ARCHITECTURAL ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR	FIN.	FINISH(ED)	O.C.	ON CENTER
ACT	ACOUSTICAL CEILING TILE	FRP	FIBERGLASS REINFORCED PANEL	OPNG.	OPENING
AHU	AIR HANDLING UNIT			OPP.	OPPOSITE
ALUM.	ALUMINUM	F.E.	FIRE EXTINGUISHER	O.A.	OUTER DIAMETER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	F.E.C.	FIRE EXTINGUISHER CABINET	PR.	PAIR
		FLEX	FLEXIBLE	PLBG	PLUMBING
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	FLR	FLOOR	PR.	PREFABRICATE(D)
		F.D.	FLOOR DRAIN	PREFIN.	PREFINISHED
ARCH.	ARCHITECTURAL	FT.	FOOT	P.T.	PRESSURE TREATED
		FTG.	FOOTING		
BLKG	BLOCKING			QTY.	QUANTITY
BD.	BOARD	GA.	GAUGE		
BOT.	BOTTOM	GALV.	GALVANIZED	RAD	RADIUS
BLDG.	BUILDING	G.C.	GENERAL CONTRACTOR	REF	REFERENCE
BRG.	BEARING	GYP	GYPSUM	REINF.	REINFORCING
		GWB	GYPSUM WALLBOARD	REQ'D	REQUIRED
CLG.	CEILING			REV.	REVISION, REVISED
CLR	CLEAR(ANCE)	HT.	HEIGHT	RM.	ROOM
COL.	COLUMN	HVAC	HEATING, VENTILATING, & AIR CONDITIONING		
CONC.	CONCRETE			SECT.	SECTION
CMU	CONCRETE MASONRY UNIT	H	HIGH	SS	STAINLESS STEEL
CONT	CONTINUOUS	H.M.	HOLLOW METAL	SHT.	SHEET
CONTR.	CONTRACTOR			SIM	SIMILAR
C.J.	CONTROL/ CONSTRUCTION JOINT	IN.	INCH	SPEC.	SPECIFICATION
		I.D.	INSIDE DIAMETER	SQ.	SQUARE
COORD.	COORDINATE	INSUL.	INSULATION OR INSULATED	S.F.	SQUARE FOOT OR FEET
CONST.	CONSTRUCTION	INT.	INTERIOR OR INTERNAL	STD	STANDARD
				STL	STEEL
D	DEEP OR DEPTH	JST.	JOIST	STRUCT	STRUCTURAL
DTL.	DETAIL	JT	JOINT	SUSP	SUSPENDED
DIAG.	DIAGONAL				
DIA.	DIAMETER	LAM.	LAMINATE(D)	THK	THICK(NESS)
DIM.	DIMENSION	LAV.	LAVATORY	TYP	TYPICAL
DISP.	DISPENSER	L	LENGTH OR LONG		
DIV.	DIVISION	LF	LINEAR FEET/FOOT	UL	UNDERWRITER'S LABRATORY
DBL.	DOUBLE			UNO	UNLESS NOTED OTHERWISE
DN.	DOWN	MANUF.	MANUFACTURER		
DWG.	DRAWING	MATL.	MATERIAL(S)		
		MAX.	MAXIMUM	VERT	VERTICAL
EA.	EACH	MECH.	MECHANICAL	VTR	VENT THROUGH ROOF
EWC	ELECTRIC WATER COOLER	MTL.	METAL		
ELEC.	ELECTRICAL	MIN.	MINIMUM	W	WIDE OR WIDTH
ELEV.	ELEVATION	MISC.	MISCELLANEOUS		
EMER.	EMERGENCY	MTD.	MOUNTED	∠	ANGLE
EQ.	EQUAL			℄	CENTER LINE
EQUIP.	EQUIPMENT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	#	NUMBER
EXH.	EXHAUST			LBS.	POUND(S)
EF	EXHAUST FAN	N.I.C.	NOT IN CONTRACT	Ø	DIAMETER OR PHASE
EXIST.	EXISTING	N/A	NOT APPLICABLE	W/	WITH
EXP. JT.	EXPANSION JOINT	N.T.S.	NOT TO SCALE	W/O	WITHOUT
EXP'D	EXPOSED				
EXT.	EXTERIOR OR EXTERNAL				

GRAPHIC SYMBOLS

SECTION CUT	# / X#
ELEVATION TAG	# / X#
ROOM TAG	ROOM NAME / ###
DOOR NUMBER	(#)
WINDOW NUMBER	[#]
PARTITION TYPE	##
KEY NOTE	(#)
FINISH ITEMS	(#)
EQUIPMENT NUMBER	(#)
ELEVATION BENCHMARK	FINISH FLOOR EL: 100'-0"
REVISION NUMBER	X

PROJECT TEAM

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jiffy lube®

MULTI-CARE BUILDING CRITERIA V2021.08-1x4

150 NORTH DAIRY ASHFORD RD., WCK F0376-C
HOUSTON, TEXAS 77002-4427
TELEPHONE: 832-337-8698

WAPPINGERS FALLS

1506 US 9
WAPPINGERS FALLS, NY
12590

CODE DATA SUMMARY

GOVERNING CODES:
2020 BUILDING CODE OF NEW YORK STATE (IBC 2018)
2020 PLUMBING CODE OF NEW YORK STATE (IPC 2018)
2020 MECHANICAL CODE OF NEW YORK STATE (IMC 2018)
2020 NATIONAL ELECTRICAL CODE OF NEW YORK STATE (NFPA 70, 2017)
2018 INTERNATIONAL FIRE CODE (IFC)
2020 ENERGY CONSERVATION CODE OF NEW YORK STATE (IECC 2018)
AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (2010 ADAAG)
ICC/ ANSI 117.1 2017 (AS INDICATED BY THE 2018 IBC)

BUILDING INFORMATION: (1X4 LAYOUT)
ONE STORY, WOOD STUD BUILDING WITH PRE-FABRICATED WOOD ROOF TRUSSES. AUTO SERVICE (MINOR REPAIR)

CUSTOMER LOBBY	296 SF
OFFICE/ CASHIER AREA	267 SF
SERVICE BAY AREA	1,822 SF
EMPLOYEE AREA	45 SF
MAIN FLOOR	2,430 SF
LOWER BAY	1,008 SF
OCCUPIABLE AREA (minus toilets, hall and ext. walls)	3,438 SF

Chapter 3 - OCCUPANCY CLASSIFICATION:
309.1 Occupancy Group M (Mercantile) - Offices and Sales areas
311.2 Occupancy Group S-1 (Storage - Motor vehicle repair)

Chapter 5 - GENERAL BUILDING HEIGHTS AND BUILDING AREAS:
Table 504.3 / 504.4 / 506.2: Construction Type V-B
Group M - Allowable area = 9,000 SF, Allowable height = 1 story - 40'
Group S-1 - Allowable area = 9,000 SF, Allowable height = 1 story - 40'
508.3 -Non-separated Occupancy
Provided: Total area 4,042 SF, 1 story 22'-2" height

Chapter 6 - TYPES OF CONSTRUCTION:
602.5 Type V-B (NON-SPRINKLERED)
Table 601 - Type V-B - Groups M & S-1 (NON-SEPARATED)

Occupancy separation:	Not required Mixed use
Structural Frame:	0 hour rating
Floor and Roof Construction:	0 hour rating
Exterior Bearing Walls:	0 hour rating
Table 602 - Type V-B - Exterior wall based on fire separation distance:	
Greater than 10'-0" Separation	0 hour rating
5'-0" to 10'-0" Separation	1 hour rating
Less than 5'-0" Separation	2 hour rating

Chapter 7 - FIRE RATED CONSTRUCTION:
705.2.2: Projections from walls of Type V Construction shall be of any approved material.
720.2: Concealed insulation materials shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

Chapter 9 - FIRE PROTECTION SYSTEMS: **(NOT REQUIRED)**
903.2.9.1: Group S-1 - Repair Garages - An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:

1. Buildings having two or more *stories above grade plane,* including basements, with a ***fire area*** containing a repair garage exceeding 10,000 SQ FT. **(N/A)**
2. Buildings no more than one *story above grade plane* with a ***fire area*** containing a repair garage exceeding 12,000 SQ FT. **(N/A)**
3. Buildings with repair garages servicing vehicles parked in basements. **(N/A)**
4. A Group S-1 *fire area* used for the repair of commercial trucks or buses where the ***fire area*** exceeds 5,000 SQ FT. **(N/A)**

IFC 906 (and NFPA 10) - Provide (2) fire extinguishers (min.) to be sized and located by Fire Marshal.

Chapter 10 - MEANS OF EGRESS:
Occupant load: Table 1004.1.2
Floor Areas:

Customer Sales	(Mercantile 296 SF/60 gross)	= 5 occupants
Office/ Cashier	(Business 267 SF/150 gross)	= 2 occupants
Service Bays	(Storage 1,822 SF/300 gross)	= 7 occupants
Lower Bay	(Storage 1,008 SF/300 gross)	= 4 occupants
Employee	(Business 45 SF/150 gross)	= 1 occupants
TOTAL OCCUPANTS for means of egress		= 19 occupants

Egress width: Section 1005.1
Egress width @ grade level doors = 0.2" per occupant
Egress width @ stairs = 0.3" per occupant
15 occupants X 0.2 + 4 occupants X 0.3 = 4.2" of egress width required
Provided exit width - (3) doors @ 33" = 99"

1010.1.3 - THE FORCE FOR PUSHING OR PULLING OPEN INTERIOR SWINGING EGRESS DOORS, OTHER THAN FIRE DOORS, SHALL NOT EXCEED 5 POUNDS. THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT HOLD THE DOOR IN A CLOSED POSITION. FOR OTHER SWINGING DOORS, AS WELL AS SLIDING AND FOLDING DOORS, THE DOOR LATCH SHALL RELEASE WHEN SUBJECTED TO A 15 POUND FORCE. THE DOOR SHALL BE SET IN MOTION WHEN SUBJECTED TO A 30 POUND FORCE. THE DOOR SHALL SWING TO A FULL-OPEN POSITION WHEN SUBJECTED TO A 15 POUND FORCE.

EXIT REQUIREMENTS (GROUP M & S-1):

TRAVEL DISTANCE ALLOWED	= 200' (PER TABLE 1017.2)
MAX. DEAD END CORRIDOR LENGTH	= 20' (PER 1020.4)
EGRESS WIDTH (INCHES PER OCCUPANT) (LEVEL)	= 0.2" (PER 1005.3.2)
EGRESS WIDTH (INCHES PER OCCUPANT) (STAIR)	= 0.3" (PER 1005.3.1)
MIN. CORRIDOR OR AISLE WIDTH	= 36" (PER TABLE 1020.2)
MIN. CLEAR OPENING EXIT DOOR	= 32" (PER 1010.1.1)
MIN. WIDTH OF STAIR	= 36" (PER 1011.2, EX. 1)

Chapter 11 - ACCESSIBILITY:
1103.2.9: Equipment spaces frequented only by personnel for maintenance, repair or monitoring of equipment are not required to be accessible.
1104.1: At least one *accessible route* within the *site* shall be provided from public transportation stops, accessible parking, accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance served.
1104.3.1: Employee work areas. *Common use circulation paths* within employee work areas shall be accessible routes.
1105.1: Public Entrances, At least 60 percent of all public entrances shall be accessible.
Table 1106.1: Accessible parking - 1 per 25 spaces.

Chapter 12 - INTERIOR ENVIRONMENT:
Ventilation and Temperature control shall conform to the IMC.
1209.2.1 **Floors and wall bases.** In other than *dwelling units*, toilet, bathing and shower room floor finish materials shall have a smooth, hard, nonabsorbent surface. The intersections of such floors with walls shall have a smooth, hard, nonabsorbent vertical base that extends upward onto the walls not less than 4 inches.
1209.2.2 Walls and partitions. Walls and partitions within 2 feet of service sinks, urinals and water closets shall have a smooth, hard, nonabsorbent surface to a height of not less than 4 feet above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture. (Gypsum board properly painted is acceptable.)
Accessories such as grab bars, towel bars, paper dispensers and soap dishes, provided on or within walls, shall be installed and sealed to protect structural elements from moisture.

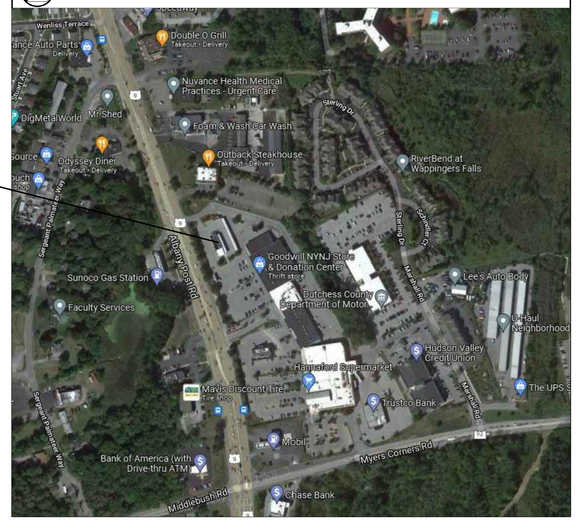
JURISDICTION:
Building Department: _____
Fire Protection: _____

SCOPE OF SERVICES:
SITE SURVEILLANCE AND OR SPECIAL INSPECTIONS, FOR THIS PROJECT HAS NOT BEEN INCLUDED IN THE PROFESSIONAL OF RECORDS SCOPE OF SERVICES.
THE OWNER WILL BE PROVIDING FOR THESE SERVICES UNDER A SEPARATE MEANS.

NORTH

VICINITY MAP

SITE



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AO2	BTE SERVICE CENTER DESIGN SELECTION SHEETS
MO1	ADDITIONAL SCHEDULES AND INFO

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

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2/16/22
REGISTERED ARCHITECT
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028240-1
STATE OF NEW YORK

CERTIFICATION

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CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

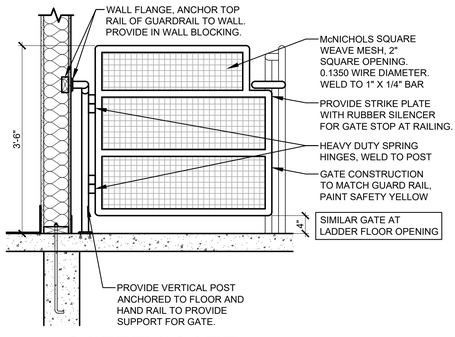
COVER SHEET

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

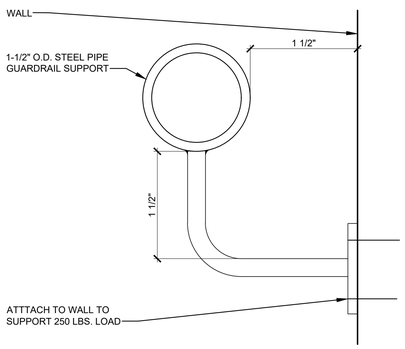
SHEET NUMBER

T-1



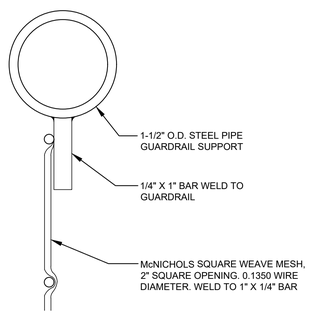
6 A-1 **SAFETY GATE**

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



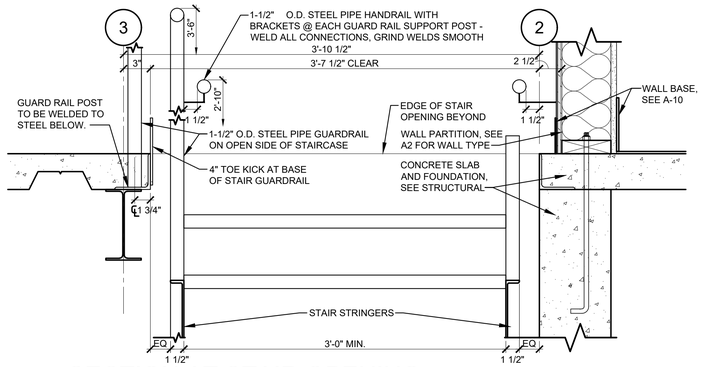
5 A-1 **HAND RAIL**

SCALE: 1:1



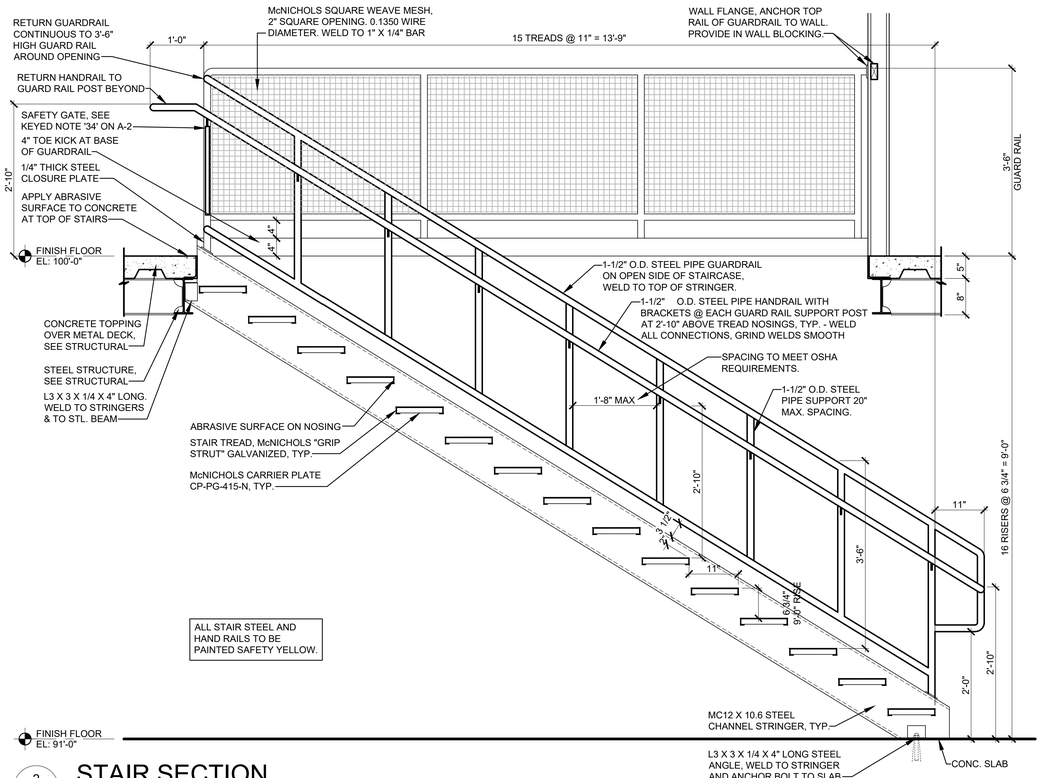
4 A-1 **MESH ATTACHMENT**

SCALE: 1:1



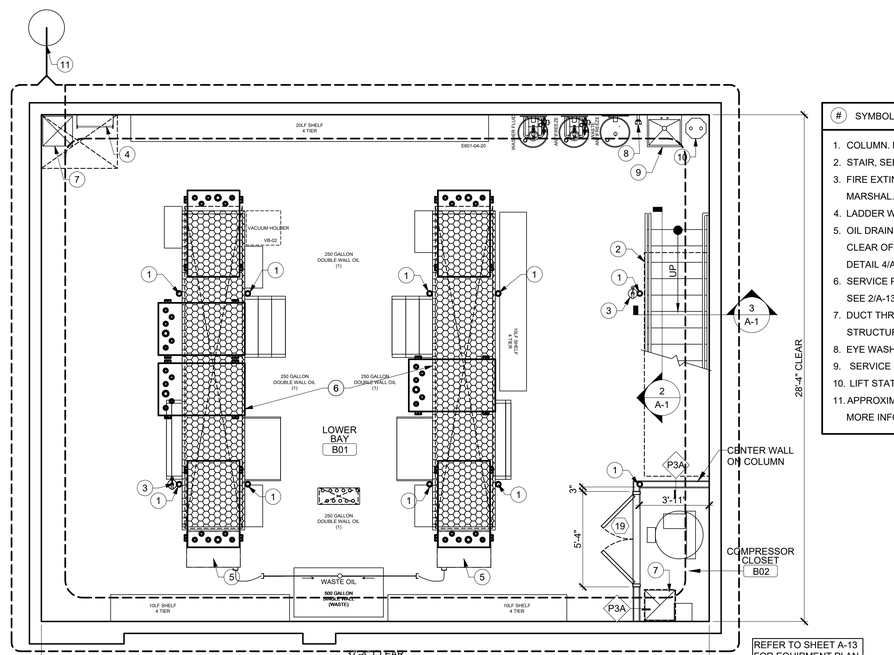
3 A-1 **SECTION AT STAIR OPENING**

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



2 A-1 **STAIR SECTION**

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



1 A-1 **LOWER BAY FLOOR PLAN**

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

NORTH

REFER TO SHEET A-13 FOR EQUIPMENT PLAN AND ALL VENDOR SUPPLIED EQUIPMENT

#	SYMBOL	BASEMENT KEY NOTES

1. COLUMN. REFER TO STRUCTURAL FOR LOCATION.
2. STAIR, SEE 2/A-1 FOR DETAILS.
3. FIRE EXTINGUISHER (BY G.C.) VERIFY LOCATION W/ FIRE MARSHAL.
4. LADDER W/ FLOOR OPENING ABOVE, SEE DETAIL 6/A-7.2.
5. OIL DRAIN PAN (LOCATED ABOVE), THIS AREA TO REMAIN CLEAR OF PIPING TO ALLOW FOR MOVEMENT OF PAN. SEE DETAIL 4/A-13.2.
6. SERVICE PLATFORM, (SUPPLIED BY EQUIPMENT SUPPLIER) SEE 2/A-13.1.
7. DUCT THROUGH FLOOR ABOVE, COORDINATE WITH STRUCTURAL AND MECHANICAL DRAWINGS.
8. EYE WASH STATION, SEE PLUMBING SCHEDULE FOR SPECS.
9. SERVICE SINK - REFER PLUMBING DRAWINGS.
10. LIFT STATION - REFER TO PLUMBING DRAWINGS.
11. APPROXIMATE SUMP PUMP LOCATION - SEE PLUMBING FOR MORE INFORMATION

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INTEGRITY | RESPECT | TEAMWORK
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REVISIONS

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jiffy lube

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FLOOR PLAN - LOWER BAY

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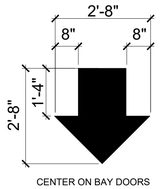
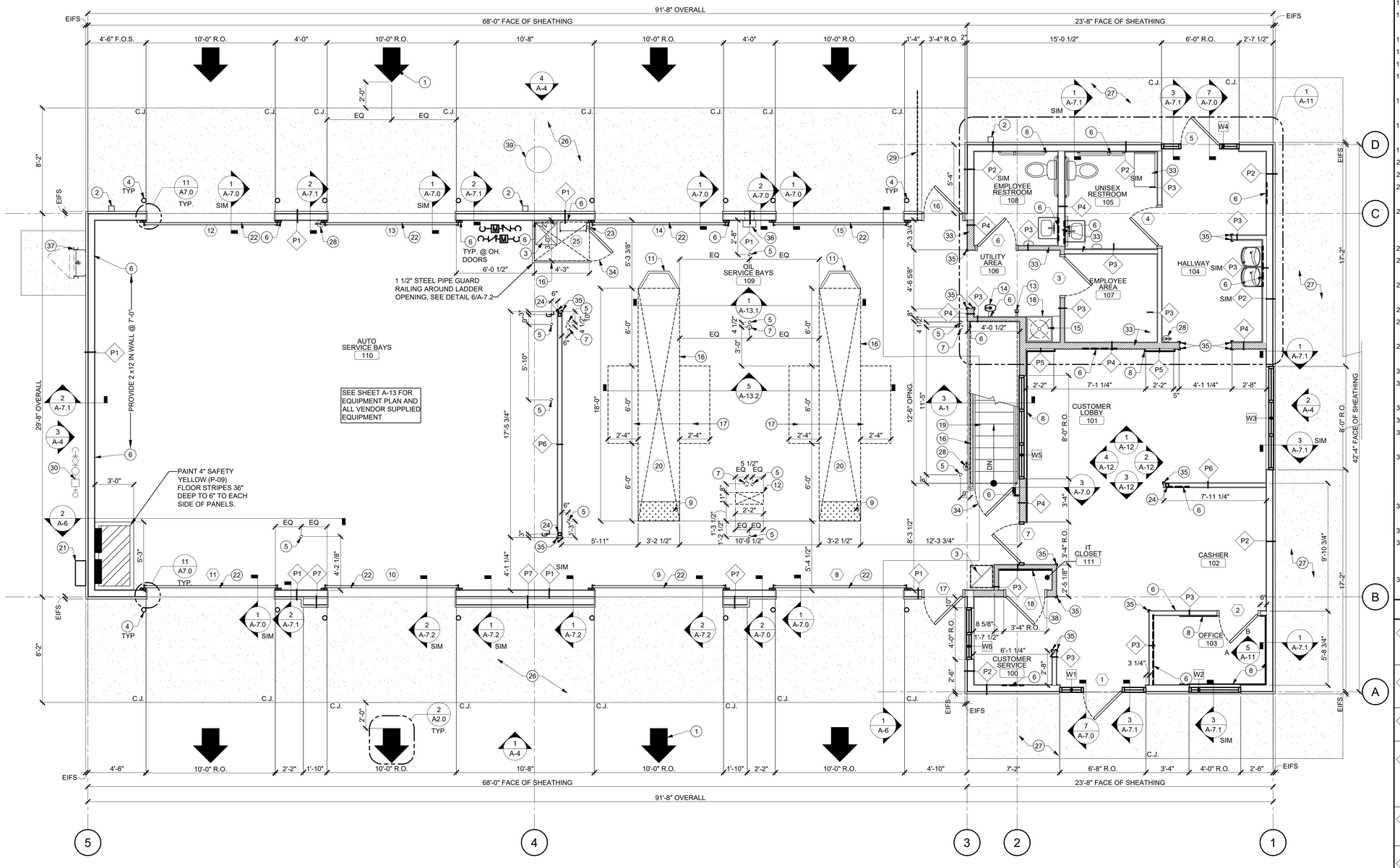


CENTER ON BAY DOORS

2 / A2 DIRECTIONAL ARROW

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



1 / A-2 UPPER BAY FLOOR PLAN

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

NORTH

GENERAL NOTES

1. ALL INTERIOR DIMENSIONS ARE TO FACE STUD. UNLESS NOTED OTHERWISE.
2. COORDINATE CONCRETE WALKS AND STOOPS WITH CIVIL PLANS.
3. PROVIDE BLOCKING AND JUNCTION BOX WITH ACCESS FOR SIGN INSTALLATION AT EACH LOCATION. COORDINATE WITH NATIONAL SIGN VENDORS FOR SIGN SPECIFICATIONS. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
4. **ALL HATCHED** INTERIOR PARTITIONS BETWEEN GRID LINES '1' AND '3' SHOULD EXTEND FULL HEIGHT TO UNDERSIDE OF DECK. **ALL NON-HATCHED** PARTITIONS SHOULD STOP 6" ABOVE CEILING.

SYMBOL PLAN KEY NOTES

1. PAINTED ARROW BOTH SIDES (PAINT P-09)
2. DOWNSPOUT - SEE SHEET A-3 FOR MORE INFORMATION
3. SLAB OPENINGS FOR DUCT, COORDINATE WITH STRUCTURAL AND MECHANICAL DRAWINGS
4. PIPE BOLLARD - SEE DETAIL 10/ A-5 FOR MORE INFORMATION
5. 2-1/2" SLEEVED OPENING FOR AIR BELOW, COORDINATE FINAL LOCATION WITH EQUIPMENT INSTALLER
6. GC TO PROVIDE BLOCKING IN WALL FOR MOUNTING OF EQUIPMENT AND FIXTURES
7. 4" DIA. PVC SLEEVED OPENING FOR VACUUM, COORDINATE FINAL LOCATION WITH EQUIPMENT INSTALLER
8. CHAIR RAIL - INPRO 2500 CHAIR RAIL (TAUPE 0113) - GC TO CONFIRM MOUNTING HEIGHT IS ADJUSTED TO PREVENT BACK OF CHAIR FROM HITTING WALL
9. DIAMOND PLATE, TYP OF (2). SEE DETAIL1/A-13.2
10. ~~RECESSED SLAB FOR ALIGNMENT LIFT, SEE STRUCT. AND DETAIL 3/A-13.2~~
11. WHEEL GUARD, TYP OF (2). SEE DETAIL1/A-13.2
12. BLOCKOUT FOR PRODUCT DISPENSE CONSOLE, VERIFY WITH OWNER'S REP
13. EYEWASH STATION - SEE PLUMBING DRAWINGS
14. WATER BUBBLER - SEE PLUMBING DRAWINGS
15. WATER HEATER LOCATED ABOVE. - SEE PLUMBING DRAWINGS
16. EXPOSED STEEL PLATE TOE KICK ALONG BASE OF GUARDRAIL (4") AND PIT OPENING (2"), SEE STRUCTURAL
17. RECESSED VEHICLE LIFT - PROVIDE BLOCKOUT FOR LIFT. SEE DETAIL 5/A-13.2
18. MOP SINK - SEAL PERIMETER OF MOP SINK TO WALL ON THREE WALLED SIDES.-SEE PLUMBING DRAWINGS.
19. STAIR - SEE A-1 AND A-6 FOR DETAILS
20. SLAB OPENING FOR SERVICE
21. DISCONNECT AND METER SYSTEM, SEE ELECTRICAL
22. REFER TO STRUCTURAL FOR DOOR RECESS AT ALL OVERHEAD DOOR LOCATIONS.
23. 2 1/2" STEEL POST WELD TO BOTTOM OF FLOOR BEAM AND PERIMETER ANGLE, PROVIDE ANGLE BRACKET BACK TO WALL AT TOP, TO SUPPORT SAFETY GATE 6/A2.
24. STEEL POST SUPPORTS IN LOW WALL, TYP., SEE DETAIL 10/A-7.2
25. FLOOR ACCESS LADDER FROM LOWER BAY AREA, SEE DETAIL 6/A-7.2
26. CONCRETE APRON. FINISH TO BE F04, SEE A-10 FOR FINISH SCHEDULE. SEE STRUCTURAL FOR REINFORCEMENT
27. SIDEWALK - SEE CIVIL-VERIFY 2% ADA SLOPE.
28. FIRE EXTINGUISHER (BY GC). VERIFY EXACT LOCATION WITH FIRE MARSHAL.(MOUNT 48" AFF. MAX. TO COMPLY WITH ADA)
29. PROVIDE 1" CONDUIT UNDER SLAB ALONG CURB. DAYLIGHT THROUGH CURB AT DIRECTION OF JLI REP.
30. GAS METER - SEE PLUMBING DRAWINGS
31. DOMESTIC & IRRIGATION WATER SERVICES - SEE PLUMBING DRAWINGS
32. NOT USED
33. PROVIDE SOUND BATTS IN THIS WALL
34. PROVIDE YELLOW SAFETY GATE. SEE A-1 FOR ADDITIONAL INFORMATION. RUBBER SILENCER REQUIRED ON GATE.
35. PROVIDE 1 1/2" X 60" TALL (48" IN LOBBY) STAINLESS STEEL CORNER GUARDS AT LOCATIONS NOTED. SECURE WITH 3 M HEAVY DUTY DOUBLE STICK CARPET TAPE, MODIFY AT SHORT WALL.
36. KEY DROP BOX WDC-160 PROTEX WALL DROP BOX WITH ADJUSTABLE CHUTE, SEE A-4 & 5/A-7.2
37. ROOF ACCESS LADDER - SEE 4/A-7.2 (W/ 5' X 5' CONC PAD.)
38. 3/4" x 4'-0" x 8'-0" FRT. PLYWOOD AT REAR OF CLOSET, SEE ELECTRICAL FOR MORE INFORMATION. PAINT AFTER FD. INSPECTIONS.
39. APPROXIMATE SUMP PUMP LOCATION - SEE PLUMBING FOR MORE INFORMATION.

PARTITION LEGEND

- **P1** — 2 X 6 WOOD STUDS WITH R21 BATT INSULATION IN CAVITIES, WITH 1/2" SHEATHING & 2" EIFS ON EXTERIOR SIDE, 1/2" PLYWOOD W/ FRP TO 96" A.F.F. & GYP ABOVE INSIDE. (SEE STRUCTURAL)
- **P2** — 2 X 6 WOOD STUDS WITH R20 BATT INSULATION IN CAVITIES, WITH 1/2" SHEATHING AND 2" EIFS ON EXTERIOR SIDE, 5/8" GYP BD. ON INTERIOR SIDE. (SEE STRUCT. FOR STUD SPACING)
- **P3** — 2 X 4 WOOD STUDS @ 16" O.C., WITH 5/8" GYP BD. EA. SIDE. SEE GENERAL NOTE #33. PROVIDE M.R. GYP BOARD IN WET AREAS. **P3A**: FRP OVER 1/2" PLYWOOD EACH SIDE
- **P4** — 2 X 6 WOOD STUDS @ 16" O.C., WITH SOUND BATT INSULATION IN CAVITIES, WITH 5/8" GYP BD. EA. SIDE. PROVIDE M.R. GYP BOARD IN WET AREAS. ON DEMISING WALL BETWEEN CUSTOMER LOBBY ROOM AND OIL SERVICE BAYS, PROVIDE 1/2" PLYWOOD W/ FRP TO 96" A.F.F. **ON SERVICE BAY SIDE ONLY.**
- **P5** — 1 1/2" WALL FURRING STRIPS @ 24" O.C. FLAT FRAMED WITH 5/8" GYP BD. EA. SIDE.
- **P6** — LOW WALL 42" HIGH, 2 X 4 WOOD STUDS @ 16" O.C., SEE DETAIL 10/A-7.2 FOR STEEL POST WALL REINFORCEMENT. (SERVICE AREA) FRP OVER 1/2" PLYWOOD. EACH SIDE. CAP WITH 2x6 PAINTED P01. (LOBBY) 5/8" GYP. BD. PAINTED. CAP WITH MELAMINE WRAPPED 1X6 BY MILLWORK VENDOR.
- **P7** — 2 X 6 WOOD STUDS ON HORIZONTAL 2X BRIDGING WITH 1/2" SHEATHING & 2" EIFS ON EXTERIOR SIDE OVER WALL TYPE 'P1'. (SEE STRUCTURAL)

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CERTIFICATION

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

FLOOR PLAN - UPPER BAY

SHEET MANAGEMENT

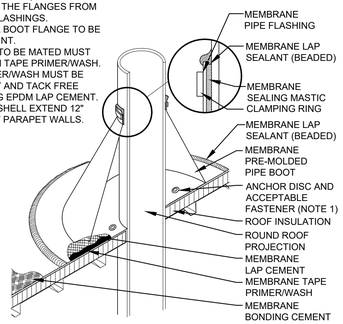
SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

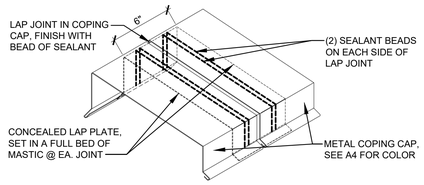
A-2

NOTES:

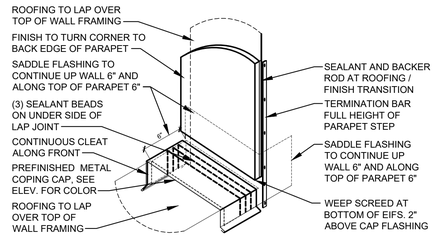
1. WITH MECHANICALLY FASTENED OR BALLASTED SPECIFICATIONS, MEMBRANE MUST BE MECHANICALLY ATTACHED WITH 2" (50 mm) ANCHOR DISC AND ACCEPTABLE FASTENERS (MINIMUM OF 4 PER PIPE).
2. DO NOT OVERLAP THE FLANGES FROM ADJACENT PIPE FLASHINGS.
3. ANY SEAM UNDER BOOT FLANGE TO BE TREATED AS T-JOINT.
4. BOTH SURFACES TO BE MATED MUST BE CLEANED WITH TAPE PRIMER/WASH. EPDM TAPE PRIMER/WASH MUST BE COMPLETELY DRY AND TACK FREE BEFORE APPLYING EPDM LAP CEMENT.
5. ALL VENT STACK SHELL EXTEND 12" ABOVE ADJACENT PARAPET WALLS.



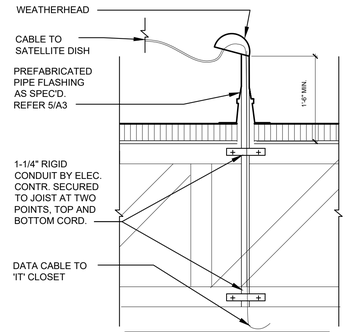
5 A-3 **BOOT DETAIL**
SCALE:N.T.S.



6 A-3 **TYP. COPING LAP JOINT**
SCALE: 1-1/2" = 1'-0"

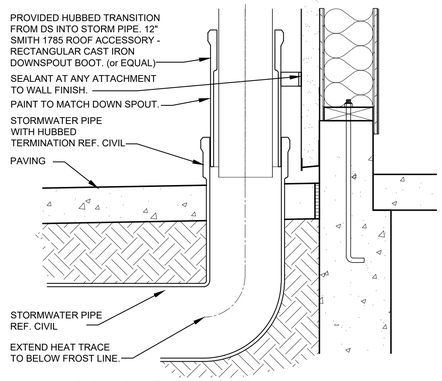


7 A-3 **TYP. COPING BUTT JOINT**
SCALE: 1" = 1'-0"

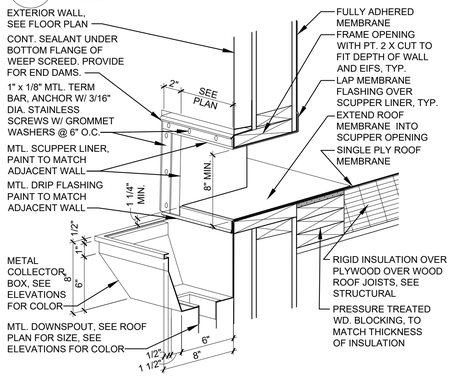


NOTE:
ROOF PENETRATION/ WEATHERHEAD TO BE LOCATED NEAR SATELLITE DISH, WHEN PROVIDED.

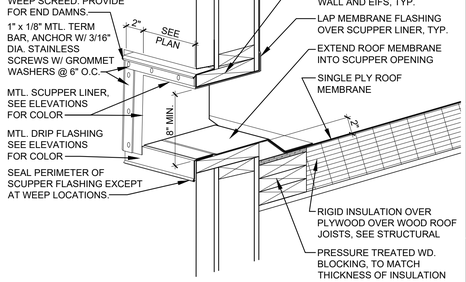
8 A-3 **CABLE PENETRATION**
SCALE: 1" = 1'-0"



9 A-3 **DS HUB DETAIL**
SCALE: 1-1/2" = 1'-0"

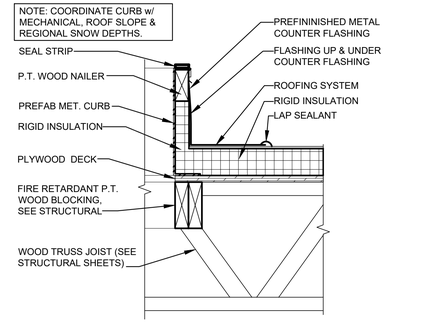


4 A-3 **SCUPPER OPENING DETAIL**
SCALE: 1-1/2" = 1'-0"

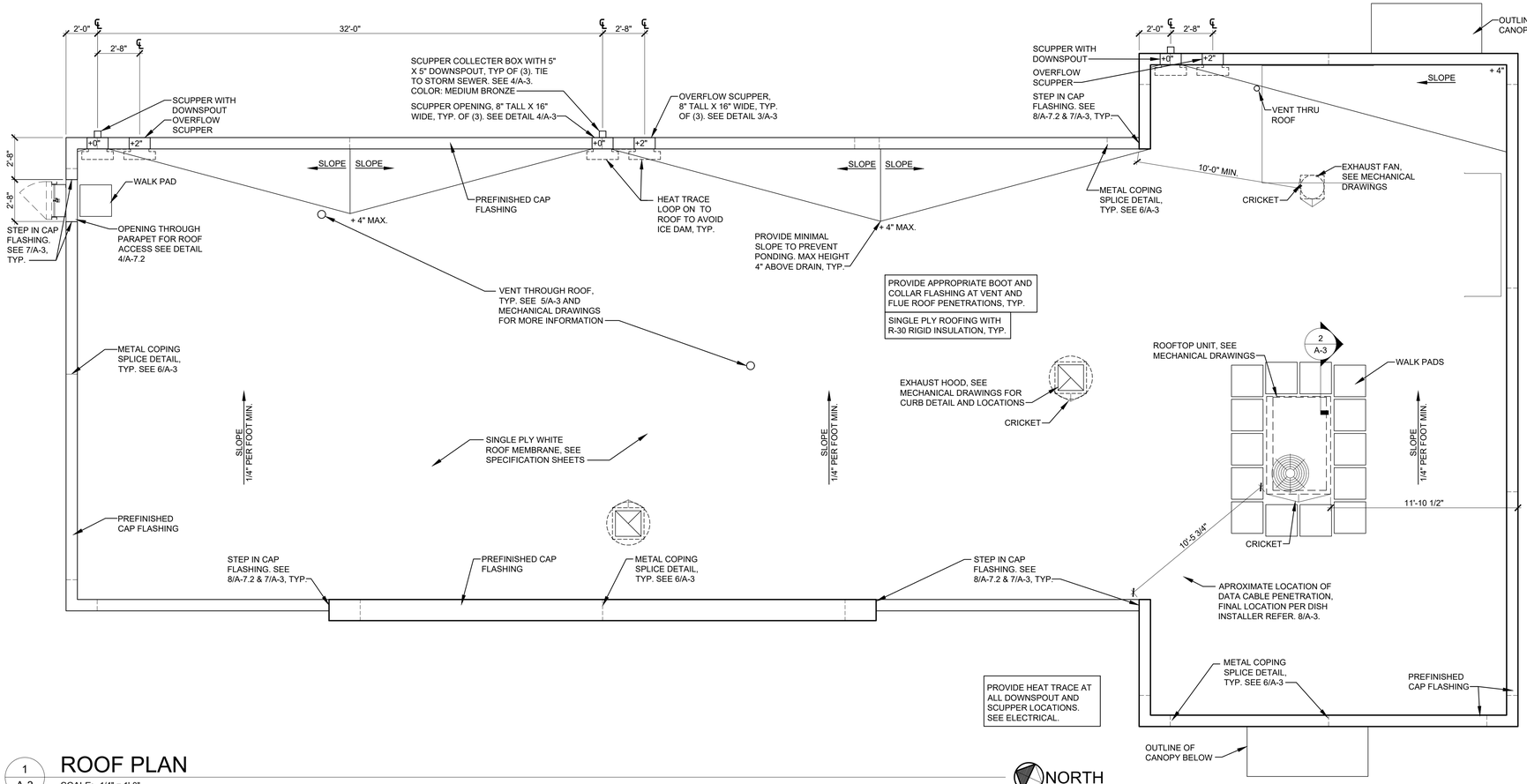


3 A-3 **OVERFLOW SCUPPER DETAIL**
SCALE: 1-1/2" = 1'-0"

NOTE: COORDINATE CURB w/ MECHANICAL, ROOF SLOPE & REGIONAL SNOW DEPTHS.



2 A-3 **ROOF CURB DETAIL**
SCALE: 1-1/2" = 1'-0"



1 A-3 **ROOF PLAN**
SCALE: 1/4" = 1'-0"

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

ROOF PLAN & DETAILS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

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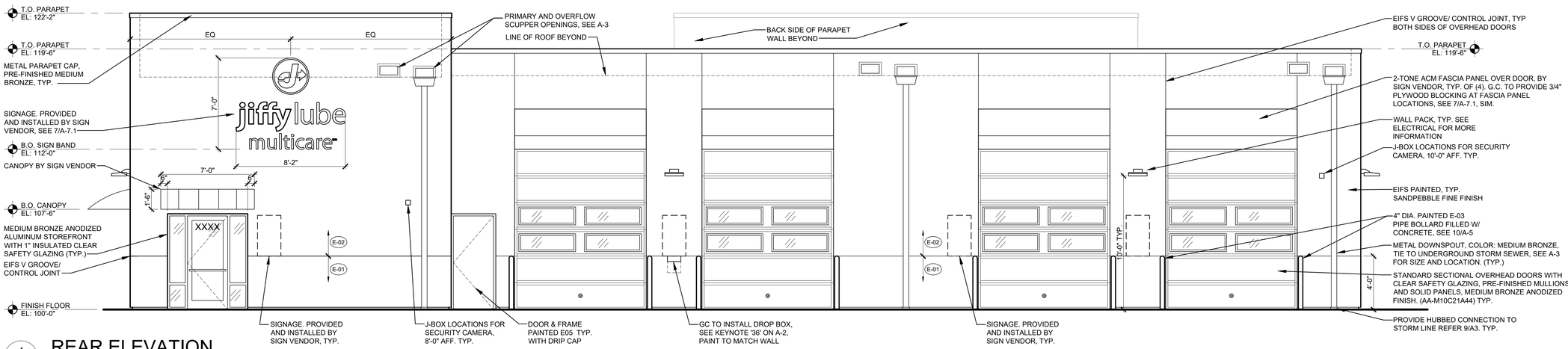
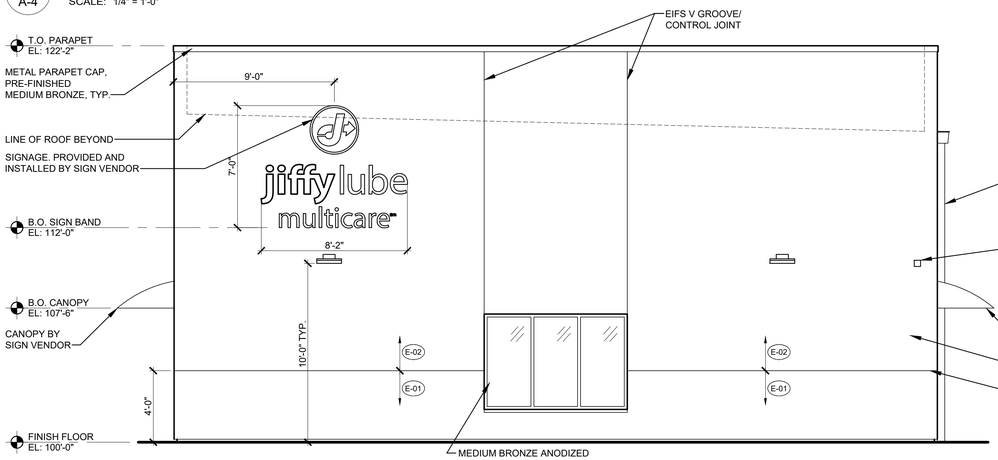
A-3



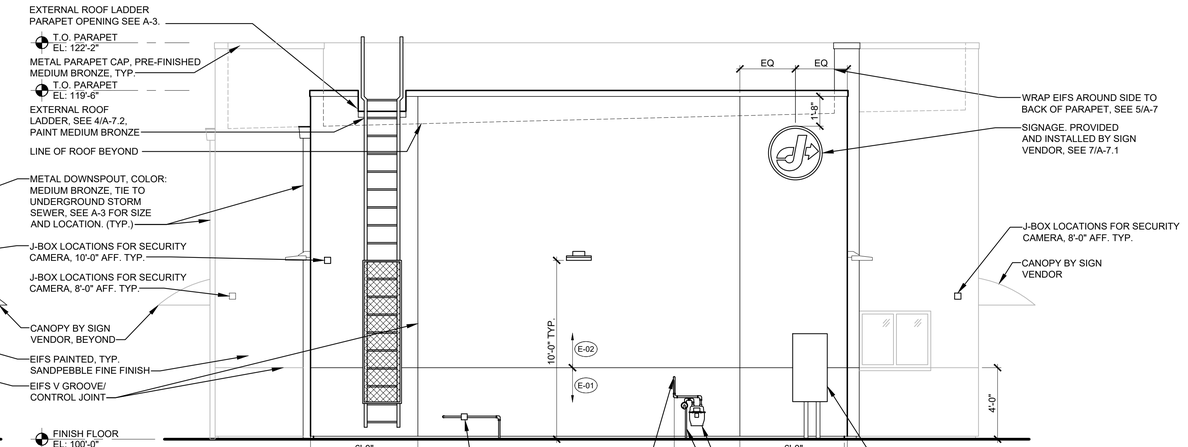
4 A-4 **REAR ELEVATION**

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



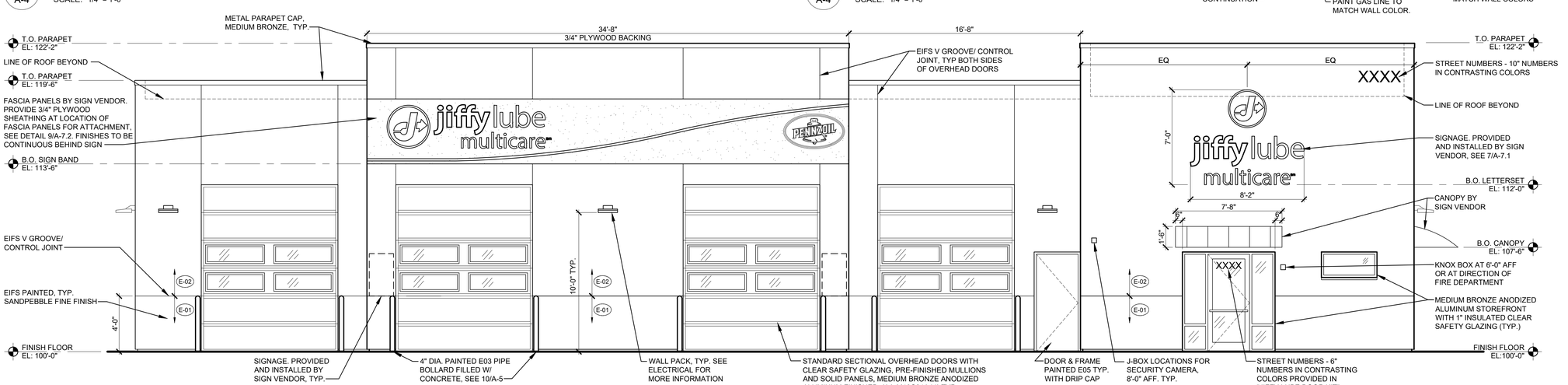
2 A-4 **SIDE ELEVATION**

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



3 A-4 **SIDE ELEVATION**

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



1 A-4 **FRONT ELEVATION**

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

STOREFRONT AND DOOR GLAZING REQUIREMENTS:
STORE FRONT GLAZING: U VALUE =0.38 / SHGC = 0.46, VT = 0.44
ENTRY DOORS: U = 0.77, SHGC = 0.46, VT = 0.44
OVERHEAD DOORS: U = 0.15, R = 6.67 GLAZING: SHGC = 0.38, VT =0.44

MARK	EXTERIOR FINISH SCHEDULE:	MATERIAL	MFR #	COLOR
E01	EXT. WALLS: WAINSCOT / SIGN POLES / FENCES / EXT. DOORS AND TRIM	PAINT (SATIN / SEMI-GLOSS)	SW2827	COLONIAL REVIVAL STONE
E02	EXT. WALLS ABOVE WAINSCOT	PAINT (SEMI-GLOSS)	SW7005	PURE WHITE
E03	EXT. WALLS: HANDRAILS / GUARD RAILS / TRAFFIC BOLLARDS	PAINT (SEMI-GLOSS)	SW6314	LUXURIOUS RED
E04	EXT. : APPLY OVER RED E3. (EXTERIOR LOCATIONS ONLY)	PAINT (SEMI-GLOSS)	CLEAR COAT	SHER-CLEAR
E05	EXT. WALLS: MAN-DOORS	PAINT (SEMI-GLOSS)	SW6258	TRICORN BLACK

GENERAL NOTE:
1. ALL COLOR NAMES INDICATED ARE FOR SELECTION PURPOSES ONLY. SEE PAINT SPECS FOR SPECIFIC REQUIREMENTS. DESCRIPTION: (ALL "SHERWIN / WILLIAMS" NUMBERS 'SW' COLORS)
2. APPLY CLEAR COAT (E-04) OVER RED (E-03) ON EXTERIOR APPLICATIONS.
3. ALL SECURITY CAMERA LOCATIONS ARE FOR ILLUSTRATION PURPOSES ONLY. ALL FINAL LOCATIONS TO BE COORDINATED WITH SECURITY VENDOR.

ALL SIGNAGE SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. ALL SIGNAGE IS UNDER SEPARATE PERMIT AND FINAL DESIGN AND PLACEMENT IS BY SIGNAGE VENDOR.

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

EXTERIOR ELEVATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
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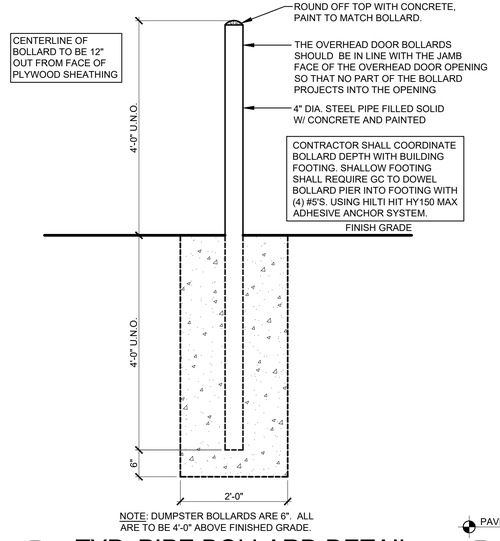
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

A-4

REINFORCED MASONRY

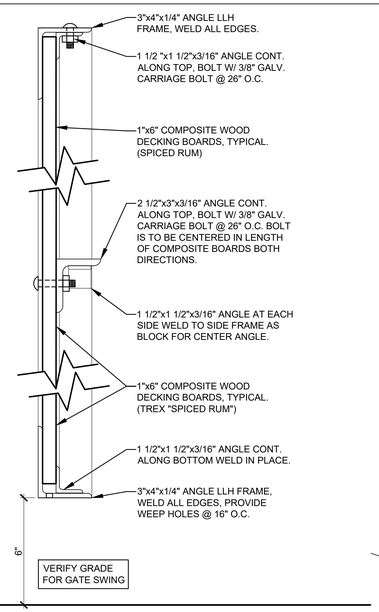
1. THE REINFORCED MASONRY FOR THIS PROJECT HAS BEEN DESIGNED AND DETAILED IN ACCORDANCE WITH THE ALLOWABLE STRESS DESIGN METHOD.
2. MASONRY WALLS HAVE BEEN DESIGNED TO SPAN VERTICALLY, AS SIMPLE SPANS, FROM FLOOR TO STEEL GIRT LINE, AND ARE DEPENDENT UPON THE COMPLETED INSTALLATION OF THE STEEL GIRTS AND COMPLETION OF ALL MASONRY WALLS FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ALL NECESSARY BRACING AS REQUIRED FOR STABILITY, RESISTANCE OF CONSTRUCTION LOADS, AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THE ENTIRE STRUCTURE IS COMPLETE. THE SHORING SHALL NOT RELY ON ANY MOMENT RESISTANCE CAPACITY OF THE FOOTINGS.
3. REINFORCED MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, fm = 1500 PSI. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90 AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1900 PSI. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. PORTLAND CEMENT TYPE 1 OR 2, LOW ALKALI PER ASTM C150 NON AIR ENTRAINED OR HYDRATED LIME PER ASTM C207 TYPES. GROUT SHALL CONFORM TO ASTM C476 AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
4. REFERENCE THE ARCHITECTURAL DRAWINGS FOR GENERAL LOCATIONS OF CONTROL JOINTS IN MASONRY WALLS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. JOINT REINFORCING SHALL BE STOPPED EITHER SIDE OF VERTICAL CONTROL JOINTS.
5. MASONRY REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
6. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS OR LADDER TYPE FORMED FROM 9 GAUGE COLD-DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS.
7. ALL REINFORCED CELLS AND ALL CELLS BELOW THE FINISHED FLOOR ELEVATION SHALL BE GROUTED SOLID.
8. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING. GROUT THE CELL FOR THE FULL HEIGHT OF THE DOWEL.
9. ALL REINFORCING STEEL SHALL BE CENTERED IN THE MASONRY UNIT CELL, UNLESS NOTED OTHERWISE.
10. ALL REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.
11. ALL REINFORCING BARS SHALL HAVE A MINIMUM GROUT COVER OF 1/2" TO THE INSIDE FACE OF THE MASONRY UNIT, A MINIMUM OF TOTAL MASONRY COVER OF 2".
12. ALL REINFORCING BARS IN WALLS SHALL HAVE NOT LESS THAN ONE BAR DIAMETER NOR 1" CLEAR BETWEEN BARS.
13. ALL REINFORCING BARS IN COLUMNS AND PILASTERS SHALL HAVE NOT LESS THAN ONE AND ONE-HALF BAR DIAMETERS NOR 1 1/2" CLEAR BETWEEN BARS.
14. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 3"x4".
15. GROUTING SHALL BE STOPPED 1 1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.
16. GROUTING OF MASONRY BEAMS AND LINTELS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
17. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION.
18. UNDER ALL BEAMS AND JOIST BEARINGS, FILL UNITS 2 CMU COURSES DEEP X 32" WIDE MINIMUM.
19. PROVIDE A CONTINUOUS BOND BEAM UNDER ALL TRUSS BEARINGS.
20. ALL REINFORCING LAP SPLICES SHALL BE A MINIMUM OF 72 BAR DIAMETERS BASED ON THE MAXIMUM ALLOWABLE STRESS, UNLESS NOTED OTHERWISE.



NOTE: DUMPSTER BOLLARDS ARE 6". ALL ARE TO BE 4'-0" ABOVE FINISHED GRADE.

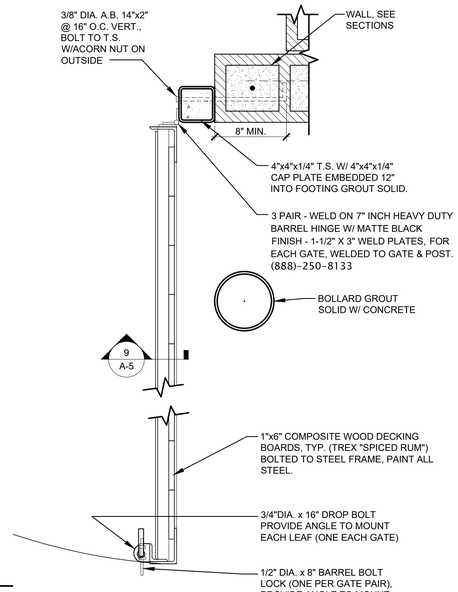
10 / A-5 **TYP. PIPE BOLLARD DETAIL**

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



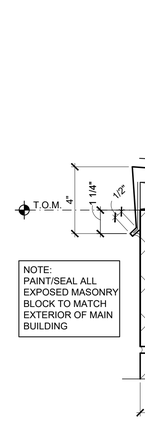
9 / A-5 **GATE SECTION**

SCALE: 3" = 1'-0"



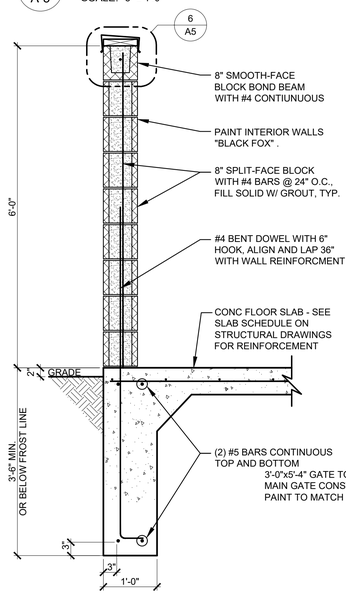
8 / A-5 **GATE DETAIL**

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



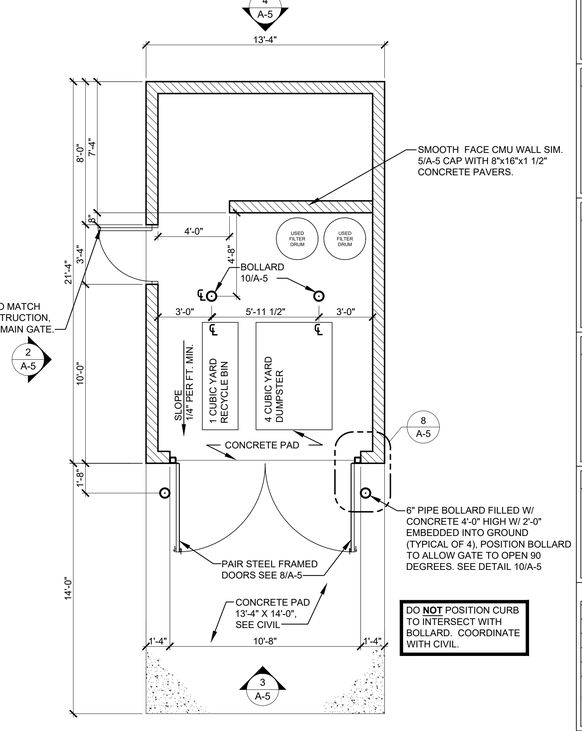
6 / A-5 **CAP FLASHING DETAIL**

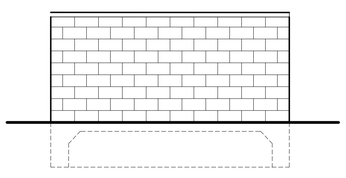
SCALE: 3" = 1'-0"



5 / A-5 **WALL SECTION**

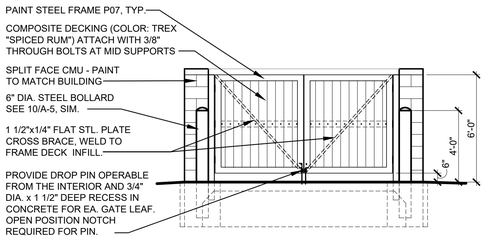
SCALE: 3/4" = 1'-0"





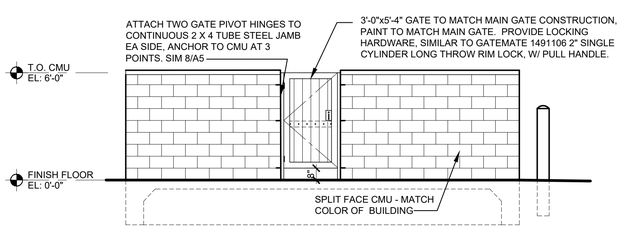
4 / A-5 **REAR ELEVATION**

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



3 / A-5 **FRONT ELEVATION**

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



2 / A-5 **SIDE ELEVATION**

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

1 / A-5 **CMU DUMPSTER ENCLOSURE**

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

NORTH

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CUSTOMER

jiffy lube®

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PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY 12590
(DUTCHESS COUNTY)

SHEET TITLE

DUMPSTER ENCLOSURE

SHEET MANAGEMENT

SEVAN JLI NO.:	156
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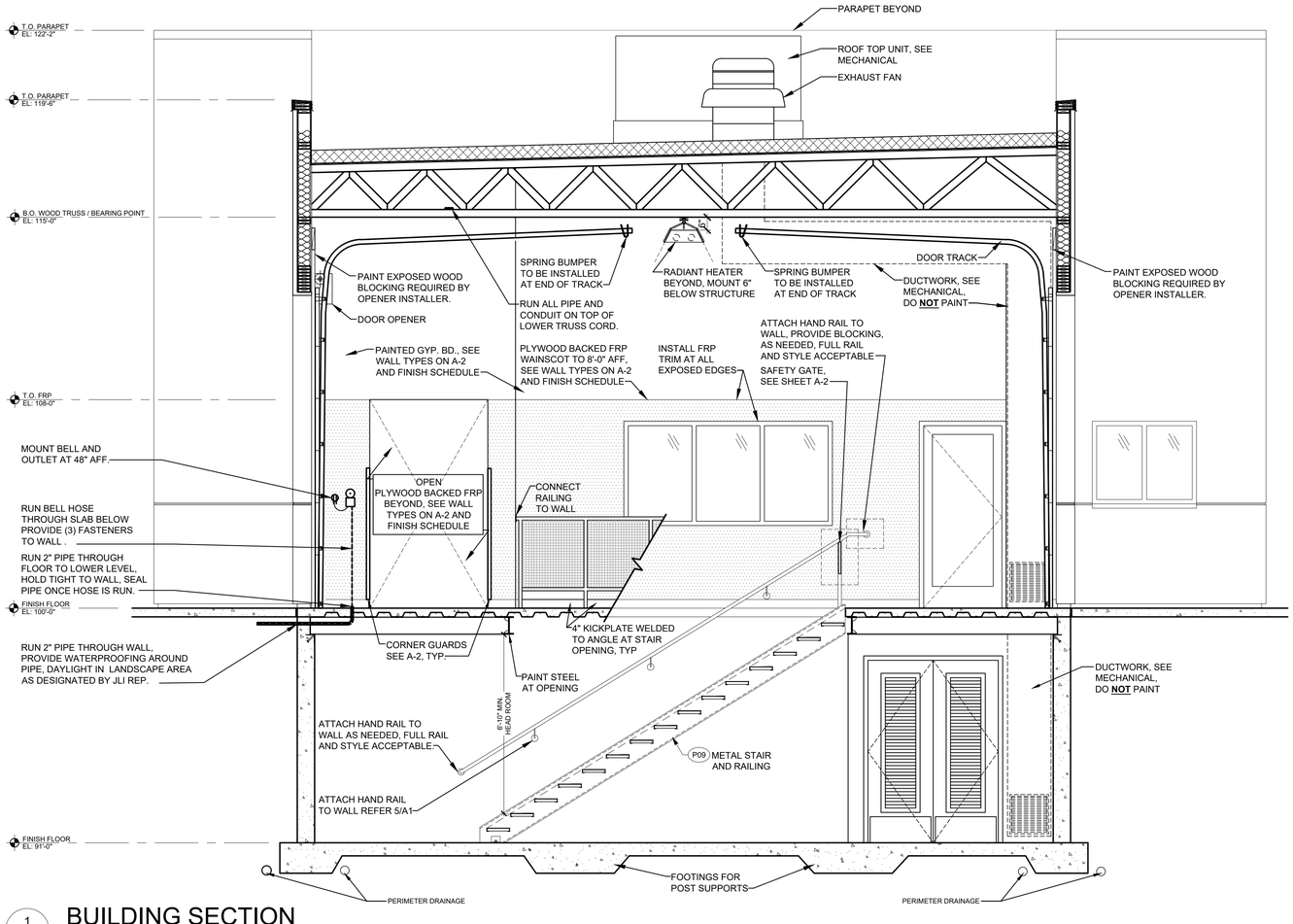
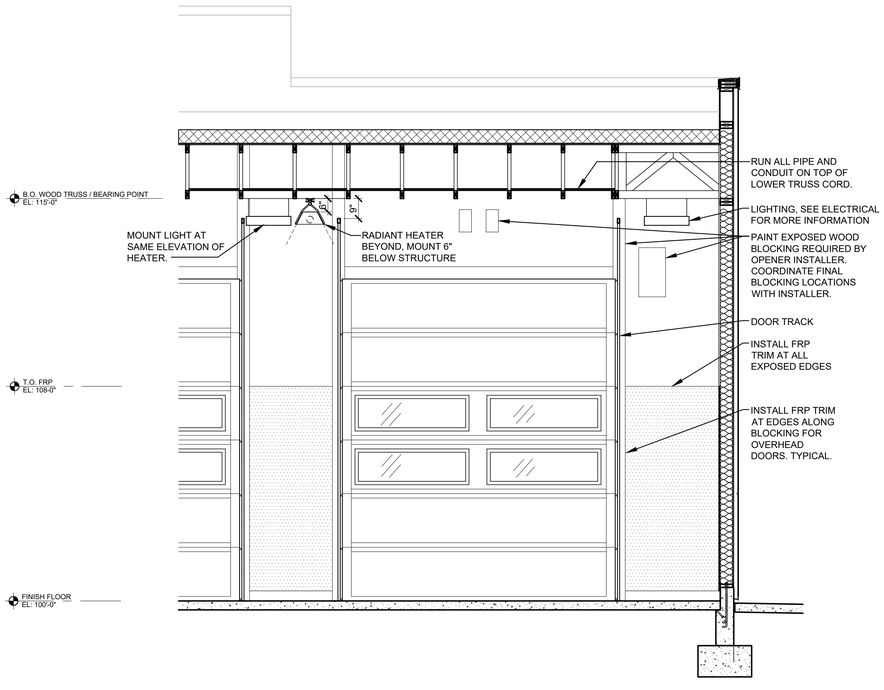
A-5



1 A-6 BUILDING SECTION

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



2 A-6 BUILDING SECTION

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

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2/18/22

REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
028240-1
STATE OF NEW YORK

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CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590

(DUTCHESS COUNTY)

SHEET TITLE

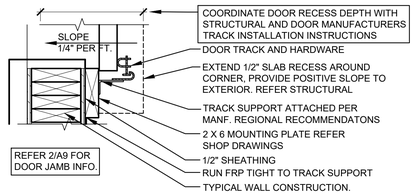
BUILDING SECTION

SHEET MANAGEMENT

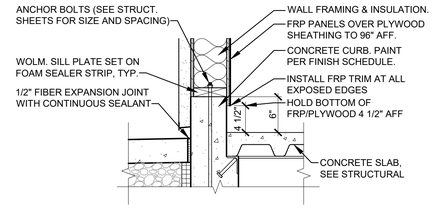
SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

A-6

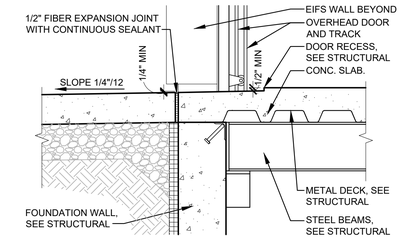


11 A-7.0 **DOOR RECESS**
SCALE: 1-1/2" = 1'-0"



10 A-7.0 **WALL BASE @ SERVICE CURB**
SCALE: 1" = 1'-0"

9 A-7.0 **NOT USED**
SCALE:



8 A-7.0 **SLAB RECESS @ O.H. DOOR**
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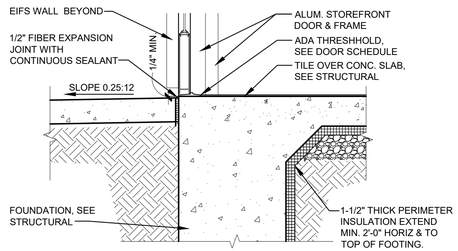
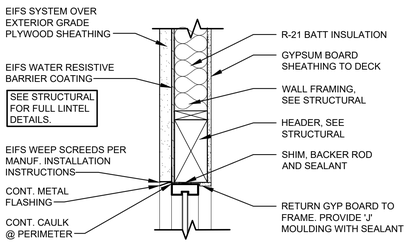


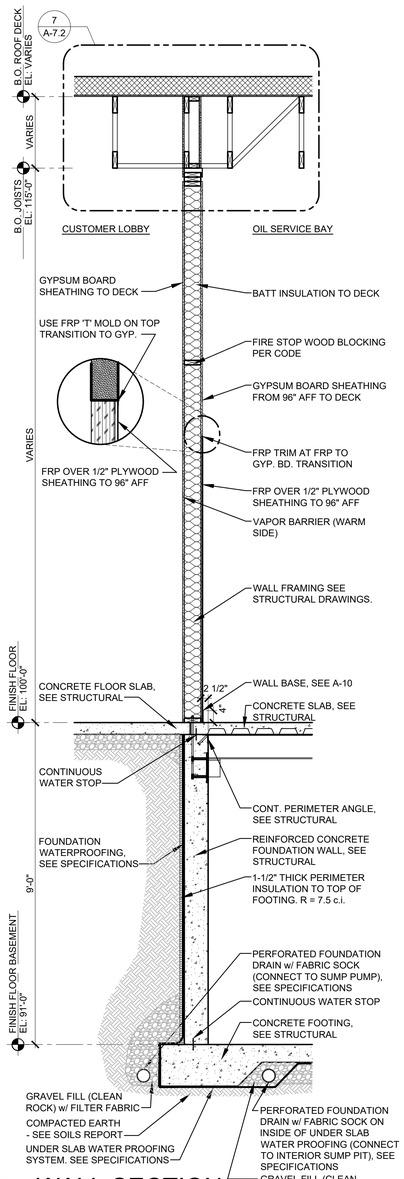
7 A-7.0 **SLAB DETAIL @ STOREFRONT**
SCALE: 1" = 1'-0"



6 A-7.0 **WINDOW HEAD DETAIL (TYP.)**
SCALE: 1" = 1'-0"

5 A-7.0 **NOT USED**
SCALE: 1/2" = 1'-0"

4 A-7.0 **NOT USED**
SCALE: 1/2" = 1'-0"



3 A-7.0 **WALL SECTION**
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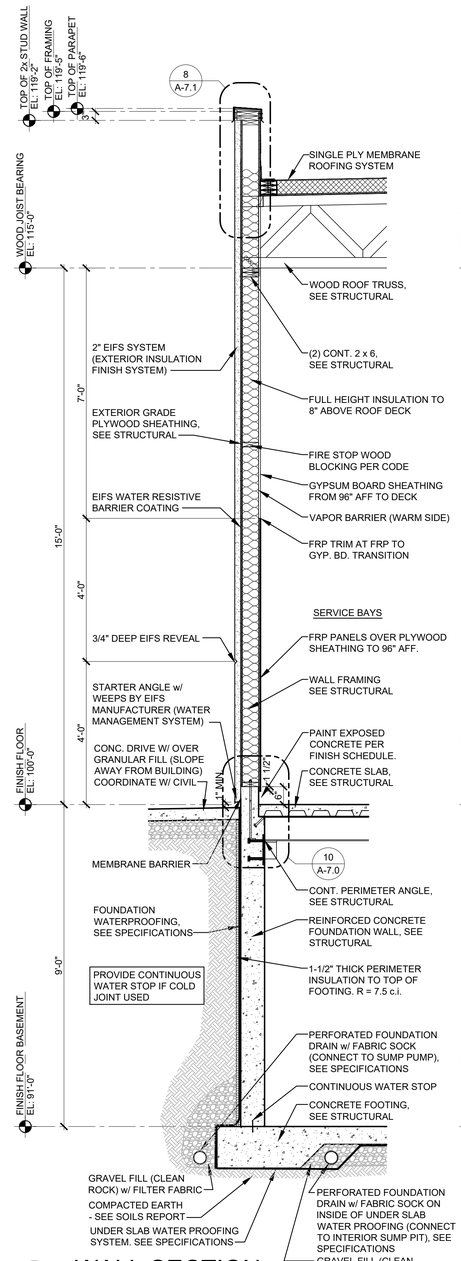

2 A-7.0 **WALL SECTION**
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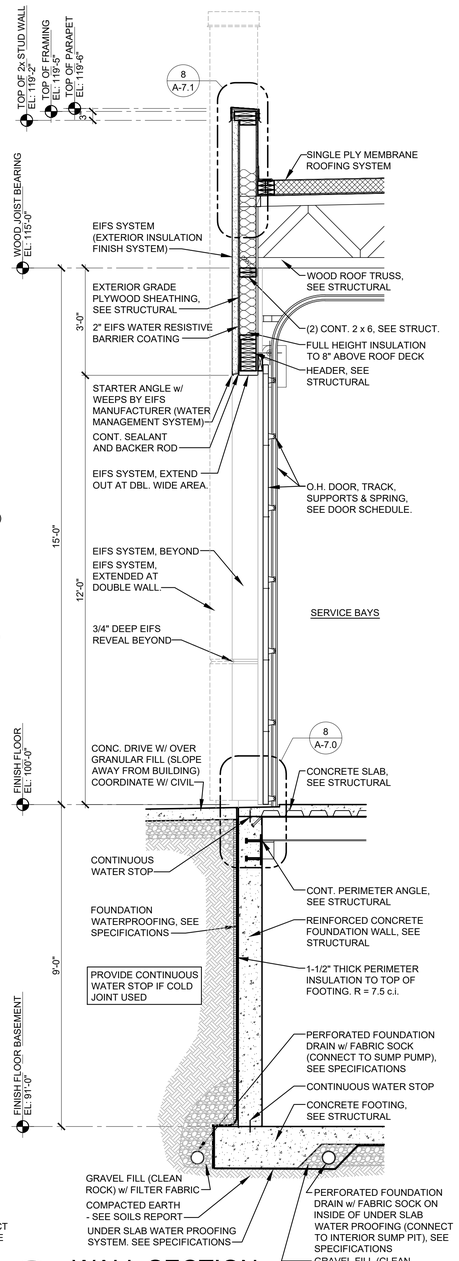

1 A-7.0 **WALL SECTION**
SCALE: 1/2" = 1'-0"

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jiffy lube®

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Store # 4077

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SHEET NUMBER
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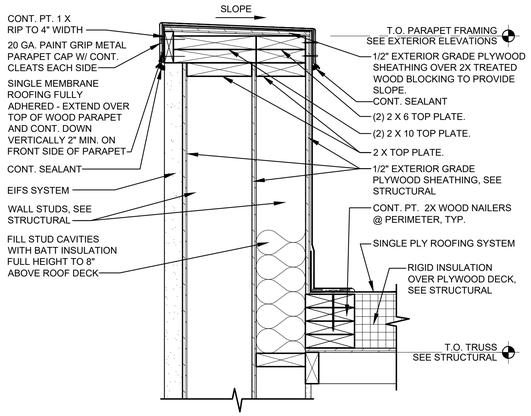
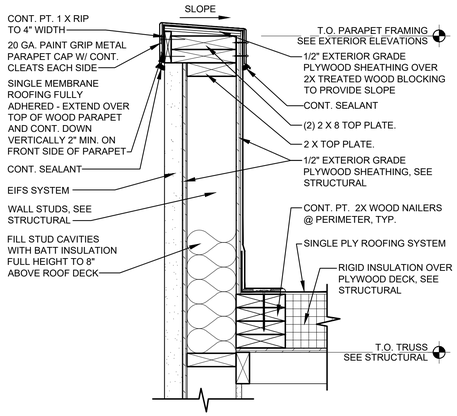


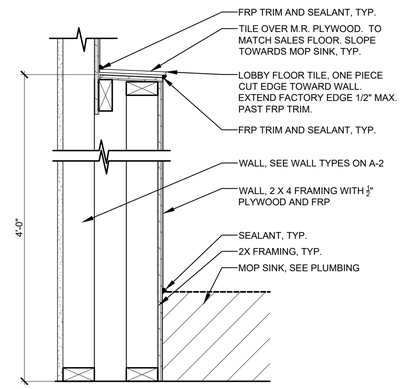
10 A-7.1 **PARAPET/ COPING DETAIL**
SCALE:1 1/2" = 1'-0"

9 A-7.1 **NOT USED**
SCALE:

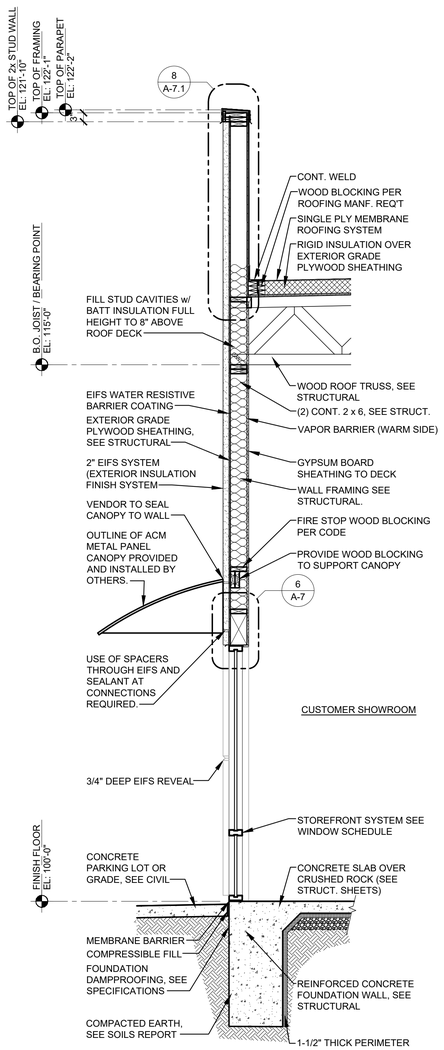


8 A-7.1 **PARAPET/ COPING DETAIL**
SCALE:1 1/2" = 1'-0"

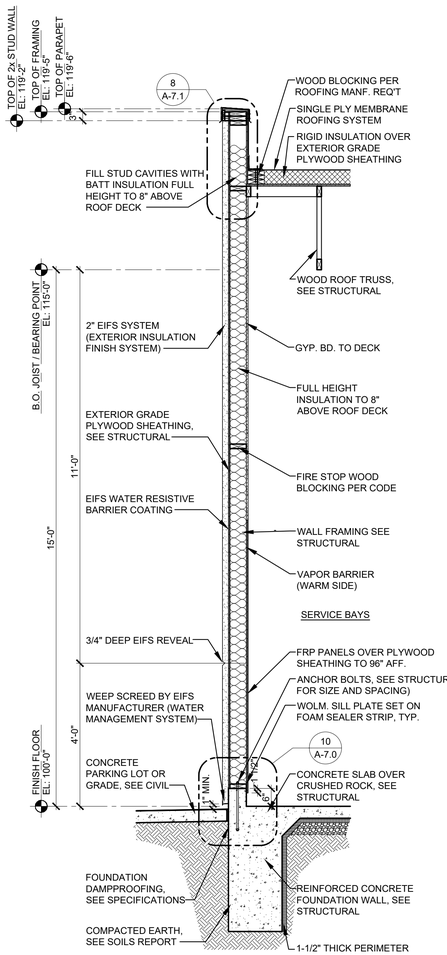
7 A-7.1 **NOT USED**
SCALE:



6 A-7.1 **CURB @ MOP SINK**
SCALE: 1 1/2" = 1'-0"



3 A-7.1 **WALL SECTION**
SCALE: 1/2" = 1'-0"



2 A-7.1 **WALL SECTION**
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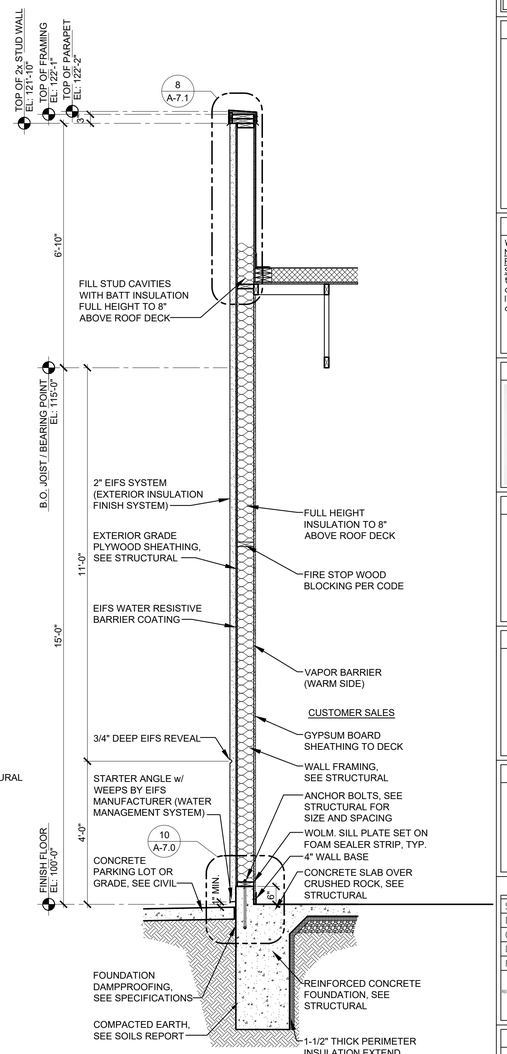

1 A-7.1 **WALL SECTION**
SCALE: 1/2" = 1'-0"

5 A-7.1 **NOT USED**
SCALE:

4 A-7.1 **NOT USED**
SCALE:

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jiffy lube®

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MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

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(DUTCHESS COUNTY)

SHEET TITLE

WALL SECTION

SHEET MANAGEMENT

SEVAN JLI NO.:	156
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SHEET NUMBER

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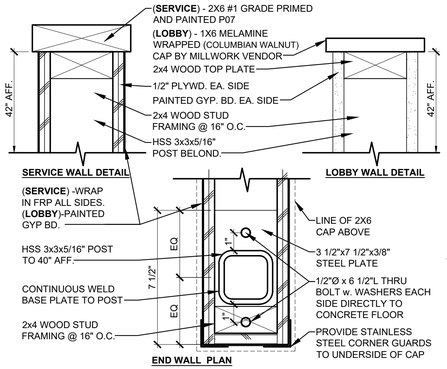
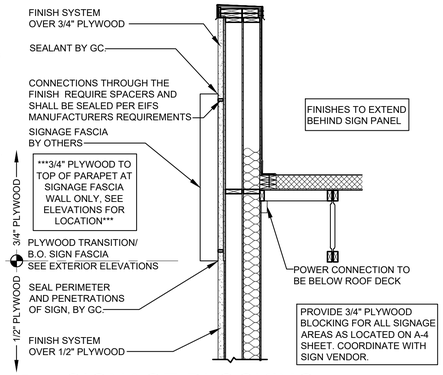


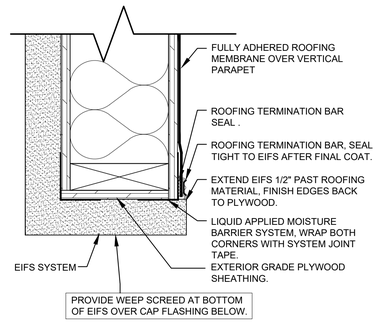
10 A-7.2 LOW WALL POST DETAIL

SCALE: 3" = 1'-0"



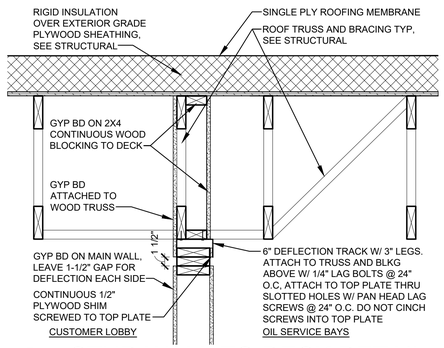
9 A-7.2 SIGNAGE BLOCKING

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



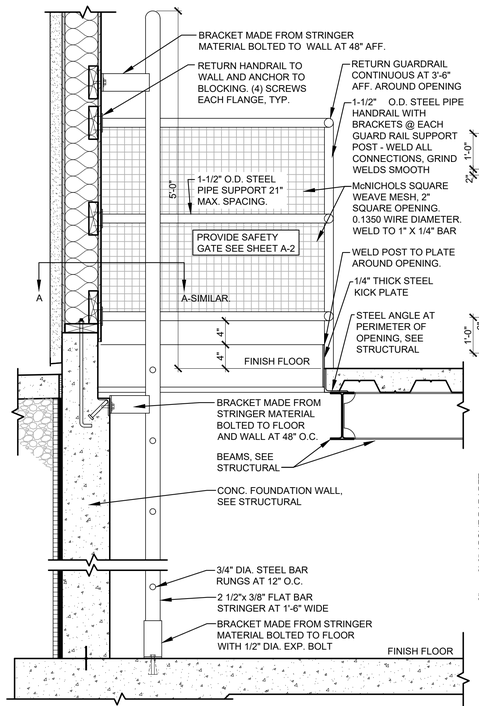
8 A-7.2 PARAPET RETURN (TYP.)

SCALE: 3" = 1'-0"



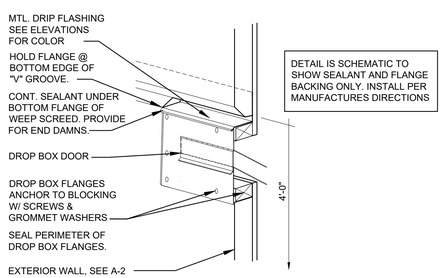
7 A-7.2 STUD WALL TO DECK DETAIL

SCALE: 1" = 1'-0"



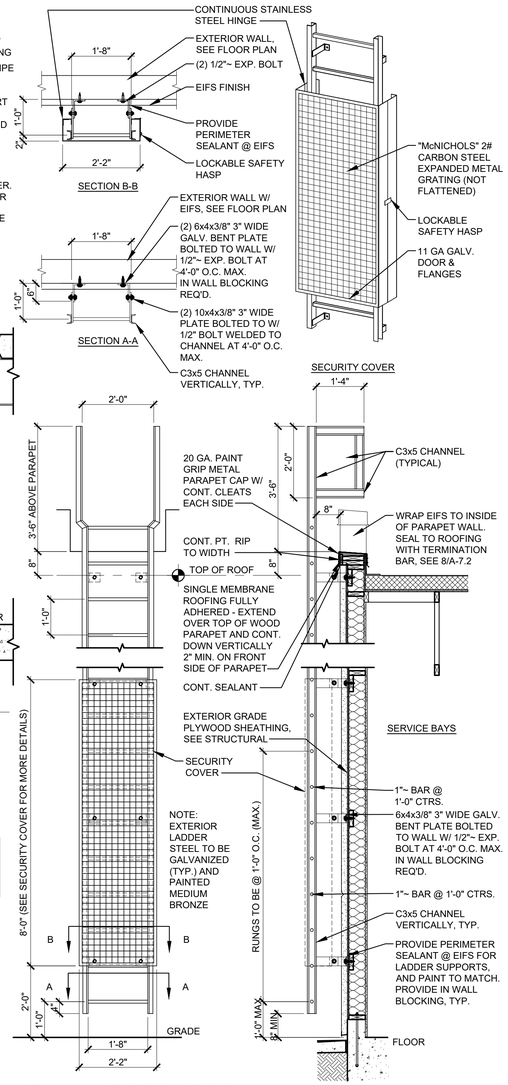
6 A-7.2 LOWER BAY LADDER DETAIL

SCALE: 1" = 1'-0"



5 A-7.2 KEY DROP BOX

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

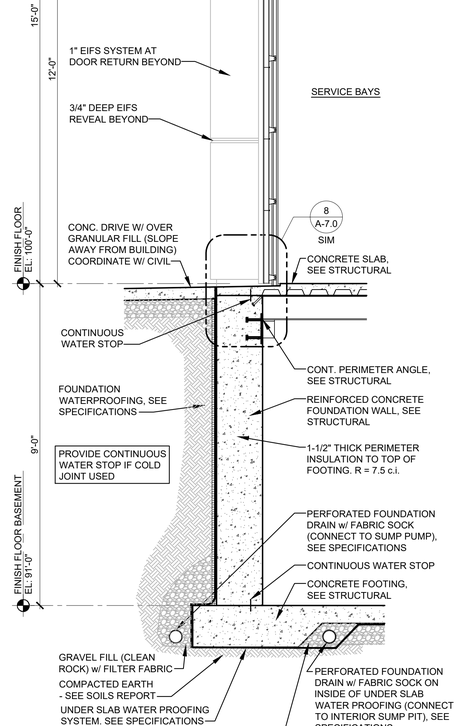


4 A-7.2 LADDER DETAIL

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

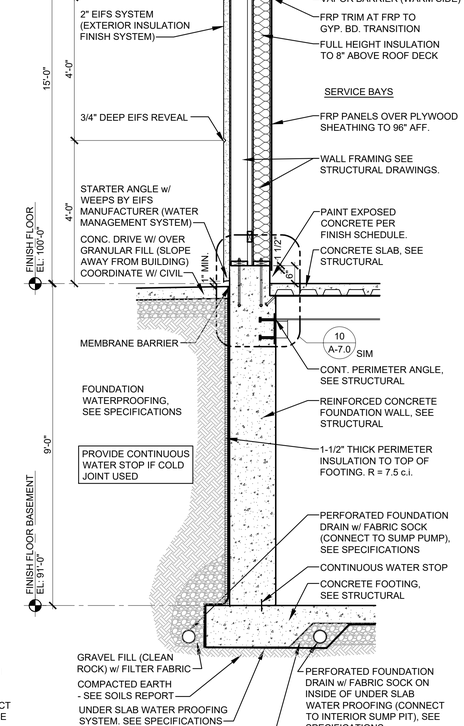
3 A-7.2 NOT USED

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



2 A-7.2 WALL SECTION

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



1 A-7.2 WALL SECTION

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

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CUSTOMER

jiffy lube

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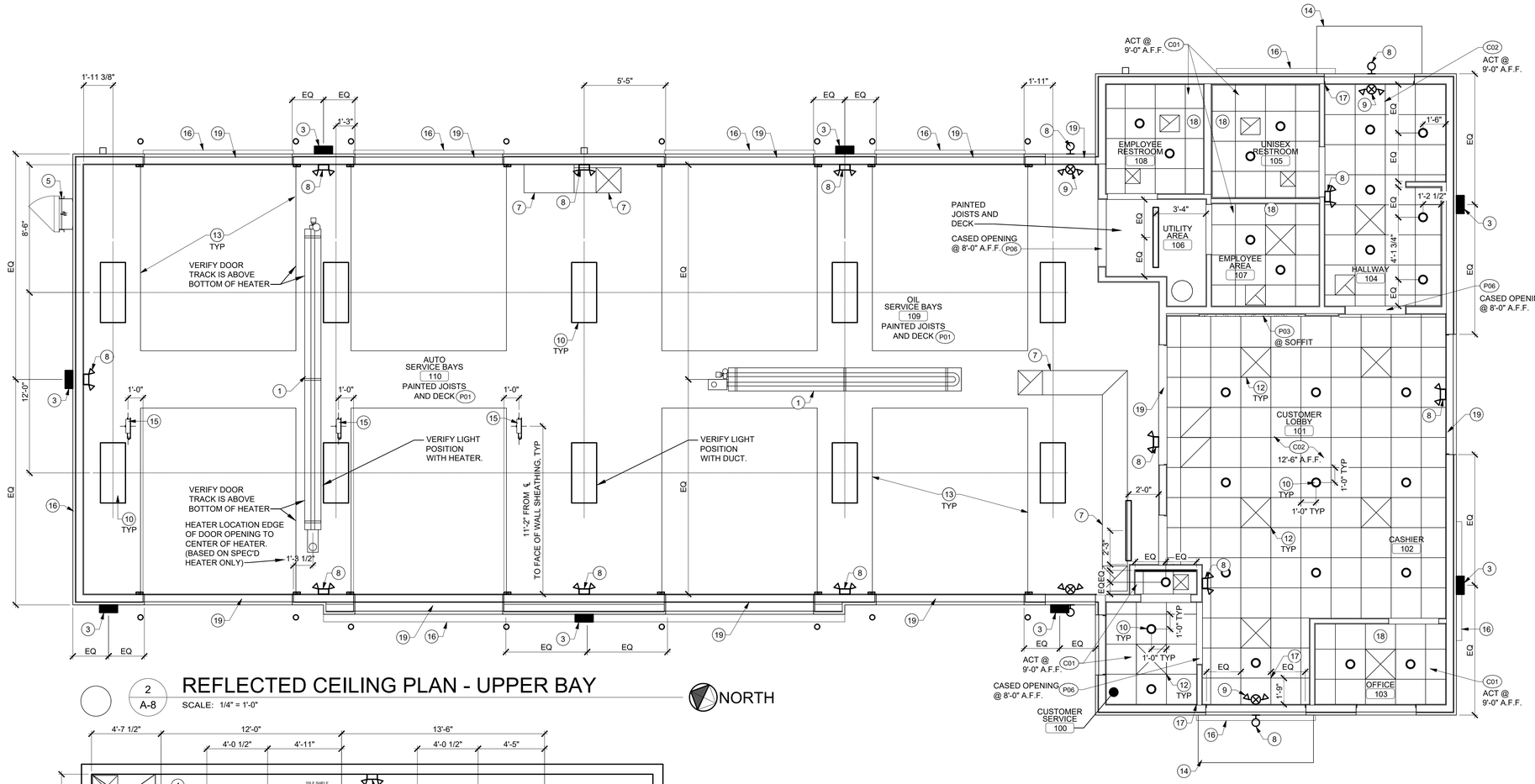
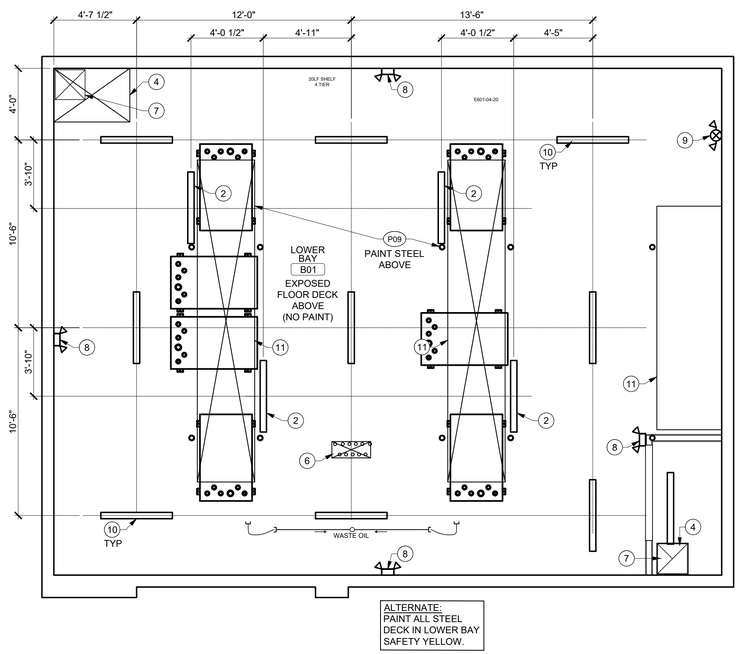


2 / A-8 REFLECTED CEILING PLAN - UPPER BAY

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

NORTH



1 / A-8 REFLECTED CEILING PLAN - LOWER BAY

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

NORTH

GENERAL NOTES

1. REFER TO MEP PLANS FOR ALL CEILING SUPPLY AND RETURN AIR GRILLES, EXHAUST FANS, AND ANY OTHER ACCESSORIES INCLUDING FIRE SAFETY, COMMUNICATIONS, TECHNOLOGY AND SECURITY ITEMS
2. COORDINATE ALL FIXTURE LOCATIONS WITH MEP DRAWINGS
3. REFER TO SHEET A-10 FOR MATERIAL SCHEDULE, TYP. (#)
4. DIMENSIONS ARE FROM FINISH FACE OF WALL.
5. CEILING TILE IS TO BE INSTALLED AS LATE IN CONSTRUCTION AS POSSIBLE TO AVOID ACCUMULATION OF DUST.

(#) SYMBOL RCP KEY NOTES

1. HEATER TYP. - SEE MECHANICAL DRAWINGS FOR MORE INFORMATION
2. FIXTURE MOUNTED AT ANGLE, SEE DETAIL 1/A-13.1
3. WALL MOUNTED EXTERIOR LIGHTING. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION
4. FLOOR OPENING FOR LOWER BAY LADDER ABOVE, SEE DETAIL 6/A-7.1
5. ROOF LADDER, SEE DETAIL 4/A-7.1
6. BLOCKOUT IN FLOOR ABOVE FOR LUBE CONSOLE
7. AIR DUCT, SEE MECHANICAL DRAWINGS, DO NOT PAINT.
8. EMERGENCY LIGHT, TYP. SEE ELEC. DRAWINGS
9. EMERGENCY EXIT LIGHT, TYP. SEE ELEC. DRAWINGS
10. LIGHT FIXTURE, SEE ELECTRICAL FOR MORE INFORMATION
11. OPENING IN SLAB ABOVE
12. DIFFUSER, SEE MECHANICAL DRAWINGS
13. OVERHEAD DOOR CLEARANCE ABOVE, HOLD TIGHT TO BOTTOM OF TRUSS. SEE A-6
14. ACM CANOPY OVERHANG BY SIGN VENDOR.
15. OVERHEAD AIR HOSE REEL, MOUNT 14'-0" A.F.F. TO BOTTOM OF REEL, SEE PLUMBING FOR MOUNTING DETAIL.
16. SIGNAGE PACKAGE, REFER TO ELEVATIONS.
17. CEILING GRID START POINT.
18. CENTER CEILING GRID ON ROOM.
19. DOOR HEADER TO MATCH WALL COLOR UNO.

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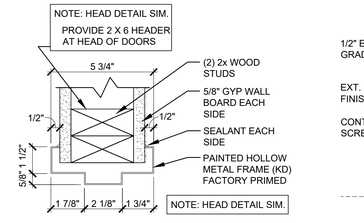
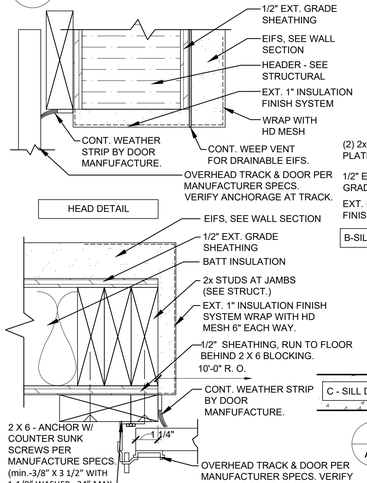


1 A-9 **H.M. JAMB DETAIL**

SCALE: 3" = 1'-0"

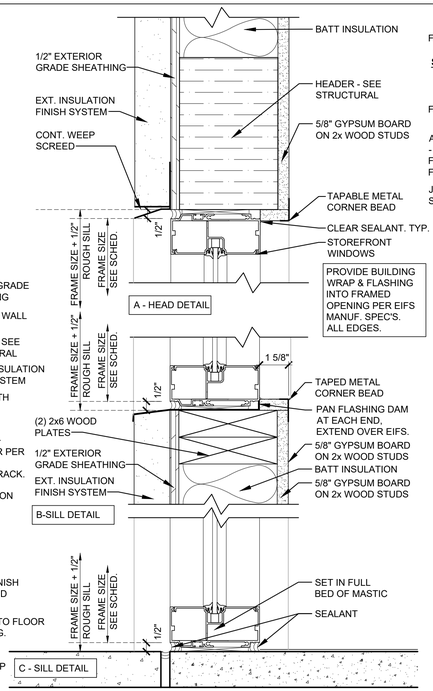


2 A-9 **O.H. DOOR**

SCALE: 3" = 1'-0"

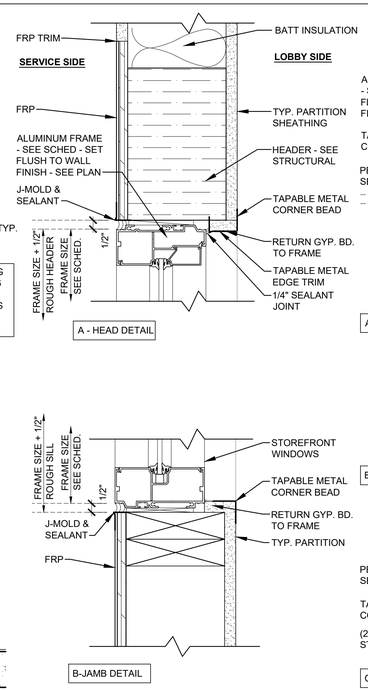
8 A-9 **DOOR TYPES**

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



3 A-9 **EXTERIOR WINDOW**

SCALE: 3" = 1'-0"



4 A-9 **INTERIOR WINDOW**

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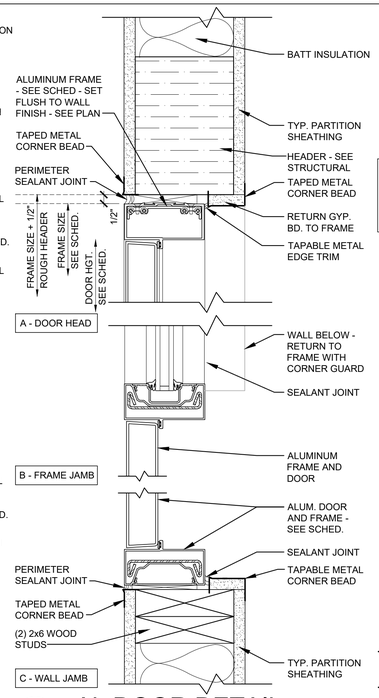
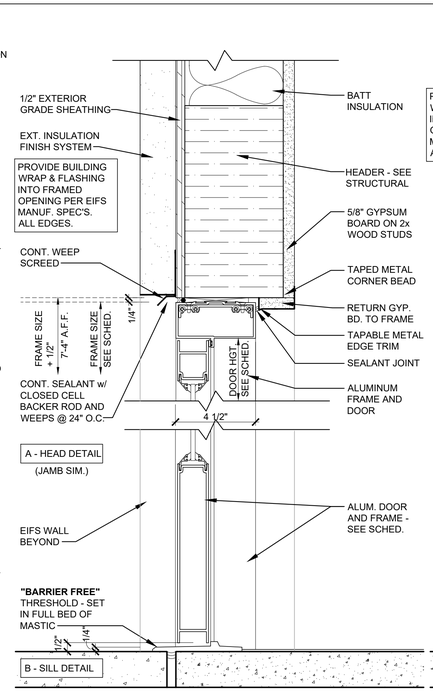


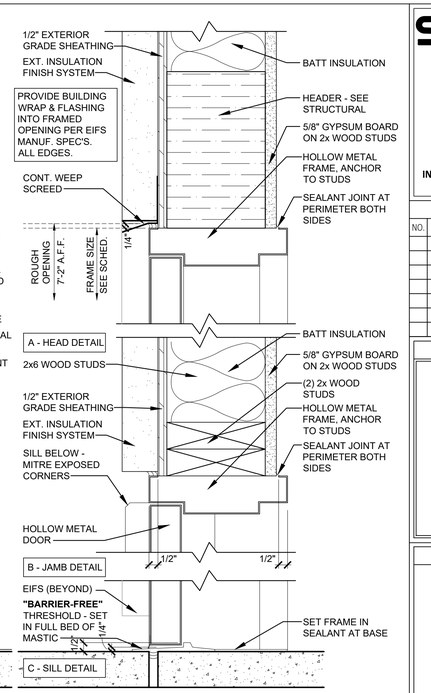
5 A-9 **AL DOOR DETAIL**

SCALE: 3" = 1'-0"



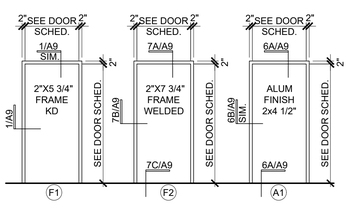
6 A-9 **ENTRY DOOR DETAIL**

SCALE: 3" = 1'-0"



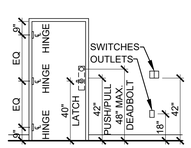
7 A-9 **H.M. EXT. DETAIL**

SCALE: 3" = 1'-0"



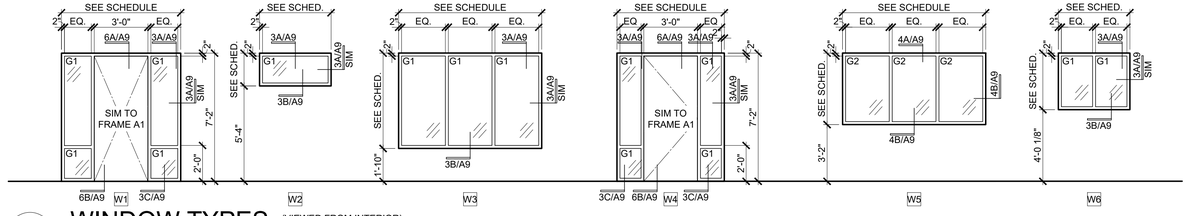
9 A-9 **FRAME TYPES**

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



11 A-9 **STANDARD HEIGHTS**

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



10 A-9 **WINDOW TYPES** (VIEWED FROM INTERIOR)

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

DOOR SCHEDULE

MARK #	LOCATION	DOOR SIZE W x H	DOOR TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	H.W.	DESCRIPTION / REMARKS
1	STOREFRONT ENTRY - FRONT	3'-0" X 7'-0"	A	ALUM AND GLASS	W1	ALUM	6/A-9	6/A-9 SIM	6/A-9	1	STOREFRONT ENTRANCE DOOR WITH G1 GLASS. PROVIDE SIGN "DOOR TO REMAIN UNLOCKED WHILE SPACE IS OCCUPIED"
2	OFFICE	3'-0" X 7'-0"	C	HM AND GLASS	F1	HM PAINTED	--	1/A-9	1/A-9	5	G2 GLASS. 1" UNDERCUT. PAINT P01.
3	EMPLOYEE AREA	3'-0" X 7'-0"	B	HM PAINTED	F1	HM PAINTED	--	1/A-9	1/A-9	3	PAINT DOOR & FRAME P01, 1" UNDERCUT
4	RESTROOM - UNISEX	3'-0" X 7'-0"	B	HM PAINTED	F1	HM PAINTED	--	1/A-9	1/A-9	4	PAINT DOOR & FRAME P01, 1" UNDERCUT
5	STOREFRONT ENTRY - REAR	3'-0" X 7'-0"	A	ALUM AND GLASS	W4	ALUM	6/A-9	6/A-9 SIM	6/A-9	1	STOREFRONT ENTRANCE DOOR WITH G1 GLASS. PROVIDE SIGN "DOOR TO REMAIN UNLOCKED WHILE SPACE IS OCCUPIED"
6	RESTROOM - EMPLOYEE	3'-0" X 7'-0"	B	HM PAINTED	F1	HM PAINTED	--	1/A-9	1/A-9	4	PAINT DOOR & FRAME P01, 1" UNDERCUT
7	SERVICE BAY / CASHIER	3'-0" X 7'-0"	A	ALUM AND GLASS	A1	ALUM	6/A-9 SIM	5/A-9	5/A-9	2	MEDIUM BRONZE ALUMINUM AND GLASS STOREFRONT WITH G2 GLASS, PROVIDE "EMPLOYEES ONLY" SIGN
8	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
9	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
10	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
11	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
12	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
13	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
14	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
15	SERVICE BAY	10'-0" X 12'-0"	E	STEEL AND GLASS	--	--	--	2/A-9	2/A-9	--	
16	SERVICE BAY - EGRESS	3'-0" X 7'-0"	B	HM PAINTED	F2	HM PAINTED	7/A-9	7/A-9	7/A-9	6	PAINT DOOR AND FRAME P04 ON INTERIOR, PAINT PER ELEVATIONS ON EXTERIOR.
17	SERVICE BAY - EGRESS	3'-0" X 7'-0"	B	HM PAINTED	F2	HM PAINTED	7/A-9	7/A-9	7/A-9	6	PAINT DOOR AND FRAME P04 ON INTERIOR, PAINT PER ELEVATIONS ON EXTERIOR.
18	CLOSET	3'-0" X 7'-0"	D	HM PAINTED	F1	HM PAINTED	--	--	--	5	PAINT DOOR & FRAME P01. PROVIDE FULL LOUVER IN DOOR. PROVIDE KICK-PLATE ON PULL SIDE ONLY.
19	COMPRESSOR CLOSET	PR 2'-6" X 7'-0"	D	HM PAINTED	F1	HM PAINTED	--	1/A-9	1/A-9	3	PAINT DOOR & FRAME P01, 1" UNDERCUT, FULL LOUVER PANELS

- OVERHEAD DOOR W/ INSULATED GLASS, PER MANUFACTURER.
- GC. TO INSTALL HIGH LIFT TRACK @ **ALL** DOORS. MOUNT @ 9" BELOW BOTTOM OF STRUCTURE.
- 2 X 6 MOUNTER PLATE IS PROVIDED BY GC. REFER TO SHOP DRAWINGS FOR ANCHORAGE.
- AUTOMATIC DOOR OPENERS TO BE PLACED AT SIDE OF DOOR TRACK.
- FINISH STEEL DOORS TO MATCH MEDIUM BRONZE ANODIZED ALUMINUM FINISHED. (AA-M10C21A44)
- PROVIDE EXHAUST PORT IN DOORS ON THE ENTRY SIDE OF THE BUILDING ONLY.

WINDOW SCHEDULE

MARK #	LOCATION	WINDOW SIZE W x H	WINDOW MATERIAL	DETAILS SILL	DETAILS JAMB	DETAILS HEAD	DESCRIPTION / REMARKS
W1	STOREFRONT ENTRY - FRONT	6'-8" X 7'-2"	ALUM AND GLASS	6B/A-9 3C/A-9	6A/A-9 SIM 3A/A-9 SIM	6A/A-9 3A/A-9	ALUMINUM STOREFRONT WITH G1 GLASS - SCHEDULE WIDTH INCLUDES DOOR FRAME
W2	OFFICE	4'-0" X 1'-10"	ALUM AND GLASS	3B/A-9	3A/A-9 SIM	3A/A-9	ALUMINUM STOREFRONT WITH G1 GLASS
W3	CUSTOMER LOBBY - RIGHT	8'-0" X 5'-4"	ALUM AND GLASS	3B/A-9	3A/A-9 SIM	3A/A-9	ALUMINUM STOREFRONT WITH G1 GLASS
W4	STOREFRONT ENTRY - REAR	6'-0" X 7'-2"	ALUM AND GLASS	6B/A-9 3C/A-9	6A/A-9 SIM 3A/A-9 SIM	6A/A-9 3A/A-9	ALUMINUM STOREFRONT WITH G1 GLASS - SCHEDULE WIDTH INCLUDES DOOR FRAME
W5	SERVICE BAY / CASHIER	8'-0" X 4'-0"	ALUM AND GLASS	4B/A-9	4A/A-9 SIM	4A/A-9	ALUMINUM STOREFRONT WITH G2 GLASS
W6	CSA STATION	4'-0" X 3'-2"	ALUM AND GLASS	3B/A-9	3A/A-9 SIM	3A/A-9	ALUMINUM STOREFRONT WITH G1 GLASS

HARDWARE GROUPS: **(DORMA HARDWARE, CLOSERS LCN 1450 SERIES OR EQUAL)**

HW1 CONTINUOUS GEARED HINGE, PUSH BAR, PULL HANDLE (16x4), TACTILE SIGN ON LOBBY SIDE, SIZE-ADJUSTABLE CLOSER WITH LOCAL CLIMATE CONSIDERATIONS, (HOLD-OPEN ARM/ CRASH CHAIN, OR HD CLOSER FOR WIND) (PARALLEL ARM), MORTISE DEADLATCH LOCK w/ EXIT PADDLE HANDLE LATCH, WEATHERSTRIP, DOOR BOTTOM SWEEP, ADA COMPLIANT ALUMINUM THRESHOLD

HW2 CONTINUOUS GEARED HINGE, PUSH BAR, PULL HANDLE (16x4), TACTILE SIGN ON LOBBY SIDE, SIZE-ADJUSTABLE CLOSER (PARALLEL ARM), DOUBLE-CYLINDER DEADBOLT W/ THUMB TURN (LOBBY SIDE), 10x2LDW KICKPLATE (BOTH SIDES), CONT. WEATHERSTRIP, DOOR BOTTOM SWEEP, ADA COMPLIANT FLAT THRESHOLD

HW3 4 1/2x4 1/2 SS-BB HINGES, SIZE-ADJUSTABLE CLOSER (PERPENDICULAR ARM), LEVER HANDLE PASSAGE SET, 12x2LDW KICKPLATE (BOTH SIDES), FRAME SILENCERS, CONCAVE WALL STOP

HW4 (3) 4 1/2x4 1/2 SS-BB HINGES, SIZE-ADJUSTABLE CLOSER (PERPENDICULAR ARM), TACTILE SIGN ON LOBBY SIDE, LEVER HANDLE PRIVACY LOCKSET, 12x2LDW KICKPLATE (BOTH SIDES), FRAME SILENCERS, CONCAVE WALL STOP

HW5 (3) 4 1/2x4 1/2 SS-BB HINGES, SIZE-ADJUSTABLE CLOSER, (PERPENDICULAR ARM), TACTILE SIGN ON LOBBY SIDE, LEVER HANDLE OFFICE LOCKSET, 12x2LDW KICKPLATE (BOTH SIDES), FRAME SILENCERS, CONCAVE WALL STOP

HW6 (3) 4 1/2x4 1/2 SS-BB-NRP HEAVY DUTY HINGES, SIZE-ADJUSTABLE CLOSER WITH LOCAL CLIMATE CONSIDERATIONS, (HOLD-OPEN ARM/ CRASH CHAIN, OR HD CLOSER FOR WIND), SCHOOL-THUMBTURN DEADBOLT WITH EXTERIOR CYLINDER & PULL, 12x2 LDW ARMOR PLATE (INTERIOR SIDE), 12x2LDW KICKPLATE (EXTERIOR SIDE), FRAME SILENCERS, WEATHERSTRIP, DOOR BOTTOM SWEEP, ADA COMPLIANT ALUMINUM THRESHOLD

DOOR & HARDWARE NOTES:

STORE FRONT DOORS, WINDOWS, HARDWARE, AND ALL INTERIOR WINDOWS TO BE MEDIUM BRONZE ANODIZED ALUMINUM FINISHED. (AA-M10C21A44) WIND CONSIDERATIONS MUST BE TAKEN INTO ACCOUNT BY LOCAL HARDWARE VENDOR FOR CLOSER, LATCH AND HING DESIGNS.

1) CONFIRM ALL DOOR HARDWARE COMPLIES WITH ADA (ANSI) DESIGN STANDARDS. INCLUDING THRESHOLDS, CLOSERS, AND DOOR OPENING FORCE (REGIONAL HIGH WIND CONDITIONS MUST BE CONSIDERED)

2) PROVIDE DRIP AT ALL HEAD CONDITIONS IF NOT PROVIDED IN WALL SYSTEM.

3) SET ALL EXTERIOR THRESHOLDS IN FULL BED OF MASTIC.

4) PROVIDE WOOD BLOCKING AT ALL WALL MTD. DOOR STOPS.

6) LOCK CORES SHALL BE REMOVABLE FOR ALL EXTERIOR DOORS.

GX = GLASS TYPE - SEE SHEET SP-4
ALL H.M. DOOR HARDWARE FINISHES - NICKEL SATIN ALUMINUM (630/626)

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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/16/22
REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
028240-1
STATE OF NEW YORK

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

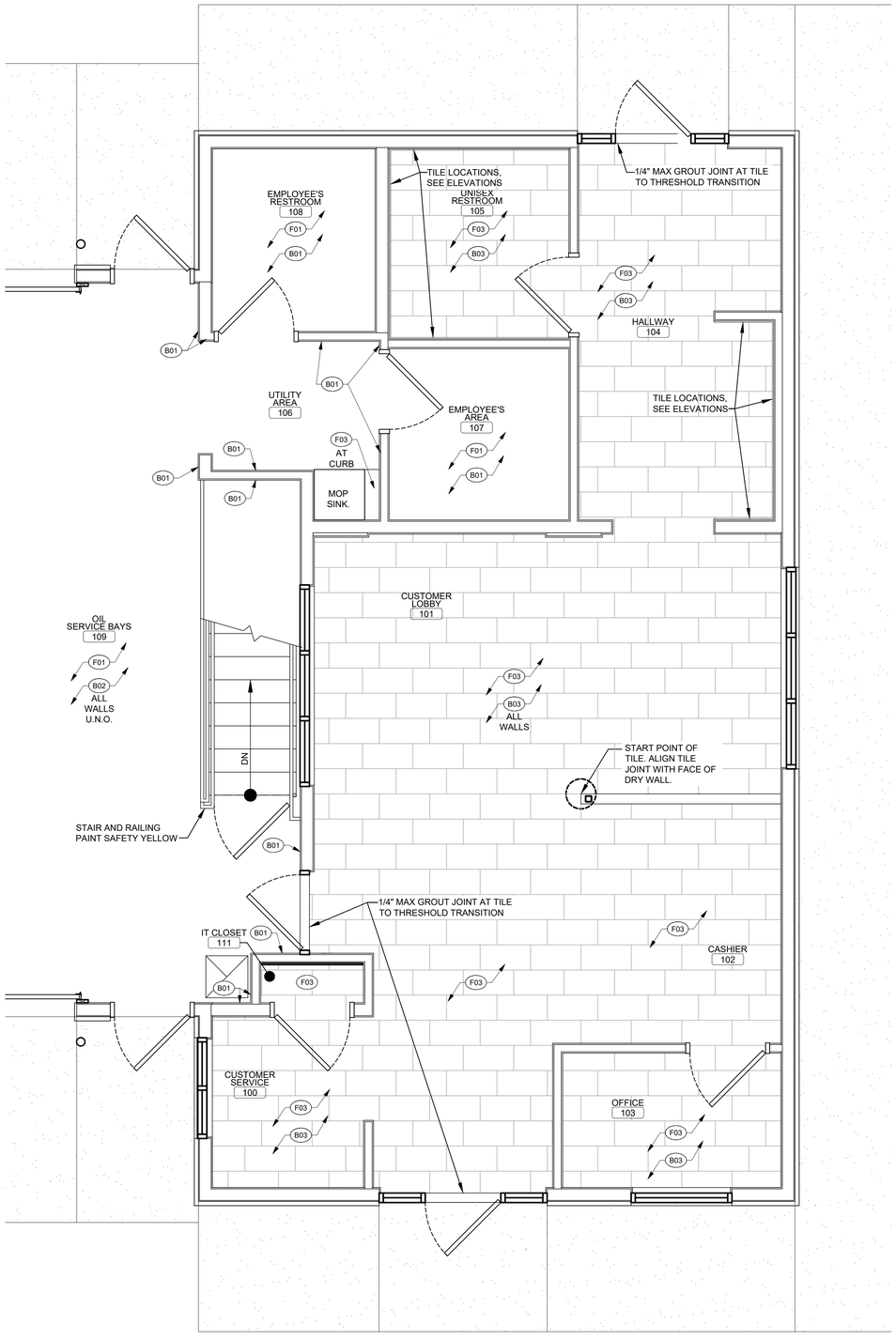
DOORS & WINDOWS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

A-9



1 / A-10 FLOOR FINISH PLAN

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

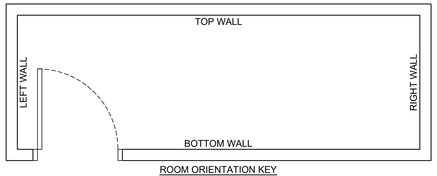
NORTH

BID ALTERNATES

1) PAINT LOWER BAY CONCRETE WALLS P08 WHITE.

GENERAL NOTES

1) SERVICE PLATFORMS & RAILS TO BE PRE-FINISHED GALVANIZED
2) DESCRIPTION: (ALL "SHERWIN / WILLIAMS" NUMBERS 'SW' COLORS)
3) EXTERIOR COLORS LISTED ON SHEET A4.
4) FRP BY CRANE COMPOSITES, WWW.CRANECOMPOSITES.COM, PH-800.435.0080
5) INSTALL FRP FINISH TRIMS, TO MATCH PANEL COLOR, AT ALL EXPOSED EDGES OF FRP. NO RAW EDGES TO BE LEFT EXPOSED.
6) FOR ALL FLOOR TILE USE 1/4" GROUT JOINTS, COLOR IS LATICRETE 60 "DUSTY GREY"
7) WALL TILE TO BE 1/8" JOINTS, GROUTED WITH LATICRETE 60 "DUSTY GREY" (USE EPOXY GROUT IN RESTROOMS)
8) TILE PATTERN TO MATCH MANUFACTURER RECOMMENDATIONS OF 1/3 STAGGERED BRICKWORK.
9) BLACK CEILING TILE IS TO BE INSTALLED ONLY AT END OF PROJECT, TO AVOID COLLECTION OF DIRT AND DUST.
10) USG CEILING TILE MUST MEET OR EXCEED THE SPECIFIED ARMSTRONG SYSTEM IF SUPPLIED.



ROOM ORIENTATION KEY

MATERIALS SCHEDULE

MRK	FINISH	MFR	MFR #	COLOR
FLOOR				
F01	CLEAR SEALER	ASHFORD	ASHFORD FORMULA	CLEAR
F02	NOT USED			
F03	STYLE: FABRIQUE	DALTILE (12 x 24)	P689	"NOIR LINEN" MATTE FINISH
F04	INTEGRALLY COLORED	SCHOFIELD	C34	DARK GREY
F05	REXTHANE I FLOOR COATING	SW-ARMORSEAL	B65A60	HAZE GRAY
CEILING				
C01	2 X 2 LAY-IN	ARMSTRONG "FINE FISSURE"	1713	WHITE (GRID & TILE)
C02	2 X 2 LAY-IN	ARMSTRONG "FINE FISSURE"	1713	TECH BLACK (GRID & TILE)
		ALTERNATE MFR: USG		
BASE				
B01	RUBBERMYTE (4" COVED)	BURKE INDUSTRIES*	523	BLACK BROWN
B02	PAINT (SEMI-GLOSS)	SHERWIN WILLIAMS	SW6258	TRICORN BLACK
B03	6" TILE BASE	DALTILE	P689	CUT TILE IN HALF, MITER CORNERS
WALL				
W01	FRP - (EMBOSSED)	CRANE COMPOSITES	--	"70 - SOFT BEIGE"
W02	NOT USED			
W03	STYLE: FABRIQUE	DALTILE	P690	"GRIS LINEN" MATTE FINISH
PAINT				
P01	PAINT (SEMI-GLOSS)	SHERWIN WILLIAMS	SW7020	BLACK FOX
P02	PAINT (SEMI-GLOSS)	SHERWIN WILLIAMS	SW7005	PURE WHITE
P03	PAINT (SEMI-GLOSS)	SHERWIN WILLIAMS	SW7023	REQUISITE GRAY
P04	PAINT (SEMI-GLOSS)	SHERWIN WILLIAMS	SW7025	BACKDROP
P05	PAINT (SEMI-GLOSS)	SHERWIN WILLIAMS	SW6314	LUXURIOUS RED
P06	PAINT (SEMI-GLOSS)	SHERWIN WILLIAMS	SW7022	ALPACA
P07	PAINT (GLOSS-or-DRYFALL)	SHERWIN WILLIAMS	SW6258	TRICORN BLACK
P08	PAINT (WATER BLOCKING)	SHERWIN WILLIAMS	B72W08010	WHITE
P09	MISC ITEMS	SHERWIN WILLIAMS	SW6903	CHEERFUL

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLOOR		WALLS												CEILING		REMARKS
		MAT'L	FIN.	LEFT	FIN.	BASE	TOP	FIN.	BASE	RIGHT	FIN.	BASE	BOTTOM	FIN.	BASE	MAT'L	FIN.	
B01	LOWER BAY	CONC.	F05	CONC.	-	-	CONC.	-	-	CONC.	-	-	CONC.	-	-	OPEN	SEE A8	
100	CUSTOMER SERVICE	TILE	F03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	ACT	SEE A8	
101	CUSTOMER LOBBY	TILE	F03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	ACT	SEE A8	PAINT LOW WALL AT CASHIER PO3.
102	CASHIER	TILE	F03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	ACT	SEE A8	
103	OFFICE	TILE	F03	GYP. BD.	P03	B03	GYP. BD.	P03	B03	GYP. BD.	P03	B03	GYP. BD.	P03	B03	ACT	SEE A8	
104	HALLWAY	TILE	F03	GYP. BD.	SEE A12	B03	GYP. BD.	SEE A12	B03	GYP. BD. / TILE	SEE A12	B03	GYP. BD.	SEE A12	B03	ACT	SEE A8	
105	UNISEX RESTROOM	TILE	F03	GYP. BD. TILE	P03 / W03	B03	GYP. BD. TILE	P03 / W03	B03	GYP. BD.	P03	B03	GYP. BD. TILE	P03 / W03	B03	ACT	SEE A8	SEE A-11 FOR WALL TILE HEIGHT
106	UTILITY AREA	CONC.	F01	FRP / GYP. BD.	W01	B01	FRP / GYP. BD.	W01	B01	FRP / GYP. BD.	W01	B01	FRP / GYP. BD.	W01	B01	OPEN	SEE A8	SEE A-11 FOR FRP HEIGHT
107	EMPLOYEE AREA	CONC.	F01	FRP	W01	B01	FRP	W01	B01	FRP	W01	B01	FRP	W01	B01	ACT	SEE A8	SEE A-11 FOR FRP HEIGHT
108	EMPLOYEE RESTROOM	CONC.	F01	FRP	W01	B01	FRP	W01	B01	FRP	W01	B01	FRP	W01	B01	ACT	SEE A8	FRP FULL HEIGHT
109	OIL SERVICE BAYS	CONC.	F01	FRP / GYP. BD.	W01 / P02	B01 / B02	FRP / GYP. BD.	W01 / P02	B02	FRP / GYP. BD.	W01 / P02	B02	FRP / GYP. BD.	W01 / P02	B02	OPEN	SEE A8	FRP TO 8'-0" AFF, PAINTED GYP. BD. ABOVE
110	AUTO SERVICE BAYS	CONC.	F01	FRP / GYP. BD.	W01 / P02	B02	FRP / GYP. BD.	W01 / P02	B02	FRP / GYP. BD.	W01 / P02	B02	FRP / GYP. BD.	W01 / P02	B02	OPEN	SEE A8	FRP TO 8'-0" AFF, PAINTED GYP. BD. ABOVE
111	IT CLOSET	TILE	F03	GYP. BD.	P03	B03	GYP. BD.	P03	B03	GYP. BD.	P03	B03	GYP. BD.	P03	B03	ACT	SEE A8	
B02	COMPRESSOR CLOSET	CONC.	F05	FRP.	-	-	FRP.	-	-	FRP.	-	-	FRP.	-	-	OPEN	-	

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/16/22
REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
026240-1
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FINISH SCHEDULE

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
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DRAWN BY:	JDM
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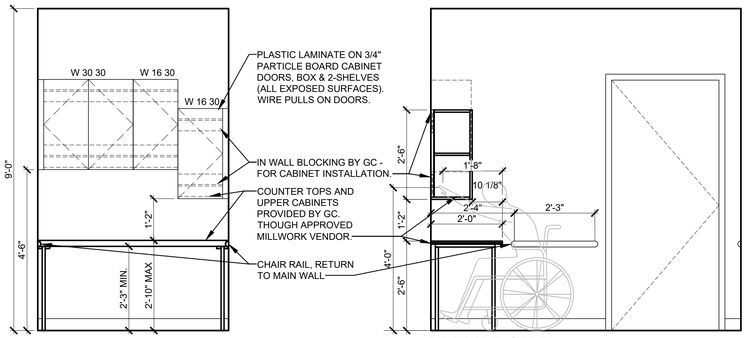
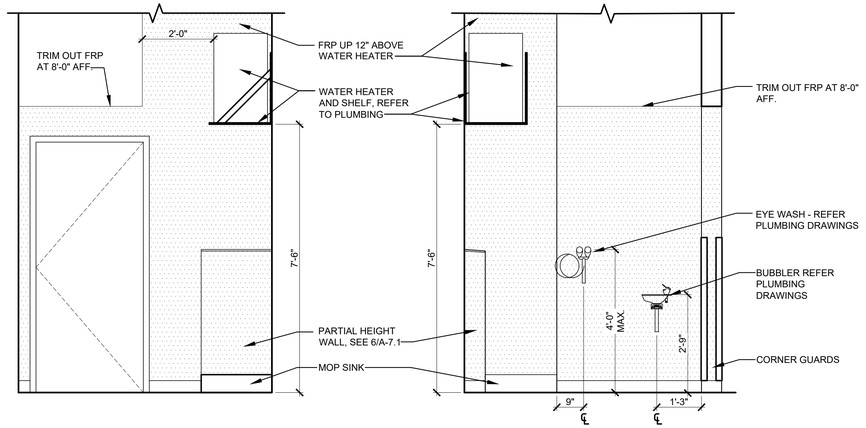
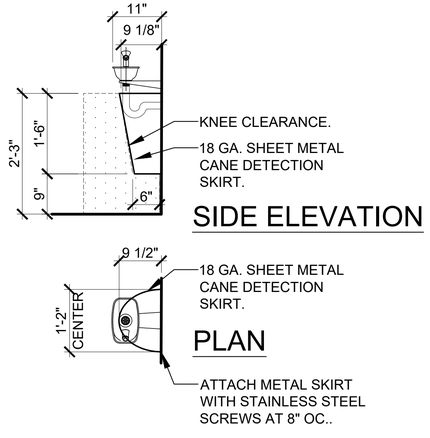
A-10



ELEVATION A

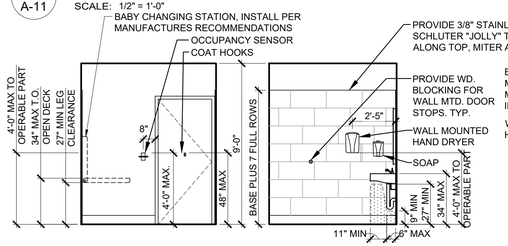
ELEVATION B





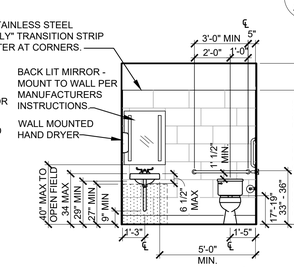
5 A-11 OFFICE ELEVATION

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



ELEVATION A

ELEVATION B



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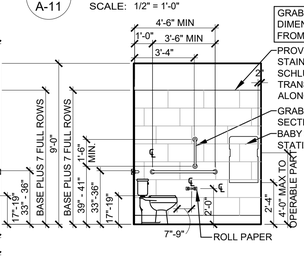


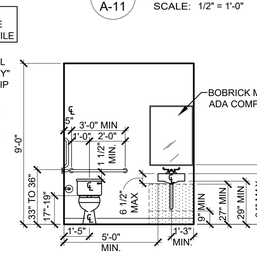
ELEVATION D

3 A-11 PUBLIC RESTROOM ELEVATIONS

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

6 A-11 SERVICE AREA- WET WALL

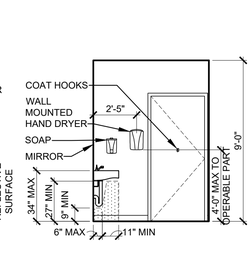
SCALE: 1/2" = 1'-0"



ELEVATION A

7 A-11 SERVICE AREA- WET WALL

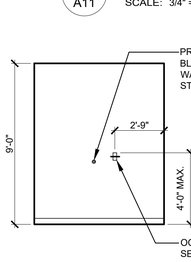
SCALE: 1/2" = 1'-0"



ELEVATION B

8 A11 BUBBLER SKIRTING

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



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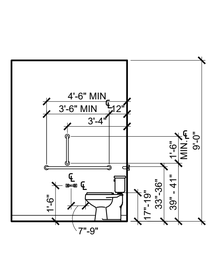
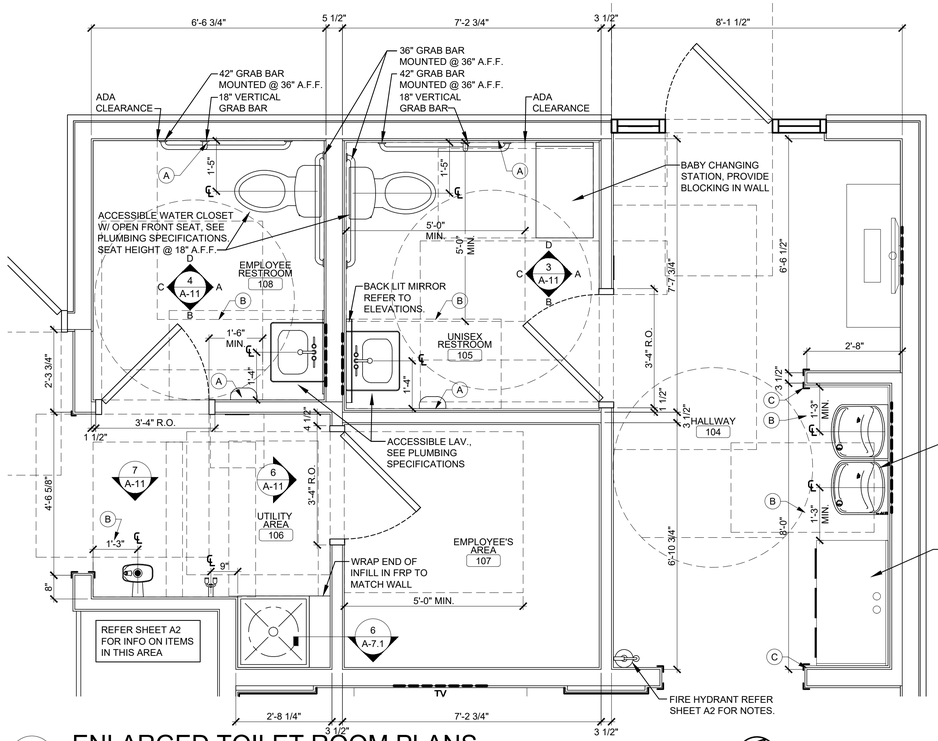


ELEVATION D

4 A-11 EMPLOYEE RESTROOM ELEVATIONS

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



1 A-11 ENLARGED TOILET ROOM PLANS

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

NORTH

PLAN KEY NOTES

A. PROVIDE BLOCKING IN WALL FOR TOILET ACCESSORIES AND WALL CHAIR RAIL/CORNER GUARDS - REFER KEYED NOTE 8 & 35 ON A-2
B. GC TO VERIFY ADA CLEARANCES TO FINISHES ON WALL PRIOR TO INSTALLING FIXTURES.
C. EXTEND SCHUTER STRIP FULL LENGTH OF TILE BEHIND CORNER GUARDS.

INTERNATIONAL SYMBOL OF ACCESSIBILITY

INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL MEET THE FOLLOWING CRITERIA:

1. ALL BUILDINGS AND ENTRANCES THAT ARE ACCESSIBLE AND USABLE BY PERSONS WITH DISABILITIES SHALL BE IDENTIFIED WITH A MINIMUM OF ONE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
2. SIGNS TO BE INSTALLED ON THE LATCH SIDE OF THE DOOR, OR IF NO SPACE ON THE NEAREST WALL PREFERABLY ON THE RIGHT. SIGNAGE SHALL HAVE NON GLARE FINISH WITH A CONTRASTING BACKGROUND.

RESTROOM ACCESSORIES

NOTE:
THIS DRAWING REPRESENTS MINIMUM REQUIREMENTS AND IS DIAGRAMMATIC ONLY. EXACT LOCATION OF FIXTURES AND CONFIGURATION SHOULD BE COORDINATED WITH **ACCESSIBILITY REQUIREMENTS**. MODIFY AS REQUIRED. PROVIDE ALL NECESSARY BLOCKING AS REQUIRED FOR ALL PLUMBING FIXTURES AND ACCESSORIES.

GRAB BARS: SECTION A-A
(1) ONE AT SIDE WALL 42" LONG (MIN) MOUNTED MAX. 12" FROM FACE OF REAR WALL TO CENTER LINE OF BAR. - BOBRICK B-5806 SERIES
(1) ONE AT BACK WALL 36" LONG (MIN) MOUNTED MAX. 6" FROM FACE OF SIDE WALL TO CENTER LINE OF BAR. - BOBRICK B-5806 SERIES
(1) ONE AT SIDE WALL 18" LONG (MIN) MOUNTED MAX. 41" FROM FACE OF REAR WALL. - BOBRICK B-5806 SERIES

GRAB BARS SHALL BE 1 1/2" CLEAR FROM WALL (1 1/4" DIAMETER) MOUNTED AT 33" AFF TO CENTERLINE. BOBRICK B-5806 SERIES ANCHOR PLATES TO WITHSTAND 250 LB. VERTICAL AND HORIZONTAL PRESSURE. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS. EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8".

SIGNAGE: (PROVIDED BY SIGN VENDOR)
HANDICAP SIGN 1-1/4" HIGH MOUNTED AT 60" A.F.F. ADJACENT TO LATCHSIDE. "EMPLOYEES MUST WASH HANDS BEFORE LEAVING" POSTED ADJACENT TO SINK

ACCESSORIES:
PROVIDE ALL NECESSARY BLOCKING AS REQUIRED FOR TOILET ROOM ACCESSORIES. INSTALL ALL TOILET STALL ACCESSORIES SO AS NOT TO IMPEDE DOOR SWING.

HAND DRYER: EXCEL THINAIR HAND DRYER
- COLOR: WHITE
- MODEL TA-ABS

SURFACE MOUNTED SANITARY NAPKIN DISPOSAL. T.O. FIXTURE TO BE MOUNTED 25" TO 30" A.F.F. (BOBRICK MODEL #B-270)

WALL MOUNTED SOAP DISPENSER MOUNTED AT 40" A.F.F. (MAX).
- BOBRICK MODEL #B2111

TOILET PAPER DISPENSER: BOBRICK MODEL #B-685
- INSTALL WITHIN 9" OF LEADING EDGE OF TOILET, AT 1'-6" A.F.F.

ADA MIRROR: BOBRICK B-165 2436 CHANNEL-FRAME MIRROR, 24" X 36", 430 STAINLESS

BABY CHANGING STATION (RECESSED): MODEL FOUNDATIONS 100-EV
- MOUNT PER MANUFACTURES RECOMMENDATIONS TO MEET ADA STANDARDS.
- KOALA KARE MODEL #KB100-01ST Gray recessed unit
- Foundations vertical 100EV

INTEGRATED LED BACKLIT MIRROR - MOUNT OVER SINK AS PER HANDICAP CODE. - MFR: ELIO 24x35.5 PART # 69455.2436.30K.LR.RMT

(1) CLOTHES HOOK ON BACK OF DOOR. - BOBRICK MODEL #B-76717

WATER CLOSETS FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING MECHANISM CONTROLS, SHALL BE OPERABLE , WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST, AND SHALL BE MOUNTED NO MORE THAN 44" ABOVE THE FLOOR.

THE FORCE REQUIRED TO ACTIVATE WATER CLOSET FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING MECHANISM CONTROLS, SHALL BE NO GREATER THAN 5 lbf.

WHERE TOWEL, SANITARY NAPKINS, WASTE RECEPTACLES AND OTHER SIMILIAR DISPENSING AND DISPOSAL FIXTURES ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE LOCATED WITH ALL OPERABLE PARTS, INCLUDING COIN SLOTS, WITHIN 40" FROM THE FINISHED FLOOR.

LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34" ABOVE THE FINISHED FLOOR AND WITH A CLEARANCE OF AT LEAST 29" FROM THE FLOOR TO THE BOTTOM OF THE APRON WITH KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30" IN WIDTH AND 8" MINIMUM DEPTH AT THE TOP. TOE CLEARANCE SHALL BE THE SAME WIDTH AND SHALL BE A MINIMUM OF 9" HIGH FROM THE THE FLOOR AND A MINIMUM OF 17" DEEP FROM THE FRONT OF THE LAVATORY.

INSULATED PROTECTION OF PIPING IN REQUIRED KNEE SPACE SHALL BE PROVIDED.

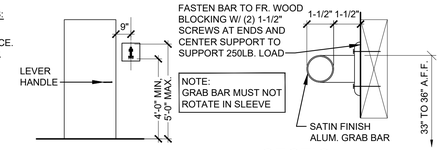
SWITCHES CONTROLS AND OUTLETS:
ELECTRICAL OUTLETS/ CONTROLS SHALL BE LOCATED AT 15" AFF TO LOWEST OPERABLE PART AND 48" AFF TO HIGHEST OPERABLE PART.

ALL SIGNAGE SHALL CONFORM WITH ADA ACCESSIBILITY GUIDELINES:

1. ALL ADA SIGNAGE PROVIDED BY SIGN VENDOR.
2. LETTERS & NUMERALS MUST BE RAISED 1/32" FROM SIGN SURFACE.
3. CHARACTER HEIGHT MUST BE AT LEAST 5/8" BUT NOT EXCEED 2".
4. TYPE STYLE FOR LETTERS AND NUMBERS SHALL BE SANS SERIF OR SIMPLE SERIF.
5. PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW PICTOGRAM.

MOUNTED ACCESSIBILITY SIGNAGE

MOUNT SIGNAGE @ 48" AFF TO BOTTOM OF TACTILE CHARACTERS.



2 A-11 TOILET ROOM ACCESSIBILITY SIGNAGE

SCALE: N.T.S.

SECTION A-A

SCALE: 3" = 1'-0"

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/16/22
REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
028240-1
STATE OF NEW YORK

CERTIFICATION

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

INTERIOR ELEVATIONS

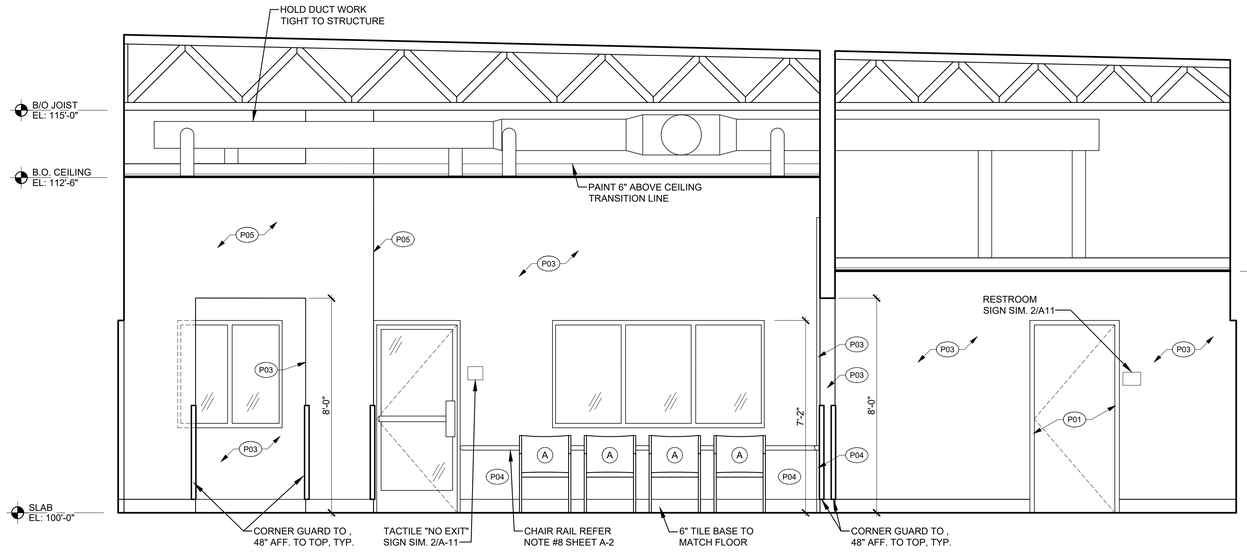
SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

A-11

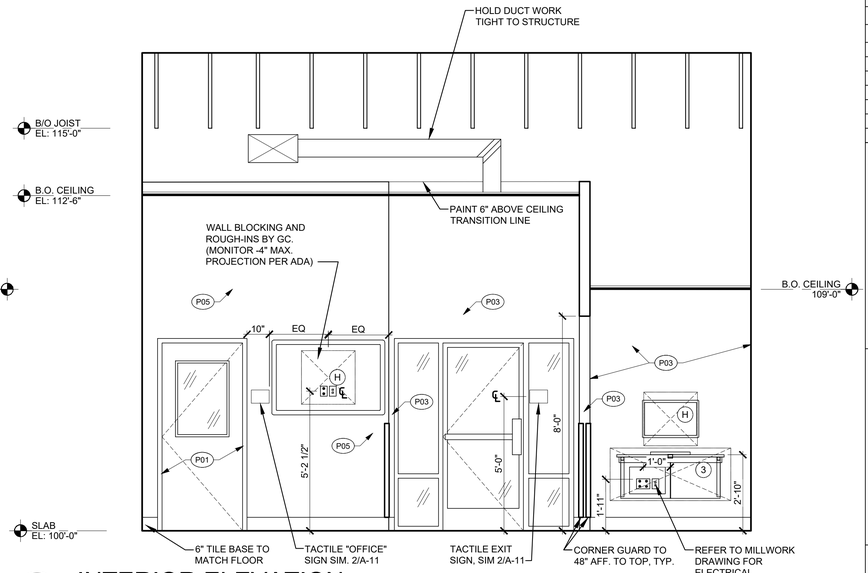
(#) SYMBOL	FIXTURE PLAN KEY NOTES
***	REFER TO SHEET A-13 FOR COMPLETE LIST OF KEYNOTES ***



4 A-12

INTERIOR ELEVATION

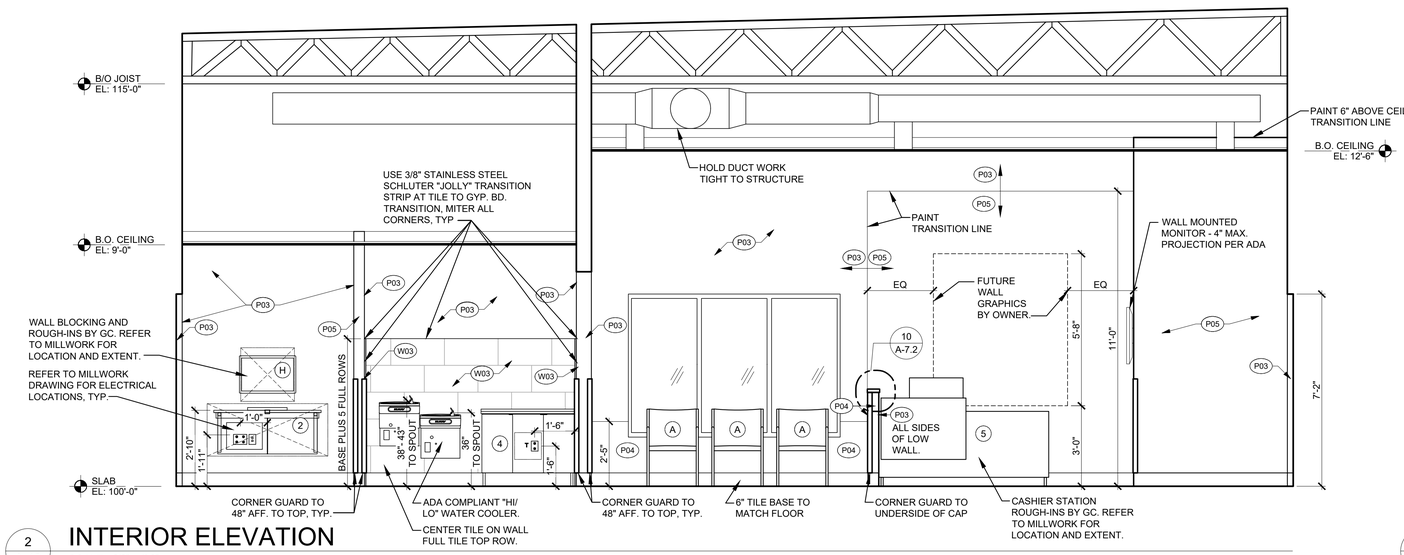
SCALE: 3/8" = 1'-0"



3 A-12

INTERIOR ELEVATION

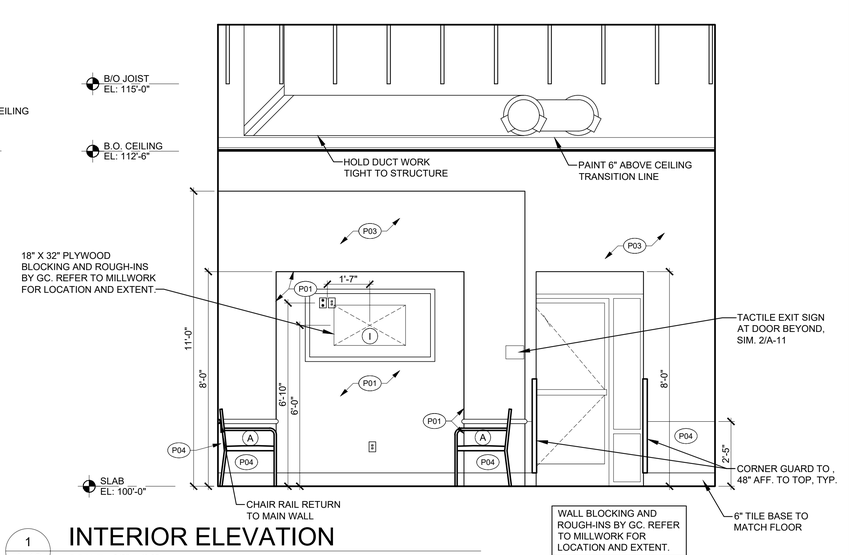
SCALE: 3/8" = 1'-0"



2 A-12

INTERIOR ELEVATION

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



1 A-12

INTERIOR ELEVATION

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

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jiffy lube

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(DUTCHESS COUNTY)

SHEET TITLE

INTERIOR ELEVATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
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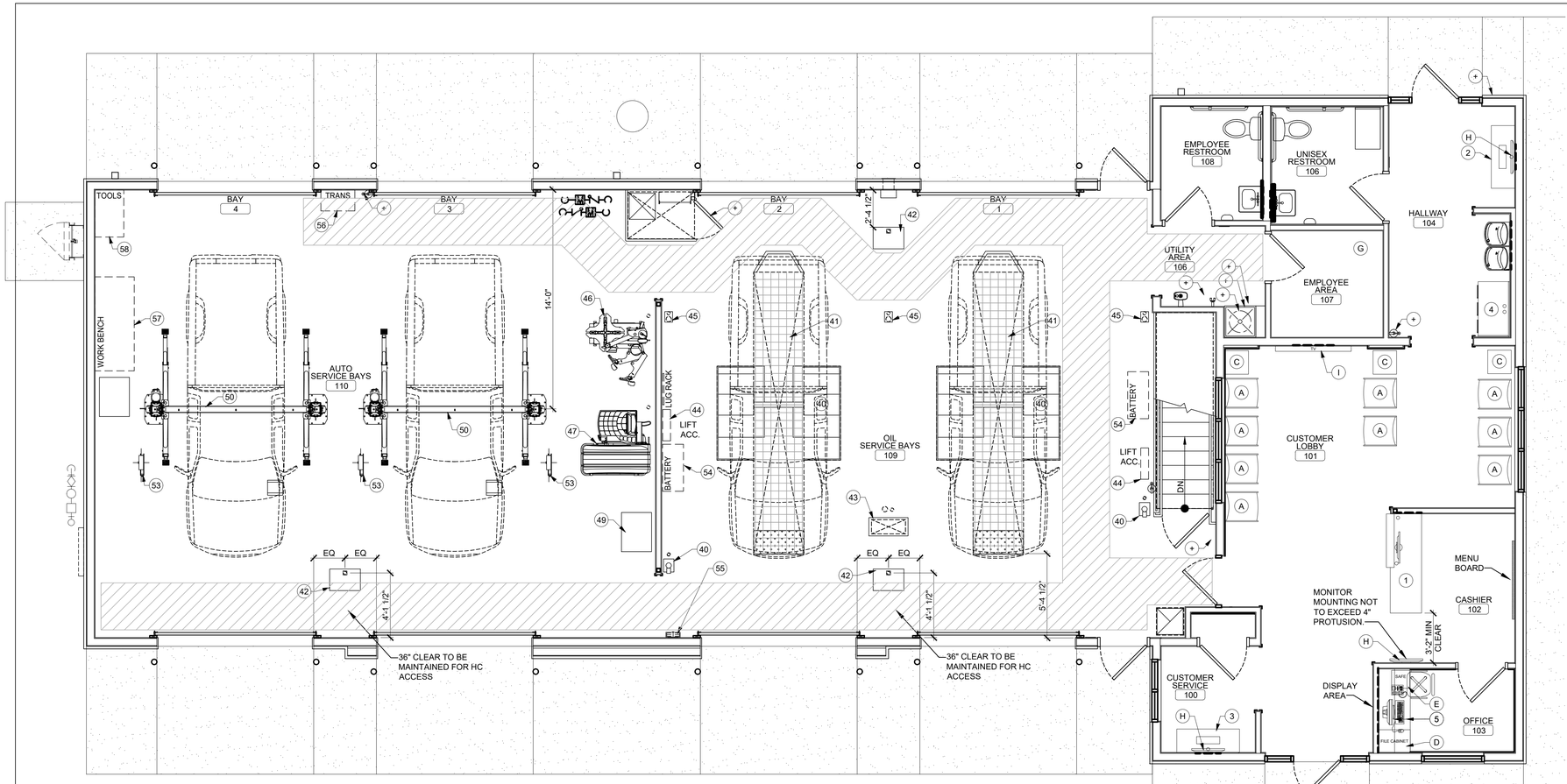
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

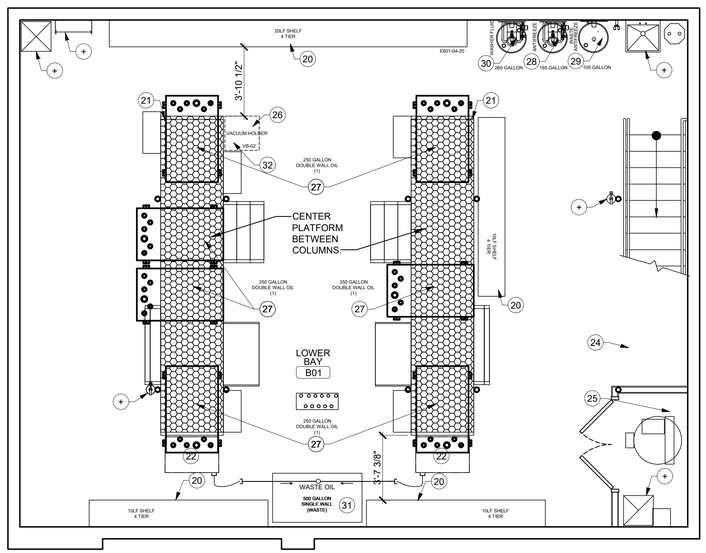
A-12



1 A-13.0 EQUIPMENT PLAN - UPPER BAY

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

NORTH



2 A-13.0 EQUIPMENT PLAN - LOWER BAY

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

NORTH

FOR REFERENCE ONLY

GENERAL NOTES:

1. **ALL ITEMS ARE TO BE PURCHASED, PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR**, UNLESS NOTED OTHERWISE. GENERAL CONTRACTOR SHALL USE NATIONAL PURCHASING ACCOUNTS FOR VENDORS LISTED BELOW.
2. LIFT SUPPLIERS INSTALLS ALL THEIR EQUIPMENT.
3. BUILDING MUST BE SECURE AND PAVEMENT COMPLETE PRIOR TO DELIVERY AND INSTALLATION OF EQUIPMENT.
4. EQUIPMENT SHOWN IS A PRELIMINARY LAYOUT. FINAL EQUIPMENT PROVIDED AND EQUIPMENT LAYOUT MUST BE VERIFIED WITH THE FRANCHISEE / JLI PRIOR TO ORDERING / INSTALLATION.
5. PIPING FOR ALL LIQUID/ AIR DELIVERY EQUIPMENT PROVIDED THROUGH VENDOR.
6. A/E, PM'S AND GC TO CONFIRM ALL EQUIPMENT LOCATIONS AND SPECIFICATIONS PRIOR TO BASEMENT FOUNDATION COMPLETION. EQUIPMENT BRANDS AND MODELS DIFFER IN ELECTRICAL REQUIREMENTS AND OPERATION.
7. GC MAY BE REQUIRED TO PURCHASE AND HIRE APPROVED EQUIPMENT VENDOR FOR EQUIPMENT INSTALLATION.
8. EQUIPMENT INSTALLATION VENDORS MUST BE APPROVED BY JIFFY LUBE INTERNATIONAL.
9. JLI AND FRANCHISEE HAVE THE OPTION TO ALSO PURCHASE AND INSTALL ALL EQUIPMENT.
10. ALL CORE HOLES THROUGH FLOOR SHOWN ON PLAN FROM MAIN SLAB TO BASEMENT FOR LUBE EQUIPMENT ARE SHOWN FOR INFORMATION ONLY. GC IS TO COORDINATE FINAL LOCATION WITH EQUIPMENT VENDOR FOR ALL AIR, SUPPLY LINES, AND VACUUM(S), UNLESS NOTED OTHERWISE.
11. CONTRACTORS ARE RESPONSIBLE FOR ELECTRICAL/PLUMBING ITEMS THROUGH SLAB FOR THEIR THROUGH SLAB RELATED WORK.
12. EQUIPMENT ITEMS PURCHASED BY FRANCHISEE MAY BE INSTALLED BY SAME VENDOR COMPLETING OTHER WORK OR A NEW VENDOR

(#)	FURNITURE SCHEDULE	PURCHASED BY	INSTALLED BY	COMMENTS
A.	LOUNGE CHAIRS	FRANCHISEE	FRANCHISEE	
B.	STOOLS	FRANCHISEE	FRANCHISEE	
C.	END TABLE	FRANCHISEE	FRANCHISEE	
D.	FILE CABINET	FRANCHISEE	FRANCHISEE	
E.	SAFE	FRANCHISEE	FRANCHISEE	
F.	MICROWAVE & REFRIGERATOR.	FRANCHISEE	FRANCHISEE	NOT SHOWN
G.	LOCKERS	FRANCHISEE	FRANCHISEE	
H.	MONITOR(S)	FRANCHISEE	FRANCHISEE	
I.	FLAT SCREEN TV.	FRANCHISEE	FRANCHISEE	
J.	TABLE AND CHAIRS	FRANCHISEE	FRANCHISEE	NOT SHOWN
K.	TRAINING KIOSK	FRANCHISEE	FRANCHISEE	NOT SHOWN

(#)	MILLWORK SCHEDULE	PURCHASED BY	INSTALLED BY	COMMENTS
1.	POINT OF SALE- (POS)	GC	GC	
2.	CUSTOMER SERVICE ADVISOR (CSA #1)	GC	GC	
3.	CUSTOMER SERVICE ADVISOR (CSA #2)	GC	GC	
4.	COFFEE BAR	GC	GC	
5.	OFFICE MILLWORK (DESK / UPPER CABINETS)	GC	GC	
6.	~~TV CABINET (NOT USED)~~			OPTIONAL
7.	~~OBSERVATION BAR (WALL MOUNTED)~~			OPTIONAL
8.	~~OBSERVATION BAR (TABLE)~~			OPTIONAL

***NATIONAL ACCOUNT PRICING AVAILABLE ON MILLWORK PACKAGE CONTACT JIFFY LUBE FOR INFORMATION.**
***BUILD TO SUIT (BTS) PROJECTS GC TO CONFIRM WITH OWNER FINAL MILLWORK SELECTION PER OPTIONS SHEETS**
*** JIFFY LUBE (JLI) TO PROVIDE APPROVED MILLWORK VENDOR LIST**
***JLI AND FRANCHISEE HAVE THE OPTION TO ALSO PURCHASE AND INSTALL ALL MILLWORK.**

(#)	EQUIPMENT SCHEDULE (LOWER BAY)	PURCHASED BY	INSTALLED BY	COMMENTS
20.	SHELVES	JLI	VENDOR	
21.	SERVICE PLATFORM	JLI	VENDOR	
22.	ROLLING OIL DRAIN PAN	JLI	VENDOR	
23.	FRESH OIL TANKS	JLI	VENDOR	
24.	AIR COMPRESSOR	JLI	VENDOR	
25.	AIR DRYER	JLI	VENDOR	
26.	VACUUM HOLDER CEILING MOUNTED	JLI	VENDOR	
27.	FRESH OIL CATWALK TANKS	JLI	VENDOR	OPTIONAL
28.	ANTIFREEZE	JLI	VENDOR	
29.	WASTE ANTIFREEZE	JLI	VENDOR	
30.	WINDSHIELD WASHER FLUID	JLI	VENDOR	
31.	WASTE OIL TANK	JLI	VENDOR	
32.	VACUUM	FRANCHISEE	FRANCHISEE	
(#)	**EQUIPMENT SCHEDULE (UPPER BAY)**	PURCHASED BY	INSTALLED BY	COMMENTS
40.	LOW RISE LIFT AND LIFT CONTROLS	JLI	VENDOR	RECESSED
41.	BAY NETS	JLI	VENDOR	VERIFY TYPE
42.	SERVICE PODIUM	JLI	VENDOR	
43.	LUBE CONSOLE	JLI	VENDOR	
44.	LIFT ACCESSORY RACK	JLI	VENDOR	
45.	VACUUM STAND WITH ROCKER SWITCH	JLI	VENDOR	ELC
46.	TIRE CHANGER	FRANCHISEE	VENDOR	
47.	TIRE BALANCER	FRANCHISEE	VENDOR	
48.	BRAKE LATHE (NOT USED)			
49.	OBD MACHINE (IN SELECT MARKETS)	JLI	VENDOR	EMISSION TESTING
50.	2 - POST LIFT	JLI	VENDOR	ELC/VERIFY LIFT TYPE
51.	~~ALIGNMENT SCISSOR LIFT AND CONTROLS~~			
52.	~~ALIGNER~~			
53.	CEILING MOUNTED AIR HOSE REELS	JLI	VENDOR	
54.	BATTERY RACK	FRANCHISEE	FRANCHISEE	
55.	WALL MOUNTED AIR HOSE & BRACKET	JLI	VENDOR	
56.	TRANSMISSION SERVICE EQUIPMENT	FRANCHISEE	FRANCHISEE	
57.	WORKBENCH	FRANCHISEE	FRANCHISEE	
58.	A/C SERVICE EQUIPMENT	FRANCHISEE	FRANCHISEE	
59.	NEW TIRE STORAGE RACK(S)	FRANCHISEE	FRANCHISEE	NOT SHOWN
60.	USED TIRE STORAGE RACK(S)	FRANCHISEE	FRANCHISEE	NOT SHOWN

\+ ITEM IS GC PROVIDED
ELC FINAL CONNECTIONS BY ELECTRICAL CONTRACTOR

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jiffy lube

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SHEET TITLE

EQUIPMENT PLANS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
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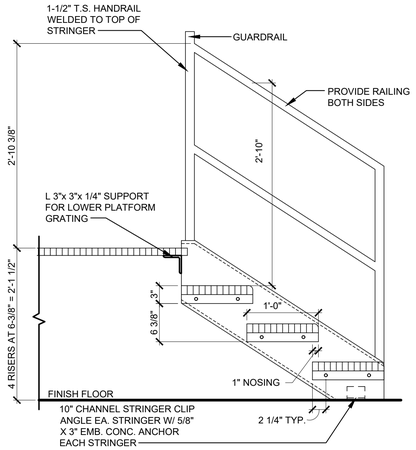
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

A-13.0

FOR REFERENCE ONLY

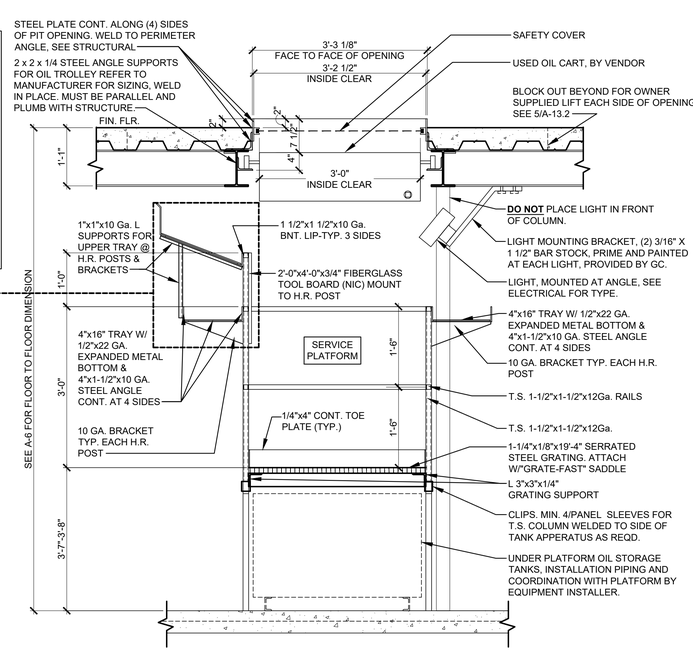


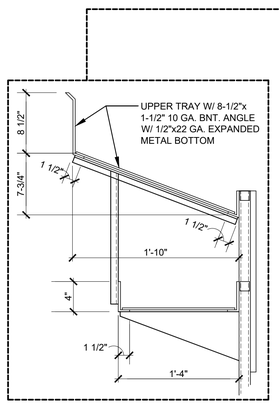
3 A-13.1 PLATFORM STAIR SECTION

SCALE: 1" = 1'-0"

GENERAL NOTES:

1. AT EXIT SIDE OF BAY PROVIDE USED OIL CART STOP AT 34" TO HOLD PAN IN TRACK. OIL CART TO REST JUST IN FRONT OF PIT OPENING
2. 1/2" STEEL PLATE TO BE PROVIDED FOR LIFT LEAVE OUT, REFER 5/A13.2
3. LATCH FOR "PIT BULL" BRAND BAY NET ONLY TO BE WELDED TO UNDERNEATH OF STEEL PLATE FRONT OF BAY
4. NOTCH STEEL PLATE AT AREA WHERE BLOCK OUT IS REQUIRED
5. GC TO PROVIDE LOWER BAY COLUMN SPACING TO LUBE INSTALLER.
6. GC TO PROVIDE FINISH FLOOR HEIGHT TO BOTTOM OF STEEL, DECK, AND MAIN LEVEL FINISH FLOOR TO LUBE INSTALLER.

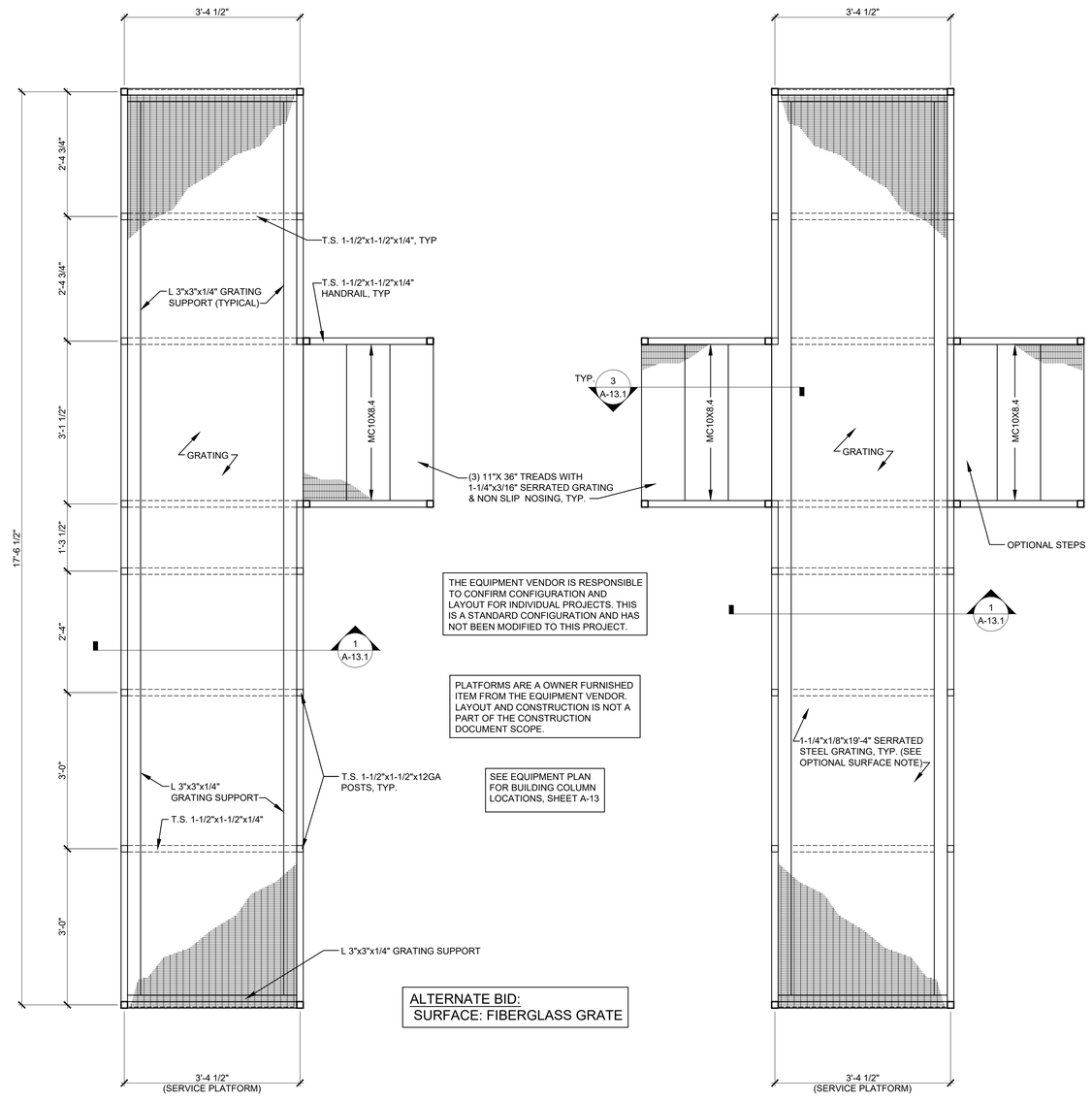




ENLARGED TRAY DETAIL

1 A-13.1 SECTION @ SERVICE/ ACCESS PLATFORM

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



2 A-13.1 SERVICE PLATFORMS

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

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SHEET TITLE

SERVICE PLATFORM

SHEET MANAGEMENT

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DATE:	02/18/22
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DRAWN BY:	JDM
REVIEWED BY:	JDM

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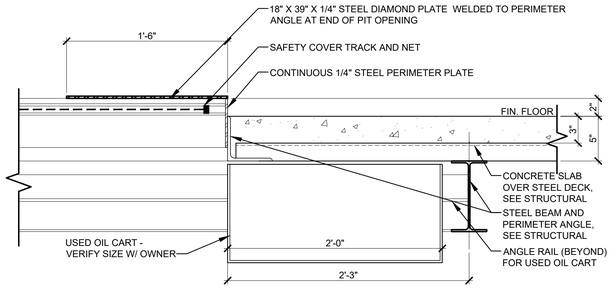
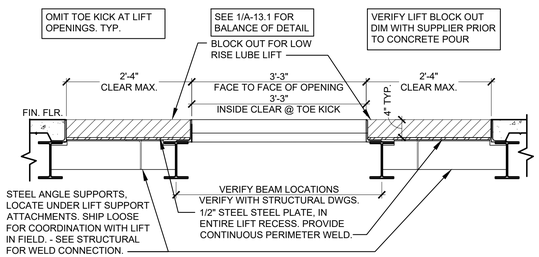


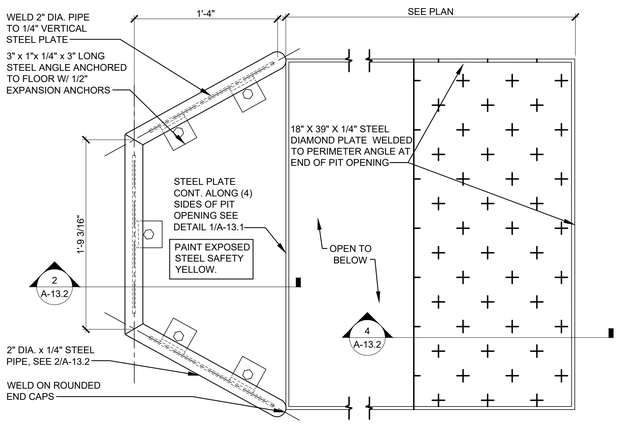
4 A-13.2 EDGE OF OPENING AT OIL CART

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



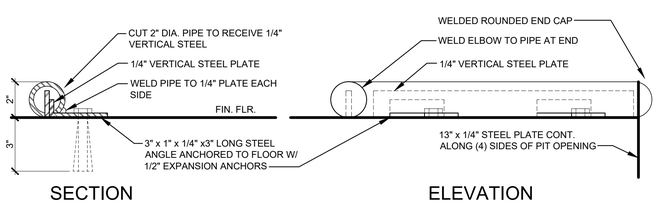
5 A-13.2 SECTION @ RECESSED LIFT

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



1 A-13.2 WHEEL GUARD PLAN

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



SECTION ELEVATION

2 A-13.2 WHEEL GUARD DETAILS

SCALE: 3" = 1'-0"

SUPPLIED AND INSTALLED BY G.C.

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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/18/22

REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
028240-1
STATE OF NEW YORK

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590

(DUTCHESS COUNTY)

SHEET TITLE

MISCELLANEOUS DETAILS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

A-13.2

SECTION 01010 - SUMMARY OF THE WORK

A. SCOPE:
The Work, as defined in the General Conditions and described in the Contract Documents is summarized as follows: Construct a one level retail facility with service pit, wood stud construction and parallel chord wood trusses, single ply membrane roof on insulation board and plywood decking, aluminum entrances, interior drywall partitions, millwork, doors and frames, tile floors, toilet room accessories, equipment, site work, mechanical, plumbing, electrical work, and equipment installation work

B. RELATED WORK PROVIDED BY THE OWNER:
Reference equipment drawings for FF&E responsibilities.

C. PRIOR ENTRY:
1. Owner reserves right of prior entry to completed and partially completed areas for performance of other work to be performed under other contracts.
2. Confine construction operations to the Project Site. Do not use adjacent properties, including private properties and that of public domain.
3. Related work shall not start prior to receiving proper permits and jurisdictional approvals

SECTION 01070 - DEFINITIONS

A. THE CONTRACT DOCUMENTS:
The Drawings are those enumerated in the "List of Drawings" and identified in the Contract. The Drawings, in many instances, are schematic and do not define exact locations of every part and piece of Work. Deferred submittals and items furnished by others, may vary in dimension and in other ways from the specific items called for in the Contract Documents. In such cases, determine exact position of each part by "on the job" measurements, drawings from equipment manufacturers, and coordination with other Work.

B. SPECIFICATIONS:
The Format of the Specifications divides the Work into Major Divisions and Work Sections. No trade jurisdictions are intended or implied. This drawing set to be viewed as a whole, all work pertaining to a specific contractor may or may not be shown on specific drawing sections. it is each contractor or subcontractor to prepare his bid proposal from a complete set of construction documents (plans and/or specs)

C. MINIMUM COMPLIANCE STANDARDS AND INDUSTRY SPECIFICATIONS:
Materials and operations specified by reference to published specifications of a manufacturer, a society, an association, a code, or other referenced standard, shall comply with the current requirements of the referenced document, officially published on or before the date of receipt of bids, regardless of dates noted in these documents.

SECTION 01510 - TEMPORARY FACILITIES

A. CONSTRUCTION FACILITIES:
Provide the following facilities for the use of all personnel, subcontractors, and other authorized personnel.
1. TOILET FACILITIES: Provide sanitary, adequate facilities that meet legal requirements.
2. DRINKING WATER: Provide clean drinking water with disposable paper cups and containers for used cups.
3. ELECTRIC: Provide connections and controls for 115V, single phase power with controls within 200 feet of locations used.
4. LIGHTING: Provide minimum 50 footcandles for construction purposes where daylight is not adequate.
5. CONSTRUCTION WATER: Provide adequate water lines and hoses with controls within 200 feet of locations used.
6. HOISTING FACILITIES: Provide hoisting equipment, as necessary, for light construction materials complying with jurisdictional safety codes.
7. SAFETY: All materials, permits and equipment required to provide for safety of workers and the public, complying with local governing authorities and OSHA criteria as applicable.
8. SECURITY: GC. shall provide a secured environment for all construction materials and items supplied by others for the duration of this contract.
8.1. Oxblue system shall be provide in the bid as an alternate price. Minimal duration of 3 months to a maximum of 5 month period. Contact Schaaf jpschaaf@oxblue.com- 404-554-1641.
8.2. 6'-0" height chain link securely fencing, color and screening requirements as required by local jurisdiction.

SECTION 01600 - MATERIAL AND EQUIPMENT

A. SUBSTITUTIONS:
1. Do not make substitutions unless they are approved in writing by Owner, during bidding process and approved by Architect.

B. USE MATERIALS THAT ARE:
1. New and of high quality suited to the use intended except when noted as "used".
2. Suitable for the function intended.
3. Corresponding in quality to related materials in the absence of a definitive Specification.
4. Of good appearance where exposed to view.
5. Of one manufacturer or source for the same specific purpose, with uniform appearance and physical properties.
6. Plainly marked, and delivered to the site in original unopened containers when the nature of the materials is suitable for containers.

C. VERIFICATION OF NON-CONTAMINATION:
For each of the following materials provided, submit a letter from the manufacturer indicating that products are totally free of asbestos.
1. Low density fill and lightweight concrete.
2. Fireproofing.
3. Dampproofing.
4. Waterproofing.
5. Sealants.
6. Prefabricated wall panels or siding.
7. Mechanical insulation.
8. Electrical isolators.

D. WORK BY OTHERS:
Arrange to accommodate N.I.C. Work. When information is inadequate, request further instructions before proceeding. Includes but not limited to unloading, storage and disposal of packing and or crating materials.

E. Follow manufacturer's instructions. When such instructions are in conflict with the Contract Documents, make request for clarification before proceeding. Keep a copy of the manufacturer's instructions on the job.

F. Perform high quality professional workmanship. Join materials to uniform, accurate fit so they meet with straight lines, free of smears or overlaps. Install exposed materials appropriately level, plumb, and at accurate right angles or flush with adjoining materials. Attach materials with sufficient strength, number, and spacing of attachments that will not fail until materials joined are broken or permanently deformed,compliance with jurisdictional codes and industry standards is to be considered minimal standards of care.

G. Required Submittals
All other items are to be provided per specs and drawings, no submittal required.
GC is to provide approval of submittals prior to submitting to architect or engineer for their review to verify submittals conformity to the project, as-built conditions and any modifications made in bidding or construction. **FAILURE TO PROVIDE GC APPROVAL STAMP WILL RESULT IN IMMEDIATE REJECTION OF SUBMITTAL.**
1. Architectural
   a. Storefront System
   b. Overhead Doors
   c. Stucco / EIFS / Stone
   d. Doors & Hardware
   e. Roofing System
   f. Restroom Accessories
   g. Waterproofing
   f. Stairs and Ladders
2. Structural
   a. Concrete Design Mix
   b. Structural Steel
   c. Rebar
   d. Wood Trusses / Metal Joists
3. Mechanical / Plumbing
   a. HVAC Equipment
   b. Radiant Heaters
   c. Plumbing Fixtures
4. Other
   All alternate submittals (Owner / Developer approval required PRIOR to submission for review)

SECTION 01700 - CONTRACT CLOSEOUT

A. RELEASE OF LIENS:
1. The Contractor shall deliver to the Owner a blanket release of liens covering all Work performed under this Contract, including that of Subcontractors, Sub-subcontractors, vendors, and other suppliers of materials and labor.
2. The forms shall be executed by the authorized officer and notarized. No final payment will be made by the Owner to the Contractor until all release of liens have been delivered to the Owner.

B. GUARANTEES, BONDS AND INSPECTION CERTIFICATES:
1. The Contractor shall have guarantees upon materials and workmanship as required by Article 13 of the AIA General Conditions and special guarantees and bonds required by the Contract Documents executed in the Owner's name.
2. Collect and assemble all required guarantees and bonds and deliver them to the Owner prior to final payment.

SECTION 01710 - CLEANING

A. PERIODIC CLEANING:
1. GARBAGE COLLECTIONS: Provide a collection can at each location on the site used as an eating area. Pick up all garbage not deposited in cans daily. If garbage is left overnight, cover cans. Remove garbage from the site at least weekly. Keep the Work area free of garbage, trash, and vermin infestation.
2. TRASH REMOVAL: Clean the Work area of trash at least once a week. When rapid accumulation occurs, remove trash more frequently. Remove highly combustible trash such as paper and cardboard daily.
3. DISPOSITION OF DEBRIS: Remove debris from the site and make legal disposition. No debris or material may be buried or burned at the site.

B. FINAL CLEANING:
1. The Work area shall be thoroughly cleaned inside and outside. Cleaning includes removal of smudges, marks, stains, fingerprints, soil, dirt, spots, dust, lint, and other foreign materials from finished and exposed surfaces.
2. Remove all temporary facilities and utilities.

SECTION 02050 - SITE DEMOLITION

A. GENERAL:
1. Refer to civil site work drawings for primary work scope.
2. Selective removal as necessity to be determined from the Contract Documents and examination of the site. Include preparation for the Work and protection of existing Work.

B. DEMOLITION:
1. PREPARATION:
   a. Carefully uncover and ascertain possible hazards.
   b. Remove construction as indicated on the Drawings. Make neat cuts so subsequent Work fits without irregular connection.

C. BUILDING DEMOLITION: (If Required)
1. Work structures by parts; shore against collapse. Remove walls and partitions indicated, without damaging the structural system of the existing building.
2. Constantly restrain dust and water from infiltrating areas in use and adjacent properties.
3. Remove debris of demolition as it is produced and do not allow it to accumulate on site to the extent that a hazard is created or the Owner loses significant use of his facilities.
4. Remove all subgrade structures and utilities as required by documents, codes and local utility companies.

D. SITE DRAINAGE FOR CONSTRUCTION:
Provide temporary grading, ditching, pumping, culverts, erosion control and other facilities needed to perform the Work and comply with governing authorities.

SECTION 02110 - SITE CLEARING AND GRUBBING

A. VEGETATION PRESERVATION:
1. Refer to civil site work drawings for primary work scope.
2. Do not remove trees or shrubs without the specific approval of the Owner. Rope, or fence off vegetation that is to remain to prevent damage. Damaged vegetation shall be replaced by G.C.

B. GRUBBING:
Grub construction area to a minimum depth of one foot below the existing grade.
1. STRUCTURAL EXCAVATIONS: Remove all organic material as required by soils report for soil preparation for building and pavement designs.
2. STUMP REMOVAL: Remove stumps to a depth of a least 18 inches under lowest elevation of the excavation.

SECTION 02200 - EARTHWORK

A. The Soils Report governs existing subsurface conditions, site preparations and all recommendations for subgrade.

B. SOIL STIFFNESS:
When information concerning subsurface soil stiffness is not available, assume an angle of repose of 45 degrees under optimum moisture conditions. No angle of repose can be assumed when soil is under adverse moisture conditions. Where concrete surfaces are shown vertical or steeper than the angle of repose, forms are required.

C. GOVERNING DOCUMENTS:
The following Documents govern the Work:
Occupational Safety and Health Administration recommendations, Chapter XVII, 1926.652

D. EXCAVATION AND INSPECTION:
Excavation shall be bid based on geotechnical report. Rock remove shall be performed with in local governmental guidelines. Extra charges will need to be confirmed by indipendant testing engineer.
Do not place concrete in footing excavations without proper inspections.

E. FILL AND BACKFILL MATERIAL:
Select fill material placed under slabs, foundations and paving shall comply with the soils report recommendations or with the following requirements, whichever is more stringent. Material may be used from the site provided it is made to comply through the use of admixtures such as sand or lime.
1. LIQUID LIMIT: 30 to 45.
2. PLASTICITY INDEX: 7 to 20.
3. LINEAR SHRINKAGE: 10% maximum.
4. PURITY: No stones or debris larger than 3 inches.

F. COMPACTION:
Shall comply with the soils report recommendations or with the following requirements.
Provide 90% maximum density under walks and grassy areas, 95% maximum density elsewhere. Add water or dry out to maintain optimum moisture content. AASHTO compaction test Method T-99, performed at optimum moisture. Place fill in layers not to exceed 6 inches after compaction.

G. COMPACTION OF FILL:
Compact trenches under slabs as follows:
1. Compact utility trench backfill of excavated material or specified fill material to match material of adjacent strata.
2. Provide drainage for excavations to prevent contamination of adjacent and surrounding soil below slabs and within 5 feet of building perimeter.

H. SAND LAYER:
1. LOCATION: Where sand cushion is noted under concrete slabs.
2. MATERIAL: Well-graded, inorganic mineral sand in loose, nonstratified deposits, per ASTM D 2488.
3. THICKNESS: 2 inches under walks and 4 inches elsewhere.
4. COMPACTION: Compact to support concrete without settlement during placing.

I. VAPOR BARRIER:
Provide a 6 mil minimum polyethylene plastic film vapor barrier, (minimum requirement) under all slabs placed on earth. Verify with Civil and Structural notes for more stringent requirements.

SECTION 02246 - SOIL STABILIZATION

A. Coordinate the requirements of the Structural Drawings with the requirements of this Division. If a conflict exists, notations on the Structural Drawings take precedence. Refer to the Soils report and survey for existing subsurface conditions.

SECTION 02510 - CONCRETE CURBS, WALKS, AND PAVING

A. WORK GOVERNED BY OTHER SECTIONS:
1. Refer to civil site work drawings for primary work scope.
2. The actual performance of this Work remains within this Section, but subject to the applicable requirements of Division 3 - Concrete.

B. MINIMUM COMPLIANCE STANDARDS:
Work in accordance with the following:
1. ACI 316 and ACI 325.
2. Portland Cement Association, PA017 and PL136.
3. ACI 302

C. CONCRETE MATERIALS:
1. Refer to civil site work drawings for primary work scope.
2. Refer to Section 03300.

D. REINFORCING:
1. Refer to civil site work drawings for primary work scope.
2. Refer to Section 04810.

E. PAVING AND CURB JOINT FILLER:
Provide 1 inch thick premolded non-extruding expansion joint material.

F. PAVING JOINT SEALING COMPOUND:
Provide a single component, rubberized, hot applied sealing compound similar to Allied No. 9005, complying with F.S. SS-S-1401B.

G. SLOPE FOR DRAINAGE:
Slope walks, driveways, paving, and gutters shall be provides as to comply with codes and handicap criteria.

H. TOOLING:
1. EDGING: Edge walks and paving edges to a 3/8 inch radius at expansion joints and where needed to form a neat appearance.
2. JOINTING: Where shown on the Drawings as control joints (C.J.) or tooled joint (T.J.).
3. CONTROL JOINT: 1 inch deep x 1/8 inch wide. Use wrapped, smooth dowels to maintain alignment.
4. TOOLED JOINT DEPTH: 1/4 inch unless shown otherwise.
5. WORKMANSHIP: Remove marks of tooling from the surface.

I. FINISH:
Light broom or belt finish with lines perpendicular to traffic flow.

SECTION 02511 - ASPHALT CONCRETE PAVING

A. Provide a system in accordance with requirements of The Asphalt Institute or governing body in the area of the Work.
1. Refer to civil site work drawings for primary work scope.

B. FLEXIBLE BASE COURSE MATERIAL, GRADE 1:
1. If not shown otherwise on Drawings, when properly slaked and tested, flexible base material shall meet the following requirements:
   a. RETAINED ON 1-3/4 INCH SIEVE: 0 percent.
   b. RETAINED ON 1 INCH SIEVE: 5 to 25 percent.
   c. RETAINED ON 1/2 INCH SIEVE: 30 to 50 percent.
   d. RETAINED ON NO. 4 SIEVE: 45 to 65 percent.
   e. RETAINED ON NO. 40 SIEVE: 70 to 80 percent.
2. Material passing the No. 40 sieve shall be known as "soil binder" and shall meet the following requirements:
   a. LIQUID LIMIT SHALL NOT EXCEED: 40.
   b. PLASTICITY INDEX SHALL NOT EXCEED: 10.

C. HOT MIX ASPHALTIC TOPPING:
1. MATERIAL: Well graded mixture or clean shell, sand, mineral filler, and ASTM D 946 asphalt.
2. MIXING:
   a. ASPHALT QUANTITY: 5 percent to 8 percent by weight, of the total mixture.
3. DESIGN: For lab density of 94 to 98 percent by Hveem method.
4. MIXING TIME: Sufficient to coat all particles with asphalt.

D. INSTALLATION:
1. JOB CONDITIONS:
   a. Do not apply material in fog, rain, or at less than 45 degrees F, or when such conditions are likely in the next 48 hours.
   b. Complete placing and rolling in daylight.
2. SUBGRADE AND BASE COURSE:
   a. Cut to bottom of base course plus or minus 1/2 inch.
   b. Scarify existing earth to 8 inches where fill is to be less than 8 inches thick.
   c. Fill with certified material of uniform mix and moisture content to bottom of base course, plus or minus 1/2 inch. Compact to 95 percent density, ASTM D 698.
   d. Prepare sufficient quantity of certified subgrade and shape to slopes indicated. Fill depressions; wet, reshape and roll to 1/2 inch in 16 feet tolerances.
   e. Wet base course material to approximately 9 percent moisture and compact with sheeps foot, steel, or pneumatic rollers or combination to 95 percent density to full depth, ASTM D 698.
   f. Thoroughly wet surface and slush roll until aggregate is totally embedded.
   g. Except across crowns and swales, surfaces shall vary maximum 1/8 inch in 10 feet; where puddling is minimal, this requirement may be waived by Owner's representative.
   h. FINAL ROLLING: After base course has been graded and compacted, thoroughly wet and slush roll the surface with roller until all aggregates are thoroughly embedded.
3. PLACING TOPPING:
   a. TEMPERATURE: Not less than 225 degrees F, when dumped from mixer.
   b. CLEAN BASE: Remove loose material, dust, dirt, and other foreign materials from the base course.
   c. TACK COAT: Cover 50 percent minimum of base course with MC 1 cutback asphalt.
   d. COMPACTION: To 95 percent by on-site Hveem test.
   e. STABILITY: 35 to 650 percent by Hveem test.
4. WORKMANSHIP:
   a. SURFACE: Provide a smooth, hard surface well cemented to base course.
   b. GRADES: Conform to the grades shown.
   c. ACCURACY: Provide paving free of puddles deeper than 1/2 inch where designed for a slope of at least 1/4 inch per foot.
5. PATCH, PROTECTION, AND CLEAN:
   a. Repair damage to asphalt paving from testing and construction operations.
   b. Do not allow traffic for 24 hours after laying. After 24 hours in summer, provide extra pneumatic rolling before allowing traffic.
   c. Correct ravels caused by normal traffic.
   d. Clean surfaces for painting.

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

Work Specified Herein
All labor, materials, equipment and services necessary to provide the Cast-In-Place Concrete work as indicated or specified including:
A. Concrete, reinforcement and formwork for foundations, walls, pilasters, slabs, sidewalks, stairs, etc.
B. Installation of anchor bolts for steel columns, posts and other anchored work as may be required.
C. Grouting of column bases.
D. All embedded anchors, anchor slots, sleeves and other inserts as required.
E. Vapor retarder and granular subbase beneath slabs on grade.
F. All dowels from concrete into masonry walls or pilasters.
G. All other items required to make the work of this Section complete.

Submittals
The contractor shall prepare all shop drawings, product literature, etc. as required to properly coordinate and construct the project. Submit the following items for review by the Professional of Record.
1. Submit shop drawings showing fabrication dimensions and locations for placing reinforcing steel and accessories and details of steel reinforcement.
2. Submit concrete mix design for each class of concrete for review well in advance of concrete placement. Concrete mix design shall include all strength data necessary to show compliance with the project specifications for either the trial batch or field experience method.

Quality Assurance
A. Provide Special Inspections for concrete as shown on the drawings and as required by Building Official.

Related Documents
A. Unless otherwise shown or specified, the work shall conform to the following standards of the American Concrete Institute:
1. ACI 117-06 Standard Specifications for Tolerances for Concrete Construction and Materials.
2. ACI 305R-99 Hot Weather Concreting.
3. ACI 306.1-90 Standard Specification for Cold Weather Concreting.
4. ACI 308.1-01 Standard Specification for Curing Concrete.
5. ACI 318-08 Building Code Requirements for Structural Concrete
B. Unless otherwise shown or specified, the work shall conform to the following standards of the Concrete Reinforcing Steel Institute:
1. Manual of Standard Practice, 2009.

Field Acceptance Of Concrete
A. Air-entrained concrete not within the specified limits of air-entrainment shall not be used in the work.
B. Concrete not within the specified slump limits at the point of placement shall not be used in the work.
C. Concrete not within the specified temperature limits shall not be used in the work.

Acceptance Of Concrete Strength
A. Test results for standard molded and cured test cylinders shall be evaluated separately for each specified concrete design mixture. Evaluation will be valid only if tests have been conducted in accordance with procedures specified. For evaluation, each specified design mixture shall be represented by at least five tests.
B. The strength level of concrete shall be considered satisfactory when the average of all sets of three consecutive compressive strength test results equal or exceed the specified compressive strength, fc, and no individual strength test result falls below the specified compressive strength, fc, by more than 500 psi.
C. The costs of any additional tests or analysis, including additional architectural or engineering services, performed to prove the adequacy of concrete strength, shall be borne by the contractor.

Acceptance Of Structure
A. Completed concrete work shall conform to all applicable requirements of the Construction Documents.
B. Concrete work that fails to meet one or more requirements of the Construction Documents but subsequently is repaired to bring the concrete into compliance may be accepted.
C. Concrete work that does not meet the tolerances of ACI 117 will be rejected.
D. Concrete with defects that adversely affect the appearance of the specified finish will be rejected.
E. Concrete work that fails to meet one or more requirements of the Construction Documents and cannot be brought into compliance will be rejected.
F. Repair rejected work by removing and replacing or by reinforcing with additional construction as required by the Owner.
G. Contractor shall pay all costs to bring concrete work into compliance with requirements of the Construction Documents.
H. The costs of any additional tests or analysis, including additional architectural or engineering services, performed to prove the adequacy of the structure, shall be borne by the contractor.

Materials Delivery Storage And Handling
A. Handle and store all reinforcement materials to prevent bending, coating with earth, oil or other material.
B. Store cementitious materials in dry weather tight buildings, bins or silos, which will exclude contaminants.
C. Store and handle aggregate in a manner that will avoid segregation and prevent contamination with other materials or other sizes of aggregates. Store aggregates to drain freely. Do not use aggregates that contain frozen lumps.
D. Protect mixing water and ice from contamination during storage and delivery.

Protection Of In-Place Concrete
A. Do not allow construction loads to exceed the capacity that the structure can safely support without damage.
B. Protect all finished concrete surfaces from damage caused by construction equipment, materials or methods.
C. During the curing period, protect concrete from damaging mechanical disturbances including load stresses, shock, and harmful vibration.
D. Protect concrete surfaces from mechanical injury, damage by construction traffic, equipment, materials, rain or running water, and other adverse weather conditions.
E. Protect all finished surfaces from stains, abrasions, etching, discoloration, gouging, scratches and marring. General Contractor will be responsible for any concrete replacement. Protect surfaces or edges by leaving forms in place, by providing temporary covers, diapers, etc. to avoid marring, gouging, etc. Protect all concrete from rain, flowing water or mechanical injury. General Contractor is responsible for providing adequate protection of the exposed slab areas.
F. Protect all exposed interior slabs at all times from the dropping of plaster, paint, dirt, etc.
G. Equipment diapering shall be provided to protect exposed floor slabs from the dripping of oils, acid, rust marks, etc.

PART 2 - PRODUCTS

Concrete Materials
Portland Cement: See Drawings.
Coarse Aggregate: ASTM C33 and non-reactive.
Fine Aggregate: ASTM C33. and non-reactive.
Water and Ice: Mixing water for concrete and water used to make ice shall meet the requirements of ASTM C94.
Admixtures: Air-entraining admixtures: ASTM C260, for all air-entrained concrete, not permitted in interior slabs.
Less that 15% pozzolan (and no fly ash).
Maximum chloride ion due to admixtures shall not exceed 0.1% by weight.
The addition of calcium chloride is not permitted.
All admixtures shall be used in accordance with the manufacturer's recommendations.

Reinforcement Materials
Reinforcing Steel Bars: ASTM A615, Grade 60, unless noted otherwise.
Welded Wire Fabric: ASTM A185
Steel Wire: ASTM A82
Metal Accessories: Include all spacers, ties, chairs and other devices required to properly support and fasten reinforcing steel in place.

Form Materials
Form-facing Materials: Form facing material shall be plywood, tempered concrete-form-grade hardboard, metal, plastic, paper capable of producing a smooth, uniform texture on the concrete. Do not use form-facing material with raised grain, torn surfaces, worn edges, patches, dents, or other defects that will impair the texture of concrete surfaces.
Formwork Accessories: Use commercially manufactured accessories for formwork. Provide all necessary bracing, ties and accessories as necessary to support formwork.
Formwork Release Agent: Use commercially manufactured form release agents that will prevent formwork absorption of moisture, prevent bond with concrete, and not stain the concrete surfaces. Form release agent shall be compatible with finishes to be used on concrete surfaces.

Related Materials
Curing Compound: Use L&M Cure as manufactured by L & M Construction Chemicals, Inc. (800) 362-3331, except for slab on grade. For slab on grade, refer to section 03390.
Non-Shrink Grout: N-S grout as manufactured by Euclid, or equal.
Vapor Retarder: See Drawings.
Granular Subbase: Granular subbase beneath slabs on grade shall conform to the requirements of the geotechnical report. Where no requirements are specified in the geotechnical report, granular subbase shall be fine graded granular material conforming to the following requirements:
- Maximum size: 1-1/4 "
- Passing No. 200 Sieve: 15% maximum
- Plasticity Index: 6 maximum
- Liquid Limit: 25 maximum

Waterstops: *Waterstop to meet U. S. Army Corp of Engineers (*COE) standard CRD-C 513.
Install Warco Bultrite 6" deep dumbbell type waterstop (or approved equal).
Joint Filler (for all interior slabs): Rapid setting, two-component polyurea polymer liquid of 100% solids content, Shore hardness 85-90, compatible with construction materials in contact.
1. Quick Joint 85, by CSS Polymers
2. Spal-Pro RS 88, by Metzger/McGuire
3. VersaFlex SL/85, by VersaFlex

PART 3 - EXECUTION

Concrete Proportions
A. The specified strength of concrete, fc, for each portion of the structure shall be as designated on the drawings. Strength requirements shall be based on 28-day compressive strength.
B. The maximum size of coarse aggregate shall be not more than one-fifth of the narrowest dimension between sides of forms, one third of the depth of slabs, or three-fourths of the minimum clear spacing between reinforcing bars except ¼" maximum for interior slabs.
C. See Drawings for Concrete Proportions.

Formwork
A. Forms shall be used, wherever necessary, to confine the concrete and shape it to the required dimensions. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall have sufficient rigidity to maintain specified tolerances.
B. The design and engineering of the formwork, as well as its construction, shall be the responsibility of the contractor.
C. Forms shall be sufficiently tight to prevent loss of mortar from the concrete.
D. Place required sleeves, inserts, anchors, and embedded items prior to concrete placement.
E. Clean surfaces of formwork and embedded materials of mortar, grout, and foreign material before concrete is placed.
F. Cover surfaces of formwork with formwork release agent before placing reinforcing steel and concrete. Do not allow formwork release agent to puddle in the forms or to contact reinforcing steel or hardened concrete against which fresh concrete is to be placed.
G. Forms shall not be disturbed until the concrete has adequately hardened. Forms for walls shall remain in place for a minimum of 3 days after placement of concrete. Care shall be taken in removing forms to prevent any damage to the concrete.
H. Unless noted otherwise, earth cuts may be used for forms for footings not exposed to view if soil conditions permit.

Reinforcement
A. Fabricate reinforcing in accordance with fabricating tolerances of ACI 117. Bend all reinforcement cold.
B. When concrete is placed, all reinforcement shall be free of materials deleterious to bond.
C. Place, support, and fasten reinforcement as shown on the Drawings. Do not exceed the placing tolerances in ACI 117.
D. Place reinforcement supported from the ground on precast concrete reinforcement supports. Place reinforcement supported from concrete or formwork on reinforcement supports made of metal or plastic. Secure reinforcement as necessary to prevent displacement during placement of concrete.
E. Extend welded wire fabric for slabs on grade to within 2 inches of concrete edge. Lap edges and ends of fabric sheets a minimum of one mesh spacing. Support welded wire fabric during placing of concrete to assure required positioning in the slab.

Mixing And Delivery of Concrete
A. All concrete shall be measured, batched and mixed in accordance with ASTM C94. Job site mixed concrete not permitted.
B. Transport and deliver concrete in equipment conforming to ASTM C94. Batch tickets shall be provided indicating the batch weight of all materials, and indicating the amount of additional water that may be added without exceeding mixture proportions.
C. When concrete arrives at the point of delivery with a slump below the specified slump, the slump may be adjusted to the required value by adding water up to the amount allowed in the mixture proportions. Addition of water shall be in accordance with ASTM C94. Only one addition of water is permitted per batch. Water may not be added after a portion of the load has been discharged.
D. Time for completion of discharge shall be as specified in ASTM C94, except discharge must be completed within 90 minutes of elapsed time since batching and before the drum has revolved 300 revolutions.

Placement Of Concrete
A. Remove snow, ice, frost, water and other foreign material from surfaces, including reinforcement and embedded items, against which concrete will be placed.
B. Do not begin to place concrete while rain, sleet, or snow is falling unless adequate protection is provided. Do not allow rain water to increase mixing water or to damage the surface of the concrete.
C. In cold weather, when the average of the highest and lowest temperature during the period from midnight to midnight is expected to drop below 40 F for more than three successive days, concrete shall be delivered at a minimum temperature of 55 F.
D. In hot weather, the temperature of concrete as placed shall not exceed 90 F. When temperature of steel reinforcement, embedments, or forms is greater than 120 F, fog steel reinforcement, embedments and forms with water immediately prior to placing concrete. Remove standing water prior to placing concrete.
E. Convey concrete from mixer to the place of final deposit rapidly by methods that will prevent segregation or loss of ingredients and will assure the required quality of concrete. Do not use aluminum pipes or chutes. Colored concrete for interior slabs may not be pumped.
F. Deposit concrete continuously in one layer or in layers to have fresh concrete deposited on in-place concrete that is still plastic. Do not deposit fresh concrete on concrete that has hardened sufficiently to cause formation of seams or planes of weakness within the section.
G. Do not use concrete that has surface dried, partially hardened, or contains foreign material.
H. Do not subject concrete to any procedure that will cause segregation. Deposit concrete as near as practicable to the final position to avoid segregation.
I. Consolidate concrete by vibration. Concrete shall be thoroughly worked around reinforcement and embedded items and into corners of forms, eliminating all air and stone pockets that may cause honeycombing, pitting, or planes of weakness. Do not use vibrators to move concrete within the forms.

Finishing Formed Surfaces
A. After forms are removed, patch tie holes and defects. Remove all fins completely.
B. Finish formed surfaces no later than the day following form removal by wetting the surface of the concrete and rubbing carborundum brick or other abrasive until uniform color and texture are produced. Use no cement grout other than cement paste drawn from the concrete itself by the rubbing process.

Finishing (Flatwork)
A. Move the concrete into place with square tipped shovels. Place concrete at a rate that allows spreading, straight edging, and darbying or bullfloating before bleed water disappears. Finish slab surfaces in accordance with one of the following finishes.
   1. Floated finish: Place, consolidate, strike off, and level concrete, eliminating high spots and low spots. Do not work concrete further until it is ready for floating. Begin floating with a hand float, a bladed power float equipped with float shoes, or a powered disk float when the bleed water sheen has disappeared and the surface has stiffened sufficiently to permit the operation. Produce a finish that will meet conventional straightedge of 3/8 inch in 10 feet or the tolerance called out in Section 03331.
   2. Trowel finish: Float concrete surface, then power trowel the surface. Hand trowel the surface smooth and free of trowel marks. Continue hand trowel until a ringing sound is produced as the floor is troweled.
   3. Light/light broom finish: Immediately after concrete has received a trowel finish, give the concrete surface a light transverse texture, by drawing a soft bristle broom across the surface.
   4. Broom finish: Immediately after concrete has received a floated finish, give the concrete surface a coarse transverse scored texture by drawing a broom across the surface.
B. Interior flatwork to receive a smooth trowel finish.
C. Exterior flatwork to receive a broom finish.
D. Sawcutting for joints at flatwork shall be coordinated with locations shown within the documents and shall be made as soft cuts. Joints are to be cut with the use of "soft-cut" blades as soon as finishing is complete. Joints shall be 1/8" wide and 1/3 depth of slab.

Curing
A. Cure all concrete surfaces with the specified curing compound applied per manufacturer's instructions.

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/16/22
REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
028240-1
STATE OF NEW YORK

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

SPECIFICATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

SP-1

SECTION 033500 - CONCRETE FINISHING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Single application cure-densifier-hardener for new and existing concrete floors.
2. Precautions for avoiding staining concrete before and after application.

B. Related Section:

1. Cast-In-Place Concrete: Division 03 Cast-In-Place Concrete sections.

1.2 REFERENCES

A. American National Standards Institute (ANSI):

1. ANSI B101.1 Test Method for Measuring Wet SCOF of Common Hard-Surface Floors.
2. ANSI B101.3 Test Method for Measuring Wet DCOF of Common Hard-Surface Floors.

B. ASTM International (ASTM):

1. ASTM C779 Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces.
2. ASTM C805 Standard Test Method for Rebound Number of Hardened Concrete.
3. ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape Test.
4. ASTM F150-06(2018) Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring.
5. ASTM G23 Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials (Withdrawn 2000).

C. National Floor Safety Institute (NFSI):

1. Certified as High Traction by the National Floor Safety Institute (NFSI), Phase 2 testing.

D. USGBC LEED Version 4

1. Indoor VOC Emission Test; California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017.

E. Health Product Declaration Collaborative (HPD)

1. HPD v1.0.
2. HPD v2.1.

1.3 SUBMITTALS

A. General: Submit listed submittals in accordance with Conditions of the Contract and Section [01 33 00 - Submittal Procedures].

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Acceptable to the manufacturer.

1.5 DELIVERY, STORAGE & HANDLING

A. General: Comply with Division 01 Product Requirements section.

B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

D. Handling: Protect materials from dirt, corrosion, oil, grease and other contaminants.

PART 2 PRODUCTS

2.1 MATERIAL

A. Manufacturer: Curecrete Distribution, Inc.

1. Contact: 1203 Spring Creek Place, Springville, UT 84663-0551; Telephone: (800) 998-5664, (801) 489-5663; Fax: (801) 489-3307; Email: info@ashfordformula.com; Website: www.ashfordformula.com.

B. Cure-Densifier-Hardener: Ashford Formula is a transparent, chemically reactive, water-based treatment that penetrates into the concrete surface, forming a chemical reaction of crystalline growth that fills in the natural pores and voids in the concrete surface.

1. Abrasion Resistance to Revolving Disks: At least a 32.5% improvement over untreated samples when tested in accordance with ASTM C779.
2. Surface Adhesion: At least a 22% increase in adhesion for epoxy when tested in accordance with ASTM D3359.
3. Hardening: As follows when tested in accordance with ASTM C39:
   a. After 7 Days: An increase of at least 40% over untreated samples.
   b. After 28 Days: An increase of at least 38% over untreated samples.
4. Rebound Number: An increase of at least 13.3% over untreated samples when tested in accordance with ASTM C805.
5. Electrical Resistance: To ASTM F150.
6. Light Exposure Degradation: No evidence of adverse effects on treated samples when tested in accordance with ASTM G23.
7. Test Method for Measuring Wet SCOF of Common Hard-Surface Floors in accordance with ANSI B101.1.
8. Test Method for Measuring Wet DCOF of Common Hard-Surface Floors in accordance with ANSI B101.3.
9. Certified as High Traction by the National Floor Safety Institute (NFSI), Phase 2 testing.
10. Certified Compliant according to California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017.

2.2 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted

PART 3 EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

3.2 EXAMINATION

A. Do not begin installation until substrates have been properly prepared and are suitable for application of product.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.3 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Do not use frozen material. Thaw and agitate prior to use.

D. If construction equipment must be used for application, diaper all components that might drip oil, hydraulic fluid or other liquids.

3.4 INSTALLATION

A. New Concrete: Apply cure-densifier hardener to new concrete as soon as the concrete is firm enough to work on after troweling; with colored concrete, wait a minimum of 30 days before application.

1. Spray on at rate of 200 ft^2/gal (5 m^2/L).
2. Keep surface wet with cure-densifier-hardener for a minimum soak-in period of 30 minutes without allowing it to dry or become slippery. If slipperiness occurs before the 30 minute time period has elapsed, apply additional cure-densifier-hardener, as needed, to keep the entire surface in a non-slippery state for the first 15 minutes; for the remaining 15 minutes, mist the surface as needed with water to keep the material in a non-slippery state. In hot weather conditions, follow manufacturer's special application procedures.
3. When the treated surface becomes slippery after this period, lightly mist with water until slipperiness disappears.
4. Wait for surface to become slippery again, and then flush entire surface with water to remove all cure-densifier-hardener residue.
5. Squeegee surface completely dry, flushing any remaining slippery areas until no residue remains.
6. Wet vacuum or scrubbing machines can be used in accordance with manufacturer's instructions to remove residue.

3.5 PROTECTION

A. Protect installed floors for at least 3 months until chemical reaction process is complete.

1. Do not allow traffic on floors for 3 hours after application.
2. Do not allow parking of vehicles on concrete slab.
3. If vehicles must be temporarily parked on slab, place drop cloths under vehicles during entire time parked.
4. Do not allow pipe cutting using pipe cutting machinery on concrete slab.
5. Do not allow temporary placement and storage of steel members on concrete slabs.
6. Clean up spills immediately and spot-treat stains with degreaser or oil emulsifier.
7. Clean floor regularly in accordance with manufacturer's recommendations.

END OF SECTION

SECTION 03390 - PENETRATING SEALER FOR CURING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Non-pigmented sealer for horizontal and vertical concrete surfaces.

1.02 RELATED SECTION

A. Section 03300 - Cast-in-Place Concrete.

1.03 APPLICATION

A. Verify compatibility of product with proposed manufacturer of finishes.

1. Sealed flooring.
2. Tiled or painted flooring.

1.04 QUALITY ASSURANCE

A. Regulatory Requirements: Products shall comply with federal, state, and local volatile organic compounds (VOC) regulations.

1.05 SUBMITTALS

A. No submittals required.

1.06 PROJECT CONDITIONS

A. Do not apply sealer to surfaces below 50 degrees F or above 95 degrees F unless recommended by the manufacturer.

B. Do not apply sealer when rain is predicted within 24 hours after surface has been wet.

PART 2 PRODUCTS

2.01 MANUFACTURER & MATERIAL

A. Sealer for Curing: **CURECRETE DISTRIBUTION INC.** Cure Seal-Hardener by **Ashford Formula**.

PART 3 EXECUTION

3.01 APPLICATION

A. Sealer application in accordance with manufacturer's instructions for new concrete project conditions; for multi-coat application.

B. Instructions for Burnishing a Concrete Floor Treated with Ashford formula.

Note 1

If the surface is not relatively smooth, it may be advantageous to sand the surface prior to burnishing. This is best accomplished with a 60-grit screen or sandpaper.

Note 2

It is necessary that the Ashford Formula treatment be applied adequately if the sheen is to come up. Therefore, if the floor does not shine when polished/burnished, the floor may need to have a standard treatment of Ashford Formula applied, (per manufacturer's instructions included with the material).

Note 3

The concrete surface should have two applications, first right after control joints are cut, the last the slab should be at least 28 days old.

Prior to store turn over use a high-speed propane burnisher equipped with an abrasive black stripping pad.

"Buff" the surface by working the machine up and back so as to create a wax-like sheen.

Repeat Step 2 utilizing a red pad to increase the intensity of the sheen.

Note 4

Propane driven burnishers with an RPM of 1800-3500 work best. A standard 175-RPM buffer will take more polishing and/or buffing to create the desired sheen. In addition, the propane models have the weight of the motor, and therefore pressure, directly over the head of the machine. An electrically driven machine does not have enough pressure, regardless of the equipment's RPM.

SECTION 05120 - STRUCTURAL STEEL

PART 1 - GENERAL

Work Specified Herein

All labor, materials, equipment and services necessary to fabricate and erect all structural steel as indicated or specified including, but not limited to:

- All structural steel including columns, beams, girders, column base and cap plates, joist and beam bearing plates, angles and channels.
- Framing for all openings in metal deck.
- Connection angles, bolts and electrodes for welding work.
- Framing and support for roof top units.
- Shop painting.
- Shop drawings.
- Furnishing of anchor bolts and anchor plates to be embedded in concrete or masonry.
- Connections for steel joists to each other and to structural steel.
- All other items required to make the work of this section complete.

Quality Assurance

- Provide Special Inspections for structural steel as shown on the drawings and as required by the Building Official.
- Welders shall be duly qualified (test passed in the preceding 12 months) in the position in which they are to weld and the qualifications and specifications for workmanship shall comply with the AWS requirements.
- Unless otherwise shown or specified, structural steel work shall conform to the following standards:
- American Institute of Steel Construction
  1. Specifications for Structural Steel Buildings, 2005.
  2. Code of Standard Practice, 2005.
- American Welding Society: Structural Welding Code - Steel, AWS D1.1- 08.

Submittals

The contractor shall prepare all shop drawings, product literature, etc. as required to properly coordinate and construct the project.

Submit the following items for review by the Professional of Record..

1. Submit structural steel shop drawings. Include complete details and schedules for fabrication and assembly of structural steel members, procedures and diagrams. Include details of cuts, connections, camber, holes and other pertinent data. Indicate welds by standard AWS symbols and show size length and type of each weld. Furnish erection drawings referencing erection marks to shop detail drawing numbers. Provide setting drawings, templates and directions for installation of anchor bolts, embedded plates and other anchorages to be installed by others.

Product Delivery, Storage and Handling

Exercise care during unloading, storage and erection to avoid damage. Dumping on the ground is not permitted. Material stored at the site shall be supported completely free of the ground and covered to avoid damage from the elements.

PART 2 - PRODUCTS

Materials

Unless noted otherwise, structural steel shall conform to the grades as specified on the Drawings.

PART 3 - EXECUTION

Fabrication

- Make connections as indicated or detailed, on the drawings and the approved shop and erection drawings. All exposed steel shall have smooth, clean surfaces with no identifying trade marks, names, etc., exposed to view. Leave in condition for finish painting.
- Clean all steel work by wire brushing, or by other means selected by the fabricator, of loose mill scale, loose rust, accessible weld slag or, flux deposit, dirt and other foreign matter. Remove oil and grease deposits by solvent. After cleaning, give all steel work one coat of metal primer. Apply primer thoroughly and evenly to dry surfaces, by brush, spray, roller coating, flow coating or dipping at the selection of the fabricator to achieve a minimum thickness of 1.0 mils.
- Bolts shall have proper length shanks with no bearing on threaded portions.
- Make all welds by the electric-arc process. Grind all exposed welds smooth.
- Splicing of material will not be permitted except as shown of the structural drawings.

Site Inspection

Verify all anchor bolt locations, grouting and elevation of base and setting plates and other material set by other trades, etc., before commencing work. Notify the Professional of Record of any work set by others if out of tolerances specified, and do not erect any material upon such work until it has been corrected satisfactorily. Starting work implies acceptance of the work of other trades affecting erection of the structural frame. Final results are the entire responsibility of the Contractor.

Erection

- The steel structure is a non-self-supporting steel frame and is dependent upon diaphragm action of the metal deck and attachment to the masonry walls for stability and for resistance to wind and seismic forces. Provide all temporary supports required for stability and for resistance to wind and seismic forces until these elements are complete and are capable of providing this support.
- Erect material plumb and level and maintain this condition to completion. Connect members temporarily and align completely before making permanent connections. Surfaces in contact shall be thoroughly clean when assembled. Provide necessary temporary bracing and guying to align the structure properly for permanent connections, and safely resist all erection, dead load and wind stress. Take particular care to have the work plumb and level (maximum tolerance 1 to 500 for interior members, 1 to 1000 for exterior members) before making permanent connections. Remove bracing and guys only after permanent alignment and assembly and structure is capable of completely sustaining design and temporary construction loads.
- Fair-up holes with pins to align holes before bolting. Ream unfair holes to obtain alignment or drill new holes. Enlargement of holes with drift pins or burning of new holes is not permitted. Draw bolts up tight after members are aligned and leveled.
- Weld by shielded arc method per AWS standard code for arc and gas welding in building construction. Refer to shop drawings for weld size and dimensions. Close all joints exposed to weathering with continuous 1/8" weather welds. Grind smooth all exposed welds, but grinding shall not reduce weld strength or required cross section. Protect all finish material from damage due to welding. Remove unsatisfactory welds by chipping or arc air method.
- Spot paint all abrasions, field bolts and field welds with same paint used for shop coat. Remove all temporary guys, bracing and bracing clips and grind flush all burrs remaining, before painting. Remove all welding slag, spatter, rust and burnt paint and wire brush clean all welds before touch-up.

SECTION 05500 - METAL FABRICATIONS

A. SHOP DRAWINGS:

Indicate size, material, and finish. Show locations and installation procedures. Include details of joints, attachments, and clearances.

B. STEEL MATERIALS:

1. STEEL PLATES: ASTM A 36 to tolerances of ASTM A 6.
2. STEEL PIPE: ASTM A 501 or A 500 to shapes detailed.
3. BOLTS: ASTM A 307 typically, and ASTM A 325, high strength bolts, nuts, and washers, where shown on the Drawings.

C. ITEMS: Items for fabrication include, but are not limited to, the following:

1. Metal panel and soffit framing system.
2. SHIPS LADDER: Model No. 520 CH standard as manufactured by O'Keefe's, Inc., San Francisco, CA 94124 (415) 822-4222.

D. GALVANIZED MATERIALS: All exterior exposed steel and where noted on the Drawings.

1. NONSTRUCTURAL PIPE: ASTM A 120.
2. STEEL SHAPES, PLATES, BARS, AND STRIPS: ASTM A 123.
3. STEEL SHEETS: ASTM A 446.
4. ASSEMBLED STEEL PRODUCTS: ASTM A 386.
5. DELIVERY OF HOT-DIPPED ITEMS: ASTM A 525.
6. GRATING

E. STEEL SHOP PRIMER:

Apply with spray for exposed items. Apply primer free of runs and other irregularities that may require modification to achieve the specified finish appearance.

F. WORKMANSHIP

1. EXPOSED ITEMS: Moderate irregularities not visible at 30 feet may remain. Mill marks may remain.
   a. WELDS: Grind welds to small radius with uniform sized cove.
   b. BOLTS: Use only flat or oval head, countersunk bolts where exposed to view.
   c. JOINTS: Provide maximum gap of 1/16 inch.
2. OTHER LOCATIONS: No improvement from mill finish required except preparation for galvanizing or priming.
3. WELDS: Grinding not required.
4. BOLTS: Exposed bolts permitted.

SECTION 06000 - STRUCTURAL LUMBER

PART 1 GENERAL

WORK SPECIFIED HEREIN

A. Structural wall AND ROOF framing.
B. Roof and wall sheathing.
C. Structural glued-laminated timber (glulam).
D. Pre-engineered wood roof trusses.
E. Preservative treatment of wood.
F. Bridging, blocking, bracing, connectors, anchoring and all work necessary for a complete installation.

SUBMITTALS

A. Submit the following for pre-engineered wood trusses.
   1. Shop Drawings: Indicate sizes and spacing of members, loads and cambers, bridging and bracing, connecting plates, and framed openings.
   2. Certification: Submit design calculations, which will include all truss connectors. Design calculations to be sealed by a Professional Engineer licensed in state where project is located.
   3. Truss manufacturer to provide a certification letter stating that the fire retardant trusses will maintain their structural integrity after the fire treating process.

QUALITY ASSURANCE

A. Pre-engineered wood roof trusses
   1. Pre-engineered wood roof trusses shall be supplied by a member of TPI specializing in manufacture of prefabricated wood trusses, with three-year minimum experience.
   2. Truss Plates: In accordance with Truss Plate Institute.
B. Structural glued-laminated timber (GLULAM)
   1. Conform to ANSI 117-2010 - standard specification for structural glued laminated timber of softwood species

DELIVERY, STORAGE, AND HANDLING

A. Cover structural lumber products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 PRODUCTS

DIMENSION LUMBER

A. Grading Agency: Western Wood Products Association (WWPA).
B. Sizes: Nominal sizes as indicated on drawings, S4S.
C. Moisture Content: S-dry or MC19.
D. Grade and species: As shown on drawings, No. 2 Minimum.

CONSTRUCTION PANELS

A. Roof Sheathing: Per plans
B. Wall sheathing: Per plans

STRUCTURAL GLUED-LAMINATED TIMBER (GLULAM)

A. Combinations as shown on drawings.

PRE-ENGINEERED WOOD ROOF TRUSSES

A. Design trusses under direct supervision of Professional Engineer experienced in structural framing design of trusses, licensed in state where Project is located. Comply with the "National Design for Stress Graded Lumber and its fastenings", as published by NFPA. And "Design Specifications for Light Metal Place Connected Wood Trusses", as published by TPI.

ACCESSORIES

A. Fasteners and Anchors: Hot-dipped galvanized steel

PRESERVATIVE TREATMENT

A. Pressure Treatment of Lumber Above Grade: AWPA Treatment C2 using waterborne preservative to 0.25 percent retention.
   1. Treat wood in contact with concrete.
   2. As indicated on drawings.

FIRE-RETARDANT-TREATMENT

A. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test. Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity.
B. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.

PART 3 EXECUTION

FRAMING INSTALLATION

A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
C. Install structural members full length without splices unless otherwise specifically detailed.
D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes and AFPA WCD 1.
E. Provide miscellaneous members as indicated or as required.

PRE-ENGINEERED WOOD ROOF TRUSS INSTALLATION

A. Place trusses true to line and level.
B. Place bridging, bracing, and anchors to maintain trusses straight and in correct position before inducing loads.
C. Do not field cut trusses.
D. Place headers and supports to frame openings AS required.

TOLERANCES

A. Framing Members: 1/4 inch from true position, maximum.
B. Variation from Plane (Other than Floors): 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.
C. Install wood trusses within installation tolerance of ANSI/TP1.

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INTEGRITY | RESPECT | TEAMWORK
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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/18/22
REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
028240-1
STATE OF NEW YORK

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

SPECIFICATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

SP-2

SECTION 06220 - MILLWORK

A. MINIMUM COMPLIANCE STANDARDS:
"Quality Standards of the Architectural Woodwork Industry" (AWI).

B. PLASTIC LAMINATE:
Use horizontal grade typically. Vertical grade may be used for cabinet interiors and vertical surfaces of cabinets. Use balance sheet as required by AWI. Cores shall be 3/4 inch PS-1-83 BD
Exposure 1 plywood and edges shall be self-edge unless specified otherwise.
1. "Nevamar", Exxon Chemical Co.
2. "Wilson-Art", Ralph Wilson Plastic Co.
3. "Formica", The Formica Corporation.
4. "Pionite", Sterling Engineered Products.

C. SOLID STOCK:
1. MOISTURE CONTENT: 8% - 13% at time of installation.
2. NATURAL FINISH HARDWOOD: Comply with AWI "Premium" Grade.
3. PAINT GRADE HARDWOOD: Any species without coarse grain.

D. SOFTWOOD PLYWOOD: PS-1-83.
1. EXPOSED: Medium Density Overlay (MDO).
2. SEMI-EXPOSED: Grade B.
3. CONCEALED: Grade D.

E. MATERIAL THICKNESSES:
The following thicknesses shall apply except when shown thicker on the Drawings:
1. BOTTOMS, ENDS, DIVISIONS: 3/4 inch thick.
2. FACE PLATES: Equal to door thickness with 3/4 inch minimum.
3. WEB FRAMES: 3/4 inch minimum.
4. BACKS AND DRAWER BOTTOMS: 1/4 inch plywood, over 24 inches wide require center bottom support. Limit backs with braces to 12 square feet.
5. DRAWER FRONTS: 3/4 inch.
6. SHELVES: Unsupported, exposed shelves 3/4 inch thick to 36 inches and 1 inch minimum to 42 inches.
7. BASES: Design to space 3 inches deep x 4 inches high x 1/2 inch deep recessed base across exposed ends.
8. DOORS: 3/4 inch minimum thickness, except when shown greater on the Drawings.

F. CABINET HARDWARE:
Prepare the millwork for the installation of the hardware as scheduled on Drawings.

G. INSTALLATION:
Place level, plumb, and at right angles to adjacent work. Where field cutting or trimming is necessary, perform in a neat, accurate, professional manner without damaging the products and adjacent work. Attach securely so the products will perform to their maximum ability without damage resulting from inadequate fastenings.

H. TYPICAL CABINETS:
AWI "Custom" grade with plastic laminate tops and exposed surfaces. Semi-exposed surfaces shall be plastic laminate except drawer shells shall be wood.

SECTION 07 11 13 - BITUMINOUS DAMPPROOFING

1.01 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions.
1. Quality Assurance/Control Submittals: Certificates: Submit certificate that applicator complies with requirements of this section.

1.05 DELIVERY, STORAGE & HANDLING

A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

1.06 PROJECT/SITE CONDITIONS

A. Environmental Requirements: Comply with application temperature range of 0-150°F (-18 - 66° C).

PART 2 PRODUCTS

2.01 DAMPPROOFING

A. Manufacturer:
1. Applied Technologies, LLC: Telephone: (877) APPLY-IT, (513) 939-3767; Fax: (513) 939-3787; Web site: www.appliedtechnologies.com
2. Equivalent systems must be approved prior to bid.

B. Proprietary Products/Systems. Should be use for any system. Fluid-Applied Dampproofing and related products, including the following:
1. Applied Technologies A-T Sealer Dampproofing & Cavity Wall Coating:

a. Material: Heavy body cutback asphalt
b. Color: Black
c. Total Solids Average: 63%.
d. Application Method: Spray
e. Coverage Rate: 2-gal/100 ft² (0.82 L/m2).
f. Dry Film Thickness: 20 mil (0.5 mm) min.
g. Total Cure Time: 24 hours.
h. Weight/Gallon: 7.6 lb (3.4 kg).
i. Elongation at 70°F (21°C), Minimum: 180%.
j. Tensile Strength (ASTM D-412): 32 psi (220 kPa) min.
k. Application Temperature Range: 0 - 150°F (-18 - 66°C).
l. Ability to Stay in Place (ASTM C-836): 30 mils.
m. Durability and Surface Disfigurement Due To Microbial Growth (ASTM D-3273, ASTM D-3274): None.
n. Water Vapor Transmission (ASTM D-1653): 0.42 perms.
o. Water Solubility (ASTM D-2939):
i. Blistering: None.
ii. Re-emulsification: None.
p. Ability to Resist Hydrostatic Pressure - (Federal Specification TT-C-555B):
i. Water Leaks: None
ii. Weight Gain: 1.0 oz.
ij.

2.03 ACCESSORY MATERIALS

A. Provide proprietary accessory materials, including the following:
1. Patching Mastic:

a. Material: Plastic or resin material compatible with the dampproofing material.

PART 3 EXECUTION

Specifier Note: Article below is an addition to the CSI SectionFormat. Revise article below to suit project requirements and specifier's practice.

3.01 MANUFACTURER'S INSTRUCTIONS

A. Comply with the instructions and recommendations of the waterproofing manufacturer.

3.02 EXAMINATION

A. Site Verification of Conditions:
1. Verify that site conditions are acceptable for application of the dampproofing material.
2. Do not proceed with application until unacceptable conditions are corrected.

3.03 PREPARATION

A. Surface Preparation:
1. Ensure that the surfaces to receive dampproofing are structurally sound and free of moisture, dust, mud, loose mortar, fins, metal projections or any substances that would be detrimental to the bonding of the material to the surface.
2. Remove wall ties.
3. Patch cracks, voids and holes with nonshrink grout or mastic.

3.04 APPLICATION

A. Spray apply a uniform coat of dampproofing material to entire wall area. Obtain a seamless coating with a minimum dry film thickness of 20 mil (0.5 mm).

B. Allow material to cure for 24 hours before placing any backfill against the wall.

C. Follow the current installation instructions.

3.05 CLEANING

A. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

Professional Guide" for joint design and installation details.

SECTION 07113 - WATERPROOFING

A. WATERPROOFING:
1. APPROVED MANUFACTURERS: Specifications are based on first named manufacturer. Other approved manufacturers must meet or exceed this standard.

a. Applied Technologies, LLc., 1-877-277-5948
b. W.R. Grace & Co., Cambridge, MA. 02140 (617) 876-1400.
c. W. R. Meadows, Inc., Elgin, IL. (312)-742-4500.
d. J. & P. Petroleum Products, Inc., Dallas, TX. (214) 331-5401.
e. Polyguard Products, Inc., Ennis, TX. 75119 (214) 875-8421.

2. PRIMER: Type recommended by waterproofing membrane manufacturer.
3. SEALING COAT: Free of toxic solvents; thick mastic consistency, smooth and uniform in composition; type as recommended by waterproofing membrane manufacturer.

1. Applied Technologies A-T Sealer Dampproofing & Cavity Wall Coating:

a. Material: Heavy body cutback asphalt
b. Color: Black
c. Total Solids Average: 63%.
d. Application Method: Spray
e. Coverage Rate: 2-gal/100 ft² (0.82 L/m2).
f. Dry Film Thickness: 20 mil (0.5 mm) min.
g. Total Cure Time: 24 hours.
h. Weight/Gallon: 7.6 lb (3.4 kg).
i. Elongation at 70°F (21°C), Minimum: 180%.
j. Tensile Strength (ASTM D-412): 32 psi (220 kPa) min.
k. Application Temperature Range: 0 - 150°F (-18 - 66°C).
l. Ability to Stay in Place (ASTM C-836): 30 mils.
m. Durability and Surface Disfigurement Due To Microbial Growth (ASTM D-3273, ASTM D-3274): None.
n. Water Vapor Transmission (ASTM D-1653): 0.42 perms.
o. Water Solubility (ASTM D-2939):
    o.a. Blistering: None
    o.b. Re-emulsification: None
p. Ability to Resist Hydrostatic Pressure - (Federal Specification TT-C-555B):
q. Water Leaks: None

B. SURFACE PREPARATION:
1. Ensure that the surfaces to receive dampproofing are structurally sound and free of moisture, dust, mud, loose mortar, fins, metal projections or any substances that would be detrimental to the bonding of the material to the surface.
2. Remove wall ties.
3. Patch cracks, voids and holes with nonshrink grout or mastic.

C. APPLICATION:
1. Spray apply a uniform coat of dampproofing material to entire wall area. Obtain a seamless coating with a minimum dry film thickness of 20 mil (0.5 mm).
2. Allow material to cure for 24 hours before placing any backfill against the wall.
3 Follow the current installation instructions.

D. CLEANING

1. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

SECTION 07116 - MEMBRANE WATERPROOFING- SUB WATER TABLE APPLICATION

SELECTED SYSTEM MUST BE APPROVED FOR USE BELOW WATER TABLE APPLICATIONS.

A. MEMBRANE WATERPROOFING:
1. APPROVED MANUFACTURERS: SPECIFICATIONS ARE BASED ON FIRST NAMED MANUFACTURER. OTHER APPROVED MANUFACTURERS MUST MEET OR EXCEED THIS STANDARD.

A. "BITUTHENE 3000" MEMBRANE, AND "BITUTHENE P-3000" PRIMER, W.R. GRACE & CO., CAMBRIDGE, MA 02140 (617) 876-1400.

B. "MEL-ROL" MEMBRANE AND "MEL-ROL PRIMER", W. R. MEADOWS, INC., ELGIN, IL (312)-742-4500.

C. "AQUASEL 2001 AD" MEMBRANE, AND "AQUASEL P 2001 AD" PRIMER, J. & P. PETROLEUM PRODUCTS, INC., DALLAS, TX (214) 331-5401.

D. "POLYGUARD NO. 650" MEMBRANE AND PRIMER, POLYGUARD PRODUCTS, INC., ENNIS, TX 75119 (214) 875-8421.

2. PROTECTION BOARD:

A. 1/8 INCH THICK SEMI-RIGID, ASPHALT SATURATED AND COATED LAMINATIONS OF ROOFING TYPE FELTS, PREFABRICATED TO FORM PROTECTIVE CORE BOARD.

(1) "PC-2 PROTECTION COURSE", W. R. MEADOWS, INC.

(2) "AQUASEL PB 2001 AD" PROTECTION BOARD AND ADHESIVE, J. & P. PETROLEUM PRODUCTS, INC.

3. ADHESIVE: ASTM D 449, LIQUID ASPHALT OR ASTM D 450, LIQUID COAL-TAR BITUMEN CAPABLE OF RETAINING ADHESION, AND NOT RE-EMULSIFY WHEN IN CONTACT WITH MOISTURE, NOT SETTLE OR SLIDE, AND NOT BE EFFECTED BY CALCIUM CHLORIDE, SALT, OR ALKALI, OR TYPE RECOMMENDED BY WATERPROOFING MEMBRANE MANUFACTURER.
4. PRIMER: TYPE RECOMMENDED BY WATERPROOFING MEMBRANE MANUFACTURER.
5. SEALING MASTIC: COMPATIBLE WITH MEMBRANE, FREE OF TOXIC SOLVENTS; THICK MASTIC CONSISTENCY, SMOOTH AND UNIFORM IN COMPOSITION; TYPE AS RECOMMENDED BY WATERPROOFING MEMBRANE MANUFACTURER.

B. PREPARATION:
1. CLEAN AND PREPARE SURFACES TO RECEIVE WATERPROOFING, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
2. ENSURE SURFACES ARE FIRM, AND FREE FROM FROST, LOOSE PARTICLES, CRACKS, PITS, ROUGH PROJECTIONS, GREASE, OIL, FORM RELEASE AGENT AND OTHER FOREIGN MATTER DETRIMENTAL TO ADHESION AND MONOLITHIC APPLICATION OF WATERPROOFING.

C. APPLICATION:
1. APPLY ALL COMPONENT OS THE SYSTEM IN ACORDANCE WITH THE MANUFACTURES SPECIFIC INSTRUCTIONS.

SECTION 07190 - WATER REPELLENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Water repellent coating applied to exterior masonry surfaces and grouted joints.

1.2 QUALITY ASSURANCE

A. Qualifications:
1. Manufacturer: Company specializing in manufacturing Products specified with minimum 5 years documented experience.
2. Applicator: Company specializing in performing the work of this Section with minimum 5 years documented experience.

B. Regulatory Requirements: Comply with applicable rules and regulations of Pollution-Control Regulatory Agency having jurisdiction regarding volatile organic compounds (VOC) and use of hydrocarbon solvents.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Protect coating liquid from freezing.

1.4 PROJECT CONDITIONS

A. Environmental Requirements: Do not apply Product during the following conditions:
1. Ambient temperature below 40 degrees F.
2. Substrate surfaces have cured less than 30 days.
3. Rain or temperatures below 40 degrees F are predicted for a period of 24 hours.
4. Surfaces not dry for minimum 24 hours.
5. Substrate frozen or surface temperature is below 40 degrees F.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Description: Clear penetrating water repellent. Siloxanes, silane or siloxane/silane blend, waterborne and VOC compliant.

B. Products:
1. Chemprobe: Prime-a-Pell H2O.
2. BASF (ChemRex): MasterProtect H 185.
3. Evonik: Protectosil Aqua-Trete Concentrate.
4. L&M: Hydroblock.
5. Modac: Siloxane 20.
6. ProSoCo: Weather Seal Siloxane WB Concentrate.
7. Rainguard: Blok-Lok.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces and adjacent areas where products will be applied and verify that surfaces conform to specifications and manufacturer's requirements for substrate conditions. Do not proceed until satisfactory conditions have been corrected.

B. Verify joint sealants are installed and cured.

C. Beginning of application indicates acceptance of substrate conditions.

SECTION 07212 - RIGID INSULATION (SUB-GRADE)

A. MATERIALS:
1. POLYSTYRENE BOARD INSULATION:

a. DESCRIPTION: Rigid, closed-cell, expanded polystyrene.
b. SPECIFICATION: FS HH-I-524C Type V.
c. COMPRESSIVE STRENGTH: 100 psi.
d. WATER ABSORPTION: 0.3 perms per inch maximum.
e. THERMAL RESISTANCE: R 5 PER INCH
f. SIZE: 16 inch, 24 inch or 48 inch wide boards; length as required for minimum number of joints.
g. APPROVED MANUFACTURERS:
(1) Styrofoam RM, Dow Chemical Company.
(2) Foamular 400, U.C. Industries.
(3) Styropor Board, BASF/Wyandotte.

B. INSTALLATION:
1. FIRE HAZARD: Do not deliver plastic insulation materials to the project site prior to time of installation. Protect against ignition at all times. Complete the installation and concealment of plastic materials as rapidly as possible in each area of Work.
2. Mop or adhere insulation in place to prevent movement. Follow the manufacturer's recommendations for the installation of the insulation.
3. LOCATIONS: Provide 1-1/2 inch thick board in masonry wall and under the slab where the frost line is below the bottom of the slab.

SECTION 07416 - METAL WALL PANEL / SIGNAGE

A. MATERIALS:
1. METAL PANELS:

a. PANEL: SIGNAGE panels are supplied and installed by signage vendor. All work shall be based on the City approved signage package.
b. JOINTS: Provide offset interlocking type joints on nominal 12 inch centers with factory installed concealed weatherproof gaskets.

2. ANCHORS AND FASTENING DEVICES: Use standard non-corrosive anchors and fastening devices. No fasteners shall be visible on the face of the panels.
3. PERIMETER TRIM: Provide required extruded trim of same finish and color as wall panels at top of wall, bottom, corners, and treatment at soffit.

B. INSTALLATION:
1. Install panels detailed on Sign Vendor's Drawings.
2. Install flashing, corners, and interlocking panels to provide a watertight system.
3. Provide intermediate bracing where required for proper support.
4. Repair or replace damaged material.

C.COORDINATION:
1. Confirm and provide blocking requirements with sign installer.
2. Verify signage locations and provide for electrical power.
3. Coordinate access to power and anchorage with all subcontractors.

SECTION 07418 MORTAR MIXES

1.1 MORTAR MATERIALS

Coordinate requirements in this article with those in "Mortar Mixes" Article.

A. Portland Cement: ASTM C 150/C 150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

Requirement in subparagraph below can help reduce the likelihood of efflorescence.
1. Alkali content shall not be more than 0.1 percent when tested according to ASTM C 114.

Mix in "Portland Cement-Lime Mix" Paragraph below allows better control of color than job-mixed, portland cement-lime mortar. If retaining below, also retain "Portland Cement" and "Hydrated Lime" paragraphs above.

B. Masonry Cement: ASTM C 91/C 91M.

C. Mortar Cement: ASTM C 1329/C 1329M.

Retain "Mortar Pigments" Paragraph below for colored cement or for pigments added at Project site.

D. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C 979/C 979M. Use only pigments with a record of satisfactory performance in masonry mortar.

Mixes in "Colored Cement Products" Paragraph below allow better control of color than job-mixed colored mortar. If retaining, also retain paragraphs above that specify materials included in the mixes retained below.

E. Colored Cement Products: Packaged blend made from **mortar cement** and mortar pigments, all complying with specified requirements, and containing no other ingredients.
1. Colored Masonry Cement:
2. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors.

Retain one or both subparagraphs below to suit types of cement retained above. Percentages are for pigments containing only metallic oxides. If using pigments containing carbon black, carbon black must be limited to 2 percent of portland cement by weight or 1 percent of masonry or mortar cement.
3. Pigments shall not exceed 10 percent of portland cement by weight.
4. Pigments shall not exceed 5 percent of **mortar cement** by weight.

F. Aggregate for Mortar: ASTM C 144.
1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
2. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
3. White-Mortar Aggregates: Natural white sand or crushed white stone.
4. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.

"Cold-Weather Admixture" Paragraph below is an example of a requirement for a concrete admixture often used in cold weather as an antifreeze. Appendix X1 in ASTM C 270 and BIA generally recommend not using admixtures unless they are known to have no adverse effects. Before approving the use of cold-weather admixtures, verify their acceptability by laboratory testing with mortar mix used.

G. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.

Retain "Water-Repellant Admixture" Paragraph below if integral water repellent is used in CMUs.

H. Water-Repellent Admixture: Liquid water-repellent mortar admixture intended for use with CMUs containing integral water repellent from same manufacturer.

I. Water: Potable.

SECTION 72419 - EIFS

A. SUMMARY: Provide a mechanically attached, Water Managed Exterior Insulation and Finish System, as shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

B. QUALITY ASSURANCE: The Water Managed Exterior Insulation and Finish System manufacturer's specifications and standard installation details shall be followed completely, and shall be considered a part of this Section as if the manufacturer's specification was included in its entirety.
1. A representative of the E.I.F.S. manufacturer shall provide observations and documentation during the installation as noted in Part III of this section to assure proper installation of the manufacturer's product.
2. Observation of the E.I.F.S. installation shall be performed by a representative of the Manufacturer. A report of each day's work shall be developed describing the materials and workmanship to be in compliance with Manufacturers recommendations, or to describe any deficiencies, with associated correction identified. Reports shall be on E.I.F.S. manufacturer's company letterhead. A copy of each report shall be sent to the Owner, Contractor and Professional of Record. If deficiencies occur, the Contractor shall immediately perform corrections recommended by E.I.F.S. Manufacturer and insurable by Property Loss Underwriters.
3. The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

C. WARRANTY:
1. Manufacturer's Warranty: The Contractor shall provide the Manufacturer's Standard 5-Year Product Warranty in the Building Maintenance Manuals submitted to Jiffy Lube.
2. Installer's Warranty: The Contractor shall include a copy of the EIFS installer's warranty for all work provided, for a term of 1 year after the Date of Substantial Completion.
3. The sections and details shown on the architectural drawings are intended only to show the general profile and appearance desired of the finished Exterior Insulation and Finish Systems (EIFS) system. The EIFS system supplied shall be engineered by the Manufacturer and installed by the Contractor complete with all membranes, details and accessories necessary to provide a warranted water tight enclosure to the building in the areas applied. In the case of a conflict between any details on the architectural drawings and the manufacturer's details and requirements, the Manufacturer's details and requirements shall govern and the Architect will be notified in writing of such conflict. Shop drawings, if provided to the Architect, will be reviewed for conformance to the intended appearance and profile of the exterior cladding only, and shall not relieve the Manufacturer, Supplier or Contractor of their responsibilities herein.

Contractor must fully comply with the requirements of ASTM C1397 - 09 - "Standard Practice for Application of Class PB Exterior Insulation and Finish Systems (EIFS) and EIFS with Drainage" and all other requirements contained herein. The Contractor shall verify and implement all of the Manufacturer's requirements for a warranted installation as well as any codes governing products and process implementation. Contractor shall include: exclusive use of certified and trained installers, on-site inspections or observations of product application, protection of unfinished construction, redundant moisture barriers at edges of substrate and of application surface, redundant moisture barriers at penetrations, drainage systems, a tightly caulked envelope that has defined schedule of annual maintenance and of monitoring of all flashing and joints which shall be provided to the Owner.

Manufacturer's specified practices, details and techniques, if not properly designed and executed could result in failure of the EIFS system, and will be considered entirely the responsibility of the Contractor, who shall indemnify and defend the Owner, Architect and Engineer against any and all claims, damages, suits, actions, legal costs and expenses directly and/or indirectly related to EIFS system.

D. ACCEPTABLE EIFS MANUFACTURERS:
Manufacturers: Provide a water managed, drainable system that will be equal to Sto-essence system. Materials are specified to establish a standard quality, or by performance requirements and general description of product. The Professional of Record reserves the right to reject any material which, in his opinion will not produce the quality of work specified herein.
1. STO
2. DRYVIT
3. PAREX

E. MATERIALS:
4. Sheathing: Glass Mat Faced Exterior Sheathing shall be Dens-Glass Gold Sheathing by G-P Gypsum Corporation, Atlanta GA (800/ 947-4497 Northeast US), subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Paper-faced exterior gypsum sheathing is NOT an acceptable product substitution.
5. Sheathing at Building Signage: Do NOT provide Glass Mat Faced Exterior Sheathing without also providing exterior plywood sheathing backup at any location where signage is scheduled to be provided; in lieu of Glass Mat Faced Exterior Sheathing at these locations, the Contractor may provide Exterior Plywood Sheathing, subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system.
6. Trims and Flashing: Provide weep screed, flashing, water damns and other required metal trims as required by Manufacture and ASTM standards for EIFS installations.
7. Sealants as required by manufactures proprietary installation and material criteria.
8. Moisture Barrier: Liquid Applied Moisture Barrier materials proprietary to systems installation.
9. Nominal 1.0 lb./cu.ft. (16 kg/m3) Expanded Polystyrene (EPS) Insulation Board in compliance with ASTM C 578 Type I requirements, and EIMA Guideline Specification for Expanded Polystyrene (EPS) Insulation Board. Minimum thickness ¾". See Drawings.
10. Expanded Polystyrene less than 25 flame spread, 1.0 lb./per cu. Ft. average density; u = 0.26 per inch; ASTM C578-85 Class A.

F. INSTALLATION:
1. The Water Managed EIFS manufacturer's specifications and recommended standard installation details shall be followed completely, all materials are to be proprietary to the manufacture and shall be considered a part of this section as if the manufacturer's specification was included in its entirety.
2. Install the work of this section in accordance with the Manufactures details and specifications, including all trims, screeds, moisture Barrier systems and with pertinent requirements of governmental agencies having jurisdiction, anchoring all components firmly into position straight, level, and plumb within a tolerance of 1:1000 vertical and horizontal.
3. All installation of E.I.F.S. Materials shall be performed by and/or supervised by applicators who carry a certificate of training by the Manufacturer. Contractor must have a minimum industry experience with EIFS systems no less than 5 years and must have completed 10+ projects of similar size.
4. Under no circumstances shall any of the E.I.F.S. Products be altered by adding any additives, except for small amounts of clean water as directed on label. Antifreeze, accelerators, rapid binders, etc., are forbidden.
5. The overall minimum base coat thickness shall be sufficient to fully embed the mesh in multiple base coat applications.
6. EIFS surfaces in contact with sealants shall be coated with manufacturer approved sealer.
7. EIFS panel tolerance: Maximum variance from plane shall be 1/4" within a 4-foot radius.

SECTION 07530 - SINGLE MEMBRANE ROOFING (TPO/PVC SYSTEM)

1. GENERAL

1.1 Requirements

A. All applicable portions of Division 1- General Requirements are to be considered as included with this section.

1.2 Codes

A. The following are minimum requirements and shall govern, except that all local, state and/or federal codes and ordinances shall govern when their requirements are in excess hereof.

B. Local conditions shall be taken into account and verified with design loads.

1.3 Description

A. Furnish all material, labor, equipment, services, etc. necessary and incidental for the completion of single membrane roofing system.

1.4 Quality Assurance

A. Installer:
Installation shall be made by a roofing contractor with not less than 3 years of successful experience in installation of the specified roofing system and is approved by the roofing system manufacturer.

B. Warranty:
Upon completion and inspection by an authorized representative of the roofing manufacturer, provide the owner with a written warranty, signed by the roofing manufacturer and the authorized installer, agreeing to replace and/or repair defective materials and workmanship for a period of ten (10) years from the date of substantial completion.

2. PRODUCTS

2.1 UL Listing:
Provided a completely proprietarily roofing system with all materials approved for use by the roofing manufacture, labeled materials which have been tested and listed by UL "Building Material Director" for application indicted, with "Class A" rated materials/system.

2.2 TPO / PVC:
Provide a white 45 mils thick, polyester scrim reinforced TPO / PVC roofing membrane system as manufactured by one of the following or owner's representative approved equal:

A. Carlisle
B. GAF Commercial Roofing
C. Conklin Company, Inc.
D. Duro-Last

2.3 Mechanical Fasteners:
Metal Plates, Caps, Battens, Accessory Components, Fastening Devices and Adhesives to suit substrate and as recommended by FSR Membrane Manufacturer.

2.4 Polyisocyanurate Foam Board Insulation:
Rigid boards of minimum 2.0 lb./cu.ft. polyisocyanurate based form core, permanently bonded to roofing felt facer sheets. Provide thickness and R-Value per drawings.
Roof insulation must have a minimum 3-year-aged Solar Reflectance of 0.55 and a minimum 3-year-aged Thermal Emittance of 0.75.
Install multiple layers with staggered joints.

Type	Specification	Layer Thickness	ULRating
Isocyanurate	FS HH-1-1972/1 Class 1	2" max.	Class A

2.5 Protection Board: (If required) Provide 1/2" thick x 4'x8' square-edged regular trade fiberboard protection board complying with ASTM C208.

2.6 Sheet Seaming System: Manufacture's standard materials for sealing lapped joints, including edge sealer to cover exposed spliced edges as recommended by manufacturer of Roofing system.

2.7 Cant strips, tapered edge strips, crickets and flashing accessories: Types recommended by manufacturer of Roofing materials, provided at locations indicated and at locations recommended by manufacturer, including adhesive tapes, flashing cements and sealants.

2.8 Caulks:
Provide various types of sealants approved by the Roofing manufacturer and are intended for the specific type of applications.

2.9 Walkway Protection:
Prefabricated walk pads around all roof top equipment and roof hatch.

3. EXECUTION

3.1 General:
Comply with manufacturer's instructions for preparations of substrate to receive Single Membrane Roof System as required by manufacture.

3.2 Clean substrate of dust, debris, and other substances detrimental to Single Membrane Roof system work. Remove sharp projections.

3.3 Install cant strips, crickets, flashings, and accessory items as shown and as recommended by manufacturer even though not shown.

3.4 Protection Board: Shall be loose laid with its longest dimension perpendicular to the directions of the membrane seams, with joints staggered over roof area to be covered. Boards shall be butted as closely as possible with voids over 1/4" to be filled and mechanically attached as specified by Single Membrane Roof manufacturer; but in no case provide less than one anchor per 4 square feet of surface area.

3.5 Partially Attached Single Membrane Roof: Install membrane by unrolling over prepared substrate, lapping adjoining sheets as recommended by manufacturer and bonding and sealing seams. Install mechanical fasteners at spacing recommended by manufacturer, covering with adhesive-applied membrane so that no fasteners are exposed. Install flashing's and counter flashing's as recommended by manufacturer.

3.6 MANUFACTURES CERTIFICATION:
Provide documented report by manufactures representative that the roofing system was installed per manufactures specified materials and specifications.

SECTION 07620 - BUILDING SHEET METAL

A. MINIMUM COMPLIANCE STANDARDS:
The following Documents govern the Work except where more restrictive requirements are specified.
1. Sheet Metal Manual of the Sheet Metal and Air Conditioning Contractor's National Association (SMACNA).

B. GALVANIZED SHEET STEEL MATERIAL:
1. QUALITY STANDARD: ASTM A 257, coating designation G 90.
2. FINISH:

a. METAL PREPARATION: Prepare surface for painting in compliance with ASTM D 2090 recommendations.
b. Prefinish sheet metal with polyester enamel finish 1 mil minimum thickness.

C. GALVANIZED SHEET GAGES:
24 gage minimum.
1. Clips used for attachment shall be two gages thicker than the piece they retain.
2. FASTENERS:
Galvanized, cadmium, and stainless steel.

D. MATERIAL COMPATIBILITY:
Provide mutually compatible materials and fastening where in contact. If not available, isolate incompatible materials to prevent electrolysis.

E. INSTALLATION:
1. Prime flanges and other metal in contact with roofing membrane.
2. Bed sheet metal flanges on roof membrane and base flashing with flashing cement.

SECTION 07713 - ALUMINUM CAP FLASHING

A. MATERIAL:
1. ALUMINUM COPINGS: 0.063 SMOOTH FINISH ALUMINUM OF 5005-H134 ALLOY.
2. SPLICE PLATES: 0.032 SMOOTH FINISH ALUMINUM OF 5005-H134 ALLOY, FINISH TO MATCH COPINGS.
3. ANCHOR PLATE: GALVANIZED STEEL, ASTM A 93 HOT DIPPED WITH MINIMUM OF ZINC PER SQUARE FOOT (DIVIDED ON 2 SIDES OF SHEET), (24 GAGE MINIMUM).
4. FASTENERS: SUITABLE FOR POSITIVE ANCHORAGE, CORROSION RESISTANT, COMPATIBLE WITH ALUMINUM AND GALVANIZED SHEET.
5. COPING FINISH: PROVIDE FACTORY APPLIED COATING, ORFIELD APPLIED COATING AS SPECIFIED ON THE ELEVATIONS.
6. APPROVED MANUFACTURERS:

A. MM SYSTEMS CORPORATION.
B. W. P. HICKMAN COMPANY, INC.
C. CONSTRUCTION SPECIALTIES, INC.

7. FLASHING: REFER TO ROOF MEMBRANE SECTIONS FOR FLASHING MATERIAL.

B. INSTALLATION:
1. ATTACH ANCHOR PLATE TO TOP OF WALL AT 5 FOOT CENTERS USING NAILS, INSERTS OR SCREWS AS REQUIRED BY JOB CONDITIONS.
2. INSTALL 0.032 SPLICE PLATE AT 10 FOOT CENTERS ON ANCHOR PLATES. USE AN APPROVED CAULK ON EACH SIDE OF JOINT.
3. ENGAGE HOOK ON FRONT FACE OF COPING WITH PROJECTION ON FRONT FACE OF ANCHOR PLATES. PIVOT COPING DOWN INTO POSITION PRESSING FIRMLY AT REAR OVER EACH ANCHOR PLATE UNTIL HOOK ON REAR FACE OF COPING SNAPS INTO PLACE.
4. INSTALL FOLLOWING PIECES OF COPING LEAVING A L/4 INCH JOINT BETWEEN ABUTTING ENDS AT SPLICE PLATES TO ALLOW FOR THERMAL EXPANSION.
5. CLEAN THE COPING CAP. REMOVE FOREIGN MATERIALS AND DEBRIS FROM THE INSTALLATION.

SECTION 07920 - SEALANTS AND CAULKING

A. EXTERIOR SEALANTS AND SEALANTS FOR MOVING JOINTS:
Curing type, two part bulk compounds conforming to F.S. TT-S-00227E(3), or one part conforming to F.S. TT-S-001543A. Provide compounds that cure or polymerize by solvent release, moisture absorption, or catalyst.
1. APPROVED BASIC INGREDIENTS: Polysulfide, silicone, polyurethane, or polytremdyne terpolymer.
2. NON-ACCEPTABLE: Linseed oil or other oil base caulks, asphaltic, or coal-tar types. Acrylic, hypalon, and butyl base types.
3. SOLIDS: 96% minimum by volume.
4. CURED HARDNESS: (Shore A durometer) Maximum of 30.

B. INTERIOR SEALANTS:
All exterior sealants plus the following types.
1. Skinning type, bulk compounds conforming to F.S. TT-S-001657, or ASTM C834, with active ingredients of butyl rubber, acrylic, hypalon, and other similar paintable compounds.

C. CONCEALED SEALANTS:
Non-skinning, resilient (soft), preformed, or bulk compounds conforming to NAAMM Standards SS-la, SS-lb, or SS-1c, with basic ingredients of polybutene synthetic resins, oleoresinous compounds, or similar non-curing compounds.
1. SEALANT TAPE: Preformed or extruded non-curing butyl with or without reinforcement.
2. NON-ACCEPTABLE: Types which do not reseal if seal is broken.

D. SEALANT COLORS:
Match sealants to adjacent materials unless noted otherwise.
Provide clear silicone for glass joints.

E. SEALANT MANUFACTURERS:
1. Dow Corning Corporation, Midland, MI 48640 (800) 248-2345.
2. General Electric Company, Waterford NY 12188 (518) 237-3330.
3. Pecora Corporation, Harleysville, PA 19438 (215) 723-6051.
4. Tremco, Cleveland, OH 44104 (216) 229-3000.

F. ACCESSORY MATERIALS:
1. BACK-UP FILLERS: Non-absorbent, non-staining, expanded, closed cell plastic or rubber compatible with sealants used.

a. NON-SUITABLE MATERIALS: Oil or bituminous types and oakum.
b. SIZE AND SHAPES: Round, square, or rectangular, to fit various job conditions.

2. COMPRESSIBLE FILLER:

a. "Will-Seal", illbruck/usa, Troy, MI 48084 (313) 585-4363.
b. "Emseal", Emseal, U.S.A., Inc. Stamford, CT 06903 (203) 322-3828.

3. PRIMERS, CLEANERS, TOPCOATS: Use only materials listed as suitable in sealant manufacturer's instructions. Test for staining, compatibility, and durability before proceeding.

G. INSTALLATION:
Proceed only when site and surface conditions are suitable for satisfactory performance of this Work. Follow manufacturer's printed instructions for use and installation of his products, including cleaning, priming, tooling and curing. Arrange procedures and devices to protect other Work and property from disfigurement and physical damage, and correct damages resulting from this Work. Prior to ordering or delivering materials, conduct adhesion test on all substrate materials. If inadequate adhesion is evidenced, consult with the Architect before proceeding. Follow the recommendations of the Sealant & Waterproofers Institute's "SEALANTS: The Professional Guide" for joint design and installation details.

SECTION 08112 - HOLLOW METAL DOORS AND FRAMES

A. WARRANTY:
WARRANT THE WORK SPECIFIED HEREIN FOR ONE YEAR AGAINST BECOMING UNSERVICEABLE OR CAUSING AN OBJECTIONABLE APPEARANCE RESULTING FROM EITHER DEFECTIVE OR NONCONFORMING MATERIALS AND WORKMANSHIP. DEFECTS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
1. INDENTATIONS, RUST, AND SURFACE DEFECTS.
2. INADEQUATE OR MISPLACED HARDWARE REINFORCEMENT.

B. MINIMUM COMPLIANCE STANDARD:
1. PROVIDE STEEL DOOR INSTITUTE "STANDARD" GRADE CONSTRUCTION, DETAILS, AND FEATURES.
2. EXTERIOR HOLLOW METAL DOORS SHOULD BE INSULATED.
3. DOOR CONSTRUCTION SHALL BE ADEQUATE TO PROVIDE FOR REGIONAL WEATHER CONDITIONS, INCLUDING BUT NOT LIMITED TO WIND, AND SEISMIC LOADS.

C. DOOR CONSTRUCTION:
PROVIDE 16 GAGE FLUSH GALVANIZED STEEL INSULATED AND BONDERIZED AND PRIME PAINTED DOORS WITH WATER TIGHT TOPS FOR EXTERIOR DOORS.

D. FRAME CONSTRUCTION:
1. EXTERIOR DOORS: PROVIDE STANDARD 14 GAGE FRAMES PREASSEMBLED AND WELDED BEFORE DELIVERY TO THE SITE. GALVANIZED AND PRIME PAINTED, FITTED WITH ADJUSTABLE ANCHORS, REINFORCED FOR HARDWARE. REFER TO DRAWINGS FOR ALL JAMB ANCHOR CONDITIONS.
2. INTERIOR DOORS: PROVIDE STANDARD 16 GAGE KNOCK DOWN FRAMES PREASSEMBLED AND BEFORE DELIVERY TO THE SITE, GALVANIZED AND PRIME PAINTED, FITTED WITH ADJUSTABLE ANCHORS, REINFORCED FOR HARDWARE. REFER TO DRAWINGS FOR ALL JAMB ANCHOR CONDITIONS.

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/16/22
JOSEPH A. DEFILIPPIS
028240-1

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590

(DUTCHESS COUNTY)

SHEET TITLE

SPECIFICATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

SP-3

SECTION 08362 - SECTIONAL OVERHEAD DOORS

A. SECTION INCLUDES
1. Insulated Steel Sectional Overhead Doors.
2. Electric Operators and Controls, when specified on drawings.

B. DESIGN / PERFORMANCE REQUIREMENTS
1. Wind Loads: Design and size components to withstand loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with applicable code for specific location.
2. Wiring Connections: Requirements for electric door openers when provided.
   a. 115 volts, single phase, 60 Hz.
3. Single-Source Responsibility: Provide doors, tracks, motors, and accessories and installation from the approved manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

C. SUBMITTALS
1. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.

D. DELIVERY, STORAGE, AND HANDLING
1. Store products in manufacturer's unopened labeled packaging until ready for installation.
2. Protect materials from exposure to moisture until ready for installation.
3. Store materials in a dry, ventilated weathertight location.

E. MANUFACTURERS
1. Acceptable Manufacturer:
   1.1. Clopay Building Products 8585 Duke Blvd, Mason, OH 45040 Contact Clopay National Accounts csi@clopay.com 1-855-674-6267 Ext 6952
   1.2. Wayne Dalton, 2501 S State Highway 121 Business, Suite 200, Lewisville, TX 75067. info@wayne-dalton.com, 1-800-821-3667; Thermospan 200 Insulated Steel Door
   1.3. Substitutions not permitted

F. GLAZED SECTIONAL OVERHEAD DOORS
1. Insulated Steel Sectional Overhead Doors: Clopay Overhead Doors model 3728. Units shall have the following characteristics:
2. Door Assembly:
   a. Provide insulated doors as indicated on drawings. Thermal Resistance (R-value): 18.4 deg F hr sq ft/Btu (3.0 (K sq m)/W); calculated door section R-value in accordance with DASMA TDS-163.
   b. U-Factor 0.16
   c. Air Infiltration 0.22 CFM at 25mph Maximum 0.4 CFM required by IECC or 0.3 CFM in CBC Title 24
3. Springs: High cycle spring: 25,000 cycles.
4. Glazing: Clear glazing. (AS NOTED ON THE DRAWINGS)
5. Finish and Color: Confirm with Clopay National Accounts.
6. Windload Design: Provide engineered anchorage designed to meet the Design/Performance requirements referenced in structural notes
7. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
8. Lock:
   a. Inside slide lock
9. Weather stripping:
   a. Flexible bulb-type strip at bottom section.
   b. Flexible Jamb seals.
   c. Flexible Header seal.
10. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
    a. Size: 2 inch (51 mm).
    b. Maximum highlift available
11. Manual Operation: Pull rope optional chain operation
12. Electric Motor Operation: Provide UL listed electric operator, Size and type determined by Clopay National Accounts.
13. Operator Control:
    a. "PUSH AND HOLD"
       a.a. Push-button operated control stations with open, close, buttons.
       b.c. Surface mounting
       b.d. Location shown on electrical power sheet.
    b. "PUSH AND RUN"
       b.a. Push-button operated control stations with open, close, and stop button
       b.b. Photo eye safety devise required.
       b.c. Surface mountling
       b.d. Location shown on electrical power sheet.

G. INSTALLATION
1. Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
2. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
3. Anchor assembly to wall construction and building framing without distortion or stress. Adequate wall construction shall be the installers responsibility to confirm, prior to installing doors.
4. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
5. Fit and align door assembly including hardware.
6. High and low voltage wiring to be installed by electrical contractor
7. Instruct Owner's personnel in proper operating procedures and maintenance schedule.

SECTION 08523 - ALUMINUM STOREFRONT DOORS AND FRAMES

A. APPROVED MANUFACTURERS:
Specifications are based on first named Manufacturer. The other listed manufacturers must meet or exceed this standard if they are chosen.
1. Kawneer Co. Inc., Norcross, GA 30092 (404)-449-5555.
2. Old Castle Building Envelope- Dallas Tx. (866)-653-2278.
3. Tubelite- 14000 series Walker, MI 49544, 800-866-2227

B. MATERIALS:
1. Extruded aluminum alloy 6063 T5 or comparable alloy as required for specified finish.

C. DOORS:
1. TYPE: Entrance doors shown on Drawings are based on "350 Medium Stile" manufactured by Kawneer. Equivalent products of above listed manufacturers are acceptable.
2. CONSTRUCTION:
   a. CONNECTIONS: Provide bolted and welded connections, fit to a hairline joint.
   b. REINFORCING: Provide reinforcing at bolted attachments. Tapped aluminum is not permitted.
   c. ATTACHMENTS: Provide concealed screws, nuts, bolts, and anchors, except hardware screws on butt of door, of non-corrosive metal.
3. STILES AND RAILS:
   a. SHAPE: Tubular: 0.125 inch minimum thickness.
   b. STILE THICKNESS: 1-23/32 inches.
   c. TOP RAIL AND SIDES, THICKNESS: 3-1/2 inches.
   d. BOTTOM RAIL THICKNESS: 10" inches.
4. Hardware: shall be provided by storefront manufacture and designed in accordance with storefront systems' regional wind criteria. Including but not limited to closer (**LCN 1450 SERIES or equal**), hinges (continuous) and latch (ADA compliant), function and attachments.
5. Deliver doors to job site pre-glazed.

D. FRAMING:
1. Framing shown on the Drawings is based on 2 inch x 4-1/2 inch framing system similar to Kawneer "Trifab 451/ 451-T". Thermally broken framing on all exterior locations. Equivalent products of above listed manufacturers are acceptable.
2. NO exposed fasteners allowed in finished Work. Provide factory assembled framing members.
3. Provide 2 piece snap together type mullion sections.
4. MULLION REINFORCEMENT:
   a. Provide reinforcement, if necessary, to achieve structural requirements.
   b. MATERIAL: Galvanized steel.
   c. ATTACHMENT: Fasten to aluminum extrusion so that member and reinforcement act as a unit.

E. ALUMINUM FINISH:
1. Anodized aluminum finish as noted on plans.

F. INSTALLATION:
1. Install units plumb, level and in true plane. Anchor securely to abutting materials as indicated on the Drawings. Adjust for smooth quiet operation. Clean glass, frame, and abutting materials.

SECTION 08700 - FINISH HARDWARE

A. MINIMUM COMPLIANCE STANDARDS:
The following Documents govern the Work except where more restrictive requirements are specified.
1. NFPA Pamphlet No. 101.
2. ANSI A117.1.
3. NFPA No. 80.
4. UL Certification.
5. **ADA Guidelines**.
6. Hardware on exterior doors are to consider regional high wind loads when providing exterior door hardware. (Latches, closer and hinges)

B. INSTALLATION:
1. Install in accordance with the manufacturer's templates and printed information. Adjust closer to ADA standards. Check locks, latches, and other operating mechanisms for ease of operation.
2. Adjust quality as needed for wind loads.
3. Provide keying as directed by the Owner.

SECTION 08800 - GLASS AND GLAZING

GLASS TYPE - G1
Provide 1" exterior insulated tempered glass for all exterior window locations with the following characteristics:
GLASS THICKNESS - 1/4"
AIR SPACE - 1/2"
DAYLIGHT TRANSMITTANCE - 73%
WINTER U-VALVE - .35
SUMMER U-VALVE - .38
SHADING COEFFICIENT - .81
TINT - CLEAR

GLASS TYPE - G2
Provide 1/4" clear tempered float glass for doors and fixed glass locations as noted on drawings or locations not noted otherwise.

A. MINIMUM COMPLIANCE STANDARDS: The following Documents govern the Work except where more restrictive items are specified:
1. Glass shall conform to Federal Specification DD-G-451D and DD-G-1403B(1) qualities highest of their category.
2. Installation shall conform to requirements of Flat Glass Marketing Association "Glazing Manual".
3. Consumer Product Safety Act and the standard for architectural glazing materials (16 CRF 1201).

B. TEMPERED GLASS:
1. Float glass, 1/4 inch thick.
2. Tempered plate, minimum thickness, as scheduled, ANSI Z97.1.

C. INSTALLATION: Install materials in accordance with glass manufacturer's recommendations using workmen skilled in this type of work. Install glass without binding, warping, or strain. Thoroughly bed and back putty glass set with glazing beads and moldings. Where glazing beads are provided, carefully remove and reset, using caution to avoid marking or in any way defacing Work.

D. CLEANING: Remove excess compound/sealant and leave glass and surrounding area clean. Clean glazing surfaces with non-staining solvent or detergent. Remove and replace improperly set, broken, cracked, and unacceptable glass.

SECTION 09266 - GYPSUM WALLBOARD SYSTEMS

A. MINIMUM COMPLIANCE STANDARDS: The following Documents govern the Work except where more restrictive items are specified:
1. ANSI A97.1.
2. Gypsum Association Specifications.
3. ASTM C 754.
4. ASTM C 840.

B. FRAMING: Refer to Rough Carpentry.

C. WALLBOARD: Provide standard gypsum board, ASTM C 36, fire-rated board, type "C" or "X", ASTM C 36, moisture resistant board, ASTM C 630.

D. TRIM AND ACCESSORIES: Galvanized steel, provide USG Reinforced Dur-A-Bead corner beads, USG 200-A trim, and USG 093 expansion joints USG 224 and USG 269 Z-furring channels.

E. APPLICATION TO WOOD FRAMING:
1. LENGTHS: Use longest practical lengths. Small pieces permitted only as necessary to fill the spaces.
2. DIRECTION: Long direction across framing except vertical application may be used on walls provided boards reach to ceiling in one piece.
3. ORDER OF APPLICATION: Ceilings first.
4. BOARD CONTACT: Apply so edges touch. Do not force fit.
5. END JOINTS: Must occur over supports. Maximum gap is 1/4 inch.
6. STAGGERED JOINTS: Required for partitions and ceilings so end joints do not align in any way.
7. NAILING/ SCREW:
   a. EDGE LOCATION: At least 3/8 inch from board edges.
   b. EDGE SPACING: 8 inches for walls; 7 inches for ceiling.
   c. FIELD SPACING: 12 inches on center; double nail 2 inches from first nail.
   d. FIRE RATED BOARD: Refer to manufacturer's literature.

F. TRIM: Provide trim where board abuts other material, where shown, and where needed to cover exposed ends of board. Provide floated flange design, except where exposed type is shown.

G. JOINT FINISHING: Float out and sand to make joint invisible when painted with untextured paint typically and tape and fill without sanding in concealed locations.

H. WORKMANSHIP TOLERANCES:
1. VISUAL: Any nicks, bumps, out of level, or out of plumb areas detectable by the naked eye must be corrected. (level 5 in sales areas and level 4 in shop)
2. WALLS: Maximum deviation from vertical is 3/8 inch.
3. BUMPS IN BOARD: 1/8 in 24 inch maximum.
4. CORNERS: Maximum out of square 3/16 inch in 16 inches.

SECTION 09300 - CERAMIC TILE

A. PRODUCTS
1. Approved suppliers:
   Dal-Tile - contact: Barb Josey | National Account Manager
   Dal-Tile Corporation | Marrazzi | American Olean
   735 S Huron St, Denver, CO 80223
   Mobile: 303.949.9638
   Email: barb.josey@daltile.com
2. Tile: shall be of standard grade quality and shall conform to requirements of ansi A-137.1-2017
3. Color: porcelain tile shall be furnished in colors and style listed on finish material schedule.
4. Trim: according to availability, provide matching trim shapes such as bullnose corners, cove base and borders when specified. or metal trim as indicated on drawings.
5. Setting materials: use appropriate installation mortars according to ANSI A108.4 - 2019.
6. When using organic adhesives refer to ANSI A136.1. 2013.
7. Grouting materials: provide grout as specified in construction documents.

B. INSTALLATION
1. Before tiling, verify that all surfaces to be tiled are structurally sound true to plane, and fall within maximum variations shown below:

WALLS	FLOORS
1/4" in 10'	1/8 " in 10'

2. Report all unacceptable surfaces to the g.c. in writing, and do not tile such surfaces until they are leveled enough to meet above requirements.
3. Before tiling, all surfaces must be free of curing compounds, oil, grease, wax, dirt, dust, form releases or other substances that would interfere with proper bond of setting materials. If tile is installed by the thin-set method, concrete slabs shall be steel trowel or light broom finish.
4. Ceramic tile shall slope toward floor drains where applicable.
5. Control joints and cracks in slab should be addressed per industry standards for setting method being used. Refer to ASTM C627

C. SETTING METHODS
1. Comply with appropriate ANSI A108-2019 specification and current Tile Council of America handbook for appropriate method of installation for each specification. For thin set adhesive mortar application use following technique: with the flat side of trowel, key mortar into substrate.Using the appropriate size trowel, comb mortar in one direction with notched side of the trowel. Set tile with a sliding motion, perpendicular to the mortar ridges. Obtain as near 100% coverage as possible of mortar to tile. mortar coverage shall be no less than 85% and shall be sufficiently distributed to give full support under all corners and edges of the tile. note: 95-100% coverage is mandatory for wet and exterior areas. periodically, remove sheets or individual tiles to assure proper bond coverage consistent with industry specifications.
2. Ensure there is a minimum 1/8" of mortar between tile and substrate after proper bedding. Installer must periodically remove sheets or individual tiles to assure proper bond coverage consistent with industry specifications. If coverage is found to be insufficient, use a larger size notch trowel.

D. GROUTING METHODS
1. Follow exactly grout manufacturer's instructions and comply with appropriate ANSI A108.10-2017 specification depending on type of grout selected. grouting is not complete until all grout haze and residues are removed from the surface of the tile.

E. CLEANING AND PROTECTION
1. Leave finished installation free of cracked, chipped, broken, unbonded or otherwise defective tile work.
2. Protect all floor tile installations with clean construction paper or other heavy covering during construction period to prevent staining or damage.
3. No foot or wheel traffic permitted on floor for at least 3 days after grouting.

F. EXECUTION
1. Lay tile in grid pattern, unless otherwise indicated. Align joints where adjoining tiles on floor, base, walls, and trim are the same size.
2. Perform cutting and drilling of tile without marring visible surfaces. carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.

SECTION 09512 - ACOUSTICAL LAY-IN SYSTEMS

A. TO BE PROVIDED AS CALLED FOR ON THE DRAWINGS.
A.1. SPECIFIED ITEM ONLY, **NO SUBSTITUTIONS WILL BE ALLOWED**.
A.2. Black tile is to be provided from same production lot to maintain color consistency.
B. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND DETAILS.
B.1. DO NOT install black tile until end or project to avoid dust and dirt from accumulating on tiles.

SECTION 09678 - RESILIENT BASE

A. APPROVED MANUFACTURERS:
1. Roppe Rubber Corp., Fostoria, OH 44803 (800) 537-9527.
2. Burke Flooring Products, San Jose, CA 95112 (408) 297-3500.
3. Flexco Division of Textile Rubber Co., Tuscumbia, AL 35674 (205) 383-7474. 4. Armstrong rubber wall base (800) 292-6308

B. MATERIALS:
1. Material: Rubber.
2. Size: 1/8 inch thick x 4 inches.
3. Color: As indicated on drawings.

C. APPLICATION:
1. Butt ends to hairline fit; avoid stretching.
2. Place base with joints under compression so toe continually touches flooring.
3. MASTIC - to accommodate FRP and gp. bd. surfaces, per manufacture.

SECTION 09900 - PAINTING

A. WARRANTY: Warrant the Work specified herein for one year against becoming unserviceable or causing an objectionable appearance resulting from either defective or nonconforming materials and workmanship. Defects shall include, but not be limited to the following:
1. Noticeable discoloration, streaking, blooming, darkening, or fading.
2. Mildewing.
3. Peeling, cracking, blistering, alligatoring, or releasing from the substrate.
4. Chalking or dusting excessively.
5. Changing sheen in irregular fashion.
6. Softening or becoming tacky.

B. PREPARATORY WORK:
1. PROTECTION WORK: Arrange procedures and devices to protect other Work from disfigurement and physical damage. Repair or replace materials damaged as a result of the Work of this Section.
2. STEEL AND IRON: Remove grease, oil, and dust, and touch-up chipped and abraded places on items that have been shop primed, using same type of primer.
3. CONCRETE, MASONRY: Check for high moisture and alkali content. If high alkali is present, neutralize to suitable levels.
4. SUBSTRATES GENERAL: Provide normal minor patching on surfaces provided under other sections of this Work. Excessive patching or treatment is not included in this Section of the Work.

C. APPROVED MANUFACTURERS:
1. "SHERWIN WILLIAM:, Cleveland , OH 44101 (502) 1-800-321-8194
2. BENJAMIN MOORE

D. MANUFACTURER'S INSTRUCTIONS: Follow the manufacturer's pre- printed instructions as a minimum requirement for the use and installation of his products.
1. APPEARANCE: Provide uniform color, texture, and sheen.
2. NEATNESS: Do not smear, spatter, or run coatings over adjoining colors or materials. Cut-in lines shall be straight.

E. PAINT THICKNESS: Provide the following minimum dry film thickness per coat:
1. INTERIOR: 1 mil.
2. EXTERIOR:
   a. ENAMELS ON METAL: 1 mil.
   b. LATEX PAINTS: 1 mil.
   c. METAL PRIMERS: 1.5 mils.
   d. UNDER COATS: 1.5 mils.
   e. OIL PAINTS: 1.5 mils.
   f. TRAFFIC LINES: 2.5 mils.
3. THICKNESS TEST: Use visual observation gage that measures "V" shape scratch.

F. COMPATIBILITY OF PAINT TYPES: Verify the compatibility of each type of finish coat with shop primers and between field coats. When necessary, switch paint types or use a block coat to avoid interference between paint types.

G. TYPICAL EXTERIOR SYSTEMS
1. GALVANIZED METAL:
   1 coat Zinc dust, cement primer, or epoxy ester.
   2 coats Semi-gloss exterior enamel.
2. STEEL OR IRON: (Regular primer by fabricator)
   1 coat Touch-up of primer.
   1 coat (Intermediate) Iron oxide primer.
   2 coats (Finish) Semi-gloss exterior enamel.
3. PAVEMENT: (Traffic lines)
   1 coat Zone marking paint.
4. ALUMINUM:
   1 coat zinc chromate primer.
   2 coats Semi-gloss exterior enamel.

H. TYPICAL INTERIOR SYSTEMS:
1. PAINTED WOOD:
   1 coat Oil base enamel undercoater.
   2 coats Satin enamel.
2. GYPSUM DRY WALL:
   1 coat Sealer and primer.
   2 coats Semi gloss latex enamel or oil base enamel.
3. STEEL: (Primed by fabricator)
   1 coat Touch-up of primer.
   2 coats Semi-gloss enamel.

SECTION 10536 - AWNING

A. MATERIALS:
1. APPROVED MANUFACTURER: SIGN SERVICES, INC. (Refer section 07416)

SECTION 10810 - TOILET ROOM ACCESSORIES

A. MINIMUM COMPLIANCE STANDARDS: The following Documents govern the Work except where more restrictive items are specified:
1. ANSI A117.1.
2. ADA Guidelines.

B. APPROVED MANUFACTURERS:
1. Bobrick Washroom Equipment, Inc., North Hollywood. CA 91605 (213) 764-1000.
2. Bradley Corp., Menomonee Falls, WI 53051 (414) 251-6000.
3. Watrous, Inc., Northbrook, IL 60065 (312) 480-8910.

C. MOUNTING LOCATIONS: Refer to the Drawings. When not shown, submit manufacturer's recommendations for locations and mounting height before proceeding.

D. INSTALLATION: Securely fasten each item to prevent dislocation or vandalism. Attach each item plumb and level in the locations indicated. Provide in wall blocking as required to meet code and handicap criteria.

sevan
DESIGN SOLUTIONS, P.C.
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INTEGRITY | RESPECT | TEAMWORK
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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/16/22
REGISTERED ARCHITECT
JOSEPH A. DEPUPPO
028240-1
STATE OF NEW YORK

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

SPECIFICATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

SP-4

MECHANICAL SPECIFICATIONS:

PART 1 - GENERAL:

INTENT:

These outline specifications and accompanying drawings describe scope of work required for mechanical and control systems. In as much as bids will be limited to selected contractors, comprehensive specifications and detailed instructions are deemed unnecessary. Labor and material shall be provided as required for a complete, workmanlike installation of all systems shown on diagrammatic drawings and/or as specified herein.

CODES, PERMITS, AND INSPECTIONS:

All work shall be in accordance with applicable state and local codes, NEC and NFPA recommendations. Contractor shall obtain all permits required, give all legal notices, and have all work inspected as required by local or state law. Contractor shall pay all fees associated w/ securing permits.

DEFINITION:

The word "Contractor" and "MC" as used in these outline specifications and plans refers to HVAC subcontractor unless specifically noted otherwise.

WORKMANSHIP:

Competent skillful workmen shall do all work in a finished, thoroughly substantial and craftsman like manner. This is intended to refer particularly to smaller details necessary but usually not specified or indicated on the drawings. All sub-standard work, installed by this contractor, shall be replaced by this contractor at no additional expense to the owner. If this contractor damages existing work, he shall pay the cost of replacement of the damaged work at no additional expense to the owner. Designer and/or owner's representative shall be the judge of workmanship and their opinion will be final.

DELIVERY, STORAGE AND HANDLING:

Contractor shall consult with the general contractor for storage space at the job site if required. Storage space must be secured and contractor's representative must be on job before any material may be received.

RECORD DRAWINGS:

Contractor shall keep one set of "red-lined" record drawings on site at all times and shall provide drawing to designer before final inspection.

WARRANTY:

Contractor shall correct any defects in workmanship and/or material which occur during the first year of operation. Contractor shall also provide, during first year warranty period, all preventive maintenance required to protect manufacturer's equipment warranty. Preventive maintenance shall include labor and materials required for:

1. Lubrication
2. Routine inspections
3. Thermostat calibration

SHOP DRAWINGS:

Mechanical subcontractor shall submit one (1) electronic PDF copy of shop drawings for all scheduled mechanical equipment. Including but not limited to all rooftop equipment, fans, gas fired equipment, electric heaters, condensing units, grilles, dampers, air balance report etc for approval to the designer. Clearly identify all items, model numbers, electrical specifics, provided accessories and options as needed to make a clear and complete submittal.

PART 2 - PRODUCTS:

HANGERS, SUPPORTS AND ANCHORS:

Support and fasten all equipment etc., securely in place. Space, secure and adjust hangers without deflection or sag. These devices shall be factory fabricated by B-Line, Grinnell, PHD or similar manufacturers. Chain, strap, perforated strap, wire hangers or wood plugs are prohibited. Supply hangers of materials compatible with piping and ductwork to prevent galvanic corrosion.

Provide steel supports, anchors, frames, bracing, plates, bolts, nuts, washers, rods, hangers, upper attachments, etc., incidental to installation of work as specified or required.

Support equipment from the structure in an approved manner. No portion of the structure shall be over stressed by the hanging operation or by the final supports. Provide auxiliary structural members, such as 3"x3"x " angles, where required between members of the structure and support equipment or device off angles.

All equipment, unless shown otherwise, shall be securely attached to the building structure in an approved manner. Povide attachments which are compatible w/ building structure. Attachments that are, in the opinion of the designer, inadequate shall be replaced as directed.

LABEL:

All equipment and devices with bakelite engraved plates screwed in place. "Tapewriter" and adhesive unacceptable.

DUCTWORK:

Rectangular and round galvanized sheet metal ducts shall be braced, supported, constructed and installed in accordance with the latest edition of SMACNA duct manual entitled: HVAC Duct Construction Standards, Metal and Flexible. Conventional "S" joint construction per SMACNA tables is acceptable. All joints in ductwork shall be sealed with an approved type duct sealing tape dipped in or brushed with adhesive ("Hardcast" DT-Tape w/FTA-20 Adhesive or "United McGill" MTD Tape w/MTA-20 Adhesive) - "duct tape" unacceptable. All square bends or elbow fittings shall be fitted with turning vanes of an approved type. Provide adjustable balancing dampers with locking quadrant at all supply air tees.

THERMOSTATS AND CONTROLS:

Provide unit manufacturer's standard unit mounted manual/ automatic changeover room thermostat w/ auto-on fan and heat-auto-cool switches provide unit manufacturer's standard 2 stage room thermostat w/ auto-on fan and summer-winter switches.

NATURAL GAS PIPING:

Black steel, ASTM a53 type E or S with threaded malleable iron iron fittings. Gas stops shall be AGA Certified bronze plug type with square plug.

GAS VENTS:

Double wall gas vent, conforming to NFPA 211, Type B. Inner pipe of sheet aluminum, outer pipe of galvanized steel sheet. Provide accessories as required for complete installation. Acceptable manufacturer's shall be Aelkirk Metalbestos, Masco Co. and Hart and Cooley, Inc.

SUBSTITUTIONS:

Major equipment, devices, and specialties shall be as noted on the drawings. Manufacturers shown or noted are intended for reference as to the quality and type of equipment desired. Comparable equipment by other manufacturers will be considered for approval by the designer if level of quality is equivalent. Refer to equipment schedule in drawings for acceptable alternates:

PART 3 - EXECUTION:

SUPERVISION:

Contractor shall constantly supervise the work from the beginning to completion and final inspection. Contractor shall have a representative at all construction meetings.

SEQUENCING AND SCHEDULING:

Contractor shall plan and schedule his work to maintain progress with other contractors on the job. Diligently perform the work as rapidly as possible. Coordinate exact locations and clearance requirements for all mechanical equipment, devices, etc.. Under no circumstances shall this contractor delay this project.

EQUIPMENT LOCATIONS:

Verify final location for rough-ins w/ field measurements and with the requirements of the actual equipment to be connected. Determine exact equipment and materials locations to provide best arrangement and to facilitate proper maintenance and servicing of equipment. **DO NOT SCALE DRAWINGS**. Coordinate closely with G.C. Supt. and owner's representative.

INTERFERENCES:

Plans are generally diagrammatic. Contractor shall avoid interferences with conduits, piping, equipment, ducts, architectural and structural work. Necessary offsets in pipes, fittings, etc., required to properly install equipment so as to take up a minimum space, shall be furnished and installed by this contractor at no additional expense to the owner. Coordinate w/ other trades prior to installing ductwork.

CLEAN-UP:

Contractor shall remove all debris due to his work and shall repair, clean and replace all surfaces damaged or soiled as a result of his work at no additional expense to the owner. Removal of debris shall be daily and as required to maintain safe working conditions.

CUTTING & PATCHING:

Contractor is responsible for any cutting and patching required which is incidental to the installation of his work. Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other surfaces necessary for HVAC installations. Perform cutting by skilled mechanics of the trades involved. Repair cut surfaces using materials matching specified materials and methods required for surface.

UNDERWRITER'S LABORATORIES APPROVAL:

All equipment furnished shall be UL approved and shall be labeled or listed by U.L. No equipment shall be approved which fails to meet these conditions.

PLACING IN SERVICE, TESTS, INSTRUCTIONS AND MAINTENANCE:

Contractor shall make all necessary tests, trial operations, etc., required and directed by the designer to prove that all systems are in complete serviceable condition and will function as intended. All costs of tests shall be borne by this contractor. Contractor shall furnish all necessary assistance as directed by the owner or the designer which may be required to properly instruct the owner in the operation of all equipment. This shall include personal instruction covering routine maintenance and operation of units and thermostats. Contractor shall furnish two copies of complete operating and maintenance instructions for all equipment, including necessary cuts, charts, written instructions, wiring diagrams, final as-built drawings with balanced air flows indicated, etc. These maintenance instructions shall be bound in suitable hard back ring binders, properly indexed and delivered to the owner at one time.

BALANCE AIR FLOW:

Air flow shall be balanced to obtain quantities shown on floor plans. Carefully adjust extractors and dampers for all ductwork, and air outlets and record readings which correspond to design flow rates at each outlet.Record final readings on clean print. Test and balance the complete airside system in accordance with SMACNA T.A.B. procedures. Upon completion of all balancing and testing, contractor shall provide a copy to the designer and schedule a period of time for random checking of typical outlets.

PART 3 - GENERAL MECHANICAL NOTES:

1. Gas meter and service by local natural gas supplier. Mechanical contractor to coordinate exact location and capacity requirement.
2. Mechanical contractor to connect to down stream side of meter and extend as indicated.
3. Rooftop units shall be installed on full perimeter factory pre-fab roof curbs to match roof pitch and furnished by the mechanical contractor.
4. Exhaust fans shall be furnished with bird screens, back draft dampers and disconnectors according to the exhaust fan schedule.
5. All control wiring diagrams shall be furnished by the mechanical contractor to the electrical contractor. All control wiring shall be supplied by the electrical contractor for installation.
6. Sleeve natural gas pipe through wall at approximately 36" a.f.f. and seal void around pipe with backer rod and clear silicone sealant.
7. Mechanical (heating, ventilating , air conditioning and plumbing Contractors shall coordinate all ductwork, piping, air distribution devices and other mechanical and plumbing work with other building trades such as Architectural, Electrical, Plumbing, and Building Structure to avoid conflicts and delays.
8. All duct connections to all air moving equipment shall be made with asbestos free flexible connections.
9. All flexible duct shall be connected to base branch ducts with a minimum of three sheet metal screws at each connection and taped to provide an air tight seal.
10. Flex duct hanger strips shall be 1 x 16 ga. minimum.
11. The maximum allowable length of flexible duct shall be 5'-0".
12. All duct sizes shown on drawings are clear air stream dimensions.
13. The room thermostats shall be installed at same elevation as light switches.
14. All refrigerant suction lines and condensate drain lines, inside the building, shall be insulated with fiberglass insulation Johns Manville Micre Lok 650 or approved equal. Outdoor suction line shall be insulated with Johns Manville Aerotube Foamed Plastic Insulation.

Pipe Sizes	Insulation Thickness
Suction Lines	1"
Condensate Drain Lines	1/2"

15. All ductwork shall be fabricated of galvanized steel sheets. They shall be fabricated and installed as per latest SMACNA Standards unless shown or noted otherwise. All transverse joints shall be pocket locks. All longitudinal joints shall be Pittsburgh locks. All internal and external duct insulation shall be applied as per latest SMACNA Standards.
16. Rectangle metal duct shall be mild galvanized steel unless otherwise noted. Fiberglass ductboard is not acceptable.
17. All insulation and accessories, except aerotube, shall comply with all requirements of ASTM E-84, NFPA 225 and UL 723 and flame spread rating shall not be greater than 25 and smoke developed not to exceed 50.
18. All refrigerant lines shall be properly supported.
19. All air systems shall be cleaned after installation and shall be properly balanced using properly calibrated balancing devices. Type written balancing reports shall be submitted to the Architect.
20. After installation, all refrigerant systems shall be cleaned and charged with refrigerant and lubrication oil, and shall be put in satisfactorily operation conditions.
21. Refrigerant lines shall be Type - L copper tubing with sweat-type wrought copper fittings.
22. Mechanical and Plumbing Contractors shall apply for all required permits. They shall pay for all permit fees and other associated charges. The Contractors shall also provide all required cost estimates to City and to local authorities to determine permit fees, if required.
23. The condensate drain lines shall be of Sch. 40 PVC.
24. Exact locations of all ceiling grilles and diffusers shall be field coordinated with light fixtures.
25. All rectangular, spiral and rigid round ductwork located above ceiling shall be externally insulated with 1 1/2" thick external insulation. The insulation shall be Johns Manville Series "R" Microlite Fiberglass Duct Wrap with Kraft-Scrim-Foil vapor barrier jacket or equal.
26. All rectangular, spiral or rigid round ductwork located exposed to the space shall be internally insulated with minimum 1" thick duct liner. Liner shall be applied per SMACNA standards and have the code required minimum R-value.
27. All ceiling supply air diffusers shall have four-way throws unless shown otherwise.
28. All round take-offs from rectangular ducts shall be a "Creative Metals, Inc." spin-tite fitting, Model MSED (spin-in w/ scoop damper) or approved equal.
29. All air quantities shown, next to grille designations on drawings are CFM. All grilles shall be balanced to these quantities.
30. Flexible duct shall be insulated type and rated for 6 inches of positive, 1 1/4 inches of negative pressure, and 4000 FPM maximum velocity and shall comply with all requirements of City, UL-181. and NFPA 90A and 90B. Flexible duct shall be Certainteed Certaflex-25 or approved equal Thermaflex, or Flexmaster.
31. All insulation and accessories shall comply with all requirements of ASTM E-84, NFPA 225, and UL 723 and flame spread rating shall not be greater than 25 and smoke developed not to exceed 50.
32. The Contractors shall supply for approval six (6) copies of shop drawings to completely identify the quality of materials and/or equipment intended for installation.
33. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless the difficulties could not have been foreseen even though proper examination had been made.
34. The plumbing contractor shall be responsible for the installation of all gas piping and condensate drains. All gas lines shall be Schedule 40, black iron and installed per the latest edition of N.F.P.A./ 54 (Natural Fuel Gas Code), Fire Prevention Code and any applicable state or local codes.
35. All condensate lines shall be sloped minimum 1/8" per linear foot of run. All drain exits from A/C units shall include a trap and clean-out plug. Condensate drain line shall be mounted on 4" x 4" wood blocks space no more than 10 ft apart and at each pipe elbow. Provide plumbers tape or bracket for connection and walk pad under each support block.
36. The equipment rough-ins as shown are accurate to the best of our knowledge. However, in some instances the Owner or supplier may substitute or the equipment item may vary from what is shown. Therefore the Contractor shall verify all critical dimensions prior to construction. Failure to verify dimensions shall place the responsibility for any subsequent relocation directly upon the Contractor.
37. All mechanical equipment shall be installed per manufacturer's specifications.

PLUMBING SPECIFICATIONS:

PART 1 - GENERAL

INTENT:

These outline specifications and accompanying drawings describe scope of work required for the plumbing systems. In as much as bids will be limited to selected contractors, comprehensive specifications and detailed instructions are deemed unnecessary. Labor and material shall be provided as required for a complete, workmanlike installation of all systems shown on diagrammatic drawings and/or as specified herein.

CODES, PERMITS, AND INSPECTIONS:

All work shall be in accordance with applicable state and local codes, NEC and NFPA recommendations. Contractor shall obtain all permits required, give all legal notices, and have all work inspected as required by local or state law. Contractor shall pay all fees associated w/ securing permits.

DEFINITION:

The word "contractor" and "P.C." as used in these outline specifications and plans refers to plumbing subcontractor unless specifically noted otherwise.

WORKMANSHIP:

Competent skillful workmen shall do all work in a finished, thoroughly substantial and craftsman like manner. This is intended to refer particularly to smaller details necessary but usually not specified or indicated on the drawings. All sub-standard work, installed by this contractor, shall be replaced by this contractor at no additional expense to the owner. If this contractor damages existing work, he shall pay the cost of replacement of the damaged work at no additional expense to the owner. Designer and/or owner's representative shall be the judge of workmanship and their opinion will be final.

DELIVERY, STORAGE AND HANDLING:

Contractor shall consult with the G.C. for storage space at the job site if required. Storage space must be secured and contractor's representative must be on job before any material may be received.

RECORD DRAWINGS:

Contractor shall keep one set of "red-lined" record drawings on site at all times and shall provide drawing to designer before final inspection.

SHOP DRAWINGS:

Plumbing subcontractor shall submit one (1) electronic PDF copy of shop drawings for plumbing equipment and materials, including but not limited to all plumbing fixtures, regulators, oil interceptor, sump pumps, trim, drains, cleanouts, valves, insulation, hangers, supports, equipment and devices for approval to the designer. Clearly identify all items, model numbers, provided accessories and options as needed to provide a clear and complete submittal.

WARRANTY:

Contractor shall correct any defects in workmanship and/or material which occur during the first year of operation (Unless noted). Contractor shall also provide, during first year warranty period, all preventive maintenance required to protect manufacturer's equipment warranty. Preventive maintenance shall include labor and materials required for:

1. Lubrication
2. Routine inspections
3. Water heater (Three (3) years)

CONDITIONS:

The general conditions to construction agreement, special conditions, are a part of this section as if included herein.

WORK INCLUDED:

Furnish all labor, materials, tools, transportation services, etc. necessary to complete the installation of the plumbing system and as described by these specifications, as indicated on the drawings, or as directed by the project manager. Furnish and install all plumbing fixtures including trim, fittings and supports. Furnish and install all final plumbing connections to heating and air-conditioning equipment. Furnish and install all condensate from air-conditioning equipment. All fees and charges shall be identified separately in the contractor's proposal.

EXAMINATION OF THE SITE:

All contractors submitting proposals for this work shall first examine the site and all conditions thereon and/or therein which involve the work of this section. All proposals shall include site conditions that may affect the work of this contract. Failure to consider all site conditions that may affect the work of this contract will not be considered as justification for extra cost or allowances to the contract.

DESCRIPTION:

All products used shall comply with all applicable national, state and local codes and the regulations of all governing agencies (including, but not limited to, health department, utilities, etc.).

PIPING:

1. Soil, Waste and Vent Piping:
   a. Below floor building drainage and vent piping (to 5'-0" outside building) shall be standard weight coated cast iron soil pipe with gasketed bell and spigot joints, or standard weight coated cast iron hubless soil pipe joined by husky series 4000 couplings (as manufactured by anaheim foundry company) with neoprene gaskets, or schedule 40 pvc dwv pipe and fittings (when allowed by code).
   b. Underground building sewer piping (exterior of building lines) shall be gasketed joint pvc, astm d-3034, sdr 35 or ps50 manufactured by carlon, or equivalent.
   c. Above floor shall be standard weight coated cast iron soil pipe with neoprene gasketed bell and spigot joints or hubless cast iron soil pipe with no-hub neoprene gaskets and stainless steel bands and clamps or schedule 40 pvc dwv pipe and fittings (when allowed by code).
2. Hot and Cold Water Piping:
   a. PEX-A tubing manufactured by Uponor. Smoke developed rating of less than 50 and a flame spread rating less than 25 in accordance with ASTM E-84, Chlorine resistance per ASTM-F876, minimum 6 month UV protection. Color coded "Red" and "Blue" for hot and cold water with Poly Alloy Polymer fittings.
   b. If PEX is specifically not allowed by local AHJ, above floor shall be type "l" hard drawn copper tubing with sweat soldered wrought copper fittings.
   c. All solder used in domestic water supply system shall be "lead free" type.
3. Condensate:
   a. Condensate drain piping from roof top air-conditioning units shall be type "m" hard drawn copper, copper type DWV or schedule 40 pvc pipe and fittings (when allowed by code). Condensate drain piping exposed on roof shall be suitable for installation in direct sunlight. Condensate shall be piped to suitable location when required by code.
4. Gas Piping:
   a. Gas piping above ground shall be schedule 40 black steel with 125 lb. black malleable iron screwed fittings and supported at intervals not to exceed 8'-0" and at each change in horizontal or vertical direction. Gas piping compound at joints shall be in compliance with NFPA bulletin no. 43 and applicable local codes, local and state gas utility requirements, and suitable for natural gas service.
   b. Gas piping shall be piped to all gas-fired equipment by this contractor.
   c. Gas piping installed exposed in service areas shall be installed tight to bottom of highest structural members (trusses) and coordinated with all other discipline prior to installation.
   d. Moisture traps (dirt pockets) and gas shutoff valves or cocks shall be installed at each piece of gas fired equipment.
   e. Gas piping run above roof, supported on polycarbonate resin supports made by Miro Industries or approved equal.
   f. Gas piping run below roof shall be supported using code approved gas pipe supports and appropriate intervals.
   g. All exposed gas piping in service area shall be painted with a rust prohibiting black paint. All gas piping exposed on the roof shall be painted with a rust prohibiting safety yellow paint.

INSULATION:

1. All hot and cold water piping, roof drain bodies, and horizontal storm drainage piping shall be insulated with 1/2" thick fiberglass pipe insulation with glass-reinforced all-service vapor jacket with white finish. Contractor may use 1/2" thick closed cell pipe insulation: Armstrong Armaflex; Imcoa "Imcolock"; or approved equal. Installation shall be in strict accordance with the manufacturer's recommendations. All butt ends and joints shall be sealed moisture tight in accordance with insulation manufacture's recommendations. Insulation and vapor barrier jacket shall have a flame spread index of 25 or less and a smoke developed index of 50 or less.

FIXTURES:

Refer to fixture schedule on plumbing drawings for specific items and model numbers.

CLEANOUTS:

1. Cleanout plugs shall be cast-bronze or brass, complying with ANSI B2.1, countersunk head.
2. Floor cleanouts shall be cast-iron body and frame, with cleanout plug and adjustable nickel-bronze top with exposed rim with recess as applicable to receive floor finish.
3. Wall cleanouts shall have cast-iron body with cast-bronze or brass cleanout plug and polished stainless steel wall cover with screws.

EQUIPMENT:

1. Water Heater:
   a. Size, capacity, type and manufacturer as indicated in fixture schedule.
   b. The water heater shall be complete with all temperature and safety controls including ASME and ANSI Z21.22 rated temperature and pressure relief valve, drain valve etc.
   c. Installation shall include shut-off valves and screwed unions in each line and safety pan under heater. Relief valve and drain pan piping shall routed to drain, service sink, or to exterior as shown and/or as required by local codes.

VALVES, COCKS AND FAUCETS:

1. Unless specifically indicated elsewhere, the valves shall be designed for not less than 125 lbs. working pressure. The valves shall have suitable valve body patterns for connection to the pipe for which they will be installed. All valves with rising stems shall have back seats for packing under pressure.
2. Gas cocks for all equipment shall be 150 psi non-shock, bronze straightaway cock, flat or square head, with full line size threaded ends.
3. Shutoff valves under lavatories, tank type water closets, sanitary sinks and water coolers shall be chrome plated angle stop valves with soft annealed chrome plated copper supply pipes and chrome plated or stainless steel escutcheons.
4. Water shutoff service valves shall in-line ball type valves with 90 degree rotation lever stem. Shutoff valves 3/4" and smaller may be in-line ball type valves with 90 degree rotation lever handles, stainless steel ball, and sweat type solder joints.
5. Hose bibbs (wall hydrants) shall be of the non-freeze type where exposed to outdoor freezing conditions. All exterior fixtures shall have full line size shutoff valves and unions at each fixture.

DRAINS:

1. Floor drains shall have cast iron body with flashing collar bottom outlet with inside caulk, and nickel bronze adjustable strainer head with secured heel proof grate unless otherwise specified on drawings.

EXECUTION:

PIPING:

1. All piping shall be run concealed in finished areas unless otherwise indicated on drawings.
2. Equipment and apparatus such as valves, traps, cleanouts, trap primers, water hammer arresters, etc. shall be installed in easily accessible locations (behind access doors, etc.) so that special equipment or demolition is not required for access. Branch valves in areas with suspended ceilings shall be within hand reach of the ceiling level.
3. Soil, waste, vent and condensate drain piping shall be installed with a minimum grade of 1/4" per foot where possible. In no case shall the grade be less than that required for proper function or that required by local code requirements.
4. Parallel runs of hot and cold water piping shall not be closer than 6" center to center.
5. Water supply piping within the building shall be installed overhead and concealed in partition walls unless otherwise indicated and per manufacturer installation instructions.
6. Pex piping shall be stored covered from harmful environmental conditions in manufacturer's original, unopened, undamaged containers with identification labels intact until installation as recommended by manufacturer. Do not expose PEX tubing to direct sunlight for more than 30 days.
7. Piping in stock areas shall be coordinated with stock rack locations to afford maximum protection from fork lifts and high rack storage. Branch gas piping to unit heaters and other equipment shall be installed in a manner to provide maximum protection against damage.

PLUMBING FIXTURES:

1. Furnish and install all plumbing fixtures complete with all equipment, fittings, trimmings and accessories as required for a complete and working installation. All fixtures shall be white.
2. All fixtures shall be grade a with the name or trademark of the manufacturer permanently affixed on all fixtures.
3. Exposed piping to fixtures shall be chrome plated. Base metal for piping to fixtures shall be copper, brass, red brass or stainless steel as applicable to the specific item. Plastics, pvc or abs piping will not be accepted.
4. Stop valves shall be provided in all hot and cold water supplies to all fixtures. Stops shall have metal to metal or rotating ball type seats. Stop valves shall be chrome plated where exposed under lavatories or in other finished areas.

TESTS:

1. Plumbing and other piping systems shall be subject to constant inspection and final approval by the project manager/owner and code authorities having jurisdiction. Tests, in addition to those indicated below, shall be performed as directed or required to verify compliance with codes and/or the intent of these specifications as part of the work of this section. Tests shall be repeated until all leaks have been corrected and the systems and meets pressure requirements.
2. Soil, waste and vent piping shall be subjected to a water pressure test equal to the system water pressure but not less than 10 feet of water head for a duration of not less than 2 hours with no leaks found or as required by the local code authority. Underground piping shall be tested prior to covering
3. Water supply piping systems shall be subjected to a hydrostatic test of not less than 150 psi for a duration of not less than 2 hours. Equipment, fittings and valves that may be damaged by the test pressure shall be isolated from the system during testing. Above ground piping shall be tested as a complete system.
4. The complete gas piping system shall be subjected to an air pressure test of not less than 50 psi for a duration of not less than 4 hours. Equipment, fittings and valves that may be damaged by the test pressure shall be isolated from the system during testing. Above ground piping shall be tested as a complete system. Each exposed joint shall be tested again at normal operating pressure after gas has been admitted to the system.
5. Additional testing shall be provided by this contractor as required by local water and gas companies and local plumbing inspector as part of the work of this contract.

CLEANING AND PROTECTION:

1. The contractor shall remove from the job site all debris and leftover materials for which he is responsible, clean and repair all fixtures and equipment and any blemishes in the finish. The contractor shall be responsible for replacing fixtures where damage results from failure to provide protection.
2. After the plumbing piping has been installed, inspected and approved, the piping shall be flushed to remove all foreign material from the piping system and all strainers and valves shall be cleaned.
3. After the system has been flushed, the potable water system shall be disinfected as prescribed by the health authority having jurisdiction, or, in the absence of a prescribed method, the procedure described in AWWA c652, AWWA c5186 or the International Plumbing Code.

MAINTENANCE:

1. All parts of the plumbing system and fixtures shall be maintained by the contractor throughout the guarantee period. One month after acceptance of the building as substantially complete by the owner, the contractor shall test and adjust all fixtures and working parts of the system and place them in good working order and clean all strainers and aerators. The contractor shall coordinate with the store manager for scheduling this work.

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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/18/22
REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
028240-1
STATE OF NEW YORK

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

MECHANICAL & PLUMBING SPEC'S

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

SP-5

A. SCOPE OF WORK

1. FURNISH ALL LABOR AND MATERIAL TO COMPLETE ALL ELECTRICAL WORK SHOWN ON THE DRAWINGS
2. THE LISTING OF ARTICLE OR MATERIAL, OPERATION OR METHOD, REQUIRES THAT THE CONTRACTOR SHALL PROVIDE AND INSTALL, UNLESS NOTED TO BE SUPPLIED BY OTHERS, EACH ITEM LISTED OF QUALITY OR SUBJECT TO QUALIFICATION NOTED, EACH OPERATION SHALL BE PERFORMED ACCORDING TO STANDARD PRACTICE, MANUFACTURER'S INSTRUCTIONS AND CONDITIONS STATED, PROVIDING, THEREFORE, ALL NECESSARY LABOR, EQUIPMENT AND INCIDENTALS.
3. CONTRACTOR SHALL SCHEDULE HIS WORK TO CONFORM TO THE PROGRESS OF THE OTHER TRADES AND CONTRACTORS EMPLOYED ON THIS PROJECT. THE PRINCIPAL ITEMS OF WORK INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
   a. PROVIDE ELECTRICAL SERVICE INCLUDING CONDUITS, CABLES, TERMINATIONS, METERING EQUIPMENT, ETC. IN ACCORDANCE WITH UTILITY REQUIREMENTS AND DRAWINGS
   b. PROVIDE LIGHTING FIXTURE AS SHOWN ON DRAWINGS. THIS SHALL INCLUDE ALL ASSOCIATED LAMPS, BOXES, SWITCHES, CONTACTORS, AND BRANCH CIRCUIT WIRING AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
   c. PROVIDE DEVICES (RECEPTACLES, SWITCHES, ETC.) AS SHOWN ON DRAWINGS. THIS SHALL INCLUDE ALL ASSOCIATED BRANCH CIRCUIT WIRING AND MATERIAL REQUIRED FOR A COMPLETE INSTALLATION.
   d. FEEDERS TO OTHER TRADES EQUIPMENT INCLUDING RTU'S, EXHAUST FANS, DISCONNECT SWITCHES, CONTROL DEVICES, STARTERS FOR MOTORS NOT PROVIDED BY OTHERS TRADES. CONSULT OTHER TRADES CONTRACTOR FOR PHASE AND VOLTAGE OF EQUIPMENT AND ACTUAL NAMEPLATE RATINGS FOR FEEDER MINIMUM CONDUCTOR AMPACITIES (MCA) AND MAXIMUM OVERCURRENT PROTECTION DEVICES (MOCPD) INFORMATION PRIOR TO INSTALLATION AND PRIOR TO PURCHASING ELECTRICAL EQUIPMENT.
   e. PROVIDE POWER DISTRIBUTION EQUIPMENT (PANEL BOARDS, DISCONNECT SWITCHES, CONTACTORS, MOTOR STARTERS, ENCLOSED CIRCUIT BREAKERS, ETC.) AS SHOWN ON DRAWINGS OR AS REQUIRED FOR THIS PROJECT. THIS SHALL INCLUDE ALL WIRING AND ASSOCIATED MATERIAL REQUIRED FOR A COMPLETE INSTALLATION.
   f. PROVIDE FIRE ALARM SYSTEM ONLY IF REQUIRED BY FIRE MARSHALL OR LOCAL CODES. (CONTRACTOR MUST VERIFY REQUIREMENTS PRIOR TO BIDDING)
   g. PROVIDE TESTING OF ALL ELECTRICAL EQUIPMENT.
   h. PROVIDE TIMERS, PHOTOCELLS, AND CONTACTORS FOR CONTROL OF EXTERIOR LIGHTING AND MECHANICAL EQUIPMENT AS INDICTED ON DRAWINGS.
   i. PROVIDE BACK BOXES, PULL STATIONS, WIRE AND CONDUIT TO ABOVE ACCESSIBLE CEILING FOR ALL LOW VOLTAGE DATA AND COMMUNICATIONS OUTLETS.
   j. PROVIDE CONDUIT, JUNCTION BOXES, 115 VOLT FEEDERS, BACK BOXES, ETC. AS REQUIRED FOR SECURITY SYSTEM CAMERAS, ELECTRICAL DOOR STRIKES, ALARMS, REQUEST TO EXIT, MOTION SENSORS, CARD READERS, KEYPADS AND MAIN SECURITY PANEL AS PER DRAWINGS OR AS DIRECTED BY OWNER OR ARCHITECT. VERIFY EXTENT OF WORK PRIOR TO SUBMITTING BIDS.
   k. PROVIDE EMERGENCY LIGHTING, BATTERY UNITES, REMOTE HEADS, EXIT LIGHTS AND ALL ASSOCIATED WIRING, CONDUIT, JUNCTION BOXES, CONNECTIONS, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION.

B. INSTALLATION

1. THIS CONTRACTOR SHALL VISIT THE JOB SITE TO DETERMINE PRESENT CONDITIONS AND VERIFY EXACT LOCATION OF EQUIPMENT AND LOCAL REGULATIONS PRIOR TO SUBMITTING BID.
2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AN PATCHING OF EXISTING WALLS CEILINGS AND FLOOR SLABS NECESSARY FOR THE COMPLETION OF HIS WORK.
3. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL WORK AND MATERIAL SHOWN SHALL BE PERFORMED, FURNISHED AND INSTALLED BY CONTRACTOR.
4. THE COMPLETE INSTALLATION SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE AND CITY CODES, RULES, REGULATIONS AND ORDINANCE. ALSO MAKE APPLICATION FOR AND PAY ALL FEES IN CONNECTION WITH ANY PERMITS, TESTS AND INSPECTIONS THAT MAY BE REQUIRED.
5. GUARANTEE ALL WORKMANSHIP, MATERIAL AND PERFORMANCE FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.
6. THE EXACT MOUNTING LOCATIONS OF APPARATUS, DEVICES, EQUIPMENT AND CONDUITS SHALL BE ASCERTAINED FROM OWNER OR THEIR REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY. SHOULD THE CONTRACTOR FAIL TO ASCERTAIN SUCH LOCATIONS, THE WORK SHALL BE CHANGED AT HIS OWN EXPENSE WHEN SO ORDERED BY OWNER, THE OWNERS RESERVES THE RIGHT TO MAKE MINOR CHANGES IN THE LOCATION OF CABLE, CONDUIT AND EQUIPMENT INSTALLED BY THIS CONTRACTOR UP TO THE TIME OF INSTALLATION, WITHOUT ADDITIONAL COST.
7. ALL CONDUCTORS SHALL BE COPPER, "THHN" INSULATION UNLESS OTHERWISE NOTED. ALL WIRING SHALL BE IN "EMT" OR "MC" CABLE RUN CONCEALED IN FINISHED AREAS AND NOT SUBJECT TO PHYSICAL DAMAGE. RUN "EMT" IN UNFINISHED CEILING AREAS.
8. RUN ALL CONDUIT CONCEALED IN BLOCK WALLS AND RECESS ALL DEVICES IN BIRCH WALLS TO THE EXTENT POSSIBLE AND/OR PRACTICAL.

C. DRAWINGS AND SPECIFICATIONS

1. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE LOCATIONS OF EQUIPMENT AND PIPING. DIMENSIONS GIVEN ON THE PLANS SHALL BE VERIFIED IN THE FIELD. DRAWINGS MAY NOT BE SCALED TO OBTAIN EXACT DIMENSIONS.
2. THE EXACT LOCATIONS OF APPARATUS, FIXTURES, EQUIPMENT AND CONDUITS SHALL BE ASCERTAINED FROM THE OWNER OR HIS REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY, SHOULD THE CONTRACTOR FAIL TO ASCERTAIN SUCH LOCATIONS, THE WORK SHALL BE CHANGED AT HIS OWN EXPENSE WHEN SO ORDERED BY THE OWNER.
3. THIS CONTRACTOR SHALL FURNISH SUCH LABOR AND MATERIALS AS HERE-IN-AFTER SPECIFIED AND AS REQUIRED TO COMPLETE ALL ELECTRICAL CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT AND OWNER'S EQUIPMENT AS SHOWN AND/OR SPECIFIED.

D. VISITING TO THE SITE

1. THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK, AND THE SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE, NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM LACK OF SUCH KNOWLEDGE OF EXISTING CONDITIONS.

E. MATERIALS AND WORKMANSHIP

1. ALL DEPARTMENT OF INDUSTRIAL RELATIONS, OSHA AND THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODES, AS INTERPRETED BY THE LOCAL INSPECTION DIVISION. ALL THESE CODES, RULES AND REGULATIONS ARE HEREBY INCORPORATED INTO THIS SPECIFICATION.
2. COMPLY WITH SPECIFICATION REQUIREMENTS WHICH ARE IN EXCESS OF CODE REQUIREMENTS AND NOT IN CONFLICT WITH SAME.
3. THE CONTRACTOR SHALL SECURE ALL PERMITS AND CERTIFICATIONS OR INSPECTIONS INCIDENTAL TO HIS WORK, REQUIRED BY THE FOREGOING AUTHORITIES. ALL SUCH CERTIFICATES SHALL BE DELIVERED TO THE OWNER IN DUPLICATE, BEFORE FINAL PAYMENT ON CONTRACT WILL BE ALLOWED. THE CONTRACTOR SHALL PAY ALL FEES, CHARGES AND OTHER EXPENSES IN CONNECTION THEREWITH.

F. LABELING AND NAMEPLATES

1. PERMANENTLY LABEL PANEL BOARDS, TIME CLOCKS, CONTACTORS AND SAFETY SWITCHES INDICATING EQUIPMENT OR PANELS AND AREAS WHICH THEY SERVE. LABEL ALL PULL AND JUNCTION BOXES SERVING MECHANICAL EQUIPMENT.
2. LIGHTING AND APPLIANCE PANELS SHALL BE LABELED AS SHOWN ON DRAWINGS.
3. CONTRACTOR SHALL PROVIDE AND INSTALL IDENTIFICATION FOR PULL OR JUNCTION BOXES FURNISHED BY HIM.
4. IDENTIFY AS TO USE ON FACE OF EQUIPMENT BY MEANS OF LAMINATED, WHITE CORE, PLASTIC WITH BEVELED EDGES MINIMUM 1/16" THICK. LETTERING SHALL BE MACHINE-ENGRAVED, NOT LESS THAN 1/4" HIGH, CUT THROUGH THE BLACK SURFACE TO THE WHITE CORE.

G. TESTS AND VOLTAGE RECORD

1. CONTRACTOR SHALL TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS. WHEN THE INSULATION RESISTANCE TEST SHALL INDICATE THE POSSIBILITY OF FAULTY INSULATION, THE CONTRACTOR SHALL LOCATED THE POINTS OF SUCH FAULT INSULATION AND HE SHALL PULL OUT THE CONDUCTOR AT FAULT, REPLACE SAME WITH NEW, AND DEMONSTRATE, BY FURTHER TEST THE ELIMINATION OF SUCH FAULT.
2. CONTRACTOR SHALL RECORD FEEDER LOAD CURRENTS AND LINE VOLTAGES MEASURED AT EACH PANEL BOARD PHASE LEG. ADJUST PHASE LEG LOAD CONNECTIONS TO BALANCE FEEDER LOADS NO GREATER THAN WITH 10% OF EACH PHASE LEG IN THE PANEL. PROVIDE THE OWNER WITH A COMPLETE COPY OF ALL LOAD AND VOLTAGE RECORDS.

H. BRANCH CIRCUIT WIRING

1. PROVIDE A SYSTEM OF PANELS, CONDUITS, FITTING, BOXES, SUPPORTS AND ALL OTHER MISCELLANEOUS MATERIALS REQUIRED FOR EQUIPMENT INDICATED ON PLANS, COMPLETE AND READY FOR OPERATION BY THE OWNER.
2. HOME RUNS FOR ALL 120 VOLT 20A CIRCUITS SHALL NOT EXCEED 100 FEET, AND AT 277 VOLTS, CIRCUITS SHALL NOT EXCEED 200 FEET, ANY CIRCUIT OVER AT THESE LENGTHS SHALL BE #10 WIRE.
3. ALL FIXTURE AND BRANCH CIRCUIT WIRING CONNECTIONS OR SPLICES SHALL BE MADE IN JUNCTION OR OUTLET BOXES WITH "UL" LISTED PRESSURE TYPE CONNECTORS LISTED FOR 600 VOLTS (1,000 VOLTS WHEN ENCLOSED IN FIXTURE). IDEAL INDUSTRIES WING NUTS AND/OR WIRE NUTS OR APPROVED EQUAL MAY BE USED FOR JOINTS IN WIRE OF # 8 GAUGE OR LESS.

I. CONDUCTORS

1. SIZES OF CONDUCTORS FOR FEEDERS ARE GIVEN ON THE DRAWINGS, AND NO WIRE SMALLER THAN # 12 GAUGE SHALL BE USED FOR BRANCH LIGHTING OR POWER CIRCUITS. ALL WIRING SHALL HAVE THE "UL" LABEL, AND BE OF 98% CONDUCTIVITY COPPER, ALUMINUM WIRE OR ALUMINUM CABLE IS NOT ACCEPTABLE UNLESS SPECIFICALLY SHOWN ON DRAWINGS.
2. THE GAUGE OF ALL WIRE SHALL BE IN ACCORDANCE WITH "NEC" STANDARD.
3. ALL WIRE AND CABLE FOR BRANCH LIGHTING OR SMALL POWER CIRCUITS SHALL HAVE "NEC"; TYPE "THHN" 600 VOLT INSULATION,
4. WIRE AND CABLE ABOVE #8 GAUGE SHALL BE STRANDED TYPE "THHN" INSULATED 600 VOLTS.

J. CONDUIT AND CABLES

1. ALL WORK SHALL BE INSTALLED IN PRACTICAL AND WORKMANLIKE MANNER BY COMPETENT WORKMEN, SKILLED IN THEIR BRANCH OF THE TRADE.
2. UNLESS SPECIFICALLY SPECIFIED OR INDICATED ON THE DRAWINGS TO THE CONTRARY, ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS, AND SHALL BE THE BEST OF THEIR SEVERAL KINDS.
3. ALL MATERIALS SHALL MEET OR EXCEED STANDARDS SPECIFIED BY "U.L.", "NEMA", "ANS"I AND "IEEE" WHEREVER SUCH STANDARDS HAVE BEEN ESTABLISHED.
4. THE CONTRACTOR SHALL REMOVE ALL DEBRIS AND EXCESS MATERIALS ASSOCIATED WITH HIS WORK AND LEAVE THE WORK AREA CLEAN AT THE END OF EACH WORK DAY.
5. ALL ELECTRICAL EQUIPMENT AND MATERIAL SHALL BEAR THE UNDERWRITER'S LABORATORIES ("U.L.") LABEL.
6. FOR EXTERIOR OF THE BUILDING AND IN ALL FINISHED AREAS, ALL CONDUITS AND CABLE SHALL BE CONCEALED, ABSOLUTELY NO EXPOSED CONDUIT OR CABLES ARE ACCEPTABLE IN THESE AREAS.

K. DEFINITIONS

1. "INSTALL" SHALL MEAN TO PLACE, FIX IN POSITION, SECURE, ANCHOR, ETC. INCLUDING NECESSARY APPURTENANCES AND LABOR SO THAT THE EQUIPMENT OR INSTALLATION WILL FUNCTION AS SPECIFIED AND INTENDED.
2. "FURNISH" SHALL MEAN TO PURCHASE AND SUPPLY EQUIPMENT OR COMPONENTS.
3. "PROVIDE" SHALL MEAN TO "FURNISH AND INSTALL".
4. "OR APPROVED EQUAL" AND "OR EQUAL" SHALL MEAN EQUAL IN TYPE, DESIGN, QUALITY, ETC. AS DETERMINED BY THE OWNER AND APPROVED BY THE ENGINEER.

L. CODES, PERMITS, AND INSPECTIONS

1. INSTALL ALL WORK IN FULL ACCORDANCE WITH CODES, RULES, AND REGULATIONS OF MUNICIPAL, CITY, COUNTY, STATE AND PUBLIC UTILITY AND ALL OTHER AUTHORITIES HAVING JURISDICTION ("AHJ") OVER THE PREMISES.

M. CONDUIT AND CABLES

1. ALL CONDUIT SHALL BE RIGID, THREADED, METAL CONDUIT OR ELECTRICAL METALLIC TUBING (EMT) UNLESS OTHERWISE SPECIFICALLY STATED HEREIN.
2. CONDUIT AND EMT SHALL BE DELIVERED TO THE BUILDING IN 10 FOOT LENGTHS AND EACH LENGTH SHALL HAVE THE APPROVED UNDERWRITER'S LABORATORIES LABEL.
3. CONDUIT SHALL BE RUN CONCEALED IN ALL FINISHED AREAS OF THE BUILDING AND MAY BE RUN EXPOSED IN UNFINISHED AREAS AT CEILING OF JOIST LEVEL. RUN CONCEALED IN BLOCK WALLS THE EXTENT THAT IS PRACTICAL.
4. EMT CONNECTORS AND COUPLERS SHALL BE RAIN TIGHT COMPRESSION TYPE (OR SET-SCREW WHERE ACCEPTABLE TO OWNER AND LOCAL CODES) MADE OF STEEL AS MANUFACTURED BY "THOMAS & BETTS", "STEEL CITY" OR "APPLETON". BENDS AND OFFSETS SHALL BE MADE WITH A HICKEY OR POWER BENDER WITHOUT KINKING OR DESTROYING THE SMOOTH BORE OF THE CONDUIT. PARALLELED CONDUITS SHALL RUN STRAIGHT AND TRUE WITH OFFSETS UNIFORM AND SYMMETRICAL. CONDUIT TERMINALS AT BOXES AND CABINETS SHALL BE RIGIDLY SECURED WITH LOCKNUTS AND BUSHINGS AS REQUIRED BY THE NATION ELECTRICAL CODE. INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT 1-1/4" TRADE SIZE AND LARGER.
5. CONDUIT SHALL BE SECURELY FASTENED IN PLACE AT NO MORE THAN 10 FEET, CENTERS, AND HANGER, SUPPORTS, OR FASTENINGS SHALL BE PROVIDED AT EACH CONDUIT ELBOW AND AT THE END OF EACH STRAIGHT RUN TERMINATING AT A BOX OR CABINET. CONDUIT SHALL NOT BE SUSPENDED FROM THE CEILING OR CEILING SUSPENSION WIRES.
6. HORIZONTAL AND VERTICAL CONDUIT RUNS SHALL BE SUPPORTED BY ONE-HOLE MALLEABLE STRAPS, OR THEIR APPROVED METAL DEVICE WITH SUITABLE BOLTS, OR BEAM CLAMPS FOR MOUNTING TO BUILDING STRUCTURE OR SPECIAL BRACKETS, CONDUIT SHALL BE SUPPORTED FROM STRUCTURAL STEEL OR JOIST AND INDEPENDENT OF OTHER PIPING. DO NOT SUPPORT CONDUIT FROM METAL ROOF DECK, OR ANY OTHER SUPPORT DEVICE OF ANOTHER TRADE.
7. NON-METALLIC SHEATHED CABLE (ROMEX) OR "AC" CABLE SHALL NOT BE USED. TYPE "MC" CABLE MAY BE USED ONLY WHEN CONCEALED IN FINISHED WALLS OR ABOVE CEILING AND WHEN NOT SUBJECT TO PHYSICAL DAMAGE.
8. ONLY SHORT RUNS OF FLEXIBLE METAL CONDUIT NOT OVER 30 INCHES IN LENGTH SHALL BE USED FOR TERMINAL CONNECTIONS TO MOTORS AND OTHER VIBRATING EQUIPMENT, AND ALSO FOR ELECTRICAL EQUIPMENT WHERE IT IS NOT PRACTICAL TO MAKE FINAL CONNECTION WITH RIGID CONDUIT. FLEXIBLE CONDUIT EXPOSED TO WEATHER SHALL BE "SEALTITE" OR EQUAL.
9. CONDUIT SYSTEM SHALL CONFORM TO ALL THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
10. FLEX CONDUCTOR MAYBE USED ONLY IN TRUSS AREA.

N. GROUNDING

1. THIS CONTRACTOR SHALL PROVIDE, INSTALL AND CONNECT A COMPLETE SYSTEM OF GROUNDING FOR ALL EQUIPMENT AND STRUCTURES A GOOD MECHANICAL AND ELECTRICAL CONNECTION SHALL BE MADE WITH A COOPER GROUNDING CONNECTORS.
2. ELECTRICAL SYSTEM AND EQUIPMENT GROUNDS SHALL BE COOPER AND COMPLY WITH ALL LOCAL, STATE AND NEC CODES AND REGULATIONS.
3. PANELS, CONDUIT SYSTEMS MOTOR FRAMES, LIGHTING FIXTURES AND OTHER EQUIPMENT THAT ARE PART OF OF THIS INSTALLATION SHALL BE SECURELY GROUNDED BOTH MECHANICALLY AND ELECTRICALLY IN ACCORDANCE WITH ALL CODES.
4. MAIN GROUNDING SYSTEM (WHEN APPLICABLE) SHALL BE SIZED TO CONFORM WITH TABLE 250-66 OF NATIONAL ELECTRIC CODE AND BE COOPER WIRE AND PROVED CONDUIT TO PROTECT GROUND WIRE FROM DAMAGE TO ANY AREA 6 FEET ABOVE FLOOR.

O. LIGHTING/APPLIANCE PANEL BOARDS AND DISTRIBUTION PANELS

1. DISTRIBUTION PANELS SHALL BE "G.E., TYPE "A-SERIES" OR APPROVED EQUAL "EATON CUTLER HAMMER", OR "SQUARE 'D'".
2. 480/277V PANELS SHALL BE "G.E., TYPE "A-SERIES" OR APPROVED EQUAL "EATON CUTLER HAMMER", OR "SQUARE 'D'. BREAKERS SHALL BE BOLTED TO BUS TYPE, QUICK-MAKE, BREAK-BREAKERS, AND CAPABLE OF INTERCHANGING ONE, TWO OR THREE POLE UNITS. MULTIPLE UNITS SHALL BE COMMON TRIP. PROVIDE SPARE BREAKERS IN EACH PANEL AS SHOWN. ALL BUSSING SHALL BE 98% CONDUCTIVITY COPPER, ALUMINUM BUS, ALUMINUM CONDUCTORS OR ALUMINUM LUGS ARE NOT ACCEPTABLE.
3. 208/120V PANELS SHALL BE "G.E., TYPE "Q-LINE" OR APPROVED EQUAL BY "EATON CUTLER HAMMER", OR "SQUARE 'D', WITH TYPE "TEY" BOLT-ON BRANCH BREAKERS ONLY.
4. SHORT CIRCUIT RATINGS OF NEW PANELS SHALL BE AS NOTED ON DRAWINGS, OR AS OTHERWISE DIRECTED BY LOCAL UTILITY COMPANY. UL TESTED AND CERTIFIED SERIES RATINGS ARE ACCEPTABLE WITH WRITTEN DOCUMENTATION SHOWING SERIES RATINGS BUT ONLY IF ACCEPTABLE TO OWNER OR LOCAL CODES.

P. GENERAL FOR ALL PANELS

1. METAL FRAMED CARDHOLDERS WITH TYPEWRITTEN CIRCUIT DIRECTORY MUST BE PROVIDED FOR EACH PANEL. DIRECTORY SHALL BE CLEAR AND DESIGNATION SHALL MATCH IDENTIFICATION ON EQUIPMENT. PANEL BOARDS (POWER PANELS, LIGHTING PANELS AND SWITCHES IN SERVICE BAY) SHALL BE WITH IDENTIFICATION LABELED ON SWITCH AND/OR PANEL DOOR. PROVIDE ENGRAVED LAMINATED WHITE CORE, PLASTIC WITH BEVELED EDGES MINIMUM 1/16" THICK. LETTERING SHALL BE MACHINE-ENGRAVED, NOT LESS THAN 1/4" HIGH, CUT THROUGH THE BLACK SURFACE TO THE WHITE CORE.
2. ALL PANELS SAFETY SWITCHES, STARTERS AND IN GENERAL, ALL EQUIPMENT REQUIRING LUGS SHALL BE EQUIPPED WITH SOLDERLESS TYPE "UL" APPROVED LUGS.
3. PROVIDE ALL NECESSARY UNISTRUT, CHANNEL, BACKING AND SUPPORTS TO MOUNT PANELBOARDS SECURELY IN PLACE.
4. SCREW FASTENED HANDLE LOCK-ON DEVICES ARE REQUIRED ON CIRCUIT BREAKERS PROTECTING SERVICES TO THE FOLLOWING EQUIPMENT:
   A. EMERGENCY, EXIT, SECURITY AND NIGHT LIGHTS.
   B. HEATING AND COOLING CONTROL CIRCUITS.
   C. ALL TIME CLOCKS.

Q. TOGGLE SWITCHES AND RECEPTACLES

1. SINGLE POLE AND THREE (3) WAY SWITCHES SHALL BE RATED 20 AMPERE, 277/120 VOLTS, COLOR TO BE WHITE AS MANUFACTURED BY HUBBELL OR LEVITON. SWITCHES SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR TO CENTERLINE.
2. DUPLEX RECEPTACLES SHALL BE AS SPECIFIED ON DRAWINGS, AS MANUFACTURED BY HUBBELL OR LEVITON WITH BOTH DEVICES AND COVER PLATES TO BE WHITE IN COLOR.

R. DISCONNECT SWITCHES

1. AN APPROVED HORSEPOWER RATED, HEAVY DUTY, DISCONNECT SWITCH SHALL BE PROVIDED WITHIN SIGHT OF EACH MOTOR AND EACH HEATING UNIT. PROVIDE FUSED SWITCHES WHERE BRANCH CIRCUIT FUSES ARE NOT SIZED FOR OVERLOAD PROTECTION.
2. SWITCHES ON THE ROOF SHALL BE WEATHERPROOF MOUNTED ON UNISTRUT.
3. SWITCHES SHALL BE LABELED ON THEIR COVER IDENTIFYING THE EQUIPMENT TO BE PROTECTED

S. MOTORS AND WIRING

1. CONTRACTOR TO PROVIDE DISCONNECT SWITCHES (EXCEPT WHERE SPECIFICALLY SPECIFIED BY OTHERS) AND RUN POWER CIRCUITS FROM THE POWER PANEL THROUGH DISCONNECT SWITCHES & CONTROL DEVICES TO MOTOR TERMINALS.
2. PROVIDE ALL STARTERS, CONTROLS AND PUSH BUTTON STATIONS ETC. NOT SUPPLIED BY ALL OTHER TRADES REQUIRED FOR THE PROPER AND INTENDED OPERATION OF MOTORS AND OR MOTORIZED EQUIPMENT SUPPLIED BY OTHERS TRADES.
   a. THE ABOVE ELECTRICAL EQUIPMENT SHALL BE MOUNTED SECURELY TO WALL OR FRAMES AND THE CONTRACTOR SHALL FURNISH ALL NECESSARY BRACKETS, STRUCTURAL PIECES, EXPANSION BOLTS AND OTHER ACCESSORIES REQUIRED.
   b. WOODEN PLUGS SHALL NOT BE PERMITTED FOR ANCHORING.
   c. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LUBRICATION OF ALL MOTORS.
3. REFER ALSO TO ALL OTHER TRADE SPECIFICATIONS FOR WORK BY ALL OTHER TRADES WHICH MAY RESULT IN ADDITIONAL WORK FOR THIS CONTRACTOR.
4. CONTRACTOR SHALL PROVIDE ALL POWER WIRING AND CONNECTIONS TO ALL OTHER TRADES EQUIPMENT.
5. CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING AND CONNECTIONS TO ALL OTHER TRADES EQUIPMENT NOT PROVIDED BY OTHERS TRADES.
6. CONTRACTOR SHALL PROVIDE ALL CONTROL EQUIPMENT (STARTERS, CONTACTORS ETC.) NOT SUPPLIED BY OTHER TRADE CONTRACTOR BUT REQUIRED FOR THE INTENDED OPERATION OF OTHER TRADES EQUIPMENT.
7. CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES FOR ALL OTHER TRADES EQUIPMENT NOT SUPPLIED BY OTHERS TRADES.
8. REFER TO OTHER TRADES SPECIFICATION AND DRAWINGS FOR ADDITIONAL ELECTRICAL WORK AND COORDINATION.

T. FUSES

1. REPLACE ALL FUSES BLOWN DURING CONSTRUCTION AND TESTING AND PROVIDE A COMPLETE SETS OF FUSES IN ALL FUSE HOLDERS, SWITCHES, PANELS AND ALL OTHER DEVICES REQUIRING FUSES.
2. FUSES SHALL BE CURRENT LIMITING, DUAL ELEMENT TIME DELAY TYPE AS MANUFACTURED BY "BUSSMANN", PROVIDE OWNER WITH ONE SET OF SPARE FUSES FOR EACH FUSED SWITCH.

U. GUARANTEE

1. IN ADDITION TO WARRANTIES OF EQUIPMENT BY MANUFACTURER, CONTRACTOR SHALL ALSO GUARANTEE EQUIPMENT PROVIDED BY HIM, AND SHALL BE HELD RESPONSIBLE FOR A PERIOD OF ONE (1) YEAR TO MAKE GOOD ON ANY DEFECTS IN MATERIALS AND WORKMANSHIP OCCURRING DURING THIS PERIOD, AT HIS SOLE EXPENSE. THE ONE (1) YEAR PERIOD SHALL START FROM DATE OF FINAL ACCEPTANCE BY OWNER.

V. FIELD DRAWING

1. CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, FOR THE SOLE PURPOSE OF RECORDING ALL CHANGES MADE DURING CONSTRUCTION, ONE (1) "RECORD SET OF DRAWINGS" AND TWO (2) SETS OF "MAINTENANCE AND OPERATIONAL INSTRUCTION MANUALS" FOR ALL EQUIPMENT INSTALLED. AFTER COMPLETION OF THE WORK AND BEFORE REQUESTING FINAL PAYMENT, THE ABOVE MENTIONED DOCUMENTS SHALL BE DELIVERED TO THE OWNER.

W. SUBSTITUTION

1. WHEN EVER ALTERNATE MATERIALS ARE SPECIFIED, IT IS WITH THE UNDERSTANDING THAT ANY ONE OF THE MATERIALS IS ACCEPTABLE TO THE OWNER. MATERIALS AND EQUIPMENT OTHER THAN THOSE SPECIFIED ARE NOT TO BE ASSUMED TO BE SATISFACTORY SUBSTITUTES WITHOUT PRIOR APPROVAL OF THE OWNER.

X. SHOP DRAWINGS

1. ONLY MANDATORY SHOP DRAWINGS AS LIMITED, OUTLINE HEREIN SHALL BE SUBMITTED.
2. NO WORK SHALL BE PREFORMED OR DEVICES INSTALLED UNTIL THE MANDATORY SHOP DRAWINGS HAVE BEEN APPROVED BY THE ARCHTITECT/ENGINEER. THE ARCHITECT/ENGINEER SHALL REVIEW SUBJECT SHOP DRAWINGS BEFORE A COPY IS SUBMITTED TO THE OWNER FOR RECORD PURPOSES.
3. ONLY MATERIAL AND EQUIPMENT MANUFACTURERS OF PRODUCTS OR SYSTEMS LISTED BELOW SHALL FURNISH MANDATORY SHOP DRAWINGS FOR APPROVAL BY THE ARCHITECT/ENGINEER PRIOR TO CONTRACTORS PURCHASING EQUIPMENT, SHOP DRAWINGS ARE TO CONTAIN THE FOLLOWING:
4. MANUFACTURER'S NAME, MATERIAL DESCRIPTION, SIZES AND DIMENSIONS AND OTHER PERTINENT INFORMATION TO CONFIRM AS MINIMUM STANDARD FOR EQUIPMENT LISTED IN THE SCHEDULES ON THE DRAWINGS AND OR IN THE SPECIFICATIONS.
5. ELECTRICAL SHOP DRAWINGS SHALL BE ELECTRONICALLY SUBMITTED.
6. THE FOLLOWING SHOP DRAWING SUBMITTALS ARE A MANDATORY AND SHALL BE SUBMITTED TO THE OWNER FOR HIS APPROVAL PRIOR TO SUBMITTING THEM TO THE ARCHITECT/ENGINEER. THE FOLLOWING EQUIPMENT BE SUBMITTED:
   - LIGHTING FIXTURES AND EMERGENCY LIGHTING FIXTURES
   - DISCONNECT SWITCHES
   - POWER AND LIGHTING PANELS

Y. COMMUNICATION SYSTEMS

1. CONTRACTOR TO PROVIDE CONDUITS WITH WIRE AND BOXES FOR ALL DEVICE AS SHOWN ON THE DRAWINGS AND CONDUIT WITH PULL WIRE FROM THE PROPERTY LINE TO THE UTILITY D'MARC BOX, CONTACTING THE TELEPHONE UTILITY COMPANY FOR NUMBER AND SIZE OF CONDUITS.
2. THE FOLLOWING SHALL BE WORK PREFORMED BY COMMUNICATIONS VENDOR UNDER GC CONTRACT:
   - ALL WIRING FOR INTERIOR TELEPHONE DEVICES
   - ALL TELEPHONE DEVICES

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

SEAL

2/18/22
REGISTERED ARCHITECT
JOSEPH A. DEFILIPPO
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STATE OF NEW YORK

CERTIFICATION

Warning:
NYSED – Office of the Professions Regulations, Architecture Part 69.5 – Seals states that it is a violation of the law for any person, unless acting under the direction of the licensed architect, to alter any and all items on these drawings.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

ELECTRICAL SPECIFICATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JDM
REVIEWED BY:	JDM

SHEET NUMBER

SP-6

DESIGN:

1. BUILDING CODE 2020 BUILDING CODE OF NEW YORK STATE

2. FLOOR DEAD AND FLOOR LIVE LOADS- REFER TO DRAWING S4.

2. ROOF DEAD LOADS:

ROOF MEMBRANE AND INSULATION	= 3.0 PSF
WOOD STRUCTURAL PANEL SHEATHING	= 2.0 PSF
WOOD TRUSSES	= 4.0 PSF
MECHANICAL/ELECTRICAL/FIRE PROTECTION	= 4.0 PSF
COLLATERAL	= 5.0 PSF
TOTAL DEAD LOAD	= 18.0 PSF

3. MINIMUM ROOF LIVE LOAD, Lr = 20.0 PSF

4. RAIN LOADS,
DEPTH OF WATER AT EACH SECONDARY SCUPPER (Ds+Dh) = 3.6 IN

5. SNOW LOADS:

- GROUND SNOW LOAD, Pg	= 30	PSF
- MINIMUM FLAT ROOF SNOW LOAD, Pf	= 23	PSF (INCLUDES RAIN ON SNOW)
- FLAT ROOF SNOW LOAD, Pf	= 23	PSF (+ SNOW DRIFT)
- SNOW DRIFT	= 45.4	PSF (X=10.2 FT)
- SNOW EXPOSURE FACTOR, Ce	= 1.0	
- SNOW LOAD IMPORTANCE FACTOR, Is	= 1.0	
- THERMAL FACTOR, Ct	= 1.0	

6. WIND LOADS:

- ULTIMATE WIND SPEED, Vult (3 SECOND GUST)	= 112 MPH
- NOMINAL DESIGN WIND SPEED, Vasd	= 87 MPH
- RISK CATEGORY	= II
- BUILDING CATEGORY	= ENCLOSED
- OVERALL EXPOSURE CATEGORY	= C

7. ULTIMATE COMPONENTS AND CLADDING (GROSS) WIND DESIGN PRESSURES: PER TABLE BELOW.

ULTIMATE COMPONENTS AND CLADDING (GROSS) WIND DESIGN PRESSURES (PSF)

	ZONE	EFFECTIVE WIND AREA (SF)	WINDWARD PRESSURE	LEEWARD PRESSURE
ROOF	1	10	16.0	-44.7
		20	16.0	-41.8
		50	16.0	-37.9
		100	16.0	-34.9
	1'	10	16.0	-25.7
		20	16.0	-25.7
		50	16.0	-25.7
		100	16.0	-25.7
	2	10	16.0	-59.0
		20	16.0	-55.2
		50	16.0	-50.2
		100	16.0	-46.4
	3	10	16.0	-80.4
		20	16.0	-72.8
		50	16.0	-62.8
		100	16.0	-55.2
WALLS	4	10	25.7	-27.8
		20	24.6	-26.7
		50	23.0	-25.2
		100	21.9	-24.1
		500	19.3	-21.4
	5	10	25.7	-34.3
		20	24.6	-32.0
		50	23.0	-29.0
		100	21.9	-26.7
		500	19.3	-21.4

1. SEISMIC LOADS:

- RISK CATEGORY	= II
- SEISMIC IMPORTANCE FACTOR, Ie	= 1.0
- MAPPED SPECTRAL RESPONSE COEFFICIENTS:	
- Ss	= 0.215
- S1	= 0.056
- SITE CLASS	= C
- SPECTRAL RESPONSE COEFFICIENTS:	
- Sds	= 0.186
- Sd1	= 0.056
- SEISMIC DESIGN CATEGORY	= B
- BASIC SEISMIC-FORCE-RESISTING SYSTEM	= LIGHT FRAMED WALLS WITH SHEAR PANELS
-RESPONSE MODIFICATION COEFFICIENT,R	= 6.5
-ANALYSIS PROCEDURE	= EQUIVALENT LATERAL FORCE PROCEDURE
-SEISMIC RESPONSE COEFFICIENT, Cs	= 0.029
-BASIC SHEAR, V	= 5 K (ULTIMATE)

FOUNDATIONS:

1. THE FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE "GEOTECHNICAL INVESTIGATION" PREPARED BY GEOSTRUCTURES PROJECT NO. G21-204 DATED SEPTEMBER 23, 2021.

2. SPREAD FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 3000 PSF FOR INDIVIDUAL COLUMN FOOTINGS AND 3000 PSF CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE LIVE AND DEAD LOAD.

3. FOOTINGS MAY BE POURED INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.

4. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.

5. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 42" BELOW FINAL EXTERIOR GRADE FOR FROST PROTECTION.

6. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE.

7. WHERE FOUNDATION WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, PLACE FILL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL.

8. VERIFY USE AND EXTENT OF PERIMETER INSULATION WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION OF FOUNDATIONS. INSTALL PERIMETER INSULATION AS REQUIRED.

METAL FLOOR DECK:

1. METAL FLOOR DECK SHALL COMPLY WITH THE REQUIREMENTS OF THE STEEL DECK INSTITUTE STANDARDS FOR COMPOSITE STEEL FLOOR DECK (2006).

2. METAL FLOOR DECK SHALL BE CONFIGURATION, DEPTH AND MINIMUM GAGE AS SHOWN ON THE DRAWINGS. ATTACHMENT TO THE SUPPORTING STRUCTURE SHALL BE AS SHOWN ON THE DRAWINGS AS A MINIMUM. SEE FLOOR FRAMING PLAN NOTES.

3. DO NOT HANG OR SUPPORT ANY LOADS FROM METAL FLOOR DECK.

CONCRETE:

1. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH AND DENSITY, IN ACCORDANCE WITH THE FOLLOWING:

	STRENGTH (PSI)	DENSITY (PCF)
INTERIOR SLABS	4000	145
ALL CONCRETE EXPOSED TO WEATHER	4000	145
ALL OTHER CONCRETE (U.N.O.)	3000	145

2. SLUMP OF CONCRETE SHALL NOT EXCEED 4" UNLESS A HIGH RANGE WATER-REDUCING ADMIXTURE IS USED. THE SLUMP OF CONCRETE PRIOR TO ADDITION OF A HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 4". THE SLUMP OF CONCRETE CONTAINING A HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 10".

3. CONCRETE EXPOSED TO WEATHER, IN AREAS SUBJECT TO FROST, SHALL BE AIR-ENTRAINED. AIR CONTENT SHALL BE BETWEEN 4 AND 8 PERCENT.

4. THE COARSE AGGREGATE SIZE SHALL BE # 57 OR LARGER. SEE CONCRETE SPECIFICATION FOR MAXIMUM AGGREGATE SIZE ALLOWED (3/4" MAXIMUM AT INTERIOR SLABS).

5. THE MINIMUM PORTLAND CEMENT (TYPE I OR II) CONTENT (ASTM C150) OF ALL CONCRETE SHALL CONFORM TO THE FOLLOWING TABLE. (FLY ASH NOT PERMITTED)

SPECIFIED COMPRESSIVE STRENGTH (PSI)	MINIMUM CEMENT CONTENT (POUNDS PER CUBIC YARD)	
	NON AIR-ENTRAINED CONCRETE	AIR-ENTRAINED CONCRETE
3000	470	517
4000	564	611

6. REINFORCING SHALL CONFORM TO ASTM A615, GR60 UNLESS NOTED OTHERWISE.

7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

8. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED, IN ACCORDANCE WITH ACI DETAILING MANUAL 2004.

9. ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH CRSI "MANUAL OF STANDARD PRACTICE" (2009).

10. MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE:

UNFORMED SURFACE IN CONTACT WITH THE GROUND:	3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER:	
#6 BARS AND LARGER	2"
#5 BARS AND SMALLER	1 1/2"
FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER:	
BEAMS, GIRDERS, AND COLUMNS	1 1/2"
SLABS, WALLS, AND JOISTS	

11. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE, UNLESS NOTED OTHERWISE. WHERE CLASSES ARE NOT CALLED OUT ON DRAWINGS, USE CLASS "B" SPLICES.

BAR SIZE	TENSION SPLICES (INCHES)				COMPRESSION SPLICES (INCHES)
	TOP BARS		OTHER BARS		
	A	B	A	B	
#3	22	28	17	22	12
#4	29	37	22	29	15
#5	36	47	28	36	19
#6	43	56	33	43	23
#7	63	81	48	63	26
#8	72	93	55	72	30

COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS
LAP WELDED WIRE FABRIC ONE SPACING OF CROSS WIRES PLUS 2"

12. BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC. BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING GRADES:

WIDE FLANGE SHAPES	A992 (Fy = 50)
CHANNELS, ANGLES, PLATES, ETC. (UNO)	A36 (Fy = 36)
STRUCTURAL TUBE	A500 (Fy = 46)
STEEL PIPE	A53 (Fy = 35)
ANCHOR RODS	F1554, A36 OR A307
BOLTS	A325
WELDING ELECTRODES	E70XX

2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (2005), EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.

3. SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.

4. UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR 8" MINIMUM ON CONCRETE OR MASONRY. UNLESS NOTED OTHERWISE, ANCHOR BEAMS TO MASONRY WITH TWO (2) 3/4" DIAMETER ANCHOR BOLTS WITH 1'-4" EMBEDMENT.

STRUCTURAL LUMBER:

1. SAWN LUMBER:
   A. ALL SAWN LUMBER MUST BE GRADE STAMPED, VISUALLY INSPECTED, WITH 19% MAX MC AND SHALL CONFORM TO THE MINIMUM STANDARDS OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION AND CHAPTER 23 OF THE INTERNATIONAL BUILDING CODE.
   B. UNLESS NOTED OTHERWISE USE #2 OR BETTER SOUTHERN PINE/DOUGLAS FIR LARCH FOR ALL SAWN LUMBER.
   C. ALL SAWN LUMBER IN CONTACT WITH CONCRETE OR PERMANENTLY EXPOSED TO WEATHER SHALL BE PRESERVATIVE-TREATED TO CONFORM TO THE REQUIREMENTS OF THE APPLICABLE AWPA STANDARD FOR THE SPECIES, PRODUCT, PRESERVATIVE, AND END USE. ALL LUMBER REQUIRED TO BE PRESERVATIVE-TREATED SHALL BE CLEARLY STAMPED WITH THE MARK OF AN INSPECTION AGENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING, AND INSPECTION OVER THE QUALITY OF THE PRESERVATIVE-TREATED WOOD.

2. ROOF AND WALL SHEATHING:
   A. ROOF SHEATHING SHALL BE A MINIMUM 19/32" APA RATED SHEATHING, EXPOSURE 1 WITH 32/16 SPAN RATING, UNLESS NOTED OTHERWISE, NAIL ROOF SHEATHING WITH A MINIMUM OF 10d NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS. PROVIDE 2x4 BLOCKING AT ALL UNSUPPORTED PANEL EDGES.
   B. WALL SHEATHING TO BE MINIMUM 15/32" APA RATED SHEATHING, EXPOSURE 1. UNLESS NOTED OTHERWISE, NAIL WALL SHEATHING WITH A MINIMUM OF 10d NAILS AT 6" ON CENTER AT PANEL EDGES AND 12" ON CENTER AT INTERMEDIATE SUPPORTS. PROVIDE 2x4 BLOCKING AT ALL UNSUPPORTED PANEL EDGES.

3. STRUCTURAL GLUED-LAMINATED TIMBER (GLULAM)
   A. COMBINATION 24F-V3 SP/SP

4. PRE-ENGINEERED WOOD ROOF TRUSSES:
   A. DESIGN ALL TRUSSES FOR THE UNIFORM LOADS SHOWN IN ADDITION TO A CONCENTRATED LOAD OF 100 POUNDS APPLIED DIRECTLY TO THE BOTTOM CHORD AT ANY POINT ALONG THE SPAN.
   B. ALL TRUSSES SHALL BE BRACED DURING ERECTION PER "COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES, HIB-91" BY THE TRUSS PLATE INSTITUTE, UNLESS MORE STRICT BRACING IS REQUIRED BY THE TRUSS MANUFACTURER. THIS BRACING SHALL REMAIN AS PERMANENT BRACING. BRACING IN THE PLANE OF THE TOP CHORD MAY BE REMOVED WHEN THE TOP CHORD IS LATERALLY BRACED BY ROOF SHEATHING.
   C. BOTTOM CHORD OF WOOD TRUSSES SHALL BE DESIGN AS UNBRACED FOR A LENGTH EQUAL TO THE SPACING BETWEEN BOTTOM CHORD BRACES. BOTTOM CHORD BRACES SHALL BE SUPPLIED BY TRUSS MANUFACTURER.
   D. UNLESS NOTED OTHERWISE, INSTALL (1) SIMPSON H2.5A HURRICANE TIE AT EACH MEMBER AT EACH BEARING LOCATION. INSTALL SIMPSON LGT TIEDOWN AT GIRDER BEARING LOCATIONS - COORDINATE GIRDER PLIES WITH TIEDOWN.
   E. WOOD MEMBERS FOR THE TRUSSES SHALL BE FIRE RETARDANT TREATED WHEN REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION. REDUCTIONS FOR WOOD CAPACITY SHALL BE ACCOUNTED FOR IN THE DESIGN CALCULATIONS FOR THE WOOD TRUSSES. A CERTIFIED LETTER FROM THE TRUSS SUPPLIER SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION STATING THAT THE TRUSSES MEET OR EXCEED THE DESIGN REQUIREMENT & FIRE RATING FOR THE ROOF STRUCTURE.

5. FASTENERS:
   A. CONNECT ALL FRAMING SECURELY TOGETHER WITH NAILS, SPIKES, SCREWS, BOLTS, OR FRAMING CONNECTORS.
   B. MINIMUM NAILING MUST BE IN ACCORDANCE WITH THE SCHEDULES PROVIDED IN THE GOVERNING MODEL BUILDING CODE.
   C. ALL NAILS, BOLTS, LAG SCREWS, NUTS, WASHERS, ETC. USED IN FIRE-RETARDED LUMBER AND PLYWOOD MUST BE HOT-DIPPED GALVANIZED.
   D. ALL BOLTS, STRAPS, ANCHORS, ETC., THAT ARE IN DIRECT CONTACT WITH ACQ TYPE TREATED LUMBER MUST BE HOT-DIPPED GALVANIZED (G 185 MIN) OR STAINLESS STEEL FASTENERS.
   E. ALL BOLT HOLES AND PLATES SHALL BE PLACED AS SPECIFIED IN THE DETAILS, PROVIDE SPECIFIED SPACING, EDGE DISTANCES, AND END DISTANCES, OR AS REQUIRED BY CONNECTION DESIGN SPECIFICATIONS.
   F. ALL TOP-LOADED BUILT-UP BEAMS, AND SIDE-LOADED BUILT-UP BEAMS OF ONLY TWO PLIES, SHALL HAVE THEIR INDIVIDUAL PLIES FASTENED TOGETHER WITH A MINIMUM OF TWO ROWS OF 16d NAILS AT 12' O.C. UNLESS NOTED OTHERWISE.
   G. ALL SIDE-LOADED BUILT-UP BEAMS OF THREE PLIES OR MORE SHALL HAVE THEIR MULTIPLE PLIES FASTENED TOGETHER WITH A MINIMUM OF TWO ROWS OF 1/2" Ø THRU -BOLTS AT 24" O.C. ROWS STAGGERED, UNLESS NOTED OTHERWISE.

MISCELLANEOUS:

1. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. DETAILS SHOWN ON THIS SHEET ARE APPLICABLE THROUGHOUT THE DESIGN DRAWINGS. THESE DETAILS ARE DEFINED AS TYPICAL GENERAL STANDARDS THAT ARE USUALLY NOT IDENTIFIED BY SPECIFIC REFERENCE WITHIN THE DRAWINGS. THESE DETAILS MAY BE MODIFIED OR SUPERSEDED BY SPECIFIC DETAILS THAT ARE REFERENCED WITHIN THE DRAWINGS.

3. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL, MEP AND CIVIL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.

4. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.

5. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.

6. OPENINGS 1'-4" AND LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR SUCH OPENINGS.

7. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

8. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.

9. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.

10. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

11. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.

SPECIAL INSPECTIONS:

1. THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE THE REQUIRED SPECIAL INSPECTIONS DURING CONSTRUCTION.

2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
   B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL OF RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
   C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.

4. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF OTHER SPECIFIED TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.

5. STRUCTURAL OBSERVATION (AS DEFINED IN CHAPTER 17 OF THE BUILDING CODE) IS NOT REQUIRED, UNLESS SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL..

6. SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING TABLES:

SOILS (IBC 1705.6)

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	PERIODIC	GEOTECHNICAL ENGINEERING REPORT
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	PERIODIC	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	PERIODIC	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	CONTINUOUS	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	PERIODIC	

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION (IBC 1705.3)

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
1. INSPECTION OF REINFORCING STEEL AND PLACEMENT.	PERIODIC	ACI 318:3.5, 7.1-7.7; IBC 1910.4
2. INSPECTION OF ANCHORS CAST IN CONCRETE	PERIODIC	ACI 318: 8.1.3, 21.2.8; IBC 1908.5,1909.1
3. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	PERIODIC	ACI 318: 3.8.6, 8.1.3, 21.2.8; IBC 1909.1
4. VERIFYING USE OF REQUIRED DESIGN MIX.	PERIODIC	ACI 318: CH, 4 5.2-5.4; IBC 1904.2,1910.2, 1910.3
5. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	CONTINUOUS	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8 IBC 1910.10
6. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	PERIODIC	ACI 318: 5.11-5.13; IBC 1910.9
7. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	PERIODIC	ACI 318: 6.1.1

STRUCTURAL STEEL CONSTRUCTION (IBC 1705.2.1)

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
STRUCTURAL STEEL	AISC 360-10	AISC 360-10

STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL (IBC 1705.2.2)

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
1. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:		
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	APPLICABLE ASTM MATERIAL STANDARDS
b. MANUFACTURER'S CERTIFIED TEST REPORTS.	PERIODIC	
2. INSPECTION OF WELDING:		
a. COLD-FORMED STEEL DECK:		
1. FLOOR DECK WELDS	PERIODIC	AWS D1.3

PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES (1705.5)

VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD
1. PREFABRICATED WOOD TRUSSES		IBC 1704.2.5

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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

HARRISON FRENCH & ASSOCIATES, ARCHITECTS & ENGINEERS
1705 S. Walton Blvd, Suite 3
Bentonville, Arkansas 72712
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www.hfa-ae.com

SEAL

STATE OF NEW YORK
LANGHEN TAYLA
LICENSED PROFESSIONAL ENGINEER
2022-02-17 10:44:22 -06'00'

CERTIFICATION

NEW YORK ALTERATION WARNING

IT IS A VIOLATION OF NEW YORK REGULATION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY WITHOUT AFFIXING TO THE ITEM HIS SEAL AND THE NOTIFICATION "ALTERED BY", FOLLOWED BY A SIGNATURE, DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

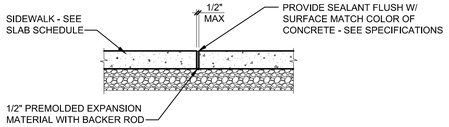
GENERAL NOTES

SHEET MANAGEMENT

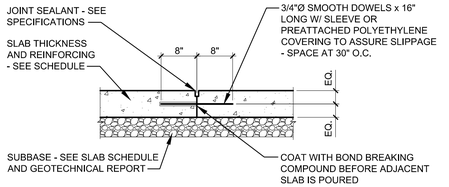
SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JLK
REVIEWED BY:	JLK

SHEET NUMBER

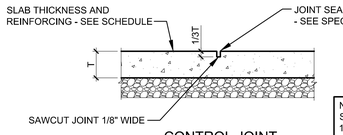
S-1



SIDEWALK EXPANSION JOINT



CONSTRUCTION JOINT



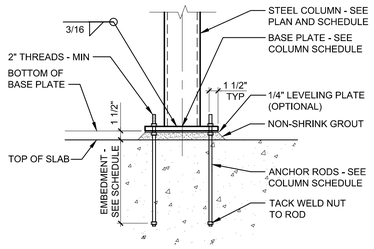
CONTROL JOINT

NOTE:
SAW CUT SLAB WITHIN 12 HOURS AFTER SLAB HAS BEEN PLACED

1 S2 TYPICAL SLAB JOINT DETAILS

SCALE: NO SCALE

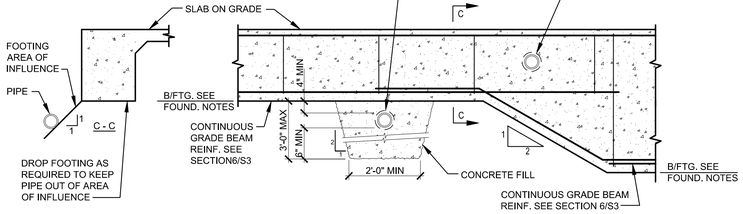
ALTERNATE ANCHOR BOLTS:
(4) 3/4"Ø HILTI HAS RODS & HIT HY 200 ADHESIVE, WITH 6" MINIMUM EMBED - ADHESIVE ANCHOR(S) REQUIRE CONTINUOUS SPECIAL INSPECTION DURING THE INSTALLATION PROCESS AS DEFINED IN THE 2020 BUILDING CODE OF STATE OF NEW YORK



2 S2 TYPICAL COLUMN BASE DETAIL

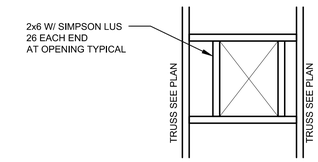
SCALE: NO SCALE

NOTE:
CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND PIPING, CONDUIT, ETC. WITH APPROPRIATE SUBCONTRACTOR. ADJUST FOOTING ELEVATIONS AS REQUIRED



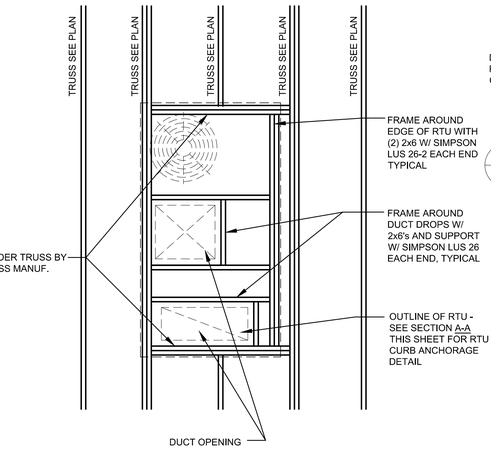
3 S2 STEPPED TRENCH FOOTING AND PIPE PENETRATION DETAIL

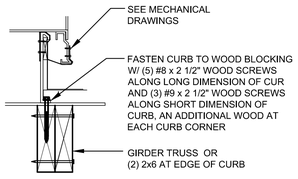
SCALE: NO SCALE



4 S2 TYP. ROOF OPENING DETAIL

SCALE:

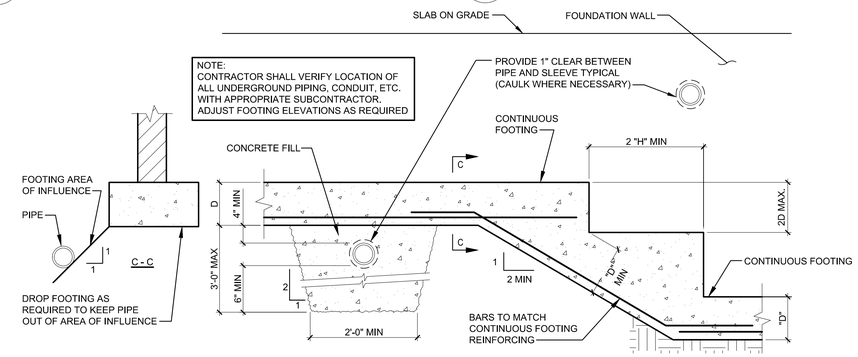




A - A

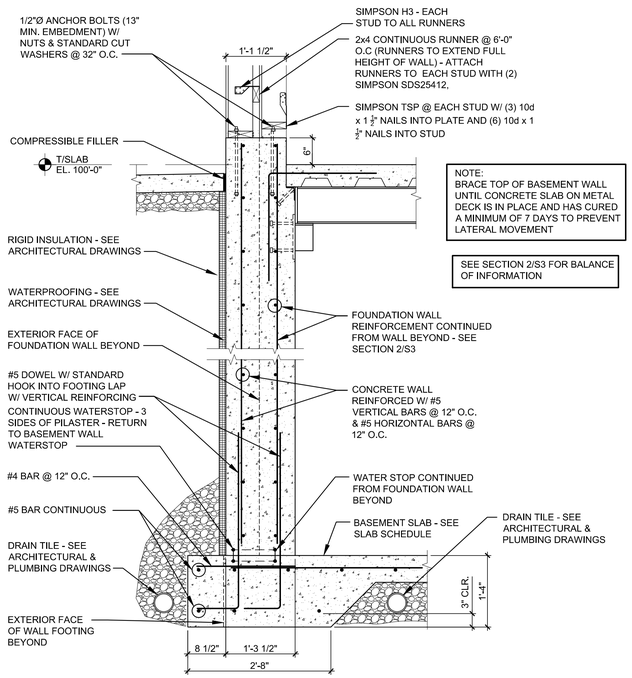
5 S2 TYPICAL RTU SUPPORT DETAIL

SCALE: NO SCALE



3A S2 TYP. STEPPED FOOTING AND PIPE PENETRATION DETAIL

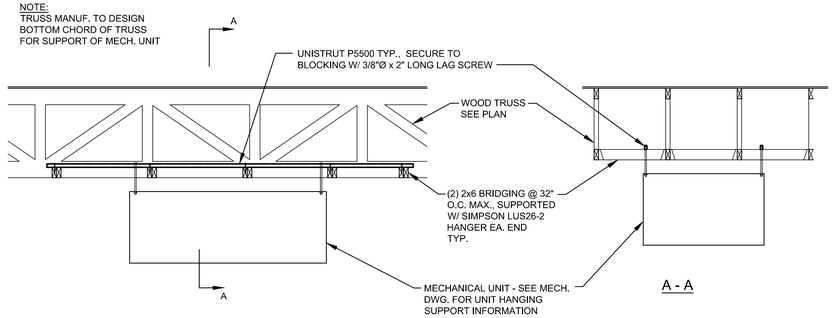
SCALE: NO SCALE



6 S2 SECTION AT BUMP OUT

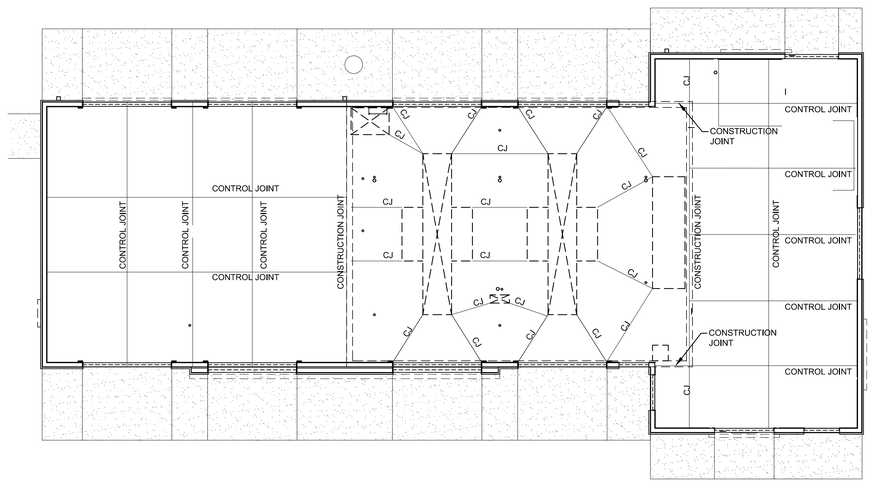
SCALE: 3/4" = 1'-0"

NOTE:
TRUSS MANUF. TO DESIGN BOTTOM CHORD OF TRUSS FOR SUPPORT OF MECH. UNIT



8 S2 SECTION

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



7 S2 CONTROL JOINT LAYOUT

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

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INTEGRITY | RESPECT | TEAMWORK
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REVISIONS

NO.	DATE	DESCRIPTION

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STATE OF NEW YORK
LANGSHEN TSE-CHI
LICENSED PROFESSIONAL ENGINEER
2022.02.18 08:50:21-06'00'

CERTIFICATION

NEW YORK ALTERATION WARNING

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

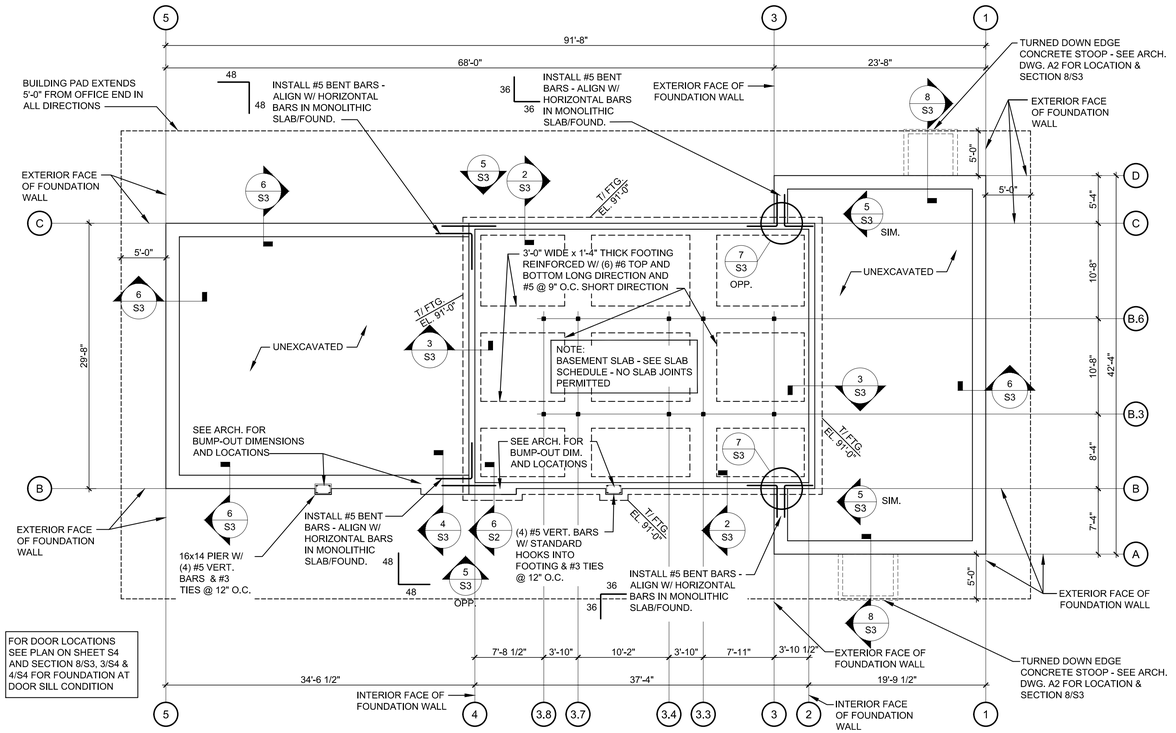
TYPICAL DETAILS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JIM
REVIEWED BY:	JLK

SHEET NUMBER

S-2



FOUNDATION PLAN NOTES

1. SEE SHEET S1 & S2 FOR GENERAL NOTES, SPECIAL INSPECTION NOTES AND TYPICAL DETAILS.
2. ALL ELEVATIONS BASED ON FINISH FLOOR ELEVATION OF 100'-0" FOR REFERENCE ONLY. SEE CIVIL DRAWINGS FOR ACTUAL FINISH FLOOR ELEVATION.
3. SEE PLAN FOR TOP OF EXTERIOR FOOTING ELEVATIONS. TOP OF FOOTING AND BOTTOM OF FOOTING ELEVATIONS SHALL BE CONFIRMED BY THE CONTRACTOR TO CONFORM TO THE CRITERIA LISTED BELOW. STEP FOOTINGS WHERE REQUIRED BY SITE CONDITIONS (SEE "TYPICAL STEPPED FOOTING DETAIL").
4. ALL FOOTINGS SHALL BEAR AT DEPTH NECESSARY TO ACHIEVE THE ALLOWABLE BEARING PRESSURE (AS DETERMINED BY THE GEOTECHICAL ENGINEER) AND FOR EXTERIOR FOOTINGS, AS REQUIRED TO PLACE THE BOTTOM OF FOOTING (SEE GENERAL NOTES). FOOTING THICKNESS SHOWN IS THE MINIMUM REQUIRED. FOOTINGS MAY BE THICKENED WHERE REQUIRED.
5. WHERE FOOTINGS ARE TO BEAR IN CLOSE PROXIMITY TO EXISTING OR PROPOSED FOOTINGS FOR ADJACENT CONSTRUCTION. COORDINATE WITH ADJACENT CONSTRUCTION SO THAT ALL FOOTINGS BEAR AT THE SAME ELEVATION. ADVISE PROFESSIONAL OF RECORD WHERE BEARING ELEVATION OF ADJACENT CONSTRUCTION DOES NOT PERMIT COMPLIANCE WITH THE SIZES AND DETAILS SHOWN. OR WHEN THE REQUIRED ALLOWABLE BEARING PRESSURE CANNOT BE ACHIEVED (AS DETERMINED BY THE GEOTECHNICAL ENGINEER).

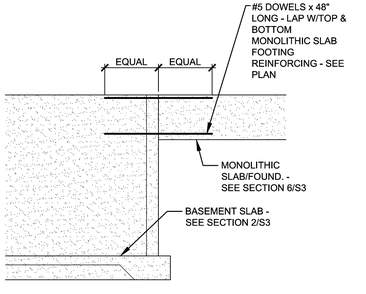
SLAB SCHEDULE

LOCATION	THICKNESS	REINFORCEMENT	SUBBASE
4 " INTERIOR SLAB	4"	#3 AT 18" O.C. EACH WAY CENTER IN SLAB	15 MIL VAPOR RETARDER (ASTM D-2103) OVER 6" ODOT TYPE IA POROUS GRANULAR SUBBASE - PER GEOTECHNICAL REPORT
6" INTERIOR SLAB	6"	#3 AT 18" O.C. EACH WAY CENTER IN SLAB	15 MIL VAPOR RETARDER (ASTM D-2103) OVER 6" TYPE IA POROUS GRANULAR SUBBASE - PER GEOTECHNICAL REPORT
BASEMENT SLAB	6"	#5 AT 12" O.C. EACH WAY CENTER OF SLAB	15 MIL VAPOR RETARDER (ASTM D-2103) OVER 6" ODOT TYPE IA POROUS GRANULAR SUBBASE - PER GEOTECHNICAL REPORT
SIDEWALK SLAB	4"	PER CIVIL	PER GEOTECHNICAL REPORT
CONCRETE APRON	6"	6x6 W2.9xW2.9 W.W.F.	PER GEOTECHNICAL REPORT BUILDING PAD RECOMMENDATIONS
DUMPSTER SLAB	6"	#3 AT 12" O.C. EACH WAY CENTER OF SLAB	PER GEOTECHNICAL REPORT

1/S3 FOUNDATION PLAN

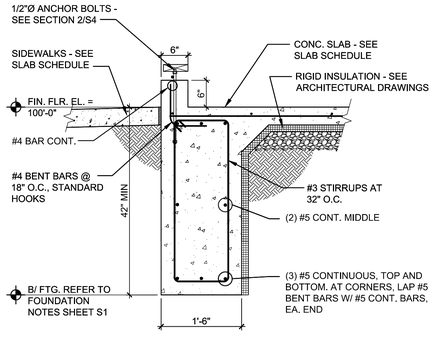
SCALE: 1/8" = 1'-0"

PLAN NORTH



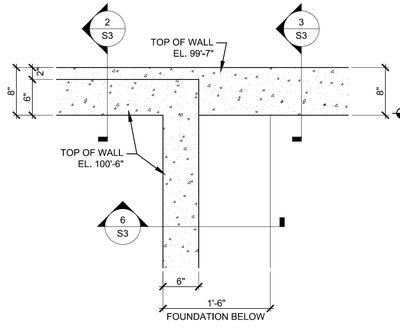
5/S3 DETAIL

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



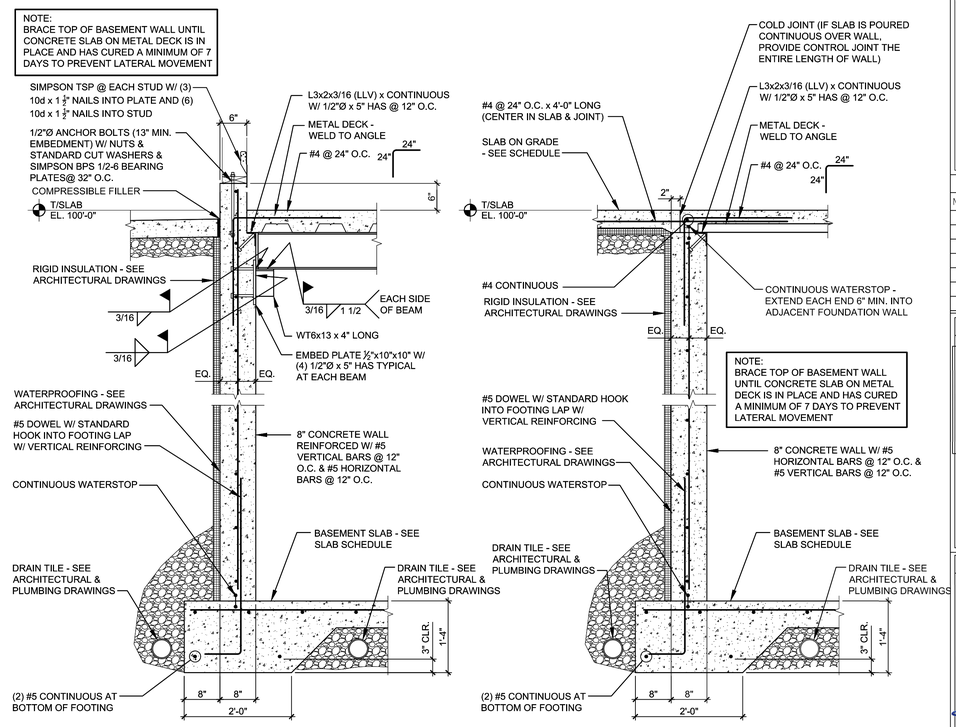
6/S3 SECTION

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



7/S3 PLAN DETAIL

SCALE: 1" = 1'-0"

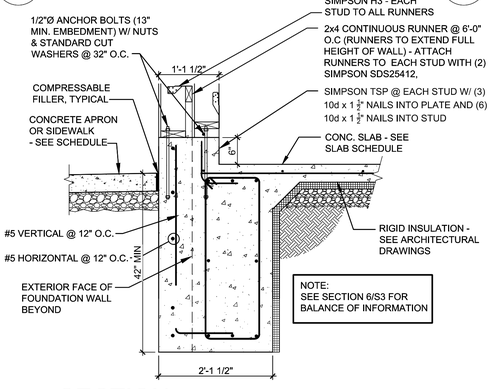


2/S3 SECTION

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

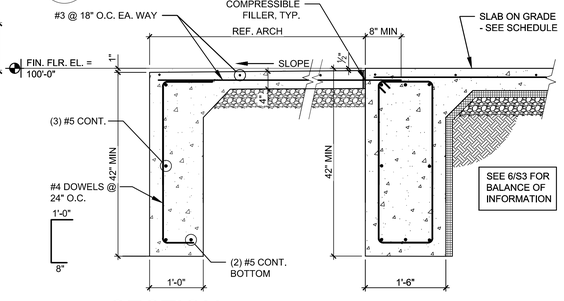
3/S3 SECTION

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



4/S3 SECTION

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



8/S3 SECTION

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

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CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

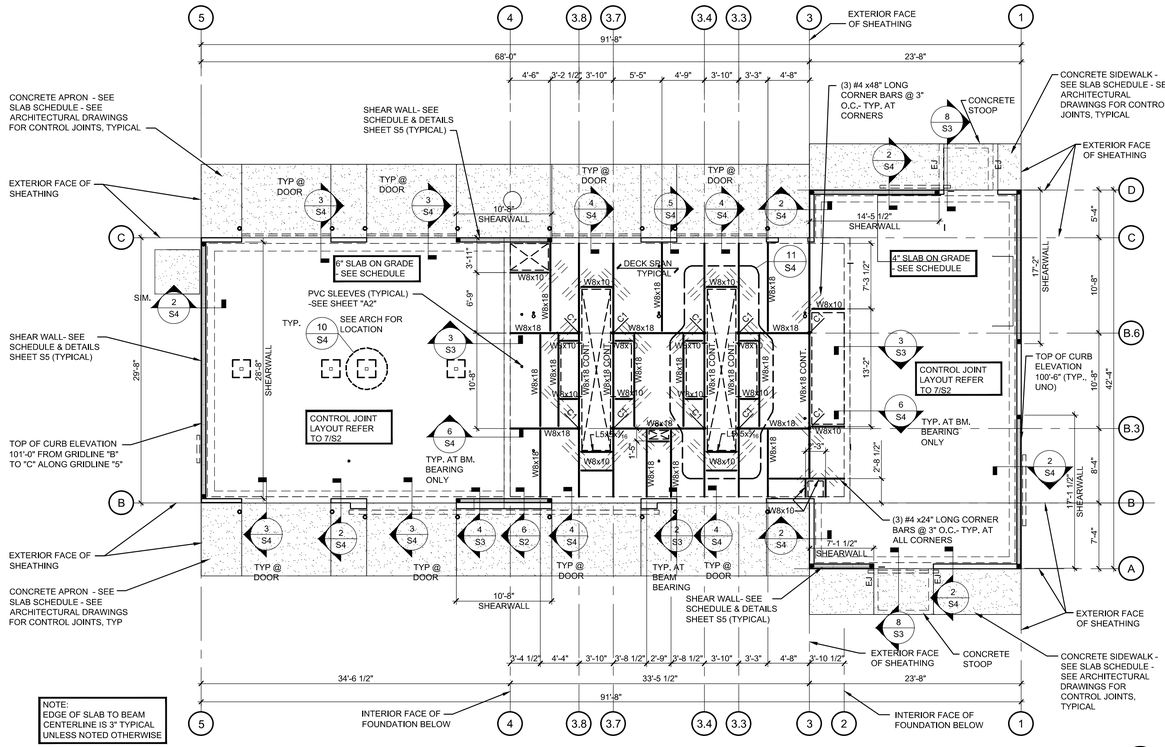
FOUNDATION PLAN, DETAILS, & SECTIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JIM
REVIEWED BY:	JLK

SHEET NUMBER

S-3



NOTE:
EDGE OF SLAB TO BEAM CENTERLINE IS 3" TYPICAL UNLESS NOTED OTHERWISE

1 S4 FLOOR FRAMING PLAN

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

PLAN NORTH

FLOOR FRAMING NOTES

1. SEE SHEET S1 & S2 FOR GENERAL NOTES, SPECIAL INSPECTION NOTES AND TYPICAL DETAILS.
2. FINISH FLOOR ELEVATION = 100'-0". TOP OF STEEL (BOTTOM OF DECK) = 99'-7" U.N.O.
3. FLOOR CONSTRUCTION: 5" TOTAL FLOOR THICKNESS REINFORCED W/ 6x6-W2.9xW2.9 W.W.M. (FLAT STOCK AND CHAIRED) OVER 2" COMPOSITE FLOOR DECK. CHAIR REINFORCEMENT TO MID DISTANCE BETWEEN TOP OF SLAB AND TOP OF METAL DECK.
4. METAL FLOOR DECK SHALL BE 22 GA, 36" WIDE, 2" DEEP VULCRAFT 2VLI COMPOSITE FLOOR DECK & SHALL BE CONNECTED TO FRAMING MEMBERS AS FOLLOWS:
   A. TO ALL TRANSVERSE SUPPORTS, 5/8"Ø PUDDLE WELDS, 4 PER SHEET
   B. TO ALL SUPPORTS PARALLEL TO SUPPORTS, 5/8"Ø PUDDLE WELDS AT 12" O.C.
   C. SIDE SEAMS, #10 TEK SCREWS, 4 PER SPAN.

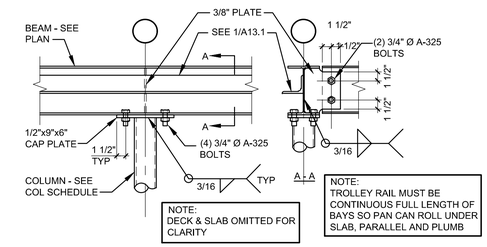
FLOOR LOADS:

CONCRETE & METAL DECK	= 51.0 PSF
BEAMS	= 5.0 PSF
MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION	= 4.0 PSF
TOTAL DEAD LOAD	= 60.0 PSF
FLOOR LIVE LOAD	= 200.0 PSF
TOTAL FLOOR LOAD	= 260.0 PSF

COLUMN SCHEDULE

MARK	COLUMN TYPE	BASE PLATE	ANCHOR RODS
C1	PIPE 3 XS	10"x10"x3/4"	(4) - 3/4"Ø ANCHOR RODS W/ 9" MINIMUM EMBEDMENT

NOTE: SEE TYPICAL BASE PLATE DETAIL 2/S2 FOR ALTERNATE ANCHOR BOLTS

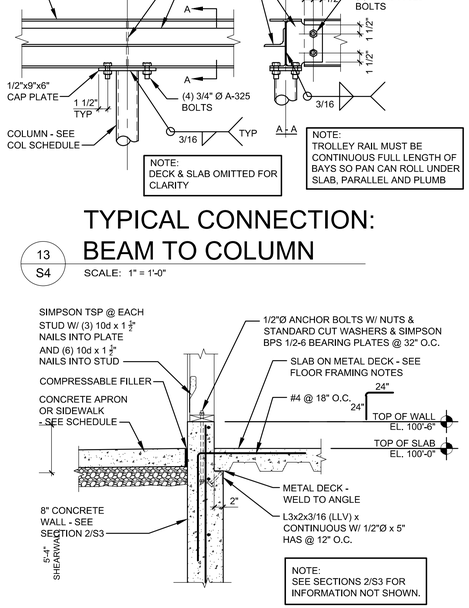


NOTE:
DECK & SLAB OMITTED FOR CLARITY

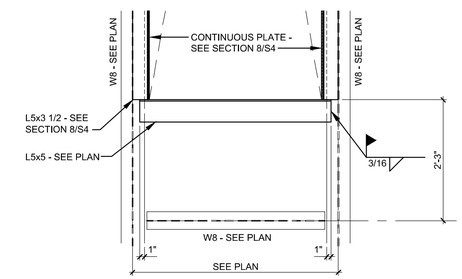
NOTE:
TROLLEY RAIL MUST BE CONTINUOUS FULL LENGTH OF BAYS SO PAN CAN ROLL UNDER SLAB, PARALLEL AND PLUMB

TYPICAL CONNECTION: BEAM TO COLUMN

13 S4 SCALE: 1" = 1'-0"

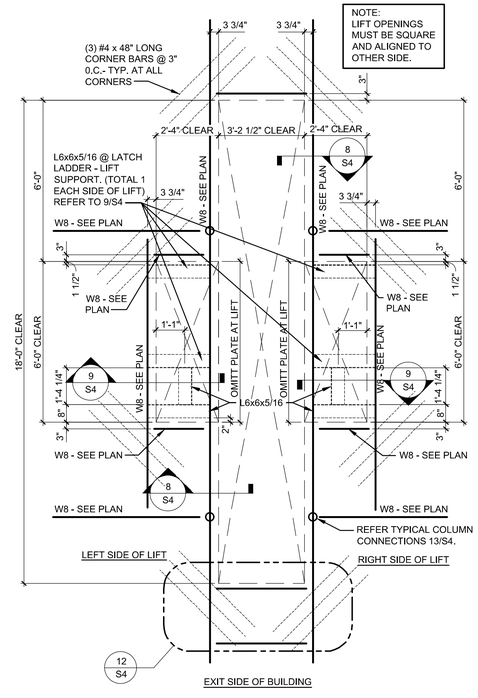


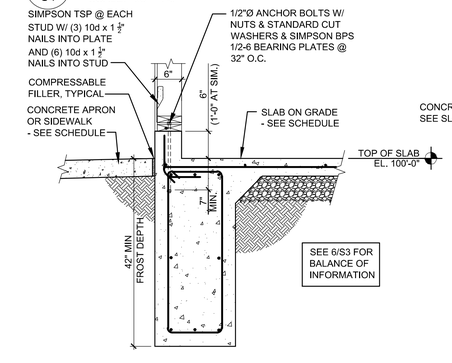
NOTE:
SEE SECTIONS 2/S3 FOR INFORMATION NOT SHOWN.



12 S4 PLAN DETAIL

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

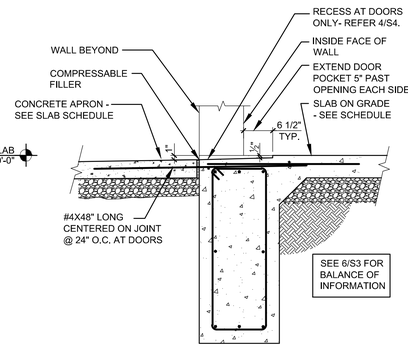




SEE 6/S3 FOR BALANCE OF INFORMATION

2 S4 SECTION

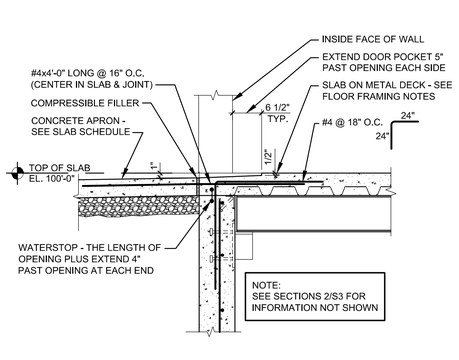
SCALE: 3/4" = 1'-0"



SEE 6/S3 FOR BALANCE OF INFORMATION

3 S4 SECTION

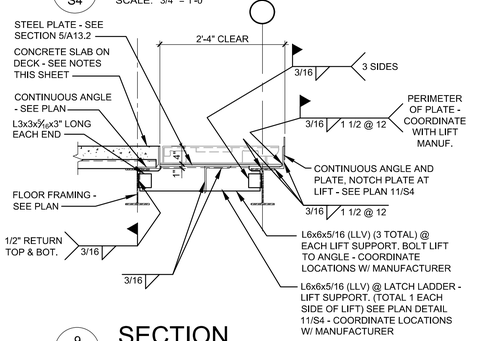
SCALE: 3/4" = 1'-0"



NOTE:
SEE SECTIONS 2/S3 FOR INFORMATION NOT SHOWN

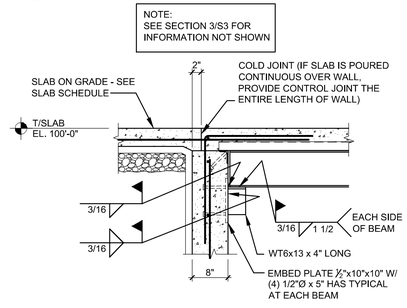
4 S4 SECTION

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



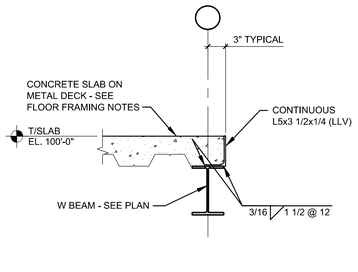
5 S4 SECTION

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



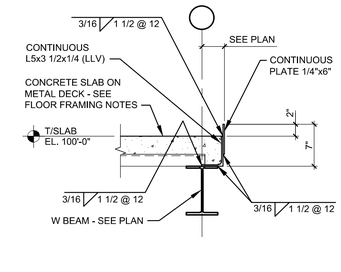
6 S4 SECTION

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



7 S4 SECTION

SCALE: 1" = 1'-0"

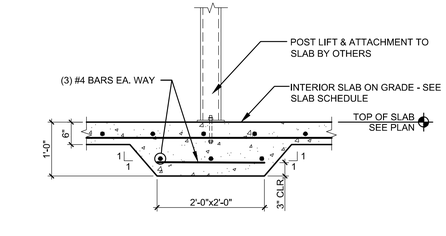


8 S4 SECTION

SCALE: 1" = 1'-0"

11 S4 PLAN DETAIL

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



10 S4 SECTION

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

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JONGSHEN JIA
LICENSED PROFESSIONAL ENGINEER
2022-10-17 13:44:34 -05'00'

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
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SHEET TITLE

FLOOR FRAMING PLAN, DETAILS, & SECTIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JIM
REVIEWED BY:	JLK

SHEET NUMBER

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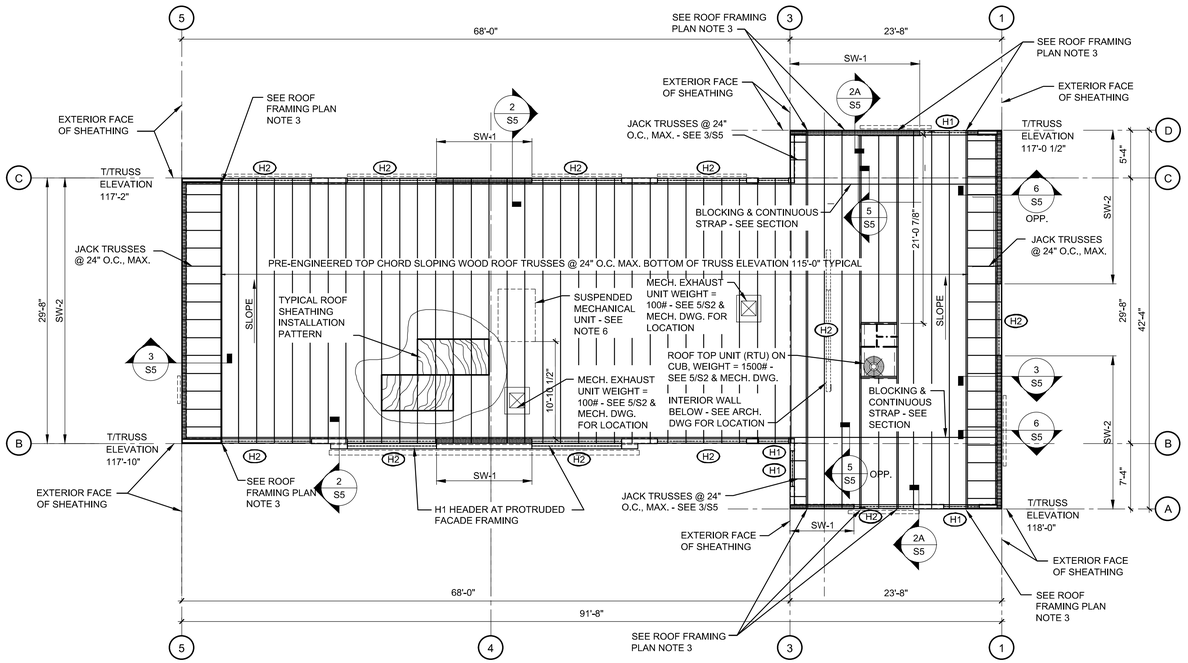


1 / S5 ROOF FRAMING PLAN

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

PLAN NORTH

ROOF FRAMING PLAN NOTES

1. SEE SHEET S1 & S2 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. T/TRUSS = TOP OF TRUSS (BOTTOM OF SHEATHING).
3. CENTER MULTI-PLY POST UNDER GIRDER TRUSS - COORDINATE POST PLIES W/GIRDER TRUSS - SEE SHEET S1 FOR TIEDOWN
4. SEE ARCHITECTURAL DRAWINGS FOR INTERIOR NON-LOAD BEARING WALL STUDS - SEE SHEET S1 FOR MATERIAL REQUIREMENTS.
5. NOT USED
6. MECHANICAL UNIT SUPPORTED ALONG BOTTOM CHORD OF ROOF TRUSS (SPREAD ACROSS 4 TRUSSES MINIMUM). MECHANICAL UNIT WEIGHT = 292# - SEE DETAIL 8/S-2 AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. REF ARCH FOR SCUPPERS SIZE AND LOCATION. REF ARCH FOR SIZE AND LOCATION OF LADDER ACCESS OPENING THROUGH THE PARAPET WALL. DO NOT CUT PARAPET STUDS THAT ARE PART OF THE ROOF TRUSSES. COORDINATE TRUSS LOCATION NEAR LADDER ACCESS OPENING.

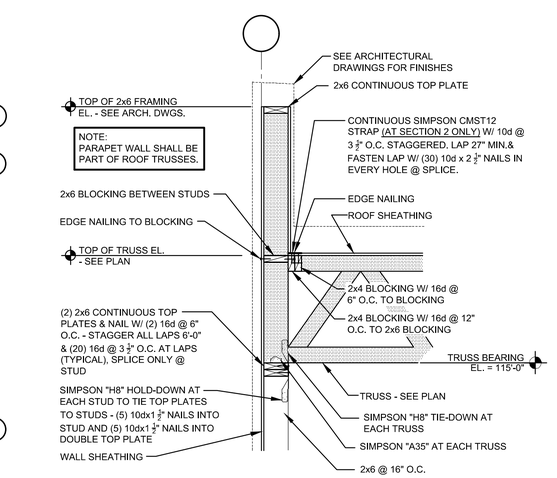
HEADER SCHEDULE

MARK	FRAMING MEMBER	HEADER SUPPORT
H1	(3) - 2x8	(1) JAMB STUDS AND (1) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING
H2	(1) - 5 1/2"x10 1/2" G.L.	(2) JAMB STUDS AND (2) FULL HEIGHT TRIMMER STUDS EACH SIDE OF OPENING

SHEAR WALL SCHEDULE

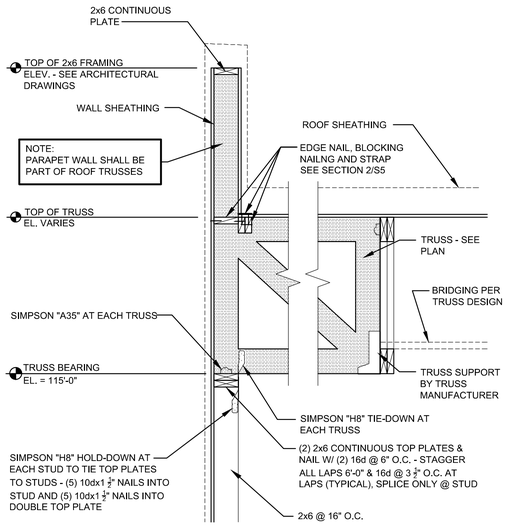
MARK	HOLD-DOWN (SIMPSON)	ANCHOR BOLT	ANCHOR BOLT MINIMUM EMBEDMENT	END POST	END POST BOLT DIAMETER	PANEL EDGE NAILING (PROVIDE BLOCKING @ ALL PANEL EDGES)	FIELD NAILING
SW-1	HD3B	SB5/8x24	18"	(2) 2x6	(2) - 5/8"	10d at 6" O.C.	10d at 12" O.C.
SW-2	HD5B	SB5/8x24	18"	(2) 2x6	(2) -3/4"	10d at 4" O.C.	10d at 12" O.C.

NOTE: 1/2"Ø SILL PLATE ANCHOR BOLTS AT SHEAR WALLS (SEE 2/S4 & 5/S4 FOR EMBEDMENT LENGTH) W/ NUTS, STANDARD CUT WASHER AND SIMPSON BPS 1/2-6 BEARING PLATE @ 32" O.C.



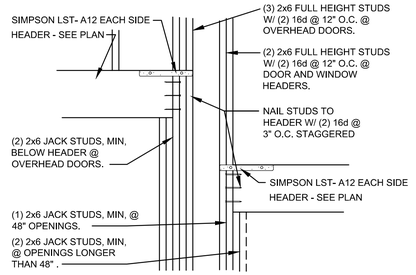
2A / S5 2 / S5 SECTION

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



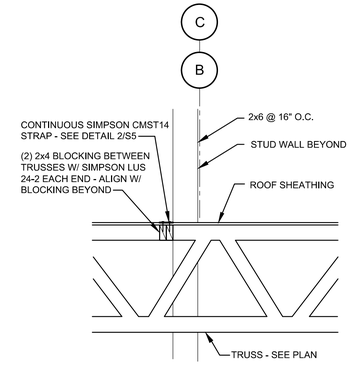
3 / S5 SECTION

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



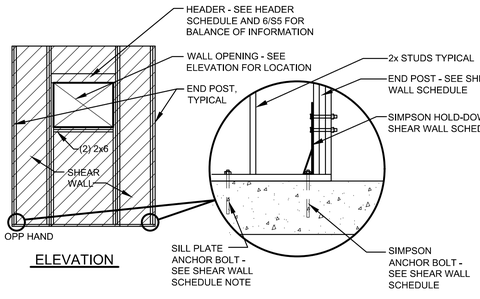
4 / S5 SECTION

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



5 / S5 SECTION

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

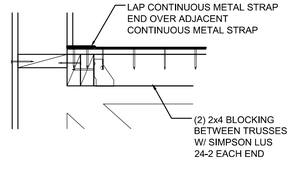


ELEVATION

7 / S5 SHEAR WALL DETAIL

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

SEE SECTION 3/S5 FOR BALANCE OF INFORMATION



6 / S5 SECTION

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

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REVISIONS

NO.	DATE	DESCRIPTION

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SEAL

STATE OF NEW YORK
LONGHENRY SEAN
LICENSED PROFESSIONAL ENGINEER
2022.02.17 13:44:10 -06'00'

CERTIFICATION

NEW YORK ALTERATION WARNING

IT IS A VIOLATION OF NEW YORK REGULATION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY WITHOUT AFFIXING TO THE ITEM HIS SEAL AND THE NOTIFICATION "ALTERED BY", FOLLOWED BY A SIGNATURE, DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

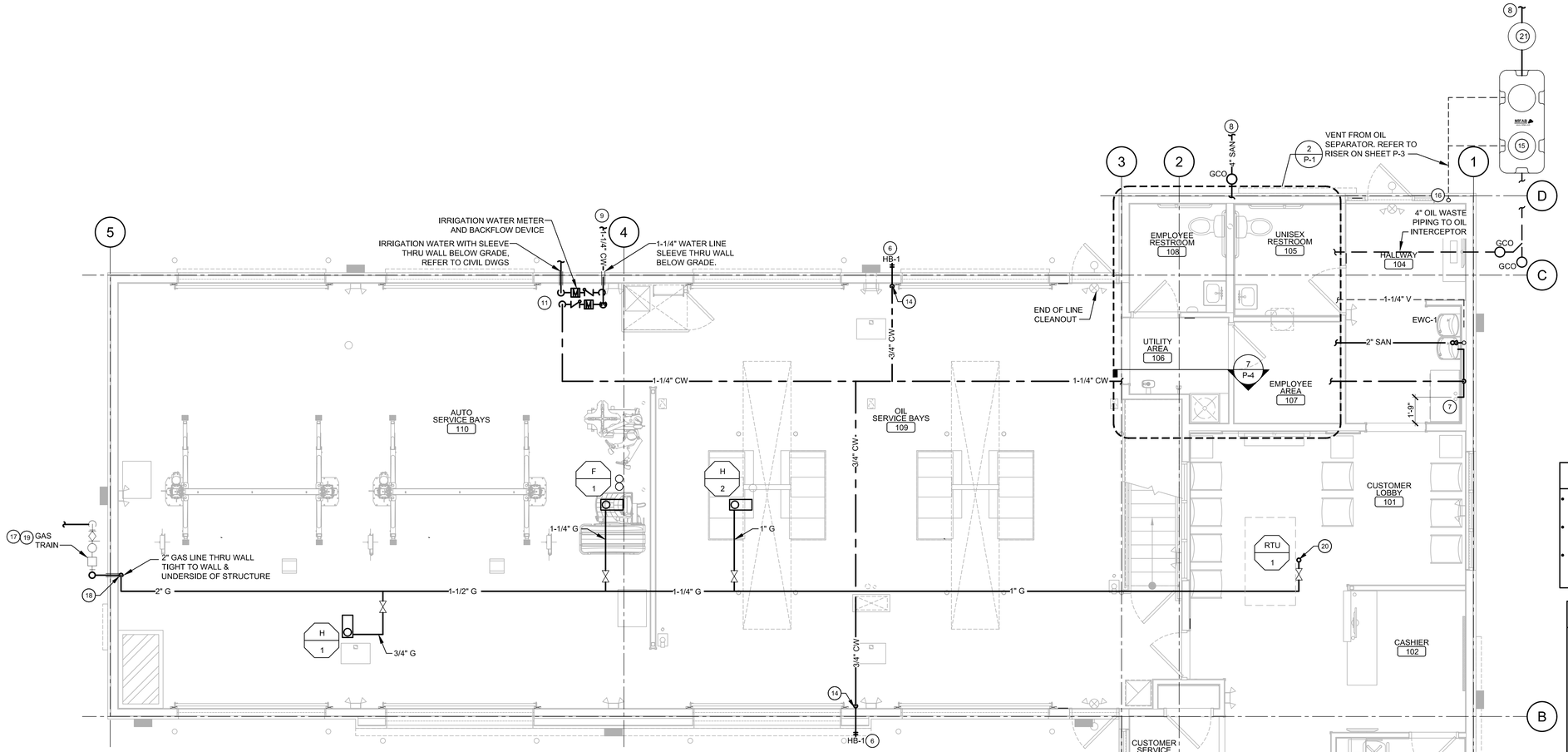
ROOF FRAMING PLAN, DETAILS & SECTIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JIM
REVIEWED BY:	JLK

SHEET NUMBER

S-5



1 P-1 PLUMBING PLAN - UPPER BAY

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

PLAN NORTH

PLUMBING SYMBOLS

SAN	SANITARY SEWER LINE
OW	OIL WASTE LINE
V	VENT LINE
CW	COLD WATER SUPPLY LINE
HW	HOT WATER SUPPLY LINE
THW	TEMPERED WATER SUPPLY LINE
	SHUT-OFF VALVE
	BACKFLOW PREVENTER
M	WATER METER
R	REMOTE READER
V.T.R.	VENT THRU ROOF
F.C.O.	FLOOR CLEAN OUT
G.C.O.	GRADE CLEAN OUT
W.C.O.	WALL CLEAN OUT
T.P.R.V.	TEMPERATURE PRESSURE RELIEF VALVE
P.O.C.	POINT OF CONNECTION
LAV.	LAVATORY
W.C.	WATER CLOSET
A.F.F.	ABOVE FINISHED FLOOR
B.F.F.	BELOW FINISHED FLOOR
W.H.	WATER HEATER
F.D.	FLOOR DRAIN
T.P.	TRAP PRIMER
S.S.	SERVICE SINK
E.W.S.	EYE WASH STATION
H.B.	HOSE BIB

GENERAL NOTES

- SANITARY PIPING SHALL ONLY INCLUDE CONNECTIONS OF THE RESTROOM PLUMBING. (LAVATORY AND WATER CLOSETS)
- OIL WASTE PIPING TO INTERCEPTOR SHALL ONLY INCLUDE CONNECTIONS OF THE THE MOP SINK AND SERVICE SINK.
- CONTRACTOR SHALL PROVIDE JIFFY LUBE SITE REPRESENTATIVE PHOTO DOCUMENTATION THAT INTERCEPTOR PIPING CONFORMS TO CONNECTION REQUIREMENTS FOR FLOW PRIOR TO COVERING.

BID ALTERNATE NOTES

ALTERNATES SHALL ONLY BE INSTALLED IF APPROVED BY JIFFY LUBE AT TIME OF BID OR IF SPECIFICALLY REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION. BASE BID PER PRODUCT INFORMATION PROVIDED IN KEYED NOTES.

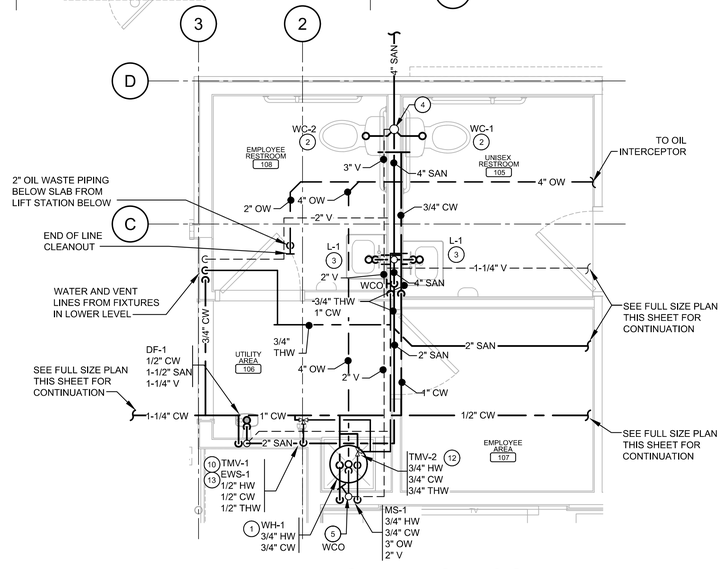
- JIFFY LUBE APPROVED OIL INTERCEPTORS:
  1. PARK USA - CMP
  2. PARK USA - CMPR
  3. PARK USA - SOCMP
  4. ZURN - OMC
- JIFFY LUBE APPROVED SAMPLE WELL: (ONLY INSTALLED IF REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION)
  1. MIFAB - BIG-SP
  2. PARK USA - SWB-154

PLUMBING KEYED NOTES

1. TANK WATER HEATER SUPPLIED AND INSTALLED BY PLUMBING CONTRACTOR AT 9'-6" AFF. REFER TO SCHEDULE AND RISER DIAGRAMS FOR ADDITIONAL INFORMATION. COORDINATE WITH ELECTRICAL CONTRACTOR. ROUTE T&P DRAIN LINE TO MOP SINK, TIGHT TO WALL WITH CODE REQUIRED SLOPE.
2. HANDICAPPED WATER CLOSET SUPPLIED AND INSTALLED BY PLUMBING CONTRACTOR. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION.
3. HANDICAPPED LAVATORY SUPPLIED AND INSTALLED BY PLUMBING CONTRACTOR. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION.
4. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL NEW 4" VENT THRU ROOF. TERMINATION OF VENT THRU ROOF TO BE LOCATED A MINIMUM OF 10 FT DISTANCE FROM ANY FRESH AIR INTAKE. FIELD VERIFY CONDITIONS AND LOCATION PRIOR TO INSTALLATION.
5. CLEAN OUT PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR. REFER TO SANITARY RISER DIAGRAM AND DETAIL FOR ADDITIONAL INFORMATION. COORDINATE INSTALL HEIGHT WITH SURROUNDING FIXTURES PRIOR TO INSTALLATION. (**DO NOT INSTALL SO IT IS ACCESSED IN LOBBY**)
6. HOSE BIBB SUPPLIED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL COORDINATE ROUTING OF WATER PIPING ON INTERIOR / EXTERIOR OF WALL. (BASED ON CLIMATE REQUIREMENTS. FIELD VERIFY LENGTH OF REQUIRED FREEZE PROOF STEM THRU WALL AS NEEDED. PROVIDE LEAST AMOUNT OF PIPE PENETRATION INTO SERVICE BAYS BASED ON AVAILABLE LENGTHS AND WALL THICKNESS.) REFER TO PLUMBING SCHEDULE FOR FURTHER INFORMATION.
7. PROVIDE 3/8" CW SUPPLY PIPING FOR COFFEE STATION AT 18" AFF.
8. SANITARY AND OIL WASTE PIPING SHALL BE CONNECTED TOGETHER DOWN STREAM OF OIL INTERCEPTOR. (NO EXCEPTIONS). SANITARY PIPING SHALL THEN BE CONNECTED TO SANITARY MAIN AS SHOWN ON CIVIL DRAWING. FIELD VERIFY EXACT SIZE, LOCATION AND ROUTING WITH CIVIL DRAWINGS PRIOR TO INSTALLATION.
9. PLUMBING CONTRACTOR TO EXTEND AND CONNECT NEW 1-1/4" COLD WATER PIPING TO EXISTING COLD WATER MAIN. FIELD VERIFY EXACT SIZE AND LOCATION WITH CIVIL DRAWINGS PRIOR TO INSTALLATION
10. HAND HELD EYEWASH SYSTEM MOUNTED ON WALL NEXT TO MOP SINK. REFER TO DETAIL ON SHEET P4 FOR FURTHER INFORMATION.
11. NEW WATER METER AND REQUIRED ACCESSORIES SHALL BE INSTALLED. COORDINATE LOCATION AND REQUIREMENTS OF WATER METER AND ASSEMBLY ON SITE AND ROUTING OF PIPING WITH CIVIL DRAWINGS PRIOR TO INSTALLATION. ROUTE RPZ RELIEF DRAIN TO DOWNSPOUT VIA AIR GAP.
12. CONTRACTOR TO SUPPLY AND INSTALL A THERMOSTATIC MIXING VALVE NEAR WATER HEATER AND SET MAX DISCHARGE TEMPERATURE NOT TO EXCEED 110°F FROM REACHING PLUMBING FIXTURES PER CODE.
13. CONTRACTOR TO SUPPLY AND INSTALL A THERMOSTATIC MIXING VALVE AT EYEWASH STATION AND SET MAX DISCHARGE TEMPERATURE NOT TO EXCEED 85°F ASSE 1071.
14. WATER PIPING FOR HOSE BIBBS SHALL BE ROUTED TIGHT TO THE INTERIOR FACE OF THE WALL. PROVIDE SHUT-OFF VALVES IN VERTICAL DROP AT ACCESSIBLE LOCATION.
15. CONTRACTOR SHALL PROVIDE AND INSTALL A MIFAB HIGH DENSITY POLYETHYLENE (HDPE) OIL INTERCEPTOR - MODEL BIG-1150-O OR PER LOCAL AHJ REQUIREMENTS. MINIMUM BASIN SIZE: 300 GALLON STATIC HOLDING CAPACITY AND TRAFFIC RATED COVERS. REFER TO DETAIL ON SHEET P-4 AND CIVIL DRAWINGS FOR EXACT LOCATION AND ROUTING OF PIPING OUTSIDE OF BUILDING PRIOR TO START OF FABRICATION OR INSTALLATION.
16. 4" VENT THRU ROOF. OFFSET 36" FROM OUTER WALL PRIOR TO ROOF PENETRATION.
17. GAS METER BY UTILITY. CONTRACTOR SHALL VERIFY THAT NEW GAS SERVICE IS REGULATED FOR 7 IN. W.C. AND THE GAS METER HAS A MINIMUM CAPACITY OF 655 CFH. ANY DISCREPANCIES IN THIS INFORMATION SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND/OR PROJECT ENGINEER.
18. ROUTE GAS PIPE TIGHT TO WALL AND AS REQUIRED FROM GAS METER. COORDINATE LOCATION OF ROUGH IN AND OR INSTALLATION OF GAS PIPE. GAS PIPING IS SIZED BASED ON 7 IN. W.C PRESSURE AND A 0.5 W.C. PRESSURE DROP PER THE 2020 FUEL GAS CODE OF NEW YORK STATE, TABLE 402.4(2).
19. CONTRACTOR SHALL PROVIDE GAS PRESSURE REGULATOR ON CUSTOMER SIDE OF METER TO SUPPLY BUILDING EQUIPMENT WITH 7" W.C. PRESSURE IF UTILITY COMPANY CAN NOT PROVIDE REQUESTED PRESSURE. REFER TO PRESSURE REGULATOR SCHEDULE FOR SIZING REQUIREMENTS. REFER TO REGULATOR MANUFACTURER'S INSTALLATION INSTRUCTION.
20. GAS PIPING SHALL PENETRATE THE ROOF AS NEEDED FOR CONNECTION TO ROOF MOUNTED MECHANICAL EQUIPMENT. COORDINATE ROUTING WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. PAINT ALL EXTERIOR EXPOSED GAS PIPING RUST RESISTANT SAFETY YELLOW.
21. CONTRACTOR SHALL INSTALL A MIFAB SAMPLE WELL, MODEL - "BIG-SP" DOWNSTREAM OF THE OIL INTERCEPTOR AND PRIOR TO THE CONNECTION TO THE SANITARY LINES.

GENERAL NOTES

SEE SHEET P-3 & P-4 FOR PLUMBING RISERS, DETAILS AND FIXTURE SCHEDULE.



2 P-1 ENLARGED RESTROOM PLAN

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

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REVISIONS

NO.	DATE	DESCRIPTION

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SEAL

STATE OF NEW YORK
GREGG A. SCHLUTERMAN
089794-1
LICENSED PROFESSIONAL ENGINEER

CERTIFICATION
2022.02.18 11:35:03-06'00'

NEW YORK
ALTERATION WARNING

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

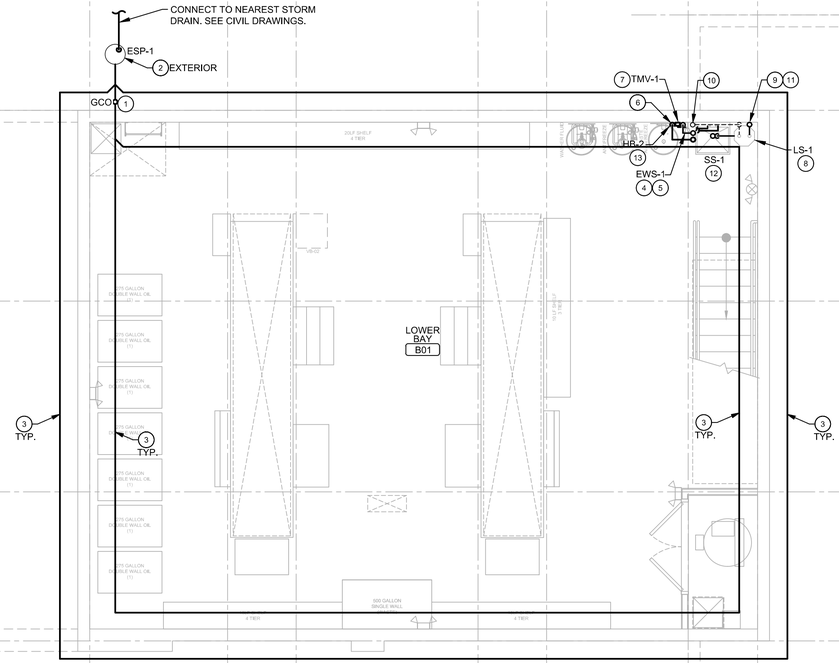
UPPER BAY
PLUMBING PLAN

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

P-1



1 P-2 PLUMBING PLAN - LOWER BAY

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

PLAN NORTH

PLUMBING KEYED NOTES

1. EXTERIOR CLEAN OUT PROVIDED AND INSTALLED BY PLUMBING CONTRACTOR. REFER TO SCHEDULE AND DETAIL FOR ADDITIONAL INFORMATION.
2. EXTERIOR SUMP PUMP SYSTEM IN FIBERGLASS SUMP BASIN SUPPLIED AND INSTALLED BY CONTRACTOR. REFER TO PLUMBING SCHEDULE AND DETAILS FOR FURTHER INFORMATION. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION.
3. 4" PERFORATED FOUNDATION DRAIN. DRAIN TO BE SLOPED TO EXTERIOR SUMP PUMP SYSTEM. PUMP TO DISCHARGE TO NEAREST STORM DRAIN. COORDINATE WITH CIVIL DRAWINGS.
4. EYEWASH STATION SUPPLIED AND INSTALLED BY CONTRACTOR. PROVIDE 1/2" INSULATED WATER LINE TO FIXTURE FROM MIXING VALVE. MOUNT EYEWASH AT 41" A.F.F. TO THE CENTER LINE OF THE SPOUT. REFER TO PLUMBING SCHEDULE FOR FURTHER INFORMATION.
5. EYEWASH DRAIN PIPE SHALL BE CONNECTED FULL SIZE OF FIXTURE TO SERVICE SINK DRAIN TAIL PIECE PRIOR TO THE P-TRAP AND OR LIFT STATION.
6. COLD AND HOT WATER SUPPLY PIPING FROM ABOVE TO SERVICE EYEWASH AND SERVICE SINK. FIELD VERIFY EXACT LOCATIONS. REFER TO PLUMBING ISOMETRICS ON SHEET P-3 FOR ADDITIONAL INFORMATION. ALL WATER PIPING SHALL BE INSULATED PER CODE.
7. CONTRACTOR TO SUPPLY AND INSTALL A THERMOSTATIC MIXING VALVE AT EYEWASH STATION AND SET MAX DISCHARGE TEMPERATURE NOT TO EXCEED 85°F PER ASSE 1071.
8. ABOVE GROUND LIFT STATION LOCATED NEXT TO SERVICE SINK. CONTRACTOR SHALL COORDINATE INSTALLATION AND ROUTING OF ALL WATER, WASTE AND VENT PIPING IN FIELD PRIOR TO INSTALLATION.
9. ALL SANITARY PIPING SHALL BE PRESSURE RATED.
10. CONTRACTOR SHALL FIELD COORDINATE ROUTING TO AND PENETRATION OF WATER AND VENT PIPING THRU SLAB ABOVE AND INTO CHASE WALL. REFER TO SHEET P-1 FOR CONTINUATION.
11. SANITARY LINE FROM LIFT STATION SHALL BE CONNECTED TO SANITARY LINE TIGHT TO UNDERSIDE OF SLAB ABOVE. REFER TO SHEET P-1 FOR CONTINUATION.
12. EXTEND VENT LINE FROM SERVICE SINK LIFT STATION THRU UPPER LEVEL FLOOR AND CONNECT TO VENT LINES FROM UPPER FLOOR SERVICE BAY PLUMBING. FIELD VERIFY ROUTING AND LOCATION PRIOR TO INSTALLATION.
13. WALL MOUNTED HOSE BIBB MOUNTED NEXT TO SERVICE SINK AT 48" A.F.F.

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CERTIFICATION
2022.02.18 13:35:11 -06'00'

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CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

LOWER BAY
PLUMBING PLAN

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

P-2

PLUMBING FIXTURE SCHEDULE

FIXTURE DATA				CONNECTION DATA					REMARKS
MARK	FIXTURE	MFG.	CATALOG NO.	SOIL SIZE	VENT SIZE	TRAP	WATER COLD	WATER HOT	
WC-1	WATER CLOSET	*AMERICAN STANDARD	215AA.104 CADET	4"	2"	2"	1/2"	---	1.28 GPF, 16-1/2" HIGH, ELONGATED BOWL, 12" ROUGH IN, TRIP LEVER ON WIDE SIDE OF TANK - LEFT SIDE. COLOR: WHITE. ADA APPROVED.
WC-2	WATER CLOSET	*AMERICAN STANDARD	215AA.105 CADET	4"	2"	2"	1/2"	---	1.28 GPF, 16-1/2" HIGH, ELONGATED BOWL, 12" ROUGH IN, TRIP LEVER ON WIDE SIDE OF TANK - RIGHT SIDE. COLOR: WHITE. ADA APPROVED.
L-1	LAVATORY	AMERICAN STANDARD	9024.004EC	1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	4" CENTERS WITH OVERFLOW DRAIN, VITREOUS CHINA W/EVERCLEAN, WHITE. FAUCET: AMERICAN STANDARD MODEL#5502.175 (4" CENTERS, 0.5 GPM), VANDAL-RESISTANT WRIST BLADE HANDLES, GRID DRAIN.
MS-1	MOP SINK	*FIAT	MSB-2424	3"	2"	3"	3/4"	3/4"	ONE PIECE MOLDED STONE IMPACT RESISTANT FLOOR MOUNTED. COLOR: WHITE. PROVIDE WITH FIAT FAUCET - 830-AA, MOP BRACKET - 889-CC & STAINLESS STEEL STRAINER - 1453-BB.
DF-1	DRINKING FOUNTAIN	ELKAY	EDF15R	1-1/2"	1-1/4"	1-1/2"	1/2"	---	STAINLESS STEEL SINGLE BOWL DRINKING FOUNTAIN WITH HEAVY DUTY WALL BRACKET AND REMOVABLE CHROME-PLATED STRAINER.
EWC-1	BI-LEVEL WATER COOLER	ELKAY	EZSTL8C	1-1/2"	1-1/4"	1-1/2"	3/8"	---	BI-LEVEL WATER COOL. 38 3/8" ORIFICE HEIGHT AFF FOR LEFT HAND HIGH FOUNTAIN: PROVIDE W/ APRON MODEL #LKAPREZL. (OPTIONAL SPEC BY FRANCHISEE - BI-LEVEL FOUNTAIN W/BOTTLE FILLING STATION - EZSTL8WSLK)
WH-1	WATER HEATER	*RHEEM	81VP10S	---	---	---	3/4" IN	3/4" OUT	120V, 2000W 1PH 10 GALLON TANK WATER HEATER, REFER TO DETAILS ON SHEET P-3 FOR ADDITIONAL INFORMATION.
ET	EXPANSION TANK	*AMTROL	ST-5	---	---	---	3/4"	3/4"	BLADDER TYPE CONFORMING TO ANSI 61.
EWS-1	EYE WASH STATION	GUARDIAN	G5046BP	---	---	---	3/4"	---	PROVIDE WITH 12' HOSE, MOUNTING BRACKET, BACK FLOW PREVENTER, INTEGRAL VACUUM BREAKER. ANSI Z358.1 CERTIFIED
RPZA	REDUCED PRESSURE ZONE ASSEMBLY	*WATTS	LF009	---	---	---	1-1/4"	---	BRONZE, LEAD FREE, QUARTER TURN BALL VALVES, AIR GAP DRAIN AND STRAINER. ASSE 1013. (FOR USE AT WATER ENTRY)
HB-1	HOSE BIBB	*WOODFORD	65	---	---	---	3/4"	---	EXTERIOR FLUSH MOUNT FREEZELESS WALL HYDRANT WITH LOOSE KEY. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS.
HB-2	HOSE BIBB	WOODFORD	21C	---	---	---	3/4"	---	INTERIOR PIPE MOUNTED NON FREEZE PROOF WALL HYDRANT WITH METAL WHEEL HANDLE. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS.
BF-1	BACKFLOW PREVENTER	*WATTS	SD-3	---	---	---	3/8"	---	DOUBLE CHECK VALVE ASSEMBLY WITH ATMOSPHERIC PORT, 316 STAINLESS STEEL BODY, LEAD FREE AND STRAINER. ASSE 1022, ANSI 18 (FOR USE AT COFFEE STATION)
WCO	WALL CLEANOUT	*J.R. SMITH	4472T	---	---	---	---	---	STAINLESS STEEL COVER PLATE
TMV-1	THERMOSTATIC MIXING VALVE	GUARDIAN	G6020	---	---	---	1/2"	1/2"	SIZE - 1/2" END CONNECTIONS, LEAD FREE CONSTRUCTION. SET FOR 85° F TEMPERED WATER. ASSE 1071 CERTIFIED
TMV-2	THERMOSTATIC MIXING VALVE	WATTS	LFMMV-M1	---	---	---	3/4"	3/4"	3/4" INLET, PEX END CONNECTIONS, LEAD FREE CONSTRUCTION. SHALL CONFORM TO STDS: ASSE 1017, ASSE 1069, ASSE 1070. SET AT 110° F.
ESP-1	EXTERIOR SUMP PUMP	BJM	J22-208T	3"	---	---	---	---	PUMP SYSTEM FOR DRAINAGE AROUND FOUNDATION TO BE INSTALLED BELOW GRADE. COORDINATE LOCATION PER SITE CONDITIONS. REFER TO PLUMBING PLAN - LOWER BAY ON SHEET P-2 FOR ADDITIONAL INFORMATION. 208 V / 3 PH, 3 HP, 9.45 FLA, DIRECT WIRED, RAIL SYSTEM, FLOAT SHUT-OFF, WITH ALARM.
GCO	GRADE CLEANOUT	*J.R. SMITH	4250	---	---	---	---	---	8-3/4" Ø ROUND CLEANOUT FOR UNFINISHED AREA CAST IRON TOP
LS-1	LIFT STATION	LIBERTY PUMPS	404L-CV	2"	2"	---	---	---	FACTORY PRE-ASSEMBLED, FULLY AUTOMATIC OPERATION, COMPACT DESIGN, 1/3 HP PUMP MOTOR, 115V-1 PH, 5 FLA, 2" INLET & OUTLET, 4.3 GALLON CAPACITY, 10' POWER CORD WITH GROUNDED PLUG FACTORY CHECK VALVE.
SS-1	SERVICE SINK	*FIAT	FL-1	3"	2"	1-1/2"	3/4"	3/4"	ONE PIECE IMPACT RESISTANT FLOOR MOUNTED MOLDED TUB WITH ANGLED LEGS. COLOR: WHITE. PROVIDE WITH FAUCET - MODEL A-1 AND FAUCET BLOCK.

* OR APPROVED EQUAL

PLUMBING CONTRACTOR'S NOTES

ALL OF THE PLUMBING/PIPING WORK IS NOT NECESSARILY SHOWN OR NOTED ON THESE DRAWINGS. THE CONTRACTORS SHALL VISIT THE JOB SITE AND FIELD VERIFY ALL EXISTING CONDITIONS RELATED TO THE WORK PRIOR TO BIDDING. THOSE ITEMS NOT SHOWN OR NOTED BUT WHICH ARE DEEMED NECESSARY FOR REMOVAL OR RELOCATION BY OWNER OR HIS REPRESENTATIVE SHALL BE PART OF HIS CONTRACT. THE SUBMISSION OF THE PROPOSALS SHALL BE CONSIDERED EVIDENCE THAT THE CONTRACTORS HAVE VISITED THE SITE. NO EXTRA PAYMENTS WILL BE ALLOWED THESE CONTRACTORS ON ACCOUNT OF EXTRA WORK MADE NECESSARY BY HIS FAILURE TO VISIT THE JOB SITE.

PLUMBING CONTRACTOR TO PROVIDE BACKFLOW PREVENTER DEVICE IF REQUIRED PER CODE. COORDINATE WITH JIFFY LUBE'S ARCHITECT/ENGINEER PRIOR TO LOCATING BACKFLOW PREVENTER DEVICE.

PLUMBING CONTRACTOR TO PROVIDE WATER METER IF REQURIED BY CODE. COORDINATE WITH JIFFY LUBE'S ARCHITECT/ENGINEER PRIOR TO LOCATING WATER METER.

GAS PRESSURE REGULATOR SCHEDULE (IF REQUIRED)

MANUFACTURER	MODEL NUMBER	CFH CAPACITY	INLET PRESSURE	OUTLET PRESSURE	SPRING COLOR RANGE-ORIFICE
ACTARIS	B-31R 3/4"X3/4"	UP TO 150	2 P.S.I.G.	7 INCHES W.C.	LT.GREEN 5.5 TO 8.0 INCHES W.C.-1/8"
ACTARIS	B-31R 3/4"X1"	150 TO 400	2 P.S.I.G.	7 INCHES W.C.	LT.GREEN 5.5 TO 8.0 INCHES W.C.-1/4"
ACTARIS	B-31R 1"X1"	400 TO 800	2 P.S.I.G.	7 INCHES W.C.	LT.GREEN 5.5 TO 8.0 INCHES W.C.-3/8"

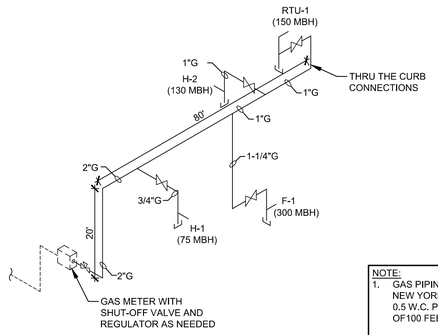
NOTES:
1. REGULATOR ARE FULL CAPACITY INTERNAL RELIEF TYPE.
2. REGULATOR TO BE INSTALLED WITH RELIEF VENT IN POSITION TO PREVENT ENTRANCE OF WATER (PROVIDE SCREENED VENT ELBOW AS REQUIRED).
3. TAG REGULATOR WITH INLET AND OUTLET SETTINGS, AFFIX WARNING 'DO NOT REMOVE'.

PLUMBING FIXTURE CALCULATIONS

PLUMBING FIXTURE	SANITARY FIXTURE QUANTITY	SANITARY FIXTURE UNIT EA.	SANITARY FIXT. UNIT TOTAL	VENT SIZE EACH	C.W. F.U. EACH	C.W. F.U. TOTAL
WATER CLOSET	2	4	8	2"	5	10
LAVATORY	2	1	2	1-1/2"	2	4
EYE WASH STATION	1	0	0	2"	-	-
MOP SINK	1	2	2	2"	3	3
SERVICE SINK	1	2	2	2"	3	3
ELECTRIC WATER COOLER	1	0.5	0.5	1-1/2"	0.25	0.25
DRINKING FOUNTAIN	1	0.5	0.5	1-1/2"	0.25	0.25
HOSE BIBB	3	-	-	1-1/2"	1	3
NOTE: CALCULATIONS BASED ON 2020 PLUMBING CODE OF NEW YORK		TOTALS	15.0	-		23.5
			SAN.	VENT		C.W.
SERVICE CONNECTION SIZE			4"	4"		1-1/4"

GAS TABLE

MARK	MFR.	GAS INPUT @ 25°F (BTUH)
RTU-1	LENNOX	150,000
H-1	SPACERAY	75,000
H-2	SPACERAY	130,000
F-1	DAYTON	300,000
TOTAL		655,000

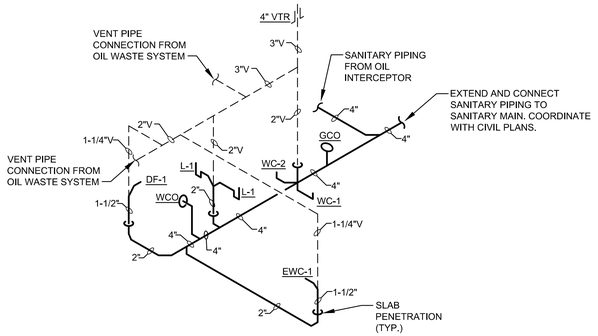


1 P-3 GAS RISER DIAGRAM

SCALE: N.T.S.

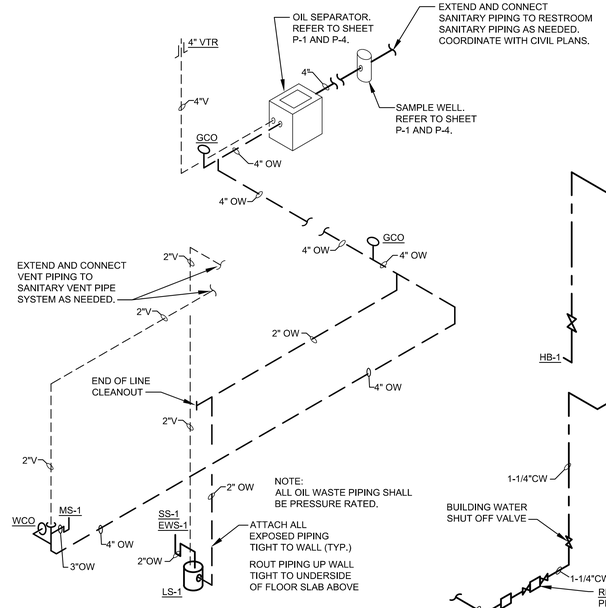
NOTE:
1. GAS PIPING IS SIZED BASED ON THE 2020 FUEL GAS CODE OF NEW YORK STATE, TABLE 402.4(2), 7 IN. W.C PRESSURE AND A 0.5 W.C. PRESSURE DROP & A TOTAL DEVELOPED LENGTH OF100 FEET.
2. PROVIDE GAS COCK, DIRT LEG, FLEXIBLE CONNECTOR (WHERE APPROVED). ALL GAS PIPING AND ACCESSORIES TO BE KEPT BETWEEN UNIT AND NEAREST WALL AND SHALL NOT EXTEND BELOW THE BOTTOM OF THE UNIT.

INCOMING GAS SERVICE AND METER BY UTILITY CO. METER SHALL BE CAPABLE OF PROVIDING 655 CFH @ 7" W.C. ON THE CUSTOMER SIDE OF THE METER.



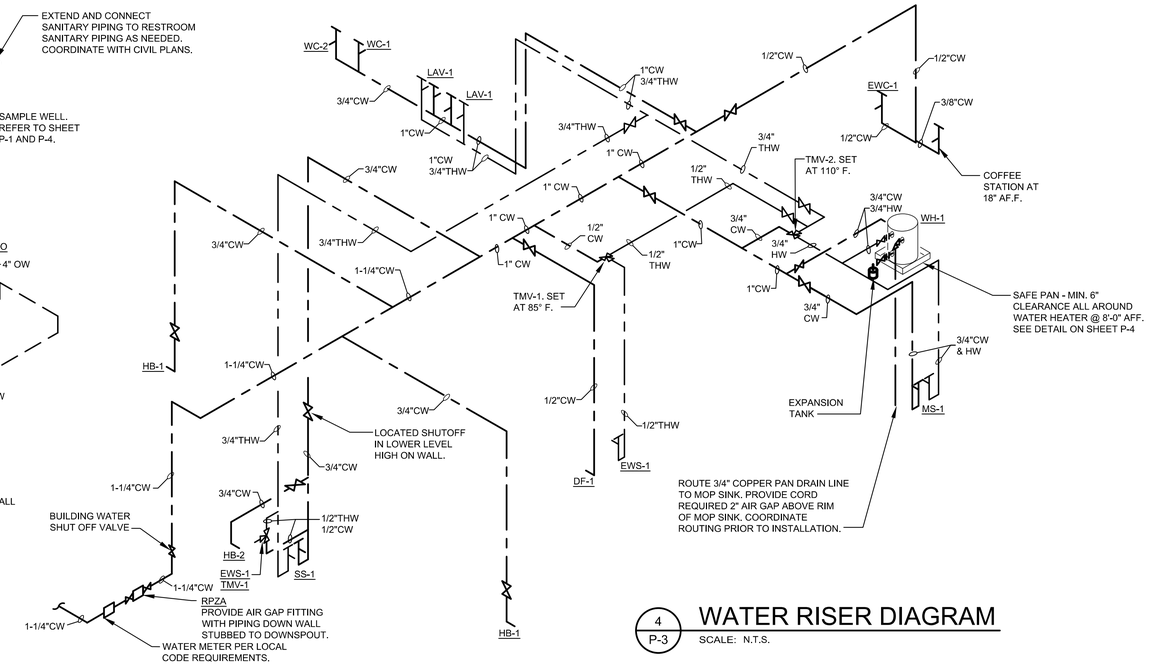
2 P-3 WASTE RISER DIAGRAM

SCALE: N.T.S.



3 P-3 OIL WASTE RISER DIAGRAM

SCALE: N.T.S.



4 P-3 WATER RISER DIAGRAM

SCALE: N.T.S.

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STATE OF NEW YORK
GREGG A. SCHLUTERMAN
LICENSED PROFESSIONAL ENGINEER
098794-1

CERTIFICATION
2022.02.18 11:35:18-06'00'
NEW YORK
ALTERATION WARNING

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

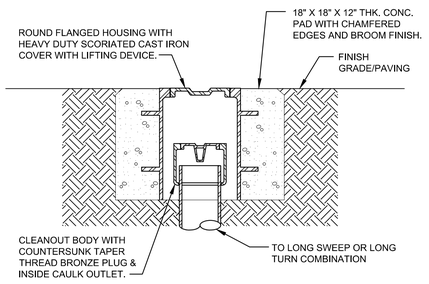
PLUMBING RISERS & SCHEDULE

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

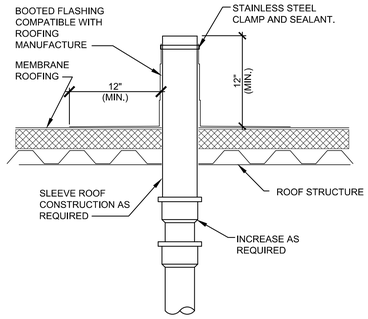
SHEET NUMBER

P-3



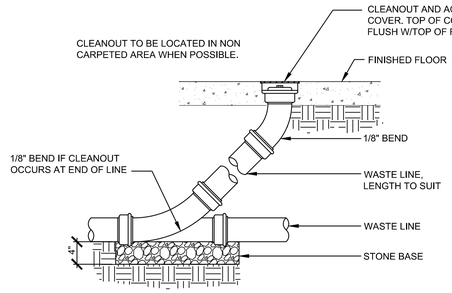
1 P-4 GRADE CLEANOUT DETAIL

SCALE: N.T.S.



2 P-4 VENT THROUGH ROOF

SCALE: N.T.S.



3 P-4 FLOOR CLEANOUT DETAIL

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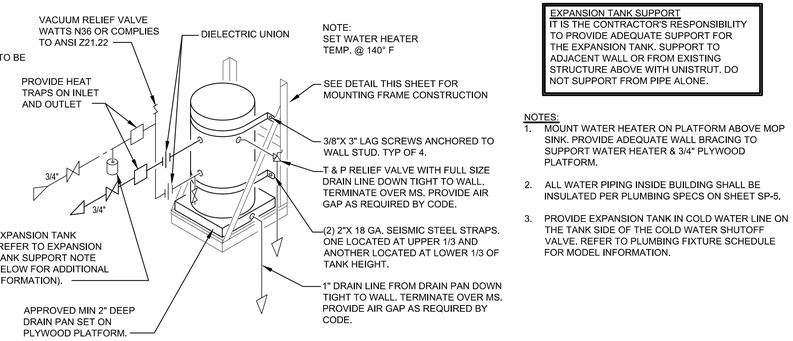
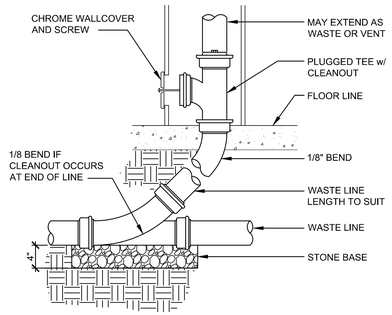


4 P-4 WATER HEATER DETAIL

SCALE: N.T.S.

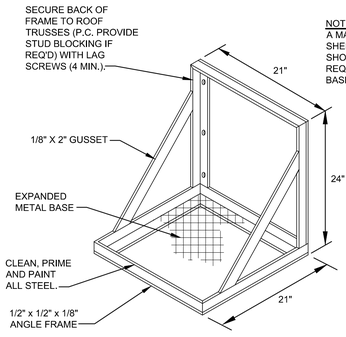
EXPANSION TANK SUPPORT
IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SUPPORT FOR THE EXPANSION TANK. SUPPORT TO ADJACENT WALL OR FROM EXISTING STRUCTURE ABOVE WITH UNISTRUT. DO NOT SUPPORT FROM PIPE ALONE.

NOTES:
1. MOUNT WATER HEATER ON PLATFORM ABOVE MOP SINK. PROVIDE ADEQUATE WALL BRACING TO SUPPORT WATER HEATER & 3/4" PLYWOOD PLATFORM.
2. ALL WATER PIPING INSIDE BUILDING SHALL BE INSULATED PER PLUMBING SPECS ON SHEET SP-5.
3. PROVIDE EXPANSION TANK IN COLD WATER LINE ON THE TANK SIDE OF THE COLD WATER SHUTOFF VALVE. REFER TO PLUMBING FIXTURE SCHEDULE FOR MODEL INFORMATION.



5 P-4 WALLCLEANOUT DETAIL

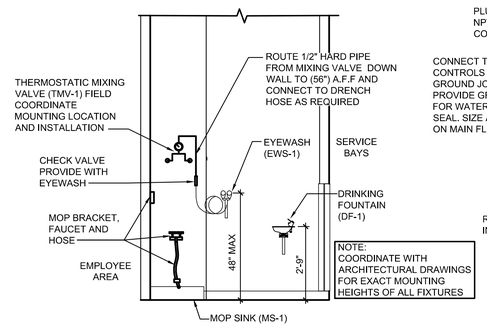
SCALE: N.T.S.



NOTES:
A MANUFACTURED WATER HEATER SHELF MAY BE USED IN LIEU OF FRAME SHOWN ABOVE. P.C TO COORDINATE REQUIRED DIMINSIONS OF SUPPORT BASED ON HEATER USED.

6 P-4 WATER HEATER SUPPORT DETAIL

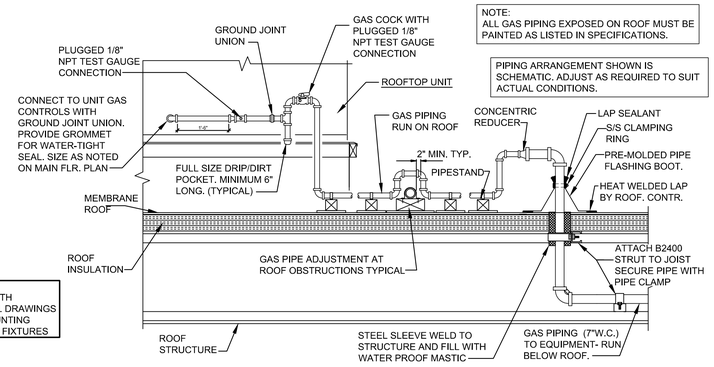
SCALE: N.T.S.



NOTE:
COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHTS OF ALL FIXTURES

7 P-4 EYEWASH MOUNTING DETAIL

SCALE: N.T.S.

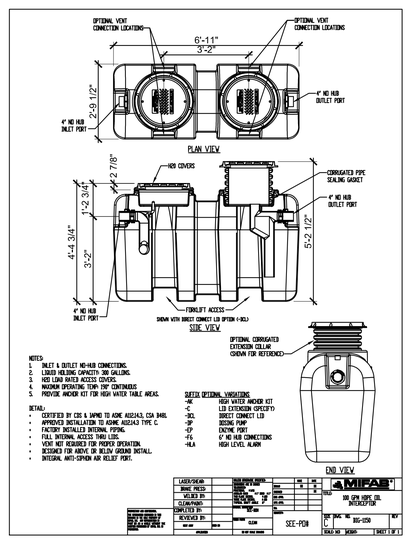


NOTE:
ALL GAS PIPING EXPOSED ON ROOF MUST BE PAINTED AS LISTED IN SPECIFICATIONS.

PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED TO SUIT ACTUAL CONDITIONS.

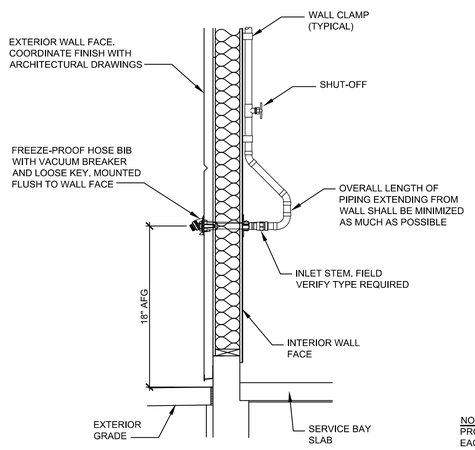
8 P-4 GAS PIPING DETAIL

SCALE: N.T.S.



9 P-4 OIL INTERCEPTOR DETAIL

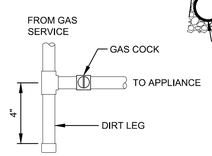
SCALE: NTS



FREEZE-PROOF

10 P-4 HOSE BIBB INSTALLATION

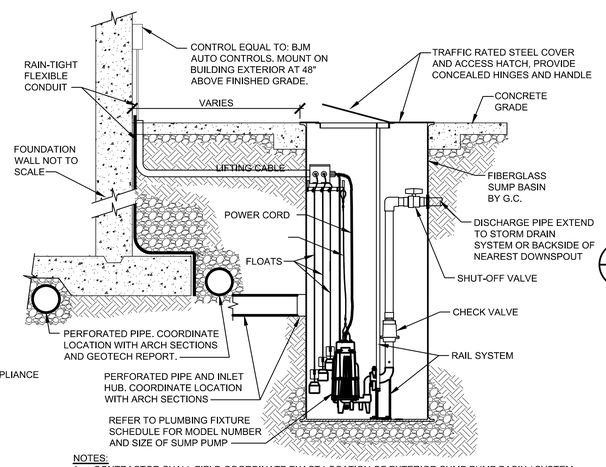
SCALE: N.T.S.



NOTE:
PROVIDE "GAS LEG" CONNECTION FOR EACH GAS FIRED APPLIANCE.

11 P-4 GAS LEG DETAIL

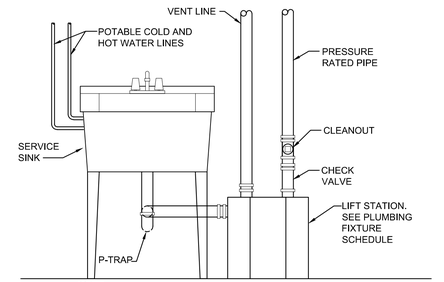
SCALE: N.T.S.



NOTES:
1. CONTRACTOR SHALL FIELD COORDINATE EXACT LOCATION OF EXTERIOR SUMP PUMP BASIN / SYSTEM WITH ON SITE CONDITIONS OUT OF FOOT AND VEHICULAR TRAFFIC PATTERNS.
2. ROUTE PIPING AS REQUIRED. COORDINATE WITH CIVIL DRAWINGS FOR INVERTS.
3. CONTRACTOR SHALL PROVIDE FIBERGLASS SUMP BASIN. FIELD COORDINATE SIZE AND LENGTH WITH SELECTED SUMP PUMP SYSTEM AND SITE CONDITIONS PRIOR TO ORDERING AND INSTALLATION.
4. SUMP BASIN SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTION.

12 P-4 EXTERIOR SUMP PUMP DETAIL

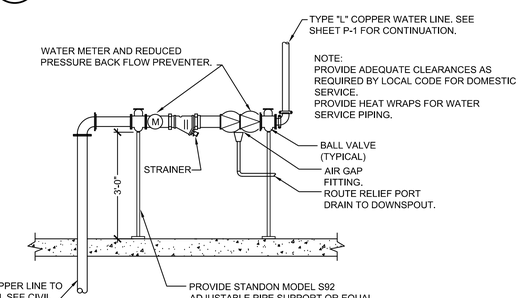
SCALE: N.T.S.



NOTE:
DETAIL IS FOR REFERENCE. REFER TO FLOOR PLAN AND ISOMETRIC FOR PIPE LOCATIONS AND SIZES.

13 P-4 SERVICE SINK / LIFT STATION DETAIL

SCALE: N.T.S.



14 P-4 WATER SERVICE DIAGRAM

SCALE: N.T.S.

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

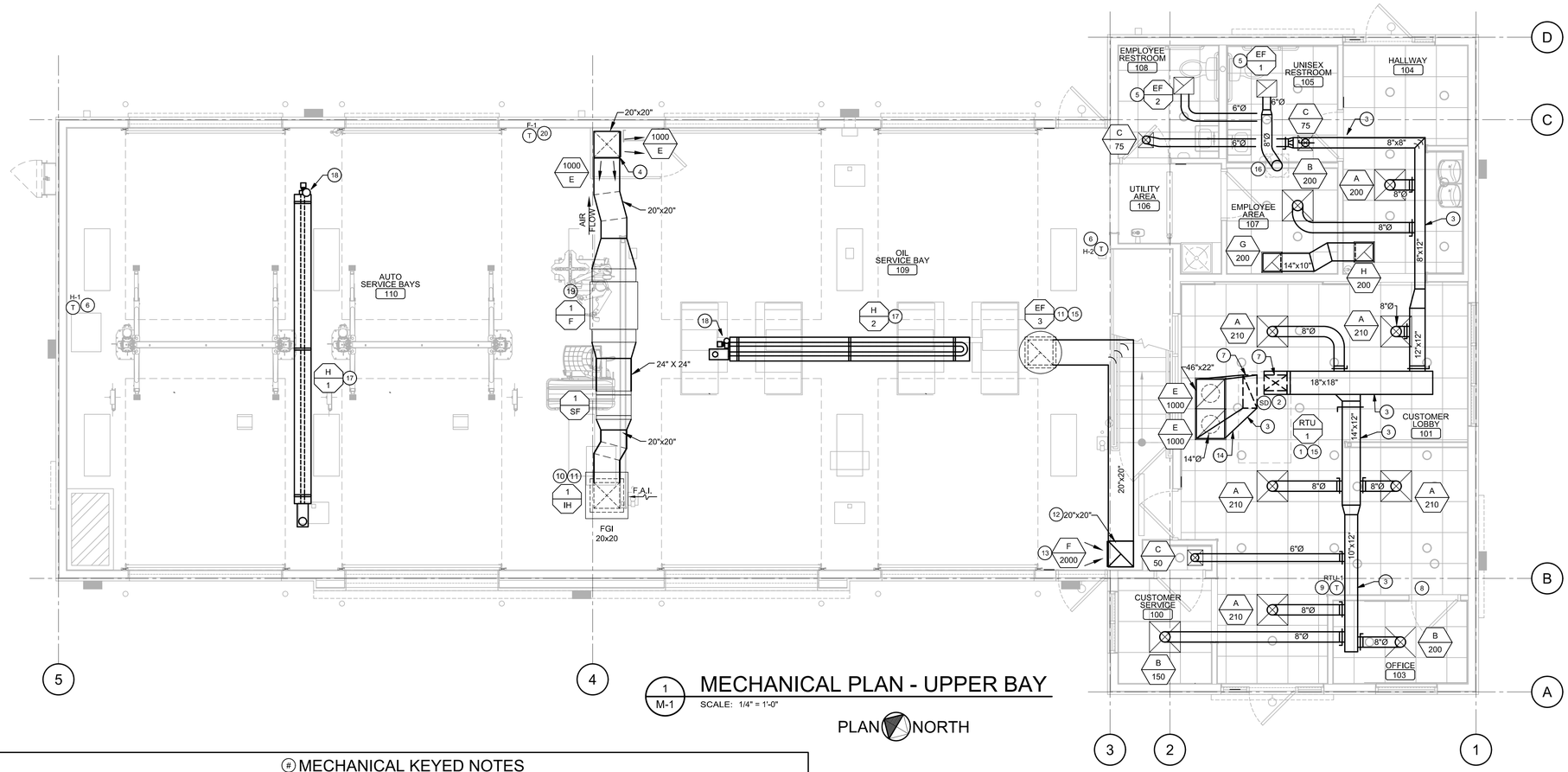
PLUMBING DETAILS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

P-4



5 4 3 2 1

1 M-1 MECHANICAL PLAN - UPPER BAY

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

PLAN NORTH

MECHANICAL KEYED NOTES

1. ROOF MOUNTED MECHANICAL UNIT. REFER TO ROOF PLAN AND STRUCTURAL DRAWINGS FOR EXACT MOUNTING LOCATION AND SUPPORT PRIOR TO INSTALLATION.
2. MANUFACTURER INSTALLED RETURN AIR SMOKE DETECTOR SHALL BE WIRED TO SHUT DOWN EACH COMPONENT OF THE HVAC SYSTEM. CONTRACTOR SHALL PROVIDE A REMOTE ALARM DEVICE SIGNALED BY THE DUCT SMOKE DETECTOR LOCATED AS APPROVED BY AUTHORITIES HAVING JURISDICTION.
3. SUPPLY AND RETURN AIR DUCTWORK SHALL BE MOUNTED TIGHT TO BOTTOM CHORD OF STRUCTURE. CONTRACTOR SHALL FIELD COORDINATE EXACT MOUNTING LOCATION AND ROUTING WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. COORDINATE PAINT COLOR WITH ARCHITECTURAL DRAWINGS FOR ALL EXPOSED DUCTWORK.
4. TRANSITION DUCTWORK IN DROP AND ROUTE DUCT DOWN THRU FLOOR IN LOCATION SHOWN. INSTALL DUCTWORK TIGHT TO WALL AND TRANSITION AS REQUIRED.
5. EXHAUST DUCTWORK SHALL BE ROUTED AS SHOWN TO ROOF JACK ABOVE. REFER TO DETAIL ON SHEET M-4.
6. THERMOSTAT SUPPLIED BY MANUFACTURER WITH EACH PIECE OF EQUIPMENT. THERMOSTAT TO BE INSTALLED ON AN INSULATED SUBBASE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND MOUNTED SO THAT THE HIGHEST OPERABLE CONTROL IS NOT MORE THAT 48" AFF.
7. FULL SIZE SUPPLY AND RETURN AIR DUCT DROPS. TRANSITION AS REQUIRED.
8. OFFICE DOOR SHALL BE UNDERCUT. SEE DOOR SCHEDULE ON ARCHITECTURAL DRAWINGS.
9. THE CONTRACTOR SHALL FURNISH HONEYWELL T7300 THERMOSTAT (OR EQUAL) WITH INSULATED SUB-BASE. THERMOSTAT TO BE 7 DAY PROGRAMMABLE WITH 4 SETBACK PERIODS PER DAY. THERMOSTAT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. MOUNT THERMOSTAT SO THAT THE HIGHEST OPERABLE CONTROL IS NOT MORE THAT 48" AFF.
10. ROOF MOUNTED FRESH AIR INTAKE HOOD WITH MOTORIZED DAMPER. INTAKE HOOD SHALL BE INTERLOCKED WITH SERVICE BAY EXHAUST FAN AND GAS FIRED INDOOR PACKAGED UNIT (F-1) TO OPEN WHEN EQUIPMENT IS ENERGIZED. COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
11. ROOF MOUNTED MECHANICAL EQUIPMENT. COORDINATE MOUNTING LOCATION ON ROOF WITH STRUCTURAL DRAWINGS AND ROUTING OF DUCTWORK WITH ALL OTHER DISCIPLINES PRIOR TO FABRICATION AND INSTALLATION.
12. DROP EXHAUST DUCT DOWN AND THRU FLOOR IN LOCATION SHOWN. INSTALL DUCTWORK TIGHT TO WALL AND TRANSITION AS REQUIRED TO FAN ON ROOF AND THRU FLOOR.
13. PROVIDE DUCT MOUNTED GRILLE AT 6" A.F.F. PRIOR TO FLOOR PENETRATION. REFER TO DETAIL ON SHEET M-2 FOR FURTHER INFORMATION. FIELD COORDINATE LOCATION OF GRILLE WITH FLOOR HATCH OPENING CLEARANCE PRIOR TO INSTALLATION.
14. TRANSITION RETURN AIR DUCTWORK AS REQUIRED FROM FULL SIZE OF MECHANICAL EQUIPMENT DROP TO DIMENSION SHOWN.
15. CONTRACTOR SHALL MAINTAIN THE CODE REQUIRED 10'-0" SEPARATION OF ROOFTOP UNIT FRESH AIR INTAKE TO ANY BUILDING EXHAUST SYSTEMS OR PIPING.
16. RESTROOM CURB MOUNTED ROOF EXHAUST CAP. EXHAUST DUCTWORK SHALL BE ROUTED AS SHOWN IN DETAIL ON SHEET M-4.
17. MOUNT GAS FIRED RADIANT HEATER TO STRUCTURE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. VERIFY CLEARANCES WITH OVERHEAD DOORS PRIOR TO INSTALLATION. REFER TO DETAIL ON SHEET M-3 FOR FURTHER INFORMATION. REFER TO ARCHITECTURAL FOR MOUNTING LOCATION.
18. ROUTE 4"Ø RADIANT HEATER FLUE THRU ROOF FOR RADIANT HEATER. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAIL ON SHEET M-3 FOR FURTHER INFORMATION. COORDINATE WITH ARCHITECTURAL ROOF PLAN.
19. MOUNT GAS FIRED INDOOR PACKAGE UNIT FROM STRUCTURE AS HIGH AS POSSIBLE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE LOCATION WITH ALL OTHER DISCIPLINES AND ROUTING OF DUCTWORK TO LOWER BAY PRIOR TO INSTALLATION. TRANSITION DUCTWORK AS REQUIRED FROM INLET AND OUTLET OF UNIT TO SIZES SHOWN ON PLAN. CONCENTRIC FLUE UP THRU ROOF. CONTRACTOR SHALL FIELD COORDINATE ROOF PENETRATION LOCATION WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. REFER TO ROOF PLANS ON SHEET M-4 & A-3 AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.
20. WALL MOUNTED DDC PROGRAMMABLE SPACE TEMPERATURE SENSOR PROVIDED WITH UNIT. REFER TO SEQUENCE OF OPERATION FOR MINIMUM SET POINTS.

NOTE:
PER 2020 MECHANICAL CODE OF NEW YORK STATE SECTION 403.3 - OUTDOOR AIRFLOW RATE. TABLE 403.3 - MINIMUM VENTILATION RATE. REPAIR GARAGES - 0.75 CFM/SQFT EXHAUST.

CEILING HEIGHT: 17.5 FT
FLOOR AREA: 2,046

REQUIRED:
(2,046*0.75) = 1,534 CFM

PROVIDED:
TOTAL: 2,000 CFM

SERVICE BAY MECHANICAL EQUIPMENT SEQUENCE OF OPERATION

SERVICE BAY EXHAUST FAN, ROOF INTAKE HOOD, SUPPLY FAN & GAS-FIRED DUCT FURNACE:
OCCUPIED HOURS:

- SERVICE BAY EXHAUST FAN AND SUPPLY FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS TO PROVIDE CODE REQUIRED FRESH AIR AND AIR CHANGES PER HOUR PER ELECTRICAL CODE FOR UPPER AND LOWER LEVELS.
- SERVICE BAY ROOF INTAKE HOOD MOTORIZED DAMPER SHALL OPEN.
- GAS-FIRED DUCT FURNACE SHALL OPERATE AT A MINIMUM DISCHARGE AIR TEMPERATURE SETPOINT OF 45°F PER UNIT DISCHARGE TEMP CONTROLLER. ADJUSTABLE AT THE UNIT PER OWNER REQUIREMENTS (HIGHER DISCHARGE TEMPERATURE)
- GAS-FIRED DUCT FURNACE WILL HAVE AN ADJUSTABLE WALL MOUNTED SPACE TEMPERATURE DDC INTERFACE SENSOR. MINIMUM SETPOINT OF 55°F. IF SPACE TEMPERATURE FALLS BELOW MINIMUM SET POINT, INDOOR PACKAGE UNIT SHALL MODULATE HEAT TO RESUME SPACE TEMPERATURE.
- TUBE RADIANT HEATERS SHALL OPERATE ON DROP IN TEMPERATURE BELOW SET POINT. RADIANT HEATER SET POINTS DETERMINED IN THE FIELD.

UNOCCUPIED HOURS:

- SERVICE BAY EXHAUST FAN SHALL BE DE-ENERGIZED / OFF.
- SERVICE BAY ROOF INTAKE HOOD MOTORIZED DAMPER SHALL CLOSE.
- GAS-FIRED DUCT FURNACE SHALL DE-ENERGIZE / OFF.
- TUBE RADIANT HEATERS SHALL OPERATE ON DROP IN TEMPERATURE BELOW SET POINT. MINIMUM SPACE SET POINT: 60° F. (ADJUSTABLE)

MECHANICAL SYMBOLS LIST

SYMBOL	DESCRIPTION
	SUPPLY DUCTWORK
	RETURN DUCTWORK
	EXHAUST DUCTWORK
	SUPPLY DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE
T	THERMOSTAT
UP	RISE IN DUCTWORK
DN	DROP IN DUCTWORK
	MANUAL VOLUME DAMPER
F.D.	FIRE DAMPER
M.O.D. M	MOTOR OPERATED DAMPER
F.A.I.	FRESH AIR INTAKE
	TURNING VANES IN ELBOW
SD	SMOKE DETECTOR
	DIFFUSER TYPE DIFFUSER AIR QUANTITY
	EQUIPMENT TYPE EQUIPMENT TAG

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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

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CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

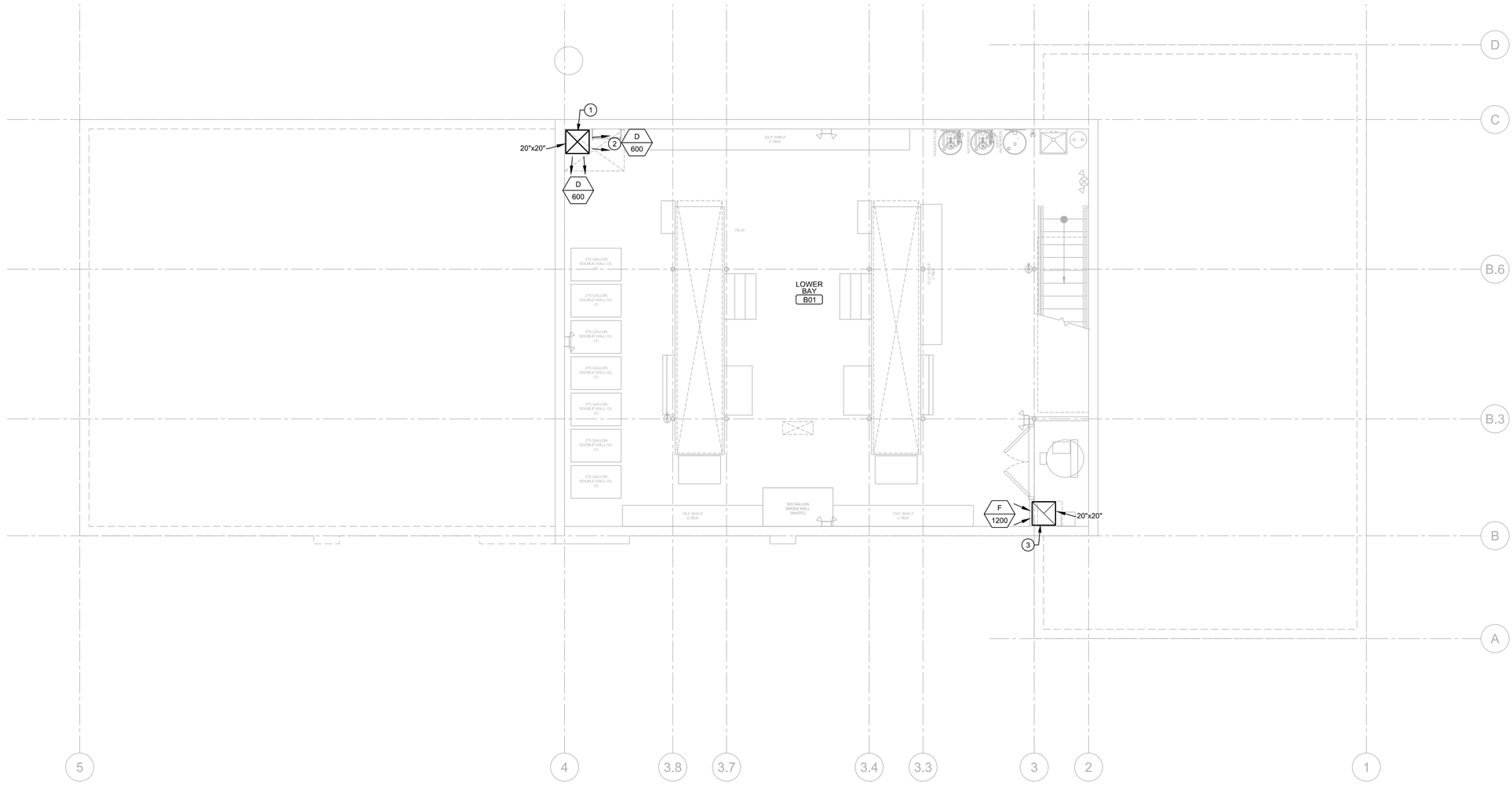
UPPER BAY
MECHANICAL PLAN

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

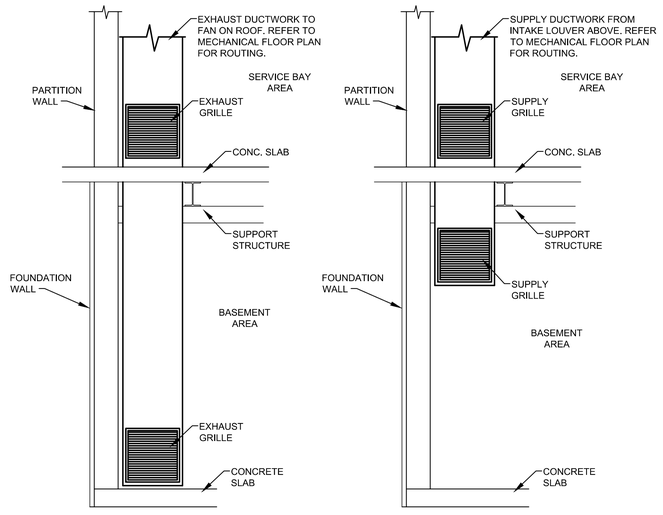
M-1



1 M-2 MECHANICAL PLAN - LOWER BAY

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

PLAN NORTH



2 M-2 SERVICE BAY DUCTWORK

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

NOTE:
PER 2017 NEC ARTICLE 511.3(D)(1)(a) "MINOR REPAIR GARAGES - PIT": REQUIRED AMOUNT OF AIR CHANGES PER HOUR (ac) IS 1 CFM/SQFT.

CEILING HEIGHT: 8.67 FT
FLOOR AREA: 1,058 SQFT

REQUIRED:
1,058*1 = 1,058 CFM

PROVIDED:
TOTAL CFM: 1,200 OR 7.85 ac

MECHANICAL KEYED NOTES

1. FRESH AIR INTAKE DUCTWORK DOWN FROM SERVICE AREA ABOVE. EXTEND DUCTWORK FROM UNDERSIDE OF STRUCTURE AS NEEDED TO INSTALL SUPPLY GRILLES AS HIGH AS POSSIBLE. INSTALL DUCTWORK TIGHT TO WALL. REFER TO DETAIL THIS SHEET.
2. MOUNT GRILLES IN FACE OF DUCTWORK AS NEEDED. TOP OF GRILLE TO BE 6" BELOW BOTTOM OF STRUCTURAL SUPPORT.
3. EXHAUST AIR DUCTWORK DOWN FROM SERVICE AREA ABOVE. OFFSET DUCTWORK DOWN TIGHT TO WALL AND TERMINATE AT 3" A.F.F. MOUNT GRILLE IN FACE OF DUCTWORK AS NEEDED. REFER TO DETAIL THIS SHEET.

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REVISIONS

NO.	DATE	DESCRIPTION

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STATE OF NEW YORK
GREGG J. SCHLUTERMAN
LICENSED PROFESSIONAL ENGINEER
098794-1

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NEW YORK
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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

LOWER BAY
MECHANICAL PLAN

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

M-2

VENTILATION SCHEDULE PER 2020 MECHANICAL CODE OF NEW YORK STATE

ROOM No.	ROOM NAME	CATEGORY	FLOOR AREA SQ. FT.	ORDINANCE REQUIREMENT				ACTUAL VENT.			EXHAUST FAN NUMBER	SUPPLY UNIT NUMBER	REMARKS
				NUMBER OF OCCUPANTS AND/OR FIXTURES	CODE REQUIREMENTS	REQUIRED VENTILATION (CFM)	REQUIRED VENTILATION (CFM)	SUPPLY CFM	OUTSIDE AIR CFM	EXHAUST CFM			
101 / 102	CUSTOMER SALES	RETAIL	507	9	0.12 CFM PER SQUARE FEET	7.5 CFM PER PERSON	129	1,250	150	---	---	RTU-1	
103	OFFICE	OFFICE	63	1	.06 CFM PER SQUARE FEET	5 CFM PER PERSON	9	200	10	---	---	RTU-1	
104	HALLWAY	CORRIDOR	151	---	.06 CFM PER SQUARE FEET	---	10	200	10	---	---	RTU-1	
105	UNISEX RESTROOM	TOILET ROOMS	52	1 FIXTURE	50 CFM PER FIXTURE	---	50	75	---	100	EF-1	RTU-1	
107	EMPLOYEE AREA	BREAK	58	2	.06 CFM PER SQUARE FEET	5 CFM PER PERSON	14	200	50	---	---	RTU-1	
108	EMPLOYEE RESTROOM	TOILET ROOMS	62	1 FIXTURE	50 CFM PER FIXTURE	---	50	75	---	100	EF-2	RTU-1	
109 / 110	SERVICE AREA	AUTOMOTIVE SERVICE STATION	2,240	---	0.75 CFM PER SQUARE FEET	---	1,680	---	---	2,000	EF-3	IH-1	
B01	LOWER BAY	AUTOMOTIVE SERVICE STATION	1,089	---	1.0 CFM PER SQUARE FEET	---	1,058	---	---	1,200	EF-3	IH-1	
	TOTAL		4,222				3,000	2,000	220	3,400			

ROOFTOP UNIT SCHEDULE - GAS

TAG	MFR.	MODEL	NOMINAL TON	ENTERING AIR CONDITIONS	ARI EER (SEER)	SUPPLY CFM	RETURN CFM	O.A. CFM	E.S.P.	UNIT GROSS COOLING		GAS MBH		AFUE	ELECTRICAL DATA				WT.
										TOTAL	SENSIBLE	INPUT	OUTPUT		VOLTS	PHASE	MCA	MOCP	
RTU-1	CARRIER	48GC--06	5	80°F DB 67°F WB @ 95°F AMBIENT	12.5 (16.0)	2,000	1780	220	0.75	63,000	48,320	120 / 150	96 / 120	80	208	3 Ø	31	45	900 ±

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
* LENNOX (LGH SERIES) * YORK (ZY SERIES)
* TRANE (YHC SERIES)

NOTES:
1. MECHANICAL UNIT SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. UNIT SHALL BE SUPPLIED WITH FACTORY 24" TALL ROOF CURB, MEDIUM STATIC DRIVE, FACTORY RETURN AIR SMOKE DETECTOR, SINGLE ENTHALPY ECONOMIZER, DIRECT DRIVE - "ECOBLUE", TWO SETS OF MERV 8 FILTERS, THRU THE BASE GAS KIT AND PVC DRAIN. DISCONNECT & NON- POWERED OUTLET PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
3. INSTALL NEW FILTERS IN UNIT AFTER ALL DUCTWORK HAS BEEN COMPLETED AND PRIOR TO TEST AND BALANCING OF UNIT.

INTAKE AIR HOOD SCHEDULE

TAG	DESCRIPTION	MFR.	MODEL	CFM	THROAT		PRESSURE DROP (IN W.C.)
					W	L	
IH-1	SERVICE AREA INTAKE HOOD	GREENHECK	FGI	3200	20 x 20		0.20

ACCESSORIES:
1. ALUMINUM INSECT AND BIRD SCREEN
2. 24" INSULATED ROOF CURB WITH RAISED CANT, WOOD NAILER, AND CURB FASTENING FLANGE
3. HINGED HOOD.
4. PROVIDE WITH DAMPER TRAY AND MOTORIZED DAMPER: 115 VAC INTERNAL ACTUATOR.

APPROVED EQUIVALENTS MAY BE SUBMITTED BY PENN, CARNES, OR COOK.

GAS FIRED RADIANT HEATER SCHEDULE

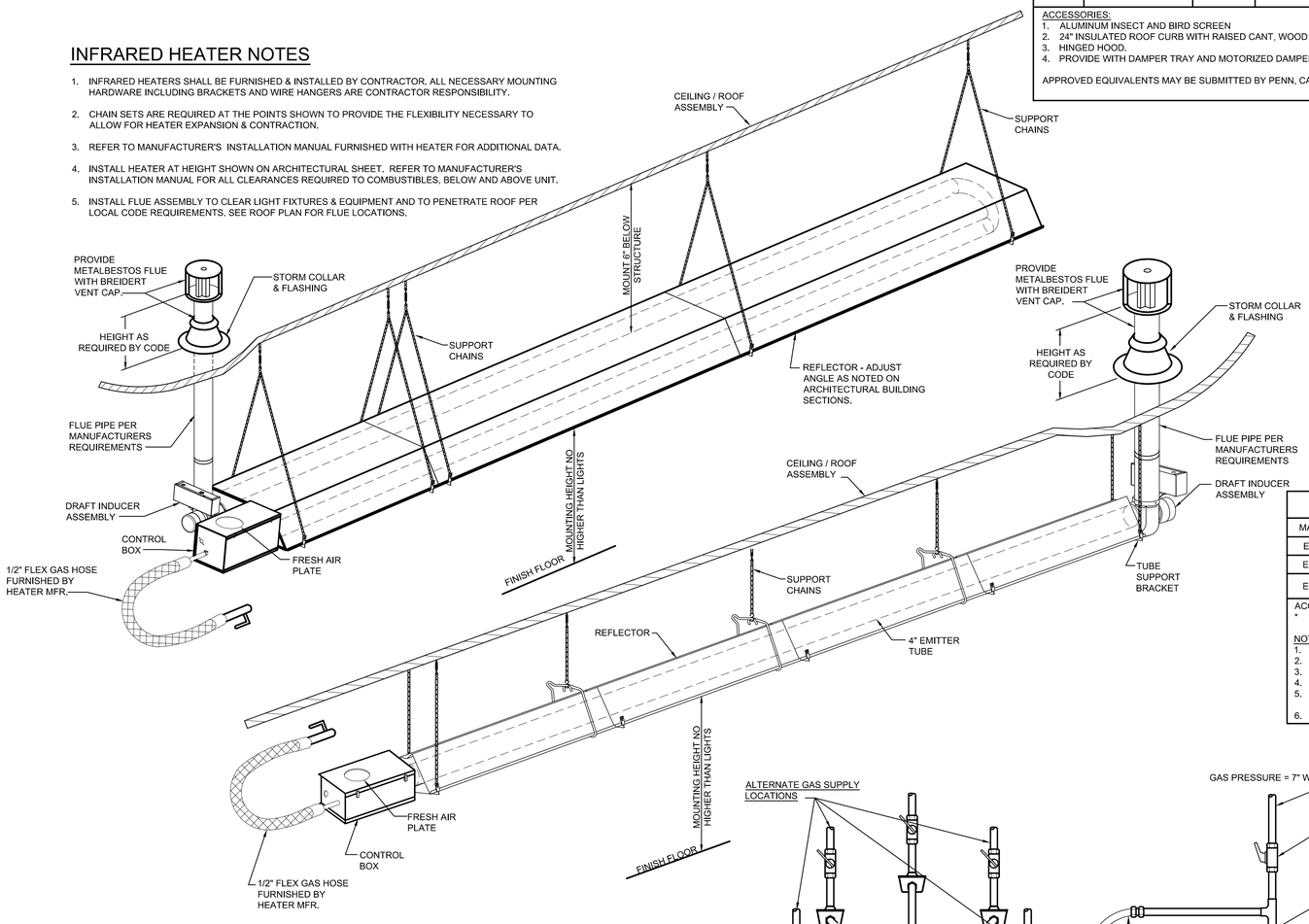
TAG	MANUFACTURER	MODEL	INPUT MBH	GAS CONNECTION	ELECTRICAL DATA				TUBE TYPE	TUBE LENGTH
					VOLTS	PHASE	START DRAW	RUN DRAW		
H-1	SPACE RAY	LTS-75-20	75	1/2" Ø	120	1Ø	2.6 AMP	2.3 AMP	STRAIGHT TUBE	20 FT
H-2	SPACE RAY	LTU-130-30	130	1/2" Ø	120	1Ø	2.6 AMP	2.3 AMP	U-TUBE	30 FT

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
* DETROIT RADIANT PRODUCTS / RE-VERBER-RAY (SV SERIES)

NOTES:
1. HEATERS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. EACH HEATER SHALL BE CONTROLLED BY A MANUFACTURER SUPPLIED NIGHT SETBACK DIGITAL THERMOSTATS, MOUNTED 4'-0" ABOVE THE FINISHED FLOOR. SEE MECHANICAL PLAN FOR LOCATIONS.
3. HEATERS SHALL BE "PULL (NEGATIVE PRESSURE OR VACUUM) THROUGH" SYSTEMS WITH CAST IRON BURNERS AND CALORIZED EMITTER TUBES (ALC OPTION), THE EMITTER TUBES SHALL BE CALORIZED FOR LONGEVITY, CORROSION RESISTANCE AND HIGH RADIANT EFFICIENCY. **HOT ROLLED EMITTER TUBES ARE NOT ALLOWED**.
4. HEATERS SHALL OPERATE UNDER A NEGATIVE PRESSURE AT ALL TIMES TO PRECLUDE THE ESCAPE OF COMBUSTION GASSES INSIDE OF THE BUILDING.
5. HEATERS SHALL BE FURNISHED WITH END REFLECTORS (2 - PAIRS).

INFRARED HEATER NOTES

1. INFRARED HEATERS SHALL BE FURNISHED & INSTALLED BY CONTRACTOR. ALL NECESSARY MOUNTING HARDWARE INCLUDING BRACKETS AND WIRE HANGERS ARE CONTRACTOR RESPONSIBILITY.
2. CHAIN SETS ARE REQUIRED AT THE POINTS SHOWN TO PROVIDE THE FLEXIBILITY NECESSARY TO ALLOW FOR HEATER EXPANSION & CONTRACTION.
3. REFER TO MANUFACTURER'S INSTALLATION MANUAL FURNISHED WITH HEATER FOR ADDITIONAL DATA.
4. INSTALL HEATER AT HEIGHT SHOWN ON ARCHITECTURAL SHEET. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR ALL CLEARANCES REQUIRED TO COMBUSTIBLES, BELOW AND ABOVE UNIT.
5. INSTALL FLUE ASSEMBLY TO CLEAR LIGHT FIXTURES & EQUIPMENT AND TO PENETRATE ROOF PER LOCAL CODE REQUIREMENTS. SEE ROOF PLAN FOR FLUE LOCATIONS.

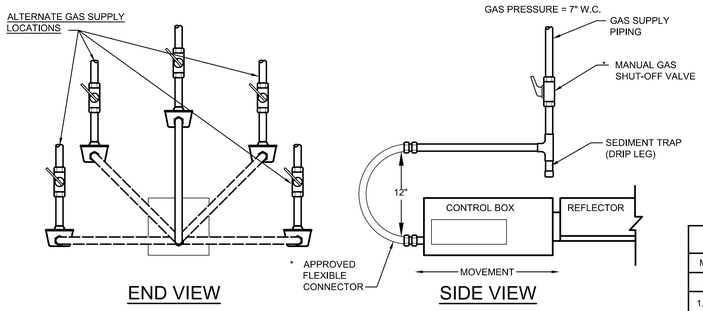


1 / M-3 RADIANT HEATER MOUNTING DETAIL

SCALE: NTS

SPACE-RAY INFRARED GAS HEATERS

DETAIL BY MANUFACTURER FOR REFERENCE ONLY.



REGISTER, GRILLE AND DIFFUSER SCHEDULE

MARK	TYPE	PROTOTYPE	CFM	FRAME	NECK	MATERIAL	FINISH	DAMPER	REMARKS
A	CEILING SUPPLY	TITUS PAS	AS NOTED	24" x 24" LAY-IN	SEE PLAN	STEEL	BLACK	OBD	
B	CEILING SUPPLY	TITUS PAS	AS NOTED	24" x 24" LAY-IN	SEE PLAN	STEEL	WHITE	OBD	
C	CEILING SUPPLY	TITUS PAS	AS NOTED	12" x 12" LAY-IN	SEE PLAN	STEEL	WHITE	OBD	
D	SERVICE SUPPLY	TITUS 30RS	AS NOTED	18" x 18" SURFACE	---	STEEL	SEE ARCH DRAWINGS		
E	CEILING RETURN	TITUS PAR	AS NOTED	24" x 24" LAY-IN	---	STEEL	BLACK		
F	SERVICE EXHAUST	TITUS 30RS	AS NOTED	18" x 18" SURFACE	---	STEEL	SEE ARCH DRAWINGS		
G	TRANSFER	TITUS 300R	AS NOTED	16" x 16" LAY-IN	---	STEEL	WHITE		
H	TRANSFER	TITUS 300R	AS NOTED	16" x 16" LAY-IN	---	STEEL	BLACK		

EXHAUST FAN SCHEDULE

MARK	MFR.	MODEL	TYPE	CFM	E.S.P.	HP/(WATTS)	VOLTS/PH	B.D.D.	DRIVE	OP. WT.	REMARKS
EF-1	COOK	GN-144	CEILING	100	0.375	0.7 AMPS	115/1Ø	YES	DIRECT	20	SEE NOTES
EF-2	COOK	GN-144	CEILING	100	0.375	0.7 AMPS	115/1Ø	YES	DIRECT	20	
EF-3	COOK	165C6B	ROOF MOUNTED	3,200	0.75	3/4 H.P.	208/3Ø	YES	BELT	150	

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
* GREENHECK, PENNBARRY

NOTES:
1. EXHAUST FAN TO BE COMPLETE WITH BACK DRAFT DAMPER, ROOF CURB (EF-3) AND SPEED CONTROLLER.
2. INTERLOCKED EF-1 & 2 WITH RESTROOM LIGHTING. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
3. EXHAUST FAN EF-3 SHALL BE ENERGIZED DURING OCCUPIED HOURS. REFER TO ELECTRICAL DRAWINGS FOR CONTROL INFORMATION.
4. INTERLOCK EF-3 WITH ROOF TOP INTAKE HOOD (IH-1).
5. RESTROOM CEILING MOUNTED FANS TO BE PROVIDED WITH WITH HANGING ISOLATOR KIT, SUSPENSION RODS, SPEED CONTROLLER, GRAVITY BACKDRAFT DAMPER, ROOF JACK AND WHITE GRILLE.
6. ALL DISCONNECTS PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.

GAS-FIRED DUCT FURNACE SCHEDULE

MARK	MODEL	UNIT SIZE	AIR FLOW CFM	TOTAL SP IN WC	GAS CONN.	HEATING CAPACITY		VOLTS/ PHASE	FLA	WEIGHT LBS ±	REMARKS
						INPUT BTUH	OUTPUT BTUH				
F-1	DAYTON 6RJV5	300	3,200	0.634	3/4"	300,000	240,000	115	1.9	142	1,2,3,4

1. PROVIDE UNIT INSTALLATION PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. MOUNT UNIT LEVEL FROM STRUCTURE WITH THREADED ROD AND VIBRATION ISOLATORS AS NEEDED. REFER TO STRUCTURAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUAL FOR ADDITIONAL INFORMATION.
2. PROVIDE UNIT WITH: STAINLESS STEEL HEAT EXCHANGER, 4:1 MODULATION DDC HIGH TURNDOWN GAS CONTROL, 7-DAY DIGITAL CONTROLLER (CAREL), DDC SPACE TEMP WALL SENSOR, MOTOR CONTACTOR, OPEN DRIP PROOF BELT DRIVEN MOTOR, CABINET INSULATION, DISCHARGE DUCT FLANGE AND VERTICAL VENT TERMINAL KIT.
3. SELECT UNIT DIRECTIONAL HAND (LEFT OR RIGHT) FOR APPROPRIATE UNIT CONTROLS ACCESS BASED ON FLOOR PLAN LAYOUT.
4. REFER TO SEQUENCE OF OPERATION AND COORDINATE WITH ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.

SUPPLY FAN SCHEDULE

MARK	MFR.	MODEL	TYPE	CFM	E.S.P.	HP/(WATTS)	VOLTS/PH	DRIVE	OP. WT.	REMARKS
SF-1	GREENHECK	BSQ-180	INLINE	3200	1.3	1.5 HP	208/3Ø	BELT	150	1,2,3

1. PROVIDE UNIT INSTALLATION PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. MOUNT UNIT LEVEL FROM STRUCTURE WITH THREADED ROD AND VIBRATION ISOLATORS AS NEEDED. REFER TO STRUCTURAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUAL FOR ADDITIONAL INFORMATION.
2. PROVIDE UNIT WITH: FILTER RACK WITH 2" PLEATED FILTERS, CABINET INSULATION.
3. REFER TO SEQUENCE OF OPERATION AND COORDINATE WITH ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.

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NO.	DATE	DESCRIPTION

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

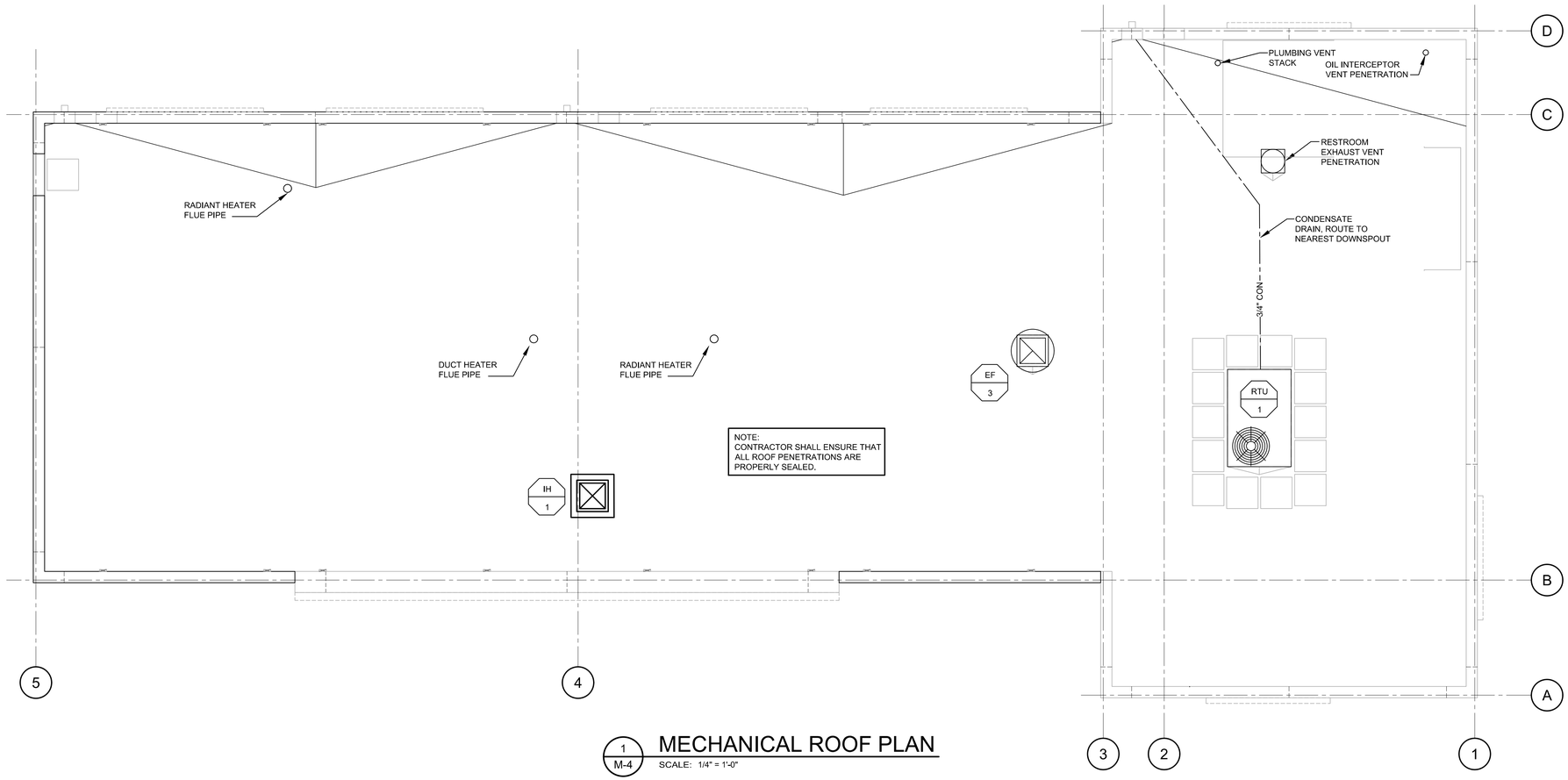
MECHANICAL SCHEDULES

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

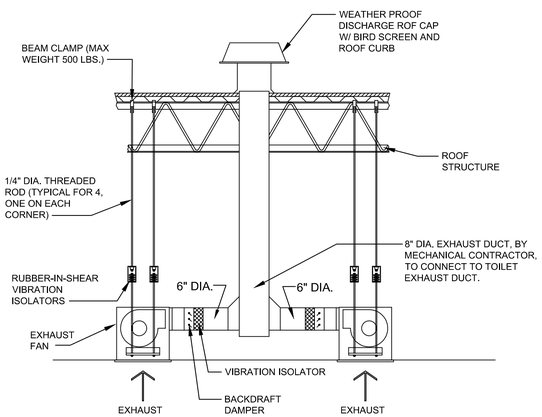
M-3



1 M-4 MECHANICAL ROOF PLAN

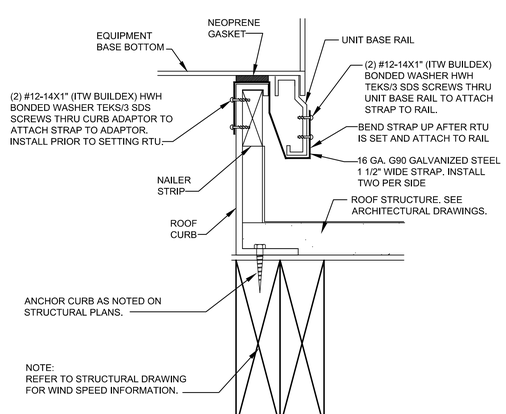
SCALE: 1/4" = 1'-0"

PLAN NORTH



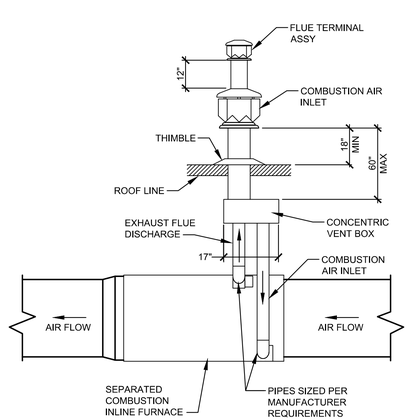
2 M-4 RESTROOM EXHAUST DETAIL

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



3 M-4 ROOF CURB ATTACHMENT DETAIL

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



4 M-4 GAS FIRED IN-DOOR PACKAGE UNIT CONCENTRIC FLUE DETAIL

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

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jiffy lube®

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MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

MECHANICAL ROOF PLAN

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

M-4

MECHANICAL SPECIFICATIONS:
PART 1 - GENERAL:
INTENT:
These outline specifications and accompanying drawings describe scope of work required for mechanical and control systems. In as much as bids will be limited to selected contractors, comprehensive specifications and detailed instructions are deemed unnecessary. Labor and material shall be provided as required for a complete, workmanlike installation of all systems shown on diagrammatic drawings and/or as specified herein.

CODES, PERMITS, AND INSPECTIONS:
All work shall be in accordance with applicable state and local codes, NEC and NFPA recommendations. Contractor shall obtain all permits required, give all legal notices, and have all work inspected as required by local or state law. Contractor shall pay all fees associated w/ securing permits.

DEFINITION:
The word "Contractor" and "MC" as used in these outline specifications and plans refers to HVAC subcontractor unless specifically noted otherwise.

WORKMANSHIP:
Competent skillful workmen shall do all work in a finished, thoroughly substantial and craftsman like manner. This is intended to refer particularly to smaller details necessary but usually not specified or indicated on the drawings. All sub-standard work, installed by this contractor, shall be replaced by this contractor at no additional expense to the owner. If this contractor damages existing work, he shall pay the cost of replacement of the damaged work at no additional expense to the owner. Designer and/or owner's representative shall be the judge of workmanship and their opinion will be final.

DELIVERY, STORAGE AND HANDLING:
Contractor shall consult with the general contractor for storage space at the job site if required. Storage space must be secured and contractor's representative must be on job before any material may be received.

RECORD DRAWINGS:
Contractor shall keep one set of "red-lined" record drawings on site at all times and shall provide drawing to designer before final inspection.

WARRANTY:
Contractor shall correct any defects in workmanship and/or material which occur during the first year of operation. Contractor shall also provide, during first year warranty period, all preventive maintenance required to protect manufacturer's equipment warranty. Preventive maintenance shall include labor and materials required for:
1. Lubrication
2. Routine inspections
3. Thermostat calibration

SHOP DRAWINGS:
Mechanical subcontractor shall submit one (1) electronic PDF copy of shop drawings for all scheduled mechanical equipment. Including but not limited to all rooftop equipment, fans, gas fired equipment, electric heaters, condensing units, grilles, dampers, air balance report etc for approval to the designer. Clearly identify all items, model numbers, electrical specifics, provided accessories and options as needed to make a clear and complete submittal.

PART 2 - PRODUCTS:
HANGERS, SUPPORTS AND ANCHORS:
Support and fasten all equipment etc., securely in place. Space, secure and adjust hangers without deflection or sag. These devices shall be factory fabricated by B-Line, Grinnell, PHD or similar manufacturers. Chain, strap, perforated strap, wire hangers or wood plugs are prohibited. Supply hangers of materials compatible with piping and ductwork to prevent galvanic corrosion.

Provide steel supports, anchors, frames, bracing, plates, bolts, nuts, washers, rods, hangers, upper attachments, etc., incidental to installation of work as specified or required.

Support equipment from the structure in an approved manner. No portion of the structure shall be over stressed by the hanging operation or by the final supports. Provide auxiliary structural members, such as 3"x3"x " angles, where required between members of the structure and support equipment or device off angles.

All equipment, unless shown otherwise, shall be securely attached to the building structure in an approved manner. Povide attachments which are compatible w/ building structure. Attachments that are, in the opinion of the designer, inadequate shall be replaced as directed.

LABEL:
All equipment and devices with bakelite engraved plates screwed in place. "Tapewriter" and adhesive unacceptable.

DUCTWORK:
Rectangular and round galvanized sheet metal ducts shall be braced, supported, constructed and installed in accordance with the latest edition of SMACNA duct manual entitled: HVAC Duct Construction Standards, Metal and Flexible. Conventional "S" joint construction per SMACNA tables is acceptable. All joints in ductwork shall be sealed with an approved type duct sealing tape dipped in or brushed with adhesive ("Hardcast" DT-Tape w/FTA-20 Adhesive or "United McGill" MTD Tape w/MTA-20 Adhesive) - "duct tape" unacceptable. All square bends or elbow fittings shall be fitted with turning vanes of an approved type. Provide adjustable balancing dampers with locking quadrant at all supply air tees.

THERMOSTATS AND CONTROLS:
Provide unit manufacturer's standard unit mounted manual/ automatic changeover room thermostat w/ auto-on fan and heat-auto-cool switches provide unit manufacturer's standard 2 stage room thermostat w/ auto-on fan and summer-winter switches.

NATURAL GAS PIPING:
Black steel, ASTM a53 type E or S with threaded malleable iron iron fittings. Gas stops shall be AGA Certified bronze plug type with square plug.

GAS VENTS:
Double wall gas vent, conforming to NFPA 211, Type B. Inner pipe of sheet aluminum, outer pipe of galvanized steel sheet. Provide accessories as required for complete installation. Acceptable manufacturer's shall be Aelkirk Metalbestos, Masco Co. and Hart and Cooley, Inc.

SUBSTITUTIONS:
Major equipment, devices, and specialties shall be as noted on the drawings. Manufacturers shown or noted are intended for reference as to the quality and type of equipment desired. Comparable equipment by other manufacturers will be considered for approval by the designer if level of quality is equivalent. Refer to equipment schedule in drawings for acceptable alternates:

PART 3 - EXECUTION:
SUPERVISION:
Contractor shall constantly supervise the work from the beginning to completion and final inspection. Contractor shall have a representative at all construction meetings.

SEQUENCING AND SCHEDULING:
Contractor shall plan and schedule his work to maintain progress with other contractors on the job. Diligently perform the work as rapidly as possible. Coordinate exact locations and clearance requirements for all mechanical equipment, devices, etc.. Under no circumstances shall this contractor delay this project.

EQUIPMENT LOCATIONS:
Verify final location for rough-ins w/ field measurements and with the requirements of the actual equipment to be connected. Determine exact equipment and materials locations to provide best arrangement and to facilitate proper maintenance and servicing of equipment. **DO NOT SCALE DRAWINGS**. Coordinate closely with G.C. Supt. and owner's representative.

INTERFERENCES:
Plans are generally diagrammatic. Contractor shall avoid interferences with conduits, piping, equipment, ducts, architectural and structural work. Necessary offsets in pipes, fittings, etc., required to properly install equipment so as to take up a minimum space, shall be furnished and installed by this contractor at no additional expense to the owner. Coordinate w/ other trades prior to installing ductwork.

CLEAN-UP:
Contractor shall remove all debris due to his work and shall repair, clean and replace all surfaces damaged or soiled as a result of his work at no additional expense to the owner. Removal of debris shall be daily and as required to maintain safe working conditions.

CUTTING & PATCHING:
Contractor is responsible for any cutting and patching required which is incidental to the installation of his work. Cut, channel, chase, and drill floors, walls, partitions, ceilings, and other surfaces necessary for HVAC installations. Perform cutting by skilled mechanics of the trades involved. Repair cut surfaces using materials matching specified materials and methods required for surface.

UNDERWRITER'S LABORATORIES APPROVAL:
All equipment furnished shall be UL approved and shall be labeled or listed by U.L. No equipment shall be approved which fails to meet these conditions.

PLACING IN SERVICE, TESTS, INSTRUCTIONS AND MAINTENANCE:
Contractor shall make all necessary tests, trial operations, etc., required and directed by the designer to prove that all systems are in complete serviceable condition and will function as intended. All costs of tests shall be borne by this contractor. Contractor shall furnish all necessary assistance as directed by the owner or the designer which may be required to properly instruct the owner in the operation of all equipment. This shall include personal instruction covering routine maintenance and operation of units and thermostats. Contractor shall furnish two copies of complete operating and maintenance instructions for all equipment, including necessary cuts, charts, written instructions, wiring diagrams, final as-built drawings with balanced air flows indicated, etc. These maintenance instructions shall be bound in suitable hard back ring binders, properly indexed and delivered to the owner at one time.

BALANCE AIR FLOW:
Air flow shall be balanced to obtain quantities shown on floor plans. Carefully adjust extractors and dampers for all ductwork, and air outlets and record readings which correspond to design flow rates at each outlet.Record final readings on clean print. Test and balance the complete airside system in accordance with SMACNA T.A.B. procedures. Upon completion of all balancing and testing, contractor shall provide a copy to the designer and schedule a period of time for random checking of typical outlets.

PART 3 - GENERAL MECHANICAL NOTES:

1. Gas meter and service by local natural gas supplier. Mechanical contractor to coordinate exact location and capacity requirement.
2. Mechanical contractor to connect to down stream side of meter and extend as indicated.
3. Rooftop units shall be installed on full perimeter factory pre-fab roof curbs to match roof pitch and furnished by the mechanical contractor.
4. Exhaust fans shall be furnished with bird screens, back draft dampers and disconnectors according to the exhaust fan schedule.
5. All control wiring diagrams shall be furnished by the mechanical contractor to the electrical contractor. All control wiring shall be supplied by the electrical contractor for installation.
6. Sleeve natural gas pipe through wall at approximately 36" a.f.f. and seal void around pipe with backer rod and clear silicone sealant.
7. Mechanical (heating, ventilating , air conditioning and plumbing Contractors shall coordinate all ductwork, piping, air distribution devices and other mechanical and plumbing work with other building trades such as Architectural, Electrical, Plumbing, and Building Structure to avoid conflicts and delays.
8. All duct connections to all air moving equipment shall be made with asbestos free flexible connections.
9. All flexible duct shall be connected to base branch ducts with a minimum of three sheet metal screws at each connection and taped to provide an air tight seal.
10. Flex duct hanger strips shall be 1 x 16 ga. minimum.
11. The maximum allowable length of flexible duct shall be 5'-0".
12. All duct sizes shown on drawings are clear air stream dimensions.
13. The room thermostats shall be installed at same elevation as light switches.
14. All refrigerant suction lines and condensate drain lines, inside the building, shall be insulated with fiberglass insulation Johns Manville Micre Lok 650 or approved equal. Outdoor suction line shall be insulated with Johns Manville Aerotube Foamed Plastic Insulation.

Pipe Sizes	Insulation Thickness
Suction Lines	1"
Condensate Drain Lines	1/2"

15. All ductwork shall be fabricated of galvanized steel sheets. They shall be fabricated and installed as per latest SMACNA Standards unless shown or noted otherwise. All transverse joints shall be pocket locks. All longitudinal joints shall be Pittsburgh locks. All internal and external duct insulation shall be applied as per latest SMACNA Standards.
16. Rectangle metal duct shall be mild galvanized steel unless otherwise noted. Fiberglass ductboard is not acceptable.
17. All insulation and accessories, except aerotube, shall comply with all requirements of ASTM E-84, NFPA 225 and UL 723 and flame spread rating shall not be greater than 25 and smoke developed not to exceed 50.
18. All refrigerant lines shall be properly supported.
19. All air systems shall be cleaned after installation and shall be properly balanced using properly calibrated balancing devices. Type written balancing reports shall be submitted to the Architect.
20. After installation, all refrigerant systems shall be cleaned and charged with refrigerant and lubrication oil, and shall be put in satisfactorily operation conditions.
21. Refrigerant lines shall be Type - L copper tubing with sweat-type wrought copper fittings.
22. Mechanical and Plumbing Contractors shall apply for all required permits. They shall pay for all permit fees and other associated charges. The Contractors shall also provide all required cost estimates to City and to local authorities to determine permit fees, if required.
23. The condensate drain lines shall be of Sch. 40 PVC.
24. Exact locations of all ceiling grilles and diffusers shall be field coordinated with light fixtures.
25. All rectangular, spiral and rigid round ductwork located above ceiling shall be externally insulated with 1 1/2" thick external insulation, The insulation shall be Johns Manville Series "R" Microlite Fiberglass Duct Wrap with Kraft-Scrim-Foil vapor barrier jacket or equal.
26. All rectangular, spiral or rigid round ductwork located exposed to the space shall be internally insulated with minimum 1" thick duct liner. Liner shall be applied per SMACNA standards and have the code required minimum R-value.
27. All ceiling supply air diffusers shall have four-way throws unless shown otherwise.
28. All round take-offs from rectangular ducts shall be a "Creative Metals, Inc." spin-tite fitting, Model MSED (spin-in w/ scoop damper) or approved equal.
29. All air quantities shown, next to grille designations on drawings are CFM. All grilles shall be balanced to these quantities.
30. Flexible duct shall be insulated type and rated for 6 inches of positive, 1 1/4 inches of negative pressure, and 4000 FPM maximum velocity and shall comply with all requirements of City, UL-181, and NFPA 90A and 90B. Flexible duct shall be Certainteed Certaflex-25 or approved equal Thermaflex, or Flexmaster.
31. All insulation and accessories shall comply with all requirements of ASTM E-84, NFPA 225, and UL 723 and flame spread rating shall not be greater than 25 and smoke developed not to exceed 50.
32. The Contractors shall supply for approval six (6) copies of shop drawings to completely identify the quality of materials and/or equipment intended for installation.
33. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless the difficulties could not have been foreseen even though proper examination had been made.
34. The plumbing contractor shall be responsible for the installation of all gas piping and condensate drains. All gas lines shall be Schedule 40, black iron and installed per the latest edition of N.F.P.A./ 54 (Natural Fuel Gas Code), Fire Prevention Code and any applicable state or local codes.
35. All condensate lines shall be sloped minimum 1/8" per linear foot of run. All drain exits from A/C units shall include a trap and clean-out plug. Condensate drain line shall be mounted on 4" x 4" wood blocks space no more than 10 ft apart and at each pipe elbow. Provide plumbers tape or bracket for connection and walk pad under each support block.
36. The equipment rough-ins as shown are accurate to the best of our knowledge. However, in some instances the Owner or supplier may substitute or the equipment item may vary from what is shown. Therefore the Contractor shall verify all critical dimensions prior to construction. Failure to verify dimensions shall place the responsibility for any subsequent relocation directly upon the Contractor.
37. All mechanical equipment shall be installed per manufacturer's specifications.

PLUMBING SPECIFICATIONS:
PART 1 - GENERAL
INTENT:
These outline specifications and accompanying drawings describe scope of work required for the plumbing systems. In as much as bids will be limited to selected contractors, comprehensive specifications and detailed instructions are deemed unnecessary. Labor and material shall be provided as required for a complete, workmanlike installation of all systems shown on diagrammatic drawings and/or as specified herein.

CODES, PERMITS, AND INSPECTIONS:
All work shall be in accordance with applicable state and local codes, NEC and NFPA recommendations. Contractor shall obtain all permits required, give all legal notices, and have all work inspected as required by local or state law. Contractor shall pay all fees associated w/ securing permits.

DEFINITION:
The word "contractor" and "P.C." as used in these outline specifications and plans refers to plumbing subcontractor unless specifically noted otherwise.

WORKMANSHIP:
Competent skillful workmen shall do all work in a finished, thoroughly substantial and craftsman like manner. This is intended to refer particularly to smaller details necessary but usually not specified or indicated on the drawings. All sub-standard work, installed by this contractor, shall be replaced by this contractor at no additional expense to the owner. If this contractor damages existing work, he shall pay the cost of replacement of the damaged work at no additional expense to the owner. Designer and/or owner's representative shall be the judge of workmanship and their opinion will be final.

DELIVERY, STORAGE AND HANDLING:
Contractor shall consult with the G.C. for storage space at the job site if required. Storage space must be secured and contractor's representative must be on job before any material may be received.

RECORD DRAWINGS:
Contractor shall keep one set of "red-lined" record drawings on site at all times and shall provide drawing to designer before final inspection.

SHOP DRAWINGS:
Plumbing subcontractor shall submit one (1) electronic PDF copy of shop drawings for plumbing equipment and materials, including but not limited to all plumbing fixtures, regulators, oil interceptor, sump pumps, trim, drains, cleanouts, valves, insulation, hangers, supports, equipment and devices for approval to the designer. Clearly identify all items, model numbers, provided accessories and options as needed to provide a clear and complete submittal.

WARRANTY:
Contractor shall correct any defects in workmanship and/or material which occur during the first year of operation (Unless noted). Contractor shall also provide, during first year warranty period, all preventive maintenance required to protect manufacturer's equipment warranty. Preventive maintenance shall include labor and materials required for:
1. Lubrication
2. Routine inspections
3. Water heater (Three (3) years)

CONDITIONS:
The general conditions to construction agreement, special conditions, are a part of this section as if included herein.

WORK INCLUDED:
Furnish all labor, materials, tools, transportation services, etc. necessary to complete the installation of the plumbing system and as described by these specifications, as indicated on the drawings, or as directed by the project manager. Furnish and install all plumbing fixtures including trim, fittings and supports. Furnish and install all final plumbing connections to heating and air-conditioning equipment. Furnish and install all condensate from air-conditioning equipment. All fees and charges shall be identified separately in the contractor's proposal.

EXAMINATION OF THE SITE:
All contractors submitting proposals for this work shall first examine the site and all conditions thereon and/or therein which involve the work of this section. All proposals shall include site conditions that may affect the work of this contract. Failure to consider all site conditions that may affect the work of this contract will not be considered as justification for extra cost or allowances to the contract.

DESCRIPTION:
All products used shall comply with all applicable national, state and local codes and the regulations of all governing agencies (including, but not limited to, health department, utilities, etc.).

PIPING:
1. Soil, Waste and Vent Piping:
   a. Below floor building drainage and vent piping (to 5'-0" outside building) shall be standard weight coated cast iron soil pipe with gasketed bell and spigot joints, or standard weight coated cast iron hubless soil pipe joined by husky series 4000 couplings (as manufactured by anaheim foundry company) with neoprene gaskets, or schedule 40 pvc dwv pipe and fittings (when allowed by code).
   b. Underground building sewer piping (exterior of building lines) shall be gasketed joint pvc, astm d-3034, sdr 35 or ps50 manufactured by carlon, or equivalent.
   c. Above floor shall be standard weight coated cast iron soil pipe with neoprene gasketed bell and spigot joints or hubless cast iron soil pipe with no-hub neoprene gaskets and stainless steel bands and clamps or schedule 40 pvc dwv pipe and fittings (when allowed by code).
2. Hot and Cold Water Piping:
   a. PEX-A tubing manufactured by Uponor. Smoke developed rating of less than 50 and a flame spread rating less than 25 in accordance with ASTM E-84, Chlorine resistance per ASTM-F876, minimum 6 month UV protection. Color coded "Red" and "Blue" for hot and cold water with Poly Alloy Polymer fittings.
   b. If PEX is specificly not allowed by local AHJ, above floor shall be type "f" hard drawn copper tubing with sweat soldered wrought copper fittings.
   c. All solder used in domestic water supply system shall be "lead free" type.
3. Condensate:
   a. Condensate drain piping from roof top air-conditioning units shall be type "m" hard drawn copper, copper type DWV or schedule 40 pvc pipe and fittings (when allowed by code). Condensate drain piping exposed on roof shall be suitable for installation in direct sunlight. Condensate shall be piped to suitable location when required by code.
4. Gas Piping:
   a. Gas piping above ground shall be schedule 40 black steel with 125 lb, black malleable iron screwed fittings and supported at intervals not to exceed 8'-0" and at each change in horizontal or vertical direction. Gas piping compound at joints shall be in compliance with NFPA bulletin no. 43 and applicable local codes, local and state gas utility requirements, and suitable for natural gas service.
   b. Gas piping shall be piped to all gas-fired equipment by this contractor.
   c. Gas piping installed exposed in service areas shall be installed tight to bottom of highest structural members (trusses) and coordinated with all other discipline prior to installation.
   d. Moisture traps (dirt pockets) and gas shutoff valves or cocks shall be installed at each piece of gas fired equipment.
   e. Gas piping run above roof, supported on polycarbonate resin supports made by Miro Industries or approved equal.
   f. Gas piping run below roof shall be supported using code approved gas pipe supports and appropriate intervals.
   g. All exposed gas piping in service area shall be painted with a rust prohibiting black paint. All gas piping exposed on the roof shall be painted with a rust prohibiting safety yellow paint.

INSULATION:
1. All hot and cold water piping, roof drain bodies, and horizontal storm drainage piping shall be insulated with 1/2" thick fiberglass pipe insulation with glass-reinforced all-service vapor jacket with white finish. Contractor may use 1/2" thick closed cell pipe insulation: Armstrong Armaflex; Imcoa "Imcolock"; or approved equal. Installation shall be in strict accordance with the manufacturer's recommendations. All butt ends and joints shall be sealed moisture tight in accordance with insulation manufacture's recommendations. Insulation and vapor barrier jacket shall have a flame spread index of 25 or less and a smoke developed index of 50 or less.

FIXTURES:
Refer to fixture schedule on plumbing drawings for specific items and model numbers.

CLEANOUTS:
1. Cleanout plugs shall be cast-bronze or brass, complying with ANSI B2.1, countersunk head.
2. Floor cleanouts shall be cast-iron body and frame, with cleanout plug and adjustable nickel-bronze top with exposed rim with recess as applicable to receive floor finish.
3. Wall cleanouts shall have cast-iron body with cast-bronze or brass cleanout plug and polished stainless steel wall cover with screws.

EQUIPMENT:
1. Water Heater:
   a. Size, capacity, type and manufacturer as indicated in fixture schedule.
   b. The water heater shall be complete with all temperature and safety controls including ASME and ANSI Z21.22 rated temperature and pressure relief valve, drain valve etc.
   c. Installation shall include shut-off valves and screwed unions in each line and safety pan under heater. Relief valve and drain pan piping shall routed to drain, service sink, or to exterior as shown and/or as required by local codes.

VALVES, COCKS AND FAUCETS:
1. Unless specifically indicated elsewhere, the valves shall be designed for not less than 125 lbs. working pressure. The valves shall have suitable valve body patterns for connection to the pipe for which they will be installed. All valves with rising stems shall have back seats for packing under pressure.
2. Gas cocks for all equipment shall be 150 psi non-shock, bronze straightaway cock, flat or square head, with full line size threaded ends.
3. Shutoff valves under lavatories, tank type water closets, sanitary sinks and water coolers shall be chrome plated angle stop valves with soft annealed chrome plated copper supply pipes and chrome plated or stainless steel escutcheons.
4. Water shutoff service valves shall in-line ball type valves with 90 degree rotation lever stem. Shutoff valves 3/4" and smaller may be in-line ball type valves with 90 degree rotation lever handles, stainless steel ball, and sweat type solder joints.
5. Hose bibbs (wall hydrants) shall be of the non-freeze type where exposed to outdoor freezing conditions. All exterior fixtures shall have full line size shutoff valves and unions at each fixture.

DRAINS:
1. Floor drains shall have cast iron body with flashing collar bottom outlet with inside caulk, and nickel bronze adjustable strainer head with secured heel proof grate unless otherwise specified on drawings.

EXECUTION:
PIPING:
1. All piping shall be run concealed in finished areas unless otherwise indicated on drawings.
2. Equipment and apparatus such as valves, traps, cleanouts, trap primers, water hammer arresters, etc. shall be installed in easily accessible locations (behind access doors, etc.) so that special equipment or demolition is not required for access. Branch valves in areas with suspended ceilings shall be within hand reach of the ceiling level.
3. Soil, waste, vent and condensate drain piping shall be installed with a minimum grade of 1/4" per foot where possible. In no case shall the grade be less than that required for proper function or that required by local code requirements.
4. Parallel runs of hot and cold water piping shall not be closer than 6" center to center.
5. Water supply piping within the building shall be installed overhead and concealed in partition walls unless otherwise indicated and per manufacturer installation instructions.
6. Pex piping shall be stored covered from harmful environmental conditions in manufacturer's original, unopened, undamaged containers with identification labels intact until installation as recommended by manufacturer. Do not expose PEX tubing to direct sunlight for more than 30 days.
7. Piping in stock areas shall be coordinated with stock rack locations to afford maximum protection from fork lifts and high rack storage. Branch gas piping to unit heaters and other equipment shall be installed in a manner to provide maximum protection against damage.

PLUMBING FIXTURES:
1. Furnish and install all plumbing fixtures complete with all equipment, fittings, trimmings and accessories as required for a complete and working installation. All fixtures shall be white.
2. All fixtures shall be grade a with the name or trademark of the manufacturer permanently affixed on all fixtures.
3. Exposed piping to fixtures shall be chrome plated. Base metal for piping to fixtures shall be copper, brass, red brass or stainless steel as applicable to the specific item. Plastics, pvc or abs piping will not be accepted.
4. Stop valves shall be provided in all hot and cold water supplies to all fixtures. Stops shall have metal to metal or rotating ball type seats. Stop valves shall be chrome plated where exposed under lavatories or in other finished areas.

TESTS:
1. Plumbing and other piping systems shall be subject to constant inspection and final approval by the project manager/owner and code authorities having jurisdiction. Tests, in addition to those indicated below, shall be performed as directed or required to verify compliance with codes and/or the intent of these specifications as part of the work of this section. Tests shall be repeated until all leaks have been corrected and the systems and meets pressure requirements.
2. Soil, waste and vent piping shall be subjected to a water pressure test equal to the system water pressure but not less than 10 feet of water head for a duration of not less than 2 hours with no leaks found or as required by the local code authority. Underground piping shall be tested prior to covering
3. Water supply piping systems shall be subjected to a hydrostatic test of not less than 150 psi for a duration of not less than 2 hours. Equipment, fittings and valves that may be damaged by the test pressure shall be isolated from the system during testing. Above ground piping shall be tested as a complete system.
4. The complete gas piping system shall be subjected to an air pressure test of not less than 50 psi for a duration of not less than 4 hours. Equipment, fittings and valves that may be damaged by the test pressure shall be isolated from the system during testing. Above ground piping shall be tested as a complete system. Each exposed joint shall be tested again at normal operating pressure after gas has been admitted to the system.
5. Additional testing shall be provided by this contractor as required by local water and gas companies and local plumbing inspector as part of the work of this contract.

CLEANING AND PROTECTION:
1. The contractor shall remove from the job site all debris and leftover materials for which he is responsible, clean and repair all fixtures and equipment and any blemishes in the finish. The contractor shall be responsible for replacing fixtures where damage results from failure to provide protection.
2. After the plumbing piping has been installed, inspected and approved, the piping shall be flushed to remove all foreign material from the piping system and all strainers and valves shall be cleaned.
3. After the system has been flushed, the potable water system shall be disinfected as prescribed by the health authority having jurisdiction, or, in the absence of a prescribed method, the procedure described in AWWA c652, AWWA c5186 or the International Plumbing Code.

MAINTENANCE:
1. All parts of the plumbing system and fixtures shall be maintained by the contractor throughout the guarantee period. One month after acceptance of the building as substantially complete by the owner, the contractor shall test and adjust all fixtures and working parts of the system and place them in good working order and clean all strainers and aerators. The contractor shall coordinate with the store manager for scheduling this work.

sevan
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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION

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SEAL

STATE OF NEW YORK
GREGG J. SCHLUTERMAN
LICENSED PROFESSIONAL ENGINEER
098791

CERTIFICATION
2022.02.18 13:35:31-06'00'
NEW YORK
ALTERATION WARNING
IT IS A VIOLATION OF NEW YORK REGULATION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY WITHOUT AFFIXING TO THE ITEM HIS SEAL AND THE NOTIFICATION "ALTERED BY", FOLLOWED BY A SIGNATURE, DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

MECHANICAL & PLUMBING SPEC'S

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	JAK
REVIEWED BY:	JLM

SHEET NUMBER

SP-5

LIGHTING FIXTURE SCHEDULE

PLAN MARK	MANUFACTURER	CATALOG NO.	LAMP DATA			MOUNTING HEIGHT TO BOTTOM OF LIGHT FIXTURE	FIXT VOLTAGE	TOTAL WATTS PER FIXT	FIXT COUNT
			TYPE	NO.	WATTAGE & LAMPS				
A	COMMERCIAL LIGHTING INDUSTRIES	EL69535DHW	LED	1	LED (1425 LUMENS)	RECESSED DOWN LIGHT MOUNTED IN RESTROOMS, OFFICE, CLOUD, OR GYP. CEILING UNO	UNV	20	11
A1	COMMERCIAL LIGHTING INDUSTRIES	ERT 61240W	LED	1	LED (1050 LUMENS)	RECESSED DOWN LIGHT MOUNTED IN RESTROOMS, OFFICE, CLOUD, OR GYP. CEILING UNO	UNV	15	11
B	COMMERCIAL LIGHTING INDUSTRIES	CITE48LFRF48W5600LLBDM V40K	LED	1	LED (5600 LUMENS)	SURFACE UNLESS NOTED OTHERWISE STRIP LIGHT	UNV	48	16
C	COMMERCIAL LIGHTING INDUSTRIES	LHB24UNVL840CDU	LED	1	LED (24000 LUMENS)	PENDANT MOUNT 14'-0" AFF STRIP LIGHT	UNV	138	10
C-ALT	COMMERCIAL LIGHTING INDUSTRIES	HILFR48LA215W30000LDMV40K	LED	1	LED (30000 LUMENS)	PENDANT MOUNT 14'-0" AFF STRIP LIGHT	UNV	149	10
D	COMMERCIAL LIGHTING INDUSTRIES	EL 760ICDXA/EL685CT5CC (PAINT TRIM BLACK TO MATCH CEILING TILE)	LED	1	LED (3000 LUMENS)	RECESSED DOWN LIGHT MOUNTED IN BLACK CEILING	UNV	24	16
D-ALT	COMMERCIAL LIGHTING INDUSTRIES	CBT22LS35 (PAINT TRIM BLACK TO MATCH CEILING TILE)	LED	1	LED (3330 LUMENS)	RECESSED DOWN LIGHT MOUNTED IN BLACK CEILING. SWITCHABLE LUMEN TECHNOLOGY	UNV	30	16
E	COMMERCIAL LIGHTING INDUSTRIES	LEDR1	2 LED HEADS FURNISHED WITH FIXTURE AT 1 WATT EACH HEAD			WALL MINIMUM AT 1'-0" BELOW CEILING BATTERY PACK	120	2	14
EA	COMMERCIAL LIGHTING INDUSTRIES	RHLED2MV	LED FURNISHED WITH FIXTURE			REMOTE HEAD ON EXTERIOR WALL MINIMUM OF 1'-0" ABOVE DOOR JAMB CONNECTED TO BATTERY SIDE OF EXIT LIGHT	9.6	2	4
F	COMMERCIAL LIGHTING INDUSTRIES	REFER TO ES1.0 FOR FIXTURE INFORMATION	LED	1	LED (3000 LUMEN PANEL)	SEE ARCHITECTURAL ELEVATIONS PREFERRED WALL PACK REFER TO ES-1 FOR MORE INFORMATION	UNV		
S1	COMMERCIAL LIGHTING INDUSTRIES	REFER TO ES1.0 FOR FIXTURE INFORMATION	LED	1	LED (3330 LUMEN PANEL)	REFER TO ES-1 FOR MORE INFORMATION	UNV		
X	COMMERCIAL LIGHTING INDUSTRIES	LEDCXTEU2RWRC (WITH DOUBLE HEADS)			LED FURNISHED WITH FIXTURE	WALL 6" ABOVE DOOR OR SURFACE MOUNTED 1'-0" BELOW CEILING EXIT LIGHT	120	0.2	4

1. ALL LIGHT FIXTURES ARE CONTRACTOR PROVIDED WITH ABSOLUTELY NO SUBSTITUTION ALLOWED WITHOUT PRIOR WRITTEN CONFIRMATION FOR JIFFY LUBE HOME OFFICE. CONTRACTOR RESPONSIBLE FOR VERIFYING QUANTITIES AND REPORT ANY DISCREPANCIES WITH ENGINEER PRIOR TO ORDERING FIXTURES.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF QUANTITY AND LOCATION OF EXIT SIGNS AND EMERGENCY LIGHTS (TYPES "E" AND "X" FIXTURES) WITH LOCAL AUTHORITY HAVING JURISDICTION MAKING ADJUSTMENTS AT NO ADDITIONAL COST TO OWNER.

3. CONSULT WITH THE ABOVE LISTED MFGS FOR PRICING AT PRE-ESTABLISHED CUSTOMER PRICING. THE COMPLETE PACKAGE IS APPROVED AND AVAILABLE AT ESTABLISHED DISCOUNTED PRICING FROM COMMERCIAL LIGHTING INDUSTRIES, 81161 INDIO BLVD, INDIO, CA 92201,800-755-0155. CONTACT FARREN HALCOVICH, FARREN@COMMERCIAL-LIGHTING.NET, FOR PURCHASED ORDER PLACEMENT, AND COORDINATING DELIVERY OF THE PACKAGE.

4. PURCHASER ASSUMES RESPONSIBILITY FOR, AND MUST VERIFY WITH CLI THE FOLLOWING PRIOR TO PURCHASING: VOLTAGE, SPECIFIC MOUNTING DETAILS (INCLUDING RECESSED DOWNLIGHT HANGER BARS IF NON-STANDARD FROM THE MFG), NYC OR CHICAGO CODES, IC RATING, WIND/GUST POLE FACTORS, INTEGRAL LUMINAIRE WIRING GAUGE, CUSTOM REFLECTOR REFLECTANCES, KELVIN TEMPERATURE, DISTRIBUTION, EMERGENCY USE AND DIMMING METHOD. THE ABOVE CATALOG #'S MAY NOT BE COMPLETELY SOLIDIFIED AT TIME OF DRAWING ISSUANCE FOR CONSTRUCTION.

5. A COMPLETE PHOTOMETRIC DRAWING FOR THIS PROJECT AS CURRENTLY DRAWN AND SPECIFIED, HAS BEEN SUBMITTED TO APPROVING AUTHORITIES AS APPLICABLE. ANY SUBSTITUTIONS OR CHANGES NULLIFY THE REPORT AND COMPLIANCE AND ARE STRICTLY FORBID WITHOUT WRITTEN APPROVAL FROM THE OWNER, ARCHITECT OR LIGHTING DESIGNER - NO SUBSTITUTIONS ARE ALLOWED.

6. THE PURCHASING PARTY IS RESPONSIBLE FOR SOLIDIFYING THE LIGHTING PACKAGE IN COMPLIANCE WITH THE STATE ENERGY CODE, BOTH WITH RESPECT TO LIGHTING POWER DENSITY (LPD) AND THE USE OF MANDATED CONTROLS (DIMMER, PHOTOCELLS OCCUPANCY SENSORS, ETC.). CONSULT WITH ISTVAN DERZSI, SR. LIGHTING DESIGNER OF COMMERCIAL LIGHTING 323-905-2220 TO ENSURE COMPLIANCE PRIOR TO ORDERING.

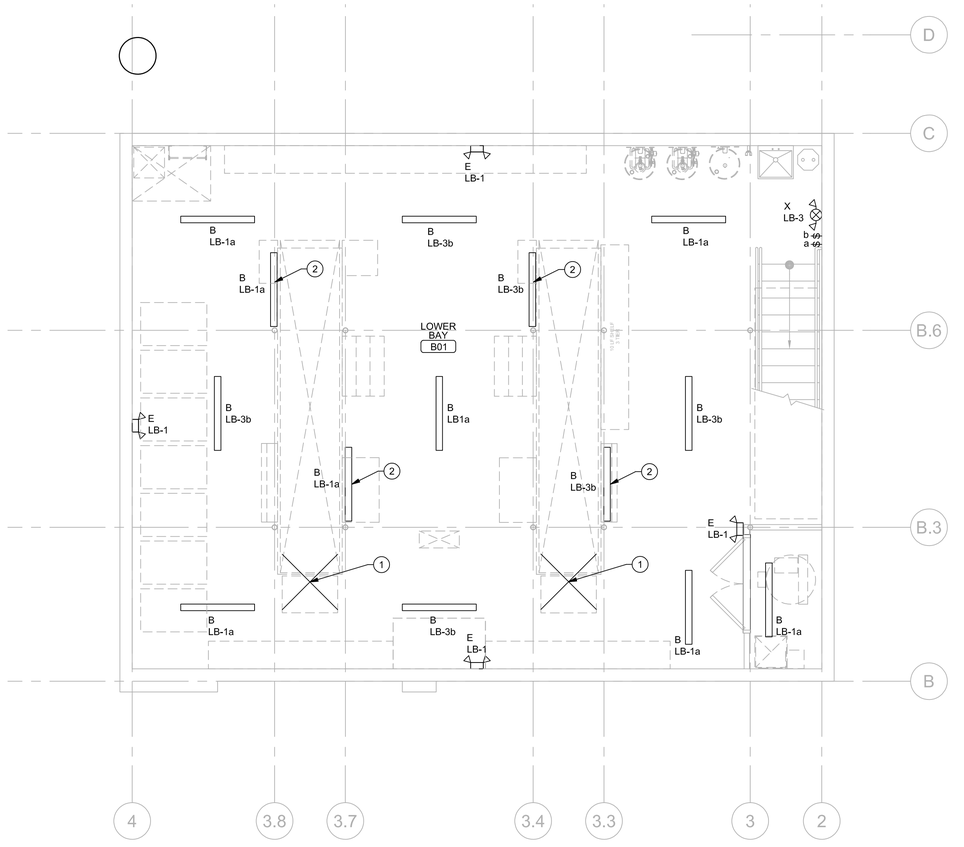
7. THE CONTROL SYSTEM BEING IMPLEMENTED HAS BEEN DESIGNED PER MEETINGS WITH OWNER AND ARCHITECT, DETERMINING THE COMPLETE REQUIREMENTS OF THE SYSTEM, AND ENGINEERED TO THE EXACT SPECIFICATIONS OF THE LUMINAIRES IN THIS SCHEDULE, AND IN COMPLIANCE WITH THE STATE ENERGY CODE, ANY CHANGES TO THE ABOVE WOULD AFFECT THE CONTROLS ENGINEERING AND THUS WOULD REQUIRE RESUBMISSION TO ALL PARTIES: OWNER, ARCHITECT, LIGHTING DESIGNER, CONTROLS MANUFACTURER AND STATE ENERGY COMPLIANCE DEPARTMENT.

8. THE METHOD OF DIMMING EACH FIXTURE TYPE (GENERALLY EITHER NON-DIM, ELV/FLV, 0-10V OR DILE/ECOSYSTEM) MAY NOT HAVE BEEN KNOWN AT THE TIME OF PRELIMINARY SPECIFICATIONS SUBMISSION. SOME LUMINAIRES MAY BE AVAILABLE WITH DIFFERENT DIMMING THAN IS INDICATED - SEE THE CATALOG CUTS. WHEN REQESTING A QUOTATION, AND ORDERING, THE PURCHASER MUST VERIFY THE DIMMING METHOD DESIRED (TO MATCH THE WIRING AND TYPE OF DIMMING THAT WILL GET INSTALLED) OF EACH TYPE AND REQUEST THE QUOTATION ACCORDINGLY. ONCE PRODUCT IS ON SITE, THE WHEREVER POSSIBLE IF USING CENTRAL CONTROL SYSTEM - SAME, OTHERWISE, ANY LUMINAIRE THAT IS NOT 0-10V OR COMBO ELV/120V, IS SPECIFIED AS ELV BECAUSE IT CAN NOT BE ASSUMED THAT LV WIRING WILL BE RUN.

9. WIRING: 120V LEADING EDGE DIMMERS (OLD TECHNOLOGY FOR MOSTLY INCANDESCENT FIXTURES) AKA TRIAC/120V DIMMING, AND 120V TRAILING EDGE DIMMERS AKA ELV DIMMING (UTILIZING STANDARD 3 WIRE WITH / BLACK / GREEN) ARE NOT INTERCHANGEABLE WITH 0-10V DIMMING WHICH HAS TWO ADDITIONAL LOW VOLTAGE WIRES (GREY/VIOLET) FOR ANALOG CONTROL SIGNAL, USING NE VOLT INCREMENTS FROM 0 TO 10, THUS DIMMING THE LED FIXTURES DOWN TO 10% OR EVEN 1% EACH FIXTURE MUST BE ORDERED WITH THE APPROPRIATE 120V OR THE 0-10V DRIVER DEPENDING ON WHICH WILL DIM IT, THEY ARE NOT INTERCHANGEABLE. DO NOT ASSUME A FIXTURE WITH 0-10V IS "STANDARD" AND WILL THUS DIM CORRECTLY IF ONLY 120V DIMMING IS AVAILABLE. VOLTAGE: VOLTAGE TO BE VERIFIED. SEE VOLT COLUMN: DV-MEANS DUAL-VOLT-FIXTURES COMES COMPATIBLE FOR EITHER 120 OR 277 VOLT. MV MEANS MULTI-VOLT-FIXTURES COME COMPATIBLE FOR EITHER 120/208/240/277/347 VOLTS. TBD MEANS THE FIXTURE COMES IN 120 OR 277 BUT NOT BOTH AND THUS THE VOLTAGE FOR THESE FIXTURES MUST BE VERIFIED PRIOR TO ORDERING.

(#) ELECTRICAL LIGHTING - LOWER BAY KEYED NOTES

1. ROLL DRAIN PAN CLEARANCES MAINTAIN A 36" SQUARE AREA CLEARANCE OF ALL CONDUIT, LIGHTS, AND DEVICES IN THIS AREA.
2. MOUNT LIGHT FIXTURE ON BRACKETS AND AT AN ANGLE, SEE 1/A-13.1.



1 / E1 LIGHTING PLAN - LOWER BAY
SCALE: 1/4" = 1'-0"

PLAN NORTH

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REVISIONS

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JAIME A. CASTANEDA
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092954-1
LICENSED PROFESSIONAL ENGINEER

CERTIFICATION

NEW YORK
ALTERATION WARNING
IT IS A VIOLATION OF NEW YORK REGULATION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY WITHOUT AFFIXING TO THE ITEM HIS SEAL AND THE NOTIFICATION "ALTERED BY", FOLLOWED BY A SIGNATURE, DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

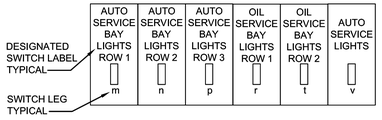
LIGHTING PLAN - LOWER BAY

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	ARM
REVIEWED BY:	JAC

SHEET NUMBER

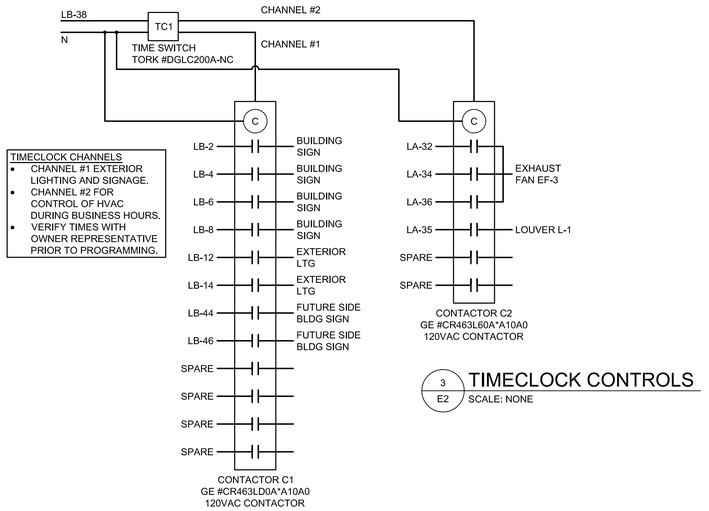
E-1



2 / E2 BAY LIGHTING SWITCH BANK
SCALE: NONE

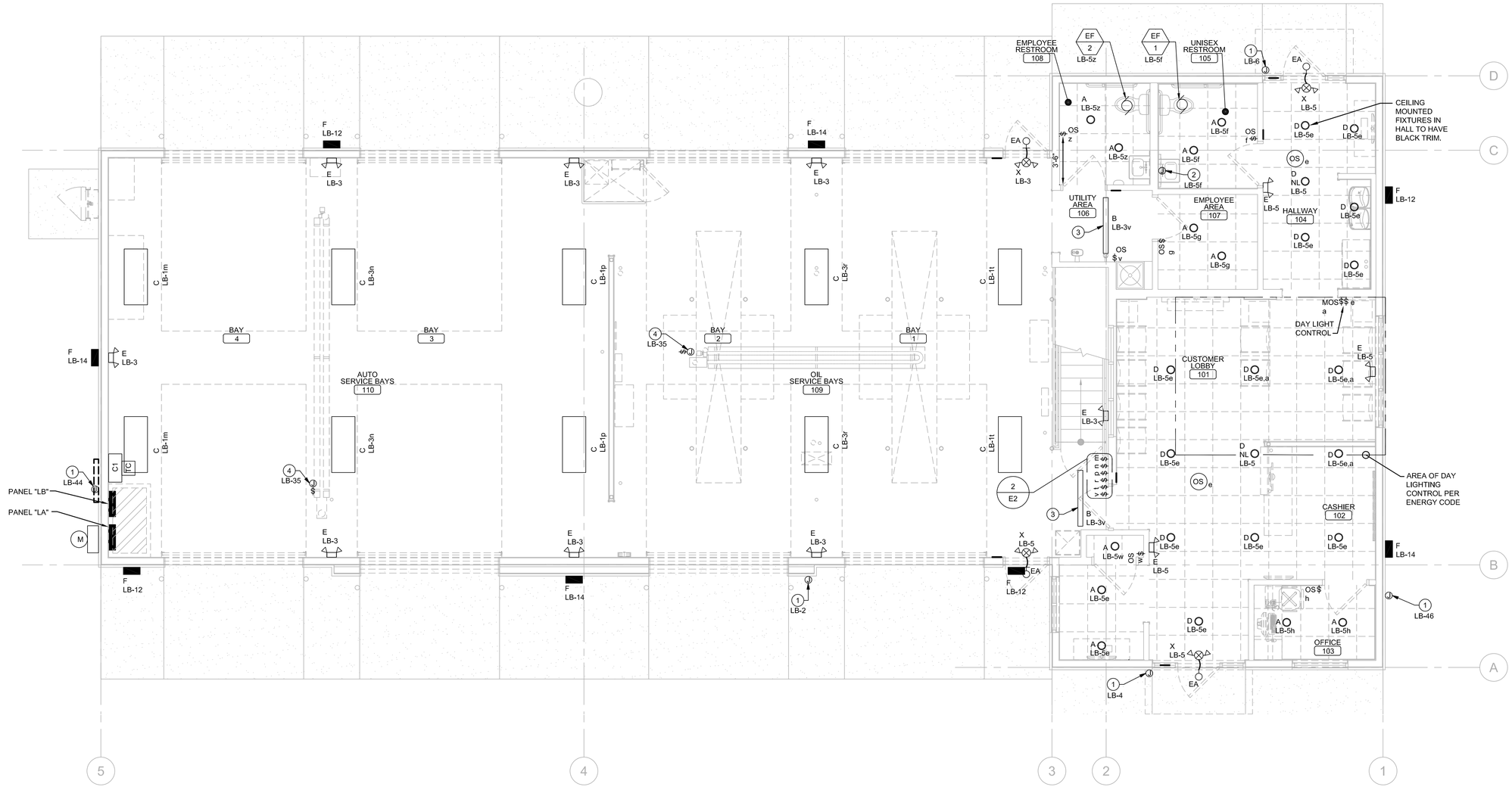
(#) ELECTRICAL LIGHTING - UPPER BAY KEYED NOTES

1. EXTERIOR SIGN PROVIDE JUNCTION BOXES. FIELD VERIFY WITH SIGN CONTRACT VENDOR FOR THE EXACT LOCATION AND NUMBER OF JUNCTION BOXES REQUIRED TO MAKE A COMPLETE AND WORKING SYSTEM, AND ROUTE CIRCUITS THRU TIME CLOCK AND CONTACTOR LOCATED NEXT TO PANEL. DISCONNECT MEANS FURNISHED WITH SIGN BY SIGN VENDOR.
2. RESTROOM "LED" LIGHTED MIRROR PROVIDE JUNCTION BOX MOUNTED AT 72" AFF MIRROR PROVIDED BY OTHER TRADE CONTRACTOR
3. FIXTURE PENDANT MOUNTING HEIGHT AT 14'-0" AFF FOR THIS FIXTURE ONLY.
4. GAS RADIANT HEATER PROVIDE ALL REQUIRED DEVICES AND EQUIPMENT TO MAKE A COMPLETE WORKING SYSTEM. COORDINATE LOCATION WITH OTHER TRADES.
5. ELECTRONIC MESSAGE CENTER (EMC) WHEN INCLUDED IN PROJECT IS TO BE ON TIME CLOCK.



TIMECLOCK CHANNELS
- CHANNEL #1 EXTERIOR LIGHTING AND SIGNAGE.
- CHANNEL #2 FOR CONTROL OF HVAC DURING BUSINESS HOURS.
- VERIFY TIMES WITH OWNER REPRESENTATIVE PRIOR TO PROGRAMMING.

3 / E2 TIMECLOCK CONTROLS
SCALE: NONE



1 / E2 LIGHTING PLAN - UPPER BAY
SCALE: 1/4" = 1'-0"

PLAN NORTH

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

LIGHTING PLAN - UPPER BAY

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	ARM
REVIEWED BY:	JAC

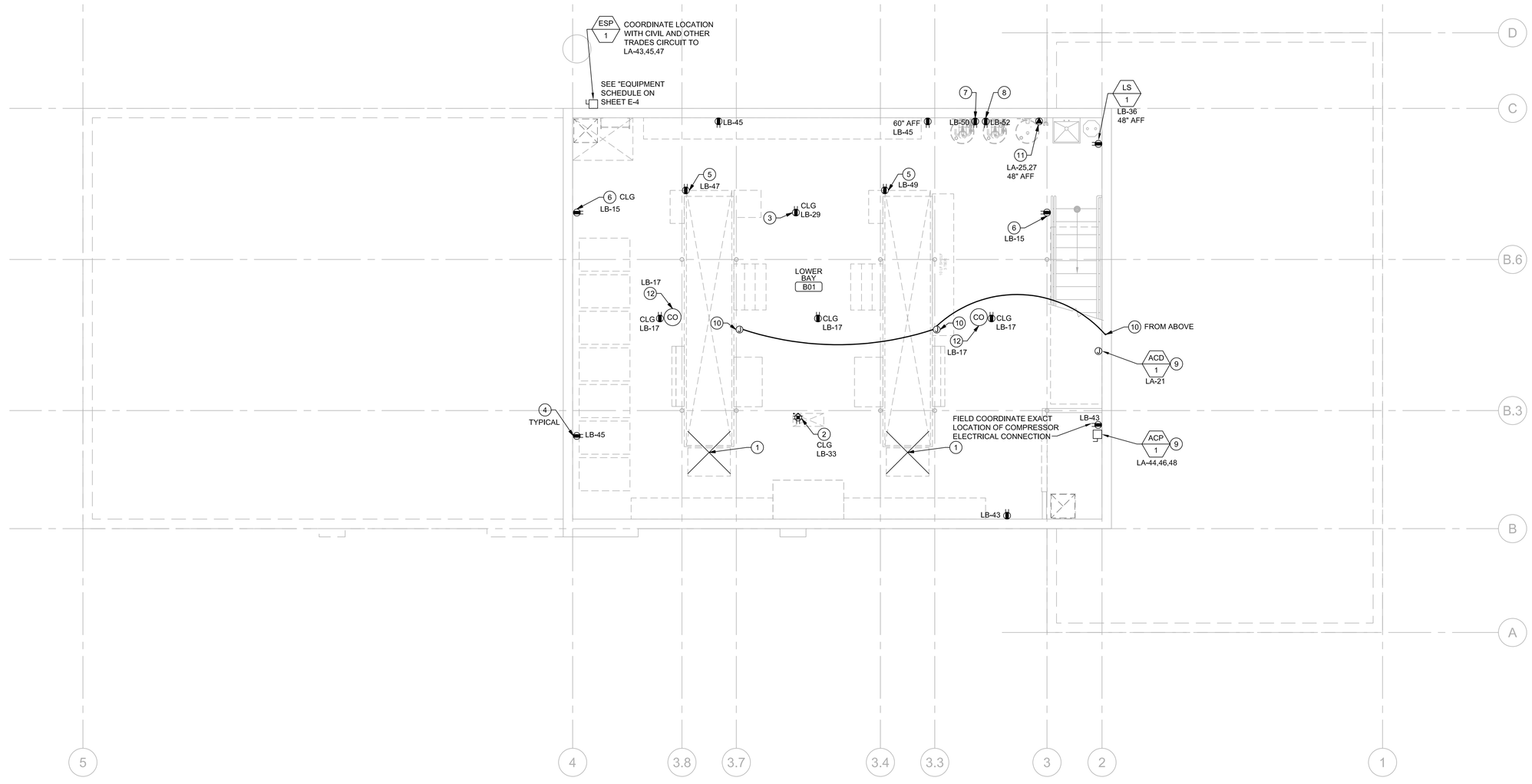
SHEET NUMBER

E-2

DROP	COMPUTER EQUIPMENT	LOCATION
D-01	BAY TERMINAL 01	LUBE BAYS
D-01A	BAY TERMINAL 01	LUBE BAYS
D-02	BAY TERMINAL 02	LUBE BAYS
D-02A	BAY TERMINAL 02	LUBE BAYS
D-03	BAY TERMINAL 03	MULTICARE BAYS
D-03A	BAY TERMINAL 03	MULTICARE BAYS
D-04	BAY TERMINAL 04	MULTICARE BAYS
D-04A	BAY TERMINAL 04	MULTICARE BAYS
D-05	WiFi (MOUNT +84" AFF)	LUBE BAYS
D-06	TV +68" AFF	CUSTOMER WAITING
D-07	BAY TERMINAL 05	CUSTOMER SALES
D-08	BAY TERMINAL 06	CUSTOMER SALES
D-09	BAY TERMINAL - CASHIER	CASHIER
D-10	OPEN - FUTURE	CASHIER
D-11	STATIC STICKER (R45) CONNECTION AT ONE END	CASHIER
D-12	OPEN - FUTURE	CASHIER
D-13	TRAINING	EMPLOYEE AREA
D-13A	TRAINING	EMPLOYEE AREA
D-14	OPEN - FUTURE	MANAGER'S OFFICE
D-15	MOTHERSHIP	MANAGER'S OFFICE
D-16	STORE PHONE (RG6)	MANAGER'S OFFICE
D-17	FUTURE RG6	LUBE BAYS
D-18	FUTURE CAT 6	LUBE BAYS
C-01	CABLE ONLY AT	MULTICARE BAYS
C-02	+96 AFF FOR C-01	MULTICARE BAYS
C-03	THRU C-04	LUBE BAYS
C-04		CUSTOMER WAITING

(#) ELECTRICAL POWER - LOWER BAY KEYED NOTES

1. ROLL DRAIN PAN CLEARANCES MAINTAIN A 36" SQUARE AREA CLEARANCE OF ALL CONDUIT, LIGHTS, AND DEVICES IN THIS AREA.
2. LUBE CONSOLE MOUNT RECEPTACLE TO BASEMENT CEILING AND STUB-UP CONDUIT TO "OIL SERVICE LUBE CONSOLE" ON MAIN "OIL SERVICE BAY" FLOOR.
3. VACUUM SYSTEM MOUNT RECEPTACLE TO BASEMENT CEILING AND STUB-UP CONDUIT INSIDE FLOOR CUT OUT FOR "ON/OFF" SWITCH MOUNTED TO "VACUUM STAND" ON "OIL SERVICE BAY" FLOOR
4. DEVICES SHOWN IN THIS AREA SHALL BE SURFACE MOUNTED AT 72" AFF UNO.
5. PIT FAN RECEPTACLE TO BE MOUNTED AT CEILING AT END OF PIT OPENING.
6. HAND VACUUM PIT RECEPTACLE TO BE MOUNTED ON CEILING.
7. ANTI-FREEZE PUMP RECEPTACLE SURFACE MOUNTED AT 72" AFF.
8. ANTI-FREEZE BACK-UP PUMP RECEPTACLE SURFACE MOUNTED AT 72" AFF.
9. AIR COMPRESSOR AND AIR COMPRESSOR DRYER MAKE ALL FINAL POWER CONNECTIONS AND TERMINATION TO BOTH PER MANUFACTURERS SPECIFICATIONS.
10. CAMERA JUNCTION BOX SURFACE MOUNTED ON CEILING DECK WITH BLANK COVER PLATE AND LABELED "FOR CAMERA", ROUTE 3/4" C. WITH CAT6 WIRE TO DECK AND STUB UP AND ROUTE TO CLOSET. TERMINATE AND LABEL WIRE IN CLOSET. GC SCOPE TO INCLUDE FURNISHING AND INSTALLING ALL CAT 6 CABLING, 48 PORT PATCH PANEL, AND 24 6" PATCH CABLES
11. WATER PIPING HEAT TRACE #TYCO 8XL2-CR HEATING CABLE FOR ALL WATER PIPING IN THIS AREA, INSTALL PER MANUFACTURER'S SPECIFICATIONS. MAXIMUM 275 FEET PER 208V, SINGLE PHASE, 20A CIRCUIT (GFP) AT PANEL. COORDINATE EXACT LOCATION AND LENGTH WITH OTHER TRADES PLANS.
12. PROVIDE FIRST ALERT #CO5120BN CARBON MONOXIDE DETECTOR. CARBON MONOXIDE DETECTORS SHALL BE SURFACE MOUNTED TO THE CEILING AND HARD WIRED. COORDINATE LOCATIONS WITH AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN. CONTRACTOR TO PROVIDE CERTIFICATION ON TESTING AND CALIBRATION OF CARBON MONOXIDE DETECTORS IN PIT ROOM PER AUTHORITY HAVING JURISDICTION.



1 E3 POWER PLAN - LOWER BAY
SCALE: 1/4" = 1'-0"

PLAN NORTH

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CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

POWER PLAN - LOWER BAY

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	ARM
REVIEWED BY:	JAC

SHEET NUMBER

E-3

ELECTRICAL GENERAL NOTES

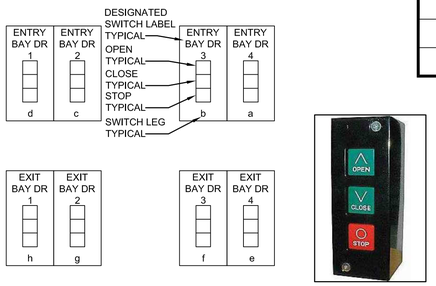
1. CAMERAS BY FRANCHISEE OPERATOR.
2. ALL DATA WIRE FOR COMPUTERS AND SECURITY TO IT CLOSET BY GC.
3. ALL LINES TO BE LABELED AT BOTH ENDS.
4. ALL WIRING BY LOW VOLTAGE WIRING CONTRACTOR (HIRED BY GC.).
5. 48 PORT PATCH WALL MOUNTED PANEL (TRIPP LITE OR EQUAL) AND 48 PATCH CABLES TO BE PROVIDED BY LOW VOLTAGE INSTALLER (HIRED BY GC.).
6. THERE SHOULD BE NO FUTURE DATA, ALL DATA LINES TO BE INSTALLED AT TIME OF CONSTRUCTION.
7. ALL CONDUIT RUN IN THE SERVICE BAY CEILING SHALL BE RUN ABOVE BOTTOM CORD OF JOISTS.
8. ALL 125 VOLT, 15 AND 20 AMPERE RECEPTACLES INSTALLED IN COMMERCIAL GARAGES (SERVICE AREAS) SHALL HAVE GROUND-FAULT-CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL.
9. CONTRACTOR TO INSTALL ALL RECEPTACLES AND CONDUIT IN SERVICE BAYS MORE THAN 18" ABOVE THE FLOOR TO AVOID THE REQUIREMENTS OF DEVICES IN A HAZARDOUS LOCATION. REFER TO 2017 NATIONAL ELECTRICAL CODE ARTICLE 511 FOR DETAIL INFORMATION.
10. ELECTRICAL CONTRACTOR TO COORDINATE PRECUT MILLWORK OPENING FOR ELECTRICAL/DATA AT CSA STATION(S), COFFEE STATION, POS COUNTER AND MEDIA STATION (IF PROVIDED).
11. PATCH PANEL AND RACK TO BE TRIPP LITE 48-PORT 2U RACKMOUNT CAT5e PATCH PANEL, 568B, RJ45 ETHERNET AND TRIPP LITE N060-004 4U WALL MOUNT HINGED PATCH BRACKET.
12. GC TO PROVIDE ALL CAT 6 WIRING FOR COMPUTERS WITH PATCH PANEL AND PATCH CABLES IN CLOSET.

EQUIPMENT SCHEDULE

PLAN MARK	EQUIPMENT SERVED	LOAD	VOLT/ PHASE	FED BY	DISC BY	FLA	MOCPD	FEEDER	REMARKS
ACD-1	AIR COMPRESSOR DRYER	0.12KVA	120/1	LA	N/A	1.0A	20A	(2)#12,#12G 1/2"C	DISC SW FURN WITH EQUIP.
ACP-1	AIR COMPRESSOR	6.30KVA	208/3	LA	EC	17.5A	30A	(3)#10,#10G 1/2"C	30 AMP, 3 POLE NON-FUSED MOUNT ON WALL AT 48" AFF
BL-1	BRAKE LATHE	1.80KVA	120/1	LA	N/A	15.0A	20A	(2)#12,#12G 1/2"C	NEMA "L5-20R" RECEPTACLE
EF-1	EXHAUST FAN 1	0.12KVA	120/1	LB	EC	1.0A	20A	(2)#12,#12G 1/2"C	30 AMP, 1 POLE TOGGLE SWITCH
EF-2	EXHAUST FAN 2	0.12KVA	120/1	LB	EC	1.0A	20A	(2)#12,#12G 1/2"C	30 AMP, 1 POLE TOGGLE SWITCH
EF-3	EXHAUST FAN	1.15KVA	208/3	LA	EC	3.2A	20A	(3)#12,#12G 1/2"C	30 AMP, 3 POLE WP NON-FUSED, ROUTE THRU TIME CLOCK "TC2" TO RUN 30 MIN. PRIOR TO STORE OPENING AND 30 MIN AFTER STORE CLOSES AND INTERLOCKED WITH "L-1"
ESP-1	EXTERIOR SUMP PUMP	8.32KVA	208/3	LA	EC	23.1A	30A	(3)#10,#10G 1/2"C	30 AMP, 3 POLE NON-FUSED
I-1	INFLATOR	0.42KVA	120/1	LA	N/A	3.5A	20A	(2)#12,#12G 1/2"C	
L-1	THRU THEWALL LOUVER	0.53KVA	120/1	LA	EC	4.4A	20A	(2)#12,#12G 1/2"C	TO BE INTERLOCKED WITH EF-3 SO WHEN EF-3 IS RUNNING L-1 IS POWERED AND OPEN
LL-1	LUBE LIFT	2.08KVA	208/1	LA	N/A	10.0A	20A	(2)#12,#12G 1/2"C	DISC SW FURN WITH EQUIP.
LL-2	LUBE LIFT	2.08KVA	208/1	LA	N/A	10.0A	20A	(2)#12,#12G 1/2"C	DISC SW FURN WITH EQUIP.
LS-1	LIFT STATION	0.86KVA	120/1	LB	N/A	7.2A	20A	(2)#12,#12G 1/2"C	NEMA "5-20R" RECEPTACLE (SHOWN ON PROTOTYPE VERIFY PER PROJECT WITH MECHANICAL SCHEDULE)
RTU-1	ROOF TOP UNIT	8.65KVA	208/3	LA	EC	24.0A	35A	(3)#8,#10G 3/4"C	60 AMP, 3 POLE WP NON-FUSED
TC-1	TIRE CHANGER	2.08KVA	208/1	LA	N/A	10.0A	20A	(2)#12,#12G 1/2"C	NEMA "L6-20R" RECEPTACLE
VL-3	VEHICLE LIFT	1.62KVA	208/1	LA	EC	7.8A	20A	(2)#12,#12G 1/2"C	30 AMP, 2 POLE NON-FUSED MOUNTED ON LIFT POST AT 48" AFF
WB-1	WHEEL BALANCER	0.62KVA	208/1	LA	N/A	3.0A	20A	(2)#12,#12G 1/2"C	NEMA "L6-20R" RECEPTACLE
WH-1	WATER HEATER	2.00KVA	120/1	LA	EC	16.7A	30A	(2)#10,#10G 1/2"C	30 AMP, 1 POLE TOGGLE SWITCH

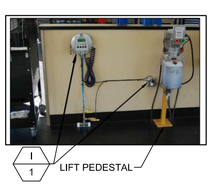
ELECTRICAL POWER - UPPER BAY KEYED NOTES

1. CABINET BELOW TV FOR CABLE BOX PROVIDE ONE DUPLEX RECEPTACLE FOR CABLE BOX DEVICES AND ONE DATA OUTLET TO BE MOUNTED ON WALL AT 1'-6" AFF TO ALIGN WITH CABINET CUT-OUT, ROUTE 1" CONDUIT FOR DATA UP WALL TO TERMINATION POINT ABOVE (SEE NOTE 2).
2. TELEVISION AND/OR DATA CABLE CONNECTION PROVIDE ONE CLOCK TYPE OUTLET AND ONE DATA OUTLET TO BE MOUNTED ON WALL BEHIND TV APPROXIMATELY 6'-10" AFF (ALIGN VERTICALLY WITH CABINET, SEE NOTE 1). GC SCOPE TO INCLUDE FURNISHING AND INSTALLING ALL CAT 6 CABLING.
3. COMBINATION RECEPTACLE "USB" PORT AND CHARGER PROVIDE EATON # TR7746-W WITH WHITE COVER PLATE AND DEVICE.
4. LUBE CONSOLE WIRE FROM RECEPTACLE MOUNT ON BASEMENT CEILING TO CONSOLE MOUNTED ON FLOOR, COORDINATE WITH ALL CEILING MOUNTED DEVICES.
5. VACUUM SYSTEM STUB-UP 1/2" CONDUIT TO SWITCH FROM RECEPTACLE LOCATED IN BASEMENT, AND MOUNT SWITCH TO "VACUUM STAND", AS DIRECTED IN FIELD BY OWNERS FIELD REPRESENTATIVE.
6. INCOMING POWER SERVICE PROVIDE UNDERGROUND CONDUIT AND WIRE COORDINATE WITH CIVIL DRAWINGS FOR LOCATION OF UTILITY TRANSFORMER. SEE "RISER DIAGRAM" ON SHEET "E-5" FOR FURTHER INFORMATION.
7. INCOMING TELEPHONE SERVICE COORDINATE WITH CIVIL DRAWINGS AND PROVIDE (2) 2" CONDUITS WITH PULL WIRE, ROUTE UNDERGROUND FROM TELEPHONE COMPANY D'MARC TO TELEPHONE BACKBOARD, CONTRACTOR TO PROVIDE 4' X 8' X 3/4" PLYWOOD FOR TELEPHONE BACKBOARD..
8. CASHIER, GREETING STATIONS AND SERVICE PODIUM CASHIER AND GREETING MOUNT DEVICE ON THE WALL, SERVICE PODIUM MOUNT DEVICES ON CABINET AND CONNECT FROM FLOOR MOUNTED JUNCTION BOXES TO DEVICE WITH FLEX CONDUIT.
9. SITE SIGN AND ELECTRONIC MESSAGE CENTER (EMC) PROVIDE (2) 1" CONDUIT ONE FOR SIGN WITH 2 # 10, 1 # 10 (G), AND THE OTHER WITH PULL WIRE FOR FUTURE ELECTRONIC MESSAGE CENTER, COORDINATE WITH CIVIL FOR LOCATION. GC TO VERIFY WITH THE SIGN VENDOR IF AN EMC HAS BEEN SELECTED TO DETERMINE IF SITE WILL NEED WIRE AND/OR PULL STRING.
10. WHEEL ALIGNMENT CONTROL PANEL MOBIL UNIT RECEPTACLE AND DATA BOX, MOUNTED AT 36" AFF. NOTE WHEN ORDERING THIS UNIT CONTRACTOR TO VERIFY THAT UNIT IS TO BE EQUIPPED WITH BATTERY BACK-UP FOR COMPUTER SYSTEM, CONTRACTOR TO CONTACT "HUNTER" REPRESENTATIVE TO CONFIRM TYPE OF BATTERY BACK-UP RECOMMENDATION.
11. LOWER LEVEL CAMERA CONDUIT STUB-UP CONTINUE ROUTING TO CLOSET AND STUB OUT CONDUIT WITH INSULATED BUSHING 1'-0" BELOW CEILING IN CLOSET LOCATED IN OFFICE AND LABEL CONDUIT END "FOR LOWER LEVEL CAMERAS". GC SCOPE TO INCLUDE FURNISHING AND INSTALLING ALL CAT 6 CABLING.
12. CAMERA EXTERIOR JUNCTION BOX TO BE MOUNTED ON WALL AT 8'-0"/10'-0" AFF WITH BLANK COVER PLATE AND LABELED JUNCTION BOXES FOR "CAMERA", ROUTE 3/4" C. WITH CAT6 WIRE ABOVE CEILING AND STUB DOWN IN CLOSET TURN OUT CONDUIT 1-0" BELOW CLOSET CEILING WITH INSULATED BUSHING AND LABELED END OF CONDUIT. REFER SHEET A4 FOR LOCATIONS. GC SCOPE TO INCLUDE FURNISHING AND INSTALLING ALL CAT 6 CABLING.
13. CAMERA INTERIOR JUNCTION BOX TO BE MOUNTED ON WALL AT 8'-0" AFF WITH BLANK COVER PLATE AND LABELED JUNCTION BOXES FOR "CAMERA", ROUTE 3/4" C. WITH CAT6 WIRE ABOVE CEILING AND STUB DOWN IN CLOSET TURN OUT CONDUIT 1-0" BELOW CLOSET CEILING WITH INSULATED BUSHING AND LABELED END OF CONDUIT. GC SCOPE TO INCLUDE FURNISHING AND INSTALLING ALL CAT 6 CABLING.
14. CONDUIT LOCATION IN CLOSET FOR CAMERA SEE NOTES 11,12, AND 13. GC SCOPE TO INCLUDE FURNISHING AND INSTALLING ALL CAT 6 CABLING.
15. DATA JUNCTION BOX TO BE MOUNTED ON WALL AT 48" AFF WITH BLANK COVER PLATE AND LABELED JUNCTION BOXES FOR DATA, ROUTE 3/4" C. WITH CAT6 WIRE ABOVE CEILING AND STUB DOWN IN CLOSET TURN OUT CONDUIT 1'-0" BELOW CLOSET CEILING WITH INSULATED BUSHING. (HIRED BY GC.) GC SCOPE TO INCLUDE FURNISHING AND INSTALLING ALL CAT 6 CABLING.
16. OVERHEAD DOOR OPERATOR PROVIDE 1/3HP, 120 VOLT, SINGLE PHASE MOTOR, MOTOR AND TOGGLE DISCONNECT SWITCH TO BE LOCATED AT TOP RIGHT SIDE OF THE DOOR TRACK AS YOU ARE LOOKING FROM THE INSIDE OUT, PER MANUFACTURERS INSTALLATION INSTRUCTIONS, WIRE ALL DEVICES (INCLUDING OPERATING SWITCHES WHICH ARE MOUNTED ON WALL AS SHOWN, "SEE SWITCH DETAIL" 3/E-4), FOR DOOR OPERATION PER WIRING DIAGRAM PROVIDED BY MANUFACTURER, AND VENDOR, TO MAKE A COMPLETE AND WORKING SYSTEM.
17. PROVIDE PVC SLEEVE FOR 12"X12" BELL HOSE THROUGH WALL INTO SLAB MOUNTED VALVE BOX , PROVIDE 2" CONDUIT UNDER SLAB ALONG CURB. DAYLIGHT THROUGH CURB AT DIRECTION OF JLI REP.
18. DOWN SPOUT HEAT TRACE #RAYCHEM #734921-000 HEATING CABLE FOR ALL DOWN SPOUTS IN THIS AREA, INSTALL PER MANUFACTURER'S SPECIFICATIONS. MAXIMUM 200 FEET PER 120V, 20A CIRCUIT (GFP) AT PANEL. COORDINATE EXACT LOCATION AND LENGTH WITH OTHER TRADES PLANS.



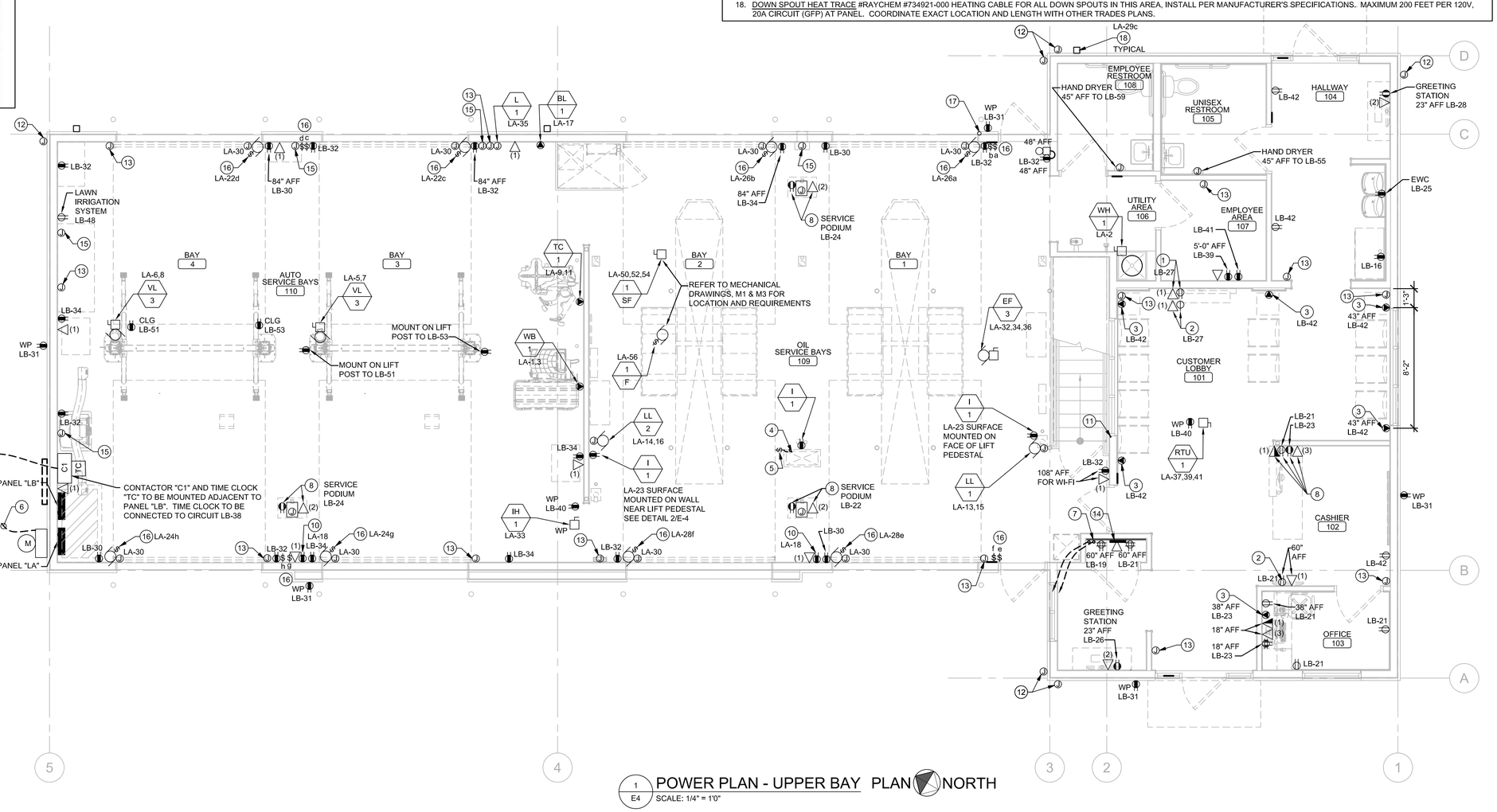
OVERHEAD DOOR SWITCHES

3/E4 SCALE: NONE



INFLATOR MOUNTING DETAIL

2/E4 SCALE: NONE



POWER PLAN - UPPER BAY

1/E4 SCALE: 1/4" = 1'0"

PLAN NORTH

sevan
DESIGN SOLUTIONS, P.C.
Corporate Office:
3025 Highland Parkway | Suite 850
Downers Grove, IL 60515
Phone: 317.756.7778
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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

REVISIONS

NO.	DATE	DESCRIPTION

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SEAL

STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
2022.02.17 15:40:26 -05'00'
092954-1

CERTIFICATION

NEW YORK
ALTERATION WARNING

IT IS A VIOLATION OF NEW YORK REGULATION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY WITHOUT AFFIXING TO THE ITEM HIS SEAL AND THE NOTIFICATION "ALTERED BY", FOLLOWED BY A SIGNATURE, DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

POWER PLAN - UPPER BAY

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	ARM
REVIEWED BY:	JAC

SHEET NUMBER

E-4

GENERAL NOTES

A. BEFORE SUBMITTING THE BID PROPOSAL, CONTRACTOR SHALL VISIT THE JOB SITE AND FULLY ACQUAINT HIMSELF WITH THE JOB CONDITIONS AND VERIFY SERVICE CONNECTION. INCLUDING ALL NECESSARY PULL BOXES, SIZE AND NUMBER OF CONDUITS AND CONDUCTORS, SWITCH GEAR, METERING, CABLE CHARGES ETC., WHETHER SHOWN ON DRAWINGS OR NOT BUT REQUIRED BY SERVING UTILITY COMPANY TO MAKE A COMPLETE AND OPERATING ELECTRICAL SERVICE WITHOUT ADDITIONAL COST TO THE OWNER. VERIFY SERVICES AND CHARGES WITH POWER AND TELEPHONE COMPANIES.

B. CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES AND VERIFY REQUIREMENTS OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS AND ALL SPECIFICATIONS, AND SHALL PROVIDE ALL ITEMS REQUIRED BY THESE TRADES FOR A COMPLETE INSTALLATION. IF CONFLICT OCCURS DUE TO THIS CONTRACTORS LACK OF COORDINATION WITH OTHER TRADES, ALL WORK INVOLVED IN RESOLVING THE CONFLICT WILL BE AT THE EXPENSE OF THIS CONTRACTOR.

C. RUN OVERCURRENT PROTECTION AND DISCONNECT MEANS SHALL BE INSTALLED ON ALL MOTORS TO COMPLY WITH CODE.

D. ALL DISCONNECT SWITCHES SHALL BE "HORSEPOWER RATED" FOR THE MOTOR CONNECTED.

E. "FLUORESCENT" AND "HID" BALLASTS SHALL COMPLY WITH ALL APPLICABLE STANDARDS AND CODES.

F. ELECTRICAL WORK AND MATERIALS SHALL COMPLY WITH LATEST "NEC" AND ALL LOCAL CODES AND ORDINANCES. IN CASE OF CONFLICT AMONG REQUIREMENTS, THE MORE RESTRICTIVE SHALL APPLY.

G. LIGHTING FIXTURES AND ELECTRICAL DEVICES FOR USE OUTSIDE THE BUILDING SHALL BE WEATHERPROOF.

H. GROUND ELECTRICAL EQUIPMENT PER "NEC" AND LOCAL CODE REQUIREMENTS.

I. ALL CONDUCTORS SHALL BE # 12 AWG. EXCEPT AS OTHERWISE NOTED OR AS REQUIRED FOR VOLTAGE DROP (SEE SPECIFICATION). ALL CONDUIT TO BE ONE-HALF INCH (1/2") EXCEPT AS OTHERWISE NOTED.

J. MEMBRANE PENETRATIONS OF ONE (1) HOUR FIRE BARRIER WALL BY STEEL ELECTRICAL BOXES ARE NOT TO EXCEED SIXTEEN (16) SQUARE INCHES IN AREA, PROVIDED THE AGGREGATE AREA OF THE OPENING THROUGH THE MEMBRANE DOES NOT EXCEED ONE-HUNDRED (100) SQUARE FEET OF WALL AREA. THE ANNULAR SPACE BETWEEN THE WALL MEMBRANE AND THE BOX SHALL NOT EXCEED ONE-EIGHTH (1/8") OF AN INCH. BOXES ON OPPOSING SIDES OF A PARTITION SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN TWENTY-FOUR (24") INCHES.

K. CONTRACTOR TO PROVIDE WARNING LABEL ON ALL ELECTRICAL EQUIPMENT (SWITCH BOARDS, PANEL BOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS) TO NOTIFY QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS PER NEC 110.16.

L. ALL WIRING IN EXPOSED OPEN CEILING SHALL BE IN METAL CONDUIT PAINTED TO MATCH CEILING, ABSOLUTELY NO ROMEX OR FLEX CONDUIT ALLOWED.

M. ALL EXTERIOR CONDUIT SHALL BE MINIMUM OF ONE INCH (1") AND A MINIMUM OF THIRTY-SIX INCHES (36") BELOW FINISHED GRADE, EXCEPT AS NOTED OTHERWISE.

N. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE "AIC" (AVAILABLE INTERCEPTING CURRENT) AT THE TERMINATION OF THE INCOMING SERVICE FROM THE UTILITY COMPANY. IF THE LET THROUGH CURRENT AT THE SERVICE DISCONNECT IS GREATER THAN 10,000 AIC CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE "POR" (PROFESSIONAL OF RECORD) WITH THE CORRECT INFORMATION SO THE "POR" MAY DETERMINE THE APPROPRIATE COARSE OF ACTION.

O. ALL EQUIPMENT IDENTIFIED AS OPTIONAL MUST BE COORDINATED WITH CONSTRUCTION REPRESENTATIVE PRIOR TO BIDDING.

P. ALL CONDUIT ALONG "CMU" WALLS (IF APPLICABLE) SHALL BE SURFACE MOUNTED, COORDINATE WITH ARCHITECTURAL PLANS.

Q. ALL CONDUITS SHALL BE MINIMUM OF 1/2" IN DIAMETER, UNLESS NOTED OTHERWISE.

R. ALL UNDER FLOOR CONDUITS SHALL BE A MINIMUM OF 3/4" DIAMETER GALVANIZED STEEL WITH GALVANIZED STEEL FITTINGS UNLESS NOTED OTHERWISE.

S. CONTRACTOR TO PROVIDE ALL UNDERGROUND CONDUIT TO BE SCHEDULE 40 "PVC HEAVY WALL" AND EQUIPPED WITH A GREEN GROUND WIRE.

T. CONTRACTOR TO "MEGGER" TEST ALL CONDUCTORS TO DETERMINE THAT THE ENTIRE SYSTEM IS FREE OF SHORTS AND PHASE CONDUCTORS ARE NOT GROUNDED.

U. CONTRACTOR MAY COMBINE ELECTRICAL CIRCUITS PER LATEST "NEC" AND IN DOING SO SHALL CONFORM TO THE "NEC" FOR DE-RATING.

V. ALL EMERGENCY LIGHT FIXTURES TO BE CONNECTED AHEAD OF THE SWITCH SO AS TO REMAIN CONTINUALLY HOT AND NOT TO BE TURNED OFF.

W. COORDINATE ALL LIGHT FIXTURES LOCATIONS WITH OWNERS FIELD REPRESENTATIVE, FOR MOUNTING HEIGHT SEE "LIGHTING FIXTURE SCHEDULE" ON SHEET ""E-1".

X. COORDINATE CEILING MOUNTED DEVICES ON UNDERSIDE OF CONCRETE DECK.

Y. FOR ALL EQUIPMENT SEE "EQUIPMENT SCHEDULE ON SHEET "E-4".

Z. DAY LIGHT SWITCHES PROVIDE LAMINATED LABEL ON SWITCH PLATE STATING "DAY LIGHT CONTROL".

AA. CONTRACTOR TO WIRE ALL LOW VOLTAGE DEVICES (I.E.-T-STATS, TELEPHONE, DATA, ETC.) SHALL BE IN CONDUIT, PER LOCAL CODE, AND COORDINATED WORK WITH OTHER TRADES.

AB. ALL CONDUIT AND WIRE SHALL BE ROUTED CONCEALED IN WALLS, ABOVE TRUSSES OR UNDER FLOORS, ABSOLUTELY NO EXPOSED CONDUIT OR WIRE WILL BE ALLOWED UNLESS AS NOTED OTHERWISE.

AC. ALL GFCI DEVICES SHALL BE SELF DIAGNOSTIC PER UL REQUIREMENTS ADOPTED 6/30/15 .

AD. PER NEC THESE DRAWINGS COMPLY WITH 511.3(D)(3)(a) PER EXHAUST FAN EF-4 TO PROVIDE (1cfm/ft2) AND ALL ELECTRICAL DEVICES MOUNTED AT OR ABOVE 48" AFF.

AE. CONTRACTOR PROVIDE SEPARATE NEUTRAL FOR EACH CIRCUIT SERVING "LED" LIGHTS, DO NOT SHARE NEUTRALS.

AF. CONTRACTOR SHALL LABEL ALL RECEPTACLES AND SWITCHES WITH PANEL NAME AND CIRCUIT NUMBER ON FACE PLATE (i.e. FIRST LINE "PANEL "LA" SECOND LINE "LA CKT 1".

ELECTRICAL SYMBOLS

LIGHTING

QTY. → (1) ? ← FIXT. TYPE
CKT. → LP-1a ← SWITCH

▭	2' x 4' LED SEE FIXTURE SCHEDULE ON SHEET "E-1"
▭	1' x 4' LED SEE FIXTURE SCHEDULE ON SHEET "E-1"
▭	16" x 4' SERVICE BAY LED SEE FIXTURE SCHEDULE ON SHEET "E-1"
⌓	SPECIAL EXTERIOR WALL MOUNTED LIGHT
♀	REMOTE EXTERIOR EMERGENCY HEADS SEE FIXTURE SCHEDULE ON SHEET "E-1"
■	WALL MOUNTED EXTERIOR LIGHT SEE FIXTURE SCHEDULE ON SHEET "E-1"
⊗	BATTERY BACK-UP EXIT SIGN WITH EMERGENCY LIGHT HEADS SEE FIXTURE SCHEDULE ON SHEET "E-1"
⊔	BATTERY BACK-UP EMERGENCY LIGHT HEADS SEE FIXTURE SCHEDULE ON SHEET "E-1"

MISCELLANEOUS

Ⓙ	JUNCTION BOX
▼(3)	PHONE/DATA WALL BOX 18" AFF UNO STUB 1" CONDUIT UP AND ROUTED OVER TO CLOSET IN AND TERMINATE, COMPUTER DATA (WHICH IS THE OPEN SIDE OF THE TRIANGLE) PROVIDE TYPE "RJ45" (8) PIN FEMALE DEVICE AND PROVIDE (8) LEAD FLAT "CAT6" COMPUTER WIRES, AND WIRE END TO "RJ45" (8) PIN FEMALE CONNECTOR AT EACH END OF THE WIRE AND PLACE CONNECTOR IN BOX. PHONE JACKS (WHICH IS THE FILLED INSIDE OF THE TRIANGLE) PROVIDE TYPE "RJ12" (4) PIN FEMALE DEVICE, AND PROVIDE (4) LEAD TELEPHONE WIRES AND WIRE END TO "RJ12" (4) PIN FEMALE CONNECTOR AT EACH END OF THE WIRE AND PLACE CONNECTOR IN BOX AND PROVIDE COVER PLATES. NUMERICAL INFORMATION INDICATED AT EACH DATA SYMBOL DENOTES NUMBER OF PORTS FOR EACH DATA BOX.
▽(3)	DATA WALL BOX 18" AFF UNO, STUB 1"CONDUIT UP INTO AND ROUTED OVER TO CLOSET AND TERMINATE, PROVIDE TYPE "RJ45" (8) PIN FEMALE DEVICE AND PROVIDE (8) LEAD FLAT "CAT6" COMPUTER WIRES, AND WIRE END TO "RJ45" (8) PIN FEMALE CONNECTOR AT EACH END OF THE WIRE AND PLACE CONNECTOR IN BOX. NUMERICAL INFORMATION INDICATED AT EACH DATA SYMBOL DENOTES NUMBER OF PORTS FOR EACH DATA BOX.
▼(3)	FLUSH WITH FLOOR PHONE/DATA BOX WITH 1" CONDUIT FOR EACH SYSTEM, STUBBED DOWN AND ROUTED OVER TO CLOSET AND TERMINATE FOR COMPUTER AND FOR PHONE ROUTE UNDER FLOOR TO PHONE BOARD AND TERMINATE. FOR COMPUTER DATA (WHICH IS THE OPEN SIDE OF THE TRIANGLE) PROVIDE TYPE "RJ45" (8) PIN FEMALE DEVICE AND PROVIDE (8) LEAD FLAT "CAT6" COMPUTER WIRES, AND WIRE END TO "RJ45" (8) PIN FEMALE CONNECTOR AT EACH END OF THE WIRE AND PLACE CONNECTOR IN BOX, AND PHONE JACKS (WHICH IS THE FILLED IN SIDE OF THE TRIANGLE) PROVIDE TYPE "RJ12" (4) PIN FEMALE DEVICE, AND PROVIDE (4) LEAD TELEPHONE WIRES AND WIRE END TO "RJ12" (4) PIN FEMALE CONNECTOR AT EACH END OF THE WIRE AND PLACE CONNECTOR IN BOX WIRED FROM PHONE BOARD. NUMERICAL INFORMATION INDICATED AT EACH DATA SYMBOL DENOTES NUMBER OF PORTS FOR EACH DATA BOX.
○	SIGNAL BELL TO BE A MILTON BELL KIT # 805 WITH DRIVEWAY SIGNAL HOSE OF 300' IN LENGTH, MOUNT BELL ON WALL AT 18" AFF AND CONNECT HOSE TO BELL AND ROUTE HOSE ON THE EXTERIOR OF BUILDING TO SIGNAL VEHICLE APPROACH. PROVIDE 2" CONDUIT UNDER SLAB THROUGH WALL SLEEVE, CONTACT JLI REP FOR EXACT ROUTING/LOCATION.
○	MOTOR

RECEPTACLES

⦶	DUPLEX RECEPTACLE 18" AFF TO CENTER, UNO.
◐ CLG	GFIC CEILING MOUNTED DUPLEX RECEPTACLE
⊕	QUAD RECEPTACLE 18" AFF TO CENTER, UNO.
◐	GFIC DUPLEX RECEPTACLE 18" AFF TO CENTER, UNO
⊕	GFIC QUAD RECEPTACLE 18" AFF TO CENTER, UNO.
◐	ISOLATED GROUND RECEPTACLE 18" AFF TO CENTER, UNO.
Ⓙ	FLUSH FLOOR BOX HUBBELL # SC3099, S309SF.
●	SPECIAL RECEPTACLE SEE PLANS FOR EXACT REQUIREMENTS.

GENERAL

XXX X	EQUIPMENT CALL OUT
#	ELECT KEYED NOTE DESIGNATION
△#	REVISION SYMBOL
ROOM NAME ###	ROOM NAME AND NUMBER IDENTIFICATION

SWITCHES

$a	SINGLE POLE SWITCH, 48" AFF TO CENTER UNO, LOWER CASE LETTERING INDICATES SWITCH LEG.
$OS b	WALL MOUNTED OCCUPANCY SENSOR AS MANUFACTURED BY "SENSOR SWITCH" # WSXPDT-WH WITH SWITCH FOR MANUALLY "ON", LOWER CASE LETTERING INDICATES SWITCH LEG.
OS b $MOS b	CEILING OR PENDANT MOUNTED TO 10'-0" AFF UNO TO BOTTOM OF OCCUPANCY SENSOR AS MANUFACTURED BY "SENSOR SWITCH" # CMPDT-10-WR WITH WALL MOUNTED CONTROLLER # SPODMR-WR TO MANUALLY "ON", WIRED PER MANUFACTURERS INSTRUCTIONS FOR SERIES WIRING. LOWER CASE LETTERING INDICATES SWITCH LEG.

POWER AND CONTROLS

■	PANEL SEE PANEL SCHEDULE
☐	DISCONNECT SWITCH NON-FUSED UNO
TC1	TIME CLOCK
C1	CONTACTOR CABINET

CONDUIT

⌒	CONDUIT CONCEALED IN WALLS OR CEILING
╌	CONDUIT UNDER GROUND
↷	HOME RUN
⏚ #1/0 CU.	GROUND

LA

NEW PANELBOARD

208Y/120V, 3PH, 4W
400A M.L.O.
22,000 AIC
SURFACE MOUNT
GROUND BAR
ISOLATED GROUND BAR

SERVES: UPPER BAY
LOCATION: UPPER BAY
FED FROM: DISCONNECT SWITCH
UPSTREAM OVERCURRENT DEVICE: 400A

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	WB-1 WHEEL BALANCER	12	20	2	0.30	2.00					1	30	10	WH-1 WATER HEATER	2
3	---						0.30	0.00			1	20	--	SPARE	4
5	VL-3 VEHICLE LIFT	12	20	2					0.80	0.80	2	20	12	VL-3 VEHICLE LIFT	6
7	---				0.80	0.80								---	8
9	TC-1 TIRE CHANGER	12	20	2			1.00	0.00			2	20	--	SPARE	10
11	---								1.00	0.00				---	12
13	LL-1 LUBE LIFT	12	20	2	1.00	1.00					2	20	12	LL-2 LUBE LIFT	14
15	---						1.00	1.00						---	16
17	BL-1 BRAKE LATHE	12	20	1					1.80	0.40	1	20	12	WHEEL ALIGN SYSTEM	18
19	SPARE	--	20	1	0.00	0.00					1	20	--	SPARE	20
21	ACD-1 AIR COMPR DYER	12	20	1			0.10	1.70			1	20	12	MOTOR OVERHEAD DOOR (1)	22
23	I-1 INFLATOR	12	20	1					0.40	1.70	1	20	12	MOTOR OVERHEAD DOOR (1)	24
25	HEAT TR WATER LINE(3)	12	20	2	0.70	1.70					1	20	12	MOTOR OVERHEAD DOOR (1)	26
27	---						0.70	1.70			1	20	12	MOTOR OVERHEAD DOOR (1)	28
29	HEAT TR. DOWN SPOUTS (3)	12	20	1					0.70	1.00	1	20	12	SENSINGEDGE	30
31	SPARE	--	20	1	0.00	0.40					3	20	12	EF-3 EXHAUST FAN (4)	32
33	IH-1 (1)	12	20	1			0.50	0.40						---	34
35	SPARE	12	20	1					0.00	0.40				---	36
37	RTU-1	6	45	3	3.70	12.6					3	200	3/0	PANEL LB	38
39	---						3.70	13.9						42K RATED BREAKER	40
41	---								3.70	11.6				--	42
43	ESP-1 EXTERIOR SUMP PUMP	12	20	3	1.10	2.10					3	30	10	ACP-1 AIR COMP SUMP PUMP	44
45	---						1.10	2.10						---	46
47	---								1.10	2.10				---	48
49	SPARE	--	20	1	0.00	0.79					3	20	12	SF1 (1)	50
51	SPARE	--	20	1			0.00	0.79			-	-	--	--	52
53	SPARE	--	20	1					0.00	0.79	-	-	--	--	54
55	SPARE	--	20	1	0.00	0.23					1	20	--	F-1	56
57	SPARE	--	20	1			0.00	0.00			1	20	--	SPARE	58
59	SPARE	--	20	1					0.00	0.00	1	20	--	SPARE	60

TOTAL CONNECTED	29.2	30.0	28.3	KVA
TOTAL CONNECTED	243.5	249.9	235.8	AMPS
TOTAL LOAD	87.5	KVA	242.9	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	79.0	KVA	219.2	AMPS

LB

NEW PANELBOARD

208Y/120V, 3PH, 4W
200A M.L.O.
22,000 AIC
SURFACE MOUNT
GROUND BAR
ISOLATED GROUND BAR

SERVES: BUILDING
LOCATION: BACK OF BUILDING
FED FROM: LA
UPSTREAM OVERCURRENT DEVICE: 200A

CK	LOAD SERVED	WIRE	BRKR	PL	PHASE A		PHASE B		PHASE C		PL	BRKR	WIRE	LOAD SERVED	CK
1	BASEMENT SHOP LTG	12	20	1	1.50	1.00					1	20	12	BUILDING SIGN (2)	2
3	BASEMENT SHOP LTG	12	20	1			1.00	1.00			1	20	12	BUILDING SIGN (2)	4
5	RETAIL LTG EF-1,2	12	20	1					0.20	1.00	1	20	12	BUILDING SIGN (2)	6
7	SITE LTG (2)	12	20	1	0.30	0.00					1	20	10	SPARE	8
9	SITE LTG (2)	12	20	1			0.20	1.20			1	20	12	SITE SIGN (2)	10
11	SPARE	--	20	1					0.00	0.50	1	20	10	EXTERIOR LTG (2)	12
13	SPARE	--	20	1	0.00	0.50					1	20	10	EXTERIOR LTG (2)	14
15	HAND VACUUM RECEPT	12	20	1			1.00	1.20			1	20	12	COFFEE STATION RECEPT	16
17	BASEMENT CLN RECEPT	12	20	1					0.50	0.00	1	20	--	SPARE	18
19	PHONE BOARD RECEPT (1)	12	20	1	1.00	0.40					1	20	12	RESTROOM RECEPT	20
21	OFFICE RECEPT	12	20	1			1.30	0.20			1	20	12	SERV PODIUM RECEPT	22
23	OFFICE IG RECEPT	12	20	1					0.50	0.40	1	20	12	SERV PODIUM RECEPT	24
25	ELECTRICAL WATER COOLER	12	20	1	1.40	0.20					1	20	12	GREETER STAT RECEPT	26
27	TV RECEPT	12	20	1			1.20	0.20			1	20	12	GREETER STAT RECEPT	28
29	VACUUM RECEPT	12	20	1					0.20	0.70	1	12	12	BAY GENERAL RECEPT	30
31	EXTERIOR RECEPT	12	20	1	0.90	1.40					1	20	12	BAY GENERAL RECEPT	32
33	LUBE CONSOLE	12	20	1			1.00	0.70			1	20	12	BAY GENERAL RECEPT	34
35	RADIANT HEATER 1,2	12	20	1					0.30	0.90	1	20	12	LS-1 LIFT STATION	36
37	SPARE	--	20	1	0.00	0.20					1	20	12	TIME CLOCK AND CONTC	38
39	FUTURE MICROWAVE	12	20	1			1.40	0.20			1	20	12	ROOF TOP RECEPT	40
41	FUTURE REFRIDG	12	20	1					1.20	1.40	1	20	12	RETAIL RECEPT	42
43	BASEMENT RECEPT	12	20	1	0.40	1.00					1	20	12	FUTURE BUILDING SIGN (2)	44
45	BASEMENT RECEPT	12	20	1			0.50	1.00			1	20	12	FUTURE BUILDING SIGN (2)	46
47	FAN RECEPT	12	20	1					1.00	1.00	1	20	12	IRRAGATION SYSTEM	48
49	FAN RECEPT	12	20	1	1.00	0.20					1	20	12	BASEMENT ANTIFREEZE PUMP	50
51	SERVICE CLN RECEPT	12	20	1			0.40	0.20			1	20	12	BASEMENT ANTIFREEZE PUMP	52
53	SERVICE CLN RECEPT	12	20	1					0.40	0.00	1	20	12	SPARE	54
55	HAND DRYER RM 105 (1)	12	20	1	1.40	0.00					1	20	12	SPARE	56
57	SPARE	--	20	1			0.00	0.00			1	20	--	SPARE	58
59	HAND DRYER RM 108 (1)	12	20	1					1.40	0.00	1	20	--	SPARE	60

TOTAL CONNECTED	12.8	13.9	11.6	KVA
TOTAL CONNECTED	106.7	115.8	96.7	AMPS
TOTAL LOAD	38.3	KVA	106.3	AMPS
PER NEC ARTICLE 220 FEEDER LOAD	32.2	KVA	89.2	AMPS

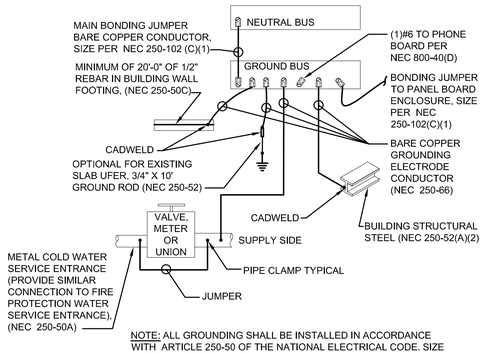
ABBREVIATIONS

(NOTE: NOT ALL ABBREVIATIONS ARE USED)

AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
AMP	AMPERE
ATS	AUTO-TRANSFER-SWITCH
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
COND OR "C"	CONDUIT
CONN	CONNECT
CONT	CONTRACTOR
CU	COPPER
C/T	CURRENT TRANSFORMER
DIM	DIMMER
DISC SW	DISCONNECT SWITCH
DP	DOUBLE POLE
DT	DOUBLE THROW
DPP	DISTRIBUTION POWER PANEL
EC	EMPTY CONDUIT
EF	EXHAUST FAN
EM	EMERGENCY
EWC	ELECTRIC WATER COOLER
EXIST'G	EXISTING
GFCI OR GFI	GROUND FAULT CURRENT INTERRUPTER
FL	FLOOR
FLUOR	FLUORESCENT
GND OR (G)	GROUND
IG	ISOLATED GROUND
JB	JUNCTION BOX
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUG ONLY
MTD HT	MOUNTING HEIGHT
NF	NON FUSED
NIC	NOT IN CONTRACT
RTU	ROOF TOP UNIT
SW	SWITCH
UG	UNDER GROUND
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
WP	WEATHER-PROOF
XFMR	TRANSFORMER

PANEL NOTES

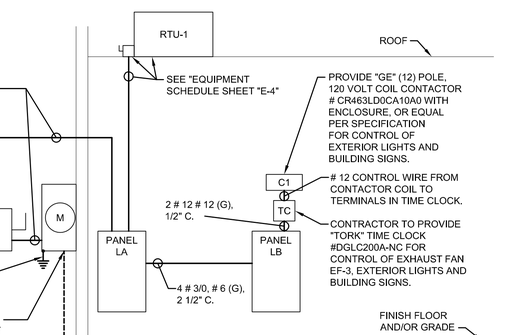
1. INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-OFF FOR MAINTENANCE).
2. THRU TIMER TC1/ CONTACTOR.
3. GFI BREAKER FOR EQUIPMENT PROTECTION (30 mA).
4. THRU TIMER TC2 / CONTACTOR.



NOTE: ALL GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 250-50 OF THE NATIONAL ELECTRICAL CODE. SIZE OF CONDUCTORS PER ONE-LINE.

2/E5 GROUNDING DETAIL

SCALE: NONE



NOTES:

1. CONTRACTOR TO INCLUDE IN THE CONTRACT ALL ONE TIME TAP CHARGERS AND FEES FROM THE POWER COMPANY, AND COORDINATE WITH THE POWER COMPANY.
2. CONTRACTOR TO INSTALL CONTACTOR AND TIMECLOCKS ADJACENT TO PANEL "LB" WITH THE CONTACTOR ON TOP AND TIMECLOCK #2 ON THE BOTTOM. THEY ARE ONLY SHOWN HERE DIAGRAMMATICALLY.

1/E5 RISER DIAGRAM

SCALE: NONE

VOLTAGE DROP CALCULATIONS

SOURCE	DESTINATION	WIRE SIZE	WIRE TYPE	CONDUIT TYPE	POWER FACTOR	WIRE LENGTH (FT)	# OF POLES (1/2/3)	WIRES PER PHASE (IF PARALLELED)	LOAD @ SOURCE (VA)	CURRENT @ SOURCE	VOLTAGE @ SOURCE	VOLTAGE @ DESTINATION	VOLTAGE DROP BETWEEN POINTS	% VOLTAGE DROP FROM SOURCE	% VOLTAGE DROP FROM INITIAL SOURCE
XFRMR	METER	3/0	COPPER	PVC	0.8	88'	3	2	144000	399.70	208.00	205.36	2.64	1.27%	1.27%
METER	MCB	3/0	COPPER	PVC	0.8	1'	3	2	143000	402.04	205.36	205.33	0.03	0.01%	1.29%
MCB	LA	3/0	COPPER	PVC	0.8	5'	3	2	80000	224.95	205.33	205.24	0.08	0.04%	1.33%
LA	LB	3/0	COPPER	PVC	0.8	5'	3	1	31400	88.33	205.24	205.17	0.07	0.03%	1.36%

FAULT CALCULATIONS

SOURCE	DESTINATION	TRANSFORMER (T) / FEEDER (F)	WIRE SIZE / BUS SIZE	CONDUCTOR TYPE	WIRE CONF / BUSWAY (3SC) / (3CC) / (BD)	CONDUIT / BUS TYPE	WIRE LENGTH (FT)	WIRES PER PHASE (IF PARALLELED)	PHASE (1 / 3)	VOLTAGE (L-L) SECONDARY	VOLTAGE (L-N) SECONDARY	XFRMR SIZE	PRIMARY VOLTAGE	SECONDARY VOLTAGE	%Z	AIC @ SOURCE	AIC @ DESTINATION
UTIL-P	UTIL-S	T	---	----	--	---	--	--	3	---	---	150	---	208	1.1	-----	37851.871
UTIL-S	MCB	F	3/0	COPPER	3SC	RIGID	88	2	3	208	120	---	---	---	--	37851.871	18199.4434
MCB	LA	F	3/0	COPPER	3SC	RIGID	5	2	3	208	120	---	---	---	--	18199.4434	17677.9509
LA	LB	F	3/0	COPPER	3SC	RIGID	5	1	3	208	120	---	---	---	--	17677.9509	16719.7642

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INTEGRITY | RESPECT | TEAMWORK
EXCELLENCE | CHARITY

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NO.	DATE	DESCRIPTION

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CERTIFICATION

NEW YORK
ALTERATION WARNING

IT IS A VIOLATION OF NEW YORK REGULATION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY WITHOUT AFFIXING TO THE ITEM HIS SEAL AND THE NOTIFICATION "ALTERED BY", FOLLOWED BY A SIGNATURE, DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CUSTOMER

jiffy lube

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

PANEL SCHEDULES & RISER DIAGRAM

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	ARM
REVIEWED BY:	JAC

SHEET NUMBER

E-5

A. SCOPE OF WORK

1. FURNISH ALL LABOR AND MATERIAL TO COMPLETE ALL ELECTRICAL WORK SHOWN ON THE DRAWINGS

2. THE LISTING OF ARTICLE OR MATERIAL, OPERATION OR METHOD, REQUIRES THAT THE CONTRACTOR SHALL PROVIDE AND INSTALL, UNLESS NOTED TO BE SUPPLIED BY OTHERS, EACH ITEM LISTED OF QUALITY OR SUBJECT TO QUALIFICATION NOTED, EACH OPERATION SHALL BE PERFORMED ACCORDING TO STANDARD PRACTICE, MANUFACTURER'S INSTRUCTIONS AND CONDITIONS STATED, PROVIDING, THEREFORE, ALL NECESSARY LABOR, EQUIPMENT AND INCIDENTALS.

3. CONTRACTOR SHALL SCHEDULE HIS WORK TO CONFORM TO THE PROGRESS OF THE OTHER TRADES AND CONTRACTORS EMPLOYED ON THIS PROJECT. THE PRINCIPAL ITEMS OF WORK INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

   a. PROVIDE ELECTRICAL SERVICE INCLUDING CONDUITS, CABLES, TERMINATIONS, METERING EQUIPMENT, ETC. IN ACCORDANCE WITH UTILITY REQUIREMENTS AND DRAWINGS

   b. PROVIDE LIGHTING FIXTURE AS SHOWN ON DRAWINGS. THIS SHALL INCLUDE ALL ASSOCIATED LAMPS, BOXES, SWITCHES, CONTACTORS, AND BRANCH CIRCUIT WIRING AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.

   c. PROVIDE DEVICES (RECEPTACLES, SWITCHES, ETC.) AS SHOWN ON DRAWINGS. THIS SHALL INCLUDE ALL ASSOCIATED BRANCH CIRCUIT WIRING AND MATERIAL REQUIRED FOR A COMPLETE INSTALLATION.

   d. FEEDERS TO OTHER TRADES EQUIPMENT INCLUDING RTU'S, EXHAUST FANS, DISCONNECT SWITCHES, CONTROL DEVICES, STARTERS FOR MOTORS NOT PROVIDED BY OTHERS TRADES. CONSULT OTHER TRADES CONTRACTOR FOR PHASE AND VOLTAGE OF EQUIPMENT AND ACTUAL NAMEPLATE RATINGS FOR FEEDER MINIMUM CONDUCTOR AMPACITIES (MCA) AND MAXIMUM OVERCURRENT PROTECTION DEVICES (MOCPD) INFORMATION PRIOR TO INSTALLATION AND PRIOR TO PURCHASING ELECTRICAL EQUIPMENT.

   e. PROVIDE POWER DISTRIBUTION EQUIPMENT (PANEL BOARDS, DISCONNECT SWITCHES, CONTACTORS, MOTOR STARTERS, ENCLOSED CIRCUIT BREAKERS, ETC.) AS SHOWN ON DRAWINGS OR AS REQUIRED FOR THIS PROJECT. THIS SHALL INCLUDE ALL WIRING AND ASSOCIATED MATERIAL REQUIRED FOR A COMPLETE INSTALLATION.

   f. PROVIDE FIRE ALARM SYSTEM ONLY IF REQUIRED BY FIRE MARSHALL OR LOCAL CODES. (CONTRACTOR MUST VERIFY REQUIREMENTS PRIOR TO BIDDING)

   g. PROVIDE TESTING OF ALL ELECTRICAL EQUIPMENT.

   h. PROVIDE TIMERS, PHOTOCELLS, AND CONTACTORS FOR CONTROL OF EXTERIOR LIGHTING AND MECHANICAL EQUIPMENT AS INDICTED ON DRAWINGS.

   i. PROVIDE BACK BOXES, PULL STATIONS, WIRE AND CONDUIT TO ABOVE ACCESSIBLE CEILING FOR ALL LOW VOLTAGE DATA AND COMMUNICATIONS OUTLETS.

   j. PROVIDE CONDUIT, JUNCTION BOXES, 115 VOLT FEEDERS, BACK BOXES, ETC. AS REQUIRED FOR SECURITY SYSTEM CAMERAS, ELECTRICAL DOOR STRIKES, ALARMS, REQUEST TO EXIT, MOTION SENSORS, CARD READERS, KEYPADS AND MAIN SECURITY PANEL AS PER DRAWINGS OR AS DIRECTED BY OWNER OR ARCHITECT. VERIFY EXTENT OF WORK PRIOR TO SUBMITTING BIDS.

   k. PROVIDE EMERGENCY LIGHTING, BATTERY UNITES, REMOTE HEADS, EXIT LIGHTS AND ALL ASSOCIATED WIRING, CONDUIT, JUNCTION BOXES, CONNECTIONS, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION.

B. INSTALLATION

1. THIS CONTRACTOR SHALL VISIT THE JOB SITE TO DETERMINE PRESENT CONDITIONS AND VERIFY EXACT LOCATION OF EQUIPMENT AND LOCAL REGULATIONS PRIOR TO SUBMITTING BID.

2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AN PATCHING OF EXISTING WALLS CEILINGS AND FLOOR SLABS NECESSARY FOR THE COMPLETION OF HIS WORK.

3. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL WORK AND MATERIAL SHOWN SHALL BE PERFORMED, FURNISHED AND INSTALLED BY CONTRACTOR.

4. THE COMPLETE INSTALLATION SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE AND CITY CODES, RULES, REGULATIONS AND ORDINANCE. ALSO MAKE APPLICATION FOR AND PAY ALL FEES IN CONNECTION WITH ANY PERMITS, TESTS AND INSPECTIONS THAT MAY BE REQUIRED.

5. GUARANTEE ALL WORKMANSHIP, MATERIAL AND PERFORMANCE FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

6. THE EXACT MOUNTING LOCATIONS OF APPARATUS, DEVICES, EQUIPMENT AND CONDUITS SHALL BE ASCERTAINED FROM OWNER OR THEIR REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY. SHOULD THE CONTRACTOR FAIL TO ASCERTAIN SUCH LOCATIONS, THE WORK SHALL BE CHANGED AT HIS OWN EXPENSE WHEN SO ORDERED BY OWNER, THE OWNERS RESERVES THE RIGHT TO MAKE MINOR CHANGES IN THE LOCATION OF CABLE, CONDUIT AND EQUIPMENT INSTALLED BY THIS CONTRACTOR UP TO THE TIME OF INSTALLATION, WITHOUT ADDITIONAL COST.

7. ALL CONDUCTORS SHALL BE COPPER, "THHN" INSULATION UNLESS OTHERWISE NOTED. ALL WIRING SHALL BE IN "EMT" OR "MC" CABLE RUN CONCEALED IN FINISHED AREAS AND NOT SUBJECT TO PHYSICAL DAMAGE. RUN "EMT" IN UNFINISHED CEILING AREAS.

8. RUN ALL CONDUIT CONCEALED IN BLOCK WALLS AND RECESS ALL DEVICES IN BIRCH WALLS TO THE EXTENT POSSIBLE AND/OR PRACTICAL.

C. DRAWINGS AND SPECIFICATIONS

1. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE LOCATIONS OF EQUIPMENT AND PIPING. DIMENSIONS GIVEN ON THE PLANS SHALL BE VERIFIED IN THE FIELD. DRAWINGS MAY NOT BE SCALED TO OBTAIN EXACT DIMENSIONS.

2. THE EXACT LOCATIONS OF APPARATUS, FIXTURES, EQUIPMENT AND CONDUITS SHALL BE ASCERTAINED FROM THE OWNER OR HIS REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY, SHOULD THE CONTRACTOR FAIL TO ASCERTAIN SUCH LOCATIONS, THE WORK SHALL BE CHANGED AT HIS OWN EXPENSE WHEN SO ORDERED BY THE OWNER.

3. THIS CONTRACTOR SHALL FURNISH SUCH LABOR AND MATERIALS AS HERE-IN-AFTER SPECIFIED AND AS REQUIRED TO COMPLETE ALL ELECTRICAL CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT AND OWNER'S EQUIPMENT AS SHOWN AND/OR SPECIFIED.

D. VISITING TO THE SITE

1. THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK, AND THE SUBMISSION OF HIS PROPOSAL SHALL BE CONSTRUED AS INDICATING SUCH KNOWLEDGE, NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE FROM LACK OF SUCH KNOWLEDGE OF EXISTING CONDITIONS.

E. MATERIALS AND WORKMANSHIP

1. ALL DEPARTMENT OF INDUSTRIAL RELATIONS, OSHA AND THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODES, AS INTERPRETED BY THE LOCAL INSPECTION DIVISION. ALL THESE CODES, RULES AND REGULATIONS ARE HEREBY INCORPORATED INTO THIS SPECIFICATION.

2. COMPLY WITH SPECIFICATION REQUIREMENTS WHICH ARE IN EXCESS OF CODE REQUIREMENTS AND NOT IN CONFLICT WITH SAME.

3. THE CONTRACTOR SHALL SECURE ALL PERMITS AND CERTIFICATIONS OR INSPECTIONS INCIDENTAL TO HIS WORK, REQUIRED BY THE FOREGOING AUTHORITIES. ALL SUCH CERTIFICATES SHALL BE DELIVERED TO THE OWNER IN DUPLICATE, BEFORE FINAL PAYMENT ON CONTRACT WILL BE ALLOWED. THE CONTRACTOR SHALL PAY ALL FEES, CHARGES AND OTHER EXPENSES IN CONNECTION THEREWITH.

F. LABELING AND NAMEPLATES

1. PERMANENTLY LABEL PANEL BOARDS, TIME CLOCKS, CONTACTORS AND SAFETY SWITCHES INDICATING EQUIPMENT OR PANELS AND AREAS WHICH THEY SERVE. LABEL ALL PULL AND JUNCTION BOXES SERVING MECHANICAL EQUIPMENT.

2. LIGHTING AND APPLIANCE PANELS SHALL BE LABELED AS SHOWN ON DRAWINGS.

3. CONTRACTOR SHALL PROVIDE AND INSTALL IDENTIFICATION FOR PULL OR JUNCTION BOXES FURNISHED BY HIM.

4. IDENTIFY AS TO USE ON FACE OF EQUIPMENT BY MEANS OF LAMINATED, WHITE CORE, PLASTIC WITH BEVELED EDGES MINIMUM 1/16" THICK. LETTERING SHALL BE MACHINE-ENGRAVED, NOT LESS THAN 1/4" HIGH, CUT THROUGH THE BLACK SURFACE TO THE WHITE CORE.

G. TESTS AND VOLTAGE RECORD

1. CONTRACTOR SHALL TEST ALL WIRING AND CONNECTIONS FOR CONTINUITY AND GROUNDS. WHEN THE INSULATION RESISTANCE TEST SHALL INDICATE THE POSSIBILITY OF FAULTY INSULATION, THE CONTRACTOR SHALL LOCATED THE POINTS OF SUCH FAULT INSULATION AND HE SHALL PULL OUT THE CONDUCTOR AT FAULT, REPLACE SAME WITH NEW, AND DEMONSTRATE, BY FURTHER TEST THE ELIMINATION OF SUCH FAULT.

2. CONTRACTOR SHALL RECORD FEEDER LOAD CURRENTS AND LINE VOLTAGES MEASURED AT EACH PANEL BOARD PHASE LEG. ADJUST PHASE LEG LOAD CONNECTIONS TO BALANCE FEEDER LOADS NO GREATER THAN WITH 10% OF EACH PHASE LEG IN THE PANEL. PROVIDE THE OWNER WITH A COMPLETE COPY OF ALL LOAD AND VOLTAGE RECORDS.

H. BRANCH CIRCUIT WIRING

1. PROVIDE A SYSTEM OF PANELS, CONDUITS, FITTING, BOXES, SUPPORTS AND ALL OTHER MISCELLANEOUS MATERIALS REQUIRED FOR EQUIPMENT INDICATED ON PLANS, COMPLETE AND READY FOR OPERATION BY THE OWNER.

2. HOME RUNS FOR ALL 120 VOLT 20A CIRCUITS SHALL NOT EXCEED 100 FEET, AND AT 277 VOLTS, CIRCUITS SHALL NOT EXCEED 200 FEET, ANY CIRCUIT OVER AT THESE LENGTHS SHALL BE #10 WIRE.

3. ALL FIXTURE AND BRANCH CIRCUIT WIRING CONNECTIONS OR SPLICES SHALL BE MADE IN JUNCTION OR OUTLET BOXES WITH "UL" LISTED PRESSURE TYPE CONNECTORS LISTED FOR 600 VOLTS (1,000 VOLTS WHEN ENCLOSED IN FIXTURE). IDEAL INDUSTRIES WING NUTS AND/OR WIRE NUTS OR APPROVED EQUAL MAY BE USED FOR JOINTS IN WIRE OF # 8 GAUGE OR LESS.

I. CONDUCTORS

1. SIZES OF CONDUCTORS FOR FEEDERS ARE GIVEN ON THE DRAWINGS, AND NO WIRE SMALLER THAN # 12 GAUGE SHALL BE USED FOR BRANCH LIGHTING OR POWER CIRCUITS. ALL WIRING SHALL HAVE THE "UL" LABEL, AND BE OF 98% CONDUCTIVITY COPPER, ALUMINUM WIRE OR ALUMINUM CABLE IS NOT ACCEPTABLE UNLESS SPECIFICALLY SHOWN ON DRAWINGS.

2. THE GAUGE OF ALL WIRE SHALL BE IN ACCORDANCE WITH "NEC" STANDARD.

3. ALL WIRE AND CABLE FOR BRANCH LIGHTING OR SMALL POWER CIRCUITS SHALL HAVE "NEC": TYPE "THHN" 600 VOLT INSULATION,

4. WIRE AND CABLE ABOVE #8 GAUGE SHALL BE STRANDED TYPE "THHN" INSULATED 600 VOLTS.

J. CONDUIT AND CABLES

1. ALL WORK SHALL BE INSTALLED IN PRACTICAL AND WORKMANLIKE MANNER BY COMPETENT WORKMEN, SKILLED IN THEIR BRANCH OF THE TRADE.

2. UNLESS SPECIFICALLY SPECIFIED OR INDICATED ON THE DRAWINGS TO THE CONTRARY, ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS, AND SHALL BE THE BEST OF THEIR SEVERAL KINDS.

3. ALL MATERIALS SHALL MEET OR EXCEED STANDARDS SPECIFIED BY "U.L.", "NEMA", "ANS"I AND "IEEE" WHEREVER SUCH STANDARDS HAVE BEEN ESTABLISHED.

4. THE CONTRACTOR SHALL REMOVE ALL DEBRIS AND EXCESS MATERIALS ASSOCIATED WITH HIS WORK AND LEAVE THE WORK AREA CLEAN AT THE END OF EACH WORK DAY.

5. ALL ELECTRICAL EQUIPMENT AND MATERIAL SHALL BEAR THE UNDERWRITER'S LABORATORIES ("U.L.") LABEL.

6. FOR EXTERIOR OF THE BUILDING AND IN ALL FINISHED AREAS, ALL CONDUITS AND CABLE SHALL BE CONCEALED, ABSOLUTELY NO EXPOSED CONDUIT OR CABLES ARE ACCEPTABLE IN THESE AREAS.

K. DEFINITIONS

1. "INSTALL" SHALL MEAN TO PLACE, FIX IN POSITION, SECURE, ANCHOR, ETC. INCLUDING NECESSARY APPURTENANCES AND LABOR SO THAT THE EQUIPMENT OR INSTALLATION WILL FUNCTION AS SPECIFIED AND INTENDED.

2. "FURNISH" SHALL MEAN TO PURCHASE AND SUPPLY EQUIPMENT OR COMPONENTS.

3. "PROVIDE" SHALL MEAN TO "FURNISH AND INSTALL".

4. "OR APPROVED EQUAL" AND "OR EQUAL" SHALL MEAN EQUAL IN TYPE, DESIGN, QUALITY, ETC. AS DETERMINED BY THE OWNER AND APPROVED BY THE ENGINEER.

L. CODES, PERMITS, AND INSPECTIONS

1. INSTALL ALL WORK IN FULL ACCORDANCE WITH CODES, RULES, AND REGULATIONS OF MUNICIPAL, CITY, COUNTY, STATE AND PUBLIC UTILITY AND ALL OTHER AUTHORITIES HAVING JURISDICTION ("AHJ)" OVER THE PREMISES.

M. CONDUIT AND CABLES

1. ALL CONDUIT SHALL BE RIGID, THREADED, METAL CONDUIT OR ELECTRICAL METALLIC TUBING (EMT) UNLESS OTHERWISE SPECIFICALLY STATED HEREIN.

2. CONDUIT AND EMT SHALL BE DELIVERED TO THE BUILDING IN 10 FOOT LENGTHS AND EACH LENGTH SHALL HAVE THE APPROVED UNDERWRITER'S LABORATORIES LABEL.

3. CONDUIT SHALL BE RUN CONCEALED IN ALL FINISHED AREAS OF THE BUILDING AND MAY BE RUN EXPOSED IN UNFINISHED AREAS AT CEILING OF JOIST LEVEL. RUN CONCEALED IN BLOCK WALLS THE EXTENT THAT IS PRACTICAL.

4. EMT CONNECTORS AND COUPLERS SHALL BE RAIN TIGHT COMPRESSION TYPE (OR SET-SCREW WHERE ACCEPTABLE TO OWNER AND LOCAL CODES) MADE OF STEEL AS MANUFACTURED BY "THOMAS & BETTS", "STEEL CITY" OR "APPLETON". BENDS AND OFFSETS SHALL BE MADE WITH A HICKEY OR POWER BENDER WITHOUT KINKING OR DESTROYING THE SMOOTH BORE OF THE CONDUIT. PARALLELED CONDUITS SHALL RUN STRAIGHT AND TRUE WITH OFFSETS UNIFORM AND SYMMETRICAL, CONDUIT TERMINALS AT BOXES AND CABINETS SHALL BE RIGIDLY SECURED WITH LOCKNUTS AND BUSHINGS AS REQUIRED BY THE NATION ELECTRICAL CODE. INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT 1-1/4" TRADE SIZE AND LARGER.

5. CONDUIT SHALL BE SECURELY FASTENED IN PLACE AT NO MORE THAN 10 FEET, CENTERS, AND HANGER, SUPPORTS, OR FASTENINGS SHALL BE PROVIDED AT EACH CONDUIT ELBOW AND AT THE END OF EACH STRAIGHT RUN TERMINATING AT A BOX OR CABINET. CONDUIT SHALL NOT BE SUSPENDED FROM THE CEILING OR CEILING SUSPENSION WIRES.

6. HORIZONTAL AND VERTICAL CONDUIT RUNS SHALL BE SUPPORTED BY ONE-HOLE MALLEABLE STRAPS, OR THEIR APPROVED METAL DEVICE WITH SUITABLE BOLTS, OR BEAM CLAMPS FOR MOUNTING TO BUILDING STRUCTURE OR SPECIAL BRACKETS, CONDUIT SHALL BE SUPPORTED FROM STRUCTURAL STEEL OR JOIST AND INDEPENDENT OF OTHER PIPING. DO NOT SUPPORT CONDUIT FROM METAL ROOF DECK, OR ANY OTHER SUPPORT DEVICE OF ANOTHER TRADE.

7. NON-METALLIC SHEATHED CABLE (ROMEX) OR "AC" CABLE SHALL NOT BE USED. TYPE "MC" CABLE MAY BE USED ONLY WHEN CONCEALED IN FINISHED WALLS OR ABOVE CEILING AND WHEN NOT SUBJECT TO PHYSICAL DAMAGE.

8. ONLY SHORT RUNS OF FLEXIBLE METAL CONDUIT NOT OVER 30 INCHES IN LENGTH SHALL BE USED FOR TERMINAL CONNECTIONS TO MOTORS AND OTHER VIBRATING EQUIPMENT, AND ALSO FOR ELECTRICAL EQUIPMENT WHERE IT IS NOT PRACTICAL TO MAKE FINAL CONNECTION WITH RIGID CONDUIT. FLEXIBLE CONDUIT EXPOSED TO WEATHER SHALL BE "SEALTITE" OR EQUAL.

9. CONDUIT SYSTEM SHALL CONFORM TO ALL THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.

10. FLEX CONDUCTOR MAYBE USED ONLY IN TRUSS AREA.

N. GROUNDING

1. THIS CONTRACTOR SHALL PROVIDE, INSTALL AND CONNECT A COMPLETE SYSTEM OF GROUNDING FOR ALL EQUIPMENT AND STRUCTURES A GOOD MECHANICAL AND ELECTRICAL CONNECTION SHALL BE MADE WITH A COOPER GROUNDING CONNECTORS.

2. ELECTRICAL SYSTEM AND EQUIPMENT GROUNDS SHALL BE COOPER AND COMPLY WITH ALL LOCAL, STATE AND NEC CODES AND REGULATIONS.

3. PANELS, CONDUIT SYSTEMS MOTOR FRAMES, LIGHTING FIXTURES AND OTHER EQUIPMENT THAT ARE PART OF OF THIS INSTALLATION SHALL BE SECURELY GROUNDED BOTH MECHANICALLY AND ELECTRICALLY IN ACCORDANCE WITH ALL CODES.

4. MAIN GROUNDING SYSTEM (WHEN APPLICABLE) SHALL BE SIZED TO CONFORM WITH TABLE 250-66 OF NATIONAL ELECTRIC CODE AND BE COOPER WIRE AND PROVED CONDUIT TO PROTECT GROUND WIRE FROM DAMAGE TO ANY AREA 6 FEET ABOVE FLOOR.

O. LIGHTING/APPLIANCE PANEL BOARDS AND DISTRIBUTION PANELS

1. DISTRIBUTION PANELS SHALL BE "G.E., TYPE "A-SERIES" OR APPROVED EQUAL "EATON CUTLER HAMMER", OR "SQUARE 'D'".

2. 480/277V PANELS SHALL BE "G.E., TYPE "A-SERIES" OR APPROVED EQUAL "EATON CUTLER HAMMER", OR "SQUARE 'D'. BREAKERS SHALL BE BOLTED TO BUS TYPE, QUICK-MAKE, BREAK-BREAKERS, AND CAPABLE OF INTERCHANGING ONE, TWO OR THREE POLE UNITS. MULTIPLE UNITS SHALL BE COMMON TRIP. PROVIDE SPARE BREAKERS IN EACH PANEL AS SHOWN. ALL BUSSING SHALL BE 98% CONDUCTIVITY COPPER, ALUMINUM BUS, ALUMINUM CONDUCTORS OR ALUMINUM LUGS ARE NOT ACCEPTABLE.

3. 208/120V PANELS SHALL BE "G.E., TYPE "Q-LINE" OR APPROVED EQUAL BY "EATON CUTLER HAMMER", OR "SQUARE 'D', WITH TYPE "TEY" BOLT-ON BRANCH BREAKERS ONLY.

4. SHORT CIRCUIT RATINGS OF NEW PANELS SHALL BE AS NOTED ON DRAWINGS, OR AS OTHERWISE DIRECTED BY LOCAL UTILITY COMPANY. UL TESTED AND CERTIFIED SERIES RATINGS ARE ACCEPTABLE WITH WRITTEN DOCUMENTATION SHOWING SERIES RATINGS BUT ONLY IF ACCEPTABLE TO OWNER OR LOCAL CODES.

P. GENERAL FOR ALL PANELS

1. METAL FRAMED CARDHOLDERS WITH TYPEWRITTEN CIRCUIT DIRECTORY MUST BE PROVIDED FOR EACH PANEL. DIRECTORY SHALL BE CLEAR AND DESIGNATION SHALL MATCH IDENTIFICATION ON EQUIPMENT. PANEL BOARDS (POWER PANELS, LIGHTING PANELS AND SWITCHES IN SERVICE BAY) SHALL BE WITH IDENTIFICATION LABELED ON SWITCH AND/OR PANEL DOOR. PROVIDE ENGRAVED LAMINATED WHITE CORE, PLASTIC WITH BEVELED EDGES MINIMUM 1/16" THICK. LETTERING SHALL BE MACHINE-ENGRAVED, NOT LESS THAN 1/4" HIGH, CUT THROUGH THE BLACK SURFACE TO THE WHITE CORE.

2. ALL PANELS SAFETY SWITCHES, STARTERS AND IN GENERAL, ALL EQUIPMENT REQUIRING LUGS SHALL BE EQUIPPED WITH SOLDERLESS TYPE "UL" APPROVED LUGS.

3. PROVIDE ALL NECESSARY UNISTRUT, CHANNEL, BACKING AND SUPPORTS TO MOUNT PANELBOARDS SECURELY IN PLACE.

4. SCREW FASTENED HANDLE LOCK-ON DEVICES ARE REQUIRED ON CIRCUIT BREAKERS PROTECTING SERVICES TO THE FOLLOWING EQUIPMENT:

   A. EMERGENCY, EXIT, SECURITY AND NIGHT LIGHTS.

   B. HEATING AND COOLING CONTROL CIRCUITS.

   C. ALL TIME CLOCKS.

Q. TOGGLE SWITCHES AND RECEPTACLES

1. SINGLE POLE AND THREE (3) WAY SWITCHES SHALL BE RATED 20 AMPERE, 277/120 VOLTS, COLOR TO BE WHITE AS MANUFACTURED BY HUBBELL OR LEVITON. SWITCHES SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR TO CENTERLINE.

2. DUPLEX RECEPTACLES SHALL BE AS SPECIFIED ON DRAWINGS, AS MANUFACTURED BY HUBBELL OR LEVITON WITH BOTH DEVICES AND COVER PLATES TO BE WHITE IN COLOR.

R. DISCONNECT SWITCHES

1. AN APPROVED HORSEPOWER RATED, HEAVY DUTY, DISCONNECT SWITCH SHALL BE PROVIDED WITHIN SIGHT OF EACH MOTOR AND EACH HEATING UNIT. PROVIDE FUSED SWITCHES WHERE BRANCH CIRCUIT FUSES ARE NOT SIZED FOR OVERLOAD PROTECTION.

2. SWITCHES ON THE ROOF SHALL BE WEATHERPROOF MOUNTED ON UNISTRUT.

3. SWITCHES SHALL BE LABELED ON THEIR COVER IDENTIFYING THE EQUIPMENT TO BE PROTECTED

S. MOTORS AND WIRING

1. CONTRACTOR TO PROVIDE DISCONNECT SWITCHES (EXCEPT WHERE SPECIFICALLY SPECIFIED BY OTHERS) AND RUN POWER CIRCUITS FROM THE POWER PANEL THROUGH DISCONNECT SWITCHES & CONTROL DEVICES TO MOTOR TERMINALS.

2. PROVIDE ALL STARTERS, CONTROLS AND PUSH BUTTON STATIONS ETC. NOT SUPPLIED BY ALL OTHER TRADES REQUIRED FOR THE PROPER AND INTENDED OPERATION OF MOTORS AND OR MOTORIZED EQUIPMENT SUPPLIED BY OTHERS TRADES.

   a. THE ABOVE ELECTRICAL EQUIPMENT SHALL BE MOUNTED SECURELY TO WALL OR FRAMES AND THE CONTRACTOR SHALL FURNISH ALL NECESSARY BRACKETS, STRUCTURAL PIECES, EXPANSION BOLTS AND OTHER ACCESSORIES REQUIRED.

   b. WOODEN PLUGS SHALL NOT BE PERMITTED FOR ANCHORING.

   c. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LUBRICATION OF ALL MOTORS.

3. REFER ALSO TO ALL OTHER TRADE SPECIFICATIONS FOR WORK BY ALL OTHER TRADES WHICH MAY RESULT IN ADDITIONAL WORK FOR THIS CONTRACTOR.

4. CONTRACTOR SHALL PROVIDE ALL POWER WIRING AND CONNECTIONS TO ALL OTHER TRADES EQUIPMENT.

5. CONTRACTOR SHALL PROVIDE ALL CONTROL WIRING AND CONNECTIONS TO ALL OTHER TRADES EQUIPMENT NOT PROVIDED BY OTHERS TRADES.

6. CONTRACTOR SHALL PROVIDE ALL CONTROL EQUIPMENT (STARTERS, CONTACTORS ETC.) NOT SUPPLIED BY OTHER TRADE CONTRACTOR BUT REQUIRED FOR THE INTENDED OPERATION OF OTHER TRADES EQUIPMENT.

7. CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES FOR ALL OTHER TRADES EQUIPMENT NOT SUPPLIED BY OTHERS TRADES.

8. REFER TO OTHER TRADES SPECIFICATION AND DRAWINGS FOR ADDITIONAL ELECTRICAL WORK AND COORDINATION.

T. FUSES

1. REPLACE ALL FUSES BLOWN DURING CONSTRUCTION AND TESTING AND PROVIDE A COMPLETE SETS OF FUSES IN ALL FUSE HOLDERS, SWITCHES, PANELS AND ALL OTHER DEVICES REQUIRING FUSES.

2. FUSES SHALL BE CURRENT LIMITING, DUAL ELEMENT TIME DELAY TYPE AS MANUFACTURED BY "BUSSMANN", PROVIDE OWNER WITH ONE SET OF SPARE FUSES FOR EACH FUSED SWITCH.

U. GUARANTEE

1. IN ADDITION TO WARRANTIES OF EQUIPMENT BY MANUFACTURER, CONTRACTOR SHALL ALSO GUARANTEE EQUIPMENT PROVIDED BY HIM, AND SHALL BE HELD RESPONSIBLE FOR A PERIOD OF ONE (1) YEAR TO MAKE GOOD ON ANY DEFECTS IN MATERIALS AND WORKMANSHIP OCCURRING DURING THIS PERIOD, AT HIS SOLE EXPENSE. THE ONE (1) YEAR PERIOD SHALL START FROM DATE OF FINAL ACCEPTANCE BY OWNER.

V. FIELD DRAWING

1. CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, FOR THE SOLE PURPOSE OF RECORDING ALL CHANGES MADE DURING CONSTRUCTION, ONE (1) "RECORD SET OF DRAWINGS" AND TWO (2) SETS OF "MAINTENANCE AND OPERATIONAL INSTRUCTION MANUALS" FOR ALL EQUIPMENT INSTALLED. AFTER COMPLETION OF THE WORK AND BEFORE REQUESTING FINAL PAYMENT, THE ABOVE MENTIONED DOCUMENTS SHALL BE DELIVERED TO THE OWNER.

W. SUBSTITUTION

1. WHEN EVER ALTERNATE MATERIALS ARE SPECIFIED, IT IS WITH THE UNDERSTANDING THAT ANY ONE OF THE MATERIALS IS ACCEPTABLE TO THE OWNER. MATERIALS AND EQUIPMENT OTHER THAN THOSE SPECIFIED ARE NOT TO BE ASSUMED TO BE SATISFACTORY SUBSTITUTES WITHOUT PRIOR APPROVAL OF THE OWNER.

X. SHOP DRAWINGS

1. ONLY MANDATORY SHOP DRAWINGS AS LIMITED, OUTLINE HEREIN SHALL BE SUBMITTED.

2. NO WORK SHALL BE PREFORMED OR DEVICES INSTALLED UNTIL THE MANDATORY SHOP DRAWINGS HAVE BEEN APPROVED BY THE ARCHTITECT/ENGINEER. THE ARCHITECT/ENGINEER SHALL REVIEW SUBJECT SHOP DRAWINGS BEFORE A COPY IS SUBMITTED TO THE OWNER FOR RECORD PURPOSES.

3. ONLY MATERIAL AND EQUIPMENT MANUFACTURERS OF PRODUCTS OR SYSTEMS LISTED BELOW SHALL FURNISH MANDATORY SHOP DRAWINGS FOR APPROVAL BY THE ARCHITECT/ENGINEER PRIOR TO CONTRACTORS PURCHASING EQUIPMENT, SHOP DRAWINGS ARE TO CONTAIN THE FOLLOWING:

4. MANUFACTURER'S NAME, MATERIAL DESCRIPTION, SIZES AND DIMENSIONS AND OTHER PERTINENT INFORMATION TO CONFIRM AS MINIMUM STANDARD FOR EQUIPMENT LISTED IN THE SCHEDULES ON THE DRAWINGS AND OR IN THE SPECIFICATIONS.

5. ELECTRICAL SHOP DRAWINGS SHALL BE ELECTRONICALLY SUBMITTED.

6. THE FOLLOWING SHOP DRAWING SUBMITTALS ARE A MANDATORY AND SHALL BE SUBMITTED TO THE OWNER FOR HIS APPROVAL PRIOR TO SUBMITTING THEM TO THE ARCHITECT/ENGINEER. THE FOLLOWING EQUIPMENT BE SUBMITTED:

   - LIGHTING FIXTURES AND EMERGENCY LIGHTING FIXTURES
   - DISCONNECT SWITCHES
   - POWER AND LIGHTING PANELS

Y. COMMUNICATION SYSTEMS

1. CONTRACTOR TO PROVIDE CONDUITS WITH WIRE AND BOXES FOR ALL DEVICE AS SHOWN ON THE DRAWINGS AND CONDUIT WITH PULL WIRE FROM THE PROPERTY LINE TO THE UTILITY D'MARC BOX, CONTACTING THE TELEPHONE UTILITY COMPANY FOR NUMBER AND SIZE OF CONDUITS.

2. THE FOLLOWING SHALL BE WORK PREFORMED BY COMMUNICATIONS VENDOR UNDER GC CONTRACT:

   - ALL WIRING FOR INTERIOR TELEPHONE DEVICES
   - ALL TELEPHONE DEVICES

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INTEGRITY | RESPECT | TEAMWORK
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REVISIONS

NO.	DATE	DESCRIPTION

CONSULTANT

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SEAL

CERTIFICATION

NEW YORK
ALTERATION WARNING

IT IS A VIOLATION OF NEW YORK REGULATION 7209 FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY WITHOUT AFFIXING TO THE ITEM HIS SEAL AND THE NOTIFICATION "ALTERED BY", FOLLOWED BY A SIGNATURE, DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

CUSTOMER

jiffy lube®

PROJECT DESCRIPTION

JIFFY LUBE
MULTI-CARE SERVICES
Store # 4077

PROJECT LOCATION

1506 U.S. 9
WAPPINGERS FALLS, NY
12590
(DUTCHESS COUNTY)

SHEET TITLE

ELECTRICAL SPECIFICATIONS

SHEET MANAGEMENT

SEVAN JLI NO.:	156
DATE:	02/18/22
CRITERIA:	V2021.08-1X4
DRAWN BY:	ARM
REVIEWED BY:	JAC

SHEET NUMBER

SP-6