JB/DS	CONDUIT STUB-UP WITH DISCONNECTION BY DIV.26

2 ELECTRICAL SYMBOLS
NOT TO SCALE

REFER TO SHEET QF1 FOR DIVISION 26 COORDINATION NOTES

0' 2' 4' 8' 16'

KEY PLAN



FDP FOODSERVICE DESIGN PROFESSIONALS

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
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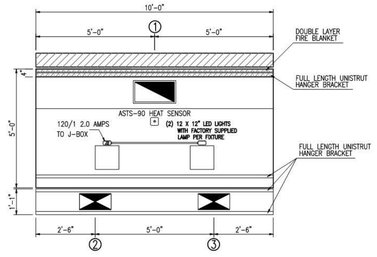
DATE FEBRUARY 12, 2024
DRAWN BY MM
CHECKED BY MD/KD
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DR.
HUMBLE, TX 77346

NO.	REVISION	DATE

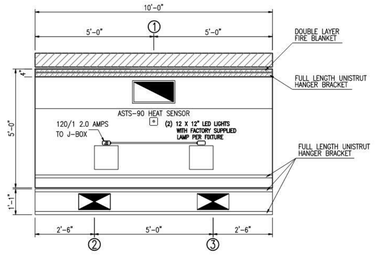
QF1.4

FS ELECTRICAL PLAN



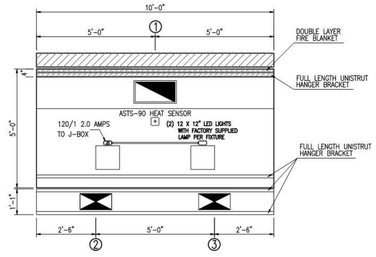
HOOD WGT. – 1050 LBS

Ⓐ PLAN – MODEL W-cpb ITEM 909A
SCALE 3/8"=1'-0"



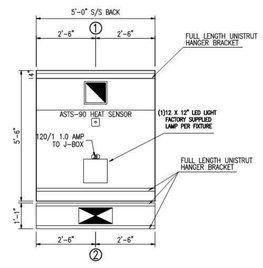
HOOD WGT. – 1050 LBS

Ⓐ PLAN – MODEL W-cpb ITEM 909B
SCALE 3/8"=1'-0"



HOOD WGT. – 1050 LBS

Ⓐ PLAN – MODEL W-cpb ITEM 909C
SCALE 3/8"=1'-0"



HOOD WGT. – 525 LBS

Ⓐ PLAN – MODEL W-cpb ITEM 919
SCALE 3/8"=1'-0"

HOODS DESIGNED TO MEET TO THE 2015 IECC C403.2.8 AND 2018 IECC C403.7.5 USING OPTION 1 PROVIDED BY THE CODES.

NOTE TO G.C. AND CEILING GRID INSTALLERS :

FASTENERS FOR CEILING GRID SURROUNDING KITCHEN HOOD MUST NOT PENETRATE HOOD CAPTURE AREA OR HOOD GREASE PLENUM. IMPROPER PENETRATIONS THROUGH HOOD IN THESE AREAS VIOLATE HOOD U.L. PROCEDURE AND LOCAL MECHANICAL CODE.

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 20"	210	2100	1512	.50"

SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 16"	100	500	562	.30"
3	8" X 16"	100	500	562	.30"

EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 20"	210	2100	1512	.50"

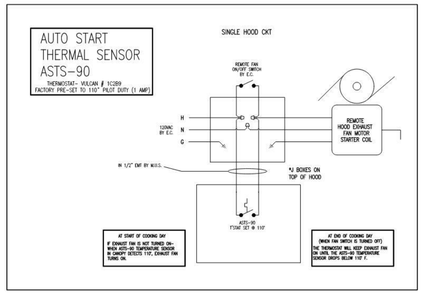
SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 16"	100	500	562	.30"
3	8" X 16"	100	500	562	.30"

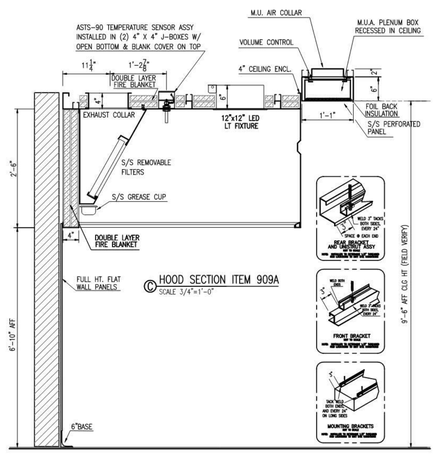
EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 20"	210	2100	1512	.50"

SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 16"	100	500	562	.30"
3	8" X 16"	100	500	562	.30"

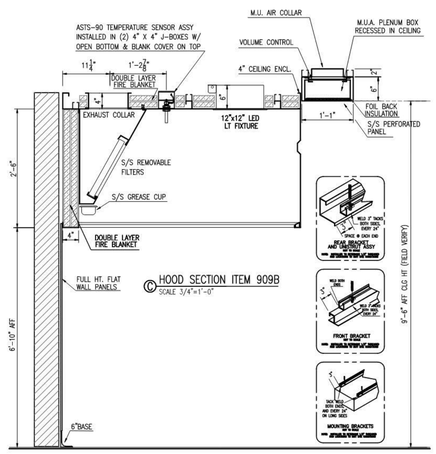
EXHAUST COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
1	10" X 14"	300	1500	1542	.65"

SUPPLY COLLAR CHART					
NO.	SIZE	CFM/FOOT	CFM EACH	FPM	S.P.
2	8" X 23"	144	720	563	.30"

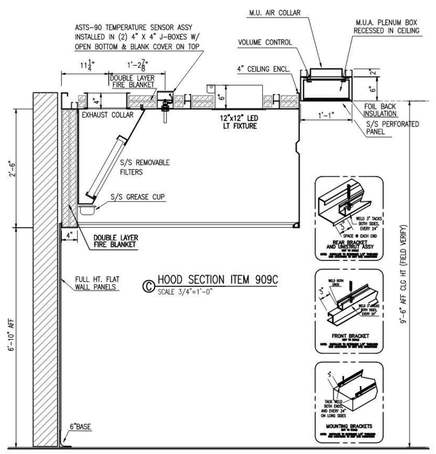




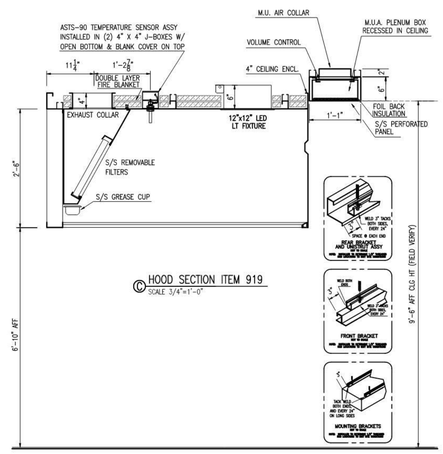
Ⓒ HOOD SECTION ITEM 909A
SCALE 3/4"=1'-0"



Ⓒ HOOD SECTION ITEM 909B
SCALE 3/4"=1'-0"



Ⓒ HOOD SECTION ITEM 909C
SCALE 3/4"=1'-0"



Ⓒ HOOD SECTION ITEM 919
SCALE 3/4"=1'-0"

UL FILE # MH 30031
MOD U SERVE
NSF Air Systems
2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

HUMBLE ISD-CREEKWOOD MS

FDP

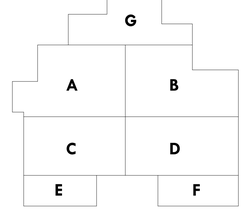
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COMMERCIAL KITCHENS INC.

2320 PEYTON ROAD
HOUSTON, TEXAS 77032
281 442 8001

NO.	REVISION	DATE	BY

DRAWING # D23-2093-1.909
DRAWN BY ADC
CHECKED BY
KEY PLAN 1
DATE June 16, 2023
SHEET 1 OF 1 SHEET



BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LEAGUE CITY, TEXAS 77573
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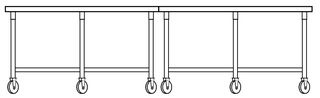
DATE FEBRUARY 12, 2024
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CHECKED BY MD/KD
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS
18450 TIMBER FOREST DR.
HUMBLE, TX 77346

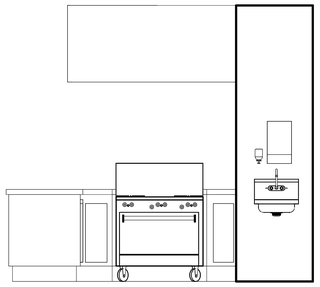
NO.	REVISION	DATE

QF1.5

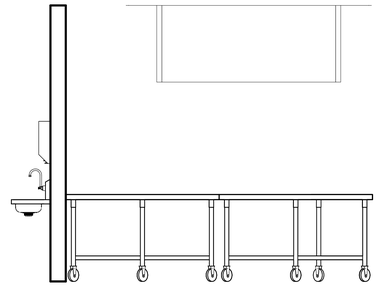
FS EXHAUST HOODS



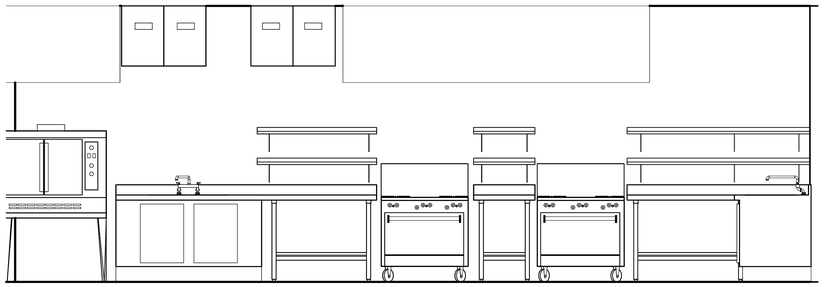
12 ELEVATION @ MOBILE TABLES 3
1/2" = 1'-0"



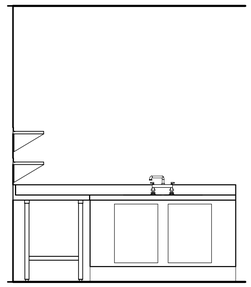
11 ELEVATION @ DEMO COUNTER
1/2" = 1'-0"



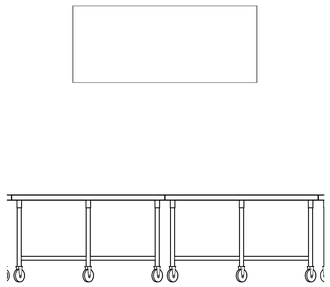
10 ELEVATION @ MOBILE TABLES 2
1/2" = 1'-0"



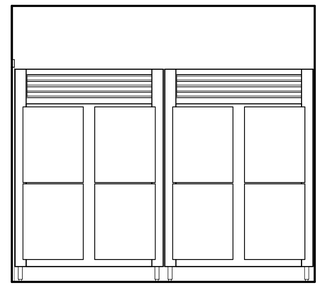
9 ELEVATION @ WORK STATION #1 & 2 W/PRODUCTION
1/2" = 1'-0"



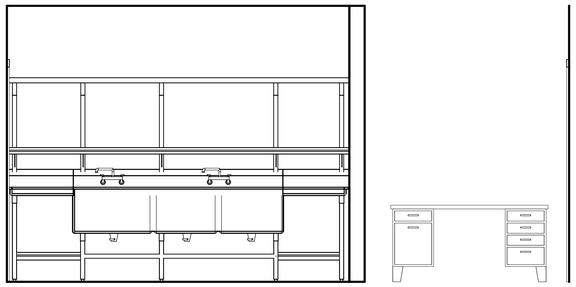
8 ELEVATION @ WORK STATION #2
1/2" = 1'-0"



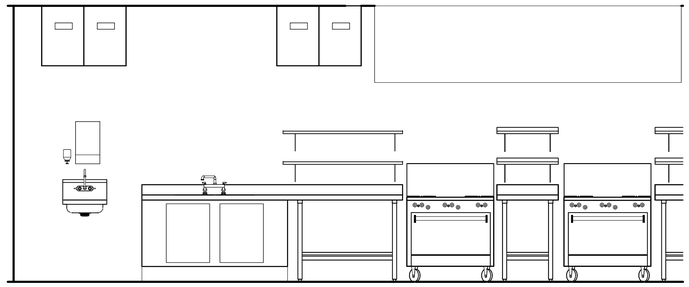
7 ELEVATION @ MOBILE TABLES 1
1/2" = 1'-0"



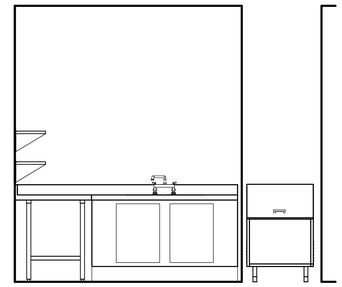
6 ELEVATION @ HOLDING
1/2" = 1'-0"



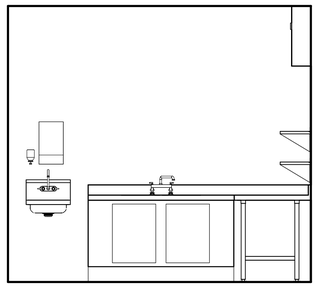
5 ELEVATION @ THREE COMPARTMENT SINK & AIR SCREEN
1/2" = 1'-0"



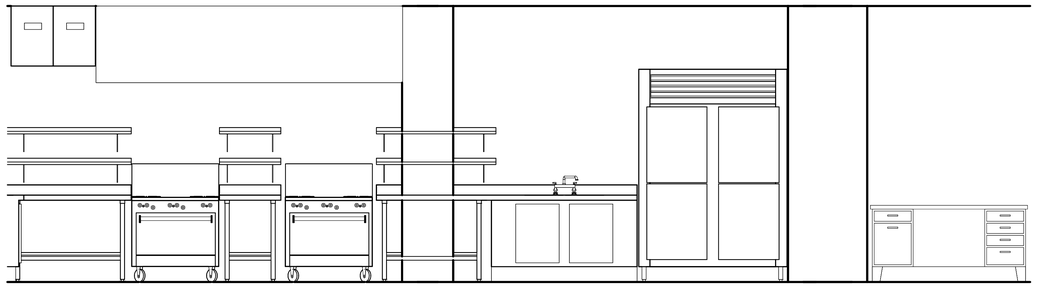
4 ELEVATION @ WORK STATION #4 & PRODUCTION
1/2" = 1'-0"



3 ELEVATION @ WORK STATION #3
1/2" = 1'-0"

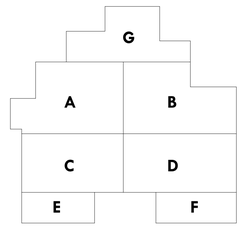


2 ELEVATION @ WORK STATION #6
1/2" = 1'-0"



1 ELEVATION @ WORK STATION #5 , HOLDING & PRODUCTION
1/2" = 1'-0"

KEY PLAN



FOODSERVICE DESIGN PROFESSIONALS

BROWN REYNOLDS WATFORD
ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LEAGUE CITY, TEXAS 77345
281.361.3800
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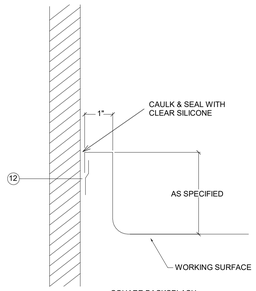
DATE FEBRUARY 12, 2024
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
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18450 TIMBER FOREST DR.
HUMBLE, TX 77346

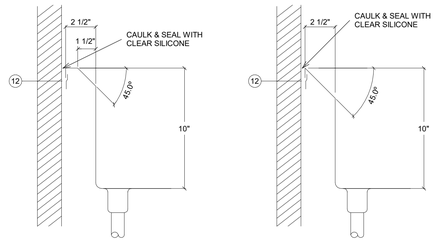
NO.	REVISION	DATE

QF1.6

FS ELEVATIONS



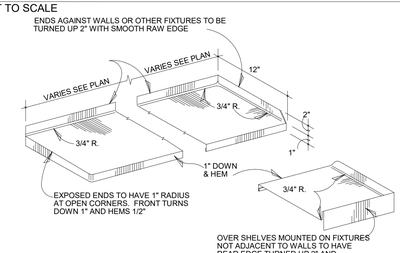
SQUARE BACKSPLASH
(beverage counters, back counters, snack bar counters, concession counters)

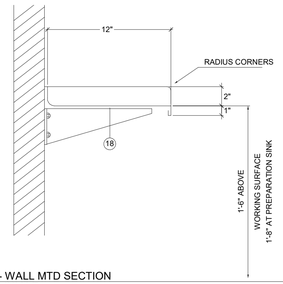


CHAMFERED 45° ANGLE BACKSPLASH
(with post mounted over shelf)

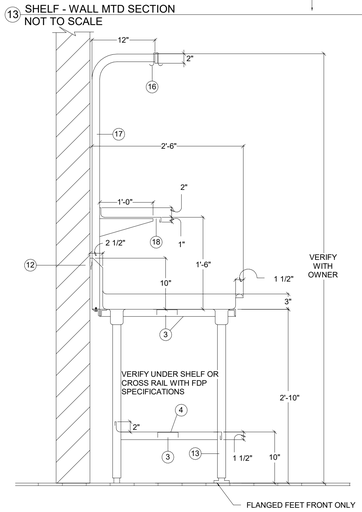
45° ANGLE BACKSPLASH
(without post mounted over shelf)

10 BACKSPLASH DETAILS
NOT TO SCALE

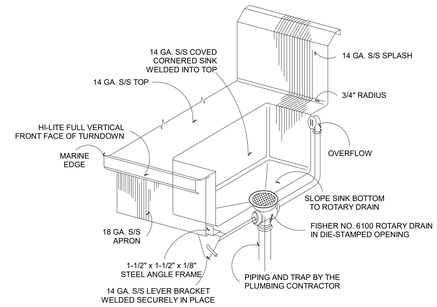




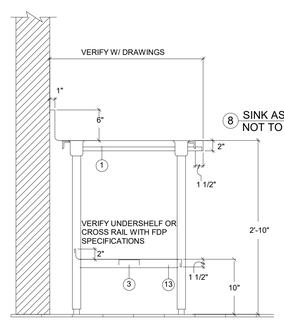
13 SHELF - WALL MTD SECTION
NOT TO SCALE



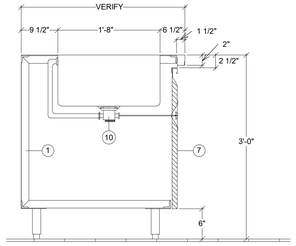
3 DRAINBOARD - UTENSIL WASH SECTION
NOT TO SCALE



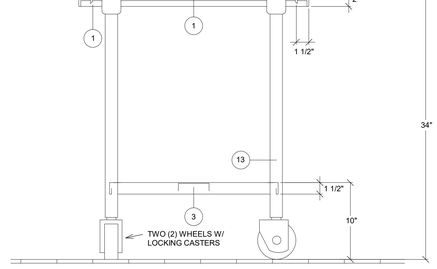
8 SINK ASSEMBLY DETAIL
NOT TO SCALE



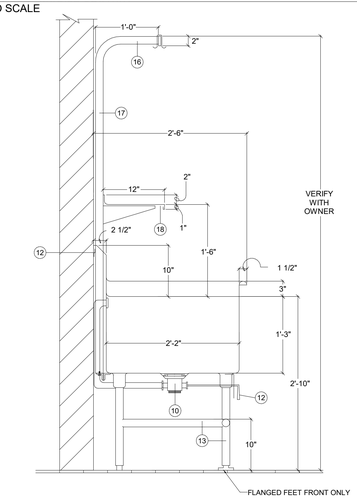
12 WORKTABLE W/O OVER SHELF SECTION
NOT TO SCALE



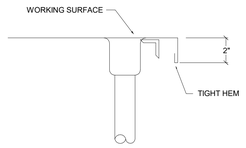
11 COUNTER - DEMO W/ SINK SECTION
NOT TO SCALE



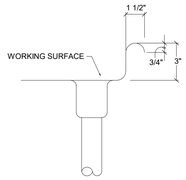
4 WORKTABLE - MOBILE SECTION
NOT TO SCALE



2 SINK - UTENSIL WASH SECTION
NOT TO SCALE

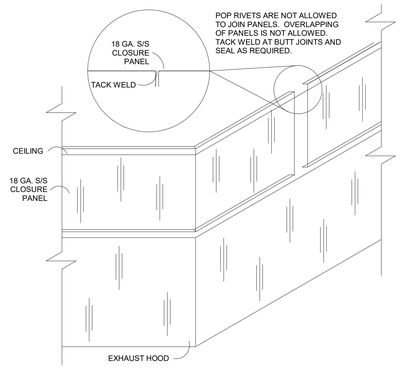


SQUARE TURNDOWN
(worktable, set-up table)



1 1/2" ROLLED RIM
(3 compartment sink)

9 EDGE DETAILS
NOT TO SCALE



6 EXHAUST HOOD CLOSURE PANEL DETAIL
NOT TO SCALE

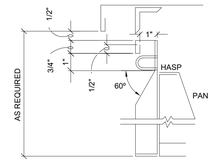
SECTION DETAIL NOTES:

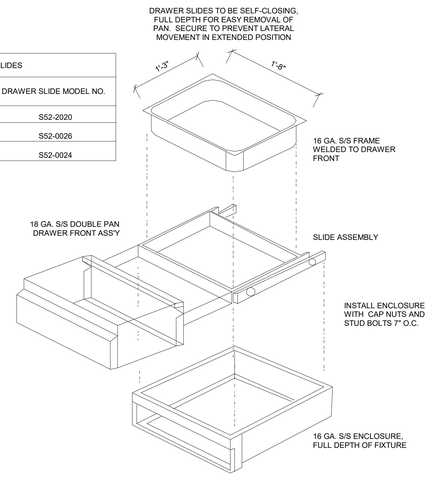
1. 1 1/2" X 1 1/2" X 1/8" GALVANIZED ANGLE IRON.
2. 1" X 4" 14 GAUGE STAINLESS STEEL HAT CHANNEL.
3. 16 GAUGE STAINLESS STEEL C-CHANNEL.
4. 16 GAUGE STAINLESS STEEL UNDER SHELF, COVE UP REAR 2", TURN DOWN FRONT 1 1/2".
5. 1/2" CEMENT BACKERBOARD WITH TILE FRONT BY TRADE CONTRACTOR OR COUNTER MANUFACTURER. VERIFY FINISH WITH ARCHITECTURAL DRAWINGS.
6. COLD PAN - 2" RIGID INSULATION WITH 1" C.P. DRAIN - 16 GAUGE STAINLESS STEEL SECTION FALSE BOTTOM. PERFORATE FALSE BOTTOM WITH 1/4" DIA. HOLES AT 3" O.C.
7. 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN DOOR WITH RECESSED PULL.
8. MANIFOLD DRAINS AT HOT FOOD UNITS WITH 1" TYPE 'K' COPPER AND EXTEND TO VALVE IN PLUMBING COMPARTMENT.
9. FINISHED TRUE AND LEVEL MASONRY BASE BY DIVISION 09. CLOSE COUNTER BODY AT BASE AND SEAL BY SECTION 11 40 00.
10. FISHER #22314 DRAIN WITH TAILPIECE AND OVERFLOW.
11. 14 GAUGE STAINLESS STEEL BRACKET WITH DRAIN HANDLE BUSHING.
12. 16 GAUGE STAINLESS STEEL 'Z' CLIP TO WALL AND SEAL.
13. 1 5/8" DIA. 16 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS.
14. 1/2" S/S TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH.
15. 1 5/8" DIA. 16 GAUGE STAINLESS STEEL TUBING - SUPPORT FRONT OF SHELF WITH 1/2" ALL-THREAD INSIDE TUBING EXTENDING TO STRUCTURE ABOVE.
16. 1/4" S/S BAR STOCK WELDED TO TOP OF EACH POST - POT HOOKS TO BE COMPONENT HARDWARE #J77-4401 SPACED 8" O.C.
17. 1 5/8" 16 GAUGE STAINLESS STEEL TUBING - BOLT TO ANGLE IRON AND EXTEND UP THRU SPLASH TO 7'-0" A.F.F.
18. OVER SHELF - 16 GAUGE STAINLESS STEEL, COVE UP REAR 2", TURN FRONT AND ENDS DOWN 1", ENDS TO BE CAPPED WITH EASED CORNERS WHERE ADJACENT TO WALL / FIXTURE.
19. 18 GAUGE STAINLESS STEEL LOUVERED PANEL.
20. 18 GAUGE STAINLESS STEEL LOUVERED DOUBLE PAN DOOR WITH RECESSED PULL.
21. NUMBER NOT USED.
22. 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN SLIDING DOOR WITH COMPONENT HARDWARE COMPONENTS

    A. #B57 - (VERIFY LENGTH) EXTRUDED ALUMINUM TRACK.
    B. #B58-5511 & #B58-5521 FRONT & REAR DOOR SHEAVES.
    C. #B62-1093 DOOR GUIDE.
    D. #B60-1086 DOOR STOPS WHERE NEEDED.
    E. #P62-1010 RECESS PULLS.

1 SECTION DETAIL NOTES
NOT TO SCALE

COMPONENT HARDWARE DRAWER PAN AND SLIDES		
TYPE	DRAWER PAN MODEL NO.	DRAWER SLIDE MODEL NO.
UTILITY	S80-2020	S52-2020
BREAD	S83-2020	S52-0026
REFRIGERATOR	S81-1520	S52-0024





5 DRAWER ASSEMBLY DETAIL
NOT TO SCALE

CUSTOM FABRICATION NOTES:

A. WORK SHALL BE DONE IN AN APPROVED WORKMANLIKE MANNER, TO COMPLETE SATISFACTION OF THE FOODSERVICE DESIGN PROFESSIONALS (FDP).

B. STAINLESS STEEL SHALL BE U.S. STANDARD GAUGES AS CALLED FOR. 18-8, TYPE 304, NOT OVER .012% MAXIMUM CARBON, NO. 4 FINISH.

C. GALVANIZED IRON SHALL BE ARMCO OR EQUAL. FRAMEWORK OF GALVANIZED IRON SHALL BE WELDED CONSTRUCTION, HAVING WELDS SMOOTH, AND WHERE GALVANIZING HAS BURNED OFF, TOUCHED UP WITH HIGH-GRADE ALUMINUM BRONZE.

D. LEGS AND CROSSRAILS SHALL BE CONTINUOUSLY WELDED, UNLESS OTHERWISE NOTED, AND GROUND SMOOTH.

E. BOTTOM OF LEGS AT FLOOR SHALL BE FITTED WITH SANITARY STAINLESS STEEL BULLET-TYPE FOOT, WITH NO LESS THAN 1/2" ADJUSTMENT.

F. LEGS SHALL BE FASTENED TO EQUIPMENT AS FOLLOWS:

   01. TO SINKS BY MEANS OF CLOSED GUSSETS. GUSSETS SHALL BE S/S, REINFORCED WITH BUSHING, HAVING SET SCREWS FOR SECURING LEGS.

   02. TO TABLES AND DRAINBOARDS WITH CLOSED GUSSETS WHICH SHALL BE WELDED TO GALVANIZED HAT SECTIONS OR CHANNELS, 14 GAUGE OR HEAVIER, EXPOSED HAT SECTIONS HAVING CLOSED ENDS. BRACING SHALL BE UNDERSIDE OF TOPS.

G. CLOSED GUSSETS SHALL BE 3" MINIMUM DIAMETER AT TOP, WELDED TO FRAME MEMBERS OR TO SINK BOTTOM.

H. ROLLS SHALL BE 1 1/2" DIAMETER, EXCEPT AS DETAILED TO THE CONTRARY, WITH CORNERS BULLNOSED, GROUND, AND POLISHED.

I. SEAMS AND JOINTS SHALL BE SHOP-WELDED WHERE POSSIBLE. WELDS TO BE GROUND AND POLISHED TO MATCH ORIGINAL FINISH. MATERIALS 18 GAUGE OR HEAVIER SHALL BE WELDED.

J. METAL TOPS SHALL BE ONE-PIECE WELDED CONSTRUCTION UNLESS SPECIFIED OTHERWISE, REINFORCED ON UNDERSIDE WITH GALVANIZED HAT SECTIONS OR CHANNELS WELDED IN PLACE. CROSSBRACE TO BE NOT MORE THAN 30" ON CENTERS.

K. HARDWARE SHALL BE SOLID MATERIALS AND EXCEPT WHERE EXPOSED OR SPECIFIED TO THE CONTRARY, OF CAST BRASS, CHROME-PLATED. IDENTIFY ALL HARDWARE WITH MANUFACTURER'S NAME AND NUMBER SO THAT BROKEN OR WORN PARTS MAY BE ORDERED AND REPLACED.

L. FABRICATE SINK COMPARTMENTS WITH 3/4" COVED VERTICAL AND HORIZONTAL CORNERS. MULTIPLE- COMPARTMENT PARTITIONS TO BE DOUBLE THICKNESS, CONTINUOUSLY WELDED WHERE SHEETS JOIN AT TOP. FRONT OF MULTIPLE-COMPARTMENT PARTITIONS TO BE CONTINUOUS ON EXTERIOR. BOTTOMS SHALL BE CREASED TO DRAIN.

M. ENDS OF FIXTURES, SPLASHBACKS, SHELVES, ETC., SHALL BE FINISHED FLUSH TO WALLS OR ADJOINING FIXTURES.

N. DISHTABLES, DRAINBOARDS, SPLASHBACKS, AND TURN-UP EDGES SHALL HAVE RADIUS BENDS IN ALL HORIZONTAL AND VERTICAL CORNERS, COVED AT INTERSECTIONS.

O. ROUNDED AND COVED CORNERS OR RADIUS BENDS SHALL BE 1/2" RADIUS OR LONGER.

P. UNDERSIDES OF TOPS TO BE COATED WITH HEAVY-BODIED RESINOUS MATERIAL COMPOUND FOR PERMANENT, NON-FLAKING ADHESION TO METAL, 1/8" THICK, APPLIED AFTER REINFORCING MEMBERS HAVE BEEN INSTALLED, DRYING WITHOUT DIRT-CATCHING CREVICES.

Q. SHELVES ARE TO BE TURNED UP 2" ON THE BACK EDGE. TURN OTHER EDGES DOWN 1 1/2" TO FORM OPEN CHANNELS. REINFORCE SHELF UNITS TO SUPPORT 40 LBS. PER SQUARE FOOT LOADING, PLUS 100% IMPACT LOADING.

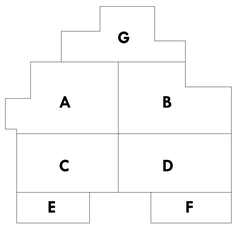
R. TRIMWORK AND FRAMING AT MASONRY OPENINGS SHALL BE 18 GAUGE STAINLESS STEEL AND FORMED SO AS TO FIT SNUG TO WALLS AND ADJACENT SURFACES. FRAMING SHALL EXTEND A MINIMUM OF 2" ON EACH SURFACE. SEAL TRIMWORK TO WALLS. REFER TO DRAWINGS.

S. METAL COMPONENTS, UNLESS SPECIFIED OR NOTED OTHERWISE, TO BE THE FOLLOWING GAUGES:

TABLETOPS	14 GAUGE STAINLESS STEEL
WALL SHELVES	16 GAUGE STAINLESS STEEL
UNDER SHELVES	16 GAUGE STAINLESS STEEL
SINKS & DRAINBOARDS	14 GAUGE STAINLESS STEEL
EXHAUST DUCTS	18 GAUGE STAINLESS STEEL
LEGS - 1 5/8" DIA.	16 GAUGE STAINLESS STEEL

7 CUSTOM FAB NOTES
NOT TO SCALE

KEY PLAN



BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LEAGUE CITY, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

DATE FEBRUARY 12, 2024
DRAWN BY MM
CHECKED BY MD/KD
BRVV PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
18450 TIMBER FOREST DR.
HUMBLE, TX 77346

NO.	REVISION	DATE

QF1.7

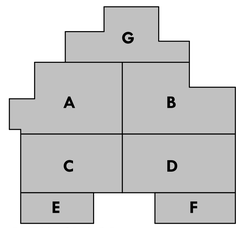
FS SECTIONS & DETAILS

MECHANICAL KEYED NOTES

1. EXISTING AIR HANDLING UNIT AND TOTAL AIR FLOW SHOW ONLY FOR FIRE ALARM CONTRACTOR REFERENCE.



1 **MECHANICAL COMPOSITE FLOOR PLAN**
Scale: 1" = 20'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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DATE JUNE 13, 2025
DRAWN BY AA
CHECKED BY SH
BRW PROJECT NUMBER 223005.00

M0.1
MECHANICAL COMPOSITE FLOOR PLAN

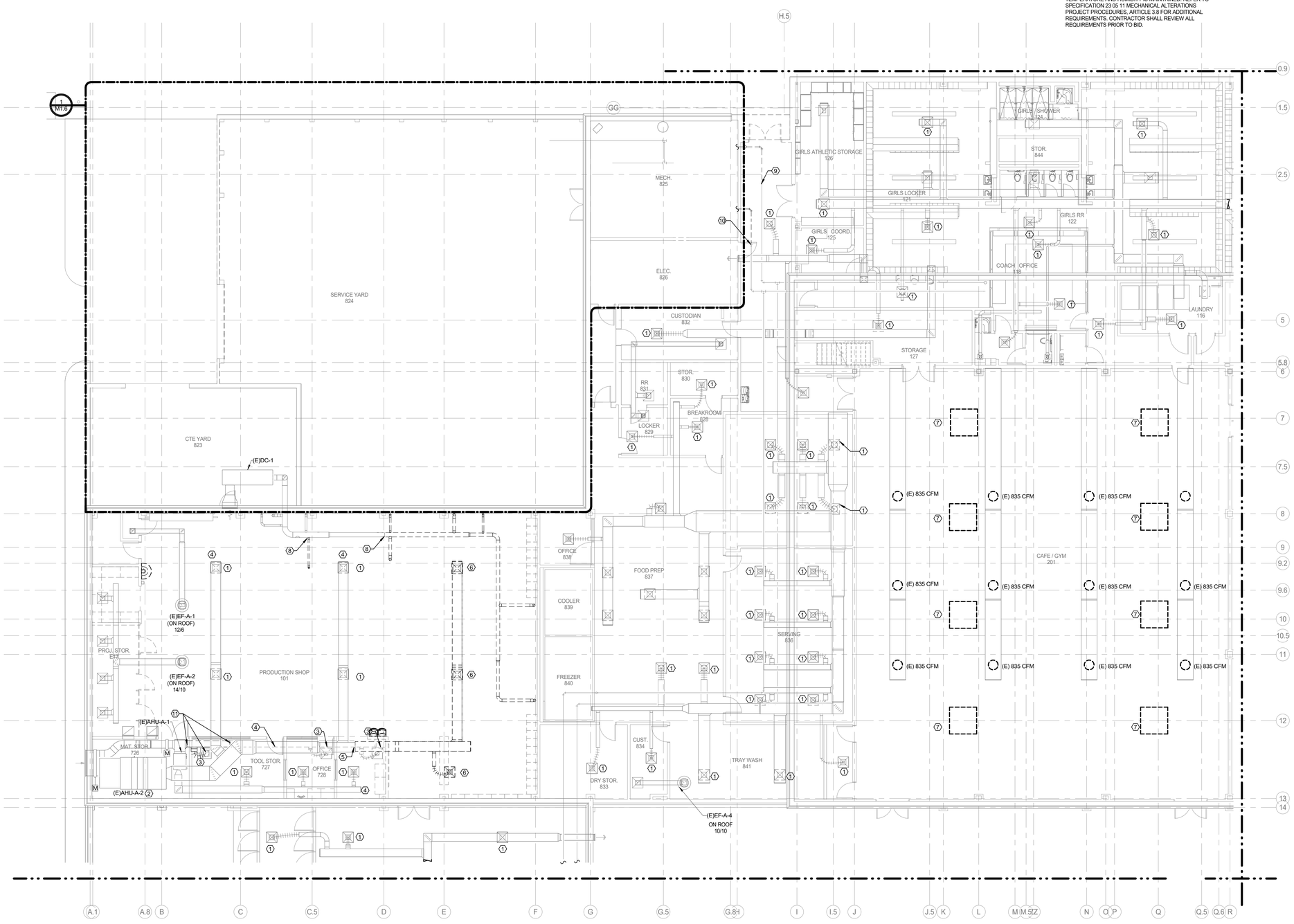
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

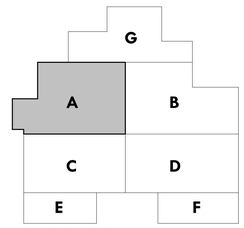
MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING SUPPLY GRILLE TO REMAIN.
2. EXISTING AIR HANDLER SHALL REMAIN.
3. EXISTING RETURN GRILLE SHALL REMAIN.
4. EXISTING DUCTWORK SHALL REMAIN.
5. EXISTING DUCTWORK SHALL BE REMOVED BACK TO THIS POINT. PATCH EXISTING DUCTWORK AIR TIGHT AND REINSULATE TO MATCH EXISTING.
6. REMOVE EXISTING SUPPLY GRILLE.
7. ALL MECHANICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO TERMINAL UNITS, DUCTWORK, PIPING, CONTROL DEVICES AND ASSOCIATED WIRING INSIDE THIS AREA SHALL BE REMOVED AND/OR REROUTED TO NOT OBSTRUCT NEW ARCHITECTURAL SKYLIGHTS. REFER TO NEW FLOOR PLANS FOR MORE ADDITIONAL INFORMATION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT SKYLIGHT LOCATION AND DIMENSIONS.
8. EXISTING DUCTWORK SHALL BE REMOVED BACK TO THIS POINT. PATCH EXISITING DUCTWORK AIR TIGHT.
9. REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN PIPING TO POINT INDICATED.
10. REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING TO POINT INDICATED.
11. REMOVE EXISTING RETURN DUCTWORK TO POINT INDICATED.

SYMBOL LEGEND	
⌖	POINT OF CONNECTION TO EXISTING
▭	ITEM TO REMAIN
[ ]	ITEM TO BE REMOVED



1 **MECHANICAL DEMOLITION FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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DATE JUNE 13, 2025
DRAWN BY AA
CHECKED BY SH
BRW PROJECT NUMBER 223005.00

M1.1
MECHANICAL DEMOLITION FLOOR PLAN - AREA A

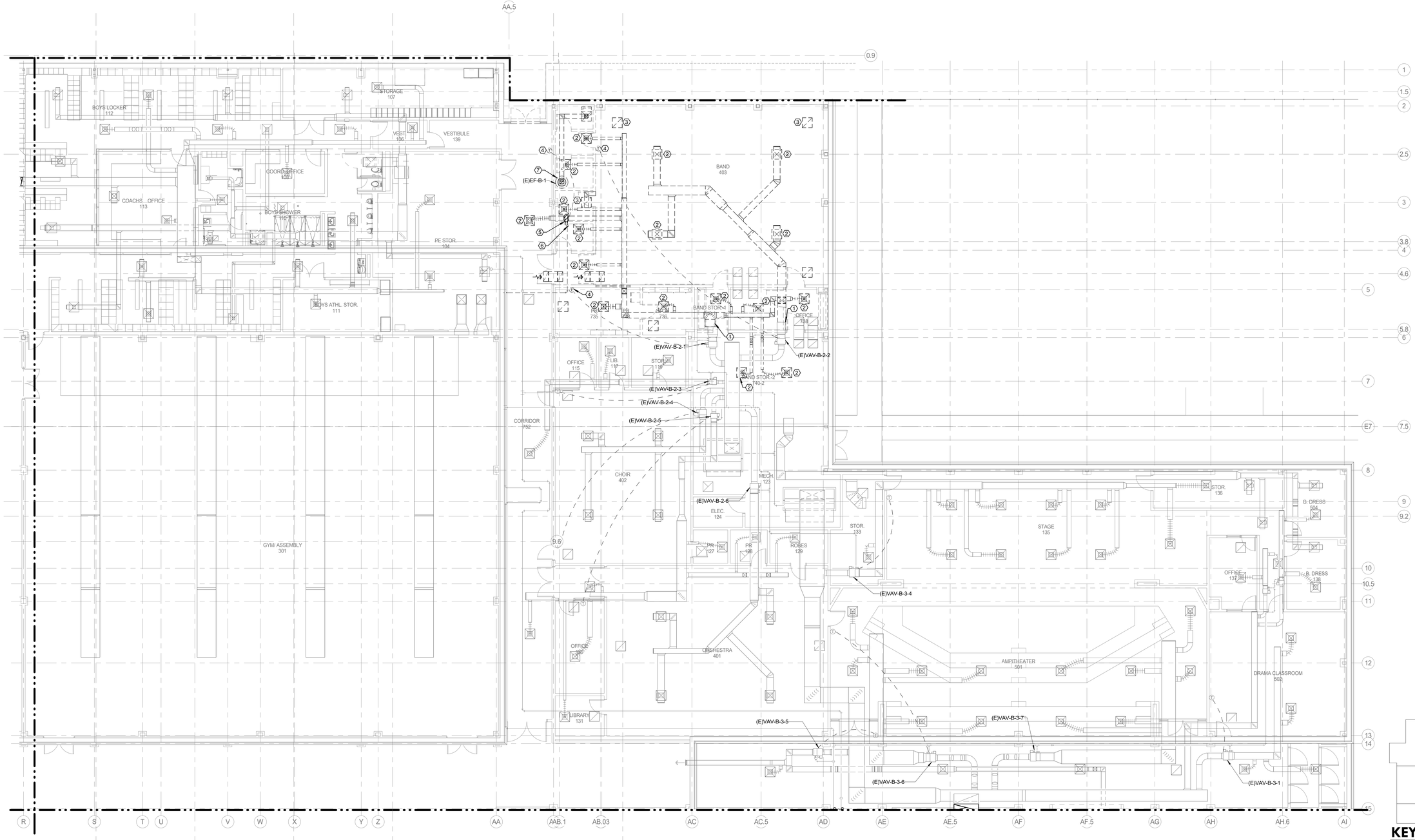
SYMBOL LEGEND	
	POINT OF CONNECTION TO EXISTING
	ITEM TO REMAIN
	ITEM TO BE REMOVED

MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

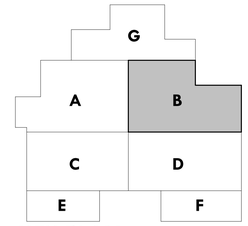
MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING DUCTWORK SHALL BE REMOVED TO POINT INDICATED.
2. REMOVE EXISTING SUPPLY GRILLE AND ASSOCIATED DUCTWORK TO POINT INDICATED. PATCH EXISTING DUCT AIR TIGHT AND REINSULATE TO MATCH EXISTING.
3. REMOVE EXISTING RETURN GRILLE.
4. EXISTING TEMPERATURE SENSOR TO BE REMOVED.
5. EXISTING HOT WATER COIL SHALL BE REMOVED.
6. REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING BACK TO MAIN.
7. EXISTING EXHAUST FAN SHALL BE REMOVED TO POINT INDICATED.



N

1 **MECHANICAL DEMOLITION FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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DATE JUNE 13, 2025
DRAWN BY AA
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BRW PROJECT NUMBER 223005.00

M1.2
MECHANICAL DEMOLITION FLOOR PLAN - AREA B

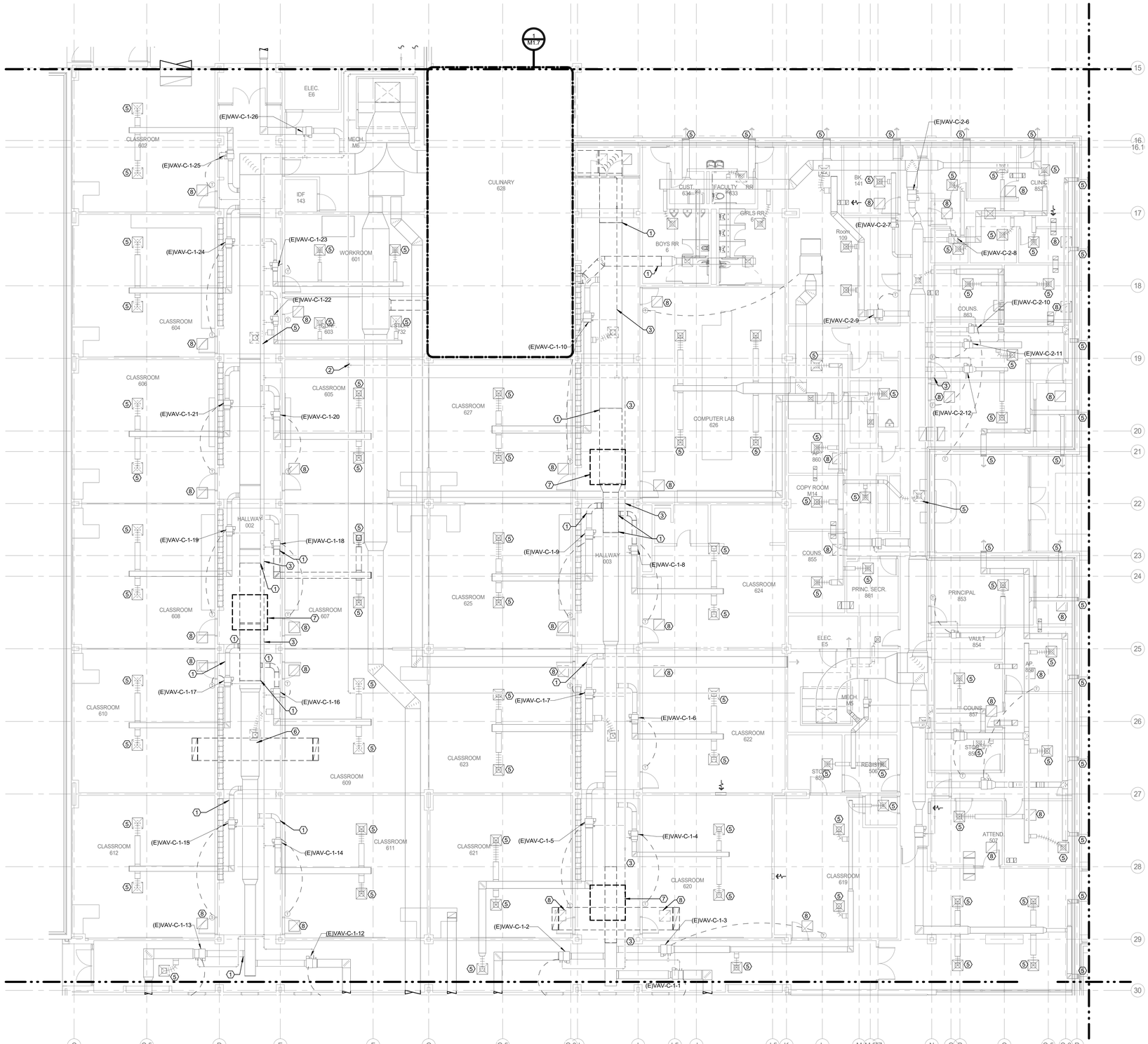
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

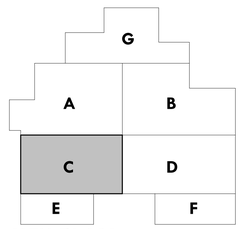
MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING DUCTWORK SHALL BE REMOVED TO POINT INDICATED.
2. REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN PIPING TO POINT INDICATED.
3. REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING TO POINT INDICATED.
4. EXISTING VAV BOX SHALL BE RELOCATED. RE: 1/M2.3 FOR NEW LOCATION.
5. EXISTING SUPPLY GRILL TO REMAIN.
6. REMOVE EXISTING SUPPLY GRILLE AND ASSOCIATED DUCTWORK TO POINT INDICATED. PATCH EXISTING DUCT AIR TIGHT AND REINSULATE TO MATCH EXISTING.
7. ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO TERMINAL UNITS, DUCTWORK, PIPING, CONTROL DEVICES AND ASSOCIATED WIRING INSIDE THIS AREA SHALL BE REMOVED AND/OR REROUTED TO NOT OBSTRUCT NEW ARCHITECTURAL SKYLIGHT. REFER TO NEW FLOOR PLANS FOR MORE ADDITIONAL INFORMATION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT SKYLIGHT LOCATIONS AND DIMENSION.
8. EXISTING RETURN GRILLE TO REMAIN.

SYMBOL LEGEND	
◆	POINT OF CONNECTION TO EXISTING
▭	ITEM TO REMAIN
▭	ITEM TO BE REMOVED



N 1 **MECHANICAL DEMOLITION FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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DATE JUNE 13, 2025
DRAWN BY AA
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

M1.3
MECHANICAL DEMOLITION FLOOR PLAN - AREA C

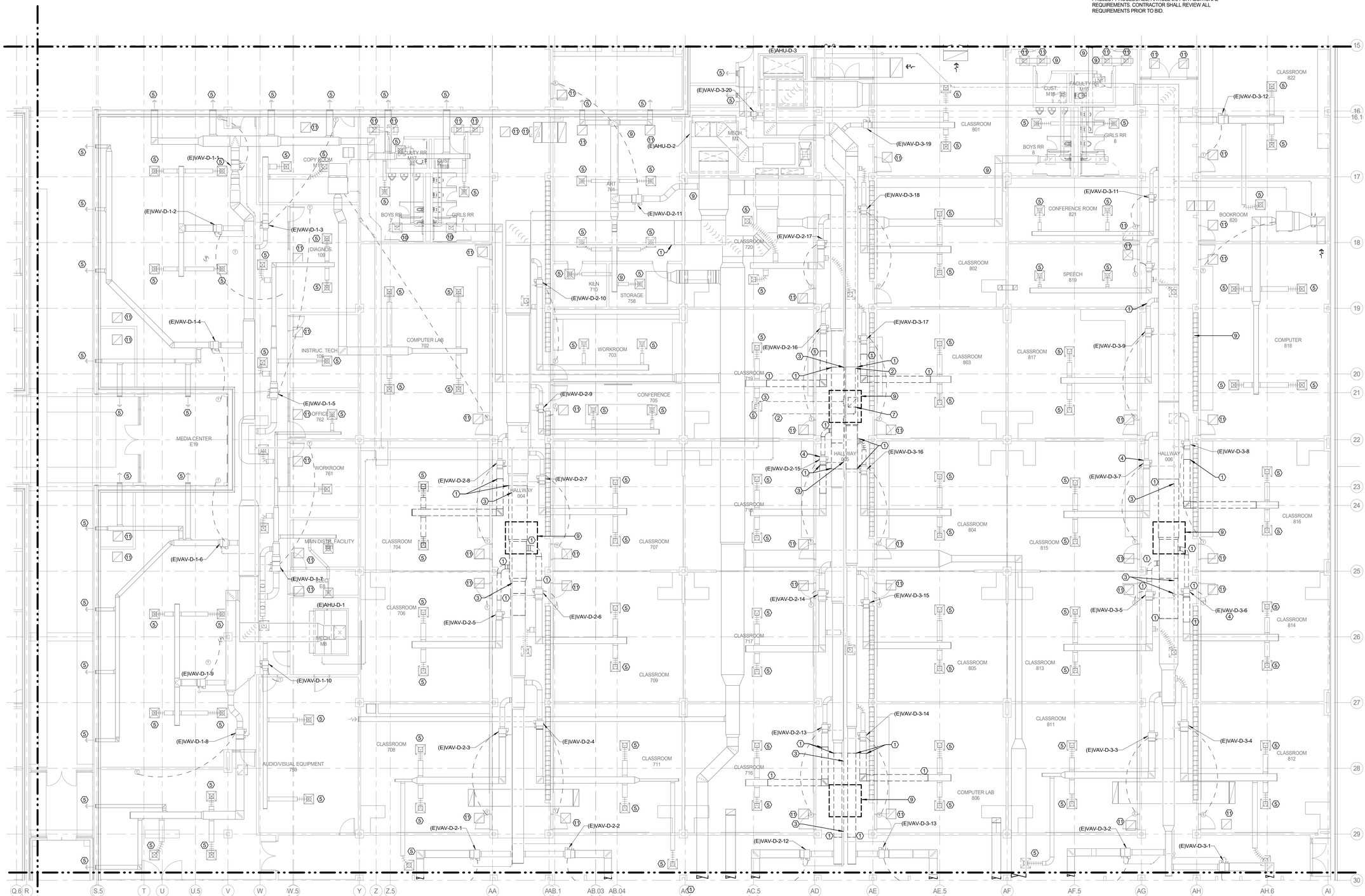
MECHANICAL DEMOLITION GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.
3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, AIR HANDLERS AND CONTROLS.
5. THROUGHOUT CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY AND RENTAL EQUIPMENT, INCLUDING POWER FOR SUCH EQUIPMENT, AND TO PROVIDE PHASING TO ENSURE SPACE TEMPERATURE AND HUMIDITY IS MAINTAINED. REFER TO SPECIFICATION 23 05 11 MECHANICAL ALTERATIONS PROJECT PROCEDURES, ARTICLE 3.8 FOR ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL REVIEW ALL REQUIREMENTS PRIOR TO BID.

MECHANICAL DEMOLITION KEYED NOTES

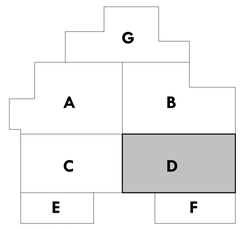
1. EXISTING DUCTWORK SHALL BE REMOVED BACK TO POINT INDICATED.
2. REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN PIPING BACK TO POINT INDICATED.
3. REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING BACK TO POINT INDICATED.
4. EXISTING VAV BOX SHALL BE RELOCATED. RE: 1/M2.4 FOR NEW LOCATION.
5. EXISTING SUPPLY GRILL TO REMAIN.
6. REMOVE EXISTING SUPPLY GRILLE.
7. REMOVE EXISTING RETURN GRILLE.
8. EXISTING DUCTWORK SHALL REMAIN.
9. ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO TERMINAL UNITS, DUCTWORK, PIPING, CONTROL DEVICES AND ASSOCIATED WIRING INSIDE THIS AREA SHALL BE REMOVED AND/OR REROUTED TO NOT OBSTRUCT NEW ARCHITECTURAL SKYLIGHT. REFER TO NEW FLOOR PLANS FOR MORE ADDITIONAL INFORMATION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT SKYLIGHT LOCATIONS AND DIMENSION.
10. EXISTING EXHAUST GRILLE TO REMAIN.
11. EXISTING RETURN GRILLE TO REMAIN.

SYMBOL LEGEND	
✦	POINT OF CONNECTION TO EXISTING
▭	ITEM TO REMAIN
⊏⊐	ITEM TO BE REMOVED



N

1 **MECHANICAL DEMOLITION FLOOR PLAN - AREA D**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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DATE JUNE 13, 2025
DRAWN BY AA
CHECKED BY SH
BRW PROJECT NUMBER 223005.00

M1.4
MECHANICAL DEMOLITION FLOOR PLAN - AREA D

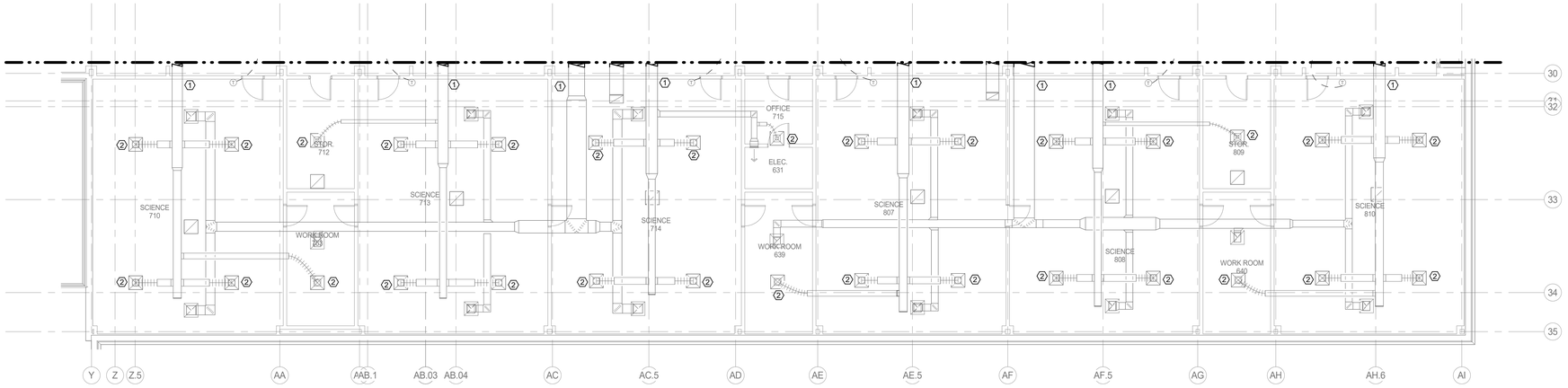
SYMBOL LEGEND	
	POINT OF CONNECTION TO EXISTING
	ITEM TO REMAIN
	ITEM TO BE REMOVED

MECHANICAL DEMOLITION GENERAL NOTES:

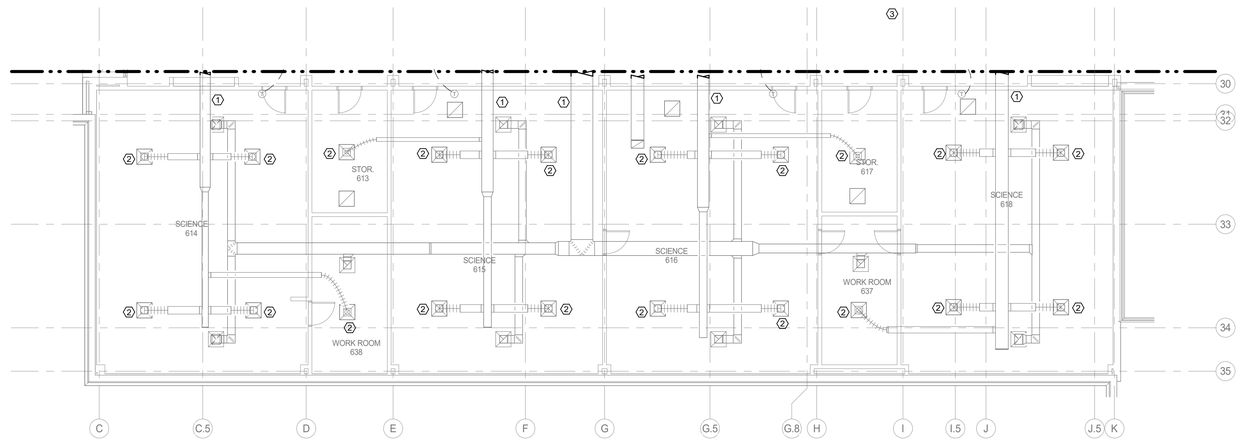
1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
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3. REMOVE ALL EXISTING SPACE MOUNTED TEMPERATURE AND HUMIDITY SENSORS NOT BEING REUSED. PROVIDE STAINLESS STEEL COVER PLATES.
4. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL HVAC EQUIPMENT BEING REMOVED FROM THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO VAV UNITS, EXHAUST FANS, AIR HANDLERS AND CONTROLS.
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MECHANICAL DEMOLITION KEYED NOTES

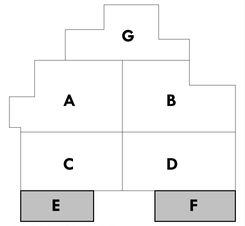
1. EXISTING DUCTWORK TO REMAIN.
2. EXISTING DIFFUSER TO REMAIN.



2 **MECHANICAL DEMOLITION FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



1 **MECHANICAL DEMOLITION FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

NO.	REVISION	DATE
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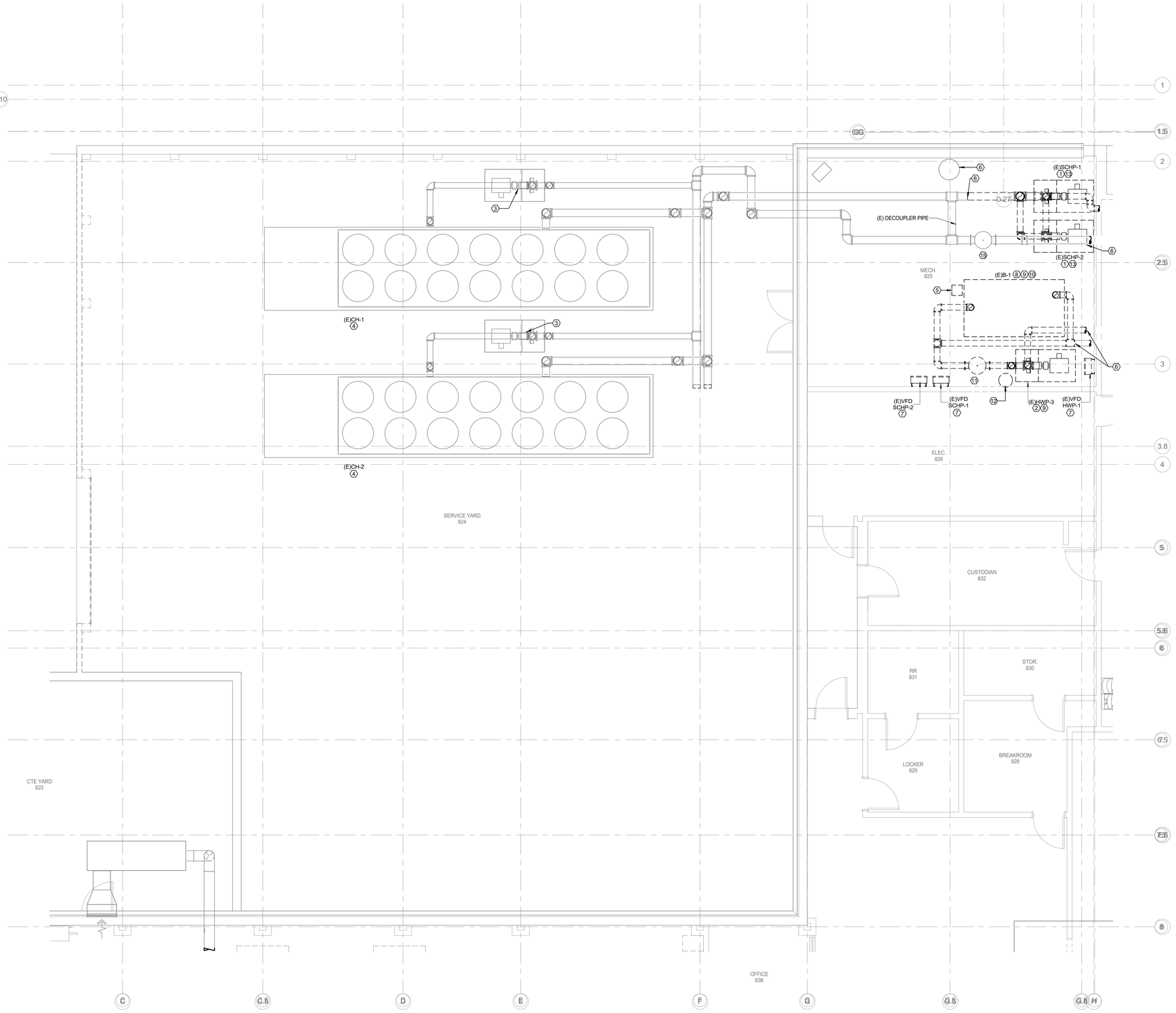
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DATE JUNE 13, 2025
DRAWN BY AA
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BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT HARRIS COUNTY, TEXAS

M1.5
MECHANICAL DEMOLITION FLOOR PLAN - AREA E & F



N

1 **MECHANICAL DEMOLITION ENLARGED FLOOR PLAN -CHILLER YARD**
Scale: 1/4" = 1'-0"

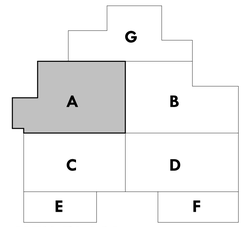
MECHANICAL DEMOLITION GENERAL NOTES:

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MECHANICAL DEMOLITION KEYED NOTES

1. EXISTING CHILLED WATER SECONDARY PUMP AND ASSOCIATED APPURTENANCES SHALL BE REMOVED.
2. EXISTING HOT WATER PUMP AND ASSOCIATED APPURTENANCES SHALL BE REMOVED.
3. EXISTING PRIMARY CHILLED WATER PUMP SHALL REMAIN.
4. EXISTING AIR COOLED CHILLER SHALL REMAIN.
5. EXISTING CO MONITORING STATION SHALL BE REMOVED .
6. REMOVE EXISTING PIPE UP TO THIS POINT.
7. EXISTING VARIABLE FREQUENCY DRIVE SHALL BE REMOVED FOR REPLACEMENT.
8. EXISTING BOILER, CONTROLS, AND ASSOCIATED APPURTENANCES SHALL BE REMOVED.
9. EXISTING CONCRETE PAD SHALL BE REMOVED.
10. EXISTING BOILER FLUE VENT SHALL BE REMOVED. ROOF OPENING SHALL BE PATCHED AND SEALED.
11. EXISTING HOT WATER AIR SEPARATOR SHALL BE REMOVED.
12. EXISTING HOT WATER CHEMICAL FEEDER SHALL BE REMOVED.
13. EXISTING CONCRETE PAD SHALL REMAIN.
14. EXISTING CONCRETE PAD SHALL BE REMOVED.
15. EXISTING CHILLED WATER AIR SEPARATOR SHALL REMAIN.
16. EXISTING CHILLED WATER EXPANSION TANK SHALL REMAIN.

SYMBOL LEGEND	
	POINT OF CONNECTION TO EXISTING
	ITEM TO REMAIN
	ITEM TO BE REMOVED



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUFFMAN, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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DATE JUNE 13, 2025
DRAWN BY AA
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M1.6
MECHANICAL DEMOLITION ENLARGED FLOOR PLAN

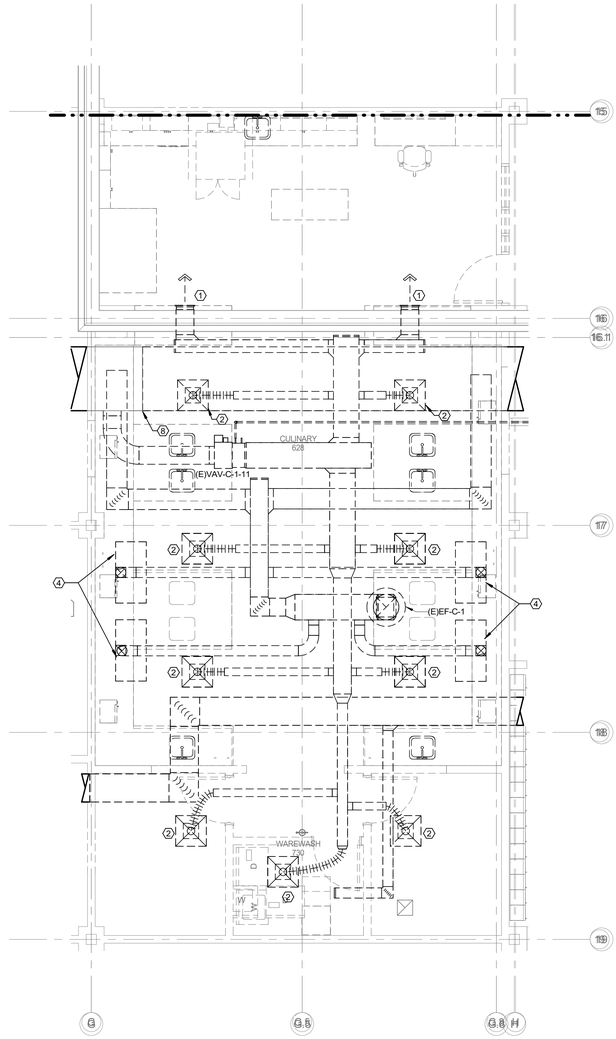
MECHANICAL DEMOLITION GENERAL NOTES:

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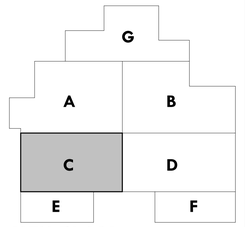
MECHANICAL DEMOLITION KEYED NOTES

1. REMOVE EXISTING SUPPLY GRILLE.
2. REMOVE EXISTING SUPPLY DIFFUSER.
3. REMOVE EXISTING VAV UNIT AND ASSOCIATED HOT WATER SUPPLY AND RETURN PIPING AND DUCTWORK.
4. REMOVE EXISTING EXHAUST FAN, ASSOCIATED DUCT AND EXHAUST GRILLE, AND KITCHEN HOODS.
5. REMOVE EXISTING EXHAUST FAN AND ASSOCIATED DUCT AND EXHAUST GRILLE.
6. REMOVE EXISTING FIRE DAMPER.
7. REMOVE EXISTING HOT WATER SUPPLY AND PIPING TO POINT INDICATED.
8. REMOVE EXISTING DUCTWORK TO POINT INDICATED.

SYMBOL LEGEND	
⌖	POINT OF CONNECTION TO EXISTING
▭	ITEM TO REMAIN
[ ]	ITEM TO BE REMOVED



N 1 **MECHANICAL DEMOLITION ENLARGED FLOOR PLAN - CULINARY ART LAB**
Scale: 1/4" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL
ENGINEER
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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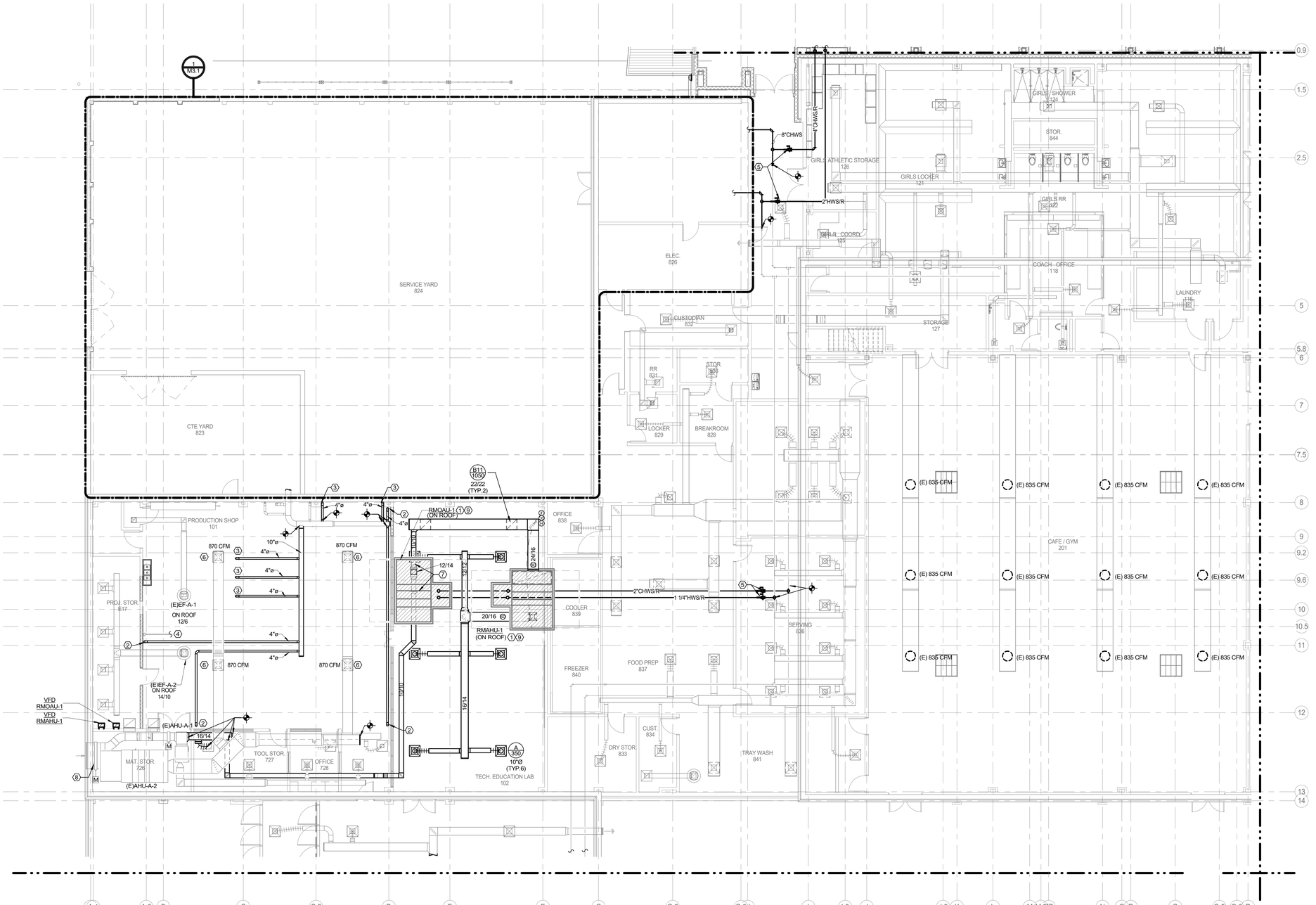
M1.7
MECHANICAL DEMOLITION ENLARGED FLOOR PLAN

MECHANICAL GENERAL NOTES:

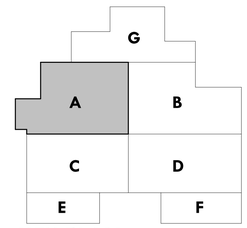
1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. PROVIDE FULL SIZE PLENUM AT RETURN THROUGH ROOF FOR AHU AS SHOWN.
2. ROUTE DUST COLLECTION DUCTWORK DOWN TO FLOOR SWEEP. CO-ORDINATE FINAL DROP LOCATION WITH OWNER PRIOR TO INSTALLATION. PROVIDE TRANSITION AND ASSOCIATED APPURTENANCES AS REQUIRED TO MAKE FINAL CONNECTION TO FLOOR SWEEP. PROVIDE FLOOR SWEEP WITH LOCKING BLAST GATE. BALANCE SYSTEM WITH FLOOR SWEEPS CLOSED.
3. ROUTE DUST COLLECTION DUCT DOWN TO WOOD WORKING EQUIPMENT. CO-ORDINATE FINAL DROP LOCATION WITH EQUIPMENT PRIOR TO INSTALLATION. PROVIDE TRANSITION AND ASSOCIATED APPURTENANCES AS REQUIRED TO MAKE FINAL CONNECTION TO DUST PORT OF EQUIPMENT. PROVIDE DROP WITH LOCKING BLAST GATE DAMPER AT 7'-0" A.F.F. BALANCE AIRFLOW TO 350 CFM.
4. CONNECT NEW AIR DROP TO EXISTING PNEUMATIC SYSTEM. CONTRACTOR TO VERIFY EXACT LOCATION.
5. PROVIDE ISOLATION VALVE AT LOCATION SHOWN.
6. REBALANCE SUPPLY AIR TO 870 CFM.
7. INSTALL MANUAL BALANCING DAMPER.
8. REBALANCE MOTORIZED DAMPER TO 800 CFM.
9. ROOF MOUNTED AIR HANDELING UNIT SHALL BE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.



1 **MECHANICAL FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
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1	ISSUED FOR CSP	06.13.2025

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BRW PROJECT NUMBER 223005.00

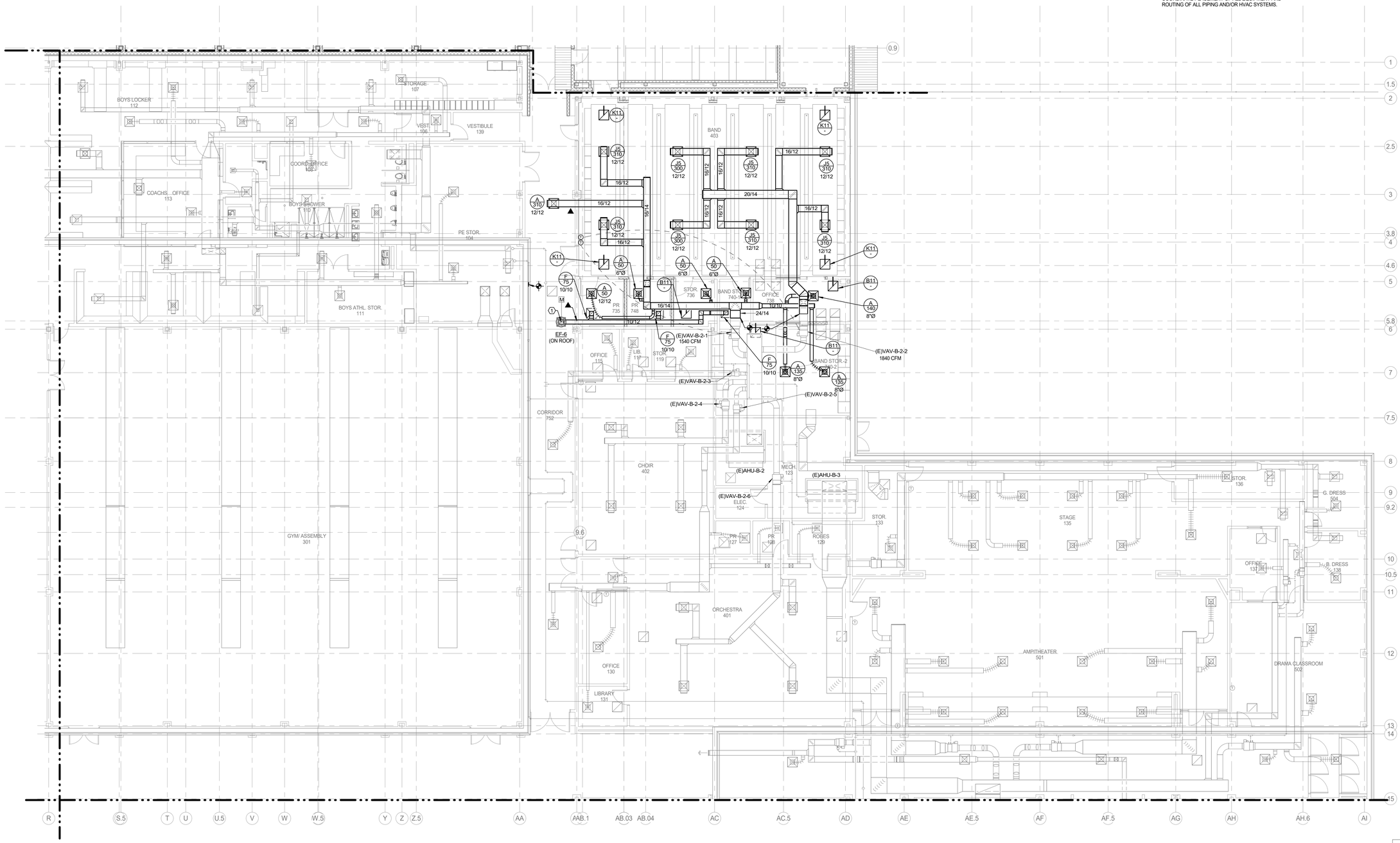
M2.1
MECHANICAL FLOOR PLAN - AREA A

MECHANICAL GENERAL NOTES:

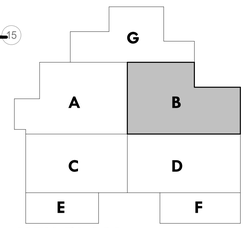
1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. FULL SIZE EXHAUST AIR DUCTWORK DOWN FROM EXHAUST FAN ON ROOF. PROVIDE TRANSITION TO SIZE INDICATED.



1 **MECHANICAL FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE	JUNE 13, 2025
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

M2.2

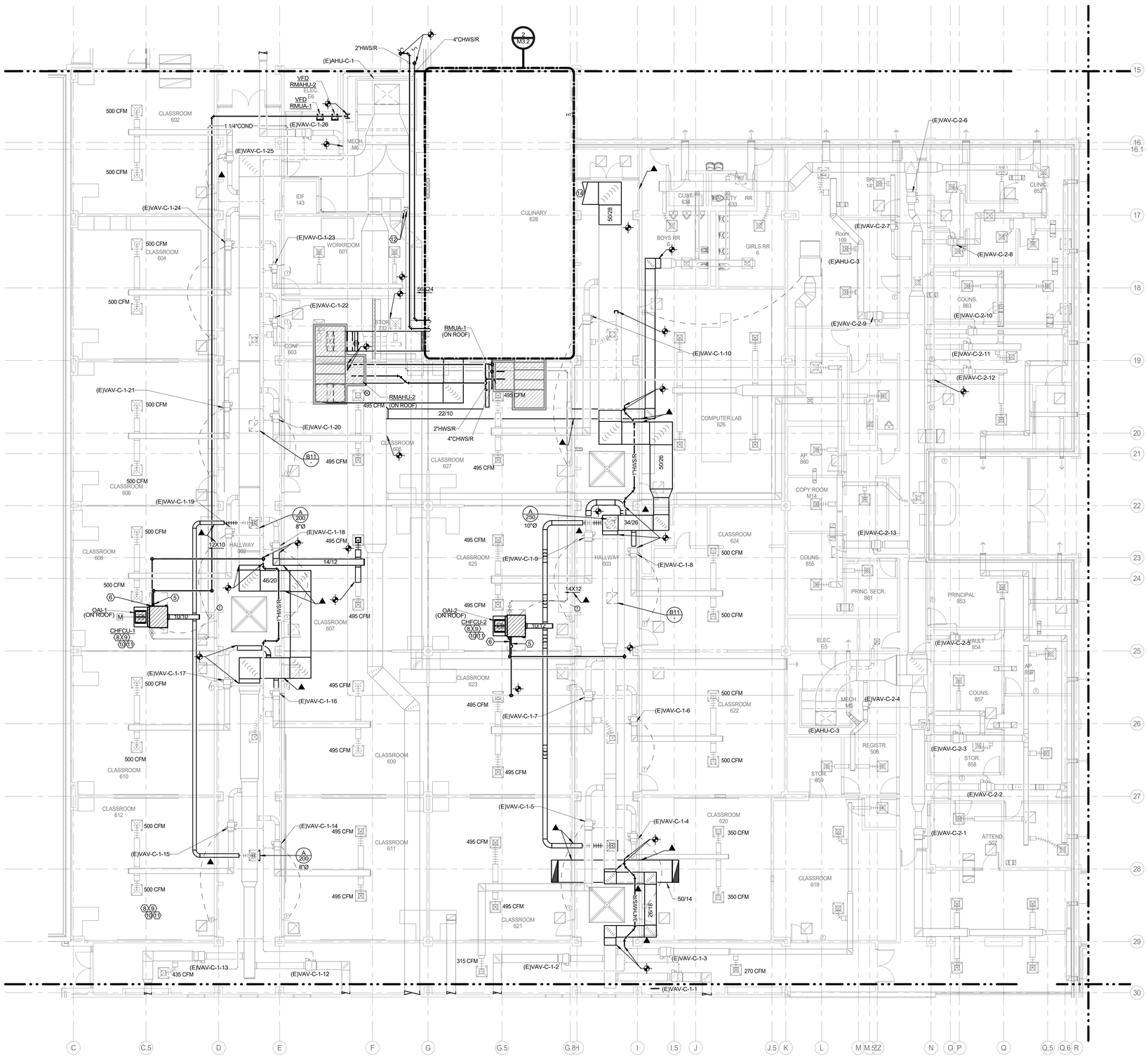
MECHANICAL FLOOR PLAN - AREA B

MECHANICAL GENERAL NOTES:

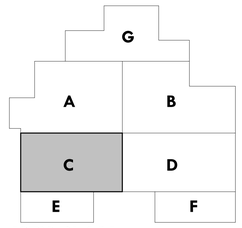
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2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
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MECHANICAL KEYED NOTES

1. PROVIDE NEW CONTROL WIRING FROM TEMPERATURE SENSOR TO NEW LOCATION OF TERMINAL UNIT CONTROLLER.
2. PROVIDE ISOLATION VALVE.
3. BALANCE EXISTING VAV TERMINAL BOX TO 990 CFM.
4. BALANCE EXISTING VAV TERMINAL BOX TO 410 CFM.
5. ROUTE CHILLED SUPPLY AND RETURN PIPING TO EXISTING MAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE SYSTEM, SIZE, AND EXACT LOCATION.
6. ROUTE HOT WATER SUPPLY AND RETURN PIPING TO EXISTING MAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE SYSTEM, SIZE, AND EXACT LOCATION
7. EXTEND EXISTING CONTROL WIRES FROM TEMPERATURE SENSOR TO MAKE FINAL CONNECTION.
8. VERIFY SERVICE CLEARANCES FOR AIR FILTER, FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
9. ROUTE FULL SIZE CONDENSATE DRAIN PIPING TO FLOOR SINK (SEE PLUMBING DRAWING FOR EXACT LOCATION). INSTALL CONDENSATE TRAP AS RECOMMENDED PER MANUFACTURER.
10. REFER TO DETAILS FOR CHFCU COIL PIPING.
11. PROVIDE FULL SIZE PLENUM AT RETURN AIR INLET FOR CHFCU AS SHOWN.
12. ROUTE CONDENSATE PIPE AT SIZE INDICATED TO FLOOR SINK PIECE. REFER TO PLUMBING DRAWINGS.
13. NEW LOCATION OF EXISTING TERMINAL BOX. EXTEND WIRING TO TEMPERATURE SENSOR AS REQUIRED.
14. RE: 1/M3.2 FOR CONTINUATION.



1 **MECHANICAL FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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M2.3

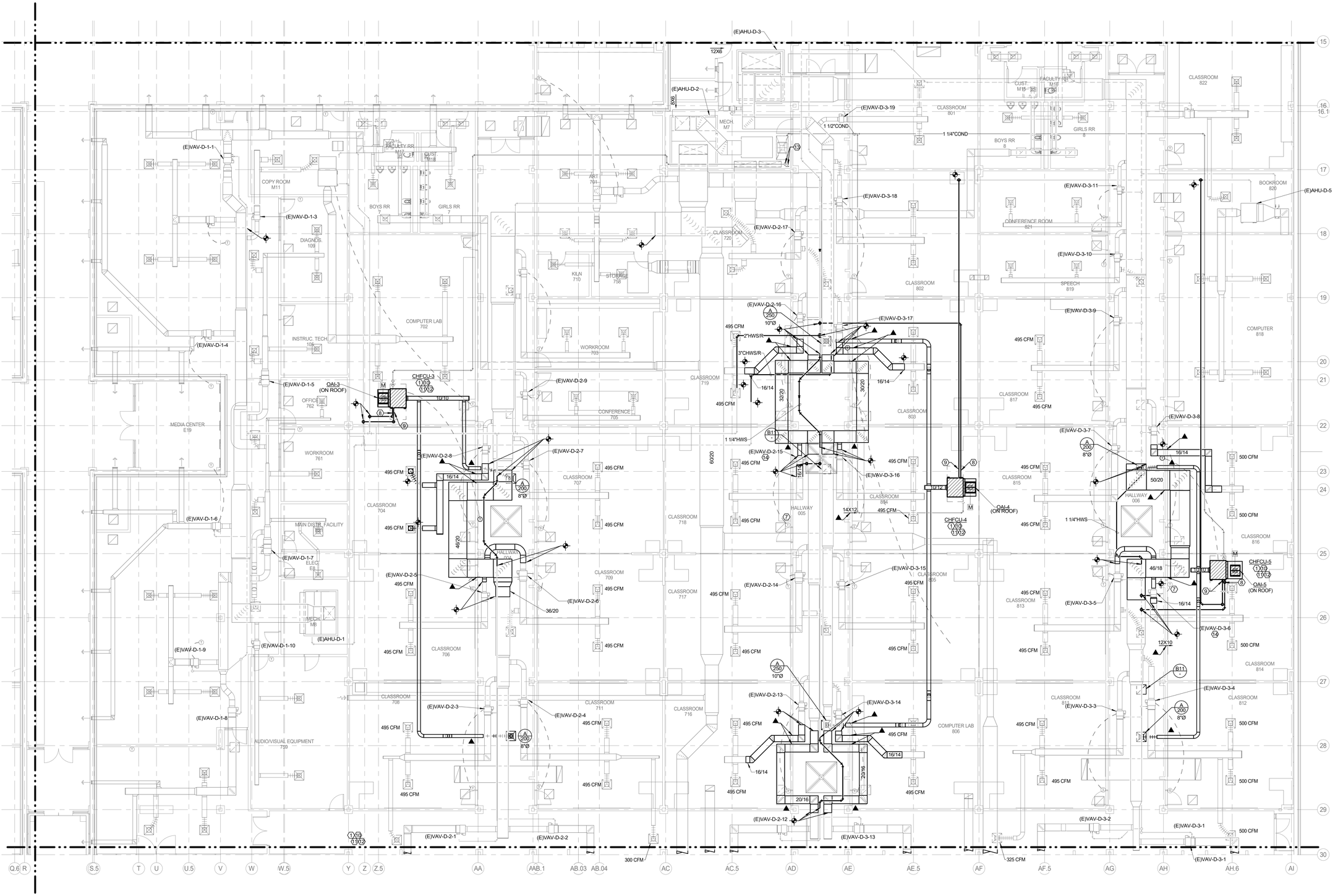
MECHANICAL FLOOR PLAN - AREA C

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
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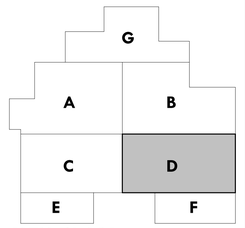
MECHANICAL KEYED NOTES

1. PROVIDE FULL SIZE PLENUM AT RETURN AIR INLET FOR CHFCU AS SHOWN.
2. PROVIDE ISOLATION VALVE.
3. BALANCE EXISTING TERMINAL BOX TO 990 CFM.
4. BALANCE EXISTING TERMINAL BOX TO 380 CFM.
5. BALANCE EXISTING TERMINAL BOX TO 960 CFM.
6. BALANCE EXISTING TERMINAL BOX TO 400 CFM.
7. EXTEND EXISTING CONTROL WIRES FROM TEMPERATURE SENSOR TO MAKE FINAL CONNECTION.
8. ROUTE HOT WATER SUPPLY AND RETURN PIPING TO EXISTING MAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE SYSTEM, SIZE, AND EXACT LOCATION.
9. ROUTE CHILLED SUPPLY AND RETURN PIPING TO EXISTING MAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE SYSTEM, SIZE, AND EXACT LOCATION.
10. VERIFY SERVICE CLEARANCES FOR AIR FILTER, FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
11. ROUTE FULL SIZE CONDENSATE DRAIN PIPING TO FLOOR SINK (SEE PLUMBING DRAWING FOR EXACT LOCATION). INSTALL CONDENSATE TRAP AS RECOMMENDED PER MANUFACTURER.
12. REFER TO DETAILS FOR CHFCU COIL PIPING.
13. ROUTE CONDENSATE PIPE AT SIZE INDICATED TO FLOOR SINK PIECE. REFER TO PLUMBING DRAWINGS.
14. NEW LOCATION OF EXISTING TERMINAL BOX. EXTEND WIRING TO TEMPERATURE SENSOR AS REQUIRED.



N

1 **MECHANICAL FLOOR PLAN - AREA D**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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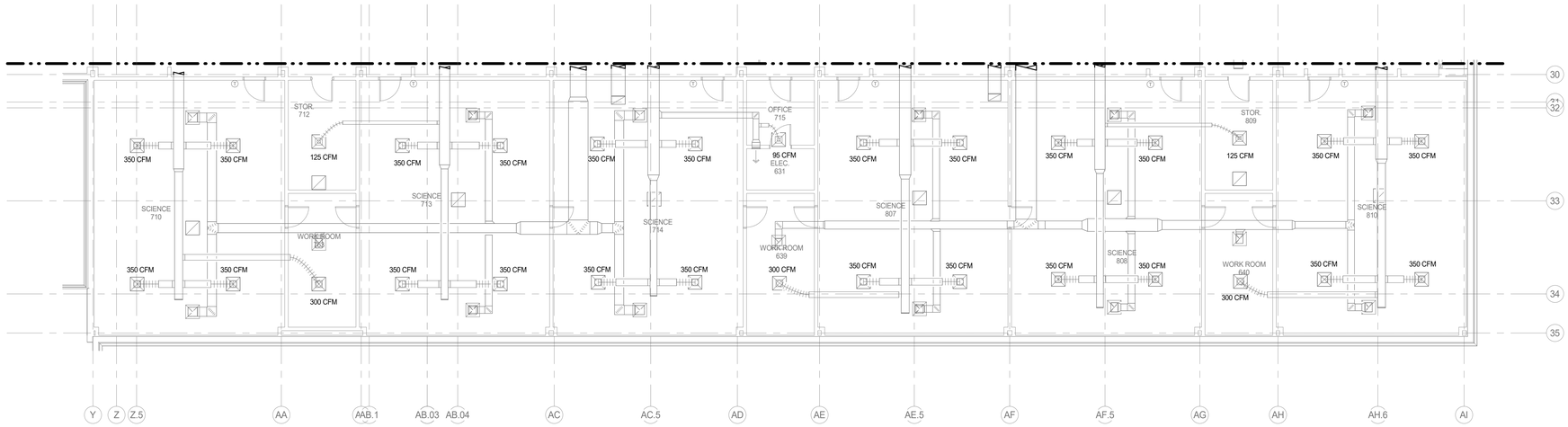
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M2.4
MECHANICAL FLOOR PLAN - AREA D

MECHANICAL GENERAL NOTES:

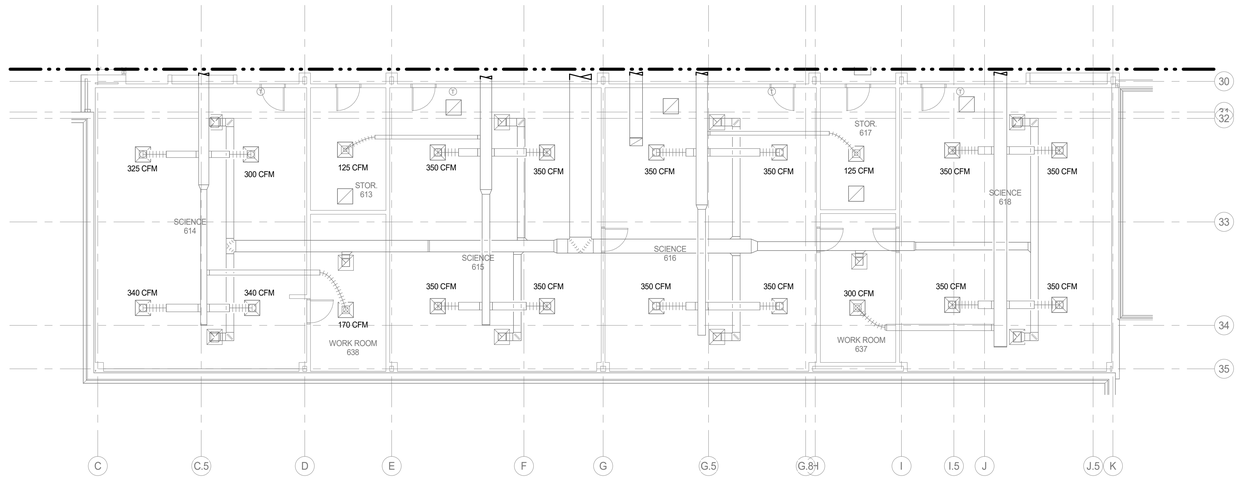
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3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.



N

2 MECHANICAL FLOOR PLAN - AREA F

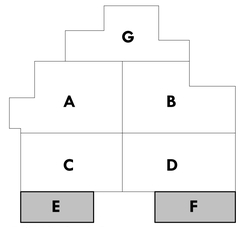
Scale: 1/8" = 1'-0"



N

1 MECHANICAL FLOOR PLAN - AREA E

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



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

M2.5

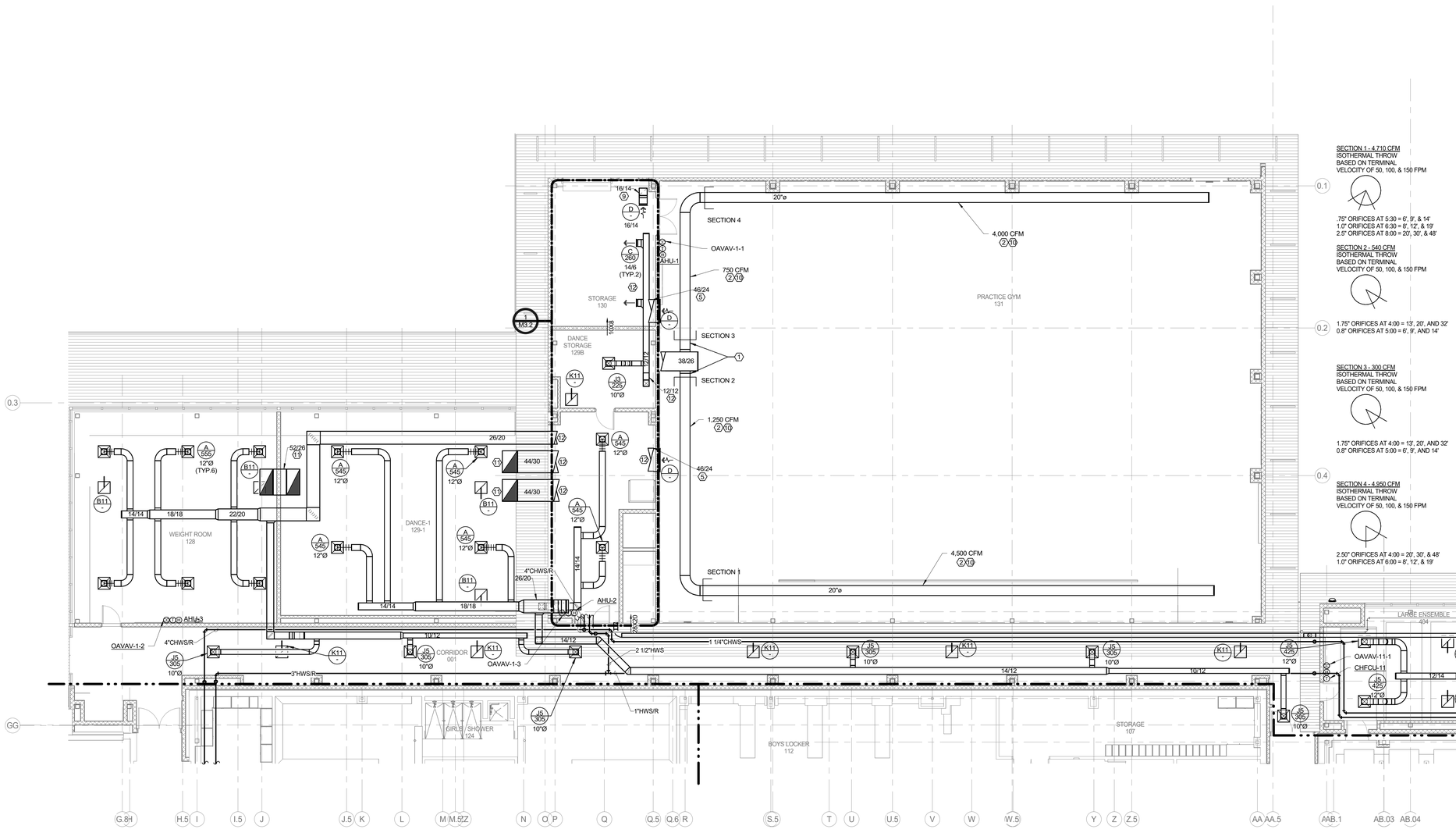
MECHANICAL FLOOR PLAN - AREA E & F

MECHANICAL GENERAL NOTES:

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MECHANICAL KEYED NOTES

1. TRANSITION TO FABRIC DUCT.
2. PROVIDE AN ENGINEERED FABRIC AIR DISTRIBUTION SYSTEM PER SPECIFICATIONS TO INCLUDE DISCHARGE ORIFICES AS REQUIRED. COORDINATE COLOR WITH ARCHITECT.
3. ROUTE HOT WATER SUPPLY AND RETURN PIPING TO EXISTING MAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE SYSTEM, SIZE, AND EXACT LOCATION.
4. ROUTE CHILLED SUPPLY AND RETURN PIPING TO EXISTING MAIN PIPING. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE SYSTEM, SIZE, AND EXACT LOCATION.
5. PROVIDE FULL SIZE PLENUM AT RETURN AIR INLET FOR AHU AS SHOWN.
6. VERIFY SERVICE CLEARANCES FOR AIR FILTER, FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
7. ROUTE FULL SIZE CONDENSATE DRAIN PIPING TO FLOOR SINK (SEE PLUMBING DRAWING FOR EXACT LOCATION). INSTALL CONDENSATE TRAP AS RECOMMENDED PER MANUFACTURER.
8. REFER TO DETAILS FOR AHU COIL PIPING.
9. ROUTE DUCT UP THROUGH MECHANICAL ROOM FLOOR AT SIZE INDICATED AND PROVIDE FIRE DAMPER. RE:1/M3.2 FOR CONTINUATION.
10. COORDINATE FINAL DUCT LOCATION NOT TO OBSTRUCT WITH BASKETBALL BALL GOAL STRUCTURE SUPPORT.
11. PROVIDE INTERNALLY INSULATED RETURN AIR ELBOW.
12. RE: 1/M3.2 FOR CONTINUATION.



SECTION 1 - 4,710 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

.75" ORIFICES AT 5:30 = 6', 9', & 14'
1.0" ORIFICES AT 6:30 = 8', 12', & 19'
2.5" ORIFICES AT 8:00 = 20', 30', & 48'

SECTION 2 - 540 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

1.75" ORIFICES AT 4:00 = 13', 20', AND 32'
0.8" ORIFICES AT 5:00 = 6', 9', AND 14'

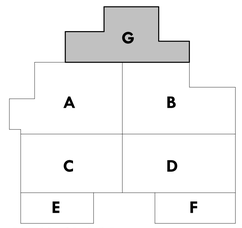
SECTION 3 - 300 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

1.75" ORIFICES AT 4:00 = 13', 20', AND 32'
0.8" ORIFICES AT 5:00 = 6', 9', AND 14'

SECTION 4 - 4,950 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

2.50" ORIFICES AT 4:00 = 20', 30', & 48'
1.0" ORIFICES AT 6:00 = 8', 12', & 19'

1 **MECHANICAL FLOOR PLAN - AREA G**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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06.13.2025

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4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

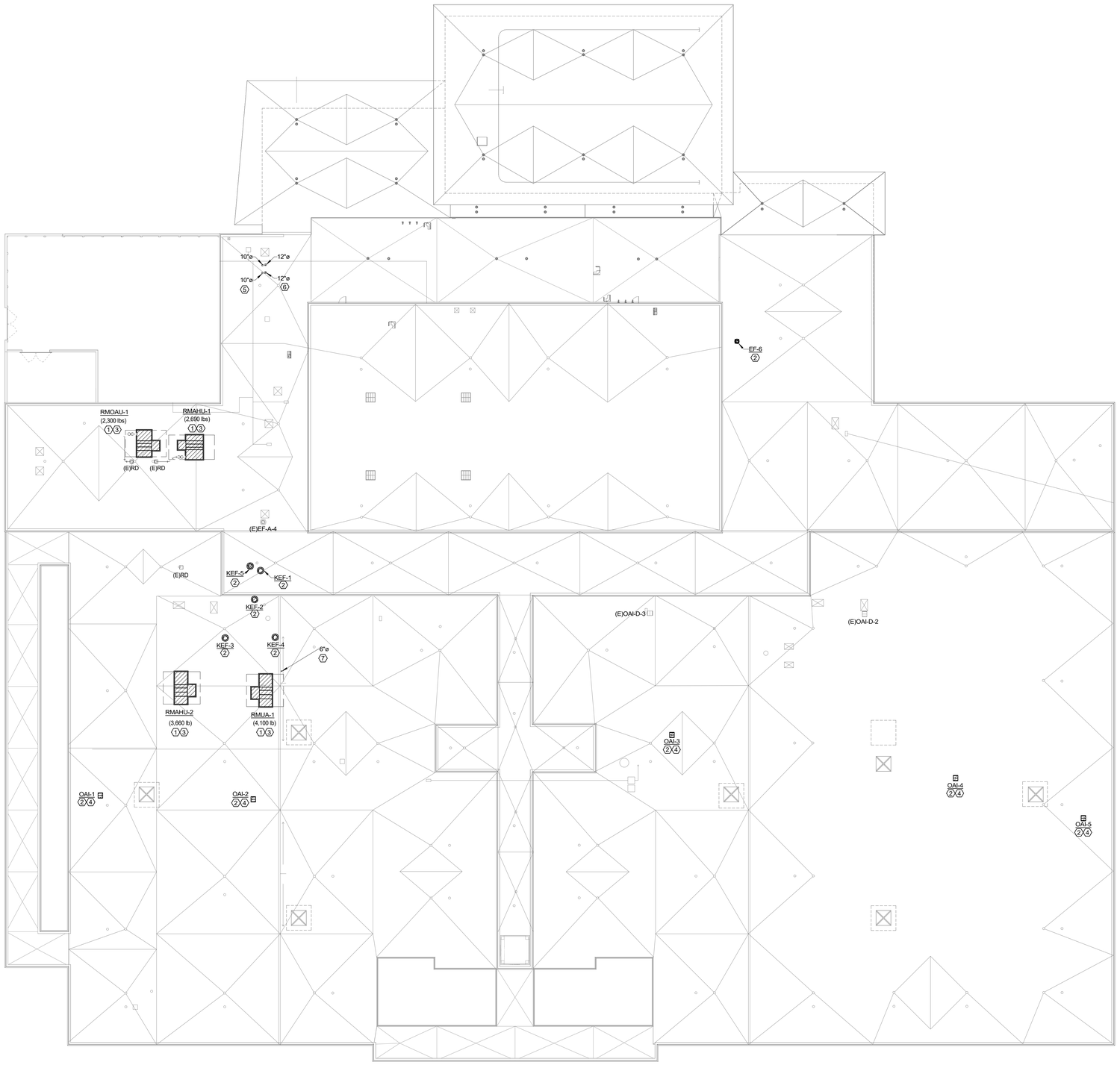
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M2.6

MECHANICAL FLOOR PLAN - AREA G



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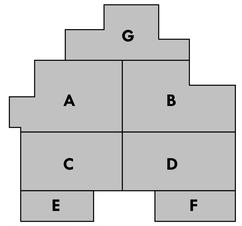
1 **MECHANICAL ROOF PLAN**
Scale: 1" = 20'-0"

MECHANICAL GENERAL NOTES:

1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR), UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

1. MOUNT ON WIND RESISTANT EQUIPMENT SUPPORT. RE 19/M5.1 FOR DETAIL.
2. MOUNT ON WIND RESISTANT ROOF CURB. RE 1/M5.2 FOR DETAIL.
3. ROUTE FULL SIZE CONDENSATE TO EXISTING ROOF DRAIN AS INDICATED. INSTALL TRAP AS RECOMMENDED BY MANUFACTURER.
4. FULL SIZE DUCTWORK DOWN THROUGH ROOF FROM OUTSIDE AIR INTAKE ON ROOF. PROVIDE TRANSITION AS REQUIRED.
5. RE: 5/M5.2 FOR POWER EXHAUSTED BOILER THROUGH ROOF DETAIL.
6. RE: 6/M5.2 FOR POWER EXHAUSTED BOILER INTAKE THROUGH ROOF DETAIL.
7. CONNECT EXHAUST DUCT WORK TO GOOSENECK. RE: 7/M5.2 FOR MORE DETAILS.



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
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Project No: 2023-02125-00

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80219
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BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MCKINNEY, TEXAS 75071
281.301.3800
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

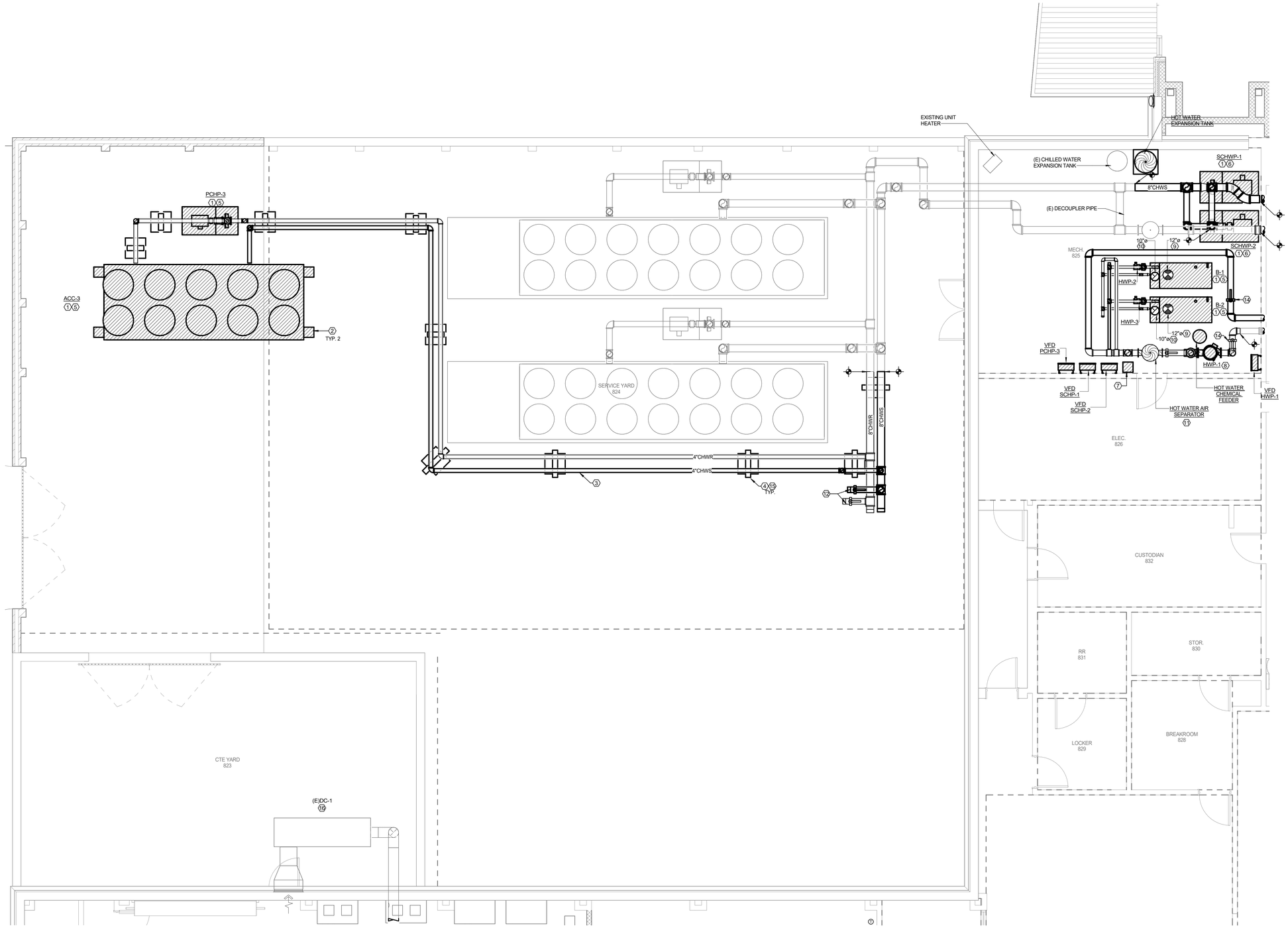
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MECHANICAL ROOF PLAN

MECHANICAL GENERAL NOTES:

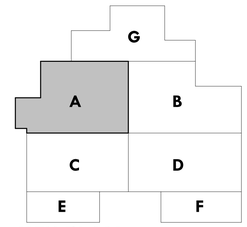
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MECHANICAL KEYED NOTES

1. VERIFY SERVICE AND AIRFLOW CLEARANCE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
2. PROVIDE 12"X12" CONCRETE RUNNERS TO SPAN LENGTH OF AIR COOLED CHILLER.
3. BOTTOM OF PIPE AT 9'0" A.F.F.
4. PROVIDE PIPE STAND FOR SUPPORT OF PIPE RE: 3/M5.2 FOR DETAILS.
5. PROVIDE 4" THICK CONCRETE HOUSEKEEPING PAD.
6. MOUNT NEW PUMP ON EXISTING CONCRETE PAD.
7. PROVIDE CARBON MONOXIDE MONITORING STATION. MOUNT ENCLOSURE 5'-0" AFF PER MANUFACTURERS RECOMMENDATION. REFER TO SPECIFICATIONS FOR MORE INFORMATION
8. RE: 4/M5.2 FOR DETAIL IN VERTICAL INLINE PUMP SUPPORT.
9. RE: 6/M5.2 FOR POWER EXHAUSTED BOILER INTAKE THRU ROOF DETAIL.
10. RE: 5/M5.2 FOR POWER EXHAUSTED BOILER FLUE THRU ROOF DETAIL.
11. RE: 2/M5.2 FOR SUPPORT AT AIR SEPARATOR.
12. PROVIDE ISOLATION VALVE AND BLIND FLANGE FOR TEMPORARY CONNECTION.
13. RE: 1/M5.1 FOR CHEMICAL FEEDER TANK SUPPORT.
14. PROVIDE ISOLATION VAVLE.
15. COORDINATE PIPE SUPPORT LOCATION NOT TO OBSTRUCT EXISTING CHILLER CONTROL / ELECTRICAL PANEL.
16. EXISTING DUST COLLECTOR SHALL REMAIN AND REUSED.



1 **MECHANICAL ENLARGED FLOOR PLAN - SERVICE YARD AND CENTRAL PLANT**
Scale: 1/4" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL
ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MCKINNEY, TEXAS 75345
281.301.3800
WWW.BRWARCH.COM

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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DATE JUNE 13, 2025
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BRW PROJECT NUMBER 223005.00

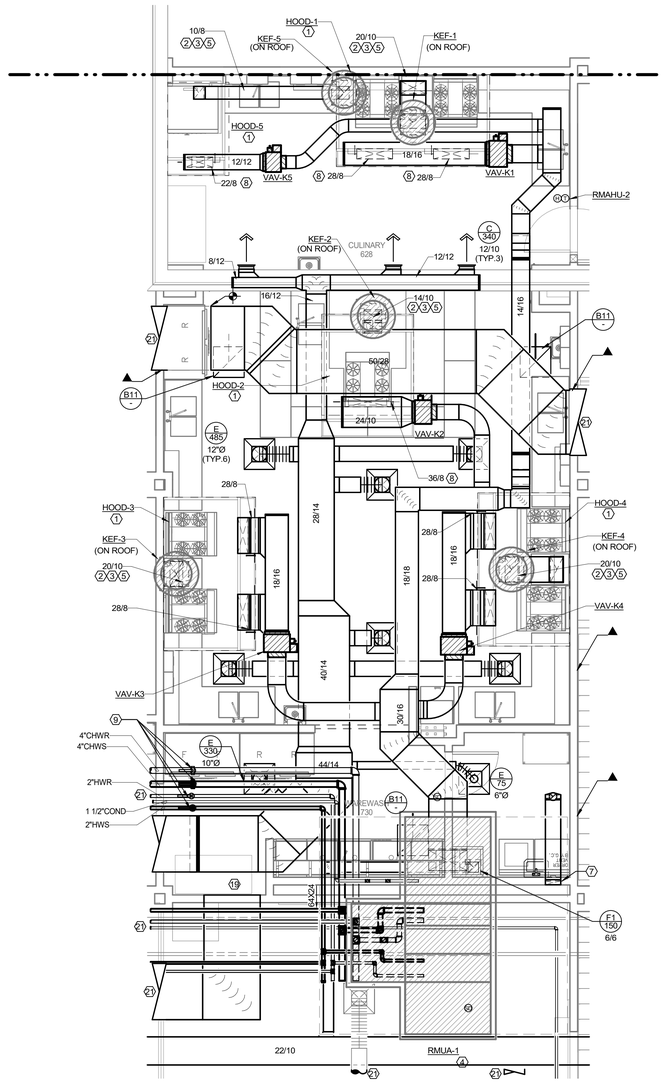
M3.1
MECHANICAL ENLARGED FLOOR PLAN

MECHANICAL GENERAL NOTES:

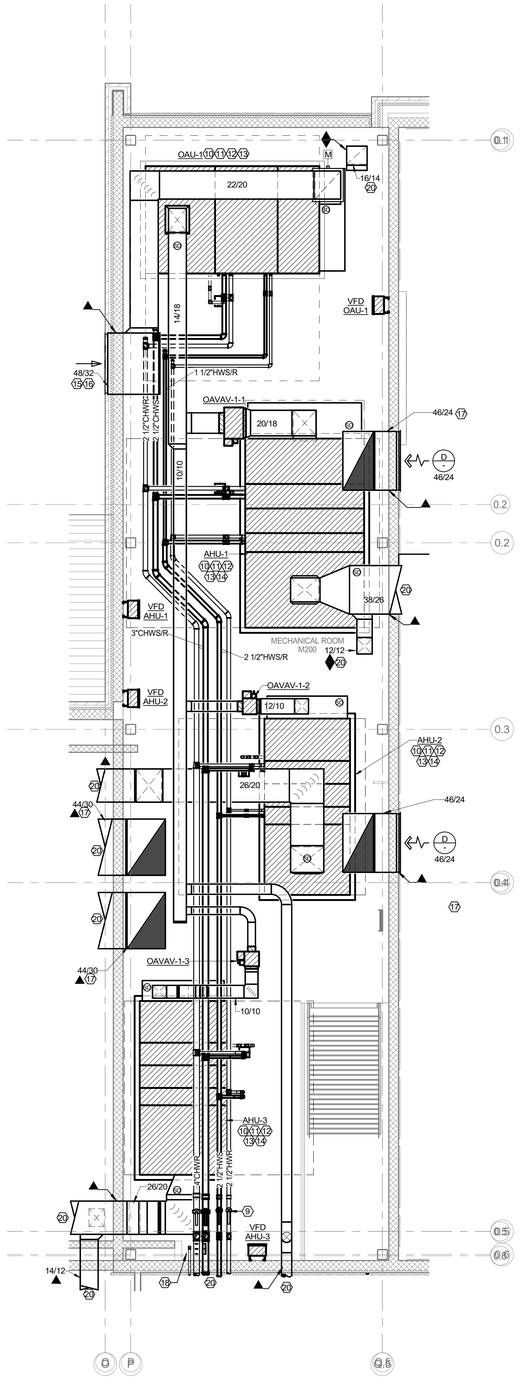
1. COORDINATE IN THE FIELD THE EXACT LOCATION OF MECHANICAL EQUIPMENT WITH CONTRACTOR AND ALL TRADES.
2. SENSORS SHALL BE MOUNTED AT +48" AFF (ABOVE FINISHED FLOOR). UNLESS OTHERWISE NOTED.
3. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR HVAC SYSTEMS.

MECHANICAL KEYED NOTES

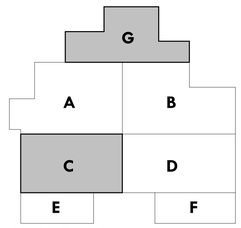
1. KITCHEN HOOD PROVIDED BY FOOD SERVICE CONSULTANT. MECHANICAL CONTRACTOR TO INSTALL AND MAKE FINAL DUCT CONNECTIONS.
2. KITCHEN EXHAUST DUCTWORK TO BE WELDED 16 GAUGE BLACK STEEL CONSTRUCTION. WRAP DUCTWORK IN A TOTALLY ENCAPSULATED FOIL FACED FIRE BOARD WITH A MINIMUM OF TWO HOUR FIRE RATING. SLOPE DUCT TOWARDS HOOD AND PROVIDE CLEANOUT AT EACH CHANGE OF DIRECTION. REFER TO SPECIFICATIONS FOR SPECIAL CONSTRUCTION AND INSULATION REQUIREMENTS.
3. FULL SIZE EXHAUST AIR DUCTWORK DOWN FROM EXHAUST FAN ON ROOF. PROVIDE TRANSITION TO SIZE INDICATED.
4. ROUTE FULL SIZE MAKEUP AIR DUCTWORK UP TO ROOF MOUNTED AIR HANDLING UNIT ON ROOF. PROVIDE TRANSITION AS INDICATED.
5. TRANSITION DUCTWORK TO HOOD COLLAR DIMENSION AS REQUIRED.
6. PROVIDE FULL SIZE PLENUM AT RETURN THROUGH ROOF FOR AHU AS SHOWN. PROVIDE SMOKE DETECTOR.
7. ROUTE 12/3 EXHAUST AIR DRYER DUCT UP FROM LINT TRAP THRU ROOF TO GOOSENECK. RE: 14/M5.1 AND 7/M5.2 FOR MORE INFORMATION.
8. PROVIDE MANUAL BALANCING DAMPER.
9. PROVIDE ISOLATION VALVE AT LOCATION SHOWN.
10. VERIFY SERVICE CLEARANCES FOR AIR FILTER, FAN SHAFT AND COIL REMOVAL WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
11. PROVIDE 4" THICK CONCRETE HOUSEKEEPING PAD.
12. ROUTE FULL SIZE CONDENSATE DRAIN PIPING TO FLOOR SINK (SEE PLUMBING DRAWING FOR EXACT LOCATION). INSTALL CONDENSATE TRAP AS RECOMMENDED PER MANUFACTURER.
13. REFER TO DETAILS FOR AHU COIL PIPING.
14. PROVIDE FULL SIZE PLENUM AT RETURN AIR INLET FOR AHU AS SHOWN AND INSTALL TEMPERATURE SENSOR.
15. PROVIDE 38" WIDE X 38" HIGH RUSKIN MODEL EME520MD WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER OR APPROVED EQUAL WITH MINIMUM FREE AREA OF 4.38 SQ. FT. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS SPECIFIED BY ARCHITECT. COORDINATE FINAL LOCATION WITH ARCHITECT.
16. PROVIDE DUCTWORK AT FULL SIZE OF LOUVER.
17. PROVIDE INTERNALLY LINED RETURN AIR ELBOW.
18. ROUTE CONDENSATE PIPE AT SIZE INDICATED TO FLOOR SINK PIECE. REFER TO PLUMBING DRAWINGS.
19. PROVIDE OPEN PLENUM RETURN AT SIZE INDICATED.
20. RE: 1/M2.6 FOR CONTINUATION.
21. RE: 1/M2.3 FOR CONTINUATION.



N 2 **MECHANICAL ENLARGED FLOOR PLAN -CULINARY ART LAB**
Scale: 1/4" = 1'-0"



N 1 **MECHANICAL ENLARGED FLOOR PLAN - MECH M100**
Scale: 1/4" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL
ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MCKINNEY, TEXAS 75071
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

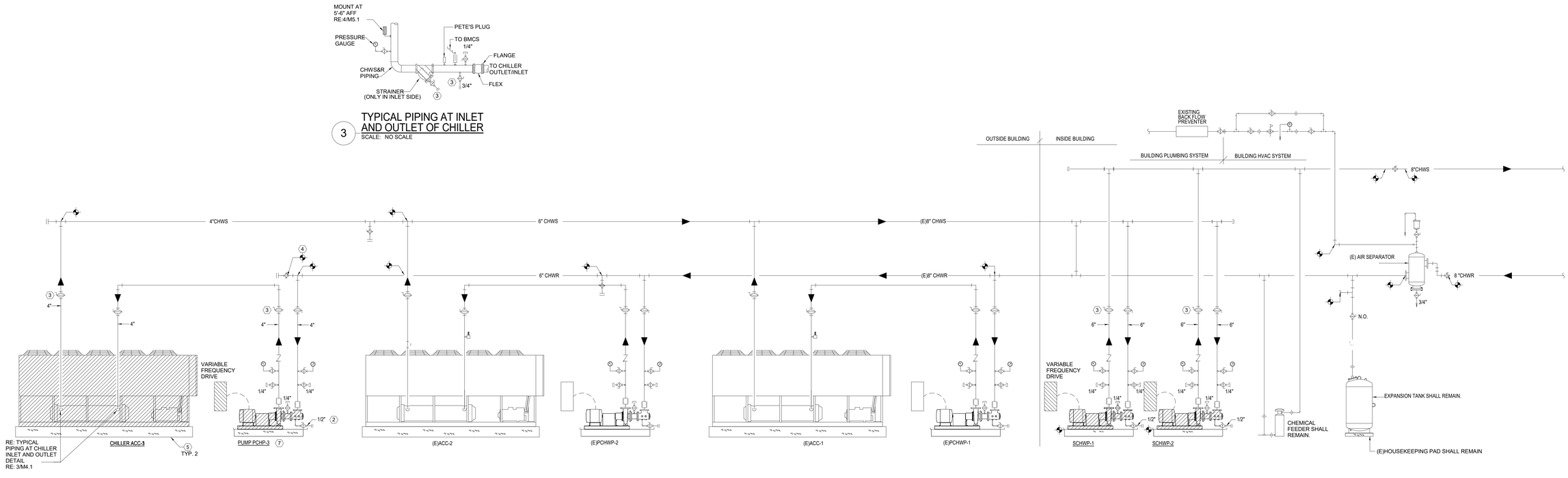
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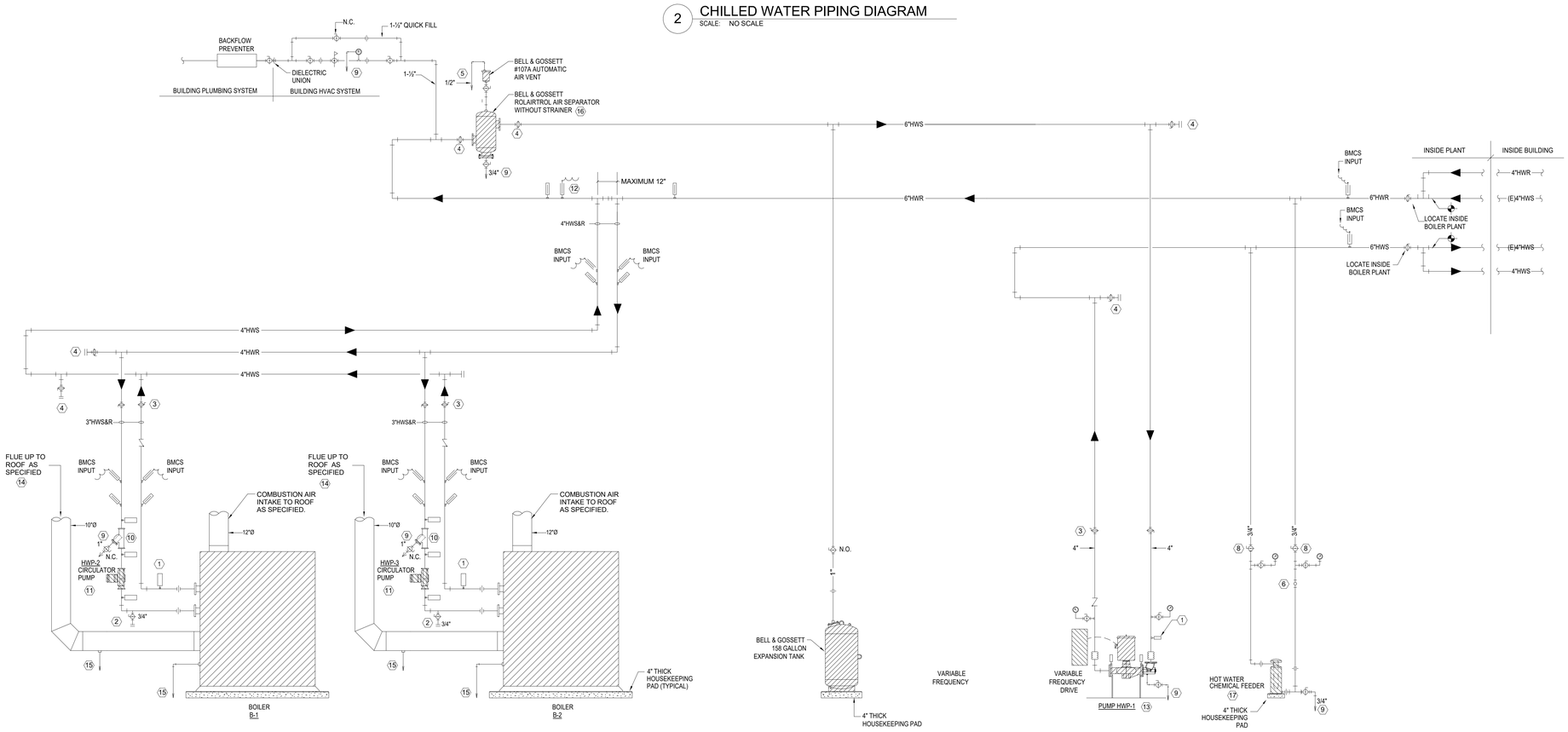
M3.2

MECHANICAL ENLARGED FLOOR PLAN



3 TYPICAL PIPING AT INLET AND OUTLET OF CHILLER
SCALE: NO SCALE

2 CHILLED WATER PIPING DIAGRAM
SCALE: NO SCALE



1 HOT WATER PIPING DIAGRAM
SCALE: NO SCALE

MECHANICAL KEYED NOTES

1. PROVIDE PETE'S PLUG. (TYP.)
2. PROVIDE BALL VALVE WITH HOSE THREAD ADAPTER AT FULL SIZE OR AT SIZE INDICATED.
3. BALANCING VALVE TO BE PROVIDED WITH INFINITE POSITION CRANK OR MEMORY STOP FOR BALANCING SERVICE.
4. PROVIDE ISOLATION VALVE AND BLIND FLANGE.
5. 12" WIDE X 12" TALL X UNIT LENGTH CONCRETE RUNNER REINFORCED WITH 4 CONTINUOUS #4 REBAR WITH #3 STIRRUPS AT 18" O.C. SPACING. PROVIDE 1-1/2" COVER ON TOP AND SIDES AND 3" COVER ON BOTTOM OF BEAM. (TYPICAL OF 2)
6. PROVIDE ERNEST GAUGE #E-57-3 BRONZE BODY SIGHT GLASS WITH S.S. SHAFT, PLASTIC SPINNER AND DOUBLE WINDOW. OPERATING TEMPERATURE AND PRESSURE SHALL BE 125 PSI, 200F. MINIMUM.
7. PROVIDE NEW 4" CONCRETE PAD.
8. PROVIDE ISOLATION VALVE AS CLOSE AS POSSIBLE TO CHEMICAL FEEDER.
9. ROUTE TYPE "L" COPPER DRAIN PIPING AT FULL SIZE OR SIZE INDICATED TO NEAREST FLOOR SINK.
10. PROVIDE STRAINER.
11. CIRCULATOR PUMP PROVIDED BY BOILER MANUFACTURER.
12. HEADER TEMPERATURE SENSOR. PROVIDED BY BOILER MANUFACTURER.
13. REFER TO DETAILS FOR MORE INFORMATION ON VERTICAL INLINE PUMP.
14. REFER TO DETAILS FOR POWER EXHAUSTED BOILER FLUE THRU ROOF DETAIL.
15. ROUTE FULL SIZE CPVC PIPING TO FROM BOILER TO ACID NEUTRALIZATION BASIN AND FROM ACID NEUTRALIZATION BASIN TO FLOOR SINK.
16. REFER TO DETAILS FOR MORE INFORMATION ON AIR SEPARATOR SUPPORT.
17. REFER TO DETAILS FOR MORE INFORMATION ON CHEMICAL FEEDER SUPPORT.

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

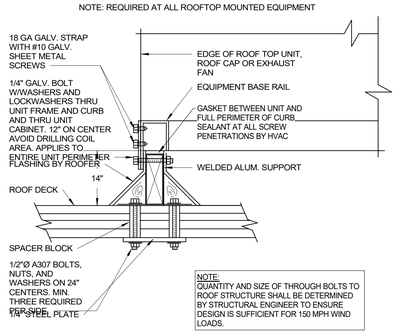
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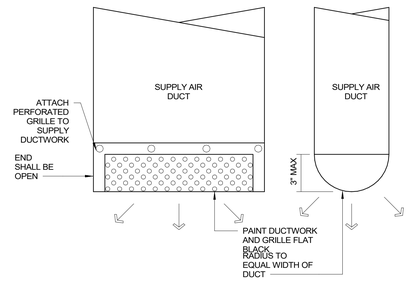
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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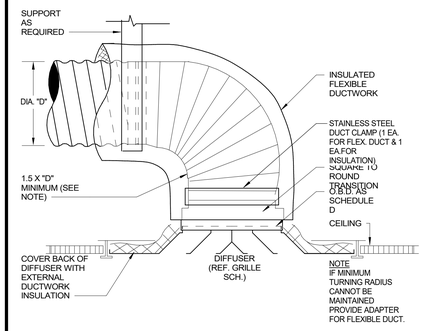
M4.1
MECHANICAL PIPING DIAGRAM



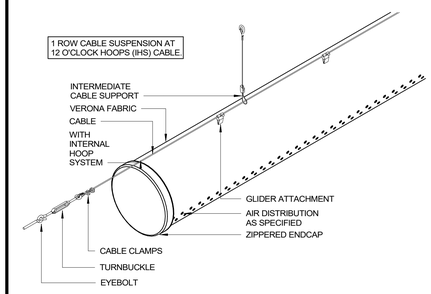
19 WIND RESISTANT EQUIPMENT SUPPORT
SCALE: NONE



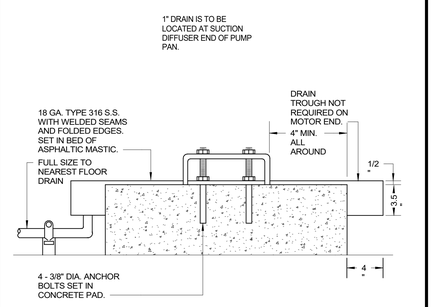
15 PERFORATED GRILLE (AUDITORIUM)
SCALE: NONE



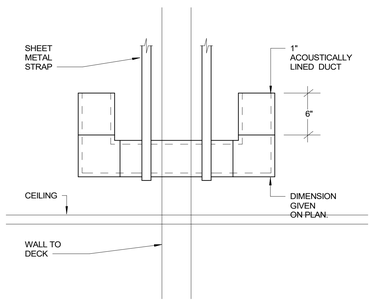
FLEX DUCT CONNECTION AT SUPPLY AIR DIFFUSER
11 SCALE: NONE



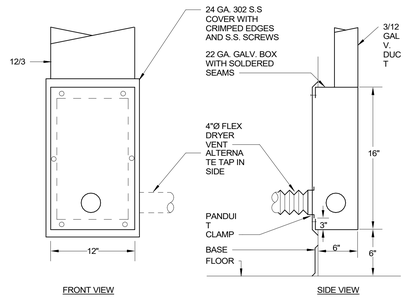
7 FABRIC DUCT SUSPENSION DETAIL
SCALE: NONE



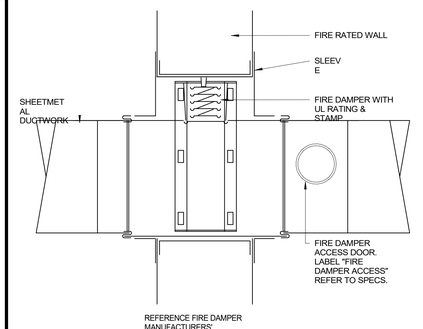
3 PUMP PAN
SCALE: NONE



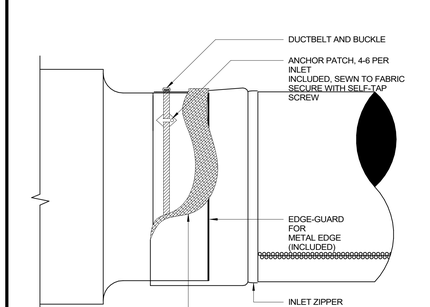
18 TRANSFER AIR DUCT
SCALE: NONE



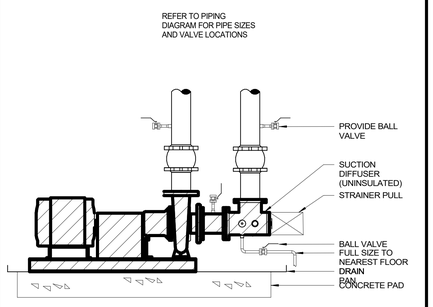
14 LINT TRAP
SCALE: NONE



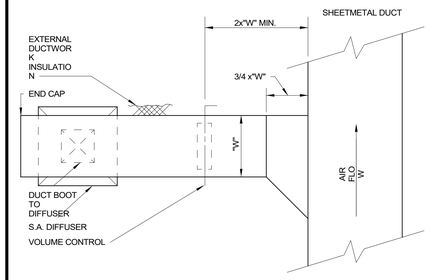
10 FIRE DAMPER
SCALE: NONE



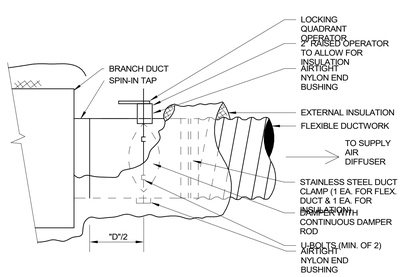
6 FABRIC DUCT INLET DETAIL
SCALE: NONE



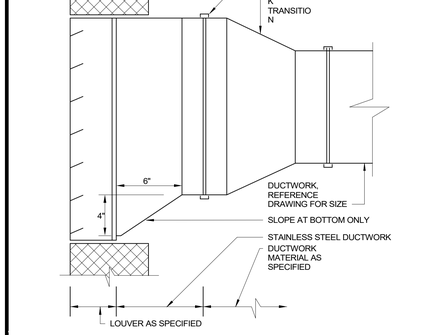
2 END SUCTION PUMP
SCALE: NONE



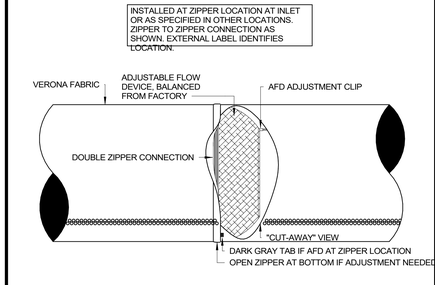
RIGID DUCT TAP TO SINGLE SUPPLY AIR DIFFUSER
17 SCALE: NONE



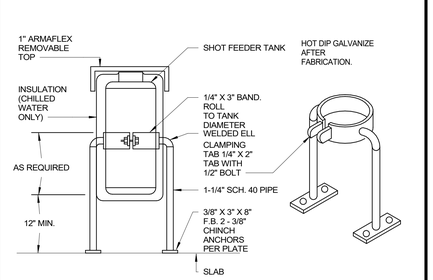
13 FLEXIBLE DUCT TAP - SPIN-IN
SCALE: NONE



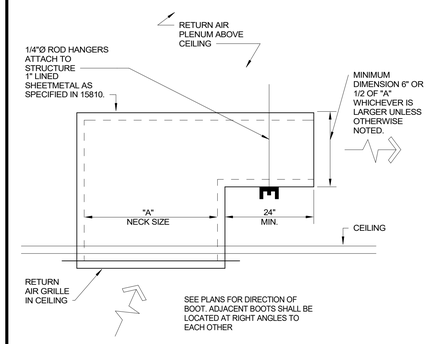
9 DUCTWORK AT LOUVER
SCALE: NONE



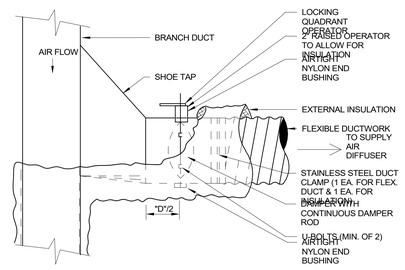
5 ADJUSTABLE FLOW DEVICE (AFD)
SCALE: NONE



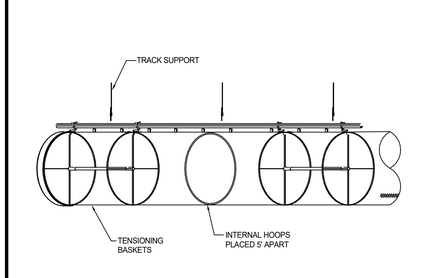
CHILLED AND HOT WATER CHEMICAL FEEDER TANK SUPPORT DETAIL
1 SCALE: NONE



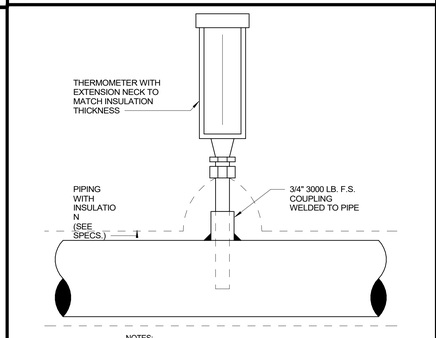
16 RETURN AIR GRILLE BOOT
SCALE: NONE



12 FLEXIBLE DUCT TAP - SHOE
SCALE: NONE



8 CUT AWAY VIEW OF SKELECORE PULL-TIGHT
SCALE: NONE



4 THERMOMETER INSTALLATION
SCALE: NONE

Salas O'Brien
salasobrien.com 281-664-1900
Houston
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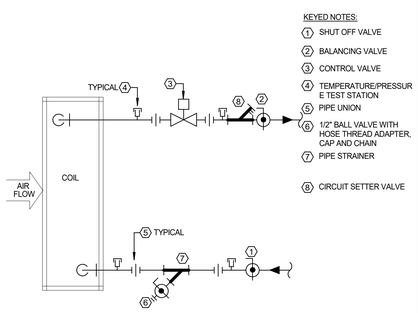
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HUMBLE ISD
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RENOVATIONS

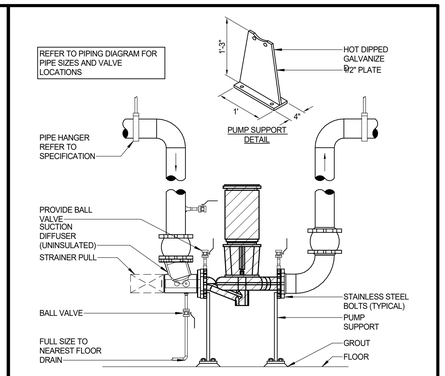
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M5.1
MECHANICAL DETAILS



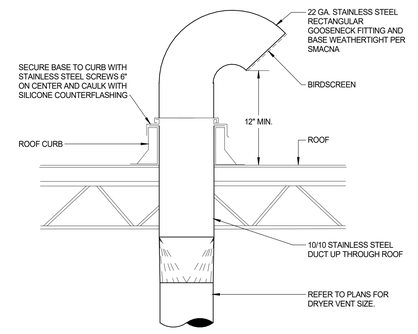
8 PIPING AT HOT WATER COIL 2-WAY

SCALE: NONE



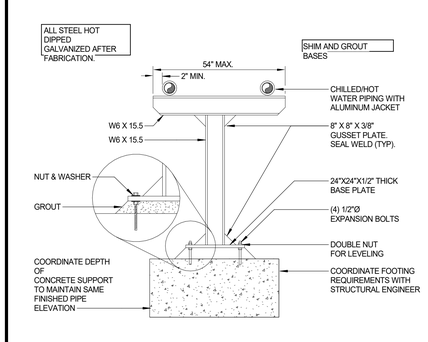
4 VERTICAL INLINE PUMP SUPPORT

SCALE: NONE



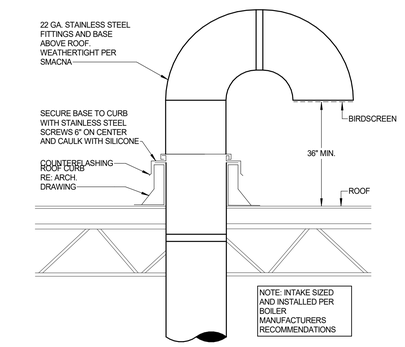
7 VENT THROUGH ROOF

SCALE: NONE



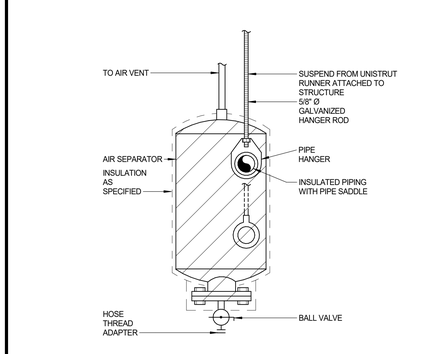
3 PIPE STAND

SCALE: NONE



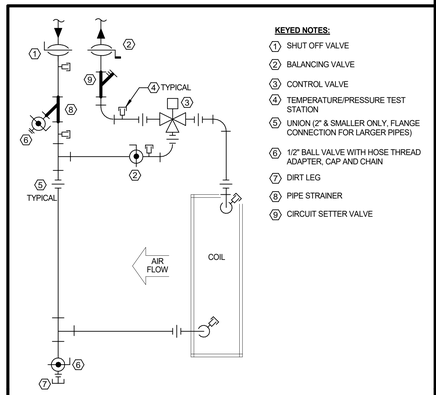
POWER EXHAUSTED BOILER COMBUSTION AIR INTAKE THRU ROOF 6

SCALE: NONE



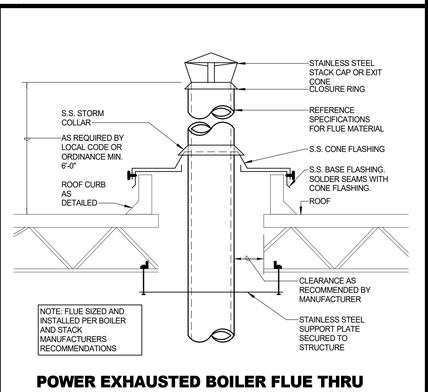
2 SUPPORT AT AIR SEPARATOR

SCALE: NONE



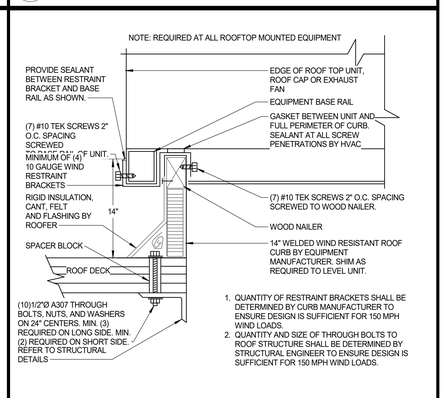
9 PIPING AT AHU WATER COIL 3-WAY

SCALE: NONE



POWER EXHAUSTED BOILER FLUE THRU ROOF 5

SCALE: NONE



1 WIND RESISTANT ROOF CURB

SCALE: NONE

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE	JUNE 13, 2025
DRAWN BY	AA
CHECKED BY	SH
BRW PROJECT NUMBER	223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

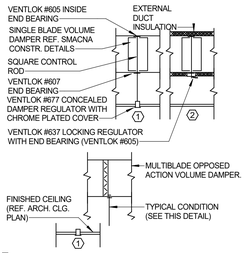
Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2023-02125-00

M5.2

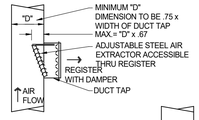
MECHANICAL DETAILS

DUCTWORK CONSTRUCTION DETAILS



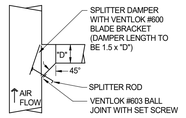
1 **DAMPER ABOVE INACCESSIBLE CEILING**

2 **DAMPER ABOVE LIFT-OUT CEILING**

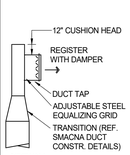


NOTES:
1. MAX. WIDTH OF DUCT TAP SHALL BE 48". PROVIDE BOTTOM BRACKET FOR SUPPORT WHERE EXTRACTOR EXCEEDS 16".
2. MAX. HEIGHT OF DUCT TAP SHALL BE 12" (MIN.= 4")

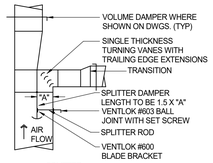
EXTRACTOR SIDEWALL REGISTER



DUCT TAP

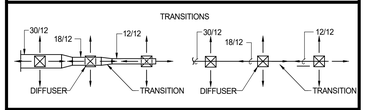


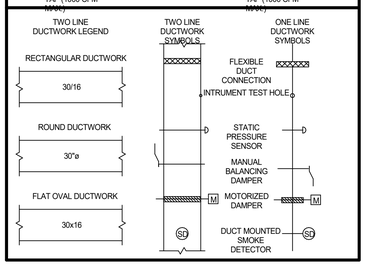
SIDEWALL REGISTER AT END OF DUCT



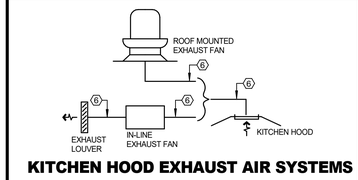
SPLITTER

DUCTWORK SYMBOLS LEGEND

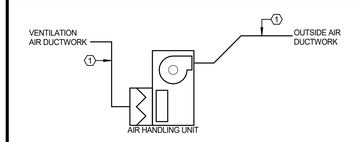




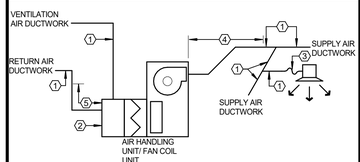
DUCT LINER AND INSULATION



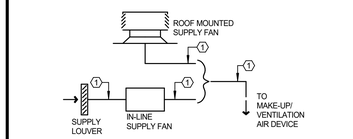
KITCHEN HOOD EXHAUST AIR SYSTEMS



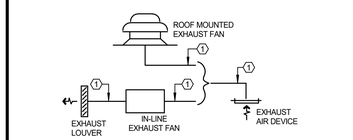
OUTSIDE AIR PRETREATMENT UNIT



AIR HANDLING UNITS AND FAN COIL UNITS



MAKE-UP/VENTILATION AIR SYSTEMS



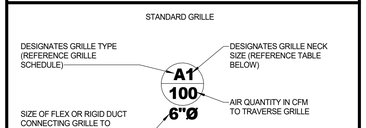
EXHAUST AIR SYSTEMS

KEYED NOTES:

1. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
2. SHEETMETAL DUCTWORK RETURN AIR PLENUM WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
3. FLEXIBLE DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED.
4. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT DISCHARGE TO 10'-0" DOWNSTREAM.
5. SHEETMETAL DUCTWORK WITH EXTERNAL DUCTWORK INSULATION AS SPECIFIED AND 1" THICK 1-1/2 LB LINER AS SPECIFIED FROM AIR HANDLING UNIT INLET TO 10'-0" UPSTREAM.
6. EXHAUST DUCTWORK AS SPECIFIED WITH FIREBOARD INSULATION AS SPECIFIED.
7. SHEETMETAL DUCTWORK ONLY. NO INSULATION REQUIRED.

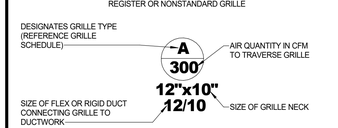
GRILLE SIZING SCHEDULE

STANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN.

REGISTER OR NONSTANDARD GRILLE



ALL GRILLES SHOWN SHALL BE FOUR-WAY THROW UNLESS OTHERWISE SHOWN. ALL REGISTERS SHALL HAVE A 45° HORIZONTAL DEFLECTION UNLESS OTHERWISE SHOWN.

GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"

SYMBOL LEGEND

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	
(#)	KEY NOTE TAG
/#\	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	FIRE DAMPER (HORIZONTAL)
	SMOKE DAMPER (VERTICAL)
	SMOKE DAMPER (HORIZONTAL)
	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
T	THERMOSTAT AND TEMPERATURE SENSOR
H	HUMIDISTAT
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
AIR DEVICES	
GRILLE	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND)
	SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	SUPPLY AIR GRILLE WITH THREE-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW
	SUPPLY AIR GRILLE WITH ONE-WAY THROW
	RETURN AIR GRILLE
	RETURN AIR GRILLE WITH SOUND BOOT
	EXHAUST AIR GRILLE
	SUPPLY AIR SIDEWALL GRILLE
	RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
PIPING	
–CWS&R–	CONDENSER WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CHWS&R–	CHILLED WATER SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–CHWS–	CHILLED WATER SUPPLY
–CHWR–	CHILLED WATER RETURN
–HWS&R–	HOT WATER FOR HYDRONIC HEATING SUPPLY & RETURN (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
–HWS–	HOT WATER FOR HYDRONIC HEATING SUPPLY
–HWR–	HOT WATER FOR HYDRONIC HEATING RETURN
—D—	CONDENSATE DRAIN LINE
—AD—	AUXILLARY CONDENSATE DRAIN LINE
—O	ELBOW UP
—D	ELBOW DOWN
	90° ELBOW
	45° ELBOW
	TEE
	TEE DOWN
	TEE UP
	TOP BRANCH CONNECTION
	BOTTOM BRANCH CONNECTION
	FLANGE
	CAP
	CONTINUATION
	FLOOR DRAIN (REFER TO PLUMBING DRAWINGS)
	GATE VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	BUTTERFLY VALVE WITH OPERATOR
	PLUG VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	BALL VALVE
	STRAINER
	UNION
	THERMOMETER WELL
	PETE'S PLUG
	PRESSURE GAUGE
	TEMPERATURE SENSOR IN PIPE
	VENTURI FLOW METER
	FLOW SWITCH
FM	FLOW MEASURING STATION
	EXPANSION JOINT
	FLEXIBLE CONNECTION
	GAUGE COCK
	SITE GLASS
	DIFFERENTIAL PRESSURE SENSOR
	TURBINE FLOW METER
	ANCHOR
	PIPE GUIDE
SUBSCRIPTS AND ABREVIATIONS	
AFF	ABOVE FINISHED FLOOR
BBS	BELOW BOTTOM OF STRUCTURE
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
CA	COMBUSTION AIR
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
FPM	FEET PER MINUTE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR
RENOVATIONS	
	POINT OF CONNECTION FROM NEW TO EXISTING
	ITEM TO REMAIN
	ITEM TO BE REMOVED

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

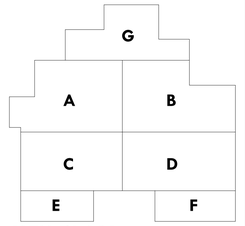
BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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DATE JUNE 13, 2025
DRAWN BY Author
CHECKED BY Checker
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

M5.3

MECHANICAL DETAILS

CHILLED & HOT WATER FAN/COIL UNIT

MARK	FAN							COOLING						HEATING				PIPE SIZE TO COIL (IN.)		REMARKS
	SUPPLY AIR CFM	OUTSIDE AIR CFM	EXT. STATIC PRESSURE (IN. W.C.)	HORSE POWER	CURRENT CHARAC. V	P	F	AIR TEMPERATURE (°F) ENTERING DRY BULB	ENTERING WET BULB	TOTAL CAPACITY (BTUH)	MIN. SENSIBLE CAPACITY (BTHU)	WATER ENTERING TEMP(°F)	GPM	PRESSURE DROP (FT.)	ENTERING AIR TEMPERATURE (°F)	MIN. CAPACITY (BTUH)	WATER ENTERING TEMP. (°F)	GPM	PRESSURE DROP (FT.)	CHILLED WATER	HOT WATER	
CHFCU-1	400	50	1.00	2.5	277	1	60	77.5	64.8	13,163	9,893	44	2	15.0	70.3	10,670	180	0.7	10.0	3/4"	3/4"	1,2,3,4,5,6,7,8,9,10,13
CHFCU-2	500	75	1.00	2.5	277	1	60	75.0	62.5	12,793	11,016	44	2	15.0	70.3	13,338	180	0.9	10.0	3/4"	3/4"	1,2,3,4,5,6,7,8,9,10,13
CHFCU-3	400	50	1.00	2.5	277	1	60	77.5	64.8	13,163	9,893	44	2	15.0	70.3	10,670	180	0.7	10.0	3/4"	3/4"	1,2,3,4,5,6,7,8,9,10,13
CHFCU-4	500	75	1.00	2.5	277	1	60	75.0	62.5	12,793	11,016	44	2	15.0	70.3	13,338	180	0.9	10.0	3/4"	3/4"	1,2,3,4,5,6,7,8,9,10,13
CHFCU-5	400	50	1.00	2.5	277	1	60	75.0	62.5	10,234	8,813	44	1	15.0	70.3	10,670	180	0.7	10.0	3/4"	3/4"	1,2,3,4,5,6,7,8,9,10,13
CHFCU-6	2,000	140	1.00	2.5	277	1	60	76.0	63.9	62,494	47,304	44	9	15.0	70.8	52,272	180	3.5	10.0	1 1/4"	1"	1,2,3,4,5,6,7,8,9,10,11,12,13

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. VELOCITY NOT TO EXCEED 500 FPM ON COOLING COIL.
2. PROVIDE HORIZONTAL UNIT.
3. PROVIDE CONSTANT VOLUME UNIT.
4. PROVIDE HOT WATER COIL IN REHEAT POSITION.
5. PROVIDE WITH LOW VELOCITY ANGLED FILTER SECTION.
6. PROVIDE WITH FLOAT SWITCH AUTOMATIC SHUT OFF.
7. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. PROVIDE SPRING ISOLATION
8. REFER TO MANUFACTURER FOR MORE DETAILS.
9. PROVIDE 2-WAY COOLING CONTROL VALVES.
10. PROVIDE 2-WAY HYDRONIC HOT WATER CONTROL VALVES.
11. PROVIDE UNIT WITH DOUBLE WALL CONSTRUCTION.
12. PROVIDE WITH CONDENSATE PUMP.
13. PROVIDE WITH AIR PURIFICATION SYSTEM. REFER TO SPECIFICATIONS.

PACKAGED AIR COOLED CHILLER

MARK	ACTUAL CAPACITY (TONS)	LEAVING WATER TEMP.(°F)	GPM	PRESSURE DROP (FT.)	AMBIENT AIR TEMP. (°F)	CURRENT CHAR. V	P	F	MANUFACTURER	MODEL	MOCP	MCA	REMARKS
ACC-3	143	42	245	20.0	95 °F	480	3	60	-	-	350	299	1,2,3,4,5,6

GENERAL NOTES:
1. MAXIMUM FOULING FACTOR FOR THE EVAPORATOR IS 0.0001
2. MAINTAIN MINIMUM CLEARANCES REQUIRED BY CHILLER MANUFACTURER FOR PROPER AIRFLOW TO FANS AND UNIT. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON EQUIPMENT FOR SERVICE, MAINTENANCE AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCES AS REQUIRED BY NEC.
3. CHILLER SHALL MEET OR EXCEED BOTH ABOVE SCHEDULED FULL-LOAD AND PART LOAD MINIMUM IECC 2021 EFFICIENCIES AT ARHI 44 LEAVING CHILLED WATER TEMPERATURE AND 95 AMBIENT AIR TEMPERATURE.

REMARKS:
1. PROVIDE WITH LOW AMBIENT HEAD PRESSURE CONTROL.
2. PROVIDE WITH INTEGRAL MAIN ELECTRICAL DISCONNECT SWITCH.
3. PROVIDE WITH INSULATION ON ALL SUCTION LINES.
4. PROVIDE HIGH EFFICIENCY CHILLER. (MIN. OF 10.1 EER)
5. PROVIDE WITH POLYMER CONDENSER FANS AND COMPRESSOR BLANKETS.
6. PROVIDE CHILLER RATED FOR 65KA SCCR.

BOILER - FORCED AIR

MARK	TYPE	MINIMUM GAS INPUT (BTUH)	MINIMUM HEAT OUTPUT (BTUH)	PRESSURE DROP (FT.H20)	GPM	FLUE SIZE	ELECTRICAL BLOWER HORSEPOWER (WATT)	CURRENT CHARAC. V	P	F	MANUFACTURER	MODEL NUMBER	REMARKS
B-1	CONDENSING	2000000.0 Btu/h	1928000.0 Btu/h	10.0	97.4	10	890	208	1	60	PATTERSON KELLEY	SC 2000	1,2
B-2	CONDENSING	2000000.0 Btu/h	1928000.0 Btu/h	10.0	97.4	10	890	208	1	60	PATTERSON KELLEY	SC 2000	1,2

GENERAL NOTES:
1. PROVIDE 8 OUNCE GAS PRESSURE TO BOILER.
2. MAINTAIN MINIMUM CLEARANCE AROUND A BOILER OF 24 INCHES PER TEXAS BOILER LAW. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS FOR SERVICE, MAINTENANCE AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCES AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH CIRCULATING PUMP, SIZED BY BOILER MANUFACTURER TO ENSURE CONSTANT FLOW THROUGH BOILER. PUMP TO BE SHIPPED LOOSE. POWER BY ELECTRICAL CONTRACTOR BUT CONTROLLED BY BOILER. CONTRACTOR TO WIRE FROM BOILER PUMP CONTROL CIRCUIT TO PUMP STARTER RELAY.
2. PROVIDE SEALED COMBUSTION BOILER.

VARIABLE VOLUME TERMINAL BOX

MARK	MAXIMUM CFM	MINIMUM CFM	INLET DIAMETER SIZE (IN.)	HOT WATER COIL GPM	HOT WATER COIL CONNECTING PIPE SIZE	REMARKS
OAVAV-1-1	2,515	630	16			-
OAVAV-1-2	545	100	8			-
OAVAV-1-3	385	100	6			-
OAVAV-1-1-1	140	100	4			-
VAV-K1	1,890	1,890	14			-
VAV-K2	1,620	1,620	14			-
VAV-K3	1,890	1,890	14			-
VAV-K4	1,890	1,890	14			-
VAV-K5	840	840	10			-

GENERAL NOTES:
1. MAXIMUM STATIC PRESSURE DROP OF AIR THROUGH THE TERMINAL BOX SHALL BE 0.2" ESP.
2. MAXIMUM VELOCITY THROUGH DUCT INLET SHALL BE 2,000 FPM.
3. MAXIMUM STATIC PRESSURE DROP THROUGH HEATER COIL SHALL BE 0.25" ESP.
4. MAXIMUM STATIC PRESSURE DROP OF WATER THROUGH HEATER COIL SHALL BE 10' W.G.
5. BTUH REQUIRED FOR HOT WATER HEATING IS HEATING GPM MULTIPLIED BY 10,000.
6. SUSPEND UNIT WITH FOUR THREADED HANGER RODS ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO STRUCTURE. REFER TO MANUFACTURER FOR MORE DETAILS.
7. UNITS TO BE MOUNTED BETWEEN BEAMS AND 18" MAXIMUM ABOVE CEILING. AVOID MOUNTING OVER LIGHTS WHEREVER POSSIBLE.
8. REFER TO PIPING AT HOT WATER COIL DETAILS. PROVIDE WITH 2-WAY CONTROL VALVE UNLESS OTHERWISE SCHEDULED.

REMARKS:
1. N/A

AIR HANDLING UNIT

MARK	FAN							COOLING							HEATING					PIPE SIZE TO COIL (IN.)		REMARKS
	SUPPLY AIR CFM	OUTSIDE AIR CFM	EXT. STATIC PRESSURE (IN. W.C)	HORSE POWER	CURRENT CHARAC. V	PH	F	AIR TEMPERATURE (°F) ENTERING DRY BULB	ENTERING WET BULB	LEAVING DRY BULB	LEAVING WET BULB	WATER ENTERING TEMP (°F)	GPM	PRESSURE DROP (FT.)	ENTERING AIR TEMPERATURE (°F)	MIN. HEATING CAPACITY	WATER ENTERING TEMP. (°F)	GPM	PRESSURE DROP (FT.)	CHILLED WATER	HOT WATER	
AHU-1	11,245	2,515	1.50	15.0	480	3	60	75.0	62.5	53.8	53.0	44	44.0	15.0	67.9	329,119	180.0	22.2	10.0	2 1/2"	2"	1,3,4,6,8,9,12,13,14
AHU-2	4,245	545	1.50	5.0	480	3	60	75.0	62.5	54.2	53.4	44	16.0	15.0	71.4	108,197	180.0	7.3	10.0	1 1/2"	1 1/4"	1,3,4,5,7,9,12,13,14
AHU-3	4,185	385	1.50	5.0	480	3	60	75.0	62.5	54.2	53.3	44	15.9	15.0	70.3	111,639	180.0	7.5	10.0	1 1/2"	1 1/4"	1,3,4,5,7,9,12,13,14
OAU-1	3,585	3,585	2.00	5.0	480	3	60	98.0	80.0	54.0	53.0	44	49.5	15.0	27.0	263,282	180.0	14.8	10.0	2 1/2"	1 1/2"	2,3,6,8,10,11,13,14

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. VELOCITY NOT TO EXCEED 500 FPM ON COOLING COIL.
2. VELOCITY NOT TO EXCEED 450 FPM ON COOLING COIL.
3. PROVIDE HORIZONTAL UNIT.
4. PROVIDE SINGLE ZONE VARIABLE VOLUME UNIT.
5. PROVIDE FRONT DISCHARGE.
6. PROVIDE TOP DISCHARGE.
7. PROVIDE TWO-WAY COOLING CONTROL VALVES.
8. PROVIDE THREE-WAY COOLING CONTROL VALVES.
9. PROVIDE TWO-WAY HEATING CONTROL VALVES.
10. PROVIDE THREE-WAY HEATING CONTROL VALVES.
11. PROVIDE HOT WATER COIL IN PRE-HEAT POSITION.
12. PROVIDE HOT WATER COIL IN REHEAT POSITION.
13. PROVIDE UNIT WITH VARIABLE FREQUENCY DRIVE.
14. PROVIDE WITH AIR PURIFICATION SYSTEM. REFER TO SPECIFICATIONS.

ROOF MOUNTED AIR HANDLING UNIT

MARK	FAN							COOLING							HEATING					PIPE SIZE TO COIL (IN.)		REMARKS
	SUPPLY AIR CFM	OUTSIDE AIR CFM	EXT. STATIC PRESSURE (IN. W.C)	HORSE POWER	CURRENT CHARAC. V	PH	F	AIR TEMPERATURE (°F) ENTERING DRY BULB	ENTERING WET BULB	LEAVING DRY BULB	LEAVING WET BULB	WATER ENTERING TEMP (°F)	GPM	PRESSURE DROP (FT.)	ENTERING AIR TEMPERATURE (°F)	MIN. HEATING CAPACITY	WATER ENTERING TEMP. (°F)	GPM	PRESSURE DROP (FT.)	CHILLED WATER	HOT WATER	
RMAHU-1	2,100	380	1.50	3.0	480	3	60	75.0	62.5	53.4	53.2	44	8.1	15.0	68.2	60,782	180.0	4.1	10.0	1 1/4"	1"	1,3,4,6,7,10,11,12,13,14,15,16
RMAHU-2	4,335	1,150	1.50	5.0	480	3	60	80.9	67.7	54.6	53.8	44	26.8	15.0	58.8	169,481	180.0	11.4	10.0	2"	1 1/4"	1,3,4,6,7,10,11,12 13,14,16,17,18
RMOAU-1	850	850	1.50	1.0	480	3	60	98.0	80.0	54.0	53.0	44	11.8	15.0	27.0	30,294	180.0	2.0	10.0	1 1/4"	3/4"	2,3,7,8,9,11,12 13,15,16,18
RMUA-1	8,050	8,050	2.00	7.5	480	3	60	98.0	80.0	75.0	62.5	44	79.8	15.0	27.0	243,432	180.0	16.3	10.0	3"	1 1/2"	2,3,5,6,7,8,9,11, 12,13,16,18

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. VELOCITY NOT TO EXCEED 500 FPM ON COOLING COIL.
2. VELOCITY NOT TO EXCEED 450 FPM ON COOLING COIL.
3. PROVIDE HORIZONTAL UNIT.
4. PROVIDE SINGLE ZONE VAV UNIT.
5. RMUA-1 SHALL BE INTERLOCKED WITH HOOD FIRE SUPPRESSION SUCH THAT RMAU-1 IS DEACTIVATED UPON DETECTION OF FIRE BELOW HOOD.
6. PROVIDE UNIT WITH AIR PURIFICATION SYSTEM. REFER TO SPECIFICATIONS.
7. PROVIDE TWO-WAY COOLING CONTROL VALVES.
8. PROVIDE THREE-WAY HEATING CONTROL VALVES.
9. PROVIDE HOT WATER COIL IN PRE-HEAT POSITION.
10. PROVIDE HOT WATER COIL IN RE-HEAT POSITION.
11. PROVIDE UNIT WITH BOTTOM DISCHARGE.
12. PROVIDE UNIT WITH PENTHOUSE SECTION TO ENCLOSE PIPING AND CONTROL VALVES.
13. PROVIDE UNIT WITH ANGLED FILTER SECTION.
14. PROVIDE TWO-WAY HEATING CONTROL VALVES.
15. UNIT FURNISHED BY OWNER. TO BE INSTALLED BY CONTRACTOR.
16. PROVIDE UNIT WITH VARIABLE FREQUENCY DRIVE.
17. PROVIDE ECONOMIZER SECTION WITH OUTSIDE AIR MEASURING STATION AS SPECIFIED.
18. PROVIDE WITH AIR PURIFICATION SYSTEM. REFER TO SPECIFICATIONS.

FAN

MARK	LOCATION	CFM	EXT. STATIC PRESSURE (IN. W.C.)	MAX. FAN RPM	HORSE POWER	CURRENT CHARAC. V	P	F	LOCALLY SWITCHED BY	INTERLOCKED WITH	FAN TYPE	DRIVE TYPE	MANUFACTURER	MODEL NUMBER	REMARKS
KEF-1	CULINARY-628	2,100	1.00	1,725	1	120	1	60	-	HOOD-1	ROOF MOUNTED	DIRECT	COOK	VCR	1,2,3,4
KEF-2	CULINARY-628	1,800	1.00	1,725	0.5	120	1	60	-	HOOD-2	ROOF MOUNTED	DIRECT	COOK	VCR	1,2,3,4
KEF-3	CULINARY-628	2,100	1.00	1,725	1	120	1	60	-	HOOD-3	ROOF MOUNTED	DIRECT	COOK	VCR	1,2,3,4
KEF-4	CULINARY-628	2,100	1.00	1,725	1	120	1	60	-	HOOD-4	ROOF MOUNTED	DIRECT	COOK	VCR	1,2,3,4
KEF-5	CULINARY-628	840	1.00	1,725	0.3	120	1	60	-	HOOD-5	ROOF MOUNTED	DIRECT	COOK	VCR	1,2,3,4
EF-6	CORRIDOR-752	225	0.40	1,550	0.25	120	1	60	-	(E)AHU-B-2	ROOF MOUNTED	DIRECT	COOK	ACED	1,3,4,5

GENERAL NOTES:
1. EXTERNAL STATIC PRESSURE INCLUDES LOSSES DUE TO DUCTWORK, AIR DEVICES, DAMPERS, AND DUCT MOUNTED HOT WATER COILS WHERE APPLICABLE. DIRTY FILTER AND UNIT CASING MUST BE ADDED TO EXTERNAL STATIC PRESSURE TO OBTAIN TOTAL PRESSURE LOSS. INCREASE HORSEPOWER AS REQUIRED TO MEET YOUR TOTAL PRESSURE LOSS. COORDINATE WITH ELECTRICIAN.
2. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

REMARKS:
1. PROVIDE WITH DISCONNECT SWITCH.
2. PROVIDE WITH ROOF CURB.
3. PROVIDE WITH EC CONTROL MOTOR.
4. PROVIDE WITH CLEANOUT PORT, VENTED CURB EXTENSION TO MEET NFPA 96, DRAIN CONNECTION, GREASE TRAP AND HINDGE KIT.
5. PROVIDE WITH ROOF CURB AND BIRD SCREEN

RELIEF VENT & O.A. INTAKE

MARK	CFM	MAX. S.P. (IN.WC.)	MIN. THROAT AREA	COOK MODEL NUMBER	SERVES	REMARKS
OAI-1	50	0.10	1.00	GR	CHFCU-1	1,2,3
OAI-2	75	0.01	1.00	GR	CHFCU-2	1,2,3
OAI-3	50	0.01	1.00	GR	CHFCU-3	1,2,3
OAI-4	75	0.01	1.00	GR	CHFCU-4	1,2,3
OAI-5	50	0.01	1.00	GR	CHFCU-5	1,2,3

REMARKS:
1. PROVIDE WITH ROOF CURB.
2. PROVIDE WITH BIRD SCREEN.
3. PROVIDE WITH MOTORIZED DAMPER.

GRILLE

MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION
A	SUPPLY AIR	DIFFUSER	-	STEEL	WHITE	TITUS	OMNI	EXPOSED T-BAR CEILING FRAME STYLE WITH 24"X24" OR 12"X12" FACE.
B	RETURN AIR	GRILLE	-	STEEL	WHITE	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" FACE. PERFORATED.
C	SUPPLY AIR	DIFFUSER	-	STEEL	WHITE	TITUS	300RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED (1)
D	RETURN AIR	GRILLE	-	STEEL	WHITE	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HORIZONTAL FRONT BARS. SURFACE MOUNTED (1)
E	SUPPLY AIR	DIFFUSER	-	STEEL	WHITE	TITUS	PAS	EXPOSED T-BAR CEILING FRAME STYLE WITH 24"X24" FACE.
F	EXHAUST AIR	GRILLE	-	STEEL	WHITE	TITUS	PAR	EXPOSED T-BAR CEILING FRAME STYLE WITH A 24"X24" OR 12"X12" FACE. PERFORATED FACE.
J	SUPPLY AIR	DIFFUSER	-	STEEL	WHITE	TITUS	OMNI	SURFACE MOUNT CEILING FRAME STYLE WITH 18"X18" OR 12"X12" FACE.
K	RETURN AIR	GRILLE	-	STEEL	WHITE	TITUS	PAR	SURFACE MOUNT CEILING FRAME STYLE WITH 24"X24".

GENERAL NOTES:
1. DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET.
2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.

REMARKS:
1. N/A

PUMP

MARK	SERVICE	TYPE	GPM	HEAD (FT.)	MOTOR HORSE POWER	MAX. RPM	CURRENT CHARAC. V	P	F	MANUFACTURER	MODEL NUMBER	REMARKS
PCHP-3	CHILLED WATER	HORIZONTAL END SUCTION	245	50.00	15	1750	480	3	60	ARMSTRONG	4030	1,2,3,5
SCHWP-1	CHILLED WATER	HORIZONTAL END SUCTION	496	120.00	30	1750	480	3	60	ARMSTRONG	4030	1,2,3,5
SCHWP-2	CHILLED WATER	HORIZONTAL END SUCTION	496	120.00	30	1750	480	3	60	ARMSTRONG	4030	1,2,3,5
HWP-1	HEATING HOT WATER	VERTICAL INLINE	194	100.00	20	1750	480	3	60	ARMSTRONG	4300	1,2,3,5
HWP-2	HEATING HOT WATER	INLINE CIRCULATOR	97	25.00	1	1750	480	3	60	BELL & GOSSETT	SERIES 60	3,4
HWP-3	HEATING HOT WATER	INLINE CIRCULATOR	97	25.00	1	1750	480	3	60	BELL & GOSSETT	SERIES 60	3,4

GENERAL NOTES:
1. PUMP IS TO HAVE A NON-OVERLOADING MOTOR.
2. MINIMUM RECOMMENDED CLEARANCE AROUND A PUMP IS 24 INCHES. MAINTAIN MINIMUM CLEARANCES AS REQUIRED FOR SERVICE, MAINTENANCE, AND INSPECTION.

REMARKS:
1. PROVIDE WITH VARIABLE FREQUENCY DRIVE.
2. PROVIDE SUCTION DIFFUSER AT PUMP INLET.
3. PROVIDE PUMP WITH GUAGE TAPPING AND SUCTION DIFFUSER.
4. PUMP SHALL BE SELECTED BY BOILER MANUFACTURER, WITH DISCONNECT AND STARTER BY ELECTRICAL CONTRACTOR AND CONTROLLED BY BOILER.
5. PROVIDE PUMP WITH BACK PULL OUT.

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Houston
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Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
PEARLAND, TEXAS 77584
281.361.3800
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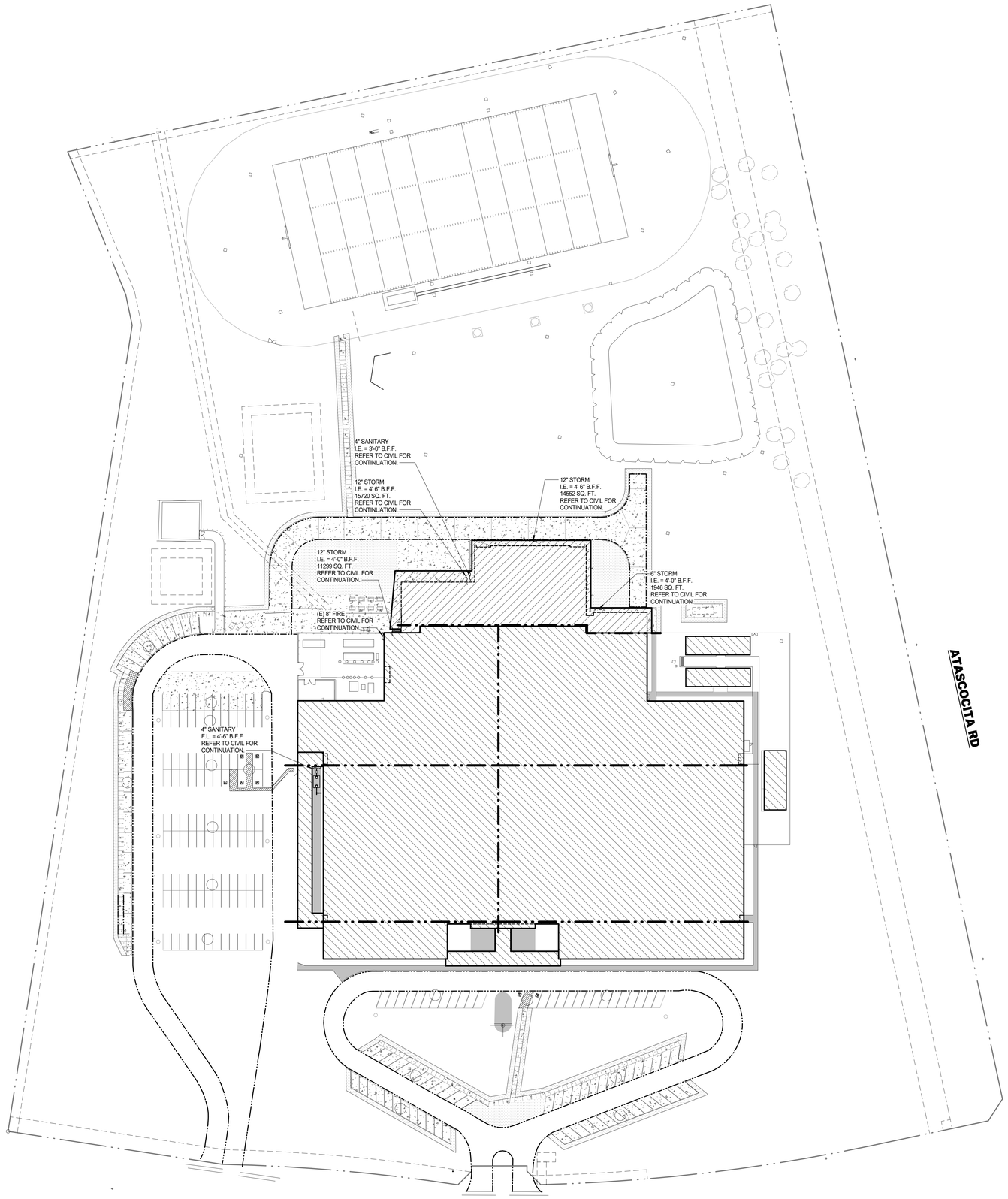
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RENOVATIONS

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M6.1
MECHANICAL SCHEDULES



1 **PLUMBING SITE PLAN**
Scale: 1" = 50'-0"

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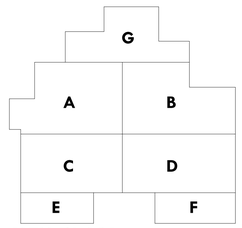
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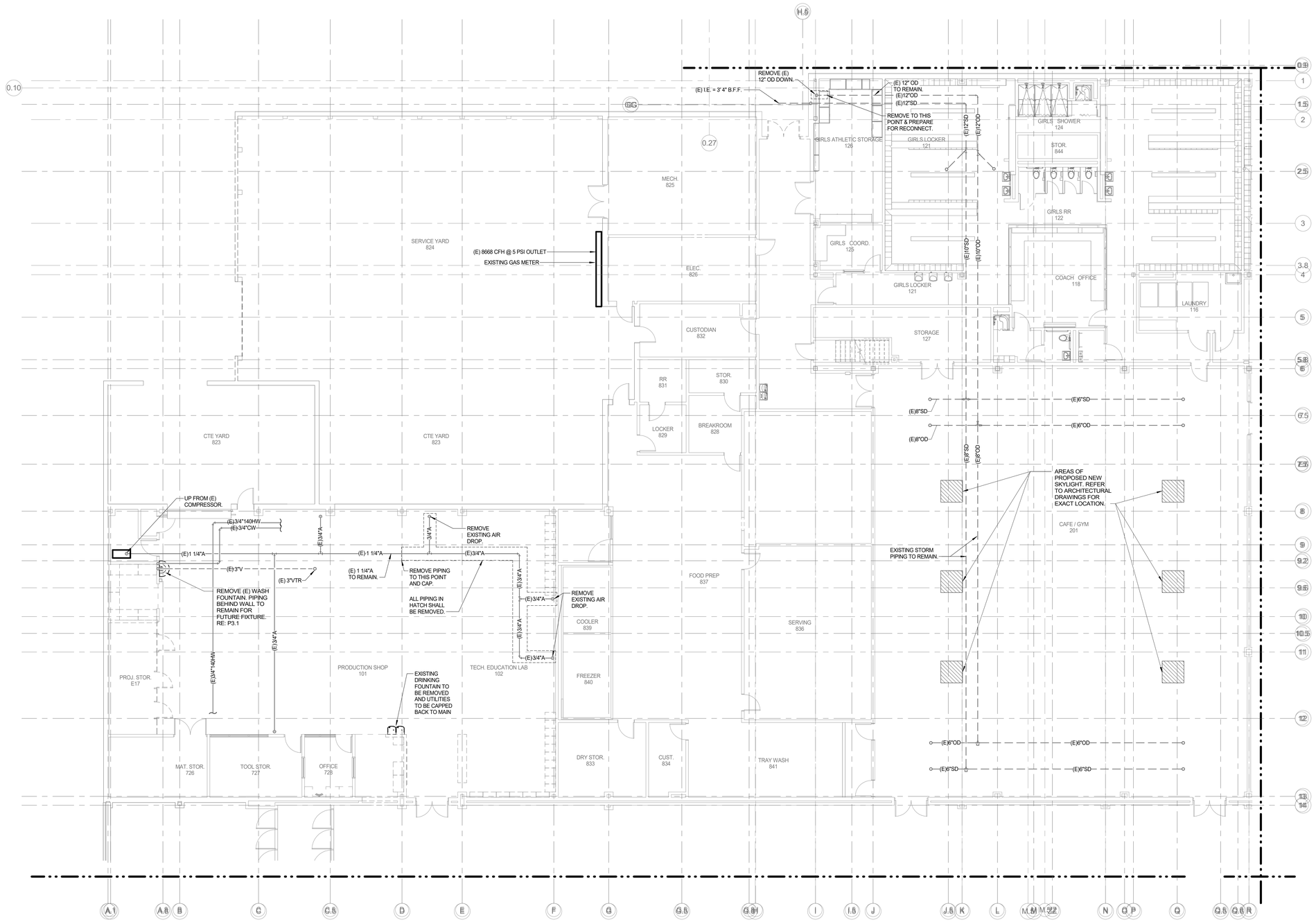
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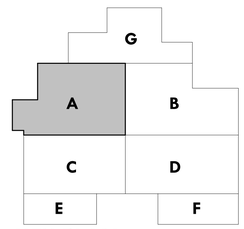
PLUMBING SITE PLAN



N

1 PLUMBING DEMOLITION FLOOR PLAN - AREA A

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



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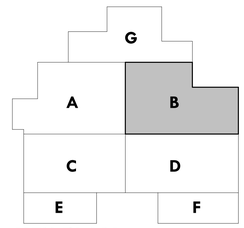
P1.1

PLUMBING DEMOLITION FLOOR PLAN - AREA A



1 PLUMBING DEMOLITION FLOOR PLAN - AREA B

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



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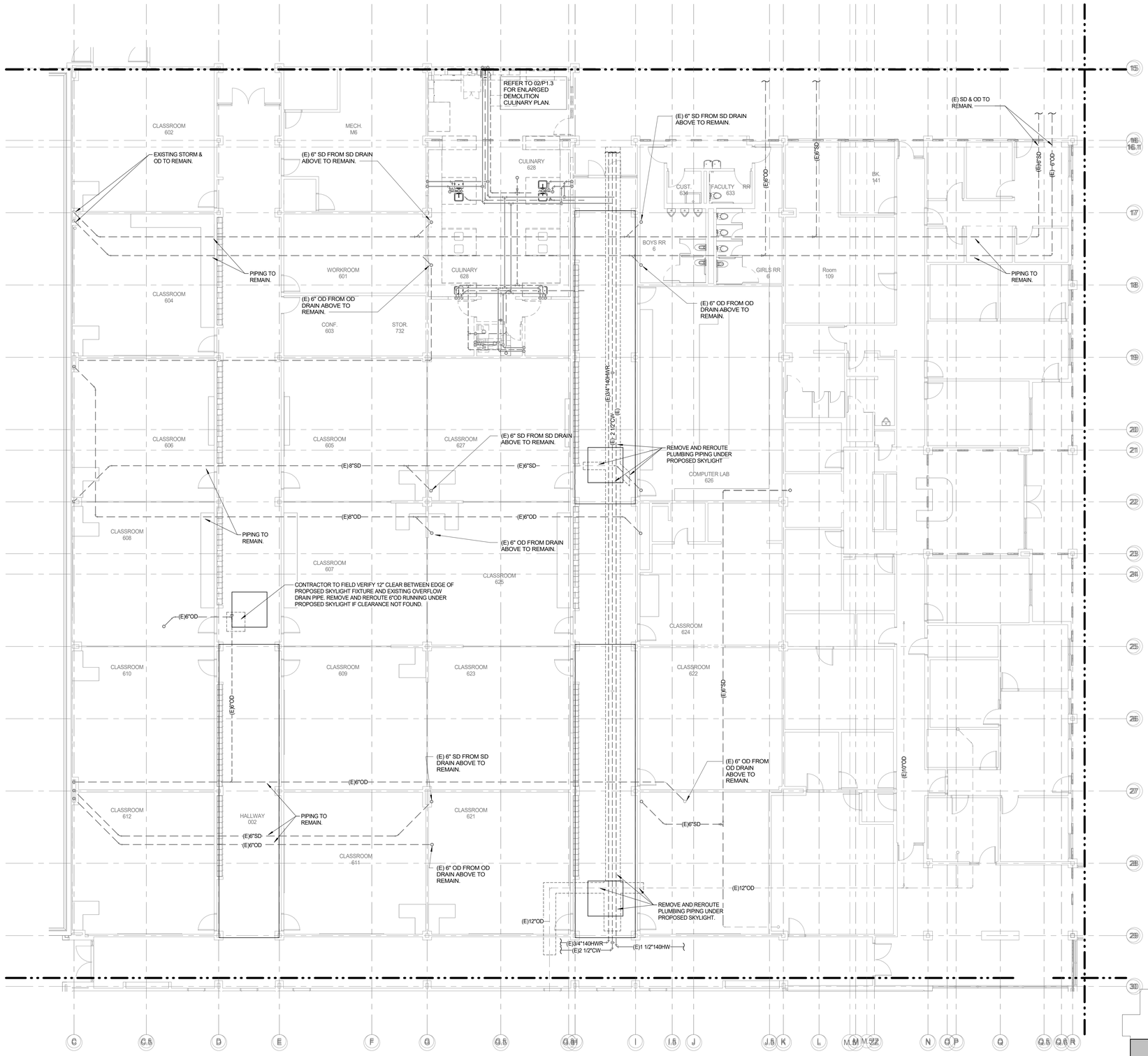
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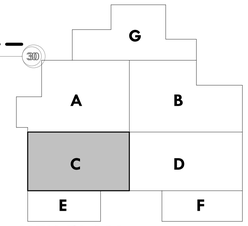
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P1.2

PLUMBING DEMOLITION FLOOR PLAN - AREA B



1 **PLUMBING DEMOLITION FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



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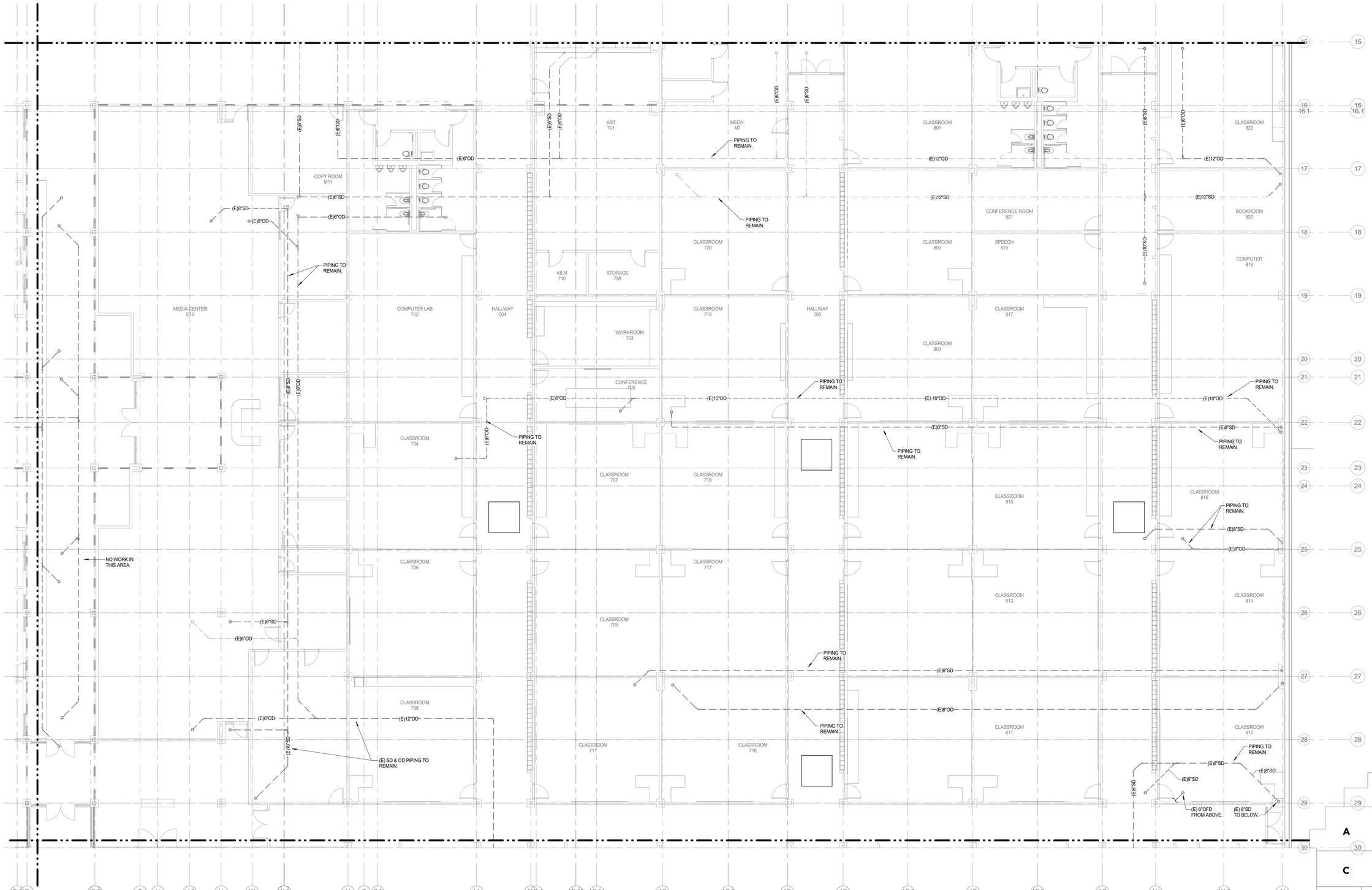
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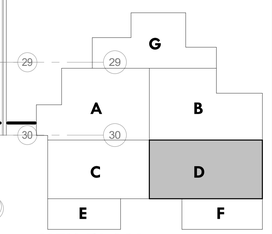
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RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

P1.3
PLUMBING DEMOLITION FLOOR PLAN - AREA C



1 **PLUMBING DEMOLITION FLOOR PLAN - AREA D**
Scale: 1/8" = 1'-0"



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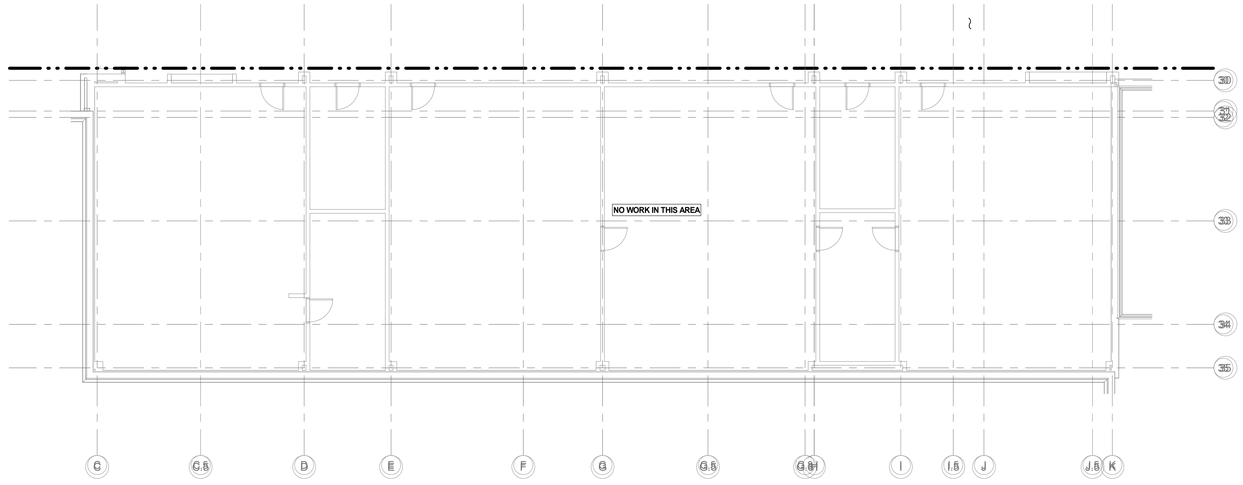
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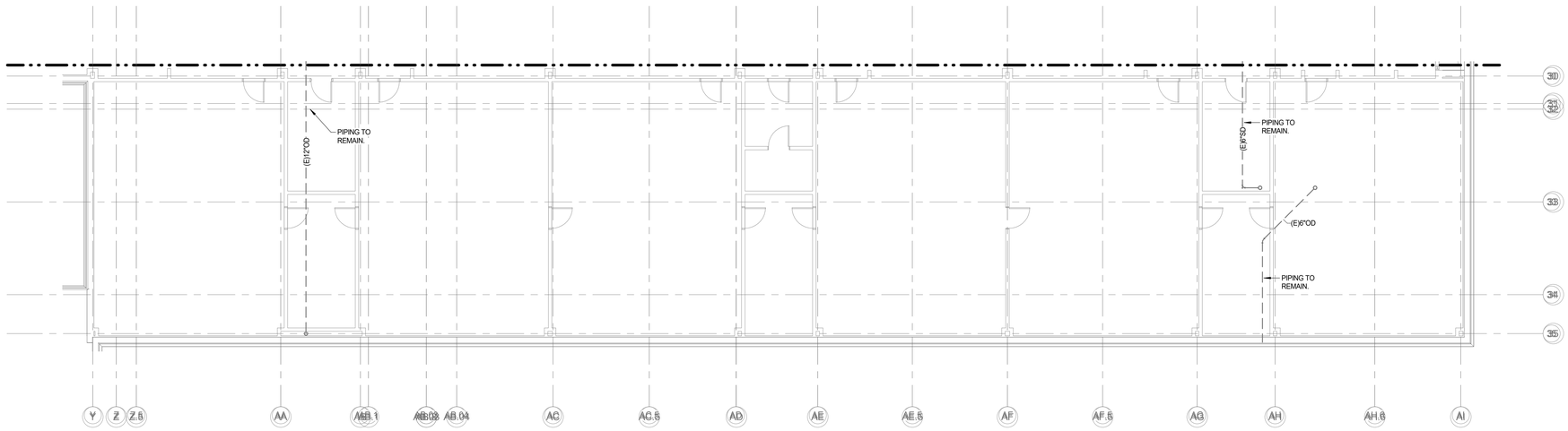
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RENOVATIONS

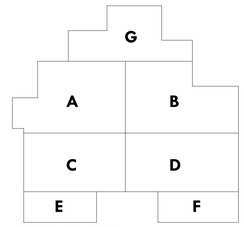
P1.4
PLUMBING DEMOLITION FLOOR PLAN - AREA D



N 1 **PLUMBING DEMOLITION FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



N 2 **PLUMBING DEMOLITION FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

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salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00



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BROWN REYNOLDS WATFORD ARCHITECTS
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RENOVATIONS

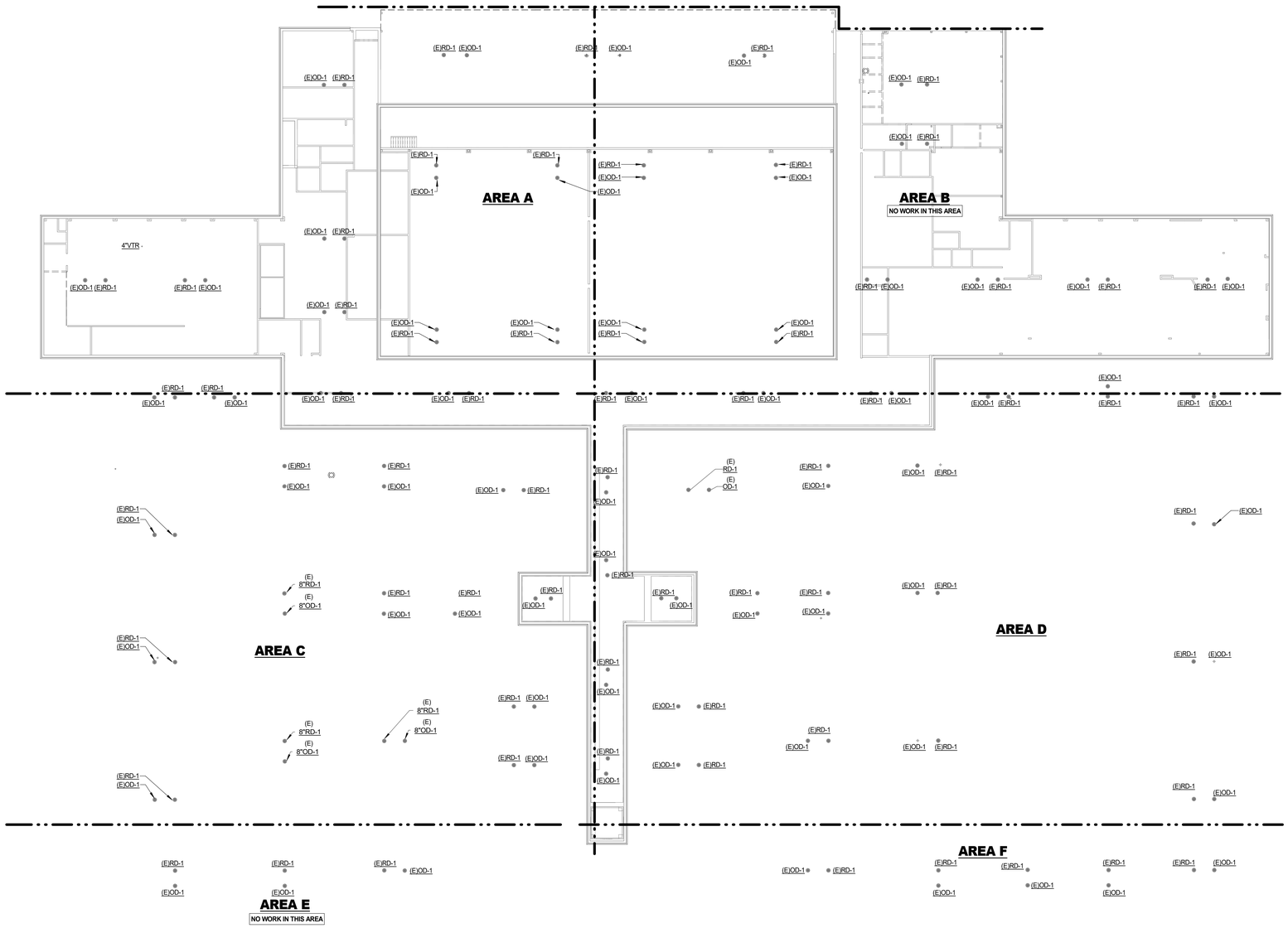
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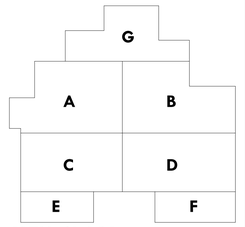
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P1.5

PLUMBING DEMOLITION FLOOR PLAN - AREA E & F



N 1 **PLUMBING DEMOLITION ROOF PLAN**
Scale: 1" = 20'-0"



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80219
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PROFESSIONAL ENGINEER
06.13.2025

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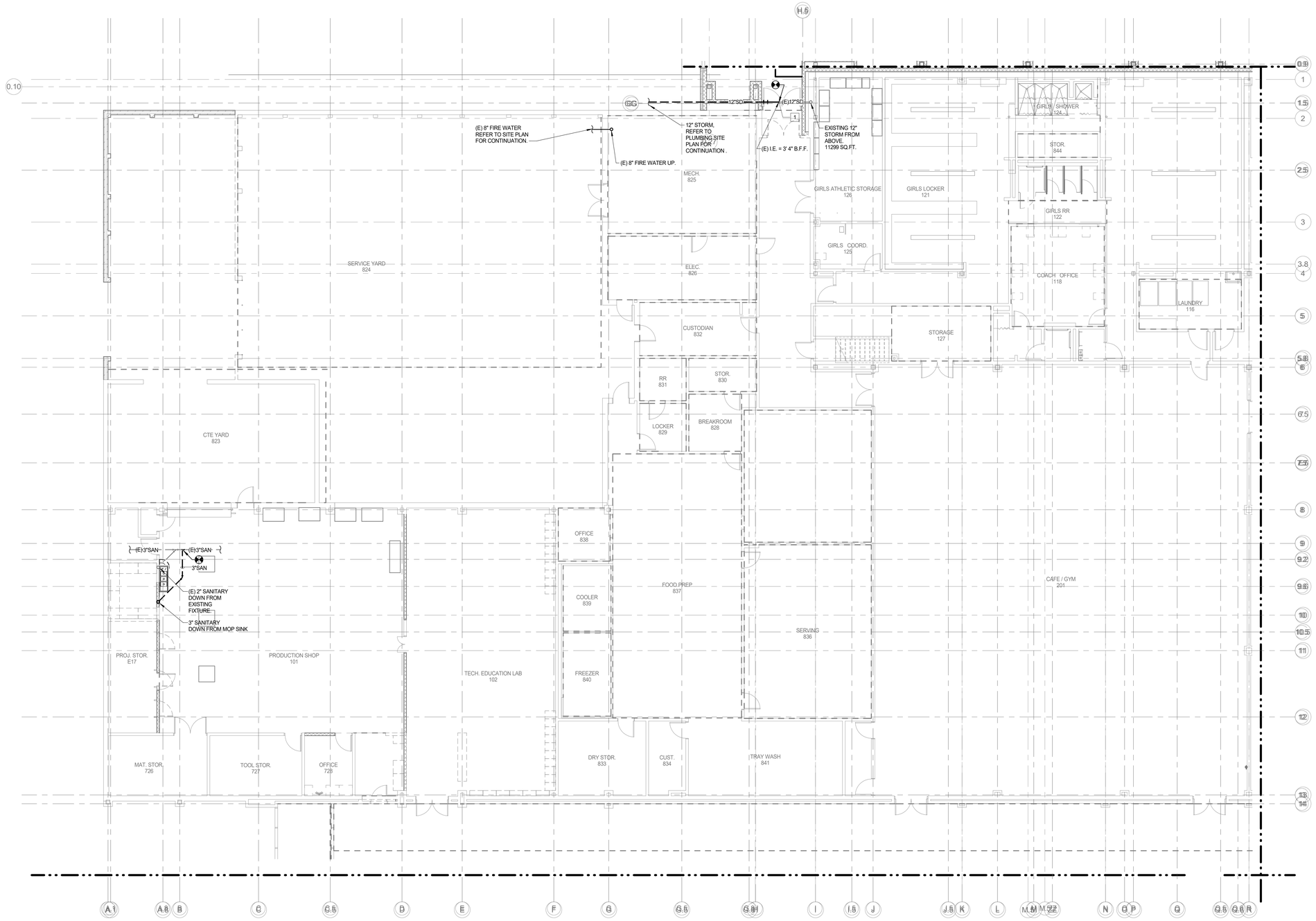
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RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

P1.6
PLUMBING DEMOLITION ROOF PLAN

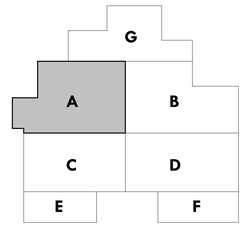
PLUMBING KEYED NOTES

1 CONNECT NEW STORM TO EXISTING STORM.



N

1 **PLUMBING UNDERFLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



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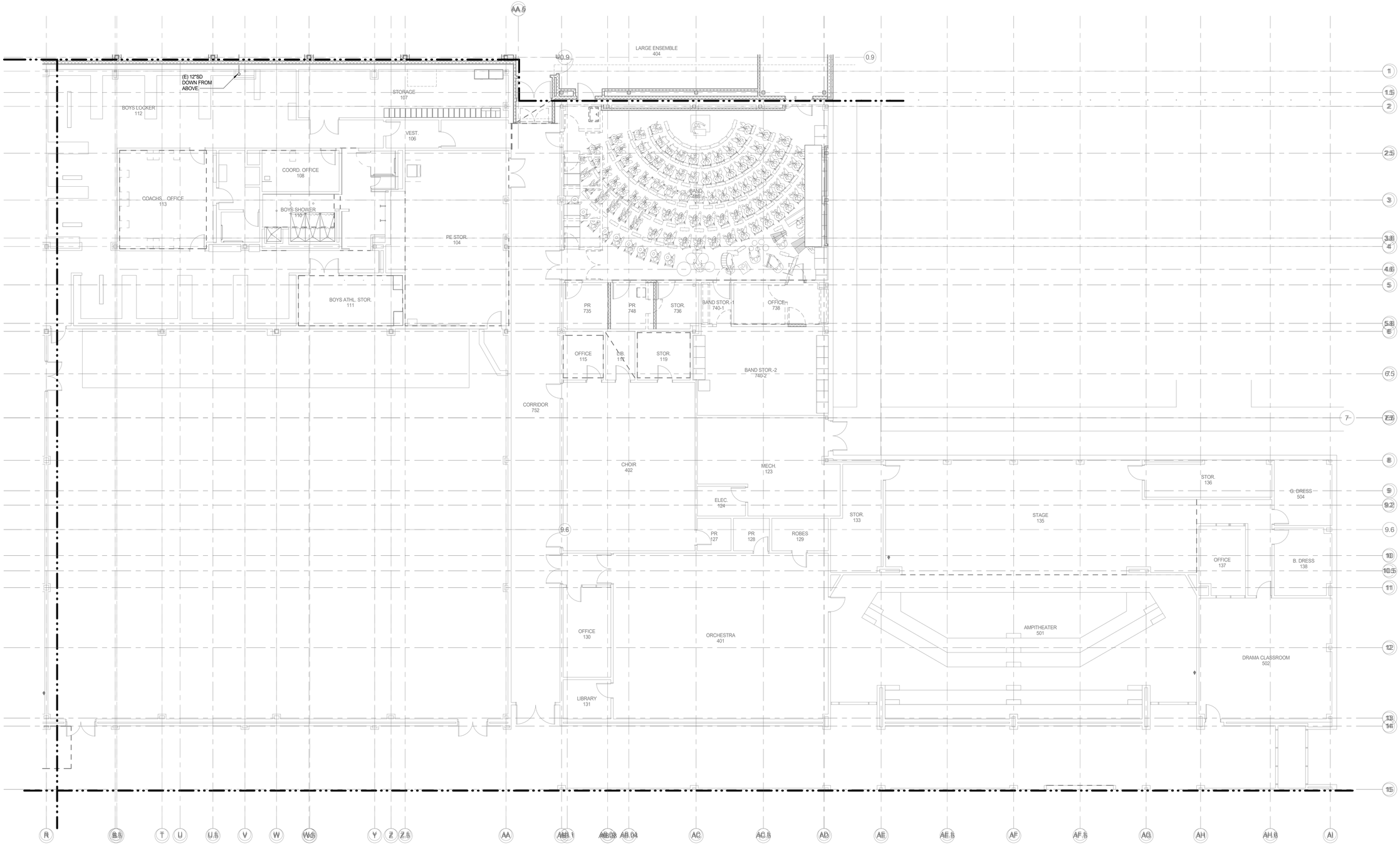
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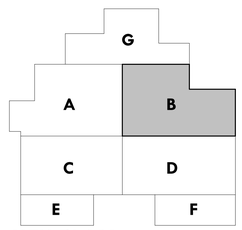
P2.1

PLUMBING UNDERFLOOR PLAN - AREA A



N

1 **PLUMBING UNDERFLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



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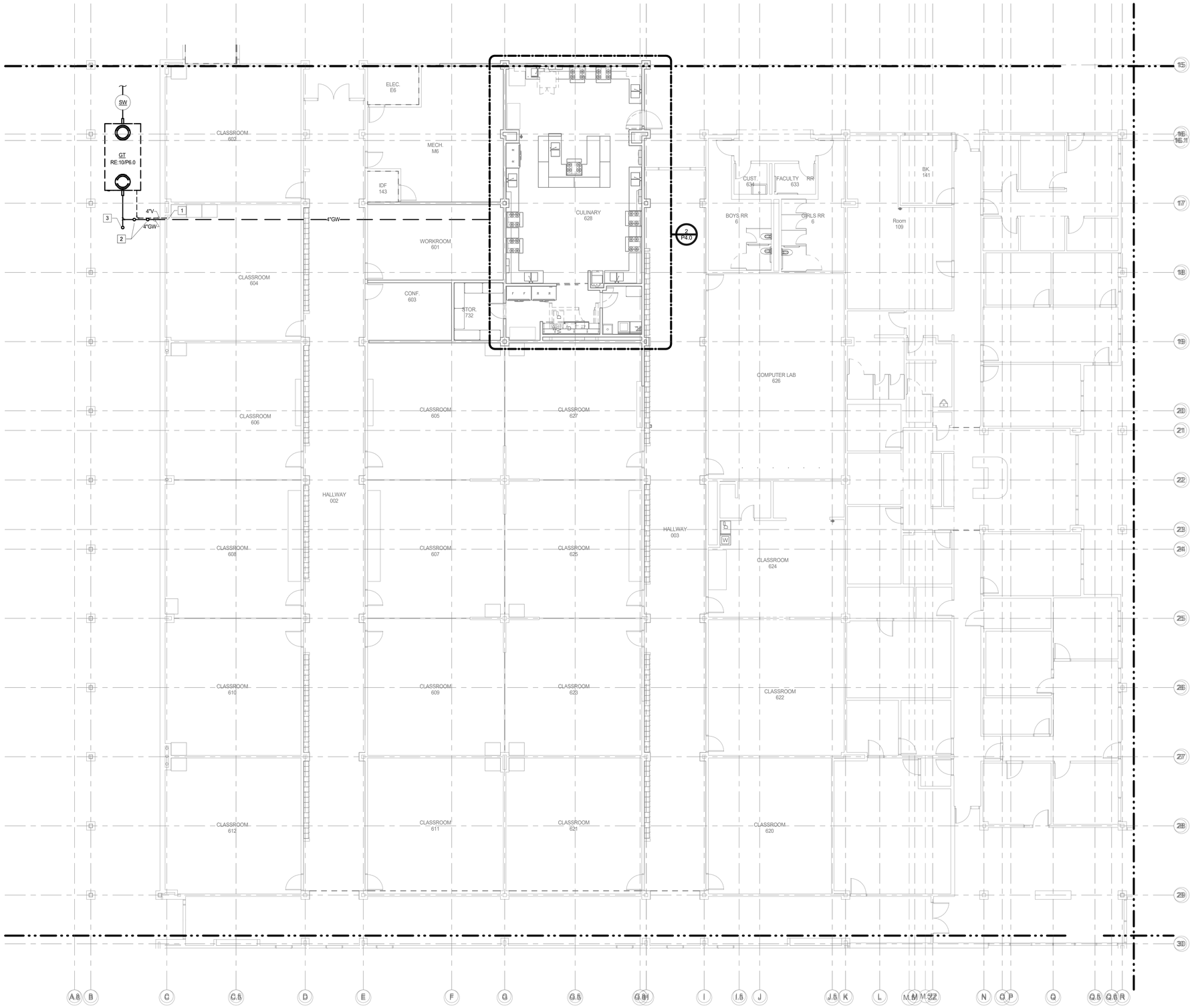
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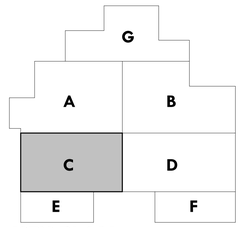
PLUMBING UNDERFLOOR PLAN - AREA B

PLUMBING KEYED NOTES

1 4" VENT UP.
2 4" GREASE WASTE FROM TWO-WAY CLEANOUT ABOVE.
3 4" GREASE WASTE FROM EXTERIOR CLEANOUT.



1 **PLUMBING UNDERFLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



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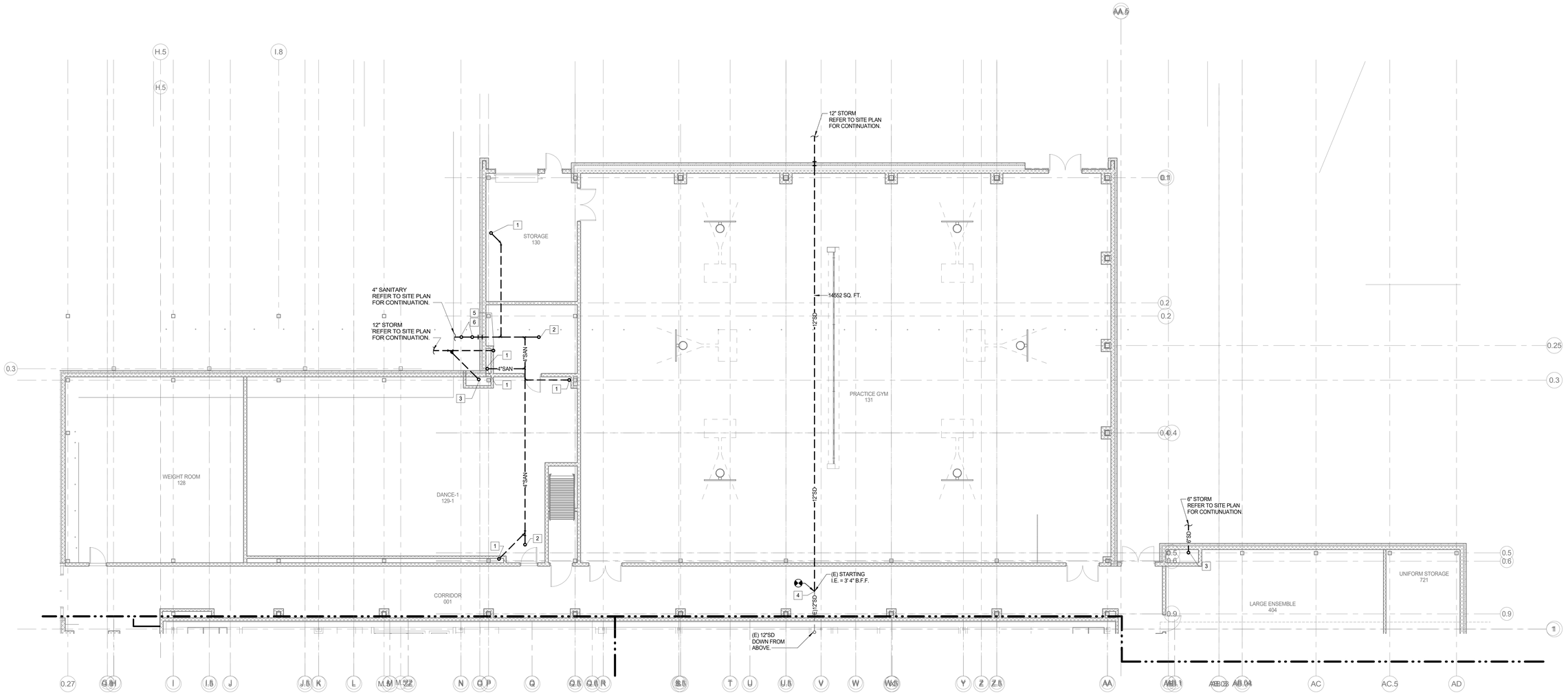
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RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

P2.3
PLUMBING UNDERFLOOR PLAN - AREA C

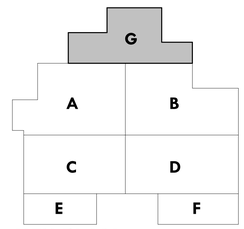
PLUMBING KEYED NOTES

1 4" SANITARY FROM ABOVE.
2 4" SANITARY FROM CLEANOUT ABOVE.
3 6" STORM FROM ABOVE.
4 CONNECT NEW STORM TO EXISTING STORM.
5 12" STORM FROM ABOVE.
6 4" SANITARY FROM TWO-WAY CLEANOUT ABOVE.



N

1 **PLUMBING UNDERFLOOR PLAN - AREA G**
Scale: 1/8" = 1'-0"



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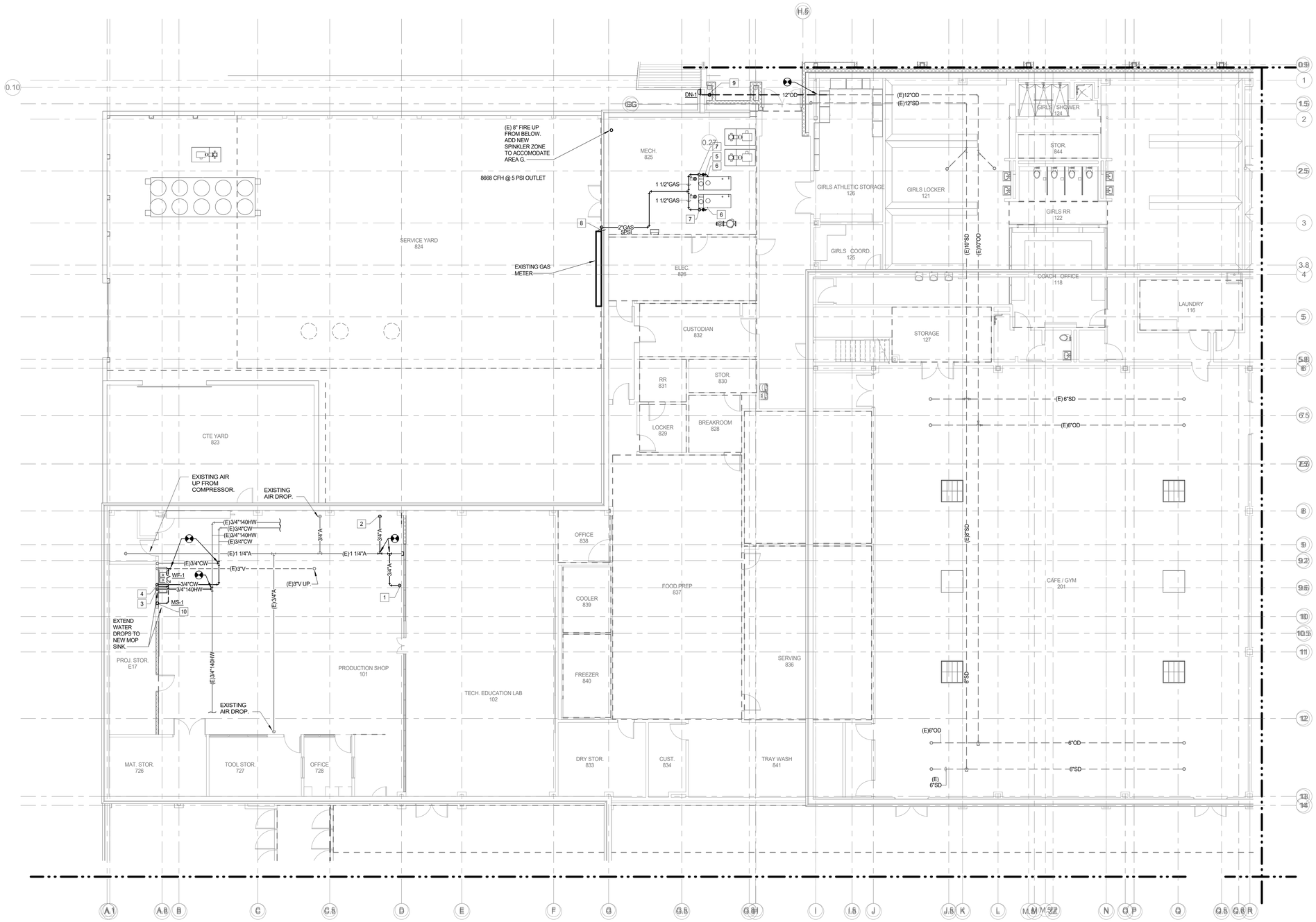
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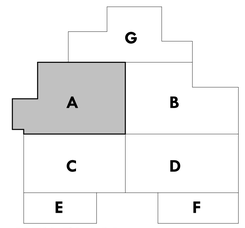
PLUMBING
UNDERFLOOR PLAN -
AREA G

PLUMBING KEYED NOTES

1 3/4" COMPRESSED AIR DOWN, BALL VALVE AT 60" AF.F.
2 3/4" COMPRESSED AIR DOWN.
3 3/4" CW AND HW DOWN.
4 2" SANITARY DOWN, 2" VENT UP.
5 PRESSURE REGULATOR FROM 5 PSI TO 8 OZ. 2,000 CFH.
6 CONNECT 2" GAS TO MECHANICAL BOILER.
7 1-1/2" GAS DOWN
8 MAKE 2" GAS CONNECTION TO EXISTING GAS DOWNSTREAM OF GAS METER. 4,000 CFH DEMAND.
9 12" STORM OVERFLOW DOWN TO DOWNSPOUT NOZZLE. REFER TO ARCHITECTURAL DRAWING FOR EXACT ELEVATION.
10 3" SANITARY DOWN, 2" VENT UP.



1 **PLUMBING FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



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80219
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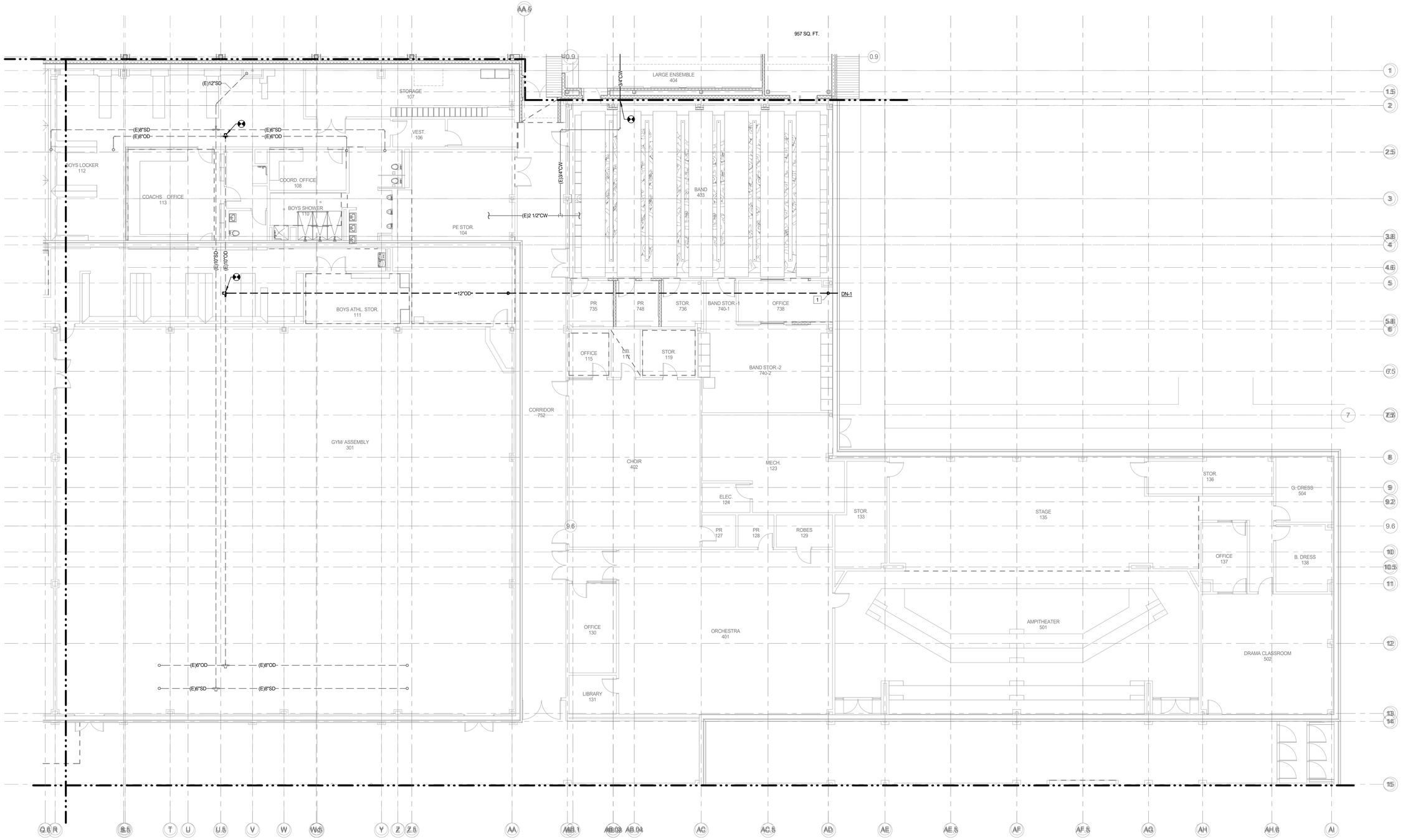
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HUMBLE ISD
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RENOVATIONS

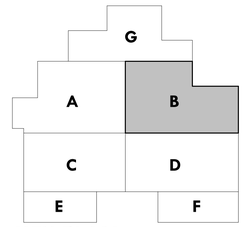
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P3.1

PLUMBING FLOOR PLAN - AREA A



1 **PLUMBING FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



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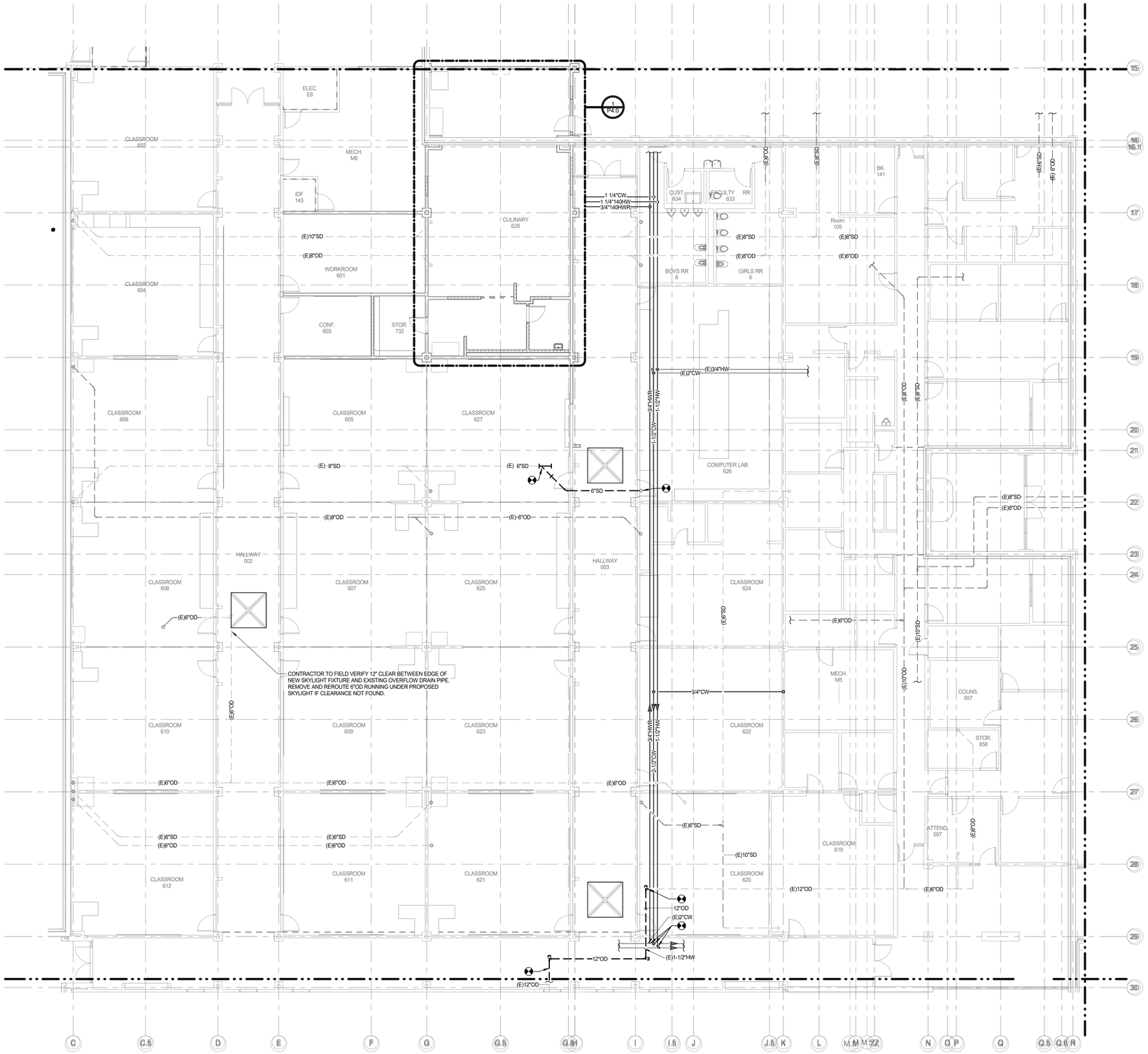
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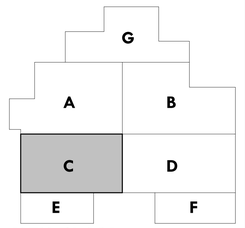
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P3.2
PLUMBING FLOOR PLAN
- AREA B



1 **PLUMBING FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



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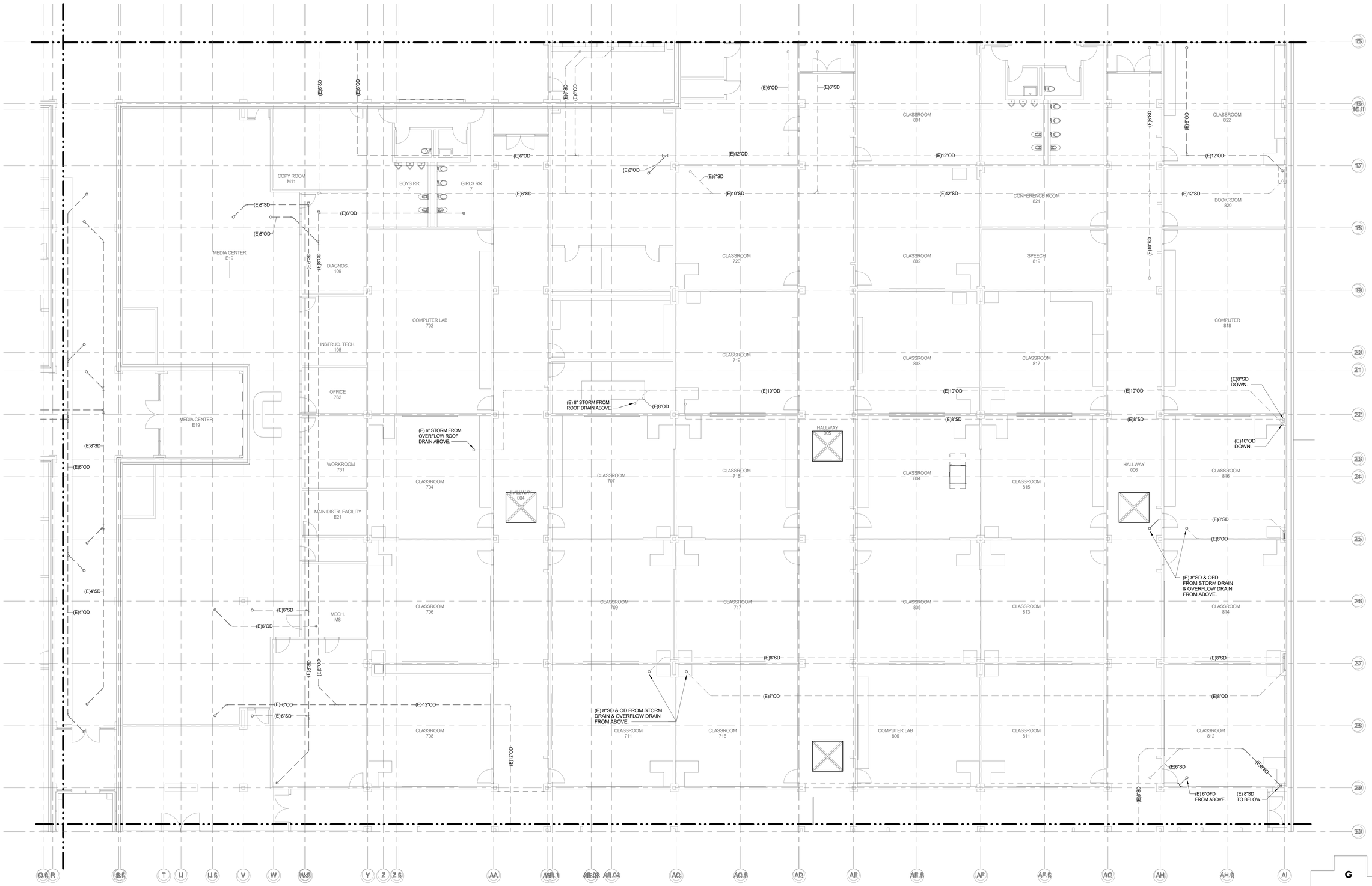
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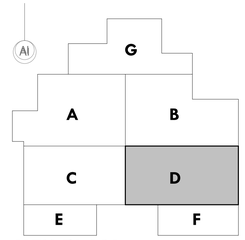
P3.3
PLUMBING FLOOR PLAN - AREA C



N

1 PLUMBING FLOOR PLAN - AREA D

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



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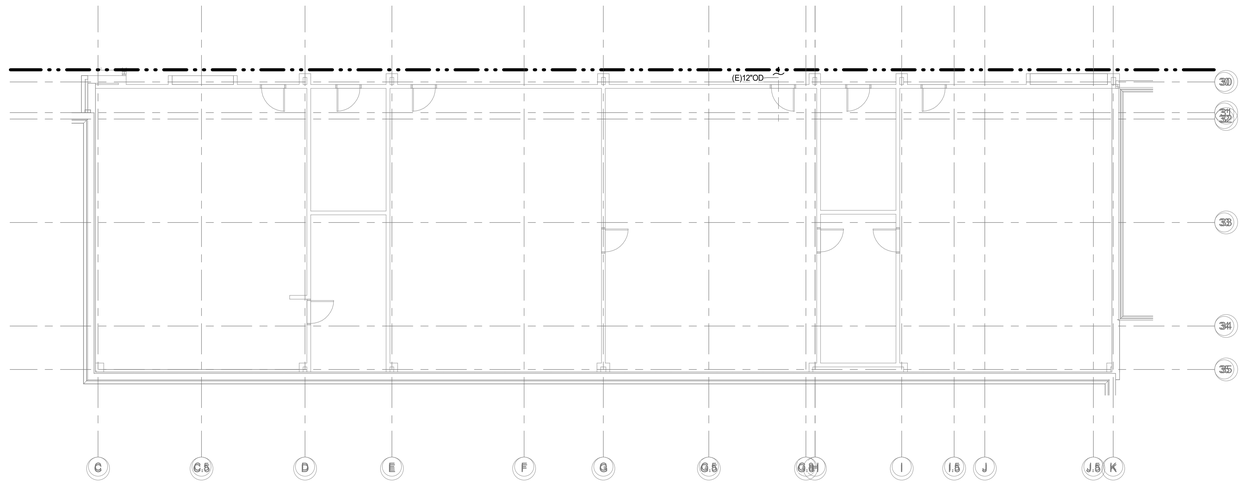
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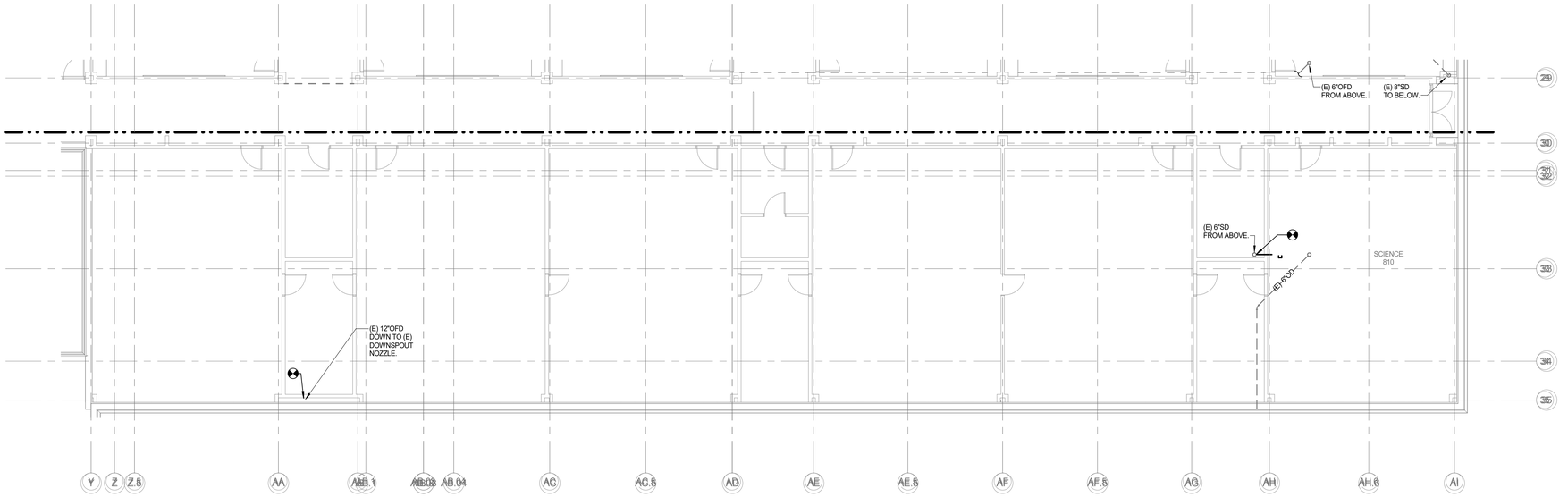
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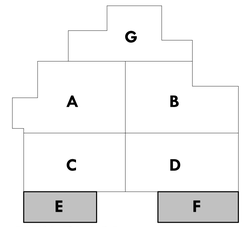
PLUMBING FLOOR PLAN - AREA D



N 1 **PLUMBING FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



N 2 **PLUMBING FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



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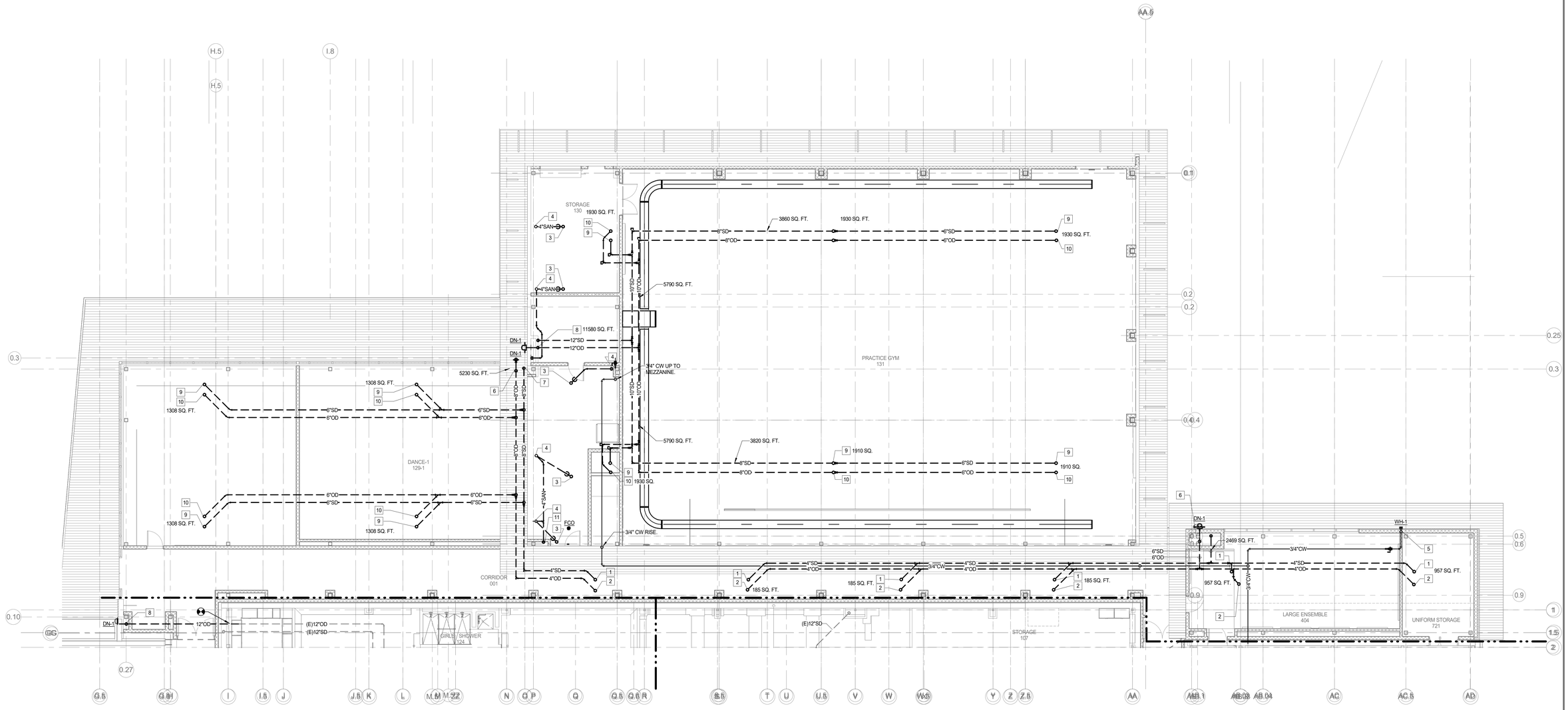
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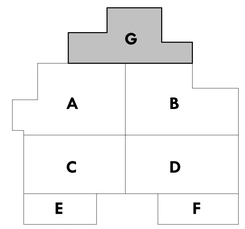
PLUMBING FLOOR PLAN
- AREA E & F

PLUMBING KEYED NOTES

1 4" STORM FROM ROOF DRAIN ABOVE.
2 4" STORM OVERFLOW FROM OVERFLOW DRAIN ABOVE.
3 4" SANITARY FROM FLOOR SINK ABOVE.
4 2" VENT UP.
5 3/4" CW DOWN TO SERVE PLUMBING FIXTURE/S.
6 6" STORM OVERFLOW DOWN TO DOWNSPOUT NOZZLE. REFER TO ARCHITECTURAL DRAWING FOR EXACT ELEVATION.
7 6" STORM DOWN.
8 12" STORM OVERFLOW DOWN TO DOWNSPOUT NOZZLE. REFER TO ARCHITECTURAL DRAWING FOR EXACT ELEVATION.
9 6" STORM FROM ROOF DRAIN ABOVE.
10 6" STORM OVERFLOW FROM OVERFLOW DRAIN ABOVE.
11 4" SANITARY DOWN.



1 **PLUMBING FLOOR PLAN - AREA G**
Scale: 1/8" = 1'-0"



KEY PLAN

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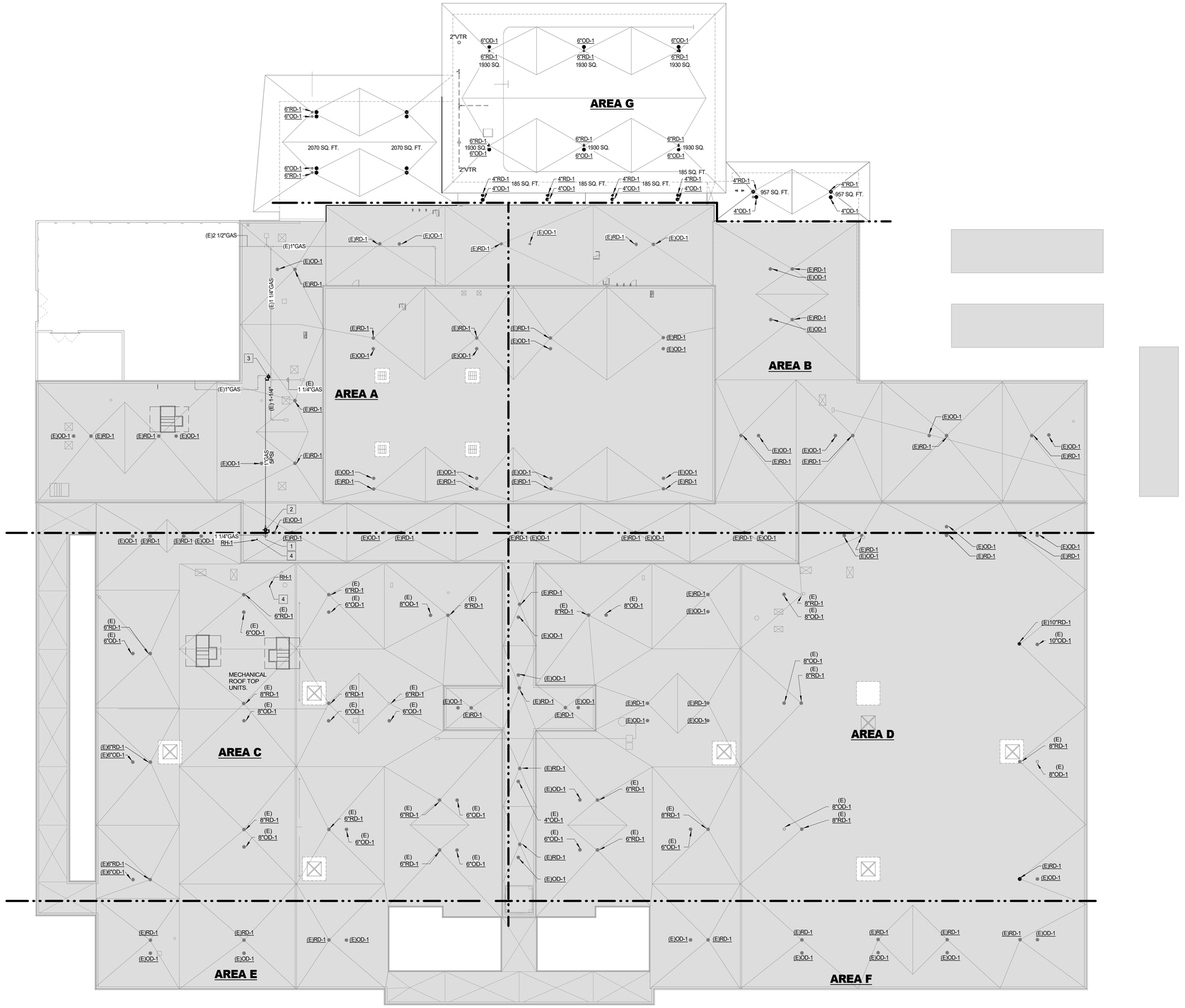
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P3.6

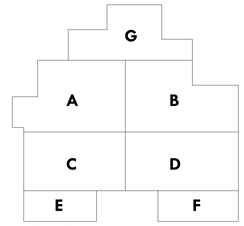
PLUMBING FLOOR PLAN - AREA G

PLUMBING KEYED NOTES

1 1-1/4" GAS DOWN
2 PRESSURE REGULATOR FROM 5 PSI TO 8 OZ. 1,120 CFH.
3 MAKE 1" CONNECTION TO EXISTING 1-1/4" GAS PIPE UP STREAM OF EXISTING REGULATOR ON 5 PSI SIDE.
4 3/4" CW FROM BELOW.



1 PLUMBING ROOF PLAN
Scale: 1" = 20'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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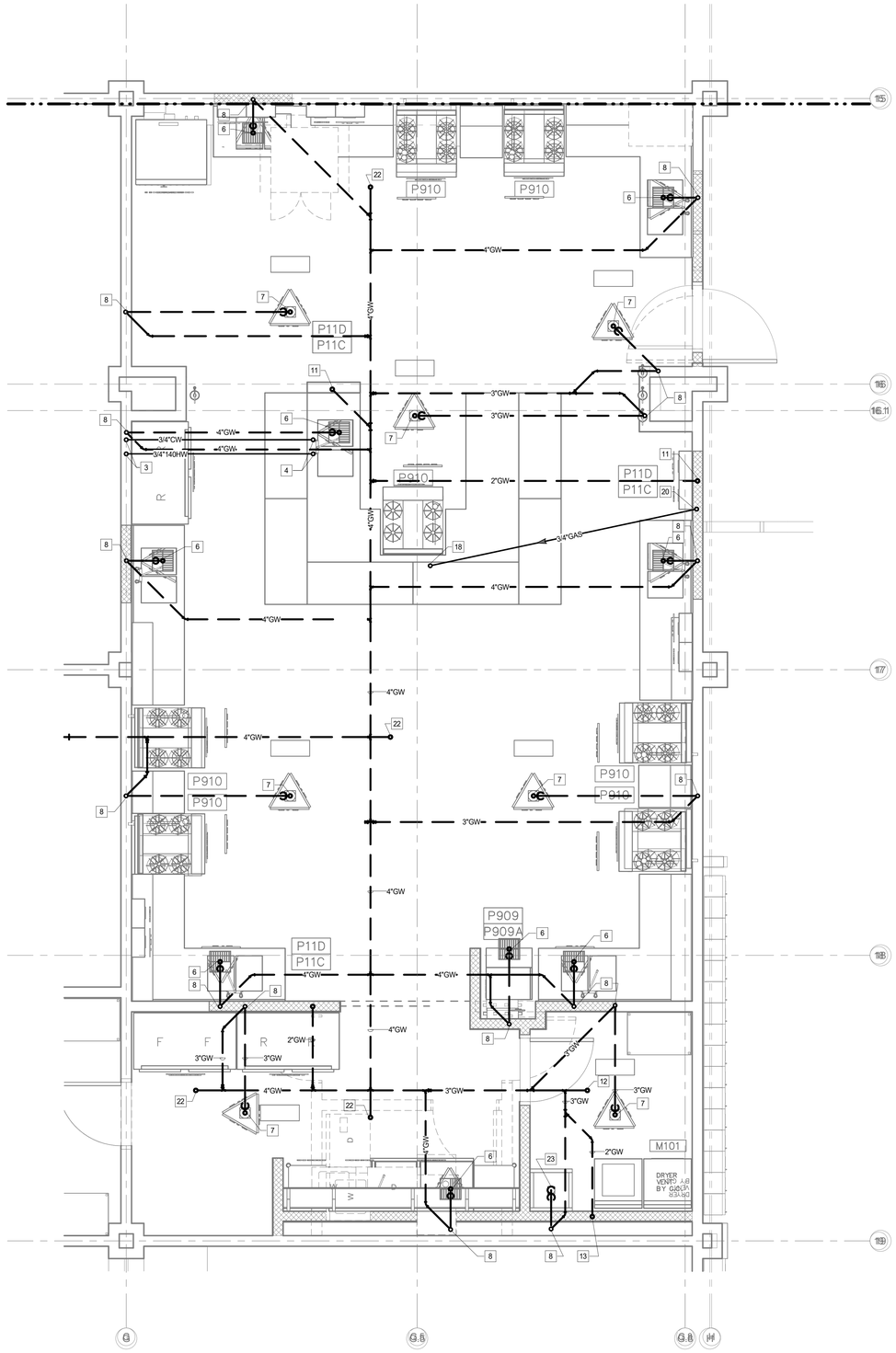
P3.7

PLUMBING ROOF PLAN

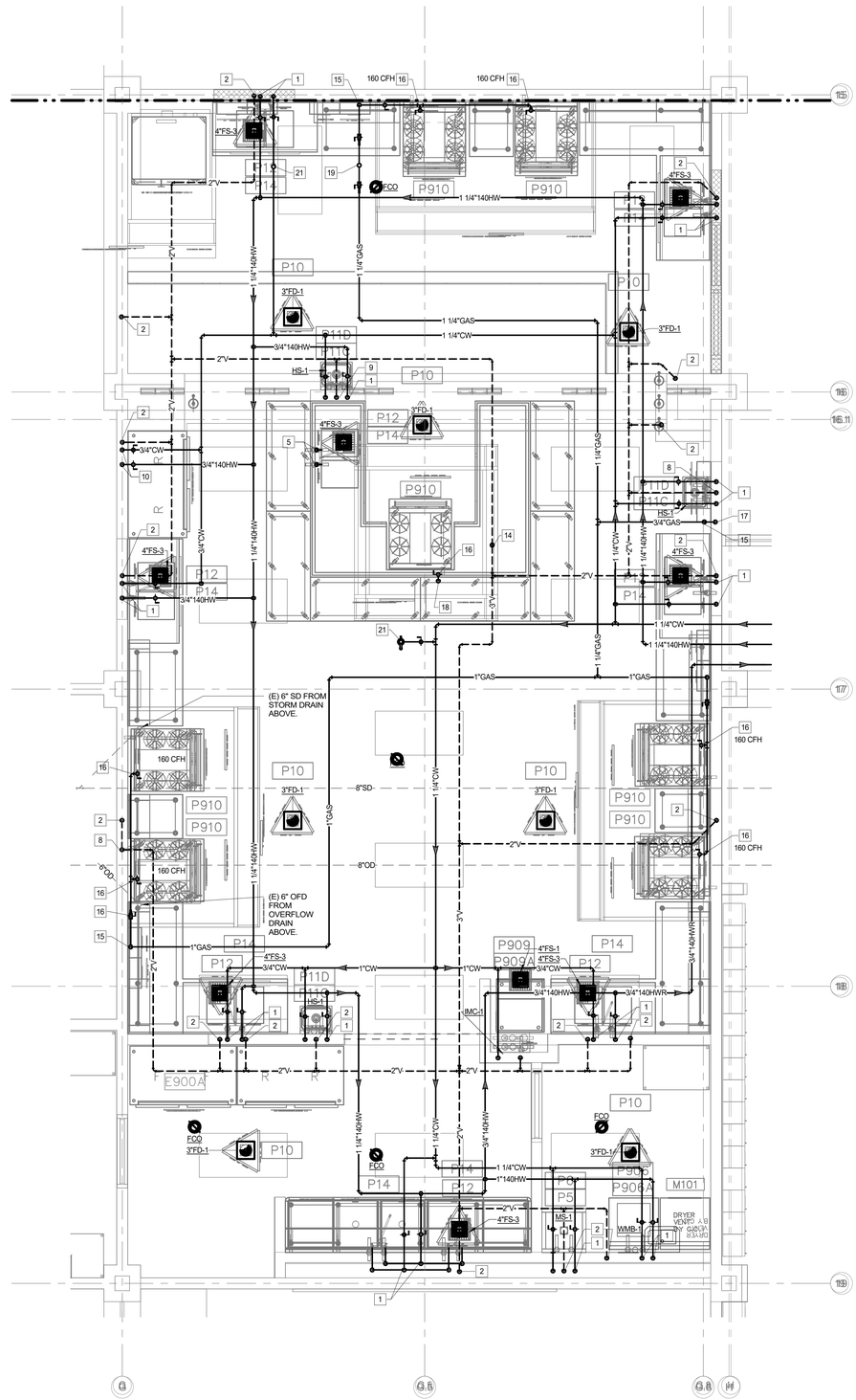
FOODSERVICE PLUMBING SCHEDULE						
FDP PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS
P5	3/4"	H & C WATER	JANITOR SINK	WALL	48"	JANITOR SINK BY PLUMBER
P6	4"	FLOOR DRAIN	JANITOR SINK	FLOOR	VERIFY	JANITOR SINK BY PLUMBER
P10	VERIFY	FLOOR DRAIN	GENERAL AREA DRAIN	FLOOR	VERIFY	LOCATE PER ENGINEER'S DRAWING
P11C	1/2"	H & C WATER	FAUCET	WALL	18"	FURNISHED & INSTALLED BY DIV. 22
P11D	1 1/2"	DIRECT DRAIN	HAND SINK	WALL	15"	FURNISHED & INSTALLED BY DIV. 22
P12	12"SQ.	FLOOR SINK	EQUIPMENT	FLOOR	0"	3/4 GRATE
P14	3/4"	H & C WATER	FAUCET	WALL	18"	BTC; S/S FLEX HOSE TO MIXING VALVE
P906	3/4"	H & C WATER	CLOTHES WASHER	WALL	48"	BTC; VALVE BOX
P906A	2"	INDIRECT DRAIN	CLOTHES WASHER	WALL	48"	VALVE BOX
P909	3/4"	COLD WATER	WATER/ ICE	WALL	60"	BTC
P909A	12" SQ.	FLOOR SINK	ICE MACHINE	FLOOR	0"	FULL GRATE
P910	3/4"	NATURAL GAS	RANGE	WALL	18"	BTC: 160 MBTU/HR

PLUMBING KEYED NOTES

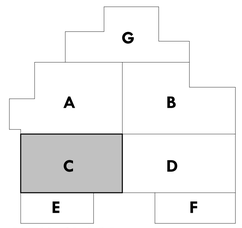
1 3/4" CW & HW DOWN TO SERVE PLUMBING FIXTURE/S.
2 2" VENT FROM BELOW.
3 3/4" CW AND HW FROM ABOVE.
4 3/4" CW AND HW UP.
5 3/4" CW AND HW FROM BELOW.
6 4" GREASE WASTE FROM FLOOR SINK ABOVE.
7 3" GREASE WASTE FROM FLOOR DRAIN ABOVE.
8 2" VENT UP.
9 2" GREASE WASTE DOWN, 2" VENT UP.
10 3/4" CW & HW DOWN TO BELOW SLAB.
11 2" GREASE WASTE FROM HAND SINK ABOVE.
12 3" GREASE WASTE FROM FLOOR CLEANOUT ABOVE.
13 2" GREASE WASTE FROM ABOVE.
14 4" VENT UP.
15 PROVIDE SHUTOFF VALVE AND ANSUL VALVE AT 60" A.F.F.
16 3/4" GAS TO SERVE RANGE.
17 3/4" GAS DOWN TO BELOW SLAB.
18 3/4" GAS FROM BELOW
19 1-1/4" GAS FROM FROM ABOVE
20 3/4" GAS FROM FROM ABOVE
21 3/4" CW UP.
22 4" GREASE WASTE FROM FLOOR CLEANOUT ABOVE.
23 3" GREASE WASTE FROM MOP SINK ABOVE.



2 PLUMBING UNDERFLOOR PLAN - AREA C - CULINARY
Scale: 3/8" = 1'-0"



1 PLUMBING FLOOR PLAN - AREA C - CULINARY
Scale: 3/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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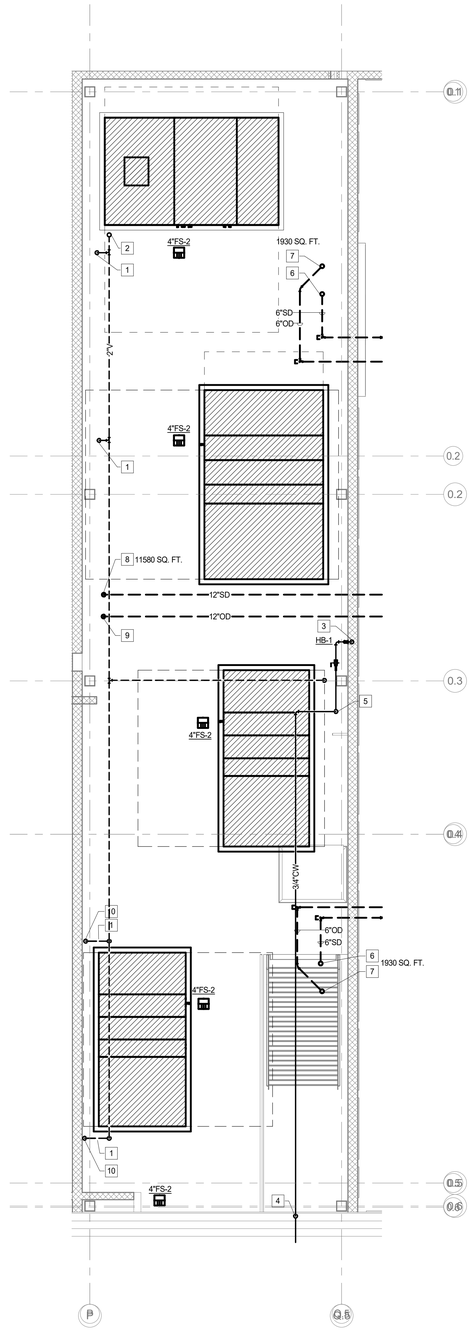
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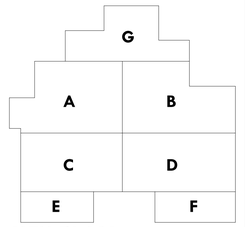
PLUMBING ENLARGED PLANS - CULINARY

PLUMBING KEYED NOTES

1 2" VENT FROM BELOW.
2 2" VENT UP TO 2" VTR.
3 3/4" CW DOWN TO SERVE PLUMBING FIXTURE/S.
4 3/4" CW FROM BELOW.
5 3/4" CW DOWN.
6 4" STORM FROM ROOF DRAIN ABOVE.
7 4" STORM OVERFLOW FROM OVERFLOW DRAIN ABOVE.
8 12" STORM DOWN.
9 12" STORM OVERFLOW DOWN TO DOWNSPOUT NOZZLE. REFER TO ARCHITECTURAL DRAWING FOR EXACT ELEVATION.
10 2" VENT UP.



1 **PLUMBING ENLARGED FLOOR PLAN - MEZZANINE 753**
Scale: 1/4" = 1'-0"



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salasobrien.com 281-664-1900
Houston
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4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

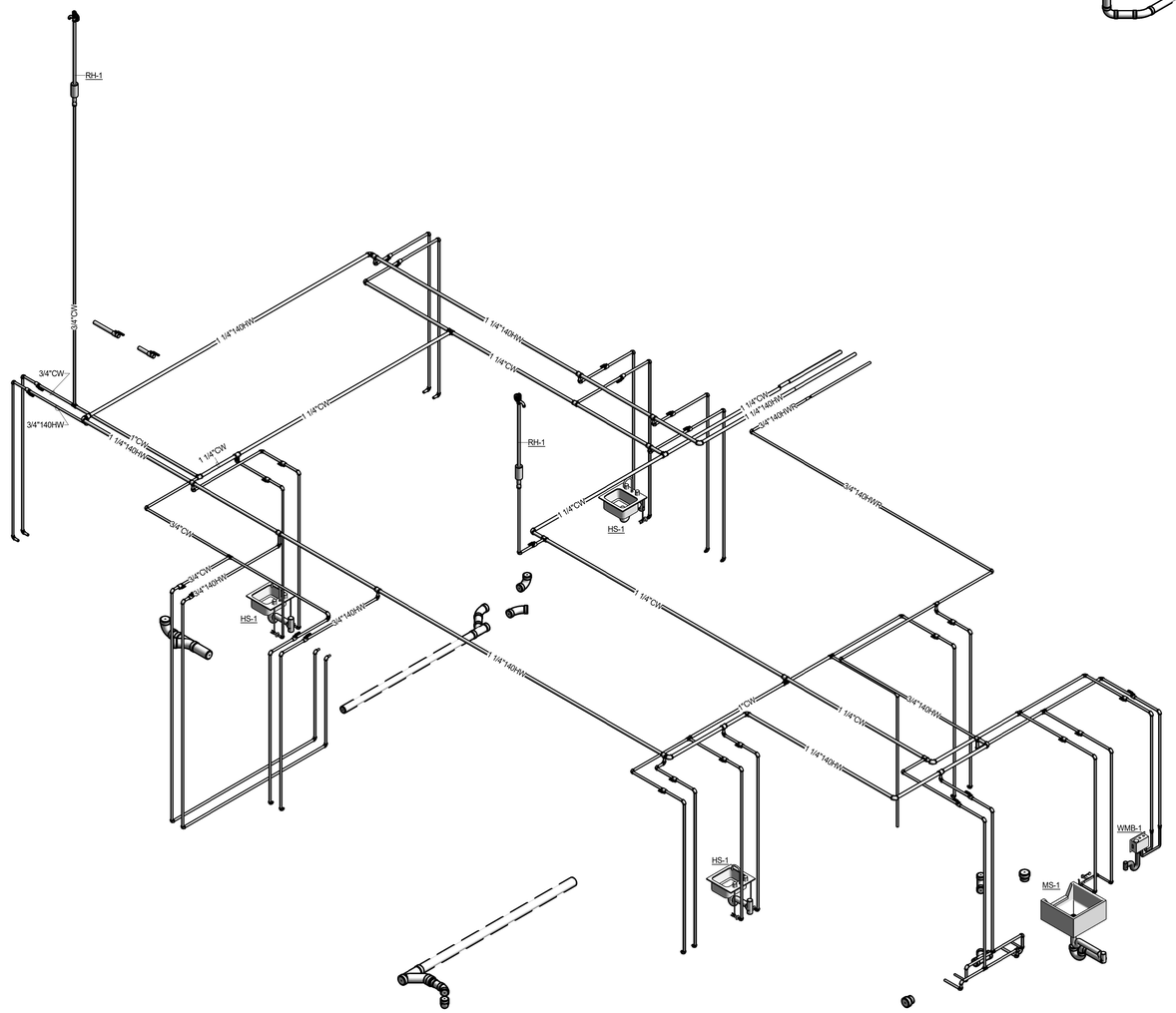
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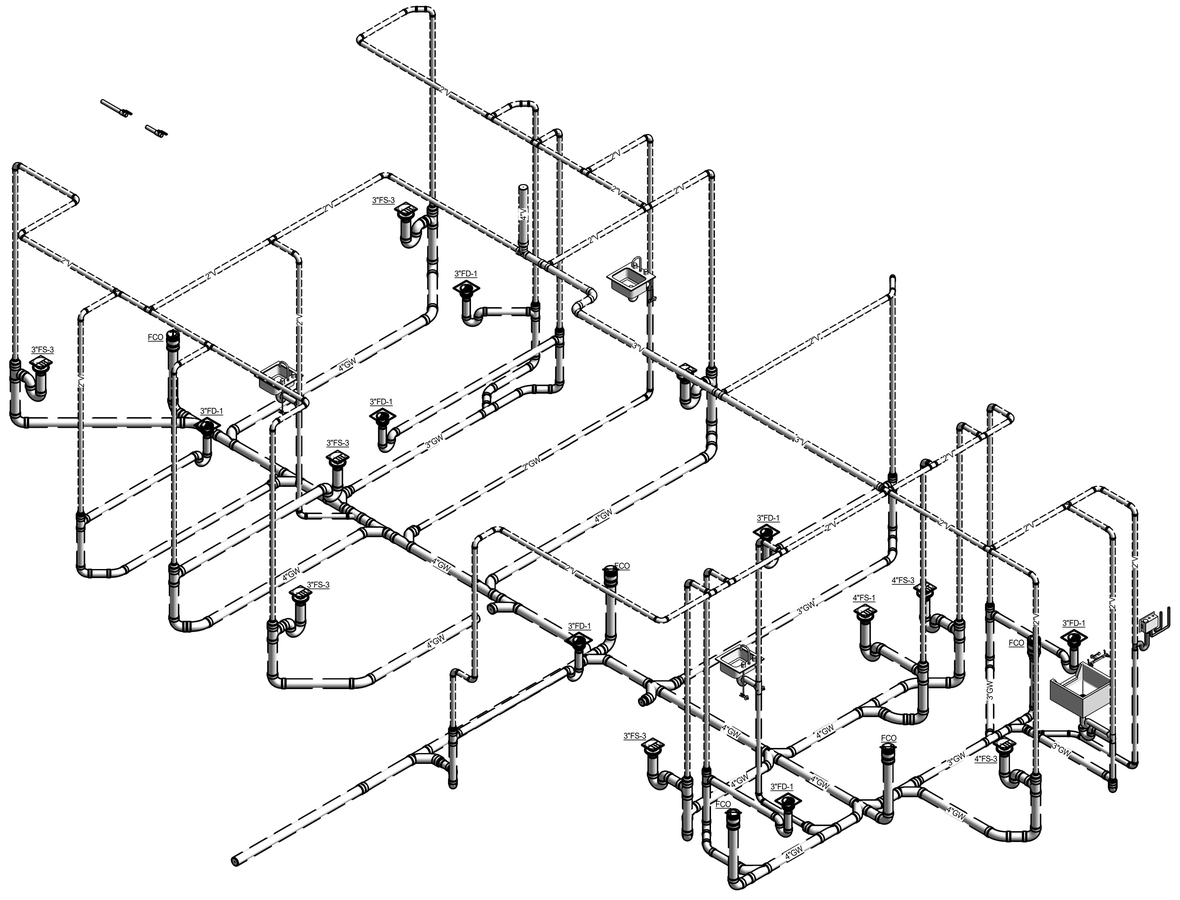
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS

P4.1
PLUMBING ENLARGED PLAN - MEZZANINE



2 **PLUMBING CULINARY RISER DIAGRAM - DOMESTIC WATER**
Scale:



1 **PLUMBING CULINARY RISER DIAGRAM - GREASE WASTE & VENT**
Scale:

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80219
LICENSED
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06.13.2025

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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E F
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salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
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P5.0
PLUMBING RISER DIAGRAM - CULINARY

PSAN21- XX/XX/XX

GREASE INTERCEPTOR SIZING (DFU METHOD)					
FIXTURE TYPE:	TRAP ARM SIZE	FIXTURE UNITS	QUANITY	CREDIT FACTOR	SUM
3 COMPARTMENT SINK - 2" ARM	2"	4	1	1.00	4
2 COMPARTMENT SINK - 1-1/2" ARM	1-1/2"	2	6	1.00	12
FLOOR SINK OR FLOOR DRAIN - 4"	4"	4	9	1.00	36
MOP SINK - 3"	3"	6	1	1.00	6
		TOTAL FIXTURE UNITS:			58
		MINIMUM GREASE TRAP CAPACITY (GALLONS)			1250

GREASE INTERCEPTOR SCHEDULE								
MODEL NO.	CAPACITY USGal	GREASE CAP. (LBS)	EMPTY WT (LBS)	LENGTH L	WIDTH W	HEIGHT H	INLET FL1	OUTLET FL2
GT-1250	1,250	2,900	14,650	9'-2"	5'-8"	6'-0"	4'-9"	4'-6"

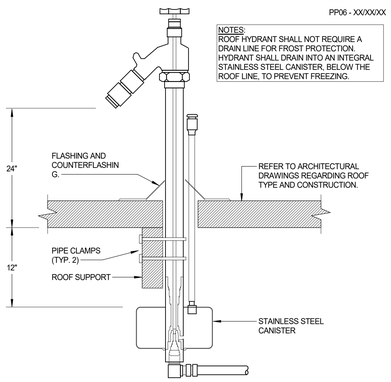
13 GREASE TRAP SIZING CALCULATION (GC-1)
SCALE: NONE

PSAN12- 05/16/24

NOTE:
1. MAKE CONNECTION FROM PVC BELOW SLAB TO CAST IRON ABOVE SLAB WITH HUSKY 4200 TRANSITION COUPLING.
2. THERE IS TO BE NO EXPOSED PVC ABOVE SLAB.

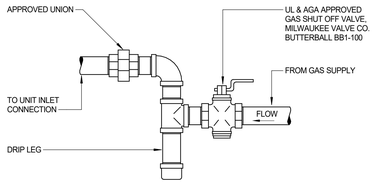
15 CAST IRON TO PVC TRANSITION
SCALE: NONE

PPO6 - XX/XX/XX



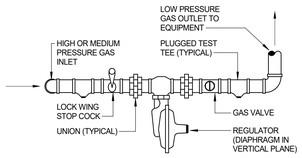
14 ROOF HYDRANT DETAIL
SCALE: NONE

PNG03 - XX/XX/XX



12 GAS CONNECTION
SCALE: NONE

PNG02 - XX/XX/XX



NOTE: REFERENCE DRAWINGS FOR PIPE SIZES.

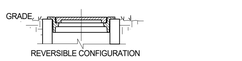
11 GAS PRESSURE REGULATOR PIPING
SCALE: NONE

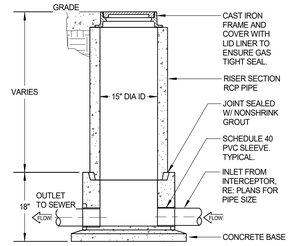
PSAN30 - XX/XX/XX

NOTES AND SPECIFICATIONS:

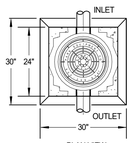
1. USE 15" T&G R.C.P. FOR INSTALLATION FOR INSTALLATION 6'-0" DEEP AND LESS.
2. USE 24" T&G R.C.P. FOR INSTALLATION GREATER THAN 6'-0" DEEP. (STANDARD RING AND M.H. COVER REQUIRED)
3. SAMPLING WELL MUST BE SET IN A CIRCULAR OR SQUARE CONCRETE PAD (1'-0" GREATER THAN OUTSIDE DIAMETER OF PIPE.)
4. LAWN INSTALLATION MUST BE 4" ABOVE FINISHED GRADE.
5. DRIVE & SIDEWALK INSTALLATION MUST BE BROUGHT TO FINISHED GRADE.
6. CONCRETE SHALL BE CLASS 1 WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT SHALL BE OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
7. CAST IRON FRAMES AND GRATES SHALL BE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30, HEAVY DUTY AASHTO H-20. INCLUDE GAS TIGHT LIDS

MANUFACTURER/ MODEL
PARK EQUIPMENT SWB-15





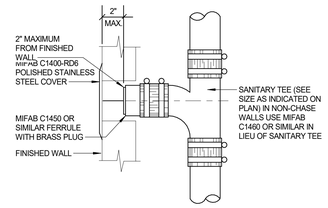
SIDE VIEW



PLAN VIEW

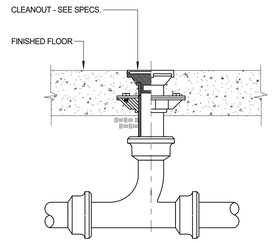
9 SAMPLE WELL
SCALE: NONE

PSAN02- XX/XX/XX



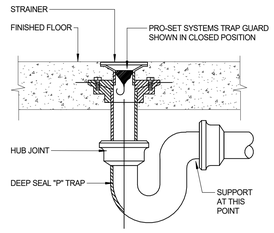
8 WALL CLEANOUT
SCALE: NONE

PSAN01- XX/XX/XX



4 FLOOR CLEANOUT
SCALE: NONE

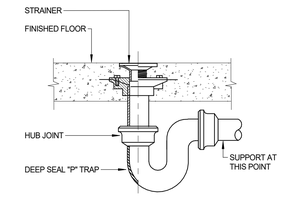
PSAN10- XX/XX/XX



NOTES:
1. TRAP GUARD SHALL BE FACTORY FITTED TO MATCH EACH FLOOR DRAIN (AND/FLOOR SINK) BY SIZE, MODEL, AND MANUFACTURER.
2. CONTACT LOCAL REP OR MANUFACTURER FOR CORRECT MODEL NUMBER.
3. FLOOR SINK TRAP GUARD INSTALLATION IS SIMILAR.
4. INSTALLATION OF TRAP GUARD TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. INSERT TRAP GUARD ONLY AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS TITE SEAL. FOR DRAIN RODDING AFTER INSTALLATION, INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

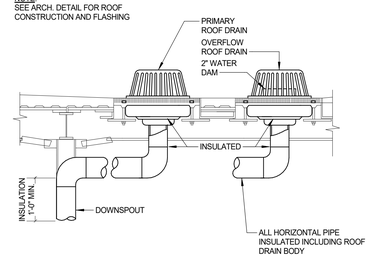
7 TRAP SEAL PROTECTION
SCALE: NONE

PSAN07- XX/XX/XX



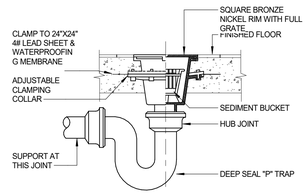
3 FLOOR DRAIN
SCALE: NONE

PST02 - 10/29/20

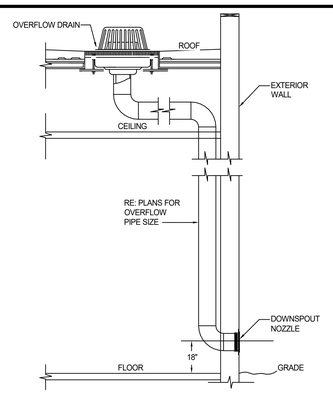


6 STORM DRAIN INSULATION
SCALE: NONE

PSAN08- XX/XX/XX

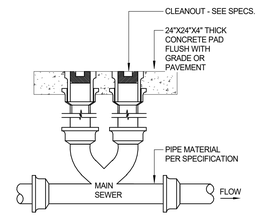


2 FLOOR SINK
SCALE: NONE



5 DOWNSPOUT NOZZLE
SCALE: NONE

PSAN05- XX/XX/XX



1 TWO-WAY EXTERIOR CLEANOUT
SCALE: NONE

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P6.0

PLUMBING DETAILS

FIRE SPRINKLER SYSTEM NOTES

A. EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED IN FULL OPERATING ORDER FOR ENTIRE BUILDING AT ALL TIMES. LICENSED SPRINKLER ENGINEER OR LICENSED SPRINKLER CONTRACTOR, TO PROVIDE DRAWINGS AND HYDRAULIC CALCULATIONS FOR CHANGES TO EXISTING SYSTEM AND TO COMPLY WITH NEW SPACE LAYOUT, NFPA 13, ALL STATE AND LOCAL REQUIRMENTS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

B. REFER TO SPECIFICATIONS FOR PIPE MATERIALS.

GAS EQUIPMENT SCHEDULE

EQUIPMENT NUMBER	DESCRIPTION	BTU PER HOUR LOAD	TOTAL BTU PER HOUR	TOTAL CFH
RANGE (7)	RANGE @ 160,000 BTU EACH	1,120,000 BTUH	1,120,000 BTUH	1,120 CFH
B-1	HYDRONIC BOILER	2,000,000 BTUH	2,000,000 BTUH	2000 CFH
B-2	HYDRONIC BOILER	2,000,000 BTUH	2,000,000 BTUH	2000 CFH
TOTALS:			5,120,000 BTUH	5,120 CFH

PLUMBING FIXTURE SCHEDULE

TYPE: IMC-1
DESCRIPTION: ICE MACHINE CONNECTION, WATER SUPPLY VALVED AT WALL. PROVIDE DOUBLE CHECK VALVE TYPE BACKFLOW PREVENTER AND WATER FILTER. GUY GRAY BIM875 (LEAD FREE). WATTS 1/2" 007-S BACKFLOW PREVENTER AND AQUA-PURE #CE 140-S FILTER. ROUTE BACKFLOW PREVENTER DISCHARGE TO FLOOR SINK SERVING ICE MACHINE.
ROUGH-IN: 3/4" COLD WATER. COORDINATE ROUGH-IN LOCATION/HEIGHT, FINAL CONNECTION WITH EQUIPMENT BEING INSTALLED AND WITH ARCHITECTURAL/CASEWORK DRAWINGS.

TYPE: WF-1 (T.A.S. COMPLIANT)
DESCRIPTION: HAND WASH FOUNTAIN, OFF-FLOOR WALL MOUNTED, SEMI-CIRCULAR, FOUR STATION, 38" L X 32" W X 4-1/2" DEEP. FACTORY PRE-ASSEMBLED WITH INDIVIDUAL SECTIONAL CONTROL BY PUSH BUTTON ACTIVATED METERING NON-HOLD OPEN AIR CONTROL VALVES. TIMING CYCLE TO BE FIELD SET PER OWNER'S INSTRUCTIONS. BOWL INTEGRAL BACKSPLASH, SPRAYHEAD, HOUSING, AND ACCESS COVER TO BE OF HEAVY GAUGE TYPE 304 STAINLESS STEEL CONSTRUCTION. SPRAYHEAD COLUMN TO BE BRACED TO BACKSPLASH. VANDAL RESISTANT SPRAY NOZZLES WITH 0.5 GPM FLOW CONTROLS. COPPER TUBE RISERS FROM OPERATING VALVES TO SPRAY NOZZLES. INCLUDE HEAVY DUTY S-CLIPS FOR ANCHORING BACKSPLASH AND HOUSING TO WALL. ACORN 3424-ES-ADA-1-H-CB-CR-ST-MXT.
P-TRAP: 1-1/2" 17 GAUGE CHROME PLATED CAST BRASS TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE 8912.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT & COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIRMENTS AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

TYPE: MS-1
DESCRIPTION: MOP SINK BASIN, 36" X 24" X 12" HIGH RECTANGULAR TYPE, PRECAST TERRAZZO WITH 6" DROPPED FRONT, STAINLESS STEEL THRESHOLD CAP ON ALL SIDES, AND DOUBLE STAINLESS STEEL WALL GUARDS. STERN-WILLIAMS "HILOW" #HL-2110-BP
FAUCET: (2) CHROME PLATED BRASS WALL MOUNTED FITTING WITH CHECK IN STOPS, ADJUSTABLE SUPPLY ARMS, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE, 2-1/2" INDEXED LEVER HANDLES ON 8" CENTERS. QUARTER TURN CERAMIC DISC CARTRIDGES, 3/4" MALE HOSE THREAD OUTLET. CHICAGO #445-897-CP-XK. PROVIDE 2 FAUCETS, ONE SHALL SERVE THE MOP SINK AND ONE SHALL BE MOUNTED NEXT TO THE MOP SINK TO SERVE THE CHEMICAL DISPENSERS. COORDINATE LOCATION OF SECOND FAUCET WITH OWNER AND ARCHITECTURAL DRAWINGS.
ROUGH-IN: 3" WASTE, 2" VENT, 1/2" HOT AND COLD WATER

TYPE: HB-1 - COLD WATER
DESCRIPTION: HOSE BIBB. EXPOSED TYPE, MILD CLIMATE, WALL-MOUNTED FAUCET WITH 3/4" F.P.T. INLET, 3/4" MALE HOSE THREAD OUTLET AND SELF-DRAINING ANTI-SIPHON VACUUM BREAKER. CHROME PLATED BRASS FINISH WITH REMOVABLE TEE HANDLE. CHICAGO 952-CP.
ROUGH-IN: 3/4" COLD WATER. INSTALL WITH OUTLET AT 18" A.F.F. OR AS DIRECTED BY ARCHITECT/OWNER.

TYPE: RVB-1
DESCRIPTION: RECESSED VALVE BOX, 7" X 7", 18 GAUGE STEEL WITH WHITE POWDER COAT FINISH, 1/2" THREADED CONNECTION DOMESTIC VALVE. PROVIDE FILTER WHEN MAKING FINAL CONNECTION. GUY GRAY BIM-875 WITH AQUA-PURE AP717 FILTER.
ROUGH-IN: 1/2" COLD WATER

TYPE: WMB-1
DESCRIPTION: WASHING MACHINE DRAIN BOX, 20 GAUGE STEEL BOX WITH WHITE POWDER COAT FINISH, MALE IRON PIPE WATER SUPPLY CONNECTIONS AND DRAIN FITTING. PROVIDE HAMMER ARRESTOR AT BOTH HOT AND COLD WATER HOSE THREADS. GUY GRAY T-200 (36" - 42" AFF).
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER

TYPE: WH-1
DESCRIPTION: WALL HYDRANT IN S.S. BOX, 3/4" NON FREEZE, HALF TURN CERAMIC DISC CARTRIDGE, STAINLESS STEEL FINISH WITH ANTI SIPHON VACUUM BREAKER AND LOOSE TEE KEY. INSTALL WITH BOTTOM OF HYDRANT 18" A.F.F. WADE 8601-MT-175.
ROUGH-IN: 3/4" COLD WATER

TYPE: TG-1
SERVICE: TRAP GUARD FOR FLOOR DRAINS AND FLOOR SINKS
DESCRIPTION: INSTALL PROSET TRAP GUARDS AT ALL FLOOR DRAINS AND FLOOR SINKS FOR TRAP SEAL PROTECTION. SERIES TO MATCH DRAIN AND PIPING TYPE.

TYPE: FD-1
SERVICE: GENERAL USE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY, ADJUSTABLE 6" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET. WADE 1100-MR6.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL DRAWINGS / FLOOR CONSTRUCTION.

TYPE: FD-2
SERVICE: KITCHEN REFRIGERATION EQUIPMENT CONDENSATE
DESCRIPTION: FLOOR DRAIN, CAST IRON BODY WITH A.R.E., ADJUSTABLE 6" DIAMETER STAINLESS STEEL STRAINER WITH VANDAL PROOF SCREWS, INTEGRAL CLAMPING DEVICE, BOTTOM OUTLET, 6" DIAMETER STAINLESS STEEL FUNNEL ATTACHMENT. WADE 1100-MR6-EFS-SS.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION AND INSTALLATION WITH ARCHITECTURAL / KITCHEN CONSULTANT DRAWINGS.

TYPE: HS-1 (T.A.S. COMPLIANT) - KITCHEN HAND WASH
DESCRIPTION: LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20-1/2" X 18-1/4" WITH FRONT OVERFLOW AND CONCEALED ARM SUPPORTS, SINGLE CENTERED FAUCET HOLE. AMERICAN STANDARD "LUCERNE" 0355.421
FAUCET: CHROME PLATED BRASS INFRARED SENSOR GOOSENECK FAUCET DUAL BEAM INFRARED SENSOR, CONCEALED INTERNAL TEMP CONTROL MIXER, 5-3/8" CHROME PLATED BRASS SPOUT. CHICAGO "HYTRONIC" GOOSENECK AC116.113.AB.1. PROVIDE AND INSTALL WITH CHICAGO 240.631.00.1 120 VOLT TO 12 VOLT TRANSFORMER.
STRAINER: 1-1/4" 17 GAUGE CHROME PLATED BRASS GRID STRAINER WITH TAILPIECE. MCGUIRE #155A.
P-TRAP: 1-1/4" 17 GAUGE CHROME PLATED HEAVY CAST BRASS TRAP WITH CLEANOUT ANDEXTENSION TO WALL WITH ESCUTCHEON PLATE. MCGUIRE 8872.
SUPPLIES: 1/2" I.P.S. X 3/8" O.D.CHROME PLATED LOOSE KEY STOP VALVE WITH ESCUTCHEON AND 3/8" COMPRESSION CHROME PLATED FLEXIBLE RISERS. MCGUIRE 2165LK.
CARRIER: RECTANGULAR STEEL TUBING UPRIGHTS WITH WELDED 4" SQUARE BASE ANCHORED TO CONCRETE WITH (4) 1/2" BOLTS, ADJUSTABLE SLEEVE, THREADED CONCEALED ARMS, ALIGNMENT BAR, LOCKING DEVICE, AND LEVELING SCREWS. WADE 520-08.
ROUGH-IN: 2" WASTE, 2" VENT, 1/2" HOT AND COLD WATER. REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT REQUIREMENTS.

TYPE: RH-1
DESCRIPTION: NON-FREEZE ROOF HYDRANT WITH HOSE CONNECTION\, VACUUM BREAKER, REMOVEABLE WAGON WHEEL TURN HANDLE WITH LOCK SHIELD.
FREEZE FLOW ROOF HYDRANT #Z131R
ROUGH-IN: 3/4" COLD WATER. INSTALL IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS AND TYPE OF ROOF CONSTRUCTION.

TYPE: FS-1
SERVICE: ICE MACHINE DRAIN / BACKFLOW PREVENTER DISCHARGE
DESCRIPTION: CAST IRON 8" SQUARE FLOOR SINK WITH 6" DEEP SUMP, A.R.E. INTERIOR, ALUMINUM DOME BOTTOM STRAINER, 1/2 STAINLESS STEEL TOP, CLAMPING DEVICE. WADE 9110-15035-27-SS.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR DRAIN BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH ARCHITECTURAL DRAWINGS / EQUIPMENT PLACEMENT.

TYPE: FS-2
SERVICE: MECHANICAL ROOM
DESCRIPTION: A.R.E. COATED CAST IRON BODY 12" SQUARE FLOOR SINK WITH 8" DEEP SUMP, BOTTOM OUTLET, LOOSE SET CAST IRON SECONDARY STRAINER, CLAMPING DEVICE, AND HALF TOP GRATE. WADE 9140-8-15-26-64.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR SINK BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH EQUIPMENT PLACEMENT.

TYPE: FS-3
SERVICE: KITCHEN INDIRECT WASTE
DESCRIPTION: CAST IRON 12" SQUARE FLOOR SINK WITH 8" DEEP SUMP, A.R.E. INTERIOR, ALUMINUM DOME BOTTOM STRAINER, STAINLESS STEEL TOP, AND CLAMPING DEVICE. WADE 9140-15-27-26-SS.
TRAP SEAL: PROVIDE PRO-SET SYSTEMS, INC. TRAP GUARD FACTORY FITTED TO MATCH EACH FLOOR SINK BY SIZE, MODEL, AND MANUFACTURER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES. COORDINATE FINAL LOCATION WITH ARCHITECTURAL / KITCHEN CONSULTANT DRAWINGS.

TYPE: RD-1
DESCRIPTION: ROOF DRAIN. CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, ALUMINUM DOME, UNDERDECK CLAMP AND ADJUSTABLE EXTENSION AS REQUIRED FOR ROOF CONSTRUCTION. WADE 3000-46-52-53 FOR 6" AND SMALLER, WADE 3001-46-52-53 FOR 8" AND LARGER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES.

TYPE: OD-1
DESCRIPTION: OVERFLOW ROOF DRAIN. CAST IRON BODY WITH FLANGE, FLASHING RING WITH GRAVEL STOP, ALUMINUM DOME, 2" HIGH WATER DAM, BEARING PAN, UNDERDECK CLAMP AND ADJUSTABLE EXTENSION AS REQUIRED FOR ROOF CONSTRUCTION. WADE 3000-D-46-52-53 FOR 6" AND SMALLER, WADE 3001-D-46-52-53 FOR 8" AND LARGER.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES.

TYPE: DN-1
DESCRIPTION: OVERFLOW DOWNSPOUT NOZZLE. CAST BRONZE WITH THREADED OR NO HUB OUTLET AND FLANGE TO SECURE NOZZLE TO WALL. INSTALL AT 12" ABOVE FINISHED SLAB OR AS DIRECTED BY ARCHITECT. WADE 3941-VP.
ROUGH-IN: REFER TO FLOOR PLANS FOR SIZES.

TYPE: ECO
DESCRIPTION: EXTERIOR CLEANOUT TO GRADE, CAST IRON BODY WITH ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED VANDAL RESISTANT DUCTILE IRON TRACTOR TYPE COVER. IF LOCATED IN ASPHALT OR DIRT PROVIDE 18"X18"X12" CONCRETE PAD. WADE 6000-Z.

TYPE: FCO
DESCRIPTION: FLOOR CLEANOUT, CAST IRON BODY AND ADJUSTABLE TOP ASSEMBLY WITH GASKET SEAL, AND ROUND SCORIATED STAINLESS STEEL COVER. WADE 6000-153. FOR CARPETED FLOORS PROVIDE WADE 6000-CM.

TYPE: WCO
DESCRIPTION: WALL CLEANOUT, CAST IRON CLEANOUT FERRULE WITH DUCTILE IRON COMBINED COVER/PLUG AND ROUND STAINLESS COVER PLATE WITH CENTER SECURING SCREW. WADE 8550 WITH 8480-R6. PROVIDE WADE 8560 CAST IRON CLEANOUT TEE IN LIEU OF FERRULE AS REQUIRED FOR WALL CONSTRUCTION.

TYPE: GT
DESCRIPTION: GREASE TRAP, PRECAST CONCRETE WITH STEEL REINFORCEMENT AND MANHOLE ACCESS (UNLESS NOTED OTHERWISE) COMPLETE WITH COVERS AND FRAMES. DETAILED ON DRAWINGS. PROVIDE APPROVED SAMPLE WELL ON DISCHARGE SIDE OF GREASE INTERCEPTOR.

TYPE: SW-1
DESCRIPTION: SAMPLING WELL. DETAILED ON DRAWINGS.

TYPE: TMV
DESCRIPTION: THERMOSTATIC MIXING VALVE. SCHEDULED ON DRAWINGS.

TYPE: G
DESCRIPTION: NATURAL GAS COCK, SINGLE OR DOUBLE, COUNTERTOP OR WALL MOUNTED. FURNISHED BY DIVISION 12 AND INSTALLED BY DIVISION 22.
ROUGH-IN: 1/2" NATURAL GAS. COODINATE FINAL QUANTITY, LOCATIONS AND INSTALLATION WITH ARCHITECTURAL / CASEWORK DRAWINGS.

TYPE: A
DESCRIPTION: AIR DROP WITH REGULATOR, 1/2" AIR KWICK COUPLING MILTON "G" STYLE. BALCRANK MINI PIGGYBACK FILTER/REGULATOR COMBO UNIT RATED FOR 150 PSI AND FLOWS OF 15 SCFM.
ROUGH-IN: 1/2" COMPRESSED AIR. INSTALL WITH OUTLET AT 30" A.F.F. OR AS DIRECTED BY ARCHITECT/OWNER. COORDINATE FINAL QUANTITY, LOCATIONS, AND INSTALLATION WITH ARCHITECTURAL DRAWINGS.

GENERAL NOTES

ALL LAVATORIES AND SINKS SHALL BE SUPPLIED WITH HOT AND COLD WATER (UNLESS NOTED TO BE COLD WATER ONLY) TO FAUCETS AS INDICATED ON PLANS AND FIXTURE SCHEDULE. PROVIDE CHROME PLATED BRASS SUPPLY STOPS WITH LOOSE KEYS AND WALL ESCUTCHEONS. PROVIDE CHROME PLATED FLEXIBLE RISERS OF SIZE REQUIRED TO PROPERLY CONNECT FIXTURES. PROVIDE 17 GAUGE CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT AND EXTENSION TO WALL WITH ESCUTCHEON (UNLESS NOTED TO BE AN ACID WASTE FIXTURE). REFER TO FIXTURE SCHEDULE FOR MINIMUM SIZES OF PLUMBING FIXTURE ROUGH-INS.

INSULATION KITS AT ALL LAVATORIES AND SINKS REQUIRED TO BE T.A.S. ACCESSIBLE (MCGUIRE OR TRUEBRO). ALL SUCH FIXTURES AND FINAL INSTALLATIONS SHALL COMPLY WITH THE STATE ACCESSIBILITY STANDARDS REQUIREMENTS.

INSERT TRAP GUARDS AFTER FINAL RODDING OF DRAINS. INSTALL TRAP GUARD WITH CLEAR SILICONE CAULK FOR GAS-TIGHT SEAL. FOR DRAIN RODDING AFTER INSTALLATION. INSERT SEWER TAPE THROUGH LIGHTLY GREASED 1-1/2" PVC PIPE TO PROTECT TRAP GUARD.

DISREGARD FIXTURES LISTED THAT ARE NOT ON THIS JOB.

PLUMBING PIPING LEGEND

SYMBOLS	DESCRIPTION
SAN	SANITARY OR WASTE PIPING ABOVE GRADE (SAN)
SAN	SANITARY OR WASTE PIPING BELOW GRADE (SAN)
GW	GREASE WASTE PIPING (GW)
GW	GREASE WASTE PIPING BELOW GRADE (GW)
SD	STORM DRAIN PIPING (SD)
SD	STORM DRAIN PIPING BELOW GRADE (GW)
SSD	SUB-SOIL DRAIN OR FOOTING DRAIN (SSD)
AW	ACID WASTE PIPING (AW)
AW	ACID WASTE PIPING BELOW GRADE (AW)
PD	PUMPED DISCHARGE (PD)
CD	CONDENSTATE DRAIN PIPING (CD)
D	CONDENSTATE - INDIRECT DRAIN PIPING (D)
	VENT PIPING (V)
CW	COLD WATER PIPING (CW)
HW	HOT WATER PIPING (HW)
HWR	HOT WATER RETURN PIPING (HWR)
SCW	SOFT COLD WATER PIPING (SCW)
CDW	CHILLED DRINKING WATER PIPING (CDW)
TP	TRAP PRIMER LINE (TP)
F	FIRE PROTECTION PIPING (F)
AS	AUTOMATIC SPRINKLER PIPING (AS)
GAS	NATURAL GAS PIPING (G)
GV	GAS VENT PIPING (GV)
AIR	COMPRESSED AIR PIPING (A)
	FLOW DIRECTIONAL ARROW
	SHUT-OFF VALVE
	BALANCING VALVE (BV)
	SOLENOID VALVE (SV)
	BALL VALVE (BV)
	BUTTERFLY VALVE
	LUBRICATED PACKED PLUG STOP STOP COCK (PC)
	HORIZONTAL SWING CHECK
	UNION
	HORIZONTAL SWING CHECK
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	REDUCED PRESSURE BACKFLOW PREVENTER (RPBFP)
	PIPING DOWN
	RISE OR DROP PIPING
	PIPING UP -OR- PIPING UP & DOWN
	CAP ON END OF PIPE
CO	CLEANOUT (WALL OR CEILING) (CO)
	FLOOR CLEANOUT (FCO)
ECO	EXTERIOR CLEANOUT WITH 18"x18"x4" CONCRETE PAD (ECO)
	TWO-WAY CLEANOUT (PROVIDE 18"x24"x4" CONCRETE PAD OUTSIDE)
	FIRE DEPARTMENT VALVE AT RISER
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	PRESSURE REDUCING VALVE (PRV)
	BRANCH CONNECTION OUT OF TOP
	BRANCH CONNECTION OUT OF BOTTOM
	BRANCH CONNECTION OUT OF SIDE
	WYE & 1/8TH BEND BRANCH CONNECTION
	WYE BRANCH CONNECTION
	HOSE BIBB
	PRESSURE GAUGE WITH COCK
	THERMOMETER
	GAS PRESSURE REGULATOR
	TEST COCK
	GAS METER
	WALL HYDRANT
	VALVE IN RISE
	ASME TEMPERATURE & PRESSURE RELIEF VALVE
	VACUUM RELIEF VALVE
	ANGLE VALVE
	OS&Y VALVE
	ROOF DRAIN
1	REFER TO KEYED NOTE
FS	FLOW SWITCH
	FLOOR SINK (FS)
	FLOOR DRAIN (FD)
	FLOOR DRAIN WITH P-TRAP (FD)
	FLOOR DRAIN WITH P-TRAP AT 45° ANGLE (FD)
	HUB DRAIN (HD)
	ACCESS PANEL FOR TRAP PRIMER OR SHOCK ABSORBER
AP	ACCESS PANEL LOCATION SYMBOL
A	SHOCK ABSORBER
	AIR CHAMBER
(E)	EXISTING
(N)	NEW
VTR	VENT THRU ROOF
B.F.F.	BELOW FINISHED FLOOR
A.F.F.	ABOVE FINISHED FLOOR
	NEW CONNECTION
IE=100.00'	INVERT ELEVATION
1	DELTA CHANGE SYMBOL
P 1	4" VTR RISER FLAG

PLUMBING GENERAL NOTES

1. WITHIN THE EXISTING BUILDING, EXISTING WATER, WASTE AND VENT SERVICES ARE TO BE MODIFIED AS REQUIRED AND REUSED FOR THE INSTALLATION OF NEW AND/OR RELOCATED PLUMBING FIXTURES. REFER TO PLUMBING FLOOR PLANS FOR POINTS OF CONNECTION.
2. WITHIN THE EXISTING BUILDING, SAWCUT AND REMOVE EXISTING FLOOR SLAB AS REQUIRED TO PROVIDE NEW AND/OR RELOCATED PLUMBING FIXTURES, CLEANOUTS, AND UNDERSLAB WASTE AND VENT PIPING. PATCH AND REFINISH FLOOR TO MATCH EXISTING.
3. IN AREAS WHERE THE FLOOR SLAB IS REMOVED, CONTRACTOR SHALL ALSO REMOVE UNDERSLAB WASTE AND VENT PIPING WHICH SERVES FIXTURES DESIGNATED FOR REMOVAL. PRIOR TO ANY REMOVAL, FIELD VERIFY THAT LINES TO BE REMOVED DO NOT SERVE ANY EXISTING FIXTURES TO REMAIN OR NEW FIXTURES TO BE INSTALLED.
4. IN AREAS WHERE THE FLOOR SLAB IS NOT REMOVED, CONTRACTOR SHALL ABANDON IN PLACE ANY UNDERSLAB WASTE AND VENT PIPING NO LONGER NEEDED, UNLESS THE PIPING MUST BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. IF NEW WORK DOES NOT NECESSITATE THEIR REMOVAL, CUT AND PLUG SUCH LINES BELOW SLAB, AND PATCH FLOOR TO MATCH EXISTING.
5. FIELD VERIFY EXACT LOCATION, SIZE, DEPTH, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL AND CONDITION OF EXISTING WASTE PIPING PRIOR TO BEGINNING CONSTRUCTION. ENSURE THAT PROPER CONNECTIONS TO AND EXTENSION OF SUCH UTILITIES CAN BE MADE.
6. WASTE LINES TO BE RE-USED OR RECONNECTED TO SHALL BE THOROUGHLY RODDED OUT AND FLUSHED TO ENSURE THEY ARE FREE FROM BLOCKAGES.
7. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING BELOW SLAB WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND OTHER SUB-SURFACE BUILDING ELEMENTS.
8. CONTRACTOR SHALL COORDINATE ROUTING OF PIPING IN CEILING SPACES WITH MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTWORK AND CONDUIT. SHOULD A CONFLICT OCCUR THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO INSTALLING AN ALTERNATE PIPING PLAN.
9. CONTRACTOR TO COORDINATE ALL REMODEL WORK WITH THE WORK OF OTHER TRADES TO AVOID CONFLICTS AND TO MINIMIZE INTERRUPTION OF SERVICES.
10. COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO ANY ROUGH-INS.
11. DO NOT ROUGH-IN FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.
12. CONTRACTOR TO FIELD VERIFY AS NECESSARY THE EXACT ROUTING AND SIZES OF ALL PIPING.
13. ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE CITY BUILDING CODE, INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.
14. THE PROPER INSTALLATION OF NEW FIXTURES AND THE PROPER CONTINUED OPERATION OF EXISTING FIXTURES TO REMAIN SHALL DETERMINE THE EXTENT AND NATURE OF PLUMBING REMODEL WORK.
15. EACH VENT SHALL TERMINATE VERTICALLY NOT LESS THAN 6" ABOVE ROOF, MAINTAIN MINIMUM 10'-0" DISTANCE BETWEEN VENT TERMINALS THROUGH ROOF AND ALL FRESH AIR INTAKES, AND A MINIMUM 5'-0" FROM ANY EXTERIOR WALL.
16. PRIOR TO BEGINNING CONSTRUCTION, COORDINATE BUILDING BACKFLOW PREVENTION REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PROVIDE AS DIRECTED.

SHOCK ARRESTOR SCHEDULE

P.D.I. SYMBOLS:	FIXTURE UNITS:	THREADED CONNECTION	CERTIFICATION
A	1 - 11	1/2"	ASSE 1010
B	12 - 32	3/4"	ASSE 1010
C	33 - 60	1"	ASSE 1010
D	61 - 113	1"	ASSE 1010
E	114 - 154	1"	ASSE 1010
F	155 - 330	1"	ASSE 1010

PLUMBING MATERIAL LIST

ABOVE GRADE, INSIDE BUILDING

SANITARY WASTE AND VENT PIPING SHALL BE

NO-HUB CAST IRON SYSTEM CONFORMING TO CISPI. STANDARD NO. 301-75. NEOPRENE GASKETS SHALL CONFORM TO ASTM STANDARD C564-75, OR,

STORM PIPING SHALL BE

SERVICE WEIGHT CAST IRON HUB AND SPIGOT PIPE AND FITTINGS WITH ELASTOMERIC GASKETS JOINTS.

DOMESTIC WATER PIPING SHALL BE

DRAWN (HARD) COPPER WATER TUBE, TYPE "L", ASTM B88, WITH WROUGHT COPPER FITTINGS, ANSI B16.22 AND 95-5 SOLDER JOINTS.

BELOW GRADE, INSIDE BUILDING

SANITARY WASTE AND VENT PIPING SHALL BE

SCHEDULE 40 DWV POLYVINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM-2665 WITH SOLVENT WELDED JOINTS. DO NOT USE IN AIR SUPPLY OR RETURN PLENUMS, AND OR WHERE FIRE RATED WALLS, PARTITIONS, OR FLOORS ARE PENETRATED.

STORM PIPING SHALL BE

SCHEDULE 40 DWV POLYVINYL CHLORIDE PIPE AND FITTINGS CONFORMING TO ASTM-2665 WITH SOLVENT WELDED JOINTS.

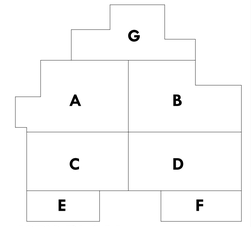
DOMESTIC WATER PIPING SHALL BE

ANNEALED (SOFT) COPPER WATER TUBE, TYPE "K", ASTM B88, WITH NO JOINTS OR FITTINGS BELOW SLAB.

GAS PIPING SHALL BE

PIPE 2" AND SMALLER. PROVIDE SCHEDULE 40 ASTM A 53 BLACK STEEL WITH FACTORY FABRICATED SOCKET WELD FITTINGS.

PIPE LARGER THAN 2", USE SCHEDULE 40 ASTM A 53 BLACK STEEL PIPE WITH LONG RADIUS WELD FITTINGS.



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL
ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE JUNE 13, 2025
DRAWN BY PG
CHECKED BY EH
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

P6.1

PLUMBING SCHEDULES

SITE LIGHTING FIXTURE SCHEDULE

Type	Manufacturer	Model	Mounting	Driver / Light Engine			Remarks
				Type/Lumens	CRI	Voltage	
OA	GARDCO	OPF-M-A13-840-T3M-AR1-UNV-BK	POLE MOUNT: 1 @ 90	176W LED 30,170 LUMENS 4000K	80+	277 V	TYPE III MEDIUM AREA LUMINAIRE, & BLACK FINISH. MOUNT ON 30' POLE, EXTRA HAND HOLE, BLACK POWDER COAT OVER GALVANIZING. MATCH COLOR FINISH OF EXISTING SITE LIGHTING POLES PRIOR TO ORDERING. POLE: KW #RTSP30-7.0-11-KZ21-DM10 + 1XHH

APPROVED MANUFACTURERS:
AREA LUMINAIRE - MCGRAW EDISON, GARDCO, VISIONAIRE, KIM, LITHONIA, LSI
ROUND TAPERED STEEL POLE: KW, VALMONT, WJM

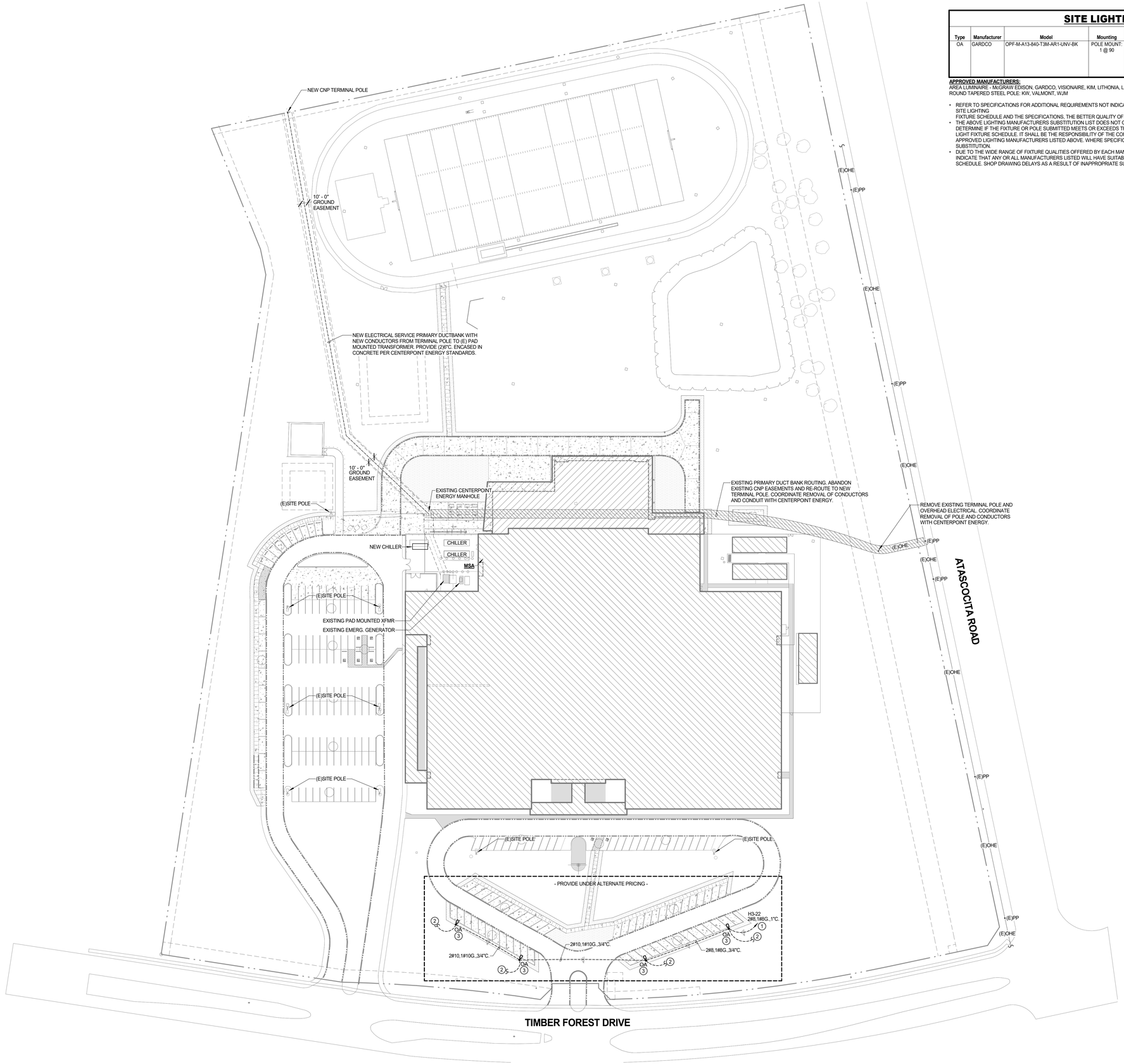
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE SITE LIGHTING FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE SITE LIGHTING FIXTURE SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS SUBSTITUTION LIST DOES NOT GUARANTEE APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE ACTUAL FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CAREFULLY SELECT SUBSTITUTIONS FOR THE SPECIFIED LIGHT FIXTURES FROM THE APPROVED LIGHTING MANUFACTURERS LISTED ABOVE. WHERE SPECIFIC OPTIONS / ACCESSORIES ARE SPECIFIED, THEY SHALL BE PROVIDED AS SPECIFIED WITH THE SUBSTITUTION.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ELECTRICAL GENERAL NOTES:

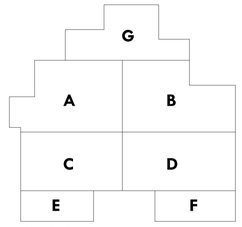
1. CALL 811 "CALL BEFORE YOU DIG" BEFORE COMMENCEMENT OF WORK.
2. REFER TO TECHNOLOGY DRAWINGS (T-SERIES) FOR TELECOMMUNICATION PATHWAYS AND OTHER REQUIREMENTS TO BE PROVIDED BY DIVISION 26.

ELECTRICAL KEYED NOTES:

1. COORDINATE EXACT BUILDING PENETRATION POINT WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN. ROUTE HOMERUN THROUGH NEW CONTACTOR LOCATED IN ELECTRICAL 631.
2. ROUTE (1)1-INCH CONDUIT FROM POLE BASE TO NEAREST IDF/MDF ROOM FOR FUTURE POLE MOUNTED CAMERA. COORDINATE EXACT BUILDING PENETRATION POINT WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.
3. REFER TO TECHNOLOGY POLE MOUNTED CAMERA DETAIL FOR ADDITIONAL HAND HOLE AND DRILLED HOLE LOCATIONS.



1 **ELECTRICAL SITE PLAN**
Scale: 1" = 50'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE JUNE 13, 2025
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BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

E1.0
ELECTRICAL SITE PLAN

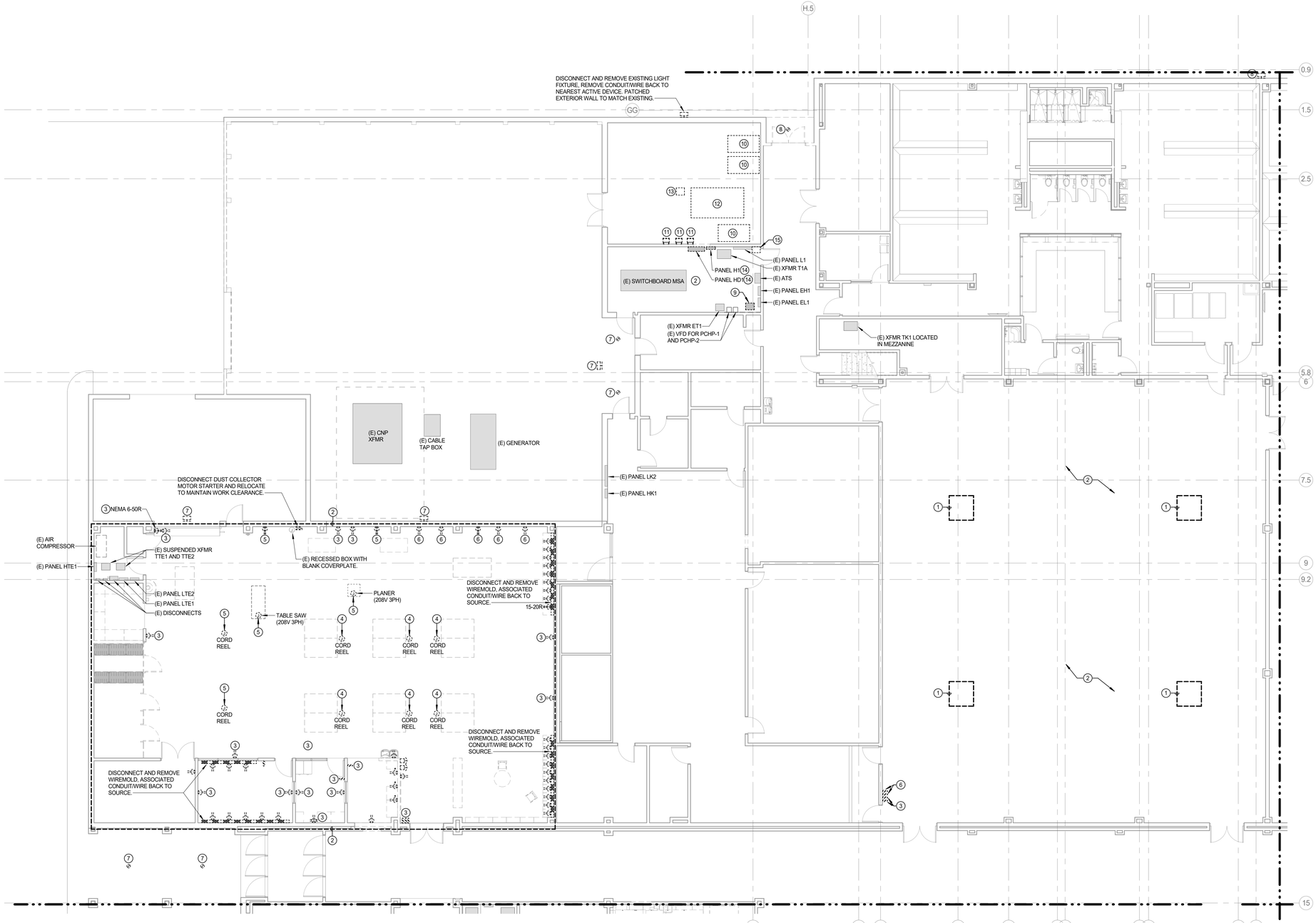
LINETYPE LEGEND	
————	EXISTING TO REMAIN
- - - - - - - - -	DISCONNECT AND REMOVE

ELECTRICAL GENERAL NOTES:

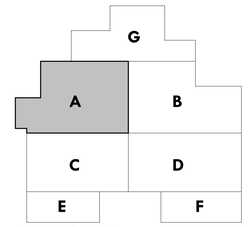
1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
3. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT WALL DEMOLITION.
5. UNLESS NOTED OTHERWISE, HANG ALL EXISTING LIGHT FIXTURES BY CEILING SUPPORT WIRE ABOVE CEILING TO FACILITATE DEMOLITION OF CEILING GRID. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.
6. UNLESS NOTED OTHERWISE, SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING GRID. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED.

ELECTRICAL KEYED NOTES:

1. DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO NEAREST ACTIVE JUNCTION BOX OUTSIDE PERIMETER AREA TO MAKE READY FOR NEW SKYLIGHT. LEAVE CIRCUITRY INTACT FOR RECONNECTION.
2. DISCONNECT AND REMOVE EXISTING LIGHTING AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUITRY (NORMAL AND EMERGENCY) INTACT FOR RE-USE. ALL EXISTING LIGHT SWITCH BOXES SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICES. EXISTING BOXES NOT RE-USED SHALL BE PROVIDED WITH STAINLESS STEEL COVERPLATES.
3. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.
4. DISCONNECT AND REMOVE EXISTING ELECTRICAL AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUIT INTACT FOR RE-USE.
5. DISCONNECT AND REMOVE EXISTING ELECTRICAL AND ASSOCIATED CONDUIT/WIRE BACK TO SOURCE.
6. DISCONNECT AND REMOVE EXISTING WIRING DEVICE AND ASSOCIATED CONDUIT/WIRE BACK TO SOURCE. PROVIDE BLANK STAINLESS STEEL COVERPLATE.
7. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE, LEAVE CIRCUIT IN PLACE FOR CONNECTION OF REPLACEMENT LIGHT FIXTURE.
8. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX.
9. DISCONNECT AND REMOVE EXISTING REFRIGERATION RACK TRANSFORMER AND ASSOCIATED PRIMARY FEEDER BACK TO PANEL EH1. EXISTING CIRCUIT BREAKER SHALL BE RE-LABELED AS "SPARE".
10. DISCONNECT AND REMOVE ALL ELECTRICAL TO EXISTING PUMP, ASSOCIATED CONDUIT/WIRE, AND DISCONNECT/VFD BACK TO SOURCE.
11. DISCONNECT AND REMOVE ALL ELECTRICAL TO EXISTING DISCONNECT/VFD AND RETURN TO OWNER.
12. DISCONNECT AND REMOVE ALL ELECTRICAL TO EXISTING BOILER, ASSOCIATED CONDUIT/WIRE, AND DISCONNECT BACK TO SOURCE.
13. DISCONNECT AND REMOVE ALL ELECTRICAL TO EXISTING CO MONITORING STATION BACK TO NEAREST JUNCTION BOX. LEAVE CIRCUIT INTACT FOR RE-USE.
14. DISCONNECT AND RE-LOCATE EXISTING PANELBOARD. FIELD VERIFY EXISTING BRANCH CIRCUITS AND TO REMAIN, INTERCEPT AND EXTEND CONDUIT/WIRE TO NEW LOCATION. REFER TO ONE-LINE DIAGRAM.
15. DISCONNECT ALL ELECTRICAL TO EXISTING FIRE ALARM BOOSTER PANEL. LEAVE CIRCUIT INTACT FOR CONNECTION OF REPLACEMENT PANEL.



1 **ELECTRICAL DEMOLITION FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

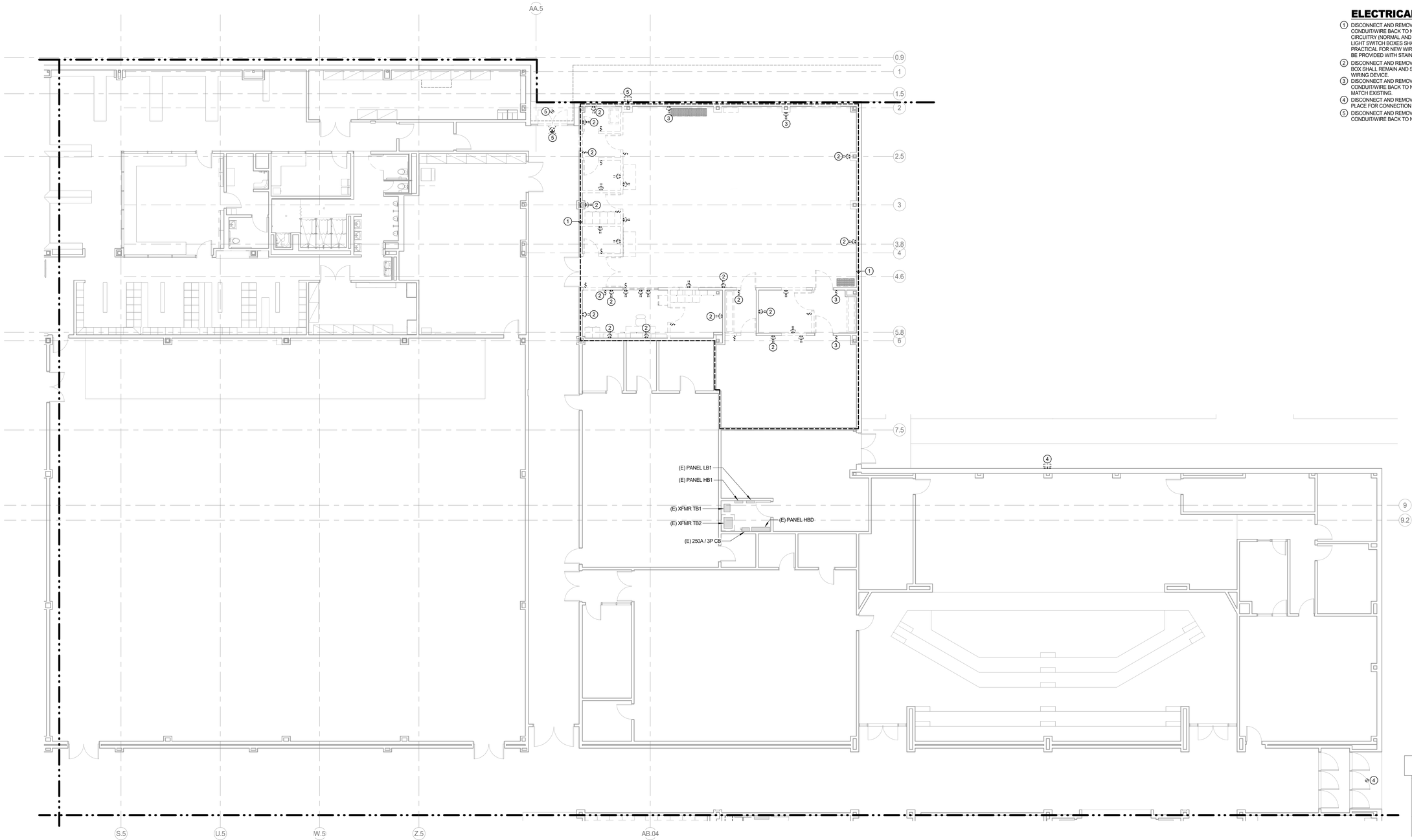
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CHECKED BY JZ
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

E1.1
ELECTRICAL DEMOLITION FLOOR PLAN - AREA A



1 **ELECTRICAL DEMOLITION FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"

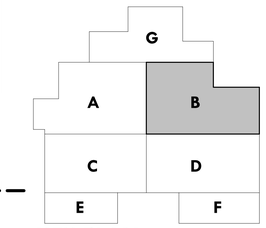
LINETYPE LEGEND	
————	EXISTING TO REMAIN
- - - - - - - - - -	DISCONNECT AND REMOVE

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
3. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT WALL DEMOLITION.
5. UNLESS NOTED OTHERWISE, HANG ALL EXISTING LIGHT FIXTURES BY CEILING SUPPORT WIRE ABOVE CEILING TO FACILITATE DEMOLITION OF CEILING GRID. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.
6. UNLESS NOTED OTHERWISE, SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING GRID. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED.

ELECTRICAL KEYED NOTES:

1. DISCONNECT AND REMOVE EXISTING LIGHTING AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUITRY (NORMAL AND EMERGENCY) INTACT FOR RE-USE. ALL EXISTING LIGHT SWITCH BOXES SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICES. EXISTING BOXES NOT USED SHALL BE PROVIDED WITH STAINLESS STEEL COVERPLATES.
2. DISCONNECT AND REMOVE EXISTING WIRING DEVICE. EXISTING OUTLET BOX SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICE.
3. DISCONNECT AND REMOVE EXISTING WIRING DEVICE AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. PATCH WALL TO MATCH EXISTING.
4. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE, LEAVE CIRCUIT IN PLACE FOR CONNECTION OF REPLACEMENT LIGHT FIXTURE.
5. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX.



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
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WWW.BRWARCH.COM

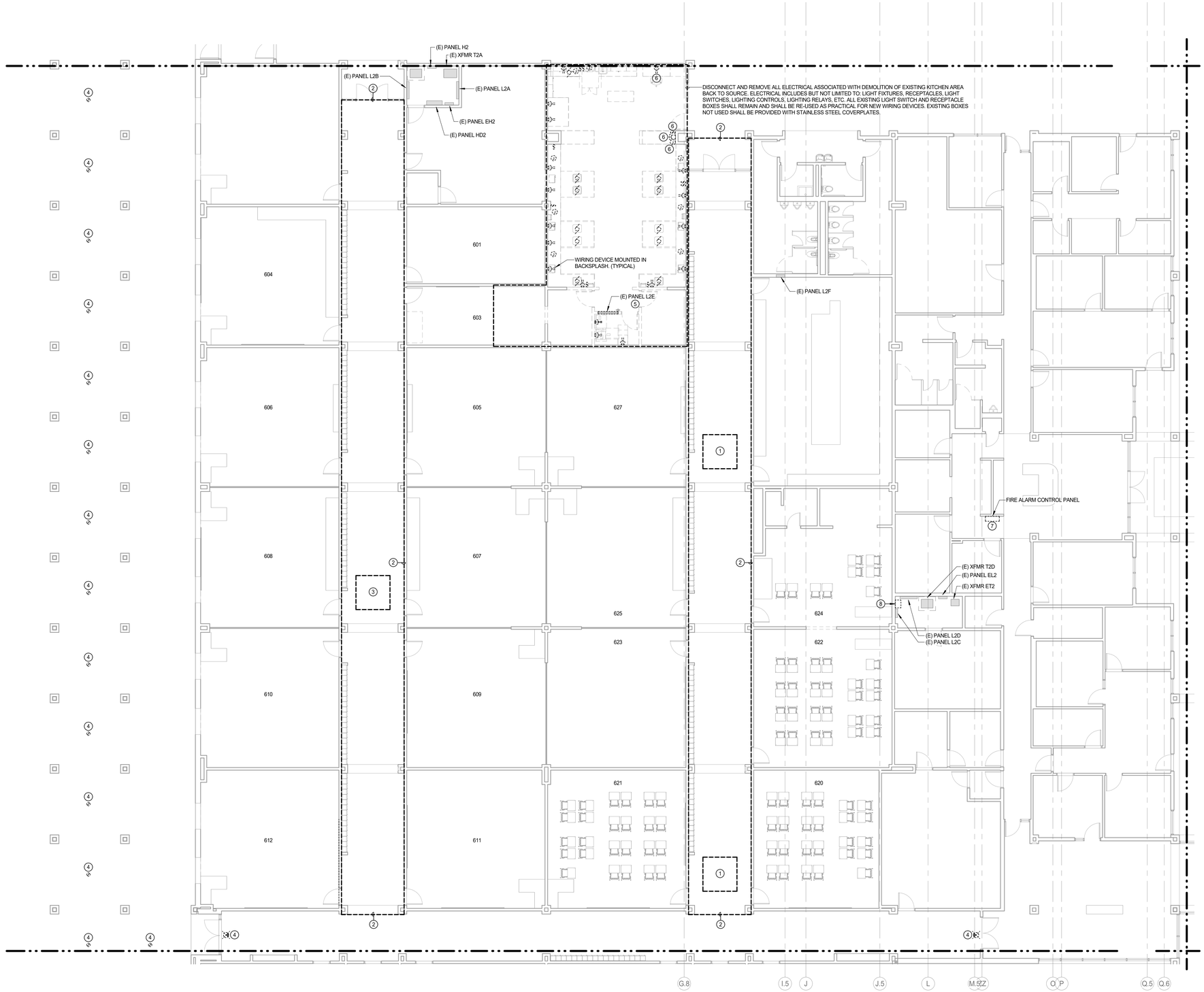
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

E1.2
ELECTRICAL DEMOLITION FLOOR PLAN - AREA B



1 **ELECTRICAL DEMOLITION FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"

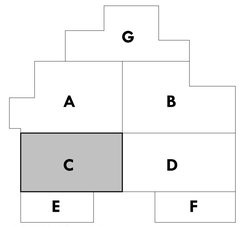
LINETYPE LEGEND	
———	EXISTING TO REMAIN
- - - - - - - - -	DISCONNECT AND REMOVE

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
3. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT WALL DEMOLITION.
5. UNLESS NOTED OTHERWISE, HANG ALL EXISTING LIGHT FIXTURES BY CEILING SUPPORT WIRE ABOVE CEILING TO FACILITATE DEMOLITION OF CEILING GRID. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.
6. UNLESS NOTED OTHERWISE, SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING GRID. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED.

ELECTRICAL KEYED NOTES:

1. DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO NEAREST ACTIVE JUNCTION BOX OUTSIDE PERIMETER AREA TO MAKE READY FOR NEW SKYLIGHT. LEAVE CIRCUITRY INTACT FOR RECONNECTION. TYPICAL FOR (3) 3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
2. DISCONNECT AND REMOVE EXISTING LIGHTING AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUITRY (NORMAL AND EMERGENCY) INTACT FOR RE-USE. ALL EXISTING LIGHT SWITCH BOXES SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICES.
3. DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO NEAREST ACTIVE JUNCTION BOX OUTSIDE PERIMETER AREA TO MAKE READY FOR NEW SKYLIGHT. LEAVE CIRCUITRY INTACT FOR RECONNECTION. TYPICAL FOR (4) 3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
4. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE, LEAVE CIRCUIT IN PLACE FOR CONNECTION OF REPLACEMENT LIGHT FIXTURE.
5. DISCONNECT AND REMOVE EXISTING PANELBOARD, ASSOCIATED FEEDER, AND BRANCH CIRCUITRY BACK TO SOURCE.
6. DISCONNECT AND REMOVE EXISTING DUAL-CHANNEL SURFACE RACEWAY AND ASSOCIATED WIRING BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUIT INTACT FOR RE-CONNECTION.
7. DISCONNECT AND REMOVE ALL ELECTRICAL TO EXISTING FIRE ALARM CONTROL PANEL AND ASSOCIATED CONDUIT/WIRE BACK TO SOURCE
8. DISCONNECT ALL ELECTRICAL TO EXISTING FIRE ALARM BOOSTER PANEL, LEAVE CIRCUIT INTACT FOR CONNECTION OF REPLACEMENT PANEL.



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
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BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TX 77345
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TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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E1.3
ELECTRICAL DEMOLITION FLOOR PLAN - AREA C

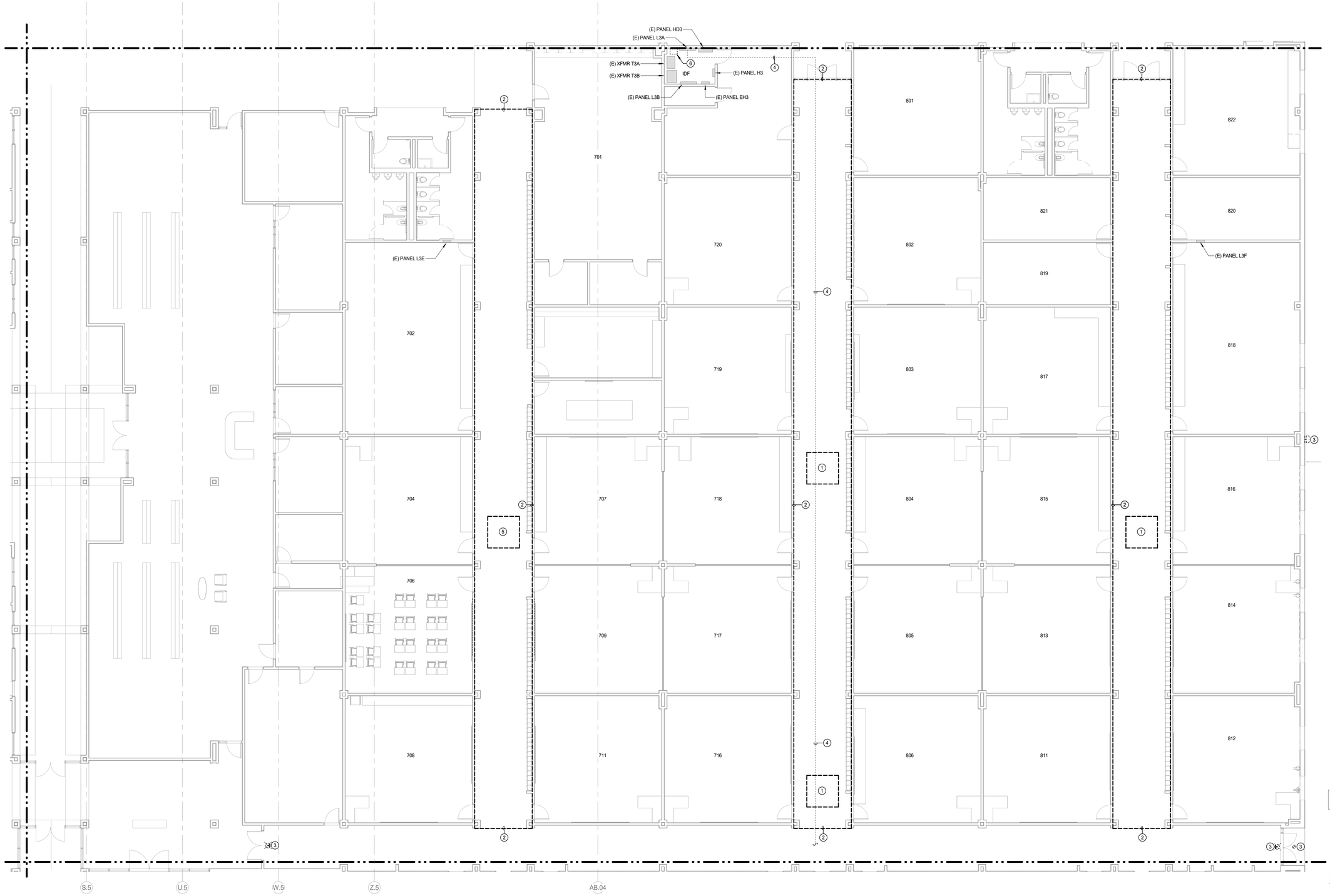
LINETYPE LEGEND	
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- - - - - - - - -	DISCONNECT AND REMOVE

ELECTRICAL KEYED NOTES:

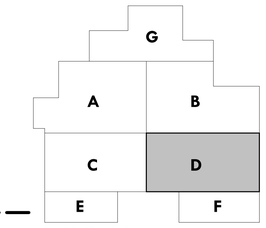
1. DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO NEAREST ACTIVE JUNCTION BOX OUTSIDE PERIMETER AREA TO MAKE READY FOR NEW SKYLIGHT. LEAVE CIRCUITRY INTACT FOR RECONNECTION. TYPICAL FOR (3) 3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
2. DISCONNECT AND REMOVE EXISTING LIGHTING AND ASSOCIATED CONDUIT/WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. LEAVE CIRCUITRY (NORMAL AND EMERGENCY) INTACT FOR RE-USE. ALL EXISTING LIGHT SWITCH BOXES SHALL REMAIN AND SHALL BE RE-USED AS PRACTICAL FOR NEW WIRING DEVICES.
3. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE, LEAVE CIRCUIT IN PLACE FOR CONNECTION OF REPLACEMENT LIGHT FIXTURE.
4. DISCONNECT AND REMOVE EXISTING FEEDER IN 2-1/2" CONDUIT FROM PANEL L3A TO L3C. PROVIDE WITH NEW, REFER TO ONE-LINE DIAGRAM.
5. DISCONNECT AND REMOVE ALL ELECTRICAL BACK TO NEAREST ACTIVE JUNCTION BOX OUTSIDE PERIMETER AREA TO MAKE READY FOR NEW SKYLIGHT. LEAVE CIRCUITRY INTACT FOR RECONNECTION. TYPICAL FOR (2) 3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
6. DISCONNECT ALL ELECTRICAL TO EXISTING FIRE ALARM BOOSTER PANEL, LEAVE CIRCUIT INTACT FOR CONNECTION OF REPLACEMENT PANEL.

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
3. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT WALL DEMOLITION.
5. UNLESS NOTED OTHERWISE, HANG ALL EXISTING LIGHT FIXTURES BY CEILING SUPPORT WIRE ABOVE CEILING TO FACILITATE DEMOLITION OF CEILING GRID. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.
6. UNLESS NOTED OTHERWISE, SUSPEND OR REMOVE AND STORE ALL CEILING MOUNTED ELECTRICAL DEVICES TO FACILITATE DEMOLITION OF CEILING GRID. DEVICES INCLUDE BUT ARE NOT LIMITED TO: EXIT SIGNS, FIRE ALARM DEVICES, OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REMOVED.



1 **ELECTRICAL DEMOLITION FLOOR PLAN - AREA D**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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80219
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BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

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E1.4
ELECTRICAL DEMOLITION FLOOR PLAN - AREA D

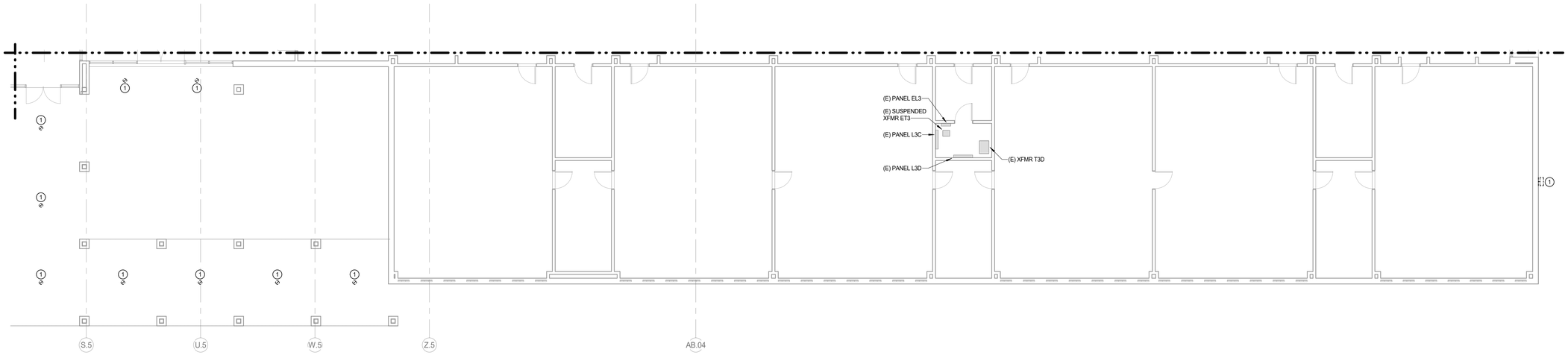
LINETYPE LEGEND	
————	EXISTING TO REMAIN
- - - - - - - - -	DISCONNECT AND REMOVE

ELECTRICAL GENERAL NOTES:

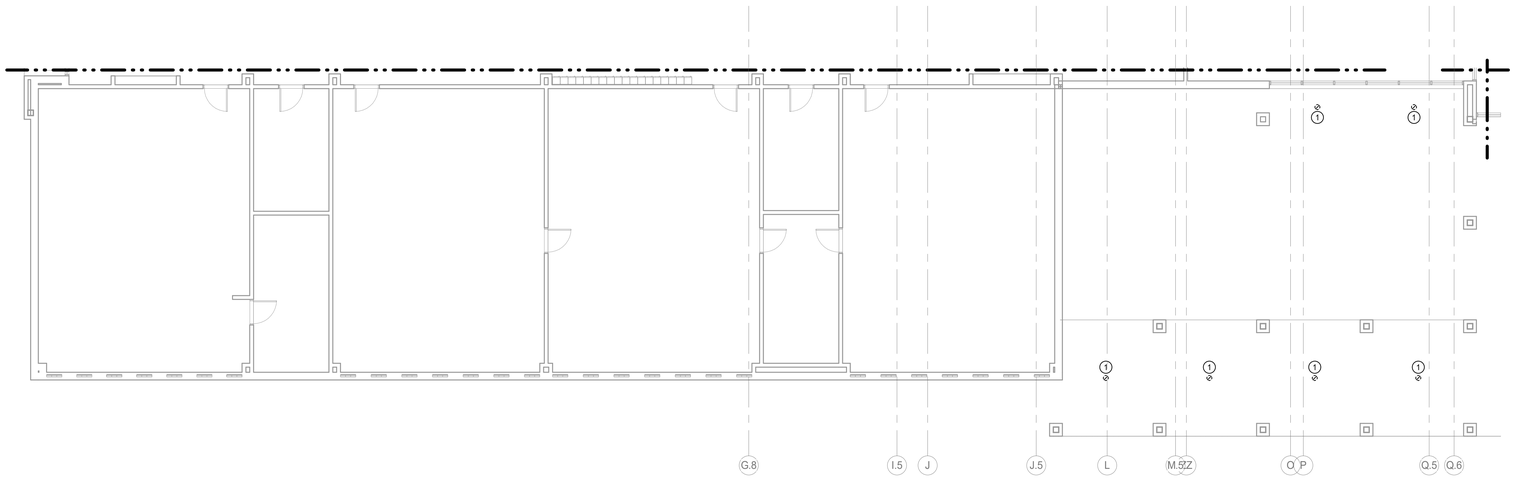
1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. DISCONNECT AND REMOVE ALL ABANDONED WIRING AND CONDUIT.
3. DISCONNECT AND REMOVE ALL CONDUIT, WIRE, AND DISCONNECTING MEANS ASSOCIATED WITH HVAC EQUIPMENT BEING REMOVED.
4. DISCONNECT AND REMOVE ALL ELECTRICAL FROM WALLS SCHEDULED TO BE DEMOLISHED. UNLESS INDICATED OTHERWISE, DISCONNECT BRANCH CIRCUIT BACK TO NEAREST JUNCTION BOX ABOVE CEILING SPACE FOR RE-USE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT WALL DEMOLITION.

ELECTRICAL KEYED NOTES:

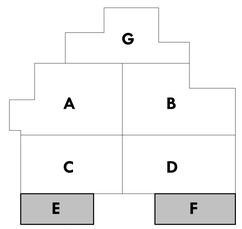
1. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURE, LEAVE CIRCUIT IN PLACE FOR CONNECTION OF REPLACEMENT LIGHT FIXTURE.



N 2 **ELECTRICAL DEMOLITION FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



N 1 **ELECTRICAL DEMOLITION FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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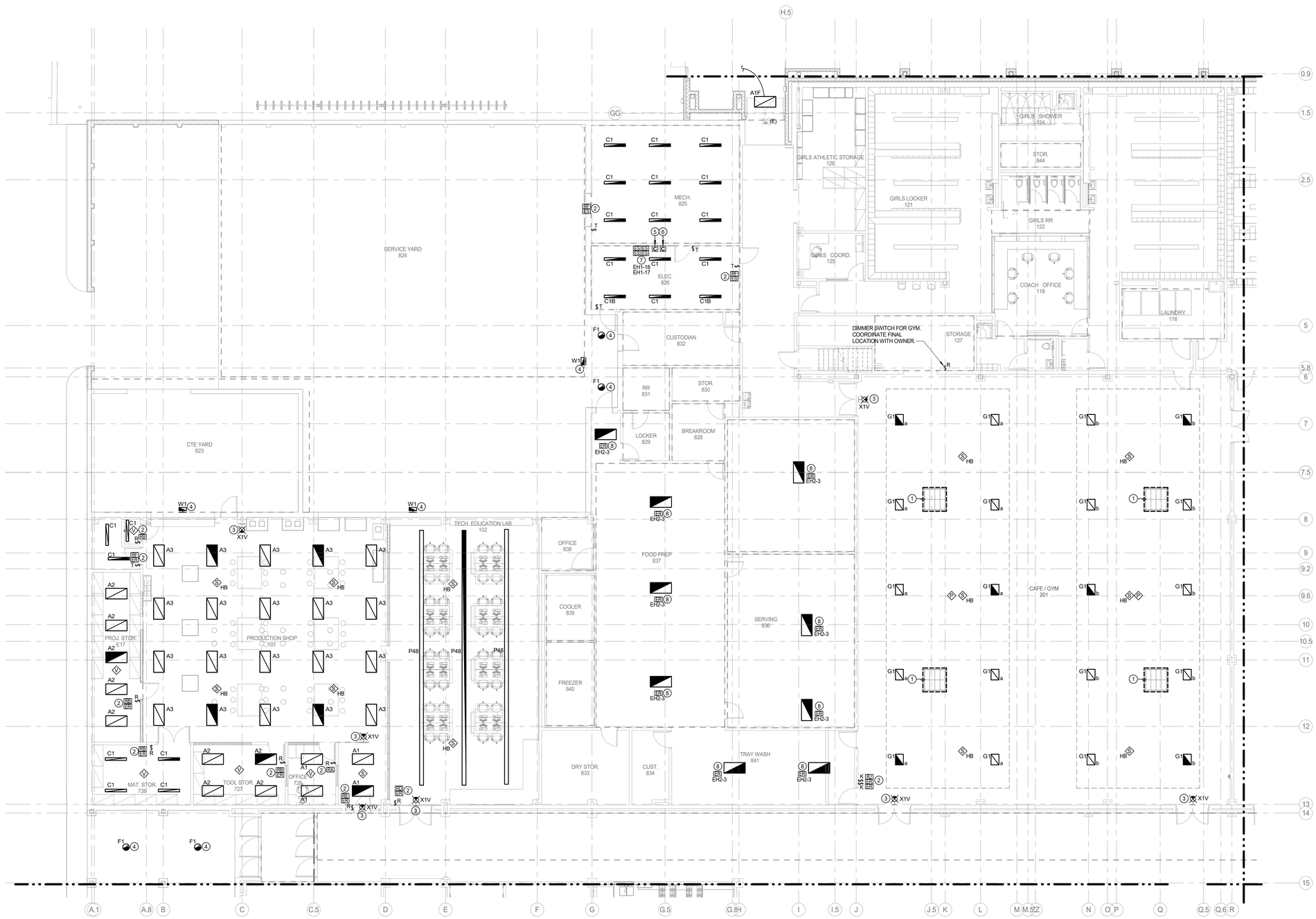
DATE	JUNE 13, 2025
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BRW PROJECT NUMBER	223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

E1.5

ELECTRICAL DEMOLITION FLOOR PLAN - AREA E & F



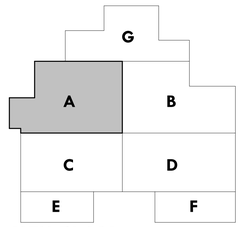
1 **ELECTRICAL LIGHTING FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. LIGHTING CONTROLS SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
2. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY LOAD CONTROL RELAYS AND / OR EXIT SIGNS.
3. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: LTG CTRL
4. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED. CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
5. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.

ELECTRICAL KEYED NOTES:

1. INTERCEPT ALL EXISTING ELECTRICAL AND RE-ROUTE CONDUITS AROUND NEW SKYLIGHT. EXTEND CONDUIT/WIRE FOR ALL BRANCH CIRCUITS AND RECONNECT TO EXISTING CIRCUITRY.
2. CONNECT LIGHTING TO EXISTING NORMAL AND EMERGENCY CIRCUITRY PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION. CONNECT EMERGENCY HATCHED FIXTURE(S) TO NEW EMERGENCY SWITCH/RELAY WHERE INDICATED.
3. CONNECT NEW EXIT SIGNAGE TO EXISTING EMERGENCY CIRCUITRY SERVING SPACE. PROVIDE FIXTURE WITH A CONSTANT HOT.
4. PROVIDE NEW LIGHT FIXTURE IN EXISTING LOCATION AND CONNECT TO EXISTING CIRCUITRY. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
5. INTERCEPT ALL EXTERIOR LIGHTING CIRCUIT(S) SERVED FROM PANEL H1 AND ROUTE THROUGH NEW LIGHTING CONTACTOR. CONTACTOR SHALL BE CONTROLLED VIA BMCS. (CIRCUITS H1-2,4,6,14)
6. INTERCEPT ALL SITE LIGHTING CIRCUIT(S) SERVED FROM PANEL H1 AND ROUTE THROUGH NEW LIGHTING CONTACTOR. CONTACTOR SHALL BE CONTROLLED VIA BMCS. (CIRCUITS H1-8,10,12)
7. PROVIDE NEW UL1008 EMERGENCY SWITCH FOR EXISTING EXTERIOR LIGHTING CIRCUITS (H1-2,4,6,14). INTERCEPT EACH CIRCUIT WITH EMERGENCY SWITCH AND CONNECT TO EXISTING NORMAL CIRCUIT AND PROVIDE NEW EMERGENCY CIRCUIT AS INDICATED. EMERGENCY SWITCH SHALL BE INSTALLED BETWEEN CONTACTOR AND LIGHT FIXTURES.
8. PROVIDE EMERGENCY RELAY/SWITCH FOR EXISTING LIGHT FIXTURE. CONNECT TO NEW EMERGENCY CIRCUIT AS INDICATED AND MAKE FINAL CONNECTION TO LIGHT FIXTURE AND SWITCHING.



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HOUSTON, TEXAS 77345
281.301.3800
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
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E2.1

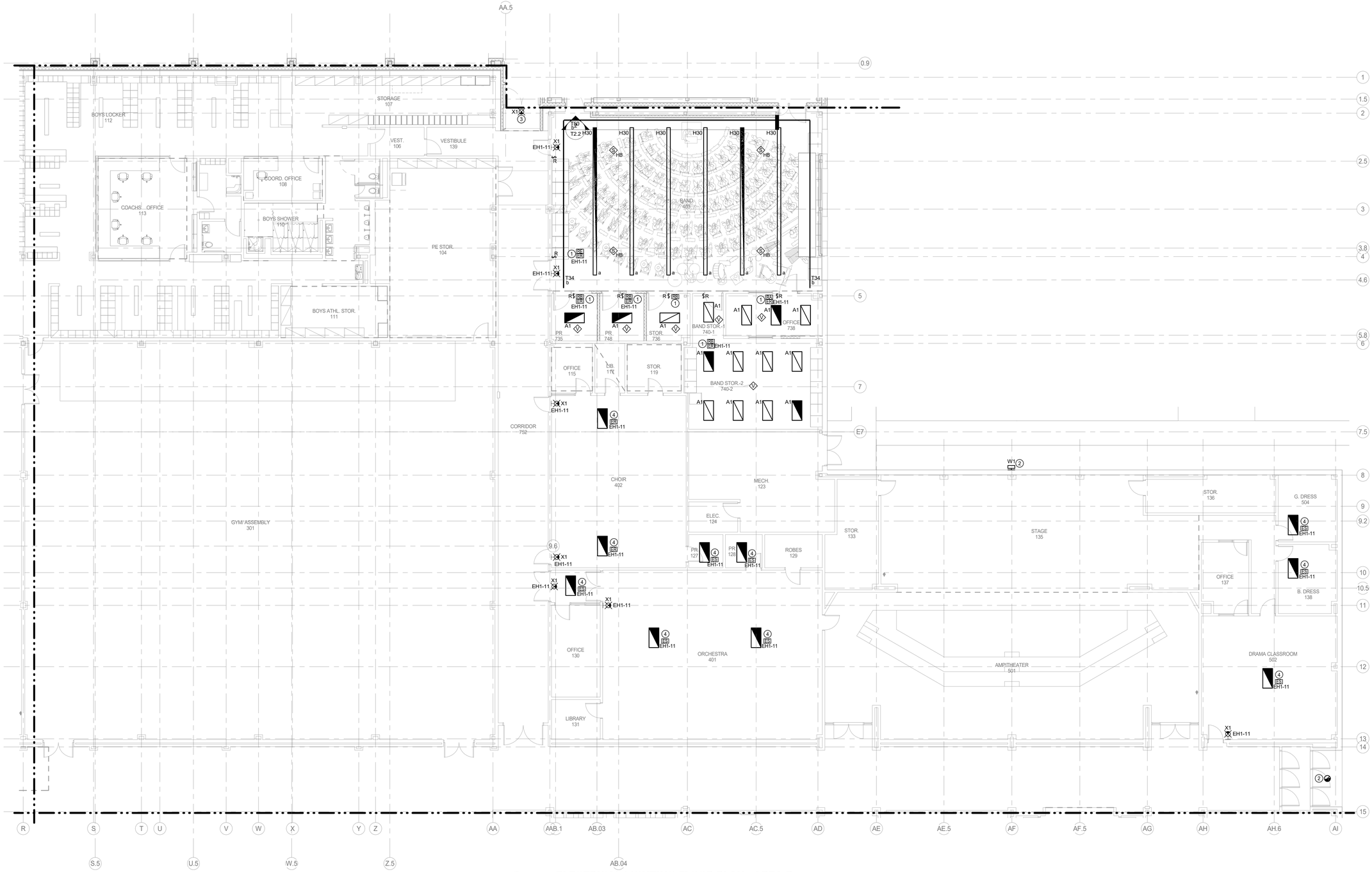
ELECTRICAL LIGHTING FLOOR PLAN - AREA A

ELECTRICAL KEYED NOTES:

1. CONNECT LIGHTING TO EXISTING NORMAL CIRCUITRY PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION. CONNECT EMERGENCY HATCHED FIXTURE(S) (WHERE INDICATED) TO NEW EMERGENCY CIRCUIT VIA SWITCH/RELAY.
2. PROVIDE NEW LIGHT FIXTURE IN EXISTING LOCATION AND CONNECT TO EXISTING CIRCUITRY. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
3. CONNECT NEW EXIT SIGNAGE TO EXISTING EMERGENCY CIRCUITRY SERVING SPACE. PROVIDE FIXTURE WITH A CONSTANT HOT.
4. PROVIDE EMERGENCY RELAY/SWITCH FOR EXISTING LIGHT FIXTURE. CONNECT TO NEW EMERGENCY CIRCUIT AS INDICATED AND MAKE FINAL CONNECTION TO LIGHT FIXTURE AND SWITCHING.

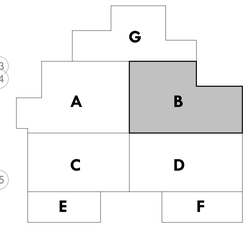
ELECTRICAL GENERAL NOTES:

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2. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY LOAD CONTROL RELAYS AND / OR EXIT SIGNS.
3. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE. INDICATE AS: LTG CTRL
4. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED. CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
5. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.



N

1 **ELECTRICAL LIGHTING FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL
ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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E2.2
ELECTRICAL LIGHTING FLOOR PLAN - AREA B

ELECTRICAL GENERAL NOTES:

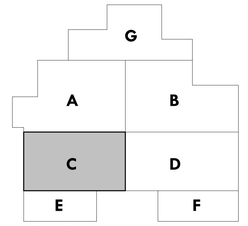
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2. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY LOAD CONTROL RELAYS AND / OR EXIT SIGNS.
3. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
4. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED. CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
5. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.
7. UNLESS NOTED OTHERWISE, REINSTALL ALL EXISTING LIGHT FIXTURES AND ALL CEILING MOUNTED ELECTRICAL IN NEW CEILINGS WHERE APPLICABLE. DEVICES INCLUDE BUT ARE NOT LIMITED TO: LIGHTS, EXIT SIGNS, OCCUPANCY SENSORS, ETC. REFER TO ARCHITECTURAL PLANS FOR AREAS THAT THE CEILING IS BEING REPLACED.

ELECTRICAL KEYED NOTES:

1. PROVIDE EMERGENCY RELAY/SWITCH FOR EXISTING LIGHT FIXTURE. CONNECT TO NEW EMERGENCY CIRCUIT AS INDICATED AND MAKE FINAL CONNECTION TO LIGHT FIXTURE AND SWITCHING.
2. CONNECT LIGHTING TO EXISTING NORMAL CIRCUITRY PRESERVED DURING DEMOLITION. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION. CONNECT EMERGENCY HATCHED FIXTURE(S) (WHERE INDICATED) TO NEW EMERGENCY CIRCUIT VIA SWITCHRELAY.
3. PROVIDE WALL MOUNTED ACCESSORY FOR OCCUPANCY SENSOR. LOCATE WHERE PRACTICAL OR AS DIRECTED BY MANUFACTURER.
4. PROVIDE NEW LIGHT FIXTURE IN EXISTING LOCATION AND CONNECT TO EXISTING CIRCUITRY. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.



1 **ELECTRICAL LIGHTING FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
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BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HOUSTON, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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E2.3

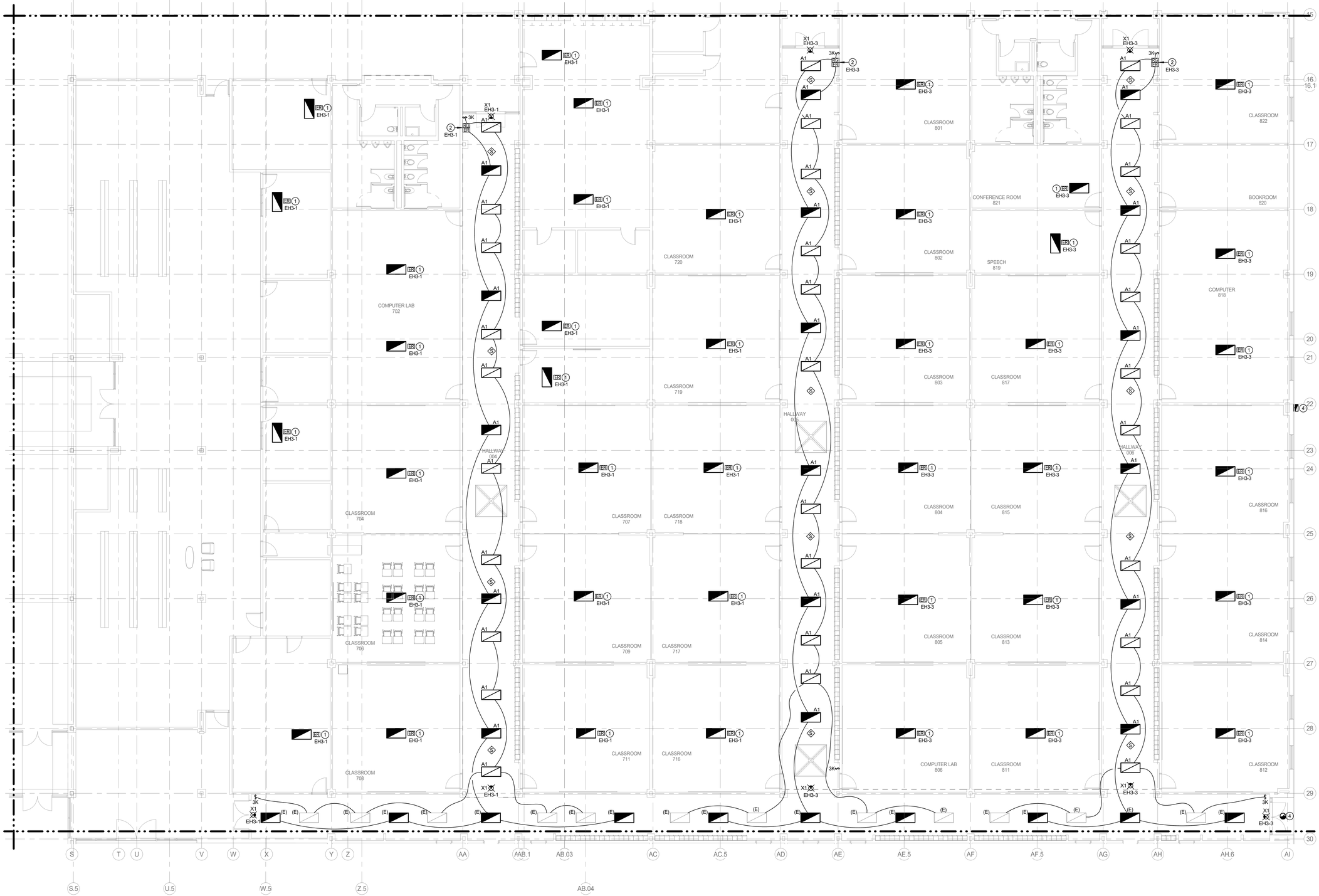
ELECTRICAL LIGHTING FLOOR PLAN - AREA C

ELECTRICAL KEYED NOTES:

1. PROVIDE EMERGENCY RELAY/SWITCH FOR EXISTING LIGHT FIXTURE. CONNECT TO NEW EMERGENCY CIRCUIT AS INDICATED AND MAKE FINAL CONNECTION TO LIGHT FIXTURE AND SWITCHING.
2. CONNECT LIGHTING TO EXISTING NORMAL CIRCUITRY PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION. CONNECT EMERGENCY HATCHED FIXTURE(S) (WHERE INDICATED) TO NEW EMERGENCY CIRCUIT VIA SWITCH/RELAY.
3. PROVIDE WALL MOUNTED ACCESSORY FOR OCCUPANCY SENSOR. LOCATE WHERE PRACTICAL OR AS DIRECTED BY MANUFACTURER.
4. PROVIDE NEW LIGHT FIXTURE IN EXISTING LOCATION AND CONNECT TO EXISTING CIRCUITRY. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
5. CONNECT LIGHTING TO EXISTING NORMAL AND EMERGENCY CIRCUITRY PRESERVED DURING DEMOLITION. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION. CONNECT EMERGENCY HATCHED FIXTURE(S) TO NEW EMERGENCY SWITCH/RELAY WHERE INDICATED.
6. CONNECT NEW EXIT SIGNAGE TO EXISTING EMERGENCY CIRCUITRY SERVING SPACE. PROVIDE FIXTURE WITH A CONSTANT HOT.

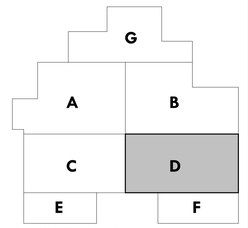
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6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.



N

1 **ELECTRICAL LIGHTING FLOOR PLAN - AREA D**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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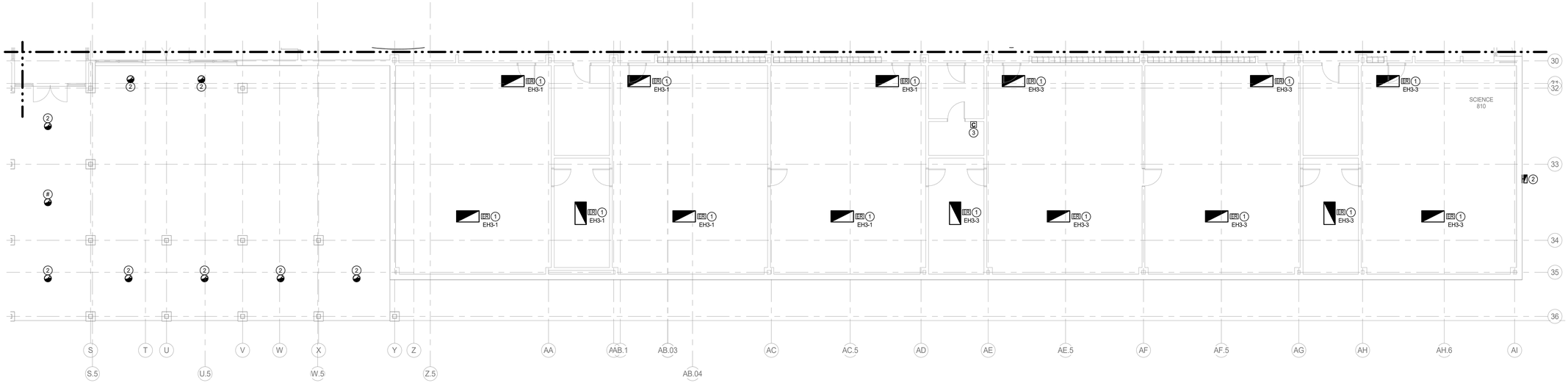
E2.4
ELECTRICAL LIGHTING FLOOR PLAN - AREA D

ELECTRICAL GENERAL NOTES:

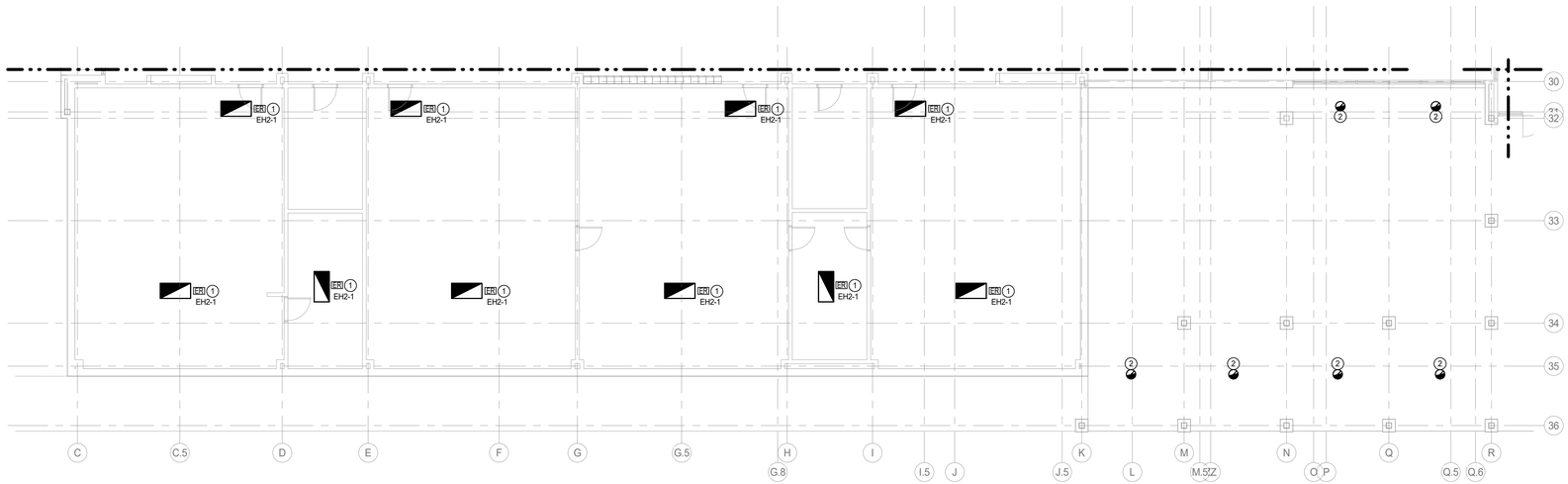
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ELECTRICAL KEYED NOTES:

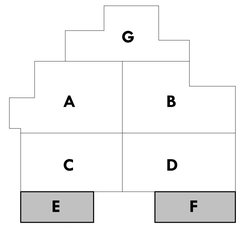
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2. PROVIDE NEW LIGHT FIXTURE IN EXISTING LOCATION AND CONNECT TO EXISTING CIRCUITRY. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
3. **ALTERNATE PRICING:** PROVIDE NEW CONTACTOR TO CONTROL NEW SITE LIGHTING. LOCATE WHERE APPLICABLE ON EXISTING WALL AND CONTROL VIA BMCS.



N 2 **ELECTRICAL LIGHTING FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



N 1 **ELECTRICAL LIGHTING FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



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SUITE 250 BUILDING 4
LEAGUE CITY, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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1	ISSUED FOR CSP	06.13.2025

E2.5

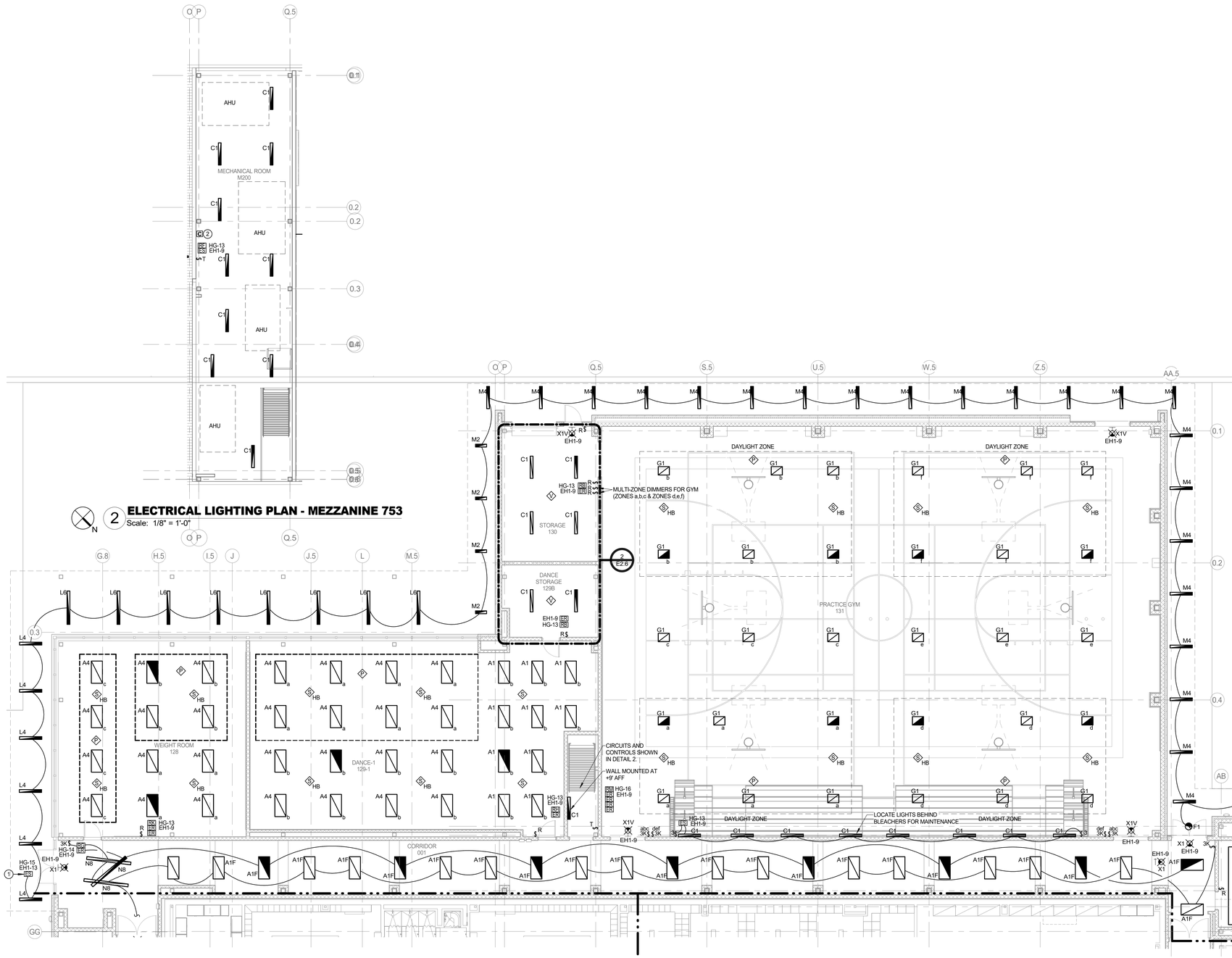
ELECTRICAL LIGHTING FLOOR PLAN - AREA E & F

ELECTRICAL GENERAL NOTES:

1. LIGHTING CONTROLS SHALL COMPLY WITH IECC 2015. REFER TO CONTROLS SCHEDULE FOR ALL LIGHTING CONTROLS, SENSORS, AND SWITCHING SCHEMES THROUGHOUT FACILITY.
2. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED POWER FOR EMERGENCY LOAD CONTROL RELAYS AND / OR EXIT SIGNS.
3. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: LTG CTRL
4. OCCUPANCY / VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED. CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER.
5. SPACES WITH MULTIPLE OCCUPANCY / VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
6. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MEPT ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. SUSPEND OR WALL MOUNT FIXTURES WHERE PRACTICAL.

ELECTRICAL KEYED NOTES:

1. EMERGENCY SWITCH FOR EXTERIOR LIGHTING. LOCATE IN MECHANICAL MEZZANINE M100 ADJACENT TO PANEL HG.
2. PROVIDE NEW CONTACTOR TO CONTROL NEW GYM EXTERIOR LIGHTING. LOCATE ADJACENT TO PANEL HG AND CONTROL VIA BMCS.

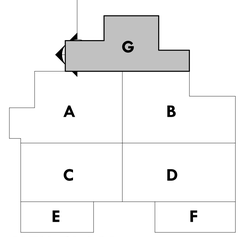


N

2 **ELECTRICAL LIGHTING PLAN - MEZZANINE 753**
Scale: 1/8" = 1'-0"

N

1 **ELECTRICAL LIGHTING FLOOR PLAN - AREA G**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS 80219 LICENSED PROFESSIONAL ENGINEER
06/11/2024

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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E2.6

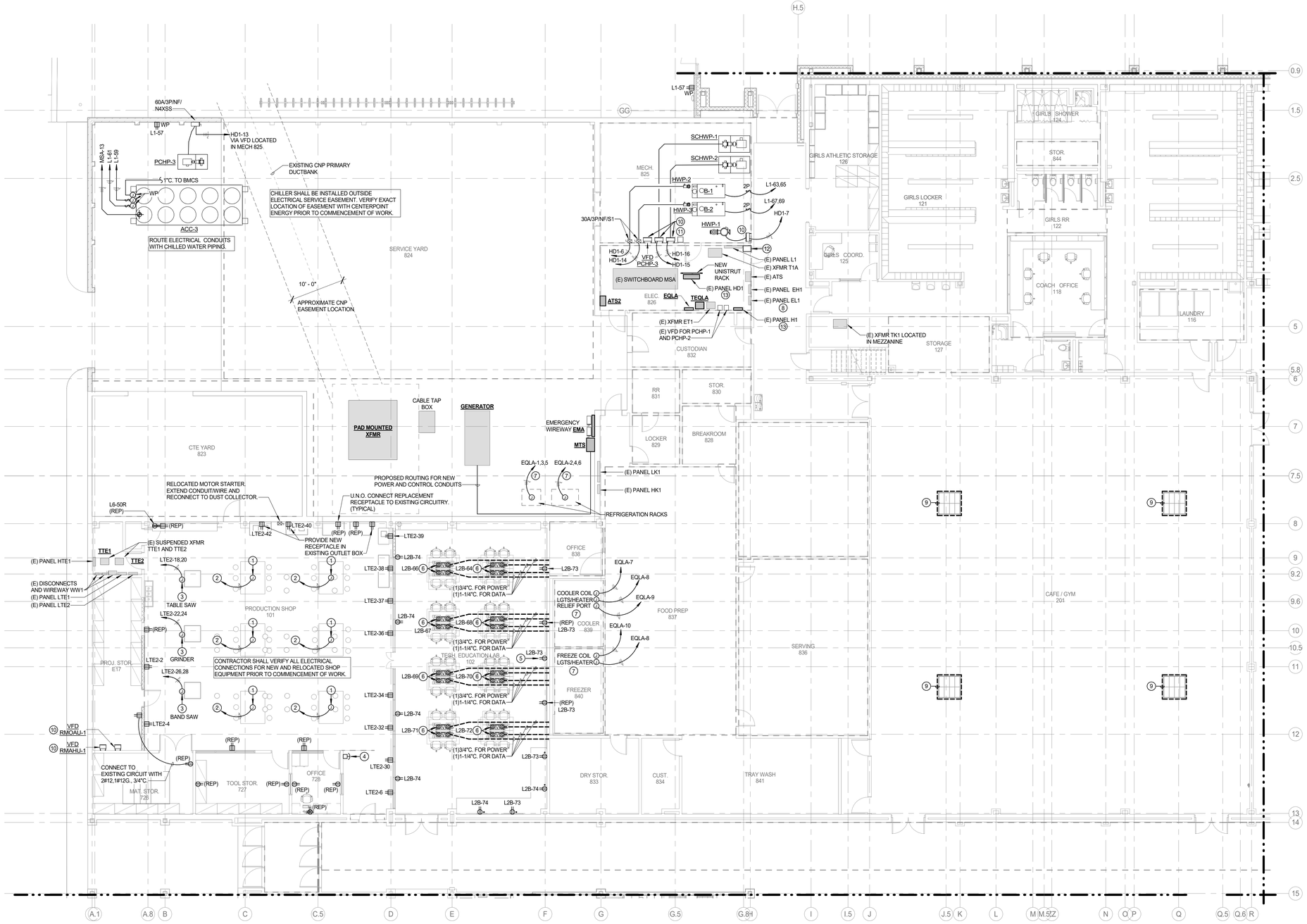
ELECTRICAL LIGHTING FLOOR PLAN - AREA G AND MEZZANINE

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

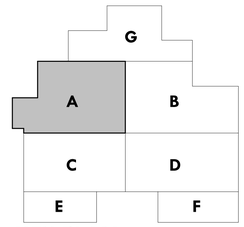
ELECTRICAL KEYED NOTES:

1. PROVIDE 120V ELECTRIC CORD REEL MOUNTED TO BOTTOM OF STRUCTURE WITH GFCI DOUBLE DUPLEX RECEPTACLE. VERIFY EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
2. CONNECT TO EXISTING CIRCUITRY PRESERVED DURING DEMOLTION. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
3. PROVIDE A JUNCTION BOX FOR CONNECTION OF NEW SHOP EQUIPMENT. VERIFY EXACT ELECTRICAL REQUIREMENTS PRIOR TO COMMENCEMENT OF WORK. REFER TO DETAIL FOR CONDUIT SUPPORT.
4. PROVIDE NEW EPO SWITCH WITH KEY RESET AND RECONNECT TO EXISTING SHUNT TRIP BREAKER IN PANELS LTE1 & LTE2. PROVIDE EPO BY SAFETY TECHNOLOGY INTERNATIONAL (STI) OR APPROVED EQUAL.
5. RECEPTACLE FOR INTERACTIVE VIDEO DISPLAY. REFERENCE TECHNOLOGY DETAILS FOR MOUNTING HEIGHTS. VERIFY EXACT LOCATION WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.
6. CONCEALED SERVICE MULT-ACCESS FLOOR BOX WITH CAPACITY FOR WIRING DEVICES AND TECHNOLOGY DEVICES. PROVIDE A 6-GANG BOX WITH (4) DUPLEX RECEPTACLES AND (1) DATA OUTLET. ROUTE UNDERGROUND CONDUITS FROM BOX TO NEAREST WALL AND ROUTE UP TO CEILING SPACE. COORDINATE EXACT BOX LOCATION WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN. REFER TO TECHNOLOGY PLANS FOR DATA DROPS.
7. INTERCEPT ALL EXISTING REFRIGERATION SYSTEM BRANCH CIRCUIT(S) AND ROUTE TO NEW PANEL EQLA. EXTEND CONDUIT/WIRE FOR EACH CIRCUIT WITH MATCHING OVERCURRENT PROTECTION AND MAKE FINAL CONNECTION.
8. INTERCEPT ALL EXISTING COOLER/FREEZER, SOUND RACK, DIMMER SYSTEMS, TEMPERATURE ALARM PANEL AND ANY OTHER NON-LIFE-SAFETY CIRCUITS AND ROUTE TO NEW EMERGENCY EQUIPMENT PANEL EQLA EXTEND CONDUIT/WIRE FOR EACH CIRCUIT WITH MATCHING OVERCURRENT PROTECTION AND MAKE FINAL CONNECTION.
9. INTERCEPT ALL EXISTING BRANCH CIRCUITS IN THIS AREA AND RE-ROUTE AROUND NEW SKYLIGHT, EXTEND CONDUIT/WIRE AND RECONNECT TO EXISTING CIRCUITRY. CONTRACTOR SHALL FIELD VERIFY EXISTING.
10. VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER, FURNISHED BY DIVISION 23. INSTALLED BY DIVISION 26.
11. NEW CO MONITORING STATION. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION, EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
12. REPLACEMENT FIRE ALARM BOOSTER PANEL. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.
13. RE-LOCATED PANEL, RECONNECT ALL REMAINING BRANCH CIRCUITS.



N

1 **ELECTRICAL POWER FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TX 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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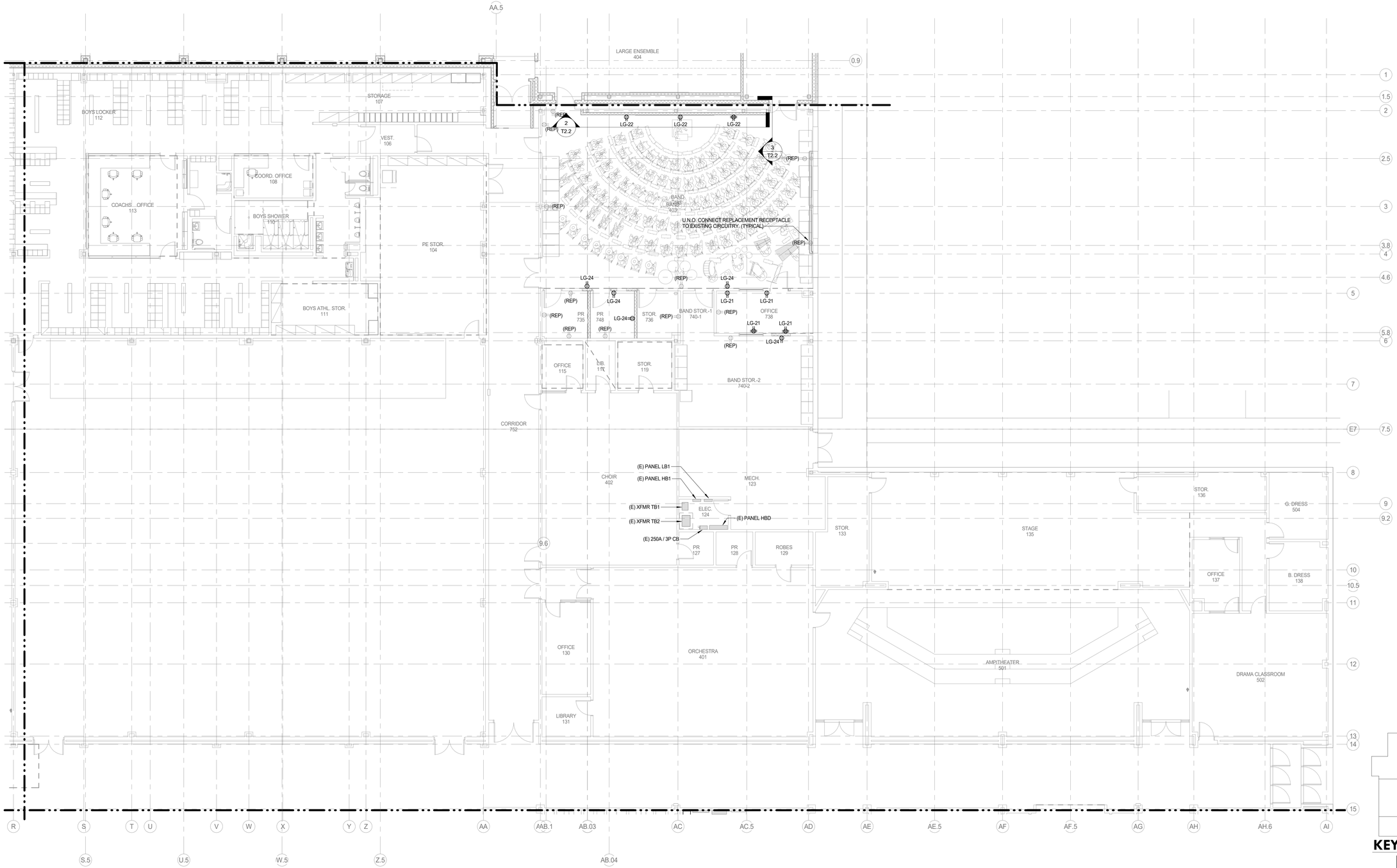
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BRW PROJECT NUMBER 223005.00

E3.1

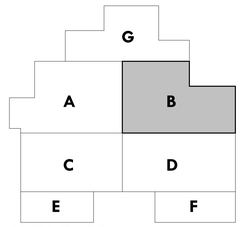
ELECTRICAL POWER FLOOR PLAN - AREA A

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.



1 **ELECTRICAL POWER FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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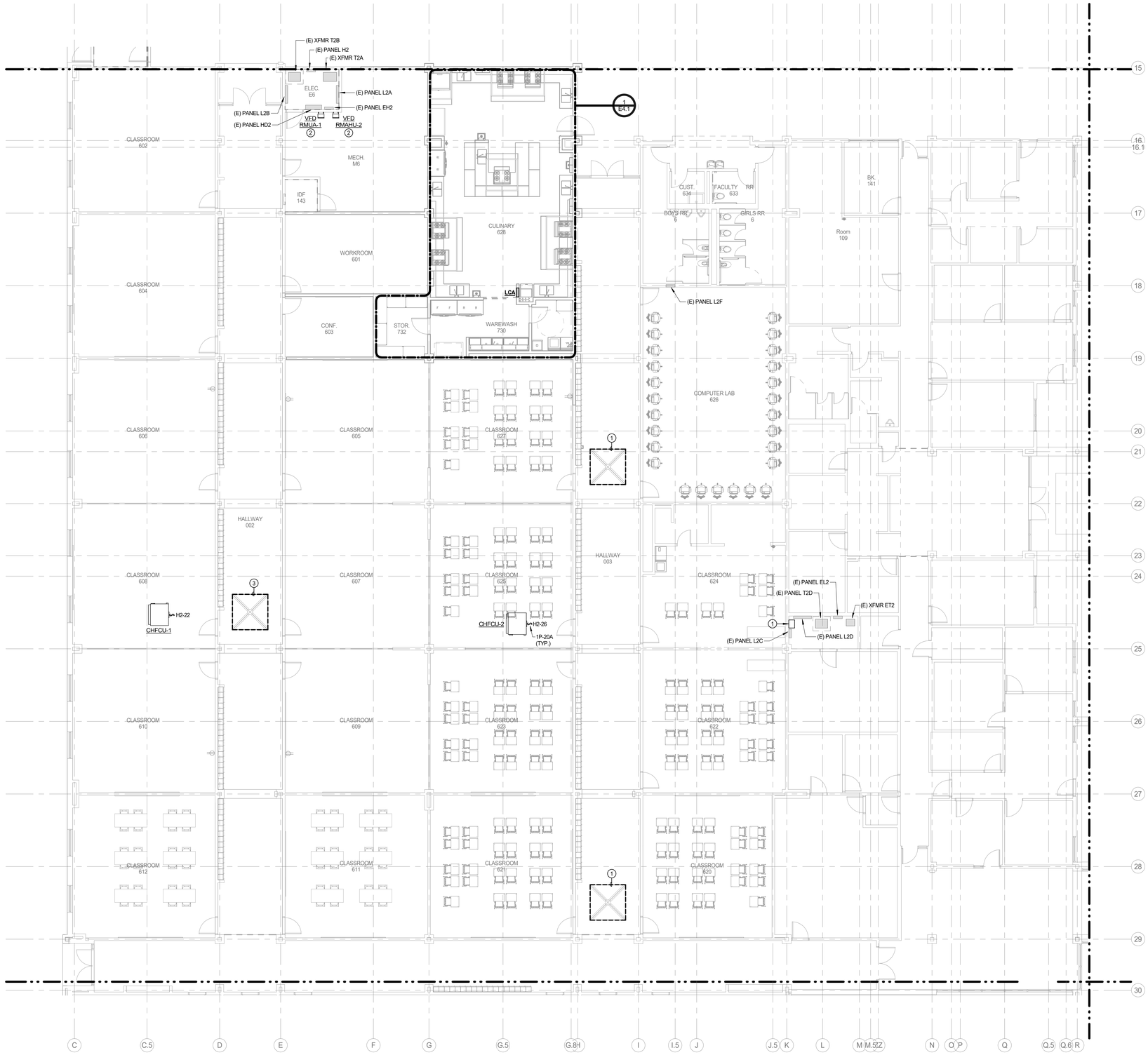
E3.2
ELECTRICAL POWER FLOOR PLAN - AREA B

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

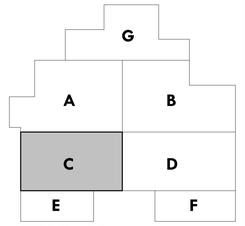
ELECTRICAL KEYED NOTES:

1. INTERCEPT ALL EXISTING BRANCH CIRCUITS IN THIS AREA AND RE-ROUTE AROUND NEW SKYLIGHT, EXTEND CONDUIT/WIRE AND RECONNECT TO EXISTING CIRCUITRY. TYPICAL FOR (3)3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
2. VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER, FURNISHED BY DIVISION 23, INSTALLED BY DIVISION 26.
3. INTERCEPT ALL EXISTING BRANCH CIRCUITS IN THIS AREA AND RE-ROUTE AROUND NEW SKYLIGHT, EXTEND CONDUIT/WIRE AND RECONNECT TO EXISTING CIRCUITRY. TYPICAL FOR (4)3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
4. REPLACEMENT FIRE ALARM BOOSTER PANEL. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.



N

1 **ELECTRICAL POWER FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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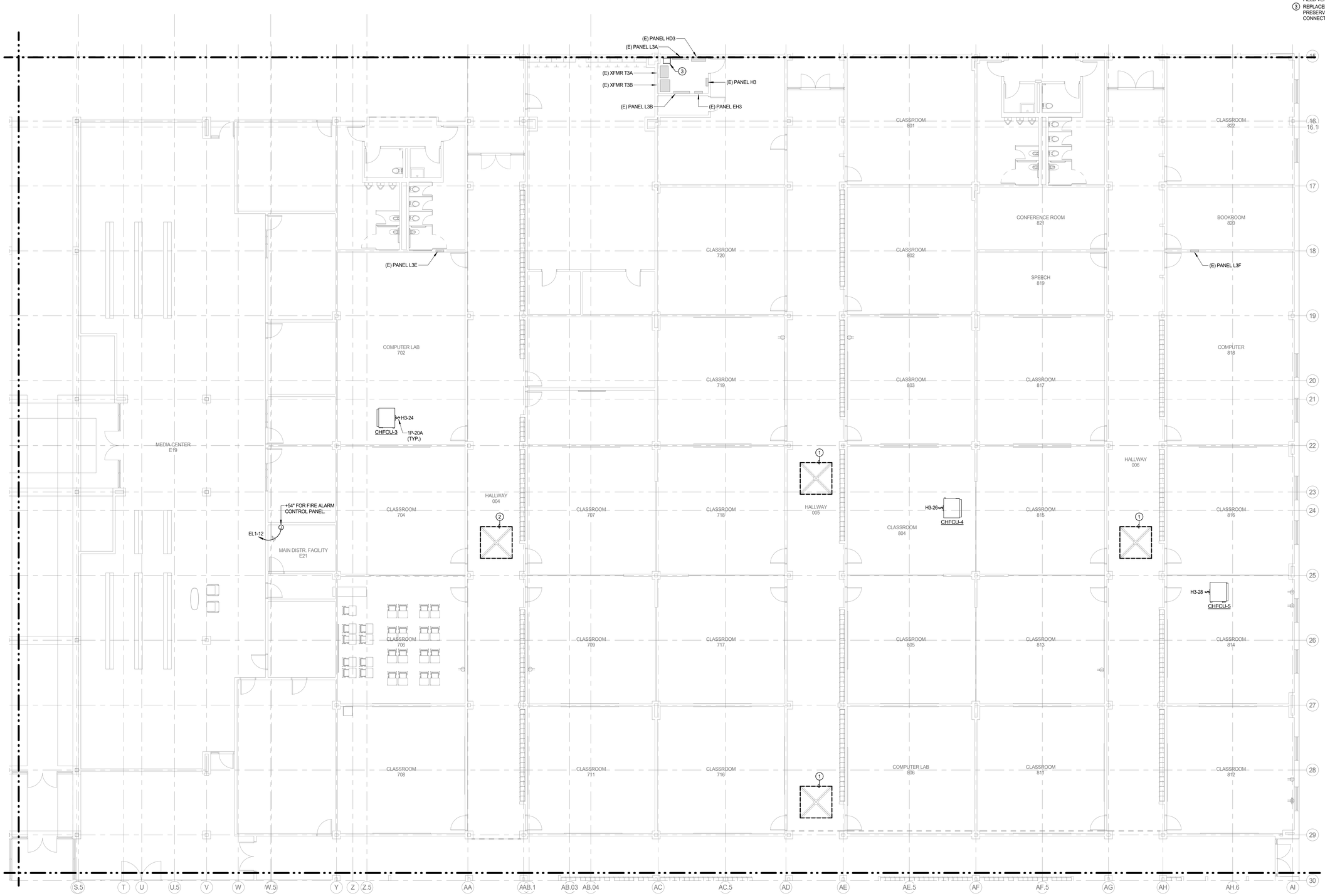
E3.3
ELECTRICAL POWER FLOOR PLAN - AREA C

ELECTRICAL GENERAL NOTES:

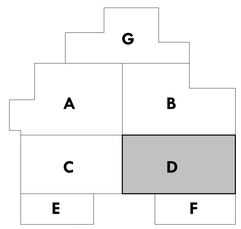
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2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

1. INTERCEPT ALL EXISTING BRANCH CIRCUITS IN THIS AREA AND RE-ROUTE AROUND NEW SKYLIGHT, EXTEND CONDUIT/WIRE AND RECONNECT TO EXISTING CIRCUITRY. TYPICAL FOR (3)3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
2. INTERCEPT ALL EXISTING BRANCH CIRCUITS IN THIS AREA AND RE-ROUTE AROUND NEW SKYLIGHT, EXTEND CONDUIT/WIRE AND RECONNECT TO EXISTING CIRCUITRY. TYPICAL FOR (2)3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.
3. REPLACEMENT FIRE ALARM BOOSTER PANEL. CONNECT TO EXISTING CIRCUIT PRESERVED DURING DEMOLITION. EXTEND CONDUIT/WIRE AND MAKE FINAL CONNECTION.



1 **ELECTRICAL POWER FLOOR PLAN - AREA D**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS

NO.	REVISION	DATE
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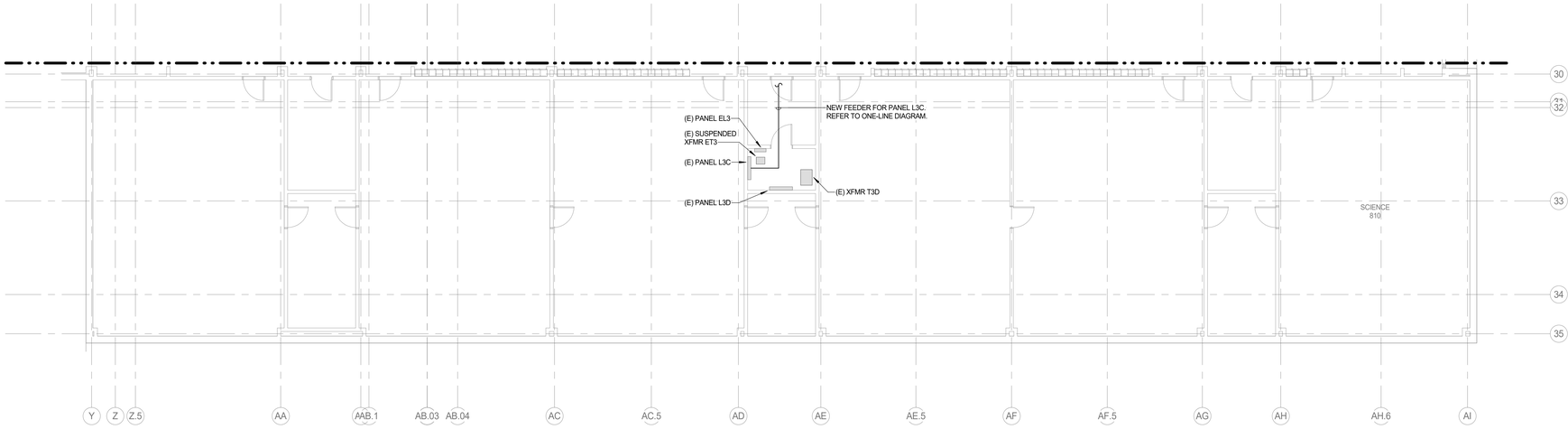
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ELECTRICAL POWER FLOOR PLAN - AREA D

ELECTRICAL GENERAL NOTES:

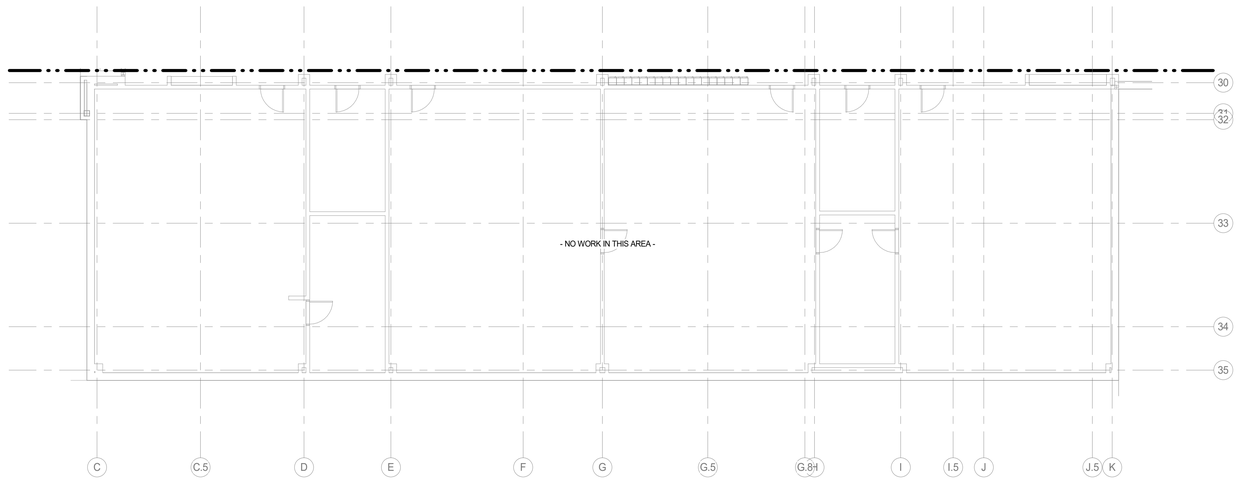
1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

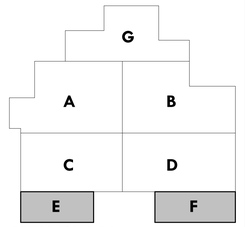
(1) CONTRACTOR SHALL INTERCEPT ALL EXISTING BRANCH CIRCUITS AND/OR FEEDERS IN THIS AREA AND RE-ROUTE AROUND NEW SKYLIGHT. CONTRACTOR TO EXTEND CONDUIT/WIRE AND RECONNECT TO EXISTING CIRCUITRY. TYPICAL FOR (5)3/4" CONDUITS. CONTRACTOR SHALL FIELD VERIFY EXISTING.



N 2 **ELECTRICAL POWER FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



N 1 **ELECTRICAL POWER FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

BRW

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BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

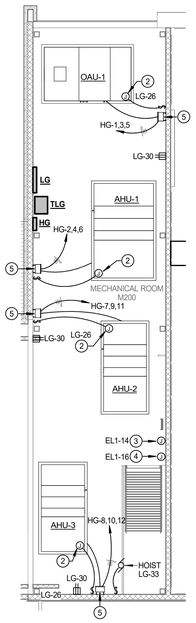
E3.5
ELECTRICAL POWER FLOOR PLAN - AREA E & F

ELECTRICAL GENERAL NOTES:

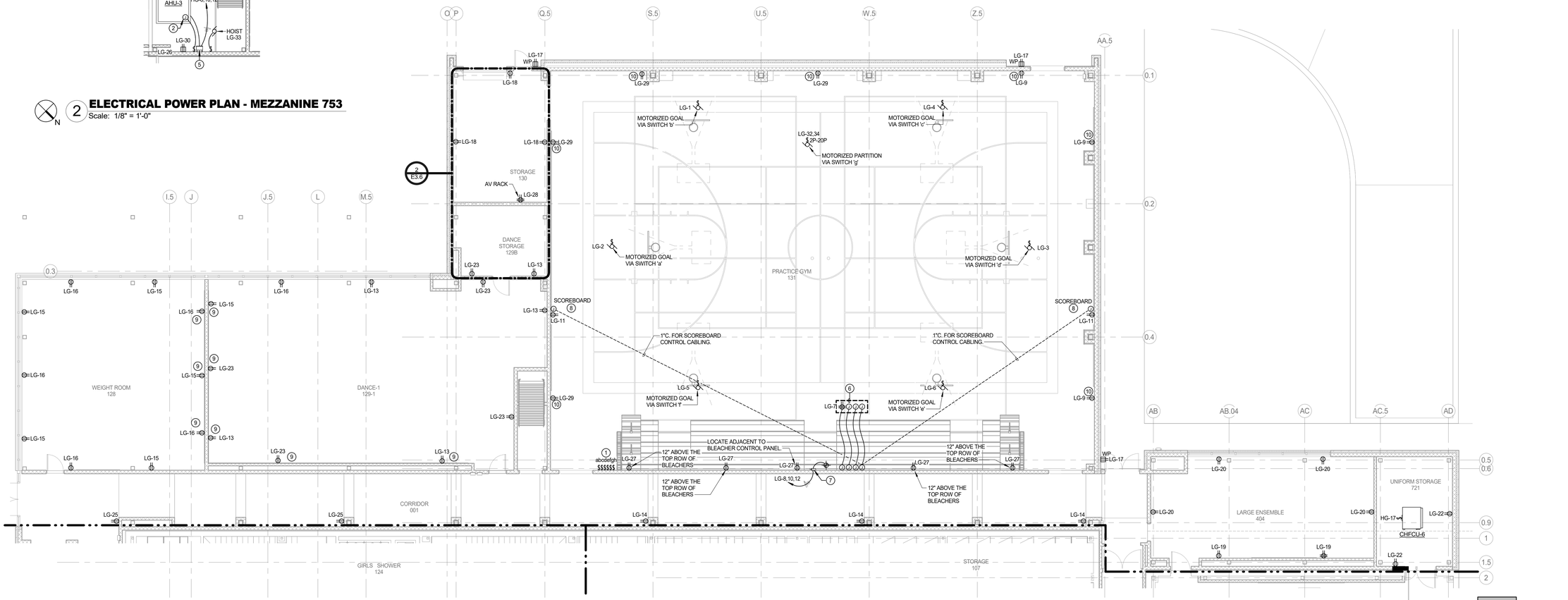
1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.

ELECTRICAL KEYED NOTES:

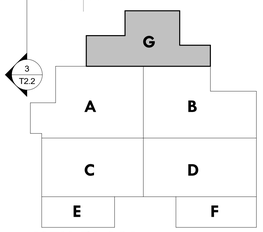
1. KEYED SWITCH LOCATION FOR BASKETBALL GOALS, DIVIDING PARTITION & BLEACHERS. PROVIDE LABEL WITH FUNCTION FOR EACH SWITCH. LOCATE SWITCHES IN RECESSED HINGED BOX WITH LOCKABLE COVER. COORDINATE KEYING AND FINAL LOCATION OF SWITCHES WITH OWNER PRIOR TO ROUGH-IN. (SWITCHES a,b,c,d,e,f,g,h,i,j,k,l,p)
2. PROVIDE JUNCTION BOX FOR CONNECTION OF AIR PURIFICATION SYSTEM. COORDINATE EXACT LOCATION AND MAKE FINAL CONNECTION.
3. PROVIDE JUNCTION BOX AT +54" AFF FOR CONNECTION OF FIRE ALARM BOOSTER PANEL. VERIFY FINAL CONNECTION WITH FIRE ALARM SHOP DRAWINGS AND MAKE FINAL CONNECTION.
4. PROVIDE JUNCTION BOX AT +54" AFF FOR CONNECTION OF BMCS PANEL. VERIFY FINAL LOCATION WITH BMCS SHOP DRAWINGS AND MAKE FINAL CONNECTION.
5. VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER, FURNISHED BY DIVISION 23, INSTALLED BY DIVISION 26.
6. PROPOSED SCORER'S TABLE LOCATION. MOUNT MICROPHONE, DATA, POWER, ETC. IN BASEPLATE OF BOTTOM BLEACHER. VERIFY EXACT LOCATION WITH ARCHITECT/OWNER. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
7. PROVIDE 30A/3P/NF DISCONNECT FOR CONNECTION OF BLEACHER CONTROL/CONTACTOR PANEL. INSTALL PER MANUFACUTER RECOMENDATIONS AND MAKE ALL FINAL CONNECTIONS TO BLEACHER CONTROL PANEL.
8. POWER AND CONTROL DEVICES FOR SCOREBOARD. COORDINATE EXACT LOCATION OF SCOREBOARD WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO DETAIL FOR MORE INFORMATION.
9. COORDINATE INSTALLATION OF RECEPTACLE IN MIRROR WITH ARCHITECT/VENDOR AND PROVIDE WITH MATCHING MIRROR COVERPLATE.
10. COORDINATE INSTALLATION OF RECEPTACLE WHEN LOCATED WITHIN GYM WALL PADDING WITH ARCHITECT/VENDOR.



2 **ELECTRICAL POWER PLAN - MEZZANINE 753**
Scale: 1/8" = 1'-0"



1 **ELECTRICAL POWER FLOOR PLAN - AREA G**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

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80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
MCKINNEY, TEXAS 75345
281.361.3800
WWW.BRWARCH.COM

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

DATE JUNE 13, 2025
DRAWN BY DES
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BRW PROJECT NUMBER 223005.00

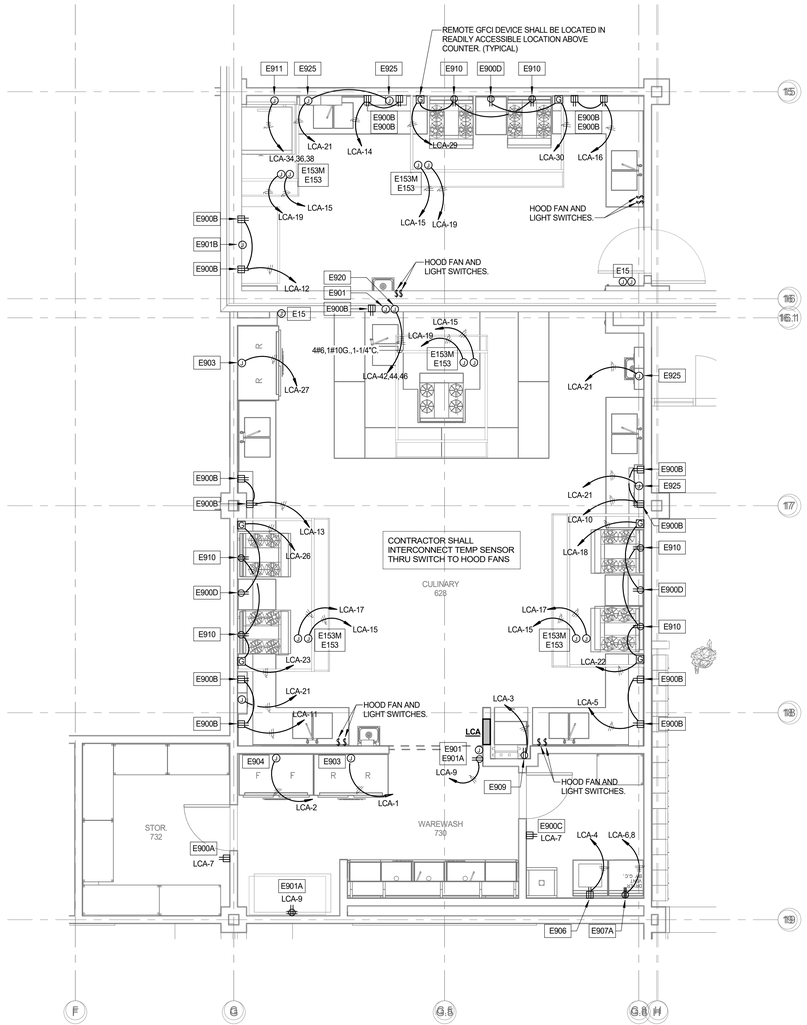
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

E3.6
ELECTRICAL POWER FLOOR PLAN - AREA G AND MEZZANINE

ELECTRICAL GENERAL NOTES:

1. REFER TO FOOD SERVICE (QF-SERIES) AND TECHNOLOGY (T-SERIES) DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL DIVISION 26 SCOPE OF WORK.
2. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150-VOLTS OR LESS TO GROUND, 50-AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150-VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS SHALL HAVE GROUND-FAULT CIRCUIT INTERRUPTER PROTECTION IN THE KITCHEN, SERVING, LAUNDRY, RESTROOAND ALL OTHER ASSOCIATED AREAS. (NATIONAL ELECTRIC CODE (NEC) 210.8)
3. PROVIDE ENGRAVED SWITCH-PLATES INDICATING FUNCTION FOR ALL HOOD VENT LIGHT / EXHAUST FAN SWITCHES. COORDINATE FINAL SWITCH LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
4. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT AND SCHEDULES. CONTRACTOR TO PROVIDE DISCONNECT SWITCHES AND MAKE ALL FINAL CONNECTIONS TO POWER AND CONTROL EQUIPMENT.
5. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.



1 **ELECTRICAL FLOOR PLAN - CULINARY ARTS**
Scale: 1/4" = 1'-0"

FOOD SERVICE ELECTRICAL SCHEDULE

FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS
E15	JB	---	---	--	REMOTE FIRE PULL	WALL	54"	BTC - RECESSED JB - EXTEND TO FIRE SYSTEM FOR HOOD
E153	JB	10.0A	120	1	HOOD LIGHTS	CLG	DFA	BTC
E153M	JB	10.0A	120	1	HEAT SENSOR	CLG	DFA	BTC
E900A	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	24"	---
E900B	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	47"	---
E900C	WPR	16.0A	120	1	CONVENIENCE OUTLET	WALL	18"	---
E900D	DR	16.0A	120	1	CONVENIENCE	WALL	44"	SHUNT TRIP BREAKER
E901	JB	---	---	--	DATA CONNECTION	WALL	24"	FOR MOBILE VIDEO MONITOR
E901A	DR	16.0A	120	1	DEDICATED CIRCUIT	WALL	24"	---
E901B	JB	---	---	--	DATA CONNECTION	WALL	24"	TEACHER'S DESK
E903	JB	14.9A	120	1	FREEZER	WALL	90"	BTC - OMIT PLUG. UNIT TO BE HARDWIRED.
E904	JB	8.2A	120	1	REFRIGERATOR	WALL	90"	BTC - OMIT PLUG. UNIT TO BE HARDWIRED.
E906	DR	16.0A	120	1	CLOTHES WASHER	WALL	48"	--
E907A	SR	30.0A	208	1	CLOTHES DRYER	WALL	48"	VERIFY NEMA PLUG RECEPTACLE
E909	DR	11.9A	120	1	ICE MACHINE	WALL	60"	---
E910	DR	1.0A	120	1	SIX BURNER RANGE	WALL	24"	SHUNT TRIP BREAKER
E911	JB	31.0A	208	3	CONVECTION OVEN	WALL	36"	BTC. SHUNT TRIP BREAKER
E920	JB	60.0A	120/208	3	LOAD CENTER	WALL	24"	BTC
E925	JB	1.0A	120	1	FIRE PROT. SYSTEM	CLG	DFA	BTC

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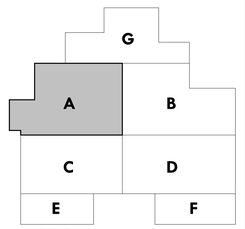
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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUFFMAN, TEXAS 77345
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

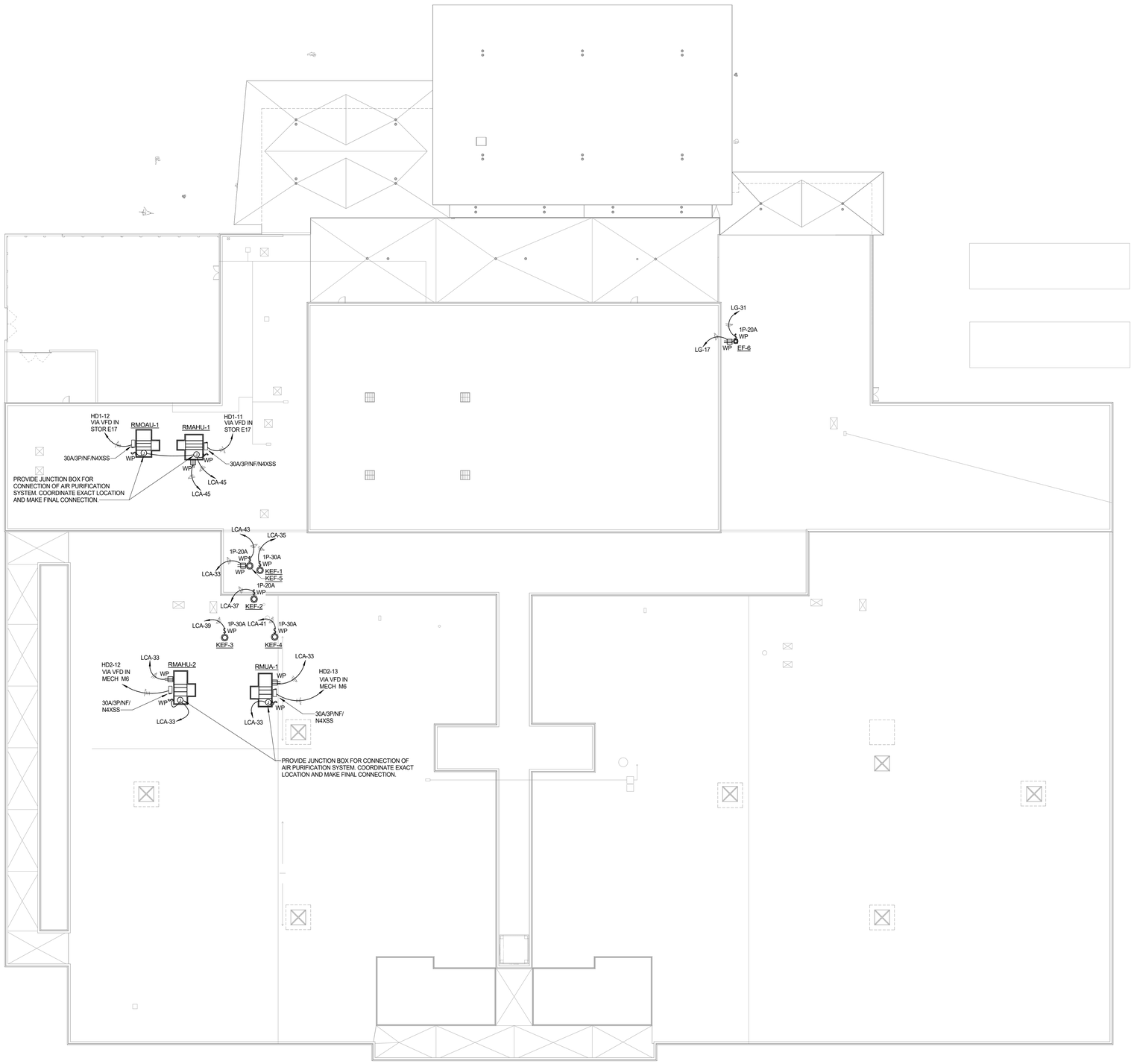
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E4.1

ELECTRICAL FLOOR PLAN - CULINARY ARTS

ELECTRICAL GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SHALL REMAIN.
2. REFER TO TECHNOLOGY SERIES (T-SERIES) DRAWINGS FOR ADDITIONAL WORK REQUIRED BY DIVISION 26.
3. ALL 15 AND 20 AMPERES, 125 AND 250 VOLT NON-LOCKING TYPE RECEPTACLES IN AREA SPECIFIED IN 406.12(1) THROUGH (7) SHALL BE LISTED AS TAMPER-RESISTANT TYPE RECEPTACLES.
4. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT AND SCHEDULES. CONTRACTOR TO PROVIDE DISCONNECT SWITCHES AND MAKE ALL FINAL CONNECTIONS TO POWER AND CONTROL EQUIPMENT.



N

1 **ELECTRICAL ROOF PLAN**
Scale: 1" = 20'-0"

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STATE OF TEXAS
06.13.2025

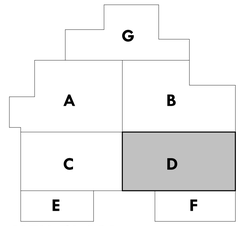
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KEY PLAN

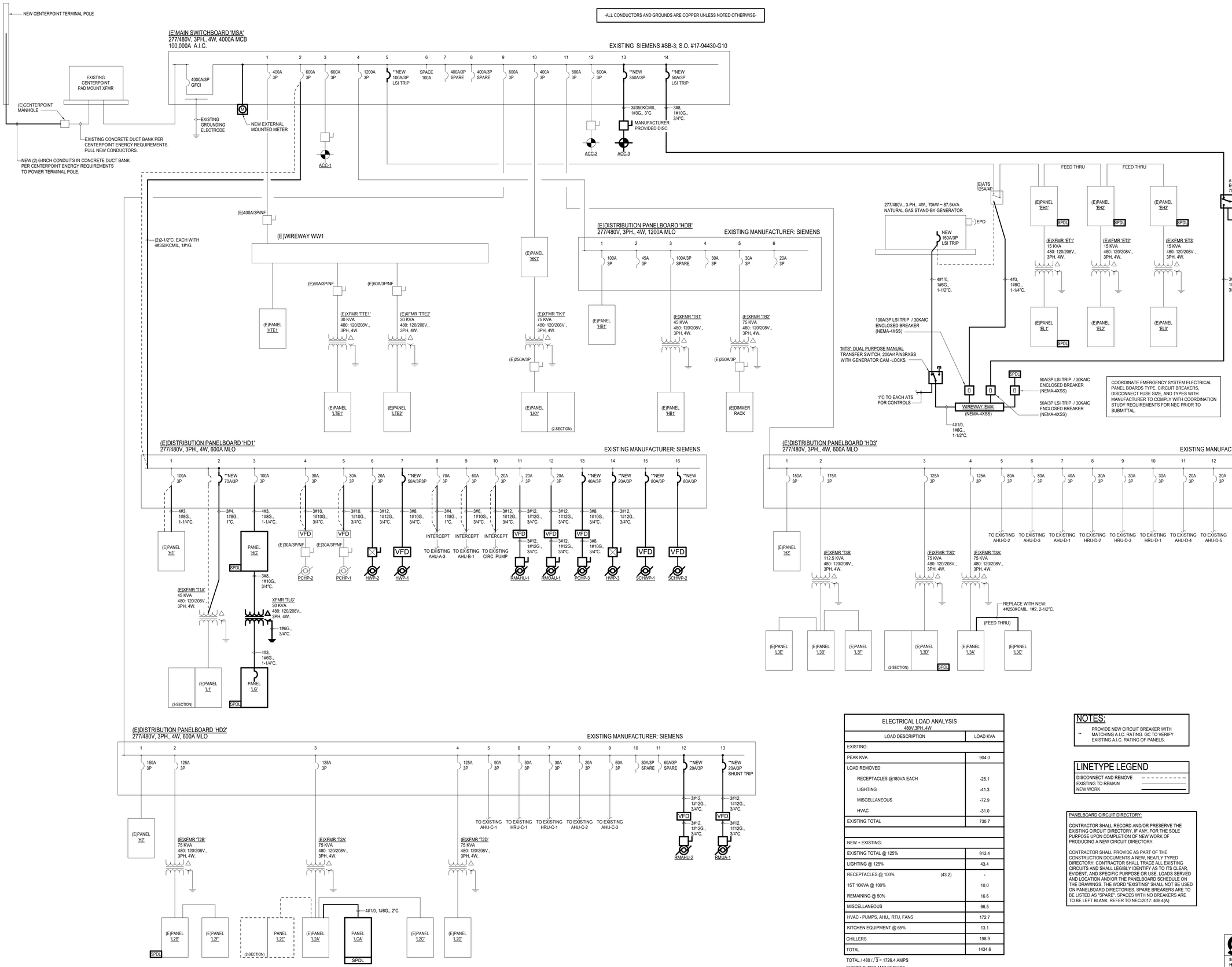
Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

E4.2
ELECTRICAL ROOF PLAN

-ALL CONDUCTORS AND GROUNDS ARE COPPER UNLESS NOTED OTHERWISE-



1 ONE-LINE DIAGRAM
SCALE: NONE

ELECTRICAL LOAD ANALYSIS
480V,3PH.,4W

LOAD DESCRIPTION	LOAD KVA
EXISTING:	
PEAK KVA	904.0
LOAD REMOVED	
RECEPTACLES @180VA EACH	-28.1
LIGHTING	-41.3
MISCELLANEOUS	-72.9
HVAC	-31.0
EXISTING TOTAL	730.7
NEW + EXISTING:	
EXISTING TOTAL @ 125%	913.4
LIGHTING @ 125%	43.4
RECEPTACLES @ 100% (43.2)	-
1ST 10KVA @ 100%	10.0
REMAINING @ 50%	16.6
MISCELLANEOUS	66.5
HVAC - PUMPS, AHU., RTU, FANS	172.7
KITCHEN EQUIPMENT @ 65%	13.1
CHILLERS	198.9
TOTAL	1434.6

TOTAL / 480 /.$\sqrt{3}$ = 1726.4 AMPS
EXISTING 4000 AMP SERVICE

NOTES:
** PROVIDE NEW CIRCUIT BREAKER WITH MATCHING A.I.C. RATING. GC TO VERIFY EXISTING A.I.C. RATING OF PANELS.

LINETYPE LEGEND
DISCONNECT AND REMOVE
EXISTING TO REMAIN
NEW WORK

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE, LOADS SERVED AND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2017: 408.4(A)

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
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WWW.BRWARCH.COM

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HUMBLE ISD
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E5.1
ELECTRICAL ONE-LINE DIAGRAM

Branch Panel: EQLA

NEW

Location: ELEC. 826 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TEQLA | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1				3.3 / 3.3						2	
	3	Refrigeration Rack	#10	30 3		3.3 / 3.3		3	30	Refrigeration Rack	4	
	5						3.3 / 3.3				6	
	7	Cooler Coil	#12	20 1	0.4 / 0.8			1	20	#12 Door Heater/Lights	8	
	9	Pressure Relief Port	#12	20 1		0.4 / 0.4		1	20	#12 Freezer Coil	10	
	11	Sound Rack	#8	20 1			0.5 / 0.5	1	20	#8 Sound Rack	12	
	13	Sound Rack	#8	20 1	0.5 / 0.0			1	--	-- SPACE	14	--
--	15	SPARE	--	20 1		0.0 / 0.0		1	--	-- SPACE	16	--
--	17	SPARE	--	20 1			0.0 / 0.0	1	--	-- SPACE	18	--
--	19	SPARE	--	20 1	0.0 / 0.0			1	--	-- SPACE	20	--
--	21	SPARE	--	20 1		0.0 / 0.0		1	--	-- SPACE	22	--
--	23	SPARE	--	20 1			0.0 / 0.0	1	--	-- SPACE	24	--
--	25	SPARE	--	20 1	0.0 / 0.0			1	--	-- SPACE	26	--
--	27	SPARE	--	20 1		0.0 / 0.0		1	--	-- SPACE	28	--
--	29	SPARE	--	20 1			0.0 / 0.0	1	--	-- SPACE	30	--
--	31	SPARE	--	20 1	0.0 / 0.0			1	--	-- SPACE	32	--
--	33	SPARE	--	20 1		0.0 / 0.0		1	--	-- SPACE	34	--
--	35	SPARE	--	20 1			0.0 / 0.0	1	--	-- SPACE	36	--
--	37	SPARE	--	20 1	0.0 / 0.0						38	
--	39	SPARE	--	20 1		0.0 / 0.0		3	30	-- SPDL	40	--
--	41	SPARE	--	20 1			0.0 / 0.0				42	
			Total Load:		8.4 kVA	7.5 kVA	7.7 kVA					
			Total Amps:		70 A	62 A	64 A					

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
Miscellaneous	23.5 kVA	100.00%	23.5 kVA	
				Total Conn. Load: 23.5 kVA
				Total Est. Demand: 23.5 kVA
				Total Conn. Current: 65 A
				Total Est. Demand... 65 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
1-L - REFER TO ONE-LINE DIAGRAM

Branch Panel: L1

EXISTING

Location: ELEC. 826 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: T1A | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 150A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Existing Circuit	EX.	20 1	0.4 / 0.4			1	20	EX. Existing Circuit	2	
	3	Existing Circuit	EX.	20 1		0.4 / 0.4		1	20	EX. Existing Circuit	4	
	5	Existing Circuit	EX.	20 1			0.4 / 0.0	2	40	-- SPARE	6	--
	7	Existing Circuit	EX.	20 1	0.4 / 0.0						8	
	9	Existing Circuit	EX.	20 1		0.4 / 0.3		2	20	EX. Existing Circuit	10	
	11	Existing Circuit	EX.	20 1			0.4 / 0.3				12	
	13	Existing Circuit	EX.	20 1	0.4 / 0.4			1	20	EX. Existing Circuit	14	
	15	Existing Circuit	EX.	20 1		0.4 / 0.4		1	20	EX. Existing Circuit	16	
	17	Existing Circuit	EX.	20 1			0.4 / 0.4	1	20	EX. Existing Circuit	18	
	19	Existing Circuit	EX.	20 1	0.4 / 0.4			1	20	EX. Existing Circuit	20	
	21	Existing Circuit	EX.	20 1		0.4 / 0.4		1	20	EX. Existing Circuit	22	
	23	Existing Circuit	EX.	20 1			0.4 / 0.4	1	20	EX. Existing Circuit	24	
	25	Existing Circuit	EX.	20 1	0.4 / 0.4			1	20	EX. Existing Circuit	26	
	27	Existing Circuit	EX.	20 1		0.4 / 0.4		1	20	EX. Existing Circuit	28	
--	29	SPARE	--	20 1			0.0 / 0.3	2	20	EX. Existing Circuit	30	
	31				4.0 / 0.3						32	
	33	Existing Circuit	EX.	20 3		4.0 / 0.3		2	20	EX. Existing Circuit	34	
	35					4.0 / 0.3					36	
	37				1.3 / 0.2						38	
	39	Existing Circuit	EX.	20 3		1.3 / 0.2		3	20	EX. Existing Circuit	40	
	41					1.3 / 0.2					42	
	43				0.0 / 0.4			1	20	Existing Circuit	44	
--	45	Existing SPD	--	30 3		0.0 / 0.4		1	20	Existing Circuit	46	
	47						0.0 / 0.4	1	20	Existing Circuit	48	
	49	Existing Circuit	EX.	20 1	0.4 / 0.4			1	20	Existing Circuit	50	
	51	Existing Circuit	EX.	20 1		0.4 / 0.4		1	20	Existing Circuit	52	
	53	Existing Circuit	EX.	20 1			0.4 / 0.4	1	20	Existing Circuit	54	
	55	Existing Circuit	EX.	20 1	0.4 / 0.4			1	20	Existing Circuit	56	
1	**57**	**Receptacles**	**#12**	**20 1**		0.4 / 0.4		1	20	Existing Circuit	58	
1,G	**59**	**Chiller Heater (EGFI)**	**#12**	**20 1**			0.5 / 0.4	1	20	Existing Circuit	60	
1	**61**	**Chiller Controls / Valves**	**#12**	**20 1**	0.5 / 0.4			1	20	Existing Circuit	62	
	63	**Boiler (B-1)**	**#12**	**20 2**		0.5 / 0.4				Existing Circuit	64	
	65						0.5 / 0.4	1	20	Existing Circuit	66	
	67	**Boiler (B-2)**	**#12**	**20 2**	0.5 / 0.0						**68**	
	69					0.5 / 0.0		**3**	**30**	**-- (NEW) SPDL (1)**	**70**	**--**
--	71	SPACE	--	-- 1			0.0 / 0.0				**72**	
			Total Load:		12.8 kVA	13.0 kVA	11.7 kVA					
			Total Amps:		108 A	109 A	97 A					

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
Heating	0.0 kVA	0.00%	0.0 kVA	
Miscellaneous	3.0 kVA	100.00%	3.0 kVA	**Total Conn. Load:** 37.4 kVA
Receptacles	0.4 kVA	100.00%	0.4 kVA	**Total Est. Demand:** 45.9 kVA
Existing Circuit	34.0 kVA	125.00%	42.5 kVA	**Total Conn. Current:** 104 A
				Total Est. Demand... 127 A

Notes:
1 - PROVIDE NEW CIRCUIT BREAKER

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
1-L - REFER TO ONE-LINE DIAGRAM

Branch Panel: LG

NEW

Location: MECHANICAL ROOM... | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TLG | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Motorized Goal	#12	20 1	0.5 / 0.5			1	20	#12 Motorized Goal	2	
	3	Motorized Goal	#12	20 1		0.5 / 0.5		1	20	#12 Motorized Goal	4	
	5	Motorized Goal	#12	20 1			0.5 / 0.5	1	20	#12 Motorized Goal	6	
	7	Convenience Recept. PRACTIC...	#12	20 1	0.4 / 0.2						8	
	9	Convenience Recept. PRACTIC...	#12	20 1		0.5 / 0.2		3	20	#12 Motorized Gym Bleachers	10	
	11	PRACTICE GYM 722	#12	20 1			1.4 / 0.2				12	
	13	Convenience Recept. DANCE...	#12	20 1	0.9 / 0.5			1	20	#12 Convenience Recept....	14	
	15	Convenience Recept. WEIGHT...	#12	20 1		1.1 / 1.1		1	20	#12 Convenience Recept. WEIGH...	16	
	17	Outdoors Receptacles	#8	20 1			0.7 / 0.5	1	20	#12 Convenience Recept. STORAG...	18	
	19	Convenience Recept. LARGE...	#12	20 1	0.5 / 0.7			1	20	#12 Convenience Recept. LARGE...	20	
	21	Convenience Recept. OFFICE...	#12	20 1		1.1 / 1.1		1	20	#12 Convenience Recept. UNIFOR...	22	
	23	Receptacles	#12	20 1			0.9 / 0.9	1	20	#12 Receptacles	24	
	25	Receptacles	#12	20 1	0.4 / 1.0			1	20	#12 Air Purification	26	
	27	Receptacles	#12	20 1		0.9 / 1.0		1	20	#12 AV Rack	28	
	29	Receptacles	#12	20 1			0.7 / 0.5	1	20	#12 Convenience Recept....	30	
	31	EF-6	#8	20 1	0.2 / 1.0						32	
	33	Hoist	#12	20 1		0.5 / 1.0		2	20	#12 Motorized Partition	34	
--	35	SPARE	--	20 1			0.0 / 0.0	1	20	-- SPARE	36	--
--	37	SPARE	--	20 1	0.0 / 0.0			1	20	-- SPARE	38	--
--	39	SPARE	--	20 1		0.0 / 0.0		1	20	-- SPARE	40	--
--	41	SPARE	--	20 1			0.0 / 0.0	1	20	-- SPARE	42	--
--	43	SPARE	--	20 1	0.0 / 0.0			1	20	-- SPARE	44	--
--	45	SPARE	--	20 1		0.0 / 0.0		1	20	-- SPARE	46	--
--	47	SPARE	--	20 1			0.0 / 0.0	1	20	-- SPARE	48	--
--	49	SPARE	--	20 1	0.0 / 0.0			1	20	-- SPARE	50	--
--	51	SPARE	--	20 1		0.0 / 0.0		1	20	-- SPARE	52	--
--	53	SPARE	--	20 1			0.0 / 0.0	1	20	-- SPARE	54	--
--	55	SPARE	--	20 1	0.0 / 0.0						56	
--	57	SPARE	--	20 1		0.0 / 0.0		3	30	-- SPDL	58	--
--	59	SPARE	--	20 1			0.0 / 0.0				60	
			Total Load:		6.8 kVA	9.4 kVA	6.8 kVA					
			Total Amps:		57 A	79 A	57 A					

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	0.2 kVA	100.00%	0.2 kVA	
Miscellaneous	9.0 kVA	100.00%	9.0 kVA	**Total Conn. Load:** 23.1 kVA
Receptacles	13.9 kVA	86.08%	11.9 kVA	**Total Est. Demand:** 21.2 kVA
				Total Conn. Current: 64 A
				Total Est. Demand... 59 A

Notes:

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
1-L - REFER TO ONE-LINE DIAGRAM

Branch Panel: H2

EXISTING

Location: ELEC. E6 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 18,000
Supply From: HD2 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 250A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Existing Circuit	EX.	20 1	2.0 / 2.0			1	20	EX. Existing Circuit	2	
	3	Existing Circuit	EX.	20 1		2.0 / 2.0		1	20	EX. Existing Circuit	4	
	5	Existing Circuit	EX.	20 1			2.0 / 2.0	1	20	EX. Existing Circuit	6	
	7	Existing Circuit	EX.	20 1	2.0 / 2.0			1	20	EX. Existing Circuit	8	
	9	Existing Circuit	EX.	20 1		2.0 / 2.0		1	20	EX. Existing Circuit	10	
	11	Existing Circuit	EX.	20 1			2.0 / 2.0	1	20	EX. Existing Circuit	12	
	13	Existing Circuit	EX.	20 1	2.0 / 2.0			1	20	EX. Existing Circuit	14	
	15	Existing Circuit	EX.	20 1		2.0 / 2.0		1	20	EX. Existing Circuit	16	
	17	Existing Circuit	EX.	20 1			2.0 / 2.0	1	20	EX. Existing Circuit	18	
	19	Existing Circuit	EX.	20 1	2.0 / 2.0			1	20	EX. Existing Circuit	20	
	21	Existing Circuit	EX.	20 1		2.0 / 2.6		**1**	**20**	**#12 CHFCU-1**	**22**	**1**
	23	Existing Circuit	EX.	20 1			2.0 / 0.0				**24**	
	25	Existing Circuit	EX.	20 1	2.0 / 2.6			**1**	**20**	**#12 CHFCU-2**	**26**	**1**
	27	Existing Circuit	EX.	20 1		2.0 / 0.0					**28**	
	29	Existing Circuit	EX.	20 1			2.0 / 0.0	1	--	-- SPACE	30	--
	31	Existing Circuit	EX.	20 1	2.0 / 0.0			1	--	-- SPACE	32	--
	33	Existing Circuit	EX.	20 1		2.0 / 0.0		1	--	-- SPACE	34	--
	35	Existing Circuit	EX.	20 1			2.0 / 0.0	1	--	-- SPACE	36	--
	37	Existing Circuit	EX.	20 1	2.0 / 0.0			1	--	-- SPACE	38	--
	39	Existing Circuit	EX.	20 1		2.0 / 0.0		1	--	-- SPACE	40	--
	41	Existing Circuit	EX.	20 1			2.0 / 0.0	1	--	-- SPACE	42	--
			Total Load:		24.6 kVA	22.6 kVA	20.0 kVA					
			Total Amps:		90 A	83 A	72 A					

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	5.2 kVA	100.00%	5.2 kVA	
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	**Total Conn. Load:** 67.2 kVA
Existing Circuit	62.0 kVA	125.00%	77.5 kVA	**Total Est. Demand:** 82.7 kVA
				Total Conn. Current: 81 A
				Total Est. Demand... 99 A

Notes:
1 - PROVIDE NEW CIRCUIT BREAKER.

Abbreviations:
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Branch Panel: H3

EXISTING

Location: | **Volts:** 277/480 Wye | **A.I.C. Rating:** 10,000
Supply From: HD3 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 225A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Existing Circuit	#12	20 1	2.0 / 2.0			1	20	#12 Existing Circuit	2	
	3	Existing Circuit	#12	20 1		2.0 / 2.0		1	20	#12 Existing Circuit	4	
	5	Existing Circuit	#12	20 1			2.0 / 2.0	1	20	#12 Existing Circuit	6	
	7	Existing Circuit	#12	20 1	2.0 / 2.0			1	20	#12 Existing Circuit	8	
	9	Existing Circuit	#12	20 1		2.0 / 2.0		1	20	#12 Existing Circuit	10	
	11	Existing Circuit	#12	20 1			2.0 / 2.0	1	20	#12 Existing Circuit	12	
	13	Existing Circuit	#12	20 1	2.0 / 2.0			1	20	#12 Existing Circuit	14	
	15	Existing Circuit	#12	20 1		2.0 / 2.0		1	20	#12 Existing Circuit	16	
	17	Existing Circuit	#12	20 1			2.0 / 2.0	1	20	#12 Existing Circuit	18	
	19	Existing Circuit	#12	20 1	2.0 / 2.0			1	20	#12 Existing Circuit	20	
	21	Existing Circuit	#12	20 1		2.0 / 0.7		**1**	**20**	**#8 Site Lighting**	**22**	**1**
	23	Existing Circuit	#12	20 1			2.0 / 2.6	**1**	**20**	**#12 CHFCU-3**	**24**	**1**
	25	Existing Circuit	#12	20 1	2.0 / 2.6			**1**	**20**	**#12 CHFCU-4**	**26**	**1**
	27	Existing Circuit	#12	20 1		2.0 / 2.6		**1**	**20**	**#12 CHFCU-5**	**28**	**1**
	29	Existing Circuit	#12	20 1			2.0 / 0.0	**1**	**--**	**-- SPACE**	**30**	**--**
	31	Existing Circuit	#12	20 1	2.0 / 0.0			**1**	**--**	**-- SPACE**	**32**	**--**
	33	Existing Circuit	#12	20 1		2.0 / 0.0		**1**	**--**	**-- SPACE**	**34**	**--**
	35	Existing Circuit	#12	20 1			2.0 / 0.0	1	--	-- SPACE	36	--
	37	Existing Circuit	#12	20 1	2.0 / 0.0			1	--	-- SPACE	38	--
	39	Existing Circuit	#12	20 1		2.0 / 0.0		1	--	-- SPACE	40	--
	41	Existing Circuit	#12	20 1			2.0 / 0.0	1	--	-- SPACE	42	--
			Total Load:		24.6 kVA	23.3 kVA	22.6 kVA					
			Total Amps:		89 A	85 A	82 A					

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	7.7 kVA	100.00%	7.7 kVA	
Lighting	0.7 kVA	125.00%	0.9 kVA	**Total Conn. Load:** 70.5 kVA
Miscellaneous	0.0 kVA	0.00%	0.0 kVA	**Total Est. Demand:** 86.1 kVA
Existing Circuit	62.0 kVA	125.00%	77.5 kVA	**Total Conn. Current:** 85 A
				Total Est. Demand... 104 A

Notes:
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Branch Panel: HG

NEW

Location: MECHANICAL ROOM... | **Volts:** 277/480 Wye | **A.I.C. Rating:** 18,000
Supply From: HD1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1				1.7 / 5.2						2	
	3	OAU-1	#12	20 3		1.7 / 5.2		3	30	#10 AHU-1	4	
	5						1.7 / 5.2				6	
	7				1.7 / 0.0						8	
	9	AHU-2	#12	20 3		1.7 / 0.0		3	20	#12 AHU-3	10	
	11						1.7 / 0.0				12	
	13	Lighting	#12	20 1	2.5 / 2.9			1	20	#12 Lighting	14	
	15	Exterior Lighting	#10	20 1		0.9 / 2.9		1	20	#12 Lighting	16	
	17	CHFCU-11	#12	20 1			2.6 / 0.0	1	20	-- SPARE	18	--
--	19	SPARE	--	20 1	0.0 / 0.0			1	20	-- SPARE	20	--
--	21	SPARE	--	20 1		0.0 / 0.0		1	20	-- SPARE	22	--
--	23	SPARE	--	20 1			0.0 / 0.0	1	20	-- SPARE	24	--
--	25	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	26	--
--	27	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	28	--
--	29	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	30	--
--	31	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	32	--
--	33	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	34	--
--	35	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	36	--
	37				6.8 / 0.0						38	
	39	XFMR TLG	1-L	50 3		9.4 / 0.0		3	30	-- SPDL	40	--
	41						6.8 / 0.0				42	
			Total Load:		20.8 kVA	21.8 kVA	18.0 kVA					
			Total Amps:		77 A	80 A	65 A					

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
HVAC	28.6 kVA	100.00%	28.6 kVA	
Lighting	9.2 kVA	125.00%	11.5 kVA	**Total Conn. Load:** 60.7 kVA
Miscellaneous	9.0 kVA	100.00%	9.0 kVA	**Total Est. Demand:** 61.1 kVA
Receptacles	13.9 kVA	86.08%	11.9 kVA	**Total Conn. Current:** 73 A
				Total Est. Demand... 73 A

Notes:

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Branch Panel: EH1

EXISTING

Location: ELEC. 826 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 18,000
Supply From: ATS | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1				0.0 / 2.0			1	20	EX. Existing Circuit	2	
--	3	SPARE	--	25 3		0.0 / 2.0		1	20	EX. Existing Circuit	4	
	5						0.0 / 2.0	1	20	EX. Existing Circuit	6	
--	7	SPARE	--	20 1	0.0 / 2.0			1	20	EX. Existing Circuit	8	
	9	**Emergency Lighting**	**#8**	**20 1**		2.1 / 2.0		1	20	EX. Existing Circuit	10	
	11	**Emergency Lighting**	**#8**	**20 1**			3.2 / 2.0	1	20	EX. Existing Circuit	12	
	13	**Emergency Lighting**	**#8**	**20 1**	0.9 / 2.0			1	20	EX. Existing Circuit	14	
--	15	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	16	--
1	**17**	**Emergency Lighting**	**#8**	**20 1**			2.8 / 2.9	**1**	**20**	**#8 Emergency Lighting**	**18**	**1**
--	19	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	20	--
--	21	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	22	--
--	23	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	24	--
--	25	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	26	--
--	27	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	28	--
--	29	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	30	--
--	31	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	32	--
--	33	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	34	--
--	35	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	36	--
	37				0.0 / 2.5						38	
--	**39**	**NEW SPDL (1)**	**--**	**30 3**		0.0 / 2.5		3	50	EX. (E)XFMR ET1	40	
	41						0.0 / 2.1				42	
			Total Load:		18.9 kVA	18.9 kVA	16.9 kVA					
			Total Amps:		69 A	69 A	61 A					

Load Classification	Connected Load	Demand Factor	Estimated...	Panel Totals
Lighting	23.7 kVA	125.00%	29.6 kVA	
Miscellaneous	1.5 kVA	100.00%	1.5 kVA	**Total Conn. Load:** 54.8 kVA
Existing Circuit	29.6 kVA	125.00%	37.0 kVA	**Total Est. Demand:** 68.1 kVA
				Total Conn. Current: 66 A
				Total Est. Demand... 82 A

Notes:
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Branch Panel: EH2

EXISTING

Location: ELEC. E6 | **Volts:** 277/480 Wye | **A.I.C. Rating:** 18,000
Supply From: EH1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 125A MLO

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	**Emergency Lighting**	**#12**	**20 1**	2.8 / 2.0			1	20	EX. Existing Circuit	2	
	3	**Emergency Lighting**	**#12**	**20 1**		3.0 / 2.0		1	20	EX. Existing Circuit	4	
--	5	SPARE	--	20 1			0.0 / 0.0	1	--	-- SPACE	6	--
--	7	SPARE	--	20 1	0.0 / 0.0			1	--	-- SPACE	8	--
--	9	SPARE	--	20 1		0.0 / 0.0		1	--	-- SPACE	10	--
--	11	SPARE	--	20 1			0.0 / 0.0	1	--	-- SPACE	12	--
--	13	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	14	--
--	15	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	16	--
--	17	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	18	--
--	19	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	20	--
--	21	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	22	--
--	23	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	24	--
--	25	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	26	--
--	27	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	28	--
--	29	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	30	--
--	31	SPACE	--	-- 1	0.0 / 0.0			1	--	-- SPACE	32	--
--	33	SPACE	--	-- 1		0.0 / 0.0		1	--	-- SPACE	34	--
--	35	SPACE	--	-- 1			0.0 / 0.0	1	--	-- SPACE	36	--
	37				0.0 / 0.0						38	
--	**39**	**NEW SPDL (1)**	**--**	**30 3**		0.0 /

Branch Panel: LCA

NEW

Location: CULINARY 628 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: L2A | **Phases:** 3 | **Enclosure:** Type 1 SS...
Mounting: Recessed | **Wires:** 4 | **Mains:** 150A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
LF	1	Freezer (E903)	#12	20 1	1.8 / 1.0			1	20	#12 Refrigerator (E904)	2	LF
	3	Ice Machine (E909)	#12	20 1		1.4 / 1.5		1	20	#12 Clothes Washer (E906)	4	
	5	Convenience Outlet (E900B)	#12	20 1			0.4 / 1.5	2	30	#10 Dryer (E907A)	6	G
	7	Receptacles	#12	20 1	0.4 / 1.5						8	
G	9	Convenience Outlet (E900B)	#12	20 1		1.4 / 0.4		1	20	#12 Convenience Outlet (E900B)	10	
	11	Convenience Outlet (E900B)	#12	20 1			0.4 / 0.4	1	20	#12 Convenience Outlet (E900B)	12	G
	13	Convenience Outlet (E900B)	#12	20 1	0.4 / 0.4			1	20	#12 Convenience Outlet (E900B)	14	
	15	Hood Lights (E153)	#12	20 1		0.5 / 0.4		1	20	#12 Convenience Outlet (E900B)	16	
	17	Heat Sensor (E153M)	#12	20 1			1.0 / 0.2	1	20	#12 Convenience Outlet (E900D)	18	ST
	19	Heat Sensor (E153M)	#12	20 1	1.5 / 0.0			1	20	-- -- SHUNT TRIP --	20	--
	21	Fire Protection System (E925)	#12	20 1		0.5 / 0.2		1	20	#12 Six Burner Range (E910)	22	ST
ST	23	Six Burner Range (E910)	#12	20 1			2.0 / 0.0	1	20	-- -- SHUNT TRIP --	24	--
--	25	-- SHUNT TRIP --	--	20 1	0.0 / 0.2			1	20	#12 Convenience Outlet (E900D)	26	ST
LF	27	Freezer (E903)	#12	20 1		1.8 / 0.0		1	20	-- -- SHUNT TRIP --	28	--
ST	29	Six Burner Range (E910)	#12	20 1			0.2 / 0.2	1	20	#12 Convenience Outlet (E900D)	30	ST
--	31	-- SHUNT TRIP --	--	20 1	0.0 / 0.0			1	20	-- -- SHUNT TRIP --	32	--
	33	Air Purification/ Recept.	#12	20 1		0.9 / 3.7					34	
	35	KEF-1	#10	30 1			1.8 / 3.7	3	40	#8 Convection Oven (E911)	36	ST
	37	KEF-2	#12	20 1	1.1 / 3.7						38	
	39	KEF-3	#10	30 1		1.8 / 0.0		1	20	-- -- SHUNT TRIP --	40	--
	41	KEF-4	#10	30 1			1.8 / 3.3				42	
	43	KEF-5	#12	20 1	0.8 / 3.3			3	60	#6 Load Center (E920)	44	
	45	Air Purification/ Recept.	#8	20 1		0.5 / 3.3					46	
--	47	SPARE	--	20 1			0.0 / 0.0	1	20	-- SPARE	48	--
--	49	SPARE	--	20 1	0.0 / 0.0			1	20	-- SPARE	50	--
--	51	SPARE	--	20 1		0.0 / 0.0		1	20	-- SPARE	52	--
--	53	SPARE	--	20 1			0.0 / 0.0	1	20	-- SPARE	54	--
--	55	SPARE	--	20 1	0.0 / 0.0						56	
--	57	SPARE	--	20 1		0.0 / 0.0		3	30	-- SPDL	58	--
--	59	SPARE	--	20 1			0.0 / 0.0				60	
		Total Load:			16.0 kVA	18.4 kVA	16.9 kVA					
		Total Amps:			134 A	154 A	142 A					

Load Classification	Connected Load	Demand Factor	Estimated...
HVAC	7.5 kVA	100.00%	7.5 kVA
Kitchen Equipment	20.2 kVA	65.00%	13.1 kVA
Miscellaneous	19.2 kVA	100.00%	19.2 kVA
Receptacles	4.5 kVA	100.00%	4.5 kVA

Panel Totals	
Total Conn. Load:	51.3 kVA
Total Est. Demand:	44.3 kVA
Total Conn. Current:	142 A
Total Est. Demand...	123 A

Notes:
- Provide panel with SPD extension with SS Front

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Branch Panel: L2B

EXISTING

Location: ELEC. E6 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: T2B | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 250A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1	Existing Circuit	-	20 1	0.5 / 0.5			1	20	- Existing Circuit	2	
	3	Existing Circuit	-	20 1		0.5 / 0.5		1	20	- Existing Circuit	4	
	5	Existing Circuit	-	20 1			0.5 / 0.5	1	20	- Existing Circuit	6	
	7	Existing Circuit	-	20 1	0.5 / 0.5			1	20	- Existing Circuit	8	
	9	Existing Circuit	-	20 1		0.5 / 0.5		1	20	- Existing Circuit	10	
	11	Existing Circuit	-	20 1			0.5 / 0.5	1	20	- Existing Circuit	12	
	13	Existing Circuit	-	20 1	0.5 / 0.5			1	20	- Existing Circuit	14	
	15	Existing Circuit	-	20 1		0.5 / 0.5		1	20	- Existing Circuit	16	
	17	Existing Circuit	-	20 1			0.5 / 0.5	1	20	- Existing Circuit	18	
	19	Existing Circuit	-	20 1	0.5 / 0.5			1	20	- Existing Circuit	20	
	21	Existing Circuit	-	20 1		0.5 / 0.5		1	20	- Existing Circuit	22	
	23	Existing Circuit	-	20 1			0.5 / 0.5	1	20	- Existing Circuit	24	
	25	Existing Circuit	-	20 1	0.5 / 0.5			1	20	- Existing Circuit	26	
	27	Existing Circuit	-	20 1		0.5 / 0.5		1	20	- Existing Circuit	28	
	29	Existing Circuit	-	20 1			0.5 / 0.5	1	20	- Existing Circuit	30	
	31	Existing Circuit	-	20 1	0.5 / 0.5			1	20	- Existing Circuit	32	
	33	Existing Circuit	-	20 1		0.5 / 0.5		1	20	- Existing Circuit	34	
	35	Existing Circuit	-	20 1			0.5 / 0.5	1	20	- Existing Circuit	36	
	37	Existing Circuit	-	20 1	0.5 / 0.0						38	
--	39	SPACE	--	-- 1		0.0 / 0.0		3	50	EX. PANEL L2F	40	
--	41	SPACE	--	-- 1			0.0 / 0.0				42	
	43	Existing Circuit	-	20 1	0.5 / 0.0			1	--	-- SPACE	44	--
	45	Existing Circuit	-	20 1		0.5 / 0.0		1	--	-- SPACE	46	--
	47	Existing Circuit	-	20 1			0.5 / 0.0	1	--	-- SPACE	48	--
	49	Existing Circuit	-	20 1	0.5 / 0.0			1	--	-- SPACE	50	--
	51	Existing Circuit	-	20 1		0.5 / 0.0		1	--	-- SPACE	52	--
	53	Existing Circuit	-	20 1			0.5 / 0.0	1	--	-- SPACE	54	--
	55	Existing Circuit	-	20 1	0.5 / 0.0			1	--	-- SPACE	56	--
	57	Existing Circuit	-	20 1		0.5 / 0.0		1	--	-- SPACE	58	--
	59	Existing Circuit	-	20 1			0.5 / 0.0	1	--	-- SPACE	60	--
	61	Existing Circuit	-	20 1	0.5 / 0.0			1	--	-- SPACE	62	--
	63	Existing Circuit	-	20 1		0.5 / 1.4		**1**	**20**	**#12 Receptacles**	**64**	**1**
	65	Existing Circuit	-	20 1			0.5 / 1.4	**1**	**20**	**#12 Receptacles**	**66**	**1**
1	**67**	**Receptacles**	**#12**	**20 1**	1.4 / 1.4			**1**	**20**	**#12 Receptacles**	**68**	**1**
1	**69**	**Receptacles**	**#12**	**20 1**		1.4 / 1.4		**1**	**20**	**#12 Receptacles**	**70**	**1**
1	**71**	**Receptacles**	**#12**	**20 1**			1.4 / 1.4	**1**	**20**	**#12 Receptacles**	**72**	**1**
1	**73**	**Receptacles**	**#12**	**20 1**	1.1 / 1.1			**1**	**20**	**#12 Receptacles**	**74**	**1**
--	**75**	**SPARE (1)**	--	**20 1**		0.0 / 0.0		**1**	**20**	-- **SPARE (1)**	**76**	--
--	**77**	**SPARE (1)**	--	**20 1**			0.0 / 0.0	**1**	**20**	-- **SPARE (1)**	**78**	--
--	**79**	**SPARE (1)**	--	**20 1**	0.0 / 0.0						**80**	
--	**81**	**SPARE (1)**	--	**20 1**		0.0 / 0.0		**3**	**30**	-- **NEW SPDL (1)**	**82**	--
--	**83**	**SPARE (1)**	--	**20 1**			0.0 / 0.0				**84**	
		Total Load:			13.5 kVA	12.3 kVA	12.3 kVA					
		Total Amps:			113 A	103 A	103 A					

Load Classification	Connected Load	Demand Factor	Estimated...
Receptacles	13.7 kVA	86.55%	11.8 kVA
Existing Circuit	24.5 kVA	125.00%	30.6 kVA

Panel Totals	
Total Conn. Load:	38.2 kVA
Total Est. Demand:	42.5 kVA
Total Conn. Current:	106 A
Total Est. Demand...	118 A

Notes:
1 - PROVIDE NEW CIRCUIT BREAKER.

Abbreviations:
G - PROVIDE GFCI CIRCUIT BREAKER
LF - PROVIDE PERMANENT LOCK-OFF DEVICE
LO - PROVIDE PERMANENT LOCK-ON DEVICE
1-L - REFER TO ONE-LINE DIAGRAM

Branch Panel: EL1

EXISTING

Location: ELEC. 826 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: ET1 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 100A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
--	1	SPACE	--	-- 1	0.0 / 0.4			1	20	EX. Existing Circuit	2	
	3	Existing Circuit	EX.	20 1		0.4 / 0.4		1	20	EX. Existing Circuit	4	
--	5	SPACE	--	-- 1			0.0 / 0.4	1	20	EX. Existing Circuit	6	
	7	Existing Circuit	EX.	20 1	0.4 / 0.4			1	20	EX. Existing Circuit	8	
--	9	SPACE	--	-- 1		0.0 / 0.4		1	20	EX. Existing Circuit	10	
	11	Existing Circuit	EX.	20 1			0.4 / 0.5	**1**	**20**	**#8 Fire Alarm Control Panel**	**12**	**1,LO**
	13	Existing Circuit	EX.	20 1	0.4 / 0.5			**1**	**20**	**#8 Fire Alarm Booster Panel**	**14**	**1,LO**
	15	Existing Circuit	EX.	20 1		0.4 / 0.5		**1**	**20**	**#8 BMCS**	**16**	**1**
	17	Existing Circuit	EX.	20 1			0.4 / 0.0	1	--	-- SPACE	18	--
	19	Existing Circuit	EX.	20 1	0.4 / 0.0						**20**	
	21	Existing Circuit	EX.	20 1		0.4 / 0.0		3	30	-- **NEW SPDL**	**22**	--
	23	Existing Circuit	EX.	20 1			0.4 / 0.0				**24**	
	25				0.0 / 0.0			1	--	-- SPACE	26	--
--	27	SPARE	--	40 3		0.0 / 0.0		1	--	-- SPACE	28	--
	29						0.0 / 0.0	1	--	-- SPACE	30	--
		Total Load:			2.5 kVA	2.5 kVA	2.1 kVA					
		Total Amps:			21 A	21 A	18 A					

Load Classification	Connected Load	Demand Factor	Estimated...
Miscellaneous	1.5 kVA	100.00%	1.5 kVA
Existing Circuit	5.6 kVA	125.00%	7.0 kVA

Panel Totals	
Total Conn. Load:	7.1 kVA
Total Est. Demand:	8.5 kVA
Total Conn. Current:	20 A
Total Est. Demand...	24 A

Notes:
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Branch Panel: LTE2

EXISTING

Location: ELEC. E1 | **Volts:** 120/208 Wye | **A.I.C. Rating:** 10,000
Supply From: TTE2 | **Phases:** 3 | **Enclosure:** Type 1
Mounting: Surface | **Wires:** 4 | **Mains:** 125A MCB

Phase in kVA

Note	CKT	Circuit Description	Wire	Breaker	A	B	C	Breaker	Wire	Circuit Description	CKT	Note
	1				3.0 / 0.2			**1**	**20**	**#12 Receptacles**	**2**	**1**
	3	Existing Circuit	EX.	20 3		3.0 / 0.2		**1**	**20**	**#12 Receptacles**	**4**	**1**
	5						3.0 / 0.2	**1**	**20**	**#12 Receptacles**	**6**	**1**
	7				0.0 / 0.0						8	
--	9	SPARE	--	20 3		0.0 / 0.0		3	20	-- SPARE	10	--
	11						0.0 / 0.0				12	
	13				0.0 / 3.0						14	
--	15	SPARE	--	20 3		0.0 / 3.0		2	50	EX. Existing Circuit	16	
	17						0.0 / 2.0	**2**	**20**	**#12 Table Saw**	**18**	**1**
	19				0.0 / 2.0						**20**	
--	21	SPARE	--	20 3		0.0 / 0.9		**2**	**20**	**#12 Grinder**	**22**	**1**
	23						0.0 / 0.9				**24**	
	25				0.0 / 2.0						**26**	
--	27	SPARE	--	20 3		0.0 / 2.0		**2**	**20**	**#12 Band Saw**	**28**	**1**
	29						0.0 / 0.2	**1**	**20**	**#12 Receptacles**	**30**	**1**
	31				0.0 / 0.2			**1**	**20**	**#12 Receptacles**	**32**	**1**
--	33	SPARE	--	20 3		0.0 / 0.2		**1**	**20**	**#12 Receptacles**	**34**	**1**
	35						0.0 / 0.2	**1**	**20**	**#12 Receptacles**	**36**	**1**
1	**37**	**Receptacles**	**#12**	**20 1**	0.2 / 0.2			**1**	**20**	**#12 Receptacles**	**38**	**1**
1	**39**	**Receptacles**	**#12**	**20 1**		0.2 / 0.2		**1**	**20**	**#12 Receptacles**	**40**	**1**
1	**41**	**Receptacles**	**#12**	**20 1**			0.2 / 0.2	**1**	**20**	**#12 Receptacles**	**42**	**1**
		Total Load:			10.8 kVA	9.6 kVA	6.8 kVA					
		Total Amps:			93 A	84 A	57 A					

Load Classification	Connected Load	Demand Factor	Estimated...
Miscellaneous	9.7 kVA	100.00%	9.7 kVA
Receptacles	2.3 kVA	100.00%	2.3 kVA
Existing Circuit	15.1 kVA	125.00%	18.9 kVA

Panel Totals	
Total Conn. Load:	27.2 kVA
Total Est. Demand:	31.0 kVA
Total Conn. Current:	76 A
Total Est. Demand...	86 A

Notes:
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1-L - REFER TO ONE-LINE DIAGRAM

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LAGO VISTA, TEXAS 77345
281.261.3800
WWW.BRWARCH.COM

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

DATE: JUNE 13, 2025
DRAWN BY: Author
CHECKED BY: Checker
BRW PROJECT NUMBER: 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

E6.2
ELECTRICAL PANEL SCHEDULE

LIGHTING CONTROLS SCHEDULE

Type	Sensor Operation	# of Lighting Zones	Description
ER	-	-	UL924 LOAD CONTROL RELAY, PLENUM RATED, 0-10V COMPATIBLE, 16A MINIMUM
ES	-	-	UL1008 GENERATOR TRANSFER DEVICE, PLENUM RATED, 0-10V COMPATIBLE, 16A MINIMUM
RA	VACANCY - MANUAL ON / AUTO OFF	1	DIGITAL KEYPAD; ON/OFF WITH RAISE/LOWER; 0-10V DIMMING.
RB	VACANCY - MANUAL ON / AUTO OFF	1	DIGITAL KEYPAD; ON/OFF MOMENTARY SWITCH; NO DIMMING.
RD	OCCUPANCY - AUTO ON @ 50% / AUTO OFF	1	MULTI-SCENE DIGITAL KEYPAD; 60%, 100%, ON/OFF WITH RAISE/LOWER; 0-10V DIMMING.
RE	OCCUPANCY - AUTO ON @ 50% / AUTO OFF	2	MULTI-SCENE DIGITAL KEYPAD; 60%, 100%, ON/OFF WITH RAISE/LOWER; 0-10V DIMMING.
RF	NONE	1	ON/OFF TIMER SWITCH, 12-HOUR TIMER WITH VISUAL AN AUDIO ALARM. WIRE MULTIPLE TIMER SWITCHES IN PARALLEL.
RG	OCCUPANCY - AUTO ON / AUTO OFF	1	ON/OFF KEYED SWITCH; INTERFACE WITH FIRE ALARM FOR FULL 'AUTO ON' DURING SYSTEM ACTIVATION.
RH	OCCUPANCY - AUTO ON @ 50% / AUTO OFF PHOTOCELL - CLOSED LOOP	2	MULTI-SCENE DIGITAL KEYPAD; 60%, 100%, ON/OFF WITH RAISE/LOWER; 0-10V DIMMING. PHOTOCELL FOR DAYLIGHT ZONE.
RJ	OCCUPANCY - AUTO ON @ 50% / AUTO OFF PHOTOCELL - CLOSED LOOP	2	ON/OFF KEYED SWITCH, MULTI-SCENE DIGITAL KEYPAD WITH RAISE/LOWER; 0-10V DIMMING. PHOTOCELL FOR DAYLIGHT ZONES
RK	OCCUPANCY - AUTO ON @ 50% / AUTO OFF PHOTOCELL - CLOSED LOOP	3	ON/OFF KEYED SWITCH, MULTI-SCENE DIGITAL KEYPAD WITH RAISE/LOWER; 0-10V DIMMING. PHOTOCELL FOR DAYLIGHT ZONES
RM	OCCUPANCY - AUTO ON @ 50% / AUTO OFF PHOTOCELL - CLOSED LOOP	6	ON/OFF KEYED SWITCH, MULTI-SCENE DIGITAL KEYPAD WITH RAISE/LOWER; 0-10V DIMMING. PHOTOCELL FOR DAYLIGHT ZONES

** ALL EGRESS PATHWAYS AND ASSEMBLY SPACES SHALL BE INTEGRATED WITH FIRE ALARM TO FORCE ON EMERGENCY LIGHTING TO 100% OUTPUT DURING A FIRE ALARM OR FIRE DRILL ACTIVATION. EGRESS PATHS SHALL BE CONNECTED TO A NETWORKED LIGHTING SYSTEM.
**NO WIRELESS CONTROL SYSTEMS.

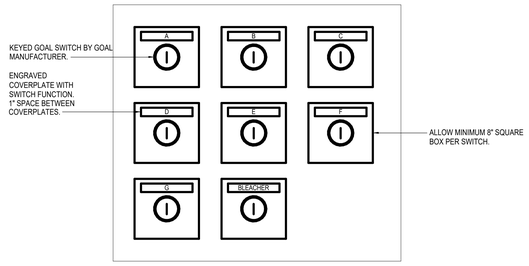
LIGHTING FIXTURE SCHEDULE

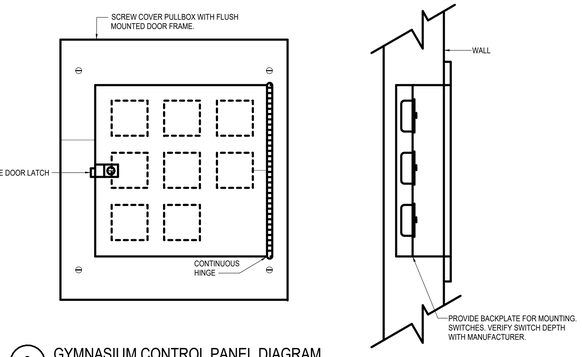
Type	Manufacturer	Model	Mounting	Driver / Light Engine: Type/Lumens	Color Temperature	CRI	Voltage	Input Wattage	Remarks
A1	DAY-BRITE	2FPZ48L840-4-DS-UNV-DIM	RECESSED	LED / 4800 LUMENS	4000 K	80+	277 V	37 W	2x4 FLAT PANEL, OPAQUE ACRYLIC LENS, 0-10V DIMMING, DLC LISTED.
A1F	DAY-BRITE	2FPZ48L840-4-DS-UNV-DIM-FMA24	RECESSED (FLANGED)	LED / 4800 LUMENS	4000 K	80+	277 V	37 W	2x4 FLAT PANEL, OPAQUE ACRYLIC LENS, 0-10V DIMMING, DLC LISTED. PROVIDE WITH DRYWALL KIT FOR GYP CEILING.
A2	DAY-BRITE	2FPZ38L840-4-DS-UNV-DIM	RECESSED	LED / 3800 LUMENS	4000 K	80+	277 V	29 W	2x4 FLAT PANEL, OPAQUE ACRYLIC LENS, 0-10V DIMMING, DLC LISTED.
A3	DAY-BRITE	2FPZ60L840-4-DS-UNV-DIM	RECESSED	LED / 6000 LUMENS	4000 K	80+	277 V	47 W	2x4 FLAT PANEL, OPAQUE ACRYLIC LENS, 0-10V DIMMING, DLC LISTED.
A4	DAY-BRITE	2FPZ80L840-4-DS-UNV-DIM	RECESSED	LED / 8000 LUMENS	4000 K	80+	277 V	63 W	2x4 FLAT PANEL, OPAQUE ACRYLIC LENS, 0-10V DIMMING, DLC LISTED.
C1	DAY-BRITE	FSS440L840-UNV-DIM-FKR-126-FSSWG4	CHAIN HANG	LED / 4000 LUMENS	4000 K	80+	277 V	31 W	4-FOOT STRIP, FROSTED ACRYLIC LENS, WIREGUARD, CHAIN HANG KIT, DLC LISTED.
C1B	DAY-BRITE	FSS440L840-UNV-DIM-EMLED-FKR-126-FSSWG4	CHAIN HANG	LED / 4000 LUMENS	4000 K	80+	277 V	31 W	4-FOOT STRIP, FROSTED ACRYLIC LENS, WIREGUARD, DLC LISTED. PROVIDE WITH 90-MIN EMERGENCY BATTERY PACK.
F1	KENALL	MR13FL-PP-MB-20L40K-DV	SURFACE	LED / 2250 LUMENS	4000 K	80+	277 V	20 W	13-IN ROUND, FULL LENS, BLACK FINISH, VANDAL RESISTANT.
G1	DAY-BRITE	FBY-18L-840-UNV-LFA+FBY-WG	RECESSED	LED / 18000 LUMENS	4000 K	80+	277 V	133 W	LINEAR HIGH BAY, DIFFUSED LENS, 0-10V DIMMING, WIREGUARD, DLC LISTED.
H14	PINNACLE	EX2D-A-N-840-14FT-ACST-U-FSD-1-0-XX	PENDANT	LED / 500 LU/FT	4000 K	80+	277 V	69 W	14-FOOT DIRECT CONTINOUS RUN LINEAR PENDANT, SATIN LENS, VERIFY EXACT CABLE LENGTH AND COLOR FINISH WITH ARCHITECT/OWNER.
H16	PINNACLE	EX2D-A-N-840-16FT-ACST-U-FSD-1-0-XX	PENDANT	LED / 500 LU/FT	4000 K	80+	277 V	78 W	16-FOOT DIRECT CONTINOUS RUN LINEAR PENDANT, SATIN LENS, VERIFY EXACT CABLE LENGTH AND COLOR FINISH WITH ARCHITECT/OWNER.
H30	PINNACLE	EX2D-A-N-840-30FT-ACST-U-FSD-1-0-XX	PENDANT	LED / 500 LU/FT	4000 K	80+	277 V	147 W	30-FOOT DIRECT CONTINOUS RUN LINEAR PENDANT, SATIN LENS, VERIFY EXACT CABLE LENGTH AND COLOR FINISH WITH ARCHITECT/OWNER.
L4	AXIS LIGHTING	EX2R-300-80-40-SO-04-BLK-UNV-DP-1-DF	RECESSED (FLANGED)	LED / 300 LU/FT	4000 K	80+	277 V	12 W	4-FOOT LINEAR SLOT, SPOTLESS LENS WITH GASKETING, EXTRUDED ALUMINUM HOUSING, IP66, BLACK FINISH, 0-10V DIMMING.
L6	AXIS LIGHTING	EX2R-300-80-40-SO-06-BLK-UNV-DP-1-DF	RECESSED (FLANGED)	LED / 300 LU/FT	4000 K	80+	277 V	18 W	6-FOOT LINEAR SLOT, SPOTLESS LENS WITH GASKETING, EXTRUDED ALUMINUM HOUSING, IP66, BLACK FINISH, 0-10V DIMMING.
M2	AXIS LIGHTING	EX2R-550-80-40-SO-02-BLK-UNV-DP-1-DF	RECESSED (FLANGED)	LED / 550 LU/FT	4000 K	80+	277 V	12 W	2-FOOT LINEAR SLOT, SPOTLESS LENS WITH GASKETING, EXTRUDED ALUMINUM HOUSING, IP66, BLACK FINISH, 0-10V DIMMING.
M4	AXIS LIGHTING	EX2R-550-80-40-SO-04-BLK-UNV-DP-1-DF	RECESSED (FLANGED)	LED / 550 LU/FT	4000 K	80+	277 V	23 W	4-FOOT LINEAR SLOT, SPOTLESS LENS WITH GASKETING, EXTRUDED ALUMINUM HOUSING, IP66, BLACK FINISH, 0-10V DIMMING.
N8	AXIS LIGHTING	TB4DILED-500-500-80-40-0.25G-1.5M-08-FINISH-UNV-DP-1-CA96	PENDANT	LED 500 LU/FT DN 500 LU/FT UP	4000 K	80+	277 V	72 W	8-FOOT DIRECT/INDIRECT CONTINOUS RUN LINEAR PENDANT, SATIN LENS, VERIFY EXACT CABLE LENGTH AND COLOR FINISH WITH ARCHITECT/OWNER.
P48	PINNACLE	EX4I-N-HE-840HO-48'-ACG-U-FSD-1-W	PENDANT	LED / 750 LU/FT	4000 K	80+	277 V	240 W	48-FOOT INDIRECT CONTINOUS RUN LINEAR PENDANT, SATIN LENS, VERIFY EXACT CABLE LENGTH AND COLOR FINISH WITH ARCHITECT/OWNER.
T34	KLUS	B1718-W-CC-40-1440/1-24-1610-P-34FT-IP20	SURFACE	LED / 4000 LUMENS	4000 K	80+	277 V	150 W	TAPE LIGHT AND EXTRUSION FOR SOFFIT UPLIGHTING. PROVIDE WITH 277V: 24V LOW VOLTAGE TRANSFORMER. VERIFY EXACT FIXTURE LENGTH WITH ARCHITECT.
T50	KLUS	B1718-W-CC-40-1440/1-24-1610-P-50FT-IP20	SURFACE	LED / 560 LU/FT	4000 K	80+	277 V	220 W	TAPE LIGHT AND EXTRUSION FOR SOFFIT UPLIGHTING. PROVIDE WITH 277V: 24V LOW VOLTAGE TRANSFORMER. VERIFY EXACT FIXTURE LENGTH WITH ARCHITECT.
W1	GARDCO	101L-32L-530-NW-G2-4-UNV-DD-F1-BK	WALL	LED / 6535 LUMENS	4000 K	70+	277 V	55 W	ARCHITECTURAL WALLPACK, FORWARD THROW DISTRIBUTION, BLACK FINISH, DLC LISTED.
X1	CHLORIDE	44RL1R	UNIVERSAL	LED			277 V		SINGLE-FACED EDGE-LIT EXIT SIGN, AC ONLY, WHITE HOUSING, RED LETTERING, MIRROR BACKGROUND. PROVIDE CHEVRON DIRECTIONAL ARROWS PER PLANS OR AS DIRECTED BY AHJ.
X1V	CHLORIDE	60MLA-3-R-W	UNIVERSAL	LED			277 V		SINGLE-FACED VANDAL RESISTANT EXIT SIGN, AC ONLY, WHITE HOUSING, RED LETTERING. PROVIDE CHEVRON DIRECTIONAL ARROWS PER PLANS OR AS DIRECTED BY AHJ.

APPROVED MANUFACTURES:

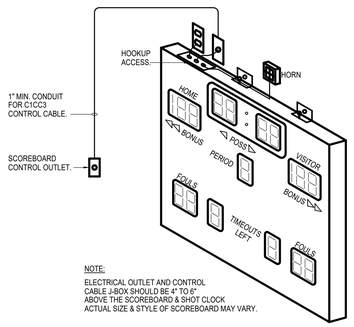
- LED / FLUORESCENT: LITHONIA, COLUMBIA, METALUX, AXIS, DAYBRITE, HE WILLIAMS, LSI, CREE
- EXIT SIGNS: LITHONIA, CHLORIDE, EMERGI-LITE, DUAL-LITE, SURE LITES, H.E. WILLIAMS
- ARCHITECTURAL HIGH PERFORMANCE FLOOD LIGHTS: WIDE-LITE, HADCO, KIM, McGRAW EDISON, GARDCO, LSI
- INDUSTRIAL: METALUX, LITHONIA, EXCELINE, G.E., HUBBELL, LUMARK, STONCO
- DOWN/TRACK LIGHTING: LIGHTOLIER, LITHONIA-GOTHAM, HALO ARCHITECTURAL, PRESCOLITE, HE WILLIAMS, INDY
- SECURITY (WALLPACKS): LITHONIA, McGRAW EDISON, G.E., LSI, HUBBELL, STONCO, GARDCO
- ARCHITECTURAL LINEAR: PEERLESS, LITECONTROL, ALERA, LAM, AMERICAN LINEAR LIGHTING, LEDALITE
- ARCHITECTURAL INDIRECT: INSIGHT, ORIGINAL CAST LIGHTING, SPI, LAM

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT INDICATED IN THE LIGHT FIXTURE SCHEDULE. WHERE THERE IS AN INCONSISTENCY BETWEEN THE LIGHT SCHEDULE AND THE SPECIFICATIONS, THE BETTER QUALITY OF WORK SHALL BE INCLUDED IN THE PROPOSAL.
- THE ABOVE LIGHTING MANUFACTURERS LIST DOES NOT IMPLY APPROVAL. APPROVAL WILL BE DETERMINED AFTER REVIEW OF SHOP DRAWING TO DETERMINE IF THE FIXTURE OR POLE SUBMITTED MEETS OR EXCEEDS THE DESIGN STANDARDS AND PERFORMANCE REQUIRED OF THE FIXTURE SPECIFIED IN THE LIGHT FIXTURE SCHEDULE OR SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE SPECIFIED LIGHT FIXTURE IF A SUBSTITUTION IS NOT APPROVED WITHOUT ANY ADDITIONAL COST TO THE OWNER. WHERE SPECIFIC OPTIONS/ACCESORIES ARE SPECIFIED OR REQUIRED, THEY SHALL BE PROVIDED WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- DUE TO THE WIDE RANGE OF FIXTURE QUALITIES OFFERED BY EACH MANUFACTURER, THE APPROVED LIGHTING MANUFACTURERS SUBSTITUTION LIST IS NOT INTENDED TO INDICATE THAT ANY OR ALL MANUFACTURERS LISTED WILL HAVE SUITABLE SUBSTITUTIONS FOR THE LIGHT FIXTURES OR POLES SPECIFIED IN THE LIGHT FIXTURE SCHEDULE. SHOP DRAWING AND CONSTRUCTION DELAYS AS A RESULT OF INAPPROPRIATE SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN ANY ADDITIONAL COST TO THE OWNER.



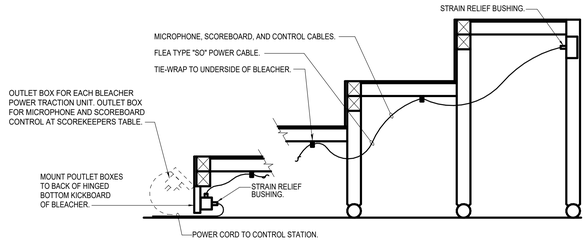


9 GYMNASIUM CONTROL PANEL DIAGRAM
SCALE: NONE

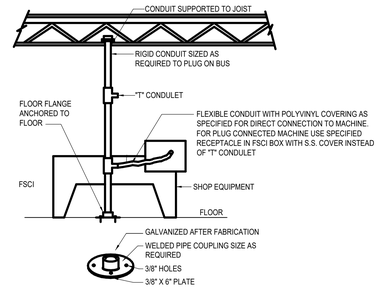


NOTE:
ELECTRICAL OUTLET AND CONTROL CABLE J-BOX SHOULD BE 4" TO 6" ABOVE THE SCOREBOARD & SHOT CLOCK ACTUAL SIZE & STYLE OF SCOREBOARD MAY VARY.

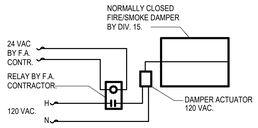
6 GYMNASIUM SCOREBOARD DIAGRAM
SCALE: NONE



5 GYMNASIUM BLEACHERS
SCALE: NONE

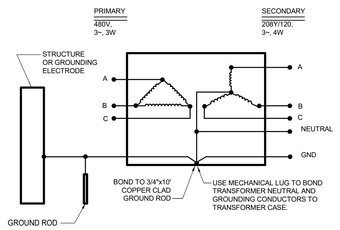


8 CONDUIT SUPPORT FOR SHOP EQUIPMENT
SCALE: NONE

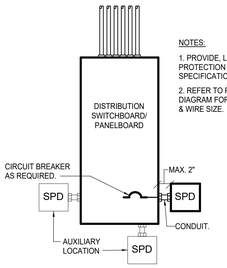


NOTE:
PROVIDE A 120 VAC CIRCUIT TO ALL FIRE/SMOKE DAMPERS PROVIDED BY DIVISION 15. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS. DIVISION 16 SHALL WIRE THROUGH RELAYS PROVIDED BY FIRE ALARM CONTRACTOR. CONNECT DAMPER TO NEAREST 120 VAC GENERAL PURPOSE RECEPTACLE CIRCUIT.

7 FIRE / SMOKE DAMPER
SCALE: NONE

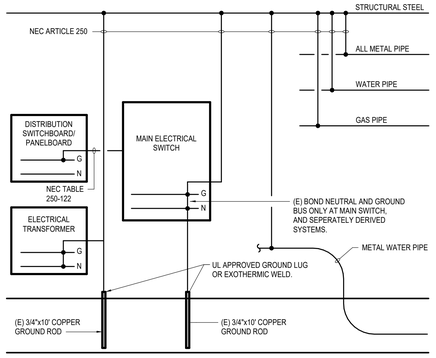


4 TRANSFORMER GROUNDING DETAIL
SCALE: NONE

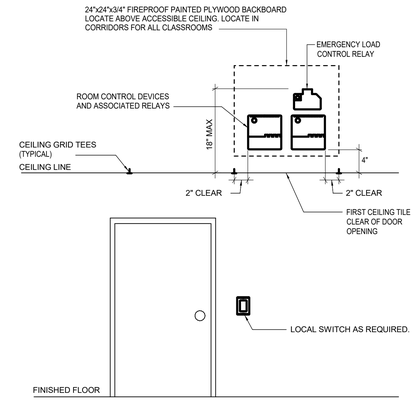


NOTES:
1. PROVIDE, LOCATE AND INSTALL SURGE PROTECTION DEVICE AS REQUIRED PER SPECIFICATIONS.
2. REFER TO PANEL SCHEDULES AND ONE-LINE DIAGRAM FOR QUANTITY, TYPE, BREAKER SIZE, & WIRE SIZE.

3 SURGE PROTECTION DETAIL
SCALE: NONE



2 GROUNDING DETAIL
SCALE: NONE



1 TYPICAL LIGHTING CONTROLS ELEVATION
SCALE: NONE

SYMBOL SCHEDULE

SYMBOL	DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
LIGHTING (LETTER DENOTES TYPE - SEE LIGHT FIXTURE SCHEDULE)	
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED
	LIGHT FIXTURE - RECESSED OR SURFACE MOUNTED ON EMERGENCY CIRCUIT
	DOWNLIGHT FIXTURE
	DOWNLIGHT FIXTURE ON EMERGENCY CIRCUIT
	LIGHT FIXTURE - WALL MOUNTED
	LIGHT FIXTURE - WALL MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - CEILING MOUNTED ON EMERGENCY CIRCUIT
	EXIT LIGHT - WALL MOUNTED ON EMERGENCY CIRCUIT
LIGHTING CONTROLS & DEVICES	
$	LINE VOLTAGE SINGLE POLE SWITCH
$3	LINE VOLTAGE 3-WAY SWITCH
$4	LINE VOLTAGE 4-WAY SWITCH
$K	LINE VOLTAGE MOMENTARY DPST KEYED SWITCH
$D	LINE VOLTAGE DIMMER SWITCH, SIZE AND TYPE AS REQUIRED
$P	LINE VOLTAGE SWITCH WITH PILOT LIGHT
$T	6-HOUR ROTARY TIMER SWITCH WITH NO HOLD U.N.O.
	PUSH BUTTON EPO SWITCH WITH COVER
$MC	LOW VOLTAGE MOMENTARY CONTACT SWITCH
$R	LOW VOLTAGE DIGITAL KEYPAD
$B	LOW VOLTAGE BUILDING MANAGEMENT (BMCS) LOCAL OVERRIDE SWITCH
	OCCUPANCY SENSOR (AUTO ON / AUTO OFF WITHIN 20-MINUTES)
	VACANCY SENSOR (MANUAL ON / AUTO OFF WITHIN 20-MINUTES)
	PHOTOCELL SENSOR
RF	LIGHTING CONTROL SYSTEM. ('#' DENOTES TYPE - SEE LIGHTING CONTROLS SCHEDULE)
ER	EMERGENCY LOAD CONTROL RELAY. MINIMUM 16A AND 0-10V COMPATIBLE. PROVIDE U.L. 924 U.N.O.
RECEPTACLES AND OUTLETS	
	SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
U	DUPLEX RECEPTACLE WITH TWO USB CHARGING PORTS.
	125/250 VOLT, 1 PHASE, 3-WIRE, 20 AMPS UNLESS NOTED OTHERWISE
	DOUBLE DUPLEX IN 2-GANG BOX WITH SINGLE COVER PLATE
U	DOUBLE DUPLEX WITH TWO USB CHARGING PORTS IN 2-GANG BOX WITH SINGLE COVER PLATE
	DOUBLE DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE IN 2-GANG BOX WITH SINGLE COVER PLATE
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE
	FLUSH FLOOR DUPLEX RECEPTACLE OUTLET
	FLUSH FLOOR DOUBLE DUPLEX RECEPTACLE OUTLET
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	CONCEALED SERVICE MULTI-ACCESS FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET. REFER TO TECHNOLOGY SERIES DRAWINGS FOR DATA CABLE QUANTIES.
	JUNCTION BOX
	FLUSH REMOTE GFCI DEVICE (LOCATE IN READILY ACCESSIBLE LOCATION)
MOTOR CONTROLLERS AND EQUIPMENT	
	MOTOR, MAKE FINAL MOTOR CONNECTION
$	MOTOR-RATED SWITCH. 20A UNLESS INDICATED OTHERWISE.
	DISCONNECT SWITCH AS REQUIRED
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH AS REQUIRED
	MOTOR STARTER
	PREWIRED DEVICE, MAKE ELECTRICAL FINAL CONNECTIONS
VFD	VARIABLE FREQUENCY DRIVE MOTOR CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
HF	HIGH EFFICIENCY HARMONIC FILTER FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
T	LOW VOLTAGE TRANSFORMER, SIZE AND TYPE AS REQUIRED.
C	CONTACTOR, SIZE AS REQUIRED. REFER TO CONTACTOR SCHEDULE.
	CHIME/BUZZER
ELECTRICAL EQUIPMENT	
	ELECTRICAL PANELBOARD; REFER TO FLOOR PLANS FOR VOLTAGE.
	DRY TYPE TRANSFORMER
	PLYWOOD TELEPHONE BACKBOARD
CIRCUITING	
	CONDUIT
	CONDUIT BELOW FLOOR, SLAB, OR GRADE
	3/4"C. UNLESS OTHERWISE NOTED; LONG HATCH, NEUTRAL; SHORT HATCH, PHASE; LONG HATCH & HOOK, INSULATED GROUND. NO HATCHES INDICATES 2 CONDUCTORS. ARROW INDICATES HOMERUN.
	PARTIAL ELECTRICAL HOME RUN
SUBSCRIPTS AND ABBREVIATIONS	
WP	INDICATES 'WEATHERPROOF'
H	INDICATES 'HORIZONTAL'
NL	INDICATES 'NIGHT LIGHT'.
HB	INDICATES 'HIGH BAY".
TP	INDICATES 'TAMPER PROOF'
(KS)	INDICATES 'KNEE SPACE'. LOCATE WIRING DEVICE IN KNEESPACE
U.N.O.	INDICATES 'UNLESS NOTED OTHERWISE'
(E)	INDICATES EXISTING TO REMAIN
(REP)	INDICATES REPLACE DEVICE AND COVERPLATE.
•	NEXT TO ANY SYMBOL INDICATES FINAL ROUGH-IN FIELD COORDINATION BY CONTRACTOR WITH ARCHITECTURAL MILLWORK DRAWINGS AND OTHER TRADES

GENERAL NOTES:
-ALL EXTERIOR BUILDING ELECTRICAL EQUIPMENT TO BE WEATHERPROOF NEMA-4X MINIMUM.
-ALL EXTERIOR RECEPTACLES SHALL BE WATER RESISTANT TYPE.

ELECTRICAL GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL LIGHTING FIXTURES AND ELECTRICAL DEVICES.
2. ALL LIGHT FIXTURES IN MECHANICAL AREAS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING EQUIPMENT TO AVOID CONFLICTS. LOCATE LIGHT FIXTURES ON PERIMETER WALLS OF MECHANICAL AREAS WHERE PRACTICAL.
3. ALL EMPTY CONDUIT SHALL HAVE PULL STRING.
4. EACH CONDUIT SHALL BE LIMITED TO (3) CIRCUITS MAXIMUM.
5. VERIFY MOUNTING HEIGHTS OF RECEPTACLES WITH CASEWORK ELEVATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM ELEVATIONS FOR LOCATION AND COORDINATION OF ELECTRICAL OUTLETS. AT KNEESPACE LOCATIONS, LOCATE ELECTRICAL OUTLETS WITHIN KNEESPACE, UNLESS NOTED OTHERWISE. AT COUNTERS WITH OUT KNEESPACE, LOCATE OUTLETS HORIZONTALLY 6" ABOVE BACK SPLASH, UNLESS NOTED OTHERWISE.
6. ALL FIRE ALARM DEVICES, RECEPTACLES, SWITCHES, AND WIRING DEVICES IN MECHANICAL AND ELECTRICAL ROOMS ARE TO BE RECESSED IN WALLS.
7. ALL LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUITS CONDUITS SHALL CONTAIN A GROUND WIRE. USING THE CONDUIT SYSTEM AS THE ONLY GROUND PATH IS NOT ACCEPTABLE.
10. CENTER ALL EXIT SIGNS OVER DOORS.

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

DATE JUNE 13, 2025
DRAWN BY DES
CHECKED BY JZ
BRW PROJECT NUMBER 223005.00

E7.1
ELECTRICAL DETAILS & SCHEDULES

TECHNOLOGY LEGEND

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
*# ▼	WALL MOUNTED NETWORK OUTLET D#: NUMBER OF DATA DROPS IN OUTLET AP: WIRELESS ACCESS POINT	+18" AFF, UNLESS OTHERWISE NOTED	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
V# ▽	COMMUNICATIONS OUTLET	FIELD COORDINATE	FIELD COORDINATE	
W ▼	WALL MOUNTED NETWORK OUTLET	+44" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
B ▽	WALL MOUNTED BOX FOR FUTURE USE.	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
D# ▼	FLOOR MOUNTED NETWORK OUTLET	N/A	COORDINATE WITH ELECTRICAL CONTRACTOR	FINISHED HARDWARE PROVIDED BY DIV 27
*#	CEILING MOUNTED NETWORK OUTLET AP: WIRELESS ACCESS POINT D#: NETWORK OUTLET	ABOVE CEILING	CEILING BRACKET WITH BISCUIT BLOCK	

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. CONDUIT STUB UP AND SLEEVES SHALL HAVE A SOLID UNCUT PLASTIC PROTECTIVE BUSHING.
5. NO CONDUITS SHALL EXCEED FOR 40% MAXIMUM FILL RATIO. CONTRACTOR TO PROVIDE ADDITIONAL CONDUITS REQUIRED.

ACCESS CONTROL LEGEND

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
ACP	ACCESS CONTROL SYSTEM, CONTROL PANEL.	+60" AFF TO CENTER	AS REQUIRED	COORDINATE POWER. NOTE #4.
CR *#	ACCESS CONTROL PROXIMITY CARD READER. DEFAULT SYMBOL INDICATES WALL MOUNTED *M - INDICATES MULLION MOUNTED READER	+42" A.F.F.	1-G, 3/4" C	
CR	DOOR MOUNTED ACCESS CONTROL PROXIMITY CARD READER THAT IS INTEGRATED INTO THE DOOR HARDWARE.	+42" AFF	N/A	
DS *#	2-WAY AUDIO/VIDEO INTERCOM DOOR STATION. *DEFAULT INDICATES WALL MOUNTED *M - INDICATES MULLION MOUNTED DEVICE	+42" AFF	*W: 1-G, 3/4" C *M: 3/4"C	COORDINATE POWER. NOTE #4.
DS	DOOR MOUNTED, 2-WAY AUDIO/VIDEO INTERCOM DOOR STATION.	+42" AFF, FIELD COORDINATE		COORDINATE POWER. NOTE #4
MS	2-WAY AUDIO/VIDEO INTERCOM MASTER STATION.	DESK MOUNTED UNO		COORDINATE POWER. NOTE #4
DR	DOOR RELEASE BUTTON	COORDINATE WITH GC	1-G, 3/4" C	
REX	PIR MOTION REQUEST TO EXIT DEVICE			
DP	DOOR PROP ALARM	CEILING MOUNTED UNO	N/A	N/A
DC	DPDT MAGNETIC DOOR CONTACT/DOOR POSITION SENSOR.	FLUSH MOUNTED IN DOOR FRAME	N/A	PROVIDED BY ACS CONTRACTOR.
RFID	VEHICLE RFID TAG READER.		FIELD COORDINATE RACEWAYS AND BACK BOXES	PROVIDE NECESSARY EQUIPMENT FOR A FULLY FUNCTIONAL VEHICLE ENTRY POINT.

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

INTERCOM LEGEND

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
ICS	INTERCOM COMMUNICATIONS SYSTEM HEAD END UNIT.	FLOOR MOUNTED	COORDINATE WITH EC	COORDINATE POWER WITH EC
S	CEILING MOUNT INTERCOM SPEAKER, LAY-IN CEILING.	CEILING	CONTRACTOR PROVIDED	
S2	CEILING MOUNT INTERCOM SPEAKER, HARD CEILING.	CEILING	CONTRACTOR PROVIDED	
S3	WALL MOUNT INTERIOR INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
S4	WALL MOUNT EXTERIOR INTERCOM SPEAKER	+10' AFF UNO	CONTRACTOR PROVIDED	
S5	PENDANT MOUNT INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
S6	SURFACE MOUNT INTERCOM SPEAKER. MOUNT TO STRUCTURE.	CEILING	CONTRACTOR PROVIDED	
# IP	IP BASED SPEAKER. '#' TO BE REPLACED WITH S, S2, S3, S4 INDICATING THE SPECIFIC TYPE OF SPEAKER.	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	NOTE #5
VC	WALL MOUNTED VOLUME CONTROL	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
CB	INTERCOM CALL BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
C	SINGLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
C2	DOUBLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
RPS	REMOTE PROGRAM SOURCE	DESK TOP	COORDINATE WITH EC	NOTE #5
ACS	ADMINISTRATIVE CALL STATION.	DESK TOP	N/A	NOTE #5
LD	LOCKDOWN BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
LMB ▼	LARGE MESSAGE BOARD, POE+ POWERED.	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

VIDEO SURVEILLANCE LEGEND

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
	WALL/CORNER MOUNT 4-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
	CEILING MOUNTED 4-SENSOR CAMERA	CEILING		NOTE #5
	2-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
	1-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
⊢	INDICATES CAMERA TO BE WALL MOUNTED			
VMU	VIDEO SURVEILLANCE MAIN UNIT	ABOVE CEILING		NOTE #5

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

AUDIO/VIDEO LEGEND

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
WMP ▽	WALL MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLANS.	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
CMP	CEILING MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	CEILING MOUNTED	N/A	NOTE #5
AV-1 ▽	WALL MOUNTED AUDIO/VIDEO INPUT OUTLET	+18" AFF UNO	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	
FSD-1 ▽	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
FSD-2 ▽	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET ASSOCIATED WITH AV-1 INPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
IVD ▽	INTERACTIVE VIDEO DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
CP ▽	AV CONTROL PANEL	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
(PS)	LOCAL INSTRUCTIONAL SPACE PRESENTATION SPEAKER	CEILING	CONTRACTOR PROVIDED CEILING BOX	COORDINATE POWER WITH EC
	STREAMING CAMERA	CEILING UNO	N/A	NOTE #5

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

LOCAL SOUND SYSTEM LEGEND

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
S	LOCAL SOUND SYSTEM SPEAKER P: POLE MOUNTED SPEAKER	CEILING MOUNT UNO	CONTRACTOR PROVIDED BACK BOX OR 4"X4"X2 1/8" J BOX WITH COVER, 1"C	
LSC	LOCAL SOUND SYSTEM CONTROL PLATE	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
MI	MICROPHONE INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
MA	COMBINATION OUTLET CONSISTING OF ONE (1) MICROPHONE INPUT AND ONE (1) AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
AI	3.5MM STEREO AUDIO AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
H	HANGING MICROPHONE	CEILING MOUNT	N/A	
ABM	AUXILIARY INPUT AND BLUETOOTH MIXER	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
RACK	VENUE SPECIFIC LOCAL SOUND SYSTEM HEAD END RACK	WALL MOUNT UNO	N/A	
WA	WIRELESS ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
ALA	ASSISTED LISTENING ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
SUB	SUBWOOFER	CEILING MOUNT UNO		

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

INTRUSION LEGEND

SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
IDP	INTRUSION DETECTION SYSTEM CONTROL PANEL	+60" AFF	TWO(2) - 1"C TO CONTRACTOR PROVIDED BACK BOX	COORDINATE POWER WITH EC. NOTE #5
KP	INTRUSION DETECTION SYSTEM KEYPAD.	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
	CEILING MOUNTED MOTION DETECTOR	CEILING		
M	WALL MOUNTED MOTION DETECTOR LR: LONG RANGE	REFERENCE FLOOR PLAN	N/A	
GB	CEILING MOUNTED GLASS BREAK DETECTOR	CEILING	N/A	
DC	DPDT MAGNETIC DOOR CONTACT/DOOR POSITION SENSOR.	FLUSH MOUNTED IN DOOR FRAME	N/A	DEVICE PROVIDED BY ACS CONTRACTOR.
SDC	SURFACE MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A	
ODC	OVERHEAD DOOR MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A	
DB	DURESS PANIC BUTTON	UNDER DESK UNO	N/A	

NOTES:
1. #-G INDICATES BACK BOX SIZE.
2. #-C INDICATES CONDUIT SIZE.
3. UNO: UNLESS NOTED OTHERWISE
4. REFERENCE DIVISION 28 SPECIFICATION FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

FIRE ALARM

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL
FAA	FIRE ALARM ANNUNCIATOR PANEL

NOTES:
1. FIRE ALARM SYSTEM IS PERFORMANCE BASED PER SPECIFICATIONS. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.

SUBSCRIPTS AND ABBREVIATIONS

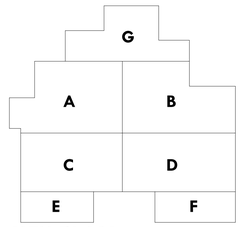
TEXT	DESCRIPTION
'WP'	DEVICE SHALL BE WEATHER PROOF AND RATED FOR EXTERIOR CONDITIONS
•	FIELD COORDINATE ELEVATION.
AFF	ABOVE FINISHED FLOOR
'UC'	DEVICE IS TO BE MOUNTED ON THE UNDERSIDE OF THE ELEVATED CANOPY.
'WM'	DEVICE IS TO BE WALL MOUNTED.
'WG'	WIRE GUARD TO BE PROVIDED AND INSTALLED TO PROTECT ASSOCIATED DEVICE.

SUBSCRIPTS LEGEND - EXISTING DEVICES

TEXT	DESCRIPTION
'E'	EXISTING TO REMAIN.
'D'	DEVICE IS EXISTING AND IS TO BE REMOVED. CONTRACTOR TO REMOVE THE DEVICE AND RETURN TO OWNER.
'R'	REMOVE EXISTING DEVICE AND RELOCATE TO A LOCATION INDICATED ON THE DRAWINGS. CONTRACTOR TO PROVIDE RELOCATED DEVICE WITH NEW CABLING.
'ER'	DEVICE, BACKBOX AND RACEWAY ARE EXISTING TO REMAIN. STRUCTURED CABLING, WIRING OR AV CABLING SHALL BE REPLACED WITH NEW.

NOTES TO CONTRACTOR

1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS.
2. SYSTEM INSTALLERS SHALL COORDINATE LOCATIONS AND CONNECTIONS WITH THE PROJECT'S ELECTRICAL CONTRACTOR.
3. CONTRACTOR TO PROVIDE PROPERLY GROUNDED LIGHTING PROTECTION ON ALL CABLING ENTERING AND EXITING THE BUILDING.



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

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4301 MAGNOLIA COVE DRIVE
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HUMBLE, TEXAS 77345
281.361.3800
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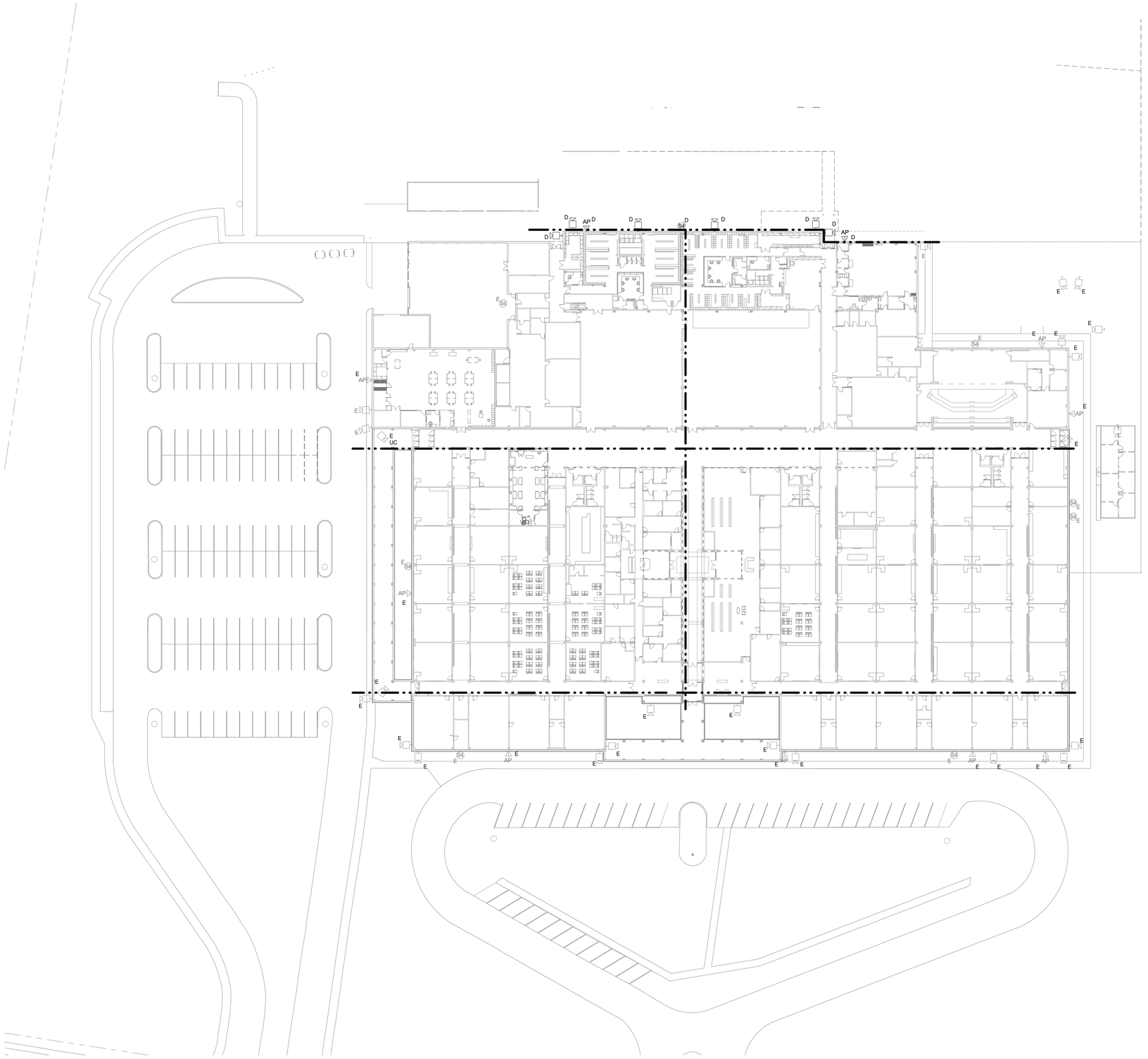
DATE JUNE 13, 2025
DRAWN BY NY
CHECKED BY AY
BRW PROJECT NUMBER 22300S.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

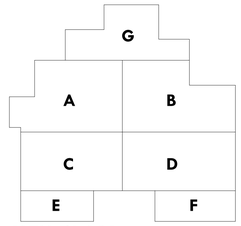
T0.0

TECHNOLOGY NOTES AND LEGENDS



N

1 **TECHNOLOGY DEMOLITION SITE PLAN**
Scale: 1" = 30'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD
ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

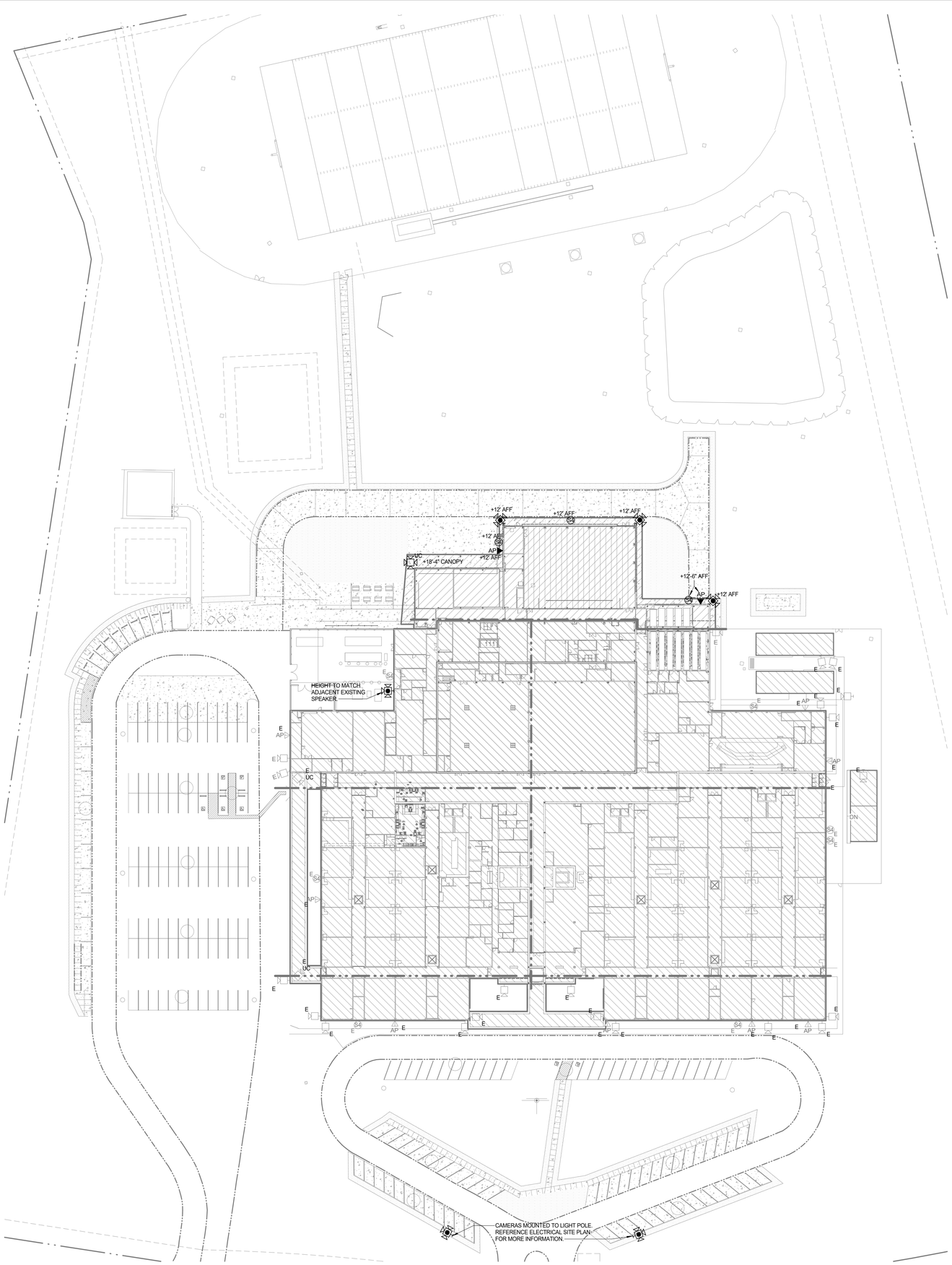
NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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DATE JUNE 13, 2025
DRAWN BY NY
CHECKED BY AY
BRW PROJECT NUMBER 223005.00

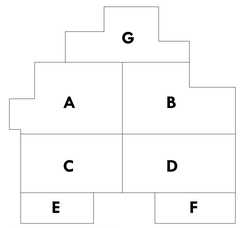
T0.1

TECHNOLOGY
DEMOLITION SITE PLAN



N

1 **TECHNOLOGY SITE PLAN**
Scale: 1" = 40'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LEAGUE CITY, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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1	ISSUED FOR CSP	06.13.2025

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS

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DATE JUNE 13, 2025
DRAWN BY NY
CHECKED BY AY
BRW PROJECT NUMBER 223005.00

T1.0
TECHNOLOGY SITE PLAN

EXISTING LOCATION NOTES

EXISTING DEVICE LOCATIONS ARE BASED ON CONSULTANT FIELD OBSERVATIONS. CONTRACTOR(S) TO FEILD VERIFY EXACT LOCATIONS OF EXISTING DEVICES.

TECH DEMO PLAN GENERAL NOTES

A CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

B CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE BUT NOT BE LIMITED TO:
1) FIRE ALARM
2) INTERCOM
3) STRUCTURED CABLING
4) INTRUSION DETECTION
5) ACCESS CONTROL
6) AUDIO VIDEO
7) VIDEO SURVEILLANCE

TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.

C CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCTION OCCURS TO PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY DEVICES WHICH SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REMOVAL SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES AND ASSOCIATED SUPPORT INFRASTRUCTURE:
1) FIRE ALARM DEVICES
2) INTERCOM DEVICES
3) WIRELESS ACCESS POINTS
4) TELEPHONES
5) VIDEO SURVEILLANCE CAMERAS
6) INTRUSION DETECTION DEVICES
7) ACCESS CONTROL DEVICES
8) VIDEO PROJECTION DEVICES
9) VIDEO DISPLAY DEVICES

ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.

D CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAG, MAC ADDRESS, IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO BE REMOVED FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, SHALL BE REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PRIOR TO CONSTRUCTION, UNLESS NOTED OTHERWISE.

E ANY INDIVIDUAL THAT WILL BE REMOVING, RELOCATING, REINSTALLING, AND/OR TAMPERING WITH ANY EXISTING DEVICES; SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED AS REQUIRED BY THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUAL SHALL BE A FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT SUCH WORK ON THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFICATIONS AND/OR LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYSTEM.

F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, REINSTALLING, OR TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE STATE, AS APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SYSTEM.

G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. NO CABLE SHALL BE ABANDONED IN PLACE.

H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

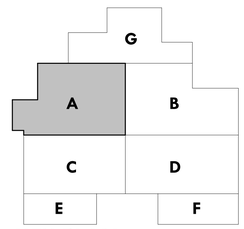
I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS SHEET.

L CONTRACTOR TO COORDINATE WITH HUMBLE ISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

N ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.



N 1 **TECHNOLOGY DEMOLTION FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE	JUNE 13, 2025
DRAWN BY	NY
CHECKED BY	AY
BRW PROJECT NUMBER	223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

T1.1
TECHNOLOGY DEMOLITION FLOOR PLAN - AREA A

EXISTING LOCATION NOTES

EXISTING DEVICE LOCATIONS ARE BASED ON CONSULTANT FIELD OBSERVATIONS. CONTRACTOR(S) TO FEILD VERIFY EXACT LOCATIONS OF EXISTING DEVICES.

TECH DEMO PLAN GENERAL NOTES

A CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

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1) FIRE ALARM
2) INTERCOM
3) STRUCTURED CABLING
4) INTRUSION DETECTION
5) ACCESS CONTROL
6) AUDIO VIDEO
7) VIDEO SURVEILLANCE

TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.

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3) WIRELESS ACCESS POINTS
4) TELEPHONES
5) VIDEO SURVEILLANCE CAMERAS
6) INTRUSION DETECTION DEVICES
7) ACCESS CONTROL DEVICES
8) VIDEO PROJECTION DEVICES
9) VIDEO DISPLAY DEVICES

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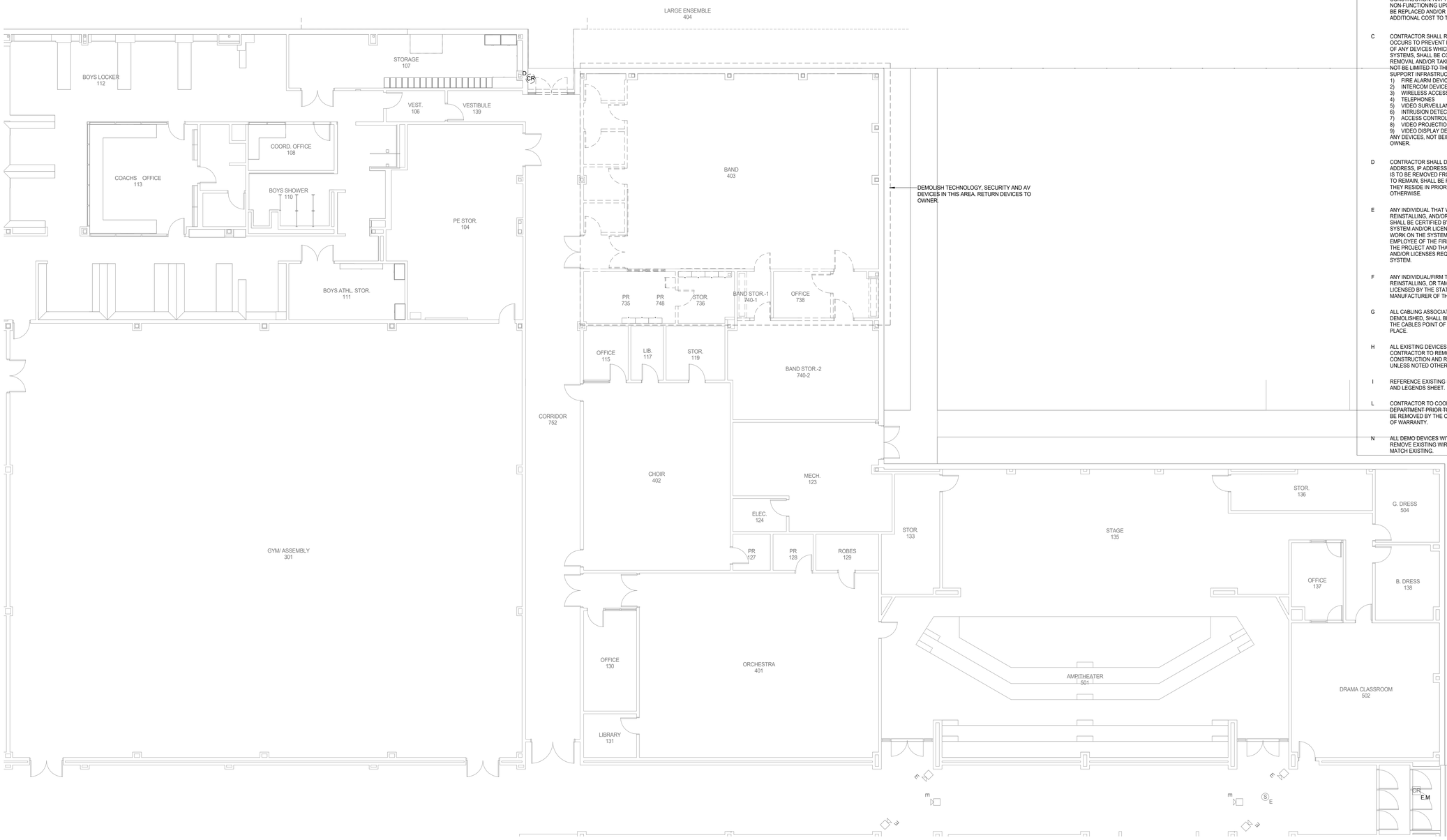
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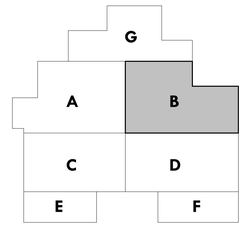
I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS SHEET.

L CONTRACTOR TO COORDINATE WITH HUMBLE ISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

N ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.



N 1 **TECHNOLOGY DEMOLTION FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUFFMAN, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE JUNE 13, 2025
DRAWN BY NY
CHECKED BY AY
BRW PROJECT NUMBER 223003.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

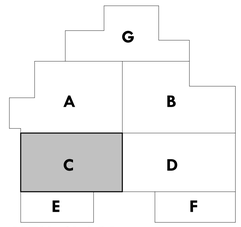
NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

T1.2
TECHNOLOGY DEMOLITION FLOOR PLAN - AREA B



N

1 **TECHNOLOGY DEMOLTION FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE	JUNE 13, 2025
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BRW PROJECT NUMBER	223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

T1.3

TECHNOLOGY DEMOLITION FLOOR PLAN - AREA C

EXISTING LOCATION NOTES

EXISTING DEVICE LOCATIONS ARE BASED ON CONSULTANT FIELD OBSERVATIONS. CONTRACTOR(S) TO FEILD VERIFY EXACT LOCATIONS OF EXISTING DEVICES.

TECH DEMO PLAN GENERAL NOTES

A CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

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1) FIRE ALARM
2) INTERCOM
3) STRUCTURED CABLING
4) INTRUSION DETECTION
5) ACCESS CONTROL
6) AUDIO VIDEO
7) VIDEO SURVEILLANCE

TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.

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2) INTERCOM DEVICES
3) WIRELESS ACCESS POINTS
4) TELEPHONES
5) VIDEO SURVEILLANCE CAMERAS
6) INTRUSION DETECTION DEVICES
7) ACCESS CONTROL DEVICES
8) VIDEO PROJECTION DEVICES
9) VIDEO DISPLAY DEVICES

ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.

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H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

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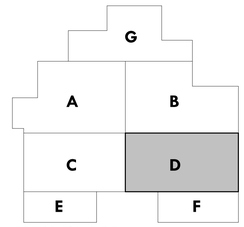
L CONTRACTOR TO COORDINATE WITH HUMBLE ISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

N ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.



N

1 TECHNOLOGY DEMOLTION FLOOR PLAN - AREA D
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUFFMAN, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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DATE JUNE 13, 2025
DRAWN BY NY
CHECKED BY AY
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

T1.4
TECHNOLOGY DEMOLITION FLOOR PLAN - AREA D

EXISTING LOCATION NOTES

EXISTING DEVICE LOCATIONS ARE BASED ON CONSULTANT FIELD OBSERVATIONS. CONTRACTOR(S) TO FEILD VERIFY EXACT LOCATIONS OF EXISTING DEVICES.

TECH DEMO PLAN GENERAL NOTES

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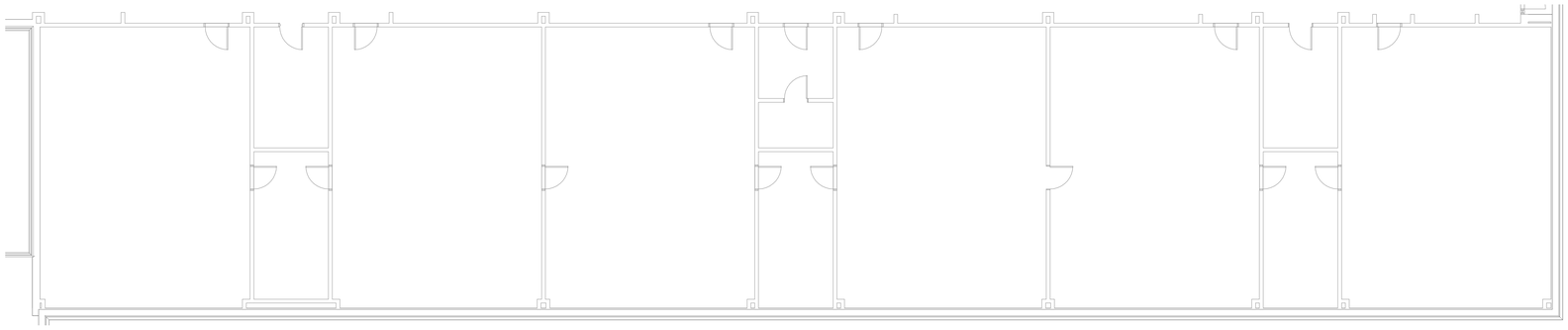
G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. NO CABLE SHALL BE ABANDONED IN PLACE.

H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.

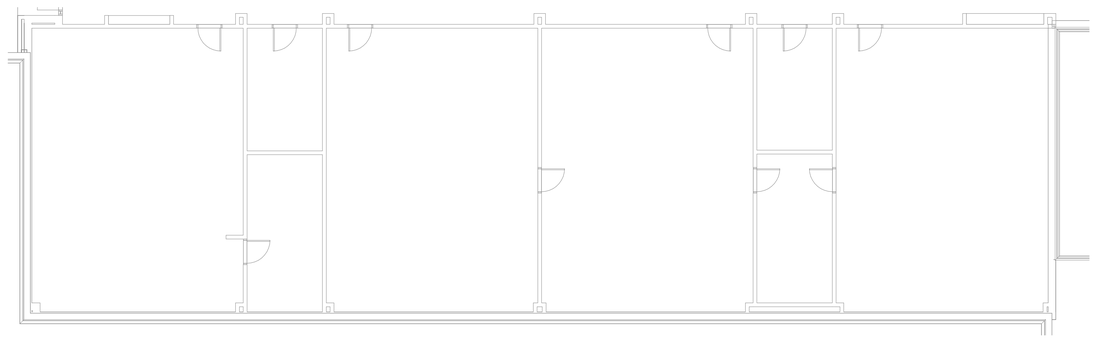
I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS SHEET.

L CONTRACTOR TO COORDINATE WITH HUMBLE ISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

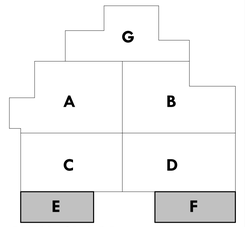
N ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.



N 2 **TECHNOLOGY DEMOLTION FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



N 1 **TECHNOLOGY DEMOLTION FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
LEAGUE CITY, TX 77545
281.361.3800
WWW.BRWARCH.COM

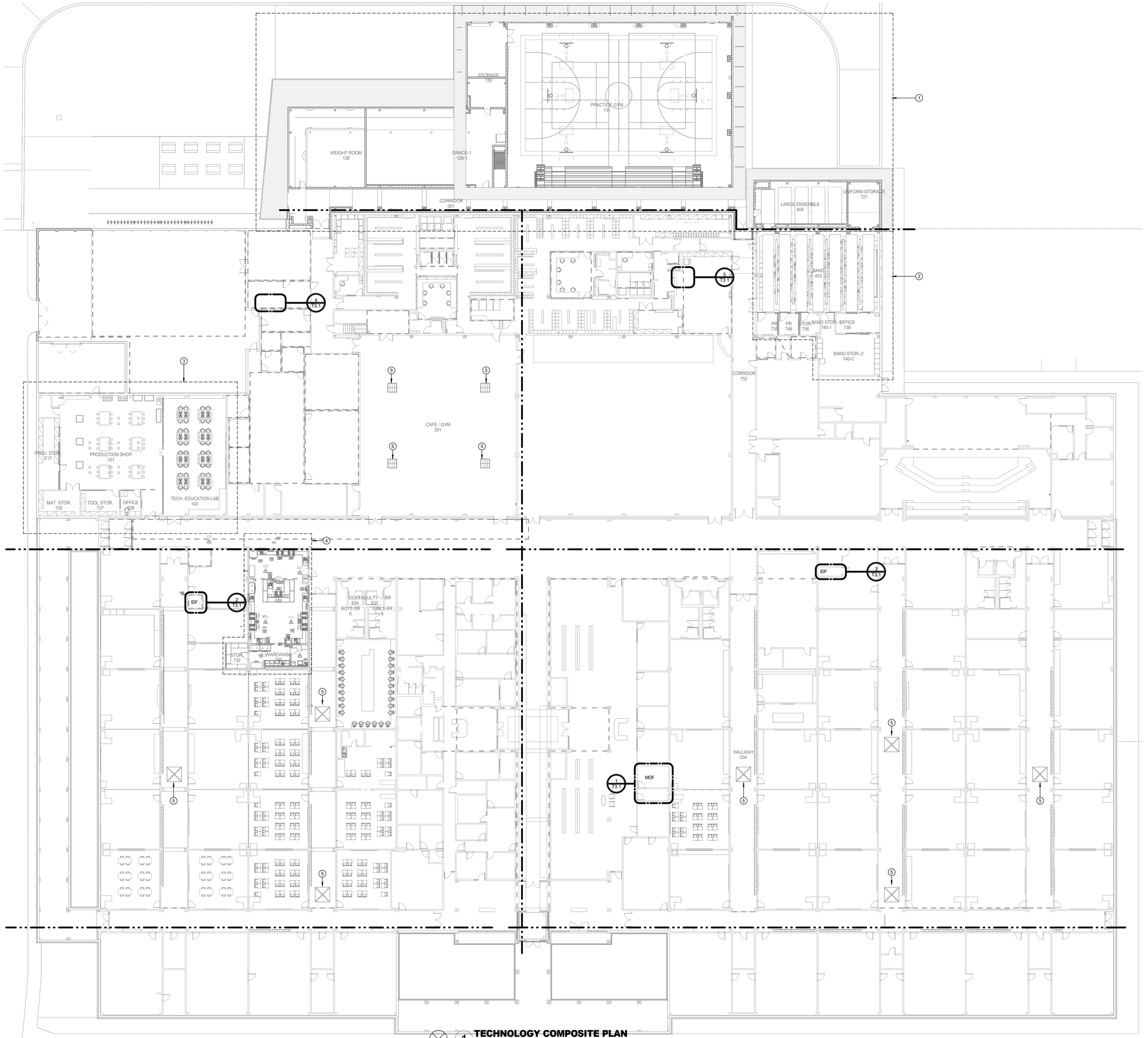
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BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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T1.5
TECHNOLOGY DEMOLITION FLOOR PLAN - AREA E & F

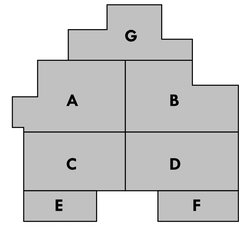


TECHNOLOGY COMPOSITE PLAN

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

TECH COMPOSITE KEY NOTES

1	BAND, WEIGHT ROOM, PRACTICE GYM, LARGE ENSEMBLE ADDITION
2	BAND HALL RENOVATIONS
3	CTE LAB RENOVATION
4	CTE CULINARY RENOVATIONS
5	ADDITION OF NEW SKY LIGHT/CLERESTORY WINDOWS



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

T2.0
TECHNOLOGY COMPOSITE PLAN

FIRE ALARM

A	FIRE ALARM SYSTEM IS A PERFORMANCE BASED PER SPECIFICATIONS 28 46 00. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
B	A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.

TECHNOLOGY PLAN GENERAL NOTES

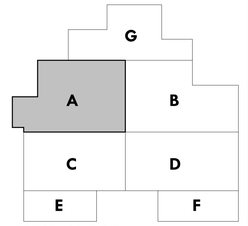
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B	COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN.
C	REFERENCE TECHNOLOGY SITE PLAN, COMPOSITE PLAN, NOTES & LEGENDS AND DETAILS FOR ADDITIONAL INFORMATION AND DEVICE/OUTLET LOCATIONS.
D	CONTRACTOR TO COORDINATE INTERCOM SPEAKER MOUNTING TYPES WITH ARCHITECTURAL CEILING PLANS PRIOR TO FINAL SPEAKER SELECTION. COORDINATE WITH ENGINEER ON ANY DISCREPANCIES.
E	CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION.

TECHNOLOGY PLAN KEYED NOTES

1	CONTRACTOR TO ADJUST LOCATIONS OF EXISTING DEVICES THAT ARE LOCATED WHERE NEW SKY LIGHTS WILL BE INSTALLED. TYPICAL FOR ALL SHOWN.
2	ALL DIVISION 27 AND 28 EXISTING CABLING THAT IS IN THE AREA OF SKY LIGHT INSTALLATION SHALL BE PROTECTD AND ADJUSTED AS NEEDED. TYPICAL FOR ALL SHOWN.



1 **TECHNOLOGY FLOOR PLAN - AREA A**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

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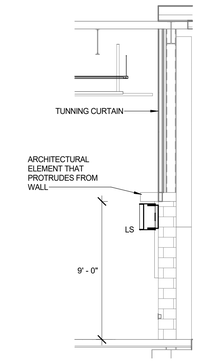
T2.1
TECHNOLOGY FLOOR PLAN - AREA A

TECHNOLOGY PLAN GENERAL NOTES

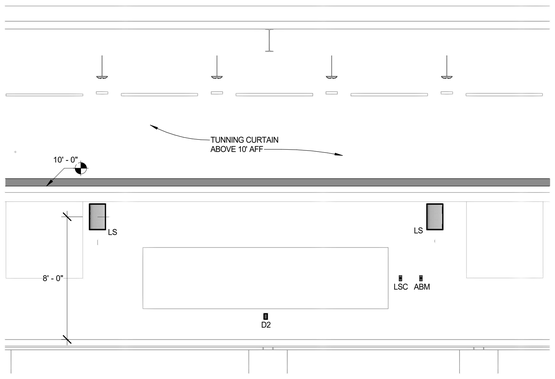
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C	REFERENCE TECHNOLOGY SITE PLAN, COMPOSITE PLAN, NOTES & LEGENDS AND DETAILS FOR ADDITIONAL INFORMATION AND DEVICE/OUTLET LOCATIONS.
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E	CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION.

FIRE ALARM

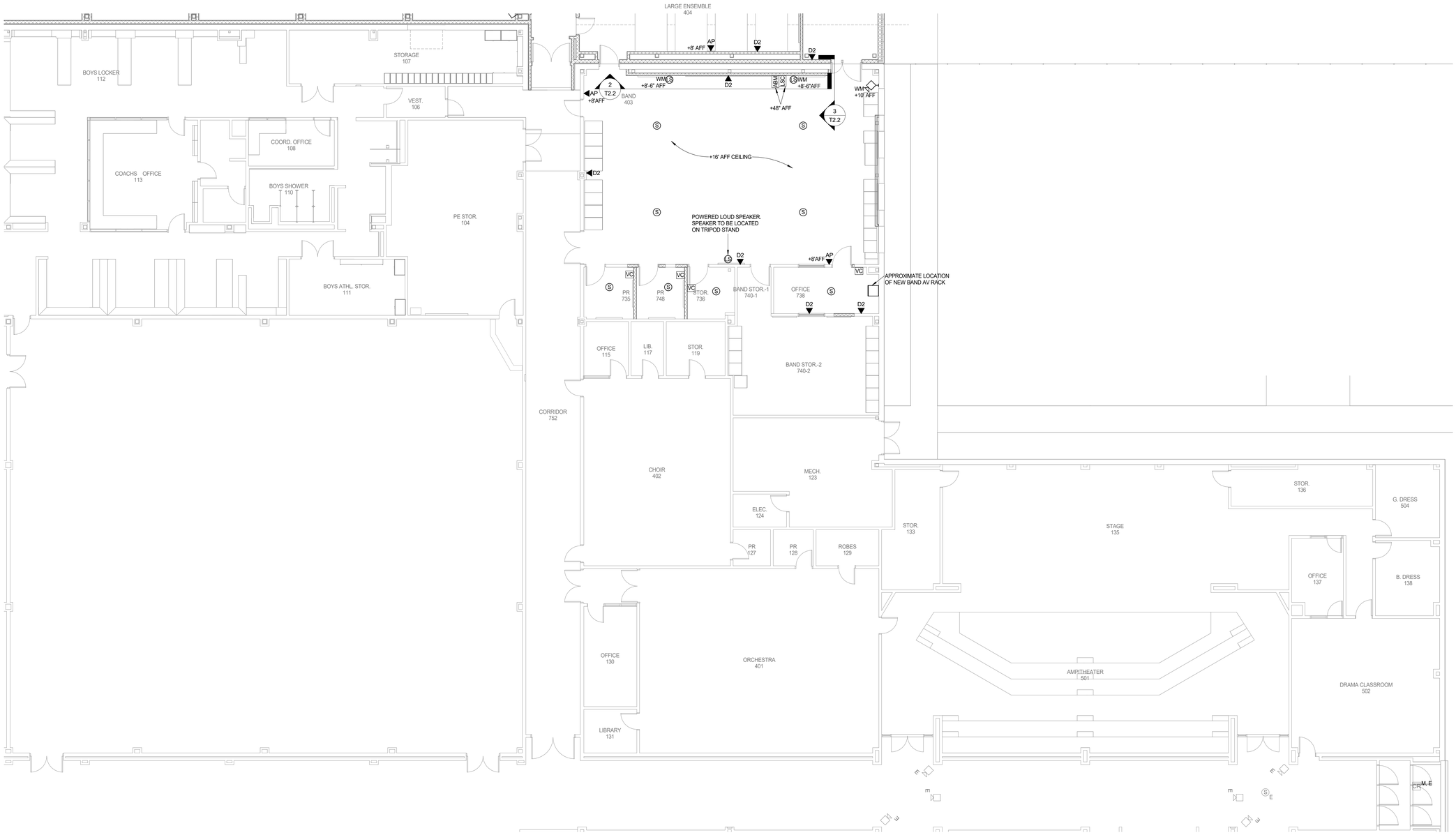
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B	A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.



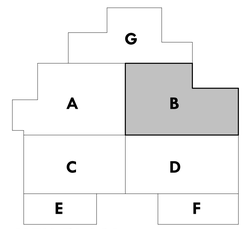
3 **BAND HALL PROFILE**
Scale: 1/4" = 1'-0"



2 **BAND HALL TEACHING WALL**
Scale: 1/4" = 1'-0"



1 **TECHNOLOGY FLOOR PLAN - AREA B**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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CHECKED BY AY
BRW PROJECT NUMBER 223005.00

T2.2
TECHNOLOGY FLOOR PLAN - AREA B

TECHNOLOGY PLAN GENERAL NOTES

A	COORDINATE ALL FINAL MOUNTING HEIGHTS, FOR WALL MOUNTED DEVICES, PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECT, OWNER AND ENGINEER.
B	COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN.
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E	CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION.

TECHNOLOGY PLAN KEYED NOTES

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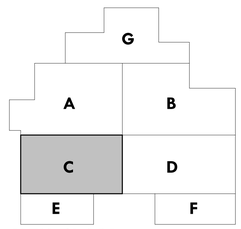
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N

1 **TECHNOLOGY FLOOR PLAN - AREA C**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
STATE OF TEXAS
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
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T2.3
TECHNOLOGY FLOOR PLAN - AREA C

TECHNOLOGY PLAN GENERAL NOTES

A	COORDINATE ALL FINAL MOUNTING HEIGHTS, FOR WALL MOUNTED DEVICES, PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECT, OWNER AND ENGINEER.
B	COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN.
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TECHNOLOGY PLAN KEYED NOTES

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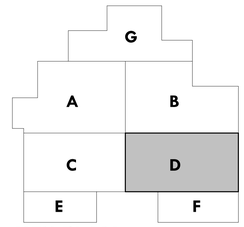
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N

1 **TECHNOLOGY FLOOR PLAN - AREA D**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

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ARCHITECT
06.13.2025

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

HUMBLE INDEPENDENT SCHOOL DISTRICT

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

T2.4

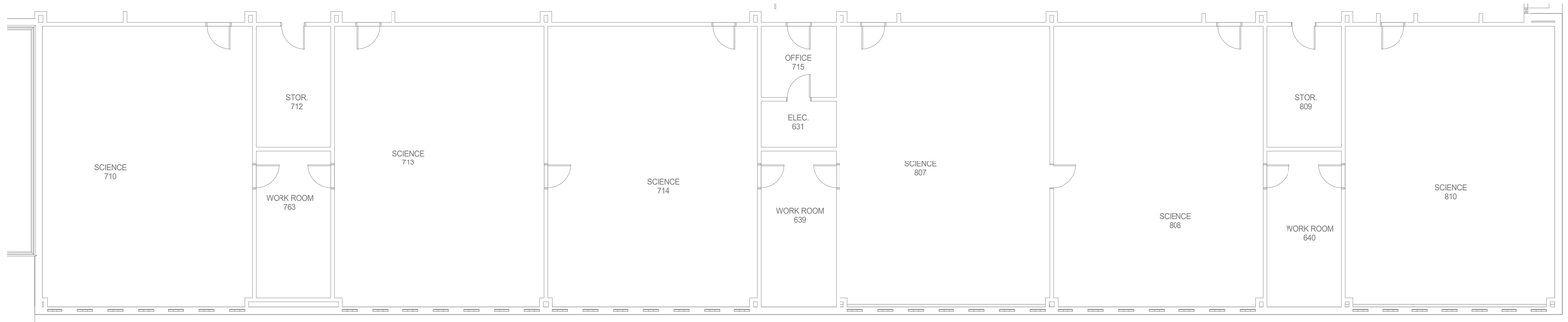
TECHNOLOGY FLOOR PLAN - AREA D

TECHNOLOGY PLAN GENERAL NOTES

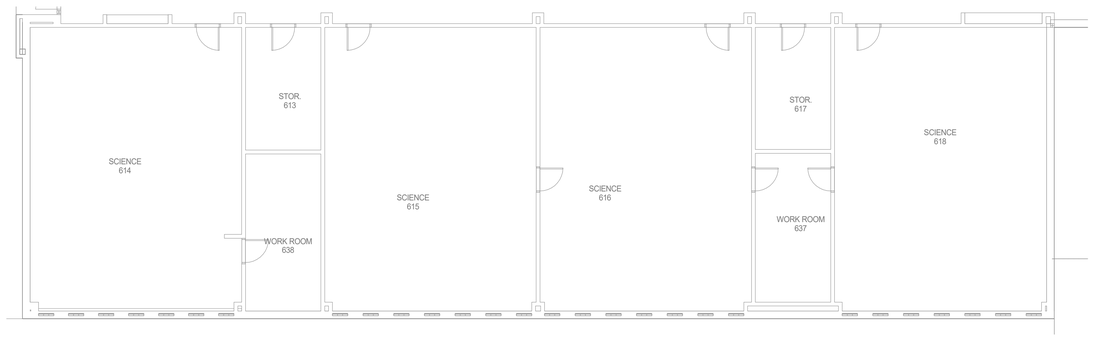
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FIRE ALARM

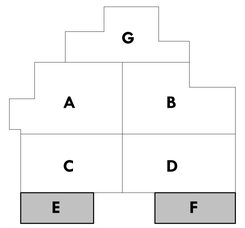
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N 2 **TECHNOLOGY FLOOR PLAN - AREA F**
Scale: 1/8" = 1'-0"



N 1 **TECHNOLOGY FLOOR PLAN - AREA E**
Scale: 1/8" = 1'-0"



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

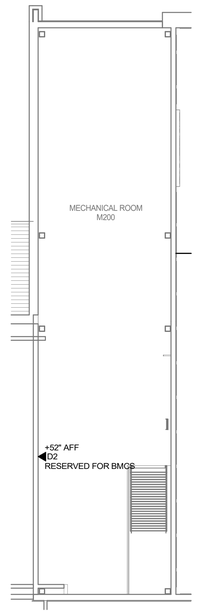
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DRAWN BY NY
CHECKED BY AY
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

T2.5
TECHNOLOGY FLOOR PLAN - AREA E & F



N 2 **TECHNOLOGY ENLARGED FLOOR PLAN - MEZZANINE 753**
Scale: 1/8" = 1'-0"

ACCESS CONTROL NOTES

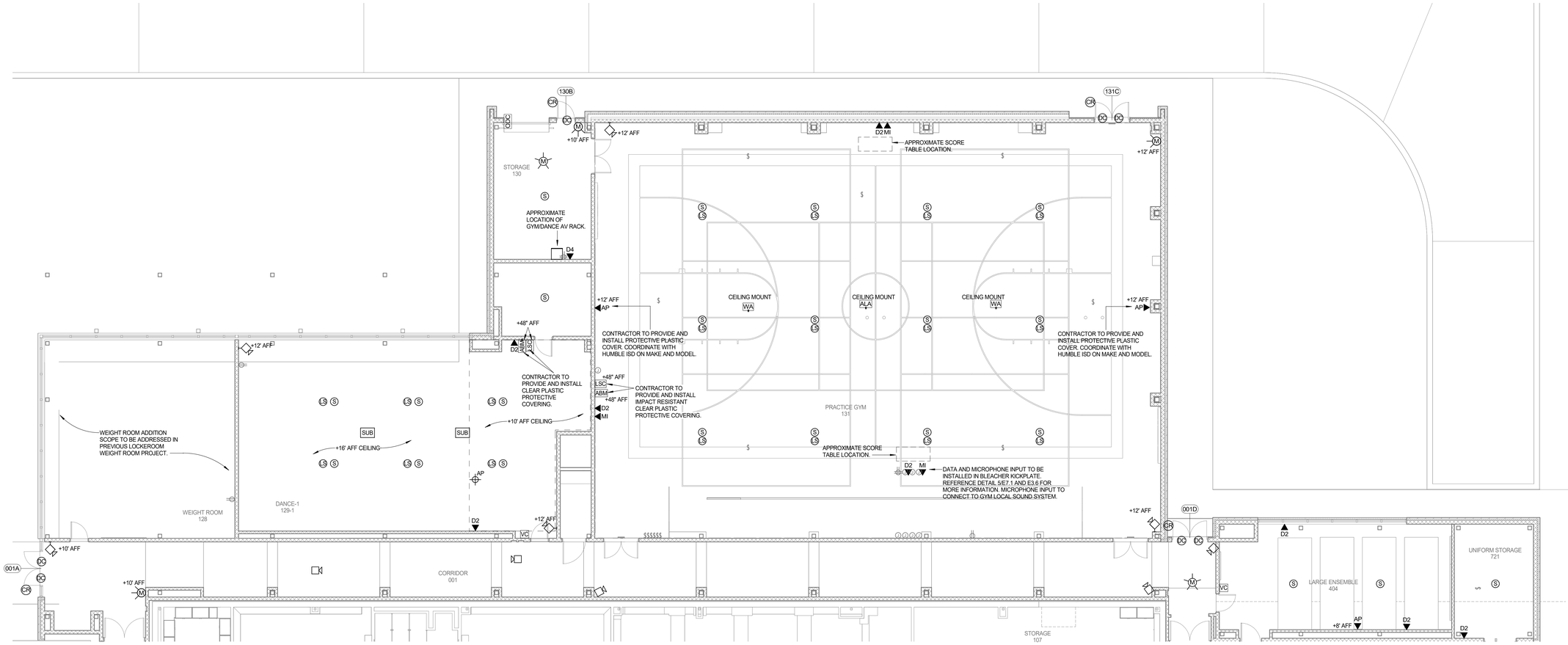
A	ALL NEW EXTERIOR DOUBLE DOORS SHALL HAVE DOOR HARDWARE WITH INTERNAL REQUEST TO EXIT ON BOTH INACTIVE AND ACTIVE LEAFS.
B	ALL NEW EXTERIOR SINGLE DOORS SHALL HAVE DOOR HARDWARE WITH INTERNAL REQUEST TO EXIT.

TECHNOLOGY PLAN GENERAL NOTES

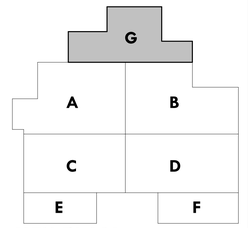
A	COORDINATE ALL FINAL MOUNTING HEIGHTS, FOR WALL MOUNTED DEVICES, PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECT, OWNER AND ENGINEER.
B	COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN.
C	REFERENCE TECHNOLOGY SITE PLAN, COMPOSITE PLAN, NOTES & LEGENDS AND DETAILS FOR ADDITIONAL INFORMATION AND DEVICE/OUTLET LOCATIONS.
D	CONTRACTOR TO COORDINATE INTERCOM SPEAKER MOUNTING TYPES WITH ARCHITECTURAL CEILING PLANS PRIOR TO FINAL SPEAKER SELECTION. COORDINATE WITH ENGINEER ON ANY DISCREPANCIES.
E	CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION.

FIRE ALARM

A	FIRE ALARM SYSTEM IS A PERFORMANCE BASED PER SPECIFICATIONS 28 46 00. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
B	A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.



N 1 **TECHNOLOGY FLOOR PLAN - AREA G**
Scale: 1/8" = 1'-0"



KEY PLAN

ISSUED FOR BID

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

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80219
LICENSED
ARCHITECT
06.13.2025

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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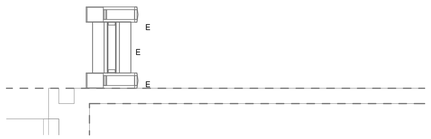
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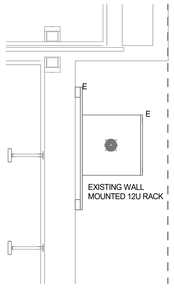
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

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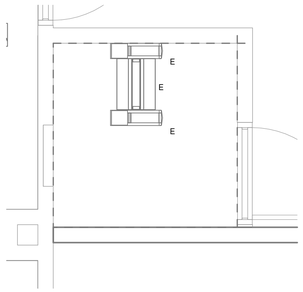
T2.6
TECHNOLOGY FLOOR PLAN - AREA G



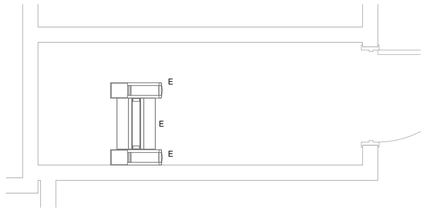
4 **EXISTING TECH ENLARGED IDF - AREA A**
Scale: 1/2" = 1'-0"



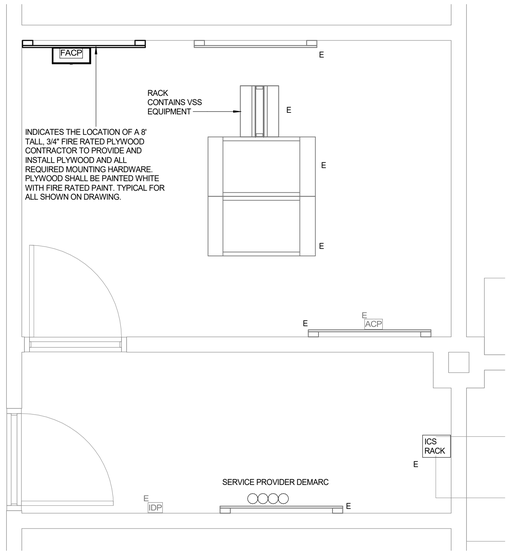
5 **EXISTING TECH ENLARGED IDF - AREA B**
Scale: 1/2" = 1'-0"



2 **EXISTING TECH ENLARGED IDF - AREA C**
Scale: 1/2" = 1'-0"



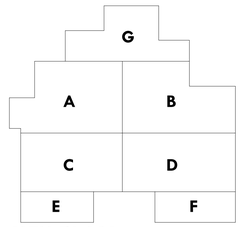
3 **EXISTING TECH ENLARGED IDF - AREA D**
Scale: 1/2" = 1'-0"



1 **EXISTING TECH ENLARGED MDF PLAN**
Scale: 1/2" = 1'-0"

TECH ENLARGED PLAN GENERAL NOTES

A	ALL RACK LOCATIONS ARE EXISTING AND ARE SHOWN FOR COORDINATION PURPOSES.
B	PATCH PANEL QUANTITY SHALL BE DETERMINED BY STATION CABLE DROP COUNTS AND DATE OUTLETS THAT ARE BEING REPLACED DUE TO SCOPE OF WORK. ENSURE PATCH PANEL QUANTITY IS SUFFICIENT TO SUPPORT THE NUMBER OF PORTS REQUIRED BY TECHNOLOGY PLANS PLUS AN ADDITIONAL 25% FOR FUTURE GROWTH.
C	CONTRACTOR SHALL NOT MOUNT EXCEED MORE THAN A 50% RACK FILL RATIO ON ANY RACK.
D	REFERENCE SPECIFICATIONS FOR MATERIALS AND METHODS



KEY PLAN

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

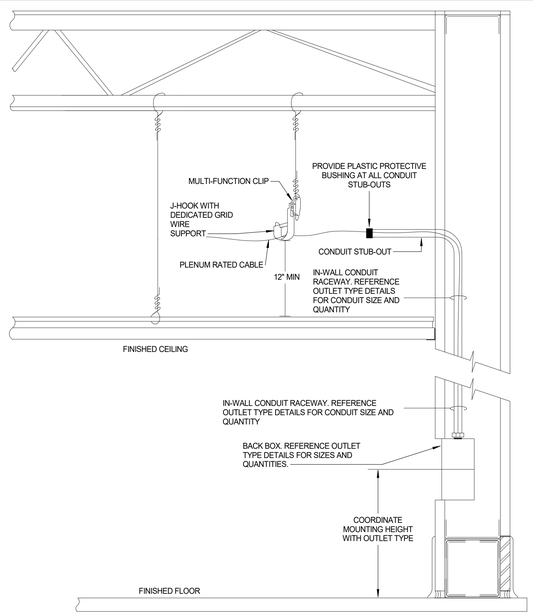
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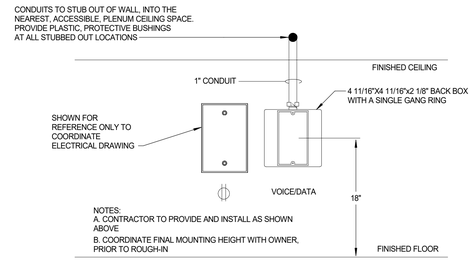
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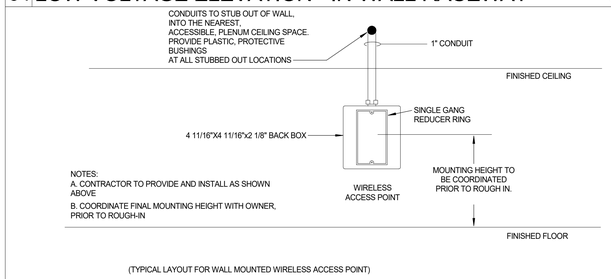
T3.1
TECHNOLOGY
ENLARGED PLAN



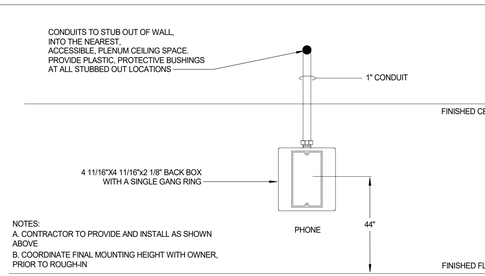
01 LOW VOLTAGE ELEVATION - IN-WALL RACEWAY NOT TO SCALE



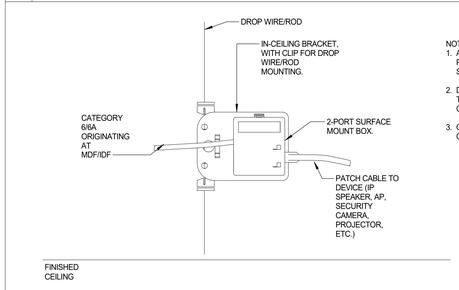
02 RACEWAY DETAIL - TYPICAL VOICE/DATA OUTLET NOT TO SCALE



03 RACEWAY DETAIL - WALL MOUNTED WIRELESS AP NOT TO SCALE

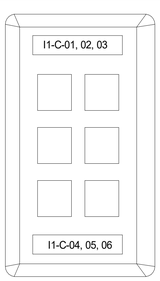


04 RACEWAY DETAIL - WALL MOUNTED TELEPHONE NOT TO SCALE



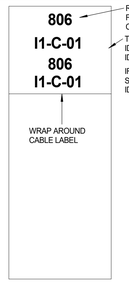
NOTE:
1. ALL ITEMS SHOWN IN THIS DETAIL SHALL BE PROVIDED AND INSTALLED BY THE STRUCTURED CABLING SYSTEM INSTALLER.
2. DROP WIRE SUPPORT SHALL BE DEDICATED TO THE OUTLET. DO NOT MOUNT TO EXISTING CEILING GRID WIRE.
3. OUTLET SHALL BE LOCATED WITHIN 3' OF THE CEILING AND WITH 5' FROM THE IP DEVICE.

05 ABOVE CEILING STAND ALONE OUTLET NOT TO SCALE



1. FACEPLATE LABELING SHALL BE MACHINE GENERATED AND SHALL NOT BE LESS THEN 1/4" IN HEIGHT
2. PROVIDE BLANK INSERTS FOR ANY UNUSED PORTS
3. COORDINATE EXACT LABELING SCHEME WITH OWNER AND ENGINEER.

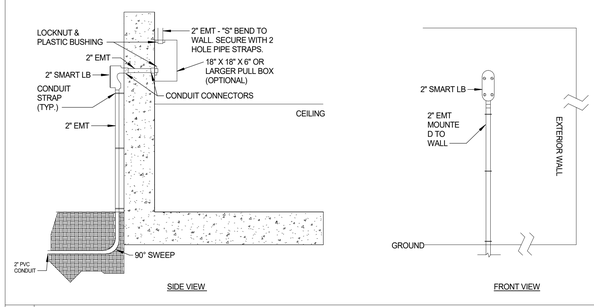
06 FACEPLATE LABEL DETAIL NOT TO SCALE



ROOM NUMBER: (COORDINATE WITH FINAL GRAPHICS PACKAGE, NOT CONSTRUCTION NUMBERS)
TR. IDENTIFICATION-PANEL IDENTIFICATION+PORT IDENTIFICATION
IF CABLE SERVERS BUILDING INTERCOM SYSTEM PROVIDE AN "I" BETWEEN THE TR IDENTIFIER AND THE PANEL. EXAMPLE I1-I-C-01

1. WRAP AROUND CABLE LABEL TO BE INSTALLED AT BOTH THE WORK AREA OUTLET AND CLOSET ENDS OF ALL CABLES. INSTALL LABEL 1" FROM THE END OF THE CABLE JACKET AT BOTH ENDS.
2. CABLE LABELING SHALL BE MACHINE GENERATED AND SHALL NOT BE LESS THEN 1/8" IN HEIGHT.
3. COORDINATE EXACT LABELING SCHEME WITH OWNER AND ENGINEER.

07 CABLE LABEL DETAIL NOT TO SCALE



08 HIGH ENTRY POINT DETAIL NOT TO SCALE

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

BRADLEY KALMANS
80219
LICENSED
ARCHITECT
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HOUSTON, TEXAS 77345
281.361.3800
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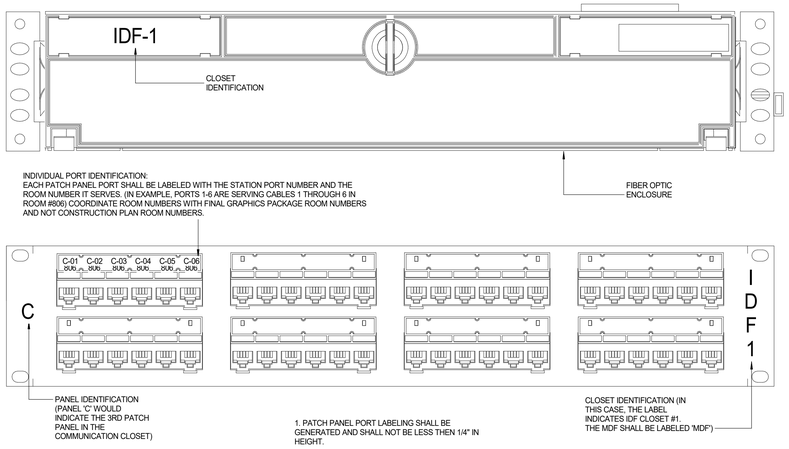
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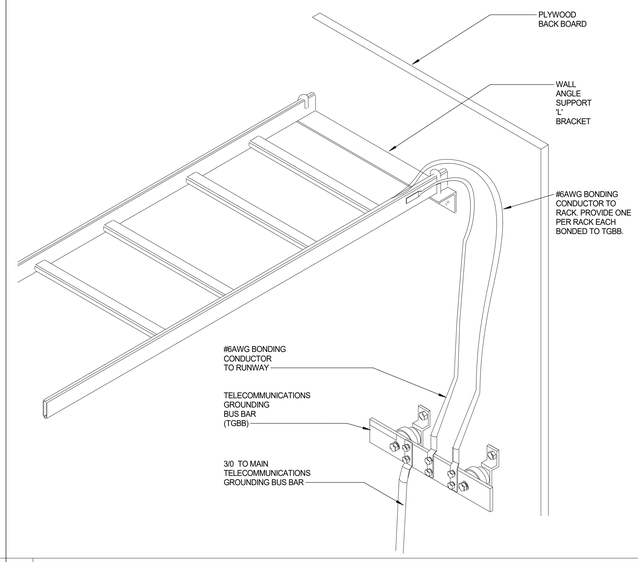
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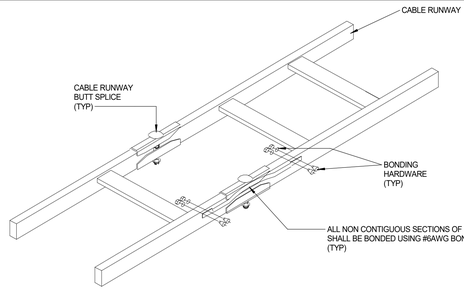
T5.1
TECHNOLOGY DETAILS



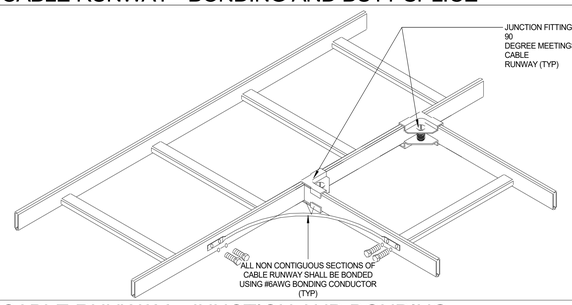
01 FIBER ENCLOSURE/ COPPER PATCH PANEL LABELING DETAIL — NOT TO SCALE



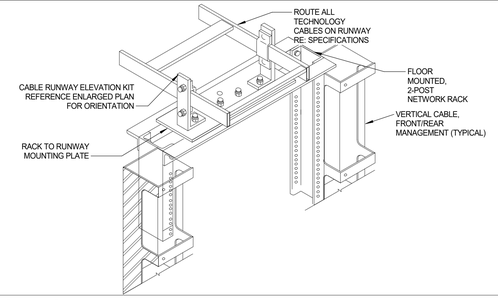
02 CABLE RUNWAY - GROUNDING AND BONDING — NOT TO SCALE



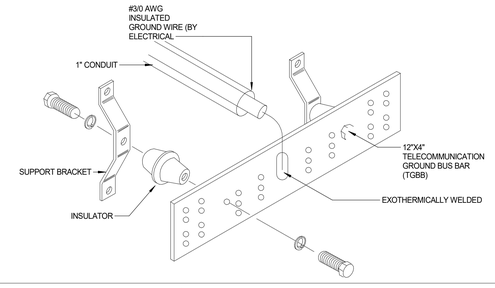
03 CABLE RUNWAY - BONDING AND BUTT SPLICE — NOT TO SCALE



04 CABLE RUNWAY - JUNCTION AND BONDING — NOT TO SCALE



05 RACK TO RUNWAY DETAIL — NOT TO SCALE



07 TELECOMMUNICATION GROUNDING BUS DETAIL — NOT TO SCALE

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
Project No: 2023-02125-00

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4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

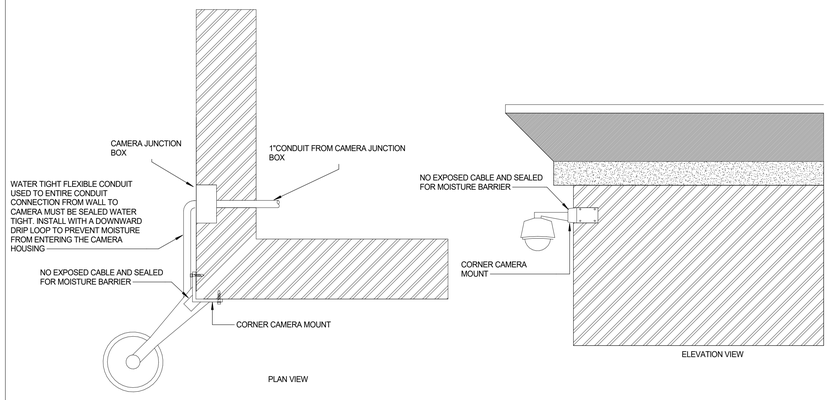
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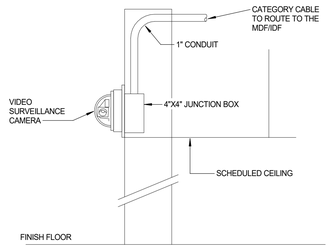
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TECHNOLOGY DETAILS



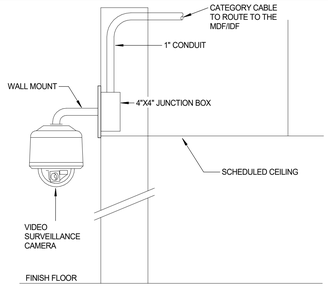
NOTE:

ELECTRICAL CONTRACTOR SHALL PROVIDE 1" CONDUIT WITH PULL STRING TO NEAREST AVAILABLE PLENUM SPACE. SECURITY CONTRACTORS SHALL PROVIDE CABLE FEED-THROUGH MOUNT FOR CAMERA. NO EXPOSED CABLE WILL BE ALLOWED. SECURITY CONTRACTOR TO COORDINATE MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR PRIOR TO ROUGH-IN.

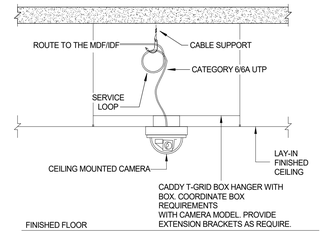
01 CORNER MOUNTING DETAIL — NOT TO SCALE



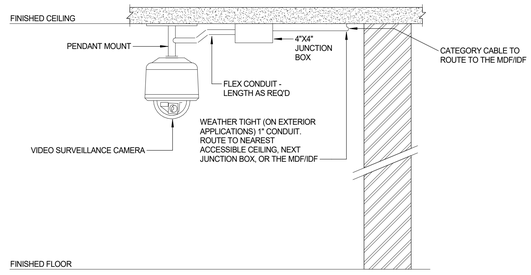
02 INTERIOR WALL MOUNT CAMERA-VERTICAL — NOT TO SCALE



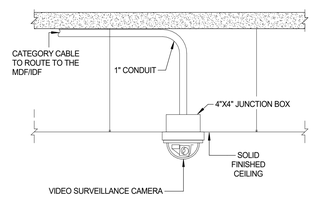
03 INTERIOR WALL MOUNTED DOME CAMERA — NOT TO SCALE



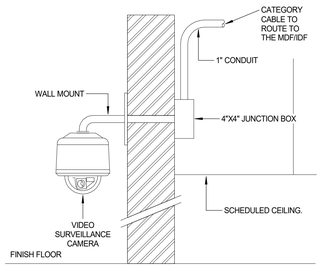
04 INTERIOR LAY-IN CEILING MOUNTED CAMERA — NOT TO SCALE



05 EXT./INT. PENDANT MOUNTED DOME CAMERA — NOT TO SCALE



06 EXTERIOR/INTERIOR SOLID CEILING MOUNT CAMERA — NOT TO SCALE



07 EXTERIOR WALL MOUNTED DOME CAMERA — NOT TO SCALE

GENERAL NOTES:

A. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUITS AND BACK BOXES. CONDUITS SHALL ROUTE TO THE NEAREST, ACCESSIBLE PLENUM SPACE.

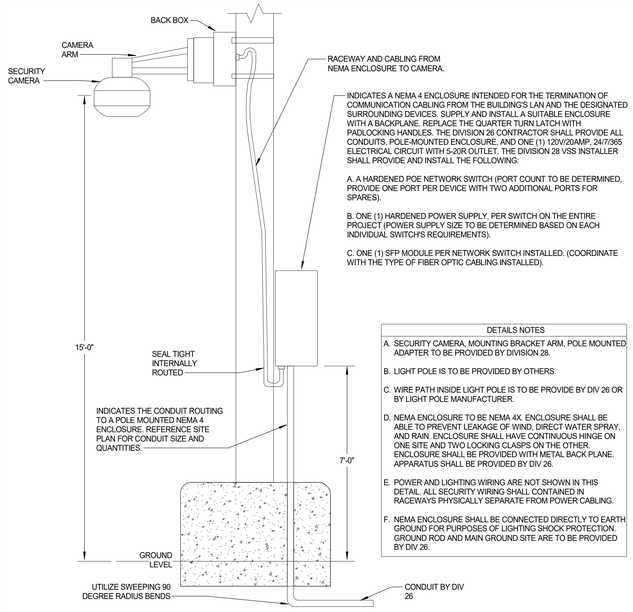
B. ALL WALL, CORNER, PENDANT, AND UNDER CANOPY MOUNTING HEIGHTS SHALL BE COORDINATED WITH THE OWNER AND SECURITY CONSULTANT PRIOR TO ROUGH-IN.

C. SECURITY CONTRACTOR SHALL PROVIDE CAMERAS, MOUNTING HARDWARE, AND ANY OTHER COMPONENTS AND/OR HARDWARE REQUIRED FOR A COMPLETE INSTALLATION.

D. REFERENCE VIDEO SURVEILLANCE CAMERA SCHEDULES, FLOOR PLANS, AND SPECIFICATIONS FOR ADDITIONAL INSTRUCTIONS.

E. CABLE FEED-THROUGH MOUNT FOR CAMERA. NO EXPOSED CABLE WILL BE ALLOWED. SECURITY CONTRACTOR TO COORDINATE MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR PRIOR TO ROUGH-IN.

08 NOTES — NOT TO SCALE



DETAILS NOTES

A. SECURITY CAMERA, MOUNTING BRACKET ARM, POLE MOUNTED ADAPTER TO BE PROVIDED BY DIVISION 28.

B. LIGHT POLE IS TO BE PROVIDED BY OTHERS.

C. WIRE PATH INSIDE LIGHT POLE IS TO BE PROVIDE BY DIV 26 OR BY LIGHT POLE MANUFACTURER.

D. NEMA ENCLOSURE TO BE NEMA 4X. ENCLOSURE SHALL BE ABLE TO PREVENT LEAKAGE OF WIND, DIRECT WATER SPRAY, AND RAIN. ENCLOSURE SHALL HAVE CONTINUOUS HINGE ON ONE SITE AND TWO LOCKING CLASPS ON THE OTHER. ENCLOSURE SHALL BE PROVIDED WITH METAL BACK PLANE. APPARATUS SHALL BE PROVIDED BY DIV 26.

E. POWER AND LIGHTING WIRING ARE NOT SHOWN IN THIS DETAIL. ALL SECURITY WIRING SHALL CONTAINED IN RACEWAYS PHYSICALLY SEPARATE FROM POWER CABLING.

F. NEMA ENCLOSURE SHALL BE CONNECTED DIRECTLY TO EARTH GROUND FOR PURPOSES OF LIGHTING SHOCK PROTECTION. GROUND ROD AND MAIN GROUND SITE ARE TO BE PROVIDED BY DIV 26.

09 EXTERIOR POLE MOUNTED CAMERA — NOT TO SCALE

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
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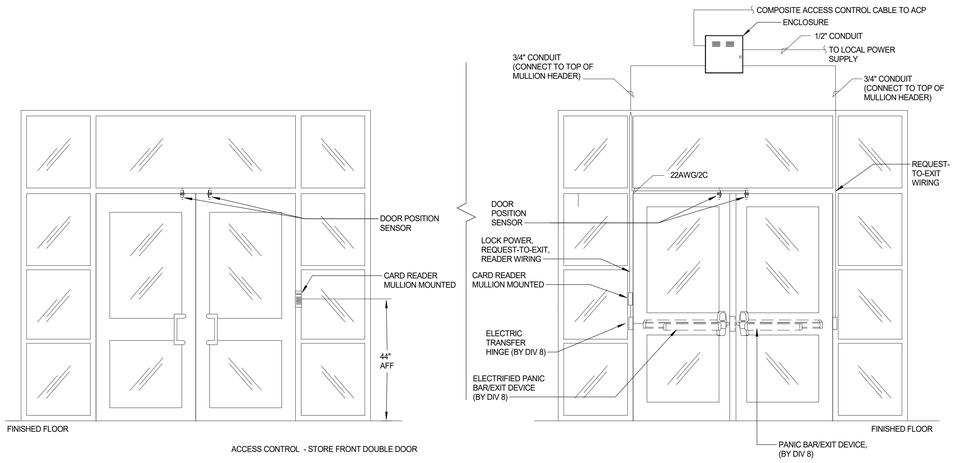
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Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064
Registration: F-4111
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T5.3

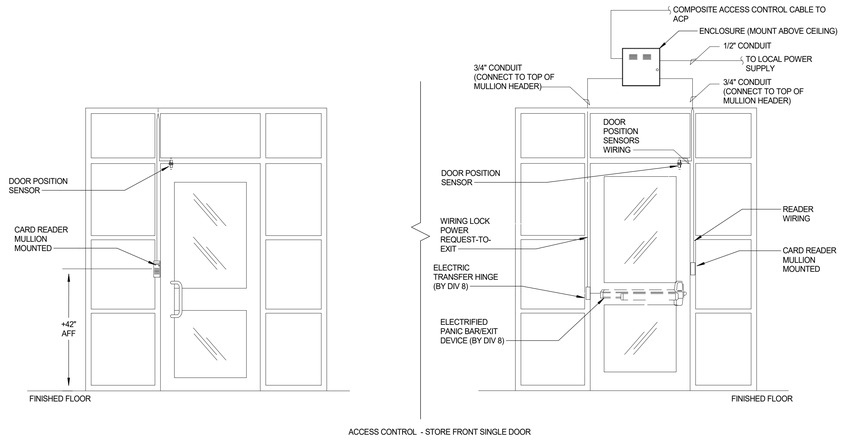
TECHNOLOGY DETAILS



ACCESS CONTROL - STORE FRONT DOUBLE DOOR

01 ACCESS CONTROL - STORE FRONT DOUBLE DOOR

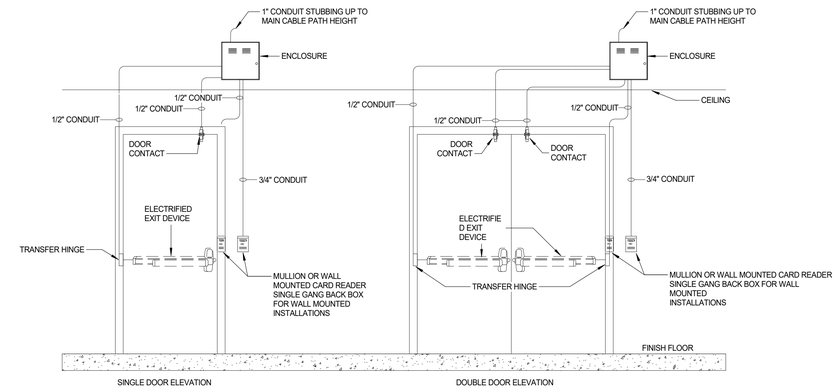
NOT TO SCALE



ACCESS CONTROL - STORE FRONT SINGLE DOOR

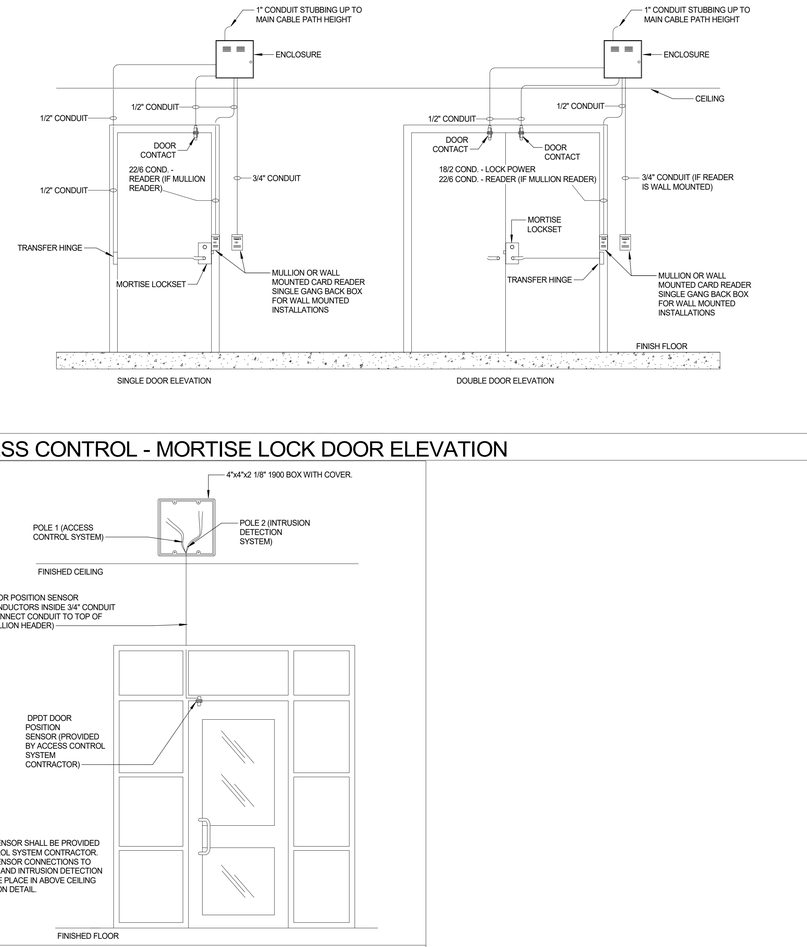
02 ACCESS CONTROL - STORE FRONT SINGLE DOOR

NOT TO SCALE



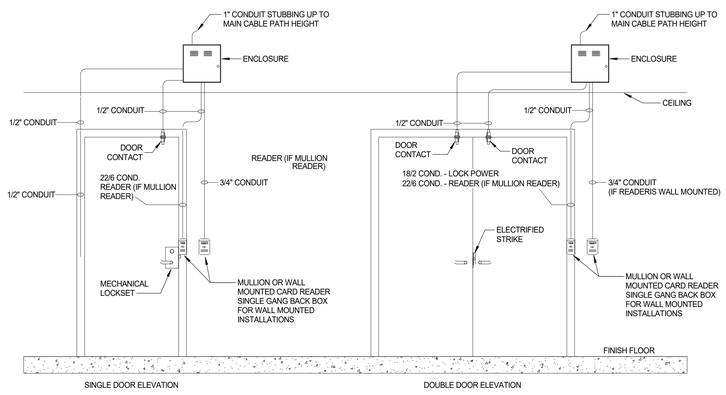
03 ACCESS CONTROL - EXIT DEVICE DOOR ELEVATION

NOT TO SCALE



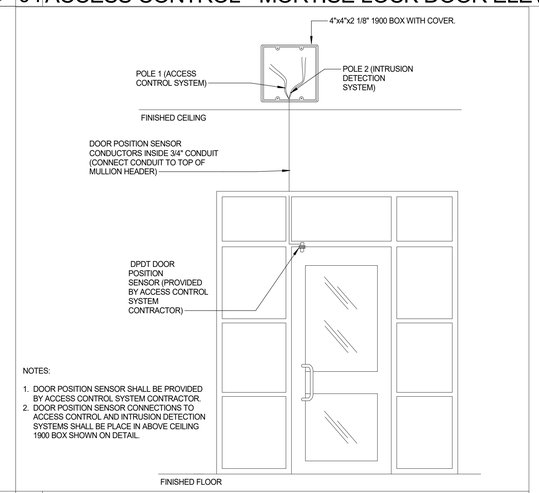
04 ACCESS CONTROL - MORTISE LOCK DOOR ELEVATION

NOT TO SCALE



05 ACCESS CONTROL - ELECTRIFIED STRIKE DOOR ELEVATION

NOT TO SCALE



NOTES:

1. DOOR POSITION SENSOR SHALL BE PROVIDED BY ACCESS CONTROL SYSTEM CONTRACTOR.
2. DOOR POSITION SENSOR CONNECTIONS TO ACCESS CONTROL AND INTRUSION DETECTION SYSTEMS SHALL BE PLACE IN ABOVE CEILING 1900 BOX SHOWN ON DETAIL.

06 DOOR POSITION SENSOR ELEVATION

NOT TO SCALE

BRADLEY KALMANS
80219
LICENSED
PROFESSIONAL ENGINEER
06.13.2025

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING 4
HUMBLE, TEXAS 77345
281.361.3800
WWW.BRWARCH.COM

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BROWN REYNOLDS WATFORD ARCHITECTS, INC.

DATE JUNE 13, 2025
DRAWN BY NY
CHECKED BY AY
BRW PROJECT NUMBER 223005.00

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

NO.	REVISION	DATE
1	ISSUED FOR CSP	06.13.2025

Salas O'Brien
salasobrien.com 281-664-1900
Houston
10930 W. Sam Houston Pkwy North, Suite 900
Houston, TX 77064

Registration: F-4111
Project No: 2023-02125-00

ISSUED FOR BID

T5.4

TECHNOLOGY DETAILS

GENERAL ABBREVIATIONS

--	NOT APPLICABLE
@	AT
3DC	3D CONTROLLER
A/C	AIR CONDITIONING
ABV	ABOVE
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECT, ARCHITECTURAL
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BFC	BELOW FINISHED CEILING
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BOH	BACK OF HOUSE
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
C	CONDUIT
CAT	CATEGORY CABLE
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CTRL	CONTROL
D	DEPTH, DEEP
DC	DIRECT CURRENT
DC	DOWNSTAGE CENTER
DEG	DEGREES
DEMO	DEMOLITION
DFP	DIRECTOR'S FLOOR POCKET
DIA	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DS	DOWNSTAGE
DSL	DOWNSTAGE LEFT
DSR	DOWNSTAGE RIGHT
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EL	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE
EQ	EQUAL
EQUIP	EQUIPMENT
ER	EQUIPMENT RACK
ESW	ETHERNET SWITCH
EXIST	EXISTING
FA	FIRE ALARM
FB	FLOOR BOX
FLEX	FLEXIBLE
FLR	FLOOR
FO	FINISHED OPENING
FOH	FRONT OF HOUSE
FPB	FIBER OPTIC PATCHBAY
FPM	FEET PER MINUTE
FT	FOOT, FEET
FV	FIELD VERIFY
GND	GROUND
GA	GAUGE
H	HEIGHT
HL	HOUSE LEFT
HMP	HOUSE MANAGER POSITION
HOR	HORIZONTAL
HP	HORSEPOWER
HR	HOUSE RIGHT
HZ	HERTZ
I/O	INPUT/OUTPUT
ID	INSIDE DIAMETER
IDF	INTERMEDIATE DISTRIBUTION FRAME
IG	ISOLATED GROUND
ISO	ISOLATED
JB	JUNCTION BOX
JBD	JUNCTION BOX - DATA
JP	JUNCTION BOX - SYSTEM POWER
KPD	KEYPAD
KW	KILOWATT
L	LENGTH, LEFT
L/R	LEFT/RIGHT
LAN	LOCAL AREA NETWORK
LB	POUNDS
LF	LINEAR FEET
LTG	LIGHTING
MAX	MAXIMUM
MDF	MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MIN	MINIMUM
MMFO	MULTIMODE FIBER OPTIC CABLE
MTD	MOUNTED
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOC. NETWORK
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFE	OWNER FURNISHED EQUIPMENT
OFOI	OWNER FURNISHED OWNER INSTALLED
P	PRIMARY
PIO	PART OF
PC	PERSONAL COMPUTER
PDU	POWER DISTRIBUTION UNIT
PGM	PROGRAM
PH	PHASE
PNL	PANEL
PROC	PROCESSOR
PRH	PROJECT RECEPTACLE HEIGHT
PRX	PROXIMITY SENSOR
PS	POWER SUPPLY
PSF	POUNDS PER SQUARE FOOT
PSH	PROJECT SWITCH HEIGHT
PSI	POUNDS PER SQUARE INCH
PT	PASS THROUGH
PVC	POLYVINYL CHLORIDE
PWR	POWER
QTY	QUANTITY
R	RIGHT
RCP	REFLECTED CEILING PLAN
REF	REFERENCE, REFER
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RM	ROOM
RO	ROUGH OPENING
RPM	REVOLUTIONS PER MINUTE
S	SURFACE, SECONDARY
SQFT	SQUARE FEET
SIM	SIMILAR
SL	STAGE LEFT
SMFO	SINGLE MODE FIBER OPTIC CABLE
SMP	STAGE MANAGER POSITION
SPEC	SPECIFICATION
SQ	SQUARE
SR	STAGE RIGHT
STD	STANDARD
STP	SHIELDED TWISTED PAIR
SURF	SURFACE
SUSP	SUSPEND
TBD	TO BE DETERMINED
THRU	THROUGH
TYP	TYPICAL
UC	UPSTAGE CENTER
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
US	UPSTAGE
USL	UPSTAGE LEFT
USR	UPSTAGE RIGHT
USB	UNIVERSAL SERIAL BUS
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VA	VOLT-AMPERE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WT	WEIGHT

AUDIO VISUAL ABBREVIATIONS

--	NOT APPLICABLE
ADA	AUDIO DISTRIBUTION AMPLIFIER
AES	AUDIO ENGINEERING SOCIETY
ALS	ASSISTED LISTENING SYSTEM
AMP	AMPLIFIER, AMPERES
ANT	ANTENNAE
ANT DA	ANTENNA DISTRIBUTION AMPLIFIER
APB	AUDIO PATCH BAY
AV	AUDIO VISUAL
AVS	AUDIO VIDEO SWITCHER
BR	BLU-RAY DISC PLAYER
BDR	BLU-RAY DISC RECORDER
BGM	BACKGROUND MUSIC PLAYER
CAM	CAMERA
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CCU	CAMERA CONTROL UNIT
CDP	COMPACT DISC PLAYER
CG	CHARACTER GENERATOR
CONV	CONVERTER
CU	COLLABORATION UNIT
DA	DISTRIBUTION AMPLIFIER
DAN	DIGITAL AUDIO NETWORK
DM	DIGITAL MEDIA
DM-MTX	DIGITAL MEDIA MATRIX
DMP	DIGITAL MEDIA PLAYER
DMPS	DIGITAL MEDIA PRESENTATION SWITCHER
DMR	DIGITAL MEDIA RECORDER
DMRX	DIGITAL MEDIA RECEIVER / DECODER
DMTX	DIGITAL MEDIA TRANSMITTER / ENCODER
DMU	DIGITAL MESSAGE UNIT
DOC CAM	DOCUMENT CAMERA
DP	DISPLAY PORT
DPDT	DOUBLE-POLE, DOUBLE-THROW
DPST	DOUBLE-POLE, SINGLE-THROW
DSP	DIGITAL SIGNAL PROCESSOR
DVE	DIGITAL VIDEO EFFECTS
DVR	DIGITAL VIDEO RECORDER
EBU	EUROPEAN BROADCASTING UNION
EQ	EQUALIZER
FC	FORMAT CONVERTER
FPM	FLAT PANEL MONITOR
FORX	FIBER OPTIC RECEIVER
FOTX	FIBER OPTIC TRANSMITTER
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE
HDRX	HDMI RECEIVER
HDSDI	HD SERIAL DIGITAL INTERFACE
HDTX	HDMI TRANSMITTER
ICOM	INTERCOM
IFB	INTERRUPTED FOLDBACK
IPTV	INTERNET PROTOCOL TELEVISION
JBA	JUNCTION BOX - AUDIO
JBC	JUNCTION BOX - CONTROL
JBE	JUNCTION BOX - ENG TRUCKS
JBL	JUNCTION BOX - AUDIO LINE LEVEL
JBM	JUNCTION BOX - AUDIO MIC LEVEL
JBR	JUNCTION BOX - RADIO
JBS	JUNCTION BOX - SPEAKER
JBT	JUNCTION BOX - BROADCAST
JBV	JUNCTION BOX - VIDEO
KVM	KEYBOARD VIDEO MOUSE
LA	LINE AMPLIFIER
LIM	LIMITER
LL	LINE LEVEL
MATV	MASTER ANTENNA TELEVISION
MIC	MICROPHONE
MICPRE	MICROPHONE PREAMP
MIX	MIXER
ML	MICROPHONE LEVEL
MOD	MODULATOR
MON	MONITOR / VIDEO DISPLAY
MTR	MULTITRACK PLAYER/RECORDER
MTX	MATRIX
NG	NOISE GENERATOR
PA	PUBLIC ADDRESS
PAD	AUDIO ATTENUATOR
PEQ	PARAMETRIC EQUALIZER
PSP	POWERED SPEAKER
PTZ	PAN/TILT/ZOOM
REC	RECORDER
SATRX	SATELLITE RECEIVER
SB	SCOREBOARD
SC	SCAN CONVERTER
SDI	SERIAL DIGITAL INTERFACE
SPDT	SINGLE POLE DOUBLE THROW
SPG	SYNC PULSE GENERATOR
SPL	SPLITTER
SPK	SPEAKER
SPLIT	MICROPHONE SPLITTER
SPST	SINGLE POLE SINGLE THROW
STREAM	DIGITAL VIDEO STREAMING
SUM	AUDIO SUMMING DEVICE
SW	SWITCHER
TD	THROW DISTANCE
TP	TOUCH PANEL
TV	TELEVISION
VBS	VIDEO BURST SYNC
VC	VOLUME CONTROL
VCA	VOLTAGE CONTROLLED AMPLIFIER
VDA	VIDEO DISTRIBUTION AMPLIFIER
VGA	VIDEO GRAPHICS ARRAY
VP	VIDEO PROJECTOR
VPB	VIDEO PATCH BAY
VS	VECTOR SCOPE
VSG	VIDEO SYNC GENERATOR
VSR	VIDEO SERVER
VSW	VIDEO SWITCH
VTC	VIDEO TELECONFERENCING SYSTEM
VWP	VIDEO WALL PROCESSOR
WFM	WAVEFORM MONITOR
WMS	WIRELESS MICROPHONE SYSTEM
WTX	WIRELESS TRANSMITTER
XFMR	TRANSFORMER
XOVR	CROSSOVER

ROUGH-IN BOX SCHEDULE

TYPE 1 RECESSED: 1-GANG BOX. 2 1/8" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 1-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 1-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

TYPE 2 RECESSED: 4 11/16" SQUARE BOX. 2 1/8" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/ RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 2-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 2-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

TYPE 3 RECESSED: 3-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 3-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 3-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

TYPE 4 RECESSED: 4-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 4-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 4-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

TYPE 5 RECESSED: 5" SQUARE BOX. 2 1/2" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.

TYPE 12 RECESSED: 4 11/16" SQUARE BOX. 2 1/8" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/ RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 1-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 1-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

TYPE A JUNCTION BOX (HxWxD) WITH SCREW COVER. PROVIDE NEMA TYPE 1 AT INDOOR LOCATIONS; PROVIDE NEMA TYPE 3R AT OUTDOOR LOCATIONS. PAINTED AT EXPOSED LOCATIONS.

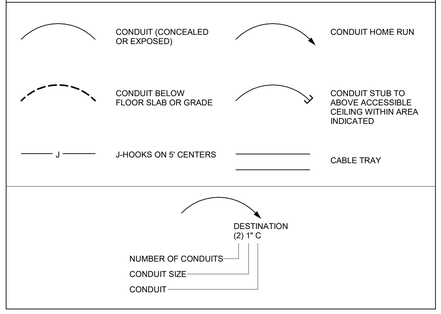
TYPE B JUNCTION BOX (HxWxD) WITH HINGED COVER. PROVIDE NEMA TYPE 1 AT INDOOR LOCATIONS; PROVIDE NEMA TYPE 3R AT OUTDOOR LOCATIONS. PAINTED AT EXPOSED LOCATIONS.

TYPE C JUNCTION BOX (HxWxD) WITH LOCKING HINGED COVER. PROVIDE NEMA TYPE 1 AT INDOOR LOCATIONS; PROVIDE NEMA TYPE 3R AT OUTDOOR LOCATIONS. PAINTED AT EXPOSED LOCATIONS

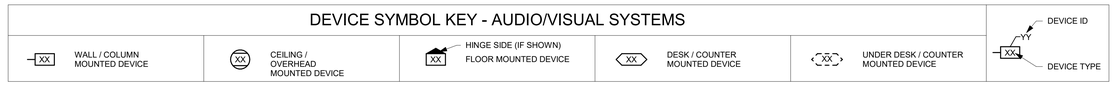
CONDUIT AND PATHWAY NOTES

1. COORDINATE LOCATION OF EQUIPMENT, JUNCTION BOXES, OUTLETS, CONDUIT, ETC. ACCORDING TO THE PROJECT GENERAL CONDITIONS.
2. PROVIDE A COMPLETE RACEWAY SYSTEM TO CONSIST OF METALLIC CONDUIT (EXCLUDING IN-GROUND PATHWAY), JUNCTION BOXES, DEVICE BACK BOXES, AND FITTINGS UNLESS NOTED OTHERWISE.
3. THE DRAWINGS INDICATE ONE ROUTING METHOD OF THE CABLING PATHWAY. CHANGES MAY BE MADE TO THE PATHWAY SYSTEM ROUTING TO ACCOMMODATE SITE CONDITIONS OR TO SIMPLIFY INSTALLATION PROVIDING THAT NOTED CONDUIT SIZE OR LARGER IS MAINTAINED AND DISTANCE LIMITATIONS LISTED BELOW ARE NOT EXCEEDED.
4. CONDUIT STUBS FROM DEVICES TO THE NEAREST CABLE TRAY, ACCESSIBLE CEILING, OR OTHER DESTINATIONS SHALL BE CONTINUOUS.
5. UNLESS NOTED OTHERWISE, CONDUIT IS 3/4 INCH TRADE SIZE.
6. SHOULD ROUGH-IN BOX DEVICE EXIST WITH NO CONDUIT INDICATED TO OR FROM, PROVIDE ¾ INCH TRADE SIZE CONDUIT FROM DEVICE TO ACCESSIBLE CEILING.
7. CONDUIT BODIES (LB'S) ARE NOT PERMITTED.
8. CONDUITS SHALL BE REAMED TO ELIMINATE SHARP EDGES. METALLIC CONDUITS SHALL BE TERMINATED WITH AN INSULATED BUSHING. PULL STRINGS WITH A MINIMUM PULL RATING OF 400 POUNDS SHALL BE PROVIDED.
9. FOR CONDUIT WITH AN INTERNAL DIAMETER GREATER THAN 2 INCHES, MAINTAIN A BEND RADIUS OF AT LEAST 10 TIMES THE INTERNAL CONDUIT DIAMETER.
10. BENDS IN THE CONDUIT SHALL NOT CONTAIN ANY KINKS OR OTHER DISCONTINUITIES. FLEX IS NOT PERMITTED UNLESS NOTED OTHERWISE.
11. NO SECTION OF CONDUIT SHALL EXCEED 100 FEET. RUNS IN EXCESS OF 100 FEET REQUIRE A PULL BOX / HANDHOLE / VAULT.
12. NO SECTION OF CONDUIT SHALL CONTAIN MORE THAN TWO 90 DEGREE BENDS, OR EQUIVALENT 180 DEGREES, BETWEEN PULL BOXES.
13. PULL BOX SHALL NOT BE USED IN LIEU OF A BEND. CONDUITS MUST RUN STRAIGHT THROUGH A PULL BOX WITH THE BEND LOCATED EITHER BEFORE OR AFTER THE PULL BOX.
14. PULL BOX LENGTH TO BE NO LESS THAN 8 TIMES THE DIAMETER OF THE LARGEST TERMINATING CONDUIT. PULL BOX WIDTH TO BE NO LESS ¼ THE LENGTH.
15. PROVIDE COVERS WITH LABELING FOR JUNCTION BOXES, BACK BOXES AND PULL BOXES WITHOUT FACEPLATES. LABELING MATCHES DEVICE NAME AS INDICATED ON DRAWINGS, FOR EXAMPLE "AV1", "ML".
16. ALL CONDUITS ENTERING OR EXITING EQUIPMENT RACKS TO BE ISOLATED WITH A NON-METALLIC SPACER OR FITTING.
17. PROVIDE CONDUIT TO CROSS INACCESSIBLE CEILINGS OR IN AREAS WITHOUT CEILINGS UNLESS NOTED OTHERWISE.
18. PROVIDE CONDUIT IN EXPOSED AREAS, MECHANICAL SPACES, FOOD SERVICES AREAS, AND ELEVATOR CONTROL ROOMS.
19. REGARDLESS OF PATHWAY TYPE, ALL CABLING SHALL BE SUPPORTED AT 4 FEET MAXIMUM INTERVALS. CABLES SHALL NOT BE LAID DIRECTLY ON THE CEILING TILE OR RAILS OR STRAPPED TO CONDUIT.
20. ROUTE CONDUIT WITH OTHER BUILDING SERVICES AND CONCEAL WHENEVER POSSIBLE. GROUP AND RUN PARALLEL ALONG A SINGLE BUILDING COLUMN LINE, HOLD TIGHT TO STRUCTURE AND PAINT AS DIRECTED BY THE ARCHITECT.
21. IF AV AND POWER CONDUITS MUST CROSS, CROSS AT RIGHT ANGLES.
22. FOR IN-SLAB OR UNDERGROUND CONDUIT ENTERING A BUILDING, TRANSITION BACK TO METALLIC CONDUIT WITHIN 3 FEET OF THE ENTRY POINT.
23. REFER TO PROJECT MANUAL FOR FIRE STOPPING REQUIREMENTS.
24. REFER TO ELECTRICAL DRAWINGS AND PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

PATHWAY DISTRIBUTION



DEVICE SYMBOL KEY - AUDIO/VISUAL SYSTEMS



SYMBOL LEGEND - AUDIO/VISUAL SYSTEMS

SIZES, DIMENSIONS AND NOTES DESCRIBE TYPICAL REQUIREMENTS. IF APPLICABLE, VARIATIONS AND/OR ADDITIONAL REQUIREMENTS WILL BE NOTED ON THE DRAWINGS. UNLESS NOTED OTHERWISE, MOUNTING HEIGHTS ARE TO CENTER OF ROUGH-IN BOX.

TYPE	DEVICE	ROUGH-IN BOX (H"xW"xD")	DEVICE COVER SIZE	MOUNTING HEIGHT			DEVICE NOTES	CONDUIT NOTES
				WALL/COLUMN	CEILING/OVERHEAD	FLOOR		
ACP	GYM CONTROL PANEL	TYPE C (12"x12"x6")	ALDF1212W	4'-0" TO TOP OF BOX; REF DETAIL	--	--	--	REF PLANS
ANT	ANTENNA PLATE	TYPE 2	2-GANG	REF ELEVATIONS	--	--	--	REF PLANS
AV4	AV PLATE	TYPE 4	4-GANG	BUILDING OUTLET HEIGHT	--	--	--	REF PLANS
JBR	JUNCTION BOX - RACK	TYPE A (12"x12"x4")	--	REF ELEVATIONS/DETAILS	--	--	--	REF PLANS
M1	MICROPHONE PLATE	TYPE 1	1-GANG	BUILDING OUTLET HEIGHT	--	--	--	REF PLANS
M2	MICROPHONE PLATE	TYPE 2	2-GANG	--	FLUSH IN CEILING	--	--	REF PLANS
S2	SPEAKER PLATE	TYPE 2	2-GANG	REF ELEVATIONS	REF PLANS/FLUSH IN STRUCTURAL TRUSS	--	--	REF PLANS

LEGEND NOTES - AUDIO/VIDEO SYSTEMS

1 PROVIDE HOFFMAN PAINTED STEEL TYPE 1 SCREW COVER PULL BOX NO LESS THAN 12" W X 12" H X 4" D UNLESS NOTED OTHERWISE. SIZE JUNCTION BOX TO NUMBER AND SIZE OF CONDUIT. PROVIDE 3/4" VOID FREE AC PLYWOOD WITH TWO COATS FIRE RETARDANT WHITE PAINT ON BACK WALL OF JUNCTION BOX FROM SIDEWALL TO SIDEWALL. A SINGLE WIRING THROUGH WILL NOT BE ACCEPTABLE AS A REPLACEMENT TO/FOR INDIVIDUAL JUNCTION BOXES.

2 CRITICAL DIMENSIONS ARE NOTED IN DOCUMENTATION. FOR ANY DIMENSION THAT IS NOT PROVIDED, FIELD COORDINATE FINAL LOCATION.

3 FIELD COORDINATE PLATE/PANEL COVER SIZE BASED ON MOUNTING CONDITIONS. SURFACE MOUNTED ROUGH-IN PLATE/PANEL SHOULD NOT EXTEND BEYOND THE ROUGH-IN BOX.

4 ALL DEVICES SHOWN ARE TO INDICATE INFRASTRUCTURE ONLY.

BROWN REYNOLDS WATFORD ARCHITECTS
4301 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
FRIENDSWOOD, TEXAS 77345
281.407.1300
WWW.BRWARCH.COM

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DATE MARCH 12, 2024
DRAWN BY W.JHW
CHECKED BY PC
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

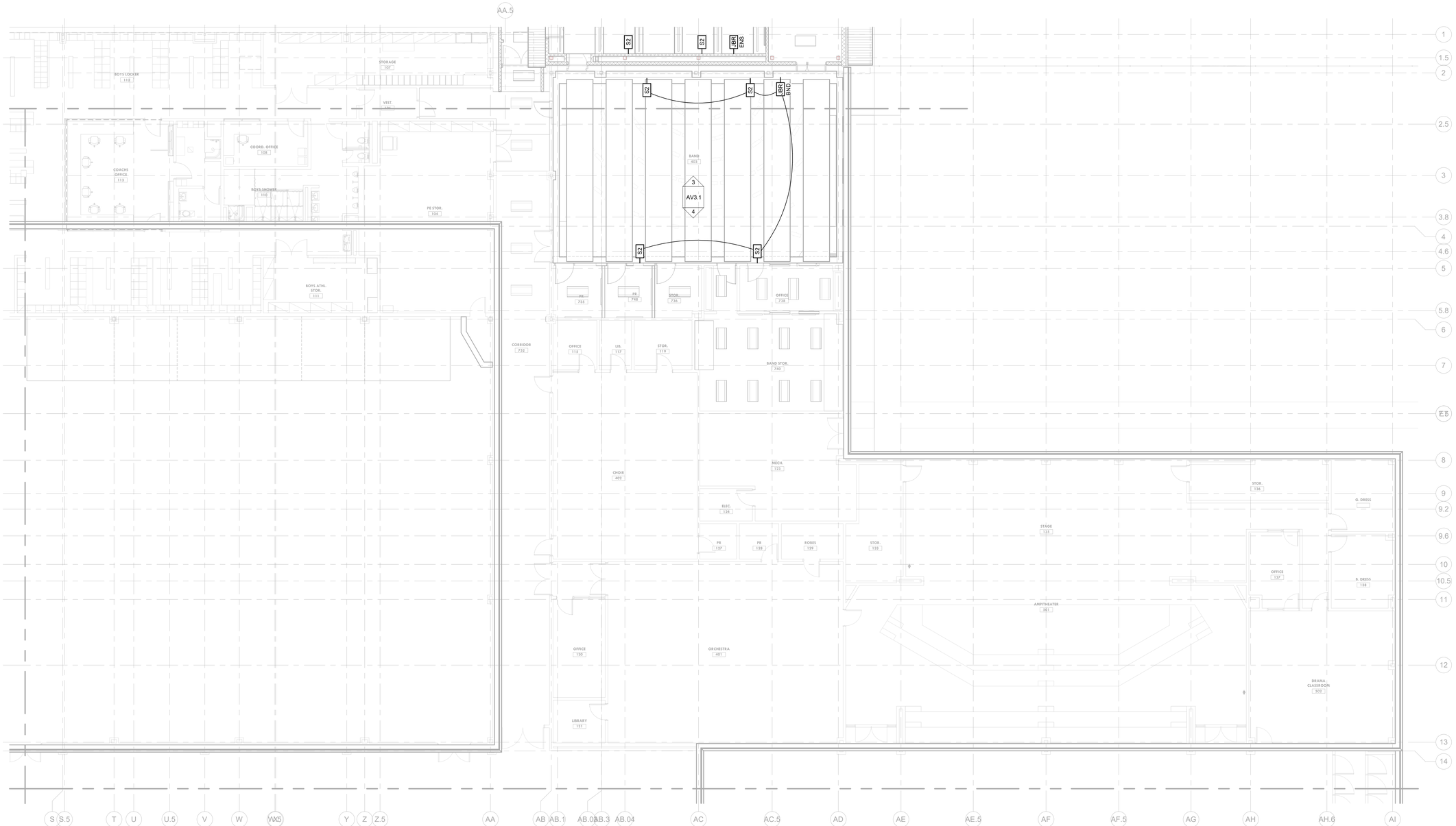
NO.	REVISION	DATE

AV0.00

GENERAL NOTES AND LEGENDS

GENERAL NOTES	
1	ALL DEVICES SHOWN FOR INFRASTRUCTURE PURPOSES ONLY.

KEYNOTES



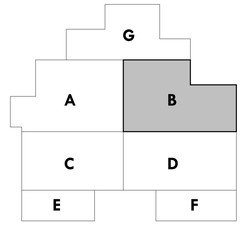
PLAN NORTH

TRUE NORTH

1 AV_FLOOR PLAN - AREA B

1/8" = 1'-0"

KEY PLAN



BROWN REYNOLDS WATFORD
ARCHITECTS
4501 MAGNOLIA COVE DRIVE
SUITE 250 BUILDING A
MISSOURI CITY, TEXAS 77345
281.343.1800
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DATE MARCH 12, 2024
DRAWN BY WJHW
CHECKED BY PC
BRW PROJECT NUMBER 22300500

HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS
10203 BIR CHRIDGE DRIVE
HUMBLE, TX 77338

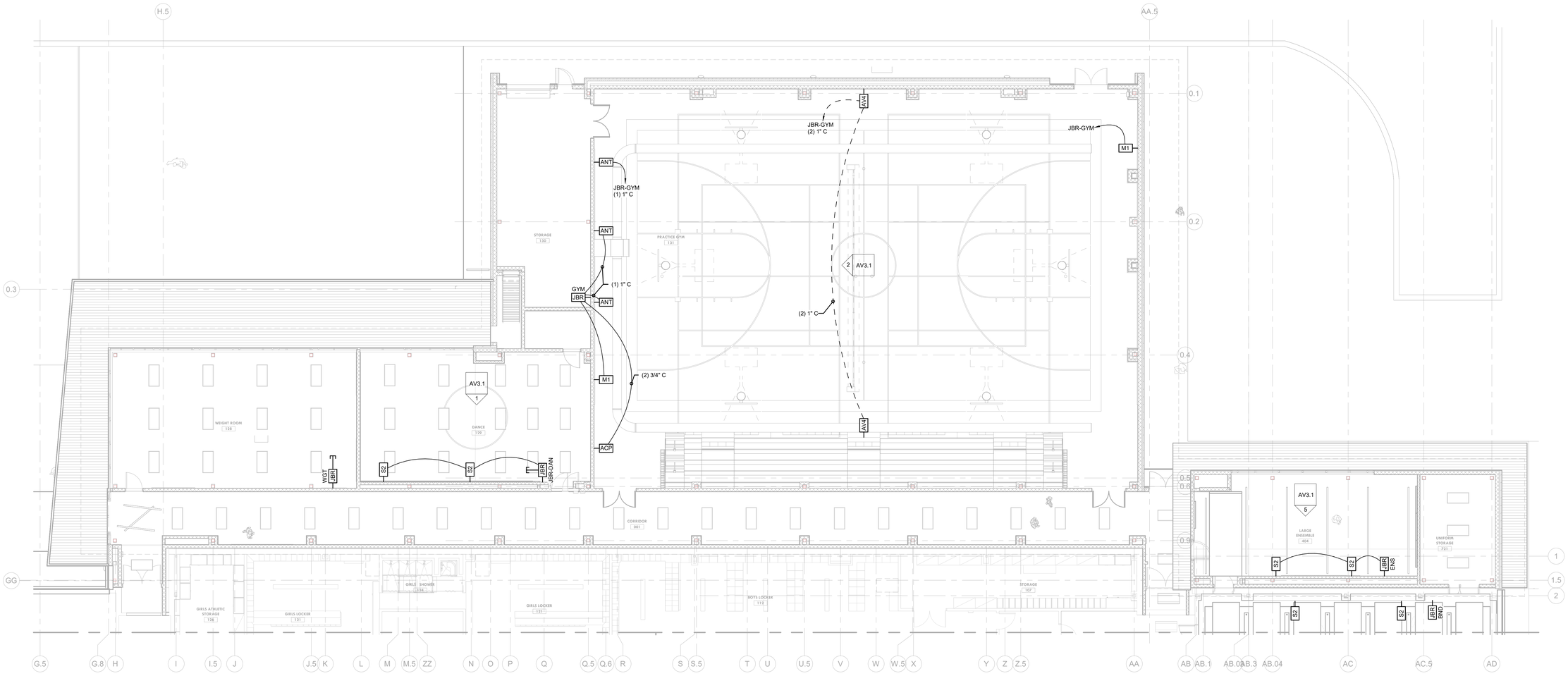
NO.	REVISION	DATE

AV2.1B

FLOOR PLAN - AREA B

GENERAL NOTES	
1	ALL DEVICES SHOWN FOR INFRASTRUCTURE PURPOSES ONLY.

KEYNOTES

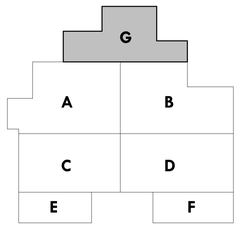


PLAN NORTH / TRUE NORTH

1 AV_FLOOR PLAN - AREA G

1/8" = 1'-0"

KEY PLAN



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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS

10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

HUMBLE INDEPENDENT SCHOOL DISTRICT

NO.	REVISION	DATE

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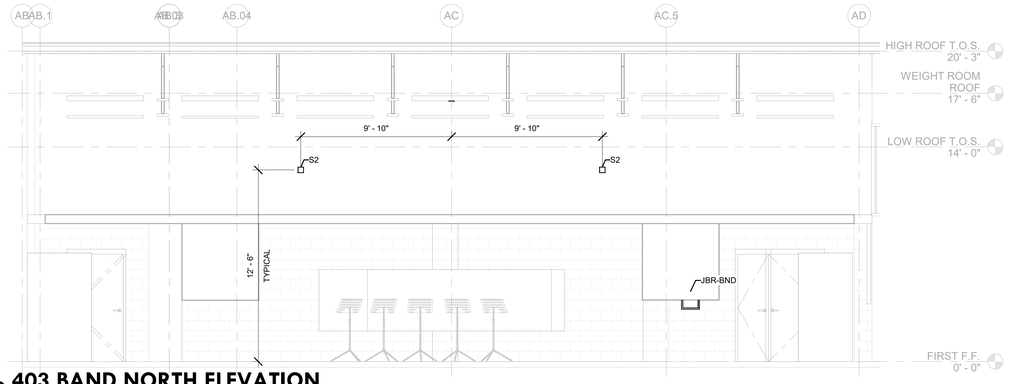
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AV2.1G

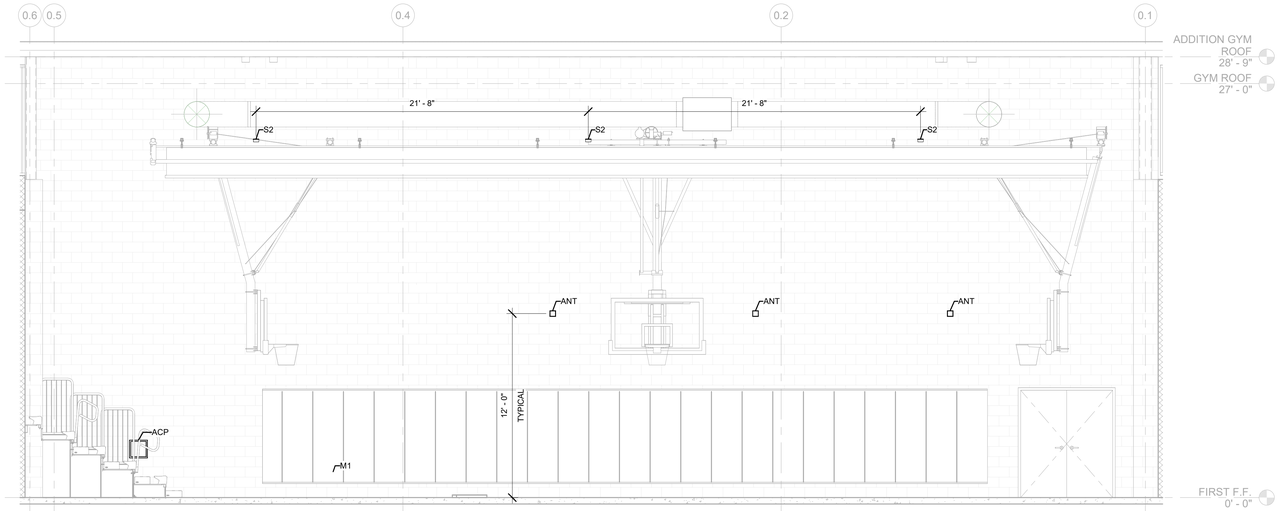
FLOOR PLAN - AREA G

GENERAL NOTES	
1	ALL DEVICES SHOWN FOR INFRASTRUCTURE PURPOSES ONLY.

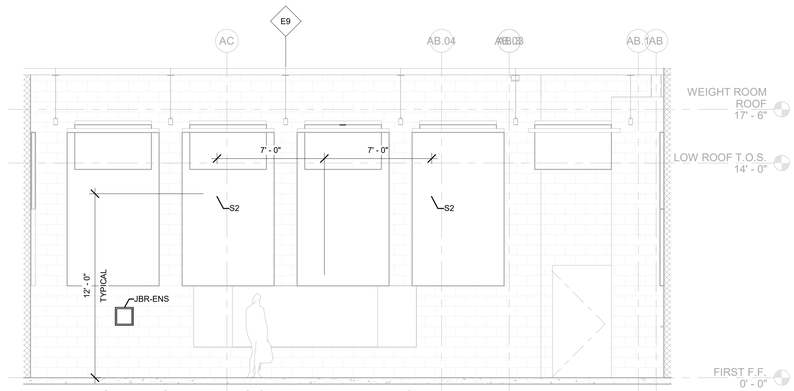
KEYNOTES



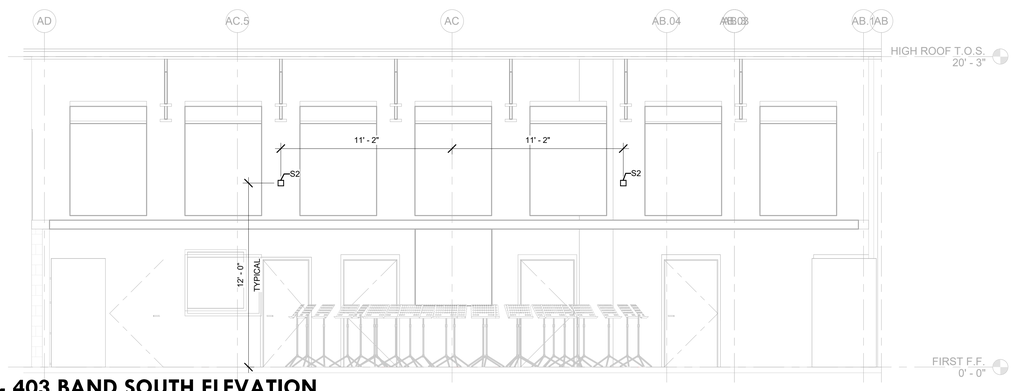
3 403 BAND NORTH ELEVATION
1/4" = 1'-0"



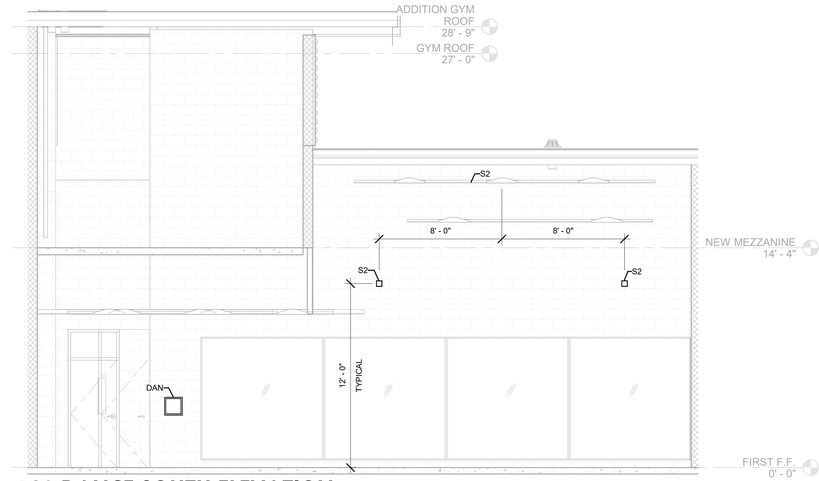
2 131 PRACTICE GYM WEST ELEVATION
1/4" = 1'-0"



5 404 LARGE ENSEMBLE SOUTH ELEVATION
1/4" = 1'-0"



4 403 BAND SOUTH ELEVATION
1/4" = 1'-0"



1 129 DANCE SOUTH ELEVATION
1/4" = 1'-0"

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL RENOVATIONS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

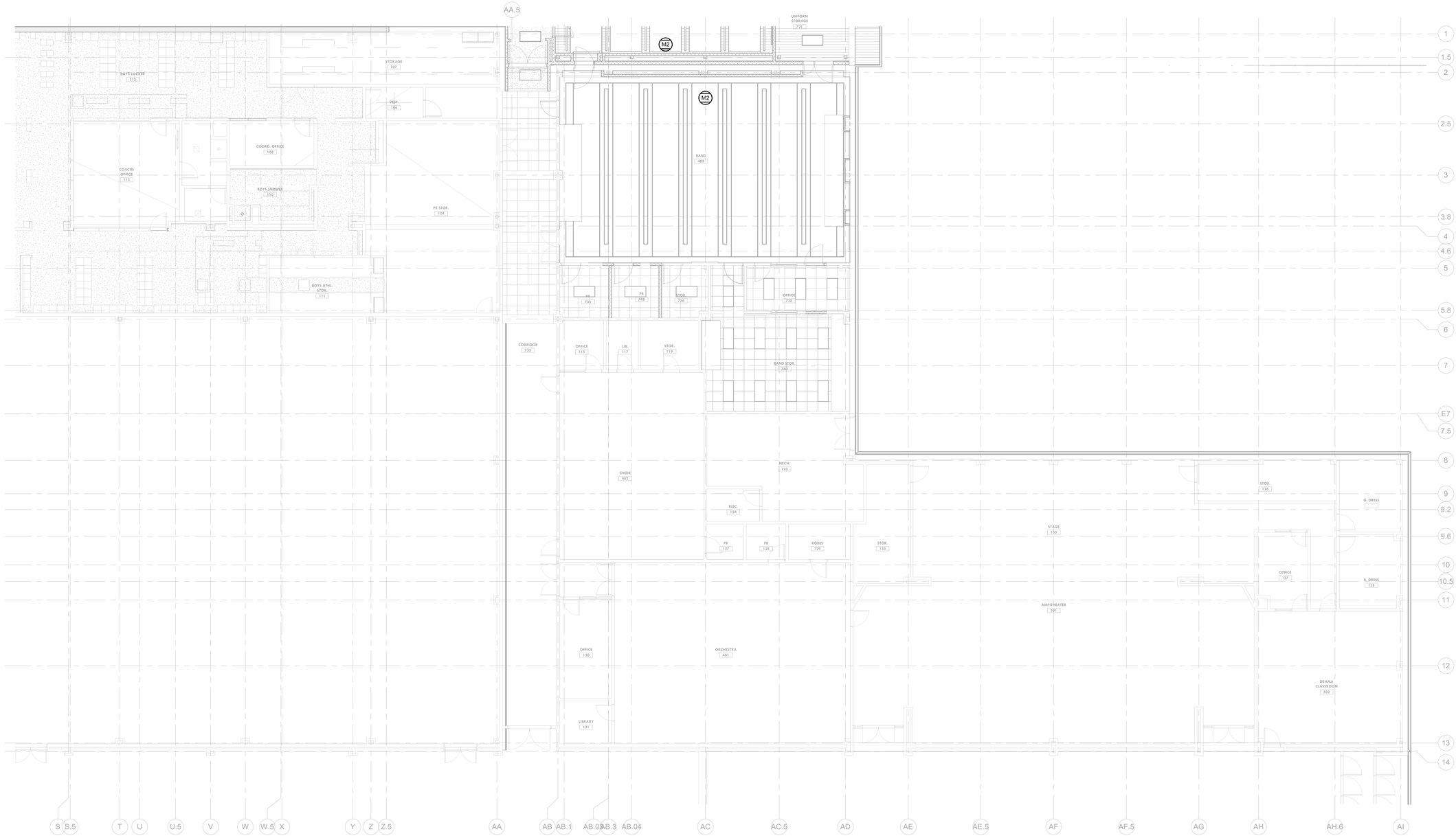
NO.	REVISION	DATE

AV3.1

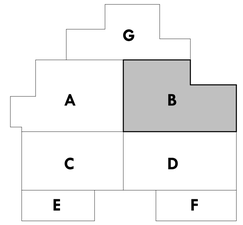
ELEVATIONS

GENERAL NOTES	
1	ALL DEVICES SHOWN FOR INFRASTRUCTURE PURPOSES ONLY.

KEYNOTES



KEY PLAN



PLAN NORTH

TRUE NORTH

1 REFLECTED CEILING PLAN - AREA B

1/8" = 1'-0"

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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

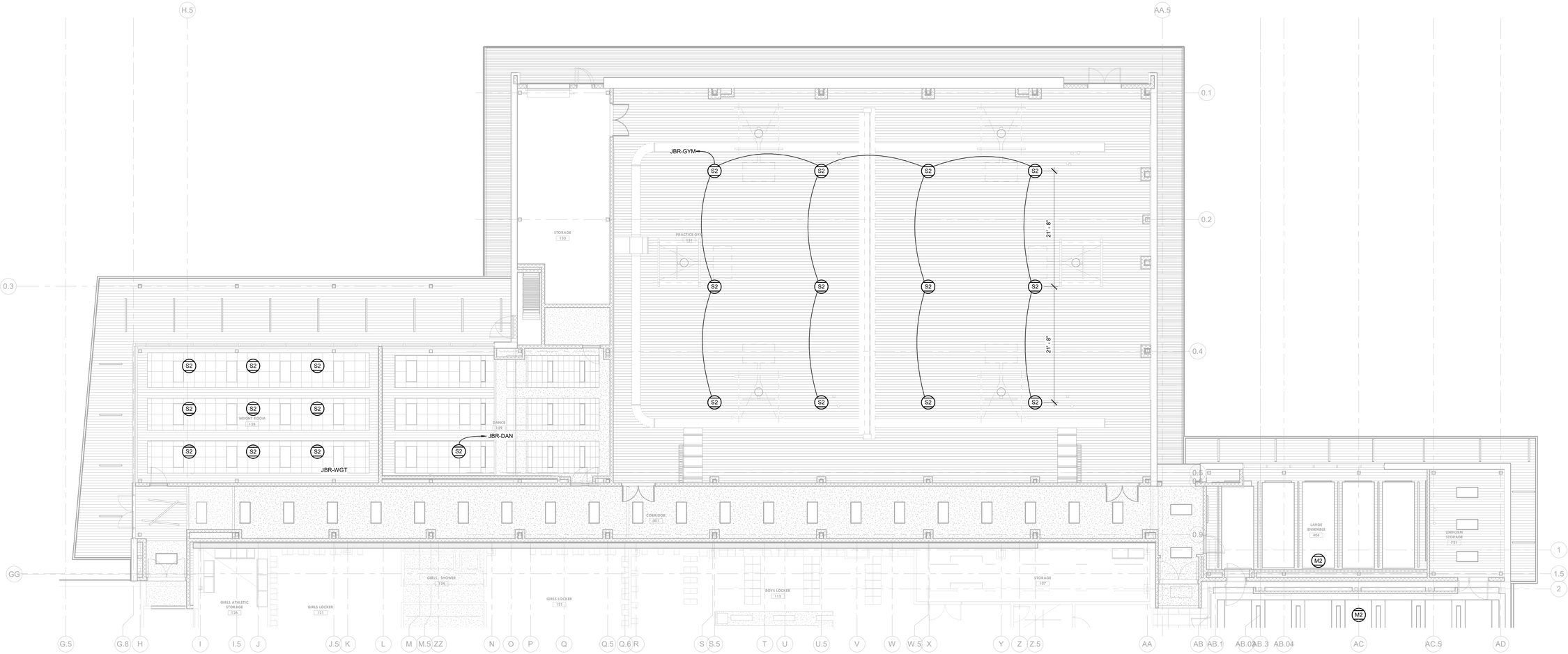
NO.	REVISION	DATE

AV6.1B

REFLECTED CEILING PLAN - AREA B

GENERAL NOTES	
1	ALL DEVICES SHOWN FOR INFRASTRUCTURE PURPOSES ONLY.

KEYNOTES

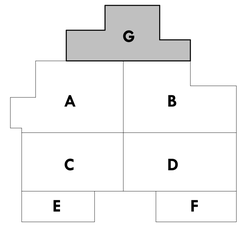


PLAN NORTH / TRUE NORTH

1 REFLECTED CEILING PLAN - AREA G

1/8" = 1'-0"

KEY PLAN



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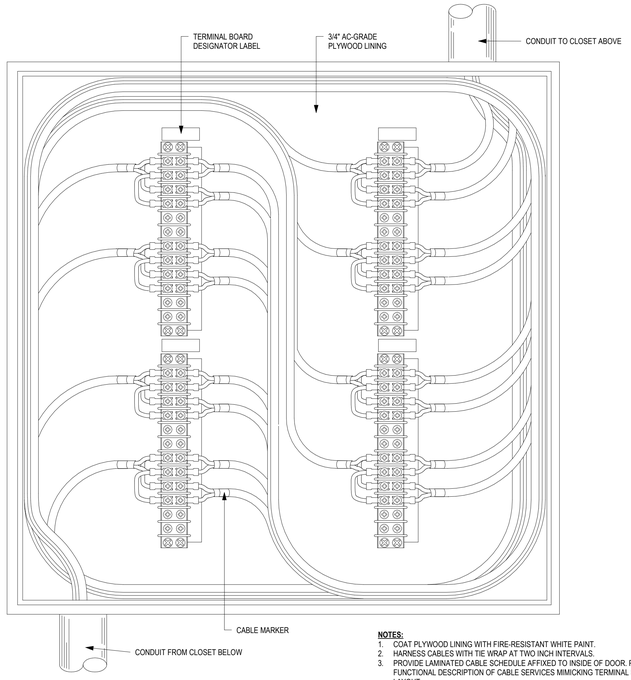
HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
10203 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

NO.	REVISION	DATE

AV6.1G

REFLECTED CEILING PLAN - AREA G

SPEAKER JUNCTION BOX TERMINATION DETAILS

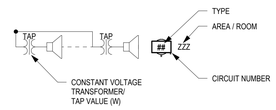


NOTES:
1. COAT PLYWOOD LINING WITH FIRE-RESISTANT WHITE PAINT.
2. HARNESS CABLES WITH TIE WRAP AT TWO INCH INTERVALS.
3. PROVIDE LAMINATED CABLE SCHEDULE AFFIXED TO INSIDE OF DOOR. PROVIDE FUNCTIONAL DESCRIPTION OF CABLE SERVICES MIMICKING TERMINAL BOARD LAYOUT.

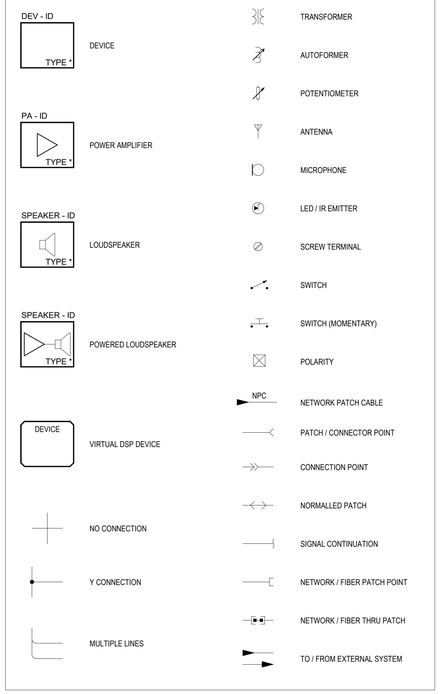
PANEL SYMBOL LEGEND



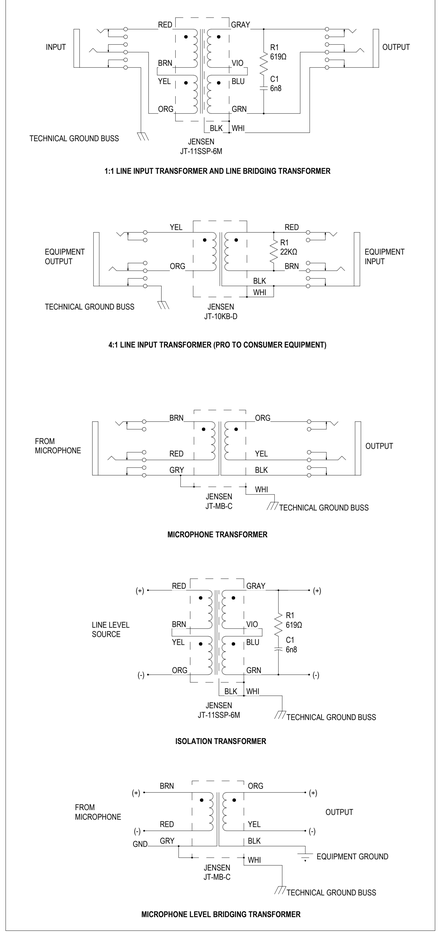
PARALLELED SPEAKERS DETAIL



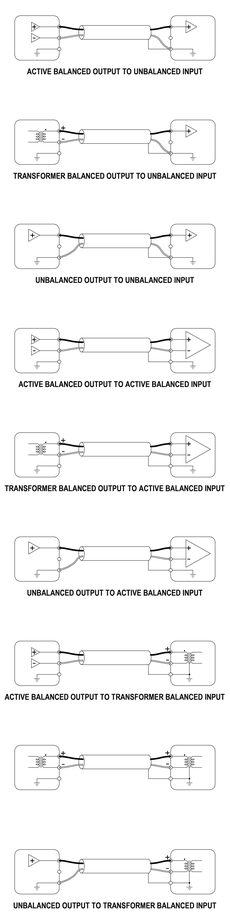
FUNCTIONAL SYMBOL LEGEND



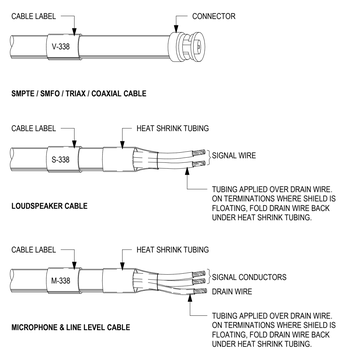
AUDIO TRANSFORMER WIRING



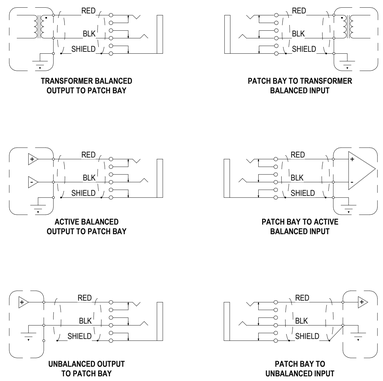
AUDIO SHIELD CONNECTIONS



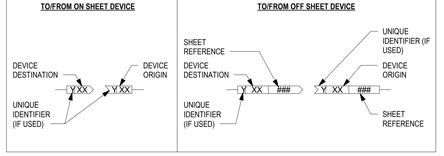
AV CABLE PREPARATION DETAILS



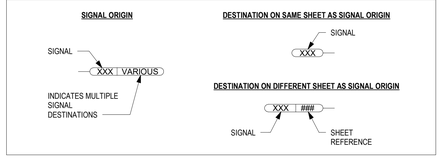
TYPICAL DEVICE TO PATCHBAY WIRING



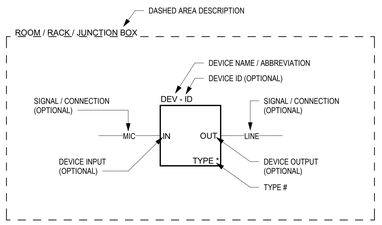
SIGNAL TO/FROM PHYSICAL DEVICE



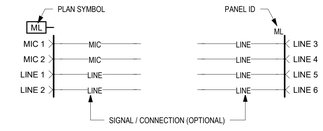
SIGNAL TO/FROM VIRTUAL DEVICE



DEVICE SIGNAL FLOW DETAIL



PLATE/PANEL SIGNAL FLOW DETAIL



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HUMBLE ISD
TIMBERWOOD MIDDLE SCHOOL
RENOVATIONS
10303 BIRCHRIDGE DRIVE
HUMBLE, TX 77338

NO.	REVISION	DATE

AV11.00

AUDIO-VIDEO FUNCTIONAL LEGEND AND STANDARD DETAILS